THE INDUSTRIAL ARTS INDEX

1954

List of Periodicals Indexed

A M A Archives Ind Hygiene & Occup Med—A.M.A. Archives of Industrial Hygiene and Occupational Medicine
A S M E Trans—Transactions of the American Society of Mechanical Engineers
Acoustical Soc Am J—Journal of the Acoustical Society of America
Adv Agency—Advertising Agency and Advertising and Selling
Weekly news supplement included in monthly subscription, began January 16, 1953
Beginning October 4, 1954 name changed to Advertising Agency
Adv & Sell. See Adv Agency
Advanced Management—Advanced Management
Aero Digest—Aero Digest
Aeronautical Eng R—Aeronautical Engineering Review
Am Assn of Textile Chemists and Colorists. Proceedings. Published in American Dyestuff Reporter
Am Assn Pet Geologists Bul—Bulletin of the American Association of Petroleum Geologists
Am Bankers Assn J. See Banking
Am Bld—American Builder
Am Bsns—American Business
Am Cer Soc Bul—Bulletin of the American Ceramic Society
Am Cer Soc J—Journal of the American Ceramic Society
Am Chem Soc J—Journal of the American Chemical Society
Am Concrete Inst J—Journal of the American Concrete Institute
Am Dyestuff Rep—American Dyestuff Reporter
Am Gas Assn Mo—American Gas Association Monthly
Am Gas Assn Proc—American Gas Association Proceedings
Am Gas J—American Gas Journal
Am Inst Chem Eng Trans. See Chem Eng Prog
Am Inst E E J. See Elec Eng
Am Inst of Mining and Metallurgical Engineers. See Min Eng
Am J Sci—American Journal of Science
Am Mach—American Machinist
Am Pet Inst Proc—American Petroleum Institute Proceedings
Am Soc C E Proc—Proceedings of the American Society of Civil Engineers
Am Soc for Metals Trans—Transactions of the American Society for Metals
Am Soc Heat & V E J. See Heating-Piping
Am Soc M E J. See Mech Eng
Am Soc M E Trans. See A S M E Trans
Am Soc T M Proc—American Society for Testing Materials. Proceedings
Am Stat Assn J—Journal of the American Statistical Association
Am Water Works Assn J—Journal of the American Water Works Association
Anal Chem—Analytical Chemistry
Ann Am Acad—Annals of the American Academy of Political and Social Science
Arch Forum—Architectural Forum, The Magazine of Building
Arch Rec—Architectural Record
Archives Ind Hygiene & Occup Med. See A M A Archives Ind Hygiene & Occup Med
Aslib Proc—Aslib Proceedings
Assn of Sp Lib & Inf Bur Proc. See Aslib Proc
Automobile Eng—Automobile Engineer
Automotive Ind—Automotive Industries
Aviation W—Aviation Week

Bankers Mo—Bankers Monthly
Banking—Banking; Journal of the American Bankers Association
Barron's—Barron's
Bell System Tech J—Bell System Technical Journal
Blast F & Steel Pl—Blast Furnace and Steel Plant
Brick & Clay Rec—Brick and Clay Record
Bsns W—Business Week
Burroughs Clearing House—Burroughs Clearing House
Bus Transportation—Bus Transportation

Can Chem Process—Canadian Chemical Processing
Can Min J—Canadian Mining Journal
Cer Ind—Ceramic Industry
Chem Age (Lond)—The Chemical Age
Chem & Eng N—Chemical and Engineering News
Chem & Ind—Chemistry and Industry
Chem & Met Eng. See Chem Eng
Chem Eng—Chemical Engineering (formerly Chemical and Metallurgical Engineering)
Chem Eng Prog—Chemical Engineering Progress
Chem R—Chemical Reviews
Chem Soc J—Journal of the Chemical Society
Chem W—Chemical Week
Civil Eng—Civil Engineering
Coal Age—Coal Age
Comm & Fin Chr—Commercial & Financial Chronicle
Commun Eng—Communication Engineering
Formerly Radio Communication; name changed January, 1953; combined with Radio-Electronic Engineering section of Radio and Television News April, 1954
Comp Air Mag—Compressed Air Magazine
Concrete—Concrete
Constr Methods—Construction Methods and Equipment
Consumers Res Bul—Consumers' Research Bulletin (Not Confidential)
Credit & Fin Management—Credit and Financial Management

Diesel Power—Diesel Power and Diesel Transportation
Dom Eng—Domestic Engineering
Dun's R—Dun's Review
Merged with Modern Industry, August, 1953
Dun's R & Mod Ind—Dun's Review and Modern Industry

East Underw—Eastern Underwriter
Econ Geol—Economic Geology
Economist—Economist
Ed & Pub—Editor & Publisher, the Fourth Estate
Edison Elec Inst Bul—Edison Electric Institute Bulletin
Elec Com—Electrical Communication
Elec Eng—Electrical Engineering
Elec J—Electrical Journal
Elec R (Lond)—Electrical Review
Elec West—Electrical West
Elec World—Electrical World
Electrochem Soc J—Journal of the Electrochemical Society
Electronics—Electronics
Eng & Min J—Engineering and Mining Journal
Eng Educ. See J Eng Educ
Eng N—Engineering News-Record
Engineer—Engineer
Engineering—Engineering
Explosives Eng—The Explosives Engineer

Factory Management—Factory Management and Maintenance
Fed Res Bul—Federal Reserve Bulletin
Food Eng—Food Engineering
For Comm W—Foreign Commerce Weekly
Fortune—Fortune
Foundry—Foundry
Franklin Inst J—Journal of the Franklin Institute

Gas Age—Gas Age
Gen Elec R—General Electric Review
Geol Soc Bul—Bulletin of the Geological Society of America
Geol Soc Proc—Proceedings volume of Geological Society of America
Glass Ind—Glass Industry

Harvard Bsns R—Harvard Business Review
Heat & Ven—Heating and Ventilating
Name changed to Air Conditioning Heating and Ventilating January, 1955
Heating-Piping—Heating, Piping and Air Conditioning
House & Home—House & Home

LIST OF PERIODICALS INDEXED

Ill U Eng Exp Sta Bul—Illinois University Engineering Experiment Station. Bulletin
Ill U Eng Exp Sta Circ—Illinois University Engineering Experiment Station. Circular
Illum Eng—Illuminating Engineering. The Journal of the Illuminating Engineering Society
Ind & Eng Chem—Industrial and Engineering Chemistry
Ind & Eng Chem Anal ed. See Anal Chem
Ind Marketing—Industrial Marketing
Ind Med—Industrial Medicine and Surgery
Ind Stand. See Standardization
India Rubber World—India Rubber World
  Name changed to Rubber World beginning June, 1954
Inland Ptr—Inland Printer
Inst E E J. See Inst E E Proc
Inst E E Proc—Proceedings of the Institution of Electrical Engineers
Inst Mech Eng Proc—Institution of Mechanical Engineers. Proceedings
Inst Pet J—Journal of the Institute of Petroleum
Inst Radio Eng Proc—Proceedings of the Institute of Radio Engineers
Instruments—Instruments
Instruments & Automation—Instruments and Automation
  Formerly Instruments; changed January, 1954
Int Labour R—International Labour Review
Int Labour R Stat Sup—International Labour Review Statistical Supplement
Iron Age—Iron Age
Iron & Steel Eng—Iron and Steel Engineer
Iron & Steel Inst J—Journal of the Iron and Steel Institute

J Account—Journal of Accountancy
J Aeronautical Sci—Journal of the Aeronautical Sciences
J Ap Chem—Journal of Applied Chemistry
J Ap Phys—Journal of Applied Physics
J Bsns—Journal of Business of the University of Chicago
J Chem Educ—Journal of Chemical Education
J Chem Phys—Journal of Chemical Physics
J Doc—Journal of Documentation
J Eng Educ—Journal of Engineering Education
J Fr Inst. See Franklin Inst J
J Land & Pub Util Econ. See Land Econ
J Marketing—The Journal of Marketing
  Publication of the American Marketing Association
J Metals—Journal of Metals
J Phys Chem—The Journal of Physical Chemistry
J Res Nat Bur Stand—Journal of Research of the National Bureau of Standards
J Retailing—Journal of Retailing
J Sci Instr—Journal of Scientific Instruments

Land Econ—Land Economics
Life Ins Courant—Life Insurance Courant
Light Metal Age—Light Metal Age

Mach—Machinery
Machine Design—Machine Design
Mag of Bldg Arch Forum. See Arch Forum
Mag of Bldg House & Home. See House & Home
Mag of Wall St—Magazine of Wall Street
Management R—Management Review
Manuf Rec—Manufacturers Record
Marine Eng—Marine Engineering
Materials & Methods—Materials and Methods
Mech Eng—Mechanical Engineering
Metal Finishing—Metal Finishing
Metal Prog—Metal Progress
Metallurgia—Metallurgia, the British Journal of Metals
Metals Tech. See J Metals
Midwest Eng—Midwest Engineer
Mill & Factory—Mill & Factory
Min & Met. See Min Eng
Min Cong J—Mining Congress Journal
Min Eng—Mining Engineering
Mo Labor R—Monthly Labor Review
Mo U Sch Mines & Met Bul tech ser—Bulletin of the University of Missouri. School of Mines and Metallurgy. Technical Series. irr Univ. of Mo. Rolla
Mod Ind—Modern Industry
  Merged with Dun's Review, August, 1953
Mod Packaging—Modern Packaging
Mod Plastics—Modern Plastics
Mod Textiles Mag—Modern Textiles Magazine.
Munic Util—Municipal Utilities Magazine

N A C A Bul—N.A.C.A. Bulletin
N Y Pub Lib Bul—New York Public Library Bulletin
Nat City Bank—National City Bank of New York
Nat Pet N—National Petroleum News
Nat Research Council Pub—National Research Council Publication
Nat Safety N—National Safety News
Nat Underw—National Underwriter
Nat Underw (Life ed)—National Underwriter Life Insurance Edition

Oil & Gas J—Oil and Gas Journal
Oil Paint & Drug Rep—Oil Paint and Drug Reporter
Opt Soc Am J—Journal of the Optical Society of America

Paint Oil & Chem R—Paint, Oil and Chemical Review
Paper Ind—Paper Industry
Paper Tr J—Paper Trade Journal
Personnel—Personnel
Personnel J—Personnel Journal
Pet Eng—Petroleum Engineer
Pet Processing—Petroleum Processing
Pet Refiner—Petroleum Refiner
Phys R—The Physical Review
Power—Power
Power Eng—Power Engineering (formerly Power Generation)
Product Eng—Product Engineering
Ptr Ink—Printers' Ink
Pub Health Rep—Public Health Reports
Pub Roads—Public Roads
Pub Util—Public Utilities Fortnightly
Pub Works—Public Works
Pulp & Pa of Can—Pulp and Paper Magazine of Canada

Q S T—QST

RCA R—RCA Review
R Econ & Stat—Review of Economics & Statistics
R Sci Instr—Review of Scientific Instruments
Radio & Tv N—Radio and Television News
  Radio-Electronic Engineering Section printed separately beginning May, 1954
Radio Com—Radio Communication
  Name changed to Communication Engineering January, 1953; combined with Radio-Electronic Engineering Section of Radio and Television News April, 1954
Radio N. See Radio & Tv N
Ref Shelf—The Reference Shelf
Refrig Eng—Refrigerating Engineering
Review of Economics and Statistics. See R Econ & Stat
Review of Scientific Instruments. See R Sci Instr
Reviews of Modern Physics. See Rs Mod Phys
Roads & Eng Constr—Roads and Engineering Construction
Roads & Sts—Roads and Streets
Rock Prod—Rock Products
Rough Notes—Rough Notes
Roy Aeronautical Soc J—Journal of the Royal Aeronautical Society
Rs Mod Phys—Reviews of Modern Physics
Rubber Age—Rubber Age
Rubber World—Rubber World
  Formerly India Rubber World; changed June, 1954
Ry Age—Railway Age
Ry Loco & Cars—Railway Locomotives and Cars
  Formerly Railway Mechanical and Electrical Engineer; changed January, 1953

S A E J—S.A.E. Journal
Safety Maint & Prod—Safety Maintenance and Production
Sales Management—Sales Management
Sci Am—Scientific American
Science—Science
Sewage & Ind Wastes—Sewage and Industrial Wastes
Sheet Metal Worker—Sheet Metal Worker
  Named changed to Heating Air Conditioning Sheet Metal Contractor, September, 1954
Soap & Chem Spec—Soap and Chemical Specialties

Soap & San Chem—Soap and Sanitary Chemicals
Name changed to Soap and Chemical Specialties beginning May 1954
Soc Dyers & Col J—Journal of the Society of Dyers and Colourists
Soc for Advan of Management J. See Advanced Management
Soc Motion Picture & Tv Eng J—Journal of the Society of Motion Picture and Television Engineers
Society of Automotive Engineers Journal. See S A E J
Special Lib—Special Libraries
Spectator—The Spectator
Standardization—Standardization
Name changed to Magazine of Standards January, 1954
Steel—Steel
Survey of Cur Bsns—Survey of Current Business

Tappi—Tappi
Tech R—Technology Review
Tele-Tech & Electronic Ind—Tele-Tech and Electronic Industries
Formerly Tele-Tech; name changed January, 1954
Textile Col. See Am Dyestuff Rep
Textile Inst J—Journal of the Textile Institute
Published in two parts: Transactions; Proceedings, Standardisation and Abstracts
Textile Res J—Textile Research Journal
Textile World—Textile World
Tool Eng—Tool Engineer
Transactions of the American Society of Mechanical Engineers. See A S M E Trans
Trusts & Estates—Trusts and Estates, The Fiduciary Journal
Tv Eng. See Commun Eng

U S Bur Labor Statistics Bul
U S Bur Mines Bul
U S Bur Mines Information Circ
U S Bur Mines Rep of Invest
U S Bur Mines Tech Pa
Now included in Bulletin series
U S Geol S Bul
U S Nat Advisory Com for Aeronautics—United States National Advisory Committee for Aeronautics. Annual Reports
U S Nat Bur Stand—United States National Bureau of Standards
U S Naval Inst Proc—United States Naval Institute Proceedings
U S Women's Bur Bul—United States. Women's Bureau. Bulletin

Water & San. See Munic Util
Water & Sewage Works—Water & Sewage Works
Weekly Underw—Weekly Underwriter
Welding J—Welding Journal
Western Soc E J. See Midwest Eng
Westinghouse Eng—Westinghouse Engineer
Wireless Eng—Wireless Engineer
World Oil—World Oil

Key to General Abbreviations

+	continued on later pages of the issue
abr	abridged
Ag	August
Ap	April
arch	architect
bibliog	bibliography
comp	compiled or compiler
cond	condensed
cont	continued
D	December
diag	diagram
ed	edited or edition or editor
F	February
i	index
il	illustrations
inc	incorporated
Ja	January
Je	June
Jl	July
Mr	March
My	May
n s	new series
N	November
no	number
O	October
p	page
pl	plate
por	portrait
pseud	pseudonym
pt	part
rev	revised
S	September
sup	supplement
tr	translated or translation or translator
v	volume
yrbk	yearbook

Sample entry: Incriminating stains. C. E. O'Hara and J. W. Osterburg. il Sci Am 188:58-60+ F '53

Explanation: An illustrated article with the title given above will be found in Scientific American, volume 188, pages 58-60 (continued on later pages of the same issue) the February 1953 number

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THE
INDUSTRIAL ARTS INDEX

FORTY-SECOND ANNUAL VOLUME

1954

SUBJECT INDEX TO A SELECTED LIST OF ENGINEERING,
TRADE AND BUSINESS PERIODICALS

EDITED BY
LEONE BAKER

INDEXERS
ROBERTA PURDY, SAMUEL SAGER, ELSA TOOM,
MARY E. TURNER

MANAGING EDITOR
CHARLOTTE TRILLING

THE H. W. WILSON COMPANY
NEW YORK 1955

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PREFACE

This volume cumulates the monthly issues published from December 1953 to and including November 1954 and completes the forty-second year of the Industrial Arts Index.

No new periodicals were added during this period and none were discontinued. Changes of name and other changes were noted as they occurred in the announcement pages of the monthly numbers of the Index and in the List of Periodicals Indexed.

The rapidly expanding fields of science and technology have necessitated an increase in our staff and it is now larger than at any other time in our history.

In addition to the full-time indexers listed on the title-page of this volume, the work of preparing the Index has been facilitated by the contributions of part-time assistants. As in previous years the work of Doris Dart in indexing chemistry and physics periodicals has been indispensable, and in addition, we are grateful to Jane Capewell Luhks for her work in the fields of electric engineering, electronics, radio and television.

L. B.

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Magazine Notes

Compiled with the aid of Johanna Kramm and Jessie Van Strander
(Reprinted from monthly issues of 1954)*

Adhesives & Resins, a small size monthly, began publication in 1953. It contains technical articles on resinous products and adhesives, news and information of British products, directories of British supplies and other items on allied subjects. Published by A. S. O'Connor and Company, Ltd, 329 Gray's Inn Road, London WC1. Annual subscription in the United States $4.

Advertising Specialty Counselor, a monthly, began publication with an April 1954 number. It is devoted to the interests of the advertising specialty industry. Articles include news of exhibitions, personalities and products in that field. Published by the Advertising Specialty Institute, 6053 Pine Street, Philadelphia 43. Annual subscription $3.50. Single copies 50 cents.

The African and Colonial World, a monthly, published its first issue September, 1953. It is described as a political, cultural and trade review, printing articles in the fields of trade, literature, politics, economics, art and education. Its object is to provide a vehicle for the expression of the problems and aspirations of the peoples of Africa and the Colonies. Published by the African and Colonial World, 12 Kennington Park Road, London, S.E. 11. Annual subscription including postage 14 shillings. Single copy 1 shilling.

African News, a monthly, announced its publication in January, 1954, as the first newsletter to appear in the United States devoted exclusively to the entire continent of Africa. It will endeavor to bring to its readers each month a collection of news and analysis of developments in Africa, book reviews, etc. Published by Ruth Sloan Associates, 4201 Massachusetts Avenue, Washington 16. Annual subscription $4; overseas airmail, $6.50.

Agricultural History Review issued its first number under a 1953 date. Its editor states that the frequency with which the *Review* is published will depend largely on the number of members and expresses the hope that before long it will be possible to publish at least twice a year. It is intended that each issue will contain a number of articles embodying original research in agricultural history, together with shorter notes and comments, a bibliography and book reviews. Published by the British Agricultural History Society. Details may be obtained by the Secretary, c/o Museum of English Rural Life, 7 Shinfield Road, Reading, England. Annual subscription and membership one guinea.

Air Power—the Air Forces Quarterly began publication in October, 1953 under its new name. It was formerly known as the *Royal Air Force Quarterly.* It is, as its title indicates, dedicated to the interests of the air forces of Great Britain. Published by Gale and Polden Ltd., Ideal House, Argyll Street, Oxford Circus, London W.1. Annual subscription 16 shillings; single copies 3 shillings 6 pence.

American Vegetable Grower (formerly *Commercial Vegetable Grower*), a monthly, began publication under its new name, with a May, 1953 number. It contains informative articles on insect and disease control, variety selection, cultural and fertilizer methods, marketing and other information necessary for profitable vegetable growing. Published by American Fruit Grower Publishing Company, Willoughby, Ohio. Annual subscription $1.

Analytical Abstracts, a monthly, made its appearance with a January, 1954 issue. Its contents are abstracted from periodicals dealing with all branches of analytical chemistry, and is published with the Analyst, monthly organ of the Society for Analytical Chemistry. Published for the Society by W. Heffer & Sons, Limited, Cambridge, England. Annual subscription, inclusive of index 50 shillings. Single copies 4 shillings. Annual subscription for *Analyst* together with *Analytical Abstracts* and indexes, 80 shillings. Further inquiries about subscriptions should be made through the Secretary, the Society for Analytical Chemistry, 7-8 Idol Lane, London, E.C. 3.

Araneta Journal of Agriculture, a small size quarterly devoted to agriculture of the Philippines began with an October-December, 1953 number. Published by the Araneta Institute of Agriculture, Victoneta Park, Malabon, Rizal, Philippines. Annual subscription P3. in the Philippines, $2 elsewhere. Single copies P 1 in the Philippines, 50 cents elsewhere.

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* These notes have been reprinted by request.

Archiv für Gewerbepathologie und Gewerbehygiene, which ceased to be published in 1944, will resume publication soon with issue number 1 of volume 13. The *Archiv* will appear under the editorship of Dr. Ludwig Teleky of New York and Professor Dr. E. W. Baader-Hamm and Professor Dr. Heinrich Zangger, both of Zürich. It is expected that one issue will appear every other month. Published by Springer-Verlag, Reichpietschufer 20, Berlin W 35. Annual subscription will be approximately DM 100.

Automation began monthly publication with an August, 1954 number. Automation, or the system whereby more and more manufacturing operations are successfully tied into a continuous, smoothly flowing production sequence is a growing field. The magazine includes articles, news, patent news, book reviews and abstracts pertaining to the field of automation. Published by Penton Publishing Company, Penton Building, Cleveland 13. Annual subscription $10. Single copies $1.

Baileya; a Quarterly Journal of Horticultural Taxonomy began publication in March, 1953. It is devoted to the botany of cultivated plants, and especially to their identification, nomenclature, classification and history in cultivation. Published at the Bailey Hortorium of the New York State College of Agriculture, Ithaca, New York. Annual subscription $2.

Bibliographical Bulletin for Welding, the first important achievement of the International Institute of Welding contains abstracts of books, news and articles appearing in the technical publications of the whole world on the various welding processes (electric arc, resistance, oxyacetylene, etc.), oxycutting, surface hardening, metal spraying, building up, etc. in all their applications. The annual subscription (four quarterly numbers containing more than 2300 abstracts) is 4800 French francs; for members of member societies of the International Institute of Welding, 3250 French francs. Subscriptions may be taken out direct from the publisher: Les Publications de la Soudure Autogene, 39, rue d'Amsterdam, Paris 8e

Bird Study, a small quarterly issued its first number in March, 1954. It is, as its name indicates, devoted to articles on ornithology and is the official organ of the British Trust for Ornithology, 2 King Edward Street, Oxford, England. Annual subscription, free to members; to others 20s 6d. Single copies 5s.

The Blue Cross, monthly journal of Our Dumb Friends' League, began publication in January, 1954. It is devoted to the work of the League in rescuing, sheltering and finding homes for stray and unwanted animals. Published by Our Dumb Friends League, Grosvenor Gardens House, Victoria, London, S.W. 1. Single copies sixpence.

The British Journal of Administrative Law, a quarterly, began publication with a May, 1954 number. "This journal will deal with administrative law—the complex system of rules, regulations and case law applied by a non-coherent conglomeration of courts, tribunals and other bodies which has developed in the British Isles in the course of the last few decades." Published by Shaw and Sons, 7-9 Fetter Lane, London E.C.4. Subscription per volume of four quarterly parts, 30 shillings. Single copies 9 shillings 6 pence.

British Welding Journal, a monthly, made its initial appearance with a January 1954 number. It is the official journal of the Institute of Welding and the British Welding Research Association, incorporating the *Transactions* of the Institute and *Welding Research.* It contains technical articles on welding practices and the results of welding research. Published by Institute of Welding, 2 Buckingham Palace Gardens, London, S.W.1 and British Welding Research Association, 29 Park Crescent, London, W.1. Annual subscription free to members, to others £5. Single copies 10 shillings.

Bulletin of the Copyright Society of the U.S.A. a bi-monthly, began publication in June, 1953. Its purpose is to meet the growing need for the dissemination, of current information on copyright and intellectual property. "The six annual issues of *The Bulletin* will seek to give coverage and a brief digest of domestic and foreign legislation, including conventions and proclamations, of important court decisions both here and abroad and will contain a current bibliography of books, law review articles and other writings pertaining to copyright." Published by the Society at the Law Center of New York University, 40 Washington Square South, New York 11. Annual subscription $10.

Canadian Journal of Microbiology began bimonthly publication with an August 1954 number. It is the official journal of the Canadian Society of Microbiologists and is one of the seven journals devoted to the publication of results of original scientific research, issued annually by the National Research Council of Canada. Subscriptions, renewals and orders for single or back numbers should be addressed to Division of Administration, National Research Council, Ottawa 2. Annual subscription $3. Single copies 75 cents. Volume one will combine three numbers published in 1954 with six published in 1955 and will be available at the regular subscription rate of $3.

Canadian Television and Motion Picture Review begins monthly publication with a September, 1954 number. It will cover the audio-visual communication media in Canada. Published by Reg. Willson Publications, 2533 Gerrard Street East, Toronto 13. Annual subscription $4; single copies 50 cents.

Central America and Mexico, a small size quarterly, began publication in May, 1953. Its purpose is to promote better understanding of those countries, and its pages are devoted to articles describing their people, customs, governments, economic conditions, etc. Published by James C. Parish, Jr., P.O. Box 2123, Houston, Texas. Annual subscription $2.

Chicago, a monthly, began publication in March 1954. It is faintly reminiscent of the *New Yorker*, but its flavor is as distinctly Chicago as the *New Yorker* is Manhattan. Published by Contemporary Publications, 17 West Ontario Street, Chicago 10. Annual subscription $2.50. Single copies 25 cents.

Children, a bimonthly journal on services for children and on child life, is the redesigned Children's Bureau periodical, formerly *The Child*. Articles are written by and for doctors, nurses, nutritionists, social workers, physical therapists, specialists on juvenile delinquency, and researchers. Sold by Superintendent of Documents, Government Printing Office, Washington 25. Annual subscription $1.25.

Clinical Research Proceedings, the Official Publication of the American Federation for Clinical Research, began publication with an April 1953 issue. It is to be published semiannually in April and September. Its pages are devoted to abstracts of papers presented at meetings of the various sections of the Federation. Published by Grune and Stratton, 381 Fourth Avenue, New York 16. Annual subscription $3.50.

Corrosion Prevention and Control; Engineering—Equipment—Technology, a monthly, was launched with a March, 1954 number, is devoted to the cause of the prevention of corrosion in industry. Published from Holland House, 140 Cromwell Road, London S.W.7. Annual subscription 30 shillings or $5. Single copies 3 shillings or 45 cents.

Crerar Current, an eight page bulletin of news and notes from the John Crerar Library issued its first number in February, 1954. Its pages will record information on collections and acquisitions of the Library and similar information. Published by the John Crerar Library, 86 East Randolph Street, Chicago 1.

Criminal Law Review began quarterly publication with a Spring 1954 issue. The articles and book reviews contained in its pages are devoted to the subject of practice and procedure in criminal law, discussions and analyses of cases, etc. Published under the auspices of the Association of Lawyers of the Criminal Courts of Manhattan. Editorial and general offices of the *Review* 1650 Broadway, Suite 303, New York. Copies free.

Croplife, a weekly, began with a January 25, 1954 issue, and is described as a business newspaper for the agricultural chemical industry. It employs a full time news gathering staff and its articles are written in crisp reporting style. Published by Miller Publishing Company, 118 South 6th Street, Minneapolis 2. Annual subscription $5. Foreign subscriptions $8.

Deep-Sea Research, a quarterly, made its first appearance with an October, 1953 number. "With the invention of the core-sampler, and with recent advances in echo-sounding devices and other techniques, great strides in investigating the deep-sea floor are being made. These are producing important and far-reaching results, which might well revolutionize many of the theories concerning the history and development of our planet. *Deep-Sea Research*, the official organ of the Joint Commission on Oceanography of the International Council of Scientific Unions, will publish original research papers in this field. The main theme of the journal will be investigations of the deep-sea floor." Distributed by Lange, Maxwell & Springer, 242 Marylebone Road, London, N.W.1. Subscription £4 10s or $12.60 per volume.

Dissent, a small size quarterly was launched with a Winter 1954 number. The editors describe the new publication as "a quarterly of radical opinion that is independent of party dogma, uncompromisingly anti-communist and anti-totalitarian." Published by Dissent Publishing Company, 509 Fifth Avenue, New York 17. Annual subscription $2; $1.50 to students; Foreign subscriptions, including Canada, $2.50. Single numbers 60 cents.

Doors to Latin America, a quarterly bibliographical publication, compiled by A. Curtis Wilgus, made its initial appearance in January 1954. "For a number of years Doors to Latin America has been a feature in the magazine *World Affairs*, published by the American Peace Society, Washington, D.C. But beginning with the Winter issue this section was discontinued so that it might appear in this expanded form as a separate brochure. The compiler's objectives, however, are still the same, namely to assist librarians, teachers, and students (as well as the general reader) to determine what current books and pamphlets dealing with Latin America are of sufficient importance to purchase or to read." Published by the Inter-American Bibliographical and Library Association, University of Florida Library, Gainesville, Florida. Distributed by the Inter-American Center of Florida.

East and West, a small size quarterly, began publication this year and seeks, through its articles to inform the free world of the plight of the Baltic States, Estonia, Latvia and Lithuania, under Soviet rule. Says the editorial in the first issue, "Our task is to remind the West of these three indomitable nations, of what they were, what they accomplished and what they became; what they experienced and what they are experiencing, because in this experience can be seen clearly the true aim of the East, the methods it applies, and the solution to the East-West conflict." Published by Alliance Publishing Company, Alliance House, 12 Caxton Street, London, S.W.1. Annual subscription, United States and Canada, $2.

Encounter, a new international monthly made its appearance with an October 1953 issue. It will be devoted to literature, politics and the arts and is sponsored by the Congress for Cultural Freedom. Its aim is to present the best writings in the above named fields from all over the world. Published by Martin Secker and Warburg, Windmill Press, Kingswood, Tadworth, Surrey. Available in the U.S. by subscription only, through the American Committee for Cultural Freedom, 35 West 53d Street, New York 19. Annual subscription $5; six months subscriptions $2.50.

Eugenics Quarterly begins publication with a March 1954 number. This is the new official journal of the American Eugenics Society, replacing the *Eugenical News.* Published by the American Eugenics Society, 230 Park Avenue, New York 17. Annual subscription $3.

Eye to Eye, a new quarterly, made its initial appearance with a June 1953 number and is the official bulletin of the Graphic History Society of America. Its editorial interests include primarily material relating to the collecting, cataloging, comparative study and publishing of pictures of all types from the standpoint of knowledge and enjoyment of the subjects which they represent. Published by Graphic History Society of America, P.O. Box 4402, Washington, D.C. Subscription included in membership in the Society whose annual dues are $10.

Faith Today, a pocket size bi-monthly, began with a February-March 1954 number. It contains original articles, reprints from magazines and books, and a book condensation all on a single theme, the practical application of religious faith to the problems of everyday living. The magazine is non-sectarian. Published by Faith Today Magazine, 63 Park Street, New Canaan, Connecticut. Annual subscription $2; single copies 35 cents.

The Garden is a small size monthly journal for the lovers and growers of vegetable and flower gardens. Its first issue appeared in May, 1954. Published by Whitefriars Press, 26 Bloomsbury Way, Holborn, W.C.1. Annual subscription $3.25 in the United States. Single copies 1 shilling 6 pence.

Geographical Studies is a "new and independent journal, designed to publish the results of geographical research, both in Britain and abroad. It includes review articles which summarise and bring together the conclusions reached by workers in selected fields." It will appear annually at first, but if it receives sufficient support, two issues will be published each year. Inquiries should be addressed to Dr. G. H. Dury, Birkbeck College, Malet Street, London, W.C. 1. Annual subscription £1.

Glas Im Raum, a monthly, began publication in November, 1953. Its pages are devoted to illustrated articles on decorative and artistic glass and glassware. Published by A. W. Gentner, (14a) Stuttgart W., Forststrasse 131, Stuttgart, Germany. Single copies 2 DM.

The Gregorian Review, a bi-monthly, made its initial appearance with a January-February, 1954 number. This is the English-language edition of *Revue Gregorienne,* official organ of the Benedictine School of Solesmes, the Gregorian Institute of Paris, the Gregorian institute of America and affiliated centers. The magazine is devoted to studies in sacred chant and liturgy. The *Gregorian Review* will contain translations of all the important articles which appear in the French edition, as well as special articles pertaining to the movement in English speaking countries. Published by the Gregorian Institute Press, 2132 Jefferson Avenue, Toledo 2. All checks and money orders should be payable to the Gregorian Institute of America. Annual subscription $4.50. Canada and foreign countries $5 a year. Single copies 80 cents.

Industrial Development, a bi-monthly, began publication with a January-February 1954 number. It is described as a magazine of area analysis and business site selection, and its articles are devoted to the various aspects of plant location. Publication office, 3846 Hillcrest Drive, Brookhaven, Georgia. Annual subscription $3.

Senior and graduate students working toward degrees in the engineering sciences now have a monthly business magazine of their own, *Industrial Science and Engineering.* The first issue of the new publication is the January, 1954, number. Qualified students, deans of engineering and chairmen of engineering science departments in appropriate recognized educational institutions may obtain the magazine by writing to the publisher. Annual subscription to other persons $25. Published by Industrial Laboratories Publishing Co., 201 North Wells St., Chicago 6.

The Institution of Mechanical Engineers announces a change in publication policy as of January 1st, 1954. *Quarterly Proceedings A* and papers of specialized interest (*Proceedings B*) and the *Journal* will cease and individual papers to be included in the volumes of "Institution Proceedings" and "Automobile Division Proceedings" will be issued separately together with discussions. *The Chartered Mechanical Engineer* began publication with a January 1954 number and will be issued monthly with the exception of July and August. It will contain matter formerly published in the *Journal* and in addition will include summaries of papers to be read before the Institution for written discussions, and certain material previously published in *Proceedings A* such as presidential addresses, memorial lectures, memoirs, annual reports, etc. *The Chartered Mechanical Engineer* will be published at the Institution headquarters, Storey's Gate, St James's Park, London S.W. 1. Annual subscription for non-members £1 7s 6d. Single copies free to members, to non-members 3s.

International Anthropological and Linguistic Review is described by the publisher as a magazine for scientists and for the cultured public in general. It began publication in 1953. Publisher and Editor-in-Chief, Dr. Alan H. Kelso de Montigny, P.O. Box 4791, Miami 29, Florida. The *Review* is the official organ of the International Anthropological and Linguistic Circle. Annual dues for members, $5 which includes receipt of *Review*. For subscription and single numbers, write to E. J. Brill, Leiden, Holland.

The Islamic Quarterly began publication in April 1954. Its stated objective is "to publish new material of academic significance in the world of Islamic culture and to make known what is being achieved in the world of Muslim learning. It will be addressed primarily to English-reading Muslims and to scholars from all over the world who are interested in Islam." Published by the Islamic Cultural Centre, Regent's Lodge, 146 Park Road, London N.W. 8. Annual subscription 30s. Single copies 7s 8d.

Italia, a photographic review, made its first appearance with an October, 1953 number. It tells the story, in photographs, of the work of reconstruction carried out in Italy since the war, and the salient features of Italian life. Captions are printed in Italian, French, English and German. Published by the Documentary Center of the Presidency of the Council of Ministers of the Italian Republic, Via Vittorio Veneto 56, Rome. Annual subscription in the United States and Canada $1. Single copies 20 cents.

Japan Science Review; Economic Sciences is the official organ of the Japan Union of Associations of Economic Sciences and its chief aim is to establish closer relations between Japan and the scientific circles of other countries. The *Japan Science Review* will be issued once a year. The first number dated 1953 gives the post-war outlook of the activities in various specialized branches of economic and commercial sciences in Japan. The *Review* is printed in English. Publication address Japan Science Council, Ueno Park, Taito-ku, Tokyo. Annual volume $2 (foreign postage 50 cents).

Jet Propulsion, Journal of the American Rocket Society will be the new name of the *Journal of the American Rocket Society* beginning with the January-February, 1954 issue. *Jet Propulsion* is a bimonthly, published by the American Rocket Society at 20th and Northampton Streets, Easton; Pennsylvania. Annual subscription $7.50. Single copy $1.25.

Journal of Austronesian Studies began publication in 1953. The *Journal* is devoted to all aspects of Austronesian and associated studies, including philology, ethnology, anthropology, history, archeology, sociology, exploration and discovery, folk-lore and customs, and kindred subjects, as well as comparative studies of the Austronesian and other fields. Editor Peter A. Lanyon-Orgill, Ph.D., F.I.Sn., Old White House, Thurlton, near Haddiscoe, Norfolk, England. Subscription £1 15s per part or £4 10s per three parts

Journal of Counseling Psychology, a quarterly, made its initial appearance with a February, 1954 number. Its articles and reviews are of interest to psychologists and personnel workers concerned with the counseling of clients, students and employees. Published by the Journal of Counseling Psychology. Subscriptions and business communications should be sent to Room 2, Old Armory, Ohio State University, Columbus 10. Annual subscription $6. Single copies $1.75.

Journal of Embryology and Experimental Morphology, a quarterly, made its initial appearance with a March, 1953 number. "The main object of the *Journal* is to bring together work concerned with all the kinds of developmental process to be found in animals at any stage of their life-history. It will include work on embryology (descriptive, experimental, chemical, physiological), on regeneration and healing, on the developmental changes involved in functional adaptation, on growth, ageing, and other aspects of late morphogenesis. It will publish studies of gametes and gametogenesis, and studies of development genetics and of the physiology of reproduction. The papers published will for the most part be accounts of finished pieces of research." Published by the Oxford University Press, Amen House, Warwick Square, London, E.C.4. Annual subscription £4 4s. Single numbers 25 shillings.

Journal of Organic Chemistry, effective with volume twenty, number one, January 1955, will no longer be published by the Williams and Wilkins Company. All inquiries concerning subscriptions should be addressed to The American Chemical Society, 1155 Sixteenth Street, N.W. Washington 6.

Journal of Protozoology, began quarterly publication with a February 1954 number as the organ of the Society of Protozoologists. Subsequent issues of the first volume will appear in May, August and November, 1954. Subscription is included in membership dues of the Society, which are $9 a year for all except graduate students for whom they are $6. Annual subscription for non-members $9. Communications regarding subscriptions for non-members should be addressed to Dr. Reginald D. Manwell, Zoology Department, Syracuse University, Syracuse 10, New York.

The Journal of Taxation, a monthly, began publication with a June, 1954 number. It describes itself as a national journal of current news and comment for professional tax men. The articles review all aspects of taxation for corporations, estates and individuals. Published by The Journal of Taxation, 33 West 42d Street, New York 36. Annual subscription $15. Single copies $1.25.

Junior Libraries began with a September, 1954 number and will be published monthly, September through May. This journal of library work with children and young people contains articles, book lists, book reviews, appraisals of new juvenile literature and will be of interest and help to school and children's librarians. Published by R. R. Bowker Company, 62 West 45th Street, New York 36. Annual subscriptions $2.50. Single copies 35 cents.

The London Magazine, a small size monthly, devoted to modern literature and literary reviews, began publication with a February, 1954 number. Published by Chatto & Windus, 42 William IV Street, London, W.C.2. Annual subscription 32s 6d. Single copies 2s 6d.

Marquette Business Memo, a bi-monthly began with a September-October 1953 number. It carries articles on aspects of business and economic research, particularly as they pertain to the Wisconsin scene. Published by the College of Business Administration, Marquette University, Milwaukee 3. Annual subscription $5.

Mineral Industries Journal, an eight page quarterly, began publication in March, 1954. It contains articles on the minerals of Virginia and others of mineral or mining interest. Published by the Mineral Industries Departments of the School of Engineering and Architecture of the Virginia Polytechnic Institute, Blacksburg, Virginia.

Modern Patternmaking, a monthly, began publication with an April 1953 number. It is designed to function solely as a news reporting service for independent pattern and model shops, foundry pattern shops and pattern shops of large industrial establishments. Published by Cleworth Publishing Company, 22 West Putnam Avenue, Greenwich, Connecticut. Annual subscription $3.

Modern Secretary, a pocket size monthly, began publication with a September 1953 number. It is a magazine for office secretaries, students and writers of Gregg shorthand. It provides dictation practice for classroom use and a source of reference for the self-taught student. Published by the Gregg Shorthand Division, McGraw-Hill Publishing Company, 95 Farringdon Street, London EC 4. Annual subscription 6 shillings, school bulk subscriptions 5 shillings 6 pence. Single copies 8 pence.

Municipal South, a monthly, will begin publication January, 1954, and will carry articles and news of interest to municipal officials in the southern states. Published by Clark-Smith Publishing Company, 218 West Morehead Street, Charlotte 1, North Carolina. Annual subscription $2.

Music at Home, a bimonthly, began publication with a March-April, 1954 number. It is devoted to the subject of high fidelity reproduction of music from phonograph records, magnetic tape recordings and frequency modulated (FM) radio. Published by Sleeper Publications, Hi-Fi House, 207 East 37th Street, New York 16. Annual subscription $3; single copies 50 cents.

The National Biographic began publication with a March, 1953 number, and while it is now published irregularly, plans are being made to establish it on a monthly basis. Each issue is devoted to the biography of one business leader and is distributed for school use by the Educational division of Who's Who in America. Published by American Institute of Management, 125 East 38th Street, New York 16. Free to members: To non-members $1 a copy.

The New Vida Hispánica, a journal for all teachers of Spanish and Portuguese, began publication with a spring, 1953 issue. It will be published three times a year. Articles are printed in English, Spanish and Portuguese. Published by the Association of Teachers of Spanish and Portuguese, 24 Lansdowne Road, North Chingford, London E. 4. Annual subscription 2 shillings 6 pence.

Office Magazine, a monthly, began publication January, 1954. It is devoted to office practices, management and appliances. Published by Current Affairs, Limited, 174 Brompton Road, London, S.W.3. Annual subscription 12 shillings; single copies 1 shilling.

Petroleum and Natural Gas Digest began monthly publication in January, 1954. It contains reviews of articles in trade and technical magazines serving the oil and gas industry, in the fields of geology, geophysics, petrology, exploration, core analysis and well completion, oil production engineering, natural gas engineering, transmission, pipe line service and storage. Published by Petroleum and Natural Gas Digest, Hooker-Fulton Building, Bradford, Pennsylvania. Annual subscription $10. Single copies $1.25.

Pets and Aquaria, a small size monthly published its first issue in October, 1953. Its policy is to create more interest in pet-keeping and to provide its readers with interesting and informative material on all sorts of pets. Published by Pets and Aquaria, 24 Lever Street, Manchester 1, England. Annual overseas subscription 20 shillings. Single copies 1 shilling 3 pence.

Pharmaceutical Bulletin, a quarterly, made its initial appearance with a March 1953 number. It is the foreign language periodical of the Pharmaceutical Society of Japan and it includes papers on all branches of science and technology related to pharmacy and pharmaceutics, medical sciences, pure chemistry, biology, physics, etc. Published by the Pharmaceutical Society of Japan, Pharmaceutical Institute, Medical Faculty, University of Tokyo, Motofujicho, Tokyo. Subscription to members 1,000 yen, to non-members 1,400 yen. Orders should be addressed to Maruzen Company, P.O. Box 605, Tokyo Central, Tokyo, or Charles E. Tuttle Company, Rutland, Vermont.

Philippine Geographical Journal began as a quarterly in 1953 and deals with all aspects of geography of the Philippines, including the political and economic. Published by the Philippine Geographical Society, Soil Conservation Building, Florida Street, Manila, Philippines. Annual subscription free to members; to nonmembers 3 pesos in the Philippines, $3 gold in foreign countries.

Pipe Line Industry, formerly a section in *World Oil,* began publication as a separate monthly periodical in July, 1954. It is concerned exclusively with the business of designing, constructing, operating and maintaining oil, gas and products pipe lines. *Pipe Line Industry* will be indexed in Industrial Arts Index. Published by Gulf Publishing Company, P.O. Box 2608, Houston, Texas. Annual subscription $2. Single copies 50 cents.

Plays and Players, a monthly, began with an October 1953 number. Its pages contain articles on current plays and playwrights, actors and actresses and the theater in general. Published by Hansom Books, Limited, 21 Lower Belgrave Street, Buckingham Palace Road, London, S.W. 1. Annual subscription twenty shillings. Single copy 1 shilling 8 pence.

pb The Pocket Book Magazine presents an innovation in periodicals, a pocket size quarterly devoted to the publication of serious articles on present day ideas and issues. The first issue contains articles by Chester Bowles; Edmund Bergler, Richard B. Morris, Norman Vincent Peale, Philip Wylie, Emily Hahn and others. Published by Pocket Books, Inc. Address all communications to Franklin Watts, Editor, *pb The Pocket Book Magazine,* 699 Madison Avenue, New York 21. Single copies 35 cents.

Pottery Quarterly; a Review of Ceramic Art began with a Spring, 1954 number. It will be devoted exclusively to the theme of pottery as art and will deal with every part of the craft. It is designed to interest studio potters, museum pottery departments, libraries, retailers and designers and schools and colleges where pottery is taught. Published by Pottery Quarterly, Pendley Manor, Tring, Herts, England. Annual subscription $2 in the United States. Single copies 50 cents.

Print in Britain, a monthly, made its initial appearance with a May, 1953 number. Its pages are devoted to articles pertaining to all phases of the printing trades. Published at 119 Market Street, Eastleigh, Hants, England. Annual subscription in the United States $4.

Probe, a biweekly, began publication in September 1954. It will be concerned exclusively with life insurance commentary, news and sales, reports of new developments and will comment on issues which call for timely solution. Published by Probe, Incorporated, Spring Valley Road, Ossining, New York. Annual subscription $12.

Proceedings of the Botanical Society of the British Isles published its first issue in April, 1954. It replaces the Society's "Year Book" and will be published twice a year. Each number will contain papers of general interest on British flora, plant notes, plant records and abstracts of the literature. Published and sold by the Botanical Society of the British Isles, c/o Department of Botany, British Museum (Natural History), London S.W.7. Price 10 shillings.

Q. S. Digest, a pocket size monthly, made its first appearance with an April 1954 number. It presents itself as a medical periodical for the general practitioner and internist, containing digests of articles in medical magazines, brief reports on new developments and other matters of interest to the medical profession. Published by Q. S. Digest Company, 5 South Franklin Turnpike, Ramsey, New Jersey. Free to general practitioners and internists.

Radiation Research, a bimonthly, began publication with a February, 1954 number as the official organ of the Radiation Research Society. Its purpose will be to promote the integration of the sciences of physics, chemistry, biology and medical research as they relate to the effects of radiation on matter. The term radiation is here used in its broadest sense and includes ionizing, ultraviolet, infrared and visible radiations. Published by the Academic Press, 125 East 23d Street, New York 10. Annual subscription $9.

Rivista di Diritto Internazionale e Comparato del Lavoro, a quarterly, began publication in 1953. "This Review has its origin in the first International Congress of labor law, held at the

University of Trieste in May 1950, and its success has confirmed the interest and the utility resulting from the meeting of the jurists of several countries, gathered around the problems concerning the drawing of the International labor law and of a common labor law. We also believe these meetings will give good results if continued and vivifyed by a constant impulse; unifying science to the experience continually in the delicate but fascinating sphere of the international labor law." Articles are printed in Italian, French, German and Spanish. Editor L. Cappelli, via Marsili 9, Bologna. Annual subscription in Italy L. 2800; foreign L. 3500.

Scientia Electrica began publication with an October, 1953 number. Its pages are devoted to the latest advances in electrical science and technology. Published by S. Hirzel Verlag, Claridenhof, Gotthardstrasse 6, Zurich 2. Single copies Fr. 4.

Scientific Marketing, a Survey of Progress in Distributive Techniques, a monthly, began publication with an October 1953 issue. This number includes articles on sample surveys, international statistics, economics of air freight, America's role in monetary stabilization, etc. Published by Scientific Marketing, Limited, 331 Grays Inn Road, London, W.C. 1. Annual subscription £4 4s. Single copies 10s.

Scottish Journal of Political Economy made its debut with a March 1954 number and is the organ of the Scottish Economic Society, formerly Scottish Society of Economists. The *Journal* will be published three times a year and will contain articles commenting on Scottish economic and social affairs and articles on political economy, economic history and allied subjects. Annual subscription included in membership fee of one guinea. Non-members may order from Oliver and Boyd, Tweeddale Court, Edinburgh. Annual subscription, one guinea or $3.50. Single copies 7 shillings 6 pence or $1.25.

The Shavian, a small size periodical edited by Eric J. Batson, general secretary of The Shaw Society, began publication with a February 1954 number. It is the Societies intention to issue the magazine quarterly, eventually, but no more than two or three issues a year will be promised at present. Published by The Shaw Society, 45 Steeplestone Close, London, N. 18. Free to members and associate members; to others 2s 6d or 50 cents a copy.

So They Say About Higher Education published four times a year beginning March 1953, presents digests of articles on higher education prepared for the Association for Higher Education by the Educational Research Service and the N.E.A. Research division. Published by the Association for Higher Education, 1201 Sixteenth Street, N.W., Washington 6. Annual subscription 50 cents. Single copies 15 cents.

Social and Economic Studies began publication in 1953 and is now published quarterly. It is the official journal of the Institute of Social and Economic Research, University College, Jamaica, B.W.I. It reports on the work undertaken by or in association with the Institute. Other contributions on the social, economic and political problems of undeveloped territories as well as articles of general interest will be printed. Subscriptions and orders for back numbers should be addressed to the editor, Social and Economic Studies, Institute of Social and Economic Research, University College, Jamaica, B.W.I. Subscription per volume of four numbers £1.10 shillings or $4.25. Single copies 9 shillings.

Social Order announces a change of address, from 3655 West Pine Boulevard to 3908 Westminster Place, St Louis 8.

Social Work Papers, an annual publication, was launched with a December, 1953 number. It consists of papers written by the faculty, alumni and students of the School of Social Work, University of Southern California, Los Angeles 7. $1 a copy.

South Texas Law Journal, a quarterly, made its debut in April 1954. Its contents include articles on law and legislation, reviews of recent court decisions, book reviews, etc. Published by South Texas Law Journal, South Texas College of Law, Houston. Annual subscription $5; single copies $1.50.

Sports, Illustrated, a weekly, made its initial appearance under an August 16, 1954 date line, and is announced as the "newest offspring of Time, Incorporated." Its pages are devoted to articles on sports, covering a wide field, and its illustrations are attractive, many of them in color. All subscription correspondence should be addressed to Sports, Illustrated, 540 N. Michigan Avenue, Chicago 11. Annual subscription $7.50. Single copies 25 cents.

Stitch, A Journal for the Outdoor Garment Maker is published monthly, beginning October, 1953. Its focus is on the problems of the subcontractor in the British outdoor garment making industry. Published by John E. Bush Publishing Company, Swinton House, 324 Grays Inn Road, London, W.C.1. Annual subscription 6 shillings, single copies sixpence.

TV Mirror, a weekly, began publication in late August 1953. It is a magazine for television fans in Great Britain, containing news items, articles, photographs and other material concerning television programs, performers and producers. Published by Amalgamated Press, Limited, Fleetway House, Farringdon Street, London, E.C.4. Annual subscription 21s 8d. Single number 4d.

Transporte Moderno, a new bimonthly magazine, devoted to transportation, handling, and storing of products and materials in Latin America, was inaugurated in August 1953. Copies are published in Spanish, and a Portuguese supplement is provided for circulation in Brazil. Published by Export Publishers Company 220 East Forty-sixth Street, New York 17. Annual subscription $2.50.

Turkish Digest began publication with a Summer, 1954 number. It contains digests of books, newspaper and magazine articles depicting the life and customs of Turkey. Says the editor, "we have chosen here to concentrate on the casual, everyday aspects of Turkish life. With such material as was available, we have attempted to tell the story of Turkey as it affects the lives of ordinary individuals." Distributed by the Turkish Information Office, 44 East 52d Street, New York.

U I A is the official publication of the International Union of Architects and will publish six issues a year. Its pages include articles on housing and architectural trends in various countries, information on architectural competitions and other features of interest to architects. Address, Société Achéco, 57, rue de Châteaudun, Paris-9ᵉ. Annual subscription in France 1.500 francs, other countries 2.000 francs or $6.

United Nations Review, a monthly, issued its first number under a July 1954 date. It succeeds the *United Nations Bulletin,* a fortnightly news magazine. Articles of two types will be included: background and current development reviews and illustrated features. Published by United Nations Department of Public Information. For sale by Columbia University Press, 2960 Broadway, New York 27. Annual subscription $4.50; single copies 40 cents.

Uranium, a small size monthly journal, published its first number under the date of August 1954. It will be devoted exclusively to the interests of uranium prospecting and mining. Published by Uranium Publications, 601 Ogden Street, Denver 18. Annual subscription $3. Single copies 25 cents.

A new publication, written and edited primarily for wholesalers, made its appearance last month in the plumbing and heating industry. The new magazine, *Wholesaler Bulletin,* reports news and activities of interest to wholesalers and wholesaler associations. It also will be of vital interest to manufacturers and their representatives. The *Bulletin,* published as an industry service is available on request to *Domestic Engineering,* 1801 Prairie Ave., Chicago 16.

World, America's magazine of World Events, a semi-monthly, with which is combined *World Cable,* the international newsletter, succeeds *United Nations World.* Publication began with a November, 1953 issue. It stresses the international scene and emphasizes the strategy of world events. Among the contributors to the first issue are the late Ernst Reuter, Alfred Duff Cooper, Adriano Olivetti, Lakshmi Menon and Chester Bowles. Published by U.N. World, 319 East 44th Street, New York 17. Annual subscription $6; single number 50 cents.

World Veteran is the new name of the successor of *New Era* official monthly publication of the World Veterans Federation, the new title and format having been adopted with the November, 1953 issue. The magazine is distributed free to national and local ex-veterans' leaders and to organizations having particular interest in veterans affairs. Subscriptions available to the general public through the World Veterans Fund, 345 East 46th Street, New York. $1 a year. Single copies 10 cents.

The first issues of the Frankfurt edition of *Zeitschrift für Physikalische Chemie, Neue Folge,* are now being published by Akademische Verlagsgesellschaft m.b.H., Frankfurt am Main, Germany. The new series is the lawful continuation of the magazine that was founded in 1887, according to its publishers, who stress that the contents of the May issue (Vol. 1, No. 1/2) are not identical with those of a periodical released under the same name in Leipzig in the Eastern Zone. Inquiries about the magazine should be addressed to the publishers at Holbeinstrasse 25-27, Frankfurt.

List of Periodicals Indexed

A M A Archives Ind Hygiene & Occup Med—A.M.A. Archives of Industrial Hygiene and Occupational Medicine. $8; single numbers $1. m American Medical Association, 535 N Dearborn St, Chicago 10 (2v:Ja,Jl v9-10;i-l)
Published as Journal of Industrial Hygiene and Toxicology until January 1950; as Archives of Industrial Hygiene and Occupational Medicine, January 1950-October 1950
Name changed to A.M.A. Archives of Industrial Health January, 1955

A S M E Trans—Transactions of the American Society of Mechanical Engineers. $12; single numbers $1.50. m (except Mr, Je, S, D) American Society of Mechanical Engineers, 29 W 39th St, New York 18 (1v:Ja v76;i-l)
$6 to members and affiliates

Acoustical Soc Am J—Journal of the Acoustical Society of America. $14; single numbers $2.50. bi-m American Institute of Physics, 57 E 55th St, New York 22 (1v:Ja v26;i-s)

Adv Agency—Advertising Agency and Advertising and Selling. $4; single numbers 50c. m Moore Pub. Co, Inc, 48 W 38th St, New York 18 (1v:Ja v47;i-l)
Weekly news supplement included in monthly subscription, began January 16, 1953
Beginning October 4, 1954 name changed to Advertising Agency

Adv & Sell. See Adv Agency

Advanced Management—Advanced Management $8; single numbers $1. m Society for the Advancement of Management, Inc, 74 Fifth Av, New York 11 (1v:Ja v19;i-s)
Formerly Society for the Advancement of Management Journal, a bi-monthly

Aero Digest—Aero Digest. $3; single numbers 50c. m Aeronautical Digest Pub. Corp, National Press Bldg, 14th and F Sts, N.W., Washington 4, D.C. (2v:Ja,Jl v68-69;i-s)
Annual Directory issue March $1

Aeronautical Eng R—Aeronautical Engineering Review. $3; single numbers 50c. m Institute of the Aeronautical Sciences, Inc, 2 E 64th St, New York 21 (1v:Ja v13;i-s)
Formerly Journal of the Aeronautical Sciences, Aeronautical Review Section

Am Assn of Textile Chemists and Colorists. Proceedings. Published in American Dyestuff Reporter

Am Assn Pet Geologists Bul—Bulletin of the American Association of Petroleum Geologists. $18; single numbers $2. (F, Mr, Je each $3) m American Association of Petroleum Geologists, Inc, Box 979, Tulsa 1, Oklahoma (1v:Ja v38;i-s)

Am Bankers Assn J. See Banking

Am Bld—American Builder. $3.50; single numbers 75c. m Simmons-Boardman Pub. Corp, 30 Church St, New York 7 (1v:Ja v76;i-none)

Am Bsns—American Business. $4. single numbers 35c. m Dartnell Publications, Inc, 4660 Ravenswood Av, Chicago 40 (1v:Ja v24;i-none)

Am Cer Soc Bul—Bulletin of the American Ceramic Society. $6; single numbers $1.50. m American Ceramic Society, 4055 N High St, Columbus 14, Ohio (1v:Ja v33;i-s)

Am Cer Soc J—Journal of the American Ceramic Society; Ceramic Abstracts. $14; single numbers $1.50. m American Ceramic Society, 4055 N High St, Columbus 14, Ohio (1v:Ja v37; i-s)

Am Chem Soc J—Journal of the American Chemical Society. $14; single numbers $1.50. s-m American Chemical Society, 1155 16th St, N.W, Washington 6, D.C. (1v:Ja v76;i-s)
Changed from monthly to semi-monthly January, 1952

Am Concrete Inst J—Journal of the American Concrete Institute. $12; single numbers $1.50. m (except Jl and Ag) American Concrete Institute, 18263 W. McNichols Road, Detroit 19, Mich. (1v:S v26;i-s)

Am Dyestuff Rep—American Dyestuff Reporter Incorporating Textile Colorist and Converter. $7.50. bi-w Howes Pub. Co, 44 E 23d St, New York 10 (1v:Ja v43;i-s)
Includes Proceedings of American association of textile chemists and colorists

Am Gas Assn Mo—American Gas Association Monthly. $3. m (bi-m Jl-Ag) American Gas Assn, Inc, 420 Lexington Av, New York 17 (1v:Ja v36;i-s)

Am Gas Assn Proc—American Gas Association Proceedings. Annual convention proceedings. American Gas Association, Inc, 420 Lexington Av, New York (35th annual convention, 1953)

Am Gas J—American Gas Journal. $3; single numbers 50c. m American Gas Journal, Inc, 205 E 42d St, New York 17 (2v:Ja,Jl v180-181; i-l)
Two issues in November. The second issue is American Gas Handbook which is not sold separately

Am Inst Chem Eng Trans. See Chem Eng Prog

Am Inst E E J. See Elec Eng

Am Inst of Mining and Metallurgical Engineers. See Min Eng

Am J Sci—American Journal of Science. $10; single numbers $1. m American Journal of Science, Sterling Tower, Yale University, New Haven, Conn. (1v:Ja v252;i-s)

Am Mach—American Machinist. $5; single numbers 50c. bi-w McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 36 (1v:Ja v98;i-r)
41st Annual Review number, January 18, price $1
Extra number published in Mid-November $2

Am Pet Inst Proc—American Petroleum Institute Proceedings. 50 W 50th St, New York
Published annually; 6 sections in 1953

Am Soc C E Proc—Proceedings of American Society of Civil Engineers; single numbers 50c. m American Society of Civil Engineers, 33 W 39th St, New York 18 (1v:Ja v80;i-none)
Publication as monthly journal discontinued with the January 1950 issue. Published thereafter [volume 76] as separate papers. Annual subscription: Nonmembers $10; Libraries $5

Am Soc for Metals Trans—Transactions of the American Society for Metals. v44 '52 American Society for Metals, 7301 Euclid Av, Cleveland 3, Ohio
Volume 44 indexed in 1954

Am Soc Heat & V E J. See Heating-Piping

Am Soc M E J. See Mech Eng

Am Soc M E Trans. See A S M E Trans

Am Soc T M Proc—American Society for Testing Materials. Proceedings. annual American Society for Testing Materials, 1916 Race St, Philadelphia 3 (1v:51)

Am Stat Assn J—Journal of the American Statistical Association. $8. q American Statistical Association, 1108 16th St, N.W, Washington 6, D.C. (1v:Mr v49;i-l)

Publications of societies, institutions, etc. are listed under the names of the organizations.
i-l=index sent loose; i-r=index sent upon request; i-s=index stitched in volume.
Month abbreviation followed by volume number=Month in which new volume begins and the number of the new volume beginning in 1954.

Am Water Works Assn J—Journal of the American Water Works Association. $7; single numbers 85c, to members 60c. m American Water Works Assn, 521 Fifth Av, New York 17 (1v:Ja v46;i-s)

Anal Chem—Analytical Chemistry. $4; single numbers $1. m American Chemical Society, 1155 16th St, N.W, Washington 6, D.C. (1v:Ja v26;i-s)
Formerly Industrial and Engineering Chemistry Analytical Edition

Ann Am Acad—Annals of the American Academy of Political and Social Science. $6; single numbers $2. bi-m American Academy of Political and Social Science, 3937 Chestnut St, Philadelphia 4 (6v:Ja,Mr,My,Jl,S,N v291-296; i-s)
Published also in cloth $10; single numbers $2.50

Arch Forum—Architectural Forum. The Magazine of Building. $5.50; single numbers $1. m Time, Inc, 9 Rockefeller Plaza, New York 20 (2v:Ja,Jl v100-101;i-r)
Through 1952 title appeared as Magazine of Building Architectural Forum

Arch Rec—Architectural Record. $5.50; single numbers $2. m F. W. Dodge Corp, 119 W 40th St, New York 18 (2v:Ja,Jl v115-116;i-s)

Archives Ind Hygiene & Occup Med. See A M A Archives Ind Hygiene & Occup Med

Aslib Proc—Aslib Proceedings. 40s; single numbers 10s 6d. q Aslib, 4 Palace Gate, London, W. 8 (1v:F v6;i-l)

Assn of Sp Lib & Inf Bur Proc. See Aslib Proc

Automobile Eng—The Automobile Engineer. £2 11s 6d; U.S. $8; Canada $7.50; single numbers 3s 6d. m Iliffe & Sons, Ltd, Dorset House, Stamford St, London, S.E. 1 (1v:Ja v44;i-r; cost 6d)
Annual extra number published in November

Automotive Ind—Automotive Industries. $2; single numbers 25c. s-m Chilton Company, Chestnut & 56th Sts, Philadelphia 39 (2v:Ja, Jl v110-111;i-none)
Statistical issue, March 15, price $1

Aviation W—Aviation Week. $6; single numbers 50c. w McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 36 (2v:Ja,Jl v60-61; i-none)

Bankers Mo—Bankers Monthly. $5; single numbers 50c. m Rand McNally & Co, P.O. Box 7600, Chicago 80 (1v:Ja v71;i-none)
Formerly Rand McNally Bankers Monthly

Banking—Banking; Journal of the American Bankers Association. $5; single numbers 50c. m American Bankers Association, 12 E 36th St, New York 16 (1v:Jl v47;i-s)
Formerly American Bankers Association Journal

Barron's—Barron's. $15; single numbers 35c. w Barron's Pub. Co. Inc, 40 New St, New York 4 (1v:Ja v34;i-s)

Bell System Tech J—Bell System Technical Journal. $3; single numbers 75c. bi-m American Telephone and Telegraph Co, 195 Broadway, New York 7 (1v:Ja v33;i-l)
Changed from quarterly to bi-monthly January, 1952

Blast F & Steel Pl—Blast Furnace and Steel Plant. $2.50; single numbers 50c. January and August numbers $1 ea. m Steel Publications, Inc, 4 Smithfield St, Pittsburgh 30, Pa. (1v: Ja v42;i-s)

Brick & Clay Rec—Brick & Clay Record. $5; single numbers 50c. m Industrial Publications, Inc, 5 So. Wabash Av, Chicago 3 (2v: Ja,Jl v124-125;i-s)

Bsns W—Business Week. $6; single numbers 25c. w McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 36 (without v no;i-none)

Burroughs Clearing House—Burroughs Clearing House. m Burroughs Adding Machine Co, Second Blvd. and Burroughs Av, Detroit 32, Mich. (1v:O v39;i-none)

Bus Transportation—Bus Transportation. $3; single numbers 50c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 36 (1v:Ja v33; i-r)

Can Chem & Process Ind—Canadian Chemistry and Process Industries. $5; single numbers 50c. m Westman Publications, Ltd, 137 Wellington St, West, Toronto, Ont. 1 (1v:Ja v35; i-r)
Name changed to Canadian Chemical Processing, June, 1951

Can Chem Process—Canadian Chemical Processing. $4; $5 in U.S; single numbers 50c. m Hugh C. Maclean Publications, Ltd, Box 4000, Terminal A, Toronto 1, Canada (1v:Ja v38; i-s)
Two numbers published in June

Can Min J—Canadian Mining Journal. $5; $7.50 in U.S; single numbers 50c; $1 in U.S. m National Business Publications, Ltd, Gardenvale, Que. (1v:Ja v75;i-s)

Cer Ind—Ceramic Industry. $4; single numbers 50c. m Industrial Publications, Inc, 5 So. Wabash Av, Chicago 3 (2v:Ja,Jl v62-63;i-s)
Price of January issue $2

Chem Age (Lond)—The Chemical Age. 42s; single numbers 1s 3d. w Benn Brothers, Ltd, Bouverie House, 154 Fleet St, London, E.C. 4 (2v:Ja,Jl v70-71;i-r)

Chem & Eng N—Chemical and Engineering News. $6; single numbers 40c. w American Chemical Society, 1155 16th St, N.W, Washington 6, D.C. (1v:Ja v32;i-s)

Chem & Ind—Chemistry & Industry. £4. single numbers 4s. w Society of Chemical Industry, 56 Victoria St, London, S.W. 1 (without v no;i-s)
Buyers' Guide published as supplement to December 5, 1953

Chem & Met Eng. See Chem Eng

Chem Eng—Chemical Engineering. $3; single numbers $1. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 36 (1v:Ja v61;i-s)

Chem Eng Prog—Chemical Engineering Progress. $6; single numbers 75c. m American Institute of Chemical Engineers, 25 W 45th St, New York 36 (1v:Ja v50;i-s)

Chem R—Chemical Reviews. $12 ($10 to members of American Chemical Society); single numbers $2.50 bi-m Williams & Wilkins Co, Mount Royal and Guilford Avs, Baltimore 2, Md. (1v:F v54;i-s)

Chem Soc J—Journal of the Chemical Society. £10. m The Chemical Society, Burlington House, Piccadilly, London, W. 1 (without v no;i-l)

Chem W—Chemical Week. $5; single numbers 35c. w McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 36 (2v:Ja,Jl v74-75;i-r)
Published as Chemical Industries until December 1950; as Chemical Industries Week, January 20, 1951-May 26, 1951
September 19, 1953, part 2 is Buyers' Guide issue, included in annual subscription

Civil Eng—Civil Engineering, the Magazine of Engineered Construction. $5; single numbers 50c. m American Society of Civil Engineers, 33 W 39th St, New York 18 (1v:Ja v24;i-r)

Coal Age—Coal Age. $3; single numbers 50c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 36 (1v:Ja v59;i-s)

Comm & Fin Chr—Commercial and Financial Chronicle. $55; single numbers Monday ed. $1.15. Thursday ed. 40c. s-w William B. Dana Co, 25 Park Pl, New York 7 (2v:Ja,Jl v179-180;i-l)
Annual Review and Outlook issue, January 21 in two sections $1.50

Commun Eng—Communication Engineering. $3; single numbers 65c. bi-m The Publishing House, Great Barrington, Massachusetts (1v: Ja v14;i-s)
Published as Communications until December 1949; as Tele-Vision Engineering January 1950-April 1952; as Radio Communication May 1952-December 1952

Comp Air Mag—Compressed Air Magazine. $3; single numbers 35c. m Compressed Air Magazine Co, Phillipsburg, New Jersey (1v:Ja v59; i-r)

Concrete—Concrete. $4; single numbers 50c. m Concrete Pub. Corp, Daily News Plaza, 400 W Madison St, Chicago 6 (1v:Ja v62;i-s)

Constr Methods—Construction Methods and Equipment. $3; single numbers 50c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 36 (1v:Ja v36;i-none)
Equipment Maintenance Directory issue July $1

Consumers Res Bul—Consumers' Research Bulletin (Not Confidential). $3; single numbers 30c. m Consumers' Research, Inc, Washington, New Jersey (2v:Ja,Jl v33-34;i-s)

Credit & Fin Management—Credit and Financial Management. $3; single numbers 25c. m National Association of Credit Men, 229 4th Av, New York 3 (1v:Ja v56;i-s)

Diesel Power—Diesel Power and Diesel Transportation. $3; single numbers 35c. m Diesel Publications, Inc, 192 Lexington Av, New York 16 (1v:Ja v32;i-s)

Dom Eng—Domestic Engineering. $5; single numbers 50c. m Domestic Engineering Co, 1801 Prairie Av, Chicago 16 (2v:Ja,Jl v183-184;i-none)

Dun's R—Dun's Review. $4; single numbers 35c. m Dun & Bradstreet, Inc, 99 Church St, New York 8 (1v:Ja v61;i-r)
Formerly Dun & Bradstreet Monthly Review
Merged with Modern Industry, August, 1953

Dun's R & Mod Ind—Dun's Review and Modern Industry. $5; single numbers 75c. m Dun & Bradstreet Pub. Corp, 99 Church St, New York 8 (2v:Ja,Jl v63-64;i-r)

East Underw—Eastern Underwriter. $5; single numbers 25c. w Eastern Underwriter Co, 93 Nassau St, New York 38 (1v:Ja v55;i-none)

Econ Geol—Economic Geology and the Bulletin of the Society of Economic Geologists. $6.50; single numbers $1.25. s-q Economic Geology Pub. Co, M. M. Leighton, Business Mgr, Urbana, Ill. (1v:Ja v49;i-s)

Economist—Economist. £3; single numbers 1s. w Economist Newspaper, Ltd, 22 Ryder St, St James's, London, S.W. 1 (4v:Ja,Ap,Jl,O v170-173;i-l)

Ed & Pub—Editor & Publisher, the Fourth Estate. $6.50; single numbers 20c. w Editor & Publisher, 1475 Broadway, New York 36 (1v: Ja v87;i-r) Bound in two volumes a year; cost $2.50 ea or $5 a year
Additional issue published in February; International Year Book Number, included in annual subscription

Edison Elec Inst Bul—Edison Electric Institute Bulletin. $2. m Edison Electric Institute, 420 Lexington Av, New York 17 (1v:Ja v22;i-l)

Elec Com—Electrical Communication. $2; single numbers 50c. q International Telephone and Telegraph Corp, 67 Broad St, New York 4 (1v:Mr v31;i-s)

Elec Eng—Electrical Engineering $12; single numbers $1.50. m American Institute of Electrical Engineers, 500 5th Av, New York 36 (1v:Ja v73;i-l)

Elec J—Electrical Journal. 50s; single numbers 1s. w Benn Bros, Ltd, Bouverie House, 154 Fleet St, London, E.C. 4 (2v:Ja,Jl v152-153; i-l)
Formerly Electrician; changed to Electrical Journal October 17, 1952

Elec R (Lond)—Electrical Review. £3 6d; U.S. and Canada $11; single numbers 1s. w Electrical Review, Dorset House, Stamford St, London, S.E. 1 (2v:Ja,Jl v154-155;i-r)

Elec West—Electrical West. $2; single numbers 25c. m McGraw-Hill Co. of California, 68 Post St, San Francisco 4, Calif. (2v:Ja,Jl v112-113;i-r)

Elec World—Electrical World. $6; single numbers 35c. w McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 36 (2v:Ja,Jl v141-142;i-r)
Regular issue alternates with a News Edition

Electrician—Electrician. 50s; single numbers 1s. w Benn Bros, Ltd, Bouverie House, 154 Fleet St, London, E.C. 4 (2v:Ja,Jl v148-149; i-l)
Name changed to Electrical Journal October 17, 1952

Electrochem Soc J—Journal of the Electrochemical Society. $15; single numbers $1.50 m Electrochemical Society, 216 W 102d St, New York 25 (1v:Ja v101;i-s)

Electronics—Electronics. $6; single numbers 75c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 36 (1v:Ja v27;i-s)
Price of Annual Buyers' Guide issue $2

Eng & Min J—Engineering and Mining Journal. $3; single numbers 50c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 36 (1v:Ja v155;i-s)

Eng Educ. See J Eng Educ

Eng N—Engineering News-Record $6; single numbers 35c. w McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 36 (2v:Ja,Jl v152-153;i-r)

Engineer—Engineer. £5 10s; Canadian subs £5 5s; single numbers 2s. w Engineer, 28, Essex St, Strand, London, W.C. 2 (2v:Ja,Jl v197-198;i-l)

Engineering—Engineering. £5 10s; Canadian subs £5 5s; single numbers 2s 3d. w Engineering, Ltd, 35 and 36 Bedford St, Strand, London, W.C. 2 (2v:Ja,Jl v177-178;i-r)

Explosives Eng—The Explosives Engineer, $1.50; single numbers 30c. bi-m Explosives Engineer, 913 Delaware Trust Bldg, Wilmington 99, Delaware (1v:Ja v32;i-l)

Factory Management—Factory Management and Maintenance. $3; single numbers 50c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 36 (1v:Ja v112;i-s)

Fed Res Bul—Federal Reserve Bulletin. $2; single numbers 20c (to non-members). m Board of Governors of the Federal Reserve System, Constitution Av at 20th St, Washington 25, D.C. (1v:Ja v40;i-s)

Food Eng—Food Engineering. $2; single numbers 35c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 36 (1v:Ja v26;i-s)

Food Ind—Food Industries. $2; single numbers 35c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 18 (1v:Ja v23;i-s)
Name changed to Food Engineering April, 1951

For Comm W—Foreign Commerce Weekly. Issued by U.S. Department of Commerce. $3.50; single numbers 10c. w Superintendent of Documents, Washington 25, D.C. (2v:Ja,Jl v51-52;i-none)

Fortune—Fortune. $10; single numbers $1.25. m Time, Inc, Kittredge Building, Denver 2 (2v;Ja,Jl v49-50;i-r)

Foundry—Foundry. $5; single numbers 75c. m Penton Pub. Co, Penton Bldg, Cleveland 13, O. (1v:Ja v82;i-r)

Franklin Inst J—Journal of the Franklin Institute. $10; single numbers $1. m Franklin Institute, Benjamin Franklin Parkway at 20th St, Philadelphia 3 (2v:Ja,Jl v257-258;i-s)

Gas Age—Gas Age combining Natural Gas, Gas Age, Gas Record. $4; single numbers 50c. bi-w Moore Pub. Co, Inc, 48 W 38th St, New York 18 (2v:Ja,Jl v113-114;i-r)

Gen Elec R—General Electric Review. bi-m General Electric Co. 1 River Road, Schenectady 5, N.Y. (1v:Ja v57;i-l)
Changed from monthly to bimonthly January, 1952

Geol Soc Bul—Bulletin of the Geological Society of America. $15. m Geological Society of America, H. R. Aldrich, sec, 419 W 117th St, New York 27 (1v:Ja v65;i-s)

Geol Soc Proc—Proceedings volume of Geological Society of America for 1953. Geological Society of America, H. R. Aldrich, sec, 419 W 117th St, New York 27
1953 indexed in 1955

Glass Ind—Glass Industry. $4; single numbers 40c. m Ogden Pub. Co, 55 W 42d St, New York 36 (1v:Ja v35;i-s)

Harvard Bsns R—Harvard Business Review. $8; single numbers $2. bi-m Harvard Business Review, Gallatin House, Soldiers Field, Boston 63 (1v:Ja v32;i-s)

Heat & Ven—Heating and Ventilating. $3; single numbers 30c. m Industrial Press, 148 Lafayette St, New York 13 (1v:Ja v51;i-none)

Name changed to Air Conditioning Heating and Ventilating January, 1955

Heating-Piping—Heating, Piping and Air Conditioning. $3; single numbers 35c. m Keeney Pub. Co, 6 N Michigan Av, Chicago 2 (1v:Ja v26;i-r)

Includes American Society of Heating and Ventilating Engineers Journal section

Directory number January, $1.50

House & Home—House & Home. $6; single numbers $1. m Time, Inc, 9 Rockefeller Plaza, New York 20 (2v:Ja,Jl v5-6;i-r)

Formerly Magazine of Building. House & Home; title changed September, 1952

Ill U Eng Exp Sta Bul—Illinois University Engineering Experiment Station. Bulletin. irr Univ. of Ill, Urbana

Ill U Eng Exp Sta Circ—Illinois University Engineering Experiment Station. Circular. irr Univ. of Ill, Urbana

Illum Eng—Illuminating Engineering, The Journal of the Illuminating Engineering Society. $12; single numbers $1. m Illuminating Engineering Society, 1860 Broadway, New York 23 (1v:Ja v49;i-l)

Ind & Eng Chem—Industrial and Engineering Chemistry. $5; single numbers $1.50. m American Chemical Society, 1155 16th St, N.W, Washington 6, D.C. (1v:Ja v46;i-s)

Ind & Eng Chem Anal ed. See Anal Chem

Ind Marketing—Industrial Marketing. $3; single numbers 25c. m (s-m during Je) Advertising Publications, Inc, 200 East Illinois St, Chicago 11 (1v:Ja v39;i-s)

June 25th issue not sold separately

Ind Med—Industrial Medicine and Surgery. $6; single numbers 75c. m Industrial Medicine Pub. Co 605 North Michigan Av, Chicago 11 (1v:Ja v23;i-s)

Ind Stand. See Standardization

India Rubber World—India Rubber World. $5; single numbers 50c. m Bill Brothers Publishing Corporation, 386 4th Av, New York 16 (2v:Ap,O v130-131;i-s)

Name changed to Rubber World beginning June, 1954

Inland Ptr—Inland Printer. $5: single numbers 50c. m Maclean-Hunter Pub. Corp, 309 W Jackson Blvd, Chicago 6: 522 5th Av, New York 36 (2v:Ap,O v133-134;i-none)

Inst E E J. See Inst E E Proc

Inst E E Proc—Proceedings of the Institution of Electrical Engineers. £3 13s 6d; single numbers pt 1 6s; pt 2 7s 6d; pt 3 7s 6d. The Institution, Savoy Place, Victoria Embankment, London, W.C. 2 (1v:Ja v101;i-l)

Published in 3 parts: pt 1, General, bi-m (Ja); pt 2, Power Engineering, bi-m (F); pt 3, Radio and Communication Engineering, bi-m (Ja)

Inst Mech Eng Proc—Institution of Mechanical Engineers Proceedings. q Institution of Mechanical Engineers, 1 Birdcage Walk, Westminster, London, S.W. 1 (1v:v168;i-s)

Inst Pet J—Journal of the Institute of Petroleum. £4 14s 6d; single numbers 10s. m Institute of Petroleum, 26 Portland Pl, London, W. 1 (1v:Ja v40;i-s)

Formerly Journal of the Institution of Petroleum Technologists

Inst Radio Eng Proc—Proceedings of the Institute of Radio Engineers. $18; single numbers $2.25. m Institute of Radio Engineers, Inc, 1 East 79th St, New York 21 (1v:Ja v42;i-s)

Instruments—Instruments, the Magazine of Measurement, Inspection, Testing, Control. $4. m Instruments Pub. Co, Inc, 845 Ridge Av, Pittsburgh 12, Pa. (1v:Ja v26;i-s)

Name changed to Instruments and Automation January, 1954

Instruments & Automation—Instruments and Automation. $4. m Instruments Pub. Co, Inc, 845 Ridge Av, Pittsburgh 12, Pa. (1v:Ja v27;i-s)

Int Labour R—International Labour Review. $6; single numbers 60c. m International Labour Office, 1262 New Hampshire Av, N.W, Washington 6, D.C. (2v:Ja,Jl v69-70;i-s)

Int Labour R Stat Sup—International Labour Review Statistical Supplement

Published separately as a monthly supplement beginning July, 1952

Iron Age—Iron Age. $15; single numbers 50c. w Chilton Co, Inc, Chestnut & 56th Sts, Philadelphia 39; 100 E 42d St, New York 17 (2v:Ja,Jl v173-174;i-r)

Iron & Steel Eng—Iron and Steel Engineer. $7.50; single numbers $1.50. m Association of Iron and Steel Engineers, 1010 Empire Bldg, Pittsburgh 22 (1v:Ja v31;i-s)

Iron & Steel Inst J—Journal of the Iron and Steel Institute. £5; single numbers 10s. m Iron and Steel Institute, 4, Grosvenor Gardens, London, S.W. 1 (3v:Ja,My,S v176-178; i-r)

J Account—Journal of Accountancy. $7; single numbers 75c. m American Institute Pub. Co, Inc, 270 Madison Av, New York 16 (2v:Ja,Jl v97-98;i-s)

J Aeronautical Sci—Journal of the Aeronautical Sciences. $12; single numbers $1.50. m Institute of the Aeronautical Sciences, Inc, 2 E 64th St, New York 21 (1v:Ja v21;i-s)

Review section now published as Aeronautical Engineering Review

J Ap Chem—Journal of Applied Chemistry. £9 10s; single numbers £1 2s 6d. m Society of Chemical Industry, 56 Victoria St, London, S.W. 1 (1v:Ja v4;i-s)

Formerly Society of Chemical Industry Journal; name changed January, 1951

J Ap Phys—Journal of Applied Physics. $12; single numbers $1.50. m American Institute of Physics, 57 E 55th St, New York 22 (1v:Ja v25;i-s)

$10 to members and associate members of the American Institute of Physics

J Bsns—Journal of Business of the University of Chicago. $6; single numbers $1.75. q University of Chicago Press, 5750 Ellis Av, Chicago 37 (1v:Ja v27;i-s)

J Chem Educ—Journal of Chemical Education. $3.50; single numbers 50c. m Journal of Chemical Education, 20th and Northampton Sts, Easton, Pa. (1v:Ja v31;i-s)

J Chem Phys—Journal of Chemical Physics. $15; single numbers $1.75. m American Institute of Physics, 57 E 55th St, New York 22 (1v:Ja v22;i-s)

J Doc—Journal of Documentation. 40s; single numbers 10s 6d. q Aslib, 4 Palace Gate, London W. 8 (1v:Mr v10;i-l)

J Eng Educ—Journal of Engineering Education. $6; single numbers $1.25. m (except Jl and Ag) American Society for Engineering Education, A. B. Bronwell, Sec, Northwestern University, Evanston, Ill. (1v:S v45;i-s)

J Fr Inst. See Franklin Inst J

J Ind Hygiene—The Journal of Industrial Hygiene and Toxicology. $8; single numbers $1.50. bi-m Williams & Wilkins Co, Mt Royal & Guilford Avs, Baltimore 2, Md. (1v:Ja v31; i-l)

After January 1950, appeared as Archives of Industrial Hygiene and Occupational Medicine; now A.M.A. Archives, q.v.

J Land & Pub Util Econ. See Land Econ

J Marketing—The Journal of Marketing. $6; single numbers $1.75. q Thomas J. McGann, Business manager, College of Business Administration, Marquette University, Milwaukee 3, Wis. (1v:Jl v19;i-l)

Publication of the American Marketing Association

J Metals—Journal of Metals. $8; single numbers 75c. m American Institute of Mining and Metallurgical Engineers, Inc, 29 W 39th St, New York 18 (1v:Ja v6;i-l)

Special issues $1.50

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J Phys & Colloid Chem—The Journal of Physical and Colloid Chemistry. $10; single numbers $1.25. m except (Jl, Ag and S) Williams & Wilkins Co, Mt. Royal & Guilford Avs, Baltimore 2, Md. (1v:Ja v55:i-s)
Name changed to Journal of Physical Chemistry beginning January 1952

J Phys Chem—The Journal of Physical Chemistry. $10; single numbers $1. m American Chemical Society, 1155 16th St, N.W, Washington 6, D.C. (1v:Ja v58;i-s)

J Res Nat Bur Stand—Journal of Research of the National Bureau of Standards. $4. m Superintendent of Documents, Washington 25, D.C. (2v:Ja,Jl v52-53;i-l)

J Retailing—Journal of Retailing. $3.50; single numbers $1. q New York University School of Retailing, 100 Washington Square East, New York 3 (1v:Spring v30;i-r)
Index published every two years

J Sci Instr—Journal of Scientific Instruments. £4 ($11.50 in U.S.); single numbers 8s ($1.15 in U.S.). m Institute of Physics, 47 Belgrave Square, London, S.W. 1 (1v:Ja v31;i-s)

Land Econ—Land Economics. $6; single numbers $2. q Sterling Hall, University of Wisconsin, Madison 6, Wis. (1v:F v30;i-s)

Life Ins Courant—Life Insurance Courant. $4; single numbers 50c. m Flitcraft, Inc, 75 Fulton St, New York 38 (1v:Ja v59;i-s)

Light Metal Age—Light Metal Age. $3; single numbers 60c. bi-m Roy Fellom, jr, 220 South State St, Chicago 4 (1v:F v12;i-r)

Mach—Machinery. $4; single numbers 40c. m Industrial Press, 148 Lafayette St, New York 13 (1v:S v61;i-r)

Machine Design—Machine Design. $10; single numbers $1. m Penton Pub. Co, Penton Bldg, Cleveland 13, O. (1v:Ja v26;i-s)

Mag of Bldg Arch Forum. See Arch Forum

Mag of Bldg House & Home. See House & Home

Mag of Wall St—Magazine of Wall Street and Business Analyst. $20; single numbers 85c. bi-w Ticker Pub. Co, Inc, 90 Broad St, New York 4 (2v:Ap,O v94-95;i-s)

Management R—Management Review. single numbers $1.25. m American Management Association, 330 W 42d St, New York 36 (1v:Ja v43;i-s)
Membership required for annual subscription

Manuf Rec—Manufacturers Record. $3; single numbers 35c. m Manufacturers Record Publishing Co, 109 Market Place, Baltimore 3, Md. (1v:Ja v123;i-none)

Marine Eng—Marine Engineering. $4; single numbers 75c. m Simmons-Boardman Pub. Corp, 30 Church St, New York 7 (1v:Ja v59; i-r)

Materials & Methods—Materials and Methods. $2; single numbers 50c. m Reinhold Pub. Corp, 430 Park Av, New York 22 (2v:Ja, Jl v39-40; i-s)

Mech Eng—Mechanical Engineering. $7; single numbers 75c. m American Society of Mechanical Engineers, 29 W 39th St, New York 18 (1v:Ja v76;i-r)

Metal Finishing—Metal Finishing. $4; single numbers 45c. m Finishing Publications, Inc, 381 Broadway, Westwood, New Jersey (1v:Ja v52;i-s)
Formerly Metal Industry

Metal Prog—Metal Progress. $7.50; single numbers $1.50. m American Society for Metals, 7301 Euclid Av, Cleveland 3, O. (2v:Ja,Jl v65-66;i-s)
Two issues in July. Second issue is Reports of Technical Committees of the American Society of Metals

Metallurgia—Metallurgia, the British Journal of Metals. 24s; single numbers 2s. m Kennedy Press, Ltd, 31 King Street West, Manchester, 3 (2v:Ja,Jl v49-50;i-l)

Metals Tech. See J Metals

Midwest Eng—Midwest Engineer. $4; single numbers 50c. m Western Society of Engineers, 84 E Randolph St, Chicago 1 (1v:Je v7;i-none)
February, part 2 is Year Book of the Western Society of Engineers, 1953-1954

Mill & Factory—Mill & Factory. m Conover-Mast Publications, Inc, 205 E 42d St, New York 17 (2v:Ja,Jl v54-55;i-none)
Price on request

Min & Met. See Min Eng

Min Cong J—Mining Congress Journal. $3; single numbers 30c. m American Mining Congress, 1102 Ring Bldg, Washington 6, D.C. (1v:Ja v40;i-r)

Min Eng—Mining Engineering. $8; single numbers 75c. m American Institute of Mining and Metallurgical Engineers, Inc, 29 W 39th St, New York 18 (1v:Ja v6;i-l)
Special issues $1.50

Mo Labor R—Monthly Labor Review. $6.25; single numbers 55c. m Superintendent of Documents, Washington 25, D.C. (2v:Ja,Jl v78-79;i-l)
Free to labor departments and bureaus and other offices connected with the administration of labor laws

Mo U Sch Mines & Met Bul tech ser—Bulletin of the University of Missouri, School of Mines and Metallurgy. Technical Series. irr Univ. of Mo. Rolla

Mod Ind—Modern Industry. $4; single numbers 50c. m Magazines of Industry, Inc, 99 Church St, New York 8 (2v:Ja,Jl v25-26;i-none)
Merged with Dun's Review August, 1953

Mod Packaging—Modern Packaging. $6; single numbers 75c. m Modern Packaging Corp, 575 Madison Av, New York 22 (1v:S v28;i-r)

Mod Plastics—Modern Plastics. $6; single numbers 75c. m Modern Plastics, Inc, 575 Madison Av, New York 22 (1v:S v32;i-l)
Formerly Plastic Products

Mod Textiles Mag—Modern Textiles Magazine. $5; single numbers 60c. m Rayon Pub. Corp, 303 Fifth Av, New York 16 (1v:Ja v35;i-s)
Formerly Rayon and Synthetic Textiles; changed September, 1952

Munic Util—Municipal Utilities Magazine. $3; $5 in U.S; single numbers 50c; 75c in U.S. m Monetary Times Printing Co. of Canada, Ltd, 341 Church St, Toronto 2, Ont. (1v:Ja v92;i-none)
Published as Water and Sewage until January 1950; as Water and Sanitation, January 1950-August 1950
Name changed to Municipal Utilities Magazine January, 1954

N A C A Bul—N.A.C.A. Bulletin. $10. m National Association of Cost Accountants, 505 Park Av, New York 22 (1v:S v36;i-r)

N Y Pub Lib Bul—New York Public Library. Bulletin. $3; single numbers 25c. m New York Public Library, 5th Av & 42d St, New York 18 (1v:Ja v58;i-s)
Bibliographies of interest to special libraries are indexed

Nat City Bank—National City Bank of New York. m 55 Wall St, New York 15 (without v no;i-none)

Nat Pet N—National Petroleum News. $7; single numbers 35c. w McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 36 (1v:Ja v46;i-none)
Changed from weekly to monthly, November, 1954

Nat Research Council Pub—National Research Council Publication. irr National Research Council, 2101 Constitution Av, Washington 25, D.C.
Individual numbers variously priced. Price-list sent on request

Nat Safety N—National Safety News. $7.50; single numbers 75c. m National Safety Council, Inc, 425 N Michigan Av, Chicago 11 (2v: Ja,Jl v69-70;i-r)

Nat Underw—National Underwriter. $7; single numbers 30c. w National Underwriter Co, 175 W Jackson Blvd, Chicago (1v:Ja v58;i-none)

Nat Underw (Life ed)—National Underwriter Life Insurance Edition. $7; single numbers 30c. w National Underwriter Co, 175 W Jackson Blvd, Chicago (1v:Ja v58;i-none)

Oil & Gas J—Oil and Gas Journal. $4; single numbers 50c. w Petroleum Pub. Co, 211 South Cheyenne St, Tulsa 1, Oklahoma (1v:My v53; i-r)

Oil Paint & Drug Rep—Oil, Paint and Drug Reporter. $5; single numbers 25c. w Schnell Pub. Co, Inc, 30 Church St, New York 7 (2v: Ja,Jl v165-166;i-r)
February 1, section 2 is Annual Review issue

Opt Soc Am J—Journal of the Optical Society of America. $8.50; single numbers $1.50. m American Institute of Physics, Inc, 57 E 55th St, New York 22 (1v:Ja v44;i-s)

Paint Oil & Chem R—Paint, Oil and Chemical Review. $3; single numbers 20c. bi-w Trade Review Co, 1607 Howard St, Chicago 26 (1v:Ja v117;i-none)

Paper Ind—Paper Industry. $3. m Fritz Publications, Inc, 431 South Dearborn St, Chicago 5 (1v:Ap v36;i-s)

Paper Tr J—Paper Trade Journal. $7.50; single numbers 25c. w Lockwood Trade Journal Co, Inc, 15 W 47th St, New York 36 (1v:Ja v138; i-s)
TAPPI section now published as separate Journal. See Tappi

Personnel—Personnel. single numbers $1.75. bi-m American Management Association, 330 W 42d St, New York 36 (1v:Jl v31;i-s)
Membership required for annual subscription

Personnel J—Personnel Journal. $5; single numbers 75c. m (Jl and Ag issues combined) Personnel Journal, Inc, Swarthmore, Pa. (1v: My v33;i-s)

Pet Eng—Petroleum Engineer. $5; single numbers 50c. m Petroleum Engineer Pub. Co, 1700 Commerce St, Dallas 1, Texas (1v:Ja v26;i-l)
Extra number [Ref annual] published July 15

Pet Processing—Petroleum Processing. $2; single numbers 35c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 36 (1v:Ja v9;i-r)
Formerly monthly technical section of National Petroleum News

Pet Refiner—Petroleum Refiner. $2; single numbers 50c. m Gulf Pub. Co, Box 2608, Houston 1, Texas (1v:Ja v33;i-s)

Phys R—The Physical Review. Second Series. $30; single numbers $1.50. s-m American Institute of Physics, Inc, 57 E 55th St, New York 22 (4v:Ja,Ap,Jl,O v93-96;i-s)

Power—Power. $4; single numbers 50c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 36 (1v:Ja v98;i-r)
Extra number published in Mid-September $1

Power Eng—Power Engineering. $10; single numbers $1. m Technical Pub. Co, 110 S. Dearborn St, Chicago 3 (1v:Ja v58;i-s)

Product Eng—Product Engineering. $5; single numbers 50c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 36 (1v:Ja v25;i-s)
Annual Handbook of Product Design published in 1954 will be indexed in 1955

Ptr Ink—Printers' Ink. $5; single numbers 25c. w Printers' Ink Pub. Co, Inc, 205 E 42d St, New York 17 (4v:Ja,Ap,Jl,O v246-249;i-none)

Pub Health Rep—Public Health Reports. $4.25. m Superintendent of Documents, Washington 25, D.C. (1v:Ja v69;i-r)
Distributed gratuitously to state and municipal health officers, etc., by the Surgeon general of the United States public health service, Washington, D.C.
Changed from weekly to monthly January, 1952

Pub Roads—Public Roads. $1; single numbers 20c. bi-m Superintendent of Documents, Washington 25, D.C. (1v [12 nos] Ap v28 '54; i-l)

Pub Util—Public Utilities Fortnightly. $15; single numbers $1. bi-w Public Utilities Reports, Inc, Munsey Bldg, Washington 4, D.C. (2v:Ja,Jl v53-54;i-s)

Pub Works—Public Works. $5; single numbers 50c. m Public Works Journal Corp, 310 E 45th St, New York 17 (1v:Ja v85;i-r)

Pulp & Pa of Can—Pulp and Paper Magazine of Canada. $5; $10 in U.S.; single numbers 50c; $1 in U.S. m National Business Publications, Ltd, Gardenvale, Que. (1v:Ja v55; i-s)
Extra Convention number published in February, price $1; $2 in U.S.

Q S T—QST. $4; single numbers 50c. m American Radio Relay League, Inc, 38 La Salle Road, West Hartford 7, Conn. (1v:Ja v38;i-s)

RCA R—RCA Review. $2; single numbers 75c. q Radio Corporation of America, RCA Laboratories Division, Princeton, New Jersey (1v: Mr v15;i-s)

R Econ & Stat—Review of Economics and Statistics. $6; single numbers $2. q Harvard University Press, 322 Littauer Center, Cambridge 38, Mass. (1v:F v36;i-s)

R Sci Instr—Review of Scientific Instruments. $9; single numbers $1.25. m American Institute of Physics, 57 E 55th St, New York 22 (1v: Ja v25;i-s)
$7 to members of scientific societies

Radio & Tv N—Radio & Television News. $4; single numbers 35c. m Ziff-Davis Pub. Co, 366 Madison Av, New York 17 (2v:Ja,Jl v51-52;i-s)
Incorporating Communication Engineering and Tv and Radio Engineering in Radio-Electronic Engineering section April, 1954. Radio-Electronic Engineering section printed separately beginning May, 1954

Radio N. See Radio & Tv N

Rayon—Rayon and Synthetic Textiles. $5; single numbers 60c. m Rayon Pub. Corp, 303 Fifth Av, New York 16 (1v:Ja v33;i-s)
Name changed to Rayon and Synthetic Textiles beginning September, 1948; changed name to Modern Textiles Magazine September, 1952

Ref Shelf—The Reference Shelf. irr The H. W. Wilson Co, 958 University Av, New York 52

Refrig Eng—Refrigerating Engineering $4; single numbers 50c. m American Society of Refrigerating Engineers, 234 Fifth Av, New York 1 (1v:Ja v62;i-s)

Review of Economics and Statistics. See R Econ & Stat

Review of Scientific Instruments. See R Sci Instr

Reviews of Modern Physics. See Rs Mod Phys

Roads & Eng Constr—Roads and Engineering Construction. $3; $5 in U.S; single numbers 50c; 65c in U.S. m Monetary Times Printing Co. of Canada, Ltd, 341 Church St, Toronto 2, Ont. (1v:Ja v92;i-none)
Annual Directory number June, price $3 in Canada; $4 in U.S.

Roads & Sts—Roads and Streets. $5. m Gillette Pub. Co, 22 West Maple St, Chicago 10 (1v: Ja v97;i-none)

Rock Prod—Rock Products. $2; single numbers 25c. m Maclean-Hunter Pub. Corp, 309 W Jackson Blvd, Chicago 6 (1v:Ja v57;i-s)

Rough Notes—Rough Notes. $3; single numbers 35c. m Rough Notes Co, Inc, 1142 N. Meridian St, Indianapolis 6, Ind. (1v:Ja v97;i-s)

Roy Aeronautical Soc J—Journal of the Royal Aeronautical Society. £6 6s; single numbers 10s 6d. m Royal Aeronautical Society, 4 Hamilton Place, Piccadilly, London, W. 1 (1v:Ja v58;i-s)

Rs Mod Phys—Reviews of Modern Physics. $4. q American Institute of Physics, Inc, 57 E 55th St, New York 22 (1v:Ja v26;i-none)

Rubber Age—Rubber Age. $5; single numbers 50c. m Palmerton Pub. Co, Inc, 250 W 57th St, New York 19 (2v:Ap,O v75-76;i-s)

Rubber World—Rubber World. $5; single numbers 50c. m Bill Brothers Publishing Corporation, 386 4th Av, New York 16 (2v:Ap,O v130-131;i-s)
Formerly India Rubber World; changed June 1954

Ry Age—Railway Age. $14; single numbers 50c. w Simmons-Boardman Pub. Corp, 30 Church St, New York 7 (2v:Ja,Jl v136-137;i-r)
Annual Review and Outlook number, January 11, price $1
Regular issue alternates with a News Edition beginning March 2, 1953-February 22, 1954

Ry Loco & Cars—Railway Locomotives and Cars. $4; single numbers 50c. m Simmons-Boardman Pub. Corp, 30 Church St, New York 7 (1v:Ja v128;i-r)
Formerly Railway Mechanical and Electrical Engineer; changed January, 1953

Ry Mech & Elec Eng—Railway Mechanical and Electrical Engineer. $4; single numbers 50c. m Simmons-Boardman Pub. Corp, 30 Church St, New York 7 (1v:Ja v126;i-r)
Formerly Railway Mechanical Engineer; name changed to Railway Locomotives and Cars January, 1953

S A E J—S.A.E. Journal. $10; single numbers $1. m Society of Automotive Engineers, Inc, 29 W 39th St, New York 18 (1v:Ja v62;i-r)

Safety Eng—Safety Engineering. $4; single numbers 50c. m Alfred M. Best Co, Inc, 75 Fulton St, New York 7 (2v:Ja,Jl v99-100;i-s)
Name changed to Safety Maintenance and Production October, 1950

Safety Maint & Prod—Safety Maintenance and Production. $4; single numbers 50c. m Alfred M. Best Co, Inc, 75 Fulton St, New York 38 (2v:Ja,Jl v107-108;i-s)

Sales Management—Sales Management. $8; single numbers 50c. s-m Sales Management, Inc, 386 4th Av, New York 16 (2v:Ja,Jl v72-73;i-none)
Published semi-monthly except in May, September and November when it is published three times a month

Sci Am—Scientific American. $5; single numbers 50c. m Scientific American, Inc, 2 W 45th St, New York 36 (2v:Ja,Jl v190-191;i-s)

Science—Science. $7.50; single numbers 25c. w American Association for the Advancement of Science, 1515 Massachusetts Av. N.W, Washington 5, D.C. (2v:Ja,Jl v119-120;i-s)

Sewage & Ind Wastes—Sewage and Industrial Wastes. $7.50; single numbers $1. m Federation of Sewage and Industrial Wastes Associations, 325 Illinois Bldg, Champaign, Ill. (1v:Ja v26;i-s)

Sewage Works J—Sewage Works Journal. $5; single numbers $1. bi-m Federation of Sewage Works Associations, 325 Illinois Bldg, Champaign, Ill. (1v:Ja v21;i-s)
Name changed to Sewage and Industrial Wastes, January, 1950

Sheet Metal Worker—Sheet Metal Worker. $4; single numbers 40c. m Edwin A. Scott Pub. Co, 92 Martling Av, Tarrytown, New York (1v:O v46;i-s)
Name changed to Heating Air Conditioning Sheet Metal Contractor, September, 1954

Soap & Chem Spec—Soap and Chemical Specialties. $4 m MacNair-Dorland Co, Inc, 254 W 31st St, New York 1 (1v:Ja v30)
Annual index appears in Soap Blue Book which is sent to all subscribers

Soap & San Chem—Soap and Sanitary Chemicals. $4. m MacNair-Dorland Co, Inc, 254 W 31st St, New York 1 (1v:Ja v30)
Annual index appears in Soap Blue Book which is sent to all subscribers
Name changed to Soap and Chemical Specialties beginning May, 1954

Soc Chem Ind J—Journal of the Society of Chemical Industry. £2; single numbers 4s. m Society of Chemical Industry, 56 Victoria St, London, S.W. 1 (1v:Ja v69;i-s)
Name changed to Journal of Applied Chemistry January, 1951

Soc Dyers & Col J—Journal of the Society of Dyers and Colourists. £4. m Society of Dyers and Colourists, Dean House, 19 Piccadilly, Bradford 1, Yorkshire, England (1v:Ja v70; i-l)

Soc for Advan of Management J. See Advanced Management

Soc Motion Picture & Tv Eng J—Journal of the Society of Motion Picture and Television Engineers. $12.50; single numbers $1.50. m Society of Motion Picture Engineers, 55 W 42d St, New York 36 (2v:Ja,Jl v60-61;i-l)
Name changed to SMPTE Journal January, 1954

Soc Motion Picture Eng J—Journal of the Society of Motion Picture Engineers. $12.50; single numbers $1.50. m Society of Motion Picture Engineers, 342 Madison Av, New York 17 (2v:Ja,Jl v52-53;i-l)
Name changed to Journal of the Society of Motion Picture and Television Engineers January, 1950

Society of Automotive Engineers Journal. See S A E J

Special Lib—Special Libraries. $7; single numbers 75c. m (S-Ap) bi-m (My-Ag) Special Libraries Association, 31 E 10th St, New York 3 (1v:Ja v45;i-l)

Spectator—The Spectator. $3; single numbers 50c. m Chilton Co, Inc, Chestnut & 56th Sts, Philadelphia 39 (1v:Ja v162;i-s)
Life edition and Property edition merged, January 1952. Continues volume number of Life edition

Standardization—Standardization. $4; single numbers 35c. m American Standards Association. 70 E 45th St, New York 17 (1v:Ja v24;i-l)
Name changed to Magazine of Standards January, 1954

Steel—Steel. $7.50; single numbers 50c. w Penton Pub. Co, Penton Bldg, Cleveland 13, O. (2v:Ja,Jl v134-135;i-r)

Survey of Cur Bsns—Survey of Current Business. U.S. Department of commerce, Office of Business Economics. $3.25; single numbers 30c. m Superintendent of Documents, Washington 25, D.C. (1v:Ja v34;i-none)

Survey of Cur Bsns 1953 Sup. biennial U.S. Bureau of Foreign and Domestic Commerce. $1.50 Superintendent of Documents, Washington, D.C.

Tappi—Tappi. $7.50; single numbers $1. m Technical Association of the Pulp and Paper Industry, 155 E 44th St, New York 17 (1v:Ja v37;i-s)

Tech R—Technology Review. $4; single numbers 60c. m except (Ag, S, O) Massachusetts Institute of Technology, room 1-281, Cambridge 39, Mass. (1v:N v57;i-r)

Tele-Tech—Tele-Tech. $7; single numbers 75c. m Caldwell-Clements, Inc, 480 Lexington Av, New York 17 (1v:Ja v13;i-r)
Name changed to Tele-Tech & Electronic Industries January, 1954

Textile Col. See Am Dyestuff Rep

Textile Inst J—Journal of the Textile Institute. £3 10s; single numbers 6s. m Textile Institute, 10 Blackfriars St, Manchester 3, England (1v:Ja v45;i-l)
Published in two parts: Transactions; Proceedings, Standardisation and Abstracts

Textile Res J—Textile Research Journal. $15; single numbers $1.50. m Textile Research Institute, Inc, 10 E 40th St, New York 16 (1v: Ja v24;i-s)

Textile World—Textile World. $3; single numbers 50c. m McGraw-Hill Pub. Co, Inc, 330 W 42d St, New York 36 (1v:Ja v104;i-s)
Extra number published in Mid-November

Tool Eng—Tool Engineer. $6. m American Society of Tool Engineers, 10700 Puritan Av, Detroit 38 (2v:Ja,Jl v32-33;i-s)

Transactions of the American Society of Mechanical Engineers. See A S M E Trans

Trusts & Estates—Trusts and Estates. $5; single numbers 75c. m Fiduciary Publishers, Inc, 50 E 42d St, New York 17 (1v:Ja v93;i-s)

Tv Eng. See Commun Eng

U S Bur Labor Statistics Bul—United States Bureau of Labor Statistics. Bulletin. Distributed free of charge. U.S. Bureau of Labor Statistics, Washington, D. C.

† **U S Bur Mines Bul**—United States. Bureau of Mines. Bulletin. U.S. Bureau of Mines, Washington, D.C.

† **U S Bur Mines Information Circ**—United States. Bureau of Mines. Information Circular. U.S. Bureau of Mines, Washington, D.C.

† **U S Bur Mines Rep of Invest**—United States. Bureau of Mines. Reports of Investigations. U.S. Bureau of Mines, Washington, D.C.

† **U S Bur Mines Tech Pa**—United States. Bureau of mines. Technical Paper. U.S. Bureau of Mines, Washington, D.C.
Now included in Bulletin series, beginning with Bulletin 481

U S Geol S Bul—United States Geological Survey. Bulletin. U.S. Geological Survey, Washington, D.C.

U S Nat Advisory Com for Aeronautics—United States National Advisory Committee for Aeronautics, Washington, D.C. Annual reports.
Thirty-seventh annual report, 1951 including Technical Reports nos. 1003-1058

‡ **U S Nat Bur Stand**—United States. National Bureau of Standards, U.S. National Bureau of Standards, Washington, D. C.

U S Naval Inst Proc—United States Naval Institute Proceedings. $5; single numbers 50c. m United States Naval Institute, Annapolis, Md. (1v:Ja v80;i-r)

U S Women's Bur Bul—United States. Women's Bureau. Bulletin. U.S. Women's Bureau, Washington, D.C.

Water & San. See Munic Util

Water & Sewage Works—Water & Sewage Works. $3; single numbers 25c. m Scranton Pub. Co, 185 N Wabash Av, Chicago 1 (1v: Ja v101;i-l)

Weekly Underw—Weekly Underwriter. $5; single numbers 25c. w Underwriter Printing and Publishing Co, 116 John St, New York 38 (2v:Ja,Jl v170-171;i-l)

Welding J—Welding Journal. $7; single numbers $1. m American Welding Society, 33 W 39th St, New York 18 (1v:Ja v33;i-s)

Western Soc E J. See Midwest Eng

Westinghouse Eng—Westinghouse Engineer. $2.50; single numbers 50c. bi-m Westinghouse Engineer, P.O. Box 2278, 3 Gateway Center, Pittsburgh 30, Pa. (1v:Ja v14;i-r)

Wireless Eng—Wireless Engineer. £2 7s; U.S. and Canada $7.50; single numbers 3s 6d. m Iliffe & Sons, Ltd, Dorset House, Stamford St, London, S.E. 1 (1v:Ja v31;i-s)

World Oil—World Oil. $2; single numbers 50c. m Gulf Pub. Co, 3301 Buffalo Drive, Houston 6, Texas (2v:Ja,Jl v138-139;i-r)
Two issues February and August; second issues $1 each

† United States Bureau of Mines Publications for sale by Superintendent of Documents, Government Printing Office, Washington, D.C. Reports of Investigations and Information Circulars distributed by Bureau.

‡ The official (free) distribution of publications of the Bureau is limited to government offices, public libraries, educational institutions, scientific societies, and cooperating experts. Others may purchase them from the Superintendent of Documents, Government Printing Office, Washington, D.C.

Key to General Abbreviations

+	continued on later pages of the issue	Jl	July
abr	abridged	Mr	March
Ag	August	My	May
Ap	April	n s	new series
arch	architect	N	November
bibliog	bibliography	no	number
comp	compiled or compiler	O	October
cond	condensed	p	page
cont	continued	pl	plate
D	December	por	portrait
diag	diagram	pseud	pseudonym
ed	edited or edition or editor	pt	part
F	February	rev	revised
i	index	S	September
il	illustrations	sup	supplement
inc	incorporated	tr	translated or translation or translator
Ja	January	v	volume
Je	June	yrbk	yearbook

Sample entry: Incriminating stains. C. E. O'Hara and J. W. Osterburg. il Sci Am 188:58-60+ F '53

Explanation: An illustrated article with the title given above will be found in Scientific American, volume 188, pages 58-60 (continued on later pages of the same issue) the February 1953 number

Industrial Arts Index

A Cumulative Subject Index to Engineering, Trade and Business Periodicals

1954

ACTH
- Case of severe burns involving 65 per cent of body area. G. C. Truman. bibliog Ind Med 22:132-3 Mr '53
- N- and C-terminal amino acid sequences of α-corticotropin (ACTH). J. I. Harris and C. H. Li. bibliog Am Chem Soc J 76:3607-8 Jl 5 '54
- Oxygen consumption of adrenal slices from normal and scorbutic guinea pigs and the influence of added ACTH. R. W. McKee and J. K. Walker. bibliog Science 118:133-5 Jl 31 '53
- Quantitative amino acid analysis of sheep adrenocorticotropic (ACTH) protein. R. M. Mendenhall. bibliog Science 117:713-14 Je 26 '53
- Sequential and amino acid residue compositions of adrenocorticotropic hormone preparations of various levels of activity. S. W. Fox, T. L. Hurst and C. Warner. bibliog Am Chem Soc J 76:1154-7 F 20 '54
- Sheep glands yield hormone 150 times more powerful than ACTH; α-corticotropin. Chem & Eng N 32:2000 My 17 '54
- Studies on pituitary adrenocorticotropin; a C-terminal sequence of corticotropin-A. W. F. White. Am Chem Soc J 75:4877-8 O 5 '53
- Studies on pituitary adrenocorticotropin; further sequences near the C-terminus. W. F. White. Am Chem Soc J 76:4194-5 Ag 20 '54
- Studies on pituitary adrenocorticotropin; synthetic confirmation of three dipeptides from corticotropin-A. W. F. White and W. A. Landmann. Am Chem Soc J 76:4193-4 Ag 20 '54

AD-X2
- Academy names battery committee as Senate reopens hearings. Chem & Eng N 31:2691-2 Je 29 '53
- Battery battle; AD-X2 vs. NBS. il Chem W 72:20-2 Ap 25 '53
- Battery hearings set tests against testimonials. il Chem & Eng N 31:2784-5 Jl 6 '53
- Bureau of standards vindicated in AD-X2 dispute. Electrochem Soc J 101:sup25C-6C Ja '54
- Consumer protection big issue in Bureau of standard's uproar. Ptr Ink 243:19 Ap 10 '53
- Jeffries committee flunks AD-X2; reaffirms findings of NBS test results. il Chem & Eng N 31:4892-3 N 23 '53
- Post Office removes fraud order. Chem & Eng N 31:3554 Ag 31 '53
- Senate committee ends hearings, asks Postmaster to kill fraud order; National bureau of standards vs. Pioneers, inc. Chem & Eng N 31:2876+ Jl 13 '53
- Why the fight over AD-X2? J. Shoenfeld and J. H. Caldwell. il Sales Management 70:30-3 My 1 '53

AA. See Lava

ABANDONED quarries. See Quarries and quarrying—Abandoned quarries

ABERRATION (optics)
- Chromatic field aberration of the magnetic electron lens in the electron microscope. N. Morito. bibliog J Ap Phys 25:986-93 Ag '54
- Coma of modified Gregorian and Cassegrainian mirror systems. R. T. Jones. bibliog diags Opt Soc Am J 44:630-3 Ag '54
- Image sharpness in the central field of a system presenting third- and fifth-order spherical aberration. G. T. di Francia. bibliog diags Opt Soc Am J 43:827-35 O '53
- Improved optical test for spherical aberration. J. B. Saunders. il Opt Soc Am J 44:664 Ag '54
- Light distribution in the image of an incoherently illuminated edge. W. Weinstein. bibliog Opt Soc Am J 44:610-15 Ag '54

ABIES lasiocarpa. See Alpine fir

ABIETIC acid
- Preparation and reactions of methyl 9-oxo-14-hydroperoxydehydroabietate. P. F. Ritchie, T. F. Sanderson and L. F. McBurney. bibliog Am Chem Soc J 76:723-6 F 5 '54

ABILENE, Texas
- Action at Abilene lifts sales. W. C. Grant. Gas Age 114:25-7+ S 9 '54

Water supply
- Flood waters pumped to reinforce reservoir supplies. G. B. Arthur. il map Pub Works 85:93-4 Ag '54

ABILITY tests
- Building a human-relations test for supervisors. W. Osterberg and J. Chase. Personnel 30:261-5 Ja '54
- Coleman hired 60 men in 1948; why have 28 succeeded, 32 failed? B. Barnabas. Sales Management 72:74+ Je 1 '54
- How not to use psychological testing. Bsns W p 156 Ag 29 '53
- It pays to hire tested applicants; American trust co., Charlotte, N.C. E. S. Hamilton. il Banking 46:50-1+ N '53
- Special report on a test analysis of a group of time study men. C. A. Thomas. Advanced Management 18:13-18 Ag '53
- Test of the aptitude test; chemical manufacturers sidle away from aptitude tests for selecting salesmen. Chem W 74:42-4 Ja 23 '54
- Tests sought to help detect potential research people. Chem & Eng N 32:1346 Ap 5 '54
- There's talent in your plant. E. J. Benge. Factory Management 111:104-7 N '53
- Validity of using psychological selection procedures. E. K. Taylor and E. C. Nevis. Personnel 30:187-9 N '53

See also

Personality tests

ABRAMS, Allen, 1889-
- Allen Abrams; Industrial research institute's president. por Chem Eng 60:281 Jl '53

ABRASION
- Abrasion damage of textile fibers. G. Susich. bibliog il diags Textile Res J 24:210-28 Mr '54
- Abrasion resistance of fabrics when test units of abrasion are combined with test units of laundering, drycleaning and light. M. O. Zook and P. B. Mack. bibliog Am Dyestuff Rep 43:61-6 F 1 '54
- Abrasion resistance of some dry-process enamels. W. C. Spangenberg. Am Cer Soc J 37:48-51 F 1 '54

ABRASION—*Continued*

Abrasion resistant coatings sprayed on metal surfaces; Colmonoy Sprayweld process. W. G. Patton. il Iron Age 172:172-3 D 3 '53

Evaluation of a tensioning device for use with the Taber abraser. E. F. Thomas and G. S. Wham, jr. diags Am Dyestuff Rep 43:341-3 My 24 '54

How cotton-nylon blends improve abrasion resistance. A. Descheemaeker. Textile World 104:100 My '54

Proceedings of the international symposium on abrasion and wear. Metal Prog 65:162+ Je '54

Some properties affecting the abrasion resistance of air-entrained concrete. L. P. Witte and J. E. Backstrom. il Am Soc T M Proc 51:1141-53; Discussion. 1154-5 '51

ABRASIVE belts

Belt finishing of carbide tools proves effective. F. J. Lennon, jr. il diag Am Mach 98:104-7 F 1 '54

Belt grinding progress. il Steel 133:116+ S 14 '53

Contact wheels influence abrasive-belt performance. D. Olton. il Am Mach 98:121-3 Je 21 '54

Converting polishing lathes to use coated abrasive belts. J. J. Durnan. il diags Metal Finishing 52:62-3+ Ja '54

Cradle grinding makes abrasive belts more automatic; illustrations with text. Am Mach 98:153 F 15 '54

Facts about modern abrasive belt grinders. diags Mill & Factory 54:569 My '54

Finishing method lightens cutting problems. il Tool Eng 31:111 D '53

Finishing; procedure converts polishing lathe to use abrasive belt. il diag Iron Age 172:204-7 N 5 '53

Grinding 302 stainless; Stainless machine polishing co. Steel 134:138+ Je 7 '54

Hill Acme builds mammoth belt grinder. il Am Mach 98:185 Je 7 '54; Mach 60:247-8 Jl '54

Hill Acme special machine developed to taper wing sections. il Iron Age 173:148-9 Je 3 '54

Lubricants aid abrasive-belt grinding and polishing. J. Durnan. il Mach 60:173-6 F '54

ABRASIVES

Abrasive characteristics of alumina particles. A. S. Russell and J. E. Lewis. bibliog il diag Ind & Eng Chem 46:1305-10 Je '54

Abrasive wheel doubles tube cutting; Ryan aeronautical co. il Steel 133:79 D 28 '53

Abrasives; new uses to bombard new markets. Steel 135:59 Ag 2 '54

Abrasives; no worry over sales dip. G. G. Carr. il Iron Age 172:72 Jl 9 '53

Design new type kiln for abrasive wheels. G. B. Remmey. il diag Brick & Clay Rec 124:73-4+ Je '54; Same. Cer Ind 63:54+ Ag '54

Diatomite as an abrasive for cleaners and polishes for automobiles. L. E. Weymouth and P. A. Martinson. il map Soap & San Chem 30:139+ F '54

Facts about modern abrasives. diags Mill & Factory 54:576-7 My '54

Industrial abrasives. il diags Mill & Factory 55:87-94 S '54

Liquid abrasive blast machine. il Metal Finishing 52:90-1 Ap '54

Novel use for conveyor belting found in handling abrasives. il Iron Age 172:162 Ag 6 '53

Proper cutting of new abrasive drum covers keeps costs down. il diags Iron Age 172:172-3+ S 17 '53

Scientific storage for better grinding wheels; Electro refractories & abrasives corp. il Mill & Factory 54:102-3 Mr '54

Take your pick of a million grinding wheels. N. P. Robie. il Am Mach 98:114-16 Ag 2 '54

Use of diamond abrasives; abstract. C. R. Myer. Steel 133:116-17 D 21 '53

Why do abrasive cut-off wheels fail? E. J. DeWitt. il Mach 60:172-4 Je '54

See also

Abrasive belts

Corundum

Manufacture

Production of synthetic abrasives. A. W. Wilkinson. il Can Chem Process 38:42+ S '54

ABSENTEEISM (labor)

Absenteeism in industry; Mill & Factory survey. Mill & Factory 54:69-70 Mr '54

Bigness and morale. Economist 169:983-4 D 26 '53

Discharge for absenteeism under union contracts. E. Ahern. Personnel J 32:173-7 O '53

Frequency, duration, costs studied for prolonged illness; Research council study. G. Hirschfeld. Spectator 162:81-92 My '54

How company controls absenteeism; Farmers casualty co. J. R. McGuire. Am Bsns 24:30+ Mr '54

Industrial sickness absenteeism; rates for specific causes in 1952 for the year and last two quarters. W. M. Gafafer. Pub Health Rep 68:1052-5 N '53

Life stress and absenteeism. Safety Maint & Prod 106:49 N '53

Putting the brakes on absenteeism; abstract. Management R 42:444 Ag '53

Report of subcommittee on absenteeism due to illness for 1952. Am Gas Assn Proc 1953:214-20

Spot lighting off-the-job ills. Bsns W p 118 Ag 8 '53

ABSOLUTE temperature. See Temperature, Absolute

ABSORBENTS

Preparation of a carbonate-free solid absorbent for carbon dioxide. G. A. Consolazio, C. W. Chagnon and B. Manning. Anal Chem 25:1136 Jl '53

Quick and fancy on the draw; mineral absorbents. R. A. Hogan. il Mill & Factory 54:92-3 Ja '54

Thirsty granules; absorbents get rid of many hazards under foot. W. A. Jaffee. il Nat Safety N 68:42+ D '53; Safety Maint & Prod 108:19-20+ S '54

ABSORPTIOMETER

Absorptiometric colorimetry in the textile laboratory. C. H. Giles and I. S. Shaw. bibliog(32 ref) diags Soc Dyers & Col J 69:481-91 D '53; Abstract. Am Dyestuff Rep 43:318 My 10 '54

Absorptiometric determination of iron using cupferron. R. S. Beckwith. Chem & Ind p663 Je 5 '54

Absorptiometric determination of nickel with beta-mercaptopropionic acid. J. B. Lear and M. G. Mellon. bibliog Anal Chem 25:1411-12 S '53

Infrared absorptiometry for quantitative determination of boron hydrides in presence of pentaborane. L. V. McCarty, G. C. Smith and R. S. McDonald. Anal Chem 26:1027-31 Je '54

Nitrous fume absorptiometer. D. V. Sinkinson. bibliog plan Chem & Ind p 1003-4 Ag 14 '54

Some aspects of absorptiometric analysis; abstract. T. B. Smith. bibliog Chem Age (Lond) 68:847-52 Je 6 '53

Submersible photoelectric absorptiometer. L. J. Scragg and others. diags J Sci Instr 31:75-7 Mr '54

ABSORPTION

Absorption of carbon dioxide in agitated sodium carbonate-bicarbonate solutions. S. G. Bedekar. bibliog diags J Ap Chem 3:524-7 N '53

Absorption of chrysophenine G by cotton and by acidic oxycelluloses. M. M. Bilsbury and others. bibliog Textile Inst J Trans 45:T 1-20 Ja '54

Absorption of divalent bases on nylon fibers. F. T. Wall and P. M. Saxton. bibliog J Phys Chem 58:86-90 Ja '54

Absorption of hydrochloric acid in wetted-wall absorbers. C. J. Dobratz and others. bibliog plan Chem Eng Prog 49:611-16 N '53

Absorption of sulfur dioxide in cylinder zone oil films in a Diesel engine. F. A. M. Buck. bibliog Ind & Eng Chem 46:1318-21 Je '54

Apparatus for automatically recording the absorption of oxygen. J. C. E. Button and A. J. Davies. il diags J Sci Instr 30:307-10 S '53

CO_2 absorption employing hot potassium carbonate solutions. H. E. Benson, J. H. Field and R. M. Jimeson. bibliog flow sheets il diags Chem Eng Prog 50:356-64 Jl '54

ABSORPTION—*Continued*
Chemical engineering unit operations; absorption and humidification. M. Leva. bibliog(45 ref) Ind & Eng Chem 46:61-3 Ja '54
Determination of nitrogen content of noble gases. H. S. Dombrowski. bibliog diag Anal Chem 26:526-8 Mr '54
Direct dyeing of cellulose; method for the analysis of equilibrium absorption data in terms of current quantitative theories. H. A. Standing. bibliog Textile Inst J Trans 45:T21-9 Ja '54
Gas absorption and aerosol collection in a Venturi atomizer. H. F. Johnstone, R. B. Feild and M. C. Tassler. bibliog Ind & Eng Chem 46:1601-8 Ag '54
Interfacial resistance; gas absorption in falling liquid films. R. E. Emmert and R. L. Pigford. bibliog diags Chem Eng Prog 50: 87-93 F '54
Manometric method for study of solid-gas reactions at moderate temperatures. P. Souter, J. R. Willimott and T. G. Hunter. bibliog il Anal Chem 26:484-7 Mr '54
Process kinetics; kinetics of gas-liquid reactions. R. H. Perry and R. L. Pigford. Ind & Eng Chem 45:1247-53 Je '53
Recovery of soluble gas and aerosols from air streams. E. M. Berly, M. W. First and L. Silverman. bibliog diags Ind & Eng Chem 46:1769-77 S '54
Selective absorption of hydrogen sulfide from synthesis gas. H. W. Wainwright and others. bibliog il Ind & Eng Chem 45:1378-84 Je '53
Selective absorption of optical antipodes by proteins. W. Bradley and R. A. Brindley. Chem & Ind p579-80 My 15 '54
Use of liquid films in the study of the absorption of gases by drops. B. E. Dixon and J. E. L. Swallow. il diags J Ap Chem 4:86-93 F '54
See also
Adsorption
Sound—Absorption

ABSORPTION apparatus
Carbon dioxide removal unit built for navy's Nautilus. il Chem & Eng N 32:3304 Ag 16 '54
Centrifugal gas absorbers; symposium abstracts. diag Chem & Eng N 32:1688+ Ap 26 '54
Don't count bubble caps out. il Chem Eng 61:128+ My '54
Effect of packing supports on mechanical operation of packed towers. M. Leva, J. M. Lucas and H. H. Frahme. diags Ind & Eng Chem 46:1225-8 Je '54
Efficient absorption trap for noxious gases. I. A. Kaye and others. diags J Chem Educ 31:266 My '54
Generalized correlation of flooding rates. B. C. Sakiadis and A. I. Johnson. bibliog(26 ref) Ind & Eng Chem 46:1229-39 Je '54
How to design and evaluate absorbers. R. J. Hull and K. Raymond. Oil & Gas J 52:163 N 9; 339 N 16; 111-12 N 23; 101-2 N 30; 141-2 D 7; 153-4 D 14; 101-2 D 28 '53; 97-8 Ja 4; 123-4 Ja 11; 121-2 Ja 18 '54
Instrumentation of packaged gasoline plants. T. D. Tabbert. diags Instruments 26:1367-9, 1414 S '53
Kaskades threaten bubble-caps. il diags Chem Eng 61:124+ My '54
Liquid-liquid extraction at high flow rates in a spray tower. J. F. Fleming and H. F. Johnson. bibliog flow diag il Chem Eng Prog 49:497-502 S '53
Liquid-liquid spray-tower operation in heat transfer. L. Garwin and B. D. Smith. bibliog flow diags il diags Chem Eng Prog 49: 591-602 N '53
Modified Nesbitt absorption bottle. C. F. Ellis and H. G. Durham. diag Anal Chem 25:1430 S '53
Sieve trays. D. C. Lee, jr. il diag Chem Eng 61:179-82 My '54
Three new tray designs; Uniflux, float-valve and Flexitray. V. O. Bowles and others. il diags Chem Eng 61:171-8 My '54
See also
Absorptiometer

ABSORPTION coefficients
Optical constants of silver, gold, copper, and aluminum; the absorption coefficient *K*. L. G. Schulz. bibliog diags Opt Soc Am J 44:357-62 My '54

ABSORPTION of rays
Absorption cells for use with hydrogen fluoride and halogen fluoride solutions. J. J. Katz and H. H. Hyman. diags R Sci Instr 24:1066-7 N '53
Absorption of millimeter waves in dielectric solids. W. L. Brooks and others. diags Opt Soc Am J 43:1191-4 D '53
Anomalous optical absorption limit in InSb. E. Burstein. diag Phys R 93:632-3 F 1 '54
Automatic measurement of light absorption and fluorescence on paper chromatograms. J. A. Brown and M. M. Marsh. il Anal Chem 25:1865-9 D '53
Construction of 1 mm and 0.2 mm absorption cells for use in an ultra-violet spectrophotometer. J. H. Linford. diags J Sci Instr 30:435 N '53
Continuous-flow cell for absorption measurements on solutions which fade. G. P. Cooke. diag J Sci Instr 31:180-1 My '54
Demountable infrared gas-absorption cell. B. M. Mitzner and S. Z. Lewin. il Anal Chem 26:1254 Jl '54
Effect of pressure on the optical absorption of the activator system in KCl:Tl. P. D. Johnson and F. E. Williams. Phys R 95: 69-70 Jl 1 '54
Five-centimeter absorption cell for spectrophotometry with limited volumes. B. L. Vallee. diags Anal Chem 25:985-7 Je '53
Hydrogen determination and liquid analysis with a beta-particle absorption apparatus. V. N. Smith and J. W. Otvos. il diags Anal Chem 26:359-66 F '54
Infrared photoconductivity due to neutral impurities in germanium. E. Burstein and others. bibliog diag Phys R 93:65-8 Ja 1 '54
Long path gas absorption cell. R. G. Pilston and J. U. White. il diag Opt Soc Am J 44: 572-3 Jl '54
Measurement of reflectivity and absorption of a transparent solid. J. C. S. Richards. J Sci Instr 31:262 Jl '54
Optical absorbance in nitric acid-nitrogen dioxide-water system. S. Lynn, D. M. Mason and B. H. Sage. bibliog il Ind & Eng Chem 46:1953-5 S '54
Optical absorption of single-crystal strontium titanate. J. A. Noland. Phys R 94:724 My 1 '54
Self-absorption correction in carbon-14 counting. E. K. Gora and F. C. Hickey. bibliog Anal Chem 26:1158-61 Jl '54
Special absorption cell for routine photometric determinations. R. W. Blake and M. K. Patterson, jr. diag Anal Chem 25: 1002 Je '53
See also
Beer's law
Black body
Sound—Absorption
X rays—Absorption

ABSTRACT writing
Glancing at Soviet abstracts. Chem & Eng N 32:764 F 22 '54
Russians critical of Anglo-American methods of abstracting scientific information. il Chem & Eng N 31:2888+ Jl 13 '53

ABSTRACTS
Outracing the treadmill; Nopco chemical co. librarian abstract bulletin. Chem W 73: 43+ N 28 '53
Soviet abstracts a-borning. R. Liepina. Chem & Eng N 31:4819 N 16 '53
Three chemical abstract journals. E. J. Crane. Chem & Eng N 32:2990 Jl 26 '54
See also
Chemical abstracts (periodical)

ABSTRACTS of title
Public operation and regulation of the abstracting business. H. Ellis and R. Barlowe. bibliog Land Econ 29:117-27 My '53

ACACIA
Gum of acacia pycnantha. E. L. Hirst and A. S. Perlin. Chem Soc J p2622-7 Jl '54
Isolation from acacia melanoxylon of a flavan-3 : 4-diol and its possible bearing on the constitution of phlobatannins. F. E. King and W. Bottomley. bibliog Chem & Ind p 1368 D 19 '53

ACADEMIC dissertations. See Dissertations, Academic

ACADEMIC freedom
New directions for education. J. T. Rettaliata. J Chem Educ 31:88 F '54

ACADIA forest experiment station. See Forestry research

ACCELERATION of machinery. See Machinery, Kinematics of

ACCELERATORS (particles)

Achromatic beam translation systems for use with the linear accelerator. W. K. H. Panofsky and J. A. McIntyre. il diags R Sci Instr 25:287-90 Mr '54

Alternating gradient electrostatic focusing for linear accelerators. L. C. Teng. bibliog R Sci Instr 25:264-8 Mr '54

Computer for solving some problems in connexion with travelling-wave particle accelerators. M. C. Crowley-Milling. bibliog il diags J Sci Instr 31:100-4 Mr '54

Low voltage 14-Mev neutron source. S. G. Forbes and others. diags R Sci Instr 24:424-7 Je '53

Portable 250-kilovolt accelerator. T. A. Bergstralh and others. il diag R Sci Instr 24:417-19 Je '53

Screening of neutral particles in high voltage ion accelerator tubes. K. Firth and D. R. Chick. diags J Sci Instr 30:117-18 Ap '53

Transmutation by means of particle accelerators; abstract. K. F. Chackett. Chem & Ind p 1012 S 26 '53

Well logging with a van de Graaff. il Chem & Eng N 32:1020 Mr 15 '54

Yale and University of California to get first heavy particle, linear accelerators. Chem & Eng N 32:2200 My 31 '54

See also

Betatron
Cyclotron
Electron accelerators
Proton accelerator
Synchrotron

ACCELEROMETERS

Acceleration effects on electron tubes. F. W. Stubner. bibliog il diags Bell System Tech J 32:1203-29 S '53

Cemented piezoelectric accelerometers. E. Jones. R Sci Instr 24:1151 D '53

Gusts and their measurement; abstract. J. Taylor. Engineering 176:765 D 11 '53

High-speed stroboscope for accelerometer calibration. P. G. Sulzer and others. diags R Sci Instr 25:837-8 Ag '54

Theory of the manometer accelerometer. D. Steen and D. Casey. diags R Sci Instr 24:1021-8 N '53

ACCEPTANCES

Acceptances and commercial paper outstanding, 1949-1952. Survey of Cur Bsns 1953 Sup p79 [supplemented in monthly numbers]

Commercial paper and bankers' acceptances outstanding, Dec. 1947-1951 and monthly Nov. 1952-Nov. 1953. Fed Res Bul 40:54 Ja '54 [cont monthly]

ACCEPTING houses. See Discount companies

ACCIDENT and health underwriters, Bureau of. See Bureau of accident and health underwriters

ACCIDENT and health underwriters, international association of. See International association of accident and health underwriters

ACCIDENT insurance. See Insurance, Accident

ACCIDENTS

Accident cost in '53 was $9,700,000,000. J. D. Dorsett. Weekly Underw 171:729 S 25 '54

Accidents now great death cause for young people. Life Ins Courant 58:55 O '53

Controlling off-the-job accidents; abstract. Management R 42:261-2 My '53

Enormous accident toll presents direct challenge to industrial and business leaders; abstracts. J. D. Dorsett. Weekly Underw 170:1163 My 8 '54; East Underw 55:41 My 14 '54

Two boys killed playing on aluminum pipe span. Gas Age 113:46 My 6 '54

See also

Airlines—Accidents
Automobile accidents
Aviation—Accidents
Bridge accidents
Building accidents
Burns and scalds
Chemical laboratories—Accidents
Electricity, Injuries from
Explosions
Fires
First aid in illness and injury
Gas companies—Accidents
Grade crossing accidents
Insurance, Accident
Motor trucks—Accidents
Negligence
Petroleum industry and trade—Accidents
Railroads—Accidents
Safety devices and measures
Shaft sinking—Accidents

Psychological aspects

Accident repeaters analyzed. A. H. Malo. Weekly Underw 170:300+ Ja 30 '54; Abstracts. East Underw 55:28 Ja 29 '54; Nat Underw 58:30 F 4 '54

How driver attitudes cause many accidents. G. U. Cleeton. Safety Maint & Prod 106:35-7+ N '53

Mind behind the accident. J. W. Kirkwood. Nat Safety N 68:28-9+ D '53

Psychology aids auto safety. il Spectator 161:22-3 Ag '53

See also

Accidents, Industrial—Psychological aspects

Records

Take a fresh look at your safety program; effective control center for your driver safety program. E. G. Quesnel. Bus Transportation 33:40-1 Ag '54

Statistics

Accident barometer. Published in monthly numbers of National safety news

Accidents in 1953. Nat Safety N 69:72 Mr '54

Mortality tables, eighty-three cities listed with their total deaths, rates, and deaths from homicide, suicide, automobile accidents and accidents in the home. Spectator 161:74-6 Ag '53

ACCIDENTS, Industrial

Accidents can be predicted. D. F. Hayes. Nat Safety N 69:24-5+ Ap '54

Attack accidents at their source. J. D. Gallagher. Constr Methods 36:144+ Je '54

Cases for comment (cont). R. D. Gidel, comp. Nat Safety N 68:56+ N; 45 D '53; 69:58-9 Ja; 58 F; 58 Ap; 40 My; 52+ Je; 70:64+ Jl; 54+ Ag; 58+ S; 154+ O '54

Control of the environment in the prevention of industrial accidents. B. H. Harvey. bibliog A M A Archives Ind Hygiene & Occup Med 7:529-36 Je '53

Different look at safety. E. F. du Pont. Nat Safety N 69:18-19+ Je '54; Same. Advanced Management 19:5-7 Jl '54; Same cond. Safety Maint & Prod 108:9-10+ Jl '54

Film portrays big equipment accidents; safety film called The gamblers. il Constr Methods 36:74-5+ F '54

Help small business to keep employees safe; Mutual casualty companies grant aids work of National safety council. Weekly Underw 171:352 Ag 14 '54

How to have an accident. A. G. Larke. il Dun's R & Mod Ind 62:51-3 S '53

Industrial hygiene engineers reduce accidents and time lost; Westinghouse electric corp. il Elec Eng 72:1041-2 N '53

Job injuries a national disgrace. J. P. Mitchell. Chem & Eng N 32:2038 My 17 '54

Letter from a ship builder. W. H. Reynolds. Nat Safety N 68:50+ N '53

Lowest recorded accident figures; annual report of chief inspector of factories. Chem Age (Lond) 71:31-4 Jl 3 '54

Molten metal miracle. il Nat Safety N 70:80 S '54; Same. Safety Maint & Prod 108:25-6 O '54

National safety council reports excellent work; fewer on-the-job accidents. Weekly Underw 169:214 Jl 25 '53

1953 all-industry safety record shows gain; pulp, paper improve. Paper Ind 36:506-7 Ag '54

President's safety conference outlines nine-point program to reduce annual injuries. R. G. Gibbs. Chem & Eng N 31:4504+ N 2 '53

Preventing office accidents; abstract. T. J. McInery. Management R 42:587-8 O '53

Safety contests cut accident rate; Lehigh structural steel co. G. J. Neumann. Iron Age 173:67-8 Jl 1 '54

Self insurance system improves safety record; Ryan aeronautical co. M. M. Clancy. Iron Age 173:104-5 Je 24 '54

What price accidents? Nat Safety N 69:250+ Mr '54

ACCIDENTS, Industrial—*Continued*

Why accidents happen; abstract. W. A. Eggert. Management R 42:276-7 My '53

See also

Building accidents

Burns and scalds

Coal mines and mining—Safety measures

Disabled—Rehabilitation

Electricity, Injuries from

Employers' liability

Explosions

First aid in illness and injury

Mine accidents

Royal society for prevention of accidents

Safety devices and measures

Workmen's compensation

also subdivision Accidents under special subjects, e.g.

Chemical plants

Coal mines and mining

Lumbering

Paper and pulp mills

Petroleum industry and trade

Railroads

Rubber factories

Cost

Accident costs are many things. P. W. Beedle. Nat Safety N 70:20-1+ Ag '54

Accidents demand action; in our food plants they far exceed strike losses. I. C. Miller. Food Eng 26:66-8+ Jl '54

Kill the cause and cut the cost. W. B. Johnston. Am Gas Assn Mo 36:22-3+ F '54

Selling safety is a continuous job. D. Gidel. Pulp & Pa of Can 55:186+ Jl '54

Psychological aspects

Closer look at accident proneness. M. S. Schulzinger. bibliog Nat Safety N 69:32-3+ Je '54

Monotony; silent partner of accidents. Management R 42:532 S '53

People who get hurt. G. Gordon. Nat Safety N 69:20-1+ F '54

Phenomenon of accident proneness. A. G. Arbous and J. E. Kerrich. bibliog Ind Med 22:141-8 Ap '53

See also

Safety devices and measures—Psychological aspects

Statistics

American industries improve their safety record in 1953. Gas Age 114:20 Jl 29 '54

Death rate down two per cent, 1953. A. D. Battey. map Nat Safety N 70:26-9+ Ag '54

Injury rates, by industry, 1952. Safety Maint & Prod 107:30 Ja '54

Injury rates in manufacturing, third quarter, 1952. Mo Labor R 76:138-41 F '53

Manufacturing injuries low for half of '53. Safety Maint & Prod 107:26 F '54

Preliminary estimates of work injuries in 1952. Mo Labor R 76:282-3 Mr '53

Quarterly injury rates. Safety Maint & Prod 107:58 Je '54

Work injuries in the United States during 1952; collection of basic work-injury data for each of the major industries. F. S. McElroy and R. S. Barker. U S Bur Labor Statistics Bul 1164:1-41; pa 30c Supt. of doc. '54

Work injury rate improved in 1953. Nat Underw 59:19 F 25 '54; Safety Maint & Prod 107:47 My '54

ACCIDENTS in the home

Do-it-yourself pains. Bsns W p 102-3 D 26 '53

See also

Safety in the home

ACCOMMODATION coefficients

Comparative study of accommodation coefficients by the temperature jump and low-pressure methods and thermal conductivities of He, Ne, and CO_2. L. B. Thomas and R. C. Golike. bibliog diag J Chem Phys 22:300-5 F '54

ACCOUNTANTS

Accountant and engineer; working partners. A. E. Carlson. diags N A C A Bul 34:1633-41 Ag '53

Accountant's part in a competitive economy. E. T. Price. N A C A Bul 34:1507-15 sec 3 Jl '53

Better organization; what the accountant can do. M. Smith. N A C A Bul 34:1143-50 My '53

For cost accountants and engineers only. P. C. Taylor. N A C A Bul 35:1613-21 Ag '54

Growing responsibilities of the industrial accountant. M. A. Moore. N A C A Bul 35:1564-74 Ag '54

Industrial accountant; profit maker. S. D. Flinn. N A C A Bul 34:1135-42 My '53

Out-reach of industrial accounting. P. C. Taylor. N A C A Bul 34:959-64 Ap '53

Practitioners forum. D. Fagerberg, jr., ed. J Account 97:715-16+ Je '54 [cont monthly]

Role of the accountant in direct-placement financing. E. R. Morris. J Account 98:82-8 Jl '54

See also

Accounting departments

Accounting ethics

Working papers

Brief guide for preparing good audit work papers. R. S. Johns. J Account 98:45-53 Jl '54

Theory and practice of accountants' workpapers. S. Chan. J Account 97:329-34 Mr '54

ACCOUNTANTS, Public

Appeal to accountants for aid in tax administration. B. F. White. J Account 98:197-200 Ag '54

Banker-CPA cooperation on business audits. A. R. Jennings. Burroughs Clearing House 37:10-11 S '53

Challenge to the profession on its standards of admission. D. M. Beights. J Account 97:421-7 Ap '54

Five practical problems solved by public accounting firms. J Account 97:441-8 Ap '54

Increasing opportunities for independent public accounts. D. G. Mitchell. J Account 98:89-90 Jl '54

New developments in auditing by independent certified public accountants. A. R. Jennings. J Account 96:37-47 Jl '53

Obligations of the independent public accountant to his profession. V. Tilly. J Account 95:714-15 Je '53

One firm's approach to its administrative problems. R. S. Bogue. J Account 97:599-602 My '54

Three necessary elements in recruitment of staff and in maintaining efficiency and morale. C. E. Johnson. J Account 96:695-702 D '53

Valuation of goodwill in a professional practice. J Account 96:361-2+ S '53

What does it take to be a successful independent public accountant? R. E. Witschey. J Account 97:64-70 Ja '54

What manner of man is the average accountant? R. Jacobs and A. E. Traxler. J Account 97:465-9 Ap '54

See also

Montgomery, Robert Heister

Accounting

Accounting for time charges in a public accounting practice. M. R. Reich. J Account 97:307-11 Mr '54

Client relations

Accountant's proper course of action when he recognizes a client's life insurance needs. M. D. Bachrach. J Account 95:594-6 My '53

Building and keeping a clientele requires basic analysis and military tactics. D. Fagerberg, jr. J Account 96:460-3 O '53

Do you hold on to tax clients who have moved far away? J Account 98:116+ Jl '54

Expressing opinion when client has investment in unaudited joint venture. J Account 97:220-1 F '54

How to use the client's personnel to save audit time before the actual audit begins. J. W. Porter. J Account 96:193-6 Ag '53

What are the common aims of bankers, accountants, and businessmen-borrowers? W. G. F. Price. J Account 96:474-7 O '53

Employees

Easy way for the small firm to inaugurate staff meetings. J Account 98:231-2 Ag '54

Increasing importance of staff training programs. E. M. Boulter. J Account 98:173-8 Ag '54

ACCOUNTANTS, Public—Employees—*Cont.*

Ethics

See Accounting ethics

Examinations

Examination in auditing. J Account 97:350-7 Mr '54

Examination in theory of accounts; Nov. 6, 1953. J Account 97:470-8 Ap '54

Play-by-play description of how a CPA exam is created, administered, and graded. H. W. Bevis. J Account 96:298-308 S '53

Preparing examination candidates; a challenge to the profession. R. E. Kesler. J Account 98:154+ Ag '54

Uniform certified public accountant examination in accounting practice, May 1954. J Account 98:96-108, 209-18 Jl-Ag '54

Uniform certified public accountant examination in auditing, May 13, 1954. J Account 98:384-91 S '54

Uniform certified public accountant examination in commercial law. J Account 97:609-18 My '54

Uniform certified public accountant examination, May, 1953. J Account 95:747-64 Je '53

Uniform certified public accountant examination, Nov. 1953. J Account 96:748-65 D '53

Fees

English accountants show concern for fees; universal problem. J Account 96:225-6 Ag '53

Law

Appeals court upholds conviction of accountant for failing to produce tax records. J Account 96:110+ Jl '53

California court rules against CPA in tax fee suit on grounds of unauthorized practice of law. J Account 98:219-30 Ag '54

Fifth circuit holds accountants must produce client's tax records, though state law grants privilege. J Account 96:238-42 Ag '53

Procedures the auditor should carry out to determine events after statement date. W. Powell. J Account 95:709-13 Je '53

Records

Filing, storage, and disposal of accounting office records. J Account 98:232+ Ag '54

Service

Accountant's position in the field of taxation. M. E. Richardson. J Account 98:166-72 Ag '54

Advisory service to business; its rewards and hazards. A. Christen. J Account 97:460-4 Ap '54

CPAs and bankers help each other to help their clients. A. R. Jennings. J Account 95:706-8 Je '53

Facts for CPA installing new bookkeeping system and equipment in company not previously a client. A. H. Blair. J Account 96:68-71 Jl '53

ACCOUNTANTS' fees. See Accountants, Public—Fees

ACCOUNTANTS' liability insurance. See Insurance, Accountants' liability

ACCOUNTANTS' reports

Accountant auditing statement of SEC-registered company has a responsibility to public as well as to management. E. P. Tremper. J Account 97:214-15 F '54

Are your reports scrap? K. O'Neil. N A C A Bul 36:82-3 S '54

Auditor's report on municipal revenue bonds. W. F. Morgan. J Account 97:316-20 Mr '54

Can you give an unqualified opinion on a proprietorship W. R. Flack. J Account 97:603-4 My '54

Consider the needs of the reportee. D. S. Moffitt. N A C A Bul 35:200-4 O '53

Drafting audit report before final examination saves time for client, accountant and clerical staff. A. A. Harvey. J Account 96:224-5 Ag '53

Emphasis on reporting, not calculation, could settle income statement controversy. R. K. Mautz. J Account 96:212-16 Ag '53

How accurate is your basic cost reporting? R. L. Feldkamp. N A C A Bul 35:787-8 F '54

Increasing productivity through control reports. W. Langenberg. N A C A Bul 34:982-93 Ap '53

Inquiry into internal reporting. R. D. Hay. N A C A Bul 34:1206-19 My '53

Is standard report form too long? J Account 97:347-8 Mr '54

Long-form reports analyzed. J Account 96:479-80 O '53

Personal development for report writing. A. E. Schneider. N A C A Bul 34:1201-5 My '53

Pitfalls in reporting on unaudited statements in published reports. J Account 98:92-3 Jl '54

Problems encountered by accountant when expressing an opinion on cash-basis statements. G. M. Hill. J Account 96:309-15 S '53

Recent modifications of the standard short-form audit report. J. J. Lang. J Account 97:480-2 Ap '54

Reporting, for profit's sake. R. E. Longenecker. N A C A Bul 35:1551-63 Ag '54

Reporting omission of extended procedures. J Account 96:619-20 N '53

Reports to management. N A C A Bul 36:190-2 sec 3 S '54

Review of internal reports and reporting. M. B. Basson. N A C A Bul 36:3-10 S '54

Robert Morris associates proposes aid to banks in appraising audit reports. J Account 98:201-3 Ag '54

Simplified management reports. R. A. Delaney. Pub Util 53:830-2 Je 24 '54

Some examples of useful variations in the modern short-form audit report. J. H. Myers. J Account 96:588-99 N '53

Survey of audit reports submitted to 300 banks. J Account 98:185-8 Ag '54

ACCOUNTING

Beware of the expense item that looks deceptively like a capital outlay. G. O. Podd. J Account 95:609-12 My '53

CPA's problem when restrictive clauses in loan agreements are unclear or inconsistent. R. Baldwin. J Account 96:190-2 Ag '53; Discussion. E. R. Morris. 97:150+; Reply. 153-4 F '54

Classifying borrowings under revolving-credit agreements on the balance-sheet. J Account 95:716-18 Je '53

Credit to French amity; visit of French team to study accounting methods and policies in America. Credit & Fin Management 56:21+ Ja '54

Creep. R. L. Dixon. J Account 96:48-55 Jl '53

Development of criteria to guide accountant in judging materiality. S. M. Woolsey. J Account 97:167-73 F '54

European view of management accountancy in the United States. N A C A Bul 35:977-9 Ap '54

Financial presentation when deficit exceeds capitalization. J Account 98:203-5 Ag '54

Improper accounting for discount on mortgages purchased. J Account 96:729-30 D '53

Looking forward to a faster annual closing. E. R. Hoffman. N A C A Bul 35:236-45 O '53

New technique for the accountant. J. R. Evans. N A C A Bul 35:512 D '53

Practitioners forum. D. Fagerberg, jr., ed. J Account 97:715-16+ Je '54 [cont monthly]

SEC annual report discusses accounting principles and procedures. J Account 95:602-3 My '53

Stabilized accounting; time for a try-out. L. A. Engelhardt. bibliog N A C A Bul 34:973-81 Ap '53

Statistical control aids management-by-exception. R. K. Mueller. il N A C A Bul 34:1297-306 Je '53

Summaries of discussions held by seven industry groups. N A C A Bul 34:1733-71 sec 3 Ag '53

Today's challenge. A. H. Smith. N A C A Bul 35:1679-90 sec 3 Ag '54

Umpires in management. R. H. Taylor. Am Pet Inst Proc 33(1):59-62 '53

Use of accounting information for increasing sales. S. D. Flinn. N A C A Bul 35:731-6 F '54

Use of statistics in accounting control. R. M. Trueblood. N A C A Bul 34:1561-71 sec 3 Jl '53

ACCOUNTING—*Continued*

What they (economists) say about us (accountants). J. L. Dohr. J Account 96: 167-75 Ag '53; Discussion. E. H. Weinwurm. 97:149; Reply. 149-50 F '54

Work measurement in accounting operations; abstract. W. D. Little. Management R 42: 267 My '53

Writing down carrying value of abandoned mineral land. J Account 98:93-4 Jl '54

See also

Accountants, Public
Accounts receivable
Amortization
Assets, Fixed
Auditing
Bank accounting
Billing
Budget, Business
Capital
Cash accounting
Cost accounting
Depletion
Depreciation
Financial ratios
Financial statements
Foundry accounting
Good will (in business)
Government accounting
Laboratory accounting
Microfilm records
Municipal accounting
Punched card system
Time keeping

also subdivision Accounting under special subjects, e.g.

Air lines
Building trades
Containers, Returnable
Contractors
Contracts, Government
Electric utilities
Factories
Gas companies
Heat treatment shops
Hospitals
Income
Income tax
Industrial research
Insurance companies
Inventories
Labor cost
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Motor trucks in freight service
Payrolls
Pensions, Industrial
Petroleum—Well drilling
Petroleum industry and trade
Petroleum refineries
Public health departments
Public utilities
Radio advertising
Railroads
Sales costs
Textile mills
Trusts and trustees

Bibliography

Books and other items recommended for the tax practitioner's library. J Account 96:80-1 Jl '53

Current books and articles. Published in monthly numbers of Journal of accountancy

References for accounting practice, May 1954. J Account 98:95-6 Jl '54

References for auditing examination. J Account 98:208-9 Ag '54

References for theory examination. J Account 97:349-50 Mr '54

Errors

Common errors in evaluating economy proposals. A. O. Schroeder. N A C A Bul 35:785-6 F '54

How to find transposition errors by expanding the arithmetical rule of nine. F. T. Neely. J Account 96:470-3 O '53

Inflation problem

Indictment of the accounting profession for failing to deal with effects of inflation. M. E. Peloubet. J Account 96:714-22 D '53

Laws and regulations

How far do the courts go in upholding accounting principles for determining income. S. I. Simon. bibliog(151 ref) J Account 96: 683-94 D '53

U.S. Supreme court decisions affecting public utility depreciation. S. Davidson. J Account 96:331-5 S '53

Mechanical aids

Achieving greater productivity in accounting through integrated data processing. H. F. Van Gorder. il diags N A C A Bul 35:1708-31 sec 3 Ag '54

Challenge of electronic equipment. E. S. Calhoun. N A C A Bul 34:1267-79 Je '53

Distribution of overhead with electronic calculators. G. G. Jewett. J Account 97:698-701 Je '54

Electronic accounting possibilities. J. Pelej. N A C A Bul 34:1516-31 sec 3 Jl '53

Electronics seminar, New York, Oct. 7-8. Am Gas Assn Mo 35:13-14 N '53

How Alexander Film cut errors with new system. il Am Bsns 23:14-15+ D '53

How does accounting stand with electronics? J. S. Warshauer. il N A C A Bul 34:965-72 Ap '53

How five major companies use the electronic calculator. H. O. Brayer. il Am Bsns 23:18-19+ N '53

How will business electronics affect the auditor's work? J. Pelej. J Account 98: 36-44 Jl '54

Integrated data processing and common language office machines. R. A. Rietz. N A C A Bul 35:1319-20 Je '54

Job formerly requiring 300 hours now completed in 50 hours; electronic computer for accounting jobs. P. Hirsch. il Am Bsns 24:19+ Je '54

Lyons electronic office. il Elec J 152:667 F 26 '54

Practical application of electronic equipment to accounting. J. M. Theis. N A C A Bul 35:1732-9 sec 3 Ag '54

Punched-tape system enables three people to do work of 20 people; Sunland-Tujunga telephone co. B. Kruse. il Am Bsns 24:14-15+ Jl '54

Survey of available electronic computers, and what they can do for modern businesses. G. G. Jewett. J Account 96:182-9 Ag '53

System produces 55 percent saving in card handling; Security life and accident co. il Am Bsns 23:12-13+ N '53

See also

Banks and banking—Tellers' machines
Bookkeeping machines
Punched card system
Tabulating machines

Standards

Process of developing accepted accounting standards. J. W. Queenan. J Account 98: 58-65 Jl '54

Study and teaching

For greater educational emphasis on industrial accounting. E. H. Weinwurm. N A C A Bul 35:784-5 F '54

Organizing and operating a successful internship program. B. Futhey. J Account 97:587-92 My '54

Using of N.A.C.A. publications in teaching. J. H. Kempster. N A C A Bul 34:1618-25 Ag '53

Terminology

For better public reporting of production costs. S. K. Atkinson. N A C A Bul 34:1575-87 Ag '53

Why not use accounting terminology? R. A. Miller. N A C A Bul 34:1642-5 Ag '53

ACCOUNTING, State. See State accounting

ACCOUNTING departments

Accounting service to supervisors. D. B. Woomer. Ry Age 136:70-1+ F 8 '54

Industrial accountant; profit maker. S. D. Flinn. N A C A Bul 34:1135-42 My '53

ACCOUNTING ethics

Conformance to auditing standards by all accountants is necessary. J Account 96:730-1 D '53

Value to the individual professional man of strict adherence to his code of ethics. L. G. Kelly. J Account 96:577-81 N '53

ACCOUNTING manuals

Accounting manuals; the gradual buildup method. L. L. Sweet. N A C A Bul 35:546-7 D '53

Defense department adds to contract audit manual. H. W. Wright. N A C A Bul 35: 623-6 Ja '54

ACCOUNTS receivable

Holding the account receivable in line. Credit & Fin Management 55:8-9+ Jl '53; Discussion. W. J. Richards. 55:40-1 S '53

Statistical sampling applied to aging of accounts receivable. R. M. Trueblood and R. M. Cyert. J Account 97:293-8 Mr '54

Tax provision for uncollected profit on installment accounts receivable. J Account 96: 346-8 S '53

Which? open invoice or ledger sheets; symposium. E. L. Porter and others. Credit & Fin Management 55:8-11+ Je '53; Discussion. F. W. Zander. 55:40 S '53

ACCOUNTS receivable insurance. See Insurance, Accounts receivable

ACCUMULATORS, Hydraulic. See Hydraulic accumulators

ACENAPHTHENE

Pinacol rearrangement of *cis-* and *trans*-1,2-di-*o*-tolyl- and di-*p*-tolylacenaphthenediols-1,2. R. F. Brown. bibliog Am Chem Soc J 76:1279-80 Mr 5 '54

ACENAPHTHONE

Analgesics derived from tetrahydroacenaphthones. H. J. Glenn and B. W. Horrom. Am Chem Soc J 76:3640-2 Jl 20 '54

ACETALDEHYDE

Acetyl bromide as a possible intermediate in the reaction of acetaldehyde with bromine in aqueous ethanol. N. N. Lichtin and F. Granchelli. bibliog Am Chem Soc J 76:3729-30 Jl 20 '54

Brown condensation products from acetaldehyde and aliphatic amines. J. F. Carson and H. S. Olcott. bibliog Am Chem Soc J 76:2257-9 Ap 20 '54

Chlorination of acetaldehyde. W. T. Cave. bibliog diags Ind & Eng Chem 45:1853-6 S '53

Condensation of 2-naphthol with acetaldehyde ammonia. W. J. Burke and R. J. Reynolds. bibliog Am Chem Soc J 76:1291-3 Mr 5 '54

Mechanism of thiamine-catalyzed reactions. S. Mizuhara and P. Handler. bibliog Am Chem Soc J 76:571-3 Ja 20 '54

Thermal decomposition of acetaldehyde. F. O. Rice and R. E. Varnerin. bibliog Am Chem Soc J 76:2629-33 My 20 '54

Analysis

Reaction of acetaldehyde with 5,5-dimethyl-1,3-cyclohexanedione. G. W. Gaffney, W. A. Williams and H. McKennis, jr. bibliog Anal Chem 26:588-9 Mr '54

Manufacture

Formaldehyde and acetaldehyde. diag Pet Refiner 32:120-1 N '53

ACETALS

3-Acylacetamidobenzaldehyde ethylene glycol acetals. J. O. Corner and E. L. Martin. Am Chem Soc J 76:3593-4 Jl 5 '54

Addition of acetals to olefin oxides. O. C. Dermer and A. M. Durr, jr. Am Chem Soc J 76:912-13 F 5 '54

Conformations of cyclic acetals. J. A. Mills. bibliog Chem & Ind p633-4 My 29 '54

$\Delta^{5,7}$-Steroids; steroidal cyclic ketals; transformation products of Reichstein's substance S. R. Antonucci, S. Bernstein and R. H. Lenhard. bibliog Am Chem Soc J 76:2956-9 Je 5 '54

Formation of cyclic ethylene ketals from *cyclo*hexenones. R. H. Jaeger and H. Smith. bibliog Chem & Ind p 1106-7 S 4 '54

Preparation of ethylenethioketals. L. F. Fieser. bibliog Am Chem Soc J 76:1945-7 Ap 5 '54

Reaction of ketone divinylacetal with various nitro compounds. H. Feuer and W. H. Gardner. Am Chem Soc J 76:1375-6 Mr 5 '54

Analysis

Determination of aldehydes in the presence of ketones and procedure for acetals. H. Siegel and F. T. Weiss. bibliog Anal Chem 26:917-19 My '54

ACETAMIDE

Polarographic studies in non-aqueous media; formamide-acetamide mixtures. J. H. Hook, H. Letaw, jr. and A. H. Gropp. bibliog J Phys Chem 58:81-3 Ja '54

Analysis

Determination of phenylacetic acid and phenylacetamides in samples from penicillin fermentations. S. C. Pan and D. Perlman. bibliog diag Anal Chem 26:1432-8 S '54

ACETAMIDOMETHOXYFLUORENE

2-Acetamido-7-methoxyfluorene. J. H. Weisburger and E. K. Weisburger. Chem Soc J p758-9 F '54

ACETAMIDOSALICYLIC acids

Reduction of 4-amino- and 4-acetamido-salicylic acids. A. A. Goldberg and R. S. Theobald. Chem Soc J p2641 Jl '54

ACETANILIDE

Some new 2,6-disubstituted-ω-dialkylamino-acetanilides. L. S. Fosdick and J. A. Carbon. bibliog Am Chem Soc J 76:1296-8 Mr 5 '54

ACETATE fibers

Acetate blends improved by combination resin finish; abstract. F. Fortess and others. Textile World 103:139 D '53

Acetate blends of improved performance. F. Fortess and others. il Am Dyestuff Rep 42:851-64 D 7 '53

Acetate rayon and static; abstract. C. W. North. Am Dyestuff Rep 42:476 Jl 20 '53

Application of electron microscopy to the study of cellulose acetate fibers. V. Peck and W. Kaye. bibliog il Textile Res J 24:300-6 Ap '54

Cellulose acetate as a raw material for rayon production; abstract. A. R. Urquhart. Am Dyestuff Rep 43:676 S 27 '54

Factors influencing the soiling of acetate carpets. F. Fortess and C. E. Kip. flow sheet il Am Dyestuff Rep 42:349-59 Je 8 '53

Flame-proofing cellulose acetate; abstract. Am Dyestuff Rep 42:765-6 N 9 '53

New acetate develops wool-like crimp. il Mod Textiles Mag 35:30-1 Ag '54

Pioneering starts tomorrow; Kenneth Clarke Loughlin. R. E. Ellsworth. Mod Textiles Mag 35:35+ Ap '54

Production and properties of solution-dyed acetate. P. F. Flamm. Textile Res J 24:357-61 Ap '54

Progress in acetate. il Mod Textiles Mag 35:43-4 S '54

Rayon and acetate and manufactures, 1949-1952. Survey of Cur Bsns 1953 Sup p 188 [supplemented in monthly numbers]

Solvent etching of cellulose acetate specimens for electron microscopy. V. Peck and W. Kaye. bibliog il Textile Res J 24:295-300 Ap '54

Standard method of test for fluidity of cotton, rayons and cellulose acetate in cuprammonium hydroxide solution. diags Textile Inst J 45:S 18-26 Ap '54

See also

Dyes and dyeing—
Acetate fibers

Moisture content

Some aspects of the drying and heating of textiles; modifications produced by thermal treatments of acetate rayon fibres. J. M. Preston and M. V. Nimkar. Soc Dyers & Col J 69:201-2 Je '53

Testing

Effect of rate of extension on the tensile behaviour of viscose and acetate rayons, silk and nylon. R. Meredith. bibliog diags Textile Inst J Trans 45:T30-43 Ja '54

Rapid test for gas-fading resistance of dyed cellulose acetate fabrics. H. M. Friedman. il Am Dyestuff Rep 43:597-8 Ag 30 '54

ACETATES

Association of acetate with ammonium and guanidinium ions. C. Tanford. Am Chem Soc J 76:945-6 F 5 '54

Biosynthesis of streptomycin; studies with C-14-labeled glycine and acetate. P. Numerof and others. bibliog Am Chem Soc J 76:1341-4 Mr 5 '54

Conversion of acetate and pyruvate to tyrosine in yeast. R. C. Thomas and others. bibliog Am Chem Soc J 75:5554-6 N 20 '53

Participation of thioctic acid in the acetate-activating reaction. G. R. Seaman. Am Chem Soc J 76:1712-13 Mr 20 '54

Polarographic characteristics of metallic cations in acetate media. M. A. DeSesa and others. Anal Chem 25:983-4 Je '53

Preparation and reactions of steroidal $\Delta^{17,(20)}$-enol acetates. H. V. Anderson and others. bibliog Am Chem Soc J 76:743-6 F 5 '54

Reaction of peracids with $\Delta^{20(21)}$-steroid enol acetates. R. B. Moffett and G. Slomp, jr. bibliog Am Chem Soc J 76:3678-82 Jl 20 '54

Some reactions of epoxides of steroid enol acetates. A. H. Soloway and others. bibliog Am Chem Soc J 76:2941-3 Je 5 '54

Structure of the acetate $C_{32}H_{46}O_5$(O_5 acetate) derived from β-amyrin. L. C. McKean and F. S. Spring. Chem Soc J p 1989-92 Je '54

Studies of steroid ring D epoxides of enol acetates: a new synthesis of estriol and of androstane-3β,16α,17β-triol. N. S. Leeds, D. K. Fukushima and T. F. Gallagher. bibliog Am Chem Soc J 76:2943-8 Je 5 '54

ACETATES—*Continued*

Thermal and dielectric properties of crystalline long-chain acetates. R. J. Meakins and J. W. Mulley. bibliog J Chem Phys 21: 1934-9 N '53

See also

Cellulose acetate

Mercury acetate

Vinyl chloroacetate

ACETIC acid

Acidity function of perchloric acid in aqueous acetic acid. F. J. Ludwig and K. H. Adams. bibliog Am Chem Soc J 76:3853-4 Jl 20 '54

Antispasmodics; β-diethylaminoethyl esters of substituted acetic and glycidic acids. F. F. Blicke, J. A. Faust and H. Raffelson. bibliog Am Chem Soc J 76:3161-3 Je 20 '54

Carbon isotope constitution of some acetic acids. P. E. Yankwich and A. L. Promislow. Am Chem Soc J 75:4881-2 O 5 '53

Conductances of some salts and ion-pair equilibria in acetic acid at 30°. M. M. Jones and E. Griswold. Am Chem Soc J 76:3247-9 Je 20 '54

Decomposition of benzoyl peroxide in glacial acetic acid. M. T. Gladstone. bibliog Am Chem Soc J 76:1581-3 Mr 20 '54

Dimerisation of 1-methyl*cyclo*hexene by formic or acetic acid containing perchloric acid. G. F. Bloomfield. Chem Soc J p3329-30 O '53

Dimethylaniline as an aid in acetic acid-water separation. L. Garwin and P. O. Haddad. Ind & Eng Chem 45:1558-62 Jl '53

Effect of some salts on the solubility of potassium bromide in acetic acid at 30°. E. Griswold, M. M. Jones and R. K. Birdwhistell. bibliog Am Chem Soc J 75:5701-4 N 20 '53

Effect of water on the vapor phase dissociation of acetic acid. B. Levy and T. W. Davis. bibliog Am Chem Soc J 76:3268-9 Je 20 '54

Epimeric 5-hydroxy-2-ketocyclohexaneacetic acids. E. M. Fry. Am Chem Soc J 76:284-5 Ja 5 '54

High frequency titrations of organic bases in glacial acetic acid with perchloric acid. W. F. Wagner and W. B. Kauffman. bibliog diag Anal Chem 25:538-40 Ap '53

Kinetics of aromatic halogen substitutions; the intermediates involved in halogenation in acetic acid solution. P. W. Robertson. Chem Soc J p 1267-70 Ap '54

Reference electrode for potentiometric titrations in glacial acetic acid. R. A. Glenn. diag Anal Chem 25:1916-17 D '53

Stability of metal chelates; 3-hydroxypropyliminodiacetic and 2-hydroxyethyliminodipropionic acids. S. Chaberek, jr. and A. E. Martell. bibliog Am Chem Soc J 76:215-18 Ja 5 '54

Studies in the indole series; oxindole-3-acetic acid. P. L. Julian and others. bibliog Am Chem Soc J 75:5305-9 N 5 '53

See also

Trifluoroacetic acid

Manufacture

Air-oxidation of butane; new celanese process used in Pampa plant to make acetic acid, allied products. D. P. Thornton, jr. il diag Pet Processing 8:1041-4 Jl '53

High acetic acid yield obtained by Celanese at Pampa plant. G. L. Farrar. flow diag il Oil & Gas J 52:119-22 Ag 10 '53

Three new ways to produce acetic acid; patents. diags Chem Eng 60:350+ D '53

Spectrum

Preliminary work on the microwave spectrum of acetic acid. J. H. N. Loubser. J Chem Phys 21:2231-2 D '53

Structure of the associated OH valence vibration band in light and heavy acetic, trichloroacetic, and trifluoroacetic acids. N. Fuson and M.-L. Josein. bibliog Opt Soc Am J 43:1102-5 N '53

Study of the association of some organic acids by infrared absorption measurements. J. T. Harris, jr. and M. E. Hobbs. bibliog Am Chem Soc J 76:1419-22 Mr 5 '54

ACETIC anhydride

Dehydration of some β-benzamido-acids with acetic anhydride. C. C. Barker. Chem Soc J p317-19 Ja '54

Dielectric constant of trifluoroacetic anhydride and related compounds. J. M. Tedder. Chem Soc J p2646-7 Jl '54

Now, anhydride from acetone; Courtaulds, ltd. il diag Chem Eng 61:114-16 F '54

Preparation of acyl trifluoroacetates from trifluoroacetic anhydride. W. D. Emmons, K. S. McCallum and A. F. Ferris. Am Chem Soc J 75:6047-8 D 5 '53

Reactions of *p*-dimethylaminochalcones with acetic anhydride. G. Branch and J. F. Thomas. Am Chem Soc J 76:2176-7 Ap 20 '54

Titration of weak bases in acetic anhydride solvent mixtures. J. S. Fritz and M. O. Fulda. Anal Chem 25:1837-9 D '53

Manufacture

Production of acetic anhydride from acetone. W. G. Daroux. bibliog flow sheets il diags J Ap Chem 3:241-52 Je '53

ACETOACETATES

Use of monosubstituted acetocetic esters in the Robinson reaction. A. V. Logan and others. bibliog Am Chem Soc J 76:4127-30 Ag 20 '54

ACETOACETIC acid

Derivatives of acetoacetic acid; a new route to α-acetyltetronic acids. R. N. Lacey. Chem Soc J p832-9 Mr '54

Derivatives of acetoacetic acid; a synthesis of 1 : 3-oxazine derivatives employing diketen. R. N. Lacey. Chem Soc J p845-9 Mr '54

Derivatives of acetoacetic acid; α-acetyltetramic acids. R. N. Lacey. Chem Soc J p850-4 Mr '54

Derivatives of acetoacetic acid; the pyrolysis of acetoacetates of ethynylcarbinols. R. N. Lacey. Chem Soc J p827-32 Mr '54

Derivatives of acetoacetic acid; the reaction of diketen with 1 : 2- and 1 : 3-ketols to give γ- and δ-lactones. R. N. Lacey. Chem Soc J p816-22 Mr '54

Derivatives of acetoacetic acid; the reaction of diketen with thioureas, amidines, guanidines, and *S*-substituted thioureas. R. N. Lacey. Chem Soc J p839-44 Mr '54

Derivatives of acetoacetic acid; the rearrangement of 3-acyl-2 : 5-dihydrofuran-2-one derivatives to furan-3-carboxylic acids. R. N. Lacey. Chem Soc J p822-6 Mr '54

Derivatives of acetoacetic acid; the synthesis of coumarins from aryl acetoacetates. R. N. Lacey. Chem Soc J p854-60 Mr '54

ACETOACETYLMETHYL phenol

2-Acetoacetyl-4-methylphenol as a reagent for primary amines. J. B. Harborne and A. S. Weaving. Chem Soc J p 1157-8 Mr '54

ACETOBACTER

Biosynthesis of C^{14}-specifically labeled cellulose by acetobacter xylinum; from D-glucose-1-C^{14} with and without ethanol. F. W. Minor and others. bibliog Am Chem Soc J 76:1658-61 Mr 20 '54

[^{14}C]-cellulose from acetobacter acetigenum. E. J. Bourne and H. Weigel. Chem & Ind p 132 Ja 30 '54

Structural studies of the cellulose synthesised by acetobacter acetigenum. K. S. Barclay and others. Chem Soc J p 1501-5 My '54

ACETOLYSIS

Acetolysis of some carbohydrate benzyl ethers. R. Allerton and H. G. Fletcher, jr. bibliog Am Chem Soc J 76:1757-60 Ap 5 '54

Nature and behaviour of ion pairs in acetolysis. S. Winstein and others. Chem & Ind p664-5 Je 5 '54

Structure of jervine; the sulfuric acid-catalyzed acetolysis of O,N-diacetyljervine. O. Wintersteiner and M. Moore. bibliog Am Chem Soc J 75:4938-44 O 20 '53

ACETONAPHTHALIDE. See Naphthylacetamide

ACETONE

Acetone picture broadens. Chem & Eng N 32:1946 My 10 '54

Colorimetric microdetermination of boron by the curcumin-acetone solution method. L. Silverman and K. Trego. bibliog Anal Chem 25:1264-7 Ag '53

Conductimetric studies in ketonic solvents; acetone as solvent. J. F. J. Dippy and S. R. C. Hughes. Chem Soc J p953-8 Mr '54

ACETONE—*Continued*

Continuous method for synthesis of mesitylene from acetone. K. A. Kobe and L. J. Hirth. bibliog flow diag Pet Processing 9: 92-3+ Ja '54

Dipole moment of acetone in the liquid, dissolved, and gaseous states. A. D. Buckingham and R. J. W. Le Fèvre. Chem Soc J p4169-70 D '53

Dissociation constant of lithium bromide in acetone. A. R. Olson and J. Konecny. bibliog Am Chem Soc J 75:5801-2 D 5 '53

Examination of the iodoform and Schmidt reactions of acetone-1-C_{14} for isotope effects. G. A. Ropp and others. Am Chem Soc J 76:1710-11 Mr 20 '54

Formation of formaldehyde in the photo-oxidation of acetone. M. I. Christie. bibliog Am Chem Soc J 76:1979-81 Ap 5 '54

Kinetics of the reactions of *O*-acylglycosyl bromides with amines in acetone. N. B. Chapman and W. E. Laird. bibliog Chem & Ind p20-1 Ja 2 '54

Now, anhydride from acetone; Courtaulds, ltd. il diag Chem Eng 61:114-16 F '54

Oxidation of the radicals produced in acetone photolysis. R. R. Hentz. bibliog Am Chem Soc J 75:5810-14 D 5 '53

Phenol, acetone, isopropanol; cumene process recasts trio's future. H. K. Nieuwenhuis. Chem W 72:30-9 My 2 '53

Photolysis of acetone. J. R. McNesby and A. S. Gordon. bibliog Am Chem Soc J 76: 1416-18 Mr 5 '54

Production of acetic anhydride from acetone. W. G. Daroux. bibliog flow sheets il diags J Ap Chem 3:241-52 Je '53

Production of phenol and acetone from oxidation of cumene starts. il Chem & Eng N 31: 2298 Je 1 '53

Pyrolysis and photolysis of acetone-d_6 in the presence of methane. J. R. McNesby and A. S. Gordon. Am Chem Soc J 76:4196-8 Ag 20 '54

Pyrolysis of mixtures of acetone and acetone-d_6. J. R. McNesby, T. W. Davis and A. S. Gordon. bibliog Am Chem Soc J 76: 823-7 F 5 '54

Reactions of methyl radicals with acetone, diethyl ketone, and di-*tert.*-butyl peroxide. G. O. Pritchard, H. O. Pritchard and A. F. Trotman-Dickenson. Chem Soc J p 1425-8 My '54

Simultaneous measurement of phase equilibria and integral isobaric heats of vaporization. J. A. Tallmadge and L. N. Canjar. bibliog Ind & Eng Chem 46:1279-81 Je '54

Analysis

Ternary methanol-ethanol-acetone and three related binary solutions. H. H. Amer, R. R. Paxton and M. Van Winkle. bibliog Anal Chem 25:1204-6 Ag '53

Manufacture

BA-Shawinigan petrochemicals plant; phenol and acetone from cumene. il Chem Age (Lond) 70:513-16 F 27 '54

Berre plant first in France to produce acetone from petroleum. il Oil & Gas J 52:111-12+ S 7 '53

Canada makes phenol, acetone from cumene. H. C. Plummer. flow diag il Pet Eng 25: C27-8+ S '53

French plants make alcohols, solvents, detergents. V. S. Swaminathan. flow chart il Pet Eng 25:C 19+ N '53

Montreal's new petrochemical plant. G. S. Williamson. flow chart il Pet Eng 26:C37-9 Ja '54

Synthesis of petrochemicals; phenol, acetone from cumene. A. L. Foster. il Pet Eng 25:C3-4 N '53

ACETONITRILE

Condensations of substituted benzaldehydes with *m*- or *p*-acetylphenylacetonitrile. K. Rorig. bibliog Am Chem Soc J 75:5381-3 N 5 '53

ACETOPHENONE

Colorimetric determination of fluoride. M. L. Nichols and A. C. Condo, jr. bibliog Anal Chem 26:703-7 Ap '54

Nitration and hydroxylation of phenetole, phenyl *n*-propyl ether, and acetophenone by pernitrous acid. R. B. Heslop and P. L. Robinson. Chem Soc J p 1271-3 Ap '54

Reactivity of phenacyl halides. C. Eaborn. bibliog Chem & Ind p930 Jl 24 '54

Reduction of 4-methyl-3-nitroacetophenone. O. L. Brady and P. E. Halstead. Chem Soc J p4176-7 D '53

ACETOXYCHOLESTENONE

Rearrangement of 6β-bromo-Δ^4-cholestene-3-one to 2α-acetoxy-Δ^4-cholestene-3-one. L. F. Fieser and M. A. Romero. bibliog Am Chem Soc J 75:4716-19 O 5 '53

ACETOXY compounds

Studies in the steroid group; oxidation of 5α-hydroxy- and 5α-acetoxy-$\Delta^{7:9}$-steroids. P. Bladon and others. Chem Soc J p2916-21 O '53

ACETYLACETONE

Acetylacetone as an analytical extraction agent. J. F. Steinbach and H. Freiser. bibliog Anal Chem 26:375-9 F '54

Acetylacetone in the dual role of solvent and reagent in extraction of metal chelates. J. F. Steinbach and H. Freiser. bibliog Anal Chem 25:881-4 Je '53

ACETYL bromide

Acetyl bromide as a possible intermediate in the reaction of acetaldehyde with bromine in aqueous ethanol. N. N. Lichtin and F. Granchelli. bibliog Am Chem Soc J 76:3729-30 Jl 20 '54

ACETYLCHOLINE

Anticholinesterases; function of acetylcholine and cholinesterase. W. Feldberg. Chem & Ind p593-4 My 22 '54

ACETYLCHOLINESTERASE

Nature of the acetyl cholinesterase surface; some potent competitive inhibitors of the enzyme. S. L. Friess and W. J. McCarville. Am Chem Soc J 76:1363-7 Mr 5 '54

Nature of the acetyl cholinesterase surface; the ring effect in enzymatic inhibitors of the substituted ethylenediamine type. S. L. Friess and W. J. McCarville. bibliog Am Chem Soc J 76:2260-1 Ap 20 '54

ACETYL compounds

Acetyl derivatives of moderately strong organic bases; abstract. M. A. Phillips. Chem Age (Lond) 68:930 Je 20 '53

Methanolysis of some acetyl derivatives of cevine. W. J. Rosenfelder. Chem Soc J p2638-9 Jl '54

ACETYL group

Anionotropic systems; the kinetics of the rearrangement of 3-hydroxy-3 : 5-dimethylhex-4-en-2-one; the effect of an acetyl group on anionotropic mobility. E. A. Braude and C. J. Timmons. Chem Soc J p3138-43 O '53

Vapor-phase free radical addition-elimination; replacement of acetyl by methyl. J. N. Pitts, jr. R. S. Tolberg and T. W. Martin. Am Chem Soc J 76:2843-4 My 20 '54

ACETYLNAPHTHOL. See Hydroxyacetonaphthone

ACETYLPYRIDINE

3-Acetylpyridine analog of DPN. N. O. Kaplan and M. M. Ciotti. Am Chem Soc J 76: 1713-14 Mr 20 '54

ACETYLATION

Acetylation of cyclohexene. H. Burton and P. F. G. Praill. Chem & Ind p75 Ja 16 '54

Acetylation of 17α-hydroxy steroids. R. B. Moffett and H. V. Anderson. Am Chem Soc J 76:747-9 F 5 '54

Acetylation of paper for chromatography. J. E. Scott and L. Golberg. Chem & Ind p48-9 Ja 9 '54

Acetylation of paper for use in chromatography. H. S. Burton. Chem & Ind p 1229-30 N 14 '53

Acetylation of some sulfapyrimidines. J. B. Ziegler and A. C. Shabica. bibliog Am Chem Soc J 76:594-5 Ja 20 '54

Acetylation reactivity of cellulose containing salts. C. J. Malm and others. Ind & Eng Chem 46:557-61 Mr '54

Chemical reactivity of ethylamine-treated cotton as indicated by acetylation. L. Loeb and L. Segal. bibliog Textile Res J 24:654-8 Jl '54

Distribution of isomers in the acetylation of *t*-butylbenzene. J. C. Butler, L. L. Ferstandig and R. D. Clark. bibliog Am Chem Soc J 76:1906-8 Ap 5 '54

ACETYLATION—*Continued*

Effect of time and temperature of presoaking and the temperature of acetylation on the rate and degree of acetylation of cotton fibers. J. L. Taylor and E. D. Owens. bibliog il Textile Res J 24:810-19 S '54

Friedel-Crafts acetylation of chrysene. W. Carruthers. Chem Soc J p3486-9 N '53

Novel acetylation of quercetin 3,3′,4′,7-tetramethyl ether (5-hydroxy-3,3′,4′,7-tetramethoxyflavone). J. H. Looker and F. C. Ernest. bibliog Am Chem Soc J 76:294 Ja 5 '54

Practical partial acetylation of cotton. E. M. Buras, jr. and others. bibliog flow sheets diags Am Dyestuff Rep 43:203-8 Mr 29 '54; Abstract. Textile World 103:143 D '53

Rapid acetylation of impregnated cellulose. J. C. Thomas. bibliog Am Chem Soc J 75:5346-50 N 5 '53

Semimicrodetermination of acetylation equivalents of alcohols. R. E. Kepner and A. D. Webb. diags Anal Chem 26:925-7 My '54

Suitability of wood pulp for acetylation. J. R. Proffitt and others. bibliog diags Tappi 37:28-32 Ja '54

ACETYLENE

Acetylene a factor in autoignition. Pet Processing 8:1907-9 D '53

Acetylene studies; Diels-Alder reactions with methylchloroprene. E. D. Bergmann. J Ap Chem 3:145-6 Ap '53

Addition of free radicals to unsaturated systems; the direction of radical-addition to alkyl- and perfluoroalkyl-acetylenes. K. Leedham and R. N. Haszeldine. Chem Soc J p 1634-8 My '54

Billion-pound beginning; U.S. moves into second place among acetylene leaders. Chem W 73:71-2+ D 5 '53

Commercializing the triple bond; Air reduction chemical co. il Chem & Eng N 32:1466-7 Ap 12 '54

Effect of pressure on intensity of some electronic transitions in SF_6, C_2H_2 and C_2D_2 vapors in the vacuum ultraviolet region. E. D. Nostrand and A. B. F. Duncan. Am Chem Soc J 76:3377-9 Jl 5 '54

Engineered for pressures; General Aniline & Film plant for high-pressure acetylene derivatives. il Chem W 74:58 Ap 24 '54

Excited acetylene; abstract. C. K. Ingold. Chem & Eng N 32:1584 Ap 19 '54

Ionization potentials of substituted acetylenes by electron impact. J. L. Franklin and F. H. Field. bibliog Am Chem Soc J 76:1994-7 Ap 5 '54

Mercury-photosensitized reactions of tritium with acetylene and ethylene. L. Kaplan. bibliog Am Chem Soc J 76:1448-9 Mr 5 '54

New markets for acetylene. il Chem & Eng N 32:3032-4 Ag 2 '54

Removing acetylene from gas streams by selective hydrogenation. H. W. Fleming and others. bibliog Pet Refiner 32:138-9+ S '53

Studies with acetylenes; some reactions of Grignard reagents with alk-1-ynyl and alk-1-enyl halides. H. K. Black, D. H. S. Horn and B. C. L. Weedon. Chem Soc J p 1704-9 Je '54

Synthesis of *cis*- and *trans*-octadecenes; selective catalytic hydrogenation of acetylenes. B. B. Elsner and P. F. M. Paul. Chem Soc J p3156-60 O '53

Thermodynamics of combustion gases; temperatures of acetylene-air flames. R. W. Smith, jr. and others. bibliog U S Bur Mines Rep of Invest 5035:1-14 '54

Vinyl chloride from acetylene; Naugatuck chemical co. diag Pet Refiner 32:134-5 N '53

Vinyl chloride from dilute acetylene gases. R. E. Lynn, jr. and K. A. Kobe. bibliog(34 ref) flow sheets il diags Ind & Eng Chem 46:633-43 Ap '54

See also

Oxyacetylene cutting
Oxyacetylene flame
Oxyacetylene welding

Manufacture

Acetylene concentration. flow sheet Chem & Eng N 32:397 F 1 '54

Acetylene generator. il Iron & Steel Eng 31:192+ F '54

DMF-acetylene recovery solvent. W. B. Howard and others. flow sheet il diag Pet Refiner 33:143-6 Ja '54

Linde Air Products acetylene generator. il Blast F & Steel Pl 42:708 Je '54

Recent developments in Wulff acetylene. M. J. P. Bogart and R. H. Dodd. bibliog flow diag il Chem Eng Prog 50:372-5 Jl '54

Sachsse acetylene. diag Pet Refiner 32:120-1 N '53

Successful acetylene synthesis; Wulff process. R. Sneddon. flow chart il Pet Eng 26:C5-8 Ja '54

Wulff acetylene; Fluor corp. diag Pet Refiner 32:118-19 N '53

Wulff process. N. C. Updegraff and J. C. Reynolds. flow diag diags Pet Refiner 32:162-3+ S '53

Wulff process acetylene; staff-industry collaborative report. G. H. Bixler and C. W. Coberly. bibliog flow sheets il diags Ind & Eng Chem 45:2596-606 D '53

Safety measures

Making handling of acetylene safer; Chemische werke Hüls installs special equipment. Chem & Eng N 32:2038 My 17 '54

Spectrum

l-type doubling in C_2H_2 and HCN. T. A. Wiggins and others. bibliog J Chem Phys 22:547-50 Mr '54

Pre-ignition and flame spectra in the self-combustion of acetylene. W. W. Robertson and others. J Chem Phys 21:2093-4 N '53

ACETYLENE black. See Carbon black

ACETYLENE compounds

Acetylenic compounds related to agropyrene. J. Cymerman-Craig, E. G. Davis and J. S. Lake. Chem Soc J p 1874-9 Je '54

Acetylenic ethers; phenylalkoxyacetylenes. T. L. Jacobs and W. R. Scott, jr. bibliog Am Chem Soc J 75:5497-500 N 20 '53

Olefin co-ordination compounds; infra-red spectra and structure; attempted preparation of acetylene complexes. J. Chatt and L. A. Duncanson. diags Chem Soc J p2939-47 O '53

Organic peroxides; diacetylenic dihydroperoxides. N. A. Milas and O. L. Mageli. bibliog Am Chem Soc J 75:5970-1 D 5 '53

Presence of an acetylenic acid in the seed fat of plants of the santalaceæ family. H. H. Hatt and A. Z. Szumer. bibliog Chem & Ind p962-3 Jl 31 '54

Reactions of acetylenic compounds catalyzed by sulfonated polystyrene resins. M. S. Newman. bibliog Am Chem Soc J 75:4740-2 O 5 '53

Ready for the payoff. Chem W 72:44+ Je 6 '53

Researches on acetylenic compounds; a new method for the preparation of alkoxyacetylenes. G. Eglinton and others. Chem Soc J p 1860-5 Je '54

Researches on acetylenic compounds; reductions with lithium aluminium hydride. E. B. Bates, E. R. H. Jones and M. C. Whiting. Chem Soc J p 1854-60 Je '54

Researches on acetylenic compounds; the reaction between nickel carbonyl and some esters of ω-acetylenic acids. E. R. H. Jones, G. H. Whitham and M. C. Whiting. Chem Soc J p 1865-8 Je '54

Researches on acetylenic compounds; the synthesis of diphenylpolyacetylenes. J. B. Armitage and others. Chem Soc J p 147-54 Ja '54

Researches on acetylenic compounds; the synthesis of some ω-acetylenic acids. G. Eglinton and M. C. Whiting. Chem Soc J p3052-9 O '53

Structures of two polyacetylenic antibiotics. J. D. Bu'Lock and others. bibliog Chem & Ind p990-1 Ag 7 '54

Studies on the chemistry of heterocyclics; investigations on diacetylenes and diacetylenic glycols in the thiophene series. A. Vaitiekunas and F. F. Nord. bibliog Am Chem Soc J 76:2733-6 My 20 '54

ACETYLENE compounds—*Continued*

Studies on the chemistry of heterocyclics; investigations on the prototropic rearrangement of γ-hydroxyacetylenic esters and acids in the thiophene series. A. Vaitiekunas and F. F. Nord. bibliog Am Chem Soc J 76:2737-40 My 20 '54

Syntheses and microbiological properties of acetylenic amino acids; propargylglycine and 2-amino-3-methyl-4-pentynoic acid. H. Gershon and others. bibliog Am Chem Soc J 76:3484-6 Jl 5 '54

ACHILLEA millefolium

Alkaloids of achillea millefolium L; isolation and characterization of achilleine. F. M. Miller and Lee Ming Chow. bibliog Am Chem Soc J 76:1353-4 Mr 5 '54

ACID containers

See also

Carboys

ACID handling

See also

Carboys

ACID mists

High pressure water spray method reduces acid mist pollution. il Chem & Eng N 31:2438 Je 8 '53

ACID number

Acid numbers of shellac. D. E. Whyte and others. bibliog Soap & San Chem 29:123+ Jl '53

ACID resisting materials

Acid-resisting pipe installed to handle acid disposal; Cadillac div. of General motors corp. il Iron Age 173:178+ My 6 '54

Action of polar organic inhibitors in acid dissolution of metals. N. Hackerman and A. C. Makrides. bibliog(45 ref) Ind & Eng Chem 46:523-7 Mr '54

Better properties extend uses for porcelain enamels. W. A. Barrows. il Iron Age 173:121-4 My 13 '54

Construction; acid-proof pour-lay cement resists corrosion; Sauereisen no. 54. Iron Age 173:160 F 11 '54

Corrosion forum; high silicon irons. W. A. Luce. il Chem Eng 61:246+ Ja '54

Corrosion of Durimet 20 and Carpenter 20 by nitric acid as function of temperature. M. G. Fontana. Ind & Eng Chem 45:sup 91A-2A+ Jl '53

Corrosion resistance of titanium, zirconium, and stainless steel in organic compounds. I. R. Lane, jr., L. B. Golden and W. L. Acherman. bibliog Ind & Eng Chem 45:1067-70 My '53

Effects of acid velocity and galvanic couples on corrosion of aluminum and stainless steel in strong nitric acid. M. G. Fontana. il Ind & Eng Chem 45:sup91A-2A+ N '53

Handling HNO_3 at temperatures above atmospheric boiling point. M. G. Fontana. Ind & Eng Chem 45:sup 91A-2A+ Je '53

Properties and applications of synthetic resin cements. V. Evans. bibliog Chem & Ind p504-9 My 23 '53

See also

Corrosion resisting materials
Glass lining
Nickel alloys
Steel, Stainless

ACID waste

Damage from coal and ash piles. S. T. Powell. Ind & Eng Chem 46:sup97A My '54

How to buy and use lime as a neutralizing agent. R. D. Hoak. il Water & Sewage Works 100:468-73 D '53

Sludge return for control of scale formation. W. A. Parsons and H. Heukelekian. bibliog Ind & Eng Chem 46:1503-7 Jl '54

ACIDATION of oil wells. See Petroleum—Acidation of wells

ACIDIMETRY

Acid-base titrations in nonaqueous solvents; review of past two years. J. A. Riddick. Anal Chem 26:77-84 bibliog(145 ref, p83-4) Ja '54

ACIDITY

Acid-catalyzed hydrolysis of methylal; influence of strong acids and correlation with Hammett acidity function. D. McIntyre and F. A. Long. bibliog Am Chem Soc J 76:3240-2 Je 20 '54

Acid strengths of the phenylacetic acids. M. L. Kilpatrick and E. Fackenthal. bibliog Electrochem Soc J 100:185-93 Ap '53

Acidity function of perchloric acid in aqueous acetic acid. F. J. Ludwig and K. H. Adams. bibliog Am Chem Soc J 76:3853-4 Jl 20 '54

Alicyclic compounds; ultra-violet absorption, acidity, and ring fission of *cyclo*hexane-1 : 3-diones. E. G. Meek, J. H. Turnbull and W. Wilson. Chem Soc J p2891-6 O '53

Salt effects on the indicator acidity function, H_0. M. A. Paul. Am Chem Soc J 76:3236-9 Je 20 '54

See also

Hydrogen ion concentration

ACIDS

Acid-catalyzed hydrolysis of methylal; influence of strong acids and correlation with Hammett acidity function. D. McIntyre and F. A. Long. bibliog Am Chem Soc J 76:3240-2 Je 20 '54

Acids and bases; conductance of aluminum bromide and stannic chloride in thionyl chloride on addition of pyridine and quinoline. L. E. D. Pease, jr. and W. F. Luder. bibliog Am Chem Soc J 75:5195-7 N 5 '53

Adsorption of water by wool; influence of combined acid on the affinity of wool for water. C. H. Nicholls and J. B. Speakman. bibliog Textile Inst J Trans 45:T267-71 Mr '54

Chemical production of lactic and other acids from molasses. R. Montgomery and R. A. Ronca. bibliog(54 ref) Ind & Eng Chem 45:1136-47 My '53

Corrosion inhibition in acid solution. C. V. King and E. Hillner. bibliog Electrochem Soc J 101:79-83 F '54

Corrosion of steel by air-free, dilute, weak acids. N. Hackerman and E. E. Glenn, jr. bibliog flow diag Electrochem Soc J 100:339-44 Ag '53

Hydrogen ion concentration of weak monobasic acids and their salts. B. Park. J Chem Educ 30:257-60 My '53

Models illustrating the Lewis theory of acids and bases. F. Y. Herron. J Chem Educ 30:199-201 Ap '53

Properties of GR-S extended with rosin-type acids. L. H. Howland, J. A. Reynolds and R. L. Provost. bibliog Ind & Eng Chem 45:1053-9 My '53

Rate of dissolution and the passivation of titanium in acids with ammonium fluoride added. M. E. Straumanis and C. B. Gill. bibliog Electrochem Soc J 101:10-15 Ja '54

Rates of ionization of pseudo acids; catalytic behavior of alkylamines in the ionization of nitroethane. R. G. Pearson and F. V. Williams. bibliog Am Chem Soc J 76:258-60 Ja 5 '54

Reactions of *cyclo*octatetraene; selective reduction by metals and alkalis or acids. W. O. Jones. Chem Soc J p 1808-13 Je '54

Reduction of acids to aldehydes with formic acid. A. J. Barduhn and K. A. Kobe. Chem Soc J p 1651 My '54

Studies on cosolvency; Lewis acid character of iodo compounds in enhancing the solubility of anthracene in hydrocarbon solvents. G. R. Somayajulu and S. R. Palit. bibliog J Phys Chem 58:417-21 My '54

See also names of acids, e.g.

Acetic acid
Hydrochloric acid
Hydrocyanic acid
Nitric acid
Phosphoric acid
Sulfuric acid

Analysis

Chemical analysis of GR-S by complete solution procedures; titration of mineral and organic acids in toluene-ethanol solution. F. J. Linnig and A. Schneider. Anal Chem 25:1515-17 O '53

Minimum error titrations of mixtures of two weak acids. A. Frisque and V. W. Meloche. bibliog Anal Chem 26:468-71 Mr '54

ACIDS, Fatty

Acids sustain fats market. Chem W 75:85-6 Jl 17 '54

Antimicrobial activity of quaternary ammonium chlorides derived from commercial fatty acids. R. A. Reck and H. J. Harwood. bibliog Ind & Eng Chem 45:1022-6 My '53

Are fatty acid soaps superior to those made from neutral fats? K. L. Weber. Soap & San Chem 30:97 Ap '54

ACIDS, Fatty—*Continued*

Association of American soap and glycerine producers Fatty acid division meeting, New York. Jan. 27-29; abstracts of papers. Soap & San Chem 29:43-4 F '53

Bactericidal activity of fatty acids. J. V. Karabinos and H. J. Ferlin. Soap & Chem Spec 30:46-8 Ag '54

Branched-chain fatty acids of mutton fat; isolation of a liquid saturated C_{17} branched-chain acid. R. P. Hansen and others. bibliog Chem & Ind p516-17 My 23 '53

Conventional and unconventional features in the composition of some natural fats; abstract. T. P. Hilditch. Chem & Ind p807-8 Jl 10 '54

Epoxy fatty acid ester plasticizers. F. P. Greenspan and R. J. Gall. bibliog il Ind & Eng Chem 45:2722-6 D '53

Fatty acids; the nature of the oxygenated acid present in vernonia anthelemintica (Willd.) seed oil. F. D. Gunstone. Chem Soc J p 1611-16 My '54

Food and the future; synthetic potentialities; synthetic fats. P. N. Williams. bibliog(44 ref) Chem & Ind p582-5 Je 13 '53

Heats of combustion of the five-carbon fatty acids and their methyl and ethyl esters. C. K. Hancock, G. M. Watson and R. F. Gilby. bibliog J Phys Chem 58:127-9 F '54

Infra-red study of the *cis-* and *trans-*isomers of some C_{18} fatty acids. N. H. E. Ahlers, R. A. Brett and N. G. McTaggart. bibliog(35 ref) J Ap Chem 3:433-43 O '53

Lesion-causing fatty acid found in tubercle bacilli. Chem & Eng N 32:3730 S 20 '54

Mechanism of the corrosion-inhibitive action of paints, with special reference to basic pigments. J. E. O. Mayne and D. van Rooyen. bibliog(27 ref) diag J Ap Chem 4:384-94 Jl '54

Modified fatty acids; Emery industries. Chem Eng 61:152+ My '54

Newer fatty acid uses. E. McCauliff. Soap & San Chem 30:51-3+ Mr '54

Production, properties, and uses of fatty alcohols. E. F. Hill, G. R. Wilson and E. C. Steinle, jr. bibliog(60 ref) Ind & Eng Chem 46:1917-21 S '54

Recent research on oxidation of monoethenoid fatty acids and esters. J. H. Skellon. bibliog(29 ref) Chem & Ind p 1047-9 O 3 '53

Sorption of benzene by fatty acids. J. C. Arnell. bibliog J Phys Chem 57:641-5 O '53

Steam-volatile fatty acids from a marine tube worm. D. R. Idler and U. H. M. Fagerlund. bibliog Am Chem Soc J 76:3594-5 Jl 5 '54

Thermal dissociation of organic compounds; the effect of the solvent (fatty acids) on the thermal dissociation of urea. T. Mukaiyama and T. Matsunaga. bibliog Am Chem Soc J 75:6209-12 D 20 '53

See also

Amino acids
Linoleic acid
Oleic acid
Stearic acid

Analysis

Chromatographic separation of *p*-phenylazophenacyl esters on silicic acid. R. M. Ikeda, A. D. Webb and R. E. Kepner. Anal Chem 26:1228-9 Jl '54

Potentiometric nonaqueous titration of substituted fatty acids. J. Radell and E. T. Donahue. Anal Chem 26:590-1 Mr '54

Spectrophotometric micromethod for determining polyunsaturated fatty acids. S. F. Herb and R. W. Riemenschneider. bibliog Anal Chem 25:953-5 Je '53

Manufacture

Small scale fat splitting. R. Berger. flow diags Soap & San Chem 30:93+ Mr '54

ACIDS, Organic

Acids from redwood. Chem Eng 61:158 Ap '54

Aromatic electrophilic substitution by hydrogen; the mechanism of the acid-catalyzed decarboxylation of aromatic acids. W. M. Schubert, J. Donohue and J. D. Gardner. bibliog Am Chem Soc J 76:9-14 Ja 5 '54

Epoxyethers; mechanism of the opening of an epoxyether with an organic acid. C. L. Stevens and S. J. Dykstra. bibliog Am Chem Soc J 75:5975-8 D 5 '53

Equilibria between aromatic acids and weak base anion exchangers. S. Peterson and E. Gowen. bibliog Ind & Eng Chem 45:2584-6 N '53

Production of organic acids by molds. S. M. Martin. il Can Chem Process 37:30+ O '53

Sequestration by sugar acids. C. L. Mehltretter, B. H. Alexander and C. E. Rist. bibliog Ind & Eng Chem 45:2782-4 D '53

Synthetic acids. T. F. Grey and others. bibliog Chem & Ind p578-9 My 15 '54

See also

Acetic acid
Acids, Fatty
Amino acids
Carboxylic acids
Dicarboxylic acids
Glutaric acid

Analysis

Fractionation of organic acids in sugar beets by ion exchange resins. H. S. Owens, A. E. Goodban and J. B. Stark. bibliog(27 ref) Anal Chem 25:1507-11 O '53

Identification and determination of nonnitrogenous organic acids of sugar cane by partition chromatography. E. J. Roberts and L. F. Martin. bibliog Anal Chem 26:815-18 My '54

Identification of organic acids by circular paper chromatography. J. W. Airan and others. bibliog il Anal Chem 25:659-60 Ap '53

New techniques for adding organic acids to silicic acid columns. V. Zbinovsky and R. H. Burris. Anal Chem 26:208-10 Ja '54

Peak volume-concentration relationships with progressively changing solvents in organic acid chromatography. C. Mader. diag Anal Chem 26:566-7 Mr '54

System of characterization of common organic acids. R. T. Wendland and D. H. Wheeler. bibliog(38 ref) Anal Chem 26:1469-74 S '54

ACME industries

Security I like best. R. DePasquale. Comm & Fin Chr 178:1718 N 5 '53

ACONITE

Aconite alkaloids; oxonitine and oxoaconitine. W. A. Jacobs and S. W. Pelletier. bibliog Am Chem Soc J 76:4048-9 Ag 5 '54

ACONITIC acid

Aconitic and tricarballylic acid esters as vinyl plasticizers. E. J. Roberts and others. bibliog Rubber World 130:801-4 S '54

Plasticizers from aconitic and tricarballylic acids. F. C. Magne and R. R. Mod. bibliog Ind & Eng Chem 45:1546-7 Jl '53

ACOUSTIC impedance

Acoustic wave guide. E. A. G. Shaw. bibliog il diags Acoustical Soc Am J 25:224-35 Mr '53

Analogous acoustical impedance for discontinuities and constructions of circular cross section. F. C. Karal. diags Acoustical Soc Am J 25:327-34 Mr '53

ACOUSTIC laboratories. See Sound laboratories

ACOUSTIC patents

Review of acoustical patents. R. W. Young. diags Published in monthly numbers of Journal of the Acoustical society of America

ACOUSTIC waves. See Sound waves

ACOUSTICS. See Sound

ACOUSTICS, Architectural

Acoustics of the Royal festival hall, London. P. H. Parkin and others. il plan diag Acoustical Soc Am J 25:246-59 Mr '53

See also

Sound absorbent materials

ACRIDONE

Alkylaminoalkylamino derivatives of xanthones, acridones and anthraquinones. S. Archer, L. B. Rochester and M. Jackman. bibliog Am Chem Soc J 76:588-91 Ja 20 '54

ACRILAN. See Textile fibers, Synthetic

ACRIZANE. See Antiseptics

ACRYLAMIDE

Acrylamide as an acceptor in the Michael condensation. D. Elad and D. Ginsburg. Chem Soc J p4137-9 D '53

Gamma-ray polymerization of acrylamide in the solid state. R. B. Mesrobian and others. bibliog J Chem Phys 22:565-6 Mr '54

ACRYLATES

Acrylics in a finish fight; paints make strongest bid for a share of billion-dollar market. il Chem W 74:42 Ja 9 '54

Monomeric acrylic esters. E. H. Riddle. 221p $5 Reinhold publishing corp, 430 Park av, New York 22 '54

Organic building blocks. E. H. Riddle. il Chem & Eng N 31:2854-7 Jl 13 '53; Same abr. Can Chem Process 38:44+ F '54

Polyacrylate copolymers. Chem Age (Lond) 69:1127 N 28 '53

Pyrolysis of styrene, acrylate, and isoprene polymers in a vacuum. S. Straus and S. L. Madorsky. bibliog J Res Nat Bur Stand 50:165-76 Mr '53

Reinforced acrylate elastomers cast from latex. P. Fram and others. bibliog(25 ref) il Ind & Eng Chem 46:1992-2000 S '54

See also

Methacrylates

ACRYLIC acid

β-Acetylacrylic (4-oxopent-2-enoic) acid in the Diels-Alder reaction; some derivatives of the adduct derived from β-acetylacrylic acid and butadiene. S. Dixon and L. F. Wiggins. Chem Soc J p594-7 F '54

Antispasmodics; β-diethylaminoethyl esters of substituted lactic and acrylic acids. F. F. Blicke and J. A. Faust. bibliog Am Chem Soc J 76:3159-61 Je 20 '54

Electrolytic properties of aqueous solutions of polymeric electrolytes. F. T. Wall and R. H. Doremus. Am Chem Soc J 76:1557-60 Mr 20 '54

Interaction of β-aroylacrylic acids and aluminium chloride. G. Baddeley, S. M. Makar and M. G. Ivinson. Chem Soc J p3969-71 D '53

ACRYLIC plastics. See Methacrylates; Plastic materials

ACRYLONITRILE

Acrylo skid. Chem W 73:67-8 Ag 22 '53

Acrylonitrile boom is based on expanding uses. A. J. Weith. Can Chem Process 38: 66+ Jl '54

Acrylonitrile in organic syntheses; synthesis of 3*a* : 4 : 5 : 6-tetrahydroperinaphthane-3*a*-carboxylic acid. A. D. Campbell. Chem Soc J p 1377-80 My '54

Acrylonitrile; process for manufacturing acrylonitrile from acetylene and hydrogen cyanide. diag Pet Refiner 32:142-3 N '53

Anomalous osmotic behavior of polymethacrylonitrile. N. Grassie and E. Vance. Chem Soc J p2122-5 Je '54

Blends of styrene-acrylonitrile resins with rubbers. W. D. Crater. Rubber Age 74:549-50 Ja '54; Same. India Rubber World 129: 629-30 F '54

Chemical build-up for King Cotton. Chem W 75:97-8 Ag 21 '54

Copolymer of butadiene and acrylonitrile as a beater additive; abstract. K. Larsson and G. Thurne. Paper Ind 36:216 My '54

Copolymers of alpha-alkylacrylonitriles with 1,3-butadiene. C. S. Marvel and others. bibliog Ind & Eng Chem 46:804-8 Ap '54

Dielectric relaxation in a styrene-acrylonitrile copolymer during and after its polymerization. P. Ehrlich and N. J. De Lollis. bibliog J Res Nat Bur Stand 51:145-54 S '53

Dyeing acrylonitrile fibers with azo dyes in a two-bath process; patent. Am Dyestuff Rep 42:708 O 12 '53

Dyeing polyacrylonitrile fibers; cuprous-ion technique applied under acid conditions; patent. Am Dyestuff Rep 43:547 Ag 16 '54

New process for acrylonitrile will bring substantial cost reduction. A. J. Weith. Oil & Gas J 52:78+ Ag 3 '53; Chem & Eng N 31:2763-5 Jl 6 '53

Polymerization of acrylics. G. E. Ham. bibliog il Textile Res J 24:597-614 Jl '54; Correction. 24:insert Ag '54

Preparation of dyeable fiber-forming compositions. G. E. Ham and P. W. Gann. bibliog Ind & Eng Chem 45:2320-6 O '53

Reaction of cyanogen and related nitriles with 1,3-dienes; acrylonitrile and butadiene. G. J. Janz and N. E. Duncan. bibliog Am Chem Soc J 75:5389-92 N 5 '53

Spinning solvents for polyacrylonitrile. G. E. Ham. bibliog Ind & Eng Chem 46:390-2 F '54

See also

Krilium

Analysis

Determination of acrylonitrile in colored solutions. G. J. Janz and N. E. Duncan. Anal Chem 25:1410-11 S '53

ACTAMER. See Disinfection and disinfectants

ACTINIDE series

Actinide-lanthanide analogy as exemplified by solvent extraction behavior. D. F. Peppard, P. R. Gray and M. M. Markus. bibliog Am Chem Soc J 75:6063-4 D 5 '53

Ion exchange as a separations method; relative elution positions of lanthanide and actinide elements with lactic acid eluant at 87°. L. Wish, E. C. Freiling and L. R. Bunney. Am Chem Soc J 76:3444-5 Jl 5 '54

Ion-exchange study of possible hybridized 5f bonding in the actinides. R. M. Diamond, K. Street, jr. and G. T. Seaborg. bibliog Am Chem Soc J 76:1461-9 Mr 20 '54

Vapor phase hydrolysis of the actinide halides; heat and free energy of the reaction $AmCl_3(s) + H_2O(g) - AmOCl(s) + 2HCl(g)$. C. W. Koch and B. B. Cunningham. Am Chem Soc J 76:1470-1 Mr 20 '54

Will actinide series be completed? Chem & Eng N 32:1213 Mr 29 '54

ACTINIUM K. See Francium

ACTINODAPHNINE

Aporphine series; developments of the Bischler-Napieralski-Pschorr synthetic method; the synthesis of (±)-*iso*bulbocapnine and (±)-actinodaphnine methyl ether. D. H. Hey and L. C. Lobo. Chem Soc J p2246-56 Jl '54

ACTINOMYCETES

Newer concepts of tastes and odors in surface water supplies. J. K. G. Silvey. bibliog il Water & Sewage Works 100:426-9; 101: 209-11 N '53, My '54

Relation of irrigation runoff to tastes and odors. J. K. G. Silvey. bibliog Am Water Works Assn J 45:1179-86 N '53

ACTION research. See Social research

ACTIVATED carbon. See Carbon, Activated

ACTIVATED sludge method. See Sewage disposal—Activated sludge method

ACTIVATION

Activation energies for the decomposition of limestone, dolomitic limestone, and dolomite. J. H. Wernick. bibliog Min Eng 6: Trans 730-2 Jl '54

Activation energy for viscous flow and short-range order. G. J. Dienes. bibliog J Ap Phys 24:779-82 Je '53

Arcing at electrical contacts on closure; activation of contacts by organic vapor. L. H. Germer. il J Ap Phys 25:332-5 Mr '54

See also

Radioactivity

ACTIVATION, Heat of

Measurement of the heat of activation for sodium ion diffusion in glass. R. Kamel. bibliog diag J Ap Phys 24:1308-11 O '53

ACTIVITY coefficients

Activity coefficient ratios of nitric acid and mercurous nitrate and the standard potential of the mercury, mercurous ion electrode at 25°. O. D. Bonner and F. A. Unietis. bibliog Am Chem Soc J 75:5111-13 O 20 '53

Activity coefficients of piperidine in aqueous-salt solutions. F. A. Long and R. L. Bergen, jr. bibliog J Phys Chem 58:166-8 F '54

Determination of activity coefficients by ultracentrifugation; ultracentrifugation of uranyl fluoride solutions. J. S. Johnson, K. A. Kraus and T. F. Young. bibliog Am Chem Soc J 76:1436-43 Mr 5 '54

Molar activity coefficients of electrolytes predicted from conductivity data. H. P. Marshall and E. Grunwald. bibliog J Chem Phys 21:2143-51 D '53

New method for determination of activities of binary solutions of volatile liquids. R. S. Hansen and F. A. Miller. bibliog diags J Phys Chem 58:193-6 Mr '54

ACTIVITY vector analysis. See Personality tests

ACTOMYOSIN

Direct deamination of adenosine diphosphate by actomyosin. A. Deutsch and R. Nilsson. bibliog Chem & Ind p 1149-50 O 24 '53

ACTOMYOSIN—*Continued*
Properties of actomyosin before and after treatment with ion-exchange resins; influence of pH and ionic strength on molecular shape of a structural muscle protein. M. L. R. Harkness and A. Wassermann. pl diag Chem Soc J p 1344-56 My '54

ACYL chlorides
Acyl chlorides of amino acids and peptides as monomers for the preparation of polymeric polypeptides. M. Frankel, Y. Liwschitz and A. Zilkha. bibliog Am Chem Soc J 76:2814-16 My 20 '54

ACYL compounds
Chemotherapy of experimental tuberculosis; heterocyclic acyl derivatives of substituted semicarbazides. H. L. Yale and others. Am Chem Soc J 76:2208-11 Ap 20 '54

ACYLATION
Acylation and allied reactions catalysed by strong acids; the allyl and some related cations. H. Burton and D. A. Munday. Chem Soc J p 1456-60 My '54
Acylation of 5-(*p*-acetoxyphenyl)-4,6-dicarbethoxycylohexanedione-1,3. P. E. Papadakis, J. Scigliano and S. Pirruccello. bibliog Am Chem Soc J 75:5436-7 N 5 '53
Friedel-Crafts acylations with trimethylsilylbenzoyl chlorides. R. A. Benkeser and H. R. Krysiak. bibliog Am Chem Soc J 76:599-603 Ja 20 '54
Improvement of boron fluoride method of acylation of ketones to form β-diketones; ring opening of 2-acyl cyclic ketones to form keto acids. R. M. Manyik and others. bibliog Am Chem Soc J 75:5030-2 O 20 '53
Intramolecular acylation; preparation and ring closure of some γ-aryl-γ-carboxy- and -γ-cyano-pimelic acids. D. H. Hey and K. A. Nagdy. Chem Soc J p 1204-7 Ap '54
Intramolecular acylation; the ring closure of some α-substituted β-1-naphthylpropionic acids. M. F. Ansell. Chem Soc J p575-7 F '54; Abstract. Chem & Ind p217-18 F 20 '54
Intramolecular acylation; the ring closure of some β-substituted β-1-naphthylpropionic acids. M. F. Ansell and A. M. Berman. Chem Soc J p 1792-5 Je '54
Mechanism of Friedel-Crafts acylation. G. Baddeley and D. Voss. Chem Soc J p418-22 Ja '54
Mechanism of Friedel-Crafts acylation. J. M. Tedder. bibliog Chem & Ind p630 My 29 '54
Polyphosphoric acid for acylation of alicyclic compounds. S. Dev. bibliog Chem & Ind p 1071 Ag 28 '54

ACYLOINS
Acyloin reaction in the closing of the five-membered ring. M. Cordon, J. D. Knight and D. J. Cram. bibliog Am Chem Soc J 76:1643-6 Mr 20 '54
Cyclic aminoacyloins; F-strain limitation of transannular interaction between N and Cco. N. J. Leonard and M. Ōki. bibliog Am Chem Soc J 76:3463-5 Jl 5 '54
Cyclic aminoacyloins; ring-size limitation of transannular interaction between N and Cco. N. J. Leonard and others. Am Chem Soc J 76:630-1 Ja 20 '54
Formation of five- and six-membered rings by the acyloin condensation; the natural estrogenic steroids. J. C. Sheehan, R. A. Coderre and P. A. Cruickshank. Am Chem Soc J 75:6231-3 D 20 '53
Reactions of thallium; thallous ethoxide as a catalyst in the oxidation of the aromatic acyloins by nitrobenzene. L. P. McHatton and M. J. Soulal. Chem Soc J p4095-7 D '53

ADAMS, Roger, 1889-
Illini chemistry chief receives Perkin medal. por(cover) Chem & Eng N 32:326 Ja 25 '54
Midwest award, conferred by St Louis ACS. por Chem & Eng N 31:4884 N 23 '53

ADAPTATION (biology)
Adaptation of bact. lactis aerogenes to resist phenol and various alkylphenols. L. S. Phillips and C. Hinshelwood. Chem Soc J p3679-83 N '53
Experiments in acquired characteristics. C. H. Waddington. il Sci Am 189:92-4+ D '53
See also
Evolution

ADAPTOMETERS
Automatic-recording visual adaptometer. S. C. McLaughlin, jr. il diags Opt Soc Am J 44:312-14 Ap '54

ADDING machines
Systematic staff training in use of adding machine increases accuracy, efficiency. W. Brooke. J Account 97:62-3 Ja '54

ADDITION compounds
Addition agents in analytical precipitations. R. B. Fischer and T. B. Rhinehammer. Anal Chem 26:244-6 Ja '54
Addition compounds of alkali metal hydrides; sodium trimethoxyborohydride as a reducing agent for organic compounds. H. C. Brown and E. J. Mead. bibliog Am Chem Soc J 75:6263-5 D 20 '53
Addition compounds of aluminum halides with alkyl halides. H. C. Brown and W. J. Wallace. bibliog Am Chem Soc J 75:6279-85 D 20 '53
Addition compounds of gallium trichloride with methyl halides. H. C. Brown, L. P. Eddy and R. Wong. bibliog diag Am Chem Soc J 75:6275-8 D 20 '53
Addition compounds of silicon tetrachloride with amides. K. Gingold and E. G. Rochow. bibliog Am Chem Soc J 76:288-9 Ja 5 '54
Boron-nitrogen systems; boron trifluoride-diamine addition compounds. C. A. Brown, E. L. Muetterties and E. G. Rochow. bibliog Am Chem Soc J 76:2537-9 My 5 '54
Free radical additions involving fluorine compounds; the addition of dibromodifluoromethane to hydrocarbon olefins. P. Tarrant and A. M. Lovelace. Am Chem Soc J 76:3466-8 Jl 5 '54
Intermediates in the reactions of carboxylic acid derivatives; infrared absorption spectra as evidence for the formation of addition compounds of carboxylic acid derivatives. M. L. Bender. bibliog Am Chem Soc J 75:5986-90 D 5 '53
Molecular addition compounds of dinitrogen tetroxide; binary systems with a series of aliphatic and alicyclic mono-, di- and tribasic ethers. J. G. Whanger and H. H. Sisler. Am Chem Soc J 75:5188-91 N 5 '53
Molecular addition compounds of dinitrogen tetroxide; cryoscopic and viscosimetric studies in the 1,4-dioxane-dinitrogen tetroxide system. H. W. Ling and H. H. Sisler. bibliog diag Am Chem Soc J 75:5191-3 N 5 '53
Molecular addition compounds; the interaction of ammonia with ammonia-boron trifluoride at low temperatures. H. C. Brown and S. Johnson. bibliog Am Chem Soc J 76:1978-9 Ap 5 '54
New molecular addition compounds of 2,4,7-trinitrofluorenone. D. E. Laskowski and W. C. McCrone. Anal Chem 26:1497-500 S '54

ADDRESSING machines
Printing machine that reads; Addressograph-Multigraph corp. il Bsns W p 186+ O 24 '53

ADENAUER, Konrad, 1876-
Adenauer way. Economist 168:759-60 S 19 '53
Adenauer's triumph. F. Morley. Barron's 33:5 S 14 '53
New Germany; Adenauer election victory. Economist 168:677-8 S 12 '53

ADENINE
Nucleotides; a synthesis of flavin-adenine dinucleotide. S. M. H. Christie, G. W. Kenner and A. R. Todd. Chem Soc J p46-52 Ja '54
Observations on the synthesis of [8-^{13}C] adenine. M. Gordon. Chem Soc J p757-8 F '54
Preparation of 2-C^{14}-adenine. A. R. P. Paterson and S. H. Zbarsky. Am Chem Soc J 75:5753 N 20 '53

ADENOSINE
Deoxyribonucleosides and related compounds; the configuration at the glycosidic centre in deoxyadenosine and deoxycytidine. W. Andersen and others. Chem Soc J p 1882-7 Je '54

ADENOSINE phosphates
Carbodiimides; a novel synthesis of adenosine di- and triphosphate and P^1,P^2-diadenosine-5′-pyrophosphate. H. G. Khorana. bibliog Am Chem Soc J 76:3517-22 Jl 5 '54

ADENOSINE phosphates—*Continued*

Direct deamination of adenosine diphosphate by actomyosin. A. Deutsch and R. Nilsson. bibliog Chem & Ind p 1149-50 O 24 '53

Nucleotides; synthesis of P^1P^2-diadenosine-5′ and P^1P^2-diuridine-5′ pyrophosphates. S. M. H. Christie and others. Chem Soc J p2947-53 O '53

ADENOSINE triphosphate

Effect of ethylenediamine tetraacetic acid on adenosinetriphosphatase activity. M. Gross. bibliog Science 118:218-19 Ag 21 '53

Effect of progesterone on rate of phosphate release from adenosine triphosphate by rat liver homogenates. H. W. Jones, jr. and R. Wade. Science 118:103-7 Jl 24 '53

Enzymatic reaction between citrate adenosine triphosphate and coenzyme A. P. A. Srere and F. Lipmann. bibliog Am Chem Soc J 75:4874 O 5 '53

ADENYLIC acid

Carbodiimides; the reaction of dicyclohexylcarbodiimide with yeast adenylic acid; a new method for the preparation of monoesters of ribonucleoside 2′- and 3′-phosphates. C. A. Dekker and H. G. Khorana. bibliog Am Chem Soc J 76:3522-7 Jl 5 '54

Nucleotides; the structures of adenylic acids *a* and *b*. D. M. Brown and others. Chem Soc J p 1448-55 My '54

Studies on the structure of nucleic acids; identification of the isomeric cytidylic and adenylic acids. L. F. Cavalieri. bibliog Am Chem Soc J 75:5268-70 N 5 '53

ADHESION

Adherence of electrodeposited zinc to aluminum cathodes. F. H. C. Kelly. bibliog diag Electrochem Soc J 101:239-43 My '54

Adherence of paint films. E. G. Bobalek. il Metal Prog 66:113-19 Ag '54

Electrical phenomena in adhesion; electron atmospheres in dielectrics. S. M. Skinner and others. bibliog il diags J Ap Phys 24:438-50 Ap '53; Discussion. 25:1053-5; Reply. 1055-6 Ag '54

Frictional adhesion of metal to glass, quartz, and ceramic surfaces. R. B. Belser. il R Sci Instr 25:862-4 S '54

Nature of adhesion. F. W. Reinhart. bibliog J Chem Educ 31:128-32 Mr '54

ADHESIVE tape

Five-ring circus; litigation involving manufacturers of adhesive tape. Chem W 74:24 F 13 '54

Streamlined tape dispenser; Johnson & Johnson. il Mod Packaging 27:96-8 Ap '54

Tape; Sharon adds pressure tape to steel strapping tape line. Iron Age 173:60 F 25 '54

ADHESIVE tape, Plastic

Bauer & Black chooses transparent polystyrene; square cutter case for Curad tape. il Mod Packaging 27:98 Ap '54

Plastic tape protects gas pipeline from corrosion. Chem & Eng N 32:3734 S 20 '54

Stop corrosion of buried pipes with polyvinyl-chloride tapes. il Power 98:109-11 Ja '54

Two new developments in the fluorocarbon plastics. il Materials & Methods 38:102-3 D '53

Use of plastic tape versus hot enamels. N. P. Peifer. il Am Gas Assn Proc 1953:548-53; Same. Gas Age 111:41-3+ My 21 '53

ADHESIVES

Adhesive application. il diags Steel 134:156 F 8 '54

Adhesive bonding complements soldering and brazing. H. H. Simons. Welding J 33:647-50 Jl '54

Adhesive bonding vs riveting; abstract. L. Mordfin and I. E. Wilks. Materials & Methods 40:167 S '54

Adhesives; agents for bonding fibrous glass pads to metal. W. J. Clayton. il Iron Age 172:160-3 S 17 '53

Adhesives for paper. R. T. Elias. Paper Tr J 137:116-20 N 13 '53

Adhesives join the assembly line. T. F. Hruby. il Steel 135:88-91 Jl 26 '54

Adhesives pave way for tile economy. il House & Home 3:162-3 Mr '53

Adhesives vs. nails; builders find new uses for new adhesives. il diags House & Home 5:158+ Ap '54

Automen stick with adhesives, develop production techniques. F. G. Lawrence. il Steel 134:69-70 My 24 '54

Case sealing adhesives for high humidity container storage. W. W. Sederlund. Tappi 37:sup 171A-3A Je '54

Criteria for designing adhesive bonded joints. W. C. Broding. il diags Product Eng 24:144-7 O '53

Design manual on adhesives. il diags Machine Design 26:143-74 Ap '54

Glu-Pen. il Consumers Res Bul 32:29 N '53

Hemicelluloses and arabogalactans as beater adhesives. J. O. Thompson and others. bibliog(27 ref) Tappi 36:534-41 D '53

How to apply plastic laminate with new adhesive. il Am Bld 75:240-1 Ag '53

Inspection, heat-treat, joining, finishing; adhesives. il Am Mach 97:E5-6 Mid-N '53

Metal adhesives used in magnesium assemblies. Iron Age 172:149-51 D 17 '53

New bonding materials have high strength, flexibility. il Iron Age 173:133 Jl 1 '54

New silicone pressure sensitive adhesive material. Materials & Methods 38:150 D '53

Paint and adhesives. diags Am Bld 75:455-63 Ap '53

Spray coating; better, faster way to apply adhesives. G. A. Newman. il Factory Management 112:138-40 S '54

Thermal balance with silicate adhesives. R. L. Kreyling. Tappi 37:sup 183A-4A Je '54

Use of metal adhesives with magnesium; Metlbond; abstract. D. A. Tooley. Light Metal Age 11:26 D '53

See also

Cements
Glue
Resinous products—Adhesives

Standards

ASTM standards on adhesives (with related information). 205p pa $1.75 Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '54

ADIPAMIDES

Nylon type oligamides. C. D. Cowell. Chem & Ind p577 My 15 '54

ADIPIC acid

Activated nitric acid produces 90-95 per cent pure adipic acid. Chem & Eng N 31:5068 D 7 '53

Direct formation of *cyclo*pentanones by the action of mineral acids on carboxyadipic acids and related compounds. L. Crombie, J. E. H. Hancock and R. P. Linstead. Chem Soc J p3496-503 N '53

Reactions of highly fluorinated organic compounds; a heptafluoroadipic acid and its derivatives. A. K. Barbour and others. bibliog J Ap Chem 4:341-6 Jl '54

ADIPONITRILE

Adiponitrile-from-furfural synthesis; abstract. O. W. Cass. Chem & Eng N 32:2196-7 My 31 '54

ADIRONDACK mountains

Grenville series in the northwest Adirondack mountains, N.Y. A. E. J. Engel and C. G. Engel. maps plan diags Geol Soc Bul 64:1013-97, pl 1-2 bibliog(p 1045-7, 1095-7) S '53

ADMINISTRATION, Public

Administration; the key to effective application. V. W. Bacon. Am Soc C E Proc 79 [no 338]:1-6 N '53

See also

Agricultural administration
Highway administration
Metropolitan districts
Municipal government
Public health administration
Public officials
United States—Executive departments

Bibliography

Short international bibliography of public administration. 20p pa 30c United nations; for sale by Columbia univ. press, 260 Broadway, New York 27 '53

ADMINISTRATORS and executors. See Executors and administrators

ADMIRALTY

See also

Collisions at sea

ADRENAL cortical hormones. See Adrenal glands—Hormones

ADRENAL glands

Adrenal gland response to circulatory distress in fetal lambs. S. R. M. Reynolds. Science 118:248-9 Ag 28 '53

Oxygen consumption of adrenal slices from normal and scorbutic guinea pigs and the influence of added ACTH. R. W. McKee and J. K. Walker. bibliog Science 118:133-5 Jl 31 '53

Rate of turnover of epinephrine in the adrenal medulla. S. Udenfriend and others. bibliog Science 117:663-5 Je 12 '53

Thiouracil and adrenal glands. E. J. Baumann and D. Marine. Science 118:307 S 11 '53

Hormones

Determination of adrenocortical steroids in mixtures. E. Heftmann and D. F. Johnson. bibliog Anal Chem 26:519-21 Mr '54

Properties of a sodium-retaining principle from beef adrenal extract. V. R. Mattox and others. Am Chem Soc J 75:4869-70 O 5 '53

Studies on a mineralocorticoid from hog adrenal extract. R. E. Knauff, E. D. Nielson and W. J. Haines. bibliog Am Chem Soc J 75:4868-9 O 5 '53

ADRENALIN

Configuration of noradrenaline and adrenaline. C. E. Dalgliesh. Chem Soc J p3323-4 O '53

Quantitative determination of adrenaline and noradrenaline in mixtures. H. Persky and D. Roston. Science 118:381-2 O 2 '53

Rate of turnover of epinephrine in the adrenal medulla. S. Udenfriend and others. bibliog Science 117:663-5 Je 12 '53

ADRENOCORTICOTROPIC hormone. See ACTH

ADSORBENTS

Explicit function for specific surface area. M. J. Katz. bibliog Anal Chem 26:734-5 Ap '54

Granular adsorbents for sugar refining. E. P. Barrett, A. Jonnard and J. H. Messmer. diag Ind & Eng Chem 45:1524-6 Jl '53

Surface properties of silica gels; importance of pH in preparation from sodium silicate and sulphuric acid. K. S. W. Sing and J. D. Madeley. bibliog J Ap Chem 3:549-56 D '53

ADSORPTION

Accessible cellulose as measured by sorption of sulfuric acid. G. A. Richter, L. E. Herdle and I. L. Gage. diags Ind & Eng Chem 45:2773-9 D '53

Adsorption and reactions of enzymes and proteins on kaolinite. A. D. McLaren. bibliog J Phys Chem 58:129-37 F '54

Adsorption and the magnetic ortho-para conversion of hydrogen on diamagnetic solids. Y. L. Sandler. bibliog J Phys Chem 58:54-61 Ja '54

Adsorption method of measuring surface areas. R. M. Barrer, N. Mackenzie and D. MacLeod. Chem Soc J p 1736-44 My '52; p4184 D '53

Adsorption of a mercaptan on zinc minerals. A. M. Gaudin and D. L. Harris. bibliog Min Eng 6:Trans 925-8 S '54

Adsorption of aliphatic alcohols and acids from aqueous solutions by non-porous carbons. R. S. Hansen and R. P. Craig. bibliog J Phys Chem 58:211-15 Mr '54

Adsorption of argon on xenon layers. J. H. Singleton and G. D. Halsey, jr. bibliog diag J Phys Chem 58:330-5 Ap '54

Adsorption of benzene and water vapor by molybdenum disulfide. E. V. Ballou and S. Ross. bibliog J Phys Chem 57:653-7 O '53

Adsorption of copper sulfate on copper and silver. L. R. Scharfstein and C. V. King. bibliog J Phys Chem 58:180-2 F '54

Adsorption of detergent in the dyeing process. L. Flett and L. F. Hoyt. Am Dyestuff Rep 43:335-8 My 24 '54

Adsorption of dyes, amino acids, proteins, and metal hydroxides on quartz. J. C. Dale and E. J. King. bibliog A M A Archives Ind Hygiene & Occup Med 7:484-9 Je '53

Adsorption of ethyl alcohol vapor on glass spheres in systems of different porosities. J. L. Shereshefsky and E. R. Russell. bibliog diag J Phys Chem 57:660-5 O '53

Adsorption of gases on calcium fluoride. H. Edelhoch and H. S. Taylor. bibliog J Phys Chem 58:344-50 Ap '54

Adsorption of gases on carbon; abstract. H. Harker. Chem & Ind p 1282-3 N 28 '53

Adsorption of ions by carborundum. G. A. H. Elton and J. W. Mitchell. Chem Soc J p741-4 F '54

Adsorption of metal ions by naturally pigmented keratin fibres. G. Laxer and C. S. Whewell. Soc Dyers & Col J 69:83-4 Mr '53

Adsorption of normal saturated hydrocarbons on Fuller's earth. W. T. Granquist, F. A. Mitch and C. H. Edwards. bibliog Ind & Eng Chem 46:358-62 F '54

Adsorption of polar organic compounds on steel. N. Hackerman and A. H. Roebuck. bibliog Ind & Eng Chem 46:1481-5 Jl '54

Adsorption of silver salts on silver C. V. King and R. K. Schochet. bibliog J Phys Chem 57:895-8 D '53

Adsorption studies on clay minerals; the system montmorillonite-cesium-potassium. J. A. Faucher and H. C. Thomas. bibliog J Chem Phys 22:258-61 F '54

Adsorption studies on metals; absolute entropies of adsorbed molecules on molybdenum. J. J. Chessick, F. H. Healey and A. C. Zettlemoyer. bibliog J Phys Chem 57:912-15 D '53

Adsorption studies on metals; the sorption of water vapor on nickel, steel and molybdenum. A. C. Zettlemoyer and J. J. Chessick. bibliog J Phys Chem 58:242-5 Mr '54

Amperometric method for determining the sorption of iodine by starch. B. L. Larson, K. A. Gilles and R. Jenness. bibliog Anal Chem 25:802-4 My '53

Analysis of lacquer thinners by fluorescent indicator adsorption method. W. H. Ellis and R. L. Le Tourneau. Anal Chem 25:1269-70 Ag '53

Analytical problems in the determination of Evans blue. W. O. Caster, A. B. Simon and W. D. Armstrong. bibliog Anal Chem 26:713-15 Ap '54

Application of fluorescent indicator adsorption method to protective coatings solvent; abstract. J. D. Giannotti. Paint Oil & Chem R 117:22+ Ap 8 '54

Behavior of colloidal silicate solutions as revealed by adsorption indicators. B. Carroll and E. Freeman. bibliog J Phys Chem 58:335-8 Ap '54

Characterization of physical adsorption systems; the equilibrium function and standard free energy of adsorption. D. Graham. bibliog J Phys Chem 57:665-9 O '53

Chemical engineering unit operations; adsorption. B. L. Harris. Ind & Eng Chem 46:64-72 bibliog(351 ref, p69-72) Ja '54

Chromatography of gases and vapours; the determination of adsorption isotherms. D. H. James and C. S. G. Phillips. diag Chem Soc J p 1066-70 Mr '54

Continuous adsorption methods; patents. diags Chem Eng 60:384+ O '53

Cryostat for adsorption experiments. J. A. Morrison and D. M. Young. bibliog diag R Sci Instr 25:518-19 My '54

Cyclic adsorption refining. R. L. Humphreys. flow diags Pet Refiner 32:99-101 S '53

Discontinuities in the adsorption isotherm of *n*-heptane on molybdenum disulfide. E. V. Ballou. Am Chem Soc J 76:1199-200 F 20 '54

Dye adsorption on wood pulp; effect of pulp processing on specific adsorption. E. F. Thode and others. bibliog Tappi 36:498-504 N '53

Dynamic mechanism of heterogeneous catalysis. M. A. Cook and A. G. Oblad. bibliog(25 ref) diags Ind & Eng Chem 45:1456-61 Jl '53

Effect of temperature on the adsorption of *n*-decane on iron. P. R. Basford, W. D. Harkins and S. B. Twiss. bibliog J Phys Chem 58:307-12 Ap '54

Flotation and the Gibbs adsorption equation. P. L. de Bruyn and others. bibliog Min Eng 6:Trans 519-23 My '54

ADSORPTION—*Continued*

Froth flotation of iron ores; adsorption of starch products and laurylamine acetate. N. F. Schulz and S. R. B. Cooke. bibliog (29 ref) Ind & Eng Chem 45:2767-72 D '53

Gas adsorption by wood, pulp, and paper. W. R. Haselton. bibliog(26 ref) diag Tappi 37:404-12 S '54

Generalization of the Polanyi theory of adsorption from solution. R. S. Hansen and W. V. Fackler, jr. bibliog J Phys Chem 57:634-7 O '53

Granular desiccants for drying liquids by adsorption. W. E. Smith and M. Leva. il diags Pet Processing 8:1194-9 Ag '53

Heats and entropies of adsorption on a homogeneous carbon surface. J. Mooi, C. Pierce and R. N. Smith. bibliog J Phys Chem 57:657-9 O '53

Influence of adsorption of water and quinoline on the surface conductivity of a synthetic alumina-silica catalyst. M. A. Cook, R. O. Daniels, jr. and J. H. Hamilton. bibliog diag J Phys Chem 58:358-62 Ap '54

Let's look at selective adsorption. G. Karnofsky. bibliog il diags Chem Eng 61:189-92 S '54

Low concentration chemistry; investigations on the role of adsorption in radiocolloid formation. G. K. Schweitzer and W. M. Jackson. Am Chem Soc J 76:941-4 F 5 '54

Low-pressure counter for measurements of gaseous adsorption on solids. J. A. Dillon, jr. and H. E. Farnsworth. R Sci Instr 25:96 Ja '54

Metal ceramic interactions; absolute measurement of metal-ceramic interfacial energy and the interfacial adsorption of silicon and iron-silicon alloys. W. D. Kingery. bibliog diags Am Cer Soc J 37:42-5 F 1 '54

New adsorption isotherm and the distribution of energy sites on the surface of some finely divided solids. W. D. Harkins and R. S. Stearns. bibliog J Phys Chem 58:292-8 Ap '54

New look into the invisible; continuous thickness measurements of adsorbed layers with ellipsometer. il Chem & Eng N 32:1680 Ap 26 '54

New method for determining adsorption separation factors and adsorbent capacities. C. N. Rowe and R. W. Schiessler. Am Chem Soc J 76:1202-3 F 20 '54

New multilayer isotherm with reference to entropy. W. M. Champion and G. D. Halsey, jr. bibliog Am Chem Soc J 76:974-8 F 20 '54

Paper chromatography of chloroplast pigments; sorption at a liquid-liquid interface. H. H. Strain. bibliog diags J Phys Chem 57:638-40 O '53

Partition mechanism of paper chromatography; adsorption of chromatographed substances. D. P. Burma. bibliog Anal Chem 25:549-53 Ap '53

Physical adsorption on uniform surfaces. W. M. Champion and G. D. Halsey, jr. bibliog J Phys Chem 57:646-8 O '53

Physical adsorption; two-dimensional condensation of ethane on surfaces of solids at 90°K. S. Ross and W. Winkler. bibliog Am Chem Soc J 76:2637-40 My 20 '54

Physicochemical studies on dusts; some sorption properties of silicious dusts. J. G. Gibb and P. D. Ritchie. J Ap Chem 4:483-7 S '54

Preparation of highly compressed samples for adsorption studies. S. V. R. Mastrangelo, R. J. Tykodi and J. G. Aston. Am Chem Soc J 75:5430 N 5 '53

Radiotracer study of sulfate ion adsorption at the air/solution interface in solutions of surface-active agents. C. M. Judson and others. bibliog J Phys Chem 57:916-23 D '53

Reactions of carbon; adsorption-desorption studies of nitrogen, argon, and carbon dioxide on carbon rods. P. L. Walker, jr. and C. C. Wright. bibliog Ind & Eng Chem 45:1715-21 Ag '53

Reactions of carbon; surface area studies of carbon, carbon dioxide reaction. P. L. Walker, jr., R. J. Foresti, jr. and C. C. Wright. bibliog il diag Ind & Eng Chem 45:1703-10 Ag '53

Selective adsorption; 2,4-dimethylpentane-benzene-silica gel at 65.6°. M. R. Cines and F. N. Ruehlen. bibliog J Phys Chem 57:710-14 O '53

Separation of oxygenated compounds and hydrocarbons by adsorption. J. Entel, C. H. Ruof and H. C. Howard. bibliog Anal Chem 25:616-18 Ap '53

Some magnetic consequences of chemisorption on supported nickel catalysts. P. W. Selwood, T. R. Phillips and S. Adler. Am Chem Soc J 76:2281-2 Ap 20 '54

Sorption and desorption of gas in the cold-cathode ionization gauge. J. H. Leck. bibliog diag J Sci Instr 30:271-4 Ag '53

Sorption-desorption studies in the system $BeO-In_2O_3$. W. O. Milligan and C. R. Adams. bibliog J Phys Chem 57:885-9 D '53

Sorption in gas and air drying. F. M. Waterhouse. il diags Chem Eng 61:237-42 Je '54

Sorption of benzene by fatty acids. J. C. Arnell. bibliog J Phys Chem 57:641-5 O '53

Sorption of syndets by fibres; abstract. A. S. Weatherburn. Soap & San Chem 29:89 S '53

Studies on ionized surface layers using α-recoil atoms; the coadsorption of Bi-212 ions at sodium dodecylsulfate surface layers. N. H. Steiger and G. Aniansson. bibliog diags J Phys Chem 58:228-35 Mr '54

Surface areas of cottons and modified cottons before and after swelling as determined by nitrogen sorption. F. H. Forziati and others. bibliog diag J Res Nat Bur Stand 50:139-45 Mr '53

Surface properties of silica gels; adsorption of water vapour. K. S. W. Sing and J. D. Madeley. bibliog J Ap Chem 4:365-8 Jl '54

Thermistor calorimeter for heats of wetting; entropies from heats of wetting and adsorption data. A. C. Zettlemoyer and others. bibliog diag J Phys Chem 57:649-52 O '53

Thermodynamics of the adsorption of water on graphon from heats of immersion and adsorption data. G. J. Young and others. bibliog J Phys Chem 58:313-15 Ap '54

Vacuum microbalance for measuring sorption in dielectrics. A. G. Day. bibliog diags J Sci Instr 30:260-3 Ag '53

See also

Adsorbents

Carbon, Activated

Chromatographic analysis

ADSORPTION, Heat of

Heat of adsorption of argon adsorbed on titanium dioxide between 60 and 90°K. E. L. Pace and S. A. Greene. diag Am Chem Soc J 76:3286-9 Je 20 '54

Heats of adsorption of argon on a series of carbon blacks graphitized at successively higher temperatures. R. A. Beebe and D. M. Young. bibliog J Phys Chem 58:93-6 Ja '54

ADSORPTION apparatus

Adsorption studies on clay minerals; a torsion pendulum adsorption balance. E. W. Gelewitz and H. C. Thomas. diags R Sci Instr 25:55-7 Ja '54

Chromatography comes of age; patent. diag Chem Eng 61:256 S '54

Cross-flow aids adsorption. diags Chem Eng 60:342 Ag '53

Rotary vacuum reaction chambers. J. F. Duncan and D. T. Warren. il diags J Sci Instr 30:462-4 D '53

See also

Hypersorbers

ADSORPTION index test. See Gas, Natural—Analysis

ADVERTISED brands. See Advertising, National

ADVERTISEMENTS

Can you pick the winner? which of these four ads was voted the best approach for business-paper advertising. il Ptr Ink 243:32-3 My 29 '53

How to build sell into an ad. P. Schofield. il Ptr Ink 243:33-6 My 1 '53

See also

Calendars

Books and booklets

Five cents for a kid's snack; what should he buy? teaching aids. J. Schoenfeld. Sales Management 71:48+ D 1 '53

ADVERTISEMENTS—Books and booklets—*Continued*

Get down to cases with prospects who say, our problem is different; booklet distributed by Minnesota mining and manufacturing co. il Sales Management 72:54+ Je 15 '54

Humor enlivens dull product, Eastman gets fast results. il Ind Marketing 39:124+ Mr '54

Low-pressure salesmanship; Manufacturing chemists' association publications. il Chem W 74:22 F 6 '54

Take it apart booklets can tell difficult stories easily. B. Aitchison. il Ind Marketing 39:38+ F '54

Westinghouse's big pay-off to $8,000 ad budget. A. Rosensweet. Sales Management 71: 83-4 N 20 '53

When prospects say, show me examples! Pittsburgh Plate Glass case-history booklets. il Sales Management 73:132+ S 20 '54

Why sausage is now featured on so many employe cafeteria menus; Transparent package co. promotion built around sausage service manual. S. Oppenheimer. il Sales Management 71:86+ O 15 '53

Cook books and recipes

How Minneapolis sold 2200 ranges; Recipes-of-the-month cook book, heart of six-week promotion. D. M. Lyons. il Gas Age 113: 19+ Ja 28 '54

Copyright

See Copyright—Advertisements

Design

Does the design of an ad help sell the product? J. E. Frederic. il Ptr Ink 243:38-9 Ap 10 '53

New way to hold the cost of charity ads to minimum. il Ptr Ink 244:72 Ag 21 '53

Headlines

Smart telegraphy; pictures and captions tell all. H. Stebbins. il Ptr Ink 244:33 Ag 7 '53

Why you should sell the people who want to buy. D. Burgess. Ptr Ink 244:33 Jl 24 '53

Identification

Some ads look too much alike. A. H. Baum. il Ptr Ink 244:38-9 Ag 21 '53; Discussion. K. H. Mahool. 244:97-8 S 25 '53

Inserts

Four-color inserts combat New Britain's competition. F. Borden. il Ind Marketing 38:78-9 D '53

Layout

Advertising layout. W. Longyear. bibliog 108p $6.50 Ronald press co, 15 E. 26th st, New York 10 '54

Clipping Board's 50 best for 1953. il Adv Agency 47:62-5 F '54

Don't run away from the obvious. H. Stebbins. il Ptr Ink 244:37 Jl 10 '53

Has modern layout come to stay? T. B. Stanley. il Ptr Ink 244:38-41 Ag 28 '53

How to build two-stage layouts. J. E. Gallagher. il Ptr Ink 243:34 My 29 '53

Presentation interest as a factor in advertising impact. E. F. Buxton. Adv Agency 47:55-7 Ja '54

Printing

Care and quality of electros is important for good ads. B. Aitchison. Ind Marketing 39: 48+ Je '54

Printers' ink 1954 advertisers' annual paper. Ptr Ink 245:371-4+ sec 2 O 23 '53

36-point check list for that important second proof reading. R. Sadler. Ptr Ink 245:62+ O 2 '53

Rating

Can your advertisements pass this six-point test? C. L. Whittier. Adv Agency 46:64-7 My '53

Readership

Before and after; what have we learned from Readex? H. G. Sawyer. il Ind Marketing 38:60-4+ D '53

Best-read industrial ads, photos outpull drawings. il Ind Marketing 38:174-5 N '53

Best-read magazine advertisements. D. Starch. il Published in monthly numbers of Advertising agency and advertising and selling

Bog slogging pays off in highest ad readership; Detroit Diesel engine div., General Motors. J. W. Brown. il Ind Marketing 39: 70-1 Je '54

Color ads dominate ARF study. il Ind Marketing 39:34 Jl '54

Color advertisements get high readership. Sales Management 72:73 Je 15 '54

Color or black and white? that's the question. H. P. Scheinkopf. Ind Marketing 39:63-4 Ag '54

Does readership of business paper ads hold up in summer? B. Aitchison. Ind Marketing 39:46+ Ja '54

Let's take the blinders off readership research. R. E. Baxter. Adv Agency 46:70-2 D '53

More customers for your newspaper advertising; new readership research. A. B. Sikes. il Adv Agency 46:69-71+ O '53

Next step in copy is to find out who reads your ads. R. Manville. Ptr Ink 244:70-1 Ag 21 '53

Outstanding findings of readership studies. D. Starch. il Adv Agency 47:58-9+ Ag; 54-5+ S '54 (to be cont)

Principles of readership in industrial advertising. D. M. Neu. il Adv Agency 47:58-9+ Je '54

Product interest as a factor in advertising impact. E. F. Buxton. Adv Agency 46:57-9+ Je '53

R-o-p color ups readership; study by Milwaukee journal. Sales Management 72:63 Mr 1 '54

Some people object, but he sells; Minnesota mining and manufacturing co. series of strong man advertisements. L. F. Weyand. il Sales Management 73:54+ Ag 15 '54

Tailored to reader interest. E. S. Graybill. Sales Management 72:86 Je 1 '54

What Starch has discovered about impressions made by ads. H. D. Hadley. il Adv Agency 46:86-8+ N '53

Why this industrial advertiser's ads continue to rate high readership scores; Raymond concrete pile co. N. Keine. il Ptr Ink 245: 38-9 O 23 '53

Repetition

New proof that it pays to repeat ads. Ptr Ink 243:39 Je 12 '53

Outstanding ad has nine lives. O. C. Hognander. Sales Management 72:38-9 My 1 '54

She never grows old; Morton's little girl with the big umbrella. il Sales Management 71: 76+ D 1 '53

Size

What happens when multiple-page ads replace color spreads? R. G. Le Tourneau, inc. N. Keine. il Ptr Ink 243:40-1 Je 12 '53

See also
Advertisements,
Small space

Testing

Newspapers furnishing split-runs. R. A. Baker. Ptr Ink 245:161-2 sec 2 O 23 '53

Where can you test copy by split runs? R. A. Baker. Ptr Ink 244:50+ Ag 14 '53

See also
Advertisements—
Readership

Typography

How to use type more effectively. R. Pliskin. il Adv Agency 46:56-8 Jl '53

Nine basic points an advertiser should watch in typography. M. J. Sutter. Ptr Ink 245:60-1 O 30 '53

Printers' ink 1954 advertisers' annual; typography. Ptr Ink 245:391-2+ sec 2 O 23 '53

ADVERTISEMENTS, Classified

Autos to get spring push by many papers. D. L. Lionel. Ed & Pub 86:32 F 28 '53

New award is offered in brand name drive. D. L. Lionel. Ed & Pub 86:32 Mr 21 '53

Over 200 papers get Ford dealer's copy. D. L. Lionel. Ed & Pub 86:106 Ap 18 '53

Showers of want ads; vending machine code. D. L. Lionel. Ed & Pub 86:30 My 9 '53

ADVERTISEMENTS, Classified—*Continued*

Superb service is want ad department must. D. L. Lionel. Ed & Pub 86:30 My 2 '53

Uniformity is needed for national linage. D. L. Lionel. Ed & Pub 86:26 My 30 '53

Want ads

B. K. Davis executive, sees drop in help ads. D. L. Lionel. Ed & Pub 86:32 Ap 4 '53

Jenkins says want ads are circulation builders. D. L. Lionel. Ed & Pub 86:55 My 23 '53

See also

Employment systems
—Advertising aids

ADVERTISEMENTS, Humorous

Humor enlivens dull product, Eastman gets fast results. il Ind Marketing 39:124+ Mr '54

Light touch in industrial ads; who uses it, why? B. Aitchison. il Ind Marketing 38:36+ N '53

See also

Advertisements, Pictorial—Cartoons

ADVERTISEMENTS, Pictorial

Clipping Board's 50 best for 1953. il Adv Agency 47:62-5 F '54

Golden egg that gave a goose to ads; Johnson & Johnson proves power of demonstrable idea. E. G. Gerbic. il Sales Management 73:78+ S 1 '54

Illustration do's and don'ts for farm advertisers. Ptr Ink 245:280 sec 2 O 23 '53

Ingenuity cuts ad costs, no mirrors, no rubber type; Lindberg engineering co. il Ind Marketing 39:122 Jl '54

It had to come; 3-D magazine advertising. Sales Management 70:98-9 My 20 '53

New developments in 3-D printing. Ptr Ink 245:377 sec 2 O 23 '53

Picture interest as a factor in advertising impact. E. F. Buxton. Adv Agency 47:78-81+ Ap '54

Show your product! K. G. Merrill. Ptr Ink 245:96 O 30 '53

Smart telegraphy; pictures and captions tell all. H. Stebbins. il Ptr Ink 244:33 Ag 7 '53

Use situation pictures to make your ads more human. J. E. Gallagher. il Ptr Ink 243:42 My 8 '53

Which ad pulled best? Ptr Ink 243:54+ My 8 '53

See also

Television advertising

Cartoons

Cartoons in advertising; Republic national bank of Dallas. il Banking 46:48-9 N '53

New cartoon ad series to continue; National Distillers. il Ptr Ink 244:66 Ag 14 '53

Comic strip

Advertising tests hint influence of comics. Sales Management 70:100+ Je 1 '53

Paintings

Famous artists engaged by Mathes to stress Johnnie Walker quality. il Adv Agency 47:62-3 My '54

Photographs

Close-up photos of Anchor's concealed product helps ads. il Ind Marketing 39:66 Ja '54

GE takes nine days to shoot ad photo of 8,854 jet parts. il Ind Marketing 38:186 N '53

Has your product news fizzled because of these boners? R. H. Lewis. il Ind Marketing 39:60-2+ Ap '54

Meet our photo requirements, then we'll buy anything better. H. M. Havemeyer. Ind Marketing 38:79 D '53

Problem, to stir the trade; Security Mutual Life of Binghamton. il Ptr Ink 244:41-2 Jl 31 '53

Semi-abstract photos help Westinghouse sell skeptics. il Ind Marketing 39:64 Jl '54

6,000 photos in Alcoa file, but they're easy to find. J. J. Maloney. il Ind Marketing 38:170-1 N '53

Some people object, but he sells; Minnesota mining and manufacturing co. series of strong man advertisements. L. F. Weyand. il Sales Management 73:54+ Ag 15 '54

Station wagon helps carry honors to IM's adman of year. J. Serkowich. Ind Marketing 39:64 Ja '54

Videx brings three-dimension to display advertising. H. Swofford. il Adv Agency 46:70 My '53

Portraits

Jalousie window manufacturer goes after new market; Adams engineering co. expanding its advertising; architects' portraits in advertising; statement by A.I.A. president, C. W. Ditchy. E. J. Dever, jr. il Ptr Ink 245:44-6 O 16 '53

ADVERTISEMENTS, Small space

Four T's of small space advertising. G. Moses. Adv Agency 47:28+ S '54

ADVERTISERS

ABP tells who spent what in business papers in 1952; 641 companies. Ptr Ink 243:58-9+ Ap 3 '53

Leading business paper advertisers in 1953. Adv Agency 47:50 My '54

Leading national advertisers; a ranking of 100 companies by total advertising expenditures in magazines, newspaper sections, network radio and television for the first six months of 1953. Adv Agency 46:24 O '53

Million-dollar advertisers in 1952, arranged in classes; tabulation. B. W. Lyndon, comp. Ptr Ink 245:43-50 sec 2 O 23 '53

100 leading national advertisers. Adv Agency 47:55 Mr '54

Top 100 national newspaper advertisers; 1952 vs 1951. Adv Agency 46:88 Ag '53

What general advertisers can learn from mail order. H. C. Daych. Ptr Ink 243:31-3+ My 8 '53

See also

Advertising agencies
—Client relations

ADVERTISING

Admen's outlook. Bsns W p54 N 14 '53

Advertising is management's problem, too. C. B. Larrabee. Ptr Ink 245:37-9 O 9 '53

Advertising; more money, new ideas. il Bsns W p44+ O 17 '53

Before you throw out 70 per cent of your accounts. A. R. Tofte. Sales Management 70:44+ My 20 '53

Closer liaison between FTC and ad business gets favorable reaction from top execs. C. Day. Ptr Ink 243:38-9+ Ap 3 '53

FTC takes on a new look. R. Y. Giles. Ptr Ink 243:54-5 My 29 '53

Four do-it-yourself trends that mean extra profits to advertisers. J. P. Taylor. il Ptr Ink 245:27-30 O 2 '53

Hostile to advertising? legislative reference service can't afford bias. R. Y. Giles. Ptr Ink 243:21 My 8 '53

Important part of advertising is selling. F. D. Richards. Adv Agency 47:67 F '54

Inside a miracle. J. P. Cunningham. Adv Agency 46:73 Je '53

Let's release the brakes on our advertising effort. F. R. Gamble. Adv Agency 47:39+ My '54

Outboard motor and I; effect of advertising on old customers. H. P. Bridge. Ptr Ink 245:122 O 9 '53

Printers' ink 1954 advertisers' annual. Ptr Ink 245:1-520 sec 2 O 23 '53

So's your antimacassar! G. Fry. Ptr Ink 244:109 S 11 '53

Standards we raise, by P. Mazur; review. Adv Agency 46:90 N '53

Steady stockholder dividends prove it pays to advertise. L. M. Hughes. Sales Management 72:38-9 Je 15 '54

What advertising is, what it has done, what it can do now. il Ptr Ink 243:43-5+ My 15 '53; Discussion. 244:54-5 Jl 3 '53

What is greatness in advertising, and how achieved? C. L. Whittier. Adv Agency 47:48-9+ Ja '54

What makes good advertising. R. E. Pendergast. Ind Marketing 39:40+ Jl '54

See also

Advertising agencies and other headings beginning Advertising
Association of national advertisers
Audit bureau of circulations
Bank advertising
Billboards
Catalogs
Color in advertising
Employment systems
—Advertising aids
Exhibits
House organs

ADVERTISING—See also—*Continued*

Labels
Merchandizing
Money raising campaigns
Moving pictures in advertising
Premiums (merchandizing)
Publicity
Radio advertising
Safety advertising
Sales letters
Show windows
Television advertising
Women in advertising

also subdivision Advertising under special subjects, e.g.

Air conditioning industries
Building trades
Charities
Correspondence schools and courses
Domestic appliances
Electric apparatus industry
Fountain pens
Insurance, Fire
Motor bus lines
Products, New
Railroads

Accounting

Advertising expense accounting and control. G. M. Harold. N A C A Bul 34:1588-98 Ag '53

Treasurers define the nature of advertising items. J. K. Lasser. J Account 97:428-9 Ap '54

Bait advertising

See Advertising ethics

Bibliography

Current reading list for sales executives and salesmen; advertising principles and methods. Sales Management 72:105-8+ Mr 15 '54

Helpful Printers' ink reprints for today's selling and advertising problems. Ptr Ink 245:214 sec 2 O 23 '53

Printers' ink 1954 advertisers' annual; data sources. Ptr Ink 245:416-17+ sec 2 O 23 '53

Children, Appeal to

Get 'em young; packaging techniques to win brand loyalties early. il Mod Packaging 27:91-7+ N '53

Collectors, Appeal to

Tie in your advertising with hobbies and you have a ready-made appeal; how 20,000,000 stamp collectors can be reached. E. A. Kehr. il Ptr Ink 245:44+ O 23 '53

Consumer contests

See Advertising—Prize contests

Cost

Ad cost-per-inquiry cut to $4.76 by Wiegand. Sales Management 71:136-7 O 15 '53

Cost control for marketing operations; order getting. N A C A Bul 35:1349-80 sec 3 Je '54

Economies in advertising creation. K. Groesbeck. Adv Agency 47:58 Ja '54

Spreading the butter too thin; client with $300,000 budget wants national advertising job on a food product. K. Groesbeck. Adv Agency 47:122 S '54

Ten ways to cut the cost of your business-paper advertising. J. McAlevey. il Ptr Ink 245:47-8+ O 9 '53

What it costs to advertise. Nat Pet N 45:54-5 Je 10 '53

Dealer cooperation

Distributor helps advertiser put new product across. il Ptr Ink 243:118+ Ap 17 '53

How to get dealers to tie in with national ads in newspapers. il Ptr Ink 243:122+ Ap 17 '53

Premium with a purpose; to get broker and dealer cooperation; National selected products. il Ptr Ink 243:98 Ap 24 '53

Wholesaler enlists dealers in new sales drive, everybody profits. il Ptr Ink 243:55-6 Ap 17 '53

Dealer helps

How advertising helps develop new dealer organization; Burroughs corp. R. G. Silbar. il Ptr Ink 243:38-40 Je 19 '53

How to get more dealers to use your window displays. L. B. Dunning. il Ptr Ink 243:51-3+ Ap 17 '53

Simple kit helps nail down a market; Domestic Engineering's bright sales kit. Sales Management 70:116+ Je 15 '53

Dealers, Appeal to

Conmar ads attack low-quality goods. il Ptr Ink 243:17 My 1 '53

First came the trade ads, then direct mail to jobbers; Walter L. Schott co. L. F. Thomann. il Ptr Ink 244:45 Jl 31 '53

Freddy and Norge use the subtle touch. R. C. Connell. il Sales Management 72:60+ My 20 '54

How to use influence groups. S. D. Cowan, jr. il Adv Agency 47:72-3+ F '54

Manager's a key man in the variety store market. J. C. Cumming. il Sales Management 71:112+ Ag 15 '53

Real pros show how to sell Rockwell manufacturing co. E. W. Ristau. il Sales Management 72:50+ Je 15 '54

This one says something, officially; Lewyt advertisement. W. J. Daily. il Sales Management 72:48+ Ap 1 '54

Your dealer mailing pieces making a beeline to the paper-baler? Sales Management 73:102 S 20 '54

Economic aspects

Advertising force; its challenge and potentials in today's economy. P. Mazur. Ptr Ink 244:47-9 S 18 '53

How inflated costs have affected advertising. R. Barton. Adv Agency 46:52-5+ My '53

What makes the demand for advertising? A. S. Donnahoe. Adv Agency 46:52-5 Jl '53

Why sales and advertising face challenge to hold peak of U.S. boom. J. Hirsch. Ptr Ink 244:35-7+ Ag 21 '53

Employees, Appeal to

Why we advertise quality to our workers; Detroit steel products co. H. D. Tryggvi. il Ptr Ink 243:66+ Je 5 '53

Farmers, Appeal to

How an industrial advertiser markets and tests an unusual consumer product; Line material co. N. Keine. il Ptr Ink 245:59-60 O 2 '53

Illustration do's and don'ts for farm advertisers. Ptr Ink 245:280 sec 2 O 23 '53

New service, new advertiser, new business; Knettle farm management service. L. Lippman. il Ptr Ink 244:60-1 S 4 '53

Printers' ink 1954 advertisers' annual; farm. W. Alderson, comp. Ptr Ink 245:265-7+ sec 2 O 23 '53

Printers' ink 1954 advertisers' annual; farm publications. Ptr Ink 245:282-5 sec 2 O 23 '53

Finance

Lay-away plan for ad funds. J. K. Lasser. Sales Management 71:98+ Jl 15 '53

Government investigation

Why does the Justice department investigate advertising now? M. J. Simon. Adv Agency 47:57+ Jl '54

Industries, Appeal to

See Advertising, Industrial

Inquiries

Good inquiries and sales contest lead to million-dollar sales increase; West disinfecting co. N. Keine. il Ptr Ink 243:44-6 Je 5 '53

How to locate new customers. C. J. Swan. il Ptr Ink 244:23-5+ Jl 3 '53

See also

Advertising, Industrial—Inquiries
Follow-up systems

Laws and regulations

Courts; pro or con advertising? M. J. Simon. Adv Agency 46:84+ Ag; 80+ S '53

FTC decision on use of free is welcome but not unexpected. G. H. Weil. Ptr Ink 245:66+ O 9 '53

FTC unit will check ad order compliance. Oil Paint & Drug Rep 166:3 Ag 9 '54

How local vs. national ad rates may cause you FTC trouble. J. Schoenfeld. Sales Management 70:50+ Ap 15 '53

How to use the word free. M. J. Simon. Adv Agency 47:70-1+ F '54

Ike's Federal trade commission takes a new look at codes. J. Shoenfeld. Sales Management 72:54+ Mr 1 '54

ADVERTISING—Laws and regulations—*Cont.*

No letup in need for advertising lobbies. R. Y. Giles. Ptr Ink 244:21 S 11 '53

Printers' ink 1954 advertisers' annual; legal. Ptr Ink 245:422-9 sec 2 O 23 '53

Right of publicity and its importance to advertisers. G. H. Weil. Ptr Ink 244:62+ Ag 28 '53

Soil conditioner trade warned on ad claims. Oil Paint & Drug Rep 164:3+ D 14 '53

Localization

Building from local to national. Adv Agency 46:104 Je '53

Market selection

Can advertising markets be defined or measured as geographical areas? with data for 168 standard metropolitan areas. A. S. Donnahoe. J Marketing 18:113-33 O '53

Men, Appeal to

See also
Men's furnishing goods—Advertising

Objectives

Does your premium offer have a purpose? T. M. Jones. il Ptr Ink 243:89-92+ Ap 24 '53

Soft soap won't work in the cold war of ideas. M. A. R. Bassity. Ptr Ink 243:70 My 22 '53

Working for speed. Ptr Ink 243:54 Ap 10 '53

Planning

How Cutex Cute Tomata promotion was handled; Mathes agency. il Adv Agency 47:61+ Jl '54

How we planned a paint company's advertising. J. H. Melum. il Adv Agency 46:82-5 N '53

Package-goods thinking on a hard-goods account; Ted Bates & co. advertising of CBS-Columbia television sets. J. M. Lyden. il Adv Agency 47:68-9+ S '54

Product interest as a factor in advertising impact. E. F. Buxton. Adv Agency 46:57-9+ Je '53

Proposition interest as a factor in advertising impact. E. F. Buxton. Adv Agency 46:66-8 Jl '53

Premiums

Children's premium capitalizes on tv; Clark bros. chewing gum co. il Ptr Ink 243:64 Je 19 '53

Printers' ink 1954 advertisers' annual; premiums. Ptr Ink 245:343-52+ sec 2 O 23 '53

Prize contests

Contest dredges up new uses for Porter-Cable tools. J. A. Proven. il Sales Management 70:68+ Ap 1 '53

Contest rules and regulations. Ptr Ink 245:429 sec 2 O 23 '53

Hogs have their day; Pfizer sponsored contest to introduce advantage of terramycin and other antibiotics in feed. il Chem W 73:31 D 26 '53

I want an electric range because; promotional program. il Elec World News ed 140:40-1 Ag 17 '53

Kellogg again invites ads from youngsters. il Sales Management 70:92 My 20 '53

Unguarded hello costs dollars in Toronto these days. R. B. McIntyre. il Ed & Pub 86:15 Mr 7 '53

Psychology

Advertising must dig deeper into social sciences today. P. Martineau. Ptr Ink 244:42-3 Jl 17 '53; Discussion. 244:30-1 Ag 7 '53

How can the social sciences meet the needs of advertisers? R. O. Carlson. Ptr Ink 245:44+ O 30 '53

Three ways to produce understanding advertising. E. Dichter. Adv Agency 47:94+ F '54

Public attitude

When ad meets id; exploring the consumer emotions. Management R 43:613-14 S '54

Purchasing

71 publication reps have fun selling space to Caterpillar. il Ind Marketing 39:43 F '54

Rates

Are business-paper rates too low? J. K. Lasser. Ptr Ink 245:40-2 O 30 '53

Cinncy enquirer to take auto ads at retail rate. Ed & Pub 86:24 My 30 '53

Court asked to strike down official control of ad rate. J. Walker. Ed & Pub 86:7-8 F 28 '53

How local vs. national ad rates may cause you FTC trouble. J. Schoenfeld. Sales Management 70:50+ Ap 15 '53

Judges inquire for proof of injury by unit rate; New Orleans case appeal. J. Walker. Ed & Pub 86:9-10+ Mr 14 '53

Media man's point of view; drive for bigness. D. B. Arnold. Adv Agency 46:86 S '53

Study shows newspapers raised rates average 14 per cent. Ed & Pub 86:18 F 28 '53

Unit ad rate practice in New Orleans is legal; with portion of the opinion written by Justice Clark. J. Walker. Ed & Pub 86:7, 51-3, 64 My 30 '53

U.S. asks ironclad rule against combination rates. J. Walker. Ed & Pub 86:7+ Mr 7 '53

Why business papers must raise their rates. J. K. Lasser. Adv Agency 47:51+ My '54

Women's magazines show ad discount trend. Sales Management 70:100 Je 1 '53

Research

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Returns

Which ad pulled best? il Ptr Ink 243:37+ Ap 10 '53

Samples

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Schedules

Clerical handling of schedules. N. Fields. Adv Agency 47:58-9+ O '54

Media man's point of view; what has happened to frequency? D. B. Arnold. Adv Agency 47:88 S '54

Social aspects

Advertising as a tonic for the world. W. Churchill. Ptr Ink 245:36-7 O 23 '53

Statistics

Advertising expenditures by industries, 1953 and 1952. Adv Agency 47:120 Mr '54

Advertising, 1949-1952. Survey of Cur Bsns 1953 Sup p40-2 [supplemented in monthly numbers]

Advertising volume in business papers. Published in monthly numbers of Industrial marketing

Advertising volume in 1952 sets new record as it tops seven billion dollars. Ptr Ink 244:31-3+ S 4 '53

ABP tells who spent what in business papers in 1952; 641 companies. Ptr Ink 243:58-9+ Ap 3 '53

National advertisers' 1952 investments in newspapers. Ptr Ink 243:58-60+ Je 26 '53

National advertising expenditures in newspapers during 1951 and 1952; tabulation. Adv Agency 46:55 My '53

1952 linage figures for 1,902 newspapers in 1,189 cities. Ed & Pub 86:50-66 Mr 21 '53

Printers' ink 1954 advertisers' annual. Ptr Ink 245:1-520 sec 2 O 23 '53

Trends in national newspaper advertising. Adv Agency 47:72 Ja '54 [cont monthly]

Study and teaching

At Life there's hope for all-media promotion. Ed & Pub 86:26 Ap 4 '53

How an agency cooperates in a college advertising course. F. Wittner. Adv Agency 46:100+ O '53

How do you believe the teaching of advertising in universities can be improved? panel. Adv Agency 47:46+ F '54

How new are the basic principles of advertising? International correspondence school course in advertising in 1909. J. N. Jackson. il Ptr Ink 245:67-8+ O 16 '53

Industrialists nine-to-one in favor of broad education for their admen. Ind Marketing 39:72-4+ Jl '54

Is there a right education for industrial admen? J. E. Wood. Ind Marketing 39:58-9 Jl '54

ADVERTISING—Study and teaching—*Cont.*

Urges agencies to teach techniques, leave broad education to schools. J. E. Jeuck. Ind Marketing 38:40 N '53; Discussion. G. B. Chandless, jr. 39:48+; Reply. 49-50 Mr '54

Women, Appeal to

Fashion advertising in a word; Lane Bryant. R. J. Flood. il Ptr Ink 245:65 O 9 '53

New fashion ads may prove it pays to be different. il Ptr Ink 245:43 O 30 '53

Sam, Sam, the ladies' man; Chernow co. S. H. Margolis and M. Silverstein. Ptr Ink 244:48+ Ag 28 '53

Sexual behavior in the American advertiser; why the new Kinsey study is significant to advertising. B. Kidd. Ptr Ink 244:41-3 S 11 '53

You talk about us, but you don't talk to us! A. O'Rourke. Ptr Ink 243:104 My 8 '53; Discussion. 243:102+ Je 26 '53

Youth, Appeal to

Put your accent on youth in planning farm advertising. O. Ellis. Ptr Ink 245:71-2+ O 9 '53

Canada

Six ways to improve your share of the Canadian market. G. H. S. Franklin. Ptr Ink 244:72+ Ag 14 '53

Central America

Media report on Central America. I. Vladimir. Adv Agency 46:102+ Jl '53

Cuba

How competitors get together to crack Cuban market. B. Jennings. il Ptr Ink 244:56+ Ag 28 '53

Russia

Advertising in Russia; infinitesimal but growing with consumer goods volume. C. L. Adams. il Ptr Ink 245:43 O 16 '53

Now look who uses ads, Russia. M. MacDuffie. Sales Management 72:58 Mr 1 '54

ADVERTISING, Association

AFA begins better-understanding-of-advertising campaign. il Ptr Ink 245:38 O 16 '53

Four-point association program wins advertising award; King county insurance association. il Ptr Ink 245:76-7 O 2 '53

New industry promotion aimed at local action; Men's industry council. il Ptr Ink 243:43 Ap 24 '53

Why and how the Knights of Columbus advertise Catholic faith. J. McCarthy. il Ptr Ink 244:42+ S 4 '53

ADVERTISING, Cooperative

American Meter proposes new industry-support program. Am Gas J 180:30 Je '54

Cooperative advertising, but not alone. S. S. Baker. Adv Agency 47:146 S '54

Double billing; the monster of cooperative advertising. M. J. Simon. Adv Agency 46:116+ D '53; 47:65+ Mr '54

Free-trial promotion zooms appliance sales; General Electric and Maison Blanche, New Orleans, cooperate on successful try it, then buy it promotion. B. L. Gough. il Ptr Ink 244:38+ Ag 7 '53

How competitors get together to crack Cuban market. B. Jennings. il Ptr Ink 244:56+ Ag 28 '53

Point-of-purchase cooperative program pays off for soft drinks; Carbonated beverage institute. il Sales Management 70:88-92 Ap 15 '53

Queen Elizabeth's coronation sparks royal salads; Cling peach advisory board. S. E. Plumb. il Sales Management 70:94-8 Je 15 '53

Region five brick producers cooperate to sell public. il Brick & Clay Rec 124:42-3 Ja '54

Retailers run this co-op ad plan; United grocers. R. B. Johnson. il Sales Management 71:52+ Ag 1 '53

71 ANA companies report on their co-op advertising practices. D. Bruner. Ptr Ink 244:40 Ag 21 '53

Manufacturers and dealers

Co-op ads capture last auto citadel. Bsns W p41-2+ N 21 '53

How local vs. national ad rates may cause you FTC trouble. J. Shoenfeld. Sales Management 70:50+ Ap 15 '53

What happens when an industry goes overboard on co-op advertising? J. C. Cumming. Sales Management 70:92+ Ap 1 '53

Tie-in advertisements

How Mathes merchandised Cutex products. R. Barton. il Adv Agency 46:73-4 Ag '53

How out-of-season tie-in boosts sales for seasonal item; Ocean Spray's chicken and cranberry campaign. il Ptr Ink 244:49 Ag 14 '53

New ad campaign on silverplate starts drive to revive family dining. N. Keine. il Ptr Ink 243:44-5 Je 26 '53

Only strong merchandising firms need apply for General Mills tie-ins. E. E. Schaefer. il Sales Management 72:40-1 My 1 '54

Rocket man sells water heaters; contractors tie-in with Charles Coburn film. il Dom Eng 184:172 S '54

ADVERTISING, Educational

Industrial advertising as a source of information. W. G. Kessel. J Chem Educ 31:255-7 My '54

See also

Advertisements—Books and booklets

Advertising, Association

Publicity

ADVERTISING, Foreign

AIAA names winners in annual contest. il Adv Agency 47:64 Jl '54

Export advertising a riddle? J. H. Serkowich. il Ind Marketing 39:205-7 S '54

'54 export budgets to level off. Ind Marketing 39:56-7 Ja '54

New export advertising study released this week, shows outlook good for 1953. Ptr Ink 243:34-5 My 8 '53

Printers' ink 1954 advertisers' annual export. Ptr Ink 245:287+ sec 2 O 23 '53

Small business creates own market overseas; Acme fishing tool co. J. H. Warburton. il Ptr Ink 243:40+ Ap 10 '53

ADVERTISING, Fraudulent

FTC cites Evis manufacturing company on advertising claims. Electrochem Soc J 101: sup 129C My '54

Misuse of ads for chemical and drug products hit by FTC. Chem & Eng N 32:1482 Ap 12 '54

ADVERTISING, Industrial

Accounts increase budgets to avert sales drop in '54; forecast. Ind Marketing 39:54 Ja '54

Ad manager blasts special advertising in business papers. J. W. Brown. Ind Marketing 39:50-2 F '54

ABP names industrial ad award winners. Ptr Ink 243:57-9+ Ap 17 '53

Baker-Raulang offers two kinds of ads; for big, small buyers. il Ind Marketing 39:114 Mr '54

Before and after; what have we learned from Readex? H. G. Sawyer. il Ind Marketing 38:60-4+ D '53

Best-read industrial ads, photos outpull drawings. il Ind Marketing 38:174-5 N '53

Case for industrial advertising. J. Fistere. Advanced Management 19:32 Ja '54

Copy chasers. Published in monthly numbers of Industrial marketing

Distributor survey leads to harder-pulling advertising; Standard pressed steel co. il Ind Marketing 39:122-3 Mr '54

Four ways to merchandise for close selling coordination. Ind Marketing 39:48-50 F '54

General Dynamics drive aims at future nuclear power users. il Ind Marketing 39:118 Mr '54

GE takes nine days to shoot ad photo of 8,854 jet parts. il Ind Marketing 38:186 N '53

Glamorous claims of industrial campaign make news; General refractories co. J. W. Dragonetti. il Ptr Ink 243:46 Ap 24 '53

Guideposts for the advertiser in industrial publications. Ptr Ink 245:231-3+ sec 2 O 23 '53

Has your product news fizzled because of these boners? R. H. Lewis. il Ind Marketing 39:60-2+ Ap '54

Here's how to let right hand know what the left is doing; Republic steel corp. booklet, Advertising at work. Ind Marketing 39:64 Je '54

ADVERTISING, Industrial—*Continued*

How advertisers prepare for atomic age. C. Day. il Ptr Ink 243:43 Je 26 '53

How direct mail finds market for newcomer's new machine; National threading machine co. il Ptr Ink 244:45 S 11 '53

How industrial advertisers can get the most for their money. G. D. Richardson. Adv Agency 47:56-7+ Je '54

How Sinclair advertises its 500 products. H. D. Hadley. il Adv Agency 47:70-1+ Ag '54

How to advertise if you're a manufacturers' agent. B. Aitchison. Ind Marketing 39:48+ Jl '54

How to excel in industrial advertising. K. Groesbeck. Adv Agency 47:124+ S '54

How White triples with a single. il Sales Management 71:104 S 1 '53

Industrial ad trend; more facts, less ballyhoo. il Sales Management 70:144+ Ap 15 '53

Industrial advertising as a source of information. W. G. Kessel. J Chem Educ 31:255-7 My '54

Industrial advertising budgets. Ptr Ink 245:61 sec 2 O 23 '53

Industrial advertising handbook. J. Boone, ed. Review, by R. Sadler. Adv Agency 46:59 My '53

Industrial defines today's ad goals. R. R. Zisette. Sales Management 73:73 Ag 15 '54

IM presents a portfolio of award-winning industrial ads; 29 blue-ribbon advertising achievements; what made them click. il Ind Marketing 39:69-78+ S '54

Ingenuity cuts ad costs; no mirrors, no rubber type; Lindberg engineering co. il Ind Marketing 39:122 Jl '54

Integrate your industrial ads; they can't do the job alone. W. C. Sproull. il Ind Marketing 39:114-16 Ja '54

Jarecki tries advertising to build backlog of customers. W. D. Molitor. il Ind Marketing 38:138 N '53

Kearney & Trecker's controversial tool lease plan boosts sales sharply. L. Anderson. il Ind Marketing 39:52-4 My '54

Light touch in industrial ads; who uses it, why? B. Aitchison. il Ind Marketing 38:36+ N '53

Manufacturers see more sales, bigger ad budgets in 1954. Ind Marketing 39:51-4 Ja '54

1953 trends in industrial advertising. H. C. Silldorff. Ptr Ink 243:50+ Je 26 '53

1952's top industrial advertising. il Adv Agency 46:72-3 My '53

1953's top industrial advertising. il Adv Agency 47:58-9 My '54

Portfolio of award-winning industrial ads of 1953. il Ind Marketing 38:53-62+ N '53

Predict sales drop if business paper ads are cut; survey by McGraw-Hill Research. Ind Marketing 39:36+ Jl '54

Principles of readership in industrial advertising. D. M. Neu. il Adv Agency 47:58-9+ Je '54

Profits tax death will raise some budgets. N. O. Wynkoop. Ind Marketing 39:26+ F '54

Sales engineer is losing orders, if he doesn't use ads. B. Lester. Ind Marketing 39:55 My '54

Save the facts from being dull; only ballyhoo can save us! A. R. Tofte. Ind Marketing 38:114+ N '53

Seasonal coordination is pay-off for industrial advertiser; M. B. Skinner co. K. G. Merrill. il Ptr Ink 243:42-3 Je 5 '53

Semi-abstract photos help Westinghouse sell skeptics. il Ind Marketing 39:64 Jl '54

71 publication reps have fun selling space to Caterpillar. il Ind Marketing 39:43 F '54

Simplicity, drama win ABP awards for 24 industrial ads. il Ind Marketing 39:56-9 My '54

Smart advertising identifies an unknown processor and its products: Orefraction, inc. Sales Management 71:52 O 15 '53

Some people object, but he sells; Minnesota mining and manufacturing co. series of strong man advertisements. L. F. Weyand. il Sales Management 73:54+ Ag 15 '54

Station wagon helps carry honors to IM's adman of year. J. Serkowich. Ind Marketing 39:64 Ja '54

Teasers, cigars, merry-go-round introduce the Miti-Mite; Harnischfeger corp. G. L. Staudt. il Ind Marketing 39:58-60+ Ja '54

Technical advertising needs source material. D. David. Adv Agency 47:49+ Jl '54

Tell 'em what's new and capitalize; company news letters. il Sales Management 71:124+ Ag 15 '53

Unique promotion is keyed to unusual size of product; Miniature precision bearings, inc. H. D. Gilbert. il Ptr Ink 245:78+ O 9 '53

Using emotional appeals in industrial advertising. W. R. Dix. Ptr Ink 244:57 Jl 24 '53

What happens when multiple-page ads replace color spreads? R. G. Le Tourneau, inc. N. Keine. il Ptr Ink 243:40-1 Je 12 '53

Which ad attracted more readers? (cont). il Ind Marketing 38:86, 192 N; 148, 160 D '53; 39:72, 160 Ja; 56, 136 F; 120, 160 Mr; 81, 164 Ap; 142, 160 My; 74, 152 Je; 68, 160 Jl; 134, 152 Ag; 162, 208 O '54

Which ad pulled best? four ads, published in Factory management and maintenance. il Ptr Ink 243:40+ Ap 24 '53

Why retail buyers frown at your ads. M. K. Katz. Sales Management 70:73 My 20 '53

Why this industrial advertiser's ads continue to rate high readership scores; Raymond concrete pile co. N. Keine. il Ptr Ink 245:38-9 O 23 '53

See also

Advertising mediums
—Trade journals

Inquiries

Ad cost-per-inquiry cut to $4.76 by Wiegand. Sales Management 71:136-7 O 15 '53

Classify mail inquiries for most productive sales follow-up; Cincinnati Industries. E. C. Hanford. Sales Management 72:86+ Ap 1 '54

How good are your inquiries, how well do your salesmen follow up? D. W. Niven. il Ptr Ink 245:40-2 O 16 '53

How to apply advertising to tough teaching job; North American Philips co. V. W. Palen. il Ptr Ink 244:44+ Jl 17 '53

How to tell the clippers from the customers. D. White. Ptr Ink 244:108 S 11 '53

$130,000 new equipment helps process mass inquiries faster. F. O. Rice. il Ind Marketing 39:76+ Ja '54

Prospects or students; a program for both; Wyandotte Chemicals. il Chem W 72:72+ My 23 '53

This ad gave prospects, salesmen, opportunity to get acquainted. B. Dolan. il Sales Management 73:52+ Jl 15 '54

Why this industrial sells without salesmen; Cowles co. inc. Sales Management 72:56+ My 20 '54

ADVERTISING, Institutional

Institutional market; jack pot for Kraft foods. R. S. Lochridge. il Sales Management 73:105-8+ S 20 '54

ADVERTISING, Mail

Agency promotion by mail. K. Groesbeck. Adv Agency 46:104 S '53

Are your mailers working this hard? Shur-Rane's direct mail and follow-up to inquiries. G. Svenson. il Sales Management 72:68-70 Je 1 '54

Direct mailings serve as our sales reps at 15½ cents a year. H. F. Hale, jr. il Ptr Ink 243:55-6 Je 12 '53

First came the trade ads, then direct mail to jobbers; Walter L. Schott co. L. F. Thomann. il Ptr Ink 244:45 Jl 31 '53

How direct mail finds market for newcomer's new machine; National threading machine co. il Ptr Ink 244:45 S 11 '53

How to keep direct mail advertising from going wrong. E. N. Mayer, jr. Ind Marketing 39:148-9 Jl '54

Mischievous mailings sell Esquire slacks. il Sales Management 71:108 Jl 15 '53

Mushrooming sales easier to handle because research pinpointed market; Barry corp. E. A. Johnson. Sales Management 72:82+ My 20 '54

New direct-mail campaign reaches home and industrial customers at same time. il Ptr Ink 244:41 Jl 10 '53

ADVERTISING, Mail—*Continued*

New direct mail idea, sponsored weather forecasts. Sales Management 71:36-7 Jl 15 '53

Printers' ink 1954 advertisers' annual; direct mail. Ptr Ink 245:300+ sec 2 O 23 '53

Should you double address your direct-mail pieces, inside and out? N. G. Foss. Ptr Ink 244:52-3 Jl 3 '53

69 ways to improve your direct mail. J. Jaffe. Ptr Ink 243:50+ My 1 '53

Small business creates own market overseas; Acme fishing tool co. J. H. Warburton. il Ptr Ink 243:40+ Ap 10 '53

This unusual promotion gimmick earns valuable publicity; Todd co. Ptr Ink 245:77-8 O 2 '53

Tiny booklets and post cards build prestige. L. F. Thomann. il Ptr Ink 243:40 My 1 '53

Ways to get more than your foot in the door; direct mail. il Dun's R & Mod Ind 62:145-6+ N '53

Your dealer mailing pieces making a beeline to the paper-baler? Sales Management 73: 102 S 20 '54

See also

Advertisements—Books and booklets

Follow-up systems

Mailing lists

Sales letters

Brochures

This brochure fits birthday celebration to tight budget; American floor surfacing machine co. il Ptr Ink 245:42 O 9 '53

Returns

When we added a reply card we got $1,308 back. P. Brady. il Ptr Ink 243:70+ Ap 3 '53

ADVERTISING, National

Buying patterns and brand positions changing. Ptr Ink 243:17 Ap 3 '53

How a retailer-of-the-year uses newspaper advertising. il Ptr Ink 243:132+ Ap 17 '53

How and why national advertisers use magazines today; case histories on campaigns. il Ptr Ink 244:87+ S 18 '53

How and why national advertisers use newspapers today. il Ptr Ink 243:103 Ap 17 '53

How product output and advertising can be dovetailed with retail promotions; Handmacher-Vogel. N. Keine. il Ptr Ink 244: 56-7 S 18 '53

How regional brand went national; Dant distillery co. Ptr Ink 243:134+ Ap 17 '53

How regional sales offices cash in on national newspaper advertising. il Ptr Ink 243:93-4+ Ap 17 '53

How to get dealers to tie in with national ads in newspapers. il Ptr Ink 243:122+ Ap 17 '53

Index of national advertising, 1935 through 1952. Ptr Ink 245:35-7 sec 2 O 23 '53

National advertising expenditures in newspapers. Ptr Ink 245:137-8+ sec 2 O 23 '53

New award is offered in brand name drive. D. L. Lionel. Ed & Pub 86:32 Mr 21 '53

Self-service retailer speaks out on packages, coupons, national advertising. W. A. Gates. il Ptr Ink 244:37 Jl 31 '53

Spreading the butter too thin; client with $300,000 budget wants national advertising job on a food product. K. Groesbeck. Adv Agency 47:122 S '54

Three-step plan puts this regional brand into fight for national leadership; Caloric stove co. J. W. Dragonetti. Ptr Ink 245:35-7 O 16 '53

Which brands sell best where? 17-market analysis reveals buyers' market trends. H. E. Green. Ptr Ink 243:46, 48-9 My 8 '53

Local tie-in

Homey touch in a national ad. il Ptr Ink 243:65 My 1 '53

Local ads introduced it nationally, now national ads are designed for local tie-in. L. F. Thomann. il Ptr Ink 243:76 My 15 '53

These ads are both national and local. il Ptr Ink 243:46 Je 26 '53

Why planned integration of national and local ads puts more power into both; Beatrice Foods. J. Tein. il Ptr Ink 244:28-30 Jl 3 '53

ADVERTISING, Outdoor

Can you read your own highway signs? il Brick & Clay Rec 125:93-4 S '54

Corby's number two punch; high-spot spectaculars. C. Rentschler. il Sales Management 72:65-6 F 1 '54

Good sign advertising is a sign of good business. E. W. Fair. il Rough Notes 97:46+ Mr '54

Inside tips on outdoor advertising. G. Moses. Adv Agency 46:19-20 Ag '53

Population explosion into suburbs stimulates outdoor advertising. J. M. Paver. Adv Agency 47:60-1+ My '54

Printers' ink 1954 advertisers' annual; outdoor. il map diags Ptr Ink 245:312+ sec 2 O 23 '53

What is the agency's function in outdoor advertising? N. H. Strouse. Adv Agency 46:72-3+ N '53

See also

Billboards

Posters

ADVERTISING, Point-of-sale

Eight important jobs you can do with point-of-purchase. D. Bland. Sales Management 72:94+ Ap 15 '54

Gillette boosts point-of-purchase 66 per cent in three years. Sales Management 72:97 Ap 15 '54

How Mathes merchandised Cutex products. R. Barton. il Adv Agency 46:73-4 Ag '53

How they sell benefits of butter; Fairmont foods. il Sales Management 71:51 D 1 '53

How to merchandise tv at the point of sale; Jacoby-Bender, inc. watch bands. W. Scheibel. il Ptr Ink 244:48-9 S 11 '53

How well is your advertising sold? L. M. Hughes. Sales Management 73:70-2+ Ag 1 '54

Industrial circus starts two-year pilgrimage; Yale & Towne mfg. co. il Ptr Ink 243:44 Ap 10 '53

Moving markets stress point-of-purchase potentials. Sales Management 72:73 Ap 15 '54

New industry promotion aimed at local action; Men's industry council. il Ptr Ink 243:43 Ap 24 '53

On-the-scenes sales managers want more, and better, point-of-purchase. Sales Management 70:94+ Ap 15 '53

$100 million advertiser panel reports record demand for point-of-purchase. L. M. Hughes. il Sales Management 72:74-8+ Ap 15 '54

Point-of-purchase cooperative program pays off for soft drinks; Carbonated beverage institute. il Sales Management 70:88-92 Ap 15 '53

Point-of-purchase plays 40 per cent larger part in major advertisers' plans. L. M. Hughes. Sales Management 70:74-6+ Ap 15 '53

Printers' ink 1954 advertisers' annual; point of purchase. Ptr Ink 245:329-30+ sec 2 O 23 '53

P.I. survey sheds new light on what retailers think of display material. il Ptr Ink 244:37-8 Jl 17 '53

Videx brings three-dimension to display advertising. H. Swofford. il Adv Agency 46: 70 My '53

What's happened to selling in the last three feet? J. D. Yeck. il Adv Agency 47:128 Ag '54

See also

Point of purchase advertising institute

ADVERTISING, Radio. See Radio advertising

ADVERTISING, Soliciting of

Alcoa stops sales reps' calls for six weeks; it's unique. M. Kingman. Ind Marketing 39:70+ Ag '54

Buyers, sellers happy about more ads; summer sales contest, Westinghouse broadcasting co. Sales Management 73:58 Ag 1 '54

Closed door and the closed mind. D. B. Arnold. Adv Agency 46:100 N '53

Easterners sell western living; space salesmen get a first-hand view of their market; Sunset magazine. il Sales Management 72: 106+ Ja 15 '54

ADVERTISING, Soliciting of—*Continued*

Four ways to stimulate business paper advertising. R. P. Wiggers. il Ind Marketing 39:120-1 Jl '54

How hard goods sales methods sell directory advertising space; General telephone directory co. W. A. Rolph. il Sales Management 71:56+ D 15 '53

Media man's point of view; competitive or comparative? D. B. Arnold. Adv Agency 46:94 D '53

Restrict salesmen's calls? never! they're too valuable. F. J. Dunne. Ind Marketing 39: 71+ Ag '54

Treat the space reps right and you'll learn something. B. Aitchison. Ind Marketing 39: 48+ Ap '54

What makes a good space salesman? N. Keine. Ptr Ink 244:23-6 Jl 24 '53

What makes a media rep reputable? R. S. Pollock. Ptr Ink 244:41 S 4 '53

ADVERTISING agencies

Agencies break record in 1953, place 506,777 pages in business papers. Ind Marketing 39:82+ Ap '54

Agency nine file appeal from $300,000 verdict. Ed & Pub 86:8 Mr 7 '53

Brady company growth shows potential of medium size, non-metropolitan agencies. il Adv Agency 47:68-9 Ap '54

Brokers see possible precedent for piracy in Duane Jones decision. Nat Underw 58:34 My 13 '54

Dates of acts concern court in agency case. Ed & Pub 86:13 Mr 21 '53

Doremus & co. observes 50 years in advertising. Weekly Underw 169:1147+ N 14 '53

Duane Jones case reaches highest state court. Ptr Ink 245:10 O 2; 10 O 9 '53

Duane Jones decision is upheld. Ptr Ink 243:10 My 15 '53

Facts minus frills spell success for all-girl industrial ad agency; Tech adgency. il Ind Marketing 39:110-12 Mr '54

55 agencies recognized by ANPA last year. Adv Agency 46:75 My '53

First year of a new agency. H. M. Mitchell. Ptr Ink 244:88 Jl 24 '53

How an agency cooperates in a college advertising course. F. Wittner. Adv Agency 46:100+ O '53

How Mathes merchandised Cutex products. R. Barton. il Adv Agency 46:73-4 Ag '53

How to start off on the right foot with your own agency. B. Aitchison. Ind Marketing 39:42+ Mr '54

If I had to do it all over again. E. E. Calkins. Ptr Ink 243:130 Je 26 '53

Jones verdict upheld in agency conspiracy. Ed & Pub 86:15+ My 16 '53

Katz agency heads view birthday, firm growth. M. C. Wallis. Ed & Pub 86:15 My 30 '53

Printer' ink 1954 advertisers' annual; agencies. Ptr Ink 245:71-5+ sec 2 O 23 '53

Recognition of 947 firms viewed as healthy sign. Ed & Pub 86:24+ My 2 '53

Story of Arndt, Preston, Chapin Lamb & Keen. il Adv Agency 47:53-5+ Ag '54

Story of Fletcher D. Richards, inc. il Adv Agency 47:68-9+ F '54

Story of Ketchum, McLeod & Grove. il Adv Agency 46:52-5+ D '53

Story of the Aylin advertising agency. il Adv Agency 47:52-4+ Ja '54

What is the agency's function in outdoor advertising? N. H. Strouse. Adv Agency 46:72-3+ N '53

White House calls in ad agency to help prepare President's telecast. D. Bruner. il Ptr Ink 243:38 Je 12 '53

See also

Ayer, N. W. and son. inc

Account executives

Account executive functions. K. Groesbeck. Adv Agency 47:114+ Jl '54

How much to pay account executives. K. Groesbeck. Adv Agency 47:122+ My '54

Qualifications of an account executive. K. Groesbeck. Adv Agency 47:98+ Ap '54

Accounting

Accounting and financial problems. N. Fields. Adv Agency 46:88 N; 68 D '53; 47: 76 Ja; 96 F; 96 Mr; 138 Ap; 102 My; 134 Je; 118 Ag; 138+ S '54 (to be cont)

Advertising agencies need client costs. C. MacDougall. N A C A Bul 35:1033-4 Ap '54

Financial management of advertising agencies. G. N. Farrand. Adv Agency 47:61-3+ Ap; 64-5+ Je; 56-7+ Ag '54 (to be cont)

Advertising

Agency promotion by mail. K. Groesbeck. Adv Agency 46:104 S '53

Should advertising agencies advertise? S. S. Baker. Adv Agency 46:89+ N '53

Why we advertise our agency. J. Shrager. Adv Agency 47:76 S '54

Art departments

Copy writer's letter to an art director and his reply in kind. Ptr Ink 244:50-1 S 11 '53

Do copy and art love each other in your agency? R. E. Will. Ptr Ink 243:41 My 8 '53

Art directors

Art directors award winners. H. Campbell. il Ptr Ink 243:78+ My 15 '53

How to move your art director out of the ivory tower. S. Baker. Ptr Ink 245:71-3 O 16 '53

New creative breed? J. H. Tinker, jr. Adv Agency 46:67+ Je '53

What are the qualifications of a good art director? panel. Adv Agency 46:51+ Jl '53

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Financial management of advertising agencies; problems of client billing and media payments. G. N. Farrand. Adv Agency 47: 64-5+ Je '54

Radio billings of 25 leading advertising agencies, Jan.-Dec. 1953. Adv Agency 47: 14 My '54

Should agencies finance clients? K. Groesbeck. Adv Agency 46:118+ Ag '53

Television and radio billings of 25 leading advertising agencies, 1952; tabulations. Adv Agency 46:94 Jl '53

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Total magazine billings, 25 agencies, Jan.-Dec. 1953; tabulation. Adv Agency 47:126 My '54

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Ad manager suggests how to improve the agency relation. R. P. Wiggers. Ind Marketing 38:50-1+ Ap '53; Discussion. 38:8+ Je; 51-4 S; 78+ O; 8+ N '53; 39:8+ Ja '54

11 ways to improve agency-client relations. J. S. Williams. Ptr Ink 244:52 Ag 21 '53

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How to win and lose agency accounts. J. Stacy. Ptr Ink 244:52+ Jl 10 '53

Industrial ad agency sets up atomic information unit. il diags Ind Marketing 38:57-60 D '53

Major factors that make or break agency-client relations. Ptr Ink 245:86+ sec 2 O 23 '53

Man with the guts. B. Brownell. Adv Agency 47:60+ Jl '54

Patient or client? say ah, please. K. D. Aga. Ptr Ink 244:110-11 S 11 '53

Psyching the change-agency complex. F. Fader. Ptr Ink 244:88 S 4 '53

Wanted; a market for a $275,000,000 product; West; Germany's '53 output looking for smart advertising to move it in the U.S. L. Cherne. il Ptr Ink 244:33-5 Jl 17 '53

What are the client's obligations to the agency. A. H. Baum. Ptr Ink 243:41-2 My 1 '53

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Costs, operations of advertising agencies in the United States. I. Rubel and N. Fields. Ptr Ink 245:74-5+ sec 2 O 23 '53

What to do about rising agency costs. P. C. Harper. Adv Agency 47:65+ Ag '54

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How much do agency people earn? W. A. Lowen. Adv Agency 47:64-5+ Ap '54

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Agency-client agreements; provisions in respect to compensation. R. Barton. Adv Agency 47:53-5+ F '54

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Who should pay the ad agency? Mogul plan. Sales Management 71:129 O 15 '53

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Financing the advertising agency. Adv Agency 47:70 Ja '54

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New York Council of advertising agency librarians. N. D. Frank. Adv Agency 47:90+ Ap '54

Social science library for advertising. M. Grunsfeld. Special Lib 44:219-21 Jl-Ag '53

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How the Chirurg company reorganized for growth. R. D. Stuart. Adv Agency 46:74-5+ O '53

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In what single direction do you believe agencies have the greatest opportunity to improve the efficiency of their operations? panel. Adv Agency 47:54+ Ap '54

Some tips for the small-agency man. W. B. Swann. Adv Agency 46:108+ Jl '53

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What should we do about the little advertiser? H. Byer. Adv Agency 47:57+ F '54

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What is the mortality among advertising agencies? F. H. Glade, jr. Adv Agency 46:94-5 O '53

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Sale I never forgot. R. A. Picard. Ptr Ink 243:74 Ap 3 '53

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Advertising agency goes suburban and likes it. il plan diag Arch Rec 114:160-3 D '53

Indiana agency practices what it preaches; Keller-Crescent co's advertising agency. il Adv Agency 47:92 Jl '54

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What can public relations do for this organization? F. Smith. Adv Agency 46:71+ Ag '53

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Agencies and public relations departments; why they shouldn't have them. W. H. Arbingast; D. L. Keith. Adv Agency 47:56 F '54

How product publicity can make sales. M. Murphy. il Adv Agency 46:92-3+ N '53

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What are the requisites of a good publicity department and its personnel? panel. Adv Agency 46:55+ Je '53

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Tv records and the Screen actors guild; how to keep effective control of information on tv films. N. O. Fowles. Adv Agency 47:71-2 Mr '54

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Business management of an agency research department. S. H. Britt. Adv Agency 46:72-4+ S '53

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How we selected an advertising agency. D. Neighbors. Ptr Ink 244:98-9 Ag 14 '53

Your advertising agency; time for a change? abstract. Management R 42:605-6 O '53

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Agency accounting and financial problems; better profits through proper selling of agency services. N. Fields. Adv Agency 47:138+ S '54

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What do you think are the requisites of a good agency merchandising department and its personnel? panel. Adv Agency 46:51+ My '53

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Closed door and the closed mind. D. B. Arnold. Adv Agency 46:100 N '53

Media man's point of view; media man must make personal calls. D. B. Arnold. Adv Agency 47:122 Je '54

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Costs, operations of advertising agencies in the United States. I. Rubel and N. Fields. Ptr Ink 245:74-5+ sec 2 O 23 '53

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How agencies rank by national newspaper billings. Adv Agency 46:86-8 O '53

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Agencies take offensive in fight against tax on advertising. C. Day. Ptr Ink 243:39 Je 5 '53
How agencies should handle sales taxes. M. Block. Adv Agency 46:60-1+ Je '53

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How to set up a tv department. H. B. West. Adv Agency 46:62-3+ S '53

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Agency business in Canada today. A. J. Scott. Adv Agency 46:69-71+ N '53
Costs and operations of advertising agencies in Canada. I. Rubel and N. Fields. Ptr Ink 245:92-3 sec 2 O 23 '53

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Tax-free and reserve fund plan gets mixed reaction from top execs. C. Day. Ptr Ink 244:27+ Jl 3 '53

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ADVERTISING and salesmen
Good inquiries and sales contest lead to million-dollar sales increase; West disinfecting co. N. Keine. il Ptr Ink 243:44-6 Je 5 '53
How can you sell all your sales allies on your advertising? Sales Management 73:96-7 Ag 15 '54
How to jazz up the trade; Ward products corp. K. S. Brock. il Ptr Ink 243:42+ Je 19 '53
How well is your advertising sold? L. M. Hughes. Sales Management 73:70-2+ Ag 1 '54
Is your advertising a selling tool? R. A. Picard. Adv Agency 46:103-4 N '53
On-the-scenes sales managers want more, and better, point-of-purchase. Sales Management 70:94+ Ap 15 '53
Personal salesmen; will advertising take their place? il Sales Management 70:48-9 Ja 1 '53
Six jobs for one ad campaign; Crosman arms co. N. Keine. il Ptr Ink 244:46-7 S 11 '53
This ad gave prospects, salesmen, opportunity to get acquainted. B. Dolan. il Sales Management 73:52+ Jl 15 '54
When salesmen pattern talk on ad copy. L. F. Thomann. il Ptr Ink 243:36-7 My 8 '53
Why doesn't Kraft knock off all this expensive advertising. Sales Management 71: 86+ S 15 '53

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Advertisers increase budgets for 1954. Sales Management 71:152 N 10 '53
Asking for bigger appropriations. K. Groesbeck. Adv Agency 47:108 Ag '54
Bigger advertising budgets next year. Adv Agency 46:51+ D '53
Don't include us as subscribing to uncertainty and pessimism; increased advertising budgets. Sales Management 71:52+ N 1 '53
14 reasons why a formula can't set your ad budgets. C. A. Kirkpatrick. Ptr Ink 243:53-4 Ap 3 '53
Hinge advertising budgets on the future. R. L. Scheidker. Adv Agency 47:95 S '54
Industrial advertising budgets. Ptr Ink 245:61 sec 2 O 23 '53
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What is the agency's role in setting the advertising budget? T. D. Brophy. Adv Agency 46:72 Ag '53

ADVERTISING art
Clipping board. C. Coiner. il Published in monthly numbers of Advertising agency and advertising and selling
How to make your advertisements look different. S. Baker. Adv Agency 46:66-7+ S '53
Oil painting merchandises ad; Lingerie division of United mills corp. E. J. Dever, jr. il Ptr Ink 243:31 My 29 '53
Outdoor advertising art and production factors. Ptr Ink 245:319-20 sec 2 O 23 '53
Printers' ink 1954 advertisers' annual; engraving. Ptr Ink 245:396+ sec 2 O 23 '53
Why good tv advertising art is worth the investment today. G. Olden. il Ptr Ink 244: 44-5 Ag 21 '53

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History

Handbook of early American advertising art. C. P. Hornung, ed. 2d ed rev & enl 2v 226p; 248p ea $10; set $17.50 Dover publications, 1780 Broadway, New York 19 '53

ADVERTISING as a profession
Agency man's story (cont). J. Caples. Adv Agency 46:20+ My; 16+ Jl; 18+ S; 26+ O; 36+ N; 22+ D '53; 47:20+ Ja; 12+ F; 14+ Mr; 14+ Ap; 20+ My; 30+ Je; 16+ Ag '54
Enthusiasm. E. R. Lagerwall. Ptr Ink 244: 116 Ag 14 '53
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1954 conventions of advertising groups. Ptr Ink 245:403 sec 2 O 23 '53

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National associations in the U.S. and Canada concerned with advertising, their chief officers and addresses. Ptr Ink 245:409-11 sec 2 O 23 '53
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ABP names industrial ad award winners. Ptr Ink 243:57-9 Ap 17 '53
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Greeley gas co. wins third award in western advertising contest. il Gas Age 112:69 O 22 '53
IM presents a portfolio of award-winning industrial ads; 29 blue-ribbon advertising achievements; what made them click. il Ind Marketing 39:69-78+ S '54
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1953's top industrial advertising. il Adv Agency 47:58-9 My '54
Principal advertising awards; where to secure information on entries. Ptr Ink 245: 411-12 sec 2 O 23 '53
Simplicity, drama win ABP awards for 24 industrial ads. il Ind Marketing 39:56-9 My '54

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AFA begins better-understanding-of-advertising campaign. il Ptr Ink 245:38 O 16 '53

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Are you using the right test market? W. R. Mason. il Ptr Ink 243:31-3+ Je 19 '53

Baker-Raulang offers two kinds of ads; for big, small buyers. il Ind Marketing 39:114 Mr '54

Better days for pineapples? E. Gidlow. il Sales Management 71:102-4+ Jl 15 '53

Building a sales campaign lasting four weeks. il plans Am Bld 75:86-8 Ag '53

Bulging hipline; it gave Tillie a $6,000,000 idea; Tasti-Diet, inc. E. Gidlow. il Sales Management 72:98+ Ja 15 '54

Convenience wins again, nylon sheets smash hit; Pepperell manufacturing co. B. G. Priestley. il Sales Management 72:73-4+ Mr 15 '54

Crawford sidesteps price scrimmage; adds style to garage doors. D. C. Crawford. il Sales Management 73:40-2 Ag 1 '54

Dravo pushes family identity to open up new markets. il Ind Marketing 39:58-9 Ap '54

From leasing to automation, GE ads build wide X-ray market. L. Anderson. il Ind Marketing 39:60-2 Je '54

General Dynamics drive aims at future nuclear power users. il Ind Marketing 39:118 Mr '54

Golden egg that gave a goose to ads; Johnson & Johnson proves power of demonstrable idea. E. G. Gerbic. il Sales Management 73:78+ S 1 '54

How an industrial advertiser markets and tests an unusual consumer product; Line material co. N. Keine. il Ptr Ink 245:59-60 O 2 '53

How product publicity can make sales. M. Murphy. il Adv Agency 46:92-3+ N '53

How selling pulled us from brink of a 44 per cent drop in sales; Pioneer engineering works, inc. W. A. Rundquist. Sales Management 73:94+ S 1 '54

How to break down prejudice against a new and different product; W. J. Voit rubber corp. L. F. Thomann. il Ptr Ink 244:56+ Ag 21 '53

How to jazz up the trade; Ward products corp. K. S. Brock. il Ptr Ink 243:42+ Je 19 '53

How we planned a paint company's advertising. J. H. Melum. il Adv Agency 46:82-5 N '53

If your industry hesitates on a promotional program; campaign of the West coast lumbermen's association. L. Newkirk. il Sales Management 71:76+ S 1 '53

Jalousie window manufacturer goes after new market; Adams engineering co. expanding its advertising; architects' portraits in advertising; statement by A.I.A. president, C. W. Ditchy. E. J. Dever, jr. il Ptr Ink 245:44-6 O 16 '53

Kemiko sales rise on tide of trend to outdoor living. il Sales Management 71:144+ O 15 '53

Little extras can make a good campaign great. G. Moses. Adv Agency 46:76-7 Jl '53

McCulloch finds an elusive, specialized buyer; the gyppo. il Ind Marketing 39:56-7 Ap '54

NCPMI ten year program blankets the Nation. il Brick & Clay Rec 124:63-4 Mr '54

New campaign features product as background for ads; Rigidized metals corp. il Ptr Ink 243:100 My 15 '53

New regional advertiser moves toward national distribution; Flo-Ball pens. L. F. Thomann. il Ptr Ink 243:39-40 Ap 24 '53

Northern Natural launches national ads promoting area. il Am Gas J 181:15+ Jl '54

One theme for six markets; Brockway Glass advertising campaign. il Sales Management 71:94 O 15 '53

Proof-of-difference program pays off for Kent cigarette. L. M. Hughes. il Sales Management 71:24-7+ D 1 '53

Record $5,000,000 campaign introduces luxury packaging of popular-priced liquor; Schenley Reserve fifths in gift decanter. il Ptr Ink 244:50 S 18 '53

Sales slipping in your line? try this six-point program to buck the trend; Champ hats, inc. J. W. Dragonetti. il Ptr Ink 244:64+ S 25 '53

Six jobs for one ad campaign; Crosman arms co. N. Keine. il Ptr Ink 244:46-7 S 11 '53

Six questions about how to increase unit sales and one advertiser's answers. N. Keine. il Ptr Ink 243:38-9 My 1 '53

Smart advertising identifies an unknown processor and its products; Orefraction, inc. Sales Management 71:52 O 15 '53

So you have a dull product and sales are stuck on dead center! see what Huron milling co. has done with starch. il Sales Management 72:36-8+ F 15 '54

Thompson campaign seeks new product ideas, markets. il Ind Marketing 38:140-1 D '53

Turns to advertising in search for new markets; MacAndrews & Forbes co. W. W. Walker. il Ptr Ink 243:46+ Ap 3 '53

United States independent telephone association launches advertising campaign. Pub Util 53:491 Ap 15 '54

Virginia Transit goes all out to win back those lost riders. H. E. Bickel. il Bus Transportation 33:25-7 Mr '54

Westinghouse's big pay-off to $8,000 ad budget. A. Rosensweet. Sales Management 71:83-4 N 20 '53

Why this manufacturer promotes the job his distributors do; Libbey-Owens-Ford glass co. F. R. Hawkins. il Ptr Ink 244:48-9 S 25 '53

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Special weeks and days

Merchandising days and weeks for 1954. Ptr Ink 245:442+ sec 2 O 23 '53

When tv personality is merchandized, seasonal campaign comes to life; Anson inc. H. W. Coulthurst. il Ptr Ink 243:44-6 Je 12 '53

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Teasers, cigars, merry-go-round introduce the Miti-Mite; Harnischfeger corp. G. L. Staudt. il Ind Marketing 39:58-60+ Ja '54

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Benson's butter headache cues flour promotion; International milling co. il Sales Management 71:58+ D 1 '53

More turkey on menus; co-op promotion does it. il Sales Management 71:74+ D 15 '53

What's chicken without cranberry sauce? E. Stillman. il Sales Management 71:26-9 N 10 '53

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Printers' ink 1954 advertisers' annual; transportation advertising. Ptr Ink 245:310 sec 2 O 23 '53

Riders sell transit to each other; St Louis public service carcard campaign. il Bus Transportation 33:40-1 Mr '54

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Premiums with a purpose; to keep customers loyal and capitalize on the advertising value of a trade character; Planters nut and chocolate co. il Ptr Ink 243:96 Ap 24 '53

Reddy Kilowatt slows traffic, protects workers. il Elec World 141:116 Mr 8 '54

Why Genesee hired a pretty career girl. il Sales Management 71:64 Ag 1 '53

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ADVERTISING copy

Agency copy man tells how to sink a duck. G. L. Miller. Ed & Pub 86:20 Mr 7 '53

Basic values of good copy. W. O'Meara. Adv Agency 46:62-3 Je '53

Big railroad, and a little orange. H. Stebbins. il Ptr Ink 245:39 O 16 '53

Client, God bless him, knows ads that sell goods. F. G. Comstock. Ind Marketing 39:192-5 S '54

Copy chasers. Published in monthly numbers of Industrial marketing

Copy clinic. B. Tyler. il Published in monthly numbers of Advertising agency and advertising and selling

Copy dull? sure, but whose fault? M. Wiseman. Adv Agency 47:48+ Jl '54

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Copy writer writes about copy writing. J. Caples. Adv Agency 46:18+ S '53

Copy writing is still an art. W. Weir. Ptr Ink 243:100 Je 19 '53

Dinosaur is dead, but the copy isn't. H. Stebbins. il Ptr Ink 245:39 O 30 '53

Do not strain yourself. B. Brownell. Adv Agency 46:66-7 D '53

Do some copy writers know too much? L. S. Hauger. Ptr Ink 244:58 Jl 24 '53

Equal meanings are a mirage for copy writers. E. S. Green. Ptr Ink 244:80 Jl 3 '53

Give your prospect a chance to answer. Aesop Glim. Ptr Ink 243:77 My 22 '53

Harrington stresses good copy in training. D. L. Lionel. Ed & Pub 86:32 Mr 14 '53

Hemingway is not the only way. S. G. Hopkins. Ptr Ink 243:84+ My 15 '53; Discussion. 244:63-5 Ag 14 '53

How to plan research that will help improve your product and your copy. P. Reichert. Ptr Ink 243:39-41 My 22 '53

Menu for men; shirts on ice. H. Stebbins. il Ptr Ink 244:41 Ag 21 '53

More information, please! M. Williamson. Ptr Ink 244:84 Ag 7 '53

Only good rule is a broken one. G. Moses. Adv Agency 46:82+ S '53

Point of need. C. Crandall. Ptr Ink 244:136 S 25 '53

Power of understatement. F. Denman. Ptr Ink 244:108 Jl 31 '53

Proposition interest as a factor in advertising impact. E. F. Buxton. Adv Agency 46:66-8 Jl '53

Quiet voice of conviction; Bill Bartlett, Chirurg's creative director. S. H. Margolis and M. Silverstein. Ptr Ink 243:60+ My 22 '53

Strange and curious history of shaving cream copy. E. Pearson. Ptr Ink 244:48 Ag 21 '53

Technical advertising needs source material. D. David. Adv Agency 47:49+ Jl '54

To be or not to be technical in advertising copy. S. Jewell. Adv Agency 47:72 Ag '54

To move products you must move people. H. Stebbins. il Ptr Ink 245:37 O 2 '53

Truth, tone, tempo. N. Samstag. Ptr Ink 243:40-1 Je 5 '53

What's so sacrosanct about the Hundred greatest advertisements? J. M. Cowle. Ptr Ink 244:106 Ag 28 '53

When advertising is a work horse. H. Stebbins. il Ptr Ink 244:30 Jl 24 '53

When copy suggests more than it says. H. Stebbins. il Ptr Ink 244:40 S 4 '53

When the sales manager screams for more sell. F. Denman. Ptr Ink 243:44-5 Ap 3 '53

When to put your worst foot forward. F. Denman. il Ptr Ink 243:35-6 Je 5 '53

Where do ideas come from? G. Moses. Adv Agency 47:24+ My '54

You don't have to make those mistakes! H. Byer. Adv Agency 46:98+ Ag '53

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Sales letters

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Capitalism theme

Economics of capital; ads of the month. il Trusts & Estates 92:10, 271, 347, 465, 536, 586, 664; 93:48-9 Ja, Ap-S '53, Ja '54

Credibility

Advertising puffery; what does it sell? Sales Management 70:104+ Ap 1 '53

Believability in ads and use go together. R. D. Crisp. Ptr Ink 243:37-8 My 22 '53

Believable advertising produces the most sales. R. Collins. Ptr Ink 243:35-6 Ap 3 '53

Sincerity, the best ingredient in good copy. G. Moses. Adv Agency 47:59-60 Ja; 24+ F '54

Dealer listing

Advertiser completes switch from mail order to dealer distribution. L. F. Thomann. il Ptr Ink 244:58-9 S 4 '53

Dealers' services

Why this manufacturer promotes the job his distributors do; Libbey-Owens-Ford glass co. F. R. Hawkins. il Ptr Ink 244:48-9 S 25 '53

Editorial style

Editorial ads spark new controversy. Ptr Ink 243:10 Ap 3 '53

Free offers

FTC decision on use of free is welcome but not unexpected. G. H. Weil. Ptr Ink 245:66+ O 9 '53

Free revival; FTC eases ad ban. Bsns W p52 S 26 '53

How to prepare a teaching aid that sells; Grosset & Dunlap. N. Kelne. il Ptr Ink 244:56+ Ag 14 '53

How to use the word free. M. J. Simon. Adv Agency 47:70-1+ F '54

Headlines

How to handle the negative in advertising. L. J. Reiss. il Adv Agency 47:58-9+ Mr '54

Primitive but effective. H. Stebbins. il Ptr Ink 243:58 Je 5 '53

Tongue twister is the teaser. H. Stebbins. il Ptr Ink 243:48 My 1 '53

Which ad pulled best? see in the dark, or drive safely? il Ptr Ink 243:37+ Ap 10 '53

Language, style, etc.

How to weigh your words. R. Nash. Ptr Ink 243:37-8 My 29 '53

Passionate purple prose on fashion copy. G. Moses. Adv Agency 47:32+ Ap '54

Say something simple. R. T. Colwell. Adv Agency 47:92+ Ap '54

Vive le cliché! J. M. Howard. Ptr Ink 244:59+ Jl 10 '53

What's so bad about clichés? E. L. Lagerwall. Adv Agency 46:108 N '53

Write as you talk. G. Moses. Adv Agency 47:28+ Mr '54

Length

How brief? il Ptr Ink 243:58 Ap 24 '53

Lengthening the copy. il Ptr Ink 243:77 Je 19 '53

Salt of eloquence, brevity. H. Stebbins. il Ptr Ink 244:55 S 18 '53

Short copy versus long copy. G. Moses. Adv Agency 47:28+ Ag '54

What makes copy short or long? J. E. Gallagher. il Ptr Ink 243:70 Ap 17 '53

Quality appeal

Most important word in the adman's lexicon is quality. J. Tein. il Ptr Ink 244:28-9 Jl 24 '53

Rimes

Why the burgie jingle is welcome in many West Coast cities; carillonic chimes. Sales Management 71:54+ O 15 '53

Sex appeal

Different. il Ptr Ink 243:70 My 8 '53

Testimonials

When is a testimonial not a testimonial? H. Stebbins. il Ptr Ink 243:47 Je 26 '53

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Themes

Don't desert an advertising theme if it tells your best story best; Regal shoe co. J. A. Holmes. il Ptr Ink 245:42-3 O 23 '53

No theme is stronger than sales policy! Wyandotte chemicals corp. B. Cremers. Sales Management 73:90-2 S 20 '54

Trial offers

Free-trial promotion zooms appliance sales; General Electric and Maison Blanche, New Orleans, cooperate on successful try it, then buy it promotion. B. L. Gough. il Ptr Ink 244:38+ Ag 7 '53

Use appeal

For extra sales to the trade, show your customers how to turn a sale. il Ptr Ink 244:88+ S 11 '53

ADVERTISING copy writers

Are you a caterer or a creator? G. Moses. Adv Agency 46:96 O '53

Better copy writers. Ptr Ink 243:70+ My 8 '53

ADVERTISING copy writers—*Continued*

Copy writer's letter to an art director and his reply in kind. Ptr Ink 244:50-1 S 11 '53

Curse of copy specialization. G. Moses. Adv Agency 46:94+ N '53

Do copy and art love each other in your agency? R. E. Will. Ptr Ink 243:41 My 8 '53

Fine qualifications for a good copy writer. C. H. Billipp. Adv Agency 47:73+ Mr '54

Greatest ads are yet to come. S. H. Margolis and M. Silverstein. il Ptr Ink 244:44-5+ Jl 3 '53

Here's Charley; Hicks & Greist's copy chief, Charley Skoog. S. H. Margolis and M. Silverstein. il Ptr Ink 243:48+ Je 19 '53

How to get a fresh copy approach; rotate your writers. S. C. Bowdler. Adv Agency 47:74-5 Mr '54

How to get the boss's job. G. Moses. Adv Agency 46:18+ Je '53

How to get top creative people for less money. R. Lent. Adv Agency 46:58-9 Ag '53; Discussion. J. Ball, jr. 46:59 D '53

In praise of advertising. Ptr Ink 243:50 Ap 3 '53

New creative breed? J. H. Tinker, jr. Adv Agency 46:67+ Je '53

Nothing recedes like success. G. Moses. Adv Agency 47:20+ Jl '54

Once an agency man, always one. E. S. Green. Adv Agency 46:78+ Jl '53

Punch 'em but don't kill 'em; Art Eaton. S. H. Margolis and M. Silverstein. il Ptr Ink 244:52-4 Jl 17 '53

So you're a copy writer now! H. Hill. Ptr Ink 245:36 O 2 '53

Sound barrier; getting the words on the paper. Aesop Glim. Ptr Ink 245:92-3 O 9 '53

Trial and error in hiring copy writers. D. McDowell. Ptr Ink 244:166 S 18 '53

What type of copy writer are you? G. Moses. Adv Agency 47:19-20 Je '54

What's happened to old fashioned copy genius? M. Jones. Adv Agency 47:70+ Mr '54

Who's having any fun? C. H. Brower. Adv Agency 47:38 Je '54

Would you know a creative phony? G. Moses. Adv Agency 46:80 D '53

See also
Meader, Stephen
Munro, Leslie

ADVERTISING departments

Functions of modern advertising departments, unusual and borderline. Ptr Ink 245:58-9 sec 2 O 23 '53

How industrial advertisers can get the most for their money. G. D. Richardson. Adv Agency 47:38 Je '54

Organization of the advertising department. H. R. Hammerman. Ptr Ink 245:51-4 sec 2 O 23 '53

See also
Advertising managers

Records

How Dravo streamlines its advertising department filing system. R. C. Black. il Ptr Ink 244:62-4+ S 11 '53

ADVERTISING displays

How to get more dealers to use your window displays. L. B. Dunning. il Ptr Ink 243:51-3+ Ap 17 '53

Premium with a purpose; to get more counter display; Eversharp, inc. il Ptr Ink 243:95 Ap 24 '53

Printers' ink 1954 advertisers' annual; point of purchase. Ptr Ink 245:329-30+ sec 2 O 23 '53

P.I. survey sheds new light on what retailers think of display material. il Ptr Ink 244:37-8 Jl 17 '53

See also
Advertising, Point-of-sale

ADVERTISING ethics

AFA offers prize for symbol and slogan in new drive on objectionable advertising. Ptr Ink 244:44 S 11 '53

ABBB studies spread of bait ads. Ptr Ink 243:10 Ap 24 '53

ADA urges dentifrice advertisers to curb misleading claims. Ptr Ink 245:43 O 9 '53

See also
Newspapers—Advertising policies

ADVERTISING federation of America

AFA offers prize for symbol and slogan in new drive on objectionable advertising. Ptr Ink 244:44 S 11 '53

ADVERTISING libraries

See also
Advertising agencies—Libraries

ADVERTISING literature

Bibliography

Catalogs and bulletins. Published in monthly numbers of Food engineering

Important new free catalogs. Published in monthly numbers of Factory management and maintenance

Manufacturers' literature. Published in monthly numbers of Materials and methods

Manufacturers' new literature pertaining to instrumentation. Published in monthly numbers of Instruments and automation

New literature to help cut costs. Published in monthly numbers of Mill and factory

Showcase of new bulletins. Power 98:225-6+ Mid-S '54

Technical publications. Published in monthly numbers of Architectural forum

ADVERTISING managers

Here are the new challenges that face industrial admen. G. B. Park. Ind Marketing 39:138-9+ Ap '54

Industry heads report on best relationships with sales, ad managers. Ind Marketing 39:142-4 Ag '54

ADVERTISING mediums

Basic sources of media information. D. B. Arnold. Adv Agency 47:124+ F '54

Higher ad rates help media hold profits. Ptr Ink 243:10 Ap 17 '53

How cosmetic firms allocate advertising funds. Adv Agency 46:80+ O '53

How to analyze media. K. Groesbeck. Adv Agency 46:104+ O '53

How to fit today's media to changing markets. D. P. Crane. Adv Agency 47:83-4+ Ap '54

Media man's point of view; big ten of print media. D. B. Arnold. Adv Agency 46:114-15 My '53

Media report on Central America. I. Vladimir. Adv Agency 46:102+ Jl '53

New Politz study for Life covers publications, radio, tv. il Adv Agency 46:77 Jl '53

Two big T's are changing the media picture. G. J. Abrams. Adv Agency 46:55+ S '53

What makes a media rep reputable? R. S. Pollock. Ptr Ink 244:41 S 4 '53

See also
Advertising, Soliciting of
Advertising agencies—Medium departments
Advertising as a profession
Audit bureau of circulations
Controlled circulation audit
Moving pictures in advertising
Radio advertising
Slide films
Television advertising

Advertising

Media advertising we admire. D. B. Arnold. il Adv Agency 47:62 Ja '54

Where do big advertisers come from? R. E. Jaqua. Ptr Ink 244:68+ Ag 28 '53

Farm papers

Printers' ink 1954 advertisers' annual; farm publications. Ptr Ink 245:282-5 sec 2 O 23 '53

Match books

Printers' ink 1954 advertisers' annual; match books. Ptr Ink 245:285 sec 2 O 23 '53

Striking salesmen; seven match books picked as best of chemical field. il Chem W 74:50 Ap 3 '54

250 million couponed match books; Mennen co. il Sales Management 73:39 S 1 '54

Motor buses

Buses double as rolling billboards to help Seattle's transit budget. il Bsns W p 156 N 14 '53

ADVERTISING mediums—Motor buses—*Cont.*

Printers' ink 1954 advertisers' annual; transportation advertising. Ptr Ink 245:310 sec 2 O 23 '53

Motor trucks

Terse copy, smart layout make good truck posters. G. A. Brandenburg. il Ed & Pub 86:110 Ap 18; 42 My 2 '53

Newspapers

Ads promote prestige for Western Pacific railroad. C. Watson. Ed & Pub 86:24 Ap 4 '53

Cigarette manufacturers boost newspaper linage 76 per cent as battle of brands waxes hot. Adv Agency 46:72-3 O '53

Food chains push beef sales in newspaper ads. G. A. Brandenburg. Ed & Pub 86:32 Ap 18 '53

How a retailer-of-the-year uses newspaper advertising. il Ptr Ink 243:132+ Ap 17 '53

How agencies rank by national newspaper billings. Adv Agency 46:86-8 O '53

How and why national advertisers use newspapers today. il Ptr Ink 243:103 Ap 17 '53

How brewers build sales on newspaper advertising. il Adv Agency 46:90-2+ O '53

How newspaper advertising works. W. W. Wachtel. il Ptr Ink 243:84-5+ Ap 17 '53

How newspapers built Florida real estate bonanza. R. B. McIntyre. Ed & Pub 86:18 Ap 4 '53

How regional sales offices cash in on national newspaper advertising. il Ptr Ink 243:93-4+ Ap 17 '53

How to get publicity in the small town press. S. G. Hopkins. Adv Agency 46:77-8 Je '53

How to use local newspaper advertising. Weekly Underw 170:1352 My 29 '54

Media will merchandise if you ask 'em; G. Krueger brewing co. D. Bland. il Ptr Ink 245:54+ O 16 '53

Milwaukee Journal color service; syndication of color advertising. il Adv Agency 46:110+ O '53

More customers for your newspaper advertising; new readership research. A. B. Sikes. il Adv Agency 46:69-71+ O '53

National advertisers' 1952 investments in newspapers. Ptr Ink 243:58-60+ Je 26 '53

National advertising expenditures in newspapers during 1951 and 1952; tabulation. Adv Agency 46:55 My '53

National linage reaches $526 million for last year. M. C. Wallis. Ed & Pub 86:14 Ap 25 '53

New car linage down but still tops all others. R. B. McIntyre. Ed & Pub 86:15+ My 9 '53

Newspaper advertising can be profitable for insurance agents. S. Rovner. Rough Notes 96:38+ N '53

Newspaper advertising; linage, 1949-1952. Survey of Cur Bsns 1953 Sup p42 [supplemented in monthly numbers]

Newspapers, advertising, and the law. M. J. Simon. Adv Agency 46:85+ O '53

Newspapers can serve advertisers and agencies better. H. G. Little. Adv Agency 47:72+ Je '54

Newspapers dine on bulk of La Rosa ad calories. M. Wallis. Ed & Pub 86:16 My 9 '53

Newspapers offer agencies advertising and marketing services. Adv Agency 46:81+ O '53

Newspapers reflect growth of population and its interests. H. S. Barnes. Adv Agency 47:47+ My '54

1954, fine year for progressive newspapers. D. B. Arnold. Adv Agency 47:112+ Mr '54

1952 linage figures for 1,902 newspapers in 1,189 cities. Ed & Pub 86:50-66 Mr 21 '53

Papers best advertising media. I. R. Van Aurmen. Ed & Pub 86:14 Mr 28 '53

Penny boosts dailies as retail ad medium. Ed & Pub 86:9+ My 30 '53

Printers' ink 1954 advertisers' annual; newspapers. il Ptr Ink 245:121-2+ sec 2 O 23 '53

Special offers in newspapers show current marketing trend. il Ptr Ink 243:130 Ap 17 '53

Steinway in newspapers for 90 of its 100 years. R. B. McIntyre. Ed & Pub 86:21+ Ap 18 '53

Top 100 national newspaper advertisers; 1952 vs 1951. Adv Agency 46:88 Ag '53

Trends in national newspaper advertising. Adv Agency 47:72 Ja '54 [cont monthly]

See also

American newspaper publishers association—Bureau of advertising

Audit bureau of circulations

Color in advertising

Periodicals

How and why national advertisers use magazines today; case histories on campaigns. il Ptr Ink 244:87+ S 18 '53

How media research can describe different magazine audiences. H. D. Hadley. Adv Agency 46:116+ O '53

Life insurance company advertising in magazines with national circulation; '54 story summarized, by company. East Underw 55:44-5+ pt 2 O 1 '54

Magazine advertising; cost and linage, 1949-1952. Survey of Cur Bsns 1953 Sup p41 [supplemented in monthly numbers]

Magazine advertising today. il Ptr Ink 244:63-6+ S 18 '53

Magazine advertising volume may hit $800 million by '58. W. H. Mullen. Adv Agency 47:56-7+ My '54

Magazines are chief ad competitors. J. H. Sawyer, jr. Ed & Pub 86:26 Mr 7 '53

Management market means billions more business. L. M. Hughes. Sales Management 72:36-7+ Mr 15 '54

New guide measures quality of magazine audiences; Starch report. Ptr Ink 244:42 Ag 14 '53

Printers' ink 1954 advertisers' annual; magazines. il Ptr Ink 245:94+ sec 2 O 23 '53

Total magazine billings, 25 agencies, Jan.-Dec. 1953; tabulation. Adv Agency 47:126 My '54

Why Ford invests $6,500,000 in magazines; based on an interview with B. R. Donaldson. il Ptr Ink 244:82-3 S 18 '53

See also

Advertisements—Inserts

Selection

How to select media in today's competitive conditions. H. A. Wilt. Ind Marketing 38:57-9 O '53; Discussion. 38:8+ D '53

Lowest cost per thousand what? G. J. Abrams. Ptr Ink 243:128 My 15 '53

Media man's point of view; competitive or comparative? D. B. Arnold. Adv Agency 46:94 D '53

Media man's point of view; new dimension in media analysis. D. B. Arnold. Adv Agency 47:102+ Jl '54

New study shows extent of team play in media selection. Ptr Ink 243:37 Je 19 '53

Service

No more manna; advertisers must pay for special services. R. T. Sanford. il Ind Marketing 39:76 Ap '54

Statistics

Advertising expenditures by industries, 1953 and 1952. Adv Agency 47:120 Mr '54

Telephone directories

How hard goods sales methods sell directory advertising space; General telephone directory co. W. A. Rolph. il Sales Management 71:56+ D 15 '53

Trade journals

Ad manager blasts special advertising in business papers. J. W. Brown. Ind Marketing 39:50-2 F '54

Advertising volume in business papers. Published in monthly numbers of Industrial marketing

Agencies break record in 1953, place 506,777 pages in business papers. Ind Marketing 39:82+ Ap '54

Are buiness-paper rates too low? J. K. Lasser. Ptr Ink 245:40-2 O 30 '53

ABP tells who spent what in business papers in 1952; 641 companies. Ptr Ink 243:58-9+ Ap 3 '53

AMAA to attempt closer tie with publishers. Adv Agency 47:72 F '54

ADVERTISING mediums—Trade journals— *Continued*

Four ways to stimulate business paper advertising. R. P. Wiggers. Ind Marketing 39: 120-1 Jl '54

Leading business paper advertisers in 1953. Adv Agency 47:50 My '54

Nine ways business-paper publishers can strengthen their sales and promotion. G. C. McNutt. Ptr Ink 245:52-4 O 2 '53

1954 market data and directory number. Ind Marketing 38:5-492 Je 25 '53

No more manna; advertisers must pay for special services. R. T. Sanford. il Ind Marketing 39:76 Ap '54

Oil & gas journal leads field; business publications, advertising, 1951 and 1952; tabulation. Ind Marketing 39:118 Ja '54

Predict sales drop if business paper ads are cut; survey by McGraw-Hill Research. Ind Marketing 39:36+ Jl '54

Printers' ink 1954 advertisers' annual; business publications. Ptr Ink 245:195-6+ sec 2 O 23 '53

Publishers cautious about '54, see advertisers' sales dip; forecast. Ind Marketing 39:55-6 Ja '54

Story of a successful business paper campaign. W. Persson. il Adv Agency 46: 68-9 My '53

Ten ways to cut the cost of your business-paper advertising. J. McAlevey. il Ptr Ink 245:47-8+ O 9 '53

What 202 leading companies spent on business paper advertising in 1953; tabulation. Ind Marketing 39:64+ My '54

Why business papers must raise their rates. J. K. Lasser. Adv Agency 47:51+ My '54

ADVERTISING men

Industrialists nine-to-one in favor of broad education for their admen. Ind Marketing 39:72-4+ Jl '54

Sam, Sam, the ladies' man; Chernow co. S. H. Margolis and M. Silverstein. Ptr Ink 244:48+ Ag 28 '53

Through public service, advertising men create new acceptance for advertising. W. Seiler. Ptr Ink 244:49-50 Jl 3 '53

ADVERTISING policies

Advertise more, sell more, make it for less, reduce price; inside story of Servel advertising. W. P. Jones. Ptr Ink 244:39-41+ S 25 '53

ADVERTISING research

Advertising must dig deeper into social sciences today. P. Martineau. Ptr Ink 244: 42-3 Jl 17 '53; Discussion. 244:30-1 Ag 7 '53

ARF sets up criteria for research studies. Ptr Ink 243:42-4 My 29 '53

How can the social sciences meet the needs of advertisers? R. O. Carlson. Ptr Ink 245:44+ O 30 '53

Hunches in ad research must go. E. Kobak. Ed & Pub 86:30 Mr 7 '53

Looking for a social scientist? here's how to find him. E. L. Bernays. Ptr Ink 244:56+ S 11 '53

Printers' ink 1954 advertisers' annual; research standards. Ptr Ink 245:432-3 sec 2 O 23 '53

Research should not scoff at the advertiser's hunches. A. Politz. Adv Agency 46:62-3+ My '53

See also

Advertisements—
  Readership
Market research

ADVERTISING slogans. See Slogans

AEDES. See Mosquitoes

AERATION

Aeration as a limiting factor in bacterial growth; abstract. D. Herbert. Chem & Ind p927-8 Jl 24 '54

Aeration may influence corrosion rates. M. G. Fontana. Ind & Eng Chem 46:sup85A-6A+ S '54

Basic factors of oxygen transfer in aeration systems. A. T. Ippen and C. E. Carver, jr. bibliog diag Sewage & Ind Wastes 26:813-27; Discussion. W. E. Dobbins. 827-9 Jl '54

AERATION in bakery products. See Baking

AERATION of sewage. See Sewage disposal—Aeration

AERIAL mapping. See Mapping, Aerial

AERIAL photography. See Photography, Aerial

AERIAL surveying. See Surveying, Aerial

AERIAL tramways. See Cableways

AERIALS, Radio. See Radio antennas

AEROBACTER

Adaptation of bact. lactis aerogenes to resist phenol and various alkylphenols. L. S. Phillips and C. Hinshelwood. Chem Soc J p3679-83 N '53

Adaptive behaviour of coliform bacteria to certain sugars. N. M. Mims and C. Hinshelwood. Chem Soc J p3167-70 O '53

AERODYNAMIC laboratories

See also

Wind tunnels

AERODYNAMICS

Aerodynamic characteristics of low aspect ratio wing-body combinations in steady subsonic flow. H. R. Lawrence. bibliog J Aeronautical Sci 20:541-8 Ag '53

Aerodynamic design of efficient two-dimensional channels. J. D. Stanitz. bibliog il A S M E Trans 75:1241-55 O '53

Aerodynamic interference between moving blade rows. N. H. Kemp and W. R. Sears. bibliog J Aeronautical Sci 20:585-97+ S '53

Aerodynamics of compressor blade vibration. H. Pearson. Engineer 196:473-6 O 9 '53

Aerodynamics; theory, experiment, application. H. L. Dryden. il diags Aeronautical Eng R 12:88-95 D '53

American physical society Division of fluid dynamics meeting, State College, Pa. July 1-3. Science 118:175-6 Ag 14 '53

Basic compressor characteristics from tests of a two-stage axial-flow machine. W. R. New and others. il diags A S M E Trans 76:473-81 Ap '54

Double-diaphragm shock tube to produce transient high Mach number flows. H. Bernstein. J Aeronautical Sci 20:790-1 N '53

Fluid mechanics of detonation waves. L. G. Dawson. diags Roy Aeronautical Soc J 57: 618-26 O '53

Free-flight determinations of the drag coefficients of spheres. A. May and W. R. Witt, jr. bibliog il J Aeronautical Sci 20: 635-8 S '53

Integrals and integral equations in linearized wing theory. H. Lomax and others. bibliog diags U S Nat Advisory Com for Aeronautics 1951:1267-300 '52

Investigation of separation of the turbulent boundary layer. G. B. Schubauer and P. S. Klebanoff. bibliog il diag U S Nat Advisory Com for Aeronautics 1951:689-708 '52

Investigation of the flow about cones and wedges at and beyond the critical angle. G. W. Johnston. bibliog diag J Aeronautical Sci 20:378-82 Je '53

Local heat-transfer coefficients on surface of an elliptical cylinder, axis ratio 1 : 3, in a high-speed air stream. R. M. Drake, jr. and others. bibliog il diags A S M E Trans 75: 1291-301; Discussion. 1301-2 O '53

Measurements of turbulent skin friction on cylinders in axial flow at subsonic and supersonic velocities. D. R. Chapman and R. H. Kester. bibliog(33 titles) il diags J Aeronautical Sci 20:441-8 Jl '53

Medium in fluid mechanics. L. S. Dzung. J Aeronautical Sci 20:650-1 S '53

Prandtl number for dissociated air. C. F. Hansen. bibliog J Aeronautical Sci 20:789-90 N '53

Prediction of nonlinear normal force and pitching moment for bodies of revolution without boat-tail. H. R. Kelly. J Aeronautical Sci 20:854-5 D '53

Recurrence matrix solution for the dynamic response of aircraft in gusts. J. C. Houbolt. bibliog diags U S Nat Advisory Com for Aeronautics 1951:145-75 '52

Regarding the computation of unsteady air forces by means of Mathieu functions. H. E. Fettis. J Aeronautical Sci 20:437-8 Je '53

Review of published data on the effect of roughness on transition from laminar to turbulent flow. H. L. Dryden. bibliog diags J Aeronautical Sci 20:477-82 Jl '53

Some basic concepts for analyzing dynamic flight-test data. H. Klein and R. Sedney. bibliog J Aeronautical Sci 20:740-8 N '53

AERODYNAMICS—*Continued*

Some measurements of leading edge separation bubbles on a ten per cent thick symmetrical aerofoil. J. Black and R. D. Hunt. bibliog il diags Roy Aeronautical Soc J 57: 819-23 D '53

Study of effects of viscosity on flow over slender inclined bodies of revolution. H. J. Allen and E. W. Perkins. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:1103-15 '52

Subject indexing of aerodynamic data. Engineer 196:602 N 6 '53

Subsonic oscillatory aerodynamic coefficients computed by the method of Reissner and Haskind. G. Blanch and H. E. Fettis. bibliog J Aeronautical Sci 20:851-3 D '53

Suspension-bridge design as governed by dynamic wind action. O. H. Ammann. il Roads & Eng Constr 91:132-4+ O '53

Theoretical antisymmetric span loading for wings of arbitrary plan form at subsonic speeds. J. DeYoung. bibliog U S Nat Advisory Com for Aeronautics 1951:1317-52 '52

Thermal stresses in conical shells. J. H. Huth. bibliog diag J Aeronautical Sci 20: 613-16 S '53

Transonic drag of a cone cylinder. J. W. Miles. diag J Aeronautical Sci 20:651-2 S '53

Transonic flow past simple bodies. J. D. Cole and others. bibliog il diags J Aeronautical Sci 20:627-34 S '53

Types of flow on swept wings. D. Küchemann. bibliog diags Roy Aeronautical Soc J 57:683-99 N '53

Velocity distribution in the laminar sublayer and transition region in turbulent shear flows. F. R. Hama. J Aeronautical Sci 20: 648-50 S '53

Wind-tunnel investigation of air inlet and outlet openings on a streamline body. J. V. Becker. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:887-907 '52

See also

Aeronautics
Air flow
Airplane stability and stabilizers
Airplanes—Design
Boundary layer
Flame propagation
Shock waves
Turbulence
Vortex motion
Wind tunnels

Electric analogies

Steady-flow aeroelastic study by electrical analogy. R. H. Scanlan. bibliog diags J Aeronautical Sci 20:691-8 O '53

Heating effect

Comparison of theoretical and experimental heat-transfer characteristics of bodies of revolution at supersonic speeds. R. Scherrer. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:1301-15 '52

Comparison of theory and experiment for high-speed free-molecule flow. J. R. Stalder and others. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:735-56 '52

Heat barrier; it lies beyond the sound barrier as an obstacle to high-speed flight. F. Haber. il diags Sci Am 189:80-2+ D '53

Kinetic heating; structural and materials problems in high-speed flight; Stress analysis group of the Institute of physics meeting, Bristol, Jan. 7-8; abstracts of papers. Engineering 177:115-16 Ja 22 '54

Measurements of average heat-transfer and friction coefficients for subsonic flow of air in smooth tubes at high surface and fluid temperatures. L. V. Humble and others. bibliog diags U S Nat Advisory Com for Aeronautics 1951:343-57 '52

Numerical method for the stress analysis of stiffened-shell structures under nonuniform temperature distributions. R. R. Heldenfels. diags U S Nat Advisory Com for Aeronautics 1951:1019-38 '52

AERODYNAMICS, Supersonic

AF gets highspeed data from supersonic sleds. D. A. Anderton. il Aviation W 59: 26-7+ S 7 '53

Analysis of base pressure at supersonic velocities and comparison with experiment. D. R. Chapman. bibilog il diags U S Nat Advisory Com for Aeronautics 1951:1187-209 '52

Apparent recovery factors on the leading edge of a flat plate in supersonic laminar flow. I. Korobkin. bibliog diag J Aeronautical Sci 20:578-9 Ag '53

Comparison between theory and experiment for wings at supersonic speeds. W. G. Vincenti. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:757-67 '52

Comparison of theoretical and experimental heat-transfer characteristics of bodies of revolution at supersonic speeds. R. Scherrer. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:1301-15 '52

Comparison of theory and experiment for high-speed free-molecule flow. J. R. Stalder and others. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:735-56 '52

Cylindrical shock waves produced by instantaneous energy release. S. C. Lin. J Ap Phys 25:54-7 Ja '54; Discussion. M. Birk and others. 25:1208 S '54

Design and calibration of stagnation temperature probes for use at high supersonic speeds and elevated temperatures. E. M. Winkler. bibliog diag J Ap Phys 25:231-2 F '54

Effect of aspect ratio on the air forces and moments of harmonically oscillating thin rectangular wings in supersonic potential flow. C. E. Watkins. diags U S Nat Advisory Com for Aeronautics 1951:657-73 '52

Equations and charts for the rapid estimation of hinge-moment and effectiveness parameters for trailing-edge controls having leading and trailing edges swept ahead of the Mach lines. K. L. Goin. bibliog diags U S Nat Advisory Com for Aeronautics 1951:937-1007 '52

Equations for the loading on triangular wings having supersonic leading and trailing edges due to various basic twist distributions. J. H. Kainer. diags J Aeronautical Sci 20:469-76 Jl '53

Evaluation of the function $f\lambda(M,\hat{\omega})$. G. Zartarian and H. M. Voss. bibliog J Aeronautical Sci 20:781-2 N '53

Evidences of an inherent error in measurement of total-head pressure at supersonic speeds. J. S. Murphy. Aeronautical Eng R 12:47-51 N '53

Experimental investigation of the effects of viscosity on the drag and base pressure of bodies of revolution at a Mach number of 1.5. D. R. Chapman and E. W. Perkins. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:805-28 '52

Formulas for the supersonic loading, lift, and drag of flat swept-back wings with leading edges behind the Mach lines. D. Cohen. bibliog diags U S Nat Advisory Com for Aeronautics 1951:1147-86 '52

General integral form of the boundary-layer equation for incompressible flow with an application to the calculation of the separation point of turbulent boundary layers. N. Tetervin and Chia Chiao Lin. bibliog U S Nat Advisory Com for Aeronautics 1951:1067-85 '52

Hypersonic viscous flow over a flat plate. S. Pai. J Aeronautical Sci 20:502-4 Jl '53

Hypersonic viscous flow over an inclined wedge. L. Lees. J Aeronautical Sci 20:794-6 N '53

Integral equation in the supersonic oscillating wing theory. T. Y. Li and H. J. Stewart. bibliog J Aeronautical Sci 20:724-6 O '53

Interferometric studies of supersonic flows about truncated cones. J. H. Giese and V. E. Bergdolt. bibliog il diags J Ap Phys 24:1389-96 N '53

Investigation of the NACA 4-(5) (08)-03 and NACA 4-(10) (08)-03 two-blade propellers at forward Mach numbers to O.725 to determine the effects of camber and compressibility on performance. J. B. Delano. il U S Nat Advisory Com for Aeronautics 1951:189-219 '52

Leading-edge separation from delta wings at supersonic speeds. M. C. Adams. J Aeronautical Sci 20:430 Je '53

Lift-cancellation technique in linearized supersonic-wing theory. H. Mirels. bibliog diags U S Nat Advisory Com for Aeronautics 1951:65-75 '52

AERODYNAMICS, Supersonic—*Continued*

Mach 2 problem; violent controls; X-1A's 1,650-mph. flight confirms need for substantial research. R. Hotz. il Aviation W 59:15-16 D 28 '53

Method of characteristics for the determination of supersonic flow over bodies of revolution at small angles of attack. A. Ferri. bibliog diags U S Nat Advisory Com for Aeronautics 1951:1039-54 '52

Minimum drag cambered rectangular wing for supersonic speeds. N. Rott. J Aeronautical Sci 20:642-3 S '53

Noise from aircraft travelling with velocities greater than that of sound. A. G. Walters. diags Roy Aeronautical Soc J 57:719-22 N '53

Open-nose body of revolution of minimum drag at small supersonic speeds. E. T. Benedikt. diag J Aeronautical Sci 20:720-2 O '53

Operational form of the linearized equation of supersonic flow. L. E. Fraenkel. J Aeronautical Sci 20:647-8 S '53

Oscillating airfoils at high Mach number. M. J. Lighthill. bibliog J Aeronautical Sci 20:402-6 Je '53

Particular integrals of the Prandtl-Busemann iteration equations for the flow of a compressible fluid. C. Kaplan. U S Nat Advisory Com for Aeronautics 1951:909-14 '52

Second-order lifting pressure and damping in roll of sweptback rolling airfoils at supersonic speeds. J. C. Martin and N. Gerber. bibliog J Aeronautical Sci 20:669-704 O '53

Simplified method to obtain the load distribution corresponding to the Ackeret region for wings having arbitrary source distribution at supersonic speeds. J. H. Kainer. diag J Aeronautical Sci 20:749-50 N '53

Spreading of supersonic jets in supersonic streams. J. G. Wilder, jr. and K. Hindersinn. il diags Aeronautical Eng R 12:54-68 O '53

Study of effects of sweep on the flutter of cantilever wings. J. G. Barmby and others. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:229-53 '52

Summary of lateral-stability derivatives calculated for wing plan forms in supersonic flow. A. L. Jones and A. Alksne. bibliog(24 titles) diags U S Nat Advisory Com for Aeronautics 1951:1211-45 '52

Supersonic flow about slender bodies of elliptic cross section. A. Kahane and A. Solarski. bibliog diags J Aeronautical Sci 20:513-24 Ag '53

Supersonic flow around circular cones at angles of attack. A. Ferri. bibliog diags U S Nat Advisory Com for Aeronautics 1951:1055-65 '52

Supersonic flow over conical bodies without axial symmetry. A. Ferri and others. bibliog diags J Aeronautical Sci 20:563-71 Ag '53

Supersonic thickness drag of rectangular wings with linear spanwise taper in thickness. K. Walker, jr. diags J Aeronautical Sci 20:509-11 Jl '53

Turbulence in supersonic flow. L. S. G. Kovásznay. bibliog il diags J Aeronautical Sci 20:657-74+ O '53

Two-dimensional unsymmetric flow patterns at Mach number 1. G. Guderley and H. Yoshihara. diags J Aeronautical Sci 20:757-68 N '53

See also

Boundary layer

AEROELASTICITY (term)

Steady-flow aeroelastic study by electrical analogy. R. H. Scanlan. bibliog diags J Aeronautical Sci 20:691-8 O '53

Structural approach to aeroelastic problems. D. Williams. Engineer 197:315-17 F 26 '54

AERONAUTIC charts. See Air navigation—Charts

AERONAUTIC engineering

Anglo-American aeronautical conference, 4th, London; abstracts of papers. Aviation W 59:34+ N 2 '53

Engineers plot economy course; SAE National aeronautic meeting. Aviation W 59:19-20 O 12 '53

Experimental shops pretest production; SAE forum. il Aviation W 59:36-7+ Ag 31 '53

I.A.S. annual summer meeting, Los Angeles, July 15-17; report of technical sessions. Aeronautical Eng R 12:28-30 O '53

Northrop pioneers computer technique. P. Klass. il Aviation W 59:41+ Ag 3 '53

Prediction of development effort. J. M. Reed. bibliog il Aero Digest 67:17-22 Ag '53

SAE National aeronautic meeting, Los Angeles. Automotive Ind 109:50-2+ N 1 '53; S A E J 61:59-69 N '53

See also

Aerodynamics
Aerodynamics, Supersonic
Aeronautic research
Airplane engines
Airplanes—Design
Airplanes, Military—Design
Airports
Airways

Tables, calculations, etc.

Convair analogue computer. R. D. Horwitz. il diags Radio & Tv N 51:61+ Ja '54

CRC 105 computer. R. E. Sprague. il Aero Digest 67:48+ Ag '53

Differentiation of experimental data by means of higher order finite-difference formulas. C. Wang and D. F. DeSanto. J Aeronautical Sci 20:792-3 N '53

Fully plastic rotating disc with large strains. M. Zaid. bibliog J Aeronautical Sci 20:369-77 Je '53

Method for differentiation of experimental data. W. M. Kauffman and M. Shinbrot. J Aeronautical Sci 20:428-30 Je '53

Structural approach to aeroelastic problems. D. Williams. Engineer 197:315-17 F 26 '54

Table of the complete Cicala function. Y. L. Luke and D. Ufford. bibliog J Aeronautical Sci 20:511-12 Jl '53

AERONAUTIC engineers

AIA no raid pact draws fire. Aviation W 59:21-2 O 26 '53

AERONAUTIC instruments

Aircraft instrumentation in step with the times. A. W. Eade and J. J. Fraizer. il Gen Elec R 57:37-41 My '54

Airports get new weather gear; Ceilometer gives airport traffic controller continuous reading on cloud ceiling and visibility. il diag Aviation W 59:48 Ag 24 '53

Aviation instruments; guest editorial. W. G. Brombacher. Instruments & Automation 27:867-8 Je '54

Flight data recorder uses no electronics. il Aviation W 59:84 S 14 '53

Flight test instrumentation status; abstract and discussion. W. L. Howland. S A E J 62:43 Ap '54

General theory and operational characteristics of the Gyrotron angular rate tachometer. R. E. Barnaby and others. il diags Aeronautical Eng R 12:31-6+ N '53

Instrument gives latitude and longitude of aircraft. Iron Age 173:144 My 27 '54

Instruments and control of flight. P. R. Bassett. il Aeronautical Eng R 12:118-23+ D '53; Abstract. Engineering 176:424-5 O 2 '53

New devices aid lab, test instrumentation. il Aviation W 59:43-4 D 28 '53

New space rate sensing instrument; Gyrotron. J. Lyman. il diags Aeronautical Eng R 12:24-30 N '53

Runway visibility reporting improved; Sperry gyroscope co. ANDB low ceiling/visibility program. G. L. Christian. il Aviation W 59:51+ S 28 '53

Simple thrust indicator for propeller-driven airplanes. A. W. Vogeley and M. N. Gough. diags Aeronautical Eng R 12:47-50 Je '53

Single computer combines flight data. P. Klass. il Aviation W 59:45+ S 28 '53

Tape recorder; ten hours of flight data can be taped on 18-lb unit. il Iron Age 172:148 Jl 16 '53

Vibragyro takes cue from housefly; vibrating tuning fork in Sperry gyro helps sense changes in direction. P. Klass. il diags Aviation W 59:57-8+ N 23 '53

See also

Accelerometers
Altimeters
Direction finding apparatus
Radio aids to aviation
Radio apparatus on aircraft

AERONAUTIC instruments—*Continued*

Manufacture

Canadian overhaul firm expands; Aviation electric, ltd. G. L. Christian. il Aviation W 59:44-5 Ag 31 '53

Compass manufacture typifies diversity of Sperry operations. C. A. Mistron. il Mach 60:182-9 Jl '54

Production tools for precision; Ford instrument company; illustrations with text. W. M. Stocker, jr. Am Mach 98:117-20 Je 21 '54

AERONAUTIC laboratories

Aero-engine compressor and turbine test house; Armstrong Siddeley motors ltd. il plans Engineering 177:214-17 F 12 '54

Aircraft fatigue tests at Farnborough. P. B. Walker. il Engineering 177:132 Ja 29 '54

Aircraft hydraulic test rigs. R. T. Sewell. il diags Engineer 197:162-5, 213-15, 231-3 Ja 29-F 12 '54

Cambridge's bailiwick; earth, sky, sea. I. Stone. il Aviation W 59:228-33+ Ag 17 '53

ECL's field; avionic components. il Aviation W 59:368+ Ag 17 '53

Handley Page expands facilities. il diag Aviation W 59:34-5 Ag 24 '53

Wright air development center; $200-million research key. A. McSurely. il Aviation W 59:98-102+ Ag 17 '53

See also

United States—Air force—Arnold engineering development center

Wind tunnels

AERONAUTIC libraries

NLL card catalogue of aerodynamic measurements. R. A. Fairthorne. il J Doc 10:11-18 Mr '54

AERONAUTIC meteorology. See Meteorology, Aeronautic

AERONAUTIC research

AF gets highspeed data from supersonic sleds. D. A. Anderton. il Aviation W 59:26-7+ S 7 '53

Air research and development command. il map Aviation W 59:73-102+ Ag 17 '53

Beast tests new Connie developments; original Lockheed Constellation converted to a flying test bed. W. J. Coughlin. il Aviation W 59:29-31+ S 21 '53

Bell X-5; world's first variable-sweep research airplane. J. A. O'Malley, jr. and R. J. Woods. il diags Aero Digest 67:28-32+ Ag '53

Challenge of the air age. D. L. Pritt. il Instruments & Automation 27:928-9 Je '54

Heat barrier; it lies beyond the sound barrier as an obstacle to high-speed flight. F. Haber. il diag Sci Am 189:80-2+ D '53

High-speed research airplanes. W. T. Bonney. il Sci Am 189:36-41 O '53

Jet research program disclosed; Project Squid. il Chem & Eng N 32:1764-5 My 3 '54

Laboratories in the sky. Gen Elec R 57:8-14 My '54

Methods used by NACA for data reduction. I. H. Abbott. Machine Design 26:226+ Ja '54

NACA takes over X-3 testing program. il Aviation W 59:13-15 N 23 '53

Some application on strain gages in aeronautical research. I. H. Abbott. diags Machine Design 25:389-92+ D '53

Summary of NACA research on heat transfer and friction for air flowing through tube with large temperature difference. B. Pinkel. bibliog il diags A S M E Trans 76:305-17 F '54

V-2 rocket in upper atmosphere research. C. F. Green. il Aero Digest 67:20-6 N '53

Work of the Royal aircraft establishment. A. A. Hall. Engineering 177:372 Mr 19 '54

XF-88B starts supersonic prop tests. il Aviation W 59:17 Jl 6 '53

See also

Aeronautic laboratories

United States—Air force—Air research and development command

United States—Air force—Arnold engineering development center

Wind tunnels

AERONAUTIC workers

See also

Airlines—Employees

Airplane factories—Employees

AERONAUTICAL conference, Anglo American. See Anglo-American aeronautical conference

AERONAUTICS

Next fifty years. H. L. Dryden. il Aero Digest 67:132+ Jl '53

Next half century. C. C. Furnas. il Aeronautical Eng R 12:24-30 Je '53

Research and engineering progress, 1953; aviation. il Gen Elec R 57:39-41 Ja '54

See also

Aerodynamics

Aeronautic laboratories

Air navigation

Air power

Air travel

Airlines

Airplane engines

Airplane propellers

Airplanes

Airports

Airways

Aviation

Aviators

Electronics in aeronautics

Flying boats

Flying saucers

Gliders

Guided missiles

Helicopters

Interplanetary flight

Meteorology, Aeronautic

Photography, Aerial

Radio aids to aviation

Bibliography

IAS previews: summaries of current papers accepted for IAS publications (cont). Aeronautical Eng R 12:63-5 Je; 59-61 Jl; 49-51 Ag; 71-2+ O; 55-6 N '53

Library; reviews, additions to the library; reports. Published in monthly numbers of Journal of the Royal aeronautical society

Exhibitions

British accent need for more production; Society of British aircraft constructors display. D. A. Anderton. il Aviation W 59:12-14 S 21 '53

Dayton to show aviation's best. il Aviation W 59:15 Ag 31 '53

Detroit air show draws 150,000. il Aviation W 59:18 Jl 20 '53

Flying testbed steals U.K. show. D. A. Anderton. il Aviation W 59:15-16 S 14 '53

Hard selling to rule SBAC show. N. McKitterick. Aviation W 59:18 S 7 '53

Jets, copters have field day at air show. A. McSurely. il Aviation W 59:11-13 S 14 '53

Society of British aircraft constructors exhibition, Farnborough. il Aviation W 59:48-50+ O 26 '53

Society of British aircraft constructors flying display and static exhibition, Farnborough, Sept. 7-13. il Engineer 196:307-10, 338-41, 373-6 S 4-18 '53; Engineering 176:330-1, 374-5, 404-7 S 11-25 '53

History

Adam couldn't fly. G. H. Prudden. Mech Eng 75:896-8 N '53

Aeronautics in 1953. il Engineer 197:16-17 Ja 1 '54

ASME role in powered flight. H. F. Reeve. il Mech Eng 75:987-99 D '53

British celebration of the Wright jubilee. Engineering 176:823 D 25 '53

Development of the Wright Flyer. il Engineering 176:737-9 D 11 '53

Early Boeing airliner joins aviation greats. Aviation W 59:25-6 S 21 '53

Fifty years of flying progress. G. Loening. il Franklin Inst J 256:493-522 D '53

Fifty years of powered flight. il Elec J 151:1843-4 D 4 '53

Golden dozen of the first half-century of flight; miniature plans and brief descriptions. il Aero Digest 67:25-7 Jl '53

Kitty Hawk jubilee. J. S. Muller. il Comp Air Mag 58:337-9 D '53

Mid-century appraisal. J. C. Hunsaker and others. il diags Aeronautical Eng R 12:40-133 D '53

Our heritage from Wilbur and Orville Wright. H. L. Dryden. J Aeronautical Sci 20:803-4 D '53

R. J. Mitchell, aircraft designer. J. Smith. il map plans diags Roy Aeronautical Soc J 58:312-28 My '54; Abstract. Engineering 177:166-7 F 5 '54

AERONAUTICS—History—*Continued*

Wright brothers and the Royal aeronautical society; survey and tribute. J. L. Pritchard. il diags Roy Aeronautical Soc J 57:742-818 D '53

Wright brothers; world's first aeronautical engineers. M. P. Baker. il Aero Digest 67:18-24 Jl '53

Wright chronology. Aero Digest 67:152+ Jl '53

Wright flier. R. McLarren. il diags Aero Digest 67:28-37 Jl '53

Wright replica. diags Aeronautical Eng R 12:22-3 Jl '53

Wright reproduction. B. A. Dodge. il Aeronautical Eng R 12:24-7 O '53

See also

Aeronautics, Commercial—History

Aeronautics, Military—History

Airplane engines—History

Wright brothers

Laws and regulations

Statutes affecting aviation reviewed. R. W. Galiher. Nat Underw 58:13+ Ag 19 '54

See also

Airlines—Regulation

Study and teaching

Guggenheim foundation establishes institute at Columbia on air-flight structures. Mech Eng 75:1041 D '53

See also

Aviators—Training

United States

See also

Civil aeronautics board

AERONAUTICS, Commercial

Impact of the gas turbine on civil aviation. M. Thomas. Engineering 177:195 F 12 '54

See also

Air carriers—Nonscheduled operations

Air freight service

Air mail service

Airlines

Airplane industry and trade

Airports

Airways

Photography, Aerial

History

Fifty years of transport aircraft. il Aero Digest 67:48+ Jl '53

International aspects

Dollar barrier holds Pacific aid tourists. Aviation W 59:21 N 16 '53

Flights between OEEC areas payable in local currency. For Comm W 50:17 Ag 24 '53

Global airlines; IATA sets course for higher traffic volume. L. Moore. Aviation W 59:17 O 12 '53

Liabilities of air lines. Economist 168:590+ Ag 29 '53

Limitation of liability under Warsaw convention an issue in aviation case: American smelting & refining co. v. Philippine air lines. Weekly Underw 171:51 Jl 3 '54; Nat Underw 58:2 Jl 8 '54

Revise Warsaw convention regarding liability limit. Weekly Underw 169:942 O 17 '53

Revisions in aviation insurance law on liability should be opposed. G. W. Orr. Weekly Underw 169:543+, 606-8 S 5-12 '53; Abstract. Nat Underw 57:18-19 S 3 '53

See also

International air transport association

International civil aviation organization

Colombia

Colombian decree fixes certain tax changes. For Comm W 50:9 O 19 '53

France

France issues three aviation decrees. For Comm W 50:20 O 5 '53

United States

Air policy study sidesteps military issues. R. Hotz. Aviation W 59:13-14 N 16 '53

Institute's corporate member family; principal companies of U.S. and Canada who have contributed so much to the growth and development of aviation on this side of the Atlantic; with brief company histories. il diags Aeronautical Eng R 12:134-6+ D '53

AERONAUTICS, Military

Jets, copters have field day at air show. A. McSurely. il Aviation W 59:11-13 S 14 '53

See also

Air bases, Military

Air power

Air raids

Airplane carriers

Airplanes, Military

Bomb sights

Guided missiles

Helicopters—Military use

Korean war—Aerial operations

United States—Air force

History

Bomber at mid century. il Aero Digest 67:73+ Jl '53

Design of military aircraft. J. H. Kindelberger. il Aeronautical Eng R 12:42-9+ D '53

Evolution of naval aircraft, 1911-54. L. B. Richardson. il Aeronautical Eng R 12:50-9+ D '53

Technical history of the fighter. il Aero Digest 67:38-47 Jl '53

France

See also

Airplanes, Military—France

Great Britain

Navy's aircraft troubles. Economist 168:531-2 Ag 22 '53

New conceptions in air strategy. diags Economist 168:751-2 S 12 '53

See also

Airplanes, Military—Great Britain

Great Britain—Air force

Russia

Rockets behind the iron curtain. G. P. Sutton. map diags Automotive Ind 110:68-72+ Ja 1 '54

United States

Air research and development command. il map Aviation W 59:73-102+ Ag 17 '53

Military plane production to remain high. Aviation W 59:13-14 Ag 3 '53

NPA committee report says U.S. can support bigger buildup. Aviation W 59:17 N 2 '53

Opposite shore; air power plus far flung bases is our real defense. J. Chamberlain. Barron's 33:3+ O 19 '53

Soviet H-bomb stirs air power debate. R. Hotz. Aviation W 59:13-14 S 7 '53

Stiff fight brews on air defense. Aviation W 59:16-17 N 23 '53

See also

Airplanes, Military—United States

United States—Air force

AEROSOLS

Aerosol analyzer. J. I. Masters. diags R Sci Instr 24:586-8 Ag '53

Aerosol shave patent suit; Carter products, inc. against Colgate-Palmolive-Peet and four other defendants. Soap & San Chem 29:149 N '53

Aerosol symposium; chemical and radiological laboratories, Army chemical center, June 22-23. Chem & Eng N 31:2777+ Jl 6 '53

Aerosol testing ground; U.S. Agriculture dept.'s Research center, Beltsville, Md. il Chem W 72:65-6+ Je 6 '53

Aerosols; low pressure hits high volume. il Chem W 73:30-2+ Jl 18 '53

Army chemical corps 3d symposium on aerosols; abstracts of papers. Ind & Eng Chem 46:sup99A-100A+ Ap '54

Chek, Chek and check; aerosol application tactic in dye penetrant inspection. il Chem W 72:77+ Ap 18 '53

Determining water in insecticidal aerosols. R. A. Fulton and R. P. Gelardo. diags Soap & San Chem 29:145+ F '53

Diffusional processes in the growth of aerosol particles. H. L. Frisch and F. C. Collins. bibliog J Chem Phys 21:2158-65 D '53

Distortion of aerosol droplets by an electric field. C. T. O'Konski and H. C. Thacher, jr. bibliog J Phys Chem 57:955-8 D '53

Electrostatic effects in fiber filters for aerosols. A. T. Rossano, jr. and L. Silverman. bibliog il diag Heat & Ven 51:101-8 My '54

Filtration of monodisperse electrically charged aerosols. G. G. Goyer, R. Gruen and V. K. LaMer. bibliog diag J Phys Chem 58:137-42 F '54

AEROSOLS—*Continued*

Formulation of aerosol lacquers; abstract. F. S. Palmer. Soap & San Chem 29:139 Je '53

Formulation of aerosol products. R. C. Downing and E. G. Young. il Soap & San Chem 29:142-3+ S '53

Gas absorption and aerosol collection in a Venturi atomizer. H. F. Johnstone, R. B. Feild and M. C. Tassler. bibliog Ind & Eng Chem 46:1601-8 Ag '54

Growth and shrinkage of aerosols. V. K. La Mer and S. Cotson. bibliog Science 118: 516-17 O 30 '53

Hit with a mist; aerosol hair lacquers. il Chem W 72:79-80 My 23 '53

How you can tap the aerosol market. A. R. Gardner. il Dun's R & Mod Ind 62:56-8 S '53

Insecticides hold first place in aerosol packaging. Chem & Eng N 31:2286 Je 1 '53

New aerosol filling unit. il Soap & San Chem 29:149+ Ag '53

New camera photographs microscopic particles. P. L. Magill. Elec Eng 72:945 O '53

1953 aerosol award winners; illustrations. Soap & San Chem 29:184-5 D '53

1952 aerosol product survey; abstract. E. G. Young. Soap & San Chem 29:140 Je '53

Perfuming aerosols. H. Kainik. il Soap & San Chem 29:45-8 O '53

Portable camera photographs aerosol particle in flight; Stanford research institute. il Chem & Eng N 31:3074 Jl 27 '53

Preparation of aerosols for electron microscopy. E. H. Kalmus. il J Ap Phys 25:87-9 Ja '54

Recovery of soluble gas aerosols from air streams. E. M. Berly, M. W. First and L. Silverman. bibliog diags Ind & Eng Chem 46:1769-77 S '54

Sonic agglomeration and collection of carbon black aerosols pilot plant and commercial tests; abstract. C. A. Stokes. Oil Paint & Drug Rep 166:40 S 20 '54

Yields soar with aerosols in production of carbon black; patent. diag Chem Eng 61: 288 Je '54

See also

Containers, Dispensing—Pressurized containers

AEROVANES. See Anemometers

AETNA life insurance company

Aetna Life's first hundred. J. J. Robinson. il Spectator 161:30-1+ S '53

AFCO incorporated

Premium financing organization formed. East Underw 55:24+ Mr 5 '54; Same. Weekly Underw 170:585 Mr 6 '54; Abstract. Nat Underw 58:6 Mr 4 '54

AFRICA

Why Belgium succeeded and French-British colonial policies failed. V. L. Horoth. map Mag of Wall St 93:131-3+ O 31 '53

See also

Building—Africa

Mines and mineral resources—Africa

Petroleum industry and trade—Africa

Commerce

Directories

Pan-African commercial directory, 1953-1954. 441p Pan-African commercial directory, 104 Plashet road London, E. 13 '54 (52s 6d)

Industries and resources

Boom in British Africa. J. F. Rippy. map J Bsns 26:190-9 Jl '53

Race problems

India and Africa. Economist 170:175 Ja 16 '54

AFRICA, Central

Union

See Federation of Rhodesia and Nyasaland

AFRICA, French equatorial

See also

Labor laws and legislation—Africa, French equatorial

AFRICA, North

No new deal for North Africa. Economist 168:686 S 12 '53

AFRICA, South. See South Africa

AFRICA, West

See also

Mines and mineral resources—Africa, West

AFTER burners. See Gas Turbines, Aircraft—After burners

AGATHIC acid

Terpenes; structure and synthesis of the $C_{17}H_{20}$ hydrocarbon obtained by dehydrogenation of agathic acid. G. Büchi and J. J. Pappas. bibliog Am Chem Soc J 76: 2963-6 Je 5 '54

AGE

Pupillary psychosensory restitution and aging. L. S. Kumnick. il diag Opt Soc Am J 44:735-41 S '54

AGE, Geological. See Geological time

AGE and employment

Are older workers efficient? W. Schweisheimer. Paper Ind 35:1217 F '54

Case for variable retirement ages versus compulsory, fixed age pension plans. B. L. Clarke, jr. Advanced Management 18:21-3 S '53; Abstract. Burroughs Clearing House 38:19-20 O '53

Deny insurance costs bar aging workers. Nat Underw (Life ed) 57:16 Jl 31 '53

Enforced retirement at 65 is a tragic mistake. K. W. Anderson. Weekly Underw 170:1625 Je 26 '54

Factory for oldsters; Sons of rest. A. K. Astbury. il Mill & Factory 53:116-17 D '53

How old is old? L. F. Johnson. Advanced Management 18:27 My '53

Older manpower. Economist 169:167-8 O 17 '53

Older women as office workers. il U S Womens' Bur Bul 248:1-64; pa 25c Supt. of doc. '53

Older workers' efficiency in jobs of various types. M. W. Smith. bibliog Personnel J 32:19-23 My '53

Should rehirement supplement retirement? R. R. Updegraff. Dun's R & Mod Ind 62: 51-3+ N '53

These older employees hold their own; Bankers life & casualty co. F. Dixon. Am Bsns 24:24 My '54

Toward more flexible retirement policies. J. H. Wyner. Personnel 30:386-95 Mr '54

See also

Retirement

Bibliography

Bibliography on employment problems of older women. 89p U S Women's bur; pa 35c Supt. of doc. '54

AGE determination by radioactivity. See Archeology; Geological time

AGENTS, Manufacturers'. See Manufacturers' agents

AGGLOMERATION

How and why solids agglomerate. C. Ludwig. il diags Chem Eng 61:156-60 Ja '54

AGGLUTININS

Effect of pressure on a plant agglutinin. W. C. Boyd. bibliog Am Chem Soc J 76: 4026-7 Ag 5 '54

AGGREGATES

Aggregation of kaolinite. S. J. Gregg and K. J. Hill. bibliog J Ap Chem 3:169-73 Ap '53

Control of quality as related to production. A. S. Arwine. Brick & Clay Rec 124:93+ Ap '54

Effects of aggregate particle shape; abstract. M. Herrin and W. H. Goetz. Roads & Eng Constr 92:108 My '54

Indiana mineral aggregates association annual meeting, Indianapolis, March 15-16. Rock Prod 57:144+ Ap '54

Influence of aggregate type on the stability of asphalt mixtures. B. H. Knight. il J Ap Chem 3:337-44 Ag '53

Jet-piercing method applied to quarrying aggregate. il Civil Eng 23:609 S '53

Problem of fine sand recovery at Folsom dam. W. B. Lenhart. il Rock Prod 57:70-3 My '54

AGGREGATES—*Continued*

Producing plant mixed materials for stabilized base course; Superior stone co. W. B. Lenhart. flow sheet il Rock Prod 57:74-6+ My '54

Role of slag as a mineral aggregate; abstract. E. W. Bauman. Roads & Sts 97:84 Je '54

Study of some variables affecting retention of aggregate by asphalt surface treatments. F. J. Benson and B. M. Gallaway. il diag Roads & Sts 97:113-18+ Ap '54

See also
Concrete—Aggregate

AGING. See Old age

AGITATION

Agitation of viscous solid-liquid suspensions. F. S. Hirsekorn and S. A. Miller. bibliog il Chem Eng Prog 49:459-66 S '53

AGITATORS

Simple agitation device for highly radioactive volumetric flasks. L. E. Preuss and M. A. Edsel. il diags J Sci Instr 30:252-3 Jl '53

See also
Mixers

AGLUCONES. See Aglycones

AGLYCONES

Bitter constituents of the seeds of corchorus olitorius L., corchorgenin, a new cardiac-active aglycone. J. K. Chakrabarti and N. K. Sen. bibliog Am Chem Soc J 76:2390-2 My 5 '54

AGRARIAN question. See Land tenure

AGRICOLA, Georgius, 1494-1555

Industrial medicine's Hall of fame. R. T. Legge. por Ind Med 22:122-3 Mr '53

AGRICULTURAL administration

Farm situation calls for revised action. E. T. Benson. Comm & Fin Chr 178:2630+ D 31 '53

Message urging new farm price policy. D. D. Eisenhower. Comm & Fin Chr 179:169-71 Ja 14 '54

Politics point to extension of farm price support. E. L. Butz. Comm & Fin Chr 178:2262+ D 10 '53

Progress in agriculture. E. T. Benson. Comm & Fin Chr 178:1236 O 1 '53

Pushing a new farm policy. il Bsns W p27 S 26 '53

Restoring free enterprise on the farm. R. F. Uhlmann. Comm & Fin Chr 178:2145+ D 3 '53

Great Britain

Conserving the featherbed. Economist 169:465-6 N 14 '53

New plans for farming? Economist 170:155 Ja 16 '54

State farming in practice. Economist 169:400-2 N 7 '53

AGRICULTURAL ammonia institute

Annual meeting, 3d, St Louis, Mo. Nov. 16-18. Oil Paint & Drug Rep 164:5+ N 23 '53

AGRICULTURAL chemicals

Agricultural chemicals. Published in weekly numbers of Oil, paint and drug reporter

Agricultural chemicals, 1953 market trends. Oil Paint & Drug Rep 165:38-9 sec 2 F 1 '54

A.C.S. Division of agricultural and food chemistry 125th national meeting, Kansas City, abstracts of papers. Chem & Eng N 32:1309-11 Ap 5 '54

Chemical seed treatment for Canada's major grain crops. A. W. A. Henry. Can Chem Process 38:64 Ap '54

Farm mercurials. Chem W 74:96 Je 12 '54

Feast or famine; ag chemicals hold key. il Chem Eng 60:323-5 D '53

Modern theory of chemical product research is to use broad target. F. Stark. il Chem & Eng N 31:4020 S 28 '53

Moving the mountain to Mohammed; American cyanamid co. agricultural chemical research laboratories. il Chem W 73:56+ S 19 '53; Chem & Eng N 31:3878+ S 21 '53

Organic sulphur compounds in agriculture. Chem Age (Lond) 69:173-4 Jl 25 '53

Payoff in pretreatment. il Chem W 74:60+ Ap 10 '54

Serious lag in Russia; officials turning stern eye on agricultural chemical production. Chem W 74:32 Ja 23 '54

They're all dark horses; Carbide and carbon chemicals co. il Chem W 73:78+ S 5 '53

Use of toxic chemicals in agriculture. Chem Age (Lond) 70:461-2 F 20 '54

See also
Cotton—Defoliation
Fertilizers
Insecticides
Krilium
National agricultural chemicals association
Pesticides

Prices

Quarterly report on current prices. Chem & Eng N 32:1246-9 Mr 29 '54

AGRICULTURAL chemicals association, National. See National agricultural chemicals association

AGRICULTURAL chemistry

A.C.S. Division of agricultural and food chemistry 124th national meeting, Chicago; abstracts of papers. Chem & Eng N 31:3957-60 S 28 '53

Sources of information for the agricultural and food chemist. A. W. Marsden. bibliog Chem & Ind p 1138-41 S 11 '54

AGRICULTURAL colleges

School of agriculture; University of Nottingham. il Chem & Ind p698 Jl 18 '53

AGRICULTURAL commission. See American bankers association—Agricultural commission

AGRICULTURAL credit

Agricultural credit and land value trends. Banking 46:72 Ag '53

Agricultural loans outstanding of agencies supervised by the Farm credit administration, 1949-1952. Survey of Cur Bsns 1953 Sup p79 [supplemented in monthly numbers]

American bankers association 2d National agricultural credit conference, Chicago, Nov. 16-18. Burroughs Clearing House 38:13-14 D '53

American bankers association 2d National agricultural credit conference, Chicago, Nov. 16-18; with abstracts of papers. Banking 46:66-7+ D '53

Banks lead in meeting credit needs of farmers. Banking 46:52 S '53

Builds farm customers; Osage-farmers national bank. J. H. Peters. il Bankers Mo 70:12+ N '53

Changes in farm credit. I. W. Duggan. Comm & Fin Chr 178:918-19 S 10 '53

How banks can spark soil reclamation programs. J. L. Crossett. il Burroughs Clearing House 38:38-40+ D '53

Irrigation loans. il Banking 46:69-70 Ag '53

Storm warnings on farm debt. J. I. Smith. Banking 46:53-4 S '53

Training farmers to use a budget. R. B. Stewart. Banking 46:55+ S '53

Trouble hits Florida cattle industry but old hands get needed credit. C. E. Wright. il Bankers Mo 70:14+ D '53

See also
Banks and banking—Agricultural machinery purchase financing

AGRICULTURAL engineering

See also
Agricultural machinery
Electricity on the farm
Irrigation

Study and teaching

Integrating the activities of an agricultural engineering department in a school of engineering. G. A. Marston. J Eng Educ 43:570-2 Je '53

AGRICULTURAL experiment stations

Fifty years of research at Long Ashton. C. Potter. Chem & Ind p 1168-9 O 31 '53

AGRICULTURAL institute of Canada

Annual meeting, 34th, Quebec; abstracts of papers. Can Chem Process 38:64 Jl '54

AGRICULTURAL insurance. See Insurance, Agricultural

AGRICULTURAL laboratories

Moving the mountain to Mohammed; American cyanamid co. agricultural chemicals research laboratories. il Chem W 73:56+ S 19 '53; Chem & Eng N 31:3878+ S 21 '53

New laboratory building for Scottish agricultural industries ltd. il Chem Age (Lond) 71:29-30 Jl 3 '54

AGRICULTURAL laboratories—*Continued*

Scottish agricultural industries, ltd. research and development laboratories. il Chem & Ind p955 Jl 31 '54

Sifting out the good ones; Hercules powder co. searches for agriculturally valuable compounds. il Chem W 74:70+ Ap 24 '54

AGRICULTURAL limestone. See Lime as fertilizer

AGRICULTURAL limestone institute, National. See National agricultural limestone institute

AGRICULTURAL machinery

Diesel engines in agriculture. Diesel Power 32:77 My '54

Management and mechanisation; Association of agriculture and British institute of management conference, London. Engineer 196:466 O 9 '53

Mechanising colonial agriculture. J. E. Mayne. Engineer 196:377-8 S 18 '53

Porn & Dunwoody 5-h.p. horizontal Diesel engine. il diags Engineering 177:254-5 F 19 '54

See also

Harvesting machinery

Tractors

Exhibitions

Agricultural machinery exhibition, Earls court. il Automotive Ind 110:54-6+ Ja 15 '54

Smithfield show and agricultural machinery exhibition, London, Dec. 7-11. il Engineer 196:731-2, 780-2 D 4-11 '53; Engineering 176:745-6, 784, 790-1, 810-13 D 11-25 '53

Manufacture

Tillage tools, material and heat treatment; abstract. W. D. McMillan and W. C. Bliesener. S A E J 62:104-5 F '54

Repair

Rebuilding and repairing in the farm shop. L. C. Richmann. il Welding J 33:239-41 Mr '54

Standards

Standardisation and agricultural machinery. D. P. Ransome. Engineer 196:507-8 O 16 '53

AGRICULTURAL machinery industry

Doesn't Minneapolis-Moline know farmers aren't buying now? F. N. Langham. il Sales Management 72:46-8+ My 20 '54

Farm equipment makers cultivate their markets. il Steel 134:37-8 Je 18 '54

Farm equipment sales dip, but makers see good market. Bsns W p94-5 O 3 '53

Farm equipment; sales rate rebounds. K. W. Bennett. Iron Age 172:71-2 Jl 9 '53

Farm machines; keep up '53 pace? K. W. Bennett. Iron Age 172:111 D 3 '53

Machines; skim cream off farm sales. A. K. Rannells. Iron Age 172:38 Ag 27 '53

Spring rise firms farm equipment market. K. W. Bennett. Iron Age 173:45-6 Ap 29 '54

What are farm equipment prospects? interview with J. L. McCaffrey. Iron Age 172:74-5 D 17 '53

What your dealers should know about farm machinery trade-ins. E. A. Hunger. il Sales Management 72:65-9 Mr 1 '54

See also

Tractor industry and trade

Exhibitions

1954 French agricultural implement show. W. F. Bradley. il Automotive Ind 110:48-9+ Ap 1 '54

Securities

Slump in farm equipments. P. Dobbs. Mag of Wall St 92:562-3+ Ag 8 '53

Tractor factors. I. U. Cobleigh. Comm & Fin Chr 178:1725 N 5 '53

Statistics

Farm equipment; tabulations. Steel 134:192-4 Ja 4 '54

Manufacturers' shipments of farm machines and equipment, 1948-1952; tabulations. Automotive Ind 110:173 Mr 15 '54

Denmark

Mechanization of agriculture in Denmark raises crop yields, promotes economy. For Comm W 50:2 N 16 '53

Germany

West German machinery sales to Argentina up. For Comm W 50:18 S 14 '53

Great Britain

Engineering outlook; agricultural machinery. Engineering 177:362-5 Mr 19 '54

Merging tractors. Economist 168:528+ Ag 22 '53

AGRICULTURAL products

Coming age of agriculture; processing of agricultural products. Can Chem Process 37:6+ D '53

Mutual aid against the grain? American government's surplus farm products disposal plans. Economist 169:266-7 O 24 '53

U.S. agriculture trade abroad lower in '53. Oil Paint & Drug Rep 165:5+ Mr 29 '54

See also

Cotton

Farm produce

Flax

Grain

Rice

Straw

Tobacco

Wheat

AGRICULTURAL research

Fifty years of research at Long Ashton. C. Potter. Chem & Ind p 1168-9 O 31 '53

Radioisotopes in agriculture. Can Chem Process 38:85 Jl '54

Saved by a surplus; Agricultural research administration. Chem W 73:36+ Jl 11 '53

Wheat research; Washington farmers study methods to check spread of smut. Bsns W p 196+ S 26 '53

AGRICULTURAL research administration. See United States—Agricultural research administration

AGRICULTURAL workers. See Farm labor

AGRICULTURE

Atomic energy in agriculture; abstract. S. Cole. Chem & Eng N 32:2571 Je 28 '54

See also

Agricultural machinery

Airplanes in agriculture

Electricity on the farm

Farm labor

Farm produce

Farmers

Feeding and feeding stuffs

Fertilizers

Food supply

Forests and forestry

Irrigation

Land tenure

Livestock

Rain making

Rice

Rubber plants and planting

Soils

Wheat

Economic aspects

Agricultural conditions. Nat City Bank p 128-31 N '53

Agricultural marketing and income. L. J. Atkinson. Survey of Cur Bsns 33:11-14 O '53

Agricultural supply and price developments. Fed Res Bul 39:933-9 S '53

Agriculture's tasks and goals. E. T. Benson. Comm & Fin Chr 178:442 Ag 6 '53

Balance sheet of agriculture, 1953. F. L. Garlock and others. maps Fed Res Bul 39:822-34 Ag '53

Brighter future ahead for agriculture. E. L. Butz. Comm & Fin Chr 178:541 Ag 13 '53

Business watches agriculture. C. R. Walker. Manuf Rec 123:45 Ja '54

Chemistry in farming progress. W. G. Rouse. Comm & Fin Chr 178:1003+ S 17 '53

Easy way for farmers to build reserves. C. E. Watts. il Banking 46:71+ N '53

Economic conditions affecting social policy in plantations. R. Roux. bibliog Int Labour R 67:236-61 Mr '53

Farm financial outlook for 1954. O. B. Jesness. Banking 46:68-9 Ja '54

Farm program and farm earnings. E. T. Benson. Comm & Fin Chr 178:905+ S 10 '53

Food, fibers, fears and facts; abstract. E. T. Benson. Oil Paint & Drug Rep 165:5+ Je 14 '54

Forecast of the 1954 agricultural situation. O. V. Wells. Comm & Fin Chr 179:68 Ja 7 '54

AGRICULTURE—Economic aspects—*Cont.*

Goal of agriculture, permanent abundance; abstract. E. T. Benson. Chem & Eng N 32:2570 Je 28 '54

Justice for the farmer and the rest of us. H. C. Taylor. Land Econ 30:1-11 F '54

Long-term factors are working for the farmers. E. T. Benson. Comm & Fin Chr 178:2270-1 D 10 '53

Political solution to farm problem now seems inevitable. R. S. Byfield. Manuf Rec 122:58 N '53

Progress in agriculture. E. T. Benson. Comm & Fin Chr 178:1236 O 1 '53

Prospects for agriculture. Nat City Bank p 104-7 S '53

What to expect from agriculture in 1954. T. K. Cowden. Comm & Fin Chr 178:2366+ D 17 '53

See also

Agricultural credit
Farm income
Farm market
Farm produce—Prices

International aspects

See also

Food and agriculture organization of the United nations

Statistics

Farm acreage by region and state; farm population and number of farms by region and state; value of farm products sold by region and state. W. Alderson, comp. Ptr Ink 245:265-7+ sec 2 O 23 '53

Yearbook of food and agricultural statistics, 1953; pt 1, Production. v7 334p Food and agriculture organization of the United nations; for sale by Columbia univ. press, 2960 Broadway, New York 27 '54

Bolivia

See also

Land tenure—Bolivia

Canada

Coming age of agriculture; processing of agricultural products. Can Chem Process 37:6+ D '53

Chile

Agricultural economy of Chile. Int Labour R 67:475-9 My '53

Trade unionism among agricultural workers in Chile. F. W. Linares. Int Labour R 68:509-23 D '53

China

Economic status of the Chinese peasants after agrarian reform. S. Ong. bibliog Land Econ 29:35-43 F '53

Czechoslovakia

See also

Land tenure—Czechoslovakia

Denmark

Mechanization of agriculture in Denmark raises crop yields, promotes economy. For Comm W 50:2 N 16 '53

Europe, Eastern

Harvest in eastern Europe. Economist 168:314-15 Ag 1 '53

France

France's backward farms. Economist 169:166-7 O 17 '53

Georgia

Georgia story. il Manuf Rec 123:64-6 My '54

Great Britain

Bigger subsidies. Economist 169:645 N 28 '53

British farmers face uncertain future. For Comm W 50:17 N 23 '53

Capital from the landowner. Economist 170:84 Ja 9 '54

Farmers' fury. Economist 168:839-40 S 26 '53

Hungary

Crisis on Hungary's farms. Economist 169:428-9 N 7 '53

India

Indian experiment in rural development; the Etawah pilot project. S. K. Jain. Int Labour R 68:393-406 O-N '53

Ireland

From cattle to wheat, and back? Economist 169:140-1+ O 10 '53

Italy

See also

Land tenure—Italy

Japan

Presage of things to come? hydroponic farms in Japan. il Chem W 74:20 Je 5 '54

See also

Land tenure—Japan

North Carolina

North Carolina story; agriculture bulwarks industry. il Manuf Rec 123:97-8 Ja '54

Panama

Loans to aid Panama agriculture. For Comm W 50:8 O 12 '53

Puerto Rico

No plow, no hoe, just harvest; hydroponic farming. il Chem W 74:77 My 29 '54

Russia

Comrades in the countryside. Economist 169:167 O 17 '53

Great myth, the Russian granary. E. Truog and D. T. Pronin. maps Land Econ 29:200-8 Ag '53

Scandinavia

Conditions of work and productivity in North-European agriculture. Int Labour R 67:173-8 F '53

Southern states

Business watches agriculture. C. R. Walker. Manuf Rec 123:45 Ja '54

Texas

Texas story. il Manuf Rec 122:86-8 N '53

United States

Agricultural production, 1953; with figures for other years. Survey of Cur Bsns 34:17-19 F '54

Agricultural resources; East north central states. P. B. Jacobs and R. T. Milner. bibliog Ind & Eng Chem 46:472-7 Mr '54

Balance sheet of agriculture, 1953. F. L. Garlock and others. maps Fed Res Bul 39:822-34 Ag '53

Farm problem. W. H. Peterson. Comm & Fin Chr 178:1829+ N 12 '53

Farm situation calls for revised action. E. T. Benson. Comm & Fin Chr 178:2630+ D 31 '53

Farming goal useful, lasting plenty; abstracts. E. T. Benson. Oil Paint & Drug Rep 165:5+ Je 21 '54; Chem & Eng N 32:2570-1 Je 28 '54

Plantation agriculture in the United States, seventeenth to twentieth centuries. P. S. Taylor. bibliog Land Econ 30:141-52 My '54

Restoring free enterprise on the farm. R. F. Uhlmann. Comm & Fin Chr 178:2145+ D 3 '53

Yugoslavia

Land reform in Jugoslavia since the war. Economist 168:35-6 Jl 4 '53

New deal for Jugoslav farmers. Economist 169:108-10 O 10 '53

AGRIMYCIN

Antibiotics go arboreal; Agrimycin. il Chem W 74:56 Je 5 '54

Fire blight snuffer. Chem W 75:66 S 4 '54

AGROCYBIN

Constituents of the higher fungi; agrocybin. E. R. H. Jones and J. D. Bu'Lock. Chem Soc J p3719-20 N '53

Structures of two polyacetylenic antibiotics. J. D. Bu'Lock and others. bibliog Chem & Ind p990-1 Ag 7 '54

AGSTONE. See Lime as fertilizer

AILERONS

Investigation of spoiler ailerons for use as speed brakes or glide-path controls on two NACA 65-series wings equipped with full-span slotted flaps. J. Fischel and J. M. Watson. bibliog diags U S Nat Advisory Com for Aeronautics 1951:769-93 '52

AIR

Control of air ion density in rooms. H. H. Skilling and J. C. Beckett. bibliog diags Franklin Inst J 256:423-34 N '53

Cooling potential versus specific enthalpy; heat transfer potential between moist air and water. F. Rasori. bibliog Refrig Eng 61:1207-19+ N '53; Discussion. 62:52-3+ F; 76-7+ Je '54

Dispersion of standard air. B. Edlén. bibliog Opt Soc Am J 43:339-44 My '53

Evaporation of solids into laminar air streams. A. C. Plewes, R. M. Butler and H. E. Marshall. bibliog diags Chem Eng Prog 50:77-80 F '54

Flammability of carbon disulfide in mixtures of air and water vapor. M. G. Zabetakis and G. W. Jones. il Ind & Eng Chem 45:2079-80 S '53

Index of refraction of air in the infrared. D. H. Rank and J. N. Shearer. Opt Soc Am J 44:575 Jl '54

Influence of hydrogen sulfide on flame speed of propane-air mixtures. P. F. Kurz. bibliog diags Ind & Eng Chem 45:2361-6 O '53

Interferometric wavelength measurement in the infrared by the method of exact orders; precision measurement of the index of refraction of air at 1.65μ. D. H. Rank and others. diag Opt Soc Am J 43:952-6 N '53

Production of unipolar air with radium isotopes. T. L. Martin, jr. diags Elec Eng 73:28-33 Ja '54

See also

Aerodynamics
Air conditioning
Atmosphere
Atmosphere, Upper
Compressed air
Dust
Humidity
Oxygen
Ventilation

Analysis

Atmospheric pollution in Salford. R. L. Cooper. Chem & Ind p 1364-5 D 19 '53

Continuous oxidant recorder. F. E. Littman and R. W. Benoliel. bibliog flow diag il diags Anal Chem 25:1480-3 O '53

Determination of hydrocarbon gases as air contaminants. E. R. Quiram, S. J. Metro and J. B. Lewis. Anal Chem 26:352-4 F '54

Determination of mercury in the atmosphere; submicroanalytical determination of mercuric ion in bromine and chlorine water based on its catalytic action. S. Ašperger and I. Murati. bibliog Anal Chem 26:543-5 Mr '54

Methods and instruments suitable for measuring types of atmospheric pollution. L. C. McCabe. il Ind & Eng Chem 45:sup 109A-10A O '53

Microdetermination of chloropicrin vapor in air. L. Feinsilver and F. W. Oberst. bibliog Anal Chem 25:820-1 My '53

Natural tritium content of atmospheric hydrogen. A. V. Grosse and others. bibliog Phys R 93:250-1 Ja 1 '54

Origin of nitrous oxide in the atmosphere. P. Harteck and S. Dondes. bibliog Phys R 95:320 Jl 15 '54

Oxidation of phenolphthalin to phenolphthalein provides means for estimating oxidant in air. L. C. McCabe. bibliog Ind & Eng Chem 45:sup 111A-13A S '53

Portrait of a poison gas; instrument based on hydrogen sulfide staining of special film. diag Ind & Eng Chem 46:sup 11A+ Ag '54

Products of combustion in burning buildings. F. E. T. Kingman, E. H. Coleman and D. J. Rasbash. bibliog plans diags J Ap Chem 3:463-8 O '53

Use of molybdates for estimating amount of olefinic-type hydrocarbons in air. R. D. MacPhee. bibliog il Anal Chem 26:221-5 Ja '54

Usefulness of new instruments for determining air pollutants. L. C. McCabe. bibliog Ind & Eng Chem 45:sup 105A Ag '53

Bacteriology

Sterilization of air; abstract and discussion. G. Sykes. Chem & Ind p303-4 Mr 13 '54

Spectrum

Absorption coefficients of air and nitrogen for the extreme ultraviolet. J. P. Curtis. diag Phys R 94:908-10 My 15 '54

AIR, Compressed. See Compressed air

AIR America

Air America loses right to operate. Aviation W 59:68-9 D 21 '53

AIR bases, Military

Aftermath in Morocco; good airbases. W. G. Bowman. il map Eng N 151:30-6+ Ag 27 '53

Air and naval base locations in Spain. Eng N 151:22 D 31 '53

Air-base construction 700 miles north of the Arctic Circle. il Roads & Eng Constr 92: 98 Ag '54

Arctic engineering know-how gets acid test at Thule. S. D. Sturgis, jr. il diags Civil Eng 23:585-9 S '53

Asphalt and soil-cement team for high-type air base roads. il Eng N 151:41-2 S 3 '53

Asphalt interests challenge jet airbase paving criteria. Eng N 152:47 F 18 '54

Bases in Spain. map Economist 169:9 O 3 '53

Bureau of yards and docks is slated to handle Spanish bases construction. Eng N 151:22 O 1 '53

Concrete paving methods at Abilene air force base. il plan diags Roads & Sts 97:43-8 S '54

Concreting the world's longest runway; Edwards air force base. il Eng N 152:44-6 Mr 25 '54

Crash barriers save AF jets. il Aviation W 59:21 Jl 13 '53

Danish bases. map Economist 168:110-12 Jl 11 '53

$40-million airbase construction job is scheduled for Plattsburg barracks. Eng N 151: 26 O 15 '53

High-speed channels spell low-cost airfield drainage. H. Jacoby. il diags Eng N 151:41+ N 5 '53

Huge water distillation plant to boost Bermuda base supply. Eng N 152:62 Ap 29 '54

Joints sawed in pouring sequence for concrete apron; Davis-Monthan air force base. il diag Roads & Sts 97:37+ Ja '54

Labor requirements for constructing military airfields. M. F. Carney and E. M. Gordon. Mo Labor R 76:130-5 F '53

Lighting military airports. G. M. Kevern and others. il diag Gen Elec R 56:56-9+ N '53

Opposite shore; air power plus far flung bases is our real defense. J. Chamberlain. Barron's 33:3+ O 19 '53

Our airbases in France are different. W. G. Bowman. il diags Eng N 151:32-5+ O 29 '53

Pentagon seeks authorization for jobs costing $529 million. Eng N 151:24 Jl 16 '53

Plattsburg air base contracts awarded. Eng N 152:26 Ja 28 '54

Runway extension, California; unit prices. Eng N 151:59 N 26 '53

Runway project will require huge fill. Eng N 152:23 Ap 8 '54

Secrecy curtain lifted on Alaskan Snow port. il Roads & Sts 97:64 S '54

Spanish base work to start by June. Eng N 152:23 F 4 '54

Spanish bases are still programmed with funds available for four jobs. Eng N 151: 23 Ag 6 '54

Spanish bases; reports indicate Franco has ok'd four airfields. Eng N 151:29 Ag 20 '53

U.S. construction overseas; Atlantic islands; home for the military. il map Eng N 151:55 Jl 30 '53

U.S. gets Spanish bases job rolling. Eng N 151:25 O 29 '53

AIR-blast circuit breakers. See Electric circuit breakers—Oilless

AIR brake association

Annual report, Chicago, Sept. 14-16; with committee reports. Ry Loco & Cars 127:72-7+ N '53

AIR brakes

Multiple capacity freight car brakes. G. L. Cotter. Ry Loco & Cars 127:77+ N '53

Schedule 24RL air brakes (cont). Ry Loco & Cars 128:72 Ja; 86 F; 71 Mr; 81-2 My; 85-6 Je; 66-7 Jl '54

Starting and stopping wheels of industry; air-operated clutches and brakes. R. J. Nemmers. il Comp Air Mag 59:49-50 F '54

Stopping trains from the rear; report of Air brake association. Ry Loco & Cars 127:73-4 N '53

Standards

Standardization of Diesel brake equipment; report of Air brake association. Ry Loco & Cars 127:76-7 N '53

Testing

Road service trials of the type B brake pipe flow indicator; report of Air brake association. Ry Loco & Cars 127:75-6 N '53

AIR brakes, Motor truck

New air brake system for lightweight vehicles. il Automotive Ind 109:56-7 N 1 '53

AIR cargo. See Air freight service

AIR carriers

Non-scheduled operations

ATA reports on nonsked business. Aviation W 59:21-2 O 5 '53

Airline chiefs protest nonsked program. Aviation W 59:49 Ag 24 '53

CAB kills nonsked flight regulation; American air transport. Aviation W 59:84 S 28 '53

Nonsked battle brews in Senate. Aviation W 59:417 Ag 17 '53

Nonsked crashes keep CAB probers busy. L. Moore. map Aviation W 59:51-2+ Ag 3 '53

Nonsked lines face hard times. Aviation W 59:91 O 26 '53

Nonsked woes pinned on ticket brokers. Aviation W 59:57 Ag 10 '53

Nonskeds fight CAB in Supreme court. Aviation W 59:118 S 14 '53

Nonskeds gain favor in fight with CAB. Aviation W 59:21-2 Ag 3 '53

Nonskeds win right to fly first-class mail. Aviation W 59:114-15 D 14 '53

Senators want lusty nonskeds; small business committee recommends five-point program. K. Johnsen. Aviation W 59:56-7 Ag 10 '53

Showdown in nonsked battle. Bsns W p27 Ag 29 '53

See also
Air America
North American airlines

AIR cleaners

Characteristics of commercial air cleaners. M. W. First and L. Silverman. Heat & Ven 51:78-81 Ja '54

Conditioning scavenging air. il Diesel Power 32:54-5 Je '54

Get the most from your air cleaner. H. M. Turner. il diags Diesel Power 31:58-61 D '53

Graphical selector for air cleaners; reference data. Heat & Ven 51:174A-174B Mr '54

New press line for air cleaners has special scrap disposal system; United specialties co. il Automotive Ind 110:38-9 Ja 15 '54

See also
Air filters

AIR cleaning

Centrifuging solids from air. il diag Chem Eng 60:256 S '53

Protecting men and machines from dust. R. J. Nemmers. il diag Comp Air Mag 59:242-7, 280-4 S-O '54

AIR compressors

Air compressors; sales boom under power of new air tool applications. Steel 133:75 O 26 '53

Atlas Diesel air compressors. il Engineer 196:735-6 D 11 '53

Basic compressor characteristics from tests of a two-stage axial-flow machine. W. R. New and others. il diags A S M E Trans 76:473-81 Ap '54

Big wind; a problem in huge construction; USAF's new propulsion wind tunnel with the largest axial-flow compressor system. G. H. Heiser. il diag Am Mach 98:142-3 Jl 19 '54

Centrifugal compression for ammonia plants; Brown Boveri isotherm compressor. J. D. Drake. Ind & Eng Chem 46:sup 115A-16A My '54

Compressed-air equipment for small-oil-volume switchgear. il diags Elec J 152:506-8 F 12 '54

Experimental investigations of propagating stall in axial-flow compressors. T. Iura and W. D. Rannie. diags A S M E Trans 76:463-71 Ap '54

First heavy-duty compressors on wheels. il Gas Age 114:46-8 Ag 12 '54

Hymatic 5·25 c.f.m. compressor. il Engineer 197:423 Mr 19 '54; Engineering 177:408 Mr 26 '54

Ingersoll-Rand air compressor. il Blast F & Steel Pl 42:964 Ag '54

Locomotive compressor for emergency instrument and control air. C. Tretinyak. il Power Eng 58:73 Je '54

Pneumatic drilling for roof bolting; Buckeye coal co. M. Valeri and M. M. Fitzwater. il plan diag Min Cong J 40:45-8 My '54

Refinery centrifugal compressor performance. H. C. Mayo. Oil & Gas J 52:125 N 2; 157 N 9 '53

Renting an air compressor? here are business tips, rental rates. L. B. Schramm. Power 98:135+ Je '54

Rotary compressors give dependable air supply at low cost; American bridge division, U.S. steel corp. E. P. Meixsell. il Power 98:110-11 Je '54

Save money! rent an air compressor. L. B. Schramm. il Power 97:123 D '53

Small compressor for pneumatic systems. il Aviation W 59:93+ N 16 '53

Some blade designs for an axial flow compressor stage. R. G. Taylor. bibliog Roy Aeronautical Soc J 58:61-4 Ja '54

Some stall and surge phenomena in axial-flow compressors. M. C. Huppert and W. A. Benser. il diag J Aeronautical Sci 20:835-45 D '53

Use of stator-blade control to obtain wide range of compressor performance for wind-tunnel application. A. W. McCoy and M. J. Brunner. bibliog A S M E Trans 76:233-40 F '54

Weight of the blades in an axial-flow compressor. J. M. Stephenson. J Aeronautical Sci 20:427-8 Je '53

Failure

Air compressor destroys itself; failure of discharge valve. il Power Eng 58:96 Ap '54

Lubrication

Air compressor lubrication; report of Air brake association. Ry Loco & Cars 127:74-5 N '53

Maintenance and repair

Break-in test period gives longer life to compressors. il Bus Transportation 33:34-5 Ap '54

How safe is your soot-blower air compressor? N. A. Foran. il diag Power 98:120-1 My '54

Manufacture

Cart simplifies compressor assembly. il Aviation W 59:44 S 14 '53

Manufacturing that cuts costs; Air conditioning division, General electric co. B. W. Moreland. il plan Mill & Factory 54:83-6 Ja '54

Swedish pneumatic mining equipment. il Engineer 196:569-70 O 30 '53

Testing

Aero-engine compressor and turbine test house; Armstrong Siddeley motors ltd. il plans Engineering 177:214-17 F 12 '54

Automatic radiography with cobalt 60. J. Hile. il Materials & Methods 40:108-9 S '54

AIR compressors, Hydraulic

Hydraulic air compressors. L. E. Schulze. bibliog(90 ref) 21pls U S Bur Mines Information Circ 7683:1-38 '54

AIR compressors, Portable

Clarke mobile air compressor gets quick emergency test. il diags Machine Design 26:21+ S '54

Holpack portable air compressor. il Engineering 177:350 Mr 12 '54

Lead Wool portable air compressor. il Engineer 196:752 D 4 '53

Portable air compressors supply 5000 cpm at 125 psi. il Automotive Ind 110:84 Je 15 '54

AIR conditioning

Air-conditioned house prize winners. plans diags House & Home 3:154-9 Je '53

Air conditioned village in Austin, Tex. il Heat & Ven 51:142 S '54

Air conditioned village is born. il Gas Age 114:38-9 Ag 12 '54

Air-conditioned village; NAHB's big field-testing project. il plans diags House & Home 6:128-43 Ag '54

Air conditioning a 40-year old home. L. L. Richardson. il plans Sheet Metal Worker 45:68-9+ Ja '54

Air conditioning has developed rapidly. W. L. Fleisher. il diag Heating-Piping 26:120-2 My '54

Air conditioning small homes; design standards and data. H. R. Sleeper. plans diags House & Home 6:158-60 Ag '54

Air-conditioning study by National association of home builders. Bsns W p56-7 Ag 8 '53

Air conditioning survey by AGA. Heat & Ven 51:144+ My '54

Air conditioning year 'round can help land planning. il plans diags Am Bld 75:109-11 Mr '53

Austin, Texas sets up air conditioned research village. il Sheet Metal Worker 45:58-9+ Jl '54

Balancing an air conditioning system. N. N. Wolpert. Heat & Ven 50:124+ D '53

Changing house; heating and air conditioning. il Am Bld 76:130-3 Ag '54

Comfort air conditioning, when is it essential; new air force method. W. T. Smith. Heating-Piping 25:92 D '53

Emphasis on year-'round air conditioning is feature of southern construction. Am Gas J 180:34+ My '54

First prefab designed around air conditioning. il plans diag House & Home 4:117-19 Jl '53

Five top priorities for designing an air-conditioned house; with cost data. A. M. Watkins and C. S. Leopold. il diags House & Home 4:100-9 Ag '53

Future of air conditioning in large buildings. J. W. Kreuttner. il Heat & Ven 51:68-70 Jl '54; Same. Heating-Piping 26:94-6 Ag '54; Discussion. L. Smith. Heat & Ven 51:136+ S '54

Historic Monticello being air conditioned. il Heating-Piping 25:120 N '53

Home air conditioning with oil. House & Home 3:168-9 Ap '53

How many hours is air conditioning needed; data sheet. map Heating-Piping 26:123 Jl '54

How should an iron lung be air conditioned? W. E. Collins, jr. Heating-Piping 26:105 Ap '54

Latest in multiple dwelling design; air conditioned too! il plans Am Bld 75:94-5 My '53

Major modernization tool. il diags Arch Forum 100:180-3+ My '54

NAHB research institute broadens air conditioning study project. Am Bld 76:236-7 Mr '54

New force in air conditioning; the heat pump. il Bsns W p 110+ Ag 29 '53

Planning for year-round air conditioning of small buildings. S. F. Gilman. il Arch Rec 113:202-5 Ap '53

Progress in air conditioning. il House & Home 2:148-9 N '52

Put summer cooling in the package. il plans Am Bld 75:82-4 My '53

Recent developments in heating, air conditioning and plumbing. N. N. Wolpert. il diag Arch Rec 113:196-201 Ap; 193-6+ My '53

Some questions and answers on air conditioning. Am Bld 75:236-7 Ag '53

Summer design temperatures. A. D. Hay. map Heating-Piping 26:118-21 Je '54

Survey points up chief sales points for residential air conditioning. Dom Eng 183:116 Ap '54

20 builder-manufacturer teams launch NAHB air conditioning research project. il plans Am Bld 76:124-6+ Je '54

What happened last summer in air conditioning. il plan diag House & Home 2:134-40 O '52

What's new in air conditioning? il plans diags House & Home 5:106-29 Mr '54

Why people like air conditioning. Gas Age 113:44-5 Ap 8 '54

See also

Air filters
Air purification
Cold storage
Cooling
Electricity in air conditioning
Exhaust systems
Gas in air conditioning
Heat pump
Heating
Humidity
Ventilation

also subdivision Air conditioning under special subjects, e.g.

Automobiles
Beauty shops
Cars
Churches
Courthouses
Crane cabs
Distilleries
Factories
Gasoline service stations
Hotels
Newspaper offices
Office buildings
Printing offices
Ships
Store buildings
Television studios
Textile mills

Cost

Air-conditioning operating costs can now be predicted by a new forecasting method. il House & Home 5:125-7 Ap '54

Air conditioning study to be made; Fort Worth, Texas home will be guinea pig for cost analysis. il Dom Eng 182:146+ N '53

Cost comparison of air conditioning refrigerant condensing systems. C. E. Groseclose. Refrig Eng 62:54-8+ Je '54

Is air conditioning worth the investment? answers. Heating-Piping 26:119-20 Ag '54

Is investment in air conditioning sure to pay off? W. Norris. il Am Bsns 24:14-15+ Ap '54

New application techniques improve residential air conditioning; with operating costs in seven cities analyzed. E. P. Palmatier. Heat & Ven 51:67-70 Ja '54; Abstract. Dom Eng 183:238+ My '54

Operating costs for cooling big buildings. Dom Eng 184:124 Jl '54

Operating costs of the air cooled residential air conditioner. J. D. Lovely. il diag Refrig Eng 62:35-7+ Ja '54

Estimates

Slide rule to estimate air conditioning costs. il Am Bld 76:234 My '54

Hygienic aspects

Air conditioned rest areas boost worker productivity. L. A. Brouha. Iron Age 174:125-7 Ag 19 '54

Exhibit shows doctors how easily people adjust to air conditioning. Heating-Piping 25:105 N '53

How much does air conditioning boost office efficiency? Heating-Piping 25:130-1 N '53

Standards

Application engineering standard for year-round residential air conditioning. Refrig Eng 62:55-60 Mr '54

Study and teaching

Air conditioning training course; Carrier corp. W. A. Lake. Dom Eng 183:234+ My '54

Tables, calculations, etc.

Circuit analysis applied to load estimating. H. B. Nottage and G. V. Parmelee. bibliog diags Heating-Piping 26:157-66 Je '54

Cooling load estimate form for room air conditioners; data sheet. Heating-Piping 26:153-4 My '54

AIR conditioning, Industrial

Air conditioning aids good printing. P. J. Hartsuch; R. A. Gonzales. Heating-Piping 26:113 Je '54

AIR conditioning, Industrial—*Continued*

Air conditioning and refrigeration for candy manufacturing. J. E. Salmon. il diags Heat & Ven 51:81-90 Jl '54
Air conditioning the textile mill. W. L. Fleisher and J. H. Burges. il Refrig Eng 62:33-6+ My '54
Better control of humidity cuts honing tool rejections. il Iron Age 172:156-7 Ag 6 '53
Controlled atmospheric conditions standardize laboratory testing at Ohio Boxboard. D. M. Valentine. il diag Paper Ind 36: 291 Je '54
Humidity control. il Can Chem Process 38:61 Je 1 '54
Humidity; its measurement and control. J. C. Hawkins. il diag Refrig Eng 62:68-71+; Discussion. 101-2 Mr '54
Industrial air conditioning a necessity, not a luxury. A. B. Waterbury. Heating-Piping 25:91 D '53
New loom air conditioned for efficient weaving operation. R. M. Anderson. diag Heating-Piping 25:101 D '53
Pacoilet's new air-conditioned weave room. E. D. White. il Textile World 104:106-7+ F '54
Unique air balancing system; Hiram Walker & sons, inc. il diags Heating-Piping 26: 166-9 Ja '54
Use of air conditioning in the production of braided hose; Gates rubber co. Rubber Age 74:761 F '54

See also

Humidification
Humidifiers
Printing offices—Air conditioning

AIR conditioning equipment

Air conditioning condensers; panel discussion. J. Kice; R. Gonzalez. diags Sheet Metal Worker 45:sup4-10 My '54
Air conditions pulpit; Dravo corp. Steel 133: 232 D 7 '53; Nat Safety N 70:62 Jl '54
All in one basket; GE abandons tailor made air conditioning units. Bsns W p44+ Ag 15 '53
Application techniques; panel discussion. Sheet Metal Worker 45:sup59-65 Jl '54
ASRE air conditioner conference, Washington; abstracts of papers. Heat & Ven 51: 89-90 Ja '54; Heating-Piping 26:98-9 F '54
Dravo air conditioners for cranes and pulpits. il Blast F & Steel Pl 42:1096-7 S '54
Equipment selection forms for heating, ventilating and air conditioning design. J. W. Habjan. il Heat & Ven 51:95-7 S; 90-2 O '54
Fan motors for air conditioners. M. D. Irwin. Refrig Eng 61:1188-9+ N '53
Forced-water air conditioning; Hydraline. il diag House & Home 5:150 Ja '54
Heating and air conditioning product review. il diag Sheet Metal Worker 45:99-104+ Ja; 81-5 F '54
Heating, piping, and air conditioning equipment for industry and large buildings; trade names. Heating-Piping 26:sup 123d-158d Ja '54
Heating, ventilating, and air conditioning equipment. il plans diags Am Bld 75:253+ Ap '53
How not to air condition. C. T. Baker. Heating-Piping 25:96-8 N '53
How to convert residential warm air systems to year-round air conditioning. W. R. Yeary. diags Heat & Ven 51:87-102 Je '54
Installation expert looks at year-round home air conditioning. L. H. Hirschbach. Am Bld 75:203-4+ Jl; 210-11+ Ag '53
Investigation of the pressure losses of take-offs for extended-plenum type air conditioning duct systems. S. Konzo and others. bibliog diags Ill U Eng Exp Sta Bul 415:1-54 '53 (pa 50c)
Life begins at 40; year 'round air conditioning in 40 year old home. il Dom Eng 182: 142 N '53
Lower cost, more comfort from proper sizing of air conditioning units. Am Bld 75:226 S '53
1953 home air-conditioning line-up. il House & Home 3:142-3 F '53
Operation WHAM gets under way! il Sheet Metal Worker 45:54-5 My '54
Packaged cooling for hot spots. il Factory Management 112:159 Mr '54
Perimeter system air conditions new airlines terminal. il Heating-Piping 26:107 F '54
Power factor improvement; room air conditioners. C. E. Baugh. Refrig Eng 62:43-6+ Ag '54
Protecting integral HP sealed motors on packaged air conditioners. H. Wolf and H. Soumerai. Refrig Eng 62:33-5+ F '54
Something new in airline terminals. J. Anselmo. il Refrig Eng 62:37-9 Mr '54
Trends in air conditioning equipment; panel discussion. Sheet Metal Worker 45:sup 11-16 My '54
Trends in air conditioning; saving cost and space by pre-fabrication. G. R. Winch. il diags Engineering 177:337-8 Mr 12 '54
Turbine driven compressors furnish refrigeration for air conditioning Harris county court house in Houston. I. A. Naman and J. B. Buckley. il diag Heating-Piping 26:160-2 Ja '54
What's new in 1954 home air conditioning. il House & Home 4:134-5 D '53
When do window air conditioners make sense? il plan House & Home 6:152-7 Ag '54
Year-round air conditioned homes. J. C. Woodson. il map diags Refrig Eng 61:1177-81+ N '53
York corp. air conditioner-furnace designed for serviceability. il Machine Design 26:208 S '54

See also

Air filters
Air pipes
Cold storage
Cooling equipment
Electricity in air conditioning
Gas in air conditioning
Heat pump
Humidifiers

Control

Air conditioning controls; panel discussion. Sheet Metal Worker 45:sup50-8 Jl '54
Mechanical schoolteacher; working model of a pneumatic control system. M. Long. il Refrig Eng 62:59+ Je '54

Design

Air conditioning design for a color television studio. C. L. Ringquist. il plans Heat & Ven 51:69-75 Ag '54
Check list for design; air conditioning systems for product testing laboratories. F. F. Stevenson. il diags Heating-Piping 26: 124-8 Mr; 126-7 Je; 89-91 Ag '54
Compressor design; there's room for improvement. J. A. Galazzi. il Refrig Eng 62:47-9+ Ag '54
Conditioning multiroom buildings by high velocity air. F. Honerkamp. il diag Refrig Eng 62:38-41+ S '54

Exhibitions

All-industry refrigeration and air conditioning exposition, 8th, Cleveland. il Refrig Eng 61:1328-9 D '53
All-industry refrigeration and air conditioning exposition, 8th, Cleveland, Nov. 9-12. il Dom Eng 182:78-80, 173+ D '53
All-industry refrigeration and air conditioning exposition, 8th, Cleveland, Nov. 9-12; list of exhibitors and plan. Refrig Eng 61: 1184-7 N '53

Installation

Air conditioning existing buildings. I. Isaacson, jr. il diag Heat & Ven 50:81-3 D '53
Aluminum structure for new air-conditioning system. flow diag il Arch Forum 99: 140-1 D '53
Installing window units in large buildings; building managers propose restrictions. Heating-Piping 26:113 Ag '54
Planned installation, now, saves air-conditioner headaches later. T. Hicks. diags Power 98:120-1 F '54

Maintenance and repair

How Nashville services air conditioning. J. P. McGovern. Gas Age 114:25+ Jl 29 '54
Servicing air conditioning units; Arkansas Louisiana gas co. M. S. Bolinger. Gas Age 113:26+ Je 3 '54; Abstract. Am Gas J 181:24-5 Ag '54
Servicing all-year gas air conditioning. D. W. Gentry. Gas Age 113:46+ Ap 8 '54

AIR conditioning equipment—Maintenance and repair—*Continued*

Stop summer troubles, overhaul your air-conditioning system today. il Power 98:130-1 My '54

Trouble-shooting an air-conditioning job. C. T. Baker. Power 98:130-1 Ap '54

Manufacture

Assuring a quality product; General Electric quality control method for its packaged air conditioners. R. G. Cordes. il Refrig Eng 62:38-40 Ja '54

Noise

Largest noise reduction unit at Lever House. Nat Safety N 69:84+ Ja '54

Specifications

Specifications of 1954 self-contained store-type air conditioners; tabulation. Refrig Eng 62:insert Ap '54

Window air conditioners today; specifications. Refrig Eng 62:54, insert Mr '54 (reprints 25c)

Testing

Performance testing of room air conditioners. flow diag il Refrig Eng 62:43-4 F '54

Room air distribution research for year 'round air conditioning. S. F. Gilman and others. bibliog il diags Heating-Piping 25:121-31 Ap; 145-54 N '53; Abstract. Heat & Ven 51:95-6 Mr '54; Discussion. Heating-Piping 26:178-9 Mr '54

Water requirements

ASRE water conservation symposium; abstracts of papers. Heating-Piping 26:99 F '54

Does your water saver really save water? J. I. Montel. diag Refrig Eng 62:50-1+ S '54

Field test of a water-to-air heat pump. S. L. Pappas and others. Heat & Ven 51:79-82 F '54

It's good to drink, but; water conditioning for air conditioning is mandatory. R. M. Westcott and others. il diags Refrig Eng 62:45-8+ Je '54

Meeting air-conditioning growth. C. K. Mathews. map Am Water Works Assn J 46:662-6 Jl '54

Overcoming high cost of water. Sheet Metal Worker 45:67 Ag '54

Solutions to air conditioner water shortage problem. M. M. Lawler. Heat & Ven 51:80-1 Ja '54

Urges demand charge for air conditioning water. F. C. Amsbary. Heating-Piping 26:97 Ag '54

Water conservation devices. R. E. Holmes. bibliog il Refrig Eng 61:850-5+ Ag '53; Same cond. House & Home 4:174+ S '53

Water shortage designed out of new air conditioned communities; central spray pond and pumping station. M. M. Lawler. Heat & Ven 51:162 Mr '54

See also

Water, Underground
—Cooling uses

AIR conditioning industries

Air conditioning enters boom phase, expected to last at least ten years. H. C. Ramsey. Heating-Piping 26:99-100 Mr '54

Air conditioning; recession proof industry. M. M. Lawler. Comm & Fin Chr 178:2369 D 17 '53

Air conditioning split; custom vs. packaged units. Eng N 151:151-3 Jl 16 '53

Air conditioning tops $1 billion. R. M. Lorz. Iron Age 172:97 N 19 '53

Air cooler sales boomed. Bsns W p 152 O 3 '53

Air coolers; Southwest sales thrive. T. M. Rohan. il Iron Age 172:116-17 D 3 '53

All-industry air conditioning conference, 2d, Chicago, March 23-24; with abstracts of papers and proceedings of panel discussions. Sheet Metal Worker 45:sup 1-16 My; sup 17-48 Je; sup49-80 Jl; sup81-96 Ag '54

Beating the seasons. Bsns W p46+ N 21 '53

Coming up; a ding dong battle for the air conditioning market. P. B. Nortman. Sales Management 72:36-7+ Ap 1 '54

Dealer doubles business in off season. G. A. Mauller, jr. il Sheet Metal Worker 45:52-3 D '53

Experience is still the best teacher in the heating, piping and air conditioning contracting business. W. M. Scott. il Heating-Piping 26:99 S '54

Forecasts big growth for air conditioning. C. Wampler. Heating-Piping 26:80-1 Ag '54

Future unlimited; room air conditioner industry. H. L. Laube. Refrig Eng 62:45-6+ S '54

Hot prospects for a cooling business. il Steel 133:51 O 5 '53

How do we extend the marketing period of the packaged air conditioner? J. R. Hertzler. Refrig Eng 62:41-2+ Ja '54

In air conditioning, 1954 is the year of decision. J. Albert. il Dom Eng 183:134-6 Ap '54

In air conditioning the sold signs are going up fast! Britt & Daugherty. il Dom Eng 183:132-3 My '54

Law and your profits (cont). W. H. Hillyer. Heating-Piping 25:125 N; 103 D '53; 26:177+ Ja; 105 F; 145-6 Mr; 106-7 Ap; 145-6 My; 140 Je; 120-1 Jl; 118-19 Ag; 124 S; 128-9 O '54

Midsummer report on air conditioning. il map Dom Eng 184:122-7+ Jl '54

Predicts $5 billion a year for air conditioning. C. Wampler. Heating-Piping 26:69 F '54

Promoting the growth of air conditioning. A. J. Hess. Heating-Piping 26:82-5 F '54

Refresher course in managing an air conditioning business. D. Petrone. Dom Eng 182:81-3+ D '53

Residential cooling to boom this year. I. P. Sharpe. Dom Eng 183:226+ My '54

Sales opportunities in cooling. T. H. Smoot. Dom Eng 184:229-30 Ag; 247-9+ S '54

Selling all-year gas air conditioning. F. S. Thomas. Gas Age 113:45-6 Ap 8 '54

Sheet metal worker's contractor survey; heating and air conditioning. il maps Sheet Metal Worker 45:76-8 Ja '54

Takes care of small jobs, big jobs take care of him; policy applied by air-conditioning and sheet-metal contractor. W. M. Massey. il Sheet Metal Worker 45:62-3 Ag '54

Things were different then; 25 years or so ago. I. W. Cotton. il Heating-Piping 26:111-13 My '54

Unique air conditioning rental plan scores success in New York. il Heating-Piping 26:106-7 Jl '54

Versatility top factor in firm's success; Air conditioning engineers, inc., of Mobile. J. M. Hastie. Sheet Metal Worker 45:104+ My '54

What's ahead for air conditioning? G. G. Carr. Iron Age 174:73-4 Ag 19 '54

Worthington builds for a new market; sees big potential in home air conditioning. il Bsns W p 120+ N 28 '53

Year-round air conditioned homes. J. C. Woodson. il map diags Refrig Eng 61:1177-81+ N '53

See also

Gas in air conditioning

Advertising

Radio advertising boosts air conditioning sales. il Sheet Metal Worker 45:48-9+ N '53

Directories

Air conditioning products directory. Sheet Metal Worker 45:57-60 Ap '54

1954 directory; heating, piping and air conditioning equipment for industrial, commercial, institutional and public buildings; classified by products, trade names; manufacturers addresses. Heating-Piping 26:sup 1d-166d Ja '54

1954 directory, manufacturers of products and equipment used in warm air heating, air conditioning, ventilation, sheet metal work, roofing, exhaust and blower work. Sheet Metal Worker 45:supD 1-44 Ja '54

Finance

Financing a selling tool; panel discussion. Sheet Metal Worker 45:sup45-8 Je '54

Statistics

Air conditioning, commercial refrigeration equipment; shipments, 1940-1952; tabulation. Steel 134:182 Ja 4 '54

AIR conditioning industries—Statistics—*Cont.*
Cooling equipment sales, 1952-1953; tabulation. Heat & Ven 51:144+ S '54
1953 shipments of air conditioning and refrigeration equipment; tabulations. Refrig Eng 62:43-5 S '54

Southern states

Through the South with Btu and camera. E. A. Scott, jr. il map Sheet Metal Worker 45:64-6+ Ag '54

AIR conditions
See also
Air conditioning
Air pollution
Dust
Humidity
Smoke prevention
Ventilation

AIR coordinating committee. See United States—Air coordinating committee

AIR defense. See Air raids—Protective measures

AIR diffusers
Air distribution methods; panel discussion. il diags Sheet Metal Worker 45:sup 18-29 Je '54
Ceiling air diffuser aid to flexible office design. il Arch Rec 115:208 My '54
Movable air diffuser for suspended ceiling. il Sheet Metal Worker 45:85 Je '54
Using ceiling air diffusers in houses. il plan diags Am Bld 75:299-300+ O '53

AIR ejectors
Air ejector primes circulating water pump. H. A. Dilberger. diag Elec World 140:103-4 S 7 '53

AIR engines
Air starters for Diesel engines. C. Lake. il diag Comp Air Mag 59:15-18 Ja '54
Diesel air starter cuts costs. il diag Nat Pet N 45:32-3 S 23 '53

AIR entrainment. See Concrete—Air entrainment

AIR filters
Absolute method of sampling and measurement of solid air-borne particulates; combined use of the molecular filter membrane and electron microscopy. D. A. Fraser. il A M A Archives Ind Hygiene & Occup Med 8:412-19 N '53
Air filters in rotating electrical equipment cooling systems. F. C. Reutenauer. il diags Iron & Steel Eng 30:71-6; Discussion. 76-9 N '53
A.E.C. or C.W.S. air filter. D. H. Northrup. il diags Chem Eng Prog 49:513-16; Discussion. 516-17 O '53
Delivers sterile air to laboratory room; dry filter system. il Heating-Piping 26:81 Ap '54
Electric air cleaner. G. F. Landgraf and R. W. McGuire. il diag Iron & Steel Eng 30:106-10 O '53
Filtration of microorganisms from air by glass fiber media. H. M. Decker and others. il diag Heating-Piping 26:155-8 My '54
Gravimetric thermal precipitator. B. W. Wright. diag Science 118:195 Ag 14 '53
New air filter code. A. Nutting and R. F. Logsdon. diags Heating-Piping 25:77-82 Je '53; Discussion. 25:83 Jl; 69-70 Ag; 73-4 S; 89-90 N '53
New developments in reverse-jet filters. H. J. Hersey, jr. il diags Heat & Ven 51:109-12 F '54
Pilot valve in float automatically operates filter drain. diags Product Eng 24:150-1 S '53
Progress in air filtration. il Chem Eng 60:124+ Jl '53
Reviewing some air filtration principles for locomotives. H. E. Donovan. il Diesel Power 32:53-5 Jl '54
Select the right Diesel filter. J. P. Kovacs. il diags Power 98:118-19 Ag '54
Self-cleaning air filter; American air filter co. il Metal Finishing 52:133-4 Je '54
Self-cleaning air filter; Hersey reverse-jet filter. K. J. Caplan. bibliog il diags Chem Eng Prog 50:409-14 Ag '54
Sell electronic air filters; T. H. Brehm co. W. Rudolph. il Sheet Metal Worker 45:42-3+ Ap '54
Special filter paper shows excellent performance in cleaning air. il diag Paper Ind 35:882-4 N '53
Theory and filtering technique for compressed air. P. M. Hankison. diags Instruments 26:1705+ N '53
Visco rotating self-cleaning air filter. Engineer 197:222-3 F 5 '54; il Engineering 177:222 F 12 '54

Cleaning

Automatic screen washer for air-changing unit; Reigel textile corp. W. C. Westbrook. il Textile World 104:93 S '54

Testing

Increasing locomotive air filter efficiency. F. J. Hanley and others. il diag Diesel Power 32:37-41 F '54

AIR flow
Air distribution methods; panel discussion. il diags Sheet Metal Worker 45:sup 18-29 Je '54
Airflow about cone-cylinders with curved shock waves. V. E. Bergdolt. bibliog il diags J Aeronautical Sci 20:751-6 N '53
Air-flow method of measuring wool fibre fineness. S. L. Anderson. diags Textile Inst J 45:P312-16 Jl '54
Automatic micromanometer for the measurement of low air speeds. R. A. K. Long. diag J Sci Instr 30:481-2 D '53
Characteristics of downward jets of heated air from a vertical discharge unit heater. L. Helander and others. il diags Heating-Piping 26:141-50; Discussion. 151-2 S '54
Chart for mass flow of air in drying. R. W. Hyndman and others. Chem & Ind p560-1 My 15 '54
Computing temperatures and velocities in vertical jets of hot or cold air. A. Koestel. bibliog diags Heating-Piping 26:143-8 Je '54
Control valves for high air-mass flows. F. E. Swain. il diags Engineering 176:705-6 D 4 '53
Design factors in high velocity air distribution. W. W. Kennedy. il diags Heat & Ven 51:83-5 Ja '54
Ferranti airstream direction detector. il Engineering 176:480 O 9 '53
Float type airflow meter for use on beds of agricultural grains. W. F. Williamson and J. McCloy. diag J Sci Instr 30:207-8 Je '53
Flow and fan; principles of moving air through ducts (cont). C. H. Berry. diags Heat & Ven 50:102-7 D '53
Heat transfer and fluid friction for fully developed turbulent flow of air and supercritical water with variable fluid properties. R. G. Deissler. bibliog A S M E Trans 76:73-83; Discussion. 83-5 Ja '54
Investigation of the flow about cones and wedges at and beyond the critical angle. G. W. Johnston. bibliog diag J Aeronautical Sci 20:378-82 Je '53
Measurement of air flow through the strand in sinter plants. F. Jordon and M. P. Newby. diags Iron & Steel Inst J 175:360 D '53
Measurements of average heat-transfer and friction coefficients for subsonic flow of air in smooth tubes at high surface and fluid temperatures. L. V. Humble and others. bibliog diags U S Nat Advisory Com for Aeronautics 1951:343-57 '52
Pressure loss of air flowing through 45-degree wooden louvers. P. R. Cobb. bibliog il diag Heating-Piping 25:123-8 D '53; Abstract. Heat & Ven 51:94 Mr '54; Discussion. Heating-Piping 26:172-3 Mr '54
Rapid graphic solution of air friction loss; nomograph. H. L. Hartman. Eng & Min J 155:100 Jl '54
Resistance of grains and seeds to air flow. C. K. Shedd. Heat & Ven 51:87-8 Ja '54
Robust air-flow meter for field use. D. S. M. Phillips. diag J Sci Instr 30:382-3 O '53
Room air distribution research for year 'round air conditioning. S. F. Gilman and others. bibliog il diags Heating-Piping 25:121-31 Ap; 145-54 N '53; Abstract. Heat & Ven 51:95-6 Mr '54; Discussion. Heating-Piping 26:178-9 Mr '54
Summary of NACA research on heat transfer and friction for air flowing through tube with large temperature difference. B. Pinkel. bibliog il diags A S M E Trans 76:305-17 F '54
Temperature gradients in turbulent gas streams. S. D. Cavers and others. bibliog Ind & Eng Chem 45:2139-45 O '53

AIR flow—*Continued*
- Theoretically required exhaust rates for dust control in bulk material handling systems. W. C. L. Hemeon. bibliog diags Heat & Ven 51:71-3 Jl '54
- Theory of sudden enlargements applied to the poppet exhaust-valve, with special reference to exhaust-pulse scavenging. B. N. Cole and B. Mills. bibliog diags Inst Mech Eng Proc (B) 1B no 8:364-77; Discussion. 377-8 '52-53
- Tiny probe used to measure high speed air flow; AiResearch mfg. co. il Iron Age 173:126-7 Ja 14 '54
- Transition flow of fluids in smooth tubes. V. E. Senecal and R. R. Rothfus. bibliog plan Chem Eng Prog 49:533-8 O '53
- Velocity distribution between parallel plates. W. G. Schlinger and B. H. Sage. bibliog Ind & Eng Chem 45:2636-9 D '53
- Wave action following the sudden release of air through an engine port system. F. J. Wallace and R. W. S. Mitchell. bibliog diags Inst Mech Eng Proc (B) 1B 8:343-56; Discussion. 356-63 '52-53

See also
- Aerodynamics
- Anemometers
- Pneumatic conveying
- Turbulence

AIR freight service
- Air brokers mate planes, cargo; Baltic air exchange in Britain. il Aviation W 59:21+ D 7 '53
- Air cargo future in peacetime as well as in war. J. H. Doolittle. East Underw 54:26+ Jl 17 '53
- Air freight; a new sales tool. J. C. Emery. il Sales Management 71:52-4+ D 1 '53
- Air freight; machinery flies high. T. M. Rohan. il Iron Age 172:74-5 Jl 9 '53
- Air transport on Labrador construction; abstract. L. A. Carey. Roads & Eng Constr 92:106-7 My '54
- American blocks airfreight tariff boost. Aviation W 59:79-80 O 5 '53
- Annual Air cargo day sessions, 5th, New York, Nov. 30-Dec. 1. S A E J 62:95-6 Ja '54
- Fixed routes urged for military airlifts. Aviation W 59:112 O 12 '53
- Flying freight; developments. N. Willatt. Barron's 33:9+ N 30 '53
- IATA approves 30 per cent cut in freight rates. Aviation W 59:17 N 23 '53
- Metalworking goes airborne as air freight makes giant gains. E. C. Kreutzberg. il Steel 134:62 Ap 26 '54
- Passenger-cargo airline approach to airfreight; abstract. J. M. Glod. S A E J 62:21 F '54
- Riddle reorganizes top management. Aviation W 59:18 Ag 3 '53
- Seven cargo lines want Atlantic routes. Aviation W 59:57 Ag 3 '53
- UPS takes to wing. il Bsns W p62+ N 7 '53

See also
- Airplanes, Freight

AIR gages. See Gages, Pneumatic

AIR jets
- Air jet controls weighing through unique spring assembly. il diag Product Eng 24:168-9 Ag '53
- Air jets control heat. il Heat & Ven 51:106 S '54
- Characteristics of downward jets of heated air from a vertical discharge unit heater. L. Helander and others. il diags Heating-Piping 26:141-50; Discussion. 151-2 S '54
- Computing temperatures and velocities in vertical jets of hot or cold air. A. Koestel. bibliog diags Heating-Piping 26:143-8 Je '54

AIR lines. See Airlines

AIR mail service
- Air carriers meet to map airmail stand. Aviation W 59:79-80 Jl 6 '53
- Board to put PAA, TWA on their own. map Aviation W 59:75-7 Jl 27 '53
- Braniff pins route acceptance to subsidy. Aviation W 58:65 Je 29 '53
- CAB approves cut-rate airmail. Aviation W 59:89 S 21 '53
- CAB boosts NCA's temporary mail pay. Aviation W 58:95-6 Je 22 '53
- CAB staff supports fair profit on mail. Aviation W 59:79-80 Jl 20 '53
- CAB starts international subsidy cuts. L. Moore. Aviation W 58:63 Je 29 '53
- CAB to take over airmail subsidies. L. Moore. Aviation W 58:83-4 Je 8 '53
- First bulk airmail flights take off. Aviation W 59:20 O 12 '53
- Mail by air, but; Post Office hopes to fly regular first-class matter on coast-to-coast runs. Bsns W p30 Ag 8 '53
- Nonskeds win right to fly first-class mail. Aviation W 59:114-15 D 14 '53
- Post Office starts airmail experiment. Aviation W 59:20 S 28 '53
- Post Office to outline airfreight mail test. Aviation W 59:20 Jl 27 '53
- Postal shift; airlines bid to wrest first-class mail from railroads. S. Altschul. Barron's 33:9-10 Ag 17 '53
- Rail losses spur P.O.'s airmail drive. Aviation W 58:64-5 Je 29 '53
- West Coast final mail pay; $1,614,528. Aviation W 58:87 Je 8 '53

AIR national guard. See United States—Air force—Air national guard

AIR navigation
- Automatic navigation is nearer. il Aviation W 59:356+ Ag 17 '53

See also
- Aeronautic instruments
- Radio aids to aviation

Charts
- New charts simplify highspeed navigation. L. Moore. map Aviation W 59:63-4 N 30 '53

AIR pipes
- Applying duct insulation. il Sheet Metal Worker 45:80 My '54
- Design factors in high velocity air distribution. W. W. Kennedy. il diags Heat & Ven 51:83-5 Ja '54
- Design noise out of air ducts. H. B. Wayne. diags Power Eng 58:98+ Jl '54
- How to avoid undue noise in air ducts? W. J. Burns. Power Eng 58:100 Ag '54
- Investigation of the pressure losses of takeoffs for extended-plenum type air conditioning duct systems. S. Konzo and others. bibliog diags Ill U Eng Exp Sta Bul 415:1-54 '53 (pa 50c)
- New ducting; Spiratube. il Chem Age (Lond) 70:368 F 6 '54
- Why higher duct velocities? L. O. Paul. Heating-Piping 26:109 F '54

Tables, calculations, etc.
- Estimating weight of metal in rectangular ducts; with tabulations; reference data. Heat & Ven 51:166a-166b My; 168a-168b Je; 154a-154b Jl; 148a-148b Ag; 172a-172b S '54
- Pressure loss in straight round ducts. L. J. Murphy. Mill & Factory 54:98 Ap '54

AIR pollution
- Accepted limit values of air pollutants. J. F. Barkley. U S Bur Mines Information Circ 7682:1-6 '54
- Active agent in smog; abstract. W. C. L. Hemeon. Can Chem Process 38:104+ S '54
- After five years, fume findings; joint Chicago fume control study at Illinois institute of technology. Selheimer. Paint Oil & Chem R 117:14E-14F My 20 '54
- Air pollution. C. J. Regan. bibliog Chem & Ind p 1238-44 N 21 '53
- Air pollution activities; what universities, colleges, research institutes, and laboratories are doing. Mech Eng 75:712-14 S '53
- Air pollution and man's health. Pub Health Rep 68:868-74 S '53
- Air pollution control; abstracts. W. G. Christy. Oil Paint & Drug Rep 165:7+ My 3 '54; Chem & Eng N 32:1889 My 10 '54
- Air pollution control in Canada. E. A. Allcutt. bibliog(29 titles) Can Chem Process 38:44-6+ My '54
- Air pollution control in the Bethlehem steel co. A. D. Brandt. il Iron & Steel Eng 31:103-6; Discussion. 106-7 Ag '54
- Air pollution review 1949-1954. L. C. McCabe. bibliog(47 ref) il Ind & Eng Chem 46:1646-50 Ag '54 [reprints 50c]
- Air pollution symposium. G. A. Howell and others. flow diag il diags Iron & Steel Eng 30:91-110 O '53
- Air pollution war pays dividends. N. Sharpe. Midwest Eng 6:21 Ag '53

AIR pollution—*Continued*

Analyses of biological materials provide indexes for evaluating exposure of workers to air contaminants. H. H. Schrenk. Ind & Eng Chem 46:sup 111A-12A Je '54

Answer to air pollution. il diag Safety Maint & Prod 107:32-3+ F '54

Atmospheric pollution by polycyclic hydrocarbons. R. L. Cooper and A. J. Lindsey. bibliog Chem & Ind p 1177-8 O 31 '53

Atmospheric pollution in Salford. R. L. Cooper. Chem & Ind p 1364-5 D 19 '53

Causes of, and remedies for, air pollution. Engineering 176:747 D 11 '53

City officials push for tax write-off on air pollution abatement facilities. Eng N 152:24 Ap 29 '54

Combating air pollution problems in the rubber plant. Rubber Age 74:84 O '53

Complaints against chemical works; alkali inspectors report. Chem Age (Lond) 69:275-8 Ag 8 '53

Control of air pollution by the rubber industry in the United States. F. S. Mallette. Rubber Age 75:254 My '54

Current lines of attack on the smoke problem in Britain. P. C. G. Isaac. A M A Archives Ind Hygiene & Occup Med 8:212-18 S '53

Deaths during the severe fog in London and environs, Dec. 5-9. P. Drinker. A M A Archives Ind Hygiene & Occup Med 7:275-6 Ap '53

Determination of atmospheric contaminants. G. D. Clayton. bibliog il Am Gas Assn Proc 1953:892-923

Determination of hydrocarbon gases as air contaminants. E. R. Quiram, S. J. Metro and J. B. Lewis. Anal Chem 26:352-4 F '54

Evaluating sources of air pollution. G. P. Larson, G. I. Fischer and W. J. Hamming. bibliog Ind & Eng Chem 45:1070-4 My '53

Factory stacks; studies of atmospheric pollution; abstract. O. G. Sutton. Chem Age (Lond) 69:228 Ag 1 '53

Field equipment for the collection and evaluation of toxic and radioactive contaminants. W. B. Harris and others. bibliog il diags A M A Archives Ind Hygiene & Occup Med 7:490-502 Je '53

Fog and deaths in London, Dec. 1952. J. A. Scott. Pub Health Rep 68:474-9 My '53

Fumes across the border. Chem W 72:21-2 Je 27 '53

Gain praise, cut waste; east of Houston private pollution and public ire are dwindling away. il Chem W 75:20-1 Jl 10 '54

Group research on water and air; pollution causes and remedies; St Clair River research project. A. D. McRae. Munic Util 92:24+ Je '54

High pressure water spray method reduces acid mist pollution. il Chem & Eng N 31:2438 Je 8 '53

Increase in works infractions. Chem Age (Lond) 71:177-80 Jl 24 '54

Investigation of atmospheric contaminants in factories. M. W. Goldblatt and J. C. Gage. Chem Age (Lond) 70:1257-9 Je 5 '54

Investment in purity. Chem W 73:66+ S 5 '53

Low-concentration smog deaths high among older people and those with cardiac and respiratory defects. M. O. Amdur. Chem & Eng N 32:1268-9 Mr 29 '54

Lung cancer may be related to air pollution, especially to coal and petroleum fumes. S. Binn. Heat & Ven 51:156+ Mr '54

Management tackles pollution. R. B. Kahle. Pet Refiner 33:249-50 Ja '54

Manufacturing chemists' association hits accuracy of HEW on pollution. Oil Paint & Drug Rep 166:5+ Ag 16 '54

Manufacturing chemists' association protests pollution stand. Chem & Eng N 32:3361 Ag 23 '54

Measuring the workers' environment; abstract. S. A. Roach. Nat Safety N 69:154 Je '54

Meteorological factors play major role in air pollution. L. C. McCabe. il diag Ind & Eng Chem 45:sup 106A-8A Jl '53

Methods and instruments suitable for measuring types of atmospheric pollution. L. C. McCabe. il Ind & Eng Chem 45:sup 109A-10A O '53

Model traces industrial smoking habits. il Chem Eng 61:136 S '54

Money in pollution. Chem W 72:19-20 My 2 '53

More push in purity drive. il Chem W 75:26 S 18 '54

Much still to be done to solve the air pollution problem. R. S. Hawley. Heating-Piping 26:123 My '54

Murky badge of bigness; chemical industry taking lead in steps to abate air and water pollution. Chem W 74:16-17 Mr 13 '54

Need for studies that correlate air pollution with the general health of the population. L. C. McCabe. bibliog Ind & Eng Chem 45:sup 105A-7A My '53

Odor-pollution control; new catalyst, the Oxycat, can end coffee-plant odors and other pollution problems. il Mech Eng 75:815-16 O '53

Oxycat nips air pollution. il diag Paint Oil & Chem R 117:17-18 Mr 25 '54

Oxycats kill wax fumes. Steel 133:153-4 Jl 6 '53

Ozone formation in photochemical oxidation of organic substances. A. J. Haagen-Smit, C. E. Bradley and M. M. Fox. bibliog Ind & Eng Chem 45:2086-9 S '53

Planning a study to determine the effects of air pollution on health. A. F. W. Peart and G. H. Josie. bibliog maps A M A Archives Ind Hygiene & Occup Med 7:326-38 Ap '53

Polluted air, a growing community problem. H. N. Doyle. bibliog il Pub Health Rep 68:858-67 S '53

Pollution of air and water. Chem Age (Lond) 70:677-8 Mr 20 '54

Pollution of water and air by sulphate mills. H. Bergstrom. il diag Pulp & Pa of Can 54:135-40 N '53

Pollution sources in New York; abstract. L. Greenburg. Chem & Eng N 32:1352 Ap 5 '54

Production clinic; insufficient attention given to control of air contamination. E. G. Thomssen. Soap & San Chem 29:93+ S '53

Rally for redress; air pollution control financial incentive. Chem W 74:23 My 1 '54

Refiners warned; taking steps to abate pollution not enough. F. L. Resen. il Oil & Gas J 52:67 Jl 20 '53

Setting up an air-pollution survey; group research project at Sarnia. B. C. Newbury. map Munic Util 92:26-7+ Je '54

Smog and exhaust fumes being investigated. J. Geschelin. Automotive Ind 111:80+ Jl 15 '54

Smog effects; abstract. M. O. Amdur. Chem & Eng N 32:228 Ja 18 '54

Smog scramble spans Nation. il Chem & Eng N 32:1108-13 Mr 22 '54

Stanford research institute puts the spotlight on Los Angeles smog. il Chem & Eng N 32:3256+ Ag 16 '54

Steel mills fight their pollution problems. il Power 97:94-5 N '53

Study air pollution in New York cities. A. C. Stern. Nat Safety N 70:89-90 S '54

Superphosphate plant effluents. R. Donald. Chem Age (Lond) 69:1171-2+ D 5 '53

Threshold limit values for 1953; tabulation. A M A Archives Ind Hygiene & Occup Med 8:296-8 S '53

Uproar over smog. Bsns W p 158 N 14 '53

Weapons against air pollution. N. W. Hartz. il Safety Maint & Prod 106:44-5 N '53

Wind tunnel combats pollution; NYU conducts studies on small scale models. il Chem & Eng N 32:2697 Jl 5 '54

See also

Beryllium poisoning
Blast furnace gas
Dust
Fumes
Gases, Asphyxiating and poisonous
Respiratory apparatus
Smoke prevention

Laws and regulations

Air pollution control in Canada. E. A. Allcutt. bibliog(29 titles) Can Chem Process 38:44-6+ My '54

Air pollution; more laws coming. K. W. Bennett. Iron Age 172:64 O 15 '53

Man in the middle; Philadelphia air pollution problem; interview with Jesse Lieberman. Chem W 74:66+ F 20 '54

AIR pollution—Laws and regulations—*Cont.*
More, bigger bloodhounds; Nation's drive against pollution. Chem W 74:26 Ja 23 '54

Testing

Air-pollution study; report of results of sampling the atmosphere in the Detroit River area during 1951. G. O. Clayton and P. M. Giever. Mech Eng 75:647-8 Ag '53
Measurement of air pollution. W. C. L. Hemeon and others. bibliog il Instruments 26:566-8+ Ap '53
Scientific noses; Public health service sampling devices. Chem W 75:13 Jl 24 '54
Sinclair-Phoenix forward scattering smoke photometer. R. H. Müller. il diag Anal Chem 26:sup33A-4A Ag '54
Small chamber for studying test atmospheres. C. J. Spiegl and others. il A M A Archives Ind Hygiene & Occup Med 8:286-8 S '53
Use of molybdates for estimating amount of olefinic-type hydrocarbons in air. R. D. MacPhee. bibliog il Anal Chem 26:221-5 Ja '54
Usefulness of new instruments for determining air pollutants. L. C. McCabe. bibliog Ind & Eng Chem 45:sup 105A Ag '53

AIR pollution control association
Annual meeting, 47th, Chattanooga. Chem W 74:22 My 15 '54

AIR power
Air power regains arms buildup priority. R. Hotz. Aviation W 59:13 D 21 '53
Opposite shore; air power plus far flung bases is our real defense. J. Chamberlain. Barron's 33:3+ O 19 '53
Progress of air power. C. E. Woolman. Comm & Fin Chr 178:2268+ D 10 '53
Soviet H-bomb stirs air power debate. R. Hotz. Aviation W 59:13-14 S 7 '53

AIR preheaters
Air-preheater size selection to improve overall steam power-plant efficiency; abstract. B. C. Mallory and W. F. Allen, jr. Power 98:154 S '54
Corrosion and deposits in regenerative air preheaters. J. F. Barkley and others. 49pls U S Bur Mines Rep of Invest 4996:1-23 '53
Design and operation of high-recovery regenerative-type air preheaters. G. Braddon and J. Waitkus. il diags A S M E Trans 76:697-712; Discussion. 712-14 Jl '54
Regenerator efficiency and air preheat in the open hearth. B. M. Larsen. bibliog diags J Metals 6:Trans 129-44 F '54
Weldex bled-steam air preheater; Wellington tube works. il diag Engineering 176:417-18 O 2 '53
Work in Great Britain on corrosion and deposits in air preheaters. A. A. Berk. Mech Eng 75:545-6 Jl '53

AIR purification
Answer to air pollution. il diag Safety Maint & Prod 107:32-3+ F '54
Disinfecting air with sterilizing lamps. R. Nagy and others. bibliog il Heating-Piping 26:82-7 Ap '54; Discussion. 26:77 Jl '54
Elements of dust and mist collection. C. E. Lapple. bibliog il Chem Eng Prog 50:283-7 Je '54
Sweetens noxious exhaust gas; catalytic fume killer. il Food Eng 25:95+ D '53
See also
Air conditioning
Air filters
Air pollution
Ventilation

AIR raid shelters
Air raid; industry asks shelter aid. R. M. Stroupe. il Iron Age 172:45 O 29 '53
How to build a lean-to atomic shelter in the basement. il diags Am Bld 76:58+ Mr '54
How to plan and build your bomb shelter. C. F. Petzinger. il diag Factory Management 112:84-9 Mr '54
More defense features in industrial buildings; companies can get five year amortization. il Bsns W p84+ O 24 '53

Heating and ventilation

Air-conditioning and power plant for civil defence centres. il Engineer 197:280 F 19 '54; Engineering 177:278 F 26 '54
Civil defence centre equipment. il Elec R (Lond) 154:492 Mr 12 '54

AIR raids
B-36 teams with F-84 to carry A-bomb. R. Hotz. il Aviation W 59:12-13 Ag 31 '53

Protective measures

Air defense situation. B. W. Chidlaw. East Underw 54:15 O 23 '53
Auto alarm unit for Conelrad; automatic monitoring of key stations for air-raid alerts. E. B. Lindsey. diag Q S T 37:17+ S '53
Bombing attack; can your firm survive? il Steel 135:34-5 Jl 5 '54
Debunks H-bomb threat. C. E. Wilson. Aviation W 59:18 O 12 '53
Emergency and disaster planning. il Chem & Eng N 31:5348-9 D 28 '53
New air defense strategy puts more stress on civil side. il Bsns W p26-8 S 5 '53
Shielding subsidy; chemical industries progress in post-attack planning. Chem W 73:17 O 17 '53
Systems project office. Aviation W 59:340+ Ag 17 '53
See also
Air raid shelters
Air raids and building
Atomic bombs—Protective measures
Hydrogen bomb—Protective measures

AIR raids and building
H-bomb compels new look at blast design; design for fringe areas. Eng N 152:21-2 Ap 15 '54
See also
Atomic bombs and building

AIR reduction company
True to form; acquires assets and business of Colton chemical co. Chem W 74:15 My 29 '54

AIR research and development command. See United States—Air force—Air research and development command

AIR rights
Air rights will be leased in new $75-million project; land over Chicago Union Station trainsheds. il Ry Age News ed 135:9-10 O 26 '53
New York Central seeks air rights development at Grand central terminal. Ry Age 137:9 S 13 '54

AIR sampling
Air leakage and gas concentrations in commercial fruit storages. G. F. Sainsbury and F. Gerhardt. bibliog il Refrig Eng 62:61-6+ Mr '54
Determination of atmospheric contaminants. G. D. Clayton. bibliog il Am Gas Assn Proc 1953:892-923
Methods and instrumentation for air sampling. L. F. Dieringer and W. T. Ingram. bibliog(27 titles) il Instruments & Automation 27:1086-9 Jl '54
Scientific noses; Public health service sampling devices. Chem W 75:13 Jl 24 '54

AIR separators
New set-up for air splitting; patent. diag Chem Eng 61:280 Jl '54

AIR showers. See Cosmic rays—Showers

AIR transport association, International. See International air transport association

AIR transport association of America
CAA cool to ATA re-organization plan. Aviation W 58:68 Je 29 '53

AIR transportation. See Air carriers; Air freight service; Airlines

AIR travel
Air transport markets in the next ten years. Aviation W 59:107 O 12; 97 O 19; 94 N 23; 110 D 7; 72 D 21 '53; 60:74 Ja 4 '54
Around the world in ninety-nine hours. Aviation W 59:25 Jl 20 '53
Dollar barrier holds Pacific air tourists. Aviation W 59:21 N 16 '53
More leisure broadens travel market. Aviation W 59:72 D 21 '53
Outlook for business air travel. Aviation W 59:110 D 7 '53

AIR turbines
Air turbine accessory drive units. diag Engineer 196:773 D 11 '53; Engineering 176:777 D 18 '53
High-speed turbine-driven rotating mirrors. W. E. Buck. il diag R Sci Instr 25:115-19 F '54

AIR turbines—*Continued*
Small turbines, the heart of modern aircraft accessory power systems. L. W. Biwer and R. L. McManus. il diag S A E J 62: 71-4 Ag '54

AIR washers
How air washers perform when cooling. H. M. Hendrickson. bibliog diags Heating-Piping 26:119-23 Mr; 116-21 S '54 (to be cont)

AIRCRAFT
See also
Airplanes
Flying boats
Gliders
Guided missiles
Helicopters

AIRCRAFT damage insurance. See Insurance, Aircraft damage

AIRCRAFT gas turbines. See Gas turbines, Aircraft

AIRCRAFT guns. See Guns, Aircraft

AIRCRAFT industries association
AIA no raid pact draws fire. Aviation W 59:21-2 O 26 '53
Small firms may break with AIA. W. J. Coughlin. Aviation W 59:15-16 Ag 10 '53

AIRCRAFT steel. See Steel, Aircraft

AIRFOILS
Behavior of a sharp leading edge. Y. C. Fung. diag J Aeronautical Sci 20:644-5 S '53
Experimental and theoretical studies of area suction for the control of the laminar boundary layer on an NACA 64A010 airfoil. A. L. Braslow and others. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:433-51 '52
Flow at the rear of a two-dimensional supersonic airfoil with thickness. R. F. Probstein. diag J Aeronautical Sci 20:580-1 Ag '53
Mean skin-friction coefficients for biconvex airfoils in supersonic flow. J. C. Boison. J Aeronautical Sci 20:787 N '53
Milling original contoured shapes with interpolating tracer control; New England machine and tool co., Airfoil electronic milling machine. F. W. Hale. il diags Tool Eng 32:46-9 Je '54
Two-dimensional correction of the outlet angle in cascade flow. N. Scholz. diag J Aeronautical Sci 20:786-7 N '53
See also
Airplane wings

AIR line pilots association, International
ALPA protests cut in weather ships. Aviation W 59:65 N 30 '53

AIRLINES
Airline outlook; clouded by questions of fares, mail and coach service. R. P. Cooke. Barron's 33:11+ D 28 '53
Airlines winning state support. Aviation W 59:68-9 N 30 '53
AA speeds station messages. Aviation W 59: 66 Jl 6 '53
See also
Aeronautics, Commercial
Air carriers—Nonscheduled operations
Air freight service
Air mail service
Airports
Airways
New York airways
Pan American world airways
Railroads—Airline competition
Trans World airlines

Accidents

Board criticizes training of pilot; crash of a Trans World airlines Super Constellation at Fallon, Nev. Aviation W 59:56+ S 7 '53
Brazil crash. Aviation W 59:20 Ag 10 '53
BOAC Comet crash near Calcutta. Aviation W 59:63-6+ Jl 13 '53
CAB crash report blames controller. Aviation W 59:420+ Ag 17 '53
Comet crash report draws fire. Aviation W 58:17 Je 22 '53
Comet crashes; Dakar accident boosts jet transport toll to four. Aviation W 59:16 Jl 27 '53
Comet investigations. il Engineer 197:145 Ja 22 '54
Comet under scrutiny; disaster off Elba. Economist 170:255-6 Ja 23 '54
Convair collision puzzles CAB. il Aviation W 59:75 S 7 '53
CIR calls for stronger cabins; report of National Airlines DC-6 crash at Elizabeth, N.J. Feb. 11, 1952. F. Shea, jr. il Aviation W 59:98-9 O 19 '53
Pilot visibility; collision hearing studies blind airliner cockpits. il Aviation W 59:22+ O 12 '53
Propwash caused Bonanza crash. Aviation W 58:65+ Je 22 '53
Riddle of the Comet. Economist 170:186+ Ja 16 '54
U.S. air carriers set safety record. Aviation W 59:79 Jl 20 '53
See also
Aviation—Accidents

Accounting

All-level cost control for the management team. R. G. Lochiel. N A C A Bul 34: 1158-69 My '53

Consolidation

EAL-Colonial; examiner urges CAB to okay voluntary merger. Aviation W 58:94 Je 22 '53
Merger of major airlines up to President. maps Aviation W 59:55 Ag 10 '53
Tiger-Slick merger forecast for 1953. Aviation W 59:14 Ag 3 '53

Costs

CAB, feederlines fight rising subsidies. L. Moore. Aviation W 59:67-8 D 21 '53

Employees

All-employe contest checks capital's seasonal slump. il Sales Management 70:52-3+ Je 1 '53
Options; for the few or many? S. Altschul. Aviation W 59:95-7 O 12 '53
See also
Air line pilots association, International

Equipment leasing

Airliner leases prove expensive. S. Altschul. Aviation W 59:91-2 S 14 '53

Fares

Airline rate cuts hold key to future. W. Hildred. Aviation W 59:13 O 5 '53
American cuts fare on shorthaul coach. Aviation W 58:20 Je 8 '53
American starts first U.S.—Mexico aircoach. Aviation W 59:54 D 28 '53
Board suspends AA, EAL shorthaul rates. Aviation W 58:96 Je 22 '53
CAB freezes 75 per cent coach fare ceiling. Aviation W 59:20 O 12 '53
CAB launches new airline fares study. L. Moore. Aviation W 58:79-80 Je 15 '53
CAB plans renewal of four-cent coach fare. Aviation W 58:22 Je 8 '53
CAB to hold ceiling on tourist fares. Aviation W 59:82-3 O 5 '53
Court says airline not public utility. Aviation W 59:80 Jl 6 '53
IATA approves global aircoach. Aviation W 59:16 D 7 '53
Loftleidir cuts fares, wins heavy loads. Aviation W 58:64 Je 29 '53
Low-fare air travel increases. L. Moore. Aviation W 59:107 N 9 '53
North American fights for rate cut. Aviation W 58:80-1 Je 15 '53
PAL boosts DC-3 seating, cuts fares. Aviation W 59:108 O 12 '53

Federal aid

DC-3 successor prospects dim; House closes door on government aid. il Aviation W 59: 73-4 Jl 27 '53
See also
Airlines—Subsidies

Finance

Airline revenues soar to all-time highs. L. Moore. Aviation W 59:53-4 D 28 '53
Airlines running ahead of 1952. S. Altschul. Aviation W 59:69-70 Jl 20 '53
Aviation industry growing sans financing; report of IBA aviation securities committee. Comm & Fin Chr 178:2390-1+ D 17 '53
Board to put PAA, TWA on their own. map Aviation W 59:75-7 Jl 27 '53
Boom puts airlines in a squeeze. Bsns W p 104-6+ O 17 '53
National reports peak revenues. S. Altschul. Aviation W 59:25-6 O 5 '53

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AIRLINES—Finance—*Continued*

Six-month profits rise but investors remain wary. Bsns W p 125-8 S 19 '53

Survey sees airline earnings dip. Aviation W 59:48 Ag 31 '53

See also

Airlines—Federal aid

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Airlines—Subsidies

Eastern air lines

United air lines

Free rides

Board limits guests on ferrying flights. Aviation W 59:71 D 21 '53

Freight service

See Air freight service

Interchange agreements

CAB approves two new interchanges. Aviation W 59:17 Jl 20 '53

New York-Balboa case heads for rehearing. Aviation W 58:65 Je 29 '53

New York Balboa case starts again. Aviation W 58:18 Je 8 '53

Maintenance and repair

Efficiency up, costs down; sectional, mobile maintenance stands. il Safety Maint & Prod 106:19+ N '53

NEA solves shorthaul problems. G. L. Christian. il Aviation W 59:67-9+ N 23 '53

See also

Airlines—Shops

Management

Canadian Pacific airlines' varied air fleet covers Canada. G. L. Christian. il Aviation W 59:62-3+ S 21 '53

Capital's quota-busters bully the brass. il Sales Management 70:27 My 20 '53

How airline speeds billing; Eastern air lines. Am Bsns 24:38 Je '54

Managers who direct and develop always have executive manpower; American airlines. R. Fitzpatrick. Sales Management 72:36-7+ My 20 '54

Military use

USAF trims Pacific airlift to five lines. Aviation W 59:103 N 16 '53

Why so much military traffic moves by air. J. H. Frederick. il Ry Age 136:50-3 Je 28 '54

Officials

Executive salaries. Aviation W 59:24 N 23 '53

Radio communication

See also

Radio stations, Airline

Regulation

CAB trims Denver route petitions to seven Aviation W 59:48 Ag 24 '53

Recent airline regulatory problems. H. T. Brown. Pub Util 54:420-3 S 30 '54

Route case outlook; CAB decision in '54. L. Moore. map Aviation W 59:83-4 Jl 13 '53

See also

Airlines—Free rides

Safety measures

Air safety awards for 39 U.S. air lines. Nat Safety N 70:78 Ag '54

Five-star contest; United air lines. il Nat Safety N 68:54+ N '53

Laboratory testing spells TCA safety. H. Donner. il Can Chem Process 37:88 N '53

See also

Aviation—Safety measures

Securities

Airline dividends far from big. S. Altschul. Aviation W 59:73-4 S 28 '53

Airline investors want dividends. S. Altschul. Aviation W 59:44+ Jl 13 '53

Financing 2-0-2s; CCA proposes stock sale to pay for transports. Aviation W 59:19-20 N 23 '54

Stock transactions. Aviation W 59:21-2 D 21 '53

Transportation; with statistical data on three transportation groups. R. Carleson. Mag of Wall St 92:724-5+ S 19 '53

Why have airline stocks dropped? S. Altschul. Aviation W 59:42+ N 16 '53

Service

Which cities can support airline service? R. J. Holloway. J Marketing 18:177-8 O '53

Shops

Semi-skilled mechanics can re-bore cylinder heads with this machine; Pan American world airway's maintenance shops. il Am Mach 98:250-1 Ap 12 '54

Statistics

Air share of intercity traffic up. S. Altschul. Aviation W 59:64-5 D 21 '53

Airlines; operations on scheduled airlines, 1949-1952. Survey of Cur Bsns 1953 Sup p 113 [supplemented in monthly numbers]

Scheduled air carrier operation statistics, 1938-1952; tabulations. Automotive Ind 110:243 Mr 15 '54

U.S. civil aircraft in scheduled air transportation, Jan. 1, 1953; tabulation. Automotive Ind 110:242 Mr 15 '54

Subsidies

Bonanza subsidy climbs $220,000. Aviation W 59:84-5 S 28 '53

CAB asks $80 million for '55 subsidies. L. Moore. Aviation W 59:87-8 S 21 '53

CAB ponders subsidies budget. Aviation W 59:49 Ag 24 '53

CAB starts international subsidy cuts. L. Moore. Aviation W 58:63 Je 29 '53

PAA division wins $11.3-million subsidy. Aviation W 59:56 Ag 31 '53

Telephone

How United does it; telephone techniques save money. il Am Bsns 23:22+ N '53

Terminals

Air terminal and field circulation solved. il plans Arch Rec 114:141-3 D '53

Airlines terminal crush gives way; new East side airlines terminal, New York. il Eng N 152:44-6 F 4 '54

Criteria for planning utilization of space for major air terminal. G. D. Burr. Am Soc C E Proc 79 [no 253]:1-20 Ag '53

New terminal to house 20 lines. F. Shea, jr. il Aviation W 59:75-6 N 2 '53

Perimeter system air conditions new airlines terminal. il Heating-Piping 26:107 F '54

Something new in airline terminals. J. Anselmo. il Refrig Eng 62:37-9 Mr '54

See also

Airport buildings

Airports

Ticket offices

Daytime ticket office; nighttime display; Pan American ticket office. il plan diags Arch Rec 113:152-5 Mr '53

Drive in before you take off; Chesapeake and Ohio railway drive-in railroad ticket service; United air lines drive-in ticket office. il Dun's R & Mod Ind 62:241 O '53

Three airline ticket offices remodeled. il diag Arch Forum 100:150-1 My '54

Ticket office dramatizes destination; Northwest Orient airlines, New York city. il plan Arch Forum 101:114-17 S '54

Transoceanic lines

Counterclaims fly at Trans-Pacific hearing. Aviation W 59:84 Jl 13 '53

First round ends in Pacific route fight. L. Moore. Aviation W 59:75-6+ Jl 20 '53

Seven cargo lines want Atlantic routes. Aviation W 59:57 Ag 3 '53

Australia

Australian carrier plans fleet expansion. Aviation W 59:40-1 Ag 10 '53

Australian overseas air traffic gains 11 per cent. Aviation W 59:74 N 2 '53

Belgium

Sabena banks on helicopter's promise. G. L. Christian. il map plan Aviation W 59:65-6+ D 7 '53

To Paris by helicopter; Sabena. Economist 170:51-2 Ja 2 '54

Canada

Canadian airline serves migratory camps. il Aviation W 59:72-3 S 7 '53

AIRLINES—Canada—*Continued*

Canadian airlines; jalopies to jets. G. L. Christian. il Aviation W 59:52+ Jl 27 '53

See also

Canadian Pacific airlines

Trans-Canada airlines

Pacific western airlines

France

How Air France Comet training works. D. A. Anderton. il Aviation W 59:28-9+ N 16 '53

New decrees revise Air France setup. Aviation W 59:24 S 28 '53

Germany

American aircraft for Lufthansa? Economist 168:199-200 Jl 18 '53

Germans plan all-piston airline. G. W. Schroder. Aviation W 58:81-2 Je 15 '53

Lufthansa expects to fly Comet 3s. Aviation W 59:24-5 Jl 27 '53

Selling aircraft to Lufthansa. Economist 168: 723 S 12 '53

Great Britain

Air traffic in 1952-53. Economist 168:406+ Ag 8 '53

British independents discouraged. Aviation W 59:112 D 14 '53

BOAC buys CPA Comets, shuffles jets. Aviation W 59:49 Ag 24 '53

Comet under scrutiny; disaster off Elba. Economist 170:255-6 Ja 23 '54

Independent air transport companies. Engineering 176:746 D 11 '53

Making airlines pay. Economist 169:43-5 O 3 '53

More money for the airlines. Economist 169: 512 N 14 '53

Riddle of the Comet. Economist 170:186+ Ja 16 '54

U.K. revives interest in turboprop liners. Aviation W 59:47 Ag 24 '53

Viscounts lure opposition traffic. N. McKitterick. Aviation W 59:16-17 D 14 '53

See also

British European airways

British overseas airways corporation

Honolulu

Honolulu-Tahiti line wins CAB certificate. Aviation W 59:56 Ag 31 '53

TAL asks Honolulu route without subsidy. Aviation W 59:56-7 Ag 31 '53

Iceland

Loftleidir cuts fares, wins heavy loads. Aviation W 58:64 Je 29 '53

Israel

El Al maps $6-million expansion program. il Aviation W 59:56-7 Ag 3 '53

Jet units may raise C-46 profitability; El Al Israel airlines. G. L. Christian. il Aviation W 59:38-9 Ag 10 '53

Italy

Italy's foreign-backed airlines draw fire. Aviation W 59:27 N 16 '53

TWA may sell holdings in LAI. il Aviation W 59:58 Ag 10 '53

Japan

Japan air lines to start Pacific flights this winter. Aviation W 59:24-5 Ag 3 '53

Japanese airlines boost capitalization. Aviation W 59:83 Jl 6 '53

New Jap airlines plan local service. Aviation W 59:112 O 12 '53

Korea

Korea line gets first trans-Pacific DC-4. Aviation W 59:73 N 2 '53

Nigeria

Air transport makes gains in Nigeria, 1952. For Comm W 50:16 O 19 '53

Russia

Russian civil air transport trails West's. il Aviation W 59:72 Jl 27 '53

United States

Air transport markets in the next ten years. Aviation W 59:107 O 12; 97 O 19; 94 N 23; 110 D 7; 72 D 21 '53; 60:74 Ja 4 '54

Copter outlook; third of air traffic by '70. L. Moore. Aviation W 59:107-8 D 7 '53

U.S. lifting capacity tops rest of world. Aviation W 59:81 Jl 6 '53

See also

Civil aeronautics board

Venezuela

Venezuela signs air route pact with U.S. Aviation W 59:56 Ag 31 '53

AIRPLANE accessories industry

Aircraft hardwire selling is 90 per cent service; Lou Boyd of Aer-O-Craft helps make the planes fly by finding what manufacturers need. il Steel 133:54-5 Jl 20 '53

Can merchandising savvy sell aviation equipment? LearCal Hundred grand plan. N. Wood and E. Wood. il Sales Management 70:84-5 My 20 '53

Canadian overhaul firm expands; Aviation electric, ltd. G. L. Christian. il Aviation W 59:44-5 Ag 31 '53

Earnings in the parachute and related aerial accessories industry, Dec. 1951. J. P. Corkery. Mo Labor R 76:155 F '53

Equipment makers win buying fight. R. Hotz. Aviation W 59:12-13 D 7 '53

Equipment, new segment of industry. F. F. McLaughlin. il diag Aero Digest 67:17-23 O '53

Know-how; essential of product diversification. E. Martin. il Aero Digest 67:48-50+ O '53

Standardization; secret of equipment supply. J. C. Garrett. il Aero Digest 67:60+ O '53

Subcontracting, temporary or permanent industry? C. B. Buckley. il Aero Digest 67: 42-7 O '53

AIRPLANE brakes. See Brakes, Airplane

AIRPLANE carriers

British jets test U.S. angled deck. Aviation W 59:25 Jl 27 '53

Canted Forrestal; navy redesigns its super carrier. Aviation W 59:21 O 5 '53

Glide path indicator for the navy. il Engineer 197:425 Mr 19 '54

Radar speed measurer helps carrier planes land more safely. il Elec Eng 72:1039 N '53

Recent developments in the navy's air arm. J. N. Murphy. il Aeronautical Eng R 12: 24-8 Ag '53

AIRPLANE engines

Aircraft engines; abstracts of SAE annual meeting papers. S A E J 62:63-5+ F '54

Birth of an engine. F. R. Banks. diag Aeronautical Eng R 12:31-43 Je '53

Ceramics for aircraft propulsion systems. L. D. Richardson. Am Cer Soc Bul 33:135-7 My 15 '54

Effective utilisation of material. F. Nixon. il diags Engineer 197:400-1, 435-8 Mr 12-19 '54; Same cond. Engineering 177:305-7 Mr 5 '54

Engines; output for planes tailspins. K. W. Bennett. Iron Age 172:83 Jl 2 '53

Forum eyes more powerful DC-3; Airwork corp. and Pratt & Whitney aircraft Engine operation and maintenance forum. G. L. Christian. Aviation W 59:64-6 O 5 '53

Optimum performance for sustained supersonic flight; panel discussion. Automotive Ind 110:538+ Mr 15 '54

Slipstream view of aircraft propulsion, 1903-1953. F. W. Caldwell. Aeronautical Eng R 12:108-17+ D '53

Supercharged helicopter engine; Franklin O-425-2 engine. il Automotive Ind 111:72+ Ag 15 '54

See also

Gas turbines, Aircraft

Rocket engines

Air supply

Wind-tunnel investigation of air inlet and outlet openings on a streamline body. J. V. Becker. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:887-907 '52

Bibliography

Bibliography of books and published reports on gas turbines, jet propulsion, and rocket power plants, Jan. 1950 through Dec. 1953. E. F. Fiock and C. Halpern. U S Nat Bur Stand Circ Sup 509:1-110; pa 50c Supt. of doc. '54

AIRPLANE engines—*Continued*

Compounding

Design details of the Napier Nomad compound aircraft engine. D. Scott. diags Automotive Ind 110:38-40 Je 15 '54

Development of blowdown turbine for Wright turbo compound aircraft engine; abstract. F. J. Wiegand and W. R. Eichberg. diag Automotive Ind 110:43-4 Mr 1 '54

Free pistons and gas turbine engines compounded; abstract. A. L. London. Automotive Ind 110:44-5 Mr 1 '54

Piston speed-up. Bsns W p78+ N 21 '53

Cooling

Internal cooling. bibliog il diag U S Nat Advisory Com for Aeronautics 1951:612-46 '52

Temperature distribution in internally heated walls of heat exchangers composed of noncircular flow passages. E. R. G. Eckert and G. M. Low. bibliog diags U S Nat Advisory Com for Aeronautics 1951:383-96 '52

Design

Search for lightness; abstract. H. Constant. Engineering 177:401 Mr 26 '54

Detonation

Correlations of knock-limited performance data. bibliog diag U S Nat Advisory Com for Aeronautics 1951:500-10 '52

High-speed photographic studies of knocking combustion. C. D. Miller. il diags U S Nat Advisory Com for Aeronautics 1951: 455-99 bibliog(72 titles, p498-9) '52

Preignition. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:520-31 '52

Exhaust

Simulated altitude tests of large aircraft engine exhaust systems; abstract. C. F. Derbyshire. S A E J 62:111-12 Jl '54

Fuel

Armed services-industry cooperative study of aircraft fuel rating methods. D. L. Nowell. S A E J 62:63-4 Mr '54

Chemistry in aviation; the sky's no limit. il Chem W 73:78-80 D 19 '53

Correlation of physical properties with molecular structure for some dicyclic hydrocarbons having high thermal-energy release per unit volume. P. H. Wise and others. bibliog U S Nat Advisory Com for Aeronautics 1951:55-64 '52

Developing aviation fuels and lubricants. C. B. Davies. il diag Roy Aeronautical Soc J 57:700-8 N '53

Effect of aviation fuel components on the accuracy of the Karl Fischer electrometric titration. R. W. Sneed, R. W. Altman and J. C. Mosteller. bibliog Anal Chem 26:1018-20 Je '54

First UK *iso*-pentane. Chem Age (Lond) 71:182 Jl 24 '54

Fuel for thought; magnesium will become a Diesel and aircraft engine fuel; abstract. J. H. Scharen. Steel 133:73 N 9 '53

NACA investigation of fuel performance in piston-type engines. H. C. Barnett, comp. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:453-646 '52

National annual survey of aviation gasoline and aviation jet fuel, 1952 production. O. C. Blade. 5pls U S Bur Mines Rep of Invest 4982:1-15 '53; Excerpt. Oil & Gas J 52:95 Jl 6 '53

National annual survey of aviation gasoline and aviation jet fuel, 1953 production. O. C. Blade. 5pls U S Bur Mines Rep of Invest 5036:1-15 '54

Standard for fifth avgas grade approved. Pet Processing 8:1173 Ag '53

See also
Airplanes—Refueling
Gas turbines, Aircraft—Fuel

Fuel consumption

Aviation fuel economy and quality; brothers under the aircraft skin; abstract. H. E. Alquist and others. S A E J 61:110-11 D '53

Rationalized fuel reserve policy for medium-range airline operations. K. G. Wilkinson and J. Vivian. S A E J 62:37-9 Ag '54

Fuel feeding

Precision fuel pump control for ASTM aviation. N. F. Nichol. il Pet Eng 25:C38 D '53

Submerged booster combats vapor lock. Aviation W 59:92 D 14 '53

History

Power progress. il Aero Digest 67:102+ Jl '53

Ignition

Experts study misfiring, fouling; Champion's aircraft spark plug and ignition conference, Toledo. Aviation W 59:58+ O 26 '53

Ignition devices

Comets use high-energy ignition. G. L. Christian. il Aviation W 59:83+ O 12 '53

Improved ceramic insulating material; Hylumina. il Engineer 197:289 F 19 '54; Engineering 177:253 F 19 '54

Jet engines

Axial argument. Economist 169:204 O 17 '53

Combustion flow phenomena in jet engines studied at Wisconsin. il Iron Age 172:180+ S 17 '53

Combustor performance with instantaneous mixing; ram-jet power plants. W. H. Avery and R. W. Hart. bibliog Ind & Eng Chem 45:1634-7 Ag '53

Constant-area, constant-temperature combustor. P. Rosen and R. W. Hart. bibliog J Aeronautical Sci 20:549-54 Ag '53

Electrical techniques for time lag compensation of thermocouples used in jet engine gas temperature measurements. C. E. Shepard and I. Warshawsky. il diags Instruments 26:1725-30 N '53

Highspeed d.c. generators for continuous duty in jets. il Aviation W 59:97-8 D 14 '53

Jet metals. W. G. Hubbell. il Aeronautical Eng R 12:31-6 S '53

Noise is cut in new pulsejet engine. il diag Aviation W 59:41-2 S 28 '53

Organ-pipe resonance in ducted burners. J. C. Truman and N. J. Lipstein. bibliog J Aeronautical Sci 20:846-7 D '53

Pulse-jet engines for helicopters. il Engineering 176:319 S 4 '53; Aviation W 59:42 S 28 '53

Spreading of supersonic jets in supersonic streams. J. G. Wilder, jr. and K. Hindersinn. bibliog il diags Aeronautical Eng R 12:54-68 O '53

Summary report; materials for jet and rocket engines; American rocket society semi-annual meeting. Materials & Methods 40:151-2 Ag '54

Viper ASV3 jet engine. il diag Engineering 176:329-30, 336 S 11 '53

See also
Gas turbines, Aircraft

Lubrication

Developing aviation fuels and lubricants. C. B. Davies. il diag Roy Aeronautical Soc J 57:700-8 N '53

Foaming and aeration of oils in aviation powerplant. R. Tourret. bibliog(31 titles) diags Roy Aeronautical Soc J 58:53-60 Ja '54

New oil de-aerator speeds arctic starts. G. L. Christian. il diags Aviation W 59:38-40+ Ag 24 '53

SAE National fuels and lubricants meeting, Chicago, Nov. 5-6. S A E J 61:68-71 D '53

See also
Oil filters, Aircraft

Manufacture

Automated assembly of aircraft engines; illustrations with text. Mach 60:213 Ja '54

Automatic tools speed up assembly of aircraft engines; Curtiss-Wright corp. il plan Mill & Factory 54:79-82 Ja '54

Automatic units speed aircraft engine assembly; Curtiss-Wright corp. il Iron Age 172:99-101 N 26 '53

Better tumbling methods cut parts finishing costs. W. Stone. il Iron Age 172:117-21 S 24; 104-7 O 1 '53

AIRPLANE engines—Manufacture—*Continued*

Curtiss-Wright mechanized, automated line. il Steel 133:122-4 D 14 '53

Finishing costs push use of tumbling; aircraft manufacturers are tumbling large components. E. C. Beaudet. Iron Age 172:83 S 3 '53

Flexible radiant tunnel; installing shrink-fit parts in aircraft engines. il Steel 134:122 Ap 5 '54

How automatic engine factory works; Wright turbo compound powerplant. I. Stone. il Aviation W 59:48-9+ D 14 '53

How to coordinate subcontracting to meet production schedules. G. E. Fouch. Am Mach 98:137-44 F 15 '54

Many general purpose machines used to produce Wright engines. J. Geschelin. il Automotive Ind 110:44-7+ Ja 15 '54

Producing tubing assemblies for airplane engines; Special machine tool engineering works. il Mach 60:175-9 D '53

Progressive assembly doubles output, halves floor space; Wright aeronautical division. il Factory Management 112:138-9 F '54

Shot peening applications and techniques in the aircraft industry. H. J. Noble. il S A E J 62:44-6 Je '54

Models

Engines; Lilliputs teach precision; model planemaking boosts demand for precision miniature engines. R. L. Hatschek. il Iron Age 172:43-4 O 29 '53

Mounting

Pod mounting of jet engines. G. S. Schairer. diags Engineer 196:406-8 S 25 '53; Abstract. Engineering 176:453-4 O 9 '53

Why pod-mounted engines make sense. G. S. Schairer. il Aero Digest 67:100-5+ S '53

Noise

Aircraft noise stops growing like Topsy; based on papers by A. C. Pietrasanta and others. diags S A E J 62:22-7 S '54

Combustion flow phenomena in jet engines studied at Wisconsin. il Iron Age 172:180+ S 17 '53

See also

Gas turbines, Aircraft—Noise

Repair

Engine repair, by the numbers; Pacific airmotive corp. R. H. Du Fault. il Mill & Factory 55:121-2 Ag '54

Repair welding of ceramic-coated alloys. J. M. Riordan. bibliog il Welding J 32:1160-6 D '53

Specifications

1954 U.S. aircraft engines; tabulations. Automotive Ind 110:254-5 Mr 15 '54

Starting

Resin-glass tank is shatterproof; air-storage tank in a new jet engine starter system. il Aviation W 59:44+ O 26 '53

Three developments facilitate starting of reciprocating engines in cold weather; based on papers by E. Rowland and others. diags S A E J 62:38-9 Je '54

See also

Gas turbines, Aircraft—Starting

Storage

Canning engines saves $9 million. il Aviation W 59:40 D 21 '53

Testing

Engine wear testing goes radioactive. il Aviation W 58:30-1 Je 8 '53

Simulated altitude tests of large aircraft engine exhaust systems; abstract. C. F. Derbyshire. S A E J 62:111-12 Jl '54

Testing; jet engine sucks air for wind tunnel tests; Chance Vought Aircraft. il Iron Age 173:170-1 Mr 11 '54

Tuning fork tests master rods. il Machine Design 26:210 Ap '54

Valves

Anti-corrosive coating for exhaust valves; resistance to leaded fuels. il Engineering 177:89 Ja 15 '54

AIRPLANE factories

See also

Automobile factories—Airplane manufacture

Costs

Planes; why they cost so much. Iron Age 172:110-11 S 10 '53

Simplicity, key to productibility; Lockheed aircraft corp. E. A. Green. il diags Machine Design 25:112-23 N '53

Three steps for controlling manufacturing costs; report of control of manufacturing costs panel. N. B. Davis, jr. S A E J 62:56-8 Je '54

Employees

Aircraft strike for auto parity halts work on supersonic jets; North American aviation co. il Bsns W p 155-6 O 31 '53

Aircraft work force levels off. R. Balentine. Aviation W 59:52+ O 19 '53

Cases in methods improvement; Boeing airplane co.; illustrations with text. Factory Management 111:84-6 D '53

Detroit labor battles Pentagon on Kaiser. Aviation W 59:14 Jl 13 '53

Employment in aircraft and engine plants, 1952-1953; tabulations. Automotive Ind 110:240 Mr 15 '54

How to talk to foremen, if you dare; Solar Aircraft. Factory Management 111:90-1 D '53

Joint action in aircraft bargaining. Bsns W p 175 Jl 8 '54

Make a hobby out of your job; Douglas aircraft co., hobby shop. il Mill & Factory 54:126 Mr '54

NAA union demands wages at auto level. Aviation W 59:18 Jl 27 '53

Opinion poll for labor. il Bsns W p 114-15 Ag 8 '53

Psychologist on the job appraises a training program in an aircraft plant. R. H. Bloomer. Personnel J 33:6-9 My '54

Strike fizzles; North American emerges victor in walkout. Aviation W 59:18 D 21 '53

Strike setback; Douglas workers turn down union walkout. Aviation W 59:16 N 9 '53

Suggestions save firm $3,800,000; Consolidated-Vultee aircraft corp. H. Waterman. il Am Bsns 24:22+ Mr '54

Supervisors for tomorrow. W. M. Stocker, jr. Am Mach 98:133-40 Ag 16 '54

UAW molds wage-talk weapon. W. J. Coughlin. Aviation W 59:16 Ag 31 '53

Wage strike freezes NAA assembly lines. W. J. Coughlin. Aviation W 59:13-14 N 2 '53

Equipment

Adapting machine tools to aircraft manufacture. W. L. Davis. il Tool Eng 32:193-5 Je '54

Air power is versatile power; Rohr aircraft corp. il Mill & Factory 53:118-20 N '53

Aircraft assembly boosted; Pratt & Whitney. il Steel 133:164 D 7 '53

Aircraft refrigeration units machined by precision methods; Fairchild engine & airplane corp. C. H. Wick. il Mach 60:173-9 Mr '54

Automatic units speed aircraft engine assembly; Curtiss-Wright corp. il Iron Age 172:99-101 N 26 '53

Automotive tooling experience with aircraft tooling and manufacturing. J. Slean. il diags S A E J 62:44-7 My '54; Abstract. Tool Eng 32:183-5 Je '54

Big bathtub primes plane alloys. il Aviation W 59:33 Ag 10 '53

Blackburn and General Aircraft universal stretch-forming tool. il diags Engineer 197:324-5 F 26 '54; Engineering 177:318 Mr 5 '54

Boeing beat the pinball game; seized by state and county authorities as gambling devices, 92 one-armed bandits went to Boeing airplane co.; electrical parts were salvaged to go into laboratory test equipment. il Am Mach 98:169 S 13 '54

Brass wheels grind carbides; Pratt & Whitney Aircraft. A. A. Merry and L. F. Wheeler. il Mach 61:174-7 S '54

Budget tooling methods save time, money on short run; Pratt & Whitney aircraft div. A. A. Merry and J. H. Lareau. il Iron Age 174:100-1 Ag 5 '54

AIRPLANE factories—Equipment—*Continued*

Camera for big birdies; Convair installs largest template camera. Steel 133:123-4 Jl 6 '53; Aero Digest 67:27 S '53
Cascade system for storage and distribution of argon; Ryan aeronautical co. il Automotive Ind 109:55+ D 15 '53
Cheaper machining methods; abstract. G. H. Dowty. Engineer 196:832-3+ D 25 '53
Concrete joins steel in B-52 jig. il Aviation W 59:42+ D 14 '53
Convair installs big press for fabrication of aircraft parts; Consolidated Vultee aircraft corp. il Iron Age 174:135 Jl 15 '54
Cut engineering costs with high speed motion pictures; Lockheed aircraft corp. A. E. Ground. il Iron Age 172:97-100 Ag 27 '53
Drop hammer, trapped rubber dies form aircraft parts faster; Consolidated Vultee aircraft co. T. M. Rohan. il Iron Age 173:121-3 My 6 '54
Factors in engineering your materials handling operations; panel on materials handling. S A E J 62:41-3 Ap '54
Fixture lowers wrinkles in pressed aluminum parts; TEMCO aircraft corp. Iron Age 172:149-50 S 3 '53; Same. Steel 133:168+ S 14 '53
Flow-form dimpling at Northrop. G. C. Close. il diags Mach 60:191-3 F '54
Freezer; high capacity, portability features of new unit; Boeing airplane co. il Iron Age 173:160 F 4 '54
Get the most out of compressed air all the time; Ryan aeronautical co. il Steel 134:102+ My 31 '54
Heavy presses near completion. A. H. Allen. il Metal Prog 66:81-5 Jl 1 '54
Height used to advantage in revised storage system; Douglas aircraft co. K. R. Benfield. il Iron Age 173:145-7 Je 17 '54
How automatic engine factory works; Wright turbo compound powerplant. I. Stone. il Aviation W 59:48-9+ D 14 '53
How plastics cut short run tooling costs; Pratt & Whitney. A. A. Merry. il Iron Age 173:158-61 Mr 4 '54
How to get more out of production space; Ryan aeronautical co. il Mill & Factory 54:121 Mr '54
How to press form titanium parts; North American aviation. P. Maynard and A. Eshman. il diag Iron Age 173:149-52 Mr 11 '54
Huge spar and skin mill for workpieces up to 40 ft. by 10 ft.; Douglas aircraft co. inc. il Automotive Ind 110:41 Je 15 '54
Increasing use of aircraft plastic tooling; Republic aviation corp. il Automotive Ind 110:58-9 Ap 15 '54
Jet engine production; Ryan aeronautical co. il Automobile Eng 44:242-4 Je '54
Laminated glass fiber plastic tooling cuts lead time up to 50 per cent; Goodyear aircraft corp. T. Mac New. il diag Automotive Ind 110:46-8+ Mr 1 '54
Lockheed uses epoxy resins for various kinds of tooling. G. J. Walkey. il Mach 60:168-73 Jl '54
Making the old good as new; year-round machine tool rebuilding program at Boeing. il Steel 133:124 Ag 17 '53
Many general purpose machines used to produce Wright engines. J. Geschelin. il Automotive Ind 110:44-7+ Ja 15 '54
Milling machines go to aircraft; North American aviation inc. il Steel 133:110 D 21 '54
Money-saving machine tool rebuilding program; North American aviation, inc. J. S. McNamara. il Mill & Factory 55:94-5 Jl '54
National Machinery million pound machine to produce aircraft forgings. il Iron Age 173:171 Mr 11 '54
New metal-shop methods at Convair. H. D. Cromartie. il Mach 60:196-201 Jl '54
Newest Douglas plant model of productive efficiency. C. O. Herb. il Mach 60:160-7 Jl '54
Plating; portable tumbler cuts costs at aircraft factory; Temco aircraft corp. il Iron Age 173:146-8 Je 3 '54
Precision machining of small gas turbines; Continental aviation and engineering corp. F. H. Minturn. il Mach 60:212-17 Jl '54
Production problems arising from the trend of design; abstracts of two papers. Engineering 177:7-8 Ja 1 '54
Production problems on supersonic planes. A. Ashburn. il Am Mach 98:129-44 Jl 5 '54
Republic installs new tools. il Aviation W 59:46 Jl 27 '53
Research guides design of new air force steam hammer. il Iron Age 173:170 My 20 '54
Reusable airframe jigs of cast iron or aluminum; Cessna aircraft co. il Automotive Ind 110:54+ Je 15 '54
Riveting goes film-controlled; Convair. il Factory Management 112:88-9 Ag '54
Ryan's laundry saves $100,000 a year. il Am Mach 97:160-1 N 9 '53
Save $20,000 a month with air-tool sense; Ryan aeronautical co. il Am Mach 98:153-5 Mr 15 '54
Self-built bottlenecks endanger production; abstract. G. H. Prudden. Aviation W 59:35-6 Jl 13 '53
Sharper bends for ultra-thin tubing. il Steel 134:90-1 My 31 '54
Special machine locates and drills rivet holes; Boeing airplane co. il Automotive Ind 109:53 N 1 '53
Storage system cuts argon cost; Ryan aeronautical co. il Steel 133:118 O 26 '53; Same abr. Automotive Ind 109:55+ D 15 '53
Streamlining speeds parts production; Ryan aeronautical co. il Aviation W 58:50-2+ Je 22 '53
Stretch form press used in aluminum jobs. Aviation W 59:44+ Jl 20 '53
Symposium on heavy presses for light-metal forgings and extrusions. bibliog il diags A S M E Trans 75:1481-533; Discussion. 1534-42 N '53
Tooling programs. S A E J 62:32-3 Je '54
Two new air tools speed aircraft production. il Comp Air Mag 59:9 Ja '54
Verson Allsteel rubber pad press gets new muscles. il diags Steel 134:98-100 Mr 22 '54
Wood laminate used in aircraft tooling. il Aviation W 59:43-4+ N 23 '53

Layout

How best-to-do-it methods; report of panel on plant layout and plant engineering. J. A. Maurice. S A E J 62:24-7 Je '54

Lighting

My most interesting lighting job; nuts and bolts walk the plank; ultraviolet for decontamination of small articles. R. Hatfield. il Elec West 111:105 S '53
Plastic ceiling provides lighting that's next best to daylight; Douglas Aircraft. il Factory Management 112:104-5 Ag '54

Management

Change control; Douglas aircraft co.; abstract. N. H. Shappell. Tool Eng 33:146-8 Jl '54
Change control practices in the aircraft industry; report of panel on change control. S A E J 62:50-1 Ap '54
Comic film helps cut careless handling practices. R. Coleman. il Iron Age 173:126-8 My 27 '54
Cost reduction program that saved $3,800,000 in 1953; Consolidated Vultee aircraft corp. E. E. Hartzler. il Mach 60:181-3 Ja '54
Cut blueprints to workable size; North American aviation inc. il Steel 135:100 S 6 '54
Flash charts show facts instantly; Northrop aircraft, inc. G. C. Close. il Mill & Factory 54:112-13 Ap '54
How best-to-do-it methods; report of panel on plant layout and plant engineering. J. A. Maurice. S A E J 62:24-7 Je '54
How Republic levels its ups and downs. W. Norris. il Am Bsns 24:20-1+ Ja '54
Old masters' touch salvages scrap parts; Pratt & Whitney Aircraft. il Am Mach 98:117 Jl 5 '54
Process evaluation pays long-term dividends; Stratos division, Fairchild engine and airplane corp. W. M. Stocker, jr. il Am Mach 98:133-40 Je 21 '54
Producibility; abstract. H. M. Harrison. Tool Eng 32:187-90 Je '54

AIRPLANE factories—Management—*Cont.*

Production engineering for the civil market; abstract. R. B. McIntyre. S A E J 62:109-10 Mr '54

Production plane changes can be made less painful; report of panel on change control. S. J. Worth. il S A E J 61:41-3 D '53

Reduced inspection improves quality; Lockheed aircraft corp. G. H. Prudden. Am Mach 97:125-6 D 7 '53

Streamlined material conservation program; Douglas aircraft co. K. R. Benfield. il Mill & Factory 54:97-9 F '54

Power

Plane builder protects against power loss; North American aviation. il Diesel Power 32:56 Jl '54

Quality control

Acceptance standards for magnetic inspection improve quality, lower rejection rates on critical parts. S. Maszy. diags Iron Age 174:114-15 S 23 '54

Charts used for controlling quality of assemblies; Hughes aircraft co. M. H. Saltz. il Tool Eng 33:74-7 Jl '54

Light metals processing quality control. H. Bourassa and W. Chellman. il Light Metal Age 12:12-13+ F '54

Lower cost inspection for better quality control; report of panel on quality control. S A E J 62:48-51 Ag '54

Safety measures

Injury that wasn't a handicap; Solar aircraft co. il Nat Safety N 68:32-3+ D '53

Investment in protection; Chance Vought aircraft inc. il Nat Safety N 69:36-7 Je '54

Plant safety no accident; Solar Aircraft. F. E. Van Horn. il Steel 133:97 N 9 '53

Safety; three million manhours; Kansas City aircraft plant of Ford motor co. il Steel 133:124+ N 16 '53

Self insurance system improves safety record; Ryan aeronautical co. M. M. Clancy. Iron Age 173:104-5 Je 24 '54

Stores systems

Library system catalogs sheet stock; Pratt & Whitney Aircraft. il Steel 134:122+ Ap 12 '54

AIRPLANE industry and trade

Aircraft industry looks ahead. D. C. Ramsey. Comm & Fin Chr 178:2633 D 31 '53; Same. Automotive Ind 110:40-1+ Ja 15 '54; Abstract. Am Mach 98:284 Ja 18 '54

Aircraft makers diversify into new lines; nonaircraft sales are long-term insurance. il Steel 134:84-5 Je 21 '54

Aircraft output hits postwar peak. Aviation W 59:15 N 9 '53

Defense sets new rules for plane buying. R. Hotz. Aviation W 58:14-15 Je 8 '53

Depreciation policy drag on aircraft. R. T. Hurley. Iron Age 173:75 Ap 29 '54

Don't sell piston power short; aircraft industry problem. R. Hurley. Aviation W 59:16-17 S 28 '53

Economy pays plane industry dividend. Steel 133:91 S 21 '53

Experimental shops pretest production; SAE forum. il Aviation W 59:36-7+ Ag 31 '53

Foreign buying; off-shore purchases of aircraft; $874 million. Aviation W 59:22+ S 14 '53

New defense facilities; list of certificates of necessity authorizing new or expanded facilities for the manufacture of automotive and aviation war goods (cont). Automotive Ind 109:212 N 15; 129-30 D 15 '53; 110:114 Ja 15; 404+ Mr 15; 94+ Ap 15; 106+ My 15; 108 Je 15; 111:124 Ag 15; 168 S 15 '54

New profits for you behind tomorrow's hot headlines; transportation by air. R. Reed. il Sales Management 72:28-9 Ja 1 '54

Options; for the few or many? S. Altschul. Aviation W 59:95-7 O 12 '53

Over the hump, but still flying high. il Steel 134:40 Ja 11 '54

Subcontracting, temporary or permanent industry? C. B. Buckley. il Aero Digest 67:42-7 O '53

Tax benefits spur plant expansion. Aviation W 59:21-2 N 2 '53

Wilson leaves new policy in air. Aviation W 59:15 O 19 '53

Wilson puts financial squeeze on industry. Aviation W 59:14-15 O 12 '53

See also

Boeing airplane company

Douglas aircraft company

Hughes aircraft company

Lockheed aircraft corporation

North American aviation, inc.

Directories

Directory of manufacturers of complete motor vehicles, tractors, aircraft, industrial trucks, and all types of gasoline and Diesel engines. Automotive Ind 110:354+ Mr 15 '54

Finance

Aircraft backlog; $19 billion; second quarter of the year. Aviation W 59:22 S 21 '53

Aircraft builders. S. Altschul. Barron's 33:9+ O 5 '53

Aircraft earnings; too low. R. T. Hurley. il Steel 134:72 F 15 '54

Aircraft profits grounded; Aircraft industries association survey. Steel 134:59 My 3 '54

Aviation industry growing sans financing; report of IBA aviation securities committee. Comm & Fin Chr 178:2390-1+ D 17 '53

Finance for aircraft exports. Economist 168:719 S 12 '53

New progress pay policy studied; abstracts. S. Altschul. Aviation W 59:83-4 O 26 '53; Barron's 33:11-12 N 2 '53

Survey tabs aircraft future good. S. Altschul. Aviation W 59:25-6 D 28 '53

Securities

Aircraft dividend trend; rising. S. Altschul. Aviation W 59:65 Jl 27 '53

Aircraft investors getting choosy. S. Altschul. Aviation W 59:49-50 O 19 '53

Aircraft profit altitudes. I. U. Cobleigh. Comm & Fin Chr 178:1327 O 8 '53

Aviation moves into new era of dynamism. J. T. Russell. il Mag of Wall St 93:179-81+ N 14 '53

Hits and missiles. I. U. Cobleigh. Comm & Fin Chr 179:457 Ja 28 '54

Stock transactions. Aviation W 59:21-2 D 21 '53

Statistics

Aircraft and aircraft engine production, by years, 1927-1953; shipments of complete civil aircraft and parts, 1952-1953; shipments of civil aircraft engines and parts, 1952-1953; tabulations. Automotive Ind 110:239 Mr 15 '54

AIA updates aviation statistics. Aviation W 59:17-18 D 7 '53

Civil aircraft, 1952-1953; tabulation. Steel 134:187 Ja 4 '54

Civil aircraft, production or shipments and exports, 1949-1952. Survey of Cur Bsns 1953 Sup p 191 [supplemented in monthly numbers]

Registrations of civil aircraft by make, by year of manufacture, classified by number of engines and hp; tabulations. Automotive Ind 110:241 Mr 15 '54

Shipments of complete U.S. civilian aircraft and engines, 1948-1953; civil aircraft shipments by total rated horsepower, 1952-1953; civil aircraft shipments by number of places, 1952-1953; airframe weights (excluding spares) of civil aircraft shipments, 1946-1953; total engine hp of civil aircraft engine shipments, 1949-1953; tabulations. Automotive Ind 110:240 Mr 15 '54

U.S. civil aircraft registrations by states, 1950-1953; tabulations. Automotive Ind 110:242 Mr 15 '54

Taxation

Aircraft firms fight new California tax. Aviation W 59:18 N 30 '53

California

Aircraft firms fight new California tax. Aviation W 59:18 N 30 '53

Aircraft industry is California's largest. Aviation W 59:40 N 16 '53

AIRPLANE industry and trade—*Continued*

France

France finds wings. diags Economist 168:117-19 Jl 11 '53

French air industry asks import limit. Aviation W 59:34 N 23 '53

Georgia

Lockheed's Georgia plant states largest single payroll. Manuf Rec 123:52 Jl '54

Germany

Germans ready to roll on X day. G. W. Schroder. Aviation W 59:38+ Jl 27 '53

Great Britain

Achievement in the air; survey. diags Economist 168:741-52 S 12 '53

Aircraft and exports. Economist 170:51 Ja 2 '54

Britannias in the window. Economist 169: 980 D 26 '53

Dispersal for aircraft designers? Economist 168:535 Ag 22 '53

Easier export finance for aircraft and aero-engines; Air finance, ltd. Economist 169: 273, 513 O 24, N 14 '53

Engineering outlook; aircraft industry. Engineering 177:268-71 F 26 '54

Selling aircraft to Lufthansa. Economist 168: 723 S 12 '53

Viscounts on the counter. Economist 169:838 D 12 '53

Pacific coast

Planes; West's output keeps altitude. T. M. Rohan. il Iron Age 172:63 S 3 '53

AIRPLANE models

See also

Airplanes—Model testing

AIRPLANE parts

Aircraft components; too many or too few? il Steel 133:33 Ag 31 '53

Chemical forms precisely; North American Aviation. il Steel 134:122+ Je 14 '54

Converting parts cost to a completed airplane basis. R. W. Kindley. N A C A Bul 36:69-74 S '54

Machining; large aluminum parts processed rapidly. il Iron Age 173:193-4 Mr 4 '54

New locknuts cut aircraft weight. il Iron Age 173:82 My 27 '54

NWA finds fix for wing bolt corrosion. il Aviation W 59:72+ N 23 '53

Practical approach to component design; abstract. J. C. Garrett. Machine Design 25: 378+ D '53

Sand castings can be made to close tolerances; R. H. Osbrink mfg. co. L. B. Reed. il Foundry 82:92-7+ Ja '54

Streamlining speeds parts production; Ryan aeronautical co. il Aviation W 58:50-2+ Je 22 '53

Tooling innovations speed specialized parts production; Vard, inc. D. A. Hubbard. il Iron Age 172:125-8 Ag 20 '53

Waffles stiffen highspeed structures. I. Stone. il diags Aviation W 59:38+ N 23 '53

Wood laminate used in aircraft tooling. il Aviation W 59:43-4+ N 23 '53

Testing

External squeeze testing; strength tester for aluminum structures accommodates any size external shape; Pastushin aviation corp. Steel 133:122 N 23 '53

New pads simplify stress tests; Convair's rubber tension layouts. il Aviation W 59: 41-2 Jl 20 '53

Testing aircraft castings. T. A. Dickinson. il Foundry 82:110-11 Mr '54

Transportation

Packaging; fibreboard material simplifies, speeds up shipping; Curtiss-Wright corp. il Iron Age 172:184-5+ D 3 '53; Steel 133: 112-13 D 21 '53

Packaging Sabre parts. J. Joseph. il Aero Digest 67:23-6 Ag '53

AIRPLANE propellers

Applications of the controllable-pitch propeller. diags Engineer 196:346-7 S 11 '53

Belt-drive prop ups Cessna climb. il Aviation W 59:21 Ag 3 '53

Control systems and noise problems for high speed propellers. J. Schmey and W. H. Clark. S A E J 62:44-7 Ap '54

Propeller reversing problems. D. L. Posner. Aeronautical Eng R 12:44-6 Je '53

Simple thrust indicator for propeller-driven airplanes. A. W. Vogeley and M. N. Gough. diags Aeronautical Eng R 12:47-50 Je '53

Subsonic compressibility corrections for propellers and helicopter rotors. E. V. Laitone and L. Talbot. bibliog diags J Aeronautical Sci 20:683-90 O '53

Manufacture

Aircraft propeller-blade forging of titanium alloy. P. L. Teed. il Engineering 176:373 S 18 '53

Drop forging huge titanium aircraft propellers; Ladish co. il Light Metal Age 11:10 O '53

Extruded blades; propeller division, Curtiss-Wright corp. il Metal Prog 65:100-1 Je '54

Plating setup recycles propellers for proper balance; Hamilton standard division of United aircraft corp. C. B. Conwell and C. J. Stansfield. il plan Iron Age 173:133-5 My 20 '54

Testing

Giant clamshell will house propellers during tests; Hamilton standard div. of United aircraft corp. il Iron Age 173:130-1 Jl 1 '54

Investigation of the NACA 4-(5)(08)-03 and NACA 4-(10)(08)-03 two-blade propellers at forward Mach numbers to 0.725 to determine the effects of camber and compressibility on performance. J. B. Delano. il U S Nat Advisory Com for Aeronautics 1951:189-219 '52

XF-88B starts supersonic prop tests. il Aviation W 59:17 Jl 6 '53

AIRPLANE races

Canberra, DC-6 win Christchurch race. Aviation W 59:17-18 O 19 '53

AIRPLANE seats. See Airplanes—Seats

AIRPLANE service stations

Oil marketing in the airborne age; airplane service station at Pittsburgh's Allegheny County airport. Nat Pet N 45:23 D 9 '53

AIRPLANE stability and stabilizers

Effect of a turbojet engine on the dynamic stability of an aircraft. H. C. Vetter. diags J Aeronautical Sci 20:797-9 N '53

Experimental investigation of the effect of vertical-tail size and length and of fuselage shape and length on the static lateral stability characteristics of a model with 45° sweptback wing and tail surfaces. M. J. Queijo and W. D. Wolhart. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:1117-45 '52

Relation between open-loop stability and frequency response diagrams for linear systems. D. O. Dommasch. diags J Aeronautical Sci 20:506-9 Jl '53

Some effects of nonlinear variation in the directional-stability and damping-in-yawing derivatives on the lateral stability of an airplane. L. Sternfield. diags U S Nat Advisory Com for Aeronautics 1951:1009-17 '52

Stability and control in aircraft design; abstract. J. C. Wimpenny. Engineering 176: 682 N 27 '53

Study of the use of experimental stability derivatives in the calculation of the lateral disturbed motions of a swept-wing airplane and comparison with flight results. J. D. Bird and B. M. Jaquet. il diags U S Nat Advisory Com for Aeronautics 1951:709-33 '52

Summary of lateral-stability derivatives calculated for wing plan forms in supersonic flow. A. L. Jones and A. Alksne. bibliog(24 titles) diags U S Nat Advisory Com for Aeronautics 1951:1211-45 '52

Theoretical analysis of the effect of time lag in an automatic stabilization system on the lateral oscillatory stability of an airplane. L. Sternfield and O. B. Gates, jr. bibliog U S Nat Advisory Com for Aeronautics 1951:291-302 '52

Use of the neutral point as a stability parameter. S. J. Deitchman. J Aeronautical Sci 20:426-7 Je '53

AIRPLANE wings

Analysis and design of multipost-stiffened wings. D. M. Badger. bibliog il diags Aeronautical Eng R 12:45-57 Jl '53

Calculation of the lateral control of swept and unswept flexible wings of arbitrary stiffness. F. W. Diederich. bibliog diags U S Nat Advisory Com for Aeronautics 1951:413-31 '52

Comparison between theory and experiment for wings at supersonic speeds. W. G. Vincenti. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:757-67 '52

Effects of wing twist on the response of an airplane encountering a sharp-edged gust. G. C. K. Yeh and J. Martinek. bibliog diag J Aeronautical Sci 20:827-34+ D '53

Equations for the loading on triangular wings having supersonic leading and trailing edges due to various basic twist distributions. J. H. Kainer. diags J Aeronautical Sci 20:469-76 Jl '53

Experimental study of a symmetrical aerofoil with a rear suction slot and a retractable flap. D. M. Heughan. bibliog il diags Roy Aeronautical Soc J 57:627-45 O '53

F-86 gimmick; improved wing. W. J. Coughlin. il Aviation W 59:15-16 S 7 '53

Fatigue life of thick-skinned tension joints. E. W. Thrall, jr. il diags Aeronautical Eng R 12:37-46 N '53

Formulas for the supersonic loading, lift, and drag of flat swept-back wings with leading edges behind the Mach lines. D. Cohen. bibliog diags U S Nat Advisory Com for Aeronautics 1951:1147-86 '52

How good is the Custer channel wing? D. A. Anderton. il Aviation W 58:28+ Je 15 '53

Integrals and integral equations in linearized wing theory. H. Lomax and others. bibliog diags U S Nat Advisory Com for Aeronautics 1951:1267-300 '52

Intermittent heating of airfoils for ice protection, utilizing hot air. H. H. Hauger, jr. bibliog il diags A S M E Trans 76:287-98 F '54

Investigation of spoiler ailerons for use as speed brakes or glide-path controls on two NACA 65-series wings equipped with full-span slotted flaps. J. Fischel and J. M. Watson. bibliog diags U S Nat Advisory Com for Aeronautics 1951:769-93 '52

Leading-edge separation from delta wings at supersonic speeds. M. C. Adams. J Aeronautical Sci 20:430 Je '53

Lift-cancellation technique in linearized supersonic-wing theory. H. Mirels. bibliog diags U S Nat Advisory Com for Aeronautics 1951:65-75 '52

Lift effectiveness of slender wings on cylindrical bodies. H. Mirels. diags J Aeronautical Sci 20:504-5 Jl '53

Minimum drag cambered rectangular wing for supersonic speeds. N. Rott. J Aeronautical Sci 20:642-3 S '53

New wing boosts Comet 2 lift. N. McKitterick. Aviation W 59:13-14 D 7 '53

Optimum design considerations for aircraft wing structures. A. L. Kolom. bibliog diags Aeronautical Eng R 12:31-41 O '53

Research aircraft with aero-isoclinic wing; Sherpa, designed and constructed by Short brothers. il diags Engineering 176:544 O 23 '53

Second-order lifting pressure and damping in roll of sweptback rolling airfoils at supersonic speeds. J. C. Martin and N. Gerber. bibliog J Aeronautical Sci 20:699-704 O '53

Simplified method to obtain the load distribution corresponding to the Ackeret region for wings having arbitrary source distribution at supersonic speeds. J. H. Kainer. diag J Aeronautical Sci 20:749-50 N '53

Some integrated properties of pressure fields about supersonic wings. Z. O. Bleviss. diags J Aeronautical Sci 20:849-51 D '53

Some measurements of leading edge separation bubbles on a ten per cent thick symmetrical aerofoil. J. Black and R. D. Hunt. bibliog il diags Roy Aeronautical Soc J 57:819-23 D '53

Spanwise and chordwise loadings for rectangular wings of aspect ratio near unity. W. R. Laidlaw. J Aeronautical Sci 20:783-5 N '53

Structural analysis and influence coefficients for delta wings. S. Levy. bibliog diags J Aeronautical Sci 20:449-54 Jl '53

Summary of lateral-stability derivatives calculated for wing plan forms in supersonic flow. A. L. Jones and A. Alksne. bibliog(24 titles) diags U S Nat Advisory Com for Aeronautics 1951:1211-45 '52

Supersonic thickness drag of rectangular wings with linear spanwise taper in thickness. K. Walker, jr. diags J Aeronautical Sci 20:509-11 Jl '53

Theoretical antisymmetric span loading for wings of arbitrary plan form at subsonic speeds. J. DeYoung. bibliog U S Nat Advisory Com for Aeronautics 1951:1317-52 '52

Types of flow on swept wings. D. Küchemann. bibliog diags Roy Aeronautical Soc J 57:683-99 N '53

See also

Airfoils

Airplanes, Flying wing

Flutter

Effect of aspect ratio on the air forces and moments of harmonically oscillating thin rectangular wings in supersonic potential flow. C. E. Watkins. diags U S Nat Advisory Com for Aeronautics 1951:657-73 '52

Integral equation in the supersonic oscillating wing theory. T. Y. Li and H. J. Stewart. bibliog J Aeronautical Sci 20:724-6 O '53

Minimum weight design of wings for flutter conditions. E. P. MacDonough. diag J Aeronautical Sci 20:573-4 Ag '53

Oscillating airfoils at high Mach number. M. J. Lighthill. bibliog J Aeronautical Sci 20:402-6 Je '53

Study of effects of sweep on the flutter of cantilever wings. J. G. Barmby and others. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:229-53 '52

Subsonic oscillatory aerodynamic coefficients computed by the method of Reissner and Haskind. G. Blanch and H. E. Fettis. bibliog J Aeronautical Sci 20:851-3 D '53

Two-dimensional incompressible aerodynamic coefficients for oscillatory changes in airfoil camber. I. N. Spielberg. diag J Aeronautical Sci 20:432-4 Je '53

Upwash correction for an oscillating wing in a wind tunnel. T. R. Goodman. bibliog J Aeronautical Sci 20:383-6+ Je '53

Manufacture

Hill Acme special machine developed to taper wing sections. il Iron Age 173:148-9 Je 3 '54

Hydraulic tracers simplify contour machining, improve accuracy in production of large, complex parts; National tapered wings. E. E. Baker. il Iron Age 174:106-8 Ag 5 '54

Mill tapers aluminum sheet, plate; Aluminum co. of America's Davenport plant. il Iron Age 173:83 Je 3 '54

Testing

Effects of wing flexibility and variable air lift upon wing bending moments during landing impacts of a small seaplane. K. F. Merten and E. B. Beck. diag U S Nat Advisory Com for Aeronautics 1951:221-7 '52

AIRPLANES

Aeronautics in 1953. il Engineer 197:16-19, 53-5, pl 1 Ja 1-8 '54

Britain's new bid for DC-3 market; Handley Page H.P.R. 3. il diags Aviation W 59:43 N 2 '53

DC-7 speeds up AA schedules. il Aviation W 59:15 N 30 '53

Douglas DC-6C; convertible cargo-coach version offered airlines. il plans diag Aviation W 58:66 Je 29 '53

Douglas X-3 supersonic research airplane. il Aero Digest 67:20-1 D '53

Early Boeing airliner joins aviation greats. Aviation W 59:25-6 S 21 '53

Estimation of the fatigue life of a transport aircraft. P. B. Walker. Roy Aeronautical Soc J 57:613-17 O '53

New French transports; illustrations with text. Aviation W 59:80 Jl 27 '53

AIRPLANES—*Continued*

New Helio design lands slow. diags Aviation W 59:37 N 23 '53

Newer Connies; Lockheed plan for switch to turboprop. il diags Aviation W 59:92-3 S 21 '53

Next fifty years. H. L. Dryden. il Aero Digest 67:132+ Jl '53

Nonstop transport; DC-7. il Bsns W p31 N 28 '53

Status of the turbine-powered transport in the United States. F. B. Lee. il Aeronautical Eng R 12:29-33 Ag '53

Structures; theory, materials, methods. H. L. Hibbard. il Aeronautical Eng R 12:96-107+ D '53

Transport trend hinges on BOAC choice. D. A. Anderton. il Aviation W 59:32+ D 14 '53

Turbine-powered commercial aircraft. D. C. Ramsey. Aeronautical Eng R 12:34-6 Ag '53

U.S. challenge to British Viscounts; Convair will convert 340 to turboprop. R. Hotz. il plan Aviation W 59:13-15 Ag 10 '53

See also

Aeronautics
Airfoils
Airplane engines
Airplane propellers
Aviation
Flying boats
Gliders
Hangars
Helicopters
Loading and unloading—Airplanes

Acceleration

Gusts and their measurement; abstract. J. Taylor. Engineering 176:765 D 11 '53

Air conditioning

Cooling electric equipment during supersonic flight. D. C. Wells. S A E J 62:52+ Je '54

High speed, high altitude airplanes present air conditioning challenge. E. P. Heckel. il Heating-Piping 26:138-9 My '54

Pressurizing and air conditioning a fighter airplane; design problems and compromises. G. A. Lemke. diag S A E J 62:53-4; Discussion. 54-5 Je '54

Airworthiness

Comet ban; U.S. ambassador steps into RCAF-NATCC fight. Aviation W 59:419-20 Ag 17 '53

Auxiliary power

Air turbine accessory drive units. diag Engineer 196:773 D 11 '53; Engineering 176:777 D 18 '53

Jet units may raise C-46 profitability; El Al Israel airlines. G. L. Christian. il Aviation W 59:38-9 Ag 10 '53

Small turbines, the heart of modern aircraft accessory power systems. L. W. Biwer and R. L. McManus. il diag S A E J 62:71-4 Ag '54

Solar delivers small generator for C-124. Aviation W 59:22 Jl 13 '53

Cabins

Aircraft cabin temperature control systems. S. D. Browne. Instruments 26:269-72 F '53

Cockpits

Pilot visibility; collision hearing studies blind airliner cockpits. il Aviation W 59:22+ O 12 '53

Cold weather operation

Arctic yields to the military airplane; based on papers by B. Balchen and others. il map S A E J 62:34-40 Je '54

Cold-weather operation of aircraft. C. R. Thompson. S A E J 62:60-3 Ap '54

New oil de-aerator speeds arctic starts. G. L. Christian. il diags Aviation W 59:38-40+ Ag 24 '53

Control

Analysis of means of improving the uncontrolled lateral motions of personal airplanes. M. O. McKinney, jr. diags U S Nat Advisory Com for Aeronautics 1951:795-803 '52

Electronic time delay relay circuit. G. H. Bateman. il diags Tele-Tech 12:94-6+ O '53

Investigation of spoiler ailerons for use as speed brakes or glide-path controls on two NACA 65-series wings equipped with full-span slotted flaps. J. Fischel and J. M. Watson. bibliog diags U S Nat Advisory Com for Aeronautics 1951:769-93 '52

Kit combines rudder and aileron controls; new system increases safety in lightplanes. G. L. Christian. il diag Aviation W 59:94+ S 14 '53

Mechanism for varying the mechanical ratios of aircraft control systems. diag Engineering 176:701 N 27 '53

Monitor for automatic pilots. J. J. Hess, jr. il diags Electronics 26:174-7 D '53

New coupler expands autopilot utility. P. Klass. il Aviation W 59:45+ D 21 '53

Servo design for missile and aircraft flight control. R. J. Bibbero and R. Grandgent. il diags Tele-Tech 12:74-6+ N '53

Studies of some effects of airplane configuration on the response to longitudinal control in landing approaches. R. W. Stone, jr. and W. Bihrle, jr. J Aeronautical Sci 20:555-62 Ag '53

See also

Airplane stability and stabilizers

Cost of operation

Business planes save time, earn money. R. L. Hatschek. il Iron Age 173:35-6 Ja 21 '54

Optimum conditions for the operation of airline aircraft. A. H. Stratford. Roy Aeronautical Soc J 57:524-7 Ag '53; Discussion 57:823-4 D '53

Design

Aerodynamic characteristics of low aspect ratio wing-body combinations in steady subsonic flow. H. R. Lawrence. bibliog J Aeronautical Sci 20:541-8 Ag '53

Airplane configurations for highspeed flight. C. L. Johnson. il Aviation W 59:26+ D 7 '53

Automatic computing in aircraft engineering. G. G. Alway. Engineering 176:351 S 11 '53

Bell X-5; world's first variable-sweep research airplane. J. A. O'Malley, jr. and R. J. Woods. il diags Aero Digest 67:28-32+ Ag '53

Bending of thin elastic plates of variable thickness. Y. C. Fung. diags J Aeronautical Sci 20:455-68 Jl '53

Boundary-layer control and supercirculation. J. S. Attinello. bibliog il diags Aeronautical Eng R 12:24-30 S '53

Buckling and stability; forty-first Wilbur Wright memorial lecture. N. J. Hoff. il diags Roy Aeronautical Soc J 58:3-52 bibliog (106 titles, p49-52) Ja '54; Abstracts. Engineer 196:412 S 25 '53; Engineering 177:13-15 Ja 1 '54

Buckling of thin-walled cylinder under axial compression and internal pressure. Hsu Lo and others. bibliog diags U S Nat Advisory Com for Aeronautics 1951:647-55 '52

Criteria for designing adhesive bonded joints. W. C. Broding. il diags Product Eng 24:144-7 O '53

Critical bending stress for flat rectangular plates supported along all edges and elastically restrained against rotation along the unloaded compression edge. J. H. Johnson, jr. and R. G. Noel. bibliog diag J Aeronautical Sci 20:535-40 Ag '53

Design considerations associated with large aluminum forgings. C. W. Andrews. diags Mech Eng 75:777-84 O '53; Same cond. Machine Design 25:334+ O '53; Excerpts. Automotive Ind 109:32-3 Ag 15 '53

Design features of the Douglas DC-7 airliner. il Automotive Ind 109:35-7 D 15 '53

Design for fatigue; abstract. E. H. Spaulding. S A E J 61:43 D '53

Design trends in 50 years; civil aviation other than transport. T. P. Wright. il Aeronautical Eng R 12:74-81+ D '53

Design trends, transport. A. E. Raymond. il Aeronautical Eng R 12:60-73 D '53

Determining the additional apparent mass of a wing-body-vertical-tail cross section. R. G. Summers. J Aeronautical Sci 20:856-7 D '53

AIRPLANES—Design—*Continued*

Dimensions required for inspection. G. A. G. Saywell. diags Roy Aeronautical Soc J 57: 463-4 Jl '53; Discussion. A. C. Parks. il 57: 725-8 N '53

Effect of dissociation in the stagnation region of a blunt-nosed body. I. E. Beckwith. J Aeronautical Sci 20:645-6 S '53

Effect of temperature on aircraft structural design; abstracts. E. H. LaBombard. Machine Design 25:382+ D '53; S A E J 62:98 Ja '54

Effects of wing twist on the response of an airplane encountering a sharp-edged gust. G. C. K. Yeh and J. Martinek. bibliog diag J Aeronautical Sci 20:827-34+ D '53

Equations and charts for the rapid estimation of hinge-moment and effectiveness parameters for trailing-edge controls having leading and trailing edges swept ahead of the Mach lines. K. L. Goin. bibliog diags U S Nat Advisory Com for Aeronautics 1951:937-1007 '52

Exact solution for the buckling load of flat sandwich panels with loaded edges clamped. S. V. Nardo. bibliog diags J Aeronautical Sci 20:605-12 S '53

Experimental investigation and limit analysis of net area in tension. W. G. Brady and D. C. Drucker. il diags Am Soc C E Proc 79 [no 296]:1-35 O '53

Experimental investigation of the effect of vertical-tail size and length and of fuselage shape and length on the static lateral stability characteristics of a model with 45° sweptback wing and tail surfaces. M. J. Queijo and W. D. Wolhart. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:1117-45 '52

Experimental study of a symmetrical aerofoil with a rear suction slot and a retractable flap. D. M. Heughan. bibliog il diags Roy Aeronautical Soc J 57:627-45 O '53

Fatigue life of thick-skinned tension joints. E. W. Thrall, jr. il diags Aeronautical Eng R 12:37-46 N '53

Fifty years of powered flight; abstract. B. Lockspeiser. Engineer 196:363-4 S 18 '53

Flexural centre or centre of shear. W. T. Koiter. bibliog Roy Aeronautical Soc J 58:64-5 Ja '54

Gas effect on slender wing-body interference. H. Mirels. diags J Aeronautical Sci 20: 574-5 Ag '53

General purpose electronic analogue computer; Short brothers and Harland, ltd. il diags Engineer 196:395-7 S 25 '53; Excerpts. Elec J 151:893-4 S 18 '53

How good is the Custer channel wing? D. A. Anderton. il Aviation W 58:28+ Je 15 '53

Integral relations in the linearized theory of wing-body interference. A. H. Flax. bibliog diags J Aeronautical Sci 20:483-90 Jl '53

New analogue computor. E. L. Thomas. il diags Engineering 176:477-9 O 9 '53

Numerical method for the stress analysis of stiffened-shell structures under nonuniform temperature distributions. R. R. Heldenfels. diags U S Nat Advisory Com for Aeronautics 1951:1019-38 '52

Optimum design considerations for aircraft wing structures. A. L. Kolom. bibliog diags Aeronautical Eng R 12:31-41 O '53

Practical approach to component design; abstract. J. C. Garrett. Machine Design 25: 378+ D '53

Requirements for large light-metal forgings and extrusions in the aircraft industry. G. W. Papen. bibliog il plan diags Aeronautical Eng R 12:24-33 Ja '53; Same. A S M E Trans 75:1483-91 N '53; Excerpts. Automotive Ind 108:41-4 Ja 15 '53

Sherpa, tailless aircraft; Short brothers and Harland, ltd. diags Engineer 196:844-5 D 25 '53; il Engineering 176:749 D 11 '53

Simplicity, key to producibility; Lockheed aircraft corp. E. A. Green. il diags Machine Design 25:112-23 N '53

Small-deflection theory for curved sandwich plates. M. Stein and J. Mayers. diag U S Nat Advisory Com for Aeronautics 1951: 129-34 '52

Stability and control in aircraft design; abstract. J. C. Wimpenny. Engineering 176: 682 N 27 '53

Stability of the compression cover of box beams stiffened by posts. P. Seide and P. F. Barrett. diags U S Nat Advisory Com for Aeronautics 1951:1087-102 '52

Steel and titanium alloy extruded shapes in modern aircraft. K. A. Wilhelm. diag Automotive Ind 110:266-70+ Mr 15 '54

Stress analysis of sheet-stringer panels with cutouts. H. G. McComb, jr. bibliog diags J Aeronautical Sci 20:387-401 Je '53

Studies of some effects of airplane configuration on the response to longitudinal control in landing approaches. R. W. Stone, jr. and W. Bihrle, jr. J Aeronautical Sci 20:555-62 Ag '53

Supersonic flight. E. J. Doherty, jr. Mech Eng 75:899-900 N '53

Supersonic flow over conical bodies without axial symmetry. A. Ferri and others. bibliog diags J Aeronautical Sci 20:563-71 Ag '53

Theories of plasticity and the plastic stability of cruciform sections. P. P. Bijlaard and H. A. B. Wiseman. bibliog J Aeronautical Sci 20:787-9 N '53

Trend of design; abstract. D. Keith-Lucas. Engineering 177:7 Ja 1 '54

User problems affecting the industry; abstracts of two papers. Engineering 177:8 Ja 1 '54

Wright flier. R. McLarren. il diags Aero Digest 67:28-37 Jl '53

See also

Airplane propellers
Airplane wings
Airplanes—Radomes
Airplanes, Amphibious
Airplanes, Flying wing
Airplanes, Military—Design

Convertaplanes

Convertiplanes. il Product Eng 24:195-6 S '53

Convertiplanes, two-way airplanes. il Machine Design 26:181 Ag '54

Delta convertiplane may hit 700 mph. W. J. Coughlin. il Aviation W 59:26-7 Ag 3 '53

Doors

Flush latches; design details. diags Machine Design 25:226-9 D '53

Drawings

Aero Commander. Aero Digest 67:30-1 S '53

Bell X-5. Aero Digest 67:30-1 Ag '53

Inside the new Douglas DC-7 airliner. Aviation W 59:19 D 14 '53

Wright flier, 1903. Aero Digest 67:30-1 Jl '53

Electric equipment

Airborne magnetometer. il Elec J 151:1831 D 4 '53

Aircraft equipment. il Elec J 151:1045-6, 1485-6, 1845-6; 152:44, 447-8, 752-3 O 2, N 6, D 4 '53, Ja 1, F 5, Mr 5 '54

Cooling electric equipment during supersonic flight. D. C. Wells. Machine Design 26: 332+ F '54

Differential reactive current protection relay; abstract. R. W. Stineman. diags Elec Eng 72:1104 D '53

Dc selsyns and annunciators for aircraft. M. L. Allen and A. W. Eade. il diags Tele-Tech 12:100-1+ O '53

Electricity and aircraft. D. C. Flack. il Elec J 151:1038-44, 1478-84, 1832-40; 152:38-43, 432-7, 746-51, 1086-90, 1528-33 O 2, N 6, D 4 '53, Ja 1, F 5, Mr 5, Ap 2, My 7 '54

Fifty years of powered flight. il Elec J 151: 1843-4 D 4 '53

Film synchronizer for aerial cameras. H. E. Meinema. il diags Electronics 26:135-7 N '53

Parallel operation of aircraft a-c generators; abstract. L. R. Larson. Elec Eng 72:1021 N '53

Power equalizer systems for aircraft alternators; abstract. J. A. Granath and A. K. Hawkes. diags Elec Eng 72:893 O '53

Society of British aircraft constructors annual display, Farnborough. il Elec J 151: 801-3 S 11 '53; Elec R (Lond) 153:575-8 S 11 '53

Tiltman Langley test rig for electric actuators. il Engineering 176:797 D 18 '53

See also

Airplanes—Electronic equipment

AIRPLANES—*Continued*

Electronic equipment

AF beacon to light up avionics maze. P. Klass. flow chart Aviation W 59:40+ S 7 '53

Avionics in the air force. il Aviation W 59:249-52+ Ag 17 '53

Electronics; air power's brain. il diags Aero Digest 67:70+ O '53

Impact-load factor; design of cushioning for electronic equipment. S. C. Schuler. il Mod Packaging 27:154-6+ N '53

Light avionic flowmeter uses few vacuum tubes. il Aviation W 59:48 Ag 3 '53

New shield gets rid of tube heat fast. P. Klass. il Aviation W 59:62+ D 14 '53

Plane, missile reliability needs differ; electronic components. P. Klass. Aviation W 58:53-4+ Je 15 '53

Servo design for missile and aircraft flight control. R. J. Bibbero and R. Grandgent. il diags Tele-Tech 12:74-6+ N '53

Survey reveals airlines' avionic goals. P. Klass. il Aviation W 59:50-3 O 5 '53

Equipment

Aircraft refrigeration units machined by precision methods; Fairchild engine & airplane corp. C. H. Wick. il Mach 60:173-9 Mr '54

Ferranti airstream direction detector. il Engineering 176:480 O 9 '53

Know-how; essential of product diversification. E. Martin. il Aero Digest 67:48-50+ O '53

Liability for aircraft-equipment failure. G. I. Whitehead, jr. Mech Eng 75:503 Je '53

New concept of explosion testing of aircraft equipment; abstract and discussion. W. K. Klose. S A E J 62:21 Ap '54

Standardization; secret of equipment supply. J. C. Garrett. il Aero Digest 67:60+ O '53

See also

Aeronautic instruments

Airplanes—Electric equipment

Airplanes—Hydraulic equipment

Airplanes, Military—Equipment

Radio apparatus on aircraft

Fires and fire protection

Aircraft fire protection. il diag Engineering 176:576 O 30 '53

Edison develops new fire detector. il diag Aviation W 58:65-6 Je 15 '53

Heat-sensing valves stop vacuum-system fires. Aviation W 59:71 O 5 '53

Relation between inflammables and ignition sources in aircraft environments. W. E. Scull. diags U S Nat Advisory Com for Aeronautics 1951:305-42 bibliog(145 titles, p336-9) '52

Sensor controls airflow, liquid level; Detect-A-Flow. G. L. Christian. il diags Aviation W 59:50+ D 21 '53

Fuel tanks

Aluminum tubing fabrication technique reduces costs; Ryan aeronautical co. il Light Metal Age 11:23+ Ag '53

B-25 tiptanks give double value. il Aviation W 59:60 Jl 27 '53

Fuel cell fastener eliminates wall piercing. Aviation W 59:68+ O 5 '53

Fuel gaging system uses fewer units. il Aviation W 59:61 Jl 20 '53

Largest expanding mandrel bulges aircraft fuel tanks; Ryan aeronautical co. il diag Am Mach 97:120-1 N 9 '53

Unique piping system permits airplane fuel tanks to be sealed safely. L. E. Hurd and J. E. Denton. il Heating-Piping 25:93-5 N '53

Fuselage

Bending moments in fuselage frames obtained by the photoelastic method. P. P. Benham. bibliog il diags Roy Aeronautical Soc J 57:667-82 N '53

Prestressed fuselage construction for aircraft. il Engineering 176:311-12 S 4 '53

Gearing

Continuous heat treat setup carburizes precision parts; Aircraft gear division, Dana corp. C. A. Payntor. il Iron Age 173:148-50 My 20 '54

Heating and ventilation

Automatic cabin temperature control. R. D. Weber. il plan diag Aero Digest 67:78+ Ag '53

History

See Aeronautics—History

Hydraulic equipment

Aircraft hydraulic test rigs. R. T. Sewell. il diags Engineer 197:162-5, 213-15, 231-3 Ja 29-F 12 '54

Ball piston pumps and motors; abstract. W. T. Rauch and H. Stern. Automotive Ind 109:142 N 1 '53

Builders-users of aircraft discuss hydraulic problems; 1953 Transport aircraft hydraulic conference, Detroit. Automotive Ind 109:67+ D 1 '53

Causes of failures in ball thrust bearings used in aircraft hydraulic pumps. il diags Automotive Ind 110:136+ Ja 15 '54

Compact pump control valve replaces hydraulic system accessories. il diags Product Eng 24:215-16 O '53

Development of 4,000 lb. per sq. in. hydraulic systems. G. Orloff. diags Engineering 176: 766-7 D 11 '53

Hydraulic group tackles problems; Vickers Transport aircraft hydraulic conference, 3d, Detroit. Aviation W 59:93-4+ D 7 '53

Hydraulic power transmission for accessory drives; abstract. C. L. Sadler. S A E J 62:99-100 Ja '54

Lockheed Mark 8 high-pressure hydraulic pump. il Engineer 197:152 Ja 22 '54; Engineering 177:157 Ja 29 '54

New accumulator's seal seals better, lasts longer. il Aviation W 59:88+ O 12 '53

Piston reliefs. il Aviation W 59:66+ Jl 6 '53

Test and research rigs; applications to aircraft equipment; Dowty equipment, ltd. il Engineering 177:18-21 Ja 1 '54

Ice protection

Aircraft de-icing by thermal methods; abstract. J. L. Orr and others. Engineering 176:424 O 2 '53

Electricity in aircraft; methods of de-icing. D. C. Flack. il diag Elec J 152:432-7 F 5 '54

Intermittent heating of airfoils for ice protection, utilizing hot air. H. H. Hauger, jr. bibliog il diags A S M E Trans 76: 287-98 F '54

Napier electro-thermal de-icing equipment. il Engineer 197:420-2 Mr 19 '54; Engineering 177:378-9 Mr 19 '54

Revolving head sprays de-icing fluid jets. Aviation W 59:63-4 Jl 27 '53

Statistical analysis of icing-flight observations. E. Z. Gilutin. J Aeronautical Sci 20:856 D '53

Thermal anti-icing shields F-89. diag Aviation W 59:29 Ag 31 '53

Jet propulsion

See Airplanes, Jet propelled

Landing

Aircraft approach tolerances. A. E. Jenks. diags Aeronautical Eng R 12:43-7 Ag '53

Analysis of the effects of boundary-layer control on the take-off and power-off landing performance characteristics of a liaison type of airplane. E. A. Horton and others. bibliog diags U S Nat Advisory Com for Aeronautics 1951:1353-83 '52

Effects of wing flexibility and variable air lift upon wing bending moments during landing impacts of a small seaplane. K. F. Merten and E. B. Beck. diag U S Nat Advisory Com for Aeronautics 1951:221-7 '52

Runway visibility reporting improved; Sperry gyroscope co. ANDB low ceiling/visibility program. G. L. Christian. il Aviation W 59:51+ S 28 '53

Studies of some effects of airplane configuration on the response to longitudinal control in landing approaches. R. W. Stone, jr. and W. Bihrle, jr. J Aeronautical Sci 20:555-62 Ag '53

Volscan automatic electronic system controls landing of incoming planes. B. F. Greene. il Elec Eng 73:183-4 F '54

AIRPLANES—Landing—*Continued*

Volscan system shown by air force; computers channel airplanes into nonconflicting landing sequence. il Electronics 27:14 Ja '54

See also
Airplanes, Jet propelled—Landing

Landing gear

Double rate shock absorbers. il diags Engineer 196:636-7 N 13 '53
Fifty years of undercarriage development. bibliog il diags Engineer 196:243-7, 275-8 295-9, 329-32, 370-3 Ag 21-S 18 '53
Landing gear trends. W. E. Eldred. il Aviation W 59:28-30+ O 19 '53; Abstract. S A E J 62:18-20 F '54
Landing on compressed air. R. J. Nemmers. il diags Comp Air Mag 59:92-5 Ap '54
Large welded parts feasible when prooftested; large aircraft landing gears. il Automotive Ind 111:100 Ag 1 '54
Manufacturing requirements for producing the modern landing gear. G. E. Beringer. il S A E J 62:61-5 Jl '54
Retractible gear raises Heron 2 speed 20 mph. il Aviation W 59:28 Ag 3 '53
Test and research rigs; applications to aircraft equipment; Dowty equipment, ltd. il Engineering 177:18-21 Ja 1 '54
Undercarriage for naval aircraft. il diag Engineering 176:799 D 18 '53

Leasing

Airliner leases prove expensive. S. Altschul. Aviation W 59:91-2 S 14 '53

Lighting

Aviation's key lighting issues. J. D. Blatt. Aviation W 59:109 D 7 '53
Lighting in a French airliner. diag Elec J 152:426 F 5 '54

Lightning protection

Aircraft protection from thunderstorm discharges to antennas. J. M. Bryant and others. il map diags Elec Eng 72:880-4 O '53

Load

Equations for the loading on triangular wings having supersonic leading and trailing edges due to various basic twist distributions. J. H. Kainer. diags J Aeronautical Sci 20:469-76 Jl '53
Exact solution for the buckling load of flat sandwich panels with loaded edges clamped. S. V. Nardo. bibliog diags J Aeronautical Sci 20:605-12 S '53
Horizontal tail loads in maneuvering flight. H. A. Pearson and others. bibliog diags U S Nat Advisory Com for Aeronautics 1951: 117-28 '52
Simplified method to obtain the load distribution corresponding to the Ackeret region for wings having arbitrary source distribution at supersonic speeds. J. H. Kainer. diag J Aeronautical Sci 20:749-50 N '53
Some trends in gust loads for transport airplane operations; abstract. T. L. Coleman and R. Steiner. S A E J 62:77 Ap '54
Spanwise and chordwise loadings for rectangular wings of aspect ratio near unity. W. R. Laidlaw. J Aeronautical Sci 20: 783-5 N '53
Theoretical antisymmetric span loading for wings of arbitrary plan form at subsonic speeds. J. DeYoung. bibliog U S Nat Advisory Com for Aeronautics 1951:1317-52 '52

Maintenance and repair

See also
Airlines—Maintenance and repair

Manufacture

Adhesive bonding vs riveting; abstract. L. Mordfin and I. E. Wilks. Materials & Methods 40:167 S '54
Aircraft production number. il diags Mach 60:159-222 Jl '54
Aircraft tooling finds jet age a challenge; report on economics of tooling panel. K. H. Boucher. diags S A E J 62:28-32 Je '54
Alcoa starts operation on giant extrusion press. il Iron & Steel Eng 31:119-20+ Je '54
Big camera speeds Convair deltas. il Aviation W 59:65 S 14 '53
Carbides in aircraft production. F. W. Lucht. il Aero Digest 67:84+ N '53
Cheaper machining methods; abstract. G. H. Dowty. Engineer 196:832-3+ D 25 '53
Chemical milling; now the impossible doesn't take longer; North American Aviation's new etching process. il diag Am Mach 98:200-2 S 13 '54
Design and production of light alloy forgings by heavy press operations; Aluminum co. of America. A. E. Favre. il diags Automotive Ind 110:52-6+ Mr 1 '54; Same cond. Light Metal Age 11:12-14 Ag '53
Extruded steel for planes, Lockheed aircraft corp. il Steel 133:114+ S 28 '53
Five machining problems; report of panel on machining. S A E J 62:66-8 Ap '54
Forming proves able grappler in aircraft arena; based on report of panel on forming. il diags S A E J 62:78-83 My '54
Forum answers heavy press questions. il diags Aviation W 58:28-32 Je 29 '53
14,000-ton press produces big extrusions. il Mach 61:178-80 S '54
Free fall quench cuts solution heat treat costs; Glenn L. Martin co. il Iron Age 173: 134 My 13 '54; Steel 135:124 Jl 19 '54
Giddings & Lewis huge spar and skin mill shapes aluminum to close tolerances; Douglas aircraft co. il Iron Age 173:223-4 Je 24 '54
Heavy press starts regular output; Aluminum co. of America. il Iron Age 173:79-80 My 27 '54
High temperature brazing applications; abstracts. G. D. Cremer and others. Machine Design 25:365+ D '53; il S A E J 62:70-4 S '54
How to prevent stress-corrosion-cracking in aluminum parts; Douglas aircraft co. R. N. Hooker and J. L. Waisman. il diags Iron Age 174:123-5 S 9; 165-7 S 16 '54
Hydraulic pressing costs cut by using special cover plate; Temco aircraft corp. il Light Metal Age 11:19+ D '53
In-process machining of large aluminum forgings. A. H. Petersen. il diags Metal Prog 66:81-8 Ag '54
Large extrusion presses will advance design and production of high speed aircraft. G. E. Moni. il Tool Eng 31:141-3 N '53
Light-alloy forging; design and production problems. A. E. Favre. diags Mech Eng 75:693-7+ S '53; Same abr. Aviation W 59: 28-30+ S 14 '53; Discussion. Mech Eng 76: 104-6 Ja '54
Lockheed mechanizes extrusion bending. F. C. Hoffman. il Mach 60:196-9 F '54
Machining integrally stiffened structures. J. C. Borger. il diags Mech Eng 75:871-4 N '53; Abstract. Tool Eng 32:173-4 F '54
Metal adhesives used in magnesium assemblies. Iron Age 172:149-51 D 17 '53
New aids for inspection save time, improve quality; Northrop aircraft, inc. L. Moir. il diag Automotive Ind 110:66-7 Je 1 '54
New blind rivet for aircraft fastening. il diags Aviation W 58:67 Je 8 '53
New chemical process machines accurate parts. il Machine Design 26:176+ Je '54
Overpressing saves money. T. A. Dickinson. il Aero Digest 67:76-7 Ag '53
Panel extrusions in aircraft structures. H. Kastan. bibliog diags Mech Eng 75:715-18 S '53
Plan for airframe production; abstract. D. P. Stowell. S A E J 62:105-6 F '54
Planes built by toolmaker; Kearney & Trecker form Milwaukee subsidiary. il Iron Age 174:58 S 2 '54
Preload indicating washers extend life of assembly bolts; Douglas aircraft co. il Iron Age 173:214 Je 24 '54
Production application of structural adhesive bonding; abstracts. G. E. Holback and J. L. Burridge. Rubber Age 74:772 F '54; S A E J 62:105 Je '54
Production men alert to varied, sudden demands on manufacturing; abstracts of SAE annual meeting papers. S A E J 62: 60-2 F '54
Production of large forgings and castings. Tool Eng 32:265-8 Ap '54

AIRPLANES—Manufacture—*Continued*

Production problems arising from the trend of design; abstracts of two papers. Engineering 177:7-8 Ja 1 '54
Production problems on supersonic planes. A. Ashburn. il Am Mach 98:129-44 Jl 5 '54
Pushbutton riveting at TEMCO. il Aero Digest 67:51-2+ S '53
Removing metal by chemistry to produce difficult shapes for aircraft structures; North American aviation, inc. M. C. Sanz. flow chart il diags Automotive Ind 111:54-7+ S 1 '54
Resilient resin speeds tool production, cuts cost. il Iron Age 174:149-50 S 9 '54
Shop shots in aircraft production; illustrations with text. Am Mach 98:170-1 S 13 '54
Simplicity, key to producibility; Lockheed aircraft corp. E. A. Green. il diags Machine Design 25:112-23 N '53
SAE aeronautic production forum, New York, April 12. S A E J 62:64-5 Je '54
SAE international production meeting and forum, Toronto, Oct. 29-30. S A E J 61:50-7 D '53
Sound waves uncover inner flaws; Douglas aircraft co. A. Barath. il Steel 133:120-1 D 14 '53
Structural adhesives for metal aircraft; abstract. N. A. de Bruyne. Engineering 176: 424 O 2 '53
Tooling and planning problems related to modern transport aircraft; forming titanium; abstracts. J. R. Franks and C. S. Glasgow. S A E J 62:77 My '54; il Tool Eng 33:154+ Ag '54
Waffles stiffen highspeed structures. I. Stone. il diags Aviation W 59:38+ N 23 '53

See also
Airplane factories
Airplanes—Welding operations
Airplanes, Military—Manufacture
Automobile factories—Airplane manufacture

Materials

Aero materials spec reviewed by industry. S A E J 62:112+ Ap '54
Air drying polysulfide rubber paint films. J. R. Panek and others. Paint Oil & Chem R 116:30+ N 19 '53
AMC to test all-magnesium F-80C. I. Stone. il Aviation W 59:28-30+ S 28 '53
Aircraft manufacturers reveal plans to use more titanium. il Materials & Methods 39: 7+ Ja '54
Bending tests of thin-walled sandwich cylinders. G. Gerard. il J Aeronautical Sci 20:639-41 S '53
Casting potentials; abstract. L. C. Kappel. Metal Prog 66:152+ S '54
Chemistry in aviation; the sky's no limit. il Chem W 73:78-80 D 19 '53
Experts learn to live with titanium; Society of automotive engineers' national aeronautic meeting production forum; panel and group discussion. Aviation W 59:30+ Ag 3 '53
Fatigue of aeroplane structures; abstract. R. V. Rhodie. Engineering 176:423-4 O 2 '53
Flyer into chemicals; airplane companies stray into chemical specialties. Chem W 74: 80+ Je 26 '54
Forming proves able grappler in aircraft arena; based on report of panel on forming. il diags S A E J 62:78-83 My '54
Future in the air; Poly-FBA. il Chem W 75: 54+ S 11 '54
Getting new materials ready for use. I. Stone. diags Aviation W 59:39-40+ Jl 6 '53
How adhesives are used in aircraft construction. D. A. Tooley. il diags Materials & Methods 39:105-7 F '54; Excerpt. Light Metal Age 11:26 D '53
How aircraft people like titanium. Iron Age 173:68 Ap 15 '54
Influence of chemical composition on rupture properties at 1200° F of forged chromium-cobalt-nickel-iron base alloys in solution-treated and aged condition. E. E. Reynolds and others. bibliog il U S Nat Advisory Com for Aeronautics 1951:1385-444 '52
Investigation of fretting by microscopic observation. D. Godfrey. bibliog il U S Nat Advisory Com for Aeronautics 1951:134-44 '52
Light metallurgy; fatigue. R. P. Lister. il Metal Prog 66:91-2 Jl 1 '54
Method of estimating the compressive strength of optimum sheet-stiffener panels for arbitrary material properties, skin thickness, and stiffener shapes. W. R. Micks. bibliog diags J Aeronautical Sci 20: 705-15 O '53
New planes need more titanium. Aviation W 59:22 N 23 '53
New techniques tame titanium; report of panel on titanium. R. Jaffee. diag S A E J 62:34-7 Ja '54
Non-heat treatable titanium goes to work; Consolidated Vultee aircraft corp. T. A. Dickinson. il Steel 134:136-7+ Ap 5 '54
Redux-Metalite pays off in F7U-3. il Aviation W 59:38+ S 21 '53
Sonic barrier; raises heat barrier on metals. A. G. Gray. il Steel 133:72-4 Ag 31 '53
Steel and titanium alloy extruded shapes in modern aircraft. K. A. Wilhelm. diag Automotive Ind 110:266-70+ Mr 15 '54
Structural comparison of perforated skin surfaces with other means of effecting boundary-layer control by suction. C. B. Cliett. bibliog diags Aeronautical Eng R 12:46-54 S '53
Structures for high speed aircraft; abstract. H. L. Hibbard and J. F. McBrearty. Engineering 176:423 O 2 '53
Titanic titanium; more needed. il Steel 133:47 Jl 20 '53
Titanium; a metal of engineering importance? P. L. Teed. bibliog Engineering 176:635-7 N 13 '53
Titanium fasteners; planemakers pool technology to improve them. il Am Mach 98: 128-30 Ag 30 '54
Titanium to be used on DC-7 commercial plane. diag Light Metal Age 11:24 Ag '53
Trend of design; abstract. D. Keith-Lucas. Engineering 177:7 Ja 1 '54
Two new high temperature coatings. A. Pechman. il Materials & Methods 39:94-6 Ap '54
U.S. boosts titanium goal to 35,000 tons by 1957 as air force, planemakers put heat on Congress. Am Mach 98:180-1 F 15 '54
Widens range of tapered aluminum sheet and plate; Aluminum co. of America rolling mill. il Steel 134:91 Je 7 '54
Wright air development center evaluates magnesium. I. Stone. il Aviation W 59: 34-7 D 28 '53

See also
Steel, Aircraft

Plastics

Designing radomes for supersonic speeds. S. S. Oleesky. il diags Electronics 27: 130-5 Ja '54
How mammoth plastic radome is made. il Aviation W 59:58+ D 7 '53
Many aviation uses seen for plastic-treated cloth. Aviation W 59:46 Ag 31 '53
Many plastics go in Convair 340. il Aviation W 58:41-2+ Je 22 '53
Northrop molds glass-fiber parts with press dies. R. G. McIntosh. il Mach 60:218-22 Jl '54
Plastics aid in DC-6 conversion. il Aviation W 59:32+ S 28 '53
Plastics; tail of Neptune bomber made at lower cost. il Iron Age 173:163-4 F 18 '54; Mach 60:174 Ag '54
Role of foamed plastics in aircraft. J. M. Stevens. Automotive Ind 110:502+ Mr 15 '54
Scope widens for plastic aircraft structures. il Materials & Methods 39:7+ Mr '54
Stingers go plastic. il Chem W 74:94 Mr 13 '54
Structural plastics for advanced types of aircraft. D. Rosato. Automotive Ind 110:48-51+ Ja 15 '54
Teflon on the wing; to handle synthetic oils and fuels used in jet engines. il Chem W 74:60 F 27 '54
Trend of complete aircraft and guided-missile structures toward reinforced plastics. W. E. Braham. il Aeronautical Eng R 12:37-40+ S '53; Abstract. Product Eng 24:266+ N '53
Why designers are using more plastics. I. Stone. Aviation W 58:43-6 Je 15 '53

AIRPLANES—*Continued*

Model testing

Experimental investigation of the effect of vertical-tail size and length and of fuselage shape and length on the static lateral stability characteristics of a model with 45° sweptback wing and tail surfaces. M. J. Queijo and W. D. Wolhart. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:1117-45 '52

Method for stabilizing the longer period oscillation of a model flying in a closed wind tunnel with freedoms in pitch and heave. E. Larrabee. diag J Aeronautical Sci 20:728 O '53

Noise

Comet din; Air committee's protest keeps jet out of Idlewild. Aviation W 59:14 Jl 20 '53

Control systems and noise problems for high speed propellers. J. Schmey and W. H. Clark. S A E J 62:44-7 Ap '54

Noise from aircraft. A. G. Walters. diags Roy Aeronautical Soc J 58:65-71 Ja '54

Noise from aircraft travelling with velocities greater than that of sound. A. G. Walters. diags Roy Aeronautical Soc J 57:719-22 N '53

Study extra jet howl. Steel 133:115 Jl 13 '53

See also
Airplane engines—
Noise

Painting and finishing

Flow coating plane parts increases paint shop output 116 per cent at Northrop. il Am Mach 98:154-5 S 27 '54

Performance

Performance of the Viscount airliner. Engineer 196:679 N 20 '53

Pneumatic equipment

Emergency energy from a pneumatic jack. il Engineering 177:348 Mr 12 '54

High pressure pneumatics. Mech Eng 75:728-9 S '53; Abstract. Product Eng 24:181 Jl '53

Landing on compressed air. R. J. Nemmers. il diags Comp Air Mag 59:92-5 Ap '54

Small compressor for pneumatic systems. il Aviation W 59:93+ N 16 '53

Prices

Why do modern aircraft cost so much? J. W. Barton. Aviation W 58:46+ My 25 '53; Excerpts. S A E J 61:44-7 N '53

Radomes

Designing radomes for supersonic speeds. S. S. Oleesky. il diags Electronics 27:130-5 Ja '54

How mammoth plastic radome is made. il Aviation W 59:58+ D 7 '53

Radome design for highspeed aircraft. W. Garcia. il diags Aero Digest 67:74+ D '53

Range

Range comparison of rocket powered aircraft. R. W. Allen. il diag Aero Digest 67:30-2+ D '53

Refueling

B-47B tanker; modified bomber refuels jets in high, fast flight. Aviation W 59:102+ S 14 '53

Canberra aircraft equipped as air tanker. Engineering 177:61 Ja 8 '54

Plane refueling made faster. il Nat Pet N 45:64-6 Je 17 '53

Portable fueler for aviation uses. il Aviation W 59:83-4 O 19 '53

Tanker aircraft refueling systems; abstract. T. R. Farrington. S A E J 62:100 Ja '54

Registration

Registered aircraft and pilot certifications, 1927-1952; tabulations. Automotive Ind 110:241 Mr 15 '54

Safety measures

See Aviation—Safety measures

Seats

Martin Baker lightweight ejector seat for aircraft. Engineering 176:585 N 6 '53; Aviation W 59:42 N 2 '53

Nonsked tries rear-facing seats. W. J. Coughlin. Aviation W 58:84+ Je 8 '53

Specifications

U.S. and foreign civil aircraft; tabulations. Automotive Ind 110:248-50 Mr 15 '54

Speed

Douglas skyrocket reaches Mach 2.01. R. B. Hotz. Aviation W 59:13-14 N 30 '53

F-86D sets speed record of 715.7 mph. Aviation W 59:16 Jl 27 '53

F-100, F4D battle for top speed laurels. il Aviation W 59:14 N 9 '53

Heat barrier; it lies beyond the sound barrier as an obstacle to high-speed flight. F. Haber. il diags Sci Am 189:80-2+ D '53

High-speed research airplanes. W. T. Bonney. il Sci Am 189:36-41 O '53

Kinetic heating; structural and materials problems in high-speed flight; Stress analysis group of the Institute of physics meeting, Bristol, Jan. 7-8; abstracts of papers. Engineering 177:115-16 Ja 22 '54

753.4 mph; prototype F4D shatters world's speed record. W. J. Coughlin. il Aviation W 59:16-17 O 12 '53

Skyrocket hits Mach 1.96. Aviation W 59:15 N 23 '53

Tests help boost Lodestar speed. il Aviation W 59:40 N 16 '53

Use of radar to measure the true air speed of an aircraft. J. Warner and K. J. Heffernan. Roy Aeronautical Soc J 57:653-5 O '53

See also
Airplanes, Jet propelled

Stalling

Some stall and surge phenomena in axial-flow compressors. M. C. Huppert and W. A. Benser. il diag J Aeronautical Sci 20:835-45 D '53

Stall-flutter in cascades. F. Sisto. bibliog J Aeronautical Sci 20:598-604 S '53

Stresses

Buckling of thin-walled cylinder under axial compression and internal pressure. Hsu Lo and others. bibliog diags U S Nat Advisory Com for Aeronautics 1951:647-55 '52

Compressive strength of flanges. E. Z. Stowell. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:675-88 '52

Critical bending stress for flat rectangular plates supported along all edges and elastically restrained against rotation along the unloaded compression edge. J. H. Johnson, jr. and R. G. Noel. bibliog diag J Aeronautical Sci 20:535-40 Ag '53

Electrical simulator in analysis of stresses in a delta-wing aircraft. H. U. Schuerch. S A E J 62:46-7 Mr '54

Errors introduced by finite space and time increments in dynamic response computation. S. Levy and W. D. Kroll. bibliog diags J Res Nat Bur Stand 51:57-68 Jl '53

Expression for the gust alleviation factor. M. L. Williams. J Aeronautical Sci 20:723 O '53

Method of calculating stresses in a non-uniformly thick disc subjected to asymmetric loads, adapted to a tabular computation. B. A. Hodson. diags Roy Aeronautical Soc J 57:658-60 O '53

Method of estimating the compressive strength of optimum sheet-stiffener panels for arbitrary material properties, skin thickness, and stiffener shapes. W. R. Micks. bibliog diags J Aeronautical Sci 20:705-15 O '53

New pads simplify stress tests; Convair's rubber tension layouts. il Aviation W 59:41-2 Jl 20 '53

Numerical method for the stress analysis of stiffened-shell structures under nonuniform temperature distributions. R. R. Heldenfels. diags U S Nat Advisory Com for Aeronautics 1951:1019-38 '52

Plastic collapse of thin rings. C. Hwang. bibliog J Aeronautical Sci 20:819-26+ D '53

Recurrence matrix solution for the dynamic response of aircraft in gusts. J. C. Houbolt. bibliog diags U S Nat Advisory Com for Aeronautics 1951:145-75 '52

AIRPLANES—Stresses—*Continued*

Stress analysis of sheet-stringer panels with cutouts. H. G. McComb, jr. bibliog diags J Aeronautical Sci 20:387-401 Je '53

Tail surfaces

Horizontal tail loads in maneuvering flight. H. A. Pearson and others. bibliog diags U S Nat Advisory Com for Aeronautics 1951:117-28 '52

Take-off

Analysis of the effects of boundary-layer control on the take-off and power-off landing performance characteristics of a liaison type of airplane. E. A. Horton and others. bibliog diags U S Nat Advisory Com for Aeronautics 1951:1353-83 '52

French fighter takes off from dolly. J. H. Stevens. il Aviation W 59:29-30+ Jl 27 '53

Vertical risers. il Machine Design 26:194 My '54

Testing

Accident and fatigue investigations at Farnborough. Engineer 197:180-1 Ja 29 '54

Aircraft fatigue tests at Farnborough. P. B. Walker. il Engineering 177:132 Ja 29 '54

Aircraft hydraulic test rigs. R. T. Sewell. il diags Engineer 197:162-5, 213-15, 231-3 Ja 29-F 12 '54

Camera setup helps study plane flight. G. L. Christian. il diag Aviation W 58:55-6+ Je 8 '53

Convair develops Autosyn indicators for structural testing. W. E. Wise. il Aero Digest 67:50-2+ D '53

Electrical simulator in analysis of stresses in a delta-wing aircraft. H. U. Schuerch. S A E J 62:46-7 Mr '54

Flight test instrumentation status; abstract and discussion. W. L. Howland. S A E J 62:43 Ap '54

Laboratories in the sky. Gen Elec R 57:8-14 My '54

Miniature pressure cells. T. Wrathall. il diags Instruments 26:736-9 My '53

Outdoor X-ray. il Aero Digest 67:42 N '53

Seven methods for solving structural test problems. W. W. Bradley. il diags Product Eng 24:172-6 S '53

Some basic concepts for analyzing dynamic flight-test data. H. Klein and R. Sedney. bibliog J Aeronautical Sci 20:740-8 N '53

X-rays pinpoint aircraft defects. il Aviation W 59:34+ O 5 '53

See also

Aeronautic laboratories

Airplane engines—Testing

Airplanes, Military—Testing

Wind tunnels

Undercarriage

See Airplanes—Landing gear

Vibration

Influence matrix of beam vibration. L. S. Dzung. J Aeronautical Sci 20:437 Je '53

Phugoid damping. F. W. Heilenday. J Aeronautical Sci 20:500-1 Jl '53

Vibration of rectangular plates. J. V. Nagaraja and S. S. Rao. J Aeronautical Sci 20:855-6 D '53

Weight

Structure weight. J. Taylor. Roy Aeronautical Soc J 57:646-52 O '53

Welding operations

Contour welding performed automatically; Ryan aeronautical co. il Am Mach 98:107 F 1 '54; Steel 133:314+ O 12 '53

Experts bare MiG-15 welding techniques. il Aviation W 59:46-8 N 2 '53

Fast roll-spot technique doubles welding speeds; Ryan aeronautical co. J. R. Fullerton. il Automotive Ind 109:46-7+ Ag 15 '53; Same. Automobile Eng 44:326 Ag '54

Faster fusion; shielded arc welding. J. R. Fullerton. il Welding J 33:47-51 Ja '54

Inert gas gives titanium tubing protective weld backing. J. M. Thompson, jr. il Iron Age 173:118-19 My 27 '54

Shielded-arc techniques dominate Ryan fusion welding. il Mach 60:180-5 Mr '54

Shop design improves welding efficiency; welding building at the Ryan aeronautical co. il Iron Age 172:154-5 Ag 13 '53

AIRPLANES, Amphibious

Planes built by toolmaker; Kearney & Trecker form Milwaukee subsidiary. il Iron Age 174:58 S 2 '54

AIRPLANES, Flying wing

French delta shown at Paris. il Aviation W 59:39 Ag 3 '53

AIRPLANES, Freight

Argentina designs flying-wing freighter. Aviation W 59:29-30 D 14 '53

Bristol freighter paces bush operation. G. L. Christian. il Aviation W 59:76-7+ O 19 '53

C-54 recall. Aviation W 58:14-15 Je 22 '53

U.S. civil transport aircraft; history of development traced in charts covering projects of Douglas, Boeing, Consolidated Vultee, Lockheed, Curtiss-Wright and Glenn L. Martin. Aviation W 58:76 Je 15 '53

AIRPLANES, Industrial

Air patrols prove economical and effective. E. A. Shultz. il Elec World 140:112+ Jl 27 '53

AIRPLANES, Jet propelled

Aeronautics in 1953. il Engineer 197:53-4, pl 1 Ja 8 '54

ANG converting to modern jets. Aviation W 59:18 N 2 '53

Aircraft tooling finds jet age a challenge; report on economics of tooling panel. K. H. Boucher. diags S A E J 62:28-32 Je '54

Analog computers; successor to cut and try; developing control system for jet engines. C. E. Bradford and W. M. Gaines. il diags Gen Elec R 56:24-7+ N '53

Boundary-layer control and supercirculation. J. S. Attinello. bibliog il diags Aeronautical Eng R 12:24-30 S '53

BOAC and the Comet III. Economist 169:610+ N 21 '53

BOAC shops for successor to Comet 3. N. McKitterick. il Aviation W 58:91-2 Je 22 '53

Comet crash report draws fire. Aviation W 58:17 Je 22 '53

Comet crashes; Dakar accident boosts jet transport toll to four. Aviation W 59:16 Jl 27 '53

Comet gains. M. Thomas. Aviation W 58:88-9 Je 8 '53

Comet investigations. il Engineer 197:145 Ja 22 '54

Details of Fairchild jet transport; M-168B. D. A. Anderton. diags Aviation W 59:37-9 D 21 '53

Ducted fan key to jet airliners. H. E. Hoben and W. C. Lawrence. Aviation W 59:88+ N 23 '53

Effect of jet aircraft on airforce pavements; investigations conducted by the Bureau of yards and docks. J. A. Bishop. il Am Soc C E Proc 79 [no 317]:1-8 O '53

Effect of jet aircraft on airport pavements; investigations conducted by the Corps of engineers. G. McFadden. Am Soc C E Proc 79 [no 316]:1-8 O '53

Engine installations for jet transports; based on papers by B. T. Salmon and others. il S A E J 62:52-5 Ag '54

F-100, F4D battle for top speed laurels. il Aviation W 59:14 N 9 '53

F-100 passes Mach one in transonic dives. W. J. Coughlin. il Aviation W 59:12-13 O 26 '53

Fairchild jet transport design. G. F. McLaughlin. il diags Aero Digest 67:17-19 D '53

First U.S. jet liner to be world's fastest; Boeing Project X details. Aviation W 58:12-13 Je 29 '53

Flying the Comet demands light touch. G. L. Christian. il diags Aviation W 59:71-4 Jl 20 '53

Jet aircraft operation. R. L. Loesch and J. B. Fornasero. il Aero Digest 67:84-90+ Ag '53

Jet transport economics; influence on airport and airway. J. G. Borger. Am Soc C E Proc 79 [no 241]:1-12 Ag '53

Jet transports may bring exposures for underwriters up to $15,000,000; abstracts. W. J. Van Hoven. East Underw 55:23+ Ag 27 '54; Nat Underw 58:9 Ag 19 '54; Weekly Underw 171:395+ Ag 21 '54

Latest allied jets vie at Paris air show. R. Hazeltine. il Aviation W 59:16-18 Jl 13 '53

AIRPLANES, Jet propelled—*Continued*

Mach 2 forecast for Leduc 022. il Aviation W 59:15 D 7 '53

Magnesium jet trainer design. il Aviation W 59:49 N 2 '53

Miss Cochran holds most jet records. Aviation W 58:26 Je 22 '53

Production problems on supersonic planes. A. Ashburn. il Am Mach 98:129-44 Jl 5 '54

Review of Comet experience; British overseas airways corp. C. H. Jackson. diag S A E J 61:31-5 N '53

RCAF shows off its first Comet. G. L. Christian. il Aviation W 58:18 Je 22 '53

Simulated jet transport operation. R. D. Kelly and H. B. Kaster. S A E J 62:30-2 Ag '54

Status of the turbine-powered transport in the United States. M. W. Arnold. il Aeronautical Eng R 12:37-9 Ag '53

Study extra jet howl. Steel 133:115 Jl 13 '53

Supersonic Gyron. Economist 168:405-6 Ag 8 '53

Turbojet engine design problems for supersonic flight; abstract. J. S. Alford and E. L. Auyer. diag S A E J 62:39-40 S '54

U.S., Britain battle for jet speed record. il Aviation W 59:16 O 5 '53

YF-100 records; new speed marks will be sought. Aviation W 59:16 N 2 '53

See also

Airplane engines—Jet engines

Gas turbines, Aircraft

Rocket propulsion

Landing

Crash barriers; USAF tests navy device on land-based jet fighters. il Aviation W 59:23 Ag 10 '53

Glide path indicator for the navy. il Engineer 197:425 Mr 19 '54

Jet barrier; safety device protects both pilots and jet planes. il Iron Age 174:193 S 16 '54

AIRPLANES, Light

Aero Commander. T. R. Smith. il diags Aero Digest 67:28-32+ S '53

Analysis of means of improving the uncontrolled lateral motions of personal airplanes. M. O. McKinney, jr. diags U S Nat Advisory Com for Aeronautics 1951:795-803 '52

Analysis of the effects of boundary-layer control on the take-off and power-off landing performance characteristics of a liaison type of airplane. E. A. Horton and others. bibliog diags U S Nat Advisory Com for Aeronautics 1951:1353-83 '52

Development of Beech model 50; abstract. M. J. Gordon. S A E J 62:107-8 Ag '54

Kit combines rudder and aileron controls; new system increases safety in lightplanes. G. L. Christian. il diag Aviation W 59:94+ S 14 '53

Light aircraft turbo-propeller installations. J. H. Gerteis. il S A E J 62:56-9 Ag '54

Piper readies Apache sales push. il diags Aviation W 59:23-4+ D 14 '53

Piper's new twin engined plane. il diags Automotive Ind 109:68-9 D 1 '53

Umbrella hangar for lightplanes. il Aviation W 59:45 Ag 31 '53

AIRPLANES, Military

A4D; it's a midget with muscles. il Iron Age 173:110 Je 17 '54

Aircraft industry's display at Farnborough. il Engineering 176:374-5 S 18 '53

Arctic yields to the military airplane; based on papers by B. Balchen and others. il map S A E J 62:34-40 Je '54

Convair sea dart flies. M. L. Everhart. il Aero Digest 67:20-1 S '53

Evolution of naval aircraft, 1911-54. L. B. Richardson. il Aeronautical Eng R 12:50-9+ D '53

First B-57 squadrons to form this year. Aviation W 59:26+ O 12 '53

First Martin B-57A makes initial flight. Aviation W 59:16 Ag 3 '53

Kaiser layoffs worry legislators. Aviation W 59:18 Jl 6 '53

Latest allied jets vie at Paris air show. R. Hazeltine. il Aviation W 59:16-18 Jl 13 '53

Locknuts; titanium cuts plane weight. G. G. Carr. il Iron Age 172:73 D 17 '53

Mach 2 problems; violent controls; X-1A's 1,650-mph. flight confirms need for substantial research. R. Hotz. il Aviation W 59:15-16 D 28 '53

New bomb bay; Glenn L. Martin co.'s new rotary bomb-bay door development. il Aviation W 59:17-18 Ag 3 '53

Plastics; tail of Neptune bomber made at lower cost. il Iron Age 173:163-4 F 18 '54

Proposes design penalties. J. L. Atwood. Aviation W 59:13-14 Ag 31 '53

Temco to stress own plane designs. Aviation W 59:14 Jl 13 '53

See also

Airplanes, Military transport

Bomb sights

Guns, Aircraft

Helicopters—Military use

Design

Crescent-wing A-bomber analyzed; Handley Page Victor. D. A. Anderton. il diags Aviation W 59:28-30+ N 9 '53

Design considerations for maneuverability of high speed airplanes; abstract. B. G. Peterson. S A E J 62:79-80 F '54

Design of military aircraft. J. H. Kindelberger. il Aeronautical Eng R 12:42-9+ D '53

First design details of Sncase Grognard. il plan diags Aviation W 59:28-30 N 2 '53

French fighter takes off from dolly. J. H. Stevens. il Aviation W 59:29-30+ Jl 27 '53

Grumman Albatross. il Aero Digest 67:28-32+ N '53

Structures for high speed aircraft; abstract. H. L. Hibbard and J. F. McBrearty. Engineering 176:423 O 2 '53

Vertical risers. il Machine Design 26:194 My '54

Drawings

Grumman Albatross. Aero Digest 67:30-1 N '53

Equipment

Aimer gets F-86 bombs closer. il Aviation W 59:21 Jl 20 '53

AF tries weapons system plan; test of plan giving airframe makers responsibility for buying equipment. P. Klass. Aviation W 58:16-17 Je 22 '53

Airplane is its equipment; typical purchased items in a highspeed carrier fighter. il Aero Digest 67:30-1 O '53

Electronics; air power's brain. il diags Aero Digest 67:70+ O '53

Equipment, new segment of industry. G. F. McLaughlin. il diag Aero Digest 67:17-23 O '53

Evaluation of organic fluorine compounds for use in military aircraft. H. Rosenberg and J. C. Mosteller. bibliog Ind & Eng Chem 45:2283-6 O '53

Hughes aircraft co. accents the new. P. Klass. il Aviation W 58:44-6+ Je 29 '53

Martin Baker lightweight ejector seat for aircraft. Engineering 176:585 N 6 '53

Plane deceleration chute. il Mech Eng 75:569-70 Jl '53

Single computer combines flight data. P. Klass. il Aviation W 59:45+ S 28 '53

Weapons system concept. R. McLarren. il diags Aero Digest 67:32-41 O '53

History

See Aeronautics, Military—History

Manufacture

Case of the yet-to-be-made large aircraft forging; based on papers by A. E. Favre and C. W. Andrews. S A E J 61:46-8 D '53

Newest Douglas plant model of productive efficiency. C. O. Herb. il Mach 60:160-7 Jl '54

Specifications

U.S. and foreign military aircraft; tabulations. Automotive Ind 110:244-7 Mr 15 '54

Testing

Static testing; unusual testing fixture will try Navy flying boat parts; San Diego, Calif. plant. il Iron Age 172:178-80 S 10 '53

AIRPLANE, Military—*Continued*

France

First design details of Sncase Grognard. il plan diags Aviation W 59:28-30 N 2 '53

France finds wings. diags Economist 168:117-19 Jl 11 '53

French fighter takes off from dolly. J. H. Stevens. il Aviation W 59:29-30+ Jl 27 '53

Great Britain

British accent need for more production; Society of British aircraft constructors display. D. A. Anderton. il Aviation W 59:12-14 S 21 '53

Crescent-wing A-bomber analyzed; Handley Page Victor. D. A. Anderton. il diags Aviation W 59:28-30+ N 9 '53

Flying testbed steals U.K. show. D. A. Anderton. il Aviation W 59:15-16 S 14 '53

Folland pins hopes on lightweight Gnat. N. McKitterick. Aviation W 58:35-6 Je 8 '53

New British anti-sub plane. il diags Aviation W 59:41 D 21 '53

RAF; brilliant planes but laggard production. il Bsns W p 162-4 S 12 '53

RAF picks new swift F.4 over Hunter. N. McKitterick. il Aviation W 58:18 Je 29 '53

Russia

Analysis shows MiG limitations. il Aviation W 58:38-9 Je 15 '53

Experts bare MiG-15 welding techniques. il Aviation W 59:46-8 N 2 '53

Fugitive MiG heads for U.S. test center. A. W. Jessup. Aviation W 59:13-14 S 28 '53

Red MiG-15; AF test pilots analyze captive fighter. D. A. Anderton. il Aviation W 59:16-17 N 30 '53

Soviet planes; built as well as they have to be. il Bsns W p70-2 N '53

Talbott calls captive MiG too old. il Aviation W 59:14 O 5 '53

United States

AD-5 converts from bomber to transport. W. J. Coughlin. il Aviation W 59:24-6 Ag 24 '53

AD-4 atomic bombers in carrier service. E. H. Heinemann. Aviation W 59:16 Jl 20 '53

B-36 teams with F-84 to carry A-bomb. R. Hotz. il Aviation W 59:12-13 Ag 31 '53

B-47B tanker; modified bomber refuels jets in high, fast flight. Aviation W 59:102+ S 14 '53

B-57 shows off. A. McSurely. il Aviation W 59:17-18 Ag 31 '53

C-123 contract; Fairchild wins AF order with fixed-price bid. Aviation W 59:17 O 19 '53

F-86 gimmick; improved wing. W. J. Coughlin. il Aviation W 59:15-16 S 7 '53

F-86F is top fighter-bomber. A. W. Jessup. il Aviation W 59:21-2+ O 19 '53

F4D trials; pilot describes Skyray tests aboard Coral Sea. Aviation W 59:18 N 30 '53

F-100 passes Mach one in transonic dives. W. J. Coughlin. il Aviation W 59:12-13 O 26 '53

F-100 Super Sabre. G. F. McLaughlin. il diags Aero Digest 67:17-19 N '53

F-102 features thin delta wing. Aviation W 59:16 O 26 '53

German calls U.S. aircraft overbred. Aviation W 59:18 Ag 24 '53

How U.S. air power looked in Korea. il Bsns W p64-6+ Ag 29 '53

Million-dollar F-86. Aviation W 59:17 N 23 '53

Navy drops wraps off Convair Sea Dart. Aviation W 59:19 Jl 27 '53

New B-47s; AF gets two Stratojets for photo reconnaissance. il Aviation W 59:21 Ag 31 '53

New fighters. il Bsns W p30-1 N 28 '53

North American Aviation has an unchallenged lead in jet fighters. P. J. Fitzgerald and W. Richeson. Barron's 34:19+ Ja 11 '54

Plane slashes; defense discloses three contract cancellations. Aviation W 58:15 Je 22 '53

Ryan enters modified Navion in navy test. Aviation W 59:24+ O 12 '53

Sabre's successor; North American F.100. diags Economist 170:122 Ja 9 '54

Titanium shortage blocks buildup. K. Johnsen. Aviation W 59:14-15 O 26 '53

USAF axes Kaiser aircraft role. Aviation W 58:16-17 Je 29 '53

USAF takes wraps off X-1B; static aircraft display at the National aircraft show. E. J. Bulban. il Aviation W 59:14 S 14 '53

AIRPLANES, Military transport

AD-5 converts from bomber to transport. W. J. Coughlin. il Aviation W 59:24-6 Ag 24 '53

Boeing KC-97G. M. L. Everhart. il Aero Digest 67:27 Ag '53

Convair tells Tobey it likes turboprops. Aviation W 58:94 Je 22 '53

Military air cargo carrier trends. W. Tydon. il Aeronautical Eng R 12:39-44 Jl '53

MATS and the gas-turbine transport field. J. Smith. il Aeronautical Eng R 12:40-2 Ag '53

AIRPLANES, Pilotless

Guided boomerangs. R. Gibson. Aviation W 58:40-2 Je 15 '53

Holloman tests missiles and pilotless aircraft. il Aviation W 59:186-8+ Ag 17 '53

Matadors shipped in crates; assembled in field. il Iron Age 173:100 Je 17 '54

AIRPLANES, Target

Jet target; gun crews will train with remote controlled baby jet planes. il Iron Age 172:117-18 Ag 27 '53

AIRPLANES, Training

Magnesium jet trainer design. il Aviation W 59:49 N 2 '53

Temco experience with turboprop; trainer points up paper-to-metal hurdles. A. McSurely. il Aviation W 58:22-3+ Je 22 '53

Why Ryan bets on side-by-side trainer. il Aviation W 59:42-3 N 30 '53

AIRPLANES, Transport. See Airplanes, Military transport

AIRPLANES in agriculture

Dust-spray kit stresses simplicity. diag Aviation W 59:44 Ag 24 '53

Experimental plane built at Texas A&M; abstract. F. E. Weick. Chem & Eng N 32:1310 Ap 5 '54

Load-dumping valve aids crop dusters. Aviation W 59:56 S 28 '53

Spray dusters build agriculture plane. Aviation W 59:426 Ag 17 '53

AIRPLANES in business

Business flying gets data service. Aviation W 59:18 O 5 '53

Business planes save time, earn money. R. L. Hatschek. il Iron Age 173:35-6 Ja 21 '54

Business steps up use of lightplanes. Aviation W 59:22 D 21 '53

Company planes aid business. P. Eastman. Am Bsns 24:16-17+ Mr '54

Executives on the wing. il Chem & Eng N 32:3410-11 Ag 30 '54

Flight safety; advanced training for pilots of business planes. Bsns W p88 O 24 '53

Flying messenger service expedites check clearings; Bank of America. T. E. Risso. il Burroughs Clearing House 38:26 Ja '54

Goodyear's business aircraft. Am Bsns 24:36 Je '54

Outlook for business air travel. Aviation W 59:110 D 7 '53

Private planes pay off at Parker Pen. P. Hirsch. il Am Bsns 24:28+ Ag '54

Refresher pilot training pays off in safety. F. Shea, jr. il Aviation W 59:21+ N 30 '53

See also

National business aircraft association

AIRPLANES in engineering

Air photos spot fill for dam in wilderness. il Eng N 151:47 O 29 '53

AIRPLANES in insect control

Aerial spraying is economical. V. E. Johnson. Pulp & Pa of Can 55:182+ Ap '54

Connecticut program for safe aerial application of pesticides. J. Lieben. A M A Archives Ind Hygiene & Occup Med 8:533-4 D '53

Pesticide parachutes into Central Africa. il Chem W 74:80 Mr 20 '54; diags Engineer 197:217-18 F 5 '54; Engineering 177:219 F 12 '54

AIRPLANES in lumbering

Canadian airline serves migratory camps. il Aviation W 59:72-3 S 7 '53

AIRPORT buildings

Air terminal and field circulation solved. il plans Arch Rec 114:141-3 D '53

Modern London airport. Mech Eng 76:33 Ja '54

New thinking on airport terminals. il plans diags Arch Forum 97:130-43 N '52

Newark terminal tries innovations. Aviation W 59:70-1 S 21 '53

Terminal buildings at London airport. il Engineer 196:405-6 S 25 '53; plan diags Engineering 176:397, 400 S 25 '53

See also

Hangars

AIRPORT public and property damage liability insurance. See Insurance, Airport public and property damage liability

AIRPORTS

Connecticut airport expanded to meet both commercial and military needs. E. A. Horner. il plan Civil Eng 23:692-6 O '53

TWA will fight airport charges. Aviation W 59:80 Jl 6 '53

See also

Hangars

Bibliography

Highway and airport digest. Published in monthly numbers of Public works

Construction

From camels to caterpillars; mechanization came to Libya with the U.S. engineers. S. D. Sturgis. il Nat Safety N 69:22-3+ Ap '54

Control towers

See Airports—Traffic control towers

Cost

Airport paving, New York; unit prices. Eng N 151:86 S 17 '53

Runway extension, California; unit prices. Eng N 151:59 N 26 '53

Tight bidding on airport electrical system; unit prices. Eng N 152:270 F 18 '54

Unit prices bid by contractors. Eng N 151: 195+ O 8 '53

Design

Airport traffic and the Puerto Rico international airport. W. Prokosch. il plans Am Soc C E Proc 79 [no 255]:1-21 Ag '53

Criteria for planning utilization of space for major air terminal. G. D. Burr. Am Soc C E Proc 79 [no 253]:1-20 Ag '53

Determination of radii of curvature of taxiways. J. H. Jones and R. Horonjeff. il plan diags Am Soc C E Proc 79 [no 233]:1-16 Ag '53

Jet transport economics; influence on airport and airway. J. G. Borger. Am Soc C E Proc 79 [no 241]:1-12 Ag '53

Drainage

High-speed channels spell low-cost airfield drainage. H. Jacoby. il diags Eng N 151: 41+ N 5 '53

Electric equipment

Applications of electricity at airports. J. E. Carpenter and C. Heyes. diags Inst E E Proc 100 pt 1:307-18 N '53

Salford mobile power rectifier unit; facilitates ground maintenance and testing of aircraft. il diag Elec J 151:1841-2 D 4 '53; Engineering 177:85 Ja 15 '54

Stand-by Diesel generator for airport. il Engineering 177:380 Mr 19 '54

Equipment

Airdock would revolutionize present airline methods of loading and unloading passengers, baggage, and cargo. il Mech Eng 75:492-3 Je '53

Airports get new weather gear; Ceilometer gives airport traffic controller continuous reading on cloud ceiling and visibility. il diag Aviation W 59:48 Ag 24 '53

Experimental mobile radio equipment at London airport. Engineer 196:347-8 S 11 '53

UAL boosts underground facilities. plan Aviation W 59:85 O 19 '53

Federal aid

Airfield construction outlook. Eng N 151: 21-2 D 31 '53

Development of a national airport plan. J. C. D. Blaine. bibliog Land Econ 30:270-4 Ag '54

Government continues financing towers. L. Moore. Aviation W 59:87-8 O 26 '53

Planned development of public airports. J. C. D. Blaine. Pub Util 54:68-76 Jl 22 '54

Finance

Revenue bond financing for airport improvements. J. C. Buckley. Am Soc C E Proc 79 [no 260]:1-12 S '53

Ice control

Snow removal and ice control. L. A. Johnson. il S A E J 61:39-40 D '53

Lighting

All-weather landing lights installed; Denver, Colo. airport. il Eng N 152:46-8 F 11 '54

Applications of electricity at airports. J. E. Carpenter and C. Heyes. diags Inst E E Proc 100 pt 1:307-18 N '53

Aviation's key lighting issues. J. D. Blatt. Aviation W 59:109 D 7 '53

Lighting an airport taxiway sign; data sheet. il diag Illum Eng 49:118 F '54

Lighting military airports. G. M. Kevern and others. il diag Gen Elec R 56:56-9+ N '53

Low-cost lighting unit brightens small runways. il Aviation W 59:109+ S 14 '53

Molded transformers aid airport lighting. il Elec World 140:116 D 28 '53

Photoelectric control for airport lighting circuits. il Aviation W 59:94 D 14 '53

Runway light nears CAA ideal. il Aviation W 58:58 Je 29 '53

Location

Engineering and economic problems involved in airport location. R. N. Cook. Am Soc C E Proc 79 [no 204]:1-9 Jl '53

Runways

Air force base gets thick pavement. il Constr Methods 36:54-7 Ap '54

Airport runway extension makes a modern field. R. K. Clifford. il Pub Works 85:77-8 Ap '54

Aviation engineers lay big runway in Korea. il Constr Methods 35:52-6 N '53

Brick paving challenges the jets; navy-sponsored test section of Postonway paving. H. B. Foster. il Brick & Clay Rec 125:38-9+ Jl '54

Concrete paving methods at Abilene air force base. il plan diags Roads & Sts 97: 43-8 S '54

Concreting the world's longest runway; Edwards air force base. il Eng N 152:44-6 Mr 25 '54

Effect of jet aircraft on airforce pavements; investigations conducted by the Bureau of yards and docks. J. A. Bishop. il Am Soc C E Proc 79 [no 317]:1-8 O '53

Effect of jet aircraft on airport pavements; investigations conducted by the Corps of engineers. G. McFadden. Am Soc C E Proc 79 [no 316]:1-8 O '53

Extra dividends of asphalt overlay pavements. J. M. Griffith. Roads & Sts 96:94-6+ O '53

First hot-mix asphalt laid in Bermuda; Kindley air force base. il Roads & Sts 97:118 Je '54

Heavy flexible pavement base for big jets. il plan diags Roads & Sts 97:73-8 Ag '54

Jet proof; compound for caulking the cracks between concrete slabs devised to withstand jet engine fuels and exhaust blasts; Posselit. Chem W 75:58 Jl 10 '54

Joints sawed in pouring sequence for concrete apron; Davis-Monthan air force base. il diag Roads & Sts 97:37+ Ja '54

Load check station helps get more accurate spread; runway job at Pinecastle air force base. il Roads & Sts 97:73 My '54

Pavement overlay modernizes airport apron. W. A. Blain. il Constr Methods 36:78-9+ Je '54

Runway project will require huge fill. Eng N 152:23 Ap 8 '54

Runway visibility reporting improved; Sperry gyroscope co. ANDB low ceiling/visibility program. G. L. Christian. il Aviation W 59:51+ S 28 '53

Secrecy curtain lifted on Alaskan Snow port. il Roads & Sts 97:64 S '54

AIRPORTS—Runways—*Continued*
Snow removal and ice control. L. A. Johnson. il S A E J 61:39-40 D '53
Welded wire fabric used in airport paving. il Roads & Sts 97:79+ F '54
Welded wire reinforcing added to airfield paving. il Eng N 151:42 D 10 '53
With Jaxon on Florida airfield; illustrations with text. Roads & Sts 97:104-5 Mr '54

Safety measures

Jet barrier; safety device protects both pilots and jet planes. il Iron Age 174: 193 S 16 '54
Safety in the air begins with safety on the ground. il diag Safety Maint & Prod 108: 61-2 Ag '54

Standards

Airport standards. J. Kyle. Am Soc C E Proc 79 [no 237]:1-7 Ag '53

Traffic control

Radio aids for airport control; abstract. G. W. Stallibrass. Inst E E Proc 100 pt 3: 373-4 N '53
Volscan unsnarls airport traffic jam; USAF traffic computer lands 120 jets hourly. P. Klass. il diag Aviation W 59:38-43 D 28 '53

Traffic control towers

Government continues financing towers. L. Moore. Aviation W 59:87-8 O 26 '53

Transportation problems

City-to-airport highway deficiencies measured by modified sufficiency rating system. W. R. Macatee. Roads & Sts 96:53-4 D '53

Great Britain

Decision on Gatwick. Economist 168:313-14 Ag 1 '53

London

London airport's next stage. plan Economist 168:809 S 19 '53
Modern London airport. Mech Eng 76:33 Ja '54
Terminal buildings at London airport. il Engineer 196:405-6 S 25 '53; plan diags Engineering 176:397, 400 S 25 '53

New York (city)

Comet din; Air committee's protest keeps jet out of Idlewild. Aviation W 59:14 Jl 20 '53
NYC airports plan bi-directional instrument landing system. Aviation W 58:18 Je 8 '53

Newark, New Jersey

Newark airport; new passenger terminal. Bsns W p32 Ag 1 '53
Newark airport terminal dedicated. il Eng N 151:24 Ap 6 '53
Newark terminal tries innovations. Aviation W 59:70-1 S 21 '53

Puerto Rico

Airport traffic and the Puerto Rico international airport. W. Prokosch. il plans Am Soc C E Proc 79 [no 255]:1-21 Ag '53

Richmond, Virginia

City-to-airport highway deficiencies measured by modified sufficiency rating system. W. R. Macatee. Roads & Sts 96:53-4 D '53

Van Nuys, California

Jet crash angers Van Nuys residents. Aviation W 59:22+ S 28 '53

Virgin Islands

Airdrome is water supply reservoir. M. D. Morris. il Pub Works 85:85-6 Mr '54

AIRPORTS, Military. See Air bases, Military

AIRSHIPS, Military
Navy buys 65-knot, twin-engine blimp. Aviation W 59:20 Ag 10 '53

AIRSICKNESS
Making it easy for the queasy; competition ahead in motion sickness remedies. il Chem W 74:20-1 Ja 2 '54

AIRWAYS
Jet transport economics; influence on airport and airway. J. G. Borger. Am Soc C E Proc 79 [no 241]:1-12 Ag '53
World airways make fast progress in standardization, CAA finds. For Comm W 50:23 S 7 '53
See also
Airports

Fees

Airways fee would slash carrier profits. L. Moore. Aviation W 59:71-2 N 2 '53
Carriers blast airways user toll. R. Balentine. Aviation W 59:16-17 D 21 '53

Traffic control

Magnetic memory system may aid in solving air traffic problems. Elec Eng 72:944-5 O '53

AIRWORTHINESS of airplanes. See Airplanes—Airworthiness

AISLES, Factory. See Factories—Aisles

AJMALICINE. See Serpentine (alkaloid)

AJMALINE
Ajmaline. F. A. L. Anet and others. Chem Soc J p 1242-60 Ap '54

AKRON, Ohio
Problem of public employee safety. W. R. LaDue. Am Water Works Assn J 45:1211-18 N '53; Same cond. il Pub Works 84: 56-7+ N '53

AKULON. See Nylon

ALABAMA
See also
Iron mines and mining—Alabama
Manganese mines and mining—Alabama
Petroleum—Alabama

ALABAMA-TENNESSEE natural gas company
Sharp rise in 1954-55 revenues. Barron's 33: 20 O 12 '53

ALANINE
Synthesis of glycyl and alanyl chlorides. S. Levine. Am Chem Soc J 76:1382 Mr 5 '54

ALARMS
Alarm for separators; automatic alarm system called Magnalarm. Steel 134:161 F 8 '54
Design and operation of a simple pressure alarm system. C. V. Kroeger. il diags Am Gas J 180:14-15+ F '54
Long-range photo-electric system; boundary protection of factories, army camps and aerodromes. Elec R (Lond) 153:1399 D 18 '53
Machines can call for help. E. Church. il Nat Safety N 69:38-9 Je '54
Ultrasonics; inaudible sound used to spot fires, trap burglars. Iron Age 172:119-20 N 26 '53

ALARMS, Electric. See Electric alarms

ALASKA
Names and definitions of regions, districts, and subdistricts. A. L. Ransome and W. H. Kerns. bibliog 16pls U S Bur Mines Information Circ 7679:1-91 '54
See also
Building—Alaska
Food supply—Alaska
Geology—Alaska
Iron ores—Alaska
Petroleum—Alaska
Petroleum industry and trade—Alaska
Public health—Alaska
Water supply—Alaska

ALBANIA

Politics and government

Outpost on the Adriatic. map Economist 168: 181-2 Jl 18 '53

ALBERTA, Canada
New Canadian map shows trail's end; Alberta government's aerial photographic survey. B. Shiels. il map World Oil 137:331-2 O '53
See also
Gas, Natural—Alberta
Geology—Alberta
Mines and mineral resources—Alberta
Petroleum—Alberta
Petroleum industry and trade—Alberta
Roads—Alberta

ALBUMIN
Armour laboratories operates globulin-albumin plant. il Chem & Eng N 31:2687 Je 29 '53
Behavior of serum albumin. G. Scatchard. Chem & Eng N 32:2098-9 My 24 '54
Binding of uncharged molecules to proteins; testosterone and bovine serum albumin. J. A. Schellman, R. Lumry and L. T. Samuels. bibliog Am Chem Soc J 76: 2808-13 My 20 '54

ALBUMIN—*Continued*

Changes in the intrinsic viscosity and optical rotation of bovine plasma albumin associated with acid binding. Jen Tsi Yang and J. F. Foster. bibliog Am Chem Soc J 76:1588-95 Mr 20 '54

Combined action of carboxypeptidase and B. subtilis enzyme on ovalbumin. D. Steinberg. bibliog Am Chem Soc J 75:4875-6 O 5 '53

Crystalline α-lactalbumin; an improved method for its isolation; sulfur distribution. W. G. Gordon, W. F. Semmett and J. Ziegler. bibliog Am Chem Soc J 76:287 Ja 5 '54

Denaturation of bovine plasma albumin. M. Levy and R. C. Warner. bibliog J Phys Chem 58:106-9 F '54

Dimerization of serum mercaptalbumin in presence of mercurials; studies with a bifunctional organic mercurial. J. T. Edsall and others. bibliog Am Chem Soc J 76:3131-8 Je 20 '54

Dispersion of testosterone in aqueous bovine serum albumin solution. F. Bischoff and R. D. Stauffer. bibliog Am Chem Soc J 76:1962-5 Ap 5 '54

Disulfide cross-links in denatured ovalbumin. M. Halwer. bibliog Am Chem Soc J 76:183-6 Ja 5 '54

Disulfide dimer of human mercaptalbumin. R. Straessle. bibliog Am Chem Soc J 76:3138-42 Je 20 '54

Kinetics of protein denaturation; the behavior of the optical rotation of ovalbumin in urea solutions. R. B. Simpson and W. Kauzmann. bibliog Am Chem Soc J 75:5139-52 N 5 '53

Kinetics of protein denaturation; the optical rotation of ovalbumin in solutions of guanidinium salts. J. Schellman, R. B. Simpson and W. Kauzmann. Am Chem Soc J 75:5152-4 N 5 '53

Kinetics of protein denaturation; the optical rotations of serum albumin, β-lactoglobulin and pepsin in urea solutions. W. Kauzmann and R. B. Simpson. bibliog Am Chem Soc J 75:5154-7 N 5 '53

Kinetics of protein denaturation; the viscosity of urea solutions of serum albumin. H. K. Frensdorff, M. T. Watson and W. Kauzmann. bibliog diags Am Chem Soc J 75:5167-72 N 5 '53

Metal combining properties of conalbumin. R. C. Warner and I. Weber. bibliog Am Chem Soc J 75:5094-101 O 20 '53

Mode of interaction of surface active cations with ovalbumin and bovine plasma albumin. J. F. Foster and Jen Tsi Yang. bibliog Am Chem Soc J 76:1015-19 F 20 '54

Optical rotation of human serum albumin and γ-globulin. B. Jirgensons and S. Sirotzky. bibliog Am Chem Soc J 76:1367-70 Mr 5 '54

Ovalbumin-chloroauric acid reaction. J. P. Craig, jr., A. G. Garrett and H. B. Williams. bibliog Am Chem Soc J 76:1570-5 Mr 20 '54

Preparation and properties of serum and plasma proteins; the interaction of human serum albumin with plumbous ions. F. R. N. Gurd and G. R. Murray, jr. bibliog Am Chem Soc J 76:187-90 Ja 5 '54

Removal of the impurity in bovine serum albumin and its effect on zinc binding. C. Tanford and W. S. Shore. Science 118:167-8 Ag 7 '53

Reversible reaction of bovine serum albumin. H. Gutfreund and J. M. Sturtevant. Am Chem Soc J 75:5447-8 N 5 '53

Statistical and all-or-none binding of alkylbenzenesulfonate by albumins. Jen Tsi Yang and J. F. Foster. bibliog Am Chem Soc J 75:5560-7 N 20 '53

Streaming orientation studies on denatured proteins; denaturation of ovalbumin with surface active ions. G. F. Hanna and J. F. Foster. bibliog J Phys Chem 57:614-17 O '53

Study of the interaction of dodecyl sulfate with bovine serum albumin. M. J. Pallansch and D. R. Briggs. bibliog Am Chem Soc J 76:1396-403 Mr 5 '54

Sulfhydryl-dependent aggregation accompanying the denaturation of bovine plasma albumin by urea. V. D. Hospelhorn, B. Cross and E. V. Jensen. bibliog Am Chem Soc J 76:2827-9 My 20 '54

Sulfhydryl-dependent aggregation accompanying the thermal denaturation of bovine plasma albumin. V. D. Hospelhorn and E. V. Jensen. bibliog il Am Chem Soc J 76:2830-2 My 20 '54

Analysis

Isolation of rat plasma albumin. A. Keltz and J. W. Mehl. bibliog diags Am Chem Soc J 76:4004-6 Ag 5 '54

Preparation and properties of human serum albumin separated from placental extracts. F. H. Gordon and others. bibliog Am Chem Soc J 75:5859-64 D 5 '53

Separation and characterization of serum albumin from extracts of a lymphatic organ. E. L. Hess, M. Campbell and A. Herranen. bibliog Am Chem Soc J 76:4035-7 Ag 5 '54

ALBUMS

Shades of grandma's parlor! the family album is back! General products. il Sales Management 72:80+ Mr 15 '54

ALCHEMY

Light metallurgy. R. P. Lister. diag Metal Prog 64:89-91 N '53

Metallurgy in the days of alchemy. C. A. Zapffe. Metal Prog 66:89-95 S '54

ALCLAD

Flux annealing removes gas from aluminum-clad plates. E. J. Boyle. il Iron Age 172:145-7 Ag 13 '53

ALCOHOL

Adsorption of ethyl alcohol vapor on glass spheres in systems of different porosities. J. L. Shereshefsky and E. R. Russell. bibliog diag J Phys Chem 57:660-5 O '53

Chemical analysis of GR-S by complete solution procedures; titration of mineral and organic acids in toluene-ethanol solution. F. J. Linnig and A. Schneider. Anal Chem 25:1515-17 O '53

Concerning the reaction of lithium, sodium and potassium ethoxide in ethanol with 2-ethylhexyl bromide. M. S. Newman and F. J. Evans, jr. Am Chem Soc J 76:4187-8 Ag 20 '54

Enzymatic synthesis of the enantiomorphs of ethanol-1-*d*. F. A. Loewus, F. H. Westheimer and B. Vennesland. bibliog Am Chem Soc J 75:5018-23 O 20 '53

Measurement of the drift velocity of electrons in the electrical field in argon-alcohol mixtures. L. Colli and M. T. De Leonardis. bibliog il diag J Ap Phys 24:255-7 Mr '53

Molasses uses in alcohol production seen declining by Agriculture department. Oil Paint & Drug Rep 164:3+ N 16 '53

Ultra-violet absorption spectrum of diphenylmercury in ethanol. B. G. Gowenlock and J. Trotman. Chem & Ind p309 Mr 13 '54

See also

Furfuryl alcohol

Analysis

Alcoholometer scale beyond 100 per cent for hydrometers. R. Gilmont. Anal Chem 25:1001-2 Je '53

Modification of Winnick's method for the rapid determination of ethyl alcohol in biological fluids. I. Sunshine and R. Nenad. bibliog Anal Chem 25:653-5 Ap '53

Ternary methanol-ethanol-acetone and three related binary solutions. H. H. Amer, R. R. Paxton and M. Van Winkle. bibliog Anal Chem 25:1204-6 Ag '53

Manufacture

Conversion of ethylene to ethanol. C. V. Mace and C. F. Bonilla. bibliog flow sheet diag Chem Eng Prog 50:385-95 Ag '54

Ethyl alcohol and ethyl ether; esterification-hydrolysis process. flow diag Pet Refiner 32:126-7 N '53

Extractive distillation of alcohols; process for recovery and purification of high purity alcohol. diags Pet Refiner 32:128-9 N '53

Natural gas to alcohol; National petro-chemical corp.'s Tuscola, Ill. plant. il Oil & Gas J 52:60-4 N 30 '53

Synthetic ethyl alcohol. A. J. Johnson and C. R. Nelson. flow diags il Chem & Ind sup S28-31 Ag 10 '53

What's unique about Tuscola? plant of National petro-chemicals corp. il plan Pet Processing 8:1889-91 D '53

ALCOHOL—*Continued*

Storage

Increasing quantities of alcohols being handled in bulk. T. W. Rodes. diags Ind & Eng Chem 46:sup 109A-11A My '54

ALCOHOL, Industrial

On the scene; Shell Chemical denaturing plant at Argo, Ill. to service Midwest points. il Chem W 73:56+ N 28 '53

ALCOHOL as fuel

Alcohol in Diesel engines. H. A. Havemann and others. bibliog Automobile Eng 44:256-62 Je '54

ALCOHOL in the body

Alcohol in the body. L. A. Greenberg. diags Sci Am 189:86-8+ D '53

Recognising intoxication; analysis of alcohol in blood and urine. Chem Age (Lond) 70:366 F 6 '54

Tests for alcohol in breath and blood. J. M. Berkebile. diag J Chem Educ 31:380-2 Jl '54

ALCOHOL industry

Alcohol shipping rules eased by Revenue service. Oil Paint & Drug Rep 165:3+ Je 7 '54

Some alcohol outlets drying up. Chem & Eng N 32:2650 Je 28 '54

Tough sledding for solvents; annual review. Chem Eng 61:198-9 Mr '54

Year of the scramble with producers of ethyl alcohol. il Chem W 73:51-2 D 26 '53

Regulation

Alcohol government-industry liaison setup devised. Oil Paint & Drug Rep 166:5 S 6 '54

Alcohol rules altered for industrial grade. Oil Paint & Drug Rep 166:3 Ag 23 '54

Statistics

Alcohol, 1949-1952. Survey of Cur Bsns 1953 Sup p 121-2 [supplemented in monthly numbers]

Taxation

Alcohol tax red tape cut in new legislation. Oil Paint & Drug Rep 165:4+ F 22 '54

Drug trade spotlights alcohol tax flaws in general revenue measure. Oil Paint & Drug Rep 165:3+ Ap 26 '54

Welcome esprit; mutual aim to scrap laws thwarting efficient production. Chem W 74:17 Je 19 '54

Canada

Chemical Canada; distilled liquors; tabulations. H. McLeod. Can Chem Process 38:20 Je 20 '54

France

Swimming in alcohol. il Chem W 74:14-15 Ap 10 '54

ALCOHOLATES

Alcoholates of thorium tetrachloride. D. C. Bradley, M. A. Saad and W. Wardlaw. Chem Soc J p2002-5 Je '54

Benzylation and xanthation of cellulose monoalkoxide. M. L. Wolfrom and M. A. El-Tarazoulsi. bibliog Am Chem Soc J 76:2216-18 Ap 20 '54

Reaction of the alkoxides of titanium, zirconium and hafnium with esters. R. C. Mehrotra. bibliog Am Chem Soc J 76:2266-7 Ap 20 '54

ALCOHOLIC employees. See Employment management—Alcohol problem

ALCOHOLISM

Adult guidance center, San Francisco. M. Johnston. Pub Health Rep 68:590-4 Je '53

Aid for alcoholics; Wilmington association for the study of alcoholism. Chem W 73:13 Jl 18 '53

City launches study of alcoholism. Nat Safety N 68:80+ N '53

Dangers potent in controlled drinking. R. G. Bell. Nat Underw (Life ed) 58:18 My 7 '54

Understanding the alcoholic. B. B. Reeve. Nat Safety N 69:20-1+ Ap '54; Same. Pulp & Pa of Can 55:180+ Ag '54; Abstract. Pet Refiner 32:244 O '53

See also

Employment management—Alcohol problem

ALCOHOLS

Adsorption of aliphatic alcohols and acids from aqueous solutions by non-porous carbons. R. S. Hansen and R. P. Craig. bibliog J Phys Chem 58:211-15 Mr '54

Alkyl-oxygen fission in carboxylic esters; 1-*o*-methoxyphenylethyl and α-naphthylphenylmethyl compounds; the relative effects of the introduction of *o*- and of *p*-methoxyl groups into phenylmethyl compounds. R. E. Dabby and others. Chem Soc J p3619-23 N '53

Antispasmodics; diphenylacetates and *p*-aminobenzoates of basic alkoxyalkanols. F. F. Blicke and J. H. Biel. bibliog Am Chem Soc J 76:3163-6 Je 20 '54

Base strengths of *cis*- and *trans*-1,2-aminoalcohols. T. A. Geissman, B. D. Wilson and R. B. Medz. bibliog Am Chem Soc J 76:4182-3 Ag 20 '54

Complex dielectric constants of some aliphatic alcohols at 9733 mc/sec. N. Koizumi. bibliog J Chem Phys 21:1898-9 O '53

Concurrent production of fatty alcohols and sodium cyanate. F. O. Barrett, J. D. Fitzpatrick and R. G. Kadesch. bibliog Ind & Eng Chem 45:1114-16 My '53

*cyclo*Octatetraene derivatives; reduction of *cyclo*octatetraene by sodium and alcohols. W. O. Jones. Chem Soc J p312-16 Ja '54

Dehydration of alcohols in the presence of haloforms and alkali. J. Hine, E. L. Pollitzer and H. Wagner. bibliog Am Chem Soc J 75:5607-9 N 20 '53

Dehydroxymethylation of primary alcohols. H. Pines, H. G. Rodenberg and V. N. Ipatieff. Am Chem Soc J 76:771-2 F 5 '54

Differentiating between primary, secondary, and tertiary alcohols. F. O. Ritter. J Chem Educ 30:395-6 Ag '53

Effect of alcohols on hydrocarbon autoxidation. C. F. Frye, C. B. Kretschmer and R. Wiebe. bibliog Ind & Eng Chem 46:1517-20 Jl '54

Effect of cyclopentane and cyclohexane rings on the reaction of tertiary alcohols and chlorides. G. S. Skinner and F. P. Florentine, jr. bibliog Am Chem Soc J 76:3200-3 Je 20 '54

Exchange of hydrogen between ammonium salts and alcohols. L. Kaplan and K. E. Wilzbach. Am Chem Soc J 76:2593 My 5 '54

Fischer-Tropsch synthesis mechanism studies; the addition of radioactive alcohols to the synthesis gas. J. T. Kummer and P. H. Emmett. bibliog Am Chem Soc J 75:5177-83 N 5 '53

Formaldehyde condensations with phenol and its homologues; dinuclear monoalcohols. S. R. Finn, J. W. James and C. J. S. Standen. J Ap Chem 4:296-300 Je '54

Hydrazinoalkanols. G. Gever. bibliog Am Chem Soc J 76:1283-5 Mr 5 '54

Interference of inorganic salts in the chromatography on paper of amino alcohols, diamines, and diamino acids. D. M. Waldron-Edward. Chem & Ind p 104-6 Ja 23 '54

Mechanism of aldehyde and primary alcohol oxidation. W. A. Mosher and D. M. Preiss. bibliog Am Chem Soc J 75:5605-7 N 20 '53

Mercuration of monoallyl ethers of polyols. L. H. Werner and C. R. Scholz. bibliog Am Chem Soc J 76:2701-5 My 20 '54

Migration ratios in the rearrangement of 2-amino-1,1-diarylethanols. D. Y. Curtin and M. C. Crew. bibliog Am Chem Soc J 76:3719-22 Jl 20 '54

Molecular rotations of polycyclic compounds; polycyclic alcohols and their derivatives. W. Klyne and W. M. Stokes. Chem Soc J p 1979-88 Je '54

New Stepan fatty alcohol plant puts tallow to work in detergents. il Soap & Chem Spec 30:38-41 S '54

New synthesis of 1-(2-pyridyl)-alkanols. O. H. Bullitt, jr. and J. T. Maynard. bibliog Am Chem Soc J 76:1370-1 Mr 5 '54

Olefin-carbon monoxide-alcohol copolymers. T. L. Cairns and others. bibliog Am Chem Soc J 76:3024-8 Je 5 '54

Peroxide- and light-induced additions of alcohols to olefins. W. H. Urry and others. bibliog Am Chem Soc J 76:450-5 Ja 20 '54

ALCOHOLS—*Continued*

Preparation of basic alcohols and basic alkyl chlorides which contain a 1-hexa-, 1-hepta- or 1-octamethylenimino radical. F. F. Blicke and N. J. Doorenbos. bibliog Am Chem Soc J 76:2317-22 My 5 '54

Preparation of polymers from diisocyanates and polyols. H. L. Heiss and others. Ind & Eng Chem 46:1498-503 Jl '54

Pressure-volume-temperature relationships of alcohol vapors. C. B. Kretschmer and R. Wiebe. bibliog diag Am Chem Soc J 76:2579-83 My 5 '54

Production, properties, and uses of fatty alcohols. E. F. Hill, G. R. Wilson and E. C. Steinle, jr. bibliog(60 ref) Ind & Eng Chem 46:1917-21 S '54

Rate of deuterium exchange of certain amines and alcohols. J. Hine and C. H. Thomas. bibliog Am Chem Soc J 76:612 Ja 20 '54

Reactions of alcohols and phenols with trimethylene oxide. S. Searles and C. F. Butler. bibliog Am Chem Soc J 76:56-8 Ja 5 '54

Relationship between β-caryophyllene alcohol and clovene. A. W. Lutz and E. B. Reid. bibliog Chem & Ind p749 Jl 18 '53

Relationship between clovene and β-caryophyllene alcohol. A. Aebi and others. bibliog Chem & Ind p748-9 Jl 18 '53

Role of alcohols in the mechanisms of the Fischer-Tropsch synthesis; the decomposition of alcohols in the presence of cobalt catalysts. E. J. Gibson. bibliog J Ap Chem 3:375-84 Ag '53

Steroids; the oxidation of steroidal allylic alcohols with manganese dioxide; a novel synthesis of testosterone. F. Sondheimer, C. Amendolla and G. Rosenkranz. bibliog Am Chem Soc J 75:5930-2 D 5 '53

Sulfonation of alcohols. Soap & San Chem 29:99 N '53

Synthesis of phosphonic acids from alcohols via sulfonate esters. T. C. Myers, S. Preis and E. V. Jensen. bibliog Am Chem Soc J 76:4172-3 Ag 20 '54

Telomeric reactions of ethylene and alcohols. E. R. Gilliland and R. J. Kallal. flow diag il diag Chem Eng Prog 49:647-52 D '53

Tough sledding for solvents; annual review. Chem Eng 61:198-9 Mr '54

Vapor phase nitration of aliphatic ethers, alcohols, ketones and carboxylic acids. H. B. Hass and D. E. Hudgin. bibliog Am Chem Soc J 76:2692-4 My 20 '54

See also

Alcohol
Amyl alcohol
Butyl alcohol
Esters
Isoöctyl alcohol
Methanol
Octyl alcohol

Analysis

Chromatographic separation of glycols and monohydric alcohols. S. Dal Nogare. diag Anal Chem 25:1874-7 D '53

Identification of polyhydric alcohols in polymeric esters. J. F. Shay, S. Skilling and R. W. Stafford. bibliog Anal Chem 26:652-6 Ap '54

Mass spectrometric analyses of some six- and seven-carbon alcohols. V. A. Yarborough. diags Anal Chem 25:1914-16 D '53

Semimicrodetermination of acetylation equivalents of alcohols. R. E. Kepner and A. D. Webb. diags Anal Chem 26:925-7 My '54

Semimicrodetermination of hydroxyl group in long chain alcohols. R. T. Blickenstaff, J. R. Schaeffer and G. G. Kathman. Anal Chem 26:746-8 Ap '54

Studies with *N*-halo reagents. P. F. Kruse, jr., K. L. Grist and T. A. McCoy. bibliog Anal Chem 26:1319-22 Ag '54

ALCOHOLYSIS

Studies in the hydrolysis and alcoholysis of some organic nitrites. A. D. Allen. Chem Soc J p 1968-74 Je '54

ALDEHYDES

Active hydrogen in aldehydes. J. A. King. Am Chem Soc J 76:3597-8 Jl 5 '54

Aldehydes derived from cortisone and hydrocortisone. W. J. Leanza and others. bibliog Am Chem Soc J 76:1691-4 Mr 20 '54

Aldehydes of the pyrrocoline series. D. O. Holland and J. H. Nayler. Chem & Ind p224 F 20 '54

αβ-Unsaturated aldehydes and related compounds; the homolytic addition of carbon tetrachloride to acraldehyde and its acetals. R. H. Hall and D. I. H. Jacobs. Chem Soc J p2034-9 Je '54

Aromatic cyclodehydration; cyclization of aldehydes, ketones and ketonitriles. C. K. Bradsher and W. J. Jackson, jr. bibliog Am Chem Soc J 76:734-8 F 5 '54

Aromatic electrophilic substitution by hydrogen; the mechanism of the acid-catalyzed decarboxylation of aromatic aldehydes. W. M. Schubert and R. E. Zahler. bibliog Am Chem Soc J 76:1-9 Ja 5 '54

β-Nitration of 2-thenaldehyde. W. O. Foye, J. J. Hefferren and E. G. Feldmann. bibliog Am Chem Soc J 76:1378-9 Mr 5 '54

Chemical reactions of complexes; reaction of hydrazides and aromatic *o*-oxy- and *o*-aminoaldehydes and ketones with nickel acetate. L. Sacconi. bibliog Am Chem Soc J 76:3400-2 Jl 5 '54

Condensation of acyclic aldehydes with *p*-nitrophenylacetic acid; crotonaldehyde, methacrylaldehyde and tiglaldehyde. H. J. Gunst, M. Tobkes and E. I. Becker. Am Chem Soc J 76:3595-6 Jl 5 '54

Condensation of aromatic aldehydes with 2-ethylpyridine and with 4-ethylpyridine. A. P. Phillips. bibliog Am Chem Soc J 76:3986-7 Ag 5 '54

Condensations with halogenated aldehydes; β,β,β-trichloro-α,α-bis-(halogenotolyl)-ethanes, β,β,β-trichloro-α,α-bis-(hydroxy-(or methoxy)-dichlorophenyl)-ethanes and related compounds. R. Riemschneider. il Am Chem Soc J 75:4853-5 O 5 '53

Epoxyethers; reaction of α-haloaldehydes with base. C. L. Stevens, E. Farkas and B. Gillis. bibliog Am Chem Soc J 76:2695-8 My 20 '54

Fused metal resinates from aldehyde-modified rosin. W. E. St Clair, J. C. Minor and R. V. Lawrence. bibliog Ind & Eng Chem 46:1973-6 S '54

Half-wave potentials of quinoline -6- and -7-carboxylic acids and aldehydes. F. J. Pinchin and J. T. Stock. Chem & Ind p347 Mr 20 '54

Hydantoins from alicyclic ketones and aldehydes. E. S. Rothman and A. R. Day. bibliog Am Chem Soc J 76:111-13 Ja 5 '54

Hydrazine; condensation products of aldehydes and ketones with salts of some substituted Δ^2-pyrazolines and hydrazines. M. Lamchen, W. Pugh and A. M. Stephen. Chem Soc J p2429-34 Jl '54

Identification of KCF; requirement of long-chain aldehydes for bacterial extract luminescence. M. J. Cormier and B. L. Strehler. bibliog Am Chem Soc J 75:4864-5 O 5 '53

Improved synthesis of perfluoroaldehydes. M. Braid, H. Iserson and F. E. Lawlor. Am Chem Soc J 76:4027 Ag 5 '54

Mechanism of aldehyde and primary alcohol oxidation. W. A. Mosher and D. M. Preiss. bibliog Am Chem Soc J 75:5605-7 N 20 '53

Oxidation of liquid aldehydes by molecular oxygen. J. R. McNesby and C. A. Heller, jr. bibliog Chem R 54:325-46 Ap '54

Preparation of aromatic aldehydes and ketones from diazonium salts. W. F. Beech. Chem Soc J p 1297-302 Ap '54

2-Pyrones; reactions of β-methylglutaconic anhydride with aldehydes. R. H. Wiley, E. L. DeYoung and N. R. Smith. Am Chem Soc J 76:1675-6 Mr 20 '54

Reaction of aldehyde and hydrogen peroxide in aqueous solution. C. N. Satterfield and L. C. Case. Ind & Eng Chem 46:998-1001 My '54

Reactions of aminoalcohol-aldehyde anhydro compounds. E. P. Goldberg and H. R. Nace. bibliog Am Chem Soc J 75:6260-2 D 20 '53

Reactions of methyl-α-D-mannoside with aldehydes. J. Honeyman and J. W. W. Morgan. Chem Soc J p744-6 F '54

Rearrangements of N-oxides; a novel synthesis of pyridyl carbinols and aldehydes. V. Boekelheide and W. J. Linn. bibliog Am Chem Soc J 76:1286-91 Mr 5 '54

Reduction of acids to aldehydes with formic acid. A. J. Barduhn and K. A. Kobe. Chem Soc J p 1651 My '54

ALDEHYDES—*Continued*

Solutions in sulphuric acid; cryoscopic measurements on some unsaturated aromatic ketones and aldehydes. R. J. Gillespie and J. A. Leisten. Chem Soc J p 1-7 Ja '54

See also

Acetaldehyde
Aldol
Benzaldehyde
Formaldehyde
Furfural
Glyoxal

Analysis

Determination of aldehydes in the presence of acids, ketones, acetals, and vinyl ethers. S. Siggia and E. Segal. bibliog Anal Chem 25:640-2 Ap '53

Determination of aldehydes in the presence of ketones and procedure for acetals. H. Siegel and F. T. Weiss. bibliog Anal Chem 26:917-19 My '54

Determination of aldehydes using the reaction with primary amines. S. Siggia and E. Segal. bibliog Anal Chem 25:830-1 My '53

Determination of epoxides with sodium sulfite. J. D. Swan. bibliog Anal Chem 26: 878-80 My '54

Estimation of free aldehyde groups in oxycelluloses. G. M. Nabar and C. V. Padmanabhan. bibliog Soc Dyers & Col J 69: 295-7 Ag '53

Infrared spectra for analysis of aldehyde and ketone 2,4-dinitrophenylhydrazones. J. H. Ross. bibliog Anal Chem 25:1288-303 S '53

Paper chromatography of aldehydes and ketones as Girard derivatives. R. B. Seligman and others. bibliog Chem & Ind p 1195 S 25 '54

Polarography of the quinoline-monocarboxylic acids and aldehydes. F. J. Pinchin and J. T. Stock. Chem & Ind p 1204 N 7 '53

ALDENS, Inc.

Profits in 1954 may approach $5 per share. Barron's 33:21-2 D 21 '53

ALDER

Chemical nature of the extractives from red alder. E. F. Kurth and E. L. Becker. bibliog Tappi 36:461-6 O '53

ALDOBIOURONIC acid

Two further aldobiouronic acids from hemicellulose-B of corn cob. R. L. Whistler and L. Hough. bibliog Am Chem Soc J 75:4918-19 O 20 '53

ALDOL

Role of metallic cation in aldol condensation of metallo esters with acetophenone to form β-hydroxy esters; reversal to Claisen acylation or self-condensation of the ketone. C. R. Hauser and W. H. Puterbaugh. bibliog Am Chem Soc J 75:4756-9 O 5 '53

ALDONIC acids

Analysis

Determination of aldonic acids in alkaline media. J. V. Karabinos, A. T. Ballun and R. L. McBeth. Anal Chem 25:1563 O '53

ALDOSES

Descent of the aldose series via *bis*-(ethylsulphonyl)-derivatives. L. Hough and T. J. Taylor. Chem & Ind p575-6 My 15 '54

ALDOSTERONE. See Hormones

ALDOXIMES. See Oximes

ALDRIN

Aldrin and dieldrin for UK; Shell chemicals, ltd. Chem Age (Lond) 70:223-5 Ja 16 '54

New insecticide plant in Holland. Chem & Ind p 1054 O 3 '53

To make dollar insecticides; Shell aldrin and dieldrin. Chem Age (Lond) 69:712 O 3 '53

Analysis

Determination of aldrin and dieldrin in formulations by partition chromatography. H. F. Beckman. Anal Chem 26:922-4 My '54

Physiological effect

Observations on toxicity of aldrin. W. L. Ball and others. bibliog A M A Archives Ind Hygiene & Occup Med 7:292-300 Ap '53

ALEUTIAN islands

Configuration of the Aleutian ridge; Rat islands, Semisopochnoi I to west of Buldir I. W. Gibson and H. Nichols. bibliog il maps diags Geol Soc Bul 64:1173-87, pl 1-2 O '53

ALFALFA

Alfalfa saponin. E. D. Walter and others. bibliog Am Chem Soc J 76:2271-3 Ap 20 '54

Chlorophyll from lucerne. Chem Age (Lond) 69:360 Ag 22 '53

Design of a rotary drier. G. Gutzeit and J. R. Spraul. bibliog il Chem Eng Prog 49:378-86 Jl '53

Isolation and characterization of constituents of alfalfa wax. E. H. Blair, H. L. Mitchell and R. E. Silker. bibliog Ind & Eng Chem 45:1104-6 My '53

ALFALFA meal

Antioxidant helps keep carotene in alfalfa meal. H. G. Moeller. Chem Eng 61:386-7 Ap '54

ALGAE

Algae control in the smaller waterworks. D. H. Matheson. Munic Util 91:54+ Ap '53; Same. Am Water Works Assn J 45:1238-44 N '53

Algae responsible for odor and taste in public water supplies. G. J. Turre. il Am Soc C E Proc 79 [no 267]:1-20 S '53

Amino-acids of marine algae. C. B. Coulson. bibliog Chem & Ind p971-2 S 12 '53

Biological value of algal proteins. A. E. Bender and others. Chem & Ind p 1340-1 D 12 '53

Control of blue-green algae blooms with 2,3-dichloronaphthoquinone. G. P. Fitzgerald and F. Skoog. Sewage & Ind Wastes 26:1136-40 S '54

Factors involved in disposal of sewage effluents to lakes. C. N. Sawyer. bibliog diags Sewage & Ind Wastes 26:317-25; Discussion. 325-8 Mr '54

Feed cycle; sewage disposal and algae. il Ind & Eng Chem 46:sup 15A+ F '54

Influence of iodoacetate on the sodium and potassium content of ulva lactuca and the prevention of its influence by light. G. T. Scott and H. R. Hayward. bibliog Science 117:719-21 Je 26 '53

Introduction to the study of rock building algae and algal limestones. J. H. Johnson. bibliog il diags Colorado School of Mines [Golden] Quarterly v 49 no 2:1-117 Ap '54 (pa $2.50)

New process turns sewage to cheap animal feed. il Chem Eng 61:372-4 My '54

Newer concepts of tastes and odors in surface water supplies. J. K. G. Silvey. bibliog il Water & Sewage Works 100:426-9 N '53

Northwest watersheds; algae and weed control. C. C. Casad. il Am Water Works Assn J 46:745-50 Ag '54

Occurrence of D-xylose and D-galactose in brown seaweeds. E. T. Dewar. bibliog Chem & Ind p785-6 Jl 3 '54

Polysaccharide from the alga ulva lactuca; purification, hydrolysis, and methylation of the polysaccharide. J. W. E. Brading, M. M. T. Georg-Plant and D. M. Hardy. Chem Soc J p319-24 Ja '54

Proteins of marine algae. C. B. Coulson. bibliog Chem & Ind p997-8 S 19 '53

Quaternary ammonium compounds from dodecylbenzene; algae control in industrial cooling systems. J. L. Darragh and R. D. Stayner. il Ind & Eng Chem 46:254-7 F '54

Relation of irrigation runoff to tastes and odors. J. K. G. Silvey. bibliog Am Water Works Assn J 45:1179-86 N '53

Scotland seeks new chemical derivatives from seaweed, founds research institute. For Comm W 51:24 F 15 '54

Scrub team wins with one pass; algae deposits at Argentine reservoir, Kansas City, Kan. il Eng N 151:239 O 8 '53

Structure of galactosylglycerol from irideae laminarioides. E. W. Putman and W. Z. Hassid. bibliog Am Chem Soc J 76:2221-3 Ap 20 '54

Taste and odor control in small water plants; problems caused by algae. D. H. Matheson. bibliog Water & Sewage Works 101:R 137-40 pt 2 My '54

See also

Chlorella

ALGEBRA

Alegbraic trick facilitates computation. D. S. Davis. Chem Eng 61:252+ Je '54

Application of Boolean algebra to the design of electronic switching circuits; abstract. S. H. Washburn. diags Elec Eng 73:164 F '54

ALGEBRA—*Continued*

Complex algebra for relay circuits. M. Raspanti. diags Elec Eng 72:992-3 N '53

Elements of Boolean algebra for the study of information-handling systems. R. Serrell. bibliog diags Inst Radio Eng Proc 41:1366-80 O '53; Correction. 42:475 F '54

See also
Matrices

ALGEBRAIC equations. See Equations, Algebraic

ALGEMENE kunstzijde unie N. V. (United rayon manufacturing corporation)

American shares offered. Comm & Fin Chr 178:2193 D 7 '53

ALGERIA

See also
Petroleum industry
and trade—Algeria

Economic policy

Second four-year development plan voted. For Comm W 50:7 O 5 '53

ALGERIANS in France

Algerians in Francè; problem. Economist 169:107-8 O 10 '53

ALGINATES

Alginates: colloids from seaweed. R. W. Moncrieff. il Chem Age (Lond) 69:1075-8 N 21 '53

Man-made fiber data sheets; (calcium-) alginate continuous filament yarn. P. A. Koch. bibliog(48 ref) diag Mod Textiles Mag 35:42+ F '54

Preparation and properties of some inorganic alginate fibres. M. J. Dudgeon and others. bibliog Soc Dyers & Col J 70:230-7 Je '54

ALICYCLIC compounds. See Cyclic compounds

ALIEN labor

Firms cautioned on recruiting abroad; Germany. For Comm W 50:15 N 30 '53

ALIEN property. See Enemy property

ALINEMENT charts. See Nomographs

ALINEMENT of machinery

Adapter corrects turret misalignment. N. Feinberg. diags Am Mach 98:148 Jl 19 '54

How to align X-2 loom lays for smooth-running looms. R. B. Pressley. diags Textile World 104:110-11+ Je '54

Main bearing bore alignment by telescope; Leitz alignment telescope. il Ry Loco & Cars 128:66-7 S '54

Now you can shoot your bearings in line; Farrand alignment telescope. W. B. Warner and R. H. Brenner. il Power 98:113-17 My '54

Preventing press failures; press alignment and speeds. A. F. Gagne, jr. il diag Tool Eng 32:54-6 Mr '54

Sag chart for bearing alignment; maintenance data sheet. Factory Management 112: 156 Mr '54

Special device assures correct front end alignment for ball joint suspensions; Ford motor co. il Automotive Ind 111:55+ S 15 '54

ALIPHATIC compounds

Aliphatic esters. G. Cohen and others. bibliog(38 ref) Ind & Eng Chem 45:1766-75 Ag '53

Application of high frequency oscillators. D. G. Flom and P. J. Elving. bibliog il diags Anal Chem 25:541-9 Ap '53

Molecular polarisability; its anisotropy in aliphatic and aromatic structures. C. G. Le Fèvre and R. J. W. Le Fèvre. Chem Soc J p 1577-88 My '54

Organo-boron compounds; preparation and properties of some aliphatic borates. S. Z. Haider, M. H. Khundkar and M. Siddiqullah. bibliog diags J Ap Chem 4:93-6 F '54

ALKALI halides

Alkali halides colored by colloidal metal. A. B. Scott, W. A. Smith and M. A. Thompson. bibliog J Phys Chem 57:757-60; Discussion. 760-1 N '53

Ac Hall and magnetostrictive effects in photoconducting alkali halides. J. R. Macdonald and J. E. Robinson. bibliog diag Phys R 95:44-50 Jl 1 '54

Effect of plastic flow upon color centers in alkali halide crystals. M. Ueta and W. Känzig. Phys R 94:1390 Je 1 '54

Electronic Hall effect in the alkali halides. A. G. Redfield. bibliog Phys R 94:537-40 My 1 '54

F-center wave functions in alkali halides. D. L. Dexter. bibliog Phys R 93:244-5 Ja 1 '54

Fabrication of alkali halide windows. R. Ryason. Opt Soc Am J 43:928 O '53

Interaction of color centers with their environment. J. J. Markham. bibliog diags J Phys Chem 57:762-72 N '53

Preparation and properties of pressed alkali halide disks with special reference to their use in spectroscopy. M. A. Ford and G. R. Wilkinson. bibliog il diag J Sci Instr 31: 338-41 S '54

Search for *F*-center luminescence. C. C. Klick. bibliog Phys R 94:1541-5 Je 15 '54

Shape of the *F* band. R. V. Hesketh and E. E. Schneider. Phys R 95:837-8 Ag 1 '54

Solid solutions of the alkali halides; the systems KBr-KCl-H$_2$O, RdBr-RbCl-H$_2$O^1 and RbBr-KBr H$_2$O^2 at 25°. G. S. Durham, E. J. Rock and J. S. Frayn. bibliog Am Chem Soc J 75:5792-4 D 5 '53

Thermal equilibrium between *F* centers and *M* centers in alkali halides. W. A. Smith and A. B. Scott. J Chem Phys 21:2096 N '53

X-ray coloration of alkali halides. D. L. Dexter. bibliog Phys R 93:985-92 Mr 1 '54

See also
Potassium iodide

Spectra

Effect of pressure on *F*-center absorption in alkali halides. I. S. Jacobs. bibliog diag Phys R 93:993-1004 Mr 1 '54

ALKALI industry

Complaints against chemical works; alkali inspectors report. Chem Age (Lond) 69: 275-8 Ag 8 '53

ALKALI metal borates

Energy relations in binary alkali borates. L. Shartsis and W. Capps. bibliog Am Cer Soc J 37:27-32 Ja 1 '54

ALKALI metal compounds

Chemistry of the alkali amides. R. Levine and W. C. Fernelius. Chem R 54:449-573 bibliog(p552-73) Je '54

ALKALI metal halides

See also
Salt

Spectra

Some regularities of the absorption band maxima of colored alkali metal halides. A. Glasner and F. C. Thompkins. bibliog J Chem Phys 21:1817-18 O '53

ALKALI metal hydrides

Addition compounds of alkali metal hydrides; sodium trimethoxyborohydride as a reducing agent for organic compounds. H. C. Brown and E. J. Mead. bibliog Am Chem Soc J 75:6263-5 D 20 '53

Polarizability of the hydride ion and the dipole moments and binding energies of the alkali metal hydrides. A. P. Altshuller bibliog J Chem Phys 21:2074-5 N '53

ALKALI metal oxides

Alkali metal-nickel oxides of the type MNiO$_2$. L. D. Dyer, B. S. Borie, jr. and G. P. Smith. bibliog Am Chem Soc J 76:1499-503 Mr 20 '54

ALKALI metals

Alkali metal-ammonia solutions; gross chemical differences. C. W. Keenan and W. J. Mc Dowell. bibliog Am Chem Soc J 76:2839 My 20 '54

Alkali metal-catalyzed amination of olefins. B. W. Howk and others. bibliog Am Chem Soc J 76:1899-902 Ap 5 '54

Alkali metals; launched into a new era. M. Sittig. il map Chem W 74:47-54 Je 26 '54

Electron-electron scattering in alkali metals. E. Abrahams. Phys R 95:839-40 Ag 1 '54

Electron transfer in alkali metal-hydrocarbon complexes. W. A. Holmes-Walker and A. R. Ubbelohde. diags Chem Soc J p720-8 F '54

Interaction of alkali metals and liquid ammonia. G. W. Watt, G. D. Barnett and L. Vaska. bibliog Ind & Eng Chem 46: 1022-4 My '54

ALKALI metals—*Continued*

Organometallic compounds of the alkali metals; metallation of alkylbenzenes by alkyl-sodium and -potassium compounds; the character of aromatic metallation reactions. D. Bryce-Smith. Chem Soc J p 1079-88 Mr '54

Properties and uses of alkali-metal catalyzed polymers. D. R. Hammel and M. H. Reich. bibliog diag Rubber World 130:510-12 Jl '54

See also

Cesium
Lithium
Potassium
Rubidium
Sodium

Analysis

Lacquer color filters for qualitative flame tests. J. A. Brown. J Chem Educ 30:363-4 Jl '53

See also

Lithium—Analysis

ALKALIES

Action of alkali on bromopyridopyrimidones. R. Adams and I. J. Pachter. bibliog Am Chem Soc J 76:1845-7 Ap 5 '54

Alkalies and glass; allied industries. H. W. Harrington and R. V. Yount. flow diag Glass Ind 35:488-90 S '54

Degradation of carbohydrates by alkali; lactulose, maltose, and maltulose. W. M. Corbett and J. Kenner. Chem Soc J p 1789-91 Je '54

Degradation of carbohydrates by alkali; 1-*O*-methylfructose, glucose, and fructose. J. Kenner and G. N. Richards. Chem Soc J p 1784-9 Je '54

Denaturation of hemoglobins by alkali. F. Haurowitz, R. L. Hardin and M. Dicks. bibliog J Phys Chem 58:103-5 F '54

Effect of alkali on linear polyurethans. E. Dyer and G. W. Bartels, jr. bibliog Am Chem Soc J 76:591-4 Ja 20 '54

Inconel pots for alkali fusions. R. S. Young and others. Metallurgia 48:318 D '53

New reactions involving alkaline treatment of 3-nitroso-2-oxazolidones. M. S. Newman and W. M. Edwards. bibliog Am Chem Soc J 76:1840-5 Ap 5 '54

Reactions of *cyclo*octatetraene; selective reduction by metals and alkalis or acids. W. O. Jones. Chem Soc J p 1808-13 Je '54

Sputtering of alkali atoms by inert gas ions of low energy. R. C. Bradley. bibliog diags Phys R 93:719-28 F 15 '54

Study of the action of alkalis on jute. W. G. Macmillan and others. bibliog Textile Inst J Trans 45:T703-15 S '54

Use of alkali and aluminium chloride in the spectral study of phenolic plant pigments. J. B. Harborne. bibliog Chem & Ind p 1142-3 S 11 '54

See also

Ammonia
Concrete, Effect of alkalies on
Potassium hydroxide
Sodium hydroxide

ALKALIMETRY

Acid-base titrations in nonaqueous solvents; review of past two years. J. A. Riddick. Anal Chem 26:77-84 bibliog(145 ref, p83-4) Ja '54

Alkalimetric determination of mercury and its separation from other heavy metals. M. N. Das. bibliog Anal Chem 25:1406-8 S '53

ALKALINE earth compounds

Complexes of alkaline earth cations including radium with amino acids and related compounds. J. Schubert. bibliog Am Chem Soc J 76:3442-4 Jl 5 '54

ALKALINE earth metals

Thermodynamic quantities associated with the interaction between ethylenediaminetetraacetate and alkaline earth ions. F. F. Carini and A. E. Martell. bibliog Am Chem Soc J 76:2153-7 Ap 20 '54

See also

Barium
Calcium
Strontium

Analysis

Flame photometric determination of alkali and alkaline earth elements in cast iron. D. F. Kuemmel and H. L. Karl. Anal Chem 26:386-91 F '54

Lacquer color filters for qualitative flame tests. J. A. Brown. J Chem Educ 30:363-4 Jl '53

ALKALINE earth phosphates

Alkaline earth orthophosphate phosphors. K. H. Butler. bibliog Electrochem Soc J 100:250-5 My '53

ALKALINE earth titanates

Phototropy of the alkaline earth titanates. W. M. MacNevin and P. R. Ogle. bibliog Am Chem Soc J 76:3846-8 Jl 20 '54

ALKALINITY

Carbonate alkalinity indicators. M. Brooke. bibliog J Chem Educ 30:419-20 Ag '53

See also

Hydrogen ion concentration

ALKALOIDS

Aconite alkaloids; oxonitine and oxoaconitine. W. A. Jacobs and S. W. Pelletier. bibliog Am Chem Soc J 76:4048-9 Ag 5 '54

Alkaloid studies; isolation of pilocereine and anhalonidine from four cactus species. C. Djerassi and others. bibliog Am Chem Soc J 76:3215-17 Je 20 '54

Alkaloids of achillea millefolium L; isolation and characterization of achilleine. F. M. Miller and Lee Ming Chow. bibliog Am Chem Soc J 76:1353-4 Mr 5 '54

Alkaloids of fumariaceous plants; thalictricavine, a new alkaloid from corydalis tuberosa DC. R. H. F. Manske. Am Chem Soc J 75:4928-9 O 20 '53

Alkaloids of glycosmis arborea; isolation of arborine and arborinine; the structure of arborine. D. Chakravarti, R. N. Chakravarti and S. C. Chakravarti. Chem Soc J p3337-40 N '53

Alkaloids of glycosmis pentaphylla (Retz.) DC. A. Chatterjee and S. G. Majumdar. bibliog Am Chem Soc J 76:2459-63 My 5 '54

Alkaloids of rauwolfia serpentina Benth; rescinnamine, a new hypotensive and sedative principle. M. W. Klohs, M. D. Draper and F. Keller. Am Chem Soc J 76:2843 My 20 '54

Alkaloids of senecio jacobaea L. R. B. Bradbury and C. C. J. Culvenor. Chem & Ind p 1021-2 Ag 14 '54

Alkaloids of veratrum eschscholtzii Gray; the ester alkaloids. M. W. Klohs and others. bibliog Am Chem Soc J 76:1152-3 F 20 '54

Alkaloids of veratrum fimbriatum Gray. M. W. Klohs and others. bibliog Am Chem Soc J 75:4925-7 O 20 '53

Biogenesis of pyrrocoline alkaloids. E. Wenkert. bibliog Chem & Ind p 1088-9 O 10 '53

Cholylamine esters. L. F. Fieser and W. Huang. bibliog Am Chem Soc J 75:6306-7 D 20 '53

Cleavage of biscoclaurine alkaloids with sodium in liquid ammonia; curine and chondrocurine. I. R. C. Bick and P. S. Clezy. Chem Soc J p3893-6 D '53

Common degradation product of oxindole alkaloids. E. Wenkert and T. L. Reid. bibliog Chem & Ind p 1390 D 26 '53

Conformation of alkaloids; morphine. A. K. Bose. bibliog il Chem & Ind p 130-1 Ja 30 '54

Constitution of yohimbine and related alkaloids synthesis of 5:6:7:8-tetrahydro-*iso*quinoline-3-carboxylic acid. R. M. Anderson, G. R. Clemo and G. A. Swan. Chem Soc J p2579-81 Jl '54

Insecticidal principles of haplophyton cimicidum; haplophytine. H. R. Snyder and others. bibliog Am Chem Soc J 76:2819-25 My 20 '54

Isolation of δ-yohimbine and a new related alkaloid from rauwolfia serpentina Benth. F. L. Weisenborn and others. bibliog Chem & Ind p375-6 Mr 27 '54

Occurrence of alkaloids in dioscorea. J. J. Willaman and others. Science 118:329-30 S 18 '53

Oxindole alkaloids. J. W. Cook and others. bibliog Chem & Ind p640-1 Je 27 '53

Pratol, lycorine and erythrina alkaloids. R. Robinson. bibliog Chem & Ind p 1317 D 5 '53

*pseudo*Carpaine, a new alkaloid from carica papaya L. T. R. Govindachari, B. R. Pai and N. S. Narasimhan. Chem Soc J p 1847-9 Je '54

ALKALOIDS—*Continued*

Rauwolfia alkaloids; isolation and characterization of two new alkaloids from rauwolfia serpentina Benth. N. Neuss, H. E. Boaz and J. W. Forbes. bibliog Am Chem Soc J 76:3234-6 Je 20 '54

Rauwolfia serpentina alkaloids; structure of reserpine. N. Neuss, H. E. Boaz and J. W. Forbes. bibliog Am Chem Soc J 76:2463-7 My 5 '54

Riddelliine, the alkaloid from senecio riddellii; the structure of riddellic acid and the total structure of riddelliine. R. Adams and B. L. Van Duuren. bibliog Am Chem Soc J 75:4638-42 O 5 '53

Schoenocaulon alkaloids; on the nature of the veracevine-cevagenine-cevine isomerizations. S. M. Kupchan and D. Lavie. Am Chem Soc J 76:314-15 Ja 5 '54

Separation of alkaloids of veratrum species. W. G. H. Edwards. Chem & Ind p488-9 My 16 '53

Skeleton of the garrya alkaloids and atisine. K. Wiesner and others. Chem & Ind p 132-3 Ja 30 '54

Steroidal alkaloids; abstract. D. H. R. Barton. Chem & Ind p 101-2 Ja 23 '54

Steroidal alkaloids; some observations on the constitution of cevine. D. H. R. Barton, C. J. W. Brooks and J. S. Fawcett. Chem Soc J p2137-43 Je '54

Structure of pithecolobine. K. Wiesner, D. M. MacDonald and C. Bankiewicz. Am Chem Soc J 75:6348-9 D 20 '53

Syntheses in the series of erythrina alkaloids. A. J. Manson and K. Wiesner. Chem & Ind p641-2 Je 27 '53

Synthesis of erythrinane. B. Belleau. bibliog Am Chem Soc J 75:5765-6 N 20 '53

Transformation of pseudosapogenins to steroid alkaloids. F. C. Uhle. Am Chem Soc J 76:4245-6 Ag 20 '54

Usaramoensine, the alkaloid in crotalaria usaramoensis E. G. Baker; integerrimine from crotalaria incana Linn and senecionine from senecio glabellus D.C.; stereochemical relationships. R. Adams and B. L. Van Duuren. bibliog Am Chem Soc J 75:4631-5 O 5 '53

See also

Ajmaline
Aporphine
Bufotenine
Calycanthine
Carpaine
Cevacine
Colchicine
Delphinine
Emetine
Jervine
Lycoramine
Lysergic acid
Nicotine
Reserpine
Serpentine (alkaloid)
Tropine
Veratrine
Yohimbine

Analysis

Isolation of crystalline hypotensive veratrum ester alkaloids by chromatography. S. M. Kupchan and C. V. Deliwala. bibliog Am Chem Soc J 75:4671-2 O 5 '53

Systematic toxicological analysis by spectrophotometric methods; alkaloidal poisons. E. Berman and H. N. Wright. A M A Archives Ind Hygiene & Occup Med 8:518-27 D '53

ALKANES. See Paraffins

ALKENES. See Olefins

ALKENYLATION

Alkenylation employing lithium alkenyls; studies on alkadienyl derivatives. E. A. Braude and E. A. Evans. Chem Soc J p607-15 F '54

ALKOXIDES. See Alcoholates

ALKOXY compounds

New synthesis of 1,2-dialkoxyethanes. L. A. Gist, jr. and C. T. Mason. Am Chem Soc J 76:3728-9 Jl 20 '54

Researches on acetylenic compounds; a new method for the preparation of alkoxyacetylenes. G. Eglinton and others. Chem Soc J p 1860-5 Je '54

ALKOXY group

Action of Grignard reagents on *O*-, *M*- and *P*-alkoxymethylanilines. F. G. Mann and F. H. C. Stewart. Chem & Ind p373-4 Mr 27 '54

Paper chromatography of some alkoxy acids. J. H. Nair, 3d. bibliog Anal Chem 25:1912 D '53

ALKYD resins. See Resinous products

ALKYL azides

Alkyl and aryl azides. J. H. Boyer and F. C. Canter. Chem R 54:1-57 bibliog(p48-57) F '54

ALKYL bromides

Formation of alkyl bromides by thionyl bromide. M. J. Frazer and others. bibliog Chem & Ind p931-2 Jl 24 '54

Isomerization of saturated hydrocarbons; the effect of experimental variables, alkyl bromides and light upon the isomerization of methylcyclopentane in the presence of aluminum bromide. H. Pines, E. Aristoff and V. N. Ipatieff. bibliog Am Chem Soc J 75:4775-8 O 5 '53

Unsymmetrical tetraalkylmethanes; coupling of alkylmagnesium bromides with tertiary bromides. N. Rabjohn and M. J. Latina. bibliog Am Chem Soc J 76:1389-90 Mr 5 '54

ALKYL chlorides

Fluid bed oxidation of HCl produces alkyl chlorides from waste HCl; patent. diag Chem Eng 60:392+ O '53

Influence of structure, phase and added chlorine on the organic yields of the $Cl^{37}(n,\gamma)Cl^{38}$ reaction in alkyl chlorides. J. C. W. Chien and J. E. Willard. bibliog Am Chem Soc J 75:6160-5 D 20 '53

Preparation of basic alcohols and basic alkyl chlorides which contain a 1-hexa-, 1-hepta- or 1-octamethylenimino radical. F. F. Blicke and N. J. Doorenbos. bibliog Am Chem Soc J 76:2317-22 My 5 '54

Steric relations between ionisation of aralkyl chlorides and dissociation of anilinium ions. G. Baddeley, J. Chadwick and H. T. Taylor. Chem Soc J p2405-9 Jl '54

ALKYL compounds

Dicyclic hydrocarbons; 1-alkylnaphthalenes and some of their tetrahydro derivatives. H. F. Hipsher and P. H. Wise. bibliog Am Chem Soc J 76:1747-8 Ap 5 '54

ALKYL fluorides

Some physical properties of *n*-alkyl fluorides. G. H. Jeffery and others. Chem & Ind p 1045 Ag 21 '54

ALKYL group

Alkylbenzenes. H. E. Bramston-Cook and W. E. Elwell. bibliog il Ind & Eng Chem 46:1922-4 S '54

Elimination of non-angular alkyl groups in aromatisation reactions. W. Cocker and D. S. Jenkinson. Chem Soc J p2420-3 Jl '54

Influence of alkyl groups upon reaction velocities in solution. D. P. Evans and J. R. Young. Chem Soc J p 1310-18 Ap '54

Kinetics of the catalytic cracking of alkylbenzenes. H. F. Rase and R. S. Kirk. bibliog(28 ref) flow diag Chem Eng Prog 50:35-44 Ja '54

Properties and reactions of free alkyl radicals in solution; reactions with *N*-halogenoanilides. M. C. Ford, L. J. Hunt and W. A. Waters. Chem Soc J p3529-33 N '53

Studies on the chlorination of the side chains of alkylaromatic compounds. P. G. Harvey and others. bibliog J Ap Chem 4:319-25 Je '54; Abstract and discussion. Chem & Ind p300-1 Mr 13 '54

Synthesis and reactions of branched-chain hydrocarbons; α-hydroxy-ketones with secondary and tertiary alkyl groups. W. J. Hickinbottom, A. A. Hyatt and M. B. Sparke. Chem Soc J p2529-33 Jl '54

Analysis

Oxidation of *N*-alkylarylamines; identification of *N*-alkyl groups. F. W. Neumann and C. W. Gould. bibliog(55 ref) il diags Anal Chem 25:751-9 My '53

ALKYL halides

Addition compounds of aluminum halides with alkyl halides. H. C. Brown and W. J. Wallace. bibliog Am Chem Soc J 75:6279-85 D 20 '53

Diffusion kinetics of atom-radical recombination in radiative neutron capture by halogens in liquid alkyl halides. J. C. Roy, R. R. Williams, jr. and W. H. Hamill. bibliog Am Chem Soc J 76:3274-8 Je 20 '54

Mechanism of substitution at a saturated carbon atom; halide-ion exchange with a simple alkyl halide in sulphur dioxide solution. C. A. Bunton and others. Chem Soc J p642-6 F '54

ALKYL halides—*Continued*

Mechanism of substitution at a saturated carbon atom; Menschutkin reactions of some simple alkyl halides in sulphur dioxide solution. C. A. Bunton and others. Chem Soc J p647-51 F '54

Organic chemistry of phosphorus; the action of triphenyl phosphite dihalides on alcohols; two further new methods for the preparation of alkyl halides. D. G. Coe, S. R. Landauer and H. N. Rydon. Chem Soc J p2281-8 Jl '54

Reaction of silver nitrate with primary alkyl halides. N. Kornblum, B. Taub and H. E. Ungnade. bibliog Am Chem Soc J 76:3209-11 Je 20 '54

Reactivity of primary alkyl halides with sodium thiocyanate. T. I. Crowell. bibliog Am Chem Soc J 75:6046-7 D 5 '53

ALKYL iodides

Effect of temperature on the absorption spectrum of iodine in the alkyl iodides. D. E. Schuler and R. H. Schuler. Am Chem Soc J 76:3092-4 Je 5 '54

Photolysis and radiolysis of liquid alkyl iodides. E. L. Cochran, W. H. Hamill and R. R. Williams, jr. bibliog Am Chem Soc J 76:2145-8 Ap 20 '54

ALKYL nitrates

Preparation and properties of some alkyl β-D-glucopyranoside tetranitrates. D. M. Shepherd. Chem Soc J p3635-7 N '53

ALKYL phenols. See Phenols

ALKYL silicates

Viscosity-temperature properties of alkyl silicates. C. R. Morgan and W. F. Olds. Ind & Eng Chem 45:2592-4 N '53

ALKYL sulfates

Chloroform extraction of ferrous-dipyridyl and *O*-phenanthroline complexes with the aid of alkyl sulphates and sulphonates. R. Powell and C. G. Taylor. Chem & Ind p726-7 Je 19 '54

ALKYLATION

Action of aluminum chloride as a catalyst in alkylation reactions. C. R. Raha. Am Chem Soc J 76:622-3 Ja 20 '54

Alkylation at ready; alkylate supply temporarily loosens. Chem W 73:72-4+ O 24 '53

Alkylation of cellulose with esters of *p*-toluenesulfonic acid. J. W. Weaver, C. A. Mackenzie and D. A. Shirley. bibliog Ind & Eng Chem 46:1490-3 Jl '54

Alkylation of cyclopropyl phenyl ketone. F. J. Piehl and W. G. Brown. bibliog Am Chem Soc J 75:5023-6 O 20 '53

Alkylation of duryl phenyl ketone with the Grignard reagent. R. C. Fuson and J. P. Freeman. Am Chem Soc J 76:911-12 F 5 '54

Aromatic alkylation; intact alkylation of benzene and toluene with diisobutene. R. A. Sanford, S. M. Kovach and B. S. Friedman. bibliog Am Chem Soc J 75:6326-7 D 20 '53

Autocatalysis in aromatic alkylations; the reaction of phenols with triphenylmethyl chloride. H. Hart and F. A. Cassis. bibliog Am Chem Soc J 76:1634-9 Mr 20 '54

Chemical Engineering unit processes. R. N. Shreve. il Ind & Eng Chem 45:1903-12 bibliog(248 ref, p 1909-12) S '53

Chemical engineering unit processes. R. N. Shreve. il Ind & Eng Chem 46:1789-99 bibliog(249 ref, p 1797-8) S '54

Friedel-Crafts alkylation of methyl 2-furoate. C. D. Hurd and G. L. Oliver. bibliog Am Chem Soc J 76:50-1 Ja 5 '54

Friedel-Crafts alkylation reaction catalysts and complexes. H. C. Brown and others. bibliog(75 ref) Ind & Eng Chem 45:1462-9 Jl '53

High pressure alkylation of isobutane with propylene. J. E. Knap, E. W. Comings and H. G. Drickamer. bibliog(29 ref) il diag Ind & Eng Chem 46:708-13 Ap '54

Inhibition of phenol alkylations by ethers; kinetic evidence for phenol-ether complexes. H. Hart, F. A. Cassis and J. J. Bordeaux. bibliog Am Chem Soc J 76:1639-41 Mr 20 '54

Interpretation of meta orientation in the alkylation of toluene; the relative reactivity and isomer distribution in the chloromethylation and mercuration of benzene and toluene. H. C. Brown and K. L. Nelson. bibliog Am Chem Soc J 75:6292-9 D 20 '53

Isomerization accompanying the alkylation of benzene with 1-chloro-3,3- and with 2-chloro-2,3-dimethylbutane. L. Schmerling and J. P. West. bibliog Am Chem Soc J 76:1917-21 Ap 5 '54

N-alkylation of nitriles in presence of silver sulphate. J. Cast and T. S. Stevens. Chem Soc J p4180-1 D '53

O-alkylation of 3-acyloxindoles. E. Wenkert, A. K. Bose and T. L. Reid. bibliog Am Chem Soc J 75:5514-16 N 20 '53

Simple method for alkylation of ketones offers good yields. Chem & Eng N 32:1670 Ap 26 '54

Stereochemistry of aromatic alkylations; direct nucleophilic displacement in phenols. H. Hart and H. S. Eleuterio. Am Chem Soc J 76:516-19 Ja 20 '54

Stereochemistry of aromatic alkylations; the thermal rearrangement of alkyl aryl ethers. H. Hart and H. S. Eleuterio. bibliog Am Chem Soc J 76:519-22 Ja 20 '54

Sulfonic acid esters as alkylating agents; formation of 2-oxazolines. R. N. Boyd and R. H. Hansen. bibliog Am Chem Soc J 75:5896-7 D 5 '53

Sulfuric acid alkylation. D. H. Putney and O. J. Webb. flow diag diag Pet Refiner 32:104-6+ S '53

See also
Methylation

ALKYLOLAMIDES

Bar form detergents. W. B. Reinisch. Soap & Chem Spec 30:93+ S '54

Foam stabilization by alkylolamides. H. L. Sanders and E. A. Knaggs. bibliog Soap & San Chem 29:45-8+ Je '53

ALL American engineering company

Trying to broaden out; has military research contracts, but wants some civilian work. il Bsns W p 194+ N 21 '53

ALLEGHANY corporation

Security I like best. M. F. Beal. Comm & Fin Chr 179:254 Ja 21 '54

ALLEGHENY county, Pennsylvania

Industries

Pittsburgh industrial area. F. Fugassi. il Electrochem Soc J 100:sup 117C-22C My '53

ALLEGHENY Ludlum steel corporation

Investors; how to keep them coming; security analysts tour Allegheny Ludlum operations. J. B. Delaney. Iron Age 172:51 O 29 '53

ALLEN-KLAPP company

Allen-Klapp 50; selling space different in '03. Ed & Pub 86:140 Ap 25 '53

ALLENE

Addition of free radicals to unsaturated systems; the direction of free-radical addition to allene and allyl chloride. R. N. Haszeldine, K. Leedham and B. R. Steele. Chem Soc J p2040-2 Je '54

Spectrum

Rotation-vibration spectra and structure of the allene molecule. R. C. Lord. Opt Soc Am J 44:256 Mr '54

Vibration-rotation bands and molecular structure of allene. J. Overend and H. W. Thompson. bibliog Opt Soc Am J 43:1065-70 N '53

ALLENTOWN, Pennsylvania

Water supply

Allentown stays ahead of increasing water demands. H. J. Krum. il Water & Sewage Works 101:139-43 Ap '54

ALLERGY

Allergic employee; atopic dermatoses. M. S. Tenbrinck. Ind Med 22:358-9 Ag '53

Allergic reaction to materials in food containers. T. G. Randolph. Paper Tr J 138:32 F 5 '54

Allergy and occupational diseases. E. Sidi and others. bibliog Ind Med 22:93-8 Mr '53

ALLERGY—*Continued*

Incidence of respiratory allergy. W. B. Blanton and others. bibliog Ind Med 22:99-102 Mr '53

Occupational allergic reactions among workers in a penicillin-manufacturing plant. A. E. Roberts. A M A Archives Ind Hygiene & Occup Med 8:340-6 O '53

Review of pollenosis and the role of weeds. W. C. Spain. bibliog Pub Health Rep 68:885-9 S '53

Soap, detergent product liability. J. D. Conner and G. A. Burroughs. bibliog Soap & Chem Spec 30:42-5+ My; 48-50 Je '54

See also

Antigens and antibodies

ALLERÖD period. See Glacial epoch

ALLETHRIN

Allethrin; plant processes. H. J. Sanders and A. W. Taff. bibliog flow sheets il Ind & Eng Chem 46:414-26 Mr '54

Coincidence on purpose; allethrin trio, benzol, carbide and U.S.I. Chem W 73:58 Jl 18 '53

New U.S.I. allethrin plant. il Soap & San Chem 29:148-9+ F '53

Analysis

Analysis of commercial allethrin. J. N. Hogsett, H. W. Kacy and J. B. Johnson. bibliog Anal Chem 25:1207-11 Ag '53

Colorimetric determination of pyrethrins, allethrin, and furethrin. C. Cueto and W. E. Dale. bibliog Anal Chem 25:1367-9 S '53

ALLETHROLONE

Analysis

Spectrophotometric assay of allethrolone. S. K. Freeman. bibliog Anal Chem 25:645-6 Ap '53

ALLIED products corporation

Prospects are favorable. Barron's 33:35-7 Ag 31 '53

ALLIED stores corporation

One out of every 12 U.S. homes is its customer. J. M. Galanis. Barron's 34:15-17 Ja 25 '54

Ringing up new sales record this year. Barron's 33:29-30 D 14 '53

ALLIUM

Products of the reaction between thiamine and ingredients of the plants of allium genus; detection of allithiamine and its homologs. T. Matsukawa and others. bibliog Science 118:325-7 S 18 '53

ALLOPREGNANE

Ring C ketols in the hecogenin and allopregnane series. G. P. Mueller and others. bibliog Am Chem Soc J 75:4892-7 O 20 '53

ALLOPREGNANEDIONE

Chemical transformation of steroids by adrenal perfusion; allopregnane-21-ol-3,20-dione. A. S. Meyer. Science 118:101-2 Jl 24 '53

Conversion of hecogenin and manogenin into derivatives of allopregnane-12,20-dione. G. P. Mueller, R. E. Stobaugh and R. S. Winniford. bibliog Am Chem Soc J 75:4888-92 O 20 '53

ALLOTHREONINE

Improved separation of DL-threonine from DL-allothreonine by paper chromatography. T. L. Hardy and D. O. Holland. Chem & Ind p517-18 My 1 '54

ALLOTROPY

Allotropy of sulfur. S. B. Butler. J Chem Educ 31:187 Ap '54

ALLOXAZINE

Pteridines; the structure of Weiland's bisalloxazine. E. C. Taylor, jr., C. K. Cain and H. M. Loux. bibliog Am Chem Soc J 76:1874-6 Ap 5 '54

ALLOYOHIMBINE

Conformation of rauwolscine, alloyohimbine and their congeners. A. Chatterjee and others. bibliog Chem & Ind p491-2 Ap 24 '54

ALLOYS

Alphabetical list of some of the more common refinery alloys and steels. W. L. Nelson. Oil & Gas J 52:153 S 14; 169 O 12; 164 N 9; 137 D 7 '53; 100 Ja 4 '54

Band structure in disordered alloys and impurity semiconductors. H. M. James and A. S. Ginzbarg. bibliog J Phys Chem 57:840-8 N '53

Corrosion of Durimet 20 and Carpenter 20 by nitric acid as function of temperature. M. G. Fontana. Ind & Eng Chem 45:sup91A-2A+ Jl '53

Decay of lattice defects frozen into an alloy by quenching. A. E. Roswell and A. S. Nowick. bibliog J Metals 5:Trans 1259-66 sec 2 S '53; Discussion. 6:Trans 672-3 sec 2 My '54

Directionality affects physical properties of wrought metals. H. A. Unckel. bibliog Iron Age 172:170-3 S 10 '53

Economies and conservation with newer or higher alloys. F. A. Guba. Tappi 37:sup 148A-50A Ag '54

High temperatures and pressures affect corrosion resistance of casting alloys; abstract. F. H. Beck and M. G. Fontana. Materials & Methods 39:169-70 Ja '54

Hydrogen-deuterium exchange on copper, silver, gold and alloy surfaces. R. J. Mikovsky, M. Boudart and H. S. Taylor. bibliog diag Am Chem Soc J 76:3814-19 Jl 20 '54

Metals and alloys review and forecast. bibliog il diags Iron Age 173:310-13 Ja 7 '54

New technique for preparing homogeneous alloys. P. Levesque. diags J Metals 6:Trans 772-3 Je '54

Periodic impurities in a periodic lattice. E. H. Kerner. diag Phys R 95:687-9 Ag 1 '54

Repair welding of ceramic-coated alloys. J. M. Riordan. bibliog il Welding J 32:1160-6 D '53

Sigma phase in binary alloys. P. Greenfield and P. A. Beck. bibliog(28 ref) J Metals 6:Trans 253-7 sec 2 F '54; Correction. 6: Trans 758 Je '54

Superconducting alloys. B. T. Matthias and E. Corenzwit. Phys R 94:1069 My 15 '54

Technical progress; materials and metallurgy. il Steel 134:254-5+ Ja 4 '54

Theoretical analysis of diffusion of solutes during the solidification of alloys. C. Wagner. bibliog J Metals 6:Trans 154-60 F '54

Vacuum melting for special alloys; GE-process. R. McKechnie. il Chem & Eng N 32:3358 Ag 23 '54

See also

Aluminum alloys
Amalgams
Bearing metals
Beryllium alloys
Brass
Bronze
Cobalt alloys
Copper alloys
Invar
Iron alloys
Lead alloys
Magnesium alloys
Monel metal
Nickel alloys
Solutions, Solid
Steel alloys
Tin alloys
Zinc alloys

Analysis

Qualitative analysis of alloys containing titanium and vanadium. L. Lehrman and others. bibliog J Chem Educ 31:310-12 Je '54

ALLOYS, Heat resisting

Alloys for high-temperature service (investigation of the fundamental factors promoting high-temperature strength of alloys); abstract. R. L. Beck and others. Metal Prog 66:supA 191-3 Jl 15 '54

Al-Fe and new Al-Mo-Fe alloys show excellent oxidation resistance and low corrosion by some aqueous solutions. M. G. Fontana. il Ind & Eng Chem 46:sup85A-6A+ My '54

Aluminum-six per cent magnesium wrought alloys for elevated-temperature service. K. Grube and L. W. Eastwood. Am Soc for Metals Trans 44:336-47 '52

Big future for non-strategic hi-temperature alloy; Thermenol. C. W. Lufcy. il Steel 135:88-9 Ag 2 '54

Carboloy's new high temperature alloy in production. Iron Age 174:77 Ag 5 '54

Cast high alloys. E. A. Schoefer. il Chem Eng 60:298+ O '53

Casting institute study may alter alloy use. A. M. Hall. Foundry 82:255 Mr '54

Chromium diffusivity in alpha cobalt-chromium solid solutions. J. W. Weeton. bibliog il diag Am Soc for Metals Trans 44:436-49; Discussion. 449-51 '52

Diffusion of chromium in alpha cobalt-chromium solid solutions. J. W. Weeton. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:397-411 '52

ALLOYS, Heat resisting—*Continued*

Doing more with less nickel; Alloy casting institute does work on low-nickel alloys to prepare for future shortages. E. A. Schoefer. il Steel 133:134-5 Ag 3 '53

Fabricating high temperature metals into jet-engine afterburners; Ryan aeronautical co. L. Limbach. il Mach 60:174-81 Jl '54

Factors which influence weld hot cracking. W. R. Apblett and W. S. Pellini. il diags Welding J 33:sup83-90 F '54

Fasteners for high temperature service. J. L. Everhart. il Materials & Methods 40:104-6 S '54

Further progress in the development of Mg-Zr alloys to give good creep and fatigue properties between 500° and 600° F. C. J. P. Ball and others. bibliog il J Metals 5: Trans 924-31 Jl '53; Discussion. 6:Trans 694-8 sec 2 My '54

Future jet blades; castings or forgings? W. H. Woodward. il Steel 133:119 Ag 10 '53

Heat and corrosion resistant materials. il Steel 133:173+ O 12 '53

Heat resisting alloys. T. Bishop. Metal Prog 65:124+ Ja '54

Heat-resisting alloys; supplement to 1948 edition of Metals handbook. Metal Prog 66: 42-8 Jl 15 '54

High alloy castings conference; Harbor Island corrosion testing station of International nickel co. Chem Eng 60:320+ S '53

High alloy castings in heat treating equipment. E. A. Schoefer. il Materials & Methods 38:194+ D '53

High alloy castings reduce steel plant maintenance. il Iron & Steel Eng 31:132+ Ap '54

High alloy castings resist high temperatures. il Iron & Steel Eng 30:130+ O '53; Excerpts. Steel 133:208-9 D 7 '53

High performance jet engine design dependent upon metallurgical ingenuity. I. Perlmutter. il diag J Metals 6:113-18 F '54

High purity chromium, key to better alloys. H. L. Gilbert and H. A. Johansen. bibliog il Iron Age 173:93-6 Ja 21 '54

High temperature alloys; air force machinability report. Iron Age 174:112-14 Jl 22 '54

How to machine high-temperature alloys; forum of the Society of automotive engineers national aeronautic meeting. il Aviation W 59:30-3 Ag 10 '53

How to reduce failures in high temperature alloys. W. E. Jones. il Iron Age 172:137-41 Jl 9 '53

Jet metals. W. G. Hubbell. il Aeronautical Eng R 12:31-6 S '53

Low-cost alloys offer good heat resistance. R. W. Boring. il Iron Age 173:137-41 F 18; 146-8 Mr 11 '54

Magnesium casting alloys for elevated temperatures. K. Rose. il Materials & Methods 40:87-9 Jl '54

Materials for high temperature service; superalloys. H. R. Clauser. Materials & Methods 39:128-31 Ap '54

Metallurgical aspects of the development of small gas turbines; Boeing airplane co. W. L. Slosson. il diag J Metals 5:1419-26 N '53

Metallurgy; new iron-aluminum alloy may cut nickel, cobalt needs. Iron Age 173:85 Mr 11 '54

Metals and marine engineering; Institute of metals presidential address. S. F. Dorey. Metallurgia 49:235-40 My '54

New heat resistant alloy; nickel-chromium-iron alloy suitable for service to 2200 F. M. N. Ornitz and R. H. English. il Materials & Methods 39:82-5 Ja '54

New high temperature alloy; NA22H. M. G. Fontana. il Ind & Eng Chem 45:sup95A-6A+ S '53

Newcomer picks new vacuum alloys backed by research. il Steel 135:102 Ag 16 '54

Nominal compositions of typical high strength heat resisting alloys and limited stress rupture data; tabulation; engineering file facts. J. B. Meierdirks, jr. Materials & Methods 38:139 S '53; Correction. 40: 137 Jl '54

Rationalization of measured high temperature properties of Fe-Cr-Co-Ni alloys. J. D. Nisbet and W. R. Hibbard, jr. bibliog il J Metals 5:Trans 1149-65 sec 2 S '53

Sintered titanium carbides open new industrial horizons. J. W. Graham. il Iron Age 172:148-52 Ag 13 '53

Take a look at your reactor assets; materials for potential atomic energy applications. M. C. Udy and others. il Steel 134:166-9 Mr 8 '54

Titanium alloys give promise of high temperature applications. F. A. Crossley and H. D. Kessler. bibliog J Metals 6:119-21 F '54

Welding high-temperature materials. F. H. Stevenson. il Tool Eng 32:73-6 Je '54

Testing

Apparatus for the determination of the solidus temperatures of high-melting alloys. R. A. Oriani and T. S. Jones. il diag R Sci Instr 25:248-50 Mr '54

Carbide reactions in high temperature alloys. J. R. Lane and N. J. Grant. bibliog il Am Soc for Metals Trans 44:113-34; Discussion. 134-7 '52

Evaluation of superheater materials for high-temperature steam. B. Ronay and W. E. Claütice. il diags Welding J 33:sup 199-206 Ap '54

Experimental superheater for steam at 2000 psi and 1250 F; progress report after 12,000 hours of operation. F. Eberle and others. il diags A S M E Trans 76:665-75; Discussion. 675-7 My '54

High temperature test data and their importance in design. H. C. Cross. il Product Eng 24:182-7 O '53

Measurement of the electrical resistance of metals and alloys at high temperatures. P. Chiotti. il diags R Sci Instr 25:876-83 S '54

ALLOYS, Low melting

Low-melting alloys provide low-cost method to spin re-entrant shapes. D. Sams and J. Borodavchuk. il diags Am Mach 98:145-7 F 15 '54

ALLYL bromide

Addition of some acyl hypobromites to allyl bromide. W. G. H. Edwards and R. Hodges. Chem Soc J p761-2 F '54

ALLYL chlorides

Addition of free radicals to unsaturated systems; the direction of free-radical addition to allene and allyl chloride. R. N. Haszeldine, K. Leedham and B. R. Steele. Chem Soc J p2040-2 Je '54

Allylic chlorides; 3-chloro-2-phenyl-1-propene. L. F. Hatch and T. L. Patton. bibliog Am Chem Soc J 76:2705-7 My 20 '54

Pyrolysis of chloroalkenes; allyl chloride. A. M. Goodall and K. E. Howlett. Chem Soc J p2596-9 Jl '54

ALLYL compounds

Acylation and allied reactions catalysed by strong acids; the allyl and some related cations. H. Burton and D. A. Munday. Chem Soc J p 1456-60 My '54

Additions of chloroform and carbon tetrachloride in allylic monomers. F. M. Lewis and F. R. Mayo. bibliog Am Chem Soc J 76:457-64 Ja 20 '54

Claisen rearrangement; substituted allyl ethers in the *para* rearrangement. E. N. Marvell and others. bibliog Am Chem Soc J 76:1922-6 Ap 5 '54

Kinetics and mechanisms of nucleophilic displacements in allylic systems; reactivities of allylic halides by the S_N1 mechanism of hydrolysis. C. A. Vernon. Chem Soc J p423-8 Ja '54

Kinetics and mechanisms of nucleophilic displacements in allylic systems; solvolysis and the accompanying rearrangement of 1 : 1- and of 3 : 3-dimethylallyl chloride. P. B. D. de la Mare and C. A. Vernon. Chem Soc J p2504-10 Jl '54

Kinetics and mechanisms of nucleophilic displacements in allylic systems; the reaction of 1 : 1-dimethylallyl chloride with the thiophenoxide ion. P. B. D. de la Mare and C. A. Vernon. Chem Soc J p3555-9 N '53

Neighboring carbon and hydrogen; 1,3-interactions and homoallylic resonance. M. Simonetta and S. Winstein. bibliog Am Chem Soc J 76:18-21 Ja 5 '54

Synthesis and polymerization of some allyl esters of carbamic acid. C. E. Gleim. Am Chem Soc J 76:107-11 Ja 5 '54

ALLYL ethers. See Ethers

ALLYLMERCAPTOMETHYLPENICILLIN. See Penicillin O (allylmercaptomethylpenicillin)

ALNICO

Factors determining the permanent magnet properties of single crystals of Fe_2NiAl. E. A. Nesbitt and others. bibliog il diag J Ap Phys 25:1014-20 Ag '54

ALOIA, Cosmo A.

Chemistry's impact on paints; winners of 1954 PaVaC award. por(cover) Chem & Eng N 32:2278+ Je 7 '54

ALPHA rays

Alpha activity of Sm^{146} as detected with nuclear emulsions. D. C. Dunlavey and G. T. Seaborg. bibliog Phys R 92:206 O 1 '53

Alpha-alpha scattering from 12.88 to 21.62 Mev. F. E. Steigert and M. B. Sampson. bibliog diag Phys R 92:660-4 N 1 '53

Alpha- and gamma-ray spectra of Pu^{238}. F. Asaro and I. Perlman. bibliog Phys R 94:381-5 Ap 15 '54

Alpha-emitting isomer; polonium-211. F. N. Spiess. bibliog diags Phys R 94:1292-9 Je 1 '54

Alpha-gamma angular correlation in ionium (Th^{230}). G. M. Temmer and J. M. Wyckoff. bibliog diags Phys R 92:913-17 N 15 '53

Alpha-particle ionization yields in a gridded chamber. L. O. Herwig and G. H. Miller. bibliog Phys R 94:1183 Je 1 '54

Alpha spectra of Cm^{242}, Cm^{243}, and Cm^{244}. F. Asaro and others. bibliog diags Phys R 92:694-702 N 1 '53

Complex alpha spectra of radiothorium (Th^{228}) and thorium-X (Ra^{224}). F. Asaro and others. bibliog Phys R 92:1495-500 D 15 '53

Coulomb excitation of heavy and medium heavy nuclei by alpha particles. G. M. Temmer and N. P. Heydenburg. bibliog Phys R 93:351-3, 906-7 Ja 15, F 15 '54

Device for determining relative stopping powers for natural alpha particles. R. H. Ellis, jr. il diags R Sci Instr 25:336-40 Ap '54

Elastic scattering of alpha particles by neon. E. Goldberg and others. bibliog il diag Phys R 93:799-805 F 15 '54

Elastic scattering of intermediate-energy alpha particles by gold. G. W. Farwell and H. E. Wegner. Phys R 93:356-7 Ja 15 '54

Elastic scattering of protons by alpha particles. S. Sack and others. Phys R 93:321-5 Ja 15 '54

Electron microscopical studies of the latent image obtained by exposures to alpha particles, X-rays, and light. H. Hoerlin and F. A. Ham. bibliog il J Ap Phys 24:1514-19 D '53

Energy levels in F^{18} from alpha-particle reactions in nitrogen. N. P. Heydenburg and G. M. Temmer. bibliog Phys R 92:89-92 O 1 '53

Enhanced alpha in formed silicon point contract transistors. H. Jacobs and others. J Ap Phys 24:1410-11 N '53

Foil uniformity measurement by alpha-particle transmission. W. C. Barber. diag R Sci Instr 24:469-70 Je '53

Ionization of pure gases and mixtures of gases by 5-Mev alpha particles. T. E. Bortner and G. S. Hurst. bibliog diags Phys R 93:1236-41 Mr 15 '54

Natural alpha activity of neodymium. E. C. Waldron and others. Phys R 93:254-5 Ja 1 '54

Radium determination by alpha counting. H. W. Kirby. bibliog Anal Chem 25:1238-41 Ag '53

Range distribution of alpha particles following the decays of Li^8 and B^8. F. C. Gilbert. il Phys R 93:499-500 F 1 '54

Total ionization of α particles of Po in mixtures of gases. G. Bertolini and others. Phys R 92:1586 D 15 '53

Variation with latitude of the alpha particles in the primary cosmic radiation. G. W. McClure and M. A. Pomerantz. Franklin Inst J 256:575 D '53

Yields of low-energy protons and alphas resulting from high-energy bombardment of Ag. R. W. Deutsch. Phys R 92:515 O 15 '53

See also

Metamict state

ALPINE fir

Studies on smooth and cork-bark abies lasiocarpa. R. W. Kennedy and J. W. Wilson. il Pulp & Pa of Can 55:130-2 Je; 119-21 Ag '54

ALTERNATING current motors. See Electric motors, Alternating current

ALTIMETERS

Nonquantized frequency-modulated altimeter. H. P. Kalmus and others. bibliog diags J Res Nat Bur Stand 50:215-21 Ap '53

Radar altimeter gives reading of plane's height above earth. Elec Eng 73:293 Mr '54

ALTITUDE

Wear of carbon brushes at high altitudes. R. F. Sims. diags Inst E E Proc 100 pt 1:183-8 Jl '53; Same abr. bibliog Engineer 196:823-4 D 18 '53; Abstract. Engineering 176:726 D 4 '53

ALTITUDE meters. See Altimeters

ALUM

Alum and aluminium sulphate industries; abstract. J. H. Harwood. Chem & Ind p 1007-8 S 26 '53

Increased productivity through accurate metering of alum and wet strength resins. J. Procopi. diag Paper Ind 36:296 Je '54

Treatment of large reservoirs with alum to reduce turbidity. R. L. Derby and W. K. Weight. flow diag il maps diags Am Soc C E Proc 79 [no 272]:1-15 S '53

ALUMINA

Abrasive characteristics of alumina particles. A. S. Russell and J. E. Lewis. bibliog il diag Ind & Eng Chem 46:1305-10 Je '54

Activated alumina. I. J. Jenks. Can Chem Process 38:66 F '54

Ceramic-tipped cutting tools; abstract. K. J. B. Wolfe. Metal Prog 66:143-4 Ag '54

Constitution of bone china; high-temperature phase equilibrium studies in the system tricalcium phosphate-alumina-silica. P. D. S. St Pierre. bibliog(25 titles) il diags Am Cer Soc J 37:243-58 Je 1 '54

Drying of air in fixed beds. L. C. Eagleton and H. Bliss. bibliog Chem Eng Prog 49:543-8 O '53

Effect of TiO_2, Fe_2O_3, and alkali on mineralogical and physical properties of mullite-type and mullite-forming Al_2O_3-SiO_2 mixtures. K. G. Skinner and others. diag Am Cer Soc J 36:349-56 N 1 '53

Electrical conductivity of chromia-alumina dehydrogenation catalyst. P. B. Weisz and others. J Chem Phys 21:2236 D '53

Evaluation of the use of the refractory oxides Al_2O_3 and SiO_2 in eliminating a gas-produced enamel defect. R. G. Rion. bibliog Am Cer Soc Bul 33:16-20 Ja 15 '54

Fundamental study and equipment for sintering and testing of cermet bodies; fabrication, testing, and properties of 72 chromium-28 alumina cermets. T. S. Shevlin. il Am Cer Soc J 37:140-5 Mr 1 '54

Investigation of low-grade bauxites as potential sources of aluminum by caustic desilication and alumina extraction. W. A. Calhoun and H. E. Powell, jr. bibliog 3pls U S Bur Mines Rep of Invest 5042:1-23 '54

Liquidus relationships on ten per cent MgO plane of the system lime-magnesia-alumina-silica. A. T. Prince. bibliog diags Am Cer Soc J 37:402-8 S 1 '54

Making sure of a source; Bureau of mines checking new process for winning metallurgical-grade alumina from low-grade silicate ores. il diag Chem W 75:54+ Jl 24 '54

Materials for special service; high-alumina ceramics. D. W. Luks. il Machine Design 26:133-6 My '54

Nashwaak has some plans; power to burn in making alumina out of oil shale. Can Chem Process 38:11-12 Ag '54

New desiccant for drying natural gas; activated alumina. R. J. Getty and others. il Pet Eng 25:B7-10 Ag '53

Optimum composition of blast furnace slag as deduced from liquidus data for the quaternary system CaO-MgO-Al_2O_3-SiO_2. E. F. Osborn and others. bibliog il J Metals 6: Trans 33-45 Ja '54

Parts made with sintered aluminum oxide. il Materials & Methods 39:231 My '54

Production of synthetic abrasives. A. W. Wilkinson. il Can Chem Process 38:42+ S '54

ALUMINA—*Continued*

Reaction between hydrogen sulphide and chlorine over alumina catalyst. M. H. Khundkar and M. Rakiboddowla. bibliog Chem & Ind p 128-9 Ja 30 '54

Reaction mechanism of 1-hexanol and di-*n*-hexyl ether over alumina in a flow system. R. M. Langer and C. A. Walker. bibliog diag Ind & Eng Chem 46:1299-305 Je '54

Solid solution and chromium oxide loss in part of the system $MgO\text{-}Al_2O_3\text{-}Cr_2O_3\text{-}SiO_2$. I. Warshaw and M. L. Keith. bibliog(37 titles) Am Cer Soc J 37:161-8 Ap 1 '54

Solid-state equilibrium relations in the system $MgO\text{-}Al_2O_3\text{-}SiO_2\text{-}Zr_2$. P. G. Herold and W. J. Smothers. bibliog Am Cer Soc J 37:351-3 Ag 1 '54

Study of the reaction rates between silica, alumina, mullite, zirconia and other oxides at various temperatures. Abd-El-Moneim Abou-El-Azm. Glass Ind 35:202-3+ Ap '54

System $MgO—Al_2O_3—H_2O$ and influence of carbonate and nitrate ions on the phase equilibria. D. M. Roy and others. bibliog diags Am J Sci 251:337-61 My '53

Thermal conductivity; analysis of variation of conductivity with temperature for Al_2O_3, BeO, and MgO. M. McQuarrie. bibliog diag Am Cer Soc J 37:91-5 pt 2 F 1 '54

Thermal conductivity; determination of conductivity of Al_2O_3 by spherical envelope and cylinder methods. W. D. Kingery. bibliog il diags Am Cer Soc J 37:88-90 pt 2 F 1 '54

Thermal conductivity; high-temperature method and results for alumina, magnesia, and beryllia from 1000° to 1800° C. M. McQuarrie. bibliog il diags Am Cer Soc J 37:84-8 pt 2 F 1 '54

Thermal conductivity; prolate spheroidal envelope method; data for Al_2O_3, BeO, MgO, ThO_2, and ZrO_2. M. Adams. bibliog il diags Am Cer Soc J 37:74-9 pt 2 F 1 '54

Thermal transformations of the aluminas and their hydrates. M. K. B. Day and V. J. Hill. il bibliog J Phys Chem 57:946-50 D '53

Use of the solar furnace for studying the system alumina-silica. W. M. Conn. bibliog il Am Cer Soc Bul 33:69-72 Mr 15 '54

See also
Bauxite
Corundum

ALUMINA cement. See Cement—Alumina cement

ALUMINIUM, limited

Jubilee, quotation. Economist 168:346 Ag 1 '53

ALUMINOSILICATES

Role of sulfur in the luminescence and coloration of some aluminosilicates. R. D. Kirk. bibliog Electrochem Soc J 101:461-5 S '54

ALUMINUM

Aluminum and aluminum alloy temper designation system; engineering file facts. Materials & Methods 40:141 S '54

Aluminum and magnesium reduce weight of aero jeep. il Automotive Ind 110:32-3 Ap 15 '54

Aluminium centenary congress and exhibition, Paris; with abstracts of papers. il Metallurgia 50:71-6 Ag '54

Aluminum comes of age in a nuclear world. N. F. Ritchey. il Iron Age 172:94-7 Jl 30 '53

Aluminum everywhere! il Metal Prog 65:113-14 Je '54

Aluminum in iron and steel; monograph. S. L. Case and K. R. Van Horn. Review, by F. G. Norris. Metal Prog 66:106-7 Jl 1 '54

Angular and energy distributions of photoprotons from aluminum and tantalum. M. M. Hoffman and A. G. W. Cameron. diag Phys R 92:1184-91 D 1 '53

Angular distribution of neutrons scattered from aluminum, iron, and lead. W. D. Whitehead and S. C. Snowdon. bibliog diags Phys R 92:114-19 O 1 '53

Applications of aluminum and aluminum alloys; supplement to 1948 edition of Metals handbook. diags Metal Prog 66:52-63 Jl 15 '54

Cast aluminum tooling for large reinforced plastics parts; abstract. J. Cuming. il Automotive Ind 110:38-9 Mr 1 '54

Effect of aluminum on the low temperature properties of relatively high purity ferrite. H. T. Green and R. M. Brick. bibliog J Metals 6:Trans906-13 Ag '54

Effect of vapor incidence on the structure of evaporated aluminum films. L. Holland. diags Opt Soc Am J 43:376-80 My '53

Elastic scattering of 1-Mev electrons from aluminum and gold. R. T. Bayard and J. L. Yntema. Phys R 93:1412 Mr 15 '54

Fruehauf introduces new aluminum trailer. il Automotive Ind 110:96+ Ap 1 '54

High-purity aluminum and aluminum alloys introduced; Lurium, composition and physical properties. Mach 60:199 Ja '54

High purity metals. D. J. Maykuth. Product Eng 24:186-8 N '53

How to understand aluminum, its alloys, and tempers. S. Storchheim. il Am Mach 91:113-24 D 21 '53

Importance of the iron content of high-purity aluminum. M. Metzger and J. Intrater. J Metals 5:Trans 821-2 Je '53

Influence of aluminum and silicon deoxidation on the strain aging of low-carbon steels. W. C. Leslie and R. L. Rickett. bibliog J Metals 5:Trans 1021-31 Ag '53; Discussion. 6:Trans 701 sec 2 My '54

Investigation of low-grade bauxites as potential sources of aluminum by caustic desilication and alumina extraction. W. A. Calhoun and H. E. Powell, jr. bibliog 3pls U S Bur Mines Rep of Invest 5042:1-23 '54

Nameplates; aluminum sheet, photographic process combined; Metalphoto. Iron Age 173:179-80 F 4 '54

Optical constants of silver, gold, copper, and aluminum. L. G. Schulz and F. R. Tangherlini. bibliog diags Opt Soc Am J 44:357-68 My '54

Optical properties of evaporated aluminum films. F. C. Essig and J. R. Holmes. Opt Soc Am J 44:253 Mr '54

Phase and intensity measurements for some aluminum films. K. Ishiguro and G. Kuwabara. diag Opt Soc Am J 43:365-7 My '53

Properties and production of aluminum bearings; abstract. A. B. Shaw. Metal Prog 65:185-6 F '54

Separation and microscopic identification of gallium in the presence of aluminum. A. Wold, J. H. Baird and C. R. Hough. bibliog il Anal Chem 26:546-8 Mr '54

Tentative recommended practice for codification of light metals and alloys, cast and wrought; data sheet. Foundry 82:170 Je '54

See also
Bauxite

Analysis

Acetylacetone as an analytical extraction agent. J. F. Steinbach and H. Freiser. bibliog Anal Chem 26:375-9 F '54

Aluminum and iron in Atlantic and Gulf of Mexico surface waters. L. H. Simons, P. H. Monaghan and M. S. Taggart, jr. bibliog map Anal Chem 25:989-90 Je '53

Determination of aluminum in zirconium based on separation by ion exchange. H. Freund and F. J. Miner. bibliog diag Anal Chem 25:564-7 Ap '53

Direct reading spectrograph gives accurate control in aluminum production. D. L. Colwell and O. Tichy. il J Metals 6:343-5 Mr '54

Fluorometric determination of aluminum; use of 8-quinolinol. E. Goon and others. Anal Chem 25:608-10 Ap '53

Methods for analysis of titanium alloys; colorimetric determination of small amounts of aluminum in titanium alloys. M. Codell and G. Norwitz. bibliog Anal Chem 25:1437-8 O '53

See also
Aluminum alloys—
  Analysis

Bibliography

Abstracts. Published in monthly numbers of Light metal age

Cleaning

Aluminum cleaning time sliced in half; chemical chromating process. il Steel 133:127 Ag 3 '53

Cleaning aluminum surface for porcelain enameling. Cer Ind 63:67 Jl '54

ALUMINUM—Cleaning—*Continued*

Surface treatment and finishing of light metals; chemical cleaning and pre-treatment processes. S. Wernick and R. Pinner. bibliog(32 ref) Metal Finishing 52:78-82+ Ag; 80-5 S '54

Corrosion

Aluminum self-stops corrosion; protective oxide film is formed after initial penetration. C. J. Walton and others. il Steel 133: 134-6 S 7 '53

Corrosion characteristics of aluminum cooling towers. Heat & Ven 51:88 Ja '54

Corrosion of aluminum alloys in supply waters. F. C. Porter and S. E. Hadden. bibliog il J Ap Chem 3:385-409 S '53; Abstract and discussion. Chem & Ind p561-2 Je 6 '53

Corrosion of aluminum in potassium chloride solutions. W. Beck and others. bibliog diags Electrochem Soc J 101:393-9 Ag '54

Corrosion resistance; aluminum stitched with galvanized steel wire studied. Iron Age 172: 145-6 Ag 20 '53; Product Eng 24:200 S '53; Materials & Methods 38:224+ N '53; Light Metal Age 11:28 D '53

Effects of acid velocity and galvanic couples on corrosion of aluminum and stainless steel in strong nitric acid. M. G. Fontana. il Ind & Eng Chem 45:sup91A-2A+ N '53

Mechanism of reaction of aluminum and aluminum alloys with carbon tetrachloride. M. Stern and H. H. Uhlig. bibliog diag Electrochem Soc J 100:543-52 D '53; Discussion. 101:337-8 Je '54

Performance of aluminium in ships. D. C. G. Lees. bibliog il diags Chem & Ind p949-55 Jl 31 '54

Radioactive tracers in the study of pitting corrosion on aluminum. P. M. Aziz. bibliog il Electrochem Soc J 101:120-3 Mr '54

Resistance of aluminum alloys to chemically contaminated atmospheres. W. W. Binger and others. Light Metal Age 11: 18-22+ O '53

Service experience of the effect of corrosion on steel-cored-aluminium overhead-line conductors. J. S. Forest and J. M. Ward. Engineer 197:170-1 Ja 29 '54; Excerpts. Engineering 177:183 F 5 '54; Elec R (Lond) 154:185 Ja 29 '54; Discussion. 154:238 F 5 '54; Elec J 152:441 F 5 '54

Surface treatment and finishing of light metals; corrosion and protection of aluminum. S. Wernick and R. Pinner. bibliog (68 ref) il Metal Finishing 52:62-8 Ap; 71-7 My '54

Tests show corrosion resistance of aluminum. C. J. Walton and others. il Light Metal Age 11:18-19+ Ag '53

See also

Aluminum—Protection

Electrotechnical uses

Adherence of electrodeposited zinc to aluminum cathodes. F. H. C. Kelly. bibliog diag Electrochem Soc J 101:239-43 My '54

All-aluminum electrical system; Alcoa's new Lancaster works. il Mill & Factory 55:96-9 S '54

Aluminium cable sheathing press. il diags Metallurgia 50:16-18 Jl '54

Aluminum conductors for industry. il Mill & Factory 53:86-9 N '53

Aluminum connector requirements set up. I. Matthysse and H. P. Dupre. il diags Elec World 141:105-7+ F 22 '54

Aluminum rides the rails; aluminum conductors for wiring locomotives. M. W. Bellis and N. J. Hochanadel. il Ry Loco & Cars 128:65-6 Ag '54

Aluminum sheathing by direct extrusion; General cable corp. Materials & Methods 40:236 S '54

Current ratings of aluminium cables. Elec J 152:665-6 F 26 '54; Elec R (Lond) 154: 328-9 F 19 '54

Distribution of conductivity within dielectric films on aluminum. J. E. Lilienfeld and C. Miller. bibliog diags Electrochem Soc J 100:222-6 My '53

Evaluation of test data in determining minimum design requirements for aluminum to copper connectors. D. C. Hubbard and others. Power 98:242+ Ap '54

For Al-Cu connections pressed aluminum proves best. M. D. Bergen. il Elec World News ed 141:47-8+ F 1 '54

Have your plant electricians follow this step-by-step guide when working with aluminum; illustrated instructions. Power 98:107-11 Ag '54

New Levittown has aluminum distribution and unit substations. C. E. Nelson. il maps diags Elec World 140:84-8+ O 5 '53

Performance of electrical joints utilizing new silver coating on aluminum conductors; abstract. T. J. Connor and W. R. Wilson. Elec Eng 72:906 O '53

Savings outweigh difficulties with aluminum distribution. J. H. Exum. il Elec World News ed 140:32-3 O 12 '53

Service experience of the effect of corrosion on steel-cored-aluminium overhead-line conductors. J. S. Forrest and J. M. Ward. Engineer 197:170-1 Ja 29 '54; Excerpts. Engineering 177:183 F 5 '54; Elec R (Lond) 154:185 Ja 29 '54; Discussion. 154:238 F 5 '54; Elec J 152:441 F 5 '54

Tests of fittings on insulated aluminum cable; abstract. J. Tompkins and E. K. Lanctot. il Elec Eng 72:1003 N '53

Whether you're joining copper or aluminum, study circuit location; key to selecting the right electrical connectors. M. Brenner. il diags Power 98:116-19 Jl '54

Finishing

Aluminum surfacing notes. E. Engle. il Light Metal Age 11:16-18 Je '53

Chromium plating die-cast aluminum engine cylinders. F. M. Burt. il plan Metal Finishing 51:65-9 N '53

Deburring; power brushing speeds operation 300 per cent; Gilman engineering & mfg. corp. il Iron Age 173:199 F 25 '54; Same. Steel 134:170 Mr 8 '54

Porcelain coat on aluminum finds new field in gift market. Bsns W p68 S 5 '53

Surface treatment and finishing of light metals. S. Wernick and R. Pinner. bibliog il Metal Finishing 52:56-9+ Mr; 62-8 Ap; 71-7 My; 88-94+ Je; 78-82+ Ag; 80-5 S '54

Typical chemical finishes for aluminum; data sheet. Mach 60:271 N '53

Vitreous enamel enhances sheet aluminum. il Materials & Methods 38:120 D '53

Fire hazards

Aluminum should be recognized as a hazardous material. Chem & Eng N 32:258 Ja 18 '54

Isotopes

Energy levels of Al^{26}. C. P. Browne. diag Phys R 95:860-1 Ag 1 '54

Ground state of Al^{26}. J. C. Kluyver and others. bibliog Phys R 94:1795 Je 15 '54

Study of the isobaric triplet Mg^{28}-Al^{28}-Si^{28}. R. K. Sheline and others. bibliog diags Phys R 94:1642-51 Je 15 '54

Joining to steel, etc.

Bimetallic castings achieved by bonding process. V. Delport. il Foundry 82:102-5+ S '54

Molecular bonded bimetallic components. il Engineer 197:387-9 Mr 12 '54; Engineering 177:409 Mr 26 '54

New techniques speed up molecular bonding process; Al-Fin bonding process. Machine Design 26:164 Jl '54

Solid state bonding of aluminum to nickel. S. Storchheim and others. il diag J Metals 6:Trans 269-74 sec 2 F '54

Test gives bond life expectancy of bimetallic materials. J. B. Mohler. diag Iron Age 174: 106-7 S 2 '54

Ultrasonics improve soldered joints in aluminum. J. J. Obrzut. il Iron Age 173:97-9 Je 24 '54

Metallography

Annealing of a cold rolled aluminum single crystal. A. H. Lutts and P. A. Beck. bibliog il J Metals 6:Trans 257-60 sec 2 F '54

Critical-strain effects in cold worked wrought aluminum and its alloys; abstract. W. M. Williams and R. Eborall. Metal Prog 65: 130+ Mr; 156+ Ap '54

Effect of stress on the creep rates of polycrystalline aluminum alloys under constant structure. O. D. Sherby and others. bibliog J Metals 6:Trans 275-9 sec 2 F '54

ALUMINUM—Metallography—*Continued*

Grain boundary attack on aluminum in hydrochloric acid and sodium hydroxide. E. C. W. Perryman. bibliog il J Metals 5:Trans 911-17 Jl '53; Discussion. 6:Trans 661-3 sec 2 My '54

Grain boundary shearing during creep. B. Fazan and others. bibliog il J Metals 6: Trans919-22 Ag '54

Influence of additions of zirconium on the crystal structure of extruded and heat treated aluminum alloy semifinished products; abstract. J. Herenguel and M. Scheidecker. Metal Prog 66:188+ S '54

Influence of composition on the incidence of strain markings in aluminum alloys. W. H. L. Hooper. Metal Prog 65:166+ Je '54

Inhomogeneity in creep deformation of coarse grained high purity aluminum. H. C. Chang and N. J. Grant. bibliog il J Metals 5:Trans 1175-80 sec 2 S '53

Investigation of the grain coarsening behavior of some aluminum alloys. H. Bernstein. bibliog il J Metals 6:Trans 603-6 sec 2 My '54

Kink band formation in high purity aluminum during creep at high temperatures. A. M. Gervais and others. bibliog il diags J Metals 5:Trans 1487-92 sec 2 N '53

Method for the electrolytic etching of aluminium for microscopic examination. P. A. Raine and others. il diag Metallurgia 50: 45-6+ Jl '54

Russian research on aluminum alloys; oxide films examined under the electron microscope. N. N. Buinov and L. I. Podrezov. bibliog Chem Age (Lond) 68:601-2 Ap 18 '53

Simple anodising process for revealing the grain structure of aluminium alloys. H. G. Cole and W. J. D. Brooks. bibliog il Metallurgia 50:97-100 Ag '54

Subgrain formation in high-purity aluminum during creep at high temperatures. A. M. Gervais and others. bibliog(34 titles) il diags J Metals 5:Trans 1166-74 sec 2 S '53; Discussion. 6:Trans 689-90 sec 2 My '54

Torsional after-effect measurement and applications to aluminum. C. S. Barrett and others. diag J Metals 5:Trans 1655-61 D '53

Nuclear reactions

Cross sections for formation of Na^{22} from aluminum and magnesium bombarded with protons. R. E. Batzel and G. H. Coleman. Phys R 93:280-2 Ja 15 '54

Paint

Aluminum keeps coat. il Steel 135:184 S 20 '54

Classification of aluminum pigments. G. M. Babcock and F. B. Rethwisch. bibliog (26 titles) Paint Oil & Chem R 117:37-9+ Ap 8 '54

Paint makers cash in when Reynolds promotes liquid aluminum. D. P. Reynolds. il Sales Management 70:120+ Ap 15 '53

Why PRR uses aluminum paint. il Ry Age 137:30-1 Jl 5 '54

Prices

Aluminum 99 per cent ingot, 1936-1953; tabulation. Iron Age 173:414 Ja 7 '54

Aluminum scrap, cast, remelt aluminum ingot, 1949-1953; tabulations. Iron Age 173:413 Ja 7 '54

Nonferrous prices; tabulation. Steel 134:175 Ja 4 '54

Price, wholesale, scrap castings, (New York), 1949-1952. Survey of Cur Bsns 1953 Sup p 161 [supplemented in monthly numbers]

Wage boost, expansion costs to hike aluminum prices. Iron Age 174:62 Jl 22 '54

Protection

Aluminum coated with frit will find many markets. Chem Eng 60:146 Ag '53

Aluminum hard coating methods review. P. J. Brodeur. il Light Metal Age 12:10-11+ Ap '54

Anodic behavior of aluminum and its alloys in sulfuric acid electrolytes. R. B. Mason and P. E. Fowle. bibliog Electrochem Soc J 101:53-9 F '54

Anodizing of small mass-produced parts of aluminum; abstract. H. W. Dettner. Metal Finishing 51:79-80 N '53

Big bathtub primes plane alloys. il Aviation W 59:33 Ag 10 '53

Corrections for seven defects in enameled aluminum. Cer Ind 63:67-8 Ag '54

Determination of barrier layer thickness of anodic oxide coatings. M. S. Hunter and P. Fowle. diag Electrochem Soc J 101:481-5 S '54

Enamel; plan commercial output of porcelain enameled aluminum. Iron Age 173:94 F 4 '54

Formation of immersion zinc coatings on aluminum. W. G. Zelley. bibliog il diags Electrochem Soc J 100:328-33 Jl '53; Same. Metal Finishing 51:74-8 D '53

Glass + aluminum = durability + low weight; Du Pont. il Chem Eng 61:136+ Ja '54

How to nickel-plate aluminum for solder joining; Ford instrument co. W. M. Stocker, jr. il Am Mach 98:154-5 Je 7 '54

How to prevent stress-corrosion-cracking in aluminum parts. R. N. Hooker and J. L. Waisman. il diags Iron Age 174:165-7 S 16 '54

New process plates nickel directly on aluminum. Iron Age 173:173 My 20 '54; Materials & Methods 40:241 S '54

Payoff in stability; Vythene claimed to make the TCE noncorrosive to aluminum. il Chem W 74:74+ Ap 17 '54

Plating nickel on aluminum; Ford instrument co. S. Baker. il Steel 134:115-16 My 24 '54

Plating on aluminum; phosphoric acid anodizing pretreatment. B. E. Bunce. flow sheet il Metal Finishing 52:70-3+ Ja '54

Porcelain enameled aluminum. D. R. Goetchius. il Cer Ind 62:159+ Ap; 72-3+ My '54

Porcelain enameled aluminum; light weight, good workability for the fabricator. B. C. Bricker. il Steel 135:110-11 S 6 '54; Abstracts. Machine Design 26:273-4 Ag '54; Materials & Methods 40:107 S '54

Porcelain enameled aluminum will be in your future. B. C. Bricker. Cer Ind 62:91+ Je '54

Priming paints for light alloys; abstract. J. D. Rigg and E. W. Skerrey. Metal Prog 66:supA 193-4 Jl 15 '54

Priming paints for light alloys; abstract and discussion. J. G. Rigg and E. W. Skerrey. Engineering 176:470 O 9 '53

Structural features of oxide coatings on aluminum. F. Keller and others. bibliog il diags Electrochem Soc J 100:411-19 S '53; Discussion. 101:335-6 Je '54

Surface treatment and finishing of light metals; corrosion and protection of aluminum. S. Wernick and R. Pinner. bibliog (68 ref) il Metal Finishing 52:62-8 Ap; 71-7 My '54

Two new developments in the fluorocarbon plastics. il Materials & Methods 38:102-3 D '53

Specifications

Aluminum specs are standardized. il Steel 135:94 Ag 9 '54

Tolerances and specifications for aluminum and magnesium castings. W. D. Stewart. bibliog il diags Mech Eng 75:450-5 Je '53

Spectrum

Emission characteristics of vacuum spark discharges; aluminum spectra in the extreme ultraviolet. R. W. Kebler and others. Opt Soc Am J 44:270-5 Ap '54

Testing

Creep properties of 99·8 per cent purity aluminium at 20-80°C. and at 250 and 450°C. J. McKeown and others. il Metallurgia 50:13-15 Jl '54

External squeeze testing; strength tester for aluminum structures accommodates any size external shape; Pastushin aviation corp. Steel 133:122 N 23 '53

Tentative reference radiographs for inspection of aluminum and magnesium castings; data sheet. il Foundry 82:169 Je '54

Textile uses

Aluminized safety clothing keeps cool in the hot jobs. il Steel 134:118+ Je 14 '54

Old-world textile glamor in a new metallic yarn. il Bsns W p46+ O 24 '53

ALUMINUM—Textile uses—*Continued*

Progress in metallics. il Mod Textiles Mag 35:53 S '54

Thread; metalworking, plastics join in making colorful textiles. il Iron Age 173:83 My 6 '54

Uses

Aluminium in the food and chemical industries. R. W. Nuttall. il Metallurgia 49:63-70 F '54

Aluminum; progress that brings new products. il Dun's R & Mod Ind 62:51-7 Ag '53

Block caving practice at the Jeffrey mine; aluminum forms for concreting mine headings. D. P. R. Smyth. il diags Min Eng 6:Trans 516-18 My '54

Custom truck bodies; aluminum makes its move. R. E. S. Thompson. il Steel 135:100-1 Ag 23 '54

Fire fighting vehicles' surface finish. il Engineer 197:403-4 Mr 12 '54

Gas tight hydrogen retort seal made from aluminum bar. il Iron Age 174:133 S 23 '54

Petroleum industry finds many uses for aluminum. F. A. Lewis. il Pet Eng 25:A47-8+ Ag '53

Resistance of aluminum alloys to chemically contaminated atmospheres. W. W. Binger and others. Light Metal Age 11:18-22+ O '53

Role of aluminum as a special fuel. G. M. Babcock and F. B. Rethwisch. il Eng & Min J 155:84-6 Mr '54

Welding

Aluminum pipe; new welding machine being used to cut pipe joining cost. il Iron Age 173:81 Mr 18 '54

Correct welding procedure; welding of aluminum base alloys. L. F. Spencer. il Sheet Metal Worker 45:61-2+ O; 63-4 N; 62-4 D '53

Destruction tests and design data for welded pressure vessels; Alcoa's aluminum alloy A54S. J. B. Custer. il diags Welding J 33:sup65-70 F '54

Fatigue strength butt joints in ⅜-in. thick aluminum alloy plates. E. C. Hartmann and others. bibliog il diags Welding J 33:sup21-30 Ja '54

Giant aluminum reels pose no problems; Combined equipment co. il Steel 133:159-60 N 9 '53

Heliarc and sigma welding team up. il Welding J 33:783 Ag '54

How to weld aluminum tanks; Reynolds metals co. il diags Steel 134:154-5 F 15 '54

New tool cold-welds aluminum sheet or foil; Utica drop forge & tool corp. il Materials & Methods 39:156+ F '54

Projection welding; fewer steps in aluminum assembly; Ford instrument co. il Steel 135:68 Jl 5 '54

Quality control in spot welding aluminum. F. H. Matthews. il diags Welding J 32:1181-94 D '53

Reclaiming aluminum pistons with the sigma process; Chicago and north western railroad. il Diesel Power 32:94-5 Jl '54

Sciaky story. Steel 135:57 Ag 2 '54

See-through welding flux. Steel 133:110 Jl 20 '53

Spot welding aluminum; reference book sheet. diags Am Mach 98:123, 125, 127 Ja 4 '54

Spot welding of aluminum, aluminum alloys and steel. W. J. Wilson. il diags Welding J 32:1175-80 D '53

Spot welding thin aluminum. I. W. Johnson. il Welding J 33:759-62 Ag '54

Stress distribution and fatigue resistance of Alclad 24ST multiple spot welds. G. Welter and A. Choquet. bibliog diags Welding J 33:sup91-8 F '54

Utica lap welding tool for aluminum sheet. Am Mach 98:265 Ap 12 '54

Welding aluminum sheet. F. C. Geibig. il diags Welding J 33:784-7 Ag '54

ALUMINUM, Cold treatment of

Freezer; high capacity, portability features of new unit; Boeing airplane co. il Iron Age 173:160 F 4 '54

ALUMINUM, Molten

Molten metal miracle. il Nat Safety N 70:80 S '54; Same. Safety Maint & Prod 108:25-6 O '54

ALUMINUM, Powdered

Aluminum powder as a binder in sample preparation for X-ray spectrometry. I. Adler and J. M. Axelrod. Anal Chem 26:931-2 My '54

High temperature strength of wrought aluminum powder products. E. Gregory and N. J. Grant. bibliog il diag J Metals 6:Trans 247-52 sec 2 F '54

Reduction by aluminum powder in aqueous solution titrimetric determination of molybdenum. E. R. Riegel and R. D. Schwartz. bibliog Anal Chem 26:410-11 F '54

ALUMINUM, Structural

Adaptable staging units built from standard aluminium-alloy parts. il Engineering 176:448 O 2 '53

Alcoa complete; Pittsburgh's 30-story aluminum waffle is America's most daring experiment in modern office building. il plan Arch Forum 99:124-31 N '53

Aluminium alloy bascule bridge; Victoria dock, Aberdeen. il diags Engineer 196:429-31 O 2 '53; Engineering 176:481-3 O 16 '53; Metallurgia 48:249-50 N '53

Aluminum alloys in royal yacht Britannia. Metallurgia 49:282 Je '54

Aluminum; good insulating material simplifies erection problems. diags Iron Age 173:153 Je 3 '54

Aluminum hangar; large sub-assembly units prefabricated; De Haviland co. P. Stevens. il Light Metal Age 11:10-11+ Je '53

Aluminum hanger spans 200′. il Arch Forum 98:151 My '53

Aluminum skyscraper; Alcoa building. il Mech Eng 75:906-8 N '53

Aluminum skyscraper; new office building of the Aluminum company of America. il Metallurgia 49:75-6 F '54

Aluminum structure for new air-conditioning system. flow diag il Arch Forum 99:140-1 D '53

Australia's memorial to U.S.A. T. Bishop. il Metal Prog 66:122-3 Jl 1 '54

Behavior studies of aluminum riveted joints. A. J. Francis. il diags Light Metal Age 12:20-2+ F '54

Building to crack a metal market; Aluminum co. of America's home-office building in Pittsburgh. il Bsns W p 138-40+ S 26 '53

Designing aluminum alloy members for combined end load and bending. H. N. Hill and others. bibliog Am Soc C E Proc 79 [no 300]:1-18 O '53

Insulated aluminum curtain wall. il diags Arch Forum 99:166 S '53

Look where the saucer landed; Semisphere building at Longview, Tex. il Iron Age 173:79 F 18 '54

Pilot plant erection; Dexion as a valuable structural material. il Chem Age (Lond) 69:357-9 Ag 22 '53

Plastic buckling of eccentrically loaded aluminum alloy columns. J. W. Clark. il diags Am Soc C E Proc 79 [no 299]:1-19 O '53: Correction. 79 [no 374]:17 D '53

Preassembled building provides huge, unobstructed floor space at low cost; LeTourneau Semisphere. il Civil Eng 24:194 Mr '54

Prefab aluminum skin. il diag Arch Forum 99:167-8 S '53

Rat-resistant construction materials. Pub Health Rep 68:824 Ag '53

Recent developments in the riveting of aluminum. A. W. Brace. bibliog il diags Metallurgia 49:71-5 F '54

Sandwich walls made from aluminum. il diags Light Metal Age 12:17 Ap '54; Steel 134:82 Ap 12 '54

Skyscraper enclosed fast with two-story panels. il plan diags Eng N 151:43+ Ag 13 '53

They beat the clock; enclose a 22-story office building with prefabricated aluminium panels. il Constr Methods 36:142-3 Ag '54

Use aluminum falsework; San Francisco Bay bridge. T. M. Rohan. il Iron Age 173:104-5 Je 17 '54

See also

Domes, Aluminum
Roofs, Aluminum

ALUMINUM alloys

Alcoa piston symposium. il diags Automotive Ind 110:54-6+ My 1; 68-9+ Je 1; 111:48-50+ Ag 1 '54

Aluminum alloy for bearings. Automobile Eng 44:244 Je '54

Aluminum alloy for use in welded assemblies. Steel 135:123 Ag 16 '54

Aluminum alloy reference sheet. H. W. Fritts. Chem Eng Prog 49:675; 50:54, 108, 164, 214, 272 D '53-My '54

Aluminum alloys for permanent mold and die casting; data sheet. Metal Prog 65:112B My '54

Aluminum alloys in hopper cars. E. T. Englehart and G. B. Hauser. il Ry Loco & Cars 128:62-6+ My '54

Aluminum alloys make good bearings. D. B. Wood. il Iron Age 172:168-9 S 10 '53

Aluminum and aluminum alloy temper designation system; engineering file facts. Materials & Methods 40:141 S '54

Aluminium and its alloys in 1953. E. Elliott. bibliog(107 titles) Metallurgia 49:82-90 F '54

Aluminum-antimony alloy has wide applications in electronics. E. L. Lewis. Light Metal Age 11:11+ Ag '53

Aluminum association releases wrought alloy designation system. Materials & Methods 40:11 S '54

Aluminium in the textile industry. E. C. Roylance. il Metallurgia 49:77-81 F '54

Aluminum; pick new code; new system of alloy designation. Iron Age 174:75-6 Ag 12 '54

Aluminum sand casting alloys; compositions, properties, and designations; data sheet. F. M. Howell and H. S. Jerabek, comps. Metal Prog 64:96B D '53

Aluminum-six per cent magnesium wrought alloys for elevated-temperature service. K. Grube and L. W. Eastwood. Am Soc for Metals Trans 44:336-47 '52

Applications of aluminum and aluminum alloys; supplement to 1948 edition of Metals handbook. diags Metal Prog 66:52-63 Jl 15 '54

Approximately equivalent American and foreign specifications for aluminum casting alloys; composition limits (per cent) ASTM specification B 179-51T; tables; engineering file facts. Materials & Methods 39:135 Ap '54

Charts for allowable compressive stresses in aluminum and magnesium alloys; reference book sheet. B. E. Gatewood. bibliog Product Eng 24:235, 237, 239 Je '53

Chemical composition limits for wrought aluminum alloys. Steel 135:95 Ag 9 '54; Materials and Methods 40:139 S '54

Effect of quenching strains on the properties of an Al-Cu-Mg alloy. H. A. Unckel. bibliog Metallurgia 49:220-2 My '54

Effect of stress on the creep rates of polycrystalline aluminum alloys under constant structure. O. D. Sherby and others. bibliog J Metals 6:Trans 275-9 sec 2 F '54

Fatigue properties of some binary alpha solid solutions of aluminum. J. W. Riches and others. bibliog diag Am Soc for Metals Trans 44:882-95 '52

Formation of intracrystalline voids in solution-treated magnesium-aluminium alloys; abstract. E. Lardner. Metal Prog 65:182+ Mr '54

Functions of alloying elements in the creep resistance of alpha solid solutions of aluminum. A. T. Robinson and others. bibliog Am Soc for Metals Trans 44:896-928 '52

Harvey continuing 66S development. Light Metal Age 12:25 F '54

How to understand aluminum, its alloys, and tempers. S. Storchheim. il Am Mach 97:113-24 D 21 '53

Influence of oxygen, nitrogen, and carbon on the phase relationships of the Ti-Al system. R. J. Van Thyne and H. D. Kessler. bibliog il J Metals 6:Trans 193-9 sec 2 F '54

Intercrystalline corrosion in cast aluminum-zinc alloys; abstract. C. W. Roberts. Metal Prog 65:154+ My '54

Investigation of the grain coarsening behavior of some aluminum alloys. H. Bernstein. bibliog il J Metals 6:Trans 603-6 sec 2 My '54

Light metals; aluminum, magnesium, titanium. il Steel 133:163+ O 12 '53

Light metals forum; industry leans heavily on light metals. W. H. Gross and others. il Steel 134:118-20 My 10 '54

Light metals handbook. G. A. Pagonis. 2v 199p;185p $8.50 D. Van Nostrand co. 250 Fourth av. New York 3 '54

Lighter aluminum alloy. Steel 134:104 Mr 1 '54

Magnetization in nickel ferrite-aluminates and nickel ferrite-gallates. L. R. Maxwell and S. J. Pickart. bibliog il diags Phys R 92:1120-6 D 1 '53

Materials of construction for chemical engineering. H. W. Fritts. bibliog(84 ref) il Ind & Eng Chem 45:2175-82 O '53

Measurements of clustering in solid Al-Zn alloys. P. S. Rudman and others. J Ap Phys 24:365 Mr '53

Mechanical properties of nine aluminum die-casting alloys; abstract. C. O. Smith. Materials & Methods 40:166-7 Jl '54

Mechanism of reaction of aluminum and aluminum alloys with carbon tetrachloride. M. Stern and H. H. Uhlig. bibliog diag Electrochem Soc J 100:543-52 D '53; Discussion. 101:337-8 Je '54

Metal cleaning and finishing handbook; surface treatments of aluminum alloys; table. Iron Age 174:sup F4 Jl 29 '54

New alloy widens future aluminum in pressure vessels. J. B. Campbell. il Materials & Methods 39:97-101 Ap '54

New aluminium casting alloy available. Metallurgia 49:143 Mr '54

New commercial aluminum alloy, K 155. il Light Metal Age 11:22 Je '53

New non-heat-treatable aluminum alloy. il Materials & Methods 40:147 S '54

New wrought-aluminum designations; reference book sheet. Am Mach 98:187, 189 S 13 '54; Mach 61:181, 255 S '54; Metal Prog 66: 112B S '54

Performance of aluminium in ships. D. C. G. Lees. bibliog il diags Chem & Ind p949-55 Jl 31 '54; Discussion. p628-9 My 29 '54

Postwar European progress in wrought aluminum and its alloys. P. Brenner. il Metal Prog 65:112-15+ Ja '54

Producer designations of aluminum alloys, chemical compositions and principal forms. Steel 134:120e-120g My 10 '54

Properties of chemical engineering materials of construction. H. W. Fritts and F. M. Howell. Ind & Eng Chem 45:2272-3 O '53

Russian research on aluminium alloys; oxide films examined under the electron microscope. N. N. Buinov and L. I. Podrezov. bibliog Chem Age (Lond) 68:601-2 Ap 18 '53

Solidification of aluminum-rich aluminum-copper alloys. A. B. Michael and M. B. Bever. bibliog il J Metals 6:Trans 47-56 Ja '54

Some factors affecting the quality of extrusions. C. Smith and N. Swindells. Metal Prog 66:supA 170+ Jl 15 '54

Steel and aluminium alloys in proximity. U. R. Evans. bibliog Engineering 177:34-5 Ja 8 '54

Stepped stress-strain curve of some aluminum alloys. N. Krupnik and H. Ford. Metal Prog 65:168+ My '54

Stress-corrosion of aluminium-magnesium alloys. E. L. Jones. bibliog diag J Ap Chem 4:1-10 Ja '54

Strong aluminum alloy gets pressure vessel code approval. Welding J 33:375 Ap '54; Iron Age 173:172+ Mr 11 '54; Mach 60: 202 My '54

Tentative recommended practice for codification of light metals and alloys, cast and wrought; data sheet. Foundry 82:170 Je '54

Tin increases strength of Ti-Al alloys without loss in fabricability. W. L. Finlay and others. J Metals 6:25-9 Ja '54

Two operations complete intricate aluminum die-castings. H. P. Kunkleman. il diags Am Mach 97:131-3 D 7 '53

Use of aluminum alloys in ship construction; abstract and discussion. C. V. Boykin and M. L. Sellers. Marine Eng 59:52-3 Ja '54

ALUMINUM alloys—*Continued*

Wrought aluminum alloys; revised, Nov. 1953; data sheet. F. M. Howell and H. S. Jerabek, comps. Metal Prog 65:112B Je '54

See also

Iron alloys—Aluminum alloys

Analysis

Determination of hydrogen in wrought aluminum alloys. C. B. Griffith and M. W. Mallett. bibliog diags Anal Chem 25:1085-7 Jl '53

Determination of zirconium in aluminum alloys. R. A. Papucci and others. Anal Chem 25:1758-60 N '53

Direct reading spectrograph for control of aluminium alloy production; International alloys, ltd. il Metallurgia 49:261-2 My '54

Effect of certain sample forms on the reproducibility of analysis of some aluminium alloys using simple condensed spark source units. E. C. Mills and S. E. Hermon. il Metallurgia 48:209-11 O '53

Rapid compleximetric method for the determination of magnesium in aluminium alloys. J. C. Sergeant. bibliog Metallurgia 48:261-2 N '53

Spectrochemical analysis of aluminum alloys using molten metal electrodes. L. D. Frederickson, jr. and J. R. Churchill. il diags Anal Chem 26:795-800 My '54

Testing

Aluminum die castings; the effect of process variables on their properties. W. Babington and D. H. Kleppinger. il diags Am Soc T M Proc 51:169-93; Discussion. 193-7 '51

Creep properties of some forged and cast aluminum alloys. O. D. Sherby and others. diag Am Soc T M Proc 51:964-76; Discussion. 977-80 '51

Creep properties of two tempers of 63S extruded aluminum alloy. O. D. Sherby and J. E. Dorn. bibliog Am Soc T M Proc 51:945-53; Discussion. 977-80 '51

Creep-rupture characteristics of Al-Mg solid-solution alloys. A. W. Mullendore and N. J. Grant. bibliog il J Metals 6:Trans 973-9 S '54

Destruction tests and design data for welded pressure vessels; Alcoa's aluminum alloy A54S. J. B. Custer. il diags Welding J 33:sup65-70 F '54

Dull machining tools change aluminum physical properties. R. Wolcott, jr. Light Metal Age 11:19+ Je '53

Effect of annealing on the creep properties of 2S-O aluminum alloy. O. D. Sherby and J. E. Dorn. Am Soc T M Proc 51:954-63; Discussion. 977-80 '51

Effect of composition and heat treatment on yield point phenomena in aluminum alloys. V. A. Phillips. Metal Prog 65:200+ My '54

Effect of iron, manganese and chromium on the properties in sheet form of aluminum alloys containing 0.7 per cent magnesium and 1.0 per cent silicon; abstract. R. Chadwick and others. Metal Prog 66:178+ Jl 1 '54

Effect of residual stress on the fatigue strength of notched specimens. D. Rosenthal and G. Sines. bibliog il diags Am Soc T M Proc 51:593-608; Discussion. 608-10 '51

Influence of composition on the incidence of strain markings in aluminum alloys. W. H. L. Hooper. Metal Prog 65:166+ Je '54

Load-temperature history of lattice strain in aluminum alloy. D. Rosenthal and M. Kaufman. il J Metals 6:Trans 377-80 Mr '54

Plastic stress-strain relations for aluminum alloy 14S-T6 subjected to combined tension and torsion. J. Marin and H. A. B. Wiseman. bibliog il diag J Metals 5:Trans 1181-90 sec 2 S '53

Plastic stress-strain relations under radial and non-radial combined stress loading. J. Marin and J. A. Sauer. Franklin Inst J 256:119-28 Ag '53

Simple anodising process for revealing the grain structure of aluminium alloys. H. G. Cole and W. J. D. Brooks. bibliog il Metallurgia 50:97-100 Ag '54

Yield-point phenomena and stretcher-strain markings in aluminum-magnesium alloys. V. A. Phillips and others. Metal Prog 66:supA 188+ Jl 15 '54

ALUMINUM alloys, Heat treatment of

Free fall quench cuts solution heat treat costs; Glenn L. Martin co. il Iron Age 173:134 My 13 '54; Steel 135:124 Jl 19 '54

Heat treating; Ryan installs big furnace for handling aluminum. il Iron Age 172:213 S 10 '53

How to understand aluminum, its alloys, and tempers. S. Storchheim. il Am Mach 97:115-20 D 21 '53

Inert gas annealing puts zip in aluminum strip; Scovill manufacturing co. il Steel 135:112-13 Jl 12 '54

Production problems on supersonic planes; heat-treatment. il Am Mach 98:144 Jl 5 '54

Some basics in heat treating aluminum casting alloys. H. J. Rowe and W. E. Sicha. Materials & Methods 39:253-4 My '54

Why gas fuel is expanding its usefulness with light metal alloys. C. G. Segeler. il Gas Age 112:34-5+ D 17 '53

ALUMINUM antimonide

Electrical properties of semiconducting AlSb. R. K. Willardson and others. bibliog diag Electrochem Soc J 101:354-8 Jl '54

ALUMINUM boats. See Boats, Aluminum

ALUMINUM bromide

Acids and bases; conductance of aluminum bromide and stannic chloride in thionyl chloride on addition of pyridine and quinoline. L. E. D. Pease, jr. and W. F. Luder. bibliog Am Chem Soc J 75:5195-7 N 5 '53

Complexes of aromatic hydrocarbons with aluminum bromide. H. C. Brown and W. J. Wallace. bibliog Am Chem Soc J 75:6265-8 D 20 '53

Complexes of hydrogen bromide-aluminum bromide with aromatic hydrocarbons. H. C. Brown and W. J. Wallace. bibliog Am Chem Soc J 75:6268-74 D 20 '53

Disproportionation of bromobenzene in the presence of aluminum bromide. F. Fairbrother and N. Scott. bibliog Chem & Ind p998-9 S 19 '53

Hydration and hydrolysis of anhydrous aluminium bromide. F. Fairbrother and W. C. Frith. diags Chem Soc J p2975-82 O '53

Stereochemistry of the reaction of aluminum bromide with α-phenethyl aryl ethers. H. Hart and R. J. Elia. Am Chem Soc J 76:3031-2 Je 5 '54

Titration of aprotic acids in thionyl chloride. E. B. Garber, L. E. D. Pease, jr. and W. F. Luder. Anal Chem 25:581-3 Ap '53

ALUMINUM bronze

Carbides solve problems of producing fine finishes on aluminum-bronze die casting. il Steel 134:142 Ap 5 '54

Centrifugal casting solves non-magnetic flywheel problem. R. J. Severson. il Steel 133:120 N 23 '53

Welding copper and copper alloy castings; Wheeling bronze casting co. A. O. Dodge. il Foundry 82:165+ S '54

Analysis

Determination of indium in aluminum bronze alloys by flame photometry. V. W. Meloche and others. Anal Chem 26:1387-8 Ag '54

ALUMINUM chloride

Action of aluminum chloride as a catalyst in alkylation reactions. C. R. Raha. Am Chem Soc J 76:622-3 Ja 20 '54

Action of aluminum chloride on *n*-butylbenzene. R. E. Kinney and L. A. Hamilton. Am Chem Soc J 76:786-7 F 5 '54

Effect of aluminum chloride on absorption spectra of anthocyanins. T. A. Geissman and others. Chem & Ind p 1389 D 26 '53

Interaction of β-aroylacrylic acids and aluminium chloride. G. Baddeley, S. M. Makar and M. G. Ivinson. Chem Soc J p3969-71 D '53

Titration of aprotic acids in thionyl chloride. E. B. Garber, L. E. D. Pease, jr. and W. F. Luder. Anal Chem 25:581-3 Ap '53

Use of alkali and aluminium chloride in the spectral study of phenolic plant pigments. J. B. Harborne. bibliog Chem & Ind p 1142-3 S 11 '54

ALUMINUM chloride—*Continued*
Vinylidene cyanide; the aluminum chloride catalyzed reaction of vinylidene cyanide and aromatic compounds. J. C. Westfahl and T. L. Gresham. bibliog Am Chem Soc J 76:1076-80 F 20 '54

ALUMINUM coating
Hot dip aluminised coatings. Chem Age (Lond) 70:1105-8 My 15 '54
Hot dip aluminizing. Automobile Eng 44: 218 My '54
New corrosion resistant coating protects cast iron coolers; Kolmetal coating. J. J. Obrzut. il Iron Age 172:76-7 D 24 '53
Use the right process for coating steel with aluminum. il Steel 133:98-101+ Ag 3; 138-40+ Ag 10 '53
Vacuum metallizing reduces finishing costs; a pictorial story; Yoder manufacturing co. Materials & Methods 39:108-9 F '54

ALUMINUM company of America
Alcoa-Alcan tie in court. Bsns W p88+ Ag 22 '53
Alcoa holds U.S. lacks authority over its plants. Elec World News ed 141:63 F 1 '54
Alcoa in the courts. R. M. Bleiberg. Barron's 33:3 Ag 17 '53
Alcoa would build hydro dams to firm up Northwest power supply. C. S. Thayer. Elec World News ed 141:59-60 F 15 '54
Aluminum antitrust suit settled by US, Alcoa. Oil Paint & Drug Rep 165:5+ My 3 '54
Wage chronology; supplement number two. Mo Labor R 76:153-4 F '53
Wooing the eggheads for Alcoa. il Bsns W p 115-16+ D 19 '53

ALUMINUM company of Canada, ltd.
Alcoa-Alcan tie in court. Bsns W p88+ Ag 22 '53

ALUMINUM compounds
Neptunium-aluminum intermetallic compounds. O. J. C. Runnalls. il J Metals 5: Trans 1460-2 N '53

ALUMINUM containers. See Containers, Aluminum

ALUMINUM domes. See Domes, Aluminum

ALUMINUM foil
Aluminum foil for packaging; users report on its sales appeal. D. P. Reynolds. il Sales Management 72:88+ Mr 15 '54
Aluminum foil honeycomb structural core is shown off in new glass sandwich. il Arch Forum 100:196+ My '54
Aluminum foil sales roll up new highs. R. L. Hatschek. Iron Age 173:85 My 20 '54
Brighter Brach's in foil. il Mod Packaging 27:130-1+ Mr '54
Charcoal grilling made easy; Reynolds Wrap grill. il Mod Packaging 27:128-30+ Jl '54
Faster foil-tray packs for frozen pies and croquettes. il Mod Packaging 27:118-19 D '53
Foil moth product packages. il Soap & Chem Spec 30:137 Jl '54
Future glitters for metal foil. il Steel 133: 87 S 21 '53
How aluminum foil is made; illustrations with text. Iron Age 172:113 S 10 '53
Kaiser's new aluminum foil mill highlights fat demand for thin material. il Steel 135: 73 S 20 '54
Method of stretching thin aluminum foil over large areas. P. C. Murray and others. R Sci Instr 25:924 S '54
Pop it in the package; E-Z pop. il Mod Packaging 27:94-6 Jl '54
Price higher than competition? then prove value by demonstration; Pacific coast foil co. C. G. Bennett. il Sales Management 71:32-3+ N 20 '53
Saves 50 per cent of retort steam; heat loss reduced by reflective aluminum foil and dead air space. L. J. Pircon. il diags Food Eng 26:95-6+ S '54
Substitute materials make good, improve product; Bard mfg. co.'s furnaces. il Iron Age 174:133-4 Ag 5 '54
Vapor barrier of laminated Mylar and aluminum. J. G. Macormack. il diags Refrig Eng 62:58-60+ Jl '54
Western foil output gets big boost. T. M. Rohan. Iron Age 173:101 Je 3 '54
Zero storage facility features reflective insulation; cold storage rooms for fruit and vegetables. il Refrig Eng 61:1192-3 N '53

ALUMINUM founding
Aluminum alloys for permanent mold and die casting; data sheet. Metal Prog 65: 112B My '54
Aluminum die castings in telephone equipment. L. Pederson. il Materials & Methods 39:98-100 Je '54
Aluminum foundry has three strings for its bow; Aluminum match plate corp. E. Bremer. il plan Foundry 81:116-19+ N '53
Assembly-line methods speed output; Pacific chain and manufacturing co. A. Wintle. il Light Metal Age 11:10+ Ag '53
Automatic setup buffs intricate aluminum castings; Black & Decker mfg. co. J. E. Taylor. il Iron Age 173:108-10 Ja 21 '54
Casting torque converter parts with plaster cores. C. H. Wick. il Mach 60:166-71 N '53
Complex aluminum part successfully shell molded. R. V. Heath. il Iron Age 172:124-8 Jl 23 '53
Control of quality in the melting and casting of aluminum alloys for working; abstract. R. T. Staples and H. J. Hurst. Metal Prog 65:136+ Ja '54
Develop new machine for large aluminum die castings. E. C. Beaudet. il Iron Age 174: 118-19 Jl 15 '54
Die cast heater elements; Electromode corp. Steel 133:162 N 9 '53
Doehler-Jarvis machine die casts 75-lb aluminum parts. il Am Mach 98:168 Jl 19 '54; Automotive Ind 111:84+ Jl 15 '54; Mach 60:190 Ag '54; Tool Eng 33:60-1 S '54
Effect of melting frequency on the properties of induction melted aluminum alloys. A. Saia and others. il Foundry 82:84-7+ Ag '54
Electric melting makes precision castings. G. C. Jamison. il Elec World 140:131 S 7 '53
Factors in quoting on aluminum castings. E. Carrington. Foundry 82:313+ My '54
Foundry engineers quiz the experts; answers to the most-heard questions. K. W. Bennett. il Iron Age 172:20-1 D 24 '53
Foundry specializes in close-tolerance castings; AiResearch mfg. co. F. Warga. il Foundry 82:124-7 Ap '54
Gas porosity in aluminum castings. C. W. Ammen. diags Foundry 82:176+ Ag '54
High speed production of aluminum gears by die casting. E. L. Lewis. il Light Metal Age 11:12-13+ O '53
How to avoid trouble in the aluminum foundry. D. L. LaVelle. il Foundry 81:102-6+ D '53
Light metals; American foundrymen's society annual meeting, Cleveland; abstracts of papers. Foundry 82:142+ Je '54
Light metals; backyard core foundry solves binder problems. H. E. Bourassa. il Light Metal Age 11:8-9+ Ag '53
Metallurgy and production of suitable aluminum-alloy ingots for large forgings and extrusions. T. L. Fritzlen. bibliog il diags A S M E Trans 75:1513-18 N '53; Abstract. Metal Prog 63:112-14 Mr '53; Discussion. A S M E Trans 75:1536-9 N '53
New bend test for aluminum-magnesium castings. W. Martin. il Materials & Methods 38:186+ N '53
New die casting plant features melting, handling economies; Mt Vernon die casting corp. G. B. Nyselius. il diag Iron Age 174:108-11 S 2 '54
New machine can die cast aluminum engine blocks. il Materials & Methods 40:11 Ag '54
Plaster casting; new tool for aluminum parts production. il Steel 134:102 My 24 '54; Iron Age 173:140-2 My 27 '54; Tool Eng 33:73 Ag '54
Sand castings can be made to close tolerances; R. H. Osbrink mfg. co. L. B. Reed. il Foundry 82:92-7+ Ja '54
Statistical quality control; Buffalo works of Aluminum co. of America. A. J. Kukla. Foundry 81:120-4+ D '53
Test bars for copper and aluminum base alloy castings. R. A. Colton and D. L. Lavelle. il diags Foundry 82:100-5+ Jl '54

ALUMINUM freight cars. See Freight cars, Aluminum

ALUMINUM halides

Addition compounds of aluminum halides with alkyl halides. H. C. Brown and W. J. Wallace. bibliog Am Chem Soc J 75:6279-85 D 20 '53

Al_2Br_6-HCl-Al_2Cl_6-HBr and Al_2Br_6-Al_2Cl_6 systems and mixed halide intermediates. J. D. Corbett and N. W. Gregory. bibliog diag Am Chem Soc J 75:5238-42 N 5 '53

Aluminium halide complexes with pyridine, trimethylamine, and triethylamine. D. D. Eley and H. Watts. Chem Soc J p 1319-24 Ap '54

ALUMINUM hydroxide

Analysis

Volumetric analysis of sodium aluminate solutions. H. L. Watts and D. W. Utley. bibliog Anal Chem 25:864-7 Je '53

ALUMINUM industry and trade

Aluminum; aim at truck body market. J. B. Delaney. il Iron Age 173:99 Je 17 '54

Aluminum-bauxite reserves and production. D. D. Blue. Light Metal Age 12:20-1+ Ap '54

Aluminum brightens its home market. il Steel 134:58 Ja 25 '54

Aluminum; civilian use increasing. Iron Age 172:54-5 N 26 '53

Aluminum gamble. G. P. Edgar. Barron's 34:11+ Ja 11 '54

Aluminum go-round. Chem W 75:93-4 Ag 21 '54

Aluminum in 1953. W. L. Rice. il Min Cong J 40:109-11 F '54

Aluminum makers are optimistic about '54. R. S. Reynolds, jr. Elec World News ed 141:59 Ja 4 '54

Aluminum, 1953. I. Lipkowitz. Eng & Min J 155:88-9+ F '54

Aluminum supply passes demand. R. L. Hatschek. Iron Age 172:92 N 19 '53

Aluminum unit established to oversee distribution of metal. Elec World News ed 140:47 Jl 20 '53

Aluminum; what will we do with it all? D. P. Reynolds. Iron Age 173:M24-6 Ap 8 '54

Aluminum; will grant tax writeoffs to up forging capacity. Iron Age 174:65 Jl 15 '54

Bauxite in bigger demand. Chem Age (Lond) 69:1124 N 28 '53

Cheaper aluminum. Economist 168:49 Jl 4 '53

Construction; aluminum's target for '54. il Steel 134:62-3 Mr 15 '54

Dearer aluminum. Economist 170:122-3 Ja 9 '54

European aluminum doesn't dent steel. Iron Age 173:77 Mr 25 '54

Industry previews and reviews. Automotive Ind 110:53+ Ja 15 '54

One more roadblock; bid of Harvey machine co. to crack into production of basic aluminum. Chem W 74:11-12 Ja 2 '54

Outlook for the aluminum industry. J. H. Krey. Comm & Fin Chr 178:2529+ D 24 '53

Output stays at peak rate. R. L. Hatschek. Iron Age 174:61-2 Jl 22 '54

Production of primary aluminum in Feb. 1954; with tables. Light Metal Age 12:41 Ap '54

U.S. aluminum demand exceeds growing supply. Chem & Eng N 31:4302+ O 19 '53

Wanted; more salesmen with imagination; Reynolds metals co. C. S. Steinmetz. Sales Management 71:118-20 O 15 '53

See also

Aluminum company of America
Aluminum foil
Kaiser aluminum and chemical corporation
Nails, Aluminum
Reynolds metals company

Advertising

Wooing the eggheads for Alcoa. il Bsns W p 115-16+ D 19 '53

History

Aluminium centenary congress and exhibition, Paris; with abstracts of papers. il Metallurgia 50:71-6 Ag '54

Securities

Jubilee quotation for Aluminum, ltd. Economist 168:346 Ag 1 '53

Statistics

Aluminum, 1949-1952. Survey of Cur Bsns 1953 Sup p 161 [supplemented in monthly numbers]

Primary and secondary aluminum production; aluminum wrought products; tabulations. Steel 134:178 Ja 4 '54

Shipments of aluminum wrought products; U.S. primary aluminum production, 1948-1953; tabulations. Automotive Ind 110:335 Mr 15 '54

U.S. production of primary aluminum by months, 1946-1953; tabulation. Iron Age 173:414 Ja 7 '54

Africa

African aluminum project. Elec World 140:164 Jl 27 '53

Alaska

Alaska development sought; Taiya project. il Light Metal Age 11:24 Je '53

Australia

Aluminum; first Australian integrated plant nears production. P. Davidson. il Light Metal Age 11:15 Je '53

Canada

CCP interviews McNeely DuBose. Can Chem Process 38:12+ S '54

Europe

Postwar European progress in wrought aluminum and its alloys. P. Brenner. il Metal Prog 65:112-15+ Ja '54

France

Aluminum in France; scientific congress, Paris, June 14-19. Metal Prog 66:113-14 S '54

French aluminum industry observes centennial low-cost African power may shift production. il map Eng & Min J 155:119-20 Jl '54

Survey of aluminum production in France. M. Moyal. il Light Metal Age 11:20-1, 30-1 D '53

India

Aluminium industry in India. Chem Age (Lond) 69:351-2 Ag 22 '53

Japan

Aluminum production in Japan increases in 1953. Light Metal Age 12:29 F '54

ALUMINUM iodide

AlI_3HCl-$AlCl_3$-HI system; the free energy of formation of aluminum iodide. J. D. Corbett and N. W. Gregory. bibliog Am Chem Soc J 76:1446-7 Mr 5 '54

ALUMINUM isopropoxide

p-Menthane-2 : 3-diols; reductions of diosphenol with aluminium *iso*propoxide and with lithium aluminium hydride. A. K. Macbeth and W. G. P. Robertson. Chem Soc J p701-4 F '54

ALUMINUM laurate

Spectrum

Infrared spectra of aluminum soaps and soap-hydrocarbon gels. F. A. Scott and others. bibliog J Phys Chem 58:61-4 Ja '54

ALUMINUM metallurgy

Brand new plant for secondary smelting; George Sall metals co. W. J. Fadden, jr. il plan diags Eng & Min J 154:72-5 N '53

Direct reading spectrograph gives accurate control in aluminum production. D. L. Colwell and O. Tichy. il J Metals 6:343-5 Mr '54

From bauxite to aluminum; Reynolds reduction co. il Chem Eng 61:126 Mr '54

Raw materials for aluminum production. D. D. Blue. U S Bur Mines Information Circ 7675:1-11 '54

Electrometallurgy

Problem of correct thermal insulation of bottom linings of aluminum furnaces. J. Wleugel and O. C. Böckman. bibliog Electrochem Soc J 101:sup 145C-50C Je '54

ALUMINUM nails. See Nails, Aluminum

ALUMINUM nitrate

Coagulation effects of aluminum nitrate and aluminum sulfate on aqueous sols of silver halides in statu nascendi; detection of polynuclear complex aluminum ions by means of coagulation measurements. E. Matijević and B. Težak. bibliog J Phys Chem 57:951-4 D '53

ALUMINUM ores

See also

Bauxite

ALUMINUM oxides

Formation, stability and crystal structure of the solid aluminum suboxides; Al_2O and AlO. M. Hoch and H. L. Johnston. bibliog Am Chem Soc J 76:2560-1 My 5 '54

See also

Alumina

ALUMINUM phosphate

Beneficiation of Florida aluminum phosphate ore. J. E. Davenport, F. Carroll and G. Tarbutton. Ind & Eng Chem 46:1608-11 Ag '54

Hydrothermal synthesis of large aluminum phosphate crystals. J. M. Stanley. il Ind & Eng Chem 46:1684-9 Ag '54

ALUMINUM pipes. See Pipes, Aluminum

ALUMINUM plating

Aluminum electrodeposits made adherent. W. C. Schirckner. il Steel 133:125 N 2 '53

ALUMINUM powder. See Aluminum, Powdered

ALUMINUM research

Extrusion of aluminum studied by radioactive tracers. Mach 60:171 Ag '54

Investigation of thickening and metal entrapment in a light alloy melting flux; abstract. A. H. Sully and others. Metal Prog 66:160 Ag '54

New facilities for Aluminium laboratories, ltd. il Metallurgia 50:47-51 Jl '54

Use tracers for aluminum; Aluminum co. of America research studies. il Iron Age 173:89-90 My 20 '54; Steel 134:129 Je 28 '54; Iron & Steel Eng 31:130+ Jl '54

ALUMINUM rivets. See Rivets, Aluminum

ALUMINUM roofs. See Roofs, Aluminum

ALUMINUM silicates

See also

Bentonite
Cordierite
Feldspar
Pyrophyllite

ALUMINUM sulfate

Alum and aluminium sulphate industries; abstract. J. H. Harwood. Chem & Ind p 1007-8 S 26 '53

Coagulation effects of aluminum nitrate and aluminum sulfate on aqueous sols of silver halildes in statu nascendi; detection of polynuclear complex aluminum ions by means of coagulation measurements. E. Matijević and B. Težak. bibliog J Phys Chem 57:951-4 D '53

Dissociation pressures and related measurements in the system aluminum sulfate-water. N. O. Smith and P. N. Walsh. bibliog diag Am Chem Soc J 76:2054-7 Ap 20 '54

Relative basicities of some organic nitrogen bases. P. Rochlin, D. B. Murphy and S. Helf. Am Chem Soc J 76:1451-3 Mr 5 '54

ALUMINUM triethyl

Some reactions of the etherate of aluminum triethyl. E. B. Baker and H. H. Sisler. bibliog Am Chem Soc J 75:5193-5 N 5 '53

System aluminum triethyl-ethyl ether. E. B. Baker and H. H. Sisler. Am Chem Soc J 75:4828-9 O 5 '53

ALUMINUM waste

Direct reading spectrograph gives accurate control in aluminum production. D. L. Colwell and O. Tichy. il J Metals 6:343-5 Mr '54

ALUMINUM window frames. See Window frames, Aluminum

ALUMINUM work

AF heavy press program gets under way; German-built extrusion press at Alcoa Lafayette. il Am Mach 98:173 Je 7 '54

Alcoa starts operation on giant extrusion press. il Iron & Steel Eng 31:119-20+ Je '54

Aluminium and its alloys in 1953. E. Elliott. bibliog(107 titles) Metallurgia 49:82-90 F '54

Aluminum cold forgings. R. A. Quadt. il Machine Design 26:156-60 Je '54

Aluminum soldering. D. Nova. il Light Metal Age 11:20+ Ag '53

Aluminum; steel press forges huge 24S ingots in experiments. il Iron Age 174:56 Jl 8 '54

Big ingots tested for heavy press program. il Materials & Methods 40:226+ S '54

Case history; aluminum replaces iron in fire pumps. il Light Metal Age 12:28 F '54

Cast aluminum tooling for large reinforced plastics parts; abstracts. J. Cuming. il Automotive Ind 110:38-9 Mr 1 '54; Tool Eng 33:159 Ag '54

Chemical forms precisely; North American Aviation. il Steel 134:122+ Je 14 '54

Chemical milling; now the impossible doesn't take longer; North American Aviation's new etching process. il diag Am Mach 98:200-2 S 13 '54

Close tolerance aluminum parts brazed in salt bath. W. J. Rudolph. il diags Materials & Methods 39:96-9 Ja '54

Cold extrusion primed for mass production. R. H. Eshelman. il diags Tool Eng 33:77-86 S '54

Cutting aluminum; Fletcher aviation corp. il Steel 134:121 My 24 '54

Design considerations associated with large aluminum forgings. C. W. Andrews. diags Mech Eng 75:777-84 O '53; Same cond. Machine Design 25:334+ O '53; Excerpts. Automotive Ind 109:32-3 Ag 15 '53; Discussion. Mech Eng 76:289-91 Mr '54

Evaluation of a V-6 aluminum engine. J. R. Long and D. H. Perry. il Automotive Ind 111:70-2 S 15 '54

Extruded aluminum sections answer to litter design problem. il Light Metal Age 12:14-15 F '54

Extruding aluminum fans to close tolerances at low cost; AiResearch mfg. co. il Mill & Factory 55:130 S '54

Extrusion die problems discussed. Materials & Methods 40:208+ Jl '54

Extrusion speeds piston output; Thompson products, inc. il Iron Age 173:88 My 20 '54

Extrusions squeeze into new fields. il Steel 133:37 Jl 27 '53

Fixture lowers wrinkles in pressed aluminum parts; TEMCO aircraft corp. Iron Age 172:149-50 S 3 '53; Same. Steel 133:168+ S 14 '53

14,000-ton press produces big extrusions. il Mach 61:178-80 S '54

14,000-ton press starts production. il Materials & Methods 40:10 Jl '54

Giant aluminum ingots pass forge test. W. S. Peterson and J. J. Wegner. il diags Steel 134:138-9 Je 14 '54

Giddings & Lewis huge spar and skin mill shapes aluminum to close tolerances; Douglas aircraft co. il Iron Age 173:223-4 Je 24 '54

Heavy press starts regular output; Aluminum co. of America. il Iron Age 173:79-80 My 27 '54; Same abr. Steel 134:96 My 31 '54

Heavy presses; program shows promise for light alloy forging industry. il Iron Age 172:164-6 Ag 13 '53

Hot extruding aluminum fan blades to 0.001-in. tolerance in 1100-ton press; AirResearch mfg. co. of Arizona. il Am Mach 98:184-5 F 15 '54

How to apply aluminum insulated sandwich wall. il diags Sheet Metal Worker 45:100-1 Je '54

How to determine characteristics of earing in aluminum. C. Johnson. il Light Metal Age 11:12-13+ D '53

How to prevent stress-corrosion-cracking in aluminum parts; Douglas aircraft co. R. N. Hooker and J. L. Waisman. il Iron Age 174:123-5 S 9 '54

How to stretch-form aluminum. J. M. Adle. il diags Am Mach 98:133-40 Jl 19 '54

How to tool up for aluminum cutting. R. Wohlforth and W. Bloss. diags Steel 134:116-18 Je 28 '54

Hydraulic pressing costs cut by using special cover plate; Temco aircraft corp. il Light Metal Age 11:19+ D '53

In-process machining of large aluminum forgings. A. H. Petersen. il diags Metal Prog 66:81-8 Ag '54

ALUMINUM work—*Continued*

Joining problem is licked by nickel plating aluminum; Ford instrument co. M. W. Riley. il Materials & Methods 40:96-7 Jl '54

Kitimat is vanguard for B.C. electroproducts. il Can Chem Process 38:66+ S '54

Large-extrusion-press operation and production problems. T. F. McCormick. bibliog il diags A S M E Trans 75:1525-33 N '53; Same cond. Aeronautical Eng R 12:27-33 F '53; Same cond. Iron Age 170:158-61 D 11 '52; Same cond. Machine Design 25: 184-5+ My '53; Abstract. Metal Prog 63: 114+ Mr '53

Light-alloy forging; design and production problems. A. E. Favre. diags Mech Eng 75:693-7+ S '53; Same abr. Aviation W 59:28-30+ S 14 '53; Same cond. Automotive Ind 110:52-6+ Mr 1 '54; Same cond. Light Metal Age 11:12-14 Ag '53; Excerpts. Steel 133:88-9 O 19 '53; Discussion. Mech Eng 76:104-6 Ja '54

Light metals processing quality control. H. Bourassa and W. Chellman. il Light Metal Age 12:12-13+ F '54

Machining; large aluminum parts processed rapidly. il Iron Age 173:193-4 Mr 4 '54

Metallurgy and production of suitable aluminum-alloy ingots for large forgings and extrusions. T. L. Fritzlen. bibliog il diags A S M E Trans 75:1513-18 N '53; Abstract. Metal Prog 63:112-14 Mr '53; Discussion. A S M E Trans 75:1536-9 N '53

Mill tapers aluminum sheet, plate; Aluminum co. of America's Davenport plant. il Iron Age 173:83 Je 3 '54

New aluminum machine stock made by Harvey; deep drawing used. Light Metal Age 12:22 Ap '54

New tin-depositing flux for soldering aluminum. D. C. Burch and R. L. Simpkins. il Materials & Methods 40:86-9 Ag '54

Play ball! aluminum brightens the night; General Electric's River works turns out floodlights; illustrations with text. Steel 134:75 Ap 12 '54

Postwar European progress in wrought aluminum and its alloys. P. Brenner. il Metal Prog 65:112-15+ Ja '54

Present-day techniques of spinning aluminum. J. R. Young. il diags Mach 60:194-201 Ap '54

Research; road from idea to product; Aluminum co. of America; illustrations with text. Steel 133:121 N 30 '53

Soldering of aluminum. J. D. Dowd. bibliog il Welding J 33:sup 113-20 Mr '54

Stretch aluminum plate to reduce machining distortion; Kaiser Aluminum's Trentwood works. W. J. Lawler. and V. F. Binkley. il Am Mach 98:128-9 Mr 15 '54

Stretching aluminum plate. il Steel 133:109 Ag 24 '53

Tapco hot-extrudes aluminum pistons. il Am Mach 98:172 My 10 '54

Widens range of tapered aluminum sheet and plate; Aluminum co. of America rolling mill. il Steel 134:91 Je 7 '54

See also

Aluminum—Finishing

Aluminum—Welding

Aluminum founding

Patents

International patent calendar; abstracts of U.S. and Canadian patents. Published in monthly numbers of Light metal age

Terminology

Handbook of terms commonly used in the nonferrous industries. Iron Age 173:343-4+ Ja 7 '54

ALUMINUM works

Alcoa expands plant. Steel 133:58 Ag 31 '53

Alumina for all to see; Reynolds reduction co., LaQuinta, Texas. J. L. Reynolds. il Elec World News ed 141:59 F 1 '54

Aluminum; first Australian integrated plant nears production. P. Davidson. il Light Metal Age 11:15 Je '53

Balance in the Northwest; Alcoa's new fabricating mills. Steel 133:39-40 N 2 '53

First aluminum flows from Kitimat-Kemano project. il Min Eng 6:873 S '54

Huge new aluminum plant in operation; Reynolds metals co. il Manuf Rec 123:44 F '54; Same cond. Steel 134:99+ F 8 '54

Kaiser Aluminum to move East with new sheet mill. il map Steel 135:33 Ag 30 '54

Kitimat; pour first ingot. il Iron Age 174: 56-7 Ag 5 '54

La Quinta plant in operation. il Light Metal Age 12:30 F '54

Reynolds new alumina plant substantially completed; LaQuinta plant. il Manuf Rec 123:132 Ja '54

Wharf built in dry, floated to place; Alcan's British Columbia hydroelectric aluminum refining project. L. E. Van Houten. il diags Eng N 152:29-30+ Ja 14 '54

Electric equipment

All-aluminum electrical system; Alcoa's new Lancaster works. il Mill & Factory 55:96-9 S '54

Aluminum industry of the Gulf Coast area. F. L. Kaestle. il Electrochem Soc J 100: sup 174C-8C Jl '53

480-v closed loop for electrical distribution; Aluminum company of America. J. M. Bales and F. A. Gunther. il diags Power 98:84-7+ Ag '54

60-cycle induction heating; Aluminum company of America. il Factory Management 111:110-13 N '53

Employees

USW studies aluminum wages. J. B. Delaney. Iron Age 174:77 S 9 '54

Wage chronology; Aluminum co. of America; supplement number two. Mo Labor R 76: 153-4 F '53

Equipment

Alcoa installing presses. Steel 135:101 S 13 '54

How natural gas helps make aluminum, key material for airframes. A. Q. Smith. il Gas Age 112:36-7 D 17 '53

Insulated pitch piping for aluminum reduction processing. W. W. Pegram. il plan diags Heating-Piping 25:84-5 D '53

Kaiser's new aluminum foil mill highlights fat demand for thin material. il Steel 135: 73 S 20 '54

Rolling mills; Tube investments aluminium ltd. Resolven plant. il plan Automobile Eng 44:327-32 Ag '54; Metallurgia 50:19-24 Jl '54

Power

Alaska development sought; Taiya project. il Light Metal Age 11:24 Je '53

Alcoa holds U.S. lacks authority over its plants. Elec World News ed 141:63 F 1 '54

Aluminum companies sign agreement for water power. Oil Paint & Drug Rep 164:3 N 30 '53

Aluminum firms use less Northwest power now. Elec World News ed 140:47 S 28 '53

Canadian Aluminum, the hard way. il map Chem & Eng N 32:3112-13 Ag 9 '54

Captured Canadian power feeds giant new source of aluminum; Alcan's British Columbia project. J. H. Kearney. il map diag Eng & Min J 155:78-85 Ap '54

Civil-engineering features of the Kitimat project. J. S. Kendrick. il map plans diags Roads & Eng Constr 92:73-83+ Jl '54

High-head underground hydro plant will serve huge aluminum refinery in British Columbia. il diags Power 98:85-9+ F '54

Kemano hydro-electric development and associated Kitimat aluminium-reduction works. F. L. Lawton. diag Engineer 197: 468-71 Mr 26 '54

Kitimat, Kemano, Kildala, Kenney; which is which? il map diag Power Eng 58:84-6 Je '54

Kitimat project reaches production stage. il Roads & Eng Constr 92:62+ Ag '54

Lignite fuels 240,000-kw Alcoa plant at Rockdale. il diag Power Eng 58:80-2+ Je '54

Lignite; powers aluminum smelter; Aluminum co. of America's Rockdale works. il Iron Age 173:47 Ap 29 '54

More aluminum from Texas; Alcoa's Rockdale works. il Chem & Eng N 32:1868-9 My 10 '54

Northwest aluminum output expected to be kept at full capacity. Elec World 140:161 N 30 '53

ALUMINUM works—Power—*Continued*
- Power for aluminium production; Nechako-Kemano-Kitimat development. il map diags Elec R (Lond) 154:539-45 Mr 26 '54
- Survey of aluminum production in France. M. Moyal. il Light Metal Age 11:20-1, 30-1 D '53
- Use of electricity in electrochemical industry; abstract. R. S. Clegg. Chem Age (Lond) 70:1051-2 My 8 '54; Same. Chem & Ind p601 My 22 '54
- Water gamble; storage at Hungry Horse dam to be tapped to aid aluminum companies. Eng N 151:24 N 26 '53; Bsns W p32 N 28 '53

ALUMINUM yarn. See Aluminum—Textile uses

ALUMS
- Magnetic and thermal properties of chromic methylamine alum below 1°K. R. P. Hudson and C. K. McLane. bibliog diag Phys R 95:932-40 Ag 15 '54
- Solid solutions in the system Li_2SO_4-$(NH_4)_2SO_4$-H_2O. J. A. Skarulis and others. bibliog Am Chem Soc J 76:3096-8 Je 5 '54

ALUNITE
- Origin of alunite deposits at Pidinga, South Australia. D. King. bibliog il maps diags Econ Geol 48:689-703 D '53

AMALGAMATED meat cutters and butcher workmen of North America
- Labor hits at its own apathy. Bsns W p 138 Ag 29 '53

AMALGAMS
- Amalgam partition method for the determination of ionic free energies in non-aqueous solutions. K. Schug and H. L. Friedman. Am Chem Soc J 76:3609-10 Jl 5 '54
- Tetramethylammonium amalgam. G. B. Porter. Chem Soc J p760-1 F '54

AMALGAMS, Dental. See Dental amalgams

AMARILLO, Texas

Sanitary affairs
- Sanitary fill handles 62,258 weekly refuse pickups without nuisance. C. L. Davis. il Pub Works 85:83-4 S '54

AMBER glass. See Glass, Colored

AMEBA
- Amino acids found in protein from entamoeba histolytica. C. E. Becker and Q. M. Geiman. bibliog Am Chem Soc J 76:3029 Je 5 '54
- Protozoans in stools unpreserved and preserved in PVA-fixative. M. Goldman and M. M. Brooke. Pub Health Rep 68:703-6 Jl '53

AMEBIASIS
- 8-Quinolinols vs. amebiasis; abstract. E. F. Elslager. Chem & Eng N 32:1321, 1323 Ap 5 '54

AMEBICIDES
- New amebacides; the preparation of some N-benzyl-N-hydroxyalkyldichloroacetamides. A. R. Surrey. Am Chem Soc J 76:2214-16 Ap 20 '54

AMERICAN academy of occupational medicine
- Academy. Ind Med 22:446 O '53

AMERICAN and foreign power company
- Public utility securities. O. Ely. Comm & Fin Chr 178:1134 S 24 '53

AMERICAN association for the advancement of science
- Academic origins of AAAS presidents and recipients of AAAS awards. J. R. Sampey and J. Sampey. Science 117:699-700 Je 19 '53
- AAAS cooperative committee on the teaching of science and mathematics. Science 118:527-8 O 30 '53
- Annual meeting, Boston. Chem & Eng N 32:130+, 228-9 Ja 11-18 '54
- Boston meetings; a bit of background. R. L. Taylor. Science 118:224-6 Ag 21 '53
- Pacific division 34th annual meeting, Santa Barbara, June 15-20. Science 118:335-6 S 18 '53
- Southwestern division 29th meeting, Tempe, Ariz. Science 117:721-2 Je 26 '53

AMERICAN association of advertising agencies
- Annual meeting, 35th, White Sulphur Springs. Ed & Pub 86:17+ My 2 '53
- Annual meeting 35th, White Sulphur Springs. Ptr Ink 243:37 My 1 '53
- Boards of governors of 4-A's chapters, 1953-54. Adv Agency 46:42 Jl '53

AMERICAN association of cereal chemists
- Annual meeting, 39th, Denver. Chem & Eng N 32:2480 Je 21 '54

AMERICAN association of oilwell drilling contractors
- Selling safety, the goal of the AAODC. H. W. Davidson. World Oil 137:168 S '53

AMERICAN association of passenger traffic officers
- Annual meeting, 90th, French Lick Springs, Ind. Oct. 9-13. Ry Age News ed 135:28-31 O 26 '53
- Meeting, Chicago, May 3-4. Ry Age 136:7-8 My 17 '54

AMERICAN association of petroleum geologists
- Annual meeting, 38th, Houston, March 23-26. Am Assn Pet Geologists Bul 37:1122-80 My '53
- Dedication of headquarters building, Tulsa, March 20, 1953. il Am Assn Pet Geologists Bul 37:1101-21 My '53

AMERICAN association of physical anthropologists
- New affiliate of the American association for the advancement of science. J. L. Angel. Science 118:sup3 S 25 '53

AMERICAN association of railroad superintendents
- Annual meeting, 58th, Chicago, June 8-10. Ry Age 136:37-9 Je 21 '54
- Annual Pacific Coast post-convention meeting, American association of railroad superintendents, Portland, Ore. Aug. 5-6. Ry Age 137:8-11 Ag 23 '54

AMERICAN association of railway surgeons
- Railway surgeons. Ind Med 22:446 O '53

AMERICAN association of state highway officials
- Annual meeting, Pittsburgh, Nov. 10-13. Roads & Sts 96:28+ D '53
- Annual meeting, 39th, Pittsburgh, Nov. 10-13. Eng N 151:25-6 N 19 '53

AMERICAN association of textile chemists and colorists
- Annual banquet, Chicago. Am Dyestuff Rep 43:278-82 Ap 26 '54
- Annual convention, 31st, Boston, Nov. 6-8. Am Dyestuff Rep 42:162-6 Mr 16 '53
- Annual convention, 32d Chicago, Sept. 17-19; exhibition and abstracts of papers. Textile World 103:136-49+ N; 137+ D '53
- Annual meeting, Chicago, Sept. 17-19. Am Dyestuff Rep 42:683-94 O 12 '53
- Annual meeting, 32d, Chicago, Sept. 17-19. Mod Textiles Mag 34:58 N '53
- Annual meeting, 32d, Chicago, Sept. 17-19; program, officers, committees, exhibits; abstracts of papers. Am Dyestuff Rep 42:557-90 Ag 31 '53
- Annual meeting, 33d, Altanta, Sept. 15-18; list of exhibitors. Mod Textiles Mag 35:90+ S '54; Textile World 104:89-91 S '54
- National meeting, 32d, Chicago. Chem & Eng N 31:4002+ S 28 '53
- National meeting, 33d, Atlanta, Sept 15-18; abstracts of papers. Oil Paint & Drug Rep 166:7, 42 S 20 '54; Chem & Eng N 32:3864 S 27 '54
- National meeting, 33d, Atlanta, Sept. 15-18; program, officers, committees, exhibits; abstracts of papers. Am Dyestuff Rep 43:549-87 Ag 30 '54
- President's address. C. N. Rabold. Am Dyestuff Rep 42:164-5 Mr 16 '53

Committee on research
- AATCC research in action. Am Dyestuff Rep 42:726-33 O 26 '53
- Meeting, 174th, New York, Jan. 16; with abstracts of papers. Am Dyestuff Rep 42:138-40 Mr 2 '53
- Meeting, 175th, New York, April 17; with abstracts of papers. Am Dyestuff Rep 42:368-9 Je 8 '53
- Meeting, 177th, New York, Nov. 20. Am Dyestuff Rep 43:3-5 Ja 4 '54
- Meeting, 178th, New York, Jan. 22. Am Dyestuff Rep 43:128-9 Mr 1 '54
- Meeting, 179th, Atlantic City, April 30. Am Dyestuff Rep 43:362-3 Je 7 '54
- Meeting, 180th, New York, June 15. Am Dyestuff Rep 43:488-9 Ag 2 '54

National stream-pollution committee
- Activities of the national stream-pollution committee. Am Dyestuff Rep 42:659-60 S 28 '53

AMERICAN association of university teachers of insurance

Annual meeting, Washington, D.C. Nat Underw (Life ed) 58:3+ Ja 8 '54

AMERICAN bankers association

Annual convention, 79th, Washington D.C.; with abstracts of papers. Burroughs Clearing House 38:33-7+ O '53; Comm & Fin Chr 178:1213+ O 1 '53; Banking 46:77-94 N '53

National agricultural credit conference, 2d, Chicago, Nov. 16-18. Burroughs Clearing House 38:13-14 D '53

National agricultural credit conference, 2d, Chicago, Nov. 16-18; with abstracts of papers. Banking 46:66-7+ D '53

Agricultural commission

A.B.A.'s 1954 country banker program. Banking 46:76+ F '54

Credit policy commission

National credit conference, Chicago, Jan. 25-27. Burroughs Clearing House 38:33-5+ F '54

Savings and mortgage division

Annual meeting, New York, March 3-4; abstracts of papers. Credit & Fin Management 55:24-5 S '53

Trust division

Annual meeting, 79th, Washington. Trusts & Estates 92:692-4 O '53

Mid-continent trust conference, 22d, Chicago, Nov. 5-6. Trusts & Estates 92:896-9+ D '53

Mid-winter trust conference, 35th, New York, Feb. 8-10. Trusts & Estates 93:77-9+ F '54

Western regional trust conference, 27th, San Diego, Oct. 29-30. Trusts & Estates 92:809-10+ N '53

Western regional trust conference, 27th, San Diego, Oct. 29-30 and Mid-continent trust conference, 22d, Chicago, Nov. 5-6; with abstracts of papers. Banking 46:105-8 D '53

AMERICAN bar association

Insurance section

Annual meeting, Boston, Aug. 24-26. East Underw 54:29-30+ Ag 28 '53; Weekly Underw 169:461+ Ag 29 '53

Annual meeting, 77th, Chicago, Aug. 16-20. East Underw 55:32-3 Ag 20; 18, 30 Ag 27 '54; Nat Underw 58:7 Ag 26 '54; Weekly Underw 171:400+ Ag 21 '54

Public utility law section

Annual meeting, Chicago, Aug. 16-18; addresses. Pub Util 54:399-466 S 30 '54

Real property, probate and trust law section

Annual meeting, Boston, Aug. 24-26. Trusts & Estates 92:690-1+ O '53

AMERICAN brake shoe company

Rise in earnings is likely. Barron's 33:17 Ag 3 '53

AMERICAN broadcasting-Paramount theatres, inc.

Security I like best. P. L. Carret. Comm & Fin Chr 178:1618 O 29 '53

AMERICAN builder (periodical)

We are proud of our 75 years of service to light construction; jubilee editorial. il Am Bld 76:5+ Ag '54

AMERICAN bureau of shipping

American bureau of shipping on record volume of new construction. W. L. Green. East Underw 54:24+ Ag 7; 25 Ag 14 '53

Annual meeting, 92d. Marine Eng 59:54 Mr '54

Annual report of president, 1953. W. L. Green. East Underw 55:34 F 19; 31 F 26 '54; Excerpt. Weekly Underw 170:524+ F 27 '54

Board of managers semi-annual meeting, New York. Weekly Underw 169:318-19+ Ag 8 '53; Marine Eng 58:86-7 S '53

Marked drop in new ship contracts after record building year in 1953. W. L. Green. East Underw 55:25 Ag 6 '54; Excerpt. Weekly Underw 171:285+ Ag 7 '54

AMERICAN car and foundry company

Consolidated net earnings. Comm & Fin Chr 178:381 Ag 3 '53

AMERICAN ceramic society

Annual meeting, 56th, Chicago; abstracts of papers. Chem & Eng N 32:1877-8 My 10 '54

Annual meeting, 56th, Chicago, April 19-23. Am Cer Soc Bul 33:138-45 My 15 '54

Annual meeting, 56th, Chicago, April 19-23; with program and abstracts of papers. Am Cer Soc Bul 33:130, program 1-45 Ap 15 '54

Annual meeting, 56th, Chicago, April 19-23; with program and list of papers. Brick & Clay Rec 124:39-40 Ap '54; Cer Ind 62:153-5+ Ap '54

Audit report, 1953. Am Cer Soc Bul 33:182 Je 15 '54

Pacific Coast regional meeting, San Francisco, Oct. 22-24. Glass Ind 34:609 N '53

Pacific Coast regional meeting, 7th, Los Angeles, Oct. 27-29; program. Am Cer Soc Bul 33:286-90 S 15 '54

Glass division

Annual meeting, 56th, Chicago, April 19-23; abstracts of papers. Glass Ind 35:249-53+ My '54

Glass division fall meeting salutes Bausch & Lomb centennial. il Am Cer Soc Bul 32:394 N 15 '53; Glass Ind 34:604+ N '53

AMERICAN chemical society

ACS members aid scouts in revising chemistry merit badge. Chem & Eng N 31:3563-4 Ag 31 '53

ACS sponsors chemistry teaching workshops. il Chem & Eng N 32:2415-16 Je 14 '54

Annual meeting, 126th, New York; abstracts of papers. Can Chem Process 38:104+ S '54

Better training, one objective. A. H. Emery. Chem & Eng N 32:1148 Mr 22 '54

Board of directors minutes, June 13. Chem & Eng N 31:2961-6 Jl 20 '53

Board of directors minutes, Dec. 5-6. Chem & Eng N 32:419-24 F 1 '54

Board of directors minutes, June 20. Chem & Eng N 32:2986-8 Jl 26 '54

Board of directors' statement on election to membership. Chem & Eng N 32:1146 Mr 22 '54

Chemical education is our business, too! H. R. Russell. il Chem & Eng N 31:3358-65 Ag 17 '53

Chemical marketing group established by New York section. Chem & Eng N 32:860 Mr 1 '54

Corporation associates report. Chem & Eng N 32:958 Mr 8 '54

Educational activities of ACS. Chem & Eng N 31:4362 O 19 '53

Emphasis on selectivity; protests present administration of military training law. Chem & Eng N 32:2634 Je 28 '54

Meeting, 124th, Chicago; abstracts of papers. Soap & San Chem 29:55+ O '53

National meeting, 124th, Chicago, Sept. 6-11. Chem & Eng N 31:3840-71, 3956-88 S 21-28 '53

National meeting, 124th, Chicago, Sept. 6-11; final program. Chem & Eng N 31:3139-78+ Ag 3 '53

National meeting, 124th, Chicago, Sept. 6-11; official reports. Chem & Eng N 31:4325-46 O 19 '53

National meeting, 124th, Chicago, Sept. 6-11; program. Chem & Eng N 31:2383-8 Je 8 '53

National meeting, 125th, Kansas City, Mo., March 23-April 1. Chem & Eng N 32:1304-28, 1428-52 Ap 5-12 '54

National meeting, 125th, Kansas City, March 23-April 1: official reports. Chem & Eng N 32:1785-806 My 3 '54

National meeting, 125th, Kansas City, Mo., March 23-April 1; preliminary program. Chem & Eng N 31:5102-8 D 7 '53

National meeting, 125th, Kansas City, March 23-April 1; program. Chem & Eng N 32:626-56 F 15 '54

National meeting, 126th, New York. Chem W 75:15 S 25 '54

National meeting, 126th, New York, Sept. 12-17; preliminary program. Chem & Eng N 32:2310-16 Je 7 '54

National meeting, 126th, New York, Sept. 12-17; program. Chem & Eng N 32:3156-205, 3822-50, 3936-67 Ag 9, S 27-O 4 '54

AMERICAN chemical society—*Continued*
Officers, committees, and chapters of student affiliates. Chem & Eng N 31:3651-8 S 7 '53
Officers, committees, and chapters of student affiliates. Chem & Eng N 32:943-50 Mr 8 '54
Officers, committees, and chapters of student affiliates. Chem & Eng N 32:3437-44 Ag 30 '54
Official reports for 1953. Chem & Eng N 32:833-56 Mr 1 '54
Regional meeting, New Orleans, Dec. 10-12. Chem & Eng N 31:5364+ D 28 '53
Southeastern and southwestern regions meeting, New Orleans, Dec. 10-12; program. Chem & Eng N 31:4601-2+ N 2 '53

Rubber division

Meeting, 65th, Louisville; abstracts of papers. Chem & Eng N 32:1676-7 Ap 26 '54
Meeting, 65th, Louisville, April 14-16. India Rubber World 130:224-5 My '54
Meeting, 65th, Louisville, April 14-16. Rubber Age 75:242+ My '54
Meeting, 65th, Louisville, April 14-16; abstracts of papers. Rubber Age 74:909-13 Mr '54; India Rubber World 130:71-4 Ap '54
Meeting, 66th, New York, Sept. 15-17; with abstracts of papers. Rubber Age 75:695-702 Ag '54; Rubber World 130:660-4+ Ag '54

AMERICAN coke and coal chemicals institute
Annual meeting, White Sulphur Springs, Oct. 12-13. Chem & Eng N 31:4430+ O 26 '53

AMERICAN college of life underwriters
American college-CLU have information office; joint public relations office, Philadelphia. East Underw 54:14 N 20 '53
CLU; what it means and how its designation is won. C. Axman. East Underw 55:26+ pt 2 O 1 '54
Distinguished committee named to carry on cooperative fund for underwriter training. Weekly Underw 170:260 Ja 23 '54
Executive staff; summary of careers. East Underw 55:27+ pt 2 O 1 '54
Public getting to know true meaning of CLU. D. W. Gregg. Nat Underw (Life ed) 58:36 O 8 '54; Same. Weekly Underw 171:877 O 9 '54; Same abr. East Underw 55:4 O 8 '54
See also
American society of chartered life underwriters

AMERICAN concrete agricultural pipe association
Annual meeting, 4th, San Francisco. Concrete 62:16+ My '54; Am Concrete Inst J 25:sup22 My '54

AMERICAN concrete institute
Annual meeting, Denver, Feb. 22-26; program. Am Concrete Inst J 25:sup9+ F '54
Annual meeting, 50th, Denver; abstracts of papers. Eng N 152:23-4 Mr 4 '54
Annual meeting, 50th, Denver, Feb. 22-26. Civil Eng 24:261-2 Ap '54; Roads & Sts 97:81-2 Ap '54
Annual meeting, 50th, Denver, Feb. 22-26; with abstracts of papers. Am Concrete Inst J 25:sup3-6+ Ap '54
Annual meeting, 50th, Denver, Feb. 22-26; with abstracts of papers. Roads & Eng Constr 92:136+ Ap '54
Annual meeting, 50th, Denver, Feb. 22-26; with abstracts of papers. Rock Prod 57:220-1+ Ap '54
Annual meeting, 50th, Denver; with abstracts of papers. Concrete 62:24+ My '54
Coming of age; president's address. H. L. Kennedy. Am Concrete Inst J 25:617-22 Ap '54
It's the fiftieth year for the ACI. Concrete 62:5-7+ Ap '54
Story of progress; fifty years of the A.C.I. W. A. Maples and R. E. Wilde. il Am Concrete Inst J 25:409-36 F '54

AMERICAN concrete pipe association
Annual meeting, 46th, San Francisco. Am Concrete Inst J 25:sup22-3 My '54
Annual meeting, 46th, San Francisco. Concrete 62:18+ My '54
Annual meeting, 46th, San Francisco, Feb. 24-27; with abstracts of papers. Rock Prod 57:216-19 Ap '54
Annual short course school of instruction, 3d, Chicago, Sept. 10-12; with abstracts of papers. Rock Prod 56:199-204 O '53

AMERICAN congress of industrial medicine
Congress, 2d, Rio De Janeiro, Sept. 20-29, 1952. Ind Med 22:116-21 Mr '53

AMERICAN council of commercial laboratories
Meeting, 26th, Detroit. Chem & Eng N 31:4764-5 N 16 '53

AMERICAN council on education for journalism
Accrediting change is harmful. Ed & Pub 86:124 Ap 25 '53

AMERICAN cyanamid company
Streamlining at Cyanamid. Chem & Eng N 32:48 Ja 4 '54
Ultramarine blue antitrust suit is filed by government. Oil Paint & Drug Rep 166:7 Jl 5 '54

AMERICAN drug manufacturers association
Annual meeting, 42d, Lake Placid, June 28-July 1. Oil Paint & Drug Rep 166:49-57+ Jl 5 '54
History of ADMA; abstract. D. S. Gilmore. Oil Paint & Drug Rep 166:51-2 Jl 5 '54
Research and development section meeting, Rye, Nov. 5-7. Oil Paint & Drug Rep 164:7+ N 16 '53

AMERICAN electroplaters' society
Annual meeting, 41st, New York, July 12-15. Metal Finishing 52:46-50 Ag '54
Annual meeting, 41st, New York, July 12-15; abstracts of papers. Steel 135:100-2 Ag 2 '54
Annual meeting, 41st, New York, July 12-15; program and abstracts of papers. Metal Finishing 52:80-6 Je '54

AMERICAN federation of labor
AFL and CIO; ripe for a reshuffle? Bsns W p84 Ag 1 '53
AFL bids from new strength. Bsns W p 174+ S 26 '53
AFL seeks way to curb reckless union locals. House & Home 4:53 O '53
Closer to AFL-CIO merger? Bsns W p74 D 26 '53
Unions promote their labels with a trade show; AFL union label industries exposition. R. F. Leheney. Sales Management 71:59-62 pt 2 Jl 1 '53
Warning to racketeers; get out. Bsns W p 142 Ag 15 '53

AMERICAN fidelity and casualty company
Offers preferred stock. Comm & Fin Chr 178:2089 N 30 '53
Security I like best. R. S. Heavner. Comm & Fin Chr 178:814+ S 3 '53

AMERICAN foreign insurance association
AFIA has contract bond division. Nat Underw 58:38 Je 17 '54
AFIA has initiated new surety bonds division. L. C. Irvine. Weekly Underw 170:1544 Je 19 '54
Opens branch at Madrid, Spain. L. C. Irvine. East Underw 55:25 Je 25 '54

AMERICAN foundation of occupational health
American foundation of occupational health. Ind Med 22:440-2 O '53
American foundation of occupational health; trustees' report of the present status. Ind Med 22:191-5 My '53

AMERICAN foundrymen's society
Annual meeting, 58th, Cleveland. Iron Age 173:92-3 My 20 '54; Steel 134:49 My 17 '54
Annual meeting, 58th, Cleveland, May 8-14; program, list of exhibitors, awards, Ohio chapter committees, plant visitations. Foundry 82:112-31 My '54
Annual meeting, 58th, Cleveland, May 8-14; with abstracts of papers. Foundry 82:86-91+ Je; 134+ Jl '54

AMERICAN gas association
A.G.A. and you. F. C. Smith. Am Gas Assn Proc 1953:1010-12
A.G.A. wins seal of approval suit. il Am Gas Assn Mo 36:13 F '54; Same abr. Gas Age 113:42 F 11 '54
Annual distribution, motor vehicles and corrosion conference, 30th, Montreal, April 20-23. Am Gas Assn Mo 36:37+ My; 26-7+ Je '54; Gas Age 113:30-2+ My 20 '54
Annual meeting, St Louis. Pub Util 52:803-4 N 19 '53
Annual meeting, 35th, St Louis, Oct. 26-28. Oil & Gas J 52:69-70 N 2 '53
Annual meeting, 35th, St Louis, Oct. 26-28. Am Gas J 179:20-1 N '53

AMERICAN gas association—*Continued*

Annual meeting, 35th, St Louis, Oct. 26-28. Gas Age 112:39-57+ N 19 '53

Annual meeting, 35th, St Louis, Oct. 26-28; with abstracts of papers. Am Gas Assn Mo 35:10-13+ D '53

Chemical, engineering and manufactured gas production conference, Pittsburgh, May 24-26. Gas Age 114:32+ Jl 1 '54; Am Gas Assn Mo 36:35-7+ Jl-Ag '54

Domestic gas research and utilization conference, Los Angeles, March 23-24. Am Gas Assn Mo 36:22-3+ My '54

Eight awards given at AGA convention. Am Gas J 179:39-40 N '53; Am Gas Assn Mo 35:20-1 D '53

Meet your team for '54; A.G.A. officers. Am Gas Assn Mo 35:9 D '53

National purchasing and stores conference, 3d, Atlanta, April 19-21. Am Gas Assn Mo 36:25-6+ My '54; Gas Age 113:42 Je 3 '54

Operating section progresses. C. W. Wilson. Am Gas Assn Proc 1953:1006-8

Presentation of conservation service award of United States Department of the interior to American gas association. R. A. Cattell. bibliog Am Gas Assn Proc 1953: 1013-18; Same. Am Gas Assn Mo 35:17+ My '53

Research and utilization conference, 9th, Cleveland, June 2-3. Am Gas Assn Mo 36: 8-9+ Jl-Ag '54; Gas Age 114:37-9 Jl 29 '54; Dom Eng 184:213-14 Ag '54

Supply, transmission and storage conference, 2d, New Orleans, March 4-5. Gas Age 113: 23-6+ Mr 25 '54; Am Gas Assn Mo 36:20-3+ Ap '54

Appliance testing laboratory

Laboratories move into south wing. il Am Gas Assn Mo 36:14-15 My '54

AMERICAN gear manufacturers association

Annual meeting, 38th, Hot Springs, Va. June 6-9. Am Mach 98:170-1 Je 21 '54; Mach 60: 230 Jl '54

Annual meeting, 38th, Hot Springs, Va.; with abstracts of papers. Automotive Ind 111:64-5+ Jl 1 '54

Semi-annual meeting, Chicago, Oct. 25-28. Am Mach 97:183 N 9 '53

AMERICAN helicopter society

Annual forum, 10th; abstracts of papers. Automotive Ind 111:66-9+ S 1 '54

AMERICAN industrial hygiene association

Annual meeting, Chicago. Heating-Piping 26: 111-12 Jl '54

AMERICAN institute for property and liability underwriters

199 pass CPCU tests; with list. East Underw 55:1+ Ag 6 '54; Nat Underw 58:1+ Ag 5 '54

AMERICAN institute of architects

A.I.A. announces 1954 honors; no gold medal. Arch Rec 115:15 My '54

Annual meeting, 85th, Seattle. House & Home 4:44-5+ Jl '53; Arch Forum 99:104-7 Jl '53

Annual meeting, 86th, Boston. Arch Forum 101:116-19 Jl '54

Annual meeting, 86th, Boston, June 15-19. Arch Rec 116:10-11+ Ag '54

Annual meeting, 86th, Boston, June 15-19. House & Home 6:41+ Ag '54

AMERICAN institute of banking

A.I.B. plans forum series. Banking 46:102+ Ja '54

AMERICAN institute of biological sciences

American institute of biological sciences. S. L. Meyer. Science 117:sup3 Je 19 '53

Meeting, Madison, Wis. Sept. 7-10. Chem & Eng N 31:4011-12 S 28 '53

AMERICAN institute of chemical engineers

A.I.Ch.E. questionnaire; correlations and summary. L. B. Smith, G. E. Montes and J. A. Polack. Chem Eng Prog 50:sup26A+ Ja '54

A.I.Ch.E. questionnaire correlations on diverse subjects. L. B. Smith, J. A. Polack and G. E. Montes. Chem Eng Prog 49:sup 19-20+ S; sup56-7 O '53

Annual meeting, St Louis, Dec. 14-16; technical program. Chem Eng Prog 49:sup 19+ N '53

Annual meeting, 46th, St Louis. Chem & Eng N 31:5366+ D 28 '53

Annual meeting, St Louis; with abstracts of papers. Oil Paint & Drug Rep 164:5+ D 21 '53

Annual report of Council, 1953. Chem Eng Prog 50:sup58A+ F '54

Engineering societies of America. J. H. Perry. il Gen Elec R 56:34-6 N '53

Explaining the why and how of admissions. L. C. Kemp, jr. Chem Eng Prog 49:sup 60+ My '53

Joint conference with Chemical institute of Canada, 1st, Toronto; with abstracts of papers. Chem Eng Prog 49:sup 17-19+ Je '53

Meeting, Biloxi, March 8-11. Chem Eng Prog 49:sup 18-20+ Ap '53

Meeting, St Louis. Chem Eng Prog 50:sup 17A-20A Ja '54

Meeting, San Francisco, Sept. 13-16. Chem & Eng N 31:3999-4000 S 28 '53; Chem Eng Prog 49:sup20+ O '53

National meeting, Glenwood Springs, Colo.; abstracts of papers. Oil Paint & Drug Rep 166:7, 40 S 20 '54

National meeting, Springfield, Mass.; abstracts of papers. Chem Eng Prog 50:sup 35-6+ Je '54

National meeting, Washington. Chem & Eng N 32:1126+ Mr 22 '54

National meeting, Washington. Chem W 74: 16-17 Mr 20 '54

National meeting, Washington. Oil Paint & Drug Rep 165:5+ Mr 15 '54

National meeting, Washington; abstracts of papers. Chem Eng Prog 50:sup38-41+ Ap '54

National survey questionnaire; a report to the members. L. B. Smith. Chem Eng Prog 49:sup 17+ Ap '53

National survey questionnaire; analysis of write-ins. L. B. Smith, G. E. Montes and J. A. Polack. Chem Eng Prog 49:sup20-3+ N; sup48-50+ D '53

New Jersey survey. D. D. MacLaren. Chem Eng Prog 50:sup64+ My '54

New officers. Chem Eng Prog 49:sup 16 D '53

Nuclear engineering division makes good start. D. L. Katz and J. J. Martin. Chem Eng Prog 50:sup38 Ag '54

Nuclear engineering division national meeting report. J. Mellecker. Chem Eng Prog 50:sup35-7+ Jl; sup36-7+ Ag '54

AMERICAN institute of chemists

Annual meeting, Asbury Park. Oil Paint & Drug Rep 165:5+ My 17 '54

AMERICAN institute of electrical engineers

AIEE fellows elected. Elec Eng 73:89-92 Ja '54

AIEE section and student branch meetings; 1952-1953. Elec Eng 72:1032-4 N '53

AIEE's role in the creation of the American standards association. C. A. Adams. Elec Eng 73:105-6 F '54

Conference on machine tools, 6th, Cleveland; abstracts of papers. Automotive Ind 109: 63+ N 15 '53

Fall general meeting, Kansas City, Nov. 2-6; with tentative technical program. Elec Eng 72:927-30 O '53

Fall meeting, Kansas City, Nov. 2-6; with abstracts of papers. Elec Eng 72:1115-19 D '53

Fall meeting, Kansas City; with abstracts of papers. Elec World News ed 140:32-5 N 23 '53

Pacific general meeting, Vancouver, B.C. Sept. 1-4. Elec World News ed 140:6-7 S 14 '53

Pacific general meeting, Vancouver, B.C., Sept. 1-4; with abstracts of papers. Elec West 111:106-9 O '53

Pacific general meeting, Vancouver, Sept. 1-4; with abstracts of papers. Elec Eng 72:930-2 O '53

Summer general meeting, Atlantic City, June 15-19; with abstracts of papers. Elec World 139:68-9 Je 29; 140:112-15+ Jl 13 '53

Thirty years of technical progress. E. B. Robertson. Elec Eng 73:197-8 Mr '54

Winter general meeting, New York, Jan. 18-22. Elec Eng 73:265-71 Mr '54

Winter general meeting; with abstracts of papers. Elec World 141:74-9+ F 8 '54

Winter meeting, New York. Elec World 141: 140-1 Ja 25 '54

Winter meeting, New York, Jan. 18-22; program. Elec Eng 73:74-82 Ja '54

AMERICAN institute of mining and metallurgical engineers
Annual meeting, New York; abstracts of papers. Steel 134:56 F 22 '54
Annual meeting, New York, Feb. 15-18. J Metals 6:477-83 Ap '54
Annual meeting, New York, Feb. 15-18. Min Cong J 40:98-9 Ap '54
Annual meeting, New York, Feb. 15-18. Min Eng 6:428-38 Ap '54
Annual meeting, New York, Feb. 15-18; program. Min Eng 6:83-90 Ja '54
Annual meeting, 176th, New York, Feb. 15-18. Eng & Min J 155:122 Ap '54
Annual meeting, 176th, New York, Feb. 15-18. Rock Prod 57:140+ Ap '54
Fall meeting, Chicago, Nov. 1-3; program. J Metals 6:Trans 991-3 S '54
General meeting, 176th, New York. Chem & Eng N 32:817-18 Mr 1 '54

Coal division

Annual meeting, New York, Feb. 15-18. Coal Age 59:144-5+ Ap '54

Industrial metals division

Fall meeting, Cleveland. J Metals 5:1666-7 D '53

Institute of metals division

Fall meeting, Cleveland, Oct. 19-21; program. J Metals 5:1086-8 S '53

AMERICAN institute of steel construction
Annual meeting, 31st, Boca Raton, Nov. 30-Dec. 3. Steel 133:86 D 7 '53

AMERICAN institute of wholesale plumbing and heating supply associations
Annual meeting, 2d, New York. Dom Eng 182:132-3+ N '53

AMERICAN insurance association
New association can help multiple line development. East Underw 54:1+ D 25 '53; Nat Underw 57:1+ D 24 '53; Weekly Underw 169:1537 D 26 '53

AMERICAN iron and steel institute
Annual meeting. Steel 134:48-9 My 31 '54
Annual meeting, 62d, New York. Iron Age 173:76-8 Je 3 '54
Annual meeting, 62d, New York, May 26-27; abstracts of papers. Iron & Steel Eng 31: 136-47 Ag '54

AMERICAN leather chemists association
Annual meeting, 50th, Cincinnati, June 7-10. Chem & Eng N 31:2594 Je 22 '53

AMERICAN life convention
Activities of year. T. A. Sick. East Underw 54:3+ O 9 '53
American life convention publishes its history, by Dr R. C. Buley. C. Axman. East Underw 55:3+ Mr 19 '54
ALC state vice presidents for 1954; list. East Underw 54:3 D 4 '53
Annual meeting, 48th, Chicago, Oct. 6-9. Nat Underw (Life ed) 57:21-40 O 9 '53; East Underw 54:1+, 3-8+ O 9 '53; Weekly Underw 169:898-902+ O 10 '53
Annual meeting, 49th, Chicago, Oct. 5-8. East Underw 55:1+ O 8 '54; Nat Underw (Life ed) 58:33-48 O 8; 1+, 5+ O 15 '54; Weekly Underw 171:874-83 O 9 '54
Executive vice president's address at annual meeting; abstracts. C. Adams. East Underw 55:3+ O 8 '54; Nat Underw (Life ed) 58: 34+ O 8 '54; Weekly Underw 171:879+ O 9 '54
Frederick W. Hubbell elected new president. East Underw 55:3 O 8 '54
Medical section annual meeting, Mackinac Island, Mich. June 17-19. Nat Underw (Life ed) 58:11 Je 25 '54; Weekly Underw 170: 1564 Je 19 '54
1954 standing committees; list of chairmen. East Underw 54:3 D 4 '53; Nat Underw (Life ed) 57:2 N 27 '53
Three sections would meet with their opposite numbers; agency, legal, medical units. R. B. Mitchell. Nat Underw (Life ed) 57:21+ O 9 '53

AMERICAN locomotive company
End of EPT will cushion decline in 1954 net. Barron's 33:19-20 N 23 '53

AMERICAN Louisiana pipe line company
Plans to build 1,200-mile pipe line. Comm & Fin Chr 178:1873 N 16 '53

AMERICAN machine tool distributors' association
Annual meeting, 29th, White Sulphur Springs, W.Va. Sept. 14-15. Mach 60:280 N '53
Spring meeting, Boca Raton, Fla. March 3-4. Am Mach 98:180-1 Mr 15 '54
Spring meeting, 30th, Boca Raton, Fla. March 3-4. Mach 60:238 Ap '54

AMERICAN management association
American management association special group benefits conference, New York, March 18-19. East Underw 55:16 Ap 2 '54; Nat Underw 58:34-5 Mr 25 '54; Management R 43:319-38 My '54
General meeting, San Francisco. Iron Age 173:79 Mr 18 '54
Marketing conference, New York. Chem & Eng N 32:620 F 15 '54; Oil Paint & Drug Rep 165:5+ F 1 '54
National personnel conference, Chicago. Iron Age 173:61 F 25 '54
Personnel conference, Chicago; abstracts of papers. Food Eng 26:68-9+ Ap '54
Personnel conference, Chicago, Feb. 15-17. Steel 134:53 F 22 '54
$10,000-50,000-a-year freshmen; how American management association trains executives. il Chem Eng 60:258+ D '53

Insurance division

Conference, Chicago. Nat Underw 57:1+ N 19 '53
Spring meeting, New York, May 24-26. East Underw 55:29 My 28 '54; Nat Underw 58:4+ My 27 '54; Spectator 162:24-5 Jl '54

Packaging conference and exposition

National packaging conference and exposition, 23d, Atlantic City. Steel 134:49 Ap 12 '54

AMERICAN-MARIETTA company
Vigorous uptrend in sales, earnings continuing. Barron's 33:15-16 Ag 24 '53

AMERICAN meat institute
Annual meeting, 48th, Chicago; with abstracts of papers. Food Eng 25:196 N '53
Annual meeting, 49th Chicago, Oct. 8-12; list of exhibitors and plan. Food Eng 26:100 S '54

AMERICAN medical association
AMA holds off on Ike reinsurance plan. Nat Underw 58:20 F 4 '54

Council on industrial health

Council on industrial health. Ind Med 22:447 O '53

AMERICAN mining congress
Annual business meeting, New York, Dec. 2. Min Cong J 40:35+ Ja '54
Coal division annual conference of committees, Pittsburgh, Nov. 13; with abstracts of papers. Min Cong J 39:56-65 D '53
Coal division annual meeting, Cincinnati, May 3-5; program, committee members. Min Cong J 40:46-9 Mr '54
Coal division annual meeting, Cincinnati, May 3-5; program, committee members, list of exhibitors. Min Cong J 40:46-9 Mr; 40-50 Ap '54
Coal division annual meeting, Cincinnati, May 3-5; with abstracts of papers. Coal Age 59:102-8+ Je '54; Min Cong J 40:41-54 Je '54

Western division

Annual meeting, Seattle, Sept. 21-23; with declaration of policy and abstracts of papers. Min Cong J 39:46-100 N '53
Metal and nonmetallic mining convention and exposition, San Francisco, Sept. 20-24; chairmen, committees, program, list of exhibitors. il Min Cong J 40:48-71 Ag '54
Mining show, San Francisco, Sept. 20-24; list of exhibitors and plan. Eng & Min J 155:124-8+ S '54

AMERICAN motors corporation
Merger; American Motors starts work. R. D. Raddant. Iron Age 173:46 Ap 29 '54
Merger doesn't solve all problems. R. D. Raddant. Iron Age 173:46 Ja 21 '54
Nash Hudson stockholders to vote next month on consolidation. L. Westrate. Automotive Ind 110:63+ F 1 '54

AMERICAN municipal association
Annual meeting, New Orleans. Eng N 151: 28 D 10 '53

AMERICAN museum of atomic energy, Oak Ridge, Tennessee
Two road shows tell story of atom. Bsns W p 178 D 19 '53

AMERICAN mutual alliance
Annual meeting, Chicago, Nov. 16-18. Nat Underw 57:4+ N 19; 7-8 N 26 '53; Weekly Underw 169:1327, 1380 N 28-D 5 '53

AMERICAN natural gas company
New expansion program should bring further gain in earnings. E. Etherington. Barron's 33:23+ D 14 '53

AMERICAN newspaper guild
Guild proposes tight definition of supervisor; congressional hearing on proposed amendments to the Taft-Hartley act. Ed & Pub 86:46 Mr 28 '53

AMERICAN newspaper publishers association
ANPA benefits. C. F. McCahill. Ed & Pub 86:70 Ap 18 '53
Annual meeting, 67th, New York. Ed & Pub 86:11+ Ap 25 '53

Bureau of advertising

Book tells how BoA, newspaper ads grew; High adventure in advertising. Ed & Pub 86:26+ Mr 21 '53
BoA committee works, presents and elects. Ed & Pub 86:140 Ap 25 '53

Mechanical department

Information solves production problems. Ed & Pub 86:56 Ap 25 '53

AMERICAN oil chemists' society
Annual meeting, San Antonio. Oil Paint & Drug Rep 165:5+ Ap 19 '54
Annual meeting, San Antonio; abstracts of papers. Chem & Eng N 32:1678 Ap 26 '54
Fall meeting, 27th, Chicago. Oil Paint & Drug Rep 164:5+ N 9 '53
Fall meeting, 27th, Chicago, Nov. 2-5. Chem & Eng N 31:4770 N 16 '53
Fall meeting, 27th, Chicago, Nov. 2-5; with abstracts of papers. Soap & San Chem 29:50-1+, 111+ D '53

AMERICAN optical company
Security I like best. M. B. Starring, jr. Comm & Fin Chr 178:1110+ S 24 '53

AMERICAN paper and pulp association
Annual meeting, New York. Pulp & Pa of Can 55:80-2 Mr '54
Annual meeting, 77th, New York; with abstracts of papers. Paper Tr J 138:58-62+ F 26 '54
Annual meeting, 77th, New York; with committee reports. Paper Ind 35:1309-13 Mr '54

AMERICAN petroleum credit association
Annual meeting, 29th, New York. Credit & Fin Management 56:31-2 Ja '54

AMERICAN petroleum institute
API is oil industry's university. Pet Eng 25:A45-8+ N '53; Excerpts. Oil & Gas J 52:64-6 N 9 '53
API moves to strengthen its board by changing by-laws on membership. R. E. Bjorkback. Nat Pet N 45:26-7 Je 10 '53
Annual meeting; Marketing division. Nat Pet N 45:14-19 N 18 '53
Annual meeting, 33d, Chicago, Nov. 9-12. Oil Paint & Drug Rep 164:5+ N 16 '53
Annual meeting, 33d, Chicago; with digests of addresses and papers. Oil & Gas J 52:60-3, 89-91+ N 9; 172-85 N 16 '53
Industry honors awarded to 32 oil men. Oil & Gas J 52:198-9 N 16 '53
Meeting, Chicago. Chem & Eng N 31:4870+ N 23 '53
Who we are and what we do. L. S. Wescoat. Am Pet Inst Proc 32(1):20-2 '52

AMERICAN pharmaceutical association
Meeting, Boston. Oil Paint & Drug Rep 166:4+ Ag 23 '54
National meeting, 100th, Salt Lake City, Aug. 16-21. Chem & Eng N 31:3544-5 Ag 31 '53

AMERICAN pharmaceutical manufacturers' association
Annual meeting, 47th, Boca Raton, March 29-31. Oil Paint & Drug Rep 165:5+ Ap 5 '54
Central section meeting, Chicago; abstracts of papers. Chem W 74:47-50 F 27 '54
Eastern section meeting, New York, Feb. 1-3; abstracts of papers. Oil Paint & Drug Rep 165:5+ F 8 '54
Meeting, Chicago. Chem & Eng N 32:716 F 22 '54
Meeting, New York. Chem & Eng N 32:580+ F 15 '54
Midyear meeting, New York. Chem & Eng N 31:5280+ D 21 '53
Midyear meeting, New York, Dec. 7-9. Oil Paint & Drug Rep 164:5+ D 14 '53

AMERICAN physical society
Meeting, Chicago; session on apparatus for nuclear physics. Chem & Eng N 31:5196 D 14 '53
Meeting, Rochester, N.Y. June 18-20; with abstracts of papers. Phys R 92:841-59 N 1 '53
Proceedings, annual meeting, New York, Jan. 28-30; with abstracts of papers. Phys R 94:742-801 My 1 '54
Proceedings, meeting, Albuquerque, Sept. 2-5; with abstracts of papers. Phys R 92:1078-99 N 15 '53
Proceedings, meeting, Austin, Tex., Feb. 26-27. Phys R 94:802-14 My 1 '54
Proceedings, meeting, Chicago, Nov. 27-28; with abstracts of papers. Phys R 93:909-38 F 15 '54
Proceedings, meeting, Detroit and Ann Arbor, March 18-20; with abstracts of papers. Phys R 94:1404-42 Je 1 '54
Proceedings, meeting of the New York state section, Poughkeepsie, Oct. 16-17, 1953; with abstracts of papers. Phys R 93:359-63 Ja 15 '54
Proceedings, minutes of the Inyokern-Pasadena meeting, Dec. 26-30, 1952; with abstracts of papers. Phys R 92:526 O 15 '53
Proceedings, New England section meeting, Wellesley, Mass., March 20; with abstracts of papers. Phys R 95:297-8 Jl 1 '54
Proceedings of meeting, Washington, April 29-May 1; with abstracts of papers. Phys R 95:594-670 Jl 15 '54
Proceedings; 6th annual conference on gaseous electronics, Washington, Oct. 22-24, 1953; abstracts of papers. Phys R 93:647-54 F 1 '54
Southeastern section meeting, Knoxville, Tenn., April 1-3. Phys R 95:299-309 Jl 1 '54

AMERICAN pipe and construction company
Stock sold. Comm & Fin Chr 178:382 Ag 3 '53

AMERICAN plan corporation
American Plan aims to enter field of trailer financing and insuring. East Underw 54:27 Jl 10 '53

AMERICAN plant food council
Annual meeting, Hot Springs, June 12-13. Chem & Eng N 31:2596+ Je 22 '53
Annual meeting, 9th, Hot Springs, Va.; with abstracts of papers. Oil Paint & Drug Rep 165:5+ Je 14 '54

AMERICAN power conference
Annual meeting, Chicago, March 24-26; abstracts of papers on power and fuel needs in coal mining. Coal Age 59:159-60 My '54
Annual meeting, 16th, Chicago. Power Eng 58:83 My '54
Annual meeting, 16th, Chicago, March 24-26; program. Power Eng 58:87 Mr '54

AMERICAN president lines
APL and Matson had profitable year in 1953. Marine Eng 59:51 Jl '54
Storm-tossed company sails clear. il Bsns W p 186+ O 10 '53

AMERICAN psychological association
1953 directory. 404p pa $3 American psychological assn, 1333 Sixteenth st, N.W. Washington 6 '53

AMERICAN public health association
Annual meeting, 81st, New York. Chem & Eng N 31:4972+ N 30 '53
Annual meeting, 81st, New York. Eng N 151:30 N 19 '53
Curbstone consultation; an effort to improve communications at annual meetings. B. Freedman. Pub Health Rep 68:1213-16 D '53

AMERICAN public works association
A P W A news. Published in monthly numbers of Public works
Annual meeting, 59th, New Orleans. Eng N 151:23-4 N 5 '53
Annual meeting, New Orleans, Oct. 26-29. Roads & Sts 96:50+ D '53

AMERICAN pulp and paper mill superintendents association
Annual meeting, 35th, Montreal, June 21-23. Paper Tr J 138:38-43+ Je 25 '54
Annual meeting, 35th, Montreal. Paper Ind 36:394-5+ Jl '54; Pulp & Pa of Can 55: 94-7 Jl '54

AMERICAN radio relay league, inc.
ARRL tvi demonstration completes its first tour. il Q S T 37:16-17+ O '53

AMERICAN railway bridge and building association
Annual meeting, Chicago. Ry Age 137:58-60 S 20 '54

AMERICAN railway development association
Annual meeting, 45th, Salt Lake City, May 16-19. Ry Age 136:10-11 My 31 '54

AMERICAN railway engineering association
Annual meeting, 53d, Chicago; with abstracts of papers and committee reports. Ry Age 136:90-100+ Mr 22 '54

AMERICAN rayon institute
Let's take a look at A.R.I. Mod Textiles Mag 35:96 S '54

AMERICAN road builders association
Annual meeting, Atlantic City, Jan. 4-7. Roads & Sts 97:60-1 F '54; Eng N 152:25-6 Ja 14 '54

AMERICAN smelting and refining company
Tough antitrust policy; monopoly suit against American Smelting & Refining and St Joseph Lead. Bsns W p29 O 17 '53

AMERICAN societies for experimental biology, Federation of. See Federation of American societies for experimental biology

AMERICAN society for engineering education
Annual meeting, Gainesville. Chem & Eng N 31:2975 Jl 20 '53
Annual meeting, 61st, Gainesville, Fla. Eng N 151:87+ Jl 16 '53
Annual meeting, 61st, Gainesville, Fla. June 22-26. Mech Eng 75:681-2 Ag '53
Annual meeting, 62d, Urbana, Ill. Chem & Eng N 32:2624-5 Je 28 '54
Industry's stake in A.S.E.E.; a message to industrial management. J. C. McKeon. J Eng Educ 43:465-8 Ap '53
Joint meeting with Engineers' council for professional development, New York, Oct. 14-17. Mech Eng 75:1036-9 D '53
Joint meeting with the Engineers' council for professional development, New York, Oct. 14-17; with abstracts of papers. Elec Eng 72:1136 D '53
Progress in the humanistic-social division. S. W. Chapman. J Eng Educ 44:192-6 N '53
Summary of preliminary report; committee on evaluation of engineering education. Elec Eng 73:121-3 F '54; Same cond. Civil Eng 24:110-11 F '54

Committee for young engineering teachers
Self-education of the young engineering teachers. L. W. Gleekman. J Chem Educ 30:416-17 Ag '53

AMERICAN society for metals
Brief biographies of the members of ASM Metals handbook committee and chairmen of technical committees. Metal Prog 66: supA92+ Jl 15 '54

AMERICAN society for testing materials
ASTM approves 65 new standards. Materials & Methods 40:250+ S '54
Annual meeting, Atlantic City, June 28-July 3. Chem & Eng N 31:2866+ Jl 13 '53
Annual meeting, Chicago. Rubber World 130:520-3 Jl '54
Annual meeting, 57th, Chicago. Oil Paint & Drug Rep 165:7 Je 21 '54
Annual meeting, 57th, Chicago; abstracts of papers. Chem & Eng N 32:2696 Jl 5 '54
Annual meeting, 57th, Chicago, June 13-18. Roads & Eng Constr 92:36 Jl '54
Annual meeting, 57th, Chicago, June 13-18; with summaries of committee reports. Foundry 82:128 Ag '54
Annual meeting, 57th, Chicago; with abstracts of papers on concrete. Concrete 62: 31+ Jl '54
Annual meeting; with abstracts of papers on cement and concrete. Rock Prod 57:86-7+ S '54
Annual report of the board of directors. Am Soc T M Proc 51:37-84 '51
Committee week, Washington, Feb. 1-5. Materials and Methods 39:224+ Ap '54

AMERICAN society for the advancement of science
Symposia at the Boston meeting; program. Science 118:524-7 O 30 '53

AMERICAN society of agronomy
Meeting, Dallas; abstracts of papers. Chem W 73:50+ D 5 '53

AMERICAN society of body engineers
Annual meeting, Detroit; with abstracts of papers. Automotive Ind 109:48-9+ D 1 '53

AMERICAN society of chartered life underwriters
American college-CLU have information office; joint public relations office. Philadelphia. East Underw 54:14 N 20 '53
Annual meeting of board of directors, Boston. Weekly Underw 171:732 S 25 '54
Contributions of the American college. S. S. Huebner. Nat Underw (Life ed) Daily ed 57:8+ Ag 27 '53
Motivation behind C.L.U. program. D. McCahan. Nat Underw (Life ed) Daily ed 57: 8+ Ag 27 '53
Value of CLU designation. S. L. Zeigen. East Underw 55:23 S 24 '54

AMERICAN society of civil engineers
ASCE adds four names to its honor roll. Eng N 151:26 O 22 '53
Annual convention, New York. Eng N 151: 21 O 29 '53
Annual convention, New York, Oct. 19-23. Civil Eng 23:770-4 N '53
Board confirms 1953-1954 committee personnel. Civil Eng 23:850-1 D '53
Convention, Atlanta. Eng N 152:21-2 F 25 '54
Convention, Atlanta, Feb. 17-19. Civil Eng 24:174-6 Mr '54
Convention, Atlanta, Feb. 17-19; program. Civil Eng 24:33-8 Ja '54
More service to the membership, a continuing goal. D. V. Terrell. Civil Eng 23: 758-9 N '53
New committee on conditions of practice explained. Civil Eng 23:557 Ag '53
Publication procedure for technical papers. Am Soc C E Proc 79 [no 290]:1-21 O '53
Report of ASCE committee on education commended. Civil Eng 24:109 F '54
Union vs. ASCE. Eng N 152:21-2 Mr 18 '54

AMERICAN society of composers, authors and publishers
ASCAP; collecting for the piper's tune. il Bsns W p 136-40+ O 10 '53

AMERICAN society of heating and ventilating engineers
ASHVE research objectives. L. N. Hunter. Heating-Piping 26:165 My '54
Annual meeting, 60th, Houston; abstracts of papers. Dom Eng 183:224+ Mr '54; Heat & Ven 51:93-6, 148+ Mr '54; Heating-Piping 26:165-81 Mr '54
Semi-annual meeting, Swampscott, Mass. June 28-30; with discussions of papers. Heating-Piping 26:140-7 Ag; 154-9 S '54

AMERICAN society of mechanical engineers
ASME role in powered flight. H. F. Reeve il Mech Eng 75:987-99 D '53
ASME standards save lives and dollars. F. S. Blackall. jr. Mech Eng 75:979-81 D '53
Annual meeting, New York, Nov. 29-Dec. 4; program. Mech Eng 75:836-41 O '53
Annual meeting, New York, Nov. 29-Dec. 4; with abstracts of papers. Am Mach 97:138-41 D 21 '53
Annual meeting, 74th, New York. Elec World News ed 140:38-9 D 21 '53
Annual meeting, 74th, New York; abstracts of papers of interest to automotive and airplane industries. Automotive Ind 110: 48-50+ Ja 1 '54
Annual meeting, 74th, New York, Nov. 29-Dec. 4. Mach 60:204-5 Ja '54
Annual meeting, 74th, New York, Nov. 29-Dec. 4; with list of papers. Mech Eng 76: 73-103 Ja '54
Annual reports, recipients of honorary membership; medals and awards. Mech Eng 76: 54-72 Ja '54
Council actions on 1953 national agenda reported. Mech Eng 76:212-14 F '54
Elects seven fellows. Mech Eng 76:208-9 F '54
Fall meeting, Milwaukee, Sept. 8-10; abstracts of papers. Am Mach 98:156-8 S 27 '54
Fall meeting, Rochester, Oct. 5-7. Mech Eng 75:934-7 N '53

AMERICAN society of mechanical engineers—*Continued*
For a stronger and more dynamic society. F. S. Blackall, jr. Mech Eng 75:531-3 Jl '53
Let's keep our eye on the ball; editorial. F. S. Blackall, jr. Mech Eng 75:670 Ag '53; Same. Product Eng 24:148-9; Reply. 148-9 O '53
Professional divisions executives conference, Schenectady, Jan. 7-8. Mech Eng 76:298-300 Mr '54
Semi-annual meeting, Los Angeles, June 28-July 2. Mech Eng 75:675-7 Ag '53
Spring meeting, Columbus, April 28-30. Mech Eng 75:512-15 Je '53
Twelve regional student-branch conferences end successful 1952-1953 season. Mech Eng 75:847 O '53

Oil and gas power division

Annual meeting, 25th, Milwaukee, May 25-28. Mech Eng 75:598-9 Jl '53

Rubber and plastics division

Annual meeting, New York, Nov. 30-Dec. 1; abstracts of papers. India Rubber World 129:499-501 Ja '54; Rubber Age 74:584-5 Ja '54
Meeting, Pittsburgh, June 22. Rubber Age 75:552 Jl '54; Rubber World 130:524 Jl '54

AMERICAN society of naval engineers
Engineering societies of America. R. B. Madden. il Gen Elec R 57:34-6 My '54

AMERICAN society of newspaper editors
Annual meeting, Washington. Ed & Pub 86:17-21+ Ap 25 '53

AMERICAN society of refrigerating engineers
ASRE celebrates 50th anniversary. A. J. Hess. Heating-Piping 26:114-15 Jl '54
ASRE research exhibit, Washington, D.C. Dec. 6-9. il Refrig Eng 62:46-7 Ja '54
Annual meeting, 49th, Washington, Dec. 6-9. Heating-Piping 26:191-2 Ja '54
Financial statements; Sept. 1, 1952, through Aug. 31, 1953. Refrig Eng 61:1355-6 D '53
Semi-annual meeting, 41st, Seattle, July 10-14. Refrig Eng 62:76-7 Ag '54
Semi-annual meeting, Seattle. Heating-Piping 26:105 S '54
Technical research exhibit program; with list of exhibitors for Washington show, Dec. 7-9. il Refrig Eng 61:1196-9 N '53

AMERICAN society of sanitary engineering
Annual meeting, 47th, Cleveland, Nov. 1-6. Dom Eng 182:90 D '53
Annual meeting, 48th, Kansas City. Dom Eng 184:119 S '54

AMERICAN society of tool engineers
Annual meeting and industrial exposition, Philadelphia, April 26-30. Automotive Ind 110:60+ Ap 15; 56+ My 15 '54
Annual meeting and industrial exposition, Philadelphia, April 26-30; program, list of exhibitors. Steel 134:150+ Ap 19 '54
Annual meeting and industrial exposition, Philadelphia, April 26-30; summaries of papers, program, plan, list of exhibitors. Tool Eng 32:89-136, 142-9, 152-61 Ap; 90-113 Je '54
Annual report. Tool Eng 32:91-8 My '54
Industrial exposition and annual meeting, 22d, Philadelphia, April 26-30; exhibits, technical program, abstracts of papers. il Iron Age 173:198-200+ Ap 22; 130-3 My 13 '54
Industrial exposition and conferences, Philadelphia, April 26-30. Am Mach 98:186-9 My 10 '54
Look to the future. H. E. Conrad. Tool Eng 31:86-7 D '53
National committee chairmen announce 1954-55 appointments. E. R. Saunders. Tool Eng 33:95 Ag '54
Semi-annual board meeting, Dayton, Oct. 30-31. Tool Eng 31:88-9 D '53
Survey reveals scope of chapter education activities. N. L. Morgan. il Tool Eng 33:94-9 S '54

AMERICAN soybean association
Annual meeting, 34th, Memphis. Paint Oil & Chem R 117:10 S 9 '54

AMERICAN standards association
AIEE's role in the creation of the American standards association. C. A. Adams. Elec Eng 73:105-6 F '54
Fifth milestone in standardization. R. E. Gay. Elec Eng 73:106-9 F '54

AMERICAN statistical association
Annual meeting, 112th, Chicago, Dec. 28. Am Stat Assn J 48:350-7 Je '53

AMERICAN stock exchange (formerly New York curb exchange)
American stock exchange at a glance. Published in weekly numbers of Barron's
Weekly and yearly record. Published in weekly Monday numbers of Commercial and financial chronicle

AMERICAN stores company
May net $5 a share in fiscal '54. Barron's 34:27+ Ja 11 '54
Security I like best. A. G. Erpf. Comm & Fin Chr 178:1422+ O 15 '53

AMERICAN synthetic rubber corporation
Rubber firms form giant combine to buy government plant. Oil Paint & Drug Rep 165:5, 38 My 24 '54

AMERICAN telephone and telegraph company
AT&T topping own mark. Bsns W p59-60 Ag 29 '53
Annual report, 1953. Pub Util 53:369-70 Mr 18 '54
Companies whose sound planning made them stronger. W. Gates. Mag of Wall St 92:600-1 Ag 22 '53
Debentures authorized. Comm & Fin Chr 178:1465 O 19 '53
Debentures offered. Comm & Fin Chr 178:1765 N 9 '53
Earnings. Comm & Fin Chr 179:389 Ja 25 '54
Investment audit. W. Beecher. Mag of Wall St 92:726-8+ S 19 '53

AMERICAN transit association
Annual meeting, New York, April 27-30. Bus Transportation 33:68-71 Je '54
Meeting, Detroit. Bus Transportation 33:60-1+ My '54

AMERICAN viscose corporation
Three sound stocks with dependable dividends. Mag of Wall St 92:742 S 19 '53

AMERICAN water works association
Annual meeting, 73d, Grand Rapids, May 10-15; with awards and list of papers. Am Water Works Assn J 45:1335-42 D '53
Annual meeting, 74th, Seattle, May 24-27; program. Munic Util 92:28+ F '54
Annual meeting, 74th, Seattle; with abstracts of papers. Water & Sewage Works 101:300-4, 338-46, 386-94 Jl-S '54
Board of directors meeting, New York, Jan. 17-19. Munic Util 92:24-5+ F '54; Water & Sewage Works 101:120-2 Mr '54
Papers scheduled at 1953 section meetings. Am Water Works Assn J 45:1343-55 D '53
Report of the audit of funds for year ending Dec. 31, 1953. Am Water Works Assn J 46:303-9 Mr '54
Report of the committee on water works administration for the year ending Dec. 31, 1953. Am Water Works Assn J 46:282-6 Mr '54
Report of the committee on water works practice for the year ending Dec. 31, 1953. Am Water Works Assn J 46:287-96 Mr '54
Report on publications for the year ending Dec. 31, 1953. Am Water Works Assn J 46:297-302 Mr '54

Canadian section

Annual meeting, Toronto, April 12-14; with abstracts of papers. Munic Util 92:43-52 Ap '54

AMERICAN water works company, inc.
Stock sold. Comm & Fin Chr 178:1766 N 9 '53

AMERICAN welding society
Annual meeting, 34th, Cleveland, Oct. 19-23. Welding J 32:1203+ D '53
Board of directors meeting, Chicago, Jan. 18. Welding J 33:246+ Mr '54
Fall meeting, Chicago, Nov. 1-5; program. Welding J 33:693-6 Jl '54
Financial report. Welding J 33:56 Ja '54
Proposed amendments of by-laws. Welding J 33:insert 1-12 Mr '54
Spring meeting, Buffalo, May 4-7. Welding J 33:682-6 Jl '54
Spring meeting, Buffalo, May 4-7; abstracts of papers. Materials & Methods 40:216+ Jl '54
Spring meeting, Buffalo, May 4-7; program. Welding J 33:158+ F '54

AMERICAN welding society—*Continued*

Spring meeting, Buffalo, May 4-7; program and list of exhibitors. Welding J 33:382-6 Ap '54

AMERICAN wood preservers' association

Annual meeting, 50th, Atlantic City, April 26-28. Ry Age 136:44-6 My 3 '54

AMERICAN woolen company

New set-up for Woolen? J. D. C. Weldon. Mag of Wall St 93:569+ F 6 '54

Riches to rags. R. M. Bleiberg. Barron's 34:3+ Ja 4 '54

AMERICANS in Germany

House probers criticize cost of apartments, shopping center for Americans in Germany. il Arch Forum 98:40-1 Mr '53

AMERICIUM

Analysis

Separation and purification of americium-241 and the absorption spectra of tervalent and quinquevalent americium solutions. G. R. Hall and P. D. Herniman. Chem Soc J p2214-21 Jl '54

Isotopes

Half-life of Am^{243}. H. Diamond and others. bibliog Phys R 92:1490-1 D 15 '53

New determination of the half-life of Am^{242m}; the problem of counting short-lived activities. T. K. Keenan and others. bibliog J Chem Phys 21:1802-3 O '53

New isotopes of americium, berkelium and californium. A. Ghiorso and others. Phys R 94:1081 My 15 '54

Some pile neutron cross sections of isotopes of americium, berkelium, californium, and element 99. B. G. Harvey and others. Phys R 95:581-2 Jl 15 '54

Nuclear reactions

Decay properties of Am^{243} and possible rotational bands in the alpha spectra of odd-even nuclei. F. Asaro and I. Perlman. Phys R 93:1423-4 Mr 15 '54

Thermal neutron fission cross section of Am^{242m}. G. H. Huggins and W. W. T. Crane. Phys R 94:735 My 1 '54

Spectrum

Nuclear spin of Am^{243} and isotope shift in the americium spectrum. J. G. Conway and R. D. McLaughlin. Phys R 94:498 Ap 15 '54

AMERICIUM compounds

Alkali carbonates of Np(V), Pu(V) and AM(V). J. P. Nigon and others. bibliog J Phys Chem 58:403-4 My '54

Crystal structure of $KPuO_2CO_3$, $NH_4PuO_2CO_3$ and $RbAmO_2CO_3$. F. H. Ellinger and W. H. Zachariasen. diag J Phys Chem 58:405-8 My '54

New compounds of quadrivalent americium, AmF_4, $KAmF_5$. L. B. Asprey. bibliog Am Chem Soc J 76:2019-20 Ap 5 '54

AMICETIN. See Antibiotic substances

AMIDES

Addition compounds of silicon tetrachloride with amides. K. Gingold and E. G. Rochow. bibliog Am Chem Soc J 76:288-9 Ja 5 '54

Chemistry of the alkali amides. R. Levine and W. C. Fernelius. Chem R 54:449-573 bibliog (p552-73) Je '54

Dialkylaminoethyl amides of benzilic acid and their quaternary ammonium salts as antispasmodics. A. P. Phillips. Am Chem Soc J 76:1955-6 Ap 5 '54

Electric moments, association and structure of some N-monosubstituted amides. J. E. Worsham, jr. and M. E. Hobbs. bibliog Am Chem Soc J 76:206-8 Ja 5 '54

Fatty acid amides; preparation of substituted amidostearic acids by addition of nitriles to oleic acid. E. T. Roe and D. Swern. bibliog Am Chem Soc J 75:5479-81 N 20 '53

Free energy of formation of the amide bond in polyamides. A. B. Meggy. bibliog J Ap Chem 4:154-9 Ap '54

2-(1-Hydroxypropyl)-amides of 1-hydroxy-6-amino- and 1-hydroxy-7-aminobenzo(f) quinoline-2-carboxylic acids. F. F. Blicke and J. E. Gearien. bibliog Am Chem Soc J 76:2429-31 My 5 '54

Nylon type oligamides. C. D. Cowell. Chem & Ind p577 My 15 '54

Oxygen exchange during the acidic and basic hydrolyses of amides and the enzymatic hydrolysis of esters. M. L. Bender, R. D. Ginger and K. C. Kemp. Am Chem Soc J 76:3350-1 Je 20 '54

Polarography of picolinic and isonic-otinic acid and their amides. H. H. G. Jellinek and J. R. Urwin. bibliog J Phys Chem 58:168-73 F '54

Polyphosphoric acid as a reagent in organic chemistry; conversion of acids to substituted amides; further observations on the Lossen reaction. H. R. Snyder and C. T. Elston. Am Chem Soc J 76:3039 Je 5 '54

Polyphosphoric acid as a reagent in organic chemistry; the hydrolysis of nitriles to amides. H. R. Snyder and C. T. Elston. bibliog Am Chem Soc J 76:3039-40 Je 5 '54

Preparation of amides of arylphosphonic acids; diamides of primary aromatic and heterocyclic amines. G. O. Doak and L. D. Freedman. bibliog Am Chem Soc J 76:1621-3 Mr 20 '54

Preparations of N,N-dimethylamides. G. M. Coppinger. Am Chem Soc J 76:1372-3 Mr 5 '54

Production of fibres from 6,6-, 6,10- and 6-polyamides. G. Meacock. J Ap Chem 4: 172-7 Ap '54; Abstract. Chem & Eng N 32: 1470 Ap 12 '54

Properties of some perfluorinated N-bromo amides. J. D. Park, W. R. Lycan and J. R. Lacher. Am Chem Soc J 76:1388-9 Mr 5 '54

Pungents; fatty acid amides. L. M. Rice and others. bibliog Am Chem Soc J 76:3730-1 Jl 20 '54

Reductive coupling and polymerization of unsaturated amides; effect of substituents. H. R. Snyder and R. E. Putnam. bibliog Am Chem Soc J 76:1893-8 Ap 5 '54

Syntheses from phthalimido-acids; amides of glycine, DL-alanine, and L-glutamic acid with amphetamine, benzocaine, and procaine. F. E. King, J. W. Clark-Lewis and G. R. Smith. Chem Soc J p 1044-6 Mr '54

Syntheses of aspartyl amides and peptides through N-benzyl-*dl*-aspartic acid. Y. Liwschitz and A. Zilkha. Am Chem Soc J 76: 3698-701 Jl 20 '54

Tetraalkyloxamides and their reduction to N,N,-N′,N′-tetraalkylethylenediamines. B. H. Armbrecht and others. Am Chem Soc J 75:4829-30 O 5 '53

Trans-annular amide-type neutralization. F. A. L. Anet and others. Chem & Ind p944-5 S 5 '53

See also
Sulfonamides

Analysis

Determination of ammonium, amide, nitrite, and nitrate nitrogen in plant extracts. J. E. Varner and others. bibliog diag Anal Chem 25:1528-9 O '53

Equilibration in molten polyamide mixtures. C. W. Ayers. bibliog diags J Ap Chem 4: 444-9 Ag '54

Spectra

Near infrared spectra of compounds with two peptide bonds and the configuration of a polypeptide chain. S. Mizushima and others. bibliog Am Chem Soc J 76:2479-82 My 5 '54

Study of the infrared spectrum of the amide group. H. Letaw, jr. and A. H. Gropp. bibliog J Chem Phys 21:1621-7 O '53

AMIDINES

Amidines derived from ethylenediamine; diamidines. A. J. Hill and J. V. Johnston. Am Chem Soc J 76:920-2 F 5 '54

Derivatives of acetoacetic acid; the reaction of diketen with thioureas, amidines, guanidines, and *S*-substituted thioureas. R. N. Lacey. Chem Soc J p839-44 Mr '54

Partition coefficients of some amidines. J. Cymerman-Craig, M. J. Parker and P. Woodhouse. Chem Soc J p3050-2 O '53

AMIDONE, Analogs of

Preparation of several analogs of amidone and isoamidone. F. F. Blicke and E. Tsao. bibliog Am Chem Soc J 76:2203-6 Ap 20 '54

AMINATION

Alkali metal-catalyzed amination of olefins. B. W. Howk and others. bibliog Am Chem Soc J 76:1899-902 Ap 5 '54

Amination of anthraquinone with hydroxylamine in sulphuric acid. A. C. Robson and S. Coffey. Chem Soc J p2372-4 Jl '54

Chemical engineering unit processes; amination by reduction. J. Werner. bibliog(42 refs) il Ind & Eng Chem 45:1912-14 S '53

Chemical engineering unit processes; amination by reduction. J. Werner. bibliog(17 refs) il Ind & Eng Chem 46:1800-1 S '54

Transamination reactions; abstract. A. Meister. Chem & Eng N 32:1312-13 Ap 5 '54

AMINE mustards. See Nitrogen mustards

AMINES

2-Acetoacetyl-4-methylphenol as a reagent for primary amines. J. B. Harborne and A. S. Weaving. Chem Soc J p 1157-8 Mr '54

Action of hydrogen sulphide on certain aromatic amines in the presence of formaldehyde. D. Collins and J. Graymore. Chem Soc J p4089-90 D '53

Amphoteric amine detergents; abstract. J. W. McCutcheon. Chem & Eng N 32:3874 S 27 '54

Aromatic amines as fuel additives. bibliog diag U S Nat Advisory Com for Aeronautics 1951:556-68 '52

Arylamine sulfide catalysts in reclaiming GR-S vulcanizates. F. J. Webb and others. bibliog(41 ref) Ind & Eng Chem 46:1711-15 Ag '54

Brown condensation products from acetaldehyde and aliphatic amines. J. F. Carson and H. S. Olcott. bibliog Am Chem Soc J 76:2257-9 Ap 20 '54

Chlorination of arylamine derivatives by sulphuryl chloride. F. Bell. Chem Soc J p4182 D '53

Compounds derived from the addition of amines to 2,4-pentadienenitrile. J. M. Stewart. Am Chem Soc J 76:3228-30 Je 20 '54

Condensation of hydroxyaromatic compounds with formaldehyde and primary aromatic amines. W. J. Burke, K. C. Murdock and G. Ec. bibliog Am Chem Soc J 76:1677-9 Mr 20 '54

Condensation of thiophenols with secondary amines and formaldehyde. G. F. Grillot and others. bibliog Am Chem Soc J 76:3969-71 Ag 5 '54

Decrystallized cotton. G. Susich. bibliog il Am Dyestuff Rep 42:713-18 O 26 '53

Determination of aldehydes using the reaction with primary amines. S. Siggia and E. Segal. bibliog Anal Chem 25:830-1 My '53

2,3-Dihydro-1H-imidazo[1.5-a] pyrroles; condensation of pyrroles and formaldehyde and primary amines. W. J. Burke and G. N. Hammer. bibliog Am Chem Soc J 76:1294-6 Mr 5 '54

Disproportionation of tertiary amines. H. R. Snyder, R. E. Carnahan and E. R. Lovejoy. bibliog Am Chem Soc J 76:1301-4 Mr 5 '54

Film forming corrosion inhibitors also aid heat transfer. W. A. Tanzola and J. G. Weidman. bibliog il diag Paper Ind 36:48-50+ Ap '54

Heterocycles containing *p*-phenylene units; substituted amines. R. C. Fuson and H. O. House. bibliog Am Chem Soc J 75:5744-6 N 20 '53

Heterocyclic imines and amines; derivatives of *iso*indoline and *iso*indolenine. P. F. Clark, J. A. Elvidge and R. P. Linstead. Chem Soc J p3593-601 N '53

How to protect against corrosion; new crystalline amine nitrite compound. il Power 98:140 S '54

Hydrogen bond formation with pyridines and aliphatic amines. M. Tamres and others. bibliog Am Chem Soc J 76:3983-5 Ag 5 '54

Indoles derived from aromatic amines and 2-hydroxy-ketones; the synthesis of 7-acetyl-2 : 3 : 4′ : 5′-tetraphenylpyrrolo(2′ : 3′-4 : 5-indole. N. A. Jones and M. L. Tomlinson. Chem Soc J p4114-16 D '53

Interference of inorganic salts in the chromatography on paper of amino alcohols, diamines, and diamino acids. D. M. Waldron-Edward. Chem & Ind p 104-6 Ja 23 '54

Kinetics of the reactions of *O*-acylglycosyl bromides with amines in acetone. N. B. Chapman and W. E. Laird. bibliog Chem & Ind p20-1 Ja 2 '54

Liquid-liquid solubility and vapor pressure of heptacosafluorotributylamine. G. J. Rotariu, R. J. Hanrahan and R. E. Fruin. bibliog Am Chem Soc J 76:3752-6 Jl 20 '54

Lithium aluminum hydride reduction of Grignard-nitrile adducts to primary amines. A. Pohland and H. R. Sullivan. bibliog Am Chem Soc J 75:5898-9 D 5 '53

Melanin and its precursors; synthesis of methylated 5 : 6-dihydroxyindoles, β-(4 : 5-dihydroxy-2-methylphenyl)alanine, and related amines. R. I. T. Cromartie and J. Harley-Mason. Chem Soc J p3525-8 N '53

Metal-amine complexes in ion exchange. R. H. Stokes and H. F. Walton. bibliog Am Chem Soc J 76:3327-31 Je 20 '54

Oxidation of *N*-alkylarylamines; identification of *N*-alkyl groups. F. W. Neumann and C. W. Gould. bibliog(55 ref) il diags Anal Chem 25:751-9 My '53

Oxidation of some aromatic amines with persulphate. E. Boyland and P. Sims. Chem Soc J p980-5 Mr '54

Pigment printing; reaction products of polyamines and cross-linking agents. Am Dyestuff Rep 43:17 Ja 4 '54

Polyamine salts with autonomic blocking properties. R. H. Mizzoni, M. A. Hennessey and C. R. Scholz. bibliog Am Chem Soc J 76:2414-17 My 5 '54

Preparation and reactions of 2-alkyl-1(or 3)-nitro-2-thiopseudourea; reaction with amines. L. Fishbein and J. A. Gallaghan. bibliog Am Chem Soc J 76:1877-9 Ap 5 '54

Preparation of alicyclic amines. D. V. Nightingale, M. Maienthal and J. A. Gallagher. Am Chem Soc J 75:4852-3 O 5 '53

Preparation of amines by low pressure hydrogenation of oximes. D. C. Iffland and T. F. Yen. bibliog Am Chem Soc J 76:4180-1 Ag 20 '54

Preparation of bis-2-cyanoethyl derivatives of aromatic primary amines, and their conversion into 1 : 6-diketojulolidines. J. T. Braunholtz and F. G. Mann. Chem Soc J p651-8 F '54

Preparation of dyeable fiber-forming compositions. G. E. Ham and P. W. Gann. bibliog Ind & Eng Chem 45:2320-6 O '53

Rate of deuterium exchange of certain amines and alcohols. J. Hine and C. H. Thomas. bibliog Am Chem Soc J 76:612 Ja 20 '54

Rates of ionization of pseudo acids; catalytic behavior of alkylamines in the ionization of nitroethane. R. G. Pearson and F. V. Williams. bibliog Am Chem Soc J 76:258-60 Ja 5 '54

Reaction between iron(II) complexes of polyethylenepolyamines and *p-t*-butylcumene hydroperoxide. R. J. Orr and H. L. Williams. bibliog Am Chem Soc J 76:3321-7 Je 20 '54

Reaction of chlorophyll in amines. A. Weller and R. Livingston. bibliog diags Am Chem Soc J 76:1575-8 Mr 20 '54

Reaction of 1-substituted-3-amino-5-pyrazolones with amines. B. Graham, W. Reckhow and A. Weissberger. Am Chem Soc J 76:3993-5 Ag 5 '54

Reaction of trimethylene oxide with amines. S. Searles and V. P. Gregory. bibliog Am Chem Soc J 76:2789-90 My 20 '54

Reactions of amines and sulphur with olefins; the reaction of diethylamine and sulphur with *cyclo*hexene. C. G. Moore and R. W. Saville. Chem Soc J p2082-9 Je '54

Reactions of amines and sulphur with olefins; the reaction of diethylamine and sulphur with 1 : 5-diolefins. R. W. Glazebrook and R. W. Saville. Chem Soc J p2094-103 Je '54

Reactions of amines and sulphur with olefins; the reaction of diethylamine and sulphur with trialkylethylenes. C. G. Moore and R. W. Saville. Chem Soc J p2089-94 Je '54

Reactions of long-chain amines; preparation of N,N-dialkylthiamorpholinium chlorides. J. G. Erickson. Am Chem Soc J 76:4030-1 Ag 5 '54

Reactions of long-chain amines; reactions with urea. J. G. Erickson. bibliog Am Chem Soc J 76:3977-8 Ag 5 '54

AMINES—*Continued*

Reactions of organic peroxides; reactions with amines. C. W. Capp and E. G. E. Hawkins. Chem Soc J p4106-9 D '53

Studies of *N*-halogeno-compounds; the kinetics of chlorination of tertiary amines. A. J. Ellis and F. G. Soper. Chem Soc J p 1750-5 Je '54

Sugar-amine reductones; abstract. J. E. Hodge. il Chem & Eng N 32:1436 Ap 12 '54

What to do about amine stress corrosion. G. L. Garwood. il Oil & Gas J 52:334-5+ Jl 27 '53

See also

Ethanolamine

Methyl diethanolamine

Analysis

Determination of primary fatty amines in amine mixtures. J. E. Jackson. Anal Chem 25:1764-5 N '53

1-Fluoro-2,4-dinitrobenzene as a quantitative reagent for primary and secondary amines. F. C. McIntire, L. M. Clements and M. Sproull. bibliog Anal Chem 25:1757-8 N '53

Identification of amines by X-ray powder patterns of their chloroplatinates. C. W. Gould and S. T. Gross. diag Anal Chem 25:749-51 My '53

Partition chromatography of a homologous series of volatile primary amines. R. A. Clayton and F. M. Strong. bibliog Anal Chem 26:579-80 Mr '54

Quantitative estimation of amine-cadmium halide complexes. L. Levi and C. G. Farmilo. bibliog(34 ref) Anal Chem 25:909-13 Je '53

Studies with *N*-halo reagents. P. F. Kruse, jr., K. L. Grist and T. A. McCoy. bibliog Anal Chem 26:1319-22 Ag '54

Titration of aromatic and aliphatic amine picrates in nonaqueous solution. J. R. Clark and S. M. Wang. bibliog Anal Chem 26:1230 Jl '54

Titration of weak bases in acetic anhydride solvent mixtures. J. S. Fritz and M. O. Fulda. Anal Chem 25:1837-9 D '53

Vapor pressure ebulliometer for milliliter samples. S. R. Hoover, H. John and E. F. Mellon. bibliog il Anal Chem 25:1940-1 D '53

Spectra

Unsaturated amines; determination of the proximity of nitrogen to a double bond by infrared absorption spectra. N. J. Leonard and V. W. Gash. bibliog Am Chem Soc J 76:2781-4 My 20 '54

AMINO acids

Acyl chlorides of amino acids and peptides as monomers for the preparation of polymeric polypeptides. M. Frankel, Y. Liwschitz and A. Zilkha. bibliog Am Chem Soc J 76:2814-16 My 20 '54

Adsorption of dyes, amino acids, proteins, and metal hydroxides on quartz. J. C. Dale and E. J. King. bibliog A M A Archives Ind Hygiene & Occup Med 7:484-9 Je '53

Amino acid from fusel oil; abstract. H. C. White. Can Chem Process 38:106 S '54

Amino acid status of sugar cane; abstract. L. F. Wiggins. Chem & Eng N 32:3835 S 27 '54

Amino-acids and peptides; the kinetics of the self-condensation of glycylglycylglycine methyl ester. P. S. Rees, D. P. Tong and G. T. Young. Chem Soc J p662-5 F '54

Amino acids found in protein from entamoeba histolytica. C. E. Becker and Q. M. Geiman. bibliog Am Chem Soc J 76:3029 Je 5 '54

Amino-acids of marine algae. C. B. Coulson. bibliog Chem & Ind p971-2 S 12 '53

Complexes of alkaline earth cations including radium with amino acids and related compounds. J. Schubert. bibliog Am Chem Soc J 76:3442-4 Jl 5 '54

Copper(II) and zinc complexes of some amino acids and glycylglycine. N. C. Li and E. Doody. bibliog Am Chem Soc J 76:221-5 Ja 5 '54

Cyto-active amino-acid and peptide derivatives; substituted phenylalanines. F. Bergel and J. A. Stock. Chem Soc J p2409-17 Jl '54

Detection of the keto acids of plants; a procedure based on their conversion to amino acids. G. H. N. Towers, J. F. Thompson and F. C. Steward. bibliog diags Am Chem Soc J 76:2392-6 My 5 '54

Diffusion measurements, at 25°, of aqueous solutions of amino acids, peptides and sugars. L. G. Longsworth. bibliog Am Chem Soc J 75:5705-9 N 20 '53

Enzymic synthesis of peptide bonds; the influence of residue type on papain-catalyzed reactions of some benzoylamino acids with some amino acid anilides. S. W. Fox, M. Winitz and C. W. Pettinga. bibliog Am Chem Soc J 75:5539-42 N 20 '53

General method for the synthesis of β, β-dimethyl-α-amino-acids. H. Erdtman and A. Jönsson. Chem & Ind p695 Je 12 '54

Genesis by lightning. Sci Am 189:42+ Jl '53

Interferences of inorganic salts in the chromatography on paper of amino alcohols, diamines, and diamino acids. D. M. Waldron-Edward. Chem & Ind p 104-6 Ja 23 '54

Mechanism of decarboxylation; the decarboxylation of α-amino-acids in benzaldehyde. D. L. Hammick and others. Chem Soc J p3825-7 D '53

Molecular models of amino acids, peptides, and proteins. R. B. Corey and L. Pauling. il diags R Sci Instr 24:621-7 Ag '53

N- and C-terminal amino acid sequences of α-corticotropin (ACTH). J. I. Harris and C. H. Li. bibliog Am Chem Soc J 76:3607-8 Jl 5 '54

New synthetic method of protein analogs having periodic arrangement of amino acids. J. Noguchi and T. Hayakawa. bibliog Am Chem Soc J 76:2846-8 My 20 '54

Preparation and properties of 2,4-dinitrophenyl-L-amino acids. K. R. Rao and H. A. Sober. bibliog Am Chem Soc J 76:1328-31 Mr 5 '54

Quantitative amino acid analysis of sheep adrenocorticotropic (ACTH) protein. R. M. Mendenhall. bibliog Science 117:713-14 Je 26 '53

Reversible catalytic cleavage of hydroxyamino acids by pyridoxal and metal salts. D. E. Metzler, J. B. Longenecker and E. E. Snell. bibliog Am Chem Soc J 76:639-44 F 5 '54

Sites of the amino-acid residues on a cyclol model of insulin. G. A. Anslow. bibliog il J Chem Phys 21:2083-4 N '53

Structure of a new amino acid obtained from roseothricin. K. Nakanishi, T. Ito and Y. Hirata. bibliog Am Chem Soc J 76:2845-6 My 20 '54

Syntheses and microbiological properties of acetylenic amino acids; propargylglycine and 2-amino-3-methyl-4-pentynoic acid. H. Gershon and others. bibliog Am Chem Soc J 76:3484-6 Jl 5 '54

Thermodynamics of ionization of amino acids; the ionization constants of γ-aminobutyric acid. E. J. King. bibliog Am Chem Soc J 76:1006-8 F 20 '54

Thiohydantoins of amino acids. E. Campaigne and W. L. Archer. bibliog Am Chem Soc J 75:5733-4 N 20 '53

Transamination of pyridoxamine and amino acids with gyloxylic acid. D. E. Metzler, J. Olivard and E. E. Snell. bibliog Am Chem Soc J 76:644-8 F 5 '54

See also

Cystine

Ethylenediamine tetraacetic acid

Lysine

Tyrosine

Analysis

Accuracy of quantitative paper chromatography in amino acid analysis. R. C. Salander, M. Piano and A. R. Patton. Anal Chem 25:1252-3 Ag '53

Amino acid composition of insulins isolated from beef, pork and sheep glands. E. J. Harfenist. bibliog Am Chem Soc J 75:5528-33 N 20 '53

Circular paper chromatography. A. Saifer and I. Oreskes. bibliog(30 ref) diag Anal Chem 25:1539-44 O '53

Isolation of amino acids by distillation of the acetylated amino acid ethyl esters. E. F. Mellon and others. bibliog Am Chem Soc J 75:5524-8 N 20 '53

AMINO acids—Analysis—*Continued*

New solvent system for separation of amino acids by paper chromatography. R. A. Clayton and F. M. Strong. Anal Chem 26:1362-3 Ag '54

Polarographic determination of amino acids. D. R. Norton and N. H. Furman. bibliog Anal Chem 26:1116-19 Jl '54

Quantitative determination of amino acids. J. F. Roland, jr. and A. M. Gross. bibliog il Anal Chem 26:502-5 Mr '54

Simultaneous separation of purines, pyrimidines, amino acids, and other nitrogenous compounds. J. S. Wall. bibliog Anal Chem 25:950-3 Je '53

Spectra

Infrared absorption spectra of some amino acids in antimony trichloride solution. J. R. Lacher and others. bibliog J Phys Chem 58:206-10 Mr '54

AMINO alcohols. See Alcohols

AMINOBENZENEPHOSPHONIC acid

2-Hydyroxy-4-aminobenzenephosphonic acid, an analog of *p*-aminosalicyclic acid. G. O. Doak and L. D. Freedman. Am Chem Soc J 75:6307-8 D 20 '53

AMINOBENZOATES

Antispasmodics; diphenylacetates and *p*-amiinobenzoates of basic alkoxyalkanols. F. F. Blicke and J. H. Biel. bibliog Am Chem Soc J 76:3163-6 Je 20 '54

Rate of saponification of some alkyl *m*- and *p*-dialkylaminobenzoates. C. C. Price and W. J. Belanger. bibliog Am Chem Soc J 76:2682-4 My 20 '54

AMINOBENZOIC acid

Biological activity of a metabolite of *p*-aminobenzoic acid(PABA) in a hydroxylating system. N. H. Sloane. bibliog Am Chem Soc J 75:6352-3 D 20 '53

Syntheses from phthalimido-acids; *p*-glycylaminobenzoic acid and derivatives. F. E. King and others. Chem Soc J p 1039-43 Mr '54

AMINOBENZOPHENONE

Intramolecular reactions; the mechanism of the cyclization of diazotized 2-amino-benzophenones. D. F. DeTar and D. I. Relyea. bibliog Am Chem Soc J 76:1680-5 Mr 20 '54

AMINOBICYCLOOCTENE

Rearrangement of 2-aminobicyclo[2.2.2]octene-5 with nitrous acid. W. C. Wildman and D. R. Saunders. Am Chem Soc J 76:946-7 F 5 '54

AMINOBUTYRIC acid

Synthesis of α,γ-dihydroxy-β-amino-*n*-butyric acid. H. Rinderknecht and C. Niemann. Am Chem Soc J 75:6322-3 D 20 '53

AMINOCAPROIC acid

High field conductance of aqueous solutions of ε-amino-*n*-caproic acid at 25°. D. Berg and A. Patterson, jr. Am Chem Soc J 75:4835-6 O 5 '53

AMINO compounds

Alkylaminoalkylamino derivatives of xanthones, acridones and anthraquinones. S. Archer, L. B. Rochester and M. Jackman. bibliog Am Chem Soc J 76:588-91 Ja 20 '54

Chemical interactions of amino compounds and sugars; influence of water. M. L. Wolfrom and C. S. Rooney. Am Chem Soc J 75:5435-6 N 5 '53

Cyclic aminoacyloins; F-strain limitation of transannular interaction between N and C_{co}. N. J. Leonard and M. Ōki. bibliog Am Chem Soc J 76:3463-5 Jl 5 '54

Derivatives of piperazine; synthesis of 1-arylpiperazines and amino alcohol derivatives. C. B. Pollard and T. H. Wicker, jr. bibliog Am Chem Soc J 76:1853-5 Ap 5 '54

Reactions of 4-thionchromones with amino-compounds, and with methyl iodide. W. Baker, G. G. Clarke and J. B. Harborne. Chem Soc J p998-1002 Mr '54

2-Substituted amino- and aminomethyl-4-phenyl-1-tetralones. S. Wawzonek and J. Kozikowski. Am Chem Soc J 76:1641-3 Mr 20 '54

Synthesis of amino-substituted phosphonic acids. M. E. Chalmers and G. M. Kosolapoff. bibliog Am Chem Soc J 75:5278-80 N 5 '53

Synthesis of aromatic phosphonic acids and their derivatives; some amino and hydroxy substituted acids. V. L. Bell, jr. and G. M. Kosolapoff. bibliog Am Chem Soc J 75:4901-3 O 20 '53

See also

Ethanolamine

AMINOETHANOL. See Ethanolamine

AMINOFLUORENE. See Fluorenamine

AMINO group

Loss of the α-amino group in lysine metabolism to form pipecolic acid. M. Rothstein and L. L. Miller. Am Chem Soc J 76:1459 Mr 5 '54

AMINOHYDROXYSTEARIC acid

Synthesis of erythro- and threo-α-amino-β-hydroxystearic acids. H. E. Carter, J. B. Harrison and D. Shapiro. bibliog Am Chem Soc J 75:4705-9 O 5 '53

AMINOINDOLE

5-Aminoindole. J. Harley-Mason and A. H. Jackson. Chem Soc J p 1158-9 Mr '54

AMINOLEVULINIC acid

δ-Aminolevulinic acid, its role in the biosynthesis of porphyrins and purines. D. Shemin and C. S. Russell. bibliog Am Chem Soc J 75:4873-4 O 5 '53

AMINOLYSIS. See Ammonolysis

AMINOMETHOXYSTILBENE

Synthesis of 4-amino-3-methoxystilbene. F. Bergel. Chem & Ind p904-5 Jl 17 '54

AMINOMETHYL oxazolidone

Aminomethyloxazolidones derived from substituted diamino-2-propanols. B. J. Ludwig, W. A. West and D. W. Farnsworth. Am Chem Soc J 76:2891-3 Je 5 '54

AMINONITRILES

α-(N-alkylamino)-nitriles. L. J. Exner, L. S. Luskin and P. L. deBenneville. Am Chem Soc J 75:4841-2 O 5 '53

AMINOPHENYLACETOPHENONE

Configuration of (+)-desylamine hydrochloride. M. B. Watson and G. W. Youngson. bibliog Chem & Ind p658-9 Je 5 '54

AMINOPHENYL sulfates

Preparation of *o*-aminophenyl sulphates. E. Boyland, D. Manson and P. Sims. Chem Soc J p3623-8 N '53

AMINOPHENYL sulfone

Synthesis of bis(*p*-aminophenyl) sulfone for laboratory classes. R. E. Buckles. J Chem Educ 31:36-7 Ja '54

AMINOPROPANE

Trichloroaminoalcohols; 1,1,1-trichloro-2-alkoxy-3-aminopropanes. I. Thompson and others. Am Chem Soc J 75:5006-8 O 20 '53

AMINOPROPANOL

Substituted 1-phenyl-2-alkylaminoethanols and -propanols. J. R. Corrigan and others. bibliog Am Chem Soc J 75:6258-60 D 20 '53

Vitamin B_{12}; resolution of DL-1-amino-2-propanol. R. L. Clark and others. bibliog Am Chem Soc J 76:3995-7 Ag 5 '54

AMINOPTERIDINE

Spectrophotometric determination of the ionization constants of pteridine, 2-aminopteridine and 4-aminopteridine. D. F. DeTar, C. K. Cain and B. S. Meeks, jr. bibliog Am Chem Soc J 75:5118-19 O 20 '53

AMINOPTERIN

Analysis

Ion-exchange chromatography of pteroylglutamic acid and aminopterin. M. R. Heinrich, V. V. Dewey and G. W. Kidder. bibliog Am Chem Soc J 75:5425-6 N 5 '53

AMINOPYRIDAZINE

Pyridazine derivatives; an improved synthesis of 3-aminopyridazine. E. A. Steck, R. P. Brundage and L. T. Fletcher. bibliog Am Chem Soc J 76:3225-6 Je 20 '54

AMINOPYRIDINE

2-Aminopyridine 1-oxides. R. Adams and S. Miyano. bibliog Am Chem Soc J 76:2785-6 My 20 '54

AMINOPYRIMIDINE

Convenient synthesis of some 4-substituted 5-aminopyrimidines. P. D. Landauer and H. N. Rydon. Chem Soc J p3721-2 N '53

Improved syntheses in the pyrimidine series; 5-amino-4-methylaminopyrimidine. D. J. Brown. bibliog J Ap Chem 4:72-5 F '54

Monomer synthesis; methylation of 2-aminopyrimidine. C. G. Overberger and I. C. Kogon. bibliog Am Chem Soc J 76:1065-8 F 20 '54

AMINOSALICYLIC acid

Reduction of 4-amino- 4-acetamidosalicylic acids. A. A. Goldberg and R. S. Theobald. Chem Soc J p2641 Jl '54

Some derivatives of *p*-aminosalicylic acid. R. B. Seligman, R. W. Bost and R. L. McKee. Am Chem Soc J 75:6334-5 D 20 '53

AMINOSALICYLIC acid, Analogs of

2-Hydroxy-4-aminobenzenephosphonic acid, an analog of *p*-aminosalicylic acid. G. O. Doak and L. D. Freedman. Am Chem Soc J 75:6307-8 D 20 '53

Pyrimidines; some pyrimidine analogues of 4-aminosalicylic acid. J. F. W. McOmie and I. M. White. Chem Soc J p4175-6 D '53

AMINOSTILBENE

Intramolecular reactions; reactions of diazotized *cis*- and *trans*-2-aminostilbene. D. F. DeTar and Y. Chu. bibliog Am Chem Soc J 76:1686-8 Mr 20 '54

AMINOTETRAZOLE

Improved procedure for the deamination of 5-aminotetrazole. R. A. Henry and W. G. Finnegan. bibliog Am Chem Soc J 76:290-1 Ja 5 '54

Thermal isomerization of substituted 5-aminotetrazoles. R. A. Henry, W. G. Finnegan and E. Lieber. bibliog Am Chem Soc J 76:88-93 Ja 5 '54

AMINOTHIAZOLE

Synthesis of α-alkoxy-β-haloethyl acetates and 2-aminothiazole. S. Akiyoshi and K. Okuno. Am Chem Soc J 76:693-4 F 5 '54

AMINOTHIOPHENE

3-Substituted thiophenes; derivatives of 3-aminothiophene. E. Campaigne and P. A. Monroe. bibliog Am Chem Soc J 76:2447-50 My 5 '54

AMINOTRIAZOLE

Polyaminotriazoles as fibre-forming materials. J. W. Fisher. bibliog il J Ap Chem 4:212-19 Ap '54; Abstract. Chem & Eng N 32:1470 Ap 12 '54

AMINOVALERIC acid

Synthesis of δ-aminovaleric acid-δ-C^{14}. M. Rothstein. Am Chem Soc J 76:3038-9 Je 5 '54

AMMANN, Othmar Herman, 1879-

Sketch. por Civil Eng 23:622 S '53

AMMETERS

See also
Milliameters

AMMI visnaga

Seed oil of ammi visnaga as a source of *cis* octa-dec-6-enoic acid (petroselinic). J. H. Skellon and J. W. Spence. Chem & Ind p75 Ja 16 '54

AMMINES

Evidence for the existence of an ammine of platinum(0). G. W. Watt, M. T. Walling, jr. and P. I. Mayfield. bibliog Am Chem Soc J 75:6175-7 D 20 '53

Pentammineiridium(0). G. W. Watt and P. I. Mayfield. bibliog Am Chem Soc J 75:6178-80 D 20 '53

Analysis

Potentiometric titration of ammines of rhodium, iridium, and platinum with solutions of potassium and potassium amide in liquid ammonia. G. W. Watt and others. Electrochem Soc J 101:235-8 My '54

AMMONIA

Action of sodium in liquid ammonia on phaeanthine, *OO'*-dimethylcurine, and *OO'*-dimethyl*iso*chondrodendrine. D. A. A. Kidd and J. Walker. Chem Soc J p669-77 F '54

Alkali metal-ammonia solutions; gross chemical differences. C. W. Keenan and W. J. McDowell. bibliog Am Chem Soc J 76:2839 My 20 '54

Ammonia and ammonium hydroxide. J. B. Davis. J Chem Educ 30:511 O '53

Ammonia-base sulfite pulping. W. Q. Hull and others. bibliog flow sheets il Ind & Eng Chem 46:1546-57 Ag '54

Ammonia distribution gear-up; Shell Chemical streamlining extensive organization. il map Chem W 75:48+ Jl 24 '54

Ammonia use climbs 34 percent on farms. Oil Paint & Drug Rep 166:5 Ag 2 '54

Anhydrous ammonia; hazards and precautions; data sheet. bibliog(31 titles) flow charts il diag Nat Safety N 69:34-5+ F '54

Answer on ammonia capacity. Chem W 74:92 Mr 13 '54

Application of the glass electrode in liquid ammonia systems. A. H. A. Heyn and M. J. Bergin. bibliog Am Chem Soc J 75:5120-2 O 20 '53

Behavior of an ion-exchange resin in liquid ammonia. C. W. Keenan and W. J. McDowell. Am Chem Soc J 75:6348 D 20 '53

Big squeeze; second round of ammonia expansions draws to close. map Chem W 73:70-2+ D 19 '53

Browning reaction between glucose and ammonia. L. Hough and others. bibliog Chem & Ind p545-6 My 8 '54

Chloramine-ammonia reaction in liquid ammonia. H. H. Sisler, F. T. Neth and F. R. Hurley. Am Chem Soc J 76:3909-11 Ag 5 '54

Chloramine-ammonia reaction in pure water and in other solvents. H. H. Sisler and others. Am Chem Soc J 76:3912-14 Ag 5 '54

Condensation of 2-naphthol with acetaldehyde ammonia. W. J. Burke and R. J. Reynolds. bibliog Am Chem Soc J 76:1291-3 Mr 5 '54

Conversion to the ammonium bisulphite pulping process. G. A. Crowe. diags Tappi 37: sup 154A-6A Mr '54

Decomposition of ammonia on ruthenium, rhodium and palladium catalysts supported on alumina. A. Amano and H. Taylor. bibliog Am Chem Soc J 76:4201-4 Ag 20 '54

Direct use of anhydrous ammonia in soil continues to increase. H. Stenerson. Chem & Eng N 31:3502 Ag 24 '53

Experimental reaction rates in the synthesis of ammonia. R. M. Adams and E. W. Comings. bibliog flow diag diag Chem Eng Prog 49:359-66 Jl '53

Flat flames of ammonia in air. N. W. Luft and L. Cohen. bibliog il J Chem Phys 22: 348 F '54

Formation of hydrazine from *t*-butyl hypochlorite and ammonia. L. F. Audrieth, E. Colton and M. M. Jones. bibliog Am Chem Soc J 76:1428-31 Mr 5 '54

Formation of hydrazine in electric discharge decomposition of ammonia. J. C. Devins and M. Burton. bibliog diags Am Chem Soc J 76:2618-26 My 20 '54

High field conductance of aqueous solutions of ammonia at 25°. D. Berg and A. Patterson, jr. bibliog Am Chem Soc J 75:5731-3 N 20 '53

Hypobromite and hypochlorite oxidation of ammonium hydroxide, hydrazine and hydroxylamine. R. F. Riley and others. bibliog Am Chem Soc J 76:3301-3 Je 20 '54

Interaction of alkali metals and liquid ammonia. G. W. Watt, G. D. Barnett and L. Vaska. bibliog Ind & Eng Chem 46:1022-4 My '54

Kinetics of the dissolution of copper in aqueous ammonia. J. Halpern. bibliog diag Electrochem Soc J 100:421-8 O '53

Low temperature catalytic oxidation of ammonia. H. F. Johnstone, E. T. Houvouras and W. R. Schowalter. bibliog(28 ref) Ind & Eng Chem 46:702-8 Ap '54

Mechanism of the reduction of potassium tetracyanonickelate(II) and potassium hexacyanocobaltate(III) with potassium in liquid ammonia. G. W. Watt and others. bibliog Am Chem Soc J 76:373-5 Ja 20 '54

Methods for estimating thermodynamic quantities of species in liquid ammonia. W. L. Jolly. bibliog J Phys Chem 58:250-2 Mr '54

Molecular addition compounds; the interaction of ammonia with ammonia-boron trifluoride at low temperatures. H. C. Brown and S. Johnson. bibliog Am Chem Soc J 76:1978-9 Ap 5 '54

Nitric acid in Great Britain; oxidation of ammonia; staff-industry collaborative report. G. C. Inskeep and T. H. Henry. bibliog flow sheet il Ind & Eng Chem 45:1386-95 Jl '53

Organizing a boom; direct-application ammonia's year. il Chem W 73:64+ Ag 15 '53

Outlook for ammonia, phenol and ethylene glycol. Chem Eng 60:363-4 Je '53

Paramagnetic resonance absorption in solutions of K and Na in liquid NH_3. C. A. Hutchison, jr. and R. C. Pastor. bibliog J Chem Phys 21:1959-71 N '53

Phosphorus oxychloride and ammonia; condensed in solvents and used as flame retardants. Am Dyestuff Rep 43:445 Jl 5 '54

AMMONIA—*Continued*

Potentiometric titration of ammines of rhodium, iridium, and platinum with solutions of potassium and potassium amide in liquid ammonia. G. W. Watt and others. Electrochem Soc J 101:235-8 My '54

Potentiometric titration of simple salts with potassium in liquid ammonia. G. W. Watt and others. bibliog Electrochem Soc J 101: 229-34 My '54

Preparation of liquid ammonia solutions of sodium vinylacetylide. W. J. Croxall and J. O. Van Hook. Am Chem Soc J 76:1700 Mr 20 '54

Proton magnetic resonance spectrum of ammonia and the interactions involved in hydrogen bond association. R. A. Ogg, jr. J Chem Phys 22:560-1 Mr '54

Reaction of amino-compounds with sugars; the action of ammonia on melibiose. L. Hough, J. K. N. Jones and E. L. Richards. Chem Soc J p295-7 Ja '54

Reactions of mercury(I) compounds with ammonia; X-ray diffraction studies. W. N. Lipscomb. bibliog Anal Chem 25:737-9 My '53

Reactions of some metal salts with alkali superoxides in liquid ammonia. D. L. Schechter and J. Kleinberg. Am Chem Soc J 76:3297-300 Je 20 '54

Recovery of ammonia by simultaneous evaporation of acid and alkaline waste liquors and re-use of it for pulping. L. C. Jenness. Tappi 37:sup 137A-9A Ag '54

Solubility of silver salts in aqua ammonia. C. R. Johnson. J Chem Educ 31:205-6 Ap '54

Spectrophotometric investigation of the mixed complex formed by copper ions with both ammonia and pryophosphate ions in aqueous solutions. J. I. Watters, J. Mason and A. Aaron. bibliog Am Chem Soc J 75: 5212-15 N 5 '53

Spreading ammonia. il Chem W 72:52+ Ap 25 '53

Storm over ammonia. Chem W 73:55 Ag 1 '53

Studies on the behaviour of halides of the transition metals with ammonia; the reaction of zirconium and thorium tetrachlorides with ammonia. G. W. A. Fowles and F. H. Pollard. Chem Soc J p4128-32 D '53

Sulphite spent liquor; ammonia recovery from ammonium sulphite spent liquor by ion exchange processes. A. E. Markham and J. L. McCarthy. bibliog diags Tappi 37: 355-63 Ag '54

Synthesis of chloramine by the ammonia-chlorine reaction in the gas phase. H. H. Sisler and others. diags Am Chem Soc J 76: 3906-9 Ag 5 '54

Thermodynamics of ammonia synthesis and oxidation. R. H. Harrison and K. A. Kobe. bibliog(35 ref) Chem Eng Prog 49:349-53 Jl '53

Thermoelectric properties of metal-ammonia solutions; the thermoelectric power of sodium and potassium at -33°. J. F. Dewald and G. Lepoutre. bibliog diag Am Chem Soc J 76:3369-73 Jl 5 '54

Analysis

Colorimetric determination of ammonia and cyanate. J. M. Kruse and M. G. Mellon. bibliog Anal Chem 25:1188-92 Ag '53

Determination of ammonia in hydrazine. J. E. DeVries and E. S. Gantz. bibliog Anal Chem 25:973-4 Je '53

Polarographic determination of ammonia. D. R. Norton and C. K. Mann. bibliog Anal Chem 26:1180-2 Jl '54

Raman apparatus for gases. H. H. Claassen and J. R. Nielsen. bibliog diags Opt Soc Am J 43:352-5 My '53

Bibliography

Classification of ammonia-base pulping literature. D. E. Helleur. bibliog and patent list (146 titles) Tappi 37:sup 177A-82A Ja '54

Manufacture

Ammonia and methanol from air and methane; N.E.C. process. A. Christensen. flow diag Pet Refiner 32:186-7+ S '53

Ammonia and methanol; Nitrogen engineering corporation process. diag Pet Refiner 32: 168-9 N '53

Ammonia and urea; Foster Wheeler corp. diag Pet Refiner 32:170-1 N '53

Ammonia and urea from air and methane. flow diag Pet Refiner 32:178-9+ S '53

Ammonia from natural or refinery gases and air. A. L. Foster. flow chart il Pet Eng 25: C3-5 S '53

Ammonia, how it's made today; Phillips chemical co. il diag Chem Eng 61:140+ My '54

Ammonia, methanol, hydrogen cyanide and urea from air and methane. L. F. Hatch. diags Pet Refiner 32:170-1+ S '53

Ammonia plant on stream at Spencer Chemical's Vicksburg plant. flow diag il Chem & Eng N 32:572-3 F 15 '54

Ammonia synthesis gas. B. J. Mayland and others. bibliog Can Chem Process 38:22+ Ag '54; Same cond. flow diags Chem Eng Prog 50:177-81 Ap '54

Another ammonia plant for West; Ventura, Calif., plant of Shell chemical corp. il Chem Eng 61:120 Mr '54

Beware of contaminants. N. C. Updegraff. Chem & Eng N 32:2204 My 31 '54

Compression giant for three individual streams to different pressure levels. il Chem & Eng N 32:1613 Ap 19 '54

Enter: aqua ammonia; Brea chemicals. il Chem & Eng N 32:1456-7 Ap 12 '54

First certificate of necessity ammonia plant goes on stream; pictorial presentation of Commercial solvents corp. plants in Sterlington, La. Chem & Eng N 31:4112-13 O 5 '53

Maulwurf pump answers many circulator problems in ammonia synthesis. R. A. Byorum. il Ind & Eng Chem 46:sup 119A Ap '54

More ammonia for the West; Shell Chemical at Ventura. il Chem & Eng N 31:5276-7 D 21 '53

New ammonia process starts up; Spencer chemical co. il Chem Eng 61:126 Ap '54

New petrochem trends. J. C. Reidel. il Oil & Gas J 52:66+ O 26 '53

NH_3 unit uses reformer hydrogen; Atlantic Refining ammonia synthesis plant. il Chem & Eng N 32:3037-8 Ag 2 '54

Operating problems in ammonia synthesis. A. V. Slack, H. Y. Allgood and H. E. Maune. bibliog flow sheet il diags Chem Eng Prog 49:393-403 Ag '53

Partial oxidation premieres; synthesis gas for ammonia production at Spencer chemical co. il Chem W 74:60+ F 20 '54

Process kinetics; autothermic processes. C. van Heerden. diags Ind & Eng Chem 45: 1242-7 Je '53

Stabilization of ammonia synthesis catalyst. J. A. Burnett, H. Y. Allgood and J. R. Hall. il diags Ind & Eng Chem 45:1678-82 Ag '53

Synthetic ammonia by partial oxidation process; pictured flowsheet. Chem Eng 61: 332-5 My '54

Way out ahead; ammonia-producing capacity. Chem W 73:20+ O 10 '53

Spectrum

Absorption in the low-frequency wing of the NH_3 inversion spectrum. G. Birnbaum and A. A. Maryott. bibliog J Chem Phys 21: 1774-7 O '53

Absorption line width in the infrared spectrum of the ammonia molecule. A. Adel. Opt Soc Am J 43:1053 N '53

Change in the inversion spectrum of ND_3 from resonant to nonresonant absorption. G. Birnbaum and A. A. Maryott. bibliog Phys R 92:270-3 O 15 '53

Hyperfine structure in the spectrum of $N^{14}H_3$. G. R. Gunther-Mohr and others. bibliog diags Phys R 94:1184-203 Je 1 '54

Infrared spectra and structure of crystalline ammonia hydrates. R. D. Waldron and D. F. Hornig. bibliog Am Chem Soc J 75:6079-80 D 5 '53

Molecular microwave oscillator and new hyperfine structure in the microwave spectrum of NH_3. J. P. Gordon and others. il diags Phys R 95:282-4 Jl 1 '54

Rotational spectrum of ND_3 between 60 and 200 K. R. E. Stroup and others. J Chem Phys 21:2072-3 N '53

AMMONIUM bromide

Electrolyte-solvent interaction; tetrabutylammonium bromide in methanol-methyl ethyl ketone mixtures. F. M. Sacks and R. M. Fuoss. bibliog Am Chem Soc J 75:5172-5 N 5 '53

Some surface properties of docosyltrimethylammonium bromide, and of docosane-1-sulphonic acid and its sodium salt. F. G. Holliman, J. F. Largier and F. Sebba. Chem Soc J p738-40 F '54

AMMONIUM carbonates

Domestic helper; B. T. Babbitt, inc.'s Am-O. il Chem W 75:64 S 18 '54

AMMONIUM chloride

Anomalous behaviour of ammonium chloride particles on the corrosion of steel in humid atmospheres. B. Sanyal and R. S. Preston. bibliog il Chem & Ind p995-7 S 19 '53

Preparation of anhydrous hydrazine from mixtures of hydrazine monohydrohalides and ammonium chloride. H. H. Sisler and others. diag Am Chem Soc J 76:3914-16 Ag 5 '54

AMMONIUM chloroiodate

Stability of tetrabutylammonium tetrachloroiodide. R. E. Buckles and J. F. Mills. Am Chem Soc J 76:3716-18 Jl 20 '54

AMMONIUM compounds

Anticholinesterases; relation between structure and activity of anticholinesterases containing quaternary-nitrogen groups. A. W. D. Avison. bibliog diags Chem & Ind p288-93 Mr 13 '54

Antimicrobial activity of quaternary ammonium chlorides derived from commercial fatty acids. R. A. Reck and H. J. Harwood. bibliog Ind & Eng Chem 45:1022-6 My '53

Association of acetate with ammonium and guanidinium ions. C. Tanford. Am Chem Soc J 76:945-6 F 5 '54

Bis-ammonium salts; derivatives of fluorene, carbazole and phenothiazine. C. J. Cavallito, A. P. Gray and E. E. Spinner. bibliog Am Chem Soc J 76:1862-6 Ap 5 '54

Bis ammonium salts; derivatives of some carboline and related heterocyclic bases. A. P. Gray, E. E. Spinner and C. J. Cavallito. bibliog Am Chem Soc J 76:2792-7 My 20 '54

Crystal structures of the acid salts of some monobasic acids; ammonium hydrogen disalicylate hydrate. T. C. Downie and J. C. Speakman. Chem Soc J p787-93 Mr '54

Diacid bases; compounds related to 1 : 5-diphenylpentane-*pp'*-bis(trialkylammonium) salts as anti-cholinesterases. F. C. Copp. Chem Soc J p3116-18 O '53

Exchange of hydrogen between ammonium salts and alcohols. L. Kaplan and K. E. Wilzbach. Am Chem Soc J 76:2593 My 5 '54

Measurement and correlation of acid dissociation constants for ammonium and anilinium salts in the system dioxane-water. H. P. Marshall and E. Grunwald. bibliog Am Chem Soc J 76:2000-4 Ap 5 '54

New ω-substituted anisoles; aryloxymethyl quaternary ammonium salts. H. J. Barber and M. B. Green. J Ap Chem 4:115-19 Mr '54

Ortho substitution rearrangement versus β-elimination of certain quaternary ammonium ions with sodium amide; extension of the method of synthesis of vicinal alkyl aromatic derivatives. C. R. Hauser and A. J. Weinheimer. bibliog Am Chem Soc J 76:1264-7 Mr 5 '54

Polycyclic quaternary ammonium salts. F. F. Blicke and E. B. Hotelling. bibliog Am Chem Soc J 76:2422-9 My 5 '54

Preparation and polymerization of unsaturated quaternary ammonium compounds; derivatives of 1,4-diaminobutene-$2^{1,2}$. G. B. Butler and R. L. Goette. bibliog Am Chem Soc J 76:2418-21 My 5 '54

Preparation and polymerization of unsaturated quaternary ammonium compounds; propargyl derivatives. G. B. Butler and R. A. Johnson. bibliog Am Chem Soc J 76:713-14 F 5 '54

Quaternary ammonium compounds from dodecylbenzene. J. L. Darragh and R. D. Stayner. il Ind & Eng Chem 46:254-7 F '54

Quaternary ammonium salt, a versatile new chemical for textile processing. P. D. Jacobs. Am Dyestuff Rep 42:241-2 Ap 13 '53

Quaternary ammonium salts; hydrolysis of the nitrile group before decomposition of the quaternary ammonium group; preparation and decomposition of some quaternary ammonium salts. W. Tadros and A. B. Sakla. Chem Soc J p 1116-19 Mr '54

Sanitizing effect of quats. J. W. Klimek and J. H. Bailey. Soap & Chem Spec 30:129+ Jl '54

Some industrial applications of quaternary compounds. E. G. Curphey. bibliog Chem Age (Lond) 71:329-31 Ag 14 '54

Specific effects in acid catalysis by ion exchange resins; the effect of quaternary ammonium ions on the hydrolysis of esters of related structure. P. Riesz and L. P. Hammett. Am Chem Soc J 76:992-4 F 20 '54

Studies on ion exchange resins; capacity and specific volumes of quaternary base anion exchange resins. H. P. Gregor, J. Belle and R. A. Marcus. bibliog Am Chem Soc J 76:1984-7 Ap 5 '54

Thia- and dithia-alkanebis(quaternary ammonium) salts as neuromuscular- and ganglion-blocking agents. K. J. M. Andrews, F. Bergel and A. L. Morrison. Chem Soc J p2998-3002 O '53

Analysis

Colorimetric method for quantitative microdetermination of quaternary ammonium compounds. J. Fogh, P. O. H. Rasmussen and K. Skadhauge. bibliog il Anal Chem 26:392-5 F '54

Determination of ammonium, amide, nitrite, and nitrate nitrogen in plant extracts. J. E. Varner and others. bibliog diag Anal Chem 25:1528-9 O '53

Field testing quaternaries. G. B. Johnson. il Soap & San Chem 29:114-15+ Jl '53

Physiological effect

Toxicity of quaternaries. J. K. Finnegan and J. B. Dienna. bibliog il Soap & San Chem 30:147+ F '54

AMMONIUM dihydrogen phosphate. See Ammonium phosphates

AMMONIUM fluoride

Rate of dissolution and the passivation of titanium in acids with ammonium fluoride added. M. E. Straumanis and C. B. Gill. bibliog Electrochem Soc J 101:10-15 Ja '54

AMMONIUM halides

Reactions of hexachlorodisilane with ammonium halides and trimethylamine hydrohalides. C. J. Wilkins. Chem Soc J p3409-12 N '53

AMMONIUM hydroxide

Ammonia and ammonium hydroxide. J. B. Davis. J Chem Educ 30:511 O '53

Electron microscope examination of wool; fraction resistant to peracetic acid, ammonium hydroxide treatment. B. Manogue and R. L. Elliott. bibliog 2pls Soc Dyers & Col J 69:113-14 Ap '53

AMMONIUM iodide

Influence of alkyl groups upon reaction velocities in solution; the formation of phenyltrialkylammonium iodides in methylalcohol. D. P. Evans. Chem Soc J p 1316-18 Ap '54

AMMONIUM molybdate

Spectrophotometric determination of sodium hypophosphite as a molybdenum blue complex. A. P. Scanzillo. bibliog Anal Chem 26:411-12 F '54

AMMONIUM nitrate

Ammonium nitrate wharf rules relaxation announced. Oil Paint & Drug Rep 165:4+ Mr 8 '54

Emulsified ammonium nitrate as an ignition accelerator. I. Cornet and A. Boodberg. bibliog Ind & Eng Chem 45:1033-5 My '53

Explosive decomposition of triethylammonium nitrate-dinitrogen tetroxide mixtures. C. C. Addison and N. Hodge. Chem & Ind p 1315 D 5 '53

Investigations on the explosibility of ammonium nitrate. J. J. Burns and others. bibliog 16pls U S Bur Mines Rep of Invest 4994:1-19 '53

AMMONIUM nitrate—*Continued*

Stress-corrosion cracking of mild steels in nitrate solution. R. N. Parkins. bibliog 2pls diags Iron & Steel Inst J 172:149-62 O '52; Abstract. Metal Prog 64:130+ D '53; Discussion. Iron & Steel Inst J 174:140-2 Je '53

Manufacture

Air, water, power, plus engineering skill; ammonium nitrate plant, Iceland's entree into chemicals. il Chem Eng 61:117-18 Jl '54

Ammonium nitrate; Girdler co. diag Pet Refiner 32:172-3 N '53

Fewer steps to ammonium nitrate; Commercial solvents corp. il Chem W 73:50-2+ O 24 '53

New process for ammonium nitrate; two-stage crystallization. H. G. Felio and C. O. Brown. flow sheet il Chem Eng 61:190-2 Ag '54

Powered by a glacier; Iceland's ammonia plant. il Chem W 74:105-6 Je 26 '54

Stengel process ammonium nitrate. A. S. Hester, J. J. Dorsey, jr. and J. T. Kaufman. bibliog flow sheets il diag Ind & Eng Chem 46:622-32 Ap '54

AMMONIUM nitrite

Corrosion proofing with vapour phase inhibitors. J. P. Mosher. Can Chem Process 37:64 D '53

AMMONIUM phosphates

Chemistry of diammonium phosphate. W. B. Coleman. Am Dyestuff Rep 42:167-8 Mr 16 '53

Diammonium phosphate in wool dyeing. J. N. Dalton. Am Dyestuff Rep 42:168-71 Mr 16 '53

Emphasis on aqua; Brea Chemicals development and distribution of plant nutrients in solution form. il map Chem W 75:52-4 Ag 14 '54

Photoelastic constants of ammonium dihydrogen phosphate and potassium dihydrogen phosphate. R. O. Carpenter. Opt Soc Am J 44:425 My '54

Plastic deformation of ammonium dihydrogen phosphate. P. L. Smith and E. I. Salkovitz. il diag J Ap Phys 25:237-9 F '54

AMMONIUM purpurate. See Murexide

AMMONIUM sulfate

Ammonium sulphate fractions of groundnut protein. K. O. Kelly and others. bibliog J Ap Chem 4:452-7 Ag '54

Chemical smelter starts up in Alberta; production of nickel concentrates and ammonium sulfate. il Chem & Eng N 32:3495 S 6 '54

Irradiation of ferrous ammonium sulfate solutions; energy absorption and ionization calculations for cobalt 60 and betatron radiation. D. V. Cormack and others. bibliog diag J Chem Phys 22:6-12 Ja '54

More sulphate of ammonia; annual report of British sulphate of ammonia association. Chem Age (Lond) 70:122 Ja 9 '54

Time to take stock? Chem W 75:11-12 Ag 14 '54

AMMONOLYSIS

Chemical engineering unit processes. G. H. Coleman. Ind & Eng Chem 45:1915-20 bibliog(118 ref, p 1919-20) S '53

Effect of structure on reactivity; a study of the aminolysis of esters of trichloro- and trifluoroacetic acids. M. M. Joullié and A. R. Day. Am Chem Soc J 76:2990-3 Je 5 '54

Effect of structure on reactivity; aminolysis of methyl acetate with some β-phenylethylamines. S. L. Jung, J. G. Miller and A. R. Day. bibliog Am Chem Soc J 75:4664-5 O 5 '53

Nitrogen systems; subtituted thioureides. F. L. Scott. bibliog Chem & Ind p 158-60 F 6 '54

Partial ammonolysis of silicon tetrachloride. W. C. Schumb and L. H. Towle. Am Chem Soc J 75:6085-6 D 5 '53

AMMUNITION

Ammo that barks but doesn't bite; Monarch mfg. co. turning out simulated ammunition. il Bsns W p 126-7+ N 28 '53

AMORTIZATION

Accelerated amortization and regulatory policy. E. Neuner, jr. bibliog Land Econ 29:248-62 Ag '53

Cars may get faster amortization. Ry Age 136:11-12 Ap 26 '54

Fast writeoff rule; no cure-all. Bsns W p32 N 14 '53

Fast write-offs for passenger cars; ODM extends accelerated amortization program. Ry Age 136:10-11 My 10 '54

More defense features in industrial buildings; companies can get five year amortization. il Bsns W p84+ O 24 '53

ODM alters rules on tax amortization. Oil Paint & Drug Rep 165:4+ F 15 '54

Should the consumer get full benefit of the fast tax certificate? O. Ely. Pub Util 52:751-6 N 19 '53

Summary of accelerated amortization dispositions for electric utility industry; table. Elec World 140:133 O 19 '53; Elec World News ed 140:44 O 26 '53

Tax aid policy revised in favor of certain sites. Oil Paint & Drug Rep 164:3+ N 9 '53

Tax write-offs; one way to keep the economy expanding. Management R 42:615 O '53

AMPEROMETRIC titration. See Volumetric analysis

AMPHIBIOUS airplanes. See Airplanes, Amphibious

AMPHIBIOUS motor vehicles. See Motor vehicles, Amphibious

AMPHITHEATERS

Chicago coliseum roof will span 500,000 sq ft of unobstructed floor. il Eng N 151:25-6 D 10 '53

Coliseum construction to start in April for New York's first public exhibit area. il Eng N 152:26 Mr 25 '54

AMPHOTERIC substances

Amphoteric amine detergents; abstract. J. W. McCutcheon. Chem & Eng N 32:3874 S 27 '54

Detergent-sanitizers; ampholytic soaps. Soap & San Chem 30:93+ Ap '54; Discussion. H. S. Mannheimer. Soap & Chem Spec 30:37+ Je '54

Knack for mixing; ampholytic detergents. il Chem W 74:104 Ap 24 '54

Macro-ions; the solution behavior of a polymeric ampholyte. G. Ehrlich and P. Doty. bibliog Am Chem Soc J 76:3764-77 Jl 20 '54

AMPLIDYNE generator

Industrial regulating systems using rotating regulators. G. E. Shaad. diags Machine Design 26:299-300+ My '54

AMPLIFIERS

Amplistats in industry. M. W. Cannon. il diags Power Eng 58:88-9 S '54

Application of magnetic amplifier circuits to perform multiplication and other analytical operations; abstract. L. A. Finzi and R. A. Mathias. diags Elec Eng 72:1097 D '53

Automatic gain control of junction transistor amplifiers. F. H. Blecher. diags Electronics 27:224+ Ja '54

Building and using dielectric amplifiers; constructing nonlinear barium-strontium-titanate capacitors. A. Silverstein. il diags Electronics 27:150-3 F '54

D-c amplifier employing junction-type transistors. E. Keonjian. diags Elec Eng 72:961-4 N '53

Dissected amplifiers using negative resistance. W. Shockley and W. P. Mason. bibliog diag J Ap Phys 25:677 My '54

Electro Methods magnetic amplifier for educational use. il Engineer 197:292 F 19 '54; Same abr. Engineering 177:277 F 26 '54

Fast response of magnetic amplifiers; abstract. D. G. Scorgie. diags Elec Eng 72:973 N '53

Flux preset high-speed magnetic amplifiers; abstract. C. B. House. diag Elec Eng 73:51 Ja '54

Gain-stabilized transistor amplifier. C. A. Krause. diags Electronics 27:183-5 F '54

How good is the magnetic amplifier. J. J. W. Brown. il diags Gen Elec R 57:53-7 Jl '54; Same abr. Machine Design 26:214-17 S '54

How Magamps are used on the new machine drive at West Tacoma. S. J. Campbell. il diag Paper Tr J 137:30-2 D 18 '53

Industrial applications of magnetic amplifiers. C. G. Helmick. il diags Instruments & Automation 27:1300-2 Ag '54

Influence of magnetic amplifier circuitry upon the operating hysteresis loops; abstract. H. W. Lord. diag Elec Eng 72:981 N '53

AMPLIFIERS—*Continued*

Instability of self-saturating magnetic amplifiers using rectangular loop-core materials; abstract. S. B. Batdorf and W. N. Johnson. Elec Eng 72:1013 N '53
Magnetic amplifier applications in d-c conversion stations; abstract. W. A. Derr and E. J. Cham. il diag Elec Eng 73:148 F '54
Magnetic amplifier as an analog computer component. L. J. Craig. diags Inst Radio Eng Proc 41:1477-82 O '53
Magnetic amplifier for synchros; abstract. R. L. VanAllen. diags Elec Eng 72:925 O '53
Magnetic amplifier regulators. R. W. Moore. diags Machine Design 26:308+ Ap '54; Abstract. Power 98:160+ My '54
Magnetic amplifier uses conventional inductors. A. I. Bennett, jr. diag Electronics 27:181-3 Ja '54
Magnetic amplifiers. il Factory Management 112:134-6 F '54
Magnetic amplifiers. J. F. Coales. Elec J 151:1319-20 O 23 '53; Same abr. Elec R (Lond) 153:992 O 30 '53; Same abr. Engineer 196:638 N 13 '53
Negative inductance cuts magnetic-amplifier lag. G. M. Ettinger. il diags Electronics 27:162-3 Ja '54
New developments in magnetic amplifiers. Aviation W 59:55 N 30 '53
New slasher drive eliminates maintenance; Avondale mills. G. Veigl. il diag Textile World 104:88-9+ My '54
Nonlinear capacitors for dielectric amplifiers. G. S. Shaw and J. L. Jenkins. il diags Electronics 26:166-7 O '53
P-n-p triode alloy junction transistor for radio-frequency amplification. C. W. Mueller and J. L. Pankove. bibliog diags RCA R 14:586-98 D '53
Parallel-connected magnetic amplifiers. S. H. Chow. diags J Ap Phys 25:216-21 F '54
Positive control for multimotor slasher drives. A. T. Bacheler and J. G. Stephenson. il Textile World 104:107+ S '54
Power transistors for audio output circuits. L. J. Giacoletto. bibliog il diags Electronics 27:144-8 Ja '54
Research; pulse current used to amplify tiny signals. Iron Age 174:135 Ag 12 '54
Saturable-core reference source for use with magnetic amplifiers. A. G. Milnes and T. V. Vernon. diags J Sci Instr 30:135-8 Ap '53
Self-powered semiconductor amplifier. C. G. B. Garrett and W. H. Brattain. diag Phys R 95:1091-2 Ag 15 '54
Tension regulator on Kaiser temper mill. W. R. Harris and L. F. Stringer. il diags Iron & Steel Eng 31:71-8 Ag '54
Transient analysis of transistor amplifiers. W. F. Chow and J. J. Suran. diags Electronics 26:189-91 N '53
Transient analyzer for magnetic amplifiers; abstract. E. J. Smith. diag Elec Eng 73:218 Mr '54
Transistor d.c. amplifier. H. F. Starke. il diags Radio & Tv N 50:82-3+ D '53
Transistor guitar amplifier. L. E. Garner, jr. il diag Radio & Tv N 50:74-5+ N '53
Transistor i-f amplifiers. J. R. Nelson. diags Tele-Tech 12:68-9+ D '53
Transistor pulse amplifier using external regeneration. J. H. Vogelsong. diags Inst Radio Eng Proc 41:1444-50 O '53
Transistors; theory and application, cascading transistor amplifier stages. A. Coblenz and H. L. Owens. diags Electronics 27:158-61 Ja '54
Use of magnetic amplifiers in control circuits. R. T. Lucas. Iron & Steel Eng 31:74-5; Discussion. 76-7 Ja '54
Westinghouse magnetic amplifiers team ac and dc motors. il Steel 133:113 D 21 '53

See also
Transistors

AMPLIFIERS, Vacuum tube

Amplifier tube; patent. diags Electronics 26:258+ D '53
Audio amplifier matches voice-coil impedance. K. Onder. bibliog diags Electronics 27:176-9 F '54; Discussion. W. E. Blumberg. 27:382+; Reply. 384 Je '54
Audio nomographs; reference sheet. J. F. Sodaro. diags Electronics 26:200, 202 D '53
Backward-wave tube. H. Heffner. il diags Electronics 26:135-7 O '53
Balanced electrometer amplifier. D. R. Hardy. bibliog diags J Sci Instr 31:77-81 Mr '54
Cosmotron; a review; radio-frequency system; power amplifier. M. Plotkin and L. C. L. Yuan. il diags R Sci Instr 24:789-94 S '53
Design of thermocouple transformers for infra-red chopped beam systems. T. S. Robinson. bibliog J Sci Instr 29:311-13 O '52; Discussion. 30:142 Ap '53
Desk-top driver-amplifier; simple shielded unit for 7 and 14 mc. R. C. Dennison. il diags Q S T 37:24-7+ O '53
Development of a high-fidelity preamplifier for use in the recording of bioelectric potentials with intracellular electrodes. S. J. Solms and others. bibliog il diags R Sci Instr 24:960-7 O '53
Extended class A amplifier. L. B. Hust. il diags Radio & Tv N 50:40-2+ S '53
Feedback preamp for low-impedance pickups. G. H. Grey. il diags Radio & Tv N 50:66-7+ N '53
Fluoroscope image amplifying tube. F. Marshall. il diag Electronics 26:172-3 O '53
Harmonic distortion and negative feedback. R. O. Rowlands. diags Wireless Eng 30:133-5 Je '53; Discussion. 30:232-3 S '53
High input impedance preamplifier circuit. E. W. Hogue. il diags Electronics 26:184-5 N '53
High quality at low cost. L. Stern. il diags Radio & Tv N 50:54-6 N '53
High sensitivity d-c breaker amplifier. M. D. Liston. diag Electronics 27:206+ Ja '54
How many watts? an engineering approach to home music. R. H. Tanner. Radio & Tv N 50:65+ N '53
Improved Kappler amplifier. C. P. Boegli. il diags Radio & Tv N 50:71-3 O '53
Improved lock-in amplifier. H. L. Cox, jr. diags R Sci Instr 24:307-8 Ap '53; Abstract. Electronics 27:214+ F '54
Investigation of ultra-high-frequency television amplifier tubes. W. Y. Pan. il diags RCA R 15:27-45 Mr '54
L3 coaxial system. L. H. Morris and others. bibliog il diags Bell System Tech J 32:879-914 Jl '53
Little firecracker linear amplifier. B. Russ. il diags Q S T 37:10-14+ S '53
Long playing record society preamp control unit. J. M. Diamond. il diags Radio & Tv N 50:74-5+ O '53
Low noise r.f. amplifiers for 144 and 420 mc.; using new tv tubes. E. F. Tilton. il diags Q S T 37:13-16+ Ag '53
Magnetic-converter d-c amplifier. W. A. Rote. il diags Electronics 26:170-3 D '53
Method of band-pass amplifier alignment. J. J. Hupert and A. M. Reslock. il diags Inst Radio Eng Proc 41:1668-71 N '53
Miniature intermediate-frequency amplifiers. R. K. Scal. il diags U S Nat Bur Stand Circ 548:1-46; pa 40c Supt. of doc. '54
Minimal noise preamplifier for proportional counters and similar applications. K. Enslein and B. Brainerd. il diags R Sci Instr 24:916-19 O '53
Modified preamplifier improves movie telecasts. K. B. Benson. bibliog il diags Electronics 26:166-9 D '53
Multiple-feedback audio amplifier. J. M. Diamond. diag Electronics 26:148-9 N '53; Discussion. 27:401-2+ Ja; 378+ Je '54
Neutralizing pentodes in radar i-f stages. J. C. Tellier. diags Electronics 26:184-6 O '53
Noise factor of conventional v.h.f. amplifiers. N. Houlding. bibliog il diags Wireless Eng 30:281-90, 299-306 N-D '53
Normalized general purpose audio amplifier; abstract. R. P. Lett. diag Electronics 27:203-4+ Ja '54
Optical system and thermopile amplifier for double-beam recording of infra-red spectra. J. L. Hales. bibliog diags J Sci Instr 30:52-7 F '53
Pentode gain stabilizing circuit. J. G. Haydock, jr. diag Electronics 26:200 N '53
Power amplifier output; nomograph for determining power output versus efficiency for tubes of a specified plate dissipation rating. J. F. Sodaro. Radio & Tv N 51:54+ Mr '54

AMPLIFIERS, Vacuum tube—*Continued*

Scott 99-A amplifier. V. H. Pomper. il diag Radio & Tv N 51:66-7+ F '54

Single side-saddle linear. C. W. Eckhardt. bibliog il diags Q S T 37:25-7 N '53

6BQ7A cascode ten-meter preamp. C. A. Lownsbury, jr. il diag Radio & Tv N 50:129+ N '53

Sound-projector amplifier for 16-mm motion pictures. J. A. Rodgers. il diag Electronics 26:194-5 D '53

Stable and linear amplifier for the measurement of small direct currents. H. W. Fulbright. diag R Sci Instr 24:544-5 Jl '53

Stable wide-range dc amplifier. F. F. Offner. il diags R Sci Instr 25:579-86 Je '54

Transfer function as a tool in the analysis of a resistance-capacitance coupled voltage amplifier. D. L. Ming and R. W. Thorpe. diags J Ap Phys 25:934-7 Ag '54

Tuned galvanometer amplifier. J. R. Beattie and G. K. T. Conn. bibliog diags R Sci Instr 25:888-91 S '54

220 mc. r.f. amplifier. L. W. May. il diags Radio & Tv N 50:68-9+ D '53

Unique amplifier features phase shift for 3D effect. A. R. Wilson. il diags Radio & Tv N 50:80-2 N '53

Video amplifier design charts. W. K. Squires and H. L. Newman. bibliog diags Electronics 27:190-2+ Ja '54

Which phono preamp? A. M. Ferres. il diags Radio & Tv N 50:76-8 N '53

Wide-band amplifiers using secondary-emission tubes. C. H. Chandler and G. D. Linz. il diags RCA R 14:367-78 S '53

See also

Electrometers

Vacuum tubes

AMPOULES. See Ampuls

AMPULS

One-drop package. il Mod Packaging 27:92-4 Ja '54

AMPUTATION

Cineplastic surgery and rehabilitation of double-arm amputee. A. E. Diggs; W. F. Becker. il Ind Med 22:246-50 Je '53

AMSTERDAM, Netherlands

Iron and steel institute meeting, Sept. 30-Oct. 7. Engineer 196:498-500 O 16 '53

AMUSEMENT industries

See also

Moving picture industry

AMYL acetate

Amyl acetate; Sharples chemicals inc. diag Pet Refiner 32:152-3 N '53

AMYL alcohol

Amyl alcohol; Sharples chemicals inc. diag Pet Refiner 32:152-3 N '53

Distribution coefficients for 2-methyl-1-propanol-water and 1-pentanol-water systems. K. F. Gordon. bibliog Ind & Eng Chem 45:1813-15 Ag '53

Primary amyl alcohols; a new building block. diag Chem Eng 60:332-3 D '53

AMYL compounds

Rate data for the bimolecular elimination reactions of the *t*-amyl halides; further evidence for the concerted nature of bimolecular eliminations. H. C. Brown and I. Moritani. bibliog Am Chem Soc J 76:455-7 Ja 20 '54

AMYL indole

Synthesis of 6-*n*-amylindole and 6-*n*-amyltryptophan. H. R. Snyder and H. R. Beilfuss. bibliog Am Chem Soc J 75:4921-4 O 20 '53

AMYL trytophan

Synthesis of 6-*n*-amylindole and 6-*n*-amyltryptophan. H. R. Snyder and H. R. Beilfuss. bibliog Am Chem Soc J 75:4921-4 O 20 '53

AMYLASES

Comparison of the action of several alpha amylases upon a linear fraction from corn starch. J. Tung Kung, V. M. Hanrahar and M. L. Caldwell. bibliog Am Chem Soc J 75:5548-54 N 20 '53

New enzyme tablets benefit both product and process. D. W. Donaldson. il Food Eng 26:58-9+ Mr '54

Research on industrial enzymes. R. W. Watson. bibliog(31 ref) Can Chem Process 37:72+ D '53

Studies on the Schardinger dextrins; co-substrate specificity in coupling reactions of macerans amylase. D. French and others. bibliog il Am Chem Soc J 76:2387-90 My 5 '54

Analysis

Amino acid composition of crystalline pancreatic amylase from swine. M. L. Caldwell and others. bibliog Am Chem Soc J 76:143-7 Ja 5 '54

AMYLOPECTINS

Better split for starch; new processes for separating amylose from amylopectin. Chem W 73:52+ N 14 '53

Multiple-branching in amylopectin. E. L. Hirst and D. J. Manners. bibliog Chem & Ind p224-5 F 20 '54

AMYLOSES

Anaerobic dispersion of potato starch. H. Baum and G. A. Gilbert. bibliog Chem & Ind p489-90 Ap 24 '54

Better split for starch; new processes for separating amylose from amylopectin. Chem W 73:52+ N 14 '53

Degradation of potato amylose in neutral and alkaline solution. R. T. Bottle and others. bibliog Chem & Ind p541-2 My 30 '53

Electronic structure of the amylose-iodine complex. H. Murakami. bibliog J Chem Phys 22:367-74 Mr '54

Mode of action of the Q-enzyme of polytomella coeca. S. A. Barker, A. Bebbington and E. J. Bourne. Chem Soc J p4051-7 D '53

Straight chained starch; abstract. I. A. Wolff. Can Chem Process 38:104 S '54

Analysis

Magnification procedure for the estimation of the reducing end-groups of the components of starch. R. T. Bottle and G. A. Gilbert. bibliog Chem & Ind p 1201-2 S 25 '54

AMYRIN

Structure of the acetate $C_{32}H_{40}O_5$(O_5 acetate) derived from β-amyrin. L. C. McKean and F. S. Spring. Chem Soc J p 1989-92 Je '54

Triterpene resinols and related acids; oleana-9(11) : 13(18)-dienol and oleana-9(11) : 18-dienol; the conversion of β-amyrin into germanicol. J. M. Beaton and others. Chem Soc J p3660-72 N '53

ANABASINE

Anabasine. R. H. Linnell. Am Chem Soc J 76:1391-3 Mr 5 '54

ANACOM. See Calculating machines

ANALCITE

Hydrothermal chemistry of silicates; compounds structurally related to analcite. R. M. Barrer, J. W. Baynham and N. McCallum. Chem Soc J p4035-41 D '53

ANALGESICS

Analgesics derived from tetrahydroacenaphthones. H. J. Glenn and B. W. Horrom. Am Chem Soc J 76:3640-2 Jl 20 '54

See also

Aspirin

ANALOG computers. See Calculating machines

ANALYSIS of variance. See Variation (statistics)

ANALYTICAL chemistry (periodical)

Editors appoint advisors; sketches. Chem & Eng N 32:170+ Ja 11 '54

ANAMORPHIC lenses. See Lenses, Photographic

ANATOMICAL models

Vinyl plastic for plastic reproduction of human organs in Italy. F. Loreti and G. Voena. Chem & Eng N 31:3476 Ag 24 '53

ANATOMY

See also

Skeletons

ANCHOR bolts. See Bolts and nuts

ANCHORAGE

Poor man's tugboat. R. J. Woodaman. il diags U S Naval Inst Proc 79:514-21 My '53

ANDEAN Indian mission. See United nations and specialised agencies joint field mission on indigenous populations

ANDHRA

Linguistic states in India. map Economist 169:34+ O 3 '53

ANDREW, Charles
Showmanship and psychology sell bridges; Charles Andrew, chief consulting engineer for the Washington state toll bridge authority. pors Eng N 151:101-2+ Ag 20 '53

ANDREWS, Thomas Coleman, 1899-
Tax help, not haggling, is Bureau's new goal. por Bsns W p 188+ N 28 '53

ANDROGENS
Hydroaromatic steroid hormones; the androgenic activity of D-homobisnorsteroid. A. J. Birch and J. A. K. Quartey. bibliog Chem & Ind p489-90 My 16 '53
Microbiological transformations of steroids; the oxygenation of androgens by rhizopus. S. H. Eppstein and others. bibliog Am Chem Soc J 76:3174-9 Je 20 '54

ANDROSTANEDIONE
18-Nor-D-homoandrostane-3,17a-dione. W. S. Johnson, H. LeMaire and R. Pappo. Am Chem Soc J 75:4866-7 O 5 '53

ANDROSTANETRIOL
Studies of steroid ring D epoxides of enol acetates; a new synthesis of estriol and of androstane-$3\beta,16\alpha,17\beta$-triol. N. S. Leeds, D. K. Fukushima and T. F. Gallagher. bibliog Am Chem Soc J 76:2943-8 Je 5 '54

ANDROSTENEDIONE
Preparation of ethylenedioxy derivatives of ketosteroids by exchange dioxolanation; an improved synthesis of testosterone from Δ^4-androstene-3,17-dione. H. J. Dauben, jr., B. Löken and H. J. Ringold. bibliog Am Chem Soc J 76:1359-63 Mr 5 '54

ANDROSTENOLDIONE
Crystalline Δ^4-androsten-17β-ol-3,16-dione. A. S. Meyer and M. C. Lindberg. bibliog Am Chem Soc J 76:3033-4 Je 5 '54
16-Substituted steroids; androstan-17β-ol-3,16-dione. M. N. Huffman and M. H. Lott. bibliog Am Chem Soc J 76:4038-9 Ag 5 '54

ANDROSTERONE
Steroid series; synthesis of methyl 3β-acetoxybisnor*allo*cholanoate from dehydro*epi*androsterone acetate. D. H. Hey, J. Honeyman and W. J. Peal. Chem Soc J p 185-9 Ja '54

ANECHOIC laboratories. See Sound laboratories

ANEMIA
Case of panmyelophthsis after exposure to chlorophenothane and benzene hexachloride. L. Friberg and J. Martensson. A M A Archives Ind Hygiene & Occup Med 8:166-9 Ag '53
Occurrence of acquired hemolytic anemia in subjects of blood group O. M. L. Hunt and S. P. Lucia. Science 118:183-4 Ag 14 '53

ANEMOMETERS
Applications of the constant temperature hot-wire anemometer to the study of transient air flow phenomena. J. C. Laurence and L. G. Landes. bibliog il diags Instruments 26:1890-4 D '53
Response of two-material laminated cylinder to simple harmonic environment temperature change. H. H. Lowell. bibliog J Ap Phys 24:1473-8 D '53
Vacuum anemometer. D. J. Trevoy and W. A. Torpey. bibliog il diags R Sci Instr 24:676-82 Ag '53

Testing

Calibration wind tunnels. R. C. Nyden. il Instruments & Automation 27:1463 S '54
Wind tunnel tests on seven aerovanes. D. A. Mazzarella. bibliog il R Sci Instr 25:63-8 Ja '54

ANESTHESIA
Some physical mechanisms in narcosis. L. J. Mullins. diags Chem R 54:289-323 bibliog (p322-3) Ap '54

ANESTHETICS
Method for quantifying the intensity of pain. H. K. Beecher. Science 118:322-4 S 18 '53
Sensitive versatile acoustic gas analyzer particularly suitable for the analysis of anesthetic mixtures. J. E. Wilson. diag R Sci Instr 25:927-8 S '54
See also
Chloroform
Ethyl ether

ANESTHETICS, Local
Amides of ethylenediamines; substituted cinnamides as local anesthetic agents. F. J. Villani, J. Land and D. Papa. bibliog Am Chem Soc J 76:87-8 Ja 5 '54
Electronegative substitutions in local anesthetics of the benzoic acid ester type. S. J. Childress and others. bibliog Am Chem Soc J 76:3988-91 Ag 5 '54
Local anesthetics; the synthesis of local anesthetic 3,4-dihydroisoquinolines. M. B. Moore and others. bibliog Am Chem Soc J 76:3656-62 Jl 20 '54
New series of highly active local anesthetics. F. P. Luduena and others. bibliog Science 118:138-9 Jl 31 '53
See also
Nerves—Blocking

ANGELIC acid
Carboxylation of *cis*- and *trans*-2-butenyl-2-lithium; a stereospecific synthesis of angelic acid. A. S. Dreiding and R. J. Pratt. bibliog Am Chem Soc J 76:1902-6 Ap 5 '54

ANGILLY, Arthur O.
Book on home office buildings; Life office management association to publish views. por East Underw 54:3+ Ag 14 '53

ANGLES
Angles laid out in field with steel tape alone. M. Gates. Civil Eng 23:551 Ag '53
Angular standard; National bureau of standards builds accurate polygon. Iron Age 172:207-9 S 10 '53
Calculation of dihedral angles; reference book sheet. W. W. Johnson. diags Product Eng 24:213, 215, 217 Ag '53
Compensated angles add life to complicated form tools. R. G. Vare. diags Am Mach 98:215 Ap 12 '54
Measurement of the angle between two curves. J. Tadayon. diags R Sci Instr 24:871-2 S '53
Plant equipment from standard parts; Flowstrut slotted angle system. il Factory Management 111:160-1 N '53
Solid angle subtended by a finite rectangular counter. F. S. Crawford, jr. diags R Sci Instr 24:552-3 Jl '53
See also
Goniometers

ANGLO-AMERICAN aeronautical conference
Conference, 4th, London; abstracts of papers. Aviation W 59:34+ N 2 '53
Conference, 4th, London, Sept. 15-17. Roy Aeronautical Soc J 57:709-18 N '53
Joint conference of the Royal aeronautical society and the Institute of the aeronautical sciences, 4th, London, Sept. 15-17; with abstracts of papers. Engineering 176:423-5, 453-4 O 2-9 '53

ANGLO-IRANIAN oil company, limited
AIOC becomes a modern Phoenix. C. M. Jones. il Pet Eng 25:C 10+ Je '53
Anglo-Iranian Oil operations; summary of the company's annual report for 1952. J. Menneer. Pet Eng 25:E 1-3 Jl '53
See also
Petroleum industry and trade—Iran

ANHYDRIDES
Alkanesulfonic acid anhydrides. L. Field and P. H. Settlage. bibliog Am Chem Soc J 76:1222-5 Mr 5 '54
Mechanism of polymerization of N-carboxy-α-amino acid anhydrides. M. Sela and A. Berger. bibliog Am Chem Soc J 75:6350-1 D 20 '53
O^{18} exchange reactions between anhydrides and carboxylic acids. L. Ponticorvo and D. Rittenberg. bibliog Am Chem Soc J 76:1705-6 Mr 20 '54
See also
Acetic anhydride
Maleic anhydride

Analysis

Acid anhydride character of aspirin. D. Davidson and L. Auerbach. bibliog Am Chem Soc J 75:5984-6 D 5 '53
Polarographic studies of oxygen-containing compounds; acid anhydrides. C. Ricciuti and others. Anal Chem 25:933-5 Je '53
Test for acyclic carboxylic acid anhydrides. D. Davidson. bibliog Anal Chem 26:576 Mr '54
Titration of *N*-carboxy-alpha-amino acid anhydrides in nonaqueous solvents. A. Berger, M. Sela and E. Katchalski. bibliog Anal Chem 25:1554-5 O '53

ANHYDRITE
Next step; sulfur from anhydrite; Imperial chemical industries. il Chem W 73:65-6 N 28 '53
Russians tell of sulfur-from-anhydrite process. Chem & Eng N 31:4350 O 19 '53

ANILIDES
Properties and reactions of free alkyl radicals in solution; reactions with *N*-halogenoanilides. M. C. Ford, L. J. Hunt and W. A. Waters. Chem Soc J p3529-33 N '53

ANILINE
Critical phenomena in the cyclohexane-aniline system. D. Atack and O. K. Rice. bibliog J Chem Phys 22:382-5 Mr '54
Diffraction of X-rays by the ferric chloride-aniline complex. E. V. Ballou and H. F. Winterkorn. Am Chem Soc J 76:3083-4 Je 5 '54
Interaction of iodine bromide and phenol or aniline. A. G. Sharpe. Chem Soc J p3713-14 N '53
Kinetic study on the condensation reaction of aniline and nitrosobenzenes. K. Ueno and S. Akiyoshi. bibliog Am Chem Soc J 76:3670-2 Jl 20 '54
Kinetics of the diazotization of anilines. M. Okano and Y. Ogata. bibliog Am Chem Soc J 75:5175-7 N 5 '53
Liquid equilibria of water-methanol-aniline-benzene system. A. W. Francis. il diags Ind & Eng Chem 46:205-7 Ja '54
Measurement and correlation of acid dissociation constants for ammonium and anilinium salts in the system dioxane-water. H. P. Marshall and E. Grunwald. bibliog Am Chem Soc J 76:2000-4 Ap 5 '54
Molecular compounds; the effect of molecular compound formation on the rates of reaction of aniline with 2,4-dinitrochlorobenzene. S. D. Ross and I. Kuntz. bibliog Am Chem Soc J 76:3000-5 Je 5 '54
Nucleophilic displacement reactions in aromatic systems; kinetics of the reactions of chloronitropyridines and chloropyrimidines with piperidine, morpholine, pyridine, and aniline. N. B. Chapman and C. W. Rees. Chem Soc J p 1190-6 Ap '54
Ortho esters, imidic esters and amidines; the mechanism of the reaction of aniline with ethyl orthoformate. R. M. Roberts and R. H. DeWolfe. bibliog Am Chem Soc J 76:2411-14 My 5 '54
Oxidation of *N*-alkylanilines and related compounds with benzoyl peroxide. J. T. Edward. Chem Soc J p 1464-7 My '54
Peroxytrifluoroacetic acid; the oxidation of anilines to nitrobenzenes. W. D. Emmons. bibliog Am Chem Soc J 76:3470-2 Jl 5 '54
Reaction of diazomethane with arylidene-anilines. G. D. Buckley. Chem Soc J p 1850-1 Je '54
Reaction of 1,5-dibromopentane with *o*-substituted anilines; the synthesis of 1-arylpiperidines. A. H. Sommers and S. E. Aaland. bibliog Am Chem Soc J 75:5280-3 N 5 '53
Some anilino-compounds related to reductone. W. Cocker and P. Schwarz. Chem & Ind p 1126 O 17 '53

ANILINE poisoning
Excretion of diazotizable metabolites in man after aniline exposure. D. L. Hill. A M A Archives Ind Hygiene & Occup Med 8:347-9 O '53

ANIMAL experimentation
Institute of animal resources. S. L. Meyer. Science 117:sup3 Je 12 '53
Simplified method for measuring emotional defecation in the rat. D. Lebo. bibliog Science 118:352-3 S 25 '53

ANIMAL products
See also
Milk

ANIMALS, Habits and behavior of
Preparation of latex casts of soil cavities for the study of tunneling activities of animals. M. R. Garner. il Science 118:380-1 O 2 '53

ANIONOTROPIC rearrangement. See Molecular rearrangements

ANIONOTROPY
Anionotropic systems; the kinetics of the rearrangement of 3-hydroxy-3 : 5-dimethylhex-4-en-2-one; the effect of an acetyl group on anionotropic mobility. E. A. Braude and C. J. Timmons. Chem Soc J p3138-43 O '53
Anionotropic systems; the synthesis and rearrangement of 3-hydroxy-3 : 5-dimethylhex-4-en-2-one. E. A. Braude and C. J. Timmons. Chem Soc J p3131-8 O '53

ANIONS
Cathodic reduction of anions and the anodic oxidation of cations. C. Wagner. Electrochem Soc J 101:181-4 Ap '54
Effects of anions on calcium flame emission in flame photometry. G. L. Baker and L. H. Johnson. bibliog Anal Chem 26:465-8 Mr '54
Inhibition of the corrosion of iron by some anodic inhibitors. M. J. Pryor and M. Cohen. bibliog diags Electrochem Soc J 100:203-15 My '53
Rates of substitution reactions in oxyanions. J. O. Edwards. bibliog(56 ref) J Chem Educ 31:270-5 My '54
Self-diffusion of anions in strong-base anion exchangers. B. A. Soldano and G. E. Boyd. bibliog Am Chem Soc J 75:6099-104 D 20 '53
Self-diffusion of water molecules and mobile anions in cation exchangers. G. E. Boyd and B. A. Soldano. bibliog Am Chem Soc J 75:6105-7 D 20 '53
Use of a cation exchange resin for total anion analysis of aqueous solutions containing uranyl ion. H. O. Day, jr. and others. Anal Chem 26:611-12 Mr '54

Spectra

Ultraviolet absorption spectra of some inorganic ions in aqueous solutions. R. P. Buck, S. Singhadeja and L. B. Rogers. bibliog Anal Chem 26:1240-2 Jl '54

ANISOLE
Condensations by sodium; the alkylation of anisole and of *o*-cresol methyl ether and the composition of a reacting aggregate. A. A. Morton and A. E. Brachman. bibliog Am Chem Soc J 76:2980-4 Je 5 '54
New ω-substituted anisoles. H. J. Barber and others. bibliog J Ap Chem 3:253-74, 409-20; 4:110-19 Je, S '53, Mr '54

ANISOMYCIN. See Antibiotic substances

ANISOTROPY
Anisotropic relaxation of quadrupole spin echoes. E. L. Hahn and B. Herzog. il Phys R 93:639-40 F 1 '54
Directionality of mechanical properties in hot-worked steels. A. R. Troiano and L. J. Klingler. bibliog(29 titles) Welding J 33: sup209-17 My '54
Extension of Onsager's theory of reciprocal relations. S. R. de Groot and P. Mazur. bibliog Phys R 94:218-26 Ap 15 '54
Irreversible thermodynamics of thermoelectric effects in inhomogeneous, anisotropic media. C. A. Domenicali. bibliog diag Phys R 92:877-81 N 15 '53
Molecular polarisability; its anisotropy in aliphatic and aromatic structures. C. G. Le Fèvre and R. J. W. Le Fèvre. Chem Soc J p 1577-88 My '54
Neutron diffraction study of the anisotropy transition in α-Fe_2O_3. L. M. Corliss and others. Phys R 93:893-4 F 15 '54
Simple test for anisotropic materials. R. W. Powell. J Sci Instr 30:210 Je '53
Thermal expansion of anisotropic metals. B. G. Childs. bibliog(36ref) Rs Mod Phys 25: 665-70 Jl '53
Torsion of anisotropic elastic cylinders by forces applied on the lateral surface. H. Luxemberg. bibliog diag J Res Nat Bur Stand 50:263-76 My '53
See also
Magnetic properties

ANISOTROPY, Magnetic. See Magnetic properties

ANN ARBOR, Michigan
Tax-free municipal parking program, it works. H. F. Reves. il Pub Works 85:77-8 F '54

ANNEALING
Annealing of a cold rolled aluminum single crystal. A. H. Lutts and P. A. Beck. bibliog il J Metals 6:Trans 257-60 sec 2 F '54
Annealing of titanium. E. R. Funk. Metal Prog 66:103-5 Jl 1 '54
Annealing or softening improves gray iron machinability. C. O. Burgess. bibliog il Foundry 81:108-11+ D '53; 82:110-13 Ja '54

ANNEALING—*Continued*

Consideration of heating, rolling and annealing as factors in the control of quality cold rolled sheets. H. C. Smith. Blast F & Steel Pl 42:653-5 Je '54; Excerpts. Iron & Steel Eng 31:140-1 Ag '54

Effect of annealing on the creep properties of 2S-O aluminum alloy. O. D. Sherby and J. E. Dorn. Am Soc T M Proc 51:954-63; Discussion. 977-80 '51

Flux annealing removes gas from aluminum-clad plates. E. J. Boyle. il Iron Age 172: 145-7 Ag 13 '53

High speed continuous annealing of tinplate. M. D. Stone and E. A. Randich. bibliog il diags Iron & Steel Eng 30:69-75; Discussion. 75-8 O '53

How to understand annealing and hot working of metals. S. Storchheim. il diags Am Mach 98:161-8 S 13 '54

How to work stainless steel; heat treating and annealing. R. E. Paret. il Am Mach 98:139-40 S 27 '54

Magnetic annealing of a Co-Fe alloy. A. H. Geisler and others. bibliog diags J Metals 5:Trans 813-20 Je '53

Microstructure and the corrodibility of steel in inhibited hydrochloric acid solutions. P. H. Cardwell. bibliog il Electrochem Soc J 101:84-90 F '54

No waiting in this long line; continuous annealing line, Lukens steel co. plan Steel 133:124-5 Ag 3 '53

Strip annealing tin plate; Steel co. of Wales. Steel 135:154 S 20 '54

Studies on the creep recovery and annealing of zinc single crystals. M. Tanenbaum and W. Kauzmann. bibliog J Ap Phys 25: 451-8 Ap '54

Textures of rolled and annealed iodide zirconium. J. H. Keeler and others. bibliog il diags J Metals 5:Trans 932-6 Jl '53; Discussion. 6:Trans 699-700 sec 2 My '54

Variation of plastic properties with annealing procedure in zinc single crystals. Choh Hsien Li and others. bibliog il J Metals 5: Trans 1223-5 sec 2 S '53

See also

Electric furnaces, Annealing

Furnaces, Annealing

ANNEALING of glass. See Glass manufacture

ANNELIDS

Description of a new technique for rearing polychaetous annelids in sexual maturity. D. J. Reish. Science 118:363-4 S 25 '53

ANNIVERSARIES, Company

Anniversary theme; banks. Burroughs Clearing House 38:16+ O '53

Having a birthday? build a promotion around it! E. M. Kelley. il Sales Management 73: 48-9 Ag 1 '54

How company's anniversary book is used as a selling tool. Ptr Ink 245:63 O 30 '53

Planning a business anniversary. W. Buck. East Underw 55:72-3 pt 2 O 1 '54

ANNOTININE

Degradation of annotinine. D. R. Henderson and others. Chem & Ind p544-5 My 8 '54

Dehydrogenation of annotinine. C. Bankiewicz and others. Chem & Ind p 1068-9 Ag 28 '54

Relative position of the functional groups of annotinine. D. R. Henderson and others. Chem & Ind p852 Jl 10 '54

ANNUAL reports. See Corporations—Reports and yearbooks

ANNUAL wage plans. See Wage payment plans—Guaranty of earnings

ANNUITIES

Continuing gains shown in payment of annuities; table by company, 1943, 1952 and 1953. Weekly Underw 170:85-8 sec 2 My 8 '54

Historical annuity costs; 20-year comparison of single premium annuity costs. Life Ins Courant 58:60-1 D '53

Immediate annuity costs; table of comparisons of the costs of single premium annuities. Life Ins Courant 58:58-9 O '53

Immediate annuity costs; table of comparisons of the costs of single premium annuities. Life Ins Courant 59:62-3 O '54

Individual annuities ranking, Dec. 31, 1953; group annuities ranking, Dec. 31, 1953; tables. Life Ins Courant 59:64-5 My '54; Discussion. D. Treloar. 59:5 Jl '54

Life companies could top mutual funds by using equity annuity. R. B. Mitchell. Nat Underw (Life ed) 58:2 Ag 20 '54; Discussion. 58:5 S 3; 5+ S 17; 9 O 15 '54

Ownership of annuities doubled in ten years. Weekly Underw 169:182 Jl 18 '53

Role of annuities in financing retirement. H. W. Steinhaus. East Underw 55:42+ pt 2 O 1 '54

See also

Variable annuity corporation of America (proposed)

Taxation

A.L.C., L.I.A. give proposals for tax revisions. Nat Underw (Life ed) 57:1+ Jl 17 '53; Same cond. East Underw 54:5+ Jl 17 '53

Deductibility of interest payments. F. L. Morton. Spectator 162:98-100 My '54

Insurance and the new tax law; Internal revenue code of 1954. F. Morton. Spectator 162:26-7+ S '54

Life company organizations recommend important federal tax changes. Weekly Underw 169:115-16 Jl 11 '53

Life insurance as a tax saving investment. G. B. Gordon. East Underw 54:84+ pt 2 S 25 '53

Life insurance, endowment and annuity features of the Internal revenue code of 1954. I. V. Brunstrom. East Underw 55:3+ Ag 20; 3+ Ag 27 '54

NALU statement on revenue laws. East Underw 54:5 Jl 31 '53

Surrogate reversed in Bissell case; involved annuity contract. East Underw 55:12 Ap 30 '54; Same. Weekly Underw 170:1249 My 15 '54

ANNUNCIATORS

System traces trouble; Panalarm products, inc. il Steel 133:168 D 14 '53

ANODES. See Electrodes

ANODIZING. See Zirconium—Protection

ANODIZING of aluminum. See Aluminum—Protection

ANOMALOSCOPE

New form of anomaloscope. C. R. Forshaw. diags J Sci Instr 31:16-17 Ja '54

ANTENNAS, Radio. See Radio antennas

ANTENNAS, Television. See Television antennas

ANTHANTHRONE. See Dibenzopyrenedione

ANTHELMINTICS

Preparation of 2 : 3-dihydro-3-oxobenzo-1 : 4-thiazine derivatives as possible anthelmintics. A. Mackie and A. A. Cutler. Chem Soc J p3716-17 N '53

Preparation of phenothiazine derivatives as possible anthelmintics. A. Mackie and A. A. Cutler. Chem Soc J p2577-9 Jl '54

ANTHOCYANINS

Effect of aluminium chloride on absorption spectra of anthocyanins. T. A. Geissman and others. Chem & Ind p 1389 D 26 '53

ANTHRACENE

Anthrasteroid rearrangement; the formation and proof of structure of anthraergostapentaene. W. R. Nes and E. Mosettig. bibliog Am Chem Soc J 76:3182-6 Je 20 '54

Antimalarial 2-alkoxy-6-chloro-9-dialkylaminoalkylamino-1 : 10-diaza-anthracenes. D. M. Besley and A. A. Goldberg. Chem Soc J p2448-55 Jl '54

Aromatic hydrocarbons; di*peri*naphthylene-anthracenes. E. Clar, W. Kelly and J. W. Wright. Chem Soc J p 1108-11 Mr '54

Determination of vinylidene cyanide. W. P. Tyler, D. W. Beesing and S. J. Averill. bibliog Anal Chem 26:674-7 Ap '54

Quenching of the fluorescence of anthracene gas. W. S. Metcalf. Chem Soc J p2485-6 Jl '54

Quenching of the fluorescence of anthracene; the transition from strong to weak quenching. H. W. Melhuish and W. S. Metcalf. diags Chem Soc J p976-9 Mr '54

Recovering solids from anthracene oil; patent. diag Chem Eng 61:260+ S '54

Scintillation response of anthracene to soft X-rays. J. B. Birks and F. D. Brooks. Phys R 94:1800-1 Je 15 '54

ANTHRACENE—*Continued*

Studies on cosolvency; Lewis acid character of iodo compounds in enhancing the solubility of anthracene in hydrocarbon solvents. G. R. Somayajulu and S. R. Palit. bibliog J Phys Chem 58:417-21 My '54

Vapour pressures and the heats of sublimation of anthracene and of 9 : 10-diphenylanthracene. B. Stevens. Chem Soc J p2973-4 O '53

Analysis

Spectrophotometric identification of polynuclear aromatic components in high boiling petroleum fractions. R. Schnurmann, W. F. Maddams and M. C. Barlow. bibliog Anal Chem 25:1010-13 Jl '53

Spectrum

Correlation between photoconductance and ultraviolet spectrum of anthracene crystals. D. J. Carswell. bibliog J Chem Phys 21:1890 O '53

ANTHRACITE. See Coal

ANTHRACOSILICOSIS. See Silicosis

ANTHRAQUINONE

Alkylaminoalkylamino derivatives of xanthones, acridones and anthraquinones. S. Archer, L. B. Rochester and M. Jackman. bibliog Am Chem Soc J 76:588-91 Ja 20 '54

Amination of anthraquinone with hydroxylamine in sulphuric acid. A. C. Robson and S. Coffey. Chem Soc J p2372-4 Jl '54

Anthraquinone vat dyes: Ciba states, limited. K. J. Bradley and P. Kronowitt. bibliog flow sheet il diag Ind & Eng Chem 46:1146-56 Je '54

Elimination of *N*-substituents from derivatives of 1-aminoanthraquinone. W. Bradley and R. F. Maisey. Chem Soc J p247-52 Ja '54

Experiments on the chemistry of anthraquinone derivatives. W. Bradley. bibliog(25 ref) Soc Dyers & Col J 70:57-62; Discussion. 62-3 F '54

Reduction of anthraquinone and other polycyclic quinones with aluminium alkoxides (Meerwein-Pondorff reagent). S. Coffey and V. Boyd. Chem Soc J p2468-70 Jl '54

Reduction of anthraquinone derivatives with alkaline dithionite. W. Bradley and R. F. Maisey. Chem Soc J p274-8 Ja '54

Some chemical problems arising in the study of anthraquinone dyes. S. Coffey. Chem & Ind p 1068-74 O 10 '53

Analysis

Polarographic determination of anthraquinone. R. L. Edsberg, D. Eichlin and J. J. Garis. bibliog diags Anal Chem 25:798-800 My '53

Spectrophotometric determination of anthraquinone and benzanthrone. K. B. Whetsel. bibliog Anal Chem 25:1334-7 S '53

ANTHRAX

Anthrax in the United States. J. H. Steele and R. J. Helvig. il map Pub Health Rep 68:616-23 Je '53

ANTHRICIN

Relationship of anthricin, hernandion and cicutin to desoxypodophyllotoxin. J. L. Hartwell and A. W. Schrecker. bibliog Am Chem Soc J 76:4034-5 Ag 5 '54

ANTHRONE

Anthrone in the estimation of hexose sugars. R. Johanson. bibliog il Anal Chem 26:1331-3 Ag '54

Determination of dextran with anthrone. T. A. Scott, jr. and E. H. Melvin. bibliog Anal Chem 25:1656-61 N '53

Determination of 17-hydroxy-11-dehydrocorticosterone with anthrone reagent. J. J. Holechek and A. R. Collins. bibliog Anal Chem 25:991-2 Je '53

Determination of protein-bound carbohydrates by the anthrone reaction; effect of tryptophan. E. F. Tuller and N. R. Keiding. bibliog Anal Chem 26:875-8 My '54

1 : 9-Pyrazoloanthrone; the chemistry of the two *N*-methyl derivatives of 1 : 9-pyrazoloanthrone. W. Bradley and C. S. Bruce. Chem Soc J p 1894-902 Je '54

ANTHROPOLOGY

Expanding frontiers for insurance may call for assist from anthropologists. J. C. Gibson. Nat Underw 58:19+ F 18 '54

See also

Indians of North America

ANTHROPOMETRY

Applicability of the Du Bois height-weight formula for measurement of body surface of Indian subjects. S. S. Ramaswamy and G. C. Mookerjee. Science 118:389-90 O 2 '53

ANTIBIOTIC substances

Action of antibiotics in the bacterial cell; abstract and discussion. E. F. Gale. Chem & Ind p 1200-1 N 7 '53

Anisomycin, a new anti-protozoan antibiotic. B. A. Sobin and F. W. Tanner, jr. Am Chem Soc J 76:4053 Ag 5 '54

Antibiotics and chemical orthodoxy. D. J. Cram. Chem & Eng N 32:1120-1 Mr 22 '54

Antibiotics and endocrine stimulants as promoters of growth in fattening pigs. R. S. Barber and others. Chem & Ind p76 Ja 16 '54

Antibiotics in animal feeding; abstract and discussion. K. L. Robinson. Chem & Ind p484-5 Ap 24 '54

Azaserine, a new tumor-inhibitory substance; isolation and characterization. S. A. Fusari and others. bibliog Am Chem Soc J 76:2878-81 Je 5 '54

Azaserine, a new tumor-inhibitory substance; structural studies. S. A. Fusari and others. bibliog Am Chem Soc J 76:2881-3 Je 5 '54

Azaserine, synthetic studies. J. A. Moore and others. bibliog Am Chem Soc J 76:2884-91 Je 5 '54

Bacteria are getting tougher; abstract. M. Finland. Chem & Eng N 32:580+ F 15 '54

Bacteriological problems in translating from small equipment to the industrial scale; abstract. W. B. Emery. Chem & Ind p625 My 29 '54

Castings play vital role in antibiotics. E. A. Schoefer. il Chem Eng 61:244+ My '54

Checkup that chafes; section 507 of the Federal food, drug and cosmetic act. Chem W 75:40-1 Jl 24 '54

Chemistry of amicetin, a new antibiotic. E. H. Flynn and others. bibliog Am Chem Soc J 75:5867-71 D 5 '53

Chemotherapy and antibiotics; abstracts of B.A.A.S. Chemistry section papers. Chem & Ind p 1010-12 S 26 '53

Decertification of antibiotics. L. D. Harrop. Oil Paint & Drug Rep 166:49-50 Jl 5 '54

Double bid by Puromycin; cancer and sleeping sickness. Chem W 75:69 S 4 '54

Experimental antibiotics in bulk at laboratory in Liege. flow diag il Chem & Eng N 32:3140-1 Ag 9 '54

FDA drops three drugs; trade seeking end of certification. Oil Paint & Drug Rep 164:3+ D 7 '53

Ganging up on cancer with azaserine (O-diazoacetyl-1-serine). il Chem W 74:62+ Mr 27 '54

High alloy castings play vital role in producing antibiotics. il Can Chem Process 38:54+ Ag '54

Hogs have their day; Pfizer sponsored contest to introduce advantage of terramycin and other antibiotics in feed. il Chem W 73:31 D 26 '53

Isolation and purification of amicetin. J. W. Hinman, E. L. Caron and C. DeBoer. bibliog Am Chem Soc J 75:5864-6 D 5 '53

Lederle Labs completes total synthesis of Puromycin. Chem & Eng N 32:3259-60 Ag 16 '54

Mad race for antibiotics. il Bsns W p 186+ S 26 '53

Meiosis in gymnosporangium and the cytological effects of certain antibiotic substances. M. D. Berliner and L. S. Olive. bibliog il Science 117:652-3 Je 12 '53

Mode of action of antibiotics in animal nutrition. M. E. Coates. bibliog Chem & Ind p 1333-5 D 12 '53

More antibiotics needed; antibiotic symposium sponsored by Department of health, education, and welfare and antibiotics and chemotherapy. Chem & Eng N 31:4674 N 9 '53

Organic chemistry; naturally-derived compounds. J. R. Majer. Chem Age (Lond) 70:152-5 Ja 9 '54

ANTIBIOTIC substances—*Continued*

Over the hump? Chem W 73:66 Jl 25 '53

Present status of antibiotic therapy. W. P. Boger. Ind Med 22:288-99 Jl '53

Puromycin; synthetic studies; partial synthesis of amino acid analogs. B. R. Baker, J. P. Joseph and J. H. Williams. Am Chem Soc J 76:2838 My 20 '54

Sealing a barnyard bond; bond between livestock pathology and nutrition; Pfizer's new experimental farm and laboratories. il Chem W 72:36+ Ap 18 '53

Structure of new amino acid obtained from roseothricin. K. Nakanishi, T. Ito and Y. Hirata. bibliog Am Chem Soc J 76:2845-6 My 20 '54

Structures of two polyacetylenic antibiotics. J. D. Bu'Lock and others. bibliog Chem & Ind p990-1 Ag 7 '54

Symposium on research in antibiotic drugs under auspices of Food and drug administration and Journal of antibiotics and chemotherapy. Oil Paint & Drug Rep 164:5+ N 2 '53

Synergism and antagonism of auxin by antibiotics. M. R. S. Iyengar and R. L. Starkey. bibliog Science 118:357-8 S 25 '53

Synergizing the spectrum; Multibiotics corp. of America. Chem W 73:39 O 31 '53

Total synthesis of the antibiotic Puromycin. B. R. Baker and others. bibliog Am Chem Soc J 76:4044-5 Ag 5 '54

Volume output; new research tool; antibiotic research center at Liege. flow sheet Chem W 75:54-5 Ag 7 '54

See also

Agrimycin
Agrocybin
Bacitracin
Carbomycin
Erythromycin
Fumagillin
Micoina
Neomycin
Nisin
Penicillin
Streptomycin
Streptothricin
Terramycin
Tetracycline
Xanthomycin

ANTIBODIES. See Antigens and antibodies

ANTICHOLINESTERASE. See Cholinesterase

ANTICOAGULANTS. See Blood—Coagulation

ANTICONVULSANTS

Anticonvulsants; an investigation of α-(substituted phenyl)-succinimides. C. A. Miller and L. M. Long. bibliog Am Chem Soc J 75:6256-8 D 20 '53

ANTIFERROMAGNETISM. See Magnetism

ANTIFOAMS. See Foaming

ANTIFOULING paint. See Paint, Antifouling

ANTI-FREEZE solutions

Antifreeze is never permanent. J. B. Stobbart. il Nat Pet N 45:81-3 Ag 5 '53

Anti-freeze marketing. W. H. Adamson. Soap & Chem Spec 30:173+ Je '54

Old antifreeze means trouble. Nat Pet N 45:48 D 16 '53

Permanent changes. il Chem W 73:56+ S 12 '53

Permanents discount permanence. il Chem W 74:69-70+ Je 26 '54

Seven for glycol. Chem W 75:78+ Ag 7 '54

Warning to users of anti-freeze. Consumers Res Bul 32:26 D '53

Prices

Antifreeze price cut means sales war. il Nat Pet N 46:30+ F 3 '54

Rating

Anti-freeze. Consumers Res Bul 32:26-8 N '53

Testing

Determination of 1,2-propylene glycol in ethylene glycol. I. M. Baumel. bibliog Anal Chem 26:930-1 My '54

ANTI-FRICTION bearings. See Bearings, Antifriction

ANTIGENS and antibodies

Coxsackie virus antibody and incidence of minor illness during the summer. M. Walton and J. L. Melnick. bibliog map Pub Health Rep 68:1167-78 D '53

Influence of *p*H on antigen-antibody equilibria. S. J. Singer. Am Chem Soc J 76:4052-3 Ag 5 '54

Physical chemical studies of soluble antigen-antibody complexes; equilibrium properties. S. J. Singer and D. H. Campbell. Am Chem Soc J 75:5577-8 N 20 '53

Some configurational requirements and dimensions of the combining site on an antibody to a naturally occurring antigen. E. A. Kabat. bibliog Am Chem Soc J 76:3709-13 Jl 20 '54

ANTIMALARIALS. See Malaria

ANTIMONITES

Hydrazine; some halogeno-antimonites and -bismuthites of hydrazine. W. Pugh. Chem Soc J p 1385-8 My '54

ANTIMONY

Antimony imports, production, consumption; tabulations. Steel 134:178 Ja 4 '54

Antimony, 1953. A. Renick. Eng & Min J 155:92 F '54

Determination of the energy of antimony-beryllium photoneutrons. R. Culp and B. Hamermesh. bibliog diags Phys R 93:1025-8 Mr 1 '54

Diffusion of antimony in silver. E. Sonder and others. bibliog Phys R 93:970-2 Mr 1 '54

Effect of chloride on the deposition of copper, in the presence of arsenic, antimony, and bismuth. V. Hospadaruk and C. A. Winkler. bibliog J Metals 5:Trans 1375-7 O '53

Electron diffraction study of the structures of antimony electrodeposited on antimony cleavage face. Ling Yang. il diags J Ap Phys 25:184-8 F '54

Mechanization program results in savings at Laredo antimony smelter; National lead co. R. L. Kulpaca and J. C. Archibald, jr. flow sheet il plan J Metals 5:786-8 Je '53

New antimony-type transistor hoped for by NBS research. Chem & Eng N 31:3892+ S 21 '53

Purification of antimony and tin by a new method of zone refining. M. Tanenbaum and others. diags J Metals 6:Trans 762-3 Je '54

Semiconducting films of antimony. J. Cohen. bibliog diag J Ap Phys 25:798-801 Je '54

Studies in low concentration chemistry; some properties of tracer yttrium, antimony and silver in solution. G. K. Schweitzer and W. M. Jackson. Am Chem Soc J 76:3348-9 Je 20 '54

Analysis

Determination of impurities in germanium and silicon. C. L. Luke and M. E. Campbell. bibliog Anal Chem 25:1588-93 N '53

Determination of traces of antimony in soils and rocks. F. N. Ward and H. W. Lakin. bibliog Anal Chem 26:1168-73 Jl '54

Photometric determination of antimony in lead using the rhodamine B method. C. L. Luke. Anal Chem 25:674 Ap '53

Polarographic analysis for arsenic and antimony. G. P. Haight, jr. bibliog Anal Chem 26:593-5 Mr '54

Ultraviolet spectrophotometric determination of antimony as iodoantimonous acid. A. Elkind, K. H. Gayer and D. F. Boltz. Anal Chem 25:1744-5 N '53

Isotopes

Quadrupole moments of Sb^{121} and Sb^{123}. G. Sprague and D. H. Tomboulian. bibliog Phys R 92:105-8 O 1 '53

Radiation from antimony 122. J. M. Cork and others. bibliog Phys R 93:1059-61 Mr 1 '54

Nuclear reactions

Decay of Sb^{124}. N. H. Lazar. Phys R 95:292-3 Jl 1 '54

Triple gamma-ray cascade in Sb^{124}. L. M. Langer and J. W. Starner. Phys R 93:253-4 Ja 1 '54

Prices

Antimony, U.S. metal, 1948-1953; tabulation. Iron Age 173:414 Ja 7 '54

Nonferrous prices; tabulation. Steel 134:175 Ja 4 '54

Spectrum

Antimony(V) species in hydrochloric acid solution. H. M. Neumann. bibliog Am Chem Soc J 76:2611-15 My 20 '54

Hyperfine structure in the spectra of Sb, Sm, Hg, and Cd. K. Murakawa. bibliog Phys R 93:1232-5 Mr 15 '54

ANTIMONY alloys

Aluminum-antimony alloy has wide applications in electronics. E. L. Lewis. Light Metal Age 11:11+ Ag '53

Indium-antimony system. T. S. Liu and E. A. Peretti. il Am Soc for Metals Trans 44:539-45; Discussion. 545-8 '52

Superconductivity in tin-bismuth and tin-antimony alloys. W. F. Love. bibliog Phys R 92:238-43 O 15 '53

Viscosity and density of liquid lead-tin and antimony-cadmium alloys. H. J. Fisher and A. Phillips. bibliog(40 titles) diags J Metals 6:Trans 1060-70 sec 2 S '54

ANTIMONY chlorides

Infrared absorption spectra of some amino acids in antimony trichloride solution. J. R. Lacher and others. bibliog J Phys Chem 58:206-10 Mr '54

ANTIMONY compounds

Ultra-violet absorption spectra of heterocyclic arsenic and antimony compounds. I. G. M. Campbell and R. C. Poller. Chem & Ind p 1126-7 O 17 '53

ANTIMONY fluoride

Surface tension of antimony pentafluoride. D. R. Hub and P. L. Robinson. Chem Soc J p2640 Jl '54

ANTIOXIDANTS

Antioxidants helps keep carotene in alfalfa meal. H. G. Moeller. Chem Eng 61:386-7 Ap '54

Antioxidants; marketing case study; abstract. J. E. Magoffin. Oil Paint & Drug Rep 164:61 O 26 '53

Building new gallate potential. il Chem W 74:40+ My 29 '54

Discoloration in polymers; recent applications of non-staining antioxidants. Chem Age (Lond) 68:704 My 9 '53

Expanding uses of antioxidants. A. L. Tappel. bibliog Food Eng 26:73-5+ Je '54

Let them eat fat; anti-oxidants will prevent rancidity in fats added to animal feeds. Chem W 74:95 Ja 23 '54

Oxidation and antioxidant action in rubber vulcanizates. J. R. Shelton and W. L. Cox. bibliog Ind & Eng Chem 46:816-23 Ap '54

Stability of 2,6-di-tertiary-butyl-para-cresol inhibited transformer oil in an arc. R. N. Hazelwood and others. bibliog Electrochem Soc J 101:185-8 Ap '54

War on oxygen! il Ind & Eng Chem 46:sup 11A+ S '54

ANTI-PERSPIRANTS. See Perspiration.

ANTIPROTONS. See Protons

ANTIQUES

Chemical study of an antique art object. R. Strebinger and R. Niederhuemer. il J Chem Educ 30:291-5 Je '53

ANTIRABIES serum. See Rabies

ANTISEPTIC soap. See Soap, Antiseptic

ANTISEPTICS

Acridane antiseptic; Acrizane; abstract. D. L. Tabern. Chem & Eng N 31:3861 S 21 '53

ANTISERUM. See Serum

ANTISPASMODICS

Antispasmodics; basic 1,3-dioxanes. F. F. Blicke and E. L. Schumann. Am Chem Soc J 76:1226-9, 3153-6 Mr 5, Je 20 '54

Antispasmodics; β-diethylaminoethyl esters of β,β-diphenylglycidic, β,β-diphenyllactic and β,β-diphenylglyceric acids. F. F. Blicke and J. A. Faust. bibliog Am Chem Soc J 76:3156-9 Je 20 '54

Antispasmodics; β-diethylaminoethyl esters of substituted acetic and glycidic acids. F. F. Blicke, J. A. Faust and H. Raffelson. bibliog Am Chem Soc J 76:3161-3 Je 20 '54

Antispasmodics; β-diethylaminoethyl esters of substituted lactic and acrylic acids. F. F. Blicke and J. A. Faust. bibliog Am Chem Soc J 76:3159-61 Je 20 '54

Antispasmodics; diphenylacetates and p-aminobenzoates of basic alkoxyalkanols. F. F. Blicke and J. H. Biel. bibliog Am Chem Soc J 76:3163-6 Je 20 '54

Antispasmodics; esters of basic bicyclic alcohols and their quaternary salts. L. H. Sternbach and S. Kaiser. Am Chem Soc J 75:6068-9 D 5 '53

Dialkylaminoethyl amides of benzilic acid and their quaternary ammonium salts as antispasmodics. A. P. Phillips. Am Chem Soc J 76:1955-6 Ap 5 '54

New ulcer drug from oatmeal tested. J. H. Biel and others. Comm & Fin Chr 178:1022 S 17 '53

Unsymmetrically N-substituted piperazines; ester derivatives as spasmolytics. W. S. Ide, E. Lorz and R. Baltzly. bibliog Am Chem Soc J 76:1122-5 F 20 '54

See also
Kellin

ANTITRUST laws. See Trusts, Industrial—Law

ANTI-WETTING agents. See Water repellents

ANTS

War declared on ants in Perth, western Australia. Chem Age (Lond) 71:532 S 11 '54; Chem & Ind p 1127 S 11 '54

ANXIETY

What to do about anxiety; airlines' experiment. Bsns W p 142+ Ag 29 '53

APARTMENT house tenant insurance. See Insurance, Tenant

APARTMENT houses

Eight-family apartment building for $40,000. il Eng N 152:157+ F 18 '54

High-rise apartments of box-frame construction; with cost data. il plans Arch Forum 100:164-7 F '54

LeCorbusier completes his concrete honeycomb. il Arch Forum 100:156-9 Mr '54

Luxury apartments stress outdoor living; Sunset Lanai and Fountain Lanai, Hollywood, Calif. il plans diags Am Bld 76:98-103 Je '54

Mies van der Rohe's new buildings. il plans diags Arch Forum 97:93-103 N '52

Rental housing; forecast, apartments, 1979. il Am Bld 76:184-5 Ag '54

Why are these apartments a success? il plans House & Home 3:136-41 Ap '53

Designs and plans

Mile long and an inch wide; long, narrow apartment building bends with the river; cooperative-apartment project, Yonkers, N.Y. il plans diags Arch Forum 98:152-5 Ap '53

Minimum-housekeeping apartments on downtown site; Walter Bragg Smith apartments, Montgomery. il plans Arch Rec 114:148-53 S '53

Multi-family housing; building types study. il plans Arch Rec 115:170-91 Je '54

No space wasted on public halls or stairs in this apartment. il plans House & Home 4:142-3 D '53

Garden apartments

For an established suburb; shopping center in a closed-in area; LaGrange Park's Homestead garden apartments. il plan House & Home 2:94-5 D '52

Heating and ventilation

Heating costs reduced in two installations. D. B. Tuxhorn. il Heating-Piping 26:106-8 S '54

Hot water heating serves Evanston apartments. M. D. Kelischer. il Heat & Ven 51:100 My '54

How is heating system best balanced? apartment building forced hot-water heating system. diags Power 98:132-3 S '54

Multi-story venting for apartment houses. E. C. Adams. il diags Am Gas Assn Mo 36:13+ Mr '54; Same. Gas Age 144:55+ Jl 15 '54

Multi-story vents aid apartment heating. diags Heat & Ven 51:122 Ag '54

Insurance requirements

See also
Insurance, Tenant

APARTMENT houses, Cooperative

Mile long and an inch wide; long, narrow apartment building bends with the river; cooperative-apartment project, Yonkers, N.Y. il plans diags Arch Forum 98:152-5 Ap '53

APARTMENTS

Builds detached equity apartments for $7,000. il plan diag Am Bld 75:203 My '53

See also
Apartment houses—
Garden apartments

APARTMENTS—*Continued*

Air conditioning

Apartment air conditioning. il diags Arch Forum 98:156-9 Ap '53

APATITE

Synthesis of carbonato-apatite. L. A. Romo. bibliog Am Chem Soc J 76:3924-5 Ag 5 '54

APHIDS. See Plant lice

APOCAMPHANE

Brominative decarboxylation of silver salt of apocamphane-1-carboxylic acid. P. Wilder, jr. and A. Winston. bibliog Am Chem Soc J 75:5370-2 N 5 '53

APOERYSOPINE

See also

Dimethylapoerysopine

APORPHINE

Aporphine series; developments of the Bischler-Napieralski-Pschorr synthetic method; the synthesis of (±)-*iso*bulbocapnine and (±)-actinodaphnine methyl ether. D. H. Hey and L. C. Lobo. Chem Soc J p2246-56 Jl '54

Synthesis of 10-hydroxy-4 : 5 : 6-trimethoxyaporphine. T. R. Govindachari and K. Nagarajan. Chem Soc J p2537-8 Jl '54

APPALACHIAN electric power company

Bonds offered. Comm & Fin Chr 179:201 Ja 18 '54

APPEL, William D. 1892-

Olney medal to be awarded to W. D. Appel. por Am Dyestuff Rep 43:578-9 Ag 30 '54

W. D. Appel to receive AATCC's Olney medal for 1954. por Mod Textiles Mag 35:60 Ag '54

Warp and woof are his business; 11th recipient of Olney medal. por(cover) Chem & Eng N 32:2800 Jl 12 '54; Same cond. Am Dyestuff Rep 43:424 Jl 5 '54

APPLAUSE meters

Transistorized applause meter. L. E. Garner, jr. il diag Radio & Tv N 51:82-3+ Mr '54

APPLE juice

Tannin of apple juice and cider; interpretation of the permanganate titration method. A. H. Williams. bibliog Chem & Ind p540-1 My 30 '53

APPLE juice, Dried

Powder makes A-1 apple juice. H. I. Sinnamon and others. il Food Eng 26:78-9+ Jl '54

APPLES

Indentification of the auxin present in apple endosperm. F. G. Teubner. Science 118:418 O 9 '53

Diseases and pests

Insect population balance and chemical control of pests; insecticides in the apple orchard. A. M. Massee. Chem & Ind p 1004-5 S 26 '53

Statistics

Apples, 1949-1952. Survey of Cur Bsns 1953 Sup p 137 [supplemented in monthly numbers]

APPLIANCE purchase financing. See Banks and banking—Appliance purchase financing

APPLICATIONS for positions

Employment service handbook for 1954; a guide and steps to be followed when looking for a job. J. L. Angel. 141 l pa $6 World trade academy press, 11 W. 42d st. suite 518, New York 36 '54

Engineer and the prospective employer. L. Stemp. Midwest Eng 6:7-8+ Ag '53

Greener fields; executive job-hunting. L. Stewart and J. Westerman. il Dun's R & Mod Ind 62:46-7+ N '53

High-speed handling of employment applications. J. V. Young. Personnel 30:205-7 N '53

APPLIED psychology. See Psychology, Applied

APPRAISALS. See Real property—Valuation

APPRENTICES

Apprentice training. il Am Mach 97:129-52 N 9 '53

Apprentices are still short. Bsns W p46+ Ag 15 '53

Apprentices; assurance of skilled labor tomorrow. W. E. Dean. il Steel 134:65-7 My 3 '54

Apprentices; needed in small plants. J. R. Whipple. il Iron Age 173:49-50 Ap 29 '54

Apprentices; training 'em right; John Volkert metal stampings plant. il Am Mach 98:156 Ap 26 '54

Apprenticeship program; today's best training buy; abstract. Management R 42:72-3 F '53

Artists sculpture mica dies; apprentice training program. J. P. Wright. il diags Am Mach 98:156-60 S 13 '54

Film beckons tool and die apprentices. il Steel 133:97 S 21 '53

Forstmann apprentice program pays off over the years. R. C. Scott. Textile World 104:81-3 Mr '54

High stakes in skills, chemical companies increasing investments in training. il Chem W 73:14-16 S 19 '53

Investment in the future; an effective training program; Balas collet manufacturing co. J. W. Greve. il Tool Eng 33:81-6 Ag '54

Post-graduate apprenticeship; abstract. R. S. Medlock and D. P. Lant. Engineering 177:4-5 Ja 1 '54

Tool, die film recruits trainees. Iron Age 172:216-17 O 8 '53

Training apprentices in the small plant. E. J. Clement. il Mill & Factory 55:102-3 Ag '54

Training of tool and die makers. S. Swerdloff and A. Bluestone. Mo Labor R 76:254-7 Mr '53

Where are the apprentices? Steel 133:29-30 Ag 31 '53

See also

Employees, Training of

APPROXIMATE computation

Approximate emissivity calculations for polyatomic molecules; CO_2. S. S. Penner. bibliog J Ap Phys 25:660-7 My '54

Approximate method of evaluating integral transforms. A. H. Zemanian. bibliog diag J Ap Phys 25:262-6 F '54

Approximating the mode from weighted sample values. H. L. Jones. bibliog Am Stat Assn J 48:113-27 Mr '53

Approximations in linear viscoelasticity theory; delta function approximations. H. Leaderman. J Ap Phys 25:294-6 Mr '54

Electromagnetic scattering by an ellipsoid in the third approximation. A. F. Stevenson. bibliog J Ap Phys 24:1143-51 S '53

Estimation of gradient. J. Webb. Elec R (Lond) 154:231-2 F 5 '54

Mathematical methods for zone-melting processes. H. Reiss. bibliog diag J Metals 6:Trans 1053-9 sec 2 S '54

Symmetry as a factor in finite difference approximations. C. M. Fowler. J Ap Phys 25:293-4 Mr '54

Webb's approximation for sec θ. T. A. S. Jackson and others. Engineering 176:298 S 4 '53

APTITUDE tests. See Ability tests

AQUEDUCTS

Automatic headgear for tunnel driving. O. Dawson and A. S. Bertlin. il diags Engineer 196:552-4 O 30 '53

Design of recent additions to Key West aqueduct. W. J. Parks, jr. Am Soc C E Proc 79 [no288]:1-6 S '53

East Delaware tunnel construction to be completed six months ahead of time. J. S. Macdonald. il map diags Civil Eng 24:28-30 Ja '54

General design of the East Delaware water supply tunnel. S. M. Dore. il maps plan diags Am Soc C E Proc 79 [no 313]:1-16 O '53

Key West aqueduct. P. Corradi and B. Lenhart. il map Am Soc C E Proc 79[no 208]:1-26 Jl '53; Discussion. H. A. Foster and J. Hannan, jr. 79 [no 377]:3-6 D '53

New 126-mile aqueduct to serve phenomenal growth of Florida Keys. J. W. Greenleaf, jr. map Civil Eng 23:543-5 Ag '53

San Diego doubles aqueduct capacity. il Eng N 151:35-6 Jl 23 '53

ARAB league

Arab league agrees on Israel boycotts. For Comm W 51:13 Ja 4 '54

Sinews for the Arab league? Economist 170:150 Ja 16 '54

ARAB states
See also
Arab league

ARABIA
What's next for Arabia? Bsns W p 171 N 14 '53
See also
Petroleum industry and trade—Arabia
Railroads—Arabia

Economic conditions

Economic conditions abroad. For Comm W 50:5 D 28 '53

Politics and government

Death of a desert king; Ibn Saud. Economist 169:495-6 N 14 '53

ARABIAN American oil company
How to win friends and help students; Aramco is finding that its poster information program is paying off. il World Oil 137:83 S '53

ARABIC acid
Light scattering in solutions of a linear polyelectrolyte. A. Veis and D. N. Eggenberger. bibliog Am Chem Soc J 76:1560-3 Mr 20 '54

ARABINOSE
Determination of carbon 14 in the terminal positions of sugars; preparation of D-arabinose-5-C^{14} from D-fructose-1.6-C^{14}. H. L. Frush and H. S. Isbell. J Res Nat Bur Stand 51:167-70 O '53
Improved isolation of L-arabinose from mesquite gum. F. B. Cramer. Franklin Inst J 256:93-4 Jl '53
Preparation of D-arabinose-1-C^{14} and D-ribose-1-C^{14}. H. L. Frush and H. S. Isbell. bibliog J Res Nat Bur Stand 51:307-11 D '53
Synthesis of lactose-1-C^{14} and lactobionic-1-C^{14} delta lactone from 3-β-D-galactopyranosyl-α-D-arabinose. H. L. Frush and H. S. Isbell. bibliog diag J Res Nat Bur Stand 50:133-7 Mr '53

ARABOGALACTAN
Hemicelluloses and arabogalactans as beater adhesives. J. O. Thompson and others. bibliog(27 ref) Tappi 36:534-41 D '53

ARABS and Jews. See Jewish-Arab relations

ARAGO, Dominique-François-Jean, 1786-1853
Centenary of Arago. E. C. Smith. Engineering 176:436-7 O 2 '53

ARBITRAGE
Arbitrage in the bond market. M. J. Gartman. Comm & Fin Chr 178:1629+ O 29 '53
Britain extends scheme for currency arbitrage. For Comm W 50:6 N 23 '53

ARBITRATION
Setback for arbitration pacts; Supreme court holds investors can't sign away their rights under the Securities act. Bsns W p64+ D 19 '53
See also
Insurance—Adjustment of claims—Arbitration

Bibliography

Arbitration bibliography. 92 l pa $2 American arbitration assn, 9 Rockefeller plaza, New York 20 '54

ARBITRATION, Industrial
Arbitration of labor-management grievances; Bethlehem steel company and United steelworkers of America, 1942-52. K. R. Petshek and others. U S Bur Labor Statistics Bul 1159:1-42; pa 35c Supt. of doc. '54
Arbitration of some fine points in labor-union contracts. N. C. Rockwood. Rock Prod 57: 71+ Ag '54
Arbitration provisions in collective agreements, 1952. E. M. Moore and J. Nix. Mo Labor R 76:261-6 Mr '53
Arbitrator in management-labor relations. M. Berkowitz. Advanced Management 19:4-6 Ag '54
Court of St James's; Ministry of labour and industrial peace. Economist 169:158-9 O 17 '53
Developments in industrial relations. Published in Monthly labor review
Guide for company arbitrators; Philadelphia transportation company manual. Personnel 30:196-202 N '53
Lunchbox is no picnic to telephone workers; unusual arbitration case. Bsns W p 164 D 5 '53
Management-union future; collective bargaining and voluntary arbitration or government control. M. M. Semel. Advanced Management 18:5-7 S '53
New tool for arbitrators. il Bsns W p78 D 26 '53
Profession of arbitrator in labor-management. J. W. Irwin. Chem & Eng N 31:3012 Jl 20 '53
Psychological factors in industrial mediation. I. Paster. Personnel 31:115-27 S '54
Supervisor on the witness stand. M. J. Wise, jr. Textile World 104:127+ Jl '54
What's happening to arbitration? Personnel 31:50-5 Jl '54; Discussion. 31:179-83 S '54
See also
National mediation board

ARBORS and mandrels
Cold-drawing more economical with tungsten-titanium carbide mandrels. Mach 60:161 Ag '54
Eccentric-mounted mandrel relieves form cutters. G. W. Wilson. diags Am Mach 98: 139 Ag 2 '54
Largest expanding mandrel bulges aircraft fuel tanks; Ryan aeronautical co. il diag Am Mach 97:120-1 N 9 '53
Pneumatic piles support landship for army's navy. H. T. Perez. il Constr Methods 36: 58-61 Je '54
Pressing bushings with pneumatic support mandrel. H. G. Frommer. diags Mach 60: 224-5 N '53
Soft die and hard arbor taper tubes. F. E. Chase. diags Am Mach 98:141 S 27 '54
Tube drawing; tungsten-titanium carbide mandrels cut drawing costs. il Iron Age 173:142-3 My 27 '54; Steel 134:118 My 31 '54

ARC, Electric. See Electric arc

ARC lamps. See Electric lamps, Arc

ARC welding. See Electric welding, Arc

ARCHED bridges. See Bridges, Arched

ARCHEOLOGY
Archaeology and the earliest art. H. L. Movius, jr. il map Sci Am 189:30-5 Ag '53
Copenhagen natural radiocarbon measurements. E. C. Anderson and others. bibliog diag Science 118:6-9 Jl 3 '53
Dating with carbon 14. J. L. Kulp. bibliog J Chem Educ 30:432-5 S '53
Radiocarbon dating extended to 44,000 years. Chem & Eng N 32:586+ F 15 '54
Radiocarbon dating of the Allerӧd period. J. Iversen. bibliog il Science 118:9-11 Jl 3 '53
Yale natural radiocarbon measurements; Pyramid valley, New Zealand and its problems. M. Blau and others. bibliog Science 118:1-6 Jl 3 '53
See also
Excavations (archeology)
Pottery, Ancient

ARCHER-DANIELS-MIDLAND company
Reports good gains and looks for big 1955. Paint Oil & Chem R 117:22 S 9 '54

ARCHES
Dimensionless curves aid design of flexible arch ribs. R. S. Rowe and S. Shore. Civil Eng 23:699-700 O '53
See also
Bridges, Arched

ARCHES, Concrete
Arch tie prestressed to hold length. A. F. Campbell. diags Eng N 151:48 Jl 16 '53
Arches support flat roof of armory. il diag Eng N 151:43 D 3 '53
Building hangs from concrete arches to permit maximum glass wall area. il Eng N 151:77-8 Ag 20 '53
Concrete arch erection at Whidbey island. il diag Eng N 151:42 N 12 '53
130-ft span hangar in precast concrete. O. Safir. il diag Am Concrete Inst J 25:525-32 Mr '54; Abstract. Roads & Eng Constr 92: 154-6 Ap '54
Precast arches. il diags Arch Forum 99:140-1 Jl '53
Small but tricky pour makes unique dome. il Constr Methods 36:67-8+ Je '54

ARCHES, Steel
Amplification of stress in flexible steel arches. R. S. Rowe. bibliog diags Am Soc C E Proc 79 [no 245]:1-20 Ag '53
New Pittsburgh airport hangar features 278-ft three-hinge trussed arch spans. il Civil Eng 24:264 Ap '54; Eng N 152:33 Ap 8 '54
Welded arches span gymnasium. il Arch Forum 101:163 Jl '54

ARCHITECTS
Architect-client forum; the need for better planning and how to get it. il Arch Forum 98:146-55+ Je '53
Architects' new frontier, the volume-built house. L. M. Yost and others. House & Home 4:91-2 Jl '53
Argentinian architects win $5,000. Midwest Eng 6:27 Ag '53
California designer wins $50,000 settlement of threatened suit for prize plan piracy. plan diag House & Home 4:37 Ag '53
Increased reliance on private architects could save the government money. L. Johnson. Arch Rec 115:24+ F '54
More architects engaged in '52. Eng N 151:77 O 8 '53

See also
Advertising and architects
American institute of architects
Angilly, Arthur O.
Becket, Welton David
Le Corbusier (Charles Edouard Jeanneret—Gris)
Delano, William Adams
Dudok, Willem Marinus
Gaudi y Cornet, Antonio
Klumb, Henry
Mackintosh, Charles Rennie
Mendelsohn, Eric
Mies van der Rohe, Ludwig
National professional association engineers, architects and scientists
Nowicki, Matthew
Perret, Auguste
Shaffer, Marshall
Wright, Frank Lloyd

Fees

What payments for architect's services on merchant-built houses? House & Home 3:142-3 Ap '53

Licenses and registration

John Lloyd Wright challenges California architect license law in court. il Arch Forum 101:51 Ag '54

Public relations

Pocket guide for better public relations. Arch Forum 100:146-7+ Ap '54

Great Britain

Architect's dilemma; professional status and prospects. Economist 168:240-2 Jl 25 '53

ARCHITECTS, American institute of. See American institute of architects

ARCHITECTS' homes. See Architecture, Domestic—Architects' homes

ARCHITECTS' offices
Eleven architects' offices; views and plans. Arch Forum 100:102-15 Ja '54
Office for architects. il plans Am Bld 76:266 Ag '54
Proposed architects' building in Phoenix. il plan Arch Rec 113:186 My '53

ARCHITECTURAL acoustics. See Acoustics, Architectural

ARCHITECTURAL education
Architectural education in America. S. Sha'ag. Arch Rec 115:9+ F '54

ARCHITECTURAL libraries
See also
Royal institute of British architects —Library

ARCHITECTURAL lighting. See Lighting, Architectural

ARCHITECTURAL literature
Winner; architecture; American institute of architects' first annual journalism competition. Arch Rec 115:15 Ap '54

ARCHITECTURAL societies
See also
American institute of architects

ARCHITECTURE
Architect at mid-century; v 1, Evolution and achievement, ed. by T. C. Bannister; v2, Conversations across the Nation, ed. by F. R. Bellamy; review by B. L. Pickens; comments by Commission members. Arch Rec 115:44+ Je '54
Architects' year book 5. T. Dannatt, ed. 294p $9 British book center, 122 E. 55th st, New York 22 '54
Architecture; stepchild or fashioner of cities? il Arch Forum 99:117 D '53
Ball of wire and tubes tests strength of tension design. il Arch Forum 100:163 F '54
Can patios make cities? P. L. Wiener and J. L. Sert. il plans Arch Forum 99:124-31 Ag '53
Case of the misplaced scupper. R. M. Bennett. Arch Rec 113:268+ Je '53
Construction of the future. D. Haskell. il Arch Forum 100:154-7 Ap '54
Criticism vs. statesmanship in architecture; editorial. Arch Forum 98:97 My '53
Eight steps toward a solid architecture. W. Gropius. Arch Forum 100:156-7+ F '54
Five Americans are honored in São Paulo's second International architecture exposition. il Arch Rec 115:10-12 Je '54
In architecture, will atomic processes create a new plastic order? D. Haskell. il diags Arch Forum 101:100-1 S '54
Is this tomorrow's structure? space-frame enthusiasts marshal many reasons for predicting it is. il diags Arch Forum 98:150-60 F '53
Language of organic architecture by Frank Lloyd Wright. Arch Forum 98:106-7 My '53
Northwest architecture of Pietro Belluschi. il Arch Rec 113:134-9 Ap '53
Parabolic pavilion, a spectacular testimonial to architect-engineer collaboration; livestock-judging pavilion of a state fair. il diags Arch Forum 97:134-9 O '52
Six broad currents of modern architecture. E. Saarinen. il Arch Forum 99:110-15 Jl '53
State of contemporary architecture. S. Giedion. il plan diags Arch Rec 115:132-7 Ja; 186-91 F '54
Thin shells. M. G. Salvador. il diags Arch Rec 116:173-9 Jl '54
UN General Assembly; new Assembly hall. il plans diags Arch Forum 97:140-9 O '52

See also
Acoustics, Architectural
Airlines—Ticket offices
Airport buildings
Arches
Architects' offices
Auditoriums
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Orientation (architecture)
Pavilions
Post offices
Public buildings
Railroads—Stations
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Restaurants
School buildings
Shopping centers
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Store buildings
Strength of materials
Theaters
Tourist camps, hostels, etc.
Trusses
Walls
Wood construction

also subdivision Architecture under names of cities, e.g.
Boston
Casablanca
Chicago
New Canaan, Connecticut
New York (city)
Philadelphia

ARCHITECTURE—*Continued*

Bibliography

Book reviews. Published in monthly numbers of Architectural forum

Designs and plans

Carnegie endowment for international peace; International center, New York. il plans diags Arch Rec 115:121-31 Ja '54

Design standards and data. H. R. Sleeper. plans diags Arch Forum 99:162-5 O '53 [cont monthly]

Seven typical structures; with blueprints. il Am Bld 75:34-64 Ap '53

Show the frame and stop the traffic; restaurant in Pasadena. il plan diag Am Bld 76:120-1 F '54

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School buildings—Designs and plans

Details

Design standards and data. H. R. Sleeper. plan diags House & Home 4:114-17 N '53 [cont monthly]

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Exhibitions

Architectural league of New York 57th annual gold medal exhibition honors 29. Arch Rec 115:10-11 Ap '54

International aspects

U.S. architecture abroad. il plans diags Arch Forum 98:101-15 Mr '53

Philosophy

Changing philosophy of architecture. P. Rudolph. Arch Forum 101:120-1 Jl '54

Changing philosophy of architecture; symposium. Arch Rec 116:180-3 Ag '54

Survival through design. R. Neutra. il Arch Forum 100:130-3 Ja '54

Three lamps of modern architecture. J. V. Hudnut. il Arch Rec 113:138-43 Mr; 123-6+ My; 114:151-3+ Jl '53

Study and teaching

Who should study architecture? J. K. Shear. Arch Rec 116:194-5+ Ag '54

Brazil

Hotel Copan, São Paulo, Brazil. il plans diags Arch Rec 114:135-42 O '53

California

California school addition; $6.84 per sq. ft.; Tularcitos elementary school, Upper Carmel valley. il plans diags Arch Rec 114:191-2 S '53

California school grows with its community; Greenbrae elementary school, Marin county. il plan diags Arch Rec 114:198-201 S '53

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Sanderling beach club, Sarasota, Fla. il plan diags Arch Rec 114:150-5 O '53

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Tuberculosis hospital in Hawaii accents cheerful surroundings. il plans Arch Rec 114:166-72 O '53

Japan

Japanese architecture and the West. il Arch Forum 98:138-49 Ja '53

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Boston arts festival exhibit; 12 examples of today's New England architecture. il Arch Rec 116:10-12 Jl '54

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Have we an indigenous Northwest architecture. P. Thiry and others. il Arch Rec 113:140-6 Ap '53

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Moscow's eight new Woolworth buildings. il Arch Forum 100:160-1 Mr '54

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Modular office building; Pretoria, South Africa. il plans diag Arch Forum 98:146-9 F '53

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Five civic centers in South America. il map plans diags Arch Rec 114:121-36 Ag '53

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Do these pioneer designs foreshadow the look of tomorrow's popular house? il House & Home 3:122-7 F '53

Don't forget the children; three-zone plan with an extra living room. il plan House & Home 4:148-50 S '53

Fastest-selling houses, in the USA. il plans diags House & Home 3:119-25 Ap; 160-5 My; 124-9 Je; 4:124-9 Jl; 126-33 Ag; 154-9 S; 146-53 N '53

Home show house has mass-production potential. il plans diags House & Home 5:146-53 Je '54

House and the art of its design. R. W. Kennedy. Review, by J. H. Callender. Arch Rec 115:46+ F '54

Is this 1953's most influential house? NAHB's trade secrets house. il plans diags House & Home 3:99-107 Ja '53

Let's include everybody in; the way to get the best house for Americans is to consider all good architect ideas. il plans diags House & Home 3:108-15 Je '53

Memo to split-level builders. il plans diags House & Home 5:120-4 Ap '54

More space for less money. il plans diag House & Home 2:136-9 N '52

Nate Manilow and Park Forest switch to the contemporary look. il plans House & Home 4:138-43 N '53

Ned Cole designs a steel roof truss and a house to show it off. il plans diags House & Home 4:130-3 D '53

New way to build on a hillside. il plan diag Am Bld 75:236-8 O '53

On Long Island, splits outsell ranches four to one. il plans diags House & Home 5:110-19 Ap '54

Planned for children; the Frederic Wieting house, Swampscott, Mass. il plan Arch Rec 115:192-5 F '54

Readers' Choice house built for National home month. il plans Am Bld 75:28-33 S '53

Rudolph and the roof. il plans diags House & Home 3:140-5 Je '53

Siting with sight-lines; these houses near Denver are farsighted. il plans House & Home 2:130-4 N '52

This house is as modern as a Palladian villa; house for R. Osborn. il plan House & Home 2:74-9 D '52

This stilt house is practical. il plans House & Home 3:118-21 F '53

Three houses; each designed to meet the problems of its specific setting. il plans diag Arch Rec 115:191-203 Mr '54

Three-way dining room; Harnischfeger brings out a contemporary four-bedroom house. il plans House & Home 4:140-1 D '53

2,071 sq. ft. under roof for $10,500! how to stretch a house by leaving plenty of expandable area under a big roof. il plans diags House & Home 4:94-9 Ag '53

What do people want? review of home selling features. il plans diags House & Home 5:123-67, 172-3 My '54

See also

Apartment houses
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Desert houses
Hillside architecture
Houses
Housing projects
Patios
Ranch houses
Storage in the home
Tourist camps, hostels, etc.
Week-end houses

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Alexander Girard's own house. il House & Home 2:128-9 N '52
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Architects design for themselves; E. H. and M. K. Hunter house, Hemlock Hill, Hanover, N.H. il plans Arch Rec 114:154-8 N '53
Carl Koch's own house. il plans House & Home 5:114-17 F '54
Geometric house in the romantic tradition. il plan House & Home 4:118-29 D '53
House for George J. Wimberly; Honolulu, T.H. il plans Arch Rec 114:171-3 N '53
House that works; home of Robert Little. il plans diags House & Home 4:110-15 Ag '53
Mr Welch builds a living center. il plans diags House & Home 2:98-103 O '52
Open-plan house with privacy; home of W. Field on rock cliff of the Hudson River Palisades. il plans diag House & Home 4:136-41 Jl '53
Raised basement expands hillside house; residence of William Wallace Landsberg. il plans diag Arch Rec 113:162-5 Je '53
Western house with a far eastern flavor; home of Henry Hill. il plans House & Home 3:146-9 Je '53

Competitions

Air-conditioned house prize winners. plans diags House & Home 3:154-9 Je '53
Awards made in Canadian home of tomorrow competition. J. C. Smith. il Arch Rec 116:26+ Ag '54

Designs and plans

Adjustable house; movable closets, retractable walls permit 72 variations on one floor plan. il plans House & Home 2:114-16 D '52
American Builder blueprint house; with blueprints and quantity list of materials. il Am Bld 76:70-7 Ja '54
Architect takes a lot and a half to give his plain-seeming row house five luxuries. il plans House & Home 4:128-31 N '53
Architects design for themselves; E. H. and M. K. Hunter house, Hemlock Hill, Hanover, N.H. il plans Arch Rec 114:154-8 N '53
Architects Siegel and Rapp turn builders. il plans House & Home 5:130-5 Je '54
Atlanta goes modern. il plans diag House & Home 3:144-7 Ap '53
Award winner, a direction that might be exploded further; J. G. Gibbs residence, Marion, Mass. il plans Arch Rec 116:184-7 Ag '54
Battens, boulders and glass; unique New England dwelling amassed of old barn timbers; summer vacation home and winter ski lodge. il plans diags House & Home 3:150-5 Mr '53
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See also
Apartment houses—
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Details

Design standards and data. Published in monthly numbers of House and home
How to erect an expansion-attic truss; details on the University of Illinois Small homes council's open-hearted truss. il diags House & Home 3:156-61 Mr '53

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ARCHITECTURE, Modernistic

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Do these pioneer designs foreshadow the look of tomorrow's popular house? il House & Home 3:122-7 F '53

ARCHITECTURE, Modernistic—*Continued*

Spirit of the new architecture. P. Belluschi. il Arch Rec 114:143-9 O '53

What's going on in New Canaan. il House & Home 3:132-9 Ja '53

ARCHITECTURE and climate

Environment and building shape. il map plans diags Arch Forum 101:104-8 Ag '54

ARCHIVES

Bibliography

Bibliographie sélective des guides d'archives. R.-H. Bautier, comp. J Doc 9:1-41 Mr '53

ARCTIC regions

Arctic yields to the military airplane; based on papers by B. Balchen and others. il map S A E J 62:34-40 Je '54

Design of water distribution systems for service in Arctic regions. W. B. Page. bibliog diags Water & Sewage Works 101:333-7 Ag '54

Operation Eager Beaver I; Arctic testing. il Product Eng 24:202-4 Jl '53

Protecting underground utilities located in Arctic regions. C. H. Billings. bibliog il plan diags Water & Sewage Works 100:441-7 N '53

See also

Thule, Greenland

ARDIL

Emphasis on the meal; peanut meal base for Ardil, a wool-like synthetic fiber. il Chem Eng 60:144+ Je '53

Man-made fiber data sheets; peanut protein fiber. P. A. Koch. bibliog(54 ref) il Mod Textiles Mag 35:46+ Ag '54

AREA measurement

Cross-sectional area measuring device. R. G. Pohl. il R Sci Instr 24:1064 N '53

Effect of stiffness and nonuniformity on vibroscopic determination of filament cross-sectional area. D. J. Montgomery. bibliog J Ap Phys 24:1092-9 S '53

Log-log plot speeds up finding circle areas. G. J. Weiss. Chem Eng 61:232 F '54

Sheet plastic aids in estimating areas of irregular shapes. C. E. Ballard. Chem Eng 60:234-5 S '53

ARGENTINA

See also

Chemical industries—Argentina

Petroleum industry and trade—Argentina

Commerce

Trade pact with Russia; Argentina's deal is O.K with U.S. Bsns W p 140 Ag 15 '53

Commercial policy

New Argentine consular fees put into effect. For Comm W 51:12 F 15 '54

Economic conditions

Economic conditions abroad (cont). For Comm W 50:4+ Ag 10; 5+ S 21; 5+ N 16 '53; 51:5+ F 22 '54

Foreign relations

United States

Argentina; a good neighbor? Peron campaign to encourage U.S. investors. Bsns W p 124-5 Ag 29 '53

Politics and government

Perón tries the velvet glove. Economist 168:186 Jl 18 '53

ARGENTOMETRY

Argentometric determination of halides using the dead-stop end point. M. L. Masten and K. G. Stone. bibliog Anal Chem 26:1076-7 Je '54

Determination of aldehydes in the presence of ketones and procedure for acetals. H. Siegel and F. T. Weiss. bibliog Anal Chem 26:917-19 My '54

Titration curve for argentometric determination of cyanide. J. E. Ricci. Anal Chem 25:1650-6 N '53

ARGININE

Preparation of arginyl peptides. D. T. Gish and F. H. Carpenter. bibliog Am Chem Soc J 75:5872-7 D 5 '53

Studies of polypeptides; the synthesis of arginine peptides. K. Hofmann, A. Rheiner and W. D. Peckham. Am Chem Soc J 75:6083-4 D 5 '53

Synthesis of an arginyl peptide. G. W. Anderson. Am Chem Soc J 75:6081 D 5 '53

ARGON

Absorption of sound in argon, nitrogen, and oxygen at low pressures. J. G. Parker and others. il diag Acoustical Soc Am J 25:263-9 Mr '53

Adsorption of argon on xenon layers. J. H. Singleton and G. D. Halsey, jr. bibliog diag J Phys Chem 58:330-5 Ap '54

Densities of gaseous argon. J. A. Beattie and H. P. Julien. bibliog Ind & Eng Chem 46:1668-9 Ag '54

Heat of adsorption of argon adsorbed on titanium dioxide between 60 and 90°K. E. L. Pace and S. A. Greene. diag Am Chem Soc J 76:3286-9 Je 20 '54

Heats of adsorption of argon on a series of carbon blacks graphitized at successively higher temperatures. R. A. Beebe and D. M. Young. bibliog J Phys Chem 58:93-6 Ja '54

Lazy gas turned workhorse. il Steel 133:127-8+ Ag 17 '53

Measurement of the drift velocity of electrons in the elctrical field in argon-alcohol mixtures. L. Colli and M. T. De Leonardis. bibliog il diag J Ap Phys 24:255-7 Mr '53

Radiogenic argon measurements. H. A. Shillibeer and others. Phys R 94:1793-4 Je 15 '54

Reactions of carbon; adsorption-desorption studies of nitrogen, argon, and carbon dioxide on carbon rods. P. L. Walker, jr. and C. C. Wright. bibliog Ind & Eng Chem 45:1715-21 Ag '53

Storage system cuts argon costs; Ryan aeronautical co. il Steel 133:118 O 26 '53; Same abr. Automotive Ind 109:55+ D 15 '53

Total neutron cross section of liquid argon. J. B. Guernsey and C. Goodman. bibliog diag Phys R 92:323-4 O 15 '53

Ultraviolet photons in the decay of metastable argon atoms. L. Colli. il diags Phys R 95:892-4 Ag 15 '54

Analysis

Determination of nitrogen content of noble gases. H. S. Dombrowski. bibliog diag Anal Chem 26:526-8 Mr '54

Plant control by gas analysis. A. W. Angerhofer and B. M. Dewey. il diags Instruments 26:580-3 Ap '53

Isotopes

Directional correlation of the γ rays of A^{38}. J. J. Kraushaar and others. bibliog Phys R 95:456-7 Jl 15 '54

Nuclear reactions

Double vacancies in the *K* shell associated with *K*-electron capture in A^{37}. J. A. Miskel and M. L. Perlman. bibliog Phys R 94:1683-7 Je 15 '54

Radiative electron capture of Fe^{55}, A^{37}, and Ni^{59}. W. S. Emmerich and others. bibliog Phys R 94:113-16 Ap 1 '54

Spectrum

Interference measurements in the spectrum of argon I. K. Burns and K. B. Adams. bibliog Opt Soc Am J 43:1020-4 N '53

ARGON, Liquid

Liquid argon ionization chambers of centimeter size. J. H. Marshall. bibliog diags R Sci Instr 25:232-7 Mr '54

Statistical mechanical theory of transport processes; a calculation of the coefficients of shear and bulk viscosity of liquids. R. W. Zwanzig and others. J Chem Phys 21:2050-5 N '53

Structure of liquid nitrogen, oxygen, and argon by neutron diffraction. D. G. Henshaw and others. bibliog diag Phys R 92:1229-34 D 1 '53

ARIZONA

See also

Copper mines and mining—Arizona

Geology—Arizona

Insurance, Life—Arizona

Mines and mineral resources—Arizona

ARIZONA bancorporation

Stock offered. Comm & Fin Chr 178:565-6 Ag 17 '53

ARIZONA public service company
Stock offered. Comm & Fin Chr 178:2089-90 N 30 '53

ARIZONA state college
Women's dormitory quadrangle. il plans Arch Rec 113:133-7 Je '53

ARKANSAS
See also
Petroleum—Arkansas
Petroleum laws and regulations—Arkansas

ARKANSAS river
White water derby. C. Holbrook. il Comp Air Mag 59:252-3 S '54

ARLINGTON, Oregon
Economics in a highway relocation. G. B. Arthur. il Pub Works 85:108-9+ My '54

ARM
Cineplastic surgery and rehabilitation of double-arm amputee. A. E. Diggs; W. F. Becker. il Ind Med 22:246-50 Je '53
Mechanical design of muscle-operated arm prostheses. A. C. Blaschke and C. L. Taylor. bibliog diags Franklin Inst J 256:435-58 N '53

ARMAMENTS
Center tests USAF armament systems. il diags Aviation W 59:210-16+ Ag 17 '53
WADC's armament laboratory; where avionics joins firepower. Aviation W 59:386+ Ag 17 '53
See also
Armor plate
Tanks, Military

ARMED forces chemical association
Annual meeting, New York, May 20-21. Chem & Eng N 31:2286-8 Je 1 '53

ARMED forces institute of pathology
Objective; bomb resistance. il plan Eng N 151:33-4 D 31 '53

ARMED services petroleum purchasing agency. See United States—Armed services petroleum purchasing agency

ARMOR plate

Testing

Army first pass groove weld crack susceptibility test. Z. J. Fabrykowski and others. il diags Welding J 33:sup 168-72 Ap '54

ARMORED cars. See Motor trucks, Armored

ARMOUR research foundation
Industrial research, 1953. Diesel Power 32:72 My '54

ARMSTRONG, Donald Budd, 1886-
Metropolitan Life's health authority retiring from service. Weekly Underw 169:1569+ D 26 '53; Excerpts. Nat Safety N 69:93-4 F '54

ARMSTRONG, Henry Edward, 1848-1937
Science, food and the people; H. E. Armstrong memorial lecture. R. T. Colgate. pors Chem & Ind p524-9 My 30 '53

ARMSTRONG cork company
Busiest year in its history looms. Barron's 33:31 Ag 31 '53

ARMSTRONG paint and varnish works
Century of progress. il Paint Oil & Chem R 117:9-10 Je 17 '54

ARMY scientific and professional personnel program. See United States—Army—Scientific and professional personnel program

ARMY transportation corps. See United States—Army transportation corps

ARNOLD engineering development center. See United States—Air force—Arnold engineering development center

AROCLORS

Physiological effect

Seven workers develop chloracne in plant using arochlor. Chem & Eng N 32:2038-9 My 17 '54

AROMATIC compounds
Acetoxymethylation of aromatic compounds. L. Summers. bibliog Am Chem Soc J 76:3481-3 Jl 5 '54
Aromatic compound and complex formation. L. N. Ferguson and A. Y. Garner. bibliog Am Chem Soc J 76:1167-9 F 20 '54
Aromatic detector for the infrared. B. D. McMichael and others. diags Opt Soc Am J 44:26-30 Ja '54
Aromatic electrophilic substitution by hydrogen; the mechanism of the acid-catalyzed decarboxylation of aromatic acids. W. M. Schubert, J. Donohue and J. D. Gardner. bibliog Am Chem Soc J 76:9-14 Ja 5 '54
Aromatic electrophilic substitution by hydrogen; the mechanism of the acid-catalyzed decarboxylation of aromatic aldehydes. W. M. Schubert and R. E. Zahler. bibliog Am Chem Soc J 76:1-9 Ja 5 '54
Aromaticity in seven-membered ring systems. A. W. Johnson. diag Chem Soc J p 1331-40 bibliog(p 1338-40) Ap '54
Aromatics from coal; Carbide and Carbon coal hydrogenation pilot plant; pictured flowsheet. Chem Eng 60:250-3 D '53
Aromatics in soap perfumery. O. L. Marton and G. F. Foy. il Soap & San Chem 30:38-41+ Ja '54
Cationic substituents in aromatic nucleophilic substitution. B. A. Bolto and J. Miller. bibliog Chem & Ind p640 Je 27 '53
Chemistry of phosphonic acids with aromatic nuclei; the isomeric tolyphosphonic acids. E. C. Ashby and G. M. Kosolapoff Am Chem Soc J 75:4903-5 O 20 '53
Condensation of hydroxyaromatic compounds with formaldehyde and primary aromatic amines. W. J. Burke, K. C. Murdock and G. Ec. bibliog Am Chem Soc J 76:1677-9 Mr 20 '54
Conjugated double bonds in aromatic nucleophilic substitution. R. L. Heppolette and others. Chem & Ind p904 Jl 17 '54
Direct hydroxylation of aromatic compounds. W. Bradley. bibliog Chem & Ind p631-3 My 29 '54
Equilibria between aromatic acids and weak base anion exchangers. S. Peterson and E. Gowen. bibliog Ind & Eng Chem 45:2584-6 N '53
Free radical aromatic substitution; the relative reactivities of the phenyl halides toward phenyl radical attack. R. L. Dannley and others. bibliog Am Chem Soc J 76:445-8 Ja 20 '54
Friedel-Crafts alkylation of aromatic compounds with vinyl sulfones. W. E. Truce, J. A. Simms and H. E. Hill. bibliog Am Chem Soc J 75:5411-13 N 5 '53
Homolytic aromatic substitution; partial rate factors for the phenylation of fluorobenzene, bromobenzene, and iodobenzene. D. R. Augood and others. Chem Soc J p3412-17 N '53
Introduction of Mannich groups into some aromatic phenolic compounds. J. R. Meadow and E. E. Reid. Am Chem Soc J 76:3479-81 Jl 5 '54
Ionic polymerization; a method for measuring the relative rates of attack of a carbonium ion pair on aromatic compounds in homogeneous solution; nucleophilicity factors. C. G. Overberger and G. F. Endres. bibliog Am Chem Soc J 75:349-50 D 20 '53
Kinetics and mechanisms of aromatic halogen substitution; acid-catalysed chlorination by aqueous solutions of hypochlorous acid. P. B. D. de la Mare, A. D. Ketley and C. A. Vernon. Chem Soc J p 1290-7 Ap '54
Kinetics of aromatic halogen substitution; the intermediates involved in halogenation in acetic acid solution. P. W. Robertson. Chem Soc J p 1267-70 Ap '54
Kinetics of the reaction of representative benzyl halides with aromatic compounds; evidence for a displacement mechanism in the Friedel-Crafts reactions of primary halides. H. C. Brown and M. Grayson. bibliog Am Chem Soc J 75:6285-92 D 20 '53
Metal-catalyzed persulphate oxidations of organic compounds. R. G. R. Bacon and others. bibliog Chem & Ind p897-8 Ag 22 '53
Molecular polarisability; its anisotropy in aliphatic and aromatic structures. C. G. Le Fèvre and R. J. W. Le Fèvre. Chem Soc J p 1577-88 My '54
Nucleophilic displacement reactions in aromatic systems; kinetics of the reactions of chloronitropyridines and chloropyrimidines with piperidine, morpholine, pyridine, and aniline. N. B. Chapman and C. W. Rees. Chem Soc J p 1190-6 Ap '54

AROMATIC compounds—*Continued*

Nucleophilic displacement reactions in aromatic systems; kinetics of the reactions of chloronitropyridines and chloro-2:4-dinitrobenzene with 3- and 4-picoline. E. A. S. Cavell and N. B. Chapman. Chem Soc J p3392-7 N '53

Nucleophilic displacement reactions in aromatic systems; kinetics of the reactions of *o*- and *p*-halogenonitrobenzenes with piperidine and with morpholine. N. B. Chapman, R. E. Parker and P. W. Soanes. Chem Soc J p2109-14 Je '54

Phosphonation of aromatic compounds with phosphoric anhydride. H. Z. Lecher and others. bibliog Am Chem Soc J 76:1045-51 F 20 '54

Reactions of aromatic nitro compounds with active methyl, methylene, methine groups in presence of base. J. J. Carr. bibliog Anal Chem 25:1859-63 D '53

Reactions of ethyl diazoacetate with aromatic compounds containing hetero atoms attached to the benzyl carbon. C. D. Gutsche and M. Hillman. bibliog Am Chem Soc J 76:2236-40 Ap 20 '54

Selective aromatic reduction by means of lithium in ethylamine; abstract. R. A. Benkeser. Chem & Eng N 32:1325 Ap 5 '54

Selective reductions of aromatic systems to monoolefins. R. A. Benkeser and others. Am Chem Soc J 76:631-2 Ja 20 '54

Some extensions of Hammett's equation. H. H. Jaffé. Science 118:246-7 Ag 28 '53

Spectroscopic study of the nature of the complexes of purines with aromatic compounds. J. Booth, E. Boyland and S. F. D. Orr. Chem Soc J p598-603 F '54

SN mechanism in aromatic compounds. G. P. Briner and others. Chem Soc J p 1265-6 Ap '54

SN mechanism in aromatic compounds; carbonyl and nitrile substituents. J. Miller. bibliog Am Chem Soc J 76:448-50 Ja 20 '54

Studies on the chlorination of the side chains of alkylaromatic compounds. P. G. Harvey and others. bibliog J Ap Chem 4:319-25 Je '54; Abstract and discussion. Chem & Ind p300-1 Mr 13 '54

Vinylidene cyanide; the aluminum chloride catalyzed reaction of vinylidene cyanide and aromatic compounds. J. C. Westfahl and T. L. Gresham. bibliog Am Chem Soc J 76:1076-80 F 20 '54

See also

Hydroaromatic compounds

Analysis

Quantitative estimation of aromatic nitro compounds. E. Wolthuis, S. Kolk and L. Schaap. bibliog Anal Chem 26:1238-40 Jl '54

2,4,7-Trinitrofluorenone as a reagent for microscopic fusion analysis. D. E. Laskowski, D. G. Grabar and W. C. McCrone. il diag Anal Chem 25:1400-4 S '53

Spectra

Singlet-triplet absorption bands in some halogen substituted aromatic compounds. D. S. McClure and others. bibliog J Chem Phys 22:255-8 F '54

AROMATIC hydrocarbons. See Hydrocarbons, Aromatic

AROMATIZATION

Aromatization of blocked hydroaromatic systems by quinones. R. P. Linstead and others. bibliog Chem & Ind p 1174-5 S 18 '54

Elimination of non-angular alkyl groups in aromatisation reactions. W. Cocker and D. S. Jenkinson. Chem Soc J 2420-3 Jl '54

Steroidal sapogenins; aromatization experiments in the diosgenin series. F. Sondheimer and others. bibliog Am Chem Soc J 76:2230-3 Ap 20 '54

AROSORB process. See Hydrocarbons—Separation processes

ARRANDALE, James A. 1888-

Sketch. por Glass Ind 35:206 Ap '54

ARSANILIC acid

Reactions of *p*-arsanilic acid and 4-hydroxyphenylarsonic acid with brominated fatty acids. R. L. McGeachin and M. Greenwald. Am Chem Soc J 75:5430-1 N 5 '53

ARSENIC

de Haas-van Alphen effect in arsenic. T. G. Berlincourt. Phys R 92:1068 N 15 '53

Effect of chloride on the deposition of copper, in the presence of arsenic, antimony, and bismuth. V. Hospadaruk and C. A. Winkler. bibliog J Metals 5:Trans 1375-7 O '53

Analysis

Determination of arsenic in biological materials. R. J. Evans and S. L. Bandemer. bibliog Anal Chem 26:595-8 Mr '54

Determination of impurities in germanium and silicon. C. L. Luke and M. E. Campbell. bibliog Anal Chem 25:1588-93 N '53

Field method for determination of traces of arsenic in soils. H. Almond. bibliog diag Anal Chem 25:1766-7 N '53

Polarographic analysis for arsenic and antimony. G. P. Haight, jr. bibliog Anal Chem 26:593-5 Mr '54

Spectrophotometric determination of arsenic and tungsten as mixed heteropoly acids. D. K. Gullstrom and M. G. Mellon. bibliog Anal Chem 25:1809-13 D '53

Spectrophotometric determination of arsenic, phosphorus, and silicon in the presence of each other. M. A. DeSesa and L. B. Rogers. Anal Chem 26:1381-3 Ag '54

Isotopes

Gallium, germanium, and arsenic nuclides produced in the bombardment of copper with 2.2-Bev protons. A. Turkevich and N. Sugarman. Phys R 94:728 My 1 '54

Radionuclides of arsenic produced by deuteron bombardment of germanium. H. J. Watters and J. F. Fagan, jr. Phys R 92:1248-9 D 1 '53

Nuclear reactions

Metastable states of Ge^{73}. J. P. Welker and others. bibliog Phys R 92:401-5 O 15 '53

ARSENIC compounds

Indicator and dye properties of some aromatic phosphonic acids and their arsenic analogs. G. M. Kosolapoff and G. G. Priest. Am Chem Soc J 75:4847-9 O 5 '53

Preparation of arsenic and phosphorus compounds from stable diazonium salts. L. D. Freedman and G. O. Doak. bibliog Am Chem Soc J 75:4905-6 O 20 '53

Pteroic acid analogs containing arsenic. R. B. Angier and others. Am Chem Soc J 76:902-4 F 5 '54

Reversibility of the adsorption of catalyst poisons; derivatives of arsenic. E. B. Maxted and G. T. Ball. Chem Soc J p3153-6 O '53

Thermochemistry of organo-arsenic compounds; phenylarsine. C. T. Mortimer and H. A. Skinner. Chem Soc J p3189-91 O '53

Ultra-violet absorption spectra of heterocyclic arsenic and antimony compounds. I. G. M. Campbell and R. C. Poller. Chem & Ind p 1126-7 O 17 '53

See also

Arsine

ARSENIC oxides

Arsenic trioxide exposure in industry. S. S. Pinto and C. M. McGill. bibliog Ind Med 22:281-7 Jl '53; Abstract. Nat Safety N 68: 60+ N '53

New information on effects of arsenic trioxide and selenium gases from burned out rectifiers. H. H. Schrenk. Ind & Eng Chem 45:sup 111A-12A+ D '53

ARSENIC poisoning

Arsenic trioxide exposure in industry. S. S. Pinto and C. M. McGill. bibliog Ind Med 22:281-7 Jl '53; Abstract. Nat Safety N 68:60+ N '53

ARSENIC sulfides

New optical glasses with good transparency in the infrared. R. Frerichs. bibliog Opt Soc Am J 43:1153-7 D '53

ARSENIC trioxide. See Arsenic oxides

ARSENITES

Analysis

Coulometric titrations with externally generated chlorine, bromine, and iodine. J. N. Pitts, jr. and others. bibliog diag Anal Chem 26:628-31 Ap '54

ARSINE

Chemistry of arsenic-boron bonding; arsine borines and arsinoborine polymers. F. G. A. Stone and A. B. Burg. bibliog Am Chem Soc J 76:386-9 Ja 20 '54

Some aromatic and heterocyclic dialkylarsines. H. Gilman and S. Avakian. bibliog Am Chem Soc J 76:4031-2 Ag 5 '54

Studies on biological methylation; the formation of trimethylarsine and dimethyl selenide in mould cultures from methyl sources containing ^{14}C. F. Challenger, D. B. Lisle and P. B. Dransfield. Chem Soc J p 1760-71 Je '54; Abstract. Chem & Ind p796 Jl 25 '53

Spectrum

Rotational spectra of regular and deuterated phosphine and arsine in the region between 50 and 200 K. R. E. Stroup and others. bibliog Opt Soc Am J 43:1096-9 N '53

ARSON

Arson arrests decline. L. S. Harvey. East Underw 55:22 My 21 '54

Arson record, 1940-1952. Rough Notes 96: 93 S '53

Lumber and coal yards listed as greatest arson risks; list of causes of incendiary fires, 1930-1953. Spectator 162:73 Jl '54

ARSONIC acids

New synthesis of arsonic acids; stilbene-3-arsonic acid. W. Freund and A. Komzak. Chem Soc J p3707 N '53

ARSONIUM compounds

Crystal nucleation from supersaturated aqueous solution; tetraphenylarsonium perchlorate and nickel nioxime. F. R. Duke and L. M. Brown. bibliog Am Chem Soc J 76:1443-6 Mr 5 '54

ART

See also

Architecture
Ceramic art
Design
Photography

ART, Prehistoric

Archaeology and the earliest art. H. L. Movius, jr. il map Sci Am 189:30-5 Ag '53

ART galleries and museums

Museum garden is an outdoor living room for sculpture display; Museum of modern art. il Arch Forum 99:136-7 Jl '53

New fine arts center for the city of Rio. il plans diags Arch Rec 116:176-9 Ag '54

Social and recreational buildings; museums, too, try the new trends. il Arch Rec 115: 166-7 Ja '54

Winners announced; competition for Canada's projected national gallery in Ottawa. J. C. Smith. il Arch Rec 115:26+ My '54

See also

Metropolitan museum of art

Lighting

Investigation of the damage hazard in spectral energy. L. S. Harrison. Illum Eng 49:253-7 My '54

Lighting an art museum; data sheet. C. W. McCormick and H. Young. il diag Illum Eng 48:585-6 N '53

Museum lighting by day and night; Metropolitan museum of art. il diags Arch Forum 100:162-3 Mr '54

Parthenon replica plus modern lighting for art gallery. S. B. LeCornu. il Illum Eng 49: 179-80 Ap '54

Re-lighting the Muskegon art museum. il diag Illum Eng 49:455 S '54

ART insurance. See Insurance, Art

ARTERENOL

Bronchodilators, N-substituted derivatives of 1-(3′,4′-dihydroxyphenyl)-2-aminoethanol (arterenol). J. H. Biel and others. bibliog Am Chem Soc J 76:3149-53 Je 20 '54

Configuration of noradrenaline and adrenaline. C. E. Dalgliesh. Chem Soc J p3323-4 O '53

Resolution of isopropyl nor-adrenaline into optical isomers and their pharmacological potency ratio. E. Beccari and others. bibliog Science 118:249-50 Ag 28 '53

ARTERIES

Anterior choroidal artery ligation for involuntary movements. I. S. Cooper. bibliog Science 118:193 Ag 14 '53

ARTESIAN wells

Capping artesian wells at Fort Randall points up South Dakota water problem. Eng N 151:25 D 31 '53

ARTHRITIS

Keeping rheumatic patients employable; rheumatic disorders in industry conference, New York, Feb. 4-5. Ind Med 22:302-24 Jl '53

ARTHUR, Harry Moore, 1899-

Sketch. por Banking 46:84 N '53

ARTIFICIAL daylight. See Daylight, Artificial

ARTIFICIAL respiration. See Respiration, Artificial

ARTIFICIAL rubber. See Rubber, Artificial

ARTIFICIAL teeth. See Teeth, Artificial

ARTISTS' paint. See Paint, Artists'

ARYL azides

Alkyl and aryl azides. J. H. Boyer and F. C. Canter. Chem R 54:1-57 bibliog(p48-57) F '54

ARYL compounds

Arylamine sulfide catalysts in reclaiming GR-S vulcanizates. F. J. Webb and others. bibliog(41 ref) Ind & Eng Chem 46:1711-15 Ag '54

Mildew-preventing activity of rhodanine derivatives; some 5-arylidene derivatives. F. C. Brown, C. K. Bradsher and S. M. Bond. bibliog Ind & Eng Chem 45:1030-3 My '53

New method of preparation of aryl *iso*-thiocyanates. J. N. Baxter and others. bibliog Chem & Ind p785 Jl 3 '54

New ω substituted anisoles; aryloxymethyl quaternary ammonium salts. H. J. Barber and M. B. Green. J Ap Chem 4:115-19 Mr '54

New ω-substituted anisoles; aryloxymethyl thiocyanates. H. J. Barber, H. J. Cottrell and M. B. Green. bibliog J Ap Chem 4: 110-14 Mr '54

New ω-substituted anisoles; chlorination of anisoles; the preparation and properties of aryloxymethyl chlorides, aryloxymethylene dichlorides and aryloxychloroforms. H. J. Barber, R. F. Fuller and M. B. Green. J Ap Chem 3:409-16 S '53

Schmidt reaction on *o*-substituted aryl ketones. P. A. S. Smith. bibliog Am Chem Soc J 76:431-6 Ja 20 '54

Synthesis of some N-arylethylenimines. H. W. Heine and others. Am Chem Soc J 76: 2503 My 5 '54

ARYL group

Relationship between aryl group migration and reaction velocities. J. G. Burr, jr. Chem & Ind p850 Jl 10 '54

Relative rates of migration of aryl groups in the Schmidt reaction of unsymmetrical diarylethylenes. D. R. Nielsen and W. E. McEwen. bibliog Am Chem Soc J 76:4042-4 Ag 5 '54

ASBESTOS

Asbestos, 1953. W. A. Rukeyser. Eng & Min J 155:110-11+ F '54

Asbestos textiles; what they are, what they can do. M. C. Shaw. il Materials & Methods 39:89-93 Ja '54

Block caving practice at the Jeffrey mine. H. H. Waller and others. il plans diags Min Eng 6:Trans 510-18 My '54

More efficient mining and modern plant double asbestos production; Ruberoid co. M. L. Briggs. il Rock Prod 57:74+ Jl '54

Reclamation of asbestos. Franklin Inst J 256:368-70 O '53; Same. Tappi 36:sup 102A O '53

Utilization and availability of asbestos in electric insulation. O. Bowles. bibliog Electrochem Soc J 101:sup73C-5C Mr '54

See also

Transite
Turner and Newall, limited

ASBESTOS cement

See also

Turner and Newall, limited

ASBESTOS paper

How asbestos papers are made. il Paper Tr J 137:16-21 O 30 '53

ASCORBIC acid. See Vitamins—Vitamin C

ASH handling

Ash separation the key to coal-burning turbine progress; abstracts. J. I. Yellott and P. R. Broadley. il diags Ry Age 136:44-7 Ap 19 '54; Power 98:94-5+ My '54

ASHING

Effect of ashing temperature on the volatility of germanium in low-rank coal samples. C. L. Waring and W. P. Tucker. bibliog Anal Chem 26:1198-9 Jl '54

ASIA

See also
Far East
Woman—Asia

ASIA, Southeastern

Lesson for Colombo planners. Economist 169: 87 O 10 '53

No limelight for the Colombo plan. Economist 169:235 O 24 '53

Report on southern Asia: Colombo plan area. Economist 169:966-7 D 26 '53

Economic conditions

Coming Communist bid for wealth of south east Asia. V. L. Horoth. map Mag of Wall St 92:715-17+ S 19 '53

ASPARAGINE

Imides from asparagine and glutamine. E. Sondheimer and R. W. Holley. bibliog Am Chem Soc J 76:2467-70 My 5 '54

Synthesis of L-glutaminyl-L-asparagine, L-glutamine and L-isoglutamine from *p*-toluenesulfonyl-L-glutamic acid. J. M. Swan and V. du Vigneaud. bibliog Am Chem Soc J 76:3110-13 Je 20 '54

Synthesis of *p*-toluenesulfonyl-L-isoleucyl-L-glutaminyl-L-asparagine and related peptides. P. G. Katsoyannis and V. du Vigneaud. Am Chem Soc J 76:3113-15 Je 20 '54

ASPARAGUS

Occurrence of a methylsulphonium derivative of methionine-(α-aminodimethyl-γ-butyrothetin) in asparagus. F. Challenger and B. J. Hayward. bibliog Chem & Ind p729-30 Je 19 '54

ASPARTIC acid

Metal chelating tendencies of glutamic and aspartic acids. R. F. Lumb and A. E. Martell. bibliog J Phys Chem 57:690-3 O '53

Specific fission of peptide links by chemical means. A. R. Battersby and J. C. Robinson. bibliog Chem & Ind p45 Ja 9 '54

Syntheses of aspartyl amides and peptides through N-benzyl-*dl*-aspartic acid. Y. Liwschitz and A. Zilkha. Am Chem Soc J 76:3698-701 Jl 20 '54

ASPEN

Aspen hybrids in Norway; abstract. M. Hausberg. Paper Ind 36:629-30 S '54

Chemical combination of lignin in aspen; abstract. E. Aaltio and R. N. Rochier. il Paper Ind 36:508 Ag '54

Influence of fiberizing variables in producing semichemical pulp. F. A. Aflenzer. il Tappi 37:90-6 Mr '54; Excerpts. Paper Ind 36: 391 Jl '54

Newest patterns in continuous pulping being set by American box board co. flow diag il Paper Tr J 138:14-18+ Mr 5 '54

Orienting study of the effect of the neutral sulphite semichemical cook on the hemicelluloses of aspenwood. D. C. Lea. bibliog(29 ref) il Tappi 37:393-9 S '54

ASPERGILLUS

Biotin *l*-sulfoxide; the characterization of biotin *l*-sulfoxide from a microbiological source. L. D. Wright and others. Am Chem Soc J 76:4163-6 Ag 20 '54

Biotin *l*-sulfoxide; the isolation of a crystalline factor with biotin activity from aspergillus niger culture filtrates. L. D. Wright and others. Am Chem Soc J 76: 4160-3 Ag 20 '54

Biotin *l*-sulfoxide; the occurrence of a previously unrecognized form of biotin in certain fermentation sources. L. D. Wright and E. L. Cresson. bibliog Am Chem Soc J 76:4156-60 Ag 20 '54

Chemistry of fungi; nidulin and nornidulin (ustin); chlorine-containing metabolic products of aspergillus nidulans. F. M. Dean, J. C. Roberts and A. Robertson. Chem Soc J p 1432-9 My '54

Condensing enzyme in aspergillus niger. C. V. Ramakrishnan and S. M. Martin. bibliog Chem & Ind p 160 F 6 '54

Effect of culture medium on lipase and esterase activities of aspergillus niger. C. V. Ramakrishnan. bibliog Chem & Ind p250-1 F 27 '54

Studies in mycological chemistry; flaviolin, 2(or 3) : 5 : 7-trihydroxy-1 : 4-naphthaquinone, a metabolic product of aspergillus citricus (Wehmer) mosseray. B. D. Astill and J. C. Roberts. Chem Soc J p3302-7 O '53

Studies of aspergillus niger; the structure of a trisaccharide synthesised from sucrose. S. A. Barker, E. J. Bourne and T. R. Carrington. Chem Soc J p2125-9 Je '54

Studies of aspergillus niger; the structure of the polyglucosan synthesised by aspergillus niger 152. S. A. Barker, E. J. Bourne and M. Stacey. Chem Soc J p3084-90 O '53

Studies of aspergillus niger; transglycosidation by aspergillus niger. S. A. Barker and T. R. Carrington. Chem Soc J p3588-93 N '53

Synthesis of β-linked glucosaccharides by aspergillus niger (strain 152). S. A. Barker and others. bibliog Chem & Ind p 1287 N 28 '53

ASPHALT

Alberta highways department carries out an experiment on base enveloping with asphalt. G. R. Pinchbeck. il Roads & Eng Constr 92:99-100+ My '54

Asphalt products, 1949-1952. Survey of Cur Bsns 1953 Sup p 174 [supplemented in monthly numbers]

Brazilian asphalt. Chem Age (Lond) 70:578 Mr 6 '54

Catalytic asphalt; staff-industry collaborative report. W. H. Shearon, jr. and A. J. Hoiberg. bibliog(27 ref) flow sheet il diags Ind & Eng Chem 45:2122-32 O '53

Highway engineers are studying asphalt canal lining methods as means of subgrade stabilization. il Roads & Sts 96:108 O '53

Influence of aggregate type on the stability of asphalt mixtures. B. H. Knight. il J Ap Chem 3:337-44 Ag '53

Stabilization of sandy soils with heavy, slow curing asphalt. J. R. Banning. il diags Roads & Sts 97:92-6 Jl '54

Tank heaters warm heavy asphalt. R. M. Pizza. il Elec World 140:166 N 16 '53

Use of wire-mesh sections in asphalt entrainment control in vacuum pipe stills; symposium. diags Oil & Gas J 52:82-7+ N 2; 94+ N 23; 70-3 D 28 '53

See also
Bituminous materials
Bituminous sand

Analysis

Asphalt analysis. R. N. Traxler and H. E. Schweyer. bibliog Oil & Gas J 52:158 S 14; 143-4 S 28; 167 O 12; 157 O 19; 151 O 26; 133 N 2 '53

Testing

Asphalt quality test. R. E. Weaver and M. M. Gilkeson. bibliog il Pet Refiner 32:153-4 O '53

ASPHALT coating

Where asphalt coatings are used. G. Benn. il Materials & Methods 39:142-4 F '54

ASPHALT lining

Lower cost irrigation canal linings. T. V. D. Woodford. il diag Eng N 151:35-6+ N 5 '53

ASPHALT paper. See Paper, Asphalt

ASPHALT plants

Asphalt plant is expandable. il Eng N 151: 102 Jl 23 '53

Electric heating and temperature control feature of largest hot mix plant on Jersey parkway; Barrett asphalt co. il Roads & Sts 97:100-2 S '54

ASPHALT roofing. See Roofing, Asphalt

ASPIRIN

Acid anhydride character of aspirin. D. Davidson and L. Auerbach. bibliog Am Chem Soc J 75:5984-6 D 5 '53

Taking headaches out of aspirin production; Norwich pharmacal co. il diag Chem Eng 60:116+ Je '53

ASSAYING

Concentrating and dissolving platinum metals. F. E. Beamish and W. A. E. McBryde. bibliog Anal Chem 25:1613-17 N '53

Distillation assays of Missouri River basin coals. M. Gomez and J. B. Goodman. bibliog 3pls U S Bur Mines Rep of Invest 5009:1-9 '53

ASSAYING—*Continued*

Fire assay for palladium. J. G. Fraser and F. E. Beamish. bibliog Anal Chem 26:1474-7 S '54

Low-temperature carbonization assay of coal in a precision laboratory apparatus. J. B. Goodman and others. bibliog 2pls diags U S Bur Mines Bul 530:1-24; pa 55c Supt. of doc. '53

Separation of palladium from lead and the colorimetric determination of palladium with potassium iodide. J. G. Fraser, F. E. Beamish and W. A. E. McBryde. Anal Chem 26:495-8 Mr '54

ASSEMBLING machines

Designing and building high-speed production assembly machines. C. A. Nichols and W. A. Fletcher. il diag S A E J 62:34-7 My '54

ASSEMBLING methods

Adhesives join the assembly line. T. F. Hruby. il Steel 135:88-91 Jl 26 '54

Air speeds control-device assembly; illustrations with text. D. S. Lisberger. Am Mach 98:126-9 Ag 16 '54

Appliance Park; 100 acres of mechanization; General Electric; illustrations with text. B. C. Brosheer. Am Mach 97:102-7 D 21 '53

Assembly carts prevent strains, speed work; AiResearch manufacturing co. il diag Nat Safety N 69:54+ Ja '54

Automated assembly of aircraft engines; illustrations with text. Mach 60:213 Ja '54

Automatic plant; from powder to product; Project Tinkertoy. flow sheet il Aviation W 59:72-4+ O 12 '53

Automatic tools speed up assembly of aircraft engines; Curtiss-Wright corp. il plan Mill & Factory 54:79-82 Ja '54

Automatic welding lines for Fisher body components. T. Mac New. il plan Automotive Ind 110:56-9 Ja 1 '54

Automation of assembly; in-line assembly machine speeds small-parts manufacture; Delco-Remy division, General motors corp. L. H. Conrad and H. J. McKee. il diags Am Mach 97:121-4 D 7 '53

Budget tooling methods save time, money on short run; Pratt & Whitney aircraft div. A. A. Merry and J. H. Lareau. il Iron Age 174:100-1 Ag 5 '54

Cart simplifies compressor assembly. il Aviation W 59:44 S 14 '53

Curtiss-Wright mechanized, automated line. il Steel 133:122-4 D 14 '53

Custom truck bodies; aluminum makes its move. R. E. S. Thompson. il Steel 135: 100-1 Ag 23 '54

Cylinder assemblies speed up Diesel production; Mirrlees, Bickerton, & Day, ltd. il Am Mach 98:108-9 Mr 29 '54

Drilling unit speeds diode assembly; Radio receptor co. il Mach 60:197 Mr '54

Farm tractor manufacture; American practice. Engineering 177:228 F 19 '54

GM in California turns up tricks it can use in Michigan. F. G. Lawrence. Steel 135:59-60 Jl 26 '54

Handling fixtures coordinate conveyors with permanent work stations; Checker cab manufacturing corp. H. Chase. il Iron Age 174:134-6 Ag 19 '54

Hotpoint's new refrigerator plant. il Steel 133:122-4 D 14 '53

How adhesives solve camera assembly problems; Graflex inc. il Materials & Methods 40:84-5 Ag '54

How Corvettes roll off the assembly lines in St Louis. F. G. Lawrence. il Steel 135:65-6 Jl 19 '54

How to simplify assembly of complicated machines; Sensimatic bookkeeping machines at Burroughs corp. il diags Am Mach 98: 161-6 My 10 '54

Inspection, heat-treat, joining, finishing. il diags Am Mach 97:E-E23 Mid-N '53

Mechanized assembly; American developments for stud and nut running. il Automobile Eng 44:59-60 F '54

Mechanized production of electronic equipment; submarine detectors. R. L. Henry and C. C. Rayburn. il diag Electronics 26: 160-5 D '53

Modern assembly methods; Mirrlees, Bickerton and Day, ltd. il Engineer 196:839 D 25 '53; Engineering 177:22-3 Ja 1 '54

Modular assembly assures production flexibility; Project Tinkertoy. J. W. Greve. il plan Tool Eng 31:71-80 D '53

Navy unveils automatic factory; Project Tinkertoy. il Aviation W 59:17-18 S 28 '53

Navy's Project Tinkertoy; production system will greatly simplify electronics manufacture, maintenance eased, too. il Steel 133: 306+ O 12 '53

New approach to roller assembly problem cuts costs; Wayne iron works. il Iron Age 173: 138-9 My 27 '54

New assembly techniques. W. L. McCarthy. Tool Eng 31:144-8 N '53

Pressure; versatile equipment broadens work range. J. E. Hyler. il Iron Age 172:95-8 N 26; 168-71 D 3 '53

Producing tubing assemblies for airplane engines; Special machine tool engineering works. il Mach 60:175-9 D '53

Production problems on supersonic planes; assembly. A. Ashburn. il Am Mach 98:142-3 Jl 5 '54

Progressive assembly doubles output, halves floor space; Wright aeronautical division. il Factory Management 112:138-9 F '54

Project Tinkertoy; ceramic wafers basis for speedier electric assembling. il Am Cer Soc Bul 32:437 D 15 '53

Project Tinkertoy; mechanized manufacture, inspection and assembly of electronic instruments. il Metal Prog 65:81-4 Mr '54

Project Tinkertoy; new concept of mechanized production. bibliog il diag Commun Eng 13:22-5+ N '53; Same cond. Instruments & Automation 27:462-3 Mr '54; Same cond. Mech Eng 75:1000-2 D '53; Same cond. Machine Design 25:192+ N '53; Excerpt. Elec Eng 72:1036-7 N '53; Abstract. Product Eng 24:206 O '53

Robot line builds electronic units. il Iron Age 172:56 O 15 '53

Second industrial revolution? USAF-Stanford research institute symposium on the automatic production of electronic equipment, San Francisco, April 19-20. il Am Mach 98: 190-1 My 10 '54

Silver brazing goes semi-automatic. C. P. Spiesz and F. G. Leuthner. il diag Am Mach 98:121-4 My 10 '54

Spring expander expedites brake assembly. il Steel 133:97 O 5 '53

Technical progress; joining and assembly. il Steel 134:394-5+ Ja 4 '54

Timemaker finds a timesaver; Lux clock mfg. co. il Steel 134:94 F 1 '54

Traveling stockroom; carrousel for parts' handling; Eastman-Kodak co. il Steel 134: 110-11 Je 14 '54

Wright turbo compound engines built on automatic assembly lines. il plan Automotive Ind 109:52-5 D 1 '53

See also

Automobile assembly plants

ASSESSMENT

Equalising the rate burden. Economist 168: 46 Jl 4 '53

ASSETS

Can you afford that asset? D. P. Beaudry, jr. bibliog N A C A Bul 35:1383-405 Jl '54

ASSETS, Fixed

Fixed asset planning, and a fleet economy study. J. W. Mack. N A C A Bul 35:1606-12 Ag '54

ASSOCIATED equipment distributors

Annual meeting, 35th, New York. Eng N 152:23 F 11 '54

Annual meeting, 35th, New York. Iron Age 173:70 F 11 '54

Annual meeting, 35th, New York, Jan. 31-Feb. 4. Roads & Eng Constr 92:111-20+ F '54

Annual meeting, 35th, New York, Jan. 31-Feb. 4. Roads & Sts 97:70-1 Mr '54

ASSOCIATED general contractors of America

Annual meeting, Los Angeles, March 1-4. Roads & Sts 97:44-6 Ap '54

Annual meeting, 35th, Los Angeles. Arch Forum 100:126-7 Ap '54

Annual meeting, 35th, Los Angeles. Eng N 152:23-4 Mr 11 '54; Civil Eng 24:265 Ap '54

Annual meeting, 35th, Los Angeles, March 1-4. Concrete 62:34+ Ap '54

ASSOCIATED general contractors of America— *Continued*
Annual meeting, 35th, Los Angeles, March 1-4. Constr Methods 36:62-3 Ap '54
AGC staff shifts. Eng N 151:26 Ag 20 '53
Midyear board meeting, Chicago. Eng N 151: 23 S 24 '53

ASSOCIATED press
Annual meeting, New York. Ed & Pub 86: 13+ Ap 25 '53
AP tax loss denied where use continues. A. W. Gray. Ed & Pub 86:55 Mr 7 '53
Inside AP; two-block newsroom is nerve center. R. Erwin. Ed & Pub 86:2+ Ap 18 '53
Text of the annual report of the board of directors. Ed & Pub 86:116+ Ap 25 '53

ASSOCIATED weavers, limited
Statement by the chairman. F. Newnes. Economist 168:211-12 Jl 18 '53

ASSOCIATION and associations
See also
American chemical society
Cooperative associations
Corporations
Trade associations
Trade unions

ASSOCIATION for education in journalism
Journalism accrediting role for AEJ suggested. G. E. Simmons. Ed & Pub 86:80+ Ap 18 '53

ASSOCIATION of American fertilizer control officials
Annual convention, 7th, Washington, Oct. 16. Oil Paint & Drug Rep 164:4+ O 26 '53

ASSOCIATION of American medical colleges
AAMC teaching institutes. J. H. Comroe, jr. Science 118:sup3 O 2 '53

ASSOCIATION of American railroads
Annual meeting, Chicago, Nov. 20. Ry Age 135:11 N 30 '53
AAR's research is paying off. Ry Age 136:9 Ap 26 '54

Accounting division
Annual meeting, Washington. Ry Age 136:46-7 Je 7 '54

Communications section
Annual meeting, 30th, San Antonio, Oct. 20-22; with abstracts of papers. Ry Age 135: 53-5 N 2 '53

Engineering division
What's new in A.A.R. research; findings of engineering staff. il Ry Age News ed 136: 24-7+ F 15 '54

Mechanical division
General committee meeting, Chicago, June 29-30; with committee reports. Ry Age 137: 28-30+ Jl 19 '54; Ry Loco & Cars 128:54-64 Ag '54
What's new in A.A.R. research; mechanical lab now functioning. il Ry Age News ed 136: 34-6 F 15 '54; Same. Ry Loco & Cars 128: 66-8 Ap '54

Purchases and stores division
Annual meeting, Chicago, June 7-9. Ry Age 136:68-71 Je 14 '54

Treasury division
Annual meeting, White Sulphur Springs, W.Va. Sept. 6-9. Ry Age 137:63-4+ S 20 '54

ASSOCIATION of American soap and glycerine producers
Annual meeting, 26th, New York, Jan. 27-29; with abstracts of papers. Soap & San Chem 29:42-5+ F '53
Annual meeting, 27th, New York; abstracts of papers. Chem & Eng N 32:544-5 F 8 '54
Annual meeting, 27th, New York, Jan. 26-28. Oil Paint & Drug Rep 165:7+ F 1 '54
Annual meeting, 27th, New York, Jan 26-28. Soap & San Chem 30:34-7+ F '54

ASSOCIATION of bank women
Annual meeting, 31st, Washington, D.C. Sept. 21-24. Banking 46:116+ N '53

ASSOCIATION of British chemical manufacturers
Annual dinner, London, Oct. 14. Chem & Ind p 1174-6 O 31 '53
Annual meeting and dinner, 37th, London, Oct. 14-15; with abstracts of papers. Chem Age (Lond) 69:851-9 O 24 '53
Annual meeting, London. Chem & Eng N 31: 4532 N 2 '53

ASSOCIATION of Canadian advertisers
Annual meeting, 38th, Toronto. Ptr Ink 243: 17 My 15 '53

ASSOCIATION of casualty and surety companies
Association of C.&S. companies accident prevention section is being reorganized. Nat Underw 57:27 D 10 '53; Weekly Underw 169: 1445 D 12 '53
Review of 1953. J. D. Dorsett. Weekly Underw 170:54+ Ja 2 '54

ASSOCIATION of consulting chemists and chemical engineers
Annual meeting. Oil Paint & Drug Rep 164: 5+ N 2 '53

ASSOCIATION of economic poisons control officials
Annual convention, 7th, Washington, Oct. 17. Oil Paint & Drug Rep 164:5+ O 26 '53

ASSOCIATION of Edison illuminating companies
Annual meeting, White Sulphur Springs, Oct. 8-10. Elec World News ed 140:9+ O 26 '53

ASSOCIATION of interstate commerce commission practitioners
Annual meeting, 25th, Boston, May 19-20. Ry Age 136:8-9 Je 7 '54

ASSOCIATION of iron and steel engineers
Annual meeting, Pittsburgh, Sept. 28-Oct. 1; abstracts of papers. Steel 133:120+ O 26 '53
Annual meeting, Pittsburgh, Sept. 28-Oct. 1; technical program. Steel 133:142+ S 21 '53
Annual meeting, Pittsburgh, Sept. 28-Oct. 1; with abstracts of papers. Iron Age 172:122-5 O 15 '53
Annual meeting and iron and steel exposition, Cleveland, Sept. 28-Oct. 1; program, list of exhibitors, chairmen; abstracts of papers. Iron & Steel Eng 31:128-53 S '54; Excerpts. Steel 135:132+ S 20 '54; Blast F & Steel Pl 42:1069-70+ S '54
Newly elected officers and directors, national committees, 1954. Iron & Steel Eng 31:94-8 Ja '54
Rolling mill committee annual spring conference, Philadelphia, May 3-5; program and abstracts of papers. Iron & Steel Eng 31:105-13 Ap '54
Western meeting, Los Angeles, Feb. 15-17; program and abstracts of papers. Iron & Steel Eng 31:78-85 Ja '54
Western steel engineers meeting, 1st, Los Angeles; with abstracts of papers. Iron Age 173:57-8 F 25 '54

ASSOCIATION of life insurance counsel
Annual meeting, New York, Dec. 7-8. Nat Underw (Life ed) 57:1+ D 11 '53; Weekly Underw 169:1456 D 12 '53
Annual meeting, White Sulphur Springs, W.Va. May 17-18. East Underw 55:14 Je 11 '54; Nat Underw (Life ed) 58:8 Je 4 '54

ASSOCIATION of life insurance medical directors of America
Annual meeting, New York, Oct. 14-16. Nat Underw (Life ed) 57:4+ O 23 '53
New officers. Nat Underw (Life ed) 58:1 O 15 '54

ASSOCIATION of national advertisers
Annual meeting, Chicago. Ptr Ink 245:31 O 2 '53
Spring meeting, 44th, Hot Springs. Ed & Pub 86:10+ Mr 21 '53
Spring meeting, 44th, Hot Springs, Va. Ptr Ink 242:10-11, 31 Mr 27 '53; Sales Management 70:90 Ap 1 '53

ASSOCIATION of public lighting engineers
Annual meeting, Liverpool; abstracts of papers. Elec R (Lond) 153:639-40, 661-6 S 18-25 '53
Annual meeting, 25th, Liverpool, Sept. 15; program. Elec R (Lond) 153:556-60 S 11 '53

ASSOCIATION of superintendents of insurance of the provinces of Canada
Annual meeting, 36th. Spectator (Endorsement no) 161:57 D '53

ASSOCIATION of transit equipment men Middle Atlantic states
Annual meeting, 26th, Wilmington, Del. Bus Transportation 33:106+ Jl '54

ASTATINE

Isotopes

Present status of elements 85 and 87. E. K. Hyde. bibliog J Phys Chem 58:21-6 Ja '54

ASTER yellows

Versatile virus. K. Maramorosch. il Sci Am 188:78-80+ Je '53

ASTHMA

Incidence of respiratory allergy. W. B. Blanton and others. bibliog Ind Med 22:99-102 Mr '53

ASTIN, Allen Varley, 1904-

Allen V. Astin to continue as Bureau of Standards director. Chem & Eng N 31:3554+ Ag 31 '53

ASTRONOMICAL instruments

Positions of stars measured and recorded automatically. Elec Eng 72:1141 D '53

See also

Spectrograph

Telescope

ASTRONOMICAL research

Science for its own sake. E. Appleton. Engineering 176:315-17 S 4 '53; Excerpts. Elec J 151:705-6 S 4 '53

ASTRONOMY

See also

Astrophysics

Longitude

Radio astronomy

Stars

Sun

ASTRONOMY, Nautical. See Nautical astronomy

ASTRONOMY, Radio. See Radio astronomy

ASTROPHYSICS

Binary stars and the velocity of light. P. Moon and D. E. Spencer. bibliog Opt Soc Am J 43:635-41 Ag '53

See also

Stars

Sun—Spectrum

ASYMPTOTIC expansions

Asymptotic evaluation of the field at a caustic. I. Kay and J. B. Keller. diags J Ap Phys 25:876-83 Jl '54

ATCHAFALAYA river

Will the Atchafalaya capture Old Miss? il maps Eng N 152:36-8+ Ap 8 '54

ATCHISON, Topeka and Sante Fe railway

Railroad securities. Comm & Fin Chr 178:462 Ag 6 '53

ATHLETIC fields

City engineers design a football field. F. M. Seguin. il plan diag Pub Works 85:82-3+ Je '54

ATHLETICS

See also

Baseball

ATHLETICS buildings. See Gymnasiums

ATISINE

Heterocyclic ring of atisine. O. E. Edwards and T. Singh. bibliog Chem & Ind p 1258 N 21 '53

Skeleton of the garrya alkaloids and atisine. K. Wiesner and others. Chem & Ind p 132-3 Ja 30 '54

ATKINSON charitable foundation

Atkinson fund grants near $1,500,000. Ed & Pub 86:54 Ap 4 '53

ATLANTA

Atlanta boasts new industrial district. Manuf Rec 123:27 Mr '54

Atlanta builds freeway to relieve congestion. M. E. Cox and others. il maps diags Civil Eng 24:141-9 Mr '54

Atlanta, the convention city. il Am Dyestuff Rep 43:586-7 Ag 30 '54

Peachtree city, Atlanta, the stuff dreams are made of. il Manuf Rec 123:34-5 Ag '54

Rapid transit

Brand new concept for transit equipment financing; report on Atlanta Transit. H. Simpson. Bus Transportation 33:32-5 Ja '54

Water supply

Central dispatching station of the Atlanta water works. P. Weir. il map Water & Sewage Works 101:197-202 My '54

ATLANTIC conference, 1941

Atlantic conference; the first Roosevelt-Churchill meeting. R. P. Strange. il U S Naval Inst Proc 79:388-97 Ap '53

ATLANTIC ocean

Exploration of the northwest Atlantic mid-ocean canyon. M. Ewing and others. maps diags Geol Soc Bul 64:865-8 Jl '53

ATLANTIC pact. See North Atlantic treaty organization

ATLANTIC refining company

Debenture offering oversubscribed. Comm & Fin Chr 179:101-2 Ja 11 '54

ATLANTIC research corporation

Jet approach to industry. il Chem W 74:93-4 F 20 '54

ATLANTIC union (proposed)

Atlantic assembly. Economist 169:943-4 D 26 '53

ATLAS corporation

CAB charges Atlas diverted NEA profits. Aviation W 59:111-12 O 12 '53

ATLAS plywood corporation

Debentures and stock offered. Comm & Fin Chr 178:478 Ag 10 '53

ATLASES

Hammond's ambassador world atlas. 416p $12.50 C. S. Hammond and co, Maplewood, New Jersey '54

ATMOSPHERE

Air force scientists study jet stream in atmosphere. Elec Eng 73:295 Mr '54

Atmospheric attenuation at Khartoum, Sudan. C. J. Beck and others. Opt Soc Am J 43:405-6 My '53

Identification of individual hygroscopic particles in the atmosphere by a phase-transition method. S. Twomey. bibliog il diag J Ap Phys 24:1099-102 S '53

Investigations of atmospheric CO at the Jungfraujoch. W. Benesch and others. bibliog Opt Soc Am J 43:1119-23 N '53

Measurement of variations in atmospheric refractive index with an airborne microwave refractometer. H. E. Bussey and G. Birnbaum. bibliog il J Res Nat Bur Stand 51:171-8 O '53

Origin of the atmosphere. H. E. Landsberg. diags Sci Am 189:82-4+ Ag '53

Quantitative evaluation of multiply scattered and diffusely reflected light in the direction of a stellar source in a Rayleigh atmosphere. D. Deirmendjian and Z. Sekera. bibliog diag Opt Soc Am J 43:1158-65 D '53

Terminology of atmospheric shells. G. W. Wares. diag Science 118:283 S 4 '53

Vertical distribution of nitrous oxide and methane in the earth's atmosphere. L. Goldberg and E. A. Müller. bibliog Opt Soc Am J 43:1033-6 N '53

See also

Air

Auroras

Meteorological optics

ATMOSPHERE, Upper

Automatic ionospheric height recorder; frequency range 0·65 to 25 mc/s. C. Clarke and E. D. R. Shearman. il diags Wireless Eng 30:211-22 S '53

Bifurcation of the *E* region. J. R. Lien and others. Phys R 92:508-9 O 15 '53

Chemistry in the stratosphere and upper atmosphere. L. E. Miller. bibliog(43 ref) il J Chem Educ 31:112-24 Mr '54

Contribution of solar X-rays to *E*-layer ionization. E. T. Byram and others. bibliog Phys R 92:1066-7 N 15 '53

Critical frequency variations; sunspot minimum to maximum in northern and southern hemisphere. T. W. Bennington. diags Wireless Eng 30:175-9 Jl '53

Instrumentation for measuring changes in phase of ionospheric echoes. R. E. Jones. il diags R Sci Instr 24:433-6 Je '53

Origin of the *E* layer of the ionosphere. E. Bauer and T. Wu. bibliog Phys R 92:1101-5 D 1 '53

Origin of the emission of the oxygen green line in the airglow. M. Nicolet. bibliog Phys R 93:633 F 1 '54

Origin of the ionospheric *E* layer. K. Rawer and E. Argence. bibliog Phys R 94:253-6 Ap 15 '54

Rocket exploration of the upper atmosphere; report of conference, Oxford, Aug. 24-26. Engineering 176:360-1 S 18 '53

Rocket exploration of the upper atmosphere; report of Oxford conference. E. Burgess. Engineer 196:302 S 4 '53

ATMOSPHERE, Upper—*Continued*

Rocket measurements of upper atmosphere ambient temperature and pressure in the 30- to 75-kilometer region. H. S. Sicinski and others. bibliog diags J Ap Phys 25:161-8 F '54

V-2 rocket in upper atmosphere research. C. F. Green. il Aero Digest 67:20-6 N '53

ATMOSPHERIC electricity

Aerial electrometer will study atmospheric electricity. Elec Eng 73:187-8 F '54

See also

Auroras

ATMOSPHERIC pressure

Potentiometer operated by atmospheric pressure. D. R. Grant. J Sci Instr 30:487-8 D '53

ATMOSPHERIC temperature

Air-temperature measurements on a 420-foot tower. D. A. Mazzarella and D. K. Kohl. bibliog il diags Instruments & Automation 27:1306-9 Ag '54

Mean temperature range for 20 cities, in degrees F. Eng N 151:41 Jl 16 '53

ATOMIC battery. See Electric batteries

ATOMIC bombs

B-36 teams with F-84 to carry A-bomb. R. Hotz. il Aviation W 59:12-13 Ag 31 '53

Bomb-blast table and charts. P. W. Swain. Power 98:80-3 Ag '54

Future weapons. Economist 168:491-3 Ag 22 '53

Lewis L. Strauss guiding policy on atom warfare. Bsns W p 108+ N 7 '53

Miniature gage measures nuclear explosion pressures; Armour research foundation. il Chem & Eng N 32:2110 My 24 '54

President Eisenhower's atomic proposals. Metal Prog 65:81 F '54

Too much secrecy in atomic energy program. Ed & Pub 86:108 Ap 25 '53

See also

Hydrogen bomb

Bibliography

International bibliography on atomic energy; v. 1, Political, economic and social aspects. (Sup. no. 2) 31p pa 30c Atomic energy section, Dept. of political and security council affairs, United nations, New York; for sale by Columbia univ. press, 2960 Broadway, New York 27 '53

Protective measures

Businessmen's conference on industrial defense in the atomic age, Washington. Chem & Eng N 32:2568-9 Je 28 '54

Civilians defenceless. Economist 170:75-6 Ja 9 '54

Good prevention measures best defense against A-bomb fires. H. Bond. East Underw 54:27 D 4 '53

How to build a lean-to atomic shelter in the basement. il diags Am Bld 76:58+ Mr '54

Inexpensive gamma detector. D. R. Cone and D. W. Garbellano. il diags R Sci Instr 25: 632-5 Jl '54

Nine points for survival. Peterson. Chem & Eng N 32:2202 My 31 '54

Prepare for the worst; what must industry do to prepare for atomic attack? Chem W 74: 16-17 Ja 2 '54

Radiological effect

Recycling of fission products in the biotic cycle. J. M. Heslep and A. W. Bellamy. J Chem Educ 30:421-4 Ag '53

Testing

Atomic trials at Woomera. Economist 168: 406 Ag 8 '53

ATOMIC bombs and building

Blast-resistant buildings. B. G. Johnston. plan diags Arch Forum 101:164+ Jl '54

Can we build against an atomic explosion? il Am Bld 75:204-5 My '53

Engineering approach to blast resistant design. N. M. Newmark. bibliog diags Am Soc C E Proc 79 [no306]:1-16 O '53; Discussion. S. J. Fraenkel. 79 [no 373]:13-14 D '53

Objective; bomb resistance; Armed forces institute of pathology. il plan Eng N 151: 33-4 D 31 '53

Underground shelter intact only 1,250′ from atom blast. il Arch Forum 98:58+ Ap '53

ATOMIC constants. See Physical constants

ATOMIC energy

Complete Bacher and Goudsmit method. S. Meshkov and C. W. Ufford. Phys R 94: 75-6 Ap 1 '54

ATOMIC energy act of 1946. See Atomic power —Legislation

ATOMIC energy commission (United States)

Atomic change; to give private industry bigger role in field is in works in Washington. Bsns W p32 Ag 8 '53

Atomic energy; a big business getting bigger; semi-annual report. Steel 134:55 F 22 '54

AEC again asks industry aid. Elec World 140:118 D 14 '53

A.E.C. awards new contracts. Chem Eng Prog 50:48 Mr '54

AEC awards unclassified physical research contracts; tabulation. Chem & Eng N 32: 310, 1766, 3259, 3416 Ja 25, My 3, Ag 16, 30 '54

AEC construction will reach five per cent of Nation's total in 1954. Chem & Eng N 31: 3187 Ag 3 '53

AEC is distracted with housing woes again, criticized for muddles at Savannah River. il House & Home 4:39+ Ag '53

AEC notes historic year in 15th semiannual report. Chem & Eng N 32:504+ F 8 '54

AEC reviews 16 months at Portsmouth. il map Eng N 152:36-8 Mr 4 '54

AEC switches power policy. Chem & Eng N 32:2594-5 Je 28 '54

Atomic energy; Paducah stars welding; training of welders and organization of fabricating shops in building Paducah area project. il Iron Age 172:182-4+ D 10 '53

Cancer research work. Engineer 196:621 N 13 '53

Electronics in the AEC biomedical program. J. C. Bugher. Elec Eng 72:865-7 O '53

Inventory accounting for atomic energy process materials of the AEC. E. Hall. J Account 96:62-7 Jl '53

Lighter atomic load planned for TVA. Elec World News ed 141:6 F 1 '54

New AEC plan; keep the bomb, release the atom. il Elec World 139:64-7+ Je 1 '53

New techniques build new atom plant; illustrations with text. Am Mach 98:92-5 Ja 4 '54

Power contract liability curb lifted for AEC. Elec World News ed 140:8 Jl 20 '53

Semiannual report, 14th, first six months of 1953. Mech Eng 75:809-11 O '53

Semiannual report, 15th, July-December 1953. Min Eng 6:357-8 Ap '54

Washington aids to industry; industry and the atom. il Mill & Factory 54:10-11 My '54

Work of the U.S.A. Atomic energy commission. map Engineer 196:505-7 O 16 '53

Insurance problems

AEC's safety. East Underw 54:30 Ag 21 '53

Labor problems

Atomic blowup; labor peace in AEC plants threatened by union plans for organizing. Bsns W p 179-80 S 19 '53

Paducah, labor lesson for an industry. G. T. Orick. il map Eng N 151:21-4 N 19 '53

Uneasy peace at Joppa. Bsns W p 166-7 O 24 '53

See also

Atomic energy labor relations panel

Atomic trades council

ATOMIC energy labor relations panel

Headaches for Labor panel. il Bsns W p 143-4 Ag 15 '53

Mediators take over Oak Ridge rift. Eng N 151:27 Ag 6 '53

ATOMIC energy society, European. See European atomic energy society

ATOMIC industrial forum, inc.

Atomic forum for peaceful atom uses. Bsns W p 120+ O 24 '53

Business sizes up the atom; Atomic industrial forum's 1st annual conference. Chem W 74:16-17 Mr 27 '54

Meeting, 1st, New York. Iron Age 173:73 Mr 25 '54

ATOMIC numbers

Dependence of the 33-Mev π^+ production cross section on atomic number. R. Sagane and W. Dudziak. diag Phys R 92:212 O 1 '53

ATOMIC orbitals

Approximate Hartree-type wave functions and matrix elements for the *K* and *L* shells of atoms and ions. R. E. Meyerott. bibliog Phys R 95:72-82 Jl 1 '54

Chemical bonds involving *d*-orbitals. D. P. Craig and others. diags Chem Soc J p332-57 Ja '54

Correlation energies and angular components of the wave functions of the ground states of H^-, He I, and Li II. L. C. Green and others. bibliog Phys R 93:273-9 Ja 15 '54

Coulomb energy and nuclear radius. B. G. Jancovici. Phys R 95:389-92 Jl 15 '54

Discussion of analytic and Hartree-Fock wave functions for $1s^2$ configurations from H^- to C v. L. C. Green and others. bibliog Phys R 93:757-61 F 15 '54

Does carbon utilize 3*d* orbitals in bonding? H. H. Jaffé. bibliog J Chem Phys 21:1893 O '53

Interactions between some two-nucleon configurations. M. G. Redlich. bibliog Phys R 95:448-52 Jl 15 '54

Modified shell model of odd-even nuclei. A. B. Volkov. bibliog Phys R 94:1664-70 Je 15 '54

Nuclear shell model *ft* values for intermediate coupling. R. Schulten and R. A. Ferrell. Phys R 94:739 My 1 '54

Renormalization. P. T. Matthews and A. Salam. bibliog Phys R 94:185-91 Ap 1 '54

Simplified LCAO method for the periodic potential problem. J. C. Slater and G. F. Koster. bibliog diag Phys R 94:1498-524 Je 15 '54

Use of 3*d* orbitals in bonding by carbon. R. J. Gillespie. J Chem Phys 21:1893-4 O '53

Variation principle for eigenfunctions. L. C. Biedenharn and J. M. Blatt. Phys R 93:230-2 Ja 1 '54

Wave functions for impurity levels. G. F. Koster and J. C. Slater. Phys R 94:1392 Je 1 '54

ATOMIC piles. See Nuclear reactors

ATOMIC power

Atom pool plan shapes up. L. L. Strauss. Chem & Eng N 32:3742 S 20 '54

Atom sub launched into test ball. il Eng N 152:26 Ap 1 '54

Atomic cell; trillion microwatts shy. il diag Elec World News ed 141:25 F 15 '54

Atomic diplomacy and Eisenhower atomic energy proposal. Economist 170:79 Ja 9 '54

Atomic energy, a look ahead. G. Dean. Comm & Fin Chr 178:1728+ N 5 '53

Atomic energy data. Product Eng 24:229 Je '53

Atomic energy; how's your IQ? new act directs that more non-classified information be made available. W. V. Packard. Iron Age 174:83-4 S 9 '54

Atomic energy in postwar Britain. H. W. B. Skinner. Metal Prog 64:92 N '53

Atomic exchanges: United States, Great Britain and Canada. Economist 169:685 N 28 '53

Atomic locomotive, a feasibility study; abstract. L. B. Borst and others. diags Ind & Eng Chem 46:sup 11A+ Ap '54

Atomic locomotive; how soon? L. B. Borst. il diag Chem & Eng N 32:816-17 Mr 1 '54

Atomic power and private industry. W. S. Cole. Pub Util 53:710-12 Je 10 '54

Atomic power for Canadian industry. Power 98:160 Je '54

Atomic power for locomotives? il diag Ry Age 136:15 F 22 '54

Atomic power in Ohio. P. Sporn. il Elec Eng 72:1047-51 D '53

Atomic power; symposium abstracts. Can Chem Process 38:88+ Ap '54

Atoms at the crossroads; theory of breeding successfully translated into practice. il Chem W 72:73-4 Je 20 '53

Atoms; plan nuclear power survey. Iron Age 172:60-1 Jl 23 '53

Britain looks to civil use of atom. Chem & Eng N 32:241 Ja 18 '54

Challenge to chemists. F. Daniels. Comm & Fin Chr 178:1001+ S 17 '53

Change in atomic policy urged; Atomic industrial forum symposium. Elec World 141:82-3 Ja 11 '54

Design for an atomic locomotive. L. B. Borst. diags Ry Loco & Cars 128:51-5 My '54; Same. Ry Age 136:58-63 Je 14 '54; Abstract. il Power 98:105-6 Ap '54

Development of nuclear power for peaceful purposes. H. D. Smyth. Civil Eng 24:224-8 Ap '54; Same abr. Gas Age 113:28-9+ Ap 8 '54; Same cond. Chem Eng Prog 50:sup 35-6+ My '54

Eisenhower plan. Economist 169:866-7 D 19 '53

Eisenhower proposes use of atomic stockpile for peace; text of United Nations address. Comm & Fin Chr 178:2253+ D 10 '53

Expansion of a fissionable gas as a source of atomic power. E. H. Kerner. diag J Ap Phys 24:815-16 Je '53

Facts about atomic power. il diags Mill & Factory 54:454-5 My '54

400 firms eye atomic energy for commercial sale. J. Schoenfeld. Sales Management 71:60+ Ag 15 '53

Germany to study atomic problems. Chem & Eng N 32:242 Ja 18 '54

How advertisers prepare for atomic age. C. Day. il Ptr Ink 243:43 Je 26 '53

How to build an atomic engine; Westinghouse electric corp.; illustrations with text. Mill & Factory 54:114-15 Mr '54

Industrial ad agency sets up atomic information unit. il diags Ind Marketing 38:57-60 D '53

Industrial nuclear power deterred by Russia's H-bomb. M. Benedict. Chem & Eng N 31:3642 S 7 '53

Industrial power from nuclear fuel in four to five years. A. W. Kramer. il Power Eng 58:54-5 Ja '54

Industry teams report on A-power. plans diags Chem Eng 60:188-92 Jl; 188-92 Ag '53

Insulating the big ball; atomic submarine engine testing sphere. il Eng N 152:40-1 Mr 4 '54

International congress on nuclear engineering, Ann Arbor, Mich., June 20-25. Am Cer Soc Bul 33:251 Ag 15 '54

International nuclear engineering congress, 1st, Ann Arbor, Mich.; with abstracts of papers. J Metals 6:889-90 Ag '54

Keel laid for second atomic sub; USS Sea Wolf. il Marine Eng 58:59-60 N '53

Launch first atomic submarine. H. S. Dewey. diag Heating-Piping 26:81 F '54

Look-ahead to 2000; power from the atom hinges on development of method of removing unused fuel. Chem W 74:32 Ap 10 '54

Nation to develop commercial atomic power. Blast F & Steel Pl 41:1491 D '53

N.I.C.B. 2d annual conference on atomic energy in industry, New York; private vs. public control. Chem Eng Prog 49:sup46 D '53

Next twenty years in atomic energy development. H. D. Smyth. Pub Util 53:772-3 Je 10 '54

Nuclear-energy study course. H. C. Schwenk and R. H. Shannon. il diags Power 98:88-92+ Jl; 97-9 Ag; 93-5 S; 107-9+ O '54 (to be cont)

Nuclear engineering conference sponsored by University of California, Sept. 9-11. Chem & Eng N 31:4000-1 S 28 '53

Nuclear fuels for power generation; abstract. W. F. Friend. Power 98:154 S '54

Nuclear power and utility securities. E. H. Scott. Pub Util 53:821-6 Je 24 '54

Nuclear power; application to gas turbines. F. Daniels. Chem Age (Lond) 68:865 Je 6 '53

Nuclear power; who'll develop it? Elec World 140:89 D 28 '53

Oil and the atom; partners or competitors? W. L. Davidson. Am Pet Inst Proc 33(1):113-19 '53; Same. il diags Pet Eng 26:E 1+ Ja '54; Same abr. Oil & Gas J 52:263-4+ N 16 '53

Power and the atom. Economist 169:433-4 N 7 '53

Power from the atom; it's almost here. il diag Chem Eng 61:118+ S '54

Power plant of the first atomic submarine; illustrations with text. Power Eng 58:82-3 Mr '54

Power politics. Economist 169:408 N 7 '53

Preparing for peace; first pictures of Great Britain's atomic production. il Chem W 74:66-7 Ja 30 '54

ATOMIC power—*Continued*

Private development of atomic energy. W. L. Cisler. Pub Util 52:868-9 D 3 '53

Progress in atomic power; excerpts from testimony by Gwilym A. Price and Charles H. Weaver before the joint committee on atomic energy. Westinghouse Eng 13:cover N '53

Radioceramics symposium. Am Cer Soc Bul 33:59 F 15 '54

Role of ceramics in atomic energy; symposium; with abstracts of papers. Cer Ind 62:85+ F '54

Soon the world will need the atom for energy. Bsns W p 180-2+ D 19 '53

Submarine to be first user of atomic power. il Iron & Steel Eng 31:110-11 F '54; Excerpt. Marine Eng 59:36-7 Mr '54

Subs will be first; atomic power may be near. il Comp Air Mag 59:19-20 Ja '54

Tête-à-tête on the atom at the Berlin conference. Economist 170:219 Ja 23 '54

Three-power decision on atomic energy information. Engineer 197:290 F 19 '54

United Kingdom atomic energy project. Engineer 196:633 N 13 '53

U.S. plans broad atomic energy program. il Power 97:152+ D '53

USS Nautilus ushers in atomic age for ships. il Marine Eng 59:34-5 Mr '54

Western strength; President's proposal for a U.N. atomic pool. Barron's 33:1 D 14 '53

White paper on atomic energy; corporation to take over development from Ministry of supply. Elec J 151:1573 N 13 '53

World atomic pool proposed; Eisenhower outlines plan before UN for international cooperation in peaceful use. Chem & Eng N 31:5296 D 21 '53

See also

European atomic energy society

Bibliography

International bibliography on atomic energy; v. 1, Political, economic and social aspects. (Sup. no. 2) 31p pa 30c Atomic energy section, Dept. of political and security council affairs, United nations, New York; for sale by Columbia univ. press, 2960 Broadway, New York 27 '53

International bibliography on atomic energy. v. 2, Scientific aspects. (Sup. no. 2) 320p pa $3.50 Atomic energy section, Dept. of security council affairs, United nations, New York; for sale by Columbia univ. press, 2960 Broadway, New York 27 '53

Economic aspects

American power conference, 16th, Chicago; abstracts of papers. Chem & Eng N 32:1471-2 Ap 12 '54

Atom in peace. Chem & Eng N 32:820-1 Mr 1 '54

Atomic energy and electric utility securities. E. H. Scott. Comm & Fin Chr 179:263+ Ja 21 '54; Abstract. pub Util 53:372-5 Mr 18 '54

Atomic energy and enterprise economics. A. Bornemann. bibliog(30 ref) Land Econ 30:195-206 Ag '54

Atomic energy and its industrial applications. W. L. Cisler. il Min Cong J 40:30-3 Je '54

Atomic energy broadens its base in the free world. il map Chem & Eng N 31:5046-50 D 7 '53

Atomic energy for industry. M. Smith. Manuf Rec 122:38-9 D '53

Atomic energy in agriculture; abstract. S. Cole. Chem & Eng N 32:2571 Je 28 '54

Atomic industrial forum, Washington. Chem & Eng N 32:2262-3 Je 7 '54

Atomic power and the future; abstract. F. E. Simon. il Elec J 152:513-14 F 12 '54

Atomic power costs; the AEC versus the utilities. O. Ely. Pub Util 52:858-60 D 3 '53

Atomic power—when? H. D. Smyth. Instruments & Automation 27:772 My '54

Atoms; from bombs to businesses; industrial applications of nuclear energy theme of first Atomic industrial forum. R. L. Hatschek. Iron Age 173:73 Mr 25 '54

Atoms in industry; abstract. A. Van Dyck. Steel 133:72-3 O 26 '53

Business sizes up the atom; Atomic industrial forum's 1st annual conference. Chem W 74:16-17 Mr 27 '54

Concentrated power clue to future atomic reactors. K. Cohen. Chem Eng 60:162+ S '53

Danger of default. C. A. Thomas. Am Pet Inst Proc 33(1):94-6 '53; Same. Comm & Fin Chr 178:2055 N 26 '53

Development of economic nuclear power; abstract. M. Benedict. Chem & Eng N 31:3972 S 28 '53

Economic aspects of nuclear power plants. C. C. Whelchel. Mech Eng 76:145-6 F '54

Economic impact of atomic energy on electric power industry. E. H. Dixon. Comm & Fin Chr 178:1846-7 N 12 '53

Economics of nuclear power. Can Chem Process 37:100+ N '53

Fist of energy; atomic materials. Can Chem Process 38:26+ S '54

Franchise for atomic energy. diag Economist 169:505-8 N 14 '53

Full atomic electricity by A.D. 2000? Lord Salisbury. Elec J 151:2049 D 18 '53

Future for our uranium; Canada's programme. W. J. Bennett. Can Chem Process 37:48+ D '53

Government urged to relax monopoly of atom by Atomic industrial forum. Oil Paint & Drug Rep 165:5+ Ja 11 '54

How economical is nuclear power for ships? abstracts of papers by F. E. Crever and K. Trocki; R. L. Witzke and S. A. Haverstick. diag Marine Eng 59:39-40 Mr '54

Impact of atomic energy on the industrial economy. W. Isard. Comm & Fin Chr 178:2267 D 10 '53

Industrial atomic energy. J. J. Grebe. Comm & Fin Chr 178:2636+ D 31 '53

Industry should have greater share in nuclear development. E. M. Zuckert. Comm & Fin Chr 178:2636-7+ D 31 '53

Man's hope, the friendly atom. L. L. Strauss. Chem & Eng N 32:1772-3 My 3 '54

Meeting the Nation's fuel requirements; atomic energy as competitor to coal. Chem Age (Lond) 70:419-20 F 13 '54

National industrial conference board atomic energy conference, New York; abstracts of papers. Chem & Eng N 31:4664+ N 9 '53

New age of industrial dynamism through atomic power; with table of leading companies active in atomic power development. M. Smith. Mag of Wall St 93:360-3+ D 26 '53

Nuclear plants on bodies of water; economics still doubtful. W. Isard. Chem & Eng N 31:5351 D 28 '53

Outlook for economic nuclear power. B. L. Goodlet. flow diag Engineering 176:345-7 S 11 '53; Abstracts. Chem & Eng N 31:3993 S 28 '53; Engineer 196:334; Discussion. 334-5 S 11 '53

Peaceful potentials of atomic power. L. F. C. Reichle. Nat Underw 58:34 Ap 8 '54

Power expansion lagging; nuclear fuel resources growing. J. J. Hopkins. Chem & Eng N 32:2710 Jl 5 '54

Power from atomic energy; abstract. F. E. Simon. Elec R (Lond) 154:276 F 12 '54

Power from nuclear fission. H. C. Urey. il Chem & Eng N 31:4660-3 N 9 '53

Power resources; East north central states. F. D. Campbell and A. S. Griswold. Ind & Eng Chem 46:495-6 Mr '54

President offers five-point plan for industrialization of atom. Elec World News ed 141:8 Mr 1 '54

Reactors proceed, law stands still. Chem W 72:16-18 Je 6 '53

See also

Atomic power plants

Insurance aspects

Influence of atomic energy on insured risks being watched. Nat Underw 58:36 S 23 '54

Insurance problems in the industrial and commercial utilization of atomic energy; abstracts. C. H. Rice. East Underw 55:24+ S 17 '54; Nat Underw 58:6 S 16 '54; Weekly Underw 171:770-1 O 2 '54

Problems and hazards of radioactivity. E. N. Harriman. Nat Underw 58:59 O 7 '54

Protection for industrial atomic energy; statements of insurance leaders. Spectator 162:18-19+ Jl '54

ATOMIC power—*Continued*

Legislation

Amendments to the Atomic energy act. D. D. Eisenhower. Metal Prog 65:101 Ap '54
Atom bill clears Congress. Chem & Eng N 32:3420 Ag 30 '54
Atom law framers overreaching? Chem & Eng N 32:2207 My 31 '54
Atomic bill passes. Pub Util 54:266-7 S 2 '54
Atomic energy hearing. Pub Util 53:756-7 Je 10 '54
Atoms for peace face Congress. Chem & Eng N 32:239-40 Ja 18 '54
Congress looks at atomic energy. Chem & Eng N 32:2112+ My 24 '54
Legislation for industrial participation in atomic energy. J. E. Van Zandt. Comm & Fin Chr 178:2534+ D 24 '53
Nuclear power; the legal situation. E. B. Stason. Comm & Fin Chr 179:168+ Ja 14 '54
Nuclear reactors for industry and research; legal aspects. H. T. Van Mell. Instruments & Automation 27:612-16 Ap '54
Opportunity with restraint; modernization of 1946 McMahon atomic energy act. Chem W 75:20 Ag 7 '54
President signs atom bill, starts work on peace pool. Chem & Eng N 32:3624 S 13 '54
Private industry's rôle in atomic development; hearings on bill to revise the Atomic energy act of 1946. Pub Util 54:280-2 S 2 '54
What does the new atomic energy law mean? T. P. Swift. Pub Util 54:307-20 S 16 '54

ATOMIC power plants

Airlift for atoms; army package power reactor. il Chem W 75:46 S 4 '54
Atomic electric power; a tough, tricky equipment market opens. Am Mach 98:170-1 Je 7 '54
AEC gives go-ahead for industry to build peacetime A-power plant. Chem & Eng N 31:4538 N 2 '53
AEC's industrial reactor program; a roll call. Elec World News ed 140:24 Ag 31 '53
Atomic energy; form more industry groups to study atom power plants. Iron Age 172:77 O 15 '53
Atomic plants built by the government nearer realization. Elec World News ed 140:7-8 Jl 20 '53
Atomic power for Ontario Hydro in 1956? diag Can Chem Process 38:66+ Je 1 '54
Atomic power latch string is out. A. G. Gray. il Steel 133:98-100 N 30 '53
Atomic power plant; proposal by Duquesne light co. gets nod from AEC. Heat & Ven 51:136 My '54
Atomic study teams realigned. Elec World 140:71 S 7 '53
Canned pumps industry does a job for AEC. il Steel 134:108 Je 28 '54
Design of nuclear power plants. J. A. Lane and S. McLain. il diags Chem Eng Prog 49:287-93 Je '53
Duquesne Light to operate 60,000-kilowatt atomic power plant. Pub Util 53:444-5 Ap 1 '54
Electricity from atomic energy. C. Hinton. Elec J 151:1477 N 6 '53
Engineering and technical problems. W. H. Zinn. il Midwest Eng 6:3-6+ Ag '53
For information only; Westinghouse greenlight to build first full-scale atomic furnace. Chem W 73:45 N 7 '53
GE predicts competitive atom power in ten years. F. J. McCune. plan Power 98:83+ Ag '54
GE proposes reactor plant to serve AEC's Hanford works. Elec World News ed 140:8 O 26 '53
Groundbreaking for atomic power. il Chem & Eng N 32:3716+ S 20 '54
Hanford atomic-energy plant; joint discussion. Am Water Works Assn J 46:629-40 Jl '54
Industrial reactor first? W. L. Davidson. Elec World 140:105-6 O 5 '53
Industry gears for atomic power work. Eng N 152:25 F 4 '54
Industry points way to nuclear power. diags Mech Eng 75:481-5 Je '53
Is atomic power generation feasible? Commonwealth Edison-Public service co. report. plans diags Elec World 139:68-73 Je '53
Legal problems of nuclear power plants. E. B. Stason. Mech Eng 76:146 F '54
Liquid-metal heat-transfer system for nuclear power plants. T. Trocki and D. B. Nelson. il diags Mech Eng 75:472-6 Je '53
New AEC plan; keep the bomb, release the atom. il Elec World 139:64-7+ Je 1 '53
New tests prove materials for nuclear power plants. R. F. Koenig. flow diag il Iron Age 172:129-33 Ag 20 '53
Now, a power yardstick; utility-size atomic power plant. Bsns W p27-8 O 31 '53
Nuclear engineering; power reactor design fundamentals. W. E. Abbott. diag Chem Eng Prog 50:245-8 My '54
Nuclear power and industry. J. J. Grebe. diag Franklin Inst J 255:409-26 Ag '53
Nuclear power plant. il diag Mech Eng 75:574-5 Jl '53
Nuclear power plants. R. A. Bowman. flow diag Tool Eng 32:143-5 Ja '54
Nuclear power program is launched; AEC asks Westinghouse to build Nation's first large-scale atomic reactor power plant. T. E. Murray. Elec World 140:74-5 N 2 '53
Nuclear system generates electricity. Product Eng 24:324+ Je '53
Opportunities in atoms; Westinghouse project may open new possibilities for private industry. Steel 133:75 N 9 '53
Pittsburgh firm to build first utility unit in U.S. Eng N 152:28 Mr 18 '54
Plans drawn up for proposed atomic power installation. Chem & Eng N 31:2400 Je 8 '53
Power from atomic energy. C. H. Weaver. il plan diag Iron & Steel Eng 31:119+ Jl '54
Power from the atom; Dow Chemical-Detroit Edison team reports. Elec World 139:82-4 Je 29 '53
Power sans soot for Pittsburgh. Chem & Eng N 32:1202 Mr 29 '54
Private interest in A-power gains. diag Steel 133:79-80 D 14 '53
Progress on nuclear power plans; Union Electric-Monsanto Chemical team reports. Elec World 139:85-7 Je 29 '53
Progress report on first civilian nuclear power plant. diag Elec World 141:71-2 F 8 '54
Push for power; Duquesne light co. to play important role in first full-scale central nuclear power station. Chem W 74:50 Mr 27 '54
Strengthening fabric of free enterprise; insurance companies aid atomic energy power financing. J. W. McAfee. il East Underw 54:32 pt 2 S 25 '53
Tables simplify comparison of nuclear power feasibility studies. J. W. Landis. Elec World News ed 140:24-5 N 9 '53
Two possibilities by 19—? robot factories and power from nuclear energy. il Elec J 152:1010-11 Mr 26 '54
Uncle Sam's atom power plant. T. E. Murray. Pub Util 52:780-1 N 19 '53
Ventilating the atomic energy plant. T. G. Marshall. bibliog il Refrig Eng 62:39-42+ My '54
Westinghouse will construct first atom power plant. Iron Age 172:65 O 29 '53

ATOMIC reactors. See Nuclear reactors

ATOMIC research

Atomic energy commission 14th semiannual report, first six months of 1953. Mech Eng 75:809-11 O '53
AEC reveals new reactor program. Chem & Eng N 32:1022 Mr 15 '54
Atomic energy in Britain. il Chem Age (Lond) 70:275-7 Ja 23 '54
Atomic energy in 1953. diags Engineer 197:5-7 Ja 1 '54
Atomic industrial forum; abstracts of papers. Chem & Eng N 32:1332+ Ap 5 '54
Atomic power in Ohio. P. Sporn. il Elec Eng 72:1047-51 D '53
Atomic program to expand in economy budget. Chem & Eng N 32:398+ F 1 '54
European nuclear research; work of the European council for nuclear research (CERN). Elec R (Lond) 154:325-6 F 19 '54

ATOMIC research—*Continued*

North Carolina State research takes a look at the atom. il Bsns W p 108-10+ O 10 '53

Preparation of thin vanadium targets. J. E. Schwager and L. A. Cox. R Sci Instr 24:986 O '53

Recipe for radiation research; Michigan memorial-Phoenix project. Ind & Eng Chem 46:sup 15A+ S '54

Research and engineering progress, 1953; nucleonics. il Gen Elec R 57:12-16 Ja '54

Rotating thin ice target. G. R. Bishop and others. diag J Sci Instr 31:64-6 F '54

See also

European atomic energy society

ATOMIC research laboratories

Atom lab for Switzerland; pooled operation of twelve nations. Bsns W p78 Ag 1 '53

Atomic industry; Britain's atomic factories; great achievement; Windscale. Economist 170:260+ Ja 23 '54

Britain's atomic factories. il map Elec R (Lond) 154:162-3 Ja 22 '54

Britain's atomic factories; the story of atomic energy production in Britain. K. E. B. Jay. il Engineering 177:124-6 Ja 22 '54

Inside three atomic factories of British north west. il Chem Eng 61:130+ Ap '54

Labor and time savers at Paducah's atomic project; illustrations with text. Dun's R & Mod Ind 63:17-18+ Ja '54

Metallurgy at Los Alamos, 1943-1945. C. S. Smith. il Metal Prog 65:81-9 My '54

New ideas speed big job; billion-dollar AEC plant. il plan Arch Forum 99:168+ S '53

New radiometallurgy laboratory at the Hanford atomic operation. T. W. Gore. il plan Metal Prog 65:81-7 Je '54

30-ton hand-operated door; Yale's new underground atomic laboratory. Mech Eng 75:574 Jl '53

This is the Portsmouth area. il Eng N 151:40-3 N 19 '53

Topsy and Godiva; new developments in methods of assembling critical amounts of radioactive materials by the Los Alamos scientific laboratory. il Mech Eng 75:651-3 Ag '53

ATOMIC trades council

Headaches for Labor panel. il Bsns W p 143-4 Ag 15 '53

ATOMIC weapons

Center mates planes to atom weapons. R. Hotz. il Aviation W 59:90-7 Ag 17 '53

Engineering development of the 280-mm. weapon. A. O. Bergholm. Franklin Inst J 255:565-7 Je '53

Policy for atomic weapons. Economist 170:46-7 Ja 2 '54

Road ahead. T. E. Murray. Metal Prog 65:107 Mr '54

ATOMIC weights

Atomic masses in the intermediate region. T. L. Collins and others. Phys R 94:398-404 Ap 15 '54

Atomic weight of lithium from density and X-ray data. D. A. Hutchison. bibliog Am Chem Soc J 76:967-9 F 20 '54

Berzelius; pioneer atomic weight chemist. W. M. MacNevin. bibliog(26 ref) J Chem Educ 31:207-10 Ap '54

Lattice parameters, expansion coefficients, and atomic and molecular weights; X-ray techniques for precision determination. M. E. Straumanis. bibliog(36 ref) il diags Anal Chem 25:700-4 My '53

Report of the committee on atomic weights of the American chemical society. E. Wichers. bibliog Am Chem Soc J 76:2033-5 Ap 20 '54

ATOMIZATION

Atomization by centrifugal pressure nozzles. R. W. Tate and W. R. Marshall, jr. bibliog(62 ref) flow diag il diags Chem Eng Prog 49:169-74, 226-34 Ap-My '53

Liquid-film properties for centrifugal spray nozzles. M. Doumas and R. Laster. il diags Chem Eng Prog 49:518-26 O '53

Methods of atomizing liquid fuel. J. R. Joyce. 2pls diags Inst Pet J 39:57-71; Discussion. 71-81. pl 1-2 F '53

Scanning device for determining the size distribution of spray droplet images. C. R. Adler and others. bibliog il diags Chem Eng Prog 50:14-23 Ja '54

See also

Vaporization

ATOMIZERS

Gas absorption and aerosol collection in a Venturi atomizer. H. F. Johnstone, R. B. Feild and M. C. Tassler. bibliog Ind & Eng Chem 46:1601-8 Ag '54

Glass atomizer for use in chromatography. W. J. Wingo. diags Anal Chem 25:1939-40 D '53

Reciprocating atomizer increased paint uniformity. il Steel 135:99 Ag 16 '54

ATOMS

Atomic structure and the photoelectric effect. C. P. Brockett. bibliog(48 ref) diags J Chem Educ 30:498-501 O '53

Combustion facts. P. Swain. Power 98:142 Mr; 148+ Ap '54

Coulomb energies of light nuclei. D. C. Peaslee. bibliog Phys R 95:717-23 Ag 1 '54

Coulomb excitation of heavy and medium heavy nuclei by alpha particles. N. P. Heydenburg and G. M. Temmer. bibliog Phys R 93:906-7 F 15 '54

Effect of the atomic core on the nuclear quadrupole coupling. R. M. Sternheimer. bibliog Phys R 95:736-50 Ag 1 '54

Elastic scattering of particles by atomic nuclei. N. C. Francis and K. M. Watson bibliog Phys R 92:291-303 O 15 '53

Energies of excited states of nuclei. G. E. Tauber and T. Wu. Phys R 93:434-6 F 1 '54

Evidence for subshell at N=152. A. Ghiorso and others. bibliog Phys R 95:293-5 Jl 1 '54

Evidence for subshell at Z-96. G. T. Seaborg. bibliog Phys R 92:1074-5 N 15 '53

Evidences of crystalline imperfections in nuclear magnetism R. V. Pound. bibliog diag J Phys Chem 57:743-8 N '53

High-energy electron scattering and nuclear structure determinations. R. Hofstadter and others. bibliog diag Phys R 92:978-87 N 15 '53

Looking into the nucleus. F. Bitter. Opt Soc Am J 43:233-6 Ap '53

Magnetic internal Compton coefficients in the Born approximation. L. Spruch and G. Goertzel. Phys R 94:1671-8 Je 15 '54

Metals in the atomic state in glasses. W. A. Weyl. bibliog J Phys Chem 57:753-7 N '53

Mixed configurations in nuclei. A. de-Shalit and M. Goldhaber. bibliog diags Phys R 92:1211-18 D 1 '53

Mu-mesonic X-rays and the shape of the nuclear charge distribution. D. L. Hill and K. W. Ford. bibliog Phys R 94:1617-29 Je 15 '54

Nonlinear meson theory of nuclear forces. F. Cap. bibliog Phys R 95:287-8 Jl 1 '54

Nonuniform nuclear charge distributions and measurements of nuclear electrical radius. K. W. Ford and D. L. Hill. bibliog Phys R 94:1630-7 Je 15 '54

Nuclear configurations inferred from high-energy pickup-deuteron distributions. W. Selove. Phys R 92:1328 D 1 '53

Nuclear-energy study course; how many parts to an atom? H. C. Schwenk and R. H. Shannon. il diags Power 98:97-9 Ag '54

Nuclear potential well depth. R. K. Adair. Phys R 94:737-8 My 1 '54

Nuclear radii. F. Bitter and H. Feshbach. bibliog Phys R 92:837-8 N 1 '53

Odd-nucleon-plus-liquid-drop-model of heavy odd nuclei. F. J. Milford. Phys R 93:1297-303 Mr 15 '54

Production of positive mesons in heavy nuclei. S. Gasiorowicz. diags Phys R 93:843-5 F 15 '54

Proton distribution in heavy nuclei. M. H. Johnson and E. Teller. diag Phys R 93:357-8 Ja 15 '54

Regularity in magnetic moments of odd nuclei. M. F. Scharff. Phys R 95:1112-13 Ag 15 '54

Relativistic Thomas-Fermi atom model. J. J. Gilvarry. bibliog Phys R 95:71-2 Jl 1 '54

Rotational nuclear energy levels from Coulomb excitation. G. M. Temmer and N. P. Heydenburg. bibliog Phys R 94:1399-400 Je 1 '54

Shell effects in highly excited nuclei. H. W. Newson and R. H. Rohrer. bibliog Phys R 94:654-8 My 1 '54

ATOMS—*Continued*

Studies of atomic self-consistent fields; interpolation problems. P. Löwdin. bibliog Phys R 94:1600-9 Je 15 '54

Tendency for positive nuclear quadrupole moments. S. A. Moszkowski and C. H. Townes. bibliog Phys R 93:306-12 Ja 15 '54

Theory of nuclear level density. C. Bloch. bibliog Phys R 93:1094-106 Mr 1 '54

Two-body forces and nuclear saturation; central forces. K. A. Brueckner and others. Phys R 95:217-28 Jl 1 '54

Two-body forces and nuclear stability. D. H. Frisch. Phys R 95:865-6 Ag 1 '54

What holds the nucleus together? H. A. Bethe. il diags Sci Am 189:58-63 S '53

See also

Atomic research
Deuterons
Electrons
Molecules
Neutrons
Nuclear reactions
Nuclear spin
Nucleons
Positronium
Protons
Radiation
Spectrum
Stereochemistry

Disintegration

See Nuclear reactions; *also* subdivision Nuclear reactions under special subjects, e.g. Boron; Krypton; Nitrogen; Phosphorus; Samarium; Tantalum; Vanadium

Models

Atom models attain magnification of 1.5 X 10^8; Arthur S. LaPine & co. il Chem & Eng N 32:2534 Je 21 '54

Synthesizing with atom models. H. Schwalb. Can Chem Process 38:76 F '54

ATOMS, Metastable. See Metastability

ATTENUATORS, Radio. See Radio attenuators

ATTICS

How to erect an expansion-attic truss; details on the University of Illinois Small homes council's open-hearted truss. il diags House & Home 3:156-61 Mr '53

Look into the attic for preframed living space. il plan diag House & Home 4:152-5 O '53

ATTITUDE surveys. See Employees—Opinion polls

AUCTIONS

Another auction, inconclusive results; sale of construction equipment. Constr Methods 36:148+ Mr '54

Auction; answer to used car jam? R. J. Young. Sales Management 70:120-1 Je 15 '53

What am I bid? three-day auction at Boston. il Constr Methods 36:90+ F '54

AUDIO-VISUAL association, National. See National audio-visual association

AUDIO-VISUAL instruction

Audio-visual methods in teaching. E. Dale. rev ed 534p $6.25 Dryden press, 31 W. 54th st, New York 19 '54

1953 convention of the NEA department of audio-visual instruction. D. F. Lyman. Soc Motion Picture & Tv Eng J 61:66-8 Jl '53

Projected magic. G. F. Griffin. il Nat Safety N 69:68-9+ Je '54

Visuals clinic; new audi-visual techniques and products to aid convention and meeting planners. il Sales Management 70:39-41 pt 2 Ap 1 '53; 72:63-4 pt 2 Ja 1; 73:62-4 pt 2 Jl 1 '54

Whodunit tells how to do it; G-E puts four mystery programs on records and slidefilms. Sales Management 71:66+ pt 2 O 1 '53

AUDIT bureau of circulations

Another kind of auditing; the story of the Audit bureau of circulations. J. K. Lasser. J Account 96:464-9 O '53

AUDITING

Auditor's responsibility when asset values are written up. J Account 96:348-9 S '53

Banker-CPA cooperation on business audits. A. R. Jennings. Burroughs Clearing House 37:10-11 S '53

Codification not intended to change auditing standards. J Account 96:82-3 Jl '53

Confirmation procedures for small loan companies. R. S. Johns. J Account 97:606-7 My '54

Defense contract auditing takes a new turn. R. W. Harwell. N A C A Bul 34:869-76 Mr '53

Five practical problems solved by public accounting firms; change in requirements during audit. F. O. Adams. J Account 97:445-7 Ap '54

Functions of the accountant in auditing businesses handling escrow agreements. F. Barker. J Account 96:324-30 S '53

How the auditor can pick the best time to examine an account. P. N. Wehr, jr. J Account 97:58-61 Ja '54

How to plan audit engagement, supervise staff, organize work to cut down man hours. C. H. Gray. J Account 95:588-93 My '53

How to use the client's personnel to save audit time before the actual audit begins. J. W. Porter. J Account 96:193-6 Ag '53

New developments in auditing by independent certified public accountants. A. R. Jennings. J Account 96:37-47 Jl '53

Reducing detail work in medium-size audits and write-ups. H. Schimel. J Account 97:343-4 Mr '54

Simple tool to assist the auditor in statistical interpretation of test checks. H. F. Stettler. J Account 97:49-57 Ja '54

Statistical techniques need deeper study before they can be useful in auditing. R. W. Johnson. J Account 96:336-40 S '53

See also

Bank auditing
Bank examination

Internal control

General Electric's system for protecting against fraud and error in disbursement. J Account 96:605-6 N '53

How the internal auditor can properly help the independent CPA perform annual audit. G. A. Lee. J Account 96:711-13 D '53

Internal auditing and control now used to measure effective operation. W. R. Phelan. Nat Underw 57:27 N 5 '53

Internal control over inventories in manufacturing concerns. H. C. McGuigan. J Account 97:335-8 Mr '54

Management's responsibility for embezzlement prevention. V. G. Sheffield. N A C A Bul 35:543-4 D '53

Nine ways to prevent fraud. W. Norris. Am Bsns 24:20+ Jl '54

Why the CPA reviews the internal control system. D. J. Bevis. J Account 97:219 F '54

AUDITORIUMS

Acoustics of the Royal festival hall, London. P. H. Parkin and others. il plan diag Acoustical Soc Am J 25:246-59 Mr '53

Flexible lighting for a store auditorium. il Illum Eng 49:379-80 Ag '54

Lamella steel vault spans 224′, yet is only 2′ thick; Municipal auditorium at Corpus Christi. il diags Arch Forum 100:166-7 Mr '54

Most controversial building in Ohio; Oberlin's auditorium. il plans diags Arch Forum 100:124-9 Ja '54

Saarinen challenges the rectangle, designs a domed auditorium and a cylindrical chapel for MIT's laboratory campus. il plans diags Arch Forum 98:126-33 Ja '53

Saarinen dome; a year later; M.I.T. auditorium. il Arch Rec 115:20+ My '54

Lighting

Re-lighting an old school auditorium. il Illum Eng 49:450-1 S '54

Re-lighting the Indiana roof convention hall. il diag Illum Eng 49:456 S '54

AUDITORY perspective. See Sound—Recording and reproducing

AUGER effect

K-auger electrons, positrons, and conversion electrons of Zn^{65} above 5 kev. J. F. Perkins and S. K. Haynes. bibliog Phys R 92:687-93 N 1 '53

New method for measuring Auger transitions. C. E. Roos. bibliog diags Phys R 93:401-5 F 1 '54

AUGERS

Auger extends mining horizon. il Coal Age 59:78-80 Ja '54

AUREOMYCIN
Structure of aureomycin. C. R. Stephens and others. bibliog Am Chem Soc J 76:3568-75 Jl 5 '54

AURORAS
Theory of the aurora based on magnetic self-focusing of solar ion streams. W. H. Bennett and E. O. Hulburt. bibliog Phys R 95:315-19 Jl 15 '54

Spectra

Spectra of low-intensity auroras. N. J. Oliver and others. Opt Soc Am J 43:710 Ag '53

AUSTEMPERING. See Steel, Heat treatment of

AUSTENITE
Anisothermal diffusion of carbon in austenite. J. E. Black and G. E. Doan. Am Soc for Metals Trans 44:452-60 '52
Determination of retained austenite by X-ray methods. K. E. Beu. diag J Metals 5:Trans 1539-40 sec 2 N '53
Effect of chemical composition on coarsening of austenite grains. J. Schuyten. bibliog il diag Am Soc for Metals Trans 44:853-69 '52
Effect of retained austenite upon mechanical properties. L. S. Castleman and others. bibliog diags Am Soc for Metals Trans 44:240-56; Discussion. 257-63 '52
Effect of tempering on the hardness of retained austenite. P. Stark and B. S. Lement. il J Metals 6:Trans 1074-5 sec 2 S '54
Effects of decomposition of retained austenite during tempering on notch toughness and tensile properties. E. F. Bailey and W. J. Harris, jr. bibliog il Am Soc for Metals Trans 44:204-17; Discussion. 217-24 '52
Effects of sample surface and X-ray diffraction camera geometry on the determination of retained austenite in hardened steels. K. E. Beu and D. P. Koistinen. bibliog diag J Metals 5:Trans 1529-30 sec 2 N '53
Interstitial diffusion. A. G. Guy. bibliog Am Soc for Metals Trans 44:382-403; Discussion. 404-9 '52
Isothermal transformation of austenite in a nickel-chromium-molybdenum steel. E. A. Loria. bibliog il Am Soc for Metals Trans 44:870-6 '52
Nondestructive test gives austenite, martensite percentages. S. Storchheim. il Iron Age 173:108-11 Jl 1 '54
Stabilization of the austenite-martensite reaction in a high chromium steel. S. C. Das Gupta and B. S. Lement. bibliog il diags J Metals 5:Trans 530-6 Ap '53; Discussion. 6:Trans 686-8 sec 2 My '54
Stress-induced transformation of retained austenite in hardened steel. B. L. Averbach and others. bibliog diag Am Soc for Metals Trans 44:746-56; Discussion. 756-7 '52
Theory of the formation of martensite. M. S. Wechsler and others. bibliog diags J Metals 5:Trans 1503-15 sec 2 N '53; Discussion. il 6:Trans 676-81 sec 2 My '54

AUSTIN, James Bliss, 1904-
President of American society for metals, director of research, U.S. steel corp. M. Weiss. por Metal Prog 65:82-4 F '54

AUSTIN, Texas
Air conditioned village is born. il Gas Age 114:38-9 Ag 12 '54
Austin, Texas, sets up air conditioned research village. il Sheet Metal Worker 45:58-9+ Jl '54

AUSTRALIA
See also
Aluminum industry and trade—Australia
Chemical industries—Australia
Gold mines and mining—Australia
Hydroelectric plants—Australia
Mines and mineral resources—Australia
Petroleum industry and trade—Australia

Air force

RAAF flies obsolete aircraft. M. Grobtuch. Aviation W 59:28 Ag 10 '53

Commercial policy

Australia eases import controls. Economist 168:122-3 Jl 11 '53
Easier Australian markets. Economist 168:805-6 S 19 '53

Defenses

Footing the bill at Woomera. Economist 168:880 S 26 '53

Economic conditions

Economic conditions abroad (cont). For Comm W 50:3+ S 7 '53; 51:6 Ja 11; 4 Ja 18 '54

AUSTRALIAN estates company, limited
Statement by the chairman. D. Lowson. Economist 168:137-9 Jl 11 '53

AUSTRIA
See also
Chemical industries—Austria
Hydroelectric plants—Austria
Petroleum industry and trade—Austria

Foreign relations

Lessons from Vienna. Economist 168:370 Ag 8 '53

Russia

Soviet flirtation with Austria. Economist 168:457-8 Ag 15 '53

AUTHORITIES, Government
Current trends in school financing; public authority system. S. M. Ruffin. Comm & Fin Chr 178:6+ sec 2 O 8 '53

AUTHORS
See also
Copyright

AUTHORS, Russian
Writers in Soviet Russia. Economist 170:171-2, 326 Ja 16, 30 '54

AUTHORSHIP
When should a paper have joint authorship? W. Forstall, jr. and W. F. Stokey. Mech Eng 75:875-6 N '53; Discussion. 76:292-3 Mr '54
See also
Technical writing

AUTOCLAVE building products association
Annual meeting, 48th, St Louis, March 8-10. Concrete 62:22+ Ap '54
Annual meeting, 48th, St. Louis, March 8-10. Rock Prod 57:213-14 Ap '54

AUTOCLAVES
Anchor goes autoclave. J. K. Selden and R. Carlson. il Concrete 62:30-1+ S '54
Autoclaved concrete products. J. K. Selden. bibliog Rock Prod 57:142-3+ My; 216-18 Ag '54
Effect of silica flour in autoclaved cement-sand mixtures. R. L. Barbehenn. Rock Prod 57:214-15+ Ap '54
Launches industry's largest autoclaves; Anchor concrete products, inc. J. K. Selden. il Rock Prod 57:135-7 S '54
Studies on the cementitious phases of autoclaved concrete products made of different raw materials. G. L. Kalousek. bibliog Am Concrete Inst J 25:365-78 Ja '54

AUTOCORRELATION functions and power spectrum. See Wiener's theorem

AUTOFINING. See Petroleum refining—Sulfur removal

AUTOMATIC control. See Control equipment

AUTOMATIC machinery. See Machinery, Automatic

AUTOMATIC selling. See Vending machines

AUTOMATIC stop and train control. See Railroads—Automatic stop and train control

AUTOMATIC telephone. See Telephone, Automatic

AUTOMATION. See Machinery, Automatic

AUTOMATONS
Computers and automata. C. E. Shannon. bibliog Inst Radio Eng Proc 41:1234-41 O '53
Test dummy gives near-human responses. il Machine Design 26:184+ Ag '54

AUTOMOBILE accessories industry
Factory sales of repair parts and accessories, 1934-1953; monthly factory sales of replacement parts and accessories, 1946-1952; chart and tabulations. Automotive Ind 110:99 Mr 15 '54

AUTOMOBILE accessories industry—*Cont.*

Those accessories you're buying are bringing in $1 billion a year. F. G. Lawrence. Steel 133:85-6 O 26 '53

Under auto hoods; good market prospects. il Steel 133:55 Ag 10 '53

See also

Automobile lamps

Gasoline service stations—Automobile accessories

Securities

Auto equipments and defense cutbacks; with statistical data on leading automobile parts and accessories companies. J. D. C. Weldon. il Mag of Wall St 92:667-9+ S 5 '53

AUTOMOBILE accidents

Accident prevention for your local insurance board. W. O. Burns. il Rough Notes 97: 24-5+ Mr '54

Accomplishments in traffic safety field, 1953. H. P. Jackson. Weekly Underw 170:66-9+ Ja 2 '54

Automobile misuse termed expression of selfishness. T. N. Boate. Weekly Underw 170:668 Mr 13 '54

Automotive philosophy of speed and gadgets. P. H. Blaisdell. East Underw 54:29 O 23 '53

Compulsory auto insurance debated in New York; abstracts. J. D. Dorsett. Spectator 162:39+ Ap '54; East Underw 55:30 Mr 12 '54; Nat Underw 58:20 Mr 18 '54; Weekly Underw 170:659+ Mr 13 '54

Constructive plan for advancing highway safety; compulsory insurance problem. R. I. Catlin. Weekly Underw 170:741-3 Mr 20 '54

Cure for highway accidents. G. L. Kerr. Nat Underw 58:18 My 13 '54

Downward auto accident trend in New York state communities. R. A. Allen. East Underw 55:28 Jl 2 '54

$85,000,000 for highway toll; lauds companies' safety measures, Canada. C. Curtis. East Underw 55:36 Je 11 '54

Fatality reports misleading; number of persons injured on highways still continues to rise. H. G. Kemper. Weekly Underw 170: 1389+ Je 5 '54

First large scale war against speeders in Northeast pronounced success. J. R. Barrett. Weekly Underw 169:825 O 3 '53

Game of chicken as it shows when adjusted. Nat Underw 57:17 Jl 16 '53

Help your community sell automobile safety. W. H. Kincannon. il Rough Notes 97:25+ S '54

Highway accidents can be reduced; Slow down and live campaign. T. N. Boate. Weekly Underw 171:525 S 4 '54

Highway death rate dips, a little. R. D. Raddant. il Iron Age 174:86+ Ag 12 '54

Highway death toll. P. H. Blaisdell. Safety Maint & Prod 107:76 Ap '54

Highway safety; Insurance industry committee on motor vehicle accidents meeting, Elmira, N.Y., April 21-22. East Underw 55: 36 Ap 23 '54; Weekly Underw 170:1041 Ap 24 '54

Highway safety plea; year's driving suspension for reckless and drunken drivers recommended; abstracts. H. P. Jackson. Weekly Underw 169:876+ O 10 '53; East Underw 54:38 O 9 '53

Highway toll, self-sabotage; business cooperation needed. J. D. Dorsett. East Underw 55:43-4 S 17 '54

Industry committee's work to be feature of CBS show. East Underw 54:32 D 18 '53; Weekly Underw 169:1501 D 19 '53

Insurers aid city in traffic accident cut in Saratoga Springs. Nat Underw 58:20 F 18 '54

It takes two to have a collision. P. Kramos. Safety Maint & Prod 108:63 Jl '54

Licensing of bad drivers by states crux of highway situation. R. I. Catlin. Weekly Underw 170:471 F 20 '54; Same. East Underw 55:41 Mr 19 '54

Lifesavers committee making real strides; Highway lifesavers committee of Oregon citizens, inc. M. Dana. Weekly Underw 169: 758 S 26 '53

Making auto safety effective; Automobile association of New Jersey and Atlantic casualty insurance co. B. Burstein. il Spectator 162:40-1+ My '54

Making highways accident-free; symposium. A. H. Rowan and others. Roads & Eng Constr 92:128-30+ Mr '54

Motor vehicle deaths increase in New York state. East Underw 54:28 Jl 24 '53

Municipal liability for loss or injury attributable to roads; panel discussion. F. Cowan and others. Roads & Eng Constr 92:125-6+ Mr '54

Need for more police to handle traffic; Pennsylvania. P. H. Blaisdell. East Underw 55:44 S 17 '54; Same abr. Weekly Underw 171:866 O 9 '54

Need for police manpower patrolling the highways. T. N. Boate. East Underw 54:46 S 18 '53; Same abr. Weekly Underw 169: 692 S 19 '53

New York auto record worse in 1953. Nat Underw 58:18 Ap 22 '54

Ontario's traffic-fatality figures and the lessons they teach. A. H. Rowan. Roads & Eng Constr 92:129-30 Mr '54

Problem of accidents; abstract. J. J. Leeming. Roads & Sts 97:56+ Ap '54

Reconstruction of an automobile accident by expert testimony. W. Jacobs. East Underw 55:30 Ag 27 '54

Role of public information in the safety cause. W. E. Hall. S A E J 61:51-8 N '53

Safety coordinators' resolution honors Association of casualty and surety companies. East Underw 54:25 D 25 '53

Savings in premium costs due this year; completion of the 12th year of the safe driving campaign of the ANPA Traffic department and ICMA. Ed & Pub 86:40+ Ap 25 '53

Sixteen New York cities act to lower accidents. East Underw 54:29 Jl 31 '53

Slow down and live drive hailed by safety experts. T. N. Boate. Weekly Underw 171: 34-5 Jl 3 '54; Same. East Underw 55:31 Jl 2 '54

Slow down and live highway safety drive in 24 states getting good results. Weekly Underw 171:194, 304 Jl 24, Ag 7 '54

Statistical hocum of auto accident toll attacked. P. H. Blaisdell. Weekly Underw 169:1390-1 D 5 '53

Stringent controls needed to halt mounting highway death toll; abstracts. R. I. Catlin. East Underw 55:28+ Jl 2 '54; Rough Notes 97:42+ O '54

Traffic safety study urged in New York state. W. A. Cutter. East Underw 55:34 F 12 '54

Travelers' The passing scene gives reminder of 1953 highway deaths. East Underw 55:42 Ap 16 '54

24 states campaign to reduce highway toll. Weekly Underw 170:1472 Je 12 '54

Unified attack on car accidents; industry committee program. C. A. Sitts. East Underw 55:30 O 1 '54

Untrained drivers four times as accidental. Nat Underw 57:30 Jl 9 '53

What causes auto injuries? Bsns W p87-8 S 12 '53

White House conference praises industry aid. East Underw 55:41 F 26 '54

See also

Motor trucks—Accidents

AUTOMOBILE assembly plants

Bolts speed factory erection; assembly plant for Ford motor co. il Eng N 152:38-9 F 25 '54

BOP assembly plant uses electronic transcription for scheduling of parts; TelAutograph system. flow chart Automotive Ind 111:98+ S 1 '54

Dual-purpose plant for 195X? why not? GM's Buick-Oldsmobile-Pontiac assembly plant. il plans Factory Management 112:104-9 Je '54

Ford, Chevrolet match western plants for competition ahead. F. G. Lawrence. il Steel 135:67-8 Ag 9 '54

Giant Plymouth assembly plant reveals unique techniques. F. G. Lawrence. il Steel 134: 77-8 Je 7 '54

AUTOMOBILE assembly plants—*Continued*

Huge assembly plant engineered for efficient, safe production; new Ford assembly plant, Mahwah, N.J. il plans diags Arch Rec 115:216-20 Ap '54

Improved methods accelerate Corvette production. J. Geschelin. il Automotive Ind 111:42-5 Jl 15 '54

Latest equipment and methods at Lincoln-Mercury's new assembly plant. J. Geschelin. il Automotive Ind 109:50-3+ O 15; 34-7 N 15 '53

Planning assembly lines for volume production; report of panel on progressive assembly technique and methods. H. G. Riggs. il S A E J 61:30-4 D '53

Sinking factory; Ford's Long Beach assembly plant. J. Joseph. il Automotive Ind 110:34-5+ Mr 1 '54

Special device assures correct front end alignment for ball joint suspensions; Ford motor co. il Automotive Ind 111:55+ S 15 '54

Unique conveyor system provides automation for instrument assembly. il diag Automotive Ind 110:52-4 Ap 1 '54

AUTOMOBILE batteries. See Storage batteries

AUTOMOBILE brakes. See Brakes, Automobile

AUTOMOBILE camps. See Tourist camps, hostels, etc.

AUTOMOBILE drivers

American policyholders to reward good drivers; Superintendent Bohlinger would reward safe drivers; New York. Weekly Underw 169:320 Ag 8 '53

Drivers too complacent? T. N. Boate. Safety Maint & Prod 108:61 Jl '54

Driving of housewives continues to be good. Weekly Underw 169:384 Ag 15 '53

Five-point plan to eliminate unsafe drivers; calls for inspections. R. I. Catlin. East Underw 54:111 D 11 '53; Same. Weekly Underw 169:1289+ N 28 '53; Same abr. Nat Underw 57:9-10 N 26 '53

How driver attitudes cause many accidents. G. U. Cleeton. Safety Maint & Prod 106:35-7+ N '53

Human factor in auto deaths; abstracts. P. H. Blaisdell. East Underw 55:56 My 7 '54; Nat Underw 58:24 Ap 29 '54; Weekly Underw 170:1166 My 8 '54

Mutual agents to seek for survey of drivers. Weekly Underw 169:326 Ag 8 '53

Point systems help get drivers back on right track or off the road. Nat Underw 58:8 Jl 29 '54

Psychology aids auto safety. il Spectator 161:22-3 Ag '53

Request agents to assist safety drive in Wisconsin. W. J. Kohler, jr. Weekly Underw 169:323 Ag 8 '53

Safety center research; radar speed studies. W. J. Toth. East Underw 54:46 S 18 '53

Speedy youngsters; study on age of drivers violating speed limit in Lincoln; with tables. Spectator (Endorsement no) 162:64-5 Ag '54

State Farm ranks drivers by their occupations. Nat Underw 57:3 Jl 30 '53

Sweden to strengthen drunk driving law. Weekly Underw 169:383 Ag 15 '53

See also

National safe drivers association

Licenses

New driver regulations for chauffeurs in New York state. East Underw 55:40 Ap 9 '54

Testing

Find the driver's weakness. B. Burstein. il Safety Maint & Prod 107:59-60 Je '54

Training

Aetna Drivotrainer given strong endorsement. R. J. O'Connor. Weekly Underw 169:1050 O 31 '53

Aetna film on safe driving shows latest methods. East Underw 55:42 Ap 16 '54

C.&S. companies make state awards for driver training program. East Underw 54:38 S 4 '53

Driver education is one way to cut traffic accidents. N. H. Dearborn. Rough Notes 97:32+ S '54

Driver education on secondary level needed. T. N. Boate. East Underw 55:26 O 1 '54

First Aetna Drivotrainer installed at Oak Park, Illinois high school. East Underw 54:35 N 6 '53

High school driving instruction meeting real success; New York City school system. Weekly Underw 169:171 Jl 18 '53

Highway safety and driver education; review. L. Brody and H. J. Stack, eds. East Underw 55:28 Ag 13 '54

Sweden first foreign nation to adopt Aetna Drivotrainer method. East Underw 55:9 Ag 27 '54; Same abr. Weekly Underw 171:350 Ag 14 '54

Teaching utility drivers to be safe. E. F. Hockenbeamer. il plan Elec World News ed 140:16-18 Jl 20 '53

AUTOMOBILE driving

Congress transports safety sessions. Safety Maint & Prod 106:63-6 D '53

Driver performance on horizontal curves. A. Taragin. Pub Roads 28:27-39 Je '54

Electronic control for automatic driving. V. K. Zworykin. Franklin Inst J 256:393-4 O '53

Electronics make car driving automatic. Iron Age 172:80-1 Ag 6 '53

Highway death rate dips, a little. R. D. Raddant. il Iron Age 174:86+ Ag 12 '54

Oil and automotive men can boost safe driving. C. A. Chayne. Nat Pet N 45:20 N 25 '53

Traffic safety program. W. A. Cutter. Safety Maint & Prod 107:43 Mr '54

Traffic safety program pays off at army post. Safety Maint & Prod 108:60 Ag '54

AUTOMOBILE engineering

Changing practice of automobile engineering. M. Platt. diags Inst Mech Eng Proc (Auto div pt 1):1-8, pl 1-2 '52-53

Engineering and production team; abstract. E. N. Cole and E. H. Kelly. il Steel 134:61-2 Ap 12 '54

Engineering changes. H. Drew. Inst Mech Eng Proc (Auto div pt 2):35-40; Discussion. 41-6 '52-53

Process development translates dreams into cars at lower cost. F. G. Lawrence. il Steel 134:69-70 Ap 26 '54

SAE annual meeting, Detroit; abstracts of papers. Steel 134:51-2 Ja 18 '54

See also

Automobile engines

Automobile research

Automobiles

Ford motor company—Research and engineering center

Tables, calculations, etc.

Cornering characteristics of tyres. V. E. Gough. Automobile Eng 44:137-41 Ap '54

AUTOMOBILE engines

Automotive engine head and gasket problems; abstract. L. E. Kassebaum. Automotive Ind 110:492+ Mr 15 '54

Automotive engine research; abstracts of SAE annual meeting papers. S A E J 62:52-3+ F '54

Camshaft a trouble spot in hp race. R. D. Raddant. Iron Age 173:90+ Mr 25 '54

Clean engines have longer lives. R. D. Raddant. il Iron Age 173:108+ My 20 '54

Don't write off piston engines yet. R. D. Raddant. Iron Age 173:64+ Ap 29 '54

End of road for piston engines? gas turbine is logical successor. R. D. Raddant. Iron Age 173:82+ Ap 15 '54

Engine trends, 1930-1953; tabulations. Automotive Ind 110:174 Mr 15 '54

Evaluation of a V-6 aluminum engine. J. R. Long and D. H. Perry. il Automotive Ind 111:70-2 S 15 '54

Ford adopts overhead valves for all car and truck engines. J. Geschelin. il diag Automotive Ind 110:52-5+ Ja 1 '54

General construction; American two stroke cycle engines; abstract. G. E. Buske. S A E J 62:105 Ag '54

Latest trends in hot rods. W. G. Brown. il Automotive Ind 111:54-6+ Jl 15 '54

Mercury has new overhead valve engine. il Automotive Ind 109:40-1+ D 15 '53

More power per cubic inch. Automotive Ind 110:49+ F 1 '54

New British race engine of light alloy construction. il diags Automotive Ind 110:70-1 Je 1 '54

AUTOMOBILE engines—*Continued*

New cars need higher octanes. Nat Pet N 46:31 Ja 20 '54

New engines for British Rover cars. diag Automotive Ind 110:31 Mr 1 '54

New Ford V-8 engine. R. Stevenson. il diags S A E J 62:55-9 Ap '54

Performance of a two-stroke oil engine for automobiles. S. J. Davies. il diags Engineering 176:385-7, 419-22 S 25-O 2 '53

Pinwheels or pistons. W. A. Turunen. il diag S A E J 62:19-27 Jl '54

Standard eight. il diags Automobile Eng 44:223-8 Je '54

Two-stroke Diesels for British cars. D. Scott. il diags Automotive Ind 110:40-1 Mr 1 '54

V-8 engine makes the grade. il Bsns W p84+ D 19 '53

See also

Anti-freeze solutions
Diesel engines, Automotive
Gas turbines, Automotive
Motor bus engines
Motor truck engines
Tractors

Bearings

Analysis of bearing failures. H. W. Leutkemeyer. il Am Pet Inst Proc 33(2):53-9 '53; Same. Pet Refiner 32:135-7 Jl '53

Plain bearings for automobile engines. il diags Automobile Eng 43:463-73 N '53

Cooling

Liquid-cooling in modern motor vehicles; comparison with air-cooling; abstract. W. D. Bensinger. Automobile Eng 44:207 My '54

Piston temperatures; method of calculation for water-cooled petrol engine units. A. I. I. Abdelfattah. bibliog diags Automobile Eng 44:335-9 Ag '54

Deposits

Combustion-chamber deposits and octane-number requirements; abstracts. J. Warren. S A E J 62:105-6 Ap '54; Automotive Ind 110:485+ Mr 15 '54; Discussion. S A E J 62:106-7 Ap '54

Combustion chamber deposits and their effects on engine fuel requirements. J. J. Mikita and W. E. Bettoney. bibliog il Pet Eng 25:C24+ Ag '53; Excerpt. Oil & Gas J 52:84-6 Jl 6 '53

Combustion chamber deposits as related to carbon-forming properties of motor oils. J. D. Bartleson and E. C. Hughes. bibliog il Ind & Eng Chem 45:1501-8 Jl '53

Crankcase oil; approach to the combustion chamber deposit problem; abstracts. R. L. Overcash and others. S A E J 62:107-8 Ap '54; Automotive Ind 110:494+ Mr 15 '54; Discussion. S A E J 62:108-9 Ap '54

Effect of engine operating conditions on preignition. A. O. Melby and others. S A E J 62:42-4 Ja '54

Effect of lubricant composition on combustion chamber deposits. J. G. McNab and others. S A E J 62:52-7 Jl '54; Abstract. Automotive Ind 110:534+ Mr 15 '54

Engine deposits and wear. C. M. Larson. il Am Pet Inst Proc 33(3):207-15 '53

How combustion-chamber deposits affect engine-fuel requirements. M. J. Fowle. Oil & Gas J 52:87 Jl 6 '53

Preignition puzzle; American petroleum institute's Refining division midyear meeting, Houston; abstracts of papers. Chem & Eng N 32:2108+ My 24 '54

Spark plug fouling, preignition, and what they mean. diags Pet Processing 9:53-4 Ja '54

Design

Armstrong Siddeley Sapphire engine. il diags Automobile Eng 43:533-40 D '53

Citroën 2CV. il diags Automobile Eng 44:91-7 Mr '54

Earls Court exhibition; review of design trends; engines. il diag Automobile Eng Extra no 43:485-92 N 25 '53

Motor vehicles in hot countries. C. J. D. Carruthers. diag Inst Mech Eng Proc (Auto div pt 4):149-55; Discussion. 155-7 '51-52

Redesigned Chrysler engine develops 235 horsepower. il Machine Design 26:160-1 Mr '54

Detonation

Antiknock requirements of passenger cars, 1951-1952; abstract. H. W. Best and others. S A E J 62:107-8 Mr '54

Autoignition of paraffins in engine cylinders occurs in steps; abstract. W. J. Levedahl and C. R. Yokely. il Chem & Eng N 31:2994 Jl 20 '53

Combustion-chamber deposits and octane-number requirements; abstracts. J. Warren. S A E J 62:105-6 Ap '54; Automotive Ind 110:485+ Mr 15 '54; Discussion. S A E J 62:106-7 Ap '54

Effect of transmission on engine knock; abstract. H. W. Best and others. Automotive Ind 109:71-2 D 1 '53

Effects of halocarbons on engine performance. F. G. Rounds and J. D. Caplan. bibliog il Ind & Eng Chem 46:1677-84 Ag '54

Engine knock as influenced by precombustion reactions. J. M. Mason, jr. and H. E. Hesselberg. diag S A E J 62:54-5 S '54

How combustion-chamber deposits affect engine-fuel requirements. M. J. Fowle. Oil & Gas J 52:87 Jl 6 '53

Knock-research boost. Oil & Gas J 52:78-9 S 14 '53

New light on knock; recent Bureau of standards research. Oil & Gas J 52:76-7 Ag 17 '53

Ping sparks research. G. Weber. il diag Oil & Gas J 52:158-61 S 21 '53

Pre-ignition in automotive engines. J. R. Sabina and others. bibliog il diags Am Pet Inst Proc 33(3):137-47 '53; Same cond. Oil & Gas J 52:66-70 Je 29 '53; Discussion. Am Pet Inst Proc 33(3):147-50 '53

Preignition is villain in engine knock. Nat Pet N 45:90 Ag 5 '53

Preignition puzzle; American petroleum institute's Refining division midyear meeting, Houston; abstracts of papers. Chem & Eng N 32:2108+ My 24 '54

Recycling exhaust gas for suppression of knock in internal-combustion engines. A. E. Miller and S. Suliss. bibliog and patent list il Am Pet Inst Proc 33(3):151-72; Discussion. 172-3 '53

Symposium on preignition; abstracts of papers. S. D. Heron and others. S A E J 62:41-52 Ja '54

Target for refiners; new gasoline-additive blend needed to meet preignition enigma. G. Weber. diags Oil & Gas J 52:76-8 S 14 '53

Weather or knock; road ratings and requirement, year-round. R. I. Potter and others. S A E J 62:50-1 Jl '54

Exhaust

Recycling exhaust gas for suppression of knock in internal-combustion engines. A. E. Miller and S. Suliss. bibliog and patent list il Am Pet Inst Proc 33(3):151-72; Discussion. 172-3 '53

Smog and exhaust fumes being investigated. J. Geschelin. Automotive Ind 111:80+ Jl 15 '54

Fan belts

Formula for fan belt selling. il Nat Pet. N 45:57+ O 7 '53

Paired fan belts join TBA ranks. il Nat Pet N 46:28 F 24 '54

Fuel

Additive fight shapes gasoline future. Nat Pet N 46:15-16 Ja 20 '54

Better lubes urged at S.A.E. Fuels and lubricants division annual meeting. Oil & Gas J 52:63-4 Ja 18 '54

Cold-starting and warm-up performance of late-model passenger cars. R. K. Stone and K. C. Bier. diag Am Pet Inst Proc 33(3):101-11 '53

Combustion chamber deposits and their effects on engine fuel requirements. J. J. Mikita and W. E. Bettoney. bibliog il Pet Eng 25:C24+ Ag '53; Excerpt. Oil & Gas J 52:84-6 Jl 6 '53

Effect of fuel and lubricants on preignition. R. K. Williams and J. R. Landis. S A E J 62:48-50 Ja '54

Effect of fuel and oil factors on preignition. D. A. Hirschler and others. S A E J 62:45-8 Ja '54

AUTOMOBILE engines—Fuel—*Continued*

Effect of gasoline volatility on the performance of passenger cars. C. J. Domke and others. bibliog Am Pet Inst Proc 33(3): 112-16 '53; Same. Pet Refiner 32:151-3 Jl '53

Ethyl to market ICC; firm says haloalkyl phosphorous compound in gasoline cuts high compression engine preignition, plug fouling. G. Weber. Oil & Gas J 52:88-9 D 14 '53

Field studies on gasolines and motor oils under severe service conditions. J. G. McNab. bibliog il Am Pet Inst Proc 33(3):178-83 '53

Fuel for fuel fight; Standard Oil Development's skepticism over TCP. Chem W 74: 80+ Ja 23 '54

Gasoline roundelay. il Chem & Eng N 32: 1864-6 My 10 '54

High octane; study shows possible saving in use of higher rated fuel. W. M. Holaday. Iron Age 173:75 Ja 28 '54

Mixture sampling; development of a method for fuel and t.e.l. distribution study. A. L. Wachal. bibliog il diags Automobile Eng 44: 103-7 Mr '54

Octane number requirement survey, 1952. S A E J 62:48-51 Mr '54

Octane vs. additives. Oil & Gas J 52:89 D 14 '53

Progress through technology. C. A. Chayne. Am Pet Inst Proc 33(2):37-41 '53; Same. Oil & Gas J 52:287+ N 16 '53

Target for refiners; new gasoline-additive blend needed to meet preignition enigma. G. Weber. diags Oil & Gas J 52:76-8 S 14 '53

TCP on the road. Chem W 72:68+ Je 20 '53

Volatility sets automobile performance. C. J. Domke and others. bibliog Pet Refiner 32: 151-3 Jl '53

See also

Gasoline—Antiknock and antiknock mixtures

Fuel consumption

Advances in gasoline technology mean big changes ahead in autos. F. G. Lawrence. Steel 134:65-6 Mr 1 '54

Significant results of 1954 economy run. M. Epps. map Automotive Ind 110:44-5 My 15 '54

Some effects of motor oils and additives on engine fuel consumption; abstract and discussion. C. W. Georgi. S A E J 62:108-10 Jl '54

Fuel feeding

Earls Court exhibition; review of design trends; carburation and induction systems. il Automobile Eng Extra no 43:493-9 N 25 '53

Mono-Cam injection pump. il diags Automobile Eng 44:341-4 Ag '54

Petrol injection; Bond system. diag Automobile Eng 44:61-2 F '54

Survey of vapor lock in postwar automobiles. R. Best. Am Pet Inst Proc 33(3):117-27; Discussion. 127-8 '53

Ignition devices

Interference with television reception. Engineering 177:260 F 26 '54

Radio interference suppression. Elec R (Lond) 154:390 F 26 '54

See also

Spark plugs

Lubrication

Better lubes urged at S.A.E. Fuels and lubricants division annual meeting. Oil & Gas J 52:63-4 Ja 18 '54

Broad look at engine-oil testing. G. H. S. Snyder and others. bibliog il diag Am Pet Inst Proc 33(3):184-201 '53

Combustion chamber deposits as related to carbon-forming properties of motor oils. J. D. Bartleson and E. C. Hughes. bibliog il Ind & Eng Chem 45:1501-8 Jl '53

Corrosion is a major cause of wear in engine cylinders. O. W. Wuerz. Automotive Ind 111:60-1 Ag 1 '54

Crankcase oil; an approach to the combustion chamber deposit problem; abstracts. R. L. Overcash and others. S A E J 62: 107-8 Ap '54; Automotive Ind 110:494+ Mr 15 '54; Discussion. S A E J 62:108-9 Ap '54

Effect of fuel and lubricants on preignition. R. K. Williams and J. R. Landis. S A E J 62:48-50 Ja '54

Effect of fuel and oil factors on preignition. D. A. Hirschler and others. S A E J 62: 45-8 Ja '54

Effect of lubricant composition on combustion chamber deposits. J. G. McNab and others. S A E J 62:52-7 Jl '54; Abstract. Automotive Ind 110:534+ Mr 15 '54

Engine deposits and wear. C. M. Larson. il Am Pet Inst Proc 33(3):207-15 '53

Engine oil-fed torque converter. T. C. Gleason. il diag Am Pet Inst Proc 33(2):60-4; Discussion. 64-7 '53

Engine oils; S.A.E. numbers and their significance. R. H. Warring. Automobile Eng 44:235-6 Je '54

Field studies on gasolines and motor oils under severe service conditions. J. G. McNab. bibliog il Am Pet Inst Proc 33(3):178-83 '53

Friction and consumption characteristics of motor oils; effect of viscosity index improvers. D. Frazier, A. R. Klingel and R. C. Tupa. bibliog Ind & Eng Chem 45: 2336-42 O '53

Motor oils; life expectancy? W. G. Perriguey. il Am Pet Inst Proc 32(2):31-9 '52

Significance of viscosity index. W. L. Nelson. Oil & Gas J 52:150 Jl 13 '53

SAE National fuels and lubricants meeting, Chicago, Nov. 5-6. S A E J 61:68-71 D '53

Some effects of motor oils and additives on engine fuel consumption; abstracts. C. W. Georgi. Automotive Ind 110:532+ Mr 15 '54; S A E J 62:108-9; Discussion. 109-10 Jl '54

Some things on which we can agree. C. M. Heinen. Am Pet Inst Proc 33(2):94-104 '53; Excerpts. Nat Pet N 45:47-9 Je 3 '53

Symposium on the API motor-oil service classification after its first year of existence. il Am Pet Inst Proc 33(2):80-93 '53

Trends in engine lubrication; abstract. F. W. Lawrence. Automobile Eng 44:250 Je '54

Twenty-five years of crankcase oil performance. E. Bartholomew. il Am Pet Inst Proc 33(2):45-52 '53

See also

Oil filters, Automobile

Manifolds

Earls Court exhibition; review of design trends; carburation and induction systems. il Automobile Eng Extra no 43:493-9 N 25 '53

Machining operations on components of the new Mercury engine; manifold production with latest automation equipment. T. MacNew. il Automotive Ind 111:70-1+ Ag 1 '54

Manufacture

Advanced automation techniques; Ford motor co. il Automotive Ind 110:50-1 Je 15 '54

Automatic feeding devices produce small parts faster; Buick motor div. General motors corp. S. J. White. il Iron Age 172: 157-9 S 17 '53

Automatic molding machine lowers foundry handling costs; Buick foundry. W. G. Patton. il Iron Age 174:109-11 Ag 12 '54

Dodge doubles up grinding on rocker-arm pads. il diags Am Mach 97:145 O 26 '53

Latest machines and methods at Ford's Dearborn engine plant. J. Geschelin. il Automotive Ind 110:26-30+ Mr 1; 68-72 My 1; 48-50 Je 1 '54

Machining engine details; Ford motor co. il Automobile Eng 44:229-34 Je '54

Machining operations on components of the new Mercury engine. T. MacNew. il Automotive Ind 110:56-9 Ap 1; 52-4+ Je 1; 111: 70-1+ Ag 1 '54

New machine can die cast aluminum engine blocks. il Materials & Methods 40:11 Ag '54

Piston production at Ford features automation and quality control. E. Altholz. il Mach 60: 196-201 N '53

Plant is engine automation showroom; Ford's Dearborn plant. R. D. Raddant. il Iron Age 173:110+ Mr 4 '54

Producing Chevrolet's high-compression blue flame engine. A. R. Cole and A. L. Lester. il diags Mach 60:154-65 N '53

AUTOMOBILE engines—Manufacture—*Cont.*

Retractable bushings increase output, extend drill life; Studebaker corp. E. C. Beaudet. il Iron Age 172:178-80 N 12 '53

Retracting jigs speed Studebaker drilling. E. Altholz. il Mach 60:215-17 N '53

Selective flame hardening improves camshaft wear resistance. W. G. Patton. il Iron Age 172:171-4 N 12 '53

Shrink fit perfects piston assembly; Cadillac motor car division. il Steel 133:103+ O 19 '53

Talk about automation! Buick's new engine plant. D. G. Baird. il Mill & Factory 53:96-101 D '53

Two big broaches do job of many. S. J. White. il Steel 133:106-7 O 5 '53

Mufflers

Mufflers; the pattern is changing. Nat Pet N 45:41-2 D 9 '53

Radiators

Old antifreeze means trouble. Nat Pet N 45:48 D 16 '53

Radiator cores; important developments in design and manufacturing equipment; J. W. Lawrence, ltd. il Automobile Eng 44:189-93 My '54

Specifications

1954 passenger cars specifications; tabulations. Automotive Ind 110:140-55 Mr 15 '54

Testing

Dynamometers; survey of modern practice. R. H. Warring. il diags Automobile Eng 43:421-6 O '53

Field approach to engine wear; abstract. H. L. Yowell and others. S A E J 62:34 S '54

Mechanism of corrosive wear in passenger-car service. J. G. Ryan and B. W. DeLong. bibliog diags Am Pet Inst Proc 33(3):216-21 '53

Piano roll control used for motor testing. il Chem & Eng N 32:2205 My 31 '54

Valves

Automation principles applied to valve production. J. Geschelin. il Automotive Ind 111:60-2 Jl 1 '54

Field approach to engine wear; abstract. H. L. Yowell and others. S A E J 62:34 S '54

Hydraulic tappets, why they work, and what to do if they don't; abstract. C. Voorhies. S A E J 62:109-10 Ap '54

AUTOMOBILE factories

Billion dollar GM expansion program. H. H. Curtice. Automotive Ind 110:55+ F 1 '54

GM gets Hydra-Matics rolling. il Bsns W p28 O 24 '53

GM reveals more details of its billion dollar expansion program. il Automotive Ind 110:19-20 F 15 '54

It's modernize or else! Packard motor car co. il Factory Management 112:110-13 Je '54

Kaiser-Willys marriage working; Toledo integration job is unique. F. G. Lawrence. il Steel 134:71-2 Ap 5 '54

Willow Run sale is another milestone in turbulent history of Kaiser. Automotive Ind 109:37-8 D 1 '53

See also

Automobile assembly plants

Air conditioning

New Ford styling building. J. Spitzley. il Heating-Piping 26:122-4 Je '54

Airplane manufacture

Dual-purpose plant for 195X? why not? GM's Buick-Oldsmobile-Pontiac assembly plant. il plans Factory Management 112:104-9 Je '54

Employees

Automakers push mechanic training, start service courses. R. D. Raddant. il Iron Age 172:72+ S 3 '53

How a General Motors plant gets top-notch foremen from scratch. H. T. Brian. Factory Management 112:134-6 Ap '54

Placing the handicapped; Ford motor co. A. G. Larke. il Dun's R & Mod Ind 62:43-5 N '53

Report of panel on selection and training of technical and supervisory personnel. S A E J 62:58-60 Jl '54

UAW-CIO gives details of annual wage plan. Automotive Ind 110:34 My 1 '54

See also

Retired autoworkers organization

United automobile workers of America

Equipment

Advanced automation techniques; Ford motor co. il Automotive Ind 110:50-1 Je 15 '54

Automated units speed turning, gaging; Detroit automotive plants. E. J. Egan, jr. diags Iron Age 173:144-5 Mr 11 '54

Automatic feeding devices produce small parts faster; Buick motor div. General motors corp. S. J. White. il Iron Age 172:157-9 S 17 '53

Automatic scheduling of parts for power steering gears; Saginaw steering gear division, General motors corp. J. Geschelin. il diag Automotive Ind 110:50-3+ My 1; 111:32-7 Jl 15 '54

Automation at Ford hinges on design, maintenance, management. G. G. Murie. il Tool Eng 32:161-3 F '54

Automation; Ford motor co.; illustrations with text. Dun's R & Mod Ind 63:64-6 F '54

Automation in stamping end plates for starting motors; Ford motor co. il Automotive Ind 111:48-9 S 1 '54

Automation; recent developments at Ford motor co. H. W. Perry. il Automobile Eng 44:323-5 Ag '54

Automotive industry prepares for a buyers' market. il diags Mach 60:153-217 N '53

Automotive tooling experience with aircraft tooling and manufacturing. J. Slean. il diags S A E J 62:44-7 My '54; Abstract. Tool Eng 32:183-5 Je '54

Buyers' market now forcing suppliers to increase inventories, cut lead time; report on production control and materials handling panel. S A E J 62:34-5 Ap '54

Central coolant system offers savings benefits; Chrysler corp. E. C. Beaudet. il Iron Age 173:127-30 F 11 '54

Chrysler's colors highlight Los Angeles plant. F. G. Lawrence. il Steel 135:61-2 Ag 2 '54

Conveyor system knows where to take assemblies; Chrysler corp. il Mill & Factory 54:118-19 Je '54

Conveyors link far-apart plants; Ford motor co. il Factory Management 111:122-3 N '53

Flexible tooling handles wide variety of parts; Buick motor division. J. B. Doll. il Iron Age 172:126-8 O 15 '53

French automobile maker has automatic plating plant; Simca. il Automotive Ind 110:56 Je 15 '54

Glass laminated plastics speed up tooling programs. W. G. Patton. il Iron Age 172:136-9 Ag 6 '53

Grinding machines for power steering gear components. T. MacNew. il diag Automotive Ind 110:42-7 Ap 15 '54

Handling fixtures coordinate conveyors with permanent work stations; Checker cab manufacturing corp. H. Chase. il Iron Age 174:134-6 Ag 19 '54

High output tooling for limited volume. D. Scott. il Automotive Ind 110:48-52+ Ap 15 '54

How General Motors saves tools; materials utilization program. D. G. Baird. il Mill & Factory 54:82-4 Ap '54

How GM tooling was reborn from flame. il diags Am Mach 97:129-52 N 23 '53

Hydra-Matic transmissions now in high production at Willow Run plant. J. Geschelin. il Automotive Ind 110:32-6 F 15 '54

Hydraulic positioning and clamping; Ford motor co. in England. il diags Mach 60:155-62 Je '54

Inspection; Ford robots grade, sort, select parts for reworking. Iron Age 174:77 Ag 5 '54

Latest machines and methods at Ford's Dearborn engine plant. J. Geschelin. il Automotive Ind 110:26-30+ Mr 1; 68-72 My 1; 48-50 Je 1 '54

Low-cost plastic dies take on more forming jobs. W. G. Patton. il Iron Age 173:115-17 Je 10 '54

AUTOMOBILE factories—Equipment—*Cont.*

Machine-tool automation. il diag Instruments & Automation 27:1304-5 Ag '54

Machinery moved without losing time or production; Chrysler corp. D. G. Baird. il Mill & Factory 54:129-31 Ap '54

Machining engine details; Ford motor co. il Automobile Eng 44:229-34 Je '54

Machining operations on components of the new Mercury engine. T. MacNew. il Automotive Ind 110:56-9 Ap 1; 52-4+ Je 1; 111:70-1+ Ag 1 '54

Made-in-Canada transfer unit ups Ford output. il Am Mach 98:166-7 Je 21 '54

New equipment for 1955 Buick production. J. Geschelin. il Automotive Ind 111:55+ Ag 15 '54

New PowerFlite plant is precision dream; Chrysler's new plant at Indianapolis. F. G. Lawrence. il Steel 133:69-70 N 30 '53

New tools step up job. diags Steel 135:105 Ag 2 '54

Nickel-chrome plating; Luton works of Vauxhall motors, ltd. il Automobile Eng 44:150-3 Ap '54

Nondestructive testing checks quality from start to finish; Ford motor co. D. C. Hart. il Steel 134:124-5 Je 21 '54

Oil for power steering tests purified and re-used; Saginaw steering gear division of GMC. J. A. Hudson. il Am Mach 98:92-3 Ag 30 '54

Plant is engine automation showroom; Ford's Dearborn plant. R. D. Raddant. il Iron Age 173:110+ Mr 4 '54

Precision stampings; progressive die setups permit high output; Chrysler corp. J. I. Feldborg. il diag Iron Age 173:170-2 Ap 22 '54

Processing ingenuity, the additional ingredient in Canadian car production. C. Eder. il S A E J 62:78-81 Ag '54

Producing Chrysler's PowerFlite transmission. C. H. Wick. il diags Mach 60:157-65 Mr; 175-81 My '54

Production of Chrysler corp.'s new PowerFlite automatic transmission. J. Geschelin. flow diag il diags Automotive Ind 109:46-50 D 15 '53; 110:64-8+ F 1; 46-7+ My 15 '54

Progressive dies speed output of cup-shaped parts; Pontiac div. of General Motors. W. G. Patton. il Iron Age 174:109-11 Jl 22 '54

Quality improved by multiple nut runners; Cadillac motor car division. il Automotive Ind 109:53+ N 15 '53

Seek economy in standard automation. R. D. Raddant. Iron Age 173:84 Ap 1 '54

Talk about automation! Buick's new engine plant. D. G. Baird. il Mill & Factory 53:96-101 D '53

Transfer devices extend automation in press shop; Buick motor div. A. B. Mooers. il Iron Age 174:101-3 Ag 26 '54

Two big broaches do job of many. S. J. White. il Steel 133:106-7 O 5 '53

Fires and fire protection

GM's war against fire. J. C. Jones. Factory Management 112:100-4 Jl '54

Layout

3-D planning helps solve auto assembly line puzzles; models prove themselves in practice for General motors corp. plant layout designers; illustrations. Steel 133:114 D 7 '53

Lighting

Ford came out of the cave and into the light and saved big money. il Factory Management 112:116-17 Jl '54

Maintenance and repair

Maintenance welding keeps production moving; Ford motor co. W. G. Patton. il Iron Age 172:168-71 D 10 '53

Preventive maintenance lowers conveyor downtime; Buick motor div. W. G. Patton. il diag Iron Age 174:114-17 Jl 15 '54

Preventive maintenance trims production costs; Ford motor co. R. H. Eshelman. il Tool Eng 32:37-42 Je '54

Management

Auto empire decentralizes and reorganizes; Ford motor co. map Bsns W p 130-4 O 17 '53

Automakers are improving the inter-relationship between product planning and production. F. G. Lawrence. Steel 133:59-60 O 19 '53

Better methods cut costs; Packard motor car co. D. G. Baird. il Mill & Factory 54:92-3 Je '54

Better methods raise output, reduce costs, improve working conditions; Packard motor car co. D. G. Baird. il Mill & Factory 55:98-101 Jl '54

Ford benefits by tool standardization. C. H. Wick. il diags Mach 60:162-9 Ap '54

Ford's reorganization; the management story. R. E. Roberts. Advanced Management 19:9-12 My '54

Get control of costs when output fluctuates; abstract. S A E J 62:104-6 S '54

How quality control touches everywhere and gives help everywhere it touches; reports of two panels on quality control. S A E J 62:22-4 Ap '54

How top executives plan vehicles for the future; Ford motor co. J. Geschelin. il Automotive Ind 111:48-50+ Ag 15; 50-3+ S 1 '54

Human element; catalyst in proper planning for a diversified assembly operation. J. E. Adams. S A E J 62:38-9 My '54

Over-all problems of producibility. H. M. Harrison. diag S A E J 62:40-3 My '54

Production-design teamwork at Chevrolet as viewed by production, engineering. H. Kelley; E. N. Cole. il S A E J 62:18-24 My '54

Selling tomorrow's automation to the rank-and-file; movie released by Ford motor co. il Bsns W p66-7+ O 3 '53

Statistical quality control; introduction of a form of sampling inspection. L. Griffiths. bibliog Automobile Eng 43:453-8 N '53

Three problems challenge manufacturing men in the automotive industries. E. D. Kemble. S A E J 62:82-4 Ag '54

Power

How we engineered Ford's biggest industrial-power modernization; Rouge power plant. L. F. O'Reilly and W. J. Fadden, jr. il diags Power 98:88-92 S '54 (to be cont)

Safety measures

Livonia fire obscures the fact that the auto industry has one of the best safety records in the country. F. G. Lawrence. il Steel 133:77-8 S 14 '53

Plan safety for better morale, higher production; Buick motor division of General motors corp. W. G. Patton. il Iron Age 172:87-91 Jl 30 '53

Plant traffic system helps safety record. Nat Safety N 69:86 Ja '54

What makes a plant safe? W. K. Ousley. il Foundry 82:120-1+ Mr '54; Same cond. S A E J 62:29-31 My '54

Waste

Automatic chip processing pays dividends at Chrysler. il Mach 60:210-14 N '53

Scrap handling speeded with automatic shear-baler; Pontiac division of General motors corp. W. G. Patton. il Iron Age 173:143-5 Mr 18 '54

AUTOMOBILE fenders. See Automobiles—Fenders

AUTOMOBILE financial responsibility laws. See Automobile laws and regulations—Financial responsibility laws

AUTOMOBILE headlights. See Automobile lamps; Automobiles—Lighting

AUTOMOBILE heaters

Making and painting car heaters by time-saving methods. G. Murphy. il Automotive Ind 111:63+ Jl 1 '54

AUTOMOBILE industry and trade

American motor vehicle industry. Engineering 177:267 F 26 '54

Auto industry faces acid test in '54; review and forecast. R. D. Raddant. Iron Age 173:258+ Ja 7 '54

Auto war; the strategy takes shape. Bsns W p32 O 31 '53

Automakers get set to woo and wow the reluctant buyer. F. G. Lawrence. Steel 134:136+ Ja 4 '54

AUTOMOBILE industry and trade—*Cont.*

Automotive outlook for 1954. L. Westrate. Automotive Ind 110:32-3+ Ja 15 '54

Autos; the dump and discount blues. Bsns W p29 O 3 '53

Car buyers boost factory delivery. R. D. Raddant. Iron Age 174:96+ Ag 19 '54

Car makers gird for battle. Bsns W p27-8 S 19 '53

Chrysler takes more than its share of increased auto export business. F. G. Lawrence. il Steel 135:83-4 S 20 '54

Competition should bring greater prosperity; Ford welcomes return to competition. E. R. Breech. Comm & Fin Chr 178:2382+ D 17 '53

Danish dollar premiums cut for car purchases. For Comm W 51:9 Ja 25 '54

Factory pickup plan finds buyers for Coast automen. Sales Management 71:128-9 Ag 15 '53

48 cars in 48 hours; ballyhoo whoops up sales. il Bsns W p32-3 O 10 '53

General Motors optimistic. H. H. Curtice. Comm & Fin Chr 179:262 Ja 21 '54

Hoopla and the hard sell; direct effect of automobile production on chemical consumption. Chem W 73:27 S 19 '53

How many cars in 1954? Bsns W p25-6 N 28 '53

Implications of Chrysler-Briggs purchase. L. Westrate. Automotive Ind 109:55+ N 15 '53

Independents drive to solve their problems. F. G. Lawrence. Steel 134:87-8+ Mr 8 '54

Market changes draw attention to controls; abstract. G. I. Lyman. S A E J 62:106-7 Ag '54

New profits for you behind tomorrow's hot headlines; transportation by motor. F. P. Tighe. il Sales Management 72:30 Ja 1 '54

1954 predicted as an epic year in the history of the automobile industry. il Automotive Ind 110:23+ Je 15 '54

Outlook for 1954 auto production. L. L. Colbert. Comm & Fin Chr 178:1831+ N 12 '53

Packard-Studebaker make strong unit. R. D. Raddant. Iron Age 173:82+ Jl 1 '54

Packard's successful marketing comeback. H. E. Green. il Ptr Ink 243:35-7+ Je 12 '53

Power of the automotive industry in our economy today. V. Hall. il Mag of Wall St 93:716-19+ Mr 20 '54

Profitless prosperity in automobile retailing? R. S. Armacost. Comm & Fin Chr 179:264-5 Ja 21 '54

Records topple in 1953 as auto men finish a banner year. F. G. Lawrence. Steel 133:41-2 D 28 '53

Studebaker-Packard corp. Steel 134:61 Je 28 '54

These are the questions automakers ask; open letter to Walter Reuther, president, CIO. F. G. Lawrence. Steel 133:83-4 N 16 '53

Tough going in the auto industry. J. J. Nance. Comm & Fin Chr 178:2040-1+ N 26 '53

Uneven sales race marks first half. R. D. Raddant. Iron Age 174:80 Jl 15 '54

Unfinished business of the automobile age. J. Cope. Comm & Fin Chr 178:1426+ O 15 '53

Wayne university's industrial marketing conference, 1st, Detroit; abstracts of papers on problems of parts makers and suppliers to the automotive industries. Automotive Ind 110:98+ My 1 '54

Western Germany sells more cars to South Africa; with comparable figures of makes from other countries, 1949-1952. For Comm W 50:19 D 7 '53

When Detroit stops 1954 model output, here's how it's done. F. G. Lawrence. il Steel 135:63-4 S 6 '54

See also

American motors corporation
Automobile accessories industry
Automobile factories
Cadillac motor car company
Chevrolet motor company
Chrysler corporation
Ford motor company
General motors corporation
Hudson motor car company
Motor bus industry and trade
Motor truck industry
Nash-Kelvinator corporation
Studebaker corporation
Tractor industry and trade

Advertising

Auto dealers cast critical eyes at media. C. Watson. Ed & Pub 86:15+ F 28 '53

Autos to get spring push by many papers. D. L. Lionel. Ed & Pub 86:32 F 28 '53

Co-op ads capture last auto citadel. Bsns W p41-2+ N 21 '53

Dealer sees more profit in honest used car ads. D. L. Lionel. Ed & Pub 86:28 Mr 28 '53

Liaison man at the top. Bsns W p92-4+ O 17 '53

New car linage down but still tops all others. R. B. McIntyre. Ed & Pub 86:15+ My 9 '53

Over 200 papers get Ford dealers' copy. D. L. Lionel. Ed & Pub 86:106 Ap 18 '53

Tell it often, sell it hard; how to sell used cars. il Sales Management 71:102+ D 1 '53

Why Ford invests $6,500,000 in magazines; based on an interview with B. R. Donaldson. il Ptr Ink 244:82-3 S 18 '53

Directories

Directory of manufacturers of complete motor vehicles, tractors, aircraft, industrial trucks, and all types of gasoline and Diesel engines. Automotive Ind 110:354+ Mr 15 '54

Finance

Instalment sales financing; its services to the dealer. C. W. Phelps. (Studies in consumer credit, no. 2) 99p Commercial credit co, 14 Light st, Baltimore 2 '53

Summer slump soured '53 sales record. R. D. Raddant. Iron Age 173:136+ Ap 22 '54

New models

Automakers get set to roll out 1955 models; changeover time briefed. il Steel 135:41-2 S 27 '54

Automakers try styling, power, extras to spread new car fever. F. G. Lawrence. Steel 134:81 F 8 '54

Chrysler bets on style in sales race. R. D. Raddant. il Iron Age 174:70+ Ag 26 '54

Creative sells such stuff as dreams are made on. F. G. Lawrence. Steel 135:43-4 Jl 5 '54

Dream cars; illustrations. Steel 134:59 Ja 25 '54

GM's Motorama in New York; a proving ground for style. F. G. Lawrence. il diag Steel 134:61-2 Ja 25 '54

Model changes biggest in 20 years. R. D. Raddant. Iron Age 174:132+ S 16 '54

New models start new styling cycle. R. D. Raddant. Iron Age 174:76 S 2 '54

Showmanship on auto row; press previews herald new models. F. G. Lawrence. il Steel 134:43-4 Ja 11 '54

Securities

What now for automobile stocks? J. C. Clifford. Mag of Wall St 92:664-6 S 5 '53

Statistics

Automobile industry sets new dollar volume record; with preliminary automobile facts and figures, 1953. Automotive Ind 110:66-7 Ja 1 '54

Automobile production, United States and Canada, 1939-1953; tabulation. Steel 134:186 Ja 4 '54

Automotive wholesalers, dealers and repair shops by years, 1930-1954; retail outlets by population groups, by states; tabulations. Automotive Ind 110:106 Mr 15 '54

Cars in use by makes, states and model year; tabulation. Automotive Ind 110:112-21 Mr 15 '54

Factory sales and their wholesale value, U.S. plants, 1900-1953; monthly motor vehicle factory sales, by years, 1948-1953; chart and tables. Automotive Ind 110:93-4 Mr 15 '54

Factory sales to domestic and foreign markets, 1943-1953; tabulations. Automotive Ind 110:94 Mr 15 '54

Motor vehicle production in Canada, 1925-1952; by months, 1947-1953; 1952 Canadian motor vehicle registrations by provinces; tabulations. Automotive Ind 110:100 Mr 15 '54

Motor vehicles, 1949-1952. Survey of Cur Bsns 1953 Sup p 191-2 [supplemented in monthly numbers]

AUTOMOBILE industry and trade—Statistics —*Continued*

New car registrations by months, 1949-1953; tabulations. Automotive Ind 110:102 Mr 15 '54

New passenger car registrations by makes, by years, 1949-1953; tabulations. Automotive Ind 110:101 Mr 15 '54

1953 new car registrations by rank; tabulation. Automotive Ind 110:105 Mr 15 '54

1953 new passenger car registrations by makes, by states; tabulation. Automotive Ind 110:103 Mr 15 '54

1953 new registrations by price classes, by months; 1953 retail dollar volume of new car sales by price classes; tabulations. Automotive Ind 110:103 Mr 15 '54

1953-1952 passenger car production by makes, by months; tabulation. Automotive Ind 110:95 Mr 15 '54

Number and per cent of cars in use, by age groups, 1950-1953; tabulations. Automotive Ind 110:111 Mr 15 '54

Passenger car factory sales by body types, 1950-1953; tabulation. Automotive Ind 110:95 Mr 15 '54

Regional sales of new passenger cars, 1950-1953; tabulations. Automotive Ind 110:104 Mr 15 '54

Used cars

Auction; answer to used car jam? R. J. Young. Sales Management 70:120-1 Je 15 '53

Boosts sales by giving new look to an old business. K. R. MacDonald. il Am Bsns 24:18-19 Ja '54

Cars and dealers; control of trade-in allowances. Economist 169:359 O 31 '53

Dealer sees more profit in honest used car ads. D. L. Lionel. Ed & Pub 86:28 Mr 28 '53

Deals that keep used cars moving. il Bsns W p88+ S 19 '53

Tell it often, sell it hard; how to sell used cars. il Sales Management 71:102+ D 1 '53

Canada

Canada's booming motor vehicle industry. J. Montagnes. il Automotive Ind 109:60-3 N 1 '53; Same cond. Barron's 33:13 S 21 '53

Motor vehicle production in Canada, 1925-1953; by months, 1947-1953; 1952 Canadian motor vehicle registrations by provinces; tabulations. Automotive Ind 110:100 Mr 15 '54

Processing ingenuity, the additional ingredient in Canadian car production. C. Eder. il S A E J 62:78-81 Ag '54

Safe and adequate highways are Canada's greatest need. D. C. Gaskin. Roads & Eng Constr 92:88+ Jl '54

Europe

New cars attract huge crowds at Belgian automobile show. W. F. Bradley. il diags Automobile Ind 110:50-3+ F 15 '54

Germany

British firm to sell German Volkswagen. For Comm W 50:15 Ag 3 '53

West German automotive industry recovers. For Comm W 50:27 N 16 '53

Great Britain

Autos; British builders ride boom. F. H. Harley. il Iron Age 173:103 Je 17 '54

Bantam cars for world markets. il Bsns W p 158-9 N 7 '53

Bidding for bodies. Economist 168:409-10 Ag 8 '53

British motors and their markets. diags Economist 169:287-90+ O 24 '53

Car shares and competition. Economist 169:678-80 N 28 '53

Cars and dealers; control of trade-in allowances. Economist 169:359 O 31 '53

Changing motor industry. Economist 170:116 Ja 9 '54

Cheaper cars for Britain. Bsns W p 169 O 3 '53

Engineering outlook; motor-vehicle industry. Engineering 177:234-7 F 19 '54

Ford's new cars. Economist 169:51 O 3 '53

International motor exhibition, 38th, London. il Automotive Ind 109:62-5+ D 1 '53

Standard cuts prices. Economist 169:773-4 D 5 '53

Standard's baby car. Economist 168:809 S 19 '53

Italy

International motor show, Turin, Italy. W. F. Bradley. il Automotive Ind 110:62-5+ Je 1 '54

Japan

Japanese get in jeep parade. Bsns W p 170 S 26 '53

Mexico

Mexican vehicle industry shows consistent growth. il Automotive Ind 111:100+ S 1 '54

Netherlands

Netherlands auto firm expands output, sales. For Comm W 50:20 S 7 '53

Russia

Russia enters world auto market. il Steel 133:39 Ag 31 '53

Southern states

South is fast growing market for new cars, trucks. W. G. Patton. Iron Age 172:206-7 N 12 '53

Sweden

Sweden reduces price of Volvo automobile. For Comm W 50:26 N 16 '53

Vehicle sales in Sweden continue to increase. H. G. Tonndorf. Automotive Ind 110:69 F 1 '54

Switzerland

Annual Swiss automobile show, 24th, Geneva. W. F. Bradley. il Automotive Ind 110:38-40+ Ap 15 '54

Western states

Auto industry headed for more West Coast autonomy. F. G. Lawrence. Steel 135:63-4 Ag 23 '54

Auto output soared 34 per cent in '53. T. M. Rohan. Iron Age 173:81 Ja 28 '54

Coast shops tackle auto parts orders. T. M. Rohan. il Iron Age 173:75-6 Ap 15 '54

West Coast auto output; a challenge to Detroit? il Am Mach 98:162-4 Jl 19 '54

AUTOMOBILE insurance. See Insurance, Automobile

AUTOMOBILE laboratories

New automobile laboratory has special ventilating features; Standard oil co. of Indiana. N. R. Olson. il plan diag Heating-Piping 26:88-91 Ap '54

New automotive laboratory opened. il Pet Refiner 32:150 O '53

Test laboratories acquire the new look; based on papers by O. G. Lewis and others. S A E J 62:79 F '54

See also

Ford motor company—Research and engineering center

AUTOMOBILE lamps

Auto lamps are always profitable. il Nat Pet N 45:72-3 S 30 '53

It's easy, and profitable, to sell lamps. Nat Pet N 45:34-5 N 11 '53

See also

Automobiles—Lighting

Testing

Headlight setting. V. J. Jehu. il diag Automobile Eng 44:159-64, 213-15 Ap-My '54

AUTOMOBILE laws and regulations

Brooklyn agents endorse voluntary auto cover plan and guest statute. East Underw 54:23 D 25 '53

Modern blue laws chafe automakers. R. D. Raddant. Iron Age 173:94+ F 18 '54

See also

Insurance, Automobile—Compulsory liability

Motor vehicles—Inspection

Financial responsibility laws

Arkansas court upholds safety responsibility statute. East Underw 55:46 Je 11 '54

State accident law is full of teeth. Bsns W p60+ D 26 '53

See also

Insurance, Automobile—Financial responsibility laws

AUTOMOBILE laws and regulations—*Cont.*

Virginia

Speed laws re-examined in Virginia. H. R. Perkinson, jr. il Pub Works 85:83-5 F '54

AUTOMOBILE lighting. See Automobiles—Lighting

AUTOMOBILE mechanics

Ford opens new training center for garage mechanics. Iron Age 172:65 N 26 '53

AUTOMOBILE oil filters. See Oil filters, Automobile

AUTOMOBILE parking

Alternate night parking works in Evanston. F. M. Andrews. Roads & Sts 96:54-5 D '53

Built-in parking, a must in new buildings under Chicago ordinance. Eng N 151:55-6 S 3 '53

Businesslike cure for rush-hour cramps. G. W. Keith. Pub Util 54:357-66 S 30 '54

Cleveland studies proposed $3-million parking garage. Eng N 151:51 Ag 6 '53

Details of building for parking and commercial use. Pub Works 85:163-4 S '54

Evanston's engineered traffic safety. P. Hirsch. il plan Pub Works 84:74-5 D '53

Garages; mechanized car parking; Pigeon Hole parking system. T. M. Rohan. il Iron Age 172:81 D 10 '53

Garages vs. parking woes. il Arch Forum 99:128-9 D '53

Hammond's special parking plan speeds up street sweeping operations. il Pub Works 84:80 D '53

Hopes for parkers. Bsns W p 116+ S 5 '53

Influence of population, sales, and employment on parking. Pub Roads 27:248-58 D '53

Let's control curb parking space. H. L. Michael. il plan diag Pub Works 85:81-3 Jl '54

Lighting a municipal parking lot; lighting data sheet. il plan Illum Eng 49:409-10 Ag '54

Off-the-street parking, a builder's problem? J. F. McCarthy. Am Bld 75:180 S '53

Oil men joining parking lot fight. Nat Pet N 45:53-4 Je 10 '53

Packing crackdown; Toledo. Bsns W p 115 D 5 '53

Parking of vehicles; effect on business. Roads & Eng Constr 92:116-17+ Jl '54

Parking solution; slow and not at all sure. il Eng N 151:21-3 D 10 '53

Park-O-Mat claims success after 22 months in operation. Eng N 151:47 N 26 '53

Portland bans curb parking, and speeds up bus loading. il Bus Transportation 33:36-7 Ap '54

Provide off-street parking Saint Paul tells builders. Eng N 152:48 Ap 22 '54

Shoulder off-street parking cost? Cleveland merchants happily pay up. Eng N 151:48+ S 3 '53

Tax-free municipal parking program, it works. H. F. Reves. il Pub Works 85:77-8 F '54

Traffic crisis; is subsidized parking the answer? G. W. Keith. Pub Util 53:533-41 Ap 29 '54

Unfair off-street parking law invalid, court rules. J. F. McCarthy. Am Bld 75:206 O '53

United transit company sets up courtesy station parking plan. map Bus Transportation 33:28-9 Ag '54

Wanted; a lot more parking space. il Bsns W p 186-8+ N 14 '53

See also

Department stores—Automobile parking space

Gasoline service stations—Parking service

Pigeon hole parking, inc.

AUTOMOBILE parts

Accessories and components exhibited at Paris show. il Automobile Eng 43:474-6 N '53

Automotive parts industries. J. Geschelin. il Automotive Ind 110:50-4+ F 1; 38-41+ F 15; 64-7+ Ap 1; 50-4+ My 15 '54

Coast shops tackle auto parts orders. T. M. Rohan. il Iron Age 173:75-6 Ap 15 '54

Compressed powder in metal form has relieved many an auto production headache. F. G. Lawrence. il Steel 133:59-60 S 28 '53

Corrosion protection during processing, storage, and shipment; automotive application. C. O. Durbin. il S A E J 62:30-3 Ja '54

Look to the customer; report on panel on production control. R. S. Wetzel. il S A E J 61:37-8 D '53

Plastic dies speed delivery of experimental stampings; Allied products corp. W. C. Miller and W. J. Esdale. il diag Mach 60:172-7 N '53

Rolls form and bend stainless molding; Turnstedt division, Detroit. il Steel 133:94 S 28 '53

Wayne university's industrial marketing conference, 1st, Detroit; abstracts of papers on problems of parts makers and suppliers to the automotive industries. Automotive Ind 110:98+ My 1 '54

Manufacture

Automatic scheduling of parts for power steering gears; Saginaw steering gear division, General motors corp. J. Geschelin. il diag Automotive Ind 110:50-3+ My 1; 111:32-7 Jl 15 '54

Automation of assembly; in-line assembly machine speeds small-parts manufacture; Delco-Remy division, General motors corp. L. H. Conrad and H. J. McKee. il diags Am Mach 97:121-4 D 7 '53

Big plant tooling in a small shop; Federal industries, inc. G. H. De Groat. il diags Am Mach 98:138-41 Je 7 '54

Cold forming has many advantages for making automotive parts. J. Geschelin. il diags Automotive Ind 110:34-7+ Ap 15 '54

Complex grille unitized. il Automotive Ind 110:32-3+ Je 15 '54

Custom-built plating machine brings plant to peak efficiency; Ajax mfg. corp. J. J. Obrzut. il plan Iron Age 174:120-2 S 23 '54

Develop new machine for large aluminum die castings. E. C. Beaudet. il Iron Age 174:118-19 Jl 15 '54

Doehler-Jarvis hopes giant die caster will bring new auto uses. F. G. Lawrence. il Steel 135:81-2 Jl 12 '54

Electric radiant panels; flexible oven handles paint baking of automobile accessories of various sizes; A. S. Campbell co. il Steel 134:105 F 1 '54

Flexible tooling handles wide variety of parts; Buick motor division. J. B. Doll. il Iron Age 172:126-8 O 15 '53

Heat treating; furnace on scaffold solves unusual plant problem; Auto specialties mfg. co. il Iron Age 173:177 F 4 '54

Plating in the automotive industry; its history and development. W. M. Phillips. il Metal Finishing 52:60-5 Jl; 73-7 Ag; 76-9+ S '54

Plating shares spotlight with design. il Steel 133:114+ N 23 '53

Producing automotive accessories by cost-cutting methods; AC spark plug division of General motors corp. L. F. Christensen. il diags Mach 60:178-85 N '53

Producing hardened parts; report of panel on materials and heat-treatment. S A E J 62:76-7 Ap '54

Shell-mold casting of automotive parts; Central foundry division, General motors corp. J. H. Smith. il Mach 60:186-95 N '53

Transfer machine speeds production of auto parts; Windsor plant of Ford motor co. of Canada. il Iron Age 173:171-2 Je 17 '54

Testing

Shotblasting; costs of method used to increase fatigue life can be reduced. Iron Age 172:140-1 O 22 '53

AUTOMOBILE racing

Lincoln wins. il Bsns W p 144+ D 5 '53

New Mercedes dominates at French Grand prix. W. F. Bradley. il Automotive Ind 111:66-7+ Ag 1 '54

Preparedness pays off at Pan-American race. il Automotive Ind 109:32-4+ D 15 '53

Rain fails to slow Le Mans 24-hour race. W. F. Bradley. Automotive Ind 111:190+ Jl 15 '54

Record breaking speeds at Indianapolis 500. R. T. Jackson. il Automotive Ind 110:42-8+ Je 15 '54

AUTOMOBILE racing—*Continued*

Spectator inspects the speedway, Indianapolis. W. J. Smyth and J. J. Robinson. il Spectator 161:16-17+ Ag '53

Sports car racing; both fun and auto-test opportunity. F. G. Lawrence. il Steel 134: 85-6 My 10 '54

Stock car racing; a smash hit but will it last? il Bsns W p66-8+ S 19 '53

Stock cars roll on Florida sand to get more speed, and sales. F. G. Lawrence. Steel 134:65-6 F 22 '54

Views of experts on Indianapolis 500. R. R. Kay. il Automotive Ind 110:32-5+ My 15 '54

Why is U.S. sports car racing making a comeback? F. G. Lawrence. Steel 133:91-2 D 14 '53

Insurance requirements

Auto racers cite value of insurance. J. H. Lamb. il Spectator (Endorsement no) 162: 44-5+ Ag '54

AUTOMOBILE research

Automotive parts industries. J. Geschelin. il Automotive Ind 110:50-4+ F 1; 38-41+ F 15; 64-7+ Ap 1; 50-4+ My 15 '54

CRC in '53. S A E J 61:39-43 N '53

See also

Automobile laboratories

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AUTOMOBILE sales buildings

Boosts sales by giving new look to an old business. K. R. MacDonald. il Am Bsns 24:18-19 Ja '54

Modern setting for classic cars; Mercedes-Benz, Park av. il plan Arch Forum 99: 126-7+ D '53

AUTOMOBILE service clubs

Auto club held engaging in insurance business by Michigan Supreme court; Continental auto club, inc. v. Navarre. Weekly Underw 169:1073 O 31 '53

AUTOMOBILE shops

Motor vehicles committee; report of subcommittee on shop tools and plant structures. R. Whitfield. Am Gas Assn Proc 1953:585-7

AUTOMOBILE tires. See Tires, Automobile

AUTOMOBILE touring

Greece

Greece eases motor travel rules. For Comm W 51:7 Ja 11 '54

AUTOMOBILE trailers

American Plan aims to enter field of trailer financing and insuring. East Underw 54:27 Jl 10 '53

I.E.E. wiring regulations; supplements for cables and caravan installations. Elec R (Lond) 154:283 F 12 '54

Mobile home makers get set for competitive pinch. il Steel 133:90 D 7 '53

Specialist vehicle; a caravan incorporating refrigerated air conditioning and other amenities required in the tropics. Automobile Eng 44:340 Ag '54

They called it gypsy paper; banks rate experience in financing mobile homes. K. Marten. il Bankers Mo 71:36+ F '54

AUTOMOBILE workers of America, United. See United automobile workers of America (International union, United automobile, aircraft, and agricultural implement workers of America)

AUTOMOBILES

Auto show aimed at beauty, not sales; show at New York's museum of modern art. il Bsns W p28-9 S 26 '53

Bargain car stresses basic transport; new Nash Metropolitan. R. D. Raddant. il Iron Age 173:90+ Mr 18 '54

Cadillac features new styling. il Automotive Ind 110:48+ F 1 '54

Century, car of the week. Steel 134:108 Ap 19 '54

Chevrolet engines for passenger cars upped to 115 and 125 hp. il Automotive Ind 109: 38+ D 15 '53

Chrysler V-8 engines have 235 and 195 hp for '54. il diag Automotive Ind 109:48-9 N 1 '53

Completely new Buicks. il diag Automotive Ind 110:60-2+ Ja 1 '54

Continental cars at the Paris show. il Automobile Eng 43:459-62 N '53

Craftsmanship on wheels; the Cunningham automobile. F. G. Lawrence. Steel 133: 99-100 D 7 '53

Evolution of a sports car; the Chevrolet Corvette; illustrations with text. M. Olley. S A E J 61:17-22 D '53

Ford cars and trucks for '54. il Automotive Ind 110:51+ Ja 1 '54

Ford meets plastic sports car challenge with all-steel Thunderbird. il Am Mach 98:141 Mr 1 '54

Ford unveils answer to Corvette. R. D. Raddant. il Iron Age 173:68 F 25 '54

General Motors Firebird has gas turbine engine. il Automotive Ind 110:42-3+ Ja 15 '54

GM motorama cars. il Automotive Ind 110: 56-7 F 1 '54

GM turbine-powered Firebird takes off; experimental car follows aerodynamic design. R. D. Raddant. il Iron Age 173:66+ Ja 14 '54

Interesting sidelights on Nash Metropolitan are disclosed. Automotive Ind 110:18 Ap 15 '54

Latest trends in hot rods. W. G. Brown. il Automotive Ind 111:54-6+ Jl 15 '54

Let your customers share your dreams! car makers' experimental models. il Sales Management 71:28-9 Ag 1 '53

Lincoln, car of the week. Steel 133:72 Jl 13 '53

Lincoln 1954 improvements. il diags Automotive Ind 109:50+ D 1 '53

Mercedes race car has unique brakes. il Automotive Ind 111:68-9 Ag 15 '54

Morris Minor, British car hinges export appeal on economy. il diags Product Eng 24: 162-3 Jl '53

Nash Rambler sedan on 108-inch wheelbase. il Automotive Ind 109:61+ D 1 '53

New cars; what'll you have? with table, 1954 four-door sedans, specifications, prices. R. D. Raddant. Iron Age 173:84+ F 11 '54

1955 models; record changes in bid for a record sales year. F. G. Lawrence. diags Steel 135:43-4 Ag 30 '54

1954 auto parade. il Product Eng 24:204-5 N '53

1954 four-door sedans; what you get for your money; tabulation. Steel 134:82 F 8 '54

Oldsmobiles for 1954 have new bodies and larger engine. il Automotive Ind 110:34-7 Ja 15 '54

Packard has 212 hp engine. il Automotive Ind 110:63+ Ja 1 '54

Pontiac brings out Star Chief series. il Automotive Ind 109:44-5 D 15 '53

Porsche; production paradox. il Steel 135: 83 S 13 '54

Producing the Corvette; Chevrolet is turning out one of the world's lowest volume cars. F. G. Lawrence. Steel 133:61-2 O 5 '53

Rounding up the 1954 automobiles. il Machine Design 26:168-72 Ja; 198-202 F '54

Rumor factories work overtime even if production lines don't. F. G. Lawrence. Steel 134:55-6 Mr 22 '54

Science brightens car color schemes; new Chrysler spotlight auto industry's emphasis on color styling. R. D. Raddant. Iron Age 172:128 N 12 '53

Size, structure, and shape of European automobiles. L. Pomeroy. il diags S A E J 62: 18-21 S '54

Story behind the Studebaker production tie-up. F. G. Lawrence. il Steel 133:77-8 Jl 6 '53

Studebaker introduces new brakes for 1954. il diag Automotive Ind 109:56-7+ D 1 '53

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Automobile engines
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Air conditioning

Air conditioning the automobile. J. R. Holmes. il Refrig Eng 62:39-43+ Jl '54

Air conditioning while-U-wait; Chrysler Airtemp portable air conditioners for southwestern service stations. Iron Age 174: 69 Jl 29 '54

Automatic controls are key to new automotive air-conditioning unit. il diags Product Eng 24:180-1 N '53

AUTOMOBILES—Air conditioning—*Cont.*

Automobile air conditioning. il diag Heat & Ven 51:118+ Ja '54

Automobile air conditioning; progress and problems. P. J. Kent. Heating-Piping 25: 129-31 D '53; Excerpts. il Heat & Ven 51: 99-100 Mr '54; Discussion. Heating-Piping 26:171-2 Mr '54

Colds 98, car of the week. F. G. Lawrence. Steel 135:44 Jl 5 '54

Legal codes affecting car air conditioning need to be modernized. J. Geschelin. Automotive Ind 109:67+ O 1 '53; Same. Refrig Eng 61:1201+ N '53

Nash air cooler combined with heater. il Heat & Ven 51:136+ My '54

Operation of Harrison's air conditioning system. il Automotive Ind 110:72+ F 1 '54

Pontiac cooling system is under the hood. il Refrig Eng 62:60 Mr '54

Axles

Automatic lathes, special fixtures speed turning operations. H. Chase. il diag Iron Age 172:125-7 S 3 '53

Combined operations increase productivity at Eaton's Axle div. il Automotive Ind 111: 56-7+ Ag 1 '54

Earls Court exhibition; review of design trends; rear axles and propeller shafts. il Automobile Eng Extra no 43:505-6 N 25 '53

Microstructure and hardness of induction hardened C1037 axle drive shafts substituted for alloy steel. il Steel 133:140 O 12 '53

Bodies

Air Corvette's innards, methods; Chevrolet discloses production techniques of first plastic sports car. R. D. Raddant. il Iron Age 172:224+ O 8 '53

American bodywork. il Automobile Eng 44: 165-8 Ap '54

American unified on unitized body. R. D. Raddant. il Iron Age 173:98+ My 6 '54

Automatic welding lines for Fisher body components. T. Mac New. il plan Automotive Ind 110:56-9 Ja 1 '54

Body form. J. P. Reid. il diag Automobile Eng 44:27-8 Ja '54

Coachwork design; winning entries for the I.B.C.A.M. competition. il diags Automobile Eng 44:298-304 Jl '54

Continental coachwork. il Automoblie Eng 44:143-6 Ap '54

Corvette plastic body. E. J. Premo. Automotive Ind 110:478+ Mr 15 '54

Corvette plastic body; illustrations with text. E. J. Premo. S A E J 62:64-70 My '54

Corvette plastic body now made by matched metal die process; illustrations with text. Automotive Ind 111:66-7 Ag 15 '54

Earls Court exhibition; review of design trends; coachwork. il Automobile Eng Extra no 43:524-30 N 25 '53

First production techniques for Corvette plastic bodies. J. Geschelin. il Automotive Ind 109:70-2+ N 1 '53

Fisher body story. il Steel 133:57-8 N 23 '53

G.M. schedules production of plastic car bodies. il Materials & Methods 38:7-8 N '53

Hudson mono-built construction; abstract. M. S. Bald. S A E J 62:104 Jl '54

1954 passenger car body data and dimensions; tabulations. diags Automotive Ind 110:138-9 Mr 15 '54

Passenger space requirements and automobile body design. J. Geschelin. Automotive Ind 110:80+ My 15 '54

Plastic automobile bodies facilitate styling developments. il Automotive Ind 110:48-9 My 1 '54

Plastic dies cut tooling costs. il Materials & Methods 39:6 My '54

Production of the Corvette plastic body. E. J. Premo. il Tool Eng 32:258-61 Ap '54

Unitized body design. L. H. Nagler. il S A E J 62:48-9 Ap '54

Use of plastic for draw dies and related automobile body tooling. G. C. Adams. diags S A E J 61:21-5 N '53

Brakes

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Chassis

Armstrong Siddeley Sapphire chassis. il plans diags Automobile Eng 44:3-16 Ja '54

Citroën 2CV; chassis. il diags Automobile Eng 44:197-207 My '54

Cradle for new power; chassis features of the Firebird. R. Schilling. il diag S A E J 62:41-4 Ag '54

Standard eight. il diags Automobile Eng 44:269-79 Jl '54

Cleaning

Diatomite as an abrasive for cleaners and polishes for automobiles. L. E. Weymouth and P. A. Martinson. il map Soap & San Chem 30:139+ F '54

Starting with the finish; Easy glitter wax co. il Chem W 73:44+ Jl 25 '53

Clutches

Earls Court exhibition; review of design trends; clutches. il Automobile Eng Extra no 43:499-500 N 25 '53

Magnetic clutches save engine power. T. MacNew. il diag Automotive Ind 111:64-5+ S 1 '54

Magnetic particle clutch. il diags Automobile Eng 44:181-6 My '54

New thrust bearing. il diag Automobile Eng 43:562 D '53

Non-adjustable direct pressure clutch. il Automotive Ind 110:88 Ja 1 '54

Color

Colorful cars; Chrysler corp. il Automotive Ind 109:52-3 D 15 '53

Science brightens car color schemes; new Chryslers spotlight auto industry's emphasis on color styling. R. D. Raddant. Iron Age 172:128 N 12 '53

Design

Aerodynamic design in plastics, the design of the Firebird body. R. F. McLean. il S A E J 62:40, 45-7 Ag '54

Citroën 2CV. il diags Automobile Eng 44: 91-7, 197-207 Mr, My '54

Earls Court exhibition; review of design trends. il diags Automobile Eng Extra no 43:485-530 N 25 '53

How top executives plan vehicles for the future; Ford motor co. J. Geschelin. il Automotive Ind 111:48-50+ Ag 15; 50-3+ S 1 '54

Progress of design. diag Economist 169:287-9 O 24 '53

Standard eight. il diags Automobile Eng 44: 223-8, 269-79 Je-Jl '54

Use of Oscar in seat design; abstract. E. C. Pickard. S A E J 62:101-2 Je '54

Who is the designer, the stylist or the engineer? D. McRae and K. E. Coppock. il diags S A E J 62:42-6 S '54

Door handles

New machine polishes zinc diecast parts automatically. H. Chase. il Iron Age 172: 136-7 Ag 20 '53

Doors

Pros and cons of door constructions; report of discussion at round table. E. R. Ziegler. diags S A E J 62:66-7 Ja '54

Electric equipment

Automotive batteries. Mech Eng 75:1009 D '53

Designing simplicity, ease of manufacture, and safety into an automotive electrical system. E. A. Leavengood and D. W. Severance. il diag Machine Design 26: 264+ Ag '54

Earls Court exhibition; review of design trends; electrical equipment and car heating. il diags Automobile Eng Extra no 43: 518-23 N 25 '53

It's still 12 volts! H. L. Hartzell. S A E J 62:63 Je '54

Motor show, London; electrical aids to safety on the roads. il Elec R (Lond) 153:1019-22 O 30 '53

AUTOMOBILES—Electric equipment—*Cont.*

Motor show, London; electrical equipment. il Elec J 151:1385-7 O 30 '53

Servicing 12-volt batteries safely. diags Nat Pet N 45:78+ S 2 '53

12-volt batteries; TBA's problem child. Nat Pet N 45:82-4 Jl 1 '53

Twelve-volt versus six-volt electrical system for passenger cars; report of round table. S A E J 62:29-30 F '54

See also

Automobile engines—Ignition devices

Storage batteries

Encyclopedias

Motor service's new automotive encyclopedia. W. K. Toboldt and J. Purvis, eds. $7.95 Goodheart-Wilcox co, 1321 South Michigan av, Chicago 5 '54

Equipment

Automotive electro-hydraulic power systems; abstract. G. W. Lewis. il Automotive Ind 110:42-3 Mr 1 '54

Plan electro-hydraulic system to power auto appliances. L. H. Middleton. Iron Age 173:85 Ap 15 '54

See power system development soon. L. H. Middleton. Iron Age 173:72+ Je 24 '54

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Brakes, Automobile

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Tires, Automobile

Exhibitions

Annual Swiss automobile show, 24th, Geneva. W. F. Bradley. il Automotive Ind 110:38-40+ Ap 15 '54

Cheaper cars at Paris motor show. Economist 169:126 O 10 '53

Chrysler corp.'s annual press show, Detroit. il Automotive Ind 109:34-5 D 1 '53

French automobile show, 40th, Paris. W. F. Bradley. il Automotive Ind 109:42-5+ N 15 '53

Geneva show. il Automobile Eng 44:131-6 Ap '54

Important automotive trends spotlighted at Electric Auto-Lite show. Automotive Ind 110:35 My 1 '54

International motor exhibition, 38th, London. il Automotive Ind 109:62-5+ D 1 '53

International motor show, Turin, Italy. W. F. Bradley. il Automotive Ind 110:62-5+ Je 1 '54

International motor show, Vienna. D. Scott. il Automotive Ind 110:64-6+ My 1 '54

International motor show, 38th, London. il diags Engineer 196:531-3, 562-5, 599-602 O 23-N 6 '53; Engineering 176:528, 534-6, 560, 565-7, 587-9, 592 O 23-N 6 '53

New British vehicles at Glasgow show. D. Scott. il diag Automotive Ind 109:42-3+ D 15 '53

New cars attract huge crowds at Belgian automobile show. W. F. Bradley. il diags Automotive Ind 110:50-3+ F 15 '54

Paris show. il Automobile Eng 43:445-52+ N '53

Paris views world's autos; Paris automobile show. il Iron Age 172:58 O 22 '53

World motor sports show cars. il Automotive Ind 110:42-3 F 15 '54

Fenders

Analyzing fender vibration. il Automotive Ind 111:65+ Ag 1 '54

Buick fender production involves mash welding. A. B. Mooers. il Mach 60:191-3 Je '54

Frames

Earls Court exhibition; review of design trends; frames. il Automobile Eng Extra no 43:514-15 N 25 '53

Gearing

Automotive gears. J. A. Halgren. S A E J 62:90-2 Mr '54

Earls Court exhibition: review of design trends; gearboxes. il diag Automobile Eng Extra no 43:501-5 N 25 '53

Flexible electronic controls improve gear lapping operations; Buick motor div. W. G. Patton. il Iron Age 174:112-13 S 23 '54

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Automobiles—Steering gear

Automobiles—Transmission

Handbooks, manuals, etc.

Audels new automobile guide for mechanics, operators and servicemen. F. D. Graham. 1664p Theo. Audel and co, 49 W. 23d st, New York '54 ($4)

Heating and ventilation

Earls Court exhibition; review of design trends; electrical equipment and car heating. il diags Automobile Eng Extra no 43: 518-23 N 25 '53

Hydraulic equipment

Automotive electro-hydraulic power systems. G. W. Lewis. il diags S A E J 62:47-9; Discussion. 49 Je '54

Hydraulic mechanisms for operating auto-window lifts, convertible tops, seat adjustment, etc.; abstract. C. L. Kalitta. Automotive Ind 109:134 N 1 '53

Insurance

See Insurance, Automobile

Leasing

Annual mileage may determine whether to lease or own autos. E. J. O'Connor. N A C A Bul 35:1472-3 Jl '54

Automobile leasing; the arithmetic of renting rather than buying company cars. H. B. Tippie. J Account 96:727-8 D '53

Capital conversion for higher returns; leasing of machinery, cars, trucks, etc. J. W. Rollins. il Dun's R & Mod Ind 62:60-2+ N '53

Hertz acquisition brightens outlook for Omnibus corp. Barron's 33:17-18 N 2 '53

How many arguments for fleet leasing? J. W. Rollins. Sales Management 72:102+ F 15 '54

Leasing of automotive and mobile equipment. R. O. Babcock. Am Gas Assn Proc 1953: 427-30

Omnibus picks up Hertz car rental business. Bsns W p 168+ S 5 '53

Length of service

Cars in use by makes, states and model year; tabulation. Automotive Ind 110:112-21 Mr 15 '54

Number and per cent of cars in use, by age groups, 1950-1953; tabulations. Automotive Ind 110:111 Mr 15 '54

Lighting

Headlight setting. V. J. Jehu. il diag Automobile Eng 44:159-64 Ap; 213-15 My '54

Push a button to light a driveway; Lite-urway delayed action safety switch. Bsns W p86-7 D 12 '53

Lubrication

Progress through technology. C. A. Chayne. Am Pet Inst Proc 33(2):37-41 '53; Same. Oil & Gas J 52:287+ N 16 '53

Some things on which we can agree. C. M. Heinen. Am Pet Inst Proc 33(2):94-104 '53

See also

Automobile engines—Lubrication

Gasoline service stations—Lubricating service

Manufacture

Automotive industry prepares for a buyer's market. il diags Mach 60:153-217 N '53

Chevrolet irons out Corvette production wrinkles. il Am Mach 97:164-5 O 26 '53

Corvette plastic body now made by matched metal die process; illustrations with text. Automotive Ind 111:66-7 Ag 15 '54

DeSoto tries the hard way; makes machining job look easy. F. G. Lawrence. il Steel 133:51-2 D 21 '53

Dies; autos give push for big year. R. D. Raddant. il Iron Age 173:67 Ja 28 '54

GM in California turns up tricks it can use in Michigan. F. G. Lawrence. Steel 135: 59-60 Jl 26 '54

AUTOMOBILES—Manufacture—*Continued*

How Corvettes roll off the assembly lines in St Louis. F. G. Lawrence. il Steel 135: 65-6 Jl 19 '54

How to cut those metal-working blues; report of panel on production tooling and shop methods. S A E J 62:64-5 Ap '54

It shouldn't have happened; anecdotes of production slip-ups in automotive plants. J. G. Wood. diag S A E J 62:32-3 My '54

Koldflo extrusion permits new advances in design; abstract. D. I. Brown. S A E J 62:98-9 Je '54

Minimizing cost of forgings requires right combination of men, materials, machines; report of panel on forgings. H. Kilborn and R. T. Herdegen, jr. S A E J 62:50-1 Je '54

Press control speeds auto body production. A. P. DiVincenzo and C. E. Robinson. il diags Electronics 26:154-7 D '53

Production-design teamwork at Chevrolet as viewed by production, engineering. E. H. Kelley; E. N. Cole. il S A E J 62:18-24 My '54

Production of the Corvette plastic body. E. J. Premo. il Tool Eng 32:258-61 Ap '54

SAE international production meeting and forum, Toronto, Oct. 29-30. S A E J 61:50-7 D '53

Steel extrusion and its value to the designer. S. O. Evans. il diags S A E J 62:35-9 S '54

Stud welding. Automobile Eng 43:419-20 O '53

Trends in modern forging. R. G. Friedman. il S A E J 62:68-9 S '54

Tricks that make shell molding click; report of panel on foundry operations. il S A E J 62:32-3 Ap '54

Wide application of automation to welding. P. Kennedy. il diag Automotive Ind 110:44-9+ F 15 '54

See also

Automobile assembly plants

Automobile engines—Manufacture

Automobile factories

Materials

Automen stick with adhesives, develop production techniques. F. G. Lawrence. il Steel 134:69-70 My 24 '54

Joint SAE-ASTM committee on automotive rubber meeting, 65th, Detroit, Sept. 15. Rubber Age 74:770 F '54

New automotive uses for silicones. Automotive Ind 109:113-14 N 1 '53

Nickel; must decide now on auto trim. R. D. Raddant. Iron Age 173:53-4 Ja 14 '54

See also

Steel, Automobile

Plastics

Aerodynamic design in plastics; the design of the Firebird body. R. F. McLean. il S A E J 62:40, 45-7 Ag '54

Air Corvette's innards, methods; Chevrolet discloses production techniques of first plastic sports car. R. D. Raddant. il Iron Age 172:224+ O 8 '53

Akulon; nylon-type material. il Automobile Eng 44:173-4 Ap '54

Automotive uses emphasized at 6th National plastics exposition, Cleveland. T. Mac New. Automotive Ind 111:58-9+ Jl 1 '54

Bodies build a market. il Chem W 73:65-6 Jl 11 '53

Chevrolet irons out Corvette production wrinkles. il Am Mach 97:164-5 O 26 '53

Corvette comes off line on time. R. D. Raddant. Iron Age 172:88+ Jl 9 '53

Corvette plastic body. E. J. Premo. Automotive Ind 110:478+ Mr 15 '54

Corvette plastic body; illustrations with text. E. J. Premo. S A E J 62:64-70 My '54

First production techniques for Corvette plastic bodies. J. Geschelin. il Automotive Ind 109:70-2+ N 1 '53

G.M. schedules production of plastic car bodies. il Materials & Methods 38:7-8 N '53

Improved methods accelerate Corvette production. J. Geschelin. il Automotive Ind 111:42-5 Jl 15 '54

Low-pressure laminates. R. Wood. il diags Automobile Eng 43:541-9 D '53

Motor city invasion; plastic-body car. il Chem W 73:38+ O 17 '53

Plastic automobile bodies facilitate styling developments. il Automotive Ind 110:48-9 My 1 '54

Plastic car is here, will it stay? il Chem & Eng N 32:2180-3 My 31 '54

Plastics; Chevrolet solves auto body production riddles. il Iron Age 174:70-1 Jl 15 '54

Plastics in cars, where they're used and why; report on round table. R. E. Van Deventer. S A E J 62:68 Ja '54

Production of the Corvette plastic body. E. J. Premo. il Tool Eng 32:258-61 Ap '54

Ride to plastic markets; Molded fiber glass body co. turning out fiber glass-reinforced plastic parts for Chevrolet's Corvette. il Chem W 74:95-8 Je 19 '54

Want to see through the top; transparent tops in Mercury's Sun Valley and Ford's Skyliner. R. D. Raddant. il Iron Age 173: 94+ My 13 '54

Noise

Road noise level shows steady rise; abstract. D. Apps. S A E J 62:103-4 S '54

Painting and finishing

Automotive enamels; abstract. A. J. LaPointe. S A E J 62:51 Ag '54

Automotive paint processes and equipment; abstract and discussion. R. E. VanDeventer. S A E J 62:106-7 Jl '54

Car finishes; enamel and lacquer; abstract of four papers presented at the National passenger car body and materials meeting of the Society of automotive engineers. Materials & Methods 39:178+ Ap '54

Chrysler's colors highlight Los Angeles plant. F. G. Lawrence. il Steel 135:61-2 Ag 2 '54

Electrostatic spray method primes car bodies; Studebaker corp. H. Chase. il Iron Age 172:102-3 O 1 '53

Faster painting of passenger car bodies; Studebaker corp. J. Gauss. il plan Automotive Ind 110:41+ Ap 15 '54; Abstract. Steel 134: 120 My 17 '54

Improved equipment reduces cost of flock application. il Automotive Ind 110:67+ My 1 '54

Iron oxide pigments for brighter auto finishes; patent. Chem Eng 61:256 My '54

Lacquer as a finish on automobiles; abstract. R. J. Wirshing. S A E J 62:104-5 Jl '54

Trends in new automotive finishes; abstract. R. B. Davis. S A E J 62:41 S '54

Water paint for autos? Reichhold chemicals, inc. Bsns W p28 S 12 '53

See also

Automobiles—Color

Motor trucks—Painting and finishing

Parking

See Automobile parking

Patents

Current patents. diags Published in monthly numbers of Automobile engineer

Performance

Cold-starting and warm-up performance of late-model passenger cars. R. K. Stone and K. C. Bier. diag Am Pet Inst Proc 33(3): 101-11 '53

Effect of gasoline volatility on the performance of passenger cars. C. J. Domke and others. bibliog Am Pet Inst Proc 33(3):112-16 '53; Same. Pet Refiner 32:151-3 Jl '53

Prices

1954 passenger cars, price, weight, bodies; tabulation. Automotive Ind 110:137 Mr 15 '54

Studebaker leads '55 price cutting. R. D. Raddant. Iron Age 174:60 S 30 '54

Propeller shafts

Earls Court exhibition; review of design trends; rear axles and propeller shafts. il Automobile Eng Extra no 43:505-6 N 25 '53

See also

Motor trucks—Propeller shafts

AUTOMOBILES—*Continued*

Repair

Lauds worth of independent appraisers; reduce auto repair costs; abstracts. N. M. Woods. East Underw 55:28 Jl 9 '54; Weekly Underw 171:5+ Jl 3 '54; Nat Underw 58:11+ Ag 12 '54

MG workshop and tuning manual. W. E. Blower. 3d ed 528p $6.50 British book centre, 122 E. 55th st, New York 22 '53

New training program familiarizes adjusters and repairmen with latest equipment; Calvert Fire-Vale technical institute. E. C. Vale. Weekly Underw 170:384 F 6 '54

Rebuilding and repairing in the auto shop; oxy-acetylene blowpipe. L. B. Richmann. il Welding J 33:52-4 Ja '54

See also
Automobile mechanics

Riding qualities

Building stability into the modern automobile. O. D. Dillman and E. J. Collier. il diags S A E J 62:57-62 Ja '54

Driving seats; appraisal of the mechanical basis of comfort. G. E. Cleaver. diags Automobile Eng 44:237-41 Je '54

Ride and vibration instruments; report of round table on instrumentation and evaluation of riding comfort. B. E. O'Connor. S A E J 62:27 Je '54

What happens to a passenger when traveling in a car; abstract. W. E. Lay. S A E J 62:112 Jl '54

Safety measures

See also
Motor vehicles—Inspection

Seats

Driving seats; appraisal of the mechanical basis of comfort. G. E. Cleaver. diags Automobile Eng 44:237-41 Je '54

Passenger-car seating; report of round table on automotive seating. S A E J 62:31 Ap '54

Smooth sailing down improved highways on seats built for comfort; abstracts of SAE annual meeting papers. S A E J 62:62-3 F '54

Use of Oscar in seat design; abstract. E. C. Pickard. S A E J 62:101-2 Je '54

Small size

Minicars. il Automobile Eng 44:147-9 Ap '54

Social aspects

Unfinished business of the automobile age. J. Cope. Comm & Fin Chr 178:1426+ O 15 '53

Specifications

1954 passenger cars, 1954 British and other foreign cars; tabulations. Automotive Ind 110:156-8 Mr 15 '54

1954 passenger cars specifications; tabulations. Automotive Ind 110:140-55 Mr 15 '54

Speed

Chrysler hits 182.5 mph. F. G. Lawrence. il Steel 135:82 Jl 12 '54

Fact, fiction about hot-rodders; how they help auto's evolution. F. G. Lawrence. il Steel 135:87-8 S 13 '54

Radar checks motor vehicle speed. il Pub Works 84:66 N '53

See also
Automobile laws and regulations

Springs and suspension

Earls Court exhibition; review of design trends; front suspension and steering. il diags Automobile Eng Extra no 43:507-10 N 25 '53

Earls Court exhibition; review of design trends; rear suspension. il Automobile Eng Extra no 43:511-13 N 25 '53

Front suspension; some aspects of divided-axle systems. D. R. Hume. plan diags Automobile Eng 44:17-19 Ja '54; Discussion. 44:122 Mr '54

Hydro-pneumatic device replaces rear springs on French passenger car. W. F. Bradley. il Automotive Ind 110:48-9 My 15 '54

Prospects for torsion bar suspension on American passenger cars. J. Geschelin. il Automotive Ind 111:64-5+ S 15 '54

Rear suspension; an experimental independent system. diags Automobile Eng 44:172 Ap '54

Special device assures correct front end alignment for ball joint suspensions; Ford motor co. il Automotive Ind 111:55+ S 15 '54

Starting

Cold-starting and warm-up performance of late-model passenger cars. R. K. Stone and K. C. Bier. diag Am Pet Inst Proc 33(3):101-11 '53

Steering gear

Ainsworth's new power steering unit has constant volume pump. diags Automotive Ind 109:54-5 N 15 '53

Automatic scheduling of parts for power steering gears; Saginaw steering gear division, General motors corp. J. Geschelin. il diag Automotive Ind 110:50-3+ My 1; 111:32-7 Jl 15 '54

Better setups, spray lubrication increase parts output. E. C. Beaudet. il diags Iron Age 172:140-2 Ag 6 '53

Chrysler power steering fits in steering column. il Machine Design 26:31+ S '54

Construction and operation of Ross linkage type power steering. diags Automotive Ind 109:38-9 N 15 '53

Design details of Chrysler's coaxial power steering gear. il diags Automotive Ind 110:54-6 Ap 15 '54

Earls Court exhibition; review of design trends; front suspension and steering. il diags Automobile Eng Extra no 43:507-10 N 25 '53

Greatly increased demand for automatic drives and power steering. J. Geschelin. Automotive Ind 110:80+ F 15 '54

Linkage-type gears vie for slice of power-steering plum; report of panel on linkage-type power steering. W. A. McConnell. S A E J 61:26-8 N '53

Monroe develops simplified linkage type power steering. diags Automotive Ind 110:71+ Ap 1 '54

Oil for power steering tests purified and reused; Saginaw steering gear division of GMC. J. A. Hudson. il Am Mach 98:92-3 Ag 30 '54

Power steering here to stay. R. D. Raddant. Iron Age 173:118+ Je 17 '54

Rim effort with power steering; abstract. T. H. Thomas. Automotive Ind 109:71 D 1 '53

Testing

Chrysler extravaganza reveals more competitive punch coming. F. G. Lawrence. il Steel 134:69-70 Je 28 '54

Design and construction of a high-speed test track for motor vehicles; abstract. R. Freeman and J. A. Neill. Engineering 176:747 D 11 '53

Giving motor cars the third degree. il Comp Air Mag 58:314 N '53

Reason for smooth ride and dependable performance is the proving ground. F. G. Lawrence. il Steel 133:71-2 Jl 13 '53

Road test without roads. Bsns W p84+ S 12 '53

Testing; Chrysler unveils super proving ground. il(p72) Iron Age 173:75 Je 24 '54

Torture tests and speed trials color Chrysler proving grounds dedication. plan Automotive Ind 111:35-6 Jl 1 '54

Theft

Auto theft bureau does fine work; how agents can help to make car stealing more difficult. E. N. Eager. East Underw 54:69 D 11 '53

Thefts; outstanding problems. C. Black. East Underw 54:41 O 16 '53

Transmission

Armstrong Siddeley Sapphire chassis. il plan diags Automobile Eng 44:3-10 Ja '54

Automatic transmission in America. C. A. Chayne. plan diag Inst Mech Eng Proc (Auto div pt 1):9-15, pl 1-8 '52-53

AUTOMOBILES—Transmission—*Cont.*

Borgward automatic transmission has unique hydraulic torque converter. P. M. Heldt. il diags Automotive Ind 110:60-2+ F 1 '54

Buick's twin turbine Dynaflow transmission; abstract. R. J. Gorsky. diags S A E J 62:98 Je '54

Cadillac first Dynaflow-equipped car. F. G. Lawrence. il Steel 133:99-100 S 21 '53

Chrysler PowerFlite transmission. W. R. Rodger and A. J. Syrovy. il diags S A E J 62:56-61; Discussion. 61-2 S '54

Diecasting; industry uses more for working parts; Precision castings co., inc. and Ford motor co. J. J. Obrzut. il Iron Age 173:140-3 F 11 '54

Eaton automatic drive uses magnetic clutches. flow diags diag Automotive Ind 110:50-1+ Mr 1 '54

Engine oil-fed torque converter. T. C. Gleason. il diag Am Pet Inst Proc 33(2):60-4; Discussion. 64-7 '53

Greatly increased demand for automatic drives and power steering. J. Geschelin. Automotive Ind 110:80+ F 15 '54

Hydra-Matic transmissions now in high production at Willow Run plant. J. Geschelin. il Automotive Ind 110:32-6 F 15 '54

Methods that were used for Hydra-Matic production; Detroit transmission division, General motors corp. C. H. Wick. il diags Mach 60:167-74 D '53

New automatic transmission developed for British cars. D. Scott. il diags Automotive Ind 111:68-70 Jl 1 '54

New PowerFlite plant is precision dream; Chrysler's new plant at Indianapolis. F. G. Lawrence. il Steel 133:69-70 N 30 '53

Performance with Chrysler PowerFlite; abstract. W. R. Rodger and A. J. Syrovy. Automotive Ind 110:45 Mr 1 '54

Producing Chrysler's PowerFlite transmission. C. H. Wick. il diags Mach 60:157-65 Mr; 175-81 My '54

Production of Chrysler corp.'s new PowerFlite automatic transmission. J. Geschelin. flow diag il diags Automotive Ind 109:46-50 D 15 '53; 110:64-8+ F 1; 46-7+ My 15 '54

Studebaker Champion automatic transmission. il Automotive Ind 110:61+ Je 1 '54

Torque converter transmission for late Plymouth models. il diags Product Eng 24:156-7 Je '53

Transmissions; Chrysler PowerFlite has fewer parts, high drive torque. Iron Age 172:109 N 19 '53

Transportation

Rail trailer-auto loading. il diag Mech Eng 75:811-13 O '53

Ramp puts more cars on rails. il Iron Age 173:103 Mr 4 '54

Vibration

Analyzing fender vibration. il Automotive Ind 111:65+ Ag 1 '54

Weight

1954 passenger cars, price, weight, bodies; tabulation. Automotive Ind 110:137 Mr 15 '54

Wheels

Wheel covers are taking over on auto wheels today. F. G. Lawrence. il Steel 133:57-8 Jl 20 '53

Windshields

Claims scarce in rash of windshield pitting. Nat Underw 58:5 Ap 22 '54

Night-seeing qualities of heat-absorbing glass; report of round table. W. F. Sherman. S A E J 61:44-5 D '53

Precision shaping of panoramic windshield glass. il Automotive Ind 111:69 S 15 '54

Windshield pitting claims not heavy. Nat Underw 58:14 My 13 '54

Windshield pitting old stuff to glass researchers. Cer Ind 62:79 My '54

AUTOMOBILES, Government

Replacement; GSA could save millions in auto trade-ins. Iron Age 173:85 Jl 1 '54

AUTOMOBILES, Military

Aluminum and magnesium reduce weight of aero jeep. il Automotive Ind 110:32-3 Ap 15 '54

AUTOMOBILES, Salesmen's

Fixed asset planning, and a fleet economy study. J. W. Mack. N A C A Bul 35:1606-12 Ag '54

How many arguments for fleet leasing? J. W. Rollins. Sales Management 72:102+ F 15 '54

Costs

How to pay fairly for auto costs. R. E. Runzheimer. map Sales Management 72:82-3 Je 1 '54

AUTOMOBILES, Toy

They sell dream worlds to kids; Mattel, inc. N. Wood and E. Wood. il Sales Management 71:30-2 N 10 '53

AUTOMOBILES, Used

See also

Automobile industry and trade—Used cars

AUTOMOBILES in selling

Canada H.&A. inaugurates mobile sales unit as first of proposed fleet. il East Underw 55:28 Jl 30 '54

See also

Automobiles, Salesmen's

AUTOMOTIVE chemicals

Automobile polishes. W. W. Lewers. il diag Soap & San Chem 29:171+ My '53

Automotive chemical specialties. S. W. Coryell. il Soap & Chem Spec 30:133-5+ Ag; 156-7+ S '54

Shelf life standards for automotive chemical specialties products. W. A. Hall. Soap & San Chem 29:139-40 Ap '53

AUTOMOTIVE Diesel engines. See Diesel engines, Automotive

AUTOMOTIVE fuel

LP gas; more products burn new fuel; transportation use boosted. K. W. Bennett. Iron Age 172:117 N 12 '53

SAE National fuels and lubricants meeting, Chicago, Nov. 5-6. S A E J 61:68-71 D '53

See also

Gas turbines, Aircraft—Fuel

Gasoline

Gasoline—Antiknock and antiknock mixtures

Testing

Studies on the storage stability of distillate fuels; results of storage tests; abstract. F. G. Schwartz and others. S A E J 62:107-9 F '54

AUTOMOTIVE industries

Automotive parts industries. J. Geschelin. il Automotive Ind 110:50-4+ F 1; 38-41+ F 15; 64-7+ Ap 1; 50-4+ My 15 '54

Defense contract awards; list of prime contracts for various types of automotive military equipment, including tanks, motorized gun carriages, trucks, warplanes, automotive components and spare parts, automotive maintenance equipment, etc. (cont). Automotive Ind 109:84+ N 15; 134+ D 15 '53; 110:118+ Ja 15; 434+ Mr 15; 102+ Ap 15; 120+ My 15; 98+ Je 15; 111:128+ Ag 15; 154+ S 15 '54

Increasing foreign barriers to U.S. motor vehicle exports. Automotive Ind 110:68-70+ Ap 1 '54

New defense facilities; list of certificates of necessity authorizing new or expanded facilities for the manufacture of automotive and aviation war goods (cont). Automotive Ind 109:212 N 15; 129-30 D 15 '53; 110:114 Ja 15; 404+ Mr 15; 94+ Ap 15; 106+ My 15; 108 Je 15; 111:124 Ag 15; 168 S 15 '54

Soviet industrial planning for mobilization; automotive industry is key to Russian mobilization plans. il map plans diags Automotive Ind 111:56-63+ S 15 54

See also

Airplane industry and trade

Automobile accessories industry

Automobile assembly plants

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Motor bus industry and trade

Motor truck industry

Tractor industry and trade

AUTOMOTIVE industries—*Continued*

Statistics

Automotive industries 1954 statistical issue. Automotive Ind 110:71-174 Mr 15 '54

U.S. exports of automotive products, 1950-1953; tabulations. Automotive Ind 110:135 Mr 15 '54

AUTOPILOT. See Airplanes—Control

AUTORADIOGRAPHY. See Radiography

AUTOSYN

Convair develops Autosyn indicators for structural testing. W. E. Wise. il Aero Digest 67:50-2+ D '53

AUTOXIDATION. See Oxidation—Autoxidation

AUXINS

Identification of the auxin present in apple endosperm. F. G. Teubner. Science 118:418 O 9 '53

Interaction of auxin and temperatures in floral initiation. A. C. Leopold and F. S. Guernsey. bibliog Science 118:215-17 Ag 21 '53

Stimulation of rubidium absorption by auxins. N. Higinbotham and others. bibliog Science 118:243-5 Ag 28 '53

Synergism and antagonism of auxin by antibiotics. M. R. S. Iyengar and R. L. Starkey. bibliog Science 118:357-8 S 25 '53

AVERY, Sewell Lee, 1873-

What has happened to Ward's former executives? W. Norris. por Am Bsns 23:10-13 D '53

AVGAS. See Airplane engines—Fuel

AVIATION

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Aeronautics
Aeronautics, Commercial
Aeronautics, Military
Air navigation
Airlines
Airplanes
Airports
Airways
Aviators
Flying boats
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Insurance, Aviation
Meteorology, Aeronautic
Radar aids to aviation
Radio aids to aviation
Wind tunnels

Accidents

AG-1 crashes, pilot walks away. il Aviation W 59:15-16 Ag 24 '53

Bell evaluates copter safety. A. McSurely. Aviation W 58:19 Je 8 '53

Cessna, DC-3 collide in approach. diag Aviation W 59:43-4+ O 12 '53

CAA to investigate lightplane accidents. Aviation W 59:17-18 D 14 '53

Jet crash angers Van Nuys residents. Aviation W 59:22+ S 28 '53

Liability for aircraft-equipment failure. G. I. Whitehead, jr. Mech Eng 75:503 Je '53

Liability insurers held for claims in Boeing plane crash; Washington Supreme court. Nat Underw 58:12+ My 20 '54

Naval salvage of the Comet. Engineering 177:392 Mr 26 '54

Nonsked crashes keep CAB probers busy. L. Moore. map Aviation W 59:51-2+ Ag 3 '53

Pilots are blamed in DC-3-Cessna crash. Aviation W 58:20 Je 8 '53

Rescue beacon pinpoints crash victims. il Aviation W 59:21-2 Jl 6 '53

Safety in the air. V. Brown. il Engineer 197:394-5 Mr 12 '54

Stalls lead non-airline crash toll. Aviation W 59:24 N 16 '53

Tail trim fails, XP5Y crashes. il Aviation W 59:17 Jl 27 '53

See also

Airlines—Accidents
Survival (after airplane accidents, etc.)

Altitude flying

83,235 ft. up; marine pilots Skyrocket to new altitude mark. il Aviation W 59:17-18 S 7 '53

Medical aspects

Airman survival is Aero Med's big job. il Aviation W 59:392-4+ Ag 17 '53

Climatic research laboratory, Farnborough; abstract. L. C. C. Rayner and A. H. Coombs. Engineering 177:117 Ja 22 '54

Physiological aspects

Danger man faces in flights above 50,000 feet. C. I. Barron. Aero Digest 67:68 D '53

Taking man to higher altitude; abstract. A. M. Mayo. S A E J 61:110 D '53

Psychological aspects

What to do about anxiety; airlines' experiment. Bsns W p 142+ Ag 29 '53

Safety measures

Air safety records set, 1953, according to C.A.A. Weekly Underw 170:45 Ja 2 '54

Aircraft protection from thunderstorm discharges to antennas. J. M. Bryant and others. il map diags Elec Eng 72:880-4 O '53

Automatic navigation is nearer. il Aviation W 59:356+ Ag 17 '53

Connecticut program for safe aerial application of pesticides. J. Lieben. A M A Archives Ind Hygiene & Occup Med 8:533-4 D '53

Crash barriers save AF jets. il Aviation W 59:21 Jl 13 '53

Nonsked tries rear-facing seats. W. J. Coughlin. Aviation W 58:84+ Je 8 '53

Operators back C-46 safety plan. Aviation W 59:85+ Jl 13 '53

Safety in the air. V. Brown. il Engineer 197:394-5 Mr 12 '54; Abstract. Engineering 177:334 Mr 12 '54

Stratocruiser ditching procedure under fire. Aviation W 59:16 Jl 20 '53

See also

Airlines—Safety measures
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Airplanes—Ice protection
Airplanes—Lighting
United States—Air force—Safety measures

Transatlantic flights

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Airlines—Transoceanic lines

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AVIATION insurance. See Insurance, Aviation

AVIATION landing stations

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Airports

AVIATORS

Registered aircraft and pilot certifications, 1927-1952; tabulations. Automotive Ind 110:241 Mr 15 '54

See also

Air line pilots association, International
Aviation—Physiological aspects

Clothing

Airman survival is Aero Med's big job. il Aviation W 59:392-4+ Ag 17 '53

Climatic research laboratory, Farnborough; abstract. L. C. C. Rayner and A. H. Coombs. Engineering 177:117 Ja 22 '54

See also

Helmets, Aviators'

Training

Animated panels explain Convair 340. il Aviation W 59:85-6 N 16 '53

Flight safety; advanced training for pilots of business planes. Bsns W p88 O 24 '53

How Air France Comet training works. D. A. Anderton. il Aviation W 59:28-9+ N 16 '53

Refresher pilot training pays off in safety. F. Shea, jr. il Aviation W 59:21+ N 30 '53

AVIATORS, Military

Trained pilot shortage to hit AF. N. F. Twining. Aviation W 59:15 Jl 13 '53

AVIATORS, Military—*Continued*

Training

Aircraft flight simulator. il Elec R (Lond) 154:239 F 5 '54
AF gets assembly-line F-86D trainer. il Aviation W 59:69 O 19 '53
Edwards' exacting school; where USAF trains test pilots. il Aviation W 59:145-6+ Ag 17 '53

AVIATORS' helmets. See Helmets, Aviators'

AVILDSEN tools and machines, inc.
Security I like best. J. H. Young. Comm & Fin Chr 178:1522+ O 22 '53

AVIONICS. See Electronics in aeronautics

AVOGADRO number
Absolute value of Avogadro's number and the soundness of crystals. M. E. Straumanis. bibliog Phys R 92:1155-7; 95:566 D 1 '53, Jl 15 '54
Determining Avogadro's number. R. H. Ellis and R. B. Rauch. diag J Chem Educ 30: 460-1 S '53
Variety of our sources of information on Avogadro's number and other constants. J. W. M. DuMond and E. R. Cohen. Phys R 94:1790 Je 15 '54

AWARDS. See Rewards, prizes, etc.

AXICON (term)
Axicon; a new type of optical element. J. H. McLeod. il diags Opt Soc Am J 44:592-7 Ag '54

AXLES
See also
Automobiles—Axles
Motor buses—Axles
Motor trucks—Axles

Manufacture

Automatic lathes, special fixtures speed turning operations. H. Chase. il diag Iron Age 172:125-7 S 3 '53
Combined operations increase productivity at Eaton's Axle div. il Automotive Ind 111: 56-7+ Ag 1 '54
New hammer forge at Steel, Peech, & Tozer. Metallurgia 48:240 N '53
Turnabout tooling cuts time on banjo; illustrations with text. diags Am Mach 98:130-1 My 10 '54

Testing

Rear axle test plant; British Timken, ltd. il diags Engineer 196:440 O 2 '53

AXONOMETRIC projection. See Projection, Axonometric

AYER, N. W. and son, inc.
Liaison man at the top. Bsns W p92-4+ O 17 '53

AYLIN, Robert N.
Story of the Aylin advertising agency. pors Adv Agency 47:52-4+ Ja '54

AZAGUANINE
Metabolism of 8-azaguanine; abstract. H. G. Mandel. Chem & Eng N 32:228-9 Ja 18 '54

AZAGUANINE, Analogs of
8-Azaguanine analogs. C. T. Bahner, D. E. Bilancio and E. M. Brown. Am Chem Soc J 76:1370 Mr 5 '54

AZASERINE. See Antibiotic substances

AZELAIC acid
Azelaic acid; Emery's Emerox 1110. Soap & San Chem 30:83 Ap '54

Manufacture

Two of a kind, but different. Ind & Eng Chem 45:sup 13A Jl '53

AZEOTROPES
Separating alcohol-ketone azeotropes; patent. Chem Eng 61:262+ Ap '54

AZIDES
Apparatus for the measurement of ionic conductance of solid salts. P. W. M. Jacobs. bibliog diags J Sci Instr 30:204-7 Je '53
Catalytic activity of cysteine and related compounds in the iodine-azide reaction. D. W. Whitman and R. M. Whitney. bibliog Anal Chem 25:1523-7 O '53
Curtius rearrangement of α-bromodineopentylacetyl azide. H. D. Zook, M. Ream and E. W. Delchamps. Am Chem Soc J 75:5590-1 N 20 '53
Reaction of azide ion with N-methyl-N-nitroso N nitroguanidine and N nitro-S-methylisothiourea. R. A. Henry and R. H. Boschan. bibliog Am Chem Soc J 76:1949-50 Ap 5 '54
Synthesis of heterocyclic compounds from aryl azides; some six-membered rings and some azidobiaryls. P. A. S. Smith and others. Am Chem Soc J 75:6335-7 D 20 '53
Synthesis of peptides of L-glutamine by the carbobenzoxy azide method. E. Sondheimer and R. W. Holley. bibliog Am Chem Soc J 76:2816-18 My 20 '54
See also
Alkyl azides

AZLACTONES
Preparation of certain azlactones. E. Baltazzi and R. Robinson. Chem & Ind p 191 F 13 '54
Reduction of certain 2-phenyl-4-aryl ideneoxazolones by means of lithium aluminium hydride. E. Baltazzi and R. Robinson. Chem & Ind p541 My 30 '53

AZOBENZENE
Polyazobenzenes; synthesis and ultraviolet absorption spectra of polyazobenzenes containing nitro, amino and hydroxyl groups. K. Ueno and S. Akiyoshi. bibliog Am Chem Soc J 76:3667-70 Jl 20 '54
Reaction of phenyl-lithium with azobenzene. P. F. Holt and B. P. Hughes. Chem Soc J p764 F '54

AZO compounds
Aromatic azo-compounds; the absorption spectra of *N*-substituted 4-aminoazobenzenes and their mono-acid salts. G. M. Badger, R. G. Buttery and G. E. Lewis. Chem Soc J p 1888-90 Je '54
Aromatic azo-compounds; the action of light on azoxy-compounds. G. M. Badger and R. G. Buttery. Chem Soc J p2243-5 Jl '54
Azo-bis nitriles; decomposition of azo compounds; a special case of carbon-carbon hyperconjugation in a free radical reaction. C. G. Overberger and A. Lebovits. bibliog Am Chem Soc J 76:2722-5 My 20 '54
Azodyeing cellulose acetate; patent. Am Dyestuff Rep 43:213 Mr 29 '54
Azoic and other fast dyeings on knitted cotton fabric. E. R. Wiltshire. Soc Dyers & Col J 70:41-5; Discussion. 45-6 F '54
Control of azoic dyeing processes; abstract. E. R. Wiltshire. Am Dyestuff Rep 42:784 N 23 '53
Determination of fluoride ion using a monohydroxy azo dye, thorium lake. J. L. Lambert. Anal Chem 26:558-60 Mr '54
Developments in the application of azoic dyes in printing. B. Jomain. Soc Dyers & Col J 69:661-5; Discussion. 665-6 D '53
Effect of fluorine substitution on color and fastness of monoazo dyes. J. B. Dickey and others. bibliog(27 ref) Ind & Eng Chem 45:1730-4 Ag '53
$\mathrm{N}\overset{\cdots}{\underline{=}}\mathrm{N}$, $\mathrm{N}\overset{\cdots}{\underset{\cdots}{-}}\mathrm{N}$ and $\mathrm{N}\overset{\cdots}{\_\_}\mathrm{N}$ bond-stretching frequencies. W. J. O. Thomas. bibliog Chem & Ind p567-8 Je 6 '53
Reactions of antiserum homologous to the *p*-azomaleanilate and *p*-azofumaranilate ion groups. M. Siegel and D. Pressman. bibliog Am Chem Soc J 76:2863-6 Je 5 '54
Resists under azoic dyes; introduction of Variamine blue. J. Frei. Soc Dyers & Col J 69:667-9; Discussion. 670 D '53
Tetrazolium compounds; azo-derivatives. D. D. Libman, A. W. Nineham and R. Slack. Chem Soc J p 1565-8 My '54
Zacharie Roussin; contribution to the development of the field of azo dyes and to the recognition of the value of naphthalene. R. Brightman. bibliog(43 ref) Soc Dyers & Col J 69:115-19 Ap '53
See also
Diazo compounds
Diazotization

AZOMETHANE. See Methylenimine

AZOMETHINE. See Methylenimine

AZOTOBACTER
Immunopolysaccharides; preliminary studies of a polysaccharide from azotobacter chroococcum, containing a uronic acid. G. J. Lawson and M. Stacey. Chem Soc J p 1925-31 Je '54
Observations on the formation and behavior of conjugation cells and large bodies in azotobacter agile. N. C. Dondero and M. R. Zelle. il Science 118:34-6 Jl 10 '53

AZOXYBENZENE
Position isomerism in the azoxybenzenes. L. C. Behr. bibliog Am Chem Soc J 76:3672-5 Jl 20 '54

AZOXY compounds
Aromatic azo-compounds; the action of light on azoxy-compounds. G. M. Badger and R. G. Buttery. Chem Soc J p2243-5 Jl '54

AZULENE
Azulene; electrophilic substitution. A. G. Anderson, jr., J. A. Nelson and J. J. Tazuma. bibliog diags Am Chem Soc J 75:4980-9 O 20 '53
Azulene; synthesis of methyl 1-azuloate. A. G. Anderson, jr. and J. J. Tazuma. bibliog Am Chem Soc J 75:4979-80 O 20 '53
Azulenes; a synthesis of azulene. D. Lloyd and F. Rowe. Chem Soc J p3718-19 N '53
1 : 8-Cyclohepteno-azulene. S. Dev. bibliog Chem & Ind p 1021 Ag 14 '54
1,3-Diazazulene. T. Nozoe, T. Mukai and I. Murata. Am Chem Soc J 76:3352-3 Je 20 '54
Fine structure of azulene. W. L. Galloway and others. Chem & Ind p724 Je 19 '54
Fine structure of azulene. W. H. Stafford and D. H. Reid. bibliog Chem & Ind p277-8 Mr 6 '54
Novel rearrangement in the synthesis of azulenes. W. Herz. Am Chem Soc J 76:3349-50 Je 20 '54
Two-step preparation of azulene from naphthalene or tetralin. W. Baker, W. K. Warburton and L. J. Breddy. Chem Soc J p4149-54 D '53

AZULENE, Analogs of
Dehydrogenation of 3 : 4-*cyclo*heptanopyrazol-5-one. D. Hunter and others. Chem & Ind p 1068 Ag 28 '54

B

BOD test. See Sewage—Testing

BABBITTING
Babbitting; follow these rules for longer bearing life. il Iron Age 173:145-6+ Ap 1 '54
How to babbitt a large bearing; Consolidated Edison co. H. E. Linsley. il Am Mach 98:98-9 Ag 30 '54
In-place babbitting aids spotfacing large casting. J. H. Rollin. diags Am Mach 98:164 Mr 15 '54
Prevention of babbitt blisters in thrust-bearing pads. R. A. Baudry and others. bibliog il diag A S M E Trans 76:255-60 F '54

BABY foods. See Infants' food

BABY market. See Infants' supplies

BABYLONIA
Perfumery in ancient Babylonia. M. Levey. bibliog J Chem Educ 31:373-5 Jl '54

BACILLUS coli. See Escherichia coli

BACILLUS endorhythmos
Bacteriological studies of sludge digestion; optimum pH for sludge digestion with bacillus endorhythmos. C. E. Keefer and others. Sewage & Ind Wastes 26:635-9 My '54

BACILLUS subtilis
Combined action of carboxypeptidase and B. subtilis enzyme on ovalbumin. D. Steinberg. bibliog Am Chem Soc J 75:4875-6 O 5 '53

BACITRACIN
Bacitracin; pictured flowsheet. Chem Eng 60:282-5 Je '53
Structural studies with bacitracin A. L. C. Craig, W. Hausmann and J. R. Weisiger. bibliog Am Chem Soc J 76:2839-41 My 20 '54

BACK
Keeping the patient with low back pain employable. W. A. L. Thompson. il Ind Med 22:318-21 Jl '53
Study lower back injuries; cases are increasing. H. H. Kessler. East Underw 55:35 Ja 22 '54
Value of the X-ray film of the lumbar spine in pre-employment examinations. M. A. Connell. bibliog il Can Min J 75:79-83 S '54

BACKER, Hilmar Johannes, 1882-
Sketch. por(front) H. S. van Klooster. J Chem Educ 31:156-7 Mr '54

BACKWARD regions
Aiding the community; new philosophy for foreign operations. C. R. Wharton, jr. Harvard Bsns R 32:64-72 Mr '54
Background for Point four; samples of profitable British investments in the underdeveloped countries. J. F. Rippy. J Bsns 26:110-24 Ap '53
Economic citizenship on the land. K. H. Parsons. bibliog Land Econ 30:21-31 F '54
Economy of development. Economist 168:488-9 Ag 22 '53
Migratory movements in underdeveloped countries in course of industrialisation. P. Wigny. Int Labour R 68:1-13 Jl '53
Private overseas investment in underdeveloped countries. B. R. Rau. Comm & Fin Chr 178:1337 O 8 '53

BACTERIA
Ammonia-resistant bacteria associated with latex deterioration. C. E. Rhines and J. McGavack. Rubber Age 75:852-4 S '54
Bacteria call the tune in new wildcat technique. D. H. Stormont. map Oil & Gas J 52:54 Ja 18 '54
Evolution observed; study of bacteria through as many as 7,000 generations. F. J. Ryan. il diags Sci Am 189:78-80+ O '53
Identification of glycogen in whole bacterial cells by infrared spectrophotometry. S. Levine and others. Science 118:141-2 Jl 31 '53
Microchemical methods for the characterization of bacteria. S. T. Cowan. bibliog Chem & Ind p883-6 Ag 22 '53
New bugs chew warm waste; Clear Creek, Colorado new treatment plant. il diag Chem Eng 60:136+ D '53
New use for old friend; locating oil deposits by use of microorganisms. R. J. Strawinski. Chem & Eng N 32:1020 Mr 15 '54
Requirement of riboflavin phosphate for bacterial luminescence. W. D. McElroy and others. bibliog Science 118:385-6 O 2 '53
Response of irradiated cancer patients to vibrio metschnikovii. E. S. Wynne and others. bibliog Science 118:442-3 O 16 '53
Sex in bacteria; genetic studies, 1945-1952. J. Lederberg and E. L. Tatum. bibliog il diag Science 118:169-75 Ag 14 '53
Structure of bacterial polyglutamic acid. S. G. Waley. bibliog Chem & Ind p 1148 S 11 '54

See also
Acetobacter
Aerobacter
Air—Bacteriology
Bacillus endorhythmos
Bacteriology
Brucella
Escherichia coli
Fermentation
Lactic acid bacteria
Micrococcus
Soil bacteria
Sulfur bacteria
Viruses
Water—Bacteriology

BACTERIA, Pathogenic
Revival of formaldehyde-treated bacteria. T. Nash and A. Hirch. bibliog J Ap Chem 4:458-63 Ag '54

See also
Escherichia coli
Tubercle bacilli

BACTERICIDES. See Disinfection and disinfectants

BACTERIOLOGICAL apparatus
Equipment for cultivation of microorganisms. C.-G. Hedén and B. Malmgren. il diags Ind & Eng Chem 46:1747-51 S '54

BACTERIOLOGICAL literature
Punch card for abstracts of bacteriological papers. R. W. Reed and K. F. Gregory. Science 118:360-1 S 25 '53

BACTERIOLOGICAL warfare. See Biological warfare

BACTERIOLOGISTS, Society of American. See Society of American bacteriologists

BACTERIOLOGY

See also
Air—Bacteriology
Antigens and antibodies
Bacteria
Disinfection and disinfectants
Fermentation
Filters and filtration (bacteriology)
Food—Bacteriology
Ice—Bacteriology
Milk—Bacteriology
Sewage—Bacteriology
Viruses
Water—Bacteriology

BACTERIOLOGY—*Continued*

Laboratory methods

Aeration as a limiting factor in bacterial growth; abstract. D. Herbert. Chem & Ind p927-8 Jl 24 '54

Infrared spectroscopy in bacteriological research. H. M. Randall and D. W. Smith. bibliog flow diag Opt Soc Am J 43:1086-92 N '53

Laboratory and pilot plant equipment for the continuous culture of bacteria with examples of its use; abstract and discussion. R. Elsworth and L. R. P. Meakin. Chem & Ind p926-7 Jl 24 '54

Single tube method for anaerobic incubation of bacterial cultures. W. R. Lockhart. il Science 118:144 Jl 31 '53

See also

Filters and filtration (bacteriology)

BACTERIOPHAGE

Bacteriophages of the lactic streptococci; abstract and discussion. L. J. Meanwell. Chem & Ind p566 Je 6 '53

Use of bacteriophage in the study of viruses. L. Dickinson. Chem & Ind p988-90 S 19 '53

BACTERIOSTASIS

Preparation and bacteriostatic properties of substituted trisphenols. D. J. Beaver, R. S. Shumard and P. J. Stoffel. bibliog Am Chem Soc J 75:5579-81 N 20 '53

BAER, Erich, 1901-

Canadian scientist wins Glycerine products' association award. por Can Chem Process 38:82 F '54; Chem & Eng N 32:545, cover F 8 '54

BAEYER, Adolf von, 1835-1917

Adolf von Baeyer. R. E. Oesper. J Chem Educ 31:91 F '54

BAG filling

Down with bagging costs. A. J. Burke. Chem Eng 61:234-6 Je '54

BAG filling machines

Individual servings at 200-plus a minute; Modern coffee co. il Food Eng 26:93+ Jl '54

New kind of tea bagger. il Mod Packaging 28:102-5 S '54

BAGASSE

Bagasse as a fuel for steam generation; abstract. F. D. Wilson. Power 98:164 Je '54

Bagasse burning in the Mexican sugar industry; abstract. O. de Lorenzi. il diag Power 98:162 Je '54

Indian paper uses newsprint made from sugarcane waste. For Comm W 50:16 Ag 24 '53

New newsprint process defies old snares; newsprint-from-bagasse plant. il diag Chem Eng 60:136+ Jl '53

New type bagasse mill in Brazil. Paper Tr J 138:9 Jl 23 '54; Pulp & Pa of Can 55:224+ S '54

Sugar cane waste makes good reading. il Bsns W p46+ Ag 1 '53

Tropical integration; Rayon corp. bagasse-to-fabric plant. il Chem W 72:22+ My 9 '53

BAGGAGE

See also

Motor bus lines—Baggage

BAGLEY and Sewall company, inc.

Black-Clawson buys Bagley & Sewall. Paper Tr J 138:11 Ag 27 '54

BAGS

How to slash your bagging costs. A. Burke. Food Eng 26:97-8 Ag '54

BAGS, Paper. See Paper bags

BAGS, Plastic

Compartmented bags of polyethylene. il Mod Packaging 27:114-15 Je '54

Crushproof cookies; multicell partition in film bags. il Mod Packaging 27:108-9+ Ag '54

Flexible bag sizes. Mod Packaging 28:210+ S '54

New techniques for silver; now polyethylene bags. il Mod Packaging 27:194-6 Mr '54

No-zip zipper; new pouch with interlocking vinyl ridges. il Mod Packaging 27:91 Ag '54

Potato goes modern; packaged in polyethylene bags. il Mod Packaging 28:142-6+ S '54

BAHREIN ISLAND

See also

Petroleum industry and trade—Bahrein Island

BAIKIAIN

Improved extraction of baikiain. F. E. King and T. J. King. bibliog Chem & Ind p489 My 16 '53

BAIL bonds. See Insurance, Surety and fidelity—Bail bonds

BAILEES' customers insurance. See Insurance, Bailees' customers

BAILEY, Edwin M. d 1953

Sketch. J. P. Young. por(pl) Inst Pet J 39:498-9 Ag '53

BAILEY bridges. See Bridges, Prefabricated

BAIRD rubber and trading company

Baird Rubber marks 50 years' service to rubber industry. Rubber Age 74:419 D '53

BAIT advertising. See Advertising ethics

BAKELITE

Microballoons stop evaporation; Bakelite phenolic resin balloons reduce evaporation losses in storage tanks. il Chem & Eng N 31:5122 D 7 '53

BAKELITE company

Bakelite impresses the press with guns, balloons and planes. il Sales Management 71:10-12 pt 2 O 1 '53

BAKER, Walter Ransom Gail, 1892-

Portrait. Inst Radio Eng Proc 42:4 Ja '54

BAKER-RAULANG company

Industrial truck makers get merger fever. Bsns W p 110-12 S 26 '53

BAKERS and bakeries

Canned-handy baked goods; Canned bread specialty co. il Food Eng 26:123+ Jl '54

Cooking sessions for men; Maier's bakery. il Sales Management 70:63 pt 2 Ap 1 '53

More color for bread; Arnold bakers, inc. il Mod Packaging 27:162-4 Mr '54

Old formula + high price = thriving business; Pepperidge farm bakeries. R. Josephs. il Am Bsns 24:18-19+ S '54

Production knots unraveled; Jones' pies, inc. F. Braun. il Food Eng 26:41 Ja '54

Quarter-mile-long production line for biscuits; Sawyer biscuit co. plant; United biscuit co. of America. il plans diags Arch Forum 100:116-21 Ap '54

Sanitation is the way we live. L. A. King, jr. Nat Safety N 69:78+ Ja '54

See also

National biscuit company

Employees

How Bowie cut salesmen's turnover from 39.2 per cent in 1946 to 7.77 per cent now. R. Ellsworth. il Sales Management 70:24-5, 106 Je 1 '53

Suggestion system pays multiple dividends; National biscuit co. I. C. Miller. flow chart il Food Eng 26:47-51+ Mr '54

That team spirit, how do you build it? American bakeries co. Sales Management 72:133 Ap 15 '54

Union wage scales in the baking industry, 1952. J. F. Laciskey. Mo Labor R 76:29-32 Ja '53

Equipment

Case of the disappearing bread boxes. R. Bloomberg. il Food Eng 26:87+ My '54

Liquid sugar cools dough; Fischer baking co. C. Walker and F. Schoen, jr. il Food Eng 26:63+ Ap '54

New edible dessert cups baked flat, die-formed; Sugar-crisp cone co. il Food Eng 26:64 Ag '54

Omar bakery gains by massing ingredients. L. E. Slater. flow sheet(p 118-21) il Food Eng 25:60-3 D '53

Pace-setting two-in-one plant; Mrs Baird's bakeries, inc. J. V. Ziemba. il Food Eng 25:72-5 N '53

Stone-hearth baking; another traditional process goes automatic gradually; H. S. Levy & son. il diag Factory Management 111:124-5 N '53

Finance

Bakers; price boosts are firming up some profit margins. N. Willatt. Barron's 33:9+ S 21 '53

BAKERS and bakeries—*Continued*

Laboratories

British baking industries research association. J. B. M. Coppock. il Chem & Ind p 168-71 F 13 '54

BAKERS yeast. See Yeasts

BAKING

Aeration studies on propagation of baker's yeast. W. D. Maxon and M. J. Johnson. bibliog diag Ind & Eng Chem 45:2554-60 N '53

Science and the baker; abstract and discussion. J. B. M. Coppock. Chem & Ind p 1016-17 Ag 14 '54

See also

Bakers and bakeries
Bread
Cake
Yeasts

BALANCE of payments

Agenda for Sydney; finance ministers of the Commonwealth. Economist 170:11 Ja 2 '54

Area shifts in international transactions; first and second quarters, 1953. Survey of Cur Bsns 33:8-10 O '53

Balance of payment trends during the second quarter. Survey of Cur Bsns 33:11-12 S '53

Balance of payments improved in France. For Comm W 50:5 Ag 24 '53

Balance of payments of the United States by area, first and second quarters of 1953; table. Survey of Cur Bsns 33:9 O '53

Balance of payments (quarterly), 1949-1952. Survey of Cur Bsns 1953 Sup p 103 [supplemented in monthly numbers]

Bare balance, 1946-1953. Economist 169:347-9 O 31 '53

Blur from Sydney; finance ministers' communique. Economist 170:253 Ja 23 '54

Brazil's second offer. Economist 168:471-2 Ag 15 '53

Commonwealth finance ministers in Sydney reaffirm prior agreements. For Comm W 51:5 F 15 '54

Diminished surplus; first half of 1953. Economist 169:196 O 17 '53

Disquiet over dollars. Economist 169:438-9 N 7 '53

Dwindling dollar surplus; as of Aug. 1953. Economist 168:653 S 5 '53

End of the dollar famine? Economist 168: 460-1 Ag 15 '53

Faltering dollar surplus. Economist 169:120 O 10 '53

Few headlines from Sydney; easier access to London? Economist 170:183 Ja 16 '54

Foreign countries obtain $5.7 billion in U.S. goods, services in second quarter. For Comm W 50:5 O 5 '53

Foreign economic policy commission says dollar problem can be solved. Comm & Fin Chr 179:458 Ja 28 '54

Foreign gold and dollar assets show growth; third quarter of 1953. For Comm W 51:5+ Ja 4 '54

Freer trade and freer currencies. R. Makins. Comm & Fin Chr 178:2056-7 N 26 '53

Freer trade in Europe. Economist 169:315-16 O 31 '53

German dollar trade nearly in balance. For Comm W 50:2 Ag 3 '53

Imperial by default; Sydney communiqué. Economist 170:211-13 Ja 23 '54

India's sterling balances. Economist 168:284 Jl 25 '53

International gold and dollar movement. M. A. Kriz. Comm & Fin Chr 178:1932-3+ N 19 '53

Japan searches for sterling. Economist 169: 613 N 21 '53

Japanese trade registers large deficit. For Comm W 50:3+ N 2 '53

Pound sterling at the crossroads. V. L. Horoth. map Mag of Wall St 93:559-60+ F 6 '54

Reasons for the red gold. Economist 169:767-8 D 5 '53

Sterling area increases assets by $17 million. For Comm W 50:4 O 26 '53

Sterling area's gold, dollar reserves down. For Comm W 51:5 F 1 '54

Sterling area's gold, dollar reserves rise. For Comm W 50:6 D 28 '53

Third quarter balance of payments reflects continued advances abroad; with tables. Survey of Cur Bsns 33:5-7 D '53

Those colonial balances. Economist 169:979 D 26 '53

$3 billion increase in foreign gold and dollar assets. V. L. Horoth. Mag of Wall St 92: 655-6+ S 5 '53

Trading Turks. Economist 168:688-9 S 12 '53

Transportation in the balance of payments. J. E. Smith. Survey of Cur Bsns 33:20-4 S '53

U.K. gold and dollar reserves still high. For Comm W 50:7 N 30 '53

U.K. payments surplus estimated at £81 million for first half of '53. For Comm W 50:6 N 16 '53

United States balance of payments in 1952-53. Fed Res Bul 39:1039-47 O '53

Windfall for the reserves? sterling area's gold and dollar reserves, Nov. 1952-1953. Economist 169:767 D 5 '53

BALANCE sheets

Classifying borrowings under revolving-credit agreements on the balance-sheet. J Account 95:716-18 Je '53

Disclosure of post-balance-sheet events. G. O. Sparks, jr. J Account 97:605 My '54

Resurgence of the balance-sheet as a useful element in financial analysis. W. W. Werntz. J Account 96:555-69 N '53

See also

Fund statements

BALANCES

Adsorption studies on clay minerals; a torsion pendulum adsorption balance. E. W. Gelewitz and H. C. Thomas. diags R Sci Instr 25:55-7 Ja '54

Analytical balance for recording rapid changes in weight. F. A. Mauer. bibliog il diag R Sci Instr 25:598-602 Je '54

Apparatus for the accurate measurement of magnetic susceptibility. R. Cini and L. Sacconi. bibliog diags J Sci Instr 31:56-9 F '54

Automatically recording magnetic balance. T. Hirone and others. diags R Sci Instr 25: 516-17 My '54

Balance operates by removing weights with cam system; Micro Gram-atic balance. il Machine Design 26:184-5 Ap '54

Contribution to the theory of the Langmuir film balance. H. Zierfuss and others. diag J Sci Instr 30:342 S '53

Fisher microbalance speeds weighings. il Chem & Eng N 32:96 Ja 4 '54

Improved Rankine magnetic susceptibility balance for use in free radical determinations J. O. Bockris and D. F. Parsons. bibliog diags J Sci Instr 30:362-3 O '53

Microbalance for the determination of protein crystal densities. F. M. Richards. bibliog il diags R Sci Instr 24:1029-34 N '53

Specific gravity of gases. B. J. Willard. il diags Instruments & Automation 27:945-9 Je '54

Statistical study of the performance of an Ainsworth microchemical balance. J. T. Waber and G. E. Sturdy. bibliog il Anal Chem 26:1177-80 Jl '54

Temperature coefficient of the McBain sorption balance. F. M. Ernsberger. R Sci Instr 24:998-9 O '53

Testing a quick-weighing balance. T. W. Lashof and L. B. Macurdy. Anal Chem 26:707-12 Ap '54

Vacuum microbalance for measuring sorption in dielectrics. A. G. Day. bibliog diags J Sci Instr 30:260-3 Ag '53

Weighing techniques with analytical balances. F. O. Deimel. il Instruments & Automation 27:1073 Jl '54

Manufacture

New Oertling factory, Orpington, Kent. il Chem Age (Lond) 69:1173-4 D 5 '53

Terminology

Terminology for describing the performance of analytical and other precise balances. bibliog Anal Chem 26:1190-2 Jl '54

BALANCING machines

Balancing machine for alternator rotors. il Engineering 176:523 O 23 '53

Electrical manufacturing extensions in Loughborough; Brush electrical engineering co. il Engineer 196:427-9 O 2 '53; Elec R (Lond) 153:737-9 O 2 '53

BALANCING machines—*Continued*
Gisholt redesigned balancing machine has improved appearance. il Machine Design 26:194 S '54
Industrial balancer easily set up. il Product Eng 24:218 N '53

BALANCING of machinery
Balancing a rotating disc. I. J. Somervaille. Engineering 177:241-2 F 19 '54
Rotating parts balanced faster, more accurately; Dean Benson research inc. il Iron Age 174:142+ Ag 12 '54; Steel 135:150 S 13 '54

BALCONIES
Balconies can be practical; better detail plate. E. H. Fickett and T. J. Nychay. il diags Am Bld 76:154-5 Je '54

BALING presses
Big baler, big appetite; General iron & metal co. il Steel 135:84 Ag 30 '54
Cast iron swarf briquetting press. il Engineer 197:475-6 Mr 26 '54; Engineering 177:414 Mr 26 '54
Lindemann speedy balers feature uniformity. il Steel 134:109 Mr 15 '54
Scrap handling speeded with automatic shear-baler; Pontiac division of General motors corp. W. G. Patton. il Iron Age 173:143-5 Mr 18 '54

BALKAN states
Progress of the Balkan alliance. Economist 168:621-2 S 5 '53

BALL bearings. See Bearings, Ball

BALL clay. See Clay

BALL mills
Correlation between principal parameters affecting mechanical ball wear. R. T. Hukki. bibliog Min Eng 6:Trans 642-4 Je '54
Fast ball mill control test and other findings. A. Barkman. il Paint Oil & Chem R 117:12-14 Je 3 '54
New ball mill grinds faster; Hyswing ball mill. il diag Chem Eng 61:266+ Ag '54
New high-speed ball mill. diags Chem Eng 60:338 Jl '53
Novel ball mill design; patent. diags Chem Eng 61:258 S '54

BALLAST
Ballast operations expedited with large array of equipment; Norfolk & Western. il Ry Age 136:64-6 Mr 8 '54
On the QNS&L they're ballasting track at 56 below. il Ry Age 136:20 Mr 29 '54
Railroad ballast cleaner goes hydraulic. il diags Product Eng 24:150-5 O '53
Speeding production of railway ballast for C.P.R. in Manitoba; Cowan construction, ltd. F. C. Cowan. il Roads & Eng Constr 91:119-20+ O '53

BALLISTIC photography. See Photography of projectiles

BALLISTICS
Airflow about cone-cylinders with curved shock waves. V. E. Bergdolt. bibliog il J Aeronautical Sci 20:751-6 N '53
Effect of boundary layer on sonic flow through an abrupt cross-sectional area change. R. S. Wick. diags J Aeronautical Sci 20:675-82 O '53
Free-flight determinations of the drag coefficients of spheres. A. May and W. R. Witt, jr. bibliog il J Aeronautical Sci 20:635-8 S '53
Ultra-speed transient dynamic analyzer for mechanics and ballistics. J. C. Lindsay and A. V. Masket. bibliog il diags R Sci Instr 25:704-11 Jl '54
See also
Guns

BALLOONS, Meteorological
Automatic data recording camera for use in conjunction with high-altitude plastic balloons. R. S. Hill. il diag R Sci Instr 24:1001-2 O '53
Method for obtaining long exposures at high altitudes using rubber balloons. V. D. Hopper and A. R. W. Wilson. diag J Sci Instr 30:211-12 Je '53
Moby Dick balloons explore upper air. il Aviation W 59:28-30 Ag 24 '53

BALLS, Rubber
Manufacture of bowling balls at Stowe-Woodward. il Rubber Age 75:688-9 Ag '54
Sewer cleaning with rubber beach balls. A. M. Rawn. diag Water & Sewage Works 101:R223 pt 2 My '54

BALLS, Steel
Ball piston pumps and motors. H. Stern and W. T. Rauch. diags Machine Design 26:216-18+ Ja '54
Methods of charging rods and balls into grinding mills. O. Johnson. il plans diags Min Eng 6:Trans 622-7 Je '54
Try moving heavy stuff on ball bearings; move a 1900-ton water tower 300 yards. il Power Eng 57:99 D '53

Manufacture

Small foundry switches to shell molding; Wasatch ball foundry, inc. J. C. Jensen. il Iron Age 173:148-50 Mr 18 '54

BALSAM fir
Decay of balsam fir in the Maritime provinces of Canada. A. G. Davidson and others. bibliog map Pulp & Pa of Can 55:134+ Ag '54

BALTIMORE
See also
Housing—Baltimore

Harbor

Baltimore harbor tunnel location set. Eng N 151:22 Jl 16 '53

Lighting

Baltimore lights U.S. 1 and U.S. 40 interchange. W. C. Tome and W. R. Straus. il Elec World 140:104+ N 30 '53

Sanitary affairs

Analysis of ratbites, 1948-52. W. Sallow. bibliog Pub Health Rep 68:1239-42 D '53

Tunnel

Work begins on tunnel plans. map Eng N 151:24 Ag 13 '53

BALTIMORE and Ohio railroad
Railroad securities. Comm & Fin Chr 178:2279; 179:496 D 10 '53, Ja 28 '54

BALTIMORE stock exchange. See Philadelphia Baltimore stock exchange

BAMBOO
Bamboo. Tappi 37:sup98A+ Je '54
Burma to develop bamboo pulp and paper industry. Chem & Eng N 32:1486 Ap 12 '54
Industrial raw materials of plant origin; survey of the bamboos. H. H. Sineath and others. Georgia Inst of Tech Eng Exp Sta [Atlanta] Bul 18:1-230 bibliog(1034 titles, p 157-230) '53

BANANAS

Storage

Gas storage of bananas. Chem Age (Lond) 68:668 My 2 '53

BANBURY mixers
Electrical contact potentials in Banbury mixing. R. S. Havenhill and others. bibliog il Ind & Eng Chem 45:1128-33 My '53

BANCROFT, Wilder Dwight, 1867-1953
W. D. Bancroft. C. W. Mason. por(front) Am Chem Soc J 76:2601-2 My 20 '54

BAND shells. See Orchestra shells

BAND spectra. See Spectrum—Band spectra

BANGHAM, Donald Hugh, d 1950
Bangham plaque unveiled; commemorative address. D. T. A. Townend. por Chem & Ind p739 Jl 18 '53

BANK accounting
Control budgeting in commercial banks. T. W. Harris. N A C A Bul 35:980-9 Ap '54
See also
Bank auditing
Banks and banking—
Tellers' machines

BANK advertising
Ads sound investment for savings banks. E. C. Barnes. Ed & Pub 86:20 F 28 '53
Bank's tv news reporter gets a hot scoop; National bank of commerce of Seattle. N. Johnson. il Burroughs Clearing House 37:31 S '53
Cartoons in advertising; Republic national bank of Dallas. il Banking 46:48-9 N '53
How bank counteracted idea it was heartless; Pennsylvania company for banking and trusts. J. W. Dragonetti. Ed & Pub 86:20 Mr 21 '53

BANK advertising—*Continued*

How deposits help a state grow; advertising campaign of Valley national bank, Phoenix. Banking 46:96 F '54

How 66 banks use television; 1953, American bankers association survey. G. E. Heming. Banking 46:43-4 Ag '53

How to make small space ads pay. P. Lockwood. Bankers Mo 70:36-7 N '53

If you're thinking about television. L. C. Fink. il Burroughs Clearing House 38:38-40+ Ja '54

Letter-writing campaigns. il Burroughs Clearing House 37:13-15 Ag '53

On the publicity front. il Trusts & Estates 93:51-2, 141-2 Ja-F '54

Savings bank's advertising shows it can pull prospects to insurance window; Bowery savings bank, New York city. R. Sparks. Nat Underw (Life ed) 57:2+ Jl 31 '53

Slide rule budget guide distributed by Pacific first federal savings and loan association, Tacoma. Burroughs Clearing House 37:16+ Ag '53

That first plunge into television; Trust company of Georgia, Atlanta. L. C. Fink. il Banking 46:58+ N '53

There's a job for banking on tv. R. Donaldson. il Banking 46:67-8+ S '53

Typical bank using tv. R. H. Cole. Burroughs Clearing House 38:28-9 F '54

Women's tv finance forum a hit; Security trust and savings bank of San Diego. C. J. Frandell. il Banking 46:68+ F '54; Abstract. Burroughs Clearing House 38:26 F '54

See also

Trust companies—Advertising

BANK auditing

Audit manual that country bankers can use. L. M. Schwartz. il Banking 46:58+ D '53

Bank directing; proper audit procedure and control. C. G. McDavitt, jr. Banking 46:44+ S '53

Iowa bank audit program; Iowa bankers association. Burroughs Clearing House 37:15-16 Ag '53

NABAC fights fraud. Bankers Mo 71:22-3 Ja '54

Practical audit plan for smaller banks; A.B.A. country bank operations commission program. W. M. Willy. il Burroughs Clearing House 38:34-5+ Ja '54

Prenumbered tickets to control security activity. G. P. Jochum. Banking 46:88-90 S '53

Replacing direct verification in savings department. J. E. Burges. J Account 97:604-5 My '54

Strong control over banking-by-mail particularly important in smaller banks. A. F. Kendall. J Account 97:81 Ja '54

Study and teaching

NABAC starts a school; NABAC school for bank auditors and comptrollers. Banking 46:113-14 Ag '53

New school for bank operating men; NABAC school for bank auditors and comptrollers. H. J. Boone. il Burroughs Clearing House 37:32-3+ Ag '53

BANK auditors and comptrollers, National association of. See National association of bank auditors and comptrollers

BANK buildings

Bank beautiful; three new buildings. il Burrough Clearing House 38:20 N '53

Bank building enclosed in glass; Fifth avenue office of the Manufacturers trust co. in New York city. Heat & Ven 51:114 F '54

Bank building projects; expansion and modernization. il Burroughs Clearing House 38:22+ Ja '54

Banks build for the future; Banking survey; with charts of detailed information on jobs completed or planned. J. J. McCann. il Banking 46:51-8 F '54

Big banking and modern architecture finally connect; Manufacturers trust co. il plans diags Arch Forum 99:134-7 S '53

Changing complexions; conversion of buildings that once served entirely different purposes. il Burroughs Clearing House 38:13-14 F '54

Concrete and steel framing combined in wide-open bank building; branch bank of the Manufacturers trust co. W. H. Weiskopf and J. W. Pickworth. il plan diags Civil Eng 24:240-2 Ap '54

Danish bank innovations. il Burroughs Clearing House 38:24-5 D '53

Design for a branch bank. il plan diags Am Bld 75:190-2 D '53

Drive-in arrangements. il Burroughs Clearing House 37:24-5 Ag '53

Drive-in bank stresses roadside advertising. il plans diag Arch Rec 113:184-9 Ap '53

Fish-bowl bank for drive-in customers; York National, Maine's oldest bank. il plans diag Arch Forum 98:107-9 F '53

Glass walls will show off bank's interior; New York branch office of the Manufacturers trust co. il Eng N 152:24 Ja 14 '54

History in murals; First national bank of Winfield, Kans. M. S. Roberts. il Banking 46:80 D '53

Lobby focal points; new and modernized banks. il Burroughs Clearing House 38:21-2+ F '54

Modern bank annex; Federal reserve bank, Detroit. il plans diag Arch Forum 100:128-35 F '54

Modern bank fronts; new and remodelled. il Burroughs Clearing House 38:25-7 D '53

New John St. branch of East River bank. East Underw 54:32 D 18 '53

New quarters appointments; new and remodelled banking quarters. il Burroughs Clearing House 38:20+ D '53

Northwestern national bank; new home of Lincoln branch. il Bankers Mo 70:52 N '53

Now we use our best space for customers. il plans Arch Forum 100:144-5 My '54

Old landmarks, new faces. il Burroughs Clearing House 37:18 Ag '53

Republic national bank of Dallas, Tex. il plans diags Arch Rec 115:187-94 Ap '54

Rooftop services; State bank & trust co. of Wellston, St Louis. il Burroughs Clearing House 38:19 F '54

Showcase bank in Hawaii. il plans Arch Forum 99:116-17 N '53

Solving space problems. il Burroughs Clearing House 37:26-7 Ag '53

Special lobby features. il Burroughs Clearing House 37:22+ S '53

This bank says strength, informality, the Southwest; Farmers and stockmens bank, Phoenix. il plan Am Bld 75:194-5 Ag '53

Underground bank. il plans Arch Forum 99:160-1 S '53

Variety in drive-in designs. il Burroughs Clearing House 38:22+ N '53

Air conditioning

Air conditioning and heating a glass-enclosed bank building. V. A. Bianculli. il diags Heat & Ven 51:77-9 Je '54

Lighting

Bank relighting blends into architecture. S. D. Snook and J. F. Gunther. il Elec World News ed 140:38 Jl 6 '53

Bank sparks small town's relighting program. il Illum Eng 49:119 Mr '54

Designing the ceiling around the luminaire. D. E. Frank. il Illum Eng 48:617-18 D '53; Same. Elec West 111:96 N '53

Lighting a bank; lighting data sheet. il plan Illum Eng 49:329-30 Jl '54

Luminous ceiling solves a problem. J. W. Parris. il Elec World 141:134 F 8 '54

Modern bank lighting. il Burroughs Clearing House 38:22-4 O '53

Rearranging architectural elements for lighting a mural; Peoples bank and trust co., Cedar Rapids. J. C. Young, jr. il Illum Eng 49:181-2 Ap '54

Re-lighting the Citizens' savings and loan society. il Illum Eng 49:453 S '54

Re-lighting the Farmers' national bank. il Illum Eng 49:452 S '54

Solving a maintenance problem for a stained glass ceiling. il Illum Eng 49:122 Mr '54

See also

Conference rooms—Lighting

Maintenance and repair

New portable scaffolding solves bank maintenance problems; Baker-Roos safety platform. il Bankers Mo 70:46 N '53

BANK clearings

Course of bank clearings. Published in weekly Monday numbers of Commercial and financial chronicle

BANK clearings—*Continued*

Speeding county clearings; Nassau county, New York. il Burroughs Clearing House 37:39+ Ag '53

BANK consolidations

Houston banks; moves and mergers. il Bsns W p 129-30+ S 26 '53

Taxes in a bank merger. F. C. Fiechter, jr. Burroughs Clearing House 38:76+ O '53

BANK credit. See Credit, Bank

BANK debits

Bank debits, 1949-1952. Survey of Cur Bsns 1953 Sup p79 [supplemented in monthly numbers]

BANK deposits

Deposits' mid-year peak; rising trend of advances. Economist 168:277-8 Jl 25 '53

Deposits on the eve of the bank rate reduction. Economist 169:48 O 3 '53

How deposits help a state grow; advertising campaign of Valley national bank, Phoenix. Banking 46:96 F '54

Strong control over banking-by-mail particularly important in smaller banks. A. F. Kendall. J Account 97:81 Ja '54

Velocity of time deposits. G. Garvy. bibliog Am Stat Assn J 48:176-91 Je '53

See also

Savings deposits

Statistics

Deposit and government totals off, loans up; 1952 and first half of 1953. Bankers Mo 70:42 O '53

BANK directors

Bank directing. C. G. McDavitt, jr. Banking 46:44+ S; 47+ O; 53 D '53

Check on director wastage. Banking 46:98 O '53

See also

Federal reserve banks—Directors

BANK employees

Bank cafeterias. il Burroughs Clearing House 37:18-19 S '53

Banking's family of 500,000; data on bank population. Banking 46:51-2 Ag '53

College market in the search for personnel. H. Hilton, jr. Banking 46:45+ Ag '53

Employment outlook in banking occupations. il map U S Bur Labor Statistics Bul 1156: 1-42; pa 30c Supt. of doc. '54

High school trainees make good; Central national bank, Yonkers. C. S. King. Bankers Mo 71:24+ F '54

How bank makes new employees feel at home in a hurry; International bank for reconstruction and development. M. D. Bryce. Am Bsns 23:38-9 D '53

Human relations in a bank. C. Argyris. Harvard Bsns R 32:63-72 S '54

Human relations in the bookkeeping department; bookkeepers' point of view. C. Argyris. Banking 46:52-3+ Ja '54

Human relations program; Citizens & southern national bank, Atlanta. Banking 46: 45+ F '54

It pays to hire tested applicants; American trust co., Charlotte, N.C. E. S. Hamilton. il Banking 46:50-1+ N '53

New plan links bank and life co.; Philadelphia National and Mutual of New York; Philabank plan. East Underw 55:6 S 17 '54; Nat Underw (Life ed) 58:4+ S 17 '54; Weekly Underw 171:662 S 18 '54

Salary expense control. J. W. Miller. Banking 46:64+ D '53

Three personnel ideas; Manufacturers national bank of Detroit. W. G. McCarty. Banking 46:143-4 F '54

Wide-ranging ideas from bank suggestion systems. D. R. Hassell. il Burroughs Clearing House 38:34-5+ N '53

Training

Bank trains its tellers and clerks by dummy scrimmage; New York's National city bank. il Bsns W p68 O 10 '53

Employees train at model bank; National city bank of New York. M. L. Briggs. il Am Bsns 24:28+ F '54

Practice bank; National city bank of New York training center. il Banking 46:48 N '53

They could operate a $50,000,000 bank; National city bank of New York training center. il Bankers Mo 70:40 O '53

To reduce staff turnover; American institute of banking short course. D. J. Townsend. il Burroughs Clearing House 37:43+ S '53

BANK equipment and supplies

Get the most from your equipment. N. T. Shepherd. Banking 46:41 S; 51+ O; 49 N '53; 48+ Ja '54

How a bank puts television to work; New York savings bank. il Bsns W p30-1 N 14 '53

Mechanization of check handling; ABA committee program. Banking 46:164 F '54

Mechanizing the operation of the note department; Dartmouth national bank of Hanover. C. N. Batchelder. il Burroughs Clearing House 38:36-9+ N '53

Point-of-use protection pays; savings ledger desk-safes at Farmers and merchants national bank of Los Angeles. W. J. Cassin. il Bankers Mo 70:40-1 D '53

Potential for electronics in banking. Banking 46:52-3+ O '53

Semi-automatic dictation eases stenographic problem; Hanover bank, New York. D. R. Hassell. il Burroughs Clearing House 38:30 F '54

Television tellers; Provident institution for savings, Boston. Banking 46:102+ O '53

BANK examination

Study and teaching

Inter-agency bank examination school; 1954 program. Fed Res Bul 40:23-5 Ja '54

BANK exhibits. See Banks and banking—Exhibits

BANK holidays

Bank holidays by states, January-June, 1954. Bankers Mo 70:42 D '53

BANK inspection. See Bank examination

BANK loans. See Loans, Bank

BANK notes

Mechanizing the operation of the note department; Dartmouth national bank of Hanover. C. N. Batchelder. il Burroughs Clearing House 38:36-9+ N '53

BANK of England

Bank and commodities. Economist 170:181-2 Ja 16 '54

Bank rate unified. Economist 168:801-2 S 19 '53

Inferences from lowered British bank rate. P. Einzig. Comm & Fin Chr 178:1233 O 1 '53

Staggered holiday spending. Economist 168: 409 Ag 8 '53

Two views of bank rate. Economist 168:867-9 S 26 '53

United Kingdom cuts bank discount rates. For Comm W 50:6 O 5 '53

BANK officials

Braindustер conference; annual meeting generates new ideas, stimulates leadership; Lincoln Rochester trust co. G. Christman. il Burroughs Clearing House 38:29-31+ N '53

Issues in Washington; Bankers Monthly survey of bank board chairmen's views. Bankers Mo 70:9-12+ S '53

Trust personnel changes. Published in monthly numbers of Trusts and estates

Training

City-wide top bank training for younger bank officers, San Francisco. L. E. Graybiel. il Burroughs Clearing House 38:31-3+ Ja '54

Executive training roundtable. L. Lewis and others. Banking 46:33-9+ Ag; 64-5 S '53

BANK reserves

Bank credit and money in 1953; bank reserve positions. Fed Res Bul 40:123-4 F '54

Bank reserve requirements as credit policy tool. Burroughs Clearing House 37:3-4 S '53

Reduction in reserve requirements urged; New York and Chicago banks. S. S. Colt. Comm & Fin Chr 179:275 Ja 21 '54

BANK robberies

Dishonest bank employes take less in 1953 but burglars and robbers get 83 per cent more loot. Nat Underw 58:17 Je 24 '54

BANK robberies—*Continued*
Safe deposit liability insurance premium rate cut coming. H. F. Harrington. Banking 46:96 N '53
See also
Banks and banking—Protection

BANK-share owners advisory league
Embezzlement umbrella. Burroughs Clearing House 37:18-19 Ag '53

BANK stocks. See Banks and banking—Stock

BANK women, Association of. See Association of bank women

BANKERS
Bankers in government service. H. Bratter. Banking 46:34-5+ D '53
See also
Bank officials
Reese, Everett D.

BANKERS associations
See also
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Investment bankers association of America

BANKERS' blanket bond
Excess bankers blanket bond form II; coverages and forms. Spectator 162:68+ Je '54
False pretenses on the premises; bank's indemnity bond covers loss from deposit of worthless checks. J. R. Vincens. Banking 46:76 O '53
Fidelity bond coverage; kited checks. F. C. Fiechter, jr. Burroughs Clearing House 38:75-6 O '53
Lloyd's add discovery basis to bankers bonds; no added premium charge. East Underw 55:55 O 8 '54
Surety association announces excess protection. Burroughs Clearing House 38:16-17 F '54
Surety association announces three new bank coverages; excess protection forms. East Underw 55:27 Ja 15 '54; Nat Underw 58:1 Ja 14 '54; Weekly Underw 170:188 Ja 16 '54
Two blanket bonds for use by savings banks announced by Surety association. East Underw 55:25+ O 1 '54; Nat Underw 58:4 S 30 '54; Weekly Underw 171:781, 784 O 2 '54

BANKERS life and casualty company
Bankers Life & Casualty suit; Sammons told to bring data to Miami federal court. Nat Underw (Life ed) 58:6+ Ap 16 '54
Bankers L.&C. wins important skirmish in conspiracy suit. Nat Underw 58:4 Ap 22 '54; Same abr. Nat Underw (Life ed) 58:2 Ap 23 '54
Bankers Life & Casualty would drop Cravey as added expense in trust suit. Nat Underw 58:15 Jl 8 '54
Cravey exonerated in maliciousness case. Nat Underw (Life ed) 58:3 My 28 '54

BANKING hours. See Banks and banking—Hours of business

BANKING law
Bank law news. Banking 46:74+ Ja '54 [cont monthly]
Court decisions. F. C. Fiechter, jr. Burroughs Clearing House 38:69-71 Ja '54 [cont monthly]
Highlights of 1953 state banking legislation. J. R. Vincens. Banking 46:82+ D '53
Impact of uniform commercial code on banking. T. B. Paton. Banking 46:56 D '53; 72 Ja '54
What's the law? Bankers Mo 71:32 Ja '54 [cont monthly]
See also
Banks and banking—Holding companies

BANKRUPTCY
Crooked bankrupt rarely escapes if creditors have will to nip him. M. S. Mattuck. Credit & Fin Management 55:18-19+ Ag '53
Decision bearing on group premium; California-Western States Life case. J. R. Glade. East Underw 55:11 Ap 2 '54
Feasibility defined. F. C. Fiechter, jr. Burroughs Clearing House 38:90 F '54
How not to reduce bankruptcy costs; pile up staff under Langer bills. W. R. Montgomery. Credit & Fin Management 55:17-18 D '53
Insurer gets preferred claim on employe's group payments to bankrupt employer. Nat Underw 58:10+ Mr 4 '54; Same. Nat Underw (Life ed) 58:7+ F 19 '54
Policy owner bankruptcy; abstracts. J. T. Tipton. Weekly Underw 169:1456-7+ D 12 '53; East Underw 54:31 D 11 '53; Nat Underw (Life ed) 58:14-15 Ja 1 '54
See also
Business failures

BANKS, Federal reserve. See Federal reserve banks

BANKS and banking
After the boom is over, what effects on banking? E. S. Adams. Comm & Fin Chr 178:1634-5 O 29 '53
Anniversary theme. Burroughs Clearing House 38:16+ O '53
Banker-CPA cooperation on business audits. A. R. Jennings. Burroughs Clearing House 37:10-11 S '53
Banker looks at the current picture. C. A. Sienkiewicz. Comm & Fin Chr 178:1234-5+ O 1 '53
Brainduster conference; annual meeting generates new ideas, stimulates leadership, Lincoln Rochester trust co. G. Christman. il Burroughs Clearing House 38:29-31+ N '53
Educational campaign to restore the dollar; responsibility of bankers. O. W. Adams. Comm & Fin Chr 178:2543+ D 24 '53
Excellently managed; banks receiving American institute of management award. Burroughs Clearing House 38:19 F '54
Impact of a recession on commercial banks. C. F. Nagel. Comm & Fin Chr 178:1732+ N 5 '53
Methods and ideas. il Banking 46:46-8+ Ja '54 [cont monthly]
1933 in Washington. H. M. Bratter. il Bankers Mo 70:30-2+ S '53
Role of commercial banks in financing United States wars. J. G. Buckley. Comm & Fin Chr 178:2634-5 D 31 '53
Sound condition of banks a stabilizing influence. B. F. Pope. Comm & Fin Chr 178:1631+ O 29 '53
Two heads are better; building a bank team for excellence of performance. C. H. Broaded. Bankers Mo 71:48+ F '54
See also
Agricultural credit
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Bank advertising
Bank buildings
Bank deposits
Banking law
Checks
Credit
Drafts
Federal reserve banks
Foreign exchange
Interest
Investment banking
Investment trusts
Loans, Bank
Reconstruction finance corporation
Safe deposits
Savings banks
Savings deposits
Trust companies
also American bankers association; Investment bankers association of America

Agricultural machinery purchase financing

Pay-as-you-use financing of farm machinery. J. W. Tapp. Banking 46:65 O '53

Appliance purchase financing

What's wrong with appliance financing? A. A. Friedrich. Banking 46:43-5+ Ja '54

Branch banking

Branching into the suburbs; Philadelphia city banks. Bsns W p 138+ N 7 '53
Railway station branch, First Westchester (New York) national bank. il Burroughs Clearing House 38:28-9 O '53
Ultra modern ideas in branch operation; New York savings bank, Rockefeller Center branch. E. Tyng. il Burroughs Clearing House 38:29 D '53
See also
Banks and banking—Foreign branches

Central banks

Central banks; assets and liabilities. Published in monthly numbers of Federal reserve bulletin

BANKS and banking—*Continued*

Correspondent banks

Correspondent confabs; First national bank, St Louis; Chicago; highlights of meetings. Bankers Mo 71:26-9 Ja '54
Correspondent conferences; highlights of meetings. Burroughs Clearing House 38:13 Ja '54
Correspondent services you can use. W. R. Mesenbrink. Banking 46:123 Ja '54
First national bank of Chicago 7th annual correspondents' conference. J. J. McCann. Banking 46:14+ Ja '54
New job for correspondent banking; better public relations possible. W. D. Meacham. Banking 46:101-2 F '54
Speaking frankly on correspondent banking. Banking 46:34-41 O; 35-8+ N '53
Ways to streamline country bank operations; Manufacturers national bank of Detroit. H. G. Fox. il Burroughs Clearing House 37:40-2+ S '53

Country banks

All in the day's work; examples of services to country banks. Banking 46:49 D '53
Audit manual that country bankers can use. L. M. Schwartz. il Banking 46:58+ D '53
Bank farm service departments. D. F. Graves. Banking 46:92 Ja; 117-18+ F '54
Bankers encourage soil erosion measures; Minnesota. H. Severson. il Banking 46:74+ F '54
Banks lead in meeting credit needs of farmers. Banking 46:52 S '53
Builds farm customers; Osage-farmers national bank. J. H. Peters. il Bankers Mo 70:12+ N '53
Country banker. Banking 46:62-3+ Ja '54 [cont monthly]
Easy way for farmers to build reserves. C. E. Watts. il Banking 46:71+ N '53
Home grown bank-farm representative; Shelby county bank and trust co., Shelbyville, Ky. R. P. Steptoe. Burroughs Clearing House 38:26-7 N '53
How banks can spark soil reclamation programs. J. L. Crossett. il Burroughs Clearing House 38:38-40+ D '53
N.Y. state bankers attend School of agriculture. il Banking 46:60-1 O '53
Northwestern windbreaks conserve the soil; Minnesota bankers aid in tree planting. H. Severson. Banking 46:64 Ja '54
Practical audit plan for smaller banks; A.B.A. country bank operations commission program. W. M. Willy. il Burroughs Clearing House 38:34-5+ Ja '54
Speaking frankly on correspondent banking; country banks. Banking 46:34-41 O '53
Storm warnings on farm debt. J. I. Smith. Banking 46:53-4 S '53
Training farmers to use a budget. R. B. Stewart. Banking 46:55+ S '53
Trouble hits Florida cattle industry but old hands get needed credit. C. E. Wright. il Bankers Mo 70:14+ D '53
Ways to streamline country bank operations; Manufacturers national bank of Detroit. H. G. Fox. il Burroughs Clearing House 37:40-2+ S '53

See also
Agricultural credit
also American bankers association—Agricultural commission

Credit departments

Bankers' cooperation is a two-way street; Partnership of mercantile and bank credit departments. P. J. Viall and others. Credit & Fin Management 55:8-13+ Ag '53
Solving operating problems in central-credit filing; United States national bank of Portland. P. V. Henley. il Burroughs Clearing House 38:42-4 O '53

Credit service

Bank is credit department for retail stores; Bank charge plan service. J. J. Gutheinz. Am Bsns 24:32 F '54

CPAs and bankers help each other to help their clients. A. R. Jennings. J Account 95:706-8 Je '53

Charge plan trends. il Burroughs Clearing House 38:27-8 D '53

Curb depositories

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Customer relations

Banker gets chummy; keeping a closer eye on how his loan customers run their businesses. Bsns W p 123-4+ N 21 '53
Business development sales kit; Union market national bank of Watertown. W. R. Kennedy. il Banking 46:54+ N '53
What are the common aims of bankers, accountants, and businessmen-borrowers? W. G. F. Price. J Account 96:474-7 O '53

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How corporate treasurers view bank relationships. H. V. Odle. Burroughs Clearing House 37:38-9+ S; 38:38-9 O '53

Educational work

Bank forums for women; survey of their extent, methods, and results. G. N. Gildersleeve. il Banking 46:64-7 F '54
Club federation's forum contest. R. Fichtel. Banking 46:126 N '53
Directors can help in public education. C. G. McDavitt, jr. Banking 46:53 D '53
Dividends from teaching teachers; Valley national bank, Phoenix. J. E. Patrick. Banking 46:45+ S '53
Home grown bank-farm representative; Shelby county bank and trust co., Shelbyville, Ky. R. P. Steptoe. Burroughs Clearing House 38:26-7 N '53
Staging a big-scale women's finance forum. G. W. Sears. il Burroughs Clearing House 37:36-7+ Ag '53
Women's tv finance forum a hit; Security trust and savings bank of San Diego. C. J. Frandell. il Banking 46:68+ F '54; Abstract. Burroughs Clearing House 38:26 F '54

Exhibits

Bank turns back the clock; First Wisconsin national bank celebration of its 100th anniversary. il Banking 46:11-12 Ag '53
Giving the bank a special identity; in the Seaman's bank, its done with ships. L. McCracken. il Burroughs Clearing House 38:38-9+ F '54

Farm development service

See Banks and banking—Country banks

Finance

Bank capital formation. J. Donoghue. Burroughs Clearing House 37:41-2 Ag '53
Banks not profiting unduly from administration's fiscal policy. S. A. Neilson. Comm & Fin Chr 178:1012 S 17 '53
Better outlook for bank earnings. J. W. Wooster, jr. Banking 46:35-6+ S '53
Capital ratios. Banking 46:88-90 Ag '53; Same cond. Burroughs Clearing House 37:9 Ag '53
Disappearing banks; problem of proprietorship succession. Burroughs Clearing House 38:6-8 O '53
Excellent year; theme of bank reports on 1953 operations. il Burroughs Clearing House 38:3-4 F '54
FDIC report shows 14,579 banks with total assets of $209-billion, June 30, 1953. Banking 46:127 Ja '54
First-half results; with table of deposit trend of the largest commercial banks. Burroughs Clearing House 37:3-4 Ag '53
Monetary policy, business, and the banks. M. G. Lee. Comm & Fin Chr 178:1536+ O 22 '53

News about banks and bankers. Published in weekly Thursday numbers of Commercial and financial chronicle

News about banks and bankers; figures from year-end statements. Comm & Fin Chr 179:68+ Ja 7 '54

1953 bank earnings; good news for stockholders. Bankers Mo 71:30+ F '54

BANKS and banking—*Continued*

Foreign branches

American banking in London's Little America. F. Plachy. il Burroughs Clearing House 38:36-7+ D '53

Forms, blanks, etc.

Mechanizing the operation of the note department; Dartmouth national bank of Hanover. C. N. Batchelder. il Burroughs Clearing House 38:36-9+ N '53

Why the CPA should always use the standard form when requesting information from a bank. C. P. Heilmann. J Account 96:341-3 S '53

Frozen food plan financing

Indianapolis freezer-food plan protects customer and bank. G. S. Blue. Banking 46:80+ S '53

Government service

See Banks and banking—Service to government

Holding companies

Clayton act proceeding; Transamerica corp.; United States Court of appeals for the third circuit. Fed Res Bul 39:836-41 Ag '53

Hours of business

Bank work week geared to needs of public. J. H. Peters. il Bankers Mo 71:14+ F '54

Do we want a shorter work week? C. W. Fishbaugh. il Bankers Mo 70:24+ O '53

5-day-bank-week legislation. map Banking 46:76 Ja '54

Saturday closing spreads in California. Burroughs Clearing House 37:13 Ag '53

Saturday closing; state laws govern business days and hours of national banks. Banking 46:74 Ja '54

Information departments

Economic intelligence work in a bank. A. H. Smith. J Doc 9:42-7 Mr '53

Insurance, Customers'

New cover doubles bank depositor's balance on death; St Paul. Nat Underw (Life ed) 58:7 Jl 2 '54

Insurance requirements

Bank cover developments reviewed before New York city surety underwriters meeting. J. F. Baum. Weekly Underw 170:1476 Je 12 '54

Bank fidelity loss ratios have improved; trend revealed by the ABA. H. F. Harrington. East Underw 54:32-3 N 6 '53

Banks need valuable papers coverage. Weekly Underw 170:602 Mr 6 '54

Dishonest bank employes take less in 1953 but burglars and robbers get 83 per cent more loot. Nat Underw 58:17 Je 24 '54

Embezzlement umbrella; Bank-share owners advisory league. Burroughs Clearing House 37:18-19 Ag '53

How a bank buys insurance; Girard trust corn exchange bank, Philadelphia. R. A. Selser. il Spectator 161:16-17+ Je '53; Excerpts. Banking 46:111 Ag '53

Insurance scene appraised. T. F. Glavey. East Underw 54:98+ D 11 '53

Premiums shown for excess fidelity that so far is on the market. Nat Underw 57:6 D 3 '53

Savings banks manual fine and flexible tool for buyers of cover in that field. Nat Underw 57:15 Ag 6 '53

See also

Bankers' blanket bond

Insurance selling

Insured-uninsured pension war getting increasingly bitter; pressure from banks and consulting actuaries. R. B. Mitchell. Nat Underw (Life ed) 58:1+ Jl 23 '54

Investments

Current look at the bond account. J. H. Grier and L. F. Winterhalter. Burroughs Clearing House 38:36-7+ F '54

Factors influencing a bank's bond portfolio. E. F. Thompson. Comm & Fin Chr 178:914-15 S 10 '53

Today's investment problems for institutional investors. R. I. Robinson. Burroughs Clearing House 37:29-31+ Ag '53

See also

Loans, Bank

Savings banks—Investments

Law

See Banking law

Mail service

Bank-by-mail stamp; First national bank in St Louis. Burroughs Clearing House 38:28 O '53

One out of six bank by mail; State bank of Wellston, St Louis. Bankers Mo 71:52-3 F '54

Survey of banking-by-mail; First national bank in Dallas. J. H. Payne. il Burroughs Clearing House 37:28-9 S '53

Mortgage departments

Bank microfilms mortgage ledger cards as customer service; the Roslyn savings bank. C. H. Nygren. Bankers Mo 70:42 N '53

Canadian banks will be allowed to make mortgage loans. Bsns W p 130+ O 24 '53

Open-end mortgage; two views. G. C. Johnson; J. R. Jones. Banking 46:42-3+ S '53

New business

Illinois bankers association 2d annual Business development conference, Peoria, Dec. 10. Banking 46:55 Ja '54

Night and curb depositories

Operating procedures; night depositories and related services. Banking 46:44-5 F '54

Two-way curb depository; American national bank in Vincennes, Ind. il Burroughs Clearing House 38:23-4 D '53

Protection

Anti-robbery program for Arkansas. Bsns W p146+ N 28 '53

Public relations

Busy bankers. J. C. Perham. Barron's 33:3 S 7 '53

Can we departmentalize public relations? C. K. Dellmuth. Bankers Mo 71:12 F '54

Christmas ideas; activities of various banks. il Burroughs Clearing House 38:13-15 N '53

Community celebration as a bank good-will builder; Bishop national bank of Hawaii, Honolulu. N. F. Banfield. il Burroughs Clearing House 38:29 Ja '54

Dividends from teaching teachers; Valley national bank, Phoenix. J. E. Patrick. Banking 46:45+ S '53

Eyes of customers are on you; poll conducted at City college in Pasadena. A. L. Howells. Banking 46:80-1 Ag '53

40 years of school savings; Woronoco savings bank, Westfield, Mass. il Banking 46:54-5 D '53

Illinois bankers association 2d annual Business development conference, Peoria, Dec. 10. Banking 46:55 Ja '54

It is what we give that counts! W. R. Bimson. Bankers Mo 70:7-8+ Ag '53

Kansas bankers association's first public relations workshop, Emporia, Dec. 9. Banking 46:54 Ja '54

Loans must be paid; Bank of America, San Francisco; collection policy geared to public relations program. J. B. Grassens. Bankers Mo 70:16+ Ag '53

New job for correspondent banking; better public relations possible. W. D. Meacham. Banking 46:101-2 F '54

Public relations at bat; First state bank, Ketchum. M. L. Morgan. il Banking 46:74 O '53

Public relations; business development, promotion, advertising. il Banking 46:46+ F '54

School surveys; high school student and teacher attitudes; Lee county bank, Fort Myers. Burroughs Clearing House 38:24 Ja '54

BANKS and banking—Public relations—*Cont.*

Staging an open house; El Cajon branch of First national bank of San Diego. il Am Bsns 24:34-5 Ag '54

See also

Banks and banking—Customer relations

Banks and banking—Educational work

Financial public relations association

Records

Point-of-use protection pays; savings ledger desk-safes at Farmers and merchants national bank of Los Angeles. W. J. Cassin. il Bankers Mo 70:40-1 D '53

Salary expense control. J. W. Miller. Banking 46:64+ D '53

War precautions programs; vital banking records. Burroughs Clearing House 38:19-20 D '53

Reports

Ideas in report design; 1953 annual bank reports. Burroughs Clearing House 38:4+ F 54

Monthly report to directors; National bank of Cambridge. il Banking 46:50-1 O '53

Safe deposits

See Safe deposits

Savings certificates

Experience of commercial banks in use of savings certificate plans. R. A. Ilg. il Banking 46:45-7 N '53

Savings certificate features; Bridgeville (Pennsylvania) trust co. il Burroughs Clearing House 37:19+ S '53

Savings departments

Replacing direct verification in savings department. J. E. Burges. J Account 97:604-5 My '54

Savings deposits

See Savings deposits

School relations

See Banks and banking—Public relations

Securities

See Banks and banking—Stock

Service

Bank for 50,000 Boy scouts; First national bank in Santa Ana. D. M. Boyle. il Banking 46:126 O '53

Big business is banking on Main street. J. B. Mack, jr. Banking 46:55-8 Ag; 48-9+ S '53

Catering to the kids. il Burroughs Clearing House 38:20-1 Ja '54

Education on the installment plan; Rensselaer polytechnic institute of Troy collaborates with Manufacturers national bank. L. V. Shakespeare. il Bankers Mo 70:28+ Ag '53

New business from fringe benefit funds; Anglo national bank of San Francisco. L. Tharp. il Burroughs Clearing House 38:40-2+ F '54

Philanthropy in banking; Hanover bank, New York. C. R. Smith. il Bankers Mo 70:7-8+ O '53

Plant settles in Louisville; General Electric. R. P. Steptoe. il Banking 46:60+ N '53

Rail tickets at drive-ins; First and merchants national bank, Richmond for Chesapeake and Ohio railroad. il Burroughs Clearing House 37:19 S '53

Selling customers on a new money order service; register checks; Security-First national bank of Los Angeles. L. E. Friese. il Burroughs Clearing House 38:34-5+ D '53

See also

Banks and banking—Credit service

Banks and banking—Educational work

Service charge

Increased service charges; California. Burroughs Clearing House 38:19-20 F '54

Service to government

Looking at a bank's model savings bond program; Toledo trust company, Toledo. J. T. Rohr. il Burroughs Clearing House 38:36-7+ Ja '54

RFC liquidation progresses. L. Stafford. Banking 46:50+ F '54

U.S. Treasury and the banks. E. F. Bartelt. il Banking 46:42-4+ N '53

What the C.C.C. loan plan means to banking. E. Tyng. il Burroughs Clearing House 38:32-3+ N '53

Statements of condition

See Banks and banking—Reports

Statistics

Summary of U.S. banks, June 30, 1953; compilation by Polk's bank directory. Banking 46:69 O '53

See also

Bank deposits

Stock

Bank and insurance stocks. H. E. Johnson. Published in weekly Thursday numbers of Commercial and financial chronicle

Bank stock outlook for 1954. J. S. Williams. Mag of Wall St 93:502-3+ Ja 23 '54

Bank stock popularity in investment fund field. Burroughs Clearing House 38:11 Ja '54

Results from no cash dividend policy. L. S. Tark. Burroughs Clearing House 38:13 O '53

Stockholders

Pattern for localized, informal stockholders' meetings; Commerce union bank, Nashville, Tenn. Burroughs Clearing House 38:30 O '53

Study and teaching

Concentrated course in banking; Mellon national bank & trust co., Pittsburgh. R. Harrison. Bankers Mo 71:7-8+ F '54

School of banking at Wisconsin. J. J. McCann. il Banking 46:54-5+ O '53

See also

American institute of banking

Taxation

Taxation under 5219. Banking 46:70 S '53

Taxes in a bank merger. F. C. Fiechter, jr. Burroughs Clearing House 38:76+ O '53

Tellers' machines

Tellers' machines are something more; Lincoln national bank and trust co., Fort Wayne. R. E. Kenner. il Bankers Mo 70:34+ O '53

Transit operations

See also

Checks—Collection

Travel bureaus

Bank travel services. il Burroughs Clearing House 37:21-2 Ag '53

Trust departments

Bank farm service departments; trust-owned livestock farms. D. F. Graves. Banking 46:117-18+ F '54

Estate planning sells and retains trust business. N. B. Staub. Trusts & Estates 92:871 N '53

Farm management as a trust service. N. T. Robinson. Banking 45:150 My; 104 Je; 46:87 Jl; 104 Ag; 107 N; 102 D '53

F.D.I.C. reports higher trust department earnings in 1952. Trusts & Estates 92:808 N '53

50 years in the life of a trust department; First national bank of Chicago. il Trusts & Estates 92:916-18 D '53

Handling businesses in trust; ABA midwinter trust conference panel. Trusts & Estates 93:105-11 F '54

High costs cut trust profits in 1952; Federal reserve bank of Boston's annual analysis. Trusts & Estates 92:627-8 S '53

Hints for smaller trust departments; Midwinter trust conference discussion. Trusts & Estates 93:112 F '54

National bank trust assets, earnings, advance; report of Comptroller of the currency. Trusts & Estates 92:626+ S '53

News for trustmen. Banking 46:91-2 Ja '54 [cont monthly]

Pennsylvania bankers association trust school two-day workshop, Harrisburg, Nov. 5-6. Trusts & Estates 92:920-2 D '53

BANKS and banking—Trust departments—*Continued*

Prenumbered tickets to control security activity. G. P. Jochum. Banking 46:88-90 S '53

Trust accounting and auditing. H. S. Croft. Trusts & Estates 92:596-600, 654-6, 867-70, 912-13; 93:53-5 Ag-S, N '53-Ja '54

Trust company seeks out estate planning clients; Provident trust co., Philadelphia. Spectator 162:42+ My '54

What management expects of a trust department. G. Hoffman. Trusts & Estates 92:820-2 N '53

See also

American bankers association—Trust division

Trust powers

Fiduciary capacity; national banks. F. C. Fiechter, jr. Burroughs Clearing House 38:90+ F '54

Australia

Australia and New Zealand bank limited; statement by the chairman. G. C. Gibbs. Economist 170:132-3 Ja 9 '54

National bank of Australasia; statement by the chairman. H. D. Giddy. Economist 169:704 N 28 '53

Canada

Canadian banking. J. Montagnes. Burroughs Clearing House 38:63-5 Ja '54 [cont monthly]

Canadian banks to enter home mortgage loan field. J. Montagnes. Barron's 33:20 N 30 '53

Enter the Dutch. Bsns W p70 D 26 '53

See also

Royal bank of Canada

Ceylon

Bank of Ceylon; statement by the chairman. E. de Silva. Economist 170:134 Ja 9 '54

Europe

Britain extends scheme for currency arbitrage. For Comm W 50:6 N 23 '53

Europe's flexible money. Economist 169:533-4+ N 14 '53

Germany

German banks protest Bonn foreign trade negotiations. Economist 169:879 D 19 '53

Great Britain

Bank advances before and after reduction in bank rate. Economist 168:806 S 19 '53

Bank dividends round-up; reasons for disparities. Economist 170:184-5 Ja 16 '54

Boomlet in bank shares. Economist 169:350-1 O 31 '53

CIC and bank lending. Economist 169:977-8 D 26 '53

Cash for Christmas. Economist 170:52 Ja 2 '54

Controlling the fiduciary issue; Currency and bank notes bill. Economist 169:771-2 D 5 '53

Deposits' mid-year peak; rising trend of advances. Economist 168:277-8 Jl 25 '53

Deposits on the eve of the bank rate reduction. Economist 169:48 O 3 '53

Ghost bankers at Westminster; Currency and bank notes bill. Economist 169:841 D 12 '53

Higher bank dividends. Economist 170:111-12 Ja 9 '54

Postscript on the loan. Economist 169:439 N 7 '53

Record bank deposits. Economist 169:439-40 N 7 '53

See also

Bank of England
Barclays bank (Dominion, colonial and overseas)
Barclays bank, limited
District bank, limited
Lloyds bank, limited
Martins bank limited
Midland bank, limited
National provincial bank, limited
Williams Deacon's bank, limited

Hawaiian Islands

Community celebration as a bank good-will builder; Bishop national bank of Hawaii, Honolulu. N. F. Banfield. il Burroughs Clearing House 38:29 Ja '54

Houston, Texas

Houston banks; moves and mergers. il Bsns W p 129-30+ S 26 '53

Iran

Iran allows quotas to be raised. For Comm W 51:8 Ja 18 '54

Ireland

Irish banks to assist state capital outlays. For Comm W 51:5 Ja 18 '54

Latin America

Banking in Latin America. Economist 169:538+ N 14 '53

Los Angeles

Los Angeles banking spreading out. J. C. Reid. il Bankers Mo 71:9-10+ Ja '54

New York (city)

Bank stocks, total resources, deposits of 16 New York banks, 1952 and 1953; tabulation. H. E. Johnson. Comm & Fin Chr 179:270 Ja 21 '54

New Zealand

Australia and New Zealand bank limited; statement by the chairman. G. C. Gibbs. Economist 170:132-3 Ja 9 '54

Philadelphia

Branching into the suburbs; Philadelphia city banks. Bsns W p 138+ N 7 '53

Philippine Islands

Growing financial concept; Republic savings bank in the Philippines. il Burroughs Clearing House 37:8 S '53

San Francisco

City-wide top bank training for younger bank officers. L. E. Graybiel. il Burroughs Clearing House 38:31-3+ Ja '54

Scotland

Commercial bank of Scotland; statement by the deputy governor. Lord Rotherwick. Economist 169:929-30 D 19 '53

National bank of Scotland limited; statement by the governor. Lord Rowallan. Economist 169:987 D 26 '53

Scottish bank dividends. Economist 169:685 N 28 '53

South Africa

Netherlands bank of South Africa, limited; statement by the chairman. J. P. Kakebeeke. Economist 170:64-5 Ja 2 '54

Switzerland

Swiss bank syndicate offers IBRD bonds. For Comm W 50:5 N 23 '53

BANKS and banking, International

See also

International bank of reconstruction and development

BANKS and banking, National

Fiduciary capacity. F. C. Fiechter, jr. Burroughs Clearing House 38:90+ F '54

First comptroller lays down some rules; Hugh McCulloch, comptroller, 1863-65. Bankers Mo 70:54-5 S '53

National bank trust assets, earnings, advance; report of Comptroller of the currency. Trusts & Estates 92:626+ S '53

BAR associations

See also

American bar association

BAR mills. See Rolling mills

BARBER shops

Lighting

Harmonious lighting for a modern barber shop. il Illum Eng 49:376 Ag '54

BARBERS

Barbers' disease. W. Waris. bibliog il Ind Med 22:111-13 Mr '53

BARBITURATES

See also

Seconal sodium
Sodium amytal

BARBITURIC acid
5-Ethyl-5-(1-methyl-3-carboxypropyl)-2-barbituric acid and its thio analog; metabolites from pentobarbital and thiopental. H. B. Wood, jr. and E. C. Horning. bibliog Am Chem Soc J 75:5511-13 N 20 '53
5-Ethyl-5-(β-phenylpropyl)-barbituric acid from β-chlorocumene. G. S. Skinner and D. L. Knauss. Am Chem Soc J 76:1188-9 F 20 '54
Fluorine-containing barbituric acids. W. F. Bruce and R. D. Huber. bibliog Am Chem Soc J 75:4668-70 O 5 '53
Glycyl derivatives of aminobarbituric acids. G. S. Skinner and D. L. Lyman. bibliog Am Chem Soc J 75:5909-11 D 5 '53
Malonic ester syntheses with organosilicon compounds; new silicon-containing malonic esters, mono- and dicarboxylic acids, barbituric acids and a disiloxanetetracarboxylic acid. L. H. Sommer and others. bibliog Am Chem Soc J 76:1609-12 Mr 20 '54

BARCLAYS bank (Dominion, colonial and overseas)
Expansion; year's report. Economist 169:842 D 12 '53
Statement by the chairman. J. S. Crossley. Economist 169:852 D 12 '53

BARCLAYS bank, limited
Barclays scheme; increase in Barclays' dividend. Economist 169:351 O 31 '53
Statement by the chairman. A. W. Tuke. Economist 170:279-82 Ja 23 '54

BARGAIN sales. See Special sales

BARGES
Barge lines rate bill draws support of ICC. Oil Paint & Drug Rep 165:3+ Ap 12 '54
Big Steel teaches the army; De Long floating, walking dock-barge. il Iron Age 173:66 Ja 28 '54
Convert to barge transportation with the opening of new sand and gravel plant; J. L. Shiely co. W. B. Lenhart. flow sheet il plan Rock Prod 57:62-7+ S '54
Derrick barges have triple functions. il Marine Eng 59:69 S '54
Fuel supply line; barges carrying compressed natural gas up the Mississippi. il Chem W 74:85+ My 8 '54
Midwest water-trailer; Wyandotte Chemical's system of barges. il Chem W 74:82+ My 22 '54
New army craft tailored for the job. H. A. Jacobs. il Marine Eng 59:68-71 F '54
New mud barge has high delivery rate il Oil & Gas J 52:140 S 28 '53
Practical approach to vibration problems on drilling barges. T. B. Herndon and A. B. Reese, jr. il diags Pet Eng 25:B 118+ O '53
Reversible, self-unloading barges haul stone to plant; Ideal crushed stone co. il Rock Prod 57:104-5+ Je '54
Rustballing the fleet; Sargent barge line. il Chem W 74:88 My 8 '54
Use dock-barge in Gulf oil drilling. il Iron Age 173:65 Jl 1 '54
See also
Inland waterways corporation
Tank barges

BARITE
Barite, 1953. R. Rowland. Eng & Min J 155:107 F '54
Gravity surveys for residual barite deposits in Missouri. R. P. Uhley and L. Scharon. bibliog maps Min Eng 6:Trans 52-6 Ja '54
Magcobar, mud is their business; oil well drilling fluids. T. Wilson. il plan Min Eng 6:494-6 My '54
Properties of heavy concrete made with barite aggregates. L. P. Witte and J. E. Backstrom. bibliog Am Concrete Inst J 26:65-88 S '54

BARIUM
Diffusion of barium in an oxide-coated cathode. R. S. Bever. bibliog J Ap Phys 24:1008-10 Ag '53
Fractionation of barium-radium mixtures as chromates. M. L. Salutsky, J. G. Stites, jr. and A. W. Martin. bibliog Anal Chem 25:1677-81 N '53
Improvements in the determination of small amounts of sulphur. D. M. Fitzgerald. bibliog(32 ref) J Ap Chem 4:490-6 S '54
See also
Barite

Analysis

Determination of barium, calcium, and zinc in lubricating oils; use of fluorescent X-ray spectroscopy. E. N. Davis and R. A. Van Nordstrand. bibliog il diags Anal Chem 26:973-7 Je '54
Determination of sulfur and barium in organic barium sulfonates. F. E. Brauns, J. B. Hlava and H. Seiler. il Anal Chem 26:607-8 Mr '54
Ethylmethylpicrate as a reagent for barium. E. R. Caley and C. E. Moore. Anal Chem 26:939-40 My '54
Precipitation from homogeneous solution. A. H. A. Heyn and E. Schupak. bibliog il Anal Chem 26:1243-4 Jl '54
Precipitation of barium chromate from homogeneous solution. L. Gordon and F. H. Firsching. Anal Chem 26:759-60 Ap '54
Quantitative separation of the alkaline earths by ion-exchange chromatography. M. Lerner and W. Rieman, 3d. bibliog Anal Chem 26:610-11 Mr '54
Spectrochemical study of gravimetric procedure for barium, strontium and calcium. P. R. Wilkinson, J. A. Gibson, jr. and A. J. W. Headlee. bibliog Anal Chem 26:767-9 Ap '54

Isotopes

Internal Compton effect in Ba^{137}. L. Spruch and G. Goertzel. Phys R 93:642 F 1 '54

Nuclear reactions

Disintegration of Ba^{139}. A. C. G. Mitchell and E. Hebb. diags Phys R 95:727-30 Ag 1 '54

BARIUM bromide
Ternary system $BaBr_2$-$HgBr_2$-H_2O at 25°, 10·4°, and 4·5°. H. J. V. Tyrrell and J. Richards. Chem Soc J p3812-15 D '53

BARIUM chloride
Densities and molal volumes of molten mixtures of potassium chloride and barium chloride. J. S. Peake and M. R. Bothwell. bibliog diag Am Chem Soc J 76:2653-5 My 20 '54
Determination of sulfur in iron and steel by barium chloride method after chromatographic separation of sulfuric acid. F. Nydahl. bibliog diag Anal Chem 26:580-4 Mr '54
Differential diffusion coefficients of magnesium and barium chlorides in dilute aqueous solutions at 25°. H. S. Harned and F. M. Polestra. bibliog Am Chem Soc J 76:2064-5 Ap 20 '54
Surface tensions and their temperature coefficients of molten mixtures of potassium chloride and barium chloride. J. S. Peake and M. R. Bothwell. bibliog diags Am Chem Soc J 76:2656-9 My 20 '54

BARIUM chromate
Precipitation of barium chromate from homogeneous solution. L. Gordon and F. H. Firsching. Anal Chem 26:759-60 Ap '54

BARIUM compounds
Pyrolysis of the Windaus acid. R. B. Turner. Am Chem Soc J 76:1390 Mr 5 '54

BARIUM oxide
Barium iron oxide isomorphs of hexagonal and tetragonal $BaTiO_3$. W. W. Malinofsky and H. Kedesdy. il Am Chem Soc J 76:3090-1 Je 5 '54
Oxygen vacancies in barium oxide. R. L. Sproull and others. bibliog il Phys R 92:77-80 O 1 '53
System barium oxide-boric oxide-silica. E. M. Levin and G. M. Ugrinic. bibliog il diags J Res Nat Bur Stand 51:37-56 Jl '53
Thermionic emission and electron diffraction from thin films of barium oxide. P. N. Russell and A. S. Eisenstein. bibliog il diags J Ap Phys 25:954-61 Ag '54

Spectrum

Optical absorption and photoconduction in the visible and near infrared in single crystals of BaO. W. C. Dash. bibliog diags Phys R 92:68-76 O 1 '53

BARIUM perchlorate
Osmotic and activity coefficients of calcium, strontium and barium perchlorate at 25°. R. A. Robinson, C. K. Lim and K. P. Ang. Am Chem Soc J 75:5130 O 20 '53

BARIUM phosphate
Polyphosphates of calcium, strontium, barium and magnesium. M. Bobtelsky and S. Kertes. bibliog J Ap Chem 4:419-29 Ag '54

BARIUM stearate
Fringes of equal reflection coefficient ratio and their application to the determination of the thickness and refractive index of monomolecular films; thickness and refractive index of barium stearate double layers. R. E. Hartman and others. Opt Soc Am J 44:197-8 Mr '54

BARIUM sulfate
Baryta coated photographic paper. W. A. Kirkpatrick. il Paper Tr J 137:247-50+ N 13 '53
Evaluation of barium sulphate precipitates by a titrimetric method. R. Belcher and others. Chem & Ind p 127-8 Ja 30 '54; Discussion. p435, 608 Ap 10, My 22 '54
Kinetics of precipitate formation; barium sulfate. R. A. Johnson and J. D. O'Rourke. bibliog Am Chem Soc J 76:2124-6 Ap 20 '54
Recrystallization of barium sulfate from fused salts. M. Gallant, G. J. Schmitt and J. Steigman. bibliog Anal Chem 26:846-9 My '54
See also
Barite

Analysis

Distribution of strontium within barium sulfate precipitated from homogeneous solution. L. Gordon, C. C. Reimer and B. P. Burtt. bibliog(26 ref) diag Anal Chem 26:842-6 My '54
Rapid precipitation of barium sulfate. R. B. Fischer and T. B. Rhinehammer. bibliog diags Anal Chem 25:1544-8 O '53

BARIUM sulfonates

Analysis

Determination of sulfur and barium in organic barium sulfonates. F. E. Brauns, J. B. Hlava and H. Seiler. il Anal Chem 26:607-8 Mr '54

BARIUM thiosulfate
Barium thiosulfate monohydrate, standard for thiosulfate iodometry. W. M. MacNevin and O. H. Kriege. bibliog Anal Chem 25:767-9 My '53

BARIUM titanate
Barium iron oxide isomorphs of hexagonal and tetragonal $BaTiO_3$. W. W. Malinofsky and H. Kedesdy. Am Chem Soc J 76:3090-1 Je 5 '54
$BaTiO_3$-KF phase diagram. C. Karan and B. J. Skinner. J Chem Phys 21:2225 D '53
Broad band directional barium titanate transducers. L. Camp. Acoustical Soc Am J 25:297-301 Mr '53
Capacitor-modulated wide-range f-m system. M. Apstein and H. H. Wieder. il diags Electronics 26:190-2 O '53
Ceramic probe microphones. E. Ackerman and W. Holak. diags R Sci Instr 25:857-61 S '54
Domain clamping effect in barium titanate single crystals. M. E. Drougard and D. R. Young. diags Phys R 94:1561-4 Je 15 '54
Domain formation and domain wall motions in ferroelectric $BaTiO_3$ single crystals. W J. Merz. bibliog diags Phys R 95:690-8 Ag 1 '54
Effect of a two-dimensional pressure on the Curie point of barium titanate. P. W. Forsbergh, jr. bibliog diags Phys R 93:686-92 F 15 '54
Method for growing barium titanate single crystals. J. P. Remeika. Am Chem Soc J 76:940-1 F 5 '54
Preparation of reproducible barium titanate. R. M. Callahan and J. F. Murray. Am Cer Soc Bul 33:131-3 My 15 '54
Some dielectric properties of barium-strontium titanate ceramics at 3000 megacycles. L. Davis, jr. and L. G. Rubin. bibliog diags J Ap Phys 24:1194-7 S '53
Time effects in the hysteresis loop of polycrystalline barium titanate. M. McQuarrie. bibliog diags J Ap Phys 24:1334-5 O '53
Transducers for producing ultrasonic waves. O. Mattiat. il diags Acoustical Soc Am J 25:291-6 Mr '53

BARK
Characterization of two substances isolated from an Indian shrub. H. Heymann, S. S. Bhatnagar and L. F. Fieser. Am Chem Soc J 76:3689-93 Jl 20 '54
Chemical nature of the extractives from red alder. E. F. Kurth and E. L. Becker. bibliog Tappi 36:461-6 O '53
Colouring matters of the bark of rhamnus alaternus L. L. H. Briggs, F. E. Jacombs and G. A. Nicholls. Chem Soc J p3069-72 O '53
Constant feeding of fuel bark by the Hofft-Weverk bin unloader; Chesapeake corp. il Paper Tr J 138:78-9+ My 14 '54
Douglas fir bark yields valuable compounds. Pulp & Pa of Can 55:181 Jl '54
Making the bark pay; Pacific lumber co. launching line of bark extracts and insulation board. Chem W 74:96 F 20 '54
Problems affecting the wider use of wood as a technical raw material; hardboard production and bark utilization. H. F. Lewis. Paper Ind 36:55-7 Ap '54
Quercetin from fir and pine bark. E. F. Kurth. bibliog Ind & Eng Chem 45:2096-7 S '53
Spent sulphite liquor filtered through bark. Paper Tr J 137:12 N 20 '53
Use of shredded bark gives high combustion. Chem Eng 61:380 My '54

BARK peeling
Barking and chipping operations. il Paper Ind 36:142-3 My '54
Barking research at the Forest products laboratory, Ottawa, summer of 1952. G. E. Godfrey and G. E. Bell. il Pulp & Pa of Can 55:102-4 Ja '54
Can mechanical barking aid in northern hardwood utilization? il Paper Tr J 138:104-5 My 14 '54
Central's new barkers used on hardwoods. Paper Tr J 138:10 Jl 2 '54
Chemical barking of western species. D. J. Wort. il Paper Ind 36:488-9 Ag '54
Chemical debarking of trees. E. C. Jahn. il Pulp & Pa of Can 55:154+ Jl '54
Comparison of log barkers. W. H. Beeman. Tappi 37:sup 145A-8A Ag '54
Demonstration of new type Swedish log barking machine at Lachine, Que. il Pulp & Pa of Can 54:181-2 N '53
First operating report of the Burnt River barker. H. E. Vedder. il Paper Tr J 138:15-16 S 10 '54
Hurricane saw log debarker of cutter-head type. il Paper Tr J 138:34 Ag 6 '54
Improved pulpwood peeling. L. H. Paquet. Pulp & Pa of Can 55:57 F '54
Mechanical log debarker. il Paper Tr J 138:26 Jl 2 '54
NEPCO scrub oak debarking project. Paper Tr J 138:18 Je 18 '54; Same cond. Paper Ind 36:370-1 Jl '54
New barker undergoing tests; Improved machinery inc. il Paper Ind 35:1324-5 Mr '54
Some recent developments in barkers. G. E. Bell. il diags Pulp & Pa of Can 54:130-1+ D '53
Studies with a Karlstrom barker; abstract. W. Brecht and others. Paper Ind 36:630-1 S '54
Wood procurement and preparation. il Paper Tr J 138:75-81 S 17 '54

BARLEY
Barley, 1949-1952. Survey of Cur Bsns 1953 Sup p 138 [supplemented in monthly numbers]

BARNACLES
See also
Paint, Antifouling

BARNHARDT, William Horace, 1903-
Busiest man in textiles. R. E. Ellsworth. pors Mod Textiles Mag 35:36+ S '54

BARNS and stables
Framing a barn with a mow drive. il Am Bld 75:234-5 Ag '53
Planned for efficient farming; modern dairy barn; with blueprints. il Am Bld 75:50-3 Ap '53
Pole barn construction shrinks square-foot costs. il plan diag Am Bld 75:197-9 Je '53

BAROMETERS

Logarithmic barometer. V. H. Yngve. il diags R Sci Instr 25:43-5 Ja '54

BAROTOR. See Dyeing machines

BARRACKS

Largest lift-slab operation provides barracks averaging $8 per sq ft; navy's Little Creek amphibious base. il Eng N 152:25 F 25 '54

Largest structure to date built by lift-slab method; barracks at U.S. naval amphibious base, Norfolk. E. K. Bryant. il plan diag Civil Eng 23:606-8 S '53

Military issues first of new series of unified construction standards. E. Mickel. Arch Rec 116:38+ Ag '54

BARRELS, Steel

Painting

Hot barrel dries paint; Barrel remodeling co. Steel 135:135 S 13 '54; Iron Age 174:132 S 23 '54

BARRETTERS

Series operation of a glow-discharge tube and a barretter. F. A. Benson. bibliog Elec J 151:1291-3 O 23 '53

BARS and bar rooms

How dry bars are. Bsns W p50+ N 28 '53

Remodeled bar; Roland's cocktail lounge, San Francisco. il plan Arch Forum 99:162-3 S '53

BARTER, International

Barter deals offered; Iran making overtures to Cuba, Italy, and Japan to take oil in payment for sugar and various manufactured goods. Oil & Gas J 52:59 Jl 6 '53

Fertilizer barter pact entered into by USDA. Oil Paint & Drug Rep 165:3+ Ja 11 '54

Herrings for Russia. Economist 168:49 Jl 4 '53

Soviets offer oil; listing of crude as commodity for barter with western nations. D. Duff. Oil & Gas J 52:84+ Ag 10 '53

BARTH VON BARTHENAU, Ludwig, 1839-1890

Hlasiwetz and Barth; pioneers in the structural aspects of plant products. V. F. McConnell. bibliog por J Chem Educ 30:380-5 Ag '53

BARTRAM, Victor G.

He paces Canadian chemicals as Shawinigan Chemicals' president. por(cover) Chem & Eng N 32:2867 Jl 19 '54

BARYONS. See Nucleons

BARYTA. See Barium sulfate

BARYTES. See Barite

BASALT

Causes of basaltic explosions. H. T. Stearns. Geol Soc Bul 64:599 My '53

BASALT rock company

Basalt rock co. story. B. Nordberg. bibliog flow sheet il maps diags Rock Prod 57:104-46+ Ja '54

BASCULE bridges. See Bridges, Bascule

BASEBALL

Baseball shifts aren't over yet. Bsns W p 110-12 O 17 '53

Braves ride again. il Bsns W p 122+ O 3 '53

Earl Mann; can baseball survive tv? Bsns W p 100-2+ D 5 '53

BASEBALL clubs

Baseball club held not liable for foul ball injury under general rule; McNiel v. Fort Worth baseball club. Weekly Underw 171: 158 Jl 17 '54

BASEBOARD heating. See Heating—Baseboard heating

BASEMENTLESS construction

Basementless service design; abstract. B. Hunt. diags Am Gas J 181:19-20 Jl '54

Heating the crawl space with warm air. S. Konzo. il diags Am Bld 75:94-7+ O '53

How to build a better slab house; with cost data. il plan diags House & Home 4: 142-9 Jl '53

How to lessen the noise from the utility room. Am Bld 75:218-19 N '53

How to protect slab floors from frost and dampness. il diags Am Bld 75:74-5 My '53

Insulate for better heating results in slab-type construction. diags Dom Eng 184:120-1 Jl '54; Excerpt. Heating-Piping 26:137 Ag '54

What research has brought forth; digest of tests on concrete floor slabs, conducted by the University of Illinois Small homes council in cooperation with Levitt and sons. W. Egger. diags Am Bld 75:76-7 My '53

BASES (chemistry)

Interaction of polynitro-compounds with aromatic hydrocarbons and bases; a new method for determining the association constants for certain interactions between nitro-compounds and bases in solution. R. Foster, D. L. Hammick and A. A. Wardley. Chem Soc J p3817-20 D '53

Models illustrating the Lewis theory of acids and bases. F. Y. Herron. J Chem Educ 30: 199-201 Ap '53

Strengths of some organic bases. K. A. Allen, J. Cymerman-Craig and A. A. Diamantis. Chem Soc J p234-6 Ja '54

Titration of weak bases in acetic anhydride solvent mixtures. J. S. Fritz and M. O. Fulda. Anal Chem 25:1837-9 D '53

See also

Alkaloids
Amines
Mannich bases
Schiff bases

BASIC materials conference and exhibition. See Materials

BASIC research corporation

Nonprofit corporation formed to develop source of pure research. Chem & Eng N 32:482 F 8 '54

BASICITY

Base strengths of *cis*- and *trans*-1,2-aminoalcohols. T. A. Geissman, B. D. Wilson and R. B. Medz. bibliog Am Chem Soc J 76:4182-3 Ag 20 '54

Correlation of relative rates and equilibria with a double basicity scale. J. O. Edwards. bibliog Am Chem Soc J 76:1540-7 Mr 20 '54

Determination of the basicity of very weak bases. H. H. Jaffé. bibliog Am Chem Soc J 76:1024-5 F 20 '54

Relative basicities of some organic nitrogen bases. P. Rochlin, D. B. Murphy and S. Helf. Am Chem Soc J 76:1451-3 Mr 5 '54

Strengths of some organic bases. K. A. Allen, J. Cymerman-Craig and A. A. Diamantis. Chem Soc J p234-6 Ja '54

BASKERVILL, William Malone

Sketch. por Ed & Pub 86:14 My 23 '53

BASS, Harry W.

Sketch. por Pet Eng 25:A80 O '53

BAST fibers

Chemical composition of some leaf and bast fibers. E. C. Lathrop and G. H. Nelson. Tappi 37:99-103 Mr '54

See also

Flax
Jute
Ramie

BATHROOMS

Biography of the 1879-1954 American bathroom; illustrations with text. Am Bld 76: 146-7 Ag '54

Changing house; bathroom of 1979. diags Am Bld 76:148 Ag '54

FHA gives nod to inside bath; remodelers gain big opportunity. plans House & Home 4:150 O '53

Good bedrooms and bathrooms conserve space; design standards and data. H. R. Sleeper. il plans House & Home 6:118-19 S '54

Hotel that research built; bathrooms anticipate guests' habits; Hartford Statler. il diags Arch Forum 98:146-7 Ap '53

How to plan and sell your next house; better planned bathrooms can add livability. il House & Home 3:140-1 My '53

New way to apply decorative glass on bathroom walls. il Am Bld 76:330+ Ja '54

People want better bathrooms and more of them. il plan House & Home 5:160-3 My '54

Remodeling case study; bathroom to whistle about. il plans Dom Eng 183:117 Mr '54

39 ways to build a better bathroom. il plans diags House & Home 3:92-103 F '53

Lighting

Lighting a bathroom; lighting data sheet. il plan diags Illum Eng 49:401-2 Ag '54

BATHS (chemical apparatus)

Cheap hot stage; air bath for melting-point determinations. C. C. Kiplinger. J Chem Educ 31:33 Ja '54

BATHS (chemical apparatus)—*Continued*

Constant temperature water bath for use between 15° and 25° C. E. P. Hall and W. L. Nelson. diag Anal Chem 25:841-2 My '53

Low temperature bath for constant temperature studies. J. Vajda and D. P. Hart. diags R Sci Instr 24:354-5 My '53

℞ hot bath; fluidized solids show promise. diag Ind & Eng Chem 46:sup 13A+ F '54

Thermostatic air bath. K. Van Lente and E. H. Hadley. diags J Chem Educ 31:245-6 My '54

BATON ROUGE, Louisiana

Harbor

Expanding Baton Rouge's port. map Chem & Eng N 32:3494 S 6 '54

Industries

Big boom at Red Stick. il map Chem W 73:19-20 O 3 '53

BATTELLE memorial institute

Information for sale; plans expansion of technical information services. Chem & Eng N 32:966 Mr 8 '54

Machine age in the library; superspeed literature searching systems. Chem W 74:74+ Mr 13 '54

World widening research. C. Williams. Steel 135:40-1 Jl 5 '54

BAUER-SCHLICHTEGROLL, Gustav, 1871-1953

Sketch. Engineer 197:61-2 Ja 8 '54

BAUSCH & Lomb optical company

Into a new century. il Science 118:465-9 O 23 '53

BAUXITE

Aluminum-bauxite reserves and production. D. D. Blue. Light Metal Age 12:20-1+ Ap '54

Bauxite in bigger demand. Chem Age (Lond) 69:1124 N 28 '53

Bauxite production and imports, 1946-1953; tabulation. Steel 134:178 Ja 4 '54

Bauxite reserves in Haiti being developed. W. L. Rice. Light Metal Age 11:30 D '53

Drying of air in fixed beds. L. C. Eagleton and H. Bliss. bibliog Chem Eng Prog 49:543-8 O '53

Investigation of low-grade bauxites as potential sources of aluminum by caustic desilication and alumina extraction. W. A. Calhoun and H. E. Powell, jr. bibliog 3pls U S Bur Mines Rep of Invest 5042:1-23 '54

Kaiser's Jamaican bauxite operation. A. L. Moore. il map Min Eng 6:284-6 Mr '54

Modernized mine in Greece ships bauxite to West Germany. il Bsns W p 142 D 5 '53

Raw materials for aluminum production. D. D. Blue. U S Bur Mines Information Circ 7675:1-11 '54

World bauxite reserves. I. Lipkowitz. Eng & Min J 154:127 N '53

Analysis

Analysis of bauxite exploration samples; X-ray diffraction method. R. H. Black. bibliog il Anal Chem 25:743-8 My '53

Transportation

Cost factors in the utilization of foreign bauxite to make aluminum; breakdown of unit transportation costs. A. F. Johnson. il Min Eng 6:598-603 Je '54

BAXTER, Gregory Paul, 1876-1953

Experiences in the laboratory. W. M. MacNevin. por J Chem Educ 31:303-5 Je '54

BAY CITY, Michigan

Bay City, 1953. il Dom Eng 182:138-9 N; 94-6 D '53

BAYLOR university

New law school. il plans Arch Rec 113:148-9 Je '53

BEACHES

Shop-designed rake gets beach clean. il Eng N 151:37 O 22 '53

Some practical facts about beach erosion in Florida. M. N. Lipp. il Am Soc C E Proc 79 [no 238]:1-6 Ag '53

BEACONS

See also

Radio beacons

BEAM system. See Radio communication—Beam system

BEAMS, Thomas Young, 1889-

Retires. por East Underw 55:28 Ja 8 '54

BEAMS and girders

Analysis of continuous composite steel and concrete beams. J. Sherman. diags Am Soc C E Proc 79 [no 251]:1-21 Ag '53

Analytical determination of coupled bending-torsion vibrations of cantilever beams by means of station functions. A. Mendelson and S. Gendler. bibliog diag U S Nat Advisory Com for Aeronautics 1951:77-96 '52

Application of Heaviside's step-function to beam problems. J. E. Goldberg. bibliog diags Am Soc C E Proc 79 [no 202]:1-14 Jl '53; Discussion. 79 [no 333]:17-19 N; [no 374]:3-5 D '53

Beams; prestressed field growing up. K. W. Bennett. Iron Age 172:77 Jl 9 '53

Bending of a constrained circular beam resting on an elastic foundation. E. Volterra and R. Chung. bibliog diags Am Soc C E Proc 79 [no 205]:1-13 Jl '53

Box-shaped girders make rigid bents. il Constr Methods 36:160+ My '54

Calculating tearout strength for cantilever beams; data sheet. B. Saelman. diags Machine Design 26:161-3 Ja '54

Collapsible girder or tower. il diag Engineering 177:244 F 19 '54

Deflection of laminated beams. L. G. Clark. diags Am Soc C E Proc 79 [no 331]:1-17 N '53

Design of channel shear connectors for composite I-beam bridges. I. M. Viest and C. P. Siess. bibliog diags Pub Roads 28:9-16 Ap '54

Diffusion of load into the decks of plate-girder bridges. A. H. Chilver. il diags Engineering 176:645-8 N 20 '53

Forty percent weight reduction with new building unit. il Brick & Clay Rec 124:69-70 Ap '54

Hico knocks the props out. il Eng N 151:175 S 10 '53

How to design a pre-tensioned bonded prestressed concrete beam. V. J. Brown. diags Roads & Sts 97:101-4+ F '54

Impulsive motion of elasto-plastic beams. H. H. Bleich and M. C. Salvadori. diags Am Soc C E Proc 79 [no 287]:1-25 S '53

Lateral buckling of I beams under thrust and unequal end moments. M. G. Salvadori. Am Soc C E Proc 79 [no 291]:1-25 O '53

Limit analysis and design. W. Prager. bibliog diags Am Concrete Inst J 25:297-304 D '53; Discussion. 26:304^1-304^4 pt 2 D '54

Long-span prestressed-concrete beams used in army field house. R. E. Snetzer. il diags Civil Eng 24:217-19 Ap '54

Long-span prestressed concrete girders. W. D. Shea. il Concrete 62:14+ Je '54

New designs cut prestressed block-beam cost. R. H. Bryan. il diags Eng N 152:32-4 Ap 22 '54

Numerical analysis of frames with curved girders. J. Michalos. plans diags Am Soc C E Proc 79 [no 250]:1-21 Ag '53

Plastic deformation in beams under disturbed dynamic loads. J. A. Seiler and P. S. Symonds. bibliog diags J Ap Phys 25:556-63 My '54

Plastic deformation of wide-flange beam-columns. R. L. Ketter and others. bibliog diags Am Soc C E Proc 79 [no 330]:1-53 N '53

Prestressed bridge beams cast-in-place. il Constr Methods 36:148+ My '54

Prestressed concrete girders, Manhattanville college, Purchase, N.Y. C. Dobell. Am Soc C E Proc 79 [no 265]:1-5 S '53

Prestressed I-beams support roof of reinforced concrete building. il Eng N 152:49-50 Ja 14 '54

Prestressed roof girders set span record: senior high school gymnasium in Greensboro, N.C. W. D. Shea. il Eng N 152:36-8 Ja 21 '54

Pre-stressed tile beams; Stahlton process. L. R. Whitaker. il diags Brick & Clay Rec 122:50-1 My '53; Discussion. 123:10 Jl; 33 D '53

Prestressing provides spacious warehouse. H. H. Edwards and Z. Zia. il plan diags Concrete 62:5-7 F '54

BEAMS and girders—*Continued*
- Products plant makes prestressed beams. P. V. Taylor. il Concrete 61:30 D '53
- Rational analysis of a concrete beam with longitudinal holes. J. Moyse. diags Am Concrete Inst J 25:598-600 Mr '54
- Restraining-force method of calculating slope and deflection. Pao Chyuan Huang. diags Civil Eng 23:842-4 D '53
- Selection and design of prestressed concrete beam sections. T. Y. Lin and A. C. Scordelis. diags Am Concrete Inst J 25:209-24; Correction. sup25 N '53; Discussion. P. D. Moliotis. 26:224^1-224^6 pt 2 D '54
- Stirrups pacing in beams rapidly determined. J. Moyse. Civil Eng 23:698-9 O '53
- Timber plate girders. il diags Arch Forum 99:145-7 Ag '53
- Two axes of twist in elastic prisms. D. G. Ashwell. bibliog Engineering 176:769-71 D 18 '53
- Vierendeel girders in bottling plant support both ceiling and floor. il Arch Rec 113: 195 Mr '53
- Wire-winding machine prestresses beams. il Eng N 152:41 F 25 '54

Testing
- Buckling tests on welded plate girders with stiffeners; abstract. C. Massonnet. Welding J 33:sup 120 Mr '54
- Fatigue tests of welded beam connections. O. Graf. diags Welding J 33:sup365-8 Jl '54
- Flexural strength of prestressed concrete beams. D. F. Billet and J. H. Appleton. il diags Am Concrete Inst J 25:837-54 Je '54; Discussion. 26:856^1-856^{14} pt 2 D '54
- Lightweight prestressed concrete. F. E. Koebel. il diags Am Concrete Inst J 25:585-96 Mr '54
- Minimum bar spacing as a function of bond and shear strength. P. M. Ferguson and others. il diags Am Concrete Inst J 25: 869-87 Je '54; Discussion. 26:888^1-888^6 pt 2 D '54
- Plastic design of grillages. J. Heyman. il diags Engineering 176:804-7 D 25 '53
- Static and dynamic elastic behavior of reinforced concrete beams. J. Penzien and R. J. Hansen. bibliog il diags Am Concrete Inst J 25:545-67 Mr '54
- Transition temperatures of structural steel beams with butt-welded splices. W. J. Krefeld and G. B. Anderson. il diags Welding J 32:sup538-76 N '53

BEANS
- Bulk isolation of L(—)pipecolic acid from phaseolus vulgaris and its quantitative determination. N. Grobbelaar, R. M. Zacharius and F. C. Steward. bibliog Am Chem Soc J 76:2912-15 Je 5 '54
- Detection, isolation and identification of L(—) pipecolic acid in the non-protein fraction of beans (phaseolus vulgaris). R. M. Zacharius, J. F. Thompson and F. C. Steward. bibliog Am Chem Soc J 76:2908-12 Je 5 '54

See also
Castor beans
Soybeans

BEARING metals
- Aluminum alloy for bearings. Automobile Eng 44:244 Je '54
- Aluminum alloys make good bearings. D. B. Wood. il Iron Age 172:168-9 S 10 '53
- Application of bronze bearing alloys. J. L. Duchene. il Iron & Steel Eng 31:92-7 My '54
- How engineers select metals for oil-film bearing applications. E. B. Etchells. il Machine Design 26:232-4+ Jl '54; Abstract. Metal Prog 66:152+ Ag '54
- Properties and production of aluminum bearings; abstract. A. B. Shaw. Metal Prog 65: 185-6 F '54
- Steel for bearings. il Steel 133:134 O 12 '53

Testing
- Development of a copper-silver-lead alloy for bearings. G. Llewelyn. bibliog il diag Metallurgia 48:215-20 N '53
- Resistance of some cast and plated sleeve-bearing materials to cavitation erosion; abstract. R. A. Schaefer and others. Metal Prog 66:170+ Ag '54
- Test gives bond life expectancy of bimetallic materials. J. B. Mohler. diag Iron Age 174: 106-7 S 2 '54

BEARING surfaces
- Bronze plating solves design and corrosion problems; Lustralite plating process. W. H. Safranek and others. bibliog il Steel 133: 102-4+ D 21 '53
- How colloidal graphite protects bearing surfaces. H. Warburton. Iron Age 172:135-6 Jl 9 '53

BEARINGS
- Allis-Chalmers fluid piston bearings for rotating shaft assemblies. il diags Machine Design 26:155 S '54
- Bearings, lubricants, and lubrication; a digest of 1952 literature. Mech Eng 75:801-8 bibliog(124 titles, p806-8) O '53
- Effect of lubrication on fretting corrosion. E. M. Johnson. Machine Design 26:348+ Ap '54; Abstract. S A E J 62:102-3 Je '54
- Facts about modern pillow blocks. il Mill & Factory 54:167 My '54
- Facts about modern sleeve bearings. diags Mill & Factory 54:166 My '54
- Functions of materials in bearing operation. P. P. Love and others. diag Machine Design 26:276+ Mr '54
- How to prevent oil film whirl in journal bearings. R. S. Sherwood. bibliog diags Machine Design 25:163-8 D '53
- Investigation of cemented tungsten carbide as bearing material. J. S. Kozacka and others. bibliog il diags A S M E Trans 75: 1203-9 O '53
- Know your bearings. W. F. Schaphorst. Water & Sewage Works 101:59 F '54
- Oil whip of flexible rotors. A. C. Hagg and P. C. Warner. bibliog il diags A S M E Trans 75:1339-44 O '53
- Oilless bearings; their place in industry. C. D. Spadone. bibliog il Iron & Steel Eng 31:185-90; Discussion. 190-1 S '54
- Pivoted-shoe bearings. R. H. Marvin. il Franklin Inst J 256:89-90 Jl '53
- Precision plain bearings. diags Automobile Eng 44:123-4 Mr '54
- Proper engineering, design, solves kiln car bearing problems. Brick & Clay Rec 125: 78 Ag '54
- Solution of the Reynolds equation for slider-bearing lubrication. A. Charnes and others. bibliog diags A S M E Trans 74: 867-73; 75:269-71, 507-12, 1117-21, 1125-36; 76:327-30 Jl '52, F, My, Ag '53, F '54; Discussion. 75:271-2, 512-13, 1121-3 F, My, Ag '53
- Strip-packaged bearings. il Mod Packaging 27:98-9 N '53
- Study of lubricant flow in bearings by streak photography. F. J. Kolano. il Product Eng 24:162-3 O '53

See also
Babbitting
Bearing metals
Bearings, Roller
Bearings, Thrust
Lubrication and lubricants
also subdivision Bearings under special subjects, e.g.
Automobile engines
Cars
Diesel engines
Motor truck engines
Rolling mills

Failure
- Analysis of bearing failures. H. W. Leutkemeyer. il Am Pet Inst Proc 33(2):53-9 '53; Same. Pet Refiner 32:135-7 Jl '53

Manufacture
- Better standards for closer cost control; Federal bearings co. W. P. Canfield. il Factory Management 112:132-4 My '54
- Life for steel parts. Steel 134:130 Ap 5 '54
- Sintered parts; production costs cut with powder metal bearings. il Iron Age 173: 164+ Mr 11 '54

See also
Babbitting

BEARINGS, Anti-friction
- Bearings; smooth supply ahead. Steel 133:90 O 12 '53
- Better heat treating for better bearings. H. Habart. il Iron Age 172:131-5 Jl 16 '53
- Facts about modern anti-friction bearings. diags Mill & Factory 54:164-5 My '54
- Hydraulic pressure simplifies bearing removal. diag Machine Design 26:193 S '54
- Tips on the lubrication of anti-friction bearings. V. B. Yardley. il Mill & Factory 53: 82-4 D '53

BEARINGS, Ball
- Are you pinning down causes for rolling-contact bearing failures? J. Sparks. il Power 97:120-1+ D '53
- Centrifugal boiler feed pump bearing maintenance. I. J. Karassik. diags Power Eng 58:90-1+ F '54
- Chart for determining load and life of ball and roller bearings; reference book sheet. L. S. Harris. Product Eng 24:211, 213 Jl '53
- Fatigue strength of ball bearing races and heat-treated 52100 steel specimens. H. Styri. bibliog il diags Am Soc T M Proc 51:682-97; Discussion. 697-700, 719-20 '51
- High temperature lubrication of electric motor ball bearings. J. E. Brophy and others. diag Product Eng 24:298-300+ S '53
- Lubrication of ball and roller bearings at high speed. A. Fogg and J. S. Webber. pl diags Inst Pet J 39:743-64 N '53
- New orders signal fourth-quarter gains in ball bearing sales. il Steel 135:78 S 13 '54
- Solid lubricant reduces ball bearing friction. Machine Design 26:160 Ja '54
- Tips on ball bearing maintenance. J. Cannon. Pet Processing 8:1550, 1732-3, 1904-5; 9:100-1, 247-8, 393-5, 557-9, 749-51, 917-18 O '53-Je '54

See also

Bearings, Anti-friction

Manufacture

- Ball-bearing factory; Ransome and Marles bearing co. Engineering 176:555 O 30 '53
- Liquid carburizing. T. M. Dougherty. il Metal Prog 66:89-90 Ag '54

BEARINGS, Graphite
- Design and application of carbon-graphite bearings. J. C. Schubert. il diags Machine Design 26:129-35 Jl '54

BEARINGS, Jewel
- Design factors for jewel bearing systems. A. C. Lawson. il diags Machine Design 26:132-7 Ap '54
- Jewel bearings; precision components for quality equipment. R. P. Cameron, jr. il diags Product Eng 24:186-91 Ag '53
- Synthetic sapphire parts resist wear, heat and corrosion. il Materials & Methods 39:112-13 Je '54

BEARINGS, Non-metallic
- Applications for laminated fabric bearings. R. L. Berry. il diag Iron & Steel Eng 31:161-5; Discussion. 165-6 S '54

BEARINGS, Plastic
- Plastic bearings requiring no lubrication. il Engineering 177:22 Ja 1 '54

BEARINGS, Roller
- Are you pinning down causes for rolling-contact bearing failures? J. Sparks. il Power 97:120-1+ D '53
- Chart for determining load and life of ball and roller bearings; reference book sheet. L. S. Harris. Product Eng 24:211, 213 Jl '53
- How roller bearings are applied to freight cars. il Ry Loco & Cars 128:58-9 F '54
- Internal redesign improves bearing; new spherical roller bearing. il diags Steel 133:109 N 2 '53
- Lubrication of ball and roller bearings at high speed. A. Fogg and J. S. Webber. pl diags Inst Pet J 39:743-64 N '53
- New 70-ton flat cars have roller bearings. il Ry Age 136:35-6 My 24 '54
- Old way and the new in bearings. il Bsns W p50-1 Ag 29 '53
- Production canning stretches bearing storage life. il Steel 133:113 Jl 27 '53
- Rebuilding bearings saves time, cuts costs; Jones & Laughlin steel corp. il Iron Age 173:117 Jl 1 '54
- Roller bearings; sales upturn sought. il Steel 135:69 Jl 12 '54
- S K F improved spherical roller bearings. il diags Mach 60:248 N '53; Iron Age 172:132-3 O 22 '53; Machine Design 25:196 N '53
- Skefko spherical roller bearing. Engineer 196:604 N 6 '53
- Some lubrication problems with roller bearings and their solution; abstract. R. H. Dubois. Automobile Eng 44:332 Ag '54
- Split assembly of Cooper roller bearings. il Machine Design 26:123 My '54
- Wheel tapered roller bearing. il Blast F & Steel Pl 42:708-9 Je '54

See also

Bearings, Anti-friction

Manufacture

- Dimensional control system cuts finishing costs; Rollway bearing co. L. L. McArthur and E. H. Kinne. il Iron Age 174:121-4 Ag 19 '54
- Grinding; incentives up accuracy; Timken roller bearing co. T. M. Rohan. il Iron Age 174:71 S 23 '54

Testing

- Quality control and inspection. W. L. Young. il Instruments 26:1884 D '53

BEARINGS, Thrust
- Air thrust bearing. il diag Mill & Factory 54:139 Mr '54; Comp Air Mag 59:205 Jl '54
- Causes of failures in ball thrust bearings used in aircraft hydraulic pumps. il diags Automotive Ind 110:136+ Ja 15 '54
- New thrust bearing. il diag Automobile Eng 43:562 D '53
- Prevention of babbitt blisters in thrust-bearing pads. R. A. Baudry and others. bibliog il diag A S M E Trans 76:255-60 F '54
- Tandem thrust roller bearings designed to double the load capacity; Rollway bearing co. diag Mach 60:229 F '54; Blast F & Steel Pl 42:119-20 Ja '54

BEATING process. See Paper making—Beating

BEATRICE foods company
- Five specially selected stocks; with comparative balance sheet items. Mag of Wall St 93:437 Ja 9 '54
- Steady rise in sales, net likely. Barron's 33:21-2 N 30 '53

BEAUMONT, Texas

Sewerage

- Biofiltration serves a growing city. flow sheet Pub Works 85:73-4 Ap '54
- Thick sludge saves dollars; Beaumont building country's first sewage works designed to take advantage of sludge concentration devised by Wilbur Torpey. diag Eng N 152:41-2 Ap 29 '54

BEAUTY shops

Air conditioning

- Air conditioning the beauty shop. J. T. Dabbs. il plans diags Heat & Ven 51:100-6 Ap '54

BECHUANALAND
- Kalahari cattle. map Economist 170:222+ Ja 23 '54

BECK, Edward F. W. 1895-
- AIEE fellows elected. por Elec Eng 72:1128-9 D '53

BECKER value. See Reflection (optics)

BECKET, Welton David, 1902-
- W. Becket; here's how to run total-design plant. J. Shinn. pors Eng N 152:48-50+ Ja 7 '54

BECKMAN flow colorimeter. See Colorimeters and colorimetry

BEDBUGS
- DDT resistance in bed bugs. Soap & San Chem 29:171 Ag '53

BEDDING

See also

Sheets

BEDROOMS
- Good bedrooms and bathrooms conserve space; design standards and data. H. R. Sleeper. il plans House & Home 6:118-19 S '54
- How to plan and sell your next house; bedrooms need more space and better storage. il House & Home 3:142-3 My '53

Lighting

- Decorative lighting for a young man's bedroom. il plan diags Illum Eng 49:294 Je '54

BEDS, Built-in
- Pullman divan for a den. il diags Am Bld 76:220 F '54

BEECH

Hemicellulose A of beechwood (fagus sylvatica). G. O. Aspinall, E. L. Hirst and R. S. Mahomed. Chem Soc J p 1734-8 Je '54

BEEF

Food chains push beef sales in newspaper ads. G. A. Brandenburg. Ed & Pub 86:32 Ap 18 '53

U.K. to purchase beef under FOA program. For Comm W 51:14 Ja 25 '54

BEER

Beer and beverages; Modern Packaging industry survey. il Mod Packaging 27:100-6+ Ja '54

Beer handling speeded; Portland (Ore.) beer distributors. J. Ferguson. il Food Eng 26:131 F '54

Chemical engineering methods in the food industry; storage and bulk transport of potable liquids. J. D. Usher. il diag Chem & Ind p 1035-9 Ag 21 '54

Fine art for beer; Goebel brewing co. il Mod Packaging 27:100-3 N '53

Isolation, separation, and characterization of beer proteins. B. L. Scallet and others. bibliog flow sheet il Ind & Eng Chem 45:1016-22 My '53

One-man loading system; Beer distributors, inc. il Food Eng 26:125+ Jl '54

Symbol for beer; new Griesedieck label. il Mod Packaging 27:110-13 Jl '54

See also

Breweries

Advertising

Switcheroo; Acme tests a heavier brew. M. Meyerfeld. il Sales Management 70:96-7 My 20 '53

When is a testimonial not a testimonial? H. Stebbins. il Ptr Ink 243:47 Je 26 '53

Analysis

Nonashing technique for determination of traces of copper in malt beverages. I. Stone, R. Ettinger and C. Gantz. bibliog Anal Chem 25:893-5 Je '53

BEER containers

Debut of 16-oz. beer can timed for summer demand; Jos. Schlitz brewing co. il Mod Packaging 27:113 Jl '54

BEER'S law

Beer's law in analytical chemistry. H. A. Liebhafsky and H. G. Pfeiffer. bibliog J Chem Educ 30:450-2 S '53

Kinetic interpretation of the Bouguer-Beer law. J. H. Goldstein and R. A. Day, jr. J Chem Educ 31:417-18 Ag '54

Rectification of nonlinear Beer's law plots. H. Goldenberg. bibliog Anal Chem 26:690-3 Ap '54

BEES

More on the language of the bees. H. Kalmus. il diags Sci Am 189:60-2+ Jl '53

BEESON, Albert C.

Beeson offers to cut ties with company in NLRB fight. Chem & Eng N 32:598 F 15 '54

BEETLES

See also

Flour beetles

BEETS and beet sugar

Continuous processing of beet sugar at Quebec government's sugar refinery. R. Leduc. flow sheet il diag Can Chem Process 38:24+ Ap '54

Home grown sugar. il Elec J 151:1744-6 N 27 '53

Recovery of 2,3-butanediol from fermented beet molasses mashes. J. A. Wheat. bibliog(34 ref) flow sheets il Ind & Eng Chem 45:2387-94 N '53

Analysis

Fractionation of organic acids in sugar beets by ion exchange resins. H. S. Owens, A. E. Goodban and J. B. Stark. bibliog(27 ref) Anal Chem 25:1507-11 O '53

Improved chromatographic method for analysis of sugar beet products. R. F. Serro and R. J. Brown. Anal Chem 26:890-2 My '54

BELGIAN Congo. See Congo, Belgian

BELGIUM

See also

Airlines—Belgium

Brick industry and trade—Belgium

Metal working industries—Belgium

Petroleum industry and trade—Belgium

Commercial policy

See also

Benelux union

Economic conditions

Economic conditions abroad (cont). For Comm W 50:4 S 21; 3+ O 26 '53; 51:3+ Ja 4 '54

BELL, Harriet

Woman runs contractor's ready mix plant; Zimmerly construction co. pors Concrete 62:10-11 Jl '54

BELL and Howell company

How to coordinate executives; Bell & Howell co. Bsns W p 130+ S 12 '53

BELL telephone company of Canada

Benefitting from Dominion's economic growth. Barron's 33:32-3 D 14 '53

BELL telephone laboratories

Ceramics, tailor made; pictorial presentation. Chem & Eng N 31:4218-19 O 12 '53

BELLAIRE, Ohio

Water supply

Gallery water under bed of river is cheaper than water on surface. il Eng N 151:52+ D 10 '53

BELLOWS

Bellows; components for Cleveland wind tunnel among largest ever made. il Iron Age 172:169-71 N 19 '53

Bellows; improved structure reduces flex failures. diags Iron Age 172:86-7 D 24 '53

Bellows life increased by welded diaphragm design. diag Machine Design 26:200 Mr '54

Bellows seals furnace couples. W. H. Decker. diag Pet Processing 8:1201 Ag '53

Designing with metal bellows. J. H. Howard. il diags Machine Design 26:137-38 Ap '54

Metal bellows. il Welding J 33:319 Ap '54

BELLS

See also

Carillons

BELLUSCHI, Pietro

Northwest architecture of P. Belluschi. Arch Rec 113:134-9 Ap '53

BELT conveyors. See Conveying machinery—Belt conveyors

BELT conveyors (passenger). See Subways—Belt conveyors (passenger)

BELT drive. See Belting

BELTING

Automatic take-up and aligning device protects elevator belts. R. J. Bell. il Foundry 82:201 Ap '54

Facts about modern flat belt drives. il diags Mill & Factory 54:170-1 My '54

Facts about modern timing belts. il Mill & Factory 54:169 My '54

Facts about modern V-belt drives. diags Mill & Factory 54:172-3 My '54

50 per cent more hp claimed with new belt drive. il diags Constr Methods 36:68 Ag '54

How can we keep static off belts? answers. diags Power 98:136+ Jl '54

Installing and maintaining V-belt drives. C. J. Busacca. il Mill & Factory 54:121-3 F '54

Latest ideas on rubber belt use in pulp mills. D. R. Scheu. il Paper Tr J 138:24+ Je 11 '54

Let the belt carry the static. F. H. Rumble. il Safety Maint & Prod 107:13-14 Ja '54

Mechanisms for adjusting tension of belt drives; drawings with text. J. H. Gepfert. Product Eng 24:168-9 O '53

New backstand belt idler. Blast F & Steel Pl 42:569 My '54

New kind of belt has long life, uniform tension; Poly-V belt. il Factory Management 112:148-9 My '54

Nylon drop stamp belts. Automobile Eng 44:346 Ag '54

Ribbed belt drive improves power transmission. il Iron Age 173:169-70 Je 17 '54

Santa Fe solves generator drive problem; endless V-belts. J. V. Dobbs. il Ry Loco & Cars 128:56-7 Ja '54

Select transmission belts to make them last. N. Perry. Textile World 104:122-3+ F '54

Selection, installation and operation of woven wire belts for the glass industry. J. F. Reid. diags Glass Ind 35:260-5 My '54

BELTING—*Continued*

Self-adjusting belt guider. S. E. Amos. diags Machine Design 25:142 N '53

Timing belt drive engineering handbook. R. Y. Case. 189p $3.50 McGraw-Hill book co, 330 W. 42d st, New York 36 '54

V-belts do a top job even on drives off beaten path. F. H. Rumble. il Power 97:118-19 N '53

What you need to know about V-belt drives; highlights of three sound-strip films which Allis-Chalmers prepared. il Factory Management 112:102-5 Mr '54; Power 98:128-9 Ap '54

Testing

Design of V-belt drives for mass produced machines. W. S. Worley. il diags Product Eng 24:154-60, 160A S '53

BELTING, Conveyor

Belt splicing under pressure. il Coal Age 59:81 Ja '54

How to get best results from elevator conveyor belts. A. F. Matheis. diags Rubber Age 75:690-4 Ag '54

How to splice conveyor belts. A. F. Matheis. il diags Coal Age 59:192-3 Mr '54; Same cond. Textile World 104:92-3 Ag '54

Installation and maintenance of conveyor belting. il diags Foundry 82:86-93+ F '54

New Goodrich Riffle Grip conveyor belt sheds and retains water. il Rubber Age 74:269 N '53; Iron Age 172:110-11 O 29 '53

Novel use for conveyor belting found in handling abrasives. il Iron Age 172:162 Ag 6 '53

BELTS, Abrasive. See Abrasive belts

BELTS, Safety. See Safety belts

BEN-GURION, David, 1886-

Mr Ben Gurion's example; withdraws from politics. Economist 169:598 N 21 '53

BENDER, Howard L. 1893-

Hyatt award won by Bender for phenolic resin research. por(cover) Chem & Eng N 31:2392 Je 8 '53

BENDING

Analytical determination of coupled bending-torsion vibrations of cantilever beams by means of station functions. A. Mendelson and S. Gendler. bibliog diag U S Nat Advisory Com for Aeronautics 1951:77-96 '52

Bending of a constrained circular beam resting on an elastic foundation. E. Volterra and R. Chung. bibliog diags Am Soc C E Proc 79 [no 205]:1-13 Jl '53

Bending of simply-supported rectangular plates. K. R. Peattie and G. F. Day. il diags Engineering 176:308-10, 358-60 S 4, 18 '53

Calculation of sheet metal bend allowances; reference sheets. D. L. French. diags Tool Eng 33:87-8 Ag '54

How to bend aluminum tube and bar. J. M. Adie. il diags Am Mach 98:137-44 My 24 '54

How to improve bending properties of titanium strip. W. M. Baldwin, jr. Iron Age 172:165-7 D 3 '53

How to prevent distortion of pierced holes during forming. F. Strasser. diags Iron Age 172:134-5 Ag 20 '53

In this efficient yard, reinforcing bars are hooked and bent; Fehlhaber corp. il diag Constr Methods 36:58-60 My '54

Influence of frequency on the repeated bending life of acid lead. J. F. Eckel. bibliog il diags Am Soc T M Proc 51:745-56; Discussion. 757-60 '51

Standardization of minimum bend radii for sheet metal. B. Rogge. Mach 61:200-1 S '54

See also

Pipe bending

Tube bending

BENDING machines

Bronx plate bending machine. il Engineer 197:365 Mr 5 '54; Engineering 177:343 Mr 12 '54

Lockheed mechanizes extrusion bending. F. C. Hoffman. il Mach 60:196-9 F '54

See also

Rolls (bending machines)

Tube bending machines

BENDING moment

Bending moments in fuselage frames obtained by the photoelastic method. P. P. Benham. bibliog il diags Roy Aeronautical Soc J 57:667-82 N '53

Contribution of higher mode resonance to helicopter rotor-blade bending. H. Hirsch. bibliog il J Aeronautical Sci 20:407-25 Je '53

Effects of wing flexibility and variable air lift upon wing bending moments during landing impacts of a small seaplane. K. F. Merten and E. B. Beck. diag U S Nat Advisory Com for Aeronautics 1951:221-7 '52

BENDIX aviation corporation

Five candidates for extra dividends; with comparative balance sheet items. Mag of Wall St 93:198 N 14 '53

BENEDICT, C. Harry, 1876-

E&MJ salutes C. Harry Benedict. por Eng & Min J 155:85 My '54

BENEDICT, Manson, 1907-

Industrial nuclear power deterred by Russia's H-bomb. por(cover) Chem & Eng N 31:3642 S 7 '53

BENEDICT'S solution

Copper-ethylenediaminetetraacetic acid complex in alkaline solution. H. Wagreich and B. Harrow. bibliog Anal Chem 25:1925-6 D '53

BENEFICIAL loan corporation

Beneficial story. il Burroughs Clearing House 38:6-8 F '54

Debentures offered. Comm & Fin Chr 178:754 Ag 31 '53

Five specially selected stocks; with comparative balance sheet items. Mag of Wall St 93:438 Ja 9 '54

Stock offered. Comm & Fin Chr 178:1465-6 O 19 '53

BENEFIT plans, Employees'. See Employees' benefit plans

BENEFIT societies

Agent stimulation is topic of field managers; National fraternal congress convention, Dallas. Nat Underw (Life ed) 57:20 S 25 '53

Dissolve all lodges of International Workers; officers also discharged. East Underw 54:24 D 25 '53; Weekly Underw 169:1538 D 26 '53

Financially sound insurers can be liquidated; International workers order. A. C. Bennett. Nat Underw 57:17 N 26 '53; Same. Nat Underw (Life ed) 57:2 N 20 '53

Fraternal orders; business of 1953 and condition, Dec. 31, 1953; table by company. Weekly Underw 170:95 sec 2 My 8 '54

Fraternal societies now have membership of 10,072,477. East Underw 54:13 Jl 17 '53

International workers order loses last chance to shake off receivership. Nat Underw (Life ed) 57:4 O 23 '53

Investment and revolution in capitalism; address to Fraternal investment association. A. A. Berle, jr. Nat Underw (Life ed) 58:24, 29 O 8 '54

New York department has plan to preserve IWO members' insurance. Nat Underw (Life ed) 58:2 Ja 8 '54

Shrouding merits of fraternal system biggest obstacle to progress. A. C. Palmer. Nat Underw (Life ed) 58:27+ O 8 '54

Solvent insurer, wrongly motivated, can be liquidated; International workers order, inc. East Underw 54:1+ N 20 '53

Texas insurer classification. P. Connor. Nat Underw (Life ed) 57:25 S 25 '53

Would put retirement relief funds under D.C. insurance law. Nat Underw (Life ed) 57:7 Ag 14 '53

See also

Fraternal field managers association

National fraternal congress of America

BENELUX union

Benelux industries granted protection. For Comm W 50:7 S 7 '53

Benelux rides another storm. Economist 168:316 Ag 1 '53

BENKELMAN beam. See Roads—Testing

BENN, Sir Ernest John Pickstone, 2d bart, 1875-1954

Sketch. por Chem Age (Lond) 70:261-2 Ja 23 '54

Sketch. por Elec J 152:276 Ja 22 '54

BENSON and Hedges

Teaming up to ride a trend; proposed merger with Philip Morris & co. il Bsns W p26 O 31 '53

BENTONES

New gellator; Bentone-18. A. J. Eickoff. Paint Oil & Chem R 117:43 Ja 28 '54

BENTONITE
Bentonite-Diesel oil squeeze; new development for lost circulation. D. D. Dawson, jr. and W. C. Goins, jr. il World Oil 137:222+ O '53
Cation exchange properties of bentonite. W. H. Slabaugh. bibliog J Phys Chem 58:162-5 F '54
Control of canal seepage with bentonite improved. Eng N 152:54-5 Ap 1 '54
Mineralogy and petrology of some Ordovician K-bentonites and related limestones. C. E. Weaver. bibliog diags Geol Soc Bul 64:921-43, pl 1-2 Ag '53
Replacement of cations of clay by ion exchange resins. D. R. Lewis. diag Ind & Eng Chem 45:1782-3 Ag '53
See also
Montmorillonite

BENZACRIDINE
Carcinogenic nitrogen compounds; new polysubstituted angular benzacridines and benzophenarsazines. N. P. Buu-Hoï and others. Chem Soc J p3584-7 N '53

BENZALACETOPHENONE. See Chalcone

BENZALCONIUM chloride
Sanitizing effect of quats. J. W. Klimek and J. H. Bailey. Soap & Chem Spec 30:129+ Jl '54

BENZALDEHYDE
Condensations of substituted benzaldehydes with *m*- or *p*-acetylphenylacetonitrile. K. Rorig. bibliog Am Chem Soc J 75:5381-3 N 5 '53
Kinetics of the Knoevenagel-Doebner reaction. S. Patai, J. Edlitz-Pfeffermann and Z. Rozner. bibliog Am Chem Soc J 76:3446-51 Jl 5 '54
Mechanism of decarboxylation; the decarboxylation of α-amino-acids in benzaldehyde. D. L. Hammick and others. Chem Soc J p3825-7 D '53
Preparation of hydroxyphenylserines from benzyloxybenzaldehydes and glycine. W. A. Bolhofer. bibliog Am Chem Soc J 76:1322-6 Mr 5 '54
Reducing action of glycols in alkaline medium; mechanism of formation of stilbenes from substituted benzaldehydes. W. Tadros, L. Ekladius and A. B. Sakla. Chem Soc J p2351-3 Jl '54
Retardation of benzaldehyde autoxidation; the actions of a number of polycyclic aromatic hydrocarbons of carbinogenic interest. J. R. Dunn, W. A. Waters and I. M. Roitt. Chem Soc J p580-6 F '54
Retardation of benzaldehyde autoxidation; the effects of some quinones. J. R. Dunn and W. A. Waters. Chem Soc J p2993-8 O '53

BENZALKONIUM chloride. See Benzalconium chloride

BENZAMIDE
Cyclisation of benzamido-derivatives of 1 : 1′-dianthraquinonylamine to derivatives of 1 : 2-7 : 8-diphthaloylcarbazole. W. Bradley and J. V. Butcher. Chem Soc J p2311-14 Jl '54

BENZAMIDO compounds
Dehydration of some β-benzamido-acids with acetic anhydride. C. C. Barker. Chem Soc J p317-19 Ja '54

BENZANILIDE
Internuclear cyclisation; abnormal reactions of 2-amino-*N*-methylbenzanilides containing *ortho*-substituents. D. H. Hey and D. G. Turpin. Chem Soc J p2471-81 Jl '54

BENZANTHRONE
Oxidative hydrolysis of 4-α-cyanobenzyl*meso*-benzanthrone. N. Campbell and A. A. Woodham. Chem Soc J p3429-32 N '53
Relation between self-condensation and substitution processes in the reactions of *meso*-benzanthrone with anions. W. Bradley and F. K. Sutcliffe. Chem Soc J p708-11 F '54
Spectrophotometric determination of anthraquinone and benzanthrone. K. B. Whetsel. bibliog Anal Chem 25:1334-7 S '53

BENZENE
Acid catalyzed condensations; 1,3,5-triarylbenzenes. R. E. Lyle and others. bibliog Am Chem Soc J 75:5959-61 D 5 '53
Addition of methyl radicals to benzene. M. Levy, M. Steinberg and M. Szwarc. Am Chem Soc J 76:3439-41 Jl 5 '54
Adsorption of benzene and water vapor by molybdenum disulfide. E. V. Ballou and S. Ross. bibliog J Phys Chem 57:653-7 O '53
Alkylbenzenes. H. E. Bramston-Cook and W. E. Elwell. bibliog il Ind & Eng Chem 46:1922-4 S '54
Aromatic alkylation; intact alkylation of benzene and toluene with diisobutene. R. A. Sanford, S. M. Kovach and B. S. Friedman. bibliog Am Chem Soc J 75:6326-7 D 20 '53
Benzene end-use figures; BDSA and industry figures differ. Chem & Eng N 32:190 Ja 11 '54
Benzene end-use pattern mapped; tabulation. Oil Paint & Drug Rep 165:3 Ja 4 '54
Benzene; hazards and precautions; data sheet. M. M. Luckens. Safety Maint & Prod 107:63-4 My '54
Chromatographic study of steric factors in disubstituted benzenes. A. L. LeRosen, J. K. Carlton and P. B. Moseley. Anal Chem 25:666-7 Ap '53
Dielectric constants, polarizations and dipole moments of some alkylbenzenes. A. P. Altshuller. bibliog J Phys Chem 58:392-5 My '54
Directive influence of substituents in the benzene ring. Y. P. Varshni. J Chem Educ 30:465-6 S '53
Disproportionation of alkylbenzenes; spectral characteristics and other physical properties of symmetrical trialkylbenzenes; proof of structure of 1,3,5-tri-*t*-butylbenzene. D. A. McCaulay, A. P. Lien and P. J. Launer. bibliog Am Chem Soc J 76:2354-7 My 5 '54
Explosive nature of the reaction between certain diazotized substituted benzenes and sodium polysulphide. R. G. W. Hollingshead and P. E. Garner. bibliog Chem & Ind p 1179-80 O 31 '53
Free radical aromatic substitution; the relative reactivities of benzene, benzonitrile and methyl benzenesulfonate toward phenyl radical attack. R. L. Dannley and E. C. Gregg, jr. bibliog Am Chem Soc J 76:2997-3000 Je 5 '54
Friedel-Crafts reactions of methanesulfonylchloride with benzene and certain substituted benzenes. W. E. Truce and C. W. Vriesen. bibliog Am Chem Soc J 75:5032-6 O 20 '53
Interpretation of meta orientation in the alkylation of toluene; the relative reactivity and isomer distribution in the chloromethylation and mercuration of benzene and toluene. H. C. Brown and K. L. Nelson. bibliog Am Chem Soc J 75:6292-9 D 20 '53
Ionisation equilibria of metal co-ordination complexes in benzene solution. A. R. Burkin. diag Chem Soc J p71-81 Ja '54
Isomerization accompanying the alkylation of benzene with 1-chloro-3,3- and with 2-chloro-2,3-dimethylbutane. L. Schmerling and J. P. West. bibliog Am Chem Soc J 76:1917-21 Ap 5 '54
Kekulé's theory of aromaticity. A. Gero. J Chem Educ 31:201-2 Ap '54
Kinetics of the catalytic cracking of alkylbenzenes. H. F. Rase and R. S. Kirk. bibliog(28 ref) flow diag Chem Eng Prog 50:35-44 Ja '54
Liquid equilibria of water-methanol-aniline-benzene system. A. W. Francis. il diags Ind & Eng Chem 46:205-7 Ja '54
Liquid-liquid spray-tower operation in heat transfer. L. Garwin and B. D. Smith. bibliog flow diags il diags Chem Eng Prog 49:591-602 N '53
Physical-chemical behavior of oil-dispersible soap solutions; sodium phenyl stearate in benzene. J. G. Honig and C. R. Singleterry. bibliog J Phys Chem 58:201-6 Mr '54
Physical properties of *n*-hexadecane, *n*-decylcyclopentane, *n*-decylcyclohexane, 1-hexadecene and *n*-decylbenzene. D. L. Camin, A. F. Forziati and F. D. Rossini. bibliog J Phys Chem 58:440-2 My '54
Polarographic behaviour of disubstituted benzenes; relation of $E_{1/2}$'s to electron densities and activation energies for electrophilic substitution. Mrs E. Gergely and T. Iredale. Chem Soc J p3226-32 O '53

BENZENE—*Continued*

Polymer production in radiolysis of benzene. W. N. Patrick and M. Burton. bibliog Am Chem Soc J 76:2626-9 My 20 '54

Process kinetics; phenol synthesis by direct oxidation of benzene. Ju Chin Chu, H. C. Ai and D. F. Othmer. bibliog(64 ref) flow diag Ind & Eng Chem 45:1266-72 Je '53

Radiation chemistry of mixtures; cyclohexane and benzene-d_6. M. Burton and W. N. Patrick. bibliog J Phys Chem 58: 421-3 My '54

Radiation chemistry of mixtures; propionaldehyde and benzene-d_6. W. N. Patrick and M. Burton. bibliog J Phys Chem 58: 424-30 My '54

Relation between energy levels of substituent groups and electron migration effects in some monosubstituted benzenes. S. Nagakura and J. Tanaka. bibliog J Chem Phys 22:236-40 F '54

Relative sensitivity of triphenylmethyl chloride to electrophiles and nucleophiles in benzene solution. M. F. Hawthorne and D. J. Cram. bibliog Am Chem Soc J 76: 3451-6 Jl 5 '54

Selective adsorption; 2,4-dimethylpentane-benzene-silica gel at 65.6°. M. R. Cines and F. N. Ruehlen. bibliog J Phys Chem 57: 710-14 O '53

Separation of benzene and *n*-hexane by means of ethylenediamine as solvent; molar solutropy. A. P. C. Cumming and F. Morton. bibliog J Ap Chem 3:358-66 Ag '53

Simultaneous measurement of phase equilibria and integral isobaric heats of vaporization. J. A. Tallmadge and L. N. Canjar. bibliog Ind & Eng Chem 46:1279-81 Je '54

So goes benzene; Business and defense services administration distribution pattern. Chem W 74:45+ Ja 2 '54

Some aspects of the dissociation of benzene under electronic impact. J. L. Franklin and F. H. Field. bibliog J Chem Phys 21:2082-3 N '53

Sorption of benzene by fatty acids. J. C. Arnell. bibliog J Phys Chem 57:641-5 O '53

Straight answers will help; Business and defense services administration follow-up survey. Chem W 75:117-18 S 25 '54

Structure of di-(methylcyclohexyl)-benzenes from the cycloalkylation of 4-methylcyclohexene with benzene in the presence of hydrogen fluoride. V. N. Ipatieff, J. E. Germain and H. Pines. Am Chem Soc J 75: 6056-7 D 5 '53

Synthesis and properties of deuterocarbons; benzene-d_6 and cyclohexane-d_{12}. J. A. Dixon and R. W. Schiessler. bibliog Am Chem Soc J 76:2197-9 Ap 20 '54

Ternary liquid system, benzene-heptane-diethylene glycol. G. C. Johnson and A. W. Francis. bibliog Ind & Eng Chem 46:1662-8 Ag '54

Tetrachlorophthalic anhydride derivatives of some alkylbenzenes. G. F. Lewenz and K. T. Serijan. Am Chem Soc J 75:5753-5 N 20 '53

Viscosities of benzene-d_6 and cyclohexane-d_{12}. J. A. Dixon and R. W. Schiessler. bibliog J Phys Chem 58:430-2 My '54

Manufacture

Atlas gasoline-upgrading plant produces better-than-nitration-grade benzene. flow diag il Oil & Gas J 52:105+ Jl 13 '53

Benzene production to increase; abstract. L. A. Schlueter. Chem & Eng N 31:4430+ O 26 '53

Extractive distillation; Shell development co. flow diag Pet Refiner 32:164-5 N '53

Get a higher benzene yield; patent. diag Chem Eng 61:270 Mr '54

Higher yields of phenol and benzene from coal hydrogenation through process modifications; abstract. E. E. Donath. Chem & Eng N 32:1444 Ap 12 '54

Sun joins giants; new Marcus Hook aromatics plant can produce 12 per cent of national capacity. G. Weber. il Oil & Gas J 52:84-5 D 14 '53

Triple threat for aromatics recovery; Platreater combines with Platforming and Udex. il diag Chem Eng 60:172 S '53

Spectrum

Effect of pressure and temperature on the absorption spectrum of benzene in the near ultraviolet. S. Sambursky and others. bibliog il J Chem Phys 21:2041-4 N '53

Importance of $v_{11}e_{12}$ (849) vibration of benzene in determining the structure of monosubstituted benzenes. S. N. Garg. bibliog J Chem Phys 21:1907 O '53

BENZENEARSONIC acid

Preparation and properties of 2-(2-hydroxy-3,6-disulfo-1-naphthylazo)-benzenearsonic acid (Thorin). D. W. Margerum and others. bibliog Anal Chem 25:1219-21 Ag '53

Spectrophotometric determination of zirconium. A. D. Horton. Anal Chem 25:1331-3 S '53

BENZENEBORONIC acid

Electrophilic displacement reactions; kinetics of the reaction between hydrogen peroxide and benzeneboronic acid. H. G. Kuivila. bibliog Am Chem Soc J 76:870-4 F 5 '54

BENZENEDIAZOATE

Absence of rearrangement in the conversion of benzene-*n*-diazoate into the *iso*diazoate, demonstrated by the use of isotopic nitrogen. G. A. Swan and P. Kelly. Chem Soc J p416-17 Ja '54

BENZENE hexachloride. See Hexachlorocyclohexane

BENZENESULFONATES

Reaction of α-cyanobenzyl benzene-sulfonate with dithiocarbamates. E. C. Taylor, jr., J. Wolinsky and H. Lee. bibliog Am Chem Soc J 76:1870-2 Ap 5 '54

Reaction of α-cyanobenzyl benzene-sulfonate with thioureas. E. C. Taylor, jr., J. Wolinsky and H. Lee. bibliog Am Chem Soc J 76:1866-70 Ap 5 '54

Relation of molecular structure to detergency of some alkylbenzene sulfonates. F. N. Baumgartner. bibliog Ind & Eng Chem 46:1349-52 Je '54

Statistical and all-or-none binding of alkylbenzenesulfonate by albumins. Jen Tsi Yang and J. F. Foster. bibliog Am Chem Soc J 75:5560-7 N 20 '53

BENZENESULFONIMIDE

Quinone imides; 3,3-dimethoxydiphenoquinonedibenzenesulfonimide and its reaction products. R. Adams, R. R. Holmes and J. W. Way. bibliog Am Chem Soc J 75:5901-4 D 5 '53

BENZENETHIOL

α,β-Unsaturated sulfides; the reaction of thiophenol with certain ketones. E. Campaigne and J. R. Leal. bibliog Am Chem Soc J 76:1272-5 Mr 5 '54

Benzothiophene chemistry; a peroxide effect in the addition of thiophenols to benzothiophene 1-dioxide. F. G. Bordwell, R. D. Chapman and W. H. McKellin. Am Chem Soc J 76:3637-9 Jl 20 '54

Condensation of thiophenols with secondary amines and formaldehyde. G. F. Grillot and others. bibliog Am Chem Soc J 76: 3969-71 Ag 5 '54

Conjugation of methylsulfonyl and nitro groups with the mercapto group in thiophenols. F. G. Bordwell and H. M. Anderson. bibliog Am Chem Soc J 75:6019-22 D 5 '53

New method of preparing substituted thiophenols. A. H. Herz and D. S. Tarbell. bibliog Am Chem Soc J 75:4657-60 O 5 '53

BENZIDINE

Benzidine rearrangement; kinetics of the rearrangement of *m*-hydrazotoluene. R. B. Carlin and R. C. Odioso. bibliog Am Chem Soc J 76:2345-9 My 5 '54

Benzidine rearrangement; kinetics of the rearrangement of *o*-hydrazotoluene. R. B. Carlin and R. C. Odioso. bibliog Am Chem Soc J 76:100-4 Ja 5 '54

Substituted benzidines and related compounds as reagents in analytical chemistry; the behaviour and certain *N*- and *NN′*-alkylated benzidines towards oxidising agents. R. Belcher, A. J. Nutten and W. I. Stephen. Chem Soc J p2543-5 Jl '54

Titrimetric determination of sulfates by diazo titration of benzidine sulfate. R. E. Keller and R. H. Munch. bibliog Anal Chem 26:1518-19 S '54

BENZILIC acid

Benzilic acid as a reagent in gravimetric determination of zirconium. J. J. Klingenberg, P. N. Vlannes and M. G. Mendel. bibliog il Anal Chem 26:754-6 Ap '54

Dialkylaminoethyl amides of benzilic acid and their quaternary ammonium salts as antispasmodics. A. P. Phillips. Am Chem Soc J 76:1955-6 Ap 5 '54

BENZIMIDAZOLE

Benzimidazoles and benzotriazoles as growth antagonists. H. B. Gillespie, M. Engelman and S. Graff. bibliog Am Chem Soc J 76:3531-3 Jl 5 '54

Reaction of 1-methyl-2-(*t*-butyl)-benzimidazole with organolithium compounds. R. C. Elderfield and V. B. Meyer. bibliog Am Chem Soc J 76:1891-3 Ap 5 '54

Reactivity of the trifluoromethyl group in 2-trifluoromethyl benziminazoles. E. S. Lane. bibliog Chem & Ind p798-9 Jl 25 '53

Vitamin B_{12}; synthesis of 1-glycosides of 5,6-dimethylbenzimidazole. D. Heyl and others. bibliog Am Chem Soc J 76:1355-8 Mr 5 '54

BENZIMINAZOLE. See Benzimidazole

BENZOATES

Action of some free radicals on naphthalene. E. Boyland and P. Sims. Chem Soc J p2966-72 O '53

Kinetics study of the rearrangement of some benzoates of 9-decalyl hydroperoxide. P. D. Bartlett and J. L. Kice. bibliog Am Chem Soc J 75:5591-5 N 20 '53

β-Pyrrolidinoethyl *p*-alkoxybenzoates. J. S. Pierce, M. J. Fletcher and S. L. Cooke, jr. Am Chem Soc J 76:1956 Ap 5 '54

Steric effects; alkaline saponification of methyl 4-x-2,6-dimethylbenzoates. H. L. Goering, T. Rubin and M. S. Newman. bibliog Am Chem Soc J 76:787-91 F 5 '54

BENZOCOUMARIN

Internuclear cyclisation; the preparation of 3 : 4-benzocoumarin. R. A. Heacock and D. H. Hey. Chem Soc J p2481-4 Jl '54

BENZOCYCLOHEPTANONE

Seven-membered ring compounds; 7-acetamidobenzosuberone and α-amino-γ-3,4,5-trimethoxyphenylbutyric acid. W. J. Horton and G. Thompson. bibliog Am Chem Soc J 76:1909-11 Ap 5 '54

Seven-membered ring compounds; the synthesis of 2,3,4-trimethoxybenzosuberone-6-acetic acid and related compounds. P. D. Gardner and W. J. Horton. bibliog Am Chem Soc J 75:4976-9 O 20 '53

BENZODIOXAN

Derivatives of benzo-1 : 4-dioxan; some halogenated benzo-1 : 4-dioxans and amino- and nitroderivatives thereof. P. M. Heertjes and others. Chem Soc J p 18-22 Ja '54

BENZOFURAN

Organic fluoro-compounds; some 2-trihalogenocoumarones. W. B. Whalley. Chem Soc J p3479-83 N '53

BENZOFURANONE

Isolation of a benzylidenecoumaranone (aurone) from a yellow dahlia. C. G. Nordström and T. Swain. bibliog Chem & Ind p823-4 Ag 1 '53

BENZOFURAZAN

Contribution to the chemistry of benzfuroxan and benzfurazan derivatives. R. J. Gaughran, J. P. Picard and J. V. R. Kaufman. bibliog Am Chem Soc J 76:2233-6 Ap 20 '54

BENZOFUROXAN

Contribution to the chemistry of benzfuroxan and benzfurazan derivatives. R. J. Gaughran, J. P. Picard and J. V. R. Kaufman. bibliog Am Chem Soc J 76:2233-6 Ap 20 '54

BENZOIC acid

p-[(2-Amino-4-hydroxy-6-pteridylmethyl)-*p'*-nitrobenzenesulfonylamino]-benzoic acid and intermediates. B. J. Magerlein and D. I. Weisblat. Am Chem Soc J 76:1702-3 Mr 20 '54

Chemical constitution and the dissociation constants of monocarboxylic acids; some alkylbenzoic acids exhibiting steric effects. J. F. J. Dippy, S. R. C. Hughes and J. W. Laxton. Chem Soc J p 1470-6 My '54

Colorimetric determination of zinc and copper with 2-carboxy-2'-hydroxy-5'-sulfoformazylbenzene. R. M. Rush and J. H. Yoe. bibliog Anal Chem 26:1345-7 Ag '54

Electrolytic reduction of benzoic, phenylacetic, and cinnamic acids and esters at a platinized-platinum cathode. S. Ono and others. bibliog diag Electrochem Soc J 101:104-9 F '54

Electronegative substitutions in local anesthetics of the benzoic acid ester type. S. J. Childress and others. bibliog Am Chem Soc J 76:3988-91 Ag 5 '54

Mesomorphism and chemical constitution; the effect of halogen substitution on the mesomorphism of the 4-alkoxybenzoic acids. G. W. Gray and B. Jones. Chem Soc J p2556-62 Jl '54

Organosilicon compounds; the (trimethylsilylmethyl)benzoic acids. C. Eaborn and S. H. Parker. Chem Soc J p939-41 Mr '54

Reaction mechanism of halogenobenzoic acids and halogenonitrobenzenes with nucleophilic reagents. J. Grundy. bibliog Chem & Ind p23 Ja 2 '54

Reactivities of 4-substituted 2,6-dimethylbenzoic acids. J. D. Roberts and C. M. Regan. Am Chem Soc J 76:939-40 F 5 '54

Rôle of the ortho position in the benzoic and aryloxyalkanecarboxylic acid plant growth regulators. J. Grundy. bibliog Chem & Ind p 1071-2 Ag 28 '54

Analysis

Mechanism of the Mohler reaction for the estimation of benzoic acid. W. Davey and J. R. Gwilt. bibliog J Ap Chem 4:413-18 Ag '54

Spectrum

Study of the association of some organic acids by infrared absorption measurements. J. T. Harris, jr. and M. E. Hobbs. bibliog Am Chem Soc J 76:1419-22 Mr 5 '54

BENZOIC anhydride

Intramolecular isotope effects in the reactions of benzoic-α-C^{14} anhydride. V. F. Raaen and G. A. Ropp. J Chem Phys 21:1902-3 O '53

BENZOL (commercial benzene)

Savings possible through the use of the Ufer process in benzol plant light oil washing. J. P. Purdy. flow diag diag Blast F & Steel Pl 41:1451-2+ D '53

BENZONITRILE

Catalyst evaluation for synthesis of phenylpyridine from butadiene and benzonitrile. G. J. Janz, W. J. G. McCulloch and E. F. Timpane. bibliog diag Ind & Eng Chem 45:1343-7 Je '53

Free radical aromatic substitution; the relative reactivities of benzene, benzonitrile and methyl benzenesulfonate toward phenyl radical attack. R. L. Dannley and E. C. Gregg, jr. bibliog Am Chem Soc J 76:2997-3000 Je 5 '54

BENZOPHENANTHRENE

Dienone-phenol rearrangement in the benzo(c)phenanthrene series; a case of concurrent methyl and methylene migration. C. Djerassi and T. T. Grossnickle. bibliog Am Chem Soc J 76:1741-6 Ap 5 '54

BENZOPHENANTHRIDINE

5 : 6-Benzophenanthridine. B. Mills and K. Schofield. Chem & Ind p 193 F 13 '54

BENZOPHENARSAZINE

Carcinogenic nitrogen compounds; new polysubstituted angular benzacridines and benzophenarsazines. N. P. Buu-Hoï and others. Chem Soc J p3584-7 N '53

BENZOPHENONE

Anodic reductions; conversion of benzophenone to benzopinacol by unipositive magnesium. M. D. Rausch, W. E. McEwen and J. Kleinberg. bibliog Am Chem Soc J 76:3622-5 Jl 20 '54

Induced oxidation of *p*-benzophenone. M. L. Cushing. Am Chem Soc J 76:2257 Ap 20 '54

Reaction of *o*-phenylenediamines with carbonyl compounds; benzophenones and dibenzyl ketones. R. C. Elderfield and V. B. Meyer. bibliog Am Chem Soc J 76:1883-7 Ap 5 '54

Reaction of *o*-phenylenediamines with carbonyl compounds; the primary product from benzophenone and dibenzyl ketone. R. C. Elderfield and V. B. Meyer. bibliog Am Chem Soc J 76:1887-91 Ap 5 '54

BENZOPHENONE—*Continued*
Reactions of N-nitroso-2-acetamidobenzophenone. D. F. DeTar and C. S. Savat. Am Chem Soc J 75:5117-18 O 20 '53
Reactions of vanillin and its derived compounds; the synthesis of 4,4′-dihydroxy-3,3′-dimethoxybenzophenone. I. A. Pearl. Am Chem Soc J 76:3635-7 Jl 20 '54
Schmidt reaction on *o*-substituted aryl ketones. P. A. S. Smith. bibliog Am Chem Soc J 76:431-6 Ja 20 '54

BENZOPINACOL
Anodic reductions; conversion of benzophenone to benzopinacol by unipositive magnesium. M. D. Rausch, W. E. McEwen and J. Kleinberg. bibliog Am Chem Soc J 76:3622-5 Jl 20 '54
Pinacol rearrangement in the heterocyclic series; pyridine analogs of benzopinacol. M. R. Kegelman and E. V. Brown. bibliog Am Chem Soc J 75:4649-51 O 5 '53
Pinacol rearrangement in the heterocyclic series; thiophene and furan analogs of benzopinacol. M. R. Kegelman and E. V. Brown. bibliog Am Chem Soc J 75:5961-3 D 5 '53

BENZOPYRENE
Catalytic hydrogenation of 3,4-benzpyrene. W. Lijinsky and L. Zechmeister. bibliog Am Chem Soc J 75:5495-7 N 20 '53

BENZOQUINONE. See Quinone

BENZOSUBERONE. See Benzocycloheptanone

BENZOTHIAZINE
Preparation of 2 : 3-dihydro-3-oxobenzo-1 : 4-thiazine derivatives as possible anthelmintics. A. Mackie and A. A Cutler. Chem Soc J p3716-17 N '53

BENZOTHIAZOLE
Some dyes derived from 2-hydroxymethylbenzothiazole. R. A. Jeffreys. Chem Soc J p503-5 F '54

Spectrum

Near-ultra-violet absorption spectra of some heterocyclic compounds; benzothiazoles. A. Cerniani and R. Passerini. Chem Soc J p2261-4 Jl '54

BENZOTHIOPHENE. See Thionaphthene

BENZOTRIAZINE
Benzotriazines; a new series of compounds having antimalarial activity. F. J. Wolf and others. Am Chem Soc J 76:3551-3 Jl 5 '54

BENZOTRIAZOLE
Benzimidazoles and benzotriazoles as growth antagonists. H. R. Gillespie, M. Engelman and S. Graff. bibliog Am Chem Soc J 76:3531-3 Jl 5 '54
Determination of silver with 1,2,3-benzotriazole. K. L. Cheng. bibliog Anal Chem 26:1038-40 Je '54
Displacement reactions in the benzotriazole series. N. G. Gaylord. bibliog Am Chem Soc J 76:285-7 Ja 5 '54

BENZOTRIFLUORIDE. See Trifluorotoluene

BENZOTROPOLONE. See Cycloheptatrienolone

BENZOXAZOLE

Spectrum

Near-ultra-violet absorption spectra of some heterocyclic compounds; benzoxazoles. R. Passerini. Chem Soc J p2256-61 Jl '54

BENZOYLBENZOIC acid
Mechanism of the Schmidt reaction with *o*-benzoylbenzoic acid. C. L. Arcus and M. M. Coombs. Chem Soc J p3698-700 N '53

BENZOYL chloride
Formation of N,N′-dibenzoylurea from nitromethane and benzoyl chloride in pyridine solution. R. H. Terss and W. E. McEwen. bibliog Am Chem Soc J 76:580-5 Ja 20 '54
Friedel-Crafts acylations with trimethylsilylbenzoyl chlorides. R. A. Benkeser and H. R. Krysiak. bibliog Am Chem Soc J 76:599-603 Ja 20 '54
Mechanism of hydrolysis of acid chlorides; the effect of solvent and hydroxyl ions on the rate of solvolysis of substituted benzoyl chlorides. D. A. Brown and R. F. Hudson. Chem Soc J p3352-60 N '53

BENZOYL compounds
New benzoyl derivatives of D-ribofuranose and aldehydo-D-ribose; the preparation of crystalline 2,3,5-tri-*O*-benzoyl-β-D-ribose from D-ribose. R. K. Ness, H. W. Diehl and H. G. Fletcher, jr. bibliog Am Chem Soc J 76:763-7 F 5 '54

BENZOYL peroxide
Decomposition of benzoyl peroxide in glacial acetic acid. M. T. Gladstone. bibliog Am Chem Soc J 76:1581-3 Mr 20 '54
Oxidation of *N*-alkylanilines and related compounds with benzoyl peroxide. J. T. Edward. Chem Soc J p 1464-7 My '54

BENZOYLATION
Mechanism of the O-benzoylation of ethyl benzoylacetate in pyridine. W. R. Gilkerson, W. J. Argersinger, jr. and W. E. McEwen. bibliog diags Am Chem Soc J 76:41-7 Ja 5 '54

BENZYL acetate
Interaction of benzyl acetate and cellobiose α-octa-acetate with some solvents for cellulose acetate. W. R. Moore and J. Russell. bibliog diag J Ap Chem 4:369-73 Jl '54
Investigation of pyrolyses of benzyl benzoate, acetate, and formate. M. Szwarc and J. W. Taylor. J Chem Phys 21:1746-9 O '53

BENZYL alcohol
Dipole moment of benzyl alcohol. A. D. Buckingham, H. G. Holland and R. J. W. Le Fèvre. Chem Soc J p 1646-8 My '54

BENZYLAMINE
Reaction of α,β-dibromo acid esters with benzylamine. M. A. Stolberg, J. J. O'Neill and T. Wagner-Jauregg. bibliog Am Chem Soc J 75:5045-7 O 20 '53

BENZYL benzoate
From toiletries to aromatics; pictorial presentation of Shulton, inc.'s plant near Clifton, N.J. Chem & Eng N 31:3556-7 Ag 31 '53
Investigation of pyrolyses of benzyl benzoate, acetate, and formate. M. Szwarc and J. W. Taylor. J Chem Phys 21:1746-9 O '53

BENZYL chlorides. See Chlorotoluene

BENZYL compounds
Acetolysis of some carbohydrate benzyl ethers. R. Allerton and H. G. Fletcher, jr. bibliog Am Chem Soc J 76:1757-60 Ap 5 '54
Cis- and *trans*-2-benzyl*cyclo*hexanols; the reduction of 2-benzylidene- and 2-benzyl-*cyclo*hexanones. P. B. Russell. Chem Soc J p 1771-4 Je '54
o-Mercapto-azo-compounds; preparation and debenzylation of 2-benzylthioazobenzene. A. Burawoy and C. E. Vellins. Chem Soc J p90-5 Ja '54

BENZYL formate
Investigation of pyrolyses of benzyl benzoate, acetate, and formate. M. Szwarc and J. W. Taylor. J Chem Phys 21:1746-9 O '53

BENZYL halides
Kinetics of the reaction of representative benzyl halides with aromatic compounds; evidence for a displacement mechanism in the Friedel-Crafts reactions of primary halides. H. C. Brown and M. Grayson. bibliog Am Chem Soc J 75:6285-92 D 20 '53

BENZYLIDENE compounds
Isolation of a benzylidenecoumaranone (aurone) from a yellow dahlia. C. G. Nordström and T. Swain. bibliog Chem & Ind p823-4 Ag 1 '53

BENZYL iodide. See Iodotoluene

BENZYLOXIMINO acids
Synthesis of peptides via α-benzyloximino acids. W. H. Hartung, D. N. Kramer and G. P. Hager. bibliog Am Chem Soc J 76:2261-2 Ap 20 '54

BENZYLOXYINDOLE
5-Benzyloxyindole. H. Burton and Mrs M. Long. Chem & Ind p 1035 S 26 '53

BENZYLPENICILLIN. See Penicillin G (benzylpenicillin)

BENZYLSUCCINIC acid
Cyclization of α-substituted benzylsuccinic anhydrides. R. S. Urban and E. M. Beavers. bibliog Am Chem Soc J 76:3042-3 Je 5 '54

BERIA, Lavrentiĭ Pavlovich, 1899-1953
Beria into the dock. Economist 169:872, 968-9 D 19-26 '53
Burying Beria in Georgia. Economist 168:864 S 26 '53
End of Beria. Economist 170:16 Ja 2 '54
Fall of Beria. Economist 168:182-3 Jl 18 '53

BERKELIUM

Isotopes

New isotopes of americium, berkelium and californium. A. Ghiorso and others. Phys R 94:1081 My 15 '54

Some pile neutron cross sections of isotopes of americium, berkelium, californium, and element 99. B. G. Harvey and others. Phys R 95:581-2 Jl 15 '54

Transcurium isotopes produced in the neutron irradiation of plutonium. S. G. Thompson and others. Phys R 93:908 F 15 '54

BERLIN

Berlin exports rise; capacity increases. For Comm W 50:5 S 7 '53

Berlin without Reuter. Economist 169:734 D 5 '53

Tale of two cities. F. Morley. Barron's 33:5-6 S 28 '53

Trouble in west Berlin. Bsns W p 164 N 28 '53

Wise man of Berlin; Ernst Reuter. Economist 169:18 O 3 '53

Free university

Education in the shadow of the iron curtain. W. O. L. Heubner. Science 118:121-4 Jl 31 '53

BERLIN conference of foreign ministers. See International conferences—Berlin, 1954

BERLIN university

Education in the shadow of the iron curtain. W. O. L. Heubner. Science 118:121-4 Jl 31 '53

BERMUDA conference, 1953 (proposed)

Idea for Bermuda; EDC difficulties. Economist 169:467-8 N 14 '53

Peace offensive that might work. il Bsns W p27-8 D 12 '53

To meet the President; issues before the Bermuda conference. Economist 169:637-9 N 28 '53

Under France's skin. Economist 169:799 D 12 '53

BERSIMIS river

Power utilization

Power from the Bersimis. J. P. Smallwood. il maps Comp Air Mag 59:128-33 My '54

BERTCH, J. Widman

Liaison man at the top. pors Bsns W p92-4+ O 17 '53

BERYL

Beryl deposits in the Harding pegmatites, Taos county, New Mexico. R. H. Jahns and J. W. Adams. Econ Geol 48:328-9 Je '53

Magnetic resonance spectra of beryl crystals. L. C. Brown and D. Williams. Phys R 95:1110 Ag 15 '54

New laboratory pilot plant for the recovery of beryl; Pegmatite research laboratory of the U.S. Bureau of mines. Science 118:15 Jl 3 '53

Petroleum sulfonate flotation of beryl. S. M. Runke. bibliog U S Bur Mines Rep of Invest 5067:1-19 '54

BERYLLIA. See Beryllium oxide

BERYLLIOSIS. See Beryllium poisoning

BERYLLIUM

Beryllium; metal with a future. Chem Age (Lond) 70:279-82 Ja 23 '54

Beryllium, next wonder metal. P. L. Lowenstein and others. il diags Am Mach 98:203-6 Ap 12 '54

Beryllium, 1953. R. F. Griffith. Eng & Min J 155:93 F '54

Beryllium requires special rolling and forging methods. S. M. Bishop. il Am Mach 98:207-8 Ap 12 '54

Beryllium spikes alloys for tough jobs. il Steel 134:118-20 Ap 12 '54

Determination of the energy of antimony-beryllium photoneutrons. R. Culp and B. Hamermesh. bibliog diags Phys R 93:1025-8 Mr 1 '54

Electroplating on beryllium. J. G. Beach and C. L. Faust. flow sheet Electrochem Soc J 100:276-9 Je '53

How to braze beryllium. M. J. Zunick and J. E. Illingworth. bibliog il diags Materials & Methods 39:95-7 Mr '54

Inelastic scattering of 190-Mev electrons in beryllium. J. A. McIntyre and others. Phys R 94:1084-5 My 15 '54

Materials for special service. G. F. Simons and S. J. Morana. bibliog Machine Design 26:176-80 My '54

New metals for nuclear technology. W. A. Johnson. il Chem & Eng N 32:1882-7 My 10 '54

Production of fast lithium, beryllium, boron fragments from interactions of primary cosmic-ray nuclei. J. H. Noon and others. Phys R 92:1585-6 D 15 '53

Refining light metals; new arc process. C. Sheer and S. Korman. il Steel 134:128 Je 7 '54

Role of beryllium in the atomic energy program. R. E. Pahler. il diags Metal Prog 65:86-91 Ap '54

Safety factors cited. J. Shilen. Light Metal Age 11:15 Ag '53

Sources, supplies and uses of beryllium. R. F. Griffith. il Metal Prog 65:81-5 Ap '54

Strategic beryllium from domestic pegmatites. B. H. Clemmons and J. S. Browning. map Min Eng 5:786-8 Ag '53; Same cond. J Metals 5:1433-4 N '53

Wet chemistry revolt; extractive process employs high intensity arc. Chem & Eng N 32:2382 Je 14 '54

Analysis

Analytical chemistry of beryllium. F. A. Vinci. bibliog(56 ref) diags Anal Chem 25:1580-5 N '53

Analytical chemistry of micro quantities of beryllium. T. Y. Toribara and R. E. Sherman. bibliog Anal Chem 25:1594-7 N '53

Spectrochemical analysis of beryllium in biological tissue. J. Y. Ellenburg and L. E. Owen. bibliog il A M A Archives Ind Hygiene & Occup Med 7:503-7 Je '53

Isotopes

Distribution and retention of carrier-free radioberyllium in the rat. C. D. Van Cleave and C. T. Kaylor. bibliog A M A Archives Ind Hygiene & Occup Med 7:367-75 My '53

Energy levels of Be^{8}. R. Malm and D. R. Inglis. bibliog Phys R 92:1326 D 1 '53

Energy levels of Be^{10}. K. B. Rhodes and J. N. McGruer. diag Phys R 92:1328-9 D 1 '53

Low-lying states of Be^{8}. E. W. Titterton. Phys R 94:206-7 Ap 1 '54

Nuclear reactions

Angular correlations in the Be^{9}($d,p\gamma$) Be^{10} and Be^{9}($d,\alpha\gamma$) Li^{7} reactions. L. Cohen and others. bibliog Phys R 94:419-25 Ap 15 '54

Capture gamma rays from the proton bombardment of Be^{9}. W. F. Hornyak and T. Coor. bibliog Phys R 92:675-80 N 1 '53

Conservation of isobaric spin in the reaction Be^{9}(p,α)Li^{6}. R. Malm and D. R. Inglis. bibliog diags Phys R 95:993-9 Ag 15 '54

Decay scheme and gamma-gamma correlations in B^{10}. S. M. Shafroth and S. S. Hanna. Phys R 95:86-91 Jl 1 '54

Energies and angular distributions of neutrons from Be^{9}(d,n)B^{10}. J. S. Pruitt and others. bibliog plan Phys R 92:1456-60 D 15 '53

Energy spectrum of negative pions produced in beryllium by 2.3-Bev protons. L. C. L. Yuan and S. J. Lindenbaum. Phys R 93:1431-2 Mr 15 '54

Excitation function for the photodisintegration of beryllium. R. Nathans and J. Halpern. Phys R 92:940-1 N 15 '53

Gamma rays and internal pairs from Be^{9}+H^{1}. R. J. Mackin, jr. Phys R 94:648-50 My 1 '54

Photodisintegration thresholds of deuterium and beryllium. J. C. Noyes and others. bibliog diags Phys R 95:396-403 Jl 15 '54

Positive pi-meson interactions in beryllium. F. H. Tenney and J. Tinlot. bibliog Phys R 92:974-7 N 15 '53

Spectrum

Absorption spectrum of beryllium in the neighborhood of the *K* edge. R. W. Johnston and D. H. Tomboulian. Phys R 94:1585-9 Je 15 '54

Intersystem transition in the first spectrum of beryllium. W. R. Bozman and others. bibliog il J Res Nat Bur Stand 50:131-2 Mr '53

BERYLLIUM, Powdered
Fabrication of beryllium by powder metallurgy. W. W. Beaver. il Metal Prog 65:92-7+ Ap '54
Mechanical properties of beryllium fabricated by powder metallurgy. W. W. Beaver and K. G. Wikle. bibliog il diags J Metals 6:Trans 559-73 sec 2 My '54; Abstract. Materials & Methods 40:167 S '54
Warm pressing of beryllium powder. N. P. Pinto. bibliog il diags J Metals 6:Trans 629:33 sec 2 My '54

BERYLLIUM alloys
Beryllium copper put through test. Light Metal Age 12:22 Ap '54
Beryllium spikes alloys for tough jobs. il Steel 134:118-20 Ap 12 '54
G-modulus temperature coefficient for beryllium copper wire. J. T. Richards. J Metals 6:Trans 827-8 Jl '54
Important new alloy added to beryllium-copper group; Beryldur. il Elec Eng 72:1139 D '53; Materials & Methods 38:149 D '53
Influence of cold work and heat treatment on the engineering properties of beryllium copper wire. J. T. Richards and others. Am Soc T M Proc 51:771-91 bibliog(35 titles, p790-1) '51
Mechanical properties of beryllium copper at subzero temperatures. J. T. Richards and R. M. Brick. bibliog J Metals 6:Trans 574-80 sec 2 My '54

BERYLLIUM carbide
Preparation and examination of beryllium carbide. M. W. Mallett and others. bibliog il diag Electrochem Soc J 101:298-305 Je '54

BERYLLIUM compounds
Di*iso*propylberyllium and some beryllium hydrides. G. E. Coates and F. Glockling. diags Chem Soc J p22-7 Ja '54

BERYLLIUM fluoride
Acute inhalation toxicity of beryllium; beryllium fluoride at exposure concentrations of one and ten milligrams per cubic meter. H. E. Stokinger and others. bibliog A M A Archives Ind Hygiene & Occup Med 8:493-506 D '53
Fluoride model systems; systems LiF-BeF_2 and PbF_2-BeF_2. D. M. Roy and others. bibliog Am Cer Soc J 37:300-5 Jl 1 '54
Vapor pressure of beryllium fluoride. K. A. Sense, M. J. Snyder and J. W. Clegg. bibliog diag J Phys Chem 58:223-4 Mr '54

BERYLLIUM foil
Foil uniformity measurement by alpha-particle transmission. W. C. Barber. diag R Sci Instr 24:469-70 Je '53

BERYLLIUM hydride
Di-*tert.*-butylberyllium and beryllium hydride. G. E. Coates and F. Glockling. Chem Soc J p2526-9 Jl '54

BERYLLIUM hydroxide
Electrolytic preparation of beryllium hydroxide. R. K. Parikh and K. Kammermeyer. diags Ind & Eng Chem 45:1583-5 Jl '53

BERYLLIUM nitrate
Simultaneous electrodeposition of copper and lead from nitric acid-hydrofluoric acid-beryllium nitrate solution. C. Goldberg. bibliog Anal Chem 25:1405 S '53

BERYLLIUM oxide
Electron micrographic studies in the system BeO-In_2O_3. C. R. Adams and W. O. Milligan. il J Phys Chem 58:219-22 Mr '54
Luminescence of beryllium oxide. C. E. Mandeville and H. O. Albrecht. Phys R 94:494 Ap 15 '54
Sorption-desorption studies in the system BeO-In_2O_3. W. O. Milligan and C. R. Adams. bibliog J Phys Chem 57:885-9 D '53
Thermal conductivity; analysis of variation of conductivity with temperature for Al_2O_3, BeO, and MgO. M. McQuarrie. bibliog diag Am Cer Soc J 37:91-5 pt 2 F 1 '54
Thermal conductivity; high-temperature method and results for alumina, magnesia, and beryllia from 1000° to 1800°C. M. McQuarrie. bibliog il diags Am Cer Soc J 37:84-8 pt 2 F 1 '54
Thermal conductivity; prolate spheroidal envelope method; data for Al_2O_3, BeO, MgO, ThO_2, and ZrO_2. M. Adams. bibliog il diags Am Cer Soc J 37:74-9 pt 2 F 1 '54
X-ray diffraction studies in the system BeO-In_2O_3. L. M. Watt and W. O. Milligan. bibliog J Phys Chem 57:883-5 D '53

BERYLLIUM poisoning
Acute inhalation toxicity of beryllium; beryllium fluoride at exposure concentrations of one and ten milligrams per cubic meter. H. E. Stokinger and others. bibliog A M A Archives Ind Hygiene & Occup Med 8:493-506 D '53
Berylliosis. J. M. DeNardi and others. bibliog il A M A Archives Ind Hygiene & Occup Med 8:1-24 Jl '53
Beryllium oxide poisoning. J. Lieben and A. J. Jackson. Ind Med 22:507-9 N '53
Blood and urine changes in experimental beryllium poisoning. C. J. Spiegel and others. bibliog A M A Archives Ind Hygiene & Occup Med 7:319-25 Ap '53
Distribution and retention of carrier-free radioberyllium in the rat. C. D. Van Cleave and C. T. Kaylor. bibliog A M A Archives Ind Hygiene & Occup Med 7:367-75 My '53
Safety factors cited. J. Shilen. Light Metal Age 11:15 Ag '53
Spectrochemical analysis of beryllium in biological tissue. J. Y. Ellenburg and L. E. Owen. bibliog il A M A Archives Ind Hygiene & Occup Med 7:503-7 Je '53
Toxicity of beryllium. C. S. Pomelee. Sewage & Ind Wastes 25:1424-8 D '53

BERZELIUS, Jöns Jakob, 1779-1848
Berzelius; pioneer atomic weight chemist. W. M. MacNevin. bibliog(26 ref) J Chem Educ 31:207-10 Ap '54
Faraday's electrochemical laws and the determination of equivalent weights. R. G. Ehl and A. J. Ihde. bibliog por J Chem Educ 31:226-32 My '54

BESSEMER process
American adaptations of the Austrian oxygen process; abstract and discussion. W. C. Rueckel and W. A. Vogt. Steel 134:104+ My 3 '54
Basic Bessemer process. P. Coheur and H. Kosmider. diag J Metals 6:Trans 829-35 Jl '54
Bessemer and open hearth steelmaking costs compared. J. Mitchell. J Metals 6:511 My '54
Development at Corby of basic Bessemer steel low in nitrogen and phosphorus by scale additions during the blow. W. A. Smith. Metal Prog 65:146+ Je '54
Evolution of the Thomas (basic Bessemer) steelmaking process in Europe. G. Husson. bibliog il Metal Prog 65:94-5+ Ja '54
Kaiser Engineers acquires U.S. rights to license oxygen steelmaking process. Iron & Steel Eng 31:151 Je '54; Same. Materials & Methods 40:194+ Ag '54
Kaiser gets oxygen rights; Brassert oxygen steelmaking process. W. C. Rueckel. Iron Age 173:81 My 27 '54
Killed basic Bessemer steel has good cold forming qualities. H. Hauttmann. il Materials & Methods 39:142-4 Je '54
Metallurgy and practice of the basic converter processes. A. Weyel and H. Kosmider. bibliog(35 ref) diags Blast F & Steel Pl 42:1039-47+, 1162-8 S-O '54
Open hearth screw steels replacing Bessemer. S. Feigenbaum. J Metals 5:796 Je '53
Oxygen converter steel; another step closer to U.S. debut. W. C. Rueckel and W. A. Vogt. il Steel 135:110+ Jl 19 '54
Oxygen-enriched blast steps up Bessemers; abstract. W. C. Bell. Steel 133:112 Jl 6 '53
Refining steel with pure oxygen; patent. diags Iron & Steel Eng 30:23 O '53
Steel; Austrians high on oxygen. il Iron Age 172:63 Jl 23 '53
Steel; get rid of nitrogen curse; Europe's Bessemer steel producers use oxygen to cut nitrogen content. W. V. Packard. diags Iron Age 172:75-6 Jl 2 '53

BESSER manufacturing company
Besser celebrates 50th anniversary. il Concrete 62:12-14+ My '54
Besser celebrates golden anniversary. H. C. Persons. il Rock Prod 57:119-22+ Jl '54
Besser 50th anniversary party draws 900. il Concrete 62:32-3 Je '54

BETA ray spectrometer. See Spectrometers

BETA rays

Absolute beta-counting of gases containing P-32 using end-window Geiger-Müller tubes. F. D. Rosen and W. Davis, jr. bibliog diags R Sci Instr 24:349-54 My '53

Absorption of tritium beta particles in hydrogen and other gases. L. M. Dorfman. bibliog diag Phys R 95:393-6 Jl 15 '54

Atomic by-product reduces test time in petroleum industry. il Elec Eng 73:102 Ja '54

β-decay energy systematics. K. Way and M. Wood. bibliog Phys R 94:119-28 Ap 1 '54

Beta-decay interaction. H. Brysk. Phys R 94:1794-5 Je 15 '54

β-decay matrix element for a deformed core model. M. G. Redlich and E. P. Wigner. bibliog Phys R 95:122-6 Jl 1 '54

Beta decay of F^{17} and C^{11}. C. Wong. Phys R 95:765-6 Ag 1 '54

Beta decay of F^{20}. C. Wong. Phys R 95:761-4 Ag 1 '54

Beta-gamma polarization correlations. D. R. Hamilton and others. bibliog diags Phys R 92:1191-8 D 1 '53

Beta interaction. R. Finkelstein and P. Kaus. bibliog Phys R 92:1316-19 D 1 '53

Beta-ray spectrometer line shapes with tilted sources. H. W. Kruse and others. diag J Ap Phys 24:1037-9 Ag '53

Beta-ray spectrum of Ag^{110}. T. Azuma. Phys R 94:638-9 My 1 '54

Beta-ray spectrum of Mg^{28}. J. L. Olsen and G. D. O'Kelley. bibliog Phys R 93:1125-6 Mr 1 '54

Beta rays slash H_2 test time in liquid hydrocarbons. il diags Chem Eng 61:278+ Ja '54

β spectrum of I^{129} and its decay scheme. E. der Mateosian and C. S. Wu. Phys R 95: 458-61 Jl 15 '54

β spectrum of RaD. E. Huster. bibliog Phys R 92:1076 N 15 '53

Cenco's H/C meter uses beta rays. il Chem & Eng N 31:4724 N 9 '53

Cross terms in allowed-shape β spectra. J. P. Davidson and D. C. Peaslee. Phys R 92: 1584-5 D 15 '53

Determination of maximum beta energy in the decay of P^{33}. B. Elbek and others. bibliog Phys R 95:96-7 Jl 1 '54

Effect of atomic electron screening on the shape of forbidden beta spectra. R. H. Good, jr. bibliog Phys R 94:931-3 My 15 '54

Electron-voltaic effect in *p-n* junctions induced by beta-particle bombardment. P. Rappaport. Phys R 93:246-7 Ja 1 '54

Extrapolation chamber for the measurement of beta sources. R. Loevinger. bibliog il R Sci Instr 24:907-14 O '53

First-forbidden matrix elements in β decay. R. W. King and D. C. Peaslee. bibliog diags Phys R 94:1284-92 Je 1 '54

Hydrogen determination and liquid analysis with a beta-particle absorption apparatus. V. N. Smith and J. W. Otvos. il diags Anal Chem 26:359-66 F '54

Influence function for the beta activity of uranium-235 fission products. J. K. Thornton and W. J. Houghton. bibliog J Ap Phys 24:1374-8 N '53

Interaction of beta particles with matter. R. H. Müller. Phys R 93:891-2 F 15 '54

Internal bremsstrahlung and ionization accompanying beta decay. F. Boehm and C. S. Wu. bibliog diags Phys R 93:518-23 F 1 '54

Isomeric transition of Pb^{207} as an energy standard in beta spectroscopy. D. E. Alburger. bibliog Phys R 92:1257-9 D 1 '53

Mass differences for isobars capable of double-beta decay. J. T. McCarthy. Phys R 95:447-8 Jl 15 '54

Method for increasing the electrical resistivity of insulators under ionizing radiation. J. H. Coleman and D. Bohm. J Ap Phys 24:497-8 Ap '53

Method for the determination of the end-point energy of beta emitters. M. Forro. Phys R 92:931-3 N 15 '53

Method of measuring short beta-decay lifetimes. R. N. Thorn and R. W. Waniek. diags R Sci Instr 24:391-3 My '53

μ-Meson decay, β radioactivity, and universal Fermi interaction. L. Michel and A. Wightman. bibliog Phys R 93:354-5 Ja 15 '54

Nuclear matrix elements in beta decay. M. E. Rose and R. K. Osborn. Phys R 93:1326-36 Mr 15 '54

O^{14} decay and the Fermi coupling constant in beta decay. J. B. Gerhart. diag Phys R 95:288-9 Jl 1 '54

Pseudoscalar interaction and the beta spectrum of RaE. M. E. Rose and R. K. Osborn. bibliog Phys R 93:1315-25 Mr 15 '54

Scintillation counter for the measurement of weak β rays. J.-C. Roucayrol. diag Science 118:493 O 23 '53

Second-forbidden beta spectra of Co^{60} and Sc^{46}. G. L. Keister and F. H. Schmidt. bibliog Phys R 93:140-5 Ja 1 '54

Second-order corrections to beta spectra. P. F. Zweifel. Phys R 95:112 Jl 1 '54

Semicircular permanent magnet beta-spectrograph for photographic recording of conversion lines. H. Slätis. bibliog diags R Sci Instr 24:464-7 Je '53

Speedy, accurate hydrogen measurement; new instrument uses beta rays. R. B. Jacobs and L. G. Lewis. il diag Oil & Gas J 52:128-30 S 28 '53

Tensor forces and the β decay of C^{14} and O^{14}. B. Jancovici and I. Talmi. Phys R 95: 289-91 Jl 1 '54

Thallium as a reference standard for beta radioactivity. A. G. Wheler, jr. and others. bibliog Am Water Works Assn J 46:79-81 Ja '54

Third forbidden beta spectrum of rubidium-87. M. H. MacGregor and M. L. Wiedenbeck. bibliog Phys R 94:138-40 Ap 1 '54

Transmission of 0-40 kev electrons by thin films with application to beta-ray spectroscopy. R. O. Lane and D. J. Zaffarano. bibliog diag Phys R 94:960-4 My 15 '54

Upper limits on the neutrino mass from the tritium beta spectrum. D. R. Hamilton and others. bibliog Phys R 92:1521-5 D 15 '53

Industrial applications

Beta gauge control for light materials; Tracerlab, inc. il Paper Tr J 138:30 Je 11 '54

Gaging with activated neutrons; beta particles emitted from silver plate on waveguides are used to measure thickness. H. V. Watts and L. Reiffel. il Steel 133:110-11 N 23 '53

How the beta-ray gauge works as a control instrument for extrusion laminated polyethylene coating. J. B. Sisson. il Paper Tr J 138:106+ My 14 '54

How the beta-ray scanner provides felt and wire life data at Southland. J. D. Sadtler. il Paper Tr J 138:54-5 My 14 '54

How W. C. Hamilton & sons uses the Foxboro beta-ray sheet weight profiler. P. A. Cerasoli. il Paper Tr J 138:130+ My 14 '54

See also

Betameters

BETACOCCUS arabinosaceous

Immunopolysaccharides; structure of a betacoccus arabinosaceous dextran. S. A. Barker and others. Chem Soc J p2395-9 Jl '54

BETAINE

Betaine esters; a study of their reactions. W. V. Cohen and A. H. Corwin. bibliog Am Chem Soc J 75:5880-3 D 5 '53

BETAMETERS

Use of a Betameter for newsprint basis weight control. C. S. Waddell. il Pulp & Pa of Can 55:109-14 My '54

BETATRON

Determination of photon flux for energies between 150 and 300 Mev. P. D. Edwards and D. W. Kerst. bibliog diags R Sci Instr 24:490-5 Jl '53

High-power betatron for cancer therapy. J. S. Laughlin and others. bibliog il diags Electronics 26:146-51 O '53

Long X-ray pulses from the betatron. T. J. Keegan. diag R Sci Instr 24:472 Je '53

Neutron interactions with matter. E. R. Gaerttner. il diags Gen Elec R 57:38-41 Mr '54

Periodic ellipse of the strong-focusing equation. B. C. Carlson. Phys R 92:839-41 N 1 '53

Protection against betatron-synchrotron radiations up to 100 million electron volts. bibliog U S Nat Bur Stand Handbook 55: 1-52; pa 25c Supt. of doc. '54

BETATRON—*Continued*

Pulsed magnetic extractor for removing the electron beam from a betatron. R. S. Foote and B. Petree. bibliog il diags R Sci Instr 25:694-8 Jl '54

Year's use proves value of betatron; Allis-Chalmers mfg. co. A. N. Haig and H. B. Norris. il Steel 135:102-3 Ag 9 '54

BETHLEHEM steel company

Arbitration of labor-management grievances; Bethlehem steel company and United steelworkers of America, 1942-52. K. R. Petshek and others. U S Bur Labor Statistics Bul 1159:1-42; pa 35c Supt. of doc. '54

BETHLEHEM steel corporation

Confirm merger talks. W. V. Packard. Iron Age 174:61-2 Ag 5 '54

Merger rumors buoy steel stocks. Iron Age 174:57 Jl 29 '54

Odds favor U.S. approval of proposed steel merger. E. C. Kreutzberg. Steel 135:56 S 6 '54

Steel; Justice department may nix proposed Bethlehem-Youngstown merger. R. M. Stroupe. Iron Age 174:73 S 23 '54

BETTER business bureaus

BBBs issue fact book to give A&H buyer understanding of cover. Nat Underw 58:14 Ja 7 '54; Same. Nat Underw (Life ed) 58:15 Ja 8 '54

Better business; still in third place; with table of insurance queries grouped by lines. Spectator 162:47-8 My '54

Indianapolis men form BBB insurance arm. Nat Underw 58:12 Ja 28 '54; Same. Nat Underw (Life ed) 58:16 Ja 29 '54

Insurance queries increase. Nat Underw 58:10 Ap 1 '54; Same cond. Nat Underw (Life ed) 58:8 Ap 2 '54

Must get more support or drop insurance work. Nat Underw 57:6 D 3 '53; Same. Nat Underw (Life ed) 57:9 D 4 '53

Public is still bewildered; insurance inquiries and complaints. V. H. Nyborg. Spectator 161:24-5+ S '53

Seek aid; may withdraw effort to create liaison with insurance. V. H. Nyborg. Weekly Underw 169:1417+ D 12 '53

Wide-spread policy cancellations result in campaign; Fort Wayne. J. M. Rowland. Nat Underw (Life ed) 57:16 S 4 '53

Directories

Better business bureaus in the U.S. and Canada. Ptr Ink 245:407-8 sec 2 O 23 '53

BETULIN. See Betulinol

BETULINOL

Chemistry of the triterpenes and related compounds; the stereochemistry of ring E of betulin and related compounds. J. M. Guider, T. G. Halsall and E. R. H. Jones. Chem Soc J p3024-8 O '53

BEVAN, Aneurin, 1897-

Mr Bevan's decline. Economist 169:320 O 31 '53

BEVATRON. See Proton accelerator

BEVEL gearing. See Gearing, Bevel

BEVERAGES

Beer and beverages; Modern Packaging industry survey. il Mod Packaging 27:100-6+ Ja '54

Brighter bubble; more than effervescence in today's bottle of pop. N. Willatt. Barron's 33:9-10 Ag 10 '53

Canned soda, a potential. Steel 134:65 Je 7 '54

Getting down to principles on the what and why of drink flavors. E. A. Morgan. il Food Eng 26:82-4 Ap '54

Rapid headway of canned pop; Can-A-Pop beverage co. R. S. Kleinschmidt. il Food Eng 26:84-5 Jl '54

See what canned pop is doing to bottled soft drinks! il Sales Management 72:36-7+ Ap 15 '54

Six questions about how to increase unit sales and one advertiser's answers. N. Kelne. il Ptr Ink 243:38-9 My 1 '53

Tempest in a pop bottle; renewed struggle for sweetener sales. Chem W 73:73-4 Ag 15 '53

This machine helped open 25 markets; Dr Pepper cup vendor. M. K. Pirie. il Sales Management 73:36-8 S 1 '54

Upsurge; in canned soft drinks. G. F. Kay. il plan diag Food Eng 26:86-9 F '54

See also

Beer
Bottling plants
Coffee
Whisky
Wine

Advertising

How to introduce a new product; case history of Quinac, Canada Dry's new quinine water. R. J. Flood. il Ptr Ink 243:27-9 My 29 '53

Point-of-purchase cooperative program pays oft for soft drinks; Carbonated beverage institute. il Sales Management 70:88-92 Ap 15 '53

BEVERLY HILLS, California

Hotels, restaurants, etc.

Beverly Hilton hotel. il plans Arch Forum 98:114-17 Ja '53

BEYER Peacock and company, ltd.

Centenary of a British locomotive works. Engineer 197:323 F 26 '54; Engineering 177:261 F 26 '54

BHILAWAN nuts

Studies in ion exchange; study of sulphonated cashew-nut-shell liquid and bhilawan-shell liquid polymers. H. A. Shah and S. L. Babna. bibliog J Ap Chem 3:335-6 Jl '53

BIBLE

Bible paper; World Indo-Text. Tappi 37:sup 121A-2A My '54

Glass in the biblical literature. E. R. Silverman and A. Silverman. J Chem Educ 30:415-16 Ag '53

BIBLIOGRAPHY

Bibliographical procedures and style; a manual for bibliographers in the Library of Congress. B. P. McCrum and H. D. Jones. 127p pa 65c Supt. of doc. Washington 25, D. C. '54

National bibliographical services; their creation and operation. K. Larsen. 142p pa $1.50 United nations educational, scientific and cultural organization; for sale by Columbia univ. press, 2960 Broadway, New York 27 '53

Whitaker's five-year cumulative book list, 1948-1952. 1299p £8 Joseph Whitaker & sons, 13 Bedford square, London, W.C. 1 '53

See also

Documentation
Indexing
Libraries

also subdivision Bibliography under special subjects, e.g.

Chemistry
Government publications
Reference books
Science
Technology

Bibliography

Bibliographic index; a cumulative bibliography of bibliographies, 1952. B. Joseph, ed. 294p H. W. Wilson co, New York '53

BICHROMATOR. See Spectrometers

BICYCLES

Cycles on show, London. Economist 169:609-10 N 21 '53

BICYCLONONANE

1,4-Diazabicyclo[2.2.2]octanes and 1,5-diazabicyclo[3.2.2]nonanes from piperazines and homopiperazines. S. M. McElvain and L. W. Bannister. bibliog Am Chem Soc J 76:1126-37 F 20 '54

BICYCLOÖCTANE

1,4-Diazabicyclo[2.2.2]octanes and 1,5-diazabicyclo[3.2.2]nonanes from piperazines and homopiperazines. S. M. McElvain and L. W. Bannister. bibliog Am Chem Soc J 76:1126-37 F 20 '54

Formation of the trans-bicyclo [3.3.0] octane system. N. L. Wendler and others. Chem & Ind p901 Jl 17 '54

BIG HORN-POWDER river corporation

Security I like best. G. A. Kuhnreich. Comm & Fin Chr 178:1214 O 1 '53

BIGUANIDES

Monomer synthesis; triazines; the reaction of phenylbiguanide with ethyl oxalate and ethyl formate. C. G. Overberger and S. L. Shapiro. bibliog Am Chem Soc J 76:93-6 Ja 5 '54

BILE

Analysis

Steroids; isolation of cholegenin and isocholegenin from ox-bile. N. J. Antia and others. Chem Soc J p 1218-22 Ap '54

BILE acids

Platinum-catalyzed exchange of hydrogen isotopes with bile acids. N. R. Trenner and others. bibliog Am Chem Soc J 76:1196-7 F 20 '54

Analysis

Estimation of 7-dehydrocholesterol, 7-hydroxycholesterol, and bile acids in serum. A. E. Sobel, M. Goldberg and S. R. Slater. bibliog diag Anal Chem 25:629-35 Ap '53

BILIRUBIN

Analysis

Spectrophotometric study of some oxidative products of bilirubin. B. Zak and others. bibliog Anal Chem 26:1220-2 Jl '54

BILLBOARDS

Billboards go 3-D; photograph. Bsns W p31 Ag 1 '53

Sayers getting known as Mr Insurance, thanks to his billboard advertising. il Nat Underw (Life ed) 57:14 O 30 '53

Signs of the times; insurance billboard advertising. il Rough Notes 97:41 My '54

BILLET mills. See Rolling mills

BILLING

Billing costs cut $20,000 a year; Central power & light co. N. A. Easter. il Elec World News ed 140:32-3 O 26 '53

Billing costs slashed $60,000 a year; Pacific telephone and telegraph co. H. Waterman. il Am Bsns 24:18-19+ Ag '54

Double billing; the monster of cooperative advertising. M. J. Simon. Adv Agency 46: 116+ D '53; 47:65+ Mr '54

How airline speeds billing; Eastern air lines. Am Bsns 24:38 Je '54

How the New York Central makes rent bills. G. H. Albach. flow chart il Ry Age 136:66-8+ F 22 '54

Multiple billing units; are unused statement copies of invoice costly? R. J. Layton. Rough Notes 96:32 Jl '53

BILLS of exchange

Court construes outstanding indebtedness evidenced by bills of exchange in Excess profits tax law. Banking 46:70+ S '53

Finance by bills. Economist 168:585-7 Ag 29 '53

BILLS of lading

Legal decisions of interest to inland claims men in the transportation field. H. S. Daynard. Weekly Underw 170:1342-3, 1400-1 My 29-Je 5 '54

Report of committee on bills of lading to meeting of International Union. Weekly Underw 171:778-9 O 2 '54

Zeller study group reports on problem of clean bills of lading. F. B. Zeller. East Underw 54:40-1 O 16 '53; Same. Weekly Underw 169:994-5 O 24 '53

BINARIES. See Stars, Double

BINDERS. See Insurance—Binders

BINDING materials

Glaze binders. T. Knapp. Am Cer Soc Bul 33:11-12 Ja 15 '54

See also

Cements

Resinous products—Binding materials

BINOCULAR visual space. See Space perception

BINOCULARS. See Field glasses

BINS

Airtight shipping bin that nests; Nesta-Bin. il diags Factory Management 112:151 Ap '54

Bin flow simplified. il Chem & Eng N 32: 344-5 Ja 25 '54

Bin shape important in preventing ground materials segregation. G. A. Sellers. Brick & Clay Rec 125:51 S '54

Facts about modern racks and bins. il diags Mill & Factory 54:283 My '54

Handling; better bin design improves solid material flow. A. W. Jenike. il diags Iron Age 174:189-92 S 16 '54

How materials flow from a bin. J. K. Rudd. il Food Eng 26:72-4 F '54; Same. Mod Packaging 27:209-11 Mr '54; Same. Rock Prod 57: 73-4 Mr '54

BIOCHANIN A. See Isoflavone

BIOCHEMICAL oxygen demand test. See Sewage—Testing

BIOCHEMISTRY. See Biological chemistry

BIOCYTIN. See Biotin

BIOENGINEERING (term)

Bioengineering is meeting ground of varied disciplines; Rose polytechnic institute bioengineering symposium. Chem & Eng N 31: 2283 Je 1 '53

BIOGRAPHY

Dictionaries

Current biography, who's news and why, 1953. M. D. Candee, ed. 703p H. W. Wilson co, New York '53

International year book and statesmen's who's who, 1954. L. G. Pine, ed. v2 1127p Burke's Peerage, ltd, 180 Fleet st, London, E.C.4 '54 (£8 8s)

Who knows—and what. rev ed 907p $18.60 A. N. Marquis co, Marquis publications bldg, Chicago 11 '54

Who's who in France, Paris 1953-1954. J. Lafitte and S. Taylor, eds. 999p Éditions Jacques Lafitte, 12, rue de L'Arcade, Paris (8ᵉ) and Central European Times pub. co, Kirchgasse 40, Zurich; American agent, Lange, Maxwell and Springer, 122 E. 55th st, New York 22 '53

Who's who in the East. 4th ed 1287p Marquis-Who's who, 210 E. Ohio st, Chicago 11 '53 ($17.50)

Who's who in the Midwest. 4th ed 982p Marquis-Who's who, Chicago 11 '54 ($17.50)

Who's who in the South and Southwest. 4th ed 837p $17.50 Marquis-Who's who, 210 E. Ohio st, Chicago 11 '54

Who's who in the West. 840p Marquis-Who's who, Chicago 11 '54

World biography. 5th ed 1215p Institute for research in biography, Bethpage, New York '54

BIOLOGICAL abstracts (periodical)

Survey of biological abstracting. B. Glass. Science 118:sup3 Jl 10 '53

BIOLOGICAL apparatus

Apparatus for centrifugation and washing of particulate matter in a controlled atmosphere. G. R. Mandels. diags Science 118: 158-9 Ag 7 '53

Improved historadiographic apparatus. J. J. Clemmons and M. H. Aprison. bibliog il diags R Sci Instr 24:444-54 Je '53

Mechanical fly-tagging device. J. W. Klock and others. diags Science 118:48-9 Jl 10 '53

Physical instruments for the biologist. Published in monthly numbers of Review of scientific instruments

Simple electromagnetic microviscometer for semi-transparent liquids. J. Hart. diag J Sci Instr 31:182-4 My '54

Stable wide-range dc amplifier. F. F. Offner. il diags R Sci Instr 25:579-86 Je '54

Syringe carrier and egg clamp for intravenous inoculation of chick embryo. R. Goldwasser and M. C. Shelesnyak. diag Science 118:47-8 Jl 10 '53

Water-prism ultraviolet monochromators. D. J. Fluke and R. B. Setlow. bibliog diags Opt Soc Am J 44:327-30 Ap '54

See also

Bacteriological apparatus

Physiological apparatus

Respirometers

BIOLOGICAL assay

Isotope dilution assay for total penicillins. M. Gordon, A. J. Virgona and P. Numerof. bibliog Anal Chem 26:1208-10 Jl '54

Media used for microbiological assay of riboflavin using lactobacillus casei. M. F. Clarke. bibliog Anal Chem 25:1247-52 Ag '53

Organo-phosphorus insecticides; biological assay of phosphorus insecticides. J. F. Newman. bibliog Chem & Ind p617-19 My 29 '54

Radiochemical assay of cobalt-60. R. Ballentine and D. D. Burford. bibliog il diags Anal Chem 26:1031-5 Je '54

Scintillation counters using liquid luminescent media for absolute standardization and radioactive assay. E. H. Belcher. bibliog diags J Sci Instr 30:286-9 Ag '53

BIOLOGICAL chemistry

A.C.S. Division of biological chemistry 124th national meeting, Chicago; abstracts of papers. Chem & Eng N 31:3962-5 S 28 '53

A.C.S. Division of biological chemistry 125th national meeting, Kansas City; abstracts of papers. Chem & Eng N 32:1311-14 Ap 5 '54

Background to biochemistry. E. Baldwin. Chem & Ind p352-5 Mr 27 '54

Biochemical analysis; review of past two years. P. L. Kirk and E. L. Duggan. Anal Chem 26:163-76 bibliog(534 ref, p 171-6) Ja '54

Biochemical reactions. C. Alper. bibliog(52 ref) J Chem Educ 31:282-90 Je '54

Biochemistry of Schradan. B. A. Kilby. bibliog(28 ref) Chem & Ind p856-61 Ag 15 '53

Chemical activity of nerve cells. E. D. Adrian. Chem Age (Lond) 69:1177-8 D 5 '53

Man of substance; abstract. J. I. M. Jones. Chem & Ind p510 My 1 '54

Organic chemistry at the crossroads; Priestley medal address. R. Robinson. Chem & Eng N 31:4286-9 O 19 '53

Organic chemistry; naturally-derived compounds. J. R. Majer. Chem Age (Lond) 70:147-55 Ja 9 '54

Oxidation-reduction potential and pH changes in manometric vessels. K. Wight and D. Burk. bibliog il diag Anal Chem 26:481-4 Mr '54

Oxidative rupture of the benzene ring of 5 : 6-dihydroxyindole and congeners and the biogenesis of melanines. Z. E. Jolles. bibliog Chem & Ind p845-6 Ag 8 '53

Significance of molecular structure to biology. L. Pauling. Can Chem Process 38: 72+ Jl '54

Some relationships between chemical constitution and biological activity. W. A. Sexton. bibliog Chem & Ind p 1356-9 D 19 '53

See also

Antigens and antibodies
Bacteria
Bile
Biological materials—Analysis
Blood
Cells
Enzymes
Fermentation
Hormones
Immunity
Metabolism
Nutrition
Physiological chemistry
Plant growth
Plants—Chemical analysis
Proteins
Vitamins

Study and teaching

Survey of courses in biochemistry. G. H. Pritham. J Chem Educ 31:482-3 S '54

BIOLOGICAL literature

Survey of biological abstracting. B. Glass. Science 118:sup3 Jl 10 '53

BIOLOGICAL luminescence. See Luminescence, Biological

BIOLOGICAL materials

Biological by-products; utilization. Chem Age (Lond) 68:825-6 My 30 '53

Drugs derived from glands; Armour pharmaceutical center. il Chem & Eng N 31:5054 D 7 '53

See also

Tissues

Analysis

Amperometric mercurimetric titration of sulfhydryl groups in biologically important substances. I. M. Kolthoff, W. Stricks and L. Morren. bibliog Anal Chem 26:366-72 F '54

Analytical problems in the determination of Evans blue. W. O. Caster, A. B. Simon and W. D. Armstrong. bibliog Anal Chem 26:713-15 Ap '54

Assay of radioiron and radiosilver in biological samples. L. Cheong, G. C. Perri and L. M. Sharpe. Anal Chem 26:242-3 Ja '54

Biochemical analysis; review of past two years. P. L. Kirk and E. L. Duggan. Anal Chem 26:163-76 bibliog(534 ref, p 171-6) Ja '54

Colorimetric determination of nitrogen in biological materials. J. R. Polley. Anal Chem 26:1523-4 S '54

Colorimetric determination of vanadium with 8-quinolinol. N. A. Talvitie. bibliog Anal Chem 25:604-7 Ap '53

Determination of arsenic in biological materials. R. J. Evans and S. L. Bandemer. bibliog Anal Chem 26:595-8 Mr '54

Determination of calcium in biological material by flame photometry. P. S. Chen, jr. and T. Y. Toribara. Anal Chem 25:1642-4 N '53

Determination of calcium in biological materials. W. P. Norris and B. J. Lawrence. bibliog il diag Anal Chem 25:956-60 Je '53

Determination of methanol in biological fluids by microdiffusion analysis. M. Feldstein and N. C. Klendshoj. Anal Chem 26:932-3 My '54

Estimation of fluorine in biological material. P. Venkateswarlu and D. Narayana Rao. Anal Chem 26:766-7 Ap '54

Infrared identification in paper chromatography. T. Y. Toribara and V. Di Stefano. bibliog diags Anal Chem 26:1519-21 S '54

Microdetermination of copper in biological material. D. M. Hubbard and E. C. Spettel. bibliog Anal Chem 25:1245-7 Ag '53

Modification of Winnick's method for the rapid determination of ethyl alcohol in biological fluids. I. Sunshine and R. Nenad. bibliog Anal Chem 25:653-5 Ap '53

Recording microdensitometer applicable to biological problems. P. M. B. Walker. bibliog diags J Sci Instr 30:162-4 My '53

Systematic toxicological analysis by spectrophotometric methods. G. W. Roche and others. bibliog A M A Archives Ind Hygiene & Occup Med 8:507-27 D '53

See also

Tissues—Analysis

Spectrum

Infrared spectroscopy of biologic materials in aqueous solutions. E. R. Blout and H. Lenormant. bibliog Opt Soc Am J 43:1093-5 N '53

BIOLOGICAL pigments. See Pigments, Biological

BIOLOGICAL research

Electrical analog for analysis of compartmental biological systems. G. L. Brownell and others. bibliog il diags R Sci Instr 24:704-10 Ag '53

Pressure thresholds for biologically active cavitation. E. Ackerman. bibliog il diags J Ap Phys 24:1371-3 N '53

See also

Animal experimentation
Cells
Federation of American societies for experimental biology
Rutgers university—Institute of microbiology

BIOLOGICAL sciences, American institute of. See American institute of biological sciences

BIOLOGICAL societies

See also

Federation of American societies for experimental biology

BIOLOGICAL warfare

Program disclosed. W. M. Creasy. Chem & Eng N 32:3056 Ag 2 '54

Too late to kill germs. Economist 169:186-7 O 17 '53

BIOLOGISTS

See also

Federation of American societies for experimental biology

BIOLOGY

Challenge of biology. P. Weiss. Science 118: 33-4 Jl 10 '53

See also

Adaptation (biology)
Biological chemistry
Cell division (biology)
Cells
Evolution
Genetics
Growth
Microorganisms
Mutation (biology)
Paleontology
Plants

Study and teaching

Summer conference on college biology, Norman, Okla, June 15-19. Science 118:290 S 11 '53

BIOMATHEMATICS
See also
Biological assay

BIOMECHANICS
Structures that house us. F. N. Severud. il diags Arch Rec 115:169-74 Ja '54
Test dummy gives near-human responses. il Machine Design 26:184+ Ag '54

BIOMETRY
Flavour assessment; biometrician's viewpoint. J. O. Irwin. bibliog Chem & Ind p 1348-52 D 19 '53

BIOSYNTHESIS. See Biological chemistry; Synthesis

BIOTIN
Biotin *l*-sulfoxide; the characterization of biotin *l*-sulfoxide from a microbiological source. L. D. Wright and others. Am Chem Soc J 76:4163-6 Ag 20 '54
Biotin *l*-sulfoxide; the isolation of a crystalline factor with biotin activity from aspergillus niger culture filtrates. L. D. Wright and others. Am Chem Soc J 76:4160-3 Ag 20 '54
Biotin *l*-sulfoxide; the occurrence of a previousy unrecognized form of biotin in certain fermentation sources. L. D. Wright and E. L. Cresson. bibliog Am Chem Soc J 76:4156-60 Ag 20 '54
Improved synthesis of biocytin. J. Weijlard, G. Purdue and M. Tishler. bibliog Am Chem Soc J 76:2405 My 5 '54

BIOW, Milton H. 1892-
Sketch. R. Josephs. por Adv Agency 46:78 S '53

BIPHENYL. See Diphenyl

BIPIPERIDINE
2 : 4′-Dipiperidyl; its structure and derivatives. E. P. Hart. Chem Soc J p3872-3 D '53

BIPYRIDINE
Chloroform extraction of ferrous-dipyridyl and *O*-phenanthroline complexes with the aid of alkyl sulphates and sulphonates. R. Powell and C. G. Taylor. Chem & Ind p726-7 Je 19 '54
Spectrophotometric determination of copper in ores with 2,2′-bipyridine. J. P. Mehlig and P. L. Koehmstedt. bibliog Anal Chem 25:1920-1 D '53

BIQUINOLINE
Determination of copper in metallurgical analysis. R. J. Guest. bibliog Anal Chem 25:1484-6 O '53
Synthesis of certain alkyl- and phenyl- substituted 2,2′-biquinolines. F. H. Case and G. Maerker. Am Chem Soc J 75:4920-1 O 20 '53

BIRCH
Birch wood as a raw material for pulp manufacture; abstract. W. Jensen. Paper Ind 35:1142 Ja '54
Comparison of kraft and neutral sulphite semichemical pulps from birch and maple. D. J. MacLaurin and others. Tappi 36:553-7 D '53

BIRD houses
Wrens enlisted in fight on filter flies. R. Binder. il Sewage & Ind Wastes 26:921-2 Jl '54

BIRDS
Roles of darkness and light in the activation of avian gonads. D. S. Farner and others. bibliog Science 118:351-2 S 25 '53

BIREFRINGENCE. See Refraction, Double

BIRMINGHAM, Alabama
Pittsburgh of the South. C. R. Walker. Manuf Rec 123:27-8 S '54

BIRTH control
Family planning in India. Economist 168:503 Ag 22 '53

BISCUITS
Zip-open biscuits; Puffin's tear-string canister with sparkling foil label. il Mod Packaging 27:130-2 My '54

BISDIPHENYLENE ethylene
Heat treatment of bisdiphenylene-ethylene. R. J. S. Jennings and A. Fowler-Williams. bibliog J Ap Chem 3:426-32 S '53

BISMUTH
Angular distribution of neutrons scattered from cadmium, tin, and bismuth. S. C. Snowdon and W. D. Whitehead. bibliog Phys R 94:1267-72 Je 1 '54
Bismuth, 1953. A. Renick. Eng & Min J 155:95 F '54
Effect of chloride on the deposition of copper, in the presence of arsenic, antimony, and bismuth. V. Hospadaruk and C. A. Winkler. bibliog J Metals 5:Trans 1375-7 O '53
Electrodeposition of bismuth. K. B. Morris and others. bibliog Electrochem Soc J 101:343-7 Jl '54
Hall effect in bismuth at 1.4°K. J. M. Reynolds and others. Phys R 93:247-8 Ja 1 '54
Heat transfer to lead-bismuth and mercury in laminar and transition pipe flow. H. A. Johnson and others. bibliog A S M E Trans 76:513-17 My '54
Magnetothermoelectric behavior of bismuth at liquid helium temperatures. M. C. Steele and J. Babiskin. Phys R 94:1394-5 Je 1 '54
Neutron total cross section for bismuth and uranium between 45 and 160 Mev. W. I. Linlor and B. Ragent. Phys R 92:835-6 N 1 '53
Optical properties of bismuth in the near infrared. L. G. Schulz. Opt Soc Am J 43:406-7 My '53
Studies on the concept of large activator centers in crystal phosphors; effects of concentration of activator, of temperature, and of flux on excitation and emission of CaO:Bi phosphors. J. Ewles and N. Lee. bibliog Electrochem Soc J 100:399-402 S '53
Sudden change in the arrangement of crystallites in thin evaporated bismuth films. L. L. Howard. bibliog il J Ap Phys 25:125-7 Ja '54; Correction. 25:543 Ap '54
Survey of the literature on the extractive metallurgy and electrolytic refining of bismuth. P. M. Gruzensky and W. J. Crawford. bibliog(50 titles) U S Bur Mines Information Circ 7681:1-12 '54

Analysis

Detection of bismuth by dithizone in molten naphthalene. J. K. Carlton and W. C. Bradbury. Anal Chem 26:1226-7 Jl '54
Determination of bismuth in pure bismuth-lead eutectic alloy. L. Silverman and M. Shideler. bibliog Anal Chem 26:911-14 My '54
Spectrophotometric determination of bismuth, lead, and thallium with hydrochloric acid. C. Merritt, jr., H. M. Hershenson and L. B. Rogers. bibliog Anal Chem 25:572-7 Ap '53
Titration of bismuth with ethylenediaminetetraacetic acid. A. L. Underwood. bibliog Anal Chem 26:1322-4 Ag '54
Trimethylphenylammonium iodide, quantitative precipitant for bismuth. T. S. Burkhalter and J. F. Solarek. bibliog Anal Chem 25:1125-6 Jl '53

Isotopes

Formation of the long-lived Bi^{210} isomer. D. J. Hughes and H. Palevsky. Phys R 92:1206-10 D 1 '53
Nuclear spin of Bi^{210}. M. Fred and others. Phys R 92:1324-5 D 1 '53
Studies on ionized surface layers using α-recoil atoms: the coadsorption of Bi-212 ions at sodium dodecylsulfate surface layers. N. H. Steiger and G. Aniansson. bibliog diags J Phys Chem 58:228-35 Mr '54
See also
Radium E

Nuclear reactions

Internal conversion and directional angular correlation of the Bi^{207} gammas. F. K. McGowan and E. C. Campbell. bibliog Phys R 92:523-4 O 15 '53
Internal conversion electron-gamma directional angular correlation of Bi^{207}. F. K. McGowan. Phys R 92:524-5 O 15 '53
Isomeric transition of Pb^{207} as an energy standard in beta spectroscopy. D. E. Alburger. bibliog Phys R 92:1257-9 D 1 '53
Long-lived isomer of RaE (Bi^{210}). H. B. Levy and I. Perlman. bibliog diag Phys R 94:152-5 Ap 1 '54
Photoprotons from In, Ce, and Bi. M. E. Toms and W. E. Stephens. bibliog Phys R 92:362-6 O 15 '53
Spallation studies of bismuth. W. E. Bennett. Phys R 94:997-9 My 15 '54

BISMUTH alloys

Resistance of refractories to molten lead-bismuth alloy. J. J. Gangler. il Am Cer Soc J 37:312-16 Jl 1 '54

Superconductivity in tin-bismuth and tin-antimony alloys. W. F. Love. bibliog Phys R 92:238-43 O 15 '53

BISMUTHITES

Hydrazine; some halogeno-antimonites and -bismuthites of hydrazine. W. Pugh. Chem Soc J p 1385-8 My '54

BITS

Cooperation with bit maker cuts diamond costs. A. H. Lense and N. Miles. il Eng & Min J 155:96-7 Mr '54

Diamond orientation in diamond bits; effects of orienting high-grade drill bort in diamond-coring bit crowns. A. E. Long. 5pls U S Bur Mines Rep of Invest 5015:1-13 '54

Hard-rock drilling. L. L. Payne and W. Chippendale. il Am Pet Inst Proc 33(4):62-9 '53

Hydraulic horsepower aids lower drilling costs in south Louisiana. W. S. Sease. il Pet Eng 26:B77-80 Ja '54

Masonry drilling; hammer bits. B. L. Chapin and R. H. Alper. il diags Power Eng 58:86-7 S '54

Masonry drilling; which bit for which material? B. L. Chapin and R. H. Alper. il Power Eng 58:96-8 Je '54

More about oriented diamond bits cutting drilling costs. W. G. Agnew and W. H. Hampton. il Min Cong J 39:56-7 O '53

Recent developments in drill bits and drilling methods. H. B. Woods. bibliog il Pet Eng (Ref annual) 25:B55+ Jl 15 '53

Testing

Electronic bit tester; patent. diags Electronics 26:230+ N '53

BITUMEN

General system describing the visco-elastic properties of bitumens and its relation to routine test data. C. van der Poel. bibliog J Ap Chem 4:221-36 My '54

BITUMINOUS coal. See Coal

BITUMINOUS coal research, inc.

Annual meeting, 19th, Columbus, Ohio, March 24; with abstracts of papers. Coal Age 59:148+ My '54

BITUMINOUS concrete pavements. See Pavements, Bituminous concrete

BITUMINOUS concrete roads. See Roads, Bituminous concrete

BITUMINOUS materials

Influence of aggregate type on the stability of asphalt mixtures. B. H. Knight. il J Ap Chem 3:337-44 Ag '53

Pit material blended with dozers. il Roads & Sts 97:87-9 Ja '54

Protective coatings for buried pipelines. K. A. Spencer and H. B. Footner. bibliog il diags Chem & Ind p448-55 My 9 '53

Push button bituminous mixing plant has 6,000-lb batch capacity. il Eng N 151:67-8 D 31 '53

Separating asphalt materials. R. N. Traxler and H. E. Schweyer. Oil & Gas J 52:133 Ag 31 '53

Tight tunnels in mines; vinyl and asphaltic compounds sprayed under pressure cut air losses. il Chem W 72:26 Ap 11 '53

See also

Oil shales

Pavements, Bituminous

Roads, Bituminous

Analysis

Estimation of rubber in asphalt. G. Salomon, E. Pezarro-Van Brussel and A. C. van der Schee. bibliog Anal Chem 26:1325-8 Ag '54

Standards

ASTM standards on bituminous materials for highway construction, waterproofing, and roofing (with related information). 434p Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '54

Testing

Progressive heterogeneity in aged negative spot-test naphtha sols. G. L. Oliensis. il Am Soc T M Proc 51:1251-61 '51

Properties of bituminous road materials; abstract. L. E. McCarty. Roads & Eng Constr 92:109 My '54

Simple procedures against asphalt contamination during shipment. Roads & Sts 97:75+ F '54

BITUMINOUS pavements. See Pavements, Bituminous

BITUMINOUS roads. See Roads, Bituminous

BITUMINOUS sand

Athabasca solution? Oil & Gas J 52:51 Jl 6 '53

BLACK, Kenneth Eugene, 1904-

Sketch. por East Underw 55:1+ Ap 9 '54

BLACK

See also

Carbon black

BLACK body

Use of wave number in radiation formulas. M. Eppley and A. R. Karoli. bibliog Opt Soc Am J 43:957-9 N '53

BLACK-CLAWSON company

Black-Clawson buys Bagley & Sewall. Paper Tr J 138:11 Ag 27 '54

BLACK liquor. See Paper and pulp mills—Waste

BLACK river, Louisiana

Navigation maintained during construction of Smithland cutoff and levee. W. H. Holland. il map diags Civil Eng 24:90-3 F '54

BLACK sand

Analysis

Spectrophotometric determination of thorium in black sands. C. V. Banks, D. W. Klingman and C. H. Byrd. Anal Chem 25:992-3 J[illegible] '53

BLACK spruce. See Spruce

BLADDER

Diseases

Nature and control of bladder cancer. T. S. Scott. bibliog Chem & Ind p 1245-9 N 21 '53

Papilloma of the bladder; ABCM scheme; abstracts. Chem Age (Lond) 69:1183-4 D 5 '53; Chem & Eng N 31:5392 D 28 '53

BLAKE, John Twiss, 1901-

Blake wins Goodyear medal for outstanding rubber research. por(cover) Chem & Eng N 31:2886 Jl 13 '53

BLAKER, Robert H.

ADR award presented to R. H. Blaker. por Am Dyestuff Rep 42:649 S 28 '53

BLANKETS

Mothproofing wool with DDT. A. S. Weatherburn and C. H. Bayley. bibliog il Soap & Chem Spec 30:141-4+ S '54

Rayon in modern blankets. R. A. Smith. il diags Mod Textiles Mag 35:32-3+ Ag '54

See also

Electric blankets

BLAST cleaning. See Metal cleaning; Shot blasting

BLAST furnace gas

B.I.S.R.A. photo-electric dust concentration meter. Engineer 197:128 Ja 22 '54; Engineering 177:146 Ja 29 '54; Metallurgia 49:156 Mr '54

Combination fuel firing of boiler plants; blast furnace gas and coal. C. J. Webster. Iron & Steel Eng 31:70-1; Discussion. 71 Jl '54

Fuel selection for soaking pits; Johnstown plant of the Bethlehem steel co. F. R. Pullen. Iron & Steel Eng 31:80-2 Mr '54

Gas turbines for the steel industry. G. H. Krapf. diags Iron & Steel Eng 31:97-100 Ap '54; Same. Blast F & Steel Pl 42:444-7+ Ap '54

Gas turbines; U.K. may try to operate turbines on blast furnace gas. Iron Age 172:108 S 17 '53

Iron ore recovered from blast furnace gas. W. A. Walton. il Iron & Steel Eng 30:121-2 Ap '53; Same cond. Power 97:95-7+ N '53

Steelmaking; dust meter checks cleanliness of blast-furnace gas. Iron Age 173:147-8 F 11 '54

Cleaning

Air pollution control in steel industry. G. A. Howell. Iron & Steel Eng 30:91-4 O '53

Blast furnace gases cleaned at Edgar Thomson works. il Blast F & Steel Pl 42:937 A[illegible] '54

BLAST furnace gas—Cleaning—*Continued*

Ferromanganese furnace fumes cleaned successfully; Duquesne works of United States steel corp. C. H. Good, jr. il diag Iron Age 174:95-7 Jl 8 '54

Industrial waste guide; blast furnace department of the steel industry. H. H. Black and G. N. McDermott. bibliog flow diag diags Sewage & Ind Wastes 26:976-90 Ag '54

Steel mills fight their pollution problems. Power 97:95 N '53

BLAST furnace slag. See Slag

BLAST furnaces

A.I.M.M.E. national open hearth steel committee and the blast furnace, coke oven and raw materials committee conference, April 5-6; program. J Metals 6:430-1+ Ap '54; Blast F & Steel Pl 42:sup20-4+ Ap '54

Annual capacity of blast furnaces as of Jan. 1, 1954; tabulation. Steel 135:122 S 20 '54

Blast furnace capacity by companies and geographic location; tabulations. Iron Age 173:98b-98d F 4 '54

Blast furnace flue dust thickeners. J. D. Walker and E. N. Hower. il diags Blast F & Steel Pl 42:57-61 Ja '54

Blast furnace tuyere; patent. diags Iron & Steel Eng 31:30+ S '54

Blow in new furnace; American steel & wire starts new blast furnace. T. M. Rohan. il Iron Age 174:41 S 30 '54

Brazilian charcoal blast furnace practices. L. Ensch. diags Blast F & Steel Pl 42:1053-8 S '54

Carbide drilling speeds removal of tough slag deposits. D. L. Tunsberg. il diag Iron Age 174:98-9 Jl 8 '54

Chemical reactions of coke in the iron blast furnace. J. F. Peters. bibliog J Metals 6: Trans 466-74 Ap '54

Coke plant and blast furnace expansion at Fontana. C. R. Lohrey. Iron & Steel Eng 31:67-9 Jl '54

Construction of the largest blast furnace in Europe completed in record time; Westfalenhütte A.G., Dortmund, Germany. D. R. Knall. il diags Blast F & Steel Pl 42:524-30 My '54

Cooling apparatus for blast furnace hearths; patent. diags Iron & Steel Eng 31:27-8 Jl '54

Correlating blast furnace operating concepts. C. E. Agnew. il Steel 134:106+ My 17; 142-3+ Je 21; 135:94-6+ Ag 2; 90+ S 27 '54 (to be cont)

Design and construction of a carbon-lined blast furnace; abstract. J. M. Stapleton and W. S. Debenham. Steel 133:112+ Jl 6 '53

Developments in extending blast furnace stack life after appearance of hot spots; abstract. R. W. Sundquist. Iron & Steel Eng 31:135 S '54

Developments in the iron and steel industry during 1953. I. E. Madsen. il plan diag Iron & Steel Eng 31:132-6 Ja '54

Exposé général sur le bas fourneau; abstract. H. Malcor. Metal Prog 65:190+ Ap '54

Extensions at Appleby-Frodingham. il Metallurgia 49:169-70 Ap '54

Furnace grows six feet. il Steel 133:123 Ag 17 '53

Further studies of the tuyere zone of the blast furnace. J. B. Wagstaff. il J Metals 5:Trans 895-902 Jl '53

Low-shaft furnaces. G. Bulle. diags Blast F & Steel Pl 41:1429-33 D '53

McLouth adds blast furnace in integration program. Iron Age 174:44 S 30 '54

Manganese as an indicator of blast furnace slag oxidation and desulphurizing power. N. J. Grant and others. bibliog J Metals 5:Trans 1451-4 N '53

Method of blowing-in banked blast furnaces; patent. diags Iron & Steel Eng 31:23-4 Mr '54

Method of blowing-in blast furnace from bank; abstracts. W. W. Durfee. Steel 132: 120+ Je 1 '53; J Metals 5:791-3 Je '53

Mineralogy of blast furnace sinter. H. M. Kraner. bibliog Min Eng 5:Trans 1114-17 N '53

More iron for the Ohio valley; new 1400-ton Louise furnace at Portsmouth. il diag Steel 133:118+ N 9 '53

New blast furnace blown-in at Scunthorpe. Engineering 177:324 Mr 12 '54

New experiences with iron ore reduction in low-shaft blast furnace; abstract. E. Killing. Metal Prog 64:180+ D '53

New spin on blast furnaces. il Bsns W p74+ N 7 '53

Operating experience with a two-foot diameter blast furnace. R .C. Buehl. il diag J Metals 6:814-16 Jl '54

Production of coke to blast furnace specifications. J. A. Beatty. flow diag il plan diags Blast F & Steel Pl 42:339-44 Mr '54

Recuperators for blast furnaces. W. Trinks. Blast F & Steel Pl 41:1437-8 D '53

Steel-making processes. J. Mitchell. Engineer 196:655-8 N 20 '53; Excerpts. Engineering 176:701-2 N 27 '53

Value of blast heat in blast furnace operation. C. E. Agnew. Blast F & Steel Pl 42: 90 Ja '54

See also

Iron metallurgy

Air supply

Blast-furnace hot-blast velocity control; patent. diag Iron & Steel Eng 31:24 Ag '54

Control system for motor-driven blast-furnace turbo-blowers; Rotherham works of the Park gate iron and steel co. il diag Engineer 196:590-1 N 6 '53; Engineering 176: 761-2 D 11 '53

Furnace; pressure-top use gains. il Iron Age 174:64 Jl 22 '54

More furnaces resort to pressurized operation. il Steel 135:128+ S 20 '54

Pressure operation grows in European blast furnace practice. E. L. Pepper. il diag Iron Age 173:128-32 Ja 28 '54

Charging

Belt-charged blast-furnaces of S.A. John Cockerill, Belgium. G. Hookham. il plans diags Iron & Steel Inst J 175:409-19 D '53

Better distribution with high speed tops. H. W. Campbell and C. P. Johnson. il Steel 134:96+ F 1 '54

Blast furnace charging device; patent. diags Iron & Steel Eng 31:23-4 Ag '54

New type of automatic blast furnace charging control. E. H. Abbe. il diag Blast F & Steel Pl 42:424-7 Ap '54

Cleaning

Downs furnace scab in three shots. diags Steel 134:100+ F 1 '54

Control

Integrated electrical equipment for blast furnace operation. C. P. Hamilton. il diags Iron & Steel Eng 31:89-93 Ap '54; Same cond. Steel 134:113+ F 22 '54; Discussion. Iron & Steel Eng 31:93-6 Ap '54

Design

Blast furnace design problems. F. E. Kling. diags Blast F & Steel Pl 42:778-86, 934-7 Jl-Ag '54

Temperature distribution in the hearths of blast furnaces. V. Paschkis and T. Mirsepassi. il diags Iron & Steel Eng 31:53-9; Discussion. 59-66 F '54

History

Design history of the blast furnace tuyere. L. V. Dillon. bibliog diags Blast F & Steel Pl 42:800-4 Jl '54

Lining

Bricklaying as a factor in the performance of blast furnace linings. W. S. Debenham. diags Iron & Steel Eng 31:76-9 Mr '54

Construction and operation of carbon lining in Gary's no. 10 blast furnace. J. M. Walsh, jr. il diags Blast F & Steel Pl 41:1439-50 D '53

Relining and enlarging number nine blast-furnace at Appleby-Frodingham. G. D. Elliot and others. il plans diags Iron & Steel Inst J 174:143-58 Je '53; Excerpts. Blast F & Steel Pl 42:52-6 Ja '54

Trends in blast furnace linings. H. M. Kraner. bibliog diags Iron & Steel Eng 31:79-81 Jl '54; Excerpts. Steel 133:124 O 26 '53; Discussion. Iron & Steel Eng 31:82 Jl '54

BLAST furnaces—*Continued*

Tapping

Experiences in salamander tapping; Inland steel co. C. M. Squarcy and E. H. Bare. il diags Blast F & Steel Pl 42:331-5 Mr '54

BLASTING

Accelerating fill settlement with explosives on a Massachusetts highway. H. F. Church, jr. il Explosives Eng 31:112-15 Jl '53

Better blasting practices through seismograph studies. il Rock Prod 57:103 Mr '54

Blast for better riprap. il Eng N 152:35 Mr 18 '54

Constructing a modern highway across the Strait of Canso. D. Pelrine. il Explosives Eng 31:142-5 S '53

Diamond drills' place in pit blasting. P. Adamson. bibliog il diags Eng & Min J 155: 96-8 Jl '54

Ditch blasting reclaims useless Ohio farmland. W. F. Miller. il Explosives Eng 32:53-4 Mr '54

Drilling for better breakage; Elmhurst-Chicago stone co. R. S. Torgerson. il Rock Prod 57:122+ F '54

Dynamite solves Bethlehem steel company's scrap metal inspection problem. il Explosives Eng 31:108-11 Jl '53

How Cananea gets good fragmentation in large blasts. A. W. Ruff. il diags Eng & Min J 155:92-4+ Ja '54; Correction. 155:97 Mr '54

Improved methods help explosives do a better job. il diags Constr Methods 36:94-5+ Je '54

New blasting device called safer and better by International Nickel. Midwest Eng 6:21 S '53; Same. Franklin Inst J 256:396-7 O '53

Open hearth slag removed economically by blasting; Lackawanna, N.Y. plant of Bethlehem steel co. J. O. Dague. il J Metals 5:881-3 Jl '53

Open pit mining guidebook; drilling and blasting. il diags Eng & Min J 155:G7-11+ My '54

Opinion vs measurement; in the evaluation of vibration effects from blasting. H. H. White. Rock Prod 57:83 F '54

Puerto Rico's water supply project. A. S. Keshen. il map Explosives Eng 31:118-21+ Jl '53

Quarrying a massive granite formation in Virginia. R. W. McCall. il Explosives Eng 31:149-51 S '53

Skillful blasting on New York thruway shatters rock safely on edge of town; illustrations with text. Constr Methods 36:82-3 My '54

Taconite; better blasting methods sought by Bureau of mines. Iron Age 172:158-9 Jl 2 '53; Blast F & Steel Pl 41:1082 S '53

Tunnel blasting on the island of Toas. H. V. Brennan. il map plan diag Explosives Eng 32:39-42 Mr '54

Which is the more efficient rock breaker? F. C. Bond. il Eng & Min J 155:82 Ja '54

See also

Coal mines and mining—Blasting

Explosives

Petroleum—Well blasting

Insurance aspects

Borderline cases of blasting damage pose problem for E.C. insurer. W. M. Whitesell, jr. Nat Underw 57:29 N 26 '53

Case of the frightened mink; Foster v. Preston mill co. Weekly Underw 170:1317 My 22 '54

Safety measures

Blasting switch gives automatic warning. il Can Min J 75:66 Jl '54

What's new in explosives safety? K. M. Ed. il diags Can Min J 74:92-6 S '53; Correction. 75:68-9 Ja '54

BLASTING, Subaqueous

Miraculous bubbles cushioned rock blast at Niagara. diag Comp Air Mag 59:230 Ag '54

Shooting for oil in the Gulf of Mexico. W. Richardson. il map Explosives Eng 31: 135-41+ S '53

BLAW-KNOX company

Earnings for 1953 may exceed last year's figure. Barron's 33:23-4 S 21 '53

BLEACHERIES

Equipment

This knit-goods bleaching range processes 140,000 lbs. weekly. B. K. Easton. il diag Textile World 104:112-14+ Je '54

BLEACHING

Adsorption of metal ions by naturally pigmented keratin fibres. G. Laxer and C. S. Whewell. Soc Dyers & Col J 69:83-4 Mr '53

Bleaching with sodium chlorite; abstract. Am Dyestuff Rep 42:475 Jl 20 '53

Bleaching with some peroxygen chemicals; abstract. B. K. Easton. Am Dyestuff Rep 43:36 Ja 18 '54

Chemistry of chelation in textile processing. A. J. Gard. bibliog Am Dyestuff Rep 42: 867-70 D 21 '53

Fluorescent whitening agents; abstract. J. A. Somers. Am Dyestuff Rep 43:217 Mr 29 '54

Hydrogen-peroxide bleaching of textile materials. H. G. Smolens. Am Dyestuff Rep 42:408-10 Je 22 '53

Low-temperature bleaching and restoration of color centers. A. Halperin and G. F. J. Garlick. Phys R 95:1098-9 Ag 15 '54

Mill reference data; bleaching, dyeing, and finishing. diags Textile World 103:58-63 Mid-N '53

Pressure dyeing and bleaching with special reference to recent developments. F. H. Marsh. il pl Soc Dyers & Col J 70:105-12 Mr '54

Restoration of F and V_1 centers following low-temperature bleaching. R. V. Hesketh and E. E. Schneider. Phys R 94:494-5 Ap 15 '54

See also

Decolorization

Dyes and dyeing

Paper making—Bleaching

Wood pulp—Bleaching

Cotton

Behavior of optical bleaching agents on cellulosic materials. S. N. Glarum and S. E. Penner. Am Dyestuff Rep 43:310-14; Discussion. 314 My 10 '54

Dacron

Bleaching Dacron polyester fiber; abstract. Am Dyestuff Rep 42:894 D 21 '53

Two-step method of bleaching Dacron. Mod Textiles Mag 35:51 F '54

Knit goods

Application of fluorescent agents in hydrogen peroxide bleaching of knit goods. J. F. Whalen. Am Dyestuff Rep 42:597 Ag 31 '53

Linen

Use of sodium chlorite for linen piece bleaching; abstract. Am Dyestuff Rep 43:346 My 24 '54

Nylon

Bleaching nylon fabrics with acid solutions of sodium chlorite; abstract. Am Dyestuff Rep 43:216 Mr 29 '54

Successful bleaching of type 670 nylon; simple new method using peracetic acid. B. K. Easton. Mod Textiles Mag 35:66+ Ap '54

Synthetic fibers

Bleaching of rayon and newer fibers; abstract. Am Dyestuff Rep 42:177-8 Mr 16 '53

Wool

Formation of polymers in wool. G. W. Madaras and J. B. Speakman. bibliog Soc Dyers & Col J 70:112-16 Mr '54

Wool bleaching; abstract. Am Dyestuff Rep 43:216 Mr 29 '54

BLEACHING materials

Behavior of optical bleaching agents on cellulosic materials. S. N. Glarum and S. E. Penner. Am Dyestuff Rep 43:310-14; Discussion. 314 My 10 '54

Chemistry of bleaching and oxidizing agents. G. Holst. Chem R 54:169-94 bibliog(p 193-4) F '54

One for the wash; powder bleaches based on dichlorodimethylhydantoin. il Chem W 73:81-2 N 21 '53

BLEACHING materials—*Continued*
Optical bleaches in soap. K. Lindner. Soap & San Chem 30:85+ Ja '54
Optical bleaching agents; derivatives of dichlorodiaminostilbenedisulfonic acid. D. W. Hein and E. S. Pierce. bibliog Am Chem Soc J 76:2725-31 My 20 '54
Optical bleaching (brightening) agents; dihydrocollidine derivatives; patent. P. Wengraf. Am Dyestuff Rep 43:457 Jl 19 '54
Powder type bleaches. M. A. Lesser. bibliog (27 ref) il Soap & San Chem 29:154-5+ Ap '53
Variations on a theme; new dye intermediates and whiteners from dichlorodiaminostilbenedisulfonic acids. Chem W 74:54 Je 12 '54
See also
Hydrogen peroxide
Sodium chlorite
Textone

BLEACHING of flour. See Flour—Bleaching

BLEININGER award
McCaughey to receive Bleininger award. Am Cer Soc Bul 33:29 Ja 15 '54

BLIMPS. See Airships, Military

BLIND
No eyes to see; Western Pennsylvania school for the blind; Westinghouse sells new appliances to the school at half price. il Sales Management 71:28-9 Ag 15 '53

BLINDNESS
Industrial safety drive to prevent blindness. Weekly Underw 169:364 Ag 15 '53

BLINDS
Outside aluminum blinds throw off solar heat, let daylight indoors. il diags Arch Forum 100:169+ Mr '54

BLINDS, Glass
Don't overlook advantages of standard components; jalousies in sun porch; better detail plate. K. R. O'Neal. il diags Am Bld 76:278-9 Ag '54
Glass jalousies; what they are, where to use them. il Am Bld 75:122-5 O; 138-40+ N '53

BLOCK caving. See Mining methods

BLOCKING agents. See Nerves—Blocking

BLOOD
Collecting device for obtaining blood samples at various intervals from an intra-arterial catheter. R. T. Archibald and others. il Science 118:390-1 O 2 '53
Crystallization and properties of a glycorprotein isolated from human plasma. R. K. Brown and others. Am Chem Soc J 76:4244-5 Ag 20 '54
Determination of the acoustic properties of blood and its components. E. L. Carstensen and others. bibliog Acoustical Soc Am J 25:286-9 Mr '53
Dynamic equilibrium between circulating and extravascular plasma proteins. D. Gitlin and C. A. Janeway. bibliog Science 118:301-2 S 11 '53
Hydrogen ion concentration of human fetal blood in utero at term. I. H. Kaiser. Science 118:29-30 Jl 3 '53
Potential stimulator of red blood cell production found. Chem & Eng N 32:1672+ Ap 26 '54
Zoological collecting expeditions and the salvage of animal bloods for comparative serology. A. Boyden. Science 118:57-8 Jl 10 '53
See also
Leucocytes
Serum

Analysis

Analyses of biological materials provide indexes for evaluating exposure of workers to air contaminants. H. H. Schrenk. Ind & Eng Chem 46:sup 111A-12A Je '54
Blood and urine changes in experimental beryllium poisoning. C. J. Spiegl and others. bibliog A M A Archives Ind Hygiene & Occup Med 7:319-25 Ap '53
Determination of the pyrazinamide content of blood and urine. W. S. Allen and others. Anal Chem 25:895-7 Je '53
Micro determination of isoniazids in blood. M. B. Jacobs. bibliog Science 118:142-3 Jl 31 '53
Micro porphyrin test for blood. E. Ju-Hwa Chu and T. C. Chu. J Chem Educ 30:178-9 Ap '53
New color reagent for determination of hexoses; determination of glucose in blood serum. B. Klein and M. Weissman. bibliog Anal Chem 25:771-4 My '53
Oximeter for continuous absolute estimation of oxygen saturation. W. Paul. bibliog diags J Sci Instr 30:165-8 My '53
Quantitative determination of adrenaline and noradrenaline in mixtures. H. Persky and S. Roston. Science 118:381-2 O 2 '53
Rapid titrimetric method for determining the water content of human blood. F. E. Davis and others. bibliog Science 118:276-7 S 4 '53
Recognising intoxication; analysis of alcohol in blood and urine. Chem Age (Lond) 70:366 F 6 '54

Coagulation

Anticoagulant activity of heparin. A. B. Foster and others. bibliog Chem & Ind p899-900 Ag 22 '53
Factors influencing blood clotting time in the chick. P. Griminger and others. Science 118:379-80 O 2 '53
Species specificity of fibrinogen as revealed by end-group studies. L. Lorand and W. R. Middlebrook. bibliog Science 118:515-16 O 30 '53

Proteins

See Proteins

Testing

Multicelled sample container for the rapid counting of P^{32} in blood. H. C. Lawson and others. diags R Sci Instr 25:397 Ap '54

Transfusion

Biophysical methods for the assay of the life span of red blood cells. H. C. Box and others. bibliog Science 118:72-3 Jl 17 '53
Effect of whole blood transfusion on dogs receiving a maximal sublethal (LD_0) exposure to ionizing radiation. R. W. Miller and others. bibliog Science 118:111-12 Jl 24 '53
Glutamyl polypeptide promising as blood expander. Chem & Eng N 32:1999-2000 My 17 '54
Microdetermination of polyvinylpyrrolidone in aqueous solution and in body fluids. G. R. Levy and D. Fergus. bibliog Anal Chem 25:1408-10 S '53
Mill community joins the fight against polio. M. B. Andrews. Textile World 103:149+ D '53
Plasma expanders. R. T. Merrick. il J Chem Educ 30:368-70 Jl '53
See also
Dextran

BLOOD groups
Immunochemical studies on blood groups; the action of enzyme from snail (busycon) liver on blood group A and O(H) substances (Hog). C. Howe and E. A. Kabat. bibliog Am Chem Soc J 75:5542-7 N 20 '53
Occurrence of acquired hemolytic anemia in subjects of blood group O. M. L. Hunt and S. P. Lucia. Science 118:183-4 Ag 14 '53

BLOOD pressure
Apparatus for the measurement of systolic and diastolic pressures. R. M. Landsman. il diags R Sci Instr 25:71-2 Ja '54
Differential capacitance manometer. I. G. Baxter. il diag J Sci Instr 30:358-60 O '53
Hypotensive agents; hydrogenated dialkylaminoalkyl isoindole derivatives. L. M. Rice, C. H. Grogan and E. E. Reid. bibliog Am Chem Soc J 75:4911-15 O 20 '53
Hypotensive methoxyisoquinolines. G. N Walker. bibliog Am Chem Soc J 76:3999-4003 Ag 5 '54
Mortality of female hypertensives found incredibly low. A. M. Lyle. Nat Underw (Life ed) 58:6 Je 11 '54
Synthetic hypotensive agents; some powerful new autonomic ganglionic blocking agents derived from nicotine. A. P. Phillips. Am Chem Soc J 76:2211-13 Ap 20 '54
Synthetic hypotensive esters from germine. F. L. Weisenborn and others. bibliog Am Chem Soc J 76:1792-5 Ap 5 '54
What your wife hopes you know about hypertension. C. Bird. Sales Management 72:92+ Ja 15 '54

BLOOMING mills. See Rolling mills

BLOUNTSVILLE, Alabama

Sewerage

Modern sewerage system serves 695 people. il Pub Works 84:109 N '53

BLOWERS

Control system for motor-driven blast-furnace turbo-blowers; Rotherham works of the Park gate iron and steel co. il diag Engineer 196:590-1 N 6 '53; Engineering 176:761-2 D 11 '53

Motors for fans and blowers. T. E. M. Carville. il diags Refrig Eng 61:1320-4 D '53

Roots blowers. diag Tappi 37:sup 131A-2A Je '54

Slag-blowing pointers. Power Eng 58:65 F '54

Steam turbine vs. electric drive for the cat cracker blower; with cost data. H. C. Mayo. diags Oil & Gas J 52:86-8+ S 7 '53

Use a mail scale to find blower capacity. T. N. Dalton. Chem Eng 60:211 O '53

What type blowers do you need? H. W. Woodhouse. diags Pet Processing 8:1325-7 S '53

See also

Soot blowers

BLOWING of plastics. See Plastic materials—Blowing

BLUE

Analytical problems in the determination of Evans blue. W. O. Caster, A. B. Simon and W. D. Armstrong. bibliog Anal Chem 26: 713-15 Ap '54

Peacock blue flushed color production; staff-industry collaborative report. A. S. Hester and C. H. Allen. bibliog flow sheet il diag Ind & Eng Chem 45:1610-18 Ag '53

Resists under azoic dyes; introduction of Variamine blue. J. Frei. Soc Dyers & Col J 69:667-9; Discussion. 670 D '53

BLUE laws. See Sunday legislation

BLUEPRINTS

Cut blueprints to workable size; North American aviation inc. il Steel 135:100 S 6 '54

BOARD of fire underwriters of the Pacific

Annual meeting, Santa Barbara. Nat Underw 58:2+ My 6 '54

Far West producers meet with Underwriters group, Seattle. Weekly Underw 170:1091 My 1 '54

BOARD of underwriters of New York

Annual meeting, 34th, New York, Jan. 28. East Underw 55:31 F 5 '54; Weekly Underw 170:352 F 6 '54

BOATS, Aluminum

Aluminum alloy fishing cruiser. il Engineer 196:816 D 18 '53; Engineering 176:777 D 18 '53

Aluminum-alloy lifeboats. Engineering 176:829 D 25 '53

Aluminium inspection launch. il Engineer 196:312 S 4 '53; Engineering 176:416 S 25 '53

Aluminum rides the waves, Lone star boat co. il Steel 134:51 My 17 '54

BOATS and boating

Hydrofoil boats. il Product Eng 24:204-5 Ag '53

White water derby. C. Holbrook. il Comp Air Mag 59:252-3 S '54

See also

Barges
Dredges
Ferryboats
Fishing boats
Freight ships
Motor boats
Shipbuilding
Ships
Steamboats
Towboats

BOBBINS

Here's an easy way to reclaim choked bobbins. T. K. Pattabhiram. diags Textile World 104:154 Ja '54

BODIES of revolution

Comparison of theoretical and experimental heat-transfer characteristics of bodies of revolution at supersonic speeds. R. Scherrer. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:1301-15 '52

Method of characteristics for the determination of supersonic flow over bodies of revolution at small angles of attack. A. Ferri. bibliog diags U S Nat Advisory Com for Aeronautics 1951:1039-54 '52

Study of effects of viscosity on flow over slender inclined bodies of revolution. H. J. Allen and E. W. Perkins. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:1103-15 '52

BODROUX reaction

Bodroux reaction. H. L. Bassett and C. R. Thomas. Chem Soc J p 1188-90 Ap '54

BODY lice. See Lice

BOEGEHOLD, Alfred L.

Men of materials. por Materials & Methods 39:13 Mr '54

BOEING airplane company

Five stocks with exceptionally high earnings; with comparative balance sheet items. Mag of Wall St 93:323 D 12 '53

Lead in jet bomber production is unchallenged. R. P. Cooke. Barron's 33:17-19 S 21 '53

BOFFIN (term)

Natural history of the Boffin. R. Watson-Watt. Inst Radio Eng Proc 41:1699 D '53

BOGERT, Marston Taylor, 1868-1954

Sketch. J. M. Nelson. Chem & Ind p512-13 My 1 '54

BOGS. See Marshes

BOHACK, H. C., company, inc.

Continued rise in H. C. Bohack's sales, profits likely in 1954 fiscal year. Barron's 33:32 N 16 '53

BOILER and radiator manufacturers, Institute of. See Institute of boiler and radiator manufacturers

BOILER cleaning

Blasts of compressed air clean boiler tubes il Comp Air Mag 59:174 Je '54

Chemical cleaning in central stations. P. H. Cardwell. bibliog il diags A S M E Trans 76:47-55; Discussion. 55-9 Ja '54

Clifton paperboard co. power plant vacuum cleaning system. il plan diag Tappi 37:sup 116A-18A Ag '54; Same. Paper Tr J 138:22+ Jl 16 '54

How to percussion-blast your tubes clean. C. F. Carpenter. il diag Power 98:138 Ag '54

Hydrogen bomb in your plant? B. Davis. il diags Power 98:114-15 Ap '54

Internal cleaning of boilers. J. M. Maloney. Ind & Eng Chem 46:983-5 My '54

Use your boiler tube cleaners properly. A. John. il Power Eng 58:86-7 My '54

BOILER feed pumps. See Pumps, Feed water

BOILER insurance. See Insurance, Boiler

BOILER plants

All-new central heat; Vascoloy-Ramet corp. il Factory Management 111:150 N '53

Boiler room showplace; Knott's Berry Farm. il Dom Eng 183:132-3 Je '54

High temperature water gives low-cost heat at Twenty-nine Palms. J. P. Harrington. flow diag il plans diag Power Eng 58:84-6+ Mr '54

One boiler for four at Stitzel-Weller. A. Corcoran. il Power Eng 58:68-9 Jl '54

Power for the Pullman laundry. il Power Eng 57:57 N '53

Standardized industrial boilers can keep your steam costs down. C. E. Miller. il diags Power Eng 57:58-61 N '53

See also

Boilers
Steam plants

Electric equipment

Modern sootblowing. il diags Elec J 152:670-2 F 26 '54

Equipment

Anti-vibration mount for a sensitive instrument in a boiler house. O. P. T. Kantorowicz. diag J Sci Instr 31:28-9 Ja '54

British mill gets 77 per cent thermal efficiency. L. Walter. il diag Textile World 104: 102-3+ My '54

Combination fuel firing of boiler plants; blast furnace gas and coal. C. J. Webster. Iron & Steel Eng 31:70-1; Discussion. 71 Jl '54

Modern industrial boiler plant. W. P. C. Ungoed. diag Blast F & Steel Pl 42:548-52+, 686-8 My-Je '54

New approach to the theory and operation of electrostatic precipitators for use on pulverised fuel boilers; abstract. N. Troost. Engineering 176:776 D 18 '53

BOILER plants—Equipment—*Continued*

Small-plant boiler room now boasts topnotch planning and design; Home packing co. E. H. Roper. il Power 98:114-15 Ja '54

See also

Feed water regulators

Soot blowers

Water gages

Maintenance and repair

How to build easy maintenance into your new heating plant; Mennen co. il Power 97:126-7 D '53

How to spray chrome-base castable refractory. il Power 98:140 Mr '54

Safety measures

Hydrogen bomb in your plant? B. Davis. il diags Power 98:114-15 Ap '54

BOILER plants, Outdoor

Unhoused boiler installations are cheaper, safer; Billings refinery of Continental oil co. K. S. Andrea. il Oil & Gas J 52:66-7 Ja 4 '54

BOILER scale

Deposits in boilers. C. Jacklin. il Ind & Eng Chem 46:989-90 My '54

Analysis

Analysis of water-formed deposits. F. U. Neat and A. A. Berk. bibliog Ind & Eng Chem 46:961-70 My '54

Significance of boiler deposit analysis. F. E. Clarke and R. D. Hopkins. il Ind & Eng Chem 46:979-82 My '54

Systematic analysis of boiler deposits. J. W. McCoy. Am Water Works Assn J 46:903-19 S '54

BOILER tubes

Electronic-control method for the precision expanding of tubes. F. E. Dudley. bibliog il diags A S M E Trans 76:577-82; Discussion. 582-4 My '54

How to percussion-blast your tubes clean. C. F. Carpenter. il diag Power 98:138 Ag '54

Tube expanding and related subjects. F. F. Fisher and G. J. Brown. bibliog il diags A S M E Trans 76:563-75 My '54

Use your boiler tube cleaners properly. A. John. il Power Eng 58:86-7 My '54

BOILER water. See Feed water

BOILERS

Controlled circulation at Chesterfield. T. E. Crossan and W. F. Ryan. il diags A S M E Trans 76:727-33; Discussion. 733-4 Jl '54

Controlled-circulation boiler. W. H. Armacost. il diags A S M E Trans 76:715-25 Jl '54

Developing the first commercial supercritical steam generator; Babcock & Wilcox co. W. H. Rowand. il diags Power 98:73-80 S '54

Extra boiler tubes up capacity; Tacoma Light remodels old installation. J. F. Ward. diag Elec World News ed 141:54-5 Mr 1 '54

Facts about modern packaged steam generators. diags Mill & Factory 54:460 My '54

How to organize your new power plant; here's an A-1 way to handle boiler erection and preliminary inspection. D. C. Swift. Power 98:102-3+ Jl '54

Large forged steel boiler drum. il Engineer 196:679-80 N 20 '53; Engineering 176:702 N 27 '53

Limitations of the safety loop. T. W. Reynolds. diags Heat & Ven 51:82-6 S '54

Low pressure steam cools, heats plant; furnished by two packaged boilers; Mennen co. il Heating-Piping 26:114-15 S '54

Measuring boiler heating surface. R. C. Gray. il Heating-Piping 26:129 My '54

New automatic packaged boiler; Powermaster. il Chem Age (Lond) 70:891-2 Ap 17 '54

New boiler at St Croix adds 2500 kw to power capacity. il Paper Ind 35:1098-9 Ja '54

Standardized industrial boilers can keep your steam costs down. C. E. Miller. il diags Power Eng 57:58-61 N '53

Steam generation for chemical plant. R. H. Paddon-Row. Chem Age (Lond) 70:1047-9 My 8 '54; Excerpt. Chem & Ind p600 My 22 '54

Stepping up steam power. il Bsns W p 136+ N 14 '53

Stresses for pressure vessels and boilers up to 650°F. W. P. Kerkhof. diags Welding J 33: sup239-51 My '54

Use of packaged steam generators increasing. il Chem Eng 61:122+ Je '54

What's the best operating method for our three boilers? answers. diag Power 98: 136-8+ Ja '54

See also

Boiler cleaning and other headings beginning Boiler

Feed water

Feed water purification

Locomotive boilers

Master boilermakers' association

Blowdown

Blowdown. P. Brindisi. diags Power 98:116-17+ Ag; 118-19+ S '54

Control

Boiler control at Pampa plant of Celanese. diags Oil & Gas J 52:343 N 16 '53

Boiler feed regulation. diags Elec J 152:601-2 F 19 '54

Hot rods on tubes show boiler temperature variations. H. How. diags Chem Eng 61:218 Ag '54

Unified boiler control at Trafford power station. S. E. Shaw. il diag Engineering 176: 676-8 N 27 '53

Which standard controls for my packaged boiler? A. W. Hindenlang. il Power 98:104-6 Jl '54

Corrosion

Acid dew-point temperatures in relation to the corrosion of boiler, economizer and air heater surfaces; abstract. J. R. Rylands and J. R. Jenkinson. Elec R (Lond) 154: 405 Mr 5 '54

After boiler corrosion. J. J. Maguire. il Ind & Eng Chem 46:994-7 My '54

Caustic cracking in steam boilers; alkaline phosphates for protection of boiler metal in cases of stress corrosion. R. Rath. il Chem & Ind p600-3 Je 20 '53

Corrosion in the boiler. R. F. Andres. bibliog Ind & Eng Chem 46:990-2 My '54

Reduction of condensate-line corrosion. S. Jensen and E. R. Lang. plan A S M E Trans 76:245-9 F '54

Symposium on caustic cracking in steam boilers; general discussion. bibliog il Chem & Ind p 1075-87 O 10 '53

Design

Boiler and furnace designed for spreader-stoker firing. L. H. Coykendall and P. R. Loughin. il diags A S M E Trans 76:873-7; Discussion. 877-81 Ag '54

Electric heating

Electric steam generator saves time and manhours. M. E. Goodridge. il Elec World 139:113-14 Je 1 '53

Flexible steam-raising plant; electrode plants. il Chem Age (Lond) 68:893-4 Je 13 '53

Equipment

Are you sure your boiler water level indication is correct? W. J. Kinderman. diags Power Eng 57:72-3+ D '53

See also

Boiler plants—Equipment

Feed water regulators

Water gages

Firing

Automatic system simplifies handling of industrial smoke. il diags Iron Age 172:166-9 N 19 '53

Bad tuyeres cause smoke, stifle fire. C. W. Gruber. il Power Eng 58:96 Ap '54

Bagasse burning in the Mexican sugar industry; abstract. O. de Lorenzi. il diag Power 98:162 Je '54

Combination fuel firing of boiler plants; blast furnace gas and coal. C. J. Webster. Iron & Steel Eng 31:70-1; Discussion. 71 Jl '54

Design and operation of high-recovery regenerative-type air preheaters. G. Braddon and J. Waitkus. il diags A S M E Trans 76:697-712; Discussion. 712-14 Jl '54

BOILERS—Firing—*Continued*

How to organize your new power plant; take these essential steps before making your initial boiler startup. D. C. Swift. Power 98:92-3+ Ag '54

Investigation of gravity reinjection of fly ash on a spreader-stoker-fired boiler unit. C. H. Morrow and others. diags A S M E Trans 75:1363-70; Discussion. 1370-2 O '53

Lighting off and starting up precautions for stoker fired boilers. H. W. Andrews. Power 97:232+ D '53

Loddby cyclone burner; new system for burning waste calcium-base sulphite liquor. T. Simmons. diags Pulp & Pa of Can 55:108-10 Ja '54

Modern industrial boiler plant. W. P. C. Ungoed. Blast F & Steel Pl 42:686-8 Je '54

New firing method cuts power cost; Cyclone furnace. S. T. MacKenzie. diags Elec World 140:130-3 D 14 '53

Quick-starting of large high-pressure high-temperature boilers. J. C. Falkner. il diags A S M E Trans 75:1407-60 N '53; Excerpts. Power Eng 57:100-1+ Ap '53; Discussion. A S M E Trans 75:1461-80 N '53

Uniform coal safeguards power production. A. W. Williams. il Mill & Factory 53:89-91 D '53

See also

Boilers—Oil firing

Boilers—Pulverized coal firing

Stokers, Mechanical

Foaming and priming

Foaming in boilers. W. L. Denman. Ind & Eng Chem 46:992-4 My '54

How to curb boiler-water solids; carry-over water. C. J. Schafer; F. L. Blumenshine. il Food Eng 26:80-2+ Jl '54

Furnaces

See Furnaces, Boiler

Gas firing

Pulsating combustion; an old idea may give tomorrow's boilers a new look. H. Kallen. il diags Power 98:88-91 Ag '54

Manufacture

Radial drills make chips by the ton; Dominion bridge co. L. Braun. il Am Mach 98:148 My 24 '54

Models

Models help designers, salesmen, buyers and operators; illustrations with text. il Power 98:96 Ag '54

Oil firing

Application of additives to fuel oil and their use in steam-generating units. J. B. McIlroy and others. bibliog il diags A S M E Trans 76:31-42; Discussion. 43-6 Ja '54

What causes stack carbon in our plant? answers. Power 98:138+ F '54

Outdoor installation

See Boiler plants, Outdoor

Pulverized coal firing

Frontiers in heat extraction from the combustion gases of coal. E. R. Kaiser. bibliog (42 titles) diags Min Eng 6:Trans 304-13 Mr '54

Repair

Annual shutdown, time for repairs; illustrations with text. Power Eng 58:91 Ag '54

Standards

ASME boiler and pressure vessel code and its application in the United States and Canada. E. C. Korten. il diags Tappi 37:242-9 Je '54

ASME boiler code. Mech Eng 75:747-8 S '53

Proposed revisions and addenda to boiler and pressure vessel code. Mech Eng 75:666, 748, 835, 929, 1028-9; 76:201-2, 297 Ag-D '53, F-Mr '54

What the boiler code says about gage glasses. diag Power Eng 58:99 Je '54

Sulzer boiler

European practice with Sulzer monotube steam generators. J. Gastpar. il diags A S M E Trans 75:1345-61; Discussion. 1361-2 O '53

Testing

Get cost data from these steam-plant tests; Wisteria hosiery mills. S. Boyer. il Textile World 104:96-7 Ja '54

Wood firing

Constant feeding of fuel bark by the Hofft-Weverk bin unloaders; Chesapeake corp. il Paper Tr J 138:78-9+ My 14 '54

Use of shredded bark gives high combustion. Chem Eng 61:380 My '54

BOILERS, Heating

Check your boilers now; data sheet. W. B. Parker. Heating-Piping 26:121-2 Ag '54

Cut hospital heating costs. C. F. Neergaard. il Heating-Piping 26:95-7 F '54

Effect of high design water temperatures on seasonal fuel consumption. W. S. Harris. Heat & Ven 51:111-12 My '54

Right size for relief valves and low water cut-offs. T. W. Reynolds. diags Heat & Ven 50:87 N '53; 51:96+ My '54

Tapping the hot water boiler. S. R. Lewis. Heating-Piping 26:122 S '54

Oil firing

Kamel waste-oil firing unit. il Engineering 176:640 N 13 '53

Oil heating and oil burner servicing; oil burning boilers and furnaces. F. Feigenbaum. diags Dom Eng 184:141-4+ S '54

BOILERS, Marine

P. and O. liner Arcadia. il Engineer 197:380 Mr 12 '54

Steam in seconds with new boiler. il Marine Eng 59:63-5 Ap '54

Oil firing

Synthesis of two marine water-tube boilers. L. Baker. diags Engineer 196:663-5; Discussion. 670-2 N 20 '53

BOILERS, Waste heat

De-bug your sulfur plant boiler. S. Schwartz. il Pet Processing 8:1713-15 N '53

Hurley furnace and boiler description and design; Kennecott copper corp. E. A. Slover. diags J Metals 5:Trans 1435-41 N '53

BOILERS, Water tube

Fraser-Culmen triple-pass vertical boiler. il diag Engineering 176:318 S 4 '53

How navy installed three-fuel watertube units of packaged type. G. E. DeSiena. il Power 98:100-2 Ag '54

One boiler for four at Stitzel-Weller. A. Concoran. il Power Eng 58:68-9 Jl '54

Packaged watertube boiler treatment. P. Brindisi. il diags Power 97:99-101+ D '53

Synthesis of two marine water-tube boilers. L. Baker. diags Engineer 196:663-5; Discussion. 670-2 N 20 '53

BOILING

Composition of vapors from boiling binary systems. D. F. Othmer, L. G. Ricciardi and M. S. Thakar. bibliog(52 ref) Ind & Eng Chem 45:1815-21 Ag '53

Heat transfer in forced convection film boiling. L. A. Bromley, N. R. LeRoy and J. A. Robbers. bibliog diag Ind & Eng Chem 45:2639-46 D '53

Local boiling heat transfer to water at low Reynolds numbers and high pressures. J. A. Clark and W. M. Rohsenow. bibliog diags A S M E Trans 76:553-61; Discussion. 561-2 My '54

BOILING points

Critical temperature and boiling point of normal paraffins. Y. P. Varshni. bibliog J Chem Phys 21:2235 D '53

Experimental ebullioscopic constants. C. A. Glover and C. P. Hill. bibliog(26 ref) diags Anal Chem 25:1379-82 S '53

Simple ebulliometric method with the aid of foaming substances. C. N. Polydoropoulos. diag Chem & Ind p 1000-2 Ag 14 '54

Vapor pressure ebulliometer for milliliter samples. S. R. Hoover, H. John and E. F. Mellon. bibliog il Anal Chem 25:1940-1 D '53

See also

Azeotropes

BOLIVIA

See also

Chemical industries—Bolivia

Land tenure—Bolivia

Petroleum industry and trade—Bolivia

BOLIVIA—*Continued*

Commercial policy

Bolivia puts penalty on permit renewals. For Comm W 51:11 F 15 '54

Economic conditions

Economic conditions abroad (cont). For Comm W 50:4 Ag 24; 5+ D 7 '53

More money circulating in Bolivia at year end but boliviano weaker. For Comm W 51:2+ F 8 '54

BOLOMETERS

Current noise in thermistor bolometer flakes. J. J. Brophy. bibliog diag J Ap Phys 25:222-4 F '54

BOLTE, Charles L. 1895-

Chemical engineer becomes second in command of the U.S. army. H. T. Sharp. pors Chem Eng 61:344-6 Jl '54

BOLTING, Roof. See Mine roofs

BOLTON, Elmer K. 1886-

Bolton receives Chicago section, A.C.S., 1954 Willard Gibbs medal. Rubber World 130:375 Je '54

His job, to pick the winners; Willard Gibbs medalist. por(cover) Chem & Eng N 32:2197-8 My 31 '54

BOLTS and nuts

Allmetal lock-nut. diags Mach 60:230 Ag '54

Bolts secure slab to canyon wall. il Constr Methods 36:58-61 Ag '54

Bolts speed factory erection; assembly plant for Ford motor co. il Eng N 152:38-9 F 25 '54

Bolts use increases in building. K. W. Bennett. Iron Age 173:129-30 Ap 22 '54

Changing trends in mechanical fasteners. W. C. Stewart. il Machine Design 26:220+ S '54

Fasteners; redesign cuts assembly costs, lengthens life; Winslow co. diag Iron Age 173:171A+ Ap 8 '54

Faster application with spin-on locknut. il Product Eng 24:330 N '53

Hautau automatic nut torquing machines. il Tool Eng 31:128 N '53

High-strength bolts for structural steel joints. il diags Roads & Eng Constr 92:112-16+ My '54

High-strength bolts gain strength. il Steel 135:191 S 13 '54

High-strength bolts made by Steel co. of Canada. il Roads & Eng Constr 92:84 My '54

High-tensile steel bolts for structural joints. il diags Engineer 197:415-17, 453-5 Mr 19-26 '54

Hi-strength bolts gain. il Steel 133:332+ O 12 '53

Impact wrench calibration important in structural assembly; Bethlehem Pacific coast steel corp. il Iron Age 172:254+ N 12 '53

Lock nuts hold down good market. G. G. Carr. diags Iron Age 172:107 S 10 '53

Locknuts; titanium cuts plane weight. G. G. Carr. il Iron Age 172:73 D 17 '53

Mechanized assembly; American developments for stud and nut running. il Automobile Eng 44:59-60 F '54

New locknuts cut aircraft weight. il Iron Age 173:82 My 27 '54

Positive thread locking. D. R. Baldwin. il diag Mill & Factory 54:136 Ap '54

Production methods are key to improved bolt design; illustrations and diagrams with text. M. Brenner. Am Mach 98:146-7 Jl 5 '54

Properties of preloaded steel bolts. W. C. Stewart. bibliog diags Product Eng 24:191-5 N '53

Quality improved by multiple nut runners; Cadillac motor car division. il Automotive Ind 109:53+ N 15 '53

Shearing strength of anchor bolts embedded in concrete; abstract. S. Thompson. Am Concrete Inst J 25:sup7-8 D '53

Storage rack keeps nuts properly assorted. W. M. Halliday. diags Mach 61:206-7 S '54

Studs and pins, important industrial fasteners. J. E. Hyler. il Mill & Factory 55:110-13 Jl '54

Threaded stud has special locking insert. il Product Eng 24:220 O '53

With better heat treating, carbon steel can replace alloy for small diameter bolts. A. S. Jameson and others. diag Iron Age 172:153-6 S 17 '53

See also

Mine roofs

Manufacture

Bolt cold-heading and inspection at International Harvester. J. P. Lehning. il Mach 61:171-3 S '54

Case for cold heading. D. H. Samuelson. il diags Steel 135:110-11 Jl 12 '54

Cold heading. F. C. Boyd. il diags Machine Design 26:187-90 My '54

Get the most out of cold heading. H. C. Weidner, jr. il diags Steel 134:74-5 Ja 11 '54

High temperature alloy fastenings require careful fabricating, precision heat treating; H. M. Harper co. T. W. Harker. il diag Iron Age 174:171-3 S 16 '54

One setup heat treats wide variety of work; Elastic stop nut corp. of America. S. W. Chantler and F. C. Schaefer. il plan diag Iron Age 172:131-4 S 24 '53

Stainless for cold heading. Steel 133:101 D 21 '53

Standards

Square and hexagon bolt standards; reference sheet. diags Tool Eng 32:87-8 Mr '54

Testing

Can titanium be used in bolting applications? R. A. Baughman. il Materials & Methods 39:98-9 Mr '54; Abstracts. Machine Design 26:150 Mr '54; Tool Eng 32:84 Je '54

Plated locknuts reduce galling in titanium bolts. R. A. Baughman. Iron Age 173:134-5 F 11 '54

BOLTZMANN equation

Solution of the Boltzmann equation for Maxwellian molecules. E. P. Gross. bibliog Phys R 93:347-8 Ja 15 '54

BOMB, Hydrogen. See Hydrogen bomb

BOMB shelters. See Air raid shelters

BOMB sights

Ten years for a bombing system. il Aviation W 59:273 Ag 17 '53

BOMBS, Aerial

Engineering evaluation of flight testing dive or toss bomb computers. D. B. Houghton. Franklin Inst J 255:567-8 Je '53

See also

Bomb sights
Guided missiles
Hydrogen bomb

Manufacture

Assembly; contact electrodes save time, end welding rejects. Iron Age 172:214+ D 10 '53

BOMBS, Atomic. See Atomic bombs

BOMBS, Incendiary

Symposium on incendiary gels, Army chemical center, Edgewood. Chem & Eng N 32:2690 Jl 5 '54

BOMBYX mori. See Silkworms

BONDED web. See Textile fabrics—Bonded web

BONDITE. See Soil conditioners

BONDS

Arbitrage in the bond market. M. J. Gartman. Comm & Fin Chr 178:1629+ O 29 '53

Bond market in 1954; Halsey, Stuart & co. survey. Comm & Fin Chr 179:71 Ja 7 '54

Bond market outlook for 1954. E. A. Barnes. Mag of Wall St 93:444-5+ Ja 9 '54

Business boom financed by corporate debt. W. B. Hickman. Comm & Fin Chr 178:1135 S 24 '53

Difficult subject; accumulation. C. O. Brown. Ind & Eng Chem 45:sup 25A-6A Je '53

Discount bonds; such rail issues may have investment appeal. C. S. Iverson. Barron's 33:17 S 28 '53

Good bond market seen for 1954. J. F. Falvey. Am Gas J 180:25+ Ja '54

Income opportunities in sound bonds. J. D. C. Weldon. Mag of Wall St 93:145+ O 31 '53

Perspective on the bear market in bonds. M. Dunn. Comm & Fin Chr 178:815+ S 3 '53

BONDS—*Continued*

Trend from bonds to stocks. J. Curtis. Mag of Wall St 93:662-3+ Mr 6 '54

See also

Municipal bonds

Securities

Price indexes and averages

Security markets; bond prices, 1949-1952. Survey of Cur Bsns 1953 Sup p97 [supplemented in monthly numbers]

Prices

American stock exchange weekly and yearly record. Published in weekly Monday numbers of Commercial and financial chronicle

Bear market is over, in bonds. A. G. Lanston. Comm & Fin Chr 178:1120 S 25 '53

Bond prices, 1951-1953 average; monthly Dec. 1952-Dec. 1953; weekly Nov. 28-Dec. 26, 1953. Fed Res Bul 40:58 Ja '54 [cont monthly]

Bond record, New York stock exchange, Friday, weekly, yearly. Published in weekly Monday numbers of Commercial and financial chronicle

Listed bond quotations. Published in weekly numbers of Barron's

Monthly range of prices on the New York stock exchange for year 1953. Comm & Fin Chr 179:380-8 sec 2 Ja 21 '54

Statistics

Security markets, 1949-1952. Survey of Cur Bsns 1953 Sup p97-9 [supplemented in monthly numbers]

Yields

Bargains in tax-exempts. Burroughs Clearing House 38:3-4 N '53

Bond and stock yields, 1951-1953 average, monthly Nov. 1952-Dec. 1953, weekly Nov. 28-Dec. 26, 1953. Fed Res Bul 40:59 Ja '54 [cont monthly]

Bond yields may level off in coming months. Eng N 151:139 O 8 '53

Bonds; yields, 1949-1952. Survey of Cur Bsns 1953 Sup p99 [supplemented in monthly numbers]

Easy money; why investment men watching goings-on in the bond market expect interest rates to drop. Bsns W p 162+ O 31 '53

50-stock average; sensitive to the bond-stock yield differential. P. K. Fodder. Barron's 33:15-16 O 12 '53

How to get the maximum after-tax yield on bonds. L. W. Seidman. Comm & Fin Chr 178:1529 O 22 '53

BONDS, Chemical. See Chemical bonds

BONDS, Convertible

Convertible bonds; when are they attractive? R. F. Murray. Trusts & Estates 93:25-7 Ja '54

BONDS, Government

Lay-away plan for ad funds. J. K. Lasser. Sales Management 71:98+ Jl 15 '53

Stock vs. government bonds. R. W. Babson. Comm & Fin Chr 178:2551 D 24 '53

See also

Debts, Public

Municipal bonds

State bonds

Marketing

Looking at a bank's model savings bond program; Toledo trust company, Toledo. J. T. Rohr. il Burroughs Clearing House 38:36-7+ Ja '54

Savings bond sales effort. Banking 46:130+ S '53

Strong tide for Treasuries launches new medium-term 2¾s at premium. Bsns W p74 N 14 '53

Australia

Two Australian issues. Economist 169:609 N 21 '53

Austria

Austrian bonds; trading on U.S. exchanges will begin next year. M. W. Karmin. Barron's 33:15-16 D 14 '53

China

China buys more bonds. Economist 170:32-3 Ja 2 '54

Congo, Belgian

First Belgian Congo bonds put on market. For Comm W 51:7 F 22 '54

Germany

Bonds back in business. Bsns W p70 D 26 '53

German bond validation board chairman named. For Comm W 50:6 N 2 '53

German dollar bond trading resumed on New York stock exchange. Comm & Fin Chr 179:161 Ja 14 '54

German dollar bond validation details. Comm & Fin Chr 178:729, 734-5 Ag 27 '53

Validation board set up for German dollar bonds. Barron's 33:6 Ag 31 '53

Gold Coast, Africa

First loan issue floated locally by Gold Coast. For Comm W 50:6 N 23 '53

Great Britain

Conversion result. Economist 168:276 Jl 25 '53

Conversion without strings; Treasury's refinancing plan. Economist 169:41-3 O 3 '53

Factors in gilt-edged. Economist 168:39-41 Jl 4 '53

Government's gilt-edged. Economist 169:355 O 31 '53

95 per cent conversion. Economist 169:196-7 O 17 '53

Record bill issue. Economist 168:657-8 S 5 '53

Success for the new policy. Economist 169:119-20 O 10 '53

Treasury bill rate falls. Economist 169:271-2 O 24 '53

Two views of bank rate. Economist 168:867-9 S 26 '53

United States

Bank credit and money in 1953; holdings of government securities. Fed Res Bul 40:121-2 F '54

Bargains in tax-exempts. Burroughs Clearing House 38:3-4 N '53

Bond market outlook for 1954. E. A. Barnes. Mag of Wall St 93:444-5+ Ja 9 '54

Current look at the bond account. J. H. Grier and L. F. Winterhalter. Burroughs Clearing House 38:36-7+ F '54

Factors influencing a bank's bond portfolio. E. F. Thompson. Comm & Fin Chr 178:914-15 S 10 '53

Government and muncipal bond market. L. M. Piser. Comm & Fin Chr 178:1225+ O 1 '53

Government bonds. M. Olyphant. Published in monthly numbers of Banking

Insurers investing four times as much in municipals as in '53. Nat Underw (Life ed) 58:10 S 10 '54

Investment officer's role in promoting fiscal sanity. O. K. Anderson. Comm & Fin Chr 178:1434-5+ O 15 '53

New idea in futures; Midwest stock exchange may try setting up a market for futures contracts for government bonds. Bsns W p 142+ N 28 '53

Ownership of United States government securities, direct and fully guaranteed, end of month figures for Dec. 1940-1946, and for June and Dec. 1947-June 1952, and monthly Oct. 1952-Oct. 1953. Fed Res Bul 40:64 Ja '54 [cont monthly]

Perspective on the bear market in bonds. M. Dunn. Comm & Fin Chr 178:815+ S 3 '53

Private repurchase deals. Burroughs Clearing House 38:11 F '54

Savings bonds bought, held; E and H bonds. Banking 46:96 Ag '53

Treasury financing. Nat City Bank p99-100, 126-8, 135-6 S, N-D '53; p 15-16 F '54

U.S. discount bonds in payment of federal estate taxes. E. S. MacNeill. Banking 46:66 Ag '53

United States savings bonds and notes, sales, redemptions, and amount outstanding, 1941-1952, monthly Nov. 1952-Nov. 1953. Fed Res Bul 40:63 Ja '54 [cont monthly]

Use of Federal Reserve repurchase deals. Burroughs Clearing House 38:10-11 F '54

See also

Bonds, Government—Marketing

Treasury certificates of indebtedness

BONDS, Government—*Continued*

Yugoslavia

Tito's bonds. L. Tanzer. Barron's 33:19 Ag 31 '53

BONDS, Municipal. See Municipal bonds

BONDS, Revenue

Auditor's report on municipal revenue bonds. W. F. Morgan. J Account 97:316-20 Mr '54

Open-end bond plan grows with city; Joliet, Ill., to expand water-sewer program. Eng N 152:42+ Mr 4 '54

Revenue bond financing for airport improvements. J. C. Buckley. Am Soc C E Proc 79 [no 260]:1-12 S '53

Wall Street expects good market for 1954's huge turnpike issues. Eng N 152:129-30 Ap 8 '54

BONDS, State. See State bonds

BONE

Parathyroid and bone citrogenase. H. R. Perkins and T. F. Dixon. bibliog Science 118:139-40 Jl 31 '53

Prosthetic replacement of the metacarpal head. W. R. MacAusland. bibliog il Ind Med 22:400-2 S '53

Tooth decay on way out; conference on mineralized tissues sponsored by New York academy of sciences; abstracts of papers. Chem & Eng N 32:582+ F 15 '54

BONE black

Granular adsorbents for sugar refining. E. P. Barrett, A. Jonnard and J. H. Messmer. diag Ind & Eng Chem 45:1524-6 Jl '53

BONE marrow. See Marrow

BONES

Anomalies versus fractures. P. Thurber, jr. diags Ind Med 22:103-5 Mr '53

Application of impulse rendering to the animal-fat industry. I. H. Chayen and D. R. Ashworth. flow diag il J Ap Chem 3:529-37 D '53

See also

Skeletons

BONHAM, Frederick T.

Can an estate be practical in 1953? pors Bsns W p80-3+ N 14 '53

BONNEVILLE power administration

Annual report, 16th, year ended June, 1953. P. J. Raver. Elec World News ed 141:8 F 1 '54

BPA budget passed by Congress with cuts. Elec West 111:150 S '53

Changes in policies; abstracts. D. McKay. Pub Util 53:121 Ja 21 '54; Elec World News ed 141:9 Ja 4 '54

Equitable power allocation; revised draft of 20-year contract. P. J. Raver. Elec World News ed 140:8-9 S 14 '53

General accounting office is investigating BPA. Elec World 140:134 O 19 '53

New BPA chief; William A. Pearl. Elec World 141:80 Ja 11 '54

Proposed BPA-PGE pact. Elec World 139:123-4 Je 15 '53

Protective practices as a criterion for high-voltage transmission design. H. L. Rorden and R. S. Gens. il Elec World 141:101-4 F 22 '54

Raver quitting BPA. Elec World News ed 140:9 D 21 '53

Utilities sign 20-year pacts with BPA. Elec World News ed 140:6-7 S 28 '53

BONUS system

Bonuses; what employers should know. Iron Age 172:25 D 24 '53

How company controls absenteeism; Farmers casualty co. J. R. McGuire. Am Bsns 24:30+ Mr '54

Material utilization incentive plan. R. P. Keehn. flow chart N A C A Bul 35:224-35 O '53

Mills and employees benefit from this quality-award system; Avondale mills. G. W. Haynes. Textile World 103:91-3+ D '53

Mine incentive plans for greater productivity; panel discussion; abstracts of papers. H. F. Mills and others. Min Cong J 39:81-3 N '53

BONUS system for executives

Bonus plan for the plant's key men. R. J. Julius. N A C A Bul 35:205-15 O '53

BOOK industry and trade

Co-op exhibit economical; United book displays co. il Sales Management 73:26+ pt 2 Jl 1 '54

Growing pains; paper book makers are feeling the bite. N. Willatt. Barron's 34:7-8 Ja 18 '54

John Klautz, Dutch publisher, is moving into U.S. markets. Bsns W p 164-5 O 3 '53

Team play; books and hardware. il Sales Management 70:56+ Ap 15 '53

Advertising

How to prepare a teaching aid that sells; Grosset & Dunlap. N. Keine. il Ptr Ink 244:56+ Ag 14 '53

Statistics

Book publication, 1949-1952. Survey of Cur Bsns 1953 Sup p 180 [supplemented in monthly numbers]

Great Britain

Fewer new books published in 1953. Economist 170:86 Ja 9 '54

Selling books. Economist 169:377-8 O 31 '53

BOOK stores

Tiny book store; Golden Griffin, New York. il plan Arch Forum 98:136 Ja '53

BOOKBINDING

Choice in binding methods for promotion material. diags Ptr Ink 245:402 sec 2 O 23 '53

Library binding costs in Washington. Special Lib 44:199-200 My-Je '53

Paperbound books; new synthetic resin-based hot-melt adhesives bid fair to upset bindery practices. Chem W 73:68+ Jl 18 '53

Resinous adhesives for bookbinding. Chem Age (Lond) 69:547-8 S 12 '53

Urea-formaldehyde resin as a vehicle for semi-permanent insecticidal and fungicidal coatings on bookbindings and bookcases. P. Bracey and F. Barlow. bibliog J Doc 9:157-68, pl 1-2 S '53

BOOKCASES

Urea-formaldehyde resin as a vehicle for semi-permanent insecticidal and fungicidal coatings on bookbindings and bookcases. P. Bracey and F. Barlow. bibliog J Doc 9:157-68, pl 1-2 S '53

BOOKKEEPING

Bookkeeping system built around typewriter reduces posting errors, saves time. J. J. Tucker. J Account 97:188-94 F '54

Facts for CPA installing new bookkeeping system and equipment in company not previously a client. A. H. Blair. J Account 96:68-71 Jl '53

BOOKKEEPING machines

How to simplify assembly of complicated machines; Sensimatic bookkeeping machines at Burroughs corp. il diags Am Mach 98:161-6 My 10 '54

Ring welding cuts business machine costs. il diags Product Eng 24:160-1 O '53

BOOKLETS. See Advertisements—Books and booklets

BOOKS

Conservation and restoration

Urea-formaldehyde resin as a vehicle for semi-permanent insecticidal and fungicidal coatings on bookbindings and bookcases. P. Bracey and F. Barlow. bibliog J Doc 9:157-68, pl 1-2 S '53

BOOTHS, Paint spraying. See Paint spraying—Booths

BOOTS, Rubber. See Shoes, Rubber, plastic, etc.

BORANE. See Boron hydrides

BORATES

Borates for the glass industry. M. H. Pickard. flow sheet il map Glass Ind 35:73-7+ F '54

Detection of anionic complexes by pH measurements; polymeric borates. J. O. Edwards. bibliog Am Chem Soc J 75:6151-4 D 20 '53

No pinch on borates. il Chem W 74:63-4+ Ap 3 '54

Organo-boron compounds; preparation and properties of some aliphatic borates. S. Z. Haider, M. H. Khundkar and M. Siddiquilah. bibliog diags J Ap Chem 4:93-6 F '54

BORATES—*Continued*

Polarographic characteristics of +5 vanadium in phosphate, borate and carbonate buffers. I. Filipović and others. bibliog Am Chem Soc J 76:2074-80 Ap 20 '54

See also

Sodium perborate

BORAX

Borates for the glass industry. M. H. Pickard. flow sheet il map Glass Ind 35:73-7+ F '54

Use of borax herbicide at hydrants. R. M. Smith. Am Water Works Assn J 46:591-2 Je '54

BORAZOLE

Preparation of borazole by the reduction of trichloroborazole. R. Schaeffer and others. bibliog Am Chem Soc J 76:3303-6 Je 20 '54

Response of activated borazole to radiation. J. I. Hoover and C. F. Dohne. bibliog R Sci Instr 25:922-3 S '54

BORDEN, Gail, 1801-1874

How Gail Borden became the world's milkman. R. Match. por Adv Agency 46:68-70 Ag '53

BORDEN award

ACS honors Josephson. Chem & Eng N 32:942 Mr 8 '54

BORDEN company

Milk pail to reaction kettle; Borden's milky way to chemistry. Chem W 74:84 Je 19 '54

BOREHOLE surveying

NX borehole camera; milestone in subsurface exploration. E. B. Burwell, jr. and R. H. Nesbitt. il diags Min Eng 6:Trans 805-8 Ag '54

BORIC acid

Paper chromatography of some carbohydrates and related compounds in the presence of boric acid. G. R. Barker and D. C. C. Smith. bibliog Chem & Ind p 19-20 Ja 2 '54

Preparation of plates of boric acid glass for use in the study of luminescence. F. E. E. Germann and others. bibliog diags Opt Soc Am J 44:496-8 Je '54

BORIC oxide

System barium oxide-boric oxide-silica. E. M. Levin and G. M. Ugrinic. bibliog il diags J Res Nat Bur Stand 51:37-56 Jl '53

BORIDES

New refractory hard metals. J. L. Everhart. il Materials & Methods 40:90-2 Ag '54

See also

Chromium boride
Molybdenum boride
Zirconium boride

BORINE

Alkenylmethylborines. T. D. Parsons and D. M. Ritter. Am Chem Soc J 76:1710 Mr 20 '54

Chemistry of arsenic-boron bonding; arsine borines and arsinoborine polymers. F. G. A. Stone and A. B. Burg. bibliog Am Chem Soc J 76:386-9 Ja 20 '54

Chemistry of S-B bonding; polymeric thioborines, methanethiodiborane and related substances. A. B. Burg and R. I. Wagner. Am Chem Soc J 76:3307-10 Je 20 '54

Dimethylphosphinoborine trimer; mass spectra and thermal decomposition. R. E. Florin and others. Am Chem Soc J 76:3344-5 Je 20 '54

Reaction of boron trifluoride with tetramethylaminoborine. A. B. Burg and J. Banus. bibliog Am Chem Soc J 76:3903-5 Ag 5 '54

Symmetry and stability in diborane and in borine. G. W. Castellan. bibliog J Chem Phys 22:536-8 Mr '54

Thermochemistry of organo-boron compounds; dimethylaminochloroborines. H. A. Skinner and N. B. Smith. Chem Soc J p2324-9 Jl '54

BORING bars

Chatterless machining; tungsten carbide cores within boring bars. Steel 133:124 N 23 '53

Inexpensive boring bar holder. H. N. McAllister. diags Am Mach 98:147 Jl 19 '54

Internal steadyrest cuts boring bar chatter. H. J. Gerber. diags Am Mach 98:147 Je 21 '54

Pre-stressed boring bar easily adjustable. N. Palmer. diag Am Mach 97:166 N 9 '53

Spherical surfaces produced with new boring mill bar; Giddings & Lewis machine tool co. C. Trudgen and H. L. Johnson. il diag Mach 60:178-80 F '54

Three-position boring bar speeds setups. L. Harrington. diags Am Mach 98:115 Ag 30 '54

BORING machinery. See Drilling and boring machinery

BORNEO

See also

Petroleum industry and trade—Borneo

BORNEO, British

See also

Petroleum industry and trade—Borneo, British

BOROHYDRIDES. See Boron hydrides

BORON

Boron names. Ind & Eng Chem 46:sup20A My '54

Boron's new bid for jobs. il diag Chem W 75:62+ S 4 '54

Chemistry of boron; a method for the preparation of iodoborines. L. H. Long and D. Dollimore. Chem Soc J p3902-6 D '53

Chemistry of boron; halogen-exchange reactions of halogenoborines. D. Dollimore and L. H. Long. Chem Soc J p3906-10 D '53

Constitution of iron-boron alloys in the low boron range. M. E. Nicholson. bibliog il J Metals 6:Trans 185-90 sec 2 F '54

Diffusion of boron in alpha iron. P. E. Busby and C. Wells. diag J Metals 6:Trans 972 S '54

Electrolytic process gives pure boron in commercial quantities. il Chem & Eng N 31:2880+ Jl 13 '53

Molybdenum-boron system. P. W. Gilles and B. D. Pollock. J Metals 5:Trans 1537-9 sec 2 N '53

New boron bond. Chem W 74:50 F 6 '54

Production of fast lithium, beryllium, boron fragments from interactions of primary cosmic-ray nuclei. J. H. Noon and others. Phys R 92:1585-6 D 15 '53

Thermal neutron absorption cross sections of boron and gold. R. S. Carter and others. bibliog Phys R 92:716-21 N 1 '53

Thermal neutron capture cross sections of hydrogen, boron, and silver. F. R. Scott and others. diag Phys R 95:582-4 Jl 15 '54

See also

Plants—Boron content
Steel—Boron content

Analysis

Application of echelle spectrographs to quantitative analysis of boron in steel. W. G. Kirchgessner and N. A. Finkelstein. bibliog il diags Anal Chem 25:1034-8 Jl '53

Boron determination in soils and plants. W. T. Dible, E. Truog and K. C. Berger. bibliog Anal Chem 26:418-21 F '54

Boron in sodium metal. J. Rynasiewicz, M. P. Sleeper and J. W. Ryan. Anal Chem 26:935-6 My '54

Colorimetric determination of boron with tetrabromochrysazin. J. H. Yoe and R. L. Grob. bibliog Anal Chem 26:1465-8 S '54

Colorimetric microdetermination of boron by the curcumin-acetone solution method. L. Silverman and K. Trego. bibliog Anal Chem 25:1264-7 Ag '53

Determination of boron in boron-carbon film resistors. I. G. Young. bibliog Anal Chem 26:753-4 Ap '54

Methods for analysis of titanium alloys; colorimetric determination of small amounts of boron in titanium alloys. M. Codell and G. Norwitz. bibliog diag Anal Chem 25:1446-9 O '53

Potentiometric determination of boron in nickel boride. H. Blumenthal and W. Fall. bibliog Anal Chem 25:1120-2 Jl '53

Isotopes

Boron-loaded photographic plates as detectors of slow neutrons. A. R. Baker. bibliog J Sci Instr 31:187-9 My '54

Hyperfine structure and nuclear electric quadrupole moment of boron 11. G. Wessely. Phys R 92:1581-2 D 15 '53

BORON—Isotopes—*Continued*

Inelastic scattering of protons and deuterons from B^{10} and N^{14}. C. K. Bockelman and others. bibliog Phys R 92:665-9 N 1 '53

Search for B^{13}. E. L. Hubbard and others. Phys R 92:1494 D 15 '53

Nuclear reactions

Angular distribution of protons from the reaction $B^{10}(d,p)B^{11}$. W. W. Pratt. Phys R 93:816-17 F 15 '54

Angular distributions and excitation curves for the $B^{10}(d,p)B^{11}$ and the $B^{10}(d,n)$ and $B^{11}(d,n)$ reactions below 2-Mev bombarding energy. W. H. Burke and others. Phys R 93:188-92 Ja 1 '54

Excited states of B^{11} and B^{12} from the reactions $B^{10}(d,p)B^{11}$ and $B^{11}(d,p)B^{12}$. M. M. Elkind. bibliog Phys R 92:127-33 O 1 '53

Gamma radiation from B^{10} bombarded by protons. R. B. Day and T. Huus. Phys R 95:1003-6 Ag 15 '54

Gamma rays from proton bombardment of B^{10}. R. W. Krone and L. W. Seagondollar. il diag Phys R 92:935-7 N 15 '53

Lifetime measurements for the first excited states of O^{17} and B^{10} from recoil studies. J. Thirion and V. L. Telegdi. bibliog diag Phys R 92:1253-5 D 1 '53

Pickup reactions $B^{10}(n,d)Be^{9}$ for 14-Mev neutrons. F. L. Ribe and J. D. Seagrave. bibliog diags Phys R 94:934-40 My 15 '54

Pulse-height measurements of recoils from $B^{10}(n,\alpha)Li^{7}$. J. A. De Juren and H. Rosenwasser. bibliog diag Phys R 93:831-5 F 15 '54

Range distribution of alpha particles following the decays of Li^{8} and B^{8}. F. C. Gilbert. il Phys R 93:499-500 F 1 '54

BORON bromide

Binary freezing-point studies for boron bromide with inorganic halides. R. F. Adamsky and C. M. Wheeler, jr. bibliog J Phys Chem 58:225-7 Mr '54

BORON carbide

Investigation of boron carbide. F. W. Glaser and others. bibliog J Ap Phys 24:731-3 Je '53

Oxidation resistances of ternary mixtures of the carbides of titanium, silicon, and boron. O. E. Accountius and others. il Am Cer Soc J 37:173-7 Ap 1 '54

BORON compounds

Aminoethyl diarylborinates; isolation of a stable unsymmetrical organoboron compound. R. L. Letsinger, I. Skoog and N. Remes. bibliog Am Chem Soc J 76:4047-8 Ag 5 '54

Boron out of the bag; Standard Oil of Ohio's Boron Supreme gasoline. Chem W 75:123-5 S 25 '54

Constitution of boron acetate. W. Gerrard and M. A. Wheelans. bibliog Chem & Ind p758-9 Je 26 '54

Organo-boron compounds; preparation and properties of some aliphatic borates. S. Z. Haider, M. H. Khuandkar and M. Siddiqullah. bibliog diags J Ap Chem 4:93-6 F '54

Organoboron compounds; the preparation of ethylene dialkylborinates by the Grignard reaction. R. L. Letsinger and I. Skoog. bibliog Am Chem Soc J 76:4174-6 Ag 20 '54

Thermochemistry of organo-boron compounds; dimethylaminochloroborines. H. A. Skinner and N. B. Smith. Chem Soc J p2324-9 Jl '54

Thermochemistry of organo-boron compounds; tri-*n*-butylboron, and the di-*n*-butylboron halides. H. A. Skinner and T. F. S. Tees. diag Chem Soc J p3378-83 N '53

Thermochemistry of organo-boron compounds; trisdimethylaminoborine, $B(NMe_2)_3$; the strength of the boron-nitrogen link. H. A. Skinner and N. B. Smith. Chem Soc J p4025-8 D '53

BORON fluorides

Behavior of boron fluoride toward some amino sulfur compounds. A. B. Burg and H. W. Woodrow. bibliog Am Chem Soc J 76:219-20 Ja 5 '54

Boron-nitrogen systems; boron trifluoride-diamine addition compounds. C. A. Brown, E. L. Muetterties and E. G. Rochow. bibliog Am Chem Soc J 76:2537-9 My 5 '54

Deterioration of boron trifluoride counters due to high counting rates. R. K. Soberman and others. bibliog R Sci Instr 24:1058-60 N '53

Improvement of boron fluoride method of acylation of ketones to form β-diketones; ring opening of 2-acyl cyclic ketones to form keto acids. R. M. Manyik and others. bibliog Am Chem Soc J 75:5030-2 O 20 '53

Molar volume of co-ordinated boron trifluoride. N. N. Greenwood and R. L. Martin. Chem Soc J p4132-4 D '53

Molecular addition compounds; the interaction of ammonia with ammonia-boron trifluoride at low temperatures. H. C. Brown and S. Johnson. bibliog Am Chem Soc J 76:1978-9 Ap 5 '54

Polymerization of stilbene in boron fluoride etherate. C. C. Price and G. Berti. bibliog Am Chem Soc J 76:1219-21 Mr 5 '54

Reaction of boron trifluoride with tetramethylaminoborine. A. B. Burg and J. Banus. bibliog Am Chem Soc J 76:3903-5 Ag 5 '54

Remove non-hydrocarbon with boron fluoride; patent. Pet Processing 8:1063-4 Jl '53

BORON halides

Chemistry of boron; halogen-exchange reactions of halogenoborines. D. Dollimore and L. H. Long. Chem Soc J p3906-10 D '53

Co-ordination compounds of boron trihalides. J. Grimley and A. K. Holliday. Chem Soc J p 1212-18 Ap '54

BORON hydrides

Approximate solubility of diborane in pentane. L. V. McCarty and J. Guyon. J Phys Chem 58:285-6 Mr '54

Chemistry of S-B bonding; polymeric thioborines, methanethiodiborane and related substances. A. B. Burg and R. I. Wagner. Am Chem Soc J 76:3307-10 Je 20 '54

Crystal and molecular structure of tetraborane. C. E. Nordman and W. N. Lipscomb. bibliog J Chem Phys 21:1856-64 O '53

First step in the hydrolysis of pentaborane. I. Shapiro and H. G. Weiss. Am Chem Soc J 76:1205 F 20 '54

Kinetic study of the diborane-ethylene reaction. A. T. Whatley and R. N. Pease. Am Chem Soc J 76:835-8 F 5 '54

Lattice constants of the alkali borohydrides and the low-temperature phase of sodium borohydride. S. C. Abrahams and J. Kalnajs. bibliog J Chem Phys 22:434-6 Mr '54

Mass spectrum of octaborane. I. Shapiro and B. Keilin. Am Chem Soc J 76:3864 Jl 20 '54

Microwave spectra, structure, and dipole moment of stable pentaborane. H. J. Hrostowski and R. J. Myers. diags J Chem Phys 22:262-5 F '54

Molecular structure of B_5H_{11}. L. R. Lavine and W. N. Lipscomb. J Chem Phys 21:2087-8 N '53

Potassium, rubidium and cesium borohydrides. M. D. Banus, R. W. Bragdon and A. A. Hinckley. Am Chem Soc J 76:3848-9 Jl 20 '54

Qualitative effect of extinguishing agents on burning diborane. P. D. George. Ind & Eng Chem 46:1709-10 Ag '54

Symmetry and stability in diborane and in borine. G. W. Castellan. bibliog J Chem Phys 22:536-8 Mr '54

Thermal explosions of diborane-oxygen mixtures. A. T. Whatley and R. N. Pease. bibliog Am Chem Soc J 76:1997-9 Ap 5 '54

Analysis

Infrared absorptiometry for quantitative determination of boron hydrides in presence of pentaborane. L. V. McCarty, G. C. Smith and R. S. McDonald. Anal Chem 26:1027-31 Je '54

Two new forms of melting point calorimeters for determining purity of liquids of condensed gases. J. T. Clarke, H. L. Johnston and W. De Sorbo. bibliog diags Anal Chem 25:1156-9 Ag '53

Ultimate analysis of decaborane. E. L. Simons, E. W. Balis and H. A. Liebhafsky. il diag Anal Chem 25:635-6 Ap '53

BORON hydrides—*Continued*

Physiological effect

Toxicity and health hazards of boron hydrides. E. H. Krackow. A M A Archives Ind Hygiene & Occup Med 8:335-9 O '53

Spectra

Infrared spectra of stable pentaborane and deuterated pentaborane. H. J. Hrostowski and G. C. Pimentel. bibliog Am Chem Soc J 76:998-1003 F 20 '54

Vibrational spectra of *N*-dimethylaminodiborane. D. E. Mann. bibliog J Chem Phys 22:70-8 Ja '54

BORON iodides

Chemistry of boron; a method for the preparation of iodoborines. L. H. Long and D. Dollimore. Chem Soc J p3902-6 D '53

Vapor pressure of boron triiodide and silicon tetraiodide. H. C. Andersen and L. H. Belz. Am Chem Soc J 75:4828 O 5 '53

BORON nitrides

Boron nitride. A. A. Giardini. 2pls U S Bur Mines Information Circ 7664:1-13 bibliog (59 titles, p 10-13) '53

Furnace insulation; boron nitride as a thermal and electrical insulation in furnaces for vacuum induction melting. R. V. Gray. Metal Prog 65:108-9 Mr '54

BORON oxide

Some properties of the system Na_2O-NaF-B_2O_3-H_2O. B. W. King. bibliog Am Cer Soc J 37:238-42 My 1 '54

System Ag_2 O-B_2O_3; its thermodynamic properties as a slag model. G. M. Willis and F. L. Hennessy. bibliog J Metals 5: Trans 1367-73 O '53

BORON steel. See Steel—Boron content

BORON trifluoride. See Boron fluorides

BORT. See Diamonds, Industrial

BOSE-EINSTEIN statistics

Liquid helium II; Bose-Einstein condensation and two-fluid model. P. R. Zilsel. bibliog diag Phys R 92:1106-12 D 1 '53

BOSPORUS

Krupp bridge to Asia. map Bsns W p78 Ag 1 '53

BOSTON

Downtown isn't dead by a long shot; downtown and suburban shopping study of Greater Boston. Bsns W p41-2+ O 24 '53

Small industrial park takes advantage of ideal transportation facilities. il plan Arch Forum 100:113 Ap '54

Architecture

Boston's Back Bay center. il plans diags Arch Rec 114:142a-142d O '53

Cavity to be filled with six ideas; Back Bay center. il maps plans diags Arch Forum 99:103-15 N '53

Industries

Business at Boston; static but healthy. il map Chem W 74:26-8 My 22 '54

Streets

Boston artery link gets green light. il Eng N 152:45-6 Ap 22 '54

Portrait of a traffic jam. il Bsns W p61 O 31 '53

Water supply

Award contracts for seven-mile water tunnel; metropolitan Boston area. map diag Eng N 151:41 D 24 '53

BOSTON and Providence railroad

See also

Railroads—Receivership

BOSTON stock exchange

Weekly record. Published in weekly Monday numbers of Commercial and financial chronicle

BOSTON traveler (newspaper)

Corporal Legay's capture by Boston traveler. Ed & Pub 86:14 My 16 '53

BOTANICAL chemistry

Frederick Belding Power, most distinguished American phytochemist. M. Phillips. bibliog il J Chem Educ 31:258-61 My '54

Hlasiwetz and Barth pioneers in the structural aspects of plant products. V. F. McConnell. J Chem Educ 30:380-5 Ag '53

International symposium on chemistry of natural products, Wayne university, July 29-30. Chem & Eng N 31:3274+ Ag 10 '53

Isolation of fine chemicals from natural sources. W. Mitchell. Chem & Ind p 1132-7 O 24 '53

Phytosynthesis; first reactions. A. A. Benson. bibliog il J Chem Educ 31:484-7 S '54

BOTANICAL laboratories

Equipment

Improved holder for seedlings in the Avena test. M. J. Kent. diag Science 118:214-15 Ag 21 '53

BOTANY

See also

Fungi

Roots

Physiology

Abnormal and pathological growth in plants; Brookhaven national laboratory Biology department 6th annual symposium. Science 118:344 S 25 '53

BOTANY, Economic

See also

Forest products

Grain

Rubber plants and planting

Textile fibers

Weeds

BOTANY, Medical

Botanical drug collections ample for coverage of 1953-54 contracts. L. de Caisse. Oil Paint & Drug Rep 164:7+ N 2 '53

Botanicals collection making headway. Oil Paint & Drug Rep 166:5 Jl 12 '54

BOTSFORD, David M.

D. M. Botsford, West Coast agency man. por Adv Agency 47:44-5 Ja '54

BOTTLE caps and seals

Dairy-formed printed foil hoods. il Mod Packaging 27:184-5 Mr '54

Modern equipment cuts costs in manufacturing bottle caps; Baltimore plant of the Crown cork and seal co. il Iron Age 173: 166+ My 6 '54

BOTTLE factories

Fires and fire protection

Fire prevention in glass forming departments. E. J. Sestak. Glass Ind 35:22-4+ Ja '54

BOTTLE washing

World's largest bottle cleaner more than doubles filling-line capacity; Brading's breweries, ltd. J. Montagnes. il Food Eng 26:33+ Ja '54

BOTTLE washing machines

Manufacture

Fabricator lowers tooling costs, improves productivity, through wide use of stud welding; Barry-Wehmiller machinery co. J. W. Jones. il diag Iron Age 174:161-4 S 16 '54

BOTTLED goods

See also

Beverages

Wine

BOTTLES

Color and spectral transmittance of amber bottle glass. F. R. Bacon and C. J. Billian. bibliog Am Cer Soc J 37:60-6 F 1 '54

Dripless wine; polyethylene collar fitted into pouring lip of conventional bottle. il Mod Packaging 27:97 F '54

$1,000 if you can make it drip; Roma's dripless bottle. E. Gidlow. il Sales Management 72:76+ Ap 1 '54

Santa Claus' gift to the glass industry; decanters. il Bsns W p48-9 D 12 '53

See also

Carboys

Whisky bottles

Testing

Action of hydrochloric acid solutions on borosilicate and soda-lime glass bottles. F. C. Raggon and F. R. Bacon. bibliog Am Cer Soc Bul 33:267-71 S 15 '54

BOTTLES, Plastic

New process, new outlook on polyethylene squeeze bottle and collapsible tubes; Bradley container corp. il Chem W 75:36-7 Jl 3 '54

Squeeze-bottle production may double by 1955. B. Tolk. il Ptr Ink 243:30 My 29 '53

BOTTLING
See also
Breweries

BOTTLING plants

Oscillating troughs whisk out broken glass; Anheuser-Busch. il Food Eng 25:96+ D '53

Equipment

Bottlers see new units at Chicago. il Food Eng 26:38-9 Ja '54

Loadings sped by take-em-all pallet system; Golden age beverage co. il Food Eng 25:135 N '53

Plant that's long on engineering show-cases its process; James Vernor co. J. N. Sutton and A. V. Gemmill. flow sheet(p 118-21) il Food Eng 26:61-3 Ag; 48-50+ S '54

Sterilizes bottled chocolate beverages; Ster-O-Matic. il Food Eng 25:107 N '53

BOTTS, Alexander. See Salesmen in fiction

BOUASSE, Henri Pierre Maxime, 1866-1953
Sketch. por Engineering 176:788-9 D 18 '53

BOULGOUR. See Wheat

BOUNDARY layer

Analysis of the effects of boundary-layer control on the take-off and power-off landing performance characteristics of a liaison type of airplane. E. A. Horton and others. bibliog diags U S Nat Advisory Com for Aeronautics 1951:1353-83 '52

Analysis of turbulent free-convection boundary layer on flat plate. E. R. G. Eckert and T. W. Jackson. bibliog diags U S Nat Advisory Com for Aeronautics 1951:255-61 '52

Asymptotic solutions for the heat transfer at varying wall temperatures in a laminar boundary layer with Hartree's velocity profiles. A. N. Tifford and Sheng To Chu. bibliog J Aeronautical Sci 20:643-4 S '53

Boundary disturbances in high-explosive shock tubes. R. G. Shreffler and R. H. Christian. bibliog il diag J Ap Phys 25:324-31 Mr '54

Boundary-layer control and supercirculation. J. S. Attinello. bibliog il diags Aeronautical Eng R 12:24-30 S '53

Boundary layers with variable heat capacity on nonisothermal surfaces. M. Bloom. J Aeronautical Sci 20:719 O '53

Compressible laminar boundary layer with arbitrary pressure and surface temperature gradients. D. N. Morris and J. W. Smith. bibliog J Aeronautical Sci 20:805-18 D '53

Development of the turbulent boundary layer on steep slopes. W. J. Bauer. diags Am Soc C E Proc 79 [no 281]:1-23 S '53

Effect of boundary layer on sonic flow through an abrupt cross-sectional area change. R. S. Wick. diags J Aeronautical Sci 20:675-82 O '53

Effect of diffusion fields on the laminar boundary layer. J. W. Smith. bibliog J Aeronautical Sci 20:847-8 D '53

Effect of gas radiation in the boundary layer on aerodynamic heat transfer. J. W. Smith. J Aeronautical Sci 20:579-80 Ag '53

Evaluation of the momentum integral equation for turbulent boundary layers. D. Ross. bibliog J Aeronautical Sci 20:502 Jl '53

Experimental and theoretical studies of area suction for the control of the laminar boundary layer on an NACA 64A010 airfoil. A. L. Braslow and others. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:433-51 '52

General integral form of the boundary-layer equation for incompressible flow with an application to the calculation of the separation point of turbulent boundary layers. N. Tetervin and Chia Chiao Lin. bibliog U S Nat Advisory Com for Aeronautics 1951:1067-85 '52

Heat transfer in a transitional and turbulent boundary layer at supersonic speeds. W. B. Fallis. J Aeronautical Sci 20:646-7 S '53

Heat transfer to constant-property laminar boundary-layer wedge flows with stepwise and arbitrary wall-temperature variation. S. Scesa and S. Levy. bibliog A S M E Trans 76:279-86 F '54

Interactions between wholly laminar or wholly turbulent boundary layers and shock waves strong enough to cause separation. G. E. Gadd. bibliog diags J Aeronautical Sci 20:729-39 N '53

Interferometric study of the boundary layer on a turbine nozzle blade. C. R. Faulders. bibliog il diags A S M E Trans 76:61-6; Discussion. 67 Ja '54

Investigation of separation of the turbulent boundary layer. G. B. Schubauer and P. S. Klebanoff. bibliog il diag U S Nat Advisory Com for Aeronautics 1951:689-708 '52

Laminar boundary layer over a rotating blade. H. S. Tan. bibliog J Aeronautical Sci 20:780-1 N '53

Normal reflection of shock waves from moving boundaries. R. A. Alpher and R. J. Rubin. bibliog J Ap Phys 25:395-9 Mr '54

Pressure rise required for separation in interaction between turbulent boundary layer and shock wave. R. D. Tyler and A. H. Shapiro. bibliog diags J Aeronautical Sci 20:858-60 D '53

Review of published data on the effect of roughness on transition from laminar to turbulent flow. H. L. Dryden. bibliog diags J Aeronautical Sci 20:477-82 Jl '53

Role of three-dimensional disturbances in the stability of supersonic boundary layers. D. W. Dunn and C. C. Lin. J Aeronautical Sci 20:577-8 Ag '53

Similar solutions of compressible boundary-layer equations. T. Li and H. T. Nagamatsu. J Aeronautical Sci 20:653-5 S '53

Stability of the laminar boundary layer in a compressible fluid. M. Lessen. J Aeronautical Sci 20:500 Jl '53

Strong interaction for the hypersonic boundary layer on an inclined wedge. S. Pai. J Aeronautical Sci 20:796 N '53

Structural comparison of perforated skin surfaces with other means of effecting boundary-layer control by suction. C. B. Cliett. bibliog diags Aeronautical Eng R 12:46-54 S '53

Three-dimensional laminar boundary-layer flow. F. K. Moore. bibliog diags J Aeronautical Sci 20:525-34 Ag '53

Transformation between compressible and incompressible boundary-layer equations. N. Van Le. J Aeronautical Sci 20:583-4 Ag '53

Turbulent processes as observed in boundary layer and pipe. G. B. Schubauer. bibliog diag J Ap Phys 25:188-96 F '54

Two-dimensional correction of the outlet angle in cascade flow. N. Scholz. diag J Aeronautical Sci 20:786-7 N '53

Variation of transition Reynolds number with Mach number. A. H. Lange and others. J Aeronautical Sci 20:718-19 O '53

BOUNDARY value problems

Accuracy of the numerical solution of the Dirichlet problem by finite differences. J. L. Walsh and D. Young. bibliog diags J Res Nat Bur Stand 51:343-63 D '53

Boundary spreading in sedimentation velocity experiments; the correction of sedimentation coefficient distributions for the dependence of sedimentation coefficient on concentration. R. L. Baldwin. bibliog Am Chem Soc J 76:402-7 Ja 20 '54

Charged disk in cylindrical box. W. R. Smythe. J Ap Phys 24:773-5 Je '53

Membrane apparatus for analogic experiments. P. J. Schneider and A. B. Cambel. bibliog il diag R Sci Instr 24:513-14 Jl '53

Mildly nonlinear partial difference equations of elliptic type. L. Bers. J Res Nat Bur Stand 51:229-36 N '53

Solution of the field problem of the germanium gyrator. R. F. Wick. bibliog diags J Ap Phys 25:741-56 Je '54

Theory of irreversible polarographic waves; case of two consecutive electrochemical reactions. T. Berzins and P. Delahay. bibliog Am Chem Soc J 75:5716-20 N 20 '53

Transform method for linear time-varying systems. J. Aseltine. diags J Ap Phys 25:761-4 Je '54

Use of Tschebyscheff-polynomial operators in the numerical solution of boundary-value problems. G. Shortley. J Ap Phys 24:392-6 Ap '53

BOWATER'S Thames paper mills, limited
Sir Eric's enterprise. E. P. Nuttall. Paper Tr J 138:32+ S 3 '54

BOWLING balls
Manufacture of bowling balls at Stowe-Woodward. il Rubber Age 75:688-9 Ag '54

BOX cars. See Freight cars

BOXES
Protection and handling ease are wooden box features. il Cer Ind 63:52-3+ S '54
See also
Candy boxes
Cigar boxes

BOXES, Aluminum
Boxing the compounds; Tote system. il Chem W 74:82+ Ja 16 '54

BOXES, Paper. See Paper boxes

BOXES, Plastic
Pill shampoo; rigid acetate box. il Mod Packaging 27:107 Ja '54

BOXES, Tin
Machine for making tin boxes. il Engineering 177:242 F 19 '54
Tin-box making machinery. il Engineering 176:460-1 O 9 '53

BOY scouts
American chemical society members aid scouts in revising chemistry merit badge. Chem & Eng N 31:3563-4 Ag 31 '53
Bank for 50,000 Boy scouts; First national bank in Santa Ana. D. M. Boyle. il Banking 46:126 O '53
Continental Casualty helped scouts be prepared for national jamboree. East Underw 54:31 Ag 28 '53

BOYCOTT
Unions dust off boycott gimmick in jurisdiction war; Reeves steel & mfg. co. Steel 135:54-5 Ag 23 '54

BOYS, Robert W.
This community is a memorial to a far-sighted mill man. M. B. Andrews. il Textile World 104:135+ F '54

BRADFIELD, Alan Edwin, 1897-1953
Sketch. H. B. Watson. Chem Soc J p4189-91 D '53

BRADLEY, Will
W. Bradley, his story. L. H. Allen. por Inland Ptr 131:30-2 Jl '53

BRAID
Structure and tensile properties of braids. D. Brunnschweiler. bibliog diags Textile Inst J Trans 45:T55-77 Ja '54

BRAIN
Micro glass electrode for continuous recording of brain *p*H in situ. R. R. Sonnenschein and others. diags R Sci Instr 24:702-4 Ag '53
Some indications of cerebral humoral mechanisms. A. S. Marrazzi. bibliog diags Science 118:367-70 O 2 '53
What is memory? R. W. Gerard. il diags Sci Am 189:118-24+ S '53

BRAKE linings
New processing setup bonds brake linings faster; use of Cycleweld cement; Chrysler's Lynch Road plant. W. G. Patton. il Iron Age 172:162-4 N 19 '53

Testing

Friction materials laboratory opened; Johns-Manville corp. il Materials & Methods 40:236+ S '54

BRAKES
See also
Air brakes
Braking, Dynamic
Railroads—Braking

Manufacture

Brake bands ground in rotating workholder. il Machine Design 26:128 F '54

BRAKES, Airplane
Investigation of spoiler ailerons for use as speed brakes or glide-path controls on two NACA 65-series wings equipped with full-span slotted flaps. J. Fischel and J. M. Watson. bibliog diags U S Nat Advisory Com for Aeronautics 1951:769-93 '52
Plane deceleration chute. il Mech Eng 75:569-70 Jl '53

Testing

Brake tests aid study of high temperature physical properties. W. G. Patton. il Iron Age 172:120-1 O 22 '53

BRAKES, Automobile
Brakes; cost blocks switch to disk types. Iron Age 174:99 Ag 19 '54
Brakes; disk design may solve tough problems. Iron Age 174:85 Jl 22 '54
Cast iron brake drums. E. C. Toghill and H. T. Angus. il diags Automobile Eng 43:409-18 O '53
Earls Court exhibition; review of design trends; brakes. il Automobile Eng Extra no 43:516-17 N 25 '53
Inferior brake fluids are on the way out. F. C. Sturtevant. Nat Pet N 45:50+ N 4 '53
Mercedes race car has unique brakes. il Automotive Ind 111:68-9 Ag 15 '54
Money-saving rules for brake maintenance; based on papers by R. H. Moore and R. A. Goepfrich. S A E J 62:99-100 Je '54
Oil filters, brake fluids and lubes have tougher jobs in today's cars. C. M. Heinen. Nat Pet N 45:47-9 Je 3 '53
Safe brakes for passenger cars; abstract. G. T. Ladd and S. B. Dew. S A E J 62:20-1 F '54

Manufacture

New processing setup bonds brake linings faster; use of Cycleweld cement; Chrysler's Lynch Road plant. W. G. Patton. il Iron Age 172:162-4 N 19 '53
Spring expander expedites brake assembly. il Steel 133:97 O 5 '53

Testing

Unusual temperatures in brake drums. E. J. Martin and J. E. Wilson. il diag Automotive Ind 110:34-7+ Je 15 '54

BRAKES, Electric
Warner brakes and clutches. il Machine Design 26:262+ Ap '54

BRAKES, Hydraulic
Fluid brake controls downhill truck speed. il Machine Design 26:122 Ap '54
Give your brakes a break. Constr Methods 36:144+ Jl '54
Inferior brake fluids are on the way out. F. C. Sturtevant. Nat Pet N 45:50+ N 4 '53

BRAKES, Magnetic
Brook magnetic brake for mounting on electric motors. il Engineer 196:816 D 18 '53
Direct acting disk type magnetic brakes. il Product Eng 24:266 Je '53
Lancashire four-inch electromagnetic motor brake. il Engineer 197:424-5 Mr 19 '54
Magnetic controls speed machining cycles. il diags Mach 60:169-74 My '54

BRAKES, Motor bus
Air actuated transmission has automatic brake band adjustment. D. Scott. il diag Automotive Ind 110:62-3 Ap 1 '54
Ashanco exhaust brake; electrically controlled unit for Diesel-engined vehicles. il Automobile Eng 44:16 Ja '54
Exhaust braking equipment; Parkwood-Oetiker unit. il diags Automobile Eng 44:98-100 Mr '54
How to add life to your brakes. Bus Transportation 33:39-41+ My '54
Money-saving rules for brake maintenance; based on papers by R. H. Moore and R. A. Goepfrich. S A E J 62:99-100 Je '54
Parkwood exhaust braking system. il Engineer 197:349-50 Mr 5 '54; Engineering 177:252 F 19 '54

BRAKES, Motor truck
Allison's Torqmatic brake. il Diesel Power 32:45 F '54; Eng N 152:71 F 11 '54
Ashanco exhaust brake; electrically controlled unit for Diesel-engined vehicles. il Automobile Eng 44:16 Ja '54
Basic maintenance requirements for brakes for commercial vehicles; abstract. R. K. Super. S A E J 62:110-11 Ap '54
Commercial vehicle brakes; abstracts of SAE annual meeting papers. S A E J 62:68-9 F '54
Exhaust braking equipment; Parkwood-Oetiker unit. il diags Automobile Eng 44:98-100 Mr '54
Fluid brake controls downhill truck speed. il Machine Design 26:122 Ap '54
Hydraulic-pneumatic automotive brake. il diag Product Eng 24:158-9 Je '53
Money-saving rules for brake maintenance; based on papers by R. H. Moore and R. A. Goepfrich. S A E J 62:99-100 Je '54

BRAKES, Motor truck—*Continued*

New device provides dynamic braking for off-highway trucks. il Automotive Ind 110:37 F 15 '54

Parkwood exhaust braking system. il Engineer 197:349-50 Mr 5 '54; Engineering 177:252 F 19 '54

See also

Air brakes, Motor truck

BRAKING, Dynamic

Adding dynamic braking. il Ry Loco & Cars 127:69-70 D '53

Ac dynamic brake motor; abstracts. S. Noodleman. Machine Design 26:312+ F '54; Tool Eng 32:148-9 My '54

Alternating current slant haulage drive with dynamic braking; National coal board at Pantyffynnon colliery. il Engineer 197:186 Ja 29 '54; Engineering 177:122-3 Ja 22 '54; diag Elec R (Lond) 154:517-18 Mr 19 '54

Automatic a.c. winder with dynamic braking. il diag Engineer 196:535-6 O 23 '53; Engineering 176:774-5 D 18 '53; Elec J 151:1243-4 O 16 '53; Elec R (Lond) 153:929-31 O 23 '53

Diesel-electrics; how to keep 'em rolling; dynamic braking. B. L. Judy and A. V. Johansson. il diags Ry Loco & Cars 127:111-16+ N '53

Dynamic brakes for rotary kilns; Basic refractories, inc. W. H. Tock. il Rock Prod 57:80-1 S '54

Dynamic braking of squirrel-cage induction motors; abstract. C. F. Evert, jr. Elec Eng 73:162 F '54

Dynamic braking of squirrel cage motors. S. Noodleman. il diags Product Eng 24:178-83 Ag '53

New circuit for dynamic braking of ac motors. G. H. Dawson and H. F. Ott. diag R Sci Instr 25:828 Ag '54

BRAKING, Electric

Comparison and evaluation of dc braking. H. W. Jones. Machine Design 26:242+ Jl '54

Successful electric braking of ac mine-hoist drives. A. H. Huelsman. diags Coal Age 59:184-9 Mr '54

BRANCH factories, Foreign

Build foreign plants, urges FOA. il Chem & Eng N 32:2890+ Jl 19 '54

Cincinnati Milling opens Dutch plant. il Am Mach 98:203 S 13 '54

New look in expansion; U.S. companies turning expansion effort to overseas projects. Chem W 74:16-17 My 15 '54

Policy for prestige-building; Mathieson co.'s Squibb div. il Chem W 75:22-3 S 11 '54

Pulling in U.S. companies. map Bsns W p 130+ D 19 '53

BRANCH stores. See Department stores—Branch stores

BRANCHIOPODS

Lepidurus kirkii. E. Percival. Science 118:362 S 25 '53

BRAND names foundation

Observes tenth anniversary. Ptr Ink 243:17 Ap 24 '53

BRANDS, Advertised. See Advertising, National

BRANIFF, Thomas Elmer, 1883-1954

Sketch. por East Underw 55:18 Ja 15 '54; Nat Underw 58:25 Ja 14 '54

BRANIFF airways

Continental-Braniff merger proposed. Aviation W 59:17-18 D 28 '53

BRANTFORD, Ontario

Water supply

Water distribution improved by new feeder main. il Munic Util 92:28-9 My '54

BRASS

Age softening of beta brass. H. Green and N. Brown. bibliog J Metals 5:Trans 1240-4 sec 2 S '53

Brass industry charts copper's course for new, larger markets. Steel 135:73-4 S 13 '54

Brass ingot shipments, 1950-1953; tabulation. Steel 134:176 Ja 4 '54

Brass scrap, brass and bronze ingots; prices and shipments, 1949-1953; tabulations. Iron Age 173:413 Ja 7 '54

Copper-base alloys; toughness and hardness have been added. il Steel 134:125+ My 10 '54

Directionality in rolled copper and brass; abstract. G. L. J. Bailey. Metal Prog 65:190+ My '54

Effect of cold work and anneal on resistivity of alpha brass. H. I. Fusfeld. J Ap Phys 24:1062-3 Ag '53

Effects of temperature of the deformation of beta brass. C. S. Barrett. bibliog il J Metals 6:Trans 1003-8 sec 2 S '54

Hydrogen blisters in brass sheet; abstract. R. Eborall and A. J. Swain. Metal Prog 65:196+ Mr '54

Influence of grain size on work hardening and fatigue characteristics of alpha brass. G. M. Sinclair and W. J. Craig. bibliog Am Soc for Metals Trans 44:929-46; Discussion. 946-8 '52

Materials for large army gun tubes, a history; wrought iron and brass cannon. P. R. Kosting. il diag Metal Prog 65:91-5 Je '54

Measurements of stacking faults in cold-worked alpha brass. B. E. Warren and E. P. Warekois. J Ap Phys 24:951-2 Jl '53

Mechanism of metallographic etching. G. L. Kehl and M. Metlay. il Electrochem Soc J 101:124-7 Mr '54

Modern trends in brasses; Bridgeport brass co. A. H. Allen. il Metal Prog 66:106-10 Ag '54

Properties of some coppers and brasses; tabulation; engineering reference sheet. Elec World 141:208 Ja 25 '54

Selection of copper and copper alloys; supplement to 1948 edition of Metals handbook. Metal Prog 66:64-72 Jl 15 '54

Shock propagation in brass. H. Becker. J Ap Phys 25:1066-7 Ag '54

Simple reproducible method for determining metal cleaning efficiency; abstract. A. Miller and E. A. Hedman. Metal Prog 65:182+ My '54

Which grain size for deep drawing brass? R. C. LeMay. il Metal Prog 66:48 S '54

Analysis

Determination of zinc in brass by controlled potential electrolysis. D. G. Foster. bibliog Anal Chem 25:669-70 Ap '53

Specifications

Conforming specifications for cast copper base alloys; engineering file facts. Materials & Methods 39:137, 139 F '54

How to classify copper base alloys. il Steel 134:88-90 F 1; 130-2+ F 8; 114-15+ F 15 '54

Testing

New methods determine grain size ultrasonically. N. Grossman. il Iron Age 172:72-5 D 31 '53

BRASS founding

Air moves the sand at Allis-Chalmers brass foundry. H. W. Olander. il diag Foundry 82:96-9+ F '54

Brand new plant for secondary smelting; George Sall metals co. W. J. Fadden, jr. plan Eng & Min J 154:75 N '53

Brass and bronze; American foundrymen's society annual meeting, Cleveland; abstracts of papers. Foundry 82:136+ Je '54

Brass shop course; American foundrymen's society annual meeting, Cleveland; abstracts of papers. Foundry 82:138+ Jl '54

Control of quality in the production of brass ingots and billets. M. Cook and C. L. M. Cowley. Metal Prog 64:300+ O; 191-2+ D '53

Mechanizing a small foundry; Indiana brass co. D. Johnson. il diag Foundry 82:212+ Ag '54

Solving problems in the brass foundry. H. J. Roast. il Foundry 82:106-7+ S; 130-1+ O '54

BRASS work

Improved chuck speeds machining of brass parts. D. Stoneman. il Iron Age 172:177-9 D 3 '53

Terminology

Handbook of terms commonly used in the nonferrous industries. Iron Age 173:361-4+ Ja 7 '54

BRASS works
Copper and brass thrive in New England. T. E. Veltfort. Iron Age 173:142-3 Je 24 '54

Equipment

Spray pickler installed; unit takes scale and discoloration off brass shells after annealing operation; Scovill mfg. co. il Steel 133:158 D 7 '53

BRASSERT oxygen steel making process. See Bessemer process

BRAZIL
See also
Architecture—Brazil
Cement industry and trade—Brazil
Chemical industries—Brazil
Electric apparatus industry—Brazil
Electricity supply—Brazil
Fertilizer industry—Brazil
Manganese mines and mining—Brazil
Paper and pulp mills—Brazil
Petroleum industry and trade—Brazil
Petroleum laws and regulations—Brazil
Petroleum pipe lines—Brazil
Public health—Brazil

Commerce

Brazil's second offer. Economist 168:471-2 Ag 15 '53

Commercial policy

Brazil adopts new import, exchange regulations to stimulate exports. For Comm W 50:10 O 19 '53
Brazil agreement at last on commercial debts to British exporters. Economist 169:122 O 10 '53
Brazil exchange controls revised; new system to benefit exporters. For Comm W 50:8 S 14 '53
Brazil extends trade control legislation. For Comm W 50:5 O 12 '53
Brazil revises trade control system; new administrative agency created. For Comm W 51:7 F 1 '54
Brazil tries it on; Anglo-Brazilian commercial and financial negotiations. Economist 168:278 Jl 25 '53
Brazilian trade regulations. Elec R (Lond) 154:478 Mr 12 '54

Economic conditions

Brazilian domestic business active; third quarter of 1953. For Comm W 50:2+ N 9 '53
Economic conditions abroad (cont). For Comm W 50:5-6 S 14; 4-6 O 19; 4 D 14 '53
Major change coming? V. L. Horoth. Mag of Wall St 92:551-3+ Ag 8 '53

Economic relations
Great Britain

Brazil debt payments. Economist 169:980 D 26 '53

United States

Major change coming? V. L. Horoth. Mag of Wall St 92:551-3+ Ag 8 '53

Politics and government

Storm and calm in Brazil. Economist 168:708-9 S 12 '53

BRAZILIAN traction, light and power company, ltd.
Public utility securities. O. Ely. Comm & Fin Chr 178:2547 D 24 '53
Security I like best. W. A. Seligmann. Comm & Fin Chr 179:254 Ja 21 '54

BRAZILWOOD
Study of certain natural dyes. F. M. Arshid and others. bibliog diags Soc Dyers & Col J 70:392-412 S '54

BRAZING
Bimetallic water heaters brazed for strong, tight joints. A. H. Trageser. il diag Iron Age 172:176-7 N 5 '53
Braze-welding clinic; illustrations with text. R. L. Fuller. Welding J 33:155-6 F '54
Brazing and soldering titanium. W. Rostoker. Light Metal Age 11:11+ O '53
Brazing stainless steels in controlled atmosphere. Chem Age (Lond) 69:1082 N 21 '53; Metal Prog 65:108 Mr '54
Carbides; drill bit life is improved with brazed carbide inserts. il Iron Age 172:209-10 D 10 '53
Close tolerance aluminum parts brazed in salt bath. W. J. Rudolph. il diags Materials & Methods 39:96-9 Ja '54
Constitution and properties of Ag-Cu-Zn brazing alloys. K. M. Weigert. bibliog il J Metals 6:Trans 233-7 sec 2 F '54
Copper and silver brazing simplify joining of complicated parts. L. F. Klein. il Materials & Methods 38:108-9 D '53
Design of brazed joints; supplement to 1948 edition of Metals handbook. bibliog diags Metal Prog 66:115-22 Jl 15 '54
Dip brazing of microwave components. W. J. Rudolph. il diags Electronics 27:274+ F '54
Factors in welding and brazing heat exchanger tubes. H. A. Huff and A. N. Kugler. diags Power Eng 58:94-5 Je '54
Facts about modern soldering and brazing. il Mill & Factory 54:584 My '54
Filler material for the brazing of titanium. N. A. DeCecco and H. M. Meyer. bibliog il J Metals 5:1197-8 sec 2 S '53
Force fit improves brazed aluminum joints; Reynolds metals co. B. E. Brennan. il Iron Age 172:148-9 D 10 '53
Fusion brazing of titanium and its alloys; abstract. R. A. Long and R. R. Ruppender. Tool Eng 33:153 Ag '54
High-frequency brazing of small rotors. P. H. Brace and E. B. Fitzgerald. il Westinghouse Eng 13:206-7 N '53
High temperature brazing applications; abstracts. G. D. Cremer and others. Machine Design 25:365+ D '53; il S A E J 62:70-4 S '54
How to braze beryllium. M. J. Zunick and J. E. Illingworth. bibliog il diags Materials & Methods 39:95-7 Mr '54
Hydrogen-protected Nichrome brazing. P. C. Ziemke. diag Ind & Eng Chem 46:sup 107A+ Ag '54
Industrial furnaces; sintering, brazing. il diags Iron Age 173:sup F 19-21 F 25 '54
Inspection, heat-treat, joining-finishing; brazing and soldering. il diags Am Mach 97:E4-5 Mid-N '53
Low-temperature welding alloys speed and simplify structural model fabrication. S. Shore and E. W. Rothfuss, jr. il diags Welding J 33:376-9 Ap '54
Manufacture of tungsten carbide tipped drill steel. T. A. O'Hara. il diags Min Eng 6:Trans 294-8 Mr '54
New method nonfusion bonds steel to nonferrous metals; Weldbrazing. Iron Age 173:143-4 My 27 '54
Now titanium can be furnace-brazed. R. A. Long. il Am Mach 98:117-19 Ag 16 '54
Selas brazing unit. il Iron & Steel Eng 31:231 Ag '54
Silver and gold for brazing electronic components. A. W. Swift and R. J. Metzler. bibliog il Welding J 33:119-23 F '54
Strength of joints in titanium brazed with several alloys. L. W. Smith and L. A. Yerkovich. il Product Eng 24:141-7 Jl '53
Technical progress; joining and assembly. il Steel 134:394-5+ Ja 4 '54
Two new tools brighten copper brazing. L. G. Klinker. il Steel 133:147 Jl 13 '53
Unusual application of aluminum flame brazing. F. J. M. Smith. Metal Prog 65:156+ Je '54
See also
Silver solder

Specifications

Recommended clearances for copper brazing; reference sheet. Tool Eng 32:85-6 Je '54

BRAZING, Silver. See Silver solder

BREA chemicals, inc.
Under full sail; Union Oil in chemical production. il Chem W 75:14 Jl 24 '54

BREAD
Bleaching and improvement of bread doughs. J. P. Todd and others. bibliog il Chem & Ind p50-1 Ja 9 '54
Bread making simplified; ADMI stable-ferment process. il diag Food Eng 26:58-9 Je '54
Canned-handy baked goods; Canned bread specialty co. il Food Eng 26:123+ Jl '54
Chemical engineering methods in the food industry. W. Price-Davies. bibliog Chem & Ind p745-7 Je 26 '54

BREAD—*Continued*

Makes better bread faster; Baker bread-making process. diag Food Eng 26:88+ Ap '54

More color for bread; Arnold bakers, inc. il Mod Packaging 27:162-4 Mr '54

New enzyme tablets benefit both product and process. D. W. Donaldson. il Food Eng 26:58-9+ Mr '54

Old formula + high price = thriving business; Pepperidge farm bakeries. R. Josephs. il Am Bsns 24:18-19+ S '54

Quality of cereals and their industrial uses; rye for breadmaking. E. Möinichen. il Chem & Ind p496-9 My 23 '53

Sale I never forgot; mother knew best. P. D. Arnold. Ptr Ink 243:74 Je 19 '53

Susceptibility of the starch in fresh and stale bread to enzymatic digestion. S. S. Jackel and others. bibliog Science 118:18-19 Jl 3 '53

Variety in bread. Economist 168:552-3 Ag 29 '53

See also

Biscuits

Standards

After the curtain falls. il Chem W 72:74+ My 9 '53

BREAD, Frozen

New quick-freeze bread plant incorporates advances in refrigeration; Arnold bakers, inc. il plan Food Eng 26:41-3 S '54

BREAK-even charts. See Cost accounting

BREAK-even point. See Cost accounting

BREAKDOWN, Electric. See Electric discharges

BREAKWATERS

Strange case of the pneumatic breakwater. il Comp Air Mag 59:221-2 Ag '54

Tunnel blasting on the island of Toas. H. V. Brennan. il map plan diag Explosives Eng 32:39-42 Mr '54

BRECCIA

Rheomorphic breccias. G. E. Goodspeed. bibliog Am J Sci 251:453-69, pl 1-6 Je '53

BREMSSTRAHLUNG. See Radiation

BREWERIES

Accounting

Brewing process is ready-made for standard costs. M. F. Hepple. N A C A Bul 34:1458-70 Jl '53

Electric equipment

Electric level indicator makes inspection automatic; San Francisco brewing co. il Elec West 111:95 O '53

Packaging is merchandising aid; San Francisco brewing co. U. G. Karrer. il Elec West 111:98 O '53

Equipment

Brewers view new units at Master brewers association of America show, St Louis; illustrations with text. Food Eng 25:87-9 D '53

Brewery refrigeration plant; Ind Coope and Allsopp, ltd. il Engineering 177:58-9 Ja 8 '54

Chemical engineering methods in the food industry; storage and bulk transport of potable liquids. J. D. Usher. il diag Chem & Ind p 1035-9 Ag 21 '54

Faster can-carrier cartoning; G. Heileman brewing co. il Mod Packaging 27:102-5+ Ag '54

Original design and techniques make the difference in implementing the high-output plant; Olympia (Wash.) brewing co. W. D. Rigg and R. Hansen. flow sheet(p 142-5) il Food Eng 26:60-2+ Je '54

Oscillating troughs whisk out broken glass; Anheuser-Busch. il Food Eng 25:96+ D '53

Sets fast pace in engineering; San Francisco brewing co. J. J. Herzog. flow sheet(p 118-21) il diag Food Eng 26:60-2, 218+ Ap '54

Stainless for brew; Anheuser-Busch brewery. il Steel 134:144 Ap 5 '54

World's largest bottle cleaner more than doubles filling-line capacity; Brading's breweries, ltd. J. Montagnes. il Food Eng 26:33+ Ja '54

Power

Sets fast pace in engineering; San Francisco brewing co. J. J. Herzog. flow sheet(p 118-21) il diag Food Eng 26:60-2, 218+ Ap '54

Quality control

Statistical-control technique, management's radar. R. I. Tenney. diags Food Eng 26:44-6 Mr '54

Safety measures

How to make safety a habit and so win a jackpot of benefits; Los Angeles brewing co. il Food Eng 26:70-3 Ag '54

Sanitation

We're sure everything's clean; F.&M. Schaefer brewing co. il Food Eng 25:69 N '53

Waste

Brewery and city wastes combined in unusual disposal plant near Denver. il Eng N 151:46-7+ Ag 27 '53

Model waste-disposal plant; Adolph Coors co. brewery. F. Pitman. flow diag il Food Eng 25:67-8 N '53

New bugs chew warm waste; Clear Creek, Colorado new treatment plant. il diag Chem Eng 60:136+ D '53

BREWING industries

Shaking up the industry; effects of 77-day Milwaukee beer strike. Bsns W p48+ S 5 '53

Advertising

How brewers build sales on newspaper advertising. il Adv Agency 46:90-2+ O '53

Media will merchandise if you ask 'em; G. Krueger brewing co. D. Bland. il Ptr Ink 245:54+ O 16 '53

Why Genesee hired a pretty career girl. il Sales Management 71:64 Ag 1 '53

Why the burgie jingle is welcome in many West Coast cities; carillonic chimes. Sales Management 71:54+ O 15 '53

Securities

Beer facts. I. U. Cobleigh. Comm & Fin Chr 178:1834 N 12 '53

Great Britain

See also

Mitchells and Butlers, limited

BREWING research

Research at Brewing industry research foundation; abstract and discussion. I. Heilbron. Chem & Ind p 1171-2 O 31 '53; p598-9 My 22 '54

BRIAR pipes. See Tobacco pipes

BRICK construction

Alvar Aalto in the Finnish forests; puts up a civic center of brick in a small mill town north of Helsinki. il plans Arch Forum 100:148-53 Ap '54

Case history report; on the job with SCR brick. il plan Am Bld 75:78-9 My '53

BRICK handling

Annual report; first year of packaging as industry project. il Brick & Clay Rec 124:82-3+ Ap '54

Anthony develops unusual unloading system. diags Brick & Clay Rec 124:58-9 Ja '54

Assembling the Multi-Pak for shipment or storage; illustrations with text. Brick & Clay Rec 124:53-4 My '54

Automatic truck-loading of masonry units; Port Costa brick works. K. R. MacDonald. il Rock Prod 57:197+ Je '54

Case of the competent competitor; Boren brick co; illustrations with text. Brick & Clay Rec 125:68-9 S '54

Cut loading-unloading time in half with magic muscle; A. C. Ochs brick and tile co. il Brick & Clay Rec 125:59-60 Ag '54

Cut plant handling costs by cubing green brick on kiln cars. il Brick & Clay Rec 124:59 F '54

Cutting masonry costs? go West, young man; W. M. West & son develops mechanized brick handling method. il Eng N 152:91-2 Mr 4 '54

Design new loader-unloader at Palmetto Brick. C. P. Godfrey. il Brick & Clay Rec 125:56-7 Ag '54

He's delivering brick with a straddle truck; Masonry supply co. il Brick & Clay Rec 125:70 S '54

Hook lifts loaded pallet. il Steel 134:120 My 31 '54

BRICK handling—*Continued*

How to tier the Multi-Pack from a flat bed truck; Hydraulic press brick co. il Brick & Clay Rec 125:60-1 Jl '54

How to unload a flatbed truck of loose brick; illustrations with text. Brick & Clay Rec 125:68-9 S '54

Multi-pack ushers in the new era in brick-kiln to contractor-handling. il Brick & Clay Rec 124:80-1 Ap '54

One piece tool simplifies brick pallet strapping. il Brick & Clay Rec 124:72 Ap '54

Palletized material handling system saves more than 15 per cent masonry cost. il Constr Methods 36:90-1+ My '54

Simple dolly and a frame pallet base speeds periodic kiln unloading. il Brick & Clay Rec 124:74 My '54

Slash rail car unloading costs with rail-cart handling system; illustrations with text. Brick & Clay Rec 124:62-3 F '54

Solves load-unload problem with inexpensive device; Port Costa brick works. il Brick & Clay Rec 124:84-5 Mr '54

You can set brick for a packhauler with a forklift. il Brick & Clay Rec 125:51 S '54

BRICK houses

Brick house at $7,790. il plan diag House & Home 2:122-3 D '52

Installing steel windows in the SCR brick house. diags Am Bld 75:196-200 Mr '53

BRICK industry and trade

Brick and clay record interviews Dutt Isenhour. Brick & Clay Rec 125:43+ Jl '54

Eshenaur says its now or never, pegs $4,000,000 for modernization. Brick & Clay Rec 125:42-3+ Ag '54

Let's look closely at our industry and our future. maps Brick & Clay Rec 124:39-46+ Je '54

Merchandising in a modern manner boosts brick sales; Washington brick & lime co. il Brick & Clay Rec 124:40-1+ My '54

Promotion program really sold 'em in Ashtabula. Brick & Clay Rec 125:64 S '54

Warns industry of the dangers of overconfidence. D. Whitlock. Brick & Clay Rec 124:30+ F '54

You can save the brick markets. Brick & Clay Rec 124:27+ F '54

Advertising

Can you read your own highway signs? il Brick & Clay Rec 125:93-4 S '54

Region five brick producers cooperate to sell public. il Brick & Clay Rec 124:42-3 Ja '54

Belgium

Belgian team pleased with look of American clay products plants; report on Belgian construction. Brick & Clay Rec 123:36+ N '53

Great Britain

Bricks and cement. Economist 168:197-8 Jl 18 '53

Building and materials. Economist 169:691-2 N 28 '53

BRICK walls. See Walls, Brick

BRICK works

More silica refractories to meet rising demand; pictorial presentation of Harbison-Walker Refractories plant at Windham, Ohio. Chem & Eng N 31:3388-9 Ag 17 '53

Electric equipment

Electric brick making; Moorebank brick works. il Elec J 151:1407-8 O 30 '53; diags Engineering 176:825 D 25 '53

Equipment

Cut conveyor belt wear by proper loading. Brick & Clay Rec 124:76 Ap '54

Enlarges tunnel kiln to handle 3,000 brick car; Marion brick & tile co. il Brick & Clay Rec 125:44-5 Ag '54

Hoppers in staging area pay for themselves; Western brick co. il Brick & Clay Rec 124:58 Je '54

Industry newcomer develops industry showplace; Tri-State Brick & Tile. il Brick & Clay Rec 125:48-51 Jl '54

Moto-Bug slashes labor cost in yard operations; Oak Hill fire brick co. il Brick & Clay Rec 125:56 Jl '54

New overload release prevents breakdown. il Brick & Clay Rec 124:77 Mr '54

Pre-engineering and industry-wide study results in plant tailor-made for efficiency; Champion brick co. il Brick & Clay Rec 124:43-6+ Ap '54

Roanoke Webster develops highly integrated operation. il diags Brick & Clay Rec 124:35-8+ My '54

Summitville's amazing recovery after the fire. il Brick & Clay 123:47-8 N '53

See also
Kilns

BRICKLAYERS, masons and plasterers international union

Novice bricklayers get the build-up. il Eng N 152:28-9 Ap 22 '54

BRICKLAYING

Bricklaying as a factor in the performance of blast furnace linings. W. S. Debenham. diags Iron & Steel Eng 31:76-9 Mr '54

Study and teaching

Novice bricklayers get the build-up; Bricklayers, masons and plasterers international union apprenticeship program. il Eng N 152:28-9 Ap 22 '54

BRICKMAKING

Manufacture of Roman brick. R. C. Brewer. diags Am Cer Soc Bul 33:117-19 Ap 15 '54

Pre-engineering and industry-wide study results in plant tailor-made for efficiency; Champion brick co. il Brick & Clay Rec 124:43-6+ Ap '54

Problems of drier-kiln combination operations. D. P. Frame. Am Cer Soc Bul 33:216-17 Jl 15 '54

Recent developments in the building brick industry of the southeastern United States. W. C. Bell. Am Cer Soc Bul 33:35-6 F 15 '54

Roanoke Webster develops highly integrated operation. il diags Brick & Clay Rec 124:35-8+ My '54

See also
Fire brick—Manufacture
Silica brick—Manufacture

BRICKS

Bricks from fly ash. Chem Age (Lond) 71:476 S 4 '54; Chem & Ind p 1095 S 4 '54

Cement, concrete, mortar, plaster, aggregates, and structural clay products. il diags Am Bld 75:73-4+ Ap '53

New hollow brick in Southwest. il Brick & Clay Rec 124:75 Ap '54

Structural clay masonry; time-saver standards. il Arch Rec 115:205+ Je '54

See also
Brick construction
Fire brick
Masonry
Silica brick

Drying

Problem of dunting in tunnel kilns; Tri-state brick & tile co. R. H. Robinson. Brick & Clay Rec 124:42 Mr '54

Problems of drier-kiln combination operations. D. P. Frame. Am Cer Soc Bul 33:216-17 Jl 15 '54

Efflorescence

Causes and cure of efflorescence. il diags Am Bld 76:254+ Ag '54

Transportation

Discover unit tailor made for palletless package transporting; pack-hauler. il Brick & Clay Rec 123:73+ N '53

BRIDGE (game)

Probabilities in bridge. D. F. Waugh and F. V. Waugh. Am Stat Assn J 48:79-87 Mr '53

BRIDGE accidents

Modifications of traveling scaffolds to follow Golden Gate Bridge accident. il diag Eng N 151:23 N 26 '53

BRIDGE approaches

Engineers appointed to design Burlington skyway. diag Roads & Eng Constr 92:78 Ag '54

BRIDGE bearings

Resilient bearing pads for highway bridges. F. J. Carty. il Roads & Sts 96:76-7+ O '53

BRIDGE design

Aerodynamic stability of suspension bridges with special reference to the Tacoma Narrows bridge; pt 4, Model investigations which influenced the design of the new Tacoma Narrows bridge. F. B. Farquharson. il plan diags Univ of Washington Eng Exp Sta Bul 116:1-103 bibliog(p 102-3) '54

Aerodynamic stability of suspension bridges with special reference to the Tacoma Narrows bridge; pt 5, Extended studies: logarithmic decrement, field damping, prototype predictions, four other bridges. G. S. Vincent. il diags Univ of Washington Eng Exp Sta Bul 116:1-103 bibliog(p 102-3) '54

Analysis of continuous composite steel and concrete beams. J. Sherman. diags Am Soc C E Proc 79 [no 251]:1-21 Ag '53

Australia completes its longest plate-girder bridge. J. A. Holt. il diags Civil Eng 23:538-42 Ag '53

Basket handle bridge exemplifies new trend in design. R. Magat. il Roads & Eng Constr 91:127 O '53

Bridge design is guided by esthetics as well as functional considerations; New York state thruway. E. W. Wendell. il diags Civil Eng 23:749-52 N '53

Design of channel shear connectors for composite I-beam bridges. I. M. Viest and C. P. Siess. bibliog diags Pub Roads 28:9-16 Ap '54

Design of Richmond-San Rafael bridge. N. C. Raab. il map diag Roads & Sts 97:42-5 Mr '54

Eight-lane bridge in Vancouver, B.C., an outstanding achievement. il plan diags Roads & Eng Constr 91:105-8+ D '53

John E. Mathews bridge. M. N. Quade and R. S. M. Lee. il diags Am Soc C E Proc 79 [no 216]:1-25 Jl '53

Large bridge in British Columbia to have Prepakt-concrete piers. map diags Roads & Eng Constr 92:87-91+ S '54

Least-weight proportions of bridge trusses. J. L. Waling. diags Ill U Eng Exp Sta Bul 417:1-56 '53 (pa 50c)

New steel bridge is first to span Meuse river without river piers. G. N. Balbachevsky. il diag Eng N 151:58-9 Ag 13 '53

Pittsburgh plans new bridges and traffic interchange at Point Park. G. S. Richardson. il map plan diags Civil Eng 23:385-7 Je '53

Plate-girder bridges. G. Roberts and O. A. Kerensky. plan diags Engineer 196:786-8 D 11 '53

Studies of slab and beam highway bridges; tests of continuous right I-beam bridges. C. P. Siess and I. M. Viest. bibliog il diags Ill U Eng Exp Sta Bul 416:1-91 '53 (pa 80c)

See also

Bridges—Load
Bridges, Arched
Bridges, Cantilever
Bridges, Suspension

BRIDGE engineering

Problem of limiting deflections for bridges needs study. S. O. Asplund. Civil Eng 23:480 Jl '53

Production-line precasting and careful scheduling mark construction of Bay St Louis bridge. R. H. Wood. il Civil Eng 23:380-4 Je '53

Showmanship and psychology sell bridges; Charles Andrew, chief consulting engineer for the Washington state toll bridge authority. Eng N 151:101-2+ Ag 20 '53

BRIDGE failures

Failure of a highway bridge. Engineering 177:40 Ja 8 '54

BRIDGE traffic

Face-lifting will speed bay traffic; ramp revision, lane control signals and new toll facilities on Oakland Bay bridge. il Eng N 152:44-5+ Ap 15 '54

BRIDGEPORT brass company

New worlds for Bridgeport Brass. H. W. Steinkraus. Steel 134:61-2 Mr 29 '54

Stock offering underwritten. Comm & Fin Chr 178:1978 N 23 '53

BRIDGES

Bridge makes parkway link; Captree Causeway bridge. il map Eng N 151:26 O 29 '53

Bridges on West Virginia turnpike. E. K. Timby. Am Soc C E Proc 79 [no 263]:1-8 S '53

Busy bridge-builders. J. C. Perham. Barron's 34:5-6 Ja 4 '54

Garden State parkway to span Raritan river. il Civil Eng 23:713 O '53

How to break a bridge bottleneck; new bridges at Wisconsin Dells. il Eng N 152:41-2 Ap 8 '54

Krupp bridge to Asia. map Bsns W p78 Ag 1 '53

New eight-lane bridge for British Columbia. il Eng N 152:196 F 18 '54

Power cable crossings on bridges and viaducts; abstract. D. C. Hawley. diag Elec Eng 73:40 Ja '54

Puget Sound span. Eng N 151:27 D 10 '53

Steel helps bridge the gaps in highways; illustrations with text. Steel 135:59 Ag 16 '54

Trans Bay bridge, St Petersburg, Fla. il Manuf Rec 123:31 Jl '54

Two bridge finishers pave Ohio turnpike's longest structure. il diags Roads & Sts 97:47-50 Ag '54

See also

Bridge accidents
East St Louis, Illinois—Bridges
San Francisco Bay bridges
Vancouver, British Columbia—Bridges

Architecture

Gold medal bridge. il diag Arch Forum 100:166-7 Ap '54

New steel bridges receive AISC aesthetics awards. il Civil Eng 23:788 N '53

1952's most beautiful bridges chosen. il Eng N 151:25 O 1 '53

Southern bridges win top honors; 25th annual Aesthetic bridge competition. il Manuf Rec 122:40-1 O '53; Roads & Eng Constr 91:128-9 O '53

Cost

Bridge and approaches, Virginia; unit prices. Eng N 151:66 S 24 '53

Bridge bid price index; table. Eng N 151:109 O 8 '53

Bridge, Georgia; unit prices. Eng N 151:86 Ag 13 '53

Bridge, Oklahoma; unit prices. Eng N 151:96 S 3 '53

Cantilever bridge, Oregon; unit prices. Eng N 151:88 O 29 '53

Combination-bid discount tips scales on Kansas bridge; unit prices. Eng N 152:57 F 11 '54

Culverts and bridges, Oklahoma; unit prices. Eng N 151:90 N 12 '53

Floodway approaches, Louisiana; unit prices. Eng N 151:74 Jl 23 '53

Limestone surfaced bridge, Kentucky; unit prices. Eng N 151:50 O 22 '53

Low concrete prices win Maine bridge contract; unit prices. Eng N 152:140 Mr 18 '54

River piers, Kansas; unit prices. Eng N 151:66 S 24 '53

Two items swing bridge bid; unit prices. Eng N 152:270 F 18 '54

Unit prices bid by contractors. Eng N 151:201+ O 8 '53

Wide-flange beam bridge and surfacing, Vermont; unit prices. Eng N 152:140 Mr 18 '54

Erection

Chesapeake Bay bridge. E. F. Ball. il diags Am Soc C E Proc 79 [no 304]:1-20 O '53

Crane and winch erect timber bridge. il diags Roads & Sts 97:52-3 S '54

Erection of the main river span, Passaic River crossing, New Jersey turnpike. J. Jones. il diags Am Soc C E Proc [no 321]:1-20 N '53

Four cranes emcee bridge girder installation. il Constr Methods 36:65 Ag '54

Heavy trusses floated and hoisted to form new dual bridge over reservoir. K. R. Scurr. il Roads & Sts 97:74-7 My '54

Rapid erection of 4400-ft bridge with unusually heavy haunch girders. il Roads & Eng Constr 92:106 S '54

Staggered piers aid erection. il Eng N 151:30 S 10 '53

TVA launches bridges onto high piers. E. Scroggie. il Eng N 152:41-2 Ag 15 '54

Use aluminum falsework; San Francisco Bay bridge. T. M. Rohan. il Iron Age 173:104-5 Je 17 '54

BRIDGES—*Continued*

Floors

Electric heating prevents icy skids on inclined approaches to bridges in Salem, Ore. il Elec West 111:96 D '53

Research on bridge floors; abstract. N. M. Newmark and C. P. Siess. Roads & Eng Constr 92:166-7 Ap '54

Foundations and piers

Assembled under water precast shells become bridge piers. L. L. Wise. il diags Constr Methods 36:62-5 Mr; 64-6 Ap '54

Build piers for railroad bridge. J. Goff. il Constr Methods 36:67-8+ Ap '54

Building big buoyant boxes for bridge substructure; Tappan Zee bridge over the Hudson river. il Eng N 151:33-4+ Jl 9 '53

Concrete caissons towed to bridge site; Tappan Zee bridge between Tarrytown and South Nyack, N.Y. il Eng N 151:22 O 22 '53

Deep piers formed with huge precast units; Richmond-San Rafael bridge. il diags Eng N 152:30-2+ Mr 4 '54

First-order survey pin-points construction across Tampa bay. P. A. Hakman. il maps Civil Eng 23:461-3+ Jl '53

Highway bridges on deep foundations. L. Duclos. Am Soc C E Proc 79 [no 276]:1-10 S '53

Hollow precast concrete units of great size from bridge substructure; Richmond-San Rafael bridge crossing north part of San Francisco bay. B. C. Gerwick, jr. il diags Civil Eng 24:235-9 Ap '54

Large bridge in British Columbia to have Prepakt-concrete piers. map diags Roads & Eng Constr 92:87-91+ S '54

New methods of design and construction for bridge substructures; steel H-piles and Prepakt concrete. C. P. Disney. il Roads & Eng Constr 92:87-91+ Ja '54

Precast pier caissons sunk in river. il Comp Air Mag 58:316 N '53

Precast units for Bay bridge foundation. G. Burnley. il Concrete 61:16 D '53

Semi-floating piers, geared to tides, to support bascule bridge at Seattle. il Eng N 151:23 D 3 '53; Roads & Sts 97:47 My '54

Shoring frame aids bridge underpinning. il Eng N 151:28 N 19 '53

Single piers with fan-shaped tops support discontinuous concrete span. il Eng N 151: 65 D 10 '53

Steel forms mold concrete; bridge pier shells. L. L. Wise. il Constr Methods 35:50-3 D '53

West Virginia highway bridge piers built inside cellular cofferdams. R. C. Jennings. il Civil Eng 23:428 Je '53

Lighting

Lighting a bridge; lighting data sheet. J. H. Wenner. il Illum Eng 49:311-12 Je '54

Load

Diffusion of load into the decks of plate-girder bridges. A. H. Chilver. il diags Engineering 176:645-8 N 20 '53

Wind loads on truss bridges. J. M. Biggs. il diags Am Soc C E Proc 79 [no 201]:1-19 Jl '53

Location

First-order survey pin-points construction across Tampa bay. P. A. Hakman. il maps Civil Eng 23:461-3+ Jl '53

Maintenance and repair

Mobile scaffold saves man-hours of rigging. il Constr Methods 36:61 F '54

See also

Bridges, Concrete—
Maintenance and repair

Models

Aerodynamic stability of suspension bridges with special reference to the Tacoma Narrows bridge; pt 4, Model investigations which influenced the design of the new Tacoma Narrows bridge. F. B. Farquharson. il plan diags Univ of Washington Eng Exp Sta Bul 116:1-103 bibliog(p 102-3) '54

Low-temperature welding alloys speed and simplify structural model fabrication. S. Shore and E. W. Rothfuss, jr. il diags Welding J 33:376-9 Ap '54

Moving

Old swing bridge floated to new site. il Roads & Sts 97:66+ Jl '54

Old truss trundled eight miles. H. C. Hull. il Roads & Sts 97:47 Je '54

Tidal action utilized in bridge moving. il Eng N 151:25 Jl 9 '53

Reconstruction

Face-lifting will speed bay traffic; ramp revision, lane control signals and new toll facilities on Oakland Bay bridge. il Eng N 152:44-5+ Ap 15 '54

Reconstruction of the Brooklyn bridge. il diags Engineer 196:686-9 N 27 '53

Reconstruction of the MacArthur bridge. N. L. Ashton. il diags Welding J 33:313-23 Ap '54

Restoration of bridge in Saskatchewan partially destroyed by ice floes. M. B. Pierce. il Roads & Eng Constr 92:105-10+ F '54

Stresses

Investigation of the dead load stresses in the Mississippi River Veterans memorial bridge at East St Louis, Ill. L. T. Wyly and others. il diags Am Soc C E Proc 79 [no 219]:1-39 Jl '53

Stress measurements on the San Leandro Creek bridge. R. W. Clough and C. F. Scheffey. il plan diags Am Soc C E Proc 79 [no 246]:1-22 Ag '53

See also

Bridges—Load

Tolls

Chesapeake bridge tops hoped-for earnings. Bsns W p67 Ag 8 '53

Many toll spans planned. Roads & Sts 97: 83-4+ Ap '54

Use of bridge tolls for approaches proposed for Delaware span. Eng N 152:77 Mr 25 '54

Vibration

Tests confirm Steinman theory of bridge oscillations. F. J. Maher. Civil Eng 23: 554-5 Ag '53

Welding operations

New span record set for welded girders. W. F. Smith. il Eng N 152:32+ Ap 1 '54

Plate-girder bridges. G. Roberts and O. A. Kerensky. plan diags Engineer 196:786-8 D 11 '53

Reconstruction of the MacArthur bridge. N. L. Ashton. il diags Welding J 33:313-23 Ap '54

Special problems in structural welding for bridges. S. Mitchell and A. L. Elliott. bibliog il diags Welding J 33:633-42 Jl '54

Steel for welded bridges and buildings. S. A. Greenberg. Am Soc C E Proc 79 [no 344]:1-9 N '53

Structural weldment inspection. J. L. Beaton and P. G. Jonas. il Am Soc C E Proc 79 [no 243]:1-7 Ag '53

Welded arch bridge over the Rio Blanco river in Mexico. T. C. Kavanagh and C. Piccone. il diag Welding J 32:1195-202 D '53

Welding giant sheaves; Bethlehem steel co. il Welding J 33:576-7 Je '54

Italy

Another big bridge? plans to throw a giant bridge across the Straits of Messina. map Bsns W p 126-7 Ag 29 '53

BRIDGES (instruments). See Electric instruments; Wheatstone bridge; Wien bridge

BRIDGES, Arched

Concrete arches get steel-arch support. il Eng N 152:49 Ap 1 '54

Concrete tied arch spans 236 ft with prestressed hangers and tie girders in Bourget, France. il Eng N 152:42-3 F 4 '54

Gold medal bridge. il diag Arch Forum 100: 166-7 Ap '54

Inclined-arch bridge spans 250 ft near Vera Cruz, Mexico. il diags Eng N 152:46-7 F 25 '54

Welded arch bridge over the Rio Blanco river in Mexico. T. C. Kavanagh and C. Piccone. il diag Welding J 32:1195-202 D '53

BRIDGES, Bascule

Aluminium alloy bascule bridge; Victoria dock, Aberdeen. il diags Engineer 196:429-31 O 2 '53; Engineering 176:481-3 O 16 '53; Metallurgia 48:249-50 N '53

BRIDGES, Bascule—*Continued*

Gilmore Street bridge, Jacksonville, Fla. P. M. Huddleston. diags Am Soc C E Proc 79 [no 209]:1-9 Jl '53

Operating equipment for a bascule bridge; Jubilee bridge at Barrow-in-Furness. il diag Engineering 177:92-3 Ja 15 '54; Elec J 152:193-5 Ja 15 '54; Elec R (Lond) 154:149-50 Ja 22 '54

Semi-floating piers, geared to tides, to support bascule bridge at Seattle. il Eng N 151:23 D 3 '53; Roads & Sts 97:47 My '54

BRIDGES, Cantilever

Eight-lane bridge in Vancouver, B.C., an outstanding achievement. il plan diags Roads & Eng Constr 91:105-8+ D '53

BRIDGES, Concrete

Air placed concrete restores county bridges. T. J. Hopgood. il Pub Works 85:61-2 Ja '54

Bridge cost sliced by design switch. il Eng N 151:64+ Ag 20 '53

Bridge tests check theory for prestressed concrete. T. Y. Lin and J. Sylvester. diag Eng N 151:115-16 Jl 16 '53

Concrete tied arch spans 236 ft with prestressed hangers and tie girders in Bourget, France. il Eng N 152:42-3 F 4 '54

Dual-purpose prestressed concrete bridge; Calverton colliery. il diag Engineer 196:404 S 25 '53

Inner-outer prestress produces record span. il Eng N 152:57-8+ Ap 8 '54

Land type equipment builds bridge off wood trestle and finger pier. il Constr Methods 36:106+ Mr '54

Pre-cast concrete and salvaged steel bridges save money. C. E. Wright. il Pub Works 85:80-2 Mr '54

Precast prestressed concrete bridge weighs only 140 psf of roadway. il Eng N 151:49 D 17 '53

Prefabricated bridges reduce replacement costs. il Pub Works 85:96 Ag '54

Prestressed span is double-decked for railway on top, coal conveyor below. il Eng N 151:63+ N 5 '53

Production-line precasting and careful scheduling mark construction of Bay St Louis bridge. R. H. Wood. il Civil Eng 23:380-4 Je '53

Reinforced concrete bridge economy. N. L. Ashton. Am Concrete Inst J 25:804 My '54

Restoration of bridge in Saskatchewan partially destroyed by ice floes. M. B. Pierce. il Roads & Eng Constr 92:105-10+ F '54

Single piers with fan-shaped tops support discontinuous concrete span. il Eng N 151:65 D 10 '53

Wrap-around cables prestress long continuous-girder bridge; Danube Valley bridge in south Germany. F. Leonhardt and C. Dobell. il diags Eng N 151:43+ S 3 '53

Cost

Alternate designs cut bridge cost. Eng N 152:48 Mr 18 '54

Concrete bid takes overpass contract in Florida; unit prices. Eng N 152:90 Ap 15 '54

Experience with bridge prestressing methods. il Eng N 152:38-40+ Mr 18 '54

Three-span bridge, Iowa; unit prices. Eng N 152:66 Ja 14 '54

Maintenance and repair

Gunite repair for a concrete arch bridge. C. L. Wood. il Pub Works 85:81+ Je '54

Pilot guniting contract, marks beginning of repair program for San Francisco Bay trestle. il Roads & Sts 96:66+ D '53

Repairing and widening a heavily traveled viaduct. J. E. Hubel. il Pub Works 85:83 Ap '54

BRIDGES, Floating

New type of floating bridge. il Constr Methods 36:75-6+ Mr '54

BRIDGES, Foot

From parking lot to plant, safely. il Mill & Factory 54:96 F '54

BRIDGES, Industrial

Dual-purpose prestressed concrete bridge; Calverton colliery. il diag Engineer 196:404 S 25 '53

Private bridge across Kootenai will carry heavy log hauls. il Eng N 151:28 S 24 '53

BRIDGES, Iron and steel

Australia completes its longest plate-girder bridge. J. A. Holt. il diags Civil Eng 23:538-42 Ag '53

Basket handle bridge exemplifies new trend in design. R. Magat. il Roads & Eng Constr 91:127 O '53

Chesapeake Bay bridge. E. F. Ball. il diags Am Soc C E Proc 79 [no 304]:1-20 O '53

Mackinac; bridge reasons unique. R. D. Raddant. map Iron Age 173:52 Ap 29 '54

New span record set for welded girders. W. F. Smith. il Eng N 152:32+ Ap 1 '54

New steel bridge is first to span Meuse river without river piers. G. N. Balbachevsky. il diag Eng N 151:58-9 Ag 13 '53

Plate-girder bridges. G. Roberts and O. A. Kerensky. plan diags Engineer 196:786-8 D 11 '53

Pre-cast concrete and salvaged steel bridges save money. C. E. Wright. il Pub Works 85:80-2 Mr '54

Welded arch bridge over the Rio Blanco river in Mexico. T. C. Kavanagh and C. Piccone. il diag Welding J 32:1195-202 D '53

BRIDGES, Lift

Storage battery lowers power costs for lift bridge. il Elec Eng 72:1136-7 D '53

See also
Bridges, Bascule

BRIDGES, Military. See Military bridges

BRIDGES, Movable

Hinged spans for rarely opened bridges over Florida drainage canals. W. E. Dean, jr. il plan diags Civil Eng 23:673-5 O '53

See also
Bridges, Bascule
Bridges, Swing

Electric equipment

Operating equipment for a bascule bridge; Jubilee bridge at Barrow-in-Furness. il diag Engineering 177:92-3 Ja 15 '54; Elec J 152:193-5 Ja 15 '54; Elec R (Lond) 154:149-50 Ja 22 '54

BRIDGES, Pipe line. See Pipe lines—Bridge crossing

BRIDGES, Prefabricated

Uses for Bailey Bridge equipment. il Engineering 176:601 N 6 '53

BRIDGES, Railroad

Bridges built ahead of track; Rock Island's Atlantic cut-off in Iowa. J. F. Marsh. il map Ry Age 136:48-51 Mr 15 '54

Build piers for railroad bridge. J. Goff. il Constr Methods 36:67-8+ Ap '54

How short line fills in bridges. il Ry Age 137:34-5 Ag 23 '54

Prestressed span is double-decked for railway on top, coal conveyor below. il Eng N 151:63+ N 5 '53

Tests show way to thinner slabs. il Eng N 151:83-4 D 10 '53

With flood danger removed Illinois Central fills three long trestles. il map Ry Age 136:62-4 Je 28 '54

Maintenance and repair

Strengthening of Coquet viaduct. Engineer 196:536 O 23 '53

Reconstruction

Reconstruction of a railway bridge. il Engineer 197:170 Ja 29 '54

Shallow depth in bridges; use of prestressed-concrete deck slabs. il Engineering 177:181 F 5 '54

BRIDGES, Suspension

Aerodynamic stability of suspension bridges with special reference to the Tacoma Narrows bridge; pt 4, Model investigations which influenced the design of the new Tacoma Narrows bridge. F. B. Farquharson. il plan diags Univ of Washington Eng Exp Sta Bul 116:1-103 bibliog(p 102-3) '54

Aerodynamic stability of suspension bridges with special reference to the Tacoma Narrows bridge; pt 5, Extended studies: logarithmic decrement, field damping, prototype predictions, four other bridges. G. S. Vincent. il diags Univ of Washington Eng Exp Sta Bul 116:1-103 bibliog(p 102-3) '54

BRIDGES, Suspension—*Continued*

Fifty-year dream nears reality; construction of Mackinac Straits bridge begins. C. H. Gronquist. il diags Civil Eng 24:229-33 Ap '54

Man-made islands protect bridge cables; Chesapeake Bay bridge. il diag Eng N 151: 36-7 D 24 '53

Reconstruction of the Brooklyn bridge. il diags Engineer 196:686-9 N 27 '53

Suspension-bridge design as governed by dynamic wind action. O. H. Ammann. il Roads & Eng Constr 91:132-4+ O '53

World's longest suspension span is proposed Messina Straits bridge. D. B. Steinman. il diags Roads & Eng Constr 92:84-7+ Jl '54; Same cond. Civil Eng 23:830-3 D '53

BRIDGES, Swing

Old swing bridge floated to new site. il Roads & Sts 97:66+ Jl '54

BRIDGES, Wooden

Crane and winch erect timber bridge. il diags Roads & Sts 97:52-3 S '54

BRIGGS manufacturing company

Briggs completes sale of plants to Chrysler. Automotive Ind 110:18 Ja 15 '54

BRIGHTNESS

Brightness and color of the twilight sky. E. V. Ashburn. bibliog Opt Soc Am J 43: 805-6 S '53

Brightness and illumination by interreflections in enclosures; abstract. R. S. Wiseman. il Illum Eng 49:439 S '54

Brightness waves and transitory phenomena in the quenching of luminescence by alternating electric fields. G. Destriau. bibliog il J Ap Phys 25:67-71 Ja '54

Daylight survey methods. E. E. Vezey and others. Illum Eng 49:245-50 My '54

Effect of color temperature on apparent brightness. R. E. Harrington. bibliog diag Opt Soc Am J 44:113-16 F '54

Efficiency and appearance factors in luminous panels. M. E. Haskins, jr. bibliog il Illum Eng 48:587-91; Discussion. 591-2 N '53

Equipment for simulating spherical surfaces with constant brightness. F. Schubert. diags J Sci Instr 30:433-4 N '53

Interpretation of the bril scale of subjective brightness. W. C. Michels. bibliog Opt Soc Am J 44:70-4 Ja '54

Metacontrast. M. Alpern. bibliog(28 ref) diag Opt Soc Am J 43:648-57 Ag '53

New photoelectric brightness spot meter. F. F. Crandell and K. Freund. bibliog il diags Soc Motion Picture & TV Eng J 61:215-22 pt 2 Ag '53

Radiometer calibration for extended-source measurements. F. E. Nicodemus. diag Opt Soc Am J 43:547-9 Jl '53

Spectral sensitivity of the fovea; heterochromatic brightness and chromatic adaptation. L. M. Hurvich and D. Jameson. bibliog(29 ref) Opt Soc Am J 44:213-22 Mr '54

See also

Glare
Luminosity
Moving picture screens—Brightness
Paper—Brightness
Stiles-Crawford effect

BRILLOUIN zone

Zone structure of graphite. S. Mrozowski. bibliog diags Phys R 92:1320-1 D 1 '53

BRINE

American potash & chemical corp. main plant cycle. M. L. Leonardi. flow sheet il diags Min Eng 6:Trans 203-8 F '54

Brine immersion cooling and freezing of ready-to-cook poultry. W. B. Esselen and others. bibliog Refrig Eng 62:61-3+ Jl '54

Bulk brining spells big benefits; P. J. Ritter co. I. C. Miller. il Food Eng 26:73+ Ja '54

Instrument for the measurement of the density of aqueous ionic solutions. C. F. McCourt. diags J Sci Instr 30:241-4 Jl '53

Sea water or natural brine for cation exchanger regeneration; abstract. J. M. Montgomery. Water & Sewage Works 101: 344 Ag '54

Underground water pollution by oilfield brines. C. B. Johnston. il diag Pub Works 85:93-4 Ap '54

BRINELL hardness test

Brinell hardness numbers for various loads; engineering file facts. Materials & Methods 38:145 D '53

BRINK'S, inc.

Brink's defense line; concrete and steel. il Bsns W p30-2 Ag 15 '53

BRIQUETTING

Swarf recovery; hydraulic baling press for briquetting cast iron machinings. il Automobile Eng 44:154 Ap '54; Metallurgia 49: 189-90 Ap '54

BRISTLES

Crossbonding of casein bristle fiber. R. F. Peterson and others. bibliog Textile Res J 24:747-53 Ag '54

BRITALTA petroleums, ltd.

Financing, acquisitions, etc. Comm & Fin Chr 178:1566 O 26 '53

BRITANNIA

Plating on lead alloys, pewter and Britannia. J. Haas. Metal Finishing 52:56-61 Ap '54

BRITISH association for the advancement of science

Annual meeting, Liverpool; abstracts of papers. Elec J 151:805-6, 879-80 S 11-18 '53; Elec R (Lond) 153:564-7, 629-32 S 11-18 '53; Chem & Eng N 31:3993-4 S 28 '53

Annual meeting, 115th, Liverpool, Sept. 2-9. Science 118:sup3 O 30 '53

Annual meeting, 115th, Liverpool; with abstracts of papers. Engineer 196:332-5, 363-4, 391-2, 470-2 S 11-25, O 9 '53; Engineering 176:343-4, 372-3, 389-91, 422-3, 455, 517 S 11-O 9, 23 '53

Chemistry at the British association; abstracts of Section B papers. Chem & Ind p 1006-13 S 26 '53

BRITISH baking industries research association

British baking industries research association. J. B. M. Coppock. il Chem & Ind p 168-71 F 13 '54

BRITISH broadcasting corporation

B.B.C. activities; report for the year ended March 31. Elec R (Lond) 153:647 S 18 '53

BBC; charts from annual report, 1952-53. Economist 169:17 O 3 '53

Broadcasting finance; BBC's report for 1952-53. Economist 168:689 S 12 '53

BRITISH chemical and dyestuffs traders' association

Annual meeting, 30th, London. Chem Age (Lond) 68:661-2 My 2 '53

Annual meeting, 31st. Chem Age (Lond) 70: 1045-6 My 8 '54

BRITISH chemical plant manufacturers' association

Annual general meeting, 33d, London. Chem Age (Lond) 68:629-31 Ap 25 '53

Annual general meeting, 34th, London, April 13. Chem Age (Lond) 70:937-9 Ap 24 '54

BRITISH COLUMBIA

See also

Electrochemical industries—British Columbia
Forests and forestry—British Columbia
Hydroelectric plants—British Columbia
Mines and mineral resources—British Columbia
Roads—British Columbia

BRITISH cotton industry research association

British cotton industry research association. F. C. Toy. il Chem & Ind p 1096-9 S 4 '54

BRITISH council

Kultur politik. Economist 169:479 N 14 '53

BRITISH drug houses, limited

Annual report, 1952. Chem Age (Lond) 68: 864 Je 6 '53

BRITISH electrical and allied manufacturers' association

B.E.A.M.A. dinner, London. Elec R (Lond) 153:1169-70 N 20 '53

Presentation to Cambridge; B.E.A.M.A. gift to mark endowment of Chair. il Elec R (Lond) 153:1335 D 11 '53

BRITISH European airways

BEA cites overhaul costs for Viscounts. Aviation W 59:81 O 5 '53

BEA plans revival of first-class flights. Aviation W 59:113 O 12 '53

BRITISH gelatine and glue research association

British gelatine and glue research association. A. G. Ward. Chem & Ind p 1372-4 D 26 '53

Meeting, Manchester, April 8-11; abstracts of papers. Chem Age (Lond) 68:679-80 My 2 '53

BRITISH GUIANA

Guiana; no royal road to freedom. Bsns W p 141 O 31 '53

BRITISH GUIANA—*Continued*

Industries and resources

IBRD mission reports on British Guiana. For Comm W 50:8 S 7 '53

Politics and government

Colonies on parole. Economist 169:155-6 O 17 '53

Doubts on Guiana. Economist 169:228 O 24 '53

Implications of Guiana. Economist 169:321 O 31 '53

Testing time for Guiana. Economist 170:14-15 Ja 2 '54

BRITISH industries fair

British industries fair. il Metallurgia 49:171-88 Ap '54

British industries fair, Birmingham and London, April 27-May 8. Chem & Ind p427-8 My 2 '53

British industries fair; review and recommendations. Elec R (Lond) 153:1283-4 D 4 '53

Rejuvenating the BIF. Economist 169:685 N 28 '53

BRITISH iron and steel research association

British iron and steel research association. il Metallurgia 48:178-80 O '53

BRITISH labor party. See Labor party (Great Britain)

BRITISH leather manufacturers' research association

British leather manufacturers' research association. H. Phillips. il diag Chem & Ind p294-8 Mr 13 '54

BRITISH match corporation, limited

Statement by the chairman. H. K. M. Kindersley. Economist 168:821-2 S 19 '53

BRITISH non-ferrous metals research association

Annual meeting, 33d, London, April 22. Chem Age (Lond) 68:713-14 My 9 '53; Engineering 175:568 My 1 '53

British non-ferrous metals research association. Engineer 197:221 F 5 '54

BRITISH overseas airways corporation

Annual report for the year ended March 31, 1953. Engineering 176:435 O 2 '53

BOAC and the Comet III. Economist 169:610+ N 21 '53

BOAC scrapes by. Economist 168:874 S 26 '53

Transport trend hinges on BOAC choice. D. A. Anderton. il Aviation W 59:32+ D 14 '53

Year of the Comet. Economist 168:874+ S 26 '53

BRITISH oxygen company, ltd.

Chairman's encouraging review. J. S. Hutchison. Chem Age (Lond) 68:787-8 My 23 '53

BRITISH paper and board industry research association

British paper and board industry research association. N. R. Hood. il Chem & Ind p 1322-4 D 12 '53

BRITISH plaster board, limited

Statement by the chairman. Lord Belper. Economist 168:354-5 Ag 1 '53

BRITISH productivity council

Productivity council; proposed programme of action. Chem Age (Lond) 68:528 Ap 4 '53

BRITISH rayon research association

British rayon research association. J. Wilson. il Chem & Ind p 1212-13 N 14 '53

BRITISH rubber manufacturers, Research association of. See Research association of British rubber manufacturers

BRITISH scientific instrument research association

British scientific instrument research association. A. J. Philpot. il Chem & Ind p904-6 Ag 29 '53

BRITISH standards institution

British standards institution. G. Weston. Textile Inst J 45:P 135-41; Discussion. P 141-4 Ap '54

BRITISH tar confederation

Appointment of officers for 1953-54. Chem Age (Lond) 69:1166 D 5 '53

BRITTLE coating test. See Strains and stresses—Brittle coating test

BRITTLENESS

High-temperature testing techniques for brittle refractory materials. J. J. Gangler. bibliog il diags Am Cer Soc J 37:439-44 S 1 '54

Rheotropic brittleness; general behaviors. E. J. Ripling and W. M. Baldwin, jr. bibliog diags Am Soc T M Proc 51:1023-30; Discussion. 1031-7 '51

See also

Steel—Brittleness

BROACHES

Broach troubleshooting; reference book sheet. J. R. Psenka. diags Am Mach 97:155, 157, 159 O 26 '53

Broaches converted from scrap reamers. P. F. Young and H. W. Nowell. il Tool Eng 32:43-4 Ap '54

Broaches finish surface on circular metal parts. il Am Mach 98:192 Je 7 '54

Special broaches overcome work hardening problem; International Harvester's Fort Wayne plant. E. J. Egan, jr. il Iron Age 173:94-6 Ap 29 '54

Sharpening

Coventry Gauge and Tool broach sharpening machines. il Engineer 196:315-16 S 4 '53; Engineering 176:428 O 2 '53

BROACHING

Developing a test for broaching titanium and its alloys. R. E. McKee and W. W. Gilbert. il diags Mech Eng 76:6-12 Ja '54

BROACHING machines

Automatic loaders for single-ram broaching machines. il Mach 60:228-9 Ja '54

Broach handling eliminated in two pass broaching. il Am Mach 98:189 F 15 '54; Steel 134:139 F 1 '54

Broaching big business. il Steel 133:144+ Jl 20 '53

Colonial high-speed broaching machine and automatic broach-handling equipment. il Mach 60:218-21 Mr '54

Colonial unit performs four broaching or press operations. il Am Mach 98:135 Ag 30 '54

Double-acting Colonial broaching machine. il Am Mach 98:146 Mr 1 '54; Steel 134:118 Mr 15 '54; Tool Eng 32:196 Ap '54

Electric drive for high-speed suface-broaching machine. J. M. Morgan, jr. and E. J. Rivoira. il diags Elec Eng 72:886-91 O '53

Facts about modern broaching machines. diag Mill & Factory 54:567 My '54

Fast internal broaching for large pieces; Colonial broach co. il Tool Eng 32:182-3 Ap '54

Fixture broaches two non-parallel slots simultaneously. il diag Automotive Ind 110:65 Ja 15 '54; Same. Tool Eng 33:68-9 Ag '54; Same cond. Mach 60:216 F '54

Gears broached in two steps; while four are being cut, other four are in load-unload positions. il Steel 133:109 N 23 '53; Mach 60:202 F '54

Lapointe continuous broaching machine. il Mach 61:216-17 S '54

Lapointe double-ram vertical broaching machine with electromechanical drive. il Mach 60:217-18 Je '54; Am Mach 98:170 Ag 2 '54

Machine tool buyers' guide. il Steel 133:108-10 sec 2 N 16 '53

National broach & machine co., automatic broach loaders. il Tool Eng 32:128 Mr '54

1954 American Machinist production preview. il Am Mach 98:139-40 Ja 18 '54

Replace with modern machine tools; broaching. Am Mach 97:B23 Mid-N '53

Two big broaches do job of many. S. J. White. il Steel 133:106-7 O 5 '53

Wire brush removes chips from broach, lengthens tool life. il Iron Age 173:168 Je 17 '54

BROADCAST music, inc.

Songwriters try antitrust play against networks. Bsns W p 130 N 14 '53

BROADCASTING stations, Radio. See Radio broadcasting stations

BROILERS, Electric. See Electric broilers

BROKERS

Accounting

Confirming brokers' accounts with customers on a test basis. C. H. Knoll. J Account 97:685-7 Je '54

BROKERS—*Continued*

Commissions

Stockbroker fees; California ruling. Weekly Underw 170:175 Ja 16 '54

BROKERS' loans

Banking and the securities market. A. H. Cook. Comm & Fin Chr 178:1438-9 O 15 '53

Customers' debit balances, money borrowed, and principal related items of stock exchange firms carrying margin accounts, June and December, 1950-December, 1952 and monthly Jan.-Nov. 1953. Fed Res Bul 40:58 Ja '54 [cont monthly]

BROMATES

Formation of bromate in the oxidation of iodide by bromine. P. W. Jensen and A. L. Crittenden. bibliog Anal Chem 26:1373-4 Ag '54

BROMFIELD, Louis, 1896-

Puts Malabar farm into the gift-food business. L. M. Hughes. por Sales Management 71:32+ O 1 '53

BROMIDES

Anion-exchange studies; bromide complexes of Co(II), Cu(II), Zn(II) and Ga(III). R. H. Herber and J. W. Irvine, jr. bibliog Am Chem Soc J 76:987-91 F 20 '54

Autoxidation of cholesterol during purification via the dibromide. L. L. Smith. bibliog Am Chem Soc J 76:3232-4 Je 20 '54

Cholesterol and companions; steroid dibromides. L. F. Fieser. bibliog Am Chem Soc J 75:5421-2 N 5 '53

Decomposition of *n*-octane catalyzed by bromides. R. F. Marschner and B. L. Evering. bibliog Ind & Eng Chem 45:1487-90 Jl '53

Dual intermediates in coulometric titrations; equilibria in copper(II)-bromide solutions. P. S. Farrington, D. J. Meier and E. H. Swift. bibliog Anal Chem 25:591-5 Ap '53

Electric moments of organosilicon compounds; bromides. E. L. Reilly, C. Curran and P. A. McCusker. Am Chem Soc J 76:3311-12 Je 20 '54

Inert bicyclic vicinal dibromides; solvolysis, elimination and rearrangement studies. J. A. Berson and R. Swidler. bibliog Am Chem Soc J 76:4057-9 Ag 20 '54

Kinetics of the reactions of O-acylglycosyl bromides with amines in acetone. N. B. Chapman and W. E. Laird. bibliog Chem & Ind p20-1 Ja 2 '54

Nuclear quadrupole couplings in solid bromides and iodides. H. Robinson and others. J Chem Phys 22:511-15 Mr '54

Relative reactivities of organic halides in displacement reactions; reaction of mercuric nitrate with some normal chain alkyl and aralkyl bromides. S. Oae and C. A. VanderWerf. bibliog Am Chem Soc J 75:5037-9 O 20 '53

Sodium and bromide removal from solvents by nonaqueous ion exchange. F. S. Chance, jr., G. E. Boyd and H. J. Garber. bibliog diag Ind & Eng Chem 45:1671-6 Ag '53

Analysis

Automatic coulometric titration with electrolytically generated silver ion. J. J. Lingane. bibliog diags Anal Chem 26:622-6 Ap '54

BROMINATION

Analogy between aromatic bromination and the cleavage of trialkylarylsilanes by bromine. R. A. Benkeser and A. Torkelson. Am Chem Soc J 76:1252-3 Mr 5 '54

Bromination of halobenzenes. L. N. Ferguson, A. Y. Garner and J. L. Mack. bibliog Am Chem Soc J 76:1250-1 Mr 5 '54

Bromination of hydrocarbons; bromination of isobutane; bond dissociation energies from bromination kinetics. B. H. Eckstein and others. bibliog J Chem Phys 22:28-35 Ja '54

Bromination of steroidal ketones. D. A. H. Taylor. Chem & Ind p250 F 27 '54

Bromination of the two propylbenzenes and three butylbenzenes. J. H. Lamneck, jr. bibliog Am Chem Soc J 76:1106-7 F 20 '54

cis-Addition in the bromination of bicyclic olefins; the structure and stereochemistry of the dibromides of *exo-cis*-3,6-endoxo-Δ^4-tetrahydrophthalic anhydride and *endo-cis*-3,6-endomethylene-Δ^4-tetrahydrophthalic anhydride. J. A. Berson and R. Swidler. bibliog Am Chem Soc J 76:4060-9 Ag 20 '54

Determination of *o*-cresol, 4-chloro-2-methylphenol and 2-methylphenoxyacetic acid by quantitative bromination. A. Aichenegg and H. G. Haynes. bibliog J Ap Chem 4:137-40 Mr '54

Electrophilic displacement reactions; kinetics of the brominolysis of *m*-chlorobenzeneboronic acid in aqueous solution. H. G. Kuivila and E. J. Soboczenski. bibliog Am Chem Soc J 76:2675-8 My 20 '54

Experiments on the synthesis of santonin; preparation and bromination-dehydrobromination of ethyl α-(2 : 3 : 4 : 5 : 6 : 7 : 8 : 10-octahydro-1 : 10-dimethyl-2-oxo-7-naphthyl) propionate. F. D. Gunstone and A. P. Tulloch. bibliog(27 ref) J Ap Chem 4:291-6 Je '54

Halogenation of chelated aryl alkyl ketones; bromination of 2-acetylnaphthol and several of its derivatives. F. C. Chang and Y. Yang. bibliog Am Chem Soc J 76:464-6 Ja 20 '54

Isomeric mono- and dibromohecogenin acetates. G. P. Mueller and L. L. Norton. Am Chem Soc J 76:749-51 F 5 '54

Isomerism in the Diels-Alder reaction; the bromination of the Diels-Alder adduct, norbornylene. H. Kwart and L. Kaplan. bibliog flow sheet Am Chem Soc J 76:4072-7 Ag 20 '54

*iso*Oxazolones; the bromination of arylaminomethylene*iso*oxazolidones; a new selective anion-precipitant. G. Shaw. Chem Soc J p3464-7 N '53

Kinetics and mechanism of aromatic halogenation by hypohalous acids; bromination of aromatic ethers by hypobromous acid. S. J. Branch and B. Jones. Chem Soc J p2317-24 Jl '54

Kinetics of iodine-catalyzed aromatic bromination; bromination of toluene. T. Tsuruta, K. Sasaki and J. Furukawa. bibliog Am Chem Soc J 76:994-8 F 20 '54

Unsaturated sulfonic acids; bromination and brominolysis of *p*-substituted 2-phenylethene-1-sulfonic acid derivatives. C. S. Rondestvedt, jr. and J. C. Wygant. bibliog Am Chem Soc J 76:509-15 Ja 20 '54

BROMINE

Acetyl bromide as a possible intermediate in the reaction of acetaldehyde with bromine in aqueous ethanol. N. N. Lichtin and F. Granchelli. bibliog Am Chem Soc J 76:3729-30 Jl 20 '54

Coulometric titrations with externally generated chlorine, bromine, and iodine. J. N. Pitts, jr. and others. bibliog diag Anal Chem 26:628-31 Ap '54

Dark reaction of bromine with mesitylene in carbon tetrachloride solution. R. M. Keefer, J. H. Blake, 3d and L. J. Andrews. bibliog Am Chem Soc J 76:3062-7 Je 5 '54

Formation of bromate in the oxidation of iodide by bromine. P. W. Jensen and A. L. Crittenden. bibliog Anal Chem 26:1373-4 Ag '54

Kinetic study of the addition of bromine to crotonic acid in ethylene chloride. R. E. Buckles and J. P. Yuk. bibliog Am Chem Soc J 75:5048-52 O 20 '53

New ethylene dibromide plant lined with rubber; Associated ethyl co. Chem Age (Lond) 70:1093-4 My 15 '54

New flood tracers; anions of iodine and bromine used successfully. A. W. Garst and B. B. Woods. Oil & Gas J 52:60 O 26 '53

Phase equilibria in the condensed system bromine-bromine trifluoride. J. Fischer, R. K. Steunenberg and R. C. Vogel. bibliog Am Chem Soc J 76:1497-8 Mr 20 '54

Primary photochemical process in bromine. G. B. Kistiakowsky and J. C. Sternberg. bibliog J Chem Phys 21:2218-23 D '53

Reaction of cyclohexene with bromine, iodine monobromide and iodine monochloride. A. Gero, J. J. Kershner and R. E. Perry. Am Chem Soc J 75:5119-20 O 20 '53

Stereochemistry of α-haloketones; the stable orientation of bromine in 2-bromocholestane-3-one. E. J. Corey. bibliog Am Chem Soc J 75:4832-4 O 5 '53

Use of bromine water in the determination of sulphur in coal or coke by the Eschka process. T. Battye, R. Johnson and H. C. Wilkinson. J Ap Chem 4:119-23 Mr '54

BROMINE—*Continued*

Analysis

Determination of bromine in liquids by X-ray fluorescent spectroscopy. G. T. Kokotailo and G. F. Damon. bibliog diag Anal Chem 25:1185-7 Ag '53

Determination of mercury in the atmosphere; submicroanalytical determination of mercuric ion in bromine and chlorine water based on its catalytic action. S. Ašperger and I. Murati. bibliog Anal Chem 26:543-5 Mr '54

Microdetermination of chlorine and bromine in organic compounds. L. J. Lohr, T. E. Bonstein and L. J. Frauenfelder. bibliog diags Anal Chem 25:1115-17 Jl '53

Isotopes

Bromine isotopes produced by carbon-ion bombardment of copper. J. M. Hollander. Phys R 92:518-19 O 15 '53

Comparative retentions of the nuclear isomers of Br^{80} in the propyl bromides. P. C. Capron and E. Crèvecoeur. J Chem Phys 21:1843-50 O '53

Hyperfine structure and nuclear moments of the stable bromine isotopes. J. G. King and V. Jaccarino. bibliog diags Phys R 94:1610-16 Je 15 '54

Nuclear reactions

Disintegration scheme of Br^{80} (18 min). G. Scharff-Goldhaber and M. McKeown. bibliog Phys R 92:356-8 O 15 '53

Effect of density in the region of the critical temperature on the chemical products of the Br$^{79}(n,\gamma)$Br^{80} reaction on bromotrifluoromethane. W. E. Rice and J. E. Willard. bibliog Am Chem Soc J 75:6156-9 D 20 '53

BROMINE compounds

Rearrangement of α-bromo-ketones. A. C. B. Smith and others. bibliog Chem & Ind p309-10 Mr 13 '54

Spectra

Pure quadrupole spectra of solid bromine and iodine compounds. K. Shimomura and others. J Chem Phys 22:350 F '54

BROMINE fluorides

Direct determination of oxygen in less familiar metal oxides. H. R. Hoekstra and J. J. Katz. bibliog diags Anal Chem 25:1608-12 N '53

Phase equilibria in the condensed system bromine-bromine trifluoride. J. Fischer, R. K. Steunenberg and R. C. Vogel. bibliog Am Chem Soc J 76:1497-8 Mr 20 '54

Solubility of some metal fluorides in bromine trifluoride. I. Sheft, H. H. Hyman and J. J. Katz. bibliog diag Am Chem Soc J 75:5221-3 N 5 '53

BROMINE trifluoride. See Bromine fluorides

BROMINOLYSIS. See Bromination

BROMITES

Decomposition of hypobromite and bromite solutions. P. Engel, A. Oplatka and B. Perlmutter-Hayman. bibliog Am Chem Soc J 76:2010-15 Ap 5 '54

BROMOACETAMIDE

Reaction of wool with N-bromoacetamide and N-bromosuccinimide. C. Earland and D. Raven. bibliog Textile Res J 24:108-12 F '54

BROMOBENZENE

Bromination of halobenzenes. L. N. Ferguson, A. Y. Garner and J. L. Mack. bibliog Am Chem Soc J 76:1250-1 Mr 5 '54

Chain transfer in the polymerization of styrene; chain transfer with bromobenzene and mechanism of thermal initiation. F. R. Mayo. bibliog Am Chem Soc J 75:6133-41 D 20 '53

Disproportionation of bromobenzene in the presence of aluminium bromide. F. Fairbrother and N. Scott. bibliog Chem & Ind p998-9 S 19 '53

Homolytic aromatic substitution; partial rate factors for the phenylation of fluorobenzene, bromobenzene, and iodobenzene. D. R. Augood and others. Chem Soc J p3412-17 N '53

BROMOCHLOROMETHANE

New fire-fighting chemical. Engineering 177:401 Mr 26 '54

Vaporising liquids as fire extinguishers; abstract. E. H. Coleman. Chem Age (Lond) 68:599-600 Ap 18 '53

Physiological effect

Acute narcotic effects of monochloromonobromomethane vapor in rats. C. C. Comstock and others. A M A Archives Ind Hygiene & Occup Med 7:526-8 Je '53

BROMOCHLOROPROPENE

Allylic chlorides; preparation and properties of the 1-bromo-3-chloro-1-propenes. L. F. Hatch and K. E. Harwell. bibliog Am Chem Soc J 75:6002-5 D 5 '53

BROMOCHOLESTANONE

Stereochemistry of α-haloketones; the stable orientation of bromine in 2-bromocholestane-3-one. E. J. Corey. bibliog Am Chem Soc J 75:4832-4 O 5 '53

BROMOCHOLESTENONE

Rearrangement of 6β-bromo-Δ^4-cholestene-3-one to 2α-acetoxy-Δ^4-cholestene-3-one. L. F. Fieser and M. A. Romero. bibliog Am Chem Soc J 75:4716-19 O 5 '53

BROMOFLUOROETHANE

Spectrum

Infrared spectra of pentachlorofluoroethane, 1, 2-dichlorotetrafluoroethane, and 1-bromo-2-fluoroethane. D. Simpson and E. K. Plyler. J Res Nat Bur Stand 50:223-7 My '53

BROMOHENEICOSYNE

Propargylic rearrangement; 1-bromoheneicosyne-2 and its reaction with lithium aluminum hydride. O. R. Sammul, C. A. Hollingsworth and J. H. Wotiz. bibliog Am Chem Soc J 75:4856-7 O 5 '53

BROMOHYDRINS

Cyclitols; debromination of inositol dibromohydrins; synthesis of new cyclohexanetetrols. G. E. McCasland and E. C. Horswill. bibliog Am Chem Soc J 76:2373-9 My 5 '54

BROMOMETHANE

Comparison of the apparent dipole moments of the brominated methanes dissolved in benzene with the true values determined as gases. A. D. Buckingham and R. J. W. Le Fèvre. Chem Soc J p3432-5 N '53

Dielectric behavior of methyl bromide in 3-cm region. K. Swarup and P. Swarup. bibliog J Chem Phys 22:568-9 Mr '54

BROMOMETHYLCYCLOBUTANE

Bromomethylcyclobutane. R. C. Krug, L. W. Smith and C. E. Fry. Am Chem Soc J 76:3222-3 Je 20 '54

BROMOPALLADATES

Chemistry of the platinum metals; lattice constants of some chloropalladates, bromopalladates, and bromoplatinates. A. G. Sharpe. Chem Soc J p4177-9 D '53

BROMOPERINAPHTHANOL

Synthesis of 3-bromoperinaphthanol-7. V. Boekelheide and M. Goldman. bibliog Am Chem Soc J 76:604-5 Ja 20 '54

BROMOPHENANTHRIDONE

2-Bromophenanthridone. W. L. Mosby. Am Chem Soc J 76:936-7 F 5 '54

BROMOPLATINATES

Chemistry of the platinum metals; lattice constants of some chloropalladates, bromopalladates, and bromoplatinates. A. G. Sharpe. Chem Soc J p4177-9 D '53

BROMOPROPYNE

Preparation and properties of 1-bromo-1-propyne, 1,3-dibromopropyne and 1-bromo-3-chloro-1-propyne. L. F. Hatch and L. E. Kidwell, jr. bibliog Am Chem Soc J 76:289-90 Ja 5 '54

BROMOPYRIMIDINE

Pyrimidines; 5-bromopyrimidine. J. F. W. McOmie and I. M. White. Chem Soc J p3129-31 O '53

BROMOSTYRENE

Bromoalkoxystyrenes. T. L. Jacobs and W. R. Scott, jr. bibliog Am Chem Soc J 75:5500-4 N 20 '53

Mechanisms of elimination reactions; alkaline dehydrobromination of isomers of β-bromostyrene and of *p*-nitro-β-bromostyrene. S. J. Cristol and W. P. Norris. bibliog Am Chem Soc J 76:3005-9 Je 5 '54

BROMOSUCCINIMIDE
Action of N-bromosuccinimide on aliphatic α-hydroxy acids. M. Z. Barakat and M. F. A. El-Wahab. bibliog Am Chem Soc J 75:5731 N 20 '53
Reaction of N-bromosuccinimide with 2-heptene. F. L. Greenwood and M. D. Kellert. bibliog Am Chem Soc J 75:4842-3 O 5 '53
Reaction of wool with N-bromoacetamide and N-bromosuccinimide. C. Earland and D. Raven. bibliog Textile Res J 24:108-12 F '54
Stepwise dehydrogenation of the colorless polyenes phytoene and phytofluene with N-bromosuccinimide to carotenoid pigments. L. Zechmeister and B. K. Koe. bibliog Am Chem Soc J 76:2923-6 Je 5 '54

BROMOTRIFLUOROMETHANE
Effect of density in the region of the critical temperature on the chemical products of the $Br^{79}(n,\gamma)Br^{80}$ reaction on bromotrifluoromethane. W. E. Rice and J. E. Willard. bibliog Am Chem Soc J 75:6156-9 D 20 '53

BRONCHI
Bronchodilators, N-substituted derivatives of 1-(3′,4′-dihydroxyphenyl)-2-aminoethanol (arterenol). J. H. Biel and others. bibliog Am Chem Soc J 76:3149-53 Je 20 '54

BRONCHODILATORS. See Bronchi

BRONK, Detlev Wulf, 1897-
Assumes new post. Science 118:235 Ag 28 '53

BRÖNSTED theory
Brönsted theory applied to acid-base balance and respiration. A. W. Devor. J Chem Educ 41:425-8 Ag '54

BRONZE
Application of bronze bearing alloys. J. L. Duchene. il Iron & Steel Eng 31:92-7 My '54
Brass scrap, brass and bronze ingots; prices and shipments, 1949-1953; tabulations. Iron Age 173:413 Ja 7 '54
Copper alloys; new alloys give improved formability and better physical properties. il Steel 133:159-60 O 12 '53
Copper-base alloys; toughness and hardness have been added. il Steel 134:125+ My 10 '54
Design and application of bronze slippers in universal couplings. J. R. Lottes. il diag Iron & Steel Eng 30:123-8 D '53
Hard bronze draws stainless without scratches. A. Walz. il diags Am Mach 98:106-9 Ag 2 '54
Influence of the wash from bronze on the weathering of marble. il Chem & Eng N 31:3194-5 Ag 3 '53
Microscopical examination of tin bronzes in the alpha range. E. C. W. Perryman. bibliog il J Metals 5:Trans 906-10 Jl '53
Properties of some bronze alloys; tabulation; engineering reference sheet. Elec World 141:130 F 22 '54
Selection of copper and copper alloys; supplement to 1948 edition of Metals handbook. Metal Prog 66:64-72 Jl 15 '54

See also
Aluminum bronze
Bronze founding
Gun metal

Analysis

Rapid photometric determination of chromium in alloy steels and bronzes. M. D. Kahn and F. J. Moyer. Anal Chem 26:1371-3 Ag '54

Specifications

Conforming specifications for cast copper base alloys; engineering file facts. Materials & Methods 39:137, 139 F '54
How to classify copper base alloys. il Steel 134:88-90 F 1; 130-2+ F 8; 114-15+ F 15 '54
Proposed tentative specifications for nickel-tin bronze castings; data sheet. Foundry 82:149-50 Ag '54

BRONZE founding
Brass and bronze; American foundrymen's society annual meeting, Cleveland; abstracts of papers. Foundry 82:136+ Je '54
Continuous casting; American smelting and refining company's process. il diag Mech Eng 75:488-9 Je '53
How temperature and pouring rate affect solidification of bronze. H. J. Roast. Foundry 81:107 D '53
Manganese bronze gating problems; Davis & Furber machine co. il Foundry 82:128-9 Ap '54
Solving problems in the brass foundry. H. J. Roast. il Foundry 82:106-7+ S; 130-1+ O '54
Test bars for copper and aluminum base alloy castings. R. A. Colton and D. L. Lavelle. il diags Foundry 82:96-101+ Je '54

BRONZE plating
Bronze and speculum plates provide good protection for steel. W. H. Safranek and others. bibliog il Metal Finishing 52:70-3+ Ap '54
Bronze plating solves design and corrosion problems; Lustralite plating process. W. H. Safranek and others. bibliog il Steel 133:102-4+ D 21 '53
New bronze plating process; Lustralite. Machine Design 26:206+ F '54

BROOKFIELD, Illinois
How public relations help citizens to know Brookfield. P. Hirsch. Pub Works 85:54+ Ja '54

BROOKHAVEN national laboratory
New biology building and gamma field. H. J. Curtis. Science 118:sup3 Ag 14 '53

BROOKLINE, Massachusetts

Sanitary affairs

Municipal waste collection and disposal. W. A. Devine. il Pub Works 85:100-1 S '54

BROOKLYN
Brooklyn; waves from Manhattan break over city in a city. il map Bsns W p 126-9+ O 3 '53

BROOKLYN union gas company
Security I like best. S. R. Winters. Comm & Fin Chr 179:193 Ja 14 '54

BROTHERHOOD of carpenters and joiners of America. See United brotherhood of carpenters and joiners of America

BROTHERHOOD of locomotive engineers
Board gives trainman package. Ry Age 137:11 Ag 23 '54
BofLE wage hearings begin. Ry Age 136:7 My 3 '54
Engineers plan new demands. Ry Age 137:9 S 6 '54

BROTHERHOOD of locomotive firemen and enginemen
Firemen accept settlement. Ry Age News ed 136:10-11 Ja 18 '54

BROTHERHOOD of railroad trainmen
Trainmen get five cent increase. Ry Age 135:11-12 D 28 '53
Trainmen settle after week's talk. Bsns W p77 D 26 '53
Trainmen; when they fight the U.S. is involved. il Bsns W p 170-3 O 10 '53

BROTHERHOOD of teamsters. See International brotherhood of teamsters, chauffeurs, warehousemen and helpers of America

BROUN, Heywood, memorial award
Oregonian reporter receives Broun prize. Ed & Pub 86:12 Mr 14 '53

BROWN, Herbert C.
Broad-spectrum chemist named ninth annual Harrison Howe lecturer by Rochester ACS. por(cover) Chem & Eng N 31:5062+ D 7 '53

BROWN, John, and company, limited
Statement by the chairman. Lord Aberconway. Economist 169:67-8 O 3 '53

BROWNIAN movements
Brownian fluctuations of a coupled galvanometer system. A. V. Hill. J Sci Instr 30:44-5 F '53
Connection between the Smoluchowski equation and the Kramers-Chandrasekhar equation. R. W. Davies. Phys R 93:1169-70 Mr 15 '54
Some theorems in the theory of Brownian motion which apply to the excluded volume problem in polymer chains. R. J. Rubin. J Chem Phys 21:2073 N '53

BROWNING
Browning reaction between glucose and ammonia. L. Hough and others. bibliog Chem & Ind p545-6 My 8 '54

BROWNING—*Continued*
Ion-exchange chromatography of the products of the non-enzymatic sugar amino acid reaction, and the occurrence of the reaction in liver extracts. A. Abrams and H. Borsook. bibliog Am Chem Soc J 75:6299-301 D 20 '53
Reaction between glycine and the hexose phosphates. S. Schwimmer and H. S. Olcott. bibliog Am Chem Soc J 75:4855-6 O 5 '53

BROWNVILLE board company
J. P. Lewis buys Brownville Board, combines two famous board mills. il Paper Tr J 138:13 Mr 12 '54

BRUCELLA
In vitro activity of micoina on brucellae, compared with that of terramycin. M. T. de Mello. bibliog Science 118:413-15 O 9 '53

BRUCELLOSIS
Serology of brucellosis in rural Indiana. S. R. Damon and others. map Pub Health Rep 68:563-71 Je '53

BRUCINE
Crystalline brucine salts of oligogalacturonides. R. M. McCready, E. A. McComb and D. R. Black. bibliog Am Chem Soc J 76:3035-6 Je 5 '54

BRUCITE

Spectrum

Crystal structure of brucite $(MgOH_2)$ and portlandite $(CaOH_2)$ in relation to infrared absorption. H. E. Petch and H. D. Megaw. Opt Soc Am J 44:744-5 S '54
Infrared spectrum of brucite $[Mg(OH)_2]$. R. T. Mara and G. B. B. M. Sutherland. bibliog Opt Soc Am J 43:1100-2 N '53

BRUNAUER-EMMETT-TELLER equation
Adsorption method of measuring surface areas. R. M. Barrer, N. Mackenzie and D. MacLeod. Chem Soc J p 1736-44 My '52; p4184 D '53

BRUNNER manufacturing company
Stock and debentures offered. Comm & Fin Chr 178:658 Ag 24 '53

BRUSH
Basal spraying extends season for chemical brush control. L. L. Coulter and K. C. Barrons. il Elec World 140:122-3 N 16 '53
Chop or spray the right-of-way. W. T. Bulla and C. E. Upson. il Pet Eng 25:D35-6 Je '53

BRUSH electrical engineering company, ltd.
Brush offer. Economist 168:476 Ag 15 '53

BRUSHES
See also
Bristles

BRUSHES (electric machinery)
How to adjust commutation accurately from brush-potential measurements. G. H. Gunnoe and R. M. Dunaiski. il diags Power 98:82-7+ My '54
Investigation of parasitic brush currents in single-phase commutator machines with particular reference to the repulsion motor. D. Morris. bibliog diags Inst E E Proc 100 pt 2:575-7 O '53
Wear of carbon brushes at high altitudes. R. F. Sims. diags Inst E E Proc 100 pt 1: 183-8 Jl '53; Same abr. bibliog Engineer 196:823-4 D 18 '53; Abstract. Engineering 176:726 D 4 '53 Discussion. Elec J 151:1753-4 N 27 '53; Elec R (Lond) 153:1212 N 27 '53

BRUSHES, Industrial
Automatic brushing deburrs turbine disks; Westinghouse aviation gas turbine division. R. DePastina and R. E. Eyre. il Am Mach 98:124-5 Jl 5 '54
Big job for small brushes. il Steel 134:102-3 Ap 26 '54
Deburring; power brushing speeds operation 300 per cent; Gilman engineering & mfg. corp. il Iron Age 173:199 F 25 '54; Same. Steel 134:170 Mr 8 '54
Gear deburring brush setup matches production pace; Yale & Towne mfg. co. W. J. Maund. il Steel 133:120-2 S 28 '53
Metal cleaning and finishing handbook; how to select power brushes. Iron Age 174:sup F 18 Jl 29 '54
Osborn brushing lathe deburrs gears automatically. il Mach 60:204-5 Mr '54
Osborn gear brushing machine. il Tool Eng 31:114 N '53; Steel 133:98+ O 19 '53; Am Mach 98:146 F 1 '54
Selecting a brush finish. R. O. Peterson. il Materials & Methods 40:96-9 Ag '54
Wire brush removes chips from broach, lengthens tool life. il Iron Age 173:168 Je 17 '54
Wire brushing; speeds deburring, blending of gear rack edges. il Iron Age 173:166+ Ap 8 '54; Same abr. Steel 134:135 Ap 5 '54

BRUSHES, Paint. See Paint brushes

BUBBLE caps. See Distillation apparatus

BUBBLE point
Ternary methanol-ethanol-acetone and three related binary solutions. H. H. Amer, R. R. Paxton and M. Van Winkle. bibliog Anal Chem 25:1204-6 Ag '53

BUBBLES
Application of the laws of chance to problems involving defects in optical glass; bubbles. J. C. Young. diag Am Cer Soc Bul 32:407-12 D 15 '53
Bubble pressure test for the measurement of the pore size of fabrics. J. Lord and H. M. Taylor. il diag Textile Inst J Trans 45:T371-89 My '54
Bubble tracks in a hydrogen-filled Glaser chamber. J. G. Wood. il Phys R 94:731 My 1 '54
Conduction of heat into a growing vapor bubble. H. K. Forster. J Ap Phys 25:1067-8 Ag '54
Effect of the *p*H of xanthate solutions on the contact angle between a bubble of air and an iron disulfide surface not of minimum rugosity. P. F. Whelan. bibliog il J Phys Chem 58:375-9 Ap '54
Electronic method for bubble frequency measurement. A. O. Newman and B. J. Lerner. bibliog diag Anal Chem 26:417-18 F '54
Growth of a vapor bubble in a superheated liquid. H. K. Forster and N. Zuber. J Ap Phys 25:474-8 Ap '54
Growth of parallel grooves on soluble anodes by electrolysis. T. B. Horiuchi. il diags Metal Finishing 51:70-4 N '53
Growth of vapor bubbles in superheated liquids. M. S. Plesset and S. A. Zwick. bibliog J Ap Phys 25:493-500 Ap '54
How to meter accurately when liquids contain bubbles. L. Steber. diag Chem Eng 60:210 O '53
Miraculous bubbles cushioned rock blast at Niagara. diag Comp Air Mag 59:230 Ag '54
Operation of a Glaser bubble chamber with liquid hydrogen. R. H. Hildebrand and D. E. Nagle. diag Phys R 92:517-18 O 15 '53
Relation of bubble structure of porcelain enamel to fish-scaling. C. G. Bergeron. bibliog il diags Am Cer Soc J 36:373-6 N 1 '53
Some measurements of leading edge separation bubbles on a ten per cent thick symmetrical aerofoil. J. Black and R. D. Hunt. bibliog il diags Roy Aeronautical Soc J 57:819-23 D '53
Theory of the formation of bubbles. S. Takagi. bibliog J Ap Phys 24:1453-62 D '53
See also
Foam

BUCHAREST
Bucharest after the festival. Economist 169: 255-6 O 24 '53

BUCKETS
Hardpan and pavement no problem for bucket with pile driver action. il Eng N 151:59 O 1 '53
Traveling bucket for handling dry materials; Cleveland tramrail division. il Paper Tr J 138:32 Je 11 '54

BUCKEYE incubator company
Stock offered. Comm & Fin Chr 178:566 Ag 17 '53

BUCKINGHAM, Earle, 1887-
Sketch. Mech Eng 76:208 F '54

BUCKLING of columns. See Columns

BUCKNELL university
Bucknell's new science building through Olin grant. il Chem & Eng N 32:516 F 8 '54

BUDGET

New Zealand

New Zealand's budget. Economist 168:794 S 19 '53

Russia

Supreme Soviet meets; Russian defence in the dark. Economist 168:377-8 Ag 8 '53

South Africa

South Africa's budget. Economist 168:329-30 Ag 1 '53

United States

Balanced budget fades out of sight. Bsns W p29 O 31 '53
Balancers of the federal budget closer to their goal. Bsns W p30 Ag 29 '53
Budget balancing by definition; United States and abroad. Nat City Bank p 136-40 D '53
Budget for '55 cuts vehicle, ammunition procurement, but there'll be more planes and guided missiles. Am Mach 98:178 F 15 '54
Budget message indicates deficit of $2.9 billion in fiscal 1955. D. D. Eisenhower. Comm & Fin Chr 179:466-7 Ja 28 '54
Budget reform, round two. B. Ruml. Comm & Fin Chr 178:2166-7 D 3 '53
Congress gets budget for 1955 fiscal year. Ry Age News ed 136:12 F 1 '54
Federal budget and corporate profits in a business decline. W. R. Biggs. Comm & Fin Chr 178:1223+ O 1 '53
Federal budget; process, prospects and policy. W. W. Heller. Comm & Fin Chr 178:1124+ S 24 '53
Fiscal outlook. R. A. Musgrave. J Bsns 27:4-16 Ja '54
Getting federal budget under control. G. M. Humphrey. Comm & Fin Chr 178:2379+ D 17 '53
Our tough budgetary and fiscal problems. J. M. Dodge. Comm & Fin Chr 178:1521+ O 22 '53
Pentagon statement on revised air budget. Aviation W 58:94 Je 8 '53
Second-round cuts are harder. map Bsns W p27-8 Ag 22 '53
Under control. K. Bloch. Barron's 34:5+ Ja 25 '54
U.S. fiscal 1955 budget saves South $2.7 billion. M. Smith. Manuf Rec 123:36 F '54

BUDGET, Business

Budget comes of age. J. L. Peirce. Harvard Bsns R 32:58-66 My '54
Budget; from red tape to blue print. H. E. Muller. Dun's R & Mod Ind 62:46-7+ D '53
Budgeting. N A C A Bul 36:180-5 sec 3 S '54
Budgeting for middle management; make it pay off more. J. T. Garrity. Steel 135:52-3 S 27 '54
Budgeting is the road to cost reduction. F. Z. Oles. N A C A Bul 35:330-5 N '53
Budgeting merit increases. G. I. Cuthbert. Personnel J 32:328-33 F '54
Budgeting without fear. Bsns W p25-6 O 31 '53
Building a functional personnel budget. D. Yoder. Management R 42:504-13 S '53
Case of the press department super. Steel 135:53 S 27 '54
Continuous cost reduction. P. M. Deal. N A C A Bul 35:338-43 N '53
Control budgeting in commercial banks. T. W. Harris. N A C A Bul 35:980-9 Ap '54
Controlling research costs with a budget. A. G. Lurie. N A C A Bul 34:894-901 Mr '53
Fixed-flexible budget; study in integration. G. A. Welsch. N A C A Bul 34:1182-93 My '53
Flexing the flexible budget before, not after. J. P. Murray. N A C A Bul 35:321-9 N '53
French application of budgeting for cost control. J.-M. Kaltenbach. N A C A Bul 35:963-76 Ap '54
Get the best shake for your budget. Chem W 75:42+ S 18 '54
How of budgeting. C. W. Bennett. N A C A Bul 35:123-31 sec 3 S '53
Insuring your progress through research; setting up research budgets. R. N. Anthony. Product Eng 24:188-91 Je '53
Inventory control through budgeted turnover. C. H. Gleason. N A C A Bul 35:535-42 D '53
Jobber makes TBA budget plan work. E. J. Connable. Nat Pet N 45:43 D 2 '53
Modern techniques of financial analysis for management planning; AMA symposium. J Account 97:174-8 F '54
Planning and control through budgeting. F. L. Esposito. N A C A Bul 35:829-41 Mr '54
Programming maintenance shop cost reduction. W. C. Perkins. N A C A Bul 35:78-88 S '53
Railroad budget; weapon of oppression, or tool of progress? J. E. Kusik. il Ry Age 137:21-3 Ag 2 '54
Sales manager's reliance on the sales budget. W. E. Herrmann. N A C A Bul 35:1586-95 Ag '54
Subjecting maintenance costs to budgetary control. W. C. Wickenden. N A C A Bul 35:72-8 S '53
See also
Advertising appropriations

BUDWORMS, Spruce. See Spruce budworms

BUFFALO, New York

Streets

High-level viaduct to solve traffic problem. il Roads & Eng Constr 92:90+ Jl '54

BUFFALO board of fire underwriters

Buffalo board 110 years old. E. T. Clauss. East Underw 54:68+ D 11 '53

BUFFALO metal container corporation

Creditors turn loose Buffalo container. Bsns W p 192 S 12 '53

BUFFER action

Verification of the Henderson-Hasselbalch equation. R. Q. Blackwell and L. S. Fosdick. J Chem Educ 31:138 Mr '54

BUFFER solutions

Calculating the concentrations of the species present in complex buffers. E. L. King. J Chem Educ 31:183-7 Ap '54
Some mechanisms for the interpretation of the effects of *p*H and buffer salts on a simple enzymatic reaction. R. A. Alberty. bibliog Am Chem Soc J 76:2494-8 My 5 '54

BUFFING. See Polishing

BUFOTENINE

Hydroxytryptamines; bufotenine, 6-hydroxybufotenine, and serotonin. J. Harley-Mason and A. H. Jackson. Chem Soc J p 1165-71 Ap '54

Analysis

Isolation of bufotenine from piptadenia peregrina. V. L. Stromberg. Am Chem Soc J 76:1707 Mr 20 '54

BUILDERS' equipment

American Builder catalog directory. il plans diags Am Bld 75:33-472 Ap '53
Building trades exhibition, London, Nov. 18-Dec. 2. il Engineering 176:652-3, 656, 727-8 N 20, D 4 '53
Equipment useful in winter building operations. il Am Bld 75:117-18 O '53
How portable power tools help lick the housing shortage. il diags Am Bld 75:176-8 S '53
Multiple uses of new convertible power equipment make it feasible to own. il Am Bld 75:164-6+ O '53
1954 American Builder directory section; building products and equipment, brand names, manufacturers, local distributors. Am Bld 76:261-5+ Ap '54
Office-warehouse trailer for builders and contractors. plans diags Am Bld 76:110-11 F '54
Products exhibit in print; illustrations with text. Am Bld 76:78-9+ Ja '54
Tops with tools. il diags Am Bld 75:102-5 Je '53

BUILDERS' risk insurance. See Insurance, Builders' risk

BUILDING

Architect-client forum; the need for better planning, and how to get it. il Arch Forum 98:146-55+ Je '53
Business quiz. L. Carson. il Dun's R & Mod Ind 62:76-7, 252 O '53
Challenge of the building business. R. Hughes. il plans House & Home 5:133-5 F '54

BUILDING—*Continued*

Construction boom continues. il Steel 133:85-6 D 7 '53

Construction continues steady climb; spending seen six per cent over last year's. Eng N 151:26 Ag 20 '53

Contractor capacity tops volume. Eng N 151:21-4 Ag 20 '53

Deluge or drought, looking ahead saves the builder. il Chem W 73:45-6+ O 3 '53

Economists attack theory of building cycles, say public works won't cure big depression; review of Stabilizing construction; the record and potential, by M. L. Colean and R. Newcomb. Arch Forum 97:43 D '52; Same. House & Home 3:43 Ja '53

How home building became an industry. L. G. Haeger. Am Bld 76:249-50+ Ag '54

How other people and other publications see the building industry. W. Zeckendorf. Arch Forum 100:148 Mr '54

How to control the extras in custom building. il Am Bld 76:224-5 My '54

How to do it convention roundup. il Am Bld 76:82-9 Mr '54

How to erect an expansion-attic truss; details on the University of Illinois Small homes council's open-hearted truss. il diags House & Home 3:156-61 Mr '53

How will houses be built in 1979? il diags Am Bld 76:126-9 Ag '54

Need for better planning; forum report. Arch Forum 99:150-1+ N '53

One builder's secret of how to save money. E. C. Burgdorf. il Am Bld 75:201-2 My '53

Outlook for '54 building. Arch Forum 101:39-40 Jl '54

Plastic domes daylight big pumped-gypsum roof; Tobyhanna, Pa. il Eng N 151:47-8 D 3 '53

Poor construction blamed for disastrous fires. C. P. Jervey. Nat Safety N 70:40 Jl '54

Techniques and trends; buildings and housing; with data on major projects. il Eng N 152:86-8+ F 18 '54

U.S. construction overseas. il maps Eng N 151:28-34+ Jl 30 '53

What is good construction? il diag House & Home 6:124-7 S '54

Work pattern for mass production. il plans Am Bld 76:102-5 F '54

You know these ten ways to cut costs, but how many do you use? il plans diags House & Home 3:152-7 Ja '53

See also

Acoustics, Architectural
Air conditioning
Architecture
Atomic bombs and building
Beams and girders
Brick construction
Building contracts
Building laws and regulations
Building materials
Building trades
Chimneys
Columns
Concrete construction
Concrete houses
Construction equipment
Earthquakes and building
Factories
Fireproof construction
Floors
Foundations
Framing (building)
Hangars
Heating
Home ownership
Hotels
Houses
Industrial buildings
Masonry
Piles and pile driving
Plumbing
Public works
Railroads—Buildings and structures
Roofs
School buildings
Sheathing (building)
Sheet metal work, Architectural
Shipbuilding
Siding (building)
Skylights
Steel construction
Steel houses
Strains and stresses
Strength of materials
Tile construction
Trusses
Underground construction
Ventilation
Walls
Walls, Interior
Windowless construction
Winter construction
Wood construction

Accidents

See Building accidents

Bibliography

Home builders' guide to reference material; books, pamphlets and brochures; compilation of published source material; (430 titles) prepared for the home building industry by NAHB, with annotations. Am Bld 76:82-8+ Ap '54

Literature for the office. il Published in monthly numbers of Architectural record

Cost

Building costs; 30 year's experience analyzed. Arch Forum 98:248+ Je '53

Construction cost indexes; labor and materials; for New York, Atlanta, St Louis and San Francisco; selected years 1930-1952 and monthly Aug.-Oct. 1953. Arch Rec 115:42 Ja '54 [cont monthly]

Construction cost indexes, 1949-1952. Survey of Cur Bsns 1953 Sup p37-8 [supplemented in monthly numbers]

Construction costs, 1952-53; annual report. Eng N 151:79-93+ O 8 '53

Construction dollar; seven helps to spending it wisely. H. E. Whitney. Constr Methods 36:116-17+ F '54

Controlling costs in construction. R. E. DeSimone. Chem Eng Prog 50:379-81 Ag '54

Highway department buildings, Massachusetts; unit prices. plans Eng N 151:84-5 D 3 '54

Longer look; Colin Clark thinks high construction costs may soon help to cause a U.S. recession. Eng N 152:273-4 F 18 '54

Unit prices bid by contractors. Eng N 151:189-90+ O 8 '53

What's the lowest-cost, one-story, small building? diags Factory Management 112:98-101 Ap '54

See also

Concrete construction—Cost
School buildings—Cost

Estimates

Building anything; a big contractor uses teamwork to prepare its offer. Eng N 151:165+ O 8 '53

Building skyscrapers. Eng N 151:159-62 O 8 '53

Construction loans for owner-builders; Derby (Connecticut) savings bank. J. F. Dedman. Banking 46:87 S '53

Standard proposed for indicating the precision of construction cost estimates. G. Wrigley, jr. Civil Eng 24:150-1 Mr '54

Extensions

Welded rigid frame for store addition. il Arch Forum 100:160 F '54

Finance

Bond yields may level off in coming months. Eng N 151:139 O 8 '53

Building expenditures hit record $35 billion in '53. Iron Age 173:59 Ja 21 '54

Industrial finance companies; they keep right on growing. Eng N 151:97-8 O 29 '53

More construction business through sell-lease plans; Webb & Knapp, inc. deal with Safeway stores, inc. Eng N 151:72 S 24 '53

Some ups, some downs; in all, a big year. Eng N 152:54-6+ F 18 '54

See also

Federal national mortgage association
Housing finance
Mortgages

Heating aspects

Air-conditioned village; NAHB's big field-testing project. il plans diags House & Home 6:128-43 Ag '54

Air conditioning small homes; design standards and data. H. R. Sleeper. plans diags House & Home 6:158-60 Ag '54

Five top priorities for designing an air-conditioned house; with cost data. A. W. Watkins and C. S. Leopold. il diags House & Home 4:100-9 Ag '53

Measurement of the efficiency of heating in buildings; abstract and discussion. A. T. Pickles. Engineer 196:391-2 S 25 '53

People want to be warm in winter, cool in summer. diag House & Home 5:178-9 My '54

History

Changing house; construction. J. T. Lendrum. il plans diags Am Bld 76:122-6 Ag '54

BUILDING—*Continued*

Insurance aspects

How the CPL policy covers house building. I. W. Robertson. il Rough Notes 96:26+ O '53

Rapid construction

Covering a skyscraper in 6½ days. il Bsns W p28-9 Ag 8 '53

Teamwork sets 45-hour record for building a house. il Am Bld 75:281-3 O '53

They beat the clock; enclose a 22-story office building with prefabricated aluminum panels. il Constr Methods 36:142-3 Ag '54

See also

Concrete construction—Rapid construction

Houses, Prefabricated

Repair and reconstruction

Architectural jigsaw puzzle; Monastery of St Bernard of Sacramenia. J. Bondurant. il Comp Air Mag 59:216-20 Ag '54

New frame, old face, for Yale's Connecticut Hall. C. B. Spencer. il Civil Eng 23:671-2 O '53

See also

Houses, Remodeled

Safety aspects

Drive promoted to build added safety into homes. L. L. Frank. Am Bld 75:214-17 Jl '53

Safety measures

Attack accidents at their source. J. D. Gallagher. Constr Methods 36:144+ Je '54

Construction machines and equipment; tools, power and hand. il diags Am Bld 75:91-4+ Ap '53

Prevent that accident. Am Bld 75:243-5 Ag '53

Safety; job for the construction superintendent. J. B. Kovach. Eng N 151:39-40 Jl 9 '53

Standards

American standard building code requirements for masonry. diags U S Nat Bur Stand Misc Pub 211:1-39 bibliog(p37-9); pa 20c Supt. of doc. '54

California activates new Building standards commission. Eng N 152:187 F 18 '54

Design standards and data. H. R. Sleeper. Published in monthly numbers of Architectural forum

Design standards and data. H. R. Sleeper. Published in monthly numbers of House and home

Modular coordination. C. E. Silling. Brick & Clay Rec 124:63+ Ap '54

Top architects seek more mileage per dollar by using building materials that fit a common modular pattern. il Bsns W p70-2+ Ag 8 '53

Statistics

Building and construction. Published in Monthly labor review

Building statistics. Arch Forum 100:43 Ja '54 [cont monthly]

Building statistics, 1953. Arch Forum 100:43 My '54

Construction activity, contract awards, etc., 1949-1952. Survey of Cur Bsns 1953 Sup p32-6 [supplemented in monthly numbers]

Construction activity, 1953; with figures for other years. Survey of Cur Bsns 34:19-21 F '54

Construction contracts awarded, by type of ownership and by type of construction, yearly 1945-1952, monthly Dec. 1952-Dec. 1953. Fed Res Bul 40:83 Ja '54 [cont monthly]

Construction dollar volume makes new record in first six months of 1954. W. D. Dean. East Underw 55:28 Jl 23 '54

Construction during five decades; historical statistics, 1907-52. bibliog U S Bur Labor Statistics Bul 1146:1-75; pa 45c Supt. of doc. '54

Construction valuation; new plant and equipment expenditures; new houses started; fabricated structural steel; industrial building cost index; tabulations and charts. Steel 134:204 Ja 4 '54

Forum forecast, 1955. Arch Forum 101:130-3 S '54

How's construction? not too bad; first quarter analysis. J. H. Webber. Eng N 152:21-2 Ap 1 '54

Index puts realism into construction outlook. Eng N 152:67-8+ F 18 '54

1953 construction highest in U.S. history. Concrete 62:40-1+ Ja '54

Recent construction trends. Survey of Cur Bsns 33:6-8 N '53

Some ups, some downs; in all, a big year. Eng N 152:54-6+ F 18 '54

Value of new construction activity; private; public; 1939-1952, monthly Dec. 1952-Dec. 1953. Fed Res Bul 40:83 Ja '54 [cont monthly]

Why Engineering news record and Dodge disagree this year; first quarter statistical reports. Eng N 152:92-5 Ap 15 '54

Study and teaching

College sponsors class in home building construction. Am Bld 75:189-90 Ag '53

Africa

U.S. construction overseas; Africa, with wage rates per hour and materials prices in national currency. il map Eng N 151:75-6+ Jl 30 '53

Alaska

Alaskan construction boom. Engineer 196:747 D 4 '53

California

California activates new Building standards commission. Eng N 152:187 F 18 '54

Canada

Construction business still booming. J. Montagnes. Barron's 33:16 Ag 17 '53

Industrial plant construction in Canada. F. M. Kraus. il maps plan diags Tappi 37: sup36A+ Ap '54

News from Canada. J. C. Smith. Published in monthly numbers of Architectural record

Central America

U.S. construction overseas; South and Central America; with construction wages per hour and construction materials prices in national currency. il map Eng N 151:33-4+ Jl 30 '53

Denver

Denver's commercial building surge is started by outsiders. il Bsns W p80-2+ S 19 '53

What will Denver's new buildings do to its old ones? il Arch Forum 100:152-3+ My '54

Europe

U.S. construction overseas; Europe; with wage rates per hour and materials prices in national currency. il map Eng N 151:56-7+ Jl 30 '53

Far East

U.S. construction overseas; Far East; with wage rates per hour and materials prices in national currency. il map Eng N 151:99-100+ Jl 30 '53

France

Our airbases in France are different. W. G. Bowman. il diags Eng N 151:32-5+ O 29 '53

Great Britain

How to build faster; house building. Economist 169:323-4 O 31 '53

Jacksonville, Florida

Seven insurance firms build in city as resulting tie-up breeds concern. il Eng N 152:43-4+ Ja 14 '54

Near East

U.S. construction ovearseas; Middle East; with wage rates per hour and materials prices in national currency. il map Eng N 151:85-6+ Jl 30 '53

New York (city)

Nation's costliest redevelopment project, New York coliseum gets legal green light. Arch Forum 99:123 N '53

Threat to urban redevelopment; HHFA, New York row over coliseum, cause of the trouble. Arch Forum 100:37+ My '54

BUILDING—*Continued*

New York (state)

Construction boom in New York state based on public, commercial work. Eng N 152:57 F 25 '54

St Louis

Racketeering in St Louis, a case history. Eng N 152:28-9 Ja 21 '54

South America

U.S. construction overseas; South and Central America; with construction wages per hour and construction materials prices in national currency. il map Eng N 151:33-4+ Jl 30 '53

Southern states

Emphasis on year-'round air conditioning is feature of southern construction. Am Gas J 180:34+ My '54

Texas

Texas leads Nation in '53 construction contracts; tabulation. Eng N 152:79 Mr 25 '54

United States

Another big year ahead; with table, outlook for new construction. Bsns W p31-2 N 21 '53

Building boomlet; non-residential construction soaring. R. M. Bleiberg. Barron's 33:3 Ag 10 '53

Construction still boosting the economy as government starts talking public works. Arch Forum 100:35-6 My '54

Contractors find bidding getting rougher. Eng N 151:21-2 Jl 2 '53

Forum forecast; 1954 will be another boom year for building. M. L. Colean. Arch Forum 99:138-41+ S '53

Guns and butter and babies; preview of future construction potentials with particular reference to the year 1954. T. S. Holden and C. Shute. Arch Rec 114:insert N '53

How big is construction? Eng N 152:76-8+ F 18 '54

1954 outlook promising; 1953 second best. map Eng N 152:21-2 Ja 7 '54

Regional pattern of awards shows wide ranges in volume. Eng N 151:142-3 N 19 '53

Venezuela

Public works by the hundreds. W. G. Bowman. il Eng N 152:30-2+ Ja 21 '54

BUILDING, Underground. See Underground construction

BUILDING accidents

Work injury rates in construction, 1950-51; work injuries, 1950-52; tables. Eng N 151:133 O 8 '53

BUILDING and loan association buildings

Savings-loan styles. il Burroughs Clearing House 38:26+ O '53

BUILDING and loan associations

Pressure groups disrupting administration's policies; situation in savings and loan field. W. W. McAllister. Comm & Fin Chr 178:2151+ D 3 '53

Finance

Principal assets of all savings and loan associations in the United States, 1939-1952, quarterly 1951-1953. Fed Res Bul 40:55 Ja '54 [cont monthly]

Great Britain

Building societies no change. Economist 169:914 D 19 '53

Rival building societies, 1953. Economist 170:262-3 Ja 23 '54

BUILDING contracts

Impossibility of performance of construction contracts. A. R. Fredericks. East Underw 54:30+ Ag 28 '53; Abstract. Nat Underw 57:19 Ag 27 '53

Legal decisions; summaries of decisions relating to construction (cont). I. V. Werbin. Eng N 151:76 N 12; 96 D 10; 42-3 D 31 '53; 152:227-8+ F 18; 87-8 Mr 18; 59-61 Ap 1; 89-90 Ap 8; 87-8+ Ap 29; 111+ My 20; 74+ Je 3; 88+ Je 17; 153:82+ Jl 8; 71-2+ Ag 12; 108+ Ag 19; 86+ S 2; 40 S 30; 309-10+ O 7; 48-9 O 21 '54

BUILDING failures

Cracking plaster and tile walls in Seattle building stir row over who is to blame; controversy over use of perlite. il Arch Forum 101:39 S '54

See also

Concrete construction—Failure

BUILDING fittings

American Builder catalog directory. il plans diags Am Bld 75:33-472 Ap '53

Products exhibit in print; illustrations with text. Am Bld 76:78-9+ Ja '54

See also

Sheet metal work, Architectural

BUILDING laws and regulations

Code confusion; it hampers wall design. F. S. Merritt. il Eng N 151:21-2 D 24 '53

Fifty years of development in building code requirements for reinforced concrete. F. Kerekes and H. B. Reid, jr. Am Concrete Inst J 25:441-71 F '54

Is ultimate design theory ready for codification? I. E. Morris. Am Concrete Inst J 26:98-100 S '54

Off-the-street parking, a builder's problem? J. F. McCarthy. Am Bld 75:180 S '53

See also

Mechanics' liens

Plumbing laws and regulations

Bibliography

Home builders' guide to reference material; books, pamphlets and brochures; compilation of published source material, prepared for the home building industry by the NAHB, with annotations; building, zoning, and subdivision regulations. Am Bld 76:229-32+ Ap '54

California

California seeks to end confusion in state agencys' building codes. Eng N 151:26 Ag 13 '53

Chicago

Built-in parking, a must in new buildings under Chicago ordinance. Eng N 151:55-6 S 3 '53

Los Angeles

Plastics builder; plastics division in major city's building code. il Ind & Eng Chem 45: sup 17A-18A+ S '53

BUILDING loans

See also

Mortgages

Veterans—Loans

BUILDING materials

American Builder catalog directory. il plans diags Am Bld 75:33-472 Ap '53

Building and materials. Economist 169:691-2 N 28 '53

Building materials; overall sustained demand seen despite new housing dip. J. V. Sherman. Barron's 33:9-10 O 19 '53

Building research advisory board porcelain enamel conference. Arch Forum 99:150+ D '53

Building research group discusses porcelain enamel. Eng N 151:30 N 19 '53

Conservation study; federal advisory group continues research into building materials use. Eng N 151:27 Jl 23 '53

Facts about modern building materials. il diag Mill & Factory 54:372-3 My '54

First-half reports of materials makers show competition is getting tougher. Eng N 151:153 Ag 20 '53

Hopeful home for plastics; beckon to home building market. il plan Chem W 75:91-2 Ag 21 '54

Industry gets going with a whopping do-it-yourself show. il Sales Management 70:108-9 Ap 15 '53

Is the distribution system for building products outmoded? Am Bld 75:175-7 O '53

Materials, machine exports top one billion dollars for 1952. Eng N 151:127-8+ Jl 30 '53

Materials of construction. M. O. Withey and G. W. Washa. $9 John Wiley & sons, 440 Fourth av, New York 16 '54

New wood, hot-molded from mill waste, is hailed as dawn of new basic industry. House & Home 5:39 Ja '54

BUILDING materials—*Continued*

1954 American Builder directory section; building products and equipment, brand names, manufacturers, local distributors. Am Bld 76:261-5+ Ap '54

Plastics for building. il diags House & Home 5:158-63 F '54

Products exhibit in print; illustrations with text. Am Bld 76:78-9+ Ja '54

Rat-resistant construction materials. Pub Health Rep 68:824 Ag '53

Reinforced plastics; chemical firms offer a new material to home builders. Barron's 34:15-16 Ja 4 '54

Selection of construction materials. J. F. Jelley. Am Concrete Inst J 25:633-6 Ap '54; Abstract. Roads & Eng Constr 92:136+ Ap '54

Siporex for Dominion tar and chemical co. Can Chem Process 37:40 N '53

Synthetics move into building field; Cleveland engineering society's annual construction conference. Eng N 152:25 Ap 15 '54

To survey plastics used in housing; one-year research program at the Massachusetts institute of technology. Materials & Methods 40:234 S '54

Top architects seek more mileage per dollar by using building materials that fit a common modular pattern. il Bsns W p70-2+ Ag 8 '53

Versatile building material makes American debut; Zeprex. il Arch Rec 113:197+ My '53

See also

Aluminum, Structural
Bricks
Clay products
Concrete
Concrete, Reinforced
Concrete blocks
Flooring
Glass, Structural
Glass blocks
Gypsum products
Lumber
Mastics (asphalt composition, etc.)
Mineral wool
Plastic materials, Irradiated
Plywood
Roofing
Sheet metal work, Architectural
Steel, Structural
Strength of materials
Tiles
Wall board
Wood

Bibliography

Home builders' guide to reference material; books, pamphlets and brochures; compilation of published source material, prepared for the home building industry by the NAHB, with annotations; building materials, equipment, and methods of construction. Am Bld 76:128-30+ Ap '54

Prices

Construction cost trends around the world; labor supply, wages, material prices. Eng N 151:117+ O 8 '53

BUILDING research

NRC's new Building research centre. il Can Chem Process 37:103 N '53

Sensitive floor for examining the movement of traffic. R. G. Bateson. il diags J Sci Instr 31:336-7 S '54

Bibliography

Research; excerpts from research projects of interest to the industry. House & Home 6:80+ S '54

BUILDING sites

Approach to the problem of grading. il plans diag Am Bld 76:58-60+ Ja '54

Good lot planning can expand the house. il plan House & Home 6:122 S '54

Housing development tailored to a rough site. il map plan diags Arch Rec 114:202-8 S '53

Land planning is worth it. U. A. Denker. il plan Am Bld 76:125-8 F '54

Simple method of land analysis for small subdivisions. M. S. Wehrly. plans Am Bld 75:130-3 S '53

What every builder should know about land planning; check list of major points. il plans diags Am Bld 75:92-3 O '53

See also
Hillside architecture

BUILDING stone

How to use stone; it can help you sell. il diags Am Bld 76:78-87 Je '54

Indiana limestone, inside and out. il Am Bld 75:246-7 Ag '53

North American building stones; with time-saver standards. il Arch Rec 115:219+ F; 225+ Ap; 211+ My; 116:185, 187, 189 Jl; 211, 213, 215 Ag '54

Stone in today's building. il Arch Forum 101:156-7 Jl '54

Testing

Report on observations and measurements on the exposure test wall at approximately two years after erection. D. W. Kessler. Am Soc T M Proc 51:270-1 '51

BUILDING trades

Agent finds good sources of prospects in building trades. H. Levine. Nat Underw (Life ed) 57:17-18 Ag 21 '53

AGC sees intensive competition ahead. Concrete 61:24+ N '53

Builder's liaison man offers personal service to buyers. il Am Bld 75:272 O '53

Builders trim '53 production and planning for '54. House & Home 4:45-6 O '53

Do you know how to organize your business? Am Bld 75:116-17 F; 88-90 Mr; 134-6 My '53

Here's how one custom builder operates. Am Bld 75:127-8+ O '53

If you plan to build low-cost houses on scattered lots your operation will need reorganizing. il plans Am Bld 75:108-11 N '53

Merchant builder goes after custom market. il plan Am Bld 75:46-7 Ag '53

New profits for you behind tomorrow's hot headlines; building. J. Mason and others. il Sales Management 72:25-8 Ja 1 '54

Outlook: high volume, tougher bidding; construction industry. Bsns W p43-4 S 12 '53

What can a builder learn from his customers? House & Home 3:176-8 My '53

See also

Diesel construction company
Houses, Model
Housing projects
National association of home builders
Plumbing trade
Turner construction company

Accounting

Construction accounting; completed contract basis. C. S. DeBanto. N A C A Bul 35:1035-7 Ap '54

Cost standards in small home construction. J. E. Shirley. N A C A Bul 34:1475-7 Jl '53

Here's a simplified system for controlling day to day cost, job progress, contract performance. il Am Bld 76:94-7 F '54

Subletting labor accounting saves him money. il plans Am Bld 75:48-50 Jl '53

Advertising

Building a remodeling business on advertising. il Am Bld 75:256 O '53

Concentrate your advertising in September. il Am Bld 75:170-6 Jl '53

Directories

1953 American Builder directory section; building products and equipment; brand names, manufacturers, trade associations. Am Bld 75:D 1-64 Ap '53

1954 American Builder directory section; building products and equipment, brand names, manufacturers, local distributors. Am Bld 76:261-5+ Ap '54

Finance

Building materials; overall sustained demand seen despite new housing dip. J. V. Sherman. Barron's 33:9-10 O 19 '53

New credit instrument: Trustee credit certificates. Burroughs Clearing House 37:6+ Ag '53

1953 operations show higher sales but lower profits per sales dollar. Eng N 152:86 Ap 22 '54

Labor conditions

AFL seeks way to curb reckless union locals. House & Home 4:53 O '53

Battle on between AFL crafts and industrial union. G. T. Orick. il Eng N 152:28-9+ Mr 11 '54

Building labor winning pay hikes from 5 to 21½c hour. Arch Forum 100:41 My '54

BUILDING trades—Labor conditions—*Cont.*

Building trades harmony in the balance. A. Adams. Eng N 151:27 D 31 '53

Building trades wage rates, Sept. 1, 1953; table. Eng N 151:127 O 8 '53

Construction cost trends around the world; labor supply, wages, material prices. Eng N 151:117+ O 8 '53

Construction wages up 9c; labor gets more fringe benefits, longer contracts. Arch Forum 101:38 S '54; Same cond. House & Home 6:41 S '54

How to improve contractor-labor relations. L. B. Kromer, jr. Constr Methods 35:79-80+ O; 130+ D '53; 36:91-2+ Mr '54

Labor. Published in weekly numbers of Engineering news-record

Labor blamed in Ebasco contract loss. il Eng N 151:21-2 Ag 13 '53

Labor holds key to future construction work. J. N. Flood. Roads & Eng Constr 92:88+ F '54

Labor unity plans offer hope of less jurisdictional strife. Eng N 151:21-2 S 17 '53

Most building labor disputes affect interstate commerce. J. F. McCarthy. Am Bld 76: 222-3 My '54

New labor trouble at Joppa. Elec World News ed 140:43 S 28 '53

New wrinkle for construction; annuity plan is established for electricians. Eng N 151: 32 D 10 '53

NYC carpenters set wage mark. Eng N 151: 21-2 Jl 9 '53

On-the-job contractor-labor relations (cont). L. B. Kromer, jr. Constr Methods 35:164+ N '53; 36:124+ Ja; 132+ F; 164+ Ap; 152+ My; 166+ Je; 182+ Jl; 156+ Ag; 144+ S; 177-8 O '54

Paducah, labor lesson for an industry. G. T. Orick. il map Eng N 151:21-4 N 19 '53

Pattern of 1953 construction wage increases; tabulation. Eng N 151:35 Ag 20 '53

Payment by results in the building industry in eastern Europe. bibliog Int Labour R 68:524-41 D '53

Ten to fifteen-cent an hour up trend of wages continues; 1953 construction wage increases. Eng N 151:31 Jl 9 '53

This may be the year to cut labor costs. Eng N 152:21-2 F 11 '54

Time for incentive plan for building labor? R. Scheuch. Eng N 151:27-8 S 17 '53

Union wage scales in the building trades, 1952. A. Moros. Mo Labor R 76:32-5 Ja '53

Union wages and hours; building trades, July 1, 1953. J. F. Laciskey. U S Bur Labor Statistics Bul 1152:1-34; pa 30c Supt. of doc. '54

Union wages and hours compared; with tables and charts. Eng N 151:131 O 8 '53

When is a union guilty of unfair labor practices? J. F. McCarthy. Am Bld 75:118+ Je '53

See also
United construction workers

History

Of men and tools since 1879. il Am Bld 76: 226-7+ Ag '54

Records

Form to analyze labor costs by trades. il Am Bld 76:190 F '54

Securities

Is building at a peak? with table on position of leading building stocks. S. Devlin. Mag of Wall St 92:611-13+ Ag 22 '53

1954 outlook for building industry; with tables. H. F. Travis. Mag of Wall St 93: 730-3+ Mr 20 '54

California

Need for better planning; California architects and clients round table report. House & Home 4:112-13 N '53

Canada

Canadian building trades wage rates, July 1, 1953; table. Eng N 151:129 O 8 '53

Construction activity in Canada. R. Brunet. Roads & Eng Constr 92:40 Jl '54

Construction situation reviewed. R. Brunet. Roads & Eng Constr 92:88 My '54

Construction volume depends on stability of labor wages. R. Brunet. Roads & Eng Constr 92:76+ Ap '54

Estimates $4.5 billion of construction work in Canada during 1954; $2.7 billion in engineering categories. J. N. Flood. Roads & Eng Constr 92:52 Ja '54

Chicago

Antitrust suits; Supreme court to hear arguments in lathers and plasterers cases. Eng N 151:22 D 3 '53

Supreme court orders antitrust trial; rules out Davis-Bacon wage guarantee. Eng N 152:26 Mr 11 '54

Europe, Eastern

Payment by results in the building industry in eastern Europe. bibliog Int Labour R 68:524-41 D '53

New York (city)

NYC carpenters set wage mark. Eng N 151: 21-2 Jl 9 '53

Wage rates, New York city, 1874-1952. Eng N 151:129 O 8 '53

New York (state)

Builders seek area solution for area problem. Eng N 152:28-9 Mr 4 '54

Toledo

Enjoin Blue cross from cancelling contracts of union members at Toledo. Nat Underw (Life ed) 57:13 Ag 7 '53

BUILDINGS

Buildings for the aged. E. Goble. Arch Rec 116:136-9 Jl '54

See also
Airport buildings
Architecture
Bank buildings
Building
College buildings
Commercial buildings
Concrete buildings
Earthquakes and building
Electric utilities—Buildings
Employees' buildings
Exhibition buildings
Factories
Gasoline service stations
Gymnasiums
High buildings
Hospitals
Hotels
Houses
Industrial buildings
Insurance company buildings
Library buildings
Military buildings
Mine buildings
Office buildings
Public buildings
Railroads—Buildings and structures
School buildings
Shopping centers
Steel buildings
Store buildings
Theaters
Warehouses

Exterior lighting

Application of floodlighting to buildings. B. S. Benson, jr. il diags Illum Eng 49: 367-73 Ag '54

Floodlighting a contemporary building. M. G. Zervigon. il diags Illum Eng 48:562-3 N '53

Outdoor store lighting with mercury vapor; illustrations with text. Illum Eng 49:108-9 F '54

Utility lights up office building for celebrations; Atlantic City electric co. J. J. Tynan. il Elec World News ed 140:37 S 14 '53

Overhangs

Design standards and data; overhang details. H. R. Sleeper. plan diags House & Home 4:116-17 N '53

Sunlight exposure

Design standards and data; sunshading devices. H. R. Sleeper. diags House & Home 4:115 N '53

Sun-control louvers are factory-engineered for site assembly. il diags Arch Forum 99:150+ Ag '53

Theory of sol-air orientation. il diags Arch Forum 100:133-7 Mr '54

See also
Sun shades

BUILDINGS, Demountable

Demountable precast hangar spans 130′. il diag Arch Forum 100:164-5 Je '54

BUILDINGS, Industrial. See Industrial buildings

BUILDINGS, Multiple use

All-purpose building planned for D.C. Eng N 151:45-6 Jl 23 '53

BUILDINGS, Portable

Schoolrooms move with population; prefabricated lightweight steel frames are trucked to the site and assembled into self-contained units. il diags Arch Rec 115:197-9 Je '54

BUILDINGS, Prefabricated

Aluminum hangar; large sub-assembly units prefabricated; De Haviland co. P. Stevens. il Light Metal Age 11:10-11+ Je '53

Basalt rock co. story; Strestcrete floor, roof and wall system. il Rock Prod 57:129-31 Ja '54

Britain's prefab schools. il diags Arch Forum 97:129-33 O '52

Factory-precast parts cut building costs. il diags Arch Forum 100:162-4 Ap '54

Gunnison homes readies plant to build steel buildings, from schools, hospitals to houses. Arch Forum 98:45 Je '53

Industrial prefabs catching on. il Iron Age 172:47 O 29 '53

Preassembled building provides huge, unobstructed floor space at low cost; LeTourneau Semisphere. il Civil Eng 24:194 Mr '54; Eng N 152:101-2 Mr 11 '54

Precast concrete walls simplify construction. il Chem Eng 60:244-5 S '53

Precast rigid-frame warehouse. il Eng N 151:30-2 N 5 '53

Prefab curtain wall, insulated panels, windows and frame, is adaptable to wide variety of buildings. il diags Arch Forum 100:168 Ap '54

Prefab units hasten plant completion. il Eng N 152:43 Ja 7 '54

Prefabricated structure and structural members. il diags Am Bld 75:317+ Ap '53

Prestressed-tile roof and girders make all-tile building possible. il Eng N 152:39 Ap 15 '54

Schoolrooms move with population; prefabricated lightweight steel frames are trucked to the site and assembled into self-contained units. il diags Arch Rec 115:197-9 Je '54

Shelter; porcelain enameled steel gate-house prefabricated. diag Iron Age 172:192+ N 5 '53

Steel prefabs here to stay. il Steel 133:74-5 Jl 6 '53

Store-bought buildings for chemical industry. il Chem Eng 61:140+ Ap '54

Tilt-up rigid frames span 60′. il diags Arch Forum 98:160-1 Ap '53

See also

Houses, Prefabricated

BUILDINGS, Remodeled

New was successfully blended with the old in this remodeling job. il plans diag Am Bld 75:58-9 O '53

Roadside USA; the Nation's longest slum begins to get architecture when an industrialist remodels his wayside supply houses; Republic supply co. il plan Arch Forum 100:122-5 Ap '54

Store remodeling helps reshape realty office as self-service home center. il plans Am Bld 75:106-9 Ag '53

This old building was remodeled by the tenant; headquarters of the James W. Rouse co. il plans diag Arch Forum 100:138-41 My '54

BUILT-in beds. See Beds, Built-in

BUILT-in furniture. See Furniture, Built-in

BULGARIA

Economic policy

Bulgaria falls into line. Economist 168:769 S 19 '53

BULKHEADS

Anchored bulkheads. K. Terzaghi. diags Am Soc C E Proc 79 [no 262]:1-39 S '53

BULLETS. See Projectiles

BUNDLING machines

How frozen food bundling can reduce costs. E. Minneman and J. F. Hill. il diags Food Eng 26:78-81+ Mr '54

BUNSEN burner

Flame-stability studies on shielded Bunsen burners. P. F. Kurz. bibliog diags Ind & Eng Chem 46:746-54 Ap '54

Formation and combustion of smoke in Bunsen flames. T. P. Clark. il diags Ind & Eng Chem 45:2785-9 D '53

BUREAU of accident and health underwriters

Activities of past year given in reports of three staff members. L. A. Orsini and others. East Underw 54:33-4 O 30 '53

Annual meeting, 62d, Montebello, Que. Oct. 5-8. Nat Underw 57:2+ O 8; 15+ O 15 '53; Nat Underw (Life ed) 57:1+ O 9; 11+ O 16 '53; East Underw 54:45 O 9; 44-9 O 16 '53; Weekly Underw 169:888 O 10 '53

Annual meeting, 63d, Colorado Springs, Sept. 13-15. East Underw 55:47-50+ S 17; 51-4 S 24 '54; Nat Underw 58:2+ S 16 '54; Nat Underw (Life ed) 58:1+ S 17 '54; Weekly Underw 171:658-9 S 18 '54

Annual report of general manager. J. F. Follmann, jr. Weekly Underw 171:625+ S 18 '54; Same cond. East Underw 55:49+ S 17 '54

Annual report of general manager; abstracts. J. F. Follmann, jr. East Underw 54:45+ O 16 '53; Weekly Underw 169:881-2 O 10 '53

Annual report of secretary. E. A. Hauschild. East Underw 54:46+ O 16 '53

Kermit E. Schaffer and Robert Waldron appointed public relations men. Weekly Underw 169:1063 O 31 '53

New District of Columbia resident counsel to supply factual information to federal agencies. East Underw 55:31 Je 25 '54; Nat Underw 58:1+ Je 24 '54; Nat Underw (Life ed) 58:3 Je 25 '54; Weekly Underw 170:1620 Je 26 '54

BUREAU of advertising. See American newspaper publishers association—Bureau of advertising

BUREAU of analysed samples, ltd.

General meeting, 9th, York. Metallurgia 49:311-12 Je '54

BUREAU of contract information

Annual meeting, New York, Dec. 17. Weekly Underw 169:1551 D 26 '53

BUREAU of shipping, American. See American bureau of shipping

BUREAUCRACY

Our economic dilemma and its politics. P. E. Anderson. Comm & Fin Chr 178:1336+ O 8 '53

BURETS

Construction and calibration of simple semi-automatic microburets. U. L. Upson. diags Anal Chem 25:977-9 Je '53

Highly accurate, rapid-action, micro or macro buret. J. E. Taylor. diags J Chem Educ 30:394-5 Ag '53

Simple, automatic gas buret. R. D. Goodwin. diag J Chem Educ 31:369-70 Jl '54

Ultrafine high-precision microburet. R. Gilmont. il diags Anal Chem 25:1135-6 Jl '53

Water vapor saturation in gas-measuring burets. T. W. Stein and R. C. Reid. Anal Chem 25:1919-20 D '53

BURGLAR alarms

Burglar alarm protection highly important in underwriting. L. Stieglitz. East Underw 55:27 Ja 29 '54; Same. Weekly Underw 170:291 Ja 30 '54

Commends alarm system; aided loss prevention efforts. T. L. Lynch. East Underw 54:35 S 18 '53

Ultrasonic burglar alarm readied by Walter Kidde & co. Nat Underw 58:23 Jl 22 '54

BURGLARY insurance. See Insurance, Burglary

BURLAP

Heavy supplies shadow jute-burlap outlook. Barron's 33:42-3 Ag 31 '53

BURLINGTON, Ontario

Water supply

Municipal cooperation in water supply exemplified by Burlington-Nelson. B. J. Henderson. il Munic Util 92:28-33+ Ag '54

BURMA

Teaching chemistry in postwar Burma. P. R. Fehlandt. il Chem & Eng N 31:3610-14 S 7 '53

See also

Drug trade—Burma

Petroleum industry and trade—Burma

Commerce

Burma's rice surplus. Economist 168:109 Jl 11 '53

Price of rice. Economist 168:440 Ag 15 '53

BURMA—*Continued*

Commercial policy

Survey report required on shipments to Burma. For Comm W 51:11 Ja 4 '54

Economic conditions

Economic conditions abroad. For Comm W 51:3 F 8 '54

Foreign relations

For Burma's defence; renewing defence agreement with Britain. Economist 170: 150+ Ja 16 '54

Getting the KMT out of Burma. Economist 168:13 Jl 4 '53

Industries and resources

Burma plans huge development of its industry and resources. Eng N 151:45-6 O 15 '53

BURNERS

Combustor performance with instantaneous mixing; ram-jet power plants. W. H. Avery and R. W. Hart. bibliog Ind & Eng Chem 45:1634-7 Ag '53

Heat technology; combustion theory and practice. W. P. Jensen. diags Chem Eng 60:190-4+ Je '53

Infrared reflex burner operates by horizontal radiation. il Chem & Eng N 32:184+ Ja 11 '54

Loddby cyclone burner; new system for burning waste calcium-base sulphite liquor. T. Simmons. diags Pulp & Pa of Can 55:108-10 Ja '54

New burners heat skelp faster, more accurately; Sparrows Point plant of Bethlehem steel corp. diag Iron Age 173:97 Ap 29 '54

Organ-pipe resonance in ducted burners. J. C. Truman and N. J. Lipstein. bibliog J Aeronautical Sci 20:846-7 D '53

Rotaflame burners heat rectangular furnace. W. Trinks. il Steel 135:132+ S 13 '54

See also

Bunsen burner
Gas burners
Oil burners

BURNING. See Combustion

BURNISHING. See Polishing

BURNS, Arthur F. 1904-

Full crew for CEA. por Bsns W p33 D 5 '53

New role for construction planned if recession comes. pors Eng N 151:60-3, cover Jl 23 '53

BURNS, Robert Martin, 1890-

R. M. Burns and Scott Ewing receive 1953 Whitney and Speller awards. por Electrochem Soc J 100:sup 101C Ap '53

BURNS and scalds

Case of severe burns involving 65 per cent of body area. G. C. Truman. bibliog Ind Med 22:132-3 Mr '53

See also

Electricity, Injuries from

BURROUGHS adding machine company. See Burroughs corporation

BURROUGHS corporation (formerly Burroughs adding machine company)

Adding profits. I. U. Cobleigh. Comm & Fin Chr 179:261 Ja 21 '54

BURRS

Carbide bur grinds radius slot on hardened 8713 steel. E. J. Tangerman. il diags Am Mach 98:172-3 Ap 12 '54

Stampings often require burred or flanged holes. S. R. Cope. diags Am Mach 98:140-3 S 13; 120-3 S 27 '54

BURSITIS

Use of vitamin B_{12} in treatment of acute subdeltoid bursitis. I. S. Klemes. il Ind Med 22:352-4 Ag '53

BUS cards. See Advertising cards

BUS transportation (periodical)

Bus transportation celebrates twenty-five years of ME awards. il Bus Transportation 33:30-1 Ja '54

New editor, Earl F. Theisinger. Bus Transportation 33:25 Jl '54

BUSBARS

Basic principles to support aluminum and copper buses; engineering reference sheet. M. Brenner. il diags Elec World 140:118-19 Jl 27 '53

Load centers and bus duct provide flexibility; McCulloch motors. L. B. Reed. il Elec World 140:174 O 19 '53

Protection

Taped electrical bus runs cooler. M. Brenner. il Power 98:122 S '54

Testing

Lead clamp on pole saves 95 per cent test time. il Elec World 140:112 O 5 '53

BUSHINGS

Automatic feeding devices produce small parts faster; Buick motor div. General motors corp. S. J. White. il Iron Age 172: 157-9 S 17 '53

Ball bushing support ups saw blade life; Thompson industries, inc. il Steel 135:115 S 6 '54

Broaching big bushings. il Steel 133:144+ Jl 20 '53

Dynamics and lubrication of a miniature turbine rotor on porous bushings. G. Sines. bibliog il diags A S M E Trans 76:319-26 F '54

Pressing bushings with pneumatic support mandrel. H. G. Frommer. diags Mach 60: 224-5 N '53

Retractable bushings increase output, extend drill life; Studebaker corp. E. C. Beaudet. il Iron Age 172:178-80 N 12 '53

Rubber bushings in coupling permit misalignment. il diag Product Eng 24:216 S '53

BUSHINGS, Insulating

Jet cooling quadruples generator bushing capacity. diags Elec World 140:112 Jl 27 '53

BUSINESS

Business at bat; abstract. E. D. Canham. Management R 43:138-9 Mr '54

Business in a growing America. S. Weeks. Comm & Fin Chr 178:2260-1 D 10 '53

Business isn't scared by peace. C. H. Greenewalt. Chem & Eng N 31:3742 S 14 '53

Business quiz. Dun's R & Mod Ind 62:193-4, 216 N; 111-12, 199 D '53; 63:120-1, 165 Ja '54

Defense of business; strategic appraisal. J. K. Galbraith. Harvard Bsns R 32:37-43 Mr '54

Handling businesses in trust; ABA midwinter trust conference panel. Trusts & Estates 93:105-11 F '54

It is what we give that counts! W. R. Bimson. Bankers Mo 70:7-8+ Ag '53

Speaking up for business. C. H. Greenewalt. il Dun's R & Mod Ind 62:1+ Ag '53

See also

Accounting
Advertising
Applications for positions
Auditing
Banks and banking
Billing
Budget, Business
Business conditions and other headings beginning Business
Card system in business
Catalogs
Christmas business
Collecting of accounts
Commerce
Commercial correspondence
Competition
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Economics
Efficiency, Industrial
Employment management
Executives
Exhibitions
Export trade
Finance
Good will (in business)
Government competition with business
Government regulation of industry
House organs
Income
Income tax
Industry
Instalment plan
Insurance
Interest
Inventories
Jobbers
Mail order business
Manufactures
Market surveys
Marketing
Money
Office management
Organization in industry
Partnership
Price policies
Profit
Public relations
Purchasing
Real estate business
Retail trade
Sales letters
Salesmanship
Salesmen
Securities
Taxation
Telephone in business
Trade associations
Trade marks
Trust companies
Trusts, Industrial
Weather—Business aspects

BUSINESS—*Continued*

Bibliography

Business aids for the reference collection. M. E. Hunt and M. P. McLean. (Business literature v. 26, no. 10) p81-4 Business library, Newark public lib, Newark, N.J. Je '54

Business reference publications; catalogs, directories, buyers' guides, etc. Ind Marketing 38:32-6+ Je 25 '53

Current reading list for sales executives and salesmen; business conditions and trends. Sales Management 72:110-12+ Mr 15 '54

Recent books for the business man. Cleveland Pub Lib Business Information Bur Bul v 25, no 1:1-4 '54 (pa 25c)

Survey of books for executives. Published in monthly numbers of Management review

What is ahead for business? M. P. McLean. (Business literature v. 26, no. 9) p79-80 Business library, Newark public lib, Newark, N.J. My '54

Dictionaries

Dictionary of business and industry. R. J. Schwartz, comp. 561p $7.95; with thumb index $8.95 B. C. Forbes and sons pub. co, 80 Fifth av, New York 11 '54

Foreign expansion

New look in expansion; U.S. companies turning expansion effort to overseas projects. Chem W 74:16-17 My 15 '54

Our investment abroad. H. Bratter. il Banking 46:47-9+ F; 46-9+ Mr '54

Podsnappery. F. M. Oppenheimer. Harvard Bsns R 32:74-8 Jl '54

Mortality

Mortality of Seattle grocery wholesalers. R. R. Still. J Marketing 18:160-5 O '53

Operating businesses and business turnover; incorporations, and failures, 1949-1952. Survey of Cur Bsns 1953 Sup p23-4 [supplemented in monthly numbers]

Recent business population movements; with tables. B. C. Churchill. Survey of Cur Bsns 34:11-16+ Ja '54

See also

Advertising agencies
—Mortality

Political aspects

Politics, pressure groups, and the businessman. R. F. Bradford. Harvard Bsns R 31:33-41 N '53

Reports to government

Now the government will ask fewer questions. J. Shoenfeld. Sales Management 70:48+ My 20 '53

Reducing statistical data required by federal agencies. Pub Util 53:375-80 Mr 18 '54

Small business

Cost reduction to help small business. W. B. Edgar. N A C A Bul 35:842-9 Mr '54

Financing the small business; two new financial institutions. Economist 169:122+ O 10 '53

How the tax program will affect small business. M. B. Folsom. J Account 96:106+ Jl '53

Miracle in Hartford; Metal-Lux, inc. J. Chamberlain. Barron's 33:3+ N 16 '53

Now may be the time for smaller firms to go after GI contracts. J. Thomson. Sales Management 72:50+ My 20 '54

Profitably expanding the small business; panel discussion. J Bsns 27:44-8 pt 2 Ap '54

Simplified cost control for small industries. I. W. Keller. N A C A Bul 35:132-43 sec 3 S '53

Small business bowing to big firms; Small business administration report to Congress. Oil Paint & Drug Rep 166:4+ S 13 '54

See also

United States—Small business administration

BUSINESS advisers. See Business consultants

BUSINESS aircraft association, National. See National business aircraft association

BUSINESS and defense services administration

BDSA seeks advice; plans flexible industry advisers; directory. Steel 133:32 D 28 '53

Business and defense services administration set up in Commerce department. Sewage & Ind Wastes 25:1343 N '53

BDSA springs to life. Steel 133:88 O 12 '53

Department of commerce lines up BDSA. Materials & Methods 38:8+ N '53

Firm vote of confidence. Chem W 75:17-18 Ag 21 '54

Industry's attitude will determine its future. Eng N 151:59 O 15 '53

New Commerce department unit established to aid business. Chem & Eng N 31:4190-3 O 12 '53

Snags for new business agency; changeover from National production authority. Bsns W p74+ Ag 15 '53

Substitute for security. Chem W 73:19-20 Ag 15 '53

Sulphur, sulphuric acid, nitrogen data due next; major function of BDSA. C. F. Honeywell. Oil Paint & Drug Rep 165:3+ Ja 18 '54

Time and sympathy; Business and defense services administration trying to live up to its name. Chem W 74:16 Ja 23 '54

Water and sewerage industry and utilities division

Activities of Water and sewerage division. H. W. Hitzrot. Am Water Works Assn J 46:899-902 S '54

New Commerce department division to serve water supply field. Am Water Works Assn J 46:41-2 Ja '54

BUSINESS budget. See Budget, Business

BUSINESS cards

Novel business cards stir attention, sales conversation. il Ind Marketing 39:102+ F '54

BUSINESS charts

Chart books for better guidance of operations; Monsanto chemical co. D. A. Livingston. N A C A Bul 35:362-75 N '53

BUSINESS conditions

Big question; business, good or bad? C. H. Greenewalt. Advanced Management 19:7-9 Ap '54

Business and finance speaks after turn of the year; symposium. W. F. Knowland and others. Comm & Fin Chr 179:253+, 454+ Ja 21, 28 '54

Business; how big a drop? T. J. Ward. Comm & Fin Chr 178:2258-9 D 10 '53

Business in 1954; abstract. S. C. Hope. Oil Paint & Drug Rep 165:5+ F 1 '54

Business in 1954 will pass most expectations. Chem Eng 61:355-9 Ap '54

Business outlook. S. H. Slichter. J Bsns 27:5-15 pt 2 Ap '54; Abstract. Management R 43:274-6 My '54

Business pace slows for first peacetime Christmas since 1949. Steel 133:47 D 21 '53

Business roundup. Iron Age 173:302-5 Ja 7 '54

Business situation throughout 1953. Survey of Cur Bsns 34:1-4 F '54

Business statistics; statistical supplement, 1953. Survey of Cur Bsns 1953 Sup p 1-320 (pa $1.50)

Business taking readjustments in stride! M. Shields. Comm & Fin Chr 178:1226 O 1 '53

Business trend is down. Elec World 140:132-3 S 21 '53

Can the present administration deliver? H. N. Turrell, jr. Comm & Fin Chr 178:630 Ag 20 '53

Challenge of tomorrow's markets. J. P. Spang, jr. J Bsns 27:16-20 pt 2 Ap '54

Compass points of business; quarterly analysis. Dun's R 60:11-18 N '52; 61:11-17, 20-1 F; 15-22+ My '53; [cont as] Dun's R & Mod Ind 62:21-7 Ag; 21-6+ N '53; 63:17-22+ F '54

Economic adjustment through change in price levels. H. Wingate. Mag of Wall St 93:548-50+ F 6 '54

Expect only a mild recession! D. H. Bellemore. Comm & Fin Chr 178:1326+ O 8 '53

Favorable and unfavorable factors in business picture. H. A. Bullis. Comm & Fin Chr 178:626 Ag 20 '53

BUSINESS conditions—*Continued*

Forecast; what industry expects in '54. Iron Age 173:247+ Ja 7 '54

General business outlook. E. L. Rauber. Comm & Fin Chr 178:905+ S 10 '53

How shall we reason for 1954? E. G. Nourse. Comm & Fin Chr 179:269+ Ja 21 '54

How's business? Mill & factory survey. Mill & Factory 55:67-8 Jl '54

If the cold war stops! H. C. Ramsey. Comm & Fin Chr 178:717+ Ag 27 '53

Inflation, deflation or confusion? M. Palyi. Comm & Fin Chr 178:1001+ S 17 '53

Inventories and the business situation in 1954. S. H. Nerlove. J Bsns 27:41-50 Ja '54

Little change in domestic consumption in 1954. N. M. Koffsky. Comm & Fin Chr 178:1839 N 12 '53

Look ahead! C. M. White. Comm & Fin Chr 178:1523+ O 22 '53

Looking at both sides of business E. E. Burlingame. Comm & Fin Chr 178:722 Ag 27 '53

Moderate business improvement expected to run through 1954. J. F. Falvey. Am Gas J 181:27 Ag '54

National business conditions and California. R. R. Dockson. Comm & Fin Chr 178:1429+ O 15 '53

National summary of business conditions. Published in monthly numbers of Federal reserve bulletin

Need for national optimism. E. T. McCormick. Comm & Fin Chr 178:1111+ S 24 '53

New outlook for business. S. H. Slichter. Comm & Fin Chr 178:1325+ O 8 '53

1954; a year for business adjustment. M. E. Dice. Nat Pet N 45:19-20 D 23 '53

1954 prospects for leading industries. G. W. Mathis. Mag of Wall St 93:422-5+, 478-81+ Ja 9-23 '54

No serious business dip in 1954. P. H. Nystrom. Comm & Fin Chr 178:1840-1 N 12 '53

Nothing to fear but fear. Chem W 73:14 O 24 '53

Outlook and condition of business. W. R. Kuhns. Banking 46:37+ Ja '54 [cont monthly]

Outlook and condition of business (semi-annual credit policy commission survey), by Federal reserve districts. Banking 46:33-7+ F '54

Outlook for business and securities. J. C. Bickford. Comm & Fin Chr 178:1838 N 12 '53

Outlook for the domestic economy. J. Backman. Comm & Fin Chr 178:1722+ N 5 '53

Peril points; Washington starts watching for signs of trouble. Bsns W p32-4 O 17 '53

Post-war adjustment almost ended. J. F. Falvey. Am Gas J 180:36+ My '54

Present business situation can resist contraction! G. B. Roberts. Comm & Fin Chr 179:459+ Ja 28 '54

Present economic situation. C. L. Benner. Life Ins Courant 58:26-9 D '53

Present economy relatively stable but future expansion is seen. J. F. Falvey. Am Gas J 181:23+ S '54

Present outlook for securities. L. O. Hooper. Comm & Fin Chr 178:813+ S 3 '53

Productive capacity and business performance. E. G. Nourse. Comm & Fin Chr 178:2361+ D 17 '53

Purchasing agents still optimistic but factory stocks remain a problem. Iron Age 173:71 Jl 1 '54

Rotating readjustment in industry. H. Nicholson. Mag of Wall St 93:67-9+ O 17 '53

Shape of business now. C. C. Brown. Comm & Fin Chr 178:1627+ O 29 '53

Shape of economic things to come. M. Shields. Comm & Fin Chr 178:2145+ D 3 '53

Slipping economic regions and North-South competition. S. E. Harris. Comm & Fin Chr 179:59+ Ja 7 '54

State of business; national hypochondria? abstract. L. Cherne. Management R 43:220-1 Ap '54

Today's business still rides on America's unchanging tide. B. F. Fairless. Advanced Management 19:5-8 My '54; Abstract. Management R 43:210-11 Ap '54

U.S. and Canadian outlook in '54. J. D. Gibson. Comm & Fin Chr 178:1324+ O 8 '53

Who is right? prognosticators of temporary adjustment, or forecasters of deepening recession? H. DuBois. Mag of Wall St 93:720-1+ Mr 20 '54

X-ray of national business conditions. H. Wingate. map Mag of Wall St 93:236-8, 287-8 N 28 '53

See also

Business depression
Business failures
Business forecasting
Inflation (finance)
Prosperity

BUSINESS conferences

For better meetings take a cue from tv. Chem Eng 61:260 Jl '54

Half-truths about conference leadership. J. A. Sarchet. Personnel 30:135-8 S '53

Making meetings pay off. W. E. Bright, jr. Am Bsns 24:14-16 My '54

Procedure for coercing agreement. I. J. Lee. Harvard Bsns R 32:39-45 Ja '54

BUSINESS consolidations

Another string to its bow; merger of W. R. Grace & co. and Dewey and Almy chemical co. Chem W 75:14 Ag 7 '54

Before you merge, put your market research department to work. W. F. Rockwell, jr. Ptr Ink 244:46+ Ag 21 '53

Big concerns defended as government scans mergers. Oil Paint & Drug Rep 166:3+ S 6 '54

Corporate gambit. R. M. Bleiberg. Barron's 33:3 S 21 '53

Equipment firms merge; consolidation of Timken-Detroit axle co. and Standard steel spring co. to form Rockwell spring & axle co. Steel 133:118+ O 12 '53

FTC ruling overturns substantiality doctrine. Oil Paint & Drug Rep 165:3+ Ja 4 '54

Follansbee to sell assets. Steel 135:61 Ag 23 '54

Gauge for industrial giants. Chem W 75:15-16 Jl 17 '54

Giants slated for merger to form Olin Mathieson chemical corp. Chem & Eng N 32:1984 My 17 '54

Industrial truck makers get merger fever. Bsns W p 110-12 S 26 '53

Many aims, one goal; merger in the chemical industry. Chem W 72:16-17 My 23 '53

Many reasons, one cause for merger in chemical industry. Chem W 74:18-19 My 8 '54

Merger mechanics; you have to try them to know if they'll work. Bsns W p96-8 Ag 8 '53

Merger; stockholder's choice. R. D. Raddant. Iron Age 174:57 Ag 26 '54

Merritt-Chapman takes another step; Marion power shovel co. gets latest bid. Steel 135:55 Ag 9 '54

More than meets the eye; merger with Mathieson chemical corp. Chem W 74:20 My 22 '54

Nash-Kelvinator-Hudson merger. G. W. Mathis. Mag of Wall St 93:625+ F 20 '54

New era of mergers? Chem & Eng N 32:3248-50 Ag 16 '54

New wave of mergers. P. Dobbs. Mag of Wall St 93:261-3+ N 28 '53

Odds favor U.S. approval of proposed steel merger. E. C. Kreutzberg. Steel 135:56 S 6 '54

Sawhill merges firms. Steel 134:61 Ja 11 '54

Trend towards mergers in diversified fields. F. L. Walters. Mag of Wall St 93:426-7+ Ja 9 '54

True to form; Air reduction co. acquires assets and business of Colton chemical co. Chem W 74:15 My 29 '54

When a small company joins a giant. Bsns W p43-4 S 19 '53

When is a merger legal? interview with Stanley Barnes. Iron Age 174:72 S 23 '54

See also

Airlines—Consolidation
Bank consolidations
Electric utilities—Consolidation
Insurance companies—Consolidation

BUSINESS consultants

Are you hiring a consultant, or a parasite? W. J. E. Crissy. bibliog Management R 42:570-1 O '53

BUSINESS consultants—*Continued*

Facts you should know about consultants; abstract. S. Fish. Management R 43:354-5 Je '54

Hiring a management consultant. F. C Minaker. Am Bsns 24:30+ Ag '54

Stiff competition prompts use of outside consultants. S. Fish. Manuf Rec 123:34-5 F '54

BUSINESS correspondence. See Commercial correspondence

BUSINESS cycles

Analyzing the economic cycles. G. H. Moore. Dun's R & Mod Ind 62:64-6+ O '53

Boom flattening out. H. B. Arthur. Comm & Fin Chr 178:1224+ O 1 '53

Business cycle sells insurance. W. T. Kiefer. Life Ins Courant 58:11-12 Ag '53

Our current business cycle. F. Pick. Comm & Fin Chr 178:1624 O 29 '53

BUSINESS depression

All this recession talk is unwarranted! B. F. Fairless. Comm & Fin Chr 178:1109+ S 24 '53; Abstract. Management R 42:566-7 O '53

American dip not followed abroad. Chem Eng 61:314-16 Ag '54

British reaction to economist's prediction of another U.S. slump. P. Einzig. Comm & Fin Chr 178:2066 N 26 '53

Business depression imminent! W. D. Gann. Comm & Fin Chr 178:722-3 Ag 27 '53

Can the administration beat the depression? P. L. Bernstein. Comm & Fin Chr 178:1122+ S 24 '53

Can we avoid depression in a dynamic economy? M. G. de Chazeau. Harvard Bsns R 32:37-44 Jl '54

Can we talk ourselves into a depression? K. K. Du Vall. Comm & Fin Chr 178:2068-9 N 26 '53

Economic policy in recession. Nat City Bank p 17-21 F '54

Everybody expects a recession. Bsns W p29 Ag 15 '53

Federal budget and corporate profits in a business decline. W. R. Biggs. Comm & Fin Chr 178:1223+ O 1 '53; Abstract. Burroughs Clearing House 38:3-4 O '53

How to avoid a psycho-recession; abstract. P. G. Hoffman. Management R 42:694-5 D '53

How to reverse the recession. A. G. Hart. Comm & Fin Chr 179:58+ Ja 7 '54

Impact of a recession on commercial banks. C. F. Nagel. Comm & Fin Chr 178:1732+ N 5 '53

Measuring limits of recession. T. L. Godey. Mag of Wall St 92:704-6+ S 19 '53

Must we have a recession? abstract. S. H. Slichter. Management R 42:369-71 Jl '53

New role for construction planned if recession comes. Eng N 151:60-3 Jl 23 '53

1954 prospects for seriously depressed industries; with table of companies in five depressed industries. J. D. C. Weldon. Mag of Wall St 93:737-9+ Mr 20 '54

1954, recession, depression, recovery? C. Clark; W. S. Woytinsky. Comm & Fin Chr 179:452+ Ja 28 '54

No need for a depression. W. Reuther. Comm & Fin Chr 178:924-5 S 10 '53

Postwar prosperity, how much longer? policy to oppose recessions. A. G. Hart. Comm & Fin Chr 178:1942+ N 19 '53

Private enterprise holds prosperity key. B. Fairless. Chem Eng 61:353-4 Ap '54

Recession almost over? O. Ely. Pub Util 53:614-15+ My 13 '54

Recession in general business. A. W. Zelomek. Comm & Fin Chr 178:1531+ O 22 '53

Recession threats and depression safeguards. E. G. Nourse. Comm & Fin Chr 178:1109+ S 24 '53

Utility earnings and business recessions. S. W. John. Pub Util 52:897-906 D 17 '53

Utility earnings will be maintained in the next recession. C. P. Guercken. Elec World 140:145-50 S 21 '53

We can avert a sharp slump. M. Nadler. Banking 46:124 O '53

We'll have no depression like the thirties. H. A. Bullis. Comm & Fin Chr 178:1937 N 19 '53

What is needed to make low money rates work. H. Nicholson. Mag of Wall St 93:482-3+ Ja 23 '54

Why I am not looking for a depression. W. Williams. Comm & Fin Chr 178:1216 O 1 '53

Why permit a recession? Pub Util 53:318-19 Mr 4 '54

Why the U.S. may stand alone in recession. V. L. Horoth. map Mag of Wall St 93:419-21+ Ja 9 '54

Write off depressions. W. H. Stead. Chem & Eng N 32:678 F 15 '54

See also

Business failures

BUSINESS directories. See Trade directories

BUSINESS education

Educational programs and executive development. J. W. Towle. Advanced Management 19:27-30 Je '54

Tomorrow's business leaders; how shall they be educated? abstract. H. F. Smiddy. Management R 43:148-9 Mr '54

What business expects from high schools. E. de la Ossa. Personnel J 32:56-8 Je '53

Which university program for executives? M. D. Cleary. Am Bsns 24:22+ Jl '54

See also

Business schools and colleges
Junior achievement movement
Salesmanship—Study and teaching

Cooperative plan

Syracuse high school insurance course has been very successful. W. F. Lepper. East Underw 54:76-7 D 11 '53

BUSINESS entertainment

For men only; parties lure them in; Neiman-Marcus and A. Harris & co. put on a men's night. il Bsns W p50-2 D 19 '53

BUSINESS ethics

Ethics in personnel administration. Personnel 30:180-6 N '53

It's often wise to check up on a company before you buy. Consumers Res Bul 32:28-30 S '53

See also

Accounting ethics
Advertising ethics
Better business bureaus
Insurance ethics

BUSINESS expansion. See Business management—Expansion problems; Industrial expansion

BUSINESS failures

Business failures. Dun's R & Mod Ind 63:87-8 Ja; 89-90+ F '54

Business failures, 1939-1953; tabulations. Steel 134:200 Ja 4 '54

Case where a deficient accounting and costing system led to company insolvency. J Account 97:77-8 Ja '54

In 1953 they're more and bigger. Bsns W p 150-1 N 21 '53

Operating businesses and business turnover; incorporations, and failures, 1949-1952. Survey of Cur Bsns 1953 Sup p23-4 [supplemented in monthly numbers]

Why businesses fail; quarterly analysis (cont). G. M. Jones, comp. Dun's R & Mod Ind 62:78+ S; 88-9 D '53

BUSINESS forecasting

After the boom is over, what? E. S. Adams. Comm & Fin Chr 178:1634-5 O 29 '53

Business level can be maintained by aggressive merchandising. W. E. Hoadley, jr. Comm & Fin Chr 178:2639+ D 31 '53

Business outlook. T. J. Kreps. Comm & Fin Chr 179:153+ Ja 14 '54

Business outlook, 1954; New York city life underwriters association financial panel. Nat Underw (Life ed) 58:4+ Ja 29 '54

Consumer's position in the 1954 business trend. A. W. Zelomek. Comm & Fin Chr 178:2531+ D 24 '53

Cutbacks after Korea? il Steel 133:49-50 Ag 3 '53

Defense expenditure and the problem of deflation. G. H. Hildebrand. Comm & Fin Chr 179:258+ Ja 21 '54

Economic outlook for 1954. G. Colm. Comm & Fin Chr 179:62 Ja 7 '54

Electric companies have eyes on the future. A. B. Marvin. Pub Util 54:61-7 Jl 22 '54

Good year ahead; comments by executives; with table of their predictions of business indexes of mid-1954. Credit & Fin Management 56:8-13+ Ja '54

BUSINESS forecasting—*Continued*

High business level in 1954. P. B. B. Andrews. Sales Management 72:67-8 Ja 1 '54

How coal's leaders see 1954. Coal Age 59:70-6 F '54

How to build an income forecast. R. J. Halloran. N A C A Bul 34:886-93 Mr '53

How wrong can economists be? abstract. J. A. Livingston. Management R 42:344-5 Je '53

Industrial executives become wary of published forecasts. Ind Marketing 39:138+ Ja '54

Investment policies for 1954; appraisal by mutual funds and investment consultants. Trusts & Estates 93:34-5+ Ja '54

Longer look; to forecast business trends, economists keep a careful eye on construction statistics. Eng N 151:69-70 D 17 '53

Looking ahead at the business pattern. H. E. Luedicke. Comm & Fin Chr 178:719+ Ag 27 '53

Methods of forecasting the level of general business activity. E. Solomon and others. J Bsns 27:1-105 Ja '54

Most industrial heads see good 1954. Ind Marketing 38:150-4 D '53

New profits for you behind tomorrow's hot headlines. J. Mason and others. il Sales Management 72:24-30+ Ja 1 '54

Nine mild drops for 1954. M. P. McNair. Chem & Eng N 32:358-9 Ja 25 '54

1954 as the forecasters see it. Am Gas Assn Mo 36:13+ Ja '54

1954 business outlook; highlights of views of Economic forum of the National industrial conference board. Comm & Fin Chr 178:2625+ D 31 '53

1954 decline; steeper for metalworking? National industrial conference board's economic forum. Steel 134:31-2 Ja 11 '54

1954 outlook prejudged by left-wing bias. R. S. Byfield. Manuf Rec 123:40 Ja '54

1954, the beginning of a new bull market. E. W. Tabell. Comm & Fin Chr 179:53+ Ja 7 '54

1953 wasn't normal. A. J. Seitz. Ry Age 136:13 Mr 22 '54

No ground for a 1954 sharp recession. G. C. Astarita. Comm & Fin Chr 179:156 Ja 14 '54

Outlook for basic industries under adjustment. T. L. Godey. Mag of Wall St 93:176-8+ N 14 '53

Outlook for business and investment. H. D. Comer. Comm & Fin Chr 178:621+ Ag 20 '53

Outlook for business, interest rates and stock market. K. L. Trefftzs. Comm & Fin Chr 178:1929+ N 19 '53

Outlook for interest rates and bond prices; outlook for general business. G. T. Conklin, jr. Comm & Fin Chr 178:2529+ D 24 '53

Period of business decline likely. A. C. Babson. Comm & Fin Chr 178:1440-1 O 15 '53

Potpourri of business forecasts. H. E. Luedicke. Comm & Fin Chr 178:1723+ N 5 '53

Production outlook; key to business in 1954; with charts. T. L. Godey. Mag of Wall St 93:305-7+ D 12 '53

Recession in general business. A. W. Zelomek. Comm & Fin Chr 178:1531+ O 22 '53

Reconsideration of the postwar forecasts. E. C. Bratt. bibliog J Bsns 26:71-83 Ap '53

Rosy future. Comp Air Mag 59:81 Mr '54

Southern business looks at the second half of 1954. Manuf Rec 123:27 Jl '54

Stock market, an accurate business barometer? abstract. H. E. Luedicke. Management R 42:614 O '53

Technological change and long-run forecasting. I. H. Siegel. bibliog J Bsns 26:141-56 Jl '53

We'll have only an average recession. J. M. Dawson. Comm & Fin Chr 178:1646 O 29 '53

What are business prospects for 1954? Mill & Factory survey. Mill & Factory 54:67-70 Ja '54

What of the paper industry in 1979? H. Baumgarten. Paper Tr J 138:18-20 Jl 2 '54

What's ahead; business activity to remain high in 1954. W. S. Woytinsky. Barron's 33:5-6+ N 23 '53

What's ahead for business and the stock market? R. D. Naess. Comm & Fin Chr 178:1123 S 24 '53

Where are we going from here? F. A. Potts. Comm & Fin Chr 178:2253+ D 10 '53

See also

Market research
Planning
Production and sales, Coordination of
Sales estimates

BUSINESS gifts. See Christmas gifts—Business gifts

BUSINESS history

Business and the historian. A. Nevins. Am Pet Inst Proc 33(1):85-9 '53

Business founding date directory. E. M. Kelley. 228p Morgan and Morgan, High Point Road, Scarsdale, New York '54 ($10)

Why tell your business history? H. O. Brayer. il Am Bsns 24:28+ Ap '54

BUSINESS hours. See Banks and banking—Hours of business; Gasoline service stations—Hours of business

BUSINESS in drama

Business gets the comic lead; Kaufman-Teichmann play, the Solid gold Cadillac, shows business can be fun on the stage. il Bsns W p 128+ N 14 '53

BUSINESS insurance. See Insurance, Business

BUSINESS interruption insurance. See Insurance, Use and occupancy

BUSINESS law. See Commercial law

BUSINESS letters. See Commercial correspondence

BUSINESS libraries

Company libraries come of age; abstract. Management R 42:456-7 Ag '53

See also

Advertising agencies—Libraries
Technical libraries

BUSINESS machines. See Office appliances; Office equipment industry

BUSINESS management

Accent on aims. R. H. Collacott. Dun's R & Mod Ind 62:209-12+ O '53

Advertising is management's problem, too. C. B. Larrabee. Ptr Ink 245:37-9 O 9 '53

After excess profits? problems for top management. J. F. H. Turton. Dun's R & Mod Ind 63:57-9+ F '54

Are you building your business toward oblivion? L. M. Wasserbly. Advanced Management 19:25-7 Mr '54

Are your decisions reflective or intuitive? H. E. Kubly. Advanced Management 18:5-7 Je '53

Basic objectives which shape the character of a company. W. H. Newman. J Bsns 26:211-23 O '53

Better than the profit motive. C. E. Goode. Advanced Management 19:17-20 Ag '54

Breakeven point control for higher profits. F. V. Gardner. Harvard Bsns R 32:123-30 S '54

Broadening the horizon. W. B. Given, jr. il Dun's R & Mod Ind 62:1+ S '53

Can we avoid depression in a dynamic economy? M. G. de Chazeau. Harvard Bsns R 32:37-44 Jl '54

Control means action. A. F. Emch. Harvard Bsns R 32:92-8 Jl '54

Dangers of management specialization today. P. B. Hofmann. Advanced Management 19:9-11 S '54

Decentralization; the key to the future. A. A. Stambaugh. il Dun's R & Mod Ind 62:54-5+ S '53

Financial executive in modern management. T. F. Bradshaw. Am Pet Inst Proc 32(1):299-302 '52

Financial planning and control; a system of levees against business floods. J. E. Kusik. Advanced Management 19:16-18 Mr '54

Following the leader. W. H. Conant. Am Bsns 24:13+ Mr '54

For operation success. C. F. Robinson. il Dun's R & Mod Ind 63:1+ Ja '54

Form follows function; a design formula aids sales, public relations, helps lower costs. H. Dreyfuss. Advanced Management 18:7-9 Ag '53

Freedom within American enterprise. J. C. Worthy. Advanced Management 19:5-8 Je '54; Same cond. Management R 43:486-8 Ag '54

BUSINESS management—*Continued*

Gauging your company's competitive strength; abstract. Management R 43:120-1 F '54

GE and UNIVAC; harnessing the high-speed computer. R. F. Osborn. Harvard Bsns R 32:99-107 Jl '54

Getting the most from capital expenditures; policies and procedures. R. E. Cross. Dun's R & Mod Ind 63:40-2 Ja '54

Good management and stock prices. Chem & Eng N 32:2932 Jl 19 '54

Help yourself to stability; abstract. M. S. Rukeyser. Management R 42:496-7 S '53

How to coordinate executives; Bell & Howell co. Bsns W p 130+ S 12 '53

Informed directorate has little difficulty in solving problems. C. M. Hulings. Ind & Eng Chem 46:sup95A-6A Ap '54

It pays to do the whole job yourself; McCulloch motors corp. il Bsns W p 158-61+ S 5 '53

Los Angeles way; no plunge but an easy-going push. Bsns W p 118-20+ O 10 '53

Man who never has time. C. McPherson. Am Bsns 24:14-15 Ja '54

Management conference, 2d, Chicago, April 17; papers and proceedings. J Bsns 27:1-48 pt 2 Ap '54

Management for freedom. W. H. Wheeler, jr. Management R 43:74-5 F '54

Management improvement; the great goal of every business and management philosophy. J. B. Joynt. Advanced Management 18:19-22 Ag '53

Management targets for 1954. E. Whitmore. Am Bsns 23:10-11+ N '53

Management's basic function; policy formulation. J. B. Joynt. Advanced Management 19:11-13 Ag; 21-4 S '54

Mathematical programing; better information for better decision making. A. Henderson and R. Schlaifer. bibliog Harvard Bsns R 32:73-100 My '54

Modern tools for better management. T. G. MacGowan. Dun's R & Mod Ind 62:53-4+ O '53

Old-fashioned initiative for modern enterprise. A. Patton. Harvard Bsns R 32:67-73 Jl '54

Old formula + high price = thriving business; Pepperidge farm bakeries. R. Josephs. il Am Bsns 24:18-19+ S '54

Period of consolidation ahead for new peacetime expansion. H. R. Silverman. Comm & Fin Chr 178:2042+ N 26 '53

Practice of management. P. F. Drucker. Dun's R & Mod Ind 63:1+ F; 42-7 Mr; 39-44 Ap: 39-41+ My; 42-3+ Je; 34-5+ Jl; 27-8+ Ag; 37-9+ S '54

Procedure for coercing agreement. I. J. Lee. Harvard Bsns R 32:39-45 Ja '54

Quest for executive theories. Bsns W p50 S 19 '53

Relatives on the payroll. W. H. Conant. Am Bsns 24:10-11+ Ja '54

Systems; master or servant? S. L. H. Burk. Management R 43:356 Je '54

These men made a success of business for themselves. Chem Eng 60:171-6 Jl '53

They looked at their problems and licked them; Pioneer manufacturing co. M. L. Jones. il Dun's R & Mod Ind 63:36-9 Ja '54

They run their business, not vice versa; T. E. Wannamaker, inc. and Rich-Roth laboratories. Chem W 72:14-16 Ap 11 '53

Tomorrow's management. il Bsns W p 158+ Ag 15 '53 (reprints 20¢)

Torrington; finding a boom in a breeze. il Bsns W p 103-4+ S 19 '53

Umpires in management. R. H. Taylor. Am Pet Inst Proc 33(1):59-62 '53

Wanted; more generalists. J. L. McCaffrey. Personnel J 33:86-90 Jl-Ag '54

What is the right approach to business problem thinking? S. B. Hodges. Advanced Management 19:22-4 Mr '54

What the staff function actually is. R. C. Davis. Advanced Management 19:13-16 My '54

What went wrong to-day? Warner-Kanter companies. M. L. Warner and J. H. Kanter. il Dun's R & Mod Ind 62:46-7+ Ag '53

When line and staff tangle. Bsns W p74+ O 3 '53

Why transfer management to politicians and labor leaders? D. R. Richberg. Comm & Fin Chr 178:2159 D 3 '53

Will your business die with you? E. L. Schwartz. Harvard Bsns R 32:110-22 S '54

See also

Accounting
Advertising
Auditing
Budget, Business
Business consultants
Committees (in management)
Complaints
Corporations—Directors
Credit
Credit departments
Diversification in industry
Employment management
Executives
Factory management
Forms and blanks, Business
Ideas in business
Industrial management
Instalment plan
Inventories
Jobbers
Mail order business
Marketing
Office management
Organization in industry
Planning
Profit
Public relations
Purchasing
Tax evasion and avoidance
Trade marks

Expansion problems

Creep. R. L. Dixon. J Account 96:48-55 Jl '53

Profitably expanding the small business; panel discussion. J Bsns 27:44-8 pt 2 Ap '54

When does it really pay you to expand? R. P. Ulin. Chem Eng 61:347-51 Ap '54

See also

Industrial expansion

Study and teaching

Schoolhouse for foreign businessmen. E. C. Kreutzberg. Steel 134:54 My 31 '54

BUSINESS men

Business realist. H. H. Heimann. Management R 43:276-7 My '54

Estate planning for businessmen. W. G. McKenney. Trusts & Estates 92:564-5 Ag '53

How not to muff a press conference in Washington, D.C. J. Shoenfeld. Sales Management 72:49+ F 15 '54

Planning; why you need a will. Iron Age 174:46-8 S 30 '54

Podsnappery. F. M. Oppenheimer. Harvard Bsns R 32:74-8 Jl '54

Politics, pressure groups, and the businessman. R. F. Bradford. Harvard Bsns R 31:33-41 N '53

Real radicals; U.S. business men; abstract. H. Harris. Management R 42:366-7 Jl '53

Those family hours and business men. M. L. Jones. Dun's R & Mod Ind 62:48-50+ N '53

See also

Executives

BUSINESS mortality. See Business—Mortality

BUSINESS periodicals

Validity of readership studies. G. W. N. Riddle. J Marketing 18:26-32 Jl '53; Discussion. J. W. Mason. 18:394; Reply. 394-6 Ap '54

See also

Employees' magazines
Trade journals

BUSINESS recession. See Business depression

BUSINESS records. See Records

BUSINESS reports

How to write better business reports. J. E. Bedford. Mill & Factory 53:85-8 D '53

BUSINESS research

Factors involved in applying research to the actual operation of a business. F. Lang. Advanced Management 18:5-8 O '53

See also

Advertising research
Market research
Market surveys

BUSINESS schools and colleges

Directories

Directory of business schools in the United States. 19p National assn. and council of business schools, 601 13th st, N.W, Washington 5 '53

BUSINESS statistics

Annual sales totals, 1943-1953; inventories; new orders; foreign trade; businesses in operation; new business incorporations; discontinued businesses; freight carloadings; tabulations. Steel 134:199-200 Ja 4 '54

Business indexes. Steel 134:195 Ja 4 '54

Business indexes; industrial production, construction contracts, employment and payrolls, etc.; index totals, 1919-1952, monthly June, 1952-1953. Fed Res Bul 40:75 Ja '54 [cont monthly]

Business inventories; revised estimates, 1950-53 period; with tables. Survey of Cur Bsns 34:17-23 Ja '54

Business sales and orders; revised estimates of manufacturers' and wholesalers' sales and of manufacturers' new and unfilled orders; with tables. Survey of Cur Bsns 33:21-8 D '53

Business statistics; statistical supplement, 1953. Survey of Cur Bsns 1953 Sup p 1-320 (pa $1.50)

Compass points of business; quarterly analysis. Dun's R 60:11-18 N '52; 61:11-17, 20-1 F; 15-22+ My '53; [cont as] Dun's R & Mod Ind 62:21-7 Ag; 21-6+ N '53; 63:17-22+ F '54

Indications of current business activity; statistical tabulations covering production and other figures for the latest week or month available. Published in weekly Thursday numbers of Commercial and financial chronicle

Making decisions by math; management by high-powered mathematics and electronics. Bsns W p 100 S 5 '53

National business volume; 1953 with gain (or loss) over year 1952; tabulation. map Manuf Rec 123:11 Mr '54

North Carolina story; statistics for 1952. Manuf Rec 123:87 Ja '54

Recent business population movements; with tables. B. C. Churchill. Survey of Cur Bsns 34:11-16+ Ja '54

Southern business volume; 1953 with gain (or loss) over year 1952; tabulation. map Manuf Rec 123:10 Mr '54

Trend of business; production, prices, trade, finance. Dun's R & Mod Ind 63:76-7+ Ja '54 [cont monthly]

See also

Advertising—Statistics

Index numbers (economics)

Industrial statistics

Manufactures—Statistics

Market statistics

Prices—Statistics

BUSINESS visitors. See Visitors

BUSINESS week (periodical)

Story of a successful business paper campaign. W. Persson. il Adv Agency 46:68-9 My '53

BUSINESS women

See also

Women as executives

BUTADIENE

β-Acetylacrylic (4-oxopent-2-enoic) acid in the Diels-Alder reaction; some derivatives of the adduct derived from β-acetylacrylic acid and butadiene. S. Dixon and L. F. Wiggins. Chem Soc J p594-7 F '54

Blends of styrene-butadiene resins with rubbers-non-rigid compounds. H. S. Sell. India Rubber World 129:498-9 Ja '54; Same. Rubber Age 74:551-2 Ja '54

Blends of styrene-butadiene resins with rubbers-rigid compounds. C. R. Holt. India Rubber World 129:497-8 Ja '54; Same. Rubber Age 74:550-1 Ja '54

Calorimetric properties of 41° and 122° F polybutadienes. G. T. Furukawa and R. E. McCoskey. bibliog J Res Nat Bur Stand 51:321-6 D '53

Catalyst evaluation for synthesis of phenylpyridine from butadiene and benzonitrile. G. J. Janz, W. J. G. McCulloch and E. F. Timpane. bibliog diag Ind & Eng Chem 45:1343-7 Je '53

Catalytic cyclic polymerisation of butadiene. H. W. B. Reed. Chem Soc J p 1931-41 Je '54

Chlorination of 2,3-dimethylbutadiene; configuration of the solid dichloride. H. M. Hellman, J. W. Hellman and K. Mislow. Am Chem Soc J 76:1175 F 20 '54

Configuration of polybutadienes prepared at high temperatures. A. I. Medalia and H. H. Freedman. bibliog Am Chem Soc J 75:4790-3 O 5 '53

Copolymer of butadiene and acrylonitrile as a beater additive; abstract. K. Larsson and G. Thurne. Paper Ind 36:216 My '54

Copolymerization of alpha, beta-unsaturated ketones. C. S. Marvel and others. bibliog Ind & Eng Chem 45:1532-8 Jl '53

Copolymerization reactions of cinnamic acid, its derivatives, and some related compounds. C. S. Marvel and others. bibliog(33 ref) Ind & Eng Chem 45:2311-17 O '53

Copolymers of alpha-alkylacrylonitriles with 1,3-butadiene. C. S. Marvel and others. bibliog Ind & Eng Chem 46:804-8 Ap '54

Crystallization in butadiene-styrene copolymers. L. A. Wood. bibliog J Ap Phys 25:851-4 Jl '54

Elimination reactions on 1,4-systems; use of metals to prepare 1,3-butadiene and derivatives. W. M. Schubert and W. A. Lanka. bibliog Am Chem Soc J 76:1956-7 Ap 5 '54

Fluoroölefins; 1,1-difluorobutadiene and 1-fluoro-1-chlorobutadiene. P. Tarrant, M. R. Lilyquist and J. A. Attaway. Am Chem Soc J 76:944-5 F 5 '54

Fluoroölefins; the synthesis of 1,1-difluoro-3-methylbutadiene. P. Tarrant, J. Attaway and A. M. Lovelace. bibliog Am Chem Soc J 76:2343-5 My 5 '54

Liquid emulsion polybutadiene as a softener for GR-S. R. W. Laundrie and B. G. Labbe. Rubber Age 75:545-8 Jl '54

Microstructures of polybutadienes and butadiene-styrene copolymers. J. L. Binder. Ind & Eng Chem 46:1727-30 Ag '54

Organic building blocks. O. V. Tracy. il Chem & Eng N 31:2666-9 Je 29 '53; Excerpts. Oil & Gas J 52:299-301 Jl 27 '53

Polybutadiene modified by addition of thiols containing polar groups. C. S. Marvel and others. bibliog Ind & Eng Chem 45:2090-3 S '53

Preparation of six- and eight-membered ring dimers of butadiene. J. C. Hillyer and J. V. Smith, jr. bibliog diag Ind & Eng Chem 45:1133-6 My '53

Reaction of cyanogen and related nitriles with 1,3-dienes; acrylonitrile and butadiene. G. J. Janz and N. E. Duncan. bibliog Am Chem Soc J 75:5389-92 N 5 '53

Thermal properties of some butadiene-styrene copolymers. G. T. Furukawa and others. bibliog J Res Nat Bur Stand 50:357-65 Je '53

Manufacture

Butadiene from butenes; butadiene extraction; Standard oil development co. diags Pet Refiner 32:150-1 N '53

Butadiene from normal butane in one step, using the Houdry dehydrogenation process. flow diag il Oil & Gas J 52:100+ S 28 '53

Houdry dehydrogenation process. G. F. Hornaday. flow diag Pet Refiner 32:130-1+ S '53

How Neches Butane solves tube-bundle cleaning problems. F. R. Jelinek. il Oil & Gas J 52:121+ O 26 '53

How to make butadiene; pictured flowsheet. Chem Eng 61:306-9 S '54

BUTANE

Air-oxidation of butane; new celanese process used in Pampa plant to make acetic acid, allied products. D. P. Thornton, jr. il diag Pet Processing 8:1041-4 Jl '53

Benedict equation of state. J. B. Opfell, W. G. Schlinger and B. H. Sage. bibliog Ind & Eng Chem 46:1286-91 Je '54

Butadiene from normal butane in one step, using the Houdry dehydrogenation process. flow diag il Oil & Gas J 52:100+ S 28 '53

Butane dehydrogenation at Billingham. E. Beesley and B. Whipp. diags Chem & Ind sup S50-6 Ag 10 '53

Direct oxidation of propane-butane; Celanese corporation of America. diags Pet Refiner 32:144-5 N '53

Gas adsorption by wood, pulp, and paper; low-temperature adsorption of nitrogen, butane, and carbon dioxide by sprucewood and its components. W. R. Haselton. bibliog(26 ref) diag Tappi 37:404-12 S '54

BUTANE—*Continued*
Hydrogen from butane for Lever bros. flow sheet il Can Chem Process 38:90+ Mr '54
Improved butane dehydrogenation catalysts. E. W. Pitzer, J. R. Owen and A. Clark. bibliog Ind & Eng Chem 46:1541-4 Jl '54
Infrared gas analyzer for butane splitter control. R. L. Martin and B. W. Thomas. bibliog diags Ind & Eng Chem 46:1393-6 Jl '54
Macro rings; synthesis and properties of *p,p'*-tetramethylene-1,4-diphenylbutane. D. J. Cram and N. L. Allinger. bibliog Am Chem Soc J 76:726-31 F 5 '54
Properties of butane and Freon-216; abstract. I. S. Badylkes. Refrig Eng 62:64 Jl '54

BUTANEDIOL. See Butylene glycol

BUTANOL. See Butyl alcohol

BUTANONE
Methyl ethyl ketone and acetone; manufacturing process. diag Pet Refiner 32:146-7 N '53
Methyl ethyl ketone prolongs effectiveness of DDT sprays. Chem & Eng N 32:3259 Ag 16 '54
Ternary solubility data. J. H. Jones and J. F. McCants. Ind & Eng Chem 46:1956-8 S '54

BUTATRIENE
Action of metals on unsaturated 1,4-dihalides and derivatives; synthesis and some properties of butatriene. W. M. Schubert, T. H. Liddicoet and W. A. Lanka. bibliog Am Chem Soc J 76:1929-32 Ap 5 '54

BUTENE
Carbonyl compounds as by-products in commercial dehydrogenation of butenes. C. M. Finigan, H. V. Fullerton and G. W. Taylor. diags Ind & Eng Chem 45:1356-9 Je '53
Condensation of saturated halides with unsaturated compounds; condensation of *t*-butyl halides with propene, 1-butene and 2-butene. L. Schmerling and E. E. Meisinger. bibliog Am Chem Soc J 75:6217-22 D 20 '53
Polybutene; manufacturing process. diag Pet Refiner 32:186-7 N '53

BUTENOLIDE. See Butyrolactone

BUTLER brothers
Getting out of a trap; chain of small, independent, variety stores. Bsns W p46+ S 26 '53

BUTTER
Butter subsidies can be avoided via new law; abstract. S. F. Riepma. Oil Paint & Drug Rep 166:5 S 6 '54
Butter support program inequities. S. F. Riepma. Oil Paint & Drug Rep 165:7+ My 17 '54
How they sell benefits of butter; Fairmont foods. il Sales Management 71:51 D 1 '53
Surplus to Soviet? applications to Department of commerce for licenses to export surplus butter and cottonseed oil. Chem W 74:95-6 Ja 23 '54
Test cell for the measurement of the conductivity of butter and margarine. J. H. Prentice. diag J Sci Instr 31:29-30 Ja '54

Prices

Butter greases the skids for the dairy industry. Bsns W p 120-2 O 31 '53

Statistics

Dairy products, 1949-1952. Survey of Cur Bsns 1953 Sup p 135 [supplemented in monthly numbers]

BUTTER oil

Analysis

Detection of adulteration of butter with vegetable oils by means of the tocopherol content. J. H. Mahon and R. A. Chapman. bibliog Anal Chem 26:1195-8 Jl '54

BUTTONS
Problems of the garment dyer and finisher, including the dyeing of buttons. B. Kramrisch and A. E. Bratt. Soc Dyers & Col J 70:180-3 My '54; Discussion. E. Stead. 70:355 Ag '54

BUTYL alcohol
Dielectric polarization and structure of polar liquids under pressure. F. E. Harris and others. bibliog diag J Chem Phys 21:943-8 N '53
Liquid phase equilibria. J. W. Westwater and L. F. Audrieth. bibliog Ind & Eng Chem 46:1281-4 Je '54
Pressure dependence of the dielectric constant of water and the volume contraction of water and *n*-butanol upon addition of electrolyte. F. E. Harris, E. W. Haycock and B. J. Alder. bibliog J Phys Chem 57:978-80 D '53
Stereochemistry of the primary carbon; optically active *n*-butanol-1-*d*. A. Streitwieser, jr. bibliog Am Chem Soc J 75:5014-18 O 20 '53
Synthetic's lead lengthens. Chem W 72:76-7 My 16 '53

BUTYLAMINE
Dielectric measurement of heptacosafluorotributylamine. F. Brown. Am Chem Soc J 75:6041 D 5 '53
Thermal decomposition of *tert.*-butylamine. H. O. Pritchard, R. G. Sowden and A. F. Trotman-Dickenson. diag Chem Soc J p546-9 F '54

BUTYL benzene
Action of aluminum chloride on *n*-butyl-benzene. R. E. Kinney and L. A. Hamilton. Am Chem Soc J 76:786-7 F 5 '54
Bromination of the two propylbenzenes and three butylbenzenes. J. H. Lamneck, jr. bibliog Am Chem Soc J 76:1106-7 F 20 '54
Distribution of isomers in the acetylation of *t*-butylbenzene. J. C. Butler, L. L. Ferstandig and R. D. Clark. bibliog Am Chem Soc J 76:1906-8 Ap 5 '54

BUTYL beryllium
Di-*tert.*-butylberyllium and beryllium hydride. G. E. Coates and F. Glockling. Chem Soc J p2526-9 Jl '54

BUTYL bromide
Dielectric polarization and structure of polar liquids under pressure. F. E. Harris and others. bibliog diag J Chem Phys 21:1943-8 N '53
Reaction of *t*-butyl bromide and *t*-butyl iodide with iodine monochloride. R. M. Keefer and L. J. Andrews. bibliog Am Chem Soc J 76:253-8 Ja 5 '54
Some solvent and salt effects in the solvolysis of *s*-butyl bromide. W. C. Coburn, jr., E. Grunwald and H. P. Marshall. bibliog Am Chem Soc J 75:5735-6 N 20 '53

BUTYL chloride
Dielectric polarization and structure of polar liquids under pressure. F. E. Harris and others. bibliog diag J Chem Phys 21:1943-8 N '53
Proton magnetic resonance of the CH_3 group; solid solutions of *t*-butyl chloride in carbon tetrachloride. J. G. Powles and H. S. Gutowsky. bibliog J Chem Phys 21:1704-9 O '53

BUTYLCUMENE
Reaction between iron(II) complexes of polyethylenepolyamines and *p*-*t*-butylcumene hydroperoxide. R. J. Orr and H. L. Williams. bibliog Am Chem Soc J 76:3321-7 Je 20 '54

BUTYL group
Steric effects of the *t*-butyl group in organosilicon compounds. L. H. Sommer and L. J. Tyler. bibliog Am Chem Soc J 76:1030-3 F 20 '54

BUTYL halides
Condensation of saturated halides with unsaturated compounds; condensation of *t*-butyl halides with propene, 1-butene and 2-butene. L. Schmerling and E. E. Meisinger. bibliog Am Chem Soc J 75:6217-22 D 20 '53

BUTYL hydroperoxide
Preparation of normal and secondary butyl hydroperoxides. E. G. Lindstrom. Am Chem Soc J 75:5123-4 O 20 '53

BUTYL hypochlorite
Action of *t*-butyl hypochlorite on organic compounds; cholesterol. D. Ginsburg. bibliog Am Chem Soc J 75:5489-91 N 20 '53
Formation of hydrazine from *t*-butyl hypochlorite and ammonia. L. F. Audrieth, E. Colton and M. M. Jones. bibliog Am Chem Soc J 76:1428-31 Mr 5 '54
Kinetic study of the formation and hydrolysis of *tert.*-butyl hypochlorite. M. Anbar and I. Dostrovsky. Chem Soc J p 1094-104 Mr '54
Liquid phase equilibria. J. W. Westwater and L. F. Audrieth. bibliog Ind & Eng Chem 46:1281-4 Je '54

BUTYL hypochlorite—*Continued*

Preparation of hydrazine from urea and *t*-butyl hypochlorite. E. Colton, M. M. Jones and L. F. Audrieth. bibliog Am Chem Soc J 76:2572-4 My 5 '54

Tertiary butyl hypochlorite as an N-chlorinating agent. H. Zimmer and L. F. Audrieth. bibliog Am Chem Soc J 76:3856-7 Jl 20 '54

Thermal decomposition of *tert.*-butyl hypochlorite. A. D. Yoffe. Chem & Ind p963-4 Jl 31 '54

BUTYL iodide

Reaction of *t*-butyl bromide and *t*-butyl iodide with iodine monochloride. R. M. Keefer and L. J. Andrews. bibliog Am Chem Soc J 76:253-8 Ja 5 '54

BUTYL naphthalene

2,6-Di-*t*-butylnaphthalene. H. M. Crawford and M. C. Glesmann. bibliog Am Chem Soc J 76:1108-9 F 20 '54

BUTYL peroxide

Reactions of methyl radicals with acetone, diethyl ketone, and di-*tert.*-butyl peroxide. G. O. Pritchard, H. O. Pritchard and A. F. Trotman-Dickenson. Chem Soc J p 1425-8 My '54

BUTYL perphthalic acid

Dipole moments of *t*-butylperphthalic acid and di-*t*-butyldiperphthalate. S. E. Voitz. bibliog Am Chem Soc J 76:1025 F 20 '54

BUTYL phosphate

Extraction of metal thiocyanate complexes with butyl phosphate. L. Melnick, H. Freiser and H. F. Beeghly. Anal Chem 25: 856-9 Je '53

BUTYL rubber. See Rubber, Artificial

BUTYL stearate

Toxicity of butyl stearate, dibutyl sebacate, dibutyl phthalate, and methoxyethyl oleate. C. C. Smith. A M A Archives Ind Hygiene & Occup Med 7:310-18 Ap '53

BUTYLENE glycol

2,3-Bis(*p*-aminophenyl)-2,3-butanediol. N. J. Leonard, S. Swann, jr. and G. Fuller. bibliog Am Chem Soc J 75:5127-8 O 20 '53

Recovery of 2,3-butanediol from fermented beet molasses mashes. J. A. Wheat. bibliog(34 ref) flow sheets il Ind & Eng Chem 45:2387-94 N '53

BUTYLENE oxide. See Epoxybutane

BUTYRALDEHYDE

Ternary solubility data. J. H. Jones and J. F. McCants. Ind & Eng Chem 46:1956-8 S '54

BUTYRIC acid

Cyclisation of arylbutyric acids with polyphosphoric acid; the by-products. R. F. Evans and J. C. Smith. Chem Soc J p798-800 Mr '54

Hepatic tumors due to prolonged ethionine feeding. H. Popper and others. bibliog il Science 118:80-2 Jl 17 '53

Preparation of some substituted 1-dibenzofuranpropionic and -butyric acids. H. Gilman and others. bibliog Am Chem Soc J 75:6310-11 D 20 '53

BUTYROLACTONE

Synthesis of some carboxybutenolide derivatives. D. E. Ames, R. E. Bowman and T. F. Grey. Chem Soc J p375-81 Ja '54

BUTYROPHENONE

Attempted preparation of optically active βγ-dideuterobutyrophenone. A. F. L. Holding and W. A. Ross. Chem Soc J p 145-7 Ja '54

BUXMAN, William

Retiring assistant to the publisher of Textile world. por Textile World 104:224 Ja '54

BUY American act, 1933

Opposed or unmoved? Chem W 74:26+ Ap 24 '54

BUYING. See Purchasing

BUYING habits

Are walkouts too high among lower Fifth avenue shoppers? T. D. Ellsworth. J Retailing 29:101-8+ Fall '53

Buying patterns and brand positions changing. Ptr Ink 243:17 Ap 3 '53

Campus shopping patterns. D. F. Blankertz and others. J Retailing 30:71-4+ Summer '54

Customer viewpoint as a guide to store operation. G. H. Stedman. J Retailing 29:135-44+ Fall '53

Downtown dilemma; survey of metropolitan Boston's shopping habits. J. P. Alevizos and A. E. Beckwith. map Harvard Bsns R 32:109-19 Ja '54

Downtown isn't dead by a long shot; downtown and suburban shopping study of Greater Boston. Bsns W p41-2+ O 24 '53

New language for Madison avenue. Bsns W p40+ S 5 '53

Not statistical data, but people; tape recordings turn survey results into human reactions. Sales Management 70:62 pt 2 Ap 1 '53

Overseas air force men loyal to home brands. Sales Management 71:150 N 10 '53

Psychological approach to consumer behavior analysis. W. J. Bilkey. J Marketing 18:18-25 Jl '53

Puck surveys influence of kids on purchases. Ed & Pub 86:28 Ap 25 '53

Response to trading stamp plans. A. Kroeger. J Retailing 29:171-2+ Winter '53-54

T.G.A. buying habit survey. Soap & San Chem 29:51-3+ S '53

What happened to Loeser's customers? shopping survey to determine their personal characteristics and shopping habits. T. D. Ellsworth. J Retailing 30:1-14+ Spring '54

See also

Women as purchasers

BUYING motives

Selling and the social scientist; panel discussion. J Bsns 27:41-3 pt 2 Ap '54

Why is the buying motive so seldom used by industrial salesmen? W. C. Wright. Sales Management 72:57-8+ Mr 15 '54

BYERS, Colorado

Water supply

Water system for small town has 103 taps. R. Q. Boyce. il Pub Works 85:83 Mr '54

BYOIR, Carl

Byoir relates his career in anti-trust case. Ed & Pub 86:61 My 16 '53

C

C.I.O. See Congress of industrial organizations

C.I.T. financial corporation

C.I.T. Financial; record earnings in offing ride wave of optimism. V. F. Morris. Barron's 33:17+ O 19 '53

Comparison of two giants. P. Dobbs. Mag of Wall St 93:201+ N 14 '53

CORE. See Cooperative research foundation

CABBAGE root fly

Use of dieldrin against cabbage root fly. T. Rosborough. Chem & Ind p947 S 5 '53

CABINETS (furniture)

Cabinet used as room separator; with detail plate. K. R. O'Neal. il plan diags Am Bld 75:200-1 Ag '53

See also

Kitchen cabinets

Loud speaking apparatus—Cabinets

Television cabinets

CABINETS, Kitchen. See Kitchen cabinets

CABLES

Man-made islands protect bridge cables; Chesapeake Bay bridge. il diag Eng N 151: 36-7 D 24 '53

New method for rapid, high-strength cable splices. il Coal Age 59:94 Jl '54

Parabolic cable roof; North Carolina's livestock judging pavilion. il Arch Forum 98: 170-1 Je '53

Wrap-around cables prestress, long continuous-girder bridge; Danube Valley bridge in south Germany. F. Leonhardt and C. Dobell. il diags Eng N 151:43+ S 3 '53

See also

Electric cables

Telephone cables

Wire rope

CABLES, Submarine. See Electric cables, Submarine; Telegraph, Submarine

CABLES, Telephone. See Telephone cables

CABLEWAYS

Cableway places concrete, sets record; Pine Flat dam. il Elec World 140:114+ N 2 '53

Transfer to a trolley; Pittsburgh coke & chemical co. il Chem W 73:42-3 Ag 1 '53

You can use a small cableway. il diags Constr Methods 36:62-5 My '54

CACAO

Cacao diseases; abstract. R. V. Wadsworth. Chem & Ind p342-3 Mr 20 '54

CACTUS

Alkaloid studies; isolation of pilocereine and anhalonidine from four cactus species. C. Djerassi and others. bibliog Am Chem Soc J 76:3215-17 Je 20 '54

Terpenoids; dumortierigenin, a new triterpene lactone from the cactus lemaireocereus dumortieri. C. Djerassi and others. bibliog Am Chem Soc J 76:2969-73 Je 5 '54

Terpenoids; structures of cactus triterpenes gummosogenin and longispinogenin. C. Djerassi and others. bibliog Chem & Ind p 161-2 F 6 '54

Terpenoids; the isolation of erythrodiol, oleanolic acid and a new triterpene triol, longispinogenin, from the cactus lemaireocereus longispinus. C. Djerassi, R. M. McDonald and A. J. Lemin. bibliog Am Chem Soc J 75:5940-2 D 5 '53

Terpenoids; the structures of the cactus triterpenes gummosogenin and longispinogenin. C. Djerassi, L. E. Geller and A. J. Lemin. bibliog Am Chem Soc J 76:4089-91 Ag 20 '54

CADALENE

Synthesis of 8-methylcadalene. W. T. G. Johnston and others. bibliog Chem & Ind p607 My 22 '54

CADBURY brothers, limited

Statement by the chairman. L. J. Cadbury. Economist 168:67-8 Jl 4 '53

CADILLAC motor car company

Cadillac story; quality plus tailfins and applied snobism. F. G. Lawrence. Steel 135:55-6 S 27 '54

CADMIUM

Angular distribution of neutrons scattered from cadmium, tin, and bismuth. S. C. Snowdon and W. D. Whitehead. bibliog Phys R 94:1267-72 Je 1 '54

Anodic formation of coatings on magnesium, zinc, and cadmium. K. Huber. bibliog il Electrochem Soc J 100:376-82 Ag '53

Atomic heat and critical magnetic field of superconducting cadmium. J. R. Clement. Phys R 92:1578 D 15 '53

Cadmium, 1953. R. L. Mentch. Eng & Min J 155:95-6+ F '54

Cadmium pigments; abstract. P. J. Curtis and R. B. Wright. Paint Oil & Chem R 117:46 Jl 15 '54

Contamination of ground water by cadmium. M. Lieber and W. F. Welsch. bibliog plan diags Am Water Works Assn J 46:541-7 Je '54

Corrosion inhibition in acid solution. C. V. King and E. Hillner. bibliog Electrochem Soc J 101:79-83 F '54

de Haas-van Alphen effect in cadmium. T. G. Berlincourt. bibliog diags Phys R 94:1172-8 Je 1 '54

Elastic relaxation and grain boundary diffusion in cadmium. Y. L. Yousef and R. Kamel. J Ap Phys 25:1064 Ag '54

Ionization probability curves near threshold for Zn, Cd, and Hg. W. M. Hickam. bibliog diags Phys R 95:703-5 Ag 1 '54

Quick with cadmium; impact of sintered-plate nickel-cadmium battery. il Chem W 74:94 Mr 20 '54

Rate of dissolution of zinc and cadmium in chromic chloride solutions. C. V. King and N. Mayer. bibliog Electrochem Soc J 100:473-9 N '53

Analysis

Cadmium thiourea reineckate procedure. C. L. Rulfs, E. P. Przybylowicz and C. E. Skinner. bibliog Anal Chem 26:408-10 F '54

Coulometric determinations of submicrogram amounts of cadmium and zinc. K. W. Gardiner and L. B. Rogers. bibliog Anal Chem 25:1393-7 S '53

Direct titration of zinc and cadmium in cyanide solutions. J. P. Leftin. bibliog Metal Finishing 52:74-5 Ap '54

Fluorometric determination of cadmium. N. Evcim and L. A. Reber. Anal Chem 26:936-7 My '54

Spectrophotometric titrations with ethylenediaminetetraacetic acid; determination of magnesium, calcium, zinc, cadmium, titanium, and zirconium. P. B. Sweetser and C. E. Bricker. Anal Chem 26:195-9 Ja '54

Metallography

After-effects in polycrystalline cadmium. C. S. Barrett. J Metals 5:Trans 1652-4 D '53

Nuclear reactions

Decay schemes of Cd^{114} and Te^{125}. D. C. Lu and others. Phys R 95:121-2 Jl 1 '54

Directional correlation and electric quadrupole interaction in the γ-γ cascade of 48.7-min Cd^{111m}. J. J. Kraushaar and R. V. Pound. bibliog Phys R 92:522-3 O 15 '53

Scintillation spectrometer determination of *L*-capture to *K*-capture ratio in Cd^{109} and I^{125}. E. der Mateosian. bibliog Phys R 92:938-40 N 15 '53

Time-dependent quadrupole interaction in angular correlation of nuclear radiation; Cd^{111}. P. B. Hemmig and R. M. Steffen. bibliog Phys R 92:832-3 N 1 '53

Prices

Cadmium prices, sticks, bars, 1943-1953; tabulation. Iron Age 173:413 Ja 7 '54

Nonferrous prices; tabulation. Steel 134:175 Ja 4 '54

Spectrum

Hyperfine structure in the spectra of Sb, Sm, Hg, and Cd. K. Murakawa. bibliog Phys R 93:1232-5 Mr 15 '54

CADMIUM acetate

Liquidus curve of the binary system cadmium acetate-potassium acetate. A. Lehrman and D. Schweitzer. J Phys Chem 58:383-4 Ap '54

CADMIUM alloys

Magnesium-cadmium alloys; heat capacities between 12 and 320°K. and the entropies at 25° of magnesium and cadmium. R. S. Craig and others. bibliog diag Am Chem Soc J 76:238-40 Ja 5 '54

Magnesium-cadmium alloys; low temperature heat capacities and a test of the third law of thermodynamics for the MgCd superlattice. C. B. Satterthwaite, R. S. Craig and W. E. Wallace. bibliog diags Am Chem Soc J 76:232-8 Ja 5 '54

Magnesium-cadmium alloys; low temperature heat capacities of $MgCd_3$ and Mg_3Cd and a test of the third law of thermodynamics for the $MgCd_3$ superlattice. L. W. Coffer and others. bibliog Am Chem Soc J 76:241-4 Ja 5 '54

Silver-cadmium beta and zeta phases. L. Muldawer and others. bibliog J Metals 5:Trans 1458-9 N '53

Silver-cadmium eutectoid. G. R. Speich and D. J. Mack. bibliog il J Metals 5:Trans 549-53 Ap '53; Discussion. 6:Trans 675-6 sec 2 My '54

Viscosity and density of liquid lead-tin and antimony-cadmium alloys. H. J. Fisher and A. Phillips. bibliog(40 titles) diags J Metals 6:Trans 1060-70 sec 2 S '54

CADMIUM chloride

Stability constants of cadmium chloride complexes; variation with temperature and ionic strength. C. E. Vanderzee and H. J. Dawson, jr. bibliog Am Chem Soc J 75:5659-63 N 20 '53

CADMIUM compounds

Reaction of organocadmium reagents with ethoxalyl chloride. G. W. Stacy and R. M. McCurdy. bibliog Am Chem Soc J 76:1914-16 Ap 5 '54

Reactions of some polynuclear aroyl acid chlorides with organocadmium reagents. D. V. Nightingale, W. S. Wagner and R. H. Wise. bibliog Am Chem Soc J 75:4701-3 O 5 '53

Analysis

Quantitative estimation of amine-cadmium halide complexes. L. Levi and C. G. Farmilo. bibliog(34 ref) Anal Chem 25:909-13 Je '53

CADMIUM niobate

Dielectric properties and phase transitions of $Cd_2Nb_2O_7$ and $Pb_2Nb_2O_7$. G. Shirane and R. Pepinsky. Phys R 92:504 O 15 '53

Low-temperature dielectric properties of cadmium and lead niobates. J. K. Hulm. bibliog Phys R 92:504-5 O 15 '53

CADMIUM oxide

Heats of formation of chromium oxide and cadmium oxide from combustion calorimetry. A. D. Mah. Am Chem Soc J 76:3363-5 Jl 5 '54

CADMIUM phosphates

Luminescence of the system β $Zn_3(PO_4)_2$-$Cd_3(PO_4)_2$:Mn. A. L. Smith and A. D. Power. bibliog Electrochem Soc J 101:244-7 My '54

CADMIUM plating

Electrodeposition of cadmium from fluoborate solutions. T. R. Anantharaman and J. Balachandra. bibliog Electrochem Soc J 100:232-6 My '53

CADMIUM poisoning

Cadmium intoxication. M. L. Amdur and R. A. Caputi. il Ind Med 22:561-6 D '53

CADMIUM sulfide

Growth of cadmium sulfide crystals. M. E. Bishop and S. H. Liebson. diag J Ap Phys 24:660-1 My '53

Low-temperature luminescence of cadmium sulfide. L. R. Furlong. Phys R 95:1086 Ag 15 '54; Correction. 96:1714 D 15 '54

Optical properties of thin films of cadmium sulfide. J. Gottesman and W. F. C. Ferguson. Opt Soc Am J 44:368-70 My '54

Origin of the fluorescence in self-activated ZnS, CdS, and ZnO. F. A. Kröger and H. J. Vink. bibliog J Chem Phys 22:250-2 F '54

Production of a *P*-type CdS rectifier by high local heating of *N*-type crystals. G. Strull. J Ap Phys 24:1411 N '53

Radiation from CdS crystals generated by dc electric fields. R. W. Smith. Phys R 93:347 Ja 15 '54

Surface states of cadmium sulfide. S. H. Liebson. bibliog diags Electrochem Soc J 101:359-62 Jl '54

Analysis

Flame photometric determination of sodium and potassium in zinc cadmium sulfide phosphors. S. B. Deal. Anal Chem 26:598-9 Mr '54

CAESIUM. See Cesium

CAFESTOL

Structure of cafestol. R. D. Haworth and others. bibliog Chem & Ind p 104 Ja 23 '54

CAFETERIAS, Employees'. See Lunchrooms and cafeterias, Employees'

CAFFEINE

Eight-basically-substituted caffeines. F. F. Blicke and H. C. Godt, jr. bibliog Am Chem Soc J 76:2835 My 20 '54

Analysis

Determination of caffeine and trigonelline in coffee by paper chromatography. L. Kogan, F. J. DiCarlo and W. E. Maynard. bibliog Anal Chem 25:1118-20 Jl '53

Spectrophotometric determination of theobromine and caffeine in cocoa powders. D. T. Englis and J. W. Miles. bibliog Anal Chem 26:1214-18 Jl '54

CAISSONS

Concrete caissons towed to bridge site; Tappan Zee bridge between Tarrytown and South Nyack, N.Y. il Eng N 151:22 O 22 '53

Precast caissons for Kitimat wharf; abstract. W. L. Pugh. Roads & Eng Constr 92:137-9 My '54

Precast pier caissons sunk in river. il Comp Air Mag 58:316 N '53

Wharf built in dry, floated to place; Alcan's British Columbia hydroelectric aluminum refining project. L. E. Van Houten. il diag Eng N 152:29-30+ Ja 14 '54

CAKE

Aerating properties of egg and the mass production of cakes; abstract. E. A. Farrand. Chem & Ind p638-9 Je 27 '53

Canned-handy baked goods; Canned bread specialty co. il Food Eng 26:123+ Jl '54

Taste testing rooms; lighting for food technology. H. W. Spell and A. W. Lange. il diag Illum Eng 49:105-6 F '54

CAKE mixes

She's baking a cake for everyone; Kay Stanley cake mix set. D. J. Atchison. il Sales Management 70:38+ Je 15 '53

CALAMINE. See Zinc carbonate

CALCINATION

How to control heat for calciners. W. G. Bauer. il diags Chem Eng 61:193-200 My '54

Steam catalysis in calcinations of dolomite and limestone fines. W. H. MacIntire and T. B. Stansel. bibliog(54 ref) il Ind & Eng Chem 45:1548-55 Jl '53

CALCITE

Calcite (Aktivitt) as concrete admixture. E. Hognestad. Am Concrete Inst J 25:801-3 My '54

Nature and dynamic interpretation of deformation lamellae in calcite of three marbles. F. J. Turner. bibliog diags Am J Sci 251:276-98 Ap '53

Transmission of X-rays through calcite in Laue diffraction. G. Schwarz and G. L. Rogosa. bibliog diags Phys R 95:950-3 Ag 15 '54

CALCIUM

Both calcium and magnesium limestone very important. O. T. Coleman. Rock Prod 57:122-3 Ap '54

Diffusion of calcium ion in liquid slag. H. Towers and others. bibliog il diag J Metals 5:Trans 1455-8 N '53

Interaction of calcium ions with some phosphate and citrate buffers. C. W. Davies and B. E. Hoyle. Chem Soc J p4134-6 D '53

Metal-water reactions; the reaction between calcium and water vapor. D. S. Gibbs and H. J. Svec. Am Chem Soc J 75:6052-4 D 5 '53

No free-flow for calcium. il Chem W 74:87-8+ Ap 17 '54

Process kinetics; kinetics of ion exchange in the calcium cycle. P. F. Hagerty, 2d and H. Bliss. bibliog flow sheet Ind & Eng Chem 45:1253-9 Je '53

Analysis

Amperometric titration of calcium with the disodium salt of ethylenediaminetetraacetic acid. H. A. Laitinen and R. F. Sympson. bibliog Anal Chem 26:556-8 Mr '54

Colorimetric determination of calcium with ammonium purpurate. M. B. Williams and J. H. Moser. Anal Chem 25:1414-17 S '53

Determination of barium, calcium, and zinc in lubricating oils; use of fluorescent X-ray spectroscopy. E. N. Davis and R. A. Van Nordstrand. bibliog il diags Anal Chem 26:973-7 Je '54

Determination of calcium and magnesium in lake waters by means of a rotating silver disk electrode. V. W. Meloche and R. Shapiro. bibliog il diags Anal Chem 26:347-50 F '54

Determination of calcium and magnesium in limestones by the ethylenediamine tetraacetate method. J. W. Jordan and K. L. Robinson. Chem & Ind p687-8 Jl 11 '53

Determination of calcium in biological material by flame photometry. P. S. Chen, jr. and T. Y. Toribara. Anal Chem 25:1642-4 N '53

Determination of calcium in plant material by the flame photometer. T. R. Williams and R. R. T. Morgan. Chem & Ind p970 S 12 '53

Determination of oxalate ion and calcium ion by indirect colorimetry. F. Burriel-Martí, J. Ramírez-Muñoz and E. Fernández-Caldas. bibliog Anal Chem 25:583-5 Ap '53

Direct microdetermination of sodium, potassium, and calcium. G. R. Kingsley and R. R. Schaffert. bibliog Anal Chem 25:1738-41 N '53

Effects of anions on calcium flame emission in flame photometry. G. L. Baker and L. H. Johnson. bibliog Anal Chem 26:465-8 Mr '54

Flame photometric determination of calcium in wet-process phosphoric acid. J. A. Brabson and W. D. Wilhide. bibliog Anal Chem 26:1060-1 Je '54

Methods for analysis of titanium alloys; nephelometric and gravimetric determination of small amounts of calcium in titanium alloys. M. Codell, A. Cherney and G. Norwitz. bibliog(29ref) Anal Chem 25:1434-6 O '53

CALCIUM—Analysis—*Continued*

Noninterference of phosphate in an ethylenediamine tetraacetate method for serum calcium. A. D. Kenny and S. U. Toverud. Anal Chem 26:1059 Je '54

Quantitative separation of the alkaline earths by ion-exchange chromatography. M. Lerner and W. Rieman, 3d. bibliog Anal Chem 26:610-11 Mr '54

Separation of calcium and strontium in semimicro qualitative analysis. R. B. Hahn. J Chem Educ 30:349 Jl '53

Spectrochemical study of gravimetric procedure for barium, strontium and calcium. P. R. Wilkinson, J. A. Gibson, jr. and A. J. W. Headlee. bibliog Anal Chem 26:767-9 Ap '54

Spectrophotometric titrations with ethylenediaminetetraacetic acid; determination of magnesium, calcium, zinc, cadmium titanium, and zirconium. P. B. Sweetser and C. E. Bricker. Anal Chem 26:195-9 Ja '54

Stoichiometry of titration of metal ions with disodium salt of ethylenediaminetetraacetic acid. W. J. Blaedel and H. T. Knight. bibliog Anal Chem 26:743-6 Ap '54

Strontium and calcium in municipal water supplies. G. V. Alexander and others. bibliog Am Water Works Assn J 46:643-54 Jl '54

Titration of calcium and magnesium in milk and milk fractions with ethylenediamine tetraacetate. R. Jenness. bibliog Anal Chem 25:966-8 Je '53

Volumetric determination of calcium and magnesium. R. L. Stephens. Chem Age (Lond) 69:495-8 S 5 '53

Isotopes

Determination of calcium in biological materials. W. P. Norris and B. J. Lawrence. bibliog il diag Anal Chem 25:956-60 Je '53

Nuclear reactions

Disintegration of Ca^{47}, Sc^{47}, Va^{48}, and Rh^{100}. L. Marquez. bibliog Phys R 92:1511-16 D 15 '53

Radioactive decay of calcium 47. J. M. Cork and others. bibliog Phys R 92:367-9 O 15 '53

CALCIUM carbonate

Developments in calcium carbonate and mica extender pigments; abstract. R. L. McCleary. Paint Oil & Chem R 117:32 Ap 8 '54

Paramagnetic resonance absorption of Mn^{++} in single crystals of $CaCO_3$. F. K. Hurd and others. bibliog Phys R 93:373-80 F 1 '54

Progress report on the development of a calcium carbonate for high gloss paper coatings. R. W. Hagemeyer and G. E. Hall. il diags Tappi 36:sup 179A-82A O '53

Put waste $CaCO_3$ to work. Chem Eng 61:156 Jl '54

See also
Chalk
Dolomite

CALCIUM chloride

Coagulating rouge with calcium chloride. J. A. McCarthy. Pub Works 85:170-1 My '54

Does antifreeze destroy cars? corrosion from calcium chloride applied to coal and ore. il Ry Age News ed 136:22-3+ Ja 18 '54

Effect of age of concrete on its resistance to scaling caused by using calcium chloride for ice removal. W. C. Hansen. bibliog il Am Concrete Inst J 25:341-51 Ja '54

Equilibria between 18 and 114° in the aqueous ternary system containing Ca^{2+}, Sr^{2+} and Cl^-. G. O. Assarsson and A. Balder. bibliog J Phys Chem 57:717-22 O '53

Help coal and iron ore shipments stand the cold. il Min Cong J 40:54 Ja '54

Stabilization of bank-run gravel with calcium chloride; abstract. A. S. Yalcin and F. O. Slate. Roads & Eng Constr 92:110-11 My '54

Tank truck sprays even coat of liquid while moving along a road. diag Chem & Eng N 31:2338 Je 1 '53

CALCIUM compounds

High temperature heat contents of calcium and magnesium ferrites. K. R. Bonnickson. Am Chem Soc J 76:1480-2 Mr 20 '54

Low-temperature electrolytes. F. Rakowsky and A. B. Garrett. bibliog Electrochem Soc J 101:117-19 Mr '54

CALCIUM cyanamide

Bid for the garden trade; calcium cyanamide. il Chem W 74:34 My 1 '54

CALCIUM fluoride

Adsorption of gases on calcium fluoride. H. Edelhoch and H. S. Taylor. bibliog J Phys Chem 58:344-50 Ap '54

Sensitized luminescence of CaF_2:(Ce + Mn). R. J. Ginther. bibliog Electrochem Soc J 101:248-57 My '54

CALCIUM hydroxide

See also
Portlandite

Analysis

Uncombined calcium oxide or hydroxide in lime and silicate products. G. O. Assarsson and J. M. Bokström. bibliog Anal Chem 25:1844-8 D '53

CALCIUM nitrate

Stress-corrosion cracking of mild steels in nitrate solution. R. N. Parkins. bibliog 2pls diags Iron & Steel Inst J 172:149-62 O '52; Abstract. Metal Prog 64:130+ D '53; Discussion. Iron & Steel Inst J 174:140-2 Je '53

CALCIUM oxide. See Lime

CALCIUM pantothenate

Analysis

Colorimetric determination of calcium pantothenate. C. R. Szalkowski and J. H. Davidson, jr. bibliog Anal Chem 25:1192-5 Ag '53

CALCIUM perchlorate

Osmotic and activity coefficients of calcium, strontium and barium perchlorate at 25°. R. A. Robinson, C. K. Lim and K. P. Ang. Am Chem Soc J 75:5130 O 20 '53

CALCIUM peroxide

System calcium peroxide-calcium oxide-oxygen. C. N. Satterfield and T. W. Stein. bibliog Ind & Eng Chem 46:1734-6 Ag '54

CALCIUM phosphates

Constitution of bone china; high-temperature phase equilibrium studies in the system tricalcium phosphate-alumina-silica. P. D. S. St Pierre. bibliog(25 titles) il diags Am Cer Soc J 37:243-58 Je 1 '54

Eye on the long term; Texas City chemicals co. Chem W 74:6-7 Ja 2 '54

If I knew you were comin'; Monsanto leavening agent school for salesmen. il Chem W 74:28+ F 13 '54

Polyphosphates of calcium, strontium, barium and magnesium. M. Bobtelsky and S. Kertes. bibliog J Ap Chem 4:419-29 Ag '54

Time for a change; dicalcium phosphate expansion spree winds up. Chem W 74:65-8 Ja 9 '54

CALCIUM silicates

Calcium silicate hydrate (I). S. A. Greenberg. bibliog J Phys Chem 58:362-7 Ap '54

Heats of hydration of tricalcium silicate and β-dicalcium silicate. S. Brunauer, J. C. Hayes and W. E. Hass. bibliog J Phys Chem 58:279-85 Mr '54

Properties of calcium silicate phosphors. J. H. Schulman and others. Opt Soc Am J 43:318-19 Ap '53

Siporex for Dominion tar and chemical co. Can Chem Process 37:40 N '53

Studies on the lime-rich crystalline solid phases in the system lime, silica, water. G. L. Kalousek and others. bibliog Am Cer Soc J 37:7-13 Ja 1 '54

See also
Silene
Wollastonite

CALCIUM sulfate

Regeneration of sulfuric acid from by-product calcium sulfate. J. M. Stinson and C. E. Mumma. bibliog Ind & Eng Chem 46:453-7 Mr '54

See also
Gypsum

CALCULATING devices

Calculator replaces daily load schedule. C. H. Conrad. il Elec World 140:127 Ag 10 '53

Device for the rapid determination of tangents to stress-relaxation curves of single wool fibers; tangentometer. W. J. Thorsen. il Textile Res J 24:130-1 F '54

Radiographic exposure calculator. Metallurgia 48:254 N '53

See also

Slide rule

CALCULATING machines

Alwac electronic computors, economy size. il Steel 134:114+ Ja 25 '54; Mech Eng 76: 268-9 Mr '54

Am-fm electronic analog multiplier. W. A. McCool. diags Inst Radio Eng Proc 41: 1470-7 O '53

Anacom solves system transients. C. L. Wagner. il diags Elec World 140:127-9 N 16 '53

Analog computer elements for solving nonlinear differential equations. C. A. Ludeke and C. L. Morrison. il diags J Ap Phys 24:243-8 Mr '53

Analogue computer for the solution of the radio refractive-index equation. W. E. Johnson. bibliog il diags J Res Nat Bur Stand 51:335-42 D '53

Analog computers; successor to cut and try; developing control systems for jet engines. C. E. Bradford and W. M. Gaines. il diags Gen Elec R 56:24-7+ N '53

Analog computing applied to noise studies. R. R. Bennett. bibliog diags Inst Radio Eng Proc 41:1509-13 O '53

Analogue computing circuit for the evaluation of the ratio of two slowly-varying potentials. R. L. Gordon. bibliog diags J Sci Instr 31:166-9 My '54

Analog-to-digital converter for serial computing machines. H. J. Gray, jr. and others. diags Inst Radio Eng Proc 41:1462-5 O '53

Analogue vs. digital computers; a comparison. M. Rubinoff. diags Inst Radio Eng Proc 41:1254-62 O '53

Analysis of rigid-jointed plane frameworks; use of an electronic digital computor. R. K. Livesley and T. M. Charlton. diags Engineering 177:239-40 F 19 '54

Application of computing machines to ion exchange column calculations. A. Opler. bibliog(26 ref) diag Ind & Eng Chem 45: 2621-9 D '53

Argonne builds another computer; ORACLE. Midwest Eng 6:20 S '53

Arithmetic element of the IBM type 701 computer. H. D. Ross, jr. diags Inst Radio Eng Proc 41:1287-94 O '53

Arma sub-miniature analog computer component. il Mach 60:203 Mr '54

Automatic analogue computor for the solution of mine ventilation networks. D. R. Scott and R. F. Hudson. il diags J Sci Instr 30:185-8 Je '53

Automatic computer; National bureau of standards western automatic computer. il Tele-Tech 12:84+ N '53

Automatic computing in aircraft engineering. G. G. Alway. Engineering 176:351 S 11 '53

Automatic ionization efficiency digital recorder. J. D. Morrison. bibliog diags R Sci Instr 25:291-3 Mr '54

Automatic mass spectrometric analysis. B. F. Dudenbostel, jr. and W. Priestley, jr. bibliog il diag Anal Chem 26:1275-8 Ag '54

Automatic telephone system employing magnetic drum memory. W. A. Malthaner and H. E. Vaughan. il diags Inst Radio Eng Proc 41:1341-7 O '53

Automation via digital conversion. M. D. Weiss. diags Instruments & Automation 27:926-7 Je '54

Bendix computer holds solution. Steel 134: 122-3 Mr 15 '54

Big brain reads Russian. il Machine Design 26:204+ Mr '54

Brain is project for education, industry; Wayne university computation laboratory. D. G. Baird. il Am Bsns 24:21+ Ap '54

Business applications and limitations of electronic computers; UNIVAC. L. A. Harr. Am Gas Assn Proc 1953:231-8

CRC 105 computer. R. E. Sprague. il Aero Digest 67:48+ Ag '53

Can European electronic machines help American offices? H. O. Brayer. flow charts il Am Bsns 24:10-13+ Je; 16-19+ Jl; 20-3+ Ag; 22-3+ S '54

Can machines think? M. V. Wilkes. bibliog Inst Radio Eng Proc 41:1230-4 O '53

Coded decimal number systems for digital computers. G. S. White. Inst Radio Eng Proc 41:1450-2 O '53

Combined reading and writing on a magnetic drum. J. H. McGuigan. il diags Inst Radio Eng Proc 41:1438-44 O '53

Computer; develop flyweight unit; Arma corp. research team shrinks mechanical brain. R. L. Hatschek. il Iron Age 173:84 F 4 '54

Computer for solving some problems in connexion with travelling-wave particle accelerators. M. C. Crowley-Milling. bibliog il diags J Sci Instr 31:100-4 Mr '54

Computer issue. W. Buchholz. Inst Radio Eng Proc 41:1220-2 O '53

Computer memory uses conventional c-r tubes. A. W. Holt and W. W. Davis. il diags Electronics 26:178-82 D '53

Computer solves Detroit's problems; Wayne university electronic computer. R. D. Raddant. il Iron Age 172:78-9 D 17 '53

Computers and automata. C. E. Shannon. bibliog Inst Radio Eng Proc 41:1234-41 O '53

Computers go commercial by degrees. Bsns W p68-70+ N 21 '53

Computers, statistics, and mathematics. A. Rose and others. Ind & Eng Chem 46:916-22 bibliog(163 ref, p920-2) My '54

Computing bit by bit; or digital computers made easy. A. L. Samuel. Inst Radio Eng Proc 41:1223-30 O '53

Construction and operation of the Manchester University computer. B. W. Pollard and K. Lonsdale. diags Inst E E Proc 100 pt 2:501-12; Discussion. 540-3 O '53

Controlled-frequency oscillator with frequency memory. J. Van Bladel. diags J Sci Instr 30:299-301 S '53

Convair analogue computer. R. D. Horwitz. il diags Radio & Tv N 51:61+ Ja '54

Counters for digital systems announced. il Aviation W 59:71-2 N 9 '53

Curve analyzer and general purpose graphical computer. C. S. French and others. il diags R Sci Instr 25:765-75 Ag '54

Delay lines for radar and computers. B. M. Cole and M. H. Murphy. il diags Tele-Tech 12:106-8+ O '53

Denies electronic computers can do underwriting; Casualty actuarial society progress report. East Underw 55:30 Je 4 '54; Nat Underw 58:26-7 Je 3 '54

Design of logical or-and-or pyramids for digital computers. S. E. Gluck and others. diags Inst Radio Eng Proc 41:1388-92 O '53

Designing cams with aid of computers. R. F. Griffin. il diags Machine Design 25:209-15 D '53

Diagnostic programs for the Illiac. D. J. Wheeler and J. E. Robertson. diag Inst Radio Eng Proc 41:1320-5 O '53

Digital computers. J. A. Rajchman. diag Instruments 26:1711+ N '53

Digital computers aid engineers; Detroit Edison co. T. H. Lee and A. P. Fugill. il Elec World 141:89-91 Mr 8 '54

Digital computers at Manchester university. T. Kilburn and others. bibliog diags Inst E E Proc 100 pt 2:487-500; Discussion. 540-3 O '53

Diode-capacitor memory for electronic computers. diags Electronics 26:200+ N '53

Diode-capacitor memory for high-speed computers. A. W. Holt. diags Tele-Tech 12: 85+ N '53

Dynamic circuit techniques used in SEAC and DYSEAC. R. D. Elbourn and R. P. Witt. diags Inst Radio Eng Proc 41:1380-7 O '53

Dynamic heart-body simulator. E. Frank. bibliog il diags R Sci Instr 25:611-15 Je '54

Economic analogs. O. J. M. Smith. bibliog diags Inst Radio Eng Proc 41:1514-19 O '53

Effectiveness of two-step smoothing in digital control computers. R. E. Spero. Inst Radio Eng Proc 41:1465-9 O '53

CALCULATING machines—*Continued*

Electrical revolution; electronic calculating machines. L. G. Brazier. Engineer 196:637-8 N 13 '53

Electromagnetic clutch for high accelerations. S. M. Oster and L. D. Wilson. diags Inst Radio Eng Proc 41:1453-5 O '53

Electron-beam tube for analog multiplication. E. J. Angelo, jr. diags R Sci Instr 25:280-4 Mr '54

Electronic and mechanical modular design. L. W. Reid. il Machine Design 26:151-2 Mr '54

Electronic brain goes on wheels; DYSEAC. il Spectator 162:28-9 S '54

Electronic brain translates Russian; IBM 701, of International business machines corp. il Chem & Eng N 32:340-1 Ja 25 '54

Electronic brains for rent; Electronic associates' analog computation center. il Chem & Eng N 32:2955 Jl 26 '54

Electronic circuits of the NAREC computer. P. C. Sheretz. il diags Inst Radio Eng Proc 41:1313-20 O '53

Electronic complex plane scanner; analog computer. J. R. Ragazzini and G. Reynolds. bibliog il diags R Sci Instr 24:523-7 Jl '53

Electronic computer is built of unit-packaged circuits. A. Jacobson. il Elec Eng 73:191 F '54

Electronic computer on wheels. il Automotive Ind 111:58-9 Ag 1 '54

Electronic computers; a revolution in the office? abstract. R. W. Fairbanks. Management R 42:649-50 N '53

Electronic computers and telephone switching. W. D. Lewis. Inst Radio Eng Proc 41:1242-4 O '53

Electronic speed tally reduces time needed for inventory control. il Elec Eng 72:1134 D '53

Electronics down to earth. J. A. Higgins and J. S. Glickhauf. Harvard Bsns R 32:97-104 Mr '54

Elements of Boolean algebra for the study of information-handling systems. R. Serrell. bibliog diags Inst Radio Eng Proc 41:1366-80 O '53; Correction. 42:475 F '54

Engineering description of the IBM type 701 computer. C. E. Frizzell. il diag Inst Radio Eng Proc 41:1275-87 O '53

Extending engineering skills with large-scale digital computers. A. Keller. diags Mech Eng 75:891-5 N '53

Fast computers afford greater utilization of industrial instrumentation. B. W. Thomas. Ind & Eng Chem 46:sup79A-80A+ F '54

Ferrites for microwave circuits and digital computers. E. Albers-Schoenberg. bibliog diags J Ap Phys 25:152-4 F '54

1500 tubes speed office work; Card-programmed calculator. il Spectator 161:24 Ag '53

FOSDIC, a film optical sensing device for input to computers. Opt Soc Am J 44:177-8 F '54

Film optical sensing device processes information for input to computers; abstracts. M. L. Greenough and others. flow diag il Elec Eng 73:184-5 F '54; Electronics 27:236+ F '54

Franklin Life to install million dollar brain machine next year. East Underw 54:14 S 18 '53

Fundamentals of digital computer programming. W. H. Thomas. bibliog flow chart diag Inst Radio Eng Proc 41:1245-9 O '53

GE and UNIVAC; harnessing the high-speed computer. R. F. Osborn. Harvard Bsns R 32:99-107 Jl '54

General technology of computers, statistics, and mathematics. A. Rose. J. A. Schilk and R. C. Johnson. Ind & Eng Chem 45:933-40 bibliog(227 ref, p938-40) My '53

Generating nonlinear functions with linear potentiometers. H. Levenstein. diags Tele-Tech 12:76-8+ O '53

High speed arithmetic; the digital computer as a research tool. H. R. J. Grosch. bibliog(25 ref) Opt Soc Am J 43:306-10 Ap '53

High-speed electronic memory device seen as aid in solving complex problems. J. A Rajchman. Elec Eng 72:943-4 O '53

How does accounting stand with electronics? J. S. Warshauer. il N A C A Bul 34:965-72 Ap '53

Influence of programming techniques on the design of computers. G. M. Hopper and J. W. Mauchly. Inst Radio Eng Proc 41:1250-4 O '53

Input-output unit for analog computers. P. R. Vance and D. L. Haas. il diags Inst Radio Eng Proc 41:1483-6 O '53

Instantaneous multiplier for computers. M. Mehron and W. Otto. il diags Electronics 27:144-8 F '54

Job formerly requiring 300 hours now completed in 50 hours; electronic computer for accounting jobs. P. Hirsch. il Am Bsns 24:19+ Je '54

Klem, Defense department study Univac results. Nat Underw (Life ed) 57:24 O 23 '53

Life companies on verge of revolution via electronics. Nat Underw (Life ed) 58:1+ S 10 '54; Same. Weekly Underw 171:609 S 11 '54

Lightning protection in extra-high-voltage stations; influence of multiple circuits; analogue computer study. I. W. Gross and others. bibliog diags Elec Eng 72:967-72 N '53

Link in the control chain; digital data-logging equipment to absorb and correlate process information. il Chem W 75:40-1 S 4 '54

Logical principles of a new kind of binary counter. W. H. Ware. diags Inst Radio Eng Proc 41:1429-37 O '53

Logistics computer. R. S. Erickson. il diags Inst Radio Eng Proc 41:1325-32 O '53

Machine aid for switching circuit design. C. E. Shannon and E. F. Moore. il diag Inst Radio Eng Proc 41:1348-51 O '53

Machine equipment calculates transmission line constants. R. H. Rankin and O. Torseth. il Elec World 139:129-30 Je 15 '53

Magnetic amplifier as an analog computer component. L. J. Craig. diags Inst Radio Eng Proc 41:1477-82 O '53

Magnetic blocks aid computer design. il Aviation W 58:39 Je 29 '53

Magnetic drum calculator. Franklin Inst J 256:300-1 S '53

Magnetic drum design; reference sheet. D. G. O'Connor. Electronics 26:196 N '53

Magnetic drum storage devices. R. L. Perkins. il diags Product Eng 24:192-5 Ag '53

Magnetic memory system may aid in solving air traffic problems. Elec Eng 72:944-5 O '53

Making decisions by math; management by high-powered mathematics and electronics. Bsns W p 100 S 5 '53

Map method for synthesis of combinational logic circuits; abstract. M. Karnaugh. diag Elec Eng 73:136 F '54

Mechanical analog computer for reading electron diffraction patterns. W. R. McMillan. bibliog il diag R Sci Instr 25:545-7 Je '54

Mechanical analog-computing elements and their applications to automatic control. A. Piatt. il diags A S M E Trans 76:883-8 Ag '54

Mechanical particle, an analog computing machine. B. Rankin. il diags R Sci Instr 25:675-8 Jl '54

Methods used by NACA for data reduction. I. H. Abbott. Machine Design 26:226+ Ja '54

Metropolitan Life installs electronic process system; Univac. il East Underw 55:14 Ap 30 '54

Miniaturized computer unit uses heat transfer. il Machine Design 26:218 Ap '54

Modification of R-PAC for interpretation of Patterson maps in X-ray crystal analysis. R. Pepinsky. J Ap Phys 24:1520-1 D '53

Myriabit magnetic-core matrix memory. J. A. Rajchman. bibliog il diags Inst Radio Eng Proc 41:1407-21 O '53

Network computations solved eight times as fast; McIlroy pipeline network analyzer. P. D. Wickersham. il World Oil 137:238+ N '53

New analogue computor. E. L. Thomas. il diags Engineering 176:477-9 O 9 '53

New brainpower; general-purpose, stored-program digital computer at Gulf Oil's laboratories. il Chem W 75:50+ S 18 '54

New low-cost desk-size units broaden market for brains, Burroughs E 101. Iron Age 173:91 My 20 '54

New tricks for an old calculating board. J. F. Fuller. il Gen Elec R 56:60 N '53

CALCULATING machines—*Continued*

Nondestructive sensing of magnetic cores; abstract. D. A. Buck and W. I. Frank. diags Elec Eng 73:110 F '54

Northrop pioneers computer technique. P. Klass. il Aviation W 59:41+ Ag 3 '53

Oarac. B. H. Geyer. il Radio & Tv N 50:83+ O '53

One-dimensional Fourier analog computer. L. V. Azaroff. bibliog il diags R Sci Instr 25: 471-7 My '54

Photographic techniques for information storage. G. W. King and others. diags Inst Radio Eng Proc 41:1421-8 O '53

Polyglot brainchild; calculating machine adapted to translating; joint effort of IBM and Georgetown university's Institute of languages and linguistics. il Chem W 74: 46+ Ja 30 '54

Production control; use of electronic gadgets will boost production, cut costs. R. C. Canning. Iron Age 172:146-7 Jl 16 '53

Production model of calculator, newest brain now installed; 701. Midwest Eng 5:11+ Ap '53; Same. il Pet Eng 25:A53+ Jl '53; Same cond. Elec Eng 72:464-6 My '53; Same cond. Mill & Factory 52:298+ Je '53

R-PAC; analog recorder-playback computer for crystal analysis. R. Pepinsky and P. Jarmotz. J Ap Phys 24:663-4 My '53

Reactor simulators. F. E. O'Meara. bibliog diags J Ap Phys 24:1200-2 S '53

Recent advances in cathode-ray-tube storage. F. C. Williams and others. bibliog Inst E E Proc 100 pt 2:523-39; Discussion. 540-3 O '53

Remington Rand type 409-2 electronic computer. L. P. Crosman. il diags Inst Radio Eng Proc 41:1332-40 O '53

Report on computer performance; National bureau of standards eastern automatic computer. il Machine Design 26:202+ F '54

Russian translated into English by electronic computer in a few seconds. il Elec Eng 73: 287-8 Mr '54

Servo systems for performing mathematical operations. E. Wall. il diags Product Eng 24:134-40 S '53

Society and the calculating machine; abstract. L. Rosenhead. Engineer 196:392 S 25 '53

Solution of a pipe-line problem using an electronic calculator. E. A. Slade. flow sheet diags Am Pet Inst Proc 33(5):25-34 '53; Same abr. Oil & Gas J 52:215-19+ N 16 '53

Solving problems with the SEMAC II. D. D. McCracken. il Gen Elec R 57:50-2 Jl '54

SEAC; electronic digital computer located at the National bureau of standards. S. Greenwald and others. il diags Inst Radio Eng Proc 41:1300-13 O '53

SWAC automatic computer works a 24-hr day on complex problems. il Iron Age 172: 142 O 22 '53

SWAC-design features and operating experience. H. D. Huskey and others. il Inst Radio Eng Proc 41:1294-9 O '53

SWAC, the National bureau of standards western automatic computer. Mill & Factory 54:260+ Ja '54

Step-switch converter digitizes analog data. R. R. Bennett and H. Low. il diags Electronics 26:164-5 N '53

Structural appproach to aeroelastic problems. D. Williams. Engineer 197:315-17 F 26 '54

Survey of analog-to-digital converters. H. E. Burke, jr. bibliog il diags Inst Radio Eng Proc 41:1455-62 O '53

Survey of digital computer memory systems. J. P. Eckert, jr. bibliog il diags Inst Radio Eng Proc 41:1393-406 O '53

System design of the IBM type 701 computer. W. Buchholz. diags Inst Radio Eng Proc 41:1262-75 O '53

Testing magnetic decision elements. J. D. Goodell. il diags Electronics 27:200+, cover Ja '54

Theory of logical nets. A. W. Burks and J. B. Wright. diags Inst Radio Eng Proc 41:1357-65 O '53

Transistor pulse amplifier using external regeneration. J. H. Vogelsong. diags Inst Radio Eng Proc 41:1444-50 O '53

Transmission-line analog of a modulated electron beam. S. Bloom and R. W. Peter. bibliog il diags RCA R 15:95-112 Mr '54

Universal high-speed digital computers: a decimal storage system. T. Kilburn and G. Ord. bibliog diags Inst E E Proc 100 pt2:513-22; Discussion. 540-3 O '53

Use of high speed computing devices in photometric calculations. G. A. Horton. il diags Illum Eng 49:403-8 Ag '54

Use of large scale computing in physics. J. Sheldon and L. H. Thomas. bibliog J Ap Phys 24:235-42 Mr '53

Utilisation of electronic digital computers in engineering practice. R. K. Livesley. Engineering 176:349-50 S 11 '53

Variable balanced d-c with low output impedance. H. Hellerman. diag Electronics 27: 212+ Ja '54

Versatility of electronic computers. Automotive Ind 111:184+ Jl 15 '54

What we use our computer for. F. E. Welsh. N A C A Bul 36:31-6 S '54

See also

Accounting—Mechanical aids
Adding machines
Counting machines and devices
Differential analyzers
Integrators
Logic machines
Tabulating machines

Bibliography

Bibliography on the use of IBM machines in science, statistics, and education. 60p International business machines corp, Watson scientific computing laboratory, 612 W. 116th st, New York 27 '54

Power supply

Electronic filter for central power supplies for multi-unit analog computers. R. N. Riggs and J. D. Cronin. il diags Electronics 27:174-5 F '54

CALCULI, Urinary

Zinc phosphate identified as a constituent of urinary calculi. J. Parsons. diags Science 118:217-18 Ag 21 '53

CALCULUS

See also

Laplace transformation

CALCULUS of variations

Methods for obtaining solutions of fixed endpoint problems in the calculus of variations. M. L. Stein. bibliog J Res Nat Bur Stand 50:277-97 My '53

CALENDARS

Hubbell and Witt, Thompson Products' calendar team. F. Hamlin. il Aero Digest 67:65-72 Jl '53

What's in a calendar? art, data for space buyers, novelty in 1954. il Ind Marketing 39:82+ Ja '54

CALENDERS

Improved temperature uniformity of calender roll surfaces obtained by electromagnetic induction. G. Ardichvili. diags India Rubber World 129:621-2 F '54

McKiernan-Terry multi-purpose calender. J. W. Wilkinson. il Am Dyestuff Rep 43: 247-8 Ap 12 '54

Printed calender effects; resists under resin finishes; patent. Am Dyestuff Rep 42:893 D 21 '53

Role of the board machine calenders in the mineral coating of paperboard. H. C. Fisher. Tappi 36:sup 150A-4A O '53

Supercalenders, superheadaches. J. Hannigan. Tappi 37:sup 148A-51A Je '54

CALGON. See Sodium hexametaphosphate

CALIBRATION

Bureau of standards forced to cut back calibration work. Chem & Eng N 31:3280+ Ag 10 '53

CALICO printing

Control of padding processes by radioactive isotope labelling. H. B. Hampson and E. W. Jones. diags Soc Dyers & Col J 69: 620-6; Discussion. 626-8 D '53

3-D printing-embossing gives unusual effects; Emboprint. G. M. Moisson. il Textile World 103:99+ D '53

History

History of the industry. R. M. Lee. Soc Dyers & Col J 69:525-7 D '53

CALIFORNIA

California under control. L. G. Simmons. Am Soc C E Proc 79 [no 278]:1-5 S '53

Cooperative topographic mapping. C. A. Ecklund. maps Am Soc C E Proc 79 [no 277]:1-13 S '53

See also

Airplane industry and trade—California

Architecture, Domestic—California

Central Valley project, California

Earthquakes—California

Electrochemical industries—California

Irrigation—California

Petroleum—California

Petroleum industry and trade—California

Public health—California

Water supply—California

Antiquities

Evidence of pleistocene man in Death valley. T. Clements and L. Clements. bibliog il map Geol Soc Bul 64:1189-203, pl 1-4 O '53

Economic conditions

National business conditions and California. R. R. Dockson. Comm & Fin Chr 178:1429+ O 15 '53

Sanitary affairs

California water pollution control program. W. T. Hannum. map Ind & Eng Chem 45:2652-5 D '53

Disposal of winery wastes. R. H. Vaughn and G. L. Marsh. bibliog il Ind & Eng Chem 45:2686-8 D '53

None but the pure for Sacramento and its river. il Chem W 75:23 S 11 '54

Water quality as related to water pollution. V. W. Bacon, G. B. Gleason and I. W. Walling. bibliog maps diag Ind & Eng Chem 45:2657-65 D '53

CALIFORNIA central airlines

Financing 2-0-2s; proposes stock sale to pay for transports. Aviation W 59:19-20 N 23 '53

CALIFORNIA electric power company

New steam plant lending stability to earnings. Barron's 33:22 O 5 '53

CALIFORNIA university

Chemistry at UCLA. G. R. Robertson. il plan J Chem Educ 30:526-9 O '53

Los Alamos scientific laboratory announces completion of its new Health research laboratory. Science 118:375-6 O 2 '53

Motion-picture sound installation at the University of California, Los Angeles. B. Eddy. il Soc Motion Picture & Tv Eng J 60:709-15 Je '53

Science by the sea; science building of Santa Barbara college. il Chem & Eng N 32:2704 Jl 5 '54

CALIFORNIA water and telephone company

Stock sold. Comm & Fin Chr 178:478 Ag 10 '53

CALIFORNIA water service company

Preferred stock sold. Comm & Fin Chr 178:2090 N 30 '53

CALIFORNIUM

Isotopes

Identification of californium isotopes 249, 250, 251, and 252 from pile-irradiated plutonium. H. Diamond and others. Phys R 94:1083-4 My 15 '54

New isotopes of americium, berkelium and californium. A. Ghiorso and others. Phys R 94:1081 My 15 '54

Nuclear properties of some isotopes of californium, elements 99 and 100. G. R. Choppin and others. Phys R 94:1080-1 My 15 '54

Some pile neutron cross sections of isotopes of americium, berkelium, californium, and element 99. B. G. Harvey and others. Phys R 95:581-2 Jl 15 '54

Transcurium isotopes produced in the neutron irradiation of plutonium. S. G. Thompson and others. Phys R 93:908 F 15 '54

CALKING compositions

Jet proof; compound for caulking the cracks between concrete slabs devised to withstand jet engine fuels and exhaust blasts; Posselit. Chem W 75:58 Jl 10 '54

Round-table discussion on putty and caulking compounds; abstract. Oil Paint & Drug Rep 164:70-1 N 9 '53

CALLAWAY mills company

Fighting Goliath. Bsns W p 121 S 5 '53

Man with the roving eye; John Francis Hagen. R. E. Ellsworth. Mod Textiles Mag 35:36+ F '54

CALOPHYLLUM brasiliense

Chemistry of extractives from hardwoods; the constitution of jacareubin, a pyranoxanthone from calophyllum brasiliense. F. E. King, T. J. King and L. C. Manning. Chem Soc J p3932-7 D '53

CALORIMETERS and calorimetry

Absolute water flow calorimeter for the measurement of intense beams of radiant energy. A. B. Willoughby. il diag R Sci Instr 25:667-70 Jl '54

Apparatus for low temperature calorimetry. R. W. Hill. bibliog diags J Sci Instr 30:331-4 S '53

Applications of calorimetry, with reference to magnetic steels. K. L. Morphew. bibliog Engineering 176:765 D 11 '53

Calorimeter for rapid determination of heat loss and heat production in laboratory animals. R. W. Lawton and others. bibliog il diags R Sci Instr 25:370-7 Ap '54

Calorimetric properties of 41° and 122° F polybutadienes. G. T. Furukawa and R. E. McCoskey. bibliog J Res Nat Bur Stand 51:321-6 D '53

Calorimetry conference, 8th, Chicago. Chem & Eng N 31:4198 O 12 '53

Constant power source for calorimetry. D. R. Stull and others. diag R Sci Instr 24:1003 O '53

Cutler-Hammer recording calorimeter. B. O. Cossey. il diag Instruments 26:874-5+ Je '53

Determination of photon flux for energies between 150 and 300 Mev. P. D. Edwards and D. W. Kerst. bibliog diags R Sci Instr 24:490-5 Jl '53

Method of preparing a high Btu standard gas for use in studying the accuracy of a recording gas calorimeter. J. H. Eiseman. il Am Gas Assn Proc 1953:854-7

Reduction to standard states (at 25°) of bomb calorimetric data for compounds of carbon, hydrogen, oxygen and sulfur. W. N. Hubbard, D. W. Scott and G. Waddington. bibliog J Phys Chem 58:152-62 F '54

Rotating combustion bomb for precision calorimetry; heats of combustion of some sulfur-containing compounds. W. N. Hubbard, C. Katz and G. Waddington. bibliog diags J Phys Chem 58:142-52 F '54

Thermistor calorimeter for heats of wetting; entropies from heats of wetting and adsorption data. A. C. Zettlemoyer and others. bibliog diag J Phys Chem 57:649-52 O '53

Two new forms of melting point calorimeters for determining purity of liquids of condensed gases. J. T. Clarke, H. L. Johnston and W. De Sorbo. bibliog diags Anal Chem 25:1156-9 Ag '53

Use of bomb calorimeter with carbonaceous clays. R. E. King. Chem & Ind p 1074 O 10 '53

CALSULFHYDRYL

Case of severe burns involving 65 per cent of body area. G. C. Truman. Ind Med 22:132-3 Mr '53

CALVERT CITY, Kentucky

Industries

New chemical hub. il Chem W 72:15-16 Ap 18 '53

CALYCANTHIDINE

Calycanthine and calycanthidine. R. Robinson and H. J. Teuber. bibliog Chem & Ind p783-4 Jl 3 '54

CALYCANTHINE

Calycanthine and calycanthidine. R. Robinson and H. J. Teuber. bibliog Chem & Ind p783-4 Jl 3 '54

CAM shafts. See Camshafts

CAMBRIDGE university, England

Cambridge university development; plan for Cambridge university's Sidgwick avenue site. il plans Arch Rec 115:149-55 Ap '54

CAMERA insurance. See Insurance, Camera

CAMERA lucida

Camera lucida; how to use it in the evaluation of fabric construction. I. Zagiel. il diags Mod Textiles Mag 35:31+ My '54

CAMERAS

Automatic data recording camera for use in conjunction with high-altitude plastic balloons. R. S. Hill. il diag R Sci Instr 24: 1001-2 O '53

Camera for big birdies; Convair installs largest template camera. Steel 133:123-4 Jl 6 '53; Aero Digest 67:27 S '53

Camera makers blasted for their indifference. J. L. Collings. Ed & Pub 86:54 My 23 '53

Fast spectrographic camera design. C. J. Silvernail. diag Opt Soc Am J 43:539-40 Je '53

Film synchronizer for aerial cameras. H. E. Meinema. il diags Electronics 26:135-7 N '53

Focusing of rotating-mirror framing cameras. A. S. Filler. Opt Soc Am J 44:506 Je '54

Image-converter camera for studies for explosive phenomena. F. C. Gibson and others. bibliog il diags R Sci Instr 25:173-6 F '54

Merchandising direct to dealers wins quick distribution for new product; Revere camera co. E. J. McGookin. il Ptr Ink 243:42-3 Je 12 '53

Microsecond still camera. H. E. Edgerton and K. J. Germeshausen. il diags Soc Motion Picture & Tv Eng J 61:286-94 S '53

Monochromatic camera for photography in the far ultraviolet. W. E. Behring and others. bibliog il diags Opt Soc Am J 44:229-31 Mr '54

NX borehole camera; milestone in subsurface exploration. E. B. Burwell, jr. and R. H. Nesbitt. il diags Min Eng 6:Trans805-8 Ag '54

New reflecting spectrograph camera. C. Moser. il diag Opt Soc Am J 44:660-3 Ag '54

Photographed in a split second; atomic explosion photograph taken with a Rapatronic camera. il Bsns W p34 N 7 '53

Photographic equipment for Christmas. il Consumers Res Bul 32:15-16 N '53

Save space, money and manpower; microfilming camera important tool in office operations. E. T. Freel. il World Oil 138:49-50 Ja '54; Same. Pet Refiner 32:219-20+ Jl '53

See also

Lenses, Photographic

Moving picture cameras

Television cameras

Advertising

Do some copy writers know too much? L. S. Hauger. Ptr Ink 244:58 Jl 24 '53

Manufacture

Costs cut and production tripled; Argus cameras, inc. D. G. Baird. il Mill & Factory 54: 109-11 F '54

How adhesives solve camera assembly problems; Graflex inc. il Materials & Methods 40:84-5 Ag '54

Traveling stockroom; carrousel for parts' handling; Eastman-Kodak co. il Steel 134: 110-11 Je 14 '54

When automatics make intricate parts: Eastman Kodak works. il diags Am Mach 97: 113-16 N 9 '53

Rating

New photographic equipment. il Consumers Res Bul 32:5-7 O '53

CAMERAS, Electron diffraction

Continuously recording electron diffraction camera for studies of crystal structure transitions. A. Boettcher and others. il diag J Ap Phys 25:926-7 Jl '54

Design of a high-resolution electron diffraction camera. J. M. Cowley and A. L. G. Rees. bibliog il diags J Sci Instr 30:33-8 F '53

Double camera for electron diffraction. S. Yamaguchi. diags J Ap Phys 24:1305-6 O '53

Specimen heater for electron diffraction. R. G. Picard and E. G. Dornfeld. il diags R Sci Instr 25:158-60 F '54

CAMERAS, Moving picture. See Moving picture cameras

CAMERAS, Television. See Television cameras

CAMERAS, X-ray. See X ray cameras

CAMERON, Edwin John, 1895-

Babcock-Hart award. por(cover) Chem & Eng N 32:3144+ Ag 9 '54

CAMERON, William J. 1889-

Sketch. por East Underw 55:10 My 7 '54

CAMOMILE

Chamazulene precursor from chamomile. Z. Čekan and others. bibliog Chem & Ind p604-5 My 22 '54

CAMP, Clarence, 1909-

Sketch. por Explosives Eng 31:164-5 N '53

CAMPAIGN funds

Leslie indicted on mace charge over GOP primary. Nat Underw (Life ed) 58:1 O 8 '54; Same abr. Nat Underw 58:4 O 7 '54

CAMPBELL, Colin, 1888-1953

Sketch. D. W. Woodhead. Chem Soc J p2664-6 Jl '54

CAMPBELLSVILLE, Kentucky

Water supply

Modern water supply and treatment for a small city. J. W. Bowman. il Pub Works 85:78-80 Je '54

CAMPESTEROL

Isolation of campesterol and Δ^7-stigmastenol from rye germ oil. H. A. Schuette and W. E. Link. Am Chem Soc J 76:4192 Ag 20 '54

CAMPHENE

Molecular rotations in the series of longifolene and β-santalene. G. Ourisson. bibliog Chem & Ind p918-19 Ag 29 '53

CAMPS, Tourist. See Tourist camps, hostels, etc.

CAMS

Cam-actuated dies promote economy. A. J. Stockwell. il diags Tool Eng 33:67-70 Jl '54

Cam curvature. A. R. Holowenko and A. S. Hall. diags Machine Design 25:170-7 Ag; 162-9 S; 148-56 N '53

Cam dynamics. D. G. Anderson. il diag Product Eng 24:170-6 O '53

Cam feed speeds undercutting on 75-mm shell. S. F. Pasternak. il Am Mach 98: 110-11 Ap 26 '54

Designing cams with aid of computers. R. F. Griffin. il diags Machine Design 25:209-15 D '53

Die with cams that operate punches in opposite directions. F. Strasser. plan diags Mach 60:210-11 Mr '54

Gaging cams optically saves time and money. il diag Tool Eng 31:63-4 N '53

Non-cylindrical contours; how you can grind them. J. P. Wright. il diags Am Mach 98: 137-56 My 10 '54

Reciprocating cam with half-cycle dwell. L. Kasper. diags Mach 61:203-4 S '54

Side cams on assembly die speed switch assembly. F. Strasser. diags Am Mach 98: 145 Ag 16 '54

Tolerances get fast check; cam ring is used in torque converters. il Steel 133:145 Jl 13 '53

Turret cams control rotary capper. il diags Product Eng 24:156-7 O '53

Manufacture

Machining; 3-D cam-cutters work to ±0.0002 in. Iron Age 172:119 Ag 27 '53

Precision machines assure cam accuracy; Ford instrument co. W. Jellig. il Iron Age 173:140-2 Ap 15 '54

Rapid machining of plastic parts; International business machines corp. H. Chase. il Mach 60:202-3 Mr '54

Tooling is the key to sintered-iron cams. A. I. Alstrom. Am Mach 97:124 N 23 '53

CAMSHAFTS

Heat treating facilities provide versatility, rigid control; Continental motors corp. W. G. Patton. il Iron Age 172:106-8 O 29 '53

Selective flame hardening improves camshaft wear resistance. W. G. Patton. il Iron Age 172:171-4 N 12 '53

Manufacture

Automated units speed turning, gaging; Detroit automotive plants. E. J. Egan, jr. diags Iron Age 173:144-5 Mr 11 '54

Unique mechanism reloads camshafts in nine seconds; Seneca Falls machine co. il diags Mach 60:224-8 Ap '54

CAN labels. See Labels

CANADA

See also

Banks and banking—Canada
Building—Canada
Ceramic industries—Canada
Chemical industries—Canada
Electric apparatus industry—Canada
Electrochemical industries—Canada
Fuel supply—Canada
Gas, Natural—Canada
Gold mines and mining—Canada
Hydroelectric plants—Canada
Metallurgy—Canada
Mineral industries—Canada
Mines and mineral resources—Canada
Paper and pulp mills—Canada
Paper industry and trade—Canada
Petroleum industry and trade—Canada
Petroleum pipe lines—Canada
Population—Canada
Railroads—Canada
Roads—Canada
Soap industry and trade—Canada
Steel industry and trade—Canada
Wood pulp—Canada

Commerce

Best customer; U.S. is both Canada's number one market and import source. J. Montagnes. Barron's 33:13 N 23 '53

Canadian exports lower, imports higher. For Comm W 50:3+ N 23 '53

Six ways to improve your share of the Canadian market. G. H. S. Franklin. Ptr Ink 244:72+ Ag 14 '53

Commercial policy

Canada agrees to place limit on oats shipments to United States. For Comm W 50:6 D 21 '53

Canada applies dumping duties to U.S. hose. For Comm W 50:7 S 28 '53

Canada requires full textile import forms. For Comm W 50:8 O 5 '53

Canada tightens customs control. For Comm W 50:7 D 21 '53

Canada's 1954 trade outlook. C. M. Short. Banking 46:59 F '54

Maple-leaf markets. R. Ord. Chem W 72:50-1 Je 27 '53

Defenses

Approximately $135,000,000 for defense construction is the forecast for fiscal year, 1954-55. R. G. Johnson. Roads & Eng Constr 92:92+ F '54

Description and travel

Bibliography

Selected list of periodical literature on topics related to Canadian geography for the period, 1930-1939. (Bibliog. ser. no. 11) 97p pa 50c Dept. of mines and technical surveys, Geographical branch, Ottawa, Canada '54

Economic conditions

Canada's economic growth since 1939. J. R. Clarke. Comm & Fin Chr 178:908+ S 10 '53

Canada's future potentialities; report of IBA Canadian committee. Comm & Fin Chr 178:2401+ D 17 '53

Canada's productive 1953. C. M. Short. il Banking 46:76+ D '53

Canada's progress is linked to the United States. R. Rae. Comm & Fin Chr 178:2546 D 24 '53

Canada's strength against any recession. F. C. James. Credit & Fin Management 55:35+ Ag '53

Critical wheat situation. C. M. Short. Banking 46:108 O '53

Economic conditions abroad (cont). For Comm W 50:3+ Ag 24 '53; 51:4+ Ja 4 '54

Hard sell comes to Canada. C. D. Howe. Can Chem Process 37:20 D '53

Insurance market outlook in Canada. J. T. Bryden. East Underw 55:22+ pt 2 O 1 '54

More varied pattern in the Canadian landscape. G. R. Ball. Comm & Fin Chr 178:2638+ D 31 '53

Near-term Canadian outlook. J. T. Bryden. Comm & Fin Chr 178:1114+ S 24 '53

U.S. and Canadian outlook in '54. J. D. Gibson. Comm & Fin Chr 178:1324+ O 8 '53

Upswing of business during current year anticipated. D. C. Abbott. Roads & Eng Constr 92:56 My '54

Economic policy

Canada's contribution to world prosperity. D. Abbott. Comm & Fin Chr 178:2058-9 N 26 '53

Economic relations

United States

Open border; U.S.-Canadian relations are freezing up. Barron's 33:1 N 9 '53

Our political-trade stake in Canada. V. L. Horoth. Mag of Wall St 93:19-21+ O 3 '53

U.S. and Canada form joint trade committee. For Comm W 50:7 N 30 '53

Foreign relations

United States

Ottawa confab. Bsns W p29 N 14 '53

Industries and resources

Big things happening in the Canadian-West. H. W. Manning. East Underw 54:100+ pt 2 S 25 '53

Canada's future potentialities; report of IBA Canadian committee. Comm & Fin Chr 178:2401+ D 17 '53

Canada's natural resources. M. W. Mackenzie. Pulp & Pa of Can 55:86-7 Ja '54

Research and Canada's natural resources. R. C. Wallace. Special Lib 44:265-7 S '53

National research laboratories

See National research council of Canada

Navy

See also

Warships—Canada

Politics and government

Will Canada vote for a change? Bsns W p41-2+ Ag 8 '53

See also

Political parties—Canada

Sanitary affairs

Air pollution control in Canada. E. A. Allcutt. bibliog(29 titles) Can Chem Process 38:44-6+ My '54

Statistics

Canada; its present and future as a market, population distribution and trends, growth of the cities and suburbs, etc. J. Johnston. map Ptr Ink 245:483 sec 2 O 23 '53

CANADA cement company

Canada cement company's growth keeps pace with nation's expansion. B. Nordberg. flow sheets il plans diag Rock Prod 57:86-122+ Ag '54

CANADIAN association of equipment distributors

Annual meeting, 11th, Toronto, March 29-31. Roads & Eng Constr 92:115-22 Ap '54

Canadian association of equipment distributors; active members. Roads & Eng Constr 92:252 Je '54

Semi-annual meeting, New York. Roads & Eng Constr 92:122+ F '54

CANADIAN ceramic society

Annual meeting, 52d, Niagara Falls, Ont. Feb. 8-10. Am Cer Soc Bul 33:90 Mr 15 '54

CANADIAN construction association

Annual meeting, 36th, Vancouver, Jan. 25-27. Roads & Eng Constr 92:124+ F '54

Prairie roadbuilders' section annual meeting, Calgary, Alberta. Roads & Eng Constr 92:90+ Mr '54

CANADIAN diamond drilling association

Annual meeting, 11th, Bourlamaque, Que. June 5. Can Min J 75:76-7 Ag '54

CANADIAN federation of insurance agents

Annual convention. Nat Underw 57:23 S 24 '53

CANADIAN gas association

Annual meeting, Banff. Gas Age 114:60 Jl 15 '54

CANADIAN good roads association

Annual meeting, 34th, Victoria, B.C. Oct. 14-16. Roads & Eng Constr 91:111-28+ N '53

Annual meeting, 35th, Toronto, Nov. 8-10; program. Roads & Eng Constr 92:51+ S '54

CANADIAN industries, ltd.

CIL slated for split to meet terms of 1952 antitrust edict by U.S. court. Chem & Eng N 32:918 Mr 8 '54

Loath but muted; Canadians on U.S. court order for division of Canadian industries, ltd. Chem W 74:17 Mr 27 '54

Passing of a partnership; split-up of three big foreign firms jointly owned by E. I. du Pont de Nemours & co. and Imperial chemical industries, ltd. Chem W 74:18-19 Mr 6 '54

See also

Canadian industries (1954) ltd.

Du Pont of Canada, ltd.

CANADIAN industries (1954), ltd. (formerly Canadian industries, ltd.)

Canadian Industries business split up between two firms. Oil Paint & Drug Rep 166:5+ Jl 5 '54; Paint Oil & Chem R 117:11 Jl 15 '54

Canadian industries '54 plans developments and improvements. Paint Oil & Chem R 117:28 Ag 26 '54; Same. Chem Age (Lond) 71:424 Ag 28 '54

Fission of CIL completed as CIL '54 and Du Pont take over. Chem & Eng N 32:2868 Jl 19 '54

Parting; by decree, but deftly. Chem W 75:14-15 Jl 10 '54

CANADIAN institute of mining and metallurgy

Annual meeting, 56th, Montreal, April 26-28. Min Eng 6:648 Je '54

CANADIAN institute of plumbing and heating

Annual meeting. Dom Eng 182:169-70 D '53

CANADIAN institute on sewage and sanitation

Annual meeting, 20th, Niagara Falls, Ont. Oct. 26-28; with guided discussions. Munic Util 91:37-45+ N; 25-6+ D '53; 92:45-7 F '54

CANADIAN international trade fair. See Fairs

CANADIAN life insurance officers association

Annual meeting, 61st, Montebello, Que. East Underw 55:3+ My 28; 3 Je 4 '54

CANADIAN Pacific airlines

Airline puts on muscle. il map Bsns W p 144-5 O 17 '53

CPA's varied air fleet covers Canada. G. L. Christian. il Aviation W 59:62-3+ S 21 '53

CANADIAN Pacific railway

Annual report, 73d. Ry Age 136:97-101 Ap 5 '54

Three Canadian leaders. R. Colston. Mag of Wall St 93:442 Ja 9 '54

CANADIAN pulp and paper association

Annual meeting, 41st. Paper Tr J 138:17 F 5 '54

Annual meeting, 41st, Montreal, Jan. 27-29. Pulp & Pa of Can (Convention no) 55:127+ [F] '54

Annual meeting, Montreal, Jan. 27-29; with abstracts of papers. Paper Ind 35:1326-7 Mr '54

Industrial relations section

Annual meeting, 8th, Montreal, March 2-4. Pulp & Pa of Can 55:83-5 Mr '54

Technical section

Annual meeting, 40th, Montreal, Jan. 27-29. Pulp & Pa of Can (Convention no) 55:143-62+ [F] '54

Annual meeting, 40th, Montreal, Jan. 27-29; with abstracts of papers. Paper Tr J 138:20-2+ F 5 '54

Annual meeting, Jan. 27-29; program. Paper Tr J 138:27-8 Ja 1 '54

Summer meeting, Victoria, June 15-18. Pulp & Pa of Can 55:103-8 Jl '54

Woodlands section

Annual meeting, 36th, Montreal, March 24-26; with abstracts of papers. Pulp & Pa of Can 55:112-14+ Ap '54

Chairman's interim report, 1953. J. R. Matthews. Pulp & Pa of Can (Convention no) 55:336+ [F] '54

Silivicultural field meeting, Fredericton, N.B. Aug. 26-28. Pulp & Pa of Can 54:144-6+ N '53

CANADIAN sanitation equipment association

Annual meeting, Niagara Falls, Ont. Oct. 26-28. Munic Util 91:46+ N '53

CANADIAN stock exchange

Weekly record. Published in weekly Monday numbers of Commercial and financial chronicle

CANADIAN waterworks equipment association

Annual meeting, Toronto. Munic Util 92:53+ Ap '54

CANAL lining

Highway engineers are studying asphalt canal lining methods as means of subgrade stabilization. il Roads & Sts 96:108 O '53

Low-cost compacted earth lining shows low seepage losses on Friant-Kern canal. J. J. Waddell. il map diags Civil Eng 23:684-7+ O '53

Lower cost irrigation canal linings. T. V. D. Woodford. il diag Eng N 151:35-6+ N 5 '53

CANALS

Rock depths along canal route determined by seismic refraction. W. E. Schubert. il diags Civil Eng 23:402-3 Je '53

See also

Irrigation canals

Suez canal

England

Grand Contour canal. J. F. Pownall. maps Engineering 176:741-4 D 11 '53

Europe

Danube-Black Sea canal. map Economist 169:828 D 12 '53

Florida

Hinged spans for rarely opened bridges over Florida drainage canals. W. E. Dean, jr. il plan diags Civil Eng 23:673-5 O '53

CANCELLATION of orders

See also

Contracts, Government—Termination

CANCER

AMA blocks hope for quick settling of krebiozen dispute. Chem & Eng N 31:5286 D 21 '53

Cancer control; abstract. G. B. Brown. Chem & Eng N 32:228 Ja 18 '54

Cancer experts speak. E. L. Wynder and W. C. Hueper. Chem & Eng N 32:3124+ Ag 9 '54

Carcinogenic nitrogen compounds; new polysubstituted angular benzacridines and benzophenarsazines. N. P. Buu-Hoï and others. Chem Soc J p3584-7 N '53

Carcinogenic nitrogen compounds; some condensed carbazoles and their thiophen analogues. N. P. Buu-Hoï and P. Jacquignon. Chem Soc J p513-15 F '54

Carcinogenic properties of a chemical not correlated with toxic action; abstract. W. C. Hueper. Chem & Eng N 31:4972 N 30 '53

Carcinoma of the prostate gland. W. J. Baker. il Ind Med 22:341-8 Ag '53

Chemotherapy of cancer; the synthesis of dihydroxytetrahydronaphthoic acids related to podophyllotoxin. K. N. Campbell, J. A. Cella and B. K. Campbell. bibliog Am Chem Soc J 75:4681-4 O 5 '53

Cigarette scare: what'll the trade do? Bsns W p58+ D 5 '53

Comparative effects of total body radiation, nitrogen mustard, and triethylene melamine on the hematopoietic system of terminal cancer patients. R. K. Loeffler and others. Science 118:161-3 Ag 7 '53

Compounds for cancer studies. C. T. Bahner and others. Am Chem Soc J 75:4838-9 O 5 '53

Coördination of polycyclic aromatic hydrocarbons with silver ion; correlation of equilibrium constants with relative carcinogenic potencies. R. E. Kofahl and H. J. Lucas. bibliog Am Chem Soc J 76:3931-5 Ag 5 '54

Counterattack by 14 tobacco firms, growers associations and warehouse groups. Chem W 74:48+ Ja 16 '54

Development and evaluation of cancer diagnostic tests. J. E. Dunn, jr. and S. W. Greenhouse. Pub Health Rep 68:880-4 S '53

Double bid by Puromycin; cancer and sleeping sickness. Chem W 75:69 S 4 '54

Estrogen excretion in women with mammary cancer before and after adrenalectomy. T. L. Y. Dao. bibliog Science 118:21-2 Jl 3 '53

High-power betatron for cancer therapy. J. S. Laughlin and others. bibliog il diags Electronics 26:146-51 O '53

Inorganic carcinogenic agents. J. R. Sampey. bibliog Ind Med 22:165-6 Ap '53

CANCER—*Continued*

Inter- and intramolecular energy transfer processes; phosphorescence bands of some carcinogenic aromatic hydrocarbons. M. M. Moodie and C. Reid. bibliog J Chem Phys 22:252-4 F '54
Ion exchange effect on alkaline phosphatase of serum with reference to cancer. A. Bernhard and L. Rosenbloom. bibliog Science 118:114-15 Jl 24 '53
Lung cancer. Safety Maint & Prod 107:64 Mr '54
Microwave accelerator employed for cancer treatment. Chem & Eng N 32:2590 Je 28 '54
Million-dollar drug riddle; krebiozen. Chem W 72:21 My 23 '53
More trouble for cigarettes. Bsns W p55 D 19 '53
Nature and control of bladder cancer. T. S. Scott. bibliog Chem & Ind p 1245-9 N 21 '53
Premature verdict? cancer case against cigarettes gains fresh impetus. Chem W 73:54+ D 26 '53
Progress with purines. Chem W 72:37 Ap 25 '53
Properties of high boiling petroleum products; nonbiological laboratory methods for predicting carcinogenicity. L. T. Eby and others. bibliog Anal Chem 25:1500-7 O '53
Retardation of benzaldehyde autoxidation; the actions of a number of polycyclic aromatic hydrocarbons of carcinogenic interest. J. R. Dunn, W. A. Waters and I. M. Roitt. Chem Soc J p580-6 F '54
Specific cancer chemotherapy; mercaptopurine; abstract. C. P. Rhoads. Chem & Eng N 31:5280 D 21 '53
Tobacco industry research group denies cancer link. Chem & Eng N 32:1670 Ap 26 '54
Treatment of cancer with radioisotopes. J. R. Sampey. bibliog Ind Med 22:300-1 Jl '53
Twenty-six years of cancer control in Massachusetts. H. L. Lombard. bibliog Pub Health Rep 68:647-55 Jl '53
What's behind the smoke? il Chem & Eng N 32:218-19 Ja 18 '54

CANCER research

Biochemical research foundation Cancer cell division; two papers on study of use of chemical analogs of the substrate glucose. G. E. Woodward and others. bibliog il Franklin Inst J 255:555-62 Je '53
Cancer research work of the atomic energy commission. Engineer 196:621 N 13 '53
Experimental studies on cancerigenesis of synthetic liquid fuels and petroleum substitutes. W. C. Hueper. il A M A Archives Ind Hygiene & Occup Med 8:307-27 O '53
Future of cancer research. E. McDonald. bibliog Franklin Inst J 256:283-8 S '53
Ganging up on cancer with azaserine (O-diazoacetyl-1-serine). il Chem W 74:62+ Mr 27 '54
Human cancer in rats. Sci Am 189:46 Jl '53
Jane Coffin Childs memorial fund for medical research appropriations for support of cancer research projects and fellowships. Science 118:129-30 Jl 31 '53
Malignant tumors resulting from embedding plastics in rodents. B. S. Oppenheimer and others. Science 118:305-6 S 11 '53
Multiform disease, a many-pronged attack. il Bsns W p 142-4+ N 7 '53
New hope in chemicals. il Chem W 75:74-7 Jl 24 '54
New test for chicken blood cancer virus may aid leukemia; abstract. J. W. Beard. Chem & Eng N 32:3843 S 27 '54
New tool for cancer research; cesium-137. il Chem & Eng N 32:2100 My 24 '54
Plugging up the holes; cancer formation linked to inclusion compounds; abstract. N. P. Buu-Hoi. Chem & Eng N 32:3843 S 27 '54
Reconsideration of the somatic mutation theory of cancer in the light of some recent developments. J. C. Fardon. bibliog Science 117:441-5 Ap 24 '53; Discussion. bibliog 118:196-8 Ag 14 '53
Response of irradiated cancer patients to vibrio metschnikovii. E. S. Wynne and others. bibliog Science 118:442-3 O 16 '53
TEM effects 100 per cent cures in one type of cancer in rats. Chem & Eng N 32:2872 Jl 19 '54

CANDELILLA wax

Candelilla wax. J. D. MacNair. il Soap & San Chem 30:163-5 Ap '54

CANDY

Brighter Brach's in foil. il Mod Packaging 27:130-1+ Mr '54

Manufacture

Air conditioning and refrigeration for candy manufacturing. J. E. Salmon. il diags Heat & Ven 51:81-90 Jl '54
Boosts sugar-crystal coating 50 per cent; Fanny Farmer candy studio. E. F. Weadick. il Food Eng 26:85 Ag '54
Extending shelf-life of finished foods. Food Eng 26:169-70 Je '54
New coatings vs. costly cocoa bean. Food Eng 26:197 Jl '54
New split-degree tempering for uniform quality chocolate goods. H. Neilson and J. Sheffman. il Food Eng 25:59+ D '53
Puffs foods continuously in special vac process; Brock candy co. I. C. Miller. il diags Food Eng 25:68-9 D '53

CANDY boxes

Cowboy salesmanship; Jolly Rancher candies. il Mod Packaging 27:156-7+ Jl '54
Elegant candy; Johnston candy co. il Mod Packaging 27:101 Jl '54
Non-crush candy tray; Rockwood chocolate co. il Mod Packaging 28:136-7 S '54

CANDY factories

Electric equipment

Electric heat produces neater packages; Hall candy co. R. M. Pizza. il Elec World 141:136+ Mr 8 '54

Equipment

Abolishes hand dippers; miniature chocolate-dipper machine. il Food Eng 25:131 N '53
Absolute insect control; Brown & Haley co. K. M. Ingold. il Food Eng 26:57+ F '54
Gains 15 ways by modernizing; Fine products co. E. D. White. il Food Eng 26:72-3 My '54
Mechanical movers make short work of handling; Robert A. Johnston co. il Food Eng 26:61+ S '54
New candy machines on display; 28th Confectionery industries exposition, Chicago. il Food Eng 26:72-5 Jl '54
New split-degree tempering for uniform quality chocolate goods. H. Neilson and J. Sheffman. il Food Eng 25:59+ D '53
Puffs food continuously in special vac process; Brock candy co. I. C. Miller. il diags Food Eng 25:68-9 D '53
What it takes to nip costs; panel discussion. il Food Eng 26:66-8+ Je '54

Quality control

Statistical quality control applied. W. H. Corwin. Food Eng 26:169 Je '54

CANDY trade

De-control and England's confectionery industry. il Adv Agency 47:71 F '54

CANNED fish

But Joe, they simply won't eat fish! Star-Kist brand for tuna. J. H. Collins. il Sales Management 71:105-6+ S 15 '53
Stops struvite with new technique. E. P. McFee and R. L. Swaine. il Food Eng 25:67+ D '53

CANNED food

Canned pot pie. Bsns W p68 Ag 1 '53
Frozen Campbell's soups. il Mod Packaging 27:110-11 My '54
High frequency looms as improved cooking method; Di-Thermal processing. L. E. Slater. il diags Food Eng 26:52-3+ Ja '54
Survival of bacteria in wholesome canned foods; abstract and discussion. O. Jones. Chem & Ind p302 Mr 13 '54

See also
Canned fish
Canned meat
Canneries
Canning and preserving

Advertising

Novel package, concentrated advertising move new item into distribution quickly; Trenton foods, inc. il Ptr Ink 244:34 S 4 '53

CANNED goods

Canned soda, a potential. Steel 134:65 Je 7 '54

CANNED meat

How they put that quality into Danish canned ham. il Food Eng 25:127+ D '53

CANNERIES

Accounting

Budgeted volume; burden base for seasonal operation; Green giant co. W. F. Neumann. N A C A Bul 35:660-7 Ja '54

Employees

Better housing for cannery workers. Nat Safety N 68:76+ N '53

Equipment

Batches without botches; J. M. Smucker co. F. A. Lewis. il Food Eng 26:133+ F '54

Bulk brining spells big benefits; P. J. Ritter co. I. C. Miller. il Food Eng 26:73+ Ja '54

Canners' show, 47th, Atlantic City, Jan. 23-27; plan and list of exhibitors. Food Eng 26:74-5 Ja '54

Fluidized dicer saves chips; slicing and cubing root vegetables for canning. il Food Eng 26:50+ Ja '54

How to curb boiler-water solids; carry-over water. C. J. Schafer; F. L. Blumenshine. il Food Eng 26:80-2+ Jl '54

New twist in H-S retorting; novel agitating system. J. M. Borges and N. W. Desrosier. il Food Eng 26:54+ Ja '54

New units attract canners at Atantic City; illustrations with text. Food Eng 26:60-3 Mr '54

Rapid headway of canned pop; Can-A-Pop beverage co. R. S. Kleinschmidt. il Food Eng 26:84-5 Jl '54

Samba conveyor; Hawaiian pineapple co. il Factory Management 112:113 F '54

Tacky-Stacky; device for coating jar tops and bottoms. il Mod Packaging 27:122-3 Ja '54

Top-notch tomato operation; Bercut-Richards co. C. R. Havighorst. flow sheet(p86-9) il Food Eng 26:77-8+ Ja '54

Lighting

Lighting for jelly and jam inspection; lighting data sheet. il diags Illum Eng 49:347-8 Jl '54

Plant lighting for best eye performance; specific recommendations for cannery lighting. F. C. Lamb. Food Eng 26:60+ S '54

Sanitation

Insecticides for canneries. R. T. Orr. Soap & San Chem 29:143-5 O '53

Waste

Canning plant waste problem solved by simplified procedures. R. S. Ingols and others. il map Water & Sewage Works 101:227-9 My '54

Citrus waste treatment studies. R. E. McKinney and others. bibliog Water & Sewage Works 101:123-7 Mr '54

Pilot-plant studies on treatment of vegetable processing wastes; Seabrook farms co. R. A. Webster. bibliog flow diags Sewage & Ind Wastes 25:1432-7 D '53

Spray irrigation for the disposal of cannery wastes. H. W. Powell. Munic Util 92:30+ Je '54

Vibrating screen separator treats cannery wastes. il Pub Works 85:136 S '54

CANNING and preserving

Chemical engineering methods in the food industry. W. Price-Davies. bibliog Chem & Ind p742-5 Je 26 '54

Enzyme acts as tenderizer; vine-ripe quality restored to peas; Mammoth springs canning co. H. E. Bode. il Food Eng 26:94+ Jl '54

Food Engineering's canning special and show guide. flow diag il diags Food Eng 26:51-63+ Ja '54

They've smoothed the rough path to melon-rind items; Georgia experiment station. W. E. Dupree and others. il diag Food Eng 26:45-7+ Ja '54

CANONICAL ensembles. See Statistical mechanics

CANS

Canned without tin. B. S. Clark. il Chem W 72:70 Ap 25 '53

Metal cans minus tin. Chem & Eng N 32:2918 Jl 19 '54

Metal cans; shipments in terms of net tons of steel consumed, 1945-1953; tabulation. Steel 134:170 Ja 4 '54

New uses boost canmakers. il Steel 133:48-9 S 28 '53

Shift from tin. Chem W 75:86 Jl 17 '54

Tinplate substitutes studied by can company. R. H. Lueck. Materials & Methods 40:13+ Ag '54

Upsurge; in canned soft drinks. G. F. Kay. il plan diag Food Eng 26:86-9 F '54

See also

Continental can company

Tin cans

Manufacture

Machine welds powder cans at 100 ipm; Harrison sheet steel co. E. A. Hess. il Am Mach 97:118-19 O 26 '53

CANSO, Strait of

Canso Strait causeway reaches 180 ft. depth of water. Roads & Eng Constr 92:72 Ja '54

Constructing a modern highway across the Strait of Canso. D. Pelrine. il Explosives Eng 31:142-5 S '53

CANTILEVER bridges. See Bridges, Cantilever

CANVAS

Mildewproofing of canvas products; abstract. H. M. Gadberry. Am Dyestuff Rep 43:349 My 24 '54

CANYONS, Submarine

Exploration of the northwest Atlantic mid-ocean canyon. M. Ewing and others. maps diags Geol Soc Bul 64:865-8 Jl '53

CAPACITANCE, Electric. See Electric capacitance

CAPACITORS. See Electric capacitors

CAPILLARIES

Anomalous flow of liquids through capillaries and measurement of viscosity. G. F. N. Calderwood, H. W. Douglas and E. W. J. Mardles. bibliog Anal Chem 25:935-7 Je '53

Apparatus for producing a number of different gas mixtures for a long period of time. S. W. Bailey. diags J Sci Instr 31:93-5 Mr '54

Capillary specimens for X-ray diffraction powder analysis. F. W. Matthews. diags Anal Chem 26:619 Mr '54

Capillary tube improves heat pump design. G. L. Biehn. il diags Heat & Ven 51:75-8 F '54

Coloriscopic capillary for titration of microgram samples with color indicators. H. Dorf. diag Anal Chem 25:1000-1 Je '53

Drawing of small uniform glass capillaries by electrical heating. C. C. Templeton. diag R Sci Instr 24:880-1 S '53

Metal capillary cathodes. H. Katz. bibliog il diags J Ap Phys 24:597-603 My '53

Three-level capillary viscometer. J. G. Honig and C. R. Singleterry. bibliog diag Anal Chem 26:677-80 Ap '54

Use of capillary tubing for flow measurement. R. F. Mahood and R. Littlefield. il diag Instruments & Automation 27:460-1 Mr '54

CAPILLARITY

Capillarity in helium II. C. T. Lane and R. V. Dyba. diags Phys R 92:829-30 N 1 '53

See also

Brownian movements

CAPITAL

Capital cost and fair return. J. R. Foster. Pub Util 53:267-82, 340-56, 421-33 Mr 4-Ap 1 '54

Capital for Canada. J. Montagnes. Barron's 33:25 Ag 31 '53

Capital outlays maintain fast pace. Steel 134:76 Je 21 '54

Capital sources and uses; panel discussion. J Bsns 27:33-7 pt 2 Ap '54

Corporate working capital and liquidity. F. W. Mueller, jr. bibliog J Bsns 26:157-72 Jl '53

CAPITAL—*Continued*

Cost-of-capital techniques employed in determining the rate of return for public utilities. L. W. Thatcher. Land Econ 30:85-111 My '54

Measuring the productivity of capital. J. Dean. Harvard Bsns R 32:120-30 Ja '54

New security issues; noncorporate, corporate, new capital; yearly 1938-1952, monthly Nov. 1952-Nov. 1953. Fed Res Bul 40:66 Ja '54 [cont monthly]

Tax consequences of inadequate equity capital; the thin corporation problem. O. Kramer. J Account 96:449-51 O '53

Urban redevelopment as an outlet for capital investment. L. Grebler. Land Econ 29:358-61 N '53

Venture capital. R. D. Ward. Comm & Fin Chr 178:1844-5 N 12 '53

See also

Assets, Fixed
Corporations—Finance
Dividends
Interest
Investments

CAPITAL gains tax. See Income tax—Capital gains tax

CAPITAL goods industries. See Equipment industries

CAPITAL punishment

Reprieve for juries. Economist 169:949 D 26 '53

Sentence of death. Economist 168:832-4 S 26 '53

CAPITAL spending. See Industrial expansion—Statistics

CAPITALISM

Appraisal of our free enterprise system. J. A. McConnell. Paint Oil & Chem R 116:32-5 N 5 '53

Climate of opinion becoming more favorable to the businessman; some recent books. J. Chamberlain. Barron's 34:9-10 Ja 4 '54

Errors in the concept of countervailing power. S. N. Whitney. bibliog J Bsns 26:238-53 O '53

Free enterprise; a two-way street. W. F. Edwards. Comm & Fin Chr 178:1730+ N 5 '53

Government farm policy has gotten country into serious trouble. J. A. McConnell. Oil Paint & Drug Rep 164:73-5 N 2 '53

Private enterprise means more than bread alone. C. F. Hood. Comm & Fin Chr 178:1444-5 O 15 '53

Profit is not without honor. C. F. Hood. Comm & Fin Chr 178:1617+ O 29 '53

Putting some buy into selling free enterprise; contest held in conjunction with Wisconsin state fair. A. G. Larke. il Dun's R & Mod Ind 62:61-3+ O '53

What this country needs to survive. T. Sensing. Comm & Fin Chr 178:1722+ N 5 '53

CAPITANIO, August D.

Italian-born lettering artist designed exotic alphabets. por Inland Ptr 131:39 Jl '53

CAPITOLS

Grid-type footings support California State Capitol extension. F. A. Johnson. il plan diags Civil Eng 23:373-5 Je '53

CAPPERS. See Closures (containers)

CAPROLACTAM

Caprolactam projects grow. Chem & Eng N 32:3388 Ag 23 '54

CAPSORUBIN

Carotenoids and related compounds; a new synthesis of the capsorubin chromophore. R. Ahmad and B. C. L. Weedon. Chem Soc J p3815-17 D '53

CAR axles

Manufacture

Mass production of anti-friction freight car axles; American car and foundry co. W. B. Chellis. il Mach 60:160-7 F '54

New line whips axle bottleneck; American car & foundry co.; illustrations with text. Steel 134:57 Ja 11 '54

Railroad axles roller-bearinged at freight-car production speeds; American car & foundry co.; illustrations with text. E. J. Tangerman. Am Mach 98:130-3 Ja 4 '54

Testing

Spicer drive test stand. il Ry Loco & Cars 127:109-10 N '53

CAR cards. See Advertising cards

CAR cleaning

Cleaning underframes by compressed-air jets; Acton works of London Transport. il Engineering 177:248 F 19 '54

CAR decoration. See Cars—Decoration

CAR department officers' association

Annual meeting, Chicago, Sept. 14-16; with committee reports. Ry Loco & Cars 127:61-5 N '53

CAR dumpers

New design of wagon tippler. diag Metallurgia 48:299-300 D '53

CAR heating

Early railway car heating aided today's progress. S. R. Lewis. Heating-Piping 25:132 N '53

New heating system is easy to service; Vapor Moduzone heating system. il Ry Loco & Cars 128:73+ Ja '54

Progress in car heating. Ry Loco & Cars 128:61 Jl '54

CAR inspection

Analysis of train yard operations; report of Car department officers' association. Ry Loco & Cars 127:62 N '53

For better train operation; how cooperation in yards pays. W. C. Baker. il Ry Age 135:47-8 N 2 '53; Excerpt. Ry Loco & Cars 127:61-2 N '53

CAR load. See Freight car service—Car load

CAR painting and finishing

Automatic spray booth designed expressly for spray painting freight cars. il Steel 135:122-3 Jl 19 '54; Same. Ry Age 137:66 Ag 9 '54; Same. Ry Loco & Cars 128:49 Ag '54

Hot spraying of German railway cars; abstract. B. Schmuecker. Paint Oil & Chem R 117:32 Ag 26 '54

Report of committee on painting; Car department officers' association. Ry Loco & Cars 127:62-3 N '53

CAR shops

Equipment

Cleaning underframes by compressed-air jets; Acton works of London Transport. il Engineering 177:248 F 19 '54

Spicer drive test stand. il Ry Loco & Cars 127:109-10 N '53

CAR springs

Railroad cars may ride on air cushions. il Comp Air Mag 59:55 F '54

CAR trucks

Rubber suspension for railway bogies. diags Engineer 196:624 N 13 '53; Engineering 176:830 D 25 '53

Truck safety and economy. R. L. Lich. il Ry Age 137:24-5+ Ag 2 '54

Testing

Research; new designs get test on one million-lb machine; Baldwin-Lima-Hamilton corp. testing machine. il Iron Age 172:84-5 D 31 '53

CAR wheels

How the Frisco modernized wheel shop practice. il plan Ry Loco & Cars 128:52-7 F '54

Thermal checking of wrought-steel railway wheel material. H. R. Wetenkamp. bibliog il A S M E Trans 76:649-54 My '54

Wheel manufacturer looks at railroading. C. B. Bryant. Mech Eng 76:255-8+ Mr '54

Manufacture

Pressure-pouring steel car wheels; new process involves permanent molds machined from graphite. E. Q. Sylvester. il diags Mech Eng 76:152-8 F '54

Snyder automatic car-wheel boring and facing machine. il Mach 60:216-17 Ja '54

Tungsten carbide tooling speeds car wheel production. il Iron Age 172:205-6 S 10 '53

Wheel positioning; machining of railroad wheel surfaces at the McKees Rocks wheel & axle div. il Steel 135:120 Ag 16 '54

Testing

1.5 per cent carbon cast-steel railroad-car wheels. N. A. Matthews and R. A. Flinn. il diag A S M E Trans 76:617-21 My '54

CARANDAY palm

Caranday, a hard palm wax. K. S. Markley. Oil Paint & Drug Rep 166:5+ Jl 26 '54

CARBAMATES

α,α-Dimethylcholine; esters and carbamates. W. B. Wheatley. bibliog Am Chem Soc J 76:2832-5 My 20 '54

Polysaccharide aryl carbamates; partly substituted and cross-linked starch carbamates. I. A. Wolff, P. R. Watson and C. E. Rist. bibliog il Am Chem Soc J 76:757-9 F 5 '54

Polysaccharide aryl carbamates; tricarbanilates of polyglucosans with various glucosidic linkages. I. A. Wolff, P. R. Watson and C. E. Rist. bibliog Am Chem Soc J 75:4897-9 O 20 '53

Reaction of α-cyanobenzyl benzenesulfonate with dithiocarbamates. E. C. Taylor, jr., J. Wolinsky and H. Lee. bibliog Am Chem Soc J 76:1870-2 Ap 5 '54

Ring enlargements; attempted ring enlargement of cyclohexanone with ethyl N-nitroso-N- (2,3,4-trimethoxybenzyl) -carbamate. C. D. Gutsche and H. E. Johnson. bibliog Am Chem Soc J 76:1776-9 Ap 5 '54

Synthesis and polymerization of some allyl esters of carbamic acid. C. E. Gleim. Am Chem Soc J 76:107-11 Ja 5 '54

CARBAMYL compounds

Nitrogen systems; carbamyl migrations. F. L. Scott. bibliog(37 ref) Chem & Ind p959-60 Jl 31 '54

CARBAZOLE

Bis-ammonium salts; derivatives of fluorene, carbazole and phenothiazine. C. J. Cavallito, A. P. Gray and E. E. Spinner. bibliog Am Chem Soc J 76:1862-6 Ap 5 '54

Carcinogenic nitrogen compounds; some condensed carbazoles and their thiophen analogues. N. P. Buu-Hoï and P. Jacquignon. Chem Soc J p513-15 F '54

Cyclisation of benzamido-derivatives of 1 : 1′-dianthraquinonylamine to derivatives of 1 : 2-7 : 8-diphthaloylcarbazole. W. Bradley and J. V. Butcher. Chem Soc J p2311-14 Jl '54

Friedel-Crafts reaction in the carbazole series; phenylacetyl compounds. D. A. Kinsley and S. G. P. Plant. Chem Soc J p 1341-3 My '54

Heterocyclic fluorine compounds; monofluoro-1 : 2 : 3 : 4-tetrahydrocarbazoles and monofluorocarbazoles. F. L. Allen and H. Suschitzky. Chem Soc J p3845-9 D '53

Synthesis and ultraviolet absorption spectra studies of 2,3- and 3,4-disubstituted carbazoles. E. Sawicki. bibliog Am Chem Soc J 76:664-7 F 5 '54

1 : 2 : 3 : 4-Tetrahydro- 6 -hydroxy-7-methylcarbazole and 3-hydroxy-2-methylcarbazole. J. A. Cummins, B. F. Kaye and M. L. Tomlinson. Chem Soc J p 1414-15 My '54

CARBETHOXYPYRROLE

Proof of structure for 2-bromo-3-methyl-4-carbethoxypyrrole. G. G. Kleinspehn and A. H. Corwin. bibliog Am Chem Soc J 75:5295-8 N 5 '53

CARBIDE and carbon chemicals company

Carbide's achievement; Chemical engineering award dinner. Chem Eng 61:150-1 Ja '54

Coal hydrogenation brings Carbide & Carbon second award for chemical engineering achievement. il Chem Eng 60:122+ S '53

Completing the cycle; two-time winner of Chemical engineering award. Chem W 73: 42-3 Ag 22 '53

Repeat performance; CE award for Carbide. Chem W 73:15 D 12 '53

CARBIDE cutting tools. See Cutting tools, Carbide

CARBIDES

Carbide reactions in high temperature alloys. J. R. Lane and N. J. Grant. bibliog il Am Soc for Metals Trans 44:113-34; Discussion. 134-7 '52

Carbides; drill bit life is improved with brazed carbide inserts. il Iron Age 172:209-10 D 10 '53

Color shows up the unknown in metallography. J. H. Powers and W. J. Loach. il Steel 133:93-6 O 19 '53

Designing for wear resistance with cemented carbides. F. J. Lennon, jr. il Machine Design 26:176-9 F '54

Ferrite formation associated with carbide precipitation in 18 CR-8 NI austenitic stainless steel. E. J. Dulis and G. V. Smith. bibliog il Am Soc for Metals Trans 44:621-32; Discussion. 632-42 '52

Full use of carbides still to come; interview with Philip M. McKenna. Iron Age 173:80-1 Mr 18 '54

Partition of some alloying elements between carbide and ferrite in steels. D. A. Scott and G. S. Farnham. bibliog J Metals 5: Trans 1541-3 sec 2 N '53

Sintered refractory alloys. A. Carter. bibliog (27 ref) il Metallurgia 49:8-14 Ja '54

Study of the microhardness of the major carbides in some high speed steels. P. Leckie-Ewing. il Am Soc for Metals Trans 44:348-62; Discussion. 362-6 '52

Thermal conductivity; conductivity of some refractory carbides and nitrides. T. Vasilos and W. D. Kingery. bibliog diags Am Cer Soc J 37:409-14 S 1 '54

See also

Boron carbide
Chromium carbide
Cutting tools, Carbide
Silicon carbide
Titanium carbide
Tungsten carbide

CARBINOLS

Cortical steroid analogs; acetylcarbinols obtained by the hydration of ethynylcarbinols. G. W. Stacy and R. A. Mikulec. bibliog Am Chem Soc J 76:524-7 Ja 20 '54

Derivatives of acetoacetic acid; the pyrolysis of acetoacetates of ethynylcarbinols. R. N. Lacey. Chem Soc J p827-32 Mr '54

p-Dimethylaminophenylquinaldylcarbinol. F. W. Bergstrom and A. Furst. bibliog Am Chem Soc J 75:5415-16 N 5 '53

Rearrangements of N-oxides; a novel synthesis of pyridyl carbinols and aldehydes. V. Boekelheide and W. J. Linn. bibliog Am Chem Soc J 76:1286-91 Mr 5 '54

Reduction of some methyl phenyl ketones, the corresponding carbinols, and 2-methyl-2-phenyl-1 : 3-dioxolans with sodium or potassium and alcohols in liquid ammonia. A. R. Pinder and H. Smith. Chem Soc J p 113-20 Ja '54

Spectrophotometric study of the reactions of *p*-aminotriphenylcarbinols with concentrated sulfuric acid. G. Branch and H. Walba. bibliog Am Chem Soc J 76:1564-9 Mr 20 '54

CARBOBENZOXYLATION

Acid-catalyzed decarbobenzoxylation. N. F. Albertson and F. C. McKay. bibliog Am Chem Soc J 75:5323-6 N 5 '53

CARBODIIMIDES. See Imides

CARBOHYDRATE chars. See Charcoal—Spectrum

CARBOHYDRATES

ACS Division of carbohydrate chemistry 124th national meeting, Chicago; abstracts of papers. Chem & Eng N 31:3852-4 S 21 '53

A.C.S. Division of carbohydrate chemistry 125th national meeting, Kansas City; abstracts of papers. Chem & Eng N 32:1436-7 Ap 12 '54

A.C.S. Division of carbohydrate chemistry 126th national meeting, New York; abstracts of papers. Chem & Eng N 32:3833-5 S 27 '54

Basic work of Fischer and Van't Hoff in carbohydrate chemistry. C. S. Hudson. J Chem Educ 30:120-1 Mr '53

Carbohydrate analogs as antagonists of glucose in carbohydrate metabolism of yeast. G. E. Woodward and others. Franklin Inst J 256:577-87 D '53

Determination of periodate in the presence of carbohydrates and their oxidation products. J. C. P. Schwarz. bibliog Chem & Ind p 1000 Ag 14 '54

Effects of X-radiation on carbohydrate metabolism. M. G. Ord and L. A. Stocken. Chem & Ind p666 Jl 4 '53

Esterification of carbohydrates with formic acid. B. L. Browning and L. O. Sell. bibliog Textile Res J 23:939-41 D '53

Oxidation of carbohydrates with periodate in the Warburg respirometer. A. S. Perlin. bibliog Am Chem Soc J 76:4101-3 Ag 20 '54

Production of formaldehyde during the oxidation of carbohydrates with periodate. J. F. O'Dea. bibliog Chem & Ind p 1338-9 D 12 '53

CARBOHYDRATES—*Continued*

Removal of lining and carbohydrates during bleaching of semichemical pulps. K. J. Bjorkvist and others. bibliog Pulp & Pa of Can 55:68-72 F '54

See also

Cellulose
Oligosaccharides
Polysaccharides
Sugar

Analysis

Carbohydrates in wood pulps by chromatographic analysis; abstract. A. Z. Conner. Pulp & Pa of Can 55:108 Jl '54
Cellulose column chromatography; abstract. D. Gross. Chem & Ind p242-3 F 27 '54
Chromatography of the carbohydrates and their derivatives; abstract. J. K. N. Jones. Anal Chem 25:679 Ap '53
Detection of glycosides and other carbohydrate compounds on paper chromatograms. J. A. Cifonelli and F. Smith. bibliog Anal Chem 26:1132-4 Jl '54
Determination of protein-bound carbohydrates by the anthrone reaction; effect of tryptophan. E. F. Tuller and N. R. Keiding. bibliog Anal Chem 26:875-8 My '54
Paper chromatography of some carbohydrates and related compounds in the presence of boric acid. G. R. Barker and D. C. C. Smith bibliog Chem & Ind p 19-20 Ja 2 '54
Rapid accurate determination of carbohydrates and other substances with the dichromate heat-of-dilution method. H. F. Launer and Y. Tomimatsu. Anal Chem 25:1767-9 N '53
Spray reagent for the detection of carbohydrates. R. U. Lemieux and H. F. Bauer. bibliog Anal Chem 26:920-1 My '54

CARBOLINE. See Pyridindole

CARBOLOY. See Tungsten carbide

CARBOMYCIN

Magnamycin; a new antibiotic. R. L. Wagner and others. bibliog Am Chem Soc J 75:4684-7 O 5 '53

CARBON

Adsorption of gases on carbon; abstract. H. Harker. Chem & Ind p 1282-3 N 28 '53
Anisothermal diffusion of carbon in austenite. J. E. Black and G. E. Doan. Am Soc for Metals Trans 44:452-60 '52
Carbon as filter aid; Nerofil. Chem & Eng N 31:4722 N 9 '53
Carbon cohort for diatoms; synthetic filter aid from petroleum coke and other carbonaceous materials. il Ind & Eng Chem 45:sup 15A+ D '53
Carbon in the engineering and metallurgical industries. V. S. Kingswood. bibliog flow sheet il diags Metallurgia 48:55-62, 133-8, 169-74, 221-7, 301-5 Ag-D '53
Charged pion production from carbon by protons. W. F. Dudziak. Phys R 95:866 Ag 1 '54
Combustion facts; carbon burned in air. P. Swain. Power 98:150 My '54
Determination of some carbon-chlorine bond dissociation energies. M. Szwarc and J. W. Taylor. bibliog J Chem Phys 22:270-4 F '54
Does carbon utilize 3*d* orbitals in bonding? H. H. Jaffé. bibliog J Chem Phys 21:1893 O '53
Effect of side chain on the chromatographic adsorption of some ketones on carbon. E. D. Smith and A. L. LeRosen. bibliog Anal Chem 26:928-9 My '54
Heat of sublimation of graphite and the composition of carbon vapor. G. Glocker. bibliog J Chem Phys 22:159-61 F '54
Heats and entropies of adsorption on a homogeneous carbon surface. J. Mooi, C. Pierce and R. N. Smith. bibliog J Phys Chem 57:657-9 O '53
Inelastic scattering of fast neutrons in carbon and lead. B. G. Whitmore. Phys R 92:654-5 N 1 '53
Influence of carbon and manganese on the properties of semikilled hot rolled steel. F. W. Boulger and R. H. Frazier. bibliog il diag J Metals 6:Trans 645-52 sec 2 My '54
Influence of oxygen, nitrogen, and carbon on the phase relationships of the Ti-Al system. R. J. Van Thyne and H. D. Kessler. bibliog il J Metals 6:Trans 193-9 sec 2 F '54
Interaction and production of cosmic-ray protons in carbon. J. Ballam and P. G. Lichtenstein. bibliog diags Phys R 93:851-7 F 15 '54
Interactions of negative pions in carbon and lead. J. O. Kessler and L. M. Lederman. bibliog il diags Phys R 94:689-702 My 1 '54
Ionization chamber measurements at 10 600 feet of the absorption of the *N* component in carbon and hydrocarbon. R. H. Rediker. diags Phys R 95:526-31 Jl 15 '54
Kinetics of carbon gasification by steam; mechanism of interaction of low temperature char and steam-hydrogen mixtures at 1600°F. G. E. Goring and others. bibliog Ind & Eng Chem 45:2586-91 N '53
Low-temperature oxidation of carbon. W. K. Lewis, E. R. Gilliland and R. R. Paxton. bibliog diag Ind & Eng Chem 46:1327-31 Je '54
Low temperature reaction of water with carbon. R. N. Smith, C. Pierce and C. D. Joel. bibliog J Phys Chem 58:298-302 Ap '54
Magnetic susceptibility of carbons and polycrystalline graphites. H. T. Pinnick. bibliog Phys R 94:319-26 Ap 15 '54
Negative μ-meson capture in carbon. T. N. K. Godfrey. Phys R 92:512 O 15 '53
Neighboring carbon and hydrogen; 1,3-interactions and homoallylic resonance. M. Simonetta and S. Winstein. bibliog Am Chem Soc J 76:18-21 Ja 5 '54
Paramagnetic resonance absorption in a soft carbon. J. G. Castle, jr. Phys R 95:846-7 Ag 1 '54
Photoproduction of π^+ mesons from hydrogen and carbon. G. S. Janes and W. L. Kraushaar. diag Phys R 93:900-1 F 15 '54
Preventing carbon from passing through sand filters. A. Y. Hyndshaw. diag Munic Util 92:27+ My '54
Properties of carbon contacts. R. O. Grisdale. bibliog il diags J Ap Phys 24:1288-96 O '53
Reactions of carbon; symposium. bibliog flow diag il diags Ind & Eng Chem 45:1697-725 Ag '53
Several molecular species obscure determination of heat of sublimation for carbon; abstract. W. A. Chupka and M. G. Inghram. Chem & Eng N 32:3847 S 27 '54
Shortening the carbon chain of sugars. A. S. Perlin. Am Chem Soc J 76:2595 My 5 '54
Solubility of carbon in molten iron and in iron-silicon and iron-manganese alloys. J. Chipman and others. bibliog diag Am Soc for Metals Trans 44:1215-30; Discussion. 1230-2 '52
Some influences of carbon in enameling of steel. G. P. K. Chu and others. bibliog il diags Am Cer Soc J 37:391-401 S 1 '54
Spectral emissivities of graphite and carbon. R. J. Thorn and O. C. Simpson. bibliog diag J Ap Phys 24:633-9 My '53
Stereochemistry of the primary carbon; optically active *n*-butanol-1-*d*. A. Streitwieser, jr. bibliog Am Chem Soc J 75:5014-18 O 20 '53
Study of the effect of carbon content on the structure and properties of sintered WC-Co alloys. J. Gurland. bibliog il J Metals 6:Trans 285-90 sec 2 F '54
Synthesis and reactions of branched-chain hydrocarbons; the synthesis of ketones with quaternary carbon atoms. W. J. Hickinbottom, A. A. Hyatt and M. B. Sparke. Chem Soc J p2533-6 Jl '54
Titanium-rich regions of the Ti-C-N, Ti-C-O, and Ti-N-O phase diagrams. L. Stone and H. Margolin. bibliog il J Metals 5:Trans 1498-502 sec 2 N '53
Use of 3*d* orbitals in bonding by carbon. R. J. Gillespie. J Chem Phys 21:1893-4 O '53

See also

Coal
Coke
Diamonds
Graphite
Petroleum coke

Analysis

Determination of boron in boron-carbon film resistors. I. G. Young. bibliog Anal Chem 26:753-4 Ap '54
Determination of carbon in tantalum. A. F. Torrisi, J. L. Kernahan, and R. E. Fryxell. diags Anal Chem 26:733-4 Ap '54

CARBON—Analysis—*Continued*

Gasometric method for determination of hydrogen in carbon. W. G. Guldner and A. L. Beach. diag Anal Chem 26:1199-202 Jl '54

New flux for determination of total carbon in silicon carbide. P. L. Norton. Anal Chem 25:1761-2 N '53

Precision determination of low concentrations of carbon in metals. L. P. Pepkowitz and W. D. Moak. bibliog diag Anal Chem 26:1022-5 Je '54

Replacement of lead peroxide in carbon, hydrogen microdetermination. C. K. Cross and G. F. Wright. bibliog diags Anal Chem 26:886-90 My '54

Sealed-tube combustion for determination of carbon, hydrogen, and nitrogen. W. Kirsten. diags Anal Chem 26:1097 Je '54

Volumetric determination of carbon and hydrogen in organic microcombustion analysis. A. Johansson. bibliog diag Anal Chem 26:1183-5 Jl '54

Isotopes

Analytical procedures using a combined combustion-diffusion vessel. N. Baker, H. Feinberg and R. Hill. bibliog diags Anal Chem 26:1504-6 S '54

Analytical procedures using a combined combustion-diffusion vessel. J. Katz, S. Abraham and N. Baker. bibliog diags Anal Chem 26:1503-4 S '54

Apparatus for wet combustion of organic compounds containing carbon-14. J. G. Burr, jr. diag Anal Chem 26:1395-6 Ag '54

Background and ^{14}C detection efficiency of a liquid scintillation counter. B. N. Audric and J. V. P. Long. bibliog diag J Sci Instr 30:467-9 D '53

Biosynthesis of C^{14}-specifically labeled cellulose by acetobacter xylinum; from D-glucose-1-C^{14} with and without ethanol. F. W. Minor and others. Am Chem Soc J 76:1658-61 Mr 20 '54

Biosynthesis of streptomycin; studies with C-14-labeled glycine and acetate. P. Numerof and others. bibliog Am Chem Soc J 76:1341-4 Mr 5 '54

Carbon-14 isotope effect in the exchange reaction between carbon monoxide and phosgene. D. R. Stranks. J Chem Phys 21:2232 D '53

Carbon isotope constitution of some acetic acids. P. E. Yankwich and A. L. Promislow. Am Chem Soc J 75:4881-2 O 5 '53

Chemical degradation of ^{14}C-glucose and its application to ^{14}C-starch from polytomella coeca. J. C. Bevington and others. bibliog Chem & Ind p 1390-1 D 26 '53

Dating with carbon 14. J. L. Kulp. bibliog J Chem Educ 30:432-5 S '53

Determination of carbon 14 in the terminal positions of sugars; preparation of D-arabinose-5-C^{14} from D-fructose-1,6-C^{14}. H. L. Frush and H. S. Isbell. J Res Nat Bur Stand 51:167-70 O '53

Determination of gamma isomer in crude benzene hexachloride by a carbon-14 isotope dilution method. R. Hill and others. bibliog Chem & Ind p 162-3 F 6 '54

Direct production of radioactive aliphatic hydrocarbons by pile irradiation. A. G. Schrodt and W. F. Libby. Am Chem Soc J 76:3100 Je 5 '54

Energy levels in N^{14} from the scattering of protons by C^{13}. E. A. Milne. bibliog Phys R 93:762-7 F 15 '54

Examination of the iodoform and Schmidt reactions of acetone-1-C$_{14}$ for isotope effects. G. A. Ropp and others. Am Chem Soc J 76:1710-11 Mr 20 '54

Fractionation of the carbon isotopes in decarboxylation reactions; comparison of the intermolecular isotope effects of a pair of isotopic isomers. J. Bigeleisen and M. Wolfsberg. bibliog J Chem Phys 21:2120-1 D '53

Infrared spectrum and molecular constants of $C^{14}O_2$. A. H. Nielsen and R. T. Lagemann. bibliog J Chem Phys 22:36-9 Ja '54

Intermediates in the synthesis of carboxyl-C^{14}-labeled 3-hydroxyanthranilic acid. L. S. Ciereszko and L. V. Hankes. bibliog Am Chem Soc J 76:2500-1 My 5 '54

Intramolecular carbon isotope effect in the decarboxylation of normal malonic acid in quinoline solution. P. E. Yankwich and R. L. Belford. bibliog Am Chem Soc J 76:3067-70 Je 5 '54

Intramolecular isotope effects in the reactions of benzoic-α-C^{14} anhydride. V. F. Raaen and G. A. Ropp. J Chem Phys 21:1902-3 O '53

Liquid scintillation counting of natural C^{14}. F. N. Hayes and others. bibliog Phys R 92:512-13 O 15 '53

Liquid scintillation counting of tritium and C^{14} labeled compounds. D. J. Rosenthal and H. O. Anger. bibliog R Sci Instr 25:670-4 Jl '54

Mechanism of thiamine-catalyzed reactions. S. Mizuhara and P. Handler. bibliog Am Chem Soc J 76:571-3 Ja 20 '54

Micromethod for measurement of carbon-14-labeled material. J. H. Peters and H. R. Gutmann. bibliog diags Anal Chem 25:987-8 Je '53

Observations on the synthesis of [8-^{13}C] adenine. M. Gordon. Chem Soc J p757-8 F '54

Path of carbon in photosynthesis; the cyclic regeneration of carbon dioxide acceptor. J. A. Bassham and others. bibliog diag Am Chem Soc J 76:1760-70 Ap 5 '54

Precipitation of C^{14}-labeled dextran by human anti-dextran. E. A. Kabat and others. bibliog Am Chem Soc J 76:564-6 Ja 20 '54

Preparation of NaC^{14}N and NaCN^{15}. A. G. MacDiarmid and N. F. Hall. Am Chem Soc J 75:4850-1 O 5 '53

Preparation of progesterone-4-C^{14}. L. M. Thompson, C. H. Yates and A. D. Odell. bibliog Am Chem Soc J 76:1194-6 F 20 '54

Rearrangement in the reaction of C^{14}-labeled *n*-propylamine (1-aminopropane-1-C^{14}) with nitrous acid. J. D. Roberts and M. Halmann. Am Chem Soc J 75:5759-60 N 20 '53

Recommendations for the disposal of carbon-14 wastes. U S Nat Bur Stand Handbook 53:1-14; pa 15c Supt. of doc. '53

Scattering of 9.5-Mev protons by carbon and oxygen. W. E. Burcham and others. Phys R 92:1266-7 D 1 '53

Self-absorption correction in carbon-14 counting. E. K. Gora and F. C. Hickey. bibliog Anal Chem 26:1158-61 Jl '54

Self-radiolysis of C^{14}-compounds. C. D. Wagner and V. P. Guinn. Am Chem Soc J 75:4861 O 5 '53

7.68-Mev state in C^{12}. D. N. F. Dunbar and others. Phys R 92:649-50 N 1 '53

Study of the evolution of carbon dioxide during melanin formation, including the use of 2-(3 : 4-dihydroxyphenyl)[1-^{14}C]- and 2-(3:4-dihydroxyphenyl)[2-^{14}C]-ethylamine. G. A. Swan and D. Wright. Chem Soc J p381-4 Ja '54

Substituted methanes; C^{13} isotopic shifts in the vibrational spectrum of methanol. R. B. Bernstein. J Chem Phys 21:1903-4 O '53

Synthesis of δ-aminovaleric acid-δ-C^{14}. M. Rothstein. Am Chem Soc J 76:3038-9 Je 5 '54

Synthesis of 8-C^{14} and of S^{35}-6-mercaptopurine. G. B. Elion and G. H. Hitchings. bibliog Am Chem Soc J 76:4027-8 Ag 5 '54

Synthesis of ^{14}C-labelled diethylcarbamazine, 1-diethylcarbamyl-4-methylpiperazine (hetrazan). B. H. Chase and A. M. Downes. Chem Soc J p3874-7 D '53

Synthesis of 1-C^{14}-labeled diethyl ether. J. G. Burtle and W. N. Turek. bibliog Am Chem Soc J 76:2498 My 5 '54

Synthesis of DDT labeled with carbon-14 in the tertiary position. G. W. Pearce and J. A. Jensen. bibliog Science 118:45-6 Jl 10 '53

Synthesis of 17 β-estradiol-16-C^{14}. M. Levitz. bibliog Am Chem Soc J 75:5352-5 N 5 '53

Synthesis of 2-ethylhexanol-1-C^{14} and esters. J. L. Kalinsky and A. Weinstein. Am Chem Soc J 76:3730 Jl 20 '54

Synthesis of 2-[8-^{14}C] naphthylamine. J. R. Catch, H. P. W. Huggill and A. R. Somerville. Chem Soc J p3028-30 O '53

Thermal neutron capture cross section of carbon-13. G. R. Hennig. Phys R 95:92-5 Jl 1 '54

CARBON—*Continued*

Nuclear reactions

Beta decay of F^{17} and C^{11}. C. Wong. Phys R 95:765-6 Ag 1 '54

Characteristics of neutral meson production in the proton bombardment of carbon nuclei. W. E. Crandall and B. J. Moyer. bibliog diags Phys R 92:749-58 N 1 '53

Fine structure in the $C^{12}(\gamma,n)$ C^{11} and O^{16} (γ,n) O^{15} activation curves. L. Katz and others. bibliog Phys R 95:464-71 Jl 15 '54

Gamma radiation from the reaction $C^{13}(p,\gamma)N^{14}$. H. H. Woodbury and others. bibliog Phys R 92:1199-206 D 1 '53

Low-energy gamma radiation from the bombardment of carbon by protons. H. H. Woodbury and others. diag Phys R 93:1311-14 Mr 15 '54; Correction. 96:1713 D 15 '54

Production of charged pions at 180° to the beam by 340-Mev protons on carbon. S. L. Leonard. bibliog diag Phys R 93:1380-6 Mr 15 '54

Production of protons from carbon by monoenergetic gamma rays. J. W. Weil and B. D. McDaniel. bibliog diags Phys R 92:391-400 O 15 '53

Reaction $C^{12}(\gamma,3p)Li^{9}$. D. Reagan. bibliog Phys R 92:651-2 N 1 '53

Tensor forces and the β decay of C^{14} and O^{14}. B. Jancovici and I. Talmi. Phys R 95:289-91 Jl 1 '54

CARBON, Activated

Activation of carbons. W. K. Lewis and A. B. Metzner. bibliog(33 ref) Ind & Eng Chem 46:849-58 My '54

Active carbons as anti-stain agents for reclaimed rubber. J. J. Keilen and W. K. Dougherty. diags India Rubber World 129:199-205 N '53

How to secure maximum benefits with activated carbon. A. Y. Hyndshaw. Munic Util 92:38+ S '54

Odor removal efficiency over 92 per cent; Ace wire mills. il Mill & Factory 53:139-40 N '53

CARBON, Structural

Carbon brick linings in alkaline pulp digesters. B. Thomas. Tappi 37:174-6 Ap '54

Carbon in chemical engineering; Morgan crucible co. il Chem Age (Lond) 68:129-32 Jl 18 '53

Carbon-packing progress for sealing small turbines. K. MacDonald. il diags Power 98:122-3+ Jl '54

Carbon in the engineering and metallurgical industries. V. S. Kingswood. bibliog il diags Metallurgia 48:169-74, 221-7, 301-5 O-D '53

Construction and operation of carbon lining in Gary's no. 10 blast furnace. J. M. Walsh, jr. il diags Blast F & Steel Pl 41:1439-50 D '53

Design for longer pickling equipment life. J. F. Revilock. il diags Steel 133:84+ D 21 '53

Impervious carbon and graphite. C. E. Ford. Chem Eng Prog 49:624 N '53

Materials of construction for chemical engineering; carbon and graphite. W. M. Gaylord. bibliog(39 ref) il Ind & Eng Chem 45:2182-4 O '53

More carbon for the steelmaker. J. S. Copley and E. F. Sipp, jr. il Steel 133:105+ Ag 10 '53

Properties of chemical engineering materials of construction. W. M. Gaylord. Ind & Eng Chem 45:2272-3 O '53

Trends in blast furnace linings. H. M. Kraner. bibliog diags Iron & Steel Eng 31:79-81; Discussion. 82 Jl '54

CARBON arc. See Electric lamps, Arc

CARBON bisulfide. See Carbon disulfide

CARBON black

Automatic proportioning cuts mixing costs by 58 per cent at Harris Products plant. il Rubber Age 75:385-6 Je '54

Bulk transport of carbon black. il Engineering 176:429 O 2 '53

Carbon black from natural gas. G. W. Govier and others. il Can Chem Process 38:62+ My '54

Carbon black; properties and uses. Can Chem Process 38:50 S '54

Carbon black symposium. C. A. Carlton and others. India Rubber World 130:227-32 My '54; Excerpt. Rubber Age 75:227-33 My '54; Discussion. India Rubber World 130:232-5 My '54

Carbon black tests detergency; Graphon. il Chem & Eng N 32:2271-2 Je 7 '54

Carbon blacks for the rubber industry; abstract. R. Treat. Can Chem Process 38:67 Je 20 '54

Detergency of carbon black. F. H. Garner and others. bibliog pl diags Inst Pet J 38:974-97 D '52

Detergency of carbon black; the stability and mechanism of settling of carbon black dispersions in organic liquids. F. H. Garner and others. bibliog Inst Pet J 39:677-87 O '53

Dip in carbon black. Chem W 75:94 Ag 21 '54

Electrical conductivity of rubber-carbon black vulcanizates. B. B. S. T. Boonstra and E. M. Dannenberg. bibliog Ind & Eng Chem 46:218-27 Ja '54

Electrical resistivities of carbon black loaded rubber compounds. M. L. Studebaker. bibliog India Rubber World 129:485-8 Ja '54

Extrusion factors of black rubber compounds. I. Drogin and others. bibliog(36 ref) il diags Rubber Age 74:707-60 F '54

Formation of black carbon. R. O. Grisdale. bibliog il diags J Ap Phys 24:1082-91 S '53

Graphitization processes in cokes and carbon blacks. A. E. Austin and W. A. Hedden. bibliog Ind & Eng Chem 46:1520-4 Jl '54

New type blacks dominate. Chem & Eng N 32:676 F 15 '54

Oxidation of unvulcanized rubber. F. Lyon, K. A. Burgess and C. W. Sweitzer. bibliog Ind & Eng Chem 46:596-600 Mr '54

Physico-chemical and rubber reinforcing properties of super abrasion furnace black. J. F. Svetlik and others. India Rubber World 129:617-20+ F '54

Products volatilized from a channel and a furnace black on heating to 1000° C. S. L. Madorsky and others. bibliog diag Rubber Age 74:238-42 N '53

Reactions of carbon; structure and properties of carbon black. W. D. Schaeffer, W. R. Smith and M. H. Polley. bibliog il diag Ind & Eng Chem 45:1721-5 Ag '53

Reinforcement of butyl with carbon black. A. M. Gessler and others. bibliog il Rubber Age 74:59-71, 243-51, 397-408, 561-6 O '53-Ja '54

Shawinigan acetylene black. K. Kaufmann. flow diag il Can Chem Process 38:52+ F '54

Manufacture

British carbon black. il Chem Age (Lond) 68:933-4 Je 20 '53

Carbon black; Continental carbon black co. diag Pet Refiner 32:174-5 N '53

Carbon black dark horse; Lynn Furmatic process. il diag Chem W 75:40+ Ag 14 '54

Consolidated carbon formed; gets Lynn-Furmatic license. Rubber Age 75:860 S '54

New carbon black process coming; Consolidated Carbon. il diag Chem & Eng N 32:3294 Ag 16 '54

New process puts spotlight on carbon black. il diag Chem Eng 60:120+ Jl '53

White-collar black; Continental Blacks' nev plant. il Chem & Eng N 32:2367 Je 14 '54

Yields soar with aerosols in production of carbon black; patent. diag Chem Eng 61:288 Je '54

Transportation

Delivering carbon black. Chem Age (Lond) 69:560 S 12 '53

CARBON compounds

Unsymmetrical quaternary carbon compounds; the comparative 1,4-additions of Grignard reagents to several conjugated systems. F. S. Prout and others. bibliog Am Chem Soc J 76:1911-13 Ap 5 '54

See also

Fluorocarbons

Hydrocarbons

CARBON dichloride. See Tetrachloroethylene

CARBON dioxide

Absorption of carbon dioxide in agitated sodium carbonate-bicarbonate solutions. S. G. Bedekar. bibliog diags J Ap Chem 3:524-7 N '53

Air leakage and gas concentrations in commercial fruit storages. G. F. Sainsbury and F. Gerhardt. bibliog il Refrig Eng 62:61-6+ Mr '54

Approximate emissivity calculations for polyatomic molecules; CO_2. S. S. Penner. bibliog J Ap Phys 25:660-7 My '54

CO_2 absorption employing hot potassium carbonate solutions. H. E. Benson, J. H. Field and R. M. Jimeson. bibliog flow sheets il diags Chem Eng Prog 50:356-64 Jl '54

Carbon dioxide corrosion reduced. J. C. Albright. il Pet Eng 25:C37-8 Ag '53

Carbon dioxide fixation in heart extracts by β-hydroxyisovaleryl coenzyme A. B. K. Bachhawat, W. G. Robinson and M. J. Coon. bibliog Am Chem Soc J 76:3098-9 Je 5 '54

Carbon dioxide removal unit built for navy's Nautilus. il Chem & Eng N 32:3304 Ag 16 '54

Cobalt, iron and some of their alloys as catalysts for the hydrogenation of carbon dioxide. R. A. Stowe and W W. Russell. bibliog Am Chem Soc J 76:319-23 Ja 20 '54

Combustion facts; how CO_2 measures excess air. P. Swain. Power 98:140 Ag '54

Comparative study of accommodation coefficients by the temperature jump and low-pressure methods and thermal conductivities of He, Ne, and CO_2. L. B. Thomas and R. C. Golike. bibliog diag J Chem Phys 22: 300-5 F '54

Continuous production of activated silica with carbon dioxide gas. R. V. Andrews. bibliog il plan diags Am Water Works Assn J 46:82-92 Ja '54

Convenient transformation of radioactive carbon dioxide into radioactive cyanide. W. R. Vaughan and D. I. McCane. bibliog Am Chem Soc J 76:2504-5 My 5 '54

Diffusion in CO_2-CH_4 mixtures to 225 atmospheres pressure. Q. R. Jeffries and H. G. Drickamer. bibliog J Chem Phys 22:436-7 Mr '54

Earth is a hothouse. Sci Am 189:44+ Jl '53

Effect of nitrogen and carbon dioxide atmospheres on arc welding. F. W. Sowa and others. il Welding J 32:sup619-24 D '53

Fischer-Tropsch synthesis with cobalt catalysts; effect of nitrogen, carbon dioxide and methane in the synthesis gas. E. J. Gibson and C. C. Hall. bibliog J Ap Chem 4:464-8 Ag '54

Gas adsorption by wood, pulp, and paper; low-temperature adsorption of nitrogen, butane, and carbon dioxide by sprucewood and its components. W. R. Haselton. bibliog(26 ref) diag Tappi 37:404-12 S '54

High field conductance of aqueous solutions of carbon dioxide at 25°; the true ionization constant of carbonic acid. D. Berg and A. Patterson, jr. bibliog Am Chem Soc J 75:5197-200 N 5 '53

Kinetics and mechanisms of the two opposing reactions of the equilibrium $CO + H_2O = CO_2 + H_2$. W. M. Graven and F. J. Long. bibliog Am Chem Soc J 76:2602-7 My 20 '54

Low-temperature oxidation of carbon. W. K. Lewis, E. R. Gilliland and R. R. Paxton. bibliog diag Ind & Eng Chem 46:1327-31 Je '54

Manufacture and distribution of carbon dioxide. H. A. Sommers. bibliog flow diag Chem Eng Prog 49:333-9 Jl '53

Mechanism of enzymatic carbon dioxide fixation into oxaloacetate. B. Vennesland, T. T. Tchen and F. A. Loewus. Am Chem Soc J 76:3358-9 Je 20 '54

Permeability of different elastomers to CO_2 using carbon-14. A. D. Kirshenbaum and others. bibliog il diags Rubber Age 74:903-8 Mr '54

Phase equilibria in the carbon dioxide-methane system. H. G. Donnelly and D. L. Katz. bibliog il Ind & Eng Chem 46:511-17 Mr '54

Preparation of optically-active peptides using mixed carbonic-carboxylic acid anhydrides. J. R. Vaughan, jr. and J. A. Eichler. bibliog Am Chem Soc J 75:5556-60 N 20 '53

Reaction occurring in CO_2–H_2O mixtures in a high-frequency electric arc. K. A. Wilde and others. Science 118:43-4 Jl 10 '53

Reactions of carbon; adsorption-desorption studies of nitrogen, argon, and carbon dioxide on carbon rods. P. L. Walker, jr. and C. C. Wright. bibliog Ind & Eng Chem 45:1715-21 Ag '53

Reactions of carbon; surface area studies of carbon, carbon dioxide reaction. P. L. Walker, jr., R. J. Foresti, jr. and C. C. Wright. bibliog il diag Ind & Eng Chem 45:1703-10 Ag '53

Study of the evolution of carbon dioxide during melanin formation, including the use of 2-(3 4-dihydroxyphenyl)[1-^{14}C]- and 2-(3 : 4-dihydroxyphenyl) [2-^{14}C] -ethylamine. G. A. Swan and D. Wright. Chem Soc J p381-4 Ja '54

Theory and practice of lime manufacture; kiln performance evaluation by means of exhaust gas analysis. V. J. Azbe. Rock Prod 57:89-90+ Mr '54

Thermal analysis of magnesite at CO_2 pressures up to six atmospheres. R. L. Stone. bibliog Am Cer Soc J 37:46-7 F 1 '54

Thermal conductivity of gas mixtures at high pressure; ethylene, nitrogen and ethylene, carbon dioxide. W. A. Junk and E. W. Comings. bibliog diag Chem Eng Prog 49:263-6 My '53

They didn't dare wet it; so they decided to smother it! il Safety Maint & Prod 107:57-8 Ap '54

Vacuum tube molecular emission and dissociation spectra. J. H. Lee. Opt Soc Am J 43:619 Jl '53

Analysis

Carbon dioxide content of ethanolamine solutions. P. T. Wagner and M. Lew. Anal Chem 26:575-6 Mr '54

Catalyst regeneration control; carbon removal from dehydrogenation catalyst facilitated by use of automatic infrared analyzer. K. V. Kratochvil and D. E. Berger. il diags Pet Eng 25:C 13-15 Jl '53

Determination of free and combined carbon dioxide in condensates and boiler feed waters, and standardization of the method against known amounts of carbon dioxide. D. Parkhouse. diag Chem & Ind p 1197-9 N 7 '53

Determination of low concentrations of carbon dioxide in water. J. B. Smith, E. K. Gilbert and M. P. Howie. bibliog diag Anal Chem 26:667-70 Ap '54

Gas analysis. diags Can Chem Process 37: 108-9 O '53

Preparation of a carbonate-free solid absorbent for carbon dioxide. G. A. Consolazio, C. W. Chagnon and B. Manning. Anal Chem 25:1136 Jl '53

Industrial applications

Carbon dioxide as a machining coolant. il diags Engineer 197:181-2 Ja 29 '54

Carbon dioxide as a machining coolant. il diag Engineering 177:156-7 Ja 29 '54

Carbon dioxide cooling. Automobile Eng 44:58 F '54

Cool tip, not chip, with CO_2. il diags Am Mach 98:130-3 F 15 '54

Direct carbon dioxide injection cools low temperature test chamber. R. Greenwald. il diag Heating-Piping 26:114-17 Je '54

How melting practice affects machinability of malleable iron. E. A. Loria. il Iron Age 174:168-70 S 16 '54

New CO_2 concept machines tough alloys. G. H. DeGroat. il Am Mach 98:152-4 Ag 2 '54

Safety experts to see how CO_2 loosens fertilizer. Chem Eng 60:152+ S '53

Tool cooling by CO_2. il diags Automobile Eng 44:263-5 Je '54

Using carbon dioxide as a machining coolant. il Refrig Eng 62:55+ My '54; Abstract. diag Chem Age (Lond) 70:731 Mr 27 '54

See also
Carbon dioxide, Solid
Fire extinguishers,
Carbon dioxide

CARBON dioxide—*Continued*

Manufacture

Carbon dioxide; Girdler co. flow sheet Pet Refiner 32:174-5 N '53

Improved process for CO_2 production; patent. diag Chem Eng 61:254+ My '54

Manufacture and distribution of carbon dioxide. H. A. Sommers. bibliog flow diag Chem Eng Prog 49:333-9 Jl '53

Spectrum

Absorption coefficients of gases in the vacuum ultraviolet; CO_2. E. C. Y. Inn and others. bibliog J Chem Phys 21:1648-50 O '53

Infrared spectrum and molecular constants of $C^{14}O_2$. A. H. Nielsen and R. T. Lagemann. bibliog J Chem Phys 22:36-9 Ja '54

Rotation-vibration spectra of diatomic and simple polyatomic molecules with long absorbing paths; spectrum of carbon dioxide (CO_2) below 1.25μ. G. Herzberg and L. Herzberg. bibliog il Opt Soc Am J 43:1037-44 N '53

CARBON dioxide, Solid

Dry ice freezes oil, eases pipe-cable repair. il Elec World 141:91 Ja 11 '54

CARBON dioxide fire extinguishers. See Fire extinguishers, Carbon dioxide

CARBON disulfide

Bisulfide forecast; fair, partly cloudy. il Chem W 74:77-8+ Ja 16 '54

Flammability of carbon disulfide in mixtures of air and water vapor. M. G. Zabetakis and G. W. Jones. il Ind & Eng Chem 45:2079-80 S '53

Preparation of solutions of phosphorus in carbon disulfide. S. Heilveil. J Chem Educ 30:305 Je '53

Process kinetics; kinetics of the sulfur-methane reaction. G. W. Nabor and J. M. Smith. bibliog diag Ind & Eng Chem 45:1272-81 Je '53

CARBON fluorides

Direction of free radical addition to $CF_2{=}CFCl$. A. L. Henne and D. W. Kraus. Am Chem Soc J 76:1175-6 F 20 '54

CARBON monoxide

Carbon-14 isotope effect in the exchange reaction between carbon monoxide and phosgene. D. R. Stranks. J Chem Phys 21:2232 D '53

Heterogeneous carbon monoxide-ozone reaction on silver. D. Garvin. Am Chem Soc J 76:1581 Mr 20 '54

Influence of hydrogen and carbon monoxide partial pressures on the rate of the hydroformylation reaction. G. Natta and others. Am Chem Soc J 76:4049-50 Ag 5 '54

Kinetics and mechanisms of the two opposing reactions of the equilibrium $CO + H_2O = CO_2 + H_2$. W. M. Graven and F. J. Long. bibliog Am Chem Soc J 76:2602-7 My 20 '54

Low-temperature oxidation of carbon. W. K. Lewis, E. R. Gilliland and R. R. Paxton. bibliog diag Ind & Eng Chem 46:1327-31 Je '54

Olefin-carbon monoxide-alcohol copolymers. T. L. Cairns and others. bibliog Am Chem Soc J 76:3024-8 Je 5 '54

Oxidation of carbon monoxide in the presence of ozone. D. Garvin. bibliog Am Chem Soc J 76:1523-7 Mr 20 '54

Purification of nickel with carbonyl. R. S. Young. J Chem Educ 31:26 Ja '54

Safeguards against high CO in traffic tunnel. Heat & Ven 51:100 F '54

Manufacture

Carbon monoxide; Girdler co. diag Pet Refiner 32:176-7 N '53

Pulverized-coal-fired gasifier for production of carbon monoxide and hydrogen. P. R. Grossman and R. W. Curtis. flow diag diags A S M E Trans 76:689-95 My '54

Spectrum

Investigations of atmospheric CO at the Jungfraujoch. W. Benesch and others. bibliog Opt Soc Am J 43:1119-23 N '53

Microwave measurement of D_0 for CO. F. D. Bedard and others. il Phys R 92:1440 D 15 '53

Vibrational intensities in diatomic infrared transitions; the vibrational matrix elements for CO. R. C. Herman and K. E. Shuler. bibliog J Chem Phys 22:481-90 Mr '54

CARBON monoxide poisoning

Danger from carbon monoxide in the home. L. B. Berger and H. H. Schrenk. U S Bur Mines Information Circ 7676:1-6 '54

CARBON oxides

Spectrum

Infrared and Raman spectra of carbon suboxide. H. D. Rix. bibliog J Chem Phys 22:429-33 Mr '54

Intensities of the infrared bands of carbon suboxide. R. L. Williams. J Chem Phys 22:345 F '54

CARBON paper

Converting of carbon papers. F. B. McFarland. diags Paper Tr J 137:230-2+ N 13 '53

Manufacture

Material utilization incentive plan. R. P. Keehan. flow chart N A C A Bul 35:224-35 O '53

CARBON suboxide. See Carbon oxides

CARBON tetrabromide

Chain transfer of vinyl monomers with carbon tetrabromide. N. Fuhrman and R. B. Mesrobian. bibliog Am Chem Soc J 76:3281-6 Je 20 '54

CARBON tetrachloride

Additions of chloroform and carbon tetrachloride to allylic monomers. F. M. Lewis and F. R. Mayo. bibliog Am Chem Soc J 76:457-64 Ja 20 '54

All competing, all growing; the top three chlorinated solvents; tri, per and carbon tet. Chem W 72:56-7 My 2 '53

αβ-Unsaturated aldehydes and related compounds; the homolytic addition of carbon tetrachloride to acraldehyde and its acetals. R. H. Hall and D. I. H. Jacobs. Chem Soc J p2034-9 Je '54

Carbon tet marches on during 1953. Chem & Eng N 32:1276+ Mr 29 '54

Chlorinated methanes. diag Pet Refiner 32:124-5 N '53

Dark reaction of bromine with mesitylene in carbon tetrachloride solution. R. M. Keefer, J. H. Blake, 3d and L. J. Andrews. bibliog Am Chem Soc J 76:3062-7 Je 5 '54

Distribution of ruthenium tetroxide between carbon tetrachloride and aqueous alkali, acid, and neutral salt solutions. F. S. Martin. diags Chem Soc J p2564-70 Jl '54

Effect of solvents and electrolytes on polarograms of carbon tetrachloride. J. J. Lothe and L. B. Rogers. bibliog Electrochem Soc J 101:258-66 My '54

Mechanism of reaction of aluminum and aluminum alloys with carbon tetrachloride. M. Stern and H. H. Uhlig. bibliog diag Electrochem Soc J 100:543-52 D '53; Discussion. 101:337-8 Je '54

Proton magnetic resonance of the CH_3 group; solid solutions of *t*-butyl chloride in carbon tetrachloride. J. G. Powles and H. S. Gutowsky. bibliog J Chem Phys 21:1704-9 O '53

Purification of carbon tetrachloride; removal of carbon disulphide. E. H. Waters. bibliog Chem & Ind p742-3 Jl 18 '53

Rapid exchange between iodine and stannic iodide in carbon tetrachloride at 0°. M. Kahn and A. J. Freedman. Am Chem Soc J 76:929-30 F 5 '54

Scavenger effect in the n,γ' reaction in carbon tetrachloride. W. H. Hamill and R. R. Williams, jr. bibliog J Chem Phys 22:53-6 Ja '54

Vaporising liquids as fire extinguishers; abstract. E. H. Coleman. Chem Age (Lond) 68:599-600 Ap 18 '53

CARBON tetrachloride poisoning

Carbon tetrachloride; hazards and precautions; data sheet. M. M. Luckens. Safety Maint & Prod 108:41-2 Ag '54

CARBON tetrafluoride

Decomposition of CF_4 in flames. D. E. Mann and others. J Chem Phys 22:348-9 F '54

CARBONATED beverages. See Beverages

CARBONATES

Alkali carbonates of Np(V), Pu(V) and Am(V). J. P. Nigon and others. bibliog J Phys Chem 58:403-4 My '54

Carbonate alkalinity indicators. M. Brooke. bibliog J Chem Educ 30:419-20 Ag '53

Crystal structure of $KPuO_2CO_3$, $NH_4PuO_2CO_3$ and $RbAmO_2CO_3$. F. H. Ellinger and W. H. Zachariasen. diag J Phys Chem 58:405-8 My '54

Polarographic characteristics of +5 vanadium in phosphate, borate and carbonate buffers. I. Filipović and others. bibliog Am Chem Soc J 76:2074-80 Ap 20 '54

System MgO-Al_2O_3-H_2O and influence of carbonate and nitrate ions on the phase equilibria. D. M. Roy and others. bibliog diags Am J Sci 251:337-61 My '53

Thermal decomposition rates of carbonates in oil shale. E. E. Jukkola and others. bibliog diag Ind & Eng Chem 45:2711-14 D '53

Analysis

Volumetric analysis of sodium aluminate solutions. H. L. Watts and D. W. Utley. bibliog Anal Chem 25:864-7 Je '53

CARBONATO-APATITE. See Apatite

CARBONIC acid. See Carbon dioxide

CARBONITRIDING. See Case hardening

CARBONIUM compounds

Aromatic carbonium ions. C. Reid. diag Am Chem Soc J 76:3264-8 Je 20 '54

Isotope effects in carbonium ion reactions; determination of solvent and leaving group participations. E. S. Lewis and C. E. Boozer. Am Chem Soc J 76:791-3 F 5 '54

Nature and behaviour of ion pairs in acetolysis. S. Winstein and others. Chem & Ind p664-5 Je 5 '54

CARBONYL compounds

Carbonyl compounds as by-products in commercial dehydrogenation of butenes. C. M. Finigan, H. V. Fullerton and G. W. Taylor. diags Ind & Eng Chem 45:1356-9 Je '53

Carbonyl oxycelluloses. W. M. Corbett and others. Chem & Ind p462 My 9 '53

Further studies on silicon-containing carbonyl compounds; diketones, ketoesters and cyclic unsaturated ketones. L. H. Sommer and R. P. Pioch. bibliog Am Chem Soc J 76:1606-9 Mr 20 '54

Gas plating offers versatility. diag Steel 133:120-1+ O 19 '53

Grignard reagents of sulfones; reactions with carbonyl compounds. L. Field and J. W. McFarland. bibliog Am Chem Soc J 75:5582-6 N 20 '53

Mechanism of hydrolysis at carbonyl carbon. C. A. Bunton and others. bibliog Chem & Ind p 1154-5 S 18 '54

Mechanism of thiamine-catalyzed reactions. S. Mizuhara and P. Handler. bibliog Am Chem Soc J 76:571-3 Ja 20 '54

Reaction of guanidine with α,β-unsaturated carbonyl compounds; cinnamic acid derivatives. A. P. Phillips and J. Mentha. Am Chem Soc J 76:574-6 Ja 20 '54

Reduction of some carbonyl compounds with sodium borohydride. E. B. Reid and J. R. Siegel. Chem Soc J p520-4 F '54

S_N mechanism in aromatic compounds; carbonyl and nitrile substituents. J. Miller. bibliog Am Chem Soc J 76:448-50 Ja 20 '54

Sodium-promoted condensation of organic halides and carbonyl compounds. C. E. Frank and W. E. Foster. bibliog Ind & Eng Chem 46:1019-21 My '54

Spectra and structure of dicobaltoctacarbonyl. J. W. Cable, R. S. Nyholm and R. K. Sheline. bibliog Am Chem Soc J 76:3373-6 Jl 5 '54

See also

Nickel carbonyl

Analysis

Chromatographic study of carbonyl compounds present in a hydrocarbon-air flame. E. W. Malmberg. bibliog Am Chem Soc J 76:980-3 F 20 '54

Spectra

Conjugation and the intensity of the infrared carbonyl band. G. M. Barrow. bibliog J Chem Phys 21:2008-11 N '53

CARBONYL group

Carbonyl functional silanes; abstract. R. G. Severson. Chem & Eng N 32:1324 Ap 5 '54

Decarbonylation of α-phenylpropionyl chloride. S. Archer and M. Jackman. Chem & Ind p784-5 Jl 3 '54

Enzymatic carboxylation of ribulose diphosphate. J. R. Quayle and others. Am Chem Soc J 76:3610-11 Jl 5 '54

Relation between bond length and stretching frequency for the carbonyl group. M. Margoshes and others. bibliog J Chem Phys 22:381-2 Mr '54

CARBORUNDUM

Adsorption of ions by carborundum. G. A. H. Elton and J. W. Mitchell. Chem Soc J p741-4 F '54

Determination of electrokinetic charge and potential by the sedimentation method; carborundum in aqueous solutions of some uni-univalent electrolytes. G. A. H. Elton and J. W. Mitchell. Chem Soc J p3690-3 N '53

CARBOSTYRIL

Chemistry of heterocyclic quinones; the direct oxidation of 6-hydroxycarbostyrils to carbostyril-5,6-quinones. R. R. Holmes and others. bibliog Am Chem Soc J 76:2400-7 My 5 '54

CARBOXYL group

Acidity of carboxyl groups in cellulose; abstract. H. Sihtola. Paper Ind 36:413 Jl '54

Aromatic electrophilic substitution by hydrogen; the mechanism of the acid-catalyzed decarboxylation of aromatic acids. W. M. Schubert, J. Donohue and J. D. Gardner. bibliog Am Chem Soc J 76:9-14 Ja 5 '54

Aromatic electrophilic substitution by hydrogen; the mechanism of the acid-catalyzed decarboxylation of aromatic aldehydes. W. M. Schubert and R. E. Zahler. bibliog Am Chem Soc J 76:1-9 Ja 5 '54

Brominative decarboxylation of silver salt of apocamphane-1-carboxylic acid. P. Wilder, jr. and A. Winston. bibliog Am Chem Soc J 75:5370-2 N 5 '53

Decarboxylation of malonic acid in quinoline and related media. G. Fraenkel, R. L. Belford and P. E. Yankwich. bibliog diag Am Chem Soc J 76:15-18 Ja 5 '54

Fractionation of the carbon isotopes in decarboxylation reactions; comparison of the intermolecular isotope effects of a pair of isotopic isomers. J. Bigeleisen and M. Wolfsberg. bibliog J Chem Phys 21:2120-1 D '53

Kinetics of the decarboxylation of phenylmalonic acid in aqueous solution. E. Gelles. bibliog Am Chem Soc J 75:6199-201 D 20 '53

Magnetic catalysis of a decarboxylation reaction. K. S. Pitzer and E. Gelles. Am Chem Soc J 75:5132-3 O 20 '53

Mechanism of decarboxylation; the decarboxylation of α-amino-acids in benzaldehyde. D. L. Hammick and others. Chem Soc J p3825-7 D '53

Terminal carboxyl groups of wool keratin. S. Blackburn and G. R. Lee. Textile Inst J Trans 45:T487-8 Je '54

CARBOXYLATES

Carboxylate ion displacement in dimesitylmethyl esters. R. C. Fuson and others. bibliog Am Chem Soc J 76:499-500 Ja 20 '54

Preparation of ethyl 1,1,2,2,3,4-butene-3-hexacarboxylate. C. G. Overberger and P. Kabasakalian. Am Chem Soc J 75:6058-9 D 5 '53

CARBOXYLATION

Plotting the carboxylation cycle in photosynthesis of sugars and carbohydrates; abstract. M. Calvin. Chem & Eng N 32:3833-4 S 27 '54

CARBOXYLIC acids

Acrylonitrile in organic syntheses; synthesis of 3*a* : 4 : 5 :6-tetrahydroperinaphthane-3*α*-carboxylic acid. A. D. Campbell. Chem Soc J 1377-80 My '54

Base-catalyzed decomposition of substituted α-(benzenesulfonamido)-carboxylic acids and their acyl chlorides. R. H. Wiley and R. P. Davis. Am Chem Soc J 76:3496-9 Jl 5 '54

CARBOXYLIC acids—*Continued*

5-Bromopyrimidine-2-carboxylic acid. A. Holland and R. Slack. Chem & Ind p 1203 S 25 '54

Catalytic deuteration of organic compounds; exchange reactions of saturated aliphatic carboxylic acids. J. Bell and others. Chem Soc J p3456-9 N '53; Abstract. Chem & Ind p796 Jl 25 '53

Chemical constitution and the dissociation constants of monocarboxylic acids; some alkylbenzoic acids exhibiting steric effects. J. F. J. Dippy, S. R. C. Hughes and J. W. Laxton. Chem Soc J p 1470-6 My '54

Chrysanthemumcarboxylic acids; the configurations of the chrysanthemic acids. L. Crombie and S. H. Harper. Chem Soc J p470 Ja '54

Complex-forming behaviour of tin, germanium, and titanium with some dibasic carboxylic acids. G. Mattock. Chem Soc J p989-97 Mr '54

Computations of entropy increments in gaseous bimolecular associations; the dimerization of carboxylic acids, and the addition of fluorine to halogen fluorides. L. Slutsky and S. H. Bauer. bibliog diags Am Chem Soc J 76:270-5 Ja 5 '54

Configurations of 2,6-bis-(iodomethyl)-*p*-dioxanes and 2,6-*p*-dioxanedicarboxylic acids; the structure of diepiiodohydrin. R. K. Summerbell and J. R. Stephens. Am Chem Soc J 76:731-4 F 5 '54

Configuration of Marker's cholesteryl-3-carboxylic acid. C. W. Shoppee and R. J. Stephenson. bibliog Chem & Ind p278-9 Mr 6 '54

Constitution of yohimbine and related alkaloids; synthesis of 5 : 6 : 7 : 8-tetrahydro-*iso*quinoline-3-carboxylic acid. R. M. Anderson, G. R. Clemo and G. A. Swan. Chem Soc J p2579-81 Jl '54

Crystallographic data. F. T. Jones, K. J. Palmer and D. R. Black. il diags Anal Chem 25:1929-30 D '53

Derivatives of acetoacetic acid; the rearrangement of 3-acyl-2 : 5-dihydrofuran-2-one derivatives to furan-3-carboxylic acids. R. N. Lacey. Chem Soc J p822-6 Mr '54

Derivatives of quinoline-3-carboxylic acid. F. F. Blicke and J. E. Gearien. Am Chem Soc J 76:3587-8 Jl 5 '54

Dyeing modified polyacrylonitrile fibers; aromatic carboxylic acids added; patent. Am Dyestuff Rep 42:892 D 21 '53

Epimeric alcohols of the *cyclo*hexane series; (±)-*trans*-3-methyl*cyclo*hexanecarboxylic acid and (±)-*trans*-3-methyl*cyclo*hexylamine. F. R. Hewgill, P. R. Jefferies and A. K. Macbeth. Chem Soc J p699-701 F '54

Gladiolic acid; syntheses of some methoxybenzenetricarboxylic acids. D. Gardner, J. F. Grove and D. Ismay. Chem Soc J p 1817-19 Je '54

Hydrogen bonding as a factor in the ionization of dicarboxylic acids. D. H. McDaniel and H. C. Brown. bibliog Science 118:370-2 O 2 '53

Hydrogenation of 4-hydroxybiphenylcarboxylic acids. W. G. Dauben and M. Tanabe. bibliog Am Chem Soc J 75:4969-73 O 20 '53

2-(1-Hydroxypropy)-amides of 1-hydroxy-6-amino- and 1-hydroxy-7-aminobenzo(f)-quinoline-2-carboxylic acids. F. F. Blicke and J. E. Gearien. bibliog Am Chem Soc J 76:2429-31 My 5 '54

Interaction of carboxylic acids with phosphorus trichloride, or butyl phosphorodichloridite, or the chloridite in the absence, and in the presence of pyridine. J. A. Cade and W. Gerrard. Chem Soc J p2030-4 Je '54

Intermediates in the reactions of carboxylic acid derivatives; infrared absorption spectra as evidence for the formation of addition compounds of carboxylic acid derivatives. M. L. Bender. bibliog Am Chem Soc J 75:5986-90 D 5 '53

Isomers of 4-methyl-1,1-cyclohexanedicarboxylic acid. C. C. Price, W. Chen and R. J. Convery. bibliog Am Chem Soc J 76:2301-2 My 5 '54

Long chain dicarboxylic acids. R. W. Moncrieff. bibliog Chem Age (Lond) 69:913-14 O 31 '53

Malonic ester syntheses with organosilicon compounds; new silicon-containing malonic esters, mono- and dicarboxylic acids, barbituric acids and a disiloxanetetracarboxylic acid. L. H. Sommer and others. bibliog Am Chem Soc J 76:1609-12 Mr 20 '54

New type organic sequestrants; Perma Kleers. Soap & San Chem 30:89 Ja '54

Nuclear structure of the water-soluble polycarboxylic acids from the oxidation of bituminous coal; the hydrogenolysis reaction. J. Entel. Am Chem Soc J 76:3646-9 Jl 20 '54

Optical activity in 1-phenylnaphthalene-2′-carboxylic acid and related compounds. D. M. Hall, S. Ridgwell and E. E. Turner. Chem Soc J p2498-504 Jl '54

Optical resolution of 1 : 1′-dinaphthyl-5 : 5′-dicarboxylic acid. F. Bell and W. H. D. Morgan. Chem Soc J p 1716-18 Je '54

Oxidation of carboxylic acids containing a tertiary carbon atom. J. Kenyon and M. C. R. Symons. Chem Soc J p3580-3 N '53

O^{18} exchange reactions between anhydrides and carboxylic acids. L. Ponticorvo and D. Rittenberg. bibliog Am Chem Soc J 76:1705-6 Mr 20 '54

Perhydroindanes; *cis*-hexahydroindane-1-carboxylic acid. D. W. Mathieson. Chem Soc J p3251-7 O '53

Possible correlation between the configuration of optically active bases and the velocity of decarboxylation of dextro- and levo-camphocarboxylic acids in their presence. P. Pratesi, L. Arpesella and A. La Manná. bibliog Am Chem Soc J 75:5476-8 N 20 '53

Preparation of optically-active peptides using mixed carbonic-carboxylic acid anhydrides. J. R. Vaughan, jr. and J. A. Eichler. bibliog Am Chem Soc J 75:5556-60 N 20 '53

Pyrimidine-2-carboxylic acids. A. Holland. Chem & Ind p786 Jl 3 '54

2-Pyrones; 2-pyrone-6-carboxylic acid and its derivatives. R. H. Wiley and A. J. Hart. Am Chem Soc J 76:1942-4 Ap 5 '54

Rate of reaction of diphenyldiazomethane with aliphatic carboxylic acids in ethanol. R. W. Taft, jr. and D. J. Smith. bibliog Am Chem Soc J 76:305-7 Ja 5 '54

Rôle of the ortho position in the benzoic and aryloxyalkanecarboxylic acid plant growth regulators. J. Grundy. bibliog Chem & Ind p 1071-2 Ag 28 '54

Some 9 : 10-dihydroanthracene-9 : 10-*cis*-dicarboxylic anhydrides. A. H. Beckett, R. G. Lingard and B. A. Mulley. Chem Soc J p3328-9 O '53

Study of the Camps synthesis of 4-hydroxy-3-quinolinecarboxylic acid. J. Bornstein, W. J. Reid and D. J. Torres. bibliog Am Chem Soc J 76:2760-2 My 20 '54

Syntheses and decarboxylation of the isomeric nitropyridinecarboxylic acids. E. V. Brown. bibliog Am Chem Soc J 76:3167-8 Je 20 '54

Synthesis of hemopyrrole-dicarboxylic acid. S. F. MacDonald and R. J. Stedman. bibliog Am Chem Soc J 75:5448-9 N 5 '53

Synthesis of indane-1-carboxylic acids. W. H. Linnell, D. W. Mathieson and D. T. Modi. Chem Soc J p3257-61 O '53

Synthesis of model, high molecular weight peptides by the mixed carbonic-carboxylic acid anhydride procedure. J. R. Vaughan, jr. and J. A. Eichler. bibliog Am Chem Soc J 76:2474-6 My 5 '54

Synthesis of plant-growth regulators; ω-2-naphthyloxyalkanecarboxylic acids. P. M. Pope and D. Woodcock. Chem Soc J p 1721-4 Je '54

Triad prototropic systems; the effect of substituents on the mobility of the azomethinecarboxylic acids. F. G. Baddar and Z. Iskander. Chem Soc J p203-9 Ja '54

Triptycene 1-carboxylic acid and related compounds; the decomposition of ditriptoyl peroxide. P. D. Bartlett and F. D. Greene. bibliog Am Chem Soc J 76:1088-96 F 20 '54

Use of ultrasonic absorption for the determination of very rapid reaction rates at equilibrium; application to the liquid phase association of carboxylic acids. E. Freedman. bibliog J Chem Phys 21:1784-90 O '53

CARBOXYLIC acids—*Continued*
Vapor phase nitration of aliphatic ethers, alcohols, ketones and carboxylic acids. H. B. Hass and D. E. Hudgin. bibliog Am Chem Soc J 76:2692-4 My 20 '54

Analysis

Colorimetric determination of 2,5-pyridinedicarboxylic acid. K. L. Cheng and J. A. Riddick. Anal Chem 26:536-8 Mr '54
Identification of dicarboxylic acids in polymeric esters. R. W. Stafford, J. F. Shay and R. J. Francel. bibliog Anal Chem 26:656-61 Ap '54
Polarography of the quinoline-monocarboxylic acids and aldehydes. F. J. Pinchin and J. T. Stock. Chem & Ind p 1204 N 7 '53
Test for acyclic carboxylic acid anhydrides. D. Davidson. bibliog Anal Chem 26:576 Mr '54

CARBOXYMETHYL cellulose
Carboxymethylcellulose. R. H. Jenkins, jr. Chem & Eng N 32:3310-12 Ag 16 '54; Correction. 32:3389 Ag 23 '54
Carboxymethylcellulose in the free acid form. S. F. Dieckman, J. G. Jarrell and R. S. Voris. Ind & Eng Chem 45:2287-90 O '53

CARBOXYMETHYLATION
Preparation of soluble yarns by the carboxymethylation of cotton. G. C. Daul and others. bibliog il Textile Res J 23:719-26 O '53; Abstract. Am Dyestuff Rep 43:384 Je 7 '54

CARBOXYPEPTIDASES
Combined action of carboxypeptidase and B. subtilis enzyme on ovalbumin. D. Steinberg. bibliog Am Chem Soc J 75:4875-6 O 5 '53

CARBOYS
CIL slices carboy handling costs. il Chem Eng 61:128+ Ja '54
Polyethylene carboys. J. H. Parliman. il Mod Packaging 27:133-8 Ja '54

CARBURETERS
Two-way degummer for carburetor; Carb-Aid. il Chem W 74:83 My 29 '54

CARBURIZING. See Case hardening

CARCINOGENIC substances. See Cancer

CARCINOMA. See Cancer

CARD clothing. See Carding machines

CARD games. See Cards

CARD system in business
Dilts reduces sales costs with simple card system. R. J. Jacobs. il Sales Management 72:96+ F 1 '54
Special card expedites drilling set-ups. H. Chase. diag Mach 61:199 S '54
See also
Punched card system

CARDIACS. See Heart—Diseases

CARDING
See also
Cotton carding
Wool carding

CARDING machines
Take care of your card clothing. J. M. Reed. Textile World 104:76-7+ S '54
See also
Cotton carding

CARDIOGRAPH
See also
Electrocardiograph

CARDIOVASCULAR system

Diseases

Cardiovascular syphilis in a general medical clinic. S. P. Lucia and others. Pub Health Rep 68:405-8 Ap '53

CARDS
Probabilities of certain solitaire card games. R. E. Greenwood. bibliog Am Stat Assn J 48:88-93 Mr '53

CARGO handling
Eastern Mediterranean seaports build up their cargo handling facilities. il Eng N 152:53-4 Ap 22 '54
How to keep 'em sailing; operation of the maxspeed cargo-winch system. F. A. Shean, jr. il diags Marine Eng 59:59-66 Ja '54
Improved cargo operations via ideas, research and facts. C. L. Sauerbier. il Marine Eng 59:42-6 Mr '54
MSTS converts ships for superlifts. il diag Marine Eng 59:64-7 My '54
New approach to cargo handling problems. R. P. Holubowicz. il U S Naval Inst Proc 79:420-7 Ap '53
See also
Freight handling
Winches, Electric

CARGO ships. See Freight ships

CARIBBEAN region
Caribbean diary. J. Caldwell. Sales Management 71:102+ O 1 '53
See also
Petroleum industry and trade—Caribbean region

CARICA papaya
*Pseudo*carpaine, a new alkaloid from carica papaya L. T. R. Govindachari, B. R. Pai and N. S. Narasimhan. Chem Soc J p 1847-9 Je '54

CARILLONS
Why the burgie jingle is welcome in many West Coast cities; carillonic chimes. Sales Management 71:54+ O 15 '53

CARILLOY T-1. See Steel—Strength

CARLSBAD caverns
Fossil deposits under the entrance of Carlsbad caverns. D. M. Black. il diag Science 118:308-9 S 11 '53

CARNAUBA wax
Brazilian carnauba wax industry suffers. Chem & Eng N 31:5376-7 D 28 '53

CARNEGIE institute of technology
Electrical engineering laboratory donated by Westinghouse. il Elec Eng 73:100 Ja '54
New school; Carnegie program for executives. Bsns W p 126 N 14 '53

CARNEGIE institution of Washington
Annual report. V. Bush. Chem & Eng N 32:54 Ja 4 '54

CARNOTITE
Acute toxicity of carnotite ore dust. H. B. Wilson and others. A M A Archives Ind Hygiene & Occup Med 7:301-9 Ap '53

CAROLINIC acid
Synthesis of DL-carolinic acid. L. J. Haynes and J. R. Plimmer. bibliog Chem & Ind p 1147-8 S 11 '54

CAROTENE
Antioxidant helps keep carotene in alfalfa meal. H. G. Moeller. Chem Eng 61:386-7 Ap '54
See also
Dehydrocarotene

CAROTENOIDS
Carotenoids and related compounds; a new synthesis of the capsorubin chromophore. R. Ahmad and B. C. L. Weedon. Chem Soc J p3815-17 D '53
Carotenoids and related compounds; C_{10} intermediates for the synthesis of carotenoids. P. Mildner and B. C. L. Weedon. Chem Soc J p3294-8 O '53
Carotenoids and related compounds; the synthesis of a bisnorcrocetin, a pentaene degradation product of azafrin, and other polyenes. R. Ahmad and B. C. L. Weedon. Chem Soc J p3299-302 O '53
Carotenoids and related compounds; total synthesis of all-*trans* -methylbixin and of a diketone with the capsorubin chromophore. R. Ahmad and B. C. L. Weedon. Chem Soc J p3286-94 O '53
Carotenoids in phycomyces. G. Mackinney, C. O. Chichester and P. S. Wong. Am Chem Soc J 75:5428 N 5 '53
Recent developments in carotenoid biochemistry; abstract. T. W. Goodwin. Chem & Ind p424 Ap 10 '54
Stepwise dehydrogenation of the colorless polyenes phytoene and phytofluene with N-bromosuccinimide to carotenoid pigments. L. Zechmeister and B. K. Koe. bibliog Am Chem Soc J 76:2923-6 Je 5 '54

CARPAINE
Lactone ring of carpaine. H. Rapoport, H. D. Baldridge, jr. and E. J. Volcheck, jr. bibliog Am Chem Soc J 75:5290-2 N 5 '53

CARPENTERS and joiners of America. See United brotherhood of carpenters and joiners of America

CARPENTRY

Concrete for carpenters; Zeprex. il House & Home 3:154 Ap '53

One builder's secret of how to save money. E. C. Burgdorf. il Am Bld 75:201-2 My '53

CARPET factories

Equipment

Carpet mill installs new backsizers; Archibald Holmes & son. M. London. il Textile World 104:125 Jl '54

Composition wool-card rub aprons increase production and reduce soiling; Bigelow-Sanford carpet co. T. B. Winston. il Textile World 104:96+ Mr '54

CARPET industry

Beating the clock with Masland; an A-to-Z sales setup in 11 months. A. R. Hahn. il Sales Management 72:42-4+ Je 1 '54

Building a sales force from scratch; C. H. Masland & sons. Bsns W p58-61 Ag 22 '53

Carpets hold line. Bsns W p46 N 21 '53

How an entire industry lifted itself by its bootstraps. J. C. Cumming. il Sales Management 71:110+ O 15 '53

Merchandising of the merchandising gets retailers out making calls; James Lees and sons. M. Beuick. il Ptr Ink 244:39-41 Ag 14 '53

Rayon rugs cushion chemicals. Chem W 75: 77-8 Ag 7 '54

Streamlined sales strategy sends those heavenly carpets soaring; James Lees & sons co. L. M. Hughes. il Sales Management 71:44-8+ D 15 '53

Advertising

Beating the clock with Masland; an A-to-Z sales setup in 11 months; more for the ad dollar through better merchandising? A. R. Hahn. Sales Management 72:65-6 Je 1 '54

CARPETS

Carpet soiling. K. L. Whitney and J. W. Schappel. bibliog il Am Dyestuff Rep 43: 143-7 Mr 1 '54

Factors influencing the soiling of acetate carpets. F. Fortess and C. E. Kip. flow sheet il Am Dyestuff Rep 42:349-59 Je 8 '53

Tufton, rayon's newest carpet yarn. J. W. Schappell. il diags Mod Textile Mag 34:31+ D '53

See also

Dyes and dyeing—Carpet yarn

Rugs

Saran

Cleaning

Determination of processing and salt water damage to carpeting problem for experts. F. C. Johnson. Weekly Underw 170:684 Mr 13 '54

Manufacture

Backsizing carpets and rugs. O. B. Hager. Am Dyestuff Rep 43:172-3+ Mr 15 '54

Tufted-cotton carpets require new machines, new methods. G. M. Moisson. il diags Textile World 104:93-5 Ja '54

Weave wool and cotton carpets on the same looms. R. B. Pressley. il Textile World 104:126-7+ F '54

See also

Dyes and dyeing—Carpet yarn

CARPORTS

Place for a guest's car. il plan Am Bld 75:142 Mr '53

CARRIER corporation

Reorganizing for an exploding market. Bsns W p 171-2+ O 31 '53

Stock offering underwritten. Comm & Fin Chr 178:1158 S 28 '53

CARRIER current control

Electricity supply board's load dispatching equipment. P. J. Campbell and G. S. Stritch. plan diags Inst E E Proc 100 pt 2: 661-4 D '53

Flexible new line of power-line carrier equipment; abstract. F. B. Gunter. Elec Eng 72: 965 N '53

Frequency-shift telemetering, key to multistation dispatching; Southwestern public service co. G. W. Dupree and W. H. Burnham. il diags Elec World 140:89-91 O 5 '53

Lighting control at Leeds. il diag Elec J 152: 190-2 Ja 15 '54

Multistation supervisory control over single-frequency carrier; abstract. W. M. Larson and others. diag Elec Eng 72:873 O '53

Penelec consolidates communication in strategic new dispatching center. C. H. Conrad. il Elec World 140:94-5 D 28 '53

Planning the carrier facilities for a utility system; abstract. J. C. G. Carter. diag Elec Eng 73:214 Mr '54

Series resonant circuits for carrier trapping of resonant taps; abstract. S. Lubin and N. M. Levinson. il Elec Eng 72:1111 D '53

Single channel controls system load and frequency. G. S. Lunge. il diag Elec World 140:86-8 N 30 '53

Three-interlocking consolidation uses multiplex high speed code; Lackawanna's control system. il plans Ry Age 135:59-61 N 30 '53

CARRIERS

Common carriers must be preserved. A. F. Arpaia. Ry Age 136:11 Ap 5 '54

Legal decisions of interest to inland claims men in the transportation field. H. S. Daynard. Weekly Underw 170:1342-3, 1400-1, 1466-7, 1534-5, 1598-9; 171:20-1 My 29-Jl 3 '54

See also

Air carriers

Air freight service

Airlines

Freight car service

Gas, Natural—Pipe lines

Highway transportation

Interstate commerce commission

Motor bus lines

Motor trucks—Laws and regulations

Petroleum pipe lines

Pipe lines

Railroads

Shipping

Steamboat lines

CARROTING. See Felt

CARRY home containers. See Containers, Carry home

CARS

Passenger car shortage. J. K. Knudson. Ry Age 136:122-3 My 17 '54

Railroads need a policy of long-term equipment planning. G. Metzman. Ry Age 136: 67-8 Ap 5 '54

What's the car builders' future? C. Carry. Ry Age 135:75 N 30 '53

See also

Air brakes

Car axles and other headings beginning Car

Car department officer's association

Cars, Electric railroad

Dining cars

Freight cars

Mine cars

Motor cars (railroad)

Ore cars

Railroads—Trains

Refrigerator cars

Sleeping cars

Street cars

Air conditioning

Air conditioning Santa Fe's new dome cars. il diags Diesel Power 32:40-2 My '54

Bearings

Copper penetration of car journals. il Ry Loco & Cars 128:58-61 Ap '54

Every hot box investigated; Norfolk & Western. il Ry Age 135:52-4 D 28 '53; Same. Ry Loco & Cars 128:42-5 Ja '54

Fitted bearings reduce hot boxes; service tests on MDT refrigerator cars. il Ry Age 137:12-13 Ag 30 '54

How roller bearings are applied to freight cars. il Ry Loco & Cars 128:58-9 F '54

Interchangeable freight car bearing. il diags Ry Age 137:45 Jl 12 '54

Laboratory for intensive journal-bearing research; Sargent research laboratory. il Ry Age 136:40-1 My 3 '54

Louisiana Midland tests hot box detector. il Ry Age News ed 135:15 D 7 '53

New 70-ton flat cars have roller bearings. il Ry Age 136:35-6 My 24 '54

New testing lab to eliminate hot boxes; American brake shoe co. diag Machine Design 26:196+ My '54

Reclamation of journal-box wedges. il diags Ry Loco & Cars 127:64 D '53

Research adds force to attack on hot-box problem; American brake shoe co., Sargent research laboratory. il Ry Loco & Cars 128: 67-70 My '54

CARS—Bearings—*Continued*

Research; journal bearing performance studied in special room; American brake shoe co. il Iron Age 173:145-6 Je 3 '54

This machine helps show why hot boxes occur as they do. il Ry Age 135:104-8 D 14 '53

To conduct research on hot box. Midwest Eng 6:19-20 Ag '53; Same. Mech Eng 75: 813-14 O '53

Decoration

How colors and materials help make cars modern and appealing. il Ry Age 136:96-9 My 17 '54

Design

Canadian National spends $59 million for new passenger cars. il diag Ry Loco & Cars 128:56-61 My '54

First dome cars go to Canada; 18 dome-observation cars among 89 sleeping cars of three types which Canadian Pacific is currently receiving. il plans Ry Age 137: 30-7+ S 27 '54

Full domes for coach passengers. il plans Ry Age 136:58-66 Ap 5 '54

Here's a revolution in passenger train design. H. Bleibtreu. il plans diags Ry Age 136:62-4 Mr 15; 10-12+ Mr 29 '54

How the CNR will use $59 million worth of new passenger cars. il map Ry Age 136:74-7 Mr 22 '54

Seats in the second story only; Santa Fe two-level coaches. il plans Ry Age 137:24-7 S 13 '54

Southern Pacific builds two-level dome car. il diag Ry Loco & Cars 128:51-3 S '54

Trends in passenger car design. il Ry Age 136:100-2 My 17 '54

Double deck

Air conditioning Santa Fe's new dome cars. il diags Diesel Power 32:40-2 My '54

Dome car of new dimensions; Southern Pacific. il Ry Age 137:26-7 Ag 16 '54

Full domes for coach passengers. il plans Ry Age 136:58-66 Ap 5 '54

Hi-level coaches for the Santa Fe. il Ry Age 137:9 Jl 19 '54

In this new car, 169 seats for commuters; double deckers. il Ry Age 136:25-6 Mr 1 '54

Seats in the second story only; Santa Fe two-level coaches. il plans Ry Age 137:24-7 S 13 '54

Southern Pacific builds two-level dome car. il diag Ry Loco & Cars 128:51-3 S '54

Southern Pacific's home-built dome car. diag Ry Age 137:11 Ag 2 '54

Three-level, full-length dome cars. il plans Ry Loco & Cars 128:65-9 Je '54

Electric equipment

Santa Fe solves generator drive problem; endless V-belts. J. V. Dobbs. il Ry Loco & Cars 128:56-7 Ja '54

Equipment

Canadian National spends $59 million for new passenger cars. il diag Ry Loco & Cars 128: 56-61 My '54

Coach passengers get a break; Canadian National. il plan Ry Age 136:84-7 Mr 22 '54

First dome cars go to Canada; 18 dome-observation cars among 89 sleeping cars of three types which Canadian Pacific is currently receiving. il plans Ry Age 137:30-7+ S 27 '54

Full domes for coach passengers. il plans Ry Age 136:58-66 Ap 5 '54

How the CNR will use $59 million worth of new passenger cars. il map Ry Age 136: 74-7 Mr 22 '54

More aluminum alloy passenger cars for the UP. il plans Ry Age 136:58-63+ Mr 8 '54; Same cond. Ry Loco & Cars 128:51-4 Ap '54

Report on passenger car maintenance; Car department officers' association. Ry Loco & Cars 127:63-4 N '53

Seats in the second story only; Santa Fe two-level coaches. il plans Ry Age 137:24-7 S 13 '54

Three-level, full-length dome cars. il plans Ry Loco & Cars 128:65-9 Je '54

Interchange

Interchange and billing for car repairs; report of Car department officers' association. Ry Loco & Cars 127:64-5 N '53

See also

Freight cars—Interchange

Lubrication

Car lubrication; report of Car department officers' association. Ry Loco & Cars 127:65 N '53

Manufacture

Automatic welding of long seams; Altoona works of the Pennsylvania railroad. il Tool Eng 33:74-6 S '54

Hidden arc speeds sheet section welding; Pennsylvania railroad's car building and repair center. il Steel 134:112 Mr 22 '54

How a passenger car is built; illustrations with text. Ry Age 136:116-17 My 17 '54

Repair

New spot-welding method reapplies stainless steel car sidings. il Welding J 33:575-6 Je '54

Rebuilt coach yard provides passenger-car servicing de luxe; Chicago & Western Indiana. il Ry Age 137:31-3 S 13 '54

Reconditioning stainless-steel fluting. il Ry Loco & Cars 128:67-8 S '54

Statistics

418 passenger-train cars ordered in 1953. J. S. Gallagher, jr. and F. C. Miles. il Ry Age 136:158-61 Ja 11 '54

Passenger cars, shipments, 1949-1952. Survey of Cur Bsns 1953 Sup p 193 [supplemented in monthly numbers]

Testing

National Malleable technical center at Cleveland. il Ry Loco & Cars 127:62-3 D '53

CARS, Aluminum

More aluminum alloy passenger cars for the UP. il plans Ry Age 136:58-63+ Mr 8 '54; Same cond. Ry Loco & Cars 128:51-4 Ap '54

Multiple-unit Diesel train in aluminium. E. G. West. il plan diag Engineer 196: 675-7 N 20 '53

See also

Freight cars, Aluminum

CARS, Electric railroad

Conversion cuts transit costs; rapid transit cars converted from street cars. il Ry Age 137:11 S 6 '54

Electric baggage cars on British railways. Engineering 176:764 D 11 '53

Multiple unit cars to improve New Haven commuter service. il Ry Loco & Cars 128: 78-80 Je '54; Same. Ry Age 137:27-8+ Jl 5 '54

New control for heavyweight rapid-transit cars; abstract. I. W. Lichtenfels. il Elec Eng 73:56 Ja '54

New Haven's ignitron multiple-unit cars near completion. E. W. Ames and others. il diag Ry Loco & Cars 128:76-80 Mr '54; Same cond. Ry Age 136:66-8 Mr 15 '54

On Italian Railways series 300 passengers can look ahead. il Ry Age 135:96-7 N 16 '53

Rolling stock for Manchester-Glossop electric services. Engineer 197:185 Ja 29 '54

See also

Cars, Subway

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CARS, Freight. See Freight cars

CARS, Instruction

Diesel instruction car shown in Reading terminal exhibit. il Ry Age News ed 135:32-3 D 7 '53; Same cond. Ry Loco & Cars 128: 49 Ja '54

Mobile instruction unit for railway staff. il Engineer 196:301-2 S 4 '53

On-the-spot instruction car. il Ry Age 135:76 N 2 '53

Reading exhibits new equipment. il Diesel Power 31:50-1 D '53

CARS, Steel

Here is Pullman-Standard's new stainless-steel passenger car. il diags Ry Age 136: 27-8 My 24 '54; Same. Ry Loco & Cars 128:39-41 Jl '54

Railway coach construction; Charles Roberts and co. il Engineer 197:36 Ja 1 '54

CARS, Subway
Canada's first subway. il Elec J 152:1015-18 Mr 26 '54
Electric rolling stock for Toronto subway. il Engineer 197:347-8 Mr 5 '54; Engineering 177:342-3 Mr 12 '54
Equipment operation and control in Toronto's rapid-transit subway. il Munic Util 92:39-40+ Mr '54
Wear of electric railway rolling stock. A. W. Manser. Engineering 177:145 Ja 29 '54

CARTELS. See Trusts, Industrial—International trusts

CARTER, Wilbert James, 1902-
Rayon's perennial pioneer. R. E. Ellsworth. pors Mod Textiles Mag 35:35+ Je '54

CARTHAGE, Illinois

Water supply

Costly reservoir silting can be slowed if vital facts of situation are known. Eng N 151:33 Ag 6 '53

CARTHAGE hydrocol, inc.
Hydrocol hassle. Bsns W p32 O 24 '53
Synthesis switch; owners expected to write off plant as total loss; Stanolind to take it over. Oil & Gas J 52:66 N 9 '53
Take-over imminent. Chem W 74:28 Mr 13 '54

CARTOONISTS
See also
Ketcham, Hank
Kuekes, Ed
Soglow, Otto

CARTOONS
Cartoonist solves a training toughie. il Sales Management 71:28-9 N 1 '53
See also
Advertisements, Pictorial—Cartoons

CARTRIDGE, Power. See Power cartridge

CARTRIDGE cases
Steel replacing brass for cartridge case use. Machine Design 26:181-2 Ag '54

Manufacture

Anneal furnace makes double play; Wilson foundry division of Willys motors, inc. W. M. Hepburn. il diag Steel 134:128-9 Je 14 '54
Automatic zinc plating. C. E. Fisher and D. F. Zlatnik. il plan Metal Prog 66:107-12 S '54
Die life is up 18 times with ductile-iron dies for operations on 20-mm brass cartridge cases. J. C. Neemes, jr. il Am Mach 97:134-6 D 7 '53
Drawn shapes from metal powders now possible. R. Steinitz and others. il diag Materials & Methods 40:101-3 Jl '54
Steel cartridge cases; abstract. W. N. King. Metal Prog 66:198+ S '54
Zinc plate on cartridge cases meets rigid specifications; Norris-Thermador corp. C. E. Fisher and D. F. Zlatnik. il plan Iron Age 173:135-9 Mr 11 '54

CARVACROL
Occurrence of carvacrol methyl ether in the heartwood of chamaecyparis nootkatensis (Lamb.) Spach. S. R. Duff and H. Erdtman. Chem & Ind p747-8 Jl 18 '53

CARVER, George Washington, 1864-1943

Bibliography

George Washington Carver; a classified bibliography. J. P. Guzman. (Records and research pamphlet no. 3) 26p Department of records and research, Tuskegee inst, Alabama '53

CARVONE
Terpenes; the reactions of carvone and dihydrocarvone with methanol in the presence of sulfuric acid. G. Büchi and R. E. Erickson. Am Chem Soc J 76:3493-5 Jl 5 '54

CARYOPHYLLENE
Clovene and β-caryophyllene alcohol. A. W. Lutz and E. B. Reid. Chem Soc J p2265-74 Jl '54; Abstract. Chem & Ind p749 Jl 18 '53
Nature of β-caryophyllene. N. W. Atwater and E. B. Reid. bibliog Chem & Ind p688-9 Jl 11 '53
Nature of γ-caryophyllene. A. Aebi and others. bibliog Chem & Ind p487-8 My 16 '53
Relationship between clovene and β-caryophyllene alcohol. A. Aebi. bibliog Chem & Ind p748-9 Jl 18 '53
Sesquiterpenoids; the stereochemistry of caryophyllene. A. Aebi, D. H. R. Barton and A. S. Lindsey. Chem Soc J p3124-9 O '53
Structure of β-caryophyllene alcohol chloride and bromide. J. M. Robertson and G. Todd. diag Chem & Ind p437 My 2 '53

CARYOPHYLLENIC acid
Synthesis of caryophyllenic acid. A. Campbell and H. N. Rydon. Chem Soc J p3002-8 O '53

CASABLANCA

Architecture

Construction gives old city a modernistic skyline. il Eng N 151:32-4 Ag 13 '53

CASCADE natural gas corporation
Stock offered. Comm & Fin Chr 178:2474 D 21 '53
Washington utilities merge into Cascade Natural Gas. Gas Age 113:63 Ja 14 '54

CASCADES plywood corporation
Security I like best. J. S. Jones. Comm & Fin Chr 178:2546-7 D 24 '53

CASE, Francis Owen, 1894-
Sketch. por Explosives Eng 31:132-3 S '53

CASE hardening
Better heat treating for better bearings. H. Habart. il Iron Age 172:131-5 Jl 16 '53
Carbo-nitriding; new Birlec controlled-atmosphere furnace. il diags Automobile Eng 43:550-2 D '53
Carbonitriding of alloy steels. H. C. Fiedler and others. bibliog il Am Soc for Metals Trans 44:420-33; Discussion. 433-5 '52
Carbo-nitriding of boron steel; abstract. G. W. Powell and others. Metal Prog 64:128 D '53
Carbonitriding; supplement to 1948 edition of Metals handbook. il Metal Prog 66:124-6 Jl 15 '54
Case hardening steel by carbonitriding. il diag Steel 135:98-100+ Jl 26 '54
Case hardening steel by carburizing. il Steel 135:62-5 Jl 5 '54
Developments in German constructional steels to conserve scarce alloys. F. W. Bruhl. diag Metal Prog 65:97-100 Ja '54
Fatigue strength of large, notched steel bars surface-hardened by gas heating and by induction heating. S. L. Case and others. bibliog il diags Am Soc for Metals Trans 44:667-83; Discussion. 683-8 '52
Flame hardening; more extensive use of natural gas possible with new equipment; National supply co. il Iron Age 172:191-2+ S 17 '53; Same cond. Steel 133:123-4 S 28 '53
Flame hardening of gray iron castings. C. O. Burgess. bibliog(63 titles) il diags Foundry 82:114-21+ Ap '54
Flame hardening of heavy forgings; National forge & ordnance co. S. Smith. il Metal Prog 65:100-3 My '54
Fundamentals of heat treatment; alloying agents add tailored properties. N. K. Koebel. il Steel 134:98-9 My 24 '54
Gear steels; heat treating gives them life. J. Obrebski. il diag Steel 133:94-6 Ag 31 '53
How to develop favorable stress patterns. J. E. Campbell and H. O. McIntire. Iron Age 172:102-5 N 26 '53
Industrial furnaces; surface treating and hardening. il diags Iron Age 173:supF4-11 F 25 '54
Investigations into the carbonitriding of plain carbon steel. H. C. Fiedler and others. bibliog il Am Soc for Metals Trans 44:410-18; Discussion. 418-19, 433-5 '52
Let modern heat treatment turn on the heat to turn down your costs. A. G. Gray. il Steel 134:102-5 Mr 29 '54
Liquid carburizing. T. M. Dougherty. il Metal Prog 66:89-90 Ag '54
Measurement of case depth. D. J. Wright. il Metal Prog 64:86-8 D '53
Selective flame hardening improves camshaft wear resistance. W. G. Patton. il Iron Age 172:171-4 N 12 '53
Selective hardening by flame heating. V. B. Bullen and D. M. Strauchen. il Steel 135:86-8 S 27 '54

CASE hardening—*Continued*

Structures and properties of some carbonitrided cases. K. B. Valentine. il diags Metal Prog 63:97-103 Je '53; Discussion. M. B. Bever and C. F. Floe. 64:110-11 D '53

Surface hardening processes for titanium and its alloys. R. W. Hanzel. il diags Metal Prog 65:89-96 Mr '54

Surface treatment of titanium. il diags Steel 133:130-2 N 2 '53

Titanium surface hardening. R. W. Hanzel. il Light Metal Age 12:14+ Ap '54

Electric hardening

Hardening rate multiplies through the use of a new electronic induction heater. il Steel 133:175 S 14 '53

Heat treating; better spinning frame rolls made by induction hardening; Saco-Lowell shops. il Iron Age 172:114-15+ N 26 '53

Induction surface hardening of ductile iron. J. F. Libsch and J. C. Danko. il Metal Prog 66:115-21 S '54

Microstructure and hardness of induction hardened C1037 axle drive shafts substituted for alloy steel. il Steel 133:140 O 12 '53

Pin hardening installation. il Elec R (Lond) 153:1418 D 25 '53

Radio frequency heating simplifies hardening; Scully-Jones & co. O. W. Noeske. il Steel 134:120-1 Mr 15 '54

Surface hardening by induction electric heating; data sheet. M. S. Prestwood. Elec West 111:118 S '53

Gas carburizing

Continuous heat treat setup carburizes precision parts; Aircraft gear division, Dana corp. C. A. Payntor. il Iron Age 173:148-50 My 20 '54

Nitriding process

Case hardening steel by nitriding. il Steel 135:96-8 Ag 9 '54

Gas nitrided 4140 case is tougher. J. G. Morrison. il diags Iron Age 172:129-34 Jl 9 '53

Nitriding critical steel parts. R. Spagnola. il Materials & Methods 38:96-7 D '53

Nitriding produces better hard case on titanium. J. L. Wyatt and N. J. Grant. il Iron Age 173:112-15 Ja 14; 124-7 Ja 28 '54

Nitriding steels; composition, physical and mechanical properties, thermal treatment, fabricating properties, corrosion resistance, uses; engineering file facts. Materials & Methods 39:139 Mr '54

CASEIN

Crossbonding of casein bristle fiber. R. F. Peterson and others. bibliog Textile Res J 24:747-53 Ag '54

Improving casein as dispersing agents in latex systems; abstract. E. Scholl. Paint Oil & Chem R 117:14+ Je 3 '54

Man-made fiber data sheets; casein fibers; fibrolane, merinova, caslen. P. A. Koch. il diags Mod Textiles Mag 35:71-2+ bibliog(72 titles, p74+) Ap '54

Modified proteins for stabilizing latex paints. K. S. Ronai and S. M. Weisberg. bibliog Ind & Eng Chem 46:774-7 Ap '54

Tensile properties of bristle fibers made from α- and β-casein. N. J. Hipp and others. bibliog(27 ref) Textile Res J 24:618-23 Jl '54

CASH accounting

Daily cash reports to aid control in retailing. D. Gordon. N A C A Bul 35:990-1004 Ap '54

CASH basis statements. See Financial statements

CASH discount. See Discount, Cash

CASH handling

How NFT's fare handling system protects cash and reduces costs. il Bus Transportation 33:27-9 Jl '54

CASHEW nuts

Cashew nut shell liquid; the chromatographic separation and structural investigation of the olefinic components of methylcardanol. W. F. Symes and C. R. Dawson. bibliog Am Chem Soc J 75:4952-7 O 20 '53

Studies in ion exchange; study of sulphonated cashew-nut-shell liquid and bhilawan-shell liquid polymers. H. A. Shah and S. L. Bafna. bibliog J Ap Chem 3:335-6 Jl '53

Synthetic resin cements in chemical engineering practice. F. K. Earp and others. il Chem & Ind p499-504 My 23 '53

CASS, Oliver Wilfred, 1902-

Schoellkopf medal award. por(cover) Chem & Eng N 32:1695 Ap 26 '54

CASSEGRAINIAN telescope. See Telescope

CAST iron

Alloy gray iron, what does it cost? il Foundry 82:122-3+ Mr '54

Annealing or softening improves gray iron machinability. C. O. Burgess. bibliog il Foundry 81:108-11+ D '53; 82:110-13 Ja '54

British cast iron research association. J. G. Pearce. bibliog il diag Metallurgia 48:175-7 O '53

Cast-iron and steel segments for third tube of Lincoln tunnel. il Mach 60:200 D '53; Foundry 82:144 F '54

Cast iron brake drums. E. C. Toghill and H. T. Angus. il diags Automobile Eng 43:409-18 O '53

Cast iron facts; annual report of British cast iron research association. Chem Age (Lond) 69:1021 N 14 '53

Cast iron swarf briquetting press. il Engineer 197:475-6 Mr 26 '54; Engineering 177:414 Mr 26 '54

Cast iron that bends. R. Sneddon. il Pet Eng 25:E5-6 Je '53

Cold cracks in white iron. E. J. Jory. diags Foundry 82:122-3+ Ap '54

Control methods better structure of gray cast irons. H. H. Wilder. Iron Age 173:173 Je 17 '54

Corrosion; improved equipment helps maintain high heat transfer. Iron Age 173:174-174A+ Ap 8 '54

Corrosion of nickel cast irons in soils. I. A. Denison and M. Romanoff. il J Res Nat Bur Stand 51:313-20 D '53

Corrosive properties of soluble cutting oils; effect on machine tool cast irons. il Metallurgia 48:233-40 N '53

Cutter life for face-milling cast iron. W. W. Gilbert and others. il diags A S M E Trans 76:607-12 My '54

Decrease of density during plastic deformation of nodular cast iron. W. R. Clough and M. E. Shank. il J Metals 6:Trans 1093-4 sec 2 S '54

Design of ferrous castings; supplement to 1948 edition of Metals handbook. bibliog il diags Metal Prog 66:109-14 Jl 15 '54

Die life is up 18 times with ductile-iron dies for operations on 20-mm brass cartridge cases. J. C. Neemes, jr. il Am Mach 97:134-6 D 7 '53

Ductile iron; high yield point and good castability open up new applications. il Steel 133:143 O 12 '53

Ductile iron; makes good on tough jobs. G. S. Farnham and B. Dixon. il Iron Age 173:133-7 Mr 18 '54

Ductile iron meets heavy duty service requirements. D. M. Marsh. il Iron Age 174:135-8 S 9 '54

Dynamic properties of nodular cast iron. H. Majors, jr. il Tool Eng 31:146-7 D '53

Enameled gray iron cookware expands market for castings. R. H. Herrmann. il Foundry 82:186 S '54

Finish rolling improves cast iron ways. W. Iwascheff. il Tool Eng 31:57-9 D '53

Flame hardening of gray iron castings. C. O. Burgess. bibliog(63 titles) il diags Foundry 82:114-21+ Ap '54

Gas evolution from gray cast iron during enameling. L. F. Porter and P. C. Rosenthal. bibliog il diags Am Soc for Metals Trans 44:310-30; Discussion. 330-5 '52

Gray iron castings, shipments, 1946-1953; tabulation. Steel 134:167 Ja 4 '54

Hardness conversion tables; engineering file facts. Materials & Methods 39:135, 137 Mr '54

Hot forging and rolling of iron castings. C. R. Austin. il Foundry 82:86-9+ Jl '54

How heat treating improves modern high strength irons. C. R. Austin. il diags Iron Age 173:125-9 Je 10 '54

How machinable are the cast irons? E. A. Loria. il Iron Age 172:158-61 N 19 '53

Induction surface hardening of ductile iron. J. F. Libsch and J. C. Danko. il Metal Prog 66:115-21 S '54

CAST iron—*Continued*

Inside look at hardening cast iron. J. Obrebski. il Steel 133:71-3 D 28 '53

Looking at cast iron research; British cast iron research association open days. il Chem Age (Lond) 71:119-20 Jl 17 '54

Machining of steel and cast iron; supplement to 1948 edition of Metals handbook. bibliog il diags Metal Prog 66:141-51 Jl 15 '54

Malleable founders' society 5th annual market development conference, Pittsburgh, April 8-9. Foundry 82:173+ Je '54

Malleable iron castings, shipments, 1937-1953; tabulation. Steel 134:168 Ja 4 '54

Malleable irons; properties, corrosion resistance, uses; engineering file facts. Materials & Methods 38:137 N '53

Materials for large army gun tubes, a history. P. R. Kosting. bibliog il diags Metal Prog 65:90-5+ My '54

Mold irons and the glass mold situation. E. R. Flatter. Am Cer Soc Bul 33:101-3 Ap 15 '54; Same abr. Glass Ind 35:325-6 Je '54

Mold irons for the glass industry. N. Davis. il Glass Ind 35:19-20 Ja '54

New corrosion resistant coating protects cast iron coolers; Kolmetal coating. J. J. Obrzut. il Iron Age 172:76-7 D 24 '53

Nodular cast iron; supplement to 1948 edition of Metals handbook. Metal Prog 66: 49-52 Jl 15 '54

Nodular cast irons; use for crankshafts. S. B. Bailey. Automobile Eng 44:187-8 My '54

Pearlitic malleable iron, its properties and expanded uses; abstract. C. F. Joseph. Machine Design 26:272+ Mr '54

Permanent-mold gray-iron castings. E. C. Hoenicke. Mech Eng 75:549-50 Jl '53

Plastic forming of white iron castings. G. I. Pogodin-Alexeyev. Metal Prog 64:180+ N '53

Research on cast iron; report of the British cast iron research association. Engineering 176:586 N 6 '53

Solidification, feeding characteristics of gray and nodular irons. R. P. Dunphy and others. il diags Foundry 82:108-15+ Je '54

Some effects of nitrogen in cast iron; abstract. J. V. Dawson and others. Metal Prog 64:168+ D '53

Swarf recovery; hydraulic baling press for briquetting cast iron machinings. il Automobile Eng 44:154 Ap '54; Metallurgia 49: 189-90 Ap '54

Thermal conductivity of nodular iron. M. J. Sinnott. J Metals 5:Trans 1016 Ag '53

Updating the code; use of cast iron for pressure vessels. Chem W 75:42 Jl 10 '54

When can you cast iron in the refinery? W. J. Buxton. il Oil & Gas J 52:128-30+ O 19 '53

Where pearlitic malleable irons can be used to advantage. C. F. Joseph. il Materials & Methods 39:100-3 Mr '54

Analysis

Flame photometric determination of alkali and alkaline earth elements in cast iron. D. F. Kuemmel and H. L. Karl. Anal Chem 26:386-91 F '54

Decarburization

How melting practice affects machinability of malleable iron. E. A. Loria. il Iron Age 174:168-70 S 16 '54

Graphitization

Formation of graphite nodules. A. De Sy. il diags Metal Prog 66:92-3 Jl 1 '54

Graphite spherulite formation and growth. A. De Sy. bibliog il diag Foundry 81:100-3+ N '53

Solidification, feeding characteristics of gray and nodular irons. R. P. Dunphy and others. il diags Foundry 82:108-15+ Je '54

Specifications

Tentative specifications for automotive gray iron castings; data sheet. Foundry 82:151-2 S '54

Tolerances and specifications of gray-iron castings. C. O. Burgess. Mech Eng 75:547-9 Jl '53

Tolerances and specifications of malleable castings. J. H. Lansing. il Mech Eng 75: 621-4 Ag '53

Testing

Arbitration bar Izod impact test for cast iron. J. T. Eash and A. P. Gagnebin. il diags Am Soc T M Proc 51:1061-8; Discussion. 1068-71 '51

Dynamic properties of nodular cast iron. H. Majors, jr. bibliog(56 titles) il diags A S M E Trans 74:365-75; 76:205-16 Ap '52, F '54; Discussion. 74:376-80 Ap '52

Interrelation of mechanical properties, casting size, and microstructure of ductile cast iron. R. W. Kraft and R. A. Flinn. bibliog il Am Soc for Metals Trans 44:282-306; Discussion. 306-9 '52

Nondestructive testing. K. A. Skie. il Tool Eng 31:150-2 N '53

Notch ductility of nodular irons. G. A. Sandoz and others. il diags Foundry 82:114-19+ S '54; Same cond. Iron Age 174:100-3 Jl 8 '54

Proposed tentative methods of chill testing of cast iron; data sheet. diags Foundry 82:273-4 My '54

Welding

Cast iron rod; new electrode developed to weld cast iron cold. il Iron Age 172:226 D 10 '53

Joining of ductile iron by several arc welding methods. T. E. Kihlgren and H. C. Waugh. il Welding J 32:947-56 O '53; Abstract. Metal Prog 66:150+ Jl 1 '54

Low temperature welding, Wall colmonoy corp. il Steel 133:125 S 28 '53

Repair welding of cast iron pipe, valves and fittings. il Power 98:119-21 Je '54

Welding metallurgy of nodular cast iron. E. E. Hucke and H. Udin. il diags Welding J 32:sup378-85 Ag '53; Abstract. Metal Prog 65:174+ F '54; Discussion. Welding J 33: sup217+ My '54

CAST iron pipes. See Pipes, Cast iron

CASTERS

Facts about modern wheels and casters. il Mill & Factory 54:273 My '54

Floating hub design; wheel and caster construction developed by the Bassick co. il diag Machine Design 26:152 S '54

Study your needs before buying casters. Textile World 104:166+ Jl '54

What you should know about casters for materials handling. R. L. Miller. diags Chem Eng 60:199-200 Ag '53

CASTING, Centrifugal

Centrifugal casting of iron pipes. diags Engineering 177:345-6 Mr 12 '54

Centrifugal casting solves non-magnetic flywheel problem. R. J. Severson. il Steel 133: 120 N 23 '53

Designers get out of a pickle with dual-metal centrifugal casting. A. E. Schuh and M. L. Samuels. il S A E J 62:33-7 Jl '54

German production of centrifugally cast pipe. il Iron Age 173:161-3 Mr 18 '54

Non-ferrous centrifugal foundry; Millspaugh, ltd. il Engineer 196:588-9 N 6 '53; Engineering 176:624, 629-30 N 13 '53

Spin-caster for shells; centrifugal-casting machines at Watertown arsenal. il Steel 133:144 Jl 13 '53

CASTING, Precision. See Lost wax process

CASTING machines

Apparatus for continuous casting of steel; patent. diag Iron & Steel Eng 31:24+ Ag '54

Pilot plant proves continuous casting; Allegheny Ludlum steel corp. Materials & Methods 38:228+ N '53

Sheppard continuous casting machine for copper ingots. il Engineering 176:809-10 D 25 '53

Steel; continuous casting gains toe-hold; Rossi-Junghans continuous steel billet caster. G. G. Carr. diag Iron Age 172:55-6 S 24 '53

See also

Die casting machines

CASTINGS

Cast a giant; 19-ton pump casing. il Iron Age 172:61 S 24 '53

CASTINGS—*Continued*

Casting buying vs buying castings. O. P. Ketter. il Foundry 82:102-5+ Je '54

Casting potentials; abstract. L. C. Kappel. Metal Prog 66:152+ S '54

Close tolerance castings. M. W. Riley. il Materials & Methods 40:121-36 S '54 [reprints 25c]

Cored holes in castings tapped faster, cheaper; Ajax mfg. co. W. G. Patton. il Iron Age 173:106-7 Ja 21 '54

Dimensioning castings. E. V. Lundstedt. il diags Machine Design 26:98-110 Ja '54

Formulas useful in determining weights of castings; data sheet. diags Foundry 81: 149-50 Jl; 151-2 Ag; 265-6 S; 255-6 O; 203-4 N; 187-8 D '53; 82:173-4 Ja; 175-6 F; 207-8 Mr '54

Forum answers heavy press questions. il Aviation W 58:31-2 Je 29 '53

How to use magnesium castings for long life; based on paper by R. F. Breyer. S A E J 62:100-1 Je '54

New impregnation techniques. T. A. Dickinson. il Aero Digest 67:71-2+ S '53

Production of large forgings and castings. Tool Eng 32:265-8 Ap '54

Technical progress; casting. il Steel 134:236-8+ Ja 4 '54

See also

Cast iron

Die casting

Steel castings

Cleaning

Automatic setup buffs intricate aluminum castings; Black & Decker mfg. co. J. E. Taylor. il Iron Age 173:108-10 Ja 21 '54

Blast cleaning on a platter; Florida machine & foundry co. il Steel 135:106 Ag 23 '54

Cleaning cast steel armor; Cast armor division of American steel foundries. E. F. Ross. il Foundry 81:178+ Ag '53; Same. Steel 133:106-7 Jl 27 '53

Equipment for the small foundry; shakeout and cleaning. il Foundry 82:186-93 My '54

Grinding operations in the cleaning room. G. S. Eisaman. bibliog il Foundry 82:384+ My; 220+ Je '54

High temperature torch speeds cleaning of castings; Kwik-Arc jet torch process. il Iron Age 173:150+ Ap 1 '54; Tool Eng 33:77 Jl '54

Holding castings for cleaning. J. E. Hyler. il Foundry 82:276 S '54

Inventory of foundry equipment; cleaning and finishing; with tables. Foundry 82:158-61 My '54

Metal casting methods; cleaning and fettling practice. J. B. McIntyre. il Metallurgia 48: 273-5 D '53

Pangborn airless blast barrel can lower production cleaning costs. il Iron Age 172:210-11 S 10 '53

Power processes solve tough metal removal problems. R. S. Babcock. il diag Iron Age 174:122-4 Ag 12 '54

Defects

Casting defects; their causes and remedies. W. M. Halliday. Foundry 82:113+ F '54

Cold cracks in white iron. E. J. Jory. diags Foundry 82:122-3+ Ap '54

Gas porosity in aluminum castings. C. W. Ammen. diags Foundry 82:176+ Ag '54

Pinhole porosity in brass and gunmetal castings; abstract. N. B. Rutherford. Foundry 82:188+ S '54

Stress vs strain in hot tearing. J. B. Caine. bibliog il diags Foundry 82:76-9+ Ag '54

Repair

Foundry repair welding. C. T. Williamsen. il Foundry 82:204 Ja '54

Impregnation; technique important in getting most from metal fillers. diags Iron Age 172:138+ O 22 '53

Improved methods and sealing materials salvage porous castings with 100 per cent filling. il Mill & Factory 53:146 D '53

Improvements in casting impregnation. W. N. Pratt. il Foundry 82:248+ F '54

Micro-porosity elimination; method developed by American metaseal mfg. corp. il Steel 135:126 Ag 23 '54

Organic fillers seal defects in metal products. H. Thielsch. il Iron Age 172:118-21 O 15 '53

Plugging pores in castings; Metaseal plastic filler. Bsns W p76+ N 21 '53

Porosity leaks plugged. il Steel 134:131+ Je 14 '54

Resin impregnator cuts porosity rejects. il Aviation W 59:54+ N 16 '53

Salvaging process equipment; Metaseal process. Chem Eng 61:240 S '54

Sealing porous castings. W. N. Pratt. il Tool Eng 33:70-2 Ag '54

Vacuum impregnation curtails rejects of magnesium castings. il Mach 60:215 Ja '54

Vacuum impregnation; magnesium castings meet jet standards. il Steel 133:140-1 D 7 '53

Wire thread inserts cut scrap loss. il Iron Age 172:181 N 12 '53

Specifications

Tolerances and specifications for aluminum and magnesium castings. W. D. Stewart. bibliog il diags Mech Eng 75:450-5 Je '53

Tolerances and specifications for precision investment castings. W. O. Sweeny. il diags Mech Eng 75:456-7+ Je '53

Testing

Compact radiographic inspection setup combines safety with good handling; Crucible steel co.'s Spaulding works. J. A. Kearney and J. P. Brennan. il diag Iron Age 174: 128-30 S 9 '54

High alloy castings resist high temperatures. il Iron & Steel Eng 30:130+ O '53

New bend test for aluminum-magnesium castings. W. Martin. il Materials & Methods 38:186+ N '53

Preparation of miniature tensile test specimens. R. J. M. Payne. diags Metallurgia 48:315 D '53

Radiographic characteristics of high-energy X-rays. A. L. Pace. il diags Foundry 82: 108-11+ F '54

Test bars for copper and aluminum base alloy castings. R. A. Colton and D. L. Lavelle. il diags Foundry 82:96-101+ Je; 100-5+ Jl '54

Testing aircraft castings. T. A. Dickinson. il Foundry 82:110-11 Mr '54

CASTOR beans

Castor beans in 1953. Oil Paint & Drug Rep 165:5+ Mr 15 '54

CASUALTY actuarial society

Annual meeting, 39th, New York, Nov. 19-20. East Underw 54:31-3 N 27 '53; Nat Underw 57:2 N 26 '53

History and growth of Casualty actuarial society; background information. T. O. Carlson. East Underw 55:34 S 3 '54

Spring meeting, Lenox. Nat Underw 58:21-3+ Je 3 '54

CASUALTY and surety companies, Association of. See Association of casualty and surety companies

CASUALTY insurance. See Insurance, Casualty

CASUALTY underwriters, National bureau of. See National bureau of casualty underwriters

CATALASE

Catalase assay with special reference to manometric methods. R. F. Beers, jr. and I. W. Sizer. bibliog Science 117:710-12 Je 26 '53

Kinetics of the pre-steady state system of catalase with hydrogen peroxide. R. F. Beers, jr. J Phys Chem 58:197-200 Mr '54

CATALOGS

Can catalogs be standardized? Ind Marketing 38:138-40 D '53

Catalog one of Dixie's best salesmen. P. Lance. il Soap & San Chem 29:48-50 S '53

Even a price book can be glamorized; Binswanger & co. J. Nadler. il Sales Management 71:44+ pt 2 Jl 1 '53

Four ways to get more out of your catalog. W. T. Stout. Sales Management 72:56-7 Ja 1 '54

How to plan and prepare your new industrial catalog. R. A. Falk. il diags Ind Marketing 38:158-63 S; 102-3+ O; 100+ N; 124-5+ D '53

Integrate your catalog into the sales plan. A. P. Fox. il Sales Management 72:48+ F 1 '54

CATALOGS—*Continued*

Is your catalog designed for maximum user-benefit? Sales Management 71:46+ N 10 '53

See also

Moving pictures—Catalogs

CATALOGS, Card

NLL card catalogue of aerodynamic measurements. R. A. Fairthorne. il J Doc 10:11-18 Mr '54

Use of notches in cards as a means of signalling information. D. J. Campbell. J Doc 9:224-5 D '53

CATALOGS, Library

Union catalogue of old music. E. B. Schnapper. J Doc 9:117-21 Je '53

CATALYSIS

Automatic system for the study of catalytic reactions involving gases. K. W. Hannah and others. diags R Sci Instr 25:636-9 Jl '54

Catalysis by Pt(III) of exchange reactions of $PtCl_4^{=}$ and $PtCl_6^{=}$. R. L. Rich and H. Taube. bibliog Am Chem Soc J 76:2608-11 My 20 '54

Catalysis to spark future energy. P. H. Emmett. Chem & Eng N 31:5358+ D 28 '53

Catalysis with cation-exchange resins; preparation of 1,3-dioxolanes and 1,3,6-trioxocanes. M. J. Astle, J. A. Zaslowsky and P. G. Lafyatis. bibliog Ind & Eng Chem 46:787-91 Ap '54

Catalytic activity of cysteine and related compounds in the iodine-azide reaction. D. W. Whitman and R. M. Whitney. bibliog Anal Chem 25:1523-7 O '53

Catalytic vapour-phase oxidation; Chemical engineering department of Yale. R. H. Bretton. Chem Age (Lond) 69:1319-22 D 26 '53

Determination of mercury in the atmosphere; submicroanalytical determination of mercuric ion in bromine and chlorine water based on its catalytic action. S. Ašperger and I. Murati. bibliog Anal Chem 26:543-5 Mr '54

Effect of water on the catalytic activity of chromic oxide. S. E. Voltz and S. Weller. Am Chem Soc J 75:5231-2 N 5 '53

Fluoride determination by electron transfer catalysis. W. D. Armstrong and L. Singer. Anal Chem 26:1047-9 Je '54

Future of petroleum; catalysis; symposium. H. S. Taylor and others. bibliog diags Ind & Eng Chem 45:1440-90 Jl '53

Heterogeneous catalysis. M. Boudart. Ind & Eng Chem 45:898-902 bibliog(100 ref, p901-2); 46:884-9 bibliog(119 ref, p888-9) My '53, My '54

Influence of foreign atoms on the surface rearrangement produced by the catalytic reaction of hydrogen and oxygen on a single crystal of copper. R. E. Cunningham and A. T. Gwathmey. Am Chem Soc J 76:391-3 Ja 20 '54

Interaction of alkali metals and liquid ammonia. G. W. Watt, G. D. Barnett and L. Vaska. bibliog Ind & Eng Chem 46:1022-4 My '54

Kinetics analysis of flow catalysis of ortho-to para-hydrogen. J. D. Rogers. Ind & Eng Chem 45:1574-6 Jl '53

Magnetic catalysis of a decarboxylation reaction. K. S. Pitzer and E. Gelles. Am Chem Soc J 75:5132-3 O 20 '53

Prediction of catalyst activity in fluidized systems. S. L. Andersen and R. H. Matthias. Ind & Eng Chem 46:1296-8 Je '54

Radiation future; abstract. E. J. Henley. Chem & Eng N 32:2774 Jl 12 '54

Solid state to explain catalysis; symposium abstracts. Chem & Eng N 32:393 F 1 '54

Specific effects in acid catalysis by ion exchange resins; some observations on the effect of polyvalent cations. S. A. Bernhard, E. Garfield and L. P. Hammett. bibliog Am Chem Soc J 76:991-2 F 20 '54

Specific effects in acid catalysis by ion exchange resins; the effect of quaternary ammonium ions on the hydrolysis of esters of related structure. P. Riesz and L. P. Hammett. Am Chem Soc J 76:992-4 F 20 '54

Steam catalysis in calcinations of dolomite and limestone fines. W. H. MacIntire and T. B. Stansel. bibliog(54 ref) il Ind & Eng Chem 45:1548-55 Jl '53

Visualizing gas-solid dynamics in catalytic processes. F. A. Zenz. bibliog(68 ref) flow diags diags Pet Refiner 32:123-8 Jl '53

See also

Catalysts

CATALYSTS

Answer to air pollution. il diag Safety Maint & Prod 107:32-3+ F '54

Arylamine sulfide catalysts in reclaiming GR-S vulcanizates. F. J. Webb and others. bibliog(41 ref) Ind & Eng Chem 46:1711-15 Ag '54

Automatic instrumentation for bench scale units. E. R. Roth. bibliog flow diag il diags Ind & Eng Chem 46:1428-32 Jl '54

Catalyst evaluation for synthesis of phenylpyridine from butadiene and benzonitrile. G. J. Janz, W. J. G. McCulloch and E. F. Timpane. bibliog diag Ind & Eng Chem 45:1343-7 Je '53

Catalyst regeneration control; carbon removal from dehydrogenation catalyst facilitated by use of automatic infrared analyzer. K. V. Kratochvil and D. E. Berger. il diags Pet Eng 25:C 13-15 Jl '53

Catalyst studies in vinyltoluene-drying oil reactions. F. J. Buege. Ind & Eng Chem 46:1695-700 Ag '54

Catalytic activity and electrical conductivity of chromic oxide catalysts. S. E. Voltz and S. Weller. bibliog Am Chem Soc J 75:5227-31 N 5 '53

Chromic acid used in catalysts overcomes regeneration afterburn; patent. Pet Processing 8:1913 D '53

Cobalt, iron and some of their alloys as catalysts for the hydrogenation of carbon dioxide. R. A. Stowe and W. W. Russell. bibliog Am Chem Soc J 76:319-23 Ja 20 '54

Diffusion in catalysts; abstract. P. B. Weisz and C. D. Prater. Chem & Eng N 32:1449 Ap 12 '54

Dynamic mechanism and heterogeneous catalysis. M. A. Cook and A. G. Oblad. bibliog(25 ref) diags Ind & Eng Chem 45:1456-61 Jl '53

Effects of ionizing radiation on heterogeneous catalysts; zinc oxide as a catalyst for the hydrogenation of ethylene. E. H. Taylor and J. A. Wethington, jr. Am Chem Soc J 76:971-3 F 20 '54

Evaluation of cracking catalysts. C. K. Viland. flow diag il Pet Processing 8:1874-9 D '53

Fischer-Tropsch synthesis with cobalt catalysts; effect of nitrogen, carbon dioxide and methane in the synthesis gas. E. J. Gibson and C. C. Hall. bibliog J Ap Chem 4:464-8 Ag '54

Fischer-Tropsch synthesis with cobalt catalysts; effect of process conditions on composition of reaction products. E. J. Gibson and C. C. Hall. bibliog J Ap Chem 4:49-61 F '54; Abstract and discussion. Chem & Ind p299-300 Mr 13 '54

Friedel-Crafts alkylation reaction catalysts and complexes. H. C. Brown and others. bibliog(75 ref) Ind & Eng Chem 45:1462-9 Jl '53

Hydrogen-deuterium exchange reaction on zinc oxide catalysts. E. Molinari and G. Parravano. bibliog Am Chem Soc J 75:5233-7 N 5 '53

Improved butane dehydrogenation catalysts. E. W. Pitzer, J. R. Owen and A. Clark. bibliog Ind & Eng Chem 46:1541-4 Jl '54

Influence of adsorption of water and quinoline on the surface conductivity of a synthetic alumina-silica catalyst. M. A. Cook, R. O. Daniels, jr. and J. H. Hamilton. bibliog diag J Phys Chem 58:358-62 Ap '54

Ion exchange resins as catalysts. bibliog Chem Age (Lond) 68:561-4 Ap 11 '53

Lattice parameters and Curie points of unreduced iron catalysts. R. Westrik. bibliog J Chem Phys 21:2094-5 N '53

New reforming process; Indiana Standard introduces Ultraforming; cyclic catalyst regeneration method. flow chart Oil & Gas J 52:186-7 N 16 '53

CATALYSTS—*Continued*

New reforming process uses platinum catalyst; Standard oil co. of Indiana. Chem Eng 61:132 Ja '54

No indoor exhaust woes; replacing lift truck engine mufflers with Oxycat units. il Steel 133:151+ S 21 '53

Odor-pollution control; new catalyst, the Oxycat, can end coffee-plant odors and other pollution problems. il Mech Eng 75:815-16 O '53

Olefin polymerization with acid catalysts. G. E. Langlois. bibliog(31 ref) Ind & Eng Chem 45:1470-6 Jl '53

Oxides of the transition metals as catalysts. A. Clark. bibliog Ind & Eng Chem 45:1476-80 Jl '53

Oxidizing catalyst at peak performance. E. B. Brien. il Pet Eng 25:C 15-16 Ag '53

Oxycat nips air pollution. il diag Paint Oil & Chem R 117:17-18 Mr 25 '54

Oxycats kill wax fumes. Steel 133:153-4 Jl 6 '53

Platinum group metals as catalysts. il Chem Age (Lond) 69:747-9 O 10 '53

Platinum oxide catalysts. C. W. Keenan, B. W. Giesemann and H. A. Smith. bibliog Am Chem Soc J 76:229-32 Ja 5 '54

Process kinetics; filtration of fluid catalyst fines from effluent gases. D. B. Pall. diags Ind & Eng Chem 45:1197-202 Je '53

Process kinetics; heat and mass transport in a fixed catalyst bed during regeneration. J. J. van Deemter. diags Ind & Eng Chem 45:1227-33 Je '53

Put industrial odors to work; new catalytic device. R. H. Wilcox. flow diag il Mill & Factory 54:126-7 F '54

Reactions of thallium; thallous ethoxide as a catalyst in the oxidation of the aromatic acyloins by nitrobenzene. L. P. McHatton and M. J. Soulal. Chem Soc J p4095-7 D '53

Reversibility of the adsorption of catalyst poisons; derivatives of arsenic. E. B. Maxted and G. T. Ball. Chem Soc J p3153-6 O '53

Riding the trade winds. il Chem W 72:42+ Je 13 '53

Role of alcohols in the mechanism of the Fischer-Tropsch synthesis; the decomposition of alcohols in the presence of cobalt catalysts. E. J. Gibson. bibliog J Ap Chem 3:375-84 Ag '53

Separating live from dead catalyst; patent. diags Pet Processing 8:1367-8 S '53

Sintering of a water gas shift catalyst. J. Hoogschagen and P. Zwietering. J Chem Phys 21:2224 D '53

Some magnetic consequences of chemisorption on supported nickel catalysts. P. W. Selwood, T. R. Phillips and S. Adler. Am Chem Soc J 76:2281-2 Ap 20 '54

Stabilization of ammonia synthesis catalyst. J. A. Burnett, H. Y. Allgood and J. R. Hall. il diags Ind & Eng Chem 45:1678-82 Ag '53

Structure of cobalt catalysts supported on diatomaceous earth. M. F. L. Johnson and H. E. Ries, jr. bibliog J Phys Chem 57:865-73 D '53

Thermal migration in supported copper catalysts. P. E. Jacobson and P. W. Selwood. bibliog diag Am Chem Soc J 76:2641-4 My 20 '54

You can use gasoline trucks indoors, too! il Safety Maint & Prod 106:43 N '53

See also

Aluminum bromide
Antioxidants
Catalysis
Enzymes
Growth promoting substances
Hormones
Nickel—Raney nickel

Manufacture

Multifactor experiment. C. Daniel and E. W. Riblett. bibliog Ind & Eng Chem 46:1465-8 Jl '54

CATARACTS. See Eye—Diseases and defects

CATASTROPHE insurance. See Insurance, Fire—Catastrophe coverage

CATECHOL

Condensation of epichlorohydrin with monohydric phenols and with catechol. O. Stephenson. Chem Soc J p 1571-7 My '54

Oxidative fission of catechol compounds and the structure of melanines. Z. E. Jolles. bibliog Chem & Ind p 1367-8 D 19 '53

CATERPILLAR tractor company

Annual report, 1953. Roads & Eng Constr 92:76 F '54

Equipment credit to push sales. Caterpillar sets up credit subsidiary. Eng N 152:86 Ap 22 '54

Fiftieth anniversary of crawler tractor production celebrated. Roads & Eng Constr 92:70+ Ja '54

CATHEDRALS

Coventry; contemporary expression of cathedral traditions. B. Spence. il plan Arch Rec 115:143-51 Mr '54

CATHETERS

Collecting device for obtaining blood samples at various intervals from an intra-arterial catheter. R. T. Archibald and others. il Science 118:390-1 O 2 '53

CATHODE followers

Ac cathode-follower circuit of very high input impedance. J. R. MacDonald. diags R Sci Instr 25:144-7 F '54

Symmetrical cathode follower bridge circuit for direct spectrochemical analysis. W. G. Walker and S. C. Baker. bibliog diag J Sci Instr 30:328-30 S '53

Transistor cathode follower. A. H. Hellmers. diag Radio & Tv N 50:169 O '53

CATHODE ray oscillographs. See Oscillographs, Cathode ray

CATHODE ray tubes

Cathode-ray numerals; patent. diags Electronics 26:216+ N '53

C-r oscillator; patent. diag Electronics 26:252+ D '53

Cathode-ray screens; abstract. J. F. Hazel. Chem & Eng N 32:2768+ Jl 12 '54

Cathode-ray tube exports boom. Electronics 27:18 Ja '54

Cathode-ray-tube protractor or synchroscope. H. Sohon. diags Elec Eng 73:220-1 Mr '54

Cementing metal screens to cathode-ray tubes. R. W. Holmes. il diag Electronics 27:300+ F '54

Computer memory uses conventional c-r tubes. A. W. Holt and W. W. Davis. il diags Electronics 26:178-82 D '53

Electron-beam head for magnetic tape playback. A. M. Skellett and others. il diags Electronics 26:168-71 O '53

Experimental determination of signal discernibility enhancement by two raster-type crt displays. W. O. Garrett and others. il diags Opt Soc Am J 44:80-4 Ja '54

High-speed cathode-ray indicating spectrophotometer. R. C. Beitz. il diags Opt Soc Am J 43:773-6 S '53

Information cells on intensity-modulated crt screens. D. Levine. Inst Radio Eng Proc 41:1766-8 D '53; Correction. 42:853 My '54

Measuring reflection from crt face plates. M. E. Amdursky. il diags Tele-Tech 12:90-1 O '53

Monolayer fluorescent screens. L. R. Koller. Opt Soc Am J 43:620 Jl '53

Monoscope tube for computer and other applications. J. Hartmann. il diags Elec Eng 73:208-12 Mr '54

New method of depositing phosphors simplifies color tube construction. diag Elec Eng 72:1038-9 N '53

Positive and negative ions in cathode-ray tubes. C. H. Bachman and others. bibliog il diags J Ap Phys 24:427-33 Ap '53

Preparation of phosphor screens for color television tubes. S. Levy and A. K. Levine. il diags Electrochem Soc J 101:99-103 F '54

Traveling wave cathode ray tube; patent. diags Electronics 26:238+ N '53

Visual monitor for magnetic tape; Magnescope. R. L. Miller. il Soc Motion Picture & Tv Eng J 61:309-12; Discussion. 313-15 S '53

See also

Electron gun
Oscillographs, Cathode ray
Storage tubes

CATHODE rays

Electron; freed for new feats. il Chem W 72:54+ Je 20 '53

Yield of oxidation of ferrous sulfate in acid solution by high-energy cathode rays. J. Saldick and A. O. Allen. bibliog diag J Chem Phys 22:438-42 Mr '54

CATHODES

Arcing at electrical contacts on closure; cathode mechanism of extremely short arcs. P. Kisliuk. bibliog(36 ref) diag J Ap Phys 25:897-900 Jl '54

Cathode effects in the dielectric breakdown of liquids. J. K. Bragg and others. bibliog diags J Ap Phys 25:382-91 Mr '54

Cathodic lead disintegration and hydride formation. H. W. Salzberg. bibliog Electrochem Soc J 100:146-51 Ap '53; Discussion. 100:588-9 D '53

Cathodic vacuum etching. T. R. Padden and F. M. Cain, jr. bibliog il diag Metal Prog 66:108-12+ Jl 1 '54

Conductivity of oxide cathode coatings. T. B. Tomlinson. bibliog il diags J Ap Phys 25: 720-4 Je '54

Diffusion of barium in an oxide-coated cathode. R. S. Bever. bibliog J Ap Phys 24: 1008-10 Ag '53

Double activators in oxide cathode base alloys. A. Eisenstein and others. bibliog J Ap Phys 24:631-2 My '53

Effect of rapid cathode rotation and magnetic fields on crystal orientation in electrodeposited metals. Ling Yang. bibliog il diag Electrochem Soc J 101:456-60 S '54

Formation of anodic oxide films on cathodes. D. A. Vermilyea. diags Electrochem Soc J 101:389-92 Ag '54

Metal capillary cathodes. H. Katz. bibliog il diags J Ap Phys 24:597-603 My '53

Molded thermionic cathodes. D. MacNair and others. diag J Ap Phys 24:1335-6 O '53

Motion of arc cathode spot in a magnetic field. R. M. St John and J. G. Winans. bibliog il diags Phys R 94:1097-102 Je 1 '54

Origin of retrograde motion of arc cathode spots. A. E. Robson and A. von Engel. Phys R 93:1121-2 Mr 1 '54

Retarding potential method for measuring electrical conductivity of oxide-coated cathodes. I. L. Sparks and H. R. Philipp. bibliog diags J Ap Phys 24:453-61 Ap '53

Spatial variations of the spectral response of photomultiplier cathodes. H. Edels and W. A. Gambling. J Sci Instr 31:121 Ap '54

CATHODIC protection. See Metal protection—Cathodic protection; Pipe lines—Cathodic protection; Steel—Cathodic protection; Tanks, Steel—Cathodic protection

CATIONS

Cathodic reduction of anions and the anodic oxidation of cations. C. Wagner. Electrochem Soc J 101:181-4 Ap '54

Cation distributions in mixed ferrites. J. S. Smart. bibliog Phys R 94:847-50 My 15 '54

Cation exchange process for the preparation of potassium cyanide. C. H. Lemke. diag Electrochem Soc J 101:203-7 Ap '54

Paper chromatography of cations with substituted 8-quinolinols. Q. Fernando and J. P. Phillips. bibliog Anal Chem 25:819-20 My '53

Partial resolution and detection of some cations by differential diffusion. M. Antelman. bibliog il Anal Chem 26:1218-19 Jl '54

Polarographic characteristics of metallic cations in acetate media. M. A. DeSesa and others. Anal Chem 25:983-4 Je '53

Potentiometric differentiation of certain inorganic cations. C. W. Pifer, E. G. Wollish and M. Schmall. Anal Chem 26:215-17 Ja '54

Precipitation from homogeneous solution by controlled cation release. bibliog Anal Chem 26:1246-7 Jl '54

Replacement of cations of clay by ion exchange resins. D. R. Lewis. diag Ind & Eng Chem 45:1782-3 Ag '53

Self-diffusion of cations in and through sulfonated polystyrene cation-exchange polymers. G. E. Boyd and B. A. Soldano. bibliog diag Am Chem Soc J 75:6091-9 D 20 '53

Self-diffusion of cations in hetero-ionic cation exchangers. B. A. Soldano and G. E. Boyd. bibliog Am Chem Soc J 75:6107-10 D 20 '53

CATSUP

Puts brake on browning of ketchup in bottle necks; tests show corn syrup will do the retarding. W. L. Ogle and A. Kramer. Food Eng 26:67-8 S '54

CATTLE

See also

Grazing

Ranches

CATTLE industry and trade

Cycles; cattle are on the crest. il Bsns W p82-3+ Ag 22 '53

Argentina

Fishy tales for Argentines; beef shortage. Economist 169:36-7 O 3 '53

Florida

Trouble hits Florida cattle industry but old hands get needed credit. C. E. Wright. il Bankers Mo 70:14+ D '53

Texas

Doing it the Texas way; oil and cattle, two investments with built-in tax protection. il Bsns W p77-80 D 5 '53

CAULIFLOWER

Detection of 3-indoleacetic acid in cauliflower heads; chromatographic behavior of some indole compounds. L. E. Weller, S. H. Wittwer and H. M. Sell. bibliog Am Chem Soc J 76:629-30 Ja 20 '54

CAULKING compositions. See Calking compositions

CAUSEWAYS

Building a causeway to new play island; causeway between Port Isabel and Padre Island. il Eng N 152:33-4 Ap 29 '54

Canso Strait causeway reaches 180 ft. depth of water. Roads & Eng Constr 92:72 Ja '54

Causeway to connect Nova Scotia and Cape Breton. il map Civil Eng 24:117 F '54

Constructing a modern highway across the Strait of Canso. D. Pelrine. il Explosives Eng 31:142-5 S '53

Port Isabel-Padre Island causeway completed. il Am Concrete Inst J 25:sup 15-16 My '54

CAUSTIC soda. See Sodium hydroxide

CAVES

See also

Carlsbad caverns

CAVITATION

Resistance of some cast and plated sleeve-bearing materials to cavitation erosion; abstract. R. A. Schaefer and others. Metal Prog 66:170+ Ag '54

Water side deterioration of Diesel cylinders. F. L. LaQue. il Power Eng 58:76-7 Ja '54

See also

Hydraulic machinery
—Cavitation

CAVITY resonators. See Radio resonators

CEDAR

Chemical nature of the acetone extractive of western red cedar. G. M. Barton and J. A. F. Gardner. bibliog(26 titles) il Pulp & Pa of Can 55:132-7 S '54

CEILINGS

Ceiling air diffuser aid to flexible office design. il Arch Rec 115:208 My '54

Complete ceiling integrated on four foot and five foot modules. il Arch Forum 98:162 Mr '53

Continuous wall-ceiling lighting in an industrial plant. il Illum Eng 49:31 Ja '54

Design for simplified hangar illumination. R. D. Prescott. il Illum Eng 49:151-2 Mr '54

Design standards and data; suspended ceilings. H. R. Sleeper. diags Arch Forum 100: 170-3 Mr '54

Designing the ceiling around the luminaire. D. E. Frank. il Illum Eng 48:617-18 D '53; Same. Elec West 111:96 N '53

Easily installed plastic paneling provides over-all glareless, shadowless illumination. il Mill & Factory 55:133-4 Jl '54

Figuring hot-cold ceilings. Power Eng 58:78 Jl '54

How to prepare ceiling for panel heating. il Am Bld 76:282+ Ag '54

Individual units combine for versatile lighting systems; Grace New Haven community hospital. il Illum Eng 49:292-3 Je '54

Lighting a new research and design building; Heaton works of C. A. Parsons, ltd. il Engineer 196:715 N 27 '53; Elec J 151:1776 N 27 '53

Lighting a small reception area; data sheet. A. Page. il plan Illum Eng 49:136 Mr '54

Lighting an entrance hall; lighting data sheet. il diags Illum Eng 49:251-2 My '54

Long-span honeycomb ceiling. il Eng N 151: 86 Jl 16 '53

CEILINGS—*Continued*

Low-cost high-intensity lighting; luminous ceiling. il diags Arch Forum 98:152-3 My '53
Luminous-ceiling dinette; lighting data sheet. R. L. Oetting. il diag Illum Eng 49:303-4 Je '54
Luminous ceiling+intensity control. il diags Arch Forum 98:153 Ja '53
Luminous ceiling solves a problem. J. W. Parris. il Elec World 141:134 F 8 '54
Luminous glass ceiling in a Canadian home. H. H. Arnold. il Illum Eng 49:182 Ap '54
Multi-function ceiling installed easily by one-trade crew. il Arch Forum 98:174 Je '53
Multipurpose ceilings. il diags Arch Forum 100:174-5 My '54
New technique with troffers. il Illum Eng 49:378 Ag '54
Plastic ceiling provides lighting that's next best to daylight; Douglas Aircraft. il Factory Management 112:104-5 Ag '54
Prefabricated coffer ceilings. L. S. Harrison. il plan diag Illum Eng 48:625-8 D '53; Discussion. 49:sup21A My '54
Putting ceiling on noise; acoustical system using light aluminum panels and fibrous glass. Steel 133:128-9 N 9 '53
Sheffield store lighting; John Walsh, ltd. il Elec R (Lond) 153:522 S 4 '53
Solving a maintenance problem for a stained glass ceiling. il Illum Eng 49:122 Mr '54
U.S. geological survey building. G. E. Moen. il Illum Eng 49:309-10 Je '54

CEILINGS, Aluminum

Acoustical ceiling; Fine arts center at the University of Arkansas. Light Metal Age 12:37 F '54

CELANESE corporation of America

Not knitting now; wins bill of health from Antitrust division. Chem W 74:19 Ap 17 '54

CELASTIC. See Resinous products—Textile uses

CELL division (biology)

Cell division. D. Mazia. il diags Sci Am 189:53-63 Ag '53

CELLOBIOSE

Interaction of benzyl acetate and cellobiose α-octa-acetate with some solvents for cellulose acetate. W. R. Moore and J. Russell. bibliog diag J Ap Chem 4:369-73 Jl '54
Oxidation of cellobiose by periodate. F. S. H. Head and G. Hughes. Chem Soc J p603-6 F '54

CELLOPHANE

Casting; cellophane covers keep dirt out of sand molds; Cooper alloy foundry co. il Iron Age 173:152 F 11 '54
Cellophane keeps newspapers dry. il Bsns W p 154 N 14 '53
Component package; flexible plastic package for popcorn. il Mod Packaging 27:140-3+ Mr '54
DuPont company cleared in cellophane antitrust suit. Oil Paint & Drug Rep 164:5 D 21 '53
Four-faced noodles; cellophane bags printed on all sides; Golden grain macaroni co. il Mod Packaging 27:128 Ja '54
Government's complaint in the cellophane antitrust suit should be dismissed. P. Leahy. Tappi 37:sup 116A-17A F '54
Membrane potentials for keratin and cellophane and the Meyer-Teorell theory. M. L. Wright. bibliog J Phys Chem 58:50-3 Ja '54
Pairing solves the problem; polyethylene-cellophane films. il Chem W 73:74+ Jl 18 '53
Picture packs; transparent film packaging. il Mod Packaging 28:95-9+ S '54
Polyethylene-coated cellophane. L. F. Swec and G. H. Sullivan. il diags Mod Packaging 27:203-8+ Mr '54
Saran-coated cellophane. il Mod Packaging 27:80-3+ Ap '54
Self-selection department store; package almost everything in transparent film. il Mod Packaging 27:99-103 My '54
Strategy for sponges; new colorfully printed cellophane over-wraps. il Mod Packaging 27:107 My '54
Trust-busting boomerang; E. I. du Pont de Nemours & co. Chem W 74:14 Ja 16 '54
Tubed sugar service; new development in unit packaging. il Mod Packaging 27:102-3 Ap '54

CELLS

Chemical activity of nerve cells. E. D. Adrian. Chem Age (Lond) 69:1177-8 D 5 '53
Formation and behavior of conjugation cells and large bodies in azotobacter agile. N. C. Dondero and M. R. Zelle. il Science 118:34-6 Jl 10 '53
Histamine in tissue mast cells. J. F. Riley. bibliog Science 118:332-3 S 18 '53
How do cells differentiate? C. H. Waddington. il diags Sci Am 189:108-14+ S '53
Local refractometry of cell particulars with the cylindrical lens microscope. J. Meyer-Arendt. bibliog il diag Science 118:489-90 O 23 '53
Nuclear envelope. N. G. Anderson. bibliog diags Science 117:517-21 My 15 '53; Discussion. G. H. Hogeboom and W. C. Schneider. 118:419 O 9 '53
Pressure thresholds for biologically active cavitation. E. Ackerman. bibliog il diags J Ap Phys 24:1371-3 N '53
Viruses within cells. J. L. Melnick. il Sci Am 189:38-41 D '53

See also

Biology
Mitochondria

CELLULAR glass. See Glass, Cellular

CELLULAR plastic materials. See Plastic materials, Cellular

CELLULASE

Pure enzymes at a price. il Chem W 74:66 Je 19 '54

CELLULOSE

Accessible cellulose as measured by sorption of sulfuric acid. G. A. Richter, L. E. Herdle and I. L. Gage. diags Ind & Eng Chem 45:2773-9 D '53
Acetylation reactivity of cellulose containing salts. C. J. Malm and others. Ind & Eng Chem 46:557-61 Mr '54
Acidity of carboxyl groups in cellulose; abstract. H. Sihtola. Paper Ind 36:413 Jl '54
Alkylation of cellulose with esters of *p*-toluenesulfonic acid. J. W. Weaver, C. A. Mackenzie and D. A. Shirley. bibliog Ind & Chem 46:1490-3 Jl '54
A.C.S. Division of cellulose chemistry 124th national meeting, Chicago; abstracts of papers. Chem & Eng N 31:3965-6 S 28 '53
A.C.S. Division of cellulose chemistry 125th national meeting, Kansas City; abstracts of papers. Chem & Eng N 32:1437-8 Ap 12 '54
Benzylation and xanthation of cellulose monoalkoxide. M. L. Wolfrom and M. A. El-Taraboulsi. bibliog Am Chem Soc J 76:2216-18 Ap 20 '54
Biosynthesis of C^{14}-specifically labeled cellulose by acetobacter xylinum; from D-glucose-1-C^{14} with and without ethanol. F. W. Minor and others. Am Chem Soc J 76:1658-61 Mr 20 '54
$[^{14}C]$-cellulose from acetobacter acetigenum. E. J. Bourne and H. Weigel. Chem & Ind p 132 Ja 30 '54
Cellulose. E. Heuser. Tappi 36:sup 157A D '53
Cellulose and soybean research; Buckeye cotton oil Memphis labs. il Chem & Eng N 32:2187 My 31 '54
Cellulose chemistry and the textile industry. D. A. Clibbens. Textile Inst J 45:P 173-93 bibliog(57 titles, P 191-3) My '54
Cellulose solvents for viscosity measurements. B. L. Browning and others. bibliog(26 ref) diag Tappi 37:273-83 Jl '54
Chemical pulp booms in South. il Chem & Eng N 32:2756-8 Jl 12 '54
Concentric cellulose layers in cotton fiber cell wall. V. W. Tripp and R. Giuffria. il Textile Res J 24:757-8 Ag '54
Conversion of cellulose I to cellulose III by ethylamine. J. Mann and H. J. Marrinan. Chem & Ind p 1092-3 O 10 '53
Decrystallized cotton. G. Susich. bibliog il Am Dyestuff Rep 42:713-18 O 26 '53
Degradation of cellulose during mechanical processing; size reduction of cotton in a Wiley mill. R. F. Schwenker, jr. and J. C. Whitwell. bibliog il Textile Res J 23:804-8 N '53
Degree of polymerization and its distribution in cellulose rayons. W. G. Harland. bibliog diag Textile Inst J Trans 45:T678-95 S '54

CELLULOSE—*Continued*

Dyeing of cellulose. F. Fordemwalt. diag Chem & Eng N 32:924-6 Mr 8 '54

Effects of evaporating water from cotton cellulose. G. W. Madaras and H. A. Turner. bibliog pl diags Soc Dyers & Col J 69:371-7 O '53

Filteraid gives clarity with high flowrate; Solka-Floc. il Chem Eng 61:148+ Ap '54

Finishes for cellulosic textiles giving permanent protection against microbiological attack; survey of the literature. M. Hamlin. bibliog(44 ref) Textile Inst J 44:P745-53 N '53

How continuous digester holds pressure to make better chemical cellulose; Hercules powder co. il diag Chem Eng 61:116-18 My '54

Improved cellulose doubles strength of rayon fibers; Rayocord-X. il Chem & Eng N 31: 4214 O 12 '53; Chem Eng Prog 49:sup54 O '53

Influence of heavy beating of cotton fibers on molecule length and crystallinity. C. F. Wijnman. bibliog il diags Tappi 37:96-8 Mr '54

Methylation of cellulose with diazomethane, and some properties of the products. D. A. Sitch. bibliog il Textile Inst J Trans 44: T407-19 O '53

Moisture regain and accessibility of cellulose derivatives. L. Valentine. Textile Res J 24:670-2 Jl '54

Molecular weight of α-cellulose from jute and allied long fibers. H. Chatterjee and others. bibliog(53 ref) Textile Res J 24:43-52 Ja '54

Nature of inorganic chromatography on cellulose columns. D. E. Chalkley and R. J. P. Williams. Chem Soc J p 1718-21 Je '54

New textile fibers with the structural elements of natural cellulosic fibers. J. Compton. bibliog(46 ref) il diags Am Dyestuff Rep 43:103-11 F 15 '54

Partition mechanism of paper chromatography; adsorption of chromatographed substances. D. P. Burma. bibliog Anal Chem 25:549-53 Ap '53

Photooxidation of cellulose; abstract. J. L. Bolland. Chem & Eng N 32:2976+ Jl 26 '54

Physical characteristics and chemical composition of alpha, beta and gamma-celluloses; abstract. K. A. Björkqvist and others. Paper Ind 36:315 Je '54

Preparation of cellulose III with ethylamine. L. Segal. Textile Res J 24:861-2 S '54

Rapid acetylation of impregnated cellulose. J. C. Thomas. bibliog Am Chem Soc J 75: 5346-50 N 5 '53

Relaxation of stress in stretched cellulose fibres. R. Meredith. bibliog diags Textile Inst J Trans 45:T438-61 Je '54

Some aspects of microscopy in cellulose research. M. L. Rollins. bibliog(50 ref) il Anal Chem 26:718-24 Ap '54

Sorption of formic acid by various celluloses; abstract. G. I. Borgin and others. Paper Ind 35:1048 D '53

Standard method of test for fluidity of cotton, rayons and cellulose acetate in cuprammonium hydroxide solution. diags Textile Inst J 45:S 18-26 Ap '54

Structural studies of the cellulose synthesised by acetobacter acetigenum. K. S. Barclay and others. Chem Soc J p 1501-5 My '54

Studies on esterified cellulose fibers; non-absorptive light losses in microspectrophotometry; abstract. P. W. Lange. il diag Paper Ind 36:82-3 Ap '54

Study by infra-red spectroscopy of hydrogen bonding in cellulose. H. J. Marrinan and J. Mann. bibliog(28 ref) J Ap Chem 4:204-11 Ap '54

Study of the cellulose distribution in the cell wall of poplar wood; abstract. P. Traynard and A. M. Ayroud. Paper Ind 35: 1142-3 Ja '54

Swelling factor in cellulose hydrolysis. E. T. Reese and W. Gilligan. bibliog Textile Res J 24:663-9 Jl '54

Swelling powers of urea solutions on cellulose. J. M. Preston and others. bibliog Textile Inst J Trans 45:T504-9 Jl '54

Symposium on molecular weights of cellulose. bibliog diags Ind & Eng Chem 45:2482-537 N '53 (reprints 75c)

Use of iodine adsorption as a measure of cellulose fiber crystallinity. L. E. Hessler and R. E. Power. bibliog Textile Res J 24: 822-7 S '54

Variable shear viscometers for cellulose intrinsic viscosity determination. F. H. Wetzel and others. bibliog il diag Tappi 36: 564-71 D '53

Weak bonds in cotton cellulose. A. Sharples. Chem & Ind p870-1 Ag 15 '53

See also

Carboxymethylcellulose
Cotton
Hemicellulose
Holocellulose
Hydrocellulose
Lignin
Nitrocellulose
Rayon
Viscose
Vulcanized fiber

Analysis

Cellulose yield test overcoming the inadequacies of the alpha test. F. R. Charles. bibliog Tappi 37:148-56 Ap '54

Determination of cellulose by an acid-dichromate method. T. N. Kleinert and W. Wincor. bibliog Tappi 36:507-9 N '53

Infrared spectra of coal and carbohydrate chars. R. A. Friedel and M. G. Pelipetz. bibliog diags Opt Soc Am J 43:1051-2 N '53

Methods for the determination of cellulose chain-length distribution. G. Broughton. bibliog(67 ref) Tappi 37:61-5 F '54

Rapid accurate determination of cellulose with the dichromate heat-of-dilution method. H. F. Launer and Y. Tomimatsu. bibliog Anal Chem 25:1769-70 N '53

Bibliography

Literature of cellulose and other materials related to the pulp and paper industry; symposium. bibliog Tappi 37:sup 152A-96A S '54

Spectrum

X-ray and infrared studies on the extent of crystallization of polymers. J. B. Nichols. bibliog(35 ref) il J Ap Phys 25:840-7 Jl '54

CELLULOSE acetate

Acetylation reactivity of cellulose containing salts. C. J. Malm and others. Ind & Eng Chem 46:557-61 Mr '54

Blistering of cellulose acetate in chloroform. D. M. Cates and H. J. White, jr. il Textile Res J 24:675-6 Jl '54

Cellulose acetate as a raw material for rayon production. A. R. Urquhart. bibliog J Ap Chem 4:195-203 Ap '54

Filterability of cellulose acetate solutions. L. A. Cox and W. K. Mohney. bibliog il Ind & Eng Chem 45:1798-803 Ag '53

Interaction of benzyl acetate and cellobiose α-octa-acetate with some solvents for cellulose acetate. W. R. Moore and J. Russell. bibliog diag J Ap Chem 4:369-73 Jl '54

Mannan in purified wood pulp and its relation to cellulose acetate properties. H. W. Steinmann and B. B. White. bibliog Tappi 37:225-32 Je '54

Solvent power of solvents for cellulose acetate. W. R. Moore and others. bibliog Chem & Ind p 1339-40 D 12 '53

Weathering of cellulose acetate. J. B. Reid. Textile Inst J Trans 45:T665-77 S '54

See also

Acetate fibers
Celanese corporation of America

CELLULOSE acetate butyrate

Pipelines to market. il Chem W 74:96 My 22 '54

CELLULOSE esters

Analysis

Determination of total and primary hydroxyl in cellulose esters by ultraviolet absorption methods. C. J. Malm and others. bibliog Anal Chem 26:188-90 Ja '54

CELLULOSE nitrate. See Nitrocellulose

CELLULOSE xanthateon

Emulsion xanthation of cellulose; influence of cold alkali treatment of cotton linters and wood pulp. O. Samuelson and others. bibliog il Tappi 37:236-42 Je '54

CEMENT

ASTM annual meeting; with abstracts of papers on cement and concrete. Rock Prod 57:86-7+ S '54

CEMENT—*Continued*

Cement, concrete, mortar, plaster, aggregates, and structural clay products. il diags Am Bld 75:73-4+ Ap '53

Freeze-thaw resistance of concrete as affected by alkalies in cement. B. Tremper. bibliog Am Soc T M Proc 51:1097-107 '51

In a pinch, use STP. il Chem W 72:59-60 Je 6 '53

Lime, fly ash, silica and cement in autoclaved concrete products. J. K. Selden. Rock Prod 57:142-3+ My '54

Magnesia in hydraulic cements. N. C. Rockwood. Rock Prod 57:71+ Ap '54

Pozzolanic cements from blast furnace slag. R. C. Lied and others. Rock Prod 56:130+ D '53

Properties of concrete containing a blend of portland cement and air-entraining ground blast-furnace slag. W. E. Grieb and G. Werner. Pub Roads 28:46-9 Ag '54

Prospective chemistry of cement and concrete (cont). N. C. Rockwood. diags Rock Prod 57:147-9 Ja; 136+ Ag '54

Sealing off a heavy flow of water in a development heading. K. O'Donnell. diags Can Min J 75:63-4 Jl '54

See also

Cements	Petroleum—Well cementing and plugging
Concrete	
Grouting	

Alumina cement

Determination of setting and hardening time of high-alumina cements by electrical resistance techniques. J. Calleja. bibliog Am Concrete Inst J 25:249-56 N '53; Discussion. 26:256^1-256^7 pt 2 D '54

Analysis

Improvements in flame photometric determination of sodium in portland cement. J. J. Diamond and L. Bean. bibliog Anal Chem 25:1825-30 D '53

Removal of manganese prior to calcium and magnesium precipitations. B. L. Ingram and L. Bean. bibliog Anal Chem 25:1217-19 Ag '53

Manufacture

Blast-furnace slag cement plant at Cluanie dam. il diag Engineering 176:557 O 30 '53

Calculation of raw mixes in the manufacture of portland cement. Z. Pucar. Rock Prod 56:126+ D '53

Facts for the cement industry on flow of slurries. J. R. Van Wazer. il Rock Prod 56:104-7 D '53

Modern portland cement production. W. Q. Hull, P. Hass and P. Franklin. bibliog flow sheet il diags Ind & Eng Chem 46:830-42 My '54

Operates cement kilns for best efficiency rather than for over-capacity; Federal portland cement co. B. Nordberg. il Rock Prod 57:70-5+ S '54

Portland cement from oil shale. F. Kloiber. Rock Prod 57:59+ Jl '54

Progress in non-aqueous wet cement making. J. C. Witt. Concrete 62:9 My '54

Setting

Determination of setting and hardening time of high-alumina cements by electrical resistance techniques. J. Calleja. bibliog Am Concrete Inst J 25:249-56 N '53; Discussion. 26:256^1-256^7 pt 2 D '54

Standards

Accomplishments and objectives of the API committee on standardization of oil-well cements. C. W. Dawson. Am Pet Inst Proc 33(4):76-8 '53

Testing

How to test cement for erosion resistance. A. J. van Riemsdijk and H. W. van der Hoeven. il diags Pet Processing 8:1514-18 O '53

Laboratory tests prove cements are better. E. L. Howard. Rock Prod 57:69+ My '54

Properties of some masonry cement. D. N. Evans and others. bibliog J Res Nat Bur Stand 51:11-16 Jl '53

CEMENT clinkers

Suspension preheating of dry pulverized materials; Humboldt suspension preheater. G. K. Engelhart. il diag Min Eng 6:Trans 407-10 Ap '54

CEMENT industry and trade

Demands for cement in 1954 will approach all-time peak. B. Nordberg. il Rock Prod 57:157-8+ Ja '54

Estimating demand for cement. N. H. Schein. Rock Prod 57:132-3+ Ag '54

Foreign cement production, 1952. Rock Prod 56:136 D '53

Portland cement hits new high, 1953. il Min Cong J 40:121-2 F '54

Securities

Cement industry faces favorable new year. S. Devlin. il Mag of Wall St 93:498-500+ Ja 23 '54

Statistics

Annual cement production, 1952. Rock Prod 57:146 Ap '54

Portland cement, 1949-1952. Survey of Cur Bsns 1953 Sup p 183 [supplemented in monthly numbers]

Brazil

Brazil's cement goal three million tons. Chem & Eng N 32:1134 Mr 22 '54

Great Britain

Bricks and cement. Economist 168:197-8 Jl 18 '53

Greece

Largest Greek cement plant increases capacity 150 percent; Société anonyme de ciment Titan. C. Tsountas. il Rock Prod 56:90-2 O '53

India

India plans greater cement output. Chem Age (Lond) 71:573 S 18 '54

Italy

Italian cement. Chem Age (Lond) 69:124 Jl 18 '53

CEMENT kilns

Detecting and measuring radial deformations of rotary kilns; Shelltest. F. G. Rosenblad. il diag Rock Prod 57:123-5+ Ag '54

Latest practice in burning cement and lime in Europe. O. G. Lellep. bibliog il diags Min Eng 6:Trans 715-19 Jl '54

Operates cement kilns for best efficiency rather than for over-capacity; Federal portland cement co. B. Nordberg. il Rock Prod 57:70-5+ S '54

Suspension preheating of dry pulverized materials; Humboldt suspension preheater. G. K. Engelhart. il diag Min Eng 6:Trans 407-10 Ap '54

CEMENT laboratories

Ideal cement co's. research center. G. C. Wilsnack. il Rock Prod 56:98-101+ D '53

CEMENT lined pipe

How to cement-line pipe for corrosion resistance. F. L. Resen. il diags Oil & Gas J 52:91+ N 30 '53

CEMENT lining

How to test cement for erosion resistance. A. J. van Riemsdijk and H. W. van der Hoeven. il diags Pet Processing 8:1514-18 O '53

CEMENT plants

Modernize cement plant at Universal, Pa. il Iron & Steel Eng 30:168-9 O '53

Office and plant modernization; Monarch cement co. T. Brown. il Rock Prod 56:108+ O '53

Swiss interests are constructing cement mill, with capacity of six million bags a year, at Villeneuve, Que. il Roads & Eng Constr 91:56 D '53

Universal starts up new raw mill. B. Nordberg. il Rock Prod 57:78-80 F '54

Equipment

Calaveras increases capacity again. W. B. Lenhart. il plan diag Rock Prod 57:70-2+ Mr '54

Canada cement company's growth keeps pace with nation's expansion. B. Nordberg. flow sheets il plans diag Rock Prod 57:86-122+ Ag '54

CEMENT plants—Equipment—*Continued*
Dragon doubles plant capacity. H. C. Persons. il Rock Prod 57:102-5 Ap '54
Efficient method of returning dust to kilns; National portland cement co. I. Krabbe. flow diag il Rock Prod 57:145-6 Je '54
Largest Greek cement plant increases capacity 150 percent; Société anonyme de ciments Titan. C. Tsountas. il Rock Prod 56:90-2 O '53
Three-step program to rebuild an old cement plant. B. Nordberg. il plans Rock Prod 57: 74-7+ Je '54
Unusual features in new cement plant; abstract. B. Ulrich. Roads & Eng Constr 92: 141-2 My '54
Weld-surfacing of cement mill equipment. W. M. Davis. il Rock Prod 57:114+ F '54
See also
Cement kilns

Safety measures

National safety council Cement and quarry section annual meeting, Chicago, Oct. 19-23; with abstracts of papers. Rock Prod 56: 106+ N '53

CEMENT research
Prospective chemistry of cement and concrete; recent research on the hydration products of portland cement. N. C. Rockwood. Rock Prod 57:136+ Ag '54
Volume changes in frozen cement paste. N. C. Rockwood. Rock Prod 57:55+ Mr '54
See also
Cement laboratories

CEMENT sand molds. See Molds (for casting) —Cement sand molds

CEMENTS
Chemical resistant cement reference sheet; bleach-resistant cement. R. B. Seymour and R. H. Steiner. Chem Eng Prog 49:276 My '53
Chemical resistant cement reference sheet; epoxy cement. R. B. Seymour and R. H. Steiner. Chem Eng Prog 49:220 Ap '53
Epoxys for cements and coatings. R. B. Seymour and R. H. Steiner. Chem Eng 61: 244+ Ap '54
Materials of construction for chemical engineering. C. R. Payne. bibliog(66 ref) il Ind & Eng Chem 45:2185-8 O '53
New processing setup bonds brake linings faster; use of Cycleweld cement; Chrysler's Lynch Road plant. W. G. Patton. il Iron Age 172:162-4 N 19 '53
Physical properties of plasticized sulfur cements. A. C. Loewer and others. bibliog il Am Soc T M Proc 51:1234-47 '51
Properties of chemical engineering materials of construction. C. R. Payne. bibliog(p2282) Ind & Eng Chem 45:2274-5 O '53
Results of research on sulfur jointing compounds. R. B. Seymour and others. bibliog il Am Water Works Assn J 46:237-45; Discussion. E. F. Wagner. 245-8 Mr '54
See also
Adhesives
Resinous products—
Adhesives

CEMETERIES
Hovering sculpture by Carl Milles provides an inspirational highlight for a new kind of cemetery. il plan diag Arch Forum 97: 112-13 D '52

CENSUS

United States

Appraisal of the 1950 census income data. H. P. Miller. Am Stat Assn J 48:28-43 Mr '53
Business census funds denied. Oil Paint & Drug Rep 166:3+ Jl 26 '54
Census bureau study unit offers proposals. Oil Paint & Drug Rep 165:5+ Mr 8 '54
Full count; Secretary of commerce's revised census program. Chem W 74:23 Mr 13 '54
Indispensable benchmark; need for new censuses of manufactures and business. Chem W 74:32 Je 5 '54
Post-enumeration survey of the 1950 census; a case history in survey design. E. S. Marks and others. bibliog Am Stat Assn J 48:220-43 Je '53

CENTER for improving group procedures. See Columbia university—Center for improving group procedures

CENTERING (machine work)
Double V-gage centers drills to drill round stock. H. J. Gerber. diags Am Mach 98: 167 Mr 15 '54
Selection of center holes; reference book sheet. C. B. Christensen. diags Am Mach 97:171 D 7 '53
Self-centering vise automates simple processes. F. G. Gepfert. il Tool Eng 31:57-9 N '53

CENTRAL African federation. See Federation of Rhodesia and Nyasaland

CENTRAL AMERICA
See also
Chemical industries
—Central America

CENTRAL chemical association of Finland
Meeting, Helsinki, Sept. 25-29. Chem & Ind p 1137 O 24 '53

CENTRAL Eureka corporation
Stock offered. Comm & Fin Chr 178:851 S 7 '53

CENTRAL Hudson gas and electric corporation
Nears complete self-sufficiency in power. Barron's 34:29-30 Ja 18 '54

CENTRAL Illinois electric and gas company
Preferred stock offering. Comm & Fin Chr 179:202 Ja 18 '54
Stock offered. Comm & Fin Chr 178:1978+ N 23 '53

CENTRAL of Georgia railway
Dillard heads Central of Georgia. Ry Age 137:40 Jl 26 '54

CENTRAL standard insurance company of Sioux Falls
Central Standard is acquired by United Dye & Chemical. Nat Underw 58:2 Ag 12 '54; Discussion. V. D. Dardi. 58:57 O 7 '54

CENTRAL stations. See Electric plants (central stations)

CENTRAL supply association
Annual meeting, 59th, Chicago, Oct. 7-9. Dom Eng 182:131+ N '53

CENTRAL Valley project, California
California deal. Bsns W p29 D 26 '53
Cash purchase of CVP under a bond issue. Elec World News ed 139:44 Je 22 '53
CVP worth data provided preliminary to purchase by California. Elec World 140:73 N 30 '53

CENTRAL Vermont public service corporation
Public utility securities. O. Ely. Comm & Fin Chr 178:1649 O 29 '53

CENTRALIZED traffic control. See Railroads—Signals

CENTRIFUGAL casting. See Casting, Centrifugal

CENTRIFUGAL pumps. See Pumps, Centrifugal

CENTRIFUGATION
Chemical engineering unit operations; centrifugation. J. O. Maloney. bibliog(70 ref) il Ind & Eng Chem 46:72-4 Ja '54
Determination of activity coefficients by ultracentrifugation; ultracentrifugation of uranyl fluoride solutions. J. S. Johnson, K. A. Kraus and T. F. Young. bibliog Am Chem Soc J 76:1436-43 Mr 5 '54
Determination of concentrations in the ultracentrifugation of two-component systems. R. Trautman and others. bibliog il diag J Chem Phys 22:555-9 Mr '54
Generalization of the radial dilution square law in ultracentrifugation. R. Trautman and V. Schumaker. bibliog diag J Chem Phys 22:551-4 Mr '54
Variation of the sedimentation coefficient with time during a single velocity ultracentrifuge experiment. R. A. Alberty. bibliog Am Chem Soc J 76:3733-7 Jl 20 '54

CENTRIFUGES
Better wringing, dry product; improvements for crystal-dewatering centrifugal. diags Chem Eng 61:284 Ja '54
Broadbent and sons versatile centrifugal. il Chem Age (Lond) 71:661 S 25 '54
Centrifuge analysis for suspended solids in white water. E. A. Mason and R. R. Quincy. Tappi 36:467-9 O '53; Abstract. Paper Ind 35:1123 Ja '54
Centrifuge type of ultrafiltration apparatus. T. Y. Toribara. diags Anal Chem 25:1286 Ag '53
Centrifuges product from waste; Pleasant valley wine co. W. E. Doherty, jr. and others. il Food Eng 26:62-3+ Jl '54

CENTRIFUGES—*Continued*

Centrifuging solids from air. il diag Chem Eng 60:256 S '53

Characteristics of a Podbielniak centrifugal extractor. N. Barson and G. H. Beyer. bibliog(27 ref) il diags Chem Eng Prog 49: 243-52 My '53

Continuous multistage pusher-type centrifuge. D. E. Pierce. il diags Ind & Eng Chem 46:sup65A-6A+ Jl '54

Inside a spinning tube centrifugal liquid-liquid extraction. il diag Chem Eng 61: 284+ F '54

Interferometer for the measurement of sedimentation in a centrifuge. J. W. Beams and others. bibliog diags R Sci Instr 25: 295-6 Mr '54

Magnetic suspension ultracentrifuge of analytical importance. R. H. Müller. Anal Chem 26:sup43A-4A Ap '54

New pilot plant Super-D-Canter; model P-4. il Chem Age (Lond) 71:124 Jl 17 '54

Partition cell for Spinco preparatory ultracentrifuge. O. A. Schjeide and R. W. Dickinson. diags Anal Chem 25:999 Je '53

Sharples contactor is countercurrent. diag Chem & Eng N 31:5395 D 28 '53

Sharples 18V improved centrifuge. il Chem Age (Lond) 70:794 Ap 3 '54; Engineering 176:798 D 18 '53

Thermodynamic measurements of ultracentrifuge rotor temperature. A. Biancheria and G. Kegeles. bibliog il Am Chem Soc J 76:3737-41 Jl 20 '54

Use of the Schlieren optical system for sampling after preparative angle ultracentrifugation. S. Sorof. bibliog il Am Chem Soc J 75:5443-5 N 5 '53

CERAMIC art

Japanese Shippo-art enameling. D. V. Van Gordon. il Am Cer Soc Bul 33:37-41 F 15 '54

Merchandising in a modern manor; Sascha Brastoff products, inc. il Cer Ind 62:82-3+ My '54

See also

Pottery—Decoration

Exhibitions

Quality items favored at Chicago gift show. Cer Ind 62:101+ Mr '54

CERAMIC coating

Coatings from chemical solutions; solution ceramics. il Chem & Eng N 32:3614 S 13 '54

New role for ceramics; Armour research foundation process of coating surfaces. Chem W 75:52 S 11 '54

See also

Enamel and enameling

CERAMIC engineers

Ceramic engineers! where are they? Cer Ind 62:99 Mr '54

CERAMIC engineers, Institute of. See Institute of ceramic engineers

CERAMIC industries

Building ceramic volume through better design, marketing and advertising. B. Sackheim. Am Cer Soc Bul 33:41-2 F 15 '54

Ceramic association of New Jersey annual meeting, New Brunswick, Dec. 4. Cer Ind 62:168-9+ Ja '54; Am Cer Soc Bul 33:60-1 F 15 '54

Ceramic data book with suppliers catalogs and buyers' directory of equipment and materials, 1953-1954. 675p pa $2 Industrial publications, 5 South Wabash av, Chicago 3 '53

Ceramic production to gain new highs. Cer Ind 62:64-5+ Je '54

Design at management level pays off. Cer Ind 62:60 Je '54

Give them a reason to buy. D. Chapman. Am Cer Soc Bul 33:213-14 Jl 15 '54

How to increase production efficiency with air power. C. W. Ledig. il diags Cer Ind 63:62-3 S '54; Same. Brick & Clay Rec 125: 56-7 S '54

Packaging and its three vital functions. Cer Ind 62:61 Je '54

Survey of the industry. Cer Ind 62:61-2+ Je '54

See also

Brick industry and trade
Color in the ceramic industries
Enamel and enameling
Glass trade
Refractory materials

Canada

Recent developments in ceramics. I. F. Wright. Can Chem Process 38:64+ Ag '54

India

Silver jubilee reflections; Indian ceramic society. A. Ram. Am Cer Soc Bul 33:258-9 Ag 15 '54

Northwestern states

Ceramic industry of the Pacific Northwest; abstract. H. J. Kelly. Min Cong J 39:94 N '53

CERAMIC materials

Blending and conveying of ceramic raw materials by fluidization. R. A. Koble and others. il diag Am Cer Soc Bul 32:367-72 N 15 '53

Ceramic association of New Jersey annual meeting, New Brunswick, Dec. 4. Cer Ind 62:168-9+ Ja '54

Ceramic magnets focus tv tubes. J. A. Verhoef. il diags Electronics 26:238+ D '53

Ceramic materials complete directory; with information on formulas, physical characteristics, properties and their use in enamel, glass and pottery. Cer Ind 62:49-50+ Ja '54

Ceramics for high temperatures. A. Pechman. bibliog il Chem Eng 60:186-90 N '53

Crystal chemistry in ceramics. N. C. Rockwood. Rock Prod 56:69+ O '53

High Soviet claims for new ceramic material; TsM-332; abstract. I. I. Kitaigorodski. Materials & Methods 39:164+ Mr '54

Improved method of measuring thermal conductivity of dense ceramics. E. Ruh. il diag Am Cer Soc J 37:224-9 My 1 '54

Materials for special service; high-alumina ceramics. D. W. Luks. il Machine Design 26:133-6 My '54

Mean thermal conductivity conversion chart. Glass Ind 35:279 My '54

New type of magnet is composed of noncritical ceramic material called Indox. R. F. Smith. Elec Eng 73:102-3 Ja '54

Novel method for measuring particle sizes of ceramic mixtures. W. W. Perkins. il Cer Ind 63:76-7 Ag '54

Portable kiln speeds Coors Porcelain production. il Cer Ind 62:74-5+ F '54

Preparation of reproducible barium titanate. R. M. Callahan and J. F. Murray. Am Cer Soc Bul 33:131-3 My 15 '54

Processing studies on pure oxide bodies. L. R. McCreight. bibliog Am Cer Soc J 37: 378-85 Ag 1 '54

Progress in permeable porous ceramics. F. Singer. bibliog il Chem Age (Lond) 70:141-6 Ja 9 '54

Project Tinkertoy; ceramic wafers basis for speedier electric assembling. il Am Cer Soc Bul 32:437 D 15 '53

Raw material prices; tabulation. Cer Ind 62: 46 Ja '54

Recent developments in ceramics and glass; symposium. bibliog il diags Ind & Eng Chem 46:183-8 Ja '54

Research and development in the field of carbides, nitrides, silicides, and borides for aircraft propulsion. L. D. Richardson. Electrochem Soc J 101:sup222C-4C S '54

Russian anti-friction materials; abstract. I. V. Temkin. Materials & Methods 39:170-1 Mr '54

Skyscraper of aluminum and ceramics; Aluminum company of America. il Am Cer Soc Bul 32:389 N 15 '53

Synthetic mica investigations; low-shrinkage machinable ceramic of phosphate-bonded synthetic mica. J. E. Comeforo. Am Cer Soc J 37:427-32 S 1 '54

Thermal conductivity. W. D. Kingery and others. bibliog il diags Am Cer Soc J 37: 67-110 pt 2 F 1 '54

Thermal strains during firing of a ceramic body. S. P. Mitoff and J. A. Pask. diag Am Cer Soc J 37:168-72 Ap 1 '54

See also

Barium titanate
Bricks
Cermets
Clay
Clay products
Cordierite
Feldspar
Refractory materials
Silica
Silicates
Steatite
Talc

CERAMIC materials—*Continued*

Adhesion to metal

Frictional adhesion of metal to glass, quartz, and ceramic surfaces. R. B. Belser. il R Sci Instr 25:862-4 S '54

Electric properties

Advances in ceramics related to electronic tube developments. L. Navias. bibliog(36 titles) il diags Am Cer Soc J 37:329-50 Ag 1 '54
Ceramic dielectrics symposium, 18th, New Brunswick, N.J., March 10; abstracts of papers. Cer Ind 62:98-9 Je '54
Improved ceramic insulating material; Hylumina. il Engineer 197:289 F 19 '54; Engineering 177:253 F 19 '54
Piezoelectric properties of lead zirconate-lead titanate solid-solution ceramics. B. Jaffe and others. J Ap Phys 25:809-10 Je '54
Selected materials, micro-control, assure high precision steatite. flow sheet il Cer Ind 63:76-7+ Jl '54
Some dielectric properties of barium-strontium titanate ceramics at 3000 megacycles. L. Davis, jr. and L. G. Rubin. bibliog diags J Ap Phys 24:1194-7 S '53
Synthetic mica investigations; dielectric properties of hot-pressed synthetic mica and other ceramics at temperatures up to 400°C. J. E. Comeforo and R. A. Hatch. bibliog Am Cer Soc J 37:317-22 Jl 1 '54

Finishing

How to form and finish ceramics and glass. K. Rose. il Materials & Methods 40:104-6 Jl '54

Joining to metal

Ceramic-metal seals of the tungsten-iron type. D. G. Burnside. il diags RCA R 15:46-61 Mr '54
Metal-to-ceramic seals for magnetron waveguides. N. E. Pryslak. il Electronics 27:282+ Ja '54

Testing

Plastic deformation of ceramic-oxide single crystals. J. B. Wachtman, jr. and L. H. Maxwell. bibliog il diags Am Cer Soc J 37:291-9 Jl 1 '54
Properties of a tin oxide-base ceramic body. J. Quirk and C. G. Harman. Am Cer Soc J 37:24-6 Ja 1 '54
Standard tests; American ceramic society. Am Cer Soc Bul 33:248-51 Ag 15 '54
Statistical significance of the strength of brittle materials. O. K. Salmassy and others. bibliog(26 titles) Am Cer Soc Bul 33:240-3 Ag 15 '54

CERAMIC research

British ceramic research association. A. E. Dodd. il Metallurgia 48:180-2 O '53
Ceramic advisory committee notes on meeting with National bureau of standards, March 26-27. Am Cer Soc Bul 33:21-2 Ja 15 '54
Ceramic quick freeze. il Chem W 72:42-3 My 2 '53
Ceramics for aircraft propulsion systems. L. D. Richardson. Am Cer Soc Bul 33:135-7 My 15 '54
Ceramics research; Oak Ridge national laboratory. il Mech Eng 75:656 Ag '53; Steel 113:146+ Jl 20 '53; Tool Eng 31:78 Ag '53
Ceramics, tailor made; pictorial presentation of Bell telephone laboratories. Chem & Eng N 31:4218-19 O 12 '53
Data for interpretation of differential thermal curves. C. H. Bowen. Ohio State U [Columbus] Eng Exp Sta Circ 56:1-17 bibliog (p9-11) '54 (pa 50c)
List of ceramic research projects in 1953. Am Cer Soc Bul 32:424-31 D 15 '53
More physics for ceramicists; American ceramic society's annual meeting; abstracts of papers. Chem & Eng N 32:1877-8 My 10 '54
Orton foundation announces research grants. il Am Cer Soc Bul 33:121 Ap 15 '54
Particle-size distribution analysis by a modification of the turbidimetric procedure of Musgrave and Harner. R. S. Lamar. bibliog diags Am Cer Soc J 37:386-90 Ag 1 '54
Polymorphism of cordierite. M. D. Karkhanavala and F. A. Hummel. bibliog Am Cer Soc J 36:389-92 D 1 '53
Reactions in the system Li_2O-MgO-Al_2O_3-SiO_2; cordierite-spodumene join. M. D. Karkhanavala and F. A. Hummel. bibliog Am Cer Soc J 36:393-7 D 1 '53
Report of the committee on research, 1953-54. Am Cer Soc Bul 33:186-7 Je 15 '54
Solid solution and chromium oxide loss in part of the system MgO-Al_2O_3-$Cr_2O_3SiO_2$. I. Warshaw and M. L. Keith. bibliog(37 titles) Am Cer Soc J 37:161-8 Ap 1 '54
Studies on formation and recrystallization of intermediate reaction products in the system magnesia-silica-water. G. L. Kalousek and D. Mui. Am Cer Soc J 37:38-41 F 1 '54
Studies on the lime-rich crystalline solid phases in the system lime, silica, water. G. L. Kalousek and others. bibliog Am Cer Soc J 37:7-13 Ja 1 '54
System CaO-ZnO-SiO_2. E. R. Segnit. Am Cer Soc J 37:273-7 Je 1 '54
Thermal conductivity. W. D. Kingery and others. bibliog il diags Am Cer Soc J 37:67-100 pt 2 F 1 '54
Zirconia-titania system. F. H. Brown, jr. and P. Duwez. Am Cer Soc J 37:129-32 Mr 1 '54
See also
Enamel and enameling

CERAMICS

Check list for package design in the ceramic field. Cer Ind 63:60-1 Jl '54
Heat; how it is applied, contained and controlled in all of the ceramic industries. bibliog il diags Cer Ind 61:53-7 S; 51-5+ O; 45-6+ N; 53-4+ D '53; 62:53-4+ F; 55-6+ Mr; 145+ Ap; 53-4+ My; 71-2+ Je; 63:83+ Jl; 53+ Ag; 54+ S; 124-5+ O '54; Same abr. Brick & Clay Rec 123:41-5 S; 51-3+ O; 51-4+ N; 45-9 D '53; 124:93-5+ Ja; 69+ F; 97-8+ Mr; 99+ Ap; 63-4+ My; 79-80 Je; 125:63-4 Jl; 67+ Ag; 76-7 S '54
101 new ideas in action; practical plant operating ideas. il Cer Ind 62:68-9+ Ap '54
Radioceramics symposium. Am Cer Soc Bul 33:59 F 15 '54
Role of ceramics in atomic energy; symposium; with abstracts of papers. Cer Ind 62:85+ F '54
Symposium on crystal chemistry as applied to ceramics, 7th; abstracts of papers on silica. Glass Ind 35:375-6 Jl '54; Cer Ind 63:74+ S '54
See also
Brickmaking
Cement
Clay
Clay products
Enamel and enameling
Fire brick
Frits
Glass
Glass manufacture
Glazes
Kilns
Porcelain
Pottery
Refractory materials
Tiles
Wollastonite

Bibliography

Bibliography of selected AEC reports of interest to industry; pt. 1, Metallurgy and ceramics. 38p Industrial information branch, United States Atomic energy commission, Washington 25 '53
Ceramic abstracts. Published in monthly numbers of Journal of the American ceramic society

Study and teaching

Education in ceramics at Iowa State. il Am Cer Soc Bul 33:184-5 Je 15 '54
Enrollment problem in our ceramic schools. R. R. Danielson. Am Cer Soc Bul 33:25-6 Ja 15 '54
Seek answers to low enrollments in ceramic schools. E. E. Mueller. Am Cer Soc Bul 33:254 Ag 15 '54
Undergraduate scholarships in ceramic engineering. J. I. Mueller. Am Cer Soc Bul 33:151 My 15 '54

CERATES

Accuracy of determination of hydrogen peroxide by cerate oxidimetry. E. C. Hurdis and H. Romeyn, jr. bibliog diag Anal Chem 26:320-5 F '54

CERATOPETALUM

Friedelin and *epi*friedelinol from ceratopetalum apetalum D.Don. P. R. Jefferies. Chem Soc J p473-4 Ja '54

CEREALS. See Grain

CEREALS, Prepared

Gerber's quads; variety baby-cereal pack. il Mod Packaging 27:116-18 Ja '54

Kellogg's Norman Rockwells; magazine-cover carton technique. il Mod Packaging 28:122-3 S '54

New luminescent technique; Quaker's cereal cartons. il Mod Packaging 27:114-15+ N '53

Advertising

Premium with a purpose; to establish products in new markets; Van Brode milling co. il Ptr Ink 243:99 Ap 24 '53

Premium with a purpose; to overcome new competition; Nabisco's shredded wheat. il Ptr Ink 243:92+ Ap 24 '53

CEREBRONIC acid

Configuration of cerebronic acid. K. Mislow and S. Bleicher. bibliog Am Chem Soc J 76:2825-6 My 20 '54

ČERENKOV effect

Čerenkov effect and the dielectric constant. S. M. Neamtan. bibliog Phys R 92:1362-7 D 15 '53

ČERENKOV radiation. See Radiation

ČERENKOV radiation counter. See Counters (electrons, ions, etc.)

CEREVISTEROL

Ergosta-7 : 22-diene-3β : 5α : 6β-triol [cerevisterol]. J. G. Blears and C. W. Shoppee. Chem & Ind p947 S 5 '53

CERIC iodate

Separation of cerium from the rare earths by precipitation as iodate from homogeneous solution. H. H. Willard and S. T. Yu. il Anal Chem 25:1754-6 N '53

CERIUM

Coulometric titration of *p*-methylaminophenol sulfate and hydroquinone by cerium(IV). N. H. Furman and R. N. Adams. bibliog Anal Chem 25:1564-5 O '53

Heat of combustion of cerium. E. J. Huber, jr. and C. E. Holley, jr. bibliog Am Chem Soc J 75:5645-7 N 20 '53

Oxidation of methanol by nitric acid solutions of quadrivalent cerium. D. A. Skoog and Sister M. Budde. Anal Chem 25:822-3 My '53

Sensitized luminescence of CaF_2:(Ce + Mn). R. J. Ginther. bibliog Electrochem Soc J 101:248-57 My '54

Spectrophotometric investigation of the cerium(IV)-chromium(VI) complex ion equilibria in perchloric acid solution. J. Y. Tong and E. L. King. bibliog Am Chem Soc J 76:2132-5 Ap 20 '54

Analysis

Radiochemical determination of neodymium, praseodymium, and cerium in fission products. H. G. Petrow. bibliog Anal Chem 26:1514-15 S '54

Separation of cerium from the rare earths by precipitation as iodate from homogeneous solution. H. H. Willard and S. T. Yu. il Anal Chem 25:1754-6 N '53

Ultraviolet spectrophotometric determination of cerium. G. Telep and D. F. Boltz. Anal Chem 25:971-3 Je '53

Nuclear reactions

New 3.0-min Ce fission product and its 5.95-hr Pr daughter. S. S. Markowitz and others. bibliog Phys R 93:178-80 Ja 1 '54

Nuclear spectra of Ce^{144} and Pr^{144}. W. S. Emmerich and others. bibliog diag Phys R 94:110-12 Ap 1 '54

Photoprotons from In, Ce, and Bi. M. E. Toms and W. E. Stephens. bibliog Phys R 92:362-6 O 15 '53

Radiations of 13.9-min Ce^{146} and 24.4-min Pr^{146}. W. Bernstein and others. bibliog il Phys R 93:1073-5 Mr 1 '54

Spectrum

Isotope shift in the $_{58}$Ce II spectrum. H. Arroe. Phys R 93:94 Ja 1 '54

CERIUM alloys

Creep behavior of magnesium-cerium alloys. C. S. Roberts. bibliog il J Metals 6:Trans 634-40 sec 2 My '54

CERIUM chloride

Kinetics of the cerium (IV)-chloride reaction; the cerium(IV)-thallous reaction in the presence of chloride. F. R. Duke and C. E. Borchers. bibliog Am Chem Soc J 75:5186-8 N 5 '53

CERIUM perchlorate

Influence of perchloric acid and cerous perchlorate upon the photochemical oxidation of cerous to ceric perchlorate in dilute aqueous perchloric acid. L. J. Heidt and A. F. McMillan. bibliog diag Am Chem Soc J 76:2135-9 Ap 20 '54

CERIUM sulfate

Cerium(IV); sulfate oxidation of phenols. W. R. Spencer and F. R. Duke. bibliog Anal Chem 26:919-20 My '54

Decomposition of hydrogen peroxide by ceric salts; the action of ceric sulphate. S. Baer and G. Stein. Chem Soc J p3176-9 O '53

CERMETS

Bonding in cermets. L. S. Williams and P. Murray. bibliog Metallurgia 49:210-17 My '54

Borides designed for high temperature use. P. Schwarzkopf and F. W. Glaser. il Iron Age 173:138-9 Ap 1 '54

Ceramics for high temperatures. A. Pechman. bibliog il Chem Eng 60:186-90 N '53

Cermet development, U.S.A. V. D. Frechette. il Cer Ind 63:79-80+ S '54

Cermets for high temperatures; abstract. R. Steinitz. Materials & Methods 40:152 Ag '54

Flame spraying; answer to ceramic coating problem; Ryan aeronautical co. il Steel 134:106 Ap 26 '54

Fundamental study and equipment for sintering and testing of cermet bodies; fabrication, testing, and properties of 72 chromium-28 alumina cermets. T. S. Shevlin. il Am Cer Soc J 37:140-5 Mr 1 '54

Heat and corrosion resistant materials. il Steel 133:173+ O 12 '53

High temperature protection of a titanium carbide cermet. J. R. Wilson. diags Am Cer Soc Bul 32:375-6 N 15 '53

Metal ceramic interactions; absolute measurement of metal-ceramic interfacial energy and the interfacial adsorption of silicon from iron-silicon alloys. W. D. Kingery. bibliog diags Am Cer Soc J 37:42-5 F 1 '54

Metal ceramic interactions; factors affecting fabrication and properties of cermet bodies. W. D. Kingery. bibliog Am Cer Soc J 36:362-5 N 1 '53

Metal-ceramic interactions; metal-oxide interfacial reactions at elevated temperatures. G. Economos and W. D. Kingery. bibliog il diag Am Cer Soc J 36:403-9 D 1 '53

Metal-ceramic interactions; surface tension and wettability of metal-ceramic systems. M. Humenik, jr. and W. D. Kingery. il diags Am Cer Soc J 37:18-23 Ja 1 '54

Metal-ceramic wall lengthens thermocouple life. P. B. McSherry. il diags Iron Age 172:100-1 O 29 '53

New carbide-base cermet containing TiC, TiB_2, and CoSi. H. M. Greenhouse and others. il Am Cer Soc J 37:203-6 My 1 '54

New refractory hard metals. J. L. Everhart. il Materials & Methods 40:90-2 Ag '54

Oxidation resistances of ternary mixtures of the carbides of titanium, silicon, and boron. O. E. Accountius and others. il Am Cer Soc J 37:173-7 Ap 1 '54

Silicon-base cermets and related observations. B. C. Weber and P. S. Hessinger. bibliog il Am Cer Soc J 37:267-72 Je 1 '54

Sintered refractory alloys. A. Carter. bibliog(27 ref) il Metallurgia 49:8-14 Ja '54; Abstract. Materials & Methods 40:165-6 Jl '54

Super refractories for use in jet engines; cermets. W. L. Havekotte. il Metal Prog 64:67-70 D '53

Two new high temperature coatings. A. Pechman. il Materials and Methods 39:94-6 Ap '54

CERTIFICATES of indebtedness. See Treasury certificates of indebtedness

CESIUM

Adsorption studies on clay minerals; the system montmorillonite-cesium-potassium. J. A. Faucher and H. C. Thomas. bibliog J Chem Phys 22:258-61 F '54

Slow neutron resonances in cesium, palladium, and gold. H. H. Landon and V. L. Sailor. bibliog Phys R 93:1030-3 Mr 1 '54

CESIUM—*Continued*

Analysis

Flame spectrophotometric analysis of glasses and ores; lithium, sodium, potassium, rubidium, and cesium. J. P. Williams and P. B. Adams. bibliog Am Cer Soc J 37:306-11 Jl 1 '54

Isotopes

Cesium radio isotope; new tool for parts inspection. J. M. Thompson and P. A. Glenn. il diags Iron Age 172:174-6 S 10 '53

Inner bremsstrahlung of Cs^{131}. B. Saraf. bibliog diags Phys R 94:642-7 My 1 '54

New tool for cancer research; cesium-137. il Chem & Eng N 32:2100 My 24 '54; Chem Eng Prog 50:sup 46 Je '54

Nuclear spin and hyperfine structure interaction of the 3.1-hr Cs^{134} isomer. V. W. Cohen and D. A. Gilbert. Phys R 95:569 Jl 15 '54

Nuclear spin and magnetic moment of 3.1 hr Cs^{134m}. L. S. Goodman and S. Wexler. Phys R 95:570 Jl 15 '54

Protection against radiations from radium, cobalt-60, and cesium-137. U S Nat Bur Stand Handbook 54:1-60; pa 25c Supt. of doc. '54

Spectrometer studies of the radiations of neutron deficient isotopes of cesium and of the $E3$ isomers, Xe^{127m} and Xe^{125m}. H. B. Mathur and E. K. Hyde. bibliog diags Phys R 95:708-16 Ag 1 '54

Nuclear reactions

Decay of Cs^{134m} (3.1 hr). A. W. Sunyar and others. Phys R 95:570-2 Jl 15 '54

Energy determination of Cs^{137} K conversion electrons. S. K. Bhattacherjee and others. bibliog Phys R 95:404-6 Jl 15 '54

Reactions of cesium with 240-Mev protons. R. W. Fink and E. O. Wiig. bibliog diag Phys R 94:1357-61 Je 1 '54

CESIUM aluminum silicates

Hydrothermal chemistry of silicates; rubidium and cæsium aluminosilicates. R. M. Barrer and N. McCallum. 2pls Chem Soc J p4029-35 D '53

CESIUM bromide

Refractive index of cesium bromide for ultraviolet, visible, and infrared wavelengths. W. S. Rodney and R. J. Spindler. bibliog il J Res Nat Bur Stand 51:123-6 S '53

Spectrum

Microwave spectra of CsF, CsCl, and CsBr. A. Honig and others. bibliog Phys R 92:901-2 N 15 '53

CESIUM chloride

Diffusion coefficient of cesium chloride in dilute aqueous solution at 25°. H. S. Harned, M. Blander and C. L. Hildreth, jr. Am Chem Soc J 76:4219-20 Ag 20 '54

Spectrum

Microwave spectra of CsF, CsCl, and CsBr. A. Honig and others. bibliog Phys R 92:901-2 N 15 '53

CESIUM chlorocobaltate

Spectrum

Absorption spectrum of Cs_2CoCl_4 at liquid nitrogen temperatures. L. I. Katzin. bibliog Am Chem Soc J 76:3089-90 Je 5 '54

CESIUM fluoride

Spectrum

Microwave spectra of CsF, CsCl, and CsBr. A. Honig and others. bibliog Phys R 92:901-2 N 15 '53

CESIUM iodide

Infrared measurements with a cesium iodide prism. N. Acquista and E. K. Plyler. Opt Soc Am J 43:977-9 N '53

Physical properties of crystalline cesium iodide. S. S. Ballard and others. il Opt Soc Am J 43:975-6 N '53

CETANE number

Cetane calculator; a tool for Diesel engine trouble-shooter. F. Carter. il Power 98:126-7 My '54

CEVACINE

Schoenocaulon alkaloids; active principles of schoenocaulon officinale; cevacine and protocevine. S. M. Kupchan and others. bibliog Am Chem Soc J 75:5519-24 N 20 '53

CEVAGENIN

Conversion of cevagenin into a diosphenol. E. Sundt and others. bibliog Chem & Ind p 1365-6 D 19 '53

CEVINE

Functional groups of cevine. D. H. R. Barton and C. J. W. Brooks. bibliog Chem & Ind p 1366 D 19 '53

Methanolysis of some acetyl derivatives of cevine. W. J. Rosenfelder. Chem Soc J p2638-9 Jl '54

Nature of anhydrocevine. D. H. R. Barton and J. S. Fawcett. bibliog Chem & Ind p615 Je 20 '53

Steroidal alkaloids; some observations on the constitution of cevine. D. H. R. Barton, C. J. W. Brooks and J. S. Fawcett. Chem Soc J p2137-43 Je '54

CEYLON

Commercial policy

Peking's new deal with Ceylon. Economist 169:165-6 O 17 '53

Economic conditions

Economic conditions abroad. For Comm W 51:4-5 F 8 '54

Economic policy

Troubles in Ceylon. Economist 168:439-40 Ag 15 '53

Politics and government

Riots in Ceylon. Economist 168:574+ Ag 29 '53

CHAETOMIUM globosum

Synthesis of oligosaccharides by chaetomium globosum. H. W. Buston and A. Jabbar. Chem & Ind p48 Ja 9 '54

CHAIN conveyors. See Conveying machinery—Chain conveyors

CHAIN gear

Facts about modern chain drives. il diags Mill & Factory 54:176-7 My '54

Guide to roller-chain lubrication and maintenance. diags Power 98:124-5 S '54

Install and cut your roller chain right for long life. il Power 98:114-15 Ag '54

Is your chain drive in good shape? chart. Power Eng 58:73 My '54

Taper lock chain sprockets; reference book sheet. R. J. Howison. il diag Am Mach 97:173, 175 N 9 '53

Lubrication

How to lubricate your chain drive. A. F. Brewer. il diags Power Eng 57:68-9+ D '53; 58:83-4 Ja '54

CHAIN saws. See Saws, Chain

CHAIN stores

Getting out of a trap; Butler bros. chain of small, independent, variety stores. Bsns W p46+ S 26 '53

Trends in retail sales. Survey of Cur Bsns 33:5-9 S '53

See also

Allied stores corporation
Grand Union company
Woolworth, F. W., company

Advertising

Chain store aid upped through Bureau of advertising Sales department. M. C. Wallis. Ed & Pub 86:16+ Mr 21 '53

Securities

Earnings, dividend outlook for chain store stocks; with table of 1952-1953 record of 29 leading chain stores. E. H. Carter. Mag of Wall St 93:326-8+ D 12 '53

Statistics

Retail trade; multiunit firms with four or more and 11 or more stores, 1949-1952. Survey of Cur Bsns 1953 Sup p49-50 [supplemented in monthly numbers]

CHAINS

Inspect those chains! H. F. Reid, jr. il diag Nat Safety N 69:32-3+ My '54

CHAINS—*Continued*

Know your chain. H. E. McCarthy and H. F. Reid. il Steel 134:92-3 F 1 '54

Load-bearing chain. Nat Safety N 69:173 Mr '54

No mystery about chain failures. N. J. Gebert. il diags Nat Safety N 68:30-1 N '53

Roller-chain links for odd jobs. H. Murro. diags Am Mach 98:127 Mr 29 '54

See also

Chain gear

Manufacture

Ancient skills, modern tools combine to make buoy chain; Cleveland chain and manufacturing co. il Iron Age 173:42 Ja 21 '54

CHAINS, Chemical

Chain transfer in the polymerization of styrene; chain transfer with bromobenzene and mechanism of thermal initiation. F. R. Mayo. bibliog Am Chem Soc J 75:6133-41 D 20 '53

Critique of a method of treating the effect of excluded volume in polymer chains. R. J. Rubin. bibliog J Chem Phys 22:241-2 F '54

Cross linking in natural rubber vulcanizates. H. E. Adams and B. L. Johnson. bibliog (25 ref) diags Ind & Eng Chem 45:1539-46 Jl '53

Different configurations of the side chain in spirostan sapogenins. R. K. Callow and V. H. T. James. bibliog Chem & Ind p691-2 Je 12 '54

Doubling of fluorinated chains. A. L. Henne. Am Chem Soc J 75:5750 N 20 '53

Effect of chain branching on electrochemical carbon-halogen bond fission. P. J. Elving and others. bibliog(36 ref) Electrochem Soc J 101:195-202 Ap '54

Effect of side chain on the chromatographic adsorption of some ketones on carbon. E. D. Smith and A. L. LeRosen. bibliog Anal Chem 26:928-9 My '54

Excluded volume in polymer chains. B. H. Zimm and others. bibliog J Chem Phys 21:1716-23 O '53

Experiments on the side-chain of euphadienol. S. A. Knight and J. F. McGhie. bibliog Chem & Ind p24-5 Ja 2 '54

How polyethylene crosslinks. M. Dole and others. Chem & Eng N 32:1342 Ap 5 '54

Molecular structure of polyethylene; chain branching in polyethylene during polymerization. M. J. Roedel. bibliog Am Chem Soc J 75:6110-12 D 20 '53

Molecular structure of polyethylene; determination of long chain branching. F. W. Billmeyer, jr. bibliog Am Chem Soc J 75:6118-22 D 20 '53

Molecular structure of polyethylene; determination of short chain branching. W. M. D. Bryant and R. C. Voter. bibliog Am Chem Soc J 75:6113-18 D 20 '53

Molecular structure of polyethylene; kinetic calculations of the effect of branching on molecular weight distribution. J. K. Beasley. bibliog Am Chem Soc J 75:6123-7 D 20 '53

Molecular structure of polyethylene; the effect of chain branching and molecular weight on physical properties. C. A. Sperati, W. A. Franta and H. W. Starkweather, jr. bibliog Am Chem Soc J 75:6127-33 D 20 '53

New type of chain transfer reaction. D. I. Relyea and D. F. DeTar. Am Chem Soc J 76:1202 F 20 '54

Short chains; key to polymer control. Chem W 74:44+ F 6 '54

Specific fission of peptide links by chemical means. A. R. Battersby and J. C. Robinson. bibliog Chem & Ind p45 Ja 9 '54

Studies on the chlorination of the side chains of alkylaromatic compounds. P. G. Harvey and others. bibliog J Ap Chem 4:319-25 Je '54

Volume exclusion effect in flexible chains. H. M. James. bibliog J Chem Phys 21:1628-36 O '53

CHAIRS

Contour chair story; new twist in selling furniture. R. M. Harmer. il Am Bsns 23:28+ D '53

Please be seated comfortably. S. M. Richman. il Spectator 162:29+ Ja '54

CHALCEDONY

See also

Jasper

CHALCONES

Copolymerization of alpha, beta-unsaturated ketones. C. S. Marvel and others. bibliog Ind & Eng Chem 45:1532-8 Jl '53

Evidence for the *cis-trans* configurations and effective conjugations of α-phenylchalcones. W. B. Black and R. E. Lutz. bibliog Am Chem Soc J 75:5990-7 D 5 '53

Reactions of *p*-dimethylaminochalcones with acetic anhydride. G. Branch and J. F. Thomas. Am Chem Soc J 76:2176-7 Ap 20 '54

Rearrangement of α,β-epoxy ketones; chalcone oxides. H. O. House. bibliog Am Chem Soc J 76:1235-7 Mr 5 '54

Spectra

Absorption spectra of the 2-furyl and 2-thienyl analogs of chalcone. H. H. Szmant and H. J. Planinsek. bibliog Am Chem Soc J 76:1193-4 F 20 '54

CHALCOPHANITE

Nonequivalent zinc bonds in chalcophanite. D. P. Craig and A. D. Wadsley. J Chem Phys 22:346-7 F '54

CHALK

Fair exchange for quality; Britons angling for American markets. il Chem W 73:26-7 D 26 '53

See also

Whiting

CHAMAECYPARIS nootkatensis

Occurrence of carvacrol methyl ether in the heartwood of chamaecyparis nootkatensis (Lamb.) Spach. S. R. Duff and H. Erdtman. Chem & Ind p747-8 Jl 18 '53

CHAMAZULENE

Chamazulene precursor from chamomile. Z. Čekan and others. bibliog Chem & Ind p604-5 My 22 '54

CHAMBER of commerce of the United States

Lauds U.S. Chamber for grass roots work; insurance has much at stake. C. F. J. Harrington. East Underw 54:41 O 9 '53

Insurance department

Insurance committee members; list. East Underw 55:23+ Jl 23 '54

CHAMOMILE. See Camomile

CHAMPAIGN-URBANA, Illinois

Price variability of non-branded food items among food stores. R. D. Millican and R. J. Rogers. J Marketing 18:282-4 Ja '54

CHAMPION paper and fibre company

Champion says it with movies. il Bsns W p94+ Ag 1 '53

Well-balanced product line keeps its sales rising. W. E. Higbee. Barron's 34:17+ Ja 4 '54

CHANDIGARH, India

East Punjab starts from scratch to build new capital city. il Eng N 151:65-6+ S 10 '53

What Corbu has been up to; building an entire new city in India. il plans diags Arch Forum 99:142-9 S '53

CHANNELS

Flood control works on the river Welland. il map diags Engineer 197:233-6 F 12 '54

Investigation of turbulent flow in a two-dimensional channel. J. Laufer. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:1247-66 '52

Laminar flow in channels with porous walls. A. S. Berman. bibliog J Ap Phys 24:1232-5 S '53

Progress report on studies on the design of stable channels by the Bureau of reclamation. E. W. Lane. Am Soc C E Proc 79 [no 280]:1-31 S '53

CHAPEL HILL, North Carolina

Sewerage

Sewage treatment; town and gown partnership; Chapel Hill and the University of North Carolina. J. L. Morrison. il Pub Works 84:65-6 D '53

CHAPELS

Campus chapel by Ernest Born; Pacific school of religion. il plans Arch Forum 97:102-5 D '52

CHAPELS—*Continued*

Re-lighting a seminary chapel. il Illum Eng 49:457-8 S '54

Saarinen challenges the rectangle, designs a domed auditorium and cylindrical chapel for MIT's laboratory campus. il plans diags Arch Forum 98:126-33 Ja '53

Summer chapel, Warren Memorial chapel, Monteagle, Tenn. il Arch Forum 97:98 D '52

Three religions at one fount; chapel group for three major faiths; Brandeis university. il plan Arch Forum 101:134-5 S '54

CHARCOAL

Brazilian charcoal blast furnace practices. L. Ensch. diags Blast F & Steel Pl 42: 1053-8 S '54

Charcoal grilling made easy; Reynolds Wrap grill. il Mod Packaging 27:128-30+ Jl '54

Place to hide; diffusion board offers family protection to known chemical and biological warfare agents; abstract. W. M. Creasy. il Chem & Eng N 32:2202 My 31 '54

Spectrum

Infrared spectra of coal and carbohydrate chars. R. A. Friedel and M. G. Pelipetz. bibliog diags Opt Soc Am J 43:1051-2 N '53

CHARCOAL, Activated. See Carbon, Activated

CHARITABLE trusts. See Trusts and trustees —Charitable trusts

CHARITIES

Philanthropy in banking; Hanover bank, New York. C. R. Smith. il Bankers Mo 70:7-8+ O '53

See also

Corporations—Charities

Money raising campaigns

Advertising

Spend a dollar and get back six; philanthropic organization has found new source of income, advertising; Save the children federation. R. J. Flood. il Ptr Ink 243:36-7 Ap 10 '53

Law

Charitable organizations; re-examination of underlying policies of law. J. O. Wynn. Trusts & Estates 92:762-6 O '53

CHARITIES, Business. See Corporations—Charities

CHARLESTON, South Carolina

Water supply

50-mgd water supply at low cost. il Constr Methods 36:58-60 Ap '54

CHARLOTTE, North Carolina

Model industrial community expanding. il Manuf Rec 123:40-1 My '54

CHARNOCKITES

Origin of charnockitic assemblages of east Manbhum, Bihar. S. Sen. bibliog Am J Sci 251:388-92 My '53

CHARTERED buses. See Motor buses—Chartering

CHARTERED life underwriters, American society of. See American society of chartered life underwriters

CHARTERED property and casualty underwriters. See American institute for property and liability underwriters

CHARTERED property and casualty underwriters, Society of. See Society of chartered property and casualty underwriters

CHARTS (calculating)

Antenna-matching network efficiency. R. L. Tanner. diags Electronics 26:142-3 N '53

Audio transformer design charts. T. Halabi. diags Electronics 26:193-4+ O '53

Chart aids estimation of latent heats of vaporization. R. Lemlich and R. Hoke. Chem Eng 61:226 Ap '54

Chart for mass flow of air in drying. R. W. Hyndman and others. Chem & Ind p560-1 My 15 '54

Chart for threading time; reference book sheet. T. Hicks. Am Mach 98:135 Mr 1 '54

Chart gives vessel wall and weight for estimating. R. B. Reed. Chem Eng 61:228+ Ja '54

Chart simplifies design of gear pumps; data sheet. R. J. Auman. diag Machine Design 26:185-7 Mr '54

Charts for designing air chambers for pump discharge lines. W. E. Evans and C. C. Crawford. diags Am Soc C E Proc 79 [no 273]:1-17 S '53

Charts for obtaining geometrical corrections directly from anti-equi-inclination photographs. G. Kartha. R Sci Instr 24:871 S '53

Charts for stress visualization; data sheet. F. W. Kinsman. Machine Design 26:191-3 F '54

Charts give water solubility of helium, hydrogen, nitrogen and oxygen. D. S. Davis. Chem Eng 61:228+ F '54

Charts simplify design of positive-displacement pumps and motors; data sheet. R. J. Auman. diags Machine Design 26:209-13 S '54

Compressibility chart for hydrogen and inert gases. F. D. Maslan and T. M. Littman. bibliog Ind & Eng Chem 45:1566-8 Jl '53

Computation charts and theory for rectangular and circular jets. H. G. Elrod, jr. bibliog Heating-Piping 26:149-55 Mr '54

Do you keep books on your rotary drilling lines? charts. Oil & Gas J 52:74-6+ N 23 '53

Equations and charts for the rapid estimation of hinge-moment and effectiveness parameters for trailing-edge controls having leading and trailing edges swept ahead of the Mach lines. K. L. Goin. bibliog diags U S Nat Advisory Com for Aeronautics 1951:937-1007 '52

Estimation of hydrocarbon composition of natural gas from absorption index and specific gravity. T. W. Legatski and others. Pet Refiner 32:105-8 Ag '53; Same. Oil & Gas J 52:292-4+ Jl 27 '53

Figure contents of rectangular tanks. L. J. Murphy. Mill & Factory 55:114 Jl '54

Graph aids in specifying insulation. Gas Age 114:30-1 Jl 1 '54; Same. Heat & Ven 51: 81-2 Ag '54

Handy chart aids in solving pipe-line suspension problems and restoring flood-interrupted service. C. A. Sweningsen. diags Oil & Gas J 52:107-8+ Ag 10 '53

Handy pressure-conversion chart; data sheet. S. D. Distelhorst. Power 98:101 S '54

How to evaluate Uster charts. E. H. Bond. Mod Textiles Mag 35:36+ Ap '54

How to find vacuum-system leakage. Mill & Factory 54:103 Ja '54

How to use the new generalized compressibility charts. L. C. Nelson and E. F. Obert. Chem Eng 61:203-8 Jl '54

Index tolerance chart simplifies production. A. Johnson. il diags Tool Eng 32:53-62 F '54

Log-log plot speeds up finding circle areas. G. J. Weiss. Chem Eng 61:232 F '54

New chart for the solution of transmission-line and polarization problems. G. A. Deschamps. diags Elec Com 30:247-54 S '53

Paying for machine tools; chart. Mill & Factory 54:130 F '54

Pick best machine tool for your job. L. J. Murphy. Mill & Factory 55:88 Jl '54

Pipe sizing charts. W. W. Gaylord. Power Eng 58:78-9 F '54

Preparing preliminary job estimates; charts for quick plant costimating. W. W. Bond. Oil & Gas J 52:106-7+ D 14 '53

Quick way to figure machine interference; data sheet. D. Jones. Factory Management 112:132 Jl '54

Rectifier regulation chart. R. Lee. diag Tele-Tech 19:97+ O '53

Solution of problems in odd job vapor coating. W. L. Bond. diags Opt Soc Am J 44: 429-38 Je '54

Stainless steel selector developed. Blast F & Steel Pl 42:sup56 Ap '54

Thermal conductivity chart for gases. A. I. Johnson and C. Huang. Chem Eng 61:204-5 F '54

Tolerance conversion chart; reference sheet. A. Johnson. Tool Eng 32:89 F '54

Unit time to change dull tools. Mill & Factory 55:109 Ag '54

Why do unnecessary work? these charts avoid volt-drop figuring. Power Eng 58:82 Ja '54

See also

Nomographs

CHARTS, Aeronautic. See Air navigation—Charts

CHARTS, Business. See Business charts

CHASE, William D.
Flint Journal librarian, active Shaw admirer. R. Johns, jr. Ed & Pub 86:50 Mr 28 '53

CHASE aircraft company
Chase Aircraft splits into two companies. Aviation W 59:14 S 7 '53
Chase reported sold to Kaiser interests. Aviation W 59:19 Ag 10 '53

CHATTEL mortgage insurance. See Insurance, Chattel mortgage

CHAYEN process. See Oils and fats

CHECKER brick
Good checkers need not be cleaned. O. F. Gayton. Blast F & Steel Pl 42:sup 104+ Ap '54
Improved cleaning techniques for open hearth checkers. J. J. Enochs and R. Kincaid. il diag Iron & Steel Eng 31:79-82; Discussion. 82-3 Ag '54
Simple formulas to calculate checkerbrick requirements. G. H. Knobloch. Gas Age 112: 66-9 O 22 '53

CHECKS
Mechanization of check handling; ABA committee program. Banking 46:164 F '54
Selling customers on a new money order service; register checks; Security-First national bank of Los Angeles. L. E. Friese. il Burroughs Clearing House 38:34-5+ D '53
Writing of checks. Consumers Res Bul 32: 23-4 O '53
See also
Travelers' checks

Collection

Flying messenger service expedites check clearings; Bank of America. T. E. Risso. il Burroughs Clearing House 38:26 Ja '54

Law

Bank giving immediate credit for collection item is owner, not agent of depositor; Texas' Court of civil appeals. Banking 46:92 F '54
Checks; drawee bank not liable to drawer for honoring check made payable to nonexistent corporation. Banking 46:84 Ag '53
Decedent's check; bank may take reasonable time to decide whether to pay; Massachusetts Supreme court. Banking 46:94-5 F '54
Fictitious payee; casher of checks drawn to fictitious payees, held liable to drawer. Banking 46:74+ Ja '54
Guaranty of indorsements. F. C. Fiechter, jr. Burroughs Clearing House 37:83-4 S '53
Incompetent's checks. Banking 46:109-11 N '53
Uniform commercial code; effect upon the A.B.A. fictitious payee act. T. B. Paton. Banking 46:88+ F '54
See also
Checks, Fraudulent

CHECKS, Forged. See Checks, Fraudulent

CHECKS, Fraudulent
False pretenses on the premises; bank's indemnity bond covers loss from deposit of worthless checks. J. R. Vincens. Banking 46:76 O '53
Fidelity bond coverage; kited checks. F. C. Fiechter, jr. Burroughs Clearing House 38:75-6 O '53
Forgery bond; New York casualty co. v. Sazenski. F. C. Fiechter, jr. Burroughs Clearing House 38:87-8 F '54
12 keys to lock out check forgers who cost public $400 millions a year. G. W. Adlam. Credit & Fin Management 55:31 O '53
White-collar crooks; abstract. Management R 43:238-9 Ap '54

CHECKS, Government
Substitute and uncurrent checks. Banking 46: 149 F '54

CHECKS, Travelers'. See Travelers' checks

CHEESE
Microbiology of different types of cheese; abstract and discussion. J. G. Davis. Chem & Ind p 1336 D 12 '53
Mug appeal; re-use premium promotion of cottage cheese. il Mod Packaging 27:78-9 Ap '54
Stripcoating for cheese; special wax and plastic lacquer. il Mod Packaging 27:95-7+ J[illegible] '54

Manufacture

Antibiotic nisin and its use in the making and processing of cheese. N. J. Berridge. bibliog Chem & Ind p 1158-61 O 31 '53
Cheese making; United dairies, ltd. il Elec R (Lond) 154:225-7 F 5 '54
Step type modernizing cuts cheese costs; Langlois cheese makers. V. N. Smith. il Food Eng 26:97-100+ F '54
They took the plod out of fresh-cheese making; Aiello dairy farms co. A. V. Gemmill. il Food Eng 25:78-9+ D '53

Statistics

Dairy products, 1949-1952. Survey of Cur Bsns 1953 Sup p 135 [supplemented in monthly numbers]

CHEESE factories

Electric equipment

Cheese making; United dairies, ltd. il Elec R (Lond) 154:225-7 F 5 '54

Equipment

Electric trucks fill gap in process line; Kraft cheese co. il Food Eng 26:51 Mr '54
Engineered press simplifies cheese handling. R. R. Haugh. diags Food Eng 25:88-9 N '53
Meet the Kasefertiger mechanical cheesemaker. il Food Eng 26:89 Ap '54
Step type modernizing cuts cheese costs; Langlois cheese makers. V. N. Smith. il Food Eng 26:97-100+ F '54

CHELATION
Absorption spectra of some metallic chelate compounds. K. Sone. bibliog Am Chem Soc J 75:5207-11 N 5 '53
Acetylacetone in the dual role of solvent and reagent in extraction of metal chelates. J. F. Steinbach and H. Freiser. bibliog Anal Chem 25:881-4 Je '53
Chelating resins; abstract. K. W. Pepper and D. K. Hale. Chem & Eng N 32:1898 My 10 '53
Chelation. H. F. Walton. il diags Sci Am 188:68-70+ Je '53
Chelation of praseodymium by thenoyltrifluoroacetone. T. K. Keenan and J. F. Suttle. bibliog Am Chem Soc J 76:2184-5 Ap 20 '54
Chemistry of chelation in textile processing. A. J. Gard. bibliog Am Dyestuff Rep 42: 867-70 D 21 '53
Chemistry of thorium; some observations on the 5,7-dihalo-8-quinolinol chelates of thorium. T. Moeller and M. V. Ramaniah. bibliog Am Chem Soc J 76:2022-4 Ap 5 '54
Differentiation of chelating from nonchelating phenols. S. Soloway and P. Rosen. bibliog Anal Chem 25:595-8 Ap '53
Dipole moments of some Ni(II) mercaptoester chelates. J. J. Draney, jr. and M. Cefola. bibliog Am Chem Soc J 76:1975-7 Ap 5 '54
Faraday effect of some molecules chelated or associated by hydrogen bonding. C. E. Waring and R. L. Custer. bibliog Am Chem Soc J 76:2058-60 Ap 20 '54
Metal chelates of riboflavin. W. O. Foye and W. E. Lange. bibliog Am Chem Soc J 76:2199-201 Ap 20 '54
Metal chelating tendencies of glutamic and aspartic acids. R. F. Lumb and A. E. Martell. bibliog J Phys Chem 57:690-3 O '53
New chelating agents for trivalent iron. S. Chaberek, jr. and F. C. Bersworth. Science 118:280 S 4 '53
New dimension for driers; metal-amine coordination complexes. Chem W 73:43-7 S 26 '53
Paper chromatography of metal 2-thenoyltrifluoroacetone chelates. E. W. Berg and R. T. McIntyre. bibliog Anal Chem 26:813-14 My '54
Preparation and properties of some new chelating agents. E. G. Kovach and D. E. Barnes. bibliog Am Chem Soc J 76:1176-8 F 20 '54
Preparation and properties of zirconium and hafnium chelates of certain β-diketones. E. M. Larsen, G. Terry and J. Leddy. bibliog Am Chem Soc J 75:5107-11 O 20 '53
Proposed approach to the chelate effect. A. W. Adamson. bibliog Am Chem Soc J 76: 1578-9 Mr 20 '54

CHELATION—*Continued*

Relationships among the absorption spectra of the 5.7-dihalo-8-quinolinol chelates of gallium(III) and indium(III). T. Moeller, F. L. Pundsack and A. J. Cohen. bibliog Am Chem Soc J 76:2615-18 My 20 '54

Sexadentate chelate compounds. F. P. Dwyer and others. bibliog Am Chem Soc J 76:383-6 Ja 20 '54

Spectrophotometric determination of the stabilities of ethylenediaminetetraacetate chelates. V. L. Hughes and A. E. Martell. bibliog J Phys Chem 57:694-9 O '53

Stability of metal chelates; 3-hydroxypropyliminodiacetic and 2-hydroxyethyliminodipropionic acids. S. Chaberek, jr. and A. E. Martell. bibliog Am Chem Soc J 76:215-18 Ja 5 '54

Stability of metal chelates; N,N′-ethylenediaminedipropionic acid and N,N′-ethylenediaminetetrapropionic acid. R. C. Courtney, S. Chaberek, jr. and A. E. Martell. bibliog Am Chem Soc J 75:4814-18 O 5 '53

Stereochemistry of metal chelates of a polydentate ligand. B. D. Sarma and J. C. Bailar, jr. Am Chem Soc J 76:4051-2 Ag 5 '54

Steric effects and the stability of complex compounds; the chelating tendencies of C-substituted ethylenediamines with copper(II) and nickel(II) ions. F. Basolo, Yun Ti Chen and R. K. Murmann. bibliog Am Chem Soc J 76:956-9 F 20 '54

Steric effects and the stability of complex compounds; the chelating tendencies of N-alkylglycines and N-dialkylglycines with copper(II) and nickel(II) ions. F. Basolo and Yun Ti Chen. bibliog Am Chem Soc J 76:953-5 F 20 '54

Steric effects and the stability of complex compounds; the chelating tendencies of N,N′-dialkylethylenediamines with copper(II) and nickel(II) ions. F. Basolo and R. K. Murmann. bibliog Am Chem Soc J 76:211-14 Ja 5 '54

Studies of coördination compounds; the solution stabilities of the chelate compounds of a number of organic ligands. L. G. Van Uitert and W. C. Fernelius. bibliog Am Chem Soc J 76:375-9 Ja 20 '54

Studies on coordination compounds; correlation of the solution stabilities of the chelate compounds of ligands coördinating through nitrogen and oxygen. L. G. Van Uitert and W. C. Fernelius. bibliog Am Chem Soc J 76:379-83 Ja 20 '54

Thermodynamics of metal chelate formation; the third and fourth dissociation constants of ethylenediaminetetraacetate acid. F. F. Carini and A. E. Martell. bibliog Am Chem Soc J 75:4810-13 O 5 '53

X-ray structure determinations. L. L. Merritt, jr. bibliog diags Anal Chem 25:718-21 My '53

CHEMICAL abstracts (periodical)

Corporation associates report. Chem & Eng N 32:958 Mr 8 '54

E. J. Crane receives award for work in chemical documentation. il Chem & Eng N 31:2586+ Je 22 '53

Indexing is becoming mechanized; Chemical abstracts hopes to double its speed by mechanical devices. C. L. Bernier. Chem & Eng N 31:4910 N 23 '53

New building for Chemical abstracts. A. H. Emery. Chem & Eng N 31:2610+ Je 22 '53

CHEMICAL affinity

Beginnings of the doctrine of chemical affinity. P. Walden. bibliog J Chem Educ 31:27-33 Ja '54

CHEMICAL and dyestuffs traders' association, British. See British chemical and dyestuffs traders' association

CHEMICAL and engineering news (periodical)

Editors appoint advisors; sketches. Chem & Eng N 32:169 Ja 11 '54

CHEMICAL apparatus

American chemical society 124th meeting, Chicago, Sept. 6-11; abstracts of papers on new techniques, automatic instruments, and process analyzers. Ind & Eng Chem 45:sup85A-6A+ D '53

Dechema institute opened. Chem Age (Lond) 70:140 Ja 9 '54

Inert atmosphere chamber for investigation of atmosphere-sensitive chemicals. il diag Can Chem Process 38:102-3 My '54

Instrument society of America 2d analytical instrument clinic, Chicago, Sept. 22-24. Anal Chem 25:sup 17A-18A Ag '53

Instruments of the year. il diag Chem Age (Lond) 70:1449-66 Je 26 '54

Progress in permeable porous ceramics. F. Singer. bibliog il Chem Age (Lond) 70:141-6 Ja 9 '54

Solvent tray and tray supports for one-dimension descending paper chromatography in glass cylinders; abstract. W. L. Porter. il diags Anal Chem 26:439-40 F '54

Student transference number apparatus. H. E. Hallam. diags J Chem Educ 31:306-7 Je '54

See also

Ampuls
Autoclaves
Balances
Baths (chemical apparatus)
Centrifuges
Chemical engineering—Apparatus and supplies
Chemical laboratories—Equipment
Chemical plants—Equipment
Electric heaters, Laboratory
Emulsifiers
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Extraction apparatus
Filters and filtration (technical chemistry)
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Microchemistry—Apparatus
Pipets
Scrubbers
Stirrers
Sublimation apparatus
Vacuum pumps
Vaporizers
Viscosimeters
Volumetric analysis—Apparatus

Cleaning

Cleaning, care and maintenance of glass, metal and plastics apparatus. J. A. Edwards. Chem Age (Lond) 70:1433-6 Je 26 '54

Exhibitions

British instrument industries' exhibition, London, June 30-July 11. il Chem Age (Lond) 68:967-84 Je 27 '53

CHEMICAL association, Armed forces. See Armed forces chemical association

CHEMICAL association of Finland, Central. See Central chemical association of Finland

CHEMICAL balance. See Balances—Manufacture

CHEMICAL-biological coordination center. See National research council—Chemical-biological coordination center

CHEMICAL bonds

Anaerobic dispersion of potato starch. H. Baum and G. A. Gilbert. bibliog Chem & Ind p489-90 Ap 24 '54

Calculation of bond orders, resonance energies, and orbital energies by a simple perturbation method. M. J. S. Dewar and R. Pettit. Chem Soc J p 1617-24 My '54

Chemical bonds involving *d*-orbitals. D. P. Craig and others. diags Chem Soc J p332-57 Ja '54

Chemical constitution, an introduction to the theory of chemical bond. J. A. A. Ketelaar. Review, by N. C. Rockwood. Rock Prod 57:69+ Ag '54

Chemistry of S-B bonding; polymeric thioborines, methanethiodiborane and related substances. A. B. Burg and R. I. Wagner. Am Chem Soc J 76:3307-10 Je 20 '54

Chemistry of the covalent bond; first-year at Brown. L. B. Clapp. J Chem Educ 30:530-2 O '53

Conjugated double bonds in aromatic nucleophilic substitution. R. L. Heppolette and others. Chem & Ind p904 Jl 17 '54

Effect of chain branching on electrochemical carbon-halogen bond fission. P. J. Elving and others. bibliog(36 ref) Electrochem Soc J 101:195-202 Ap '54

Electronegativities in inorganic chemistry. R. T. Sanderson. bibliog J Chem Educ 29:539-44; 31:2-7, 238-45 N '52, Ja, My '54

Force constants of hydrides. S. S. Mitra. J Chem Phys 22:564-5 Mr '54

Free energy of formation of the amide bond in polyamides. A. B. Meggy. bibliog J Ap Chem 4:154-9 Ap '54

CHEMICAL bonds—*Continued*

Hydrogen bonding as a factor in the ionization of dicarboxylic acids. D. H. McDaniel and H. C. Brown. bibliog Science 118:370-2 O 2 '53

Molecular-orbital theory of organic chemistry; the additivity of bond energies in unconjugated systems. M. J. S. Dewar and R. Pettit. Chem Soc J p 1625-34 My '54

$N\overset{\cdots}{\equiv}N$, $N\underset{\cdots}{\overset{\cdots}{-}}N$ and $N\overset{\cdots}{-}N$ bond-stretching frequencies. W. J. O. Thomas. bibliog Chem & Ind p567-8 Je 6 '53

New boron bond. Chem W 74:50 F 6 '54

Second stage crosslinking. H. F. Mark. Chem & Eng N 32:3122-3 Ag 9 '54

Some chemistry of covalent compounds with a single central atom. L. B. Clapp. bibliog(41 ref)) J Chem Educ 30:584-90 N '53

Structure of the hydrogen maleate anion; a symmetric hydrogen bond? H. M. E. Cardwell, J. D. Dunitz and L. E. Orgel. Chem Soc J p3740-2 D '53

Studies of coördination compounds; the solution stabilities of the chelate compounds of a number of organic ligands. L. G. Van Uitert and W. C. Fernelius. bibliog Am Chem Soc J 76:375-9 Ja 20 '54

Studies on coordination compounds; correlation of the solution stabilities of the chelate compounds of ligands coördinating through nitrogen and oxygen. L. G. Van Uitert and W. C. Fernelius. bibliog Am Chem Soc J 76:379-83 Ja 20 '54

Study by infra-red spectroscopy of hydrogen bonding in cellulose. H. J. Marrinan and J. Mann. bibliog(28 ref) J Ap Chem 4:204-11 Ap '54

Ways to estimate bond strengths of minerals. N. C. Rockwood. Rock Prod 57:59+ F '54

Weak bonds in cotton cellulose. A. Sharples. Chem & Ind p870-1 Ag 15 '53

See also
Double bonds
Valence

CHEMICAL chains. See Chains, Chemical

CHEMICAL consultants. See Consultants

CHEMICAL development association, commercial. See Commercial chemical development association

CHEMICAL education

Altruism with a purpose; chemical firms supporting scholarships and fellowships. Chem W 73:35-6 Ag 22 '53

A.C.S. Division of chemical education 124th national meeting, Chicago; abstracts of papers. Chem & Eng N 31:3854-6 S 21 '53

A.C.S. Division of chemical education 125th national meeting, Kansas City; abstracts of papers. Chem & Eng N 32:1439-41 Ap 12 '54

A.C.S. Division of chemical education 126th national meeting, New York; abstracts of papers. Chem & Eng N 32:3836-7 S 27 '54

American institute of chemists' panel discussion. Chem W 74:26 My 29 '54

Better training, one of the objectives of the American chemical society. A. H. Emery. Chem & Eng N 32:1148 Mr 22 '54

Chemical education is our business, too! H. R. Russell. il Chem & Eng N 31:3358-65 Ag 17 '53

Chemical technicians for industry. L. R. Fibel. il Chem & Eng N 32:2792-6 Jl 12 '54

Chicago area career conference, 6th, March 20; abstracts of papers. Chem & Eng N 32:1368 Ap 5 '54

Education for the chemical profession; panel discussion. Chem & Eng N 32:2214+ My 31 '54

Education with an angle; annual X-ray diffraction schools. il Chem W 73:52-3 O 3 '53

Educational activities of ACS. Chem & Eng N 31:4362 O 19 '53

Educational and research facilities in Idaho, Montana, New Mexico, and Wyoming. L. Berg. bibliog(17 ref) Ind & Eng Chem 45:2455-8 N '53

Industry in the classroom; Chemical market research association lecture series at Case institute of technology. Chem W 72:48+ Je 20 '53

Institutional influences in undergraduate training of Ph.D. chemists. B. R. Siebring. J Chem Educ 31:195-200 Ap '54

Lesson in polymer progress; courses sponsored by Polytech's graduate school of chemistry and physics. il Chem W 73:28-30 Ag 29 '53

Progress report number 27 of the committee on professional training; with list of approved schools, tables of degrees awarded, etc. Chem & Eng N 32:1901-10 My 10 '54

Still room for improvement; results of Industrial council's forum at Rensselaer polytechnic institute. Chem W 73:14-15 N 21 '53

Trend between the lines; corporate support of scholarships and fellowships. Chem W 74:46 My 1 '54

Universities and industry in science. R. Adams. Chem & Ind p86-90 Ja 23 '54; Same. il Ind & Eng Chem 46:506-10 Mr '54; Excerpts. Oil Paint & Drug Rep 165:5+ Ja 25 '54; Abstract. Chem & Eng N 32:322+ Ja 25 '54

Uphill to understanding; educator audience, industry panel. Chem W 72:13-14 My 30 '53

With or without secondary-school chemistry. E. W. Thomson. J Chem Educ 30:353-5 Jl '53

See also
Chemical engineering—Study and teaching
Chemistry—Study and teaching
Chemistry—Tests and scales
Chemistry, Analytic—Study and teaching
Chemistry, Inorganic—Study and teaching
Chemistry students

History

Friedrich Stromeyer and the history of chemical laboratory instruction. G. Lockemann and R. E. Oesper. J Chem Educ 30:202-4 Ap '53

Australia

Development of chemistry in Australia. R. J. W. Le Fèvre. bibliog il Chem & Ind p736-8 Jl 18 '53

Burma

Teaching chemistry in postwar Burma. P. R. Fehlandt. il Chem & Eng N 31:3610-14 S 7 '53

Germany

25th anniversary; Karlsruhe polytechnic school's department of chemical engineering. il Chem Eng 61:126 F '54

Great Britain

American chemical engineer in England. S. A. Miller. Chem Eng Prog 50:24-6 Ja '54

CHEMICAL elements

Abundance and distribution of the chemical elements in the earth's crust. M. Fleischer. bibliog(27 titles) J Chem Educ 31:446-55 S '54

Chemistry in the stratosphere and upper atmosphere. L. E. Miller. bibliog(43 ref) il J Chem Educ 31:112-24 Mr '54

Creation of elements; abstract. I. Perlman. Chem & Eng 32:1440-1 Ap 12 '54

Elementary composition of the earth's crust. I. Asimov. J Chem Educ 31:70-2 F '54

Geochemical table of the elements for 1953. J. Green. 2 fold pls Geol Soc Bul 64:1001-12 bibliog(p 1009-12) S '53

Relative contributions of various elements to the earth's radioactivity. I. Asimov. bibliog J Chem Educ 31:24-5 Ja '54

Thermodynamic functions of elements and compounds; entropies of inorganic substances. E. T. Turkdogan and J. Pearson. bibliog J Ap Chem 3:495-501 N '53

See also
Actinide series
Atoms
Isotopes
Periodic system
Valence
also names of elements, e.g. Carbon; Oxygen; Plutonium; Sulfur

Atomic no. 85

See Astatine

Atomic no. 87

See Francium

Atomic no. 99

Additional properties of isotopes of elements 99 and 100. P. R. Fields and others. Phys R 94:209-10 Ap 1 '54

CHEMICAL elements—Atomic no. 99—*Cont.*

Element 99 falls in place. Chem & Eng N 32. 718 F 22 '54

Elements 99 and 100 from pile-irradiated plutonium. M. H. Studier and others. Phys R 93:1428 Mr 15 '54

Nuclear properties of some isotopes of californium, elements 99 and 100. G. R. Choppin and others. Phys R 94:1080-1 My 15 '54

Some pile neutron cross sections of isotopes of americium, berkelium, californium, and element 99. B. G. Harvey and others. Phys R 95:581-2 Jl 15 '54

Transcurium isotopes produced in the neutron irradiation of plutonium. S. G. Thompson and others. Phys R 93:908 F 15 '54

Atomic no. 100

Additional properties of isotopes of elements 99 and 100. P. R. Fields and others. Phys R 94:209-10 Ap 1 '54

And now 100; bombarding plutonium with neutrons produces element 100. Chem & Eng N 32:920 Mr 8 '54

Element 100 produced by means of cyclotron-accelerated oxygen ions. H. Atterling and others. Phys R 95:585-6 Jl 15 '54

Elements 99 and 100 from pile-irradiated plutonium. M. H. Studier and others. Phys R 93:1428 Mr 15 '54

Further production of transcurium nuclides by neutron irradiation. B. G. Harvey and others. Phys R 93:1129 Mr 1 '54

Nuclear properties of some isotopes of californium, elements 99 and 100. G. R. Choppin and others. Phys R 94:1080-1 My 15 '54

CHEMICAL engineering

Advances in chemical processing. Can Chem Process 37:28 N '53

American institute of chemical engineers meeting, San Francisco; with abstracts of papers. Chem Eng Prog 49:sup20+ O '53

Aspects of chemical engineering; abstract. H. W. Cremer. Chem & Ind p273 Mr 6 '54

Bioengineering is meeting ground of varied disciplines; Rose polytechnic institute bioengineering symposium. Chem & Eng N 31:2283 Je 1 '53

Chemical engineer in the steel industry. T. F. Reed. Chem Eng Prog 50:288-90 Je '54

Chemical engineering aspects of nuclear power. M. Benedict. bibliog flow sheets il Ind & Eng Chem 45:2372-80 N '53

Chemical engineering conference, Olympia, London, Sept. 7-11; abstracts of papers. Chem & Ind p 1056-60 O 3 '53

Chemical engineering from soaps to salads. E. A. Lawrence. bibliog diags Chem Eng Prog 49:627-34 D '53

Chemical engineering fundamentals. T. E. Corrigan and A. F. Johnson. diags Chem Eng 60:237-42 S; 237-42 O; 203-7 N; 211-16 D '53; 61:210+ Ja; 212+ F; 222+ Mr; 212+ Ap; 202+ My; 244+ Je; 230+ Jl; 208+ Ag; 210+ S; 210+ O '54 (to be cont)

Chemical engineering fundamentals; annual review of research in basic phenomena. bibliog il diags Ind & Eng Chem 46:877-952 My '54

Chemical engineering fundamentals; annual survey of research in basic phenomena. bibliog il diag Ind & Eng Chem 45:891-968 My '53

Chemical engineering in Great Britain; abstract. J. Cockcroft. Chem Age (Lond) 70:1042-3 My 8 '54

Chemical engineering in the food industry; bulk storage and transport of sugar. E. T. Moss. il Chem & Ind p 1189-94 S 25 '54

Chemical engineering methods in the food industry. W. Price-Davies. bibliog (34 ref) Chem & Ind p742-9 Je 26 '54

Chemical engineering methods in the food industry; developments in handling and storage of flour. J. F. Lockwood and C. H. Wool. il plan diags Chem & Ind p 1128-34 S 11 '54

Chemical engineering methods in the food industry; handling of liquids in the factory. R. Falconer. bibliog(27 ref) Chem & Ind p 1058-63 Ag 28 '54

Chemical engineering methods in the food industry; recent developments in rigid food packages. J. G. Huntley. Chem & Ind p677-80 Je 12 '54

Chemical engineering methods in the food industry; storage and bulk transport of potable liquids. J. D. Usher. il diags Chem & Ind p 1031-9 Ag 21 '54

Chemical engineering progress symposium; abstracts. Chem Eng Prog 50:480 S '54

Chemical engineering studies in relation to process development. H. Hoog. Chem Age (Lond) 70:681-2 Mr 20 '54; Same. Chem & Ind p369-70 Mr 27 '54

Chemical engineering's role in coal hydrogenation. S. D. Kirkpatrick. il Chem Eng 60:180-4 D '53

Engineering and microbiological processes. F. E. Warner and others. bibliog diags Chem & Ind p 114-19 Ja 30 '54

Engineering for today's chemical plants. R. P. Genereaux. Chem Eng 61:182-4 Ap '54

Engineering with models. il Chem Eng 61: 175-89 Ag '54 (reprints 50c)

Heat technology; Chemical Engineering report, June 1953. bibliog il diags Chem Eng 60:175-238 Je '53

How to use micro-interferometry as a new chemical engineering tool. R. E. Sugg. bibliog il diag Chem Eng 61:216-17 Mr '54

Integration of engineering skills in chemical plant construction. C. W. Perry. Chem Eng Prog 50:382-4 Ag '54

Nuclear engineering; chemical engineering review. bibliog flow diags il diags Chem Eng Prog 50:217-71+ My '54

Process kinetics; symposium. bibliog(192 ref) flow diags il diags Ind & Eng Chem 45:1173-281 Je '53

Recent progress. F. J. Curtis. Chem Age (Lond) 68:585-8 Ap 18 '53

Statistical design. W. J. Youden. Ind & Eng Chem 46:sup 107A-9A F; sup 111A-12A+ Ap; sup 115A-16A Je; sup99A-100A+ Ag; sup 119A-20A+ O; 105A-6A D '54

Statistics on the move; chemical engineers finding them valuable. il Chem Eng 60:118+ D '53

Worldwide chemical engineering; work of Simon-Carves and subsidiaries. Chem Age (Lond) 71:653-4 S 25 '54

See also

Chemical plants
Chemistry, Technical
Cooling, Industrial
Countercurrent processes
Distillation
Distillation apparatus
Drying
Evaporation
Extraction processes
Feed water purification
Filters and filtration (technical chemistry)
Flotation process
Fluidization
Food factories
Hydrogenation
Metallurgy
Mixing
Petroleum refineries
Plastics engineering
Refrigeration and refrigerating machinery
Refuse disposal
Scientific design company
Sedimentation
Sewage disposal
Sublimation
Unit processes
Water purification

Apparatus and supplies

Aluminum alloy reference sheet. H. W. Fritts. Chem Eng Prog 49:675; 50:54, 108, 164, 214, 272 D '53-My '54

Cast alloy reference sheet. N. S. Mott. Chem Eng Prog 50:324, 376, 428 Je-Ag; sup39 S; 532 O '54

Chemical engineer's metallurgical needs. C. Hinton. Chem Age (Lond) 68:633-6 Ap 25 '53

Metallurgical trends of interest to chemical engineers. L. Rotherham. Chem & Ind p 1164-70 S 18 '54

Non-ferrous metals for the chemical engineer; abstract and discussion. N. P. Inglis. Chem & Ind p273-5 Mr 6 '54

Plastics equipment reference sheet; neoprene rubber. R. B. Seymour and R. H. Steiner. Chem Eng Prog 49:510 S '53

Plastics for chemical engineering construction; unplasticized polyvinylchloride. G. S. Laaff. il diags Chem Eng Prog 50:275-82 Je '54

Process design and specification of pumping equipment. R. L. Jacks. flow plan il Chem Eng Prog 49:235-42 My '53

Steel tubes for the chemical industry. W. E. Smith. il Chem Age (Lond) 70:617-21 Mr 13 '54

CHEMICAL engineering—Apparatus and supplies—*Continued*

Synthetic resin cements in chemical engineering practice. F. K. Earp and others. il Chem & Ind p499-504 My 23 '53

Titanium reference sheet. W. W. Harple, G. Kiefer and T. K. Redden. Chem Eng Prog 49:566 O '53

See also

Atomizers
Autoclaves
Centrifuges
Chemical industries—Exhibitions
Chemical plants—Equipment
Concentrators
Condensers
Ejectors
Emulsifiers
Evaporators
Extraction apparatus
Feeders
Heat exchangers
Mixers
Pressure vessels
Proportioning equipment
Pumps—Design
Vacuum apparatus

Bibliography

Analytical index of chemical engineering publications, patents and reports. E. L. Newman and L. D. Copeland, comps. (Chemical engineering rep. no. 10) 192p Tennessee Valley authority, Wilson Dam, Alabama; pa 55c Supt. of doc. '54

Annual thesis index. Chem Eng Prog 50:50-3 Ja '54

Technical bookshelf. L. B. Pope. Published in monthly numbers of Chemical engineering

History

Chemical engineering; a retrospect; developments since last exhibition. Chem Age (Lond) 69:441-3 Ag 29 '53

Chemical engineering; Queen Victoria—Queen Elizabeth II. bibliog Chem Age (Lond) 68: 809-12 My 30 '53

Study and teaching

American chemical engineer in England. S. A. Miller. Chem Eng Prog 50:24-6 Ja '54

Co-op training; Dow's Texas division and Georgia institute of technology. il Chem W 74:24 Mr 27 '54

History and philosophy of chemical engineering education. D. B. Keyes. il Chem Eng Prog 49:635-40 D '53

Integration of chemical engineering fundamentals. J. M. Smith. J Eng Educ 43:537-9 My '53

Non-technical aspects of the training of chemical engineering students; abstract. R. R. McLaughlin. Can Chem Process 38: 60 Jl '54

Plant design for undergraduate chemical engineers. M. S. Peters. J Chem Educ 30: 619-22 D '53

Report writing program at Purdue. T. C. Doody and V. E. Gibbens. J Chem Educ 31:8-12 Ja '54

Student-teacher obligations. F. C. Vilbrandt. Ind & Eng Chem 46:sup23A-4A Ap '54

Training in chemical works practice. Chem & Ind p 1161-2 O 31 '53

25th anniversary; Karlsruhe polytechnic school's department of chemical engineering. il Chem Eng 61:126 F '54

Tables, calculations, etc.

Algebraic trick facilitates computation. D. S. Davis. Chem Eng 61:252+ Je '54

Application of computing machines to ion exchange column calculations. A. Opler. bibliog(26 ref) diag Ind & Eng Chem 45: 2621-9 D '53

How to use short-cut statistics. F. Proschan and A. R. Babcock, jr. Chem Eng 61:193-7 S '54

Making one measurement do the work of two. W. J. Youden and W. S. Connor. bibliog Chem Eng Prog 49:549-52 O '53

Multifactor experiment. C. Daniel and E. W. Riblett. bibliog Ind & Eng Chem 46:1465-8 Jl '54

Natural-convection heat transfer at reduced pressure. J. R. Kyte, A. J. Madden and E. L. Piret. bibliog il diags Chem Eng Prog 49:653-62 D '53

Nomograph simplifies sizing of jacketed vessels. F. Brown and K. G. Burridge. Chem Eng 61:218-20 Mr '54

Physical chemistry in chemical engineering design. E. G. Scheibel. bibliog(36 ref) Ind & Eng Chem 46:1569-79, 2007-8 Ag-S '54

Process kinetics; diffusion in beds of porous solids; measurement by frequency response techniques. P. F. Deisler, jr. and R. H. Wilhelm. bibliog diags Ind & Eng Chem 45: 1219-27 Je '53

Put dimensional analysis to work. J. E. Pierce. bibliog il Chem Eng 61:185-90 Ap '54

Statistical methods for evaluation of several sets of constants and several sources of variability. H. Scheffé. Chem Eng Prog 50: 200-5 Ap '54

See also

Cooling towers—Tables, calculations, etc.
Distillation—Tables, calculations, etc.
Heat transmission—Tables, calculations, etc.
Jacobians

CHEMICAL engineering laboratories

New chemical engineering building for Oregon state college. il Chem & Eng N 32:940 Mr 8 '54

CHEMICAL engineers

Aids in technical recruitment; use of booklets describing the chemical industry and companies. il Chem & Eng N 32:706-7 F 22 '54

A.I.Ch.E. questionnaire; correlations and summary. L. B. Smith, G. E. Montes and J. A. Polack. Chem Eng Prog 50:sup26A+ Ja '54

American institute of chemical engineers questionnaire correlations on diverse subjects. L. B. Smith, J. A. Polack and G. E. Montes. Chem Eng Prog 49:sup 19-20+ S; sup56-7 O '53

Better off working for a small company, or a big one? R. V. Reeves. Chem Eng 60:197-200 S '53

Build your career in operations research. Chem Eng 61:222+ My '54

Canada's chemical engineers. J. R. Donald. Can Chem Process 38:46 Je 20 '54

Challenge to engineers. G. E. Holbrook. Chem Eng Prog 50:35-7 Mr '54

Chemical engineer and the pulp and paper industry. L. C. Jenness. Tappi 37:sup 132A-4A F '54

Chemical engineers set up new federation in Europe; European federation for chemical engineering. Chem Eng 60:150 S '53

Demand for chemical personnel. Chem & Eng N 32:2185 My 31 '54

Eased but not lifted; technical manpower. Chem W 74:17-18 Ap 24 '54

Employment trends in the chemical profession. B. R. Stanerson. Chem & Eng N 32: 746-8+ F 22 '54

Getting off on the right foot; General electric co. employee training and educational programs. il Chem Eng 61:260+ Je '54

Industry demand for chemical engineers exceeds demand for chemists. Chem Eng Prog 50:sup58-60 Je '54

Information transfer, a new unit operation? M. Sittig. bibliog il Chem Eng Prog 49: 325-9 Je '53

Insoluble problem? shortage of technical manpower. il Chem W 74:16 Je 19 '54

Less to go around; diminishing supply of graduating chemists and chemical engineers. Chem W 74:12-13 Ja 9 '54

Manpower; annual review. Chem Eng 61:189 Mr '54

Manpower supply down, military and industrial demand high; biennial facts and figures. R. G. Gibbs. Ind & Eng Chem 46: 1139-44 Je '54

More chemical engineers needed. H. Hartley. Chem Age (Lond) 69:609 S 19 '53

National survey questionnaire; analysis of write-ins. L. B. Smith, G. E. Montes and J. A. Polack. Chem Eng Prog 49:sup20-3+ N; sup48-50+ D '53

1953 award winners; American institute of chemical engineers. Chem Eng Prog 49:sup 34+ N '53

Parallel promotions; researchers' rewards; Standard oil co. (Indiana). M. Carpenter. Chem W 74:20 F 20 '54

Portrait of a chief engineer. Chem Eng 60: 284+ O '53

Principle of selection; technical manpower situation. Chem W 75:20+ Ag 14 '54

CHEMICAL engineers—*Continued*

Professional earnings and career satisfaction of A.I.Ch.E. members; results of questionnaire. Chem Eng Prog 49:sup 17-18+ Jl '53

Scientists preferred; supply-and-demand situation on technically trained manpower. Chem W 74:13-14 Je 12 '54

Social security for engineers hit. Chem & Eng N 32:3506 S 6 '54

They're designing for progress; corrosion engineers. Chem W 75:44+ Ag 21 '54

Too many for too few; offers roll into chemistry and chemical engineering graduates. Chem W 72:14 Je 13 '53

What Canadian industry expects of the Canadian chemical engineer; abstract. D. S. Simmons. Can Chem Process 38:60 Jl '54

Why does the chemical engineer succeed or fail with people. R. S. Schultz. Chem Eng Prog 49:506-8 S '53

You vs. the man in the street. Chem Eng 61:244+ S '54

See also

Chemical education
Davis, George Edward
Griffiths, Hugh
McCabe, Warren Lee
Salbaing, Pierre

Salaries

Trends in starting salaries. B. R. Stanerson. map Chem & Eng N 32:2952-3 Jl 26 '54

CHEMICAL engineers, Chinese institute of. See Chinese institute of chemical engineers

CHEMICAL equations

Material balances and redox equations. G. W. Bennett. J Chem Educ 31:324-5 Je '54

Otis Coe Johnson and redox equations. G. W. Bennett. J Chem Educ 31:157-8 Mr '54

CHEMICAL equilibrium

Algebra of simultaneous equilibria. D. Davidson and K. Geller. J Chem Educ 30:238-42 My '53; Discussion. 30:532-4 O '53

Chemical engineering fundamentals; chemical equilibrium. T. E. Corrigan. diags Chem Eng 61:222+ Mr; 212+ Ap; 202+ My; 244+ Je '54

Correlation of relative rates and equilibria with a double basicity scale. J. O. Edwards. bibliog Am Chem Soc J 76:1540-7 Mr 20 '54

Correlation of ternary liquid-liquid equilibria; an explanation of solutropy. G. N. Vriens and E. C. Medcalf. bibliog Ind & Eng Chem 45:1098-104 My '53

Direct method for predicting vapor-liquid equilibrium ratios. J. M. Lenoir and G. A. White. bibliog(47 titles) Pet Refiner 32: 121-2 O; 115-19 D '53

Dual intermediates in coulometric titrations; equilibria in copper(II)-bromide solutions. P. S. Farrington, D. J. Meier and E. H. Swift. bibliog Anal Chem 25:591-5 Ap '53

Equilibration in molten polyamide mixtures. C. W. Ayers. bibliog diags J Ap Chem 4: 444-9 Ag '54

Equilibrium in the steam reforming of natural gas. H. A. Dirksen and C. H. Riesz. bibliog Ind & Eng Chem 45:1562-5 Jl '53

Equilibrium studies of some monovalent ions on Dowex 50. O. D. Bonner and W. H. Payne. J Phys Chem 58:183-5 F '54

Graphite tube resistance furnace and voltage regulator for equilibrium studies in the temperature range 1500-1800° C. W. E. Dennis and others. diags J Sci Instr 30:453-5 D '53

Kinetics and mechanisms of the two opposing reactions of the equilibrium $CO + H_2O \rightleftharpoons CO_2 + H_2$. W. M. Graven and F. J. Long. bibliog Am Chem Soc J 76:2602-7 My 20 '54

Le Chatelier's principle and the equilibrium constant. A. J. Miller. J Chem Educ 31:455 S '54

Rates of approach to equilibrium. S. H. Bauer. J Chem Phys 21:1888-9 O '53

Reliability of calculations based upon the law of chemical equilibrium. D. D. DeFord. bibliog(28 ref) J Chem Educ 31:460-4 S '54

Spectrophotometric investigation of the cerium(IV)-chromium(VI) complex ion equilibria in perchloric acid solution. J. Y. Tong and E. L. King. bibliog Am Chem Soc J 76:2132-5 Ap 20 '54

Systematic calculation of ionic equilibria. J. L. Fritz. J Chem Educ 30:442-4 S '53

CHEMICAL formulas

Aspects of isomerism and mesomerism. R. L. Bent. bibliog J Chem Educ 30:220-5 My '53

Dialing detergent formulas. il Soap & San Chem 29:85+ N '53

Evaluation of molecular formulas. R. G. Gillis. J Chem Educ 30:126-7 Mr '53

CHEMICAL industries

Aerosols, chemical outlet. il Chem & Eng N 32:2260-2 Je 7 '54

Ambassadors' future; prime targets for comptrollers are company Washington offices. Chem W 73:34+ O 3 '53

A.C.S. Division of chemical marketing and economics, 124th national meeting, Chicago; abstracts of papers. Chem & Eng N 31:3856-8 S 21 '53

A.C.S. Division of chemical marketing national meeting, New York; abstracts of papers. Chem & Eng N 32:3838-40 S 27 '54

ACS Marketing division meeting, Chicago. Chem W 73:88+ S 19 '53

Applied research in chemical marketing; abstract. R. P. Dinsmore. Oil Paint & Drug Rep 164:61 O 26 '53

Before and after; adaptation of existing plants to changed conditions. A. V. Slack. flow sheets il Chem & Eng N 32:3454-8 Ag 30 '54

Best foot forward; Allied Chemical's Solvay label face-lifting. il Chem W 73:54+ N 7 '53

Big prize in alien property plan; chemicals. Chem W 75:24+ Ag 21 '54

Break for midgets. Chem W 74:21-2 Mr 6 '54

Brimming confidence; opinions of chemical executives. Chem W 74:21 Mr 13 '54

Build foreign plants, urges FOA. il Chem & Eng N 32:2890+ Jl 19 '54

Bureau of foreign commerce chemical export procedures overhauled. Oil Paint & Drug Rep 165:3+ F 22 '54

Business for yourself as a chemical jobber. G. M. Griffin. il Chem Eng 61:236+ F '54

Chemical and related markets in 1953. Oil Paint & Drug Rep 165:3+ sec 2 F 1 '54

Chemical buildup plan cause of excess. N. E. Hathaway. Oil Paint & Drug Rep 165:4+ My 24 '54

Chemical business handbook. J. H. Perry, ed. $17 McGraw-Hill book co, 330 W. 42d st, New York 36 '54

Chemical development as new force. J. G. Davidson. Oil Paint & Drug Rep 166:4+ S 20 '54

Chemical industries show lots of reasons for strong future. W. F. Traendly and others. Ind Marketing 38:20+ N '53

Chemical industry and national security. B. B. Somervell. il Chem & Eng N 31:2476-9 Je 15 '53

Chemical industry and the future. E. P. Stevenson. Chem & Eng N 31:2954-6 Jl 20 '53

Chemical industry must give technical assistance to customs authorities. R. W. Dill. Oil Paint & Drug Rep 165:5 F 15 '54

Chemical investment opportunities abroad summarized by FOA. Oil Paint & Drug Rep 166:3+ Jl 5 '54

Chemical market research association and American chemical society Division of chemical marketing and economics joint meeting, Washington, Nov. 18-19. Oil Paint & Drug Rep 164:7+ N 23 '53

Chemical market research association and ACS Division of chemical marketing and economics meeting, Washington. Chem & Eng N 31:4960-2 N 30 '53

CMRA meet tabs metallic outlets. Chem W 73:73-4 O 3 '53

Chemical marketing principles; abstract. R. S. Alexander. Oil Paint & Drug Rep 164: 47 O 19 '53

Chemical tariffs; a fighting stand. Bsns W p 162-4 N 28 '53

Chemicals in atom age; liberty or leash? Chem W 75:28-30 Ag 14 '54

Chemicals outlook good despite declines elsewhere in economy. Oil Paint & Drug Rep 165:3+ Ja 4 '54

Chemicals; sales dip for producers. K. W. Bennett. Iron Age 172:102 N 19 '53

Confident, but still concerned; soaring sales figures and vacation optimism. Chem W 73:19-20 Ag 22 '53

CHEMICAL industries—*Continued*

Consultants; their value is up to you. P. W. Bachman. Chem & Eng N 32:1700-3 Ap 26 '54

Consumer chemicals has been great stimulant to packaging. il Mod Packaging 27:112-19+ My '54

Count on sales research by chemical marketers. Chem W 74:55-7 Ja 9 '54

Count on steel; chemical industry could depend upon one of best customers. Chem W 73:66-9 Jl 25 '53

Demand is up, supply keeps pace; annual review. il Chem Eng 61:190-208 Mr '54

Desperate for dollars; how foreign chemical companies sell cheap here. Chem W 73:15-16 Jl 25 '53

Distribution becomes problem; advantage of selling chemicals through intermediate agency. Chem & Eng N 31:4926 N 23 '53

Distributor rediscovered; relationships between chemical distributor, suppliers, customers. Chem W 73:68-70 N 21 '53

Diversification increasing. Chem & Eng N 32:2440 Je 14 '54

Dumping act inadequate; abstracts. J. J. Powers, jr. Chem & Eng N 32:1278 Mr 29 '54; Oil Paint & Drug Rep 165:5 Mr 22 '54; Soap & San Chem 30:73 Ap '54

Earthbound optimism. Chem W 74:39-40 Ja 2 '54

Embargo imbroglio over shipment of chemicals to red China. Chem W 74:18 Ap 17 '54

Executive turnover; growing headache. Chem W 73:20 D 5 '53

Expansion by construction; Western chemical co. il Chem W 73:61-2+ O 24 '53

Expansion peak passing. Chem & Eng N 32:2761 Jl 12 '54

Expansion slowdown. Chem W 73:15-16 S 12 '53

FTC shows chemical output concentration. Oil Paint & Drug Rep 165:4 Ap 19 '54

Finding where you stand; surveys are one way to tell. Chem W 73:77-8 O 3 '53

For a potable market-purity; safe-for-drinking water a big market for chemicals. Chem W 74:77-8+ F 6 '54

Formaldehyde, glycerin, nitrogen among eight goals reopened by US. Oil Paint & Drug Rep 165:3+ F 15 '54

From any angle, a satisfying view. Chem W 75:18-19 S 25 '54

From test tube to commercial plant. E. Ott. Chem & Ind p 1098-102 O 17 '53

Front rank exposure; chemical companies face higher-than-average risk of being injured by increases in imports. Chem W 74:11-12 Ja 9 '54

Future demand for chemicals; Paley report. Chem Age (Lond) 70:227-30 Ja 16 '54

Gauge for industrial giants. Chem W 75:15-16 Jl 17 '54

Geared to the long term. Chem W 74:28-9 Ap 17 '54

Goal shoals ahead; marketing problems of goal-chemicals considerable. Chem W 74:76+ Je 12 '54

Good things in small packages; more companies go directly to consumer. il Chem & Eng N 32:1004-5 Mr 15 '54

Hoopla and the hard sell; direct effect of automobile production on chemical consumption. Chem W 73:27 S 19 '53

Import score; tabulations. Chem W 74:78+ Ap 24 '54

Industrial organic chemicals; price trends, etc. Oil Paint & Drug Rep 165:46-7 Ap 5 '54 [cont weekly]

Inorganics output hit new records for '53. Oil Paint & Drug Rep 165:4+ Mr 8 '54

Janus look at chemical economy. Chem & Eng N 32:126-8 Ja 11 '54

Let-up on law suits? Chem W 72:22+ Ap 18 '53

Little salesmen; streamlining Carbide's packaging department. il Chem W 74:36+ F 13 '54

Lucky 13 get nitrogen certificates. Chem & Eng N 32:2284 Je 7 '54

Many aims, one goal; mergers in the chemical industry. Chem W 72:16-17 My 23 '53

Many reasons, one cause for merger in chemical industry. Chem W 74:18-19 My 8 '54

Market research hits peak in chemical industry. Chem W 75:84+ Ag 7 '54

Mechanical aid for sales brain; Pennsalt's battery of tabulators. il Chem W 74:52-4 My 29 '54

Metals boom chemicals, too. Bsns W p85-6 O 31 '53

Milk pail to reaction kettle; Borden's milky way to chemistry. Chem W 74:84 Je 19 '54

More competition ahead for chemical industry. J. R. Hoover. Rubber Age 74:767 F '54

Never untangled; fair trade presents an unravellable problem. Chem W 74:52+ My 8 '54

New bootstrap to pull yourself to the top. Chem Eng 61:252 S '54

New era of mergers? Chem & Eng N 32:3248-50 Ag 16 '54

New look in expansion; U.S. companies turning expansion effort to overseas projects. Chem W 74:16-17 My 15 '54

New profits for you behind tomorrow's hot headlines; chemicals; a new field opens. S. D. Kirkpatrick. il Sales Management 72:33 Ja 1 '54

1953 sets industry-wide records; annual review of developments in chemical and chemical process industries. il Chem & Eng N 32:12-47 Ja 4 '54

No aid like self-aid; Foreign operations administration drive to encourage investment of chemical capital abroad. Chem W 75:18-19 Jl 17 '54

No serious depression likely in chemical industry. L. I. Doan. Comm & Fin Chr 178:1643 O 29 '53

Nothing to fear but fear. Chem W 73:14 O 24 '53

ODM revises expansion goals. Chem & Eng N 31:5290+ D 21 '53

ODM revises expansion goals. Chem & Eng N 32:821-2 Mr 1 '54

One new organic per day; study by Synthetic organic chemical manufacturers association. Chem & Eng N 32:3719-20 S 20 '54

Order in the warehouse; producers to reexamine channels of distribution. Chem W 73:59-60+ D 5 '53

Organic sales above $4.5 billion in 1953. Chem & Eng N 32:3912 S 27 '54

Our seven wonders. Chem W 74:41-3 My 15 '54

Out of the test tube; profitable new products spark the chemical industry's growth. J. V. Sherman. Barron's 33:11+ D 7 '53

Per capita use of basic materials soars. Chem Eng 61:349-52 Mr '54

Plants and processes; Chemical Engineering report. il Chem Eng 61:169-208 Ja '54

Polling the distributors. il Chem W 74:87-8 Ap 10 '54

Productivity in the chemical industry. R. F. Bruckart. bibliog Chem Eng Prog 50:173-6 Ap '54

Pulse check on specialties makers. Chem W 75:54+ Jl 17 '54

Put it in a box, tie it with a ribbon; chemical industry spends a lot to wrap products. Chem Eng 60:322+ N '53

Quaint no longer; American potash & chemical corporation's new look on packages. il Chem W 74:40 Je 5 '54

Realization of a dream; Chemical business handbook. il Chem W 75:16 Ag 14 '54

Renegotiation, with what safeguards? Chem W 73:17 Ag 29 '53

Road to high profits; meat packers branching out to chemical and other by-product operations. il Chem W 74:20-2 My 1 '54

Rockets, a chemical opportunity. G. E. Pendray. Chem & Eng N 32:595 F 15 '54

Sales pitch for the home team; Dewey and Almy chemical co. intradivisional shows. il Chem W 74:82-4 My 8 '54

Second-quarter bellwether; state of Nation's markets. Chem W 74:90+ Mr 27 '54

Set for a sharp plunge in capital expenditures. Chem W 74:24 Ap 3 '54

Shielding subsidy; chemical industries progress in post-attack planning. Chem W 73:17 O 17 '53

Sign of the times; corporate giving in chemical industry through company foundations. Chem W 73:20 N 28 '53

Silent spectator; chemical companies and East-West trade. Chem W 74:16-18 F 6 '54

CHEMICAL industries—*Continued*

Social study teachers learn chemical industry ABC's. Chem & Eng N 31:2280-2 Je 1 '53

Split-second selling; specialty packaging undergoing revolution. Chem W 73:69+ N 7 '53

Starting from scratch. il Chem W 73:22-5 S 19 '53

Steel-strong market; chemical industry not aloof to steel's vicissitudes. il Chem W 75: 77-80 S 4 '54

Sweet music, but at a slower tempo; 1954 outlook. Chem W 73:16-17 D 26 '53

Swords across the sea; battle on antidumping policy. Chem W 73:11 D 26 '53

Tonic for weak selling; interview with Bert Cremers of Wyandotte Chemicals. Chem W 74:58+ Mr 20 '54

Top worries; pollution, people. il Chem W 73:60-2+ O 10 '53

Trademark troubles abroad; infringements in foreign countries. Chem W 73:59-60 O 3 '53

Twentieth century objective; W. R. Grace & co. invasion of chemical industry. Chem W 74:14-16 Ja 16 '54

Twofold approach; Chemo puro manufacturing corp. Chem W 74:26 My 15 '54

Unit packaging on upswing; industrial chemical sampling and packaging film materials. il Chem W 73:53-4+ N 28 '53

U.S. chemical manufacturers need not fear competition from Europe. E. M. Flaherty. Chem & Eng N 31:4437 O 26 '53

Untying the purse strings; what security analysts want to know. Chem W 75:28 S 4 '54

We modernize, or else! seventh annual McGraw-Hill survey. Chem Eng 61:339-47 My '54

What worries chemical executives? Chem W 72:17-18 Ap 18 '53

When does it really pay you to expand? R. P. Ulin. Chem Eng 61:347-51 Ap '54

Work of consultants; abstract. C. J. Goodwin. Chem Age (Lond) 70:834 Ap 10 '54

World chemical trade realigns. Chem & Eng N 32:2464-5 Je 21 '54

See also

Alcohol industry
Brewing industries
Chemical workers
Chemicals
Chemistry, Technical
Dye industry
Electrochemistry
Fermentation
Fertilizer industry
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Leather industry and trade
Metallurgy
Oil industries
Paint industry and trade
Paper
Paper chemicals
Paper industry and trade
Petroleum chemicals
Petroleum industry and trade
Plastic industries
Pottery
Rubber
Rubber industry and trade
Salt
Silicones
Soap
Soap industry and trade
Solvents
Sugar industry and trade
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also

Carbide and carbon chemicals company
Chemical market research association
Commercial chemical development association
Diamond alkali company
Dow chemical company
Food machinery and chemical corporation
Manufacturing chemists' association
Mathieson chemical corporation
Monsanto chemical company
Stauffer chemical company
Synthetic organic chemical manufacturers association

Accounting

Chart books for better guidance of operations; Monsanto chemical co. D. A. Livingston. N A C A Bul 35:362-75 N '53

Cost estimation for process operations. H. E. Schweyer. bibliog Chem & Eng N 31: 3266-70 Ag 10 '53

Evaluate your depreciation charges. A. M. Hartogensis and H. D. Allen. il Chem Eng 61:195-8 F '54; Discussion. 61:407-13 Je '54

How inventory costs affect your process economics. H. E. Schweyer. Chem Eng 60:188-92 O '53

Make the most of capital ratios. L. Lynn. Chem Eng 61:175-6 Ap '54

Next time use capitalized costs. F. C. Jelen. Chem Eng 61:199-203 F '54; Discussion. 61: 407-13 Je '54

Operate for maximum profit. K. M. Mayer. Chem Eng 60:214-16 S '53

What happens to profit when we shift outlets? W. T. Seney. Sales Management 71: 96+ O 15 '53

Advertising

And tv makes three; Dow's Texas division. il Chem W 72:24 Je 6 '53

Better than ever; chemical makers experiment with commercial documentary tv film. il Chem W 74:97-100 Mr 27 '54

Caveat labeler; advantages with careful copy control. Chem W 74:86 Je 19 '54

Industrial advertising as a source of information. W. G. Kessel. J Chem Educ 31:255-7 My '54

Low-pressure salesmanship; Manufacturing chemists' association publications. il Chem W 74:22 F 6 '54

Misuse of ads for chemical and drug products hit by FTC. Chem & Eng N 32:1482 Ap 12 '54

No theme is stronger than sales policy! Wyandotte chemicals corp. B. Cremers. Sales Management 73:90-2 S 20 '54

Prospects or students; a program for both; Wyandotte Chemicals. il Chem W 72:72+ My 23 '53

Striking salesmen; seven match books picked as best of chemical field. il Chem W 74:50 Ap 3 '54

Tv tour, new sales pitch; Commercial solvents corp. il Chem W 73:65-6 N 21 '53

Why this industrial sells without salesmen; Cowles co. inc. Sales Management 72:56+ My 20 '54

Directories

Buyers' guide, 1954; chemicals, chemical plant, laboratory equipment. Chem & Ind sup C 1-46, P3-44, L3-58 D 5 '53

Chemical Week Buyers' guide issue. A. J. Babkow, ed. Chem W 73:1-816 pt 2 S 19 '53

Chemical Week Buyers' guide issue. Chem W 75:1-862 pt 2 S 18 '54

New chemicals for industry; addresses. Chem W 75:94+ S 25 '54

New plants and facilities under way, 1953. il Chem Eng 61:170-86 Ja '54

Survey of the South; southern sources of supply; chemicals, dyestuffs, machinery, services. A. P. Black. Am Dyestuff Rep 43:sec 2 Ag 30 '54

Exhibitions

British industries fair, Birmingham and London, April 27-May 8. il Chem Age (Lond) 68:623-6+, 669-71 Ap 25-My 2 '53

British industries fair, Birmingham and London, April 27-May 8. Chem & Ind p427-8 My 2 '53

British industries fair, Birmingham, May 3-14. Chem Age (Lond) 70:989-91 My 1 '54

British industries fair, Birmingham, May 3-14; combined chemical industry stand. Chem & Ind p533-4 My 8 '54

Chemical plant exhibition, Olympia, Sept. 3-17. il plan diag Chem Age (Lond) 69: 416-40, 539-42 Ag 29, S 12 '53; Chem & Ind p938-42, 965-9 S 5-12 '53

Engineering, marine, welding, and chemical plant exhibition, London, Sept. 3-17. Chem & Eng N 31:4086+ O 5 '53

Every chemical need; extensive displays at US industries' 24th exposition. Chem Age (Lond) 70:19-21 Ja 2 '54

Exposition of chemical industries, 24th, Philadelphia. Chem & Eng N 31:5170-2 D 14 '53

Exposition of chemical industries, 24th, Philadelphia, Nov. 30-Dec. 5; with floor plan, list of exhibitors and preview of exhibits. Chem & Eng N 31:4547-52+ N 2 '53; Chem Eng 60:383-6+ N '53; Chem Eng Prog 49: sup54-7+ N '53

Greatest show in the industry; chemical exposition to move show to Philadelphia. il Chem W 73:61-2+ Ag 15 '53

Higher standard of living; Dusseldorf exhibition. W. C. Peck. Chem Age (Lond) 69: 537-8 S 12 '53

CHEMICAL industries—Exhibitions—*Cont.*
National chemical exposition, 8th, Chicago, Oct. 12-15; program, list of exhibitors and floor plan. Chem & Eng N 32:3588-90 S 13 '54
Old face, new place; equipment made by Germany's Rheinheutte at chemical exposition in Philadelphia. Chem W 73:68 N 28 '53
On parade; tools of the trade; exposition of basic materials, 1st, New York. il Chem W 73:42-5 Jl 4 '53
Something for everyone; 24th exposition of chemical industries, Philadelphia. il Chem W 73:82+ D 12 '53
Symposium on analytical chemistry; industrial firms support Birmingham's efforts. Chem Age (Lond) 71:421-2 Ag 28 '54

Finance

Annual review of developments; expenditures up, financing down. C. P. Neidig. Chem & Eng N 32:15-17 Ja 4 '54
Bankers take over; plan to switch loans on RFC books. Chem W 73:27 D 19 '53
Bootstraps no longer; debt financing today more firmly rooted. Chem W 74:19 Ja 30 '54
Capital expenditures will drop eight percent next year. Chem Eng 61:381-2 Ja '54
Capital spending reaches peak, plant capacity increasing; annual review. Chem Eng 61:182-3 Mr '54
Chemical companies decrease rate of long-term borrowing during 1952. Chem & Eng N 31:3498 Ag 24 '53
Chemical industry growth continues; data prepared by Commerce department's chemical and rubber division. Chem & Eng N 31:5198-9 D 14 '53
Chemical industry sales hit $20 billion in 1953. Oil Paint & Drug Rep 165:3 Mr 1 '54
Coordination of financial and research planning. T. H. Vaughn. Chem & Eng N 31:2274-8 Je 1 '53
Cushion for chemicals; first half sales and earnings data. J. V. Sherman. Barron's 33:9+ S 14 '53
Don't be fooled by interest rates. W. H. Buell. Chem Eng 61:183-6 My '54
Off to a slow start; Small business administration loans. Chem W 75:13 Jl 17 '54
100 chemical process companies; analysis of their financial records, 1939, 1951, 1952, 1953. Ind & Eng Chem 46:1094-108 Je '54
Outlook for the chemical industry. C. P. Neidig. Chem & Eng N 32:2338-40+ Je 7 '54
Outside financing; key to chemical growth. W. H. McElneci, jr. Chem Eng 61:385-7 Ja '54
Over-all profits up three per cent in 1953. Chem & Eng N 32:2444 Je 14 '54
Profits take upward swing for most; annual review. Chem Eng 61:187 Mr '54
Profits up, sales steady. Chem W 74:15 F 27 '54
Progress, expansion, competition; biennial facts and figures. J. F. Bohmfalk, jr. and J. M. Crowe. Ind & Eng Chem 46:1087-93 Je '54
Report season in full swing; 1953 sales of 32 firms compared with those of 1952. Chem & Eng N 32:1086-7 Mr 15 '54
Reports roll in; with table comparing 1953 sales of 11 firms with sales of 1952. Chem & Eng N 32:1174 Mr 22 '54
Sales, net profits, over the top; chemical company earnings. Chem W 74:17 Mr 6 '54
Still climbing, but at a slower pace; borrowing by chemical companies. Chem W 74:25 My 22 '54
Striking a balance; change in financial thinking. Chem W 72:21 Je 6 '53
Symptoms of ripeness. Chem W 73:16 Ag 29 '53
Tax cut compensates sales loss; returns for the first half of 1954. Chem W 75:13 Ag 7 '54
Wrapped up in a $1.5-billion bill; chemical process industries' packaging costs. Chem W 73:50-1 Jl 25 '53
See also
Chemical industries—Securities
Chemical plants—Costs

History

Chemical progress report; reprinted from issue of May 16, 1904. M. I. Wilbert. Oil Paint & Drug Rep 165:7+ My 17 '54
Editors report on 1953. Ind & Eng Chem 46: sup 11A+ Ja '54

Public relations

Chemical progress week scorecard to date. il Chem & Eng N 32:2466-7 Je 21 '54
Difference; little touches. il Chem W 73:18+ Jl 11 '53
Firms learn; it pays to sell stockholders. il Chem W 72:16-18 Je 27 '53
For CPW, tremendous enthusiasm; interview with William C. Foster. Chem & Eng N 32:1758-60 My 3 '54
Manufacturing chemists association pilots Chemical progress week. J. W. Irwin. Chem & Eng N 32:859 Mr 1 '54
New tack on old problem; Texas chemical producers television broadcasts. il Chem W 74:24 Ap 10 '54
No carpetbagging here; Rayonier, inc. inaugurates its mill at Jesup, Ga. Chem W 75:22+ Jl 24 '54
Our seven wonders, and seven statute-building days. il Chem W 74:44-6 My 15 '54
Today's chemical president a 3-D man. Chem W 74:22-4+ Ap 17 '54

Regulation

Big pipe, little flow; more freedom for chemical freight. Chem W 75:14 S 4 '54
Chemical export ban eased by government. Oil Paint & Drug Rep 166:3+ Ag 30 '54
Ease-up on exports. Chem W 74:15-16 My 8 '54
Export controls relaxed on chemicals, other items. Oil Paint & Drug Rep 165:3+ Ap 5 '54
First session of 83d Congress made its mark on chemical industry. Chem & Eng N 31:3373-4+ Ag 17 '53
War goods embargo cut. Chem & Eng N 32:3508 S 6 '54

Salesmen

A.C.S. Division of chemical marketing and economics 125th national meeting, Kansas City; abstracts of papers. Chem & Eng N 32:1315-16 Ap 5 '54
Chemical salesman, how should he be paid? L. Avery. Chem W 72:28+ Ap 11 '53
Dealer school on wheels; Armstrong cork co.'s mobile auditorium. il Chem W 75:46 Jl 24 '54
How to cure wrong-way applications; Gates' school for distributor's salesmen. il Chem W 74:80+ My 15 '54
How to rate a salesman. Chem W 75:52+ S 4 '54
Key to more sales; cooperation. Chem W 75:44-5 Jl 10 '54
Manhunt; not more, but better sales representatives. Chem W 74:97-8+ Ap 17 '54
Measuring a chemical salesman. Chem W 75:89-90+ Jl 17 '54
More salesmen, more sizzle; chemical companies gearing up for tough selling. Chem W 72:50 Je 6 '53
Profile, chemical sales boss. Chem W 75:72-5 Jl 31 '54
Researching out sales; interview with L. G. Bliss, vice-president, sales, Foote mineral co. Chem W 75:39-40 S 25 '54
Sales executives sharpen their wits; Devoe & Raynolds co. il Chem W 75:72-4 S 18 '54
Sales managers' worries. Chem W 74:104+ Je 19 '54
Sales schooling; National Gypsum running school of its own. il Chem W 73:84+ N 14 '53
Seminar on selling; Salesmen's association of the American chemical industry sales clinic. il Chem W 73:77 O 10 '53
Staff grows in Brooklyn; blitz sales methods, crazy promotion devices mark Pfizer's rise in antibiotic sales. il Chem W 74:36-8+ F 6 '54
Technical training, help or hindrance in chemical selling? replies to questionnaire. J. F. Crowther. Chem & Eng N 32:1078-80 Mr 15 '54

CHEMICAL industries—Salesmen—*Continued*

Test of the aptitude test; chemical manufacturers sidle away from aptitude tests for selecting salesmen. Chem W 74:42-4 Ja 23 '54

See also

Salesmen's association of the American chemical industry

Securities

Are leading chemical shares overvalued? R. W. H. Geer. Comm & Fin Chr 178: 1931+ N 19 '53
Chemical industry; with data on position of leading chemical companies. R. Colston. Mag of Wall St 92:661-3+ S 5 '53
Chemical retorts and reports. I. U. Cobleigh. Comm & Fin Chr 178:1006-7 S 17 '53
Chemicals moving up strongly; with table, top ten mutual funds' holdings of industrial chemical common stocks; 1949, 1951, 1953. Chem W 74:16 Je 12 '54
Debt-type securities increase among chemical companies. Chem & Eng N 31:4626 N 2 '53
For investment; oils or chemicals? M. Souders and P. Neidig. Chem W 72:18+ Ap 11 '53
How an investor looks at chemicals. W. H. Chartener. Chem Eng 61:313-17 S '54
In investment firms, chemicals show. Chem & Eng N 32:2654 Je 28 '54
Investor looks at growth companies; abstract. W. K. Beckers. Chem Eng 60:330+ Jl '53
Small investor moving in. Chem & Eng N 32:778 F 22 '54

See also

Union carbide and carbon corporation

Statistics

Chemical specialties; sales continue rapid gains; biennial facts and figures. H. Stenerson. Ind & Eng Chem 46:1131-4 Je '54
Chemicals and allied products, 1949-1952. Survey of Cur Bsns 1953 Sup p 120-30 [supplemented in monthly numbers]
Chemicals data project gets trade go-ahead from chemical and rubber industry. Oil Paint & Drug Rep 164:3+ D 21 '53
Chemicals foreign trade second highest, 1953; Bureau of census. Oil Paint & Drug Rep 165:4+ F 22 '54
Drugs and fine chemicals. Published in weekli numbers of Oil, paint and drug reporter
Foreign trade; competition returns, U.S. trade levels off; biennial facts and figures. K. L. Anderson and C. P. Blackwell. Ind & Eng Chem 46:1135-8 Je '54
Heavy chemicals. Published in weekly numbers of Oil, paint and drug reporter
Inorganic chemicals; present capacity meets needs, future growth seen; biennial facts and figures. F. Talbot. Ind & Eng Chem 46:1115-22 Je '54
Organic chemicals; leveling off follows 1951 peak and 1952 decline; biennial facts and figures. J. H. Hibben. Ind & Eng Chem 46:1123-30 Je '54
Phenomenal growth leveling off, steady future growth seen; biennial facts and figures. M. F. Crass, jr. Ind & Eng Chem 46:1081-6 Je '54
Tariff commission report shows decline in synthetic organic chemicals and their raw materials in 1952. Soap & San Chem 29:177 O '53
Warning from industry re attrition of government statistics. Chem W 74:28 Mr 20 '54

Taxation

Cautious optimism over new deal in taxes. Chem W 75:24 S 18 '54
Chemical tax aid program cut sharply in sweeping ODM action. Oil Paint & Drug Rep 164:3+ D 7 '53
Congress votes rapid write-offs. Chem & Eng N 32:2884+ Jl 19 '54
MCA seeks changes in income tax setup. Oil Paint & Drug Rep 164:5+ D 7 '53
MCA tax proposals geared to industry's rapid depreciation. Chem & Eng N 31:5374 D 28 '53
More a deterrent than an incentive? omnibus tax revision bill. Chem W 74:19 My 1 '54
Tax bite versus pay envelope; with chart, ratio of taxes to wages and salaries, 1947/1952, for 20 selected chemical firms. Chem W 73:30+ D 12 '53
They'll make a difference; how new tax changes will look to company treasurers. Chem W 75:13-14 Jl 31 '54
What's an end product? Chem W 73:20+ O 24 '53
Write-offs roundup; Oct. 30, '52-Aug. 1, '53. Chem W 73:22+ Ag 8 '53

Alberta

Probing Alberta's resources; annual report. Can Chem Process 38:70 Je 20 '54

Argentina

Argentina. W. H. Shearon, jr. il Chem & Eng N 31:2576-80 Je 22 '53

Australia

Agricultural chemicals; progress in Australia; abstract. T. Conroy. Chem Age (Lond) 70: 479 F 20 '54
Australian newsletter (cont). Chem & Ind p866 Ag 15 '53
Double trouble down under. il Chem W 74:28 Mr 27 '54
Some economic aspects of the development of the chemical industry in Australia. E. R. Ablitt and R. N. Collin. Chem & Ind p886-94 Jl 17 '54

Austria

Chemicals in Austria. Chem Age (Lond) 70: 176 Ja 9 '54
How Austria's chemical output is resurging; tabulation. Chem W 74:34 Ap 10 '54
Strained but struggling; Austrian chemical industry. il Chem W 73:30+ Ag 15 '53

Belgium

Belgium looks to establishment of organic chemicals industry. Chem & Eng N 32: 2786 Jl 12 '54

Bolivia

Chemical industry in western South America. W. H. Shearon. Chem & Eng N 31:3741 S 14 '53

Brazil

Brazilian asphalt. Chem Age (Lond) 70:578 Mr 6 '54

Canada

BA-Shawinigan petrochemicals plant; phenol and acetone for cumene. il Chem Age (Lond) 70:513-16 F 27 '54
Big price jumps not expected. Can Chem Process 37:6 O '53
Boom signs a 'plenty north of the Border. il Chem W 73:12-14 Ag 1 '53
Boomland revisited. il map Chem & Eng N 32:2862-7 Jl 19 '54
Canada's chemical industry. il Chem Age (Lond) 71:425-8 Ag 28 '54
Canada's chemicals and allied products. D. W. Emmerson. il Ind & Eng Chem 46:sup25A Ja '54
Canadian chemical industry grows. Chem Age (Lond) 69:1279-80 D 19 '53
Canadian chemicals. J. Montagnes. Barron's 33:13 O 26 '53
Canadian industrial chemicals. H. G. Smith. Chem Age (Lond) 70:381 F 6 '54
Canadian petrochemical production. il map Can Chem Process 38:46+ Mr '54
Celanese's chemical expansion. Chem Age (Lond) 68:589-90 Ap 18 '53
Chemical Britain comes to Canada. Can Chem Process 38:6+ My '54
Chemical Canada; annual review. H. McLeod. Can Chem Process 38:6-8+ Je 1; 6-8+ Je 20; 8, 10, 12+, 20 Jl '54
Chemical expansion levels off. S. J. Cook. Chem & Eng N 32:1488 Ap 12 '54
Chemical output rises five per cent in '53. S. J. Cook. Chem & Eng N 32:1033 Mr 15 '54
Chemical plant site location factors. J. A. McCoubrey. Can Chem Process 38:30+ Ag '54
Chemical processing trade is different; in higher state of manufacture than average exports. Can Chem Process 37:16+ O '53
Chemicals productivity look. Can Chem Process 38:18 S '54

CHEMICAL industries—Canada—*Continued*

Cordial competitors. Chem W 74:15-16 Ap 10 '54
Costs up, profits down. A. H. Martin. Chem Age (Lond) 70:317 Ja 30 '54
Expansion in Canada. Chem Age (Lond) 69: 915 O 31 '53
Growth and trade in chemicals. Can Chem Process 37:12+ D '53
Growth of the backbone; industrial chemicals in Canada. Can Chem Process 37:22+ N '54
Money from microbes; bacterial fermentation in Canada. Can Chem Process 37:8+ O '53
Petrochemical review. Can Chem Process 38: 92 S '54
Provincial pattern of chemical growth. Can Chem Process 38:20+ Ja '54
Record capital investment. Can Chem Process 38:6+ Ap '54
They're inside chemical Canada. Can Chem Process 38:6 Ag '54
This is British chemistry in Canada. Can Chem Process 38:14 My '54
Where is Canada going in petrochemicals? E. F. Gibbons. map Pet Refiner 32:89-90+ Jl '53

See also

Chemical institute of Canada
Monsanto Canada, limited

Chile

Chemical industry in western South America. W. H. Shearon. il Chem & Eng N 31:3739-41 S 14 '53

China

What the free world has exported to Communist China, 1952 and 1953; table. Chem W 74:34 Je 5 '54

Colombia

Chemical industry in western South America. W. H. Shearon. il map Chem & Eng N 32: 1220-3 Mr 29 '54

Costa Rica

Chemical industry in Central America. W. H. Shearon. Chem & Eng N 31:4795-6 N 16 '53

Denmark

Danish chemical industry. il map Chem & Eng N 32:152-6+ Ja 11 '54

Ecuador

Chemical industry in western South America. W. H. Shearon. il Chem & Eng N 32: 1223-4 Mr 29 '54

Egypt

Chemical industry in Egypt. F. O. Green. il Chem & Eng N 31:3260-5 Ag 10 '53
Egypt plans industrial expansion. Chem & Eng N 32:824+ Mr 1 '54

El Salvador

Chemical industry in Central America. W. H. Shearon. il Chem & Eng N 31:4791-3 N 16 '53

Europe

Chemical industry and textiles in Europe. L. Pranal. Textile Inst J 45:P 125-34 Ap '54
Chemical industry in Europe. il Ind & Eng Chem 46:sup 18A+ Ja '54
Dollar market important in Europe's chemical industry. Chem & Eng N 31:3197 Ag 3 '53
German chemical industry seen offering stiffer competition to U.S.; abstract. E. M. Flaherty. Oil Paint & Drug Rep 164:5+ O 19 '53

Florida

Tourists welcome, no longer needed. il map Chem W 74:24-6 Je 12 '54

France

Expansion of chemical plant capacities in France. Chem & Eng N 31:2508 Je 15 '53
French industry recovering. Chem & Eng N 32:318 Ja 25 '54
Hors d'oeuvres on the house; new spirit in French chemical industry. il Chem W 74: 18-20+ My 29 '54
Newsletter from France (cont). Y. Prax. Chem & Ind p888-9 Ag 22 '53
Shift in plans? Chem W 75:19-20 S 11 '54

Germany

Back in five saddles; Farben just about on its corporate feet again. Chem W 72:19 Ap 25 '53
Back in full swing. Chem W 73:28 O 10 '53
Big investments by IG successors. Chem Age (Lond) 71:231-2 Jl 31 '54
Business quiet in German chemicals. Chem Age (Lond) 70:725 Mr 27 '54
Chemical research in western Germany. E. de Haas. Chem & Ind p604-9 Je 20 '53
Chemicals are freed of curbs by Germany. Oil Paint & Drug Rep 165:4 Mr 1 '54
Faithful to an ideal; Theo Goldschmidt A.G., chemische fabriken. Chem W 75:15-16 Jl 3 '54
German chemical finance. Chem Age (Lond) 68:887-8 Je 13 '53
German chemical industry needs foreign capital. Chem & Eng N 31:2996 Jl 20 '53
German chemicals need capital. Chem Age (Lond) 68:678 My 2 '53
German coal chemicals pass peak. Chem & Eng N 32:1484+ Ap 12 '54
German export recovery. Chem Age (Lond) 69:133 Jl 18 '53
German output and export maintained. Chem Age (Lond) 70:1111-12 My 15 '54
German production continues to rise. Chem Age (Lond) 70:1345-6 Je 19 '54
German production near capacity; first half of 1954. Chem Age (Lond) 71:479-80 S 4 '54
German surge slows. Chem W 75:80 S 11 '54
Germans expand coke chemicals. H. Nedelmann. Chem & Eng N 32:2190 My 31 '54
Germany's successful year. Chem Age (Lond) 70:429-30 F 13 '54
Healthy and hard-driving. il Chem W 75: 18-19 Jl 24 '54
Higher exports from west Germany. Chem Age (Lond) 69:761-2 O 10 '53
I.G. Farben successor. Chem Age (Lond) 69: 551-2 S 12 '53
Larger chemical sales in Germany. Chem Age (Lond) 69:279-80 Ag 8 '53
Latest news of German chemical industry. Chem Age (Lond) 69:1123-4 N 28 '53
Locking horns? our chemical trade with Germany. Chem W 73:14 D 12 '53
One man's meat; German chemical producers plea for lowered tariffs. Chem W 74:20 Je 26 '54
Opening the door; German-Soviet trade increasing. Chem W 74:24 Mr 27 '54
Resurgent Germany looks to chemicals. il Chem Eng 60:314+ Ag '53
Snag in the works; short-term financing. Chem W 75:36+ Ag 7 '54
Sulphuric acid output to capacity; rising trend of German chemical sales. Chem Age (Lond) 70:165-6 Ja 9 '54
There for the digging; interest in wartime German chemical research. Chem W 72: 26 Je 27 '53
Well on the road; Germany on the road to full convertibility. Chem W 74:13 Je 5 '54
West German trade still surging. il Chem W 74:16-17 Ja 30 '54

See also

Interessen gemeinschaft farbenindustrie aktiengsellschaft

Great Britain

Britain embarks on big chemical program. V. S. Swaminathan. il Oil & Gas J 52:130-2+ O 12 '53
British chemical industry status. Chem & Eng N 32:2292+ Je 7 '54
British chemical industry's future. J. Rogers; H. West. Chem Age (Lond) 68:954 Je 27 '53
British industry seeks raw materials sources. Chem & Eng N 31:4594-5 N 2 '53
British petroleum chemicals industry enters new stage. Chem & Eng N 31:3295-6 Ag 10 '53
Bulldog and the bear. Chem W 74:26 Mr 20 '54
Chemical stocks and shares during 1953. M. Duffy. Chem Age (Lond) 70:174-5 Ja 9 '54

CHEMICAL industries—Great Britain—*Cont.*

Economic effect of the U.K. petroleum chemicals industry on U.K. trade. R. F. Goldstein. bibliog Chem & Ind sup S24-7 Ag 10 '53

Four points for chemical engineers; improvement of productivity. J. G. Moore. Chem Age (Lond) 69:709-11 O 3 '53

Future of the chemical industry. Chem Age (Lond) 69:491-2 S 5 '53

Heavy chemical industry and production; progress made by ABCM committee. Chem Age (Lond) 69:1081-2; 70:827-8 N 21 '53, Ap 10 '54

Heavy chemical industry of Merseyside; abstracts of B.A.A.S. Chemistry section papers. Chem & Ind p 1007-10 S 26 '53

I.C.I. and nationalisation; commentary on Labour party's proposals. Chem Age (Lond) 70:507-10 F 27 '54

Improving picture in exports; revised classification of Board of trade figures. Chem Age (Lond) 70:520-1 F 27 '54

Key industry duty; chemicals added to list by amendment no. 6. Chem Age (Lond) 70:1299-300 Je 12 '54

New year messages from trade and professional leaders. Chem Age (Lond) 70:117-22 Ja 9 '54

Present status of the British chemical industry. F. J. Curtis. Chem & Ind p598-600 Je 20 '53; Abstracts. Chem & Eng N 31:2186+ My 25 '53; Chem W 72:17 My 23 '53

Report on the chemical industry, 1953. Chem & Ind p388-9 Ap 3 '54; Excerpts. Chem Age (Lond) 70:777 Ap 3 '54

Review of chemical prices. Chem Age (Lond) 70:521 F 27 '54

Slow but steady improvement continued; annual report for 1953 to the Manchester Chamber of commerce. T. C. Fawcett. Chem Age (Lond) 70:231-2 Ja 16 '54

State chemicals in Britain? Chem & Eng N 32:1027-8 Mr 15 '54

Tees-side developments. Chem Age (Lond) 71:374 Ag 21 '54

Ten years hence; promise of chemical technology in Great Britain; abstract. R. F. Goldstein. Chem & Ind p 17 Ja 2 '54

This is chemistry in Britain. Can Chem Process 38:14 My '54

Year of considerable activity; extending the scope of APV. il Chem Age (Lond) 71:645-6 S 25 '54

See also
Imperial chemical industries

Guatemala

Chemical industry in Central America. W. H. Shearon. il Chem & Eng N 31:4790-1 N 16 '53

Gulf Coast region

Alkaline Gulf stream; caustic soda pressed for more outlets. map Chem W 72:60-2 Je 27 '53

Honduras

Chemical industry in Central America. W. H. Shearon. il Chem & Eng N 31:4793-4 N 16 '53

Iceland

Powered by a glacier; Iceland's ammonia plant. il Chem W 74:105-6 Ja 26 '54

India

Doomed by shortage? il Chem W 73:18+ Jl 18 '53

Policy change-over; startling pronouncement, the Indian government will not seek to enter chemical production. il Chem W 74:20-1 Ja 30 '54

Indianapolis

Selling youngsters on the system; Indianapolis chemical men helping novel training program; instructional material for pupils from grade 4 to 12 in book, film-strip, news magazine form. il Chem W 74:21 Ap 24 '54

Israel

Chemical frontier on ancient soil. Ind & Eng Chem 45:sup 18A+ Ag '53

Israel expands in chemicals. E. Nathan. il Chem Eng 61:118 F '54

Italy

Italian chemical plant seeks U.S. capital investment of $150,000 to expand business. For Comm W 50:11 Ag 3 '53

Italian chemical production. Chem Age (Lond) 69:366 Ag 22 '53

Latin colossus; driving on world markets; Società generale Montecatini. il Chem W 72:18-20+ Je 13 '53

Milano musings. Chem W 73:30+ Jl 25 '53

Rocketing ahead. Chem W 74:18 Ap 3 '54

Japan

Clamor for free trade. Chem W 75:13 Jl 17 '54

Double dilemma for State and Commerce dept. officials. Chem W 74:24 F 27 '54

Right on the brink; Japan's development of petrochemical industry. Chem W 73:26 N 28 '53

Time to take stock? Chem W 75:11-12 Ag 14 '54

Kansas

Bid from wheatlands; Industrial development commission suggests companies build plants in Kansas. Chem W 75:20+ Jl 17 '54

Kentucky

New chemical hub. il Chem W 72:15-16 Ap 18 '53

Louisiana

Big boom at Red Stick. il map Chem W 73:19-20 O 3 '53

Expanding Baton Rouge's port. map Chem & Eng N 32:3494 S 6 '54

On the chemical crescent; New Orleans' postwar chemical expansion. il map Chem & Eng N 32:2676-9 Jl 5 '54

Maritime provinces, Canada

Sea chemicals from the Maritimes? A. F. Cadenhead. Can Chem Process 38:82 My '54

Mexico

Chemical industry in Mexico. J. Sperling. il map Chem & Eng N 32:3628-32 S 13 '54

Mexican giant branching out again; Celanese Mexicana. il Chem W 74:30 Ja 23 '54

Yankee hustle below Border. il Chem W 73:30+ S 19 '53

Michigan

Chemicals build Michigan plants. R. D. Raddant. map Iron Age 174:109 S 16 '54

Middle western states

Chemicals from the breadbasket. il Chem & Eng N 32:3584-7 S 13 '54

Netherlands

Dutch petroleum chemicals industry expanding. Chem & Eng N 32:70 Ja 4 '54

Lure for the Lowlands. il Chem W 73:50 Ag 22 '53

New England

Business at Boston; static but healthy. il map Chem W 74:26-8 My 22 '54

New Jersey

Chemical avenue, U.S.A., 90 miles long. il map Chem W 75:30-2+ Ag 7 '54

Nicaragua

Chemical industry in Central America. W. H. Shearon. il Chem & Eng N 31:4794-5 N 16 '53

Norway

Norway's chemical industry strives to get out of red. Chem & Eng N 32:1366 Ap 5 '54

Norwegian chemical industry. W. Holst. Chem Age (Lond) 68:593-4 Ap 18 '53

Ohio

Choicest customers, nearest neighbors. il map Chem W 75:18-20+ S 4 '54

Upper Ohio resurgence. il map Chem W 73:26+ Ag 22 '53

Oklahoma

Sooners beckon: data and destiny. il Chem W 74:16+ Je 5 '54

Ontario

Living up to a name; Canada's chemical valley. il map Chem W 73:26+ Jl 11 '53

CHEMICAL industries—*Continued*

Panama

Chemical industry in Central America. W. H. Shearon. il Chem & Eng N 31:4796 N 16 '53

Paraguay

Chemical industry in western South America. W. H. Shearon. il map Chem & Eng N 31:3736-8 S 14 '53

Peru

Chemical industry in western South America. W. H. Shearon. il Chem & Eng N 32:2211-12 My 31 '54

Poland

Overflowing into world markets. il Chem W 73:17 D 19 '53
Poland eyes world chemical markets. il Chem Eng 61:352-5 Mr '54
Polish chemical production. Chem & Eng N 32:936 Mr 8 '54

Puerto Rico

Ardent for industry. il Chem W 74:18+ Ap 10 '54

Quebec (province)

Glues for Canadian plywood; Reicholds phenolic resin plant in Ste Therese. il Can Chem Process 37:38+ N '53

Rocky Mountain region

Resources for the chemical industry in the United States; Rocky Mountain states. bibliog maps Ind & Eng Chem 45:2423-81 N '53

Russia

Bulldog and the bear. Chem W 74:26 Mr 20 '54
Reverse picture; what Soviet is exporting to western countries. Chem W 73:16 O 31 '53
Serious lag in Russia; officials turning stern eye on agricultural chemical production. Chem W 74:32 Ja 23 '54
Soviet baits, Europe bites; flow of western European chemical exports. Chem W 73:18-19 O 17 '53
Soviet chemical output continues to rise. Chem Eng 61:352-3 Ap '54

Scotland

Grangemouth promises to become important chemical center. Chem & Eng N 31:3665 S 7 '53

Southern states

Big new chemical plant investments assured in South during 1954. S. Fish. Manuf Rec 123:46-7 Ja '54
Development of the chemical and allied industry in the South. C. O. Hoyer. Am Soc C E Proc 79 [no 226]:1-13 Jl '53
Survey of the South. A. P. Black. Am Dyestuff Rep 43:sec 2 Ag 30 '54

Southwestern states

Three new plants open; Southwest continues to dominate plant expansion scene. il Chem Eng 60:110-12+ Jl '53

Spain

Chemical castles in Spain. il map Chem & Eng N 32:2492-7 Je 21 '54
Heavy chemicals in Spain. Chem Age (Lond) 69:1277 D 19 '53
Spanish chemical industry threatened. Chem & Eng N 31:5377+ D 28 '53

Switzerland

Swiss chemical industry. Chem Age (Lond) 69:607 S 19 '53
Swiss chemical industry flourishes. Chem & Eng N 31:2697 Je 29 '53
Swiss foreign trade expanded. Chem & Eng N 32:936 Mr 8 '54

Tennessee

No time for juleps; business good in Memphis. il Chem & Eng N 32:914-17 Mr 8 '54

Texas

Bonus; a Texas terminal; Phillips terminal co. il Chem W 73:32+ Jl 4 '53
Channelside industry; flourishing growth. il map Chem W 74:20-2 Mr 27 '54
Small town, big neighbor. il Chem W 72:18-21 Je 20 '53
Standout in Texas; Orange chemical expansion. il map Chem W 72:18+ My 30 '53
Water is the bait in Timpson, Tex. il Chem W 74:24 My 29 '54

United States

Charting chemicals' future over the next four years. Chem W 72:22+ Ap 11 '53
Chemical industry looks forward to 1954-1955; McGraw-Hill survey. Chem Eng 60:326-8 D '53
Chemicals along the Ohio. il map Chem & Eng N 32:3712-15 S 20 '54
Editors report on 1953. Ind & Eng Chem 46: sup 11A+ Ja '54
Imports at United States ports. Published in weekly numbers of Oil, paint and drug reporter
Marriage of convenience; exporters and chemical producers. il Chem W 73:50+ N 7 '53
No rocking chair; McGraw-Hill survey, 1954. Chem W 73:13 N 7 '53
Postwar expansion in organics halted by 1952 production loss. Chem & Eng N 31:2968+ Jl 20 '53
Profits rising, prospects pleasing. Chem W 73:13-14 Ag 15 '53
Putting the pressure on exports. Chem W 73:46-8 O 17 '53
Resourcefulness in chemical industry of USA. W. C. Foster. Chem Age (Lond) 69:1325-6 D 26 '53
Resources for chemical industry in the United States; West north central states; symposium abstracts. Chem & Eng N 32:1314-15 Ap 5 '54
Resources for the chemical industry in the United States; East north central states. bibliog il maps diags Ind & Eng Chem 46: 468-505 Mr '54 (reprints 75c)
Role of technology in United States chemical industry; Castner memorial lecture. R. C. Swain. Chem & Ind p574-7 Je 13 '53
Rolling center of gravity; chemical process industries roving south and west. il map Chem W 75:20-1 S 25 '54
Round trip for ideas; State department's foreign exchange-visitor program. Chem W 73:15 Ag 15 '53
Shifting chemical scene; climbing faster than manufacturing as a whole. map Chem Eng 60:357-8+ Je '53
Top ten consumers on the chemical hit parade. Chem Eng 60:326+ Jl '53
Uneasy lie the heads. Chem W 72:37-8 My 16 '53

Uruguay

Chemical industry in western South America. W. H. Shearon. il Chem & Eng N 31:3738-9 S 14 '53

Utah

Utah bustle. Chem W 73:31 N 21 '53

Venezuela

Chemical industry in western South America. W. H. Shearon. il Chem & Eng N 32:2208-11 My 31 '54
U.S. eyes are on Venezuela. il Chem W 75:24 Jl 10 '54

Washington (state)

Pile-up in corner pocket; Puget Sound area chemical industry. il map Chem W 74:18+ Ja 16 '54

West Virginia

Upper Ohio resurgence. il map Chem W 73: 26+ Ag 22 '53

Western states

Few chemical homes on the range. Chem W 73:29-30 N 28 '53

Yugoslavia

Young but active now; Yugoslavia's chemical industry. il Chem W 73:28+ N 21 '53

CHEMICAL Institute of Canada
Annual meeting, 36th, Windsor, June 4-6. Chem & Eng N 31:2484-6+ Je 15 '53
Annual meeting, 37th, Toronto, June 21-23; abstracts of papers. Can Chem Process 38: 66-8 Je 20 '54

CHEMICAL institute of Canada—*Continued*

Joint conference with American institute of chemical engineers, 1st, Toronto; with abstracts of papers. Chem Eng Prog 49:sup 17-19 Je '53

Meeting, Toronto; abstracts of papers. Chem & Eng N 32:2687-8+ Jl 5 '54

Officers, directors, councillors elected. Oil Paint & Drug Rep 166:7+ Jl 5 '54

Rubber chemistry division meeting, Toronto, June 23; with abstracts of papers. India Rubber World 130:226-7 My '54; [cont as] Rubber World 130:678-9 Ag '54; Rubber Age 75:397-8, 559 Je-Jl '54

CHEMICAL laboratories

Ahead on points; U.S. rubber co. legal battle over erection of laboratory in Wayne township, N.J. Chem W 74:101-2+ Ap 24 '54

Behind the tariff scene; New York's customs laboratory. il Chem W 75:14 S 25 '54

Built for flexibility; Imperial chemical industries' Plastics research center. il Chem W 74:48 F 13 '54

Cabot builds for the next 70 years. il Chem & Eng N 31:2410-11 Je 8 '53

Cellulose and soybean research; Buckeye cotton oil Memphis labs. il Chem & Eng N 32:2187 My 31 '54

Chemical research laboratory, Teddington. Engineering 176:428 O 2 '53

Chemist-designed for chemists' use; Mallinckrodt organic research labs. il Chem & Eng N 32:297 Ja 25 '54

Commercializing the triple bond; Air reduction chemical co. il Chem & Eng N 32:1466-7 Ap 12 '54

Designed for speed, built for comfort; quality control laboratory of International minerals & chemicals corp. il Chem W 74:62-4 My 29 '54

Dow Chemical dedicates Veazey research center. il Chem & Eng N 31:4438 O 26 '53

Dow dedicates laboratory to E. C. Britton. il Chem & Eng N 31:2296+ Je 1 '53

Finding the long-lasting fragrance; Dodge & Olcott laboratory for filling and testing aerosol packages. il Chem W 74:66-8 Ap 24 '54

Flexibility stressed in new ICI Plastics division lab. il Chem & Eng N 32:513 F 8 '54

General Chemical opens new research labs at Allied center. il Chem & Eng N 32:3720+ S 20 '54

Honors to high pressure pioneer; Northwestern dedicates new laboratory to carry on work of late Vladimir Ipatieff. il Chem & Eng N 31:5064+ D 7 '53

I.C.I. Plastics division new plastics laboratory. il Chem & Ind p69-70 Ja 16 '54

Just like a step-saving kitchen; pictorial presentation of analytical laboratory at Monsanto's John F. Queeny plant in St Louis. Chem & Eng N 31:3770-1 S 14 '53

Laboratory management. J. A. Edwards. Chem Age (Lond) 68:955-9 Je 27 '53

Laboratory of the month. il Anal Chem 26: sup28A-9A Ja '54 [cont monthly]

Lever Brothers' new research center. il plans diags Arch Rec 113:179-83 Ap '53

Lift-slab, tilt-up, a modern lab is built up; American potash & chemical corp.; illustrations with text. Chem & Eng N 31:2606-8 Je 22 '53

Miami Valley laboratory for the Procter and Gamble co. il Heat & Ven 50:63-5 N '53

New Central laboratories at Hyderabad. Chem & Ind p 185-6 F 13 '54

New chemical laboratory of the University of Hawaii. L. N. Bilger and E. M. Bilger. il J Chem Educ 31:300-2 Je '54

New research building for I.C.I. Plastics. il Chem Age (Lond) 70:217-19 Ja 16 '54

New research center. il Pet Refiner 32:120 O '53

New Wyandotte research center. il Soap & San Chem 29:49+ Je '53

$1.5 million for Du Pont lab. at Kingston. il Can Chem Process 38:22 Jl '54

One-man night shift saves the day; night lab assistant. il Chem W 75:52-3 Jl 31 '54

Recent developments in laboratory design. E. W. Dobson. il Chem Age (Lond) 70: 1437-40 Je 26 '54

Seeking sweet smells; flavor, perfume, and industrial odorant labs have opening at Dodge & Olcott. il Chem & Eng N 31:5350 D 28 '53

Wyandotte Chemicals dedicates new research laboratory. il Chem & Eng N 31:2402-3 Je 8 '53

See also

Agricultural laboratories
Chemical engineering laboratories
Dye laboratories
India—National chemical laboratory
Paint laboratories
Petroleum laboratories
Pharmaceutical laboratories
Radiochemistry laboratories
Rubber laboratories

Accidents

Some accidents in Japanese school laboratories. H. Sawamura. J Chem Educ 30:310 Je '53

Design

Present trends in laboratory design. J. D. Wilson. plans diag Can Chem Process 38: 74-6+ Ag '54

Electric equipment

Electronic coulometer. K. W. Kramer and R. B. Fischer. diag Anal Chem 26:415-16 F '54

Electronic interval marker. A. F. Marion. diag J Chem Educ 30:252-3 My '53

Laboratory electric timing device. R. E. Schachat and E. I. Becker. bibliog diags Anal Chem 25:1136-7 Jl '53

1000-cycle distribution system. A. P. Marion. diag J Chem Educ 30:608 D '53

60-cycle source for operation of laboratory timers. W. J. Biermann and N. Weber. il diag Anal Chem 25:1284-5 Ag '53

Equipment

Bench-scale equipment for reactions at high pressure. A. M. Whitehouse and others. diags Chem Eng Prog 49:491-6 S '53

Channels form framework for lab furniture; chemistry department of the University of Oklahoma. il Arch Rec 115:210-11 Mr '54

Cleaning, care and maintenance of glass, metal and plastics apparatus. J. A. Edwards. Chem Age (Lond) 70:1433-6 Je 26 '54

Closet for measuring continuous drying rates. E. E. Hart and H. L. Dunlap. il J Chem Educ 30:364-5 Jl '53

Contant-temperature heater. S. H. Tucker. diag J Chem Educ 30:634 D '53

Devices for the continuous addition of solids with liquids on the laboratory scale. D. E. Weiss. diags Chem & Ind p741-2 Jl 18 '53

Disintegration plant; Reitz equipment. Chem Age (Lond) 69:1023 N 14 '53; Engineering 176:832 D 25 '53

Electrodeposition apparatus for student laboratories. F. J. Elving and others. il diags J Chem Educ 30:254-6 My '53

Fisher designs custom-equipped laboratory on wheels for field use. il Chem & Eng N 31:2716 Je 29 '53

Harnessing the workhorses; research in laboratory apparatus business booming. il Chem W 74:44+ Mr 20 '54

High temperature furnaces for organic elementary analysis. W. Kirsten. bibliog il diags Anal Chem 25:805-6 My '53

Improved dip coater. A. G. Roberts and R. S. Pizer. il Anal Chem 26:790 Ap '54

Inert atmosphere dry box for chemical operations. J. M. Sherfey. il diags Ind & Eng Chem 46:435-40 Mr '54

Small-scale units for organic identifications. J. T. Stock and M. A. Fill. bibliog il diags J Chem Educ 31:144-8 Mr '54

Solvent take-off adapter. I. A. Kaye. diag J Chem Educ 30:521 O '53

Still no substitute for ingenuity; Esso's Linden, N.J. research center. il Chem W 74:52+ Ja 23 '54

Storing rubber tubing. R. S. Young and others. diag J Chem Educ 30:317 Je '53

Vest-pocket laboratory; portable organic unit by Quickfit & Quartz. il Chem Age (Lond) 70:511-12 F 27 '54

CHEMICAL laboratories—*Continued*

Safety measures

Carrying gas cylinders safely; exhibit during meeting of Society of chemical industry. il Chem & Eng N 32:3512 S 6 '54
Program for safe handling of petrochemical compounds in laboratory. C. H. Hine. Chem & Eng N 31:4248 O 12 '53
Safest spot in the house. il Chem W 74:58+ Ap 17 '54
Safety in chemical laboratories. W. B. Cook and A. J. Perkins. J Chem Educ 31:95-6 F '54
Safety practices and the chemistry stockroom. D. G. Nicholson. Can Chem Process 37:68-9 Je 20 '53; Same. J Chem Educ 30:188-9 Ap '53
Safety precautions in chemical laboratories. Chem Age (Lond) 71:483-6 S 4 '54
Students should have advantages of safety instruction and supervision in college laboratories and pilot plant. V. R. Croswell. Ind & Eng Chem 45:sup 114A-16A S '53
Toxicological properties of laboratory materials. A. E. Dooley. Am Pet Inst Proc 33(3):379-80 '53
Useful hints for sodium handling in the laboratory. A. S. Hawkes and others. il diags J Chem Educ 30:467-70 S '53

CHEMICAL libraries

Chemical librarian in industry. I. M. Strieby. bibliog J Chem Educ 30:522-5 O '53
Documentation and bibliography in La maison de la chimie. M. V. P. Deschiens. il J Chem Educ 31:97-9 F '54
Financing the facts; library of Chemists' club. Chem W 73:56+ O 10 '53
Money in the bank; library at New York's chemists' club. il Chem W 75:121 S 25 '54
Outracing the treadmill; Nopco chemical company librarian abstract bulletin. Chem W 73:43+ N 28 '53
Punched card pilot plant; National research council's Chemical-biological coordination center. Ind & Eng Chem 45:sup 17A-18A Ag '53

CHEMICAL literature

A.C.S. Division of chemical literature 124th national meeting, Chicago; abstracts of papers. Chem & Eng N 31:3967-8 S 28 '53
A.C.S. Division of chemical literature 125th national meeting, Kansas City; abstracts of papers. Chem & Eng N 32:1441-2 Ap 12 '54
Chemical Engineering reader service. Published in monthly numbers of Chemical engineering
Dechema monographs; publication resumed. Chem Age (Lond) 68:935-6 Je 20 '53
Electronic brain translates Russian; IBM 701, of International business machines corp. il Chem & Eng N 32:340-1 Ja 25 '54
Information services; report on behalf of S.C.I. documentation committee. J. E. L. Farradane. Chem & Ind p 1170 O 31 '53; Discussion. A. A. Newman. p25-6 Ja 2 '54
Information transfer, a new unit operation? M. Sittig. bibliog il Chem Eng Prog 49:325-9 Je '53
International abstracting board will encompass chemistry. Chem & Eng N 32:257 Ja 18 '54
Literature problems in analytical photometry. M. G. Mellon. bibliog(53 ref) Anal Chem 26:181-5 Ja '54
New tools for the resurrection of knowledge; ACS committee on scientific aids to literature searching. Chem & Eng N 32:866-9+ Mr 1 '54
Outracing the treadmill; Nopco chemical company librarian abstract bulletin. Chem W 73:43+ N 28 '53
Solving the indexing problem; punched cards provide answer. il Chem Age (Lond) 68:965-6 Je 27 '53
Studies in chemical documentation. G. M. Dyson. bibliog il diags Chem & Ind p440-9 Ap 17 '54; Discussion. W. H. T. Davison. p788 Jl 3 '54; Reply. p934 Jl 24 '54
Suggestions for translating German, French, and Italian chemical literature. H. Fischbach. J Chem Educ 30:388-93 Ag '53
Three chemical abstract journals. E. J. Crane. Chem & Eng N 32:2990 Jl 26 '54
See also
Chemical abstracts (periodical)
Chemistry—Periodicals

Study and teaching

University instruction in chemical literature. G. Jahoda. J Chem Educ 30:245-6 My '53

Italy

Italian chemical literature. L. J. Stevens. J Chem Educ 31:180-3 Ap '54

Japan

Japanese chemical literature. L. J. Stevens. bibliog J Chem Educ 31:471-4 S '54

Russia

Glancing at Soviet abstracts. Chem & Eng N 32:764 F 22 '54
Monthly list of Russian accessions. S. G. Machelson. J Chem Educ 30:418-19 Ag '53

CHEMICAL market research association

Annual meeting, New York, May 20; with abstracts of papers. Oil Paint & Drug Rep 165:5+ My 24 '54
Meeting in tribute to Chemical progress week. Chem W 74:14-15 My 29 '54
Meeting, Manchester, Vt.; abstracts of papers. Oil Paint & Drug Rep 166:7 S 27 '54
Meeting, Niagara Falls, Feb. 25. Oil Paint & Drug Rep 165:7+ Mr 1 '54
Meeting, Pocono Summit, Pa. Chem & Eng N 31:4007-8+ S 28 '53

CHEMICAL models

Models illustrating the Lewis theory of acids and bases. F. Y. Herron. J Chem Educ 30:199-201 Ap '53
Predicting reactions of a resonance hybrid from minor canonical structures. A. Gero. J Chem Educ 31:136-8 Mr '54

CHEMICAL patents

Commercial chemical development association meeting, St Louis; abstracts of papers. Chem & Eng N 32:396-7 F 1 '54
CCDA patent talks. Oil Paint & Drug Rep 165:7, 54-5 Ja 25 '54
Eyeing a machine cure for Patent office. Chem W 75:50+ S 11 '54
Five-ring circus; litigation involving manufacturers of adhesive tape. Chem W 74:24 F 13 '54
Increase in corporation patent work. W. C. Asbury and J. K. Small. Chem Eng Prog 50:319 Je '54
Lilly challenges validity of new patent for procaine penicillin. Chem & Eng N 32:2091 My 24 '54
New patent law; how does it affect the chemical engineer? P. L. Young. bibliog Chem Eng Prog 49:223-5 My '53
New patents. Published in monthly numbers of Soap and sanitary chemicals
One instead of two; revised rules of practice proposed by U.S. patent office. Chem W 75:32 S 18 '54
Patents. Chem & Eng N 31:5070+ D 7 '53
Protection ups its price. Chem W 75:58 Jl 3 '54
Trial for toothpaste before expiration date of chlorophyll patent. Chem W 73:13 Ag 22 '53
Tussle over TCP. Chem W 74:15 My 15 '54
Your checklist of new patents. Published in monthly numbers of Chemical engineering
See also
Glass manufacture—Patents
Drugs—Patents
Paper making—Patents
Petroleum refining—Patents
Soap—Patents

CHEMICAL plants

Allied dedicates Texas plant. il Chem & Eng N 32:2184 My 31 '54
BA-Shawinigan petrochemicals plant; phenol and acetone from cumene. il Chem Age (Lond) 70:513-16 F 27 '54
Before and after; adaptation of existing plants to changed conditions. A. V. Slack. flow sheets il Chem & Eng N 32:3454-8 Ag 30 '54
Caustic-chlorine plant for western Canada. Can Chem Process 38:40 F '54
Classification of maintenance costs. C. E. Knight. Pet Processing 8:1358+ S '53

CHEMICAL plants—*Continued*

Complaints against chemical works; alkali inspectors report. Chem Age (Lond) 69:275-8 Ag 8 '53
Corrosion in chemical plant. T. K. Ross. Chem Age (Lond) 71:655-9 S 25 '54
Corrosion testing for your plant. M. F. Mueller and A. D. Laehder. bibliog(26 titles) il Chem Eng 60:193-5 O '53
Davison Chemical's new plant in production at Bartow, Florida. il Manuf Rec 123:34-5 Je '54
Deluge or drought, looking ahead saves the builder. il Chem W 73:45-6+ O 3 '53
Design for the future. F. Whitney. Chem W 73:81 O 17 '53
Do-it-yourself detergent plant; Pfaudler's packaged unit. flow diag Chem & Eng N 32:2434 Je 14 '54
Du Pont construction force; engineering tomorrow's world. J. P. Chamberlain. il Eng N 151:42-4+ Ag 6 '53
Engineering for today's chemical plants. R. P. Genereaux. Chem Eng 61:182-4 Ap '54
Enter; aqua ammonia; Brea chemicals. il Chem & Eng N 32:1456-7 Ap 12 '54
Every city a suitor. Chem W 73:28 O 3 '53
Farm to tankfarm in east-central Illinois; National Petro-Chemicals' $50 million plant. il Chem & Eng N 31:4762-3 N 16 '53
First certificate of necessity ammonia plant goes on stream; pictorial presentation of Commercial solvents corp. plants in Sterlington, La. Chem & Eng N 31:4112-13 O 5 '53
French plants make alcohols, solvents, detergents. V. S. Swaminathan. flow chart il Pet Eng 25:C 19+ N '53
From the salt of the earth; Hooker Electrochemical stages tour of new chlorine-caustic plant. il Chem & Eng N 32:2569 Je 28 '54
From toiletries to aromatics; pictorial presentation of Shulton, inc.'s plant near Clifton, N.J. Chem & Eng N 31:3556-7 Ag 31 '53
Government gets out of business. Chem & Eng N 32:1358+ Ap 5 '54
Huge petrochem plant dedicated; National Petro-Chemicals' Tuscola project. G. Weber. il diag Oil & Gas J 52:48-9 N 23 '53
Hydrazine at Lake Charles. D. P. Thornton, jr. il Pet Processing 8:1540-1 O '53
In and running; Standard's phenol plant. il Chem W 74:100+ Mr 20 '54
Increasing phosphorus production; Albright & Wilson, ltd. il Chem Age (Lond) 70:671-2 Mr 20 '54; Same cond. Chem & Eng N 32:1484 Ap 12 '54
Integration of engineering skills in chemical plant construction. C. W. Perry. Chem Eng Prog 50:382-4 Ag '54
Lately a plan, now a plant; phenol from cumene; B.A.-Shawinigan, ltd. il Chem W 72:34-6+ Je 13 '53
Lots of light linseed oil; Cargill's new solvent extraction plant. il Chem & Eng N 32:1660 Ap 26 '54
Midyear report; engineering and technological reviews; complete plants feature petrochemical expansion; petrochemical-plant building projects, U.S. and Canada. Oil & Gas J 52:257-8 Jl 27 '53
Modern wax refinery; M. Argüeso & co. il Soap & Chem Spec 30:162-5+ My '54
More ammonia for the West; Shell Chemical at Ventura. il Chem & Eng N 31:5276-7 D 21 '53
New Canadian plant produces formaldehyde, pentaerythritol. il Chem & Eng N 31:4096+ O 5 '53
New high-pressure hydrogenation plant, Marchon products, ltd.; with speeches by F. Schon and H. Tizard. il Chem Age (Lond) 71:25-8 Jl 3 '54
New plant at Aycliffe; Bakelite, limited complete vinyl resin factory. il Chem Age (Lond) 69:1281-2 D 19 '53
New plants and facilities under way, 1953. il Chem Eng 61:170-86 Ja '54
Optimistic over plastics; St Maurice chemicals, ltd. il Chem W 73:27-8 O 3 '53
Petrochemical plant opened at Tuscola. il Chem Eng Prog 49:sup 18+ D '53
Petroleum→cumene→phenol; Standard oil of California's Richmond refinery. il Chem & Eng N 32:1114 Mr 22 '54
Plant construction factors in New Mexico, Wyoming, Idaho and Montana. J. F. O'Connell. Ind & Eng Chem 45:2474-6 N '53
Plant design for undergraduate chemical engineers. M. S. Peters. J Chem Educ 30:619-22 D '53
Plastics, polymer, styrene; Foster Grant new styrene plant. il Chem & Eng N 32:1870-1 My 10 '54
Progress report; more acrylonitrile on the way; pictorial presentation of New Orleans American cyanamid co. plant. Chem & Eng N 31:2788-9 Jl 6 '53
Reports on chemical progress in 1953; construction. il Ind & Eng Chem 46:sup41A+ Ja '54
Right time, right place, right ingredients; Pedlow-Nease chemical co. il Chem W 73:25-6+ O 31 '53
Seven steps to acrylonitrile; American Cyanamid's first entry into production of chemicals from natural gas. il Chem & Eng N 32:2572+ Je 28 '54
Shell's new plant in France. il Pet Processing 8;1546 O '53
Soda ash plant at Westvaco, Wyo. il Chem Eng Prog 49:sup 29 Jl '53
Store-bought buildings for chemical industry. il Chem Eng 61:140+ Ap '54
Sun oil co.'s petro-chemical plant goes on stream at Marcus Hook, Pa. Paint Oil & Chem R 116:38 D 17 '53
Sun's new petrochemical plant at Marcus Hook, Pa. il Chem Eng 61:142+ F '54
Tougher than it looks; Mathieson hydrazine plant. il Chem W 73:42+ Jl 18 '53
Trouble in your sampling systems? S. B. Spracklen. Pet Processing 8:1899-901 D '53
Try these hints on your next revamping. Chem Eng 61:387-8 Je '54
U.S. and Canadian petrochem plants. J. C. Reidel. bibliog il Oil & Gas J 52:88-100 O 26 '53
US in quandary over plant disposal. Oil Paint & Drug Rep 165:3+ Ja 18 '54
Visit new van Ameringen-Haebler plant. il Soap & San Chem 30:44-5 Ja '54
Vitro builds nerve gas plants. il Chem & Eng N 32:3492-3 S 6 '54
Wage arrow points South. map Chem W 73:30-2+ N 14 '53
Watford Chemicals new ester plant in Toronto. il Can Chem Process 37:76+ N '53
Weather forecasts save construction dollars. il Chem Eng 61:124+ Mr '54
What to do with that old plant? R. Williams, jr. Chem Eng 60:185-6 D '53
What's unique about Tuscola? plant of National petro-chemicals corp. il plan Pet Processing 8:1889-91 D '53
Yields more ethylene oxide; direct oxidation of ethylene at Naphtachimie, France. il Chem Eng 61:136 F '54

See also
Cement plants
Clay products plants
Corn products plants
Drug factories
Dye factories
Food factories
Glass factories
Paper and pulp mills
Petroleum refineries
Rubber, Artificial—Manufacture
Rubber factories
Soap factories
Water supply for chemical plants

Accidents

Fewer slips per shop. Chem W 75:19 Jl 3 '54
Improvement is possible. Chem Age (Lond) 70:30-2 Ja 2 '54
Praiseworthy, not perfect. Chem W 73:64+ S 5 '53
Safest year yet for MCA companies. Chem & Eng N 32:2521 Je 21 '54
Safety records; abstract. S. M. MacCutcheon. Chem & Eng N 32:1614 Ap 19 '54
Tension spells danger. Chem W 72:18-19 My 2 '53

Accounting

See Chemical industries—Accounting

By-products

Regeneration of sulfuric acid from by-product calcium sulfate. J. M. Stinson and C. E. Mumma. bibliog Ind & Eng Chem 46:453-7 Mr '54

CHEMICAL plants—*Continued*

Cleaning

Cleaning greasy floors; self-powered Cowlard C50A. Chem Age (Lond) 69:1183 D 5 '53

Control

Approaching the control problem of the automatic chemical or petroleum plant. M. V. Long and E. G. Holzmann. diags A S M E Trans 75:1373-81 O '53

Automatic control of chemical processes. A. J. Young. il diags Instruments 26:100-1+, 254-5+, 411-13+, 572-3, 727+, 878-9+, 1020-1+, 1182-5, 1226+ Ja-Ag '53; [cont as] Instruments & Automation 27:440-8, 622-6, 778-9+, 942-3 Mr-Je '54

Automatic controls. diags Can Chem Process 37:44+ N; 36+ D '53; 38:34+ Ja '54

Continuous control of plant stream by infrared analyzer. D. E. Berger. il Instruments 26:872-3+ Je '53

Control instruments; industry spending more on them every year. N. Willatt. Barron's 33:17-18 D 7 '53

Final control elements. il diags Can Chem Process 38:60+ F; 66+ Ap '54

Link in the control chain; digital data-logging equipment to absorb and correlate process information. il Chem W 75:40-1 S 4 '54

Managing the automatic plant. C. E. Knight. il Chem Eng 61:225-9 Je '54

Plant control by gas analysis. A. W. Angerhofer and B. M. Dewey. il diags Instruments 26:580-3 Ap '53

Process instrumentation; symposium. bibliog flow diags il diags Ind & Eng Chem 46:1371-435 Jl '54

Process monitoring by graphic panels and automatic scanners. L. Walter. il Chem Age (Lond) 69:444-6 Ag 29 '53

Costs

Controlling costs in construction. R. E. DeSimone. Chem Eng Prog 50:379-81 Ag '54

Cost estimation; fabricated plate equipment. J. Donovan. diags Chem Eng Prog 50:320-3 Je '54

Cost estimation for process operations. H. E. Schweyer. bibliog Chem & Eng N 31:3266-70 Ag 10 '53

Costs; process and construction. J. C. Lawrence. Ind & Eng Chem 46:sup73A-4A F; sup81A-3A Ap; sup77A-8A+ Je; sup65A-6A+ Ag; sup77A-8A+ O; sup65A-6A D '54

Down with bagging costs. A. J. Burke. Chem Eng 61:234-6 Je '54

Economic analysis in chemical plants. A. B. Horn and others. Pet Refiner 32:107-9 O '53

Ethylene oxide and glycol; cost summary. flow diag Pet Refiner 32:154-5+ S '53

Heat exchanger costs today. F. L. Rubin. il diags Chem Eng 60:201-6 My; 177-81 Jl; 229-33 S; 196-202 O '53

How to estimate dust collector costs. J. M. Dallavalle. il Chem Eng 60:177-83 N '53

Joint operation of multiunit complexes for minimum cost. K. M. Mayer. Ind & Eng Chem 46:1247-55 Je '54

Six-tenths factor nomograph shows costs at different capacities. A. B. Babcock, jr. Chem Eng 61:244 Jl '54

Where do construction dollars go? H. R. Kistin and others. il Chem Eng 60:191-5 N '53

Design

Design capacities capitulate to maximum economic production rates in most chemical plants. C. F. Prutton. Ind & Eng Chem 46:sup83A-4A Ag '54

Nomograph simplifies sizing of jacketed vessels. F. Brown and K. G. Burridge. Chem Eng 61:218-20 Mr '54

Preventive maintenance should begin on the drawing board. D. E. Pierce. Ind & Eng Chem 45:sup81A-2A+ Ag '53

Scale models. H. J. Bowen. il Chem Eng 61:176-82 Ag '54

Electric equipment

Electric heating offers advantages in plant and laboratory installations. D. E. Pierce. il Ind & Eng Chem 46:sup73A-4A+ My '54

Electricity and the chemist; Electrical engineers' exhibition, London, March 25-28. il Chem Age (Lond) 68:525-6 Ap 4 '53

Mineral-insulated copper-sheath cable serves well in this hot, wet, cramped installation; E. R. Squibb & son. R. J. Bergler. il diags Power 98:102-4+ Ja '54

Secrets in an instrument engineer's notebook. P. Hart and R. C. King. diags Instruments 26:1178-9+ Ag '53

Telltale eye; closed circuit tv system can play substitute-monitor for personnel. il Chem & Eng N 32:1394 Ap 5 '54

Employees

See Chemical workers

Equipment

Aluminum in the food and chemical industries. R. W. Nuttall. il Metallurgia 49:63-70 F '54

Aluminum plant and vessel co. il Chem Age (Lond) 68:821-3 My 30 '53

Automatic bleed unit. diag Chem Age (Lond) 69:759-60 O 10 '53

Automatic factories; symposium on instrumentation for the process industries, College Station, Tex. Jan. 27-29; abstracts of papers. Chem & Eng N 32:496+ F 8 '54

CIL's muriatic plant; a chemical pioneer. il Can Chem Process 37:54+ N '53

Clad metal firm enters plastics field; Knapp mills inc. A. P. Knapp. Materials & Methods 40:200+ Ag '54

Conveyors and elevators; Chemical Engineering report. H. L. Strube. il diags Chem Eng 61:195-210 Ap '54 (reprints 50¢)

Double duty for parts; Dow's B. H. Smith. il Chem W 73:44-6+ Ag 22 '53

Engineering, marine, welding, and chemical plant exhibition, London, Sept. 3-17. Chem & Eng N 31:4086+ O 5 '53

Extensions to the works of Bakelite, ltd. il Engineer 196:746 D 4 '53; Engineering 176:715-16 D 4 '53; Elec J 151:1859-60 D 4 '53; Elec R (Lond) 153:1257-60 D 4 '53

Factory equipment exhibition, London, March 23-27. il Chem Age (Lond) 68:513-14 Ap 4 '53

Fair game for plastics; chemical industry as customer for plastic pipes and fittings. Chem W 74:52+ Ap 3 '54

Fischer & Porter's chemical feeder has built-in ejector. il diag Chem & Eng N 32:262 Ja 18 '54

Fluon polytetrafluoroethylene; chemical uses. il Chem Age (Lond) 70:929-32 Ap 24 '54

Fork trucks on a turnpike; Veith chemical. il Chem W 74:58-61 Ja 9 '54

Fork trucks provide the lift; W. H. & L. D. Betz. il Chem W 75:58 Jl 24 '54

How plastics aid the chemical industry. S. W. Shepard. Materials & Methods 40:168-9 S '54

How to select your materials. H. W. van der Hoeven. il diags Chem Eng 60:202-8 Ag '53

Hydrocarbon recovery at Tuscola. J. F. McDonald. flow diags il Pet Processing 8:1894-6 D '53

Instrumentation. R. H. Müller. Published in monthly numbers of Analytical chemistry

Instrumentation; activity in developments and applications. B. W. Thomas. Published in monthly numbers of Industrial and engineering chemistry

Instrumentation in plant service areas. J. F. Conneran. diags Instruments & Automation 27:457-9 Mr '54

Lead linings; faster, better, cheaper with stud driver. il Chem Eng 61:252+ F '54

Light, fast, maneuverable; Trubek laboratories, inc. il Chem W 72:34-5 Je 6 '53

Materials of construction for chemical engineering; seventh annual review. bibliog il diag Ind & Eng Chem 45:2171-282 O '53

Mechanical services in a medium-sized chemical factory. D. W. Evans. il Chem Age (Lond) 71:219-23 Jl 31 '54

Metering steam in the chemical industry. F. Rose. il Can Chem Process 37:22 O '53

Montreal's new petrochemical plant. G. S. Williamson. flow chart il Pet Eng 26:C37-9 Ja '54

More nitrogen from Gulf Coast; Lion Oil's new plant. il Chem & Eng N 32:2368-9 Je 14 '54

CHEMICAL plants—Equipment—*Continued*

New entry in aromatic sweepstakes; Sun Oil installation at Marcus Hook, Pa. il diag Chem & Eng N 31:5174-5 D 14 '53

New ethylene dibromide plant lined with rubber; Associated ethyl co. Chem Age (Lond) 70:1093-4 My 15 '54

New piping improves big process plant's operation. T. G. Thurston. diag Heating-Piping 25:126-9 N '53

New U.S.I. allethrin plant. il Soap & San Chem 29:148-9+ F '53

No dust, no waste, no heavy labor; tote systems. il diag Chem Eng 60:140-2 Je '53

Paperweight heavyweight; American Cyanamid's Accopak. il Chem W 75:70 Ag 21 '54

Performance of wire-mesh demisters. O. H. York. il diags Chem Eng Prog 50:421-4 Ag '54

Phosphoric acid plant. il diag Engineer 196: 409-10 S 25 '53

Plastics tool; hot box on rails; mobile reactor that could generate power, also serve as a source of ionization. D. Ballantine. diags Chem W 74:50-2 Je 19 '54

Process piping; Chemical Engineering report; components, jointing, metallic valves, non-metallic systems, codes, standards and design. T. R. Olive. bibliog il diags Chem Eng 60:187-210 D '53

Recent developments in steel specifications for chemical plant; abstract and discussion. W. Barr. Chem & Ind p867-8 Ag 15 '53

Recent solutions to pumping problems. C. J. B. Mitchell. il diags Chem Eng Prog 50: 431-5 S '54

Rigid PVC and its applications. Chem Age (Lond) 69:1227-9 D 12 '53

Self-reliance pays off; Shea chemical corp. manufactures phosphorus, phosphoric acid and dicalcium phosphate. il Chem Eng 60: 116-17 O '53

Soap plant observer; tools of business utilized by chemist. J. W. McCutcheon. Soap & San Chem 30:103 Ja '54

Special steels for the petroleum chemicals industry. E. Smith. il Chem & Ind sup S9-17 Ag 10 '53

Specialized applications of pneumatic conveying expanded in chemical industry. T. W. Rodes. Ind & Eng Chem 45:sup 121A-3A N '53

Sulphuric acid by the contact process at C.I.L.'s Hamilton plant. il Can Chem Process 38:28+ Ja '54

Teamwork in design and installation cut snags in pump upkeep; Shell chemical manufacturing co. M. Sigmund. il diags Power 98:102-4 F '54

Tv in the plant. il Chem W 74:46+ Mr 13 '54

Ultrasonic testing of chemical plant; W. J. Fraser & co. il Chem Age (Lond) 69:311-15 Ag 15 '53

Watch your pump safety factors. H. F. Rase. Chem Eng 60:208-9 O '53

What's ahead for jet engines and rocket motors in process units? P. B. Stewart and F. Kreith. il diags Chem Eng 60:208-11 S '53

Why go to thick protective coatings? R. R. Pierce. Chem Eng 61:177-81+ Ap '54

See also
Autoclaves
Centrifuges
Chemical industries—Exhibitions
Cooling towers
Distillation apparatus
Evaporators
Filters and filtration (technical chemistry)
Heat exchangers
Mixers
Piping
Pressure vessels
Pumps, Centrifugal

Experimental plants

Aromatics from coal; Carbide and Carbon coal hydrogenation pilot plant; pictured flowsheet. Chem Eng 60:250-3 D '53

Automatic instrumentation for bench scale units. E. R. Roth. bibliog flow diag il diags Ind & Eng Chem 46:1428-32 Jl '54

Census of equipment scale-up practice. L. Michel, R. D. Beattie and T. H. Goodgame. Chem Eng Prog 50:332-5 Jl '54

Continuous analyzers applied to pilot plant operations. K. P. Lanneau. bibliog flow plan il diag Ind & Eng Chem 45:2381-6 N '53

Description and uses of a research experimental plant; abstracts. H. J. Thurlow. Chem Age (Lond) 70:668 Mr 20 '54; Chem & Ind p430 Ap 10 '54

Instrumentation for pilot plants; panel discussion. C. Berg and others. flow diag il diags Ind & Eng Chem 45:1836-52 S '53

New pilot plant Super-D-Canter; model P-4. il Chem Age (Lond) 71:124 Jl 17 '54

New sulphuric acid plant at the Institute of chemistry, Toulouse university. J. Cathala. diag Chem Age (Lond) 69:965-6 N 7 '53

New syndet pilot plant; Pfaulder co. diag Soap & Chem Spec 30:97 Ag '54

Philosophy of pilot plants; panel discussion. C. L. Brown and others. Ind & Eng Chem 45:1619-28 Ag '53

Pilot plant erection; Dexion as a valuable structural material. il Chem Age (Lond) 69:357-9 Ag 22 '53

Pilot plant studies. C. R. Bartels and others. il Ind & Eng Chem 46:1563-6 Ag '54

Test models. G. Murphy. il Chem Eng 61: 183-9 Ag '54

Fires and fire protection

Chemical works fire fighters; Albright & Wilson's brigade. Chem Age (Lond) 69: 961-2 N 7 '53

Fire and explosive hazards. R. Long. bibliog Chem Age (Lond) 70:567-73, 785-8 Mr 6, Ap 3 '54

Fire protection starts early; American Cyanamid. S. F. Spence. Chem & Eng N 31: 4915 N 23 '53

Profit in prevention; chemical industry's fire insurance rates dropping. Chem W 73:16 N 14 '53

Works fire-fighting equipment. A. Webster. il Chem Age (Lond) 69:1179-83 D 5 '53

Heating and ventilation

On-the-spot cleanliness; portable air mover. il Chem W 74:17+ Ja 2 '54

Ventilation controls hazards by reducing solvent content of atmosphere. V. R. Croswell. Ind & Eng Chem 46:sup 117A-18A Mr '54; Discussion. 46:sup 104A-5A S '54

Location

Chemical plant site location factors. J. A. McCoubrey. Can Chem Process 38:30+ Ag '54

Maintenance and repair

Breakdown vs. preventive maintenance. O. W. Graveley. Chem Eng 61:193-4 Ag '54

Good production methods reduce costs; preventive maintenance. T. C. Robinson. Chem & Ind p734-41 Je 26 '54

Keep repair man-hours down; General petroleum corp. Chem Eng 61:122 Ag '54

Lubrication. R. W. Clark and others. il diags Chem Eng 61:211-28 Jl '54

Metal surgery; repairing fractured plant and machinery; Metalock process. il Chem Age (Lond) 68:747-8 My 16 '53

National plant maintenance and engineering conference, 5th, Chicago. Chem & Eng N 32:664 F 15 '54

Preventive maintenance should begin on the drawing board. D. E. Pierce. Ind & Eng Chem 45:sup81A-2A+ Ag '53

Productivity in chemical plant maintenance. L. A. Darling and H. A. Bogle. Chem Eng Prog 50:161-3 Mr '54

Where maintenance is really tough; process equipment for nuclear chemicals. il Chem Eng 61:230-3 Je '54

You can cut maintenance costs. J. D. Leonard. Chem Eng 61:206-8 F '54

Management

A.C.S. Division of industrial and engineering chemistry 125th national meeting, Kansas City; abstracts of papers. Chem & Eng N 32:1318-19 Ap 5 '54

Designing a plant manager. Chem W 74:46+ Ap 24 '54

Good production methods reduce costs. I. J. Faulkner and others. Chem & Ind p552-5, 612-16, 670-4, 734-41, 843-5 My 15, 29, Je 12, 26, Jl 10 '54

His job, keeping the team on the beam; William P. Bitler of Kay-Fries chemicals. il Chem W 73:54-6+ Jl 25 '53

CHEMICAL plants—Management—*Continued*

How to win your workers' loyalty, and keep it. W. H. Hammond. Chem Eng 61:224+ Ag '54

Installation, follow-up, and utilization of information are factors in production control. W. von Pechmann. Ind & Eng Chem 45:sup97A-8A+ N '53

Molecules to management; symposium abstracts. Chem & Eng N 32:2708-9 Jl 5 '54

No place to hide; Monsanto chemical co. Plastics div. cost-control. il Chem W 75: 36+ Jl 10 '54

Operations research for control. R. L. Ackoff and J. E. Townsend. Chem & Eng N 32:2322 Je 7 '54

Plant management. Published in monthly numbers of Industrial and engineering chemistry

Problems of fast growing organizations. W. von Pechmann. Ind & Eng Chem 45:sup95A-6A+ Ag '53

Process integration at I.C.I. Wilton project. J. Grindrod. il Can Chem Process 38:34+ Ag '54

Productivity in chemical manufacturing; symposium abstracts. Chem & Eng N 31: 5366+ D 28 '53

Progress control charts furnish important data. W. von Pechmann. Ind & Eng Chem 45:sup 97A-9A Jl '53

Relationship between production and other departments in sanitary chemicals business. E. G. Thomssen. Soap & San Chem 30: 101-2 Mr '54

$10,000-50,000-a-year freshmen; how American management association trains executives. il Chem Eng 60:258+ D '53

Wanted at once; top talent in the chemical industry. Chem W 73:14 Ag 8 '53

Why this emphasis on management? C. G. Renold. Chem & Ind p260-1 Mr 6 '54

Woodsmen no longer; policy on management training. Chem W 75:14-15 Jl 3 '54

Power

Electric power checklist; are you better off buying electric power or generating your own? H. C. Bauman. Chem W 72:56-7 Ap 18 '53

Fuel and power in the chemical industry; symposium abstracts. Chem Age (Lond) 70: 1047-52 My 8 '54; Chem & Ind p600-2 My 22 '54; Chem & Eng N 32:2007 My 17 '54

Use of packaged steam generators increasing. il Chem Eng 61:122+ Je '54

We'll need 94 per cent more electricity by 1963. il Chem Eng 61:379-83 Je '54

See also

Electrochemical industries—Power

Protection

Emergency and disaster planning. il Chem & Eng N 31:5348-9 D 28 '53

Mobilized for megatons. Chem W 74:17 Ap 17 '54

Prepare for the worst; what must industry do to prepare for atomic attack? Chem W 74:16-17 Ja 2 '54

Teamwork to thwart disaster. il Chem W 74:30-1 Ap 24 '54

Quality control

Instruments for quality control; abstract. G. C. Eltenton. Chem & Ind p 100-1 Ja 23 '54

Laboratory precision and specification limits. E. C. Yehle. Anal Chem 25:1047-9 Jl '53

Statistics on the move; chemical engineers finding them valuable. il Chem Eng 60:118+ D '53

Safety measures

Air conditioned safety suit makes tough maintenance easy; Du Pont Chambers works. il Chem Eng 60:144+ D '53

ACS north Jersey section meeting, Newark; abstracts of papers. Chem & Eng N 32: 667-8 F 15 '54

Eliminate the danger of static electricity. Can Chem Process 38:92 Ap '54

For safety, operate remotely; abstract. R. H. Albisser. Chem & Eng N 32:1614 Ap 19 '54

Good engineering practice in construction and use of pressure vessels can prevent accidents. V. R. Croswell. diags Ind & Eng Chem 45:sup 109A-11A Jl '53

If a job is engineered safe, it stays safe. V. R. Croswell. diags Ind & Eng Chem 45: sup 109A-11A My '53

Organic mercurials can be safely produced. A. F. G. Cadenhead. Can Chem Process 38:62 Ap '54

Organizing an industrial safety program. G. L. Garbell and R. H. Albisser. bibliog il Chem & Eng N 31:2270-3, 2380-2 Je 1-8 '53

Pitched for the inner ear; noise poses problem to chemical process industries. Chem W 74:38-40 F 27 '54

Plant design for health protection; Mutual chemical co. of America. T. Hatch. il Chem & Eng N 32:2994-7 Jl 26 '54; Abstract. Nat Safety N 70:116-18 S '54

Policy for super-safety; visitors to chemical plants. Chem W 73:15 N 21 '53

Prevent accidents! monthly safety program uses this three-point approach; Charles Pfizer & co. A. P. Osti. il Power 98:86-9 Ap '54

Production clinic; safety of factory employees. E. G. Thomssen. Soap & San Chem 29:101+ O '53

Rating and recognition; incentives to housekeeping and safety; Monsanto chemical co. J. L. Hawn. il Nat Safety N 69:24-5+ F '54

Safety in materials handling. A. Webster. Chem Age (Lond) 70:27-30 Ja 2 '54

Safety requirements of floors in chemical works. Chem Age (Lond) 69:713-15 O 3 '53

Selling safety is their job. Chem W 75:42+ Ag 7 '54

Supervision; key to safety; work of C. M. Olson. il Chem W 73:38-40+ N 14 '53

Watch for the jinx; L. Carlton Mertz co. il Chem W 73:30+ O 17 '53

See also

Solvents—Safety measures

Waste

B.o.d.-o.c.d. relationship in a treated industrial effluent. S. Kaufman. bibliog Water & Sewage Works 101:362-5 Ag '54

Big towns' push for disposal policing; Cleveland leading. il Chem W 74:30+ My 22 '54

Catalytic oxidation of aqueous wastes. J. Oliver. diags Chem Eng Prog 50:425-7 Ag '54

Chemical waste treatment; Ruabon factory of the Monsanto co. I. S. Wilson. Water & Sewage Works 101:331-2 Jl '54

Dislodging a delusion; National Petro-Chem pollution control plant. il Chem W 75:17-18 Jl 31 '54

Gain praise, cut waste; east of Houston private pollution and public ire are dwindling away. il Chem W 75:20-1 Jl 10 '54

High-rate filters treat mixed wastes at Sharp & Dohme. J. A. Liontas. flow diag il plan diag Sewage & Ind Wastes 26:310-16 Mr '54

How to handle petrochemical plant water, wastes. C. O. Huntress. flow diag Pet Processing 8:1045-7 Jl '53

Increase in works infractions. Chem Age (Lond) 71:177-80 Jl 24 '54

Industrial wastes; developments during last twelve months. S. T. Powell. Published in monthly numbers of Industrial and engineering chemistry

Inquest and aftermath in Buffalo-Niagara Falls area. il Chem W 75:20-1 Ag 21 '54

Jetted lime sludge works on waste; Du Pont company Chambers works. il Chem Eng 61: 126 Je '54

Key to regional water pollution clean-up; pilot operation treating chemical industrial wastes expected to determine design factors for the Somerset-Raritan Valley sewerage authority. il Eng N 152:33-4 Mr 11 '54

Making the best of wastes; Abbott laboratories process. il Chem W 74:60-1 F 13 '54

Manufacturing chemist's association hits accuracy of HEW on pollution. Oil Paint & Drug Rep 166:5+ Ag 16 '54

Manufacturing chemists' association protests pollution stand. Chem & Eng N 32:3361 Ag 23 '54

CHEMICAL plants—Waste—*Continued*

More push in purity drive. il Chem W 75:26 S 18 '54

Murky badge of bigness; chemical industry taking lead in steps to abate air and water pollution. Chem W 74:16-17 Mr 13 '54

None but the pure for Sacramento and its river. il Chem W 75:23 S 11 '54

Phenolic-waste problem in the U.S.A. and how it is being handled. N. S. Chamberlin and A. E. Quinn. Munic Util 91:49-50+ N '53

Pollution research pushed; American Cyanamid teams up with neighbors to clean up Raritan river. il Chem Eng 61:122+ Ja '54

Process engineering in stream pollution abatement. A. N. Heller and M. E. Wenger. flow sheets Sewage & Ind Wastes 26:171-81 F '54

Profits in problems; Albert Spitz. Chem W 73:38+ Ag 29 '53

Rally for redress; air pollution control financial incentive. Chem W 74:23 My 1 '54

Recovery of phenolics from waste effluents. R. G. Edmonds and G. F. Jenkins. flow diag Chem Eng Prog 50:111-15 Mr '54

Solve a liquid disposal problem by pumping waste underground; Parke Davis & co. C. G. Wyder. il Factory Management 112:140 My '54

Solved with simplicity; Trubek laboratories method of disposing of cyanide waste. il Chem W 73:57-8 N 21 '53

Southern industrial wastes conference, Houston; abstracts of papers. Chem & Eng N 32:1888-9 My 10 '54

Treating organic wastes on experimental trickling filters; American cyanamid co. J. F. Vogler and others. il diags Water & Sewage Works 101:316-23, 366-72 Jl-Ag '54

Treatment of petrochemical wastes by superactivated sludge process. E. R. Strong and R. Hatfield. bibliog flow diags il diag Ind & Eng Chem 46:308-16 F '54

Trickling filter studies on fine chemical plant wastes. F. E. Reimers and others. bibliog flow diag il Sewage & Ind Wastes 26:51-8 Ja '54

CHEMICAL process company

Three doors to diversity. il Chem W 75:16-17 S 18 '54

CHEMICAL progress week. See Chemical industries—Public relations

CHEMICAL reaction

Ammonia and ammonium hydroxide. J. B. Davis. J Chem Educ 30:511 O '53

Analytical aspects of reactions of 2-(2-pyridyl)-benzimidazole and 2-(2-pyridyl)-imidazoline with iron(II). J. L. Walter and H. Freiser. bibliog Anal Chem 26:217-21 Ja '54

Apparatus for the photometric study of flash-initiated reactions. F. W. Trowse. diags J Sci Instr 30:126-31 Ap '53

Bench-scale equipment for reactions at high pressure. A. M. Whitehouse and others. diags Chem Eng Prog 49:491-6 S '53

Chemical engineering fundamentals; reaction kinetics. T. E. Corrigan. Chem Eng 61:230+ Jl; 208+ Ag; 210+ S; 210+ O '54 (to be cont)

Chemical reactions in strong shock waves. E. F. Greene. bibliog il diags Am Chem Soc J 76:2127-31 Ap 20 '54

Chemical reactions in the corrosion of metals. R. M. Burns. bibliog J Chem Educ 30:318-21 Je '53

Chemical reactions of coke in the iron blast furnace. J. F. Peters. bibliog J Metals 6: Trans 466-74 Ap '54

Computation of entropy increments in gaseous bimolecular associations; donor-acceptor reactions. A. Shepp and S. H. Bauer. bibliog Am Chem Soc J 76:265-70 Ja 5 '54

Copper-ethylenediaminetetraacetic acid complex in alkaline solution. H. Wagreich and B. Harrow. bibliog Anal Chem 25:1925-6 D '53

Dynamic illustration of organic reaction mechanisms. G. H. Daub and others. diags J Chem Educ 31:134-5 Mr '54

General method and thermodynamic tables for computation of equilibrium composition and temperature of chemical reactions. V. N. Huff and others. bibliog(45 titles) U S Nat Advisory Com for Aeronautics 1951:829-85 '52

Importance of ion exchange with the solvent in kinetic studies. E. A. S. Cavell and N. B. Chapman. bibliog Chem & Ind p 1226-7 N 14 '53

Investigation of the chemical reactions involved in the use of sodium formaldehyde-sulphoxylate in textile printing. R. J. Hannay and W. Furness. Soc Dyers & Col J 69:596-602; Discussion. 602-5 D '53

Kinetics of carbon gasification by steam; mechanism of interaction of low temperature char and steam-hydrogen mixtures at 1600°F. G. E. Goring and others. bibliog Ind & Eng Chem 45:2586-91 N '53

Manometric method for study of solid-gas reactions at moderate temperatures. P. Souter, J. R. Willimott and T. G. Hunter. bibliog il Anal Chem 26:484-7 Mr '54

Mechanism of gas phase radiation-chemical reactions. H. Essex. bibliog diag J Phys Chem 58:42-9 Ja '54

Mechanism of reaction of aluminum and aluminum alloys with carbon tetrachloride. M. Stern and H. H. Uhlig. bibliog diag Electrochem Soc J 100:543-52 D '53; Discussion. 101:337-8 Je '54

New reaction between aliphatic hydroxylamines and aromatic diazonium compounds. M. A. T. Rogers. Chem & Ind p 1033 S 26 '53

Process kinetics: factorial design in the study of chemical reactions. H. Grohskopf. bibliog Ind & Eng Chem 45:1260-6 Je '53

Process kinetics; kinetics of gas-liquid reactions. R. H. Perry and R. L. Pigford. Ind & Eng Chem 45:1247-53 Je '53

Process kinetics; kinetics of the sulfur-methane reaction. G. W. Nabor and J. M. Smith. bibliog diag Ind & Eng Chem 45:1272-81 Je '53

Reaction between chlorous acid and glucose. H. F. Launer and Y. Tomimatsu. bibliog Anal Chem 26:382-6 F '54

Reaction mechanisms; abstract. E. D. Hughes. Chem & Ind p 1006-7 S 26 '53

Reaction occurring in CO_2–H_2O mixtures in a high-frequency electric arc. K. A. Wilde and others. Science 118:43-4 Jl 10 '53

Reaction of acetaldehyde with 5,5-dimethyl-1,3-cyclohexanedione. G. W. Gaffney, W. A. Williams and H. McKennis, jr. bibliog Anal Chem 26:588-9 Mr '54

Reaction of chlorotrifluoroethylene with oxygen. R. L. Myers. Ind & Eng Chem 45:1783-5 Ag '53

Reaction of 5-fluoro-8-hydroxyquinoline (5-fluoro-oxine) towards ferrous and ferric iron. R. G. W. Hollingshead. Chem & Ind p 1108 S 4 '54

Reaction of morphine with potassium-mercuric iodide. L. Levi and C. G. Farmilo. bibliog il Anal Chem 26:1040-5 Je '54

Reaction of nitric oxide with free radicals. B. Gingras and W. A. Waters. Chem & Ind p615-16 Je 20 '53

Reaction of silver alloys with sulfur in mineral oil. R. T. Foley and others. bibliog Electrochem Soc J 100:538-42; 101:6-9 D '53-Ja '54

Reactions involving colored complexes of the platinum metals. G. H. Ayres. bibliog(26 ref) Anal Chem 25:1622-7 N '53

Reactions of anhydrosugars of the ethylene oxide type. A. K. Bose and others. bibliog Chem & Ind p869-70, 1257-8 Ag 15, N 21 '53

Reactions of aromatic nitro compounds with active methyl, methylene, methine groups in presence of base. J. J. Carr. bibliog Anal Chem 25:1859-63 D '53

Reactions of carbon; symposium. bibliog flow diag il diags Ind & Eng Chem 45:1697-725 Ag '53

Reactions of certain unsaturated steroids with acid iron reagent. B. Zak and others. bibliog Anal Chem 26:776-7 Ap '54

Reactions of 1-chlorophthalazine. G. M. Badger and others. bibliog Chem & Ind p964 Jl 31 '54

Reactions of highly fluorinated organic compounds. A. K. Barbour and others. bibliog J Ap Chem 4:341-51 Jl '54

Reactions of hydrocarbons; ionic mechanisms. L. Schmerling. bibliog(50 ref) Ind & Eng Chem 45:1447-55 Jl '53

CHEMICAL reaction—*Continued*

Reactions of mercury(I) compounds with ammonia; X-ray diffraction studies. W. N. Lipscomb. bibliog diags Anal Chem 25:737-9 My '53

Reactivity of solids. J. A. Hedvall. J Chem Educ 30:638-40 D '53

Relation of space velocity and space time yield. S. Kodama, K. Fukui and A. Mazume. bibliog Ind & Eng Chem 45:1644-8 Ag '53

Second order elimination of nitrous acid from secondary nitramines. W. H. Jones. bibliog Science 118:387-8 O 2 '53

Some reactions of organic nitrates. G. W. H. Cheeseman. Chem & Ind p281 Mr 6 '54

Some reactions of polychlorotrifluoroethylene. M. T. Gladstone. bibliog Ind & Eng Chem 45:1555-8 Jl '53

Spectrophotometric investigation of reaction of titanium with chromotropic acid. W. W. Brandt and A. E. Preiser. bibliog Anal Chem 25:567-71 Ap '53

System calcium peroxide-calcium oxide-oxygen. C. N. Satterfield and T. W. Stein. bibliog Ind & Eng Chem 46:1734-6 Ag '54

Understanding the chemistry of petrochemical reactions. L. F. Hatch. flow diags Pet Refiner 32:143-5 My; 105-7 Je; 110-11 Jl; 123-5 Ag; 207-9 S; 129-32 O; 101-4 '53; 33: 155-7 Ja; 141-4 F; 175-7 Mr; 157-60 Ap; 193-6 My; 155-8 Je; 154-6 Jl '54 (to be cont)

See also

Addition compounds
Antigens and antibodies
Bodroux reaction
Bromination
Catalysis
Catalysts
Chains, Chemical
Chemical equilibrium
Combustion
Condensation, Chemical
Decomposition
Dehydration
Dehydrogenation
Diels-Alder reaction
Electrolysis
Esterification
Favorskii reaction
Friedel-Crafts reaction
Grignard reaction
Hydrogenation
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Mannich reaction
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Molecular rearrangements
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Polymerization
Precipitation
Reactors, Chemical
Reduction, Chemical
Schmidt reaction
Steric hindrance
Substitution (chemistry)
Synthesis
Willgerodt reaction

Velocity

Application of high frequency oscillators. D. G. Flom and P. J. Elving. bibliog il diags Anal Chem 25:541-9 Ap '53

Application of statistics to reaction kinetics. W. R. McBride and D. S. Villars. bibliog Anal Chem 26:901-4 My '54

Coulomb's law and the quantitative interpretation of reaction rates. E. S. Amis. bibliog J Chem Educ 30:351-3 Jl '53

Determination of the concentration of intermediaries and of rate constants in radical reactions. G. M. Burnett and H. W. Melville. diags Chem R 54:225-88 bibliog(p284-8) Ap '54

Determination of vinylidene cyanide. W. P. Tyler, D. W. Beesing and S. J. Averill. bibliog Anal Chem 26:674-7 Ap '54

Equilibrium theory of unimolecular reactions. J. C. Giddings and H. Eyring. bibliog diag J Chem Phys 22:538-42 Mr '54

Experimental reaction rates in the synthesis of ammonia. R. M. Adams and E. W. Comings. bibliog flow diag diag Chem Eng Prog 49:359-66 Jl '53

Faraday society conference on fast reactions, Birmingham, April 7-9; abstracts of papers. Chem & Eng N 32:1775-6 My 3 '54

Inductive effect and chemical reactivity; effect of charge shifts on energetics of some basic reactions of aliphatic compounds. R. P. Smith and H. Eyring. bibliog Am Chem Soc J 75:5183-6 N 5 '53

Influence of alkyl groups upon reaction velocities in solution. D. P. Evans and J. R. Young. Chem Soc J p 1310-18 Ap '54

Kinetics of catalytic cracking of cumene. T. E. Corrigan and others. bibliog flow diag Chem Eng Prog 49:603-10 N '53

Kinetics of coal gasification; development of reaction rate equations. H. R. Batchelder, R. M. Busche and W. P. Armstrong. bibliog Ind & Eng Chem 45:1863-7 S '53

Kinetics of coupled reversible reactions. G. N. Vriens. bibliog Ind & Eng Chem 46:669-71 Ap '54

Kinetics of the dissolution of copper in aqueous ammonia. J. Halpern. bibliog diag Electrochem Soc J 100:421-8 O '53

Kinetics of the reaction between thallium(III) and iron(II) in aqueous perchloric acid. K. G. Ashurst and W. C. E. Higginson. Chem Soc J p3044-9 O '53

Kinetics of the reaction of hydrogen with zirconium. J. Belle and others. bibliog il diag Electrochem Soc J 101:211-14 My '54

Kinetics of the reactions of chloroheterocyclic compounds with piperidine and with ethoxide ions in ethanol. N. B. Chapman and D. Q. Russell-Hill. Chem & Ind p281 Mr 6 '54

Kinetics of the reactions of *O*-acylglycosyl bromides with amines in acetone. N. B. Chapman and W. E. Laird. bibliog Chem & Ind p20-1 Ja 2 '54

Kinetics of unitary processes. S. A. Rice. J Chem Phys 21:2227 D '53

Measurement of enzyme reaction velocities at low temperatures. V. P. Maier and A. L. Tappel. bibliog diag Anal Chem 26:564-6 Mr '54

Metal-water reactions; kinetics of the reaction between lithium and water vapor. B. E. Deal and H. J. Svec. bibliog Am Chem Soc J 75:6173-5 D 20 '53

Micromethod for measuring reaction rates in solution under moderate pressures. T. Rees. Anal Chem 26:226-9 Ja '54

Modified transition state theory of reaction rates. F. A. Matsen. bibliog diag J Chem Phys 22:165-8 F '54

Potentiometric methods for following reaction rates. H. Kwart and W. C. Wilson. bibliog diags Am Chem Soc J 75:6147-51 D 20 '53

Process kinetics; reaction rates in catalytic cracking of petroleum. F. H. Blanding. bibliog Ind & Eng Chem 45:1186-97 Je '53

Rate data for the bimolecular elimination reactions of the *t*-amyl halides; further evidence for the concerted nature of bimolecular eliminations. H. C. Brown and I. Moritani. bibliog Am Chem Soc J 76:455-7 Ja 20 '54

Rate theory and homogeneous reactions. R. H. Wilhelm. bibliog(186 ref) Ind & Eng Chem 45:894-7; 46:880-3 My '53, My '54

Rates of chemical reactions near equilibrium. B. J. Zwolinski and R. J. Marcus. J Chem Phys 21:2235 D '53

Reaction of aldehyde and hydrogen peroxide in aqueous solution. C. N. Satterfield and L. C. Case. Ind & Eng Chem 46:998-1001 My '54

Reaction of nitrogen with, and the diffusion of nitrogen in, beta zirconium. M. W. Mallett and others. bibliog Electrochem Soc J 101:1-5 Ja '54

Reaction of nitrogen with, and the diffusion of nitrogen in, thorium. A. F. Gerds and M. W. Mallett. bibliog il Electrochem Soc J 101:175-80 Ap '54

Relationships between kinetics and acoustic phenomena in equilibrium systems. M. Manes. bibliog diag J Chem Phys 21:1791-6 O '53

Simple steady state method for obtaining rates of rapid reactions. R. G. Pearson and L. H. Piette. Am Chem Soc J 76:3087-8 Je 5 '54

Temperature independent factor in the relative rates of isotopic three center reactions. J. Bigeleisen and M. Wolfsberg. bibliog J Chem Phys 21:1972-4 N '53; Correction. 22:1264 Jl '54

Theory of reaction rates. P. T. Landsberg. J Chem Phys 21:2228-9 D '53

Thermodynamic aspects of reaction kinetics. M. D. Cohen and G. S. Hammond. bibliog J Chem Educ 30:180-3 Ap '53

CHEMICAL reactors. See Reactors, Chemical

CHEMICAL reagents

Benzilic acid as a reagent in gravimetric determination of zirconium. J. J. Klingenberg, P. N. Vlannes and M. G. Mendel. bibliog il Anal Chem 26:754-6 Ap '54

CHEMICAL reagents—*Continued*

Ethylmethylpicrate as a reagent for barium. E. R. Caley and C. E. Moore. Anal Chem 26:939-40 My '54

1-Fluoro-2,4-dinitrobenzene as a quantitative reagent for primary and secondary amines. F. C. McIntire, L. M. Clements and M. Sproull. bibliog Anal Chem 25:1757-8 N '53

5-Fluoro-8-hydroxyquinoline (5-fluoro-oxine) and its sensitivity towards certain metals. R. G. W. Hollingshead. bibliog Chem & Ind p344-6 Mr 20 '54

Newer reagents for metals. W. C. Johnson and J. T. Yardley. bibliog Chem Age (Lond) 70:1293-7, 1349-54 Je 12-19 '54

Reactions of some polynuclear aroyl acid chlorides with organocadmium reagents. D. V. Nightingale, W. S. Wagner and R. H. Wise. bibliog Am Chem Soc J 75:4701-3 O 5 '53

Relation between the chemical reactivity and energy levels of the chemical reagent. S. Nagakura and J. Tanaka. bibliog J Chem Phys 22:563 Mr '54

Spectrophotometric study of *p*-nitrosodimethylaniline as a sensitive colorimetric reagent for platinum. J. J. Kirkland and J. H. Yoe. bibliog Anal Chem 26:1340-4 Ag '54

Spray reagent for the detection of carbohydrates. R. U. Lemieux and H. F. Bauer. bibliog Anal Chem 26:920-1 My '54

Studies with *N*-halo reagents. P. F. Kruse, jr., K. L. Grist and T. A. McCoy. bibliog Anal Chem 26:1319-22 Ag '54

Tetraphenylphosphonium and tetraphenylstibonium chlorides as analytical reagents. H. H. Willard and L. R. Perkins. bibliog Anal Chem 25:1634-7 N '53

See also

Anthrone
Benedict's solution
Fischer reagent
Grignard reagents
Phosphomolybdic acid

CHEMICAL research

Activation of the college research potential. H. F. Lewis. J Chem Educ 30:470-4 S '53

Advantages of research pool; abstracts. C. R. Wagner. Oil Paint & Drug Rep 164:5+ N 16 '53; Chem & Eng N 31:4874 N 23 '53; Chem W 73:46 N 28 '53

At work; Jack of all trades; keeping researcher informed through Witco's broadgauge assignments. il Chem W 74:60-1 Mr 27 '54

Basic research in tobacco chemistry. R. F. Dawson. J Chem Educ 30:404-6 Ag '53

Believers in the big man; Horizons inc. Chem W 74:105-6 My 15 '54

British chemical research laboratory active in sulfur research. Chem & Eng N 31:3393 Ag 17 '53

Challenge to chemists. F. Daniels. Comm & Fin Chr 178:1001+ S 17 '53

Chemical engineering fundamentals; annual review of research in basic phenomena. bibliog il diags Ind & Eng Chem 46:877-952 My '54

Chemical engineering fundamentals; annual survey of research in basic phenomena. bibliog il diag Ind & Eng Chem 45:891-968 My '53

Chemical engineering progress symposium; abstracts. Chem Eng Prog 50:480 S '54

Chemical industry help is sought by government on technical problems. Oil Paint & Drug Rep 166:3+ Ag 23 '54

Chemical research in liberal-arts college in 1952. J. R. Sampey. J Chem Educ 31:14 Ja '54

Chemical research in western Germany. E. de Haas. Chem & Ind p604-9 Je 20 '53

Chemicals lead in private research. W. Chartener. Chem Eng 61:331-4 Jl '54

Chemistry + tv = challenge; WOI-TV series of programs designed to familiarize television viewer with the field of science. C. A. Goetz and J. P. Butler. il Chem & Eng N 32:3368-70 Ag 23 '54

Chemistry research, 1952; Chemical research laboratory, D.S.I.R. Chem & Ind p808 Ag 1 '53

Chemistry research, 1952; work at Teddington. Chem Age (Lond) 69:223-6 Ag 1 '53

Chemistry research 1953. Chem Age (Lond) 70:1095-6 My 15 '54

Communications; person-to-person; Hooker electrochemical co. il Chem W 74:38-40 My 29 '54

Coordination of financial and research planning. T. H. Vaughn. Chem & Eng N 31:2274-8 Je 1 '53

Educational and research facilities in Idaho, Montana, New Mexico, and Wyoming. L. Berg. bibliog(17 ref) Ind & Eng Chem 45:2455-8 N '53

Federal support of basic chemical research. Chem & Eng N 31:3534-7, 3615-18 Ag 31-S 7 '53

Finish of a phase; roundup of 15 companies' 1953 research expenditures; tabulation. Chem W 74:50 Mr 20 '54

From test tube to commercial plant. E. Ott. Chem & Ind p 1098-102 O 17 '53

High-speed photography in the chemical industry. W. O. S. Johnson. il diags Soc Motion Picture & Tv Eng J 61:619-23 N '53

Imperial chemical industries, ltd.; research in 1952. Chem & Ind p560-1 Je 6 '53

ICI shifts research emphasis. Chem & Eng N 32:2390 Je 14 '54

Importance of technology and fundamental research to industry. Lord Cherwell. Chem & Ind p940-3 Jl 31 '54

Joining hands for facts; cooperative research projects first ever sponsored by CSMA. il Chem W 73:73+ Jl 11 '53

King-size lilliputian; Hilton-Davis chemical co. il Chem W 74:38 Ap 24 '54

Modern theory of chemical product research is to use broad target. F. Stark. il Chem & Eng N 31:4020 S 28 '53

Morale; all things to all men; how do morale and incentive practices shape up for chemical process industries researchers? il Chem W 73:54-6 O 17 '53

National cooperative undergraduate chemical research program, 1953-54. E. Cortelyou and W. P. Cortelyou. J Chem Educ 30:463-5 S '53

National cooperative undergraduate chemical research program, 1954-55. E. Cortelyou and W. P. Cortelyou. J Chem Educ 31:267-9 My '54

Neglected by the research team; liberal arts colleges of the South. J. R. Sampey. Chem & Eng N 32:1996 My 17 '54

Ontario research council progress report, 1952-1953. Can Chem Process 37:70 D '53

Punched-card system for graduate research. C. H. Orr. J Chem Educ 30:140-2 Mr '53

Research; a challenge to creative enterprise. J. R. Hoover. il Chem & Eng N 31:2850-3 Jl 13 '53

Research, a risky business; abstract. E. K. Bolton. Chem & Eng N 32:2196 My 31 '54

Research program for more effective teaching of college chemistry. Sister M. C. Hannan and Sister M. C. Markham. J Chem Educ 30:475-7 S '53

Royal society of arts; its notable contribution to the chemical industry. Chem Age (Lond) 70:673-5 Mr 20 '54

Royal society of arts, 1754-1954. il Chem & Ind p318-20 Mr 20 '54; Same cond. Can Chem Process 38:83-4 Jl '54

Royal technical college; report for session, 1952-3. Chem Age (Lond) 70:679 Mr 20 '54

Safest spot in the house. il Chem W 74:58+ Ap 17 '54

Scientific research in America. Chem Age (Lond) 70:363-5 F 6 '54

Scintillation counters for continuous analysis under high pressure. H. G. Drickamer, K. D. Timmerhaus and L. H. Tung. bibliog diags Chem Eng Prog 49:503-5 S '53

Statistical research in the chemical industry. T. Cauter. Chem & Ind p 1251-2 N 21 '53

Still on the upswing; 1954 research budgets greater than 1953 forerunners. Chem W 73:52+ D 19 '53

There for the digging; interest in wartime German chemical research. Chem W 72:26 Je 27 '53

Unique service for research workers; L. Light & company supply the unobtainable. il Chem Age (Lond) 68:779-80 My 23 '53

US research on rare earth problems. Chem Age (Lond) 71:71-4 Jl 10 '54

CHEMICAL research—*Continued*

Value of undergraduate research; round-table discussion; abstract. Chem & Eng N 32:3837 S 27 '54

See also

Chemical laboratories
Electron microscope
Gas research
Metallurgical research
National research council—Chemical-biological coordination center
Paper research
Petroleum research
Pharmaceutical research
Rubber, Artificial—Research
Rubber research
Textile research

Cost

Big picture; spending for industrial research, 1951-52. Chem W 73:40-4+ D 12 '53

Finance

Get the best shake for your budget. Chem W 75:42+ S 18 '54

China

Chinese chemical industry improves methods. Chem & Eng N 31:5204 D 14 '53

Russia

Russian chemical research. Chem & Eng N 31:4116 O 5 '53

Scandinavia

Chemical research in Scandinavia. R. L. Loftness. il map Chem & Eng N 31:2670-4 Je 29 '53

CHEMICAL societies

See also

American chemical society
Armed forces chemical association
Chemical society of Japan
Gesellschaft deutscher chemiker

CHEMICAL society of Japan

Anniversary meeting, 75th, Tokyo, Oct. 10-Nov. 10. Chem & Eng N 31:5202+ D 14 '53

CHEMICAL specialties manufacturers association

Annual meeting, 40th, Washington. Chem & Eng N 31:5318-19 D 21 '53

Annual meeting, 40th, Washington, Dec. 7-8; program. Soap & San Chem 29:149-52 D '53

Annual meeting, 40th, Washington, Dec. 7-8; with abstracts of papers. Oil Paint & Drug Rep 164:7+ D 14 '53

Annual meeting, 40th, Washington, Dec. 7-8; with abstracts of papers. Soap & San Chem 30:127-33+ Ja '54

Brief history. W. H. Hamilton. Soap & San Chem 29:193+ D '53

Meeting, 40th, Washington. Chem W 73:83 D 19 '53

Midyear meeting, 39th, Chicago, May 18-19; program. Soap & San Chem 29:149-151 My '53

Midyear meeting, 39th, Chicago, May 18-19; with abstracts of papers. Soap & San Chem 29:138-40, 140a-140h+ Je '53

Midyear meeting, 40th, Cincinnati. Chem W 74:58 Je 5 '54

Midyear meeting, 40th, Cincinnati, May 23-25; abstracts of papers. Oil Paint & Drug Rep 165:5+ My 31 '54

Midyear meeting, 40th, Cincinnati, May 23-25. Soap & Chem Spec 30:137-45+ Je '54

CHEMICAL stability

Methods for computing successive stability constants from experimental formation curves. H. Irving and H. S. Rossotti. Chem Soc J p3397-405 N '53

Non-stable states. S. Lewin. bibliog J Chem Educ 30:136-8 Mr '53

Stability of jadeite. L. H. Adams. Am J Sci 251:299-308 Ap '53

CHEMICAL standards

Chemical purity? R. C. Schleck. Chem & Eng N 31:4129 O 5 '53

Developments in the use of primary standards and indicators. A. J. Nutten. bibliog(33 ref) Chem Age (Lond) 70:123-9 Ja 9 '54

CHEMICAL stoneware. See Stoneware

CHEMICAL symbols

Crossword puzzle of chemical symbols. C. L. Brown. J Chem Educ 31:298-9 Je '54

Symbolic representation of natural isoprene structures. W. Klyne. bibliog Chem & Ind p725-6 Je 19 '54

CHEMICAL warfare

Army chemical corps 3d symposium on aerosols; abstracts of papers. Ind & Eng Chem 46:sup99A-100A+ Ap '54

Muscle Shoals makes G-gas basics. W. M. Creasy. il Chem & Eng N 32:2886+ Jl 19 '54

Physiological effects of G-gas; exposed arsenal workers tell of effects of nerve gas. il Chem & Eng N 32:2006 My 17 '54

Vitro builds nerve gas plants. il Chem & Eng N 32:3492-3 S 6 '54

See also

Gases, Asphyxiating and poisonous

CHEMICAL workers

Bridging the gap between home and job; Smith, Kline & French laboratories' open-house festivities. il Chem W 73:27-8 S 12 '53

Changing the balance; vertical-horizontal debate involves differences between AFL and CIO. Chem W 73:16 S 12 '53

Chemical technicians for industry. L. R. Fibel. il Chem & Eng N 32:2792-6 Jl 12 '54

Cohesion in combat; a union besieged; International union of mine, mill and smelter workers. Chem W 74:16-17 My 1 '54

Company housing; Hobson's choice. il Chem W 73:16-17 S 5 '53

Compensation for the chemical worker in Ontario. Can Chem Process 38:33 Ja '54

Cramming for parleys; labor institutes in chemical field. il Chem W 73:21-2 Ag 8 '53

Dealing in on dividends; chemical companies stock option plans as means of dealing in their employees. Chem W 75:15-16 Jl 24 '54

Down to the hard-sells; chemical industry still less than 50 per cent unionized. Chem W 73:21-4 D 12 '53

Employee evaluation systems can be good investments. W. von Pechmann. Ind & Eng Chem 45:sup99A-100A+ O '53

Employees into pals via frank finesse; internal house organs vital pipeline to the worker's heart and mind. Chem W 74:23-4 F 27 '54

Employees who desire promotions should develop indirect approach. W. von Pechmann. Ind & Eng Chem 45:sup 103A-4A S '53

Employment outlook in the industrial chemical industry. S. Swerdloff and E. R. Kay, comps. il map U S Bur Labor Statistics Bul 1151:1-37; pa 30c Supt. of doc. '54

Enforced full employment; worth a try? il Chem W 74:24-5 Ja 30 '54

Exit the attitude; I just work here. Chem W 74:20-1 Mr 20 '54

Famed, fined, feuding; Lewis, the UMW and its catch-all District 50. Chem W 73:16-17 D 5 '53

Familiarity, no contempt; get-acquainted-with-the-contract program; Dow Chemical's Ludington div. Chem W 75:18 Ag 14 '54

Faster pickup, steadier drive in chemical employment. Chem W 74:16-17 Ap 24 '54

Friendship deferred between two leading labor unions in chemical process industries. Chem W 74:17 Ap 17 '54

Fringe benefits to wear; chemical plant worker. il Chem W 73:67-8+ O 31 '53

Giant in the greenhouse; American wages vastly larger than those on other continents. il Chem W 74:16-18 F 13 '54

Green light on raids; National labor relations board's decision in American potash & chemical corp. case. Chem W 74:15 Mr 13 '54

Hairline verdict; among lab men, uncertainty as to union's pros and cons. Chem W 75:12 Jl 31 '54

High stakes in skills; chemical companies increasing investments in training. il Chem W 73:14-16 S 19 '53

Hors d'oeuvres on the house; new spirit in French chemical industry. il Chem W 74:18-20+ My 29 '54

How do you evaluate training? Monsanto chemical co. supervisory training program. Bsns W p90+ S 5 '53

How Tuscola trained operators. J. F. McDonald. Pet Processing 8:1892-3 D '53

Human engineering in the chemical industry. R. T. Eckenrode and E. J. Welch. il Chem & Eng N 31:4423-6 O 26 '53

CHEMICAL workers—*Continued*
Imperial chemical industries profit-sharing scheme. Chem Age (Lond) 70:1187-8 My 29 '54
In-company scholarships. Chem & Eng N 32:2566-7 Je 28 '54
Increase your earning power. J. O. Percival. Chem & Eng N 31:4080-2 O 5 '53
Keen on politics, caustic toward rivals; survey of union periodicals. Chem W 74:22-3 Mr 13 '54
Keeping Xmas their own way; chemical companies watch with pride the Christmas spirit of their employees. il Chem W 73:12-13 D 26 '53
Labor; annual review. Chem Eng 61:188 Mr '54
Labor board's lighter touch; decisions in chemical labor disputes. Chem W 75:20-1 S 18 '54
Lessons in integration; Shell development co. employee instruction. il Chem W 74:70-2+ Ap 3 '54
Make the best of it; Diamond Alkali's labor relations. il Chem W 73:21-2 O 31 '53
More room for safety research; dedication of the new Haskell laboratory for toxicology and industrial medicine. il Chem & Eng N 32:1510-11 Ap 12 '54
NLRB, in policy reversal, vetoes all-inclusive union for chemicals. Oil Paint & Drug Rep 165:3+ Mr 8 '54
NLRB reviews labor relations for chemical industry. Chem & Eng N 31:4300+ O 19 '53
No rush for the exits; step-up in chemical company fringe benefits. Chem W 74:28-9 Je 26 '54
Off-stage role wins plaudits when labor unions take initiative in charitable enterprises. il Chem W 74:14-15 My 8 '54
Old foes, new friends; CIO unions in petrochemical field moving closer toward merger. Chem W 75:15 Ag 21 '54
Oldest, newest, most ambitious; Oil workers international union (CIO) to start organizing chemical workers. Chem W 74:20 F 6 '54
Operation big switch; chemical division of Celanese corp. Chem W 75:18 Jl 3 '54
Panacea they pine for in chemical labor unions. Chem W 74:14-15 Ap 3 '54
Past the high point; chemical process industries work stoppages. Chem W 75:20 Jl 17 '54
Peakless mountain? no summit in sight for chemical and other industrial wage rates. Chem W 75:30 S 4 '54
People are his problem; Nopco chemical co.'s, Lewis Carter. Chem W 72:18-20 My 16 '53
Pickup in Freeport; intraplant buses move 2,800 Dow workers a day. il Chem W 74:56-8 Ap 3 '54
Plant site is social center, morale soars; Diamond Alkali's plant, Houston, Tex. il Chem W 72:14-15 My 9 '53
Pleasure with a purpose; that's today's company picnic. il Chem W 73:23-4+ Jl 25 '53
Profits in pooled ideas. W. Sandburg. Chem W 72:42+ My 16 '53
Psychologists at work; American cyanamid co. Bsns W p52-4 S 19 '54
Rear guards not needed? no-raiding agreement, AFL and CIO. Chem W 72:22+ Je 27 '53
Rebuff to raiders; AFL's chemical labor union and CIO counterpart under pledge. Chem W 74:25 Je 26 '54
Righting pension wrongs; plans for management in chemical industry. Chem W 74:19 F 6 '54
Ripples on a placid sea; chemical industry's labor relations. Chem W 73:15 S 5 '53
Shifting chemical scene; climbing faster than manufacturing as a whole. map Chem Eng 60:357-8+ Je '53
Shifty defense; opposition to piecemeal collective bargaining. Chem W 73:17-18 O 17 '53
Something for the girls; more shapely uniforms for plant and laboratory employees. il Chem W 74:10-11 Ja 2 '54
Strife for security; CW checkup on labor union plans for 1954. Chem W 74:11 Ja 9 '54
Swing toward stability; chemical employment not too swollen for peaceful period. Chem W 73:13 O 24 '53
Tapping the intangibles. il Chem W 74:36+ My 8 '54
Tax bite versus pay envelope; with chart, ratio of taxes to wages and salaries, 1947/1952, for 20 selected chemical firms. Chem W 73:30+ D 12 '53
Upkeep task; men's minds. Chem W 72:14-15 My 16 '53
Vacations ahead; 67 major chemical companies polled. il Chem & Eng N 32:2088-90 My 24 '54
Wage flashback; sieve-like ceilings. Chem W 72:20 Ap 18 '53
Watch for the jinx; L. Carlton Mertz co. il Chem W 73:30+ O 17 '53
See also
International chemical workers union
United gas, coke and chemical workers of America
Women as chemists

CHEMICAL workers union, International. See International chemical workers union

CHEMICAL writing
Engineers can write better. H. J. Tichy. bibliog Chem Eng Prog 50:104-7, 206-13, 365-71 F, Ap, Jl '54 (reprints 50c)
Illustrating the technical presentation. T. S. Michener, jr. bibliog diag J Chem Educ 31:318-23 Je '54
What the editors of the Journal of the American chemical society expect of authors. M. Gates. J Chem Educ 31:456-8 S '54

CHEMICALS
Basic chemicals from natural gas. N. C. Updegraff. bibliog flow diags il diag Can Chem Process 38:28+ Mr '54
Boxing the compounds; Tote system. il Chem W 74:82+ Ja 16 '54
Chemical cleaning proving big aid in food industry. B. P. Robinson. bibliog il diag Food Eng 26:57-9+ Jl '54
Chemistry in aviation; the sky's no limit. il Chem W 73:78-80 D 19 '53
Christmas tree bonus; dependable business in chemical sprays. il Chem W 73:40-1 D 26 '53; Chem Eng 61:382-4 Ja '54
Following up samples effectively by mail. W. L. Rippeteau and C. Pacifico. diag Ind & Eng Chem 45:1294-7 Je '53
Industrial organic chemicals; price trends, etc. Oil Paint & Drug Rep 165:46-7 Ap 5 '54 [cont weekly]
Inorganic chemicals; present capacity meets needs, future growth seen; biennial facts and figures. F. Talbot. Ind & Eng Chem 46:1115-22 Je '54
Inorganics abroad; patents. Chem W 75:88+ S 18 '54
Isolation of fine chemicals from natural sources. W. Mitchell. Chem & Ind p 1132-7 O 24 '53
Metals will use more chemicals. Chem Eng 61:379-81 Ja '54
Need of chemicals to attain end items not recognized. R. L. Murray. Chem & Eng N 32:58 Ja 4 '54
New boost for sugar; prospects as significant chemical raw material. Chem W 75:49 S 11 '54
New chemicals for industry. Chem W 75:49-50+ S 25 '54
New chemicals for industry; specialty products introduced since Sept. 1952. Chem W 73:29-30+ S 5 '53
Organic chemicals; leveling off follows 1951 peak and 1952 decline; biennial facts and figures. J. H. Hibben. Ind & Eng Chem 46:1123-30 Je '54
Palletless handling preferred; new type of gripper arms for lift trucks. il Can Chem Process 37:58 O '53
Raw materials for organic chemicals. E. Ayres. Chem & Eng N 32:2877-80+ Jl 19 '54
Substitutes for wires; printed circuits new outlets for chemicals. il Chem W 74:52+ Ja 30 '54

CHEMICALS—*Continued*

Synthetic organic chemicals. 13th ed 158p Carbide and carbon chemicals co, 30 E. 42d st, New York 17 '52

See also

Acids
Agricultural chemicals
Alcohols
Automotive chemicals
Catalysts
Chemical industries
Chemical reagents
Chemistry, Technical
Cleaning compositions
Drugs
Drying agents
Dyes and dyeing—Chemistry
Indicators and test papers
Insecticides
Ion exchangers
Oils and fats
Paint materials
Paper chemicals
Petroleum chemicals
Plasticizers
Propellants
Railroads—Chemical needs
Rubber chemicals
Sanitary chemicals
Solvents
Tanning materials
Tariff—United States—Chemicals
Textile chemicals
Wetting agents

Manufacture

Fine chemicals manufacture; symposium. bibliog flow sheets il diags Ind & Eng Chem 46:1562-89 Ag '54

Prices

Chemicals, oils and drugs price changes; Jan. 1, 1953 and Jan. 1, 1954 compared; table by commodity. Oil Paint & Drug Rep 165:9-10+ sec 2 F 1 '54

Chemicals, oils and drugs price record, selected years, 1939-1953; tables. Oil Paint & Drug Rep 165:7 sec 2 F 1 '54

Current market quotations; chemicals and related materials. Published in weekly numbers of Oil, paint and drug reporter

Focus on price trends in Canada. Can Chem Process 38:11+ Ap '54

Quarterly report on current prices. Chem & Eng N 32:1227-50, 2597-618, 3745-67 Mr 29, Je 28, S 20 '54

Safety measures

Caveat labeler; advantages with careful copy control. Chem W 74:86 Je 19 '54

Dangerous chemicals; abstract. H. Pirie. Chem Age (Lond) 70:1252-3 Je 5 '54

Eye injuries constitute a costly problem. D. C. Braun. Ind & Eng Chem 45:sup 111A-13A Je '53

Labeling law in New York is effective this week. Oil Paint & Drug Rep 166:3+ Ag 23 '54

NSC plan evaluates toxicity of new chemicals. Chem & Eng N 31:2719 Je 29 '53

New safety charts available; handling, storing and shipping of hazardous chemicals at a glance. il Chem Eng 60:146 O '53

New York adopts label safeguards. Chem & Eng N 32:3379 Ag 23 '54; Chem W 75:76 Ag 21 '54; Soap & Chem Spec 30:155 S '54

Safe handling of metal hydrides. M. D. Banus. il diag Chem & Eng N 32:2424-7 Je 14 '54

Storks should label babies. Soap & San Chem 29:169 S '53

Warning labels; ABCM system for hazardous chemicals. Chem Age (Lond) 69:603-4 S 19 '53; Chem & Ind p987 S 19 '53

Statistics

Cyclic intermediates output for 1953 set all-time high. Oil Paint & Drug Rep 165:3+ Je 14 '54

Heavy chemicals. Published in weekly numbers of Oil, paint and drug reporter

Plastics, organics production up in 1953. Oil Paint & Drug Rep 166:5+ Jl 5 '54

Synthetic organic chemicals roster. Chem W 72:70 Je 20 '53

Transportation

Barge lines rate bill draws support of ICC. Oil Paint & Drug Rep 165:3+ Ap 12 '54

Building on a water base; Hooker Electrochemical. il maps Chem W 74:42-4 Ap 3 '54

Chemicals take the highway. il Chem W 73:44-6 O 31 '53

Chemicals won't corrode; plastic truck and trailer bodies. il Chem W 73:62+ O 3 '53

Distributing tool; Marine Dow-Chem. map Chem W 74:86+ My 15 '54

Down to the sea again; proposed sea-land expansion; a merger of McLean trucking and steamship and tug-and-barge carrier, S. C. Loveland co. il Chem W 74:71 Mr 6 '54

Finger in every pie; job of chemical company traffic manager. il Chem W 74:40-2+ Ja 16 '54

Floating warehouses; Wyandotte Great Lakes shuttle service. il Chem & Eng N 32:2144 My 24 '54

Fork truck-trailer team up. il Chem Eng 60:115 Je '53

From shipside to railroad siding; tank terminal moves sea-going chemicals. il Chem W 72:63-4+ Ap 25 '53

Highway motor carrier rates on chemicals. F. C. Tighe. il Chem & Eng N 31:3538-43 Ag 31 '53

Knock-down box pares costs. il Chem Eng 61:288+ Mr '54

Launch chemical ship at Beth-Quincy. il Marine Eng 59:57+ F '54

Launching a new era in water-borne transportation of chemicals; S.S. Marine Dow-Chem. il Chem W 74:50 Ja 9 '54

Marine Dow Chem, first ocean-going tanker launched to carry chemicals. il Chem Eng 61:384-5 F '54

Midwest water-trailer; Wyandotte Chemical's system of barges. il Chem W 74:82+ My 22 '54

More chemicals on waterways; S.S. Marine Dow-Chem. il plan Chem & Eng N 32:1554 Ap 19 '54

Network under Niagara; chemicals by pipe. map plan Chem W 74:61-2+ Ja 23 '54

New code for tank truckers. il Chem W 73:50+ O 17 '53

New tricks for bulk shippers. il Chem Eng 60:210-11 Ag '53

No deadheads these; Nesta-Bins. il Chem W 74:64+ Mr 20 '54

No port in this storm; only brave work piers at New York. il Chem W 74:84 Ap 10 '54

Ocean comes to Toledo; long-delayed seaway getting under way. map Chem W 74:74+ My 22 '54

Piggybacks roll the rails. il Chem W 75:56+ Ag 14 '54

Plastic tanker takes to road. il Chem Eng 60:246 O '53; Chem Eng Prog 49:sup58 S '53

Plastic tanks grow up. il Chem W 73:44+ Ag 29 '53

Rail chemicals on top. il Chem W 75:70 Jl 10 '54

S.3111, or fight; will bill breach crack in waterways dike? Chem W 74:82 Ap 10 '54

Shipping bulk by truck; Victor Chemical. il Chem W 74:46+ Ap 3 '54

Traffic lights for bigger sales. il Chem W 75:62+ Ag 21 '54

'Tween-size tanks. il Chem W 72:28+ My 30 '53

Untouched by hands; Central of Georgia railway mechanized warehouse for handling Chilean nitrate. il Chem W 72:52 Je 6 '53

Versatile Marine Dow-Chem. il plans diags Marine Eng 59:38-45 S '54

Water dilutes freight costs; operates coast to coast; Dow Chemical's effort to capitalize on economies of chemical water transport. il map Chem W 73:50-4+ Jl 18 '53

Water transport rates on chemicals. F. C. Tighe. il Chem & Eng N 31:4916-20 N 23 '53

See also

Carboys
Railroads—Rates—Chemicals

CHEMICALS, Registry of. See National registry of rare chemicals

CHEMIGUM. See Rubber, Artificial

CHEMILUMINESCENCE. See Luminescence

CHEMISTRY

Applications of microwave spectroscopy to chemical problems. J. Sheridan. bibliog Chem & Ind p648-51 Jl 4 '53

Chemical achievements in 1953. Can Chem Process 38:46 Ja '54

Chemical problems associated with nuclear reactors. J. M. Fletcher. diags Chem & Ind p790-3 Jl 25 '53

CHEMISTRY—*Continued*

Chemist in the electrical industry. H. K. Cameron. Chem & Ind p952-6 S 12 '53

Chemistry around us. A. F. Cadenhead. Can Chem Process 38:100+ S '54

Monsanto documentary film gives boy's eye view of chemistry. il Chem & Eng N 31:2982 Jl 20 '53

Resourcefulness in chemical industry of USA. W. C. Foster. Chem Age (Lond) 69:1325-6 D 26 '53

See also

Acids
Atoms
Biological chemistry
Catalysis
Chemical reaction and other headings beginning Chemical
Chemicals
Chemists
Colloids
Combustion
Crystallization
Crystallography
Dyes and dyeing—Chemistry
Electrochemistry
Electrolysis
Electrolytes
Electrons
Evaporation
Explosives
Fermentation
Food—Chemistry
Gases
Geochemistry
Hydrolysis
Ions
Irreversible processes
Liquids
Metallurgy
Metals
Molecules
Oxidation
Periodic system
Photochemistry
Photographic chemistry
Poisons
Poisons, Industrial
Radicals (chemistry)
Radioactive substances
Reduction, Chemical
Resonance (chemistry)
Rubber—Chemistry
Rubber, Artificial—Chemistry
Salt
Salts
Solids
Solution (chemistry)
Solvents
Spectrum
Stereochemistry
Synthesis
Textile chemicals
Textile chemistry
Thermochemistry
Waxes
Wood—Chemistry

Bibliography

Abstracts. J Ap Chem 4:2-63 Ja '54 [cont monthly]

Book reviews. Chem & Ind p 1106-21 O 17 '53; p321-39, 1048-51, 1073-6 Mr 20, Ag 21-28 '54

Classified catalog of books on display at the Chemical education book exhibit, Chicago, Sept. 7-11. J Chem Educ 30:sup46+ S '53

Classified catalog of books on display at the Chemical education book exhibit, New York, Sept. 13-17. J Chem Educ 31:sup48+ S '54

Home reference library for chemistry students. G. Jahoda. J Chem Educ 30:507-9 O '53

Recent books. Published in monthly numbers of Journal of chemical education

See also

Chemical abstracts (periodical)

Demonstrations

Allotropy of sulfur. S. B. Butler. J Chem Educ 31:187 Ap '54

Apparatus for demonstrating paper chromatography. P. S. Baker. il J Chem Educ 31:237 My '54

Atomic structure and the photoelectric effect. C. P. Brockett. bibliog(48 ref) diags J Chem Educ 30:498-501 O '53

Demonstration of compressibility measurements on gaseous fluids. J. D. Baron and G. M. Watson. bibliog il diags J Chem Educ 31:74-7 F '54

Demonstration of the intermediate position of cobalt between iron and nickel. E. M. Goldstein. J Chem Educ 30:387 Ag '53

Dynamic illustration of organic reaction mechanisms. G. H. Daub and others. diags J Chem Educ 31:134-5 Mr '54

Lecture demonstration a must; abstract. D. G. Nicholson. Chem & Eng N 32:3837 S 27 '54

Lecture demonstrations of incendiaries. M. Antelman. J Chem Educ 30:134-5 Mr '53

Modified silver tree. W. H. R. Shaw and B. T. Nowlin. il J Chem Educ 30:581 N '53

Molecular models for lecture demonstrations in organic chemistry. F. L. Lambert. il J Chem Educ 30:503-7 O '53

Purification of nickel with carbonyl. R. S. Young. J Chem Educ 31:26 Ja '54

Silver trees. D. I. Gleim. il J Chem Educ 30:151 Mr '53

Visual demonstration of fractional distillation. J. O. Osburn. il J Chem Educ 30:412-14 Ag '53

Dictionaries

Do you know these words? (cont). B. H. Weil. Pet Processing 8:1728, 1901; 9:97, 242, 389, 553, 746, 914, 1081, 1227 N '53-Ag '54

Experiments

Batch cooling of a watermelon. R. W. G. Rhodes and R. L. Huntington. Chem Eng Prog 50:8 Ja '54

Comparative analysis of serum proteins by chemical and electrophoretic means. F. Lionetti and M. M. Davison. J Chem Educ 31:378-9 Jl '54

Determination of the density of oxygen gas. B. A. Fiekers. bibliog J Chem Educ 31:139-40 Mr '54

Determining Avogadro's number. R. H. Ellis and R. B. Rauch. diag J Chem Educ 30:460-1 S '53

Differentiating between primary, secondary, and tertiary alcohols. F. O. Ritter. J Chem Educ 30:395-6 Ag '53

Evaluation of wetting agents. L. A. Munro. diag J Chem Educ 31:85-6 F '54

Excitement of experiment. R. K. Summerbell. J Chem Educ 31:365-8 Jl '54

Experiments in paper partition chromatography with tagged material. F. W. Lima. bibliog diag J Chem Educ 31:153-6 Mr '54

Experiments most often required in college general chemistry. D. S. Lewis. J Chem Educ 31:418 Ag '54

Experiments on the chemistry of anthraquinone derivatives. W. Bradley. bibliog(25 ref) Soc Dyers & Col J 70:57-62; Discussion. 62-3 F '54

Experiments with many factors. K. A. Brownlee. bibliog Chem Eng Prog 49:617-21 N '53

Filter paper electrophoresis. Sister M. Martinette. bibliog il J Chem Educ 31:18-19 Ja '54

Kinetic analogy. R. Lemlich. diag J Chem Educ 31:431-2 Ag '54

Nature of iron(III) thiocyanate in solution. S. Z. Lewin and R. S. Wagner. bibliog(26 ref) J Chem Educ 30:445-50 S '53

Preparation of ninhydrin as a laboratory experiment. X. A. Dominguez. bibliog J Chem Educ 30:624-5 D '53

Stability of a complex ion; experiment in radiochemistry and ion exchange. P. Kruger and J. Schubert. bibliog J Chem Educ 30:196-8 Ap '53

Stimulating interest in laboratory experiments. B. M. Mitzner. J Chem Educ 31:480 S '54

Student experiments in infrared spectroscopy. K. W. Wilson. bibliog J Chem Educ 30:340-2 Jl '53

Student experiments on derivatives of 1,2-diphenylethane. L. F. Fieser. J Chem Educ 31:291-7 Je '54

Sublimation curve, vaporization curve, and triple point determination. N. O. Smith and C. M. Costich. diags J Chem Educ 31:421-2 Ag '54

Synthesis of bis(*p*-aminophenyl) sulfone for laboratory classes. R. E. Buckles. J Chem Educ 31:36-7 Ja '54

Two experiments in spectrophotometry. J. P. Phillips. J Chem Educ 31:81 F '54

Variation of equivalent conductance with concentration. J. T. Stock. il diags J Chem Educ 31:410-12 Ag '54

Verification of the Henderson-Hasselbalch equation. R. Q. Blackwell and L. S. Fosdick. J Chem Educ 31:138 Mr '54

History

A.C.S. Division of history of chemistry 124th national meeting, Chicago; abstracts of papers. Chem & Eng N 31:3859-60 S 21 '53

A.C.S. Division of history of chemistry 125th national meeting, Kansas City; abstracts of papers. Chem & Eng N 32:1445 Ap 12 '54

A.C.S. Division of history of chemistry 126th national meeting, New York; abstracts of papers. Chem & Eng N 32:3841-2 S 27 '54

CHEMISTRY—History—*Continued*

Beginnings of the doctrine of chemical affinity. P. Walden. bibliog J Chem Educ 31:27-33 Ja '54

Chemistry under four queens. bibliog il Chem Age (Lond) 68:803-8+ My 30 '53

Some chemical relics of Peter Waage and Cato Maximilian Guldberg. R. E. Oesper. il J Chem Educ 30:193-4 Ap '53

Methodology

Prediction and speculation in chemistry. W. M. Latimer. map Chem & Eng N 31:3366-70 Ag 17 '53

System of characterization of common organic acids. R. T. Wendland and D. H. Wheeler. bibliog(38 ref) Anal Chem 26:1469-74 S '54

Nomenclature

Boron names. Ind & Eng Chem 46:sup20A My '54

Nomenclature. A. M. Patterson. Chem & Eng N 32:90, 434, 968, 1386, 1818, 2320, 2714, 3548, 4019, 4418, 4484 Ja 4, F 1, Mr 8, Ap 5, My 3, Je 7, Jl 5, S 6, O 4, N 1, D 6 '54

Proposed system of nomenclature for terpene hydrocarbons; acyclics, monocyclics, bicyclics. Chem & Eng N 32:1795-7 My 3 '54

See also

Chemical literature
Chemistry, Organic—Nomenclature
Hydrocarbons—Nomenclature
Petroleum chemicals—Nomenclature

Bibliography

New reprints on nomenclature topics, supplied at cost by E. J. Crane, Chemical Abstracts, Ohio state university. Chem & Eng N 31:2803 Jl 6 '53

Periodicals

Corporation associates report. Chem & Eng N 32:958 Mr 8 '54

See also

American chemical society, Journal

Problem solving

Let's use problems to teach chemistry. J. G. Traynham. J Chem Educ 31:32-4 F '54

Social aspects

Canadian science's answer to Malthus. A. F. Cadenhead. Can Chem Process 38:80 Ag '54

Challenge to chemists. F. Daniels. Chem & Eng N 31:3868-71 S 21 '53

Chemical age. C. S. Munson. Chem & Ind p 1191-2 N 7 '53

Chemistry and the life span. W. H. Sebrell, jr. Chem & Eng N 31:4670-3+ N 9 '53

General trends in so far as they influence chemical industry. A. Fleck. Chem & Ind p968-70 Ag 7 '54

Study and teaching

Building a chemistry department. M. Kilpatrick. J Chem Educ 31:247-50, 313-16 My-Je '54

Chemistry of the covalent bond; first-year at Brown. L. B. Clapp. J Chem Educ 30:530-2 O '53

Chemistry teaching for general education. W. Hered. bibliog J Chem Educ 30:626-7 D '53

College teaching loads, 1951-52. D. G. Nicholson. J Chem Educ 30:148-50 Mr '53

Evaluation of an undergraduate chemistry curriculum. W. F. Hart. J Chem Educ 31:361-4 Jl '54

Evaluation of laboratory work in chemistry. C. P. Swinnerton. J Chem Educ 31:44-5 Ja '54

Evaluation of laboratory work in general chemistry. A. J. Currier. bibliog J Chem Educ 30:207-9 Ap '53

Experiences in the laboratory of Gregory Paul Baxter. W. M. MacNevin. J Chem Educ 31:303-5 Je '54

Let's use problems to teach chemistry. J. G. Traynham. J Chem Educ 31:32-4 F '54

Mathematical chemistry. E. S. Swinbourne and P. D. Lark. bibliog J Chem Educ 30:570-3 N '53

Pacific southwest association of chemistry teachers Northern section spring meeting, San Francisco. J Chem Educ 30:582-3 N '53

Practice and patience; essentials in training a perfumery chemist. J. Pickthall. Chem Age (Lond) 70:733 Mr 27 '54

Punched-card system for graduate research. C. H. Orr. J Chem Educ 30:140-2 Mr '53

Research program for more effective teaching of college chemistry. Sister M. C. Hannan and Sister M. C. Markham. J Chem Educ 30:475-7 S '53

Say it with movies; aids in teaching chemistry. il Ind & Eng Chem 46:sup 15A My '54

Short course in chemistry. J. H. Day. J Chem Educ 30:304-5 Je '53

Some trends in the teaching of general chemistry. C. R. Meloy. J Chem Educ 31:424-5 Ag '54

Student-teacher obligations. F. C. Vilbrandt. Ind & Eng Chem 46:sup23A-4A Ap '54

Three schedule patterns in freshman chemistry teaching. D. J. Blick. bibliog J Chem Educ 30:366-7 Jl '53

University of Liverpool. il Chem & Ind p793-5 Jl 10 '54

Why is chemistry not taught in more schools? J. W. Kercheval. J Chem Educ 30:497 O '53

See also

Chemical education
Chemistry, Analytic—Study and teaching
Chemistry, Inorganic—Study and teaching
Chemistry students
Colleges and universities—Chemical departments

Tables, calculations, etc.

Algebra of simultaneous equilibria. D. Davidson and K. Geller. J Chem Educ 30:238-42 My '53; Discussion. 30:532-4 O '53

Calculation of formation constants for systems involving polydentate ligands. B. P. Block and G. H. McIntyre, jr. bibliog Am Chem Soc J 75:5667-9 N 20 '53

Oxidation-reduction diagram. A. R. Tarsey. J Chem Educ 31:375-7 Jl '54

Systematic calculation of ionic equilibria. J. L. Fritz. J Chem Educ 30:442-4 S '53

Terminology

So-called generic names. A. M. Patterson. Chem & Eng N 31:5117-18+ D 7 '53

Tests and scales

Examination question. F. E. Condon. J Chem Educ 31:430-1 Ag '54

Proper place problems. S. MacKenzie. J Chem Educ 31:428-9 Ag '54

Relation of high-school preparation to college chemistry grades. E. H. Hadley and others. bibliog J Chem Educ 30:311-13 Je '53

Standard tests for the evaluation of student achievement. G. E. F. Brewer. J Chem Educ 31:370-2 Jl '54

What I find hardest to believe. S. Weiner. J Chem Educ 31:434-5 Ag '54

Textbooks

Textbook errors and the scientific attitude. W. E. Morrell. J Chem Educ 31:162-3 Mr '54

Germany

Bibliography

Physics and chemical sciences in western Germany. 123p pa 50c Card division, Library of Congress, Washington 25 '54

CHEMISTRY, Analytic

Addition agents in analytical precipitations. R. B. Fischer and T. B. Rhinehammer. Anal Chem 26:244-6 Ja '54

Advances in analytical chemistry symposium. bibliog J Chem Educ 31:460-70 S '54

American academy of forensic sciences 5th annual meeting, Chicago, Feb. 26-28; abstracts of papers of interest to analytical chemists. Anal Chem 25:679-80 Ap '53

A.C.S. Division of analytical chemistry meeting, Kansas City; abstracts of papers. Anal Chem 26:sup21A+ Ap '54; Chem & Eng N 32:1434-5 Ap 12 '54

A.C.S. Division of analytical chemistry 124th national meeting, Chicago; abstracts of papers. Chem & Eng N 31:3851-2 S 21 '53

CHEMISTRY, Analytic—*Continued*

A.C.S. Division of analytical chemistry 126th national meeting, New York; abstracts of papers. Chem & Eng N 32:3832-3 S 27 '54

A.C.S. New York section meeting-in-miniature, Feb. 12; abstracts of papers. Anal Chem 26:614-15 Mr '54

A.C.S. northwest regional meeting, Richland, Wash., June 11-12; abstracts of papers. Anal Chem 26:1247-9 Jl '54

Analytical chemistry and applied spectroscopy conference, Pittsburgh; abstracts of papers. Chem & Eng N 32:1016-17 Mr 15 '54

Analytical chemistry in retrospect and prospect. G. D. Beal. Anal Chem 26:792-4 My '54

Analytical chemistry of the less familiar elements; symposium. bibliog diags Anal Chem 25:1580-630 N '53

Automatic infrared punched-card identification of mixtures. A. W. Baker, N. Wright and A. Opler. il Anal Chem 25:1457-60 O '53

Beer's law in analytical chemistry. H. A. Liebhafsky and H. G. Pfeiffer. bibliog J Chem Educ 30:450-2 S '53

Complexones in analytical chemistry. T. S. West. bibliog(41 ref) Chem Age (Lond) 69: 15-22 Jl 4 '53

Conference on analytical chemistry and applied spectroscopy, Pittsburgh, March 1-5; abstracts of papers. Anal Chem 26:423-36 F '54

Continuous analyzers applied to pilot plant operations. K. P. Lanneau. bibliog flow plan il diag Ind & Eng Chem 45:2381-6 N '53

Delaware chemical symposium, 6th, Newark, Feb. 20; abstracts of papers. Anal Chem 26:615 Mr '54

Developments in the use of primary standards and indicators. A. J. Nutten. bibliog(33 ref) Chem Age (Lond) 70:123-9 Ja 9 '54

Dielectric constant gaining favor as analytical tool. B. W. Thomas. Ind & Eng Chem 45:sup87A-8A+ O '53

High temperature furnaces for organic elementary analysis. W. Kirsten. bibliog il diags Anal Chem 25:805-6 My '53

International congress of industrial chemistry, 26th, Paris; abstracts of papers. Anal Chem 25:1574-5 O '53

Mass spectrographic analysis of solids. N. B. Hannay and A. J. Ahearn. bibliog Anal Chem 26:1056-8 Je '54

Methods of chemical analysis; symposium abstracts. Chem Age (Lond) 70:519 F 27 '54

Modern methods of analytical chemistry; symposium abstracts. Chem & Eng N 32:584-6 F 15 '54

Newer techniques in analytical chemistry; abstract. J. R. Nicholls. Chem & Ind p483-4 Ap 24 '54

Pattern data for X-ray diffraction. Can Chem Process 38:38 F '54

Pittsburgh conference on analytical chemistry and applied spectroscopy, 4th, March 2-6. Opt Soc Am J 43:542-3 Je '53

Questions and answers on X-ray analysis. V. W. Palen. diags Instruments & Automation 27:1299 Ag '54

Sixth annual review of analytical chemistry. bibliog diags Anal Chem 26:2-181 Ja '54 (reprints $1.50)

Society for analytical chemistry Physical methods group 46th meeting, Preston, Lancashire, May 28; abstracts of papers. Anal Chem 26:1525 S '54

Steric hindrance in analytical chemistry; the interaction of ferrous salts with 2-substituted 1 : 10-phenanthrolines. H. Irving, M. J. Cabell and D. H. Mellor. Chem Soc J p3417-26 N '53

Technique for analysis by countercurrent extraction. M. A. Cookson and D. H. Laney. bibliog(31 ref) il Chem & Ind p450-2 Ap 17 '54

Visual control of analytical test scheduling. B. G. Post and others. il Anal Chem 26:647-50 Ap '54

X-rays as an analytical chemical tool; symposium. G. L. Clark and others. bibliog il map diags Anal Chem 25:688-739 My '53

See also

Assaying
Chromatographic analysis
Colorimetric analysis
Combustion analysis
Electrochemical analysis
Fat analysis
Fluorometric analysis
Gas analysis
Gravimetric analysis
Indicators and test papers
Iodometry
Metallurgical analysis
Microanalysis
Mineralogical analysis
Oil analysis
Plants—Chemical analysis
Polarographic analysis
Precipitation
Society for analytical chemistry
Spectrum analysis
Sugar analysis
Volumetric analysis

also subdivision Analysis under names of substances, e.g.

Acids
Air
Amino acids
Cellulose
Paper
Petroleum
Steel
Water
Wood
Wood pulp

Qualitative

Algebra of simultaneous equilibria. D. Davidson and K. Geller. J Chem Educ 30:238-42 My '53; Discussion. 30:532-4 O '53

Automatic equipment for precipitation with H_2S. S. B. Garcia. diag J Chem Educ 31:73 F '54

Qualitative analysis with the Spectranal. B. McDuffie. bibliog il diag J Chem Educ 30: 454-6 S '53

Semimicro system of qualitative and quantitative elementary analysis. E. H. Swift and C. Niemann. Anal Chem 26:538-43 Mr '54

Use of apparent dissociation constants in qualitative organic analysis. T. V. Parke and W. W. Davis. Anal Chem 26:642-5 Ap '54

Study and teaching

Chromatography as a class unit in qualitative analysis. J. G. Surak and D. P. Schlueter. bibliog(27 ref) J Chem Educ 30:457-9 S '53

Quantitative

Analysis of binary solvent mixtures of conducting solutions by a radio-frequency method. J. L. Hall and others. bibliog Anal Chem 26:835-8 My '54

Analysis of fluorine-containing organic compounds. R. Belcher. bibliog Chem Age (Lond) 69:273-4 Ag 8 '53

Analytical applications of the cyanohydrin reaction. W. J. Svirbely and J. F. Roth. Anal Chem 26:1377-8 Ag '54

Determination of purity of compounds by an extraction-solubility method. V. A. Stenger, W. B. Crummett and W. R. Kramer. bibliog Anal Chem 25:974-7 Je '53

Developments in analytical methods. R. Belcher. bibliog(29 ref) Chem Age (Lond) 71: 321-7 Ag 14 '54

Differential method for accurate quantitative infrared analyses; assay for cyclohexane in petroleum concentrates. C. F. Hammer and H. R. Roe. Anal Chem 25:668-9 Ap '53

Direct quantitative X-ray analysis by diffraction-absorption technique. J. Leroux, D. H. Lennox and K. Kay. bibliog Anal Chem 25:740-3 My '53

Organic quantitative analysis. J. S. Fritz. bibliog J Chem Educ 31:468-70 S '54

Quantitative analysis of powder mixtures with the Geiger-counter spectrometer. H. P. Klug. bibliog Anal Chem 25:704-8 My '53

Quantitative organic precipitants for osmium. L. Hoffman and others. bibliog Anal Chem 25:1091-4 Jl '53

Semimicro system of qualitative and quantitative elementary analysis. E. H. Swift and C. Niemann. Anal Chem 26:538-43 Mr '54

Solvent extraction methods in inorganic analysis. T. S. West. Chem Age (Lond) 71: 171-6, 225-7 Jl 24-31 '54

See also

Gravimetric analysis
Polarographic analysis
Volumetric analysis

CHEMISTRY, Analytic—Quantitative—*Cont.*

Study and teaching

Quantitative analysis notebook. C. K. Hancock. J Chem Educ 31:433-4 Ag '54

Use of a radio-frequency oscillator in student analysis. J. L. Hall and others. bibliog il diags J Chem Educ 31:54-9 F '54

Statistical methods

Evaluation of test procedures. D. S. McArthur and others. bibliog Anal Chem 26: 1012-18 Je '54

Indeterminate error estimates from small groups of replicates. R. A. Johnson. J Chem Educ 31:465-8 S '54

Laboratory precision and specification limits. E. C. Yehle. Anal Chem 25:1047-9 Jl '53

Plan for studying the accuracy and precision of an analytical procedure. F. J. Linnig, J. Mandel and J. M. Peterson. bibliog Anal Chem 26:1102-10 Jl '54

Statistical study of the performance of an Ainsworth microchemical balance. J. T. Waber and G. E. Sturdy. bibliog il Anal Chem 26:1177-80 Jl '54

Study and teaching

Objectives of a college course in instrumental analysis. H. A. Strobel. bibliog J Chem Educ 31:159-62 Mr '54

See also

Chromatographic analysis—Study and teaching

Tables, calculations, etc.

Calculating the concentrations of the species present in complex buffers. E. L. King. J Chem Educ 31:183-7 Ap '54

Decay and growth tables for the naturally occurring radioactive series. H. W. Kirby. Anal Chem 26:1063-71 Je '54; Correction. 26:1513 S '54

Establishing the composition of organic solvent-water mixture in analytical precipitations. R. E. Jentoft and R. J. Robinson. Anal Chem 26:1156-8 Jl '54

Interpretation of organic chemical analyses with anticomposition tables. H. H. Hatt. bibliog Chem & Ind p30-2 Ja 9 '54

Reliability of calculations based upon the law of chemical equilibrium. D. D. DeFord. bibliog(28 ref) J Chem Educ 31:460-4 S '54

CHEMISTRY, Inorganic

A.C.S. Division of physical and inorganic chemistry 125th national meeting, Kansas City; abstracts of papers. Chem & Eng N 32:1448-51 Ap 12 '54

A.C.S. Division of physical and inorganic chemistry 126th national meeting, New York; abstracts of papers. Chem & Eng N 32:3847-50 S 27 '54

Electronegativities in inorganic chemistry. R. T. Sanderson. bibliog J Chem Educ 29:539-44; 31:2-7, 238-45 N '52, Ja, My '54

Experimental inorganic chemistry. R. E. Dodd and P. L. Robinson. Review, by N. C. Rockwood. Rock Prod 57:49+ My '54

Inorganic gravimetric analysis. F. E. Beamish and W. A. E. McBryde. Anal Chem 26:140-55 bibliog(347 ref, p 151-5) Ja '54

Inorganic microchemistry; review of past two years. P. W. West. Anal Chem 26:121-8 bibliog(213 ref, p 125-8) Ja '54

Thermodynamic functions of elements and compounds; entropies of inorganic substances. E. T. Turkdogan and J. Pearson. bibliog J Ap Chem 3:495-501 N '53

Study and teaching

Inorganic chemistry; an undeveloped resource in chemistry curricula. H. H. Sisler. J Chem Educ 30:551-3 N '53

Secondary-school course in inorganic preparations. E. C. Weaver. J Chem Educ 30: 386-7 Ag '53

CHEMISTRY, Medical and pharmaceutical

A.C.S. Division of medicinal chemistry 124th national meeting, Chicago. Chem & Eng N 31:3861-2 S 21 '53

A.C.S. Division of medicinal chemistry 125th national meeting, Kansas City; abstracts of papers. Chem & Eng N 32:1321, 1323 Ap 5 '54

A.C.S. Division of medicinal chemistry 126th national meeting, New York; abstracts of papers. Chem & Eng N 32:3843-4 S 27 '54

ACS Medical division symposium, Syracuse; abstracts of papers. Chem & Eng N 32: 2686 Jl 5 '54

Edge on age; chemical agents to retard aging process in humans. il Chem W 74:32-3 Mr 6 '54

Modern pharmaceutical industry; future progress in medicinal chemistry. J. F. Bohmfalk, jr. il Chem & Eng N 31:5356-8 D 28 '53

See also

Alkaloids
Aminobenzoic acid
Anesthetics, Local
Antispasmodics
Chemotherapy
Disinfection and disinfectants
Drugs
Hormones
Immunity
Kellin
Pharmaceutical research
Vaccines
Vitamins

CHEMISTRY, Organic

A.C.S. Division of organic chemistry 124th national meeting, Chicago; abstracts of papers. Chem & Eng N 31:3977-80 S 28 '53

A.C.S. Division of organic chemistry 125th national meeting, Kansas City; abstracts of papers. Chem & Eng N 32:1324-5 Ap 5 '54

Freezing point and purity data for some organic compounds. C. R. Witschonke. bibliog(33 ref) Anal Chem 26:562-4 Mr '54

Heat capacity of organic liquids. W. M. Chow and J. A. Bright, jr. bibliog(33 ref) Chem Eng Prog 49:175-80 Ap '53

Interpretation of organic chemical analyses with anticomposition tables. H. H. Hatt. bibliog Chem & Ind p30-2 Ja 9 '54

National organic chemistry symposium; abstracts of papers. Chem & Eng N 31: 2676-8 Je 29 '53

Organic chemistry at the crossroads; Priestley medal address. R. Robinson. Chem & Eng N 31:4286-9 O 19 '53

Organic chemistry; naturally-derived compounds. J. R. Majer. Chem Age (Lond) 70: 147-55 Ja 9 '54

Organic microchemistry; review of past two years. C. L. Ogg. Anal Chem 26:116-21 bibliog(194 ref, p 119-21) Ja '54

Organic polarography. S. Wawzonek. Anal Chem 26:65-77 bibliog(426 ref, p73-7) Ja '54

Organic quantitative analysis. J. S. Fritz. bibliog J Chem Educ 31:468-70 S '54

Parachors of organic compounds; an interpretation and catalogue. O. R. Quayle. diags Chem R 53:439-589 bibliog(p485-6, 584-9) D '53

Small plant approach to processing noxious organics. E. R. Bleu and W. L. Kleiber. flow sheets il diags Ind & Eng Chem 46: 1566-9 Ag '54

Synthetic organic chemicals. 13th ed 158p Carbide and carbon chemicals co, 30 E. 42d st, New York 17 '52

Volumetric analytical methods for organic compounds; review of past two years. W. T. Smith, jr., W. F. Wagner and J. M. Patterson. Anal Chem 26:155-63 bibliog(177 ref, p 161-3) Ja '54

See also

Acids, Fatty
Alcohols
Aldehydes
Alkaloids
Amines
Carbon
Carbon compounds
Cellulose
Condensation, Chemical
Cyclic compounds
Essential oils
Esterification
Esters
Ethers
Grignard reagents
Hydrocarbons
Ketones
Methyl group
Polymerization
Proteins
Stereochemistry
Sugars

History

Suggestion and some consequences; reflections on Liebig's call to British chemists at the Liverpool meeting in 1837, together with observations on the nature of city smoke. G. R. Clemo. Chem & Ind p957-64 S 12 '53; Excerpts. Chem Age (Lond) 69: 487-90 S 5 '53

Nomenclature

Geneva congress on organic nomenclature, 1892. E. A. Evieux. bibliog il J Chem Educ 31:326-7 Je '54

CHEMISTRY, Organic—*Continued*

Study and teaching

Dynamic illustration of organic reaction mechanisms. G. H. Daub and others. diags J Chem Educ 31:134-5 Mr '54

Molecular models for lecture demonstrations in organic chemistry. F. L. Lambert. il J Chem Educ 30:503-7 O '53

Organization of subject matter in elementary organic chemistry. C. A. Mackenzie. bibliog J Chem Educ 30:243-5 My '53

Small-scale techniques in the teaching of organic chemistry. J. T. Stock and M. A. Fill. bibliog il diags J Chem Educ 30:296-301 Je '53

CHEMISTRY, Physical and theoretical

A.C.S. Division of physical and inorganic chemistry 124th national meeting, Chicago; abstracts of papers. Chem & Eng N 31:3865-7 S 21 '53

A.C.S. Division of physical and inorganic chemistry 125th national meeting, Kansas City; abstracts of papers. Chem & Eng N 32:1448-51 Ap 12 '54

A.C.S. Division of physical and inorganic chemistry 126th national meeting, New York; abstracts of papers. Chem & Eng N 32:3847-50 S 27 '54

Analogy among heat, mass, and momentum transfer. R. F. Kayser. Ind & Eng Chem 45:2634-6 D '53

Electromagnetic spectrum in chemistry. M. Davies. J Chem Educ 31:89-91 F '54

Messel lecture. Lord Cherwell. Chem Age (Lond) 71:168-70 Jl 24 '54

New ideas in chemistry. J. Lennard-Jones. diags Chem & Ind p 1156-63 S 18 '54; Same. Chem Age (Lond) 71:519-24+, 569-72+ S 11-18 '54

1953 Gordon-AAAS research conference on nuclear chemistry. Science 118:509-10 O 30 '53

Oxidation of metals at high temperatures. W. J. Moore. bibliog(61 ref) Electrochem Soc J 100:302-13 Jl '53

Physical chemistry in chemical engineering design. E. G. Scheibel. bibliog(36 ref) Ind & Eng Chem 46:1569-79, 2007-8 Ag-S '54

Physical chemistry in pharmaceutical research. J. M. Vandenbelt. J Chem Educ 30:625 D '53

Physical chemistry of the silicates. W. Eitel. Review, by N. C. Rockwood. Rock Prod 57:47+ S '54

Pure quadrupole spectra in solids. R. Livingston. bibliog il Science 118:61-6 Jl 17 '53

Recent advances in physical chemistry; abstract. A. R. J. P. Ubbelohde. Chem & Ind p485-6 Ap 24 '54

Symposium on impurity phenomena; abstracts of papers. Chem & Eng N 31:2678+ Je 29 '53

See also

Absorption
Adsorption
Atoms
Azeotropes
Catalysis
Catalysts
Chemical bonds
Chemical equilibrium
Chemical reaction
Colloids
Compressibility
Condensation, Chemical
Conjugation (chemistry)
Coordination (chemistry)
Critical constants
Crystallization
Crystallography
Diffusion
Electrochemistry
Electrolysis
Electrolytes
Electrons
Emulsions
Entropy
Equation of state
Evaporation
Fluorescence
Freezing points
Gases
Ionization, Electrolytic
Ionization, Gaseous
Ions
Isotopes
Magnetochemistry
Melting points
Mixtures
Molecular rearrangements
Molecular weights
Molecules
Orientation (chemistry)
Osmotic pressure
Phase rule and equilibrium
Photochemistry
Polymers
Precipitation
Quantum theory
Resonance (chemistry)
Solids
Solubility
Solution (chemistry)
Stereochemistry
Stoichiometry
Surface tension
Thermodynamics
Valence
Vapor pressure
Wave mechanics

Study and teaching

Introductory lecture in physical chemistry. L. R. Evans. J Chem Educ 30:630-1 D '53

1953 Cambridge summer school in physical chemistry. J. V. Westwood. Chem Age (Lond) 69:543-6 S 12 '53

Tables, calculations, etc.

Calculating the concentrations of the species present in complex buffers. E. L. King. J Chem Educ 31:183-7 Ap '54

CHEMISTRY, Technical

A.C.S. Division of industrial and engineering chemistry 124th national meeting, Chicago; abstracts of papers. Chem & Eng N 31:3972-7 S 28 '53

A.C.S. Division of industrial and engineering chemistry 125th national meeting, Kansas City; abstracts of papers. Chem & Eng N 32:1316-18 Ap 5 '54

Beware of contaminants. N. C. Updegraff. Chem & Eng N 32:2204 My 31 '54

Chemistry; an answer for tomorrow's problems. H. F. Miller. Gen Elec R 56:40-3 N '53

New processes and technology, 1952-53. il Chem Eng 61:187-208 Ja '54

Technology accelerates its advance; annual review. il diags Chem Eng 61:178-81 Mr '54

See also

Acid resisting materials
Alcohol
Alloys
Ammonia
Bleaching
Calcination
Cellulose
Cement
Ceramics
Chemical engineering
Chemical industries
Chemical patents
Chemicals
Clay
Coal tar products
Corrosion and anticorrosives
Cosmetics
Cyanide process
Dehydration
Distillation
Drying
Dyes and dyeing—Chemistry
Emulsions
Essential oils
Extraction processes
Fertilizers
Filters and filtration (technical chemistry)
Fuel
Gas
Gas manufacture
Glass manufacture
Glue
Gums and resins
Ion exchangers
Metallurgy
Oils and fats
Ore treatment
Paint
Paper
Paper making
Petroleum—Chemistry
Petroleum distillation
Petroleum refining
Plastic materials
Pottery
Rayon
Refractory materials
Resinous products
Rubber
Rubber—Chemistry
Rubber, Artificial
Soap
Soap, Metallic
Soap manufacture
Solvents
Soybeans
Sugar
Sulfuric acid
Synthesis
Tanning materials
Textile fibers, Synthetic
Unit processes
Varnish and varnishing
Vulcanization
Water purification
Wood—Chemistry
Wood preservation

Bibliography

Abstracts. J Ap Chem 4:2-63 Ja '54 [cont monthly]

Recent books and pamphlets. Published in monthly numbers of Chemical engineering

Technical bookshelf. L. B. Pope. Published in monthly numbers of Chemical engineering

Technical literature now available. Published in monthly numbers of Chemical engineering

Study and teaching

Five million dollars to spend; class project in industrial chemistry. J. R. Schwenck. J Chem Educ 31:133-4 Mr '54

CHEMISTRY buildings

Chemists' views should prevail in interior design of chem buildings. Chem & Eng N 31:3854 S 21 '53

Kansas University's Science hall on Lawrence campus. il Chem & Eng N 32:1693 Ap 26 '54

CHEMISTRY buildings—*Continued*
- Opening new chemistry doors; University of Tennessee. il Chem & Eng N 32:1913 My 10 '54
- Sheffield university; new chemistry building. il Chem & Ind p212-14 F 20 '54

CHEMISTRY students
- Counseling by statistics. F. J. Fornoff and R. N. Rhoda. J Chem Educ 30:194-5 Ap '53
- Evaluation of college students. G. N. Quam. J Chem Educ 30:574-5 N '53
- Graduates in chemistry; ACS survey. B. R. Stanerson. Chem & Eng N 31:2376-9 Je 8 '53
- Home reference library for chemistry students. G. Jahoda. J Chem Educ 30:507-9 O '53
- National cooperative undergraduate chemical research program, 1953-54. E. Cortelyou and W. P. Cortelyou. J Chem Educ 30:463-5 S '53

CHEMISTRY teachers
- Bringing up chemistry teachers; St Louis Institute program. il Chem & Eng N 32:3278 Ag 16 '54
- Science teaching. A. H. Emery. Chem & Eng N 32:2812 Jl 12 '54
- Summertime stimulus; shirtsleeve professors. Chem W 75:30+ S 18 '54
- Universities and industry in science. R. Adams. Chem & Ind p86-90 Ja 23 '54; Same. il Ind & Eng Chem 46:506-10 Mr '54; Excerpts. Oil Paint & Drug Rep 165:5+ Ja 25 '54; Abstract. Chem & Eng N 32:322+ Ja 25 '54

See also
Kirk, Raymond E.
New England association of chemistry teachers

CHEMISTS
- Aids in technical recruitment; use of booklets describing the chemical industry and companies. il Chem & Eng N 32:706-7 F 22 '54
- A.C.S. leaders trained in liberal arts colleges. J. R. Sampey and J. Sampey. J Chem Educ 30:256 My '53
- Baker's dozen; chemist's shelter against mass layoffs. V. Conquest; N. Shepard. Chem W 73:34+ N 21 '53
- Challenge to chemists. F. Daniels. Chem & Eng N 31:3868-71 S 21 '53
- Contribution of public analysts and other analytical chemists to public welfare. E. B. Hughes. Chem Age (Lond) 70:669-70 Mr 20 '54; Same. Chem & Ind p371-2 Mr 27 '54
- Demand for chemical personnel. Chem & Eng N 32:2185 My 31 '54
- Employment trends in the chemical profession. B. R. Stanerson. Chem & Eng N 32:746-8+ F 22 '54
- Florida needs chemists; ACS Florida section meeting, St Petersburg; abstracts of papers. Chem & Eng N 32:2296+ Je 7 '54
- Industry demand for chemical engineers exceeds demand for chemists. Chem Eng Prog 50:sup58-60+ Je '54
- Insoluble problem? shortage of technical manpower. il Chem W 74:16 Je 19 '54
- Less to go around; diminishing supply of graduating chemists and chemical engineers. Chem W 74:12-13 Ja 9 '54
- Manpower supply down, military and industrial demand high; biennial facts and figures. R. G. Gibbs. Ind & Eng Chem 46:1139-44 Je '54
- Morale; all things to all men; how do morale and incentive practices shape up for chemical process industries researchers? il Chem W 73:54-6 O 17 '53
- New register of scientists begun; National science foundation's program. Chem & Eng N 32:2388 Je 14 '54
- Parallel promotions; researchers' rewards; Standard oil co. (Indiana). M. Carpenter. Chem W 74:20 F 20 '54
- Principle of selection; technical manpower situation. Chem W 75:20+ Ag 14 '54
- Production of scientists. J. H. Hildebrand. Chem & Eng N 31:5084-8+ D 7 '53
- Professional attitude and job changes. W. Schmidt. Ind & Eng Chem 46:sup25A-6A My '54
- Registration of chemists. Chem & Eng N 32:3779 S 20 '54
- Role of technology in United States chemical industry; Castner memorial lecture. R. C. Swain. Chem & Ind p574-7 Je 13 '53
- Round trip for ideas; State department's foreign exchange-visitor program. Chem W 73:15 Ag 15 '53
- Sciencemanship for chemists. T. McLaughlin. Chem & Ind p999 S 19 '53
- Scientists preferred; supply-and-demand situation on technically trained manpower. Chem W 74:13-14 Je 12 '54
- Selecting chemists for sales. Chem & Eng N 32:1315-16 Ap 5 '54
- Seniors, they're out to get you; famine in technical manpower continues. il Chem & Eng N 32:124-5 Ja 11 '54
- Too many for too few; offers roll in to chemistry and chemical engineering graduates. Chem W 72:14 Je 13 '53

See also
American chemical society
Chemical education
Gesellschaft deutscher chemiker

also names of chemists, e.g.
Backer, Hilmar Johannes
Baeyer, Adolf von
Barth von Barthenau, Ludwig
Berzelius, Jöns Jakob
Clarke, Frank Wigglesworth
Dalton, John
Davy, Edmund
deMilt, Clara Marie
Domagk, Gerhard
Ebert, Johannes Ludwig
Ehrlich, Paul
Faraday, Michael
Frankenberg, Walter Gustone
Gibbs, Josiah Willard
Gillis, Jean Baptiste
Glemser, Oskar
Hein, Franz
Hieber, Walter
Hlasiwetz, Heinrich
Jander, Gerhart
Langenbeck, Wolfgang
Lavoisier, Antoine Laurent
Liebig, Justus von
Matteucci, Carlo
Moissan, Henri
Ostwald, Wilhelm
Parsons, Charles Lathrop
Pasteur, Louis
Perkin, Sir William Henry
Power, Frederick Belding
Reynolds, James Emerson
Rochleder, Friedrich
Rouelle, Guillaume François
Scheffer, Frans Eppo Cornelis
Schwarz, Robert
Smith, Thomas Peters
Ubbelohde, Leo
Vickery, Hubert Bradford
Washington, Henry Stephens
Wittig, Georg
Woker, Gertrud Johanna

Salaries

- Let's talk about salaries. Chem & Eng N 32:2189 My 31 '54
- Starting salaries reported to ACS by recent graduates in chemistry and chemical engineering. B. R. Stanerson. Chem & Eng N 31:3058-9 Jl 27 '53
- Trends in starting salaries. B. R. Stanerson. map Chem & Eng N 32:2952-3 Jl 26 '54

CHEMISTS, American institute of. See American institute of chemists

CHEM-MILL process. See Metal finishing

CHEMOTHERAPY
- Chemotherapy and antibiotics; abstracts of B. A. A. S. Chemistry section papers. Chem & Ind p 1010-12 S 26 '53
- Chemotherapy of cancer; the synthesis of dihydroxytetrahydronaphthoic acids related to podophyllotoxin. K. N. Campbell, J. A. Cella and B. K. Campbell. bibliog Am Chem Soc J 75:4681-4 O 5 '53
- Chemotherapy of experimental tuberculosis; heterocyclic acyl derivatives of substituted semicarbazides. H. L. Yale and others. Am Chem Soc J 76:2208-11 Ap 20 '54
- Gerhard Domagk and chemotherapy. R. E. Oesper. J Chem Educ 31:188-91 Ap '54
- New hope in chemicals. il Chem W 75:74-7 Jl 24 '54
- Potential thiophen chemotherapeutics; some 5-substituted 2-thienyl sulphides and sulphones. J. Cymerman-Craig and J. W. Loder. Chem Soc J p237-42 Ja '54
- Progress in chemotherapy continues; annual review. M. T. Leffler and A. W. Weston. Chem & Eng N 32:46-7 Ja 4 '54

CHEMOTHERAPY—*Continued*

Progress in chemotherapy; editorial. Chem Age (Lond) 70:1089-90 My 15 '54

See also

Aminobenzoic acid
Antibiotic substances
Pharmaceutical research
Trypanocides

CHEMSTRAND corporation

Chemstrand story. il Manuf Rec 123:30-1 Je '54

CHEMURGY

Glidden's chemurgy unit takes in five major operations. Paint Oil & Chem R 117:11 Jl 29 '54

CHERRIES

Transportation

From orchard to cannery, under water; cherries. J. H. Levin and H. P. Gaston. il Food Eng 26:58-9+ Ja '54

Tank trucks replace barrels. E. E. Jacobs. il Food Eng 26:125+ Ap '54

CHERT

Ouachita chert facies, southeastern Oklahoma. B. H. Harlton. il map diag Am Assn Pet Geologists Bul 37:778-96 Ap '53

CHERWELL, Frederick Alexander Lindemann, 1st baron, 1886-

Messel medal to atomic adviser. por(cover) Chem & Eng N 32:3062 Ag 2 '54

Messel medallist, 1954. por Chem & Ind p801 Jl 10 '54

CHESAPEAKE and Ohio railway

NYC asks I.C.C. to probe Young. Ry Age 136:9-10 Mr 8 '54

Railroad securities. Comm & Fin Chr 178: 1034, 2067 S 17, N 26 '53

Stake in Central. P. J. Maggio. Barron's 33:15-16 O 5 '53

Struggle for power in New York Central. R. Carleson. Mag of Wall St 93:624+ F 20 '54

CHESAPEAKE and Potomac telephone company

Debentures offered. Comm & Fin Chr 178: 567 Ag 17 '53

CHESAPEAKE bay

Extinction of light by filter passing matter. W. V. Burt. Science 118:386-7 O 2 '53

CHEVENARD, Pierre Antoine Jean Sylvestre, 1888-

Pierre Chevenard. C. Duval. por(front) J Chem Educ 31:13-14 Ja '54

CHEVROLET motor company

Chevrolet saga; more than 30 million cars since 1911. F. G. Lawrence. il Steel 135:69-70 Ag 16 '54

CHEW, John A.

Half century of peddling. pors Chem W 72: 60+ My 16 '53

CHICAGO

Chicago devises a plan to crack the slum collar around its Loop. il plan diags Arch Forum 100:128-9 Ap '54

Chicago outlines improvement program. Eng N 151:38-9 D 31 '53

Chicago, the convention city. il Am Dyestuff Rep 42:590 Ag 31 '53

Chicago unfolds big redevelopment plan. il Eng N 152:23-4 Mr 25 '54

Chicago voting $2½ million for codework as rehabilitation-conservation drive gains. House & Home 5:37-8 Ja '54

$400 million project for 151-acre site; Fort Dearborn project. il plan Arch Rec 115:170-1 My '54

Industrial location trends in comparison to population growth. L. G. Reeder. maps Land Econ 30:177-82 My '54

Pioneering Clearing district. il plans Arch Forum 100:114-15 Ap '54

See also

Building laws and regulations—Chicago
Housing—Chicago

Architecture

Mies van der Rohe's new buildings. il plans diags Arch Forum 97:93-111 N '52

Industries

Milwaukee-Chicago-Gary industrial area. O. W. Storey. bibliog il Electrochem Soc J 100:sup211C-21C Ag '53

Railroads

Air rights will be leased in new $75-million project; land over Chicago Union Station trainsheds. il Ry Age News ed 135:9-10 O 26 '53

Railroads in A bomb drill. Ry Age 136:8-9 Je 21 '54

Sanitary affairs

Chicago's economical sanitary fill. E. J. Knudsen. il Pub Works 84:58 N '53

Sewerage

Sewage aeration practice in the sanitary district of Chicago. N. E. Anderson. Am Soc C E Proc 79 [no 310]:1-12 O '53

Streets

Buildings no barrier to Chicago's Congress Street superhighway. V. E. Gunlock. il map Civil Eng 24:5-8 Ja '54

Unsnarling the Loop. Bsns W p 156-7 N 14 '53

Water supply

Chicago water system. H. H. Gerstein. Am Water Works Assn J 46:796-8 Ag '54

CHICAGO and eastern Illinois railroad

Railroad securities. Comm & Fin Chr 179:179 Ja 14 '54

CHICAGO and north western railway

Railroad securities. Comm & Fin Chr 178: 1955 N 19 '53

CHICAGO board of underwriters

E. P. Simon is new chief; succeeds Clarkson. Nat Underw 58:1 F 4 '54

CHICAGO great western railway

Railroad securities. Comm & Fin Chr 178:643, 2176 Ag 20, D 3 '53

CHICAGO mercantile exchange

Scrap; Exchange plan marches on. K. W. Bennett. Iron Age 173:75-6 Jl 1 '54

CHICKEN embryo as culture medium. See Culture mediums

CHILD labor laws

Development of labour legislation on young workers in certain industrialised countries. Int Labour R 68:542-60 D '53

CHILD welfare

Health services and juvenile delinquency. M. M. Eliot. Pub Health Rep 68:572-7 Je '53

Planning services for children of employed mothers. 62p U S Women's bur; pa 20c Supt. of doc. '53

See also

Detention homes
United nations children's fund

CHILDREN

How children form mathematical concepts. J. Piaget. il Sci Am 189:74-9 N '53

Puck surveys influence of kids on purchases. Ed & Pub 86:28 Ap 25 '53

Care and hygiene

Employed mothers and child care. U S Women's Bur Bul 246:1-92; pa 30c Supt. of doc. '53

Health services and juvenile delinquency. M. M. Eliot. Pub Health Rep 68:572-7 Je '53

Psychiatric referrals for delinquent children. G. E. Gardner. Pub Health Rep 68:578-82 Je '53

Studies on dental care services for school children. G. E. Waterman and J. W. Knutson. Pub Health Rep 68:583-9 Je '53

Hospitals

Hospital designed to bring cheer to children; Children's orthopedic hospital, Seattle. il plans diags Arch Forum 100:138-43 Ja '54

Law

Settlement of minors' tort claims; report of ABA committee on guardians and conservators. Trusts & Estates 92:728-9 O '53

Mortality

Accidents now great death cause for young people. Life Ins Courant 58:55 O '53

CHILDREN'S hospitals. See Children—Hospitals

CHILDREN'S literature

Bibliography

Children's books; annual survey of writing about science for younger readers. J. R. Newman. Sci Am 189:100-6+ D '53

CHILDS, Jane Coffin, memorial fund for medical research

Jane Coffin Childs memorial fund for medical research appropriations for support of cancer research projects and fellowships. Science 118:129-30 Jl 31 '53

CHILE

See also

Agriculture—Chile
Chemical industries—Chile
Geology—Chile
Mines and mineral resources—Chile
Petroleum industry and trade—Chile
Trade unions—Chile
Water, Underground—Chile

Commercial policy

Chile acts to make Arica free port. For Comm W 50:8 Ag 17 '53

Most Chilean trade at free bank rates. For Comm W 50:8 Ag 24 '53

Economic conditions

Ibañez disappoints Chile; Chilean economy and inflation. Economist 170:176 Ja 16 '54

CHILLED iron

Proposed tentative methods of chill testing of cast iron; data sheet. diags Foundry 82:273-4 My '54

CHIMES. See Carillons

CHIMNEYS

Factory stacks; studies of atmospheric pollution; abstract. O. G. Sutton. Chem Age (Lond) 69:228 Ag 1 '53

Graphical solutions for power engineers; figuring natural chimney draft. P. J. Grogan. Power Eng 58:61 Ap '54

How can he prevent corrosion in this stack? L. W. Fitzpatrick. Power Eng 58:98 Jl '54

How can we stop stack corrosion? answers. Power 98:134+ S '54

Terne metal chimney flashing. il Sheet Metal Worker 45:130 Mr '54

Twin stacks improve flue-gas ducting: Philadelphia electric co. Delaware station. S. Moyer. il diags Power 98:96-100 S '54

Wind tunnels and test models are solving today's stack-design problems. R. H. Sherlock. il Power 98:83-5 Ja '54

Cleaning

How can we clean our plant stacks? answers. il diag Power 98:140-2+ My '54

CHIMNEYS, Concrete

Standards

Amendments to proposed standard specification for the design and construction of reinforced concrete chimneys. Am Concrete Inst J 25:sup7+ Mr '54

ACI standard specification for the design and construction of reinforced concrete chimneys. diags Am Concrete Inst J 26:1-48 S '54

CHINA

Nationalisation in China. Economist 169:826-7 D 12 '53

See also

Chemical research—China
Communism—China
Communist party (China)

Army

Getting the KMT out of Burma. Economist 168:13 Jl 4 '53

Commerce

China trade tempts Japan again. Bsns W p 100-1 Ag 22 '53

Controls on U.S. imports of Chinese-type goods. For Comm W 51:8-9 Ja 11 '54

Japanese trade with China. Economist 170:5-6 Ja 2 '54

Peking's trade headache. Economist 170:243 Ja 23 '54

Red China trade. Chem & Eng N 32:1682 Ap 26 '54

Germany

Satellite trade with China. Economist 168:644 S 5 '53

Commercial policy

Peking's bait for Japan. Economist 169:412 N 7 '53

Peking's new deal with Ceylon. Economist 169:165-6 O 17 '53

Economic conditions

Malenkov aid for China. Economist 168:620 S 5 '53

Economic policy

China's winter of discontent? Economist 169:339-40 O 31 '53

Economic relations

Korea

Far Eastern triangle; North Korean-Chinese economic agreement. Economist 169:653 N 28 '53

Foreign relations

Dealing with China. Economist 170:144-5 Ja 16 '54

Handling China. Economist 168:680-2 S 12 '53

Russia

Basis of Sino-Soviet accord. J. D. Hittle. il U S Naval Inst Proc 79:372-81 Ap '53

China through Soviet eyes. Economist 170:101 Ja 9 '54

Industries and resources

Industrial progress in China. Engineer 196:714 N 27 '53

Politics and government

Forgotten Formosa. Economist 168:617 S 5 '53

CHINA grass. See Ramie

CHINAWARE. See Tableware

CHINESE institute of chemical engineers

Free Chinese form chemical engineering society. Chem Eng Prog 50:sup36A F '54

CHINESE pottery. See Pottery, Chinese

CHINTZ

Fabric surface study. R. Krammes and C. Maresh. bibliog il diag Am Dyestuff Rep 43:189-91 Mr 29 '54

CHIPPER knives. See Knives, Chipper

CHLORAL

Dialkyl α-hydroxyphosphonates derived from chloral. W. F. Barthel, P. A. Giang and S. A. Hall. bibliog Am Chem Soc J 76:4186-7 Ag 20 '54

Reaction of 1,3-dienes with chloral. W. J. Dale and A. J. Sisti. bibliog Am Chem Soc J 76:81-2 Ja 5 '54

CHLORALQUINALDINE

Mechanism of the reaction of chloralquinaldine with alkali. W. G. Dauben and C. W. Vaughan, jr. bibliog Am Chem Soc J 75:4651-5 O 5 '53

CHLORAMINE

Chloramine-ammonia reaction in liquid ammonia. H. H. Sisler, F. T. Neth and F. R. Hurley. Am Chem Soc J 76:3909-11 Ag 5 '54

Chloramine-ammonia reaction in pure water and in other solvents. H. H. Sisler and others. Am Chem Soc J 76:3912-14 Ag 5 '54

Evidence for the presence of hydroxylamine as an intermediate in the decomposition of chloramine by hydroxide. R. E. McCoy. Am Chem Soc J 76:1447-8 Mr 5 '54

Studies of *N*-halogeno-compounds; the interaction of dialkylchloramines with phenols. L. O. Brown and F. G. Soper. Chem Soc J p3576-80 N '53

Synthesis of chloramine by the ammonia-chlorine reaction in the gas phase. H. H. Sisler and others. diags Am Chem Soc J 76:3906-9 Ag 5 '54

Spectrum

Absorption spectrum of aqueous monochloramine solutions. J. Kleinberg, M. Tecotzky and L. F. Audrieth. Anal Chem 26:1388-9 Ag '54

CHLORAMPHENICOL. See Chloromycetin

CHLORANILIC acid

Colorimetric determination of strontium with chloranilic acid. P. J. Lucchesi, S. Z. Lewin and J. E. Vance. bibliog Anal Chem 26:521-3 Mr '54

CHLORATES

Non-exchange of chlorine between chlorate and perchlorate ions. D. A. Lee. bibliog Am Chem Soc J 76:2590-1 My 5 '54

Analysis

Determination of chlorate and perchlorate in the presence of one another. G. P. Haight, jr. bibliog Anal Chem 25:642-3 Ap '53

CHLORDANE

Physiological effect

Absence of toxic manifestations in workers exposed to chlordane. W. C. Alvarez and S. Hyman. A M A Archives Ind Hygiene & Occup Med 8:480-3 N '53

Danger in use of chlordane. Consumers Res Bul 32:23 S '53

Toxicity of chlordane vapors. L. Ingle. Science 118:213-14 Ag 21 '53

CHLORELLA

Algae as food. H. W. Milner. il diag Sci Am 189:31-5 O '53

CHLORENDIC compounds (term)

Chlorendic compounds. il Chem & Eng N 32:873+ Mr 1 '54

CHLORIDES

Allylic chlorides; preparation and properties of the 1-bromo-3-chloro-1-propenes. L. F. Hatch and K. E. Harwell. bibliog Am Chem Soc J 75:6002-5 D 5 '53

Base-catalyzed decomposition of substituted α-(benzenesulfonamido)-carboxylic acids and their acyl chlorides. R. H. Wiley and R. P. Davis. Am Chem Soc J 76:3496-9 Jl 5 '54

Bichloride ion. H. F. Herbrandson, R. T. Dickerson, jr. and J. Weinstein. bibliog Am Chem Soc J 76:4046 Ag 5 '54

Effect of chloride on the deposition of copper, in the presence of arsenic, antimony, and bismuth. V. Hospadaruk and C. A. Winkler. bibliog J Metals 5:Trans 1375-7 O '53

Effect of cyclopentane and cyclohexane rings on the reaction of tertiary alcohols and chlorides. G. S. Skinner and F. P. Florentine, jr. bibliog Am Chem Soc J 76:3200-3 Je 20 '54

Non-exchange of chlorine between chloride and hexachlorosmate(IV) ions in aqueous solution. L. L. Larson and C. S. Garner. bibliog Am Chem Soc J 76:2180-1 Ap 20 '54

Reactions of some polynuclear aroyl acid chlorides with organocadmium reagents. D. V. Nightingale, W. S. Wagner and R. H. Wise. bibliog Am Chem Soc J 75:4701-3 O 5 '53

Reformatsky type condensation of aroyl chlorides with ethyl α-bromoisobutyrate by means of zinc to form β-keto esters. P. L. Bayless and C. R. Hauser. bibliog Am Chem Soc J 76:2306-8 My 5 '54

Synthesis of glycyl and alanyl chlorides. S. Levine. Am Chem Soc J 76:1382 Mr 5 '54

See also

Calcium chloride
Cobalt chlorides
Copper chloride
Iron chlorides
Magnesium chloride
Silver chloride

Analysis

Automatic coulometric titration with electrolytically generated silver ion. J. J. Lingane. bibliog diags Anal Chem 26:622-6 Ap '54

Determination of chloride ions in water by mercuric nitrate; abstract. G. Gad and M. Manthey. Am Water Works Assn J 46:sup64+ S '54

High-frequency titration of micro quantities of chloride and sulfate. G. S. Bien. Anal Chem 26:909-11 My '54

Mercurimetric determination of chloride. J. F. Thomas. bibliog Am Water Works Assn J 46:257-62 Mr '54

Mercurimetric determination of chlorides. E. G. Hill. Chem & Ind p852-3 Jl 10 '54

Mercurimetric determination of chlorides. J. Ungar. bibliog Chem & Ind p453-4, 787 Ap 17, Jl 3 '54

CHLORIMET. See Nickel alloys

CHLORINATED rubber. See Rubber—Chlorination

CHLORINATION

Cashing in on chlorine; Hooker electrochemical co. Chem W 73:46-7 Ag 1 '53

Chlorination of acetaldehyde. W. T. Cave. bibliog diags Ind & Eng Chem 45:1853-6 S '53

Chlorination of arylamine derivatives by sulphuryl chloride. F. Bell. Chem Soc J p4182 D '53

Chlorination of α-chloroethylbenzene. W. Webster. bibliog J Ap Chem 3:345-50 Ag '53

Chlorination of 2,3-dimethylbutadiene; configuration of the solid dichloride. H. M. Hellman, J. W. Hellman and K. Mislow. Am Chem Soc J 76:1175 F 20 '54

Chlorination of methyl acrylate in the presence of methanol. N. D. Lee and others. bibliog J Ap Chem 3:481-6 N '53

Chlorination of *trans*-decalin. W. G. Dauben and R. C. Tweit. bibliog Am Chem Soc J 76:3197-9 Je 20 '54

Chlorination plant; use of all-glass equipment. il Chem Age (Lond) 69:176 Jl 25 '53

Direct process boosts yield; Bureau of mines adopts direct chlorination of zirconium oxide. il Chem Eng 60:158+ S '53

Halogenation of phenolic ethers and anilides; kinetics of the chlorination of diphenylyl and naphthyl ethers. B. Jones and J. P. Sleight. Chem Soc J p 1775-80 Je '54

Kinetics and mechanisms of aromatic halogen substitution; acid-catalysed chlorination by aqueous solutions of hypochlorous acid. P. B. D. de la Mare, A. D. Ketley and C. A. Vernon. Chem Soc J p 1290-7 Ap '54

New α-substituted anisoles; chlorination of anisoles; the preparation and properties of aryloxymethyl chlorides, aryloxymethylene dichlorides and aryloxychloroforms. H. J. Barber, R. F. Fuller and M. B. Green. J Ap Chem 3:409-16 S '53

New α-substituted anisoles; chlorination of aryl dimethyl ethers. H. E. Akerman, H. J. Barber and M. B. Green. J Ap Chem 3:416-18 S '53

Partial additive chlorination of the benzene ring; pentachlorocyclohexene and hexachlorocyclohexene. A. J. Kolba, H. D. Orloff and M. E. Griffing. bibliog diags Am Chem Soc J 76:1244-9 Mr 5 '54

Products of combustion of chlorinated plastics. E. H. Coleman and C. H. Thomas. bibliog diag J Ap Chem 4:379-83 Jl '54

Reaction between hydrogen sulphide and chlorine over alumina catalyst. M. H. Khundkar and M. Rakiboddowla. bibliog Chem & Ind p 128-9 Ja 30 '54

Studies of *N*-halogeno-compounds; the kinetics of chlorination of tertiary amines. A. J. Ellis and F. G. Soper. Chem Soc J p 1750-5 Je '54

Studies on the chlorination of the side chains of alkylaromatic compounds. P. G. Harvey and others. bibliog J Ap Chem 4:319-25 Je '54; Abstract and discussion. Chem & Ind p300-1 Mr 13 '54

Studies on the nuclear chlorination of aromatic compounds. P. G. Harvey and others. bibliog(26 ref) J Ap Chem 4:325-30 Je '54

Study of the chlorination of fluorinated aliphatic ethers. J. D. Park, B. Stricklin and J. R. Lacher. Am Chem Soc J 76:1387-8 Mr 5 '54

Tertiary butyl hypochlorite as an N-chlorinating agent. H. Zimmer and L. F. Audrieth. bibliog Am Chem Soc J 76:3856-7 Jl 20 '54

Understanding the chemistry of petrochemical reactions; chlorination of paraffin and aromatic hydrocarbons. L. F. Hatch. flow diag Pet Refiner 32:207-9 S '53

See also

Rubber—Chlorination
Sewage disposal—Chlorination
Water pipes—Sterilization
Water purification—Chlorination
Wool—Chlorination

CHLORINATORS

High capacity chlorinator unveils flow measurement. Eng N 152:94+ Mr 4 '54

CHLORINE

Activation of the nucleophilic displacement of chlorine from 4-substituted-2-nitrochlorobenzenes and 4-substituted-2,6-dinitrochlorobenzenes by methoxide ion. J. F. Bunnett, H. Moe and D. Knutson. bibliog Am Chem Soc J 76:3936-9 Ag 5 '54
Application of chlorine and treatment of textile wastes. N. S. Chamberlin. Am Dyestuff Rep 43:389-91 Je 21 '54
Army plant sale idea okayed conditionally. Oil Paint & Drug Rep 165:3+ F 22 '54
Chlorine and iodine in water treatment; symposium. bibliog il Ind & Eng Chem 45:994-1015 My '53
Chlorine capacity sufficient. Chem & Eng N 32:1168 Mr 22 '54
Chlorine-caustic outlook bright; annual review. Chem Eng 61:193 Mr '54
Chlorine in igneous rocks. P. K. Kuroda and E. B. Sandell. bibliog Geol Soc Bul 64:879-96 Ag '53
Chlorine outlook; abstract. C. E. Lisman. Oil Paint & Drug Rep 165:7 Mr 1 '54
Chlorine photosensitized isotope exchange between molecular oxygen species. R. A. Ogg, jr. J Chem Phys 21:2078-9 N '53
Chlorine production; abstract. N. Platzer. Chem & Eng N 32:2205 My 31 '54
Chlorine retention in textile finishes. A. H. Wachter and others. Am Dyestuff Rep 42:261-3, 285-96, 328-34, 360-2, 389-93, 421-4+, 455-6 Ap 27-Jl 20 '53
Coulometric titrations with externally generated chlorine, bromine, and iodine. J. N. Pitts, jr. and others. bibliog diag Anal Chem 26:628-31 Ap '54
Determination of some carbon-chlorine bond dissociation energies. M. Szwarc and J. W. Taylor. bibliog J Chem Phys 22:270-4 F '54
Determinations of the energy and the entropy change due to hydrogen bonding by the use of the near ultraviolet absorption; the effect of the chlorine atom on the proton-donating and the proton-accepting powers. S. Nagakura. bibliog Am Chem Soc J 76:3070-3 Je 5 '54
Fundamental principles of handling chlorine. V. W. Langworthy. il diags Water & Sewage Works 100:234-8, 318-22, 361-4, 454-6; 101:36-9 Je, Ag-S, N '53, Ja '54
Induced exchange of Cl^- and $AuCl_4^-$; evidence for Au(II). R. L. Rich and H. Taube. J Phys Chem 58:6-11 Ja '54
Measurement of the effect of chlorine treatment on the work function of titanium and zirconium. H. Malamud and A. D. Krumbein. diag J Ap Phys 25:591-2 My '54
Method for the study of chlorine atom reactions; the reaction of $Cl + Ch_4 \rightarrow CH_3 + HCl$. H. O. Pritchard, J. B. Pyke and A. F. Trotman-Dickenson. Am Chem Soc J 76:1201-2 F 20 '54
Nonequivalence of chlorine atoms in phosphorus pentachloride. J. Downs and R. E. Johnson. J Chem Phys 22:143-4 Je '54
Non-exchange of chlorine between chlorate and perchlorate ions. D. A. Lee. bibliog Am Chem Soc J 76:2590-1 My 5 '54
Non-exchange of chlorine between chloride and hexachlorosmate(IV) ions in aqueous solution. L. L. Larson and C. S. Garner. bibliog Am Chem Soc J 76:2180-1 Ap 20 '54
Not 3.7; only 0.75; potential uptake of chlorine by titanium manufacturers. Chem W 74:68 Ap 3 '54
Report of the chlor-alkali committee of the Industrial electrolytic division for the year 1953. Electrochem Soc J 101:sup 195C-6C Ag '54
Synthesis of chloramine by the ammonia-chlorine reaction in the gas phase. H. H. Sisler and others. diags Am Chem Soc J 76:3906-9 Ag 5 '54
Uncatalyzed exchange of Cl^- and $AuCl_4^-$. R. L. Rich and H. Taube. bibliog J Phys Chem 58:1-5 Ja '54
US chlorine plant bid terms seen improving. Oil Paint & Drug Rep 165:3+ F 8 '54

Analysis

Amperometric techniques for chlorine residual. G. C. Clark, jr. il Instruments & Automation 27:610-11 Ap '54
Determination of chlorine in pentachlorophenol and pentachlorophenol laurate. E. H. Searle and E. Bell. J Ap Chem 4:430-3 Ag '54
Determination of chlorine in water. R. Belcher, A. J. Nutten and W. I. Stephen. Anal Chem 26:772-3 Ap '54
Determination of mercury in the atmosphere; submicroanalytical determination of mercuric ion in bromine and chlorine water based on its catalytic action. S. Ašperger and I. Murati. bibliog Anal Chem 26:543-5 Mr '54
Determining residual chlorine in water by neutral ortho-tolidine methods; progress report. A. T. Palin. Water & Sewage Works 101:74-6 F '54
Microdetermination of chlorine and bromine in organic compounds. L. J. Lohr, T. E. Bonstein and L. J. Frauenfelder. bibliog diags Anal Chem 25:1115-17 Jl '53

Isotopes

Determination of the gamma isomer content of benzene hexachloride by chlorine-36 isotope dilution method. J. T. Craig, P. F. Tryon and W. G. Brown. diags Anal Chem 25:1661-3 N '53

Manufacture

Caustic-chlorine plant for western Canada. Can Chem Process 38:40 F '54
Chlorine and caustic in Italy; amalgam cell production. R. L. Kenyon and P. Gallone. bibliog flow sheet il diags Ind & Eng Chem 45:1162-72 Je '53
Chlorine plant gets new look; Velsicol corp., Memphis plant. il Chem Eng 61:118+ Mr '54
Diaphragm type amalgam caustic-chlorine cell. C. Potter and A. L. Bisio. bibliog diag Electrochem Soc J 101:158-61 Mr '54
Electrochemical chlorine-caustic soda production in the Gulf Coast area. F. Chrencik. il map Electrochem Soc J 100:sup 182C-4C Jl '53
Electrolytic caustic and chlorine industries. W. C. Gardiner. il diags J Chem Educ 30:116-20 Mr '53
Mercury cell chlorine and caustic; staff-industry collaborative report. H. J. Sanders, W. C. Gardiner and J. L. Wood. bibliog flow sheets il diags Ind & Eng Chem 45:1824-35 S '53

Nuclear reactions

Influence of structure, phase and added chlorine on the organic yields of the $Cl^{37}(n,\gamma)Cl^{38}$ reaction in alkyl chlorides. J. C. W. Chien and J. E. Willard. bibliog Am Chem Soc J 75:6160-5 D 20 '53

Safety measures

Handle your chlorine cylinders safely. diags Power Eng 57:64-5 N '53

Spectrum

Chlorine quadrupole resonances in solids. P. J. Bray and P. J. Ring. bibliog J Chem Phys 21:2226-7 D '53
Cl in SO_2Cl pure quadrupole spectra. P. J. Bray and D. Esteva. J Chem Phys 22:570-1 Mr '54

Transportation

Wider horizon for chlorine in one-ton containers; small multi unit tank cars. J. H. Wilharm. il plans diags Water & Sewage Works 101:20-2 Ja '54

CHLORINE, Liquid

Recommended procedures in the use of chlorine at water and sewage plants. Am Water Works Assn J 45:1060-74 O '53; Same. Sewage & Ind Wastes 25:1235-49 O '53; Same. Water & Sewage Works 100:390-4, 457-60 O-N '53; Same. Munic Util 92:36-8+ Mr '54
Stationary chlorine storage at Tampa. J. S. Long. il Am Water Works Assn J 46:35-40 Ja '54; Same. Water & Sewage Works 101:60-3 F '54

CHLORINE compounds

Chemistry of fungi; nidulin and nornidulin (ustin); chlorine-containing metabolic products of aspergillus nidulans. F. M. Dean, J. C. Roberts and A. Robertson. Chem Soc J p 1432-9 My '54

CHLORINE compounds—*Continued*

Chloryl ion, ClO_2^+. A. A. Woolf. Chem & Ind p346 Mr 20 '54

Combustion calorimetry of organic chlorine compounds; heats of combustion of chlorobenzene, the dichlorobenzenes and *o*- and *p*-chloroethylbenzene. W. N. Hubbard, J. W. Knowlton and H. M. Huffman. bibliog diags J Phys Chem 58:396-402 My '54

Nuclear quadrupole resonances in some chlorine compounds. Q. Williams and T. L. Weatherly. J Chem Phys 22:572 Mr '54

Separation and determination of mixtures of chlorinated *o*-cresols. F. Freeman, K. Gardner and D. W. Pound. bibliog J Ap Chem 3:160-4 Ap '53

CHLORINE dioxide. See Chlorine oxides

CHLORINE oxides

Chlorine dioxide bleaching. W. H. Rapson. bibliog Paper Ind 36:575-8 S '54

Chlorine dioxide pulping of jack pine and black spruce chips. F. G. Hurtubise. Pulp & Pa of Can (Convention no) 55:173-4 [F] '54

Comparison of processes for the generation of chlorine dioxide in pulp mills. W. H. Rapson. bibliog diags Tappi 37:129-37 Ap '54

Continuous process for the manufacture of chlorine dioxide. W. H. Rapson. diag Pulp & Pa of Can 55:92-6 Ap '54

Delignification of spruce sawdust with chlorine dioxide. N. Levitin and H. Schwartz. bibliog Pulp & Pa of Can 55:92-8 Ja '54

New outlook for chlorine dioxide. J. Schuber and W. A. Kraske. il diags Chem Eng 60: 205-7 S '53

Pennsalt offers pulp mills chlorine dioxide bleaching. Chem Eng 61:385-6 F '54

Strength properties of chlorine dioxide pulps from sawdust. N. Levitin and H. Schwartz. bibliog Pulp & Pa of Can 55:128-31 Jl '54

Analysis

Direct colorimetric method for the determination of chlorine dioxide in water. H. W. Hodgden and R. S. Ingols. bibliog Anal Chem 26:1224-6 Jl '54

CHLORITES

Kinetics of the chlorite-glucose reaction. H. F. Launer and Y. Tomimatsu. Am Chem Soc J 76:2591-3 My 5 '54

CHLOROACETAMIDE

New amebacides; the preparation of some N-benzyl-N-hydroxyalkyldichloroacetamides. A. R. Surrey. Am Chem Soc J 76:2214-16 Ap 20 '54

CHLOROACETIC acid

Application of high frequency oscillators. D. G. Flom and P. J. Elving. bibliog il diags Anal Chem 25:541-9 Ap '53

CHLOROACETONE. See Chloropropanone

CHLOROAURIC acid

Ovalbumin-chloroauric acid reaction. J. P. Craig, jr., A. G. Garrett and H. B. Williams. bibliog Am Chem Soc J 76:1570-5 Mr 20 '54

CHLOROBENZENE

Bromination of halobenzenes. L. N. Ferguson, A. Y. Garner and J. L. Mack. bibliog Am Chem Soc J 76:1250-1 Mr 5 '54

New data on pure chlorobenzene isomers. Chem Eng 61:154+ Ap '54

Structures of the products obtained by the condensation of phenyl benzimino chloride and ethyl-sodio-acetoacetate and subsequent cyclization. G. Singh and G. V. Nair. Chem & Ind p253-4 F 27 '54

Manufacture

Monochlorobenzene and DDT; Monsanto chemical co. diag Pet Refiner 32:182-3 N '53

CHLOROBENZENEBORONIC acid

Electrophilic displacement reactions; kinetics of the brominolysis of *m*-chlorobenzeneboronic acid in aqueous solution. H. G. Kuivila and E. J. Soboczenski. bibliog Am Chem Soc J 76:2675-8 My 20 '54

CHLOROBENZYL chlorophenyl sulfide

p-Chlorbenzyl *p*-chlorphenyl sulphide; a new ovicide for control of red spider. J. E. Cranham and others. Chem & Ind p 1206-7 N 7 '53

Control of red spider mites; Chlorocide. il Chem & Ind p 1055 O 3 '53

CHLOROBROMOMETHANE. See Bromochloromethane

CHLOROBUTANE

Effects of deuterium substitution on the rates of organic reactions; solvolysis rates and Arrhenius parameters for 2,3-dimethyl-2-chlorobutane and its 3-deutero analog. V. J. Shiner, jr. bibliog Am Chem Soc J 76:1603-6 Mr 20 '54

CHLOROCIDE. See Chlorobenzyl chlorophenyl sulfide

CHLOROCYCLOHEXENE

Photodegradation of 1-chlorocyclohexene. R. V. Lindsey, jr. and J. N. Ingraham. bibliog Am Chem Soc J 75:5613-14 N 20 '53

CHLORODIFLUOROMETHANE

Determining pressure drop in Freon systems F-12 and F-22. W. L. Holladay. bibliog Refrig Eng 62:55-60; Discussion. 60-1+ S '54

Freon cascade refrigerator for liquid air plant precooler. W. Ball. flow diag diag Refrig Eng 62:54-6 Ap '54

Monochlorodifluoroethane as a working agent in heat pumps; abstract. J. Badylkes. Refrig Eng 61:1200 N '53

CHLORODINITROBENZENE

Kinetics of reactions of 2,4-dinitrochlorobenzene with some familiar nucleophilic reagents. J. F. Bunnett and G. T. Davis. bibliog Am Chem Soc J 76:3011-15 Je 5 '54

Molecular compounds; the effect of molecular compound formation on the rates of reaction of aniline with 2,4-dinitrochlorobenzene. S. D. Ross and I. Kuntz. bibliog Am Chem Soc J 76:3000-5 Je 5 '54

CHLOROETHYLAMINE

Preparation of N-phosphorylated derivatives of bis-β-chloroethylamine. O. M. Friedman and A. M. Seligman. bibliog Am Chem Soc J 76:655-8 F 5 '54

See also

Nitrogen mustards

CHLOROETHYLBENZENE

Chlorination of α-chloroethylbenzene. W. Webster. bibliog J Ap Chem 3:345-50 Ag '53

Kinetics and mechanism of side-chain reactions in some substituted phenethyl chlorides and benzyl chlorides. M. Simonetta and G. Favini. Chem Soc J p 1840-4 Je '54

(+)α-Phenethyl chloride and (—)2-phenylpentane. R. L. Burwell, jr., A. D. Shields and H. Hart. Am Chem Soc J 76:908-9 F 5 '54

CHLOROETHYLENE

Peroxide-induced condensation of polychloroethylenes with aromatic hydrocarbons. L. Schmerling and J. P. West. Am Chem Soc J 75:6216-17 D 20 '53

See also

Trichloroethylene

CHLOROFLUORO compounds

Disproportionation of allylic chlorofluoro compounds. M. Prober. bibliog Am Chem Soc J 76:4189-91 Ag 20 '54

CHLOROFLUOROMETHANES

Freon compressors without stuffing box for small refrigerating capacities; abstract. I. Elkin and V. Jakobson. diag Refrig Eng 62:51+ Mr '54

Surface tension of Freons; abstract. P. Laine. Refrig Eng 62:53+ Ap '54

Water solubility of Freon refrigerants. H. M. Parmelee. diag Refrig Eng 61:1341-5 D '53; Discussion. 62:61+ Ja '54; Reply. 62:53 F '54

See also

Chlorotrifluoromethane

Spectra

Raman spectra of chlorofluoromethanes in the gaseous state. H. H. Claassen. bibliog J Chem Phys 22:50-2 Ja '54

CHLOROFORM

Additions of chloroform and carbon tetrachloride to allylic monomers. F. M. Lewis and F. R. Mayo. bibliog Am Chem Soc J 76:457-64 Ja 20 '54

Blistering of cellulose acetate in chloroform. D. M. Cates and H. J. White, jr. il Textile Res J 24:675-6 Jl '54

Chlorinated methanes. diag Pet Refiner 32: 124-5 N '53

Kinetics of the base-catalyzed deuterium exchange of chloroform in aqueous solution. J. Hine, R. C. Peek, jr., and B. D. Oakes. bibliog Am Chem Soc J 76:827-9 F 5 '54

CHLOROFORM—*Continued*

Molar absorptivity of dithizone in chloroform. A. S. Landry and S. F. Redondo. Anal Chem 26:732-3 Ap '54

Simultaneous measurement of phase equilibria and integral isobaric heats of vaporization. J. A. Tallmadge and L. N. Canjar. bibliog Ind & Eng Chem 46:1279-81 Je '54

Thermal decomposition of chloroform; products. G. P. Semeluk and R. B. Bernstein. bibliog Am Chem Soc J 76:3793-6 Jl 20 '54

CHLOROGERMANE. See Germanium hydrides

CHLOROHEXANOL

Trimethylene oxides; reaction of 2-chloro-4-hexanol and 1-phenyl-3-chloro-1-butanol with alkali. N. G. Gaylord and others. bibliog Am Chem Soc J 76:59-61 Ja 5 '54

CHLOROHYDRINS

Cyclic intermediates in substitution reactions; the alkaline hydrolysis of tetramethylene chlorohydrin. H. W. Heine and W. Siegfried. Am Chem Soc J 76:489-90 Ja 20 '54

Cyclic intermediates in substitution reactions; the hydrolysis of trimethylene- and tetramethylene chlorohydrins. H. W. Heine and others. Am Chem Soc J 75:4778-9 O 5 '53

Ethylene oxide by direct oxidation of ethylene and from chlorohydrin. E. T. Borrows and D. A. Caplin. bibliog diags Chem & Ind sup S32-7 Ag 10 '53

Kinetics of chlorohydrin formation; the reaction between hypochlorous acid and crotonic acid in buffered solutions at 25° and 35°. D. A. Craw. Chem Soc J p2510-14 Jl '54

Kinetics of chlorohydrin formation; the reaction between hypochlorous acid and tiglic acid at constant *pH*. D. A. Craw. Chem Soc J p2515-19 Jl '54

Some experiments relating to the chemistry of the dichlorohydrins. P. B. D. de la Mare and J. G. Pritchard. Chem Soc J p 1644-6 My '54

Analysis

Separation and identification of the 9,10- and 10,9-chlorohydrins of methyl oleate. E. Jungermann and P. E. Spoerri. bibliog Am Chem Soc J 75:4704-5 O 5 '53

CHLOROMETHANE

Chlorinated methanes. diag Pet Refiner 32: 124-5 N '53

Physiological effect

Methyl chloride intoxication. H. Hansen and others. bibliog A M A Archives Ind Hygiene & Occup Med 8:328-34 O '53

CHLOROMETHYL butadiene

Acetylene studies; Diels-Alder reactions with methylchloroprene. E. D. Bergmann. J Ap Chem 3:145-6 Ap '53

CHLOROMETHYLATION

Interpretation of meta orientation in the alkylation of toluene; the relative reactivity and isomer distribution in the chloromethylation and mercuration of benzene and toluene. H. C. Brown and K. L. Nelson. bibliog Am Chem Soc J 75:6292-9 D 20 '53

CHLOROMYCETIN

Chloramphenicol; abstract and discussion. D. S. Morris. Chem & Ind p509-10 My 1 '54

Chloromycetin; the conversion of L-*threo*-*p*-nitrophenylserinol to L-*erythro*-*p*-nitrophenylserinol. G. W. Moersch and D. P. Hylander. Am Chem Soc J 76:1703-4 Mr 20 '54

Phosphorylation of chloromycetin. H. S. Mosher, J. Reinhart and H. C. Prosser. bibliog Am Chem Soc J 75:4899-901 O 20 '53

CHLOROMYCETIN, Analogs of

Analogues of chloramphenicol. D. S. Morris and others. Chem Soc J p 1680-90 Je '54

Synthesis of an analog of chloramphenicol. W. T. Caldwell and G. C. Schweiker. bibliog Am Chem Soc J 75:5884-7 D 5 '53

CHLORONITROBENZENE

Activation of the nucleophilic displacement of chlorine from 4-substituted-2-nitrochlorobenzenes and 4-substituted-2,6-dinitrochlorobenzenes by methoxide ion. J. F. Bunnett, H. Moe and D. Knutson. bibliog Am Chem Soc J 76:3936-9 Ag 5 '54

Reaction velocity of some substituted *o*- and *p*-chloronitrobenzenes with piperidine. J. A. Brieux and V. Deulofeu. Chem Soc J p2519-22 Jl '54

Spectrum

Pure quadrupole spectra of some nitrochlorobenzenes. T. L. Weatherly and Q. Williams. J Chem Phys 21:2073-4 N '53

CHLORONITROBUTENE

Reactions of 1-chloro-3-nitro-2-butene and sodium 2-propanenitronate; 3-methyl-4-(2-nitro-2-propyl)-isoxazoline oxide. H. Shechter and F. Conrad. bibliog Am Chem Soc J 76:2716-20 My 20 '54

CHLORONITROPICOLINE

Dechlorination of some chloronitropicolines. H. E. Baumgarten, H. Chien-Fan Su and A. L. Krieger. bibliog Am Chem Soc J 76:596-9 Ja 20 '54

CHLORONITROSOCAMPHANE

Photomutarotation of (—)-2-chloro-2-nitrosocamphane. A. J. N. Hope and S. Mitchell. Chem Soc J p3483-6 N '53

CHLOROPALLADATES

Chemistry of the platinum metals; lattice constants of some chloropalladates, bromopalladates, and bromoplatinates. A. G. Sharpe. Chem Soc J p4177-9 D '53

CHLOROPHENOL

D.C.M.X and G-11 in soap. J. W. Lord and E. Parker. Soap & San Chem 29:89 Je '53

D.C.M.X., new chlorophenol. J. Gemmell. bibliog il Soap & San Chem 29:95+ Mr '53

Effect of ortho-chlorophenol on wool. H. M. Appleyard and C. M. Dymoke. il Textile Inst J Trans 45:T480-2 Je '54

Germicides for soap; review of recent papers covering the use of D.C.M.X. and hexachlorophene. W. Innes. bibliog Soap & San Chem 29:42-5 S '53; Discussion. W. S. Gump and A. R. Cade. 29:91-2 N '53

Analysis

Determination of *o*-cresol, 4-chloro-2-methylphenyl and 2-methylphenoxyacetic acid by quantitative bromination. A. Aichenegg and H. G. Haynes. bibliog J Ap Chem 4:137-40 Mr '54

CHLOROPHENYL acetophenone

Studies in stereochemical structure; optically active desyl chloride. R. Roger and R. Wood. Chem Soc J p811-12 Mr '54

CHLOROPHENYL dimethylurea

Analysis

Microdetermination of 3-(*p*-chlorophenyl-1,1-dimethylurea in plant tissue. H. Y. Young and W. A. Gortner. Anal Chem 25:800-2 My '53

CHLOROPHENYL methyl rhodamine

Underground fight; chemical for control of white tip, N-244. Chem W 74:80 Mr 20 '54

CHLOROPHTHALAZINE

Reactions of 1-chlorophthalazine. G. M. Badger and others. bibliog Chem & Ind p964 Jl 31 '54

CHLOROPHYL

Chlorophyll research. H. C. Ehrmantraut. Can Chem Process 37:96 O '53

Chlorophyll symposium abstracts. Chem & Eng N 32:1316 Ap 5 '54

Chlorophyll tries for a comeback. Chem W 74:74+ Mr 20 '54

Crystalline chlorophyll and bacteriochlorophyll. E. E. Jacobs and others. il J Chem Phys 21:2246-7 D '53

Culls to chlorophyll; Salinas laboratories, inc. il Chem W 73:16 D 12 '53

FTC eyes chlorophyll muddle and bites its nails. J. Shoenfeld. Sales Management 70: 46+ Ap 1 '53

Has the chlorophyll wave collapsed? L. M. Hughes. il Sales Management 73:36-7+ Jl 15 '54

Reaction of chlorophyll in amines. A. Weller and R. Livingston. bibliog diags Am Chem Soc J 76:1575-8 Mr 20 '54

Reversible reaction of chlorophyll giving the red-brown intermediate of the Molisch phase test. S. Freed and K. M. Sancier. Science 117:655-6 Je 12 '53

CHLOROPHYL—*Continued*

Solvates of chlorophylls and related substances and their equilibria. S. Freed and K. M. Sancier. bibliog diag Am Chem Soc J 76:198-205 Ja 5 '54

Still spring for the green. il Chem W 72:74+ Je 13 '53

Trial for toothpaste before expiration date of chlorophyll patent. Chem W 73:13 Ag 22 '53

Manufacture

Chlorophyll from lucerne. Chem Age (Lond) 69:360 Ag 22 '53

Spectrum

Absorption spectra of monomolecular layers of chlorophyll *a* and ethyl chlorophyllide *a*. E. E. Jacobs and others. J Chem Phys 22:142-3 Ja '54

Absorption spectrum of chlorophyll *a* crystals. E. E. Jacobs and A. S. Holt. J Chem Phys 22:142 Ja '54

CHLOROPHYLLIN

On the surface; mechanism of deodorization by chlorophyllin. Ind & Eng Chem 46:sup 11A+ My '54

Analysis

Polarographic investigation of some commercially available chlorophyllins. W. L. Wuggatzer and J. E. Christian. bibliog Science 118:444-5 O 16 '53

CHLOROPICRIN

Analysis

Microdetermination of chloropicrin vapor in air. L. Feinsilver and F. W. Oberst. bibliog Anal Chem 25:820-1 My '53

CHLOROPLASTS

Paper chromatography of chloroplast pigments; sorption at a liquid-liquid interface. H. H. Strain. bibliog diags J Phys Chem 57:638-40 O '53

CHLOROPLATINATES

Identification of amines by X-ray powder patterns of their chloroplatinates. C. W. Gould and S. T. Gross. diag Anal Chem 25:749-51 My '53

CHLOROPLATINIC acid

Gravimetric determination of tetramethylphosphonium ion; use of chloroplatinic acid as precipitant. C. J. Anderson and R. A. Keeler. Anal Chem 26:213-14 Ja '54

CHLOROPROPANONE

Reaction of chloroacetone with aryl Grignard reagents. R. L. Huang. Chem Soc J p2539-40 Jl '54

Synthesis of monochloroacetone. R. E. Van Atta, H. D. Zook and P. J. Elving. Am Chem Soc J 76:1185-6 F 20 '54

CHLOROPROPENE

Configuration of 3-substituted 1-chloropropenes. W. C. Wolfe, H. M. Doukas and J. S. Ard. bibliog Am Chem Soc J 76:627-9 Ja 20 '54

CHLOROPYRIMIDINE

Synthesis of chloropyrimidines by reaction with N-chlorosuccinimide, and by condensation methods. R. A. West and H. W. Barrett. bibliog Am Chem Soc J 76:3146-8 Je 20 '54

CHLOROSILANE

Trimethylamine adducts of the chlorosilanes. A. B. Burg. Am Chem Soc J 76:2674-5 My 20 '54

Spectrum

Infrared spectra of the methyl chlorosilanes. A. L. Smith. bibliog J Chem Phys 21:1997-2004 N '53

CHLOROSTYRENE

Large-scale laboratory preparation of 2,5-dichlorostyrene. H. Pollock and H. W. Davis. bibliog Ind & Eng Chem 45:2552-4 N '53

CHLOROSULFITES

Decomposition of secondary alkyl chlorosulfites; the elimination reaction and isotope effects. C. E. Boozer and E. S. Lewis. bibliog Am Chem Soc J 76:794-6 F 5 '54

Decomposition of secondary alkyl chlorosulfites; the tertiary amine catalysis. E. S. Lewis and G. M. Coppinger. bibliog Am Chem Soc J 76:796-9 F 5 '54

CHLOROSULFONATION

Derivatives of chlorosulfonated polyethylene and their infrared spectra. M. A. Smook, E. T. Pieski and C. F. Hammer. bibliog Ind & Eng Chem 45:2731-7 D '53

CHLOROTOLUENE

Kinetics and mechanism of side-chain reactions in some substituted phenethyl chlorides and benzyl chlorides. M. Simonetta and G. Favini. Chem Soc J p 1840-4 Je '54

CHLOROTRIFLUOROETHYLENE

Effect of spherulites on physical properties of fluorothene. F. P. Reding and A. Brown. bibliog il diags Ind & Eng Chem 46:1962-7 S '54

Evolution of halides from halogenated plastics exposed to gamma radiation. J. Byrne and others. Ind & Eng Chem 45:2549-52 N '53

Fluorothene resin production announced by Bakelite co. Rubber Age 75:253 My '54

Fractionation of chlorotrifluoroethylene polymer. H. S. Kaufman and E. Solomon. il diag Ind & Eng Chem 45:1779-81 Ag '53

Materials for special service; Kel-F plastic. J. A. Jupa. il Machine Design 26:147-52 My '54

Modified polymers containing fluorine; chlorotrifluoroethylene. H. S. Kaufman. bibliog il diags Tappi 37:sup 140A-3A; Discussion. 143A-5A Jl '54

Polymerization of chlorotrifluoroethylene. J. M. Hamilton, jr. bibliog diag Ind & Eng Chem 45:1347-50 Je '53

Reaction of chlorotrifluoroethylene with oxygen. R. L. Myers. Ind & Eng Chem 45:1783-5 Ag '53

Some reactions of polychlorotrifluoroethylene. M. T. Gladstone. bibliog Ind & Eng Chem 45:1555-8 Jl '53

Suspension polymerization of chlorotrifluoroethylene. J. R. Elliott, R. L. Myers and G. F. Roedel. bibliog il diags Ind & Eng Chem 45:1786-90 Ag '53

Spectrum

Vibrational spectrum of chlorotrifluoroethylene. D. E. Mann and others. bibliog J Chem Phys 21:1949-53 N '53

CHLOROTRIFLUOROMETHANE

Freon cascade refrigerator for liquid air plant precooler. W. Ball. flow diag diag Refrig Eng 62:54-6 Ap '54

Freon-13 operates in cascade systems at minus 110 F. F. Hermann. il diags Power 98:120-1+ Ag '54

Use of Freon-13 in cooling high pressure air. J. J. Fritz and others. diag Refrig Eng 62:48-50 My '54

CHLOROTRIPHENYLMETHANE

Autocatalysis in aromatic alkylations; the reaction of phenols with triphenylmethylchloride. H. Hart and F. A. Cassis. bibliog Am Chem Soc J 76:1634-9 Mr 20 '54

Relative sensitivity of triphenylmethyl chloride to electrophiles and nucleophiles in benzene solution. M. F. Hawthorne and D. J. Cram. bibliog Am Chem Soc J 76:3451-6 Jl 5 '54

CHLOROUS acid

Dissociation constant of chlorous acid. G. F. Davidson. Chem Soc J p 1649 My '54

Reaction between chlorous acid and glucose. H. F. Launer and Y. Tomimatsu. bibliog Anal Chem 26:382-6 F '54

CHOCOLATE

Handling liquid chocolate in bulk. W. L. Newcomer. Food Eng 26:68 Je '54

CHOLEGENIN

Steroids; the structures of cholegenin and *iso*cholegenin. Y. Mazur and F. S. Spring. Chem Soc J p 1223-6 Ap '54

Analysis

Steroids; isolation of cholegenin and *iso*cholegenin from ox-bile. N. J. Antia and others. Chem Soc J p 1218-22 Ap '54

CHOLESTADIENOL

Cholesterol and related compounds; structure of a new non-conjugated cholestadienol from 7-bromocholesterol. K. Tsuda, K. Arima and R. Hayatsu. bibliog Am Chem Soc J 76:2933-8 Je 5 '54

CHOLESTADIENYLONE

$\Delta^{8,14}$-Cholestadiene-3β-yl-7-one acetate. L. F. Fieser, K. Nakanishi and W. Huang. bibliog Am Chem Soc J 75:4719-22 O 5 '53

CHOLESTANE
Steroids; some 5-hydroxy-derivatives of cholestane. A. J. Fudge, C. W. Shoppee and G. H. R. Summers. Chem Soc J p958-64 Mr '54

CHOLESTANOL
See also
Methyl cholestanol

CHOLESTANONE
Steroids and related compounds; the chlorination of cholestan-3-one. B. Ellis and V. Petrow. Chem Soc J p3869-72 D '53

CHOLESTANYL sulfate
Preparation and reactions of methyl cholesteryl sulphate and methyl cholestan-3β-yl sulphate. J. M. McKenna and J. K. Norymberski. Chem & Ind p961-2 Jl 31 '54

CHOLESTENOL
Synthesis of $\Delta^{9(11)}$- and $\Delta^{20(22)}$-cholestenol. L. F. Fieser and W. Huang. bibliog Am Chem Soc J 75:5356-60 N 5 '53

CHOLESTENONE
Cholesterol and companions; oxidation of Δ^5-cholestene-3-one with lead tetraacetate. L. F. Fieser and R. Stevenson. bibliog Am Chem Soc J 76:1728-33 Ap 5 '54

CHOLESTEROL
Action of *t*-butyl hypochlorite on organic compounds; cholesterol. D. Ginsburg. bibliog Am Chem Soc J 75:5489-91 N 20 '53
Autoxidation of cholesterol during purification via the dibromide. L. L. Smith. bibliog Am Chem Soc J 76:3232-4 Je 20 '54
Cholesterol and companions; steroid dibromides. L. F. Fieser. bibliog Am Chem Soc J 75:5421-2 N 5 '53
Cholesterol and related compounds; structure of a new non-conjugated cholestadienol from 7-bromocholesterol. K. Tsuda, K. Arima and R. Hayatsu. bibliog Am Chem Soc J 76:2933-8 Je 5 '54
Conversion of cholesterol to pregnenolone in bovine adrenal homogenates. N. Saba, O. Hechter and D. Stone. bibliog Am Chem Soc J 76:3862-4 Jl 20 '54
Degradation of cholesterol by mammalian tissue extracts. W. S. Lynn, jr., E. Staple and S. Gurin. bibliog Am Chem Soc J 76:4048 Ag 5 '54
Direct inter-relationship of lanostadienol (lanosterol) and cholesterol. D. H. R. Barton and others. Chem & Ind p605-6 My 22 '54
Influence of the 5,6-double bond on the pyridine 7-sulfates of cholesterol. D. Apotheker. J. L. Owades and A. E. Sobel. bibliog Am Chem Soc J 76:3684-6 Jl 20 '54
Steroid homologs containing pyridazinone and related nuclei. F. L. Weisenborn, D. C. Remy and T. L. Jacobs. bibliog Am Chem Soc J 76:552-5 Ja 20 '54
Steroidal sapogenins; stereochemistry of sapogenins and cholesterol at carbon 20. M. E. Wall, C. R. Eddy and S. Serota. bibliog Am Chem Soc J 76:2849-50 My 20 '54
Study of the mechanism of conversion of acetate to cholesterol *via* squalene. W. G. Dauben and K. H. Takemura. bibliog Am Chem Soc J 75:6302-4 D 20 '53
Utilization of branched chain acids in cholesterol synthesis. K. Bloch. L. C. Clarke and I. Harary. bibliog Am Chem Soc J 76:3859-60 Jl 20 '54

Analysis

Estimation of cholesterol and triterpenols in unsaponifiable fraction of wool wax. H. Duewell. bibliog Anal Chem 25:1548-50 O '53
Rapid, accurate method for the determination of total cholesterol in serum. S. Pearson, S. Stern and T. H. McGavack. Anal Chem 25:813-14 My '53
Rapid procedure for determination of free serum cholesterol. H. H. Brown and others. bibliog Anal Chem 26:397-9 F '54
Spectrophotometric determination of cholesterol and triterpene alcohols in wool wax. F. E. Luddy, A. Turner, jr. and J. T. Scanlan. bibliog Anal Chem 25:1497-9 O '53

CHOLESTERYL compounds
Stereochemistry of the 3-carboxy-, 3-carboxymethyl- and 3-acetylcholestanes and Δ^5-cholestenes. E. J. Corey and R. A. Sneen. bibliog Am Chem Soc J 75:6234-7 D 20 '53
Steroids and Walden inversion; the epimeric 3-cholesterylacetic and 3-cholestanylacetic acids. C. W. Shoppee and R. J. Stephenson. Chem Soc J p2230-42 Jl '54

CHOLESTERYL sulfates
Preparation and reactions of methyl cholesteryl sulphate and methyl cholestan-3β-yl sulphate. J. M. McKenna and J. K. Norymberski. Chem & Ind p961-2 Jl 31 '54

CHOLINE

Physiological effect

Stimulation of the reticuloendothelial system with choline. J. H. Heller. bibliog Science 118:353-4 S 25 '53

CHOLINESTERASE
Anticholinesterases; cholinesterases as enzymes. E. Stedman. Chem & Ind p414 Ap 10 '54
Anticholinesterases; effects of repeated doses of some anticholinesterases. J. M. Barnes. Chem & Ind p620-1 My 29 '54
Anticholinesterases; effects on man of DFP and other anticholinesterases. A. Wilson. bibliog Chem & Ind p651-5 Je 5 '54
Anticholinesterases; esterase levels in the nervous system of animals during demyelination by tri-*ortho*-cresyl phosphate. R. H. S. Thompson. bibliog Chem & Ind p749-51 Je 26 '54
Anticholinesterases; function of acetylcholine and cholinesterase. W. Feldberg. Chem & Ind p593-4 My 22 '54
Anticholinesterases; history of work. J. H. Gaddum. bibliog(36 ref) Chem & Ind p266-8 Mr 6 '54
Anticholinesterases; inhibition of cholinesterase by organo-phosphorus compounds and reversal of this reaction; mechanisms involved. W. N. Aldridge. Chem & Ind p473-6 Ap 24 '54
Anticholinesterases; inhibition of the cholinesterases of the central nervous system of experimental animals by organo-phosphorus compounds. A. N. Davison. bibliog Chem & Ind p895-6 Jl 17 '54
Anticholinesterases; metabolic conversion of certain organic phosphorus compounds into anticholinesterases. B. A. Kilby. bibliog Chem & Ind p524-8 My 8 '54
Anticholinesterases; paralysis in man following poisoning by cholinesterase inhibitors. P. L. Bidstrup and J. A. Bonnell. bibliog Chem & Ind p674-6 Je 12 '54
Anticholinesterases; relation between structure and activity of anticholinesterases containing quaternary-nitrogen groups. A. W. D. Avison. bibliog diags Chem & Ind p288-93 Mr 13 '54
Anticholinesterases; symposium abstracts. Chem & Ind p991-4 S 19 '53
Anticholinesterases; the *in vitro* inhibition of cholinesterases by physostigmine, neostigmine and other related (non-phosphorous) compounds. F. Hobbiger. bibliog Chem & Ind p415-18 Ap 10 '54
Cholinesterase response and symptomatology from exposure to organic phosphorus insecticides. W. T. Sumerford and others. bibliog A M A Archives Ind Hygiene & Occup Med 7:383-98 My '53
Diacid bases; compounds related to 1 : 5-diphenylpentane - *pp′* - bis(trialkylammonium) salts as anti-cholinesterases. F. C. Copp. Chem Soc J p3116-18 O '53
Hydroxypyridine and hydroxyquinoline phosphates as anti-cholinesterases. K. J. M. Andrews and others. Chem Soc J p 1638-40 My '54

CHONDRODENDRON
Curare and related topics; a preliminary examination of chondrodendron limaciifolium. J. A. Barltrop and J. A. D. Jeffreys. pl Chem Soc J p 159-64 Ja '54

CHRISTIAN Science churches
Church with a different look; Third Church of Christ, Scientist, Sacramento, Calif. il plan Am Bld 76:234+ Je '54
First church of Christ Scientist, Victoria, Tex. il plan Arch Rec 114:138-40 D '53

CHRISTIANI, Rudolph
Honored on firm's 50th anniversary. por Eng N 152:48 F 25 '54

CHRISTMAS
Christmas cards and legends. W. Christopher. il Comp Air Mag 58:344-6 D '53

CHRISTMAS—*Continued*

Christmas ideas; activities of various banks. il Burroughs Clearing House 38:13-15 N '53

Keeping Xmas their own way; chemical companies watch with pride the Christmas spirit of their employees. il Chem W 73:12-13 D 26 '53

CHRISTMAS business

Business of Christmas. Economist 169:944-5 D 26 '53

Retailers hope for merriest Christmas. Bsns W p31 O 10 '53

35 points to consider in planning your 1953 Christmas promotions. N. Keine. Ptr Ink 244:33-4 Jl 10 '53

Window shopping for facts at Christmastime, 1953. C. F. Lebowitz. J Retailing 30: 33-5+ Spring '54

CHRISTMAS cards

Christmas cards and legends. W. Christopher. il Comp Air Mag 58:344-6 D '53

CHRISTMAS gifts

Advertising

Story of a Christmas promotion; Early Times and Old Forester whiskies. B. Ryan. il Adv Agency 46:56-8+ D '53

Why wholesaler will repeat Christmas ad this year. il Ptr Ink 243:78 My 22 '53

Business gifts

When a corporation says Merry Christmas to its friends. il Sales Management 71:4-6+ pt 2 S 1 '53; 73:21-188 S 10 '54

CHRISTMAS lighting

Hints for a holiday house; illustrations with text. Illum Eng 48:572-3 N '53

Light your house to say Merry Christmas; illustrations with text. Illum Eng 48:578 N '53

People of Denver like to make it a brilliant Christmas. il Elec World News ed 140:22-3 D 21 '53

Yuletide greetings in the industry. il Elec World News ed 141:15 Ja 4 '54

See also

Noma lites, inc.

CHRISTMAS parties, Employees'

Are Christmas parties worthwhile? survey of 212 companies. L. F. Van Houten. Am Bsns 23:24 D '53

Christmas greetings for employees; Boeing airplane co. il Bsns W p 120+ D 19 '53

CHRISTMAS trees

Christmas tree bonus; dependable business in chemical sprays. il Chem W 73:40-1 D 26 '53; Chem Eng 61:382-4 Ja '54

He sells Christmas trees in July; Alvin H. Berg. D. J. Atchison. il Sales Management 71:26-7 N 20 '53

CHRISTOFILOS, Nicholas

Attic physicist. Sci Am 188:45-6 Je '53

CHROMATES

Chromate conversion coatings. C. W. Ostrander. Machine Design 26:274+ Ag '54

Effect of chromate films on the corrosion resistance of hot dip galvanize in brine. F. J. Bubsey. il Metal Prog 65:122-4 My '54

Fractionation of barium-radium mixtures as chromates. M. L. Salutsky, J. G. Stites, jr. and A. W. Martin. bibliog Anal Chem 25: 1677-81 N '53

Hydrogen peroxide determination in the presence of chromate. J. Rynasiewicz. bibliog Anal Chem 26:355-8 F '54

Potentials of iron, 18-8, and titanium in passivating solutions. H. H. Uhlig and A. Geary. bibliog(47 ref) Electrochem Soc J 101:215-24 My '54

Surface reactions of steel in dilute $Cr^{51}O_4^{=}$ solutions; applications to passivity. R. A. Powers and N. Hackerman. bibliog il Electrochem Soc J 100:314-19 Jl '53

See also

Sodium chromate

Analysis

Rectification of nonlinear Beer's law plots. H. Goldenberg. bibliog Anal Chem 26:690-3 Ap '54

CHROMATOGRAPHIC analysis

Accuracy of quantitative paper chromatography in amino acid analysis. R. C. Salander, M. Piano and A. R. Patton. Anal Chem 25:1252-3 Ag '53

Acetylation of paper for chromatography. J. E. Scott and L. Golberg. Chem & Ind p48-9 Ja 9 '54

Acetylation of paper for use in chromatography. H. S. Burton. Chem & Ind p 1229-30 N 14 '53

Adsorption chromatography and liquid partition of high polymers. D. W. Bannister, C. S. G. Phillips and R. J. P. Williams. bibliog diag Anal Chem 26:1451-4 S '54

All-glass atomizer for chromatographic analysis procedures. V. H. Ortegren. diags Anal Chem 26:943-4 My '54

Analysis of phosphate mixtures by filter paper chromatography. J. Crowther. bibliog il diag Anal Chem 26:1383-6 Ag '54

Application of paper partition chromatography to petroleum analysis. E. Mariani. pl Inst Pet J 39:240-1 Ap '53

Automatic measurement of light absorption and fluorescence on paper chromatograms. J. A. Brown and M. M. Marsh. il Anal Chem 25:1865-9 D '53

Behavior of the condensed phosphates in anion-exchange chromatography. J. Beukenkamp, W. Rieman, 3d and S. Lindenbaum. bibliog Anal Chem 26:505-12 Mr '54

Cellulose column chromatography; abstract. D. Gross. Chem & Ind p242-3 F 27 '54

Characterization of essential oils by chromatography. R. H. Reitsema. Anal Chem 26:960-3 Je '54

Chromatographic determination of codeine in opium and other complex mixtures. G. C. McElheny, G. DeLaMater and R. D. Rands. bibliog diag Anal Chem 26:819-23 My '54

Chromatographic fractionation of crude petroleum oils. C. Karr, jr., W. D. Weatherford, jr. and R. G. Capell. bibliog il diags Anal Chem 26:252-6 F '54

Chromatographic separation and identification of photographic developers. J. H. Pannell and J. E. LuValle. Anal Chem 25:1566 O '53

Chromatographic separation of acid obtained from oxidation of alpha-pinene. D. E. Baldwin, V. M. Loeblich and R. V. Lawrence. bibliog Anal Chem 26:760-2 Ap '54

Chromatographic separation of glycols and monohydric alcohols. S. Dal Nogare. diag Anal Chem 25:1874-7 D '53

Chromatographic separation of methylglucoses. W. J. Whelan and K. Morgan. bibliog Chem & Ind p78 Ja 16 '54

Chromatographic separation of *p*-phenylazophenacyl esters on silicic acid. R. M. Ikeda, A. D. Webb and R. E. Kepner. Anal Chem 26:1228-9 Jl '54

Chromatographic separation of sugars with hydrocellulose. J. D. Geerdes and others. bibliog diag Anal Chem 26:264-6 F '54

Chromatographic study of steric factors in disubstituted benzenes. A. L. LeRosen, J. K. Carlton and P. B. Moseley. Anal Chem 25:666-7 Ap '53

Chromatography and analogous differential migration methods; review of past two years. H. H. Strain, T. R. Sato and J. Engelke. diags Anal Chem 26:90-100 bibliog(185 ref, p99-100) Ja '54

Chromatography of gases and vapours; the determination of adsorption isotherms. D. H. James and C. S. G. Phillips. diag Chem Soc J p 1066-70 Mr '54

Chromatography of the carbohydrates and their derivatives; abstract. J. K. N. Jones. Anal Chem 25:679 Ap '53

Chromatostrips for identifying constituents of essential oils. J. M. Miller and J. G. Kirchner. Anal Chem 25:1107-9 Jl '53

Circular filter paper chromatography. R. J. LeStrange and R. H. Müller. bibliog il Anal Chem 26:953-9 Je '54

Circular paper chromatography. A. Saifer and I. Oreskes. bibliog(30 ref) diag Anal Chem 25:1539-44 O '53

Detection and estimation of impurities in hexogen. E. W. Malmberg, K. N. Trueblood and T. D. Waugh. bibliog diags Anal Chem 25:901-7 Je '53

Detection of glycosides and other carbohydrate compounds on paper chromatograms. J. A. Cifonelli and F. Smith. bibliog Anal Chem 26:1132-4 Jl '54

Detection of periodate-oxidizable compounds on paper chromatograms. R. L. Metzenberg and H. K. Mitchell. Am Chem Soc J 76:4187 Ag 20 '54

CHROMATOGRAPHIC analysis—*Continued*

Determination of adrenocortical steroids in mixtures. E. Heftmann and D. F. Johnson. bibliog Anal Chem 26:519-21 Mr '54

Determination of aldrin and dieldrin in formulations by partition chromatography. H. F. Beckman. Anal Chem 26:922-4 My '54

Determination of caffeine and trigonelline in coffee by paper chromatography. L. Kogan, F. J. DiCarlo and W. E. Maynard. bibliog Anal Chem 25:1118-20 Jl '53

Determination of malic, tartaric, and citric acids in fruit by ion exchange chromatography. H. H. Schenker and W. Rieman, 3d. bibliog Anal Chem 25:1637-9 N '53

Determination of olefin group types. E. L. Saier, A. Pozefsky and N. D. Coggeshall. bibliog diags Anal Chem 26:1258-63 Ag '54

Determination of sulfur in iron and steel by barium chloride method after chromatographic separation of sulfuric acid. F. Nydahl. bibliog diag Anal Chem 26:580-4 Mr '54

Determination of vitamins A and E by paper chromatography. J. A. Brown. bibliog Anal Chem 25:774-7 My '53

Dipping technique for revealing sugars on paper chromatograms. G. Harris and I. C. MacWilliam. bibliog Chem & Ind p249 F 27 '54

Effect of side chain on the chromatographic adsorption of some ketones on carbon. E. D. Smith and A. L. LeRosen. bibliog Anal Chem 26:928-9 My '54

Effect of temperature on movement of a chromatographic zone. Lie Tien Chang. bibliog Anal Chem 25:1235-7 Ag '53

Electrochromatographic sequences. T. R. Sato, W. P. Norris and H. H. Strain. bibliog il Anal Chem 26:267-71 F '54

Elution chromatography with thick filter paper. W. J. Frierson, P. F. Thomason and H. P. Raaen. bibliog diags Anal Chem 26:1210-11 Jl '54

Equilibration in molten polyamide mixtures. C. W. Ayers. bibliog diags J Ap Chem 4:444-9 Ag '54

Evaporation error in volume fractionation chromatography. C. Mader and G. Mader, jr. bibliog diags Anal Chem 25:1556-7 O '53

Experiments in paper partition chromatography with tagged material. F. W. Lima. bibliog diag J Chem Educ 31:153-6 Mr '54

Flow and distribution of solutions in filter paper. S. E. Wood and H. H. Strain. bibliog Anal Chem 26:260-4 F '54

Gas chromatography. N. H. Ray. bibliog diag J Ap Chem 4:21-5, 82-5 Ja-F '54

Hemicellulose in the viscose rayon process; chromatographic investigation. A. Buurman. il diag Textile Res J 23:888-96 D '53

Horizontal migration method of paper chromatography. P. S. Rao and E. E. Dickey. bibliog il diag Science 117:666-7 Je 12 '53

Hydrolysis of polysaccharides by a cation exchange resin and identification of monosaccharide components by paper chromatography. R. E. Glegg and D. Eidinger. bibliog il Anal Chem 26:1365-7 Ag '54

Identification and determination of nonnitrogenous organic acids of sugar cane by partition chromatography. E. J. Roberts and L. F. Martin. bibliog Anal Chem 26:815-18 My '54

Identification of organic acids by circular paper chromatography. J. W. Airan and others. bibliog il Anal Chem 25:659-60 Ap '53

Improved chromatographic method for analysis of sugar beet products. R. F. Serro and R. J. Brown. Anal Chem 26:890-2 My '54

Infrared identification in paper chromatography. T. Y. Toribara and V. Di Stefano. bibliog diags Anal Chem 26:1519-21 S '54

Inorganic chromatography on cellulose; quantitative separation of rhodium, palladium, iridium, and platinum; abstract. D. B. Rees-Evans and R. A. Wells. Anal Chem 25:678-9 Ap '53

Interconversion of aldose and ketose sugars effected by alkaline impurities in the paper of a chromatogram. R. B. Duff. Chem & Ind p898-9 Ag 22 '53

Interference of inorganic salts in the chromatography on paper of amino alcohols, diamines, and diamino acids. D. M. Waldron-Edward. Chem & Ind p 104-6 Ja 23 '54

Isotopic and chromatographic techniques applied to protective coatings technology. P. Heiberger. bibliog Paint Oil & Chem R 117:14-17+ Ja 28 '54

Multiple-color development method for use in paper chromatography; abstract. C. C. Woodward and G. S. Rabideau. Anal Chem 26:248 Ja '54

Nature of inorganic chromatography on cellulose columns. D. E. Chalkley and R. J. P. Williams. Chem Soc J p 1718-21 Je '54

New solvent system for separation of amino acids by paper chromatography. R. A. Clayton and F. M. Strong. Anal Chem 26:1362-3 Ag '54

New techniques for adding organic acids to silicic acid columns. V. Zbinovsky and R. H. Burris. Anal Chem 26:208-10 Ja '54

Paper chromatography. H. Weil. bibliog(33 ref) Can Chem Process 38:68+ Ja '54

Paper chromatography and electrophoresis; exhibition of apparatus and demonstrations of techniques. Chem & Ind p243-6 F 27 '54

Paper chromatography in the fine chemicals industry; abstract. E. L. Smith. Chem & Ind p242 F 27 '54

Paper chromatography of aldehydes and ketones as Girard derivatives. R. B. Seligman and others. bibliog Chem & Ind p 1195 S 25 '54

Paper chromatography of cations with substituted 8-quinolinols. Q. Fernando and J. P. Phillips. bibliog Anal Chem 25:819-20 My '53

Paper chromatography of metal 2-thenoyltrifluoroacetone chelates. E. W. Berg and R. T. McIntyre. bibliog Anal Chem 26:813-14 My '54

Paper chromatography of some alkoxy acids. J. H. Nair, 3d. bibliog Anal Chem 25:1912 D '53

Paper chromatography of some carbohydrates and related compounds in the presence of boric acid. G. R. Barker and D. C. C. Smith. bibliog Chem & Ind p 19-20 Ja 2 '54

Paper chromatography of some substituted naphthoquinones. T. Sproston, jr. and E. G. Bassett. Anal Chem 26:552-3 Mr '54

Partition chromatography, an isentropic separation process A. Klinkenberg. diag J Chem Educ 31:423 Ag '54

Partition chromatography of a homologous series of volatile primary amines. R. A. Clayton and F. M. Strong. bibliog Anal Chem 26:579-80 Mr '54

Partition mechanism of paper chromatography; adsorption of chromatographed substances. D. P. Burma. bibliog Anal Chem 25:549-53 Ap '53

Peak volume-concentration relationships with progressively changing solvents in organic acid chromatography. C. Mader. diag Anal Chem 26:566-7 Mr '54

Petroleum oil extenders. W. L. Dunkel, F. P. Ford and J. H. McAteer. bibliog il Ind & Eng Chem 46:578-86 Mr '54

Preparation of microbiologically resistant wool by means of chemical modification; paper chromatographic investigation of the samples. H. Zahn. bibliog Textile Res J 24:26-31 Ja '54

Principles of elution chromatography as applied to separation of lubricating oil components. G. E. Irish and A. C. Karbum. bibliog Anal Chem 26:1445-51 S '54

Progress in chromatography. G. S. Egerton. bibliog Chem Age (Lond) 70:157-63 Ja 9 '54

Properties of high boiling petroleum products. L. T. Eby. bibliog Anal Chem 25:1057-60 Jl '53

Quantitative chromatographic separation of ortho- and para-nitroanilines and their monosubstituted derivatives. J. E. Larson and S. H. Harvey. Chem & Ind p45-6 Ja 9 '54

Quantitative determination of amino acids. J. F. Roland, jr. and A. M. Gross. bibliog il Anal Chem 26:502-5 Mr '54

CHROMATOGRAPHIC analysis—*Continued*

Quantitative method using paper chromatography for estimation of reducing oligosaccharides. W. H. Wadman, G. J. Thomas and A. B. Pardee. bibliog Anal Chem 26:1192-5 Jl '54

Quantitative separation of the alkaline earths by ion-exchange chromatography. M. Lerner and W. Rieman, 3d. bibliog Anal Chem 26:610-11 Mr '54

Separability of hydrocarbons by elution chromatography. H. M. Tenney and F. E. Sturgis. bibliog diag Anal Chem 26:946-53 Je '54

Separation and concentration of trace metals from natural waters. D. E. Carritt. diags Anal Chem 25:1927-8 D '53

Separation and identification of 2 : 4 dinitrophenylhydrazones by paper chromatography. H. S. Burton. Chem & Ind p576 My 15 '54

Separation of 2 : 4-dinitrophenylhydrazones. G. A. Howard and A. R. Tatchell. bibliog Chem & Ind p219 F 20 '54

Separation of magnesium from calcium by ion exchange chromatography. D. N. Campbell and C. T. Kenner. Anal Chem 26:560-1 Mr '54

Separation of phenols by partition chromatography. T. R. Sweeney and J. D. Bultman. diag Anal Chem 25:1358-63 S '53

Separation of radium D, E, and F by paper chromatography. E. E. Dickey. J Chem Educ 30:525 O '53

Separation of the pyrethrins by displacement chromatography. J. Ward. bibliog Chem & Ind p586-7 Je 13 '53

Simple method for making transfers in paper chromatography. A. M. Moore and J. B. Boylen. diag Science 118:19-20 Jl 3 '53

Simplified procedure for separating porphyrins from urine. L. M. Corwin and J. M. Orten. bibliog diag Anal Chem 26:608-9 Mr '54

Techniques for the determination of pulp constituents by quantitative paper chromatography. J. F. Saeman and others. bibliog(30 ref) il diags Tappi 37:336-43 Ag '54; Excerpt. Paper Ind 36:387 Jl '54

Trends in paper chromatography and electrophoresis; abstract. T. S. G. Jones. Chem & Ind p242 F 27 '54

Use of infrared radiation for detection of colorless substances on paper chromatograms. D. R. Kalkwarf and A. A. Frost. bibliog diags Anal Chem 26:191-5 Ja '54

Versatile technique of paper chromatography. F. Irreverre and W. Martin. diag Anal Chem 26:257-60 F '54

Apparatus

Apparatus for automatically scanning two-dimensional paper chromatograms for radioactivity. W. J. Wingo. il Anal Chem 26:1527-8 S '54

Automatic device for starting paper chromatograms. L. J. B. Husband. il Chem & Ind p776-7 Jl 3 '54

Automatic volume fraction collectors. C. Mader and others. bibliog il diags Anal Chem 25:1423-30 S '53

Chromatogram spotting apparatus. C. H. Livingston and others. il Science 118:56-7 Jl 10 '53

Continuous scanning device for paper electrophoresis and strip chromatography. O. Bassir. diag Chem & Ind p709-10 Je 19 '54

Device for rapid measurement of chromatographic R_b values. A. J. Glazko and W. A. Dill. diag Anal Chem 25:1782 N '53

Fluoroscope and Geiger counter for measuring ultraviolet absorption of chromatograms. T. D. Price and P. B. Hudson. bibliog(28 ref) il Anal Chem 26:1127-32 Jl '54

Gas flow counter for scanning paper chromatograms and paper ionograms. H. L. Demorest and R. Baskin. diags Anal Chem 26:1531-2 S '54

Glass atomizer for use in chromatography. W. J. Wingo. diags Anal Chem 25:1939-40 D '53

Precision recording refractometer for chromatographic analysis. N. R. Trenner, C. W. Warren and S. L. Jones. il diags Anal Chem 25:1685-90 N '53

Simple photoelectric signaling device for use with chromatographic columns; abstract. W. L. Porter. il diag Anal Chem 26:439 F '54

Solvent tray and tray supports for one-dimension descending paper chromatography in glass cylinders; abstract. W. L. Porter. il diags Anal Chem 26:439-40 F '54

Study and teaching

Apparatus for demonstrating paper chromatography. P. S. Baker. il J Chem Educ 31:237 My '54

Chromatography as a class unit in qualitative analysis. J. G. Surak and D. P. Schlueter. bibliog(27 ref) J Chem Educ 30:457-9 S '53

Ion-exchange chromatography for high-school students. W. Rieman, 3d. bibliog diag J Chem Educ 31:212-16 Ap '54

Paper chromatography for students. R. Q. Blackwell and L. S. Fosdick. il diags J Chem Educ 30:614-16 D '53

Simple lecture demonstration of paper partition chromatography. E. S. Kritchevsky and D. Kritchevsky. J Chem Educ 30:370 Jl '53

CHROMATOGRAPHY (term)

New name for chromatography. D. M. Smith. Chem & Ind p519 My 1 '54

CHROMAZUROL S

Spectrophotometric determination of fluoride ion with chrome azurol S. S. D. Revinson and J. H. Harley. bibliog Anal Chem 25:794-7 My '53

CHROME dyes. See Dyes and dyeing

CHROMIA. See Chromium oxides

CHROMIC acid

Chromic acid recovery by ion exchange. R. J. Brink. flow diag diag Sewage & Ind Wastes 26:197-202 F '54

Chromic acid used in catalysts overcomes regeneration afterburn; patent. Pet Processing 8:1913 D '53

Furo-chromones and -courmarine; degradation of visnagin, khellin and related substances; experiments with chromic acid and hydrogen peroxide; and a synthesis of eugenitin. A. Schönberg, N. Badran and N. A. Starkowsky. bibliog Am Chem Soc J 75:4992-5 O 20 '53

Waste purification; plater profits two ways; Pontiac motor division. A. J. D'Orazio. flow diag Steel 135:130-1 Jl 19 '54

CHROMIC oxide. See Chromium oxides

CHROMIC sulfate

Toxicity of mercuric chloride, chromic sulfate, and sodium chromate in the dilution b.o.d. test. Sewage & Ind Wastes 26:536-8 Ap '54

CHROMITE

Chrome mining in southern Rhodesia shows wide variety of operations. P. A. Hodges. bibliog il diags Min Eng 6:791-7 Ag '54

Chrome ore mining in Turkey. H. F. Kromer. map Eng & Min J 155:92-5 Ap '54

Chromite deposits in Samar, Philippines. W. C. Stoll. map plans Econ Geol 48:598-9 N '53

Chromium from chromite. Chem Age (Lond) 71:121-3 Jl 17 '54

Origin of the chromite deposits of the Bay of Islands igneous complex, western Newfoundland. C. H. Smith. bibliog map diag Econ Geol 48:408-15 Ag '53

Tungsten, mercury, chromite, nickel, 1953. W. L. Long. il Min Cong J 40:119-20 F '54

CHROMIUM

Bridged activated complex for the electron exchange of chromium(II) and monochlorochromium(III) ion. H. Taube and E. L. King. Am Chem Soc J 76:4053-4 Ag 5 '54

Chromium conservation. T. W. Merrill and F. St Vincent. Iron Age 173:173 Je 17 '54

Chromium diffusivity in alpha cobalt-chromium solid solutions. J. W. Weeton. bibliog il diag Am Soc for Metals Trans 44:436-49; Discussion. 449-51 '52

Chromium distribution between liquid iron and molten basic slags. N. J. Grant and others. bibliog il J Metals 6:Trans 145-9 F '54

Chromium, 1953. C. Katlin. Eng & Min J 155:102 F '54

Complex ions of chromium; the ethylenediaminetetraacetic acid complex with chromium(III). R. E. Hamm. Am Chem Soc J 75:5670-2 N 20 '53

CHROMIUM—*Continued*

Effect of chromium on the thermodynamic activity of carbon in liquid iron. F. D. Richardson and W. E. Dennis. bibliog diag Iron & Steel Inst J 175:257-63 N '53

Effect of iron, manganese and chromium on the properties in sheet form of aluminum alloys containing 0.7 per cent magnesium and 1.0 per cent silicon; abstract. R. Chadwick and others. Metal Prog 66:178+ Jl 1 '54

Effect of temperature and purity on the ductility and other properties of chromium. A. H. Sully and others. Metal Prog 65:208+ F '54

Electrically melted and cast magnesite-chrome refractory. T. Hand and H. W. Baque. il Am Cer Soc Bul 33:176-9 Je 15 '54

Exchange reaction between chromous and chromic ions in perchloric acid solution. A. Anderson and N. A. Bonner. bibliog diag Am Chem Soc J 76:3826-30 Jl 20 '54

Fundamental study and equipment for sintering and testing of cermet bodies; fabrication, testing, and properties of 72 chromium-28 alumina cermets. T. S. Shevlin il Am Cer Soc J 37:140-5 Mr 1 '54

High purity chromium, key to better alloys. H. L. Gilbert and H. A. Johansen. bibliog il Iron Age 173:93-6 Ja 21 '54

High purity metals. D. J. Maykuth. Product Eng 24:188-9 N '53

Investigation of the systems formed by chromium, molybdenum, and nickel. D. S. Bloom and N. J. Grant. bibliog il J Metals 6:Trans 261-8 sec 2 F '54

Slow neutron velocity spectrometer studies; Re, Ta, Ru, Cr, Ga. E. Melkonian and others. Phys R 92:702-15 N 1 '53

Spectrophotometric investigation of the cerium(IV)-chromium(VI) complex ion equilibria in perchloric acid solution. J. Y. Tong and E. L. King. bibliog Am Chem Soc J 76:2132-5 Ap 20 '54

Spectrophotometric investigation of the equilibria existing in acidic solutions of chromium(VI). J. Y. Tong and E. L. King. bibliog Am Chem Soc J 75:6180-6 D 20 '53

Study of the propagation mode for metallic vapors in shadow-casting by vacuum evaporation of Au^{108} and Cr^{51}. L. E. Preuss. bibliog il diags J Ap Phys 24:1401-9 N '53; Correction. 25:136 Ja '54

Tensile properties of pure chromium at elevated temperature. H. A. Johansen and others. bibliog 4pls U S Bur Mines Rep of Invest 5058:1-8 '54

Titanium-chromium-oxygen system. C. Wang and N. J. Grant. bibliog il J Metals 6:Trans 200-6 sec 2 F '54

Analysis

Determination of small amounts of chromium in textiles by means of diphenylcarbazide. A. G. Hamlin. bibliog Textile Inst J Trans 45:T44-54 Ja '54

Rapid photometric determination of chromium in alloy steels and bronzes. M. D. Kahn and F. J. Moyer. Anal Chem 26:1371-3 Ag '54

Spectrophotometric determination of iron in vanadium, chromium, manganese, nickel, and zinc. D. W. Margerum and C. V. Banks. bibliog Anal Chem 26:200-2 Ja '54

Vacuum fusion analysis; oxygen in chromium. W. S. Horton and J. Brady. bibliog (30 ref) diags Anal Chem 25:1891-8 D '53

Isotopes

Preparation of chromium-51 of high specific activity. G. Harbottle and A. G. Maddock. bibliog J Chem Phys 21:1686-7 O '53

Metallography

Metallographic studies of electroplated chromium; abstract. L. Koch. and G. Hein. Metal Finishing 52:84-5 My '54

Preliminary study of the ductility of chromium. H. B. Goodwin and others. bibliog il diags Electrochem Soc J 100:152-60 Ap '53

Nuclear reactions

Cross sections for the reactions $Ti^{48}(d,2n)V^{48}$; $Cr^{52}(d,2n)Mn^{52}$; and $Fe^{56}(d,2n)Co^{56}$. W. H. Burgus and others. Phys R 95:750-1 Ag 1 '54

Preparation and half-life of Cr^{55}. G. A. Bazorgan and others. Phys R 95:781 Ag 1 '54

Spectrum

Description and analysis of the first spectrum of chromium, Cr I. C. C. Kiess. bibliog (45 ref) il tables J Res Nat Bur Stand 51:247-305 N '53

Zeeman effect of the Cr ground state. P. Brix and others. bibliog Phys R 92:647-9 N 1 '53

CHROMIUM alloys

Aging characteristics of nickel-chromium alloys hardened with titanium and aluminum. R. Nordheim and N. J. Grant. bibliog il J Metals 6:Trans 211-18 sec 2 F '54

Diffusion of chromium in alpha cobalt-chromium solid solutions. J. W. Weeton. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:397-411 '52

Domestic heating elements. H. Hodges. il Elec R (Lond) 153:607-12 S 18 '53; Discussion. 153:1115-16 N 13 '53

High temperature corrosion in nickel-chromium alloys. N. Spooner and others. J Metals 5:Trans 844 Je '53

Influence of chemical composition on rupture properties at 1200° F of forged chromium-cobalt-nickel-iron base alloys in solution-treated and aged condition. E. E. Reynolds and others. bibliog il U S Nat Advisory Com for Aeronautics 1951:1385-444 '52

Oxide film on nickel-chromium alloys; crystal structure studies. E. A. Gulbransen and W. R. McMillan. bibliog(30 ref) il diags Ind & Eng Chem 45:1734-44 Ag '53

Partial titanium-chromium phase diagram and the crystal structure of $TiCr_2$. P. Duwez and J. L. Taylor. bibliog il Am Soc for Metals Trans 44:495-513; Discussion. 513-17 '52

Phase relationships in the iron-chromium-vanadium system. H. Martens and P. Duwez. bibliog Am Soc for Metals Trans 44:484-93; Discussion. 493-4 '52

Rate of oxidation of three nickel-chromium heater alloys between 500° and 900°C. E. A. Gulbransen and K. F. Andrew. bibliog Electrochem Soc J 101:163-70 Ap '54

System titanium-chromium-molybdenum. R. P. Elliott and others. bibliog J Metals 5:Trans 1544-8 sec 2 N '53

Systems titanium-chromium and titanium-iron. R. J. Van Thyne and others. bibliog il Am Soc for Metals Trans 44:974-89 '52

See also

Chromium nickel steel
Chromium steel
Iron alloys—Chromium alloys

CHROMIUM boride

Borides designed for high temperature use. P. Schwarzkopf and F. W. Glaser. il Iron Age 173:138-9 Ap 1 '54

CHROMIUM carbide

Carbides in 310 stainless steel. H. Brown. il diags Steel 135:106-8 Jl 19; 92-4 Jl 26 '54

Cemented chrome carbides. J. D. Kennedy. il Product Eng 24:154-7 Ag '53

Chrome carbide makes bid; lustrous finish and extreme hardness is attracting application interest in industry. E. W. Engle. il Steel 133:104 N 2 '53

Heat capacity of chromium carbide (Cr_3C_2). R. A. Oriani and W. K. Murphy. bibliog diag Am Chem Soc J 76:343-5 Ja 20 '54

How to control carbide precipitation in welding stainless steels. G. E. Linnert and R. M. Larrimore, jr. il Materials & Methods 38:98-103 N '53; Excerpts. Metallurgia 49:255 My '54

CHROMIUM chloride

Quantitative determination of dissolved oxygen in nitrite-containing water using acid-chromous reagent. H. W. Stone and P. Sigal. diags Anal Chem 26:1236-8 Jl '54

Rate of dissolution of zinc and cadmium in chromic chloride solutions. C. V. King and N. Mayer. bibliog Electrochem Soc J 100:473-9 N '53

Stearato chromic chloride. R. K. Iler. bibliog il Ind & Eng Chem 46:766-9 Ap '54

CHROMIUM compounds

Chromates for integration; chrome-chemical markets. Chem W 75:69-71 Jl 24 '54

Chromium from chromite. Chem Age (Lond) 71:121-3 Jl 17 '54

Cyclopentadienyl compounds of chromium, molybdenum and tungsten. G. Wilkinson. bibliog Am Chem Soc J 76:209-11 Ja 5 '54

Seepage through dam checked by injecting chrome-lignin. Eng N 151:247 O 8 '53

CHROMIUM iodides

Heats of formation of chromium(III) and chromium(II) iodides. N. W. Gregory and T. R. Burton. Am Chem Soc J 75:6054-5 D 5 '53

CHROMIUM manganese steel

Chromium-manganese stainless steels. J. L. Everhart. bibliog il Materials & Methods 39:92-4 Mr '54

CHROMIUM metallurgy

Electrometallurgy

Electrolytic chromium plant now in production; Electro metallurgical co. il Blast F & Steel Pl 42:443+ Ap '54; Same cond. Iron Age 173:88 Mr 11 '54

Preliminary study of the ductility of chromium. H. B. Goodwin and others. bibliog il diags Electrochem Soc J 100:152-60 Ap '53

CHROMIUM molybdenum steel

Carbide segregation in 1¼ Cr-½ Mo steel pipe welded joints. I. A. Rohrig and H. S. Blumberg. il Welding J 32:815-22 S '53; Discussion. A. B. Wilder. 33:312 Ap '54

Elevated-temperature properties of chromium-molybdenum steels. W. F. Simmons and H. C. Cross, comps. (Special tech. pub. no. 151) 208p pa $4.75 Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '53

Fabrication of chromium-molybdenum steel piping for 1000 to 1050 F central station service. R. W. Emerson. bibliog il Am Soc T M Proc 51:869-87; Discussion. 887-94 '51

They said this was impossible; punching a rectangular hole in ⅝-inch thick 4130 chrome-moly steel. il Steel 135:136 S 13 '54

Transformation of Cr-Mo steels during welding. W. R. Apblett, jr. and others. il diags Welding J 33:sup57-64 Ja '54; Abstract. Metal Prog 66:162+ Ag '54

CHROMIUM nickel steel

Ferrite formation associated with carbide precipitation in 18 CR-8 NI austenitic stainless steel. E. J. Dulis and G. V. Smith. bibliog il Am Soc for Metals Trans 44:621-32; Discussion. 632-42 '52

How cold work, heat treat change properties of 18-8 wire. S. Storchheim. Iron Age 173:146-8 F 18 '54

Identification of inclusions in austenitic 18 CR-8 NI-CB (type 347) steel. E. J. Dulis and G. V. Smith. il Am Soc for Metals Trans 44:877-81 '52

Nickel-stretching and special-purpose alloys brighten outlook for stainless steels. il Steel 133:146-8+ O 12 '53

Nondestructive test gives austenite, martensite percentages. S. Storchheim. il Iron Age 173:108-11 Jl 1 '54

Potentials of iron, 18-8, and titanium in passivating solutions. H. H. Uhlig and A. Geary. bibliog(47 ref) Electrochem Soc J 101:215-24 My '54

Stainless; high alloy castings speed antibiotic production. il Iron Age 173:164-5 Mr 18 '54

Transgranular stress corrosion in chromium-nickel stainless steels. C. Edeleanu. bibliog 4pls Iron & Steel Inst J 173:140-6 F '53; Abstract. Metal Prog 65:178+ Je '54; Discussion. il Iron & Steel Inst J 174:218; 175:390-2 Jl, D '53

Analysis

Spectrographic analysis of 18-8 stainless steel for cobalt, manganese, and stabilizing elements. N. E. Gordon, jr., R. M. Jacobs and M. C. Rickel. diags Anal Chem 25:1031-4 Jl '53

Testing

Apparatus for study of effects of cyclic thermal stresses on ductile metals. L. F. Coffin, jr. and R. F. Wesley. il diags A S M E Trans 76:923-30 Ag '54

Study of the effects of cyclic thermal stresses on a ductile metal. L. F. Coffin, jr. bibliog(44 titles) il diags A S M E Trans 76:931-50 Ag '54; Abstract. Materials & Methods 39:170+ Ja '54

CHROMIUM ores

How one chrome producer aims at self-sufficiency; American chrome co. J. B. Huttl. flow sheet il diags Eng & Min J 155:92-5+ Je '54

See also

Chromite

CHROMIUM oxides

Catalytic activity and electrical conductivity of chromic oxide catalysts. S. E. Voltz and S. Weller. bibliog Am Chem Soc J 75:5227-31 N 5 '53

Decomposition of aqueous hydrogen peroxide over chromic oxide catalysts. S. E. Voltz and S. W. Weller. Am Chem Soc J 76:1586-7 Mr 20 '54

Effect of water on the catalytic activity of chromic oxide. S. E. Voltz and S. Weller. Am Chem Soc J 75:5231-2 N 5 '53

Electrical conductivity of chromia-alumina dehydrogenation catalyst. P. B. Weisz and others. J Chem Phys 21:2236 D '53

Heats of formation of chromium oxide and cadmium oxide from combustion calorimetry. A. D. Mah. Am Chem Soc J 76:3363-5 Jl 5 '54

Solid solution and chromium oxide loss in part of the system $MgO-Al_2O_3-Cr_2O_3-SiO_2$. I. Warshaw and M. L. Keith. bibliog(37 titles) Am Cer Soc J 37:161-8 Ap 1 '54

Stability of chromium oxides. M. A. Mosesman. Am Chem Soc J 76:295-6 Ja 5 '54

Study of the weathering characteristics of cotton fabrics containing inorganic compounds; chromic oxide and copper in inorganic and organic forms. G. R. F. Rose and C. H. Bayley. bibliog Textile Res J 24:792-802 S '54

See also

Chromite

CHROMIUM plating

Canning small chrome plating barrel. il Engineer 196:786 D 11 '53

Chrome plating of tubes and cylindrical shapes and internal chrome plating; abstract. F. Markhoff. Metal Finishing 52:108-9 Je '54

Chromium plating die-cast aluminum engine cylinders. F. M. Burt. il plan Metal Finishing 51:65-9 N '53

Control in chromium plating; abstract. Metal Finishing 52:78 Mr '54

Custom-built plating machine brings plant to peak efficiency; Ajax mfg. corp. J. J. Ofrzut. il plan Iron Age 174:120-2 S 23 '54

French automobile maker has automatic plating plant; Simca. il Automotive Ind 110:56 Je 15 '54

Hard chrome can be plated to tenths in production. G. De Mirjian. il diags Am Mach 98:101-3 Ag 2 '54

Hard chrome plate pays unexpected dividends; Towmotor corp. W. White and M. McKean. il Am Mach 98:142-3 Ag 16 '54

Hard chrome solutions; which offers better plating properties? R. A. Balbierz and H. D. Burgess. bibliog il Iron Age 172:126-30 O 22 '53

How the Norfolk & Western uses hard chrome electroplating. T. R. Boggess. il Ry Age News ed 136:23-5 Ja 4 '54; Same. Ry Loco & Cars 128:67-9 F '54

Industrial hard-chromium plating. W. Schmidt and W. E. Hogan. il Mech Eng 76:248-54 Mr '54

Mechanical process for the production of porous chromium plating; abstract. G. S. Samoilovich and N. G. Andreev. Metal Finishing 52:84 My '54

Mechanized hard chrome plating setup is fast and efficient; Harvester's Evansville, Ind. works. H. Chase. il Iron Age 173:150-1 F 18 '54

Metal cleaning and finishing handbook; chromium plating properties. Iron Age 174:sup F34 Jl 29 '54

Metallographic studies of electroplated chromium; abstract. L. Koch and G. Hein. Metal Finishing 52:84-5 My '54

Nickel-chrome plating; Luton works of Vauxhall motors, ltd. il Automobile Eng 44:150-3 Ap '54

CHROMIUM plating—*Continued*

Plating shares spotlight with design. il Steel 133:114+ N 23 '53

Precision chrome plating process; Krome-King. il Metal Finishing 52:136-7 Je '54

Q's and A's on Porus-Krome and Vanderloy. il Diesel Power 32:49-52 Je '54

Rapid porous chromium plating; abstract. D. V. Pletnev and V. N. Brusentsova. Metal Finishing 52:84 My '54

Special equipment for hard chrome plating of cylindrical parts and large rolls; abstract. Metal Finishing 52:109-10 Je '54

Stop-offs in hard chrome plating. A. W. Logozzo. il Metal Finishing 52:56-60 My '54

Wagner precision hard chrome-plating unit. il Tool Eng 32:116 Mr '54

CHROMIUM steel

Equilibrium controlling the decarburization of iron-chromium-carbon melts. W. E. Dennis and F. D. Richardson. bibliog Iron & Steel Inst J 175:264-6 N '53

Fabricating alloy steels. il Steel 133:211+ D 7 '53

Formation of sigma phase in 13 to 16 per cent chromium steels. H. S. Link and P. W. Marshall. bibliog il Am Soc for Metals Trans 44:549-60; Discussion. 560-5 '52

How tempering affects corrosion resistance of 12 per cent chromium steel. A. Simon. Materials & Methods 40:138-9 Jl '54

Identification of the precipitate accompanying 885°F embrittlement in chromium steels. R. M. Fisher and others. bibliog il J Metals 5:Trans 690-5 sec 2 My '53; Discussion. 6:Trans 663-4 sec 2 My '54

Isothermal transformation, hardening, and tempering of 12 per cent chromium steel. R. L. Rickett and others. bibliog il Am Soc for Metals Trans 44:138-68; Discussion. 168-75 '52

New creep resistant ferritic steels. D. D. Howat. bibliog Materials & Methods 38:87-90 S '53; Same cond. Metallurgia 49:201-2 Ap '54

17 per cent chromium stainless steels. il Chem Eng 60:260+ Ag '53

Stabilization of the austentite-martensite reaction in a high chromium steel. S. C. Das Gupta and B. S. Lement. bibliog il diags J Metals 5:Trans 530-6 Ap '53; Discussion. 6:Trans 686-8 sec 2 My '54

Stress corrosion of 12 per cent Cr stainless steel; abstract. W. L. Badger. S A E J 62:110-11 Je '54

Submerged arc welding of chromium-bearing steels. C. E. Jackson and A. E. Shrubsall. il Welding J 33:752-8 Ag '54

12 per cent chromium stainless steels. il Chem Eng 60:262+ Jl '53

See also

Chromium nickel steel

CHROMIZING

Chrome diffusion in steel; chromizing processes; abstract. W. Katz. Metal Finishing 52:85-6 My '54

Putting chrome on ferrous surfaces; Chromalloy process. R. L. Wachtell. il Steel 133:160-1 D 7 '53

CHROMOGENS

Preparation of alkyl 2-naphthyl carbonates as chromogenic substrates for esterases. K. C. Tsou and A. M. Seligman. bibliog Am Chem Soc J 76:3704-6 Jl 20 '54

Preparation of 2-(2-naphthoxy)-propionic acid and 2-(6-bromo-2-naphthoxy)-propionic acid as possible chromogenic substrates for fatty acid oxidases. M. N. Green, L. J. Friedman and A. M. Seligman. bibliog Am Chem Soc J 76:48-50 Ja 5 '54

Spectra

Absorption spectra of fuming sulfuric acid chromogens obtained from the estrogens and other steroid compounds. L. R. Axelrod. Am Chem Soc J 75:6301 D 20 '53

CHROMONE

New synthesis of *iso*flavones and of other chromones. J. E. Gowan and others. Chem & Ind p 1201 S 25 '54

Reactions of 4-thionchromones with amino-compounds, and with methyl iodide. W. Baker, G. G. Clarke and J. B. Harborne. Chem Soc J p998-1002 Mr '54

Rearrangement of 5 : 8-dihydroxychromonols by treatment with hydriodic acid. D. M. Donnelly and others. Chem & Ind p 163 F 6 '54

CHROMOTROPIC acid

Spectrophotometric investigation of reaction of titanium with chromotropic acid. W. W. Brandt and A. E. Preiser. bibliog Anal Chem 25:567-71 Ap '53

CHROMYL chloride

Chromyl chloride oxidation of saturated hydrocarbons. C. C. Hobbs, jr. and B. Houston. bibliog Am Chem Soc J 76:1254-7 Mr 5 '54

CHRONIC diseases. See Diseases, Chronic

CHRONOCYCLEGRAPH

Chronocyclegraph that will help you improve methods. G. E. Clark. il diags Factory Management 112:124-5 My '54

CHRONOMETERS

All for the purpose of marking time. D. C. Holly. il U S Naval Inst Proc 79:302-9 Mr '53

CHRYSENE

Friedel-Crafts acetylation of chrysene. W. Carruthers. Chem Soc J p3486-9 N '53

Separation of fluoranthene and chrysene by molecular distillation. A. Cantoni, J. Feldman and M. Orchin. bibliog Anal Chem 26:1374-7 Ag '54

CHRYSLER corporation

Briggs completes sale of plants to Chrysler. Automotive Ind 110:18 Ja 15 '54

Chrysler takes more than its share of increased auto export business. F. G. Lawrence. il Steel 135:83-4 S 20 '54

Chrysler; the patient prescribes for himself. F. G. Lawrence. il Steel 134:107-8 Ap 19 '54

Prudential's $250,000,000 loan. C. Axman. East Underw 55:3 Mr 5 '54

CHRYSOPHENINE G

Absorption of chrysophenine G by cotton and by acidic oxycelluloses. M. M. Bilsbury and others. bibliog Textile Inst J Trans 45:T 1-20 Ja '54

Direct dyeing of cellulose; method for the analysis of equilibrium absorption data in terms of current quantitative theories. H. A. Standing. bibliog Textile Inst J Trans 45:T21-9 Ja '54

CHUCKING machines

Acme-Gridley single-spindle automatic chucking machine. il diag Mach 60:236-8 Jl '54

Acme-Gridley single-spindle chucker adapts to automation. il Am Mach 98:176-7 Je 21 '54

Murad chucking automatic. il Engineer 196:661 N 20 '53; Automobile Eng 44:79 F '54

National Acme universal chucker said to speed tough jobs. il Iron Age 174:131-3 Jl 15 '54; Steel 135:113 Ag 16 '54

Wickman chucking automatics. il Automobile Eng 44:142 Ap '54

CHUCKS

Attachment to engine lathe generates parabolic spinning chucks. C. Molloy. diags Am Mach 97:148 O 26 '53

Handbook of workholding devices. H. E. Linsley. il diags Am Mach 97:132-40 O 26 '53

Improved chuck speeds machining of brass parts. D. Stoneman. il Iron Age 172:177-9 D 3 '53

Jacobs collet chuck for variety of machine tools. il Am Mach 98:192 My 24 '54; Mach 60:224 Je '54; Tool Eng 32:130 Je '54

Low-melting alloys provide low-cost method to spin re-entrant shapes. D. Sams and J. Borodavchuk. il diags Am Mach 98:145-7 F 15 '54

Precision chucking of thin-walled parts. K. W. Cole. il diags Tool Eng 33:37-41 S '54

Shuttle-type chucks speed centerless grinding; International harvester co. C. Wies. il Iron Age 172:106-7 N 26 '53

Split-jaw chuck locates work positively. W. C. Betz. diags Mach 60:211-12 Je '54

CHUCKS—*Continued*

Vacuum chuck and special table increase milling machine range; Central shops at the Argonne national laboratory. R. W. Holmes. il diags Am Mach 98:210-11 Ap 12 '54

Vacuum chuck holds thin strip for grinding. R. Weidenhoft. diag Am Mach 98:142 S 27 '54

CHUCKS, Magnetic

Know your magnetic chucks. H. Gifford. diags Am Mach 98:122-3 Jl 5 '54

Latest methods for magnetic work holding. F. Suchanek. il diags Tool Eng 33:77-8 Ag '54

Notched parallels for magnetic tables. R. Wiedenhoft. diag Am Mach 98:145 Ag 16 '54

CHURCH advertising

See also

Roman Catholic church—Advertising

CHURCH and communism

Attack against the Polish church. Economist 169:340-1 O 31 '53

Jugoslav bishops in trouble. Economist 169:15 O 3 '53

Polish church beheaded. Economist 169:15 O 3 '53

CHURCH and state

Israel

Synagogue and state. Economist 168:396 Ag 8 '53

CHURCH architecture

Anarchy in our churches. il plans Arch Forum 97:93-111 D '52

Church as instrument and expression. J. LaFarge. il diags Arch Rec 114:122-3 D '53

Tradition and today's ethos. R. Niebuhr. il diag Arch Rec 114:117-18 D '53

See also

Cathedrals
Chapels
Christian science churches
Spires
Synagogs

CHURCH of the brethren

Genetics of the Dunkers. H. B. Glass. il Sci Am 189:76-81 Ag '53

CHURCHES

Cedar Hills Congregational church near Portland, Ore. il plan Arch Forum 97:94 D '52

Church designed and built in the attitude of prayer; meeting house of the First Unitarian society of Madison, Wis. by Frank Lloyd Wright. il plan diag Arch Forum 97:85-92 D '52

Design standards and data. H. R. Sleeper. plans diags Arch Forum 99:144-6 D '53

Economy and utility determine these church designs. il plans Am Bld 75:90-3 S '53

Eleven U.S. churches. il plans Arch Forum 99:85-103 D '53

First Baptist church in Flint, Mich. il plans Arch Rec 113:137-41 My '53

First Methodist church, Midland, Mich. il plans Arch Forum 97:95-7 D '52

Multi-use space created with flexible partitions in an open single-level plan; community church. il plan Arch Forum 97:99-101 D '52

Rational architecture on a hillside site pays off; First Unitarian church, Minneapolis. il plans Arch Forum 97:106-7 D '52

Reinforced concrete featured in Bolivian church. G. E. Lund and R. D. Schacherl. il plan diags Civil Eng 23:464-5 Jl '53

Religious buildings. il plans Arch Rec 116:196-9 Ag '54

Religious buildings; building types study. il plans diags Arch Rec 114:117-40 D '53

St Ann's church, Normandy, Mo. il plan diags Arch Forum 97:108-111 D '52

Sanctuary of San Martin de Porres. il plan Arch Rec 113:134-7 Mr '53

Six new European churches. G. E. K. Smith. il plans diags Arch Forum 99:104-11 D '53

This church has built-in sociability. il plan diags Am Bld 76:124+ My '54

Unique design with concrete; Faith Lutheran church in Tucson. il diag Am Bld 75:222-3 Jl '53

See also

Cathedrals
Christian science churches

Air conditioning

How to cool a church economically. J. A. Wilkerson and A. P. Boehmer. diag Refrig Eng 62:36-8 F '54

Heating and ventilation

Heat, ventilate cathedral. A. Walton. il plan diag Heating-Piping 25:71-3 D '53

Insurance requirements

Coverage for churches. Rough Notes 97:42+ Je '54

It pays to know about the liability of your churches. S. Price. il Rough Notes 97:68+ Mr '54

Lighting

Church relighting, a prize problem. G. Wells. il plan diag Illum Eng 49:318-20 Jl '54

Eglise St Vincent de Paul. R. Martineau. il Illum Eng 49:180-1 Ap '54

Light and inspiration enhance church interior; St Eusebe Roman Catholic church in Montreal. B. C. Doucet. il diags Illum Eng 48:613-15 D '53

Lighting a cathedral; data sheet. A. G. Caplan. il plan diag Illum Eng 49:225-6 Ap '54

Lighting a contemporary church. il diags Illum Eng 49:5-6 Ja '54

Lighting a Roman Catholic church of contemporary design. il Illum Eng 49:123-4 Mr '54

Lighting a stained-glass window; data sheet. R. E. Cherne. il plan diag Illum Eng 49:183-4 Ap '54

My most interesting lighting job; church relighted. S. P. Russell. il diag Elec West 111:98 S '53

Night illumination for a church steeple. il Illum Eng 49:374-5 Ag '54

CHUTES

New chute draws praise at Dayrock. R. Farmin and C. E. Sparks. diags Eng & Min J 155:100-1 Je '54

CHYLOMICRONS. See Fat

CHYMOTRYPSIN

Composition and hydration of protein crystals in salt solutions. T. L. McMeekin, M. L. Groves and N. J. Hipp. bibliog Am Chem Soc J 76:407-13 Ja 20 '54

Kinetics of the α-chymotrypsin catalyzed hydrolysis of acetyl-L-hexahydrophenylalaninamide in aqueous solutions at 25° and *p*H 7.9. R. R. Jennings and C. Niemann. bibliog Am Chem Soc J 75:4687-92 O 5 '53

Kinetics of the α-chymotrypsin catalyzed hydrolysis of L-tyrosinhydroxamide in aqueous solutions at 25° and *p*H 6.9. R. J. Foster, R. R. Jennings and C. Niemann. bibliog Am Chem Soc J 76:3142-6 Je 20 '54

CIBA, ltd.

Annual report, 70th. Chem Age (Lond) 70:1159 My 22 '54

CICALA function

Table of the complete Cicala function. Y. L. Luke and D. Ufford. bibliog J Aeronautical Sci 20:511-12 Jl '53

CICUTIN

Relationship of anthricin, hernandion and cicutin to desoxypodophyllotoxin. J. L. Hartwell and A. W. Schrecker. bibliog Am Chem Soc J 76:4034-5 Ag 5 '54

CIDER

Reducing substances in dry cyder. D. W. Steuart and J. A. B. Duncan. bibliog Chem & Ind p634 My 29 '54

Tannin of apple juice and cider; interpretation of the permanganate titration method. A. H. Williams. bibliog Chem & Ind p540-1 My 30 '53

CIGAR boxes

Robt. Burns cigars; nominated to packaging's Hall of fame. il Mod Packaging 27:108-13, cover D '53

Why women now buy more cigars at self-service food stores. H. P. Wurman. il Sales Management 72:58+ Je 15 '54

CIGAR factories

Factory for Consolidated cigar corp. of Puerto Rico. il plans diags Arch Rec 116:162-5 Jl '54

CIGARET filters

Cigarettes and cigarette filters. Consumers Res Bul 32:30 N '53

CIGARET industry and trade

Cigarette scare: what'll the trade do? Bsns W p58+ D 5 '53

See also

Morris, Philip, and company, ltd., inc.

Reynolds tobacco company

Advertising

Cigarette manufacturers boost newspaper linage 76 per cent as battle of brands waxes hot. Adv Agency 46:72-3 O '53

Fear and jitters. il Bsns W p54 N 14 '53

Proof-of-difference program pays off for Kent cigarette. L. M. Hughes. il Sales Management 71:24-7+ D 1 '53

Statistics

1953 cigarette sales just hold '52 peak. G. R. Dunhill. Adv Agency 47:50-1+ Ja '54

CIGARET lighters

Ronson's switch-spout; molded closure of polyethylene. il Mod Packaging 27:104-6 My '54

CIGARET packages

Camel's baby; it's a lusty, king-size, filter-tipped infant named Winston. il Mod Packaging 27:100-1 Je '54

Easier-opening cigarettes; Philip Morris snap-open corner. il Mod Packaging 27:108-9+ My '54

CIGARET smoke. See Tobacco smoke

CIGARETS

Cancer experts speak. E. L. Wynder and W. C. Hueper. Chem & Eng N 32:3124+ Ag 9 '54

Cigarette scare; what'll the trade do? Bsns W p58+ D 5 '53

Five-year trend in cigarette brand output. H. M. Wootten. Ptr Ink 245:440 sec 2 O 23 '53

King-size pattern. Bsns W p68 Ag 1 '53

Matchless smokes; cigaret with built-in ignitor. il Chem W 75:85+ S 4 '54

More trouble for cigarettes. Bsns W p55 D 19 '53

Premature verdict? cancer case against cigarettes gains fresh impetus. Chem W 73:54+ D 26 '53

Tobacco industry research group denies cancer link. Chem & Eng N 32:1670 Ap 26 '54

CILIATA

See also

Opalinidae

CINCINNATI

Small plant's dilemma; health-safety service at moderate cost; Bureau of industrial health, Cincinnati health department. J. P. Hughes. il Nat Safety N 70:22-5+ S '54

Sewerage

Clean water rally; Cincinnati plays host to Ohio River group. Eng N 151:37-8 O 22 '53

Two governors participate in ground breaking for Cincinnati's $22,000,000 sewage treatment plant. il Water & Sewage Works 100:505 D '53

CINCINNATI milling machine company

Companies with high earnings; with comparative balance sheet items. Mag of Wall St 93:253 N 28 '53

CINCINNATI stock exchange

Weekly record. Published in weekly Monday numbers of Commercial and financial chronicle

CINDER pots

Slag disposal; major problem to simple procedure; Midvale co. il Steel 134:118 My 24 '54; Iron Age 173:140 Je 3 '54

CINDERS

Investigation of the burning characteristics of pulverized cinders. J. M. Allen. diags A S M E Trans 75:1333-7 O '53

CINEMASCOPE

Now it's CinemaScope for your industrial movies. il diag Ind Marketing 38:70 D '53

CINEMATOGRAPH cameras. See Moving picture cameras

CINERAMA

Cinerama may require modification of theater design to accommodate its outsize screen and triple projection equipment. il plan Arch Forum 97:128-9 N '52

CINETHEODOLITE. See Theodolites

CINNAMIC acid

Copolymerization reactions of cinnamic acid, its derivatives, and some related compounds. C. S. Marvel and others. bibliog(33 ref) Ind & Eng Chem 45:2311-17 O '53

Electrolytic reduction of benzoic, phenylacetic, and cinnamic acids and esters at a platinized-platinum cathode. S. Ono and others. bibliog diag Electrochem Soc J 101: 104-9 F '54

Mesomorphism and chemical constitution; the *trans-p-n*-alkoxycinnamic acids. G. W. Gray and B. Jones. Chem Soc J p 1467-70 My '54

Reaction of guanidine with α,β-unsaturated carbonyl compounds; cinnamic acid derivatives. A. P. Phillips and J. Mentha. Am Chem Soc J 76:574-6 Ja 20 '54

CINNAMIDES

Amides of ethylenediamines; substituted cinnamides as local anesthetic agents. F. J. Villani, J. Lang and D. Papa. bibliog Am Chem Soc J 76:87-8 Ja 5 '54

CINNAMYL alcohol

Transetherification of ethyl β-ethoxycrotonate with cinnamyl alcohol. W. M. Lauer and N. Brodoway. bibliog Am Chem Soc J 75: 5406-7 N 5 '53

CINNOLINE

Cinnolines; a synthesis of 3-nitro- and 3-aminocinnolines. H. E. Baumgarten and M. R. DeBrunner. bibliog Am Chem Soc J 76: 3489-93 Jl 5 '54

Cinnolines and other heterocyclic types in relation to the chemotherapy of trypanosomiasis; attempts to synthesise N^1N^3-di-(4-amino-7-cinnolyl)guanidine dimethiodide. C. M. Atkinson, J. C. E. Simpson and A. Taylor. Chem Soc J p 1381-4 My '54

Cinnolines and other heterocyclic types in relation to the chemotherapy of trypanosomiasis; intermediates. C. M. Atkinson, J. C. E. Simpson and A. Taylor. Chem Soc J p 165-70 Ja '54

Cinnolines and other heterocyclic types in relation to the chemotherapy of trypanosomiasis; synthesis of azoquinoxaline derivatives. C. M. Atkinson and others. Chem Soc J p2023-7 Je '54

Cinnolines; further experiments on the effects of heterocyclic nuclei as substituents in the Widman-Stoermer synthesis. A. J. Nunn and K. Schofield. Chem Soc J p3700-6 N '53

CIRCLES

Determination of the diameter of circles in the precision determination of lattice constants. R. F. Raeuchle. R Sci Instr 24: 875 S '53

Radiation characteristics of semicircular, circular, and rectangular surface sources. A. I. Mahan and W. F. Malmborg. bibliog diags Opt Soc Am J 44:644-53 Ag '54

CIRCUS

Safety measures

Sawdust, spangles, and safety. il Safety Maint & Prod 108:38-9+ S '54

CITIES and towns

Making of towns; two decades of pioneering by Clarence S. Stein and his associates; reviewed by J. H. Callender. House & Home 2:106-7 D '52

Short-cut methods of forecasting the population of census tracts. R. C. Schmitt. J Marketing 18:266-70 Ja '54

Where the great city stands. S. Moholy-Nagy. Arch Rec 115:24 Ja '54

See also

City planning

Metropolitan districts

Municipal finance

Growth

Cities decentralizing? maybe not. il Eng N 152:181+ F 18 '54

How US cities are growing; with tabulation, new dwelling units authorized by local building permits, 1950-1954. House & Home 5:66+ My '54

Land grab, Texas style. map Bsns W p 103-4+ N 21 '53

Rome, Ga., takes new industry in its stride. il maps Bsns W p 102-6+ S 12 '53

CITIES and towns—*Continued*

Industries

Area development puts the welcome mat out for industry. il Steel 133:66-7 S 14 '53

Reversing the jobless trend by your own bootstraps. Steel 134:73-4 Mr 8 '54

See also

Industrial foundations

Statistics

See also

Municipal government—Yearbooks

Canada

Where major Canadian cities fall down in handling of traffic; with traffic ratings of typical cities. J. Barriere. il Roads & Eng Constr 91:121-6+ O '53

Great Britain

Brave new towns. Economist 168:13-14 Jl 4 '53

Halt to the new towns? Economist 170:225 Ja 23 '54

Some problems of British new towns. L. Rodwin. bibliog Land Econ 29:331-42 N '53

Russia

City planning in Soviet Russia, by M. F. Parkins; review. il Arch Forum 99:214+ S '53

CITIZENS traffic safety board, inc.

Annual meeting, 1st, New York. Weekly Underw 169:1504 D 19 '53

CITRAL

Hoffman-La Roche develops practical synthesis of citral. Chem & Eng N 32:3612 S 13 '54

CITRATES

Enzymatic reaction between citrate, adenosine triphosphate and coenzyme A. P. A. Srere and F. Lipmann. bibliog Am Chem Soc J 75:4874 O 5 '53

Interaction of calcium ions with some phosphate and citrate buffers. C. W. Davies and B. E. Hoyle. Chem Soc J p4134-6 D '53

Separation of rare earths by ion exchange; quantitative theory of the mechanism involved in elution by dilute citrate solutions. F. H. Spedding and J. E. Powell. bibliog Am Chem Soc J 76:2550-7 My 5 '54

CITRIC acid

Citric zooms with the peak. Chem W 74:95-6+ Je 26 '54

Microbiology of the citric acid fermentation; abstract. J. L. Yuill. Chem & Ind p625 My 29 '54

Analysis

Determination of malic, tartaric, and citric acids in fruit by ion exchange chromatography. H. H. Schenker and W. Rieman, 3d. bibliog Anal Chem 25:1637-9 N '53

Polarographic determination of citric acid. P. J. Elving and R. E. Van Atta. bibliog Anal Chem 26:295-8 F '54

Manufacture

Production of organic acids by molds. S. M. Martin. il Can Chem Process 37:30+ O '53

Take a fresh look at citric. il Chem Eng 61:120+ My '54

CITRONELLA oil

Formosa, source of essential oils. Chem & Eng N 32:824 Mr 1 '54

Analysis

Determination of fatty oils in citronella oil. A. I. Biggs. bibliog Anal Chem 26:602-3 Mr '54

CITRULLINE

Biosynthesis of orotic acid from citrulline. L. H. Smith, jr. and D. Stetten, jr. bibliog Am Chem Soc J 76:3864-5 Jl 20 '54

Citrulline as a precursor of pyrimidines. M. R. Heinrich, V. C. Dewey and G. W. Kidder. bibliog Am Chem Soc J 76:3102-3 Je 5 '54

CITRUS fruit

Citrus fruit boxes of paperboard now offered by St Joe paper co. il Paper Tr J 137:14+ D 25 '53; Correction. 138:11 Ja 15 '54

Citrus fruits, 1949-1952. Survey of Cur Bsns 1953 Sup p 137 [supplemented in monthly numbers]

Citrus waste treatment studies. R. E. McKinney and others. bibliog Water & Sewage Works 101:123-7 Mr '54

Grappling with that problem of citrus-waste odors. Food Eng 26:133+ My '54

Packages to sell must arrive safely. J. A. Walls. Mod Packaging 27:167-8 Jl '54

Results of research on citrus processing waste disposal; abstract. J. W. Wakefield. Sewage & Ind Wastes 26:1189-90 S '54

Analysis

Infrared determination of biphenyl in citrus fruits. W. F. Newhall, E. J. Elvin and L. R. Knodel. diag Anal Chem 26:1234-6 Jl '54

By-products

Chemicals from oranges; staff-industry collaborative report. W. Q. Hull, C. W. Lindsay and W. E. Baier. bibliog flow sheet il diags Ind & Eng Chem 45:876-90 My '53

Transportation

Making perishables easier to handle. il Ry Age News ed 135:13 D 7 '53

CITRUS fruit industry

Advertising

How Sunkist tailors use of television to match its changing distribution. L. F. Thomann. il Ptr Ink 244:50+ S 25 '53

CITY planning

Across the water; London county council plans for development along south bank of Thames. Economist 169:236 O 24 '53

Bob Dowling climbs Philadelphia's Chinese wall. il plans Arch Forum 98:148-51 Ap '53

Can patios make cities? P. L. Wiener and J. L. Sert. il plans Arch Forum 99:124-31 Ag '53

Chicago devises a plan to crack the slum collar around its Loop. il plan diags Arch Forum 100:128-9 Ap '54

City's needs inventoried; $287-million plan results; Louisville, Ky. Eng N 152:61-2 Ja 7 '54

Columbus stresses planning to insure capital's future. il Eng N 151:49-50+ Ag 13 '53

Community and neighborhood development. R. H. Riley. plan Am Soc C E Proc 79 [no 285]:1-7 S '53

How Seattle gas co. plans ahead with the city engineers. M. C. Nutter. Am Gas J 180:20+ Ap '54

Industry builds Kitimat, first complete new town in North America. il maps plans Arch Forum 101:128-47 Jl; 120-7 Ag; 158-61 O '54

Inside Philadelphia; a new kind of new town; Eastwick. il map plans Arch Forum 101:140-3 S '54

Interesting experiment in city planning. Comp Air Mag 59:115 Ap '54

Kitimat, B.C. planned as a model city. Munic Util 92:48 S '54; Roads & Eng Constr 92:54 S '54

Peachtree city, Atlanta, the stuff dreams are made of. il Manuf Rec 123:34-5 Ag '54

Phœnix too frightful? City of London rebuilding schemes. Economist 170:216-18 Ja 23 '54

Photogrammetry in city planning. L. A. Woodward. il map Pub Works 85:114+ Je '54

Planning on the cuff; Columbus, Ohio. Bsns W p 112 D 15 '53

Sacramento, a model for small city redevelopment. il map plans diags Arch Forum 100:152-9 Je '54

Seattle plans for the future. A. Pomeroy. Am Water Works Assn J 46:718-22 Ag '54

Some problems of British new towns. L. Rodwin. bibliog Land Econ 29:331-42 N '53

Urban redevelopment as an outlet for capital investment. L. Grebler. Land Econ 29:358-61 N '53

Vertical or horizontal living? Economist 168:682-3 S 12 '53

See also

Industrial districts

CITY planning—*Continued*

Bibliography

Selected references on urban planning methods and techniques. rev ed 20 l pa $2 Dept. of city and regional planning, Univ. of North Carolina, Chapel Hill '54

CIVIC centers. See Municipal centers

CIVIL aeronautics administration

Airway cuts; CAA trims operations, continues staff layoffs. Aviation W 59:14-15 N 16 '53

CAA eliminates 13 safety field offices. Aviation W 58:22 Je 8 '53

CAA plans to increase airways service. L. Moore. Aviation W 59:51-2 Ag 10 '53

Civil service keeps grip on jobs. Aviation W 59:15 N 23 '53

Fred Lee starts safety reshuffle. Aviation W 58:83 Je 15 '53

Hensley out, Koch in safety post. A. McSurely. il Aviation W 59:18-19 Ag 10 '53

CIVIL aeronautics board

CAB names Sawyer executive director. Aviation W 58:95 Je 22 '53

CAB orders. Aviation W 59:82 O 5 '53

CAB ponders subsidies budget. Aviation W 59:49 Ag 24 '53

CAB to take over airmail subsidies. L. Moore. Aviation W 58:83-4 Je 8 '53

FBI, Senate committee investigate CAB. Aviation W 59:13 N 9 '53

CIVIL defense. See Civilian defense

CIVIL engineering

Aftermath in Morocco; good airbases. W. G. Bowman. il map Eng N 151:30-6+ Ag 27 '53

Arctic engineering know-how gets acid test at Thule. S. D. Sturgis, jr. il diags Civil Eng 23:585-9 S '53

AEC reviews 16 months at Portsmouth. il map Eng N 152:36-8 Mr 4 '54

Civil-engineering features of the Kitimat project. J. S. Kendrick. il map plans diags Roads & Eng Constr 92:73-83+ Jl '54

Civil engineering in 1953. il diags Engineer 197:2-5, pl 5, 8, 42-5, pl 3, 82-6 Ja 1-15 '54

Some foreign civil engineering schemes of 1953. il Engineer 197:129-32, 167-9 Ja 22-29 '54

Tabular summary of civil engineering contracts, 1953. Engineer 197:supp 1-59 Ja 29 '54

See also

Airports
Airways
Aqueducts
Blasting
Breakwaters
Bridges
Building
Cofferdams
Dams
Drainage
Drilling and boring (earth and rocks)
Earthwork
Filling
Flood control
Foundations
Highway engineering
Hydraulic engineering
Irrigation
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Mining engineering
Moving of structures
Piers
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Public works
Railroads—Construction
Reclamation of land
Regional planning
Rivers
Roads
Sanitary engineering
Sewerage
Soil mechanics
Steel construction
Strains and stresses
Strength of materials
Structural engineering
Surveying
Tunnels and tunneling
Underground construction
Water supply engineering

Study and teaching

Simple models help students to visualize Maxwell's theorem. A. Hoadley. il Civil Eng 24:31-2 Ja '54

Tables, calculations, etc.

More solutions for intersection of two lines. Civil Eng 23:409 Je '53

CIVIL engineers

See also

American society of civil engineers

Salaries

Survey of salaries for civil engineering positions. Civil Eng 23:468-73; 24:243-4 Jl '53, Ap '54

CIVIL service

See also

Public officials

Great Britain

Civil servants; charts. Economist 170:154 Ja 16 '54

Official sources; three-year report, ended March, 1952. Economist 169:12 O 3 '53

United States

Civil service commission denies that new administration threatens merit system. R. G. Gibbs. Chem & Eng N 31:4276+ O 19 '53

CIVILIAN defense

Civil defense and natural disasters. il Pub Works 85:67-72 Ap '54

Civil defense and the waterworks system. J. R. Menzies. Munic Util 91:31+ O '53

Construction's mission in civil defense. il Eng N 151:24-5 O 22 '53

Heating, ventilating and power plant of civil defense centres. il Engineering 177:278 F 26 '54

New air defense strategy puts more stress on civil side. il Bsns W p26-8 S 5 '53

New look at civil defense in St Louis. P. G. Steinbicker. il Pub Works 85:107-9+ S '54

ODM plans for bomb attack on industry. Elec World News ed 140:6 O 12 '53

Public health aspects of civil defense. D. C. Cameron. bibliog Pub Health Rep 68:1091-8 N '53

Stress evacuation in civil defense planning; abstract. V. Peterson. Eng N 151:23 N 5 '53

See also

Air raids—Protective measures
Atomic bombs—Protective measures
Federal civil defense administration

Great Britain

Civilians defenceless. Economist 170:75-6 Ja 9 '54

CIVILIZATION

Sea power and the western revolution. R. E. Williams. il U S Naval Inst Proc 79:sup14, 239-49 Mr '53

See also

Culture

CLAIM association, International. See International claim association

CLAIMS

See also

Damages
Insurance—Adjustment of claims
Manufacturers' liability
Railroads—Claims

CLAISEN rearrangement. See Molecular rearrangements

CLAMPS

Baldwin pneumatic clamping unit. il Engineer 196:521 O 23 '53

Clamp block with interchangeable inserts saves much time. il Iron Age 172:144 Ag 20 '53; Mill & Factory 53:140 D '53

Clamp simplifies support of pipe and coils in vessels. S. Yokell. diag Chem Eng 60:246 Je '53

Double-action clamping device. F. C. Elmo. diags Mach 60:204 F '54

Elwell-Parker's rotating clamp reaches all positions. il Steel 134:130+ Mr 8 '54

Handy clamp holds crucible safely in pouring shank. P. Dwyer. diag Foundry 81:242 N '53

Hydraulic positioning and clamping; Ford motor co. in England. il diags Mach 60:155-62 Je '54

Joining of thin-walled parts by rubbing-clamping. F. R. Simpson. diags Tool Eng 32:71-4 My '54

Lift-truck attachment for handling rolls. il Engineering 177:414 Mr 26 '54

Overhead line erection. il Elec R (Lond) 153:986-7 O 30 '53

Quick acting clamp. P. H. Winter. diags Tool Eng 33:43 Jl '54

Rotating reel clamp for fork trucks. il Engineer 197:476 Mr 26 '54

Shop-made drill clamping attachment. C. H. Willey. diags Mill & Factory 54:131 F '54

Special clamp-screw mounting simplifies extraction. W. M. Halliday. diags Mach 60:204-5 Ag '54

CLAN line steamers, limited
Statement by the chairman. Lord Rotherwick. Economist 168:70-1 Jl 4 '53

CLARK, Arthur P.
Clark receives CRSI 1954 award. por Am Concrete Inst J 25:sup21 Je '54; Same. Concrete 62:33 Je '54

CLARK, Willis C.
Want a company magazine editor? see Clark, but you may stand in line. por Ind Marketing 39:110 Ag '54

CLARK standard cell. See Standard cells

CLARKE, Frank Wigglesworth, 1847-1931
Great analysis; Composition of the earth's crust. A. R. Martin. por J Chem Educ 30:566-8 N '53

CLARKE, Owen
Clarke is head of DTA. por Ry Age 136:14-15 My 31 '54

CLARKE-ESCHWEILER reaction
Competition between the Clarke-Eschweiler and Pictet-Spengler reactions. R. Baltzly. bibliog Am Chem Soc J 75:6038-9 D 5 '53

CLARY multiplier corporation
Stock offered. Comm & Fin Chr 178:947 S 14 '53

CLASSIFICATION
Scientist and the library cataloger. R. J. Poulin. Science 117:538-9 My 15 '53; Discussion. 117:539; 118:390 My 15, O 2 '53
Vertical file classification system for a special library. L. P. Murphy. il Special Lib 44:179-81 My-Je '53

CLASSIFIED advertisements. See Advertisements, Classified

CLASSIFIERS
Cyclone built like a barrel; equipment engineers' model EE. il Chem Eng 61:270+ Ap '54
Cyclone gain; improved version of Centriclone liquid cyclone. Chem W 73:68 S 5 '53
Cyclone has built-in pump; Oliver Centriclone. il diag Chem Eng 60:212-13 N '53
Differential grinding in cyclone shown by screen tests. S. E. Erickson. diag Eng & Min J 155:95+ Ja '54
Guide to the proper application of classifiers. H. W. Hitzrot. il diags Min Eng 6:Trans 534-41 My '54
Liquid-solid cyclone as a classifier in the closed-circuit grinding of concentrates. F. M. Lewis and E. C. Johnson. il diag Min Eng 6:Trans 620-1 Je '54
Low cost pocket classifier; Dorrco jet sizer. il Chem & Eng N 32:2720 Jl 5 '54
New cyclone design. K. Krebs. il Eng & Min J 155:35+ Ja '54
These are production cyclones; clusters operating in nests, classify solids in two to twenty micron range. il diag Chem Eng 60:218-20 D '53

CLASSROOMS
Daytime lighting of school classrooms. R. A. Boyd and T. D. Wakefield. il plan diag Illum Eng 49:388-91 Ag '54
New daylighting system brings color, flexibility in classroom design. il Arch Rec 114:172-3+ D '53

CLATHRATE compounds. See Molecular compounds

CLAUDE Neon, inc.
Security I like best. F. M. Cryan. Comm & Fin Chr 179:154+ Ja 14 '54

CLAVICEPS purpurea. See Ergot

CLAY
Adsorption studies on clay minerals; a torsion pendulum adsorption balance. E. W. Gelewitz and H. C. Thomas. diags R Sci Instr 25:55-7 Ja '54
Ball clay control for sanitary slip. R. F. Ewing. Am Cer Soc Bul 33:180 Je 15 '54
Clay minerology, by R. E. Grim. Review, by N. C. Rockwood. Rock Prod 57:77+ Ja '54
Clay-particle dispersion by ultrasons. M. S. Crowley and A. P. Welch. bibliog il Am Cer Soc J 37:433-9 S 1 '54
Decontamination of radioactively contaminated water by slurrying with clay. W. J. Lacy. bibliog il Ind & Eng Chem 46:1061-5 My '54; Abstract. Munic Util 92:44 Jl '54
Electricity stiffens clay fivefold for electric plant excavation. R. Loughney. il diag Constr Methods 36:70-1+ Ag '54
Estimating the true consolidation behavior of clay from laboratory test results. J. H. Schmertmann. bibliog diags Am Soc C E Proc 79 [no 311]:1-26 O '53
Factors in manufacturing fired clay lightweight aggregate; Mineral products co. R. G. Hardy. flow sheet Am Cer Soc Bul 33:201-3 Jl 15 '54
Globular clay aggregates. il Arch Forum 97:159 O '52
Heats of neutralization of acid clays and cation-exchange resins. N. T. Coleman and M. E. Harward. bibliog Am Chem Soc J 75:6045-6 D 5 '53
Use of salt in clay core aids winter dam building. J. B. Hays. il diag Eng N 151:41 Ag 6 '53
Wet water in clay pugging to improve plasticity. Brick & Clay Rec 123:86 N '53
See also
Alunite
Bentonite
Ceramic materials
Fire clay
Kaolinite
Montmorillonite
Pottery

Analysis

Analysis of mixed-layer clay mineral structures. W. F. Bradley. bibliog il diags Anal Chem 25:727-30 My '53
Three-sheet minerals in clays. E. J. Weiss and R. L. Stone. Am Cer Soc Bul 33:51-4 F 15 '54

Expansion and contraction

Weight loss and oxidation behavior of structural bodies during firing. R. R. Van Der Beck and J. O. Everhart. bibliog diags Am Cer Soc J 36:383-8 N 1 '53

Testing

Clay testing of structural clay materials. T. W. Garve. il diags Am Cer Soc Bul 33:75-8 Mr 15 '54
Control tests for glazed structural tile. P. D. Martino. bibliog diags Am Cer Soc Bul 33:13-15 Ja 15 '54
Identification of clay minerals by staining tests. R. C. Mielenz and M. E. King. Am Soc T M Proc 51:1213-33 bibliog(46 titles, p 1231-3) '51
Use of bomb calorimeter with carbonaceous clays. R. E. King. Chem & Ind p 1074 O 10 '53
Weight loss and oxidation behavior of structural bodies during firing. R. R. Van der Beck and J. O. Everhart. bibliog diags Am Cer Soc J 36:383-8 N 1 '53

North Dakota

Investigation of lightweight aggregates of North and South Dakota. W. A. Cole and J. D. Zetterstrom. il U S Bur Mines Rep of Invest 5065:1-43 bibliog(45 titles, p41-3) '54

Saskatchewan

Whiteware raw materials from Saskatchewan. G. S. Crawford. bibliog il Am Cer Soc Bul 33:49-50 F 15 '54

South Dakota

Investigation of lightweight aggregates of North and South Dakota. W. A. Cole and J. D. Zetterstrom. il map U S Bur Mines Rep of Invest 5065:1-43 bibliog(45 titles, p41-3) '54

CLAY drying
Develop new type low cost space heater; Pacific clay products. il Brick & Clay Rec 124:77-8 My '54; Same. Cer Ind 63:61 S '54
Steel grating floor cuts drying costs; Texas vitrified pipe co. J. F. Bailey and F. S. Trumbower. il Brick & Clay Rec 124:40 Mr '54
Use of high-frequency cuts clayware drying time one-third. S. Copeland. diags Cer Ind 62:78-80 Mr '54

CLAY handling
Conveyor system cuts unloading time; Kraftile co. G. F. Burnley. il Mill & Factory 55:117 S '54

CLAY industries
Clay products industry, today and tomorrow. F. Bow. Brick & Clay Rec 124:52+ Je '54
Clay products industry's outlook. M. Corbman. il Brick & Clay Rec 125:41-4 S '54

CLAY industries—*Continued*

National production round-up. Brick & Clay Rec 124:28 Ja '54 [cont monthly]

Presidential reports. Brick & Clay Rec 124:69-70 Mr '54

Spend a day in Washington as the Washington representative of the clay pipe industry. Brick & Clay Rec 124:51-2 Mr '54

SCPI traveling sales clinic team receiving top attention. Brick & Clay Rec 124:37+ Mr '54

Tale of the grasshopper and the ant is still a good story. D. Whitlock. Brick & Clay Rec 124:53+ Je '54

See also

Brick industry and trade
Brickmaking
Ceramic industries
Clay products
Fire brick
Glazes
Pottery

Statistics

Clay products, 1949-1952. Survey of Cur Bsns 1953 Sup p 183 [supplemented in monthly numbers]

Taxation

Federal court points out how Treasury department erred in defining terms of five per cent depletion allowance. Brick & Clay Rec 125:41+ Ag '54

CLAY mines and mining

Substation, blunger cut costs. il Elec World 140:122 Jl 27 '53

CLAY products

Armour research foundation develops all-ceramic block for Arabian housing units. J. Neff. il Am Cer Soc Bul 33:218 Jl 15 '54

Better common block qualities with new lightweight ceramic unit. il Brick & Clay Rec 124:39+ Mr '54; Same. Concrete 62:48 Mr '54

New ceramic veneer offers chance for expansion of line with present equipment; Robinson brick & tile co. il Brick & Clay Rec 125:48-9 Ag '54

See also

Bricks
Ceramics
Enamel and enameling
Fire brick
Pipes, Vitrified clay
Pottery
Sewer pipes, Vitrified clay
Stoneware
Tiles

Manufacture

See also

Kilns—Firing

Transportation

Let's look at truck transporting. H. J. Schaefer. Brick & Clay Rec 124:70 My '54

Packaging and transporting clay products; panel discussion. Brick & Clay Rec 123:58-9 D '53

CLAY products plants

Research and development aids sewer pipe manufacturing; Pacific clay products. Brick & Clay Rec 124:41 Ja '54

See also

Brick works
Potteries

Electric equipment

Stone pipe making; Sharp Jones & co. il Elec R (Lond) 154:317-19 F 19 '54

Equipment

Are you operating your extruder efficiently? J. G. Seanor. Brick & Clay Rec 125:52-3+ Jl '54

Automatic controls, streamlined operation, features of new plant; W. S. Dickey clay mfg. co. il plans Brick & Clay Rec 124:39+ F '54

Control and segregation in dry grinding. D. B. Hendryx. il Brick & Clay Rec 124:45-6+ Ja '54

Denver fire clay develops hi-efficiency handling. il Brick & Clay Rec 125:63-4+ Ag '54

Hard facing in ceramic industries. W. L. Lutes and H. F. Reid. il Am Cer Soc Bul 33:79-82 Mr 15 '54

How to choose a disc feeder. J. G. Seanor. Brick & Clay Rec 124:41+ Mr '54

Indiana drain tile plant still expanding. il Brick & Clay Rec 125:50+ Ag '54

Layout and equipment as economy factors. T. W. Garve. plan diags Am Cer Soc Bul 33:278-81 S 15 '54

Modern hard surfacing material greatly increases wearing life. il Brick & Clay Rec 125:68 Ag '54

North American Refractories takes another forward step. il Brick & Clay Rec 124:57-60 My '54

Pacific Clay's automatic jam-socket machine. il Brick & Clay Rec 124:55+ Ap '54

Speeds sewer pipe, chimney flue handling; off-bearing hoist assembly. il Brick & Clay Rec 124:58 Je '54

Unique carloading system feature of Hancock plant. il Brick & Clay Rec 125:46-7 Ag '54

What is the proper speed for dry pans? J. Seanor. Brick & Clay Rec 124:55+ F '54

Layout

Layout and equipment as economy factors. T. W. Garve. plan diags Am Cer Soc Bul 33:278-81 S 15 '54

CLAYTON anti-trust act

Clayton act proceedings; Transamerica corp.; United States Court of appeals for the third circuit. Fed Res Bul 39:836-41 Ag '53

FTC changes policy on dealer contracts. Oil Paint & Drug Rep 164:3+ D 21 '53

CLEANING

Abrasion resistance of fabrics when test units of abrasion are combined with test units of laundering, drycleaning and light. M. O. Zook and P. B. Mack. Am Dyestuff Rep 43:61-6 F 1 '54

Are Orlon, Dacron, dynel, etc., the drycleaner's problem fibers? abstract. A. E. Johnson. Am Dyestuff Rep 43:248 Ap 12 '54

Charge soaps. J. W. McCutcheon. Soap & San Chem 29:103+ Je '53

Discolorations in some dyed acetate rayons due to moisture plus solvent effect in drycleaning and waterproofing; abstract. C. H. Bayley and A. S. Tweedie. Am Dyestuff Rep 42:260 Ap 27 '53

Rugs that stay cleaner; chemical treatment. il Chem W 73:48-50 O 31 '53

Theory of detergency. L. M. Kushner. bibliog diags Soap & Chem Spec 30:50-3+ My '54

See also

Castings—Cleaning
Coal cleaning
Cotton cleaning
Degreasing
Factories—Cleaning
Hotels—Cleaning
Laundry
Lighting fixtures—Cleaning
Manholes—Cleaning
Metal cleaning
Oil tanks—Cleaning
Ships—Cleaning
Soap
Steel—Cleaning
Vacuum cleaning

CLEANING compositions

Adsorption of detergent in the dyeing process. L. Flett and L. F. Hoyt. Am Dyestuff Rep 43:335-8 My 24 '54

Amphoteric amine detergents; abstract. J. W. McCutcheon. Chem & Eng N 32:3874 S 27 '54

Atomic tracers aid cleanser research. Nat Safety N 68:94 N '53

Bar form detergents. W. B. Reinisch. Soap & Chem Spec 30:93+ S '54

Best detergent packages; 1954 folding box competition. il Soap & San Chem 30:42-3+ Ap '54

Biochemical degradation of synthetic detergents. R. H. Bogan and C. N. Sawyer. bibliog diags Sewage & Ind Wastes 26:1069-80 S '54

British syndet report. Soap & Chem Spec 30:67 My '54

Building synthetic detergents. T. H. Vaughn, H. R. Suter and M. G. Kramer. il Ind & Eng Chem 46:1934-7 S '54

Characteristics and effects of synthetic detergents; task group report. diags Am Water Works Assn J 46:751-74 bibliog(62 titles, p772-4) Ag '54

Chemical Canada; soaps and cleaning preparations; tabulations. H. McLeod. Can Chem Process 38:10 Je 20 '54

Chemical process seen solution to radioactive contamination; abstract. F. D. Snell and others. Comm & Fin Chr 178:1007 S 17 '53

CLEANING compositions—*Continued*

Cleaning emulsion polymerization equipment fouled by synthetic rubber latex. J. S. Nettleton, M. J. G. Davidson and H. L. Williams. diags Ind & Eng Chem 45:1896-8 S '53

Comparative cleaning of diphase and emulsion systems. L. Osipow and others. bibliog Ind & Eng Chem 45:2779-82 D '53

Competition for coupon; liquid Lux in Metalam pouches. il Chem W 75:67 S 11 '54

Compounded detergents. D. Price. Soap & San Chem 29:54-5+ Mr '53

Damaging effects of detergents on washing machines. J. W. McCutcheon. Soap & San Chem 29:103+ N '53

Detergency as applied to radiological decontamination. G. Segura, jr. and others. bibliog Chem & Ind p 1270-3 N 28 '53

Detergent germicides. C. E. Béland. bibliog(37 titles) Can Chem Process 38:78+ S '54

Detergent situation. J. Finch. il Water & Sewage Works 101:135-7 Mr '54

Detergents for radiological decontamination. F. D. Snell and others. Soap & San Chem 29:42-4 O '53; Abstract. Nat Safety N 69: 222+ Mr '54

Dialing detergent formulas. il Soap & San Chem 29:85+ N '53

Domestic helper; B. T. Babbitt, inc.'s Am-O. il Chem W 75:64 S 18 '54

Effect of detergent foaming on waste lines. C. J. Hunter; C. F. Hayward. Dom Eng 183: 208+ My '54

Effect of synthetic detergents on the settling of suspended solids. P. N. Degens, jr. and others. bibliog Sewage & Ind Wastes 26: 1081-8 S '54

Effects of detergents on sewage and sewage treatment at military installations. H. A. Thomas, jr. bibliog Sewage & Ind Wastes 26:954-60 Ag '54

Emulsion cleaners. Metal Finishing 52:98 Mr '54

Evaluation of sea-water laundry detergents. R. Bernstein and H. Sosson. bibliog il Soap & San Chem 29:42-5+ D '53; 30:46-9+ Ja '54

Fast pace makes a market; new Old Dutch cleanser by Cudahy packing co. il Chem W 73:34-5 Ag 1 '53

Foam stabilization by alkylolamides. H. L. Sanders and E. A. Knaggs. bibliog Soap & San Chem 29:45-8+ Je '53

40 years of soap industry progress. D. H. Terry. Soap & San Chem 30:34-7+ Ja '54

From soaps to new detergents. Can Chem Process 37:6+ N '53

Housewives' views on suds. F. W. Brewer. Soap & San Chem 29:34-5 N '53

Impact of synthetic detergents; abstracts. G. Heyworth. Chem Age (Lond) 68:931 Je 20 '53; Chem & Eng N 31:2793 Jl 6 '53

International confab; seedbed of progress. Chem W 75:22 S 25 '54

Knack for mixing; ampholytic detergents. il Chem W 74:104 Ap 24 '54

Light and soft; new laundry specialty, Nu Soft. Chem W 73:83-4 O 24 '53

Liquid detergents. D. H. Terry. il Soap & Chem Spec 30:46-7+ My '54

Market for sudslessness; automatic launderers and dishwashers depend on suitable detergents. il Chem W 73:65-6 S 19 '53

More bar form detergents. C. F. Hayward. Soap & Chem Spec 30:71 Je '54

More data on syndets in municipal sewage. D. K. Croft and S. D. Faust. bibliog Water & Sewage Works 101:286-7 Je '54

More to meet the eye; wider use of white dyes in light-duty washing products. il Chem W 74:58+ F 27 '54

National restaurant association 34th annual convention and exhibition, Chicago. Soap & San Chem 29:45 Jl '53

Newdet; low sudsing detergent, Udex. Chem W 73:62+ O 17 '53; Chem Eng 61: 140+ Ja '54

Nitrogen bearing compounds for detergent products. J. W. McCutcheon. Soap & Chem Spec 30:121 My '54

No blue Mondays; local family-wash service stores, prime laundry chemicals consumer. il Chem W 75:93+ Ag 28 '54

No cause for alarm; interim report of committee on synthetic detergents. Chem Age (Lond) 70:793 Ap 3 '54

No slump in suds. Chem W 74:60+ F 27 '54

Nonionics; the all-surface cleaners. M. N. Fineman. il Soap & San Chem 29:46-9 F; 50-3+ Mr '53

Organic additives to detergent mixtures; symposium discussion. Soap & San Chem 29:140a-140b+ Je '53

Phosphates as syndet builders. H. Stuepel. Soap & San Chem 30:87 F '54

Physical action of surface-active agents in the mechanism of detergency. H. L. Rosano and M. Weill. bibliog diags Am Dyestuff Rep 42:227-9 Ap 13 '53

Prevention of soil redeposition in textile cleaning operations by proteins and other polymeric materials. W. Fong and H. P. Lundgren. bibliog Textile Res J 23:769-75 N '53

Progress in the detergent battle. J. Finch. il Water & Sewage Works 101:330-1 Jl '54

Relation of molecular structure to detergency of some alkylbenzene sulfonates. F. N. Baumgartner. bibliog Ind & Eng Chem 46:1349-52 Je '54

Rugs that stay cleaner; chemical treatment. il Chem W 73:48-50 O 31 '53

Soap plant observer; colored detergents. J. W. McCutcheon. Soap & Chem Spec 30:107+ Je '54

Soap plant observer; detergent industry strides in Europe. J. W. McCutcheon. Soap & San Chem 30:111+ Mr '54

Soap plant observer; growing competition by detergents. J. W. McCutcheon. Soap & San Chem 29:85+ Jl; 97+ Ag '53

Soap plant observer; synthetic detergents in bar form. J. W. McCutcheon. Soap & San Chem 29:109 O '53

Solubilization of water in non-polar solvents by detergent mixtures. S. R. Palit and V. Venkateswarlu. Chem Soc J p2129-34 Je '54

Sorption of syndets by fibres; abstract. A. S. Weatherburn. Soap & San Chem 29:89 S '53

Surface-active agents and their far-reaching influence in the textile industry. P. J. Sullivan. Am Dyestuff Rep 43:331-4 My 24 '54

Survey detergent buying. Soap & Chem Spec 30:48 Ag '54

Syndet sales pass soap; annual review. F. D. Snell. Chem & Eng N 32:36-7 Ja 4 '54

Syndets and soaps; Colgate-Palmolive, Procter & Gamble. J. C. Clifford. Mag of Wall St 93:32-3, 44+ O 3 '53

Syndets pose nuisance problem in Britain. Chem & Eng N 32:2118+ My 24 '54

Synthesis of dodecylbenzene. M. L. Sharrah and G. C. Feighner. bibliog Ind & Eng Chem 46:248-54 F '54

Synthetic-detergent pollution in Kansas. R. L. Culp and H. A. Stoltenberg. bibliog il Am Water Works Assn J 45:1187-95 N '53; Abstract. Water & Sewage Works 100:309 Ag '53

Synthetic detergents; abstract and discussion. G. C. Hampson. Chem & Ind p 126 Ja 30 '54

Synthetic detergents and their effect on sewage-treatment processes. F. H. Lehberg. Munic Util 91:54+ N '53

Synthetic detergents; symposium. bibliog flow diag il Ind & Eng Chem 46:1913-47 S '54

Synthetic detergents; symposium abstracts. Chem & Eng N 32:1319-20 Ap 5 '54

Test detergents for vegetable washing. Soap & Chem Spec 30:97 S '54

Tints for the washtub. il Chem W 74:64+ My 15 '54

Water purification upset seriously by detergents. A. R. Todd. Water & Sewage Works 101:80 F '54

What's ahead for soaps and synthetic detergents? A. W. Smith. il Soap & Chem Spec 30:41-3+ Jl '54

CLEANING compositions—*Continued*
World syndet markets expand. N. G. W. Luitsz. Chem & Eng N 32:3873-4 S 27 '54
See also
Metal cleaning
Procter and Gamble company
Shampoos
Soap
Sodium carboxymethyl cellulose
Sodium dodecyl sulfate
Sodium phosphates
Solvents
Trichloroethylene

Advertising

How to manage a run-a-way product; Lewal industries, inc. P. L. Patterson. il Sales Management 70:24-5+ Ap 15 '53
Outdoor posters sell household cleanser. A. S. Keshen. il Soap & San Chem 29:40-1 Jl '53

Analysis

Analysis of synthetic anionic detergent compositions. R. House and J. L. Darragh. bibliog(48 ref) Anal Chem 26:1492-7 S '54
Colorimetric determination of EDTA in soaps and detergents. A. Darbey. bibliog Soap & San Chem 29:81+ Ag '53
Determination of synthetic detergents in sewage. G. P. Edwards and M. E. Ginn. bibliog Sewage & Ind Wastes 26:945-53 Ag '54
Soap plant observer; analysis of synthetic detergent materials. J. W. McCutcheon. Soap & Chem Spec 30:91+ Jl '54

Manufacture

Alkyl aryl sulfonate synthetic detergent; pictured flowsheet. il Chem Eng 61:372-5 Je '54
Do-it-yourself detergent plant; Pfaudler's packaged unit. flow diag Chem & Eng N 32:2434 Je 14 '54
Everyone's in the act; sudsless detergent manufacture. il Chem W 75:37-8 Jl 3 '54
Fashioned for purity; production of salt-free detergent sulfonates. il Chem W 75:48-51 Jl 31 '54
French plants make alcohols, solvents, detergents. V. S. Swaminathan. flow chart il Pet Eng 25:C 19+ N '53
Manufacture of non-ionic synthetic detergents. il Can Chem Process 38:42+ Ja '54
New Stepan fatty alcohol plant puts tallow to work in detergents. il Soap & Chem Spec 30:38-41 S '54
New syndet pilot plant; Pfaudler co. diag Soap & Chem Spec 30:97 Ag '54
Role of petrochemicals in synthetic detergents. F. D. Snell. Pet Refiner 32:108-9 N '53
Spray drying of detergents. A. Sharphouse. Soap & San Chem 29:85+ S '53
Stepped down for quantity; GAF's new N-methyltaurine process. il Chem W 74:44-[illegible]+ Mr 6 '54

Perfuming

Soap and detergent perfumery. E. D. Kilmer. il Soap & Chem Spec 30:34-6+ Jl '54

Physiological effect

Cleaners' effect on skin; abstract. S. A. M. Johnson and others. Soap & San Chem 30:99 Ap '54
Detergents effect on skin. W. Schneider. Soap & San Chem 29:93+ F '53
Detergents' effect on skin. il Soap & San Chem 29:44-6+ N '53
Soap, detergent product liability. J. D. Conner and G. A. Burroughs. bibliog Soap & Chem Spec 30:42-5+ My; 48-50 Je '54
Synthetic sore spot. il Chem W 75:38-9 Jl 24 '54
Toxicity of soaps and detergents. L. C. Barail. Soap & San Chem 30:52-5 Ap '54
Toxicology of surfactants. L. C. Barail. Soap & Chem Spec 30:51-3+ Je '54
Use of detergents; manufacturers criticised by LCC chemists. Chem Age (Lond) 69:1285 D 19 '53

Rating

Scouring powders. il Consumers Res Bul 32:13-15 S '53

Statistics

Detergents outsell soap in 1953. Soap & San Chem 30:67 Mr '54
Household soap sales. P. J. Stomberg. il Soap & San Chem 29:43-5 Ap '53
Soap sales trends. P. J. Stomberg. Soap & San Chem 30:42-5+ Mr '54
Surfactants output, sales rises during 1953. Oil Paint & Drug Rep 165:5 Je 7 '54

Testing

American society for testing materials, committee D-12, Soaps and other detergents annual meeting, New York, March 22-23. Soap & San Chem 30:113-14+ Ap '54
Anionic detergents; test for measuring low concentrations in use solutions. T. Lewandowski. bibliog Soap & San Chem 29:49-52 Ap '53
Carbon black tests detergency; Graphon. il Chem & Eng N 32:2271-2 Je 7 '54
Classifying detergents. J. V. Karabinos and others. Soap & Chem Spec 30:41-3 Je '54
Detergent efficiency; interpretation of reflectance curves. O. C. Bacon and J. E. Smith. Am Dyestuff Rep 43:619-22 S 13 '54
Detergent performance evaluation. J. C. Harris, M. R. Sullivan and L. E. Weeks. Ind & Eng Chem 46:1942-7 S '54
Laboratory apparatus for detergency studies. W. A. Straw. bibliog il diag Soc Dyers & Col J 70:288-93 Jl '54
Some aspects of detergency and detergent testing. R. E. Wolfrom and A. C. Nuessle. bibliog il Am Dyestuff Rep 42:753-62 N 9 '53

CLEANLINESS
See also
Factories—Cleanliness

CLEARING of land
LeTourneau offers land clearing line. il Eng N 151:257+ O 8 '53
Survey of methods of land clearing; abstract. A. H. Bunting. Chem & Ind p688 Je 12 '54
See also
Trees, Killing of

CLEMMENSEN reduction. See Reduction, Chemical

CLEMSON college
New dormitory barracks group to replace outmoded buildings. il plans diag Arch Rec 113:128-32 Je '53

CLERICAL workers. See Office workers

CLEVELAND
Shoulder off-street parking cost? Cleveland merchants happily pay up. Eng N 151:48+ S 3 '53

Industries

Choicest customers, nearest neighbors. il map Chem W 75:18-20+ S 4 '54
Cleveland companies court finance analysts. il Bsns W p80-2 O 24 '53
New industry seeks it out. R. M. Lorz. il Iron Age 172:82-3 Ag 6 '53

Rapid transit

Cleveland's rapid transit is a bargain; with cost data. il map Eng N 151:211-12+ O 8 '53

Sewerage

Big towns' push for disposal policing; Cleveland leading. il Chem W 74:30+ My 22 '54
Sewer tunnel speeded by using mining equipment. il Pub Works 85:64-5 F '54
When Cleveland's sewer blew up. il Bsns W p28-9 S 19 '53

Water supply

Water intake crib is lonely island. A. Holton. il Water & Sewage Works 101:264-5 Je '54

CLEVELAND electric illuminating company
Five public utility candidates for higher dividends; with comparative balance sheet items. Mag of Wall St 93:379 D 26 '53

CLIFFORD, Donald Knight, 1900-
Sketch. por Adv Agency 47:82 Ap '54

CLIMATE
Climate as a factor in the selection of fuels and heating equipment. map Consumers Res Bul 32:16-18 S '53
See also
Housing and climate
Rain and rainfall

CLIMATE and architecture. See Architecture and climate

CLIMATE and housing. See Housing and climate

CLIMATOLOGY
See also
Insolation

CLIMATOLOGY, Medical
Climate and endemic dental fluorosis. D. J. Galagan and G. G. Lamson, jr. bibliog(24 titles) maps Pub Health Rep 68:497-508 My '53

CLIMAX molybdenum company
Diversification planned. Steel 134:94 Ap 19 '54
New North American titleholder. il Chem W 74:21 F 6 '54

CLINICAL laboratories. See Medical laboratories

CLINICAL thermometers. See Thermometers, Clinical

CLINICS
Flattened by tornado, clinic's roof is raised in defiance. il plans Arch Forum 100:158-9 My '54
Optometric and dental clinic in Shreveport. il plans diag Arch Rec 113:180-3 My '53
Suburban clinic housing four doctors; view and plan. diag Am Bld 75:106 Mr '53

CLINICS, Industrial
Allen-Bradley clinic. il Dun's R & Mod Ind 63:52-3 F '54
Radioisotopes in an industrial clinic. L. Price and W. H. Foege. il Ind Med 22:331-3 Ag '53
Sixty years of medical service; General Electric's industrial clinic. il Nat Safety N 70: 32-3+ S '54; Abstract. Chem & Eng N 32: 3550+ S 6 '54

CLINKERS
See also
Cement clinkers

CLITOCYBE
Structures of two polyacetylenic antibiotics. J. D. Bu'Lock and others. bibliog Chem & Ind p990-1 Ag 7 '54

CLOCKS
World's first space clock introduced by Hamilton watch co. Comm & Fin Chr 179: 157 Ja 14 '54

Manufacture

Timemaker finds a timesaver; Lux clock mfg. co. il Steel 134:94 F 1 '54

CLOCKS, Electric
General Electric's sell. il diags Mod Packaging 27:154-6+ Mr '54

Illuminated clocks

Illuminated clocks; no more squinting in the dark. C. B. Marble. il diag Gen Elec R 56:37-9 N '53

CLOSE corporations. See Corporations—Close corporations

CLOSED shop. See Open and closed shop

CLOSETS
Now a new closet. il Am Bld 75:106 Je '53
Space design for household storage. il House & Home 4:151+ O '53

CLOSURES (containers)
Can closing in a hurry with Continental's new machine. Paint Oil & Chem R 117:27 S 9 '54
Commercial closures production, 1948-1953; tin mill products consumed in producing closures, 1950-1953; aluminum consumed in producing closures, 1952-1953; tabulations. Steel 134:170-1 Ja 4 '54
Poly caps for Colgate tubes. il Mod Packaging 27:93 Ap '54
Ronson's switch-spout; molded closure of polyethylene. il Mod Packaging 27:104-6 My '54
Turret cams control rotary capper. il diags Product Eng 24:156-7 O '53
See also
Bottle caps and seals

CLOTHES dryers
Success story of the gas clothes dryer. il Am Gas Assn Mo 36:8-9+ Mr '54

CLOTHING, Protective
Air conditioned safety suit makes tough maintenance easy; Du Pont Chambers works. il Chem Eng 60:144+ D '53
Aluminized safety clothing keeps cool in the hot jobs. il Steel 134:118+ Je 14 '54
Employee is a customer. il Nat Safety N 69:3+ Mr '54
Flameproofed cloth. J. A. Beattie. il Mech Eng 75:811 O '53
Flameproofed clothing protects workers. il Iron Age 172:75 Jl 9 '53
New clothing. il Safety Maint & Prod 106: 14-16 N '53
Protecting workers from burns; Treesdale compound Permaproof 300. il Dun's R & Mod Ind 62:123-4 Ag '53
Safety clothing. il Nat Safety N 69:154+ Mr '54
Safety suit proves saver; furnace downtime on cylinder treating line cut to almost zero. il Steel 133:163-4 Ag 17 '53
See also
Hats, Safety

CLOTHING and dress
See also
Clothing, Protective
Fashion
Hats
Hosiery
Textile fabrics
Work clothes

Children

Togs for Little Miss Muffet; designer Helen Lee. il Sales Management 72:76+ F 15 '54

Hygienic aspects

Dressing for the fourth dimension; Haskell laboratory probes ingredients that make up clothing comfort. il Chem W 74:42-4 Ap 10 '54

CLOTHING trade
They looked at their problems and licked them; Pioneer manufacturing co. M. L. Jones. il Dun's R & Mod Ind 63:36-9 Ja '54
See also
Fashion
Hats
Men's furnishing goods
Work clothes

Advertising

Fashion advertising in a word; Lane Bryant. R. J. Flood. il Ptr Ink 245:65 O 9 '53
How product output and advertising can be dovetailed with retail promotions; Handmacher-Vogel. N. Keine. il Ptr Ink 244: 56-7 S 18 '53
New fashion ads may prove it pays to be different. il Ptr Ink 245:43 O 30 '53
Some ads look too much alike. A. H. Baum. il Ptr Ink 244:38-9 Ag 21 '53; Discussion. K. H. Mahool. 244:97-8 S 25 '53
What happens when an industry goes overboard on co-op advertising? J. C. Cumming. Sales Management 70:92+ Ap 1 '53
See also
Men's furnishing goods—Advertising

Great Britain

Mr Snip the tailor. Economist 168:125-6 Jl 11 '53
Pay as you wear. Economist 168:764-6, 836-7 S 19-26 '53
Thirty-shilling tailors. Economist 168:284 Jl 25 '53

Netherlands

Netherlands clothing industry recovering. For Comm W 50:16 Ag 3 '53

CLOUD chambers
Čerenkov counter-cloud chamber measurement of multiply-charged primary cosmic rays. J. Linsley. diag Phys R 93:899-900 F 15 '54
Cloud chamber for the study of particles of low energy. T. C. Merkle and J. L. Need. il diag R Sci Instr 24:1051-4 N '53
Cloud-chamber illumination systems. J. K. de Pagter and B. F. Stearns. R Sci Instr 25:921 S '54
Cloud-chamber investigation of nuclear interactions of cosmic rays. N. R. Whetten and others. bibliog il diag Phys R 93:1356-60 Mr 15 '54
Cloud-chamber observations of some unusual neutral *V* particles having light secondaries. V. A. J. van Lint and others. il Phys R 94:1732-5 Je 15 '54
Cloud-chamber study of charged *V* particles. C. M. York, jr. and others. bibliog il diags Phys R 95:159-70 Jl 1 '54
Collimated X-ray beam for study of distortion in cloud chambers. R. S. Carter and J. C. Street. il diags R Sci Instr 25:627-31 Jl '54

CLOUD chambers—*Continued*

Compact rear-illumination system for cloud chambers. E. W. Cowan. il diags R Sci Instr 24:1104-6 D '53

Cosmic-ray nuclear interactions in gases. W. W. Brown. il diag Phys R 93:528-34 F 1 '54

Fast-compression magnetic cloud chamber and some auxiliary control circuits. C. R. Emigh. il diags R Sci Instr 25:221-5 Mr '54

Improved method of controlling the expansion ratio of cloud chambers. G. Pfotzer. diags R Sci Instr 25:521-2 My '54

Influence of the variation of the conditions in a cloud chamber during the sensitive time on the accuracy of cross-section measurements. S. Barile and R. Webeler. R Sci Instr 25:389 Ap '54

Low-pressure cloud chamber. R. G. Mills. bibliog il diag R Sci Instr 24:1041-5 N '53

Mass measurements of primaries of *S* events by a momentum-range method. W. B. Fretter and others. Phys R 92:1583-4 D 15 '53

Optical system for the illumination of a deep Wilson chamber. C. Ballario and others. R Sci Instr 25:99-100 Ja '54

Optimum and limiting operating conditions for downward diffusion cloud chambers. A. R. Bevan. bibliog J Sci Instr 31:45-9 F '54

Photoelectric detection of tracks in the diffusion cloud chamber. D. C. Marshall and D. Brown. il R Sci Instr 24:881-2 S '53

Some practical aspects of diffusion cloud chamber operation. M. H. Alston and others. il diags R Sci Instr 25:547-51 Je '54

Stereoscopic cameras for use with a Wilson cloud chamber. K. R. Allen and others. bibliog il R Sci Instr 24:501-4 Jl '53

Stereoscopic reprojection and radius of curvature measurements of cloud-chamber tracks. C. R. Emigh. il diags R Sci Instr 25:567-9 Je '54

Use of electrically conducting glass in cloud-chamber construction. C. Bowness and N. Cusack. J Sci Instr 31:345 S '54

Use of Fresnel lenses for cloud-chamber illumination. L. H. Berryman and others. diag R Sci Instr 24:397-8 My '53

CLOUD seeding. See Rain making

CLOUDS

Trade-wind clouds. J. S. Malkus. il diags Sci Am 189:31-5 N '53

CLOVENE

Clovene and β-caryophyllene alcohol. A. W. Lutz and E. B. Reid. Chem Soc J p2265-74 Jl '54; Abstract. Chem & Ind p749 Jl 18 '53

Relationship between clovene and β-caryophyllene alcohol. A. Aebi and others. bibliog Chem & Ind p748-9 Jl 18 '53

CLOVER

Isolation of an oestrogenic *iso*flavone (biochanin A) from red clover. G. S. Pope and others. bibliog Chem & Ind p 1092 O 10 '53

Isolation of 7-hydroxy-4′-methoxy*iso*flavone (formononetin) from red clover (trifolium pratense, L). E. C. Bate-Smith and T. Swain. bibliog Chem & Ind p 1127 O 17 '53

Oestrogenic isoflavones in red clover and subterranean clover. G. S. Pope and H. G. Wright. bibliog Chem & Ind p 1019-20 Ag 14 '54

CLUBHOUSES

Sanderling beach club, Sarasota, Fla. il plan diags Arch Rec 114:150-5 O '53

CLUETT, Peabody and company, inc.

Clues to CLU. I. U. Cobleigh. Comm & Fin Chr 179:161 Ja 14 '54

Continued increase likely in profits. Barron's 33:19-20 O 12 '53

CLUTCHES

Constant-torque clutch design. il diag Machine Design 25:161 D '53

Direct pressure clutch. il Machine Design 26:222+ F '54

Facts about modern clutches. il diags Mill & Factory 54:182-3 My '54

Morse general duty cam clutches for machinery drive applications. il Am Mach 98:220 S 13 '54

Silicone putty for slip clutches and couplings. M. Adler. il diags Product Eng 24:142-3 O '53

Starting and stopping wheels of industry; air-operated clutches and brakes. R. J. Nemmers. il Comp Air Mag 59:50-2 F '54

Torque-limiting clutches give overload protection. il diag Product Eng 24:222 O '53

Torque-limiting safety clutch prevents power drive overloads. il Am Mach 98:156 Mr 1 '54

Warner brakes and clutches. il Machine Design 26:262+ Ap '54

Winslow centrifugal slip clutch. il diag Machine Design 26:126 Ap '54

See also

Automobiles—Clutches

Motor trucks—Clutches

Manufacture

Fasteners; redesign cuts assembly costs, lengthens life; Winslow co. diag Iron Age 173:171A+ Ap 8 '54

CLUTCHES, Magnetic

Copying lathes with electromagnetic tool control. il Engineering 176:788 D 18 '53

Eaton automatic drive uses magnetic clutches. flow diags diag Automotive Ind 110:50-1+ Mr 1 '54

Eaton dual clutch. diags Machine Design 26:111 Jl '54

Eaton's magnetic clutch. H. J. Findley. flow diag il diags Diesel Power 32:90-2 Jl '54

Electromagnetic clutch for high accelerations. S. M. Oster and L. D. Wilson. diags Inst Radio Eng Proc 41:1453-5 O '53

I-T-E circuit breaker clutch unit. il Iron & Steel Eng 31:306-7 S '54

Magnetic clutch; frozen powder drives fans, compressors, autos; Eaton mfg. co. il Iron Age 173:152-3 Mr 25 '54

Magnetic clutches save engine power. T. MacNew. il diag Automotive Ind 111:64-5+ S 1 '54

Magnetic controls speed machining cycles. il diags Mach 60:169-74 My '54

Magnetic particle clutch. il diags Automobile Eng 44:181-6 My '54

Opposed fluid clutches drive recording milliammeter. il diags Machine Design 26:138 Jl '54

Reactor uses magnetic clutch; Access-A-Bilt reactor. il Chem & Eng N 32:1272 Mr 29 '54

Stainless steel magnetic particle clutch. il Product Eng 24:222 Jl '53

COAGULANTS

Measuring wet gel strength of coagulant-dipped films. A. I. Medalia, H. B. Townsend and H. N. Grover. il diag Anal Chem 26:697-703 Ap '54

COAGULATION

Coagulation effects of aluminum nitrate and aluminum sulfate on aqueous sols of silver halides in statu nascendi; detection of polynuclear complex aluminum ions by means of coagulation measurements. E. Matijević and B. Težak. bibliog J Phys Chem 57:951-4 D '53

See also

Sewage disposal—Coagulation

Water purification—Coagulation

COAL

AIME-ASME 16th annual joint fuels conference, Chicago, Oct. 29-30. Coal Age 58:158-63 D '53

Chemical engineering unit processes; pyrolysis of coal and shale. C. H. Prien. il Ind & Eng Chem 45:2022-34 bibliog(334 ref, p2031-4); 46:1881-8 bibliog(109 ref, p 1887-8) S '53, S '54

Nuclear structure of the water-soluble polycarboxylic acids from the oxidation of bituminous coal; the hydrogenolysis reaction. J. Entel. Am Chem Soc J 76:3646-9 Jl 20 '54

See also

Boilers—Firing

Coal burning equipment and other headings beginning Coal

Lignite

Locomotives—Fuel

Analysis

Analyses of tipple and delivered samples of coal (collected during the fiscal year 1952). S. J. Aresco and C. P. Haller. bibliog U S Bur Mines Rep of Invest 4972:1-84 '53

Analyses of tipple and delivered samples of coal; fiscal years, 1948 to 1950. N. H. Snyder and S. J. Aresco. U S Bur Mines Bul 516:1-133; pa 55c Supt. of doc. '53

COAL—Analysis—*Continued*

Determination of germanium in coal, coal ash, and flue dust. W. J. Frederick, J. A. White and H. E. Biber. bibliog diag Anal Chem 26:1328-30 Ag '54

Effect of ashing temperature on the volatility of germanium in low-rank coal samples. C. L. Waring and W. P. Tucker. bibliog Anal Chem 26:1198-9 Jl '54

Modified universal semi-micro Kjeldahl method for the determination of nitrogen in coal and other carbonaceous materials. A. E. Beet. J Ap Chem 4:373-9 Jl '54

Recent developments in the analysis of coal and coke. R. A. Mott. Chem Age (Lond) 70:1143-6 My 22 '54

Semi-micro Kjeldahl method for the determination of nitrogen in coal. A. H. Edwards. bibliog diag J Ap Chem 4:330-40 Je '54

Uniform coal safeguards power production. A. W. Williams. il Mill & Factory 53:89-91 D '53

Use of the Eschka method for the determination of high sulphur contents. R. A. Mott and H. C. Wilkinson. J Ap Chem 3:218-23 My '53

Bibliography

Bibliography of Bureau of mines investigations of coal and its products, 1945-1950. E. P. Carman and others. bibliog(821 titles) U S Bur Mines Bul 528:1-60; pa 40c Supt. of doc. '54

Chemistry

Science and coal. D. T. A. Townend. diags Chem & Ind p766-74 Jl 3 '54

Liquefaction

See Coal liquefaction

Prices

Price indexes of gas, other fuels and electricity; tabulation. Am Gas J 181:22 Jl '54

Spectrum

Infrared spectra of coal and carbohydrate chars. R. A. Friedel and M. G. Pelipetz. bibliog diags Opt Soc Am J 43:1051-2 N '53

Sulfur content

British progress in removal of sulfur from coal; Fuel research board. Chem & Eng N 31:3197 Ag 3 '53

Use of bromine water in the determination of sulphur in coal or coke by the Eschka process. T. Battye, R. Johnson and H. C. Wilkinson. J Ap Chem 4:119-23 Mr '54

Use of the Eschka method for the determination of high sulphur contents. R. A. Mott and H. C. Wilkinson. J Ap Chem 3:218-23 My '53

Testing

ASTM standards on coal and coke (with related information). 155p pa $2.25 Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '54

Carbonizing properties: Tennessee coals from the Jellico bed in Campbell county and the Sewanee bed in Marion county. D. A. Reynolds and others. il U S Bur Mines Bul 523:1-35 bibliog(59 titles, p33-5); pa 35c Supt. of doc. '53

Carbonizing properties: West Virginia coals from the Beckley bed, Caretta no. 5 mine, McDowell county, and Glen Rogers no. 2 mine, Wyoming county. D. A. Reynolds and others. il U S Bur Mines Bul 522:1-27 bibliog(58 titles, p25-7); pa 20c Supt. of doc. '53

Effects of oxidation of coals on their flotation properties. S. Sun. bibliog diag Min Eng 6:Trans 396-401 Ap '54

Hypothesis for different floatabilities of coals, carbons, and hydrocarbon minerals. S. Sun. bibliog(23 titles) diags Min Eng 6:Trans 67-75 Ja '54

Laboratory explosibility study of American coals. I. Hartmann and others. bibliog 6pls U S Bur Mines Rep of Invest 5052:1-8 '54

Low-temperature carbonization assay of coal in a precision laboratory apparatus. J. B. Goodman and others. bibliog 2pls diags U S Bur Mines Bul 530:1-24; pa 55c Supt. of doc. '53

Transportation

Coal by pipeline. Steel 134:60-1 Ap 26 '54

Coal; pipeline plans complete; Pittsburgh consolidation coal co. R. M. Lorz. Iron Age 173:55-6 Ap 29 '54

Help coal and iron ore shipments stand the cold. il Min Cong J 40:54 Ja '54

Piping coal; Pittsburgh consolidation coal co. Chem W 74:30+ My 1 '54

Wrought iron pipe and gas-fired jets thaw freight movement; Norfolk and western railway co. il Iron Age 172:264+ N 12 '53

Kentucky

Effect of storage on the coking properties of Pond Creek coal from Pike county, Ky. F. W. Smith and others. bibliog il plan Am Gas Assn Proc 1953:835-51

Estimate of known recoverable reserves of coking coal in Harlan county, Ky. J. J. Wallace and others. bibliog 17pls U S Bur Mines Rep of Invest 5037:1-26 '54

Estimate of known recoverable reserves of coking coal in Letcher county, Ky. J. J. Wallace and others. bibliog 12pls U S Bur Mines Rep of Invest 5016:1-26 '53

Preparation characteristics of coal from Knott county, Ky. W. L. Crentz and J. W. Miller. 30pls U S Bur Mines Rep of Invest 4993:1-30 '53

Korea

Preparation characteristics of anthracites in South Korea. W. L. Crentz. 4pls U S Bur Mines Rep of Invest 5010:1-17 '53

Mexico

Exploration of the Oaxaca coal fields in southern Mexico. L. Toron and S. Cortes-Obregon. bibliog maps diag Min Eng 6:Trans 505-9 My '54

Tennessee

Carbonizing properties: Tennessee coals from the Jellico bed in Campbell county and the Sewanee bed in Marion county. D. A. Reynolds and others. il U S Bur Mines Bul 523:1-35 bibliog(59 titles, p33-5); pa 35c Supt. of doc. '53

Estimate of known recoverable reserves and the preparation and carbonizing properties of coking coal in Putnam county, Tenn. L. Williams and others. 4pls U S Bur Mines Rep of Invest 5029:1-21 bibliog(35 titles, p 19-21) '54

United States

Carbonizing properties of American coals; index of coals tested by the Bureau of mines. R. L. Brown and others. U S Bur Mines Bul 536:1-17 bibliog(68 titles, p 14-17); pa 20c Supt. of doc. '54

West Virginia

Carbonizing properties; West Virginia coals from the Beckley bed, Caretta no. 5 mine, McDowell county, and Glen Rogers no. 2 mine, Wyoming county. D. A. Reynolds and others. il U S Bur Mines Bul 522:1-27 bibliog(58 titles, p25-7); pa 20c Supt. of doc. '53

Estimate of known recoverable reserves of coking coal in Mercer county, W.Va. J. J. Wallace and others. bibliog U S Bur Mines Rep of Invest 5077:1-20 '54

Estimate of known recoverable reserves of coking coal in Mingo county, W.Va. J. J. Wallace and others. maps U S Bur Mines Rep of Invest 5068:1-57 bibliog(p56-7) '54

Preparation characteristics of coal from Raleigh county, W.Va. J. W. Miller and others. bibliog 21pls U S Bur Mines Rep of Invest 5070:1-32 '54

Western states

Distillation assays of Missouri River basin coals. M. Gomez and J. B. Goodman. bibliog 3pls U S Bur Mines Rep of Invest 5009:1-9 '53

COAL, Pulverized

Gasification of pulverized coal with steam and oxygen at atmospheric pressure. G. R. Strimbeck and others. bibliog 31pls U S Bur Mines Rep of Invest 5030:1-37 '54

Moisture content of a fine-coal filter cake; effect of viscosity and surface tension. C. E. Silverblatt and D. A. Dahlstrom. bibliog diags Ind & Eng Chem 46:1201-7 Je '54

COAL, Pulverized—*Continued*

Preparation

This processing plant is packed tight for maximum efficiency; Penn-Rillton co. il Min Eng 6:777 Ag '54

COAL ash

Accumulation of minor-elements in coal ash and its economic implications. T. Stadnichenko. Econ Geol 48:332 Je '53

Analysis

Determination of germanium in coal, coal ash, and flue dust. W. J. Frederick, J. A. White and H. E. Biber. bibliog diag Anal Chem 26:1328-30 Ag '54

Spectrographic determination of sodium and potassium in coal ashes. C. H. Anderson and C. D. Beatty. bibliog Anal Chem 26:1369-71 Ag '54

COAL balls

Floral-faunal associations in American coal balls. S. H. Mamay and E. L. Yochelson. Science 118:240-1 Ag 28 '53

COAL bins

Storing washed fines; Amherst coal co. A. S. J. Hopkins. il diag Coal Age 59:104-5 S '54

COAL burning equipment

Coal heat for today's homes. il diag Coal Age 59:70-4 Je '54

New automatic anthracite equipment for commercial and semi-industrial fuel users. N. C. Curtin. il Heat & Ven 51:65-8 Ag '54

New source of power? coal reactor. O. R. Frisch. Chem & Eng N 32:3400 Ag 23 '54

COAL cleaning

Carbon cleaning centralized; Red jacket coal corp. il diag Coal Age 59:92-3 Je '54

Cleaning anthracite completely; Swatara coal co. il plan Coal Age 59:78-81 Ag '54

Consol's clean cleaning plant anticipates tomorrow's design. J. H. Edwards. flow sheet il Coal Age 59:86-91 Ap '54

Efficient small-plant coal cleaning; V-Day coal co. flow sheet il Coal Age 58:89-91 D '53

Equipment sales in 1953. W. H. Young. Coal Age 59:87-9 F '54

Laboratory evaluation of vacuum flotation for cleaning coal fines. H. L. Riley and B. W. Gandrud. bibliog il diag U S Bur Mines Rep of Invest 5071:1-33 '54

Small plant cleans efficiently; Bortz coal co. il diag Coal Age 59:86-8 Jl '54

Wet cleaning at the Tralee preparation plant. P. Gillie. il Min Eng 5:Trans 1104-7 N '53

See also

Coal preparation

Coal washing

COAL cutters

Carbides; tough teeth for coal mining tools help cut industry costs. il Iron Age 172:176+ S 17 '53

Modified longwall mining with a German coal planer; completion of mining in three adjacent panels in the Pocahontas number four bed, Helen, W. Va. W. A. Haley and H. A. Quenon. il plans U S Bur Mines Rep of Invest 5062:1-13 '54

COAL delivery

Fuel distribution depot; Austin Beales and co. il Engineer 196:603 N 6 '53; Engineering 176:605 N 6 '53

COAL distillation

Application of low-temperature carbonization. R. E. Zinn. bibliog diags Chem Eng Prog 50:3-7 Ja '54

Distillation assays of Missouri River basin coals. M. Gomez and J. B. Goodman. bibliog 3pls U S Bur Mines Rep of Invest 5009:1-9 '53

Economics of coal carbonization by the low-temperature process. R. G. Minet, H. B. Smith, jr. and C. A. Trilling. bibliog flow diag Chem Eng Prog 50:342-7 Jl '54

Here's a chance to experiment with coal carbonization tars. Pet Processing 9:12 Ja '54

Improved process for coal distillation; patent. diag Chem Eng 61:268+ Ja '54

Low temperature carbonization rates in a fluidized bed. H. N. Stone, J. D. Batchelor and H. F. Johnstone. bibliog flow diag diags Ind & Eng Chem 46:274-8 F '54

Prevention of frothing in Fischer assay analysis. R. P. Hensel. diag Anal Chem 26:1393 Ag '54

COAL dust

Anthracosilicosis occurring in a foundry employee. L. E. Hamlin. il A M A Archives Ind Hygiene & Occup Med 7:339-51 Ap '53

How to prevent pulverizer explosion? I. Hartmann. Power Eng 58:98+ Ag '54

Laboratory explosibility study of American coals. I. Hartmann and others. bibliog 6pls U S Bur Mines Rep of Invest 5052:1-8 '54

Lessons from intensive dust sampling of a coal mine. I. Hartmann and others. 4pls U S Bur Mines Rep of Invest 5054:1-12 '54

COAL exporters' association

Annual meeting, Washington, Oct. 19. Coal Age 58:141 N '53

COAL gasification. See Gas manufacture

COAL handling

Automatically controlled kilns and fuel system for lightweight aggregate plant; Carolina solite corp. W. B. Lenhart. il Rock Prod 57:83-4+ My '54

Cable life increased on coal-unloading tower. G. K. Brown. il Elec World 141:139-40+ F 22 '54

Coal handling at Danskammer. C. A. Hoya. il Power Eng 58:80-1 Ja '54

Coal handling facilities with automatic remote control features. H. C. Schweikart. diag Power 97:156+ D '53

Fairless works ore and coal unloaders. L. Naruns. il Iron & Steel Eng 30:140+ D '53

4½-mile conveyor belt. il Mech Eng 76:271-2 Mr '54

From old, to new; how Frigidaire cut coal-handling costs. il diag Power 98:96-9 My '54

Fuel handling and storage. J. C. McCabe. il diags Power 97:76-93 D '53

Glimpse into the future; automation at Penn-Rillton foundry products plant. il Chem & Eng N 32:2524+ Je 21 '54

Lighter trolleys speed handling of coal, ore. H. J. King. il Iron Age 172:138-9 Ag 20 '53

Mine to consumer via 4½-mi belt. il Coal Age 59:83 Je '54

Modernized conveyer system increases coal handling capacity; Vineland, N.J. municipal power plant. H. M. Down. il Power Eng 58:63 Jl '54

Push-button truck loading; Philadelphia & Reading's Oak Hill breaker. il Coal Age 59:68-9 Ja '54

River facilities for handling coal and coke. D. Read. il Min Cong J 40:50 S '54

COAL hydrogenation. See Coal liquefaction

COAL lands

See also

Coal mines and mining

COAL liquefaction

A.C.S. Division of gas and fuel chemistry 125th national meeting, Kansas City; abstracts of papers. Chem & Eng N 32:1444 Ap 12 '54

Aromatics from coal; Carbide and Carbon coal hydrogenation pilot plant; pictured flowsheet. Chem Eng 60:250-3 D '53

Carbide's achievement; Chemical engineering award dinner. Chem Eng 61:150-1 Ja '54

Chemical engineering's role in coal hydrogenation. S. D. Kirkpatrick. il Chem Eng 60:180-4 D '53

Coal hydrogenation brings Carbide & Carbon second award for chemical engineering achievement. il Chem Eng 60:122+ S '53

Gasoline from coal by controlled combustion and resynthesis; South African coal, oil and gas corp. il Can Chem Process 38:42 Je 20 '54

Repeat performance; CE award for Carbide. Chem W 73:15 D 12 '53

Synthetic liquid fuels; annual report of the Secretary of the interior for 1953; oil from coal. 20pls U S Bur Mines Rep of Invest 5043:1-66 bibliog(51 titles, p63-6) '54

COAL loading machines

Bridging units produce 44 tpm in mining air-tempering area. il plans Coal Age 58:72-4 D '53

Equipment sales in 1953. W. H. Young. Coal Age 59:87-9 F '54

High tons in low coal; Stephens-Elkhorn fuel corp. il plan Coal Age 59:106-8 S '54

COAL miners

Coal; Lewis starts guessing game; miner chief puzzles industry by keeping mum on contract intentions. J. B. Delaney. Iron Age 172:95 N 19 '53

Coal miners' pneumoconiosis; abstract. J. E. Martin, jr. Nat Safety N 70:66+ Jl '54

42 years in coal stripping. R. H. Sherwood. il Coal Age 59:60-3 Ag '54

How to enjoy recreation on company time. Coal Age 59:110+ Je '54

Integrated supervision. Coal Age 59:92+ Ag '54

Meeting the mine committee. Coal Age 59:90+ Jl '54

Pointers for the new boss. Coal Age 59:110+ My '54

Pressure and resistance. diags Coal Age 59 88+ Ja '54

Speaking in public. Coal Age 59:110+ S '54

Training for better mine operations; Red Jacket coal corp. J. J. Plasky. il Coal Age 58:98-101 N '53

Two counties mine coal the hard way. il Bsns W p90-4+ S 12 '53

See also

United mine workers of America

Great Britain

Bigness and morale. Economist 169:983-4 D 26 '53

Boys for the jobs? Economist 168:662 S 5 '53

Coal prices and wages. Economist 168:123+ Jl 11 '53

Miners' latest claim. Economist 168:877 S 26 '53

Taking work to miners; Lancashire coalfield. Economist 169:88-9 O 10 '53

Valuing houses at the pithead. Economist 168:198-9 Jl 18 '53

COAL mines and mining

AIME Anthracite section meeting, Scranton, Pa. Oct. 28; views roof support. Coal Age 58:130+ D '53

American mining congress Coal division annual conference of committees, Pittsburgh, Nov. 13; with abstracts of papers. Min Cong J 39:56-65 D '53

American mining congress, Coal division annual meeting, Cincinnati, May 3-5; with abstracts of papers. Coal Age 59:102-8+ Je '54; Min Cong J 40:41-54 Je '54

Architecture in coal mining. il Coal Age 59:76-7 Ag '54

Coal conference of the University of Missouri School of mines and metallurgy, Dec. 3-4; abstracts of papers. Coal Age 59:122-3+ Ja '54

Coal in 1943. R. Redmayne. Engineer 197:72-5, 113-15 Ja 8-15 '54

Coal mining institute of America 67th annual meeting, Pittsburgh, Dec. 10-11. Coal Age 59:116-18+ Ja '54

Colorado fuel & iron corp.; history and expansion, raw materials. A. M. Riddle and others. flow sheet il diag Min Eng 5:1084-98 N '53; J Metals 5:1308-66 O '53

Concurrent roof bolting with continuous mining. il Coal Age 59:102-3 Ap '54

Freeman teams high production and quality preparation. il Coal Age 59:82-7 Ag '54

Illinois mining institute 61st annual meeting, Springfield, Nov. 6. Coal Age 58:134-6+ D '53

Indiana coal mining institute meeting, Vincennes, Oct. 17. Coal Age 58:144+ D '53

Indiana coal mining institute spring meeting, Terre Haute, April 10; with abstracts of papers. Coal Age 59:150+ My '54

Island Creek story. G. W. Sall. il map Min Cong J 40:29-32 My '54

Kentucky mining institute 4th annual meeting, Lexington, Nov. 12-13. Coal Age 59:134-6+ Ja '54

Mining highlights, 1953. diags Coal Age 59:82-6 F '54

New daylight mine. A. E. Flowers. il plan Coal Age 59:98-102 F '54

19 mining problems today. Coal Age 59:70-6 Ap '54

Opening a coal mine today. il Coal Age 59:78-81 Jl '54

Preparation problems of full seam mining. D. H. Dowlin and others. il diags Min Cong J 39:101-4 N '53

Rocky Mountain coal mining institute 50th annual meeting, Glenwood Springs, Colo. June 27-30; with abstracts of papers. Coal Age 59:124-6+ Ag '54

Roof bolting in reclamation; abstract. W. C. Campbell. Coal Age 58:136+ D '53

Short history of coal mining. G. W. Sall. il Min Cong J 40:36-9 Ap '54

Supporting a tunnel with yielding steel rings; Lehigh navigation coal co. C. S. Kuebler. il diags Coal Age 59:92-5 Ap '54

Supports in coal mines; steel replaces timber. Engineering 177:29 Ja 1 '54

West Virginia coal mining institute and AIME Central Appalachian section joint meeting, White Sulphur Springs, Nov. 6-7. Coal Age 58:152-4 D '53

West Virginia coal mining institute and AIME Central Appalachian section joint meeting, Morgantown, May 14-15; with abstracts of papers. Coal Age 59:116-17+ Jl '54

See also

Coal miners

Accidents and explosions

Coal-mine bumps: some aspects of occurrence, cause and control. C. T. Holland and E. Thomas. bibliog il plans diags U S Bur Mines Bul 535:1-37; pa 35c Supt. of doc. '54

Coal-mine explosions and coal- and metal-mine fires in the United States in 1950, 1951, and 1952. W. J. Fene and H. B. Humphrey. 2pls U S Bur Mines Information Circ 7661:1-13 '53

Incombustible required on floor and on rib-roof surfaces of coal mines to prevent propagation of explosions. I. Hartmann and others. U S Bur Mines Rep of Invest 5053:1-7 '54

Injury experience in coal mining, 1949. S. T. Reese and others. U S Bur Mines Bul 525:1-131; pa 60c Supt. of doc. '53

Injury experience in coal mining, 1950. S. T. Reese and others. U S Bur Mines Bul 540:1-64; pa 40c Supt. of doc. '54

It couldn't happen; description of five unusual fatal mine accidents. D. S. Kingery. diags U S Bur Mines Information Circ 7694:1-12 '54

Blasting

Experiments on short-delay blasting in the experimental coal mine. I. Hartmann and B. Lewis. 4pls U S Bur Mines Rep of Invest 5026:1-6 '54

Cost

Cutting cost with safety. il Coal Age 59:70-5 My '54

Cutting supply cost. il plan Coal Age 59:70-9 S '54

Electric equipment

Alternating current slant haulage drive with dynamic braking; National coal board at Pantyffynnon colliery. il Engineer 197:186 Ja 29 '54; Engineering 177:122-3 Ja 22 '54; diag Elec R (Lond) 154:517-18 Mr 19 '54

AIEE Middle eastern district meeting, Charleston, W.Va. Sept. 29-Oct. 1; with abstracts of papers. Coal Age 58:144-5+ N '53

Electrical problems arising from federal safety regulations. M. J. Ankeny. il Min Cong J 40:95-9+ Ag '54

How drive design improves slope-belt operation; Wilmington & Franklin coal co. R. R. Richart. il diags Coal Age 59:70-5 Ja '54

How Orient installs a power cable in a shaft. il Coal Age 59:116 My '54

How to cut trolley-line costs; illustrations with text. Coal Age 59:96+ Ja '54

How to parallel conversion equipment. L. W. Scott. diags Coal Age 59:103-7 F '54

Inspection and testing of mine-type electrical equipment for permissibility. L. C. Ilsley and others. bibliog il diag U S Bur Mines Information Circ 7689:1-23 '54

Metropolitan-Vickers air-break mining contactor gate-end box. il Engineer 197:150 Ja 22 '54; Engineering 177:123 Ja 22 '54

Mine-trailing cables. S. Bunish. il diags Coal Age 58:75-9 D '53

Power distribution for ac mining. R. G. Gehlsen. il diags Coal Age 59:88-90 Ag '54

COAL mines and mining—Electric equipment *—Continued*

Selenium rectifier serves Russel Fork 3A. A. M. Ayers. il Coal Age 59:102-3 S '54
Successful electric braking of ac mine-hoist drives. A. H. Huelsman. diags Coal Age 59:185-9 Mr '54
Underground power; American mining congress Coal division annual conference; abstracts of papers. Min Cong J 39:57-9 D '53
United States Bureau of mines standard for inspection and test of explosion-proof enclosures for mining equipment. E. J. Gleim. 6pls U S Bur Mines Rep of Invest 5057:1-7 '54
What overcurrent settings for dc feeder circuit breakers? D. J. Baker and C. L. Brown. diag Coal Age 58:86-9 N '53

Equipment

Can you get more from your tractors? il Coal Age 59:117 Ap '54
Changes improve shuttle cars; Amherst coal co. il Coal Age 59:75 Je '54
Cutting supply cost. il plan Coal Age 59:70-9 S '54
Designing Orient no. 3 for production-line mining. H. Davis. il plans diags Coal Age 59:76-82 My '54
Developing a Mexican coal mine; Sauceda bituminous coal mine. W. H. Lesser. il plans diags Coal Age 59:71-5 Jl '54
Developments and experiments in the mining industry. E. H. Browne. Engineer 197:325-6 F 26 '54
Dial telephones underground; Sunnyside mines. il Coal Age 58:92-3 D '53
Evan Jones coal mine in Alaska. B. Kederick. il Explosives Eng 31:103-7+ Jl '53
Freeman number four applies modern methods, plans for the future. il diag Coal Age 59:78-84 Ap '54
How Peabody Coal mines 14,500 tpd at new no. 10 mine. A. E. Flowers. il plan diag Coal Age 59:82-91 S '54
Ideas keynote better mining at Peabody no. 10. il Coal Age 59:92-6 S '54
Innovations in coalmining. E. H. Browne. il Engineering 177:295-6 Mr 5 '54
Keys to higher efficiency at Lancashire 15; modern face methods, improved transportation. H. Davis. il diag Coal Age 59:66-70 Jl '54
Mine coking coal in Colorado. R. L. Hair. il diags Min Cong J 40:18-22 S '54
Mining at Perry coal co. G. W. Sall. il Min Cong J 40:44-7 Ag '54
Modern haulage for Dosco; aluminum mine cars, Diesel mine locomotives and belt slopes. il plans diags Coal Age 59:176-81 Mr '54
No. 12 Alma mine; conditions, adverse; efficiency, high. J. H. Edwards. il plan Coal Age 59:70-5 Ag '54
Planned lamp handling; Dusquesne Light's Warwick mines. il Coal Age 58:96-7 N '53
Preparation buying guide. Coal Age 59:75-6+ Mr '54
Relocated portal saves travel for both men and supplies; Johnstown coal & coke co. il plans Coal Age 58:96-8 D '53
Science and coal. E. Rose. il Min Cong J 39:54-5 O '53
Spad hangers save time. il Coal Age 59:87 Je '54
Spreading a colliery waste heap. il Engineer 196:699 N 27 '53
Stapleton's bathtub; Consolidation coal co. il Coal Age 59:190-1 Mr '54
Sunnyhill makes its money do a job. A. E. Flowers. il Coal Age 59:84-91 My '54

See also
Coal cutters
Coal loading machines
Coal mining machinery
Mine cars

Finance

Shaft of light on soft coal mining. I. U. Cobleigh. Comm & Fin Chr 178:532 Ag 13 '53
What is a stockholder? il Coal Age 58:104+ N '53

Fires and fire protection

Belt fire prevention. S. T. Allsbrook. il Min Cong J 39:38-9 O '53
Belt fires; abstract. G. Traxler. Coal Age 58:135-6 D '53
Fire-fighting equipment in coal mines; selection, placement, and care. W. D. Walker, jr. and others. U S Bur Mines Information Circ 7662:1-20 bibliog(p 19-20) '53; Excerpts. il Min Cong J 39:37-40 N '53
Mine-built fire truck a versatile unit. il Coal Age 59:94 Ja '54

Gas generation

Controlled underground gasification. L. F. Gerdetz. plan diags Coal Age 58:80-1 N '53
Underground coal gasification in Britain. L. Walters. bibliog diags Can Min J 75:77-9 Ap '54
Underground electrocarbonization of coal and related hydrocarbons. T. C. Cheasley and others. bibliog diags Min Eng 6:Trans 908-15 S '54

See also
Gas manufacture—Coal mine gasification

Haulage

See Mine haulage

Lighting

See Mine lighting

Longwall system

Longwall mining; abstracts of papers, American mining congress Coal division annual meeting. Coal Age 59:169-70 Je '54
Longwall mining and mechanization; Dominion steel & coal corp. mine operations. F. Doxey. il diags Min Eng 6:Trans 701-8 Jl '54
Longwall mining; its history and future possibilities. J. A. Schlickau. il Min Cong J 39:30-3+ N '53
Longwalling with the Dosco miner. il plan diags Coal Age 58:84-8 D '53
Mining with a Dosco continuous miner on a longwall face. R. W. Stahl and J. J. Dowd. il plans diags U S Bur Mines Information Circ 7698:1-11 '54
Modified longwall mining with a German coal planer; completion of mining in three adjacent panels in the Pocahontas number four bed, Helen, W. Va. W. A. Haley and H. A. Quenon. il plans U S Bur Mines Rep of Invest 5062:1-13 '54
Roof movement study of mechanized retreating Longwall operation, Lancashire no. 15 mine, Bakerton, Cambria county, Pa. A. J. Barry and J. J. Wojciechowski. bibliog 16pls U S Bur Mines Rep of Invest 5028:1-13 '54

Management

Apply manufacturing techniques to mining; Lorado coal mining co. T. M. Barry. il Min Cong J 40:63-6 Je '54
Better management today. W. A. Stanbury, jr. il Coal Age 59:54-9 Ag '54
Cost cutting at the face. il Coal Age 58:70-9 N '53
Cutting cost behind the face. il Coal Age 59:54-63 Ja '54
Cutting supply cost. il plan Coal Age 59:70-9 S '54
Good manners; key to supervisory success. il Coal Age 58:100+ D '53
Maintenance for lower cost. plan diag Coal Age 59:50-62 Jl '54
Pressure and resistance. diags Coal Age 59:88+ Ja '54

Methods

Barrier pillars in the Western Middle field; anthracite region of Pennsylvania. S. H. Ash and others. bibliog 8pls map U S Bur Mines Bul 521:1-92; pa $1 Supt. of doc. '53
Better continuous mining with conveyor haulage. J. B. Long. il plans diags Coal Age 59:92-7 F '54
Continuous mining; abstracts of papers, American mining congress Coal division annual meeting. Coal Age 59:165-7+ Je '54; Min Cong J 40:51-3 Je '54
Designing Orient no. 3 for production-line mining. H. Davis. il plans diags Coal Age 59:76-82 My '54
Freeman number four applies modern methods, plans for the future. il diag Coal Age 59:78-84 Ap '54
How wood pins serve Mary Gail coal co. J. H. Edwards. il Coal Age 59:182-4 Mr '54

COAL mines and mining—Methods—*Continued*

Keys to higher efficiency at Lancashire 15; modern face methods, improved transportation. H. Davis. il diag Coal Age 59:66-70 Jl '54

Mechanical coal mining progress, 1953. R. L. Auchmuty and M. W. Summers. il Min Cong J 40:57-8+ F '54

Mechanical mining in some bituminous-coal mines; methods of mining with continuous-mining machines. J. J. Shields and others. bibliog plans diags U S Bur Mines Information Circ 7696:1-118 '54

Mechanical mining underground; abstracts of papers, American mining congress Coal division annual meeting. Coal Age 59:106-7 Je '54; Min Cong J 40:45-6 Je '54

Mine coking coal in Colorado. R. L. Hair. il diags Min Cong J 40:18-22 S '54

Mining a moderate-pitch vein; Michael mine, Fisher associates. il plan Coal Age 58:90-3 N '53

Mining coal at Reel's cove in east Tennessee. il map plan Explosives Eng 32:43-7 Mr '54

Montour no. 4 changes mining method; Pittsburgh coal co. il plans Min Cong J 40:34-6+ Mr '54

Preparation problems of continuous mining. F. P. Calhoun. il Min Cong J 40:88-90 Ag '54

Productivity in mining pitching seams of the Canadian Rockies. H. Wilton-Clark. il map diags Min Eng 6:Trans825-32 Ag '54

What might have been in steep pitch mining. il Coal Age 59:76-7 Jl '54

See also

Coal mines and mining—Longwall system

Coal mines and mining—Stripping operations

Power

American power conference annual meeting, Chicago, March 24-26; abstracts of papers on power and fuel needs in coal mining. Coal Age 59:159-60 My '54

Characteristic power requirements for performing various functions in underground coal mines. H. P. Musser. Elec Eng 73:57-60 Ja '54

Maintenance, power and illumination; abstracts of papers, American mining congress Coal division annual meeting. Coal Age 59:108+ Je '54; Min Cong J 40:50-1 Je '54

Rock dusting

Economical rock-duster permits bolting crew to rock-dust in face cycle. il diags Coal Age 58:112 N '53

Safety measures

Administration of the Federal coal mine safety act. J. Westfield and others. U S Bur Mines Information Circ 7685:1-76 '54

Biennial National first-aid and mine-rescue contest, Fort Wayne, Ind. Sept. 29-Oct. 1. il Coal Age 58:138 N '53

Cutting cost with safety. il Coal Age 59:70-5 My '54

Electrical problems arising from federal safety regulations. M. J. Ankeny. il Min Cong J 40:95-9+ Ag '54

Federal coal mine safety act. J. J. Forbes. Min Eng 6:Trans 76-8 Ja '54

Hunter Tunnel miners awarded Sentinels of safety trophy. Explosives Eng 31:146-7 S '53

Incombustible required on floor and on rib-roof surfaces of coal mines to prevent propagation of explosions. I. Hartmann and others. U S Bur Mines Rep of Invest 5053:1-7 '54

Mining a 30-ft seam; Union Pacific coal co. il Coal Age 58:82-5 N '53

National safety congress Coal mining section meeting, Chicago, Oct. 19-21; with abstracts of papers. Coal Age 58:164-70 D '53

100 per cent training; big lift for safety. il Coal Age 58:66-71 D '53

Portable methane-detecting appliances approved under United States Bureau of mines standard. E. J. Gleim. 4pls U S Bur Mines Rep of Invest 5056:1-6 '54

Preventing belt runaways. il diags Coal Age 58:94-5 D '53

Safety in the mechanical mining of coal; Hanna coal co. W. J. Schuster. Min Eng 6:Trans 524-6 My '54

Safety, new high in '53. il Coal Age 59:90-1 F '54

Tight tunnels in mines; vinyl and asphaltic compounds sprayed under pressure cut air losses. il Chem W 72:26 Ap 11 '53

United States Bureau of mines standard for inspection and test of explosion-proof enclosures for mining equipment. E. J. Gleim. 6pls U S Bur Mines Rep of Invest 5057:1-7 '54

West Virginia 20th annual state-wide safety conference, Charleston; abstracts of papers on coal mining. Coal Age 59:150-2 Je '54

Statistics

50 biggest mines in 1953; tabulation. J. R. Forsythe. Coal Age 59:77 Ap '54

Stripping operations

Anthracite stripping in burning areas; Shen-Penn production co. J. W. Davies. il map diag Min Cong J 40:67-70 Je '54

Auger extends mining horizon. il Coal Age 59:78-80 Ja '54

Bigger, faster pit unit; Hume-Sinclair coal mining co. il Coal Age 59:118 S '54

Central Ohio Coal gears strip mine to serve nearby power plant. A. E. Flowers. il diags Coal Age 59:80-2+ Je '54

Close-coupled strip mining demands careful planning; Buckeye coal co. H. Davis. il Coal Age 59:97-101 S '53

Efficient stripping with smaller excavating units. il Coal Age 59:63-5 Jl '54

42 years in coal stripping. R. H. Sherwood. il Coal Age 59:60-3 Ag '54

High-capacity stripping. H. Davis. il Coal Age 59:112-14 F '54

Moving a river to work a strip mine; John Booth, inc. il Coal Age 59:172-5 Mr '54

Raising strip-mine life; new-design eight-cu-yd dragline installed at the Lloyd no. 3 mine. A. E. Flowers. il Coal Age 59:82-6 Ja '54

Sherwood pioneering history continued at new stripping; Will Scarlet mine. A. E. Flowers. il diags Coal Age 59:64-9 Ag '54

Strip mine road construction; Hanna coal co. il Min Cong J 39:32-5 O '53

Strip mining; abstracts of papers at American mining congress Coal division annual meeting. Min Cong J 40:48-9 Je '54

Strip mining, 1953. W. H. Cooke. il Min Cong J 40:92-5 F '54

Stripping and loading coal with dragline units. il Coal Age 59:94-7 Je '54

Stripping, augering and blasting; abstracts of papers, American mining congress Coal division annual meeting. Coal Age 59:170-5 Je '54

Stripping today. il Coal Age 58:80-3 D '53

Sunnyhill makes its money do a job. A. E. Flowers. il Coal Age 59:84-91 My '54

Waste

Acid-mine-drainage problems; anthracite region of Pennsylvania. S. H. Ash and others. 3pls U S Bur Mines Bul 508:1-72 bibliog(80 titles, p71-2); pa 60c Supt. of doc. '51

Four-way boon in river plans. Chem W 73:30+ S 26 '53

Making money with waste; Buckhorn mine of Bell & Zoller coal co. flow sheet il Coal Age 59:108-11 F '54

Solution for acid mine wastes seen near; Potomac River Basin commission reveals progress. Eng N 151:24 S 17 '53

Waste disposal

Spreading a colliery waste heap. il Engineer 196:699 N 27 '53

Water problem

Barrier pillars in the Western Middle field; anthracite region of Pennsylvania. S. H. Ash and others. bibliog 8pls map U S Bur Mines Bul 521:1-92; pa $1 Supt. of doc. '53

Barrier pillars in Wyoming basin, northern field; anthracite region of Pennsylvania. S. H. Ash. bibliog(30 titles) fold maps[in pocket] U S Bur Mines Bul 538:1-251; pa $1.75 Supt. of doc. '54

Alabama

Roof bolting in Alabama coal mines and iron-ore mines. H. C. Young. bibliog 18pls U S Bur Mines Information Circ 7678:1-15 '54

COAL mines and mining—*Continued*

Alaska

Evan Jones coal mine in Alaska. B. Kederick. il Explosives Eng 31:103-7+ Jl '53

Belgium

Challenges to Luxemburg. Economist 170:34 Ja 2 '54

Canada

Productivity in mining pitching seams of the Canadian Rockies. H. Wilton-Clark. il map diags Min Eng 6:Trans825-32 Ag '54

Colorado

Mine coking coal in Colorado. R. L. Hair. il diags Min Cong J 40:18-22 S '54

Great Britain

Cost of coal holidays. Economist 168:877 S 26 '53
Developments and experiments in the mining industry. E. H. Browne. Engineer 197:325-6 F 26 '54
Dual-purpose prestressed concrete bridge; Calverton colliery. il diag Engineer 196:404 S 25 '53
Innovations in coalmining. E. H. Browne. il Engineering 177:295-6 Mr 5 '54
Miners' autumn task. Economist 168:594 Ag 29 '53
New policies in coal. Economist 168:877-8 S 26 '53
Payout for colliery houses. Economist 169: 909 D 19 '53
Safety in the mines. Economist 170:251-2 Ja 23 '54
Science and coal. E. Rose. il Min Cong J 39: 54-5 O '53
Testing the coal guesses. Economist 168: 808 S 19 '53

Illinois

How Peabody Coal mines 14,500 tpd at new no. 10 mine. A. E. Flowers. il plan diag Coal Age 59:82-91 S '54
Mining at Perry coal co. G. W. Sall. il Min Cong J 40:44-7 Ag '54
Sherwood pioneering history continued at new stripping; Will Scarlet mine. A. E. Flowers. il diags Coal Age 59:64-9 Ag '54

Kentucky

High tons in low coal; Stephens-Elkhorn fuel corp. il plan Coal Age 59:106-8 S '54
Two counties mine coal the hard way. il Bsns W p90-4+ S 12 '53

Mexico

Developing a Mexican coal mine; Sauceda bituminous coal mine. W. H. Lesser. il plans diags Coal Age 59:71-5 Jl '54

Montana

Coal industry in northern Wyoming and the state of Montana. W. J. Johnson. bibliog maps Min Eng 5:Trans 1262-71 D '53

Nova Scotia

Longwall mining and mechanization; Dominion steel & coal corp. mine operations. F. Doxey. il diags Min Eng 6:Trans 701-8 Jl '54

Pennsylvania

Acid-mine-drainage problems; anthracite region of Pennsylvania. S. H. Ash and others. 3pls U S Bur Mines Bul 508:1-72 bibliog(80 titles, p71-2); pa 60c Supt. of doc. '51
Barrier pillars in the southern field; anthracite region of Pennsylvania. S. H. Ash and H. D. Kynor. bibliog il map fold maps[in pocket] U S Bur Mines Bul 526:1-44; pa $1 Supt. of doc. '53
Barrier pillars in the Western Middle field; anthracite region of Pennsylvania. S. H. Ash and others. bibliog 8pls map U S Bur Mines Bul 521:1-92; pa $1 Supt. of doc. '53
Barrier pillars in Wyoming basin, northern field; anthracite region of Pennsylvania. S. H. Ash. bibliog(30 titles) fold maps[in pocket] U S Bur Mines Bul 538:1-251; pa $1.75 Supt. of doc. '54
Mine pumping plants; anthracite region of Pennsylvania. S. H. Ash and others. bibliog(39 titles) 3pls il map U S Bur Mines Bul 531:1-151; pa $1 Supt. of doc. '53
137-mile drainage tunnel. J. S. Muller. il map Comp Air Mag 59:134-6 My '54
Surface-water seepage into anthracite mines in the western middle field; anthracite region of Pennsylvania. S. H. Ash and H. B. Link. bibliog il maps U S Bur Mines Bul 532:1-26; pa 40c Supt. of doc. '53
Surface-water seepage into anthracite mines in the Wyoming basin northern field; anthracite region of Pennsylvania. S. H. Ash and R. H. Whaite. bibliog il maps U S Bur Mines Bul 534:1-30; pa 55c Supt. of doc. '53
Westmoreland Coal notes 100 years of continuous bituminous operation. Coal Age 59:136 Ap '54
Westmoreland story. G. W. Sall. il Min Cong J 40:28-32 Jl '54

Russia

Russian coal mining development. J. D. A. Morrow. Min Eng 6:45-8 Ja '54; Mech Eng 76:166-9 F '54

Utah

Utah mystery; prehistoric mining? Coal Age 59:111 F '54

West Virginia

Modified longwall mining with a German coal planer; completion of mining in three adjacent panels in the Pocahontas number four bed, Helen, W. Va. W. A. Haley and H. A. Quenon. il plans U S Bur Mines Rep of Invest 5062:1-13 '54
No. 12 Alma mine; conditions, adverse; efficiency, high. J. H. Edwards. il plan Coal Age 59:70-5 Ag '54

Wyoming

Coal industry in northern Wyoming and the state of Montana. W. J. Johnson. bibliog maps Min Eng 5:Trans 1262-71 D '53

COAL mining institute of America

Annual meeting, 67th, Pittsburgh, Dec. 10-11. Coal Age 59:116-18+ Ja '54

COAL mining machinery

Bigger, faster pit unit; Hume-Sinclair coal mining co. il Coal Age 59:118 S '54
Engineering outlook; coal and electricity mining machinery, boilers and heavy electrical plant. Engineering 177:136-9 Ja 29 '54
47 tons per man-shift; new continuous-mining unit. il Coal Age 59:76-7 Ja '54
Konnerth miner. il diags Coal Age 59:76-9 Je '54; Min Eng 6:582-3 Je '54; Can Min J 75:76-7 Jl '54
Konnerth mining machine. R. C. Beerbower, jr. il plan diags Min Cong J 40:20-3+ Jl '54
Longwalling with the Dosco miner. il plan diags Coal Age 58:84-8 D '53
Machine bores tunnel through shale. il Constr Methods 36:57-60 F '54
Mechanical coal mining progress, 1953. R. L. Auchmuty and M. W. Summers. il Min Cong J 40:57-8+ F '54
Mechanical loading; American mining congress Coal division annual conference; abstracts of papers. Min Cong J 39:64 D '53
Mechanical mining in some bituminous-coal mines; methods of mining with continuous-mining machines. J. J. Shields and others. bibliog plans diags U S Bur Mines Information Circ 7696:1-118 '54
Mining with a Dosco continuous miner on a longwall face. R. W. Stahl and J. J. Dowd. il plans diags U S Bur Mines Information Circ 7698:1-11 '54
Remotely controlled miner works 350 ft beyond highwall. il Coal Age 59:64-7 Ja '54
Russian coal mining development. J. D. A. Morrow. Min Eng 6:45-8 Ja '54; Mech Eng 76:166-9 F '54
U.S. Steel unveils new coal mining machine; Konnerth machine. il Iron & Steel Eng 31: 145-6 My '54

See also
Coal cutters

Conveyors

Belt fire prevention. S. T. Allsbrook. il Min Cong J 39:38-9 O '53
Belt fires; abstract. G. Traxler. Coal Age 58: 135-6 D '53
Belt splicing under pressure. il Coal Age 59: 81 Ja '54
Beltroad delivers coal over 4½ mile obstacle course. il Min Eng 6:266 Mr '54

COAL mining machinery—Conveyors—*Cont.*

Better continuous mining with conveyor haulage. J. B. Long. il plans diags Coal Age 59:92-7 F '54

Bridging units produce 44 tpm in mining air-tempering area. il plans Coal Age 58: 72-4 D '53

Continuous intermediate haulage. H. Davis. il plan diags Coal Age 59:88-91 Je '54

Conveyor mining; American mining congress Coal division annual conference; abstracts of papers. Min Cong J 39:60-1 D '53

Extensible belt serves continuous miners up to 1,000 ft. il Coal Age 59:120 Je '54

High tons in low coal; Stephens-Elkhorn fuel corp. il plan Coal Age 59:106-8 S '54

How drive design improves slope-belt operation; Wilmington & Franklin coal co. R. R. Richart. il diags Coal Age 59:70-5 Ja '54

How to splice conveyor belts. A. F. Matheis. il diags Coal Age 59:192-3 Mr '54

Longest underground conveyor belt developed; Super Ustex-nylon. Chem & Eng N 32: 2324-5 Je 7 '54

Mining a moderate-pitch vein; Michael mine, Fisher associates. il plan Coal Age 58:90-3 N '53

Preventing belt runaways. il diags Coal Age 58:94-5 D '53

Sewer tunnel speeded by using mining equipment. il Pub Works 85:64-5 F '54

Shuttle car loading onto belt conveyors in thin seams; Red Jacket coal corp. C. H. Williams. il plans diags Min Cong J 40: 66-8 Ap '54

Exhibitions

Bluefield coal show, May 26-28. Coal Age 59:128-30+ Jl '54

Lubrication

Lubrication application problems and their solution in the coal industry; panel discussion. Coal Age 59:160+ My '54

Portable truck cuts underground lubrication costs; Mine Lubrovan. il Coal Age 58:114 N '53

Maintenance and repair

Consol builds central shop. J. H. Edwards. il plan Coal Age 59:82-5 Jl '54

Keeping equipment at work; Chutz bros. coal co. il Coal Age 59:104-6 Ap '54

Maintenance for lower cost. plan diag Coal Age 59:50-62 Jl '54

Maintenance-mindedness works for Pittsburgh Coal. A. E. Flowers. il Coal Age 59:96-101 Ap '54

Maintenance of continuous mining machines. W. J. Shields and others. il Min Cong J 40:46-7 S '54

Maintenance, power and illumination; abstracts of papers, American mining congress Coal division annual meeting. Coal Age 59:108+ Je '54; Min Cong J 40:50-1 Je '54

Statistics

Equipment sales in 1953. W. H. Young. Coal Age 59:87-9 F '54

Sales of coal mine equipment, 1953. W. H. Young and R. L. Anderson. il Min Cong J 40:112-15 F '54

COAL oiling

Oil spray controls waste. Steel 134:128 My 3 '54; Blast F & Steel Pl 42:695 Je '54

Oil spraying at the Georgetown preparation plant; Hanna coal co. A. F. Meger. il diags Min Eng 6:Trans 724-7 Jl '54

COAL petrology, International committee for. See International committee for coal petrology

COAL pipe line. See Coal—Transportation

COAL planer. See Coal cutters

COAL preparation

Automation and dust control; coal-processing plant of Penn-Rillton co. il Nat Safety N 70:34-5+ S '54

Coal Age preparation guidebook. diags Coal Age 59:53-74 Mr '54

Coal preparation in 1953. J. B. Morrow. il Min Cong J 40:65-6+ F '54

Freeman teams high production and quality preparation. il Coal Age 59:82-7 Ag '54

Making money with waste; Buckhorn mine of Bell & Zoller coal co. flow sheet il Coal Age 59:108-11 F '54

Markets and preparation; abstracts of papers, American mining congress Coal division annual meeting. Coal Age 59:175-80 Je '54; Min Cong J 40:46-8 Je '54

Modern preparation plant assures clean coal of uniform size; Island Creek coal co. A. L. Lynn and J. H. Green. flow chart il Blast F & Steel Pl 42:787-90 Jl '54

New bituminous preparation facilities in 1953; tabulation. Coal Age 59:84-5 F '54

New methods of coal treatment; Britain's Central research establishment. E. Rose. il Min Cong J 40:72-3 Je '54

Preparation characteristics of anthracites in South Korea. W. L. Crentz. 4pls U S Bur Mines Rep of Invest 5010:1-17 '53

Preparation characteristics of coal from Knott county, Ky. W. L. Crentz and J. W. Miller. 30pls U S Bur Mines Rep of Invest 4993:1-30 '53

Preparation characteristics of coal from Raleigh county, W.Va. J. W. Miller and others. bibliog 21pls U S Bur Mines Rep of Invest 5070:1-32 '54

Preparation problems of continuous mining. F. P. Calhoun. il Min Cong J 40:88-90 Ag '54

Preparation problems of full seam mining. D. H. Dowlin and others. il diags Min Cong J 39:101-4 N '53

Surface preparation; American mining congress Coal division annual conference; abstracts of papers. Min Cong J 39:62-4 D '53

See also

Coal cleaning
Coal oiling
Coal screening
Coal washing
Flotation process (coal)

COAL products

Coal chemical glance. Chem W 75:71-2 Jl 24 '54

Coal chemical imports up sharply last year. Oil Paint & Drug Rep 166:7 Jl 5 '54

Coal chemicals nurse new ideas; annual review. Chem Eng 61:199-200 Mr '54

Coal chemicals outlook good; American coke and coal chemicals institute regional meeting, Chicago. Chem & Eng N 32:498 F 8 '54

Coal tie to chemicals growing factor. F. E. Wormser. Oil Paint & Drug Rep 164:4+ D 14 '53

German coal chemicals pass peak. Chem & Eng N 32:1484+ Ap 12 '54

Germans expand coke chemicals. H. Nedelmann. Chem & Eng N 32:2190 My 31 '54

Glimpse into the future; automation at Penn-Rillton foundry products plant. il Chem & Eng N 32:2524+ Je 21 '54

US coal chemicals output rises. Chem Age (Lond) 71:579-80 S 18 '54

See also

Coal tar products

Analysis

Functional group analysis. R. A. Glenn and E. D. Olleman. bibliog Anal Chem 26:350-2 F '54

Separation of oxygenated compounds and hydrocarbons by adsorption. J. Entel, C. H. Ruof and H. C. Howard. bibliog Anal Chem 25:616-18 Ap '53

COAL purchasing

Uniform coal safeguards power production. A. W. Williams. il Mill & Factory 53:89-91 D '53

COAL research

Annual report of research and technologic work on coal and related investigations, fiscal year 1952. R. L. Brown and W. H. Ode. bibliog(129 titles) 24pls U S Bur Mines Information Circ 7663:1-67 '53

Coal research in 1953. J. Mitchell and W. L. Glowacki. il Min Cong J 40:85-9+ F '54

Government policy outlined on synthetic-fuels research. D. McKay. Coal Age 59:146 F '54

Physical and chemical structure of coals; BCURA continues studies. Chem Age (Lond) 69:69-70 Jl 11 '53

Research work in the coal industry; discussion by Parliamentary and Scientific committee. Chem Age (Lond) 69:1219-21 D 12 '53

Young western coal artificially aged in Colorado. Iron Age 172:150 Jl 9 '53

See also

Bituminous coal research, inc.

COAL research—*Continued*

Bibliography

Bibliography of Bureau of mines investigations of coal and its products, 1945-1950. E. P. Carman and others. bibliog(821 titles) U S Bur Mines Bul 528:1-60; pa 40c Supt. of doc. '54

COAL sampling

Analyses of tipple and delivered samples of coal (collected during the fiscal year 1952). S. J. Aresco and C. P. Haller. bibliog U S Bur Mines Rep of Invest 4972:1-84 '53

Analyses of tipple and delivered samples of coal; fiscal years, 1948 to 1950. N. H. Snyder and S. J. Aresco. U S Bur Mines Bul 516:1-133; pa 55c Supt. of doc. '53

These sampling devices help check coal-mill performance. C. B. Schuder. diags Power 98:94-6 Ja '54

COAL screening

Anthracite launder screens; factors in their design and operation. W. S. Sanner and J. D. Clendenin. bibliog 12pls U S Bur Mines Rep of Invest 5032:1-32 '54

COAL sizing

See also

Coal screening

COAL-steel community

Bid from Luxemburg; Britain officially invited. Economist 170:14 Ja 2 '54

British shun Schuman ties. il Iron Age 173:123 Ap 22 '54

Challenge from M. Monnet; his proposals for British relations with the community. Economist 170:79-80 Ja 9 '54

Challenges to Luxemburg. Economist 170:34 Ja 2 '54

Coal trade in the coal-steel community; chart. Economist 170:85 Ja 9 '54

Conflicts at Luxembourg. Economist 169:822-3 D 12 '53

End of a cartel? Economist 169:647-8 N 28 '53

European coal and steel community. Engineering 177:324 Mr 12 '54

French buckle down. Bsns W p 144 D 5 '53

Investment needed for European coal, steel. For Comm W 51:5 F 8 '54

Investment policy at Luxemburg. Economist 170:245 Ja 23 '54

New problems plague the ECSC. Steel 133:79 N 9 '53

Snook from the Ruhr; recartelisation. Economist 169:647 N 28 '53

Steel industry and Schumania. Economist 170:185-6 Ja 16 '54

Steel pool; who's denting it? Iron Age 172:22-3 D 24 '53

Steps toward a steel cartel. Economist 168:771 S 19 '53

COAL storage

Coal storage costs. W. H. Everett. il Power Eng 58:76-8 Ap '54

Effect of storage on the coking properties of Pond Creek coal from Pike county, Ky. F. W. Smith and others. bibliog il plan Am Gas Assn Proc 1953:835-51

Fuel handling and storage. J. C. McCabe. il diags Power 97:82-7 D '53

Prevention of spontaneous combustion in coal stocks. il Engineering 176:727 D 4 '53

Storage of low-rank coals. R. R. Allen and V. F. Parry. 41pls U S Bur Mines Rep of Invest 5034:1-31 '54

Storing washed fines; Amherst coal co. A. S. J. Hopkins. il diag Coal Age 59:104-5 S '54

COAL supply

See also

Coal trade

Great Britain

Coal crisis and National smoke abatement society; abstract. E. Smith. Chem Age (Lond) 71:670 S 25 '54

Fuel conservation report of team appointed under auspices of Anglo-American council on productivity; summary and recommendations. Engineer 196:345-6 S 11 '53

COAL tar

Cleaning coal tar; Russell Separator. il Chem Age (Lond) 70:680 Mr 20 '54; Engineer 197:424 Mr 19 '54

Analysis

Chemical composition of high-boiling fractions of coal tar; a steam distillate from a vertical-retort soft pitch. A. S. Harris, E. N. White and D. McNeil. bibliog J Ap Chem 3:443-51 O '53

COAL tar pitch. See Pitch

COAL tar products

Chemical composition of high-boiling fractions of coal tar; a steam distillate from a vertical-retort soft pitch. A. S. Harris, E. N. White and D. McNeil. bibliog J Ap Chem 3:443-51 O '53

Coal chemicals nurse new ideas; annual review. Chem Eng 61:199-200 Mr '54

Coaltar products customs regulations are overhauled. Oil Paint & Drug Rep 165:3+ Mr 22 '54

Protective coatings for buried pipelines. K. A. Spencer and H. B. Footner. bibliog il diags Chem & Ind p448-55 My 9 '53

Slow start, fast finish. Chem W 73:70+ Jl 18 '53

U.S. steel corp., Tennessee coal and iron division to recover coal chemicals from crude tar. A. V. Wiebel. Blast F & Steel Pl 42:530 My '54

Vapor phase oxidation of aromatic hydrocarbons. J. M. Weiss. map Chem & Eng N 32:1820-2 My 3 '54

See also

Anthracene
Benzene
Coal distillation
Creosote
Naphthalene
Tariff—United States—Coal tar products
Toluene
Xylene

Analysis

Determination of phenanthrene in coal-tar products. L. Blom and W. J. Vranken. bibliog diags Anal Chem 26:404-7 F '54

Prices

Average monthly quotations in 1953; tabulations. Steel 134:174 Ja 4 '54

Statistics

Coal chemicals. Published in weekly numbers of Oil, paint and drug reporter

COAL tar research association

Coal tar research association. D. McNeil. il Chem & Ind p 1040-3 O 3 '53

COAL trade

Anthracite in 1953. E. C. Weichel. il Min Cong J 40:106-8+ F '54

Atomic power no threat, coal use to grow, AEC says. Coal Age 59:135 S '54

Better selling key to broader coal markets. Coal Age 59:166-71 Mr '54

Bituminous coal in 1953. Coal Age 59:111-12 Ja '54

Bituminous coal industry, 1953. W. A. Fullarton. il Min Cong J 40:99-102 F '54

Coal presses fight for square deal. Coal Age 59:137-8 Je '54

Coal; program to revive South's coal industry. J. E. Moody. Iron Age 172:100 S 17 '53

Coal review and forecast. il Iron Age 173:307 Ja 7 '54

Coal's fate could be yours. R. Letwin. Sales Management 73:52-4 Jl 1 '54

Future of coal. J. Pursglove, jr. Comm & Fin Chr 178:1726+ N 5 '53

How coal's leaders see 1954. Coal Age 59:70-6 F '54

How much growth ahead? Coal Age 59:136 S '54

Level year in '53, better times ahead. Coal Age 59:77-81 F '54

Markets and preparation; abstracts of papers, American mining congress Coal division annual meeting. Coal Age 59:175-80 Je '54

Reduction of costs is key to more profits for coal in 1954. Manuf Rec 123:48 Mr '54

Shaft of light on soft coal mining. I. U. Cobleigh. Comm & Fin Chr 178:532 Ag 13 '53

Spain to buy coal in United States. For Comm W 50:11 D 21 '53

Trends in coal utilization and their effect on coal marketing. C. F. Hardy. Min Eng 6:Trans 299-303 Mr '54

U.S. coal exports decline in 1953. For Comm W 51:11 F 1 '54

COAL trade—*Continued*

Statistics

Anthracite and bituminous coal, 1949-1952. Survey of Cur Bsns 1953 Sup p 168-9 [supplemented in monthly numbers]

Chile

Chile's national coal plan has broad scope. For Comm W 50:27 S 28 '53

Europe

See also
Coal-steel community

Germany

German coal for Europe. Economist 169:429-30 N 7 '53

Great Britain

Autumn smiles on coal. Economist 169:355 O 31 '53

Coal board's self-inquiry. Economist 169:978-9 D 26 '53

Coal in 1953. R. Redmayne. Engineer 197:72-5 Ja 8 '54

Coal prices and steel. Economist 170:118+ Ja 9 '54

Coal profits again. Economist 168:278 Jl 25 '53

Coal to and from Newcastle. Economist 168:194 Jl 18 '53

Coals to Newcastle; Britain's key industry seven years after its nationalization. F. Morley. Barron's 33:5 Ag 3 '53

Mining in a warm winter. Economist 169:836 D 12 '53

COAL washing

Laundering fine coal; West Canadian collieries, ltd. L. Dupret. il diags Coal Age 59:92-6 My '54

See also
Flotation process (coal)

COAL waste

Colliery sludge as power station fuel; Emile Huchet power station. R. Gibrat and F. Chenin. Engineering 177:308-9 Mr 5 '54

Damage from coal and ash piles. S. T. Powell. Ind & Eng Chem 46:sup97A My '54

Earth basin cuts thickening cost; Jamison coal & coke co. il Coal Age 59:114 S '54

Reject disposal; Northern Illinois coal corp. W. A. Weimer. il plans diags Min Cong J 40:76-80 Ap '54

See also
Coal mines and mining—Waste

COATED paper. See Paper, Coated

COATINGS. See Finishing materials

COAXIAL cables. See Radio lines; Telephone cables—Coaxial cables; Television cables

COBALAMIN. See Vitamins—Vitamin B$_{12}$

COBALT

Cobalt, iron and some of their alloys as catalysts for the hydrogenation of carbon dioxide. R. A. Stowe and W. W. Russell. bibliog Am Chem Soc J 76:319-23 Ja 20 '54

Cobalt metal revives the Cobalt camp. flow sheet il Can Min J 75:70-2 Je '54

Cobalt, 1953. H. W. Davis. Eng & Min J 155:100 F '54

Demonstration of the intermediate position of cobalt between iron and nickel. E. M. Goldstein. J Chem Educ 30:387 Ag '53

Fischer-Tropsch synthesis with cobalt catalysts; effect of process conditions on composition of reaction products. E. J. Gibson and C. C. Hall. bibliog J Ap Chem 4:49-61 F '54; Abstract and discussion. Chem & Ind p299-300 Mr 13 '54

Magnetic domains in cobalt by the longitudinal Kerr effect. C. A. Fowler, jr. and E. M. Fryer. il Phys R 95:564-5 Jl 15 '54

Separation of technetium from molybdenum, cobalt and silver. N. F. Hall and D. H. Johns. Am Chem Soc J 75:5787-91 D 5 '53

Some properties of zinc sulfide activated with copper and cobalt. W. Hoogenstraaten and H. A. Klasens. bibliog Electrochem Soc J 100:366-75 Ag '53

Structure of cobalt catalysts supported on diatomaceous earth. M. F. L. Johnson and H. E. Ries, jr. bibliog J Phys Chem 57:865-73 D '53

Analysis

Analysis of cobalt. bibliog Chem Age (Lond) 69:77-80, 125-8, 751-2+, 869-71, 909-12, 971-2 Jl 11-18, O 10, 24-N 7 '53

Determination of zinc with special reference to separation from cobalt and copper. A. E. Martin. bibliog Anal Chem 25:1853-8 D '53

Rapid photometric determination of cobalt in the presence of iron. J. N. Pascual, W. H. Shipman and W. Simon. bibliog Anal Chem 25:1830-2 D '53

Rapid polarographic method for the analysis of tungsten-cobalt alloys. I. A. Bucklow and T. P. Hoar. Metallurgia 48:317-18 D '53

Simultaneous colorimetric determination of copper, cobalt, and nickel as diethyldithiocarbamates. J. M. Chilton. bibliog Anal Chem 25:1274-5 Ag '53

Spectrographic analysis of 18-8 stainless steel for cobalt, manganese, and stabilizing elements. N. E. Gordon, jr., R. M. Jacobs and M. C. Rickel. diags Anal Chem 25:1031-4 Jl '53

Spectrophotometric determination of cobalt with 2-nitroso-1-naphthol-4-sulfonic acid. W. M. Wise and W. W. Brandt. bibliog Anal Chem 26:693-7 Ap '54

Isotopes

Automatic radiography with cobalt 60. J. Hile. il Materials & Methods 40:108-9 S '54

Backscattering of the Co^{60} gamma rays from infinite media. E. Hayward and J. H. Hubbell. bibliog diag J Ap Phys 25:506-9 Ap '54

Build-up measurements on cobalt-60 gamma radiation in iron and lead. C. Garrett and G. N. Whyte. bibliog Phys R 95:889-91 Ag 15 '54

Čerenkov radiation from a Co^{60} source in water. J. A. Rich and others. diag Opt Soc Am J 43:750-2 S '53

Changes in elastomers due to radiation from cobalt-60. S. D. Gehman and L. M. Hobbs. bibliog Rubber World 130:643-6 Ag '54

Cobalt 60; inspection uses are growing. D. E. Brewer. il Iron Age 172:80-2 D 31 '53

Effect of irradiation with cobalt-60 on trichina larvae. H. J. Gomberg and S. E. Gould. Science 118:75-7 Jl 17 '53

Hot cobalt and telemetering system help engineers predict runoff from the Sierra Nevadas. il Elec World News ed 141:30-2 F 1 '54

Housing for Co^{60} gamma-ray source for experimental work. R. F. Firestone and J. E. Willard. bibliog il diag R Sci Instr 24:904-6 O '53

Irradiation of ferrous ammonium sulfate solutions; energy absorption and ionization calculations for cobalt 60 and betatron radiation. D. V. Cormack and others. bibliog diag J Chem Phys 22:6-12 Ja '54

Large-angle scattering of Co^{60} gamma rays. T. D. Strickler. bibliog diag Phys R 92:923-6 N 15 '53

More room for cobalt calibration; National bureau of standards Gamma ray laboratory. il Chem & Eng N 32:2376 Je 14 '54

Protection against radiations from radium, cobalt-60, and cesium-137. U S Nat Bur Stand. Handbook 54:1-60; pa 25c Supt. of doc. '54

Radioactive cobalt unit sells for less than $1000. il Chem & Eng N 32:2487 Je 21 '54

Radiochemical assay of cobalt-60. R. Ballentine and D. D. Burford. bibliog il diags Anal Chem 26:1031-5 Je '54

Use cobalt 60 to check soundness of welds in structurals. il Iron Age 172:208 N 5 '53

Nuclear reactions

Decay scheme of Co^{56}. M. Sakai and others. diag Phys R 95:101-4 Jl 1 '54

Disintegration of Co^{55} and I^{130}. R. S. Caird and A. C. G. Mitchell. bibliog diag Phys R 94:412-19 Ap 15 '54

Second-forbidden beta spectra of Co^{60} and Sc^{46}. G. L. Keister and F. H. Schmidt. bibliog Phys R 93:140-5 Ja 1 '54

Prices

Nonferrous prices; tabulation. Steel 134:175 Ja 4 '54

COBALT—*Continued*

Spectrum

Hyperfine structure of the spectra of dysprosium, cobalt, vanadium, manganese, and lanthanum. K. Murakawa and T. Kamei. bibliog Phys R 92:325-7 O 15 '53

COBALT, Powdered

Hydrometallurgical process yields pure metal powders from sulphides; Sherritt Gordon mines, ltd. flow sheet il J Metals 5:775-9 Je '53

COBALT alloys

Chromium diffusivity in alpha cobalt-chromium solid solutions. J. W. Weeton. bibliog il diag Am Soc for Metals Trans 44:436-49; Discussion. 449-51 '52

Cobalt, iron and some of their alloys as catalysts for the hydrogenation of carbon dioxide. R. A. Stowe and W. W. Russell. bibliog Am Chem Soc J 76:319-23 Ja 20 '54

Constitution and properties of cobalt-iron-vanadium alloys. D. L. Martin and A. H. Geisler. bibliog il Am Soc for Metals Trans 44:461-81; Discussion. 481-3 '52

Diffusion of chromium in alpha cobalt-chromium solid solutions. J. W. Weeton. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:397-411 '52

Influence of chemical composition on rupture properties at 1200° F of forged chromium-cobalt-nickel-iron base alloys in solution-treated and aged condition. E. E. Reynolds and others. bibliog il U S Nat Advisory Com for Aeronautics 1951:1385-444 '52

Magnetic annealing of a Co-Fe alloy. A. H. Geisler and others. bibliog diags J Metals 5:Trans 813-20 Je '53

Permanent magnet properties of cobalt-platinum alloys. D. L. Martin and A. H. Geisler. J Ap Phys 24:498 Ap '53

Rust resistant spring alloy; Elgiloy for watch makers. il Steel 133:344 O 12 '53

Study of the effect of carbon content on the structure and properties of sintered WC-Co alloys. J. Gurland. bibliog il J Metals 6:Trans 285-90 sec 2 F '54

COBALTAMMINES

Solubility of *cis*- and *trans*-dinitrotetramminecobalt(III) sulfates in water-dioxane mixtures. S. A. Mayper, H. L. Clever and F. H. Verhoek. bibliog J Phys Chem 58:90-3 Ja '54

COBALT chlorides

Densities and thermal expansion coefficients for cobaltous chloride hexahydrate and ethyl iodide. D. A. Hutchison. bibliog Am Chem Soc J 76:1022-4 F 20 '54

COBALT compounds

Bis-cyclopentadienyl compounds of nickel and cobalt. G. Wilkinson, P. L. Pauson and F. A. Cotton. bibliog Am Chem Soc J 76:1970-4 Ap 5 '54

Bis-indenyl derivatives of iron and cobalt. P. L. Pauson and G. Wilkinson. bibliog Am Chem Soc J 76:2024-6 Ap 5 '54

Bond type in trisacetylacetonecobalt (III). R. O. Whipple, R. West and K. Emerson. Chem Soc J p3715 N '53

Fischer-Tropsch synthesis with cobalt catalysts; effect of nitrogen, carbon dioxide and methane in the synthesis gas. E. J. Gibson and C. C. Hall. bibliog J Ap Chem 4:464-8 Ag '54

Magnetic moments and stereochemistry of cobaltous compounds. B. N. Figgis and R. S. Nyholm. Chem Soc J p 12-17 Ja '54

Mechanism of substitution reactions in complex ions; kinetics of the reactions of *cis*- and *trans*-chloronitro-bis-(ethylenediamine)-cobalt(III) and aquonitro-bis-(ethylenediamine)-cobalt(III) ions with various reagents in aqueous solutions. F. Basolo and others. bibliog Am Chem Soc J 76:3079-82 Je 5 '54

Polarization figures and rotation properties as applied to the identification of some cobalt nickel sulfarsenides and related minerals. R. W. Hutchinson. bibliog Econ Geol 48:492-500 S '53

Racemization of tris-(ethylenediamine)-cobalt(III) ion in the presence of decolorizing carbon. B. E. Douglas. Am Chem Soc J 76:1020-1 F 20 '54

Role of alcohols in the mechanism of the Fischer-Tropsch synthesis; the decomposition of alcohols in the presence of cobalt catalysts. E. J. Gibson. bibliog J Ap Chem 3:375-84 Ag '53

Spectra and structure of dicobaltoctacarbonyl. J. W. Cable, R. S. Nyholm and R. K. Sheline. bibliog Am Chem Soc J 76:3373-6 Jl 5 '54

Studies on bond type in certain cobalt complex compounds; the exchange reactions of quadridentate complexes. B. O. West. Chem Soc J p395-400 Ja '54

Studies on bond type in certain cobalt complexes; the exchange reactions of cobaltous 1 : 10-phenanthroline and tripyridyl complexes. B. O. West. Chem Soc J p578-9 F '54

Synthesis of the tris-(dimethylglyoximo)-cobaltate(III). A. Nakahara and R. Tsuchida. bibliog Am Chem Soc J 76:3103 Je 5 '54

Spectra

Infrared absorption spectra of complex cobalt salts. D. G. Hill and A. F. Rosenberg. J Chem Phys 22:148 Ja '54

COBALT metallurgy

Cobalt at Fredericktown; National lead co.'s new refinery. G. P. Lutjen. flow sheet il Eng & Min J 154:72-6 D '53

Metallurgical investigations of southeastern Missouri cobalt-nickel resources. H. Kenworthy and K. K. Kershner. bibliog 12pls U S Bur Mines Rep of Invest 4999:1-37 '53

More cobalt coming up; Cobalt Chemicals' new smelter at Cobalt. Can Chem Process 38:12+ Ap '54

Strategic metal out of the North; plant at Cobalt will produce cobalt and related chemicals. flow sheet il Can Chem Process 38:52+ Ap '54

COBALT naphthenate

Shortcut to purity; direct metal reaction. il Chem W 74:52+ F 13 '54

COBALT oxides

Heats of formation of nickel and cobalt oxides (NiO and CoO) of combustion calorimetry. B. J. Boyle, E. G. King and K. C. Conway. bibliog Am Chem Soc J 76:3835-7 Jl 20 '54

Analysis

Spectrochemical determination of impurities in cobalt oxide. J. H. McClure and R. E. Kitson. Anal Chem 25:867-8 Je '53

COBALT phosphate

Crystallographic data; tris(ethylenediamine) cobalt(III) phosphates. H. W. McCune and N. Wilkins. diags Anal Chem 26:1524 S '54

COBALT silicides

New carbide-base cermet containing TiC, TiB_2, and CoSi. H. M. Greenhouse and others. il Am Cer Soc J 37:203-6 My 1 '54

COBALT sulfides

Rhenium sulfides as liquid-phase hydrogenation catalysts; a comparison with molybdenum sulfide and cobalt polysulfide. H. S. Broadbent, L. H. Slaugh and N. L. Jarvis. bibliog Am Chem Soc J 76:1519-23 Mr 20 '54

COBLENTZ, William Weber, 1873-

Sketch. E. C. Crittenden and W. R. Brode. por Opt Soc Am J 43:939-40 N '53

COCA-COLA company

Coca-Cola; dominant position in soft drinks still unchallenged. F. H. Brigham. Barron's 33:15-17 N 23 '53

Security I like best. G. M. Loeb. Comm & Fin Chr 179:54+ Ja 7 '54

COCAINE

Three-dimensional structure of the cocaines; cocaine and pseudococaine. S. P. Findlay. bibliog Am Chem Soc J 76:2855-62 Je 5 '54

COCHRAN, Jacqueline

Miss Cochran holds most jet records. Aviation W 58:26 Je 22 '53

COCHRANE, Edward Lull, 1892-

ASME honors engineers; honorary membership. por(p65) Mech Eng 76:64 Ja '54

COCKCROFT-WALTON accelerators. See Electron accelerators

COCKPITS. See Airplanes—Cockpits

COCKROACHES
DDT detoxification product in American cockroaches. J. S. Butts and others. Science 117:699 Je 19 '53

COCKSACKIE viruses. See Viruses

COCOA
Boom in cocoa. Economist 169:917 D 19 '53
Cocoa boomlet. Economist 168:347 Ag 1 '53
Continuous hot-air roaster processes cocoa beans. H. T. Ghirardelli and J. Sheffman. il diag Food Eng 26:85+ Ap '54
Expansion for cocoa. Economist 168:879 S 26 '53
Three strong drinks; cocoa, coffee and tea price situation. Economist 170:190 Ja 16 '54

Analysis

Spectrophotometric determination of theobromine and caffeine in cocoa powders. D. T. Englis and J. W. Miles. bibliog Anal Chem 26:1214-18 Jl '54

COCOA butter
Cocoa butter substitute test program revealed. Oil Paint & Drug Rep 165:3 Ja 4 '54

COCONUT fibers
Working and dyeing of coir yarn; abstract. H. Faldik. Am Dyestuff Rep 42:136 Mr 2 '53

COCONUT oil
Coconut or copra oil, 1949-1952. Survey of Cur Bsns 1952 Sup p 126 [supplemented in monthly numbers]

CODEINE
See also
Hydroxycodeine

Analysis

Chromatographic determination of codeine in opium and other complex mixtures. G. C. McElheny, G. DeLaMater and R. D. Rands. bibliog diag Anal Chem 26:819-23 My '54

COENZYMES
Carbon dioxide fixation in heart extracts by β-hydroxyisovaleryl coenzyme A. B. K. Bachhawat, W. G. Robinson and M. J. Coon. bibliog Am Chem Soc J 76:3098-9 Je 5 '54
Enzymatic reaction between citrate, adenosine triphosphate and coenzyme A. P. A. Srere and F. Lipmann. bibliog Am Chem Soc J 75:4874 O 5 '53
Mechanism of the enzymatic synthesis of succinyl CoA. S. Kaufman and S. G. A. Alivisatos. bibliog Am Chem Soc J 76:2279-80 Ap 20 '54
Stability of coenzyme A. D. A. Buyske and others. bibliog Am Chem Soc J 76:3575-7 Jl 5 '54

COERCIMETERS
Null point method of coercivity determination. J. Watkins. diag J Sci Instr 31:69-70 F '54

COFFEE
Coffee number one target for cargo thieves. Weekly Underw 170:652 Mr 13 '54; Same abr. East Underw 55:47 Mr 26 '54
Electronic sorting assures coffee-bean uniformity. il Food Eng 25:70+ D '53
Electronic sorting improves coffee quality. O. V. Baldwin. il Elec World 140:130+ N 30 '53
Slot machine coffee; now it's an $8,000,000 business; Rudd-Melikian, inc. A. B. Ecke. il Sales Management 71:24-7+ Jl 15 '53

Analysis

Determination of caffeine and trigonelline in coffee by paper chromatography. L. Kogan, F. J. DiCarlo and W. E. Maynard. bibliog Anal Chem 25:1118-20 Jl '53

Prices

Who wrecked $1.25-a-pound coffee? L. M. Hughes. Sales Management 73:48+ S 20 '54

COFFEE, Soluble
Cites the solubles as coffee-flavor source. H. B. King. Food Eng 26:79 Ag '54
Individual servings at 200-plus a minute; Modern coffee co. il Food Eng 26:93+ Jl '54
Jiffy java; processors battle for big instant coffee market. J. C. Potter. Barron's 33:11-12 O 26 '53

Manufacture

Speed-dries heat sensitive liquids; new continuous hi-vac unit. il diag Food Eng 26:36-7 Ja '54
What makes good soluble coffee. W. C. Winokur. flow sheet(p 118-21) il diag Food Eng 25:76-8+ N '53

COFFEE percolators, Electric
Domestic electrical equipment; kettles and coffee percolators. il Elec R (Lond) 154:406-10 Mr 5 '54

COFFEE trade
Coffee sales leap 134 per cent in IGA fiesta drive. il Sales Management 71:84-5 Jl 15 '53
Cost of coffee. Bsns W p 152+ O 17 '53
Sizable coffee stocks put damper on prices. Barron's 34:35-6 Ja 4 '54
Three strong drinks; cocoa, coffee and tea price situation. Economist 170:190 Ja 16 '54
Tug-of-war in coffee. Economist 168:532+ Ag 22 '53
Who wrecked $1.25-a-pound coffee? L. M. Hughes. Sales Management 73:48+ S 20 '54

Advertising

Now it's at the store, not the door; George W. Caswell co. il Sales Management 73:74+ Ag 15 '54

Statistics

Coffee, 1949-1952. Survey of Cur Bsns 1953 Sup 146-7 [supplemented in monthly numbers]

Brazil

Brazil's coffee stocks may rise despite frost. Barron's 33:23+ Ag 17 '53
Coffee and the cruzeiro. Economist 169:360 O 31 '53

Colombia

Austria to buy coffee under Colombian pact For Comm W 51:8 Ja 25 '54

Ethiopia

Ethiopia levies surtax on new coffee exports For Comm W 50:10 S 7 '53

Salvador

El Salvador prospering from coffee price hike. M. Bannell. Barron's 33:34 S 14 '53

COFFERDAMS
Almendares River tunnel; Miramar cofferdam dewatered by wellpoints. B. J. Prugh. il diags Civil Eng 23:452-3 Jl '53
Construction difficulties overcome in completing Monongahela locks no. 2. L. L. Brink. il diags Civil Eng 24:213-16 Ap '54
How to avoid cofferdam boils. B. J. Prugh diag Civil Eng 23:765 N '53
Intrusion grouting seals porous coral rock for Vedado cofferdam; Almendares River tunnel. J. C. King and J. R. Anderson. il diags Civil Eng 23:454-7 Jl '53
West Virginia highway bridge piers built inside cellular cofferdams. R. C. Jennings. il Civil Eng 23:428 Je '53

COFFIN foundation
Electric energy, inc. receives Coffin award. il Elec World News ed 139:35 Je 22 '53

COHEN, George, sons and company, limited
Statement by the chairman. C. M. Cohen. Economist 169:65-6 O 3 '53

COHUMULONE
Chemistry of cohumulone. G. A. Howard and A. R. Tatchell. Chem & Ind p436 My 2 '53
Chemistry of hop constituents; the structure of cohumulone. G. A. Howard and A. R. Tatchell. Chem Soc J p2400-5 Jl '54
Synthesis of DL-cohumulone. G. A. Howard and A. R. Tatchell. bibliog Chem & Ind p514 My 1 '54

Analysis

Spectrophotometric determination of humulone complex and lupulone in hops. G. Alderton and others. bibliog Anal Chem 26:983-92 Je '54

COILS, Electric. See Electric coils

COILS, Pipe
Flooded coils on closed heating systems. T. W. Reynolds. diags Heat & Ven 51:103-5 Je '54

COILS, Pipe—*Continued*

How to protect cooling coils against freeze-ups. diag Heating-Piping 26:178-9 Ja '54

How we prevent freeze-ups of our cooling coils. W. A. Stahl. Heating-Piping 25:107 D '53

Piping for heating coils where modulation is over a wide range; detail sheet. diags Heat & Ven 50:9-10 D '53

Production forming of steam coils. F. X. Curran. il Mill & Factory 54:114-17 Je '54

COINCIDENCE counting

Coincidence technique for getting decade scaling from binary flip-flop counters. R. Parshad and A. Sagar. diags R Sci Instr 24:542-4 Jl '53

Fast coincidence-anticoincidence analyzer. R. L. Garwin. diags R Sci Instr 24:618-20 Ag '53

Fast neutron coincidence spectrometer. P. R. Chagnon and others. bibliog il diags R Sci Instr 24:656-60 Ag '53

Measurement of (p,γ) coincidences employing time of flight. W. T. Joyner and H. W. Lewis. diag R Sci Instr 25:828-9 Ag '54

COINING. See Metal work

COINS

Sorting, principle of automatic machine may find industrial use; National bureau of standards. Iron Age 173:180-2 F 4 '54

COIR fibers. See Coconut fibers

COKE

Chemical reactions of coke in the iron blast furnace. J. F. Peters. bibliog J Metals 6:Trans 466-74 Ap '54

Coke from non-caking coals. Engineering 177:285 F 26 '54

Graphitization processes in cokes and carbon blacks. A. E. Austin and W. A. Hedden. bibliog Ind & Eng Chem 46:1520-4 Jl '54

How to improve carbon pickup in foundry iron. E. Fry. Iron Age 172:140-1 Jl 16 '53

Improved coke cuts cupola operating costs. S. W. Martin and others. il Iron Age 174:97-9 Ag 5 '54

Moving coke-bed gas filter for dust removal. G. C. Egleson and others. il diags Ind & Eng Chem 46:1157-62 Je '54; Same. U S Bur Mines Rep of Invest 5033:1-8 '54

See also

Petroleum coke

Analysis

Recent developments in the analysis of coal and coke. R. A. Mott. Chem Age (Lond) 70:1143-6 My 22 '54

Prices

Average monthly quotations in 1953; tabulations. Steel 134:174 Ja 4 '54

Beehive metallurgical coke, oven foundry coke; tabulations. Steel 134:172 Ja 4 '54

Connellsville foundry and furnace coke, 1941-1953; tabulations. Iron Age 173:418 Ja 7 '54

Sulfur content

Desulfurization of low temperature char by partial gasification. C. W. Zielke and others. bibliog Ind & Eng Chem 46:53-6 Ja '54

Use of bromine water in the determination of sulphur in coal or coke by the Eschka process. T. Battye, R. Johnson and H. C. Wilkinson. J Ap Chem 4:119-23 Mr '54

Testing

ASTM standards on coal and coke (with related information). 155p pa $2.25 Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '54

Carbonizing properties; Tennessee coals from the Jellico bed in Campbell county and the Sewanee bed in Marion county. D. A. Reynolds and others. il U S Bur Mines Bul 523:1-35 bibliog(59 titles, p33-5); pa 35c Supt. of doc. '53

Carbonizing properties: West Virginia coals from the Beckley bed, Caretta no. 5 mine, McDowell county, and Glen Rogers no. 2 mine, Wyoming county. D. A. Reynolds and others. il U S Bur Mines Bul 522:1-27 bibliog(58 titles, p25-7); pa 20c Supt. of doc. '53

Determination of size distribution of macropores in porous materials. S. Ergun and J. Owen. bibliog Anal Chem 25:1222-6 Ag '53

Study of the precision of the shatter test on coke. J. B. Gayle and H. S. Auvil. bibliog 6pls U S Bur Mines Rep of Invest 4987:1-13 '53

COKE handling

River facilities for handling coal and coke. D. Read. il Min Cong J 40:50 S '54

Stockpiling and loading equipment; Hylo-veyor and a Loband loader. il Engineering 176:822 D 25 '53

COKE industry

Smoke fades from beehive coke plants. J. B. Delaney. il Iron Age 173:49-50 F 25 '54

Statistics

Annual coke capacity as of Jan. 1, 1954; tabulations. Steel 135:123-4 S 20 '54

Coke and by-products in 1952. Iron & Steel Eng 30:77-83 D '53

Coke capacity by companies; tabulation. Iron Age 173:98d F 4 '54

Coke, 1949-1952. Survey of Cur Bsns 1953 Sup p 170 [supplemented in monthly numbers]

Germany

Germans expand coke chemicals. H. Nedelmann. Chem & Eng N 32:2190 My 31 '54

COKE manufacture

Application of low-temperature carbonization. R. E. Zinn. bibliog diags Chem Eng Prog 50:3-7 Ja '54

Carbonizing procedures with new experimental coke oven. J. B. Gayle and E. L. Gulledge. pl U S Bur Mines Rep of Invest 5011:1-12 '54

Effects of variations in bulk density on coking time. J. B. Gayle and E. L. Gulledge. bibliog 9pls U S Bur Mines Rep of Invest 5027:1-9 '54

Moving bed contact coking apparatus. D. C. Jones, T. E. Kelly and M. B. Neuworth. bibliog flow diag diag Ind & Eng Chem 46:12-15 Ja '54

New gas-making process in operation; Rochdale process. il Chem Age (Lond) 71:275-6 Ag 7 '54

Production of coke to blast furnace specifications. J. A. Beatty. flow diag il plan diags Blast F & Steel Pl 42:339-44 Mr '54

Some new carbonisation processes under development and their relation to established practice; abstract. D. T. Barritt and T. Kennaway. Engineering 177:277-8 F 26 '54

By-products

Coke and by-products in 1952. Iron & Steel Eng 30:77-83 D '53

See also

Benzol (commercial benzene)

COKE oven gas

Determination of naphthalene in wash oil and coke oven gas. N. J. Klein and G. W. Struthers. Anal Chem 25:1818-21 D '53

COKE ovens

A.I.M.M.E. national open hearth steel committee and the blast furnace, coke oven and raw materials committee conference, April 5-6; program. J Metals 6:430-1+ Ap '54; Blast F & Steel Pl 42:sup20-4+ Ap '54

Carbonizing procedures with new experimental coke oven. J. B. Gayle and E. L. Gulledge. pl U S Bur Mines Rep of Invest 5011:1-12 '54

Coke; Bethlehem pushes new ovens. il Iron Age 172:46-7 Ag 27 '53

New test coke oven; U.S. Bureau of mines. il Chem Eng 60:142+ N '53

COKE plants

Use of heavy cutback asphaltum mastic coatings in coke plant areas; abstract. A. H. Bagenstose, jr. Iron & Steel Eng 31:146 S '54

Accidents

Injury experience in the coking industry, 1951. S. T. Reese and others. U S Bur Mines Bul 527:1-26; pa 25c Supt. of doc. '54

Equipment

Moving bed contact coking apparatus. D. C. Jones, T. E. Kelly and M. B. Neuworth. bibliog flow diag diag Ind & Eng Chem 46:12-15 Ja '54

COKE plants—Equipment—*Continued*

Production of coke to blast furnace specifications. J. A. Beatty. flow diag il plan diags Blast F & Steel Pl 42:339-44 Mr '54

Waste

Oil spray helps control pollution. Chem Eng 61:417-18 Je '54

Problems in the disposal of phenol wastes in coke plants; abstract. G. E. Muns and C. V. Thompson. Steel 133:115+ Jl 6 '53

COKE plants, By-product

Coke; Bethlehem pushes new ovens. il Iron Age 172:46-7 Ag 27 '53

Coke plant and blast furnace expansion at Fontana. C. R. Lohrey. Iron & Steel Eng 31:67-9 Jl '54

Design and operation of a phenol recovery plant, Bethlehem steel co. coke plant. J. C. McCord. flow diag il Sewage & Ind Wastes 26:1014-19 Ag '54

Republic continuing rehabilitation program. Blast F & Steel Pl 42:335 Mr '54

Semet-Solvay pushes new coke oven battery. il Blast F & Steel Pl 42:106 Ja '54

COLCHICINE

Colchicine; derivatives of trimethylcolchicinic acid. R. F. Raffauf, A. L. Farren and G. E. Ullyot. bibliog Am Chem Soc J 75:5292-4 N 5 '53

Colchicine studies; synthesis of 2-(2′,3′,4′-trimethoxyphenyl)-cyclohept-2-enone. D. Ginsburg. Am Chem Soc J 76:3628-30 Jl 20 '54

Degradation of colchicine to octahydrodemethoxydesoxydesacetamidocolchicine. H. Rapoport and others. bibliog Am Chem Soc J 76:3693-8 Jl 20 '54

Preliminary experiments on the synthesis of colchicine; the synthesis of 4b,5,6,7,8,8a,9,10-octahydro-2,3,4-trimethoxy-10-ketophenanthrene and its B-ring and C-ring homologs. C. D. Gutsche and F. A. Fleming. bibliog Am Chem Soc J 76:1771-5 Ap 5 '54

Syntheses in the colchicine series; products from the Stobbe condensation of methyl γ-(2 : 3 : 4-trimethoxybenzoyl) butyrate with dimethyl succinate. H. J. E. Loewenthal. Chem Soc J p3962-8 D '53

Synthetic studies on the colchicine problem; the preparation and properties of some styryltropolones. D. S. Tarbell, R. F. Smith and V. Boekelheide. bibliog Am Chem Soc J 76:2470-3 My 5 '54

COLD

See also

Cooling

Refrigeration and refrigerating machinery

Temperature, Low

COLD (disease)

Are colds costing you money? W. Schweisheimer. Am Bsns 23:16-17 D '53

COLD cathode tubes. See Vacuum tubes—Cold cathode

COLD rubber. See Rubber, Artificial

COLD storage

Air leakage and gas concentrations in commercial fruit storages. G. F. Sainsbury and F. Gerhardt. bibliog il Refrig Eng 62:61-6+ Mr '54

Effect of convection and moisture deposition on heat transmission thru cold storage test walls. H. C. Brown, jr. and L. E. Bish. il plan diags Refrig Eng 62:62-7; Discussion. 67+ Ja '54

Maintenance of quality in home-produced eggs during cold storage and during direct distribution; abstract. N. E. Holmes. Chem & Ind p636-7 Je 27 '53

Refrigeration for fur storage. plan diags Heat & Ven 51:88-92 Mr '54

See also

Refrigeration and refrigerating machinery

COLD storage warehouses

Construction of new cold stores in northern Russia; abstract. W. Matveyeff. Refrig Eng 62:114+ Mr '54

COLD treatment of aluminum. See Aluminum, Cold treatment of

COLD welding. See Welding—Cold welding

COLD working of metals. See Metals, Cold working of

COLD working of steel. See Steel, Cold working of

COLE, Albert McDonald, 1901-

Albert Cole listens at the grass roots. por Eng N 151:152 Ag 20 '53

Eisenhower finally picks new boss for HHFA. por House & Home 3:140-1 Mr '53

Housing aid; a new lease. por Bsns W p30-1 D 12 '53

COLE, R.D., manufacturing company

R. D. Cole manufacturing co. marks 100 years of achievement. il Manuf Rec 123:40 Je '54

COLE, Thomas M.

Making a big one out of a little one. pors Bsns W p 134+, cover Ag 8 '53

COLE, W. Sterling

Atoms for peace face Congress. pors Chem & Eng N 32:239-40, cover Ja 18 '54

COLGATE-PALMOLIVE-PEET company

Syndets and soaps. J. C. Clifford. Mag of Wall St 93:32-3, 44+ O 3 '53

COLISEUMS. See Amphitheaters

COLLAGEN

Degradation of collagen; a method for the characterization of native collagen. A. Veis and J. Cohen. bibliog Am Chem Soc J 76:2476-8 My 5 '54

Proposes spiral structure for collagen; abstract. M. L. Huggins. Chem & Eng N 32:3357 Ag 23 '54

Structure for collagen. F. H. C. Crick. diags J Chem Phys 22:347-8 F '54

Structure of collagen. M. L. Huggins. Am Chem Soc J 76:4045-6 Ag 5 '54

COLLECTING of accounts

Close follow-up collects bills. L. J. Hamilton. Am Gas Assn Mo 36:21-2+ Je '54

Coping with slower collections. Management R 43:47-8 Ja '54

Credit and collection experience; January 1-June 30, 1953. Am Gas Assn Mo 35:25+ N '53

Credit and collection experience; July 1-December 31, 1953. Am Gas Assn Mo 36:29+ My '54

If past-due duns lose good will, you can soft-pedal pay-up memo with Mr Russell's stickers. Sales Management 70:51 My 20 '53

Loans must be paid; Bank of America, San Francisco. J. B. Grassens. Bankers Mo 70:16+ Ag '53

Three ways to make letters do their job. I. A. Trapolin and others. Credit & Fin Management 55:10-13+ S '53

What does top management expect of the credit man? J. F. Rooney. Am Gas Assn Mo 36:27-9+ F '54

See also

Billing

Credit

COLLECTIVE bargaining

Bargaining; predict a peaceful year. Iron Age 173:49 Je 24 '54

Employees' stake in stability of steel business; need to improve collective bargaining methods. B. F. Fairless. Comm & Fin Chr 178:2158 D 3 '53

Gift or pay? union demands Richfield Oil bargain over offer to help employees buy company stock. Bsns W p86+ D 5 '53

Group security protection covers 45 per cent of population; collective bargaining for employe welfare benefit programs. P. H. Peters. East Underw 54:16 Ag 28 '53; Same. Nat Underw 57:2 S 3 '53

How to bargain with labor. J. C. Wells. Mill & Factory 53:77-9 N '53

How to handle crisis bargaining. J. H. Lind. Personnel 31:151-7 S '54

Industry's nurses and collective bargaining. Ind Med 22:268-9 Je '53

Joint action in aircraft bargaining. Bsns W p 175 O 17 '53

One way to write a union agreement; abstract. Management R 43:505-6 Ag '54

Only real issues count in contract bargaining. E. Peters. Personnel J 32:367-73 Mr '54

Opinion poll for labor. il Bsns W p 114-15 Ag 8 '53

COLLECTIVE bargaining—*Continued*

Pension plans under collective bargaining. E. K. Rowe and T. H. Paine. U S Bur Labor Statistics Bul 1147:1-23; pa 20c Supt. of doc. '53; Same. Mo Labor R 76:237-45, 484-9, 714-22 Mr, My, Jl '53

Prepare for contract negotiations. Steel 134: 78-9 Je 14 '54

Preparing for contract negotiations; abstract. Management R 43:154-5 Mr '54

Returns from questionnaire on employment conditions, 1953, summarized. Civil Eng 23: 777-8 N '53

Survey shows engineers' thinking about collective bargaining issue; American society of civil engineers. Eng N 151:28 N 12 '53

What's ahead in collective bargaining. Personnel 31:11-30 Jl '54

See also

Atomic energy labor relations panel

Employees' representation in management

Mountain states employers council

National labor relations board

Trade agreements

Trade unions—Jurisdictional disputes

Industry-wide bargaining

NLRB, in policy reversal, vetoes all-inclusive union for chemicals. Oil Paint & Drug Rep 165:3+ Mr 8 '54

NLRB reviews labor relations for chemical industry. Chem & Eng N 31:4300+ O 19 '53

COLLECTOR rings. See Slip rings

COLLEGE architecture

Cambridge university development; plan for Cambridge university's Sidgwick avenue site. il plans Arch Rec 115:149-55 Ap '54

Frear Hall, University of Hawaii. il plans Arch Rec 115:163-6 Ap '54

Ludwig Mies van der Rohe has designed another building for Illinois institute of technology's Chicago campus. il Arch Rec 116:20 Jl '54

Mies van der Rohe; Illinois institute of technology. il plans Arch Forum 97:104-7 N '52

Programming the U.S. naval postgraduate school of engineering. W. A. Netsch, jr. il plan diags Arch Rec 115:150-7 Je '54

Saarinen challenges the rectangle, designs a domed auditorium and a cylindrical chapel for MIT's laboratory campus. il plans diags Arch Forum 98:126-33 Ja '53

See also

Dormitories

COLLEGE buildings

College buildings; building types study. il plans diags Arch Rec 113:121-49 Je '53

Cornell's newest addition; a prototype veterinary school. il plans diags Arch Forum 101:136-9 S '54

Microbiology in colonial garb; Rutgers' new Institute of microbiology. il Chem & Eng N 32:2125 My 24 '54

Most controversial building in Ohio; Oberlin's auditorium. il plans diags Arch Forum 100:124-9 Ja '54

New frame, old face, for Yale's Connecticut Hall. C. B. Spencer. il Civil Eng 23:671-2 O '53

New thinking on college building; with views, plans and cost data. Arch Forum 98:116-45 Je '53

Proposed physics building for Yale university; views and plans. Arch Rec 114:141-7 S '53

Science by the sea; science building of Santa Barbara college. il Chem & Eng N 32:2704 Jl 5 '54

Theater arts center for Sarah Lawrence college. il plans Arch Forum 97:134-9 D '52

University of Wisconsin's new dairy lab. il plans Arch Rec 113:148-51 Mr '53

See also

Chemistry buildings

Dormitories

Engineering colleges

Fraternity houses

Stadiums

Air conditioning

Trend to cooling in colleges. Dom Eng 183: 254 My '54

COLLEGE chapels. See Chapels

COLLEGE education, Cost of

Mutual fund study cites rising educational costs. P. A. Johnston. Barron's 33:39-40 Ag 31 '53

COLLEGE graduates

Brain power wears a uniform. H. A. Meyerhoff. Chem & Eng N 32:1251 Mr 29 '54

Campus recruiting and the life insurance business. R. I. Mehr and R. Hedges. Nat Underw (Life ed) 58:11 Ja 29 '54

College boys are hired all year round. J. H. Collins. Pub Util 52:844-51 D 3 '53

College market in the search for personnel; banks. H. Hilton, jr. Banking 46:45+ Ag '53

College recruitment in 1954; a survey of company plans; abstract. F. S. Endicott. Management R 43:151-2 Mr '54

Employment trends for college graduates. Chem Eng 61:242 Ja '54

Industrial accounting is not drawing college graduates as it should. H. G. Avery. N A C A Bul 35:260-1 O '53

Industry goes to college to recruit new talent. Steel 134:66-7 Ap 26 '54

Interviewing the college graduate. R. S. Uhrbrock. Chem & Eng N 31:2480-2 Je 15 '53

Problems and benefits in campus recruiting of men; abstracts. G. Fergason. East Underw 55:37-8 My 28 '54; Nat Underw 58:15 Mr 25 '54

Recruiting manpower can be improved. Chem Eng 60:293-4 O '53

Scramble for 1954 grads slows down. Bsns W p 124+ D 19 '53

Tips to a college man going to work. R. N. Hilkert. Personnel J 33:10-13 My '54

COLLEGE professors and instructors

Distinguished professor at the University of Kentucky. M. M. White. J Eng Educ 43:573-4 Je '53

See also

Chemistry teachers

COLLEGE retirement equities fund

New plan for retirement stability. A. W. Viner. il Dun's R & Mod Ind 62:48-50+ S '53

COLLEGE students

Campus shopping patterns. D. F. Blankertz and others. J Retailing 30:71-4+ Summer '54

See also

Chemistry students

Employment

Earning college expenses. C. O. Brown. Ind & Eng Chem 45:sup 25A-6A N '53

Rating

Evaluation of college students. G. N. Quam. J Chem Educ 30:574-5 N '53

COLLEGES and universities

See also

Academic freedom

Engineering colleges

Harvard university

Medical colleges

Miami university

Michigan university

Accounting

College and university business administration, volume 1. Review, by R. S. Johns. J Account 97:299-306 Mr '54

Chemical departments

Chemistry at UCLA. G. R. Robertson. il plan J Chem Educ 30:526-9 O '53

Operation of a multiple stockroom; Chemistry department at the Pennsylvania state college. A. H. Holtzinger. J Chem Educ 30: 512-15 O '53

Policies on chemistry department fees. D. G. Nicholson. J Chem Educ 31:192 Ap '54

Curriculum

Building a chemistry department. M. Kilpatrick. J Chem Educ 31:247-50, 313-16 My-Je '54

Finance

Financing our universities. M. J. Charignon. Mech Eng 76:197 F '54

Needed; more help for colleges Management R 43:563-4 S '54

Gifts, legacies, etc.

To education, a $700,000 gift; Du Pont's program. Chem & Eng N 32:306+ Ja 25 '54

COLLEGES and universities—*Continued*

Patent policies

National research council surveys college patent policies for science research. Chem & Eng N 31:3384 Ag 17 '53

Relations with business

Businessman, meet educator; Industry-college conference, White Sulphur Springs. Bsns W p 129-30+ N 21 '53
Colleges; seek aid from industry. G. G. Carr. il Iron Age 172:44-5 Jl 30 '53
Corporation aid for colleges. Bsns W p 186 N 28 '53
Developing a campus recruitment program. F. S. Endicott. Management R 43:358-9 Je '54
How about a brain-trust meeting? Standard oil of California seminars for college professors. il Sales Management 73:30-1 pt 2 Jl 1 '54
How an agency cooperates in a college advertising course. F. Wittner. Adv Agency 46:100+ O '53
How Drexel institute helps companies recruit. R. R. MacMurray. Personnel J 32: 381-4 Mr '54
Industry goes to college for conferences on problems. il Steel 134:68 Je 7 '54
Life insurance must follow other industries in recruiting from colleges. R. P. Stieglitz. Nat Underw (Life ed) Daily ed 57:6 Ag 28 '53
Shortage of science teachers; suggestion that Loughborough college become an ancillary of British industry. M. Follick. Chem Age (Lond) 70:421-2 F 13 '54
Summertime stimulus; shirtsleeve professors. Chem W 75:30+ S 18 '54
Universities and industry in science. R. Adams. Chem & Ind p86-90 Ja 23 '54; Same. il Ind & Eng Chem 46:506-10 Mr '54; Excerpts. Oil Paint & Drug Rep 165:5+ Ja 25 '54; Abstract. Chem & Eng N 32:322+ Ja 25 '54

Research

Activation of the college research potential. H. F. Lewis. J Chem Educ 30:470-4 S '53
Chemical research in liberal-arts colleges in 1952. J. R. Sampey. J Chem Educ 31:14 Ja '54
Conference of Midwestern liberal arts college chemistry teachers, Appleton, Wis., Oct. 16-17. Chem & Eng N 31:4526+ N 2 '53
Federal support of basic research at a state university. H. Eyring. J Chem Educ 31: 251-2 My '54
Industrial relations research at universities; progress report, 1952-53. Personnel 30:150-64, 231-46 S-N '53
Industrial relations research at universities; progress report, 1953-54. Personnel 31:164-79 S '54 (to be cont)
Industry goes to college for answers in research. il Steel 134:68-9 Mr 15 '54
National cooperative undergraduate chemical research program. E. Cortelyou and W. P. Cortelyou. J Chem Educ 31:267-9 My '54
Neglected by the research team; liberal arts colleges of the South. J. R. Sampey. Chem & Eng N 32:1996 My 17 '54
Research and the university. J. A. Stratton. Chem & Eng N 31:2581-3 Je 22 '53
Sponsored research in a large university. R. Parmenter. J Eng Educ 44:248-52 D '53
University collaboration in pulp and paper research; summary of discussion. Pulp & Pa of Can 54:136-8 O '53
University research in industrial relations. J. D. Brown. Mo Labor R 76:136-8 F '53
Value of undergraduate research; roundtable discussion; abstract. Chem & Eng N 32:3837 S 27 '54

See also
Engineering colleges
—Research

Tuition fees

Education on the installment plan; Rensselaer polytechnic institute of Troy collaborates with Manufacturers national bank. L. V. Shakespeare. il Bankers Mo 70:28+ Ag '53

Great Britain

Eliminating the county scholar. Economist 169:955 D 26 '53
Scientists nipped in the bud. Economist 168: 89-90 Jl 11 '53
Watching the watchdog. Economist 168:438-9 Ag 15 '53

See also
Cambridge university, England
Liverpool university
Nottingham university

South Africa

Apartheid in the universities. Economist 170:83 Ja 9 '54

United States

Life at an American university. E. J. Cullen. Chem Eng Prog 49:622-3 N '53

COLLIER'S (periodical)
Collier's hurt by tv? Stouch didn't say that. Ed & Pub 86:42 My 16 '53

COLLIMATORS
Procedure for aligning an infrared monochromator with an off-side concave mirror collimator. E. Kendrick and R. Schnurmann. diag Opt Soc Am J 44:501-2 Je '54

COLLINS, Sammy
Sammy Collins on the job. pors Eng N 151:62-4, cover Ag 13 '53

COLLINS radio company
Collins typifies avionics growth. S. Altschul. Aviation W 59:52-3 N 23 '53

COLLISION phenomena
Angular correlation of mesons produced in inelastic meson-nuclear collisions. J. S. Kovacs. diags Phys R 93:252 Ja 1 '54
Binary rearrangement collision. S. Altshuler. bibliog Phys R 92:1157-9 D 1 '53
Degradation and range straggling of high-energy radiations. U. Fano. bibliog Phys R 92:328-49 O 15 '53
Effect of Coulomb barrier on meson production by nucleon-nucleus collisions. T. Kinoshita. bibliog Phys R 94:1331-4 Je 1 '54
Effect of inelastic collisions on the slowing-down length of neutrons in a hydrogenous mixture. H. C. Volkin. bibliog J Ap Phys 25:83-6 Ja '54
Elastic scattering of pions by nucleons and pion production in nucleon-nucleon collisions. J. L. Gammel. Phys R 95:209-16 Jl 1 '54
Energy exchange in molecular collisions. B. Widom and S. H. Bauer. bibliog J Chem Phys 21:1670-85 O '53
Energy transfer by means of collision in liquid organic solutions under high energy and ultraviolet excitations. M. Furst and H. Kallmann. bibliog Phys R 94:503-7 My 1 '54
Exchange between rotational and translational energy in gas molecules. J. C. Beckerle. bibliog J Chem Phys 21:2034-41 N '53
Inelastic collisions and the Molière theory of multiple scattering. U. Fano. bibliog Phys R 93:117-20 Ja 1 '54
Interchange of rotational and vibrational energy in collisions of diatomic molecules. E. H. Kerner. Phys R 92:899-900 N 15 '53
Kinematic criterion for meson production in fundamental particle collisions. R. M. Sternheimer. Phys R 93:642-3 F 1 '54
Mechanism of proton polarization in high-energy collisions. O. Chamberlain and others. Phys R 95:1105-6 Ag 15 '54
Meson production in high-energy nucleon-nucleon collisions. W. L. Kraushaar and L. J. Marks. Phys R 93:326-30 Ja 15 '54
Meson production in *n-p* collisions at cosmotron energies. W. B. Fowler and others. bibliog Phys R 95:1026-44 Ag 15 '54
Microwave determination of the probability of collision of electrons in helium. L. Gould and S. C. Brown. bibliog diags Phys R 95:897-903 Ag 15 '54
Model for collision processes in gases; small amplitude processes in charged and neutral one-component systems. P. L. Bhatnagar and others. bibliog Phys R 94:511-25 My 1 '54
Multiple production of pions in nucleon-nucleon collisions at cosmotron energies. E. Fermi. Phys R 92:452-3 O 15 '53
Nucleon-nucleus collisions at relativistic energies. G. Cocconi. bibliog Phys R 93: 1107-8 Mr 1 '54

COLLISION phenomena—*Continued*
π-Meson production in π-nucleon collisions at 1.5 Bev. W. D. Walker and others. Phys R 95:852-3 Ag 1 '54
Polarization by *p-p* collision at 439 Mev. H. G. de Carvalho and others. Phys R 94:1796-7 Je 15 '54
Quantum mechanics of collisions between diatomic molecules. C. F. Curtiss. J Chem Phys 21:2045-50 N '53
Rearrangement collisions. B. H. Bransden. Phys R 94:726 My 1 '54
Some possible relationships between π-meson nucleon scattering and π-meson production in nucleon-nucleon collisions. A. Aitken and others. bibliog Phys R 93:1349-55 Mr 15 '54
Transport properties of gases obeying a modified Buckingham (exp-six) potential. E. A. Mason. bibliog J Chem Phys 22:169-86 F '54
Use of tensor operators in nuclear collision problems. L. Wolfenstein. bibliog Phys R 92:123-5 O 1 '53

COLLISIONS at sea
British courts comment on use of radar; collision between Prins Alexander and the N. O. Rogenaes. Weekly Underw 171:233 Jl 31 '54
Turkish verdict in Lorentzon case causes relief. Weekly Underw 169:1229 N 21 '53
See also
Rule of the road at sea

COLLODION
Potentiometric determination of cations and anions with permselective collodion and protamine-collodion membrane electrodes. H. P. Gregor and K. Sollner. bibliog J Phys Chem 58:409-15 My '54

COLLOIDS
Alkali halides colored by colloidal metal. A. B. Scott, W. A. Smith and M. A. Thompson. bibliog J Phys Chem 57:757-60; Discussion. 760-1 N '53
A.C.S. Division of colloid chemistry 124th national meeting, Chicago; abstracts of papers. Chem & Eng N 31:3969-70 S 28 '53
ACS Division of colloid chemistry 28th national colloid symposium. Chem & Eng N 32:2768+ Jl 12 '54
Bactericidal action of Movidyn. R. K. Hoffman and others. Ind & Eng Chem 45:2571-3 N '53
Behavior of colloidal silicate solutions as revealed by adsorption indicators. B. Carroll and E. Freeman. bibliog J Phys Chem 58:335-8 Ap '54
Charge effects in light scattering by colloidal solutions. K. J. Mysels. bibliog J Phys Chem 58:303-7 Ap '54
Colloid chemistry applied to board-making. W. H. Birchard. Pulp & Pa of Can (Convention no) 55:244-6 [F] '54
Colloidal and surface phenomena. G. Broughton. Ind & Eng Chem 45:912-32 bibliog(p924-32); 46:898-916 bibliog(667 ref, p909-16) My '53, My '54
Electron micrographic studies in the system $BeO-In_2O_3$. C. R. Adams and W. O. Milligan. il J Phys Chem 58:219-22 Mr '54
Low concentration chemistry; investigations on the role of adsorption in radiocolloid formation. G. K. Schweitzer and W. M. Jackson. Am Chem Soc J 76:941-4 F 5 '54
Low concentration chemistry; some properties of tracer gold in solution. G. K. Schweitzer and W. N. Bishop. bibliog Am Chem Soc J 75:6330-2 D 20 '53
National colloid symposium, 27th, Ames, Iowa, June 25-27. Chem & Eng N 31:2864 Jl 13 '53
National colloid symposium, 27th, Ames, Iowa, June 25-27. J Phys Chem 57:609-86 O '53
New colloidal silver disinfectant. C. W. Chambers, L. A. Chambers and P. Kabler. Ind & Eng Chem 45:2569-71 N '53
Polyelectrolyte gels may be efficient mechanochemical engines; abstract. A. Katchalsky. Chem & Eng N 31:3548 Ag 31 '53
Production, particle characteristics, and spectra of tellurium hydrosols for spectrophotometry. R. A. Johnson. bibliog il Anal Chem 25:1013-17 Jl '53
Progressive heterogeneity in aged negative spot-test naphtha sols. G. L. Oliensis. il Am Soc T M Proc 51:1251-61 '51
Quell separation in pickle relish; hydrocolloids. E. E. Anderson and others. il Food Eng 26:131+ Ap '54
Some applications of the separation of large molecules and colloidal particles. A. Tiselius. bibliog diags Chem Soc J p2650-7 Jl '54
Spectrophotometric determination of tellurium as hydrosol. R. A. Johnson, F. P. Kwan and D. Westlake. bibliog Anal Chem 25:1017-19 Jl '53
Studies on aging and coprecipitation; aging of silver bromide in the colloidal state. I. M. Kolthoff and R. C. Bowers. bibliog il Am Chem Soc J 76:1503-9 Mr 20 '54
Studies on aging and coprecipitation; the irreversible flocculation of colloidal silver bromide and the aging in the flocculated state. I. M. Kolthoff and R. C. Bowers. il Am Chem Soc J 76:1510-15 Mr 20 '54
Use of calomel half cells to measure Donnan potentials. K. L. Babcock and R. Overstreet. Science 117:686-7 Je 19 '53
Variation of the viscosity of gelatin sols with temperature. R. J. Croome. bibliog J Ap Chem 3:330-4 Jl '53
See also
Adsorption
Aerosols
Brownian movements
Electric double layer
Electrophoresis
Emulsions
Gelation
Liesegang rings
Micelles
Polysaccharides
Silica gel
Soap

Bibliography

Colloidal and surface phenomena. G. Broughton. Ind & Eng Chem 45:924-32; 46:909-16 My '53, My '54

Spectra

Infrared spectra of aluminum soaps and soap-hydrocarbon gels. F. A. Scott and others. bibliog J Phys Chem 58:61-4 Ja '54

COLOMBIA
See also
Chemical industries—Colombia
Geology—Colombia
Income tax—Colombia
Paleontology—Colombia
Petroleum industry and trade—Colombia

Commercial policy

Colombia extends trade under certificate plan. For Comm W 50:10 N 23 '53
Colombia removes items from prohibited list. For Comm W 51:10 Ja 4 '54
Colombia requires import declarations for shipments of books, periodicals. For Comm W 50:8 Ag 24 '53
Colombia revises wheat, products trade controls. For Comm W 50:9 Ag 24 '53

Economic conditions

Economic conditions abroad (cont). For Comm W 50:5 Ag 24; 4 S 28; 5 O 19; 4+ N 23 '53; 51:5+ Ja 25 '54

COLOMBO plan. See Asia, Southeastern

COLOR
Alkali halides colored by colloidal metal. A. B. Scott, W. A. Smith and M. A. Thompson. bibliog J Phys Chem 57:757-60; Discussion. 760-1 N '53
All-purpose color; Key-Tint. Bsns W p78 N 21 '53
Amateur scientist; theory of color harmony. A. G. Ingalls. diags Sci Am 189:112-14 N '53
Application of a color-difference index to highly selective transparent specimens. A. C. Webber and F. W. Billmeyer, jr. bibliog Opt Soc Am J 43:1127-36 D '53
Automatic photoelectric colorimeter for direct reading of Munsell coordinates. G. L. Gibson and D. A. Neubrech. bibliog il diags Opt Soc Am J 44:703-12 S '54
Bleaching properties of *F* centers in KBr at 5°K. J. J. Markham and others. bibliog diag Phys R 92:597-603 N 1 '53
Color on route markers aids the motorist. J. W. Chambliss. il Pub Works 85:68-9 Mr '54

COLOR—*Continued*
Color; some facts about consumer preferences. F. Birren. Management R 42:166-7 Mr '53
Designer's approach to colour. A. Morton. Textile Inst J 45:P497-500; Discussion. P500-3 Ag '54
Effect of color on vision; discussion. S. K. Guth. Illum Eng 48:611-12 D '53
Effect of plastic flow upon color centers in alkali halide crystals. M. Ueta and W. Känzig. Phys R 94:1390 Je 1 '54
Effects of impurities on the coloration of solids by ionizing radiations. J. H. Schulman. bibliog J Phys Chem 57:749-52 N '53
How to use the color wheel. il Am Bld 75:32-3 Ag '53
Interaction of color centers with their environment. J. J. Markham. bibliog diags J Phys Chem 57:762-72 N '53
Low-temperature bleaching and restoration of color centers. A. Halperin and G. F. J. Garlick. Phys R 95:1098-9 Ag 15 '54
Rate of production of color centers in KCl and KBr by X-rays at 78°K. W. H. Duerig. bibliog Phys R 94:65-70 Ap 1 '54
Regularity of the *F*-center maxima in fused silica and α quartz. A. J. Cohen. bibliog J Chem Phys 22:570 Mr '54
Restoration of *F* and V_1 centers following low-temperature bleaching. R. V. Hesketh and E. E. Schneider. Phys R 94:494-5 Ap 15 '54
Temperature-dependent color changes in some merocyanines. Y. Hirshberg and E. Fischer. J Chem Phys 22:572-3 Mr '54
X-ray coloration of alkali halides. D. L. Dexter. bibliog Phys R 93:985-92 Mr 1 '54

See also
Automobiles—Color
Color printing
Color sense
Colorimeters and colorimetry
Colorimetric analysis
Dichroism
Dyes and dyeing
Glass, Colored
Light, Colored
Moving pictures, Colored
Package goods—Color
Phototropy
Pigments
Television—Color
Thermochromism

Standards

Regular rhombohedral lattice sampling of Munsell renotation space. G. Wyszecki. diags Opt Soc Am J 44:725-34 S '54

COLOR blindness
Congenital achromatopsia; a report of 19 cases. L. L. Sloan. bibliog Opt Soc Am J 44:117-28 F '54
Convergence of the tritanopic confusion loci and the derivation of the fundamental response functions. L. C. Thomson and W. D. Wright. bibliog Opt Soc Am J 43:890-4 O '53
Defective colour vision. F. Jordinson. bibliog Soc Dyers & Col J 69:73-6 Mr '53
H-R-R polychromatic plates. L. H. Hardy and others. bibliog Opt Soc Am J 44:509-23 Jl '54

COLOR codes
Chromaticity-confusion contours in a complex viewing situation. R. M. Halsey and A. Chapanis. bibliog diag Opt Soc Am J 44:442-54 Je '54
Color code your plant. H. E. Lordley. il diags Water & Sewage Works 101:R 134-5 pt 2 My '54
Direction by color signs for Arizona. Roads & Sts 97:68-9+ S '54
Specification and color coding of electrical wire. J. A. Pettit, jr. il Product Eng 24:19-26 Je '53

COLOR codes, Safety
Colour in the paper industry. W. Schweisheimer. Pulp & Pa of Can 55:160+ Ja '54
Color in the plant. Nat Safety N 69:36+ Mr '54
New safety color code. Factory Management 112:113 Mr '54
Out of the gray. N. A. Mason. il Nat Safety N 68:36-7+ N '53; Same. Safety Maint & Prod 107:33-4+ Ja '54
Plant's piping color code guards against accidents; American smelting and refining co. il Heating-Piping 26:110 Jl '54
Safety; ASA color code broadened to include new hazards. Iron Age 173:153-4 Mr 18 '54; Same. Nat Safety N 69:48 My '54

COLOR fastness. See Dyes, Fastness of

COLOR filters. See Light filters

COLOR glazes. See Glazes

COLOR in advertising
Color ads dominate ARF study. il Ind Marketing 39:34 Jl '54
Color advertisements get high readership. Sales Management 72:73 Je 15 '54
Color or black and white? that's the question. H. P. Scheinkopf. Ind Marketing 39:63-4 Ag '54
Color styling brightens sales in dull market; Ruberoid co.'s asbestos-cement sidings. M. Beuick. il Ptr Ink 243:40-1 Ap 3 '53
How we planned a paint company's advertising. J. H. Melum. il Adv Agency 46:82-5 N '53
Is there any way to escape the ravages of a red-hot price war? Holeproof hosiery co. D. J. Atchison. il Sales Management 73:78-80 Jl 1 '54
Kemiko sales rise on tide of trend to outdoor living. il Sales Management 71:144+ O 15 '53
Milwaukee Journal color service; syndication of color advertising. il Adv Agency 46:110+ O '53
Printing hurdles four-color advertisers should know about. M. J. Sutter. Ptr Ink 244:36-7 Ag 7 '53
Right color combination vital to truck posters. G. A. Brandenburg. Ed & Pub 86:42 My 2 '53
Rop color, it can help to cut your advertising costs. L. M. Hughes. il Sales Management 71:73-104 Ag 15 '53
R-o-p-color ups readership; study by Milwaukee journal. Sales Management 72:63 Mr 1 '54
Story of a successful business paper campaign. W. Persson. il Adv Agency 46:68-9 My '54
Technical ABC's on run-of-paper color. Ptr Ink 245:144+ sec 2 O 23 '53

COLOR in architecture
How to make a difference with color. il House & Home 6:138-9 S '54
Pennants, bow ties; and a keg of nails; Wilkinson cottage and Chermayeff studio, Wellfleet, Mass. il plans diags House & Home 6:120-5 Jl '54
Survey discloses trend to lighter roof tints. Am Bld 76:326-7 Ag '54

COLOR in house decoration
People want more color and glamour. il House & Home 5:157-9 My '54
$64 question, what color will the consumer buy this year? B. Schoenberg. il Sales Management 71:120-5 S 1 '53

COLOR in house painting
How to use the color wheel. il Am Bld 75:32-3 Ag '53

COLOR in industry
Color in the paper industry. W. Schweisheimer. Paper Ind 36:297 Je '54
Color in the plant. Nat Safety N 69:36+ Mr '54
Crescent finds how to sell battery cables; color does it. F. Borden. il Ind Marketing 39:58-60 Je '54
How to get the most out of color in your plant. F. Birren. Factory Management 112:110-12 F '54
Light, color and design. H. Ketcham. il Dun's R & Mod Ind 62:58+ Ag '53
Out of the gray. N. A. Mason. il Nat Safety N 68:36-7+ N '53; Same. Safety Maint & Prod 107:33-4+ Ja '54
Psychromatics for safety and efficiency. K. R. Gibbins. il Chem Age (Lond) 70:781-5 Ap 3 '54
Three colors from one inventory; tops for flashlight batteries; Bright star industries. il Am Mach 98:104 Ja 4 '54

See also
Color codes, Safety
Package goods—Color

COLOR in newspapers
New run-of-paper color service offered to newspapers. G. A. Brandenburg. il Ed & Pub 86:9+ Ap 4 '53

COLOR in office decoration
Color enlivens offices; offices for Cunningham & Walsh, inc. il plans diags Arch Rec 114:173-7 O '53

COLOR in package goods. See Package goods—Color

COLOR in plastic materials
Colour in plastics; abstract. C. Musgrave. Soc Dyers & Col J 70:101 F '54
Color uniformity in low pressure laminates. P. Fram, T. F. Dunne and F. Leonard. bibliog Ind & Eng Chem 46:393-6 F '54
Monsanto helps plastics customers get the feel of color. P. L. Patterson. Sales Management 71:76-8+ N 1 '53
Tile style; color styling for Styron wall tiles. il Chem W 74:82 F 20 '54
Use of organic colouring matters in plastics. C. R. M. Oehlcke. bibliog Soc Dyers & Col J 70:137-44; Discussion. 144-5 Ap '54

COLOR in the ceramic industry
Manufacture and use of color in ceramics. W. G. Coulter. il Cer Ind 62:168-9+ Ap; 80-1+ My; 101-2+ Je; 63:79-80+ Jl; 79-80+ Ag; 76-7 S; 92+ N '54
Titania enamels in all colors; abstract. W. J. Fitzpatrick. Cer Ind 62:88 Je '54
See also
Glazes

COLOR in the textile industry
Advantages and uses of spun-dyed rayon staple; Coloray. R. S. Greenwood. Mod Textiles Mag 34:52+ D '53
Colour and textiles; joint conference, Textile institute and Society of dyers and colourists, Scarborough, June 8-11; proceedings. Textile Inst J 45:P343-529 Ag '54
Color development and its relationship to fashion. H. Sisson. Am Dyestuff Rep 43:76-8 F 1 '54
Is the fashion approach to color old-fashioned? F. H. Rahr. J Retailing 29:109-14 Fall '53
Techniques for using spun-dyed rayon staple; Coloray. G. V. Lund. Mod Textiles Mag 34:44-5+ D '53
See also
Dyes and dyeing

COLOR matching
Color control by use of small color differences. L. Rudick and G. W. Ingle. bibliog il Instruments 26:400-1+ Mr '53
Colour matching and colour measurement; abstract. T. Vickerstaff and I. S. M. Walls. Soc Dyers & Col J 70:40 Ja '54
Fundamental response functions and binocular color matching. W. L. Brewer. Opt Soc Am J 44:207-12 Mr '54
Instrument development laboratories color meter; Color-Eye. R Sci Instr 24:476 Je '53
Matching USAF silvertan shade no. 193. H. R. Davidson and R. D. Haire. Am Dyestuff Rep 42:253-7 Ap 27 '53
Some commercial colour-matching lamps. J. C. Guthrie and P. H. Oliver. bibliog(26 ref) Soc Dyers & Col J 69:430-5 N '53

COLOR measurement
Automatic calculation of color differences. A. Opler and others. Opt Soc Am J 43:550-1 Jl '53
Calculation of the integral attenuation index between 400 and 700 millimicrons. F. W. Zerban and L. Sattler. bibliog Anal Chem 26:1363-5 Ag '54
Color control is moving from lab to line; optical instruments. L. E. Slater. il diag Food Eng 26:70-5+ Ap '54
Colour matching and colour measurement; abstract. T. Vickerstaff and I. S. M. Walls. Soc Dyers & Col J 70:40 Ja '54
Comparison of the MacAdam and the Adams-Nickerson indexes of color differences. G. W. Ingle and L. Rudick. Opt Soc Am J 43:501-4 Je '53
Comparison of three methods for color scaling. R. M. Halsey. bibliog Opt Soc Am J 44:199-206 Mr '54
Size of acceptable color differences. H. R. Davidson and E. Friede. Opt Soc Am J 43:581-9 Jl '53
Transformation of chromaticity diagrams. F. J. Bingley. Opt Soc Am J 44:109-12 F '54
See also
Colorimeters and colorimetry

COLOR mixing
Dependence of color-mixture functions on choice of primaries. D. L. MacAdam. Opt Soc Am J 43:533-8 Je '53
Simple graphic method for the additive mixture of two colors on the CIE chromaticity diagram. H. von Schelling. Opt Soc Am J 43:706-7 Ag '53

COLOR of packages. See Package goods—Color

COLOR of plants
Albinism resulting from certain carbonic and thiocarbonic acid derivatives of hydrazine. C. L. Rhykerd and others. Science 118:192-3 Ag 14 '53

COLOR photography
Color shows up the unknown in metallography. J. H. Powers and W. J. Loach. il Steel 133:93-6 O 19 '53
Multiple internal reflections in photographic color prints. F. C. Williams and F. R. Clapper. diags Opt Soc Am J 43:595-9 Jl '53
Objective method for determination of equivalent neutral densities of color film images. W. L. Brewer and others. Opt Soc Am J 44:460-4, 530-9 Je-Jl '54
Photographic color-forming development reaction. W. A. Schmidt and others. bibliog Ind & Eng Chem 45:1726-9 Ag '53
Photographing fluorescent lighting installations in color. W. Allphin. Illum Eng 48:639-41; Discussion. 641-2 D '53
Reproduction of colors in outdoor scenes. D. L. MacAdam. bibliog Inst Radio Eng Proc 42:166-74 Ja '54
Spectral and luminance requirements for color-transparency illuminators. A. L. Sorem and C. N. Nelson. diags Opt Soc Am J 43:689-97 Ag '53
Subtractive color photography; the role of masks. W. T. Hanson, jr. and W. L. Brewer. Opt Soc Am J 44:129-34 F '54
See also
Moving pictures,
Colored

COLOR printing
Color and color control in converting. F. L. Wurzburg, jr. il diags Paper Tr J 137:121-8 N 13 '53
Full color on polyethylene; Pepperell mfg. co. il Mod Packaging 27:150-3 Mr '54
Picture packs; transparent film packaging. il Mod Packaging 28:95-9+ S '54
Printing hurdles four-color advertisers should know about. M. J. Sutter. il Ptr Ink 244:36-7 Ag 7 '53
Subtractive color photography; the role of masks. W. T. Hanson, jr. and W. L. Brewer. Opt Soc Am J 44:129-34 F '54
See also
Silk screen printing

COLOR sense
Analysis of Taylor's data on relative luminous efficiency of various colors. C. S. Bridgman. bibliog Opt Soc Am J 44:394-6 My '54
Chromaticity-confusion contours in the complex viewing situation. R. M. Halsey and A. Chapanis. bibliog diag Opt Soc Am J 44:442-54 Je '54
Color and seeing; abstract. H. Helson. Illum Eng 49:421-2 S '54
Color and vision. H. Helson. Illum Eng 49:92-3 F '54
Color perception in small test fields. R. W. Burnham and S. M. Newhall. bibliog diags Opt Soc Am J 43:899-902 O '53
Cyanopsin, a new pigment of cone vision. G. Wald and others. bibliog Science 118:505-8 O 30 '53
Fundamental response functions and binocular color matching. W. L. Brewer. Opt Soc Am J 44:207-12 Mr '54
Perception of color in 1° fields for different states of adaptation. R. W. G. Hunt. bibliog diags Opt Soc Am J 43:479-84 Je '53
Physiology of the perception of surface colours; abstract. E. N. Willmer. Soc Dyers & Col J 70:39-40 Ja '54
Spectral sensitivity of the fovea. L. M. Hurvich and D. Jameson. bibliog(92 ref) diags Opt Soc Am J 43:485-94, 552-9; 44:213-22 Je-Jl '53, Mr '54
See also
Color blindness

COLOR sense—*Continued*

Testing

Color memory test. R. W. Burnham and J. R. Clark. il Opt Soc Am J 44:658-9 Ag '54

COLOR television. See Television—Color

COLOR temperature

Computation of the alteration of color temperature by blue filters. W. E. K. Middleton. Opt Soc Am J 44:499 Je '54

Effect of color temperature on apparent brightness. R. E. Harrington. bibliog diag Opt Soc Am J 44:113-16 F '54

See also

Black body

COLORADO

See also

Geology—Colorado
Mines and mineral resources—Colorado
Petroleum—Colorado
Roads—Colorado
Tungsten mines and mining—Colorado

COLORADO-BIG THOMPSON project

Construction of Granby pumping plant. R. J. Willson. il plan Am Soc C E Proc 79 [no 270]:1-21 S '53

Granby pumping plant foundations and design. W. R. Judd and W. H. Wolf. il maps plans diags Am Soc C E Proc 79 [no 269]:1-24 S '53

COLORADO fuel and iron corporation

Colorado fuel & iron corp.; history and expansion, raw materials. A. M. Riddle and others. flow sheet il diag Min Eng 5:1084-98 N '53; J Metals 5:1308-66 O '53

COLORADO river

Use of Colorado River water in California. R. Matthew. map Am Soc C E Proc 79 [no 347]:1-14 N '53

Hoover Dam project

Slab is anchored to wall of canyon at Hoover (Boulder) dam. il Eng N 151:25 D 17 '53

COLORADO school of mines

Built-in oil well on campus; new petroleum building, Alderson Hall. il Chem & Eng N 32:3428 Ag 30 '54

COLORED glass. See Glass, Colored

COLORED moving pictures. See Moving pictures, Colored

COLORIMETERS and colorimetry

Automatic photoelectric colorimeter for direct reading of Munsell coordinates. G. L. Gibson and D. A. Neubrech. bibliog il diags Opt Soc Am J 44:703-12 S '54

Bausch & Lomb colorimeter-spectrophotometer has wide applications. Chem & Eng N 32:3678 S 13 '54

Beckman flow colorimeter. J. F. Bishop and R. S. White. il Ind & Eng Chem 46:1432-6 Jl '54

Color control by use of small color differences. L. Rudick and G. W. Ingle. bibliog il Instruments 26:400-1+ Mr '53

Colorimeter for pyrotechnic smokes. I. Nimeroff and S. W. Wilson. diags Opt Soc Am J 44:299-302 Ap '54

Colorimetric analysis of the NTSC color television system. D. C. Livingston. diag Inst Radio Eng Proc 42:138-50 Ja '54

Colorimetry in color television. F. J. Bingley. diags Inst Radio Eng Proc 41:838-51; 42:48-57 Jl '53, Ja '54

Comparison of colorimetric results from a normal-diffuse spectrophotometer with those from a 45-degree-normal colorimeter for semiglossy specimens. W. E. K. Middleton. bibliog Opt Soc Am J 43:1141-3 D '53

Multichromatic colorimeters. J. Cohen. bibliog(42 titles) il plan diags Illum Eng 49:50-8 Ja '54

Orthogonal color-mixture functions. D. L. MacAdam. bibliog diags Opt Soc Am J 44:713-24 S '54

Propagation of errors in spectrophotometric colorimetry. I. Nimeroff. Opt Soc Am J 43:531-3 Je '53

Simple microthermostat for use in colorimetric and other optical measurements. W. J. Marshall. il diag Soc Dyers & Col J 69:202-4 Je '53

Truncated weighted ordinate integrations in colorimetry. D. L. MacAdam. Opt Soc Am J 43:622-3 Jl '53

Use of colour as a tool in scientific work; abstract. G. J. Chamberlin. Can Chem Process 38:68 Je 20 '54

Visual tricolorimeter using the C.I.E. stimuli X, Y, and Z. R. W. G. Hunt. diags J Sci Instr 31:122-4 Ap '54

Wide-range chromaticity measurements with photoelectric colorimeter. J. B. Chatten. il diag Inst Radio Eng Proc 42:156-60 Ja '54

COLORIMETRIC analysis

Absorptiometric colorimetry in the textile laboratory. C. H. Giles and I. S. Shaw. bibliog(32 ref) diags Soc Dyers & Col J 69:481-91 D '53; Abstract. Am Dyestuff Rep 43:318 My 10 '54

Analysis of cobalt. bibliog Chem Age (Lond) 69:909-12 O 31 '53

Analytical chemistry of W & Mo. bibliog Chem Age (Lond) 70:309-12 Ja 30 '54

Boron determination in soils and plants. W. T. Dible, E. Truog and K. C. Berger. bibliog Anal Chem 26:418-21 F '54

Colorimetric determination of ammonia and cyanate. J. M. Kruse and M. G. Mellon. bibliog Anal Chem 25:1188-92 Ag '53

Colorimetric determination of ascorbic acid. M. Schmall and others. Anal Chem 26:1521-2 S '54

Colorimetric determination of boron with tetrabromochrysazin. J. H. Yoe and R. L. Grob. bibliog Anal Chem 26:1465-8 S '54

Colorimetric determination of calcium pantothenate. C. R. Szalkowski and J. H. Davidson, jr. bibliog Anal Chem 25:1192-5 Ag '53

Colorimetric determination of calcium with ammonium purpurate. M. B. Williams and J. H. Moser. Anal Chem 25:1414-17 S '53

Colorimetric determination of copper with neo-cuproine. A. R. Gahler. Anal Chem 26:577-9 Mr '54

Colorimetric determination of EDTA in soaps and detergents. A. Darbey. bibliog Soap & San Chem 29:81+ Ag '53

Colorimetric determination of elemental sulfur in hydrocarbons. J. K. Bartlett and D. A. Skoog. bibliog Anal Chem 26:1008-11 Je '54

Colorimetric determination of erythromycin. J. H. Ford and others. Anal Chem 25:1195-7 Ag '53

Colorimetric determination of fluoride. M. L. Nichols and A. C. Condo, jr. bibliog Anal Chem 26:703-7 Ap '54

Colorimetric determination of fluorine in waters and soil extracts. W. M. Shaw. bibliog il Anal Chem 26:1212-14 Jl '54

Colorimetric determination of glycerol. H. D. Reese and M. B. Williams. bibliog(25 ref) Anal Chem 26:568-70 Mr '54

Colorimetric determination of iron with nitroso R salt. J. A. Dean and J. H. Lady. bibliog Anal Chem 25:947-9 Je '53

Colorimetric determination of molybdenum with mercaptoacetic acid. F. Will, 3d and J. H. Yoe. bibliog Anal Chem 25:1363-6 S '53

Colorimetric determination of niobium by molybdenum blue method. G. Norwitz and M. Codell. Anal Chem 26:1230-4 Jl '54

Colorimetric determination of nitrogen in biological materials. J. R. Polley. Anal Chem 26:1523-4 S '54

Colorimetric determination of potassium with dipicrylamine. R. Faber and T. P. Dirkse. bibliog Anal Chem 25:808-10 My '53

Colorimetric determination of propionaldehyde. L. R. Jones and J. R. Riddick. bibliog diag Anal Chem 26:1035-8 Je '54

Colorimetric determination of pyrethrins, allethrin, and furethrin. C. Cueto and W. E. Dale. bibliog Anal Chem 25:1367-9 S '53

Colorimetric determination of 2,5-pyridinedicarboxylic acid. K. L. Cheng and J. A. Riddick. Anal Chem 26:536-8 Mr '54

Colorimetric determination of rhenium; modified Tribalat method. J. M. Beeston and J. R. Lewis. Anal Chem 25:651-3 Ap '53

Colorimetric determination of strontium with chloranilic acid. P. J. Lucchesi, S. Z. Lewin and J. E. Vance. bibliog Anal Chem 26:521-3 Mr '54

Colorimetric determination of tetrachlorohydroquinone. S. Dahl. bibliog Anal Chem 25:1724-7 N '53

Colorimetric determination of thiamine in pharmaceutical products. F. J. Bandelin and J. V. Tuschhoff. bibliog Anal Chem 25:1198-200 Ag '53

COLORIMETRIC analysis—*Continued*

Colorimetric determination of uranium with dibenzoylmethane. J. H. Yoe, F. Will, 3d and R. A. Black. bibliog Anal Chem 25:1200-4 Ag '53

Colorimetric determination of vanadium(V) and its separation from copper. H. H. Willard, E. L. Martin and R. Feltham. Anal Chem 25:1863-5 D '53

Colorimetric determination of vanadium with 8-quinolinol. N. A. Talvitie. bibliog Anal Chem 25:604-7 Ap '53

Colorimetric determination of zinc and copper with 2-carboxy-2′-hydroxy-5′-sulfoformazylbenzene. R. M. Rush and J. H. Yoe. bibliog Anal Chem 26:1345-7 Ag '54

Colorimetric estimation of isonicotinic acid hydrazide. E. L. Pratt. bibliog Anal Chem 25:814-16 My '53

Colorimetric method for determining pine oil in water. J. A. Sutton. bibliog pl U S Bur Mines Rep of Invest 4990:1-15 '53

Colorimetric method for estimating 2-desoxyglucose. F. B. Cramer and G. A. Neville. Franklin Inst J 256:379-81 O '53

Colorimetric method for quantitative microdetermination of quaternary ammonium compounds. J. Fogh, P. O. H. Rasmussen and K. Skadhauge. bibliog il Anal Chem 26:392-5 F '54

Colorimetric microdetermination of boron by the curcumin-acetone solution method. L. Silverman and K. Trego. bibliog Anal Chem 25:1264-7 Ag '53

Determination of ascorbic acid by a new colorimetric reaction. M. Schmall, C. W. Pifer and E. G. Wollish. bibliog Anal Chem 25:1486-90 O '53

Determination of fluoride ion using a monohydroxy azo dye, thorium lake. J. L. Lambert. Anal Chem 26:558-60 Mr '54

Determination of oxalate ion and calcium ion by indirect colorimetry. F. Burriel-Martí, J Ramírez-Muñoz and E. Fernández-Caldas. bibliog Anal Chem 25:583-5 Ap '53

Determination of small amounts of tin with dithiol. M. Farnsworth and J. Pekola. bibliog Anal Chem 26:735-7 Ap '54

Differential method for precision colorimetric analysis. A. Ringbom and K. Österholm. diag Anal Chem 25:1798-803 D '53

Direct colorimetric method for the determination of chlorine dioxide in water. H. W. Hodgden and R. S. Ingols. bibliog Anal Chem 26:1224-6 Jl '54

Field testing quaternaries. G. B. Johnson. il Soap & San Chem 29:114-15+ Jl '53

Forms of silicate available for colorimetric determination. D. Tung-Whei Chow and R. J. Robinson. bibliog Anal Chem 25:646-8 Ap '53

Improved colorimetric determination of urinary 17-ketosteroids. H. Werbin and S. Ong. bibliog diags Anal Chem 26:762-4 Ap '54

Methods for analysis of titanium alloys; colorimetric determination of silicon in titanium alloys. M. Codell, C. Clemency and G. Norwitz. bibliog Anal Chem 25:1432-4 O '53

Methods for analysis of titanium alloys; colorimetric determination of small amounts of aluminum in titanium alloys. M. Codell and G. Norwitz. bibliog Anal Chem 25:1437-8 O '53

Methods for analysis of titanium alloys; colorimetric determination of small amounts of boron in titanium alloys. M. Codell and G. Norwitz. bibliog diag Anal Chem 25:1446-9 O '53

New color reagent for determination of hexoses; determination of glucose in blood serum. B. Klein and M. Weissman. bibliog Anal Chem 25:771-4 My '53

Quercetin as colorimetric reagent for determination of zirconium. F. S. Grimaldi and C. E. White. bibliog Anal Chem 25:1886-90 D '53

Rapid estimation of mill product purity by transparency measurement. S. C. Sun and others. il diag Min Eng 6:Trans 919-22 S '54

Rapid microcolorimetric determination of dissolved oxygen. W. F. Loomis. bibliog Anal Chem 26:402-4 F '54

Separation of palladium from lead and the colorimetric determination of palladium with potassium iodide. J. G. Fraser, F. E. Beamish and W. A. E. McBryde. Anal Chem 26:495-8 Mr '54

Separation of platinum and palladium and their subsequent colorimetric determination with *p*-nitrosodimethylaniline. J. H. Yoe and J. J. Kirkland. bibliog Anal Chem 26:1335-9 Ag '54

Simultaneous colorimetric determination of copper, cobalt, and nickel as diethyldithiocarbamates. J. M. Chilton. bibliog Anal Chem 25:1274-5 Ag '53

Simultaneous determination of penicillin and penicilloic acid in fermentation samples by a colorimetric method. S. C. Pan. bibliog Anal Chem 26:1438-44 S '54

Small amounts of uranium in the presence of iron. L. Silverman, L. Moudy and D. W. Hawley. bibliog Anal Chem 25:1369-73 S '53

Some applications of the Komarowsky reaction. S. Dal Nogare and J. Mitchell, jr. bibliog Anal Chem 25:1376-9 S '53

Spectrophotometric study of *p*-nitrosodimethylaniline as a sensitive colorimetric reagent for platinum. J. J. Kirkland and J. H. Yoe. bibliog Anal Chem 26:1340-4 Ag '54

COLORIMETRY. See Colorimeters and colorimetry

COLORING matter in food

Coaltar dye for food, drug usage. W. M. Wheeler. Oil Paint & Drug Rep 166:5 Ag 23 '54

Drug and cosmetic makers fight HEW on bar to three coaltar colors. Oil Paint & Drug Rep 165:3+ Mr 8 '53

FDA will hold hearings Jan. 19 on decertification of three dyes. Oil Paint & Drug Rep 164:3+ D 28 '53

No more red hots? FDA to ban three coal tar dyes used in hot dogs, oranges, and cake. Chem & Eng N 32:501-2 F 8 '54

Potential bellyaches; dyes used in foods are candidates for decertification. Chem W 73:13 D 12 '53

Three colors going off approved list. Food Eng 26:234 S '54

COLORIZER associates

Spreading the spectrum. il Chem W 74:80+ Je 19 '54

COLORPLEXER. See Television—Color

COLORS

Recent developments in chemical colors. H. A. Wakefield. Paint Oil & Chem R 117:44-5 Ap 8 '54

See also

Color

COLORTRON. See Television—Color

COLTHROP board and paper mills, limited

Statement by the chairman. F. W. J. Smith. Economist 168:420 Ag 8 '53

COLTON chemical company

True to form; Air reduction co. acquires assets and business. Chem W 74:15 My 29 '54

COLUMBIA, South Carolina

Columbia industrial district. Manuf Rec 123:31 Je '54

COLUMBIA gas system inc.

Proposed expansion. Comm & Fin Chr 178:1666 N 2 '53

Votes usual dividend; net likely to improve this year. Barron's 34:33 Ja 11 '54

COLUMBIA pictures corporation

Full schedule of releases brightens outlook. Barron's 33:22 N 23 '53

COLUMBIA records, inc.

Columbia marks fifth lp year as record industry heads for new high. il Bsns W p50-2+ Ag 8 '53

COLUMBIA river

Distribution of radioisotopes. R. F. Foster and R. E. Rostenbach. Am Water Works Assn J 46:633-40 Jl '54; Abstract. Water & Sewage Works 101:342-3 Ag '54

Power utilization

Calendar of new generation; U.S. Columbia River power system; tabulation. Elec West 112:95 F '54

Dalles dam, a $350-million giant. il map Eng N 151:29-32 O 22 '53

COLUMBIA river—Power utilization—*Cont.*
First McNary power goes on the line. F. S. Tandy. il Elec West 112:68-70 Ja '54
Hydroelectric power in the Columbia basin. M. W. Lee. J Bsns 26:173-89 Jl '53

COLUMBIA university

Center for improving group procedures

Columbia university opens new center to improve group procedures. Sales Management 71:73-4 pt 2 O 1 '53

COLUMBIUM. See Niobium

COLUMBUS, Ohio
Columbus stresses planning to insure capital's future. il Eng N 151:49-50+ Ag 13 '53
Hotel-recreation provided in 60-acre office city. Eng N 152:51-2 Ap 15 '54
Planning on the cuff. Bsns W p 112 D 5 '53

COLUMBUS and southern Ohio electric company
Greater operating efficiency. Barron's 33:21-2 S 21 '53
Stock offered. Comm & Fin Chr 178:1984 N 23 '53

COLUMNS
Buckling and stability; forty-first Wilbur Wright memorial lecture. N. J. Hoff. il diags Roy Aeronautical Soc J 58:3-52 bibliog(106 titles, p49-52) Ja '54; Abstract. Engineering 177:13-15 Ja 1 '54
Columns bear on floor insulation; Luick ice plant. il diag Eng N 151:43 Jl 9 '53
Nonexistence of a finite critical time for linear viscoelastic columns. J. Kempner and F. V. Pohle. J Aeronautical Sci 20:572-3 Ag '53
Plastic buckling of eccentrically loaded aluminum alloy columns. J. W. Clark. il diags Am Soc C E Proc 79 [no 299]:1-19 O '53; Correction. 79 [no 374]:17 D '53
Strength of columns elastically restrained and eccentrically loaded. P. P. Bijlaard and others. bibliog diags Am Soc C E Proc 79 [no 292]:1-52 O '53

COLUMNS, Concrete
Air placement cuts column concreting costs. il Constr Methods 35:59-61 D '53
Shearing strength of anchor bolts embedded in concrete; abstract. S. Thompson. Am Concrete Inst J 25:sup7-8 D '53
Simpler column ties. G. Beeth. bibliog il Am Concrete Inst J 25:602-4 Mr '54

COLUMNS, Steel
Plastic deformation of wide-flange beam-columns. R. L. Ketter and others. bibliog diags Am Soc C E Proc 79 [no 330]:1-53 N '53

COMBINATION packages. See Package goods —Combination packages

COMBINED English mills (spinners), limited
Statement by the chairman. J. Reynolds. Economist 169:989 D 26 '53

COMBINED locks paper company
Stock offered. Comm & Fin Chr 178:664 Ag 24 '53

COMBUSTION
Apparatus for measuring the products from, and the oxygen required in, the combustion of gases. W. J. Gooderham. bibliog diag Chem & Ind p477-8 My 16 '53
Apparatus for wet combustion of organic compounds containing carbon-14. J. G. Burr, jr. diag Anal Chem 26:1395-6 Ag '54
Characteristics of a vaporizing combustor for aviation gas turbines. W. D. Pouchot and J. R. Hamm. diags A S M E Trans 76:801-7 Jl '54
Combustion. F. T. McClure and W. G. Berl. bibliog(42 ref) il Ind & Eng Chem 45:1415-25 Jl '53
Combustion facts. P. Swain. Power 98:142 Mr; 148+ Ap; 150 My; 152 Je; 144 Jl; 140 Ag; 142 S; 152 O '54
Combustion gas data; data sheet. R. F. Clothier. Power 98:107 Jl '54
Combustion of a low-volatility fuel in a turbojet combustion chamber; effects of fuel vaporization. V. V. Holmes and others. bibliog A S M E Trans 75:1303-10 O '53
Combustion rate of artificial graphites from 700°C to 2000°C in air. J. Okada and T. Ikegawa. bibliog J Ap Phys 24:1249-50 S '53
Combustor performance with instantaneous mixing; ram-jet power plants. W. H. Avery and R. W. Hart. bibliog Ind & Eng Chem 45:1634-7 Ag '53
Development of improved automotive Diesel combustion system. B. Loeffler. il diags S A E J 62:59-62 Je '54
Factors controlling the combustion of zirconium powders. H. C. Andersen and L. H. Belz. bibliog(30 ref) Electrochem Soc J 100:240-9 My '53
Graphical solutions for power engineers; figuring combustion air-to-fuel ratios. P. J. Grogan. Power Eng 58:76-7 My '54
Heat technology; combustion theory and practice. W. P. Jensen. diags Chem Eng 60:190-4+ Je '53
High temperature combustion chamber. A. Weir, jr. bibliog il diags Ind & Eng Chem 45:1637-44 Ag '53
Interface extension versus upper limiting time-mean energy-release rates of constant-pressure steady-state combustion process. W. J. Wohlenberg. diags A S M E Trans 76:679-88 My '54
Lecture demonstrations of incendiaries. M. Antelman. J Chem Educ 30:134-5 Mr '53
Products of combustion in burning buildings. F. E. T. Kingman, E. H. Coleman and D. J. Rasbash. bibliog plans diags J Ap Chem 3:463-8 O '53
Products of combustion of chlorinated plastics. E. H. Coleman and C. H. Thomas. bibliog diag J Ap Chem 4:379-83 Jl '54
Pulsating combustion. H. Kallen; F. H. Reynst. il diags Power 98:88-91 Ag; 88-92+ N '54
Thermodynamics of combustion gases; temperatures of acetylene-air flames. R. W. Smith, jr. and others. bibliog U S Bur Mines Rep of Invest 5035:1-14 '54

See also
Boilers—Firing
Bunsen burner
Detonation
Flame propagation
Flames
Fuel
Gas burners
Internal combustion engines—Combustion research
Oxidation
Oxyacetylene flame
Spontaneous combustion

COMBUSTION, Heat of
Heats of combustion of the five-carbon fatty acids and their methyl and ethyl esters. C. K. Hancock, G. M. Watson and R. F. Gilby. bibliog J Phys Chem 58:127-9 F '54
Rotating combustion bomb for precision calorimetry; heats of combustion of some sulfur-containing compounds. W. N. Hubbard, C. Katz and G. Waddington. bibliog diags J Phys Chem 58:142-52 F '54

COMBUSTION, Spontaneous. See Spontaneous combustion

COMBUSTION, Submerged
More on submerged combustion. W. I. Weisman. Chem Eng 60:152+ Ag '53

COMBUSTION analysis
Analytical procedures using a combined combustion-diffusion vessel. N. Baker, H. Feinberg and R. Hill. bibliog diags Anal Chem 26:1504-6 S '54
Analytical procedures using a combined combustion-diffusion vessel. J. Katz, S. Abraham and N. Baker. bibliog diags Anal Chem 26:1503-4 S '54
Assessment of individual sources of error in the combustion method for the determination of sulphur in steel; mild steel. T. B. Smith, A. Backhouse and P. Woodward. bibliog diag J Ap Chem 4:75-82 F '54
Automatic combustion apparatus for determination of sulfur and halogen. T. T. White and others. il diags Anal Chem 25:1664-8 N '53
Determination of carbon in tantalum. A. F. Torrisi, J. L. Kernahan and R. E. Fryxell. diags Anal Chem 26:733-4 Ap '54
Determination of sulfur by peroxide bomb decomposition and amperometric titration. B. Warshowsky, T. E. Shook and E. J. Schantz. Anal Chem 26:1051-3 Je '54
New combustion apparatus employs high frequency heating. B. W. Thomas. Ind & Eng Chem 46:sup85A Ap '54
New flux for determination of total carbon in silicon carbide. P. L. Norton. Anal Chem 25:1761-2 N '53
Sealed-tube combustion for determination of carbon, hydrogen, and nitrogen. W. Kirsten. diags Anal Chem 26:1097 Je '54
Sulfur in ores, concentrates, and other metallurgical samples. W. G. Rice-Jones. bibliog diag Anal Chem 25:1383-5 S '53

COMBUSTION analysis—*Continued*
Volumetric determination of carbon and hydrogen in organic microcombustion analysis. A. Johansson. bibliog diag Anal Chem 26:1183-5 Jl '54

COMBUSTION engineering, inc.
Stepping up steam power. il Bsns W p 136+ N 14 '53

COMBUSTION institute
Combustion institute announced. Chem & Ind p 1041 Ag 21 '54

COMBUSTION research
Chemical Engineering unit processes; combustion. B. Lewis and G. von Elbe. Ind & Eng Chem 45:1921-35 bibliog(613 ref, p 1930-5) S '53
Flame-stability studies with mixed fuels. P. F. Kurz. bibliog plan diags Ind & Eng Chem 45:2072-8 S '53
Flame zone spectroscopy of solid propellants. R. G. Rekers and D. S. Villars. il diags R Sci Instr 25:424-9 My '54
Fluid dynamics and combustion research laboratory at Baden; Brown Boveri and co. il diags Engineer 196:494-5 O 16 '53; Engineering 176:609-13 N 13 '53
Formation and combustion of smoke in Bunsen flames. T. P. Clark. il diags Ind & Eng Chem 45:2785-9 D '53
Reaction processes leading to the spontaneous ignition of hydrocarbons. C. E. Frank and A. U. Blackham. bibliog Ind & Eng Chem 46:212-17 Ja '54
See also
Electric ignition
Internal combustion engines—Combustion research

COMET (airplane). See Airplanes, Jet propelled

COMICS (books, strips, etc.)
Printers' ink 1954 advertisers' annual; comic books and comic magazines. Ptr Ink 245: 297-9 sec 2 O 23 '53
See also
Newspapers—Comic strip

COMMERCE
Butter for Soviet guns. Economist 170:225 Ja 23 '54
End of the dollar famine? Economist 168: 460-1 Ag 15 '53
Foreign trade; key to world peace and prosperity. S. C. Allyn. Comm & Fin Chr 178: 2371+ D 17 '53
Greater trade between United States, United Kingdom, and rest of sterling area possible; Lewis W. Douglas report. Chem & Eng N 31:3600+ S 7 '53
Haven for world trade thinking. il Bsns W p 100-3 Ag 8 '53
Mission to Moscow; promoting trade with iron curtain countries. Economist 169:573 N 21 '53
Mr Stassen on East-West trade. Economist 169:32-3 O 3 '53
Multilateral trade will cure free world's economic ills. A. Wiley. Comm & Fin Chr 178:1848-9 N 12 '53
New climate; East-West trade is bound to grow. J. Chamberlain. Barron's 33:3+ S 28 '53
Trade studies by U.N. and Brookings institution report on improved European dollar position and world trade. Bsns W p 139 Ag 15 '53
Trading with the ruble area. V. L. Horoth. map Mag of Wall St 93:611-13+ F 20 '54
U.S. industry and world trade. E. I. McClintock. Chem & Eng N 32:774 F 22 '54
See also
Aeronautics, Commercial
Balance of payments
Banks and banking
Barter, International
Business
Commercial policy
Commercial statistics
Competition
Credit
Embargo
Exhibitions
Export trade
Foreign exchange
Free trade and protection
Imports
Insurance, Marine
Interstate commerce commission
Marketing
Merchandizing
Merchant marine
Money
Ports
Prices
Purchasing
Shipment of goods
Shipping
Stocks
Tariff
Transportation
Trusts, Industrial—International trusts
also subdivision Commerce under names of countries, e.g. Argentina; France; Great Britain; Japan; United States

Bibliography

World trade publications. Published irregularly in Foreign commerce weekly

COMMERCE, Department of. See United States—Commerce, Department of

COMMERCIAL aeronautics. See Aeronautics, Commercial

COMMERCIAL buildings
Big opportunities in commercial building. il plans diags Am Bld 75:52-5+ O '53
Commercial buildings; a rare opportunity and its challenge; building types study. il plans Arch Rec 113:162-84 My '53
Four commercial buildings styled for a suburban setting. il plans Am Bld 76:118-22 Je '54
How small commercial builder creates business. il Am Bld 76:56+ F '54
Non-residential building and rental housing. R. Stein. il Am Bld 76:181-3 Ag '54

COMMERCIAL chemical development association
Annual meeting, 10th, New York, March 18; with abstracts of papers. Oil Paint & Drug Rep 165:7+ Mr 22 '54
Fall meeting, Boston, Oct. 15. Oil Paint & Drug Rep 164:4+ O 19 '53
Meeting, St Louis; abstracts of papers. Chem & Eng N 32:396-7 F 1 '54
Winter meeting, St Louis. Oil Paint & Drug Rep 165:7, 54-5 Ja 25 '54

COMMERCIAL correspondence
Adjustment letters handbook. J. Prout. 288p Prentice-Hall, 70 Fifth av, New York 11 '54 ($4.95)
Business letter magic. K. B. Horning. Life Ins Courant 59:15-17 Mr '54
Don't be a word rambler! C. Bury. Sales Management 72:142 Ap 15 '54
Don't let letters shrink your profits! abstract. R. H. Morris. Management R 43: 430-1 Jl '54
How to make friendly contact with your reader. C. Bury. Sales Management 73:62 Jl 1 '54
How to put warmth and friendliness into your letters. R. E. Smallwood. Sales Management 70:42-5 Ja 15; 84-5+ F 15; 98-101 Mr 15; 140-3 Ap 15; 112-14 Je 15 '53
Letter from Karachi. K. M. Chrysler. Ptr Ink 244:100 Jl 17 '53
Mutual of New York surveillance of letter writing. C. Cefola. East Underw 55:160 pt 2 O 1 '54
Poor letters are a luxury! abstract. R. H. Morris. Management R 43:165-6 Mr '54
Stop rewriting good letters! abstract. A. Ames. Management R 42:385-6 Jl '53
Three letters that show the importance of being personal. K. G. Merrill. Ptr Ink 243: 48 Je 26 '53
Three ways to make letters do their job. I. A. Trapolin and others. Credit & Fin Management 55:10-13+ S '53
Wordy, woozy, wasteful! C. Bury. Sales Management 72:44 Mr 15 '54
Your letters; winners or losers? how to correct mistakes. C. Bury. Sales Management 72:46 Ap 1 '54
See also
Applications for positions
Collecting of accounts
Complaints
Dictation
Mail order business
Sales letters

Bibliography

Current reading list for sales executives and salesmen; correspondence and business English. Sales Management 72:92+ Ap 1 '54

Study and teaching

Letter writing pictured; NYLIC film strip; for branch office personnel and others. Spectator 162:30-1 Ap '54

COMMERCIAL credit company
Comparison of two giants. P. Dobbs. Mag of Wall St 93:201+ N 14 '53
Highlights. Comm & Fin Chr 178:568 Ag 17 '53

COMMERCIAL discount corporation

Preferred stock offering. Comm & Fin Chr 178:2571 D 28 '53

COMMERCIAL law

Legal rulings and opinions. Credit & Fin Management 56:25 Ja '54 [cont monthly]

Legislative and judicial developments in marketing. W. F. Brown, ed. Published in monthly numbers of Journal of marketing

Uniform commercial code. T. B. Paton. Banking 46:56 D '53; 72 Ja; 88+ F; 70+ Mr; 58-9 Ap; 78+ My; 74-6 Je; 47:72+ Jl '54

Uniform commercial code; with summary of 1953 legislative action. Banking 46:82-3 Ag '53

See also

Advertising—Laws and regulations
Banking law
Corporation law
Foreign exchange
Government regulation of industry
Income tax
Insurance law
Mortgages
Patent laws and legislation
Prices—Regulation
Sales
Trade marks—Law
Trusts, Industrial
Trusts and trustees
Warranty

Examinations

Uniform certified public accountant examination in commercial law. J Account 97:609-18 My '54

COMMERCIAL paper

Commercial paper and bankers' acceptances outstanding, Dec. 1947-1951 and monthly Nov. 1952-Nov. 1953. Fed Res Bul 40:54 Ja '54 [cont monthly]

COMMERCIAL policy

Randall commission recommends tariff cuts and customs revisions. Oil Paint & Drug Rep 165:3+ Ja 25 '54

Shake-up in world trade coming. il Steel 133:38-9 D 28 '53

Summary of foreign control regulations applying to imports from the United States; revised as of Oct. 15; tabulation. For Comm W 50:10-12 N 2 '53

Your stake in the battle of Chief Joseph dam. A. G. Mezerik. Sales Management 71:56-60 Jl 15 '53

See also

Barter, International
Commercial treaties and agreements
Dumping (commercial policy)

also subdivision Commercial policy under names of countries, e.g. Brazil; United States

COMMERCIAL products

Exemption of standard commercial articles from renegotiation urged. C. W. Kable, jr. Credit & Fin Management 55:16 N '53

COMMERCIAL statistics

Yearbook of international trade statistics, 1952. 384p pa $4 United nations, Dept. of economic affairs; for sale by International documents service, Columbia univ. press, 2960 Broadway, New York 27 '53

COMMERCIAL travelers insurance organizations, International federation of. See International federation of commercial travelers insurance organizations

COMMERCIAL treaties and agreements

Argentina, Paraguay sign agreement on economic union; trade stressed. For Comm W 50:9 S 21 '53

Argentina signs pact with Hungary. For Comm W 50:8 S 28 '53

Argentina signs pact with U.S.S.R.; bigger volume of trade planned. For Comm W 50:7 Ag 31 '53

Argentina, Yugoslavia revise trade agreement. For Comm W 50:11 S 21 '53

Argentine, Chile sign treaty to promote economic unity and trade. For Comm W 50:9 Ag 10 '53

Brazil agreement at last on commercial debts to British exporters. Economist 169:122 O 10 '53

Brazil-French pact plans larger trade. For Comm W 50:12 S 21 '53

Brazil tries it on; Anglo-Brazilian commercial and financial negotiations. Economist 168:278 Jl 25 '53

Brazil, West Germany sign new agreements. For Comm W 50:6 O 12 '53

Britain's démarche at Gatt. Economist 168:713-14 S 12 '53

Burma ends agreement with India. For Comm W 50:9 Ag 3 '53

Chile and Spain agree to amplify agreement. For Comm W 51:6 Ja 25 '54

Chile-West German pact eases licensing. For Comm W 51:9 Ja 25 '54

Columbia, Uruguay set terms of trade. For Comm W 51:10+ Ja 25 '54

Colombia and France conclude new pact. For Comm W 50:12 N 23 '53

CRI schedules hearings on proposals to be considered at GATT session. For Comm W 50:28 S 7 '53

Cuba, West Germany conclude agreements. For Comm W 50:8 Ag 3 '53

Danish export quotas raised under new trade agreement with Western Germany. For Comm W 51:8 Ja 25 '54

Denmark signs protocol with U.S.S.R.; signs agreement with Spain. For Comm W 50:11 Ag 10 '53

Ecuador signs pacts with West Germany. For Comm W 50:8 S 14 '53

Egypt ratifies Arab league pacts; provisions effective Dec. 12. For Comm W 50:8 D 28 '53

Egyptian-Turkish pacts in effect. For Comm W 50:10 N 23 '53

Eighth GATT session closes in Geneva. For Comm W 50:7+ N 2 '53

Financial discussions in spate; United Kingdom and foreign countries. Economist 169:772 D 5 '53

France gets Russian trade. Economist 168:249 Jl 25 '53

General agreement on tariffs and trade 8th session of contracting parties, Geneva. Chem & Eng N 31:4690+ N 9 '53

GATT nations urged to reduce tariffs an additional 30 percent; 8th session, Geneva. Oil Paint & Drug Rep 164:3+ N 2 '53

GATT runs the gauntlet. Chem & Eng N 32:3866+ S 27 '54

Great Lakes commerce treaty asked in Senate. Weekly Underw 170:184 Ja 16 '54

Greece renews Chile, Uruguay trade pacts. For Comm W 51:7 Ja 18 '54

Greece signs new pacts with Turkey, Bulgaria. For Comm W 51:8 Ja 18 '54

Grumbling at Gatt. Economist 168:657 S 5 '53

India and U.S.S.R. sign trade, payments pact. For Comm W 50:7 D 21 '53

India, Czechoslovakia sign trade agreement. For Comm W 50:7 D 21 '53

India enters agreement with Bulgaria. For Comm W 50:10 Ag 3 '53

Ireland signs agreement with Italy. For Comm W 50:8-9 Ag 17 '53

Japan before Gatt. Economist 169:51-2 O 3 '53

New agreements signed by Japan and Thailand. For Comm W 50:5 O 12 '53

New ideas for Gatt. Economist 170:259 Ja 23 '54

New protocol promotes exchange of goods between Argentina, Germany. For Comm W 50:7 Ag 24 '53

New Swedish-Yugoslav protocol concluded. For Comm W 50:11 N 23 '53

Opening sallies at Gatt; 8th session. Economist 168:873 S 26 '53

Peron's deal with Moscow. Economist 168:93 Jl 11 '53

Preferences and Europe. Economist 168:771 S 19 '53

President signs Trade agreements extension act of 1953; statement. For Comm W 50:19 Ag 17 '53

Request for the waiver. Economist 168:873-4 S 26 '53

Reviewing Gatt; year ahead. Economist 169:350 O 31 '53

Senate gives approval to seven new general commercial treaties. For Comm W 50:19 Ag 3 '53

Swiss, West Germans sign new agreement. For Comm W 51:9 Ja 18 '54

Threat of hodgepodge trade pacts. F. E. Wormser. Comm & Fin Chr 178:1332 O 8 '53

Trade agreements bill passed. For Comm W 50:19 Ag 10 '53

Trade pact with Russia; Argentina's deal is O.K. with U.S. Bsns W p 140 Ag 15 '53

COMMERCIAL treaties and agreements—*Continued*

United States and Uruguay effect tariff concessions negotiated under GATT. For Comm W 51:9 Ja 4 '54

US scored for ceding tariff power to GATT. Oil Paint & Drug Rep 166:3+ S 20 '54

COMMITTEE on international drug standards. See United States—International drug standards, Committee on

COMMITTEES (in management)

Functions of committee; real uses of much-abused form of group operation. W. R. Spriegel and J. K. Bailey. Advanced Management 18:12-14 D '53

GM command thrives on committee rule. R. D. Raddant. Iron Age 174:96+ S 9 '54

In conference. R. F. Bales. Harvard Bsns R 32:44-50 Mr '54

Management by committee; how it works at Compo. C. W. O'Conor. Sales Management 71:24-5+ O 1 '53

COMMODITY credit corporation

What the C.C.C. loan plan means to banking. E. Tyng. il Burroughs Clearing House 38:32-3+ N '53

COMMON carriers. See Carriers

COMMON trust funds. See Trusts and trustees—Common trust funds

COMMONWEALTH development finance corporation

Capital for the Commonwealth; semipublic corporation will promote investment in dollar-earning industries in undeveloped parts of sterling area. Bsns W p 102-3 Ag 22 '53

COMMONWEALTH economic conference

Commonwealth confers. Economist 169:46 O 3 '53

COMMONWEALTH Edison company

Public utility securities. O. Ely. Comm & Fin Chr 179:353 Ja 21 '54

Security I like best. J. W. Leason. Comm & Fin Chr 179:54 Ja 7 '54

Wage chronology, 1945-52. D. T. Bond and M. R. Robbins. Mo Labor R 76:404-11 Ap '53

COMMUNICATION

Administrator's skill; communication. F. J. Roethlisberger. Harvard Bsns R 31:55-62 N '53

Communicating with employees during a strike; survey of company practices. Personnel 31:60-5 Jl '54

Communications, Chemical engineering progress symposium series no. 8, vol. 49 (1953); abstracts. Chem Eng Prog 50:124 Mr '54

Communications in employment relations; proceedings of a conference held April 14-15, 1953, with the cooperation of the Twin Cities chapter of the Society for advancement of management through the Center for continuation study, University of Minnesota. (Research and tech. rep. 14) 48p pa $1.50 W. C. Brown co. Dubuque, Iowa '53

Communications in the gas industry. H. H. Carlson. diags Am Gas J 179:19-22 D '53

Communications; person-to-person; Hooker electrochemical co. il Chem W 74:38-40 My 29 '54

Communications; the responsibility of management and the management engineer. A. W. Rathe. J Eng Educ 43:524-7 My '53

Communications; what are employees really interested in? P. F. Drucker. Advanced Management 18:23-4 D '53

Creating the organizational atmosphere for improved communication. H. D. Kolb. Personnel 30:482-7 My '54

Cutting communications cost between field and home office. R. R. Ewart. Am Bsns 24:32-3+ Ag '54

Effective English; make it work for you; communicating to workers, the stockholders, and community. M. Graney. Dun's R & Mod Ind 63:46-7+ Ja '54

Employee communications key to teamwork. Steel 134:48-9+ Ja 18 '54

How management communicates with employees. T. A. Mahoney. Personnel 31:109-14 S '54

How to get facts across to workers. M. A. Cross. Textile World 104:113+ S '54

How well do you pass the word along? P. R. Beall. Advanced Management 18:13-16+ Jl '53

Improve your industrial communications. il Steel 135:48-50 Jl 26 '54

Industrial communications. R. E. Lee. Pub Util 53:669-70 My 27 '54

Information transfer, a new unit operation? M. Sittig. bibliog il Chem Eng Prog 49:325-9 Je '53

Informed directorate has little difficulty in solving problems. C. M. Hulings. Ind & Eng Chem 46:sup95A-6A Ap '54

Lack of communication results in economic losses. A. P. Beutel. Ind & Eng Chem 46: sup 105A-6A+ Mr '54

Leaders must speak up! T. Wolff. Personnel 30:421-33 My '54

New ideas, more of the old spark communications in 1953. R. Newcomb and M. Sammons. il Ind Marketing 38:116+ D '53

New science of thinking for communicating, training, problem-solving; general semantics. M. L. Jones. il Dun's R & Mod Ind 62:43-5+ D '53

Pause for pleasure; Bavelas from MIT addresses Colgate-Palmolive's Research dept. Chem W 74:26 Je 26 '54

Railroad checks on its communications; Chesapeake and Ohio railway co. F. J. Householder, jr. Personnel J 32:413-15 Ap '54

Rigley uses instinct and brotherhood in whirlwind Minute Maid campaign. Ind Marketing 39:65 F '54

Semantic stumbles; problem of company communications, Commercial chemical development association. Chem W 74:22 Ap 3 '54

Semantics; the foundation of all business communications. M. Maloney. bibliog Advanced Management 19:26-9 Jl '54

Slow mail and poor service make disgruntled salesmen. J. Katz. Sales Management 71: 96-7 S 1 '53

Stronger than words the executive utters are attitudes underlying behavior; abstract. C. D. Flory. Chem & Eng N 32:1258 Mr 29 '54

Top-level sales communications; how companies get the facts to sales executives. J. K. Blake. il Dun's R & Mod Ind 63:48-51+ Ja '54

Trends in company communications programs; abstract. Management R 43:216-17 Ap '54

Your men are listening, but can they hear you? W. E. Brunauer. Sales Management 71:30-2+ Ag 1 '53

See also

Electric communication

Employment management—Information sharing

Moving pictures in industry

Speech

COMMUNICATION, Electric. See Electric communication

COMMUNICATION, Factory. See Factory communication

COMMUNICATION, Mathematical theory of. See Communication, Theory of

COMMUNICATION, Military

Communications. Aviation W 59:320+ Ag 17 '53

See also

Radio communication, Military

COMMUNICATION, Theory of

Application of information theory to data-transmission systems, and the possible use of binary coding to increase channel capacity. J. F. Coales. bibliog diag Inst E E Proc 100 pt 3:291-302 S '53

Concerning photographic grain, signal-to-noise ratio, and information. P. Fellgett. bibliog il diags Opt Soc Am J 43:271-82 Ap '53

Detection of sure signals in noise. R. C. Davis. bibliog J Ap Phys 25:76-82 Ja '54

Information loss attending the decision operation in detection. D. Middleton. J Ap Phys 25:127-8 Ja '54

Information theory and clerical systems. R. A. Fairthorne. bibliog J Doc 9:101-16 Je '53

Information theory and knowledge. D. K. C. MacDonald. bibliog diag J Ap Phys 25:619-22 My '54; Discussion. A. Gamba. 25:1549 D '54

Information theory and uncertainty principle. L. Brillouin. diags J Ap Phys 25:887-93 Jl '54

Nature of the statistical observer. D. Middleton. J Ap Phys 25:127 Ja '54

COMMUNICATION, Theory of—*Continued*

Negentropy and information in telecommunications, writing, and reading. L. Brillouin. bibliog diags J Ap Phys 25:595-9 My '54

Negentropy principle of information. L. Brillouin. bibliog J Ap Phys 24:1152-63 S '53

Optics and communication theory. P. Elias. bibliog Opt Soc Am J 43:229-32 Ap '53

Response of linear time-dependent systems to random inputs. D. B. Duncan. J Ap Phys 24:609-11 My '53

Response of undamped systems to noise. D. B. Duncan. J Ap Phys 24:1252-3 S '53

Spectroscopy from the point of view of communication theory; automatic recording of infrared spectra on punched cards. G. W. King and others. Opt Soc Am J 44:397-402 My '54

Spectroscopy from the point of view of the communication theory. A. G. Emslie and G. W. King. Opt Soc Am J 43:658-68 Ag '53

Statistical criteria for the detection of pulsed carriers in noise. D. Middleton. bibliog J Ap Phys 24:371-91 Ap '53; Discussion. 25:128-30 Ja '54

Theoretical fundamentals of pulse transmission. E. D. Sunde. bibliog diags Bell System Tech J 33:721-88, 987-1010 My-Jl '54

Wiener's theory of linear filtering. D. A. Bell. bibliog Wireless Eng 30:136-42 Je '53

COMMUNICATION and traffic

Transport and communications. Published in Foreign commerce weekly

See also

Airlines
Airways
Factory communication
Highway transportation
Motor vehicles
Pipe lines—Communication systems
Radio communication
Railroads
Rapid transit
Roads
Shipping
Street traffic
Telegraph
Telephone
Teletype
Television
Transportation
Waterways

COMMUNISM

Communist revolution in warfare. J. D. Atkinson. il U S Naval Inst Proc 79:284-91 Mr '53

Glimpse at the worker's paradise behind the iron curtain. J. H. Winchester. il Mill & Factory 54:77-81 Je '54

Red peril on the wane! G. Kennan. Comm & Fin Chr 178:627+ Ag 20 '53

These issues we must teach. W. C. Hogan. il U S Naval Inst Proc 79:sup 14, 353-63 Ap '53

See also

Church and communism
Employment management—Communist problem
Insurance agents—Communist problem
Trade unions—Communist problem

Albania

Outpost on the Adriatic. map Economist 168:181-2 Jl 18 '53

Asia

Warns of Communist threat in Asia. D. D. Eisenhower. Comm & Fin Chr 178:450 Ag 6 '53

Asia, Southeastern

Coming Communist bid for wealth of south east Asia. V. L. Horoth. map Mag of Wall St 92:715-17+ S 19 '53

Second line on south east Asia; Siam. map Economist 170:170-1 Ja 16 '54

British Guiana

Colonies on parole. Economist 169:155-6 O 17 '53

Troops for British Guiana; communist threat. Economist 169:87-8 O 10 '53

Bulgaria

You better pay your premiums in red Bulgaria. W. H. Nelson. il Spectator 162:24-5+ F '54

Ceylon

Riots in Ceylon. Economist 168:574+ Ag 29 '53

China

At Marxist mercy; Chinese Communist tactics and Korean war prisoners. Economist 169:725-6 D 5 '53

China buys more bonds. Economist 170:32-3 Ja 2 '54

China prepares for elections. Economist 169:110 O 10 '53

China's winter of discontent? Economist 169:339-40 O 31 '53

Economic status of the Chinese peasants after agrarian reform. S. Ong. bibliog Land Econ 29:35-43 F '53

Handling China. Economist 168:680-2 S 12 '53

Nationalisation in China. Economist 169:826-7 D 12 '53

Czechoslovakia

Changes in Czechoslovakia. Economist 168:863-4 S 26 '53

Land reform and politics in Czechoslovakia, 1945-1952. K. Hulicka. bibliog Land Econ 29:233-47 Ag '53

Europe

Behind the curtain. Economist 168:81-2 Jl 11 '53

Panic among the bosses. Economist 168:162-3 Jl 18 '53

Europe, Eastern

Communists and consumers. Economist 169:797-8 D 12 '53

Far East

Far Eastern triangle; North Korean-Chinese economic agreement. Economist 169:653 N 28 '53

Germany

Bread and shackles in east Germany. Economist 168:244-5 Jl 25 '53

East German revolt. Economist 168:106-7 Jl 11 '53

Flames flicker in Soviet Germany. Economist 168:85 Jl 11 '53

Herr Ulbricht surveys defeat. Economist 168:841 S 26 '53

Post-mortems in eastern Germany; recent riots in east Berlin and Soviet zone. Economist 168:10 Jl 4 '53

Great Britain

Demonstration strike; Communists and the one-day token strike. Economist 169:566 N 21 '53

Hungary

Crisis on Hungary's farms. Economist 169:428-9 N 7 '53

Release of Mr Sanders. Economist 168:497 Ag 22 '53

Indonesia

Economic setback for Indonesia. Economist 169:258 O 24 '53

Latin America

Latin American reds; the U.S. tries new tactics. map Bsns W p 166-8 N 14 '53

Poland

Attack against the Polish church. Economist 169:340-1 O 31 '53

Poland falls in line. Economist 169:480 N 14 '53

Polish church beheaded. Economist 169:15 O 3 '53

Rumania

Bread and circuses in Bucharest. Economist 168:461-2 Ag 15 '53

Bucharest after the festival. Economist 169:255-6 O 24 '53

Disillusionment in Rumania. Economist 170:105 Ja 9 '54

Satellite soccer. Economist 168:112 Jl 11 '53

They paid the Communists' price because oil production quotas weren't met; Roumania. World Oil 137:234-5 Ag 1 '53

Russia

Writers in Soviet Russia. Economist 170:171-2, 326 Ja 16, 30 '54

Ukraine

Ukraine in the limelight; 300th anniversary of union with Russia. map Economist 170:242-3 Ja 23 '54

COMMUNISM—*Continued*

United States

Harvard and the fifth amendment. Science 117:647-8 Je 12 '53

Yugoslavia

Jugoslav bishops in trouble. Economist 169:15 O 3 '53

COMMUNIST party (British Guiana)

British Guiana backfires. Bsns W p 168-9 O 17 '53

COMMUNIST party (China)

Colonial revolutions in the making. Economist 169:427-8 N 7 '53

Peking's paper tigers. Economist 168:763-4 S 19 '53

COMMUNIST party (Hungary)

Backpedalling in Budapest. Economist 168:162 Jl 18 '53

Changes in Hungary. Economist 168:86 Jl 11 '53

Discords among Hungarian Communists. Economist 169:573-4 N 21 '53

COMMUNIST party (Korea)

Purge in north Korea. Economist 168:577-8 Ag 29 '53

COMMUNIST party (Poland)

Is all quiet in Warsaw? Economist 168:393-4 Ag 8 '53

COMMUNIST party (Russia)

Beria into the dock. Economist 169:872, 968-9 D 19-26 '53

Beria's ghost. Economist 169:737 D 5 '53

Birth of the Bolsheviks. Economist 168:331 Ag 1 '53

Comrades in the countryside. Economist 169:167 O 17 '53

Fall of Beria. Economist 168:182-3 Jl 18 '53

Mixing with demigods. Economist 170:221 Ja 23 '54

Red square without Stalin. Economist 169:473 N 14 '53

COMMUNIST party (Yugoslavia)

Appalling frankness from Mr Djilas. Economist 170:150 Ja 16 '54

Case of Comrade Djilas. Economist 170:221 Ja 23 '54

Ideas of Mr Djilas. Economist 170:241 Ja 23 '54

Tito in search of super-men. Economist 169:187-8 O 17 '53

COMMUNITY centers

Perimeter heating for non-residential structures. il plans Dom Eng 182:134-6+ N '53

Two campus religious and social centers. il plans diags Arch Rec 113:140-4 Je '53

See also

Health centers

COMMUNITY chests

Peek show; employee participation in community activities; Thomas & Betts co., Elizabeth. il Dun's R & Mod Ind 62:115-16+ N '53

COMMUNITY improvement, National council for. See National council for community improvement

COMMUNITY life

Professional man; a community citizen. I. Harlow. Ind & Eng Chem 46:sup25A-6A Jl '54

Progress through participation. J. C. Penney. il Dun's R & Mod Ind 63:135-6+ Ja '54

COMMUNITY relations. See Public relations

COMMUNITY trusts

Foundations and the community trust. E. L. Ryerson. Trusts & Estates 92:665 S '53

COMMUTATORS

Bad commutation; causes and cures. C. Boesmiller. il Power Eng 58:88-90+ Ag '54

Capacitor commutator tachometers. F. K. Floyd and D. J. Cody. il diags Product Eng 24:182-5 Jl '53

Commutator care and maintenance. J. E. Hyler. il Mill & Factory 55:95-7 Ag '54

Investigation of parasitic brush currents in single-phase commutator machines with particular reference to the repulsion motor. D. Morris. bibliog diags Inst E E Proc 100 pt 2:575-7 O '53

Use glass cord to build up commutator ring. R. E. Brown. il diags Power 98:125 Mr '54

See also

Brushes (electric machinery)

Flashover

Control wheel slip to reduce flashovers. J. R. Schoonover and H. R. Stiger. il diag Diesel Power 32:104-7+ Ap '54; Same. Ry Loco & Cars 128:71-5 My '54

Diesel-electrics; how to keep 'em rolling; A,B,C of flashovers. J. W. Teker. il diags Ry Loco & Cars 128:77-82 Ap '54

Fundamentals of flashing of Diesel-electric motors and generators. C. A. Atwell. il diags Ry Loco & Cars 128:72-5 Mr '54

Testing

Use of microwaves in observing commutator and slip ring surfaces during operation. A. H. Ryan and S. D. Summers. il diags Elec Eng 73:251-5 Mr '54

COMMUTERS

See also

Railroads—Commuter service

COMPANIONS, Order of the. See Order of the companions

COMPANY anniversaries. See Anniversaries, Company

COMPANY histories. See Business history

COMPANY picnics. See Picnics

COMPARATORS

Amplitude comparison circuit. H. L. Armstrong. il diags R Sci Instr 24:551-2 Jl '53

Baird associates comparator densitometer. il diag R Sci Instr 24:477 Je '53

Bausch & Lomb optical bench comparator for rapid inspection. il Mach 60:225 Je '54

Comparator for materials of low magnetic susceptibility. D. A. Abbott and R. Kilgour. il diags J Sci Instr 31:155-8 My '54

DoAll mechanical comparator developed for assembly line checking. il Mach 60:232 Ja '54

Double-beam densitometer and comparator. R. O. Carpenter and J. U. White. bibliog il diags Anal Chem 25:1473-7 O '53

Glass comparator charts rapidly produced by new method. Mach 61:177 S '54

Homemade checker bridges gap; lead comparator for helical gears is fabricated in the tool-room. F. M. Butrick, jr. diags Steel 133:91 D 28 '53

Inspection; portable comparator designed by General motors corp. il Metal Prog 66:112 Ag '54

Johansson ultra-sensitive mechanical comparator. il diags Engineering 177:23 Ja 1 '54

Jones & Lamson comparator for inspecting slots in gas turbine discs. il Mach 60:224 Mr '54

Jones & Lamson optical comparator. il Mach 61:227 S '54

Linear measuring instruments and comparators; Sigma instrument company extension. Engineering 176:523-4 O 23 '53

Portman optical comparator features multiphase system. il Am Mach 98:196 F 15 '54

Projector-comparator for examining spectrographic plates. J. C. North. il diags J Sci Instr 30:366-8 O '53

Simplicity emphasized in styling of gear comparator. il Machine Design 26:154-5 Je '54

COMPARATORS, Density. See Densitometers

COMPASS

Compass for the Arctic. Bsns W p64-5 S 19 '53

Dial compass for exploration. D. H. Yardley. il Min Eng 6:288 Mr '54

Surveyor's compass. il Franklin Inst J 255:563-4 Je '53

See also

Gyro compass

COMPENSATION, Deferred. See Deferred compensation

COMPENSATORS, Optical

Basic theory of varifocal lenses with linear movement and optical compensation. F. G. Back and H. Lowen. il diags Opt Soc Am J 44:684-91 S '54

Quarter-wave compensator with a sensitive half-shadow device. H. G. Jerrard. bibliog(43 ref) il diags Opt Soc Am J 44:289-96 Ap '54

COMPETITION

Competition should bring greater prosperity. E. R. Breech. Comm & Fin Chr 178:2382+ D 17 '53

COMPETITION—*Continued*

Competitive desire; the South's new industrial spirit. C. F. Hood. Advanced Management 19:9-10 Je '54

Competitive picture. H. P. Stellwagen. Nat Underw 57:1, 27 Je 25 '53; Same cond. Spectator 161:16-17+ Jl '53; Same abr. Weekly Underw 169:24-5 Jl 4 '53

Effects of competition on the development of transportation. B. B. Jennings. Am Pet Inst Proc 32(5):17-21 '52

Errors in the concept of countervailing power. S. N. Whitney. bibliog J Bsns 26:238-53 O '53

Facing the facts of competition; abstract. V. Lebow. Management R 43:184-5 Mr '54

Free competition; everyone a winner? abstract. L. M. Cherne. Management R 42:182-3 Ap '53

Impact of competition on retailing in 1954. V. Lebow. J Retailing 30:15-20+ Spring '54

Is competition dying out? abstract. S. H. Slichter. Management R 42:632-3 N '53

It could happen to you. E. Whitmore. Sales Management 73:112+ Ag 15 '54

See also

Government competition with business

Price fixing

Railroads—Competitive transportation

Restraint of trade

Trusts, Industrial

COMPETITION, Unfair

Case for competition; reply of nonprofit research institute director to charges that his kind of organization is in unfair competition. Chem W 74:71-2+ F 27 '54

Wholesalers seek to end unfair competition; Trade practice rules. Dom Eng 182:52-3+ N '53

COMPETITIVE bidding. See Securities—Marketing

COMPLAINTS

How can a meeting help handle field complaints? R. Beckhard. Sales Management 72:22+ pt2 Ja 1 '54

Ten thousand and one customer complaints. J. Labarthe. Textile Res J 24:328-42 Ap '54

COMPLEX salts. See Salts, Complex

COMPLEXONS. See Ethylenediamine tetraacetic acid; Salts, Complex

COMPOSTS. See Refuse as fertilizer

COMPOUND F. See Hydroxycorticosterone

COMPOUND 1080. See Sodium fluoroacetate

COMPRESSED air

Aeration of drilling fluids a solution to lost circulation? R. A. Bobo and H. M. Barrett. diag World Oil 137:145-9 S '53

Air drilling in California. K. M. Nicolson. bibliog diags Pet Eng 25:B98-100+ Ag '53; Same abr. Oil & Gas J 52:76-8+ Jl 6 '53

Air-electric torch cleans as it cuts. il Comp Air Mag 59:259 S '54

Air helps unload bulk material from rail car. il Comp Air Mag 59:55 F '54

Air placement cuts column concreting costs. il Constr Methods 35:59-61 D '53

Air power is versatile power; Rohr aircraft corp. il Mill & Factory 53:118-20 N '53

Air spring suspensions get a new lease on life. C. O. Slemmons. il S A E J 62:40+ Jl '54

Air steering for buses. il diag Bus Transportation 33:44 My '54

Air thrust bearing. il diag Mill & Factory 54:139 Mr '54; Comp Air Mag 59:205 Jl '54

Atlas Diesel compressed air operated mining lamp. il Engineer 196:604-5 N 6 '53

Australia's Warragamba dam; cooling mass concrete. il Comp Air Mag 59:96-8 Ap '54

Bendix-Westinghouse air-power steering system. il diag Automotive Ind 110:53 Ap 15 '54

Blasts of compressed air clean boiler tubes. il Comp Air Mag 59:174 Je '54

Cleaning underframes by compressed-air jets; Acton works of London transport. il Engineering 177:248 F 19 '54

Compressed air aids ready mix production; San Diego transit-mixed concrete co. il Concrete 62:44+ Mr '54

Compressed air at work; illustrations with text (cont). il Comp Air Mag 59:46-7, 200-1 F, Jl '54

Compressed-air needs for sewage pumps; chart. L. J. Murphy. Mill & Factory 54:95 Mr '54

Compressed air system is spacesaver; American bridge division, U.S. steel corp. E. P. Meixsell. il diag Steel 133:86-7 O 19 '53

Drilling surface holes with air saves in cavernous formations. R. F. Carlson. il diag Oil & Gas J 52:98-9 Ag 24 '53

Driving 200-foot piles; Raymond concrete pile co. il Comp Air Mag 59:197-8 Jl '54

Facts about modern compressed air systems. diags Mill & Factory 54:466-7 My '54

How to get the most from your compressed air system. L. J. Murphy. il diags Mill & Factory 54:81-5 F '54

Mining brimstone with compressed air; Texas Gulf sulphur co. R. McDaniel. il Comp Air Mag 59:122-7 My '54

More job ideas for air power; illustrations with text. Factory Management 111:152 N '53

Motor coach suspensions. H. E. Fox and D. J. LaBelle. il diag S A E J 62:41-3; Discussion. 43-5 Jl '54

New ideas in milk agitation; mixing with compressed air. J. P. Smallwood. il diags Comp Air Mag 59:77-8 Mr '54

Pneumatics in silk-screen printing. diags Comp Air Mag 59:23 Ja '54

Railroad cars may ride on air cushions. il Comp Air Mag 59:55 F '54

Removing swarf with compressed air; Norton co. il diags Comp Air Mag 59:79 Mr '54

Safeguarding employees at Westinghouse. il Comp Air Mag 59:80 Mr '54

Strange case of the pneumatic breakwater. il Comp Air Mag 59:221-2 Ag '54

Stretching public works dollars with compressed air. il Pub Works 85:71+ F '54

Theory and filtering technique for compressed air. P. M. Hankison. diags Instruments 26:1705+ N '53

With air power on the job even large truck tires get quick change. il Comp Air Mag 59:142-3 My '54

You can put compressed air to work at new jobs; Macon kraft co. W. H. Wheeler. il Power 98:94-6 F '54

See also

Air compressors

Pneumatic conveying

Pneumatic machinery

Pneumatic tools

Moisture content

Drying of air in fixed beds. L. C. Eagleton and H. Bliss. bibliog Chem Eng Prog 49:543-8 O '53

COMPRESSED air circuit breakers. See Electric circuit breakers—Oilless

COMPRESSED air lines

Aluminum pipe speeds laying of compressor air lines; West Virginia turnpike. Iron Age 172:131-2 O 15 '53

Pilot valve in float automatically operates filter drain. diags Product Eng 24:150-1 S '53

COMPRESSED gases. See Gases, Compressed

COMPRESSIBILITY

Compressibility chart for hydrogen and inert gases. F. D. Maslan and T. M. Littman. bibliog Ind & Eng Chem 45:1566-8 Jl '53

Compressibility factors of nitrogen-propane mixtures in the gas phase. G. M. Watson and others. bibliog Ind & Eng Chem 46:362-4 F '54

Compressibility of gases; krypton in the temperature range 0 to 600 C and pressure range 10 to 80 atm. E. Whalley and W. G. Schneider. bibliog diag A S M E Trans 76:1001-4 Ag '54

Compressibility of liquid normal hydrogen from the boiling point to the critical point at pressures up to 100 atmospheres. H. L. Johnston, W. E. Keller and A. S. Friedman. bibliog diag Am Chem Soc J 76:1482-6 Mr 20 '54

Compressibility of pile fabrics. P. Larose. bibliog Textile Res J 23:730-5 O '53

Filtration resistance of compressible materials. W. L. Ingmanson. bibliog diag Chem Eng Prog 49:577-84 N '53

How to use the new generalized compressibility charts. L. C. Nelson and E. F. Obert. Chem Eng 61:203-8 Jl '54

COMPRESSIBILITY—*Continued*

Resistance and compressibility of filter cakes. H. P. Grace. il diags Chem Eng Prog 49: 303-18, 367-77, 427-36 Je-Ag '53

Subsonic compressibility corrections for propellers and helicopter rotors. E. V. Laitone and L. Talbot. bibliog J Aeronautical Sci 20:683-90 O '53

COMPRESSOR stations. See Gas, Natural—Pipe lines—Compressor stations

COMPRESSORS

Aerodynamics of compressor blade vibration. H. Pearson. Engineer 196:473-6 O 9 '53

Compressor design; there's room for improvement. J. A. Galazzi. il Refrig Eng 62:47-9+ Ap '54

Compressor; small rotary unit designed for high output. il Iron Age 174:134 Ag 12 '54

Factory methods for dehydrating refrigeration compressors. L. W. Larsen and J. Elliot. Refrig Eng 61:1325-7+ D '53; Discussion. 62:61 Ja '54

Freon compressors without stuffing box for small refrigerating capacities; abstract. I. Elkin and V. Jakobson. diag Refrig Eng 62:51+ Mr '54

Fully turbocharged two-cycle gas engine compressor. diags Diesel Power 32:46-7 Ja '54

How to hook up refrigerant piping; reciprocating compressors in parallel. L. R. Scafe. diags Heating-Piping 26:92-4 S '54

More tonnage for less horsepower. A. I. McFarlan. diags Refrig Eng 62:37-8+ My '54

New reciprocating compressor; abstract. F. Ghilardi. diag Refrig Eng 62:53 Ap '54

New two-cycle turbocharged gas-engine compressor. diags Oil & Gas J 52:110 Ja 18 '54

Study of the injection refrigeration cycle as applied to a novel type compressor. W. M. Carter. bibliog il diags Univ of Kentucky Eng Exp Sta [Lexington] Bul 29:1-127 '53

Tax interpretation made on compressors. Refrig Eng 62:69 Ja '54

Turbochargers boost compressor output. il diags Comp Air Mag 58:348-9 D '53

See also

Air compressors
Gas compressors

Maintenance and repair

Engine and compressor maintenance. R. S. Ridgway. il Pet Refiner 33:110-15 Ja '54

Preventive maintenance of refinery compressors. J. R. Ware. Oil & Gas J 52:94+ Ja 18 '54

Treat your compressor seals right. diags Power 97:122 D '53

Manufacture

How to make a casting when you can't get the core out; Cooper-Bessemer corp. il Foundry 82:155+ S '54

Specific speed

Specific speed, centrifugal compressors. H. Woodhouse. diags Oil & Gas J 52:293 O 5; 161 O 12; 153 O 19; 145 O 26 '53

Testing

New technique for transient recording. R. C. Baird and K. W. Lamers. bibliog il diags Instruments & Automation 27:464-6 Mr '54

COMPTON, Karl Taylor, 1887-1954

Sketch. Mech Eng 76:208 F '54

COMPTON effect

Attenuation of gamma rays; transmission values for finite slabs of lead, iron, and the Compton scatterer. G. H. Peebles. bibliog J Ap Phys 24:1272-87 O '53

Gamma-ray measurements by the magnetic analysis of Compton electrons. J. W. Motz and others. bibliog diags R Sci Instr 24:929-37 O '53

Internal Compton effect in Ba^{137}. L. Spruch and G. Goertzel. Phys R 93:642 F 1 '54

COMPTON scattering. See Scattering of particles and rays

COMPULSORY insurance. See Insurance, Automobile—Compulsory liability; Insurance, Compulsory

COMPUTATION, Approximate. See Approximate computation

COMPUTERS. See Calculating machines

CONALBUMIN. See Albumin

CONCENTRATORS

Apparatus for solvent-removal at low temperatures. E. A. Bell. diags Chem & Ind p741 Jl 18 '53

New field for high vacuums; concentration. il diag Chem Eng 60:134+ Je '53

See also

Evaporators

CONCESSIONS

See also

Petroleum—Concessions

CONCRETE

American concrete institute regional meeting, Houston, Tex. Oct. 28-29. Rock Prod 56:184-5 D '53

ASTM annual meeting; with abstracts of papers on cement and concrete. Rock Prod 57:86-7+ S '54

Cement, concrete, mortar, plaster, aggregates, and structural clay products. il diags Am Bld 75:73-4+ Ap '53

Construction: acid-proof pour-lay cement resists corrosion; Sauereisen no. 54. Iron Age 173:160 F 11 '54

Effect of fly ash on concrete; abstract. D. L. Bloom. Rock Prod 57:171 Mr '54

Fly ash improves concrete and lowers its cost. A. S. Pearson and T. R. Galloway. bibliog il Civil Eng 23:592-5 S '53

Fly-ash use as concrete additive questioned by building inspectors. Eng N 152:22 Mr 25 '54

How to save cracked piping with concrete. E. E. Smith. il diags Power 97:142 D '53

Lightweight concrete introduced from Sweden handles like wood. il Am Bld 75:260+ Je '53

New methods of design and construction for bridge substructures; steel H-piles and Prepakt concrete. C. P. Disney. il Roads & Eng Constr 92:87-91+ Ja '54

Prospective chemistry of cement and concrete (cont). N. C. Rockwood. diags Rock Prod 57:147-9 Ja; 136+ Ag '54

Role of concrete admixtures; panel discussion. il Arch Rec 113:171-5 Je '53

Substitution of flyash for cement; abstract. G. H. Larson. Roads & Eng Constr 92:108-9 My '54

University of Miami short course in concrete control. P. V. Taylor. Concrete 62:27-8+ Mr '54

Vermiculite concrete insulates cantilevered heating slab; Pitt-Penn terminal co. warehouse. il Civil Eng 23:610 S '53

See also

Bridges, Concrete
Cement
Concrete, Reinforced
Concrete construction
Concrete lining
Gunite
Pavements, Concrete
Roads, Concrete

Aggregate

Aggregates cooled on belts for Vaitarna dam in India. E. A. Bertsch and A. Silvera. il Eng N 151:37-8 S 3 '53

Aggregates tested by accelerated freezing and thawing of concrete. W. H. Price and D. G. Kretsinger. bibliog il Am Soc T M Proc 51:1108-18; Discussion. 1118-19 '51

Alkali-aggregate interaction in concrete. F. E. Jones. bibliog il map Chem & Ind p 1375-83 D 26 '53

Basalt rock co. story; lightweight aggregates. il Rock Prod 57:118-20 Ja '54

Basalt rock co. story; producing surface-coated lightweight aggregate. W. B. Lenhart. il Rock Prod 57:143-6+ Ja '54

Blending crushed sand with natural sand. Concrete 61:20 N '53; Same abr. Rock Prod 57:106 F '54

Expanded blast furnace slag for use as lightweight concrete aggregate. R. W. Miller. bibliog il Blast F & Steel Pl 41:635-8+ Je '53; Abstract. Steel 133:118+ Jl 6 '53

Factors in manufacturing fired clay lightweight aggregate; Mineral products co. R. G. Hardy. flow sheet Am Cer Soc Bul 33:201-3 Jl 15 '54

Fast stone production for turnpike base; West Virginia turnpike. flow diag il Roads & Sts 97:73-80 Ap '54

CONCRETE—Aggregate—*Continued*

Floor aggregates. E. W. Scripture, jr. and others. bibliog il Am Concrete Inst J 25: 305-16 D '53; Discussion. 26:316^1-316^5 pt 2 D '54

Globular clay aggregates. il Arch Forum 97: 159 O '52

Graphical method for combining aggregates. J. R. Martin. Roads & Sts 97:106-8 Mr '54

Heavy media separation of gravel. D. W. Lewis. bibliog Roads & Sts 97:84-6+ Ag '54

Increase crushed stone capacity to meet demands for diversified concrete products; Maule industries, inc. W. B. Lenhart. flow sheet il Rock Prod 57:56-8+ Jl '54

Investigation of lightweight aggregates of North and South Dakota. W. A. Cole and J. D. Zetterstrom. il U S Bur Mines Rep of Invest 5065:1-43 bibliog(45 titles, p41-3) '54

Lightweight aggregates and prestressing; abstracts of papers presented at ACI district meeting, Houston, Oct. 29-30. Concrete 61:8-10+ D '53

Lightweight aggregates; expanded shale. J. W. Shaver. il map Concrete 61:3-6+ O; 12+ N '53

Livonia Lightweight corporation is blue-print of economical operation. il Brick & Clay Rec 124:51-3 F '54

Method of making vibrated dry-tamp concrete cylinders applied to tests of lightweight aggregate and block mixtures. S. B. Helms and A. L. Bowman. bibliog il Am Soc T M Proc 51:1184-96 '51

New use for phosphate slag; lightweight aggregate for concrete. W. C. Scott, jr. and W. D. Sandberg. il diags Chem Eng 60: 182-3 Jl '53

Newest lightweight aggregate plant in the Southwest; Oklahoma lightweight aggregate co. T. Brown. il Rock Prod 57:98-9 F '54

Pennsylvania stone producers association and Pennsylvania highway material producers conference joint meeting, Harrisburg, Jan. 28-29. Rock Prod 57:91+ Mr '54

Perlite insulating concrete. J. J. Brouk. diags Am Concrete Inst J 25:857-67 Je '54; Discussion. 26:868^1-868^6 pt 2 D '54

Process 1000 tons of slag per hour; Edward C. Levy co. H. C. Persons. il Rock Prod 56: 117-18 O '53

Processing aggregates for Denver's dam no.22. W. B. Lenhart. flow sheet il Rock Prod 56: 94-7 O '53

Producing lightweight aggregate from slate; Georgia lightweight aggregate co. W. B. Lenhart. flow sheet il Rock Prod 57:92-6+ Mr '54

Producing pozzolan and lightweight aggregate; Airox co. W. B. Lenhart. il Rock Prod 56:92-3+ D '53

Production of lightweight aggregates. H. G. Iverson. il Rock Prod 57:110+ F '54

Properties of heavy concrete made with barite aggregates. L. P. Witte and J. E. Backstrom. bibliog Am Concrete Inst J 26: 65-88 S '54

Prove and promote persistence wins market for industrial product; Featherlite corp. M. K. Pirie. il Sales Management 72:56+ F 15 '54

Short talks on lightweight slag concrete. H. E. de Weerdt. Concrete 61:16+ Jl; 12+ Ag; 28-9 N '53; 62:30 Ja '54

Solite; lightweight aggregate. il Brick & Clay Rec 125:47 Jl '54

Texas Industries blankets the fields of concrete and aggregates. H. C. Persons; T. Brown. il Rock Prod 57:86-99 F '54

Use of lightweight aggregate for structural concrete; abstract. J. R. Bissett. Am Concrete Inst J 25:sup 13 D '53

Water granulated blast furnace slag. il Concrete 62:32-3 Ag '54

Air entrainment

Air entraining admixtures; abstract. C. E. Wuerpel. Concrete 62:45 Jl '54

Case for bubbles; boom in air-entraining agents. il Chem W 72:40+ My 9 '53

Chemical analysis and sources of air-entraining admixtures for concrete. W. J. Halstead and B. Chaiken. bibliog(30 titles) Pub Roads 27:268-78 F '54

Entrained air benefits lightweight-aggregate concrete. F. J. Mardulier. il Civil Eng 24: 24-7 Ja '54

Evaluation of air-entraining admixtures for concrete. F. H. Jackson and A. G. Timms. Pub Roads 27:259-67 F '54; Excerpts. Concrete 62:30+ Mr; 30 My '54

Properties of concrete containing a blend of portland cement and air-entraining ground blast-furnace slag. W. E. Grieb and G. Werner. Pub Roads 28:46-9 Ag '54

Some properties affecting the abrasion resistance of air-entrained concrete. L. P. Witte and J. E. Backstrom. il Am Soc T M Proc 51:1141-53; Discussion. 1154-5 '51

Void spacing as a basis for producing air entrained concrete. T. C. Powers. bibliog Am Concrete Inst J 25:741-60 My '54; Discussion. 26:760^1-760^{16} pt 2 D '54

Bibliography

Current reviews of significant contributions in foreign and domestic publications. Published in monthly numbers of Journal of the American concrete institute

Cinder concrete

Experiments on concrete made with volcanic cinder aggregates; abstract. F. J. Benson and R. M. Gallaway. Am Concrete Inst J 25:sup 10 D '53

Color

Kemiko sales rise on tide of trend to outdoor living. il Sales Management 71:144+ O 15 '53

Cooling

Australia's Warragamba dam; cooling mass concrete. il Comp Air Mag 59:96-8 Ap '54

Concrete temperature reduction. R. F. Quan. Refrig Eng 62:65-7+ Je '54

840 miles of tubing cools concrete during construction of Hungry Horse dam. C. L. Townsend. il Heating-Piping 26:172-3 Ja '54

Ice-cold concrete; dam builders use cracked ice. flow diag il Arch Forum 98:163 Ap '53

Warragamba dam; placing concrete in high ambient temperatures. il Engineering 177: 400-1 Mr 26 '54

Cracks

Cracking of concrete block walls. Arch Rec 113:176+ Je '53

Curing

Another high pressure steam block plant; National brick and supply co. il Concrete 61:32 D '53

Automatic curing of concrete block; Alwine brick co. W. B. Lenhart. il Rock Prod 57: 192-3 Je '54

Concrete block curing systems. W. J. Shore. Concrete 62:35-7 S '54

Concrete curing methods; abstract. P. L. Melville. Roads & Eng Constr 92:172 Ap '54

Dual steam curing system for proper hydration and drying; Concrete masonry corp. L. Polisner. il Rock Prod 57:198-9 Je '54

Industry's newest high pressure steam curing plant in Washington, D.C.; National brick and supply co. W. B. Lenhart. il Rock Prod 57:215-18 Ja '54

Mixing and curing water for concrete; abstract. W. J. McCoy. Concrete 62:31+ Jl '54

Steam curing plus hot-air drying; Frontier dolomite concrete products corp. W. B. Lenhart. il Rock Prod 57:195-6 Je '54

Studies on the cementitious phases of autoclaved concrete products made of different raw materials. G. L. Kalousek. bibliog Am Concrete Inst J 25:365-78 Ja '54

Two new concrete cures marketed. il Eng N 151:88+ Jl 2 '53

Cutting

Chipping machine cuts concrete removal time. il Constr Methods 35:58-9 N '53

Contraction joint sawing time cut. il Eng N 152:71+ F 11 '54

Masonry drilling. B. L. Chapin and R. H. Alper. il diags Power Eng 58:96-8 Je; 70-1 Jl; 70-1 Ag; 86-7 S '54

CONCRETE—*Continued*

Durability

Concrete durability of German autobahnen highways. O. Graf. il Rock Prod 57:108+ Mr '54

Durability of concrete. J. A. Slegten. Rock Prod 57:142+ F '54

Expansion and contraction

Factors which influence shrinkage of concrete. F. A. Blakey and I. Leber. Am Concrete Inst J 26:98 S '54

Properties of concrete and their influence on prestress design. R. E. Davis and G. E. Troxell. bibliog Am Concrete Inst J 25:381-91 Ja '54

Relation of shrinkage to moisture content in concrete block. G. L. Kalousek and others. il Am Concrete Inst J 25:225-40 N '53; Abstract. Concrete 62:26+ F '54

Failure

See also
Concrete—Cracks

Freezing

Aggregates tested by accelerated freezing and thawing of concrete. W. H. Price and D. G. Kretsinger. bibliog il Am Soc T M Proc 51:1108-18; Discussion. 1118-19 '51

Freeze-thaw resistance of concrete as affected by alkalies in cement. B. Tremper. bibliog Am Soc T M Proc 51:1097-107 '51

Performance of automatic freezing-and-thawing apparatus for testing concrete. S. Walker and D. L. Bloem. diag Am Soc T M Proc 51:1120-35 bibliog(58 titles, p1132-5); Discussion. 1135-40 '51

Mixing

See Concrete mixing

Moisture content

Method for estimating water content of concrete at the time of hardening. J. S. Blackman. il Am Concrete Inst J 25:533-41 Mr '54; Discussion. 26:544^{1}-544^{4} pt 2 D '54

Relation of shrinkage to moisture content in concrete block. G. L. Kalousek and others. il Am Concrete Inst J 25:225-40 N '53; Abstract. Concrete 62:26+ F '54

Prestressing

Applying mass production to prestressed structural concrete; Concrete engineering co. A. R. Mac Pherson. il Rock Prod 56:173-5 D '53

Arch tie prestressed to hold length. A. F. Campbell. diags Eng N 151:48 Jl 16 '53

Assembly-line prestressing. il diag Arch Forum 97:160 O '52

Basalt rock co. story; prestressed concrete. il diags Rock Prod 57:120-3 Ja '54

Beams; prestressed field growing up. K. W. Bennett. Iron Age 172:77 Jl 9 '53

Bridge tests check theory for prestressed concrete. T. Y. Lin and J. Sylvester. diag Eng N 151:115-16 Jl 16 '53

Design of monolithic concrete frame; prestressed. K. P. Milbradt and T. J. Kofodimos. diags Am Soc C E Proc 79 [no 217]:1-65 Jl '53

Dual-purpose prestressed concrete bridge; Calverton colliery. il diag Engineer 196:404 S 25 '53

Economics of prestressing. il diags Arch Forum 97:143-4 D '52

Effect of abnormal temperatures on prestressed concrete; report of technical session of International federation of prestressing. Engineering 176:490 O 16 '53

Experience with bridge prestressing methods. il Eng N 152:38-40+ Mr 18 '54

Fire resistance of prestressed concrete; tests reveal no sudden failure. il Arch Forum 98:155 My '53

Flat jacks stress 500 ft of tunnel. C. Dobell. Eng N 151:66+ D 10 '53

Flexural strength of prestressed concrete beams. D. F. Billet and J. H. Appleton. il diags Am Concrete Inst J 25:837-54 Je '54; Discussion. 26:856^{1}-856^{14} pt 2 D '54

Hoboken pier. Eng N 151:26 Jl 23 '53

How to design a pre-tensioned bonded prestressed concrete beam. V. J. Brown. diags Road & Sts 97:101-4+ F '54

Huge concrete tanks are prestressed. il Constr Methods 36:50-5 Ja '54

Hydraulic jack for prestressed concrete. il diag Engineer 196:462 O 9 '53; Engineering 176:606 N 6 '53

Inner-outer prestress produces record span. il Eng N 152:57-8+ Ap 8 '54

Lightweight aggregates and prestressing; abstracts of papers presented at ACI district meeting, Houston, Oct. 29-30. Concrete 61:8-10+ D '53

Lightweight prestressed concrete. F. E. Koebel. il diags Am Concrete Inst J 25:585-96 Mr '54

Lightweight prestressed concrete; ACI 6th regional meeting; abstracts of papers. Am Concrete Inst J 25:sup 18-19+ D '53

Long-span prestressed-concrete beams used in army field house. R. E. Snetzer. il diags Civil Eng 24:217-19 Ap '54

Long-span prestressed concrete girders. W. D. Shea. il Concrete 62:14+ Je '54

Low-cost prestressing for parking garage. il diags Arch Forum 97:144 D '52

Nature of bond in pre-tensioned prestressed concrete. J. R. Janney. il diags Am Concrete Inst J 25:717-36 My '54; Discussion. 26:736^{1}-736^{11} pt 2 D '54

New designs cut prestressed block-beam cost. R. H. Bryan. il diags Eng N 152:32-4 Ap 22 '54

94-ft concrete roof beams set record for prestressed members cast in place. il Eng N 151:29 N 19 '53

Outlook on prestressing. R. M. Johnson. il Concrete 62:22-3 S '54

Practical aspects of plant produced prestressed concrete. O. O. Phillips. il Am Concrete Inst J 25:737-40 My '54; Same. Concrete 62:14+ Jl '54

Precast prestressed concrete bridge weighs only 140 psf of roadway. il Eng N 151:49 D 17 '53

Prestress both tilt-up walls and precast beams; Baylor university theater. il Eng N 152:48-9 Ja 28 '54

Prestressed block floors. il diags Arch Forum 97:161 O '52

Prestressed bridge beams cast-in-place. il Constr Methods 36:148+ My '54

Prestressed concrete, a fourth structural material. E. K. Rice. il Min Cong J 40:33-5+ Jl '54

Prestressed concrete, by K. Billig. Review, by M. W. Loving. Rock Prod 57:240+ Ja '54

Prestressed concrete frames characterize U.S. army laundry in Germany. O. W. Steinhardt. il Civil Eng 23:388-9 Je '53

Prestressed concrete girders, Manhattanville college, Purchase, N.Y. C. Dobell. Am Soc C E Proc 79 [no 265]:1-5 S '53

Prestressed-concrete grain silo at Dublin. T. J. S. Mallagh. flow diag il plans diags Engineering 176:577-81, pl 32 N 6 '53

Prestressed-concrete office building; London telecommunications region of the Post Office. Engineering 176:667 N 20 '53

Prestressed concrete simplified. L. Coff. il diags Arch Forum 99:142-4 Ag '53

Prestressed cow palace for Los Angeles. C. J. Pankow, jr. il Concrete 61:3-4+ D '53

Prestressed deck proves cheapest for new Hoboken pier. T. O. Blaschke and D. A. Hopkins. il plans diags Civil Eng 24:94-7 F '54

Prestressed I-beams support roof of reinforced concrete building. il Eng N 152:49-50 Ja 14 '54

Prestressed products industry in Florida. il Concrete 62:36+ Mr '54

Prestressed roof girders set span record; senior high school gymnasium in Greensboro, N.C. W. D. Shea. il Eng N 152:36-8 Ja 21 '54

Prestressed slabs and the lift slab building method; ready-mixed concrete. M. M. Lemcoe. il Rock Prod 57:139-41 My '54

Prestressed waffle lift-slabs. il plan diag Arch Forum 98:168-9 Je '53

Prestressing applications expand abroad. Y. Guyon. il Eng N 152:25-6 Mr 4 '54

Prestressing in two similar structures. il plans diags Arch Rec 114:183-6 Jl '53

CONCRETE—Prestressing—*Continued*

Prestressing provides spacious warehouse. H. H. Edwards and Z. Zia. il plan diags Concrete 62:5-7 F '54

Products plant makes prestressed beams. P. V. Taylor. il Concrete 61:30 D '53

Progress in prestressed concrete construction. J. F. Jelley. Am Soc C E Proc 79 [no 266]:1-15 S '53

Properties of concrete and their influence on prestress design. R. E. Davis and G. E. Troxell. bibliog Am Concrete Inst J 25: 381-91 Ja '54

Rapid design of continuous prestressed members. E. I. Fiesenheiser. diags Am Concrete Inst J 25:669-76 Ap '54

Selection and design of prestressed concrete beam sections. T. Y. Lin and A. C. Scordelis. diags Am Concrete Inst J 25:209-24; Correction. sup25 N '53; Discussion. P. D. Moliotis. 26:224^1-224^6 pt 2 D '54

Shallow depth in bridges; use of prestressed-concrete deck slabs. il Engineering 177:181 F 5 '54

Statically indeterminate structures in the elastic and plastic states; report of technical session of International federation of prestressing. Engineering 176:551 O 30 '53

Strap steel for prestressed concrete structures. K. P. Milbradt. il diag Am Concrete Inst J 25:357-63 Ja '54

Three-story prestressed building is U.S. tallest. F. W. Wilcox. il diags Eng N 151: 31-2+ N 26 '53

Ultimate-load design of prestressed concrete; report of technical sessions of International federation of prestressing. Engineering 176: 490 O 16 '53

Validity of certain assumptions in the mechanics of prestressed concrete. G. L. Rogers. diags Am Concrete Inst J 25:317-30 D '53; Discussion. 26:332^1-332^4 pt 2 D '54

Why prestressed concrete in refinery? J. S. Bell and D. R. Deveaux. il diags Oil & Gas J 52:78+ N 30 '53; Same. bibliog Mech Eng 75:970-4+ D '53

Wire-winding machine prestresses beams. il Eng N 152:41 F 25 '54

Wrap-around cables prestress long continuous-girder bridge; Danube Valley bridge in south Germany. F. Leonhardt and C. Dobell. il diags Eng N 151:43+ S 3 '53

Setting

Use of the soniscope for measuring setting time of concrete. E. A. Whitehurst. bibliog il Am Soc T M Proc 51:1166-76; Discussion. 1176-83 '51

Stains

How to remove oil stains from concrete. Am Bld 76:327 Ag '54

Strength

Factors influencing the strength of concrete as revealed by a six-year record of concrete control. J. J. Waddell. Am Concrete Inst J 25:285-96 D '53

Flexural strength of prestressed concrete beams. D. F. Billet and J. H. Appleton. il diags Am Concrete Inst J 25:837-54 Je '54; Discussion. 26:856^1-856^{14} pt 2 D '54

Shearing strength of reinforced concrete column footings. E. Hognestad. plan diag Am Concrete Inst J 25:189-208 N '53

Silicarbon; concrete strengthener. W. M. Rau and H. Yamada. diag Concrete 62:16+ F '54

Temperature effect

Effect of abnormal temperatures on prestressed concrete; report of technical session of International federation of prestressing. Engineering 176:490 O 16 '53

Testing

Design of concrete mixes for vacuum processing. J. G. Dempsey. Am Concrete Inst J 25:677-86 Ap '54

Effect of age of concrete on its resistance to scaling caused by using calcium chloride for ice removal. W. C. Hansen. bibliog il Am Concrete Inst J 25:341-51 Ja '54

Effects of fly-ash replacement of cement. G. H. Larson. Concrete 62:38+ Mr '54; Abstract. Roads & Eng Constr 92:108-9 My '54

Evaluation of air-entraining admixtures for concrete. F. H. Jackson and A. G. Timms. Pub Roads 27:259-67 F '54; Excerpts. Concrete 62:30+ Mr; 30 My '54

Field testing of concrete. S. Thaulow. il Am Concrete Inst J 25:sup 10-11+ Mr '54

Further studies to develop an accelerated test procedure for the detection of adversely reactive cement-aggregate combinations. T. E. Stanton. il Am Soc T M Proc 51:1087-96 '51

Hot cement and hot weather concrete tests. E. L. Howard. Am Concrete Inst J 25:258-60 N '53

Lightweight prestressed concrete. F. E. Koebel. il diags Am Concrete Inst J 25:585-96 Mr '54

Method for estimating water content of concrete at the time of hardening. J. S. Blackman. il Am Concrete Inst J 25:533-41 Mr '54; Discussion. 26:544^1-544^4 pt 2 D '54

Method of making vibrated dry-tamp concrete cylinders applied to tests of lightweight aggregate and block mixtures. S. B. Helms and A. L. Bowman. bibliog il Am Soc T M Proc 51:1184-96 '51

Microsecond timer checks concrete beams. J. H. J. Filter. diags Electronics 26:152-4 O '53

Nature of bond in pre-tensioned prestressed concrete. J. R. Janney. il diags Am Concrete Inst J 25:717-36 My '54; Discussion. 26:736^1-736^{11} pt 2 D '54

Performance of automatic freezing-and-thawing apparatus for testing concrete. S. Walker and D. L. Bloem. diag Am Soc T M Proc 51:1120-35 bibliog(58 titles, p1132-5); Discussion. 1135-40 '51

Permeability tests of lean mass concrete. H. K. Cook. bibliog il diag Am Soc T M Proc 51:1156-65 '51

Properties of concrete containing a blend of portland cement and air-entraining ground blast-furnace slag. W. E. Grieb and G. Werner. Pub Roads 28:46-9 Ag '54

Properties of heavy concrete made with barite aggregates. L. P. Witte and J. E. Backstrom. bibliog Am Concrete Inst J 26:65-88 S '54

Pulse-velocity equipment for testing concrete; abstract. A. E. Whitehurst. Roads & Eng Constr 92:110 My '54

Sampling and testing ready mix concrete. F. F. Bartel. Concrete 62:40-3 Je '54

Soniscope tests; abstract. B. Mather. Roads & Eng Constr 92:175 Ap '54

Vibration

Compacting concrete by vibration; Pine Flat dam. W. G. Mitchell. Am Concrete Inst J 26:93-4 S '54

Effectiveness of vibration of concrete. J. M. Plowman. il diag Engineer 197:302-3 F 26 '54

CONCRETE (periodical)

Fifty years of Concrete, the magazine. J. W. Shaver. il Concrete 62:5-7+ Mr '54

CONCRETE, Cellular. See Concrete, Porous

CONCRETE, Effect of alkalies on

Alkali-aggregate interaction in concrete. F. E. Jones. bibliog il map Chem & Ind p 1375-83 D 26 '53

Freeze-thaw resistance of concrete as affected by alkalies in cement. B. Tremper. bibliog Am Soc T M Proc 51:1097-107 '51

Research on the alkali-aggregate reaction. Roads & Sts 97:112-13 F '54

CONCRETE, Effect of sea water on

Concrete ship resists sea water 34 years. C. Willson. il Concrete 62:5-8+ Ja '54

CONCRETE, Porous

Cellular concretes. R. C. Valore, jr. il Am Concrete Inst J 25:773-96 bibliog(72 titles, p794-6), 817-36 My-Je '54

Lightweight building material from waste materials; Ytong. il Can Chem Process 38: 50+ Je 1 '54

CONCRETE, Ready-mixed. See Concrete mixing—Ready-mixed concrete

CONCRETE, Refractory

Refractory concrete for refinery vessel linings. J. F. Wygant and W. L. Bulkley. diags Am Cer Soc Bul 33:233-9 Ag 15 '54

Thermal conductivity of refractory insulating concrete. W. C. Hansen and A. F. Livovich. Am Cer Soc J 36:356-62 N 1 '53

CONCRETE Reinforced

Basalt rock co. story; Strestcrete floor, roof and wall system. il Rock Prod 57:129-31 Ja '54

Combined form and reinforcement for concrete slabs. B. F. Friberg. il diags Am Concrete Inst J 25:697-716 My '54

Evolution of reinforced concrete. W. R. Howard. Engineering 177:200 F 12 '54

Precast units for Bay bridge foundation. G. Burnley. il Concrete 61:16 D '53

Rational analysis of a concrete beam with longitudinal holes. J. Moyse. diags Am Concrete Inst J 25:598-600 Mr '54

Reinforced concrete bridge economy. N. L. Ashton. Am Concrete Inst J 25:804 My '54

Simpler column ties. G. Beeth. bibliog il Am Concrete Inst J 25:602-4 Mr '54

Supports for concrete shuttering. il Engineering 176:447 O 2 '53

See also

Concrete construction

Steel, Reinforcing

Standards

Amendments to proposed standard specification for the design and construction of reinforced concrete chimneys. Am Concrete Inst J 25:sup7+ Mr '54

ACI standard specification for the design and construction of reinforced concrete chimneys. diags Am Concrete Inst J 26:1-48 S '54

Fifty years of development in building code requirements for reinforced concrete. F. Kerekes and H. B. Reid, jr. Am Concrete Inst J 25:441-71 F '54

Testing

Inelastic behavior of reinforced concrete members subjected to short-time static loads. L. H. N. Lee. bibliog il diags Am Soc C E Proc 79 [no 286]:1-26 S '53

Minimum bar spacing as a function of bond and shear strength. P. M. Ferguson and others. il diags Am Concrete Inst J 25:869-87 Je '54; Discussion. 26:888^1-888^8 pt 2 D '54

Static and dynamic elastic behavior of reinforced concrete beams. J. Penzien and R. J. Hansen. bibliog il diags Am Concrete Inst J 25:545-67 Mr '54

CONCRETE arches. See Arches, Concrete

CONCRETE blocks

Cement blocks used for sewer relocation project. F. L. Rice. diags Pub Works 85:84 Jl '54

Chimney blocks put to new use; forms wall of patio; detail plate. K. R. O'Neal. il plan diags Am Bld 75:180-1 Jl '53

Concrete block form workhorse ballast. il Concrete 61:34+ D '53

Concrete blocks support shield-driven tunnel. H. T. Perez. il Constr Methods 35:60-4 N '53

Cracking of concrete block walls. Arch Rec 113:176+ Je '53

Method of making vibrated dry-tamp concrete cylinders applied to tests of lightweight aggregate and block mixtures. S. B. Helms and A. L. Bowman. bibliog il Am Soc T M Proc 51:1184-96 '51

New concrete block for cavity walls. il Am Bld 75:188 D '53

New designs cut prestressed block-beam cost. R. H. Bryan. il diags Eng N 152:32-4 Ap 22 '54

Pumice building blocks. Consumers Res Bul 32:11 O '53

Soffit block in tilt-up construction. T. Brown. il Rock Prod 57:225-6+ Ag '54

Speeding up block deliveries; Fizzano bros., inc. W. B. Lenhart. il diags Rock Prod 57:209-10 Ag '54

Manufacture

Another high pressure steam block plant; National brick and supply co. il Concrete 61:32 D '53

Automatic curing of concrete block; Alwine brick co. il Rock Prod 57:192-3 Je '54

Concrete block curing systems. W. J. Shore. Concrete 62:35-7 S '54

Steam curing plus hot-air drying; Frontier dolomite concrete products corp. W. B. Lenhart. il Rock Prod 57:195-6 Je '54

Testing

Relation of shrinkage to moisture content in concrete block. G. L. Kalousek and others. il Am Concrete Inst J 25:225-40 N '53; Abstract. Concrete 62:26+ F '54

Studies on the cementitious phases of autoclaved concrete products made of different raw materials. G. L. Kalousek. bibliog Am Concrete Inst J 25:365-78 Ja '54

CONCRETE bridges. See Bridges, Concrete

CONCRETE buildings

Demountable precast hangar spans 130′. il diag Arch Forum 100:164-5 Je '54

LeCorbusier completes his concrete honeycomb. il Arch Forum 100:156-9 Mr '54

Notable concrete structures, old and new; illustrations with text. Am Concrete Inst J 25:437-40+, 542-4+, 631-2+, 797-800, 855-6+ F-Je '54

Unique design with concrete; Faith Lutheran church in Tucson. il diag Am Bld 75:222-3 Jl '53

See also

Concrete construction

Concrete houses

CONCRETE construction

ACI 6th regional meeting, Houston, Oct. 29-30; with abstracts of papers. Am Concrete Inst J 25:sup5-8+ D '53

Applying mass production to prestressed structural concrete; Concrete engineering co. A. R. Mac Pherson. il Rock Prod 56:173-5 D '53

Assembly-line precasting, erection yield 10,000 sq ft of factory daily. R. C. Hilton and B. Coulson. il Eng N 151:40-1 D 10 '53

Assembly line technique results in low-cost concrete construction at Forrestal Village. W. R. Lorman and C. K. Wiehle, jr. il diags Civil Eng 23:760-4 N '53

Basalt rock co. story; Strestcrete floor, roof and wall system. il Rock Prod 57:129-31 Ja '54

Big equipment builds Chief Joseph plant. il Constr Methods 36:62-6 Je '54

Build piers for railroad bridge. J. Goff. il Constr Method 36:67-8+ Ap '54

Building uses four types of concrete. il Concrete 62:11-12 Je '54

Concrete frame cuts school costs; Lindley Park elementary school at Asheboro, N.C. il diags Arch Forum 101:160-1 Jl '54

Concrete in Reclamation construction. W. A. Dexheimer. Am Concrete Inst J 25:637-42 Ap '54

Construction of Granby pumping plant. R. J. Willson. il plan Am Soc C E Proc 79 [no 270]:1-21 S '53

Continuing boom expected in commercial building. N. P. Mason. Am Concrete Inst J 25:sup48-9 Ap '54

Continuous pour builds concrete bleach plant. il plan Constr Methods 35:92-3+ N '53

Contractor reviews his headaches at Clark Hill powerhouse. W. A. Giddings. il map Civil Eng 24:158-60 Mr '54

Earthquake-resistant tower features floating foundation, heat-pump. il plan Eng N 151:47-8 N 19 '53

Factory-precast parts cut building costs. il diags Arch Forum 100:162-4 Ap '54

Four-storey garage in Düsseldorf. il Engineer 197:363-4 Mr 5 '54

Insulated skin wall construction used again for large office building. il Civil Eng 23:716 O '53

Largest lift-slab operation provides barracks averaging $8 per sq ft; navy's Little Creek amphibious base. il Eng N 152:25 F 25 '54

Largest structure to date built by lift-slab method: barracks at U.S. naval amphibious base, Norfolk. E. K. Bryant. il plan Civil Eng 23:606-8 S '53

Lift-slabs of lightweight block; Youtz-Slick method. il diags Arch Forum 99:164-5 S '53

Lightweight concrete pipeway stanchions. A. C. Blackburn. il Am Concrete Inst J 25:892-4 Je '54

Long-span prestressed-concrete beams used in army field house. R. E. Snetzer. il diags Civil Eng 24:217-19 Ap '54

CONCRETE construction—*Continued*

Methods of bonding new concrete to old. bibliog Am Concrete Inst J 25:sup 18-19+ My '54

Midyear construction review. G. C. Smith. Concrete 63:38 S '54

Modern concrete shoring; using quickly assembled steel scaffolding. A. C. Borgman. il Constr Methods 36:86-8 S '54

Movements in the structural concrete at Conowingo hydro plant. S. Moyer and V. Hansen. Am Soc C E Proc 79 [no 308]:1-7 O '53; Discussion. il diags 79 [no378]:13-20 D '53

Multistory precast framing. il diags Arch Forum 100:160-4 Ja '54

Navy precasts 10,000-man training center. J. Joseph. il Concrete 62:42+ Ja '54

New concreting techniques. il diags Arch Forum 99:139 D '53

Objective; bomb resistance; Armed forces institute of pathology. il plan Eng N 151:33-4 D 31 '53

130-ft span hangar in precast concrete. O. Safir. il diag Am Concrete Inst J 25:525-32 Mr '54; Abstract. Roads & Eng Constr 92:154-6 Ap '54

Our airbases in France are different. W. G. Bowman. il diags Eng N 151:32-5+ O 29 '53

Pier Luigi Nervi. il diags Arch Forum 99: 140-9 N '53

Precast and prestressed members form skeleton of multi-story office building; Glenn L. Martin co. engineering office. F. Kramrisch. il Civil Eng 24:22-3 Ja '54

Precast concrete considered for parking structures. il Eng N 151:75 O 8 '53

Precast concrete permits rapid construction of large marine training center. D. G. Hall. il Civil Eng 23:533-7 Ag '53

Precast panels speed construction of utility buildings. il Power Eng 58:65 Ap '54

Precast rigid-frame warehouse. il Eng N 151: 30-2 N 5 '53

Prefab elements used extensively in French housing project. il Eng N 151:60+ S 3 '53

Prestress both tilt-up walls and precast beams; Baylor university theater. il Eng N 152:48-9 Ja 28 '54

Prestressed concrete, a fourth structural material. E. K. Rice. il Min Cong J 40:33-5+ Jl '54

Prestressed concrete simplified. L. Coff. il diags Arch Forum 99:142-4 Ag '53

Prestressed cow palace for Los Angeles. C. J. Pankow, jr. il Concrete 61:3-4+ D '53

Prestressed I-beams support roof of reinforced concrete building. il Eng N 152:49-50 Ja 14 '54

Prestressed roof girders set span record; senior high school gymnasium in Greensboro, N.C. W. D. Shea. il Eng N 152:36-8 Ja 21 '54

Prestressed slabs and the lift slab building method; ready-mixed concrete. M. M. Lemcoe. il Rock Prod 57:139-41 My '54

Prestressing in two similar structures. il plans diags Arch Rec 114:183-6 Jl '53

Puerto Rico tries lift-slab construction. il Concrete 61:26 N '53

Reinforced concrete featured in Bolivian church. G. E. Lund and R. D. Schachere. il plan diags Civil Eng 23:464-5 Jl '53

Riverside builds new employee change house. il Am Concrete Inst J 25:sup 12 My '54

Service building has all precast units. il Concrete 62:54 Ja '54

Slash warehouse construction costs; reinforced concrete framing, precast concrete roof slabs and concrete block exterior walls. il Constr Methods 36:54-6 S '54

Soffit block in tilt-up construction. T. Brown. il Rock Prod 57:225-6+ Ag '54

Three-story prestressed building is U.S.' tallest. F. W. Wilcox. il diags Eng N 151: 31-2+ N 26 '53

Tilt-up rigid frames span 60′. il diags Arch Forum 98:160-1 Ap '53

U.S. makes soup instead of concrete. G. Magnel. Eng N 152:23 F 25 '54

Unusual office building going up in Colombia. il Eng N 151:57 S 17 '53

Use of concrete by the Corps of engineers. S. D. Sturgis, jr. Am Concrete Inst J 25: 645-54 Ap '54; Abstract. Roads & Eng Constr 92:156 Ap '54

See also

Arches, Concrete
Bridges, Concrete
Concrete, Reinforced
Concrete blocks
Concrete houses
Concrete lining
Concrete mixing
Concrete piling
Concrete placing
Concrete slabs
Dams, Concrete
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Footings, Concrete
Reservoirs, Concrete
Roofs, Concrete
Sea walls, Concrete
Ships, Concrete
Steel construction—Concrete encasement
Walls, Concrete
Water pipes, Concrete
Water tanks, Concrete
Wharves, Concrete

Bibliography

Current reviews of significant contributions in foreign and domestic publications. Published in monthly numbers of Journal of the American concrete institute

Cost

Economics of prestressing. il diags Arch Forum 97:143-4 D '52

Design

Circular concrete hangar roof cantilevers 46 ft. il diag Eng N 157:46-7 Jl 2 '53

Design and fabrication of precast sandwich panels for tilt-up construction; abstract. F. T. Collins. Roads & Eng Constr 92:156+ Ap '54

Design of monolithic concrete frame; prestressed. K. P. Milbradt annd T. J. Kofodimos. diags Am Soc C E Proc 79 [no 217]: 1-65 Jl '53

How to design a pre-tensioned bonded prestressed concrete beam. V. J. Brown. diags Roads & Sts 97:101-4+ F '54

Is ultimate design theory ready for codification? I. E. Morris. Am Concrete Inst J 26: 98-100 S '54

Limit analysis and design. W. Prager. bibliog diags Am Concrete Inst J 25:297-304 D '53; Discussion. 26:304^1-304^4 pt 2 D '54

Materials combined to advantage; concrete in compression, steel in tension; Livestock judging pavilion, Raleigh, N.C. F. N. Severud. il plan diags Civil Eng 24:152-5 Mr '54

Navy standardizes jet hangar designs. il Eng N 151:39-40+ N 12 '53

New designs cut prestressed block-beam cost. R. H. Bryan. il diags Eng N 152:32-4 Ap 22 '54

Pitfalls in flat-plate construction, and how to avoid them. S. D. Teetor. diags Eng N 152:49-50+ Mr 18 '54

Practical design of thin retaining-wall footings. R. P. V. Marquardsen. diags Am Concrete Inst J 24:45-56 S '52; Discussion. 25:56^1-56^3 pt 2 D '53

Prestressed concrete girders, Manhattanville college, Purchase, N.Y. C. Dobell. Am Soc C E Proc 79 [no 265]:1-5 S '53

Promising future predicted for precast thin-shell construction. A. Amirikian. il plans diags Civil Eng 23:530-2 Ag '53

Rapid design of continuous prestressed members. E. I. Fiesenheiser. diags Am Concrete Inst J 25:669-76 Ap '54

Reinforced circular hole in a concrete slab. R. Hicks. diag Engineering 176:808-9 D 25 '53

Selection and design of prestressed concrete beam sections. T. Y. Lin and A. C. Scordelis. diags Am Concrete Inst J 25:209-24; Correction. sup25 N '53; Discussion. P. D. Moliotis. 26:224^1-224^6 pt 2 D '54

Shell concrete today. il diags Arch Forum 101:156-67 Ag '54

Statically indeterminate structures in the elastic and plastic states; report of technical session of International federation of prestressing. Engineering 176:551 O 30 '53

Stockwell bus garage. il diags Engineer 196: 557-9 O 30 '53; Engineering 176:703 N 27 '53

Stresses and displacements in thin shells composed of cylindrical and spherical segments. M. G. Salvadori. diags Am Soc C E Proc 79 [no 293]:1-22 O '53

CONCRETE construction—Design—*Continued*

Structural forms; thin shells of reinforced concrete; with time-saver standards. S. Howard. plans diags Arch Rec 113:211+ Ap; 205 My; 183+ Je; 114:215+ S; 213+ O; 225 N '53

Tropic market built open for maximum air circulation. il Eng N 151:53-4 Ag 6 '53

Unusual roof on only four supports; U.S. Naval postgraduate school, Monterey, Calif. il diags Eng N 152:39-41 Ap 22 '54

Failure

Concrete tank roof failure probed. il Eng N 151:25 O 15 '53

Defects found in building that failed at Scarsdale, N.Y. Eng N 151:26 N 19 '53

Engineers report on possible causes of building failing at Scarsdale, N.Y. Eng N 151:22 N 26 '53

Fire resistance

Built-in fire safety; Bert mills corp. Safety Maint & Prod 107:39-40 Ja '54

Fire resistance of prestressed concrete; tests reveal no sudden failure. il Arch Forum 98:155 My '53

Forms

Block caving practice at the Jeffrey mine; aluminum forms for concreting mine headings. D. P. R. Smyth. il diags Min Eng 6:Trans 516-18 My '54

Building panels precast in plastic forms. il Eng N 151:33 O 22 '53

Cardboard boxes form cellular concrete. il diags Arch Forum 100:165 Ap '54

Cardboard concrete floors. il diag Arch Forum 98:150 My '53

Carton forms used in slab construction. Paper Tr J 138:48 Jl 23 '54

Combined form and reinforcement for concrete slabs. B. F. Friberg. il diags Am Concrete Inst J 25:697-716 My '54

Concrete forming costs cut. diag Eng N 151: 97-8 Ag 6 '53

Corrugated box forms for concrete rib bedslab construction. H. C. Pfannkuche. il Am Concrete Inst J 25:353-6 Ja '54

Corrugated steel forms for concrete floors. il Constr Methods 36:164-5 Je '54

Derrick-hoisted forms save time and money; building of the Prudential insurance co. of America. M. J. Colarusso. il Civil Eng 24: 16-17 Ja '54

Discarded oil barrels cut cost of concrete pier forms. il Coal Age 59:114 Ap '54

Expansible and reusable concrete forms. il Arch Rec 113:248+ Mr '53

Fast fastening; steel strapping of forms speeds hospital erection. il Eng N 152:212+ F 18 '54

Forming and pouring concrete at same time results in sharply reduced project costs. il Constr Methods 36:86-8 My '54

Making meter box tile in fiber forms. A. J. Brumbaugh. il Pub Works 85:90-1 Ag '54

New interlocking hardware cuts forming time, costs. il Eng N 152:113-14 Ap 15 '54

One-piece reinforced plastic forms for assembly line production of thin-shell concrete roof sections. G. P. Duecy and J. L. Hutsell. il Am Concrete Inst J 26:89-92 S '54

Precision forms speed construction of concrete buildings. il Am Bld 75:144-6 O '53

Rolling formwork solves speed problem; railway mail and parcel post terminal, Cleveland. il Eng N 152:33-4+ Ap 15 '54

Shop-built traveling form speeds sewer job. J. R. Owen. il diags Eng N 151:50-1+ N 19 '53

Sliding formwork. il diag Arch Forum 97: 150-2 N '52

Small but tricky pour makes unique dome. il Constr Methods 36:67-8+ Je '54

Steel forms mold concrete; bridge pier shells. L. L. Wise. il Constr Methods 35:50-3 D '53

Steel strapping secures forms on big columns. il diags Constr Methods 36:126+ S '54

History

Evolution of concrete construction. R. H. Corbetta. il diag Am Concrete Inst J 25: 501-12 F '54

History and development of precast concrete in the United States. J. L. Peterson. il diag Am Concrete Inst J 25:477-96 F '54

Story of progress; fifty years of the American concrete institute. W. A. Maples and R. E. Wilde. il Am Concrete Inst J 25:409-36 F '54

Rapid construction

Light weight, few forms permit fast erection of concrete structures. il Eng N 151:61+ N 19 '53

Precast structural members produced on floor slab of beef exhibit barn. il Constr Methods 36:78-9+ Ap '54

Rolling formwork solves speed problem; railway mail and parcel post terminal, Cleveland. il Eng N 152:33-4+ Ap 15 '54

Tables, calculations, etc.

Moment distribution shortcuts. U. T. Berg. Am Concrete Inst J 26:94-7 S '54

Testing

Use of electrical resistance strain gauges on concrete structures. J. C. Lucas and R. Newsham. Engineering 176:487-8 O 16 '53

Vacuum treatment

Design of concrete mixes for vacuum processing. J. G. Dempsey. Am Concrete Inst J 25:677-86 Ap '54

CONCRETE construction, Subaqueous

Assembled under water precast shells become bridge piers. L. L. Wise. il diags Constr Methods 36:62-5 Mr; 64-6 Ap '54

Building big buoyant boxes for bridge substructure; Tappan Zee bridge over the Hudson river. il Eng N 151:33-4+ Jl 9 '53

Deep piers formed with huge precast units; Richmond-San Rafael bridge. il diags Eng N 152:30-2+ Mr 4 '54

Hollow precast concrete units of great size form bridge substructure; Richmond-San Rafael bridge crossing north part of San Francisco bay. B. C. Gerwick, jr. il diags Civil Eng 24:235-9 Ap '54

See also

Piers, Concrete

Wharves, Concrete

CONCRETE construction, Underground

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Concrete construction in mines

CONCRETE construction in mines

Air-borne concrete, mixed underground, expedites International nickel co.'s operations. Roads & Eng Constr 91:74 D '53; Same. Comp Air Mag 58:318 N '53; Same. Mech Eng 76:35-6 Ja '54

Block caving practice at the Jeffrey mine; aluminum forms for concreting mine headings. D. P. R. Smyth. il diags Min Eng 6:Trans 516-18 My '54

Block caving practice at the Jeffrey mine; slusher drift development. H. H. Waller. il plan diags Min Eng 6:Trans 510-13 My '54

Blow concrete to shore up mine tunnels; Nickel co.'s Creighton mine. il Iron Age 172:61 O 15 '53

Discarded oil barrels cut cost of concrete pier forms. il Coal Age 59:114 Ap '54

Inco's Creighton mine uses air-borne concrete; illustrations with text. Eng & Min J 154:120 D '53

Mather mine uses pipeline concrete in underground operations. H. C. Swanson. il plan diag Min Eng 6:Trans 393-6 Ap '54

San Manuel uses steel and reinforced concrete for ground support. il diags Min Eng 6:692-5 Jl '54

Speedy shaft construction. il plan diags Coal Age 59:194-6 Mr '54

Tsumeb modernizes mine to increase ore output. F. C. Pickard. il plans diags Eng & Min J 154:90-3 N '53

Tsumeb sinks concrete shaft through strong water channel. diags Eng & Min J 154: 98-9 D '53

CONCRETE construction in winter

Good concrete in cold weather. Constr Methods 36:62-3 F '54

Pier 57 concreted through the winter. M. D. Morris. il Am Concrete Inst J 25:281-4 D '53

CONCRETE curbs. See Curbs, Concrete

CONCRETE dams. See Dams, Concrete

CONCRETE encasement. See Steel construction—Concrete encasement

CONCRETE floors. See Floors, Concrete

CONCRETE footings. See Footings, Concrete

CONCRETE houses

Basalt introduces the precast concrete home. il diag Rock Prod 57:132-5 Ja '54

Builder's formula solves sweating problem in all-concrete houses. il Am Bld 76:174+ Je '54

Built to last, for $12,000. il plan Am Bld 75:220-1 S '53

Colorful yet simple; Florida house is built for less than $9 per square foot. il plan Am Bld 75:152-3 Mr '53

Frank Lloyd Wright; new desert house for his son is a magnificent coil of concrete block. il plans diag House & Home 3:99-107 Je '53

North Carolina home design winners. Concrete 62:30 Ap '54

Precision forms speed construction of concrete buildings. il Am Bld 75:144-6 O '53

Successful home design competition; Wisconsin concrete products association. il plan Concrete 62:18 S '54

Two million homemakers will read about this outstanding concrete masonry home for under $15,000. il plan Concrete 62:10-11+ S '54

CONCRETE industry

Economic trends affecting concrete construction. N. P. Mason. Am Concrete Inst J 25:625-30 Ap '54

FCC radio rules make ready mix eligible. Concrete 62:22 Ja '54

National ready mixed concrete association third annual survey of ready-mixed concrete production and value. Rock Prod 57:127-8 Jl '54

Ready mix production and value in 1953. Concrete 62:30 Je '54

Selection of construction materials. J. F. Jelley. Am Concrete Inst J 25:633-6 Ap '54; Abstract. Roads & Eng Constr 92:136+ Ap '54

See also

Concrete products industry

Advertising

Small-fry prospects think you're too big to sell them? Jahncke service, inc. il Sales Management 72:89 Je 15 '54

Directories

Ready-mix concrete suppliers, Canada. Roads & Eng Constr 92:248 Je '54

Exhibitions

Show 'em then sell 'em; Concrete contractors association of Greater Chicago show of latest materials, equipment, and techniques in concrete construction; illustrations with text. Eng N 152:73-4 Ap 1 '54

State fair exhibit aids products sales; Mortarless masonry co. il Concrete 61:22 N '53

History

Story of progress; fifty years of the American concrete institute. W. A. Maples and R. E. Wilde. il Am Concrete Inst J 25:409-36 F '54

Sweden

Precast lightweight units at Swedish fair. il Concrete 62:38-9 Je '54

CONCRETE laboratories

Some ideas from Texas; El Paso industrial laboratory. il Concrete 62:28-9 Ag '54

CONCRETE lining

Concrete blocks support shield-driven tunnel. H. T. Perez. il Constr Methods 35:60-4 N '53

Concrete pot-shots line difficult tunnel. il diags Constr Methods 36:86-8 F '54

East Delaware tunnel construction to be completed six months ahead of time. J. S. Macdonald. il map diags Civil Eng 24:28-30 Ja '54

Flat jacks stress 500 ft of tunnel. C. Dobell. Eng N 151:66+ D 10 '53

How to sink a shaft safely and efficiently; St Joseph lead co. G. P. Lutjen. il plans diags Eng & Min J 155:72-7 Je '54

Lining concrete pumped into place; Ontario Hydro tunnels. J. R. Glaeser. il diags Civil Eng 23:753-7 N '53

Lining methods at Gaviota tunnel. J. E. Witte. il diag Roads & Sts 96:53-6 O '53

Lining of Tecolote tunnel to heading is planned to overcome intense heat. il Eng N 151:25 N 26 '53

Lower cost irrigation canal linings. T. V. D. Woodford. il diag Eng N 151:35-6+ N 5 '53

Refractory concrete for refinery vessel linings. J. F. Wygant and W. L. Bulkley. diags Am Cer Soc Bul 33:233-9 Ag 15 '54

Shea removes track and cleans out tunnel invert at lower cost. il diag Constr Methods 36:70-1+ S '54

Sonora opens area to irrigation; Yaqui River valley irrigation project. M. Saint Albans. il Constr Methods 36:66-8+ My '54

Step down pour walls coil pit. il Steel 133:104 Jl 13 '53

Woodhead new tunnel; construction of a three-mile main double-line railway tunnel. P. A. Scott and J. I. Campbell. diag Engineer 197:418-20 Mr 19 '54

CONCRETE manholes. See Manholes, Concrete

CONCRETE mixers

Early truck mixers. J. W. Shaver. il diag Concrete 62:22-5+ Ag '54

Cost of operation

How to buy ready mixed hauling units; with cost data. R. C. Shiely. Concrete 61:3-5+ N '53

CONCRETE mixing

ACI standard recommended practice for selecting proportions for concrete. Am Concrete Inst J 26:49-64 S '54

Calcite (Aktivitt) as concrete admixture. E. Hognestad. Am Concrete Inst J 25:801-3 My '54

Chemical analysis and sources of air-entraining admixtures for concrete. W. J. Halstead and B. Chaiken. bibliog(30 titles) Pub Roads 27:268-78 F '54

Concrete mixing and placing. T. B. Appel, jr. il plans diags Constr Methods 35:94-5+ O; 103+ N; 95+ D '53; 36:98+ Ja; 66-8+ F; 121+ Mr; 135+ Ap; 105-6+ My; 110+ Je; 112+ Ag; 100-2+ S '54 (to be cont)

Design of concrete mixes for vacuum processing. J. G. Dempsey. Am Concrete Inst J 25:677-86 Ap '54

Evaluation of air-entraining admixtures for concrete. F. H. Jackson and A. G. Timms. Pub Roads 27:259-67 F '54; Excerpts. Concrete 62:30+ Mr; 30 My '54

Good concrete in cold weather. Constr Methods 36:62-3 F '54

Method for analyzing concrete mixes. W. J. Anderson. Concrete 61:5-7 D '53

Mixing and curing water for concrete; abstract. W. J. McCoy. Concrete 62:31+ Jl '54

Practical method of concrete mix design. L. B. Mercer. Concrete 62:6-8 My; 36+ Jl; 30-1+ Ag; 24-7 S '54

Push-button control of concrete batch proportions. il Roads & Eng Constr 91:62 D '53

Role of concrete admixtures; panel discussion. il Arch Rec 113:171-5 Je '53

Vee-bee scale, an international standard for consistency of concrete? O. Beijer. il Am Concrete Inst J 26:7-9+ S '54

See also

Concrete—Aggregate

Ready-mixed concrete

Army inspectors learn about ready mix. il Concrete 62:44-5 F '54

Automatic controls speed up batching; Guaranteed concrete co. W. B. Lenhart. il map diag Rock Prod 57:138-40 S '54

Compressed air aids ready mix production; San Diego transit-mixed concrete co. il Concrete 62:44+ Mr '54

Concrete mixing and placing; ready-mixed concrete plants. T. B. Appel, jr. il diags Constr Methods 36:110+ Je '54

Hot water heating system for ready-mixed concrete plants. W. J. Shore. diag Rock Prod 57:213 Ag '54

How to buy ready mixed hauling units; with cost data. R. C. Shiely. Concrete 61:3-5+ N '53

Is ready mixed concrete dependable? S. Walker. Concrete 62:8+ F '54

CONCRETE mixing—Ready-mixed concrete—*Continued*

Mixer bureau and NRMCA revise standards. il Concrete 62:38 Ja '54

Ohio ready mixed concrete association annual meeting, Cleveland, June 16. Concrete 62:32+ Jl '54; Rock Prod 57:224+ Ag '54

Ohio short course emphasized importance of quality concrete; abstracts of papers. Rock Prod 57:190-1+ F '54

Prestressed slabs and the lift slab building method; ready-mixed concrete. M. M. Lemcoe. il Rock Prod 57:139-41 My '54

Ready mix demonstrates versatility in 65000 yd. pour for underground garage. il Concrete 62:32 S '54

Ready-mix producer organized for service and efficiency; Hilltop building materials, inc. B. Nordberg. il Rock Prod 56:140-7+ N '53

Ready mix production and value in 1953. Concrete 62:30 Je '54

Ready-mixed concrete business; planning for profits (cont). J. A. Nicholson. Rock Prod 56:194-8+ O; 149-50+ N; 176-80+ D '53; 57:233-4+ Ja; 186-8+ F; 174-8 Mr; 227-30 Ap; 152+ My; 202+ Je; 123+ Jl; 223+ Ag; 191-2+ O '54 (to be cont)

Ready-mixed concrete experts answer questions. Rock Prod 57:141+ S '54

Sampling and testing ready mix concrete. F. F. Bartel. Concrete 62:40-3 Je '54; Abstract. Rock Prod 57:171 Mr '54

Small ready-mix concrete plants. H. K. Church. il Rock Prod 56:159-62 S; 186-8+ D '53

20,000-gal. oil-fired tank supplies hot water for ready-mix concrete plant. G. J. Jonas. il Civil Eng 23:404-5 Je '53

Woman runs contractor's ready mix plant; Zimmerly construction co. il Concrete 62:10-11 Jl '54

See also

National ready mixed concrete association

CONCRETE pavements. See Pavements, Concrete

CONCRETE piers. See Piers, Concrete

CONCRETE piling

Building a causeway to new play island; causeway between Port Isabel and Padre Island. il Eng N 152:33-4 Ap 29 '54

Driving 200-foot piles; Raymond concrete pile co. il Comp Air Mag 59:197-8 Jl '54

Dual-purpose piles cut building costs. H. T. Perez. il diags Constr Methods 36:54-7 My '54

Hollow prestressed concrete pile. Roads & Eng Constr 92:111-12 Jl '54

Mixed-in-place piles form jetty to control beach erosion. N. L. Liver and others. il diags Civil Eng 24:156-7 Mr '54

Tiko wharf, British Cameroons. il Engineer 197:99 Ja 15 '54

Testing

Pile loading tests; Morganza Floodway control structure. C. I. Mansur and J. A. Focht, jr. il diags Am Soc C E Proc 79 [no 324]:1-31 N '53

CONCRETE pipe association, American. See American concrete pipe association

CONCRETE pipes. See Pipes, Concrete

CONCRETE placing

Air-borne concrete, mixed underground, expedites International nickel co.'s operations. Roads & Eng Constr 91:74 D '53; Same. Comp Air Mag 58:318 N '53; Same. Mech Eng 76:35-6 Ja '54

Air placed concrete restores county bridges. T. J. Hopgood. il Pub Works 85:61-2 Ja '54

Air placement cuts column concreting costs. il Constr Methods 35:59-61 D '53

Blown-concrete walls. il Factory Management 111:87 D '53

Concrete mixing and placing. T. B. Appel, jr. il diags Constr Methods 35:94-5+ O; 103+ N; 95+ D '53; 36:98+ Ja; 66-8+ F; 121+ Mr '54 (to be cont)

Concrete placing and handling manual issued by Gar-Bro. il Roads & Sts 96:85 N '53

Concrete pot-shots line difficult tunnel. il diags Constr Methods 36:86-8 F '54

Concrete pumped 17 stories in bolted steel hospital; Mayo memorial medical center. il Eng N 151:43-4 Ag 27 '53

Continuous pour builds concrete bleach plant. il plan Constr Methods 35:92-3+ N '53

Forming and pouring concrete at same time results in sharply reduced project costs. il Constr Methods 36:86-8 My '54

Mather mine uses pipeline concrete in underground operations. H. C. Swanson. il plan diag Min Eng 6:Trans 393-6 Ap '54

Old reservoir restored by gunned concrete. W. B. Johnson. il Constr Methods 36:138+ Ag '54

Pouring floor for new atomic reactor. il Concrete 62:40 F '54

Ready mix demonstrates versatility in 65000 yd. pour for underground garage. il Concrete 62:32 S '54

Rig pours pipe in place. il Constr Methods 36:62 S '54

Right and wrong way to deposit concrete. diags Roads & Sts 96:56-7 D '53

Small but tricky pour makes unique dome. il Constr Methods 36:67-8+ Je '54

See also

Concrete construction, Subaqueous

Concrete lining

CONCRETE plants

Colorful displays for good public relations; Ready mixed concrete co. R. A. Latimer. il Rock Prod 57:219+ Ag '54

Combining efficiently ready mix and block production in one plant layout; Portland industries, inc. C. E. Wright. il Rock Prod 57:189-90 Je '54

Concrete mixing and placing; ready-mixed concrete plants. T. B. Appel, jr. il diags Constr Methods 36:110+ Je '54

Concrete on call at Palisades dam. il Constr Methods 35:57 N '53

Rocky Mountain mass concrete operations. G. P. McIndoe. flow diag diag Am Soc C E Proc 79 [no 268]:1-12 S '53

Small ready-mix concrete plants. H. K. Church. il Rock Prod 56:159-62 S; 186-8+ D '53

Texas Industries blankets the fields of concrete and aggregates. H. C. Persons; T. Brown. il Rock Prod 57:86-99 F '54

See also

Concrete construction

Concrete mixing—Ready-mixed concrete

Concrete placing

Concrete products plants

Employees

Dallas ready-mixed concrete producers lose to union in federal court. N. C. Rockwood. Rock Prod 57:41+ Jl '54

Equipment

Automatic controls speed up batching; Guaranteed concrete co. W. B. Lenhart. il map diag Rock Prod 57:138-40 S '54

Concrete mixing and placing; permanent plant facilities. T. B. Appel, jr. il Constr Methods 36:135+ Ap; 105-6+ My '54

Concrete mixing and placing; plants for mass concrete. T. B. Appel, jr. il plans diags Constr Methods 36:112+ Ag; 100-2+ S '54

Early equipment in the concrete industry. il Am Concrete Inst J 25:sup28+ F '54

Push-button ready-mixed concrete plant; Frank J. Knight co. H. C. Persons. il Rock Prod 57:144-5+ My '54

Ready-mix producer organized for service and efficiency; Hilltop building materials, inc. B. Nordberg. il Rock Prod 56:140-7+ N '53

Management

Ready-mix producer organized for service and efficiency; Hilltop building materials, inc. B. Nordberg. il Rock Prod 56:140-7+ N '53

Ready-mixed concrete business; planning for profits (cont). J. A. Nicholson. Rock Prod 56:194-8+ O; 149-50+ N; 176-80+ D '53; 57:233-4+ Ja; 186-8+ F; 174-8 Mr; 227-30 Ap; 202+ Je; 123+ Jl; 223+ Ag; 191-2+ O '54 (to be cont)

CONCRETE plants—Management—*Continued*
Ready-mixed concrete experts answer questions. Rock Prod 57:141+ S '54
Woman runs contractor's ready mix plant; Zimmerly construction co. il Concrete 62:10-11 Jl '54

Radio communication

Ready-mixed concrete business; radio offers many advantages to the ready-mixed concrete industry. J. A. Nicholson. il Rock Prod 57:202+ Je; 123+ Jl '54; 223+ Ag '54

Safety measures

Fischer again wins NRMCA safety contest. Concrete 62:32 Ja '54

CONCRETE poles. See Poles, Concrete

CONCRETE products
Lime for concrete products; abstract. J. K. Selden. Rock Prod 57:91-2 Je '54
Pole anchors; concrete products specials. L. Lindin. il diags Concrete 61:28-9 D '53
See also
Concrete blocks
Concrete piling
Concrete slabs
Pipes, Concrete
Sewer pipes, Concrete

CONCRETE products industry
Block industry's half century. E. F. Olsen. il Concrete 62:18+ Jl '54
Concrete masonry industry enters a competitive era. B. Nordberg. il Rock Prod 57:220-5+ Ja '54
Concrete products association of Washington fall meeting, Wenatchee, Sept. 18-19. Concrete 61:26-7+ D '53
Ohio concrete block association annual meeting, Columbus. Concrete 62:26 Je '54
Prestressed products industry in Florida. il Concrete 62:36+ Mr '54
Southeastern concrete masonry association annual meeting, 10th, Charleston, S.C. Nov. 16-18. Concrete 61:18+ D '53; Rock Prod 57:226-9 Ja '54
Wisconsin concrete producers association annual meeting, Milwaukee, Jan. 19-20. Rock Prod 57:182-3 F '54; Concrete 62:32+ F '54
See also
Basalt rock company

Advertising

Planned program for block promotion; National concrete masonry association. W. P. Markert. il Concrete 62:24+ Ja '54

CONCRETE products plants
Basalt rock co. story; concrete products developments. il Rock Prod 57:114-18 Ja '54
Besser celebrates 50th anniversary. il Concrete 62:12-14+ My '54
Besser 50th anniversary party draws 900. il Concrete 62:32-3 Je '54
Diversify to expand business; Rinker companies. C. E. Wright. il Rock Prod 57:177-8 F '54
Specializing in precast concrete; Pre-Cast corp. C. E. Wright. il Rock Prod 57:211-12 Ag '54
Texas Industries blankets the fields of concrete and aggregates. H. C. Persons; T. Brown. il Rock Prod 57:86-99 F '54

Employees

Block plant where brass shares its gold; National cement products co. Concrete 62:6-7 Je '54

Equipment

Anchor goes autoclave. J. K. Selden and R. Carlson. il Concrete 62:30-1+ S '54
Block plant features gravity handling; Washington brick co. R. J. Frazier. il Concrete 62:20+ Je '54
Block plant with push-button controls; United cement products co. T. Brown. il Rock Prod 57:113-15 Jl '54
Columbia markets block machine to produce many hollow units. il Concrete 62:45 Ja '54
Dedicate new pipe plant at Evansville, Ind. il Concrete 62:34 Ag '54
Diversified products spell success for Florida plant; Aquatite tile co. L. Roberts. il Rock Prod 56:187-9 O '53
Increase crushed stone capacity to meet demands for diversified concrete products; Maule industries, inc. W. B. Lenhart. flow sheet il Rock Prod 57:56-8+ Jl '54
Industry's newest high pressure steam curing plant in Washington, D.C.; National brick and supply co. W. B. Lenhart. il Rock Prod 57:215-18 Ja '54
Launches industry's largest autoclaves; Anchor concrete products, inc. J. K. Selden. il Rock Prod 57:135-7 S '54
Speeding up block deliveries; Fizzano bros., inc. W. B. Lenhart. il diags Rock Prod 57:209-10 Ag '54
Step up septic tank manufacture; Superior septic tank co. il Rock Prod 57:214-15+ Ag '54

Management

Selling methods that built a profitable farm market; Dodson manufacturing co. T. Brown. il Rock Prod 56:137-8 N '53

CONCRETE research
Autoclaved concrete products. J. K. Selden. bibliog Rock Prod 57:142-3+ My; 216-18 Ag '54
Elaborate research studies on concrete and its applications carried out by the H.E.P.C. of Ontario. W. P. Dobson. il Roads & Eng Constr 92:115-16+ Ag '54
Lightweight challenger. Ind & Eng Chem 46:sup 15A+ Ag '54
Radioisotope techniques in concrete research. S. J. Goldstein; F. W. Kittrell. Am Concrete Inst J 25:393-6 Ja '54; Discussion. il plan 25:889-92 Je '54
Waterways experiment station rounds out 25 years of service. il Am Concrete Inst J 25:sup25 Je '54; Same. Concrete 62:14 Ag '54
See also
Concrete laboratories

CONCRETE reservoirs. See Reservoirs, Concrete

CONCRETE roads. See Roads, Concrete

CONCRETE roofs. See Roofs, Concrete

CONCRETE ships. See Ships, Concrete

CONCRETE sidewalks. See Sidewalks, Concrete

CONCRETE silos. See Silos, Concrete

CONCRETE slabs
Combined form and reinforcement for concrete slabs. B. F. Friberg. il diags Am Concrete Inst J 25:697-716 My '54
Concrete floor and roof slab construction; Spickelmier co. il Concrete 62:10+ Mr '54
Cutting costs of handling precast slabs. H. S. Freeman. il Concrete 62:10-11+ My '54
Mass production of pre-arched, reinforced concrete floor and roof slabs; Rapidex company of Indiana. R. S. Torgerson. il Rock Prod 57:179-81+ F '54
Mechanized slab handling cuts roof cost. il Constr Methods 36:56-7 Mr '54
Precast concrete slabs for industrial floors. P. F. van der Meulen Bosma. il diags Rock Prod 56:182-3 D '53
Precast curtain-wall construction. il Am Concrete Inst J 25:sup 11-12 N '53
Precast lightweight concrete; Zeprex. il Arch Forum 98:166 Ap '53; House & Home 3:154 Ap '53
Prestressed slabs and the lift slab building method; ready-mixed concrete. M. M. Lemcoe. il Rock Prod 57:139-41 My '54
Puerto Rico tries lift-slab construction. il Concrete 61:26 N '53
Reinforced circular hole in a concrete slab. R. Hicks. diag Engineering 176:808-9 D 25 '53
Supports for concrete shuttering. il Engineering 176:447 O 2 '53
White concrete slabs for traffic lines. J. Young. il Pub Works 85:134 My '54

Testing

Concrete slab roofs withstand every test. Nat Safety N 70:76 S '54
Tests show way to thinner slabs. il Eng N 151:83-4 D 10 '53
Torsional rigidity of rectangular slabs. K. H. Gerstle and R. W. Clough. bibliog diag Am Concrete Inst J 25:241-8 N '53
Validity of certain assumptions in the mechanics of prestressed concrete. G. L. Rogers. diags Am Concrete Inst J 25:317-30 D '53; Discussion. 26:332^1-332^4 pt 2 D '54

CONCRETE tile
See also
Drain tile

CONCRETE towers. See Towers, Concrete

CONCRETE walls. See Walls, Concrete

CONCRETE water pipes. See Water pipes, Concrete

CONCRETE wharves. See Wharves, Concrete

CONDENSATE wells. See Gas, Natural—Condensate wells

CONDENSATION

Calculation of martensite nucleus energy using the reaction-path model. J. C. Fisher and D. Turnbull. J Metals 5:Trans 921-2 Jl '53

Condensation of vapors of water and immiscible organic liquids. M. Tobias and A. E. Stoppel. bibliog diag Ind & Eng Chem 46:1450-5 Jl '54

Film condensation with turbulent flow. R. A. Seban. A S M E Trans 76:299-303 F '54

Generalization of Yang and Lee's theory of condensation. L. Witten. Phys R 93:1131-5 Mr 15 '54

Martensite nucleation in substitutional iron alloys. J. C. Fisher. bibliog J Metals 5: Trans 918-20 Jl '53; Discussion. 6:Trans 685-6 sec 2 My '54

Mass spectrometric determination of gas impurities separable by condensation. A. S. Newton. bibliog diags Anal Chem 25:1746-9 N '53

Nucleation of pearlite. M. E. Nicholson. bibliog J Metals 6:Trans 1071-4 sec 2 S '54

See also
Condensers (steam)

CONDENSATION, Chemical

Boiling liquid coolant prevents condensate freeze-ups. J. I. Lacey. diag Chem Eng 60:247 Je '53

New ω-substituted anisoles; aryloxymethanesulphonates; condensation of halogenomethanesulphonates with phenols and thiophenols. H. J. Barber and others. bibliog J Ap Chem 3:253-8 Je '53

Sodium-promoted condensation of organic halides and carbonyl compounds. C. E. Frank and W. E. Foster. bibliog Ind & Eng Chem 46:1019-21 My '54

Structures of the products obtained by the condensation of phenyl benzimino chloride and ethyl-sodio-acetoacetate and subsequent cyclization. G. Singh and G. V. Nair. Chem & Ind p253-4 F 27 '54

See also
Guerbet reaction
Michael reaction
Tollens condensation

CONDENSERS

Adaptability of air cooled condensers for large tonnage systems. O. J. Nussbaum. il diags Refrig Eng 62:43-7 Mr '54

Air conditioning condensers; panel discussion. J. Kice; R. Gonzalez. diags Sheet Metal Worker 45:sup4-10 My '54

Efficient hookup of your cooling tower or evaporative condenser. M. Metz. diags Power 98:126-7+ Jl '54

Install shell and tube condenser between the evaporative condenser and the receiver; is this proposed system practical? diag Heat & Ven 51:113-14 My '54

Simplified vacuum condenser is two in one; patent. diag Chem Eng 60:388+ O '53

Solvent take-off adapter. I. A. Kaye. diag J Chem Educ 30:521 O '53

Taper-tube condenser. R. F. Feldkamp and W. A. Wilt. diag J Chem Educ 31:84 F '54

Design

Shortcut to cooler condenser design. G. H. P. Bras. bibliog Chem Eng 61:190-2 My '54

CONDENSERS (electricity). See Electric capacitors

CONDENSERS (steam)

Allis-Chalmers steam condenser built to study heat transfer. il Iron Age 173:203 F 25 '54

Experimental condenser. R. A. Wilson and H. W. Feist. diag Power 98:108 F '54

How to figure air-cooled steam condenser. H. B. Wayne. diag Power Eng 58:88-9 F '54

How to size air-removal system for surface condensers; data sheet. H. Kallen. Power 98:103 Ag '54

Steam condenser care. A. D. Collin. diags Power 97:131 D '53

CONDUCT of life

Cultural crisis of our age. R. Niebuhr. Harvard Bsns R 32:33-8 Ja '54

CONDUCTIVE rubber. See Rubber—Electric properties

CONDUCTIVITY, Electric. See Electric conductivity

CONDUCTOMETRIC titration. See Volumetric analysis

CONDUITS
See also
Electric conduits
Water conduits

CONDUITS, Concrete

Protecting underground utilities located in Arctic regions. C. H. Billings. bibliog il plan diags Water & Sewage Works 100:441-7 N '53

CONELRAD. See Radio broadcasting stations —War measures

CONES

Airflow about cone-cylinders with curved shock waves. V. E. Bergdolt. bibliog il J Aeronautical Sci 20:751-6 N '53

Calculating dimensions of a cone frustrum for a given volume. W. Rosenberg. diag Mach 61:208 S '54

Investigation of the flow about cones and wedges at and beyond the critical angle. G. W. Johnston. bibliog diag J Aeronautical Sci 20:378-82 Je '53

Supersonic flow around circular cones at angles of attack. A. Ferri. bibliog diags U S Nat Advisory Com for Aeronautics 1951:1055-65 '52

CONESSINE

Constitution of conessine; degradation of some reduced quinoline and indole bases. B. Bailey, R. D. Haworth and J. McKenna. Chem Soc J p967-76 Mr '54

CONFERENCE board of physicians in industrial practice

Conference board of physicians in industrial practice. Ind Med 22:485-6 O '53

CONFERENCE of actuaries in public practice

Annual meeting, Chicago. Nat Underw (Life ed) 58:9+ O 8 '54

CONFERENCE on electronic instrumentation and nucleonics in medicine

Conference, 6th, New York, Nov. 19-20. Science 118:sup3 O 16 '53

CONFERENCE rooms

Hexagonal seminar building. il plan diag Arch Forum 101:106-7 Jl '54

Lighting

Directors' room lighting designed for dignity. R. R. Duncan. il Illum Eng 48:618-19 D '53

CONFERENCES

Columbia university opens new center; to improve group procedures. Sales Management 71:73-4 pt 2 O 1 '53

See also
Business conferences
Employees' conferences
Sales conferences

CONFERENCES, International. See International conferences

CONFIDENTIAL communications. See Privileged communications

CONGLOMERATE

Preliminary account of the mineralogy of radioactive conglomerates in the Blind River region, Ontario. R. J. Traill. bibliog il map diag Can Min J 75:63-8 Ap '54

CONGO, Belgian

Why Belgium succeeded and French-British colonial policies failed. V. L. Horoth. map Mag of Wall St 93:131-3+ O 31 '53

CONGO red

Hydrolysis of starch as indicated by congo red. B. Carroll and J. W. Van Dyk. bibliog Am Chem Soc J 76:2506-10 My 5 '54

CONGRESS. See United States—Congress

CONGRESS of industrial organizations
AFL and CIO; ripe for a reshuffle? Bsns W p84 Ag 1 '53
Annual meeting, 14th, Atlantic City, Dec. 1-4. Mo Labor R 76:13-17 Ja '53
Annual meeting, 15th, Cleveland, Nov. 16-20. Iron Age 172:52-3 N 26 '53; Steel 133:44-5 N 23 '53
Closer to AFL-CIO merger? Bsns W p74 D 26 '53
CIO; it's hostile, critical, dissatisfied; convention, Cleveland. Bsns W p 174-5 N 21 '53
New storm center. V. G. Reuther. Bsns W p 166+ O 10 '53
Where do CIO signs point? Bsns W p 171 N 28 '53

CONGRESSMEN
Want a congressman to speak at your meeting? Sales Management 71:56+ pt 2 Jl 1 '53

CONICK, Harold C.
Dinner to Harold Conick on retirement as general attorney, Royal-Liverpool group. por East Underw 55:18+ Ja 22 '54; Weekly Underw 170:227+, 232 Ja 23 '54
Retiring from Royal-Liverpool group; testimonial dinner. East Underw 54:18+ O 30 '53; Same. Weekly Underw 169:1035-6 O 31 '53; Abstract. Nat Underw 57:20 O 29 '53
Sketch. por Nat Underw 57:1+ D 31 '53

CONIDENDRIN
Preparation of some nitrogenous derivatives of conidendrin. J. Swidinsky, F. H. McMillan and J. A. King. bibliog Am Chem Soc J 76:1148-51 F 20 '54

CONIFERS
See also
Douglas fir
Pine
Spruce

CONJUGATION (chemistry)
Azo-bis nitriles; decomposition of azo compounds; a special case of carbon-carbon hyperconjugation in a free radical reaction. C. G. Overberger and A. Lebovits. bibliog Am Chem Soc J 76:2722-5 My 20 '54
Evidence for the *cis-trans* configurations and effective conjugations of α-phenylchalcones. W. B. Black and R. E. Lutz. bibliog Am Chem Soc J 75:5990-7 D 5 '53
Physical constants and drying properties of conjugated oils; abstract. Von Mikusch and Mebes. Paint Oil & Chem R 116:29 D 3 '53

CONKLIN, Edwin Grant, 1863-1952
Sketch. E. N. Harvey. Science 117:703-5 Je 26 '53

CONQUEST, Victor, 1896-
Conquest receives Appert award for achievements in food field. por(cover) Chem & Eng N 31:2770 Jl 6 '53

CONSCRIPTION. See Military service, Compulsory

CONSERVATION of resources
Resource development; joint job of local and federal government. D. McKay. Comm & Fin Chr 178:2534+ D 24 '53
Resources study told by government group; study committee to examine the field. Oil Paint & Drug Rep 165:7 Je 28 '54
Social scientist and the control and development of natural resources. V. Ostrom. bibliog Land Econ 29:105-16 My '53
See also
Gas, Natural—Conservation
Nickel—Conservation
Petroleum—Conservation
Reclamation of land
Soil conservation
Water conservation
also Mid-century conference on resources for the future

CONSERVATIVE party (Great Britain)
Canter for conservatives. Economist 169:85 O 10 '53
Caution and conservatism; third year. Economist 169:397-9 N 7 '53

CONSOLIDATED Edison company of New York
Bonds offered. Comm & Fin Chr 179:103 Ja 11 '54
Con Ed sums up its policy and practice. H. R. Searing and others. Gas Age 113:48-51 F 11 '54
Three sound stocks with dependable dividends. Mag of Wall St 92:729 S 19 '53

CONSOLIDATED mining and smelting company of Canada, ltd.
Operations and plants. flow diags il maps plans diags Can Min J 75:127-393 My '54

CONSOLIDATIONS, Business. See Business consolidations

CONSTRUCTION equipment
Another auction, inconclusive results; sale of construction equipment. Constr Methods 36:148+ Mr '54
Athey's new 27-yd earthmoving trailer. il Eng N 152:125-6 Ap 29 '54
Customs tariff; rates levied on importation of construction equipment and materials. Roads & Eng Constr 92:312+ Je '54
Earthmoving and excavating equipment; shipments tabulated. Steel 134:184 Ja 4 '54
Equipment loans; good business for banks. Eng N 152:99 Ja 28 '54
GM, new challenger in earthmoving. R. D. Raddant. il Iron Age 174:84+ S 23 '54
Imports (including parts) during past three years; Canada. Roads & Eng Constr 92:104 Je '54
Material handling over rough ground eased with tractor-mounted fork lift. il Eng N 151:172 Ag 20 '53
Materials, machine exports top one billion dollars for 1952. Eng N 151:127-8+ Jl 30 '53
Mechanisation for the building contractor. il Engineering 177:220-1 F 12 '54
Products index; buyer's guide; international directory of construction equipment. Roads & Eng Constr 92:390+ Je '54
Rogers' new triple-axled heavyweight haulers. il Eng N 152:145 Ap 8 '54
Tractor-driven industrial equipment. il Engineer 197:216-17 F 5 '54
Trade names. Roads & Eng Constr 92:302+ Je '54
What am I bid? three-day auction at Boston il Constr Methods 36:90+ F '54
World bank creates market for U.S. construction goods. Eng N 151:58+ S 17 '53
You can use a small cableway. il diags Constr Methods 36:62-5 My '54
See also
Cranes, derricks, etc.
Earthmoving industry conference
Excavating machinery
Hoisting machinery
Motor trucks in construction work
Roads—Construction equipment
Tractors

Cold weather operation

Operation Eager Beaver I, Arctic testing. il Product Eng 24:202-4 Jl '53
Winterization of construction equipment. il Product Eng 24:150-4 Je '53

Exhibitions

Building trades exhibition, London, Nov. 18-Dec. 2. il Engineering 176:652-3, 656, 727-8 N 20, D 4 '53
Construction and roadbuilding show at Canadian international trade fair, Toronto. il Roads & Eng Constr 92:117-28+ Ag '54

Lubrication

Assemble your own lube rig. il diags Constr Methods 36:162+ Jl '54
One lube, applied on schedule, pays off. A. Petrone. il Constr Methods 36:138+ Jl '54

Maintenance and repair

Contractor builds show place shop; Denton construction co. il Roads & Sts 97:74-8 S '54
Do it yourself parts kits; Thew-Lorain's new idea. Constr Methods 36:176 Jl '54
Edmonton contracting firm uses welding to good effect. W. J. Kennedy. il Roads & Eng Constr 92:94+ S '54
Effective use of steam cleaning on construction equipment. C. Mathewson. il Roads & Eng Constr 92:130-2+ Ap '54
Is your job this good? turnpike contractor shows maintenance tricks. il Constr Methods 36:63-4+ S '54
Maintenance information available; inventory of service and operating manuals. Constr Methods 36:67-96+ Jl '54
Off-the-shelf parts service cuts Gradall overhaul costs. il Constr Methods 36:84+ Ag '54
One-machine contractor must maintain, too. Constr Methods 36:172+ Jl '54

CONSTRUCTION equipment—Maintenance and repair—*Continued*

Regional shops pay Koss firm. il Roads & Sts 97:54 S '54

Take magnetic inspection afield. il Constr Methods 36:190+ Jl '54

Trailer shops sprout on turnpike. il Constr Methods 36:66-7 Ag '54

Prices

Construction machinery wholesale prices; tables. Eng N 151:143 O 8 '53

Rental prices

Construction equipment rental rates; table. Eng N 151:143 O 8 '53

Renting

Clark offers a lease-purchase plan for equipment; Clark equipment co. Constr Methods 36:18 S '54

Transportation

Moving the earthmovers; from the ground up. S. C. Jensen. il Eng N 152:36-7+ Mr 11 '54

CONSTRUCTION methods and equipment (periodical)

Henry T. Perez named editor. Constr Methods 36:65 Jl '54

CONSULAR invoices

New Argentine consular fees put into effect. For Comm W 51:12 F 15 '54

CONSULTANTS

Companies have responsibility for proper use of consultants; Commercial chemical development association meeting, Boston. Chem & Eng N 31:4428-9 O 26 '53

Consultants; their value is up to you. P. W. Bachman. Chem & Eng N 32:1700-3 Ap 26 '54

Work of consultants; abstract. C. J. Goodwin. Chem Age (Lond) 70:834 Ap 10 '54

CONSULTANTS, Business. See Business consultants

CONSULTING engineers

Consultants look to the future. Steel 133: 76 O 26 '53

Protest made to Ohio highway director over method used to hire consultants. Eng N 152:22 Ap 29 '54

CONSUMER contests. See Advertising—Prize contests

CONSUMER credit. See Credit

CONSUMER credit corporation, Tampa

Stock offered. Comm & Fin Chr 178:479 Ag 10 '53

CONSUMER credit insurance association

Annual meeting, Chicago, June 18. Nat Underw 58:1+ Je 24 '54; Nat Underw (Life ed) 58:4 Je 25 '54; East Underw 55:30 Jl 2 '54

CONSUMER finance companies. See Finance companies

CONSUMER panels

Gaging foods by psychometrics. D. Foster. il Food Eng 26:57-9+ My '54

CONSUMERS

Color; some facts about consumer preferences. F. Birren. Management R 42:166-7 Mr '53

Gauging the consumer's plans; abstract. Management R 43:384-5 Je '54

Getting inside the consumer's head. Bsns W p 146 O 3 '53

How consumer research develops a sound, long-range selling plan; United States trunk co. E. A. Barwood. il Ptr Ink 245: 32-3 O 2 '53

Necessity to present consumer preferences as predictions. A. Politz and W. E. Deming. J Marketing 18:1-5 Jl '53

Psychological approach to consumer behavior analysis. W. J. Bilkey. J Marketing 18:18-25 Jl '53

U.S. consumer; statistically he's well heeled. Bsns W p 156-8 O 3 '53

What's ahead in consumer spending patterns? abstract. P. Clark. Management R 43:607-8 S '54

When ad meets id; exploring the consumer's emotions. Management R 43:613-14 S '54

Which really point the way in tests of a product? checks on bags of popcorn, observer-panel psychometrics. N. Schwartz. il Food Eng 26:64-5+ Jl '54

See also

Buying habits
Consumer panels

CONSUMERS power company

Five sound moderate-priced stocks for income; with comparative balance sheet items. Mag of Wall St 93:494 Ja 23 '54

Stock offering. Comm & Fin Chr 179:203 Ja 18 '54

CONSUMERS' research, inc.

Business appraises consumer testing agencies; Consumers union and Consumers' research. E. R. Beem and J. S. Ewing. Harvard Bsns R 32:113-26 Mr '54

CONSUMERS union

Business appraises consumer testing agencies; Consumers union and Consumers' research. E. R. Beem and J. S. Ewing. Harvard Bsns R 32:113-26 Mr '54

CONSUMPTION (economics)

Answers for people who dispute economic benefits of selling. T. R. Martin. Sales Management 71:70+ O 1 '53

Business level can be maintained by aggressive merchandising. W. E. Hoadley, jr. Comm & Fin Chr 178:2639+ D 31 '53

Consumer expenditures on nondurables and services in 1954. E. C. Bratt. J Bsns 27:77-86 Ja '54

Consumer's position in the 1954 business trend. A. W. Zelomek. Comm & Fin Chr 178:2531+ D 24 '53

Forecasting consumer expenditures on nondurable goods and services. E. W. Swanson. J Bsns 27:71-6 Ja '54

Forecasting the demand for consumer durable goods. J. H. Lorie. J Bsns 27:62-70 Ja '54

Little change in domestic consumption in 1954. N. M. Koffsky. Comm & Fin Chr 178: 1839 N 12 '53

Standards we raise; the dynamics of consumption. P. Mazur. Review, by V. Lebow. Ptr Ink 245:38+ O 2 '53

Too much consumption? Economist 169:194-5 O 17 '53

We can increase consumer buying by ten per cent. A. H. Johnson. Comm & Fin Chr 179:462+ Ja 28 '54

Working and spending. Economist 169:121 O 10 '53

See also

Buying habits	Prices
Consumer panels	Purchasing
Market research	

Statistics

Expenditures in 1953; consumer expenditures. Fed Res Bul 39:1144-5 N '53

1953 survey of consumer finances. Fed Res Bul 39:588-96, 697-703, 816-21, 940-7 Je-S '53; Excerpts(pt 1). Banking 46:94-5 Ag '53

Personal consumption expenditures, 1949-1952. Survey of Cur Bsns 1953 Sup p43 [supplemented in monthly numbers]

CONTACT angle

Effect of the *p*H of xanthate solutions on the contact angle between a bubble of air and an iron disulfide surface not of minimum rugosity. P. F. Whelan. bibliog il J Phys Chem 58:375-9 Ap '54

CONTACT potential. See Potential, Electric

CONTACTS, Electric. See Electric contacts

CONTAINER industry

No lid on containers. B. K. Price. il Steel 133: 66-7 N 30 '53

See also

Continental can company

Statistics

Metal cans: shipments in terms of net tons of steel consumed, 1945-1953; tabulation. Steel 134:170 Ja 4 '54

Western states

West coast; 1954. il Mod Packaging 27:136-41 Jl '54

CONTAINERS

Beer and beverages; Modern Packaging industry survey. il Mod Packaging 27:100-6+ Ja '54

Eye catches; Bruce's new containers. il Mod Packaging 27:98-100 Jl '54

Newton Victor radioactive isotope containers. il Metallurgia 49:147 Mr '54

CONTAINERS—*Continued*

See what canned pop is doing to bottled soft drinks! il Sales Management 72:36-7+ Ap 15 '54

See also

Bags

Bottles

Cans

Closures (containers)

Container industry

Food containers

Glass containers

Hoppers

Labels

Milk containers

Package design

Package goods

Paper bags

Paper boxes

Paper containers

Pressure vessels

Tanks

Tin cans

Re-use

Boxed glitter; tiny plastic containers. il Mod Packaging 27:97 Jl '54

Faster foil-tray packs for frozen pies and croquettes. il Mod Packaging 27:118-19 D '53

Mug appeal; re-use premium promotion of cottage cheese. il Mod Packaging 27:78-9 Ap '54

Testing

Fibre cans for Ordnance. E. H. Borkenhagen. il Mod Packaging 27:159-62+ My; 152-5 Je '54

CONTAINERS (for shipping)

Airtight shipping bin that nests; Nesta-Bin. il diags Factory Management 112:151 Ap '54

Case of the disappearing bread boxes. R. Bloomberg. il Food Eng 26:87+ My '54

Citrus fruit boxes of paperboard now offered by St Joe paper co. il Paper Tr J 137:14+ D 25 '53; Correction. 138:11 Ja 15 '54

Collapsible container is here in steel or light alloy; American Premaberg. il Chem & Eng N 32:436 F 1 '54

Drums for your product? here's how to handle them. il Factory Management 112:116-17 My '54

Engineered shipper; Dictaphone corp. il Mod Packaging 27:123 Jl '54

Fabrication of corrugated shipping containers. N. W. Garrison, jr. il diags Paper Tr J 137:137-42 N 13 '53

Fabrication of solid fibre containers. N. W. Garrison, jr. il Paper Tr J 137:143-6 N 13 '53

Fibre drums. G. Mather. il Paper Tr J 137:166-8+ N 13 '53

Good design makes sense and dollars too; applications in packaging. H. Bourner. il Cer Ind 63:60-1 Ag '54

Knock-down box pares costs. il Chem Eng 61:288+ Mr '54

Live lobsters shipped by air in new package. il Food Eng 26:198 S '54

Many styles of fiberboard boxes have been approved for shipping containers. T. W. Rodes. Ind & Eng Chem 46:sup 109A-11A S '54

Multiwall bags. G. N. Burns. diags Paper Tr J 137:181-5 N 13 '53

New appeal for fruits-by-mail; Pinnacle Orchards. il Mod Packaging 27:165 Jl '54

No deadheads these; Nesta-Bins. il Chem W 74:64+ Mr 20 '54

Packages to sell must arrive safely. J. A. Walls. Mod Packaging 27:167-8 Jl '54

Packing cases unfold into display cases for traveling exhibit. il diags Arch Forum 100:146-9 Ja '54

Paperboard in, wood out. J. Fahey. il Food Eng 26:127 My '54

Self-partitioning carton. il Mod Packaging 27:122-3 F '54

Shipping damage preventative measures. C. R. Anderson. Tappi 36:sup 141A-3A N '53

Standards for cases; food distributors propose five simple points of design. il Mod Packaging 27:114-15+ D '53

Stitchers cut hand work; Burroughs corp. il Steel 133:100-1 D 21 '53

Swing to tear-strip cases. il Mod Packaging 27:116-22+ Je '54

Synthetasine 200; interior protective coating enables hard-to-package items to be shipped in steel containers. Chem & Eng N 32:2226 My 31 '54

Thermally insulated package developed by New York university's College of engineering research division. il Chem & Eng N 32:3380 Ag 23 '54

Water-vapor permeability of shipping containers. il Mod Packaging 27:144-5+ D '53

What we expect of a corrugated shipping case. C. O. Smith. Tappi 36:sup 166A-7A N '53

When the prospect says, I just don't believe it! point-by-point demonstration; Scurich Kushionized containers. S. Scurich, jr. il Sales Management 71:24-5+ Jl 1 '53

See also

Carboys

Containers, Steel

Packing for shipment

Re-use

Air units can live out of boxes; service trials of new containers that double as shipping packages and desks, bins, cabinets. il Aviation W 59:55-6+ Jl 13 '53

Radar in re-use cans. il Mod Packaging 28:133-5+ S '54

Testing

More what-to-do's when checking packaging supplies. il Food Eng 26:45-6 Je '54

Shock-mounting systems; analysis of responses of cushioning devices. R. L. McKay. bibliog il diag Mod Packaging 27:122-5+ Ap '54

CONTAINERS, Aluminum

No deadheads these; Nesta-Bins. il Chem W 74:64+ Mr 20 '54

Manufacture

Insulated food container factory. il Engineer 197:244-5 F 12 '54; Engineering 177:218 F 12 '54

Willys Motors diversifies; starts production of aluminum bulk shipping container. il Steel 135:77 Ag 23 '54

CONTAINERS, Carry home

Carry-carton spreads out. il Mod Packaging 27:93-8+ Je '54

Carry-home motor oil; Sears' economical six-can carton. il Mod Packaging 27:105-7 D '53

Cushioned bottle carriers; Anheuser-Busch. il diags Mod Packaging 28:106-7+ S '54

Fine art for beer; Goebel brewing co. il Mod Packaging 27:100-3 N '53

Six questions about how to increase unit sales and one advertiser's answers. N. Keine. il Ptr Ink 243:38-9 My 1 '53

CONTAINERS, Dispensing

Bauer & Black chooses transparent polystyrene; square cutter case for Curad tape. il Mod Packaging 27:98 Ap '54

Double dispenser; molded plastic container for swabs and cotton. il Mod Packaging 27:132-3 Je '54

Stopette meets the trends; improved designs and display methods. il Mod Packaging 28:115 S '54

Streamlined tape dispenser; Johnson & Johnson. il Mod Packaging 27:96-8 Ap '54

Pressurized containers

Aerosol dusts. il Mod Packaging 28:100-1+ S '54

Aerosol license change. il Soap & Chem Spec 30:151 Je '54

Aerosol packaging has promising future. il Can Chem Process 37:74-5 N '53

Aerosol perfuming. R. A. Foresman and R. Pantaleoni. Soap & Chem Spec 30:139-41+ Jl '54

Aerosol pioneer; Charles Gebauer. Chem W 75:66+ Ag 7 '54

Aerosol survey. Mod Packaging 27:227-8 N '53

Aerosol winners. Mod Packaging 27:200 Ja '54

Aerosols, chemical outlet. il Chem & Eng N 32:2260-2 Je 7 '54

Aerosols get a new look. Chem & Eng N 31:5318-19 D 21 '53

Aerosols; low pressure hits high volume. il Chem W 73:30-2+ Jl 18 '53

Aerosols punch the clock; industrial aerosols branching into new arenas. il Chem W 74:72+ Mr 27 '54

Behind the aerosol scene; Dodge & Olcott's laboratory. il Chem & Eng N 32:1618 Ap 19 '54

Better liked; aerosol products; study of consumer buying and reaction. Chem W 74:21 Ja 2 '54

CONTAINERS, Dispensing—Pressurized containers—*Continued*

Charting industries' progress; surveys covering household and industrial insecticide sales and aerosol production. Chem W 74:60+ Je 12 '54

Consumer market survey on aerosol products of E. I. duPont de Nemours & co. Oil Paint & Drug Rep 164:46 D 14 '53; Same. il Soap & San Chem 30:149+ Ja '54

Finding the long-lasting fragrance; Dodge & Olcott laboratory for filling and testing aerosol packages. il Chem W 74:66-8 Ap 24 '54

Formulation of aerosol products. R. C. Downing and E. G. Young. il Soap & San Chem 29:142-3+ S '53

Glamorizing with glass; glass aerosol. il Chem W 75:59-60+ S 18 '54

Growth of the aerosol market; abstract. F. G. Lodes. table(p 147) Soap & Chem Spec 30:138+ Je '54

How you can tap the aerosol market. A. R. Gardner. il Dun's R & Mod Ind 62:56-8 S '53

New aerosol filling unit. il Soap & San Chem 29:149+ Ag '53

New aerosol laboratory; Dodge & Olcott. il Soap & Chem Spec 30:48-9+ My '54

Over 800 products participate in pressure packaging boom. B. Tolk. il Ptr Ink 243:38 Ap 24 '53

Perfuming aerosols. H. Kainik. il Soap & San Chem 29:45-8 O '53

Pother over lather; patent fight over aerosol shave creams. il Chem W 73:48+ D 5 '53

Protection's hard to sell. il Chem W 74:61-3 My 1 '54

Small metal pellet makes aerosols reusable. diag Chem & Eng N 32:2998 Jl 26 '54

Solubility of glass aerosol compositions. M. A. Johnsen. Soap & Chem Spec 30:168-9+ My '54

Ultra-low-pressure aerosols. F. A. Mina. il Mod Packaging 27:176-8+ Jl '54

Ultra-low-pressure aerosols; Zonite products corp. il Mod Packaging 27:92-6 F '54

CONTAINERS, Glass. See Glass containers

CONTAINERS, Paper. See Paper containers

CONTAINERS, Plastic

Automatically in plastics; XLNT Spanish foods co. il Mod Packaging 27:88-90 Ag '54

Bauer & Black chooses transparent polystyrene; square cutter case for Curad tape. il Mod Packaging 27:98 Ap '54

Boxed glitter; tiny plastic containers. il Mod Packaging 27:97 Jl '54

Double dispenser; molded plastic container for swabs and cotton. il Mod Packaging 27:132-3 Je '54

Impulse boosters. Chem W 72:78 My 16 '53

Molded plastics find a place in packaging. il Mod Packaging 27:89-95+ D '53

Mug appeal; re-use premium promotion of cottage cheese. il Mod Packaging 27:78-9 Ap '54

Pack with potential; In-Sac-Iside pesticides container. il Chem W 75:82-3 Ag 28 '54

Precision parts cradled in plastics. il Mod Packaging 27:132-3 Mr '54

Streamlined tape dispenser; Johnson & Johnson. il Mod Packaging 27:96-8 Ap '54

See also

Bottles, Plastic

CONTAINERS, Returnable

Accounting

Tag and card system of accounting for returnable containers. H. C. Leland. N A C A Bul 35:547-50 D '53

CONTAINERS, Steel

Containers; packaging in metal grows. K. W. Bennett. Iron Age 172:113 N 5 '53

Garbage collector, atomic type; Radiological service, Jamaica, N.Y. il Chem & Eng N 32:1068 Mr 15 '54

Metal cans; shipments in terms of net tons of steel consumed, 1945-1953; tabulation. Steel 134:170 Ja 4 '54

New pail plant serves South; Vulcan steel container co., Birmingham, Ala. il Soap & San Chem 30:168-9+ Mr '54

No lid on containers. B. K. Price. il Steel 133:66-7 N 30 '53

Resistance heating of mild-steel containers at power frequencies. C. A. M. Thornton. bibliog diags Inst E E Proc 99 pt 2:85-93 Ap '52; Discussion. 100 pt 2:679-83 D '53

Towards better containers; work done on phosphate treatments at Battelle memorial institute. Chem Eng 61:238+ S '54

Manufacture

South's new steel pail plant; Vulcan steel container co. il Manuf Rec 123:30 Jl '54

Reconditioning

Reconditioned drum business booming. Chem & Eng N 31:4484 O 26 '53

CONTAINERS, Wood. See Wood containers

CONTEMPLATION of death (law). See Gifts (law)

CONTER, Louis

In Freeport; they call him the faucet man. pors Dom Eng 183:102-4 F '54

CONTESTS. See Advertising—Prize contests; Employees' contests; Prize contests

CONTINENTAL air lines

Continental-Braniff merger proposed. Aviation W 59:17-18 D 28 '53

Continental, PAL propose merger. map Aviation W 59:69 D 21 '53

CONTINENTAL aviation and engineering corporation

Security I like best. G. J. DeMartini. Comm & Fin Chr 178:1322 O 8 '53

CONTINENTAL can company

Postwar expansion basis for future growth. W. E. Higbee. Barron's 33:19-20 N 30 '53

CONTINENTAL transportation lines, inc.

Stock offered. Comm & Fin Chr 179:3 Ja 4 '54

CONTINENTS

Necessity for continental drift. L. C. King. bibliog map diag Am Assn Pet Geologists Bul 37:2163-77 S '53

CONTINGENCY tables

Combination of neighboring cells in contingency tables. C. C. Craig. bibliog Am Stat Assn J 48:104-12 Mr '53

CONTRACT bonds. See Insurance, Surety and fidelity—Contract bonds

CONTRACT information, Bureau of. See Bureau of contract information

CONTRACTORS

Contractor capacity gains; by size, by area, by work; 1953 survey. Eng N 151:86-8 D 3 '53

Contractor capacity tops volume. Eng N 151:21-4 Ag 20 '53

Contractors will keep plugging for overhaul of jobless pay law. Eng N 151:28 D 17 '53

Sheet metal worker's contractor survey. il maps Sheet Metal Worker 45:72-8 Ja; 54-6+ F; 53-4+ Mr; 67-9 Ap '54

U.S. firms on foreign construction. Eng N 151:30-1 Jl 30 '53

Who forms our competition overseas? Eng N 152:52+ Mr 11 '54

See also

Building contracts
Construction equipment
Diesel construction company
Electric contractors
Engineering contracts
Insurance, Surety and fidelity—Contract bonds
Road contractors
Turner construction company

Accounting

We calculate and record costs on the job. J. Maser. il Roads & Sts 96:105-6 O '53

Canada

Contractors for engineered construction; directory. Roads & Eng Constr 92:106+ Je '54

CONTRACTORS' equipment floater insurance. See Insurance, Contractors' equipment floater

CONTRACTORS' liability insurance. See Insurance, Contractors' liability

CONTRACTS

Damages for breach of contract. Elec J 152:129-30 Ja 8 '54

CONTRACTS—*Continued*

Dealers and manufacturers cautioned on sales-contract entanglements. L. T. Parker. Am Gas J 179:26+ O '53

See also

Building contracts
Engineering contracts
Labor contracts
Mortgages
Petroleum—Well drilling—Contracts
Roads—Contracts
Sales

CONTRACTS, Government

Analysis of large military prime contractors. Automotive Ind 110:554+ Mr 15 '54

ASPPA contracts; jobbers can get them. Nat Pet N 45:15-16 D 23 '53

Buy American policy in doubt. Elec World News ed 139:46 Je 8 '53

C-119 hearing; McCone defends Kaiser contract as emergency. Aviation W 58:17-18 Je 8 '53

Competition for contracts keen; Interior gives autotransformer orders to American electrical company and to foreign firm. Elec World News ed 141:9 F 15 '54

Components department aids project engineers. S. Kramer and S. Gurian. il Electronics 26:141-3 Ag '53; Same cond. Product Eng 24:310+ S '53

Defense contract awards; list of prime contracts for various types of automotive military equipment, including tanks, motorized gun carriages, trucks, warplanes, automotive components and spare parts, automotive maintenance equipment, etc. (cont). Automotive Ind 109:84+ N 15; 134+ D 15 '53; 110:118+ Ja 15; 434+ Mr 15; 102+ Ap 15; 120+ My 15; 98+ Je 15; 111:128+ Ag 15; 154+ S 15 '54

Defense contracting; is small business getting the short end? Am Mach 98:144 Mr 29 '54

Defense unsnarls buying; consolidated list of who buys what and where. Chem W 73:32+ D 26 '53

Equipment makers win buying fight. R. Hotz. Aviation W 59:12-13 D 7 '53

GE asks reversal; requests Corps of engineers to reconsider contract awarded to British concern. Elec World 141:80 Ja 11 '54

Guessing right on costs. Bsns W p 128+ Ag 22 '53

Incentives in defense work. P. W. Kelly. Dun's R & Mod Ind 62:227-8+ O '53

K-F under fire. Aviation W 58:15 Je 15 '53

No easy path from research and development to production. F. W. Godsey, jr. il Aviation W 59:28-30+ D 21 '53

No protection; government tries to collect from Walsh-Healey violators despite the statute of limitations. Bsns W p 152-3 S 5 '53

Now may be the time for smaller firms to go after GI contracts. J. Thomson. Sales Management 72:50+ My 20 '54

Patent policy gets a facelifting; Defense department plans revision to defense contractor's patent right regulations. Steel 134:57 F 22 '54

Pentagon rewrites cost allowance rules. Aviation W 59:12-13 O 19 '53

Procurement policy on data use defined. il Steel 134:57 Mr 1 '54

Proposes design penalties. J. L. Atwood. Aviation W 59:13-14 Ag 31 '53

Randall commission urges Buy American changes. Elec World News ed 141:7 F 1 '54

Set-aside contracts for distressed areas. Bsns W p 196+ S 19 '53

Top 100 firms receive 64 per cent of defense contracts. Iron Age 173:62 F 25 '54

Trying to broaden out; All American engineering co. has military research contracts, but wants some civilian work. il Bsns W p 194+ N 21 '53

See also

Purchasing, Government

Accounting

Accounting for cost-plus-fixed-fee contracts. W. L. Neiman. N A C A Bul 35:1284-94 Je '54

Backing overhead claims for cost-type contracts. R. W. Harwell. N A C A Bul 35:611-22 Ja '54

Defense contract auditing takes a new turn. R. W. Harwell. N A C A Bul 34:869-76 Mr '53

Defense department adds to contract audit manual. H. W. Wright. N A C A Bul 35:623-6 Ja '54

Expediting contract termination claims. J. F. Gaither. N A C A Bul 35:603-10 Ja '54

Explanation of new records clause for cost-type defense contracts. H. W. Wright. J Account 96:56-61 Jl '53

Government auditor can use standard costs. F. S. Howell. N A C A Bul 34:1609-17 Ag '53

Government contract problems of the prime and sub-contractor. N A C A Bul 36:193-9 sec 3 S '54

How military contractor audits his subcontractors for termination claims. J. F. Gaither. J Account 97:71-6 Ja '54

Income reporting and price re-determination. E. A. Williams. N A C A Bul 35:1278-83 Je '54

Keeping tabs on the facility contract. K. C. Pippert. N A C A Bul 43:877-83 Mr '53

Preparing effectively for renegotiation. C. R. Gunzer. N A C A Bul 35:595-602 Ja '54

Processing the termination claim. M. J. Crean. N A C A Bul 35:1261-75 Je '54; Discussion. F. E. Hall. 36:407-8 N '54

Role of the auditor in defense-contract costs. J Account 97:677-84 Je '54

Time control of contract research. D. S. Moffitt. N A C A Bul 34:1340-6 Je '53

Finance

Defense department tightens regulations to cut down over-financing of procurement by the military. Am Mach 97:178 D 7 '53

Defense sets policy on contract financing. Aviation W 59:20 N 23 '53

Progress payments; aircraft builders face squeeze on government financing. S. Altschul. Barron's 33:11-12 N 2 '53

Renegotiation

Exemption of standard commercial articles from renegotiation urged. C. W. Kable, jr. Credit & Fin Management 55:16 N '53

Preparing effectively for renegotiation. C. R. Gunzer. N A C A Bul 35:595-602 Ja '54

Profit brake; after excess profits tax goes off, renegotiation will still be at work. J. C. Perham and J. C. W. Schaie. Barron's 33:3 Ag 31 '53

Renegotiation; certain to be extended. Steel 133:91 D 7 '53

Renegotiation, with what safeguards? Chem W 73:17 Ag 29 '53

Subcontracting

Casting off the subcontractor. Bsns W p43-4 Ag 15 '53

Termination

Contract termination procedure. J. F. Rogge. N A C A Bul 34:1651-8 Ag '53

Expediting contract termination claims. J. F. Gaither. N A C A Bul 35:603-10 Ja '54

How military contractor audits his subcontractors for termination claims. J. F. Gaither. J Account 97:71-6 Ja '54

Nine ways to faster contract termination. R. O. Jaynes. Steel 133:80-1 N 9 '53

Processing the termination claim. M. J. Crean. N A C A Bul 35:1261-75 Je '54

Revisions in contract termination rules not enough, contractors say. E. C. Kreutzberg. Steel 135:36 Ag 30 '54

CONTRACTS, Letting of

Bidding for engineering services; editorial. Eng N 151:167-8 N 19 '53; Discussion. 152:42-3+ Ja 28; 32-3+ F 4; 39-40 Ap 1 '54

Recommended standard practice for competitive bidding and letting. Pub Works 85:180-1 My '54

CONTRACTS, State

Statutory variations in rights of labor and materialmen. J. B. Tidman. East Underw 55:32-3 Ag 20 '54

CONTRACTUAL liability insurance. See Insurance, Contractual liability

CONTROL, Electric. See Electric control

CONTROL boards

Control board lists everything; Brad Foot gear works. il Mill & Factory 54:87 Je '54

Engine repair, by the numbers; Pacific airmotive corp. R. H. Du Fault. il Mill & Factory 55:121-2 Ag '54

Keeping track of projects with control boards. W. E. Elder. il Product Eng 24:141-3 S '53

CONTROL charts

Application of statistical quality control to process operations at the Manitoba paper co. D. O. White and E. C. Metherell. Pulp & Pa of Can (Convention no) 55:219-23 [F] '54

Big time maintenance methods in small operations bus shop; San Mateo-Burlingame transit. B. Goldrath. il Bus Transportation 33:25-7 Ap '54

Charts used for controlling quality of assemblies; Hughes aircraft co. M. H. Saltz. il Tool Eng 33:74-7 Jl '54

Controlling production quality by number of parts defective. M. H. Saltz. il Tool Eng 32:47-50 My '54

Fundamentals of control charts. C. A. Bicking. bibliog Tappi 36:544-9 D '53

Process analysis by control charts. M. H. Saltz. Tool Eng 32:66-71 Mr '54

Progress control charts furnish important data. W. von Pechmann. Ind & Eng Chem 45:sup 97A-9A Jl '53

Quality control through statistical methods; control charts. N. L. Enrick. Mod Textiles Mag 35:35+ F; 44+ Mr '54

Some considerations setting control chart limits; abstract. G. R. Shaw. Pulp & Pa of Can 55:138 Je '54

Statistical techniques as aids to production efficiency (the role of routine inspection); abstract. B. P. Dudding. Elec R (Lond) 153:1079 N 6 '53

Use of control charts in cost control. E. W. Gaynor. N A C A Bul 35:1300-9 Je '54

CONTROL equipment

Adapting the machine to the man; International minerals & chemicals corp. T. M. Ware. il Min Cong J 40:40-3 Ag '54

Advance process instrumentation. W. J. Scarlett. Food Eng 26:68+ Je '54

Application of automatic gaging and controlling equipment to oil field production operations. R. L. Beckwith. bibliog il diag Pet Eng (Ref annual) 25:B7-10+ Jl 15 '53

Approaching the control problem of the automatic chemical or petroleum plant. M. V. Long and E. G. Holzmann. diags A S M E Trans 75:1373-81 O '53

Art of engineering a power station. R. E. Marion. il Instruments & Automation 27:930-1 Je '54

Automatic bleed unit. diag Chem Age (Lond) 69:759-60 O 10 '53; Same. Metallurgia 48:253 N '53

Automatic control for water-conditioning equipment. C. M. Guldner. il Instruments & Automation 27:292-3 F '54

Automatic control of chemical processes. A. J. Young. il diags Instruments 26:100-1+, 254-5+, 411-13+, 572-3, 727+, 878-9+, 1020-1+, 1182-5, 1226+ Ja-Ag '53 [cont as] Instruments & Automation 27:440-8, 622-6, 778-9+, 942-3 Mr-Je '54

Automatic control of glass forehearths. J. R. Green. il diags Am Cer Soc Bul 33:204-12 Jl 15 '54

Automatic control of sand moisture; Neenah foundry co. E. F. Ross. il diag Foundry 81:120-3+ N '53

Automatic control; today's industrial revolution; abstract. J. Diebold. Management R 43:559-61 S '54

Automatic controller aids materials testing programs. il Materials & Methods 39:141 Ja '54

Automatic controls. diags Can Chem Process 37:44+ N; 36+ D '53; 38:34+ Ja '54

Automatic factory; a critical examination. S. A. June and others. Instruments & Automation 27:1476-8, 1620-1 S-O '54

Automatic process control. il diags Iron Age 172:273-304 O 8 '53

Automatic signals and controls robotize soft-drink process; James Vernor co. J. N. Sutton and A. V. Gemmill. il Food Eng 26:48-50+ S '54

Automation via digital conversion. M. D. Weiss. diags Instruments & Automation 27:926-7 Je '54

Board mill superintendent and process control instrumentation. G. C. Ehemann. Paper Tr J 138:32+ My 7 '54

Centralized control. il Can Chem Process 38:22+ F '54

Concrete mixing and placing; controls for the large plant. T. B. Appel, jr. il diags Constr Methods 36:100-2+ S '54

Control instruments and their application in modern dyehouse operations. W. H. Ridley. il Am Dyestuff Rep 42:624-6 S 14 '53

Control of gas producers; new regulating mechanism completely automatic. Chem Age (Lond) 68:901-2 Je 13 '53; diag Engineer 195:841 Je 12 '53; Engineering 175:751 Je 12 '53; Metallurgia 47:287 Je '53

Control-system design. S. L. Ranson. diags Instruments & Automation 27:944 Je '54

Controlled volume metering. J. Procopi. il diags Paper Ind 35:1320-2 Mr '54

Controlled volume pumping of minute flows. R. T. Sheen and A. D. Fell. il Chem Eng Prog 49:299-302 Je '53

Controlmakers welcome competition. il Steel 134:45 Mr 22 '54

Cybernetics in our day; our second industrial revolution; age of the automatics. E. B. Weiss. il diag Brick & Clay Rec 123:77-80+ N '53; 124:43+ My '54; Same abr. Cer Ind 62:67-8+ D '53

Density recorder and controller; Bunker Hill & Sullivan mining & concentrating co. A. F. Kroll. il diags Min Eng 6:604-5 Je '54

Electrolytic-tinplate instrumentation. W. P. Smith. Instruments 26:1875+ D '53

Electro-mechanical programme controller. A. F. Watson and P. K. C. Wiggs. il diag J Sci Instr 30:324-6 S '53

Equipment operation and control in Toronto's rapid-transit subway. il Munic Util 92:39-40+ Mr '54

Five ways cut meters help Swift mfg. co. R. B. Pressley. il Textile World 103:102-3 D '53

Frontiers of industry. Nat City Bank p 118-19 O '53

Gas mixing control for three gas mixtures; Cutler-Hammer, inc. C. W. Warner. flow diag diags Am Gas Assn Proc 1953:756-64

How automatic can we get? H. F. Dever. Instruments 26:1483+ O '53

Industrial waste instrumentation for measurement and control. J. J. Baffa. diags Water & Sewage Works 101:358-61 Ag '54

Instrument control in phosphate processing; International minerals and chemical corp. D. Anderson. il diags Rock Prod 56:94-6 D '53

Instrumentation boosts weave room efficiency; Bachmann-Uxbridge gentle-air slasher. E. A. Murphy. il diag Mod Textiles Mag 34:95-6 D '53

Instrumentation factors affecting production in slab-heating furnaces. C. M. Yaeger. Instruments 26:402-3+ Mr '53

Instrumentation for pilot plants; panel discussion. C. Berg and others. flow diag il diags Ind & Eng Chem 45:1836-52 S '53

Magnetic amplifiers. il Factory Management 112:134-6 F '54

Measurement and control. il diags Paper Tr J 138:113-25 S 17 '54

Mechanical analog-computing elements and their applications to automatic control. A. Piatt. il diags A S M E Trans 76:883-8 Ag '54

Memory unit controls operations in automatic food plant; electro-mechanical egg candling, coating, and packaging machinery. il Food Eng 26:44-7 S '54

Modern process control at East Vealmoor. R. S. White. flow sheet il Oil & Gas J 52:110-12+ O 19 '53

New requirements for control equipment. C. R. Otto. diags Instruments & Automation 27:608-9 Ap '54

New type of automatic blast furnace charging control. E. H. Abbe. il diag Blast F & Steel Pl 42:424-7 Ap '54

One dispatcher with conveyor delivery and pushbutton control keeps 185 operators busy; Brook motors ltd. il Factory Management 112:90-1 S '54

CONTROL equipment—*Continued*

Phase-plane analysis; a general method of solution for two-position process control. D. P. Eckman. bibliog diags A S M E Trans 76:109-16 Ja '54

Precision machines assure cam accuracy; Ford instrument co. W. Jellig. il Iron Age 173:140-2 Ap 15 '54

Process monitoring. A. F. Sperry. il diags Instruments 26:1014-16+ Jl '53

Regulator in the paper mill. C. S. Beard. Tappi 37:sup 121A-2A Ag '54

Solving control problems in the paper mill. L. Walter. il diags Paper Ind 35:888-90 N '53

Some practical aspects of time-temperature regulation in dyeing. L. Walter. il diags Mod Textiles Mag 34:84+ N '53

Streamlined industrial power controls; Western electric company's Hawthorne works. C. E. Morrow and R. F. Born. il diags Power 98:90-3 Ap '54

Technical progress; drives and controls. il Steel 134:316-18+ Ja 4 '54

Water treatment requires centralized instrumentation. R. S. Darke. il Instruments & Automation 27:1470-1 S '54

What is new in pulp and paper control instruments? C. S. Beard. il diags Paper Tr J 138:14-16+ Jl 16 '54

See also

Airplanes—Control
Brakes
Carrier current control
Chemical plants—Control
Electric control
Electrohydraulic control
Electropneumatic control
Governors (machinery)
Graphic panels
Liquid level control
Machine tools—Control
Machinery—Control
Machinery, Automatic
Milling machines—Control
Minneapolis-Honeywell regulator company
Petroleum refineries—Control equipment
Pneumatic control
Pressure regulators
Servomechanisms
Vacuum tubes—Control uses
Valves—Control

Maintenance and repair

Maintenance of electronic controls. Factory Management 112:262+ Ap '54

Manufacture

Air speeds control-device assembly; illustrations with text. D. S. Lisberger. Am Mach 98:126-9 Ag 16 '54

Testing

Use of field test data for control system analysis. P. R. Hoyt and B. D. Stanton. diags Instruments 26:1180-1+ Ag '53

CONTROLLED circulation audit

Need for standardized circulation audit. D. B. Arnold. Adv Agency 47:140+ Ap '54

CONTROLLERS

Applying sound management principles to comptrollership in large organizations; United States army. R. S. McLain. Advanced Management 18:5-7 N '53

Controller's function in top-level management. G. A. Welsch. J Account 98:66-71 Jl '54

County controller reviews his first two years in office. T. P. Strunck. J Account 98:54-7 Jl '54

Management planning and control; controller's role; abstract. R. B. Lewis. Management R 42:611-13 O '53

CONVENTIONS

1954 conventions of advertising groups. Ptr Ink 245:403 sec 2 O 23 '53

No chance to filibuster; Standard oil development co. scheme to keep speaker's within limits of allotted speaking time. il Chem W 75:22 S 18 '54

See also

Sales conventions

CONVERGENCE

Summation of slowly converging series. I. Gumowski. J Ap Phys 24:1068 Ag '53; Correction. 24:1330 O '53; Discussion. J. H. Braun. 25:132; Reply. 133 Ja '54

CONVERSATION

Some notes on talking. D. C. Spooner, jr. Personnel J 33:59-61 Je '54

CONVERSION tables

Temperature conversions; Albert Sauveur type of table; data sheet; supplement to 1948 edition of Metals handbook. Metal Prog 66:114B Jl 15 '54

CONVERTAPLANES. See Airplanes—Design—Convertaplanes

CONVERTIBLE bonds. See Bonds, Convertible

CONVEYING machinery

Air moves the sand at Allis-Chalmers brass foundry. H. W. Olander. il diag Foundry 82:96-9+ F '54

At Avondale's Sycamore plant, vacuum conveyor system speeds waste removal. T. B. Winston. il Textile World 104:116-17 F '54

Automatic conveyor speeds plating operation 50 per cent. il diag Factory Management 112:132-3 Ag '54

Cable link conveyor offers unusual flexibility. W. G. Patton. il diag Iron Age 172: 92-3 Jl 30 '53

Control of conveyor-borne parts; photo-electric system for converging conveyors. il Engineering 177:344 Mr 12 '54

Conveyor and pallet loader cut handling 80 per cent; Colgate-Palmolive co. P. J. Anderson and E. L. Asher. il plan Factory Management 112:98-101 F '54

Conveyor drive developments. W. H. Everett. il diags Power Eng 57:84-6 D '53

Conveyor speeds blue-print handling at Pratt & Whitney. il Iron Age 174:59 Jl 8 '54

Conveyor speeds coating; San Diego, Calif. plant of Solar aircraft co. il Chem Eng 60:134 O '53

Conveyor system cuts unloading time; Kraftile co. G. F. Burnley. il Mill & Factory 55:117 S '54

Conveyor system knows where to take assemblies; Chrysler corp. il Mill & Factory 54:118-19 Je '54

Conveyorized disposal; twin system sorts chip grades; McQuay-Norris mfg. co. il Steel 134:146-7 Mr 15 '54

Conveyorized handling; fewer trucks move more material faster in transfer operations; Ford motor co. il Steel 133:326-7 O 12 '53; Iron Age 172:64-5 O 22 '53; Factory Management 111:122-3 N '53

Conveyors and elevators; Chemical Engineering report. H. L. Strube. il diags Chem Eng 61:195-210 Ap '54 (reprints 50c)

Conveyors and telephones speed schedules; Woodward governor co; illustrations with text. W. A. Ring. diags Am Mach 98:134-6 S 13 '54

Conveyors roll profitable combinations; Steel wire mills division, John A. Roebling's sons corp. il Steel 133:115 N 9 '53

Conveyors speed up quality control operation; Magnaflux corp. il Iron Age 173:197 Mr 4 '54

Facts about modern miscellaneous conveyors. il diag Mill & Factory 54:268-9 My '54

Facts about modern overhead carriers. il Mill & Factory 54:274-5 My '54

Facts about modern roller conveyors. il Mill & Factory 54:264-5 My '54

Linking operations by roller conveyors. il Mill & Factory 54:132 Ap '54

Mechanical conveyors growing in size and scope of usefulness. T. W. Rodes. Ind & Eng Chem 46:sup 121A-2A Mr '54

Mechanical movers make short work of handling; Robert A. Johnston co. il Food Eng 26:61+ S '54

New flat yard provides quick handling for perishables; Union Pacific. il plan Ry Age 137:43-5+ S 27 '54

New press line for air cleaners has special scrap disposal system; United specialties co. il Automotive Ind 110:38-9 Ja 15 '54

One dispatcher with conveyor delivery and pushbutton control keeps 185 operators busy; Brook motors ltd. il Factory Management 112:90-1 S '54

Oscillating troughs whisk out broken glass; Anheuser-Busch. il Food Eng 25:96+ D '53

Overhead assembly line brings bulky casings and other parts to assembly area; Coleman co. il Steel 134:109-10 Mr 1 '54

Plant on wheels cuts cycle time 60 per cent, reduces inventory 40 per cent; G-E Evendale (Ohio) Aircraft gas turbine div. il Factory Management 112:128-31 S '54

CONVEYING machinery—*Continued*

Plating conveyor recycles work, transfers it automatically. il Metal Finishing 52:116 Je '54

Production clinic; types of conveyors. E. G. Thomssen. Soap & Chem Spec 30:101-3 S '54

Refrigerators move faster on ten miles of conveyors; Hotpoint co. B. E. Schroeder. il Am Mach 97:124-8 O 26 '53

Rotation switches for conveyor systems. il Engineer 197:350 Mr 5 '54

Rubber segmented idlers absorb impact, cut wear. Eng N 151:170 Jl 16 '53

Scott installs automatic carton conveying system. il Paper Tr J 138:44 Ag 13 '54

Selecting conveyors for handling hot bulk materials. J. W. Snavely. il J Metals 5:888-90 Jl '53

Selective screen conveyor. il Engineer 196:709 N 27 '53; Engineering 176:828 D 25 '53

Semi-powered gravity conveyor system; cabinet plant of Sylvania electric products, inc. O. S. Marshall. il plan Mill & Factory 55:79-81 Ag '54

Traveling stockroom; carrousel for parts' handling; Eastman-Kodak co. il Steel 134:110-11 Je 14 '54

Unique conveyor system provides automation for instrument assembly. il diag Automotive Ind 110:52-4 Ap 1 '54

See also

Cableways
Coal mining machinery—Conveyors
Cranes, derricks, etc.
Feeders
Hoisting machinery
Loading and unloading
Mechanical handling
Monorail conveyors
Pneumatic conveying

Belt conveyors

Aircraft assembly boosted; Pratt & Whitney. il Steel 133:164 D 7 '53

Coal handling at Danskammer. C. A. Hoya. il Power Eng 58:80-1 Ja '54

Conveyor belt eliminates paper pile-up. Steel 135:47 Jl 26 '54

Conveyor delivers to trackside; Eckhart seed co. il Ry Age 136:74 F 8 '54

Cut conveyor belt wear by proper loading. Brick & Clay Rec 124:76 Ap '54

Dundee's conveyor system keeps finished goods flowing. E. D. White. il Textile World 104:90-1 Mr '54

Electromechanical system developed for sorting items. il Elec Eng 73:103 Ja '54; Same abr. diag Machine Design 26:208 F '54; Same abr. Mech Eng 76:270-1 Mr '54

Facts about modern belt conveyors. il Mill & Factory 54:267 My '54

4½-mile conveyor belt. il Mech Eng 76:271-2 Mr '54

Handling pulpwood with a belt conveyor. F. D. Whitehead. Pulp & Pa of Can 55:132 My '54; Same abr. il Paper Ind 36:65-6 Ap '54

How to get highest performance and wear from elevator conveyor belts. A. F. Matheis. diags Paper Tr J 138:21-2+ Jl 2 '54

Metal belt conveyors for the tough jobs. R. H. Wilcox. il diags Mill & Factory 54:108-11 Je '54

Methods of belt conveyor loading. R. U. Jackson and others. il Min Cong J 40:48-50 Jl '54

Mine to consumer via 4½-mi belt. il Coal Age 59:83 Je '54

Modernized conveyer system increases coal handling capacity; Vineland, N.J. municipal power plant. H. M. Down. il Power Eng 58:63 Jl '54

Prestressed span is double-decked for railway on top, coal conveyor below. il Eng N 151:63+ N 5 '53

Refuse disposal plant at Sheffield. il Engineering 176:633-4 N 13 '53

Samba conveyor; Hawaiian pineapple co. il Factory Management 112:113 F '54

Tramp-iron protector stops coal belt tears. C. B. Watson. diag Elec World 140:134 Ag 10 '53

24 low-cost devices automate package line; Instant Postum packaging line. I. C. Miller. il diags Food Eng 26:92-3+ Mr '54

Underground belt conveyors. J. W. Hardy. il Min Cong J 40:33-6 S '54

Unique conveyor belt system employed in Goodrich tire plant. il Rubber Age 75:694 Ag '54

Water-cooled belt conveyor solidifies molten sulfur. S. Schwartz. Chem Eng Prog 49: sup 19, 22 My '53

World's largest belt conveyor; illustrations with text. Heat & Ven 51:109 Ap '54

Zipper conveyors have many profitable uses. diag Mill & Factory 53:115 N '53

See also

Belting, Conveyor
Subways—Belt conveyors (passenger)

Chain conveyors

Facts about modern chain conveyors. il diags Mill & Factory 54:266 My '54

King overhead conveyor kit. il diag Engineering 176:800 D 18 '53

Control

Photo-electric control equipment for plasterboard production lines. il Engineer 197:402 Mr 12 '54

Utilizing irregular gears for inertia control; shaker conveyors. W. W. Sloane. il diag Machine Design 25:193-6 D '53

Maintenance and repair

Installation and maintenance of conveyor belting. il diags Foundry 82:86-93+ F '54

Prevention maintenance lowers conveyor downtime; Buick motor div. W. G. Patton. il diag Iron Age 174:114-17 Jl 15 '54

Temporary conveyor roller speeds maintenance. F. E. Riley. il diags Power Eng 58:92 S '54

Safety measures

Four measures for properly guarding conveyors. Rubber Age 74:935 Mr '54

CONVEYING machinery, Portable

Portable conveyor equipment; combination of the Loband loader and improved Hyloveyor. il Elec R (Lond) 154:215 Ja 29 '54

CONVEYING machinery for passengers. See Subways—Belt conveyors (passenger)

CONVEYOR belting. See Belting, Conveyor

CONVICT labor

Convict labor; Virginia is asked to cut its prisoner highway force. Eng N 151:27 D 24 '53

COOK books

See also

Advertisements—Cook books and recipes

COOK electric company

Stock offered. Comm & Fin Chr 178:1567 O 26 '53

COOKERY

See also

Electric cooking
Frying
Gas cooking

Study and teaching

Cooking sessions for men; Maier's bakery. il Sales Management 70:63 pt 2 Ap 1 '53

COOKIES

Crushproof cookies; multicell partition in film bags. il Mod Packaging 27:108-9+ Ag '54

Cushion-lined lock-tabs; Weston Biscuit's new machine. il Mod Packaging 27:144-5+ Jl '54

COOKING thermometers. See Thermometers, Cooking

COOLANTS. See Lubrication and lubricants (cutting and grinding)

COOLING

Air-conditioned streets; covered shopping centers feature bold new trend to central cooling. il diag Arch Forum 98:160-1 Mr '53

Air jets control heat. il Heat & Ven 51:106 S '54

Are hogs prospects for comfort cooling? W. E. Fontaine and others. bibliog il Refrig Eng 62:57-9 Ja '54

Cooling a small residence using a perimeter-loop duct system. D. R. Bahnfleth and others. bibliog il plans Heating-Piping 26:111-21 F '54; Abstract. Heat & Ven 51:94 Mr '54

COOLING—*Continued*

Cooling hot spots in industry. A. B. Wason. diags Heat & Ven 51:87-94 S '54

Cooling impact brings air conditioning to Washington, D.C. area. il plans diag House & Home 2:138-40 O '52

Cooling loads from sunlit glass and wall. C. O. Mackey and N. R. Gay. il diag Heating-Piping 26:123-8 Ag '54; Discussion. 26:155-6 S '54

Cooling plants for underground workings. A. Houberechts. il diags Min Cong J 39:51-4+ D '53; 40:30-2 Ja '54

Cooling studies in a research home. W. S. Harris and P. J. Waibler. il plans diags Heating-Piping 26:149-56 Je '54; Discussion. 26:156-7 S '54

Cooling with wet heat; panel discussion. il plans Sheet Metal Worker 45:sup30-44 Je '54

Cost of summer cooling. Am Bld 75:212+ My '53

Heating and cooling for comfort. R. Follansbee. diags Sheet Metal Worker 45:44-6+ Mr '54

How a big contractor looks at cooling; B & B heating, plumbing and air conditioning co. L. Schulkens. Dom Eng 184:126-7+ Jl '54

How air washers perform when cooling. H. M. Hendrickson. bibliog diags Heating-Piping 26:119-23 Mr; 116-21 S '54 (to be cont)

How to cool a church economically. J. A. Wilkerson and A. P. Boehmer. diag Refrig Eng 62:36-8 F '54

Largest cooling system in Philadelphia, installed in Public Ledger building. Heat & Ven 50:134 D '53

Long term outlook for summer cooling. C. Wampler. Dom Eng 184:122-3 Jl '54

Plants are important in cooling a house. il Am Bld 76:186 Mr '54

Plus values possible with hot water heating. W. S. Harris. il diag Am Bld 74:146+ F '54

Preparing the house for summer cooling. S. Konzo. diags Am Bld 76:226-8 Mr; 159-60+ My '54

Radiant cooling in Toronto office building. il Heat & Ven 50:120+ N '53

Use of Freon-13 in cooling high pressure air. J. J. Fritz and others. diag Refrig Eng 62:48-50 My '54

Warm air lab hits the road; study of cooling systems in 22 homes. il Dom Eng 184:135+ Ag '54

Zoned cooling means cheap cooling for residences. J. L. Hoyer. il Refrig Eng 62:43-6+ Ja '54

See also

Air conditioning
Cold storage
Cooling towers
Factories—Air conditioning
Heat pump
Refrigeration and refrigerating machinery
Water, Underground—Cooling uses

Cost

Operating cost of residential cooling equipment. S. F. Gilman and others. bibliog il Heating-Piping 26:109-15 Ap '54; Abstract. Dom Eng 183:226+ Ap '54; Discussion. Heating-Piping 26:157-9 S '54

Tables, calculations, etc.

Cooling potential versus specific enthalpy; heat transfer potential between moist air and water. F. Rasori. bibliog Refrig Eng 61:1207-19+ N '53; Discussion. 62:52-3+ F; 76-7+ Je '54

Figuring hot-cold ceilings. Power Eng 58:78 Jl '54

Heat removed per cubic foot of air; tabulations; reference data. Heat & Ven 51:172a-172b F '54

Heat removed per pound of dry air; tabulation; reference data. Heat & Ven 51:150a-150b Ja '54

Summer degree-days. S. F. Gilman and others. Heat & Ven 51:74-6 Jl; 136 S '54

COOLING, Industrial

Air cooling improves economy of new gasoline plant operation. A. L. Foster. il Pet Eng 25:C5-7 N '53

Analysis of rotary dryer and cooler performance. W. C. Saeman and T. R. Mitchell, jr. bibliog il diags Chem Eng Prog 50:467-75 S '54

Carbon dioxide as a machining coolant. il diags Engineer 197:181-2 Ja 29 '54

Carbon dioxide as a machining coolant. il diag Engineering 177:156-7 Ja 29 '54

Carbon dioxide cooling. Automobile Eng 44:58 F '54

Cool the coolant for precise machining. W. Stone. il diags Iron Age 172:129-32 Jl 2 '53

Cool tip, not chip, with CO_2. il diags Am Mach 98:130-3 F 15 '54

Coolant has another role; application of water-base coolants can result in better cooling of the whole machine. C. R. Morgan. Steel 133:218 D 7 '53

Flash cooling is handy for quick cooling of solutions. A. P. Massa. diag Chem Eng 61:226+ Ja '54

Glass tank with forced cooling of the sidewalls; abstract. M. I. Kozmin. diags Glass Ind 35:78 F '54

New CO_2 concept machines tough alloys. G. H. DeGroat. il Am Mach 98:152-4 Ag 2 '54

Supply cooling air for testing generators and alternators. A. F. Arnold. il diag Heating-Piping 26:110-11 Ag '54

Taking cake out of sugar; Holly sugar corp. il Food Eng 26:66 Mr '54

324 fans cool reduction pots; Reynolds metals co. J. W. Hutchison. il diag Heating-Piping 26:123 S '54

Tool cooling by CO_2. il diags Automobile Eng 44:263-5 Je '54

Using carbon dioxide as a machining coolant. il Refrig Eng 62:55+ My '54; Abstract. diag Chem Age (Lond) 70:731 Mr 27 '54

Water-cooled belt conveyor solidifies molten sulfur. S. Schwartz. Chem Eng Prog 49:sup19, 22 My '53

When and where to use air-cooled heat exchangers. J. M. Whalen. il diag Pet Processing 8:1528-31 O '53

See also

Cold storage
Cooling towers
Electric generators, Alternating current—Cooling
Quenching
Steel, Quenching of
Testing laboratories—Cold rooms
Vacuum tubes—Cooling

Tables, calculations, etc.

Nomograph for easy batch cooling calculations. M. F. Seco. Chem Eng 60:172-3 D '53

COOLING equipment

Air cooler sales boomed. Bsns W p 152+ O 3 '53

Cooling costs cut almost in half; Ultrasonic corp.'s Temtron. il diags House & Home 6:151+ Ag '54

Cooling installation and service tips. C. W. Nessell. Dom Eng 184:124-5+ Jl; 117+ Ag '54

Corrosion; improved equipment helps maintain high heat transfer. Iron Age 173:174-174A+ Ap 8 '54

Curves can simplify your problems in estimating cooling tanks. R. S. Cook. Chem Eng 60:184-5 Jl '53

Install shell and tube condenser between the evaporative condenser and the receiver; is this proposed system practical? diag Heat & Ven 51:113-14 My '54

New corrosion resistant coating protects cast iron coolers; Kolmetal coating. J. J. Obrzut. il Iron Age 172:76-7 D 24 '53

Sheet metal worker's contractor survey; heating and cooling equipment. il Sheet Metal Worker 45:53-4+ Mr '54

Snorkel and aftercooler dry control air. W. J. Steinert. il diag Power Eng 58:90 Ap '54

Today's problems of serving room coolers. F. G. Hamner. il Elec World 140:86-9 Jl 27 '53; Discussion. 140:149-51 S 7; 227-8 S 21 '53

See also

Cooling towers

Manufacture

Weld seal; submerged arc used to close refrigerating units; General electric co. il Iron Age 172:218+ D 10 '53

COOLING equipment—*Continued*

Testing

Zoned cooling means cheap cooling for residences. J. L. Hoyer. il Refrig Eng 62:43-6+ Ja '54

COOLING of aggregates. See Concrete—Aggregates

COOLING of fruits and vegetables

Vacuum cooling of produce. H. P. Hayes. il diags Refrig Eng 62:47-9+; Discussion. 90+ S '54

COOLING of water

Cooling pond may answer your water cooling problem. J. W. Langhaar. Chem Eng 60: 194-8 Ag '53

See also

Cooling towers

COOLING ponds

Cooling pond may answer your water cooling problem. J. W. Langhaar. Chem Eng 60: 194-8 Ag '53

Cooling pond proves cheaper for Mississippi power & light co. R. W. Braswell. il Elec World 140:84-5 N 30 '53

COOLING towers

Cooling tower wood maintenance. il Power 98:113-17 F '54

Corrosion characteristics of aluminum cooling towers. Heat & Ven 51:88 Ja '54

Deterioration of redwood cooling towers. R. V. Comeaux. bibliog il Am Pet Inst Proc 33(3):308-19 '53; Excerpts. Oil & Gas J 52: 343+ S 21 '53; Abstract. Power 97:246+ O '53

Does your water saver really save water? J. I. Montel. diag Refrig Eng 62:50-1+ S '54

Efficiency of a cooler. W. F. Schaphorst. Pulp & Pa of Can 54:150-1 O '53

Efficient hookup of your cooling tower or evaporative condenser. M. Metz. diags Power 98:126-7+ Jl '54

Industrial cooling towers. H. E. Degler. flow diags il map diags Pet Eng 25:C7+ D '53; 26:C30+ Mr; C53-4+ My; C34+ Jl '54

Mechanical draught cooling towers; their use in power station plant. M. E. O. Trowbridge. Elec J 151:789-92 S 11 '53

New lease on life for cooling towers. il Chem Eng 61:120 Ap '54

Plan for quiet, vibrationless cooling tower. il Am Bld 75:104-5 Ag '53

Treating cooling-tower lumber to reduce fungal decay. R. H. Bescher. bibliog Oil & Gas J 52:82-3 Ja 11 '54

Water treatment for cooling towers. W. J. Winzig. Blast F & Steel Pl 42:812-16 Jl '54

What's new in cooling-tower-wood maintenance. C. L. Blohm and others. il Oil & Gas J 52:78-81+ Ja 11 '54

Wood deterioration in cooling towers. B. L. Browning and L. O. Bublitz. bibliog il Ind & Eng Chem 45:1516-20 Jl '53

Tables, calculations, etc.

Calculating cooling-tower performance from test data (actual vs. predicted). F. B. Read and L. T. Mart. il diag Oil & Gas J 52:98-100 N 9 '53

Nomograph cuts time for making cooling tower calculations. G. E. Mapstone. Chem Eng 60:212 O '53

Prediction of cooling tower performance. W. W. Smith. bibliog Heating-Piping 25:109-12 O '53; Discussion. 26:170-1 Mr '54

COOLING water

Half million gpm of condensing water used by TWA's Johnsonville steam plant. C. W. Bolieau. il plans diags Civil Eng 23:376-9 Je '53

How sidestream filter helps in keeping cooling system clean. il Oil & Gas J 52:146 D 14 '53

Quaternary ammonium compounds from dodecylbenzene. J. L. Darragh and R. D. Stayner. il Ind & Eng Chem 46:254-7 F '54

Reclamation of refinery effluents. C. D. Eaton, R. E. Evans and E. G. Kominek. bibliog flow diags diags Ind & Eng Chem 46:319-24 F '54

Right water treatment; your best bet to extend cooling-tower life, save money. J. M. Slough. il Power 98:100-1+ My '54

Skimmer wall to catch cooler cooling water: TVA devises novel gate for steam-station intake channels. diags Eng N 152:47-8 Mr 18 '54

Treatment of cooling waters. L. W. Fitzpatrick. il Power Eng 58:82-4 F '54

Water cooling with wells used in pairs. diag Eng N 151:239-40 O 8 '53

See also

Cooling towers

COOPER, Thomas, 1759-1839

Historical notes on the wet-processing industry; contributions of T. Cooper. S. M. Edelstein. pors Am Dyestuff Rep 43:181-2 Mr 15 '54

COOPERATION

U.S. cooperative trade with Europe studied. For Comm W 50:18 O 5 '53

See also

Advertising, Cooperative
Building and loan associations
Cooperative associations
Employment systems, Cooperative
Insurance, Mutual
Profit sharing
Trade unions—Cooperation with management

United States

Consumer cooperatives in the United States; recent developments. J. A. Flexner. U S Bur Labor Statistics Bul 1158:1-31 '54

COOPERATION, International. See International cooperation

COOPERATIVE associations

See also

Credit unions
National rural electric cooperative association
Petroleum cooperative associations

Accounting

Methods of allocating deferred patronage refunds in a coöperative. J Account 96:620+ N '53

COOPERATIVE education. See Engineering education—Cooperative plan; Industrial education—Cooperative plan

COOPERATIVE housing. See Housing, Cooperative

COOPERATIVE research foundation

Cooperative research foundation. K. F. Meyer. Science 118:95-6 Jl 24 '53

CORE establishes an international relations center for scientists. Chem & Eng N 31: 3289 Ag 10 '53

COORDINATION (chemistry)

Configurations of ligands having internal rotation axes in coördination compounds. J. V. Quagliano and S. Mizushima. bibliog Am Chem Soc J 75:6084-5 D 5 '53

Coordination chemistry; Danish chemical society symposium. Chem & Eng N 31: 3626+ S 7 '53

Co-ordination compounds of boron trihalides. J. Grimley and A. K. Holliday. Chem Soc J p 1212-18 Ap '54

Indiana university conference on coordination compounds, Bloomington, Aug. 18-21. Chem & Eng N 31:3546-7 Ag 31 '53

Olefin co-ordination compounds; infrared spectra and structure; attempted preparation of acetylene complexes. J. Chatt and L. A. Duncanson. diags Chem Soc J p2939-47 O '53

Structure of ligands in inorganic coördination compounds by infrared spectra. S. Mizushima and J. V. Quagliano. Am Chem Soc J 75:4870 O 5 '53

Studies of coördination compounds; the solution stabilities of the chelate compounds of a number of organic ligands. L. G. Van Uitert and W. C. Fernelius. bibliog Am Chem Soc J 76:375-9 Ja 20 '54

Studies on coordination compounds; correlation of the solution stabilities of the chelate compounds of ligands coördinating through nitrogen and oxygen. L. G. Van Uitert and W. C. Fernelius. bibliog Am Chem Soc J 76:379-83 Ja 20 '54

COPERNICIA australis. See Caranday palm

COPOLYMERIZATION. See Polymerization

COPOLYMERS. See Polymers

COPPER

Adsorption of copper sulfate on copper and silver. L. R. Scharfstein and C. V. King. bibliog J Phys Chem 58:180-2 F '54
Adsorption of cupric and mercuric ions by a weak-base anion exchange resin. J. Andelin and N. Davidson. Am Chem Soc J 75:5413-15 N 5 '53
Anodic oxidation of metals at very low current density; copper. S. E. S. El Wakkad and S. H. Emara. Chem Soc J p3508-12 N '53
Association of imidazole with the ions of zinc and cupric copper. J. T. Edsall and others. bibliog Am Chem Soc J 76:3054-61 Je 5 '54
Colorimetric determination of vanadium(V) and its separation from copper. H. H. Willard, E. L. Martin and R. Feltham. Anal Chem 25:1863-5 D '53
Copper-activated zinc sulfide phosphors with trivalent substituents. H. C. Froelich. Electrochem Soc J 100:496-507 N '53
Copper-activated zinc sulfide phosphors with yellow and red emission. H. C. Froelich. bibliog Electrochem Soc J 100:280-8 Je '53
Copper and copper alloys; survey of technical progress during 1953. E. Voce. Metallurgia 48:289-98 bibliog(230 titles, p296-8) D '53
Copper-ethylenediaminetetraacetic acid complex in alkaline solution. H. Wagreich and B. Harrow. bibliog Anal Chem 25:1925-6 D '53
Copper-lined room at GE plant excludes electromagnetic wave; anechoic chamber of sound test building. Iron Age 173:150+ My 13 '54
Copper penetration of car journals. il Ry Loco & Cars 128:58-61 Ap '54
Diffusion of gold into copper. A. B. Martin and others. bibliog J Ap Phys 25:364-9 Mr '54
Diffusivity and solubility of copper in germanium. C. S. Fuller and others. bibliog il diag Phys R 93:1182-9 Mr 15 '54
Dual intermediates in coulometric titrations; equilibria in copper(II)-bromide solutions. P. S. Farrington, D. J. Meier and E. H. Swift. bibliog Anal Chem 25:591-5 Ap '53
Effect of copper in wool dyeing; abstract. L. F. Story. Am Dyestuff Rep 43:248 Ap 12 '54
Effect of nickel and copper impurities on the recombination of holes and electrons in germanium. J. A. Burton and others. bibliog diags J Phys Chem 57:853-9 N '53
Energy of the high-lying acceptor level in copper-doped germanium. J. F. Battey and R. M. Baum. Phys R 94:1393 Je 1 '54
Engineering coppers; commercial grades, engineering properties, applications, forming and fabricating, joining practice, cleaning the finishing. J. L. Everhart. il Materials & Methods 38:123-38 D '53 (reprints 25¢)
Evaluation of test data in determining minimum design requirements for aluminum to copper connectors. D. C. Hubbard and others. Power 98:242+ Ap '54
Expansion of copper bombarded by 21-Mev deuterons. W. R. McDonell and H. A. Kierstead. Phys R 93:247 Ja 1 '54
Experimental confirmation of the Drude free electron theory of the optical properties of metals for silver, gold, and copper in the near infrared. L. G. Schulz. bibliog diags Opt Soc Am J 44:540-5 Jl '54
Formation of powder and its dependence on crystal face during the catalytic reaction of hydrogen and oxygen on a single crystal of copper. J. B. Wagner, jr. and A. T. Gwathmey. bibliog 2pls Am Chem Soc J 76:390-1 Ja 20 '54
Gamma-ray absorption coefficients for NaI, Cu, Ta, and W. P. R. Howland and W. E. Kreger. bibliog diag Phys R 95:407-10 Jl 15 '54
Gamma rays from Cu due to neutron inelastic scattering. L. A. Rayburn and others. Phys R 94:1641 Je 15 '54
Hartree-Fock-Slater self-consistent field and the calculation of some properties of the Cu^+ ion. J. C. Morrow. bibliog J Phys Chem 58:245-7 Mr '54
Heat of wetting of copper, graphite and silica gel. F. E. Bartell and R. M. Suggitt. bibliog diag J Phys Chem 58:36-40 Ja '54
High pressure oxidation rate of metals; copper in oxygen. W. McKewan and W. M. Fassell, jr. bibliog il diag J Metals 5:Trans 1127-30 S '53
Hydrogen-deuterium exchange on copper, silver, gold and alloy surfaces. R. J. Mikovsky, M. Boudart and H. S. Taylor. bibliog diag Am Chem Soc J 76:3814-19 Jl 20 '54
Influence of foreign atoms on the surface rearrangement produced by the catalytic reaction of hydrogen and oxygen on a single crystal of copper. R. E. Cunningham and A. T. Gwathmey. Am Chem Soc J 76:391-3 Ja 20 '54
Influence of oxygen and nitrogen in solution in alpha titanium on the friction coefficient of copper on titanium. W. R. Yankee and E. S. Machlin. bibliog J Metals 6:Trans 989-90 S '54
Internal friction and Young's modulus of cold-worked copper single crystals. J. Weertman and J. S. Koehler. bibliog diags J Ap Phys 24:624-31 My '53
Kinetics of the dissolution of copper in aqueous ammonia. J. Halpern. bibliog diag Electrochem Soc J 100:421-8 O '53
Kinetics of the initial corrosion of copper in aqueous solutions. G. R. Hill. bibliog diag Electrochem Soc J 100:345-50 Ag '53
Magnetic transformation of iron in copper matrix at low temperatures. R. E. Cech and D. Turnbull. bibliog J Metals 6:Trans 45-6 Ja '54
Mechanism of electropolishing of copper in phosphoric acid solutions. J. Edwards. bibliog il diags Electrochem Soc J 100:sup 189C-94C, 223C-30C Jl-Ag '53
Nickel, copper and some of their alloys as catalysts for ethylene hydrogenation. R. J. Best and W. W. Russell. bibliog Am Chem Soc J 76:838-42 F 5 '54
Optical constants of silver, gold, copper, and aluminum. L. G. Schulz and F. R. Tangherlin. bibliog diags Opt Soc Am J 44:357-68 My '54
Orientation relationships in the recrystallization of deformed copper single crystals. J. J. Becker and J. N. Hobstetter. bibliog il J Metals 5:Trans 1235-8 sec 2 S '53
Plastic deformation of single crystals of copper. J. J. Becker and J. N. Hobstetter. bibliog il J Metals 5:Trans 1231-4 sec 2 S '53; Discussion. diags 6:Trans 665-6 sec 2 My '54
Polarography of copper in ethylenediaminetetraacetic acid solutions. R. L. Pecsok. bibliog Anal Chem 25:561-4 Ap '53
Properties of some coppers and brasses; tabulation; engineering reference sheet. Elec World 141:208 Ja 25 '54
Pure gliding of metal crystals. H. Kanzaki. diags J Ap Phys 24:811 Je '53
Rate of displacement of silver from aqueous silver nitrate by zinc and copper. R. Glicksman and others. bibliog Electrochem Soc J 100:580-5 D '53
Removal of copper from iron-copper-carbon alloys. F. C. Langenberg and R. W. Lindsay. bibliog J Metals 6:Trans 967-8 S '54
Resistivity changes in copper, silver, and gold produced by deuteron irradiation near 10°K. H. G. Cooper and others. Phys R 94:496 Ap 15 '54
Selection of copper and copper alloys; supplement to 1948 edition of Metals handbook. Metal Prog 66:64-72 Jl 15 '54
Sheppard continuous casting machine for copper ingots. il Engineering 176:809-10 D 25 '53
Simultaneous electrodeposition of copper and lead from nitric acid-hydrofluoric acid-beryllium nitrate solution. C. Goldberg. bibliog Anal Chem 25:1405 S '53
Some properties of zinc sulfide activated with copper and cobalt. W. Hoogenstraaten and H. A. Klasens. bibliog Electrochem Soc J 100:366-75 Ag '53
Standard commercial wrought copper and copper-base alloys. Steel 134:120h My 10 '54
Steric effects and the stability of complex compounds; the chelating tendencies of C-substituted ethylenediamines with copper(II) and nickel(II) ions. F. Basolo, Yun Ti Chen and R. K. Murmann. bibliog Am Chem Soc J 76:956-9 F 20 '54

COPPER—*Continued*

Steric effects and the stability of complex compounds; the chelating tendencies of N-alkylglycines and N-dialkylglycines with copper(II) and nickel(II) ions. F. Basolo and Yun Ti Chen. bibliog Am Chem Soc J 76:953-5 F 20 '54

Steric effects and the stability of complex compounds; the chelating tendencies of N,N′-dialkylethylenediamines with copper(II) and nickel(II) ions. F. Basolo and R. K. Murmann. bibliog Am Chem Soc J 76:211-14 Ja 5 '54

Stored energy measurements in irradiated copper. A. W. Overhauser. bibliog diag Phys R 94:1551-7 Je 15 '54

Strain history affects copper characteristics. Elec World 140:127-8 Ag 10 '53

Stress-strain characteristics and slip-band formation in metal crystals; effect of crystal orientation. F. D. Rosi. bibliog(34 titles) il diags J Metals 6:Trans 1009-20 sec 2 S '54

Structural defects in copper and the electrical resistivity minimum. T. H. Blewitt and others. Phys R 93:891 F 15 '54

Study of the weathering characteristics of cotton fabrics containing inorganic compounds; chromic oxide and copper in inorganic and organic forms. G. R. F. Rose and C. H. Bayley. bibliog Textile Res J 24:792-802 S '54

Thermal conductivity of copper between 0.25°K and 4.2°K. J. Nicol and T. P. Tseng. bibliog Phys R 92:1062-3 N 15 '53

Thermal migration in supported copper catalysts. P. E. Jacobson and P. W. Selwood. bibliog diag Am Chem Soc J 76:2641-4 My 20 '54

Two types of band emission curves of copper in the soft X-ray region. G. Shinoda and others. il Phys R 95:840-1 Ag 1 '54

Ultra-pure metal. Metal Prog 65:196+ Ap '54

Use of copper as the retaining ion in the elution of rare earths with ammonium ethylenediamine tetraacetate solutions. F. H. Spedding, J. E. Powell and E. J. Wheelwright. bibliog Am Chem Soc J 76:2557-60 My 5 '54

Vapor pressure of zinc in the reduction of ZnS by Cu and Fe. A. W. Bethune and L. M. Pidgeon. bibliog J Metals 5:Trans 804-7 Je '53

See also

Copper alloys

Analysis

Acetonic dithizone in geochemistry. H. V. Warren and others. Econ Geol 48:306-11 Je '53

Colorimetric determination of copper with neo-cuproine. A. R. Gahler. Anal Chem 26:577-9 Mr '54

Colorimetric determination of zinc and copper with 2-carboxy-2′-hydroxy-5′-sulfoformazylbenzene. R. M. Rush and J. H. Yoe. bibliog Anal Chem 26:1345-7 Ag '54

Determination of copper in metallurgical analysis. R. J. Guest. bibliog Anal Chem 25:1484-6 O '53

Determination of copper in mineral oils using an ion-exchange technique. H. Buchwald and L. G. Wood. bibliog Anal Chem 25:664-5 Ap '53

Determination of impurities in germanium and silicon. C. L. Luke and M. E. Campbell. bibliog Anal Chem 25:1588-93 N '53

Determination of traces of copper in germanium by activation analysis. G. Szekely. Anal Chem 26:1500-2 S '54

Determination of zinc with special reference to separation from cobalt and copper. A. E. Martin. bibliog Anal Chem 25:1853-8 D '53

Direct photometric determination of iron, titanium, and copper in tantalum and its oxide. J. Hastings, T. A. McClarity and E. J. Broderick. bibliog Anal Chem 26:379-81 F '54

Electrolytic determination of copper with an isolated anode. D. C. Foster. diag Anal Chem 25:1557-8 O '53

Microdetermination of copper in biological material. D. M. Hubbard and E. C. Spettel. bibliog Anal Chem 25:1245-7 Ag '53

Nonashing technique for determination of traces of copper in malt beverages. I. Stone, R. Ettinger and C. Gantz. bibliog Anal Chem 25:893-5 Je '53

Photometric determination of copper in gasoline. J. K. Livingstone and N. D. Lawson. Anal Chem 25:1917-18 D '53

Rapid method for the determination of copper in plant material. T. R. Williams and R. R. T. Morgan. Chem & Ind p461 Ap 17 '54

Simultaneous colorimetric determination of copper, cobalt, and nickel as diethyldithiocarbamates. J. M. Chilton. bibliog Anal Chem 25:1274-5 Ag '53

Simultaneous titration of iron and copper with ethylenediaminetetraacetic acid. A. L. Underwood. Anal Chem 25:1910-12 D '53

Spectrochemical determination of copper in turbine oils. J. E. Barney, 2d. Anal Chem 26:567-8 Mr '54

Spectrophotometric determination of copper in ores with 2,2′-bipyridine. J. P. Mehlig and P. L. Koehmstedt. bibliog Anal Chem 25:1920-1 D '53

Stoichiometry of titration of metal ions with disodium salt of ethylenediaminetetraacetic acid. W. J. Blaedel and H. T. Knight. bibliog Anal Chem 26:743-6 Ap '54

Two specific methods of determining copper in soil and in plant material. Kuang Lu Cheng and R. H. Bray. bibliog Anal Chem 25:655-9 Ap '53

Isotopes

Radioactive copper nuclides produced by slow negative pions and muons from zinc. A. Turkevich and Si Chang Fung. bibliog Phys R 92:521-2 O 15 '53

Metallography

Directionality in rolled copper and brass; abstract. G. L. J. Bailey. Metal Prog 65:190+ My '54

Surface structures on single crystals produced from melt. F. D. Rosi. bibliog il J Metals 5:Trans 1661-2 D '53

Nuclear reactions

Bromine isotopes produced by carbon-ion bombardment of copper. J. M. Hollander. Phys R 92:518-19 O 15 '53

Decay of Cu^{60} and nuclear levels in Ni^{60}. R. van Lieshout and others. Phys R 93:255-6 Ja 1 '54

Gallium, germanium, and arsenic nuclides produced in the bombardment of copper with 2.2-Bev protons. A. Turkevich and N. Sugarman. Phys R 94:728 My 1 '54

Nuclear reactions of copper with 2.2-Bev protons. G. Friedlander and others. Phys R 94:727-8 My 1 '54

Radiochemical evidence for the $Cu^{65}(p,p\pi^+)Ni^{65}$ reaction. S. C. Fung and A. Turkevich. Phys R 95:176-8 Jl 1 '54

Physiological effect

Effect of adding copper to the diet of suckling piglets. K. G. Mitchell. Chem & Ind p871-2 Ag 15 '53

Prices

Electrolytic copper, 1936-1953; tabulation. Iron Age 173:414 Ja 7 '54

Heavy copper scrap, electrolytic copper; tabulation. Iron Age 173:413 Ja 7 '54

Nonferrous prices; tabulation. Steel 134:175 Ja 4 '54

Price, wholesale, electrolytic (New York). 1949-1952. Survey of Cur Bsns 1953 Sup p 162 [supplemented in monthly numbers]

Standards

ASTM standards on copper and copper alloys. 584p Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '54

Testing

Creep characteristics of phosphorized copper (0.019 per cent P) at 300, 400, and 500 F. A. I. Blank and H. L. Burghoff. Am Soc T M Proc 51:981-93; Discussion. 993-5 '51

Energy state of fatigued copper. B. Welber and R. Webeler. J Metals 5:Trans 1558-9 sec 2 N '53

Mechanical properties of copper at various temperatures. W. H. Munse and N. A. Weil. il Am Soc T M Proc 51:996-1019 bibliog(30 titles, p 1018-19); Discussion. 1019-22 '51

COPPER—*Continued*

Welding

Welding copper and copper alloy castings; Wheeling bronze casting co. A. O. Dodge. il Foundry 82:165+ S '54
Welding of 90/10 copper-nickel alloy. G. R. Pease and T. E. Kihlgren. bibliog il Welding J 33:329-38 Ap '54; Discussion. K. M. Weigert. 33:1184-5 D '54

COPPER, Powdered
Average copper powder price, 1949-1953; tabulation. Iron Age 173:415 Ja 7 '54

COPPER acetate
Reduction by a cuprous acetate-pyridine complex. W. G. H. Edwards and G. K. McIndoe. Chem & Ind p 1091 O 10 '53

COPPER alloys
Beryllium copper put through test. Light Metal Age 12:22 Ap '54
Constitution and properties of Ag-Cu-Zn brazing alloys. K. M. Weigert. bibliog il J Metals 6:Trans 233-7 sec 3 F '54
Copper alloys; new alloys give improved formability and better physical properties. il Steel 133:159-60 O 12 '53
Copper and copper alloys; survey of technical progress during 1953. E. Voce. Metallurgia 48:289-98 bibliog(230 titles, p296-8) D '53
Copper-base alloys fight corrosion and wear. il Mill & Factory 54:107 Je '54
Copper-base alloys; toughness and hardness have been added. il Steel 134:125+ My 10 '54
Development of a copper-silver-lead alloy for bearings. G. Llewelyn. bibliog il diag Metallurgia 48:215-20 N '53
Effect of quenching strains on the properties of an Al-Cu-Mg alloy. H. A. Unckel. bibliog Metallurgia 49:220-2 My '54
High temperature oxidation characteristics of a group of oxidation resistant copper-base alloys; abstract. J. P. Dennison and A. Preece. Metal Prog 65:138+ F '54
How to classify copper base alloys. il Steel 134:88-90 F 1; 130-2+ F 8; 114-15+ F 15 '54
Important new alloy added to beryllium-copper group; Beryldur. il Elec Eng 72: 1139 D '53; Materials & Methods 38:149 D '53
Influence of cold work and heat treatment on the engineering properties of beryllium copper wire. J. T. Richards and others. Am Soc T M Proc 51:771-91 bibliog(35 titles, p790-1) '51
Manganese-copper alloys put damper on noise. J. A. Rowland and J. W. Jensen. il Steel 135:127 S 13 '54
Mechanical properties of beryllium copper at subzero temperatures. J. T. Richards and R. M. Brick. bibliog J Metals 6:Trans 574-80 sec 2 My '54
Mechanism of pitting corrosion; abstract. R. May. Metal Prog 65:164+ My '54
Order-disorder transformation in Cu-Au alloys near the composition CuAu. J. B. Newkirk. bibliog J Metals 5:Trans 823-6 Je '53; Discussion. il 6:Trans 673-5 sec 2 My '54
Ordering reaction of the Cu_4Pd alloy. A. H. Geisler and J. B. Newkirk. bibliog il diags J Metals 6:Trans 1076-82 sec 2 S '54
Selection of copper and copper alloys; supplement to 1948 edition of Metals handbook. Metal Prog 66:64-72 Jl 15 '54
Solidification of aluminum-rich aluminum-copper alloys. A. B. Michael and M. B. Bever. bibliog il J Metals 6:Trans 47-56 Ja '54
Some factors affecting the quality of extrusions. C. Smith and N. Swindells. Metal Prog 66:supA 170+ Jl 15 '54
Standard commercial wrought copper and copper-base alloys. Steel 134:120h My 10 '54
Structure and mechanical properties of copper-manganese-tin alloys; abstract. J. C. Blade and J. W. Cuthbertson. Metal Prog 66:136+ Ag '54
Temperature range of the martensitic transformation in the Cu-Zn system. A. L. Tichener and M. B. Bever. bibliog J Metals 6: Trans 303-4 sec 2 F '54
Temperature variation of the mean Debye temperature of Cu_3Au, 20°C to 450°C. S. L. Quimby. Phys R 95:916 Ag 15 '54
Welding of 90/10 copper-nickel alloy. G. R. Pease and T. E. Kihlgren. bibliog il Welding J 33:329-38 Ap '54; Discussion. K. M. Weigert. 33:1184-5 D '54
X-ray line broadening from precipitation in Cu-Fe alloys. T. S. Hutchison. bibliog J Ap Phys 24:813-14 Je '53

See also
Aluminum bronze
Brass
Bronze
Monel metal

Analysis

Spectroscopy for copper alloys; production control quantometer. A. W. Young. il Steel 134:112-13 Je 14 '54

Standards

ASTM standards on copper and copper alloys. 584p Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '54

Testing

Jet impingement tests. P. T. Gilbert and F. L. LaQue. il Electrochem Soc J 101:448-55 S '54

COPPER ammonium hydroxide
Standard method of test for fluidity of cotton, rayons and cellulose acetate in cuprammonium hydroxide solution. diags Textile Inst J 45:S 18-26 Ap '54

COPPER brazing. See Brazing

COPPER chloride
Preparation of ammoniacal cuprous chloride. B. B. Bach and others. diag Chem & Ind p 1279-80 N 28 '53

COPPER citrate
Cupric and ferric citrate complexes. R. C. Warner and I. Weber. bibliog Am Chem Soc J 75:5086-94 O 20 '53

COPPER clad steel. See Steel, Copper clad

COPPER compounds
Cellulose solvents for viscosity measurements; the effect of copper and base concentrations in cuprammonium and cupriethylenediamine solutions. B. L. Browning and others. bibliog(26 ref) diag Tappi 37: 273-83 Jl '54
Copper(II) and zinc complexes of some amino acids and glycylglycine. N. C. Li and E. Doody. bibliog Am Chem Soc J 76:221-5 Ja 5 '54
Paramagnetic resonance of copper complex salts. T. Okamura and M. Date. diag Phys R 94:314-15 Ap 15 '54
Spectrophotometric investigation of a mixed complex ion formed by copper (II) ion with pyrophosphate ion and ethylenediamine. J. I. Watters and E. D. Loughran. bibliog Am Chem Soc J 75:4819-23 O 5 '53
Spectrophotometric investigation of a mixed complex of copper(II) ion with oxalate ion and ethylenediamine. R. DeWitt and J. I. Watters. Am Chem Soc J 76:3810-14 Jl 20 '54
Spectrophotometric investigation of the mixed complex formed by copper ions with both ammonia and pyrophosphate ions in aqueous solutions. J. I. Watters, J. Mason and A. Aaron. bibliog Am Chem Soc J 75:5212-15 N 5 '53
Summative cupriethylenediamine fractionation of cellulose. W. A. Mueller and L. N. Rogers. bibliog Ind & Eng Chem 45:2522-6 N '53

COPPER cyanide
Complex cuprous cyanide compounds. G. Gabrielson. bibliog Metal Finishing 52:60-4+ F '54

COPPER development association
Guide, philosopher and friend; CDA comes of age. Lord McGowan. Chem Age (Lond) 71:40 Jl 3 '54

COPPER fluoride
Reaction of fluorine with copper and some of its compounds; some properties of copper(II) fluoride. H. M. Haendler and others. bibliog Am Chem Soc J 76:2178-9 Ap 20 '54
Thermal decomposition of copper(II) fluoride dihydrate. C. M. Wheeler, jr. and H. M. Haendler. bibliog Am Chem Soc J 76:263-4 Ja 5 '54

COPPER hydroxyquinolinate

Analysis

Spectrophotometric method for routine control determination of copper 8- hydroxyquinolinate in cotton textiles. A. Darbey. Am Dyestuff Rep 42:453-5 Jl 20 '53

COPPER industry and trade

Brass industry charts copper's course for new, larger markets. Steel 135:73-4 S 13 '54

Chile copper; U.S. negotiations. Bsns W p 171-2 N 14 '53

Copper; many factors will affect its future. K. G. Fuller. Iron Age 173:M 13-15 Ap 8 '54

Copper, 1952. H. M. Meyer il Min Cong J 40: 90-1+ F '54

Copper price structure shows continued strength. Barron's 33:27-8 N 9 '53

Copper; see tight market ahead. R. L. Hatschek. Iron Age 174:119 S 16 '54

Securities

Copper adjusts to competition in metals. J. D. C. Weldon. il Mag of Wall St 93: 29-31+ O 3 '53

Statistics

Copper, 1949-1952. Survey of Cur Bsns 1953 Sup p 161-2 [supplemented in monthly numbers]

Copper, 1953. H. H. Wanders. Eng & Min J 155:78-9+ F '54

Copper production, shipments and stocks; imports, exports, copper and brass mill fabricator statistics, copper consumption in U.S.; tabulations. Steel 134:176 Ja 4 '54

Great Britain

Ministry eases copper squeeze. Economist 169: 268 O 24 '53

What price copper? Economist 168:342+ Ag 1 '53

COPPER iodide

Effect of cuprous iodide on the iodometric determination of iron in presence of sulfate. E. W. Hammock and E. H. Swift. Anal Chem 25:1113-14 Jl '53

COPPER iodomercurate

Electrical conductivity of Ag_2HgI_4, Cu_2HgI_4 and their eutectoid. L. Suchow and G. R. Pond. Am Chem Soc J 75:5242-4 N 5 '53

COPPER metallurgy

Anaconda's Nevada project; new approach to copper mining. R. H. Ramsey. flow sheets il plan diags Eng & Min J 155:74-93 Ag '54

Anaconda's Raritan expansion completed. il Steel 133:38-9 Jl 27 '53

Control of quality in melting and casting copper and high-conductivity copper-base alloys. J. Sykes. Metal Prog 64:124+ S '53; 65:186+ F '54

Copper converting practice at American smelting and refining company plants. F. W. Archibald. J Metals 6:Trans 358-60 Mr '54

Copper slabs weighing 3000 lb. successfully cast at Raritan works. C. D. Pearce. il J Metals 6:512-14 My '54

Copper smelting in Boliden's Rönnskär works described. O. Herneryd and others. il plan diags J Metals 6:330-7 Mr '54

Current refractory practice as applied in copper smelting. W. F. Rochow and L. A. McGill. il diags J Metals 6:338-42 Mr '54

Flash smelting process; patent. diag J Metals 6:416-17 Ap '54

Gas combustion practice described for copper smelters of the Southwest. H. Foard. il J Metals 5:1629-30 D '53

Hurley furnace and boiler description and design; Kennecott copper corp. E. A. Slover. diags J Metals 5:Trans 1435-41 N '53

Inco flash smelting process on commercial basis. il diag Min Eng 6:361-2 Ap '54

New leaching plant at Cananea; Consolidated copper co. R. C. Weed. flow diag il plan diags Eng & Min J 155:88-91 Ap '54

Reverberatory furnace practice at Noranda. J. N. Anderson. bibliog plans diags J Metals 6:Trans 745-58 Je '54

Silver Bell; AS&R's new Arizona copper project starts production. J. B. Huttl. flow sheet. il map Eng & Min J 155:72-9 Jl '54

Tonnage oxygen for flash smelting. Metallurgia 49:126 Mr '54

Electrometallurgy

Anode casting operations at Garfield smelter geared to high production. N. R. Alston and M. J. Winkel. il J Metals 5:1075-7 S '53

Direct current requirements at Carteret copper refinery supplied by three units. E. M. Meyer. il J Metals 6:811-13 Jl '54

How Dowa's plant extracts Cu-Zn from a single electrolyte. A. W. Jessup. flow sheet il Eng & Min J 155:72-4 Ja '54

COPPER miners

Rhodesia

Labour on the copperbelt. Economist 170:14 Ja 2 '54

COPPER mines and mining

See also
Magma copper company

Arizona

Blasthole drilling at New Cornelia. J. A. Lentz, jr. il Min Cong J 40:37-9 Mr '54

Development of the San Manuel copper deposit. map Min Eng 6:686-7 Jl '54

How a 15-mile move made new pit project possible; Copper Cities project of Miami copper co. B. R. Coil. il map Eng & Min J 155:78-80 Je '54

Lavender Pit operation epitomizes efficiency. il Eng & Min J 155:144+ S '54

New look at Inspiration consolidated copper co. P. D. I. Honeyman. il Min Cong J 40: 30-2+ S '54

Silver Bell; AS&R's new Arizona copper project starts production. J. B. Huttl. flow sheet il map Eng & Min J 155:72-9 Jl '54

$25-million Lavender Pit begins copper production. Eng & Min J 155:126 Ag '54

British Columbia

Copper soil anomalies in the Boundary district of British Columbia. W. H. White and T. M. Allen. maps Min Eng 6:Trans 49-52 Ja '54

Recent developments at Copper Mountain mine. L. T. Postle. il Min Cong J 40:62-4 Ap '54

Mexico

How Cananea gets good fragmentation in large blasts. A. W. Ruff. il diags Eng & Min J 155:92-4+ Ja '54; Correction. 155:97 Mr '54

Michigan

Recent drilling trends at Calumet & Hecla. C. A. Campbell and R. W. Van Evera. il map diag Min Cong J 40:26-8+ My '54

White Pine mine development. R. F. Moe. il plan Min Eng 6:381-6 Ap '54

Montana

Drilling developments at Butte; jumbo and push feed drill performance compared. A. E. Adami, jr. il Min Cong J 40:16-19 Jl '54

Nevada

Anaconda's Nevada project; new approach to copper mining. R. H. Ramsey. flow sheets il plan diags Eng & Min J 155:74-93 Ag '54

Grouting solves water problem at Kennecott's Deep Ruth shaft. J. B. Huttl. il diags Eng & Min J 154:94-5 N '53

Yerington mine starts production. il Eng & Min J 155:112-13+ Ja '54

New Mexico

Pattie and the Apaches; Santa Rita open-pit copper mine. V. N. Conner. il Comp Air Mag 58:312-13 N '53

Ontario

Northern Ontario copper boom; former Longlac employee becomes overnight millionaire. map Paper Ind 36:369-70 Jl '54

Rhodesia

Copper dividends shackled. Economist 169: 361 O 31 '53

Copper earns its living; with figures for June 30, 1952-1953. Economist 169:763-5 D 5 '53

Copper recessional. Economist 168:723-4 S 12 '53

COPPER mines and mining—Rhodesia—*Cont.*

Respite for the copperbelt. Economist 168:502 Ag 22 '53

Roan antelope copper mines limited; Rhokana corporation, limited; Mufulira copper mines limited; annual general meetings. Economist 169:706-7 N 28 '53

Russia

USSR claims full mechanization at Kounrad copper mine. il map Eng & Min J 155:95 Mr '54

Tennessee

Conservation at Copper basin. C. Fish. il Nat Safety N 70:18-21+ S '54

Utah

Utah Copper's 50th birthday; division of the Kennecott copper corp. Min Cong J 40:64-5 S '54

Washington (state)

Investigation of the Sunset copper mine, Snohomish county, Wash. P. H. Toepfer. 12pls U S Bur Mines Rep of Invest 4989:1-9 '53

COPPER ores

Genetic relations between granites, porphyries, and associated copper deposits. R. H. Sales. Min Eng 6:Trans 499-505 My '54

COPPER oxides

Barnacle Bill, lower? copper antifouling compounds. Ind & Eng Chem 46:sup 11A+ Jl '54

Intensity anomalies in electron diffraction patterns of CuO. J. M. Cowley. bibliog il Electrochem Soc J 101:277-80 Je '54

Spectrophotometric modification of the cuprous oxide method for determining sugars. M. E. Hobbs and F. L. Layton. bibliog Anal Chem 26:585-6 Mr '54

Studies on lignin and related products; cupric oxide oxidation of lignin model substances. I. A. Pearl and D. L. Beyer. bibliog Am Chem Soc J 76:2224-6 Ap 20 '54

COPPER pipes. See Pipes, Copper

COPPER plating

Complex cuprous cyanide compounds. G. Gabrielson. bibliog Metal Finishing 52:60-4+ F '54

Correlation of limiting currents under free convection conditions. C. R. Wilke and others. bibliog il diag Electrochem Soc J 100:513-23 N '53

Effect of chloride on the deposition of copper, in the presence of arsenic, antimony, and bismuth. V. Hospadaruk and C. A. Winkler. bibliog J Metals 5:Trans 1375-7 O '53

Electrodeposition of copper from the monoethanolamine bath. T. L. Rama Char and N. B. Shivaraman. bibliog Electrochem Soc J 100:227-31 My '53; Same. Metal Finishing 51:75-8 N '53

How one electroplater beat the nickel shortage; Daystrom corp., Olean, N.Y. il diag Chem & Eng N 31:4130-1 O 5 '53

How one plater beat nickel shortage; Wes-X PR bright copper plating process of the Hanson-Van Winkle-Munning co. il diag Steel 133:174-5 S 21 '53

Phosphorized anodes produce smoother, heavier copper plate. R. P. Nevers and others. il Iron Age 174:114-16 Ag 12 '54; Abstract. Steel 135:100 Ag 2 '54

Pretreatment techniques for dip copper coating of iron and steel; abstract. B. M. Pearson. Metal Finishing 52:91 Ag '54

Production of printing rollers by electrodeposition. E. A. Ollard. Soc Dyers & Col J 69:529-36; Discussion. 537 D '53

Protection of hot work tools in heat treatment. J. Y. Riedel. il Metal Prog 65:85-7 Mr '54

COPPER propionate

Anomalous paramagnetic resonance in copper propionate. H. Abe. bibliog Phys R 92:1572 D 15 '53

COPPER quinolinate

Improvement in fungicides through formulations. C. C. Yeager. bibliog Can Chem Process 38:58-9 Je 20 '54

COPPER sulfate

Adsorption of copper sulfate on copper and silver. L. R. Scharfstein and C. V. King. bibliog J Phys Chem 58:180-2 F '54

Control of aquatic growths in reservoirs by copper sulfate and secondary effects of such treatment. R. L. Derby and D. W. Graham. flow diag diags Am Soc C E Proc 79[no 203]:1-15 Jl '53

Copper sulphate outlook; abstract. J. D. McKechnie. Chem Age (Lond) 69:824 O 17 '53

Scope and mechanism of carbohydrate osotriazole formation; the action of copper sulphate on glucose methylphenylosazone and glucose 2-N′-methyl-1-N′:2-N′-diphenylosazone. H. El Khadem. Chem Soc J p3452-3 N '53

COPPER sulfides

Polishing phenomena in the copper sulfides. A. D. Wandke. il Econ Geol 48:225-32 My '53

COPPER tubes. See Tubes, Copper

COPPER wire. See Wire, Copper

COPPERAS. See Iron sulfates

COPPERWORK

Mill speeds rolling of thin copper strip; Chase Brass plant. E. C. Allen. il diag Iron Age 172:143-5 Ag 6 '53

Terminology

Handbook of terms commonly used in the nonferrous industries. Iron Age 173:361-4+ Ja 7 '54

COPRA

Copra exports level low from Philippines, Indonesia. Oil Paint & Drug Rep 164:51 N 9 '53

Copra, 1949-1952. Survey of Cur Bsns 1953 Sup p 126 [supplemented in monthly numbers]

COPROGEN. See Growth promoting substances

COPROSMA

Chemistry of the coprosma genus; a revised constitution for lucidin. L. H. Briggs and G. A. Nicholls. Chem Soc J p3068-9 O '53

COPYING processes

Get me 100 copies right away! G. A. Travers. il Am Bsns 24:27+ Jl '54

Lensless copying with sensitized papers. F. E. Smith. J Chem Educ 31:351-3 Jl '54

Matter of repetition; for facile facsimiles, chemicals. il Chem W 73:43-4 Jl 25 '53

Mechanizing paperwork for production control; General electric co. flow chart il Factory Management 112:140-1 Ag '54

See also

Duplicating machines
Photographic records
Photomechanical processes
Xerography

COPYING processes (machine work). See Machine work—Copying processes

COPYRIGHT

California designer wins $50,000 settlement of threatened suit for prize plan piracy. plan diag House & Home 4:37 Ag '53

Chart of trade-work, copyright and patent protection. C. J. Hauk, jr., comp. Ptr Ink 245:426-8 sec 2 O 23 '53

Patent, trademark or copyright? how to distinguish between the three methods of protecting ideas. G. V. Woodling. il Machine Design 26:162-4 Mr '54

Trademark and copyright laws affecting gas companies. L. T. Parker. Am Gas J 181:29+ Jl '54

Advertisements

Advertising copy rights. G. H. Weil. il Ptr Ink 244:57-8 Jl 3 '53

CORAL reefs and islands

Coral reefs of the Loyalty Islands. F. R. Haeberle. maps diags Am J Sci 250:656-66 S '52; Discussion. P. Routhier. 251:470-1; Reply. 472-3 Je '53

CORCHOROLIC acid

Constituents of the seeds of corchorus olitorius, L; isolation of β-sitosterol and corchorolic acid. G. Soliman and W. Saleh. Chem Soc J p 1506-8 My '54

CORCHORUS. See Jute

CORD fabric. See Tire fabrics

CORDIERITE

Polymorphism of cordierite. M. D. Karkhanavala and F. A. Hummel. bibliog Am Cer Soc J 36:389-92 D 1 '53

CORDIERITE—*Continued*
Reactions in the system Li_2O-MgO-Al_2O_3-SiO_2; cordierite-spodumene join. M. D. Karkhanavala and F. A. Hummel. bibliog Am Cer Soc J 36:393-7 D 1 '53

CORDS, Rayon. See Rayon cords

CORDUROY
Comparison of physical properties of lightweight cotton corduroys of different constructions. F. E. Petzel. bibliog diags Am Dyestuff Rep 43:442-4 Jl 5 '54

CORDYCEPS
Synthesis of cordycepose. R. A. Raphael and C. M. Roxburgh. Chem & Ind p 1034 S 26 '53

CORE blowers. See Foundry machinery

CORE makers. See Foundries—Employees

CORES
Asbestos-wrapped steel bars solves tricky coring problem. F. J. McCulloch. diag Foundry 82:167 F '54
Blowing machine makes shell molds and cores. L. E. Hexamer and G. A. Conger. il Foundry 82:351+ My '54
Casting torque converter parts with plaster cores. C. H. Wick. il Mach 60:166-71 N '53
Cement bonded sand used to produce large casting core; Chambersburg engineering co.'s Foundry div. il Iron Age 174:134 Jl 15 '54
Common sense in cores. W. B. Bishop. Foundry 82:84-5+ Jl '54
Core blowing equipment and use. P. Dwyer. diags Foundry 81:203+ D '53; 82:168+ Ja; 220+ F; 237-8 Mr '54
Core blowing in a steel foundry; Atlantic foundry co. K. G. Marshall. il Foundry 82:304+ Mr '54
Core-box venting. diag Engineering 177:341 Mr 12 '54
Equipment for the small foundry; coremaking. il Foundry 82:172-5 My '54
Installs modern core baking system; Riverside foundry. il Foundry 81:184 D '53
Light metals; backyard core foundry solves binder problems. H. E. Bourassa. il Light Metal Age 11:8-9+ Ag '53
More and better cores, less spoilage; Roto-Core machine. R. J. Myers. il Steel 133:160-1 S 7 '53
Shell moulds and cores; Polygram process. il Automobile Eng 44:281-4 Jl '54
Use of shell cores in casting air-cooled engines. J. L. Schmieder. il Foundry 81:114-17 D '53
See also
Molds (for casting)

CORIOLIS effect
Coriolis effect. P. E. Wylie. diags Roy Aeronautical Soc J 57:655-8 O '53

CORN
Corn, 1949-1952. Survey of Cur Bsns 1953 Sup p 138-9 [supplemented in monthly numbers]
Effects of fertilization and growth-regulating substances (hormones) on carbohydrate and hexose-phosphate metabolism during the early stages of growth of corn kernels (fruit). E. Marrè and A. E. Murneek. bibliog Science 117:661-3 Je 12 '53

Prices

Corn futures continue to reflect heavy supply. Barron's 33:35-6 S 14 '53

CORN picking machinery. See Harvesting machinery

CORN products
See also
Cornstarch
Inositol
Zein

CORN products plants
No shutdown plant keeps humming; railroad tank car as temporary source of supply at American maize products co. il Food Eng 26:69 Ag '54

Equipment

Bogota brewer clinches grit quality; Colombia breweries inc. near-automatic corn mill. J. L. Neenan. il Food Eng 26:90-1 My '54

Waste

Corn water chemicals; penicillin consumes bulk of corn industry's once-waste product, steepwater concentrate. il Chem W 75:106+ S 18 '54

CORN products refining company
Lower grain prices spur profits. Barron's 33:19 Ag 17 '53

CORN sirup
Better frozen fruits with new corn syrup solids. P. E. Gilbert. il Food Eng 26:125+ Ag '54
Puts brake on browning of ketchup in bottle necks; tests show corn syrup will do the retarding. W. L. Ogle and A. Kramer. Food Eng 26:67-8 S '54

Analysis

Determination of D-glucose in corn sirups. R. L. Whistler, L. Hough and J. W. Hylin. bibliog Anal Chem 25:1215-16 Ag '53
Maltotetraose and crystalline pentadecaacetylmaltotetraitol. R. L. Whistler and J. L. Hickson. bibliog Am Chem Soc J 76:1671-3 Mr 20 '54

CORN starch. See Cornstarch

CORN steepwater. See Corn products plants—Waste

CORN sugar. See Glucose

CORNCOBS
Two further aldobiouronic acids from hemicellulose-B of corn cob. R. L. Whistler and L. Hough. bibliog Am Chem Soc J 75:4918-19 O 20 '53

CORNELIUS, North Carolina
Mill community joins the fight against polio. M. B. Andrews. Textile World 103:149+ D '53

CORNELL university
Sponsored research in a large university. R. Parmenter. J Eng Educ 44:248-52 D '53

New York state college of agriculture

N.Y. state bankers attend School of agriculture. il Banking 46:60-1 O '53

New York state school of industrial relations

At Cornell, labor relations is a profession. il Bsns W p 176-8 S 19 '53

New York state veterinary college

Cornell's newest addition; a prototype veterinary school. il plans diags Arch Forum 101:136-9 S '54

CORNING glass works
New products keep its growth prospects bright. T. C. Pryor. Barron's 33:17-18 N 9 '53

CORNING plan. See Investments

CORNSTARCH
Comparison of the action of several alpha amylases upon a linear fraction from corn starch. J. Tung Kung, V. M. Hanrahar and M. L. Caldwell. bibliog Am Chem Soc J 75:5548-54 N 20 '53
Industrial uses of starch; abstract. J. M. Newton. Chem & Eng N 32:2480 Je 21 '54
Substituted starches in amine flotation of iron ore. C. S. Chang. Min Eng 6:Trans 922-4 S '54

CORNWALL, England
Duke of Cornwall and the land of tin. F. A. King. il Can Min J 74:58-9 D '53

CORONA (electricity)
Corona-free switchgear; bigger factor as plant voltages continue to climb. C. E. Mercier. il diags Power 98:86-7 S '54
Corona loss curves for 69-kv and 115-kv lines; engineering reference sheet. M. H. Cohn. Elec World 140:166 S 21 '53
Corona loss curves for 138-kv and 161-kv lines; engineering reference sheet. M. H. Cohn. Elec World 140:116 O 5 '53
Corona loss curves for 230 kv lines; engineering reference sheet. M. H. Cohn. Elec World 140:146 O 19 '53
Dynamics of corona discharge between cylindrical electrodes. L. Colli and others. il diag J Ap Phys 25:429-35 Ap '54
Fast time analysis of intermittent point-to-plane corona in air. M. R. Amin. bibliog il diag J Ap Phys 25:210-16, 358-63, 627-33 F-Mr, My '54
Long spark discharges; terrestrial and cosmical leader strokes. C. E. R. Bruce. Elec R (Lond) 153:1204-5 N 27 '53

CORONA (electricity)—*Continued*

Positive d-c corona on polyethylene-insulated wire in air. D. S. Rodbell and others. bibliog diags il Electrochem Soc J 101:91-8 F '54

Positive point-to-plane corona studies in air. M. Menes and L. H. Fisher. bibliog diag Phys R 94:1-6 Ap 1 '54

Some experiments on positive point-to-plane corona and spark breakdown of compressed gases. T. R. Foord. bibliog diags Inst E E Proc 100 pt 2:585-90 D '53

Variations in the characteristics of some corona-stabilizer tubes. F. A. Benson and J. P. Smith. bibliog J Sci Instr 30:192-4 Je '53

CORONARY disease. See Heart—Diseases

CORONATIONS

Technical arrangements for the sound and television broadcasts of the coronation ceremonies; abstract. W. S. Procter and others. Engineering 176:775-6 D 18 '53; Same. Elec J 151:1933-4 D 11 '53; Same. Elec R (Lond) 153:1264 D 4 '53; Discussion. 153:1333-4 D 11 '53

See also

Newspapers—Coronation news

Television broadcasting—Coronation news

CORONENE

Spectrum

Fluorescence spectrum of coronene. B. Brocklehurst. Chem Soc J p3318-19 O '53

CORPORATION law

Egypt

Egypt passes new company law. For Comm W 51:15 F 22 '54

Egyptian firms must register full data. For Comm W 50:12 Ag 10 '53

New York (state)

Stockholders' booby-trap; New York's stock corporation law is loaded. D. Rogers and D. F. McManus. Barron's 33:9 D 28 '53

CORPORATIONS

Big business in banking on Main street. J. B. Mack, jr. Banking 46:55-8 Ag; 48-9+ S '53

How corporate treasurers view bank relationships. H. V. Odle. Burroughs Clearing House 37:38-9+ S; 38:38-9 O '53

Is your corporation a good neighbor? C. Davidson. Gen Elec R 57:29-31 My '54

Organization; should you incorporate? Iron Age 174:110-12 S 16 '54

See also

Banks and banking
Building and loan associations
Controllers
Corporation law
Electric utilities
Gas companies
Insurance companies
Investment trusts
Oil companies
Proxies
Public utilities
Railroads
Standard oil company (New Jersey)
Stockholders
Stocks
Trust companies
Trusts, Industrial

Accounting

Accounting for foreign operations. N A C A Bul 36:186-9 sec 3 S '54

Carrying earned surplus forward in a pooling of interests. J Account 97:708-10 Je '54

Financial statements should show corporate surplus restrictions from Treasury stock purchases. F. K. Rabel. bibliog J Account 95:572-9 My '53

How realistic are modern accounting procedures in the valuation of business capital? M. Moonitz. J Account 96:86-9 Jl '53

Method of accounting for emergency facilities may be a major factor in income determination. P. K. Webster. J Account 95:580-7 My '53

Modern techniques of financial analysis for management planning; AMA symposium. J Account 97:174-8 F '54

Profits tax in the balance sheet; finding the core. Economist 169:610 N 21 '53

Putting idle cash to work to earn its own keep. E. J. Mann. J Account 97:565-71 My '54

Return on capital employed; measure of management. F. J. Muth. N A C A Bul 35:699-710 F '54

Revaluation surplus as basis for dividend payments, absorption of deficit. J Account 97:221 F '54

Setting up the program for valuation of shares of joint stock companies. C. C. Chokshi. J Account 97:38-48 Ja '54

Transfer of patent rights for capital stock. J Account 97:607-8 My '54

See also

Accounting departments
Financial statements

Charities

Corporate contributions. R. M. Drevs. Am Gas Assn Proc 1953:156-8

Foundations and the community trust. E. L. Ryerson. Trusts & Estates 92:665 S '53

How much corporate giving? Steel 133:58-9 N 30 '53

Needed: more help for colleges. Management R 43:563-4 S '54

Sign of the times; corporate giving in chemical industry through company foundations. Chem W 73:20 N 28 '53

Thinking behind charity; survey by the Harvard business school club of Cleveland. Bsns W p 120+ N 14 '53

Close corporations

Simple procedure to sell substantial policies in close corporation cases. E. G. Davies. Nat Underw (Life ed) 58:10 Jl 30 '54

Stock retirement plan advantages. P. Brower. Nat Underw (Life ed) 58:6 Jl 30 '54

Stockholder estate problems; realignment of capital structure of close corporation a solution. S. J. Foosaner. Trusts & Estates 92:908-10 D '53

Unwanted shareholder. R. W. Osler. Rough Notes 96:85-6+ O '53

Directors

How the Chirurg company reorganized for growth. R. D. Stuart. Adv Agency 46:74-5+ O '53

What every director should know. G. C. Ellis. Management R 43:2-5 Ja '54

Salaries

Compensating the corporate director; study of current trends. Management R 42:474 Ag '53

Directors, Junior

Investment in men; McCormick & co., inc. C. P. McCormick. il Dun's R & Mod Ind 62:1+ N '53

Finance

Ban on the bids? speculation or stagnation; dealings in Hotel Savoy shares. Economist 169:509-10 N 14 '53

Best year since 1950. Bsns W p25-6 Ag 1 '53

Business boom financed by corporate debt. W. B. Hickman. Comm & Fin Chr 178:1135 S 24 '53

Companies hit new peaks. Bsns W p 130+ N 7 '53

Companies whose sound planning made them stronger. W. Gates. Mag of Wall St 92:599-601+ Ag 22 '53

Control of British firms. P. Einzig. Comm & Fin Chr 178:2375 D 17 '53

Corporate earnings and dividends in 1954. G. W. Mathis. Mag of Wall St 93:554-5+ F 6 '54

Corporate forecasting practices. J. A. Howard. J Bsns 27:101-5 Ja '54

Corporate working capital and liquidity. F. W. Mueller, jr. bibliog J Bsns 26:157-72 Jl '53

Dissecting five key companies. G. L. Merton. Mag of Wall St 93:250-2+ N 28 '53

Diversification of W. R. Grace & co. E. H. Carter. Mag of Wall St 93:385+ D 26 '53

Equity rights. Economist 169:908-9 D 19 '53

Financing business investment; first half of 1953. Survey of Cur Bsns 33:5-7 O '53

How companies diversify their investments; with tables of companies with investments in varied fields and closely related fields. Mag of Wall St 93:603-5+ F 20 '54

Improved outlook for industrial financing; report of IBA industrial securities committee. Comm & Fin Chr 178:2394-5 D 17 '53

CORPORATIONS—Finance—*Continued*

Industry's fuller purse. Economist 168:335-7 Ag 1 '53
Instruments of modern corporate financing. C. C. Glavin. Comm & Fin Chr 178:913+ S 10 '53
Investigating share dealings; Hotel Savoy. Economist 169:605 N 21 '53
Plant expansion analysis; income return. Trusts & Estates 92:697-8 O '53
Private repurchase deals. Burroughs Clearing House 38:11 F '54
Putting idle cash to work to earn its own keep. E. J. Mann. J Account 97:565-71 My '54
Savoy and Mr Clore; battle of the bids. Economist 169:681-2 N 28 '53
Seven tests for evaluating dividend security; with table. W. Gates. Mag of Wall St 93:431-3+ Ja 9 '54
Still a bull? Floyd Odlum doesn't always sell at the top. Barron's 33:3 D 7 '53
Tax consequences of inadequate equity capital; the thin corporation problem. O. Kramer. J Account 96:449-51 O '53
What's behind the higher earnings of individual companies in 1953? analysis of eight companies. W. Gates. Mag of Wall St 93:722-3+ Mr 20 '54

See also
Amortization
Bonds
Capital
Dividends
Railroads—Finance
Securities
Stocks

Statistics

Companies with high earnings; with comparative balance sheet items. Mag of Wall St 93:253-5 N 28 '53
50 leading companies; with data on post-war record. W. Gates. Mag of Wall St 92:644-7+, 707-9+ S 5-19 '53
Five attractive stocks off the beaten track. Mag of Wall St 93:734-6 Mr 20 '54
Five attractive stocks with wide dividend coverage; with comparative balance sheet items. Mag of Wall St 93:673-5 Mr 6 '54
Five candidates for extra dividends; with comparative balance sheet items. Mag of Wall St 93:198-200 N 14 '53
Five public utility candidates for higher dividends; with comparative balance sheet items. Mag of Wall St 93:379-81 D 26 '53
Five selected debt-free companies; with comparative balance sheet items. Mag of Wall St 93:81-3 O 17 '53
Five sound moderate-priced stocks for income; with comparative balance sheet items. Mag of Wall St 93:494-6 Ja 23 '54
Five specially selected stocks; with comparative balance sheet items. Mag of Wall St 93:437-9 Ja 9 '54
Five stocks with exceptionally high earnings; with comparative balance sheet items. Mag of Wall St 93:323-5 D 12 '53
Half year corporate earnings; with table of net income of leading corporations for the second quarter and first half year, 1952-53. Nat City Bank p88-90 Ag '53
New security issues; noncorporate, corporate, new capital; yearly 1938-1952, monthly Nov. 1952-Nov. 1953. Fed Res Bul 40:66 Ja '54 [cont monthly]
Profits and dividends, 1949-1952. Survey of Cur Bsns 1953 Sup p92-3 [supplemented in monthly numbers]
Profits before the upturn. Economist 169:191-3 O 17 '53
Sales, profits and dividends of large corporations, annual 1947-1952, and quarterly, 1952-1953. Fed Res Bul 40:67 Ja '54 [cont monthly]
Stocks to hold for dollar averaging; with comparative balance sheet items. Mag of Wall St 93:24-5 O 3 '53
Third quarter corporate earnings; with table of net income of leading corporations for the third quarter and first nine months, 1952 and 1953. Nat City Bank p 123-6 N '53
What 1953 third quarter earnings reports reveal; with table of quarterly comparison of sales, profit margins and earnings. J. S. Williams. Mag of Wall St 93:126-7+, 190-1+ O 31-N 14 '53
What second quarter earnings reveal; with table of quarterly sales, profit margins and earnings of selected companies. W. Gates. Mag of Wall St 92:546-7+ Ag 8 '53
Year-end corporate statements and first quarter trends; with comparative sales, earnings and net profit margins of leading companies. W. Gates. Mag of Wall St 93: 572-3+, 614-16+ F 6-20 '54

Foreign subsidiaries

Accounting for foreign operations. N A C A Bul 36:186-9 sec 3 S '54
Indonesia sets rules for foreign agencies. For Comm W 50:10 Ag 31 '53

Presidents

Company presidents look at their successors. J. E. Janney. Harvard Bsns R 32:45-53 S '54
Today's chemical president a 3-D man. Chem W 74:22-4+ Ap 17 '54
Would they make you president? B. Davis. Sales Management 71:24-5 N 10 '53

Public relations

See Public relations

Reports and yearbooks

Can annual reports be conversational? he's trying it on Pillsbury people; Ward B. Stevenson. Ind Marketing 38:120 D '53
Developing effective financial publicity. H. S. Hettinger. Management R 43:187-90 Mr '54
Explaining the annual report; Caterpillar Tractor puts questions and answers in its employee magazine. A. N. Whitlock. J Account 96:84-6 Jl '53
Is your annual report costly? not if you re-use excerpts. Ind Marketing 39:59 Ap '54
Ordeal of the annual report. J. H. Collins. Pub Util 52:772-9 N 19 '53

See also
Banks and banking—Reports
Insurance companies—Reports

Taxation

Business expenses and deductions for corporations and individuals. C. N. Whitehead. J Account 98:303-9 S '54
Canada's positive tax policies. D. Abbott. Comm & Fin Chr 178:2386+ D 17 '53
Corporate pitfalls; change from a partnership to a corporation or vice versa; tax pitfalls. C. W. Tye. Rough Notes 96:69-70 Ag '53
Corporations used to avoid income tax on shareholders. W. G. Peavy. J Account 98: 353-60 S '54
Deferred compensation plans; employee stock options. M. F. Blake. J Account 98:349-53 S '54
Earnings and the tax code. E. L. Hall. Spectator 162:103 Ap '54
How the new tax law affects industry. Mill & Factory 55:77-8 S '54
Impact of high taxes on corporate investment. J. Lintner. Comm & Fin Chr 178: 2047+ N 26 '53
Optional taxation as partnerships for closely held corporations. W. M. Bury. J Account 97:339-41 Mr '54
Profits tax in the balance sheet; finding the core. Economist 169:610 N 21 '53
Projection of what to expect from taxes. H. Nicholson. Mag of Wall St 93:120-2+ O 31 '53
Reducing taxes on extra compensation plans; abstract. M. M. Goldstein. Management R 42:287-8 My '53
Spin-offs. H. C. Mette. J Account 96:481-3 O '53
Tax effects of corporate distributions and adjustments. T. T. Shaw. J Account 98:328-49 S '54
Tax measures abroad to spur foreign trade and investments. M. B. Carroll. Comm & Fin Chr 178:2048-9 N 26 '53
Tax reforms boons; abstract. C. H. Greenewalt. Oil Paint & Drug Rep 165:38 My 3 '54
Taxability of prepayments in the United States, Canada, and Britain. M. Pierce. J Account 96:72-8 Jl '53
Taxation, incentives, and financial capacity. J. K. Butters. Comm & Fin Chr 179:155+ Ja 14 '54
Treasury might not lose if 52 per cent corporate tax rate were reduced. W. Stanley. Pub Util 53:559-61 Ap 29 '54

CORPORATIONS—Taxation—*Continued*

Way we treat foreigners engaged in business with or in the United States. F. M. Joseph. J Account 95:598-9 My '53

See also

Excess profits tax

Insurance companies —Taxation

Railroads—Taxation

Treasurers

Credit as right arm of sales, not as millstone, is responsibility of treasurer. E. F. Neubecker. Credit & Fin Management 55:17-18 N '53

CORPULENCE

Data on obesity. Safety Maint & Prod 108:49-50 S '54

CORRELATION (statistics)

Estimation of correlation coefficients from scatter diagrams. G. R. Sugar. bibliog diags J Ap Phys 25:354-7 Mr '54

Sales forecasting by correlation techniques. R. Ferber. J Marketing 18:219-32 Ja '54

Thermistor bridge correlator. V. C. Anderson and P. Rudnick. diag R Sci Instr 24:360-1 My '53

See also

Contingency tables

CORRELATOGRAPH

Correlatograph; machine for continuous display of short term correlation. W. R. Bennett. il diags Bell System Tech J 32:1173-85 S '53

CORRESPONDENCE schools and courses

Home study helps worker up ladder. R. M. Lorz. Iron Age 173:75-6 Je 10 '54

Train distributors by mail quizzes? L. H. Brendel. il Sales Management 73:52+ Ag 1 '54

Advertising

What general advertisers can learn from mail order. H. C. Daych. Ptr Ink 243:31-3+ My 8 '53

CORRESPONDENT banks. See Banks and banking—Correspondent banks

CORRONEL B. See Nickel alloys

CORROSION and anti-corrosives

Chemical reactions in the corrosion of metals. R. M. Burns. bibliog J Chem Educ 30:318-21 Je '53

Comparative analysis of digester corrosion measurements; TAPPI digester corrosion subcommittee summary report no. 1. N. Shoumatoff and H. O. Teeple. bibliog Tappi 37:166-71 Ap '54

Cooling system corrosion problems. R. S. Wise. il diag Diesel Power 31:64-6 D '53

Corrosion. M. G. Fontana. Published in monthly numbers of Industrial and engineering chemistry

Corrosion; a field for action; abstract and discussion. W. H. J. Vernon. Chem & Ind p662-3 Jl 4 '53

Corrosion and deposits in regenerative air preheaters. J. F. Barkley and others. 49pls U S Bur Mines Rep of Invest 4996:1-23 '53

Corrosion and design; discussion. Chem & Ind p957-8 Jl 31 '54

Corrosion damage cut; new air conditioning system protects ship cargoes. Steel 133:71 Jl 20 '53

Corrosion forum. M. M. Hoover, ed. Published in monthly numbers of Chemical engineering

Corrosion in refrigeration systems can be controlled. R. G. Rydell. diag Refrig Eng 61:1330-2+ D '53

Corrosion in sulfate digesters of Norwegian mills; abstract. B. Roald. il Paper Ind 36:412 Jl '54

Corrosion inhibition in acid solution. C. V. King and E. Hillner. bibliog Electrochem Soc J 101:79-83 F '54; Discussion. 101:635 D '54

Corrosion inhibitors and polarographic maxima. H. C. Gatos. bibliog il Electrochem Soc J 101:433-41 S '54

Corrosion inhibitors in neutral aqueous solutions. F. Wormwell. bibliog(47 ref) Chem & Ind p556-60 Je 6 '53

Corrosion is a major cause of wear in engine cylinders. O. W. Wuerz. Automotive Ind 111:60-1 Ag 1 '54

Corrosion of copper tube used in soilstack installations. H. E. Babbitt and others. il plans diag Ill U Eng Exp Sta Bul 419:1-42 '53 (pa 75c)

Corrosion of heating electrodes in molten chloride baths. H. R. Copson. il Electrochem Soc J 100:257-64 Je '53; Discussion. 100:593 D '53

Corrosion of iron in the presence of dispersed and solid sulphur. R. B. Seymour, W. R. Pascoe and R. H. Steiner. J Ap Chem 4:11-13 Ja '54

Corrosion of machinery in H.M. ships. L. Kenworthy. bibliog il J Ap Chem 4:97-106 Mr '54

Corrosion of zirconium; abstract. L. E. Colteryahn and others. Metal Prog 64:124+ N '53

Corrosion protection during processing, storage, and shipment; automotive application. C. O. Durbin. il S A E J 62:30-3 Ja '54

Corrosion protection; Superior resistance of vinyl coating systems utilized; Prufcoat laboratories, inc. il Iron Age 172:188+ S 10 '53

Detroit committee on electrolysis; abstract. R. L. Rayner. Elec Eng 73:135 F '54

Digester corrosion; panel discussion. Tappi 37:sup 144A-7A My '54

Effect of lubrication of fretting corrosion. E. M. Johnson. Machine Design 26:348+ Ap '54; Abstract. S A E J 62:102-3 Je '54

Eight uses for insulating joints. A. W. Peabody. diags Gas Age 113:25-30+ My 6 '54

Electrochemical behaviour of metals and corrosion. M. Pourbaix. diags Chem & Ind p780-6 Jl 25 '53

Facts about modern surface protection. il Mill & Factory 54:390 My '54

Filiform corrosion. M. Van Loo and others. bibliog il diags Paint Oil & Chem R 116:20-2+ D 3 '53; Abstract. Metal Prog 66:supA 150+ Jl 15 '54

Fretting in materials; causes and effects; abstract. J. M. Bailey and D. Godfrey. Materials & Methods 39:174 Je '54

Galvanic corrosion theory for adherence of porcelain enamel ground coats to steel. D. G. Moore and others. bibliog il diags Am Cer Soc J 37:1-6 Ja 1 '54

Heartwood extractives in digester corrosion. H. MacLean and J. A. F. Gardner. bibliog diag Pulp & Pa of Can 54:125-30 N '53; Abstract. Paper Ind 36:210 My '54

High temperature corrosion in nickel-chromium alloys. N. Spooner and others. J Metals 5:Trans 844 Je '53

How can he prevent corrosion in this stack? L. W. Fitzpatrick. Power Eng 58:98 Jl '54

How can we protect snow melting piping against corrosion? Heating-Piping 26:125 S '54

How can we stop erosion of pump casing? il diags Power 97:136-8 D '53

How can we stop stack corrosion? answers. Power 98:134+ S '54

How to control carbide precipitation in welding stainless steels. G. E. Linnert and R. M. Larrimore, jr. il Materials & Methods 38:98-103 N '53; Excerpts. Metallurgia 49:255 My '54

How to protect against corrosion; new crystalline amine nitrite compound. il Power 98:140 S '54

How to reduce Diesel-cylinder liner corrosion. F. J. McCloud. il Marine Eng 59:50-1+ Ag '54

Influence of pH on the electrochemical behavior of metals and their corrosion resistance; abstract. A. Y. Shatalov. Metal Prog 65:174+ Ap '54

Inhibition of corrosion. U. R. Evans. bibliog (25 ref) diags Chem & Ind p530-3 My 30 '53

Inhibitor; better corrosion protection, simplified application gained. il Iron Age 174:125-6 Ag 5 '54

Inhibitors at work. D. H. Stormont. Oil & Gas J 52:45 N 30 '53

Intercrystalline corrosion in cast aluminum-zinc alloys; abstract. C. W. Roberts. Metal Prog 65:154+ My '54

International nickel co. chemical corrosion forum, 2d, Harbor Island. Chem W 74:52+ My 15 '54

CORROSION and anti-corrosives—*Continued*

Investigation of fretting by microscopic observation. D. Godfrey. bibliog il U S Nat Advisory Com for Aeronautics 1951: 135-44 '52

Investigation of fretting corrosion. K. H. R. Wright. bibliog diag Inst Mech Eng Proc (B) 1B no 11:556-63, pl 1-2; Discussion. diags 564-74, pl 3-6 '52-53; Engineer 195: 323-5 F 27 '53

Jet engine metallurgy. R. B. Johnson, jr. il S A E J 61:28-9 D '53

Laboratory approach to the study of digester corrosion; abstract. J. W. Hassler. Pulp & Pa of Can 55:148 S '54

Mechanism of corrosion inhibition by sodium metaphosphate glass. J. C. Lamb, 3d and R. Eliassen. bibliog flow diag diags Am Water Works Assn J 46:445-60 My '54

Mechanism of filiform corrosion. W. H. Slabaugh and M. Grotheer. bibliog il diags Ind & Eng Chem 46:1014-16 My '54

Mechanism of fretting. I. Feng and B. G. Rightmire. Product Eng 24:272+ Ag '53

Mechanism of inhibition of the corrosion of iron by sodium hydroxide solution. J. E. O. Mayne and J. W. Menter. Chem Soc J p99-103 Ja '54

Mechanism of inhibition of the corrosion of iron by solutions of sodium phosphate, borate and carbonate. J. E. O. Mayne and J. W. Menter. 3pls Chem Soc J p 103-7 Ja '54

Neutral and basic sulfonates. H. R. Baker, C. R. Singleterry and E. M. Solomon. bibliog Ind & Eng Chem 46:1035-42 My '54

NWA finds fix for wing bolt corrosion. il Aviation W 59:72+ N 23 '53

Phlogiston theory of corrosion. O. L. Willbanks. Electrochem Soc J 101:sup76C Mr '54

Prevention of corrosion by metallizing the surface. H. Vanderpool. il diags Metal Prog 64:161-4+ N '53

Prevention of water corrosion in mining operations. P. W. Sherwood. Can Min J 75:72-5 Ag '54

Soot blower piping problem. B. Dopp. diag Heating-Piping 26:102-4 F '54

Stabilizing austenitic chrome-nickel weld metal against intergranular corrosion. H. C. Campbell. il Welding J 32:sup577-83; Discussion. sup583-4 D '53

Starving corrosion to death. il Safety Maint & Prod 108:11 Jl '54

Steel and aluminium alloys in proximity. U. R. Evans. bibliog Engineering 177:34-5 Ja 8 '54

Stress corrosion in high tensile wire; abstract. W. O. Everling. Iron & Steel Eng 31:142 Ag '54

Stress corrosion in stainless steel; abstract. R. A. Lincoln. Iron & Steel Eng 31:141-2 Ag '54

Stress-corrosion of aluminium-magnesium alloys. E. L. Jones. bibliog diag J Ap Chem 4:1-10 Ja '54

Stress corrosion of 12 per cent Cr stainless steel; abstract. W. L. Badger. S A E J 62:110-11 Je '54

Symposium on corrosion inhibitors; abstracts and discussion. Chem & Ind p537-9 My 30 '53

Systematic approach to corrosion mitigation in ten questions and their answers. M. E. Parker. Oil & Gas J 52:116-18 N 2 '53

Tanker corrosion costs $50,000. R. W. Moore. Chem & Eng N 32:816 Mr 1 '54

Tarnish and corrosion prevention; work of the Design and research centre; gold, silver and jewellery industries. Chem Age (Lond) 68:921-2 Je 20 '53

Uneven corrosion in alkaline pulping digesters. F. W. Flynn and others. il diags Tappi 36:433-44 O '53

Vulnerability of drill pipe to corrosion fatigue. S. C. Moore and A. P. Farr. il diags World Oil 137:200+ O '53

Wear and corrosion of materials in high temperature water; nuclear power plant for propulsion of a submarine. R. C. Westphal and J. Glatter. il Materials & Methods 40: 100-1 Ag '54

What to do about amine stress corrosion. G. L. Garwood. il Oil & Gas J 52:334-5+ Jl 27 '53

Why cars corrode; questions and answers. Ry Loco & Cars 128:63-5 S '54

See also

Acid resisting materials
Aluminum—Corrosion
Aluminum—Protection
Boilers—Corrosion
Corrosion research
Corrosion resisting materials
Galvanizing
Hot water tanks—Corrosion
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Pipe coating
Pipe lines—Protection
Steel—Protection
Water pipes—Corrosion
Water purification—Corrosion control
Water supply—Corrosiveness

Bibliography

Bibliography of alkaline digester corrosion. S. J. Baisch and R. P. Whitney. Tappi 37: sup220A-6A Ap '54

Testing

Aluminum self-stops corrosion; protective oxide film is formed after initial penetration. C. J. Walton and others. il Steel 133: 134-6 S 7 '53

Behaviour of galvanized steel in sodium benzoate solution. P. T. Gilbert and S. E. Hadden. J Ap Chem 3:545-8 D '53

Comparative analysis of digester corrosion measurements. A. Ungar and T. E. Caywood. bibliog Tappi 37:177-90 My '54

Corrosion of mild steel moving rapidly in salt solutions and natural waters. F. Wormwell, T. J. Nurse and H. C. K. Ison. bibliog il diags J Ap Chem 3:275-80 Je '53

Corrosion of pump parts. E. H. Huss. il diags Metal Prog 66:100-2 Ag '54

Corrosion of steel by air-free, dilute, weak acids. N. Hackerman and E. E. Glenn, jr. bibliog flow diag Electrochem Soc J 100: 339-44 Ag '53

Corrosion resistance; aluminum stitched with galvanized steel wire studied. Iron Age 172:145-6 Ag 20 '53; Light Metal Age 11:28 D '53

Corrosion testing for your plant. M. F. Mueller and A. D. Laehder. bibliog(26 titles) il Chem Eng 60:193-5 O '53

Corrosion testing; twenty-fifth Edgar Marburg lecture. F. L. LaQue. il diags Am Soc T M Proc 51:495-582 bibliog(94 titles, p579-82) '51

Corrosive properties of soluble cutting oils; effect on machine tool cast irons. il Metallurgia 48:233-40 N '53

Custom testing service for protective coatings based on KTA test panel. M. G. Fontana. il diag Ind & Eng Chem 45:sup91A-3A Ag '53

Detection, estimation, and removal of impurities in fluorocarbon liquids. D. Grafstein. Anal Chem 26:523-5 Mr '54

Effect of chromate films on the corrosion resistance of hot dip galvanize in brine. F. J. Bubsey. il Metal Prog 65:122-4 My '54

Electrolytic etch cuts corrosion test time. J. D. Roach and H. H. Hollenbeck. il Iron Age 173:100-3 Je 24 '54

Electrolytic etching in oxalic acid screens cast and wrought stainless steels from 240-hour nitric acid test. M. G. Fontana. il Ind & Eng Chem 45:sup95A-7A O '53

Estimation of corrosivity of crude oils. H. A. Cataldi and others. diags Am Pet Inst Proc 33(3):291-307 '53; Same. Pet Refiner 32:145-50 Jl '53; Excerpts. Oil & Gas J 52: 100+ Jl 20 '53

Evaluation of several sets of constants and several sources of variability. V. W. Vaurio and C. Daniel. bibliog diags Chem Eng Prog 50:81-6 F '54

Fundamentals of underground corrosion. F. E. Costanzo. diags Gas Age 114:49-54+ Jl 15 '54

How tempering affects corrosion resistance of 12 per cent chromium steel. A. Simon. Materials & Methods 40:138-9 Jl '54

How to prevent stress-corrosion-cracking in aluminum parts. R. N. Hooker and J. L. Waisman. il diags Iron Age 174:165-7 S 16 '54

CORROSION and anti-corrosives—Testing—*Continued*

Improving the testing method for determining the susceptibility of steel to stress-corrosion cracking; abstract. W. Rädeker. Metal Prog 65:140+ Mr '54

In corrosion testing humidity cabinets don't tell the whole story. L. Schlossberg. bibliog il Steel 135:114-16+ Jl 12 '54

Mechanism of corrosive wear in passenger-car service. J. G. Ryan and B. W. DeLong. bibliog diags Am Pet Inst Proc 33(3):216-21 '53

Microstructure and the corrodibility of steel in inhibited hydrochloric acid solutions. P. H. Cardwell. bibliog il Electrochem Soc J 101:84-90 F '54

Nomograph finds corrosion rate. H. R. Frisbie. Chem Eng 61:256 Je '54

Procedures for laboratory, plant, and field corrosion tests. M. G. Fontana. il Ind & Eng Chem 46:sup91A-3A Ap; sup93A-4A+ Je; sup81A-2A+ Jl; sup77A-9A Ag; sup85A-6A+ S; sup 93A-4A+ O; 77A-8A D '54

Report of subcommittee XV on field tests of wire and wire products. 2pls Am Soc T M Proc 51:112-25 '51

Results of cooperative testing program for the evaluation of the oxalic acid etching test. M. A. Streicher. Metal Prog 66:supA 176+ Jl 15 '54

Service experience of the effect of corrosion on steel-cored-aluminium overhead-line conductors. J. S. Forrest and J. M. Ward. Engineer 197:170-1 Ja 29 '54

Simplified low-speed rotor techniques for corrosion testing. F. Wormwell. bibliog diag J Ap Chem 3:164-9 Ap '53

Stapled aluminum tested by N.B.S. il Materials & Methods 38:224+ N '53

Stress-corrosion cracking of mild steels in nitrate solution. R. N. Parkins. bibliog 2pls diags Iron & Steel Inst J 172:149-62 O '52; Abstract. Metal Prog 64:130+ D '53; Discussion. Iron & Steel Inst J 174:140-2, 317 Je, Ag '53

Test for presence and evaluation of product soluble rust inhibitors. P. L. DeVerter. Pet Eng 25:C35 S '53

Tests show corrosion resistance of aluminum. C. J. Walton and others. il Light Metal Age 11:18-19+ Ag '53

Three accelerated corrosion tests for materials and finishes. S. Tour. il Materials & Methods 38:110-13 N '53

Transgranular stress corrosion in chromium-nickel stainless steels. C. Edeleanu. bibliog 4pls Iron & Steel Inst J 173:140-6 F '53; Abstract. Metal Prog 65:178+ Je '54; Discussion. il Iron & Steel Inst J 174:218; 175:390-2 Jl, D '53

Underground corrosion

Cathodic protection against the corrosion of iron and steel; abstract. H. Klas. Metal Prog 65:142-4 Ja '54

Coordination of corrosion control. H. L. Hamilton. Am Gas Assn Proc 1953:446-8

Corrosion of low-alloy irons and steels in soils. Chem Eng 60:312-14 O '53; Same cond. Steel 133:107 Ag 24 '53; Same abr. Iron Age 172:184+ S 17 '53

Corrosion of nickel cast irons in soils. I. A. Denison and M. Romanoff. il J Res Nat Bur Stand 51:313-20 D '53

Electrical measurement of corrosion rate. Heat & Ven 51:66 Ja '54

Fundamentals of underground corrosion. F. E. Costanzo. diags Gas Age 114:49-54+ Jl 15 '54

Laboratory measurement of the corrosion of ferrous metals in soils. W. J. Schwerdtfeger. bibliog diags J Res Nat Bur Stand 50:329-36 Je '53

Maintenance aspects of corrosion program at Fairless works. K. L. Johannsen. bibliog il diags Iron & Steel Eng 31:115-22 S '54

NBS method cuts corrosion test time from ten years down to six months. diag Gas Age 112:25+ D 3 '53; Same cond. Heat & Ven 50:122+ N '53; Same cond. Steel 133: 112-13 N 23 '53; Excerpts. Can Chem Process 37:107 O '53

New techniques and current problems in controlling underground corrosion. O. C. Mudd. il plan diags Am Pet Inst Proc 33(5):35-45 '53; Same. Oil & Gas J 52:99 N 30; 144 D 7; 159 D 14; 100 D 28 '53; 127 Ja 11; 285 Ja 25; 139-40 F 8 '54; Same. Gas Age 112:46-51+ D 17 '53

Nipple-and-can test of soil corrosivity. Am Gas J Hdbk 179:142 O 1 '53

Protective value of zinc coatings for iron and steel in soils. I. A. Denison. bibliog il Am Gas Assn Proc 1953:554-61

When will corroded pipe burst? study of corrosion of nickel cast irons in soils. il Gas Age 114:35+ S 9 '54; Excerpts. Heat & Ven 51:94 Ag '54

CORROSION engineers, National association of. See National association of corrosion engineers

CORROSION research

Anomalous behaviour of ammonium chloride particles on the corrosion of steel in humid atmospheres. B. Sanyal and R. S. Preston. bibliog il Chem & Ind p995-7 S 19 '53

Corrosion; a field for action. W. H. J. Vernon. bibliog Chem & Ind p982-7 S 19 '53; Abstract. Chem Age (Lond) 68:853-4 Je 6 '53

Corrosion by water at low flow velocity. T. E. Larson and R. M. King. bibliog il Am Water Works Assn J 46:1-9 Ja '54

Corrosion; do we know anything much about it? Metal Prog 64:83-4 S '53; Discussion. 64:100+ D '53

Corrosion properties of titanium in marine environments. H. B. Bomberger and others. bibliog il Electrochem Soc J 101:442-7 S '54

Corrosion testing; twenty-fifth Edgar Marburg lecture. F. L. LaQue. il diags Am Soc T M Proc 51:495-582 bibliog(94 titles, p579-82) '51

Corrosive action of dissolved gases on steel in water. J. W. Watkins and J. Wright. bibliog il diag Pet Eng 25:B50-1+ N '53

Does antifreeze destroy cars? corrosion from calcium chloride applied to coal and ore. il Ry Age News ed 136:22-3+ Ja 18 '54

Heat exchanger design in light of A.G.A. corrosion research. J. Corsiglia. Am Gas Assn Proc 1953:468-72

How does wrought iron stand up in corrosive marine services? J. L. Wilson. bibliog il Marine Eng 59:63-6 F '54; Discussion. F. L. LaQue. 59:71+ Ap '54

In stride with progress; interview with corrosion expert. F. L. LaQue. Chem W 75: 57-8+ Ag 21 '54

Inhibition by quinolines and thioureas of the acid dissolution of mild steel. T. P. Hoar and R. D. Holliday. bibliog diags J Ap Chem 3:502-13 N '53

INCO fights corrosion problems. R. L. Hatschek. il Iron Age 173:79 Je 10 '54

Inco's invisible products; chemical companies have access to information and assistance. il Chem Eng 60:310+ S '53

Jet impingement tests. P. T. Gilbert and F. L. LaQue. il Electrochem Soc J 101: 448-55 S '54

Kinetics of the initial corrosion of copper in aqueous solutions. G. R. Hill. bibliog diag Electrochem Soc J 100:345-50 Ag '53

Laboratory measurement of the corrosion of ferrous metals in soils. W. J. Schwerdtfeger. bibliog diags J Res Nat Bur Stand 50:329-36 Je '53

Man against deterioration. il Chem W 74: 76-8+ Je 5 '54

Mathematical studies on galvanic corrosion; coplanar electrodes with negligible polarization. J. T. Waber. bibliog il diags Electrochem Soc J 101:271-6 Je '54

Mechanism of pitting corrosion; abstract. R. May. Metal Prog 65:164+ My '54

Optical corrosion studies. il Product Eng 24: 205 Jl '53

Recent progress in the study of metallic corrosion; abstract. W. H. J. Vernon. Chem & Ind p396-7 Ap 3 '54

Sensitive corrosion measurements with an interferometer. Franklin Inst J 256:72-3 Jl '53; Same. Mech Eng 75:577-8 Jl '53; Same. Chem Eng 60:314 O '53; Same. Glass Ind 35:82+ F '54

CORROSION research—*Continued*

Studies on the anodic polarization of zirconium and zirconium alloys. M. Maraghini and others. bibliog Electrochem Soc J 101:400-9 Ag '54

Thermodynamics of irreversible processes applied to corrosion. P. A. Johnson and A. L. Babb. bibliog diags Ind & Eng Chem 46:518-23 Mr '54

They're designing for progress; corrosion engineers. Chem W 75:44+ Ag 21 '54

CORROSION resisting materials

Al-Fe and new Al-Mo-Fe alloys show excellent oxidation resistance and low corrosion by some aqueous solutions. M. G. Fontana. il Ind & Eng Chem 46:sup85A-6A+ My '54

Anti-corrosive coating for exhaust valves; resistance to leaded fuels. il Engineering 177:89 Ja 15 '54

Application of noncorrosive materials. G. R. Lydick. Tappi 37:sup 162A-4A Mr '54

Chemical engineer's metallurgical needs. C. Hinton. Chem Age (Lond) 68:633-6 Ap 25 '53

Chlorimet 2. W. A. Luce. il Chem Eng 61:246+ F '54

Chlorimet 3. W. A. Luce. Chem Eng 61:254+ Mr '54

Corrosion forum; high silicon irons. W. A. Luce. il Chem Eng 61:246+ Ja '54

Corrosion properties of titanium in marine environments. H. B. Bomberger and others. bibliog il Electrochem Soc J 101:442-7 S '54

Corrosion-resistant materials used widely in electroplating plant. il Eng N 151:39 S 17 '53

Design and application of carbon-graphite bearings. J. C. Schubert. il diags Machine Design 26:129-35 Jl '54

Fabrication and use of rigid polyvinyl chloride plastics. J. L. Huscher. bibliog il diags Materials & Methods 39:119-34 Je '54 (reprints 25c)

Heat and corrosion resistant materials. il Steel 133:173+ O 12 '53

High strength plastic solves tough corrosion problem. il Iron Age 174:132 Ag 5 '54

How to cement-line pipe for corrosion resistance. F. L. Resen. il diags Oil & Gas J 52:91+ N 30 '53

How to select your materials. H. W. van der Hoeven. il diags Chem Eng 60:202-8 Ag '53

Materials for special service; zirconium. J. D. Roach. il Machine Design 26:156-8 My '54

Materials of construction for chemical engineering; seventh annual review. bibliog il diag Ind & Eng Chem 45:2171-282 O '53

Metals and marine engineering Institute of metals presidential address. S. F. Dorey. Metallurgia 49:235-40 My '54

Natural rubber, GR-S vs. corrosion. J. P. McNamee. il Chem Eng 61:234+ Ag '54

New methods for finishing powder metal parts. C. C. Cohn. il Iron Age 173:125-8 Ap 1 '54

Nitrile rubber for oils and solvents. J. P. McNamee. Chem Eng 61:230+ S '54

Performance of aluminium in ships. D. C. G. Lees. bibliog il diags Chem & Ind p949-55 Jl 31 '54

Plastics for chemical engineering construction; unplasticized polyvinylchloride. G. S. Laaff. il diags Chem Eng Prog 50:275-82 Je '54

Polytrifluorochloroethylene for corrosive service. J. A. Jupa. il Chem Eng 61:272+ Je '54

Rust resistant spring alloy; Elgiloy for watch makers. il Steel 133:344 O 12 '53

Tap for corrosive vapours. A. B. Osborn. diags J Sci Instr 31:147 Ap '54

Upgrading an industry; corrosion engineers hear about application of corrosion-resistant materials in chemical plants. Chem W 74:57-8 Je 19 '54

Valves to combat corrosion. il Chem Eng 61:198-204 S '54

Worthite; corrosion resistance. W. E. Pratt. il Chem Eng 60:264+ N '53

Zirconium; corrosion resistance. J. D. Roach. bibliog il Chem Eng 60:304+ S '53

Zirconium resists corrosion. il Steel 133:248+ O 12 '53

See also

Acid resisting materials
Chemical plants—Equipment
Chromium nickel steel
Chromium steel
Corrosion and anticorrosives
Monel metal
Paint, Protective
Steel, Corrosion resisting
Steel, Stainless

Testing

High temperatures and pressures affect corrosion resistance of casting alloys; abstract. F. H. Beck and M. G. Fontana. Materials & Methods 39:169-70 Ja '54

New tests prove materials for nuclear power plants. R. F. Koenig. flow diag il Iron Age 172:129-33 Ag 20 '53

CORRUGATED paper board. See Paper board, Corrugated

CORRUGATED sheet metal. See Sheet metal, Corrugated

CORRUPTION in politics. See Politics, Corruption in

CORTICOIDS. See Adrenal glands—Hormones

CORTICOSTEROIDS

Cortical steroid analogs; acetylcarbinols obtained by the hydration of ethynylcarbinols. G. W. Stacy and R. A. Mikulec. bibliog Am Chem Soc J 76:524-7 Ja 20 '54

CORTICOSTERONE

19-Hydroxy-11-desoxycorticosterone and 19-hydroxyprogesterone. G. W. Barber and M. Ehrenstein. bibliog Am Chem Soc J 76:2026-7 Ap 5 '54

Interconversion of adrenal cortical side chains; the transformation of cortisone and hydrocortisone to corticosterone. D. Taub and others. bibliog Am Chem Soc J 76:4094-7 Ag 20 '54

Steroids; partial synthesis of 9 : 11-anhydrocorticosterone acetate [21-acetoxypregna-4 : 9(11)-diene-3 : 20-dione]. R. Casanova, C. W. Shoppee and G. H. R. Summers. bibliog Chem Soc J p2983-92 O '53

See also

Cortisone
Hydroxycorticosterone

Analysis

Sulfuric acid; induced fluorescence of corticosteroids. M. L. Sweat. bibliog Anal Chem 26:773-6 Ap '54

CORTICOTROPIN. See ACTH

CORTICROCIN

Synthesis of corticrocin. B. C. L. Weedon. Chem & Ind p 1388-9 D 26 '53

CORTISONE

Aldehydes derived from cortisone and hydrocortisone. W. J. Leanza and others. bibliog Am Chem Soc J 76:1691-4 Mr 20 '54

Complete synthesis of cortisone. Chem Age (Lond) 69:1222-5 D 12 '53

Enzymatic reduction of cortisone. G. Tomkins and K. J. Isselbacher. Am Chem Soc J 76:3100-1 Je 5 '54

D-homo rearrangement products of cortisone and Reichstein's substance. S. V. Georgian and N. Kundu. Chem & Ind p431-2 Ap 10 '54

9α-Fluoro derivatives of cortisone and hydrocortisone. J. Fried and E. F. Sabo. Am Chem Soc J 76:1455-6 Mr 5 '54

Interconversion of adrenal cortical side chains; the transformation of cortisone and hydrocortisone to corticosterone. D. Taub and others. bibliog Am Chem Soc J 76:4094-7 Ag 20 '54

Isomerization and displacement reactions in the cyanopregnene series; synthesis of cortisone 21-methyl ether. Huang-Minlon, R. Tull and J. Babcock. Am Chem Soc J 76:2396-9 My 5 '54

Modified route to cortisone from ergosterol. D. Maclean and others. bibliog Chem & Ind p 1259-60 N 21 '53

CORTISONE—*Continued*

Radiation sterilization; effect of high-energy gamma radiation from kilocurie radioactive sources on steroid hormones. W. Tarpley and others. bibliog(37 ref) il Ind & Eng Chem 46:1458-64 Jl '54

Studies in the steroid group; studies in the synthesis of cortisone; a novel route to 11-ketosteroids. P. Bladon and others. Chem Soc J p2921-33 O '53

Studies in the steroid group; synthesis of cortisone acetate via 5α-hydroxy-steroids. P. Bladon and others. Chem Soc J p 125-30 Ja '54

Studies in the synthesis of cortisone; a new synthesis of 3β-acetoxyergost-22-en-11-one. J. Elks and others. Chem Soc J p2933-9 O '53

Studies in the synthesis of cortisone; a Wagner-Meerwein rearrangement involving rings *C* and *D* of the steroid nucleus. J. Elks and others. Chem Soc J p 1739-49 Je '54; Abstract. Chem & Ind p 1387 D 26 '53

Studies in the synthesis of cortisone; acid rearrangement of 9α : 11α-epoxy-Δ^7-steroids having hydroxy- or acetoxy-groups at $C_{(8)}$. J. Elks and others. Chem Soc J p463-7 Ja '54

Studies in the synthesis of cortisone; conjugated trienones derived from ergosterol. J. Elks. Chem Soc J p468-9 Ja '54

Studies in the synthesis of cortisone; the degradation of the ergosterol side chain. A. F. B. Cameron and others. Chem Soc J p3864-9 D '53

Studies in the synthesis of cortisone; the oxidation of steroid 7 : 9-dienes with sodium dichromate in acetic acid. J. Elks and others. Chem Soc J p451-62 Ja '54

Studies in the synthesis of cortisone; the preparation of 3β : 17α-dihydroxy*allo*pregnane-11 : 20-dione. D. H. R. Barton and others. Chem Soc J p747-51 F '54

Synthesis of cortisone intermediates. A. F. Daglish and others. bibliog Chem & Ind p 1207 N 7 '53

Unexpected dividend; new synthesis of hydrocortisone and five active, halogenated cortisone and hydrocortisone derivatives. Chem W 72:50+ Je 13 '53

Analysis

Determination of 17-hydroxy-11-dehydrocorticosterone with anthrone reagent. J. J. Holechek and A. R. Collins. bibliog Anal Chem 25:991-2 Je '53

Manufacture

Synthesis from scratch; Monsanto chemical co. Chem W 73:22-4 S 5 '53

CORUNDUM

New techniques for evaluating natural corundum ores. H. F. Carl and others. il Min Eng 6:Trans 402-6 Ap '54

South African corundum. Chem Age (Lond) 68:565-6 Ap 11 '53

CORYDALIS

Alkaloids of fumariaceous plants; thalictricavine, a new alkaloid from corydalis tuberosa DC. R. H. F. Manske. Am Chem Soc J 75:4928-9 O 20 '53

COSDEN petroleum corporation

Making, not selling; Cosden petroleum corp.'s Chemical div. B. Jackson. il Chem W 75: 18-19 S 11 '54

COSGROVE, James J.

Presentation of API certificate of appreciation to James J. Cosgrove; response by J. J. Cosgrove. J. P. Walsh. Am Pet Inst Proc 32(1):315-17 '52

COSMETIC chemists, Society of. See Society of cosmetic chemists

COSMETICS

Drug and cosmetic makers fight HEW on bar to three coaltar colors. Oil Paint & Drug Rep 165:3+ Mr 8 '54

Next to the skin; silicones in cosmetic and pharmaceutical preparations. il Chem W 75:52 Jl 17 '54

Unsolved cosmetic problems. E. G. Klarmann. Chem & Eng N 31:5288 D 21 '53

See also

Hair preparations

Advertising

How cosmetic firms allocate advertising funds. Adv Agency 46:80+ O '53

How Mathes merchandised Cutex products. R. Barton. il Adv Agency 46:73-4 Ag '53

Local sales pressure booms in cosmetics. Ed & Pub 86:20 My 23 '53

Physiological effect

Soap, detergent product liability. J. D. Conner and G. A. Burroughs. bibliog Soap & Chem Spec 30:42-5+ My; 48-50 Je '54

COSMIC physics

See also

Auroras

COSMIC rays

Anomalous event observed in photographic emulsion. J. H. Noon and others. Phys R 95: 1103-4 Ag 15 '54

Cloud-chamber investigation of nuclear interactions of cosmic rays. N. R. Whetten and others. bibliog il diag Phys R 93:1356-60 Mr 15 '54

Cosmic-ray neutrons in water at an altitude of 10 600 feet. M. J. Swetnick. diag Phys R 95:793-6 Ag 1 '54

Decay curve of *K* particles. L. Mezzetti and J. W. Keuffel. bibliog diag Phys R 95:858-60 Ag 1 '54

Decay of a heavy nuclear fragment. P. S. Freier and others. bibliog diag Phys R 94: 677-8 My 1 '54

Differential range spectrum of cosmic-ray mesons at sea level. P. G. Lichtenstein. Phys R 93:858-60 F 15 '54

Double star connected by a heavy meson. S. Rosendorff and others. bibliog Phys R 93: 901 F 15 '54

Effects of the geomagnetic field on solar cosmic rays. V. Sarabhai and R. P. Kane. bibliog diag Phys R 92:415-19 O 15 '53

Emulsion studies of cosmic-ray stars produced in metal foils. I. G. Barbour. bibliog diags Phys R 93:535-43 F 1 '54

Long spark discharges; terrestial and cosmical leader strokes. C. E. R. Bruce. Elec R (Lond) 153:1206-7 N 27 '53

Magnetic storm effect on cosmic radiation. H. Alfvén. Phys R 94:1082 My 15 '54

Natural distribution of tritium. S. Kaufman and W. F. Libby. bibliog Phys R 93:1337-44 Mr 15 '54

Neutral-to-charge-ratio in high-energy interactions. M. F. Kaplon and others. Phys R 93:1424-5 Mr 15 '54

Neutron production by cosmic rays. W. C. G. Ortel. bibliog diags Phys R 93:561-7 F 1 '54

Nuclear emulsion plate mover used in cosmic-ray studies. G. W. Anderson and others. il R Sci Instr 24:997-8 O '53

Origin of cosmic rays. P. Morrison and others. bibliog Phys R 94:440-53 Ap 15 '54

Possible example of the annihilation of a heavy particle. H. S. Bridge and others. il diag Phys R 95:1101-3 Ag 15 '54

Production of cosmic radiation at the sun. J. W. Firor and others. Phys R 95:1015-19 Ag 15 '54

Production of fast lithium, beryllium, boron fragments from interactions of primary cosmic-ray nuclei. J. H. Noon and others. Phys R 92:1585-6 D 15 '53

Properties of the primary cosmic radiation near the geometric equator. M. A. Pomerantz. Franklin Inst J 256:573-4 D '53

Rockets aid cosmic ray studies. il Aviation W 59:21 S 14 '53

Sealed-off metal proportional counter for cosmic-ray work. J. S. Buchanan. J Sci Instr 31:136-7 Ap '54

Solar magnetic moment and cosmic-ray effects associated with solar flares. S. B. Treiman. Phys R 94:1029-30 My 15 '54

Time and directional study of primary heavy nuclei. G. W. Anderson and others. bibliog Phys R 94:1317-22 Je 1 '54

Time variation of cosmic-ray heavy nuclei. V. H. Yngve. bibliog diags Phys R 92: 428-35 O 15 '53

V-decay event with a heavy negative secondary, and identification of the secondary *V* decay event in a cascade. E. W. Cowan. il Phys R 94:161-6 Ap 1 '54

Where do cosmic rays come from? B. Rossi. il diags Sci Am 189:64-70 S '53

See also

Mesons

COSMIC rays—*Continued*

Components

Cosmic-ray protons at 3.4 kilometers. C. E. Miller and others. bibliog diag Phys R 94:167-73 Ap 1 '54

Heavy unstable particles in stripped emulsions. J. Crussard and others. Phys R 95:584 Jl 15 '54

Interaction and production of cosmic-ray protons in carbon. J. Ballam and P. G. Lichtenstein. bibliog diags Phys R 93:851-7 F 15 '54

Primary heavy nuclei. T. H. Stix. bibliog diags Phys R 95:782-92 Ag 1 '54

Proton intensities at sea level and 9000 feet. A. Z. Rosen. bibliog diag Phys R 93:211-14 Ja 1 '54

Search for highly absorbable negative cosmic-ray particles at sea level. C. E. Miller and others. bibliog il diag Phys R 92:406-11 O 15 '53

Spread of the soft component of cosmic radiation. G. Molière. bibliog Phys R 93:636-7 F 1 '54

Strange particles and multiple meson production. G. Cocconi. Phys R 94:741-2 My 1 '54

Theory of unstable heavy particles. H. Enatsu and others. bibliog Phys R 95:263-70 Jl 1 '54

Variation of the ratio of positive to negative cosmic-ray μ mesons with momentum and altitude. H. A. Morewitz and M. H. Shamos. bibliog diags Phys R 92:134-44 O 1 '53

Zenith angle dependence of cosmic-ray protons. C. E. Miller and others. bibliog diags Phys R 93:590-5 F 1 '54

Intensity

Atmospheric effects on cosmic-ray intensity near sea level. S. Olbert. bibliog Phys R 92:454-61 O 15 '53

Cosmic radiation in the trapped orbits of a solar magnetic dipole field. S. B. Treiman. bibliog Phys 93:544-51 F 1 '54

Cosmic radiation intensity-time variations and their origin; increases associated with solar flares. J. Firor. bibliog diags Phys R 94:1017-28 My 15 '54

Cosmic radiation intensity-time variations and their origin; the daily variation of intensity. J. W. Firor and others. bibliog Phys R 94:1031-6 My 15 '54

Cosmic-radiation intensity-time variations and their origin; the origin of 27-day variations. J. A. Simpson. Phys R 94:426-40 Ap 15 '54

H. Alfvén's theory of the effect of magnetic storms on cosmic-ray intensity. W. F. G. Swann. Phys R 93:905-6 F 15 '54

Low-momentum end of the spectra of heavy primary cosmic rays. R. A. Ellis, jr. and others. bibliog diags Phys R 95:147-59 Jl 1 '54

Solar magnetic moment and diurnal variation in cosmic-ray intensity. J. Firor and others. bibliog Phys R 93:551-3 F 1 '54

Ionization effects

Cosmic-ray nuclear interactions in gases. W. W. Brown. il diag Phys R 93:528-34 F 1 '54

Measurement of specific ionization of primary cosmic rays near the geomagnetic equator. G. W. McClure. Franklin Inst J 256:576 D '53

Latitude effect

Cosmic radiation at very high altitudes near the geomagnetic equator. M. A. Pomerantz. bibliog Phys R 95:531-7 Jl 15 '54

Variation with latitude of the alpha particles in the primary cosmic radiation. G. W. McClure and M. A. Pomerantz. Franklin Inst J 256:575 D '53

Measurement

Čerenkov counter-cloud chamber measurement of multiply-charged primary cosmic rays. J. Linsley. diag Phys R 93:899-900 F 15 '54

Geomagnetic and albedo studies with a Čerenkov detector at 40° geomagnetic latitude. J. R. Winckler and K. Anderson. bibliog diags Phys R 93:596-605 F 1 '54

See also

Cosmic rays—Intensity

Showers

Altitude and angular dependence of cosmic-ray air showers. H. L. Kraybill. bibliog diag Phys R 93:1362-6 Mr 15 '54

Core structure in soft component showers. H. S. Green and O. Bergmann. bibliog Phys R 95:516-21 Jl 15 '54

Density of extensive air showers at airplane altitudes. H. L. Kraybill. diag Phys R 93:1360-1 Mr 15 '54

Development of air showers in the atmosphere. K. Sitte and others. bibliog diags Phys R 94:988-93 My 15 '54

Distribution of arrival times of air shower particles. P. Bassi and others. bibliog il diags Phys R 92:441-51 O 15 '53

High-energy meson production. N. M. Duller and W. D. Walker. bibliog il diag Phys R 93:215-26 Ja 1 '54

Influence of the earth's magnetic field on the extensive air showers. G. Cocconi. Phys R 83:646-7 F 1 '54

Meson showers and high-energy interactions in light and heavy nuclei. R. W. Parsons and others. bibliog diags Phys R 95:193-7 Jl 1 '54

Multiple cores in air showers. O. El-Mofty. bibliog Phys R 92:461-3 O 15 '53

Narrow shower of pure photons at 100 000 feet. M. Schein and others. il Phys R 95:855-7 Ag 1 '54

Shower structure in the higher shower maxima. W. Bothe and H. Kraemer. diag Phys R 94:1402 Je 1 '54

Structure and composition of air shower cores. H. L. Kasnitz and K. Sitte. bibliog il diags Phys R 94:977-87 My 15 '54

Structure of air showers. W. E. Hazen and others. bibliog diag Phys R 93:578-86 F 1 '54

Underground studies

Atmospheric temperature effect for μ mesons observed at a depth of 846 m.w.e. N. Sherman. Phys R 93:208-11 Ja 1 '54

COSMOTRON. See Proton accelerator

COST

Are these your big problems? sales and costs. A. R. Gardner. Dun's R & Mod Ind 62:48-50+ D '53

New, basic field for cost reduction; lowering costs in a company's toolroom. D. R. Sunderlin. Advanced Management 18:19-21 N '53

See also

Cost accounting
Cost of living
Factory costs
Labor cost
Power cost
Railroads—Costs
Sales costs

COST accountants, National association of. See National association of cost accountants

COST accounting

Accounting for changing price levels; recent British views. D. Solomons. bibliog J Account 97:702-7 Je '54

All-level cost control for the management team. R. G. Lochiel. N A C A Bul 34:1158-69 My '53

Allocating administrative expense to divisions. W. T. Relyea. N A C A Bul 34:1626-32 Ag '53

Alternatives to direct costing. H. C. Greer. N A C A Bul 35:878-88 Mr '54

Annual cost to own and operate the industrial duct system. A. C. Stern. Heat & Ven 51:118+ Ag '54

Annual mileage may determine whether to lease or own autos. E. J. O'Connor. N A C A Bul 35:1472-3 Jl '54

Automobile leasing; the arithmetic of renting rather than buying company cars. H. B. Tippie. J Account 96:727-8 D '53

Backing overhead claims for cost-type contracts. R. W. Harwell. N A C A Bul 35:611-22 Ja '54

Better pulpwood costs for the small operator. R. H. Van Voorhis. N A C A Bul 34:1449-57 Jl '53

Break-even charts; they'll tell you if a product should be made. W. A. Schuette. Product Eng 24:170-1 Ag '53

Breakeven point control for higher profits. F. V. Gardner. Harvard Bsns R 32:123-30 S '54

COST accounting—*Continued*

British study in profit graphs to control profit. A. W. H. Lamond. N A C A Bul 35:947-62 Ap '54

Budgeted volume; burden base for seasonal operation; Green giant co. W. F. Neumann. N A C A Bul 35:600-7 Ja '54

Calculating control limits for cost control data. C. E. Noble. N A C A Bul 35:1309-17 Je '54

Can you afford that asset? D. P. Beaudry, jr. bibliog N A C A Bul 35:1383-405 Jl '54

Case where a deficient accounting and costing system led to company insolvency. J Account 97:77-8 Ja '54

Clerical cost reduction and control. F. R. Friedley. flow chart N A C A Bul 35:171-85 O '53

Close control of waste and seconds. R. M. Ruether. N A C A Bul 35:378-9 N '53

Commitment accounting in development cost control. W. E. Arthur. N A C A Bul 35:1596-7 Ag '54

Computing return on investment to aid in pricing. G. W. Frank. N A C A Bul 35:1474-5 Jl '54

Controlling and reducing administrative and staff service costs. K. Y. Siddall. N A C A Bul 35:1535-43 sec 3 Jl '54

Convertibility of direct and conventional costing. J. A. Mauriello. N A C A Bul 35:888-94 Mr '54

Converting parts cost to a completed airplane basis. R. W. Kindley. N A C A Bul 36:69-74 S '54

Cost accounting for a local cartage company. W. J. Schroeder, jr. N A C A Bul 35:1440-56 Jl '54

Cost control facts for the foreman. B. R. Powell and F. J. Mancheski. N A C A Bul 34:1170-9 My '53

Cost estimation for process operations. H. E. Schweyer. bibliog Chem & Eng N 31:3266-70 Ag 10 '53

Cost; is it a binding principle or just a means to an end? S. J. Broad. J Account 97:582-6 My '54

Cost reduction by brute force. A. M. Hartogensis. N A C A Bul 35:344-50 N '53

Cost reduction to help small business. W. B. Edgar. N A C A Bul 35:842-9 Mr '54

Cost reports; a periscope for management; abstract. C. M. Surdyke. Management R 43:260-1 Ap '54

Costing and managing the tabulating installation. J. J. Gallagher. N A C A Bul 35:1622-9 Ag '54

Costing pulp and paper. C. Noel. Pulp & Pa of Can 55:108-10 Je '54

Daily maintenance cost control; the foremen's tool. W. B. Carter. il Iron & Steel Eng 31:123-7 S '54

Determination and recording of property exhaustion costs. F. L. Griffith. Pub Util 53:333-9 Mr 18 '54

Developmental costs incurred in a company laboratory. W. E. Arthur. N A C A Bul 35:1124-30 My '54

Developmental costs incurred in the plant. M. J. Moss. N A C A Bul 35:1114-23 My '54

Die cost distribution in wire drawing. N A C A Bul 34:1438-42 Jl '53

Direct costing. N A C A Bul 34:1077-128 sec 3 Ap '53

Direct costing. N A C A Bul 36:163-8 sec 3 S '54

Direct costing and the economics of process substitution. A. M. Hartogensis. N A C A Bul 35:908-9 Mr '54

Direct costing assists inventory control. A. C. Crane. N A C A Bul 35:910-11 Mr '54

Direct costing in a glass container plant. R. E. Longenecker. N A C A Bul 34:1280-96 Je '53

Direct costing system eliminating all burden. R. W. Sauber. N A C A Bul 35:907 Mr '54

Direct costing vs. seasonal operations, varying product utilization of equipment. C. M. Reinherr. N A C A Bul 35:909-10 Mr '54

Economy in staffing physical inventory. C. W. Lent. N A C A Bul 35:255-6 O '53

Education for cost control; round-table method. C. Lawrence. N A C A Bul 35:1295-9 Je '54

Effect of direct costing on asset accounting, income reporting. T. R. Hosick. J Account 96:444-8 O '53

Estimates as the embryo of a cost system. W. F. Laudenslayer. N A C A Bul 36:83-4 S '54

Five practical problems solved by public accounting firms; deferred development expense. A. A. Beiser, jr. J Account 97:441-2 Ap '54

Fixed asset planning, and a fleet economy study. J. W. Mack. N A C A Bul 35:1606-12 Ag '54

Foundry problem; costs for pricing. A. C. Sinnett. N A C A Bul 34:1443-8 Jl '53

Framework for computing full wage costs. E. W. Goode. N A C A Bul 36:53-6 S '54

Fringe benefits; cost or profit. A. S. Bennion. N A C A Bul 35:162-7 sec 3 S '53

Function of the cost accountant in connection with selling prices. A. W. Kruh. N A C A Bul 35:858-9 Mr '54

Gauging your company's competitive strength; abstract. Management R 43:120-1 F '54

Growing responsibilities of the industrial accountant. M. A. Moore. N A C A Bul 35:1564-74 Ag '54

Helping the foreman control costs. R. E. Stockmeyer. N A C A Bul 35:751-65 F '54

Hidden profits in overhead. H. N. Kamph. N A C A Bul 35:144-61 sec 3 S '53

How accurate is your basic cost reporting? R. L. Feldkamp. N A C A Bul 35:787-8 F '54

How direct costing works internally and externally for a small manufacturer. O. Nielsen. J Account 96:197-205 Ag '53

How we account for motorized equipment expense; Baton Rouge refinery, Esso standard oil co. F. A. Youngs. N A C A Bul 35:627-33 Ja '54

Imputed costs are economic actualities. P. C. Taylor. N A C A Bul 35:261-2 O '53

Inaccuracies of direct costing. J. W. Ludwig. N A C A Bul 35:895-906 Mr '54

Increasing productivity through control reports. W. Langenberg. N A C A Bul 34:982-93 Ap '53

Industrial accounting is not drawing college graduates as it should. H. G. Avery. N A C A Bul 35:260-1 O '53

Learning curve helps figure profits, control costs. R. Wyer. N A C A Bul 35:490-502 D '53; Discussion. 36:408-9, 560-1 N-D '54

Mainsprings of maintenance cost control. C. R. Cooper. N A C A Bul 36:74-81 S '54

Material handling overhead affects unit cost. C. W. Bendel. N A C A Bul 35:643-52 Ja '54

Needed, cooperation between industrial relations and cost accounting. J. W. Pryor. Personnel 30:487-90 My '54

New capacity credit method provides for allocations of costs in gas systems. H. E. Nissel. Am Gas J 179:16-17+ O; 16-17+ N '53

Next time use capitalized costs. F. C. Jelen. Chem Eng 61:199-203 F '54

Nonferrous metals product cost development. L. E. Zraick. N A C A Bul 34:1412-28 Jl '53

Oil production illustrates place of income tax as a cost. D. R. Boggs. N A C A Bul 35:1321-3 Je '54

Operational analysis; statistical approach. C. B. Allen. N A C A Bul 35:459-76 D '53

Operations research; a tool of management. E. J. Thomas, jr. flow diag N A C A Bul 35:477-89 D '53

Opportunity costs in personnel administration. O. W. Roberts. N A C A Bul 34:1599-608 Ag '53

Overhead accounting comes full circle. L. A. Doyle. N A C A Bul 35:1575-85 Ag '54

Picture of motion picture making and costs. J. M. Blankley. N A C A Bul 34:1387-411 Jl '53

Pioneering in natural gas production costs. R. D. Demme. N A C A Bul 34:1659-63 Ag '53

Planning for profit control when volume changes. H. A. Greene. N A C A Bul 35:291-9 N '53

Practical engineering of burden distribution. E. Waygren. N A C A Bul 35:652-9 Ja '54

COST accounting—*Continued*

Pricing special orders to contribute to fixed expense. E. Waygren. N A C A Bul 35:379-80 N '53

Product costs for pricing purposes. N A C A Bul 34:1669-730 sec 2 Ag '53

Product discontinuance decisions. G. W. Frank. N A C A Bul 35:1318-19 Je '54

Purchased parts variance accounting. R. W. Day. N A C A Bul 36:61-8 S '54

Reducing production costs to a minimum. L. J. Sorensen. N A C A Bul 35:1512-24 sec 3 Jl '54

Review of alternatives in costs for pricing purposes. W. Meador. N A C A Bul 35:380-2 N '53

Re-work costs yield to budgetary control. F. G. Foster. N A C A Bul 34:910-18 Mr '53

Role of the auditor in defense-contract costs. J Account 97:677-84 Je '54

Seven provocative ideas on how to make cost accounting simpler and more useful. N. G. Lancaster. J Account 96:723-5 D '53

Significance of costs and cost control. A. W. Rathe. diag Advanced Management 18:14-17+ My '53

Simplified cost control for small industries. I. W. Keller. N A C A Bul 35:132-43 sec 3 S '53

Soap cost accounting. W. I. McNeill. Soap & Chem Spec 30:89+ Je '54

Some instances of practice in by-product costing. R. S. Wasley. N A C A Bul 34:1006-12 Ap '53

Survey of cost practices of soybean processors. D. A. Sullivan. N A C A Bul 35:772-83 F '54

Tailor-making cost data for specific uses. W. J. Vatter. N A C A Bul 35:1691-707 sec 3 Ag '54

Tax planning involves the cost accountant. E. C. Meisky. N A C A Bul 34:853-60 Mr '53

Techniques for obtaining depreciated replacement costs. C. F. Boake. Pub Util 54:137-45 Ag 5 '54

Ten-step allocation method of determining office costs. J. M. Hughes. J Account 97:711-12 Je '54

Timekeepers can also keep watch. R. N. Masimore. N A C A Bul 35:788-9 F '54

Tools available for cost control and cost reduction. N. S. Peter. N A C A Bul 35:1503-11 sec 3 Jl '54

Transportation costs analysis. H. G. Miller. N A C A Bul 35:515-20 D '53

Unit cost when product is run on equipment of greater and less efficiency. F. Judd. N A C A Bul 35:670-1 Ja '54

Use of control charts in cost control. E. W. Gaynor. N A C A Bul 35:1300-9 Je '54

Using replacement-value depreciation in costs. R. K. Mirrielees. N A C A Bul 35:1156-63 My '54

Way of distributing kiln firing cost. M. H. Butler. N A C A Bul 35:1640-1 Ag '54

What can we expect of direct costing as a basis for internal and external reporting? H. C. Heiser. flow charts N A C A Bul 34:1546-60 sec 3 Jl '53

What can we expect of direct costing as a management tool? P. C. Taylor. N A C A Bul 34:1532-45 sec 3 Jl '53

What costs shall be excluded from inventory values. J. L. Kavanagh. N A C A Bul 35:258-60 O '53

What do expense surveys signify? R. B. Miner. bibliog N A C A Bul 35:186-99 O '53

What happens to costs when we run overtime? R. S. Makepeace. N A C A Bul 35:766-71 F '54

What is a unit of equipment? G. T. Pomeroy. N A C A Bul 35:544-6 D '53

What is industry's break even point? Mill & Factory survey. Mill & Factory 54:69-70 F '54

What we use our computer for. F. E. Welsh. N A C A Bul 36:31-6 S '54

Wire drawing; costing and cost control. T. S. Dudick. N A C A Bul 34:1429-37 Jl '53

See also

Bank accounting
Budget, Business
Depreciation
Estimates
Overhead expense
Time keeping

also subdivision Accounting under special subjects, e.g.

Contracts, Government
Factories
Industrial research
Inventories
Labor cost
Marketing
Payrolls
Sales costs

Standard costs

Accountant and engineer; working partners. A. E. Carlson. diags N A C A Bul 34:1633-41 Ag '53

Brewing process is ready-made for standard costs. M. F. Hepple. N A C A Bul 34:1458-70 Jl '53

Cost standards in small home construction. J. E. Shirley. N A C A Bul 34:1475-7 Jl '53

Cost system for a zinc mine. L. C. Smith. N A C A Bul 36:37-47 S '54

Departmentalization for lower cost levels. M. H. Simpsen. N A C A Bul 35:351-61 N '53

Development of standard costs for heat treating. W. P. Canfield. N A C A Bul 35:634-42 Ja '54

Government auditor can use standard costs. F. S. Howell. N A C A Bul 34:1609-17 Ag '53

How we built standard costs into control and planning. G. K. Bryant. N A C A Bul 35:1099-113 My '54

Lower standards, that's cost reduction. E. S. Lecky. N A C A Bul 35:1598-605 Ag '54

Making standard costs acceptable to the shop. T. S. Dudick. N A C A Bul 36:20-30 S '54

Sales forecasting and marketing cost control. R. L. Brittain. N A C A Bul 35:300-10 N '53

Standard cost system pinpoints excessive cost areas, lowers operating expense. W. C. Fitts. Iron Age 174:131-4 S 9 '54

Standard costs. N A C A Bul 36:169-73 sec 3 S '54

Standard costs in drilling accounting. E. H. Sloyer. Oil & Gas J 52:99-100+ Ag 10 '53

Using statistical tools to keep costs current. C. W. Bendel. N A C A Bul 34:1307-26 Je '53

You can say it by formula. J. H. Kempster. N A C A Bul 35:513-14 D '53

Terminology

For better public reporting of production costs. S. K. Atkinson. N A C A Bul 34:1575-87 Ag '53

COST of living

Less worktime needed to buy shoes in U.S. For Comm W 51:15 Ja 11 '54

Why doesn't it drop? Bsns W p32-3 O 3 '53

See also

Rent
Standard of living

Statistics

Appraisal of the BLS consumer price index. O. E. Vaughan. J Marketing 18:138-45 O '53

Colombo consumers' price index adopted in Ceylon. For Comm W 50:2 Ag 31 '53

Consumer price indices, 1937-Nov. 1952; tabulated by countries. Int Labour R Stat Sup 67:15-19 Ja '53 [cont monthly]

Consumer prices; Bureau of labor statistics index for city wage-earner and clerical-worker families, selected years 1929-1952 and monthly Nov. 1952-Nov. 1953. Fed Res Bul 40:90 Ja '54 [cont monthly]

Consumer prices in the United States, 1949-52; price trends and indexes. U S Bur Labor Statistics Bul 1165:1-74 bibliog(p69-74); pa 45c Supt. of doc. '54

Consumers' price index, 1950-1953; chart and tabulations. Automotive Ind 110:329 Mr 15 '54; Excerpt. Steel 134:195 Ja 4 '54

Consumers' price indexes, 1945-1952, monthly Nov. 1952-Nov. 1953. Fed Res Bul 40:113 Ja '54 [cont monthly]

Family expenditures in selected categories in 49 cities. Ptr Ink 245:455-6+ sec 2 O 23 '53

Prices and cost of living. Published in Monthly labor review

COST of living—Statistics—*Continued*

Purchasing power of the dollar, 1949-1952. Survey of Cur Bsns 1953 Sup p31 [supplemented in monthly numbers]

Revised consumer price index; excerpts from papers, American statistical association meeting, 1952. Mo Labor R 76:161-75 F '53

Revision of the consumer price index in Canada. Int Labour R Stat Sup 67:21-5 F '53

Revision of the consumer price index in the Federal Republic of Germany. Int Labour R Stat Sup 67:26-8 F '53

Revision of the United States index number of consumer prices. Int Labour R Stat Sup 67:79-80 Ap '53

Taxes and the consumers' price index. Mo Labor R 76:53-7 Ja '53

United States

Consumer price index at new high, but it doesn't mean inflation. R. Y. Giles. Ptr Ink 244:21 S 4 '53

Food prices in Palo Alto. J. M. Luck. Science 118:362-3 S 25 '53

Revision of the United States index number of consumer prices. Int Labour R Stat Sup 67:79-80 Ap '53

COST of living adjustments. See Wage payment plans—Cost of living adjustments

COSTA RICA

See also

Investments, Foreign (in Costa Rica)

Economic conditions

Costa Rican economy progresses; foreign trade may reach peak. For Comm W 50:2 N 23 '53

Economic conditions abroad (cont). For Comm W 50:5 S 28 '53

COSTS. See Cost

COTARNONE

Phthalaldehydes and related compounds; phthalaldehydes derived from hydrastal and cotarnone. J. Blair and G. T. Newbold. Chem Soc J p 1836-9 Je '54

COTTAGE cheese. See Cheese

COTTON

Cation exchange materials from cotton and polyvinyl phosphate. G. C. Daul, J. D. Reid and R. M. Reinhardt. bibliog Ind & Eng Chem 46:1042-5 My '54

Chemical build-up for King Cotton. Chem W 75:97-8 Ag 21 '54

Cotton, an old fiber with a new future. L. Smith. Am Dyestuff Rep 42:789-91 N 23 '53

Cotton and the synthetic fibers; abstract. G. S. Buck, jr. Am Dyestuff Rep 43:316-17 My 10 '54

Cotton as a basis for new textile fibers; abstract. C. F. Goldthwait. Am Dyestuff Rep 43:81 F 1 '54

Cotton's turn; new fibers produced by cyanoethylation. Chem W 73:24+ S 5 '53

Decrystallized cotton. G. Susich. bibliog il Am Dyestuff Rep 42:713-18 O 26 '53

Degradation studies with cotton and wood pulp; abstract. O. Samuelson and others. Paper Ind 35:1346+ Mr '54

Here are the facts on the 1953 cotton crop. J. M. Cook. Textile World 104:88-9+ Ja '54

Measurement of triboelectric response of raw cottons. C. E. Kirkwood and others. bibliog diags Textile Res J 24:853-60 S '54

Surface areas of cottons and modified cottons before and after swelling as determined by nitrogen sorption. F. H. Forziati and others. bibliog diag J Res Nat Bur Stand 50:139-45 Mr '53

See also

Bleaching—Cotton

Cellulose

Cotton carding and other headings beginning Cotton

Cottonseed oil

Dyes and dyeing—Cotton

Vulcanized fiber

Analysis

Phosphorus content of Egyptian raw cotton. A. K. Wahbi and M. S. El-Ansary. bibliog Textile Inst J Trans 45:T624-9 Ag '54

Chemistry

Chemical reactivity of ethylamine-treated cotton as indicated by acetylation. L. Loeb and L. Segal. bibliog Textile Res J 24:654-8 Jl '54

Extensive animation of cotton with ethylenimine. L. M. Soffer and E. Carpenter. bibliog il Textile Res J 24:847-52 S '54

New textile fibers with the structural elements of natural cellulosic fibers. J. Compton. bibliog(46 ref) il diags Am Dyestuff Rep 43:103-11 F 15 '54

Color

Color in cotton. S. A. Simon and C. Harmon. bibliog il Textile Res J 24:12-16 Ja '54

Defoliation

Chemical harvest hand; call for cotton defoliants. il Chem W 73:55-7 Ag 22 '53

Diseases and pests

Bugs, weather; can they be correlated? Chem W 74:76+ Ap 10 '54

Moisture content

Effect of relative humidity on Micronaire readings. F. R. Gates and E. J. Jennings. il diags Textile Res J 23:942-4 D '53

Effects of evaporating water from cotton cellulose. G. W. Madaras and H. A. Turner. bibliog pl diags Soc Dyers & Col J 69:371-7 O '53

Sorption of water by soda-boiled cotton at low humidities and some comparisons with viscose rayon. J. B. Taylor. bibliog diag Textile Inst J Trans 45:T642-64 Ag '54

Testing

Cotton testing at Burlington mills. W. A. Julian. Textile World 104:109+ My '54

Deviations in instrumental evaluation of the physical properties of cotton. T. H. Hopper and J. D. Tallant. Textile Res J 24:53-7 Ja '54

Measurement of dielectric constant and dissipation factor of raw cottons. C. E. Kirkwood, jr. and others. bibliog diags Textile Res J 24:841-7 S '54

Uses

Cottons as ion-exchangers; abstract. Am Dyestuff Rep 42:768 N 9 '53

Alabama

This community-relations program spreads across a whole state; Cotton improvement contest. M. B. Andrews. Textile World 104:139+ Je '54

COTTON, Effect of heat on

Change in the fluorescence of Deltapine-15 seed cotton as a result of heat. W. C. Sheehan and others. bibliog Textile Res J 23:736-43 O '53

Degradation of cotton fibers and yarns by heat and moisture. R. S. Orr and others. bibliog(29 ref) Textile Res J 24:399-406 My '54

COTTON carding

Alabama carders talk about evenness control. Textile World 104:123+ Ja '54

Card-room changes where based on ends-down and yarn-strength tests. E. H. Helliwell. Textile World 103:119+ D '53

Carding topics from Southern textile association. Textile World 104:83 Ag '54

Cotton carding with metallic card clothing. J. W. Powischill. Textile Res J 24:541-3 Je '54

Does metallic wire solve my carding problem? R. C. Ashworth, jr. il Textile Res J 24:544-6 Je '54

Georgia carders discuss problems from blending to drawing. Textile World 104:101+ Jl '54

Improvements in card operation. H. M. Brown and J. L. Thompson. diags Textile Res J 24:535-8 Je '54

Influence of processing on nep formation. R. H. Souther. bibliog Textile Res J 24:495-8 Je '54

New development in card fillet. T. Pogson. Textile Res J 24:546-8 Je '54; Abstract. diags Textile World 104:81 Ap '54

COTTON carding—*Continued*

Retracto-Pin continuous card stripper. R. A. Rusca and G. A. Pettit. il Textile Res J 24:539-40 Je '54; Abstract. Textile World 104:80+ Ap '54

Reversing card flats offers potential advantages; abstract. H. M. Brown. Textile World 104:80+ Ap '54

COTTON cleaning

King Cotton white wash. Ind & Eng Chem 45:sup 13A+ O '53

Two jet cleaners improve opening at Danville yarn mills. T. B. Winston. il Textile World 104:109+ Je '54

Ultrasonic treatment of lint cotton. A. E. Martin, jr. bibliog Textile Res J 23:727-30 O '53

COTTON exchanges

Cotton futures next year; Liverpool cotton exchange reopening. Economist 169:48+ O 3 '53

COTTON fabrics

Causes of seaming damage; needle heating. W. S. Sondheim. Textile Inst J Trans 44:T580-5 N '53

Comparison of physical properties of lightweight cotton corduroys of different constructions. F. E. Petzel. bibliog diags Am Dyestuff Rep 43:442-4 Jl 5 '54

Cotton and ideal military textiles. S. J. Kennedy. Textile Res J 24:572-7 Je '54

Relationship of the geometry of plain knit cotton fabric to its dimensional change and elastic properties. H. M. Fletcher and S. H. Roberts. bibliog Textile Res J 24:729-37 Ag '54

THPC, new flame-resistant treatment, is permanent and effective. W. A. Reeves and J. D. Guthrie. Textile World 104:101+ F '54

THPC-resin flameproofing; abstract. W. A. Reeves. Am Dyestuff Rep 43:346 My 24 '54

Use of octadecyl isocyanate on cotton to produce water repellency. C. Hamalainen and others. bibliog Am Dyestuff Rep 43:453-7 Jl 19 '54

See also

Chintz
Cotton finishing
Cotton weaving
Denim
Duck (textile)

Analysis

Spectrophotometric method for routine control determination of copper 8-hydroxyquinolinate in cotton textiles. A. Darbey. Am Dyestuff Rep 42:453-5 Jl 20 '53

Protection

Finishes for cellulosic textiles giving permanent protection against microbiological attack; survey of the literature. M. Hamlin. bibliog(44 ref) Textile Inst J 44:P745-53 N '53

Mildew-preventing activity of rhodanine derivatives. F. C. Brown and others. bibliog Ind & Eng Chem 45:1027-33; 46:1508-12 My '53, Jl '54

Resistance to microbiological deterioration of resin-treated cellulosic fabrics. T. F. Cooke. bibliog(50 ref) il Textile Res J 24:197-209 Mr '54

Shrinkage

Cotton-fabric shrinkage and its control. L. S. Lang. il diags Am Dyestuff Rep 43:464-6 Jl 19 '54

Shrinkage in laundering of cotton and rayon fabrics. Am Dyestuff Rep 43:364-7 Je 7 '54

Shrinkage of cotton broadcloth shirts. M. A. Grimes and C. A. Werman. Mod Textiles Mag 35:48+ Mr '54

Stability control of cotton knit goods. I. J. Smith. Am Dyestuff Rep 43:467-8 Jl 19 '54

Stains

Tar spot removal from cotton fabrics during finishing. J. Compton and L. R. Hubbard. il diag Textile Res J 24:578-83 Je '54; Abstract. Textile World 104:97+ My '54

Testing

Bubble pressure test for the measurement of the pore size of fabrics; sealing of close cotton cloths when wetted. J. Lord. Textile Inst J Trans 45:T380-9 My '54

Comparative study of the Tinius Olsen and Peirce stiffness testers. W. J. Hynek and G. Winston. bibliog diags Textile Res J 23:743-8 O '53; Discussion. J. J. Press. 24:60 Ja '54

Resistance of partially acetylated cotton fabric to nitrogen dioxide and to hydrogen chloride. W. T. Schreiber and others. bibliog Textile Res J 24:819-22 S '54

Study of some factors affecting the tear-and water-resistance of lightweight clothing and tentage fabrics. W. E. O'Brien and L. I. Weiner. bibliog Textile Res J 24:241-50 Mr '54

COTTON fibers

Concentric cellulose layers in cotton fiber cell wall. V. W. Tripp and R. Giuffria. il Textile Res J 24:757-8 Ag '54

Effect of cotton fiber strength on single yarn properties and on processing behavior. L. A. Fiori and others. diags Textile Res J 24:503-7 Je '54; Abstract. Textile World 104:96 My '54

Influence of heavy beating of cotton fibers on molecule length and crystallinity. C. F. Wijnman. bibliog il diags Tappi 37:96-8 Mr '54

Method of determining the nep content of ginned lint by using accessory equipment with the mechanical fiber blender. J. T. Rouse. diags Textile Res J 24:498-502 Je '54; Abstract. Textile World 104:95+ My '54

New textile fibers with the structural elements of natural cellulosic fibers. J. Compton. bibliog(46 ref) il diags Am Dyestuff Rep 43:103-11 F 15 '54

Nomograph is as accurate as spinning tests; abstract. W. Buesser. Textile World 104:96 My '54

Optical and electron microscopic studies of cotton fiber structure. M. L. Rollins and V. W. Tripp. bibliog il Textile Res J 24:345-57 Ap '54

Quality requirements and cotton fiber procurement practices in Europe. G. W. Pfeiffenberger. Textile Res J 24:592-3 Je '54

Moisture absorption

S factor, microbial enzyme which increases the swelling of cotton in alkali. P. B. Marsh and others. bibliog diag Textile Res J 23:878-88 D '53

Testing

Correlation of yarn strength with fiber strength measured at different gage lengths. H. M. Brown. bibliog Textile Res J 24:251-60 Mr '54

Cotton quality and fiber properties; effect of mechanical blending on cotton fiber properties. H. Wakeham and others. bibliog il Textile Res J 24:802-9 S '54

Degradation of cotton fibers and yarns by heat and moisture. R. S. Orr and others. bibliog(29 ref) Textile Res J 24:399-406 My '54

Effect of time and temperature of presoaking and the temperature of acetylation on the rate and degree of acetylation of cotton fibers. J. L. Taylor and E. D. Owens. bibliog il Textile Res J 24:810-19 S '54

Experiments with an alkali swelling-centrifuge test applied to cotton fiber. P. B. Marsh and others. bibliog il Textile Res J 23:831-41 N '53

How laboratory tests measure cotton character. E. E. Berkley. Textile World 104:98-9 S '54

Interfiber pore-size distribution in lint cotton. E. L. Skau and others. bibliog diag Textile Res J 23:798-803 N '53

Measurement of the nepping potential of cotton. J. F. Bogdan. il diags Textile Res J 24:491-4 Je '54; Abstract. Textile World 104:95+ My '54

Measuring cotton fiber strength at finite gage lengths in the breeding program. T. Kerr. Textile Res J 24:507-10 Je '54; Abstract. Textile World 104:94 My '54

Mill laboratories show close agreement in cotton-fiber testing. T. H. Hopper. Textile World 104:131+ F '54

Relationship between Micronaire-fineness and Causticaire-maturity for various cotton samples. W. F. du Bois and D. F. van de Riet. Textile Res J 24:265-6 Mr '54

COTTON fibers—Testing—*Continued*

Relative responsiveness of certain properties of cotton fiber to microbial action. P. B. Marsh and others. bibliog il Textile Res J 24:31-8 Ja '54

Standard method of test for fluidity of cotton, rayons and cellulose acetate in cuprammonium hydroxide solution. diags Textile Inst J 45:S 18-26 Ap '54

COTTON finishing

Cotton capers; flame-resistant tetrakis (hydroxymethyl) phosphonium chloride. Ind & Eng Chem 46:sup 15A+ Je '54

Cotton, developments in finishing. A. Bolgiani. Chem Age (Lond) 70:1189-91 My 29 '54

Fabric surface study. R. Krammes and C. Maresh. bibliog il diag Am Dyestuff Rep 43:189-91 Mr 29 '54

Finishes for cellulosic textiles giving permanent protection against microbiological attack; survey of the literature. M. Hamlin. bibliog(44 ref) Textile Inst J 44:P745-53 N '53

Here's a finishing plant that needs no storage space; Erwin mills, inc. M. London. il plans Textile World 104:71-3+ Ag '54

Increasing luster by mercerizing and calendering; patents. diag Am Dyestuff Rep 43:227 Ap 12 '54

Influence of preparation and method of dyeing and finishing on the color and colorfastness of vat-dyed cottons. L. H. Bailey and F. J. Rizzo. bibliog(25 titles) il Am Dyestuff Rep 42:492-516 Ag 3 '53

Mechanical finishing of cotton and rayon fabrics; new use for isocyanates; abstract. Am Dyestuff Rep 43:318 My 10 '54

New ideas for crease- and shrink-resist finishing processes; abstract. B. C. M. Dorset. Am Dyestuff Rep 43:615 S 13 '54

Ultraviolet screening properties of certain pigment vehicle combinations. L. L. Heffner. bibliog il Textile Res J 24:272-8 Mr '54

See also

Cotton sizing

Mercerizing

COTTON futures. See Cotton exchanges

COTTON insurance. See Insurance, Cotton

COTTON linters

Emulsion xanthation of cellulose; influence of cold alkali treatment of cotton linters and wood pulp. O. Samuelson and others. bibliog il Tappi 37:236-42 Je '54

How continuous digester holds pressure to make better chemical cellulose; Hercules powder co. il diag Chem Eng 61:116-18 My '54

What to expect in cotton linters. Paper Tr J 138:63 Ja 29 '54

COTTON machinery

Causes and effects of picker lap unevenness. E. Heard, jr. Textile Res J 24:555-9 Je '54; Abstract. diag Textile World 104:79+ Ap '54

Checklist for opening and picking. J. E. Allen. Textile World 410:127+ Mr '54

Developments in cotton blending and feeding; Rando-Webber and Rando-Feeder. H. H. Langdon. flow diag il diags Textile Res J 24:550-5 Je '54; Abstract. Textile World 104:78+ Ap '54

How Borden Mills improved its picker laps. P. M. Thomas. il diag Textile World 104:76-8 Ag '54

How much does it cost; Cone mills corp. textile machines. M. B. Andrews. Textile World 104:101+ Ap '54

McKiernan-Terry multi-purpose calender. J. W. Wilkinson. il Am Dyestuff Rep 43:247-8 Ap 12 '54

Method of determining the nep content of ginned lint by using accessory equipment with the mechanical fiber blender. J. T. Rouse. diags Textile Res J 24:498-502 Je '54; Abstract. Textile World 104:95+ My '54

Mill application of the Tritex picker attachment; Joanna cotton mills co. J. L. Delany. Textile Res J 24:560-2 Je '54; Abstract. Textile World 104:79+ Ap '54

Picker maintenance at Joanna cotton mills. J. H. Kennedy. il Textile World 104:86-7 Jl '54

Study on picker performance. B. K. Power and others. il diag Textile Res J 23:755-9 O '53

Two jet cleaners improve opening at Danville yarn mills. T. B. Winston. il Textile World 104:109+ Je '54

Whitin's new opening equipment cleans with a buffeting action. il Textile World 104:115+ S '54

Cleaning

Look to cleanliness for quality dope-dyed fabrics; Haynsworth mill. R. B. Pressley. il Textile World 104:86-7+ My '54

Parts cleaning speeds this four-step machine-maintenance program; Inman mills. L. Thompson. il Textile World 104:104-5 Jl '54

COTTON manufacture

Cotton-mill calculations. Textile World 103:26-7 Mid-N '53

Cotton technology and manufacturing practices in the Orient. E. E. Berkley. Textile Res J 24:594-6 Je '54

Degradation of cellulose during mechanical processing; size reduction of cotton in a Wiley mill. R. F. Schwenker, jr. and J. C. Whitwell. bibliog il Textile Res J 23:804-8 N '53

Developments in European cotton processing methods. R. A. Rusca. Textile Res J 24:589-91 Je '54

Methods of selecting, blending, and cleaning cotton as practiced in European mills. L. Dexter. Textile Res J 24:587-9 Je '54

See also

Cotton carding

Cotton mills

Cotton sizing

Cotton yarn

COTTON mills

Greenwood's new print-cloth mill. il Textile World 104:116-17 Je '54

Identified payroll traces a mill's value to a community; Eastman cotton mills. M. B. Andrews. il Textile World 104:135+ Mr '54

Opportunity America is graphic community relations; Jefferson mills. M. B. Andrews. Textile World 104:101 Ag '54

Air conditioning

New loom air conditioned for efficient weaving operation. R. M. Anderson. diag Heating-Piping 25:101 D '53

Pacolet's new air-conditioned weave room. E. D. White. il Textile World 104:106-7+ F '54

Costs

How much does it cost; Cone mills corp. textile machines. M. B. Andrews. Textile World 104:101+ Ap '54

Electric equipment

How Avondale brought its electrical equipment up to date. W. L. Roark, jr. il Textile World 104:118-19+ Jl '54

How Draper-Diehl drives are serviced at Cone mills. R. B. Pressley. il Textile World 104:74-5 S '54

New slasher drive eliminates maintenance; Avondale mills. G. Veigl. il diag Textile World 104:88-9+ My '54

Employees

How Cone Mills develops better supervisors. T. B. Winston. Textile World 104:71-3 Ap '54

Noise and audiometric histories resulting from cotton textile operations. J. R. Cox, jr. and others. A M A Archives Ind Hygiene & Occup Med 8:36-47 Jl '53

Wage chronology; Northern cotton textile associations; supplement number two. Mo Labor R 76:148-50 F '53

Equipment

After the cyclone; remodernization at Buck Creek cotton mills. T. B. Winston. il Textile World 104:60-3 Ag '54

Dundee's conveyor system keeps finished goods flowing. E. D. White. il Textile World 104:90-1 Mr '54

Five ways cut meters help Swift mfg. co. R. B. Pressley. il Textile World 103:102-3 D '53

How Beaumont Mills eases normal weaveroom strain. R. B. Pressley. il Textile World 104:70-1 S '54

Modernization pays off in quality yarns; U.S. rubber co.'s Textile division. J. H. Blore. il Textile World 104:91-3 My '54

COTTON mills—Equipment—*Continued*

Ten-way adjustable cleaners improve spinning efficiency; Joanna cotton mills co. J. P. Sloan. il Textile World 104:95+ Ap '54

This mill's maintenance system is not for repairs alone; Calhoun mills. R. S. Pressley. il Textile World 104:73-5+ Je '54

Fires and fire protection

Controlling fire hazards reduces fires up to 50 per cent. Textile World 104:210+ Mr '54

Layout

Here's a finishing plant that needs no storage space; Erwin mills, inc. M. London. il plans Textile World 104:71-3+ Ag '54

Maintenance and repair

Aftermath of disaster, a community comes back; Buck Creek cotton mills. M. B. Andrews. il Textile World 103:151+ N '53

Anderson shoots up fasteners to speed maintenance jobs; powder-actuated tool. J. L. Burriss. il Textile World 104:80-1 Ag '54

Good inspection forms help card-room maintenance men. E. H. Helliwell. Textile World 104:124-5 Je '54

How Alabama mill men control maintenance and supplies. Textile World 104:88-90+ Jl '54

How Draper-Diehl drives are serviced at Cone mills. R. B. Pressley. il Textile World 104:74-5 S '54

How Joanna mills repairs machine parts. C. F. Franzen. il Textile World 103:100-1+ D '53

Mill-chain maintenance; central engineering keeps Avondale mills modern. C. W. Wright and H. C. Uhl. il Textile World 103:127-9 D '53

Parts cleaning speeds this four-step machine-maintenance program; Inman mills. L. Thompson. il Textile World 104:104-5 Jl '54

Picker maintenance at Joanna cotton mills. J. H. Kennedy. il Textile World 104:86-7 Jl '54

Management

How a supply room combines rapid service with simple records; Anniston mfg. co. R. B. Pressley. il Textile World 104:106-7 My '54

Production control at Avondale is based on mill-order sets. T. B. Winston. il Textile World 104:98-101+ Ja '54

Quality control

Mills and employees benefit from this quality-award system; Avondale mills. G. W. Haynes. Textile World 103:91-3+ D '53

Quality control in the blowing room and its effect on production in subsequent departments. S. Vaswani. diag Textile Inst J 45:P 16-28 Ja '54

Quality control in the cotton industry. W. S. Sondheim. bibliog Textile Inst J 44:P717-21 O '53

Safety measures

Winner is safety! Eagle & Phenix division, Fairforest co. F. K. Van Horn. Safety Maint & Prod 107:24-6 Mr '54

Waste

At Avondale's Sycamore plant, vacuum conveyor system speeds waste removal. T. B. Winston. il Textile World 104:116-17 F '54

Pollution reduction in cotton finishing wastes through process chemical changes. J. W. Masselli and M. G. Burford. Sewage & Ind Wastes 26:1109-16 S '54

COTTON openers. See Cotton machinery

COTTON picking machines

Manufacture

Cotton picker spindles require some unusual operations; International harvester co. W. P. Gronke. il Mach 61:187-9 S '54

Mechanized hard chrome plating setup is fast and efficient; Harvester's Evansville, Ind. works. H. Chase. il Iron Age 173:150-1 F 18 '54

COTTON printing. See Calico printing

COTTON research

Annual cotton research clinic, 5th, Pinehurst, N.C.; abstracts of papers. Textile World 104:78-81+ Ap; 94-7+ My '54

Change in the fluorescence of Deltapine-15 seed cotton as a result of heat. W. C. Sheehan and others. bibliog Textile Res J 23:736-43 O '53

Cotton yarn structure; relation between strength measurements made on fibres, fibre bundles, yarns, and cloth. J. Gregory. bibliog Textile Inst J Trans 44:T515-33 N '53

Cotton yarn structure; strength of twisted yarn elements in relation to the properties of the constituent fibres. J. Gregory. bibliog diags Textile Inst J Trans 44:T499-514 N '53

Effect of time and temperature of presoaking and the temperature of acetylation on the rate and degree of acetylation of cotton fibers. J. L. Taylor and E. D. Owens. bibliog il Textile Res J 24:810-19 S '54

European cotton research. H. Wakeham. Textile Res J 24:584-6 Je '54

Getting the goods on cotton; Empire cotton growing corp.'s African research station (Uganda). il Chem W 73:52+ O 10 '53

Methylation of cellulose with diazomethane, and some properties of the products. D. A. Sitch. bibliog il Textile Inst J Trans 44: T407-19 O '53

Practical partial acetylation of cotton. E. M. Buras, jr. and others. bibliog flow sheets diags Am Dyestuff Rep 43:203-8 Mr 29 '54; Abstract. Textile World 103:143 D '53

Reaction of cotton with β-propiolactone in the presence of organic solvents. G. C. Daul and others. bibliog Textile Res J 24: 738-47 Ag '54

Relative responsiveness of certain properties of cotton fiber to microbial action. P. B. Marsh and others. bibliog il Textile Res J 24:31-8 Ja '54

Role of basic research in cotton utilization. W. S. Scott. Textile Res J 23:848-51 N '53

Some aspects of microscopy in cellulose research. M. L. Rollins. bibliog(50 ref) il Anal Chem 26:718-24 Ap '54

Sorption of water by soda-boiled cotton at low humidities and some comparisons with viscose rayon. J. B. Taylor. bibliog diag Textile Inst J Trans 45:T642-64 Ag '54

Study of the weathering characteristics of cotton fabrics containing inorganic compounds. G. R. F. Rose and C. H. Bayley. bibliog Textile Res J 24:792-802 S '54

Surface areas of cottons and modified cottons before and after swelling as determined by nitrogen sorption. F. H. Forziati and others. bibliog diag J Res Nat Bur Stand 50:139-45 Mr '53

Use of iodine adsorption as a measure of cellulose fiber crystallinity. L. E. Hessler and R. E. Power. bibliog Textile Res J 24: 822-7 S '54

See also

British cotton industry research association

COTTON seed. See Cottonseed

COTTON sizing

Control of size take-up in slashing; Shirley automatic size box. E. H. Jones. il diags Textile Res J 24:562-71 Je '54

Georgia TOE annual fall meeting; summary of discussion. Textile World 104:116-17+ Ja '54

How latex is used to size denim. E. Abrams. il Textile World 103:94-5 D '53

How Wamsutta checks slasher performance. E. S. Rudnick. Textile World 104:64-5+ Ag '54

New slashing equipment raises weave-room production two per cent; Gold-Tex fabrics corp. R. B. Pressley. il diags Textile World 104:98-9+ Jl '54

Nitrile rubber latices as permanent abrasion-resistant finishes for blue denim fabric. E. Abrams and N. Sherwood. il Am Dyestuff Rep 42:777-82 N 23 '53

Size almost makes itself in this size-making equipment; Pacolet mfg. co. E. D. White. il Textile World 104:120-1+ Je '54

COTTON spinning

Alabama mill men answer on four spinning subjects. Textile World 103:124+ D '53

Clemson Pretwister for roving frames. H. M. Brown. Textile Res J 24:548-9 Je '54; Abstract. il Textile World 104:81+ Ap '54

COTTON spinning—*Continued*

Drafting forces of cotton and rayon-staple slivers. B. Cavaney and G. A. R. Foster. diags Textile Inst J Trans 45:T390-404 My '54

Georgia mill men explore spinning problems. Textile World 104:108-9 Jl '54

New roving twist formula. J. R. Corley and others. bibliog Textile Res J 23:750-4 O '53

Theory of drafting and its practical applications. P. F. Grishin. bibliog(38 titles) diags Textile Inst J Trans 45:T 167-266 Mr '54; Correction. 45:T420 My '54

COTTON trade

Export-import bank finances sales of U.S. cotton to Japanese market. For Comm W 50:26 N 16 '53

Government loan rush tightens cotton supply. Barron's 34:35-6 Ja 18 '54

Greenhorn from Greenwood; James C. Self. R. E. Ellsworth. Mod Textiles Mag 35:34+ My '54

Man with the roving eye; John Francis Hagen. R. E. Ellsworth. Mod Textiles Mag 35: 36+ F '54

Mister Cotton goes to town; J. C. Smith. Manuf Rec 123:29+ Ag '54

See also

Cotton exchanges

Statistics

Cotton and manufactures, 1949-1952. Survey of Cur Bsns 1953 Sup p 186-8 [supplemented in monthly numbers]

Europe

Cotton industry abroad; symposium. Textile Res J 24:584-93 Je '54

Great Britain

Cotton futures next year; Liverpool cotton exchange reopening. Economist 169:48+ O 3 '53

Five per cent for cotton workers. Economist 168:199 Jl 18 '53

Free market in cotton. Economist 169:435-6 N 7 '53

Green light for cotton. Economist 169:606 N 21 '53

How private are cotton spinners? Economist 168:410 Ag 8 '53

Lancashire's recovery, and after. Economist 169:267-8 O 24 '53

Not-so-private cotton. Economist 168:194+ Jl 18 '53

Puzzle from Lancashire cotton. Economist 169:980 D 26 '53

United Kingdom cotton industry slow in recovery; first half of 1953. For Comm W 50:9 O 12 '53

See also

British cotton industry research association

Guatemala

Guatemala controls more cotton goods. For Comm W 50:7 D 14 '53

United States

Stability in cotton prices. Economist 168: 724+ S 12 '53

COTTON weaving

Callaway mills uses these methods to weave quality towels. R. B. Pressley. il Textile World 104:77-9+ Jl '54

Georgia Textile operating executives weaving discussion. Textile World 103:130-2+ D '53

How Beaumont Mills eases normal weaveroom strain. R. B. Pressley. il Textile World 104:70-1 S '54

How to weave drills and twills. W. C. Westbrook. il diags Textile World 104:105+ Ja '54

Improvement of luster of cotton; effect of weaving pattern on luster in a series of bleached cotton fabrics. L. Fourt and M. B. Rutherford. Textile Res J 24:67-72 Ja '54

Increase loom production up to five per cent with lizards. W. C. Westbrook. il Textile World 104:108-9+ F '54

Pacolet's new air-conditioned weave room. E. D. White. il Textile World 104:106-7+ F '54

Short-cut methods check new cloth patterns; Dan River mills. E. Waller. il diag Textile World 104:126-7+ Je '54

Stress yarn preparation to weave denims with checks. R. B. Pressley. il Textile World 104:84-5+ Mr '54

COTTON workers

See also

Cotton mills—Employees

COTTON yarn

Effect of cotton fiber strength on single yarn properties and on processing behavior. L. A. Fiori and others. diags Textile Res J 24:503-7 Je '54; Abstract. Textile World 104: 96 My '54

Effect of single and ply twists on the properties of a 15.5/2 carded cotton yarn. L. A. Fiori and others. Textile Res J 24:428-33 My '54

Effect of single and ply twists on the properties of 31/2 and 15.5/2 carded cotton yarns. L. A. Fiori and others. bibliog Textile Res J 24:526-34 Je '54; Abstract. Textile World 104:97+ My '54

Effect of single and ply twists on the properties of a 31/2 carded cotton yarn. L. A. Fiori and others. bibliog Textile Res J 24: 267-72 Mr '54

How Elk mills makes 30s cotton yarn. T. B. Winston. il Textile World 104:100-1+ Mr '54

Improvement of luster of cotton. L. Fourt and others. bibliog diags Textile Res J 24: 61-72, 156-72, 279-91, 685-94, 779-84 Ja-Mr, Jl-Ag '54

Mill reference data; cotton. diags Textile World 103:20-31 Mid-N '53

Preparation of soluble yarns by the carboxymethylation of cotton. G. C. Daul and others. bibliog il Textile Res J 23:719-26 O '53; Abstract. Am Dyestuff Rep 43:384 Je 7 '54

Roller slip and the irregularity of cotton and rayon-staple drawframe slivers. G. Dakin and others. bibliog diags Textile Inst J Trans 44:T544-79 N '53

Structure and properties of cotton and synthetic singles yarn. J. B. Dickson. bibliog(36 ref) Textile Res J 24:511-26 Je '54

This simple system of yarn handling saves time, bother, and money; Avondale mills. il Textile World 104:108 Mr '54

Nylon mixtures

Tips on blending cotton and nylon. J. R. Jones. Textile World 104:64-5+ S '54

Strength

Cotton yarn structure; relation between strength measurements made on fibres, fibre bundles, yarns, and cloth. J. Gregory. bibliog Textile Inst J Trans 44:T515-33 N '53

Cotton yarn structure; strength of twisted yarn elements in relation to the properties of the constituent fibres. J. Gregory. bibliog diags Textile Inst J Trans 44:T499-514 N '53

Tables, calculations, etc.

How to predict the strength of plied cotton yarns. J. Duerst. diag Textile World 104: 118-19 Je '54

New formula for cotton-yarn strength uses six properties. J. Duerst. Textile World 104:108-9 Ja '54

Testing

Correlation of yarn strength with fiber strength measured at different gage lengths. H. M. Brown. bibliog Textile Res J 24: 251-60 Mr '54

Degradation of cotton fibers and yarns by heat and moisture. R. S. Orr and others. bibliog(29 ref) Textile Res J 24:399-406 My '54

Yarn evenness and its determination. A. Hasler and E. Honegger. bibliog il Textile Res J 24:73-85 Ja '54

COTTONSEED

2,3,5-Triphenyltetrazolium chloride as a rapid indicator of viability in cottonseed. M. G. Lambou. bibliog Science 117:690-3 Je 19 '53

See also

Gossypol

Statistics

Cottonseed, 1949-1952. Survey of Cur Bsns 1953 Sup p 127 [supplemented in monthly numbers]

COTTONSEED oil
Boosts yield of cottonseed oil; solvent extraction and then filtration; pictured flowsheet. Chem Eng 61:324-7 Jl '54
CCC's cottonseed oil inventories likely to rise. Barron's 33:27-8 O 12 '53
Surplus to Soviet? applications to Department of commerce for licenses to export surplus butter and cottonseed oil. Chem W 74:95-6 Ja 23 '54

Statistics

Cottonseed oil, 1949-1952. Survey of Cur Bsns 1953 Sup p 127 [supplemented in monthly numbers]

COTTRELL, J. B. and sons company
Merger points to typeless printing. Bsns W p 118+ D 12 '53

COTTRELL precipitators. See Electric precipitation

COTY, René, 1882-
After the Congress of Versailles; new president of France. Economist 170:30-1 Ja 2 '54

COUETTE flow. See Hydrodynamics

COUGH drops
Hexylresorcinol makes a sugar cure for scratchy throats. il Chem W 73:83-4 N 28 '53

COULOMB wave function. See Wave mechanics

COULOMB'S law
Coulomb's law and the quantitative interpretation of reaction rates. E. S. Amis. bibliog J Chem Educ 30:351-3 Jl '53

COULOMETERS. See Voltameters

COULOMETRIC titrations. See Volumetric analysis

COUMARANONE. See Benzofuranone

COUMARIN
Chemistry of extractives from hardwoods; coumarin constituents of fagara macrophylla, zanthoxylum flavum, and chloroxylon swietenia. F. E. King, J. R. Housley and T. J. King. Chem Soc J p 1392-9 My '54
Course of the Perkin coumarin synthesis. M. Crawford and J. A. W. Shaw. Chem Soc J p3435-9 N '53
Derivatives of acetoacetic acid; the synthesis of coumarins from aryl acetoacetates. R. N. Lacey. Chem Soc J p854-60 Mr '54
Geometrical inversion in the acids derived from coumarins. T. R. Seshadri. Chem & Ind p308 Mr 13 '54
Taste doesn't tell. Chem W 72:39-40 Je 27 '53

COUMARONE. See Benzofuran

COUNCIL of advertising agency librarians
New York Council of advertising agency librarians. N. D. Frank. Adv Agency 47:90+ Ap '54

COUNCIL of economic advisors. See United States—Council of economic advisors

COUNCIL of Europe
Green light at Strasbourg. Economist 168: 840-1 S 26 '53

COUNCIL on industrial health. See American medical association—Council on industrial health

COUNSELORS, Employees'. See Employees' counselors

COUNTER display. See Display of merchandize

COUNTERCURRENT extraction. See Extraction processes

COUNTERCURRENT processes
Automatic drive for countercurrent distribution apparatus. E. S. Perry and W. H. Weber. il diags Anal Chem 26:498-502 Mr '54
Continuous countercurrent ion-exchange unit. R. H. McCormack and J. F. Howard. diag Chem Eng Prog 49:404 Ag '53
Continuous countercurrent ion exchange with trace components. N. K. Hiester and others. bibliog il diags Chem Eng Prog 50:139-50 Mr '54
Ion exchange of trace components in a countercurrent equilibrium stage contactor. N. K. Hiester and others. bibliog flow diag il diags Ind & Eng Chem 45:2402-12 N '53
Let's look at selective adsorption. G. Karnofsky. bibliog il diags Chem Eng 61:189-92 S '54
Process kinetics; countercurrent heating and cooling of granular solids with gases. J. W. Payne, C. H. Lechthaler and R. D. Drew. diags Ind & Eng Chem 45:1233-6 Je '53

COUNTERFEITS and counterfeiting
Counterfeiting American goods abroad. D. Wharton. il Adv Agency 46:76-7+ O '53
Counterfeiting conundrum; can sovereigns made of standard gold content be called counterfeit? Burroughs Clearing House 38: 11 N '53
Gold coin as merchandise. P. Einzig. Comm & Fin Chr 178:636 Ag 20 '53

COUNTERS (electrons, ions, etc.)
Advances in detecting and measuring of radiation energy. B. W. Thomas. il Ind & Eng Chem 46:sup85A-6A+ Ap '54
Analysis of radionuclide mixtures using a gamma-beta scintillation spectrometer. R. E. Connally and M. B. Leboeuf. bibliog diags Anal Chem 25:1095-100 Jl '53
Background and ^{14}C detection efficiency of a liquid scintillation counter. B. N. Audric and J. V. P. Long. bibliog diag J Sci Instr 30:467-9 D '53
Čerenkov counter-cloud chamber measurement of multiply-charged primary cosmic rays. J. Linsley. diag Phys R 93:899-900 F 15 '54
Commutator switch derived from binary scalers in cascade. R. Parshad and A. Sagar. diag R Sci Instr 25:395-6 Ap '54
Convenient assembly for Čerenkov counters using head-on type photomultiplier tubes. R. H. Hildebrand. diag R Sci Instr 24:463-4 Je '53
Detection of 2.5-Mev neutrons with a single-crystal scintillation counter. R. E. Segel and others. diag R Sci Instr 25:140-4 F '54
Deterioration of boron trifluoride counters due to high counting rates. R. K. Soberman and others. bibliog R Sci Instr 24: 1058-60 N '53
Diffraction instrumentation; abstract. A. R. Lang. Chem & Eng N 32:3849-50 S 27 '54
Energy resolution with proportional counters. G. S. Hurst and R. H. Ritchie. bibliog il diags R Sci Instr 24:664-8 Ag '53
Fast neutron scintillator. W. S. Emmerich. il diag R Sci Instr 25:69-70 Ja '54
Flow counter sample changer with positive outgassing. F. C. Hickey. diag Anal Chem 26:1530 S '54
Gas flow counter for scanning paper chromatograms and paper ionograms. H. L. Demorest and R. Baskin. diags Anal Chem 26:1531-2 S '54
Gray-wedge technique for pulse-height analysis. W. A. Higinbotham. il Instruments & Automation 27:1303 Ag '54
High-sensitivity fast neutron survey meter. J. S. Handloser and W. A. Higinbotham. diag R Sci Instr 25:98-9 Ja '54
Improved method for standardizing high voltage for scintillation detectors. P. W. Reinhardt and F. J. Davis. diag R Sci Instr 25:829-30 Ag '54
Intensity corrections for iodine X-rays escaping from sodium iodide scintillation crystals. P. Axel. R Sci Instr 25:391 Ap '54
Large NaI scintillation counter study of the neutron capture gamma rays from hydrogen. B. Hamermesh and R. J. Culp. Phys R 92:211 O 1 '53
Linear gate circuit for pulse-height analyzers. P. R. Chagnon. diags R Sci Instr 24: 990-1 O '53
Liquid scintillation counting of natural C^{14}. F. N. Hayes and others. bibliog Phys R 92:512-13 O 15 '53
Liquid scintillation counting of tritium and C^{14} labeled compounds. D. J. Rosenthal and H. O. Anger. bibliog R Sci Instr 25: 670-4 Jl '54
Low-level radon counting system. G. L. Bate and others. bibliog diags R Sci Instr 25: 153-7 F '54
Low-pressure counter for measurements of gaseous adsorption on solids. J. A. Dillon, jr. and H. E. Farnsworth. R Sci Instr 25: 96 Ja '54
Measurements of scintillation lifetimes. H. B. Phillips and R. K. Swank. bibliog il diag R Sci Instr 24:611-16 Ag '53

COUNTERS (electrons, ions, etc.)—*Continued*

Microscope stage and integrating point counter for micrometric analysis of rocks. I. H. Ford. il diag J Sci Instr 31:164-5 My '54

Minimal noise preamplifier for proportional counters and similar applications. K. Enslein and B. Brainerd. il diags R Sci Instr 24:916-19 O '53

Moseley's law applied to proportional counter resolution and adjacent elements. C. H. Hendee and S. Fine. Phys R 95:281-2 Jl 1 '54

Multichannel pulse-height analysis system utilizing a 35-mm film record. W. A. Hunt and others. bibliog il diags R Sci Instr 25: 268-74 Mr '54

Multichannel pulse-height and delay time recorder. W. C. G. Ortel. bibliog diags R Sci Instr 25:164-9 F '54

Multiple-wire proportional counter for fast neutron detection. C. R. Sun and J. R. Richardson. bibliog il diags R Sci Instr 25:691-4 Jl '54

Neutron scintillation counting by the $S(n,p)P^{32}$ process in ZnS(Ag) phosphors. G. R. Keepin. R Sci Instr 25:30-2 Ja '54

Nuclear reactors for industry and research; radiation measurement. E. H. Wakefield. il diags Instruments 26:1702-4+ N '53

Proportional counter spectrometer for neutrons. R. Giles. R Sci Instr 24:986-7 O '53

Radioactivity assay of water and industrial wastes with internal proportional counter. L. R. Setter, A. S. Goldin and J. S. Nader. bibliog diag Anal Chem 26:1304-6 Ag '54

Radiocarbon dating extended to 44,000 years. Chem & Eng N 32:586 F 15 '54

Radium determination by alpha counting. H. W. Kirby. bibliog Anal Chem 25:1238-41 Ag '53

Refinements in radioactive standardization by 4π beta counting. W. B. Mann and H. H. Seliger. diags J Res Nat Bur Stand 50:197-200 Ap '53

Response of the long counter. R. A. Nobles and others. R Sci Instr 25:334-5 Ap '54

Scaling unit employing multi-electrode cold cathode tubes; abstract and discussion. K. Kandiah. Elec J 152:213 Ja 15 '54

Scintillation counter for the measurement of weak β rays. J.-C. Roucayrol. diag Science 118:493 O 23 '53

Scintillation counter in the search for oil. R. W. Pringle and others. bibliog diags Min Eng 5:Trans 1255-61 D '53

Scintillation counter study of gamma rays from proton capture in sodium. R. R. Carlson and others. bibliog diags Phys R 94: 1311-16 Je 1 '54

Scintillation counter symposium, 4th, Washington, Jan. 26-27. Elec Eng 73:275-6 Mr '54

Scintillation counters. G. B. Collins. il diags Sci Am 189:36-41 N '53

Scintillation counters for continuous analysis under high pressure. H. G. Drickamer, K. D. Timmerhaus and L. H. Tung. bibliog diags Chem Eng Prog 49:503-5 S '53

Scintillation counters using liquid luminescent media for absolute standardization and radioactive assay. E. H. Belcher. bibliog diags J Sci Instr 30:286-9 Ag '53

Scintillation detector for fast neutrons. L. W. Seagondollar and others. R Sci Instr 25:689-91 Jl '54

Scintillation pair spectrometer. H. I. West, jr. and L. G. Mann. bibliog diags R Sci Instr 25:129-35 F '54

Sealed-off metal proportional counter for cosmic-ray work. J. S. Buchanan. J Sci Instr 31:136-7 Ap '54

Self-absorption correction in carbon-14 counting. E. K. Gora and F. C. Hickey. bibliog Anal Chem 26:1158-61 Jl '54

Simple pulse-amplitude analyzer. C. F. G. Delaney. R Sci Instr 24:1000 O '53

Simple repetitive timing circuit for scaling units. J. C. Jones. diag J Sci Instr 30:253-4 Jl '53

Solid angle subtended by a finite rectangular counter. F. S. Crawford, jr. diags R Sci Instr 24:552-3 Jl '53

Some errors in radiation counting. J. D. Tomlinson. J Chem Educ 31:203-5 Ap '54

Takes guess out of oil prospecting; airborne scintillometer. diag Chem & Eng N 32:142 Ja 11 '54

Temperature dependence of BF_3 proportional neutron counters. J. A. Lockwood and others. bibliog diag R Sci Instr 25:446-9 My '54

Thyratron-vacuum tube counter. R. W. Hofheimer. diags Electronics 26:198 N '53

Transmission Čerenkov counter. S. J. Lindenbaum and A. Pevsner. diags R Sci Instr 25:285-6 Mr '54

Use of proportional counters in the measurement of the specific ionization of charged particles. G. Igo and R. M. Eisberg. il diag R Sci Instr 25:450-3 My '54

See also

Coincidence counting
Geiger-Müller counters

COUNTING machines and devices

Automatic process control; counting and weighing. il diags Iron Age 172:298-301 O 8 '53

Bidirectional electronic counter for use in optical interferometry. F. H. Branin, jr. bibliog(27 ref) diags Opt Soc Am J 43:839-48 O '53

Counter improves tape recorder. R. H. Dorf. il Radio & Tv N 50:51+ S '53

Counter-stacker combines electric-pneumatic design. il diags Machine Design 25:171 N '53

Counting-timing techniques for flow control. M. G. Saake. diags Instruments & Automation 27:938-9 Je '54

Electronic counter. E. Levey. il diags Radio & Tv N 50:43-5+ S '53

Electronic devices for extremely accurate high speed counting. R. H. Müller. il Anal Chem 25:sup21A-2A+ Je '53

Hufford counter overcomes variations during stretch-wrap forming. il Am Mach 98:210 S 13 '54

Human blood cells counted accurately by tv camera used as eye of computer; Sanguinometer. il(cover) Elec Eng 73:288-9 Mr '54

Method of control of a predetermined flow rate. H. H. Reamer and B. H. Sage. bibliog il diags R Sci Instr 24:362-6 My '53

Optimum dc design of flip-flops. D. K. Ritchie. bibliog diags Inst Radio Eng Proc 41:1614-17 N '53

Polycathode counter tube applications. J. H. L. McAsulan and K. J. Brimley. bibliog il diags Electronics 26:138-41 N '53

Scanning device for determining the size distribution of spray droplet images. C. R. Adler and others. bibliog il diags Chem Eng Prog 50:14-23 Ja '54

Stain counter totals droplets. W. L. Clink. diags Electronics 27:202+ F '54

Time-base generator for control and measurement. E. Nuban. il diags Tele-Tech 12: 84-5+ O '53

COUNTRY banks. See Banks and banking—Country banks

COUNTRY clubs

Golf house for Lake Placid club. il plans diags Arch Rec 113:170, 282 Je '53

COUNTRY houses

Can an estate be practical in 1953? il Bsns W p80-3+ N 14 '53

Open or closed planning? in the country, interior flexibility gains importance. il plan Arch Rec 115:180-1 Ap '54

COUNTRY stores

Country store. G. Carson. Review, by E. E. Calkins. il Adv Agency 47:71 Je '54

Country store with big-city ideas; Wimberley Ranch House. il Sales Management 73: 118+ S 20 '54

COUNTY engineers

Directories

County engineers in Ontario. Roads & Eng Constr 92:260 Je '54

COUNTY fairs. See Fairs—Accounting

COUPLINGS

Design and application of bronze slippers in universal couplings. J. R. Lottes. il diag Iron & Steel Eng 30:123-8 D '53

Facts on modern couplings. diags Mill & Factory 54:180-1 My '54

COUPLINGS—*Continued*

Flexible coupling. il Engineer 196:822 D 18 '53

Rubber bushings in coupling permit misalignment. il diag Product Eng 24:216 S '53

Silicone putty for slip clutches and couplings. M. Adler. il diags Product Eng 24:142-3 O '53

Tri-lobe shape design for universal coupling. il Am Mach 98:163 Ag 2 '54

See also

Hose couplings

COUPONS

Benson's butter headache cues flour promotion; International milling co. il Sales Management 71:58+ D 1 '53

Curious on coupons; FTC looking into cross-coupon merchandising practices. Chem W 74:19 Je 26 '54

Does soap couponing pay? P. J. Stomberg. Soap & San Chem 30:48-51 Ap '54

Eleven questions people ask us about couponing. J. Hecht. Sales Management 71: 132+ S 1 '53

F.T.C. to investigate soap couponing. Soap & Chem Spec 30:55 Jl '54

COURLENE. See Textile fibers, Synthetic

COURTHOUSES

Air conditioning

Turbine driven compressors furnish refrigeration for air conditioning Harris county court house in Houston. I. A. Naman and J. B. Buckley. il diag Heating-Piping 26:160-2 Ja '54

Electric equipment

Old Bailey; electrical installations and plant at the Central criminal court, London. il Elec J 151:2115-17 D 25 '53

COURTS

See also

Justice, Administration of

Great Britain

Justices' clerks. Economist 169:574-5 N 21 '53

COURTS (architecture). See Patios

COVENTRY, England

Water supply

River Severn supply scheme at Coventry. il Elec J 151:1945 D 11 '53

COVENTRY cathedral. See Cathedrals

COVERS (printing)

Tracerlab dresses up reports to customers inexpensively. P. Brady. il Ind Marketing 39:65-6 Ja '54

COXSACKIE viruses. See Viruses

COYOTES

Coyote controversy; 1080 poison in predator control. Chem W 73:78+ S 12 '53

CRACKING of concrete. See Concrete—Cracks

CRACKING processes. See Distillation; Petroleum distillation

CRAM, Donald J.

Laurels to Kirkwood and Cram. por(cover) Chem & Eng N 31:4900-1 N 23 '53

CRAMER, Clifford H. 1895-

AIEE fellows elected. por Elec Eng 72:1129 D '53

CRANBERRIES

Speeding bog boat shakes cranberries to the surface. il Bsns W p32 N 28 '53

What's chicken without cranberry sauce? E. Stillman. il Sales Management 71:26-9 N 10 '53

CRANE, Evan Jay, 1889-

E. J. Crane receives award for work in chemical documentation. por Chem & Eng N 31:2586+ Je 22 '53

CRANE cabs

Air conditioning

Air conditioned crane cab; Taylor forge & pipe works. il Steel 135:120 Ag 23 '54

Air conditioning equipment for crane cabs. il Engineer 196:715-16 N 27 '53

Air conditioning; steel plant installs units in pulpits and crane cabs. Iron Age 172: 194+ S 10 '53

CRANE company

Value in valves. I. U. Cobleigh. Comm & Fin Chr 178:720 Ag 27 '53

CRANES, Floating

Big one for the AF. il Eng N 151:156+ N 19 '53

Concrete block form workhorse ballast. il Concrete 61:34+ D '53

Giant of Gothenburg; Scandinavia's largest floating crane. il Elec J 152:595 F 19 '54

Tug sunk at Pusan is raised by cranes. il Marine Eng 59:53 S '54

CRANES, derricks, etc.

Abelson self-erecting building cranes. il diag Engineering 176:648-9 N 20 '53

Auburn foundry uses mobile yard cranes for metal handling and charging. il Foundry 82:82-3 Jl '54

Austin-Western's all-hydraulic crane. H. W. Richardson. il Constr Methods 35:116+ D '53

Bicycle sprockets help small crane move freely. B. Goldrath. il Am Mach 98:158 Je 7 '54

Bigger Michigan by Clark. il Constr Methods 36:180-2 Ap '54

Bridge cranes; important handlers of industrial goods. J. E. Hyler. il Mill & Factory 54:122-5 Mr '54

Crane with cradles speeds pulpwood operation. il Paper Ind 35:1222 F '54

Derrick barges have triple functions. il Marine Eng 59:69 S '54

Derrick-hoisted forms save time and money; building of the Prudential insurance co. of America. M. J. Colarusso. il Civil Eng 24: 16-17 Ja '54

Facts about modern bridge cranes. il Mill & Factory 54:276 My '54

Facts about modern miscellaneous cranes. il Mill & Factory 54:285 My '54

Flexible connection reduces crane runway maintenance. J. A. Evans. diags Iron & Steel Eng 30:98-100 N '53

Four cranes emcee bridge girder installation. il Constr Methods 36:65 Ag '54

Four cranes hold split towers. il Constr Methods 36:176 Ap '54

Harvey Frost hydraulic floor crane. il Engineer 197:260 F 12 '54

Heavy parts production overhead equipment handles everything; Colonial Iron Works. il Steel 134:160-1 Je 21 '54

Lorry crane attachment. il Engineer 196:674 N 20 '53

Lorry-mounted tower crane. il Engineering 176:813 D 25 '53

Low height and hydraulic operation combined in new indoor-outdoor crane. il Eng N 151: 72 D 24 '53

New Lima crane. il Roads & Eng Constr 92:104 Ap '54

On the Frisco, locomotive cranes go Diesel. il Ry Age 136:18-19 Mr 29 '54; Diesel Power 32:70 My '54

Overhead travelling crane of tubular construction. il Engineering 177:411 Mr 26 '54

Re-rigged hammer pulls sheetpiles easily. il Constr Methods 36:99-100 My '54

Small tractor cranes help make stream measurements for U.S.G.S. A. H. Frazier. il Civil Eng 23:697-8 O '53

Spectacular tower raising job. il Roads & Sts 97:122 Ap '54

Ten-ton self-propelled crane. il Engineer 197: 187 Ja 29 '54

Traveling tower crane. Engineer 196:679 N 20 '53

Tripod derrick saves storage space on truck. W. E. McGowan. il Elec World 140:124+ O 5 '53

Truck crane works from 40-floor level. il Constr Methods 36:79-80 Mr '54

Truck cranes make big lifts routine. C. M. Allen. il Constr Methods 36:64+ Ja '54

Unique design for welded gantry crane. il Steel 135:131 S 20 '54

Warehousing moves overhead; Art metal construction co. il Steel 133:112-13 Jl 27 '53

See also

Derricks, Oil well

Electric equipment

Battery-operated mobile cranes. Engineer 197:185 Ja 29 '54; il Engineering 177:119 Ja 22 '54; Elec R (Lond) 154:536 Mr 19 '54

Control and drive equipment on d-c electric traveling crane bridges. D. C. McCrady. diag Iron & Steel Eng 31:55-63; Discussion. 63-6 Jl '54

CRANES, derricks, etc.—Electric equipment—*Continued*

Crane power limit switches. R. W. Graham. il diags Iron & Steel Eng 31:98-102; Discussion. 102-3 My '54

Electric drive transmission. il Elec R (Lond) 153:796-8 O 9 '53

Electric power for mobile cranes; generators and motors built on the turntable. il Elec J 151:1149 O 9 '53

Giant in Holborn. il Elec J 152:289 Ja 22 '54

Stresses in a crane jib. diags(insert) Engineer 197:196-200 F 5 '54

Walker brothers mobile Diesel-electric crane. il Engineer 196:268-9 Ag 28 '53; diag Engineering 176:395-6 S 25 '53

Lubrication

Central greasing station for electric overhead travelling cranes. L. R. Evans. il Iron & Steel Inst J 175:419-20 D '53

Maintenance and repair

Checklist inspection halts crane accidents. J. E. Sonnefield. il Factory Management 112:140-2 Ja '54

In-place-machined pivot pin saves downtime of crane. P. Cervelli diags Am Mach 98: 138 Ap 26 '54

Planned crane maintenance eliminates production breakdown. W. Rudolph. il Mill & Factory 53:132-3 D '53

Scrap yard rebuilds crane with Diesel power; Deitch scrap yard. il Iron Age 173:128-9 Ja 14 '54

Safety measures

Handle and weigh loads in one step; crane scales. A. C. Ruge. il Safety Maint & Prod 108:23+ Jl '54

Hoists and portable cranes. Nat Safety N 69: 179 Mr '54

Learning how to make a million lifts a year; crane operators. H. F. Sherman. il Mill & Factory 54:107-9 Ja '54

Safety limit stop. R. J. Harry. il diags Iron & Steel Eng 31:104-8 My '54

Traffic lights in craneway warn passers-by. il Nat Safety N 69:50 Ja '54; diag Safety Maint & Prod 107:37 Ja '54; Steel 134:76 Ja 11 '54

Use standard crane signals for safety; illustrations with text. Power Eng 58:92 My '54

CRANKCASES

Explosions

Crankcase explosions. R. O. Montenero. il diags Ry Loco & Cars 127:58-62 Ja '53; Same. Diesel Power 31:54-6+ N '53

Manufacture

Two big broaches do job of many. S. J. White. il Steel 133:106-7 O 5 '53

CRANKPINS

Automation applied to crankpin grinding machines. diag Mach 60:234 Jl '54

Transfer machine automates crankpin grinding. H. P. Chace. diags Iron Age 173:187-9 Ap 22 '54

CRANKSHAFTS

Crankshaft crisis at Center station. C. I. Huss. il diags Pet Eng 25:D3-6 Jl '53

Morco reconditions a crankshaft. il Diesel Power 32:57-60 Jl '54

Nodular cast irons; use for crankshafts. S. B. Bailey. Automobile Eng 44:187-8 My '54

Manufacture

How Britain machines big Diesel crankshafts; Mirrlees, Bickerton, & Day, ltd. il Am Mach 98:158-9 Mr 15 '54

Manufacture of crankshafts by the continuous grain flow process; abstract. G. Cleghorn and I. H. Burnell. Engineer 197:148 Ja 22 '54

Semi-automatic machine hardens variety of crankshafts; Cincinnati Flamatic crankshaft hardening machine. il Automotive Ind 111:57 Jl 1 '54

Testing

Ultrasonic testing of a large engine crankshaft; abstract. W. A. Black. Steel 133:115 Jl 6 '53

CRATER mound, Arizona. See Meteor crater, Arizona

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Meteor crater, Arizona

CRATES

Protection and handling ease are wooden box features. il Cer Ind 63:52-3+ S '54

CRAZING of plastics. See Plastic materials—Crazing

CREAMERIES

Equipment

Profit through pump-and-pipe processing; H. A. McDonald creamery. J. R. Frye. il plan Food Eng 26:76-7 Jl '54

CREAMS, Protective. See Ointments

CREASING of textiles

Analysis of resin deposit in wrinkle-proof finishing; abstract. W. Graeser. Am Dyestuff Rep 42:136 Mr 2 '53

Chemical finishing techniques; glazing and embossing, crease recovery, crease resistance, side effects improved dye fastness. A. C. Nuessle. diags Textile World 104: 105+, 218+ My '54

Crease-resist finish; abstract. H. W. Best-Gordon. Am Dyestuff Rep 43:616 S 13 '54

Effect of conditioning on crease-recovery angle. Am Dyestuff Rep 42:268-71 Ap 27 '53

Survey of the quality of crease-resist treatment on fabrics supplied to the retail trade. H. W. Best-Gordon. bibliog 2pls Soc Dyers & Col J 69:41-50 F '53

CREASY, William M. 1905-

Toxic agents are tailored weapons; Creasy to head Chemical corps. por(cover) Chem & Eng N 32:1771-2 My 3 '54

CREATININE

Reactions of aromatic nitro compounds with active methyl, methylene, methine groups in presence of base. J. J. Carr. bibliog Anal Chem 25:1859-63 D '53

CREATIVE ability

Developing and using our creative abilities. C. D. Flory. Chem Eng Prog 49:676-8 D '53

CREDIT

Appliance credit. V. F. Morris. Barron's 33: 15-16 Ag 31 '53

Are we in over our heads? Management R 42:545 S '53

Are we living beyond our means? T. H. Silbert. il Dun's R & Mod Ind 62:66-7+ N '53

Bank credit and money in 1953. Fed Res Bul 40:119-24 F '54

Banker looks at the current picture. C. A. Sienkiewicz. Comm & Fin Chr 178:1234-5+ O 1 '53

Consumer credit; how high can it go? abstract. A. H. Johnson. Management R 42: 404-5 Jl '53

Credit and monetary policy in competitive markets. W. M. Martin, jr. Fed Res Bul 40:125-9 F '54

Credit outlook. G. Champion. Comm & Fin Chr 179:449+ Ja 28 '54

Credit policy eased further. Nat City Bank p 111-13 O '53

Credits discredited. Economist 169:234 O 24 '53

Make customer's business your business. W. B. Scott. Credit & Fin Management 56:16-18 F '54

Modern credit mountain moves to Mahomet; supplier turns warehouser; Pan American petroleum and transport co. New York. G. J. Timone. Credit & Fin Management 55: 24-5 Ag '53

Outlook and condition of business (semiannual credit policy commission survey), by Federal reserve districts. Banking 46: 33-7+ F '54

Sales and credit operating in tandem, so go easy in handling the checkrein. M. V. Johnston. Credit & Fin Management 55:20-2 S '53

See also

Accounts receivable
Agricultural credit
American bankers association—Credit policy commission
Banks and banking
Billing
Collecting of accounts
Credit, Bank
Credit cards

CREDIT—See also—*Continued*
Credit unions
Debt
Discount, Cash
Federal reserve board—Credit policy
Finance companies
Instalment plan
Loans
National association of credit men
Salesmen and credit

Regulation

Regulation X suspended, but FHA and VA keep partial brakes on credit. House & Home 2:35-6 O '52

Statistics

Consumer credit, 1949-1952. Survey of Cur Bsns 1953 Sup p83-4 [supplemented in monthly numbers]
Extensions and repayments of consumer instalment credit; with tables. P. F. Smith. Fed Res Bul 40:9-22 Ja '54
Instalment credit extended and repaid, 1940-1952; unadjusted; seasonally adjusted, monthly Oct. 1952-Nov. 1953. Fed Res Bul 40:74 Ja '54 [cont monthly]
Instalment credit held by sales finance companies; by commercial banks; by financial institutions other than commercial banks and sales finance companies; by type of credit, yearly 1939-1952, monthly Oct. 1952-Nov. 1953; furniture store statistics and ratio of collections to accounts receivable, Oct. 1952-Nov. 1953. Fed Res Bul 40:73-4 Ja '54 [cont monthly]
Statistics on short- and intermediate-term consumer credit; consumer credit, by major parts; instalment credit, by holder; noninstalment credit, by holder, yearly 1939-1953, Oct. 1952-Nov. 1953. Fed Res Bul 40:72-3 Ja '54 [cont monthly]

Study and teaching

Graduate schools of N.A.C.M. equip new task forces of men of action. Credit & Fin Management 55:35-6 N '53

Canada

Jump in consumer credit worries Canadian bankers. J. Montagnes. Barron's 33:16 D 21 '53

Great Britain

Extended credits for exports? Economist 169:761-2 D 5 '53
Pay as you wear. Economist 168:764-6, 836-7 S 19-26 '53

Latin America

Brazilian draft debts fall to 25-month low; other countries' debts rise. For Comm W 50:5 D 14 '53
Brazilian draft debts hit three-year low; other Latin American countries. For Comm W 51:4 F 8 '54
Brazil's outstanding drafts $69.8 million; export credit in other Latin American countries. For Comm W 51:6 Ja 18 '54

CREDIT, Agricultural. See Agricultural credit

CREDIT, Bank
Banker looks at the contracting business. E. McElvaney. il World Oil 137:140-2+ N '53
Banker looks at the current picture. C. A. Sienkiewicz. Comm & Fin Chr 178:1234-5+ O 1 '53
Bendixplan of dealer financing goes to the banks. H. F. B. Kerr. Burroughs Clearing House 37:10-11 Ag '53
Borrowing trends of finance companies. G. A. Bigley. Burroughs Clearing House 38:8-10 Ja '54
Credit expansion slackens. Economist 168:654+ S 5 '53
Loan officer's views on extending credit today. T. W. Johnson. Comm & Fin Chr 178:2046 N 26 '53
News for instalment credit men. Banking 46:86-7 Ja '54 [cont monthly]
News for mortgage credit men. Banking 46:90-1 Ja '54 [cont monthly]
See also
Agricultural credit
Federal reserve board—Credit policy
Loans, Bank

CREDIT, Foreign
Danish export credit guaranties defined. For Comm W 50:8 N 9 '53
Four month bills again. Economist 168:404-5 Ag 8 '53
Loosening cash credits. Economist 168:405 Ag 8 '53
$60 million credit for U.S. cotton purchase now to go into operation. For Comm W 51:20 Ja 4 '54
West Germany seeks to improve export credit. For Comm W 50:5 Ag 24 '53

CREDIT and salesmen. See Salesmen and credit

CREDIT associations
See also
American petroleum credit association
National association of credit men

CREDIT cards
Credit cards; living on the cuff; charge craze has resulted in development of many credit clubs. E. C. Kellogg. Iron Age 173:39-40 Ja 21 '54
See also
National credit card, inc.

CREDIT clubs. See Credit cards

CREDIT departments
Credit as right arm of sales, not as millstone, is responsibility of treasurer. E. F. Neubecker. Credit & Fin Management 55:17-18 N '53
See also
Salesmen and credit

Records

Simple code on cash payment postings suggested for ledger account analysis. J. M. Brandvein. Credit & Fin Management 55:18 D '53
Which? open invoice or ledger sheets; symposium. E. L. Porter and others. Credit & Fin Management 55:8-11+ Je '53; Discussion. F. W. Zander. 55:40 S '53

CREDIT insurance. See Insurance, Credit; Insurance, Export credit

CREDIT managers
Business builder. E. W. Lane. Credit & Fin Management 56:20 F '54
Business consultant with a sixth sense. M. J. Davis. Credit & Fin Management 55:35 S '53
Business outlook and the coming test of management. W. W. Townsend. Comm & Fin Chr 178:1421+ O 15 '53
Credit research foundation, Credit management workshop fall meeting, Harriman, N.Y. Credit & Fin Management 55:39 D '53
Develop marginal risk; what top management expects from credit management; symposium. Credit & Fin Management 56:8-11+ F '54
Problem for the book and how it was solved. J. B. Lodge. Credit & Fin Management 56:16-17 Ja '54 [cont monthly]
Seminar, shortcut to experience; special seminar of the Credit managers association of northern and central California. Credit & Fin Management 55:26-7 S '53
Spadework for credit decisions. W. R. Lenga. Credit & Fin Management 55:20-1 Ag '53
Tax supervisor runs tax course for credit men to help them appraise customers' tax situations. C. H. Gebhardt. J Account 95:745-6 Je '53
Today's recipe for management that manages; brains and a will to work. H. J. Delaney. Credit & Fin Management 56:14-15+ Ja '54

CREDIT men, National association of. See National association of credit men

CREDIT records. See Credit departments—Records

CREDIT unions
Credit union indemnity. F. C. Fiechter, jr. Burroughs Clearing House 38:69-70 Ja '54
Operations of credit unions in 1951. Mo Labor R 76:155-8 F '53

Regulation

Regulations T and U interpretation; assistance by Federal credit union to its members. Fed Res Bul 39:835-6 Ag '53

CREEDON, Frank R.

New defense post; Assistant secretary of defense for properties and installations. por Eng N 151:23 Jl 9 '53

CREEP of materials

Creep of wool fibres in water. M. Feughelman. Textile Inst J Trans 45:T630-41 Ag '54

Creep relaxation relations for styrene and acrylic plastics. J. Marin and Y. H. Pao. bibliog il diag Am Soc T M Proc 51:1277-93; Discussion. 1294-5 '51

Creep tests in inert atmospheres. A. J. Fenner and G. Willoughby. il diags J Sci Instr 30:406-7 N '53

Design of extensometer for creep studies. B. R. Gossick. il diags R Sci Instr 25:907-9 S '54

Generalized creep curves for nylon. E. Catsiff and others. bibliog diag Textile Res J 23:808-20 N '53

Spring-loaded constant stress device. A. J. Kennedy. diag J Sci Instr 31:28 Ja '54

Strain gauge bridge for creep tests. L. N. Clarke. diags J Sci Instr 31:300-1 Ag '54

CREEP of metals

Creep and fracture of metals at high temperatures; symposium. bibliog il Metallurgia 50:81-6 Ag '54

Creep behavior of extruded electrolytic magnesium. C. S. Roberts. bibliog il J Metals 5:Trans 1121-6 S '53; Discussion. 6: Trans 690-3 sec 2 My '54

Creep behavior of magnesium-cerium alloys. C. S. Roberts. bibliog il J Metals 6:Trans 634-40 sec 2 My '54

Creep characteristics of phosphorized copper (0.019) per cent P) at 300, 400, and 500 F. A. I. Blank and H. L. Burghoff. Am Soc T M Proc 51:981-93; Discussion. 993-5 '51

Creep correlations of metals at elevated temperatures. O. D. Sherby and others. bibliog J Metals 6:Trans 71-80 Ja '54

Creep of zinc single crystals under direct shear. E. H. Weinberg. bibliog diag J Ap Phys 24:734-44 Je '53

Creep properties of 99·8 per cent purity aluminium at 20-80°C. and at 250 and 450°C. J. McKeown and others. il Metallurgia 50:13-16 Jl '54

Creep properties of some forged and cast aluminum alloys. O. D. Sherby and others. diag Am Soc T M Proc 51:964-76; Discussion. 977-80 '51

Creep properties of steels utilized in high pressure and high-temperature superheater and steam pipe practice; revision of long-time creep data for a carbon steel header and a carbon-molybdenum steel pipe. R. W. Ridley. Inst Mech Eng Proc (B) 1B no 11:511-15; Discussion. 515-16 '52-53

Creep properties of two tempers of 63S extruded aluminum alloy. O. D. Sherby and J. E. Dorn. bibliog diag Am Soc T M Proc 51:945-53; Discussion. 977-80 '51

Creep properties of zirconium; abstract. M. J. Manjoine and W. L. Mudge, jr. Materials & Methods 40:162+ Ag '54

Creep-rupture characteristics of Al-Mg solid-solution alloys. A. W. Mullendore and N. J. Grant. bibliog il J Metals 6:Trans 973-9 S '54

Creep-rupture of several sheet steels. G. V. Smith and others. bibliog il diags Am Soc T M Proc 51:857-68 '51

Creep rupture properties and structural changes in carbon and low alloy steels; graphitization problem. A. B. Wilder and others. bibliog il J Metals 6:Trans 764-72 Je '54

Critical examination of procedures used in Britain and the United States to determine creep stresses for the design of power plant for long life at high temperatures; abstract and discussion. R. W. Bailey. Engineer 196:768-9+ D 11 '53

Design of constant stress cantilevers. A. J. Kennedy. il diags J Sci Instr 30:371-4 O '53

Design of creep-resisting steels. E. W. Colbeck and others. bibliog il Engineering 176:505-6, 537-40 O 16-23 '53; Abstract and discussion. Engineer 196:470 O 9 '53

Effect of annealing on the creep properties of 2S-O aluminum alloy. O. D. Sherby and J. E. Dorn. Am Soc T M Proc 51:954-63; Discussion. 977-80 '51

Effect of stress on the creep rates of polycrystalline aluminum alloys under constant structure. O. D. Sherby and others. bibliog J Metals 6:Trans 275-9 sec 2 F '54

Electromotive force developed by a creeping zinc crystal. F. D. Coffin and S. L. Simon. J Ap Phys 24:1333-4 O '53

Equipment for compression-creep tests at high temperatures. A. E. Johnson and N. E. Frost. diags Engineering 176:28-9 Jl 3 '53; Abstract. Metal Prog 64:124+ D '53

Functions of alloying elements in the creep resistance of alpha solid solutions of aluminum. A. T. Robinson and others. bibliog Am Soc for Metals Trans 44:896-928 '52

Grain boundary shearing during creep. B. Fazan and others. bibliog il J Metals 6: Trans919-22 Ag '54

Heat technology; metals for extreme temperatures. M. M. Hoover. bibliog Chem Eng 60: 212-15 Je '53

Influence of extended time on creep and rupture strength of 16-25-6 alloy. C. L. Clark and others. il Am Soc for Metals Trans 44:89-108; Discussion. 108-12 '52

Inhomogeneity in creep deformation of coarse grained high purity aluminum. H. C. Chang and N. J. Grant. bibliog il J Metals 5:Trans 1175-80 sec 2 S '53

Kink band formation in high purity aluminum during creep at high temperatures. A. M. Gervais and others. bibliog il diags J Metals 5:Trans 1487-92 sec 2 N '53

Prediction of relaxation of metals from creep data. I. Roberts. bibliog diags Am Soc T M Proc 51:811-25; Discussion. 826-31 '51

Properties of sand cast Mg-Th-Zn-Zr alloys. K. E. Nelson. bibliog il J Metals 5:Trans 1493-7 sec 2 N '53

Relation between initial creep rate and resolved shear stress in zinc single crystals. N. Brown and others. J Metals 5:Trans 1229-30 sec 2 S '53

Studies on the creep recovery and annealing of zinc single crystals. M. Tanenbaum and W. Kauzmann. bibliog J Ap Phys 25:451-8 Ap '54

Study of effects of variables on the creep resistance of steels. H. C. Cross and J. A. VanEcho. bibliog il Am Soc T M Proc 51:223-9 '51

Subgrain formation in high-purity aluminum during creep at high temperatures. A. M. Gervais and others. bibliog(34 titles) il diags J Metals 5:Trans 1166-74 sec 2 S '53; Discussion. 6:Trans 689-90 sec 2 My '54

Surface effects and the creep of zinc single crystals. F. D. Coffin and A. L. Weiman. J Ap Phys 24:282-9 Mr '53

Theory of complex stress creep. A. E. Johnson and N. E. Frost. Engineer 196:632-3 N 13 '53

CREOSOTE

Solvent extraction for characterising tar creosotes and petroleum derivatives. R. E. Heiks and others. Chem Age (Lond) 71:85-8 Jl 10 '54

CREPE

How to weave crepes with one per cent seconds. R. B. Pressley. il Textile World 103:120-2 D '53

CREPE paper

Crepe paper and creping machines. H. C. Baker. Paper Tr J 137:238-9 N 13 '53

CREPING machines

Crepe paper and creping machines. H. C. Baker. Paper Tr J 137:238-9 N 13 '53

CRESOL

Cresol separation by fractional solvent extraction; countercurrent contacting apparatus. E. L. Compere and A. Ryland. bibliog il Ind & Eng Chem 45:1682-6 Ag '53

Cresylics' ebb and flow. Chem W 74:55-6 Mr 6 '54

Separation and determination of mixtures of chlorinated *o*-cresols. F. Freeman, K. Gardner and D. W. Pound. bibliog J Ap Chem 3:160-4 Ap '53

Stability of 2,6-di-tertiary-butyl-paracresol inhibited transformer oil in an arc. H. N. Hazelwood and others. bibliog Electrochem Soc J 101:185-8 Ap '54

CRESOL—*Continued*

Analysis

Determination of *o*-cresol, 4-chloro-2-methylphenol and 2-methylphenoxyacetic acid by quantitative bromination. A. Aichenegg and H. G. Haynes. bibliog J Ap Chem 4:137-40 Mr '54

Ultraviolet analysis of isomeric cresol mixtures. G. E. Carney and J. K. Sanford. bibliog Anal Chem 25:1417-18 S '53

CRESYLIC acid. See Cresol

CRICKETS

South hot for cricket brooding. il Elec World 139:156 Je 15 '53

CRIME and criminals

Boom in the underworld. Bsns W p99-100+ Ag 15 '53

How property owners may protect themselves against burglary, theft; crime situation in New York city. H. S. Daynard. East Underw 55:30 Ap 23 '54; Same. Weekly Underw 170:1114-15 My 1 '54

Property loss crime; New York buyers panel discussion. East Underw 55:31+ Ap 30 '54

See also

Capital punishment
Crime clinic, inc.
Embezzlement
Fraud
Juvenile delinquency
Lie detectors
Newspapers—Crime investigation
Police
Television—Police applications
Theft

Great Britain

Crime and the police. Economist 169:16+ O 3 '53

CRIME clinic, inc.

Anti-crime club; Cleveland's novel luncheon club of plant and store protection men. Bsns W p 126-7 D 5 '53

CRIMINAL law

See also

Capital punishment
Justice, Administration of

CRIMPING of textiles

Crimping of wool fibers. M. Horio and T. Kondo. bibliog il diag Textile Res J 23:373-86 Je '53; Discussion. 23:387; 24:58 Je '53, Ja '54

Effect of crimp on mechanical properties of wet wool. R. A. O'Connell and A. S. Yeiser. bibliog Textile Res J 24:629-32 Jl '54

New acetate develops wool-like crimp. il Mod Textiles Mag 35:30-1 Ag '54

CRITICAL constants

Additive function of critical constants. S. S. Mitra. J Chem Phys 21:2234 D '53

Correlation of critical temperatures with thermal expansion coefficients of organic liquids. W. T. Smith, jr., S. Greenbaum and G. P. Rutledge. J Phys Chem 58:443-7 My '54

Critical phenomena in the cyclohexane-aniline system. D. Atack and O. K. Rice. bibliog J Chem Phys 22:382-5 Mr '54

Critical temperature and boiling point of normal paraffins. S. S. Mitra. J Chem Phys 22:156 Ja '54

Critical temperature and boiling point of normal paraffins. Y. P. Varshni. bibliog J Chem Phys 21:2235 D '53

Critical temperature and pressure of *n*-paraffins. L. Grunberg. J Chem Phys 22:157 Ja '54

Critical temperatures of normal paraffins. Y. P. Varshni and S. N. Srivastava. J Chem Phys 22:349 F '54

Determination of the critical constants of liquid explosives. D. T. Lewis. bibliog(30 ref) J Ap Chem 3:154-60 Ap '53

Gravitational effects in PVT measurements in the critical region. W. G. Schneider and H. W. Habgood. bibliog J Chem Phys 21:2080-2 N '53

Relation between critical temperature and pressure of normal paraffins. Y. P. Varshni. J Chem Phys 21:1400 Ag '53; Correction. 22:150 Ja '54

CRITICAL materials. See Strategic materials

CRITICAL point

Equation of state and the energy of quantum-liquids at the critical point. J. van Dranen. J Chem Phys 21:2095-6 N '53

CRITICAL temperatures. See Critical constants

CRITTALL manufacturing company, limited

Statement by the chairman. Lord Braintree. Economist 169:854 D 12 '53

CROMPTON, William J.

Sketch. Ed & Pub 86:112 Ap 25 '53

CROMPTON Parkinson, limited

Statement by the chairman. A. Parkinson. Economist 169:853 D 12 '53

CRONSTEDT, Axel Fredrik, 1722-1765

Axel Frederik Cronstedt. V. Bartow. bibliog J Chem Educ 30:247-52 My '53

CROP insurance. See Insurance, Agricultural

CROP insurance corporation, Federal. See Federal crop insurance corporation

CROP protection

Crop protection as a health hazard. J. M. Barnes. Chem & Ind p625-7 Je 27 '53

True to life; course by Pest control, ltd. for Colombo Plan candidates. il Chem W 73:15 O 24 '53

CROPPER and company, limited

Statement by the chairman. F. W. J. Smith. Economist 168:670-1 S 5 '53

CROPS

See also

Corn
Cotton
Drying (crops)
Grain
Rice
Soybeans
Wheat

CROSS connections. See Water distribution—Cross connections

CROSS ties. See Railroad ties

CROTALARIA

Usaramoensine, the alkaloid in crotalaria usaramoensis E. G. Baker; integerrimine from crotalaria incana Linn and senecionine from senecio glabellus D.C.; stereochemical relationships. R. Adams and B. L. Van Duuren. bibliog Am Chem Soc J 75:4631-5 O 5 '53

CROTONIC acid

Kinetic study of the addition of bromine to crotonic acid in ethylene chloride. R. E. Buckles and J. P. Yuk. bibliog Am Chem Soc J 75:5048-52 O 20 '53

Kinetics of chlorohydrin formation; the reaction between hypochlorous acid and crotonic acid in buffered solutions at 25° and 35°. D. A. Craw. Chem Soc J p2510-14 Jl '54

CROTONYL compounds

Preparation and properties of some compounds containing the 4,4,4-trifluorocrotyl group. E. T. McBee, O. R. Pierce and D. D. Smith. bibliog Am Chem Soc J 76:3725-8 Jl 20 '54

CROWTHER, Edward Mortimer, 1897-1954

Sketch. por Chem & Ind p722-3 Je 19 '54

CRUCIBLE steel company of America

Crucible's year-end report shows production and sales records. Blast F & Steel Pl 42:sup79 Ap '54

CRUCIBLES

Crucible heat control. J. H. Siau. il diag Electronics 27:149 F '54

Manufacture

Trepan bottoming holes in one operation. R. W. Holmes. il diags Am Mach 98:120-1 Ag 16 '54

CRUSHED stone. See Stone, Crushed

CRUSHING

Crushing tests of sand. Am Soc T M Proc 51:349-58 '51

Differential grinding in cyclone shown by screen tests. S. E. Erickson. diag Eng & Min J 155:95+ Ja '54

High density grinding cuts milling time, increases lining life. J. B. Vernetti. Cer Ind 62:70+ Mr '54

Physical explanation of the empirical laws of comminution. D. R. Walker and M. C. Shaw. bibliog il diags Min Eng 6:Trans 313-20 Mr '54

What is the proper speed for dry pans? J. Seanor. Brick & Clay Rec 124:55+ F '54

See also

Ball mills

CRUSHING machinery

Control and segregation in dry grinding. D. B. Hendryx. il Brick & Clay Rec 124:45-6+ Ja '54

CRUSHING machinery—*Continued*

Crushing plant set-up for many sizes; St Paul quarries, inc. W. B. Lenhart. flow sheet il Rock Prod 56:105-6 O '53

Design development of crushing cavities. H. M. Zoerb. diags Rock Prod 56:120+ O '53

From portable to stationary operation; Ray Cook construction co. R. C. Giddings. il Rock Prod 57:102+ F '54

Impact crushers for both primary and secondary crushing; Bradford hills quarry, inc. W. B. Lenhart. flow sheet il Rock Prod 57:81-2 F '54

New light on grinding, crushing. il Dun's R & Mod Ind 62:122-3 Ag '53

New portable crushing plant boasts high production rate. il Eng N 151:77 N 26 '53

Performance of jaw crushers. K. Gauldie. diags Engineering 176:456-8, 485-6 O 9-16 '53

Rod mill brings sand production into balance; Dixie sand and gravel corp. B. Nordberg. il Rock Prod 56:101-4+ O '53

Two-stage crushing with hammermills; Southern crushed stone co. W. B. Lenhart. il Rock Prod 57:68-9+ S '54

Which is the more efficient rock breaker? F. C. Bond. il Eng & Min J 155:82 Ja '54

See also

Ball mills
Pulverizers
Tube mills
Wood grinders

CRUSTACEA

Preliminary observations on intraspecific variation of the levels of total protein in the sera of some decapod crustacea. C. A. Leone. bibliog Science 118:295-6 S 11 '53

See also

Branchiopods
Daphnia

CRUSTACEA, Fossil

See also

Trilobites

CRYOGENIC laboratories

Government erects $3,500,000 low temperature laboratory; NBS-AEC cryogenic engineering laboratory. flow diag il Refrig Eng 61:1082-4+ O '53; Same. Comp Air Mag 58:340-3 D '53; Excerpts. Mech Eng 76:37-8 Ja '54; Steel 133:134+ N 2 '53

Now, cryogen, hydrogen; new laboratory at Boulder, Colo. il Chem Eng 60:134+ N '53

Simple equipment and techniques for a small cryogenics laboratory. N. S. Rasor. il diags R Sci Instr 25:311-18 Ap '54

CRYOLITE

Electrical conductivity and density of molten cryolite with additives. J. D. Edwards and others. bibliog il Electrochem Soc J 100:508-12 N '53

CRYOSCOPY. See Freezing points

CRYOSTATS

Apparatus for low temperature calorimetry. R. W. Hill. bibliog diags J Sci Instr 30:331-4 S '53

Cryostat. E. P. Hall and W. L. Nelson. diag Anal Chem 26:1393 Ag '54

Cryostat for adsorption experiments. J. A. Morrison and D. M. Young. bibliog diag R Sci Instr 25:518-19 My '54

Cryostat for magnetic susceptibility measurements at low temperatures. A. L. Smith and H. L. Johnston. bibliog diags R Sci Instr 24:420-3 Je '53

Efficient cryostat for producing temperatures between 4° and 80°K; production of liquid hydrogen targets using liquid helium. C. A. Swenson and R. H. Stahl. bibliog flow chart diags R Sci Instr 25:608-11 Je '54

Linde helium liquefier-cryostat combination suitable for operation down to 1·3°K. D. H. Parkinson. diags J Sci Instr 31:178-80 My '54

Low temperature adaptor for the Norelco high angle spectrometer. B. A. Calhoun and S. C. Abrahams. R Sci Instr 24:397 My '53

CRYOVAC containers

Chicken in a bag; polyvinylidene chloride packaging. il Chem W 74:52 F 27 '54

CRYPTOCOCCUS neoformans. See Fungi, Pathogenic

CRYSTAL diode

Charge storage in junction diodes. E. L. Steele. diag J Ap Phys 25:916-18 Jl '54

Diode theory in the light of hole injection. J. A. Swanson. bibliog diags J Ap Phys 25:314-23 Mr '54

Drilling unit speeds diode assembly; Radio receptor co. il Mach 60:197 Mr '54

Germanium diodes from spherical pellets. W. C. Dunlap, jr. il diags J Ap Phys 25:448-51 Ap '54

Outsized potential; Westinghouse's germanium rectifier and Bell's silicon diode. il Chem W 74:98 Mr 20 '54

Recovery currents in germanium *p—n* junction diodes. R. G. Shulman and M. E. McMahon. il diags J Ap Phys 24:1267-72 O '53

Selenium diode applications. J. T. Cataldo. il diags Radio & Tv N 50:64-5+ S '53

Semiconductor diode gates. L. W. Hussey. diags Bell System Tech J 32:1137-54 S '53

Theory of the flicker effect. T. B. Tomlinson and W. L. Price. bibliog J Ap Phys 24:1063-5 Ag '53

CRYSTAL oscillators. See Oscillators, Crystal

CRYSTAL triode. See Transistors

CRYSTAL violet

3 : 6-Disubstituted fluorenes; fluorene analogues of Michler's hydrol, malachite-green, and crystal-violet. A. Barker and C. C. Barker. Chem Soc J p 1307-9 Ap '54

CRYSTALLINITY of cellulose. See Cellulose

CRYSTALLITES

Determination of microcrystallite size by the small-angle X-ray technique in rayons. A. N. J. Heyn. bibliog il Textile Res J 23:782-7 N '53

CRYSTALLIZATION

Activation energy for recrystallization in rolled silver. K. K. Tangri and D. S. Eppelsheimer. bibliog Mo U Sch Mines & Met Bul tech ser 83:1-18 '54

Apparatus for preparing sodium chloride crystals having large specific surface. D. M. Young and J. A. Morrison. diags J Sci Instr 31:90-2 Mr '54

Chemical engineering unit operations; crystallization. C. S. Grove, jr., H. M. Schoen and J. A. Palermo. bibliog(82 ref) il Ind & Eng Chem 46:75-8 Ja '54

Critical-strain effects in cold-worked wrought aluminium and its alloys; abstract. W. M. Williams and R. Eborall. Metal Prog 65:130+ Mr; 156+ Ap '54

Crystal growth by the tip fusion method. P. H. Keck and others. il diag R Sci Instr 25:298-9 Mr '54

Crystal nucleation from supersaturated aqueous solution; tetraphenylarsonium perchlorate and nickel nioxime. F. R. Duke and L. M. Brown. bibliog Am Chem Soc J 76:1443-6 Mr 5 '54

Crystallization in butadiene-styrene copolymers. L. A. Wood. bibliog J Ap Phys 25:851-4 Jl '54

Crystallization kinetics in high polymers; bulk polymers. L. Mandelkern and others. bibliog(39 ref) J Ap Phys 25:830-9 Jl '54

Crystallization phenomena in fibre-forming polymers. L. B. Morgan. bibliog(27 ref) il diags J Ap Chem 4:160-72 Ap '54

Differential thermal analysis of titania-opacified enamels. F. D. Olympia. bibliog Am Cer Soc Bul 32:412-14 D 15 '53

Distribution of solute in crystals grown from the melt; experimental. J. A. Burton and others. bibliog il diag J Chem Phys 21:1991-6 N '53

Distribution of solute in crystals grown from the melt; theoretical. J. A. Burton and others. bibliog J Chem Phys 21:1987-91 N '53

Effect of spherulites on physical properties of fluorothene. F. P. Reding and A. Brown. bibliog il diags Ind & Eng Chem 46:1962-7 S '54

Electron diffraction study of the structures of antimony electrodeposited on antimony cleavage face. Ling Yang. il diags J Ap Phys 25:184-8 F '54

Floating zone recrystallization of silicon. P. H. Keck and others. il diags R Sci Instr 25:331-4 Ap '54

Hydrothermal growth of quartz crystals. A. C. Walker. bibliog il diag Ind & Eng Chem 46:1670-6 Ag '54

CRYSTALLIZATION—*Continued*

Hydrothermal synthesis of large aluminum phosphate crystals. J. M. Stanley. il Ind & Eng Chem 46:1684-9 Ag '54

Improved recrystallization tube. C. E. Blades and W. Schöniger. diag Anal Chem 26:1256 Jl '54

Improves fractional crystallization; patent. diag Chem Eng 61:260 F '54

Infrared study of the crystallization of polyethylene. F. P. Reding and A. Brown. bibliog J Ap Phys 25:848-50 Jl '54

Mechanism for the origin of recrystallization nuclei. J. P. Nielsen. bibliog il diags J Metals 6:Trans 1084-8 sec 2 S '54

Molecular structure and the crystallinity of long-chain polymers. C. W. Bunn. bibliog J Ap Phys 25:820-5 Jl '54

Opacifying crystalline phases present in zirconium-type glazes. C. W. F. Jacobs. bibliog Am Cer Soc J 37:216-20 My 1 '54

Orientation relationships in the recrystallization of deformed copper single crystals. J. J. Becker and J. N. Hobstetter. bibliog il J Metals 5:Trans 1235-8 sec 2 S '53

p-Xylene recovered by crystallization; patent. diag Chem Eng 61:270 Ja '54

Primary and secondary recrystallization in cold rolled bicrystals of silicon iron. C. G. Dunn. bibliog il J Metals 6:Trans 549-50 My '54

Production of oriented single-crystal silicon iron sheet. C. G. Dunn and G. C. Nonken. il diags Metal Prog 64:71-5 D '53

Recrystallization and grain growth of nickel. G. W. Wensch and H. L. Walker. bibliog Am Soc for Metals Trans 44:1186-99 '52

Recrystallization and stored energy. H. P. Leighly and others. bibliog J Metals 5: Trans 809-12 Je '53

Recrystallization of barium sulfate from fused salts. M. Gallant, G. J. Schmitt and J. Steigman. bibliog Anal Chem 26:846-9 My '54

Recrystallization of germanium from indium solution. J. I. Pankove. il diags RCA R 15: 75-85 Mr '54

Shapes of floating liquid zones between solid rods. P. H. Keck and others. diags J Ap Phys 24:1479-81 D '53

Simple scintillation crystal growing technique. W. A. Little. diag J Sci Instr 30:253 Jl '53

Studies on formation and recrystallization of intermediate reaction products in the system magnesia-silica-water. G. L. Kalousek and D. Mui. Am Cer Soc J 37:38-41 F 1 '54

Study in the mechanics of crystal growth from a supersaturated solution. G. C. Krueger and C. W. Miller. il diags J Chem Phys 21:2018-23 N '53

Vapor phase crystal growth of lead sulfide crystals. F. Pizzarello. J Ap Phys 25:804-5 Je '54

CRYSTALLOGRAPHY

Annealing of bombardment damage in a diamond-type lattice; theoretical. R. C. Fletcher and W. L. Brown. diags Phys R 92:585-90 N 1 '53

Bound states in dislocations. R. Landauer. Phys R 94:1386-8 Je 1 '54

Chemistry of the platinum metals; lattice constants of some chloropalladates, bromopalladates, and bromoplatinates. A. G. Sharpe. Chem Soc J p4177-9 D '53

Continuously recording electron diffraction camera for studies of crystal structure transitions. A. Boettcher and others. il diag J Ap Phys 25:926-7 Jl '54

Crystal and molecular structure of tetraborane. C. E. Nordman and W. N. Lipscomb. bibliog J Chem Phys 21:1856-64 O '53

Crystal chemistry in ceramics. N. C. Rockwood. Rock Prod 56:69+ O '53

Crystal class of Na_2SO_4III. D. R. Dasgupta. J Chem Phys 21:2097 N '53

Crystal data; classification of substances by space groups and their identification from cell dimensions. J. D. H. Donnay and others. (Memoir 60) 719p Geological soc. of America, 419 W. 117th st, New York 27 '54 ($5)

Crystal structure and nuclear directional correlation; Pb^{204}. H. Frauenfelder and others. Phys R 92:513-14 O 15 '53

Crystal structure and thermodynamic studies on the zirconium-hydrogen alloys. E. A. Gulbransen and K. F. Andrew. bibliog Electrochem Soc J 101:474-80 S '54

Crystal structure of di-*m*-xylylene. C. J. Brown. diags Chem Soc J p3278-85 O '53

Crystal structure of potassium perruthenate, $KRuO_4$. M. D. Silverman and H. A. Levy. bibliog Am Chem Soc J 76:3317-19 Je 20 '54

Crystal structure of samarium metal and of samarium monoxide. F. H. Ellinger and W. H. Zachariasen. Am Chem Soc J 75: 5650-2 N 20 '53

Crystal structure of selenium dithiocyanate. S. M. Ohlberg and P. A. Vaughan. bibliog diags Am Chem Soc J 76:2649-51 My 20 '54

Crystal structure of the acid salts of some monobasic acids; potassium hydrogen dibenzoate. J. M. Skinner, G. M. D. Stewart and J. C. Speakman. Chem Soc J p 180-4 Ja '54

Crystal structure of the normal paraffin hydrocarbons. A. E. Smith. bibliog diags J Chem Phys 21:2229-31 D '53

Crystal structures of rare earth oxychlorides. D. H. Templeton and C. H. Dauben. Am Chem Soc J 75:6069-70 D 5 '53

Crystal structures of the acid salts of some monobasic acids; ammonium hydrogen disalicylate hydrate. T. C. Downie and J. C. Speakman. Chem Soc J p787-93 Mr '54

Crystalline forms of galactose. M. L. Wolfrom, M. Schlamowitz and A. Thompson. Am Chem Soc J 76:1198-9 F 20 '54

Crystallographic analysis of the ductile-brittle transition in body-centered cubic single crystals. A. J. Opinsky. J Metals 5:Trans 1650-1 D '53

Crystallographic angles for hexagonal metals. A. Taylor and S. Leber. J Metals 6:Trans 190-2 sec 2 F '54

Crystallographic angles for orthorhombic (alpha) uranium. R. B. Russell. J Metals 5:Trans 1190 sec 2 S '53

Crystallographic data. Published in monthly numbers of Analytical chemistry

Crystallographic variations of field emission from tungsten. M. K. Wilkinson. bibliog il diag J Ap Phys 24:1203-9 S '53

Diffraction instrumentation; abstract. A. R. Lang. Chem & Eng N 32:3849-50 S 27 '54

Diffusionless phase change in the indium-thallium system. M. W. Burkart and T. A. Read. bibliog il diags J Metals 5:Trans 1516-24 sec 2 N '53

Dislocations in plastically deformed germanium. G. L. Pearson and others. il Phys R 93:666-7 F 15 '54

Distortion of a crystal by point imperfections. J. D. Eshelby. bibliog J Ap Phys 25: 255-61 F '54

Dynamics of the graphite lattice. H. B. Rosenstock. bibliog J Chem Phys 21:2064-9 N '53

Formation of powder and its dependence on crystal face during the catalytic reaction of hydrogen and oxygen on a single crystal of copper. J. B. Wagner, jr. and A. T. Gwathmey. bibliog 2pls Am Chem Soc J 76:390-1 Ja 20 '54

Formation, stability and crystal structure of solid silicon monoxide. M. Hoch and H. L. Johnston. bibliog il Am Chem Soc J 75: 5224-5 N 5 '53

Graphical method of evaluating trigonometric functions used in crystal structure analysis. H. J. Grenville-Wells. J Ap Phys 25:485-90 Ap '54

Lattice dynamics of body-centered and face-centered cubic metallic elements. J. de Launay. bibliog J Chem Phys 21:1975-86 N '53

lin-Poly-*p*-xylylene; the crystal structure of di-*p*-xylylene. C. J. Brown. diags Chem Soc J p3265-70 O '53

Locations and sizes of interstitial holes in the alpha-uranium lattice. A. J. Opinsky. il J Metals 6:Trans913-14 Ag '54

Optical and crystallographic properties of D-fructose hemihydrate. F. T. Jones, F. E. Young and D. R. Black. bibliog il Anal Chem 25:649 Ap '53

CRYSTALLOGRAPHY—*Continued*
Optical and crystallographic properties of sucrose hemiheptahydrate. F. T. Jones and F. E. Young. il Anal Chem 26:421 F '54
Oxide film on nickel-chromium alloys; crystal structure studies. E. A. Gulbransen and W. R. McMillan. bibliog(30 ref) il diags Ind & Eng Chem 45:1734-44 Ag '53
Periodic impurities in a periodic lattice. E. H. Kerner. diag Phys R 95:687-9 Ag 1 '54
Polymorphism of sodium superoxide. G. F. Carter and D. H. Templeton. bibliog diag Am Chem Soc J 75:5247-9 N 5 '53
Possible macroscopic effects of single lattice defects. J. Rothstein. bibliog Phys R 95:370-1 Jl 15 '54
Single crystal extensometer. A. J. Kennedy. bibliog diags R Sci Instr 24:505-7 Jl '53
Single mounting for all three axes. W. E. Love and D. Sayre. diag R Sci Instr 25:830-1 Ag '54
Some intramolecular compounds; abstract. H. M. Powell. Chem & Ind p40-1 Ja 9 '54
Structure of Gd, Dy, and Er at low temperatures. J. R. Banister and others. bibliog Phys R 94:1140-2 Je 1 '54
Studies on the lime-rich crystalline solid phases in the system lime, silica, water. G. L. Kalousek and others. bibliog Am Cer Soc J 37:7-13 Ja 1 '54
Sudden change in the arrangement of crystallites in thin evaporated bismuth films. L. L. Howard. bibliog il J Ap Phys 25:125-7 Ja '54; Correction. 25:543 Ap '54
Symposium on crystal chemistry as applied to ceramics, 7th; abstracts of papers on silica. Glass Ind 35:375-6 Jl '54; Cer Ind 63:74+ S '54
Symposium on impurity phenomena, Schenectady, N.Y. June 16-18. bibliog il diags J Phys Chem 57:737-863 N '53
Theory of defect concentration in crystals. G. H. Vineyard and G. J. Dienes. bibliog Phys R 93:265-8 Ja 15 '54
See also
Feldspar
Polymorphism
Solutions, Solid

X ray studies

Automatic pole figure recorder. A. H. Geisler. il diags R Sci Instr 25:727-32 Ag '54
Automatic X-ray reflection specimen holder for the quantitative determination of preferred orientation. W. P. Chernock and others. il diags R Sci Instr 24:925-8 O '53
Computing Fourier syntheses in X-ray crystal structure analysis; improved punched-card method. C. R. Hudgens and A. M. Ross. bibliog Anal Chem 25:734-6 My '53
Crystal settings for upper level photography, precession method. L. V. Azaroff. diags R Sci Instr 25:928-9 S '54
Crystal structure of $KPuO_2CO_3$, $NH_4PuO_2CO_3$ and $RbAmO_2CO_3$. F. H. Ellinger and W. H. Zachariasen. diag J Phys Chem 58:405-8 My '54
Cursory investigation of intermediate phases in the systems Ti-Zn, Ti-Hg, Zr-Zn, Zr-Cd, and Zr-Hg by X-ray powder diffraction methods. P. Pietrokowsky. bibliog J Metals 6:Trans 219-26 sec 2 F '54
Determination of the diameter of circles in the precision determination of lattice constants. R. F. Raeuchle. R Sci Instr 24:875 S '53
Diffraction of X-rays by a twisted crystal lattice. S. S. Hsu. il diags J Ap Phys 25:541-2 Ap '54
Effect on distribution of lattice defects within crystals of linear expansion and X-ray lattice constant. P. H. Miller, jr. and B. R. Russell. J Ap Phys 24:1248-9 S '53
Fourier inversion of diffraction data. J. Waser and V. Schomaker. bibliog(50 ref) Rs Mod Phys 25:671-90 Jl '53
Geiger counter X-ray crystal spectrometer. P. J. A. McKeown and A. R. Ubbelohde. bibliog il diags J Sci Instr 31:321-6 S '54
Geometrical and apparent X-ray expansions of a crystal containing lattice defects. J. D. Eshelby. J Ap Phys 24:1249 S '53
Kink band formation in high purity aluminum during creep at high temperatures. A. M. Gervais and others. bibliog il diags J Metals 5:Trans 1487-92 sec 2 N '53
Lattice parameters, expansion coefficients, and atomic and molecular weights; X-ray techniques for precision determination. M. E. Straumanis. bibliog(36 ref) il diags Anal Chem 25:700-4 My '53
Low temperature X-ray crystallography. B. Post and I. Fankuchen. bibliog Anal Chem 25:736-7 My '53
Low-temperature X-ray goniometer for structural studies of crystal transitions. R. Keeling and others. il diags R Sci Instr 24:1087-95 D '53
Measurements of stacking faults in cold-worked alpha brass. B. E. Warren and E. P. Warekois. J Ap Phys 24:951-2 Jl '53
Method of using a fine-focus X-ray tube for examining the surface of single crystals. L. G. Schulz. il diags J Metals 6:Trans 1082-3 sec 2 S '54
Microbalance for the determination of protein crystal densities. F. M. Richards. bibliog il diags R Sci Instr 24:1029-34 N '53
Modification of R-PAC for interpretation of Patterson maps in X-ray crystal analysis. R. Pepinsky. J Ap Phys 24:1520-1 D '53
Modifications of the Schulz technique for the X-ray determination of preferred orientation in rolled metal. M. L. Fuller and G. Vaux. il J Metals 5:Trans 1038 Ag '53
Molecular size limitation? X-ray diffraction work; abstract. A. L. Patterson. Chem & Eng N 32:3849 S 27 '54
Neptunium-aluminum intermetallic compounds. O. J. C. Runnalls. il J Metals 5:Trans 1460-2 N '53
Ordering reaction of the Cu_4Pd alloy. A. H. Geisler and J. B. Newkirk. bibliog il diags J Metals 6:Trans 1076-82 sec 2 S '54
Plastic deformation of ammonium dihydrogen phosphate. P. L. Smith and E. I. Salkovitz. il diag J Ap Phys 25:237-9 F '54
Precision back-reflexion microbeam X-ray camera with provision for pre-selecting the irradiated area. R. W. Cahn. bibliog il diag J Sci Instr 30:201-4 Je '53
Precision micro-thermostat for crystal X-ray studies. P. J. A. McKeown. bibliog il diag J Sci Instr 31:271-3 Ag '54
Preferred orientation of cold-rolled uranium foil. W. Seymour. bibliog diags J Metals 6:Trans 999-1003 sec 2 S '54
Simple method for the precision measurement of lattice-constants. H. J. Goldschmidt. diag J Sci Instr 31:82-3 Mr '54
Simple method of obtaining low-temperature X-ray diffraction photographs. S. C. Wallwork and T. T. Harding. bibliog diag J Sci Instr 31:163-4 My '54
Synthesis of X-ray spectrometer line profiles with application to crystallite size measurements. L. Alexander. bibliog J Ap Phys 25:155-61 F '54
Tabulated diffraction data for hexagonal isomorphs. L. K. Frevel and H. W. Rinn. bibliog Anal Chem 25:1697-717 N '53
Thermal gradient method for the study of crystal structure and its application to order-disorder research. J. B. Newkirk. bibliog il diags R Sci Instr 24:1116-21 D '53
Transmission of X-rays through calcite in Laue diffraction. G. Schwarz and G. L. Rogosa. bibliog diags Phys R 95:950-3 Ag 15 '54
Versatile projector for assisting in crystal structure determinations. W. R. Philips and D. McLachlan, jr. bibliog diags R Sci Instr 25:123-8 F '54
X-ray and infrared studies on the extent of crystallization of polymers. J. B. Nichols. bibliog(35 ref) il J Ap Phys 25:840-7 Jl '54
X-ray camera for measuring preferred orientation in wires. A. L. Mackay. il diag J Sci Instr 30:244-5 Jl '53
X-ray studies of three crystalline fluorocarbons showing rotational disorder. P. J. Schapiro and J. L. Hoard. Am Chem Soc J 76:3347-8 Je 20 '54
X-ray study of the effect of organic compounds on the crystal growth of nickel during electrodeposition. F. Denise and H. Leidheiser, jr. il Electrochem Soc J 100:490-5 N '53
X-ray transmission studies of large imperfect crystals. G. L. Rogosa and G. Schwarz. il J Ap Phys 24:954-6 Jl '53

CRYSTALS

Absolute value of Avogadro's number and the soundness of crystals. M. E. Straumanis. bibliog Phys R 92:1155-7 D 1 '53

Annealing of a cold rolled aluminum single crystal. A. H. Lutts and P. A. Beck. bibliog il J Metals 6:Trans 257-60 sec 2 F '54

Apparatus for crystal pulling in vacuum using a graphite resistance furnace. K. Lehovec and others. bibliog il diag R Sci Instr 24:652-5 Ag '53

Bending of molybdenum single crystals. K. T. Aust and others. bibliog il J Metals 5: Trans 1477-82 N '53

Calculation of the energy band structures of the diamond and germanium crystals by the method of orthogonalized plane waves. F. Herman. bibliog il Phys R 93: 1214-25 Mr 15 '54

Composition and hydration of protein crystals in salt solutions. T. L. McMeekin, M. L. Groves and N. J. Hipp. bibliog Am Chem Soc J 76:407-13 Ja 20 '54

Creep of zinc single crystals under direct shear. E. H. Weinberg. bibliog diag J Ap Phys 24:734-44 Je '53

Cross section of pulled crystals. R. G. Pohl. bibliog diag J Ap Phys 25:668-9 My '54

Crystal dynamics and inelastic scattering of neutrons. G. Placzek and L. Van Hove. bibliog Phys R 93:1207-14 Mr 15 '54

Design of constant stress equipment of the beam lever type. E. Teghtsoonian. R Sci Instr 24:467-8 Je '53

Diamond orientation in diamond bits; effects of orienting high-grade drill bort in diamond-coring bit crowns. A. E. Long. 5pls U S Bur Mines Rep of Invest 5015:1-13 '54

Diffraction effects of crystals with deformation faults. R. Hosemann and S. N. Bagchi. bibliog diag Phys R 94:71-4 Ap 1 '54

Diffusion of lattice defects in a temperature gradient. R. W. Keyes. Phys R 94:1389 Je 1 '54

Dislocations or what makes metals so weak? W T. Read, jr. il diags Metal Prog 65:101-6+ F '54

Domain formation and domain wall motions in ferroelectric BaTiO$_3$ single crystals. W. J. Merz. bibliog il diags Phys R 95:690-8 Ag 1 '54

Effect of a soller slit on the diffraction of X-rays by deformed crystals. B. D. Cullity and C. A. Julien. il diags J Ap Phys 24: 541-6 My '53

Effect of biaxial orientation on the ultimate strength and crazing of linear polymers. C. C. Hsiao and J. A. Sauer. bibliog il J Ap Phys 24:957-8 Jl '53

Effect of internal strains on linear expansion, X-ray lattice constant, and density of crystals. C. R. Berry. bibliog J Ap Phys 24:658-9 My '53

Effect of rapid cathode rotation and magnetic fields on crystal orientation in electrodeposited metals. Ling Yang. bibliog il diag Electrochem Soc J 101:456-60 S '54

Elasto-plastic stress-optical effect in silver chloride single crystals. L. E. Goodman and J. G. Sutherland. bibliog il J Ap Phys 24: 577-84 My '53

Electrical properties of single crystals and thin films of PbSe and PbTe. S. J. Silverman and H. Levinstein. bibliog diags Phys R 94:871-6 My 15 '54

Electromotive force developed by a creeping zinc crystal. F. D. Coffin and S. L. Simon. J Ap Phys 24:1333-4 O '53

Electronic energy bands in crystals. T. Wainwright and G. Parzen. bibliog Phys R 92: 1129-34 D 1 '53

Electronic polarizabilities of ions in crystals. J. R. Tessman and others. bibliog Phys R 92:890-5 N 15 '53

Epitaxial deposits of metals evaporated on salt substrates. O. G. Engel. bibliog(40 titles) il diags J Res Nat Bur Stand 50: 249-61 My '53

Etch pits and dislocations in germanium and silicon. J. J. Oberly. il J Metals 6:Trans 1025-6 sec 2 S '54

Evaluation of lattice sums for cubic crystals. J. Hove and J. A. Krumhansl. bibliog Phys R 92:569-72 N 1 '53

Factors determining the permanent magnet properties of single crystals of Fe$_2$NiAl. E. A. Nesbitt and others. bibliog il diag J Ap Phys 25:1014-20 Ag '54

Growth and surface properties of tantalum crystals. M. H. Nichols. bibliog il diags Phys R 94:309-13 Ap 15 '54

Growth of cadmium sulfide crystals. M. E. Bishop and S. H. Liebson. diag J Ap Phys 24:660-1 My '53

Heat capacity of chain polymeric crystals. W. H. Stockmayer and C. E. Hecht. bibliog diag J Chem Phys 21:1954-8 N '53

Incoherent neutron scattering by polycrystals. G. Placzek. Phys R 93:895-6 F 15 '54

Inhomogeneity of thallium halide mixed crystals and its elimination. A. Smakula and others. bibliog diags Opt Soc Am J 43:698-701 Ag '53

Interaction of a nonrelativistic particle with a scalar field with application to slow electrons in polar crystals. T. Lee and D. Pines. Phys R 92:883-9 N 15 '53

Internal friction and Young's modulus of cold-worked copper single crystals. J. Weertman and J. S. Koehler. bibliog diags J Ap Phys 24:624-31 My '53

Internal friction of rock salt single crystals. D. R. Frankl. bibliog Phys R 92:573-9 N 1 '53

Ionic conductivity of impure polar crystals. A. B. Lidiard. bibliog Phys R 94:29-37 Ap 1 '54

Isotope effect and thermal expansion coefficients of crystals. C. E. Nordman and W. N. Lipscomb. bibliog J Chem Phys 21: 2077 N '53

Measurement of elastic constants at low temperatures by means of ultrasonic waves. H. J. McSkimin. bibliog(27 ref) diags J Ap Phys 24:988-97 Ag '53

Measurements of the density, composition and related unit cell dimensions of some protein crystals. B. W. Low and F. M. Richards. bibliog Am Chem Soc J 76:2511-18 My 5 '54

Mechanism of ortho kink-band formation in compressed zinc monocrystals. J. J. Gilman. bibliog il diags J Metals 6:Trans 621-9 sec 2 My '54

Mechanism of plastic flow in titanium; manifestations and dynamics of glide. F. D. Rosi. bibliog il diags J Metals 6:Trans 58-69 Ja '54

Method for the quantitative determination of preferred orientation. L. K. Jetter and B. S. Borie, jr. il diags J Ap Phys 24:532-5 My '53

Method of using a fine-focus X-ray tube for examining the surface of single crystals. L. G. Schulz. il diags J Metals 6:Trans 1082-3 sec 2 S '54

Modifications of the Schulz technique for the X-ray determination of preferred orientation in rolled metal. M. L. Fuller and G. Vaux. il J Metals 5:Trans 1038 Ag '53

New absorption lines of crystals in submicrowave region. S. Kojima and others. Phys R 92:1571 D 15 '53

Occurrence of natural *p-n* junctions in lead selenide. A. E. Goldberg and G. R. Mitchell. bibliog il J Chem Phys 22:220-2 F '54

Optical goniometer for the examination of long metal single crystals. A. J. Goss. bibliog diags J Sci Instr 30:283-5 Ag '53

Orientation relationships in cast germanium. W. C. Ellis and J. Fageant. bibliog il J Metals 6:Trans 291-4 sec 2 F '54

Orientation relationships in the recrystallization of deformed copper single crystals. J. J. Becker and J. N. Hobstetter. bibliog il J Metals 5:Trans 1235-8 sec 2 S '53

Perfect crystals of pure iron produced. C. G. Suits. Blast F & Steel Pl 42:sup 108-9 Ap '54; Same cond. Chem & Eng N 32:1467 Ap 12 '54

Perfect crystals of zinc sulfide. W. W. Piper and W. L. Roth. Phys R 92:503 O 15 '53

Physical chemistry of ionic crystals involving small concentrations of foreign substances. C. Wagner. bibliog J Phys Chem 57:738-41; Discussion. 741-2 N '53

Plastic bending of zinc crystals. G. P. Conrad, 2d and others. bibliog J Metals 5: Trans 1036-8 Ag '53

CRYSTALS—*Continued*

Plastic deformation of rectangular zinc monocrystals. J. J. Gilman. bibliog il diags J Metals 5:Trans 1217-22 sec 2 S '53

Plastic deformation of single crystals of copper. J. J. Becker and J. N. Hobstetter. bibliog il J Metals 5:Trans 1231-4 sec 2 S '53; Discussion. diags 6:Trans 665-6 sec 2 My '54

Plasticity of columbium single crystals. R. Maddin and N. K. Chen. bibliog il diag J Metals 5:Trans 1131-6 S '53

Plasticity of molybdenum single crystals at high temperatures. R. Maddin and N. K. Chen. il diag J Metals 6:Trans 280-4 sec 2 F '54

Pure gliding at metal crystals. H. Kanzaki. diags J Ap Phys 24:811 Je '53

R-PAC; analog recorder-playback computer for crystal analysis. R. Pepinsky and P. Jarmotz. J Ap Phys 24:663-4 My '53

Radioactive-shadowing technique and note on the deposition of metal crystals from atomic beams. M. Simnad and others. il diag J Ap Phys 25:268-9 F '54

Rate of self-diffusion in polycrystalline magnesium. P. G. Shewmon and F. N. Rhines. bibliog diags J Metals 6:Trans 1021-5 sec 2 S '54

Recovery in single crystals of zinc. R. Drouard and others. bibliog diag J Metals 5: Trans 1226-9 sec 2 S '53

Relation between initial creep rate and resolved shear stress in zinc single crystals. N. Brown and others. J Metals 5:Trans 1229-30 sec 2 S '53

Resistivity striations in germanium crystals. P. R. Camp. bibliog il diag J Ap Phys 25:459-63 Ap '54

Self-diffusivity along edge-dislocation singular lines in silver. A. A. Hendrickson and E. S. Machlin. il J Metals 6:Trans 1035-7 sec 2 S '54

Self-operating single-crystal furnace. W. H. Bridges and others. diags R Sci Instr 24: 1149-50 D '53

Single crystal metal rotors. J. W. Beams. il Phys R 92:502 O 15 '53

Some magnetostriction relations in materials possessing preferred domain orientations. G. T. Rado. bibliog J Ap Phys 25:102-6 Ja '54

Some predicted effects of temperature gradients on diffusion in crystals. W. Shockley. diags Phys R 91:1563-4 S 15 '53; Discussion. 93:344-5; Reply. 345-6 Ja 15 '54

Stress-strain characteristics and slip-band formation in metal crystals; effect of crystal orientation. F. D. Rosi. bibliog(34 titles) il diags J Metals 6:Trans 1009-20 sec 2 S '54

Studies on the concept of large activator centers in crystal phosphors. J. Ewles and N. Lee. bibliog diags Electrochem Soc J 100: 392-407 S '53

Studies on the creep recovery and annealing of zinc single crystals. M. Tanenbaum and W. Kauzmann. bibliog J Ap Phys 25:451-8 Ap '54

Suppression of overtones of thickness-shear and flexural vibrations of crystal plates. R. D. Mindlin and H. Deresiewicz. J Ap Phys 25:25-7 Ja '54

Surface effects and the creep of zinc single crystals. F. D. Coffin and A. L. Weiman. J Ap Phys 24:282-9 Mr '53

Surface structures on single crystals produced from melt. F. D. Rosi. bibliog il J Metals 5:Trans 1661-2 D '53

Survey of imperfections in nearly perfect crystals. F. Seitz. J Phys Chem 57:737-8 N '53

Synthetic crystals; abstract. R. C. Chirnside. Chem & Ind p73 Ja 16 '54

Theory of dielectric relaxation for a single-axis rotator in crystalline field. J. D. Hoffman and H. G. Pfeiffer. bibliog diags J Chem Phys 22:132-41 Ja '54

Theory of the luminescence of impurity-activated ionic crystals. F. E. Williams. bibliog J Phys Chem 57:780-4 N '53

Thermionic and surface properties of tungsten crystals. G. F. Smith. bibliog il diags Phys R 94:295-308 Ap 15 '54

Thickness-shear and flexural vibrations of contoured crystal plates. R. D. Mindlin and M. Forray. diags J Ap Phys 25:12-20 Ja '54

Torsional deformation and recovery of single crystals. S. S. Hsu and B. D. Cullity. bibliog il diags J Metals 6:Trans 305-12 sec 2 F '54

Uniform plastic bending of crystals for focusing X-ray radiation. L. S. Birks and E. J. Brooks. diags R Sci Instr 24:992 O '53

Valence stabilization in crystals. D. M. Gruen. J Chem Phys 21:2083 N '53

Variation of plastic properties with annealing procedure in zinc single crystals. Choh Hsien Li and others. bibliog il J Metals 5:Trans 1223-5 sec 2 S '53

Vibration spectrum of a simple cubic lattice. G. F. Newell. bibliog diags J Chem Phys 21:1877-83 O '53

See also
Crystallization
Crystallography
Diamonds
Ferroelectric effect

CRYSTALS, Liquid. See Liquid crystals

CRYSTALS, Piezoelectric

Simplified crystal i.f. filter. W. B. Cameron. diag Radio & Tv N 50:144 N '53

Thickness-shear vibrations of piezoelectric crystal plates with incomplete electrodes. R. D. Mindlin and H. Deresiewicz. diag J Ap Phys 25:21-4 Ja '54

Underearth quartz crystal resonators. T. A. Pendleton. diag Inst Radio Eng Proc 41: 1612-14 N '53

See also
Barium titanate
Oscillators, Crystal

CUBA

See also
Nickel mines and mining—Cuba
Petroleum industry and trade—Cuba
Textile industry—Cuba

Economic conditions

Economic conditions abroad (cont). For Comm W 50:3+ Ag 31; 3 S 28; N 30; 6+ D 7 '53; 51:6+ Ja 4; 3+ F 15 '54

CUBIC equations. See Equations, Cubic

CULTURE

Science as culture. F. J. Curtis. Chem & Ind p806-8 Ag 1 '53; Same abr. J Chem Educ 31:38-9 Ja '54

CULTURE mediums

Effect of culture medium on lipase and esterase activities of aspergillus niger. C. V. Ramakrishnan. bibliog Chem & Ind p250-1 F 27 '54

Effect of glucosamine on culture of embryo chicken heart cells. J. O. Ely and others. il Franklin Inst J 255:561-2 Je '53

Simplified method for cultivation of poliomyelitis virus in tissue culture. C. P. Li and M. Schaeffer. bibliog il Science 118: 107-9 Jl 24 '53

Syringe carrier and egg clamp for intravenous inoculation of chick embryo. R. Goldwasser and M. C. Shelesnyak. diag Science 118:47-8 Jl 10 '53

CULVERTS

Insurance concept balances economic factors in culvert design. R. W. Powell. diag Civil Eng 23:408 Je '53

Model studies of tapered inlets for box culverts; abstract. R. H. Shoemaker, jr. and L. A. Clayton. Roads & Sts 97:84+ Je '54

Mortar lining extends culvert life. il Eng N 152:59 Ap 22 '54

Quick work at culvert washout. il Roads & Sts 97:68 Ag '54

Timber-strutted metal culverts; abstract. M. G. Spangler and D. L. Phillips. Roads & Eng Constr 92:133-4 My '54

CULVERTS, Concrete

Protecting a water main under a bridge. P. C. Karalekas. il Pub Works 84:65+ N '53

CUMENE

BA-Shawinigan petrochemicals plant; phenol and acetone for cumene. il Chem Age (Lond) 70:513-16 F 27 '54

Canada makes phenol, acetone from cumene. H. C. Plummer. flow diag il Pet Eng 25: C27-8+ S '53

CUMENE—*Continued*

Cumene; Universal oil products co. diag Pet Refiner 32:156-7 N '53

Distribution of isomers in the mononitration of ethyl- and isopropylbenzene; further evidence for a steric effect in isomer distribution. H. C. Brown and W. H. Bonner. bibliog Am Chem Soc J 76:605-6 Ja 20 '54

Kinetics of catalytic cracking of cumene. T. E. Corrigan and others. bibliog flow diag Chem Eng Prog 49:603-10 N '53

Kinetics of the reactions between iron(II) and some hydroperoxides based upon cumene and cyclohexane. R. J. Orr and H. L. Williams. bibliog J Phys Chem 57:925-31 D '53; Correction. 58:1172 D '54

Petroleum→cumene→phenol; Standard Oil of California's Richmond refinery. il Chem & Eng N 32:1114 Mr 22 '54

Phenol, acetone, isopropanol; cumene process recasts trio's future. H. K. Nieuwenhuis. Chem W 72:30-9 My 2 '53

Phenol from cumene. diag Pet Refiner 32:154-5 N '53

Phenol synthesized from cumene at new B.A.-Shawinigan plant at Montreal. flow diag il Oil & Gas J 52:136-7 S 14 '53

Photochemical autoxidation of *iso*propylbenzene. H. W. Melville and S. Richards. Chem Soc J p944-52 Mr '54

Production of phenol and acetone from oxidation of cumene starts. il Chem & Eng N 31:2298 Je 1 '53; Chem W 72:34-6+ Je 13 '53; Chem Eng 60:114 Ag '53

Some products formed from phenolic inhibitors during the autoxidation of cumene. R. F. Moore and W. A. Waters. Chem Soc J p243-6 Ja '54

Synthesis of petrochemicals; phenol, acetone from cumene. A. L. Foster. il Pet Eng 25:C3-4 N '53

Synthetic phenol manufacture; sources, markets, and the cumene route. P. W. Sherwood. bibliog il Pet Processing 8:1348-54 S '53

CUMENE hydroperoxide

Polymerization initiator; *p-tert*-butylcumene hydroperoxide; abstract. E. I. Williams and R. J. Orr. Chem & Eng N 32:1449-50 Ap 12 '54

CUNNINGHAM drug stores, inc

Cunningham profits increase likely. Barron's 33:21 N 9 '53

CUPFERRON. See Nitrosophenylhydroxylamine

CUPOLA furnaces

Cupola development; report of sub-committee T.S. 43 of the technical council; abstracts. Metallurgia 50:65-6 Ag '54; Foundry 82:182 S '54

Duplexing in the foundry; combination of cupola and electric arc furnace. F. J. Knight. il Metallurgia 49:137-8 Mr '54

Improved coke cuts cupola operating costs. S. W. Martin and others. il Iron Age 174:97-9 Ag 5 '54

Variety of approaches to cupola dust control problem. L. C. McCabe. il Ind & Eng Chem 45:sup 109A-10A+ N '53

Air supply

Blast air moisture control improves cupola irons; Kathabar absorption-type dehumidifiers. J. L. Brooks. il diag Iron Age 173:112-13 Jl 1 '54

Charging

Auburn foundry uses mobile yard cranes for metal handling and charging. il Foundry 82:82-3 Jl '54

Bulk handling system cuts cupola charging costs; American rock wool corp. C. B. Setterberg. il diag Iron Age 174:118-19 Jl 22 '54

Cut cupola charge costs with fine metal scrap; sheetmetal cans keep fine particles packed closely together. W. M. Halliday. diags Iron Age 174:106-8 Ag 26 '54

Foundry handling goes automatic; Pontiac motor division's foundry. il plan Steel 135:108 Jl 26 '54

Mechanised materials handling plant for a foundry; Leyland motors, ltd. il Engineer 197:223 F 5 '54; Engineering 177:217 F 12 '54

Lining

Basic lined cupola cuts costs, improves quality. T. M. Franzell and J. D. Sheley. diags Iron Age 173:85-8 Ap 29 '54

CUPRAMMONIUM hydroxide. See Copper ammonium hydroxide

CUPRIETHYLENEDIAMINE. See Copper compounds

CUPS, Paper. See Paper cups

CURARE

Curare and related topics; a preliminary examination of chondrodendron limaciifolium. J. A. Barltrop and J. A. D. Jeffreys. pl Chem Soc J p 159-64 Ja '54

Diacid bases; curarising agents; derivatives of diphenyl ether. A. R. Brown and F. C. Copp. Chem Soc J p873-80 Mr '54

CURARE, Substitutes for

Preparation of the monocholine ester of succinic acid and some related derivatives. A. P. Phillips. Am Chem Soc J 75:4725-7 O 5 '53

CURBS

Barrier curb design compared. il diags Eng N 152:62 Mr 25 '54

CURBS, Concrete

Building a combined concrete curb and gutter. il Pub Works 85:114 My '54

Built in curbs speed paving job. il Eng N 152:44 Ja 14 '54

CURCUMIN

Colorimetric microdetermination of boron by the curcumin-acetone solution method. L. Silverman and K. Trego. bibliog Anal Chem 25:1264-7 Ag '53

CURIE point

Change of ferromagnetic Curie points with hydrostatic pressure. L. Patrick. bibliog diags Phys R 93:384-92 F 1 '54

Effect of a two-dimensional pressure on the Curie point of barium titanate. P. W. Forsbergh, jr. bibliog diags Phys R 93:686-92 F 15 '54

Influence of pressure on the Curie temperature of iron and nickel. R. Smoluchowski. bibliog Phys R 93:392-3 F 1 '54

Lattice parameters and Curie points of unreduced iron catalysts. R. Westrik. bibliog J Chem Phys 21:2094-5 N 3 '53

Spherical model of an antiferromagnet. B. S. Gourary and R. W. Hart. bibliog diags Phys R 95:676-86 Ag 1 '54

CURINE

Cleavage of biscoclaurine alkaloids with sodium in liquid ammonia; curine and chondrocurine. I. R. C. Bick and P. S. Clezy. Chem Soc J p3893-6 D '53

CURIUM

Isotopes

Curium isotopers 246 and 247 from pile-irradiated plutonium. C. M. Stevens and others. Phys R 94:974 My 15 '54

Nuclear reactions

Alpha spectra of Cm^{242}, Cm^{243}, and Cm^{244}. F. Asaro and others. bibliog diags Phys R 92:694-702 N 1 '53

Radiochemical investigation of the spontaneous fission of Cm^{242}. E. P. Steinberg and L. E. Glendenin. bibliog Phys R 95:431-9 Jl 15 '54

CURRENCY. See Money

CURTAINS

Wash-and-hang demonstrations break retail jam for fiberglas. J. W. Dougherty. il Sales Management 70:50-2+ Ap 1 '53

CURTISS-WRIGHT corporation

Five specially selected stocks; with comparative balance sheet items. Mag of Wall St 93:438 Ja 9 '54

CURTIUS rearrangement. See Molecular rearrangements

CURVATURE

Stereoscopic reprojection and radius of curvature measurements of cloud-chamber tracks. C. R. Emigh. il diags R Sci Instr 25:567-9 Je '54

CURVE plotting

Analyzer aid traces curve automatically. il Aviation W 59:55 S 21 '53

Analyzing straight line data. F. S. Acton. J Chem Educ 30:128-33 Mr '53

Curve analyzer and general purpose graphical computer. C. S. French and others. il diags R Sci Instr 25:765-75 Ag '54

CURVE plotting—*Continued*

Curves can simplify your problems in estimating cooling tanks. R. S. Cook. Chem Eng 60:184-5 Jl '53

Difference curves solve form-tool corrections; reference book sheet. O. Saari. diags Am Mach 98:171, 173, 175 Mr 15 '54

Electrostatic potential plotting for use in electron optical systems. K. C. Ho and R. J. Moon. bibliog il diags J Ap Phys 24:1186-93 S '53

How to figure performance curves for your liquid jet pump. H. W. Iversen. diags Power Eng 58:71-3 Ja '54

How to select the best decline curve. D. E. Menzie. World Oil 137:180+ D '53

Joint operation of multiunit complexes for minimum cost. K. M. Mayer. Ind & Eng Chem 46:1247-55 Je '54

Learning curve as a production tool; forecasting labor time and cost. F. J. Andress. Harvard Bsns R 32:87-97 Ja '54

Learning curve helps figure profits, control costs. R. Wyer. N A C A Bul 35:490-502 D '53; Discussion. 36:408-9, 560-1 N-D '54

Librascope plotter-recorder incorporates unique pen-positioning mechanism. il diags Machine Design 26:148-9 Mr '54

Logrine digital automatic graph followers. il R Sci Instr 24:404-5 My '53; Excerpt. Product Eng 24:258 Je '53

New instrument for rapid evaluation of time-displacement curves. K. W. Maier. il R Sci Instr 25:207-12 Mr '54

Plan for airframe production; abstract. D. P. Stowell. S A E J 62:105-6 F '54

Practical learning curves improve shop performance. C. T. Dennington. Iron Age 172:108-11 N 26 '53

System head curves; their calculation and use. M. Mann. diags Water & Sewage Works 101:14-19 Ja '54

CURVES in engineering

Computing vertical curve elevations. W. E. Cooper. diag Eng N 152:54 Ja 14 '54

Determination of radii of curvature of taxiways. J. H. Jones and R. Horonjeff. il plan diags Am Soc C E Proc 79 [no 233]:1-16 Ag '53

Mathematical examination of spiraled compound curves. H. F. Hickerson. Am Soc C E Proc 79 [no 357]:1-9 N '53

Numerical analysis of frames with curved girders. J. Michalos. plans diags Am Soc C E Proc 79 [no 250]:1-21 Ag '53

See also

Roads—Curves

CUSTER, George Armstrong, 1839-1876. See Little Big Horn, Battle of the, 1876

CUSTOMER relations

Are you losing the user? turn customer satisfaction into extra sales. R. M. Price. Ptr Ink 244:56-8+ S 25 '53

Customer versus colleague ties among retail furriers. L. Kriesberg. J Retailing 29:173-6+ Winter '53-54

Industrial distributor builds business with service extras. il Ind Marketing 39:62 Je '54

Is the customer always right? Dom Eng 184:128-30 Ag '54

Maintaining good customer relations; Kuenz heating & sheet metal co. G. C. Creighton. il Sheet Metal Worker 45:48-9 Ap '54

System speeds customer service; A. B. Frank co. E. Whitmore. il Am Bsns 24:20-1+ My '54

See also

Banks and banking—Customer relations
Complaints
Electric utilities—Customer relations
Gas companies—Customer relations
Instruction in use of product
Service (in industry)

CUSTOMS service

Behind the tariff scene; New York's customs laboratory. il Chem W 75:14 S 25 '54

Chemical industry must give technical assistance to customs authorities. R. W. Dill. Oil Paint & Drug Rep 165:5 F 15 '54

Coaltar products customs regulations are overhauled. Oil Paint & Drug Rep 165:3+ Mr 22 '54

Customs bill acceptable to trade goes to Senate. Oil Paint & Drug Rep 166:3+ Ag 2 '54

Customs procedures made more simple in new House legislation. Oil Paint & Drug Rep 165:3+ Je 14 '54

Customs simplification bill changes calm SOCMA fears; abstract. S. Lenher. Chem & Eng N 32:3363 Ag 23 '54

Interim rules applied under Customs simplification act of 1953. For Comm W 50:18 Ag 31 '53

Rose by any name; nomenclature important in U.S. Customs court. Chem W 74:21 Mr 20 '54

SOCMA raps customs bill. S. Lenher. Chem & Eng N 32:2782 Jl 12 '54

CUSTOMS unions

See also

Benelux union

CUTLERY

Advertising

Ekco samples its Flint brand to promote Ekco name for the line; premium offer. M. B. Cossman. Sales Management 71:60+ N 10 '53

CUTTING

See also

Electric cutting
Gear cutting
Metal cutting
Milling
Oxyacetylene cutting
Pipe cutting
Plastic materials—Cutting
Steel cutting
Thread cutting

CUTTING, Electric. See Electric cutting

CUTTING machines

Flame cutting; equipment displayed at the Engineering and marine exhibition. il Automobile Eng 43:440-2 O '53

How to select proper equipment for producing stiff mold refractories; cutters, their peculiarities and advantages. R. R. Bush. Brick & Clay Rec 124:86+ F '54

Machine tool buyers' guide; cutting, sawing and filing machines. il Steel 133:204-6 sec 2 N 16 '53

Machining with million-a-minute blows; Cavitron process. E. J. Clement. il Mill & Factory 53:80-1 N '53

Raytheon new machine in ultrasonic cutting field. il Machine Design 26:206 My '54

Ultrasonic machine tool. Mech Eng 75:577 Jl '53

Ultrasonic machine tool for cutting hard materials. N. Clark, jr. and J. P. Aloisio. il diags Tool Eng 32:77-80 Ap '54

See also

Cutting tools
Gear cutting machines
Machine tools
Metal cutting
Milling cutters
Oxyacetylene cutting
Pantograph
Reamers
Rubber cutting
Screw machines
Shears (machines)
Slitting machines

CUTTING of metals. See Metal cutting

CUTTING off machines

Bench lathe fixture speeds capillary tube cutoff. G. S. Norko. diags Am Mach 98:144 S 27 '54

Cowell Automatic strip cutting-off machine. il Engineer 196:316 S 4 '53

Grieder tube cut-off machine. il Mach 60:220 Je '54

1954 American Machinist production preview; cutoff and filing. il Am Mach 98:160-3 Ja 18 '54

Oxygen cut-offs in the hot mill. R. L. Deily. il diag Steel 133:98+ O 5 '53

Ratchet-tripping mechanism controls cut-off length of sheets. H. Murro. diags Mach 60:207-9 Mr '54

Why do abrasive cut-off wheels fail? E. J. DeWitt. il Mach 60:172-4 Je '54

See also

Saws, Metal working

CUTTING oils. See Lubrication and lubricants (cutting and grinding)

CUTTING tools

Accurate setups cut tool changing time, speed production; Avco mfg. corp.'s Lycoming div. W. Stone. il Iron Age 173:152-5 Je 17 '54

Analysis of cutting-tool temperatures. E. G. Loewen and M. C. Shaw. bibliog diags A S M E Trans 76:217-25; Discussion. 225-31 F '54

CUTTING tools—*Continued*

Carbon dioxide as a machining coolant. il diags Engineer 197:181-2 Ja 29 '54
Carbon dioxide as a machining coolant. il diag Engineering 177:156-7 Ja 29 '54
Carbon dioxide cooling. Automobile Eng 44:58 F '54
Ceramic-tipped cutting tools; abstract. K. J. B. Wolfe. Metal Prog 66:143-4 Ag '54
Corrections for flat form tools and circular form-tool; reference book sheet. I. Zorich. diags Am Mach 98:133, 135 Mr 29 '54
Difference curves solve form-tool corrections; reference book sheet. O. Saari. Am Mach 98:171, 173, 175 Mr 15 '54
Dull machining tools change aluminum physical properties. R. Wolcott, jr. Light Metal Age 11:19+ Je '53
How to select chip breakers; reference book sheet. E. K. Henrisken. il diags Am Mach 98:179, 181, 183 My 10 '54
Increase tool life in machining nickel plate. N. Zlatin and W. H. Prine. Iron Age 173:118-20 Jl 1 '54
Machining stainless; diagnosis of 274 tool headaches. J. D. Armour. il Steel 134:106-8+ Mr 29 '54
New CO_2 concept machines tough alloys. G. H. DeGroat. il Am Mach 98:152-4 Ag 2 '54
New Russian concept of cutting tools; true or false? F. Sachs. diags Am Mach 98:170-1 Ap 12 '54
R and L Tools improved adjustable recessing tool. il diag Mach 60:236 My '54
Statistical control methods as applied to cutting tools; International harvester co. W. H. Seacord and F. L. Helmel. il diag S A E J 62:55-7 My '54
This handy gasket cutter does better work, saves money. S. Elonka. il Power 98:112-13 Ag '54
Tool and die materials forum. C. Berndt and others. Steel 134:140-6+ Ap 19 '54
Tool control for multiple-spindle machines. H. Conn. il diags Tool Eng 33:69-71 S '54
Tool cooling by CO_2 il diags Automobile Eng 44:263-5 Je '54
Tool problems in automation; abstract. A. O. Schmidt. Tool Eng 33:147-8 Ag '54
Tooling and portable tools. il diags Am Mach 97:C-C 19 Mid-N '53
Trepanning tool speeds gear production. W. Jellig. il diags Iron Age 172:108-11 O 1 '53
Unit time to change dull tools. Mill & Factory 55:109 Ag '54
Using carbon dioxide as a machining coolant. il Refrig Eng 62:55+ My '54; Abstract. diag Chem Age (Lond) 70:731 Mr 27 '54
Wound-up form tool unwinds to cut contours. C. Molloy. diags Am Mach 98:164 F 15 '54

See also
Forming tools
Metal cutting
Milling cutters
Tool steel

Manufacture

Engineers' tool factory; Edgar Allen and co. il Engineer 197:222 F 5 '54

Nomenclature

Some practical aspects of cutting tool nomenclature arising from recent research; abstract and discussion. D. F. Galloway. Engineer 196:583-5 N 6 '53

Repair

Arc weld repairs on high speed tool steel. K. Rose. il Materials & Methods 40:144-5 S '54

Sharpening

Grinding hazards. W. R. Hardwick. il Metallurgia 49:21-5 Ja '54
Tool sharpening; hob table stands still while grinding wheel reciprocates. il diag Iron Age 172:193+ N 12 '53

Testing

Predicting the angle of chip flow for single-point cutting tools. L. V. Colwell. diags A S M E Trans 76:199-204 F '54

CUTTING tools, Carbide

Automatics try carbide cutters. il Steel 135:51 Jl 26 '54
Brass wheels grind carbides; Pratt & Whitney Aircraft. A. A. Merry and L. F. Wheeler. il Mach 61:174-7 S '54
Carbide bur grinds radius slot on hardened 8713 steel. E. J. Tangerman. il diags Am Mach 98:172-3 Ap 12 '54
Carbide cuts carbide chipbreakers; Watertown arsenal. A. Ashburn. il diags Am Mach 98:185-7 Ap 12 '54
Carbide drive shaft tool. il Steel 135:133 Jl 12 '54
Carbide inserts help cut costs of machining stainless forgings. il Iron Age 172:160-1 Ag 6 '53
Carbide slows tool wear. il Steel 134:107 My 31 '54
Carbide tool grinding with resin bonded wheels. N. P. Robie and A. D. Stover. il Tool Eng 31:65-8 N '53
Carbide tooling boosts production on automatics. il diags Mach 60:196-200 Ag '54
Carbide tooling gives old machines new life. il Iron Age 172:186-7 N 5 '53
Carbide tooling succeeds on automatics. il diags Am Mach 98:158-60 Jl 19 '54
Carbide woodworking tools; how to maintain them; illustrated instructions. Mill & Factory 53:112-13 D '53
Carbides; advantages and limitations. C. H. Good. il Mach 60:202-5 Ap '54
Carbides; form tools cut costs, improve finish on stainless. Iron Age 174:130 Jl 22 '54
Carbides give automatics greater punch. il Tool Eng 33:50 Ag '54
Carbides in aircraft production. F. W. Lucht. il Aero Digest 67:84+ N '53
Carbides mill structural members at high speeds. H. Frommelt. il Iron Age 174:111-13 Jl 15 '54
Carbides solve problems of producing fine finishes on aluminum-bronze die casting. il Steel 134:142 Ap 5 '54
Carbides speed up machining of parts from 1035 forgings; Thew shovel co. il Iron Age 174:119 Jl 8 '54
Caterpillar hollow-grinds clamped carbide tips. M. Aljanich. il diags Am Mach 98:89-91 Ja 4 '54
Cool tip, not chip, with CO_2. il diags Am Mach 98:130-3 F 15 '54
Correcting carbide tool troubles. D. C. Kauffman. il diags Tool Eng 33:35-42 Jl '54
Cutter slices lug milling time. il Steel 133:128 D 14 '53
Disposable insert tool. il Steel 135:153 S 13 '54
Facts about modern carbides. Mill & Factory 54:574 My '54
Finishing forgings; carbide insert tooling. Steel 134:192 Ap 19 '54
For real high production: automatics tooled with carbides. T. Mac New. il diags Automotive Ind 111:79-80 Ag 1 '54
Helical carbide cutters increase production. W. P. Strube, jr. il Tool Eng 32:72-4 F '54
Helical carbide cutters step up milling. il Steel 135:115 Ag 16 '54; Iron Age 174:116 S 30 '54
How to get the most from carbide tools. E. J. Novack. il diags Tool Eng 31:37-43 D '53
Interrupted cutting of tough steel forgings. il Mach 61:264 S '54
Machining; carbide tools boost automatic output 50 to 100 per cent. il Iron Age 174:146 Ag 12 '54
Machining; carbides give longer saw life on plastics. Iron Age 173:158 Mr 11 '54
Machining; change in tools cuts costs, improves finish; Master Machinery Builders. il Iron Age 173:152 Mr 18 '54
Machining; clamped carbide tooling cuts production costs; Capitol machine co. il Iron Age 173:194 F 25 '54
Machining; insert carbides increase production, cut tooling cost. diags Iron Age 174:126 S 2 '54
Machining; rough boring of stainless tubing made easier. il Iron Age 173:113-14 Ja 21 '54
Machining titanium alloys; General electric co. Mach 60:199 F '54
Multiple-spindle automatics now 100 per cent carbide-tooled. G. Sundell. il diags Mach 61:192-3 S '54
New carbide cutting tools reduce production costs; Lynn River works of General electric co. il Iron Age 173:144 Ap 15; 173-4 My 6 '54; Steel 134:122 My 3 '54

CUTTING tools, Carbide—*Continued*

New carbide reduces chipping and flaking; automatic lathes machining truck axles. il Iron Age 174:207 S 16 '54

Pick the right carbide tool. B. Burgoon, jr. il diags Steel 134:124-6 Je 7 '54

Profiling time reduced; Piasecki helicopter corp. il Steel 134:127 Je 28 '54

Proper care lengthens life of carbide masonry drills. diags Iron Age 172:168-9 Ag 13 '53

Proper tooling simplifies machining of jet parts. D. G. Jones. il Iron Age 172:76-9 D 31 '54

Raceway gets fast cut. il Steel 134:130 F 1 '54

Soft carbide + old machine = higher productivity. P. H. Gribbin. il diags Am Mach 97:122-3 N 9 '53

Step up efficiency in carbide grinding. F. J. Lennon. il Steel 135:92-3 Ag 9 '54

Thread milling production boosted by carbide cutters; Vard, inc. il Mach 60:180 F '54

Tips on carbide tool use. Steel 133:112 O 5 '53

Tool grinding; don't lap or superfinish a cemented carbide tool for rough cuts. Iron Age 172:115 O 29 '53

Tool switch quadruples output. il Steel 135: 82 Ag 30 '54

Tooling and portable tools. il diags Am Mach 97:C7-9 Mid-N '53

Tungsten carbide tooling. Steel 134:126 Ap 12 '54

Tungsten carbide tooling speeds car wheel production. il Iron Age 172:205-6 S 10 '53

Turning time cut with tungsten carbide tooling. il Iron Age 173:159-60 Mr 18 '54

Using cemented carbides on automatic machines. il diags Mill & Factory 55:104-5 Ag '54

Versatile boring heads; tungsten carbide insert. Steel 134:129 F 8 '54

When and how to use carbides in machining stainless steel. G. J. Stevens. diags Mach 60:196-200 D '53

Why line your sludge tank with diamonds? electrolytically-assisted carbide grinding. N. W. Thibault and B. H. Anderson. il Am Mach 98:154-6 F 15 '54

Failure

Cratering main cause of tool failure in machining titanium. Am Mach 98:147 F 15 '54

Reasons for carbide tool failure; reference book sheet. W. L. Kennicott. il Am Mach 98:159, 161, 163 Je 21; 155, 157, 159 Jl 5 '54

Manufacture

Belt finishing of carbide tools proves effective. F. J. Lennon, jr. il diag Am Mach 98: 104-7 F 1 '54

Eaton applies do it yourself to carbides. Am Mach 98:160 S 27 '54

Morris finishing machine for carbide tools. il Engineer 197:254 F 12 '54; Engineering 177:245 F 19 '54

Sharpening

Barber-Colman hydraulic sharpening machine accommodates wet grinding. il Am Mach 98:182 Je 21 '54

Belt grinding progress. il Steel 133:116+ S 14 '53

Grinding cemented carbide tools. il Min Cong J 40:51+ Jl '54

Shorter chipbreakers save diamonds. W. A. Fanger. il Am Mach 98:113-15 My 24 '54

Testing

Shop testing of carbide tools; abstract. M. Widmer. Tool Eng 33:160 S '54

CYANATES

Analysis

Colorimetric determination of ammonia and cyanate. J. M. Kruse and M. G. Mellon. bibliog Anal Chem 25:1188-92 Ag '53

CYANIDE process

Ion exchange process for recovery of gold from cyanide solution. F. H. Burstall and others. bibliog flow sheet Ind & Eng Chem 45:1648-58 Ag '53

Mechanism and rate-controlling factors in the dissolution of gold in cyanide solution. V. Kudryk and H. H. Kellogg. bibliog diags J Metals 6:Trans 541-8 My '54

CYANIDES

Biological treatment of cyanides with and without sewage. A. E. J. Pettet and E. V. Mills. bibliog J Ap Chem 4:434-44 Ag '54

Complex cyanide-simple cyanide exchange systems. A. G. MacDiarmid and N. F. Hall. bibliog Am Chem Soc J 76:4222-8 Ag 20 '54

Convenient transformation of radioactive carbon dioxide into radioactive cyanide. W. R. Vaughan and D. I. McCane. bibliog Am Chem Soc J 76:2504-5 My 5 '54

Direct titration of zinc and cadmium in cyanide solutions. J. P. Leftin. bibliog Metal Finishing 52:74-5 Ap '54

Disposal of toxic industrial waste; cyanide solutions. F. J. Knight. Metallurgia 49: 279-80 Je '54

Illumination; *p*H effects in solutions of complex cyanides. A. G. MacDiarmid and N. F. Hall. bibliog Am Chem Soc J 75:5204-7 N 5 '53

New waste treatment plant kills cyanides; Oneida, ltd. il diag Chem Eng 61:142+ Jl '54

Reaction of silver with aqueous solutions of cyanide and oxygen. G. A. Deitz and J. Halpern. bibliog diag J Metals 5:Trans 1109-16 S '53

Solved with simplicity; Trubek laboratories method of disposing of cyanide waste. il Chem W 73:57-8 N 21 '53

See also

Potassium cyanide

Analysis

Colorimetric determination of ammonia and cyanate. J. M. Kruse and M. G. Mellon. bibliog Anal Chem 25:1188-92 Ag '53

Shielded dropping mercury electrode for polarographic analysis of flowing solutions. W. H. Jura. bibliog diag Anal Chem 26: 1121-3 Jl '54

CYANINES

Cyclization of substituted *N*-thiocarbamoylglycines, and some *mero*cyanine dyes derived from the products. R. A. Jeffreys. Chem Soc J p2221-30 Jl '54

Preparation and properties of certain diazadimethin cyanine salts. R. H. Glauert, F. G. Mann and A. J. Tetlow. Chem Soc J p3742-6 D '53

Some reactions of 5-oxothiazolinium *mero*cyanine dyes. R. A. Jeffreys. Chem Soc J p389-95 Ja '54

Temperature-dependent color changes in some merocyanines. Y. Hirshberg and E. Fischer. J Chem Phys 22:572-3 Mr '54

See also

Phthalocyanines

CYANO compounds

Ring fission of 2-cyano-1:2:3:4-tetrahydro-2-methyl-1-oxonaphthalene. D. B. Cowell, W. H. Linnell and D. W. Mathieson. Chem Soc J p3725-6 N '53

Analysis

Determination of vinylidene cyanide. W. P. Tyler, D. W. Beesing and S. J. Averill. bibliog Anal Chem 26:674-7 Ap '54

CYANOACETAMIDE

Reaction of cyanacetic acid and amide with *O*-nitroso amino compounds. T. S. Osdene and G. M. Timmis. Chem & Ind p405-6 Ap 3 '54

CYANOACETIC acid

Reaction of cyanacetic acid and amide with *O*-nitroso amino compounds. T. S. Osdene and G. M. Timmis. Chem & Ind p405-6 Ap 3 '54

CYANOBUTADIENE

1-Cyano-1,3-butadienes; copolymerization of the *cis*-and *trans*-1-cyano-1,3-butadienes with butadiene. H. R. Snyder, K. C. Murdock and C. S. Marvel. bibliog Am Chem Soc J 75:4742-6 O 5 '53

Physical properties of *cis*-1-cyano-1,3-butadiene. K. V. Wise. bibliog Am Chem Soc J 76:3094-6 Je 5 '54

CYANOETHYL compounds

Preparation of bis-2-cyanoethyl derivatives of aromatic primary amines, and their conversion into 1 : 6-diketojulolidines. J. T. Braunholtz and F. G. Mann. Chem Soc J p651-8 F '54

CYANOETHYLATION

Chemical build-up for King Cotton. Chem W 75:97-8 Ag 21 '54

Cotton's turn; new fibers produced by cyanoethylation. Chem W 73:24+ S 5 '53

Novel method of cyanoethylation; 10-2′-cyanoethyl-9 : 10-dihydrophenanthridine. R. J. Bates and J. Cymerman-Craig. Chem Soc J p 1153-5 Mr '54

CYANOGEN

Cyanogen halides; the positive cyanogen ion. A. A. Woolf. diags Chem Soc J p252-65 Ja '54

Cyanogen halides; their heats of formation and free energies. G. Lord and A. A. Woolf. Chem Soc J p2546-51 Jl '54

Paracyanogen; its formation and properties. L. L. Bircumshaw, F. M. Tayler and D. H. Whiffen. 2pls Chem Soc J p931-5 Mr '54

Position of the cyanogen radical in the halogen group. A. A. Woolf. Chem & Ind p868 Ag 15 '53

Reaction of cyanogen and related nitriles with 1,3-dienes; acrylonitrile and butadiene. G. J. Janz and N. E. Duncan. bibliog Am Chem Soc J 75:5389-92 N 5 '53

Suppression of cyanogen bands in the direct current graphite arc by lithium chloride. R. G. Keenan and C. E. White. bibliog il Anal Chem 25:887-92 Je '53

CYANOGEN bromide

Determination of thiamine by the thiochrome reaction; application of cyanogen bromide in place of potassium ferricyanide. M. Fujiwara and K. Matsui. bibliog Anal Chem 25:810-12 My '53

CYANOGEN fluoride

Attempted preparation of cyanogen fluoride. H. J. Callomon and others. Chem Soc J p3709-10 N '53

Thermodynamic functions of FCN. N. W. Luft. J Chem Phys 21:1900-1 O '53

CYANOGEN halides

Cyanogen halides; a comparison with the interhalogen compounds and nitrosyl halides. A. A. Woolf. diags Chem Soc J p4121-8 D '53

CYANOHYDRINS

Analytical applications of the cyanohydrin reaction. W. J. Svirbely and J. F. Roth. Anal Chem 26:1377-8 Ag '54

Influence of alkyl groups upon reaction velocities in solution; the dissociation constants of ketone cyanohydrins in aqueous alcohol. D. P. Evans and J. R. Young. Chem Soc J p 1310-14 Ap '54

Pyrolysis of methyl ethyl ketone cyanohydrin acetate. E. C. Chapin and R. F. Smith. bibliog Am Chem Soc J 76:4179-80 Ag 20 '54

Physiological effect

Toxicity studies of acetone cyanohydrin and ethylene cyanohydrin. F. W. Sunderman and J. F. Kincaid. bibliog A M A Archives Ind Hygiene & Occup Med 8:371-6 O '53

CYANOPREGNENE

Isomerization and displacement reactions in the cyanopregnene series; synthesis of cortisone 21-methyl ether. Huang-Minlon, R. Tull and J. Babcock. Am Chem Soc J 76:2396-9 My 5 '54

CYANOPSIN. See Pigments, Biological

CYANURIC chloride

Triazines; the reaction of cyanuric chloride with lithium aluminum hydride. C. Grundmann and E. Beyer. bibliog Am Chem Soc J 76:1948-9 Ap 5 '54

CYBERNETICS

Cybernetics in our day; our second industrial revolution; age of the automatics. E. B. Weiss. il diag Brick & Clay Rec 123:77-80+ N '53; 124:43+ My '54; Same abr. Cer Ind 61:67-8+ D '53

Will cybernetics do away with people? J. H. Collins. Pub Util 53:660-6 My 27 '54

CYCLETHRIN. See Insecticides

CYCLEWELD cement. See Cements

CYCLIC compounds

Alicyclic chemistry comes to Canada. T. H. G. Michael. flow sheet Can Chem Process 38:58+ Ap '54

Application of Hudson's lactone rule to the molecular rotations of polycyclic compounds. W. Klyne. bibliog Chem & Ind p 1198-9 S 25 '54

Aromatic cyclodehydration; cyclization of aldehydes, ketones and ketonitriles. C. K. Bradsher and W. J. Jackson, jr. bibliog Am Chem Soc J 76:734-8 F 5 '54

Atmospheric pollution by polycyclic hydrocarbons. R. L. Cooper and A. J. Lindsey. bibliog Chem & Ind p 1177-8 O 31 '53

Cleavage of 1 : 2 : 4-triazole rings. M. R. Atkinson and J. B. Polya. bibliog Chem & Ind p462-3 Ap 17 '54

Condensed-ring sydnones. D. L. Hammick and others. Chem & Ind p251-2 F 27 '54

Conformations of cyclic acetals. J. A. Mills. bibliog Chem & Ind p633-4 My 29 '54

Conformations of hydrindanes and the relative stabilities of the *cis*- and *trans*-configurations at the C/D ring juncture in steroids. A. S. Dreiding. bibliog Chem & Ind p992-4 Ag 7 '54

Conjugated macrocycles; cross-conjugated macrocycles with inner great rings of 16, 20, and 24 atoms. P. F. Clark, J. A. Elvidge and R. P. Linstead. Chem Soc J p2490-7 Jl '54

Cyclic di(ethylsulphonyl) derivatives of D-galactose, D-glucose and D-mannose. L. Hough and T. J. Taylor. Chem & Ind p 1018-19 Ag 14 '54

Dehydrocyclization reaction. C. Hansch. diags Chem R 53:353-96 bibliog(p392-6) D '53

Direction of ring-opening of 2 : 3-anhydrosugars. R. C. Cookson. bibliog Chem & Ind p223-4 F 20 '54

Directive influence of substituents in the benzene ring. Y. P. Varshni. J Chem Educ 30:465-6 S '53

Eight- and higher-membered ring compounds; alkyl derivatives of di-, tri-, and tetra-salicylides. W. Baker and others. Chem Soc J p2042-6 Je '54

Internuclear cyclisation; abnormal reactions of 2-amino-*N*-methylbenzanilides containing *ortho* substituents; abstract and discussion. D. H. Hey and D. G. Turpin. Chem & Ind p216-17 F 20 '54

Internuclear cyclisation; naphth[3 : 2 : 1-*cd*] oxindoles. R. A. Abramovitch and D. H. Hey. Chem Soc J p 1697-703 Je '54

Interpretation of the chemical behavior of five- and six-membered ring compounds. H. C. Brown, J. H. Brewster and H. Shechter. bibliog Am Chem Soc J 76:467-74 Ja 20 '54

Intramolecular acylation; ring closure of some α-substituted β-1-naphthylpropionic acids; abstract. M. F. Ansell. Chem & Ind p217-18 F 20 '54

Intramolecular reactions; the mechanism of the cyclization of diazotized 2-aminobenzophenones. D. F. DeTar and D. I. Relyea. bibliog Am Chem Soc J 76:1680-5 Mr 20 '54

Macro rings; synthesis and properties of *p,p′*-tetramethylene-1,4-diphenylbutane. D. J. Cram and N. L. Allinger. bibliog Am Chem Soc J 76:726-31 F 5 '54

Macro rings; the preparation of three new paracyclophanes. N. L. Allinger and D. J. Cram. bibliog Am Chem Soc J 76:2362-7 My 5 '54

Macro rings; transannular effects in the 1,4-decamethylenebenzene series. D. J. Cram and H. U. Daeniker. bibliog diag Am Chem Soc J 76:2743-52 My 20 '54

Molecular compound formation involving the quinoxaline ring system. E. S. Lane and C. Williams. bibliog Chem & Ind p 1230-1 N 14 '53

Molecular rotations of polycyclic compounds; polycyclic alcohols and their derivatives. W. Klyne and W. M. Stokes. Chem Soc J p 1979-88 Je '54

New cyclization reaction. C. K. Bradsher, D. J. Beavers and E. D. Little. Am Chem Soc J 76:948 F 5 '54

New synthesis of hydroaromatic tricyclic ketones closely related to the resin acids. N. N. Saha and others. bibliog Chem & Ind p 1143-4 S 11 '54

New synthesis of polycyclic compounds containing a fused *iso*quinoline ring system. T. S. Osdene and G. M. Timmis. Chem & Ind p404 Ap 3 '54

Polyphosphoric acid for acylation of alicyclic compounds. S. Dev. bibliog Chem & Ind p 1071 Ag 28 '54

CYCLIC compounds—*Continued*

Proposed system of nomenclature for terpene hydrocarbons; acyclics, monocyclics, bicyclics. Chem & Eng N 32:1795-7 My 3 '54

Structures of the products obtained by the condensation of phenyl benzimino chloride and ethyl-sodio-acetoacetate and subsequent cyclization. G. Singh and G. V. Nair. Chem & Ind p253-4 F 27 '54

Synthesis of heterocyclic compounds from aryl azides; some six-membered rings and some azidobiaryls. P. A. S. Smith and others. Am Chem Soc J 75:6335-7 D 20 '53

Synthesis of 1 : 1 : 4 : 8-tetramethyl*cyclo*undecane (humulane). F. Šorm and others. bibliog Chem & Ind p252-3 F 27 '54

Transannular reactions and transannular cyclisations; abstract. V. Prelog. bibliog Chem & Ind p570-1 My 15 '54

Unsaturated seven-membered heterocyclic rings. H. H. Szmant and R. L. Lapinski. Am Chem Soc J 75:6338-9 D 20 '53

See also

Cyclohexane

Analysis

Determination of ring content of aromatic petroleum fractions. R. N. Hazelwood. bibliog Anal Chem 26:1073-6 Je '54

CYCLITOLS

Cyclitols; a new tetrol and enediol from cyclohexadiene-1,4 by the Prevost reaction. G. E. McCasland and E. C. Horswill. bibliog Am Chem Soc J 76:1654-8 Mr 20 '54

CYCLOALKANONES

Convenient technique for micro Zerewitinoff determinations. H. C. Brown and O. Hafliger. bibliog diags Anal Chem 26:757-9 Ap '54

Steric effects and spectra in the tetracyclones. E. L. Shapiro and E. I. Becker. bibliog Am Chem Soc J 75:4769-75 O 5 '53

CYCLOALKENE

Studies in the alicyclic series; 1-benzoyl-*cyclo*alkenes as acceptors in the Michael condensation. D. Ginsburg. Chem Soc J p2361-4 Jl '54

CYCLOARTENOL

Constitutions of phyllanthol and *cyclo*artenol. D. H. R. Barton and others. bibliog Chem & Ind p220-1 F 20 '54

Structure of *cyclo*artenol. A. R. H. Cole. Chem & Ind p946 S 5 '53

Structure of *cyclo*artenol. J. A. Henry and F. S. Spring. Chem & Ind p 189 F 13 '54

Triterpene resinols and related acids; the non-saponifiable fraction from strychnos nux-vomica seed fat; the structure of *cyclo*artenol. H. R. Bentley and others. Chem Soc J p3673-8 N '53

CYCLOBUTADIBENZENE

Preparation and reactions of diphenylene. W. Baker, M. P. V. Boarlund and J. F. W. McOmie. Chem Soc J p 1476-82 My '54

CYCLOBUTANE

C-C bond dissociation energy in *cyclo*butane. H. O. Pritchard and A. F. Trotman-Dickenson. bibliog Chem & Ind p 1046-7 Ag 21 '54

Heat capacities and entropy of cyclobutane. G. W. Rathjens, jr. and W. D. Gwinn. bibliog Am Chem Soc J 75:5629-33 N 20 '53

Infrared absorption spectra, structure and thermodynamic properties of cyclobutane. G. W. Rathjens, jr. and others. bibliog Am Chem Soc J 75:5634-42 N 20 '53

Reaction of cyclobutane with Hg $6(^3P_1)$ atoms. D. L. Kantro and H. E. Gunning. bibliog J Chem Phys 21:1797-801 O '53

Reaction of thiacyclopropanes (olefin sulfides) and thiacyclobutanes with organolithium compounds. F. G. Bordwell, H. M. Andersen and B. M. Pitt. bibliog Am Chem Soc J 76:1082-5 F 20 '54

Small-ring compounds; some new cyclobutane, cyclobutene and cyclobutanone derivatives derived from the adduct of phenylacetylene with 1,1-difluoro-2,2-dichloroethylene. J. D. Roberts, G. B. Kline and H. E. Simmons, jr. bibliog Am Chem Soc J 75:4765-8 O 5 '53

Synthesis of cyclobutane by the dehydroxymethylation method. H. Pines, H. G. Rodenberg and V. N. Ipatieff. bibliog Am Chem Soc J 75:6065 D 5 '53

Thermal decomposition of cyclobutane. C. T. Genaux, F. Kern and W. D. Walters. bibliog Am Chem Soc J 75:6196-9 D 20 '53

CYCLOBUTANEDIONE

Osazones of 1,2-cyclobutanedione and other alicyclic α-diketones. F. Ramirez and R. J. Bellet. bibliog Am Chem Soc J 76:491-3 Ja 20 '54

CYCLOBUTANETETRACARBOXYLIC acid

1 : 2 : 3 : 4-*cyclo*butanetetracarboxylic acid II. E. B. Reid. bibliog Chem & Ind p846-7 Ag 8 '53

CYCLOBUTANONE

Small-ring compounds; some new cyclobutane, cyclobutene and cyclobutanone derivatives derived from the adduct of phenylacetylene with 1,1-difluoro-2,2-dichloroethylene. J. D. Roberts, G. B. Kline and H. E. Simmons, jr. bibliog Am Chem Soc J 75:4765-8 O 5 '53

CYCLOBUTENE

Small-ring compounds; some new cyclobutane, cyclobutene and cyclobutanone derivatives derived from the adduct of phenylacetylene with 1,1-difluoro-2,2-dichloroethylene. J. D. Roberts, G. B. Kline and H. E. Simmons, jr. bibliog Am Chem Soc J 75:4765-8 O 5 '53

CYCLODEHYDROGENATION. See Dehydrogenation

CYCLOHEPTANONE

Reactions of 7-bromo-2,2-diphenylcycloheptanone. R. E. Lyle and R. A. Covey. bibliog Am Chem Soc J 75:4973-5 O 20 '53

CYCLOHEPTATRIENE

Cyclic polyolefins; cycloheptatriene and bicyclo[4.2.0]octa-2,4,-diene derivatives from cycloöctatetraene and mercuric acetate. A. C. Cope, N. A. Nelson and D. S. Smith. bibliog Am Chem Soc J 76:1100-4 F 20 '54

Cycloheptatrienylium (tropylium) ion. W. V. Doering and L. H. Knox. bibliog Am Chem Soc J 76:3203-6 Je 20 '54

New synthesis of cycloheptatriene. H. L. Dryden, jr. Am Chem Soc J 76:2841 My 20 '54

CYCLOHEPTATRIENOLONE

Formation constants of some metal complexes of tropolone and its derivatives; the benzotropolones and purpurogallins. B. E. Bryant and W. C. Fernelius. Am Chem Soc J 76:3783-4 Jl 20 '54

CYCLOHEPTATRIENONE

Hofmann degradation of tropinone methiodide. G. Büchi and others. bibliog Chem & Ind p 1063 O 3 '53

Synthesis of β-hydroxytropone. R. B. Johns and A. W. Johnson. Chem & Ind p 192-3 F 13 '54

Synthesis of 2-phenyl*cyclo*heptatrienone from 2-phenyl*cyclo*hept-2-enone. D. Elad and D. Ginsburg. Chem Soc J p471-2 Ja '54

Synthesis of tropone via a norcarenone→cycloheptadienone rearrangement. E. E. van Tamelen and G. T. Hildahl. bibliog Am Chem Soc J 75:5451 N 5 '53

Synthetic experiments in the *cyclo*heptatrienone series; syntheses of puberulic acid and *iso*stipitatic acid. R. B. Johns, A. W. Johnson and J. Murray. Chem Soc J p 198-202 Ja '54

Tropolones; synthesis and properties of 7-hydroxybenzo*cyclo*heptatrien-3-one. G. L. Buchanan. Chem Soc J p 1060-3 Mr '54

CYCLOHEPTENE oxide

Reaction of cycloheptene oxide with formic acid. A. C. Cope and W. N. Baxter. Am Chem Soc J 76:279-80 Ja 5 '54

CYCLOHEPTENONE

Colchicine studies; synthesis of 2-(2′,3′,4′-trimethoxyphenyl)-cyclohept-2-enone. D. Ginsburg. Am Chem Soc J 76:3628-30 Jl 20 '54

Synthesis of 2-phenyl*cyclo*heptatrienone from 2-phenyl*cyclo*hept-2-enone. D. Elad and D. Ginsburg. Chem Soc J p471-2 Ja '54

CYCLOHEXADIENE

Cyclitols; a new tetrol and enediol from cyclohexadiene-1,4 by the Prevost reaction. G. E. McCasland and E. C. Horswill. bibliog Am Chem Soc J 76:1654-8 Mr 20 '54

CYCLOHEXANE

Critical phenomena in the cyclohexane-aniline system. D. Atack and O. K. Rice. bibliog J Chem Phys 22:382-5 Mr '54

CYCLOHEXANE—*Continued*

Cyclic dienes; 1,2-dimethylenecyclohexane. W. J. Bailey and H. R. Golden. bibliog Am Chem Soc J 75:4780-2 O 5 '53

Cyclic dienes; synthesis of substituted 1,2-dimethylenecyclohexanes. W. J. Bailey, J. Rosenberg and L. J. Young. bibliog Am Chem Soc J 76:2251-4 Ap 20 '54

Effect of cyclopentane and cyclohexane rings on the reaction of tertiary alcohols and chlorides. G. S. Skinner and F. P. Florentine, jr. bibliog Am Chem Soc J 76:3200-3 Je 20 '54

Epimeric alcohols of the *cyclo*hexane series; (±)-*trans*-3-methyl*cyclo*hexanecarboxylic acid and (±)-*trans*-3-methyl*cyclo*hexylamine. F. R. Hewgill, P. R. Jefferies and A. K. Macbeth. Chem Soc J p699-701 F '54

1 : 3-Epoxide formation in the *cyclo*hexane series. R. B. Clayton and H. B. Henbest. Chem & Ind p 1315-16 D 5 '53

Kinetics of the reactions between iron(II) and some hydroperoxides based upon cumene and cyclohexane. R. J. Orr and J. L. Williams. bibliog J Phys Chem 57:925-31 D '53; Correction. 58:1172 D '54

Molecular structures of *trans*-1,2-dihalocyclohexanes. K. Kozima, K. Sakashita and S. Maeda. bibliog Am Chem Soc J 76:1965-9 Ap 5 '54

Orthobaric surface tensions and theromodynamic properties of the liquid surfaces of a series of 1-alkenes, C_6 to C_{20}, and of *n*-decylcyclopentane, *n*-decylcyclohexane and *n*-decylbenzene. J. J. Jasper and E. R. Kerr. Am Chem Soc J 76:2659-61 My 20 '54

Physical properties of *n*-hexadecane, *n*-decylcyclopentane, *n*-decyclcyclohexane, 1-hexadecene and *n*-decylbenzene. D. L. Camin, A. F. Forziati and F. D. Rossini. bibliog J Phys Chem 58:440-2 My '54

Radiation chemistry of mixtures; cyclohexane and benzene-d_6. M. Burton and W. N. Patrick. bibliog J Phys Chem 58:421-3 My '54

Reactions of highly fluorinated organic compounds; some polyfluoro*cyclo*hexanes and certain derived compounds. A. K. Barbour and others. bibliog J Ap Chem 4:347-51 Jl '54

Statistical mechanics of dilute polymer solutions; thermodynamic parameters for the system polystyrene-cyclohexane. W. R. Krigbaum. bibliog Am Chem Soc J 76: 3758-64 Jl 20 '54

Stereoisomerism of cyclohexane derivatives. H. D. Orloff. diags Chem R 54:347-447 bibliog (p440-7) Je '54

Studies in the terpene series; hydroisomerization and hydrogenolysis of cyclohexene, methylcyclohexene and *p*-menthene in the presence of hydrogenation catalysts. H. Pines and others. bibliog Am Chem Soc J 76:2740-2 My 20 '54

Synthesis and properties of deuterocarbons; benzene-d_6 and cyclohexane-d_{12}. J. A. Dixon and R. W. Schiessler. bibliog Am Chem Soc J 76:2197-9 Ap 20 '54

Viscosities of benzene-d_6 and cyclohexane-d_{12}. J. A. Dixon and R. W. Schiessler. bibliog J Phys Chem 58:430-2 My '54

Analysis

Conformational analysis of substituted *cyclo*hexanes. D. H. R. Barton. bibliog Chem & Ind p664-6 Jl 4 '53

Differential method for accurate quantitative infrared analyses; assay for cyclohexane in petroleum concentrates. C. F. Hammer and H. R. Roe. Anal Chem 25: 668-9 Ap '53

CYCLOHEXANEDIOL bromoacetate

Resolution and fungistatic action of 1,4-cyclohexanediol bis(bromoacetate). J. P. LaRocca and others. Science 118:278-9 S 4 '53

CYCLOHEXANEDIONE

Acylation of 5-(*p*-acetoxyphenyl)-4,6-dicarbethoxycyclohexanedione-1,3. P. E. Papadakis, J. Scigliano and S. Pirruccello. bibliog Am Chem Soc J 75:5436-7 N 5 '53

Alicyclic compounds; ultra-violet absorption, acidity, and ring fission of *cyclo*hexane-1 : 3-diones. E. G. Meek, J. H. Turnbull and W. Wilson. Chem Soc J p2891-6 O '53

Enolization of dihydroresorcinols. E. E. Ayling and R. F. K. Meredith. bibliog Chem & Ind p989-90 Ag 7 '54

5-(*p* - Hydroxyphenyl) - 4,6 - dicarboxy - 2(β - diethylaminopropanol) - cyclohexane - dione - 1,3 and derivative. P. E. Papadakis and J. Scigliano. bibliog Am Chem Soc J 75:5437-8 N 5 '53

CYCLOHEXANOL

Cis- and *trans*-2-benzyl*cyclo*hexanols; the reduction of 2-benzylidene- and 2-benzyl-*cyclo*hexanones. P. B. Russell. Chem Soc J p 1771-4 Je '54

Dehydration of 1,2-diethylcyclohexanol over alumina. J. V. Karabinos and A. T. Ballun. bibliog Am Chem Soc J 76:1380-1 Mr 5 '54

CYCLOHEXANONE

Rapid method for the determination of copper in plant material. T. R. Williams and R. R. T. Morgan. Chem & Ind p461 Ap 17 '54

Reactions of organometallic reagents with 2-hydroxymethylenecyclohexanone and its isopropyl ether. A. S. Dreiding and S. N. Nickel. bibliog Am Chem Soc J 76:3965-8 Ag 5 '54

Reactions of succinonitrile; condensation with cyclohexanone in the presence of sodamide. P. E. Fanta and S. Smith. Am Chem Soc J 76:2915-17 Je 5 '54

Ring enlargements; attempted ring enlargement of cyclohexanone with ethyl N-nitroso-N-(2,3,4-trimethoxybenzyl)-carbamate. C. D. Gutsche and H. E. Johnson. bibliog Am Chem Soc J 76:1776-9 Ap 5 '54

Steroid analogs lacking ring C; 4-(*cis*-4′-hydroxycyclohexyl)-cyclohexanone; configuration of the bicyclohexyl-4,4′-diols. A. L. Wilds, T. H. Pearson and C. H. Hoffman. bibliog Am Chem Soc J 76:1737-40 Ap 5 '54

Steroid analogs lacking ring C; synthesis of 4-(*trans*-4′-hydroxycyclohexyl)-cyclohexanone. A. L. Wilds, C. H. Shunk and C. H. Hoffman. bibliog Am Chem Soc J 76:1733-6 Ap 5 '54

CYCLOHEXENE

Acetylation of cyclohexene. H. Burton and P. F. G. Praill. Chem & Ind p75 Ja 16 '54

Addition of dinitrogen trioxide to Δ^1- aryl*cyclo*hexenes. T. R. Govindachari and others. Chem & Ind p757 Je 26 '54

Conformation of *cyclo*hexene. D. H. R. Barton and others. bibliog Chem & Ind p21-2 Ja 2 '54

Conformation of the *cyclo*hexene ring. R. A. Raphael and J. B. Stenlake. bibliog Chem & Ind p 1286-7 N 28 '53

Reaction of cyclohexene with bromine, iodine monobromide and iodine monochloride. A. Gero, J. J. Kershner and R. E. Perry. Am Chem Soc J 75:5119-20 O 20 '53

Reactions of amines and sulphur with olefins; the reaction of diethylamine and sulphur with *cyclo*hexene. C. G. Moore and R. W. Saville. Chem Soc J p2082-9 Je '54

Sulfonation of olefins; stereochemistry of the reaction with cyclopentene and cyclohexene. F. G. Bordwell and M. L. Peterson. bibliog Am Chem Soc J 76:3957-61 Ag 5 '54

CYCLOHEXENONE

Formation of cyclic ethylene ketals from *cyclo*hexenones. R. H. Jaeger and H. Smith. bibliog Chem & Ind p 1106-7 S 4 '54

Preparation of 3-(6-methoxynaphthyl-2)-2-cyclohexen-1-one and related compounds. F. C. Novello and M. E. Christy. bibliog Am Chem Soc J 75:5431-2 N 5 '53

CYCLOHEXYLBUTANOL

Studies in stereochemistry; steric control of asymmetric induction in the preparation of the 3-cyclohexyl-2-butanol system. D. J. Cram and F. D. Greene. bibliog Am Chem Soc J 75:6005-10 D 5 '53

CYCLOHEXYL group

Cyclohexyl and cyclopentylmethyl radicals. F. H. Seubold, jr. Am Chem Soc J 76:3732-3 Jl 20 '54

CYCLOHEXYLMETHANE

Dicyclic hydrocarbons; synthesis and physical properties of the monomethyldiphenylmethanes and monomethyldicyclohexylmethanes. J. H. Lamneck, jr. and P. H. Wise. Am Chem Soc J 76:1104-6 F 20 '54

CYCLONE **burner.** See Burners

CYCLONE **classifiers.** See Classifiers

CYCLONE **separators.** See Separators

CYCLONES **(chemical compounds).** See Cycloalkanones

CYCLOÖCTANONE

Preparation of cycloöctanone. F. F. Blicke and others. bibliog Am Chem Soc J 75:5418-19 N 5 '53

CYCLOÖCTATETRAENE

Cyclic polyolefins; cycloheptatriene and bicyclo[4.2.0]octa-2,4-diene derivatives from cycloöctatetraene and mercuric acetate. A. C. Cope, N. A. Nelson and D. S. Smith. bibliog Am Chem Soc J 76:1100-4 F 20 '54

Cyclic polyolefins; reactions of cycloöctatrienone; ethoxycycloöctatetraene. A. C. Cope, S. F. Schaeren and E. R. Trumbull. bibliog Am Chem Soc J 76:1096-100 F 20 '54

*cyclo*Octatetraene derivatives; *cyclo*-octylphenols. W. O. Jones. Chem Soc J p4156-7 D '53

*cyclo*Octatetraene derivatives; reduction of *cyclo*octatetraene by sodium and alcohols. W. O. Jones. Chem Soc J p312-16 Ja '54

Reactions of *cyclo*octatetraene; selective reduction by metals and alkalis or acids. W. O. Jones. Chem Soc J p 1808-13 Je '54

Structure of cycloöctatetraene oxide. O. H. Wheeler. Am Chem Soc J 75:4858-9 O 5 '53

Vibrational spectra and possible structures of the dimers of cyclooctatetraene. R. C. Lord and R. W. Walker. bibliog Am Chem Soc J 76:2518-25 My 5 '54

CYCLOÖCTATRIENONE

Cyclic polyolefins; reactions of cycloöctatrienone; ethoxycycloöctatetraene. A. C. Cope, S. F. Schaeren and E. R. Trumbull. bibliog Am Chem Soc J 76:1096-100 F 20 '54

CYCLOPARAFFINS

Chromyl chloride oxidation of saturated hydrocarbons. C. C. Hobbs, jr. and B. Houston. bibliog Am Chem Soc J 76:1254-7 Mr 5 '54

Depolymerization of polymethylene and polyethylene. L. A. Wall and others. bibliog Am Chem Soc J 76:3430-7 Jl 5 '54

CYCLOPENTADIENE

Bis-cyclopentadienyl compounds of nickel and cobalt. G. Wilkinson, P. L. Pauson and F. A. Cotton. bibliog Am Chem Soc J 76:1970-4 Ap 5 '54

Cyclopentadienyl compounds of chromium, molybdenum and tungsten. G. Wilkinson. bibliog Am Chem Soc J 76:209-11 Ja 5 '54

*Cyclo*pentadienyl compounds of manganese and magnesium. G. Wilkinson and F. A. Cotton. bibliog Chem & Ind p307-8 Mr 13 '54

Cyclopentenylphenols. A. R. Bader. bibliog Am Chem Soc J 75:5967-9 D 5 '53

Diazocyclopentadiene. W. V. Doering and C. H. DePuy. bibliog Am Chem Soc J 75:5955-7 D 5 '53

Electronic structure of bis-cyclopentadienyl compounds. W. Moffitt. bibliog diags Am Chem Soc J 76:3386-92 Jl 5 '54

New preparation of bis-cyclopentadienyl-metal compounds. J. M. Birmingham, D. Seyferth and G. Wilkinson. bibliog Am Chem Soc J 76:4179 Ag 20 '54

Reaction of bis-(cyclopentadienyl)-titanium dichloride with aryllithium compounds. L. Summers and R. H. Uloth. bibliog Am Chem Soc J 76:2278-9 Ap 20 '54

Synthesis and proof of structure of 1-ethyl-2,3,4,5-tetraphenylcyclopentadiene and the chemistry of 6-methyl-1,2,3,4-tetraphenylfulvene. S. M. Linder, E. I. Becker and P. E. Spoerri. bibliog Am Chem Soc J 75:5972-5 D 5 '53

CYCLOPENTANE

Effect of cyclopentane and cyclohexane rings on the reaction of tertiary alcohols and chlorides. G. S. Skinner and F. P. Florentine, jr. bibliog Am Chem Soc J 76:3200-3 Je 20 '54

Kinetics of the alkaline decomposition of 1,3-dinitro-1,3-diazacyclopentane. W. H. Jones. Am Chem Soc J 76:928-9 F 5 '54

Orthobaric surface tensions and thermodynamic properties of the liquid surfaces of a series of 1-alkenes, C_6 to C_{16}, and of *n*-decylcyclopentane, *n*-decylcyclohexane and *n*-decylbenzene. J. J. Jasper and E. R. Kerr. Am Chem Soc J 76:2659-61 My 20 '54

Physical properties of *n*-hexadecane, *n*-decylcyclopentane, *n*-decylcyclohexane, 1-hexadecene and *n*-decylbenzene. D. L. Camin, A. F. Forziati and F. D. Rossini. bibliog J Phys Chem 58:440-2 My '54

Rotation in solid mixtures of neohexane and cyclopentane from 20°K to their melting points. J. G. Aston and others. bibliog diags J Chem Phys 22:460-3 Mr '54

CYCLOPENTANOL

Some reactions of 1 : 3 : 3 : 4 : 4-pentamethyl-2-acetyl*cyclo*pentan-1-ol. W. Cocker and J. T. Edward. Chem & Ind p760-1 Je 26 '54

Some reactions of 1 : 3 : 3 : 4 : 4-pentamethyl-2-acetyl*cyclo*pentan-1-ol. M. Kolobielski and J. Wiemann. bibliog Chem & Ind p 1178-9 S 18 '54

CYCLOPENTANONE

Direct formation of *cyclo*pentanones by the action of mineral acids on carboxy-adipic acids and related compounds. L. Crombie, J. E. H. Hancock and R. P. Linstead. Chem Soc J p3496-503 N '53

Formation of ketones; the formation of some substituted *cyclo*pentanones by the Dieckmann reaction. R. I. Reed and M. B. Thronley. Chem Soc J p2148-50 Je '54

Spectrum

Microwave spectrum of cyclopentanone. G. Erlandsson. J Chem Phys 22:563-4 Mr '54

CYCLOPENTENE

Sulfonation of olefins; stereochemistry of the reaction with cyclopentene and cyclohexene. F. G. Bordwell and M. L. Peterson. bibliog Am Chem Soc J 76:3957-61 Ag 5 '54

CYCLOPENTYLMETHYL **group**

Cyclohexyl and cyclopentylmethyl radicals. F. H. Seubold, jr. Am Chem Soc J 76:3732-3 Jl 20 '54

CYCLOPROPANE

Behavior of cyclopropyl ketones in the Schmidt reaction. S. C. Bunce and J. B. Cloke. bibliog Am Chem Soc J 76:2244-8 Ap 20 '54

Conjugative effects of cyclopropane rings; synthesis and properties of 1-methyl-4-isopropyltricyclo[4,1,0,^{1,6},O^{2,4}]heptanon-5. R. H. Eastman. Am Chem Soc J 76:4115-17 Ag 20 '54

Conjugative effects of cyclopropane rings; the preparation and properties of α-hydroxyumbellulone. R. H. Eastman and J. C. Selover. Am Chem Soc J 76:4118-21 Ag 20 '54

Contribution of the cyclopropyl ring to molar refraction. V. A. Slabey. Am Chem Soc J 76:3603-4 Jl 5 '54

Low reactivity of cyclopropane derivatives toward free radicals. G. S. Hammond and R. W. Todd. bibliog Am Chem Soc J 76:4081-3 Ag 20 '54

Reaction of thiacyclopropanes (olefin sulfides) and thiacyclobutanes with organolithium compounds. F. G. Bordwell, H. M. Andersen and B. M. Pitt. bibliog Am Chem Soc J 76:1082-5 F 20 '54

Spectrum

Characteristic infrared absorption bands of the cyclopropyl ring. V. A. Slabey. Am Chem Soc J 76:3604-5 Jl 5 '54

CYCLOTRON

Acceleration of nitrogen-14 (+6) ions in a 60-inch cyclotron. G. B. Rossi and others. Phys R 93:256-7 Ja 1 '54

Alternating gradient focusing of cyclotron external beam. E. L. Hubbard and E. L. Kelly. il diags R Sci Instr 25:737-9 Ag '54

Amateur scientist; El Cerrito cyclotron. A. G. Ingalls. diags Sci Am 189:154+ S '53

Application of thermocouples to target temperature measurement in the internal beam of a cyclotron. W. J. Sturm and R. J. Jones. R Sci Instr 25:392-3 Ap '54

Centrifugal pump target assembly for the cyclotron bombardment of liquids. W. M. Garrison and others. il diags R Sci Instr 24:462-3 Je '53

CYCLOTRON—*Continued*

Characteristics of a proposed double-mode cyclotron. M. J. Jakobson and F. H. Schmidt. diag Phys R 93:303-5 Ja 15 '54

Concentration of a cyclotron beam by strong focusing lenses. F. B. Shull and others. il R Sci Instr 25:364-7 Ap '54

Cyclotron beam energy determination by a time-of-flight method. J. H. Manley and M. J. Jakobson. il diag R Sci Instr 25:368-9 Ap '54

Cyclotron oscillators and the shifting interdee ground surface. F. H. Schmidt and M. J. Jakobson. diags R Sci Instr 25:136-9 F '54

High-intensity ion source for cyclotrons. R. S. Livingston and R. J. Jones. bibliog il diags R Sci Instr 25:552-7 Je '54

Measurement of angular distributions of nuclear reaction products with an internal cyclotron beam. B. L. Cohen and R. V. Neidigh. bibliog il R Sci Instr 25:255-61 Mr '54

Method of measuring short beta-decay lifetimes. R. N. Thorn and R. W. Waniek. diags R Sci Instr 24:391-3 My '53

New deuterium supply for cyclotron ion sources. J. J. Burgerjon. diags R Sci Instr 25:522-3 My '54

Preparation of unusual targets for cyclotron studies. N. S. Wall and J. W. Irvine, jr. R Sci Instr 24:1146-7 D '53

Regenerative deflection as a parametrically excited resonance phenomenon. S. E. Barden. bibliog R Sci Instr 25:587-93 Je '54

Theory of the fixed frequency cyclotron. B. L. Cohen. bibliog R Sci Instr 24:589-601 Ag '53

University of Washington sixty-inch cyclotron. F. H. Schmidt and others. bibliog il diags R Sci Instr 25:499-510 My '54

See also

Omegatron

CYCLOUNDECANE

9-Methyl - 3,9 - diazatricyclo[3.3.1.$2^{8,9}$]undecane. H. M. Fales and R. A. Barnes. Am Chem Soc J 76:1947-8 Ap 5 '54

CYLINDERS

Airflow about cone-cylinders with curved shock waves. V. E. Bergdolt. bibliog il J Aeronautical Sci 20:751-6 N '53

Cylindrical shock waves produced by instantaneous energy release. S. C. Lin. J Ap Phys 25:54-7 Ja '54; Discussion. M. Birk and others. 25:1208 S '54

Determination of the drag on a cylinder at low Reynolds numbers. R. K. Finn. bibliog diags J Ap Phys 24:771-3 Je '53

Effect of single roughness elements on the heat transfer from a 1 : 3 elliptical cylinder. R. A. Seban and others. bibliog il diag A S M E Trans 76:519-26 My '54

Intermediate state of a hollow superconducting tin cylinder. J. Gittleman. bibliog diags Phys R 92:561-5 N 1 '53

Limits and fits for cylindrical parts; proposal for an American Standard; reference book sheets. Am Mach 98:151, 153, 155 Jl 19; 143, 145, 147 Ag 2; 151, 153, 155 Ag 16; 119, 121 Ag 30 '54

Local heat-transfer coefficients on surface of an elliptical cylinder, axis ratio 1 : 3, in a high-speed air stream. R. M. Drake, jr. and others. bibliog il diags A S M E Trans 75:1291-301; Discussion. 1301-2 O '53

Measurements of turbulent skin friction on cylinders in axial flow at subsonic and supersonic velocities. D. R. Chapman and R. H. Kester. bibliog(33 titles) il diags J Aeronautical Sci 20:441-8 Jl '53

Natural-convection heat transfer at reduced pressure. J. R. Kyte, A. J. Madden and E. L. Piret. bibliog il diags Chem Eng Prog 49:653-62 D '53

Thermal contraction of a split hollow cylinder. W. Karush and A. V. Martin. J Ap Phys 24:1427-31 D '53

Torsion of anisotropic elastic cylinders by forces applied on the lateral surface. H. Luxenberg. bibliog diag J Res Nat Bur Stand 50:263-76 My '53

Transient thermal stresses in circular disks and cylinders. G. Horvay. bibliog A S M E Trans 76:127-35 Ja '54

Transition into the intermediate state of hollow superconducting cylinders. B. Serin and others. bibliog Phys R 92:566-8 N 1 '53

Viscous flow in multiparticle systems; motion of a sphere and fluid in a cylindrical tube. J. Happel and B. J. Byrne. bibliog Ind & Eng Chem 46:1181-6 Je '54

CYLINDERS (engines, etc.)

Absorption of sulfur dioxide in cylinder zone oil films in a Diesel engine. F. A. M. Buck. bibliog Ind & Eng Chem 46:1318-21 Je '54

Chromium plating die-cast aluminum engine cylinders. F. M. Burt. il plan Metal Finishing 51:65-9 N '53

Get better engine performance by thorough overhaul of cylinder head. il Bus Transportation 33:38-9 Ja '54

It's cheaper to salvage cylinders; wire inserts perform an inexpensive service after thread damage. Steel 133:110 S 14 '53

Over 6,000 cylinder heads reclaimed by welding. il Ry Loco & Cars 127:52-7+ D '53

Photographic study of events in a 14-in. two-cycle gas-engine cylinder. R. L. Boyer and others. il diags A S M E Trans 76:97-106; Discussion. 106-8 Ja '54

Lining

How to reduce Diesel-cylinder liner corrosion. F. J. McCloud. il Marine Eng 59:50-1+ Ag '54

Now you can deglaze your Diesel liner walls. H. P. Yount. il Power 98:134 Je '54

Water side deterioration of Diesel cylinders. F. L. LaQue. il Power Eng 58:76-7 Ja '54

Manufacture

Cylinder assemblies speed up Diesel production; Mirrlees, Bickerton, & Day, ltd. il Am Mach 98:108-9 Mr 29 '54

Machining operations on components of the new Mercury engine; cylinder block automation. T. Mac New. il Automotive Ind 110:52-4+ Je 1 '54

Machining operations on components of the new Mercury engine; latest tooling for making cylinder heads. T. Mac New. il Automotive Ind 110:56-9 Ap 1 '54

Osborn rotary automatic molds cylinder block halves. il Automotive Ind 109:81 N 1 '53

Testing

Plant develops unusual high pressure testing unit; Herman testing equipment. il Iron Age 173:112 Ja 21 '54

Wear

Corrosion is a major cause of wear in engine cylinders. O. W. Wuerz. Automotive Ind 111:60-1 Ag 1 '54

Mechanism of corrosive wear in passenger-car service. J. G. Ryan and B. W. DeLong. bibliog diags Am Pet Inst Proc 33(3):216-21 '53

Use of radioactive-tracer technique in the wear-testing of engine lubricating oils. A. Dyson and K. R. Williams. pl Inst Pet J 39:524-30 Ag '53

CYPRESS

Florida entrepreneur, a rugged individualist; Thomas Gaskins cypress knee workshop and museum. il Manuf Rec 123:31 S '54

CYPRUS

See also

Metal working industries—Cyprus

Economic conditions

Economic conditions abroad. For Comm W 51:6 F 15 '54

CYSTEINE

Catalytic activity of cysteine and related compounds in the iodine-azide reaction. D. W. Whitman and R. M. Whitney. bibliog Anal Chem 25:1523-7 O '53

New derivative of thiamine with cysteine. T. Matsukawa and S. Yurugi. Science 118:109-11 Jl 24 '53

Reactions between mercuric mercury and cysteine and glutathione; apparent dissociation constants, heats and entropies of formation of various forms of mercuric mercapto-cysteine and -glutathione. W. Stricks and I. M. Kolthoff. bibliog Am Chem Soc J 75:5673-81 N 20 '53

CYSTINE

Analysis

Amperometric titration of oxidized glutathione in presence of cystine. W. Stricks and I. M. Kolthoff. bibliog Anal Chem 25:1050-7 Jl '53

Distribution of cystine in the cortex of wool. E. H. Mercer and others. bibliog diag Textile Res J 24:615-18 Jl '54

Polarographic and amperometric mercurometric determination of disulfide groups. W. Stricks, I. M. Kolthoff and N. Tanaka. bibliog Anal Chem 26:299-303 F '54

CYTIDINE

Deoxyribonucleosides and related compounds; the configuration at the glycosidic centre in deoxyadenosine and deoxycytidine. W. Andersen and others. Chem Soc J p 1882-7 Je '54

CYTIDINE phosphates

Cytidine-5′ phosphate and its derivatives in lactobacillus arabinosus. J. Baddiley and A. P. Mathias. Chem & Ind p277 Mr 6 '54

CYTIDYLIC acid

Nucleotides; mononucleotides derived from deoxycytidine; structure of cytidylic acids *a* and *b*. A. M. Michelson and A. R. Todd. Chem Soc J p34-40 Ja '54

Studies on the structure of nucleic acids; identification of the isomeric cytidylic and adenylic acids. L. F. Cavalieri. bibliog Am Chem Soc J 75:5268-70 N 5 '53

CYTOCHROMES

New soluble cytochrome. S. R. Elsden, M. D. Kamen and L. P. Vernon. Am Chem Soc J 75:6347-8 D 20 '53

Oxidative phosphorylation in the cytochrome system of mitochondria. S. O. Nielsen and A. L. Lehninger. bibliog Am Chem Soc J 76:3860-1 Jl 20 '54

CYTOLOGY. See Cells

CZECHOSLOVAKIA

Politics and government

Changes in Czechoslovakia. Economist 168:863-4 S 26 '53

D

DCMX. See Chlorophenol

DDT

DDT detoxification product in American cockroaches. J. S. Butts and others. Science 117:699 Je 19 '53

DDT paint, spray formula. Soap & San Chem 30:99+ F '54

DDT resistance in bed bugs. Soap & San Chem 29:171 Ag '53

Methyl ethyl ketone prolongs effectiveness of DDT sprays. Chem & Eng N 32:3259 Ag 16 '54

Mothproofing wool with DDT. A. S. Weatherburn and C. H. Bayley. bibliog il Soap & Chem Spec 30:141-4+ S '54

Synthesis of DDT labeled with carbon-14 in the tertiary position. G. W. Pearce and J. A. Jensen. bibliog Science 118:45-6 Jl 10 '53

Two ways to distribute DDT. il diag Chem W 72:57-8+ My 16 '53

Analysis

Determination of DDT and related substances in human fat. A. M. Mattson and others. bibliog Anal Chem 25:1065-70 Jl '53

Microdetermination of DDT in river water and suspended solids. B. Berck. bibliog Anal Chem 25:1253-6 Ag '53

Manufacture

Monochlorobenzene and DDT; Monsanto chemical co. diag Pet Refiner 32:182-3 N '53

Physiological effect

Case of panmyelophthisis after exposure to chlorophenothane and benzene hexachloride. L. Friberg and J. Martensson. A M A Archives Ind Hygiene & Occup Med 8:166-9 Ag '53

DDT toxicity, up to date. F. Princi. Soap & Chem Spec 30:167+ Je '54

DDT, Analogs of

Insecticidal action of heterocyclic analogs of 2,2,2-trichloro-1-(*p*-chlorophenyl)-ethanol. R. C. Blinn, F. A. Gunther and R. L. Metcalf. bibliog Am Chem Soc J 76:37-9 Ja 5 '54

DACRON

Drawing of terylene. I. Marshall and A. B. Thompson. bibliog il diags J Ap Chem 4:145-53 Ap '54

Dyeing and processing of synthetic fibers. R. A. Travis. Am Dyestuff Rep 42:845-6 D 7 '53

Experience with synthetic fibres in felts. Paper Tr J 138:22 Ap 30 '54

Heat setting of terylene polyester filament fabrics in relation to dyeing and finishing. D. N. Marvin. Soc Dyers & Col J 70:16-21 Ja '54

How DuPont developed Dacron. D. Wharton. il Adv Agency 46:80-1+ N '53

New fire hose material is light and tough; Dacron polyester fiber. Safety Maint & Prod 107:39 Ja '54

One fiber, two names, three plants. il Chem W 72:44-5 My 2 '53

Polyesters, like polyamides, are suitable for films and fibers; Schoellkopf award. Chem & Eng N 31:2391-2 Je 8 '53

Printing of terylene polyester fibre. A. G. H. Michie. Soc Dyers & Col J 70:13-15 Ja '54; Abstract. Am Dyestuff Rep 43:448 Jl 5 '54

Progress in polyesters; Dacron. Mod Textiles Mag 35:48 S '54

Progress in terylene. Economist 169:275 O 24 '53

Spinning Dacron polyester staple. Mod Textiles Mag 34:84 D '53

Study in three-fiber blends; what mixtures of rayon, Dacron, Orlon impart to a fabric. J. F. Sayre and A. J. Weldon. Mod Textiles Mag 35:32-3+ Jl '54

Terylene for Canada. Chem Age (Lond) 68:548 Ap 11 '53

Terylene for Canada. flow sheet il Can Chem Process 38:32+ S '54

See also

Bleaching—Dacron

Cotton mixtures

Dacron and cotton form happy union. J. Campbell. il Mod Textiles Mag 35:31+ F '54

Dyeing

See Dyes and dyeing—Dacron

Spectrum

Infra-red spectrum of terylene. G. J. Weston. Chem & Ind p604 My 22 '54

DAHLIAS

Isolation of a benzylidenecoumaranone (aurone) from a yellow dahlia. C. G. Nordstrom and T. Swain. bibliog Chem & Ind p823-4 Ag 1 '53

DAIRIES

Electric equipment

Dairy show. il Elec R (Lond) 153:1073-7 N 6 '53

Employees

All-employe contest adds 4,200 milk buyers; Rieck Dairy. J. E. Alexander. Sales Management 71:84+ S 1 '53

Fresh twist on incentives; salesmen compete for holidays; Lucas Valley dairy. Sales Management 73:112+ S 20 '54

Is profit sharing for you? case of a small dairy, Sunrise dairies. I. C. Miller. il Food Eng 26:52-4+ Je '54

Equipment

Dairy-formed printed foil hoods. il Mod Packaging 27:184-5 Mr '54

Full-flavored maple syrup process puts idle dairy units to work. W. K. Jordan and others. il Food Eng 26:70-1+ My '54

Multi-product dairy plant; Southern dairies; pictured flow sheet. Food Eng 26:118-21 My '54

New ideas in milk agitation; mixing with compressed air. J. P. Smallwood. il diags Comp Air Mag 59:77-8 Mr '54

Single-product benefits in multi-product plant; simultaneous ice cream and milk processing; Southern Dairies. A. V. Gemmill. flow plan il diag Food Eng 26:52-5+ Mr '54

DAIRIES—Equipment—*Continued*

Tabbing the flow spots profits; Dodds Alderney dairy. il diag Food Eng 26:40+ Ja '54

Painting

Painting with fewer repeats; H. P. Hood & sons. il Food Eng 25:127+ N '53

Sanitation

Influence of accumulated soil on bacterial population of milking machines. W. L. Mallmann and others. Soap & San Chem 29:132-3+ N '53

Soap use in dairies. H. G. Harding. Soap & San Chem 29:52-3+ Ap '53

DAIRY bacteriology

Influence of accumulated soil on bacterial population of milking machines. W. L. Mallmann and others. Soap & San Chem 29:132-3+ N '53

DAIRY farms

Sanitation

Fly control on dairy farms. R. J. Dicke. Soap & Chem Spec 30:177+ My '54

DAIRY federation, International. See International dairy federation

DAIRY laboratories

Shifting the emphasis; National dairy research laboratories, inc. il Chem W 73:54 D 26 '53

University of Wisconsin's new dairy lab. il plans Arch Rec 113:148-51 Mr '53

DAIRY products

Dairy supports slashed to 75 percent of parity. Oil Paint & Drug Rep 165:3+ F 22 '54

Dairymen offer plan for handling surplus. Bsns W p 108 N 28 '53

Golden State line gets family identity in wholesale face-lifting. E. Gidlow. il Sales Management 70:60-1+ Je 15 '53

Research approach to design modernization; H. P. Hood & sons. il Mod Packaging 27:122-4+ N '53

Skimming the cream; processors fatten up profit margins. J. V. Sherman. Barron's 33:9-10 N 2 '53

See also

Butter
Casein
Cheese
Milk

Advertising

Why doesn't Kraft knock off all this expensive advertising. Sales Management 71:86+ S 15 '53

Why planned integration of national and local ads puts more power into both; Beatrice Foods. J. Tein. il Ptr Ink 244:28-30 Jl 3 '53

DAIRY waste

Non-clogging foam-safe aerators lick cheese-waste problem. K. L. Schulze. il diags Food Eng 26:51-3 S '54

Analysis

Magnetic oxygen analyzer in studies of oxygen uptake. S. R. Hoover and others. bibliog il Water & Sewage Works 101:81-3 F '54

Measurement of oxygen transfer. S. R. Hoover and others. bibliog il Instruments & Automation 27:774-5 My '54

Measurement of oxygen uptake by oxidation-reduction potential. J. P. Horton. flow sheet il Instruments & Automation 27:1312-13 Ag '54

DAIRYING

Look what gigantic competition did for a spunky second-placer! Lucas Valley dairy. Sales Management 72:110+ Je 15 '54

See also

Milk plants

Mexico

Mexico issues new regulations on dairy products; imports affected. For Comm W 50:9 N 16 '53

DALLAS

Railroad sponsors an industrial district. il plans Arch Forum 100:112 Ap '54

Hotels, restaurants, etc.

Story of the new Dallas Statler. il plans diags Arch Rec 115:158-63 Je '54

Sewerage

Small tunneling machine halves crew, doubles output. H. T. Perez. il diags Constr Methods 36:150-2+ Ap '54

Water supply

Cloud seeding operations at Dallas. I. P. Krick. maps Am Water Works Assn J 45:1144-50 N '53

Meeting the Dallas water shortage. K. F. Hoefle. Am Water Works Assn J 45:1139-43 N '53

DALTON, John, 1766-1844

John Dalton's grace. T. L. Elliott. J Chem Educ 30:569 N '53

DAMAGES

Disability, rehabilitation and the law of damages. F. A. Hellebrandt. bibliog Ind Med 22:558-60 D '53

See also

Employers' liability
Negligence
Personal injuries

DAMBONITOL

Dambonitol; its isolation from dyera lowii and dyera costulata and its constitution. A. J. Comollo and A. K. Kiang. Chem Soc J p3319-21 O '53

DAMPING of vibration. See Vibration

DAMPNESS in buildings

Builder's formula solves sweating problem in all-concrete houses. il Am Bld 76:174+ Je '54

Vapor moisture product of tight construction. Am Bld 75:280+ Je '53

DAMS

Air photos spot fill for dam in wilderness. il Eng N 151:47 O 29 '53

Army engineer dams cut drought losses. Eng N 151:24 N 12 '53

Buford dam; Corps of engineers builds multipurpose structure near Atlanta, Ga. C. E. Bentzel. il maps diags Civil Eng 24:164-6 Mr '54

Buford dam; features of chief construction interest. C. A. Jackson, jr. il Civil Eng 24:167-9 Mr '54

Clark Hill plan hit; co-ops protest proposal for distribution of power. Elec World 141:78 Mr 8 '54

Concrete on call at Palisades dam. il Constr Methods 35:57 N '53

Dalles dam, a $350-million giant. il map Eng N 151:29-32 O 22 '53

Dam building in the gold country; Folsom dam. il plan Eng N 151:39-41 Jl 23 '53

Earth overflow dike, Jim Woodruff dam. J. M. Polatty. diags Am Soc C E Proc 79 [no 222]:1-7 Jl '53

11 Texas cities join in giant pipeline and dam project. B. H. Cruce. maps Pub Works 85:75-6 Ap '54

Equipment geared for big fill job; Cherry Valley dam. L. L. Wise. il Constr Methods 36:50-3 S '54

Fast fleet moves 5,000,000 yd. for Vermillion Valley dam's earth fill. il Constr Methods 36:64-5 F '54

Harlan county dam in Nebraska. il map diags Engineer 196:313-14 S 4 '53

Hungary pushes multi-purpose dam. il Eng N 151:64 N 19 '53

Indian engineering news; Tungabhadra dam. Engineer 197:256 F 12 '54

India's TVA shows good progress. il maps Eng N 152:46+ Mr 4 '54

Irrigation in southern India; Peechi Dam project. R. D. Rajan. map Engineering 177:243 F 19 '54

New lifeline for 12 thirsty Texas cities. il map Eng N 151:43-4+ Jl 16 '53

New Rio Grande flood and silt control project near Albuquerque is completed; Jemez Canyon dam. il Eng N 151:76 O 8 '53

Palisades dam, an earthfill with special features. il map diag Eng N 151:28-31 D 31 '53

Plans for three proposed major dams in Idaho outlined by army engineers. Eng N 151:24 D 3 '53

Rush work on three western dams. Eng N 151:26 Ag 27 '53

Six dams on the Raquette. il map Eng N 151:30-2 S 17 '53

Special portals for outlet tunnels maintain slope stability at Garrison dam. K. S. Lane. il plan diags Civil Eng 23:596-9 S '53

DAMS—*Continued*

Trinity River flood control bolstered; Lavon dam. Eng N 151:24 N 12 '53

Use of salt in clay core aids winter dam building. J. B. Hays. il diag Eng N 151:41 Ag 6 '53

See also

Dikes (engineering)

Hydroelectric plants

Reservoirs

Cost

Dam and reservoir, Pennsylvania; unit prices. Eng N 151:96 S 3 '53

Eighteen bids closely bunched for Oklahoma dam; unit prices. Eng N 152:75 Mr 25 '54

Kansas fishing dam bid 26 per cent under estimate; unit prices. Eng N 152:91 Ap 15 '54

Design

Basic design criteria for concrete gravity and arch dams. J. J. Hammond. bibliog diags Am Concrete Inst J 25:657-68 Ap '54

Concept of slope design of earth dam embankment. C. Y. Li. diags Am Soc C E Proc 79 [no 327]:1-9 N '53

Fish problem

Traffic lights for fish. Elec World News ed 140:24 S 14 '53

U.S. agency allotted funds for fish study. Elec World 140:123 S 21 '53

Seepage

Seepage through dam checked by injecting chrome-lignin. Eng N 151:247 O 8 '53

Studies of settlement and seepage at Clark Hill dam during and after construction. F. M. Bell. diags Am Soc C E Proc 79 [no 220]:1-11 Jl '53

Statistics

Statistical review of dam construction. R. A. Sutherland. diags Am Soc C E Proc 79 [no 355]:1-57 N '53

DAMS, Concrete

Aggregates cooled on belts for Vaitarna dam in India. E. A. Bertsch and A. Silvera. il Eng N 151:37-8 S 3 '53

Australia's Warragamba dam; cooling mass concrete. il Comp Air Mag 59:96-8 Ap '54

Basic design criteria for concrete gravity and arch dams. J. J. Hammond. bibliog diags Am Concrete Inst J 25:657-68 Ap '54

Blast-furnace slag cement plant at Cluanie dam. il diag Engineering 176:557 O 30 '53

Cableway places concrete, sets record; Pine Flat dam. il Elec World 140:114+ N 2 '53

Compacting concrete by vibration; Pine Flat dam. W. G. Mitchell. Am Concrete Inst J 26:93-4 S '54

East's first fly-ash concrete dam. il Eng N 151:35-6 S 17 '53

840 miles of tubing cools concrete during construction of Hungry Horse dam. C. L. Townsend. il Heating-Piping 26:172-3 Ja '54

First McNary power goes on the line. F. S. Tandy. il Elec West 112:68-70 Ja '54

Folsom Dam construction in full stride. L. L. Wise. il Constr Methods 36:54-7 Ag '54

Good neighbors dedicate a dam; Falcon dam. il Elec World News ed 140:15-17 N 9 '53

Ice-cold concrete; dam builders use cracked ice. flow diag il Arch Forum 98:163 Ap '53

Lightweight dam to pass heavyweight flows over new diffuser spillway. il diag Eng N 151:43-4+ Ag 20 '53

Problem of fine sand recovery at Folsom dam. W. B. Lenhart. il Rock Prod 57:70-3 My '54

Processing aggregates for Denver's dam no.22. W. B. Lenhart. flow sheet il Rock Prod 56:94-7 O '53

Removing lignite from sand; reclaim acceptable sand for Garrison dam. W. B. Lenhart. flow sheet il Rock Prod 56:86-9 O '53

Rocky Mountain mass concrete operations. G. P. McIndoe. flow diag diag Am Soc C E Proc 79 [no 268]:1-12 S '53

Single hydro project doubles Morocco's power. W. G. Bowman. il maps diag Eng N 152: 42-5 F 11 '54

Sutherland dam nears completion after 25-year construction lapse. il Eng N 151:48-9 N 12 '53

Waikato River resources. map Elec R (Lond) 154:214 Ja 29 '54

Warragamba dam; placing concrete in high ambient temperatures. il Engineering 177: 400-1 Mr 26 '54

World's tallest dam rises in Switzerland. W. G. Bowman. il maps plan diag Eng N 151:32+ D 3 '53

Cost

Concrete items win dam-powerhouse job in Oregon; unit prices. Eng N 152:105 Ja 28 '54

DANIELS, Arthur C.

Sketch. por East Underw 55:3 Ja 1 '54

DANUBE river

Danube carries strategics to reds. map Iron Age 173:95-6 My 20 '54

Good news from the Danube. Economist 170: 86 Ja 9 '54

DAPHNIA

Toxicity thresholds of certain sodium sulfonates for daphnia magna Straus. L. Freeman. Sewage & Ind Wastes 25:1331-5 N '53

DARK adaptation. See Eye—Accommodation and refraction

DAVIDSON, Norman Ralph, 1916-

California award to Davidson. por(cover) Chem & Eng N 32:3774-5 S 20 '54

DAVIS, David D. d 1954

Sketch. por Brick & Clay Rec 124:27 Mr '54

DAVIS, George E., 1850-1907

The late George E. Davis. N. Swindin. Chem Age (Lond) 69:795-8 O 17 '53; Same. por Chem & Ind p 1103-5 O 17 '53

DAVY, Edmund, 1785-1857

Edmund Davy. J. Russell. bibliog J Chem Educ 30:302-4 Je '53

DAVY and United engineering company, limited

Statement by the chairman. D. F. Campbell. Economist 168:899 S 26 '53

DAWES brothers

Pure Oil founder dies; ends service of Dawes brothers. pors Nat Pet N 45:37 Je 3 '53

DAYLIGHT

Continuous daylight recorder. W. H. Billhartz and others. bibliog il diag Illum Eng 49:2-4 Ja '54

Daylight survey methods. E. E. Vezey and others. Illum Eng 49:245-50 My '54

Daylighting with a new kind of functional skylight. R. A. Boyd and J. L. Reid. il plans diags Illum Eng 49:199-203; Discussion. 203-6 Ap '54

Daylighting with plastic domes. B. F. Greene. il plans diags Illum Eng 49:209-14; Discussion. 214-15 Ap '54

Functional top lighting with glass block. H. F. Kingsbury and others. il diags Illum Eng 49: 185-7; Discussion. 188-9 Ap '54

Modified lumen method of daylighting design; abstract. J. W. Griffith and others. Illum Eng 49:440-1 S '54

New daylighting system brings color, flexibility in classroom design. il Arch Rec 114:172-3+ D '53

Portable fluoroscope using ultraviolet from daylight. J. W. Walley. il diags Chem & Ind p 1278-9 N 28 '53

Simple daylight factor meter. J. Longmore and R. G. Hopkinson. il J Sci Instr 31:214-17 Je '54

See also

Skylights

DAYLIGHT, Artificial

Approaching sunlight; recent improvements in mercury vapour light sources. Elec J 151:1853-4 D 4 '53

Mosaic filter daylight source for aerophotographic sensitometry in the visible and infrared region. M. R. Nagel. il Opt Soc Am J 44:621-4 Ag '54

DAYTON, Ohio

Streets

Engineering means swifter, safer traffic. il Eng N 151:54-6 O 29 '53

Water supply

Dayton's new treatment plant; largest U.S. well water softening and iron removal installation. V. R. Kneer. il plan diags Water & Sewage Works 101:95-102 Mr '54

Dayton's water treatment plant pays its own way. L. C. Huffman. il map Civil Eng 24: 1-4 Ja '54

DEAFNESS
Deafness and industrial din. Bsns W p97 D 19 '53
Industrial noise as compensation problem. H. D. Sayer. East Underw 54:29+ D 4 '53
Industrial noise; noise deafness. G. E. Shambaugh, jr. il diag Factory Management 111:118-20 D '53
No wage loss, no award in plant deafness cases; changes in Wisconsin law. Dun's R & Mod Ind 62:182 O '53
Noise; day of reckoning dawning; guinea pig industrial deafness case victory for labor. T. Metaxas. Iron Age 172:67 O 22 '53
See also
Hearing

DEALER helps
Ampro sales leap 33 per cent when everybody fights for prizes. H. Marx. il Sales Management 71:30-2+ Jl 1 '53
Are your dealers using the selling aid you provide. J. J. Crowley, jr. Paint Oil & Chem R 116:26-7 N 5 '53
Are your mailers working this hard? Shur-Rane's direct mail and follow-up to inquiries. G. Svenson. il Sales Management 72:68-70 Je 1 '54
Atlantic gives distributors station aid. Nat Pet N 45:43 Jl 15 '53
Congoleum-Nairn hangs a campaign on U-Do-It theme. il Sales Management 70:102+ Ap 15 '53
Dealer school on wheels; Armstrong cork co.'s mobile auditorium. il Chem W 75:46 Jl 24 '54
15-point check list for dealer helps. J. G. Dakins. Sales Management 70:110-11 Ap 1 '53
Harvester gives dealers practical pay plans for salesmen. J. H. Coats. Sales Management 70:65-6+ Je 1 '53
Helping dealers boost sales of TBA; Associated tires, inc. il Nat Pet N 45:28-9+ D 9 '53
How new service is sales-packaged; du Pont spring drain-out plan. C. A. Weslager. il Ptr Ink 244:69-70 Ag 14 '53
How product output and advertising can be dovetailed with retail promotions; Handmacher-Vogel. N. Keine. il Ptr Ink 244:56-7 S 18 '53
How to edit and distribute a company-sponsored magazine. A. M. Andersen. il Sales Management 71:89-93 N 1 '53
How to sparkplug dealer sales. J. K. Blake. il Dun's R & Mod Ind 62:44-7 S '53
Keen sales sense gives new vitality to a homely utility product; J. Marie Martin co. B. Morden and V. Littell. il Sales Management 71:40-2 D 15 '53
Merchandising direct to dealers wins quick distribution for new product; Revere camera co. E. J. McGookin. il Ptr Ink 243:42-3 Je 12 '53
New concepts in dealer aids. Management R 42:282-3 My '53
Now Main Street faces on plumbers' back alley shops; American radiator & standard sanitary corp. better retailing plan. D. D. Couch. il Sales Management 70:38+ Ap 1 '53
Polling the distributors. il Chem W 74:87-8 Ap 10 '54
Preferences in dealer aids. Sales Management 72:73 F 15 '54
Selling tools increase humidifier sales. A. Stout. il Sheet Metal Worker 45:46-7 Ap '54
Shell's training program aims at giving dealers what they want to know. il Nat Pet N 46:30-1+ F 17 '54
Small-town merchant's plea, Give us more good displays! T. G. Harris, jr. il Sales Management 71:96-8 S 15 '53
Team play; books and hardware. il Sales Management 70:56+ Ap 15 '53
Three-step plan puts this regional brand into fight for national leadership; Caloric stove co. J. W. Dragonetti. Ptr Ink 245:35-7 O 16 '53
What can we do to grade-up our dealers? Armstrong cork co. R. C. Stabern. il Sales Management 71:78+ S 15 '53
What can you do to put promotional zing into a slow-moving item? Sylvania electric products, inc. A. C. Viebranz. il Sales Management 73:52-4 S 1 '54
What size freezer? Amana dials answer. Sales Management 71:86 D 15 '53
When customers just won't listen; illustrations with text. Sales Management 70:28-9 Ap 15 '53
When seals and labels were brought into step; Seal and label institute. Sales Management 71:60+ O 1 '53
See also
Advertising—Dealer helps
Advertising, Point-of-sale
Models, Miniature

DEALER relations
Beating the clock with Masland; an A-to-Z sales setup in 11 months; key-dealer build-up. A. R. Hahn. Sales Management 72:62+ Je 1 '54
Distributor survey leads to harder-pulling advertising; Standard pressed steel co. il Ind Marketing 39:122-3 Mr '54
How Socony works with distributors. G. D. McDaniel. Nat Pet N 45:34-5+ O 14 '53
Is the wholesaler losing out? GE and Hotpoint adopt direct shipments to dealers for mixed carloads. Bsns W p41-2 N 28 '53
Marketer offers Hawaii vacation; M. M. Huggins sales campaign. Nat Pet N 46:34 F 3 '54
Put away your crystal ball and ask your dealers; Atlantic refining co. E. C. Cox, jr. Sales Management 70:17-20 pt 2 Ap 1 '53
Questions for distributor salesmen who want to help their dealers. H. J. Mitchell. Sales Management 71:81-2+ D 1 '53
When the dealer declares, but I make more money on a private brand! Cluett, Peabody developed and presented a profit story. J. Entis. Sales Management 70:56-8+ My 1 '53
See also
Electric utilities—Dealer relations
Gas companies—Dealer relations

DEALERS' contests. See Sales contests, Dealers'

DEAMINATION
Correlation of the rates of deamination of glucosaminides with configuration at the glycosidic centre. A. B. Foster and others. bibliog Chem & Ind p825-6 Ag 1 '53
Direct deamination of adenosine diphosphate by actomyosin. A. Deutsch and R. Nilsson. bibliog Chem & Ind p 1149-50 O 24 '53

DEATH, Causes of. See Mortality

DEATH, Presumption of
Urges analysis of evidence as substitute for seven-year presumption-of-death statute. P. M. Roca. Nat Underw (Life ed) 58:3 Ag 27 '54

DEATH penalty. See Capital punishment

DEATH rate. See Mortality—Statistics

DEATH tax. See Inheritance tax

DEATH VALLEY, California
Evidence of pleistocene man. T. Clements and L. Clements. bibliog il map Geol Soc Bul 64:1189-203, pl 1-4 O '53

DEBROMINATION
Cyclitols; debromination of inositol dibromohydrins; synthesis of new cyclohexanetetrols. G. E. McCasland and E. C. Horswill. bibliog Am Chem Soc J 76:2373-9 My 5 '54

DEBT
Business boom financed by corporate debt. W. B. Hickman. Comm & Fin Chr 178:1135 S 24 '53
Changes in public and private debt; with tabulations for selected years, 1916-1952. E. T. Bonnell and J. A. Gorman. Survey of Cur Bsns 33:13-19+ S '53
Debt counsellor survey by National life insurance company. Burroughs Clearing House 37:4-5 Ag '53
Debt now at record $640,000,000,000. Life Ins Courant 58:65 S '53
Deduction of bad debts. C. W. Tye. Rough Notes 97:62-4 Jl '54
Where now? W. W. Townsend. Comm & Fin Chr 178:1004 S 17 '53
See also
Credit

DEBTOR and creditor
See also
Suretyship and guaranty

DEBTS, Public

Summary of indebtedness of foreign countries to the United States government at June 30, 1953, and projections of contractual debt service (principal and interest) for calendar years, 1953-58; table. Survey of Cur Bsns 33:19 O '53

See also

Bonds, Government

Municipal finance

Austria

Austrian debt terms. Economist 169:201 O 17 '53

Brazil

Brazil debt payments. Economist 169:980 D 26 '53

Germany

West Germany sets up procedure for licensing foreign debt settlement. For Comm W 50:10 Ag 24 '53

Great Britain

Government's gilt-edged. Economist 169:355 O 31 '53

Increasing public debt as viewed in Britain. P. Einzig. Comm & Fin Chr 178:1020 S 17 '53

United States

Changes in public and private debt; with tabulations for selected years, 1916-1952. E. T. Bonnell and J. A. Gorman. Survey of Cur Bsns 33:13-19+ S '53

Debt limit; fact or fiction? Bsns W p 127-30 Ag 15 '53

Debt limit increase needed to solve Treasury's problems. G. Humphrey. Comm & Fin Chr 178:1719+ N 5 '53

Faults and virtues of the public debt. W. R. Burgess. Comm & Fin Chr 178:1228+ O 1 '53

Limit on the federal debt. L. Stafford. Banking 46:37-9+ S '53

Management of the public debt. A. G. Lanston. Comm & Fin Chr 178:1834+ N 12 '53

Our national debt; too high for safety? abstract. Management R 42:289-90 My '53

Public debt and guaranteed obligations, 1949-1952. Survey of Cur Bsns 1953 Sup p85 [supplemented in monthly numbers]

Public debt crowds the ceiling. Bsns W p31 Ag 1 '53

Towards sounder debt management. W. R. Burgess. Comm & Fin Chr 178:2258 D 10 '53

United States government debt; volume and kind of securities, Dec. 1940-1946, June and Dec. 1947-1952, monthly Jan.-Dec. 1953. Fed Res Bul 40:64 Ja '54 [cont monthly]

Will sound money policies be continued? A. G. Lanston. Trusts & Estates 93:30-3 Ja '54

See also

Bonds, Government —United States

DEBURRING. See Metal finishing

DEBYE, Peter J. W. 1884-

Journeys of discovery. por(cover) Chem & Eng N 32:1566 Ap 19 '54

DECABORANE. See Boron hydrides

DECALCOMANIA

Lithography as applied to the vitrified china industry. A. Dragonetti. il Am Cer Soc Bul 33:103-4 Ap 15 '54

DECALIN

Chlorination of *trans*-decalin. W. G. Dauben and R. C. Tweit. bibliog Am Chem Soc J 76:3197-9 Je 20 '54

Dynamic mechanical properties of the system polystyrene-decalin. L. D. Grandine, jr. and J. D. Ferry. bibliog J Ap Phys 24:679-85 Je '53

Presence of 1 : 7 dimethyl-4-*iso*propyldecalin in the carbon skeleton of laserpitine. F. Šorm and others. bibliog Chem & Ind p965 Jl 31 '54

DECALONE

Synthetic routes to *trans*-2-decalone. E. E. van Tamelen and W. C. Proost, jr. bibliog Am Chem Soc J 76:3632-4 Jl 20 '54

DECALYL perbenzoate

Rearrangement of *trans*-9-decalyl perbenzoate and per-*p*-nitrobenzoate in methanol and aqueous methanol. H. L. Goering and A. C. Olson. bibliog Am Chem Soc J 75:5853-9 D 5 '53

DECAMETHYLENEBENZENE

Macro rings; transannular effects in the 1,4-decamethylenebenzene series. D. J. Cram and H. U. Daeniker. bibliog diag Am Chem Soc J 76:2743-52 My 20 '54

DECANE

Effect of temperature on the adsorption of *n*-decane on iron. P. R. Basford, W. D. Harkins and S. B. Twiss. bibliog J Phys Chem 58:307-12 Ap '54

Phase equilibria in hydrocarbon systems; volumetric and phase behavior of decane-hydrogen sulfide system. H. H. Reamer and others. bibliog Ind & Eng Chem 45:1810-12 Ag '53

DECARBOBENZOXYLATION. See Carbobenzoxylation

DECARBONYLATION. See Carbonyl group

DECARBOXYLATION. See Carboxyl group

DECARBURIZATION. See Cast iron—Decarburization; Steel—Decarburization

DECAY of wood. See Wood—Decay

DECEDENTS' estates. See Estates, Decedents'

DECENTRALIZATION of industry. See Industry—Decentralization

DECHLORINATION

Dechlorination of some chloronitropicolines. H. E. Baumgarten, H. Chien-Fan Su and A. L. Krieger. bibliog Am Chem Soc J 76:596-9 Ja 20 '54

DECIMAL system

Coded decimal number systems for digital computers. G. S. White. Inst Radio Eng Proc 41:1450-2 O '53

Decimal dimensioning saves time and reduces errors. G. E. Rowbotham. diags Tool Eng 30:63-4 Je '53; Same cond. Product Eng 24:279-81 Ag '53

DECISION making in business. See Business management

DECOLORIZATION

Factors affecting percolation yields. E. J. Reeves. Pet Eng 25:C23-4 Jl '53

DECOMPOSITION

Adiabatic apparatus for the study of self-heating of poorly conducting materials. W. H. Raskin and A. F. Robertson. il diags R Sci Instr 25:541-4 Je '54

Chemical engineering unit processes; pyrolytic and catalytic decomposition of hydrocarbons. M. J. Sterba and V. Haensel. bibliog(160 ref) il Ind & Eng Chem 45:2034-41; 46:1888-94 S '53, S '54

Decomposition of *n*-octane catalyzed by bromides. R. F. Marschner and B. L. Evering. bibliog Ind & Eng Chem 45:1487-90 Jl '53

Decomposition of secondary alkyl chlorosulfites; the elimination reaction and isotope effects. C. E. Boozer and E. S. Lewis. bibliog Am Chem Soc J 76:794-6 F 5 '54

Decomposition of secondary alkyl chlorosulfites; the tertiary amine catalysis. E. S. Lewis and G. M. Coppinger. bibliog Am Chem Soc J 76:796-9 F 5 '54

Decomposition of Stenhouse dyes in solution. J. C. McGowan and K. Moss. Chem & Ind p23-4 Ja 2 '54

Decompositions of inorganic specimens during observation in the electron microscope. R. B. Fischer. il J Ap Phys 25:894-6 Jl '54

Electrical decomposition of sulfur hexafluoride. D. Edelson, C. A. Bieling and G. T. Kohman. bibliog il diag Ind & Eng Chem 45:2094-6 S '53

Explosive decomposition of triethylammonium nitrate-dinitrogen tetroxide mixtures. C. C. Addison and N. Hodge. Chem & Ind p 1315 D 5 '53

Production of active solids by thermal decomposition. S. J. Gregg and others. pl diag Chem Soc J p3940-56 D '53

Role of alcohols in the mechanism of the Fischer-Tropsch synthesis; the decomposition of alcohols in the presence of cobalt catalysts. E. J. Gibson. bibliog J Ap Chem 3:375-84 Ag '53

Role of the solvent in radical decomposition reactions; phenylazotriphenylmethane. M. G. Alder and J. E. Leffler. bibliog Am Chem Soc J 76:1425-7 Mr 5 '54

DECOMPOSITION—*Continued*
Simultaneous heat and mass transfer in a diffusion-controlled chemical reaction. C. N. Satterfield, H. Resnick and R. L. Wentworth. bibliog diags Chem Eng Prog 50: 460-6, 504-10 S-O '54
Thermal decomposition of anhydrous nitric acid vapour. W. R. Ellis and R. C. Murray. bibliog J Ap Chem 3:318-22 Jl '53
Thermal decomposition of guanidine perchlorate; catalysts and time-lag before ignition. A. Glasner and A. Makovky. Chem Soc J p 1606-10 My '54
Thermal decomposition of methyl linoleate hydroperoxide. L. Williamson. bibliog J Ap Chem 3:301-7 Jl '53
Thermal decomposition of *tert.*-butyl hypochlorite. A. D. Yoffe. Chem & Ind p963-4 Jl 31 '54
Thermal decomposition rates of carbonates in oil shale. E. E. Jukkola and others. bibliog diag Ind & Eng Chem 45:2711-14 D '53
Thermolysis of zinc monosalicylaldoxime. J. Rynasiewicz and J. F. Flagg. Anal Chem 26:1506 S '54

DECOMPOSITION, Heat of
Self-heating of hydrogen peroxide storage vessels. E. S. Shanley. bibliog Ind & Eng Chem 45:1520-4 Jl '53

DECORATION and ornament
See also
Decalcomania
Pottery—Decoration
Textile design

DECORATIVE lighting. See Lighting, Decorative

DECREPITATION
Sources of error in the decrepitation method of study of liquid inclusions. T. E. Stephenson. bibliog diag Econ Geol 47:743-50 N '52; Discussion. F. G. Smith and W. M. Little. 48:233-8 My '53

DECYLBENZENE
Orthobaric surface tensions and thermodynamic properties of the liquid surfaces of a series of 1-alkenes, C_6 to C_{16}, and of *n*-decylcyclopentane, *n*-decylcyclohexane and *n*-decylbenzene. J. J. Jasper and E. R. Kerr. Am Chem Soc J 76:2659-61 My 20 '54

DEEDS
Reliability of deed samples as indicators of land market activity. R. L. Tontz and others. bibliog Land Econ 30:44-51 F '54

DEFENSE, Department of. See United States—Defense, Department of

DEFENSE facilities maintenance board. See United States—Defense facilities maintenance board

DEFENSE housing. See Housing—United States—Defense workers

DEFENSE materials procurement agency
Retires, is ready to be judged. R. M. Stroupe. Iron Age 172:40 Ag 27 '53

DEFENSE materials system. See National production authority—Defense materials system

DEFENSE minerals exploration agency
Government-aided mineral exploration projects. R. G. Gibbs. Chem & Eng N 31:3524 Ag 31 '53

DEFENSE mobilization, Office of. See United States—Defense mobilization, Office of

DEFENSE production act
Guarantees of defense loans; amendments of 1953. Fed Res Bul 39:948-50 S '53

DEFENSE transport administration
Clarke is head of DTA. Ry Age 136:14-15 My 31 '54

DEFERRED compensation
Deferred compensation for executives. E. S. Hewitt. Trusts & Estates 92:901-5 D '53
Linking death benefit to deferred pay plan. Nat Underw (Life ed) 57:6 Jl 10 '53

DEFERRED payment merchandize insurance. See Insurance, Deferred payment merchandize

DEFOLIATION
See also
Cotton—Defoliation

DEFORMATION (mechanics)
Annealing of bombardment damage in a diamond-type lattice; theoretical. R. C. Fletcher and W. L. Brown. diags Phys R 92:585-90 N 1 '53
Annealing of bombardment damage in germanium; experimental. W. L. Brown and others. bibliog Phys R 92:591-6 N 1 '53
Decrease of density during plastic deformation of nodular cast iron. W. R. Clough and M. E. Shank. il J Metals 6:Trans 1093-4 sec 2 S '54
Deformation mechanisms in alpha titanium. E. A. Anderson and others. il diags J Metals 5:Trans 1191-7 sec 2 S '53
Design of constant stress equipment of the beam lever type. E. Teghtsoonian. R Sci Instr 24:467-8 Je '53
Diffraction effects of crystals with deformation faults. R. Hosemann and S. N. Bagchi. bibliog diag Phys R 94:71-4 Ap 1 '54
Ductility and plastic deformation. R. L. Stedfeld. bibliog il Machine Design 26:175-83 Mr '54
Effect of deformation at low temperatures on the properties of austenitic stainless steels; abstract. K. Bungardt and others. Engineer 197:172 Ja 29 '54
Effects of temperature on the deformation of beta brass. C. S. Barrett. bibliog il J Metals 6:Trans 1003-8 sec 2 S '54
Elevated-temperature tensile deformation. R. W. Guard and others. J Metals 6:Trans 226-7 sec 2 F '54
Experimental investigation of the yielding of strip between smooth dies. A. B. Watts and H. Ford. bibliog il diag Inst Mech Eng Proc (B) 1B no 10:448-53; Discussion. 454-64 '52-53
Experimental study of metal extrusions at various strain rates. J. Frisch and E. G. Thomsen. bibliog il diag A S M E Trans 76:599-606 My '54
Influence of the rate of deformation on the tensile properties of some plain carbon sheet steels. J. Winlock. bibliog il diag J Metals 5:Trans 797-803 Je '53
Inhomogeneity in creep deformation of coarse grained high purity aluminum. H. C. Chang and N. J. Grant. bibliog il J Metals 5:Trans 1175-80 sec 2 S '53
Initiation of plastic strain in plain carbon steels. C. S. Roberts and others. Am Soc for Metals Trans 44:1150-7 '52
Mechanism of ortho kink-band formation in compressed zinc monocrystals. J. J. Gilman. bibliog il diags J Metals 6:Trans 621-9 sec 2 My '54
Mechanism of plastic flow in titanium; manifestations and dynamics of glide. F. D. Rosi. bibliog il diags J Metals 6:Trans 58-69 Ja '54
Optical effect of flexure in vertically mounted precision mirrors. G. Schwesinger. bibliog diags Opt Soc Am J 44:417-24 My '54
Plastic deformation in beams under distributed dynamic loads. J. A. Seiler and P. S. Symonds. bibliog diags J Ap Phys 25:556-63 My '54
Plastic deformation of ammonium dihydrogen phosphate. P. L. Smith and E. I. Salkovitz. il diag J Ap Phys 25:237-9 F '54
Plastic deformation of ceramic-oxide single crystals. J. B. Wachtman, jr. and L. H. Maxwell. bibliog il diags Am Cer Soc J 37:291-9 Jl 1 '54
Plastic deformation of iron between 300° and 77.2°K. D. F. Gibbons. bibliog il diags J Metals 5:Trans 1245-50 sec 2 S '53; Discussion. 6:Trans 661 sec 2 My '54
Plastic deformation of rectangular zinc monocrystals. J. J. Gilman. bibliog il diags J Metals 5:Trans 1217-22 sec 2 S '53
Plastic deformation of single crystals of copper. J. J. Becker and J. N. Hobstetter. bibliog il J Metals 5:Trans 1231-4 sec 2 S '53; Discussion. diags 6:Trans 665-6 sec 2 My '54
Plastic deformation of wide-flange beam-columns. R. L. Ketter and others. bibliog diags Am Soc C E Proc 79 [no 330]:1-53 N '53
Production of acceptor centers in germanium and silicon by plastic deformation. W. C. Ellis and E. S. Greiner. bibliog Phys R 92: 1061-2 N 15 '53
Propagation of longitudinal deformation waves in a prestressed rod of material exhibiting a strain-rate effect. R. J. Rubin. bibliog J Ap Phys 25:528-36 Ap '54

DEFORMATION (mechanics)—*Continued*

Second-order elastic deformation of solids. D. S. Hughes and J. L. Kelly. bibliog diags Phys R 92:1145-9 D 1 '53

Simple apparatus for demonstrating distortion due to non-uniform temperature changes. P. M. Gilet. plan diags J Sci Instr 30:484 D '53

Torsional deformation and recovery of single crystals. S. S. Hsu and B. D. Cullity. bibliog il diags J Metals 6:Trans 305-12 sec 2 F '54

X-ray diffraction takes a fresh look at yield point in metals. N. P. Goss. il diag Steel 135:78-9 Jl 5 '54

See also

Creep of materials
Creep of metals
Elasticity
Extensometers
Plasticity
Strains and stresses
Torsion

DEFORMATION of rocks. See Rocks—Deformation

DEGRADATION

Chemical degradation of ^{14}C-glucose and its application to ^{14}C-starch from polytomella coeca. J. C. Bevington and others. bibliog Chem & Ind p 1390-1 D 26 '53

Chemical production of lactic and other acids from molasses; alkaline degradation of sugars. L. Montgomery. bibliog(54 ref) Ind & Eng Chem 45:1144-7 My '53

Common degradation product of oxindole alkaloids. E. Wenkert and T. L. Reid. bibliog Chem & Ind p 1390 D 26 '53

Degradation of carbohydrates by alkali; 3-*O*-methyl derivatives of glucose and fructose. J. Kenner and G. N. Richards. Chem Soc J p278-82 Ja '54

Degradation of cellulose during mechanical processing; size reduction of cotton in a Wiley mill. R. F. Schwenker, jr. and J. C. Whitwell. bibliog il Textile Res J 23:804-8 N '53

Degradation of dextran in an alternating electrical field. F. G. Pautard. bibliog Chem & Ind p 1316-17 D 5 '53

Degradation of glucose. C. T. Bishop. bibliog Science 117:715-17 Je 26 '53

Degradation of polyisobutylenes on shearing in solution. A. B. Bestul and H. V. Belcher. bibliog J Ap Phys 24:1011-14 Ag '53

Degradation of potato amylose in neutral and alkaline solution. R. T. Bottle and others. bibliog Chem & Ind p541-2 My 30 '53

Degradation of the optical isomers of isoleucine and alloisoleucine to *d*- and *l*-α-methylbutyraldehyde. W. S. Fones. Am Chem Soc J 76:1377-8 Mr 5 '54

Descent of the aldose series via *bis*-(ethylsulphonyl)-derivatives. L. Hough and T. J. Taylor. Chem & Ind p575-6 My 15 '54

Dextran degradation; abstract. F. P. Price. Chem & Eng N 32:2768 Jl 12 '54

New method of stepwise degradation of peptides. D. T. Elmore and P. A. Toseland. bibliog Chem & Ind p 1227-8 N 14 '53

Photodegradation of 1-chlorocyclohexene. R. V. Lindsey, jr. and J. N. Ingraham. bibliog Am Chem Soc J 75:5613-14 N 20 '53

Study of degradation of polystyrene, using ultraviolet spectrophotometry. M. J. Reiney and others. bibliog J Res Nat Bur Stand 51:155-65 S '53

Technique for stepwise degradation of proteins from the amino-end. H. Fraenkel-Conrat. bibliog Am Chem Soc J 76:3606-7 Jl 5 '54

Thermal degradation of polymethyl methacrylates. S. Bywater. bibliog J Phys Chem 57:879-82 D '53

Thermal degradation of polyvinyl chloride. N. Grassie. Chem & Ind p 161 F 6 '54

Thermal degradation of tetrafluoroethylene and hydrofluoroethylene polymers in a vacuum. S. L. Madrosky and others. bibliog diag J Res Nat Bur Stand 51:327-33 D '53

Vapor phase nitration; factors affecting degradation to lower nitroparaffins. G. B. Bachman and M. Pollack. bibliog diag Ind & Eng Chem 46:713-18 Ap '54

See also

Hofmann degradation

DEGREASING

Alkaline and electrolytic degreasing; abstract. A. Pollack. Metal Finishing 52:77 Mr '54

Do degreasers affect insulating varnish? il Ry Loco & Cars 128:80-1 Mr '54

Plastic degreasing coat. Steel 133:165-6 S 14 '53

Vapor degreasing earns its keep. P. R. Hendrixson. il Steel 135:124-6 S 13 '54

Washing compound concentrate; Ipsen washing compound 103. Metal Finishing 52:92 F '54

DEGREE days. See Heating—Tables, calculations, etc.

DEGREES, Academic

Directory of degree programs in metallurgy; data sheet. A. Bornemann, comp. Metal Prog 65:96B Mr '54

Institutional influences in undergraduate training of Ph.D. chemists. B. R. Siebring. J Chem Educ 31:195-200 Ap '54

DE HAAS-VAN ALPHEN effect. See Magnetic susceptibility

DEHUMIDIFICATION

Continuous air dehumidification halves batch-drying time; Vitamin products co. E. W. Gifford. il Food Eng 25:129 N '53

DEHUMIDIFIERS

Blast air moisture control improves cupola irons; Kathabar absorption-type dehumidifiers. J. L. Brooks. il diag Iron Age 173:112-13 Jl 1 '54

Dehumidifiers; a profitable specialty. il Sheet Metal Worker 45:68-9+ Ag '54

Humidity control in packing; Birlec lectrodryers. il Chem Age (Lond) 71:641-2 S 25 '54

Low-temperature drying of gelatin sponge. M. M. Harmon. Chem Eng Prog 49:sup 20+ My '53

DEHYDRATION

Anhydrous ethylenediamine. R. M. Creamer and D. H. Chambers. Electrochem Soc J 101:162 Mr '54

Dehydration of alcohols in the presence of haloforms and alkali. J. Hine, E. L. Pollitzer and H. Wagner. bibliog Am Chem Soc J 75:5607-9 N 20 '53

Dehydration of 1,2 diethylcyclohexanol over alumina. J. V. Karabinos and A. T. Ballun. bibliog Am Chem Soc J 76:1380-1 Mr 5 '54

Electrothermal heating of solutions. K. A. Kobe and C. J. Carlson. il diag Electrochem Soc J 101:155-7 Mr '54

Elimination of water from glycols; dehydration of racemic 1 : 4-glycols derived from acenaphthene. R. Roger and D. M. Shepherd. Chem Soc J p812-14 Mr '54

Hydrazine sheds its water content; patent. diag Chem Eng 61:262 S '54

Speed-dries heat sensitive liquids; new continuous hi-vac unit. il diag Food Eng 26:36-7 Ja '54

See also

Gas, Natural—Dehydration

DEHYDRATORS. See Drying apparatus

DEHYDROABIETIC acid

New C_1-ketone from dehydroabietic acid. R. P. Jacobsen. Am Chem Soc J 75:5709-12 O 5 '53

DEHYDROBROMINATION

Experiments on the synthesis of santonin; preparation and bromination-dehydrobromination of ethyl α-(2 : 3 : 4 : 5 : 6 : 7 : 8 : 10-octahydro-1 : 10-dimethyl-2-oxo-7-naphthyl)propionate. F. D. Gunstone and A. P. Tulloch. bibliog(27 ref) J Ap Chem 4:291-6 Je '54

DEHYDROCAROTENE

Study of some *cis-trans* isomeric dehydro-β-carotenes. L. Zechmeister and L. Wallcave. bibliog Am Chem Soc J 75:5341-4 N 5 '53

DEHYDROCHOLESTEROL

Analysis

Estimation of 7-dehydrocholesterol, 7-hydroxycholesterol, and bile acids in serum. A. E. Sobel, M. Goldberg and S. R. Slater. bibliog diag Anal Chem 25:629-35 Ap '53

DEHYDROCYCLIZATION. See Dehydrogenation

DEHYDROERGOSTEROL

3-*epi*Dehydroergosterol and the configuration of dehydroergosterol peroxide. D. C. Burke and others. Chem & Ind p517-18 My 23 '53

DEHYDROGENASES
Histochemical localization of the mercurial inhibition of succinic dehydrogenase in rat kidney. K. K. Mustakallio and A. Telkkä. bibliog il Science 118:320-1 S 18 '53
Lipoic acid dehydrogenase; the function of E. coli fraction B. L. P. Hager and I. C. Gunsalus. bibliog Am Chem Soc J 75:5767-8 N 20 '53
Rat liver lactic dehydrogenase; physico-chemical studies on the crystalline enzyme. E. O. Davisson and others. bibliog J Phys Chem 57:609-13 O '53
See also
Glucose dehydrogenase

DEHYDROGENATION
Butadiene from normal butane in one step, using the Houdry dehydrogenation process. flow diag il Oil & Gas J 52:100+ S 28 '53
Butane dehydrogenation at Billingham. E. Beesley and B. Whipp. diags Chem & Ind sup S50-6 Ag 10 '53
Carbonyl compounds as by-products in commercial dehydrogenation of butenes. C. M. Finigan, H. V. Fullerton and G. W. Taylor. diags Ind & Eng Chem 45:1356-9 Je '53
Catalytic dehydrogenation of naphthenes by sulfur dioxide. J. D. Danforth and M. J Bender. Ind & Eng Chem 46:1701-3 Ag '54
Dehydrocyclization reaction. C. Hansch. diags Chem R 53:353-96 bibliog(p392-6) D '53
Dehydrogenation of annotinine. C. Bankiewicz and others. Chem & Ind p 1068-9 Ag 28 '54
Dehydrogenation of 3 : 4-*cyclo*heptanopyrazol-5-one. D. Hunter and others. Chem & Ind p 1068 Ag 28 '54
Determination of cyclohexane-type naphthenes by analytical dehydrogenation. A. T. Polishuk, C. K. Donnell and J. C. S. Wood. diag Anal Chem 26:1087-9 Je '54
Houdry dehydrogenation process. G. F. Hornaday. flow diag Pet Refiner 32:130-1+ S '53
Improved butane dehydrogenation catalysts. E. W. Pitzer, J. R. Owen and A. Clark. bibliog Ind & Eng Chem 46:1541-4 Jl '54
Stepwise dehydrogenation of the colorless polyenes phytoene and phytofluene with N-bromosuccinimide to carotenoid pigments. L. Zechmeister and B. K. Koe. bibliog Am Chem Soc J 76:2923-6 Je 5 '54
Structure of Inhoffen's phenolic steroids; dehydrogenation. A. S. Dreiding and A. Voltman. bibliog Am Chem Soc J 76:537-9 Ja 20 '54
Studies in the terpene series; isomerization accompanying the dehydrogenation of 1,1,3-trimethylcyclohexane and of 1,1,3-trimethyl-*x*-cyclohexene. H. Pines, E. F. Jenkins and V. N. Ipatieff. bibliog Am Chem Soc J 75:6226-8 D 20 '53

DEHYDROPROGESTERONE
Steroids; partial synthesis of 9 : 11-dehydroprogesterone. A. Ruff, C. W. Shoppee and G. H. R. Summers. Chem Soc J p3683-90 N '53

DEHYDROQUINIC acid
Aromatic biosynthesis; identification of an early precursor as 5-dehydroquinic acid. U. Weiss, B. D. Davis and E. S. Mingioli. bibliog Am Chem Soc J 75:5572-6 N 20 '53

DEINKING of paper. See Waste paper

DEIONIZATION of water. See Water purification

DELANO, William Adams
A.I.A. gold medalist at 79, answers a record question; what were the high spots? Arch Rec 113:9+ My '53

DELAPLANE, Stanton, 1907-
Pulitzer prize columnist is syndicated columnist; review of Postcards from Delaplane, by S. Delaplane. R. Ellard. Ed & Pub 86:56 Ap 4 '53

DELAWARE power and light company
Stock offering. Comm & Fin Chr 178:2196 D 7 '53

DELAWARE river
Action on Delaware; solution to tri-state water rights issue is aided by New Jersey legislation. Eng N 151:23 D 31 '53
Delaware; channel deepening delayed. diag Iron Age 172:110 N 5 '53
Morrisville mix; Big Steel still waits for its tide to come in. J. C. Perham. Barron's 33:3 O 26 '53
Who'll dredge it? map Bsns W p28 O 31 '53

DELAY devices
Behaviour of control systems with definite time delay and random disturbance. P. J. Palmer. bibliog Inst E E Proc 100 pt 2:573-5 O '53
Delay lines for radar and computers. B. M. Cole and M. H. Murphy. il diags Tele-Tech 12:106-8+ O '53
Development of a variable time delay. K. W. Goff. bibliog il diags Inst Radio Eng Proc 41:1578-84 N '53
Extending multivibrator delay time. G. E. Kaufer. diags Electronics 27:232+ F '54
Fused-quartz ultrasonic delay-line memory. D. A. Spaeth and others. bibliog il Electronics 26:151-3 D '53
Metal ultrasonic delay lines. R. W. Mebs and others. bibliog il diag J Res Nat Bur Stand 51:209-20 N '53
Multichannel delay discriminator. M. F. Crouch. il diags R Sci Instr 25:924-5 S '54
New use for isoelastic alloys. Materials & Methods 39:224+ Mr '54
Synthesis of constant-time-delay networks. M. S. Corrington and R. W. Sonnenfeldt. bibliog il diags RCA R 15:163-86 Je '54
Ultrasonics; thermally stable delay line may be possible. Iron Age 173:154-6+ F 11 '54

DELIGNIFICATION. See Lignin

DELINQUENTS. See Juvenile delinquency

DELIVERY of goods
Car buyers boost factory delivery. R. D Raddant. Iron Age 174:96+ Ag 19 '54
See also
Drivers as salesmen
Milk delivery
Oil delivery

DELPHININE
Aconite alkaloids; the oxygen-containing groups of delphinine. W. A. Jacobs and S. W. Pelletier. bibliog Am Chem Soc J 76:161-9 Ja 5 '54

DELTA function. See Dirac function

DELTA rays. See Electrons—Secondary emission

DELTAS
Rational theory of delta formation. C. C. Bates. il maps diags Am Assn Pet Geologists Bul 37:2119-62 bibliog(p2160-1) S '53

DEMAND meters
Stop prevents over registration of demand-printing meter. M. R. Yarger. il Elec World 140:142 O 19 '53
Thermal meters control capacitor switching. J. H. Patton. diag Elec World 141:103+ Mr 8 '54

Testing

Board gang-tests demand meters. S. A. Cushing. il diags Elec World 141:101-2 F 8 '54
Test socket takes five different thermal meters. M. H. Bowman and A. L. Gaenicke. il diag Elec World 140:118+ N 2 '53

DEMILT, Clara Marie, 1891-1953
C. M. deMilt. J. M. Scott. bibliog(27 titles) por(front) J Chem Educ 31:419-20 Ag '54

DEMINERALIZATION. See Water purification —Demineralization

DEMOGRAPHY
Servicio; ten-year evaluation of the bilateral health programs, Institute of Inter-American affairs; demographic characteristics of Latin America. Pub Health Rep 68:1123-6 N '53
Social security technique and demography. F. Netter. Int Labour R 67:549-58 Je '53

DEMONSTRATION houses. See Houses, Model

DEMONSTRATIONS. See Department stores—Manufacturers' demonstrations; Salesmanship—Demonstrations

DEMULSIFIERS. See Surface active substances

DEMURRAGE
Prompt loading and unloading will effect savings by eliminating demurrage penalties. T. W. Rodes. map Ind & Eng Chem 45:sup 114A+ Je '53

DENATURATION of proteins. See Proteins—Denaturation

DENEBRINK, Gerald Compton, 1900-
Building a sales force from scratch; C. H. Masland & sons. pors Bsns W p58-61 Ag 22 '53

DENGUE
Treatment of mouse-passaged dengue virus (Mochizuki-strain) with protamine sulfate. S. Hotta. Science 118:255 Ag 28 '53

DEN HARTOG, Jacob Pieter, 1901-
Sketch. Mech Eng 76:208 F '54

DENIM
How latex is used to size denim. E. Abrams. il Textile World 103:94-5 D '53
Nitrile rubber latices as permanent abrasion-resistant finishes for blue denim fabric. E. Abrams and N. Sherwood. il Am Dyestuff Rep 42:777-82 N 23 '53
Stress yarn preparation to weave denims with checks. R. B. Pressley. il Textile World 104:84-5+ Mr '54

DENMARK
Denmark remembers; release of four Danes protested. Economist 170:245 Ja 23 '54
See also
Chemical industries
—Denmark

Antiquities

Copenhagen natural radiocarbon measurements. E. C. Anderson and others. bibliog diag Science 118:6-9 Jl 3 '53
History in a peat bog; floor of an ancient Danish lake yields relics of dark age tribal conflicts that are remembered today in the legends of Beowulf and King Arthur. T. G. Bibby. il map Sci Am 189:84-6+ O '53
Radiocarbon dating of the Alleröd period. J. Iversen. bibliog il Science 118:9-11 Jl 3 '53

Commerce

Denmark's dollar export incentive plan, chief factor in larger sales to U.S. For Comm W 50:2+ D 28 '53

Commercial policy

Battle over Danish bacon. Economist 168:268 Jl 25 '53
Danish dollar premiums cut for car purchases. For Comm W 51:9 Ja 25 '54
Danish export credit guaranties defined. For Comm W 50:8 N 9 '53
Danish export quotas raised under new trade agreement with western Germany. For Comm W 51:8 Ja 25 '54
Denmark eases controls for dollar, EPU exports. For Comm W 50:9 S 14 '53
Denmark sets rules for application of new export-control regulations. For Comm W 50:7 S 28 '53

Economic conditions

Danish agricultural output reaches new high; industrial production up. For Comm W 51:1 F 1 '54
Denmark's balance of payments improved. For Comm W 50:2 O 5 '53
Economic conditions abroad (cont). For Comm W 50:6 S 28 '53

Foreign relations

United States

Danish bases. map Economist 168:110-12 Jl 11 '53

DENNIS brothers, limited
Statement by the chairman. G. Burton. Economist 169:988 D 26 '53

DENSITOMETERS
Automatic recording photographic densitometer. G. Barnes. bibliog il diag Opt Soc Am J 43:1176-80 D '53
Baird associates comparator densitometer. il diag R Sci Instr 24:477 Je '53
Direct-reading microdensitometer. R. I. Tait and F. C. Chalklin. diags J Sci Instr 30:268-70 Ag '53
Double-beam densitometer and comparator. R. O. Carpenter and J. U. White. bibliog il diags Anal Chem 25:1473-7 O '53
Fully automatic recording densitometer for scanning paper electrophoresis patterns. D. J. R. Laurence. bibliog il diag J Sci Instr 31:137-8 Ap '54
Improved cuvette densitometer for cardiac output determination by the dye-dilution method. S. R. Gilford and others. il diags R Sci Instr 24:696-702 Ag '53
Joyce, Loebl and co. recording photo-densitometer. il J Sci Instr 31:31 Ja '54
Matching densitometry to production. H. T. Raffety. il diags Soc Motion Picture & Tv Eng J 60:692-5 Je '53
New projection-comparator microphotometer. J. T. Rozsa and C. G. Moon. il diag Opt Soc Am J 44:562-5 Jl '54
Photoelectric densitometer. O. L. Goble. bibliog diags J Sci Instr 30:110-13 Ap '53
Recording microdensitometer applicable to biological problems. P. M. B. Walker. bibliog diags J Sci Instr 30:162-4 My '53
Transmission densitometer for color films. K. G. Macleish. bibliog il diags Soc Motion Picture & Tv Eng J 60:696-708 Je '53

Testing

Objective method for determination of equivalent neutral densities of color film images; densitometer calibrations. F. H. Holland and others. Opt Soc Am J 44:534-9 Jl '54

DENSITY. See Pycnometers; Specific gravity

DENSITY meters. See Hydrometers

DENSLUDGE process. See Sewage sludge

DENTAL amalgams
NBS proposes mechanism for changes in dental amalgam. Chem & Eng N 32:2272+ Je 7 '54

DENTAL clinics
Dental clinic is a community asset; detail plate. K. R. O'Neal. il plan diags Am Bld 75:202-3 O '53

DENTAL medicine
Accepted dental remedies. J. R. Doty. Pub Health Rep 68:516-17 My '53

DENTAL metallurgy
See also
Dental amalgams

DENTAL research
Attack on dental caries. W. Pigman and S. B. Finn. il Chem & Eng N 32:1658-9 Ap 26 '54

DENTAL service
Partnership in dental health. N. A. Rockefeller. Pub Health Rep 68:1221-4 D '53
Studies on dental care services for school children. F. E. Law and others. Pub Health Rep 68:1192-8 D '53
Studies on dental care services for school children. G. E. Waterman and J. W. Knutson. Pub Health Rep 68:583-9 Je '53

DENTAL service, Rural
Dental aspects of rural health in Oregon. H. J. Noyes. Pub Health Rep 68:492-6 My '53

DENTAL supplies industry

Securities

Two for teeth; S. S. White dental manufacturing co. and Ritter co. I. U. Cobleigh. Comm & Fin Chr 178:2040 N 26 '53

DENTIFRICES
Enzyme inhibitors for dentifrices; abstracts. R. S. Manly. Oil Paint & Drug Rep 165:57 My 17 '54; Chem & Eng N 32:2198 My 31 '54
Enzyme squelchers in toothpastes have upped sales. Chem W 73:87 N 28 '53
Starting all over again; anti-enzymes to halt tooth decay. Chem W 73:50-1 Ag 29 '53
Trial for toothpaste before expiration date of chlorophyll patent. Chem W 73:13 Ag 22 '53

Advertising

ADA urges dentifrice advertisers to curb misleading claims. Ptr Ink 245:43 O 9 '53

DENTISTRY
See also
Dental medicine
Dental service

DENTISTS' offices
Two small dental offices; with cost data. il plans diag Arch Forum 99:124-7 Jl '53

DENTISTS' offices—*Continued*

Lighting

Lighting a dental office; lighting data sheet. il plan Illum Eng 49:387 Ag '54

DENTURES. See Teeth, Artificial

DENVER
See also
Building—Denver

Sewerage

How Denver controls out-of-city sewerage connections. il Pub Works 84:77+ N '53

DENVER and Rio Grande western railroad
Railroad securities. Comm & Fin Chr 178: 1757 N 5 '53

DEODORANT soap. See Soap, Deodorant

DEODORANTS

Rating

Anti-perspirants and deodorants. Consumers Res Bul 32:9-12 S '53

DEODORIZATION
On the surface; mechanism of deodorization by chlorophyllin. Ind & Eng Chem 46:sup 11A+ My '54
Smoke eaters; Airkem's smoke odor service. Ind & Eng Chem 46:sup 18A+ Ag '54

DEOXYGLADIOLIC acid
Phthalaldehydes and related compounds; synthesis of deoxygladiolic acid and experiments relating to the structure of dihydrogladiolic acid. J. J. Brown and G. T. Newbold. Chem Soc J p3648-53 N '53

DEOXYRIBOSE. See Desoxyribose

DEPARTMENT stores
Basic dilemma of department stores. Bsns W p50 N 14 '53
Department stores face major tests in 1954. M. P. McNair. Comm & Fin Chr 179:255+ Ja 21 '54
For men only; parties lure them in; Neiman-Marcus and A. Harris & co. put on a men's night. il Bsns W p50-2 D 19 '53
Japanese department stores. G. Fukami. J Marketing 18:41-9 Jl '53
Joseph Magnin store in Stonestown. il plans diags Arch Rec 114:144-53 D '53
Self-selection of soaps; selling at J. N. Adam department store. E. Weller. Soap & Chem Spec 30:49-51 S '54
See also
Allied stores corporation
Marshall Field and company

Accounting

Impact of changing prices on a department store. D. A. Corbin. J Account 97:430-40 Ap '54
Production unit accounting for department stores. P. E. Schimp. N A C A Bul 35:587-94 Ja '54

Advertising

Aesop in wonderland; department store advertising. Aesop Glim. Ptr Ink 244:104 S 25 '53

Air conditioning

See Store buildings—Air conditioning

Automobile parking space

Ramp-itis is no mental barrier here; three-level parking garage, Wilshire branch of May co., department store in Los Angeles. il diags Eng N 152:51-2+ Ap 29 '54

Branch stores

Bullock's Westwood, a new suburban store. il plans Arch Rec 113:168-72 My '53
Garden City branch for Martin's. il plan Arch Rec 113:166-7 My '53
New thinking on department stores. il plans diags Arch Forum 99:83-103 Jl '53
Suburban branch department stores; building types study. il plans Arch Rec 115:178-97 My '54

Customer relations

Field's decoys gun-happy customers; practice shooting preserve for hunters. il Bsns W p58-60+ S 5 '53

Employees

Handling 1,500 executives; Macy's New York uses a system of regular small-group discussions. Bsns W p 181-2 O 31 '53
Lowering retail inventory shortages through training. H. A. Tanzer. N A C A Bul 35: 1131-7 My '54
San Diego store training cuts customer complaints. E. Chavannes. il Am Bsns 24:28+ Je '54

Insurance selling

Big Chicago store and local agency form liaison; Childs & Wood-Carson Pirie. Nat Underw 57:2 O 1 '53

Lighting

Custom store lighting; with cost data. il Arch Forum 99:142-3 Jl '53
Modern lighting for The Grand. H. T. Koether. il Illum Eng 48:564-5 N '53
Sheffield store lighting; John Walsh, ltd. il Elec R (Lond) 153:522 S 4 '53

Management

Critical store visits. D. Carson. J Marketing 18:134-7 O '53
Store that serves two markets; Nieman-Marcus. il Bsns W p 134-40+ S 19 '53

Manufacturers' demonstrations

Wash-and-hang demonstrations break retail jam for fiberglas. J. W. Dougherty. il Sales Management 70:50-2+ Ap 1 '53

Purchasing

Specification buying by the large-scale retailer. W. T. Kelley. J Marketing 18:255-65 Ja '54

Statistics

Index of sales and stocks, by Federal reserve districts, yearly 1947-1952, monthly Nov. 1952-Nov. 1953; sales and stocks by major departments, Oct. 1952 and 1953, and Sept. and Oct. 1952-1953; sales, stocks, orders and receipts, yearly 1944-1952, monthly Nov. 1952-Nov. 1953; weekly index of sales, Feb. 1950-Jan. 1954. Fed Res Bul 40:85-6, 88-9 Ja '54 [cont monthly]
Retail trade; department store sales, by Federal reserve districts, etc., 1949-1952. Survey of Cur Bsns 1953 Sup p51-3 [supplemented in monthly numbers]
Revised indexes of department store sales and stocks, by major departments; with table of monthly figures, January-June, 1953. O. K. Thompson. Fed Res Bul 39:1146-51 N '53
Sales by Federal reserve districts, metropolitan areas, and cities in terms of percentage change from corresponding period of preceding year. Fed Res Bul 40:87 Ja '54 [cont monthly]

DEPLETION
Applying the principle of percentage depletion; abstract. J. W. Murphy. Rock Prod 57:80 Mr '54
No changes seen in depletion allowance. Nat Pet N 45:30 Ag 19 '53
Percentage depletions hiked for 27 minerals. Oil Paint & Drug Rep 165:4+ My 31 '54

DEPOLARIZATION, Electrolytic
Depolarization effects after current reversal at silver anodes and cathodes. A. L. Ferguson and D. R. Turner. bibliog diags Electrochem Soc J 101:382-6 Jl '54

DEPOLYMERIZATION
Depolymerization of polymethylene and polyethylene. L. A. Wall and others. bibliog Am Chem Soc J 76:3430-7 Jl 5 '54
Depolymerization reactions in vinyl polymers. N. Grassie. bibliog Chem & Ind p622-4 Je 27 '53
Mechanism of desoxyribonuclease depolymerization; effect of physical and enzymatic depolymerization on the affinity of methyl green and of desoxyribonuclease for desoxyribonucleic acid. N. B. Kurnick. bibliog diags Am Chem Soc J 76:417-24 Ja 20 '54
Some aspects of depolymerization; abstract and discussion. F. S. Dainton. Chem & Ind p485-6 My 16 '53

DEPRECIATION
British view of depreciation allowance. Pub Util 53:314-16 Mr 4 '54
Computing depreciation reserves. G. T. Logan. Am Gas Assn Mo 36:29-31+ Jl-Ag '54

DEPRECIATION—*Continued*
Depreciation accounting now. S. R. Wynn. N A C A Bul 34:1347-50 Je '53
Depreciation; call U.S. laws outmoded; study blames inflation, tax laws for $7 billion annual understatement of writeoffs. Iron Age 173:58-9 Ja 14 '54
Depreciation in relation to inflation. F. W. Brooks. Pub Util 53:556-7+ Ap 29 '54
Depreciation is a period cost, practically speaking. O. E. Hanson. N A C A Bul 35:1182-5 My '54
Depreciation reform. Steel 133:79-86 N 2 '53
Depreciation reform; what industry wants. Steel 133:35 Jl 27 '53
Depreciation's first duty; profit measurement. E. L. Zieha. N A C A Bul 35:1186-7 My '54
Eisenhower backs proposal to liberalize tax depreciation on plant and equipment. Am Mach 98:282 Ja 18 '54
Evaluate your depreciation charges. A. M. Hartogensis and H. D. Allen. il Chem Eng 61:195-8 F '54; Discussion. 61:407-13 Je '54
Executives vary stress on value of faster depreciation to help economy. Ind Marketing 39:134+ Mr '54
Free-curve depreciation method. G. W. Lewis. N A C A Bul 35:1179-81 My '54
Future of lease financing under new depreciation rules. A. H. Cohen. J Account 98:189-96 Ag '54
How to get reproduction cost new, less depreciation. A. L. Benjamin. N A C A Bul 35:1164-73 My '54
Inadequate depreciation charges call for action. C. Crocheron. N A C A Bul 35:1188-91 My '54
Industrial South's stake in Revenue revision. M. Smith. Manuf Rec 123:36-7 Ap '54
Is depreciation for hospitals good accounting practice? L. Morey. J Account 96:725-6 D '53; Discussion. C. F. Coates. 97:479-80 Ap '54
Is optional depreciation the answer? R. B. Oliver. N A C A Bul 35:1148-55 My '54
It's time to adopt realistic depreciation rates to win the battle for modernization. B. Finney. Am Mach 98:113-20 Mr 1 '54
Let's scrap our current depreciation regulations. R. F. Waindle. Mill & Factory 53:77-80 D '53
Liberalization of depreciation rates. Nat City Bank p 16-17 F '54
Method of accounting for emergency facilities may be a major factor in income determination. P. K. Webster. J Account 95:580-7 My '53
New depreciation policy for tax purposes. J Account 96:33-6 Jl '53
Next time use capitalized costs. F. C. Jelen. Chem Eng 61:199-203 F '54; Discussion. 61:407-13 Je '54
Present policy of the Internal Revenue service on depreciation allowances. H. E. Smith. N A C A Bul 35:789-90 F '54
Rapid write-off plan one of President's key tax revisions. Chem & Eng N 32:400-2 F 1 '54
Realistic depreciation advocated. Am Mach 98:280 Ja 18 '54
State chambers of commerce urge flexible depreciation allowances. Pub Util 53:450-2 Ap 1 '54
Tax effects of declining balance depreciation. W. H. Beadle. N A C A Bul 35:1174-8 My '54
Taxes and depreciation policy. R. C. Staebner. Am Gas Assn Mo 35:27-8 N '53
Techniques for obtaining depreciated replacement costs. C. F. Boake. Pub Util 54:137-45 Ag 5 '54
Text of Bureau release on new depreciation policy. T. C. Andrews. J Account 96:101-2 Jl '53
U.S. Supreme court decisions affecting public utility depreciation. S. Davidson. J Account 96:331-5 S '53
Using replacement-value depreciation in costs. R. K. Mirrielees. N A C A Bul 35:1156-63 My '54
What do executives think depreciation is? R. G. James. bibliog N A C A Bul 35:1138-47 My '54
What tax law's depreciation terms mean. Steel 135:30-1 Ag 30 '54
See also
Depletion

DEPRECIATION insurance. See Insurance, Depreciation

DEPRESSION, Business. See Business depression

DEPTH perception. See Space perception

DEPTH sounding. See Sounding

DERBY, Roland Everett, 1900-
Olney medal to be awarded to Roland E. Derby. por Am Dyestuff Rep 42:582-3 Ag 31 '53; Chem & Eng N 31:3194 Ag 3 '53
Tenth Olney medal award to R. E. Derby; with presentation addresses by A. E. Sampson, H. W. Leitch and J. R. Bonnar; response by R. E. Derby. pors Am Dyestuff Rep 43:270-7 Ap 26 '54

DERBY oil company
Earnings. Comm & Fin Chr 178:568 Ag 17 '53

DERMATITIS. See Skin—Diseases

DERMATOSIS. See Skin—Diseases

DERRICKS, Oil well
Derrickman's sky hook. il World Oil 137:152-3 Jl '53
Hauling problems; transporting rigs. A. Gibbon. il World Oil 137:181-2 S '53
Largest rotary rig is ready. J. Menneer. il Pet Eng 25:B98+ Je '53
Proper alignment, cleanliness, lubrication plus horse sense=good service. E. L. Phillips, jr. il Oil & Gas J 52:122-3+ O 12 '53
Pullback device making derrickman's job easier. il plan diag World Oil 137:144+ D '53
Rig modernization will improve. L. E. Ferguson. il World Oil 137:158-60+ S '53
Six-well rig may be one answer to how to profit from offshore operations. il diags Oil & Gas J 52:79-85+ Ja 18 '54
Unitized sections make rig winterizing easier. il World Oil 137:152+ N '53

DESALTING of sea water. See Sea water—Desalting

DESERT houses
Are bedrooms necessary? not in this desert house. il plan Am Bld 75:84 Jl '53
Frank Lloyd Wright; new desert house for his son is a magnificent coil of concrete block. il plans diag House & Home 3:99-107 Je '53

DESERT rats. See Kangaroo rats

DESERTS
Arizona sun makes it desert tested; Desert sunshine exposure tests. il Paint Oil & Chem R 117:41 F 11 '54
Effective storage temperatures of gasoline. D. B. Luten, jr. and K. Hedberg. bibliog diag Ind & Eng Chem 45:2098-106 S '53
See also
Great Salt Lake
desert, Utah

DESICCANTS. See Drying agents

DESIGN
Atomic age's challenge to industrial design. A. Van Dyck. Tool Eng 32:261-2 Ap '54
Canadian designers catch on. Can Chem Process 38:20+ My '54
Design at management level pays off. Cer Ind 62:60 Je '54
Designing with engineering materials. R. L. Stedfeld and others. bibliog il diags Machine Design 25:137-92 O; 161-70 N '53
Form follows function; a design formula aids sales, public relations, helps lower cost. H. Dreyfuss. Advanced Management 18:7-9 Ag '53
Give them a reason to buy. D. Chapman. Am Cer Soc Bul 33:213-14 Jl 15 '54
Good industrial styling; key to higher sales. G. W. Walker. il Iron Age 173:141-5 F 4 '54
High temperature test data and their importance in design. H. C. Cross. il Product Eng 24:182-7 O '53
Impact of development and research on production and design. L. H. Leedham. Engineering 177:263-4 F 26 '54
Industrial design and engineering design. P. Muller-Munk. il Machine Design 26:148-51 S '54
Light, color and design. H. Ketcham. il Dun's R & Mod Ind 62:58+ Ag '53

DESIGN—*Continued*

Lower foundry costs start with part design. E. W. Moir. il diags Iron Age 173:128-31 Ap 15 '54

Magnesium for electronics and electrical applications. R. G. Gillespie. il diags Machine Design 26:258+ Je '54

Materials and design. il Dun's R & Mod Ind 62:95-8+ Ag '53

Materials selection; teamwork is the trend. D. Riley and others. diags Steel 134:98-9 My 17 '54

New designs for 1954 consumer goods. Bsns W p92 D 19 '53

New kink in product design; Rigidized metals corp. il Steel 133:140-2+ N 30 '53

Philosophy of industrial design. J. O. Reinecke. Tool Eng 31:148 D '53

Product design of the Brownie movie camera. M. E. Brown. il Mech Eng 76:227-30 Mr '54

Protect yourself now against future materials shortages. J. Kelso. Product Eng 24:146-9 Je '53

Sheet metal design with the $ sign in mind. H. C. Golz. il diags Product Eng 24:188-92 O '53

Using models in design. il Product Eng 24:177-84 S '53

See also

Airplanes—Design
Architecture, Domestic—Designs and plans
Automobiles—Design
Bridge design
Concrete construction—Design
Fashion
Gearing—Design
Machinery—Design
Naval architecture—Designs and plans
Package design
Steel construction—Design
Structural engineering—Design
Textile design

DESIGN, Decorative

See also

Textile design

DESIZING (textiles)

Enzyme action in desizing; abstract. H. Appleyard. Am Dyestuff Rep 43:19-20 Ja 4 '54

Bibliography

Bibliography of evaluation of enzymic desizing agents. W. A. Wardell. Am Dyestuff Rep 42:626 S 14 '53

DESORPTION

Sorption and desorption of gas in the cold-cathode ionization gauge. J. H. Leck. bibliog diag J Sci Instr 30:271-4 Ag '53

Vacuum degasification in a packed column. E. L. Knoedler and C. F. Bonilla. bibliog diags Chem Eng Prog 50:125-33 Mr '54

DESOXYCORTICOSTERONE

More active hormones possible; abstract. C. T. Engel. Chem & Eng N 32:2687 Jl 5 '54

Preparation of D-homoprogesterone and D-homo-11-deoxycorticosterone acetate. R. M. Dodson, P. B. Sollman and B. Riegel. bibliog Am Chem Soc J 75:5132 O 20 '53

DESOXYEQUILENIN

Synthesis of *cis*- and *trans*-11-keto-17-desoxyequilenin. G. Eglinton and others. bibliog Chem & Ind p686-7 Jl 11 '53

DESOXYGLUCOSE

Colorimetric method for estimating 2-desoxyglucose. F. B. Cramer and G. A. Neville. Franklin Inst J 256:379-81 O '53

DESOXYPENTOSE nucleic acid

Flow birefringence study of size and size distribution in desoxypentose nucleic acid. M. Goldstein and M. E. Reichmann. bibliog Am Chem Soc J 76:3337-42 Je 20 '54

Further examination of the molecular weight and size of desoxypentose nucleic acid. M. E. Reichmann and others. bibliog Am Chem Soc J 76:3047-53 Je 5 '54

DESOXYRIBONUCLEASE

Lack of inhibition of desoxyribonuclease by heat depolymerized desoxyribonucleic acid. N. B. Kurnick. Am Chem Soc J 76:4040-1 Ag 5 '54

DESOXYRIBONUCLEIC acid

Incorporation of isotopic formate into the thymine of bone marrow deoxyribonucleic acid in vitro. J. R. Totter. Am Chem Soc J 76:2196-7 Ap 20 '54

Lack of inhibition of desoxyribonuclease by heat depolymerized desoxyribonucleic acid. N. B. Kurnick. Am Chem Soc J 76:4040-1 Ag 5 '54

Mechanism of desoxyribonuclease depolymerization; effect of physical and enzymatic depolymerization on the affinity of methyl green and of desoxyribonuclease for desoxyribonucleic acid. N. B. Kurnick. bibliog diags Am Chem Soc J 76:417-24 Ja 20 '54

DESOXYRIBONUCLEOSIDES

Deoxyribonucleosides and related compounds; the configuration at the glycosidic centre in deoxyadenosine and deoxycytidine. W. Andersen and others. Chem Soc J p 1882-7 Je '54

DESOXYRIBOSE

Convenient method of preparing 2-deoxy-D-ribose. J. C. Sowden. bibliog Am Chem Soc J 76:3541-2 Jl 5 '54

Convenient preparation of 2-deoxy-D-ribose. G. N. Richards. bibliog Chem & Ind p 1035 S 26 '53

Synthesis of 2-deoxy-D-ribose. L. Hough. Chem Soc J p3066-8 O '53

DES PLAINES, Illinois

Sanitary affairs

How sanitary landfill solved our refuse problem. E. R. Warnicke. il Pub Works 85:57-8+ Ja '54

DESSERTS, Frozen

Meat fat improves frozen dessert. M. E. Hull. il Food Eng 26:133+ Ag '54

New plant tailored to vegetable-oil ice cream; Frozen desserts inc. A. J. Reitz. il diag Food Eng 26:90-2 Jl '54

DESSICANTS. See Drying agents

DESULFURIZATION. See Sulfur

DESYLAMINE. See Aminophenylacetophenone

DESYL chloride. See Chlorophenyl acetophenone

DETECTORS

Aircraft fire protection. il diag Engineering 176:576 O 30 '53

Automatic control of chemical processes. A. J. Young. diags Instruments 26:254-5+ F '53

Edison develops new fire detector. il diag Aviation W 58:65-6 Je 15 '53

Heat-sensitive cable. il Mech Eng 75:653-4 Ag '53

How the SS United States fire alarm system works. R. W. Frost and N. E. Carlson. il diags Marine Eng 59:69-71 Ja '54

Smoke dangers in public buildings. Safety Maint & Prod 108:51 Ag '54

Spray tower shut-off system. diags Soap & Chem Spec 30:73+ Jl '54

See also

Leak detectors

DETECTORS, Smoke. See Smoke detectors

DETENTION homes

Hospital, school, guardhouse; youth detention center, Philadelphia. il plans diags Arch Forum 98:101-6 F '53

DETERGENTS. See Cleaning compositions

DETONATION

Equations of state and detonation theory. S. Paterson and J. M. Davidson. J Chem Phys 22:150 Ja '54

Equilibrium temperatures and compositions behind a detonation wave. A. Weir, jr. and R. B. Morrison. bibliog Ind & Eng Chem 46:1056-60 My '54; Correction. 46:1497 Jl '54

Fluid mechanics of detonation waves. L. G. Dawson. diags Roy Aeronautical Soc J 57:618-26 O '53

Oscillographic method for determining velocities of detonation in explosives. F. C. Gibson. il diags R Sci Instr 25:226-31 Mr '54

DETONATORS, Electric

Radio frequency energy; a potential hazard in the use and transportation of electric blasting caps. Explosives Eng 31:116-17 Jl '53

DETROIT

Detroit pushes expressway system through congested urban area. H. C. Coons. il maps diag Civil Eng 24:18-21 Ja '54

Industrial city revises its plumbing code. il Dom Eng 184:124-5+ S '54

DETROIT—*Continued*

Rapid transit

Wrong traffic cures are worse than none. D. Hyde. Bus Transportation 33:56 Ja '54

Sewerage

Concrete blocks support shield-driven tunnel. H. T. Perez. il Constr Methods 35:60-4 N '53

Streets

Low cost city pavements in Detroit. H. B. Wilson. il Pub Works 85:69-70 F '54

DETROIT Edison company

Public utility securities. O. Ely. Comm & Fin Chr 179:72 Ja 7 '54

DETROIT stock exchange

Weekly record. Published in weekly Monday numbers of Commercial and financial chronicle

DEUSSEN, Alexander, 1882-

Sketch. W. E. Wrather. por Am Assn Pet Geologists Bul 37:1826-9 Jl '53

DEUTERIUM

Compression to 10,000 atmos of solid hydrogen and deuterium at 4.2°K. J. W. Stewart and C. A. Swenson. Phys R 94:1069-70 My 15 '54

Decomposition of secondary alkyl chlorosulfites; the elimination reaction and isotope effects. C. E. Boozer and E. S. Lewis. bibliog Am Chem Soc J 76:794-6 F 5 '54

Effects of deuterium substitution on the rates of organic reactions; solvolysis rates and Arrhenius parameters for 2,3-dimethyl-2-chlorobutane and its 3-deutero analog. V. J. Shiner, jr. bibliog Am Chem Soc J 76:1603-6 Mr 20 '54

Enzymatic synthesis of the enantiomorphs of ethanol-1-*d*. F. A. Loewus, F. H. Westheimer and B. Vennesland. bibliog Am Chem Soc J 75:5018-23 O 20 '53

Hydrogen-deuterium exchange on copper, silver, gold and alloy surfaces. R. J. Mikovsky, M. Boudart and H. S. Taylor. bibliog diag Am Chem Soc J 76:3814-19 Jl 20 '54

Hydrogen-deuterium exchange reaction on zinc oxide catalysts. E. Molinari and G. Parravano. bibliog Am Chem Soc J 75:5233-7 N 5 '53

Interaction between D^2 and He^3 in the neighborhood of the 18.6-Mev level of Li^{5*}. G. Freier and H. Holmgren. Phys R 93:825-6 F 15 '54

Isotope effects in carbonium ion reactions; determination of solvent and leaving group participations. E. S. Lewis and C. E. Boozer. Am Chem Soc J 76:791-3 F 5 '54

Kinetics of the base-catalyzed deuterium exchange of chloroform in aqueous solution. J. Hine, R. C. Peek, jr., and B. D. Oakes. bibliog Am Chem Soc J 76:827-9 F 5 '54

Melting curves of deuterium and hydrogen. P. F. Chester and J. S. Dugdale. bibliog Phys R 95:278-9 Jl 1 '54

Mixture of central, tensor, and two-particle spin-orbit interactions for N^{14} and D^2. W. J. Robinson. Phys R 93:1296-7 Mr 15 '54

Negative-to-positive ratio of photomesons from deuterium. M. Sands and others. Phys R 95:592-3 Jl 15 '54

New deuterium supply for cyclotron ion sources. J. J. Burgerjon. diags R Sci Instr 25:522-3 My '54

Photoproduction of charged pi mesons from hydrogen and deuterium. T. L. Jenkins and others. diag Phys R 95:179-84 Jl 1 '54

Platinum-catalyzed exchange of hydrogen isotopes with bile acids. N. R. Trenner and others. bibliog Am Chem Soc J 76:1196-7 F 20 '54

Pressure-volume-temperature relationships of liquid normal deuterium. A. S. Friedman, M. Trzeciak and H. L. Johnston. Am Chem Soc J 76:1552-3 Mr 20 '54

Primeval cosmic abundance of deuterium. G. Boato. bibliog Phys R 93:640-1 F 1 '54

Rate of deuterium exchange of certain amines and alcohols. J. Hine and C. H. Thomas. bibliog Am Chem Soc J 76:612 Ja 20 '54

Reduction of ethylene platinous chloride with deuterium; the mass spectra of deuterated ethanes. J. H. Flynn and H. M. Hulburt. bibliog Am Chem Soc J 76:3396-400 Jl 5 '54

Scattering of 314-Mev polarized protons by deuterium. J. Marshall and others. diags Phys R 95:1020-5 Ag 15 '54

Analysis

Determination of deuterium. C. A. Dubbs. bibliog diag Anal Chem 25:828-9 My '53

Preparation of water samples for deuterium analysis in the mass spectrometer. F. P. Chinard and T. Enns. diags Anal Chem 25:1413-14 S '53

Nuclear reactions

Cross sections for the reactions D(*d,p*)T,D(*d,n*)He^3, T(*d,n*)He^4, and He^3(*d,p*)He^4 below 120 kev. W. R. Arnold and others. bibliog diags Phys R 93:483-97 F 1 '54

Elastic photoproduction of π°'s from deuterium. J. W. DeWire and others. bibliog diag Phys R 92:520-1 O 15 '53

Photodisintegration of deuterium by 265-Mev bremsstrahlung. T. Yamagata and others. diag Phys R 95:574-6 Jl 15 '54

Photodisintegration of the deuteron by 180-Mev and 260-Mev gamma rays. J. Keck and others. diag Phys R 93:827-8 F 15 '54

Photodisintegration thresholds of deuterium and beryllium. J. C. Noyes and others. bibliog diags Phys R 95:396-403 Jl 15 '54

DEUTERIUM compounds

Attempted preparation of optically active βγ-dideuterobutyrophenone. A. F. L. Holding and W. A. Ross. Chem Soc J p 145-7 Ja '54

Catalytic deuteration of organic compounds; exchange reactions of saturated aliphatic carboxylic acids. J. Bell and others. Chem Soc J p3456-9 N '53; Abstract. Chem & Ind p796 Jl 25 '53

Catalytic deuteration of organic compounds; the deuteration of optically active lactic acid. J. Bell, K. A. MacDonald and R. I. Reed. Chem Soc J p3459-63 N '53; Abstract. Chem & Ind p796 Jl 25 '53

Effect of pressure on intensity of some electronic transitions in SF_6, C_2H_2 and C_2D_2 vapors in the vacuum ultraviolet region. E. D. Nostrand and A. B. F. Duncan. Am Chem Soc J 76:3377-9 Jl 5 '54

Elimination and replacement reactions of *dl-erythro-* and *dl-threo*-2-deutero-1,2-diphenylethanol and derivatives. D. Y. Curtin and D. B. Kellom. bibliog Am Chem Soc J 75:6011-18 D 5 '53

Fundamental absorption bands in the infrared spectrum of stibine and deuterated stibine. W. H. Haynie and H. H. Nielsen. bibliog J Chem Phys 21:1839-42 O '53

Infrared spectra and structure of LiOH, $LiO{\cdot}H_2O$ and the deuterium species; remark on fundamental frequency of OH^-. L. H. Jones. bibliog J Chem Phys 22:217-19 F '54

Mechanism of the thermal decomposition of ethane-d_6. F. O. Rice and R. E. Varnerin. bibliog Am Chem Soc J 76:324-7 Ja 20 '54

Pyrolysis and photolysis of acetone-d_6 in the presence of methane. J. R. McNesby and A. S. Gordon. Am Chem Soc J 76:4196-8 Ag 20 '54

Pyrolysis of mixtures of acetone and acetone-d^6. J. R. McNesby, T. W. Davis and A. S. Gordon. bibliog Am Chem Soc J 76:823-7 F 5 '54

Rates of formation of different deuteroethylenes and deuteroethanes in the reaction of ethylene and deuterium. T. Keii. J Chem Phys 22:144-5 Ja '54

Some physical properties of the deutero-germanes. A. H. Zeltmann and G. C. Fitzgibbon. bibliog Am Chem Soc J 76:2021-2 Ap 5 '54

Spectrum of DBr in the one-millimeter wave region. W. Gordy and C. A. Burrus. bibliog il Phys R 93:419-20 F 1 '54

Synthesis and properties of deuterocarbons: benzene-d_6 and cyclohexane-d_{12}. J. A. Dixon and R. W. Schiessler. bibliog Am Chem Soc J 76:2197-9 Ap 20 '54

Vapor pressures of perdeuterobenzene and of perdeuterocyclohexane. R. T. Davis, jr. and R. W. Schiessler. bibliog diag J Phys Chem 57:966-8 D '53

Vibrational spectra and structure of solid hydroxylamine and deutero-hydroxylamine. R. E. Nightingale and E. L. Wagner. bibliog J Chem Phys 22:203-8 F '54

DEUTERIUM compounds—*Continued*

Spectra

Infrared absorption spectra of diethyl ketone and its deuterium substitution products. B. Nolin and R. N. Jones. bibliog Am Chem Soc J 75:5626-8 N 20 '53

Infrared and Raman spectra of formaldehyde-d_1 vapor. D. W. Davidson and others. bibliog J Chem Phys 22:289-94 F '54

Infrared spectrum and molecular constants of DBr. F. L. Keller and A. H. Nielsen. bibliog J Chem Phys 22:294-9 F '54

K fine structure in the $2\nu_1$ band of CHD_3. T. A. Wiggins and others. bibliog J Chem Phys 21:1940-2 N '53

One-to-two millimeter wave spectroscopy; NO and DI. C. A. Burrus and W. Gordy. il Phys R 92:1437-9 D 15 '53

One-to-two millimeter wave spectroscopy; PH_3 and PD_3. C. A. Burrus and others. Phys R 95:706-8 Ag 1 '54

Rotational spectrum of ND_3 between 60 and 200 K. R. E. Stroup and others. J Chem Phys 21:2072-3 N '53

DEUTERIUM oxide. See Water—Heavy water

DEUTERIZATION. See Hydrogenation

DEUTERONS

Angular distribution and yield of the process $p+d \rightarrow t+\pi^+$. W. J. Frank and others. diags Phys R 94:1716-21 Je 15 '54

Angular distribution of deuterons from $N^{14}(p,d)N^{13}$. K. G. Standing. bibliog Phys R 94:731-2 My 1 '54

Approximate wave-mechanical description of deuteron stripping. F. L. Friedman and W. Tobocman. bibliog Phys R 92:93-100 O 1 '53

Correction to deuteron stripping cross sections. L. Schecter and W. Heckrotte. Phys R 94:1086 My 15 '54

Coulomb corrections in stripping. S. T. Butler and N. Austern. Phys R 93:355 Ja 15 '54

Deuteron photodisintegration at intermediate energies. J. M. Berger. Phys R 94:1698-713 Je 15 '54

Effect of deuteron formation on multiple meson production. K. A. Brueckner and J. S. Kovacs. Phys R 94:726-7 My 1 '54

Expansion of copper bombarded by 21-Mev deuterons. W. R. McDonell and H. A. Kierstead. Phys R 93:247 Ja 1 '54

Hard core interpretation of the reaction $p+d \rightarrow \pi^+ + t$. S. A. Bludman. Phys R 94:1722-3 Je 15 '54

Inelastic scattering of protons and neutrons by deuterons. R. M. Frank and J. L. Gammel. bibliog diag Phys R 93:463-70 F 1 '54

Interaction of 19-Mev deuterons with oxygen. R. G. Freemantle and others. bibliog Phys R 92:1268-9 D 1 '53

Nuclear configurations inferred from high-energy pickup-deuteron distributions. W. Selove. Phys R 92:1328 D 1 '53

Polarization of high-energy deuterons. O. Chamberlain and others. Phys R 95:1104-5 Ag 15 '54

Production of 320-Mev deuterons by He^3 stripping. J. Ise, jr. and others. bibliog flow diag diags R Sci Instr 25:437-42 My '54

Radionuclides of arsenic produced by deuteron bombardment of germanium. H. J. Watters and J. F. Fagan, jr. Phys R 92:1248-9 D 1 '53

Resistivity changes in copper, silver, and gold produced by deuteron irradiation near 10°K. H. G. Cooper and others. Phys R 94:496 Ap 15 '54

Theory of high-energy deuteron pickup. B. J. Malenka. Phys R 92:516 O 15 '53

Theory of the (d,p) reaction. W. Tobocman. Phys R 94:1655-63 Je 15 '54

Theory of the deuteron stripping reactions. N. C. Francis and K. M. Watson. Phys R 93:313-17 Ja 15 '54

Scattering

Elastic scattering of 190-Mev deuterons by protons. O. Chamberlain and M. O. Stern. diag Phys R 94:666-76 My 1 '54

Inelastic scattering of protons and deuterons from B^{10} and N^{14}. C. K. Bockelman and others. bibliog Phys R 92:665-9 N 1 '53

Scattering of deuterons in helium. T. Lauritsen and others. bibliog diag Phys R 92:1501-6 D 15 '53

Scattering of 190-Mev deuterons on protons. A. L. Bloom and O. Chamberlain. diags Phys R 94:659-65 My 1 '54

DEVELOPERS, Photographic. See Photography—Developing and developers

DEVELOPMENT agencies, State. See State planning boards

DEVELOPMENT credit corporations. See State planning boards

DEVOE and Raynolds company, inc.

Five attractive stocks off the beaten track. Mag of Wall St 93:734 Mr 20 '54

DEW points

Automatic carbon control. H. Ipsen and E. J. Rupert. il diags Metal Prog 66:98-102 Jl 1 '54

Dew point; a means of measuring the carbon potential of prepared atmospheres. N. K. Koebel. flow diag il Metal Prog 65:90-6+ F '54

Equilibrium between steels and dew points of a prepared furnace atmosphere; data sheet. N. K. Koebel. Metal Prog 65:96B F '54

DEWAR flasks. See Vacuum containers

DEWEY and Almy chemical company

Another string to its bow; merger of W. R. Grace & co. and Dewey and Almy chemical co. Chem W 75:14 Ag 7 '54

DEXTRAN

Clinical applications of dextran; abstract. A. W. Wilkinson. Chem & Ind p39-40 Ja 9 '54

Degradation of dextran in an alternating electrical field. F. G. Pautard. bibliog Chem & Ind p 1316-17 D 5 '53

Dextran degradation; abstract. F. P. Price. Chem & Eng N 32:2768 Jl 12 '54

Dextran processes; they all vary, they all grow. il Chem W 72:50+ My 9 '53

Effect of gamma-rays upon dextran. C. R. Ricketts and C. E. Rowe. Chem & Ind p 189-90 F 13 '54

Enzymatic dextran synthesis from sucrose with yield doubled; abstract. N. N. Hellman. Chem & Eng N 32:1436-7 Ap 12 '54

Immunopolysaccharides; structure of a betacoccus arabinosaceous dextran. S. A. Barker and others. Chem Soc J p2395-9 Jl '54

Isomaltose and isomaltotriose from enzymic hydrolyzates of dextran. A. Jeanes and others. bibliog il Am Chem Soc J 75:5911-15 D 5 '53

Low molecular weight dextran as a modifier of dextran synthesis. E. J. Hehre. bibliog Am Chem Soc J 75:4866 O 5 '53

Polyglucose structures with special reference to the dextran group; abstract. M. Stacey. Chem & Ind p38-9 Ja 9 '54

Precipitation of C^{14}-labeled dextran by human anti-dextran. E. A. Kabat and others. bibliog Am Chem Soc J 76:564-6 Ja 20 '54

Production of clinical-type dextran; partial hydrolytic depolymerization and fractionation of the dextran from leuconostoc mesenteroides strain NRRL B-512. I. A. Wolff and others. bibliog(29 ref) diag Ind & Eng Chem 46:370-7 F '54

Properties of dextran from the physiological aspect; abstract. F. Fletcher. Chem & Ind p39 Ja 9 '54

Technology of dextran production; abstract. A. E. James. Chem & Ind p39 Ja 9 '54

Analysis

Analytical total acid hydrolysis of dextrans. R. J. Dimler and others. bibliog(28 ref) Anal Chem 26:1142-6 Jl '54

Determination of dextran with anthrone. T. A. Scott, jr. and E. H. Melvin. bibliog Anal Chem 25:1656-61 N '53

Determination of isopropyl alcohol in dextran and dextran solutions. G. J. Frisone. Anal Chem 26:924-5 My '54

Physicochemical characterization of clinical dextran. J. A. Riddick and others. bibliog diag Anal Chem 26:1149-55 Jl '54

DEXTRINS

Studies on the Schardinger dextrins; cosubstrate specificity in coupling reactions of macerans amylase. D. French and others. bibliog il Am Chem Soc J 76:2387-90 My 5 '54

DEXTROSE. See Glucose

DIABASE

Petrology of granophyre in diabase near Dillsburg, Pa. P. E. Hotz. bibliog maps diags Geol Soc Bul 64:675-704 Je '53

DIABETES

Diabetes mortality by state for 1950. map Pub Health Rep 68:822-3 Ag '53

Interest of public health in diabetes. M. J. Ford. bibliog Pub Health Rep 68:624-7 Je '53

DIACETONE alcohol. See Hydroxymethyl pentanone

DIACETYL

Analysis

Determination of diacetyl. D. T. Englis, E. J. Fisch and S. L. Bash. bibliog Anal Chem 25:1373-5 S '53

DIACETYL monoxime

Modification of the determination of urea by the diacetyl monoxime method. H. S. Friedman. bibliog Anal Chem 25:662-4 Ap '53

DIAGNOSIS

See also

Ultrasonic waves—Medical use

DIAGNOSIS, Radioscopic

Isotopes in medical photography. Can Chem Process 38:86 Ap '54

DIAGRAMS, Electric wiring. See Electric wiring—Diagrams

DIAL telephone. See Telephone, Automatic

DIALS, Instrument

Dimensional gaging and inspection by air gages and dial indicators. F. H. Hunter. diags Instruments 26:444+ Mr '53

Lighting

Dial-light assemblies; design details. Machine Design 26:152-3 Je '54

DIALURIC acid

Oxidation of dialuric acid by *o*-iodosobenzoic acid. L. Hellerman and W. T. Caraway. bibliog Am Chem Soc J 75:5426-7 N 5 '53

DIALYSIS

Bright applicant for an old job; electrodialysis. il Bsns W p 178-80+ O 24 '53

Determination of critical micelle concentration by equilibrium dialysis. Jen Tsi Yang and J. F. Foster. bibliog J Phys Chem 57:628-33 O '53

Studies on silicic acid gels; dialysis of the gel mixture and of the gels. C. B. Hurd and others. bibliog J Phys Chem 57:678-80 O '53

DIAMAGNETISM

Adsorption and the magnetic ortho-para conversion of hydrogen on diamagnetic solids. Y. L. Sandler. bibliog J Phys Chem 58:54-61 Ja '54

Low temperature diamagnetism of electrons in a cylinder. W. Band. diag Phys R 91:249-55 Jl 15 '53; Correction. 93:350-1 Ja 15 '54; Discussion. R. B. Dingle. 92:1320 D 1 '53

Magnetic study on high polymers; diamagnetic anisotropy of natural rubber. A. Isihara and others. bibliog diag J Chem Phys 21:1909-11 N '53

DIAMINES. See Amines

DIAMINOBUTENE

Preparation and polymerization of unsaturated quaternary ammonium compounds; derivatives of 1,4-diaminobutene-2^{1,3}. G. B. Butler and R. L. Goette. bibliog Am Chem Soc J 76:2418-21 My 5 '54

DIAMINOFLUORENE

3 : 6-Disubstituted fluorene; the preparation of 3 : 6-diaminofluorene from fluorene, and the attempted internuclear cyclisation of derivatives of 4 : 4′-diaminodiphenylmethane. A. Barker and C. C. Barker. Chem Soc J p870-3 Mr '54

DIAMINOPROPANOL

Aminomethyloxazolidones derived from substituted diamino-2-propanols. B. J. Ludwig, W. A. West and D. W. Farnsworth. Am Chem Soc J 76:2891-3 Je 5 '54

DIAMINOTETRAZINE

Synthesis of *sym*-diaminotetrazine. C. Lin, E. Lieber and J. P. Horwitz. bibliog Am Chem Soc J 76:427-30 Ja 20 '54

DIAMINOTRIAZINE

Substituted α-(N-alkylmelamino)-guanamines. L. J. Exner and P. L. deBenneville. bibliog Am Chem Soc J 75:4666-8 O 5 '53

DIAMMONIUM phosphate. See Ammonium phosphates

DIAMOND alkali company

Coming full circle; diversification into organics. il Chem W 74:14-16 Ja 9 '54

DIAMOND mines and mining

India

Capital asked to run Indian diamond mines. For Comm W 50:14 Ag 10 '53

DIAMONDS

Bargain basement moves a batch of diamonds; S. Klein. Bsns W p30-1 O 3 '53

Calculating of the cohesive energy of diamond. L. A. Schmid. bibliog Phys R 92:1373-9 D 15 '53

Calculation of the energy band structures of the diamond and germanium crystals by the method of orthogonalized plane waves. F. Herman. bibliog il Phys R 93:1214-25 Mr 15 '54

Despite S. Klein, diamonds no bargain basement item. Barron's 33:12 O 12 '53

Diamond price structure holding up strong despite any claims to contrary. A. B. Greenberg. Weekly Underw 169:211 Jl 25 '53

Electronic Hall effect in diamond. A. G. Redfield. bibliog diags Phys R 94:526-37 My 1 '54

No dip in diamond values; industry held not affected by change in economic outlook. A. B. Greenberg. Weekly Underw 169:20 Jl 4 '53

Specific heat of diamond at low temperatures. R. Berman and J. Poulter. J Chem Phys 21:1906-7 O '53

Unset diamonds held to be jewelry in recent court decision, facts of case; Denny v. insurance co. H. S. Daynard. Weekly Underw 169:1161-2 N 14 '53

Spectra

Infrared lattice absorption bands in germanium, silicon, and diamond. R. J. Collins and H. Y. Fan. bibliog Phys R 93:674-8 F 15 '54

DIAMONDS, Industrial

Carbon in the engineering and metallurgical industries; industrial graphites, diamonds and special mixtures. V. S. Kingswood. bibliog il diag Metallurgia 48:169-74 O '53

Conservation of diamond wheels. Mach 61:198 S '54

Cooperation with bit maker cuts diamond costs. A. H. Lense and N. Miles. il Eng & Min J 155:96-7 Mr '54

Diamond die profiloscope. il Metallurgia 49:281-2 Je '54

Diamond drills' place in pit blasting. P. Adamson. bibliog il diags Eng & Min J 155:96-8 Jl '54

Diamond orientation in diamond bits; effects of orienting high-grade drill bort in diamond-coring bit crowns. A. E. Long. 5pls U S Bur Mines Rep of Invest 5015:1-13 '54

Diamond pin design; reference book sheet. W. P. Wing. diag Am Mach 98:137 Mr 29 '54

Diamonds; keystone of industry. il Steel 135:50-1 Jl 26 '54

Diamonds; new wheel looks good; new electro-nickel non-porous bond diamond grinding wheel. R. M. Lorz. il Iron Age 172:37 Jl 30 '53

Industrial diamond substitutes; physical and X-ray study of hafnium carbide. P. G. Cotter and J. A. Kohn. bibliog il Am Cer Soc J 37:415-20 S 1 '54

More about oriented diamond bits cutting drilling costs. W. G. Agnew and W. H. Hampton. il Min Cong J 39:56-7 O '53

New instrument simplifies diamond die inspection; profiloscope. M. Davies. il Iron Age 173:130-2 Je 10 '54

Shortage of industrial diamonds. Chem & Eng N 31:3082 Jl 27 '53

Shorter chipbreakers save diamonds. W. A. Fanger. il Am Mach 98:113-15 My 24 '54

Use of diamond abrasives; abstract. C. R. Myer. Steel 133:116-17 D 21 '53

DIAPHRAGM pumps. See Pumps

DIARRHEA

Effect of fly control on diarrheal disease in an area of moderate morbidity. D. R. Lindsay and others. map Pub Health Rep 68:361-7 Ap '53

DIARYLDISULFIDES
Thermochromism of diaryldisulfides. A. Mustafa and M. Kamel. Science 118:411-13 O 9 '53

DIARYLETHANES
Methylstyrenes and dimethylstyrenes from diarylethanes. J. K. Dixon and K. W. Saunders. bibliog il Ind & Eng Chem 46:652-60 Ap '54

DIATOMACEOUS earth
Diatomaceous-earth filtration in New York state. J. K. Fraser. Am Water Works Assn J 46:151-5 F '54; Abstract. il Water & Sewage Works 100:487-8 D '53; Discussion. Am Water Works Assn J 46:156-9 F '54
Diatomite as an abrasive for cleaners and polishes for automobiles. L. E. Weymouth and P. A. Martinson. il map Soap & San Chem 30:139+ F '54
Diatomite industry in the Isle of Skye. Engineering 176:444 O 2 '53
Millions spent for cleanliness; elimination of hazard to health J-M's goal in diatomite mining and processing. il Chem Eng 60:148+ O '53
More crude diatomite; Great Lakes Carbon to quarry new 165-acre source. Chem & Eng N 32:574 F 15 '54
New era of prosperity predicted; pictorial presentation of Johns-Manville plant in Lompoc, Calif. Chem & Eng N 31:2988-9 Jl 20 '53
Structure of cobalt catalysts supported on diatomaceous earth. M. F. L. Johnson and H. E. Ries, jr. bibliog J Phys Chem 57:865-73 D '53
Unique filter system featured in pilot flood. R. O. Major. flow diag il World Oil 137:272+ O '53

DIATOMETER
Diatometer, inexpensive river pollution indicator. E. B. Brien. il Pet Eng 26:C35-6 Ja '54

DIATOMITE. See Diatomaceous earth

DIAZAISOVIOLANTHRONE
Synthesis of 9 : 18-diaza*iso*violanthrone. J. King and G. R. Ramage. Chem Soc J p936-8 Mr '54

DIAZINON. See Insecticides

DIAZO compounds
Action of diazoalkanes on *o*-quinones and other carbonyl (thiocarbonyl) compounds with special reference to the nature of the intermediate compounds. A. Schönberg and others. bibliog Am Chem Soc J 76:2273-5 Ap 20 '54
Diazo-coupling reaction for thymine. E. D. Day and W. A. Mosher. Franklin Inst J 225:455-7 Ag '53
Diazocyclopentadiene. W. V. Doering and C. H. DePuy. bibliog Am Chem Soc J 75:5955-7 D 5 '53
Diazo-initiated polymers; preparation, properties and evaluation. J. M. Willis and others. bibliog il Ind & Eng Chem 45:1316-22 Je '53
Preparation and reactions of bis-diazoalkanes. C. M. Samour and J. P. Mason. bibliog Am Chem Soc J 76:441-5 Ja 20 '54
Reactions of diazo compounds with nitroölefins; group migrations in the decomposition of nitropyrazolines. W. E. Parham and W. R. Hasek. bibliog Am Chem Soc J 76:799-801 F 5 '54

DIAZOFLUORENE
Action of 9-diazofluorene on ω-nitrostyrenes and its substituted derivatives. A. Mustafa and A. Harhash. bibliog Am Chem Soc J 76:1383-4 Mr 5 '54

DIAZOMETHANE
Methylation of cellulose with diazomethane, and some properties of the products. D. A. Sitch. bibliog il Textile Inst J Trans 44:T407-19 O '53
Rates of reaction of diphenyldiazomethane with aliphatic carboxylic acids in ethanol. R. W. Taft, jr. and D. J. Smith. bibliog Am Chem Soc J 76:305-7 Ja 5 '54
Reaction of diazomethane with arylideneanilines. G. D. Buckley. Chem Soc J p 1850-1 Je '54
Reaction of diazomethane with 2-phenylazo-1, 3-diketones. P. B. Russell. bibliog Am Chem Soc J 75:5315-20 N 5 '53

DIAZONIUM compounds
Mechanism of the coupling of diazonium salts with heterocyclic compounds; glyoxaline. R. D. Brown and others. Chem Soc J p3937-9 D '53
New reaction between aliphatic hydroxylamines and aromatic diazonium compounds. M. A. T. Rogers. Chem & Ind p 1033 S 26 '53
Preparation of aromatic aldehydes and ketones from diazonium salts. W. F. Beech. Chem Soc J p 1297-302 Ap '54
Preparation of arsenic and phosphorus compounds from stable diazonium salts. L. D. Freedman and G. O. Doak. bibliog Am Chem Soc J 75:4905-6 O 20 '53
Reaction of diazonium salts with 1-aryl-Δ^2-pyrazolines. G. F. Duffin and J. D. Kendall. Chem Soc J p408-15 Ja '54
Reaction of diazonium salts with β-2-thienylacrylic acid. W. Freund. Chem Soc J p2889-91 O '53
Studies of trifluoroacetic acid; the reactions of diazonium trifluoroacetates with aromatic compounds to give diaryls. M. R. Pettit and J. C. Tatlow. Chem Soc J p 1941-7 Je '54

DIAZOTIZATION
Explosive nature of the reaction between certain diazotized substituted benzenes and sodium polysulphide. R. G. W. Hollingshead and P. E. Garner. bibliog Chem & Ind p 1179-80 O 31 '53
Kinetics of the diazotization of anilines. M. Okano and Y. Ogata. bibliog Am Chem Soc J 75:5175-7 N 5 '53
Mechanism of diazotization. R. G. Gillis. bibliog J Chem Educ 31:344-6 Jl '54
Studies of trifluoroacetic acid; diazotisations of aromatic amines in aqueous trifluoroacetic acid and other perhalogeno-carboxylic acids. M. R. Pettit, M. Stacey and J. C. Tatlow. Chem Soc J p3081-4 O '53
Titrimetric determination of sulfates by diazo titration of benzidine sulfate. R. E. Keller and R. H. Munch. bibliog Anal Chem 26:1518-19 S '54

DIBENZOCYCLOHEPTATRIENONE
2,4-Dinitrophenylhydrazone of 2,3,6,7-dibenzo-2, 4, 6-*cyclo*-heptatrienone. E. D. Bergmann and D. Ginsburg. Chem & Ind p45 Ja 9 '54

DIBENZOFURAN
Preparation of some substituted 1-dibenzofuranpropionic and -butyric acids. H. Gilman and others. bibliog Am Chem Soc J 75:6310-11 D 20 '53
Some nitro- and aminodibenzofurans. H. Gilman and R. K. Ingham. Am Chem Soc J 75:4843-5 O 5 '53

DIBENZOPERYLENE
Bond orders in dibenzo[*cd,lm*]perylene. E. T. Stewart. Chem Soc J p 1643-4 My '54
Polycyclic systems; 8-meso-α-naphthanthr-10-one and 2 : 3-8 : 9-dibenzoperylene. E. A. Braude, J. S. Fawcett and A. A. Webb. Chem Soc J p 1049-59 Mr '54

DIBENZOPHENANTHRENE
Crystal structure and molecular shape of 3 : 4-5 : 6-dibenzophenanthrene. A. O. McIntosh, J. M. Robertson and V. Vand. diags Chem Soc J p 1661-8 Je '54
Preparation of optically active 9 : 10-dihydro-3 : 4-5 : 6-dibenzphenanthrene. D. M. Hall and E. E. Turner. bibliog Chem & Ind p 1177 O 31 '53
Temperature and the optical rotatory power of solutions; 9 : 10-dihydro-3 : 4-5 : 6-dibenzophenanthrene. M. K. Hargreaves. Chem Soc J p 1781-3 Je '54

DIBENZOPICENE
Aromatic hydrocarbons; heptaphene and 2,3,8,9-dibenzopicene. E. Clar and W. Kelly. Am Chem Soc J 76:3502-4 Jl 5 '54

DIBENZOPYRENEDIONE
Chemistry of anthanthrone; rearrangement and elimination reactions in the action of potassium hydroxide on two dibromoanthanthrones. W. Bradley and J. Waller. Chem Soc J p3783-6 D '53
Chemistry of anthanthrone; the direct replacement of hydrogen by hydroxyl and disubstituted amino-groups. W. Bradley and J. Waller. Chem Soc J p3778-82 D '53

DIBENZOTHIOPHENE
Some 1-substituted dibenzothiophene derivatives. H. Gilman and G. R. Wilder. bibliog Am Chem Soc J 76:2906-8 Je 5 '54

DIBENZOYLMETHANE

Colorimetric determination of uranium with dibenzoylmethane. J. H. Yoe, F. Will, 3d and R. A. Black. bibliog Anal Chem 25:1200-4 Ag '53

DIBENZOYL propenol

Evidence for the isomerization of 2,3-dibenzoyl-2-propen-1-ol to 2,3-dibenzoylpropanal. P. S. Bailey and others. Am Chem Soc J 76:2249-51 Ap 20 '54

DIBENZOYLSTYRENE

Conformations of the *cis* and *trans*-dibenzoylstyrenes. C. R. Bauer and R. E. Lutz. bibliog Am Chem Soc J 75:5997-6002 D 5 '53

DIBENZOYLUREA

Formation of N,N′-dibenzoylurea from nitromethane and benzoyl chloride in pyridine solution. R. H. Terss and W. E. McEwen. bibliog Am Chem Soc J 76:580-5 Ja 20 '54

DIBENZYLTROPOLONE

Tropolones by isomerization; substituted 3,7-dibenzyltropolones. N. J. Leonard and J. W. Berry. bibliog Am Chem Soc J 75:4989-91 O 20 '53

DIBORANE. See Boron hydrides

DIBROMOBENZAMIDE

Reported rearrangement of 2,4,7-tribromotropone to 3,5-dibromobenzamide. W. V. Doering and A. A. Sayigh. bibliog Am Chem Soc J 76:39-41 Ja 5 '54

DIBROMODIFLUOROMETHANE

Substituted methanes; vibrational spectra, potential constants, and calculated thermodynamic properties of dibromofluoromethane. C. E. Decker and others. bibliog J Chem Phys 21:1781-3 O '53

DIBROMOPENTANE

Reaction of 1,5-dibromopentane with *o*-substituted anilines; the synthesis of 1-arylpiperidines. A. H. Sommers and S. E. Aaland. bibliog Am Chem Soc J 75:5280-3 N 5 '53

DIBUTYLAMINE

Reaction of tolylene diisocyanate dimer with dibutylamine. J. H. Saunders and E. E. Hardy. Am Chem Soc J 75:5439-40 N 5 '53

DIBUTYL peroxide

Reaction of methyl linoleate and methyl linolelaidate with di-*t*-butyl peroxide. S. A. Harrison and D. H. Wheeler. bibliog Am Chem Soc J 76:2379-82 My 5 '54

DIBUTYL phthalate

Toxicity of butyl stearate, dibutyl sebacate, dibutyl phthalate, and methoxyethyl oleate. C. C. Smith. A M A Archives Ind Hygiene & Occup Med 7:310-18 Ap '53

DIBUTYL sebacate

Toxicity of butyl stearate, dibutyl sebacate, dibutyl phthalate, and methoxyethyl oleate. C. C. Smith. A M A Archives Ind Hygiene & Occup Med 7:310-18 Ap '53

DICALCIUM phosphate. See Calcium phosphates

DICARBOXYLIC acids. See Carboxylic acids

DICHLOROACETONE

Behavior of *s*-dichloroacetone in Reformatsky condensations. A. Lasslo and G. L. Webster. bibliog Am Chem Soc J 75:5980-3 D 5 '53

DICHLOROBENZENE

Mildew control; possibilities of paradichlorobenzene as an aid in preventing damage by mildew. R. S. Shumard. il Soap & San Chem 29:150-1+ Mr '53

Para and naphtha as closet fumigants. J. W. Arnold. bibliog Soap & San Chem 29:134-5+ Ag '53

Thermal properties of dichlorobenzene. G. Tripathi and G. G. Brown. flow diag Ind & Eng Chem 46:1658-62 Ag '54

Tube-ice to tube chemicals. il diag Chem Eng 60:126-7 S '53

Manufacture

Collect the premium for purity; Allied's Solvay process. diag Chem W 73:44-5 N 7 '53

DICHLOROBENZIDINE

Steric hindrance to coplanarity in *o*-fluorobenzidines. A. J. Bilbo and G. M. Wyman. bibliog Am Chem Soc J 75:5312-14 N 5 '53

DICHLOROBENZYL sulfide

Kinetics and mechanism of the oxidation of *p,p′*-dichlorobenzyl sulfide by hydrogen peroxide. C. G. Overberger and R. W. Cummins. bibliog Am Chem Soc J 75:4783-7 O 5 '53

DICHLOROBUTANE

Preparation and properties of certain 1,3-dichlorobutyl ethers. C. T. Mason, C. W. R. Wade and H. W. Pouncy, jr. bibliog Am Chem Soc J 76:2255-6 Ap 20 '54

DICHLOROCAMPHANE

Configuration of some dichlorocamphanes. H. Kwart. bibliog Am Chem Soc J 75:5942-4 D 5 '53

DICHLORODIFLUOROMETHANE

Determination of water content in Freon-12 circulating in a refrigeration system. A. W. Diniak and others. bibliog diags Refrig Eng 62:56-9+ F '54

Determining pressure drop in Freon systems F-12 and F-22. W. L. Holladay. bibliog Refrig Eng 62:55-60; Discussion. 60-1+ S '54

Effects of halocarbons on engine performance. F. G. Rounds and J. D. Caplan. bibliog il Ind & Eng Chem 46:1677-84 Ag '54

Heat transfer of evaporating Freon with inner-fin tubing. C. Boling and others. bibliog diags Refrig Eng 61:1338-40+ D '53; Discussion. 62:60-1 Ja; 53+ F; 42 S '54

High pressure Freon-12 receivers, horizontal and vertical; detail sheet. diags Heat & Ven 51:117-18 Mr '54

DICHLORODIMETHYLHYDANTOIN

One for the wash; powder bleaches based on dichlorodimethylhydantoin. il Chem W 73:81-2 N 21 '53

DICHLOROETHANE. See Ethylene chloride

DICHLOROETHYLENE

cis- and *trans*-dichloroethylenes; the infrared spectra from 130-400 cm.$^{-1}$ and the thermodynamic properties. K. S. Pitzer and J. L. Hollenberg. bibliog Am Chem Soc J 76:1493-6 Mr 20 '54

See also

Cryovac containers

Saran

DICHLOROHEXAFLUOROPROPANE

Properties of butane and Freon-216; abstract. I. S. Badylkes. Refrig Eng 62:64 Jl '54

DICHLORONAPHTHOQUINONE

Control of blue-green algae blooms with 2,3-dichloronaphthoquinone. G. P. Fitzgerald and F. Skoog. Sewage & Ind Wastes 26:1136-40 S '54

DICHLOROPHENOXYACETIC acid

Chemistry of plant growth-regulators; modification of the side-chain of 2 : 4-dichlorophenoxyacetic acid. G. W. K. Cavill and D. L. Ford. Chem Soc J p 1388-91 My '54

Effects of wind-drift of weed-killer on some Puerto Rican trees. E. Hernández-Medina and others. il Science 118:74-5 Jl 17 '53

New ω-substituted anisoles; a new route to 2,4-D compounds. H. J. Barber, M. B. Green and H. T. Zwartouw. J Ap Chem 3:419-20 S '53

Some new esters of 2,4-dichlorophenoxyacetic acid and their herbicidal activity. C. R. Wagner, C. L. Hamner and H. M. Sell. Am Chem Soc J 75:4861-2 O 5 '53

2,4-D and the law in Texas. Chem W 74:103 Mr 13 '54

DICHLOROPHENOXYACETIC acid, Analogs of

Aryloxymethanephosphonates; new analogues of 2 : 4-D. M. H. Maguire and others. Chem & Ind p668 Jl 4 '53

DICHLOROPHENOXYETHYL sulfate

After a winter of worries; setting up the machinery to put Crag Herbicide-1 into national distribution. il Chem W 72:73-4+ Ap 25 '53

Analysis

Determination of residual Crag herbicide 1 and its hydrolysis products on food crops. J. N. Hogsett and G. L. Funk. bibliog Anal Chem 26:849-53 My '54

DICHLOROTETRAFLUOROETHANE

Spectrum

Infrared spectra of pentachlorofluoroethane, 1,2-dichlorotetrafluoroethane, and 1-bromo-2-fluoroethane. D. Simpson and E. K. Plyler. J Res Nat Bur Stand 50:223-7 My '53

DICHLOROXYLENOL

2,6-Dichloro-3,5-xylenol. W. S. Gump and E. J. Nikawitz. bibliog Am Chem Soc J 75:6311-12 D 20 '53

DICHROISM
- Direct interaction between metal atoms in the crystals of bis-(dimethylglyoxime)-nickel(II) and -platinum(II). S. Yamada and R. Tsuchida. bibliog Am Chem Soc J 75:6351-2 D 20 '53
- Infrared dichroism in the 13.8μ band of n-$C_{30}H_{74}$ single crystals and polyethylene. S. Krimm. bibliog J Chem Phys 22:567-8 Mr '54

DICHROMATES
- Assay of certain organic materials by dichromate oxidation. N. F. Schulz. Anal Chem 25:1762-4 N '53
- Determination of cellulose by an acid-dichromate method. T. N. Kleinert and W. Wincor. bibliog Tappi 36:507-9 N '53
- Dichromate oxidation of diethylene glycol. M. J. Cardone and J. W. Compton. bibliog Anal Chem 25:1869-74 D '53
- Rapid accurate determination of carbohydrates and other substances with the dichromate heat-of-dilution method. H. F. Launer and Y. Tomimatsu. Anal Chem 25:1767-9 N '53
- Rapid accurate determination of cellulose with the dichromate heat-of-dilution method. H. F. Launer and Y. Tomimatsu. bibliog Anal Chem 25:1769-70 N '53

DICTATING machines
- Dictating machine employs magnetic belt for recording. Elec Eng 73:187 F '54; il Machine Design 26:204+ F '54
- Semi-automatic dictation eases stenographic problem; Hanover bank, New York. D. R. Hassell. il Burroughs Clearing House 38:30 F '54

DICTATION
- Dictating by telephone. il Bsns W p95-6+ S 5 '53

DICTIONARIES
- Britannica world language dictionary. C. E. Funk, ed. 2v 1944p $35 Funk & Wagnalls co, 153 E. 24th st, New York 10 '54

DICYANOCATECHOL
- 3 : 6-Dicyanocatechol. J. D. Loudon and D. K. V. Steel. Chem Soc J p 1163-4 Mr '54

DICYCLOHEXYLAMMONIUM nitrate
- Packaged corrosion losing to VPI. W. R. Wolfe. il Steel 133:132+ O 26 '53

DICYCLOPENTADIENE
- Action of performic acid on dicyclopentadiene. M. Gates and S. P. Malchick. Am Chem Soc J 76:1378 Mr 5 '54

DIDIER, R. Irby
- Sketch. por Banking 46:85 N '53

DIE casting
- Aluminum alloys for permanent mold and die casting; data sheet. Metal Prog 65:112B My '54
- Aluminum die castings in telephone equipment. L. Pederson. il Materials & Methods 39:98-100 Je '54
- Better beater casting; Turner & Seymour mfg. co. il Steel 135:138 S 13 '54
- Better handling methods simplify hot metal distribution; McCulloch motors corp. il Iron Age 172:125 O 22 '53
- Casting tv bezels; Precision castings co. il Steel 133:161-2 S 14 '53
- Close tolerance castings; die castings. M. W. Riley. il Materials & Methods 40:128-30 S '54
- Coloration of zinc die castings; abstract. Reininger. Metal Finishing 52:87+ Ag '54
- Design; diecast heater elements cut production costs. Iron Age 172:207 N 5 '53; Steel 133:162 N 9 '53
- Designing small die castings; drawings with text. Machine Design 26:181-3 Ap '54
- Diecasting dado saw blade unit; Magna corp. il Iron Age 174:118 Ag 26 '54
- Die casting industry and zinc. J. P. de Wet. il Can Min J 74:67-70 O '53
- Diecasting; industry uses more for working parts; Precision castings co., inc. and Ford motor co. J. J. Obrzut. il Iron Age 173:140-3 F 11 '54
- Diecasting; new uses pace its growth. R. L. Hatschek. Iron Age 173:73-4 Mr 18 '54
- Diecasting; vacuum method reduces internal porosity; Nelmor corp. il Iron Age 173:156-7+ F 18 '54
- Diecastings and extruded sections. H. K. Barton and L. C. Barton. diags Product Eng 24:266-8 O '53
- Die castings; copper and copper-base, aluminum and aluminum-base, zinc and zinc-base, lead and lead-base shipments, 1950-1953; tabulations. Steel 134:167 Ja 4 '54
- Die castings fit a precision product; Sheffield corp. il Steel 135:130 S 13 '54
- Die castings; upturn this fall? Steel 134:57 My 31 '54
- Employs close control in die casting magnesium; McCulloch motors corp. T. A. Dickinson. il Foundry 82:339+ My '54
- Faults in pressure die castings. W. M. Halliday. diags Metallurgia 49:35-40, 55-60 Ja-F '54
- Fittings die-cast to flexible tubing; Tractor works of the International harvester co. F. E. Beers. il Mach 60:175 Ag '54
- High speed production of aluminum gears by die casting. E. L. Lewis. il Light Metal Age 11:12-13+ O '53
- Let die castings help keep costs in line. A. G. Gray. il Steel 133:106-10+ Jl 6 '53
- Magnesium die casting. G. F. Hodgson. il Foundry 82:102-5+ F '54; Excerpts. Light Metal Age 11:24+ D '53
- Mechanical properties of nine aluminum die-casting alloys; abstract. C. O. Smith. Materials & Methods 40:166-7 Jl '54
- New die casting plant features melting, handling economies; Mt Vernon die casting corp. G. B. Nyselius. il diag Iron Age 174:108-11 S 2 '54
- New machine polishes zinc diecast parts automatically. H. Chase. il Iron Age 172:136-7 Ag 20 '53
- Niforge high-quality die castings. Engineering 176:762 D 11 '53
- Porosity test for electrodeposits on zinc-base die-castings. H. K. Lutwak. bibliog Metal Finishing 52:76-8 Ap '54
- Problems and procedures in proving die casting dies. W. M. Halliday. Metallurgia 49:230-4 My '54
- Stress-free castings; Parlanti mould process. Automobile Eng 43:442 O '53
- Two operations complete intricate aluminum die-castings. H. P. Kunkleman. il diags Am Mach 97:131-3 D 7 '53
- Vacuum die casting an improved method. il Machine Design 26:216 Ap '54; Steel 134:97 Mr 1 '54
- Versatile setups finish diecastings faster; Tractor works of International harvester co. F. E. Beers. il Iron Age 172:73-5 D 24 '53
- Zinc; a try at dime-store strategy; zinc industry will help promote die casting. Steel 134:56 Ap 26 '54
- Zinc alloy die-castings. Automobile Eng 44:153 Ap '54

Testing
- Aluminum die castings; the effect of process variables on their properties. W. Babington and D. H. Kleppinger. il diags Am Soc T M Proc 51:169-93; Discussion. 193-7 '51

DIE casting machines
- Cold chamber machine adds flexibility, economy. C. H. Drewes. il Iron Age 172:112-14 Ag 27 '53
- Develop new machine for large aluminum die castings. E. C. Beaudet. il Iron Age 174:118-19 Jl 15 '54
- Doehler-Jarvis hopes giant die caster will bring new auto uses. F. G. Lawrence. il Steel 135:81-2 Jl 12 '54
- Doehler-Jarvis machine die casts 75-lb aluminum parts. il Am Mach 98:168 Jl 19 '54; Automotive Ind 111:84+ Jl 15 '54; Mach 60:190 Ag '54; Tool Eng 33:60-1 S '54
- Harvill cold chamber die-casting machine provides 300 casting cycles per hour. il Am Mach 98:152 Mr 1 '54; Tool Eng 32:189-90 Ap '54
- New machine can die cast aluminum engine blocks. il Materials & Methods 40:11 Ag '54
- 1954 American Machinist production preview. il Am Mach 98:198 Ja 18 '54

DIE sinking machines
- Nassovia two-spindle die sinker has electro-hydraulic control. il Am Mach 98:156 Mr 29 '54

DIELDRIN

Aldrin and dieldrin for UK; Shell chemicals ltd. Chem Age (Lond) 70:223-5 Ja 16 '54
Dieldrin for household use. Soap & Chem Spec 30:179 S '54
New insecticide plant in Holland. Chem & Ind p 1054 O 3 '53
To make dollar insecticides; Shell aldrin and dieldrin. Chem Age (Lond) 69:712 O 3 '53
Use of dieldrin against cabbage root fly. T. Rosborough. Chem & Ind p947 S 5 '53
War declared on ants in Perth, western Australia. Chem Age (Lond) 71:532 S 11 '54; Chem & Ind p 1127 S 11 '54

Analysis

Determination of aldrin and dieldrin in formulations by partition chromatography. H. F. Beckman. Anal Chem 26:922-4 My '54

DIELECTRIC constants

Analysis of binary solvent mixtures of conducting solutions by a radio-frequency method. J. L. Hall and others. bibliog Anal Chem 26:835-8 My '54
Capacity, dielectric constant, and power factor of fiber assemblies. J. W. S. Hearle. bibliog(35 ref) diags Textile Res J 24:307-21 Ap '54
Čerenkov effect and the dielectric constant. S. M. Neamtan. bibliog Phys R 92:1362-7 D 15 '53
Chemistry of aliphatic phosphonic acids; dielectric constants and viscosity of some higher alkylphosphonates. G. M. Kosolapoff. Am Chem Soc J 76:615-17 Ja 20 '54
Complex dielectric constants of some aliphatic alcohols at 9733 mc/sec. N. Koizumi. bibliog J Chem Phys 21:1898-9 O '53
Dielectric behavior of methyl bromide in 3-cm region. K. Swarup and P. Swarup. bibliog J Chem Phys 22:568-9 Mr '54
Dielectric behavior of sorbed water on silica gel. S. Kurosaki. bibliog J Phys Chem 58:320-4 Ap '54
Dielectric changes of electroluminescent phosphor during illumination. S. Roberts. Opt Soc Am J 43:590-2 Jl '53
Dielectric constant and dissipation factor of soda-potassia-silica glasses at frequencies of one to 300 kilocycles at room temperature. G. F. Stockdale. diags Ill U Eng Exp Sta Bul 411:1-27 '53 (pa 30c); Excerpts. Glass Ind 35:381+ Jl '54
Dielectric constant and refractive index from 20 to 35° and density at 25° for the system tetrahydrofuran-water. F. E. Critchfield, J. A. Gibson, jr. and J. L. Hall. Am Chem Soc J 75:6044-5 D 5 '53
Dielectric constant gaining favor as analytical tool. B. W. Thomas. Ind & Eng Chem 45:sup87A-8A+ O '53
Dielectric constant measurements at 8.6-mm wavelength. P. Hertel, jr. and others. J Ap Phys 24:956-7 Jl '53
Dielectric constant measurements on doubly activated phosphors. W. Low and others. bibliog Opt Soc Am J 44:88 Ja '54
Dielectric constant of supercritical steam. J. K. Fogo and others. bibliog diag J Chem Phys 22:209-12 F '54
Dielectric constant of trifluoroacetic anhydride and related compounds. J. M. Tedder. Chem Soc J p2646-7 Jl '54
Dielectric constants of dimethylsilicones. O. B. Young and C. E. Dickerman. Ind & Eng Chem 46:364-5 F '54
Dielectric constants, polarizations and dipole moments of some alkylbenzenes. A. P. Altshuller. bibliog J Phys Chem 58:392-5 My '54
Dielectric measurement of heptacosafluorotributylamine. F. Brown. Am Chem Soc J 75:6041 D 5 '53
Dielectric properties and phase transitions of $Cd_2Nb_2O_7$ and $Pb_2Nb_2O_7$. G. Shirane and R. Pepinsky. il Phys R 92:504 O 15 '53
Dielectric properties of colored KCI crystals. T. Suita. Phys R 94:1497 Je 15 '54
Dielectric properties of hydrogen halides; hydrogen bromide. N. L. Brown and R. H. Cole. bibliog diags J Chem Phys 21:1920-6 N '53
Dielectric properties of hydrogen halides; hydrogen chloride. R. W. Swenson and R. H. Cole. bibliog diag J Chem Phys 22:284-8 F '54
Dielectric properties of some double tartrates. F. Jona and R. Pepinsky. Phys R 92:1577 D 15 '53
Dielectric properties of Teflon from room temperature to 314° C and from frequencies of 10^2 to 10^5 c/s. P. Ehrlich. bibliog J Res Nat Bur Stand 51:185-8 O '53
Direct measurement of the dielectric constants of silicon and germanium. W. C. Dunlap, jr. and R. L. Watters. Phys R 92:1396-7 D 15 '53
Domain clamping effect in barium titanate single crystals. M. E. Drougard and D. R. Young. diags Phys R 94:1561-4 Je 15 '54
Electric permittivity of a dilute suspension of membrane-covered ellipsoids. H. Fricke. J Ap Phys 24:644-6 My '53
Interaction of benzyl acetate and cellobiose α-octa-acetate with some solvents for cellulose acetate. W. R. Moore and J. Russell. bibliog diag J Ap Chem 4:369-73 Jl '54
Low-temperature dielectric properties of cadmium and lead niobates. J. K. Hulm. bibliog Phys R 92:504-5 O 15 '53
Measurement of dielectric constant and dissipation factor of raw cottons. C. E. Kirkwood, jr. and others. bibliog diags Textile Res J 24:841-7 S '54
Method for measuring the dielectric constant of solids at ultra high frequencies. C. M. McKinney and B. M. Duff. bibliog diags R Sci Instr 25:925-6 S '54
Method for obtaining streaming orientation and simultaneous determination of dielectric properties in macromolecular solutions. B. Jacobson. bibliog il diags R Sci Instr 24:949-54 O '53
Mixed-liquid method for the determination of the dielectric constant of solids. J. L. Pauley and H. Chessin. bibliog Am Chem Soc J 76:3888-90 Ag 5 '54
New method of measuring dielectric constant and loss angles of semiconductors. B. Ichijō. diags J Ap Phys 24:307-11 Mr '53
Onsager's theory of the dielectric constant of polar liquids. R. O. Davies and B. K. Scaife. bibliog J Chem Phys 22:148-9 Ja '54
Pressure dependence of the dielectric constant of water and the volume contraction of water and *n*-butanol upon addition of electrolyte. F. E. Harris, E. W. Haycock and B. J. Adler. bibliog J Phys Chem 57:978-80 D '53
Relaxation, viscosity, and shape; abstract. C. P. Smyth. Chem & Eng N 32:1564 Ap 19 '54
Some dielectric properties of barium-strontium titanate ceramics at 3000 megacycles. L. Davis, jr. and L. G. Rubin. bibliog diags J Ap Phys 24:1194-7 S '53
Thermal and dielectric properties of crystalline long-chain acetates. R. J. Meakins and J. W. Mulley. bibliog J Chem Phys 21:1934-9 N '53
What you should know about the effects of electricity in textiles. J. W. S. Hearle. bibliog diags Mod Textiles Mag 35:32-3+ My '54

DIELECTRIC heating. See Electric heating, Industrial—High frequency heating

DIELECTRIC losses

Calculation of the distribution of relaxation times for a single-axis rotator using the random-jump hypothesis. J. D. Hoffman. J Chem Phys 22:156-7 Ja '54
Energy loss of moving electrons to dipolar relaxation. H. Fröhlich and R. L. Platzman. bibliog Phys R 92:1152-4 D 1 '53
Loss measurements of surface wave transmission lines. E. H. Scheibe and others. bibliog il J Ap Phys 25:790-7 Je '54
Maxwell-Wagner dispersion in a suspension of ellipsoids. H. Fricke. bibliog J Phys Chem 57:934-7 D '53
New method of measuring dielectric constant and loss angles of semiconductors. B. Ichijō. diags J Ap Phys 24:307-11 Mr '53
Theory of dielectric relaxation for a single-axis rotator in a crystalline field. J. D. Hoffman and H. G. Pfeiffer. bibliog diags J Chem Phys 22:132-41 Ja '54

DIELECTRIC polarization. See Polarization, Dielectric

DIELECTRICS

Absorption of millimeter waves in dielectric solids. W. L. Brooks and others. diags Opt Soc Am J 43:1191-4 D '53

All-dielectric high-reflecting layers. O. S. Heavens. Opt Soc Am J 44:371-3 My '54

Artificial dielectrics having refractive indices less than unity; abstract. J. Brown. bibliog diags Inst E E Proc 100 pt 3:319-20 S '53

Avalanche breakdown in silicon. K. G. McKay. bibliog diag Phys R 94:877-84 My 15 '54

Breakdown cell for measuring the dielectric strength of solids at 100 megacycles. L. J. Frisco and J. J. Chapman. il diags R Sci Instr 25:733-7 Ag '54

Building and using dielectric amplifiers; constructing nonlinear barium-strontium-titanate capacitors. A. Silverstein. il diags Electronics 27:150-3 F '54

Cathode effects in the dielectric breakdown of liquids. J. K. Bragg and others. bibliog diags J Ap Phys 25:382-91 Mr '54

Ceramic dielectrics symposium, 18th, New Brunswick, N.J. March 10; abstracts of papers. Cer Ind 62:98-9 Je '54

Dielectric relaxation in a styrene-acrylonitrile copolymer during and after its polymerization. P. Ehrlich and N. J. De Lollis. bibliog J Res Nat Bur Stand 51:145-54 S '53

Distribution of conductivity within dielectric films on aluminum. J. E. Lilienfeld and C. Miller. bibliog diags Electrochem Soc J 100:222-6 My '53

Effect of particle size on magnetic loss tangent of obstacle type artificial dielectrics. J. M. Kelly and J. O. Stenoien. il J Ap Phys 24:962-3 Jl '53

Electric strength of sulfur hexafluoride at radio frequencies. J. W. Gibson and C. F. Miller. bibliog il diags Electrochem Soc J 100:265-71 Je '53

Electric strengths of aliphatic hydrocarbons. R. W. Crowe and others. J Ap Phys 25:392-5 Mr '54

Electrical phenomena in adhesion; electron atmospheres in dielectrics. S. M. Skinner and others. bibliog il diags J Ap Phys 24:438-50 Ap '53; Discussion. 25:1053-5; Reply. 1055-6 Ag '54

Electrical properties of pentachlordiphenyl impregnated glass fiber paper. T. D. Callinan. bibliog il diags Electrochem Soc J 100:141-5 Ap '53

Electromagnetic field of a dipole source above a grounded dielectric slab. Y. T. Lo. bibliog diags J Ap Phys 25:733-40 Je '54

Fundamental factor controlling the unit dielectric strength of oil; abstract. W. R. Wilson. Elec Eng 72:378 O '53

Infrared absorption of thin metal films. C. Hilsum. Opt Soc Am J 44:188-91 Mr '54

Liquid dielectrics. A. H. Sharbaugh and R. W. Crowe. il diags Gen Elec R 57:23-8 My '54

Motor insulation life as measured by accelerated tests and dielectric fatigue. C. J. Herman. bibliog il diag Elec Eng 73:33-7 Ja '54

Nonlinear capacitors for dielectric amplifiers. G. S. Shaw and J. L. Jenkins. il diags Electronics 26:166-7 O '53

Polystyrene and lucite rod antennas. G. von Trentini. diag J Ap Phys 24:960-1 Jl '53

Progress in dielectrics. S. Whitehead. il Elec R (Lond) 153:1309-13 D 11 '53

Radioactive charging effects with a dielectric medium. P. Rappaport and E. G. Linder. bibliog diags J Ap Phys 24:1110-14 S '53

Ray deflection through a medium having a continuously varying refractive index. S. Wolin. bibliog Opt Soc Am J 43:373-5 My '53

Recent developments in dielectrics; abstract. S. Whitehead. Engineer 196:333-4 S 11 '53

Secondary electron resonance mechanism of low-pressure high-frequency gas breakdown. A. J. Hatch and H. B. Williams. bibliog diags J Ap Phys 25:417-23 Ap '54

Synthetic mica investigations; dielectric properties of hot-pressed synthetic mica and other ceramics at temperatures up to 400°C. J. E. Comeforo and R. A. Hatch. bibliog Am Cer Soc J 37:317-22 Jl 1 '54

Test cell for measuring the dielectric strength of elastomeric materials in air. S. I. Reynolds. bibliog il diag R Sci Instr 25:177-9 F '54

Theory of thermodielectric effect. B. Gross. bibliog diags Phys R 94:1545-51 Je 15 '54

Use of the mercury cathode in the dielectric breakdown of liquids. A. H. Sharbaugh and others. J Ap Phys 24:814-15 Je '53

Vacuum microbalance for measuring sorption in dielectrics. A. G. Day. bibliog diags J Sci Instr 30:260-3 Ag '53

Voltage breakdown tester. W. E. Williams, jr. diag R Sci Instr 24:458 Je '53

See also

Electrets

Insulating materials

Mica

Polarization, Dielectric

Power factor, Dielectric

DIELS-ALDER reaction

β-Acetylacrylic (4-oxopent-2-enoic) acid in the Diels-Alder reaction; some derivatives of the adduct derived from β-acetylacrylic acid and butadiene. S. Dixon and L. F. Wiggins. Chem Soc J p594-7 F '54

Acetylene studies; Diels-Alder reactions with methylchloroprene. E. D. Bergmann. J Ap Chem 3:145-6 Ap '53

Cyclic dienes; Diels-Alder reactions of thiophene 1-dioxide. W. J. Bailey and E. W. Cummins. Am Chem Soc J 76:1940-2 Ap 5 '54

Diels-Alder reaction; abstracts. K. Alder. Chem & Eng N 32:1582+ Ap 19 '54; Chem & Ind p571 My 15 '54

Diels-Alder reaction of 2-vinylthiophene. J. F. Scully and E. V. Brown. bibliog Am Chem Soc J 75:6329-30 D 20 '53

Diels-Alder reaction with certain *o*-quinones. J. A. Barltrop and J. A. D. Jeffreys. Chem Soc J p 154-9 Ja '54

Diels-Alder reactions with arylethenesulfonyl fluorides. W. E. Truce and F. D. Hoerger. Am Chem Soc J 76:3230-2 Je 20 '54

Isomerism in the Diels-Alder reaction; directive influences in addition reactions of the double bond in bicyclic adducts. H. Kwart and L. Kaplan. bibliog diags Am Chem Soc J 76:4078-81 Ag 20 '54

Isomerism in the Diels-Alder reaction; the bromination of the Diels-Alder adduct, norbornylene. H. Kwart and L. Kaplan. bibliog flow sheet Am Chem Soc J 76:4072-7 Ag 20 '54

p-Nitrophenylmaleic anhydride in the Diels-Alder reaction. L. E. Miller and C. J. Strickler. bibliog Am Chem Soc J 76:698-702 F 5 '54

Vinylidene cyanide; a dienophile in the Diels-Alder reaction. S. J. Averill and H. L. Trumbull. bibliog Am Chem Soc J 76:1159-60 F 20 '54

2- and 3-Vinylpyridines as dienophiles in the Diels-Alder reaction. W. V. Doering and S. J. Rhoads. bibliog Am Chem Soc J 75:4738-40 O 5 '53

DIENES. See Olefins

DIENONE phenol rearrangement. See Molecular rearrangements

DIES

Alfred Herbert thread rolling diehead. il Engineer 196:598 N 6 '53; Engineering 176:683 N 27 '53

Another simple die change eliminates springback. P. V. Dunn. diag Am Mach 98:146 Jl 19 '54

Cam-actuated dies promote economy. A. J. Stockwell. il diags Tool Eng 33:67-70 Jl '54

Circular helix formed in one die operation. J. Muth. diags Am Mach 98:128 Mr 29 '54

Combination punch and die. H. Dahl. diag Tool Eng 31:45 D '53

Combination punch and die allows for springback in U-shapes. H. Dahl. diags Am Mach 97:165 N 9 '53

Cut costs with die-shim perforators. J. G. Schlindwein. il diag Am Mach 98:123 S 27 '54

Die control program solves handling, storage problems; Lyon metal products, inc. V. J. Rokop. il Iron Age 173:116-19 Je 3 '54

Die cost distribution in wire drawing. N A C A Bul 34:1438-42 N 9 '53

Die design; how to save development time. B. K. H. Bao. diags Tool Eng 33:65-8 S '54

DIES—*Continued*

Die life is up 18 times with ductile-iron dies for operations on 20-mm brass cartridge cases. J. C. Neemes, jr. il Am Mach 97:134-6 D 7 '53
Die materials for limited production runs. J. L. Everhart. il Materials & Methods 38:92-5 N '53
Die with two identical members to simplify machining and assembly. F. Strasser. diags Mach 60:211 Ja '54
Diemakers' kinks (cont). F. Strasser. diags Am Mach 97:136 D 7 '53; 98:157 Mr 15; 202 Ap 12; 129 My 10; 123 Je 21; 147 Jl 5; 129 Jl 19; 129 Ag 16; 175 S 13 '54
Dies; autos give push for big year. R. D. Raddant. il Iron Age 173:67 Ja 28 '54
Dies with cams that operate punches in opposite directions. F. Strasser. plan diags Mach 60:210-11 Mr '54
Dieset take-apart cart saves time, cuts die damage; Lyon metal products, inc. J. G. Schlindwein. il diags Am Mach 98:110-11 Mr 1 '54
Experimental investigation of the yielding of strip between smooth dies. A. B. Watts and H. Ford. bibliog il diag Inst Mech Eng Proc (B) 1B no 10:448-53; Discussion. 454-64 '52-53
Extrusion die problems discussed. Materials & Methods 40:208+ Jl '54
Facts about modern taps and dies. diags Mill & Factory 54:590-1 My '54
Five-station progressive die forms and cuts off caps. S. E. Olson. diags Am Mach 98:159 Je 7 '54
Handling; fork truck, crane combined to ease die removal; Perfection stove co. il Iron Age 173:194-5 F 25 '54
Hard bronze draws stainless without scratches. A. Walz. il diags Am Mach 98:106-9 Ag 2 '54
Hardened guides eject slug problem; illustrations with text. J. G. Schlindwein. diag Am Mach 98:163 Mr 15 '54
Here's how to store dies! Solar aircraft co. il Mill & Factory 53:130-1 D '53
How to machine acrylic plastics; rule die cutting. O. L. Pierson. diags Am Mach 98:117-18 F 1 '54
Lathe attachment for machining a spherical punch and die. R. T. Stewart. diags Mach 60:212 Ja '54
Liquid blasting of dies cuts cleaning costs, increases die life; Imperial brass manufacturing co. il Iron Age 172:112 N 26 '53
Little dies lick big costs in short-run plastics; Douglas engineering co. E. Douglas. il diag Am Mach 98:124-5 S 27 '54
Lock-washer strip-stock fed through stripper. H. Dahl. diags Am Mach 98:140 Ag 2 '54
Magazine feed speeds second die operations. F. Strasser. diags Am Mach 98:165 Mr 15 '54
Multiple action die. H. Dahl. diags Tool Eng 33:43-4 Jl '54
New results in tool and die welding. R. Groman. il diags Welding J 33:543-8 Je '54
Northrop molds glass-fiber parts with press dies. R. G. McIntosh. il Mach 60:218-22 Jl '54
Part of die for tube reducer weighs 8400 lb. il Iron Age 173:178+ Ap 8 '54
Portable plug-in elements heat magnesium forming dies. R. W. Peters. il Iron Age 174:112-13 Ag 12 '54
Precision stampings; progressive die setups permit high output; Chrysler corp. J. I. Feldborg. il diag Iron Age 173:170-2 Ap 22 '54
Preventing press failures; protecting die sets. A. F. Gagne, jr. il diags Tool Eng 32:37-45 F '54
Progressive die produces 5000 ferrules an hour. il diag Mach 60:198-9 Je '54
Progressive dies require little maintenance; drawings with text. P. Balsells. Am Mach 97:126-7 N 23 '53
Progressive dies speed output of cup-shaped parts; Pontiac div. of General Motors. W. G. Patton. il Iron Age 174:109-11 Jl 22 '54
Punch and die clearance; reference book sheet. D. R. King. diags Am Mach 98:245, 247 Ap 12 '54
Redesigned bending die cuts one operation. H. Dahl. diags Am Mach 98:119 Ja 4 '54
Rotary die increases thread rolling production. il Tool Eng 31:62 N '53
Safe set-up, handling, and storage of power press dies. L. Krantz. il Safety Maint & Prod 108:14-15+ Ag '54
Scrap cutters on draw dies. A. Peterson. diags Mill & Factory 54:137 Ja '54
Self-opening dieheads cut threading time. W. D. Arnot. diags Am Mach 98:151 Jl 5 '54
Simple die change cuts springback. P. V. Dunn. diags Am Mach 98:137 Ap 26 '54
Soft die and hard arbor taper tubes. F. E. Chase. diags Am Mach 98:141 S 27 '54
Soft dowels in hard dies simplify die assembly. P. V. Dunn. diags Am Mach 98:130 Mr 29 '54
Spiral saw bands lower die costs. il Mach 60:209 Mr '54
Stock gages for dies; reference sheets. F. Strasser. diags Tool Eng 31:79-82 N '53
Talks on draw dies (cont). S. R. Cope. diags Am Mach 97:156-9 D 7 '53; 98:100-3 Ja 4; 148-52 F 15; 134-6 Mr 15; 114-16 Ap 26; 168-71 My 10; 134-7 Je 7; 126-8 Jl 5; 130-2 Jl 19; 134-6 Ag 2; 122-5 Ag 16; 109-12 Ag 30; 140-3 S 13; 120-3 S 27 '54 (to be cont)
Tool and die materials forum. C. Berndt and others. Steel 134:140-6+ Ap 19 '54
Universal die set. H. Dahl. diags Tool Eng 33:43 Ag '54
Wet blasting dies. Steel 133:122 S 28 '53

Manufacture

Artists sculpture mica dies. J. P. Wright. il diags Am Mach 98:145-60 S 13 '54
How to produce a dieset by electrical-discharge machining. H. V. Harding and others. il Am Mach 98:140-3 Mr '54
Huge dies for giant tube reducer. il Mach 61:264 S '54
Rotating toolholder shapes die openings. H. Gifford. diags Am Mach 98:126 Mr 1 '54

Testing

Diamond die profiloscope. il Metallurgia 49:281-2 Je '54
New instrument simplifies diamond die inspection; profiloscope. M. Davies. il Iron Age 173:130-2 Je 10 '54
Problems and procedures in proving die casting dies. W. M. Halliday. Metallurgia 49:230-4 My '54

DIES, Extrusion

Heavy-duty tooling for cold extrusion of steel. il diags Mach 60:171-5 Ap '54
Split die extrusion. Steel 134:143 My 10 '54

DIES, Forging

New method speeds calculations for forging dies. J. A. A. Gurgel. diags Iron Age 172:138-41 Jl 2 '53

DIES, Plastic

Low-cost plastic dies take on more forming jobs. W. G. Patton. il Iron Age 173:115-17 Je 10 '54
Plastic cuts die forming time. il Aviation W 59:32+ O 12 '53
Plastic dies cut tooling costs. il Materials & Methods 39:6 My '54
Plastic dies form truck body parts. il Iron Age 173:124 Ap 22 '54
Plastic dies move into regular production service. G. C. Adams. il diags Tool Eng 32:79-82 My '54
Plastic dies; newcomer makes bid for second team. H. Chandler. il Steel 135:84-7 Ag 2 '54
Plastic dies speed delivery of experimental stampings; Allied products corp. W. C. Miller and W. J. Esdale. il diag Mach 60:172-7 N '53
Plastic joggle dies; originally intended for whole die, but too pliable, Dunnlew is used for facing with success. il Steel 134:157 F 8 '54
Plastic tooling kitchen; better recipes for plastic dies; illustrations with text. Steel 134:133 My 10 '54
Reinforced plastic tooling; abstract. F. Lyijynen. il Automotive Ind 110:39+ Mr 1 '54
Tool and die materials forum. C. Berndt and others. Steel 134:140-6+ Ap 19 '54

DIES, Plastic—*Continued*

Use of plastic for draw dies and related automobile body tooling. G. C. Adams. diags S A E J 61:21-5 N '53

DIES, Rubber

Drop hammer, trapped rubber dies form aircraft parts faster; Consolidated Vultee aircraft co. T. M. Rohan. il Iron Age 173:121-3 My 6 '54

DIESEL construction company

Building skyscrapers. Eng N 151:159-62 O 8 '53

DIESEL-electric locomotives. See Locomotives, Diesel-electric

DIESEL engine stations. See Electric plants (central stations)—Diesel engine stations

DIESEL engines

Bukh engine. diag Diesel Power 32:51 Mr '54
Completely Diesel-powered dredges; Ohio river dredging co. il Rock Prod 57:129 F '54
Diesel-driven pumps reduce drainage district costs. W. H. Klinger and M. B. Carroll, jr. il Pub Works 84:70 N '53
Diesel engine prospects. P. B. B. Andrews. Diesel Power 32:38-42 Ja '54
Diesel power vs gas and gasoline in drillling R. R. Carver. Can Min J 75:69-71 Ag '54
Dual fuel engines; abstract. G. A. Keep and K. M. Cummins. Elec J 151:1242 O 16 '53
Engineer corps gets 961 generator sets. il Diesel Power 32:56-8 Je '54
Kalamazoo Paper installs Diesel for standby power. il Paper Ind 35:866 N '53
Lakehead pipeline goes through. il Diesel Power 31:36-8 N '53
Last Fullagar industrial Diesel engine; English electric co. il Engineering 177:165 F 5 '54; Elec J 152:427-8 F 5 '54; Elec R (Lond) 154:247 F 5 '54
Luxury with foresight; hotel equipped with emergency stand-by power. il Diesel Power 32:43 Ja '54
More power for P&H engines. il Diesel Power 32:81 Ap '54; Roads & Eng Constr 92:90 Ap '54
New line of Harnischfeger Diesels features more power, lighter weight. il Constr Methods 36:160+ Ap '54
On the Frisco, locomotive cranes go Diesel. il Ry Age 136:18-19 Mr 29 '54; Diesel Power 32:70 My '54
Packaging welding generators. A. F. Fino. il Welding J 33:660-2 Jl '54
Petter's lightweight. diag Diesel Power 32:93 Jl '54
Petters modified Diesel engines. Engineer 197:105-6 Ja 15 '54
Piston rings for pipeline engines. J. W. Pennington. il diags Diesel Power 32:46-8 Je '54
Porn & Dunwoody 5-h.p. horizontal Diesel engine. il diags Engineering 177:254-5 F 19 '54
Small Diesels at work. il Diesel Power 31:44-7 N '53
Water side deterioration of Diesel cylinders. F. L. LaQue. il Power Eng 58:76-7 Ja '54
World's largest Diesel. il Diesel Power 32:101 Ap '54

See also
Electric plants (central stations)—Diesel engine stations
Power plants—Diesel engine plants

Air supply

About that engine air. Diesel Power 32:87-9 Jl '54
Conditioning scavenging air. il Diesel Power 32:54-5 Je '54
Get the most from your air cleaner. H. M. Turner. il diags Diesel Power 31:58-61 D '53
Reviewing some air filtration principles for locomotives. H. E. Donovan. il Diesel Power 32:53-5 Jl '54
Select the right Diesel filter. J. P. Kovacs. il diags Power 98:118-19 Ag '54

Bearings

Test gives bond life expectancy of bimetallic materials. J. B. Mohler. diag Iron Age 174:106-7 S 2 '54

Cleaning

Now you can deglaze your Diesel liner walls. H. P. Yount. il Power 98:134 Je '54

Control

Applications of fluid couplings in electric motors, and Diesel engines. E. C. Farrer. diag Elec J 151:1873 D 4 '53
Automatic controls increase specialized engine applications. il Automotive Ind 111:55+ Ag 1 '54
Worthington's automatic fuel switcher. il Diesel Power 32:33 F '54

Cooling

Conditioning scavenging air. il Diesel Power 32:54-5 Je '54
Cooling system corrosion problems. R. S. Wise. il diag Diesel Power 31:64-6 D '53

Cost of operation

Dual-fuel conversion saves Anadarko 50 percent. K. C. Finch. Pub Works 85:102 Ja '54
Report on heavy oil engines; Diesel engine users' association annual general meeting, London. Elec J 151:2040 D 18 '53

Design

Small British Diesel uses unified screw threads. il diag Machine Design 25:230-1 D '53

Directories

Diesel engine directory; manufacturers of engines and plant accessories. Diesel Power 32:53-79 Ja; 61-86 Jl '54

Efficiency

Trifuel pipe-line engines demonstrate operating and economic advantages. L. P. Meade and C. P. Jennings. Oil & Gas J 52:112+ N 9 '53

Exhaust

De-fuming Diesels; catalytic mufflers. il Diesel Power 32:50-2 Ag '54
Diesel dangers die. il Safety Maint & Prod 107:70+ My '54
Diesel exhaust conditioner; Oxy-Catalyst, inc. il Diesel Power 32:137 Ap '54; Roads & Eng Constr 92:104 Ap '54; Constr Methods 36:76 Je '54
Effect of auxiliary fuels on the smoke-limited power output of Diesel engines; abstracts. L. D. Derry and others. Engineer 197:115-16 Ja 15 '54; Engineering 177:144-5 Ja 29 '54; Discussion. Engineer 197:94-6 Ja 15 '54
Exhaust-valve deposits, how they can be reduced; report on round table on Diesel exhaust-valve problems. A. R. Schrader. il S A E J 62:29-31 Mr '54

Explosions

Crankcase explosions. R. O. Montenero. il diags Ry Loco & Cars 127:58-62 Ja '53; Same. Diesel Power 31:54-6+ N '53

Fuel

Absorption of sulfur dioxide in cylinder zone oil films in a Diesel engine. F. A. M. Buck. bibliog Ind & Eng Chem 46:1318-21 Je '54
Alcohol in Diesel engines. H. A. Havemann and others. bibliog Automobile Eng 44:256-62 Je '54
Bureau of mines reveals analyses of Diesel fuels. O. C. Blade. Oil & Gas J 52:86 Ja 4 '54
Cetane calculator; a tool for Diesel engine trouble-shooter. F. Carter. il Power 98:126-7 My '54
Comparison of LPG, gasoline, and Diesel fuels in city-bus operation. F. C. Burk and others. Am Pet Inst Proc 33(3):132-6 '53; Same. Pet Refiner 32:119-21 Je '53; Same cond. Diesel Power 31:50-3 N '53
Diesel-oil-volume correction factors save calculation time; data sheet. H. Holcombe. Power 98:109 My '54
Effect of auxiliary fuels on the smoke-limited power output of Diesel engines; abstracts. L. D. Derry and others. Engineer 197:115-16 Ja 15 '54; Engineering 177:144-5 Ja 29 '54; Discussion. Engineer 197:94-6 Ja 15 '54
Engine valve difficulties with Bunker C fuel. R. Dodd. il Diesel Power 32:96-8 Jl '54
Fuel for thought; magnesium will become a Diesel and aircraft engine fuel; abstract. J. H. Scharen. Steel 133:73 N 9 '53

DIESEL engines—Fuel—*Continued*

Heavy fuel for Diesels is saving dollars at Clay electric co-op. R. Dodd. il Power 98:120-1+ Jl '54

Is purification the Diesel operator's answer to heavy-fuel pitfalls? panel discussion. il Power 98:120-1 Jl '54

Purifying pipeline crudes for engine use. il diag Diesel Power 32:35-7 Ag '54

Residual fuel for Diesels saves up to $4500 a month; Clay electric co-op. R. Dodd. diag Power 98:116-17+ Ja '54

Select the right Diesel filter. J. P. Kovacs. il diags Power 98:118-19 Ag '54

Tomorrow's Diesel fuels; panel discussion. W. H. Hubner and others. Diesel Power 32:26-34 Ag '54; Abstract. S A E J 62:40-1 S '54

Use propane in large Diesels; abstract. G. V. Yarger. Diesel Power 32:52 My '54

See also

Cetane number

Locomotives, Diesel
—Fuel

Fuel feeding

Basic three-step program for good maintenance of Diesel fuel systems. il Bus Transportation 33:40-5 Je '54

Cummins simplified fuel injection system. flow diag il diags Diesel Power 32:42-5 Ag '54

Engine research; British internal combustion engine research association. il diags Automobile Eng 44:117-19 Mr '54

Experimental investigation into the effect of fuel addition to intake air on the performance of a compression ignition engine; abstracts. W. T. Lyn. Engineer 197:115 Ja 15 '54; Engineering 177:144 Ja 29 '54; Discussion. Engineer 197:94-6 Ja 15 '54

Many parts eliminated in new Diesel fuel system. flow diag il diags Automotive Ind 111:58-9 S 1 '54

New GM fuel injector. il Bus Transportation 33:40 Ap '54

Series 71 injector change. il diags Diesel Power 32:108-9 Ap '54

Set up a Diesel fuel system maintenance shop for yourself. il plan Constr Methods 36:118, 122+ Jl '54

Versatile calibrating stand for multi-plunger and distributor-type fuel injection pumps. il Diesel Power 32:102-3 Ap '54

Why do our high-pressure fuel lines fail? answers. il diags Power 98:138-40 Ap '54

Ignition

Electric ignition for high-compression engines. E. Frederick. il diags Diesel Power 32:28-35 Je '54

Lubrication

Bobbers for force-feed lubricator calibration. il diag Diesel Power 32:110-11 Ap '54

Fluorochemical 101, a remedy for that cloudy sight glass. il Diesel Power 32:53 Ag '54

Heavy duty oils; some experiences of a Diesel engine manufacturer. D. M. Pearce. 2pls Inst Pet J 39:553-8 Ag '53

Military requirements for lubricating oils for compression-ignition engines. D. I. Baddeley and others. Inst Pet J 39:546-53 Ag '53

Oil filtration and purification. J. S. McKeown. il diags Diesel Power 32:74-80 Ap '54

Some experiences with a short duration lubricating oil test on a multi-cylinder compression-ignition engine and associated service testing. A. Fogg and G. R. Oliver. 2pls Inst Pet J 39:559-71 Ag '53

Use of the Petter AV1 Diesel engine for testing additive treated oils. A. Towle and P. E. B. Vaile. 16pls diags Inst Pet J 39:581-623; Discussion. 650-75 S '53

Maintenance and repair

Let's time your dual-fuel engine and tune it up in five careful operations. S. Elonka. il Power 98:110-17 S '54

Morco reconditions a crankshaft. il Diesel Power 32:57-60 Jl '54

PFI's Bovill maintenance center. R. H. Forbes. il Diesel Power 32:44-5 Ja '54

Reclaim those camshafts. F. Healy. il diags Diesel Power 32:52-6 Mr '54

Set up a Diesel fuel system maintenance shop for yourself. il plan Constr Methods 36:118, 122+ Jl '54

Thread repairs save you money. il Diesel Power 32:46-8 My '54

We had to fix it ourselves. J. R. Brown. il diags Power 97:118-19 D '53

Welding fixtures speed piston and valve reclamation. il Ry Loco & Cars 128:66 Mr '54; Welding J 33:374-5 Ap '54

Manufacture

Cylinder assemblies speed up Diesel production; Mirrlees, Bickerton, & Day, ltd. il Am Mach 98:108-9 Mr 29 '54

Diesel engine windows have a new look; Electro-motive division, General motors corp. il Mach 60:191-2 Ag '54

How Britain machines big Diesel crankshafts; Mirrlees, Bickerton, & Day, ltd. il Am Mach 98:158-9 Mr 15 '54

Modern assembly methods; Mirrlees, Bickerton and Day, ltd. il Engineer 196:839 D 25 '53; Engineering 177:22-3 Ja 1 '54

Snyder special machine processes both sides of oil pan. il diags Machine Design 26:180-1 F '54

Visit to an oil engine works; Rugby works of the English electric co. il Engineer 197:218 F 5 '54

Noise

Experimental investigation into the effect of fuel addition to intake air on the performance of a compression ignition engine; abstracts. W. T. Lyn. Engineer 197:115 Ja 15 '54; Engineering 177:144 Ja 29 '54; Discussion. Engineer 197:94-6 Ja 15 '54

Noise; practical aspects; abstract. J. E. Holton. Elec J 151:1682 N 20 '53

Protection

Oil engine protection units. il Engineer 196:462 O 9 '53

Teddington engine safety components. il Engineer 197:402-3 Mr 12 '54; Engineering 177:380 Mr 19 '54

Specifications

Diesel engines for use in Diesel-electric locomotives; tabulation. Automotive Ind 110:273 Mr 15 '54

Engine specifications, 1954; Diesel, dual-fuel, natural gas. Diesel Power 32:85-100 Ap '54

Starting

Air starters for Diesel engines. C. Lake. il diag Comp Air Mag 59:15-18 Ja '54

Diesel air starter cuts costs. il diag Nat Pet N 45:32-3 S 23 '53

Distribution transformers start Korean Diesel. R. S. Horn. diags Power Eng 57:72-3 N '53

Hydrotor; a hydraulic cranking motor. il diags Diesel Power 31:62-3 D '53

Inertia starter designed for use with smaller Diesels. il Diesel Power 32:43 My '54

Let's start your Diesel engine and keep it rolling; illustrated instructions. S. Elonka. Power 98:124-5 Ap '54

New electric starting system for Cat D-4 tractor. il Roads & Eng Constr 92:96 Ag '54

Statistics

1952 engine production by hp and cu. in.; tabulations. Automotive Ind 110:285 Mr 15 '54

Study and teaching

Williamsport technical institute. il Diesel Power 31:39 N '53

Superchargers

Better superchargers bring wider usage; based on two papers by Rudolph Birmann and John W. Oehrli. il diags S A E J 62:33-6 Ag '54

British internal combustion engine research association; high-pressure turbo-charging. diag Engineer 196:534 O 23 '53

De Laval turbocharger can triple engine output. il diag Machine Design 26:166+ Jl '54

Introduction to monograph on exhaust turbocharging. R. Eksergian. Franklin Inst J 256:57-8 Jl '53

Look at turbocharging. R. Birmann. il diags Diesel Power 32:80-7 Ja '54

New developments in turbocharging; abstract. R. Birmann. Automotive Ind 110:45+ Mr 1 '54

DIESEL engines—Superchargers—*Continued*

Supercharging to improve performance; Miehle-Dexter superchargers. il Diesel Power 32:42-4 F '54

Turbocharging small 4-cycle Diesels. O. D. Treiber. il Diesel Power 32:48-50 Mr '54

Valves

Diesel engine valves reclaimed by Sprayweld process. L. V. La Rou. il Welding J 33:480-1 My '54

Engine valve difficulties with Bunker C fuel. R. Dodd. il Diesel Power 32:96-8 Jl '54

Exhaust-valve deposits, how they can be reduced; report on round table on Diesel exhaust-valve problems. A. R. Schrader. il S A E J 62:29-31 Mr '54

Hard surfacing; coated Diesel engine valves outlast originals. il Iron Age 172:88 D 24 '53

Life of Diesel exhaust valves; abstract. J. A. Newton and others. Automotive Ind 109:72+ D 1 '53; il diags S A E J 62:36-40 Ap '54

Micrometer-accurate valve settings. il Diesel Power 32:88-90 Ja '54

DIESEL engines, Aircraft

Design details of the Napier Nomad compound aircraft engine. D. Scott. diags Automotive Ind 110:38-40 Je 15 '54

DIESEL engines, Automotive

Britain's first opposed piston two-stroke Diesel. il diag Automotive Ind 111:41+ Jl 15 '54

Commer TS3 Diesel engine. il diags Automobile Eng 44:309-19 Ag '54

Cummins Diesel engines. il diags Automobile Eng 44:63-7 F '54

Cummins simplified fuel injection system. flow diag il diags Diesel Power 32:42-5 Ag '54

Dagenham 3·6-litre Diesel engine. il Engineer 197:351 Mr 5 '54

Development of improved automotive Diesel combustion system. B. Loeffler. il diags S A E J 62:59-62 Je '54

Diesel engine now available on British Ford truck line. il Automotive Ind 110:39 Ap 1 '54

Diesel engines in agriculture. Diesel Power 32:77 My '54

Diesels and maintenance pay off; Braswell motor freight lines. il Diesel Power 32:40-3 Je '54

Diesels on the road. Economist 170:41-3, 109-11 Ja 2-9 '54

Engine overspeeding. Constr Methods 36:210-11 Jl '54

Engine stalling; a study of Diesel behaviour. P. H. Schweitzer. bibliog diags Automobile Eng 44:285-92 Jl '54

European Diesels; based on papers by P. H. Schweitzer and others. il diag S A E J 62:31-5 F '54

Ford 60-b.h.p. Diesel engine for commercial vehicles. il Engineering 177:376 Mr 19 '54

GM's 6-110 engine modified. il Diesel Power 32:52 Jl '54

Get and protect the horsepower you buy. H. E. Bollwinkel. il Diesel Power 32:34-6 F '54

Improved MAN Diesel has unique combustion chamber. P. H. Schweitzer. il diags Automotive Ind 111:52-4+ Ag 15 '54

Increasing use of Diesels in European passenger cars. W. F. Bradley. il diags Automotive Ind 111:66-8+ S 15 '54

Injection characteristics and Diesel knock. A. J. Davies. il diags Inst Mech Eng Proc (Auto div pt 4):214-19; Discussion. 220-3 '51-52

International Harvester industrial power roundup. il Diesel Power 32:36-7 Je '54

Is the automotive Diesel here to stay? abstract. M. C. Horine. S A E J 62:108-9 Ag '54

Leyland development of high-speed compression-ignition engines. S. Markland and J. McHugh. il S A E J 62:38-40 Ja '54

Lubricating oil requirements for passenger transport and long-distance haulage with compression-ignition engines. A. T. Wilford. Inst Pet J 39:538-46 Ag '53

M.A.N. Diesel; direct-injection engine. il Automobile Eng 44:158 Ap '54

New Packard lightweight Diesel engines; illustrations with text. M. Ware and others. diags S A E J 62:24-6 Mr '54

Output of GM Diesel increased by 250 hp. il Automotive Ind 109:51 D 15 '53

Performance of a two-stroke oil engine for automobiles. S. J. Davies. il diags Engineering 176:385-7, 419-22 S 25-O 2 '53

Perkins R6 engine. il diags Automobile Eng 43:397-404 O '53

Production of a two-stroke oil engine for automobiles; Turner manufacturing co. il Engineering 176:663 N 20 '53

St Louis Macks go Diesel to cut fuel costs in half. il Bus Transportation 33:46-7 Ja '54

Sheppard introduces larger unit; Diesel-powered wheel-type tractors. il Diesel Power 31:45 D '53

Small automotive Diesel engine in Great Britain and Europe; abstract. A. W. Gosling. S A E J 61:86+ N '53

SAE national Diesel engine meeting, Chicago, Nov. 3-4. S A E J 61:64-7 D '53

Turner automotive two-stroke loop scavenged Diesel engines. il Engineer 196:698-9 N 27 '53

Two-stroke Diesels for British cars. D. Scott. il diags Automotive Ind 110:40-1 Mr 1 '54

White's short payload tractor. il Diesel Power 32:33 My '54

See also

Locomotives, Diesel
Locomotives, Diesel-electric
Motor cars (railroad)—Diesel-electric

Manufacture

Tooling innovations at Perkins Diesel plant. D. Scott. il plan Automotive Ind 109:46-52 N 15 '53

Specifications

British and continental automotive Diesel engines; European two-stroke automotive Diesel engines; tabulations. Automotive Ind 110:297 Mr 15 '54

1954 automotive Diesel engines; tabulations. Automotive Ind 110:286-93 Mr 15 '54

DIESEL engines, Marine

Deltic oil engine. il Mech Eng 75:649 Ag '53

How to reduce Diesel-cylinder liner corrosion. F. J. McCloud. il Marine Eng 59:50-1+ Ag '54

Stork two-stroke marine Diesel engine. il diag Engineer 196:819-20 D 18 '53

See also

Motor ships

Gearing

Four-engine reverse-reduction gear. il Engineer 197:348-9 Mr 5 '54; Engineering 177:410 Mr 26 '54

Reversing reduction epicyclic gears for marine use. il diags Engineer 197:183-4 Ja 29 '54; Engineering 177:185 F 5 '54

Testing

Fodens Diesel engine tests. Engineer 196:312 S 4 '53

DIESEL fuels. See Diesel engines—Fuel

DIESEL locomotives. See Locomotives, Diesel

DIESTERS. See Esters

DIET

Effect of diet on the susceptibility of the rat to poisoning by 2,4-dinitrotoluene. M. E. Shils and L. J. Goldwater. A M A Archives Ind Hygiene & Occup Med 8:262-7 S '53

News in foods and diets. E. Bennett. Am Gas Assn Proc 1953:337-40

Our dieting millions; they're playing hob with the food industry. E. W. Kelley. il Sales Management 71:24-7+ Ag 1; 36-45 Ag 15; 88-94 S 1 '53

Why so many wives worry about executive paunch. C. Bird. Sales Management 72:36-9+ Mr 1 '54

See also

Nutrition

DIETHANOLAMINE. See Iminodiethanol

DIETHYLAMINE

Rearrangement of 1,1-diphenyl-3-bromopropanone with diethylamine. R. M. Dodson, E. F. Morello and W. G. Dauben. Am Chem Soc J 76:606 Ja 20 '54

DIETHYL benzene

Bulk viscosity of the system polystyrene; diethyl benzene. F. Bueche. bibliog J Ap Phys 24:423-7 Ap '53

DIETHYLCROTONAMIDE

Reductive polymerization of α,β-unsaturated amides; N,N-diethylcrotonamide. H. R. Snyder and R. E. Putnam. bibliog Am Chem Soc J 76:33-5 Ja 5 '54

DIETHYLDITHIOCARBAMATE

Instability of diethyldithiocarbamic acid at low pH. A. E. Martin. Anal Chem 25:1260-1 Ag '53

Analysis

Simultaneous colorimetric determination of copper, cobalt, and nickel as diethyldithiocarbamates. J. M. Chilton. bibliog Anal Chem 25:1274-5 Ag '53

DIETHYL ether. See Ethyl ether

DIETHYL fumarate

Reaction of 1-hexyne and diethyl fumarate. M. J. Hogsed and R. V. Lindsey. bibliog Am Chem Soc J 75:4846-7 O 5 '53

Analysis

Polarographic analysis of mixtures of fumaric and maleic acids, and their diethyl esters. P. J. Elving, A. J. Martin and I. Rosenthal. bibliog Anal Chem 25:1082-4 Jl '53

DIETHYL magnesium

Structure and reactivity of anhydro-sugars; branched-chain sugars; action of diethylmagnesium on methyl 2 : 3-anhydro-4 : 6-*O*-benzylidene-α-D-mannoside. A. B. Foster and others. Chem Soc J p3308-13 O '53

DIETHYL maleate

Analysis

Polarographic analysis of mixtures of fumaric and maleic acids, and their diethyl esters. P. J. Elving, A. J. Martin and I. Rosenthal. bibliog Anal Chem 25:1082-4 Jl '53

DIETHYLMERCURY

Analysis

Determination of diphenylmercury alone or in presence of phenylmercuric compounds. V. L. Miller and D. Polley. Anal Chem 26:1333-5 Ag '54

DIETHYL nitrophenyl phosphate

Physiological effect

Anticholinesterases; effects of repeated doses of some anticholinesterases. J. M. Barnes. Chem & Ind p620-1 My 29 '54

DIETHYL stilbestrol

Cattle beefer; diethylstilbestrol in feed supplementation. Chem W 74:76+ Mr 13 '54

trans-Diethylstilbestrol. H. A. Rose, R. J. Hinch and W. C. McCrone. il diags Anal Chem 25:993-4 Je '53

DIETHYLENE glycol

Dichromate oxidation of diethylene glycol. M. J. Cardone and J. W. Compton. bibliog Anal Chem 25:1869-74 D '53

Liquid desiccant dehydration plants. J. A. Gordon. bibliog flow diag Pet Eng 25:A74+ N '53; Same abr. Oil & Gas J 52:108-10 D 7 '53

Ternary liquid system, benzene-heptane-diethylene glycol. G. C. Johnson and A. W. Francis. bibliog Ind & Eng Chem 46:1662-8 Ag '54

DIFFERENTIAL analyzers

Application of electronic differential analyzers to engineering problems. C. A. Meneley and C. D. Morrill. bibliog il diags Inst Radio Eng Proc 41:1487-96 O '53

Design of the Bendix digital differential analyzer. M. Palevsky. diags Inst Radio Eng Proc 41:1352-6 O '53

First decimal digital differential analyzer. il Machine Design 25:196+ N '53

General purpose electronic analogue computer; Short brothers and Harland, ltd. il diags Engineer 196:395-7 S 25 '53; Excerpts. Elec J 151:893-4 S 18 '53

Solution of partial differential equations by difference methods using the electronic differential analyzer. R. M. Howe and V. S. Haneman, jr. bibliog diags Inst Radio Eng Proc 41:1497-508 O '53

DIFFERENTIAL equations

Analog computer elements for solving nonlinear differential equations. C. A. Ludeke and C. L. Morrison. il diags J Ap Phys 24:243-8 Mr '53

Electrostatic potential plotting for use in electron optical systems. K. C. Ho and R. J. Moon. bibliog il diags J Ap Phys 24:1186-93 S '53

Expansion method for parabolic partial differential equations J. W. Green. J Res Nat Bur Stand 51:127-32 S '53

Limitation of the reversion method. W. J. Cunningham. J Ap Phys 24:952 Jl '53

Matrix solution of equations of the Mathieu-Hill type. L. A. Pipes. bibliog(26 ref) J Ap Phys 24:902-10 Jl '53

Method for solving third and higher order nonlinear differential equations. Y. H. Ku. Franklin Inst J 256:229-44 S '53

Mildly nonlinear partial difference equations of elliptic type. L. Bers. J Res Nat Bur Stand 51:229-36 N '53

Numerical solution of parabolic partial differential equations. G. Blanch. bibliog J Res Nat Bur Stand 50:343-56 Je '53

Phase-plane analysis; a general method of solution for two-position process control. D. P. Eckman. bibliog diags A S M E Trans 76:109-16 Ja '54

Response of linear time-dependent systems to random inputs. D. B. Duncan. J Ap Phys 24:609-11 My '53

Solution of nonlinear differential equations by the reversion method through the first thirteen terms. G. I. Cohn and B. Saltzberg. J Ap Phys 25:252-4 F '54

Some basic concepts for analyzing dynamic flight-test data. H. Klein and R. Sedney. bibliog J Aeronautical Sci 20:740-8 N '53

Use of large scale computing in physics. J. Sheldon and L. H. Thomas. bibliog J Ap Phys 24:235-42 Mr '53

Use of restricted variational principles for the solution of differential equations. P. Rosen. J Ap Phys 25:336-8 Mr '54

See also

Differential analyzers
Integral equations
Laplace transformation

DIFFRACTION

Diffraction effects of crystals with deformation faults. R. Hosemann and S. N. Bagchi. bibliog diag Phys R 94:71-4 Ap 1 '54

Diffraction of electromagnetic waves by an aperture in a large screen. G. Bekefi. bibliog(25 ref) J Ap Phys 24:1123-30 S '53; Discussion. bibliog 25:269-70, 808-9, 1053, 1342-3 F, Je, Ag, O '54

Diffraction of electromagnetic waves by two parallel half-planes. B. N. Harden. bibliog diag Inst E E Proc 100 pt 3:348-50 N '53

Diffraction of spherical vector waves by an infinite half-plane. K. L. McDonald. bibliog Opt Soc Am J 43:641-7 Ag '53

Light distribution in the image of an incoherently illuminated edge. W. Weinstein. bibliog Opt Soc Am J 44:610-15 Ag '54

Microwave diffraction measurements in a parallel-plate region. R. V. Row. bibliog il diags J Ap Phys 24:1448-52 D '53

Transmission of X-rays through calcite in Laue diffraction. G. Schwarz and G. L. Rogosa. bibliog diags Phys R 95:950-3 Ag 15 '54

Vector wave function solution of the diffraction of electromagnetic waves by circular disks and apertures. C. Flammer. bibliog J Ap Phys 24:1218-31 S '53; Correction. 25:543 Ap '54

DIFFRACTION gratings

Amateur scientist; new method of ruling diffraction gratings. A. G. Ingalls. il Sci Am 189:117-18+ O '53

Compensation of astigmatic errors in a grating spectrograph. H. W. Straat. il diags Opt Soc Am J 43:593-4 Jl '53

Design for a wire grating. E. Leibhardt. diags Opt Soc Am J 43:1221 D '53

Diffraction grating copies for electron microscope calibration. B. E. Williams. il J Sci Instr 31:190 My '54

Fine linear measurements and control of machine tools. T. Merton. Engineering 177:263 F 26 '54

Limitation to the precision of molecular constants determined with a diffraction grating. D. H. Rank. Opt Soc Am J 44:341 Ap '54

DIFFRACTION gratings—*Continued*

Metallic grating replicas as internal standards for calibrating electron microscopes. S. R. Rouze and J. H. L. Watson. il J Ap Phys 24:1106-9 S '53

Multiple diffraction in grating spectroscopy. W. G. Fastie and W. M. Sinton. il diags Opt Soc Am J 44:103-8 F '54

Performance of Merton-N.P.L. gratings in a commercial infrared spectrometer. A. R. H. Cole. bibliog diag Opt Soc Am J 44:741-3 S '54

Preparation of plane diffraction grating replicas from helical rulings. G. D. Dew. il diags J Sci Instr 30:229-32 Jl '53

Study of diffraction grating characteristics by simplified phase contrast methods. E. Ingelstam and E. Djurle. bibliog il diags Opt Soc Am J 43:572-80 Jl '53

Theory of gratings. B. A. Lippmann. Opt Soc Am J 43:408 My '53

Visible light from localized surface charges moving across a grating. S. J. Smith and E. M. Purcell. il Phys R 92:1069 N 15 '53

DIFFRACTION of X-rays. See X rays—Diffraction

DIFFUSION

Analogy among heat, mass, and momentum transfer. R. F. Kayser. Ind & Eng Chem 45:2634-6 D '53

Anisothermal diffusion of carbon in austenite. J. E. Black and G. E. Doan. Am Soc for Metals Trans 44:452-60 '52

Calculation of interdiffusion coefficients when volume changes occur. M. Cohen and others. bibliog J Metals 5:Trans 1534-6 sec 2 N '53

Change of the isotopic abundance ratio within a sphere due to diffusion. J. T. Bracken and F. E. Senftle. J Ap Phys 25:267-8 F '54

Chromium diffusivity in alpha cobalt-chromium solid solutions. J. W. Weeton. bibliog il diag Am Soc for Metals Trans 44:436-49; Discussion. 449-51 '52

Determination of fluoride. L. Singer and W. D. Armstrong. bibliog diags Anal Chem 26:904-6 My '54

Determination of the self-diffusion coefficients of gold by autoradiography. H. C. Gatos and A. D. Kurtz. diags J Metals 6:Trans 616-19 sec 2 My '54

Differential diffusion coefficients of magnesium and barium chlorides in dilute aqueous solutions at 25°. H. S. Harned and F. M. Polestra. bibliog Am Chem Soc J 76:2064-5 Ap 20 '54

Diffusion and oxidation of solid metals. C. E. Birchenall. bibliog(193 ref) Ind & Eng Chem 45:907-11; 46:893-8 My '53, My '54

Diffusion and thermal diffusion of isotopic gases. E. M. Holleran. bibliog J Chem Phys 21:2184-7 D '53

Diffusion coefficient of cesium chloride in dilute aqueous solution at 25°. H. S. Harned, M. Blander and C. L. Hildreth, jr. Am Chem Soc J 76:4219-20 Ag 20 '54

Diffusion coefficient, solubility, and permeability for helium in glass. W. A. Rogers and others. bibliog diags J Ap Phys 25:868-75 Jl '54

Diffusion coefficients and conductances of some concentrated electrolyte solutions at 25°. B. F. Wishaw and R. H. Stokes. bibliog Am Chem Soc J 76:2065-71 Ap 20 '54

Diffusion cooling of electrons in ionized gases. M. A. Biondi. bibliog Phys R 93:1136-40 Mr 15 '54

Diffusion currents at cylindrical electrodes; a study of organic sulfides. M. M. Nicholson. bibliog Am Chem Soc J 76:2539-45 My 5 '54

Diffusion effects in the photochemistry of solid films. J. E. Wilson. bibliog diag J Chem Phys 22:334-43 F '54

Diffusion in bimetal vapor-solid couples. R. W. Balluffi and L. L. Seigle. bibliog il diag J Ap Phys 25:607-14 My '54

Diffusion in CO_2-CH_4 mixtures to 225 atmospheres pressure. Q. R. Jeffries and H. G. Drickamer. bibliog J Chem Phys 22:436-7 Mr '54

Diffusion in catalysts; abstract. P. B. Weisz and C. D. Prater. Chem & Eng N 32:1449 Ap 12 '54

Diffusion in sugar solutions; diffusion of sucrose in glucose solutions as solvent. D. M. Clarke and M. Dole. bibliog Am Chem Soc J 76:3745-51 Jl 20 '54

Diffusion length of thermal neutrons in water. J. A. DeJuren and H. Rosenwasser. bibliog J Res Nat Bur Stand 51:203-7 O '53

Diffusion measurements, at 25°, of aqueous solutions of amino acids, peptides and sugars. L. G. Longsworth. bibliog Am Chem Soc J 75:5705-9 N 20 '53

Diffusion of antimony in silver. E. Sonder and others. bibliog Phys R 93:970-2 Mr 1 '54

Diffusion of barium in an oxide-coated cathode. R. S. Bever. bibliog J Ap Phys 24:1008-10 Ag '53

Diffusion of calcium ion in liquid slag. H. Towers and others. bibliog il diag J Metals 5:Trans 1455-8 N '53

Diffusion of chromium in alpha cobalt-chromium solid solutions. J. W. Weeton. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:397-411 '52

Diffusion of decaying particles in a radial electric field. J. Keilson. J Ap Phys 24:1397-400 N '53

Diffusion of gases through polyvinyl acetate. P. Mears. bibliog Am Chem Soc J 76:3415-22 Jl 5 '54

Diffusion of gold into copper. A. B. Martin and others. bibliog J Ap Phys 25:364-9 Mr '54

Diffusion of impurities in germanium. W. C. Dunlap, jr. diags Phys R 94:1531-40 Je 15 '54

Diffusion of organic vapors into polyvinyl acetate. R. J. Kokes and F. A. Long. bibliog Am Chem Soc J 75:6142-6 D 20 '53

Diffusion of phenylacetic acid in water as measured by changes of surface tension. J. E. Koller and E. R. Washburn. bibliog Am Chem Soc J 76:2562-5 My 5 '54

Diffusion of polymer mixtures. G. B. Taylor and F. T. Wall. Am Chem Soc J 75:6340-2 D 20 '53

Diffusional processes in the growth of aerosol particles. H. L. Frisch and F. C. Collins. bibliog J Chem Phys 21:2158-65 D '53

Effect of compression and of hydrostatic pressure on the diffusion anisotropy in zinc. T. Liu and H. G. Drickamer. bibliog diags J Chem Phys 22:312-19 F '54

Effect of diffusion fields on the laminar boundary layer. J. W. Smith. bibliog J Aeronautical Sci 20:847-8 D '53

Effect of packing size and column diameter on mass transfer in liquid-liquid extraction. I. Leibson and R. B. Beckmann. bibliog flow diag il diag Chem Eng Prog 49:405-16 Ag '53

Effect of screening on solute diffusion in metals. D. Lazarus. bibliog Phys R 93:973-6 Mr 1 '54

Elastic relaxation and grain boundary diffusion in cadmium. Y. L. Yousef and R. Kamel. J Ap Phys 25:1064 Ag '54

Electromigration in a cation-exchange resin; correlation of self-diffusion coefficients of ions in a cation-exchange membrane to its electrical conductance. K. S. Spiegler and C. D. Coryell. bibliog J Phys Chem 57:687-90 O '53

Equal pressure diffusion in porous substances. J. Hoogschagen. diag J Chem Phys 21:2096-7 N '53

Evaporation of solids into laminar air streams. A. C. Plewes, R. M. Butler and H. E. Marshall. bibliog diags Chem Eng Prog 50:77-80 F '54

Exact pattern of a concentration-dependent diffusion in a semi-infinite medium. H. Fujita. bibliog Textile Res J 24:234-40 Mr '54

Free-convection mass transfer at vertical plates. C. R. Wilke, C. W. Tobias and M. Eisenberg. bibliog il diags Chem Eng Prog 49:663-74 D '53

General numerical solution for solid diffusion in fixed beds. J. B. Rosen. bibliog diag Ind & Eng Chem 46:1590-4 Ag '54

Interstitial diffusion. A. G. Guy. bibliog Am Soc for Metals Trans 44:382-403; Discussion. 404-9 '52

DIFFUSION—*Continued*

Ion exchange column performance; theory for irreversible and constant-pattern solid diffusion. T. Vermeulen. bibliog(28 ref) Ind & Eng Chem 45:1664-70 Ag '53

Ionic mass transfer and concentration polarization at rotating electrodes. M. Eisenberg and others. bibliog(48 ref) il diag Electrochem Soc J 101:306-20 Je '54

Mass transfer. R. L. Pigford. bibliog(180 ref) il Ind & Eng Chem 45:957-62; 46:937-47 My '53, My '54

Mass transfer in packed beds at low Reynolds number. C. E. Dryden, D. A. Strang and A. E. Withrow. bibliog(36 ref) diag Chem Eng Prog 49:191-6 Ap '53

Mass transfer in packed towers. J. W. Tierney, jr., L. F. Stutzman and R. L. Daileader. bibliog il Ind & Eng Chem 46:1595-601 Ag '54

Material transfer in turbulent gas streams; influence of shape on evaporation of drops of *n*-heptane. N. T. Hsu, K. Sato and B. H. Sage. bibliog(40 ref) diags Ind & Eng Chem 46:870-6 My '54

Molecular transport properties of fluids. E. F. Johnson. Ind & Eng Chem 45:902-7 bibliog(126 ref, p905-7); 46:889-93 bibliog(81 ref, p892-3) My '53, My '54

Nuclear spin relaxation by translational diffusion. H. C. Torrey. Phys R 92:962-9 N 15 '53

Partial resolution and detection of some cations by differential diffusion. M. Antelman. bibliog il Anal Chem 26:1218-19 Jl '54

Precision grinding machine for diffusion studies. H. Letaw, jr. and others. il diags R Sci Instr 25:865-8 S '54

Process kinetics; diffusion in a fluid moving at uniform velocity in a tube. A. Klinkenberg, H. J. Krajenbrink and H. A. Lauwerier. bibliog Ind & Eng Chem 45:1202-8 Je '53

Process kinetics; diffusion in beds of porous solids; measurement by frequency response techniques. P. F. Deisler, jr. and R. H. Wilhelm. bibliog diags Ind & Eng Chem 45:1219-27 Je '53

Process kinetics; heat and mass transport in a fixed catalyst bed during regeneration. J. J. van Deemter. diags Ind & Eng Chem 45:1227-33 Je '53

Rate of self-diffusion in polycrystalline magnesium. P. G. Shewmon and F. N. Rhines. bibliog diags J Metals 6:Trans 1021-5 sec 2 S '54

Reaction of nitrogen with, and the diffusion of nitrogen in, beta zirconium. M. W. Mallett and others. bibliog Electrochem Soc J 101:1-5 Ja '54

Reaction of nitrogen with, and the diffusion of nitrogen in, thorium. A. F. Gerds and M. W. Mallett. bibliog il Electrochem Soc J 101:175-80 Ap '54

Rosette; packing for diffusional operations based on high interstitial holdup. A. J. Teller. bibliog il diags Chem Eng Prog 50:65-71 F '54

Self-diffusion and ionic conductivity in sodium bromide. H. W. Schamp, jr. and E. Katz. bibliog diag Phys R 94:828-36 My 15 '54

Self-diffusion coefficients of iodide, potassium and rubidium ions in aqueous solutions. R. Mills and J. W. Kennedy. bibliog Am Chem Soc J 75:5696-701 N 20 '53

Self-diffusion in germanium. H. Letaw, jr. and others. Phys R 93:892-3 F 15 '54

Self-diffusion of iron in iron oxides and the Wagner theory of oxidation. L. Himmel and others. bibliog(43 ref) il diag J Metals 5:Trans 827-43 Je '53; Discussion. 6:Trans 670-2 sec 2 My '54

Self-diffusivity along edge-dislocation singular lines in silver. A. A. Hendrickson and E. S. Machlin. il J Metals 6:Trans 1035-7 sec 2 S '54

Separation of gases by free double diffusion. F. A. Schwertz. bibliog diags Ind & Eng Chem 45:1592-6 Jl '53

Separation of gases by plastic membranes; new diffusion cell design. J. O. Osburn and K. Kammermeyer. bibliog il diags Ind & Eng Chem 46:739-42 Ap '54

Separation of organic liquid mixtures by thermal diffusion. A. L. Jones and E. C. Milberger. bibliog(29 ref) diag Ind & Eng Chem 45:2689-96 D '53

Simultaneous heat and mass transfer in a diffusion-controlled chemical reaction. C. N. Satterfield, H. Resnick and R. L. Wentworth. bibliog diags Chem Eng Prog 50:460-6, 504-10 S-O '54

Sodium diffusion in sodium tungsten bronze. J. F. Smith and G. C. Danielson. bibliog diag J Chem Phys 22:266-70 F '54

Solubility and diffusivity of 2-naphthol in water. M. P. Moyle and M. Tyner. bibliog Ind & Eng Chem 45:1794-7 Ag '53

Some predicted effects of temperature gradients on diffusion in crystals. W. Shockley. diags Phys R 91:1563-4 S 15 '53; Discussion. 93:344-5; Reply. 345-6 Ja 15 '54

Steady-state diffusion into a streaming sphere at low Reynolds number. H. L. Frisch. bibliog J Chem Phys 22:123-5 Ja '54

Steady-state solution of the two-dimensional diffusion equation for transistors. J. S. Schaffner and J. J. Suran. diags J Ap Phys 25:863-7 Jl '54

Studies of the diffusion of mixed solutes with the Gouy diffusiometer. D. F. Akeley and L. J. Gosting. bibliog Am Chem Soc J 75:5685-96 N 20 '53

Study of the diffusion of glycolamide in water at 25° with the Gouy interference method. P. J. Dunlop and L. J. Gosting. bibliog Am Chem Soc J 75:5073-5 O 20 '53

Symmetry as a factor in finite difference approximations. C. M. Fowler. J Ap Phys 25:293-4 Mr '54

Temperature dependence of the mutual diffusion coefficient for four gaseous systems. R. A. Strehlow. bibliog diags J Chem Phys 21:2101-6 D '53

Temperature dependence of the thermal diffusion ratio. E. M. Holleran. J Chem Phys 21:1901 O '53

Theoretical analysis of diffusion of solutes during the solidification of alloys. C. Wagner. bibliog J Metals 6:Trans 154-60 F '54

Theory of the polarographic diffusion current; diffusion of small amounts of lead and zinc ions in solutions of various supporting electrolytes. J. H. Wang. bibliog Am Chem Soc J 76:1528-32 Mr 20 '54

Thermal diffusion in the liquid phase. J. Jeener and G. Thomaes. bibliog J Chem Phys 22:566-7 Mr '54

Transition from free to ambipolar diffusion. W. P. Allis and D. J. Rose. Phys R 93:84-93 Ja 1 '54

DIFFUSION cloud chambers. See Cloud chambers

DIFFUSION pumps. See Vacuum pumps

DIFLUOROBENZENE

Spectrum

Near ultraviolet absorption spectrum of *para*-difluorobenzene vapor. C. D. Cooper. bibliog il J Chem Phys 22:503-10 Mr '54

DIFLUOROBENZIDINE

Steric hindrance to coplanarity in *o*-fluorobenzidines. A. J. Bilbo and G. M. Wyman. bibliog Am Chem Soc J 75:5312-14 N 5 '53

DIFLUORODICHLOROMETHANE. See Dichlorodifluoromethane

DIFLUOROETHYLENE

Addition of free radicals to unsaturated systems; 1 : 1-difluoroethylene. R. N. Haszeldine and B. R. Steele. Chem Soc J p923-5 Mr '54

DIFLUOROPROPENE

Addition of free radicals to unsaturated systems; the direction of addition to 1 : 1-difluoroprop-1-ene, 3 : 3 : 3-trifluoro-2-trifluoromethylprop-1-ene, and 3-chloro-3 : 3-difluoro-2-trifluoromethylprop-1-ene. R. N. Haszeldine. Chem Soc J p3565-72 N '53

DIGBY, Seabarn Lee

Digby fills last FPC vacancy. Elec World 140:93 Ag 10 '53

DIGESTERS (paper making)

Carbon brick linings in alkaline pulp digesters. B. Thomas. Tappi 37:174-6 Ap '54

Comparative analysis of digester corrosion measurements. A. Ungar and T. E. Caywood. bibliog Tappi 37:177-90 My '54

DIGESTERS (paper making)—*Continued*
Comparative analysis of digester corrosion measurements; TAPPI digester corrosion subcommittee summary report no. 1. N. Shoumatoff and H. O. Teeple. bibliog Tappi 37:166-71 Ap '54
Corrosion in sulfate digesters of Norwegian mills; abstract. B. Roald. il Paper Ind 36:412 Jl '54
Digester corrosion; panel discussion. Tappi 37:sup 144A-7A My '54
Fatalities in a kraft digester; abstract. K. K. Karlson. Paper Ind 36:510 Ag '54
Heartwood extractives in digester corrosion. H. MacLean and J. A. F. Gardner. bibliog diag Pulp & Pa of Can 54:125-30 N '53; Abstract. Paper Ind 36:210 My '54
Laboratory approach to the study of digester corrosion; abstract. J. W. Hassler. Pulp & Pa of Can 55:148 S '54
Safety evaluation and protection of digesters. H. M. Canavan and W. B. Parker. Tappi 37:115-20 Mr '54
Study of the problem of the design of ceramic lined digesters. F. M. Kraus. diags Pulp & Pa of Can (Convention no) 55:204-12 [F] '54; Correction. 55:96 Ap '54
Uneven corrosion in alkaline pulping digesters. F. W. Flynn and others. il diags Tappi 36:433-44 O '53

Bibliography

Bibliography of alkaline digester corrosion. S. J. Baisch and R. P. Whitney. Tappi 37:sup220A-6A Ap '54

DIGGES, Isaac Wattington, 1897-1953
Sketch. E. Peterson. por Ptr Ink 244:56 Jl 17 '53

DIGITAL computers. See Calculating machines

DIGITALIS
Digitalis glucosides; the structure of the digitalis anhydrogenins and the orientation of the hydroxy-groups in digoxigenin and gitoxigenin. H. M. E. Cardwell and S. Smith. Chem Soc J p2012-23 Je '54

DIGITOGENIN
Constitution of digitogenin. C. Djerassi and T. T. Grossnickle. bibliog Chem & Ind p728-9 Je 19 '54
Structure of digitogenin. F. L. Warren and P. A. S. Canham. Chem & Ind p727-8 Je 19 '54

DIGITOXIN
From seed to crystal; I. P. Callison & sons. il Chem W 72:50+ Ap 11 '53

DIGOXIGENIN
Degradation of digoxigenin. D. A. H. Taylor. Chem Soc J p3325-6 O '53

DIHYDROANTHRACENE
Some 9 : 10-dihydroanthracene-9 : 10-*cis*-dicarboxylic anhydrides. A. H. Beckett, R. G. Lingard and B. A. Mulley. Chem Soc J p3328-9 O '53

DIHYDROLYSERGIC
Synthesis of the naphthalenic isomer of lysergic acid and a new route to dihydrolysergic acid. F. R. Atherton and others. Chem & Ind p 1151-2 O 24 '53

DIHYDROMANNOSIDOSTREPTOMYCIN. See Mannosidostreptomycin

DIHYDROÖROTIC acid
Dihydroörotic acid. C. S. Miller, J. T. Gordon and E. L. Engelhardt. Am Chem Soc J 75:6086-7 D 5 '53

DIHYDROPYRIDAZINEDIONE
Chemical field hand; maleic hydrazide can eliminate tobacco plant suckers. il Chem W 74:56 F 6 '54
Determination of maleic hydrazide residues in plant and animal tissue. P. R. Wood. bibliog diag Anal Chem 25:1879-83 D '53
Effect of maleic hydrazide on auxin-induced water uptake by pea stem segments. P. Ts'o and G. P. Steinbauer. bibliog Science 118:193-4 Ag 14 '53
Maleic hydrazide applied to grass areas reduces highway maintenance costs. il Eng N 151:114+ Ag 20 '53

DIHYDRORESORCINOL. See Cyclohexanedione

DIHYDROSPHINGOSINE
Configuration of dihydrosphingosine. H. E. Carter and D. Shapiro. Am Chem Soc J 75:5131-2 O 20 '53

DIHYDROXYBEHENIC acid
Some transformations of the 9 : 10 dihydroxystearic and 13 : 14 dihydroxybehenic acids. J. F. McGhie. bibliog Chem & Ind p 131-2 Ja 30 '54

DIHYDROXYBENZOQUINONE
Qualitative test for scandium employing 2,5-dihydroxy-1,4-benzoquinone. L. Pokras and M. Kilpatrick. bibliog Anal Chem 25:1270-2 Ag '53

DIHYDROXYBUTYRIC acid
Configurational correlation of sphingosin to D-erythro-α-amino-β,γ-dihydroxy-butyric acid. J. Kiss and others. bibliog Chem & Ind p517 My 1 '54

DIHYDROXYFUMARIC acid
Configuration of the so-called dihydroxymaleic acid. E. F. Hartree. bibliog Am Chem Soc J 75:6244-9 D 20 '53
Molecular configuration of the aliphatic dibasic acid, $C_4H_4O_6\text{-}2H_2O$. M. P. Gupta. Am Chem Soc J 75:6312-13 D 20 '53

DIHYDROXYINDOLE
Chemistry of the melanins; the autoxidation of 5 : 6-dihydroxyindoles. R. J. S. Beer, T. Broadhurst and A. Robertson. Chem Soc J p 1947-53 Je '54
Formation of melanin from 5 : 6-dihydroxyindole. J. M. Bruce. Chem & Ind p310-11 Mr 13 '54
Melanin and its precursors; synthesis of methylated 5 : 6-dihydroxyindoles, β-(4 : 5-dihydroxy-2-methylphenyl)alanine, and related amines. R. I. T. Cromartie and J. Harley-Mason. Chem Soc J p3525-8 N '53
Oxidation of 5 : 6-dihydroxyindoles and the structure of melanin. J. M. Bruce. bibliog J Ap Chem 4:469-73 S '54
Oxidative rupture of the benzene ring of 5 : 6-dihydroxyindole and congeners and the biogenesis of melanines. Z. E. Jolles. bibliog Chem & Ind p845-6 Ag 8 '53

DIHYDROXYMALEIC acid
Configuration of the so-called dihydroxymaleic acid. E. F. Hartree. bibliog Am Chem Soc J 75:6244-9 D 20 '53
Molecular configuration of the aliphatic dibasic acid, $C_4H_4O_6{\cdot}2H_2O$. M. P. Gupta. Am Chem Soc J 75:6312-13 D 20 '53

DIHYDROXYPHENYLALANINE
Syntheses, paper chromatography and substrate specificity for tyrosinase of 2,3-, 2,4-, 2,5-, 2,6- and 3,5-dihydroxyphenylalanines. J. P. Lambooy. bibliog Am Chem Soc J 76:133-8 Ja 5 '54

DIHYDROXYPREGNANEDIONE
Conversion of 17α, 21-dihydroxypregnane-3,20-dione to 3α, 17α, 21-trihydroxypregnan-20-one *in vitro*. F. Ungar and R. I. Dorfman. Am Chem Soc J 76:1197-8 F 20 '54

DIHYDROXYSTEARIC acid
Some transformations of the 9 : 10 dihydroxystearic and 13 : 14 dihydroxybehenic acids. J. F. McGhie. bibliog Chem & Ind p 131-2 Ja 30 '54

DIIODOMETHANE
Substituted methanes; vibrational spectra, potential constants, and calculated thermodynamic properties of diiodomethane. F. L. Voelz and others. bibliog Opt Soc Am J 43:1061-4 N '53

DIIODOTYROSINE
Kinetics of the exchange of iodine between diiodotyrosine and molecular iodine in aqueous solution. A. H. Zeltmann and M. Kahn. bibliog Am Chem Soc J 76:1554-6 Mr 20 '54
Synthesis and spectrophotometric study or poly-L tyrosine and poly-3,5 diiodotyrosine. E. Katchalski and M. Sela. bibliog Am Chem Soc J 75:5284-9 N 5 '53

DIISOBUTENE
Aromatic alkylation; intact alkylation of benzene and toluene with diisobutene. R. A. Sanford, S. M. Kovach and B. S. Friedman. bibliog Am Chem Soc J 75:6326-7 D 20 '53

DIISOPROPYL fluorophosphonate
Anticholinesterases; effects on man of DFP and other anticholinesterases. A. Wilson. bibliog Chem & Ind p651-3 Je 5 '54

DIKES (engineering)
Earth overflow dike, Jim Woodruff dam. J. M. Polatty. diags Am Soc C E Proc 79 [no 222]:1-7 Jl '53

DIKES (engineering)—*Continued*
Graphs save time in dike design. J. R. Wilson. diag Pet Eng 25:C34+ O '53
Sinking factory; Ford's Long Beach assembly plant. J. Joseph. il Automotive Ind 110:34-5+ Mr 1 '54

DIKETENE
Derivatives of acetoacetic acid; a synthesis of 1 : 3-oxazine derivatives employing diketen. R. N. Lacey. Chem Soc J p845-9 Mr '54
Derivatives of acetoacetic acid; the reaction of diketen with 1 : 2- and 1 : 3-ketols to give γ- and δ-lactones. R. N. Lacey. Chem Soc J p816-22 Mr '54
Derivatives of acetoacetic acid; the reaction of diketen with thioureas, amidines, guanidines, and *S*-substituted thioureas. R. N. Lacey. Chem Soc J p839-44 Mr '54
Reactions of diketene with ketones. M. F. Carroll and A. R. Bader. bibliog Am Chem Soc J 75:5400-2 N 5 '53

DIKETONES. See Ketones

DILATOMETERS
Assessment of weldability by rapid dilatation tests. C. L. M. Cottrell. bibliog il diag Iron & Steel Inst J 174:17-24 My '53; Abstract. Metal Prog 65:158+ My '54
Dilatometric study of the transition in methyl alcohol. L. A. K. Staveley and M. A. P. Hogg. diag Chem Soc J p 1013-16 Mr '54
Heat treating; quicker more accurate control in martempering, austempering; Schaaber dilatometer. il Iron Age 172:153-4 Jl 16 '53
Improved precision equipment for metallurgical analysis; differential transformer dilatometer. L. L. Wyman. Metal Prog 65:202+ F '54
Recording dilatometer for high temperatures. W. R. Apblett and W. S. Pellini. bibliog il diags Am Soc for Metals Trans 44:1200-14 '52

DILLARD, William E. 1898-
Dillard heads Central of Georgia. por Ry Age 137:40 Jl 26 '54

DILUTION
Measurement of the effect of dilution upon pH. R. G. Bates. bibliog Anal Chem 26:871-4 My '54

DILUTION, Heat of
Rapid accurate determination of carbohydrates and other substances with the dichromate heat-of-dilution method. H. F. Launer and Y. Tomimatsu. Anal Chem 25:1767-9 N '53
Rapid accurate determination of cellulose with the dichromate heat-of-dilution method. H. F. Launer and Y. Tomimatsu bibliog Anal Chem 25:1769-70 N '53

DIMEDONE
Reaction of acetaldehyde with 5,5-dimethyl-1,3-cyclohexanedione. G. W. Gaffney, W. A. Williams and H. McKennis, jr. bibliog Anal Chem 26:588-9 Mr '54
Revival of formaldehyde-treated bacteria. T. Nash and A. Hirch. bibliog J Ap Chem 4:458-63 Ag '54

DIMENSIONAL analysis
Analogy among heat, mass, and momentum transfer. R. F. Kayser. Ind & Eng Chem 45:2634-6 D '53
Dimensional analysis; how to use it in working with scale models. R. F. Nielsen. diags Oil & Gas J 52:92-3 S 7 '53
Dimensional analysis, units and rationalization. G. W. O. Howe. Wireless Eng 30:209-10 S '53
Put dimensional analysis to work. J. E. Pierce. bibliog il Chem Eng 61:185-90 Ap '54

DIMERIZATION. See Polymerization

DIMETHOXYINDOLE
Dimethoxy substituted harman and other compounds derived from 5,6-dimethoxyindole. C. F. Huebner, H. A. Troxell and D. C. Schroeder. bibliog Am Chem Soc J 75:5887-90 D 5 '53

DIMETHOXYSTILBENE

Analysis

Isolation of *trans*-3,5-dimethoxystilbene from tall oil. H. Albrecht and E. H. Sheers. Am Chem Soc J 76:603-4 Ja 20 '54

DIMETHYLACETOPHENONE
Steric hindrance; 2,6-dimethylacetophenone and 2,6-dimethylstyrene. L. H. Schwartzman and B. B. Corson. bibliog Am Chem Soc J 76:781-5 F 5 '54

DIMETHYL aminoazobenzene
Studies on the uricase activity of rats fed *p*-dimethylaminoazobenzene. K. Mori and K. Shimojo. bibliog Science 117:683-4 Je 19 '53

DIMETHYL aniline
Dimethylaniline as an aid in acetic acid-water separation. L. Garwin and P. O. Haddad. Ind & Eng Chem 45:1558-62 Jl '53

DIMETHYL apoerysopine
Synthesis of dimethylapoerysopine. Z. Valenta and K. Wiesner. Chem & Ind p402-3 Ap 3 '54

DIMETHYL butane
High temperature oxidations of 2,2,4-trimethylpentane and 2,2-dimethylbutane. F. F. Rust and D. O. Collamer. bibliog Am Chem Soc J 76:1055-8 F 20 '54
Rotation in solid mixtures of neohexane and cyclopentane from 20°K to their melting points. J. G. Aston and others. bibliog diags J Chem Phys 22:460-3 Mr '54

DIMETHYLCHOLINE
α,α-Dimethylcholine; esters and carbamates. W. B. Wheatley. bibliog Am Chem Soc J 76:2832-5 My 20 '54

DIMETHYL cyclohexanedione. See Dimedone

DIMETHYL cyclopentane
cis and *trans* isomers of dimethyl*cyclo*pentane. J. N. Haresnape. bibliog Chem & Ind p 1091-2 O 10 '53

DIMETHYL disulfide. See Methyl sulfide

DIMETHYL formamide
Acetylene concentration. flow sheet Chem & Eng N 32:397 F 1 '54
DMF-acetylene recovery solvent. W. B. Howard and others. flow sheet il diag Pet Refiner 33:143-6 Ja '54
Small but hopeful; a close approach to the universal solvent. Chem W 73:71-2 S 12 '53

DIMETHYL glucose
Crystalline 2 : 4-di-*O*-methyl-D-glucose. D. J. Bell and D. J. Manners. Chem Soc J p 1145-6 Mr '54

DIMETHYL glyoxime
Separation of palladium from platinum, iridium, and rhodium with dimethylglyoxime. G. H. Ayres and E. W. Berg. Anal Chem 25:980-1 Je '53

Analysis

Determination of diacetyl. D. T. Englis, E. J. Fisch and S. L. Bash. bibliog Anal Chem 25:1373-5 S '53

DIMETHYL hexenone
Anionotropic systems; the kinetics of the rearrangement of 3-hydroxy-3 : 5-dimethylhex-4-en-2-one; the effect of an acetyl group on anionotropic mobility. E. A. Braude and C. J. Timmons. Chem Soc J p3138-43 O '53
Anionotropic systems; the synthesis and rearrangement of 3-hydroxy-3 : 5-dimethylhex-4-en-2-one. E. A. Braude and C. J. Timmons. Chem Soc J p3131-8 O '53

DIMETHYL hydrazine
Thermodynamic properties and configuration of unsymmetrical dimethylhydrazine. J. G. Aston, J. L. Wood and T. P. Zolki. bibliog Am Chem Soc J 75:6202-4 D 20 '53

DIMETHYL indan
Preparation and properties of 4,7-dimethylindan. J. Entel. Anal Chem 26:612 Mr '54

DIMETHYL naphthidine
Determination of chlorine in water. R. Belcher, A. J. Nutten and W. I. Stephen. Anal Chem 26:772-3 Ap '54

DIMETHYL pentane
Selective absorption; 2,4-dimethylpentane-benzene-silica gel at 65.6°. M. R. Cines and F. N. Ruehlen. bibliog J Phys Chem 57:710-14 O '53

DIMETHYL phenanthroline
Colorimetric determination of copper with neo-cuproine. A. R. Gahler. Anal Chem 26:577-9 Mr '54

DIMETHYL phenyl hexanol

Studies in stereochemistry; steric control of asymmetric induction in the preparation of the 2,5-dimethyl-4-phenyl-3-hexanol system. D. J. Cram, F. A. Abd Elhafez and H. L. Nyquist. bibliog Am Chem Soc J 76:22-8 Ja 5 '54

DIMETHYL phthalate

Dimethyl terephthalate output set by Hercules. Oil Paint & Drug Rep 165:5+ Ja 11 '54

Methanolysis of optically active hydrogen 2,4-dimethylhexyl-4-phthalate. W. V. Doering and H. H. Zeiss. bibliog Am Chem Soc J 75:4733-8 O 5 '53

One to make ready; latest move in Hercules' diversification program is DMT for CIL's Terylene. il Chem W 74:64-5 Ja 30 '54

DIMETHYL propane

Non-rearrangement reactions of the neopentyl-oxygen bond; new syntheses of neopentyl halides. L. H. Sommer, H. D. Blankman and P. C. Miller. Am Chem Soc J 76:803-4 F 5 '54

Spectrum

Infrared and Raman spectra of tetramethylmethane-d_{12}. E. R. Shull and others. bibliog il J Chem Phys 21:2024-9 N '53

DIMETHYL propionate

Synthesis of dimethyl β-(carboxymethoxy)-propionate. W. J. Brehm and T. Levenson. bibliog Am Chem Soc J 76:278 Ja 5 '54

DIMETHYL styrene

Steric hindrance; 2,6-dimethylacetophenone and 2,6-dimethylstyrene. L. H. Schwartzman and B. B. Corson. bibliog Am Chem Soc J 76:781-5 F 5 '54

Manufacture

Benzene is by-passed; new process for methyl and dimethylstyrenes. Chem W 73:41-2 O 24 '53

Methylstyrenes and dimethylstyrenes from diarylethanes. J. K. Dixon and K. W. Saunders. bibliog il Ind & Eng Chem 46:652-60 Ap '54

DIMETHYL succinate

Synthesis in the colchicine series; products from the Stobbe condensation of methyl γ-(2 : 3 : 4-trimethoxybenzoyl)butyrate with dimethyl succinate. H. J. E. Loewenthal. Chem Soc J p3962-8 D '53

DIMETHYL sulfide. See Methyl sulfide

DIMETHYLENE cyclohexane

Cyclic dienes; quinone adducts of substituted 1,2-dimethylenecyclohexanes. W. J. Bailey, J. Rosenberg and L. J. Young. Am Chem Soc J 76:3009-11 Je 5 '54

DINAPHTHYLENE

Synthesis of 2 : 3-dinaphthylene. R. F. Curtis and G. Viswanath. bibliog Chem & Ind p 1174 S 18 '54

DINEUTRON. See Neutrons

DINING cars

Dining cars outlook brightens. il Ry Age 136:120-1 My 17 '54

How this diner is modernized. il plan Ry Age 136:67 Je 28 '54

Restyled North Coast limited. il Ry Age News ed 135:14 N 9 '53

Standby circuits for dining cars. D. H. Noble. diag Ry Loco & Cars 128:66 F '54

DINING rooms

Lighting

Lighting a dining room; lighting data sheet. il plan diags Illum Eng 49:459-60 S '54

DINITROBENZENE

Molecular compounds; picric acid-naphthalene, picric acid-*m*-dinitrobenzene and picric acid-1,3,5-trinitrobenzene in chloroform. S. D. Ross and I. Kuntz. bibliog Am Chem Soc J 76:74-6 Ja 5 '54

DINITROCHLOROBENZENE See Chlorodinitrobenzene

DINITROGEN oxides. See Nitrogen oxides

DINITROGEN tetroxide. See Nitrogen oxides

DINITROGEN trioxide. See Nitrogen oxides

DINITRONAPHTHALENE

Crystallographic data; 1,5-dinitronaphthalene. W. C. McCrone and J. H. Andreen. il diags Anal Chem 26:1390-1 Ag '54

DINITROPHENYLHYDRAZONE

2,4-Dinitrophenylhydrazone of 2,3,6,7-dibenzo-2, 4, 6-*cyclo*-heptatrienone. E. D. Bergmann and D. Ginsburg. Chem & Ind p45 Ja 9 '54

Dinitrophenylhydrazones of α-halo ketones. F. Ramirez and A. F. Kirby. bibliog Am Chem Soc J 75:6026-30 D 5 '53

Geometrical isomerism and absorption spectra of dinitrophenylhydrazones. F. Ramirez and A. F. Kirby. bibliog diag Am Chem Soc J 76:1037-44 F 20 '54

Isomerism of the trimethylacetaldehyde-2:4-dintrophenylhydrazones. G. H. Denny, jr. and E. B. Reid. bibliog Chem & Ind p755-6 Je 26 '54

Separation and identification of 2 : 4 dinitrophenylhydrazones by paper chromatography. H. S. Burton. Chem & Ind p576 My 15 '54

Separation of 2 : 4-dinitrophenylhydrazones. G. A. Howard and A. R. Tatchell. bibliog Chem & Ind p219 F 20 '54

Analysis

Infrared spectra for analysis of aldehyde and ketone 2,4-dinitrophenylhydrazones. J. H. Ross. bibliog Anal Chem 25:1288-303 S '53

DINITROSALICYLIC acid

Magnification procedure for the estimation of the reducing end-groups of the components of starch. R. T. Bottle and G. A. Gilbert. bibliog Chem & Ind p 1201-2 S 25 '54

DINITROTOLUENE

Effect of diet on the susceptibility of the rat to poisoning by 2,4-dinitrotoluene. M. E. Shils and L. J. Goldwater. A M A Archives Ind Hygiene & Occup Med 8:262-7 S '53

DINNERWARE. See Tableware

DINOFLAGELLATA

Titanium and zirconium in bloom of gymnodinium brevis Davis. A. Collier. Science 118:329 S 18 '53

DIODES. See Crystal diode; Vacuum tubes

DIOLS. See Glycols

DIOR, Christian, 1905-

No new look; dress trade moves slowly on Dior's short skirt. Bsns W p56 Ag 8 '53

DIOSCOREA

Occurrence of alkaloids in dioscorea. J. J. Willaman and others. Science 118:329-30 S 18 '53

DIOSGENIN

Isolation of diosgenin from solanum xanthocarpum. Y. Sato and H. G. Latham, jr. Am Chem Soc J 75:6067 D 5 '53

DIOSPHENOL

Conversion of cevagenin into a diosphenol. E. Sundt and others. bibliog Chem & Ind p 1365-6 D 19 '53

p-Menthane-2 : 3-diols; catalytic hydrogenation of diosphenol and reduction by sodium and ethanol. A. K. Macbeth and W. G. P. Robertson. Chem Soc J p3512-17 N '53

p-Menthane-2 : 3-diols; reductions of diosphenyl with aluminium *iso* propoxide and with lithium aluminium hydride. A. K. Macbeth and W. G. P. Robertson. Chem Soc J p701-4 F '54

DIOXANE

Acid-base levels in methanol-water and 1,4-dioxane-water solutions. W. C. Woodland, R. B. Carlin and J. C. Warner. bibliog Am Chem Soc J 75:5835-9 D 5 '53

Antispasmodics; basic 1,3-dioxanes. F. F. Blicke and E. L. Schumann. Am Chem Soc J 76:1226-9, 3153-6 Mr 5, Je 20 '54

Configurations of 2,6-bis-(iodomethyl)-*p*-dioxanes and 2,6-*p*-dioxanedicarboxylic acids; the structure of diepiiodohydrin. R. K. Summerbell and J. R. Stephens. Am Chem Soc J 76:731-4 F 5 '54

Co-ordination compounds of boron trihalides; compounds of boron trifluoride with cyclic ethers and dioxan. J. Grimley and A. K. Holliday. Chem Soc J p 1215-18 Ap '54

Derivatives of benzo-1 : 4-dioxan; some compounds derived from 5 : 7-dinitrobenzo-1 : 4-dioxan. P. M. Heertjes, A. A. Knape and H. Talsma. Chem Soc J p 1868-70 Je '54

Measurement and correlation of acid dissociation constants for ammonium and anilinium salts in the system dioxane-water. H. P. Marshall and E. Grunwald. bibliog Am Chem Soc J 76:2000-4 Ap 5 '54

DIOXANE—*Continued*

Relationship between acid-base level and the rate of alkaline hydrolysis of halohydrins in methanol-water and dioxane-water systems. W. C. Woodland, R. B. Carlin and J. C. Warner. Am Chem Soc J 75:5840-1 D 5 '53

Solubility of *cis*- and *trans*-dinitrotetramminecobalt (III) sulfates in water-dioxane mixtures. S. A. Mayper, H. L. Clever and F. H. Verhoek. bibliog J Phys Chem 58:90-3 Ja '54

System; silver perchlorate-dioxane. A. E. Comyns and H. J. Lucas. bibliog Am Chem Soc J 76:1019-20 F 20 '54

DIOXOLANE

Catalysis with cation-exchange resins; preparation of 1,3-dioxolanes and 1,3,6-trioxocanes. M. J. Astle, J. A. Zaslowsky and P. G. Lafyatis. bibliog Ind & Eng Chem 46:787-91 Ap '54

Reduction of some methyl phenyl ketones, the corresponding carbinols, and 2-methyl-2-phenyl-1 : 3-dioxolans with sodium or potassium and alcohols in liquid ammonia. A. R. Pinder and H. Smith. Chem Soc J p 113-20 Ja '54

DIP and strike, Determination of

Multiple dip protractor. M. M. Melendres, jr. diags Am Assn Pet Geologists Bul 37:2192-5 S '53

DIPALMITIN

Action of lecithinase D on lecithin; the enzymatic preparation of D-1,2-dipalmitolein and D-1,2-dipalmitin. D. J. Hanahan and R. Vercamer. bibliog Am Chem Soc J 76:1804-6 Ap 5 '54

DIPHENIC acid

Production and commercial possibilities of diphenic acid. R. E. Dean, E. N. White and D. McNeil. bibliog diag J Ap Chem 3:469-76 O '53

DIPHENYL

Effect of groups in non-blocking positions on the rate of racemization of optically active diphenyls. M. Crawford and I. F. B. Smyth. bibliog Chem & Ind p346-7 Mr 20 '54

Fungistat for oranges. il Chem W 73:32 Ag 8 '53

Homolytic aromatic substitution; partial rate factors for the phenylation of diphenyl. J. I. G. Cadogan, D. H. Hey and G. H. Williams. Chem Soc J p794-7 Mr '54

Preparation and deamination of 4 : 4′-diamino-3 : 3′-dinitrodiphenyl. C. C. Barker and F. D. Casson. Chem Soc J p4184-5 D '53

Relation between configuration and conjugation in diphenyl derivatives; the ultra-violet absorption spectra of some 2 : 2′-bridged compounds with *meta*-substituents. G. H. Beaven and others. Chem Soc J p 131-7 Ja '54

Tetrakis-(trifluoromethyl)-biphenyls. S. D. Ross, M. Markarian and M. Schwarz. bibliog Am Chem Soc J 75:4967-9 O 20 '53

See also
Aroclors
Dowtherm

Analysis

Infrared determination of biphenyl in citrus fruits. W. F. Newhall, E. J. Elvin and L. R. Knodel. diag Anal Chem 26:1234-6 Jl '54

Isolation and identification of biphenyls from West Edmond crude oil. N. G. Adams and D. M. Richardson. bibliog Anal Chem 25:1073-4 Jl '53

DIPHENYLACETATES

Antispasmodics; diphenylacetates and *p*-aminobenzoates of basic alkoxyalkanols. F. F. Blicke and J. H. Biel. bibliog Am Chem Soc J 76:3163-6 Je 20 '54

DIPHENYLANTHRACENE

Addition of maleic anhydride to 9 : 10-diphenylanthracene. J. W. Cook and L. Hunter. Chem Soc J p4109-11 D '53

Vapour pressures and the heats of sublimation of anthracene and of 9 : 10-diphenylanthracene. B. Stevens. Chem Soc J p2973-4 O '53

DIPHENYLBROMOPROPANONE

Rearrangement of 1,1-diphenyl-3-bromopropanone with diethylamine. R. M. Dodson, E. F. Morello and W. G. Dauben. Am Chem Soc J 76:606 Ja 20 '54

DIPHENYLCARBAZIDE

Determination of small amounts of chromium in textiles by means of diphenylcarbazide. A. G. Hamlin. bibliog Textile Inst J Trans 45:T44-54 Ja '54

DIPHENYL compounds

Relation between configuration and conjugation in diphenyl derivatives; the dipole moments of the 2 : 2′-dihalogeno- and 2 : 2′- and 3 : 3′-dinitro-diphenyls. A. C. Littlejohn and J. W. Smith. Chem Soc J p2552-6 Jl '54

Analysis

Identification of derivatives of fluorene and biphenyl by filter paper electrophoresis. J. H. Peters and H. R. Gutmann. bibliog Am Chem Soc J 76:2267-8 Ap 20 '54

DIPHENYLCYCLOÖCTANE

Cyclic polyolefins; *cis*- and *trans*-1,3-diphenylcycloöctane. A. C. Cope, M. R. Kinter and R. T. Keller. bibliog Am Chem Soc J 76:2757-60 My 20 '54

DIPHENYLDIAZOMETHANE

Reactions of diazo compounds with nitroölefins; the decomposition of diphenyldiazomethane. W. E. Parham and W. R. Hasek. Am Chem Soc J 76:935-6 F 5 '54

DIPHENYLETHANE

Student experiments on derivatives of 1,2-diphenylethane. L. F. Fieser. J Chem Educ 31:291-7 Je '54

DIPHENYLETHANOL

Elimination and replacement reactions of *dl-erythro*- and *dl-threo*-2-deutero-1,2-diphenylethanol and derivatives. D. Y. Curtin and D. B. Kellom. bibliog Am Chem Soc J 75:6011-18 D 5 '53

Heats of dissolution and the optical rotatory dispersion of 1 : 2-diphenylethanol. M. K. Hargreaves. diags Chem Soc J p 1233-7 Ap '54

DIPHENYL ether. See Phenyl ether

DIPHENYLHEXATRIENES

cis-trans Isomeric 1,6-diphenylhexatrienes. K. Lunde and L. Zechmeister. bibliog Am Chem Soc J 76:2308-13 My 5 '54

DIPHENYLMERCURY

Diphenylmercury synthesis. R. T. McCutchan and K. A. Kobe. bibliog(31 ref) flow sheet Ind & Eng Chem 46:675-80 Ap '54

Ultra-violet absorption spectrum of diphenylmercury in ethanol. B. G. Gowenlock and J. Trotman. Chem & Ind p309 Mr 13 '54

Analysis

Determination of diphenylmercury alone or in presence of phenylmercuric compounds. V. L. Miller and D. Polley. Anal Chem 26:1333-5 Ag '54

DIPHENYLMETHANE

Dicyclic hydrocarbons; synthesis and physical properties of some propyl- and butyldiphenylmethanes and 4-isopropyldicyclohexylmethane. J. H. Lamneck, jr. and P. H. Wise. Am Chem Soc J 76:3475-6 Jl 5 '54

Dicyclic hydrocarbons; synthesis and physical properties of the monomethyldiphenylmethanes and monomethyldicyclohexylmethanes. J. H. Lamneck, jr. and P. H. Wise. Am Chem Soc J 76:1104-6 F 20 '54

Heterocyclic diphenylmethane derivatives. H. S. Mosher, M. B. Frankel and M. Gregory. bibliog Am Chem Soc J 75:5326-8 N 5 '53

DIPHENYLOCTATETRAENE

Stereoisomeric diphenyloctatetraenes. L. Zechmeister and J. H. Pinckard. il Am Chem Soc J 76:4144-8 Ag 20 '54

DIPHENYL phenanthroline

Improved spectrophotometric procedure for determination of serum iron. R. E. Peterson. bibliog Anal Chem 25:1337-9 S '53

DIPHENYL propanol

Studies in stereochemistry; rearrangement of the 1,1-diphenyl-2-propyl into the 1,2-diphenyl-1-propyl system. D. J. Cram and F. A. Abd Elhafez. bibliog Am Chem Soc J 76:28-33 Ja 5 '54

DIPHENYLPROPANONE

Synthesis of unsymmetrical 1,3-diphenyl-2-propanones. S. B. Coan and E. I. Becker. Am Chem Soc J 76:501-3 Ja 20 '54

DIPHENYLPROPENE
Oxymercuration of *trans*-1,2-diphenyl-1-propene. A. Rodgman and G. F. Wright. Am Chem Soc J 76:1382-3 Mr 5 '54

DIPHENYLPYRAZINE
Nitration of 2-hydroxy-5,6-diphenylpyrazine and 2-hydroxy-3,6-diphenylpyrazine. G. Karmas and P. E. Spoerri. bibliog Am Chem Soc J 75:5517-19 N 20 '53

DIPHENYLENE. See Cyclobutadibenzene

DIPHENYLYLBENZOATE
Nitration of 4-diphenylylbenzoate; isolation of a new mono-nitroderivative. I. G. M. Campbell and D. J. Morrill. Chem & Ind p 1229 N 14 '53

DIPHOSPHOPYRIDINE nucleotide
Reaction of diphosphopyridine nucleotide with sodium borohydride; a correction and extension. M. B. Mathews and E. E. Conn. bibliog Am Chem Soc J 75:5428-30 N 5 '53

DIPICRYLAMINE
Colorimetric determination of potassium with dipicrylamine. R. Faber and T. P. Dirkse. bibliog Anal Chem 25:808-10 My '53
Modified Amdur's dipicrylaminate method. E. Bois and M. Jean. diags Anal Chem 26:727-30 Ap '54

DIPIPERIDYL. See Bipiperidine

DIPOLE moment. See Electric moment

DIPTERA
See also
Stilbometopa impressa

DIPYRIDYL. See Bipyridine

DIRAC function
Approximations in linear viscoelasticity theory; delta function approximations. H. Leaderman. J Ap Phys 25:294-6 Mr '54
Dirac delta-function and the summation of Fourier series. M. R. Spiegel. J Ap Phys 23:906-9 Ag '52; Discussion. E. R. Berger. 24:951 Jl '53

DIRAC'S equation
Virial theorem for Dirac's equation. N. H. March. bibliog Phys R 92:481-2 O 15 '53

DIRECT current motors. See Electric motors, Direct current

DIRECT mail advertising. See Advertising, Mail

DIRECTION finding apparatus
Analysis of errors in long range radio direction finder systems. J. G. Holbrook. diag Inst Radio Eng Proc 41:1747-9 D '53
Calculation of wave-interference errors on a direction-finder employing cyclical differential measurement of phase. W. C. Bain. bibliog Inst E E Proc 100 pt 3:253-61 S '53
Null characteristics of the rotating Adcock antenna system. J. G. Holbrook. diag J Ap Phys 24:530-2 My '53
Radio direction finding; influence of buried conductors on bearings. F. Horner. bibliog Wireless Eng 30:187-91 Ag '53
Some practical measurements of the relative performances of a cyclical phase-comparison type of direction-finder and a U-Adcock instrument. H. G. Hopkins and E. N. Bramley. bibliog Inst E E Proc 100 pt 3: 263-7 S '53
Vibragyro takes cue from housefly; vibrating tuning fork in Sperry gyro helps sense changes in direction. P. Klass. il diags Aviation W 59:57-8+ N 23 '53
See also
Range finders

DIRECTORIES
See also
Trade directories
also subdivision Directories under special subjects, e.g.
Air conditioning industries
Chemical industries
Employment management associations
Employment managers
Heating industry
Manufacturers
Radio apparatus industry
Television stations
Trade associations

Bibliography

Selected business directories. H. G. Buzzell and J. Doty, comps. (Business literature, v. 26, no 4:71-2 D '53; 5:73-6 Ja; 6:73-4 F '54) Business library, Newark public lib, Newark, N.J.

DIRECTORS. See Bank directors; Corporations—Directors; Insurance companies—Directors

DIRECTORS, Junior. See Corporations—Directors, Junior

DIRICHLET problem. See Boundary value problems

DISABILITY insurance. See Insurance, Disability

DISABLED
President proposes amendment to Social security act to preserve insurance rights of individuals with extended total disability. Safety Maint & Prod 108:43 Ag '54
See also
Handicapped

Rehabilitation

Aftermath of an accident or rehabilitation. W. A. McLellan. Pulp & Pa of Can 54:208 N '53
Cineplastic surgery and rehabilitation of double-arm amputee. A. E. Diggs; W. F. Becker. il Ind Med 22:246-50 Je '53
Disability, rehabilitation and the law of damages. F. A. Hellebrandt. bibliog Ind Med 22:558-60 D '53
Industrial rehabilitation units; a British experiment. W. L. Buxton. Int Labour R 67: 535-48 Je '53
Physical medicine and rehabilitation as related to industrial health. F. H. Krusen. bibliog A M A Archives Ind Hygiene & Occup Med 8:61-9 Jl '53
Psychiatric rehabilitation in the community. R. H. Williams. Pub Health Rep 68:1231-6 D '53
Psychiatric rehabilitation in the hospital. R. H. Williams. bibliog Pub Health Rep 68: 1043-51 N '53
Rehabilitation for the handicapped. Nat Safety N 69:244 Mr '54
Remploy works its passage. Economist 169: 691 N 28 '53
Role of physical rehabilitation in keeping the patient with rheumatoid arthritis employable. E. W. Lowman. il Ind Med 22:304-7 Jl '53
Vocational rehabilitation. H. Viscardi, jr. il Ind Med 22:307-9 Jl '53

DISARMAMENT
Weapon of secrecy; disarmament issue. Economist 169:568 N 21 '53

DISASTERS
Civil defense and natural disasters. il Pub Works 85:67-72 Ap '54
Disaster units effective in Vicksburg tornado. Nat Safety N 69:224+ Mr '54
Emergency and disaster planning. il Chem & Eng N 31:5348-9 D 28 '53
Gulf Coast civil defense gets benefit of seven years experience of chemical plants. Chem & Eng N 32:2640 Je 28 '54
Insect and rodent control in local disaster planning. L. B. Read. il Pub Works 85: 72+ Ap '54
Mutual aid for civil defense. A. Dunlap. Chem & Eng N 32:2640 Je 28 '54
Public health service emergency assistance in disaster relief. G. E. McCallum and H. F. Ludwig. Pub Health Rep 68:630-2 Je '53
Ready for disaster. il Nat Safety N 69:6+ Mr '54
Teamwork to thwart disaster. il Chem W 74: 30-1 Ap 24 '54
Texas City stages trial disaster; Industrial mutual aid system. il Chem & Eng N 32: 534 F 8 '54

DISCHARGES of electricity. See Electric discharges

DISCIPLINE. See Employment management—Discipline

DISCOLORATION
Discoloration in polymers; recent applications on non-staining antioxidants. Chem Age (Lond) 68:704 My 9 '53

DISCOUNT

Rates

Bank rate unified. Economist 168:801-2 S 19 '53
Cuts in foreign discount rates. Nat City Bank p 113-15 O '53
Foreign reactions to bank rate. Economist 168:872 S 26 '53
Inferences from lowered British bank rate. P. Einzig. Comm & Fin Chr 178:1233 O 1 '53

DISCOUNT—Rates—*Continued*

Money rates in foreign countries; discount rates of central banks. Published in monthly numbers of Federal reserve bulletin

Two views of bank rate. Economist 168:867-9 S 26 '53

United Kingdom cuts bank discount rates. For Comm W 50:6 O 5 '53

DISCOUNT, Cash

Is cash discount operation 75 years behind the times? I. L. Hillman; A. F. Mansbach. Credit & Fin Management 55:16-19 S '53

DISCOUNT, Employees'

Should discount buying be tolerated at the home office? N. Kelne. Ptr Ink 243:29-31 Ap 10 '53

DISCOUNT, Trade

Decline and fall of quantity discounts; the quantity limit rule in rubber tires and tubes. J. S. McGee. bibliog J Bsns 27:225-34 Jl '54

Functional pricing and trade discounts under the Robinson-Patman act. J. I. Levy. bibliog J Bsns 27:182-6 Jl '54

Senate group backs FTC tire rule. Nat Pet N 45:16-17 Jl 29 '53

DISCOUNT companies

Adventures in shopping; the discount houses. il Sales Management 72:42-4+ Je 15; 73:42-4 Jl 1; 58+ Jl 15; 60+ Ag 1; 58+ Ag 15; 56+ S 1; 42-4+ O 1 '54

Discount house operations attacked. W. Johnston. Dom Eng 183:200 F '54

Discount house problem. R. E. Westervelt. J Retailing 30:69-70+ Summer '54

Good year in Lombard Street, 1953. Economist 170:193-4 Ja 16 '54

DISCUSSION

Agreement or compromise? leveling effect in group discussion. E. E. Jennings. bibliog Personnel 31:66-71 Jl '54

Education for cost control; round-table method. C. Lawrence. N A C A Bul 35:1295-9 Je '54

How not to scare the participating trainee. L. G. Young. Personnel J 33:134-6 S '54

How to control group discussion. E. Mottershead. plan Bankers Mo 70:24+ D '53

Want to run a lively, productive, informal conference? how the experts do it. R. B. Mitchell. Nat Underw 57:29, 40 S 17 '53; Same abr. Nat Underw (Life ed) 57:15 S 4 '53

DISEASES

Diseases prominent in routine underwriting; Bureau of A. & H. panel discussion. East Underw 55:32-3+ My 28 '54

1952 summary of foodborne, waterborne, and other disease outbreaks. C. C. Dauer. Pub Health Rep 68:696-702 Jl '53

Science and public health research in Alaska; animal-borne diseases. R. Rausch. Pub Health Rep 68:533-4 My '53

Servicio; ten-year evaluation of the bilateral health programs, Institute of Inter-American affairs; disease and nutritional barriers to health. Pub Health Rep 68:1127-31 N '53

See also

Anthrax
Arthritis
Asthma
Brucellosis
Bursitis
Diabetes
Diarrhea
Eye—Diseases and defects
Gout
Heart—Diseases
Infectious diseases
Influenza
Intestines—Diseases
Lungs—Diseases
Miners—Diseases and hygiene
Mortality
Public health
Rat-bite fever
Rheumatism
Schistosomiasis
Sickness
Skin—Diseases
Teeth—Diseases and defects
Tuberculosis
Typhoid fever

DISEASES, Chronic

Clinical center for chronic disease research admits first patients; National institutes of health, Bethesda. il plan Chem & Eng N 31:2990+ Jl 20 '53

Nutrition research; potentialities in chronic disease. W. H. Sebrell, jr. Pub Health Rep 68:737-41 Ag '53

Sex differences in the trend of mortality from certain chronic diseases. G. Kaufman and T. D. Woolsey. Pub Health Rep 68:761-8 Ag '53

DISEASES, Industrial

Allergy and occupational diseases. E. Sidi and others. bibliog Ind Med 22:93-8 Mr '53

Enzymes in occupational diseases. Ind Med 22:182 Ap '53

Occupational disease reporting. V. M. Trasko. bibliog Pub Health Rep 68:940-6 O '53

Occupational diseases under New Jersey Workmen's compensation act. H. M. Grosman, ed. Safety Maint & Prod 106:30-2+ D '53

Occupational hazards from fungi causing deep mycoses. S. S. Raphael and J. Schwarz. bibliog map A M A Archives Ind Hygiene & Occup Med 8:154-65 Ag '53

Occupational leukoderma; with report of cases. J. V. Klauder and J. M. Kimmich. bibliog il Ind Med 22:106-10 Mr '53

Peripheral vascular disorders caused by industrial occupations. H. M. Cuneo. bibliog Ind Med 22:525-8 N '53

See also

Anthrax
Beryllium poisoning
Deafness
Heart—Diseases
Hygiene, Industrial
Lead poisoning
Lungs—Dust diseases
Miners—Diseases and hygiene
Poisons, Industrial
Sickness
Silicosis
Skin—Diseases
Workmen's compensation

DISEASES, Infectious. See Infectious diseases

DISELENANE. See Selenides

DISHONESTY insurance. See Insurance, Surety and fidelity

DISHWASHING machines

Dishwasher and disposer installation methods. R. E. Christie. diags Dom Eng 182:91-2+ D '53

Market for sudslessness; automatic launderers and dishwashers depend on suitable detergents. il Chem W 73:65-6 S 19 '53

DISINFECTION and disinfectants

Actamer in liquid soaps. R. R. Egan and M. D. Reed. Soap & San Chem 29:42-4+ Jl '53

Antibiotics go arboreal; Agrimycin. il Chem W 74:56 Je 5 '54

Antimicrobial activity of quaternary ammonium chlorides derived from commercial fatty acids. R. A. Reck and H. J. Harwood. bibliog Ind & Eng Chem 45:1022-6 My '53

Bactericidal action of Movidyn. R. K. Hoffman and others. Ind & Eng Chem 45:2571-3 N '53

Bactericidal activity of fatty acids. J. V. Karabinos and H. J. Ferlin. Soap & Chem Spec 30:46-8 Ag '54

Bactericidal effects of ultrasound. L. A. Russell and others. bibliog diags Ind & Eng Chem 46:1751-6 S '54

Buying chemical specialties; specifications and purchasing techniques. H. W. Hamilton. Soap & San Chem 29:163+ D '53

Detergent germicides. C. E. Béland. bibliog(37 titles) Can Chem Process 38:78+ S '54

Disinfectant regulations. W. A. Hadfield. Soap & San Chem 29:155+ O '53

Disinfecting garbage in truck bodies by direct steam injection. H. A. Bevis and others. bibliog il Pub Health Rep 68:1065-70 N '53

Inactivating medium for hexachlorophene (G-11) types of compounds and some substituted phenolic disinfectants. A. L. Erlandson, jr. and C. A. Lawrence. Science 118:274-6 S 4 '53

Influence of formamide on the bactericidal action of selected chemical compounds. E. A. Cooper and A. E. Goddard. J Ap Chem 4:107-9 Mr '54

New colloidal silver disinfectant. C. W. Chambers, L. A. Chambers and P. Kabler. Ind & Eng Chem 45:2569-71 N '53

New developments in British germicides. J. M. Vallance and F. V. Wells. bibliog il Soap & Chem Spec 30:187+ My '54

New soap germicide, Vancide 89. E. I. Stoltz and C. H. Rogers. bibliog Soap & Chem Spec 30:38-40+ Je '54

Phenolic disinfectants. J. L. Boyle. bibliog il Soap & San Chem 29:129-31 Ag '53

DISINFECTION and disinfectants—*Continued*
Relative toxicity of disinfectants available for use in the pulp and paper industry. B. F. Shema and J. H. Conkey. Tappi 36: sup20A+ N '53
Sanitizing effect of quats. J. W. Klimek and J. H. Bailey. Soap & Chem Spec 30:129+ Jl '54
Solvent influences in disinfection. E. A. Cooper and A. E. Goddard. Chem & Ind p695-6 Je 12 '54
Toxicity; germicidal power; similarity in activity ratios between toxicity to eye mucosa of surface-active agents and their bactericidal activity. R. Fischer. Soap & San Chem 29:155 D '53
Toxicity of quaternaries. J. K. Finnegan and J. B. Dienna. bibliog il Soap & San Chem 30:147+ F '54
Wax with a bonus shine; Trio chemical works inc.'s germicidal Amazon floor wax. il Chem W 75:70 Ag 21 '54
See also
Air purification
Amebicides
Antibiotic substances
Chloramine
Chlorination
Chlorophenol
Formaldehyde
Furadantin
Insecticides
Sanitary chemicals
Soap, Antiseptic
Sodium hypochlorite
Sterilization
Sulfonamides
Water pipes—Sterilization
Water purification

Physiological effect

Toxicology of disinfectants. L. C. Barail. Soap & Chem Spec 30:149-51+ Ag '54

Testing

Field testing quaternaries. G. B. Johnson. il Soap & San Chem 29:114-15+ Jl '53
Testing cationic surface active germicides for use in industrial water systems. C. H. Bollenback and G. A. Cruickshank. il Anal Chem 26:1355-7 Ag '54

DISINTEGRATORS
Disintegration plant; Reitz equipment. Chem Age (Lond) 69:1023 N 14 '53; Engineering 176:832 D 25 '53

DISKS
Transient thermal stresses in circular disks and cylinders. G. Horvay. bibliog A S M E Trans 76:127-35 Ja '54

DISKS, Rotating
Analysis of plane-plastic-stress problems with axial symmetry in strain-hardening range. M. H. Lee Wu. bibliog diags U S Nat Advisory Com for Aeronautics 1951: 359-81 '52
Balancing a rotating disc. I. J. Somervaille. Engineering 177:241-2 F 19 '54
Determination of calcium and magnesium in lake waters by means of a rotating silver disk electrode. V. W. Meloche and R. Shapiro. bibliog il diags Anal Chem 26:347-50 F '54
Fully plastic rotating disc with large strains. M. Zaid. bibliog J Aeronautical Sci 20:369-77 Je '53
Servo-system for accurate speed control. L. U. Hibbard and others. il diags J Sci Instr 31:139-45 Ap '54

DISLOCATIONS in crystals. See Crystallography

DISMISSAL of employees. See Employees, Dismissal of

DISPENSARIES, Industrial
Space and labor-saving devices in the industrial dispensary. J. S. Felton. il diags A M A Archives Ind Hygiene & Occup Med 7:413-21 My '53

DISPENSING apparatus
Adds MSG solution at packaging-line speeds; Patterson frozen foods co. il diag Food Eng 26:56-7 Mr '54
Washing chores eased by SCL soap dispenser. il Bus Transportation 32:50 D '53

DISPENSING containers. See Containers, Dispensing

DISPERSING agents
Dispersants eliminate sludge; abstract. C. B. Biswell. Chem & Eng N 32:1447 Ap 12 '54
Study of dispersing agents for particle-size analysis of soils. A. M. Wintermyer and E. B. Kinter. bibliog Pub Roads 28:55-62 Ag '54

DISPERSION
Clay-particle dispersion by ultrasons. M. S. Crowley and A. P. Welch. bibliog il Am Cer Soc J 37:433-9 S 1 '54
See also
Colloids

DISPERSION, Dielectric. See Dielectric losses

DISPERSION of rays
Bausch & Lomb Littrow-Echelle spectrograph. il R Sci Instr 24:406-7 My '53
Dispersion of standard air. B. Edlén. bibliog Opt Soc Am J 43:339-44 My '53

DISPLACED persons. See Refugees

DISPLAY of merchandize
Eyes have it. J. Alden. il Ptr Ink 243:42-3 Ap 3 '53
General Electric's sell. il diags Mod Packaging 27:154-6+ Mr '54
Handy Coils up sales, open new rope outlets. Sales Management 71:84 N 20 '53
How to make your merchandising twins (package and display) work together. C. J. Swan. il Ptr Ink 243:48-50 My 15 '53
Let's cut out cheap paper and cardboard signs! D. Bland. il Sales Management 71: 42+ O 1 '53
Matchabelli's display magic. il Mod Packaging 27:120-2 Jl '54
Most versatile display unit gains popularity. il diags Sales Management 71:30-2+ pt 2 Jl 1 '53
New display keeps merchandise fresh. il Ptr Ink 243:37 My 8 '53
New objective is mass display of merchandise; Crown Zellerbach corp. L. W. Moore. il Ptr Ink 243:41 Je 19 '53
$100 million advertiser panel reports record demand for point-of-purchase. L. M. Hughes. il Sales Management 72:74-8+ Ap 15 '54
Permanent displays build sales. il diags Nat Pet N 46:49-50 F 10 '54
Planning takes guesswork out of display. J. R. Flannery, jr. il Nat Pet N 45:70-1+ Jl 1 '53
Point-of-sale displays. il Soap & San Chem 29:36-7 N '53
Progress for Gillette. il Mod Packaging 27: 166-8+ Mr '54
Retail display by vendor brand is skidding. E. B. Weiss. Ptr Ink 243:87 My 15 '53
Self-selection is more than a fixture. G. B. Cross. J Retailing 29:157-8+ Winter '53-54
Self-selling hardware; night latches. il Mod Packaging 27:105 F '54
Sink display sells four ways; Savage and son, inc. il Dom Eng 183:135 Mr '54
Small-town merchant's plea, Give us more good displays! T. G. Harris, jr. il Sales Management 71:96-8 S 15 '53
So your salesmen won't sell dealer displays! Joshua Meier co., inc. il Sales Management 72:60+ Ap 15 '54
Stopette meets the trends; improved designs and display methods. il Mod Packaging 28:115 S '54
TBA displays that sell. T. Cunningham. il Nat Pet N 45:78-80 Je 3 '53
Vacuum formed plastics for packaging. il Mod Packaging 27:108-13+ F '54
When the lady asks, how will it look? il Sales Management 71:52 S 15 '53
Which ad pulled best? display samples or self-service display? il Ptr Ink 243:74+ My 15 '53

DISPROPORTIONATION
Disproportionation of alkylbenzenes; spectral characteristics and other physical properties of symmetrical trialkylbenzenes; proof of structure of 1,3,5-tri-*t*-butylbenzene. D. A. McCaulay, A. P. Lien and P. J. Launer. bibliog Am Chem Soc J 76: 2354-7 My 5 '54
Disproportionation of allylic chlorofluoro compounds. M. Prober. bibliog Am Chem Soc J 76:4189-91 Ag 20 '54
Disproportionation of bromobenzene in the presence of aluminium bromide. F. Fairbrother and N. Scott. bibliog Chem & Ind p998-9 S 19 '53
Disproportionation of tertiary amines. H. R. Snyder, R. E. Carnahan and E. R. Lovejoy. bibliog Am Chem Soc J 76:1301-4 Mr 5 '54
Disproportionative condensations; modified Guerbet reactions. E. F. Pratt and D. G. Kubler. bibliog Am Chem Soc J 76:52-6 Ja 5 '54

DISPROPORTIONATION—*Continued*

Kinetics of exchange and disproportionation reactions in mercuric cyanide solutions. R. L. Wolfgang and R. W. Dodson. bibliog Am Chem Soc J 76:2004-10 Ap 5 '54

Method for studying gaseous disproportionation reactions of the type $nA=mB+(n-m)C$. A. W. Searcy. J Chem Phys 21:2244 D '53

Preparation and properties of dialkyl di- and poly-sulphides; some disproportionation reactions. S. F. Birch and others. bibliog Inst Pet J 39:206-19 Ap '53

DISSERTATIONS, Academic

Bibliography

Annual thesis index. Chem Eng Prog 50: 50-3 Ja '54

Doctoral dissertations accepted by American universities, 1952-1953. A. H. Trotier and M. Harman, eds. 305p $6 H. W. Wilson co, New York '53

Master's theses in science, 1952. B. Bledsoe, ed. 252p $7 Biblio press, 1129 Vermont av, N.W, Washington 5, D.C. '54

DISSOCIATION

Absolute quantum yields for dissociation of iodine in inert solvents. F. W. Lampe and R. M. Noyes. bibliog Am Chem Soc J 76: 2140-4 Ap 20 '54

Acid dissociation constants of aromatic phosphonic acids; compounds with ortho substituents. H. H. Jaffé, L. D. Freedman and G. O. Doak. bibliog Am Chem Soc J 76: 1548-52 Mr 20 '54

Acid dissociation of the aquoscandium ions. M. Kilpatrick and L. Pokras. bibliog Electrochem Soc J 100:85-92 F '53; 101:39-43 Ja '54

Basic dissociation constants of some substituted flavones. C. T. Davis and T. A. Geissman. bibliog Am Chem Soc J 76: 3507-11 Jl 5 '54

Benzyl-hydrogen bond dissociation energy from electron impact measurements. D. O. Schissler and D. P. Stevenson. bibliog J Chem Phys 22:151-2 Ja '54

C-C bond dissociation energy in *cyclo*butane. H. O. Pritchard and A. F. Trotman-Dickinson. bibliog Chem & Ind p 1046-7 Ag 21 '54

Chemical constitution and the dissociation constants of monocarboxylic acids; some alkylbenzoic acids exhibiting steric effects. J. F. J. Dippy, S. R. C. Hughes and J. W. Laxton. Chem Soc J p 1470-6 My '54

Comparison of pK'_a values determined by electrometric titration and ultraviolet absorption methods. J. M. Vandenbelt, C. Henrich and S. G. Vanden Berg. bibliog Anal Chem 26:726-7 Ap '54

Determination of some carbon-chlorine bond dissociation energies. M. Szwarc and J. W. Taylor. bibliog J Chem Phys 22:270-4 F '54

Dissociation constants of some phenols and methylol phenols. G. R. Sprengling and C. W. Lewis. bibliog Am Chem Soc J 75:5709-11 N 20 '53

Dissociation energy of fluorine. R. T. Sanderson. bibliog J Chem Phys 22:345-6 F '54

Dissociation energy of oxygen. P. Brix and G. Herzberg. J Chem Phys 21:2240 D '53

Dissociation of H_2^+ by electron impact. E. H. Kerner. bibliog Phys R 92:1441-7 D 15 '53

Dissociation pressure of nickel oxalate dihydrate. J. A. Allen and D. E. Scaife. J Phys Chem 57:863-4 N '53

Dissociation pressures and related measurements in the system aluminum sulfate-water. N. O. Smith and P. N. Walsh. bibliog diag Am Chem Soc J 76:2054-7 Ap 20 '54

Gas dissociation energies; abstract. R. K. Edwards and G. T. Malloy. Chem & Eng N 32:3847-8 S 27 '54

Measurement and correlation of acid dissociation constants for ammonium and anilinium salts in the system dioxane-water. H. P. Marshall and E. Grunwald. bibliog Am Chem Soc J 76:2000-4 Ap 5 '54

New method for calculating dissociation constants from spectrophotometric data. D. H. Rosenblatt. bibliog J Phys Chem 58:40-2 Ja '54

Preparation and the determination of apparent dissociation constants of some substituted aliphatic phosphonic acids. P. C. Crofts and G. M. Kosolapoff. bibliog Am Chem Soc J 75:5738-40 N 20 '53

Spectrophotometric studies of dissociation constants of nitroguanidines, triazoles and tetrazoles. J. E. DeVries and E. S. Gantz. bibliog Am Chem Soc J 76:1008-10 F 20 '54

Use of apparent dissociation constants in qualitative organic analysis. T. V. Parke and W. W. Davis. Anal Chem 26:642-5 Ap '54

See also

Radicals (chemistry)

DISSOLUTION. See Solution (chemistry)

DISTEMPER

Science and public health research in Alaska; distemperlike disease. K. R. Reinhard. Pub Health Rep 68:535-6 My '53

DISTILLATION

Chemical engineering unit operations; high temperature distillation. T. J. Walsh. il Ind & Eng Chem 46:79-82 bibliog(102 ref, p81-2) Ja '54

Determination of nitrogen in zirconium by micro-Kjeldahl steam distillation. J. F. Rodgers and G. J. Harter. diag Anal Chem 26:395-6 F '54

Distillation analysis. A. Rose and E. Rose. Anal Chem 26:101-4 bibliog(125 ref, p 103-4) Ja '54

Distillation in packed columns. F. Yoshida and others. bibliog diag Ind & Eng Chem 46:1756-62 S '54

Distillation; symposium abstracts. Chem & Eng N 31:5368 D 28 '53

Fresh water from sea water by solar distillation. M. Telkes. bibliog il diag Ind & Eng Chem 45:1108-14 My '53

High-vacuum fractionation with falling-stream still. D. J. Trevoy and W. A. Torpey. diag Anal Chem 26:492-4 Mr '54

Improved control gives maximum boil-up in distillation. L. Steber. diag Chem Eng 61: 224+ Ja '54

Isolation of amino acids by distillation of the acetylated amino acid ethyl esters. E. F. Mellon and others. bibliog Am Chem Soc J 75:5524-8 N 20 '53

Kinetics of catalytic cracking of cumene. T. E. Corrigan and others. bibliog flow diag Chem Eng Prog 49:603-10 N '53

Method for preparation of fluorine-low calcium oxide. D. A. Weddle and R. L. Maurer. Anal Chem 26:584-5 Mr '54

New technique combines two distillation methods; steam and compression. diag Chem Eng 60:394+ O '53

Novel distillation system reduces number of trays needed to separate close-boiling compounds. diag Chem Eng 60:370 Je '53

Recent advances in distillation. G. A. Dummett and P. V. Clifton. bibliog il diags Chem Age (Lond) 69:653-9, 703-7 S 26-O 3 '53

Recovering solids from anthracene oil; patent. diag Chem Eng 61:260+ S '54

Separating alcohol-ketone azeotropes; patent. Chem Eng 61:262+ Ap '54

Separation of fluoranthene and chrysene by molecular distillation. A. Cantoni, J. Feldman and M. Orchin. bibliog Anal Chem 26: 1374-7 Ag '54

Separation of oxygenated organic compounds by water extractive distillation. C. S. Carlson, P. V. Smith, jr. and C. E. Morrell. bibliog diags Ind & Eng Chem 46:350-5 F '54

Some aspects of molecular distillation. G. Burrows. Chem Age (Lond) 69:1269-72 D 19 '53; Abstract. Chem & Ind p44 Ja 9 '54

Stand oil fractionation; abstract. F. T. Walker and others. Paint Oil & Chem R 117:44-5 F 25 '54

Study of osmium and ruthenium distillations. A. D. Westland and F. E. Beamish. bibliog diags Anal Chem 26:739-41 Ap '54

Thermal cracking of alkyl phenols. B. W. Jones and M. B. Neuworth. Ind & Eng Chem 45:2704-5 D '53

Vacuum dezincing of desilverized lead bullion. T. R. A. Davey. bibliog J Metals 5: Trans991-7 Ag '53

Visual demonstration of fractional distillation. J. O. Osburn. il J Chem Educ 30:412-14 Ag '53

What every engineer should know about packed tower operations. F. A. Zenz. bibliog(45 ref) Chem Eng 60:176-84 Ag '53

DISTILLATION—*Continued*

Zinc by distillation. il Can Chem Process 38:34+ F '54

See also

Coal distillation

Oil shales—Distillation

Petroleum distillation

Tables, calculations, etc.

Binary distillation. A. J. Teller. bibliog il diags Chem Eng 61:168-88 S '54

Distillation control problems; application of the McCabe-Thiele diagram. R. L. Bauer and C. P. Orr. Chem Eng Prog 50:312-18 Je '54

Kinetics of the catalytic cracking of alkylbenzenes. H. F. Rase and R. S. Kirk. bibliog(28 ref) flow diag Chem Eng Prog 50:35-44 Ja '54

Reflux and plant determinations for batch distillation. S. R. M. Ellis. bibliog Ind & Eng Chem 46:279-82 F '54

Simple HETP calculations for distillation columns. Chem & Eng N 31:4613 N 2 '53

Simplify batch distillation calculations. Chao Kwang-Chu. Chem Eng 61:165 Ja '54

DISTILLATION apparatus

Automatic fraction collector. J. M. F. DeBroske and L. R. Crisp. il diags R Sci Instr 24:547-9 Jl '53

Chemical engineering unit operations; high temperature distillation. T. J. Walsh. il Ind & Eng Chem 46:79-82 bibliog(102 ref, p81-2) Ja '54

Combination batch and continuous fractionation column. S. T. Kiguchi. flow diag il diags Ind & Eng Chem 46:1363-70 Jl '54

Compact refluxing head for a large fractionating column. J. S. George. diag J Sci Instr 30:172 My '53

Convenient apparatus for the distillation of solids. L. B. Barkley and others. diag J Chem Educ 30:115 Mr '53

Corrosion resistant diverter splits reflux and product flows. J. J. Krauklis. diag Chem Eng 61:242 Jl '54

Distilling with burrs; revolutionary new column packing material. il Oil & Gas J 52:68-9 N 9 '53

Don't count bubble caps out. il Chem Eng 61:128+ My '54

Effect of packing supports on mechanical operation of packed towers. M. Leva, J. M. Lucas and H. H. Frahme. diags Ind & Eng Chem 46:1225-8 Je '54

Evaluation of packed distillation columns. T. J. Walsh, G. H. Sugimura and T. W. Reynolds. bibliog diags Ind & Eng Chem 45:2629-33 D '53

Fractionating column that was allergic to its feed. D. E. Pierce. diags Ind & Eng Chem 45:sup81A-2A+ O '53

Fractionating converter for producing *para*-hydrogen. W. F. Giauque. diag R Sci Instr 25:886-7 S '54

Head and fraction cutter for small-scale spinning band column. I. C. Dumas and others. diags Anal Chem 26:1255-6 Jl '54

High efficiency still for pure water. R. Ballentine. diag Anal Chem 26:549-50 Mr '54

How to distill heat-sensitive compounds; patent. diag Chem Eng 61:258 Ap '54

Investigation of pressure drop through a bubble cap plate. J. E. Cauley, jr., G. Z. Moore and M. Van Winkle. bibliog diags Chem Eng Prog 49:553-9 O '53

Is packed height a variable in flooding? W. M. Newton and others. bibliog diag Pet Refiner 32:125-8 O '53

Kaskades threaten bubble-caps. il diags Chem Eng 61:124+ My '54

Melting point apparatus employing batch distillation heating. J. S. Forsyth and others. diags Chem & Ind p 1051-3 O 3 '53

Metal column for distillation of corrosive gas mixtures at low temperatures. N. C. Orrick and J. D. Gibson. bibliog diags Anal Chem 25:1100-3 Jl '53

Micro-Kjeldahl distillation apparatus. D. J. Jenden and D. B. Taylor. diag Anal Chem 25:685-6 Ap '53

Modified ASTM distillation for ten milliliter samples. J. S. Wiberley and R. K. Siegfriedt. bibliog il diag Pet Eng 25:C 12-14 Ag '53

Molecular distillation apparatus with great separating power. W. G. Aldershoff and others. diags Inst Pet J 39:688-94 O '53

More exact plate efficiencies. Chem Eng 61:122 Mr '54

New approach to distillation; flexible tar and oil plant. diag Chem Age (Lond) 71:637-8 S 25 '54

New packing with high holdup increases tower efficiency 100 per cent; abstract. A. J. Teller. Chem & Eng N 31:3999 S 28 '53

Self-cleaning still head for continuous take-off at atmospheric and reduced pressures. J. Coops and others. diags Anal Chem 26:1529-30 S '54

Sieve trays. D. C. Lee, jr. il diag Chem Eng 61:179-82 My '54

Simple plunger-type fraction cutter for high vacuum distillation. T. Sakuragi and F. A. Kummerow. diag Anal Chem 26:620 Mr '54

Spray packed; development in distillation column packing; Spraypak. il Ind & Eng Chem 46:sup 13A+ Ag '54; Chem Age (Lond) 70:1301-2 Je 12 '54

Three new tray designs; Uniflux, float-valve and Flexitray. V. O. Bowles and others. il diags Chem Eng 61:171-8 My '54

Three-stage molecular still. D. A. Sutton. bibliog diag Chem & Ind p 1383-5 D 26 '53

Vacuum vapour-liquid equilibrium still. S. R. M. Ellis and B. A. Froome. bibliog diags Chem & Ind p237-40 F 27 '54

Variable temperature vapour-jacket for fractionating columns. J. F. A. Williams. diag J Sci Instr 30:339 S '53

Welding reducers make improvement in packing support plate. J. L. Honnold and M. P. Sweeney. diags Chem Eng 61:228+ Ap '54

See also

Fractionation research, inc.

Design

Careful design provides efficient circulating oil heating for batch still. D. E. Pierce. diags Ind & Eng Chem 46:sup73A-4A+ S '54

Correlating equilibrium flash vaporization data. E. H. Ten Eyck and D. F. Othmer. bibliog Pet Refiner 32:229-32 S; 151 O '53

Design method for bubble trays. G. T. Atkins. bibliog diag Chem Eng Prog 50:116-24 Mr '54

Fractionating answers; design of tower components outlined before annual A.I.Ch.E. meeting. Oil & Gas J 52:104-5 D 21 '53

Fractionation of liquid air. L. E. A. Clare and others. Chem Age (Lond) 68:597-8 Ap 18 '53

Generalized correlation of flooding rates. B. C. Sakiadis and A. I. Johnson. bibliog(26 ref) Ind & Eng Chem 46:1229-39 Je '54

Height of equivalent theoretical plate in packed fractionation columns. D. P. Murch. bibliog Ind & Eng Chem 45:2616-21 D '53

How to modify plate columns for high operating rates. L. Steber. diags Chem Eng 61:236+ Mr '54

Process design of light hydrocarbon cracking units. J. R. Fair and H. F. Rase. bibliog il Chem Eng Prog 50:415-20 Ag '54

Recent advances in distillation. G. A. Dummett and P. V. Clifton. bibliog il Chem Age (Lond) 69:653-9 S 26 '53

Stedman packing design data. L. B. Bragg. bibliog Ind & Eng Chem 45:1676-7 Ag '53

To help you design fractionators. R. R. White. bibliog diags Pet Processing 8:357-62, 539-43, 704-9, 892-6, 1026-31, 1174-9, 1336-9, 1533-6, 1705-7 Mr-N '53

Turbogrid distillation trays. il Chem Eng Prog 50:57-64 F '54

Testing

Use of field test data for control system analysis. P. R. Hoyt and B. D. Stanton. diags Instruments 26:1180-1+ Ag '53

DISTILLERIES

Air conditioning

Unique air balancing system; Hiram Walker & sons, inc. il diags Heating-Piping 26:166-9 Ja '54

DISTILLERIES—*Continued*

Fires and fire protection

Whiskey plant loss at Pekin, Ill., will exceed $7 million; American distilling co. Nat Underw 58:2+ Ag 12 '54

Power

One boiler for four at Stitzel-Weller. A. Corcoran. il Power Eng 58:68-9 Jl '54

Safety measures

Part of the management team; Hiram Walker safety department. Nat Safety N 69:30-1+ Ap '54

Waste

Disposal of California winery wastes. R. H. Vaughn and G. L. Marsh. bibliog il Ind & Eng Chem 45:2686-8 D '53

DISTILLERS company, limited
Chairman's statement. Chem Age (Lond) 71: 389-90, 420 Ag 21-28 '54
Statement by the chairman. H. J. Ross. Economist 168:542-4 Ag 22 '53

DISTILLING industries
See also
Whisky

Finance

Rising spirits; sales, consumption brighten distillers' outlook. B. W. Corrado. Barron's 33:9-10 Ag 3 '53

DISTRIBUTION (economics)
Changes in the functional distribution of income. J. Burkhead. bibliog Am Stat Assn J 48:192-219 Je '53
Distribution; new designs change your economic future. Steel 133:57-64 Ag 3 '53
Employee insurance in distribution. Spectator 162:34-5+ Ap '54
Integrate your distribution. il Steel 134:113-20 Je 21 '54
Marketing and distribution. C. J. Harrison and others. Chem & Ind p918-23, 978-81, 1028-30 Jl 24, Ag 7, 21 '54
Query; is secured distribution possible? answer; yes, with field warehouse on customer's premises. L. S. Coates. il Credit & Fin Management 55:20-1+ N '53
Transportation in distribution. il map Steel 135:89-96 Ag 23 '54
See also
Chain stores
Department stores
Jobbers
Marketing
Retail trade

DISTRIBUTION, Electric. See Electric distribution

DISTRIBUTION function
Circular normal distribution; theory and tables. E. J. Gumbel and others. bibliog diags Am Stat Assn J 48:131-52 Mr '53
Electron energy distributions in stationary discharges. I. B. Bernstein and T. Holstein. bibliog diag Phys R 94:1475-82 Je 15 '54

DISTRIBUTION of gas. See Gas distribution

DISTRICT bank, limited
Statement by the chairman. T. D. Barlow. Economist 170:290-2 Ja 23 '54

DISTRICT 50. See United mine workers of America—District 50

DISTRICT heating association, National. See National district heating association

DISULFIDES
Disulphide bond reactivity in wool; formation of thiol radicals on exposure to light. G. H. Crawshaw and J. B. Speakman. Soc Dyers & Col J 70:81-2 F '54
Polarographic study of various diphenyl disulfides. E. L. Colichman and D. L. Love. bibliog Am Chem Soc J 75:5736-7 N 20 '53

Analysis

Determination of disulfides in the presence of thiols. T. E. Earle. bibliog Anal Chem 25:769-71 My '53
Polarographic and amperometric mercurometric determination of disulfide groups. W. Stricks, I. M. Kolthoff and N. Tanaka. bibliog Anal Chem 26:299-303 F '54

DISULFONIC acids. See Sulfonic acids

DISULFUR decafluoride. See Sulfur fluorides

DITCHES
Chemical weed killers improve ditch maintenance. W. D. Hogan. il Pub Works 85:95-6 Ag '54
Ditch blasting reclaims useless Ohio farmland. W. F. Miller. il Explosives Eng 32: 53-4 Mr '54

DITCHING machinery. See Trenching machinery

DITERPENES
Synthesis and stereochemistry of the 3-keto-Δ^4-steroidal system from diterpenic acids. H. H. Zeiss and W. B. Martin, jr. bibliog Am Chem Soc J 75:5935-40 D 5 '53

DITHIOCARBAMATES
Applications of the dithiocarbamates. E. G. Curphey. Chem Age (Lond) 69:799-800+ O 17 '53

DITHIOLS
Addition of dithiols to dibenzalketones. C. S. Marvel and H. Wexler. Am Chem Soc J 75: 6318-19 D 20 '53
Determination of small amounts of tin with dithiol. M. Farnsworth and J. Pekola. bibliog Anal Chem 26:735-7 Ap '54

DITHIONITES
Reduction of anthraquinone derivatives with alkaline dithionite. W. Bradley and R. F. Maisey. Chem Soc J p274-8 Ja '54

DITHIZONE
Acetonic dithizone in geochemistry. H. V. Warren and others. Econ Geol 48:306-11 Je '53
Detection of bismuth by dithizone in molten naphthalene. J. K. Carlton and W. C. Bradbury. Anal Chem 26:1226-7 Jl '54
Determination of zinc by dithizone in a monophase water-glycol system. B. L. Vallee. Anal Chem 26:914-17 My '54
Molar absorptivity of dithizone in chloroform. A. S. Landry and S. F. Redondo. Anal Chem 26:732-3 Ap '54
Spectrographic analysis of minor elements extracted from plants and soils as dithizonates. W. J. Wark. Anal Chem 26:203-5 Ja '54
Studies with dithizone; a comparison of routes for the synthesis of [^{35}S]dithizones. H. Irving and C. F. Bell. Chem Soc J p3538-43 N '53

DIURETICS
Diuretics; α,α-disubstituted 2-piperidineethanols and 3,3-disubstituted octahydropyrid[1,2-c]oxazines. C. H. Tilford and M. G. Van Campen, jr. bibliog Am Chem Soc J 76:2431-41 My 5 '54
Diuretics; 3,8-disubstituted paraxanthines. F. F. Blicke and H. C. Godt, jr. Am Chem Soc J 76:3655-6 Jl 20 '54
Diuretics; 3-substituted paraxanthines. F. F. Blicke and H. C. Godt, jr. Am Chem Soc J 76:3653-5 Jl 20 '54
Mercurial diuretics. L. H. Werner and C. R. Scholz. bibliog Am Chem Soc J 76:2453-9 My 5 '54

DIVERS, Edward, 1837-1912
E. Divers and the chemistry of nitrogen compounds. D. Reilly. bibliog(28 ref) por J Chem Educ 30:234-7 My '53

DIVERSIFICATION in industry
Aircraft makers diversify into new lines; nonaircraft sales are long-term insurance. il Steel 134:84-5 Je 21 '54
Coming full circle; Diamond alkali company diversification into organics. il Chem W 74:14-16 Ja 9 '54
Diversification; Elgin watch co. entering instruments, electronics fields. Iron Age 172: 82 Ag 13 '53
Diversification increasing. Chem & Eng N 32:2440 Je 14 '54
Diversification of W. R. Grace & co. E. H. Carter. Mag of Wall St 93:385+ D 26 '53
Diversification planned; Climax molybdenum co. Steel 134:94 Ap 19 '54
Diversification program pays off handsomely for Pressed Steel Car. Barron's 34:22-3 Ja 25 '54; Steel 134:71-2 F 15 '54
Diversity of products of low individual tonnages. W. J. McClung. Iron & Steel Eng 31:101-4 Ap '54
Elgin plans its own metamorphosis. Steel 134:77 F 8 '54
General Dynamics; its profits are from the air and under the sea. T. C. Pryor. Barron's 34:19-22 Ja 18 '54

DIVERSIFICATION in industry—*Continued*

Giant, and still growing; program of diversification in chemicals for Phillips Petroleum. il Chem W 74:16-17 F 20 '54

Growth; diversification's the secret; case history of H. K. Porter co.'s rags-to-riches climb. J. B. Delaney. Iron Age 173:51 Ja 14 '54

Is industry diversifying its products; Mill and Factory survey. Mill & Factory 54:67-8 Ap '54

Merritt-Chapman takes another step; Marion power shovel co. gets latest bid. Steel 135: 55 Ag 9 '54

Milk pail to reaction kettle; Borden's milky way to chemistry. Chem W 74:84 Je 19 '54

New worlds for Bridgeport Brass. H. W. Steinkraus. Steel 134:61-2 Mr 29 '54

North Carolina story; from aircraft to zippers; diversification of industry. il Manuf Rec 123:71-5 Ja '54

Not knitting now; Celanese wins bill of health from Antitrust division. Chem W 74:19 Ap 17 '54

Opportunist in research; Ultrasonic corp. will attack any field where its technical know-how gives it an advantage. Bsns W p80+ Ag 29 '53

Planned approach to product diversification. W. E. Hill. Management R 43:241-3 Ap '54

Planned diversification program would speed growth of South's industries. S. Fish. il Manuf Rec 123:28-9 Jl '54

Product diversification. il Steel 135:113-20 S 13 '54

Product-market diversification. A. H. Jones. Am Mach 98:130-2 Ag 16 '54

Road to high profits; meat packers branching out to chemical and other by-product operations. il Chem W 74:20-2 My 1 '54

Shipyards bail out with diversification. il Steel 135:51-2 Jl 19 '54

Small firm finds a quick, economical way to diversify; Stow mfg. co. Steel 135:80-1 S 20 '54

Spans inventor-producer gap; new firm helps others diversify by finding new products. W. V. Packard. il Iron Age 174:51-2 S 30 '54

Tape; Sharon adds pressure tape to steel strapping tape line. Iron Age 173:60 F 25 '54

Three doors to diversity; Chemical process co. il Chem W 75:16-17 S 18 '54

Tools; diversifying is mixed blessing. R. M. Lorz. Iron Age 173:256 Ja 7 '54

Turn in the road; tire producers plunge deep into chemicals and plastics. M. J. Saada. Barron's 33:11+ D 21 '53

Twofold approach; Chemo puro manufacturing corp. Chem W 74:26 My 15 '54

Under full sail; Union Oil in chemical production. il Chem W 75:14 Jl 24 '54

U.S. jeweled watch industry bolsters slow market with new products, defense work. il Steel 135:72 S 20 '54

Willys Motors diversifies; starts production of aluminum bulk shipping container. il Steel 135:77 Ag 23 '54

See also

Products, Diversified

DIVIDENDS

Bank dividends round-up. Economist 170:184-5 Ja 16 '54

Corporate earnings and dividends in 1954. G. W. Mathis. Mag of Wall St 93:554-5+ F 6 '54

Dividend prospects for 50 companies; with figures, 1952 and first half of 1953. W. Gates. Mag of Wall St 93:70-1+ O 17 '53

Dividends announced. Published in weekly Monday numbers of Commercial and financial chronicle

Five candidates for extra dividends; with comparative balance sheet items. Mag of Wall St 93:198-200 N 14 '53

Higher bank dividends. Economist 170:111-12 Ja 9 '54

How new decision limits stock dividends. W. Gates. Mag of Wall St 93:242-3+ N 28 '53

In 1953 dividends, less makes more. Bsns W p 128+ D 5 '53

New ways with dividends; Unilever limited and Joseph Lucas. Economist 169:686 N 28 '53

New York stock exchange issues new policy on accounting for stock dividends. J Account 95:604 My '53

Profits and dividends, 1949-1952. Survey of Cur Bsns 1953 Sup p92-3 [supplemented in monthly numbers]

Revaluation surplus as basis for dividend payments, absorption of deficit. J Account 97:221 F '54

Seven tests for evaluating dividend security; with table. W. Gates. Mag of Wall St 93: 431-3+ Ja 9 '54

Steady stockholder dividends prove it pays to advertise. L. M. Hughes. Sales Management 72:38-9 Je 15 '54

Stock dividend mumpsimus. N. Carothers. Comm & Fin Chr 178:2255+ D 10 '53; Discussion. 178:2532-3, 2641 D 24, 31 '53

Stock dividend trend has traps in it. Bsns W p 156-7 D 19 '53

Stock dividends. B. Graham. Barron's 33:3+ Ag 3; 5-6 Ag 10 '53

Stock market at a glance; price changes, earnings and dividends. Published in weekly numbers of Barron's

Stock split-up and stock dividends defended. P. E. Conrads. Comm & Fin Chr 179:165 Ja 14 '54

Stocks; cash dividend payments, rates and yields, 1949-1952. Survey of Cur Bsns 1953 Sup p 100-1 [supplemented in monthly numbers]

What to do about 1953's dividend casualties; with table of companies that have passed or reduced dividends in 1953. J. S. Williams. Mag of Wall St 93:561-3+ F 6 '54

Accounting

Accounting for stock dividends; dissent from current recommended practice. E. B. Wilcox. J Account 96:176-81 Ag '53

Stock dividends and concepts of income. G. O. May. J Account 96:427-31 O '53

Taxation

Are dividends of Treasury stock considered to be taxable income? W. C. Moore. J Account 97:179-87 F '54

Bail-out stock dividends. A. M. Hamburg. Comm & Fin Chr 178:2539 D 24 '53

Double taxation of dividends, a triple penalty on the investor. G. K. Funston. Comm & Fin Chr 178:271 Jl 23 '53; Discussion. 178: 357, 540, 732, 1012 Jl 30, Ag 13, 27, S 17 '53

Taxable stock dividends. D. Green, jr. bibliog J Bsns 26:224-30 O '53

DIVIDING (machine work)

Dividing machines available for production or high precision work. il Am Mach 98:142 Ja 4 '54

DIVING, Submarine

Amateur scientist on the popular diversion of free diving. A. G. Ingalls. il diags Sci Am 189:94-7 Ap '53

Divers' intercommunication equipment. Engineering 176:555 O 30 '53

DIVING boards

Good equipment for the swimming pool. N. R. Miller. il Pub Works 84:77-8 D '53

DIVINYLBENZENE

Properties of ion-exchange resins in relation to their structure; anion-exchange resins derived from styrene-divinylbenzene copolymers. K. W. Pepper, H. M. Paisley and M. A. Young. Chem Soc J p4097-105 D '53

DIVISION of occupational health. See United States—Public health service—Division of occupational health

DIVORCE

Divorce property settlements; estate and gift tax consequences. C. B. Bayly, jr. Trusts & Estates 92:560-2+ Ag '53

DIVVER, Margaret

John Hancock's M. Divver is advertising woman of the year. por Ptr Ink 243:96 Je 19 '53

DIXIE cup company

Offers convertible preferred stock. Comm & Fin Chr 178:1875-6 N 16 '53

DIXON, Edgar O.

Sketch. por Metal Prog 66:supA92+ Jl 15 '54

DJILAS, Milovan
Case of Comrade Djilas. Economist 170:221 Ja 23 '54
Ideas of Mr Djilas. Economist 170:241 Ja 23 '54

DOCK fenders. See Fenders, Dock

DOCK labor. See Longshoremen

DOCKS
Docks broadcasting installation. Elec R (Lond) 153:746 O 2 '53
Docks of London. W. P. Shepherd-Barron. Engineer 196:585-7 N 6 '53; Abstract. Engineering 176:637 N 13 '53
New Eastham oil dock; electro-hydraulic operation of lock gates. il Elec R (Lond) 154:181-4 Ja 29 '54
Opening of the Queen Elizabeth II oil dock at Eastham. il Engineer 197:135-7 Ja 22 '54
Queen Elizabeth II dock; discharging large oil tankers. il Engineering 177:153-5 Ja 29 '54
See also
Dry docks
Ore docks

Lighting

New Eastham oil dock, Manchester; lighting. il Elec J 152:429 F 5 '54

DOCTOR solution
Oxidation of phenols in alkaline solution; doctor red. H. D. Taskis and G. E. Mapstone. Chem & Ind p 1061-3 O 3 '53

DOCTORS. See Physicians

DOCTORS' degrees. See Degrees, Academic

DOCUMENTATION

Mechanical aids

Machine techniques in scientific documentation; symposium. Special Lib 44:196-8 My-Je '53
Studies in chemical documentation. G. M. Dyson. bibliog il diags Chem & Ind p440-9 Ap 17 '54; Discussion. W. H. T. Davison. p788 Jl 3 '54; Reply. p934 Jl 24 '54

Periodicals

Post-war developments in periodicals of librarianship and documentation. R. Stokes. bibliog J Doc 10:72-7 Je '54

DODECENOIC acid
Dodec-11-enoic acid. J. M. Rountree and J. C. Smith. bibliog Chem & Ind p 190-1 F 13 '54

DODECYLBENZENE
Quaternary ammonium compounds from dodecylbenzene. J. L. Darragh and R. D. Stayner. il Ind & Eng Chem 46:254-7 F '54
Soap plant observer; dodecylbenzene sodium sulfate. J. W. McCutcheon. Soap & Chem Spec 30:111 S '54
Synthesis of dodecylbenzene. M. L. Sharrah and G. C. Feighner. bibliog Ind & Eng Chem 46:248-54 F '54

DODECYL sulfate
Study of the interaction of dodecyl sulfate with bovine serum albumin. M. J. Pallansch and D. R. Briggs. bibliog Am Chem Soc J 76:1396-403 Mr 5 '54

DOGS

Diseases

See also
Distemper
Rabies

DOISYNOLIC acid, Analogs of
2 - Keto-4(*p*-methoxyphenyl)1-methyl-3-cyclohexenecarbonitrile and related compounds; analogs of doisynolic acid. F. C. Novello, M. E. Christy and J. M. Sprague. bibliog Am Chem Soc J 76:738-42 F 5 '54

DOLE, James Drummond, 1877-
Billion-dollar rainbow; Hawaiian pineapple co. F. J. Taylor. il Adv Agency 47:72-3+ S '54

DOLERITE
Correlation of the mechanical properties and petrography of a series of quartz-dolerite roadstones. P. E. Sabine, J. E. Morey and F. A. Shergold. bibliog il J Ap Chem 4:131-7 Mr '54

D'OLIER, Franklin, 1877-
Sketch. por East Underw 54:3 D 18 '53; Same cond. Weekly Underw 169:1468 D 12 '53
Tributes. East Underw 54:5 D 18 '53

DOLLENMAYER, William L.
Graduate scholarship given to Carnegie Tech man. por Iron & Steel Eng 31:97 Jl '54

DOLOMITE
Activation energies for the decomposition of limestone, dolomitic limestone, and dolomite. J. H. Wernick. bibliog Min Eng 6: Trans 730-2 Jl '54
Cave sandstones in Cotter dolomite, northeastern Oklahoma. C. E. Gore, jr. Am Assn Pet Geologists Bul 37:2186-8 S '53
Dolomite; a material for particular uses. L. G. Love. Cer Ind 63:75+ S '54; Excerpts. Glass Ind 35:193-4 Ap '54
Dolomitic mottling in Palliser (Devonian) limestone, Banff and Jasper national parks, Alberta. F. W. Beales. bibliog il Am Assn Pet Geologists Bul 37:2281-93 O '53
New facility for producing clinkered dolomite; Marblehead lime co. il Steel 134:83 My 3 '54
Producing pulverized dolomite products; James river hydrate and supply co. B. Nordberg. il Rock Prod 57:88+ My '54
Steam catalysis in calcinations of dolomite and limestone fines. W. H. MacIntire and T. B. Stansel. bibliog(54 ref) il Ind & Eng Chem 45:1548-55 Jl '53

Analysis

Separation of magnesium from calcium by ion exchange chromatography. D. N. Campbell and C. T. Kenner. Anal Chem 26:560-1 Mr '54

DOMAGK, Gerhard, 1895-
Gerhard Domagk and chemotherapy. R. E. Oesper. por J Chem Educ 31:188-91 Ap '54

DOMAIN theory. See Magnetism

DOMES
Bucky Fuller finds a client; young Henry Ford translates the geodesic dome into aluminum and plastic. il Arch Forum 98:108-11 My '53
New situation for the marines; Fuller's domes may shelter them. il Arch Rec 115:24+ Je '54
Thin shells. M. G. Salvador. il diags Arch Rec 116:173-9 Jl '54

DOMES, Aluminum
Frameless aluminum hemisphere spans 300 feet. il Arch Forum 100:158-9 Ap '54
Look where the saucer landed; Semisphere building at Longview, Tex. il Iron Age 173:79 F 18 '54; Light Metal Age 12:16 Ap '54
No interior supports in 1½-acre building; R. G. LeTourneau, inc. Eng N 151:26 D 17 '53
Preassembled building provides huge, unobstructed floor space at low cost; LeTourneau Semisphere. il Civil Eng 24:194 Mr '54; Eng N 152:101-2 Mr 11 '54

DOMES, Concrete
Saarinen dome; a year later; M.I.T. auditorium. il Arch Rec 115:20+ My '54

DOMES, Plastic
Daylighting with plastic domes. B. F. Greene. il plans diags Illum Eng 49:209-14; Discussion. 214-15 Ap '54

DOMESTIC appliances
Appliance credit. V. F. Morris. Barron's 33:15-16 Ag 31 '53
Domestic appliance industry and fuel usage in Great Britain; abstract. H. Hartley. Elec J 151:1152 O 9 '53
Importance of service and competent mechanics for home appliances. Consumers Res Bul 32:26-8 O '53
Kitchen equipment home appliances and built-ins. il plans diags Am Bld 75:423-4+ Ap '53
New products. Published in monthly numbers of House and home
Ten reasons why the excise taxes on appliances should be repealed! Dom Eng 182:137+ N '53; Excerpt. Gas Age 112:86 O 22 '53
What the excise cuts mean to contractors. Dom Eng 183:121 My '54
Will '54 appliance sales fool the experts. K. W. Bennett. Iron Age 173:71-2 Mr 25 '54

DOMESTIC appliances—*Continued*
Women want more appliances. il House & Home 5:149 My '54
See also
Dishwashing machines
Electric apparatus and appliances, Domestic
Freezers, Domestic
Gas appliances, Domestic
Laundry equipment, Domestic
Vacuum cleaners
Washing machines

Advertising

Premium with a purpose; to stimulate sales in an off-season or tie in with a special event; RCA estate appliance corp. il Ptr Ink 243:102 Ap 24 '53

Statistics

Appliances; heating equipment, cooking stoves, electric and gas appliances, washers, refrigerators, vacuum cleaners, etc.; tabulations. Steel 134:188-91 Ja 4 '54

DOMESTIC architecture. See Architecture, Domestic

DOMESTIC workers. See Servants

DOMINION mortgage and investments association of Canada
Canada may launch insured mortgages. East Underw 55:5 Mr 5 '54

DOMINION rubber company, limited
Dominion Rubber starts its second century. Can Chem Process 38:7-8 Jl '54

DOMORE chair company
Salesmen build their wares. Bsns W p 184+ N 7 '53

DON MILLS, Ontario
Business builds a city. il maps plans Arch Forum 100:146-51 Je '54
Business builds a city. il maps plans diag House & Home 6:146-51 Jl '54

DONALDSON, W. E., 1872-
Man who wasn't blown up. A. Reese. pors World Oil 137:68-70+ D '53

DONNELL, Otto Dewey, 1883-
API gold medal in 1953 to O. D. Donnell. Am Pet Inst Proc 33(1):14-16 '53

DOOR fittings
See also
Latches

DOOR-to-door selling
Door-to-door salespeople; who they are; how they work. N. Brucks. Sales Management 71:72+ Jl 1 '53
Door-to-door selling. V. P. Buell. Harvard Bsns R 32:113-23 My '54
How to determine if your product can be sold door-to-door. N. Brucks. Sales Management 70:116+ Ap 15 '53
Six kinds of door-to-door sales calls. N. Brucks. Sales Management 70:70+ Je 1 '53
Three door-to-door sales groups. N. Brucks. Sales Management 70:76+ Je 15 '53

DOORS
Details for windows and door millwork; design standards and data. H. R. Sleeper. diags House & Home 5:151-3 Ap '54
Facts about modern doors, windows, partitions. diags Mill & Factory 54:376-7 My '54
Today's millwork, this way or that; survey of the millwork industry. il diags House & Home 5:140-50 Ap '54
Windows, doors, and frames. il diags Am Bld 75:155-6+ Ap '53
See also
Airplanes—Doors
Freight cars—Doors
Garage doors

DOORS, Aluminum

Manufacture

Fabricators install extrusion presses for quick service; Watson-Stillman press. W. G. Patton. il diag Iron Age 172:165-7 N 5 '53

DOORS, Garage. See Garage doors

DOORS, Mechanically operated
Do it easier with automatic door controls; illustrations with text. Factory Management 112:134-5 Ja '54

DOORS, Revolving
Install a revolving door-bar to the outdoor living room. il diags Am Bld 75:184 Ag '53
Pushless revolving doors come packaged with swing doors. il diag Arch Forum 100:168+ Je '54

DOPPLER effect
Doppler effect in the slow neutron resonance in rhodium. H. H. Landon. diags Phys R 94:1215-17 Je 1 '54
Doppler effect omnirange. P. G. Hansel. bibliog il diags Inst Radio Eng Proc 41:1750-6 D '53
Doppler line-width reduction. M. W. P. Strandberg and H. Dreicer. il Phys R 94:1393-4 Je 1 '54
Nomogram for the evaluation of blackbody radiancy and of peak and total intensities for spectral lines with Doppler contour. R. W. Kavanagh and others. Opt Soc Am J 43:380-2 My '53
Radiation from isolated spectral lines with combined Doppler and Lorentz broadening. S. S. Penner and R. W. Kavanagh. bibliog Opt Soc Am J 43:385-8 My '53

DORMITORIES
Dormitory, Kiskiminetas Springs School. il plans Arch Rec 113:138-9 Je '53
New dormitory barracks group to replace outmoded buildings at Clemson. il plans diag Arch Rec 113:128-32 Je '53
Washington state, dormitories. il plans diags Arch Forum 98:134-9 Je '53
Women's dormitory quadrangle. il plans Arch Rec 113:133-7 Je '53

DORNIN process. See Steel ingots

DORR company
Merger with Oliver United Filters to be effected, if stockholders agree. Munic Util 92:15 S '54

DOTSERO formation
Dotsero and Manitou formations, White River plateau, Colorado, with special reference to Clinetop algal limestone member of Dotsero formation. N. W. Bass and S. A. Northrop. bibliog il maps diags Am Assn Pet Geologists Bul 37:889-912 My '53

DOUBLE bonds
Influence of the 5,6-double bond on the pyridine 7-sulfates of cholesterol. D. Apotheker, J. L. Owades and A. E. Sobel. bibliog Am Chem Soc J 76:3684-6 Jl 20 '54
Studies on the structure of sphingomyelin; configuration of the double bond in sphingomyelin and related lipids and a study of their infrared spectra. G. Marinetti and E. Stotz. bibliog Am Chem Soc J 76:1347-52 Mr 5 '54
Unsaturated amines; determination of the proximity of nitrogen to a double bond by infrared absorption spectra. N. J. Leonard and V. M. Gash. bibliog Am Chem Soc J 76:2781-4 My 20 '54

DOUBLE deck cars. See Cars—Double deck

DOUBLE refraction. See Refraction, Double

DOUBLE taxation. See Taxation, Double

DOUBLETS (spectrum). See Spectrum—Doublets

DOUGH
Bleaching and improvement of bread doughs. J. P. Todd and others. bibliog il Chem & Ind p50-1 Ja 9 '54
Objectivity comes to food research; Monsanto's resonance elastometer. il Chem & Eng N 32:3356 Ag 23 '54

DOUGLAS aircraft company
New peaks for Douglas Aircraft? J. D. C. Weldon. il Mag of Wall St 93:620-1+ F 20 '54

DOUGLAS fir
Continuous high-yield kraft pulping of Douglas-fir lumber waste. D. J. MacLaurin and J. F. Whalen. bibliog il Tappi 37:143-7 Ap '54
Douglas fir bark yields valuable compounds. Pulp & Pa of Can 55:181 Jl '54
Douglas fir, 1949-1952. Survey of Cur Bsns 1953 Sup p 153 [supplemented in monthly numbers]
Quercetin from fir and pine bark. E. F. Kurth. bibliog Ind & Eng Chem 45:2096-7 S '53
Resistance of Douglas-fir to sulphite pulping. W. H. Hoge. bibliog(38 ref) Tappi 37: 369-76 S '54; Abstract. Pulp & Pa of Can 55:129 Je '54

DOVETAILING
Plug constants for checking dovetails; reference book sheet. D. Sweet. diags Am Mach 98:123 Ag 30 '54

DOW chemical company

Dow Chemical prepares for the atomic age. G. W. Mathis. Mag of Wall St 93:142-4, 160-1 O 31 '53

Stock offering oversubscribed. Comm & Fin Chr 178:479-80 Ag 10 '53

Stocks to hold for dollar averaging; with comparative balance sheet items. Mag of Wall St 93:24 O 3 '53

DOWEX. See Resinous products—Ion exchanging

DOWTHERM

Dowtherm heating systems; applications by Foster Wheeler, ltd. il Chem Age (Lond) 69:169-72 Jl 25 '53

DRAFT

Graphical solutions for power engineers; figuring natural chimney draft. P. J. Grogan. Power Eng 58:61 Ap '54

DRAFT gages

George Kent differential draught gauge. il Engineer 196:348 S 11 '53; Engineering 176:384 S 18 '53; Metallurgia 48:310 D '53

DRAFTING room management

Management of drafting. D. H. Rogers. il diags Machine Design 26:112-22 Ap '54

DRAFTING room practice

Decimal dimensioning saves time and reduces errors. G. E. Rowbotham. diags Tool Eng 30:63-4 Je '53; Same cond. Product Eng 24:279-81 Ag '53

Dimensioning castings. E. V. Lundstedt. il diags Machine Design 26:98-110 Ja '54

Dimensions and tolerances for mass production. E. Buckingham. diags Mach 59:163-9 My; 172-9 Je; 180-5 Ag; 60:176-85 S; 197-203 O; 218-22 N; 180-5 D '53; 184-90 Ja; 181-90 F; 186-92 Mr; 185-91+ My; 184-90 Je; 178-83 Ag '54

Drafting practice on threshold of more realistic tolerancing. P. G. Belitsos. diags S A E J 62:17-23 Ag '54

Ideas for shop and drafting-room. diags Mach 61:206-7 S '54

Lay-out constants for bolt circles; data sheet. W. G. Holmes. diags Mach 60:259 My; 257 Je '54

Simplified drafting practice; abstract. R. S. Paffenbarger. Tool Eng 32:278 Ap '54

Specifying accuracy of form for machine parts. A. H. Candee. diags Machine Design 26:139-41 Ap '54

Symbol stamps save draft time. il diags Product Eng 24:213 N '53

See also

Engineering drawing

DRAFTING rooms

Design standards and data. H. R. Sleeper. plans diags Arch Forum 100:168-70 Ja '54; Same. House & Home 5:164-6 F '54

Equipment

Large drawings put on conveyor belt. il Eng N 152:114 Ap 15 '54

Verticle drafting board. S. Rappaport. il diags Machine Design 26:139 Je '54

Lighting

Directional lighting design for a drafting room. il Illum Eng 49:120 Mr '54

Lighting without glare; herringbone pattern of concealed fluorescent troffers minimizes shadows. il plan diag Arch Forum 101:162 Jl '54

My most interesting lighting job; directional control for drafting. O. W. Meissner. il diag Elec West 111:102 S '53

DRAFTS

Duty of drawee bank; Thack v. First national bank & trust co. F. C. Fiechter, jr. Burroughs Clearing House 38:77-8 D '53

DRAFTSMEN

Training

Steps in training the sheet metal draftsman (cont). W. J. Hornung. diags Sheet Metal Worker 45:56-8 N; 65-7 D '53

DRAGLINES. See Excavating machinery

DRAIN tile

Boosts hauling capacity by unique loading; Drain tile co. il Brick & Clay Rec 124:55 Je '54

Indiana drain tile plant still expanding. il Brick & Clay Rec 125:50+ Ag '54

Michigan drain tile association meeting, Holland, Nov. 3. Rock Prod 56:175+ D '53

Unique carloading system feature of Hancock plant. il Brick & Clay Rec 125:46-7 Ag '54

DRAINAGE

Diesel-driven pumps reduce drainage district costs. W. H. Klingner and M. B. Carroll, jr. il Pub Works 84:70 N '53

No-man's land. J. J. Carroll. il Pub Works 85:73-4 Mr '54

Pumping stations for drainage areas designed graphically. O. J. Parsons. Civil Eng 23:553-4 Ag '53

Site dewatering wells stay put to control uplift; TVA's big Shawnee steam plant. il Eng N 152:36-7+ Ap 1 '54

Some irrigation and drainage problems of Mediterranean and Middle East countries. M. R. Huberty. il Am Soc C E Proc 79 [no 319]:1-10 O '53

Vertical sand drains for stabilization of muck-peat soils. J. C. Carpenter and E. S. Barber. bibliog il diags Am Soc C E Proc 79 [no 351]:1-17 N '53

See also

Airports—Drainage	Roads—Drainage
Drain tile	Sewerage
Mine drainage	Wellpoint system

DRAINAGE (physical geography)

Systematic drainage changes in the Piedmont of North Carolina and Virginia. W. A. White. bibliog il maps diags Geol Soc Bul 64:561-79, pl 1-3 My '53

DRAINAGE, House

Location and construction of dry wells. L. Blendermann. diags Heat & Ven 51:97-8+ Ag '54

See also

Plumbing

DRAINAGE, Subway. See Subways—Drainage

DRAMATIZATION in training

Role playing in training supervisors. Factory Management 112:102-5 Ja '54

Role playing is ideal for training. G. R. Stahl. Sales Management 71:40+ N 10 '53

Role playing pays off for Ethyl. R. R. Faller. Sales Management 71:41 N 10 '53

Rotational role playing used to develop executives. B. J. Speroff. Personnel J 33:49-50 Je '54

Scripts vs role-playing. B. J. Speroff. Personnel J 32:304-6 Ja '54

64 hints to help you make role playing work. Factory Management 112:282+ Ja '54

What good are role-playing techniques? executive development program. B. Wilkinson and J. H. Myers. Advanced Management 19:23-4 My '54

DRAPER, Charles Stark, 1901-

Sketch. Mech Eng 76:208 F '54

DRAWBACKS

Leveling the tariff barrier. Chem W 74:78+ F 20 '54

DRAWDY, Sherman, 1903-

Sketch. por(p84) Banking 46:83 N '53

DRAWING

See also

Engineering drawing

Perspective

DRAWING frames

Ideal industries announces a complete drawing frame. il Textile World 104:112 Ap '54

Roller slip and the irregularity of cotton and rayon-staple drawframe slivers. G. Dakin and others. bibliog diags Textile Inst J Trans 44:T544-79 N '53

DRAWING instruments

Drafting machine produces all axonometric views. il diags Product Eng 24:218-19 Ag '53

Simple drafting tool makes well spotting easier. A. Gibbon. diags World Oil 138:88+ Ja '54

DRAWINGS

Printing process cuts drawing reproduction costs; Multilith offset process. Machine Design 26:137 Ap '54

DREDGES

Completely Diesel-powered dredges; Ohio river dredging co. il Rock Prod 57:129 F '54

World's largest dredge. il Mill & Factory 53:136 N '53

DREDGES—*Continued*

Electric equipment

World's largest dredge powered by $500,000 of electric apparatus. il Elec Eng 72:1040 N '53

DREDGING

Memorable dredging operation opens Orinoco-Macareo waterway. W. H. Gahagan. il map Civil Eng 23:816-20 D '53
Monazite sands are spurring Idaho dredging operations. il Min Eng 6:267 Mr '54

See also
Dredges

DREWRYS, limited, U.S.A., inc.

Rise in capacity, demand boosting profits. Barron's 33:15 Ag 24 '53

DRIED fruit. See Fruit, Dried

DRIED milk. See Milk, Dried

DRIED soup. See Soup, Dried

DRIFT

Necessity for continental drift. L. C. King. bibliog map diag Am Assn Pet Geologists Bul 37:2163-77 S '53
Probable Wisconsin substages and late-Wisconsin events in northeastern United States and southeastern Canada. R. F. Flint. Geol Soc Bul 64:897-919, pl 1-3 bibliog(p917-19) Ag '53

DRILLING and boring (earth and rocks)

Blasthole drilling at New Cornelia. J. A. Lentz, jr. il Min Cong J 40:37-9 Mr '54
Bolts secure slab to canyon wall. il Constr Methods 36:58-61 Ag '54
Changes in primary drilling at Northwest Magnesite. R. L. Fisk. il Min Cong J 39:34-6 N '53
Drilling for better breakage; Elmhurst-Chicago stone co. R. S. Torgerson. il Rock Prod 57:122+ F '54
Drilling practice in Swedish mining. I. Janelid. bibliog il diags Min Eng 6:Trans 613-19 Je '54
Grouted rails pin sliding railroad bank. il Constr Methods 36:54-6 F '54
High-speed foundation drilling. il diag Arch Forum 100:168 Mr '54
Hole borer on crane gets footings in fast. il Constr Methods 36:85 My '54
Hole-in-one operation; Gar Wood foundation borer attachment. il diag Constr Methods 36:113-14 F '54
Jet-piercing method applied to quarrying aggregate. il Civil Eng 23:609 S '53
Kemano rodeo drillers compete for cash. il Comp Air Mag 58:315 N '53
Laying services underground; Pass boring machine for minimum excavation. il Engineering 177:60 Ja 8 '54
Longhole drilling at Holden mine; greater productivity, lower costs. J. J. Curzon. Min Eng 6:893-6 S '54
New rugged rotary drill reaches 400 ft depth fast. il Eng N 152:103 Ap 22 '54
Open pit mining guidebook; drilling and blasting. il diags Eng & Min J 155:G7-11+ My '54
Packer developed for sealing drill holes. il Eng N 151:243-4 O 8 '53
Pneumatic drilling for roof bolting; Buckeye coal co. M. Valeri and M. M. Fitzwater. il plan diag Min Cong J 40:45-8 My '54
Private industry steps up plateau drilling. il Eng & Min J 155:98-9 S '54
Push feed drilling in the Butte mines. R. L. Sandvig. il diags Min Cong J 39:30-3+ D '53
Rock breaking; American mining congress Western division; abstracts of papers. Min Cong J 39:76-8 N '53
Slab is anchored to wall of canyon at Hoover (Boulder) dam. il Eng N 151:25 D 17 '53
Standard diamond-drilling and sampling practices for tonnage holes in the Labrador-Quebec iron range. R. W. Kirkland and H. B. Jackson. il diags Can Min J 75:57-62 Ap '54
Time studies in rock breaking. K. H. Fraenkel. Can Min J 74:73-7 N '53
Well drilling; automatic system prevents drilling string loss. Iron Age 172:184+ S 10 '53

See also
Gas, Natural—Well drilling
Mining methods
Petroleum—Well drilling
Rock drills
Shaft sinking
Tunnels and tunneling
Wells

DRILLING and boring (metal working, etc.)

Cross-drilling two shafts in one set-up. W. M. Halliday. diags Mach 60:215 My '54
Double boring brings about multiple savings. il Tool Eng 32:110-11 F '54
Drilling of metals; abstract. C. J. Oxford, jr. il diag Tool Eng 32:145-7 My '54
Drilling; truck axle king pin, spring seat holes drilled; Hayes steel products, ltd. il Iron Age 173:174-5 F 4 '54
Flexible tool support aids cutting tapered hole. J. W. Wallace. diags Am Mach 98:150 Jl 5 '54
Flying stop shows drill cutting action. C. J. Oxford, jr. il diag Am Mach 98:102-5 Mr 1 '54
How to drill precision cross-holes in shafts. F. S. Riley. il diags Power Eng 58:102-3 Je '54
Machining; rough boring of stainless tubing made easier. il Iron Age 173:113-14 Ja 21 '54
Miniature machines drill and insert small pins; Warner & Swasey co. il Mach 61:190-1 S '54
Multiple drilling in the turret lathe. C. T. Bower. diags Tool Eng 32:55-7 Ja '54
New drill angles for titanium. il diags Am Mach 98:142-4 Je 21 '54
Radial drills make chips by the ton; Dominion bridge co. L. Braun. il Am Mach 98:148 My 24 '54
Retractable bushings increase output, extend drill life; Studebaker corp. E. C. Beaudet. il Iron Age 172:178-80 N 12 '53
Soft touch for small-hole drilling; illustrations with text. J. P. Steibel. diags Am Mach 98:138-9 S 13 '54
Special card expedites drilling set-ups. H. Chase. diag Mach 61:199 S '54
Tolerances for tap-drill holes; reference book sheet. Am Mach 98:143, 145, 147 Ap 26 '54

See also
Broaching
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DRILLING and boring machinery

Adcock and Shipley; high-speed radial drilling and tapping machine. il Engineer 196:540 O 23 '53
Baker four-station multiple drilling machine. il Mach 60:213 Ag '54
Barnes special automatic production boring machine. il Mach 60:208-9 Ag '54
Bemag boring and milling machine with co-ordinate setting. il diag Engineering 177:377 Mr 19 '54
Bemag co-ordinate boring and milling machine. il Engineer 197:424 Mr 19 '54; Automobile Eng 44:171 Ap '54
Bore piece from both ends; Spang-Chalfant div. of National supply co. il Iron Age 172:119 N 12 '53
Boring tool improves accuracy; developed by Nabenfabrik Alfing A.G. il diags Aviation W 59:47-8 Ag 3 '53
Carbide drilling speeds removal of tough slag deposits. D. L. Tunsberg. il diag Iron Age 174:98-9 Jl 8 '54
Carlstedt deep-hole boring machines. il Automobile Eng 43:481-2 N '53
Cartridge units for adjustable drillhead. H. Gifford. diags Am Mach 98:148 Ag 16 '54
Craven 42ft boring and turning mill. il Engineer 197:106-8 Ja 15 '54; Same. Engineering 177:48-50 Ja 8 '54
Deep-hole boring. H. J. Pearson. il diags Automobile Eng 43:563-70 D '53
Drill units move tools to work, not work to tools; illustrations with text. C. A. Wilken. Am Mach 98:122-3 My 24 '54
Drillpress turns small stock. C. B. Winch. diags Am Mach 98:143 S 27 '54
Dumore self-contained automatic drill unit. il Am Mach 98:178 Ag 16 '54

DRILLING and boring machinery—*Continued*

Eccentric-driven, gearless multiple-drill head. F. Lawrence. diags Am Mach 98:127 F 1 '54

Electromechanical spot-drilling reduces cost. R. H. Spiotta. il diag Mach 60:229-32 Ap '54

Ex-Cell-O precision boring machine is cam-operated. il Am Mach 98:172 Ag 16 '54; Mach 61:218-19 S '54

Facts about modern drilling machines. diag Mill & Factory 54:563 My '54

Facts about modern drills and reamers. diags Mill & Factory 54:588-9 My '54

Giddings & Lewis boring, drilling and milling machine with new under-arm. il Mach 60:230-1 N '53; Am Mach 98:149 F 1 '54; Steel 133:117 O 26 '53; Iron Age 172:144-5 O 15 '53

Hartford drilling machine permits user changes. il Machine Design 26:166 S '54

Heald boring and grinding machine maintains work concentricity. il Mach 60:191-3 Ja '54

Hill opposed spindle drill speeds multiple hole production. Iron Age 172:211-12 D 3 '53; il Am Mach 98:192 Mr 15 '54

How to design drill jigs. H. C. Tsien. il diags Mach 60:196-9, 204-10 My-Je '54

Howe & Fant turret drilling machine offers savings. il Tool Eng 33:66-7 Ag '54

Hydraulically controlled opposed spindle drilling machine. il Mach 60:224 Ja '54

Improvised six-station drillpress speeds single-spindle work. C. Molloy. diag Am Mach 98:140 Ap 26 '54

Johansson geared-head drillpress designed to save setup, operating time. il Am Mach 98:191 F 15 '54

Kurt Orban universal boring and milling machine. il Mach 60:215-16 F '54

Large boring mill; Rugby works of the British Thomson-Houston co. il diags Engineer 196:435-8 O 2 '53; Engineering 176:449-53 O 9 '53

Machine tool buyers' guide. il Steel 133:86-95 sec 2 N 16 '53

Machining; large aluminum parts processed rapidly. il Iron Age 173:193-4 Mr '54

Morton heavy-duty bridge-type machine does large-diameter boring. il Am Mach 97:190 D 7 '53; Mach 60:221-2 D '53

Moteurs Constan radial drilling machine. il Tool Eng 31:114-15 D '53

New uses for trunnion fixtures on your radials. W. Huber. il Am Mach 98:112-13 Ap 26 '54

1954 American Machinist production preview. il Am Mach 98:128-30, 133-6 Ja 18 '54

Pass pipeline drilling machine. il Engineer 197:260 F 12 '54

Powered drillpress table speeds deep-hole work. C. Fry. diag Am Mach 98:182 S 13 '54

Production drill head unit for building-block machines. C. Johnson. il diags Tool Eng 32:51-4 My '54

Recommended practice for sharpening carbide-tipped masonry drills; data sheet. diags Mach 60:257 D '53

Replace with modern machine tools; drilling. Am Mach 97:B 15 Mid-N '53

Replace with modern machine tools; turning and boring. il diag Am Mach 97:B6-12 Mid-N '53

Retracting jigs speed Studebaker drilling. E. Altholz. il Mach 60:215-17 N '53

Rotating gun drill cancels secondary operations; boring machine, using precision gun drills, attains high accuracies in deep holes. il Am Mach 98:162-4 Ag 16 '54

Savings pay for short-run machine. il Steel 133:131-2 Jl 20 '53

Screw-machine converted for gun-drilling; Hartford machine screw co. W. M. Stocker, jr. il Am Mach 98:162-3 F 15 '54

Semi-skilled mechanics can re-bore cylinder heads with this machine; Pan American world airway's maintenance shops. il Am Mach 98:250-1 Ap 12 '54

Shop-made drill clamping attachment. C. H. Willey. diags Mill & Factory 54:131 F '54

Snyder automatic cycle four-station machine for processing large drum. il Mach 60:234 Mr '54

Snyder special machine does boring and facing job. il Am Mach 98:198 F 15 '54

Special cutting heads finish 1066 holes. C. Jensen. diags Am Mach 98:173 My 10 '54

Special drilling problem brings about automatic unit; Modern tool works ltd. il Tool Eng 32:181 Ap '54

Special machine locates and drills rivet holes; Boeing airplane co. il Automotive Ind 109:53 N 1 '53

Temco gage simplifies cutter adjustment for boring. Iron Age 173:168-9 My 20 '54

Thin-walled extrusion on the drill press; Uniskan extrusion process. W. N. Parker. il diags Tool Eng 33:79-80 Ag '54

Two operations complete intricate aluminum die-castings. H. P. Kunkleman. il diags Am Mach 97:131-3 D 7 '53

Ultrasonic machining. il Automobile Eng 44:217-18 My '54

Unit engineering of multiple drilling and tapping equipment. M. H. Emrick. il Mach 60:165-8 Ag '54

Unusual boring head provides jig-bored angular die relief. C. Molloy. diag Am Mach 97:167 D 7 '53

Versatile boring heads; tungsten carbide insert. Steel 134:129 F 8 '54

Wickes new boring machine holds close concentricity. il Iron Age 173:169-70 F 18 '54

World's largest boring mill? Germany's Schiess AG built it, but Russia has it. il Am Mach 98:138-9 Mr 1 '54

See also

Boring bars

DRILLING muds. See Petroleum—Mud fluids

DRILLS. See Drilling and boring machinery

DRILLS, Oil well

Do you keep books on your rotary drilling lines? charts. Oil & Gas J 52:74-6+ N 23 '53

Hard-rock drilling. L. L. Payne and W. Chippendale. il Am Pet Inst Proc 33(4):62-9 '53

Hydraulic horsepower aids lower drilling costs in south Louisiana. W. S. Sease. il Pet Eng 26:B77-80 Ja '54

Maintenance means money in your pocket. R. F. Blair. il World Oil 137:156-7 S '53

Martensite bad medicine for drilling lines. C. M. Zerr. il Oil & Gas J 52:79-80+ N 30 '53

Power tranmission on modern rotary rigs. M. L. Rizzone. il diags World Oil 137:128+ N; 124+ D '53; Excerpts. Oil & Gas J 52:128-31 O 26 '53

Practical approach to vibration problems on drilling barges. T. B. Herndon and A. B. Reese, jr. il diags Pet Eng 25:B118+ O '53

Vulnerability of drill pipe to corrosion fatigue. S. C. Moore and A. P. Farr. il diags World Oil 137:200+ O '53

Welding restores drill collars. R. Sneddon. il Pet Eng 25:B 16+ Je '53

DRINKING water systems

Drinking water. diag Nat Safety N 69:68-9 Mr '54

Fewer steps, less wasted time; drinking water facilities. diags Mill & Factory 55:96-7 Jl '54

Small changes add up to new water cooler. il Product Eng 24:166-7 Ag '53

DRIVE-in and curb services

Drive-in arrangements. il Burroughs Clearing House 37:24-5 Ag '53

Drive in before you take off; Chesapeake and Ohio railway drive-in railroad ticket service; United air lines drive-in ticket office. il Dun's R & Mod Ind 62:241 O '53

Drive-ins thrive on supermarket crumbs. il Bsns W p48-50+ O 31 '53

Fish-bowl bank for drive-in customers; York National, Maine's oldest bank. il plans diag Arch Forum 98:107-9 F '53

DRIVE-in theaters. See Moving picture theaters, Open air

DRIVERS as salesmen

Daily incentive plan fattens pay for unionized driver-salesmen; San Francisco brewing corp. H. E. Picard. Sales Management 71:34+ D 1 '53

DRIVEWAYS

How to build concrete sidewalks and driveways. il Am Bld 75:186+ O '53

How to start an asphalt driveway business without an engineering degree. W. D. Hunt. il Roads & Sts 96:134-5 N '53

DROPPING mercury electrode. See Polarographic analysis

DROPS

Drop-size distributions from spray nozzles. G. M. Turner and R. W. Moulton. bibliog diags Chem Eng Prog 49:185-90 Ap '53

Evaporation from drops. W. E. Ranz and W. R. Marshall, jr. bibliog il diag Chem Eng Prog 48:141-6, 173-80 Mr-Ap '52; Discussion. H. Tonn. 49:388-9 Jl '53

Factors influencing the properties of spray-dried materials. J. A. Duffie and W. R. Marshall, jr. bibliog il diags Chem Eng Prog 49:417-23 Ag '53

Instability of liquid surfaces and the formation of drops. J. B. Keller and I. Kolodner. J Ap Phys 25:918-21 Jl '54

Material transfer in turbulent gas streams; influence of shape on evaporation of drops of *n*-heptane. N. T. Hsu, K. Sato and B. H. Sage. bibliog(40 ref) diags Ind & Eng Chem 46:870-6 My '54

Measuring drop sizes in sprays. E. H. Taylor and D. B. Harmon, jr. diag Ind & Eng Chem 46:1455-7 Jl '54

Mechanism of solute transfer from droplets. F. H. Garner and A. H. P. Skelland. bibliog diags Ind & Eng Chem 46:1255-64 Je '54

Pressure effects on vaporization rate of drops in gas streams; abstract. R. D. Ingebo. Chem Eng Prog 49:602 N '53

Production of water spray of uniform drop size by a battery of hypodermic needles. D. J. Rasbash. diags J Sci Instr 30:189-92 Je '53

Scanning device for determining the size distribution of spray droplet images. C. R. Adler and others. bibliog il diags Chem Eng Prog 50:14-23 Ja '54

Solute transfer from single drops in liquid-liquid extraction. W. Licht, jr. and W. F. Pansing. bibliog diags Ind & Eng Chem 45:1885-96 S '53

Stain counter totals droplets. W. L. Clink. diags Electronics 27:202+ F '54

Use of liquid films in the study of the absorption of gases by drops. B. E. Dixon and J. E. L. Swallow. il diags J Ap Chem 4:86-93 F '54

DROSOPHILA

Inhibition of mold contamination in drosophila food using sodium orthophenylphenate. E. S. McDonough. Science 118:388 O 2 '53

Reduction by reactivating light of the frequency of phenocopies induced by ultraviolet light in drosophila melanogaster. M. Perlitsh and A. Kelner. bibliog Science 118:165-6 Ag 7 '53

DROUGHTS

Army engineer dams cut drought losses. Eng N 151:24 N 12 '53

Army pipeline unit answers emergency call of drought-stricken community. il Eng N 151:27 D 10 '53

Drought grip slips a little, but still holds over wide area. il map Eng N 152:23-4 Ap 1 '54

Drought trouble in Missouri. il Bsns W p82 D 19 '53

Effects of drought in Illinois. A. M. Buswell. maps Am Water Works Assn J 46:395-402 My '54

DROWNING

Drowning accidents in Quebec. Pulp & Pa of Can 55:181 Je '54

DRUG factories

Inside new pharmaceutical plant; Warner-Chilcott laboratories. il Chem Eng 61:134+ Ag '54

Pharmaceutical plant of Lederle laboratories (India), ltd. opened at Bulsar. Chem & Eng N 31:2792-3 Jl 6 '53

Air conditioning

Continuous air dehumidification halves batch-drying time; Vitamin products co. E. W. Gifford. il Food Eng 25:129 N '53

Humidity control. il Can Chem Process 38:61 Je 1 '54

Employees

Bridging the gap between home and job; Smith, Kline & French laboratories' open-house festivities. Chem W 73:27-8 S 12 '53

Equipment

Air tubes dispatch test samples; Upjohn co.'s new Kalamazoo plant. il Chem Eng 60:124 O '53

Glaxo development at Ulverston. il Chem Age (Lond) 69:317-19 Ag 15 '53; Chem & Ind p913-14 Ag 29 '53

Machinery on wheels; fast, flexible. il Chem W 73:50-1 Ag 8 '53

Move tanks to transport product; Upjohn co. single-story plant. il Chem Eng 61:240 Mr '54

Stainless; high alloy castings speed antibiotic production. il Iron Age 173:164-5 Mr 18 '54

Inspection

Plant inspection pitfalls detailed by ADMA. Oil Paint & Drug Rep 164:3+ N 30 '53

Plant inspection survey; abstract. C. W. Dunn. Oil Paint & Drug Rep 164:68 D 14 '53

DRUG manufacturers association, American. See American drug manufacturers association

DRUG packages

Drugs; packaged with life-or-death exactitude. il Mod Packaging 27:92-9+ Ag '54

Pre-counted pills in polyethylene bags. il Mod Packaging 28:124-5 S '54

DRUG research. See Pharmaceutical research

DRUG stores

Chain plus personality; Sanborn hermanos S.A. il Bsns W p76-7 Ag 1 '53

Check-out drug store. il Mod Packaging 27:83-9 F '54

Drugstore where oil men gather; Mading's Esperson drugstore. il Bsns W p64-6+ O 31 '53

On tap; about-face for drug stores. il Sales Management 71:96-7 Jl 15 '53

DRUG trade

American pharmaceutical manufacturers' association Central section meeting, Chicago; abstracts of papers. Chem W 74:47-50 F 27 '54

Drug business misunderstood. T. G. Klumpp. Chem & Eng N 32:678 F 15 '54

Drug comeback. J. V. Sherman. Barron's 34:11-12 Ja 4 '54

Drug industry; pause in a miracle climb. R. F. Larsen and others. Chem W 74:24-34+ Ja 9 '54

Drug product research speeded up as competition becomes intense. Chem & Eng N 31:3856-7 S 21 '53

Drug substitution harming bulk of pharmacists. T. G. Klumpp. Oil Paint & Drug Rep 165:55 Je 28 '54

Drug surplus disposal scheme is worked out. Oil Paint & Drug Rep 166:3 Jl 12 '54

Drug trade objections to International pharmacopeia procedures. Oil Paint & Drug Rep 165:3+ Ja 11 '54

Drug volume still rising. Chem & Eng N 32:1082 Mr 15 '54

Drugs have an urge to merge; annual review. il Chem Eng 61:205 Mr '54

Factors influencing the selection of pharmaceutical products. T. Caplow and J. J. Raymond. J Marketing 19:18-23 Jl '54

Happy holidays for specialties. il Chem W 75:74+ Ag 21 '54

Here is creative sampling; drug sampling, packaging and design. il Sales Management 73:42-3 S 1 '54

Modern pharmaceutical industry. J. F. Bohmfalk, jr. il Chem & Eng N 31:3052-7, 4182-5, 5006-12, 5186-91, 5356-8 Jl 27, O 12, N 30, D 14, D 28 '53

New profits for you behind tomorrow's hot headlines; drugs going self-service. D. Rennick. il Sales Management 72:32 Ja 1 '54

Policy for prestige-building; Mathieson co.'s Squibb div. il Chem W 75:22-3 S 11 '54

Prescription for druggists; frank discussion on prescription prices. Chem W 74:21-2 My 22 '54

Problem for pharmaceuticals; transportation factor of costs. G. H. Cunningham. Chem & Eng N 32:970 Mr 8 '54

Rutgers pharmaceutical conference, 3d, New Brunswick, May 12. Oil Paint & Drug Rep 165:66 My 17 '54

Some drug problems; abstract. N. Stewart. Oil Paint & Drug Rep 166:5 S 27 '54

DRUG trade—*Continued*

Staff grows in Brooklyn, blitz sales methods, crazy promotion devices mark Pfizer's rise in antibiotic sales. il Chem W 74:36-8+ F 6 '54

Stock behind the sale. E. Lilly. Chem W 74:80 My 22 '54

Substitution perils. T. G. Klumpp. Oil Paint & Drug Rep 165:4+ F 1 '54

Taste is the thing; youngsters mean booming market for medicines. il Chem W 74:52+ F 6 '54

Third of a billion being spent by pharmaceutical industry on new products. Chem & Eng N 31:3926 S 21 '53

See also

American drug manufacturers association
American pharmaceutical manufacturers' association
Medicines, Proprietary
New York board of trade—Drug, chemical and allied trades section
Walgreen company

Advertising

Misuse of ads for chemical and drug products hit by FTC. Chem & Eng N 32:1482 Ap 12 '54

Pharmaceutical promotion practices; abstract. H. C. Nolen. Oil Paint & Drug Rep 164:68 D 14 '53

Promotion of new products pays off in pharmaceutical field; survey of physicians. R. J. Lyon. Chem & Eng N 32:805 Mr 1 '54

Public relations

No detail unimportant; American pharmaceutical manufacturers association Primer of public relations. il Chem W 73:28 O 10 '53

Regulation

Flavoring makers must give secret formulas. Oil Paint & Drug Rep 165:3 My 17 '54

FDA pledges confidence on drug trade's secrets. Oil Paint & Drug Rep 166:3 Ag 23 '54

Proprietaries problem left up to legislature in New Jersey. Oil Paint & Drug Rep 165:5+ Je 28 '54

Vitamin sale barrier idea weighed by NRC. Oil Paint & Drug Rep 166:3+ Jl 26 '54

Securities

Are drug stocks fully deflated? J. C. Clifford. il Mag of Wall St 93:139-41+ O 31 '53

Drug stocks; abstract. W. A. Stanger, jr. Oil Paint & Drug Rep 164:67 D 14 '53

Statistics

Botanical drugs, spices, gums. Published in weekly numbers of Oil, paint and drug reporter

Drugs and fine chemicals. Published in weekly numbers of Oil, paint and drug reporter

Medicinals on the upswing. Chem & Eng N 32:3086 Ag 2 '54

Medicinals output lower last year. Oil Paint & Drug Rep 166:3 Jl 12 '54

Taxation

Drug trade seeks tax cut of foreign income. Oil Paint & Drug Rep 165:3+ Ap 12 '54

Burma

Burma imports a health service. Economist 169:271 O 24 '53

Burma pharmaceutical industry. Chem Age (Lond) 70:992 My 1 '54

Canada

Chemical Canada; medicinals; tabulations. H. McLeod. Can Chem Process 38:14 Je 20 '54

Great Britain

Glaxo laboratories, ltd., review for year. H. Jephcott. Chem Age (Lond) 69:1137 N 28 '53

Italy

End of the struggle? patent wrangle with Italian pharmaceutical industry. Chem W 75:17-18 S 18 '54

Mexico

Mexico to control use, sale of gamma globulin. For Comm W 50:12 D 7 '53

DRUGGISTS' liability insurance. See Insurance, Druggists' liability

DRUGS

Lilly's kids get a taste of their own medicine. il Sales Management 70:74+ My 20 '53

Making it easy for the queasy; competition ahead in motion sickness remedies. il Chem W 74:20-1 Ja 2 '54

Million-dollar drug riddle; krebiozen. Chem W 72:21 My 23 '53

New and nonofficial remedies. R. T. Stormont. Pub Health Rep 68:515-16 My '53

Prescription for sales; new drugs for the old. Chem W 73:78-80+ O 24 '53

Safeway tries drugs. Bsns W p72+ D 5 '53

Taste is the thing; youngsters mean booming market for medicines. il Chem W 74:52+ F 6 '54

See also

Anesthetics, Local
Antispasmodics
Chemistry, Medical and pharmaceutical
Chemotherapy
Medicines, Proprietary
Penicillin
Pharmaceutical laboratories
Pharmaceutical research
Pharmacology
Pharmacopeias
Poisons
Sulfonamides

Analysis

Colorimetric determination of thiamine in pharmaceutical products. F. J. Bandelin and J. V. Tuschhoff. bibliog Anal Chem 25:1198-200 Ag '53

Laws and legislation

California forgets its plan to tighten up drug rules. Oil Paint & Drug Rep 166:3+ S 27 '54

California's drug rule proposal under attack. Oil Paint & Drug Rep 166:5 S 20 '54

Checkup that chafes; section 507 of the Federal food, drug & cosmetic act. Chem W 75:40-1 Jl 24 '54

Decertification of antibiotics. L. D. Harrop. Oil Paint & Drug Rep 166:49-50 Jl 5 '54

Drug and cosmetic makers fight HEW on bar to three coaltar colors. Oil Paint & Drug Rep 165:3+ Mr 8 '54

Drug codification veto urged on Eisenhower because of amendments. Oil Paint & Drug Rep 166:3+ S 6 '54

Drug law codification need cited by industry attorneys. Oil Paint & Drug Rep 166:3+ S 13 '54

Drug substitution model bill adopted by Drug, chemical and allied trades section of the New York board of trade. Oil Paint & Drug Rep 164:5 N 30 '53

Exit the platoon system; anti-substitution bill. Chem W 73:30+ O 24 '53

FDA drops three drugs; trade seeking end of certification. Oil Paint & Drug Rep 164:3+ D 7 '53

New food and drug laboratories in Toronto; 80th year of pure food laws in Canada. il Can Chem Process 38:84-5 F '54

See also

Drug factories—Inspection
Drug trade—Regulation
United States—Food and drug administration

Manufacture

Ultrasonics for drug makers; abstract. N. H. Newton. Chem & Eng N 32:716 F 22 '54

See also

Parke, Davis and company

Patents

Anarchy abroad; pharmaceutical manufacturers aren't happy about world situation on patents. Chem W 73:20+ N 21 '53

End of the struggle? patent wrangle with Italian pharmaceutical industry. Chem W 75:17-18 S 18 '54

Prices

Botanical drugs, spices, gums; 1953 market trends. Oil Paint & Drug Rep 165:42-3 sec 2 F 1 '54

Chemicals, oils and drugs price changes; Jan. 1, 1953 and Jan. 1, 1954 compared; table by commodity. Oil Paint & Drug Rep 165:9-10+ sec 2 F 1 '54

Chemicals, oils and drugs price record, selected years, 1939-1953; tables. Oil Paint & Drug Rep 165:7 sec 2 F 1 '54

DRUGS—*Continued*

Standards

Public responsibility. L. F. Tice. Pub Health Rep 68:509-10 My '53

See also

National formulary

Terminology

WHO gives accounting of its name proposals. Oil Paint & Drug Rep 165:5+ F 8 '54

DRUMS. See Containers (for shipping)

DRUNKENNESS

Sweden to strengthen drunk driving law. Weekly Underw 169:383 Ag 15 '53

DRY cleaning. See Cleaning

DRY docks

Deficiencies in dry docks. Economist 169: 117-19 O 10 '53

DRY ice. See Carbon dioxide, Solid

DRYING

Chart for mass flow of air in drying. R. W. Hyndman and others. Chem & Ind p560-1 My 15 '54

Chemical engineering unit operations; drying. F. A. Gluckert. Ind & Eng Chem 46: 82-6 bibliog(149 ref, p85-6) Ja '54

Evaporation of liquids into their superheated vapors. Ju Chin Chu, A. M. Lane and D. Conklin. bibliog diag Ind & Eng Chem 45:1586-91 Jl '53

Factors influencing the properties of spray-dried materials. J. A. Duffie and W. R. Marshall, jr. bibliog il diags Chem Eng Prog 49:417-23, 480-6 Ag-S '53

Factory methods for dehydrating refrigeration compressors. L. W. Larsen and J. Elliot. Refrig Eng 61:1325-7+ D '53; Discussion. 62:61 Ja '54

Preservation by freeze drying; skin tissue. E. W. Flosdorf. il plan Refrig Eng 62:49-50+ Mr '54

Products inclined to develop skins best dried with wet air. D. E. Pierce. Ind & Eng Chem 45:sup83A-4A+ S '53

Recent examples of improved drying in the whiteware industry. J. L. Henderson, jr. il Am Cer Soc Bul 32:373-5 N 15 '53

Sorption in gas and air drying. F. M. Waterhouse. il diags Chem Eng 61:237-42 Je '54

Spray drying of detergents. A. Sharphouse. Soap & San Chem 29:85+ S '53

See also

Clay drying
Drying apparatus
Electric heating, Industrial—High frequency heating
Gas, Natural—Dehydration
Infrared rays—Industrial heating
Ink—Drying
Paint—Drying
Paper drying
Salt—Drying
Textile drying

DRYING (crops)

Design of a rotary drier. G. Gutzeit and J. R. Spraul. bibliog il Chem Eng Prog 49: 378-86 Jl '53

Electricity in grain drying. W. Cover. il Elec J 152:514-16 F 12 '54

Float type airflow meter for use on beds of agricultural grains. W. F. Williamson and J. McCloy. diag J Sci Instr 30:207-8 Je '53

Selling and installing grain drying plants; abstract. J. T. Taylor. Elec J 152:120 Ja 8 '54

DRYING agents

Desiccant-refrigerant moisture equilibria. A. J. Gully and others. diag Refrig Eng 62: 62-5+ Ap '54

Desiccating in the package. W. F. Talburt and others. bibliog il Food Eng 26:79-81+ Ap '54

Granular desiccants for drying liquids by adsorption. W. E. Smith and M. Leva. il diags Pet Processing 8:1194-9 Ag '53

Humidity nurtures a market; bakery, confectionery, specialty foods promise growing outlets. il Chem W 74:70-4 F 13 '54

New desiccant for drying natural gas; activated alumina. R. J. Getty and others. il Pet Eng 25:B7-10 Ag '53

New dimension for driers; metal-amine coordination complexes. Chem W 73:43-7 S 26 '53

New role for rare earths; driers and catalysts for paints and protective coatings. Chem W 72:38-9 Je 27 '53

DRYING apparatus

Air-circulated drying oven for printed steel sheets. il Engineering 176:779-81 D 18 '53

Analysis of rotary dryer and cooler performance. F. C. Saeman and T. R. Mitchell, jr. bibliog il diags Chem Eng Prog 50:467-75 S '54

Bypass improves operation of hot air tray dryers. P. I. Johnson. diag Chem Eng 61: 214 My '54

Closet for measuring continuous drying rates. E. E. Hart and H. L. Dunlap. il J Chem Educ 30:364-5 Jl '53

Design of full-scale continuous-tunnel driers. D. B. Broughton and H. S. Mickley. bibliog diags Chem Eng Prog 49:319-24 Je '53

Drying phosphate rock at rate of 200 t.p.h; Virginia-Carolina chemical corp. C. V. O. Hughes. il diag Rock Prod 57:78-81 Je '54

Drying the rotary way; Patterson Conaform. il Chem & Eng N 32:2148 My 24 '54

Efficient operation of dryers. L. Walter. diags Rock Prod 57:116-18 My '54

Inert atmosphere dry box for chemical operations. J. M. Sherfey. il diags Ind & Eng Chem 46:435-40 Mr '54

Intense drying of gases with potassium metal. E. R. Harrison. diags J Sci Instr 30:38-9 F '53

Revolving hose dryer. il Pulp & Pa of Can 55:163 S '54

Sensitive solids dried gently; DehydrO-Mat cylindrical dryer. il Chem Eng 61:276+ Mr '54

See also

Centrifuges
Hand dryers
Paper drying

Design

Design of a rotary drier. G. Gutzeit and J. R. Spraul. bibliog il Chem Eng Prog 49: 378-86 Jl '53

DRYING oils

Catalyst studies in vinyltoluene-drying oil reactions. F. J. Buege. Ind & Eng Chem 46:1695-700 Ag '54

Clews make news; peroxides as active agents. Paint Oil & Chem R 117:50A Mr 11 '54

Conjugated for speed; Safflower 22. Chem W 72:62 Je 20 '53

Continuous styrenation of drying oils. C. Boelhouwer and others. diag Chem & Ind p240-1 F 27 '54

Mechanism of drier action; proposal and panel discussion. E. R. Mueller and others. bibliog((59 ref) Ind & Eng Chem 46:562-72 Mr '54

Oil improvement by solvent segregation; abstract. F. J. H. Le Richie and A. L. Stubbs. Paint Oil & Chem R 117:16-17 Jl 1 '54

Physical constants and drying properties of conjugated oils; abstract. Von Mikusch and Mebes. Paint Oil & Chem R 116:29 D 3 '53

Research on drying oil polymerization; abstract. R. V. V. Nicholls. Paint Oil & Chem R 117:15, 50A Mr 11 '54

Some recent studies on the autoxidation of drying oils. L. A. O'Neill. Chem & Ind p384-7 Ap 3 '54; Abstract. Paint Oil & Chem R 117:24-5 Jl 29 '54

See also

Tall oil

DUCK (textile)

Testing

Study of the weathering characteristics of cotton fabrics containing inorganic compounds. G. R. F. Rose and C. H. Bayley. bibliog Textile Res J 24:792-802 S '54

Ultraviolet screening properties of certain pigment vehicle combinations. L. L. Heffner. bibliog il Textile Res J 24:272-8 Mr '54

DUCOMMUN metals and supply company

Expands to serve growing western market. Barron's 33:16 S 7 '53

DUCTILE iron. See Cast iron

DUCTILITY

Preliminary study of the ductility of chromium. H. B. Goodwin and others. bibliog il diags Electrochem Soc J 100:152-60 Ap '53

DUDOK, Willem Marinus, 1884-

A.I.A. sponsors Dutch architect's American tour. por Arch Rec 114:24 N '53

Willem Dudok. por Arch Forum 100:150-5 F '54

DUKE power company
Bonds offered. Comm & Fin Chr 178:852 S 7 '53

DULLES, John Foster, 1888-
Working toward peace by using power boldly. pors Bsns W p 134, cover O 24 '53

DULUTH, Minnesota

Streets

Experience with high crown streets in large scale resurfacing program. A. W. Tews. il Pub Works 85:73-4 Je '54
High type asphaltic concrete; Duluth's answer for rigorous climate, steep grades. A. W. Tews. il diags Roads & Sts 96:121-4 N '53
Making modern living normal in the snow belt. A. W. Tews. il map Pub Works 85: 94-5 S '54

DULUTH, Missabe and iron range railroad
Fred J. Voss new DM&IR chief. Ry Age 136: 36 Je 21 '54

DUMAS nitrogen analysis. See Nitrogen—Analysis

DUMPING (commercial policy)
Canada applies dumping duties to U.S. hose. For Comm W 50:7 S 28 '53
Dumping act inadequate; abstracts. J. J. Powers, jr. Chem & Eng N 32:1278 Mr 29 '54; Oil Paint & Drug Rep 165:5 Mr 22 '54; Soap & San Chem 30:73 Ap '54
Europe's dollar-grab; how staple dumping is hurting the Nation's rayon manufacturers. Mod Textiles Mag 34:33+ N '53
Potash dumping charges probed by Treasury. Oil Paint & Drug Rep 165:3 My 3 '54
Swords across the sea; battle on antidumping policy. Chem W 73:11 D 26 '53

DUMPING appliances
Athey has a new baby; two-wheel, end-dump rock and dirt wagon. R. H. Lewis. il Constr Methods 36:114+ Ap '54
Batch-truck dumping delays on paving jobs. Roads & Sts 97:78-9 Mr '54
Dodge heavy duty tipper. il Automobile Eng 44:208 My '54
End rocking tipplers for railway wagons; Strachan and Henshaw, ltd. il plans diags Engineer 196:341-4 S 11 '53
Fast unloading of lorries. Engineering 177: 219 F 12 '54
New rear-dump trailer designed by Athey products. il Roads & Eng Constr 92:60 Jl '54

See also
Car dumpers

DUNKERS. See Church of the brethren

DUNLOP rubber company
£7 million for Dunlop; capital reorganisation. Economist 170:112-13 Ja 9 '54

DUNN, Gano, 1870-1953
Sketch. Mech Eng 75:613-14 Ag '53

DUPLEX houses. See Architecture, Domestic—Two-family houses

DUPLICATING machines
How company solved office duplicating problems; Michigan consolidated gas co. D. G. Baird. il Am Bsns 24:24-5+ Ag '54
Office duplicating methods; how they compare. Management R 43:295 My '54
Printing process cuts drawing reproduction costs; Multilith offset process. Machine Design 26:137 Ap '54
Use duplicators to cut costs. Management R 43:431-2 Jl '54

DUPLICATING processes. See Copying processes

DU PONT, Pierre Samuel, 1870-1954
Sketch. India Rubber World 130:256 My '54; Metal Finishing 52:132-3 My '54
Sketch. por Oil Paint & Drug Rep 165:7+ Ap 12 '54

DU PONT de Nemours, E. I., and company
Cash on Main street; third annual economic survey. Chem W 73:17 S 12 '53
Companies whose sound planning made them stronger. W. Gates. Mag of Wall St 92: 601 Ag 22 '53
Dissecting five key companies. G. L. Merton. Mag of Wall St 93:251 N 28 '53
Division of interests; Du Pont and I.C.I. plans approved. Chem Age (Lond) 70:734 Mr 27 '54
DuPont aromatics line sold; to stop producing lithopone. Oil Paint & Drug Rep 164: 5+ O 26 '53
DuPont company cleared in cellophane antitrust suit. Oil Paint & Drug Rep 164:5 D 21 '53
Du Pont construction force; engineering tomorrow's world. J. P. Chamberlain. il Eng N 151:42-4+ Ag 6 '53
Government's complaint in the cellophane antitrust suit should be dismissed. P. Leahy. Tappi 37:sup 116A-17A F '54
Stepwise unshackling; Du Pont entirely absolved of monopoly in three of the six major cases. Chem W 73:21-2 N 7 '53
To education, a $700,000 gift. Chem & Eng N 32:306+ Ja 25 '54
Trust-busting boomerang. Chem W 74:14 Ja 16 '54

DU PONT of Canada, ltd. (formerly Canadian industries, ltd.)
Canadian Industries business split up between two firms. Oil Paint & Drug Rep 166:5+ Jl 5 '54; Paint Oil & Chem R 117: 11 Jl 15 '54
Fission of CIL completed as CIL '54 and Du Pont take over. Chem & Eng N 32:2868 Jl 19 '54
Parting; by decree, but deftly. Chem W 75: 14-15 Jl 10 '54

DUQUESNE light company
Bonds offered. Comm & Fin Chr 178:1159 S 28 '53
Preferred stock offered. Comm & Fin Chr 178:2304 D 14 '53
Stock offered. Comm & Fin Chr 178:1050+ S 21 '53

DURABLE goods
Consumer goods inventories; watched like a hawk, they grow slowly. il Steel 133:61-2 S 7 '53
Forecasting the demand for consumer durable goods. J. H. Lorie. J Bsns 27:62-70 Ja '54
Manufacturers' durable goods inventories; downtrend will end by fall. Steel 134:67 Je 14 '54

DURAND, William Frederick
Dr W. F. Durand's work. Engineering 177: 101 Ja 22 '54

DURKIN, Martin Patrick, 1894-
Why Durkin quit the Cabinet. Bsns W p 174 S 19 '53

DUST
Current research on effects of dusts. Ind & Eng Chem 45:sup 111A-12A+ Ag '53
Measurement of dust exposure for the control of pneumoconiosis; abstract. B. M. Wright. Chem Age (Lond) 70:1259 Je 5 '54
Physicochemical studies on dusts; effect of acids on the solution properties of silicious dusts. J. G. Gibb and P. D. Ritchie. bibliog J Ap Chem 4:473-83 S '54
Physicochemical studies on dusts; electron-optical examination of finely ground silica. J. G. Gibb, P. D. Ritchie and J. W. Sharpe. bibliog 2pls J Ap Chem 3:213-18 My '53
Physicochemical studies on dusts; examination of finely ground quartz by differential thermal analysis and other physical methods. P. B. Dempster and P. D. Ritchie. bibliog(29 ref) J Ap Chem 3:182-92 Ap '53
Physicochemical studies on dusts; some sorption properties of silicious dusts. J. G. Gibb and P. D. Ritchie. J Ap Chem 4:483-7 S '54
Protecting men and machines from dust. R. J. Nemmers. il diag Comp Air Mag 59: 242-7, 280-4 S-O '54
Relationship between the piezoelectric property and the fibrogenic capacity of dust. P. C. Pratt and others. bibliog il A M A Archives Ind Hygiene & Occup Med 8: 109-17 Ag '54
Turning out vinyls sans dust. il Chem Eng 60:124+ Je '53

See also
Dust removal
Flue dust
Foundry dust
Mine dust
Paper dust
Silicosis

Bibliography

See also
Lungs—Dust diseases—Bibliography

DUST collectors

Air pollution and remedies. J. J. Seaver. diags Iron & Steel Eng 30:94-5 O '53

Automation and dust control; coal-processing plant of Penn-Rillton co. il Nat Safety N 70:34-5+ S '54

Clean air for foundry; Chicago steel foundry co. il Steel 133:167-8 N 9 '53

Collection of laboratory dusts. B. Langston and F. M. Stephens, jr. bibliog diags Min Eng 6:Trans833-6 Ag '54

Controlling uranium dust. H. I. Miller, jr. diags Heating-Piping 26:109-13 S '54

Conveying dust by air; Noranda smelter. Steel 133:123 N 23 '53

Design factors in a dust control system. W. O. Vedder. plan diags Sheet Metal Worker 45:54-5 Jl; 78-81 Ag '54

Dust and fume problems in the steel industry. R. F. O'Mara. flow diag diags Iron & Steel Eng 30:100-6 O '53

Dust collectors keep plant clean and safe. E. F. Anderson. il Mill & Factory 54:94-5 Ja '54

Efficiency studies of three wet-type dust collectors. B. D. Bloomfield. il Heat & Ven 51:89-93 Ap '54

Efficient method of returning dust to kilns; National portland cement co. I. Krabbe. flow diag il Rock Prod 57:145-6 Je '54

Electric steel foundries control dust emissions in Los Angeles area. O. E. Erickson. J Metals 5:1625-6 D '53

Elements of dust and mist collection. C. E. Lapple. bibliog il Chem Eng Prog 50:283-7 Je '54

Equipment for the small foundry; related equipment. il Foundry 82:194-7 My '54

Facts about modern ventilation and dust control. il Mill & Factory 54:388-9 My '54

Foam screen licks a dust control poser; patent. diags Chem Eng 61:278 Jl '54

How to estimate dust collector costs. J. M. Dallavalle. il Chem Eng 60:177-83 N '53

Inventory of foundry equipment; miscellaneous equipment; with tables. Foundry 82:162-3 My '54

Making a stone plant dust-free; Eastern rock products co. W. B. Lenhart. il diag Rock Prod 56:102-3+ D '53

New developments in reverse-jet filters. H. J. Hersey, jr. il diags Heat & Ven 51:109-12 F '54

Pangborn self-cleaning dust collector. il Metal Finishing 51:100 N '53

Performance of fabric dust collectors; air cleaning laboratory evaluation. L. C. McCabe. Ind & Eng Chem 46:sup 105A-7A Je '54

Simplified maintenance marks dust collector. il diags Food Eng 25:99 N '53

They didn't gamble on one centralized system or seven dust collecting units. il Safety Maint & Prod 108:49-50 Jl '54

Tubular type cyclones most efficient dust collectors. L. C. McCabe. diags Ind & Eng Chem 45:sup 105A-6A+ D '53

Unit dust control. il Chem Age (Lond) 69:765 O 10 '53

Unveiling the Dynaclone story. il Chem Eng 60:230+ N '53

Variety of approaches to cupola dust control problem. L. C. McCabe. il Ind & Eng Chem 45:sup 109A-10A+ N '53

What about other dust collection factors? H. C. Dohrmann and others. il diags Safety Maint & Prod 108:30-5 Ag '54

See also

Dust sampling

Testing

Dust collectors tested in field; A.E.C. Harvard survey. R. Dennis and others. Chem Eng 61:187-9 My '54

DUST diseases. See Lungs—Dust diseases

DUST explosions

Dry chemical controls explosive dusts. Safety Maint & Prod 107:47-8+ Je '54

Explosive properties of sugar dusts. R. L. Meek and J. M. Dallavalle. bibliog diags Ind & Eng Chem 46:763-6 Ap '54

How to prevent pulverizer explosion? I. Hartmann. Power Eng 58:98+ Ag '54

DUST prevention

How can you prevent dust on haulage roads? il diags Min Cong J 40:54-6+ My '54

Tank truck sprays even coat of liquid while moving along a road. diag Chem & Eng N 31:2338 Je 1 '53

DUST removal

Controlling dust in uranium plants; abstract. H. I. Miller, jr. Chem & Eng N 32:1932+ My 10 '54

Hot dust is conveyed pneumatically from precipitators to furnaces; Noranda smelter. il diags Eng & Min J 155:91 Jl '54

Millions spent for cleanliness; elimination of hazard to health J-M's goal in diatomite mining and processing. il Chem Eng 60:148+ O '53

Moving coke-bed gas filter for dust removal. G. C. Egleson and others. il diags Ind & Eng Chem 46:1157-62 Je '54; Same. U S Bur Mines Rep of Invest 5033:1-8 '54

Theoretically required exhaust rates for dust control in bulk material handling systems. W. C. L. Hemeon. bibliog diags Heat & Ven 51:71-3 Jl '54

Ultrasonic flue dust elimination. H. Manley. bibliog il diag Engineer 197:291 F 19 '54

Ventilation. bibliog il Nat Safety N 69:51-2+ Mr '54

See also

Air filters

Dust collectors

Electric precipitation

Exhaust systems

DUST sampling

Absolute method of sampling and measurement of solid air-borne particulates; combined use of the molecular filter membrane and electron microscopy. D. A. Fraser. il A M A Archives Ind Hygiene & Occup Med 8:412-19 N '53

Dust counting by the most probable number method. H. M. Chapman. il A M A Archives Ind Hygiene & Occup Med 8:234-45 S '53

Dust sampler which simulates upper and lower lung deposition. W. B. Harris and M. Eisenbud. bibliog il A M A Archives Ind Hygiene & Occup Med 8:446-52 N '53

Dust sampling. Elec R (Lond) 153:498 S 4 '53

Dust sampling equipment. il Elec J 151:717-18 S 4 '53

Dust sampling equipment and technique. W. C. Holton and E. J. Schulz. il diags A S M E Trans 75:1327-31 O '53

Field equipment for the collection and evaluation of toxic and radioactive contaminants. W. B. Harris and others. bibliog il diags A M A Archives Ind Hygiene & Occup Med 7:490-502 Je '53

Grading of fly ash. D. H. Lucas. il diags Engineering 177:272-3 F 26 '54

Lessons from intensive dust sampling of a coal mine. I. Hartmann and others. 4pls U S Bur Mines Rep of Invest 5054:1-12 '54

Measurement of air pollution. W. C. L. Hemeon and others. bibliog il Instruments 26:566-8+ Ap '53

New method for monitoring air-borne dust. P. F. Holt and A. J. Chalk. bibliog il A M A Archives Ind Hygiene & Occup Med 7:404-10 My '53

Preparation of aerosols for electron microscopy. E. H. Kalmus. il J Ap Phys 25:87-9 Ja '54

Reversible aspirator for the thermal precipitator. B. M. Wright. diag J Sci Instr 31:263-4 Jl '54

Semiportable air-sampling system. L. J. Leach and others. il diag A M A Archives Ind Hygiene & Occup Med 8:382-3 O '53

Technique for collecting, mounting, and sectioning airborne particulate material. R. D. Cadle and others. il Science 118:490-1 O 23 '53

See also

Impactors

DUTCH GUIANA

Commercial policy

Surinam's blacklisting of importers for violation of import controls clarified. For Comm W 51:7 Ja 25 '54

DWYER, Patrick, 1875-1954

Sketch. por Foundry 82:136 F '54

DYE analysis
Absorptiometric colorimetry in the textile laboratory. C. H. Giles and I. S. Shaw. bibliog(32 ref) diags Soc Dyers & Col J 69:481-91 D '53; Abstract. Am Dyestuff Rep 43:318 My 10 '54

DYE factories
Ciba States increases its U.S. dyestuff production; anthraquinone vat dye production at new Toms River plant. il Chem & Eng N 31:2406-7 Je 8 '53
Ciba Toms River plant designed according to advanced practices. il Am Dyestuff Rep 42:520-1 Ag 3 '53
New vat dyestuffs plant; Ciba at Toms River, N.J. il Chem Eng 60:140+ S '53

DYE industry
Alphabetical list of new products developed since Nov. 1952. il diags Am Dyestuff Rep 42:809-42 D 7 '53
Faster dyes gaining favor. Chem & Eng N 32:2334 Je 7 '54
Lakes, toners output up in 1953. Oil Paint & Drug Rep 165:5 Je 28 '54
See also
Hilton-Davis chemical company

Exhibitions

Exhibits at AATCC annual meeting, Chicago, Sept. 17-19. Textile World 103:136-7+ N '5

Statistics

Dyes production, sales last year showed gain over levels of 1952. Oil Paint & Drug Rep 165:3+ Je 7 '54

France

Historical notes on the wet-processing industry; how Napoleon aided the early dyeing industry of France. S. M. Edelstein. il Am Dyestuff Rep 43:33-4 Ja 18 '54

India

Dyestuff industry of India studied. Oil Paint & Drug Rep 165:3+ Ja 25 '54
Indian dyestuffs industry expands. Oil Paint & Drug Rep 165:5+ Je 14 '54

DYE laboratories
Laboratory high-temperature dyeing unit. F. F. Jacobs. il Am Dyestuff Rep 42:175-6 Mr 16 '53

DYE manufacture
Anthraquinone vat dyes; Ciba states, limited. K. J. Bradley and P. Kronowitt. bibliog flow sheet il diag Ind & Eng Chem 46:1146-56 Je '54

DYE patents
Patent digest. P. Wengraf. Published in biweekly numbers of American dyestuff reporter

DYE research
Bridge of progress. R. E. Derby. Am Dyestuff Rep 43:275-7 Ap 26 '54
Search for new dyes in relation to modern developments in the textile field. T. Holbro. Soc Dyers & Col J 69:233-9; Discussion. 239-40 Jl '53
Uses of microscopy in textile dyeing and finishing. G. G. Taylor and J. C. Brown. bibliog(57 ref) 4pls Soc Dyers & Col J 69:396-402; Discussion. 402-3 N '53
See also
American association of textile chemists and colorists—Committee on research
Dye laboratories

DYE standards. See Dye testing—Standards

DYE testing
Design and construction of a differential refractometer for measurements on coloured solutions. E. Atherton and E. Cowgill. bibliog diags Soc Dyers & Col J 70:116-20 Mr '54
See also
Dyes, Fastness of
Fadeometer

Standards

AATCC in the international testing program. Am Dyestuff Rep 42:532 Ag 17 '53
Development of the geometric grey scales for fastness assessment. bibliog 4pls Soc Dyers & Col J 69:404-9 N '53; Discussion. 70:238-42 Je '54
Development of the geometric staining scale. K. McLaren. bibliog Soc Dyers & Col J 69:285-7 Ag '53
Proposed international tests for colour fastness of textiles. Soc Dyers & Col J 69:409-29 N '53
Specifications and controls for commission dyeing. W. Armitage and J. Leach. Am Dyestuff Rep 42:343-4 My 25 '53
Tests for colorfastness of textiles under consideration in the International organization for standardization. W. D. Appel. Am Dyestuff Rep 42:871-87 D 21 '53

DYEHOUSES
See also
Dye laboratories

Equipment

Control instruments and their application in modern dyehouse operations. W. H. Ridley. il Am Dyestuff Rep 42:624-6 S 14 '53
1953 review of new equipment; wet processing and finishing. il Textile World 103:119-22+ N '53
Pneumatic mangle solves many dyehouse problems. C. Amidon. il Am Dyestuff Rep 43:673-4 S 27 '54
Pressure dyeing and bleaching with special reference to recent developments. F. H. Marsh. il pl Soc Dyers & Col J 70:105-12 Mr '54
Some practical aspects of time-temperature regulation in dyeing. L. Walter. il diags Mod Textiles Mag 34:84+ N '53
See also
Dyeing machines

Waste

Ciba solves water pollution danger at Toms River dye plant. il Chem & Eng N 31:3690 S 7 '53
Textile effluent and a sewage plant. J. B. Dick. Am Dyestuff Rep 43:112 F 15 '54

DYEING machines
Ager divided in two or more separate chambers. Am Dyestuff Rep 43:19 Ja 4 '54
Bond machine. B. C. Bond. il diags Am Dyestuff Rep 43:232-5 Ap 12 '54
Du Pont Jackson laboratory package dyer. R. H. Blaker and T. W. Stricklin. il diags Am Dyestuff Rep 43:392-3 Je 21 '54
Du Pont's Barotor. il diag Textile World 104:122 My '54
Hunter announces first commercial Barotor. il Am Dyestuff Rep 43:258 Ap 12 '54
Laboratory high-temperature dyeing unit. F. F. Jacobs. il Am Dyestuff Rep 42:175-6 Mr 16 '53
Laboratory skein-dyeing machine. W. Armfield. il Soc Dyers & Col J 70:183-5 My '54
New thread plant uses versatile dyeing equipment; American thread co. G. M. Moisson il Textile World 104:111-13 Mr '54
Roller printing machine; patent. diag Am Dyestuff Rep 43:164 Mr 15 '54
Some new ideas in wet processing; Barotor and Vapojet drying system. J. H. Hunter. il Mod Textiles Mag 35:32-3+ Ap '54
This dyeing range boosts quality, cuts costs; Kerr bleaching & finishing works. M. London. il Textile World 104:80-1 S '54
Variables in padding processes. R. W. Speke. bibliog diag Soc Dyers & Col J 70:221-6 Je '54; Discussion. H. A. Brassard. 70:448 O '54

DYER, Bernard, 1856-1948
Bernard Dyer memorial lecture and medal. Chem & Ind p534 My 30 '53

DYERS
Historical notes on the wet-processing industry; a look at the early dyers' guilds. S. M. Edelstein. il Am Dyestuff Rep 43:119-20 F 15 '54

DYERS and colourists, Society of. See Society of dyers and colourists

DYES, Effect of light on
See also
Dyes, Fastness of

DYES, Fastness of
Chemical finishing techniques; glazing and embossing, crease recovery, crease resistance, side effects improved dye fastness. A. C. Nuessle. Textile World 104:224 My '54

DYES, Fastness of—*Continued*

Chemical finishing techniques; resistance to gas fading, static, pilling, flameproofing and rotproofing. A. C. Nuessle. Textile World 104:132 Je '54

Colour changes induced in vat dyeings by organic solvents. E. Kornreich. Soc Dyers & Col J 69:297 Ag '53

Colour fastness and textile finishing requirements of the ultimate consumer. J. S. Ingham. bibliog Soc Dyers & Col J 70:227-9 Je '54

Development of the geometric grey scales for fastness assessment. bibliog 4pls Soc Dyers & Col J 69:404-9 N '53; Discussion. 70:238-42 Je '54

Development of the geometric staining scale. K. McLaren. bibliog Soc Dyers & Col J 69:285-7 Ag '53

Dyer's definition of the term fast dye; abstract. J. Fellows. Am Dyestuff Rep 43:23 Ja 4 '54

Effect of urea-formaldehyde resins on the light fastness of direct dyes. bibliog Am Dyestuff Rep 43:6-13 Ja 4 '54

Effects of the soaping aftertreatment on vat dyeings. H. H. Sumner and others. bibliog pl diags Soc Dyers & Col J 69:181-94 Je '53

Fast-to-light basic prints on viscose rayon. W. S. Miller. bibliog(38 ref) Soc Dyers & Col J 69:612-18; Discussion. 618-19 D '53

Fastness properties of acetate dyeings aftertreated with curable resins. Am Dyestuff Rep 43:50-2 Ja 18 '54

Improving fastness of copper-treated dyes combined with aldehyde condensates; patent. Am Dyestuff Rep 43:67 F 1 '54

Improving fastness of direct dyeings; patent. Am Dyestuff Rep 43:383 Je 7 '54

Improving wetfastness of dyeings, peralkylated polyalkylene imines; patent. Am Dyestuff Rep 42:769 N 9 '53

Influence of preparation and method of dyeing and finishing on the color and colorfastness of vat-dyed cottons. L. H. Bailey and F. J. Rizzo. bibliog(25 titles) il Am Dyestuff Rep 42:492-516 Ag 3 '53

Investigations into fastness to perspiration. Soc Dyers & Col J 70:63-8 F '54

Naphthol dyeings; factors which influence fastness to rubbing; abstract. A. J. Hall. Am Dyestuff Rep 42:232 Ap 13 '53

Proposed international tests for colour fastness of textiles. Soc Dyers & Col J 69:409-29 N '53

Rapid test for gas-fading resistance of dyed cellulose acetate fabrics. H. M. Friedman. il Am Dyestuff Rep 43:597-8 Ag 30 '54

Report on comparative sunlight and Fade-Ometer tests of selected dyed manufactured fiber samples. M. J. Babey. Am Dyestuff Rep 42:748-52 N 9 '53

Specification and labelling of colour-fastness for the consumer. J. A. Van der Hoeve. bibliog Textile Inst J 45:P415-23; Discussion. P423-6 Ag '54

Spun-dyed rayon staple; fastness properties of Coloray. C. P. Tattersfield. Mod Textiles Mag 34:32-3+ D '53

Tests for colorfastness of textiles under consideration in the International organization for standardization. W. D. Appel. Am Dyestuff Rep 42:871-87 D 21 '53

Urea-formaldehyde and lightfastness. Mod Textiles Mag 34:68 D '53

See also

Fadeometer

DYES and dyeing

Adsorption of dyes, amino acids, proteins, and metal hydroxides on quartz. J. C. Dale and E. J. King. bibliog A M A Archives Ind Hygiene & Occup Med 7:484-9 Je '53

Affinity effects during padding; abstract. W. J. Marshall. Am Dyestuff Rep 43:545-6 Ag 16 '54

Alphabetical list of new products developed since Nov. 1952. il diags Am Dyestuff Rep 42:809-42 D 7 '53

Application of dyes to textile fibers at high temperatures. C. L. Zimmerman. bibliog(26 ref) il Am Dyestuff Rep 42:627-34 S 14 '53

Better but not good; skidding dyestuffs. Chem W 73:69-71 S 26 '53

Capitalizing on color; household dyes. il Chem W 73:49-50 Ag 29 '53

Chek, Chek and check; aerosol application tactic in dye penetrant inspection. il Chem W 72:77+ Ap 18 '53

Chemicals by the yard. Chem W 74:100 My 15 '54

Control of azoic dyeing processes; abstract. E. R. Wiltshire. Am Dyestuff Rep 42:784 N 23 '53

Developments in the application of azoic dyes in printing. B. Jomain. Soc Dyers & Col J 69:661-5; Discussion. 665-6 D '53

Dye transfer in dyeing and printing. G. D. Myers and H. A. Turner. bibliog(32 ref) Soc Dyers & Col J 69:648-59; Discussion. 659-60 D '53

Dyeing and disperse dyes. A. E. Stubbs. bibliog Soc Dyers & Col J 70:120-3 Mr '54

Dyeing and finishing trades; abstract. A. J. Hall. Am Dyestuff Rep 42:476-7 Jl 20 '53

Dyeing nitrogenous fibers with metallized azo dyes; nonionic substituted triazines; patent. Am Dyestuff Rep 43:67 F 1 '54

Dyeing of effect threads; abstract. L. Biggins. Am Dyestuff Rep 42:768 N 9 '53

Dyeing of textile fibers under static pressure. L. Drijvers. bibliog Am Dyestuff Rep 43:243-6 Ap 12 '54

Dyeing protein fibers; patent. Am Dyestuff Rep 43:163 Mr 15 '54

Dyeing under static pressure system; abstract. B. Steverlynck. Am Dyestuff Rep 43:347 My 24 '54

Dyes; aspects of interest to cosmetic chemists. J. K. Barraclough. Chem Age (Lond) 68:567-8 Ap 11 '53

FDA will hold hearings Jan. 19 on decertification of three dyes. Oil Paint & Drug Rep 164:3+ D 28 '53

Fuel efficiency in the dyeing and finishing industries. W. Short. diags Soc Dyers & Col J 69:329-35 S '53

Garment dyeing; abstract. J. K. Collins. Am Dyestuff Rep 43:23 Ja 4 '54

Matching USAF silvertan shade no. 193. H. R. Davidson and R. D. Haire. Am Dyestuff Rep 42:253-7 Ap 27 '53

Mill reference data; bleaching, dyeing, and finishing. diags Textile World 103:58-63 Mid-N '53

Neutral premetalized dyestuffs. C. Weidmann. bibliog Am Dyestuff Rep 43:167-71 Mr 15 '54

Physics in the dyeing, printing, and finishing industries. N. W. Yelland. bibliog il 8pls diags Soc Dyers & Col J 70:333-46 Ag '54

Pigment-pad dyeing emulsion; free of organic solvents; patent. Am Dyestuff Rep 42:892 D 21 '53

Premetalized rainbow. Chem W 74:68+ My 8 '54

Preparation and dyeing of textiles; symposium abstracts. Am Dyestuff Rep 43:580-1 Ag 30 '54

Pressure dyeing and bleaching with special reference to recent developments. F. H. Marsh. il pl Soc Dyers & Col J 70:105-12 Mr '54

Problems of the garment dyer and finisher, including the dyeing of buttons. B. Kramrisch and A. E. Bratt. Soc Dyers & Col J 70:173-83 My '54; Discussion. E. Stead. 70:355 Ag '54

Realisable colour gamuts in dyeing. E. Atherton and others. diags Textile Inst J 45: P350-64; Discussion. P365-8 Ag '54

Studies in the fundamental processes of textile printing. R. H. Munshi and others. bibliog il pl diag Soc Dyers & Col J 65:424-47; 67:103-15+, 586-98; 68:77-87; 69:240-54, 440-8 S '49, Mr, D '51, Mr '52, Jl, N '53

Use of hydrolysable esters in the control of dyebaths. R. J. Hannay and W. H. Major. diag Soc Dyers & Col J 69:195-201 Je '53

Variables in padding processes. R. W. Speke. bibliog diag Soc Dyers & Col J 70:221-6 Je '54; Discussion. H. A. Brassard. 70:448 O '54

DYES and dyeing—*Continued*

Variations on a theme; new dye intermediates and whiteners from dichlorodiaminostilbenedisulfonic acids. Chem W 74:54 Je 12 '54

See also

American association of textile chemists and colorists
Blue
Color in the textile industry
Color matching
Color printing
Congo red
Dye industry
Dyeing machines
Dyes, Fastness of
Merocyanines
Metachromasis
Pigments
Stains and staining (microscopy)
Textile printing

Acetate fibers

Application of identification tints, with particular reference to acetate rayon staple. H. C. Olpin and A. J. Wesson. bibliog Soc Dyers & Col J 69:357-61 O '53; Abstract. Am Dyestuff Rep 43:385 Je 7 '54; Discussion. Soc Dyers & Col J 69:361-2 O '53
Azodyeing cellulose acetate; patent. Am Dyestuff Rep 43:213 Mr 29 '54
Discolorations in some dyed acetate rayons due to moisture plus solvent effect in dry-cleaning and waterproofing; abstract. C. H. Bayley and A. S. Tweedie. Am Dyestuff Rep 42:260 Ap 27 '53
Dyeing cellulose acetate with salts of reduced alkalinity. Am Dyestuff Rep 42:739 O 26 '53
Dyeing nylon or cellulose with ice colors; patent. Am Dyestuff Rep 43:214 Mr 29 '54
Dyeing of acetate rayon with disperse dyes. C. L. Bird. bibliog Soc Dyers & Col J 70:68-77 F '54
Fastness properties of acetate dyeings aftertreated with curable resins. Am Dyestuff Rep 43:50-2 Ja 18 '54
New acetate dyeing technique announced by Maupai. Am Dyestuff Rep 43:56 Ja 18 '54
New dyeing processes for acetate rayon materials; abstract. A. J. Hall. Am Dyestuff Rep 42:766 N 9 '53
Pad dyeing or printing cellulose acetate; patent. Am Dyestuff Rep 43:215 Mr 29 '54
Pigment-pad dyeing acetate fibers; patent. Am Dyestuff Rep 42:707 O 12 '53
Production and properties of solution-dyed acetate. P. F. Flamm. Textile Res J 24:357-61 Ap '54
Shock setting spun acetate prevents dyeing defects. M. Alpert. diag Textile World 104:86 S '54
Solution-dyed staple; abstract. W. W. Bowman. Am Dyestuff Rep 43:216 Mr 29 '54
Studies in the fundamental processes of textile printing; transfer of disperse and water-soluble dyes to cellulose acetate during steaming. E. H. Daruwalla and H. A. Turner. bibliog(32 ref) pl Soc Dyers & Col J 69:240-54 Jl '53
Two methods for solvent dyeing acetate. P. Duggan. Textile World 104:86-7 Ag '54

Bibliography

Abstracts from British and foreign journals and patents. Published in monthly numbers of Journal of the Society of dyers and colourists

Carpet yarn

Dyeing in the carpet trade. A. Gaunt and P. Robinson. Soc Dyers & Col J 69:155-9 My '53
Dyeing wool blends and other fibers for carpets. H. F. Clapham. Am Dyestuff Rep 43:141-2 Mr 1 '54

Cellulose

Coloured cellulose; abstract. D. B. Mutton and R. R. McLaughlin. Can Chem Process 38:66 Je 20 '54

Chemistry

Aggregation tendencies of acid wool dyes in saline solutions. K. N. Davies and J. Whetstone. Chem Soc J p865-6 Mr '54
Chemistry of chelation in textile processing. A. J. Gard. bibliog Am Dyestuff Rep 42:867-70 D 21 '53
Chemistry of diammonium phosphate. W. B. Coleman. Am Dyestuff Rep 42:167-8 Mr 16 '53
Chemistry of the Pechmann dyes. E. Klingsberg. bibliog Chem R 54:59-77 F '54
Conductimetric study of the interaction of anionic mucopolysaccharides and cationic dyes. M. Schubert and A. Levine. bibliog Am Chem Soc J 75:5842-6 D 5 '53
Decomposition of Stenhouse dyes in solution. J. C. McGowan and K. Moss. Chem & Ind p23-4 Ja 2 '54
Dyeing and tanning; Faraday society discussion. Chem & Eng N 31:3996+ S 28 '53
Effect of fluorine substitution on color and fastness of monoazo dyes. J. B. Dickey and others. bibliog(27 ref) Ind & Eng Chem 45:1730-4 Ag '53
Experiments on the chemistry of anthraquinone derivatives. W. Bradley. bibliog(25 ref) Soc Dyers & Col J 70:57-62; Discussion. 62-3 F '54
Indicator and dye properties of some aromatic phosphonic acids and their arsenic analogs. G. M. Kosolapoff and G. G. Priest. Am Chem Soc J 75:4847-9 O 5 '53
Investigation of sodium sulfoxylateformaldehyde as the primary reducing agent in vat dyeing. bibliog il Am Dyestuff Rep 43:525-40 Ag 16 '54
Investigation of the chemical reactions involved in the use of sodium formaldehydesulphoxylate in textile printing. R. J. Hannay and W. Furness. Soc Dyers & Col J 69:596-602; Discussion. 602-5 D '53
New chemicals to carry colors. il Chem W 74:41 Ap 10 '54
New developments in the application of phthalocyanines in textile printing. F. Gund. Soc Dyers & Col J 69:671-81; Discussion. 681-2 D '53
Relation between the absorption spectra and the chemical constitution of dyes; *cis-trans* isomerism and hydrogen bonding in indigo dyes. W. R. Brode, E. G. Pearson and G. M. Wyman. bibliog Am Chem Soc J 76:1034-6 F 20 '54
Relationship between structure of dyes and their dyeing characteristics on hydrophobic fibers. il Am Dyestuff Rep 43:426-37 Jl 5 '54
Some chemical problems arising in the study of anthraquinone dyes. S. Coffey. Chem & Ind p 1068-74 O 10 '53
Some dyes derived from 2-hydroxymethylbenzothiazole. R. A. Jeffreys. Chem Soc J p503-5 F '54
Spectrophotometric determination of ionization constants of basic dyes. S. Woislawski. Am Chem Soc J 75:5201-3 N 5 '53
Structure and chemical properties of dyes in relation to their use. T. Vickerstaff. bibliog Soc Dyers & Col J 69:279-82 Ag '53
Use of non-ionic level-dyeing assistants with chrome-complex dyes. I. D. Rattee. Soc Dyers & Col J 69:288-95 Ag '53

Coconut fibers

Working and dyeing of coir yarn; abstract. H. Faldik. Am Dyestuff Rep 42:136 Mr 2 '53

Cotton

Absorption of chrysophenine G by cotton and by acidic oxycellulose. M. M. Bilsbury and others. bibliog Textile Inst J Trans 45:T1-20 Ja '54
Azoic and other fast dyeings on knitted cotton fabric. E. R. Wiltshire. Soc Dyers & Col J 70:41-5; Discussion. 45-6 F '54
Beam dyeing. J. H. Stradley. Am Dyestuff Rep 42:172-3 Mr 16 '53
Companion-color dyeing is simple, efficient; Avondale mills. G. M. Moisson. il Textile World 104:120-1 F '54
Direct dyeing of cellulose; method for the analysis of equilibrium absorption data in terms of current quantitative theories. H. A. Standing. bibliog Textile Inst J Trans 45:T21-9 Ja '54
Direct dyestuffs; abstract. J. H. Anderson. Am Dyestuff Rep 43:511 Ag 2 '54
Dyeing of cellulose. F. Fordemwalt. diag Chem & Eng N 32:924-6 Mr 8 '54
Effects of evaporating water from cotton cellulose. G. W. Madaras and H. A. Turner. bibliog pl diags Soc Dyers & Col J 69:371-7 O '53

DYES and dyeing—Cotton—*Continued*

Fundamentals of the dyeing of cellulosic fibers. H. R. McCleary. bibliog(27 ref) il Textile Res J 23:673-82 O '53; Abstract. Am Dyestuff Rep 43:384-5 Je 7 '54

Influence of preparation and method of dyeing and finishing on the color and colorfastness of vat-dyed cottons. L. H. Bailey and F. J. Rizzo. bibliog(25 titles) il Am Dyestuff Rep 42:492-516 Ag 3 '53

Metal complex compounds in cotton dyeing; abstract. Paltzer. Am Dyestuff Rep 43:395 Je 21 '54

Naphthol dyeing. R. H. Nuttall. Am Dyestuff Rep 43:178-9 Mr 15 '54

New beam dyehouse does seven days' work in five; Avondale mills. M. London. il Textile World 104:106-7 Jl '54

New thread plant uses versatile dyeing equipment; American thread co. G. M. Moisson. il Textile World 104:111-13 Mr '54

Dacron

Dyeing Dacron with vat acids; heat aftertreatment; patent. Am Dyestuff Rep 42:892-3 D 21 '53

Factors affecting the absorption of disperse dyes by Dacron polyester fiber from aqueous baths. J. J. Iannarone and others. bibliog Am Dyestuff Rep 43:650-5 S 27 '54

Fugitive tints for Dacron polyester fiber. Mod Textiles Mag 35:51 F '54

Heat setting of terylene polyester filament fabrics in relation to dyeing and finishing. D. N. Marvin. Soc Dyers & Col J 70:16-21 Ja '54

Improving the dyeing properties of polyester fibers; abstract. J. A. Somers. Am Dyestuff Rep 43:458 Jl 19 '54

Modern techniques in the dyeing of Orlon-Dacron. J. F. Laucius. Mod Textiles Mag 34:60-1 N '53

Naphthol dyeing. R. H. Nuttall. Am Dyestuff Rep 43:178-9 Mr 15 '54

Printing of terylene polyester fibre. A. G. H. Michie. Soc Dyers & Col J 70:13-15 Ja '54; Abstract. Am Dyestuff Rep 43:448 Jl 5 '54

Terylene polyester fiber in Canada; abstract. B. P. Ridge. Am Dyestuff Rep 43:80 F 1 '54

Dynel

Evaluation of carriers for use in the application of acid dyestuffs to dynel; abstract. J. H. Cox. Am Dyestuff Rep 42:134 Mr 2 '53

Fibro

See Dyes and dyeing—Rayon

Fluorescence

Brightening textiles with fluorescent compounds; abstract. Landolt. Am Dyestuff Rep 43:218 Mr 29 '54

Fluorescent dyed fabrics; patent. diags Am Dyestuff Rep 42:213 Mr 30 '53

Fluorescent dyes and the application of fluorescence to textiles. T. T. Baker. bibliog diag Soc Dyers & Col J 69:109-12 Ap '53

Fluorescent dyes for fabrics; abstract. A. E. Williams. Am Dyestuff Rep 42:177 Mr 16 '53

Optical bleaches in soap. K. Lindner. Soap & San Chem 30:85+ Ja '54

Food

See Coloring matter in food

Fugitive dyes

Application of identification tints, with particular reference to acetate rayon staple. H. C. Olpin and A. J. Wesson. bibliog Soc Dyers & Col J 69:357-61 O '53; Abstract. Am Dyestuff Rep 43:385 Je 7 '54; Discussion. Soc Dyers & Col J 69:361-2 O '53

Fugitive tinting. W. Meitner and J. E. Taylor. Textile Inst J 45:P369-76; Discussion. P376-9 Ag '54

Fugitive tints for Dacron polyester fiber. Mod Textiles Mag 35:51 F '54

Fur

For madame, turquoise fox. Ind & Eng Chem 46:sup 11A+ Je '54

Glass fabrics

Coloring glass fiber fabrics; alkaline pretreatment; patent. Am Dyestuff Rep 42:891 D 21 '53

Finishing, dyeing and printing of glass decorative fabrics. R. F. Caroselli. diag Am Dyestuff Rep 43:327-8 My 24 '54

Glass fibers; chemical characteristics and coating techniques. A. Marzocchi. Am Dyestuff Rep 43:329-30 My 24 '54

History

Historical notes on the wet-processing industry. S. M. Edelstein. il Am Dyestuff Rep 43:33-4, 119-20, 181-2, 315-16, 517-19+ Ja 18, F 15, Mr 15, My 10, Ag 16 '54

Zacharie Roussin; contribution to the development of the field of azo dyes and to the recognition of the value of napthalene. R. Brightman. bibliog(43 ref) Soc Dyers & Col J 69:115-19 Ap '53

Hosiery

Modified processes for the dyeing of knitwear; abstract. J. A. Potter. Am Dyestuff Rep 42:767 N 9 '53

Nine tips to top quality aid hosiery dyeing. E. D. White. il Textile World 104:114-15 Ja '54

Vat-dyed hosiery is improved by better reducing agent; abstract. R. D. Blum, jr. Textile World 103:137+ D '53

Knit goods

Dyeing and finishing of warp-knitted fabrics made from regenerated and synthetic fibres. J. Bromley and A. G. Cheek. il diags Soc Dyers & Col J 69:50-8 F '53

Presetting and dyeing tricot fabrics; patent. Am Dyestuff Rep 43:636+ S 13 '54

Leather

Coloration of leather. J. R. Blockey and D. H. Tuck. diag Soc Dyers & Col J 69:273-9 Ag '53

Metachrome process

Level dyeing with afterchrome dyes. I. D. Rattee. Soc Dyers & Col J 70:347-54 Ag '54

Natural dyes

Study of certain natural dyes. F. M. Arshid and others. bibliog diags Soc Dyers & Col J 70:392-412 S '54

See also
Dyewood
Logwood

Nylon

Dyeing nylon or cellulose with ice colors; patent. Am Dyestuff Rep 43:214 Mr 29 '54

Dyeing of nylon yarn in package form. W. S. Willson. Soc Dyers & Col J 70:22-4 Ja '54

New neutral-dyeing metalized wool colors. H. F. Clapham. Am Dyestuff Rep 43:200-2+ Mr 29 '54

Nylon colored with large vat dye particles. W. H. Sharkey and F. C. McGrew. bibliog il Textile Res J 24:633-6 Jl '54

Some experiments on the overdyeing of nylon. C. D. O'Briain and R. H. Peters. bibliog diag Soc Dyers & Col J 69:435-9 N '53; Abstract. Am Dyestuff Rep 43:346-7 My 24 '54

Studies in the fundamental processes of textile printing; the transfer of disperse and water-soluble dyes to nylon during steaming. E. H. Daruwalla and H. A. Turner. bibliog(29 ref) Soc Dyers & Col J 69:440-8 N '53; Abstract. Am Dyestuff Rep 43:347 My 24 '54

Orlon

Dyeing and finishing Orlon acrylic fiber. R. F. Stevens. Am Dyestuff Rep 43:409-11 Je 21 '54

Modern techniques in the dyeing of Orlon-Dacron. J. F. Laucius. Mod Textiles Mag 34:60-1 N '53; Abstract. Textile World 103:137 D '53

New developments in the dyeing of Orlon acrylic fiber. P. L. Meunier and others. Am Dyestuff Rep 42:470-3 Jl 20 '53

Package dyeing

Dyeing of nylon yarn in package form. W. S. Willson. Soc Dyers & Col J 70:22-4 Ja '54

How Tryon handles novelty-yarn dyeing. G. M. Moisson. il Textile World 104:84-6 Ap '54

DYES and dyeing—Package dyeing—*Continued*

Survey of dyeing above 100° C in package dyeing; abstract. J. Annicq. Am Dyestuff Rep 43:97 F 15 '54

Vat-dyeing packages. E. L. Caswell. Am Dyestuff Rep 42:489-91 Ag 3 '53; Excerpt. Mod Textiles Mag 35:57-9 Ag '54

Paper

Dye adsorption on wood pulp; effect of pulp processing on specific adsorption. E. F. Thode and others. bibliog Tappi 36:498-504 N '53

Dyeing of paper. H. A. Lips and D. P. Graham. bibliog Paper Ind 36:589-92 S '54

Efficient use of dyes in paper. E. P. McGinn. Tappi 37:sup 146A-51A Mr '54

Identification of wet-strength resins in paper by a dye staining technique. R. R. House and N. T. Woodberry. Tappi 37:255-7 Je '54; Abstract. Pulp & Pa of Can 55:148 S '54

Physiological effect

Papilloma of the bladder; ABCM scheme; abstracts. Chem Age (Lond) 69:1183-4 D 5 '53; Chem & Eng N 31:5392 D 28 '53

Rayon

Animalized cellulose, cationic aminotriazine-formaldehyde solutions; patent. Am Dyestuff Rep 43:345 My 24 '54

Dyeing of cellulose. F. Fordemwalt. diag Chem & Eng N 32:924-6 Mr 8 '54

Dyeing of fabrics made from fibro and blends containing fibro. R. A. McFarlane. Textile Inst J 45:P395-409; Discussion. P409-14 Ag '54

Dyeing of viscose rayon at high temperatures. K. Butterworth. bibliog Soc Dyers & Col J 69:362-70 O '53; Abstract. Am Dyestuff Rep 43:385-6 Je 7 '54

Progress in the dyeing of spun rayon woven fabrics with direct and vat dyes. P. A. Holt. Chem Age (Lond) 70:1303-5 Je 12 '54

Solution-dyed staple; abstract. W. W. Bowman. Am Dyestuff Rep 43:216 Mr 29 '54

Spun-dyed rayon staple; fastness properties of Coloray. C. P. Tattersfield. Mod Textiles Mag 34:32-3+ D '53

Rayon—acetate

Dyeing and finishing acetate blends; abstract. F. Fortess and G. C. Ward. Am Dyestuff Rep 42:136 Mr 2 '53

Standards

See also
Dye testing—Standards

Stripping

Polyvinyl pyrrolidone. E. C. Hansen and others. Am Dyestuff Rep 43:73-5 F 1 '54; Abstract. Textile World 103:145 D '53

Soda-boil stripping; abstract. Am Dyestuff Rep 42:134-5 Mr 2 '53

Stripping color from dyed hydrophobic fibers. M. J. Reider. bibliog(96 titles) Am Dyestuff Rep 42:190-205 Mr 30 '53

Stripping of dyed textiles; abstract. R. S. Prayag. Am Dyestuff Rep 43:347-8 My 24 '54

Synthetic fibers

Continuous dyeing methods with special reference to synthetics; panel discussion. il diags Am Dyestuff Rep 42:540-53 Ag 17 '53

Dye saturation and dye compatibility; abstract. J. A. Somers. Am Dyestuff Rep 43:22 Ja 4 '54

Dyeability of modern synthetics; abstract. J. G. Kern. Am Dyestuff Rep 43:520 Ag 16 '54

Dyeing acrilan; abstract. W. H. Hindle. Chem & Eng N 32:3864 S 27 '54

Dyeing acrylonitrile fibers with azo dyes in a two-bath process; patent. Am Dyestuff Rep 42:708 O 12 '53

Dyeing and finishing piece goods made from dynel-rayon and dynel-rayon-acetate blends. F. C. Rippner. Am Dyestuff Rep 43:209-11; Discussion. 211-12 Mr 29 '54

Dyeing and processing of synthetic fibers. R. A. Travis. Am Dyestuff Rep 42:845-7 D 7 '53

Dyeing chlorine-containing acrylic fibers with acid dyes, thiourea added; patent. Am Dyestuff Rep 43:149 Mr 1 '54

Dyeing dry-spun acrylonitrile fibers; patent. Am Dyestuff Rep 43:149 Mr 1 '54

Dyeing man-made fibers; abstract. G. Bertolina. il Chem & Eng N 32:2596 Je 28 '54

Dyeing modified polyacrylonitrile fibers; aromatic carboxylic acids added; patent. Am Dyestuff Rep 42:892 D 21 '53

Dyeing of Orlon acrylic fibre and Dacron polyester fibre and blends with other fibres. J. F. Laucius and P. L. Meunier. Chem Age (Lond) 70:1305-6 Je 12 '54

Dyeing of yarns and fabrics containing mixed fibres. R. C. Cheetham and J. S. Ward. bibliog Textile Inst J 45:P380-94 Ag '54

Dyeing polyacrylonitrile fibers; cuprous-ion technique applied under acid conditions; patent. Am Dyestuff Rep 43:547 Ag 16 '54

Dyeing polyacrylonitrile fibers; cuprous ion technique, using hydroxylamine; patent. Am Dyestuff Rep 43:383 Je 7 '54

Dyeing polyacrylonitrile fibers; lactones or cyclic carbonates used; patent. Am Dyestuff Rep 43:383-4 Je 7 '54

Dyeing synthetic fibers in blends. Textile World 103:42-3 Mid-N '53

Dyeing synthetic fibers with vat dyes; patent. Am Dyestuff Rep 43:215 Mr 29 '54

Dyeing the modern synthetic fibers; abstract. B. Kramrisch. Am Dyestuff Rep 42:177 Mr 16 '53

Effect of temperature and humidity on the light fastness of synthetics in the Fade-Ometer. bibliog Am Dyestuff Rep 43:497-505 Ag 2 '54

How to dye blends of cellulosic and non-cellulosic fibers. W. H. Hindle. Textile World 104:89+ Ag '54

How Tryon handles novelty-yarn dyeing. G. M. Moisson. il Textile World 104:84-6 Ap '54

Laboratory high-temperature dyeing unit. F. F. Jacobs. il Am Dyestuff Rep 42:175-6 Mr 16 '53

New colors; in from the spin; solution dyeing. il Chem W 74:42+ F 13 '54

New problems in garment dyeing; dealing with unions containing the man-made fibers; abstract. B. Kramrisch and F. Grainger. Am Dyestuff Rep 43:80-1 F 1 '54

New process for pad dyeing synthetics with acetate dyes. J. K. Holliday. diag Mod Textiles Mag 35:59-60 Ap '54

Preparation of dyeable fiber-forming compositions. G. E. Ham and P. W. Gann. bibliog Ind & Eng Chem 45:2320-6 O '53

Problems in dyeing synthetic-fiber blends. E. Szlosberg. Am Dyestuff Rep 42:431-4 Jl 6 '53

Problems in the dyeing of the newer synthetic fibres. I. M. S. Walls. il Textile Inst J 45:P258-67; Discussion. P268-71 Je '54

Progress in the dyeing of the newer synthetic fibers. P. J. Choquette. bibliog Textile Res J 24:387-94 Ap '54; Excerpts. Textile World 104:104+ Ja '54; Abstract. Am Dyestuff Rep 43:79-80 F 1 '54

Progress with indanthrenes. S. H. Brown. Mod Textiles Mag 34:59+ D '53

Recent advances in dyeing Orlon acrylic fiber and Dacron polyester fiber and blends of these with other fibers. J. F. Laucius. bibliog Am Dyestuff Rep 42:792-6 N 23 '53

Relationship between structure of dyes and their dyeing characteristics on hydrophobic fibers. il Am Dyestuff Rep 43:426-37 Jl 5 '54

Report on comparative sunlight and Fade-Ometer tests of selected dyed manufactured fiber samples. M. J. Babey. Am Dyestuff Rep 42:748-52 N 9 '53

Spun-coloured fibres and yarns. E. Butterworth and A. S. Cluley. bibliog(36 ref) diags Textile Inst J 45:P427-57; Discussion. P457-61 Ag '54

Stripping color from dyed hydrophobic fibers. M. J. Reider. bibliog(96 titles) Am Dyestuff Rep 42:190-205 Mr 30 '53

Symposium; dyeing synthetic fibers. Am Dyestuff Rep 42:721-5 O 26 '53

They keep on dyeing; Weldon G. Helmus of Fair Lawn finishing co. S. H. Brown. Mod Textiles Mag 34:35+ D '53

Tinting fibers is a pain in the neck. E. A. Murray. Textile World 104:69+ S '54

DYES and dyeing—Synthetic fibers—*Continued*

What's new in dyestuffs? J. Campbell. Mod Textiles Mag 35:34-5+ S '54

See also

Dyes and dyeing—Dacron

Dyes and dyeing—Dynel

Dyes and dyeing—Nylon

Dyes and dyeing—Orlon

Dyes and dyeing—Rayon

Vat dyes

Anthraquinone vat dyes; Ciba states, limited. K. J. Bradley and P. Kronowitt. bibliog flow sheet il diag Ind & Eng Chem 46:1146-56 Je '54

Colour changes induced in vat dyeings by organic solvents. E. Kornreich. Soc Dyers & Col J 69:297 Ag '53

Colour changes of vat dyeings during soaping. J. Wegmann. Soc Dyers & Col J 70:412; Reply. E. Kornreich. 413 S '54

Du Pont vat-print development process. A. K. Saville. Am Dyestuff Rep 42:272-4+ Ap 27 '53

Dyeing synthetic fibers with vat dyes; patent. Am Dyestuff Rep 43:215 Mr 29 '54

Dyeing vat dyes; patent. Am Dyestuff Rep 43:227 Ap 12 '54

Effects of the soaping aftertreatment on vat dyeings. H. H. Sumner and others. bibliog pl diags Soc Dyers & Col J 69:181-94 Je '53

How flash ageing speeds vat printing. J. W. Ogletree. diags Textile World 104:82-5+ S '54

Influence of preparation and method of dyeing and finishing on the color and colorfastness of vat-dyed cottons. L. H. Bailey and F. J. Rizzo. bibliog(25 titles) il Am Dyestuff Rep 42:492-516 Ag 3 '53

Introduction to continuous dyeing; abstract. A. S. Fern. Am Dyestuff Rep 43:545 Ag 16 '54

Investigation of sodium sulfoxylateformaldehyde as the primary reducing agent in vat dyeing. bibliog il Am Dyestuff Rep 43:525-40 Ag 16 '54; Summary. Textile World 103:147+ N '53

New vat dyestuff plant; Ciba at Toms River, N.J. il Chem Eng 60:140+ S '53

Nylon colored with large vat dye particles. W. H. Sharkey and F. C. McGrew. bibliog il Textile Res J 24:633-6 Jl '54

Printing efficiency of vat dyes; sensitivity to Formosul concentration. A. G. H. Michie and R. Thornton. bibliog Soc Dyers & Col J 69:629-45; Discussion. 645-7 D '53

Progress in the dyeing of spun rayon woven fabrics with direct and vat dyes. P. A. Holt. Chem Age (Lond) 70:1303-5 Je 12 '54

Reduction of vat dyes in printing pastes. W. J. Marshall and R. H. Peters. bibliog diag Soc Dyers & Col J 69:583-93; Discussion. 593-5 D '53

Simultaneous vat dyeing and stabilizing; patent. Am Dyestuff Rep 42:639 S 14 '53

Sodium chlorite in the textile industry; abstract. T. K. Merz. Am Dyestuff Rep 42:847 D 7 '53

Studies in textile printing; some factors involved in vat printing. R. D. Greene and F. Fordemwalt. il diags Am Dyestuff Rep 42:141-6 Mr 2 '53

Thiourea dioxide (formamidinesulphinic acid); new reducing agent for textile printing. P. Krug. bibliog Soc Dyers & Col J 69:606-10; Discussion. 610-11 D '53

Vat dye oxidation; review of methods and reagents; abstract. Am Dyestuff Rep 43:20 Ja 4 '54

Vat-dyed hosiery is improved by better reducing agent; abstract. R. D. Blum, jr. Textile World 103:137+ D '53

Vat-dyeing packages. E. L. Caswell. Am Dyestuff Rep 42:489-91 Ag 3 '53; Excerpt. Mod Textiles Mag 35:57-9 Ag '54

See also

Indanthrene

Wool

Adsorption of detergent in the dyeing process. L. Flett and L. F. Hoyt. Am Dyestuff Rep 43:335-8 My 24 '54

Bottom chroming wool. diags Am Dyestuff Rep 43:18 Ja 4 '54

Chemistry of diammonium phosphate. W. B. Coleman. Am Dyestuff Rep 42:167-8 Mr 16 '53

Correlation of dyeing methods and serviceability of wool; abstract. Link. Am Dyestuff Rep 43:218 Mr 29 '54

Diammonium phosphate in wool dyeing. J. N. Dalton. Am Dyestuff Rep 42:168-71 Mr 16 '53

Dyeing of a blend of wool and Fibrolane for the hand knitting trade. R. C. Cheetham. bibliog Soc Dyers & Col J 69:76-83 Mr '53

Dyeing of yarns and fabrics containing mixed fibres. R. C. Cheetham and J. S. Ward. bibliog Textile Inst J 45:P380-94 Ag '54

Dyeing wool at elevated temperatures. J. J. Iannarone and others. bibliog il diag Am Dyestuff Rep 42:666-71 S 28 '53

Dyeing wool blends and other fibers for carpets. H. F. Clapham. Am Dyestuff Rep 43:141-2 Mr 1 '54

Dyeing wool; combinations of dyes, dyeing under acid and neutral conditions; patent. Am Dyestuff Rep 42:230 Ap 13 '53

Effect of copper in wool dyeing; abstract. L. F. Story. Am Dyestuff Rep 43:248 Ap 12 '54

Effect of dyeing on the sorption of water vapour by wool. P. Larose. bibliog Soc Dyers & Col J 70:77-81 F '54

Effect on wool of boiling in aqueous solutions. R. V. Peryman. bibliog(42 ref) Soc Dyers & Col J 70:83-92 F '54

Electrical resistance of wool and other textile materials. M. L. Wright. Soc Dyers & Col J 70:120 Mr '54

How different wool grades react to dyes; abstract. W. F. Brommelsiek and others. Textile World 103:141+ D '53

How to dye wool-synthetics blends. H. Luttringhaus. Textile World 104:88-9 Ag '54

Indigosol dyeings on animal fibers; urea in acid solutions; patent. Am Dyestuff Rep 42:394 Je 22 '53

New neutral-dyeing metalized wool colors. H. F. Clapham. Am Dyestuff Rep 43:200-2+ Mr 29 '54

Protecting wool against degradation; abstract. A. J. Hall. Am Dyestuff Rep 43:348 My 24 '54

Reaction between wool and nickelammonium hydroxide; supercontraction of wool fibres in solutions of nickelammonium hydroxide. J. W. Bell and C. S. Whewell. Soc Dyers & Col J 69:491-6 D '53

Study of the afterchrome process. J. F. Gaunt. bibliog(30 ref) Soc Dyers & Col J 70:46-56 F '54; Abstract. Am Dyestuff Rep 42:784 N 23 '53; Discussion. Soc Dyers & Col J 70:56-7 F '54

Substratum form in wool dyeing. A. K. Setty. Am Dyestuff Rep 43:98-100 F 15 '54

Use of coloured fibres in yarns. H. Beevers. il Textile Inst J 45:P462-77; Discussion. P477-9 Ag '54

Use of non-ionic level-dyeing assistants with chrome-complex dyes. I. D. Rattee. Soc Dyers & Col J 69:288-95 Ag '53

Washing fastness of wool dyeings improved by modifying wool; abstract. Alexander. Am Dyestuff Rep 43:396 Je 21 '54

See also

Dyes and dyeing—Carpet yarn

Wool—acetate fibers

Dyeing mixtures of cellulose acetate and wool. Am Dyestuff Rep 42:739+ O 26 '53

Union dyeing blends of wool and synthetic fibers with water-soluble and disperse dyes. bibliog Am Dyestuff Rep 43:656-72 S 27 '54; Abstract. Textile World 103:143+ N '53

Wool—Dacron

Dyeing union shades on blends of Dacron or Orlon with wool. Am Dyestuff Rep 43:48-9 Ja 18 '54

Union dyeing blends of wool and synthetic fibers with water-soluble and disperse dyes. bibliog Am Dyestuff Rep 43:656-72 S 27 '54; Abstract. Textile World 103:143+ N '53

Wool—dynel

Union dyeing blends of wool and synthetic fibers with water-soluble and disperse dyes. bibliog Am Dyestuff Rep 43:656-72 S 27 '54; Abstract. Textile World 103:143+ N '53

Union dyeing procedure for dynel-wool blends. Am Dyestuff Rep 43:640 S 13 '54

DYES and dyeing—*Continued*

Wool—nylon

Nylon resists in mixed fabrics, synthetic tanning agents; patent. Am Dyestuff Rep 42:769 N 9 '53

Wool—Orlon

Dyeing union shades on blends of Dacron or Orlon with wool. Am Dyestuff Rep 43:48-9 Ja 18 '54

DYES as indicators

Carbonate alkalinity indicators. M. Brooke. bibliog J Chem Educ 30:419-20 Ag '53

Tracer electrophoresis; free liquid method. H. W. Hoyer, K. J. Mysels and D. Stigter. diags J Phys Chem 58:385-8 My '54

DYEWOOD

Natural dyewoods and their application. H. R. Tisdale. Am Dyestuff Rep 43:157-9+ Mr 15 '54

DYNAMIC braking. See Braking, Dynamic

DYNAMICS

Analysis of the dynamics of hydraulic servomotors under inertia loads and the application to design. H. Gold and others. diags A S M E Trans 75:1383-90; Discussion. 1390-4 O '53

Cam dynamics. D. G. Anderson. il diag Product Eng 24:170-6 O '53

Dynamic behavior of pneumatic devices. L. A. Gould and P. E. Smith, jr. diags Instruments 26:886-91, 1026-33 Je-Jl '53

Dynamic characteristics of silicone rubber. G. W. Painter. bibliog il diag Rubber Age 74:701-6 F '54; Excerpts. Machine Design 26:308+ My '54

Dynamic characteristics of valve-controlled hydraulic servomotors. J. L. Shearer. bibliog diags A S M E Trans 76:895-903 Ag '54

Dynamic mechanical properties of polyisobutylene. E. R. Fitzgerald and others. diag J Ap Phys 24:650-5 My '53

Dynamic mechanical properties of the system polystyrene-decalin. L. D. Grandine, jr. and J. D. Ferry. bibliog J Ap Phys 24:679-85 Je '53

Dynamic methods for determining the elastic constants and their temperature variation in metals; abstract. M. E. Fine. Metal Prog 65:184+ My '54

Dynamic operation of a force-compensated hydraulic throttling valve. J. L. Bower and F. B. Tuteur. diags A S M E Trans 75:1395-406 O '53

Dynamic properties of nodular cast iron. H. Majors, jr. bibliog(56 titles) il diags A S M E Trans 74:365-75; 76:205-16 Ap '52, F '54; Discussion. 74:376-80 Ap '52

Dynamic properties of plasticized polyvinyl chloride. M. G. Dilke and J. J. Millane. bibliog il diag J Ap Chem 4:507-13 S '54

Dynamical analogies. R. Yorke. il diags Engineering 176:763-4 D 11 '53

Dynamics and lubrication of a miniature turbine rotor on porous bushings. G. Sines. bibliog il diags A S M E Trans 76:319-26 F '54

Dynamics of a disordered linear chain. F. J. Dyson. Phys R 92:1331-8 D 15 '53

Dynamics of a turbojet engine considered as a quasi-static system. E. W. Otto and B. L. Taylor, 3d. diag U S Nat Advisory Com for Aeronautics 1951:177-88 '52

Errors introduced by finite space and time increments in dynamic response computation. S. Levy and W. D. Kroll. bibliog diags J Res Nat Bur Stand 51:57-68 Jl '53

Fluid dynamics. T. Baron and A. K. Oppenheim. il diags Ind & Eng Chem 45:941-51 bibliog(p948-51); 46:922-31 bibliog(123 ref, p929-31) My '53, My '54

Method of determining the dynamic characteristics of electric arcs. D. O. Bishop. bibliog diag Inst E E Proc 100 pt 2:684-7 D '53

Relation between stress-relaxation studies and dynamic properties of polyisobutylene. E. Catsiff and A. V. Tobolsky. bibliog J Ap Phys 25:145-52 F '54

Symposium on dynamic testing of soils. (Special tech. pub. no. 156) 261p bibliog(p252-61) Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '54

See also

Aerodynamics
Entropy
Hydrodynamics
Machinery—Design
Mechanics
Moments of inertia
Thermodynamics
Vibration

Bibliography

Fluid dynamics. T. Baron and A. K. Oppenheim. Ind & Eng Chem 45:948-51; 46:929-31 My '53, My '54

DYNAMICS of a particle

Nature of the transcendental curves associated with the relativistic trajectories of charged particles. L. Gold. J Ap Phys 25:691-7 Je '54

Relativistic dynamics of a charged particle in crossed magnetic and electric fields with application to the planar magnetron. L. Gold. J Ap Phys 25:683-90 Je '54

DYNAMOMETERS

Dashpot dampens dynamometer vibrations. O. Saari. diag Am Mach 98:116 Ja 4 '54

Dynamometers provide testing facilities up to 20,000 hp. il Roads & Eng Constr 92:70 Ag '54

Dynamometers; survey of modern practice. R. H. Warring. il diags Automobile Eng 43:421-6 O '53

Lifting costs can be lowered through proper interpretation of dynamometer cards. J. H. Russell, jr. diags World Oil 137:175-8+ Jl '53

Machine-tool dynamometers; a current appraisal. N. H. Cook and others. il diags Am Mach 98:125-9 My 10 '54

NBS dynamometers check huge testing machines. il Civil Eng 23:717 O '53

National bureau of standards million-pound calibrators. il Steel 133:122-4+ S 14 '53; Excerpts. Mech Eng 75:1006-7 D '53

New dynamometer drive extends testing possibilities and is another source of adjustable speed. E. H. Fredrick. il diags Tool Eng 31:51-6 D '53

Safer, faster stopping; versatile inertia-type dynamometer for testing stopping qualities. il Mill & Factory 55:235-6 Ag '54

Testing friction materials at Johns-Manville research center. il Chem & Eng N 32:2680-1 Jl 5 '54

Using dynamometer to calculate pumping unit peak torque loads. K. N. Mills. diags Pet Eng 25:B49-50+ O '53

DYNAMOS. See Electric generators, Direct current

DYNEL

Carbide starts spinning colored dynel fiber. Chem & Eng N 31:3377-8 Ag 17 '53

Dyeing and processing of synthetic fibers. R. A. Travis. Am Dyestuff Rep 42:846-7 D 7 '53

Dynel; abstract. Am Dyestuff Rep 43:37-8 Ja 18 '54

Dynel characteristics and processing; abstract. J. H. McCormick. Am Dyestuff Rep 43:97 F 15 '54

Dynel inner structure. T. A. Feild, jr. and others. bibliog il Am Dyestuff Rep 43:296-303 My 10 '54

Knitting dynel. J. MacDonald, jr. il Mod Textiles Mag 34:32 N '53

Progress in acrylics. il Mod Textiles Mag 35:50-1 S '54

Watch out for dynel! abstract. C. H. Bayley and A. S. Tweedie. Am Dyestuff Rep 43:36-7 Ja 18 '54

See also

Dyes and dyeing—
Dynel

DYSMENORRHEA. See Menstruation

DYSPROSIUM

Some magnetic properties of Dy metal. J. F. Elliott and others. Phys R 94:1143-5 Je 1 '54

Structure of Gd, Dy, and Er at low temperatures. J. R. Banister and others. bibliog Phys R 94:1140-2 Je 1 '54

DYSPROSIUM—*Continued*

Nuclear reactions

Decay of $_{66}Dy^{165m}$(1.2 min) and $_{66}Dy^{165}$(2.3 hr). W. C. Jordan and others. bibliog diag Phys R 92:1218-21 D 1 '53

Spectrum

Hyperfine structure of the spectra of dysprosium, cobalt, vanadium, manganese, and lanthanum. K. Murakawa and T. Kamei. bibliog Phys R 92:325-7 O 15 '53

E

***E* layer of the ionosphere.** See Atmosphere, Upper

EAR

Autoradiographic detection of S^{35} in the membranes of the inner ear of the rat. L. F. Bélanger. bibliog il Science 118:520-1 O 30 '53

Diseases

See also

Mastoiditis

Protection

Ear protectors. Nat Safety N 69:98+ Mr '54

EARTH

See also

Geochemistry
Geology
Geophysics
Ore deposits
Paleontology
Water, Underground

Rotation

Effect of the melting of polar ice on the length of the day. S. A. Korff. Phys R 95:296-7 Jl 1 '54

Surface

Short range propagation of mechanical disturbances in the ground. B. J. Starkey and C. M. Lock. diag J Ap Phys 25:816-17 Je '54

Uniformity of the earth's mantle. F. Birch. bibliog Geol Soc Bul 64:601-2 My '53

Temperature

See Earth temperature

EARTH movements

See also

Earthquakes
Landslides
Mud flow
Subsidences (earth movements)

EARTH pressure

Anchored bulkheads. K. Terzaghi. diags Am Soc C E Proc 79 [no 262]:1-39 S '53

EARTH roads. See Roads, Earth

EARTH temperature

Earth is a hothouse. Sci Am 189:44+ Jl '53

Method of analysis of annual variations of harbor water and earth temperatures; abstract. W. N. McDaniel and E. F. Wolf. Elec Eng 73:147 F '54

EARTHENWARE. See Pottery

EARTHMOVING industry conference

Conference, 5th, Peoria. Eng N 152:25 Ap 22 '54

EARTHQUAKE insurance. See Insurance, Earthquake

EARTHQUAKES

Father Lynch; he measures earth's tremors. il Eng N 151:52-4 Ag 27 '53

California

California earthquake questions of time, extent of damage. H. Benioff. East Underw 54:31 S 11 '53

Structural observations of the Kern County earthquake. H. J. Degenkolb. il map plans diags Am Soc C E Proc 79 [no 244]:1-6 Ag '53

What earthquake did to 34-in. line; Pacific gas & electric co. R. J. Lind. map Gas Age 114:29-31+ Jl 29 '54

What earthquakes do to pipe lines; Southern California gas co. A. B. Newby. map Gas Age 114:37-8 Jl 15 '54

EARTHQUAKES and building

Aseismic design of elastic structures founded on firm ground. L. E. Goodman and others. bibliog diags Am Soc C E Proc 79 [no 349]:1-27 N '53

Earthquake-resistant tower features floating foundation, heat-pump. il plan Eng N 151:47-8 N 19 '53

Earthquake stresses in shear buildings. M. G. Salvadori. bibliog diags Am Soc C E Proc 79 [no 177]:1-23 Mr '53; Discussion. 79 [no 333]:1-13 N '53

Structural observations of the Kern County earthquake. H. J. Degenkolb. il map plans diags Am Soc C E Proc 79 [no 244]:1-6 Ag '53

Welded building, two bays wide, designed to resist seismic loads. il Eng N 151:30-1 O 15 '53

EARTHWORK

Buford dam; features of chief construction interest. C. A. Jackson, jr. il Civil Eng 24:167-9 Mr '54

Dusk to dawn floodlighting; continuous excavation and construction operations. il Illum Eng 49:381-2 Ag '54

Earth overflow dike, Jim Woodruff dam. J. M. Polatty. diags Am Soc C E Proc 79 [no 222]:1-7 Jl '53

Palisades dam, an earthfill with special features. il map diag Eng N 151:28-31 D 31 '53

Republic moves mountains in Alabama. il Steel 133:34 Ag 31 '53

Step-down plan saves grading costs; oil tank installations. F. J. Norton. il diag Oil & Gas J 52:248+ S 21 '53

Wet weather needn't always stop your equipment. il Roads & Sts 97:64-5 Mr '54

See also

Dams
Dikes (engineering)
Drainage
Drilling and boring (earth and rocks)
Earthmoving industry conference
Excavating machinery
Excavation
Filling
Foundation soils
Foundations
Levees
Prospecting—Geophysical methods—Engineering applications
Railroads—Earthwork
Roads—Subgrades
Soil mechanics
Tunnels and tunneling

Cost

Unit prices bid by contractors. Eng N 151:197+ O 8 '53

EAST CHICAGO, Indiana

Railroads

CSS&SB to move from busy street to high-speed right-of-way. il map Ry Age News ed 135:12-13 N 9 '53

EAST INDIANS

Applicability of the Du Bois height-weight formula for measurement of body surface of Indian subjects. S. S. Ramaswamy and G. C. Mookerjee. Science 118:389-90 O 2 '53

EAST ST LOUIS, Illinois

Bridges

Investigation of the dead load stresses in the Mississippi River Veterans memorial bridge. L. T. Wyly and others. il diags Am Soc C E Proc 79 [no 219]:1-39 Jl '53

EASTERN air lines

DC-7s, Connies pave way for EAL jet fleet. Aviation W 59:17 N 23 '53

Eastern airlines; record earnings. J. H. Lewis. Barron's 33:21+ Ag 31 '53

EPT end likely to boost net. Barron's 34:25+ Ja 4 '54

EASTERN Europe. See Europe, Eastern

EASTERN industries, inc.

Preferred stock sold. Comm & Fin Chr 178:1985 N 23 '53

EASTERN underwriters association

Annual meeting, New York, Dec. 16. East Underw 54:1+ D 18 '53; Nat Underw 57:8 D 17 '53; Weekly Underw 169:1485+ D 19 '53

Midyear meeting, Rye Beach, N.H. East Underw 55:1, 34 Je 18 '54; Weekly Underw 170:1519 Je 19 '54

Progress of Public relations committee. J. R. Robinson. East Underw 54:16 D 25 '53

EASTERN underwriters association—*Continued*
Public relations committee report to membership. Weekly Underw 170:126+ Ja 9 '54
Public relations committee 10th annual meeting, New York, Feb. 8. East Underw 55:24 F 19 '54

EASTMAN, George, 1854-1932
Eastman memorial stamp. por Chem & Eng N 32:2286 Je 7 '54

EASTMAN Kodak company
New wrinkle in employee stock purchase is offered, by Eastman. Bsns W p 126 O 17 '53
Stocks to hold for dollar averaging; with comparative balance sheet items. Mag of Wall St 93:25 O 3 '53

EASTWICK, Pennsylvania. See Philadelphia

EATON manufacturing company
Net to remain high in 1954. Barron's 33:19-20 N 9 '53

EBASCO services, inc.
Ebasco out as construction contractor on $189-million Joppa power plant. Bsns W p30 Ag 8 '53
Labor blamed in contract loss. il Eng N 151:21-2 Ag 13 '53

EBERT, Johannes Ludwig, 1894-
L. Ebert. N. Konopik. por(front) bibliog J Chem Educ 31:458-9 S '54

EBULLIOMETRY. See Boiling points

EBULLIOSCOPY. See Boiling points

ECCLES, Josiah
New B.E.A. deputy chairman announced. por Elec J 151:2030 D 18 '53

ECHELLE spectrograph. See Spectrograph

ECHINOCOCCI
Science and public health research in Alaska; hydatid disease control. B. D. Blood. Pub Health Rep 68:534-5 My '53

ECHO sounding. See Sounding

ECHOES, Radio. See Radio echoes

ECKER, Frederick Hudson, 1867-
Observations of seven decades in the business of life insurance. F. H. Ecker. pors East Underw 55:24-5+ pt 2 O 1 '54

ECLIPSES, Lunar
Amateur photographs an eclipse of the moon. il Sci Am 189:155 S '53

ECONOMIC commission for Europe. See United nations—Economic commission for Europe

ECONOMIC conditions
Abnormal conditions in world commodity markets. T. L. Godey. Mag of Wall St 93:727-9+ Mr 20 '54
General impediments to private foreign investment. J. Raisman. Comm & Fin Chr 178:1328+ O 8 '53
How goes the world? A. G. Mezerik. il Dun's R & Mod Ind 62:59-60+ S '53
U.S. and the world economy. R. L. Reierson. Comm & Fin Chr 178:1626+ O 29 '53
Why the U.S. may stand alone in recession. V. L. Horoth. map Mag of Wall St 93:419-21+ Ja 9 '54
See also
Business conditions
Business depression
Cost of living
Economic policy
Economic statistics
Food supply
Labor supply
Prosperity
Standard of living
also subdivision Economic conditions under names of countries, e.g. Great Britain; United States

ECONOMIC education of employees. See Economics—Study and teaching

ECONOMIC lot sizes. See Quantities (in production)

ECONOMIC planning
Development planning in India. bibliog Int Labour R 68:186-99 Ag '53
Economy of development. Economist 168:488-9 Ag 22 '53
Epitaph for planners. Economist 168:517-18 Ag 22 '53
Kyes K.O.'s input-output studies. Bsns W p26 Ag 29 '53

ECONOMIC planning, International
Effect of population trends on economic development. S. W. Anderson. For Comm W 50:10-12+ O 12 '53; Same. Comm & Fin Chr 178:1940-1 N 19 '54
Rules for developers; reports on West Indies and Gold Coast. Economist 170:6+ Ja 2 '54
World bank and planned investment. Economist 168:718-19 S 12 '53

ECONOMIC poisons control officials, Association of. See Association of economic poisons control officials

ECONOMIC policy
Collective profit-sharing. A. Vermeulen. Int Labour R 67:495-519 Je '53
Essentials for domestic and world economic recovery. W. Harnischfeger. Comm & Fin Chr 178:529+ Ag 13 '53
High cost of economic development. M. Bronfenbrenner. Land Econ 29:93-104, 209-18 My-Ag '53
Our economic dilemma and its politics. P. E. Anderson. Comm & Fin Chr 178:1336+ O 8 '53
Roads to economic recovery. A. R. Upgren. Oil Paint & Drug Rep 165:5 My 17 '54
We can avert a sharp slump. M. Nadler. Banking 46:124 O '53
See also
Capitalism
Communism
Free trade and protection
Government ownership
Government regulation of industry
Industrial mobilization
Industry and state
Money
Socialism
Subsidies
Tariff
Taxation
also subdivision Economic policy under names of countries, e.g. Great Britain; United States

ECONOMIC relations
See also
Balance of payments
United States—Economic relations

ECONOMIC research
Effective use of cartographic aids in economics research. J. B. Culver and A. D. Fentem. bibliog maps Land Econ 29:302-13 N '53
Inventory of recent economic research on New England collected and published by the Federal reserve bank of Boston; digest of studies of special interest to metalworking industries. Iron Age 173:148+ Je 24 '54
See also
Financial research

ECONOMIC statistics
Delimitation of economic areas; statistical conceptions in the study of the spatial structure of an economic system. R. Vining. map Am Stat Assn J 48:44-64 Mr '53
National income and product in 1953; with tables. Survey of Cur Bsns 34:5-14 F '54
Review of national income and product in the third quarter; with tables. Survey of Cur Bsns 33:2-6 N '53
See also
Business statistics
Consumption (economics)—Statistics
Employment—Statistics
Income—Statistics
Index numbers (economics)
Production—Statistics
Wages—Statistics

ECONOMIC surveys
Cash on Main street; Du Pont co. third annual economic survey. Chem W 73:17 S 12 '53
World population and production; trends and outlook. W. S. Woytinsky and E. S. Woytinsky. 1268p bibliog(p1209-45) $12 Twentieth century fund, 330 W. 42d st, New York 18 '53

ECONOMICS
Economics and the engineer. P. M. McKenna. Mech Eng 76:13-16 Ja '54
Nation's economic circuit. V. G. Lippitt. diags Gen Elec R 57:34-7 Mr '54
See also
Agriculture—Economic aspects
Balance of payments
Banks and banking
Business cycles
Capital
Capitalism
Commerce
Competition
Consumption (economics)
Cost
Cost of living
Credit
Debts, Public
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Finance
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ECONOMICS—See also—*Continued*

Housing
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Manufactures
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Monopolies
Population
Prices
Production
Profit
Profit sharing
Rent
Saving
Standard of living
Strikes
Tariff
Taxation
Trade unions
Transportation
Trusts, Industrial
Wage payment plans
Wages

Bibliography

Current reading list for sales executives and salesmen; economics of distribution and consumption. Sales Management 72:95-7 Ap 1 '54

Methodology

New tool for economic studies; input-output system. Chem Eng 60:130+ N '53

Study and teaching

Breeding better insight; course at Case institute sponsored by Republic Steel. il Chem W 75:26+ Jl 31 '54

Economic education in industry. R. K. Burns. Am Pet Inst Proc 33(3):30-5 '53

Employee economic education survey. L. A. Brandt. Am Gas Assn Proc 1953:224-7

How company-sponsored project helps teach economics in schools; General Mills uses comic-book technique. T. M. Jones. il Ptr Ink 243:58+ Je 19 '53

Package programs; a simple way to present economic education. C. J. Dover. Factory Management 112:108-9 Ja '54

Steps toward economic understanding. J. Burger. Advanced Management 19:24-6 Ap '54

ECONOMICS, Engineering. See Engineering economics

ECONOMICS, Mathematical

Economic analogs. O. J. M. Smith. bibliog diags Inst Radio Eng Proc 41:1514-19 O '53

ECONOMISTS

What they (economists) say about us (accountants). J. L. Dohr. J Account 96:167-75 Ag '53; Discussion. E. H. Weinwurm. 97:149; Reply. 149-50 F '54

See also

Merrill center for economics
Mitchell, Wesley Clair

ECUADOR

See also

Chemical industries—Ecuador
Geology—Ecuador
Newspapers—Ecuador
Petroleum—Ecuador
Petroleum industry and trade—Ecuador

Economic conditions

Economic conditions abroad. For Comm W 50:3+ D 7 '53

EDDY currents

Eddy-current phenomena in the cosmotron. M. H. Blewett. diags R Sci Instr 24:856-60 S '53

Electromagnetic velometry; elimination of the effects of induced currents in explorations of the velocity distribution in axially symmetrical flow. A. Kolin and F. Reiche. diags J Ap Phys 25:409-13 Ap '54

Industrial application of eddy-current testing. W. A. Cannon, jr. Metal Prog 65:134+ Mr '54

EDGEWATER, New Jersey

Sewerage

Town saves land; burrows into cliff base to build treatment plant. Eng N 152:53-4 Ap 8 '54

EDISON, Thomas Alva, 1847-1931

Tales of Edison. Comp Air Mag 58:317 N '53

EDISON, Thomas A., inc.

Sales, profits in strong uptrend. Barron's 33:27-9 S 28 '53

EDISON electric institute

Annual meeting, 21st, Atlantic City, June 1-4; abstracts of papers. Elec World 139:102-11 Je 15 '53

Annual meeting, 22d, Atlantic City, June 1-3. Pub Util 54:44-7 Jl 8 '54

Transmission and distributors committee meeting, Minneapolis. Elec World 140:106-7 O 19 '53

EDISON medal

J. F. Peters, 1953 Edison medalist; presented by J. F. Fairman and A. C. Monteith; response by J. F. Peters. il Elec Eng 73:215-17 Mr '54

EDITING

How to edit industrial copy for fast, easy reading. N. G. Shidle. Ind Marketing 39:132-3 Ag '54

See also

Moving pictures—Editing

EDITORS

Requirements and responsibilities of a technical editor. F. E. Wall. bibliog (26 titles) J Chem Educ 30:516-21 O '53

Technical editor, a new industry phenomenon. J. A. Walter and G. Mills. Chem Eng 60:250+ Ag '53

See also

Employees' magazines—Editors
Trade journals—Editors

EDMOND, Edward J.

Edward J. Edmond voted 1953 Dow award. Nat Safety N 70:80-2 Jl '54

EDSON, Fanny Carter, 1887-1952

Sketch. J. B. Leiser. por Am Assn Pet Geologists Bul 37:1182-6 My '53

EDUCATION

Education; liability or investment? P. F. R. Venables. Textile Inst J 45:P 155-9 My '54

Moulding better calibre college graduates demands more practical attention to primary education to provide useful men for industry. W. H. Birchard. Pulp & Pa of Can 54:107-8 N '53

New illiteracy; abstract. W. H. Whyte, jr. Management R 43:80-1 F '54

See also

Chemical education
Colleges and universities
Correspondence schools and courses
Education of workers
Employees, Training of
Engineering—Study and teaching
Engineering education
Industrial education
Learning, Psychology of
Technical education
Television in education
United nations educational, scientific and cultural organization
Vocational education

Bibliography

Education index, June 1950-May 1953. 2098p H. W. Wilson co, New York '53

Economic aspects

New directions for education. J. T. Rettaliata. J Chem Educ 31:86-8 F '54

International aspects

Wandering scholars, Europe. Economist 169:879 D 19 '53

Philosophy

Lavoisier's proposals for French education. H. J. Abrahams. J Chem Educ 31:413-16 Ag '54

Georgia

Georgia story; cultural advantages. il Manuf Rec 123:85-6 My '54

Great Britain

Better education; educational system of Great Britain in relation to the study of textile technology. D. B. Moore. Textile Inst J 45:P 194-203; Discussion. P203-5 My '54

Inequalities at school; General certificate of education. Economist 168:558+ Ag 29 '53

Private school paradise; Surrey. Economist 169:234-5 O 24 '53

Scientists and mathematicians; shortage of graduate teachers in schools and technical colleges in England and Wales. Economist 169:795-7 D 12 '53

Second thoughts on education; Labour party's role. Economist 169:80-2 O 10 '53

Stalemate for science teachers. Economist 170:227 Ja 23 '54

EDUCATION—Great Britain—*Continued*

Teachers and pupils. Economist 170:13 Ja 2 '54

Teachers turn? salary controversy. Economist 170:80 Ja 9 '54

See also

Schools—Great Britain

North Carolina

North Carolina story; big change. R. E. Larsen. il Manuf Rec 123:76-7 Ja '54

North Carolina story; education. il Manuf Rec 123:94-5 Ja '54

Texas

Texas story. il Manuf Rec 122:107-8 N '53

EDUCATION, Higher

Influence of the classics on America's industrial economy. C. T. McNary. Advanced Management 19:15-18 Jl '54

Some thoughts on the purpose of a college education. R. S. Rowe. J Eng Educ 43:483 Ap '53

EDUCATION and industry

American institute of chemists' panel discussion. Chem W 74:26 My 29 '54

Breeding better insight; course at Case institute sponsored by Republic Steel. il Chem W 75:26+ Jl 31 '54

Educators must satisfy industry. R. S. Young. Chem & Eng N 31:4899 N 23 '53

Getting a friendly grip on your future employees; industrial managers of Evansville, Ind. produce textbook to show high-school students job opportunities in their home town. il Dun's R & Mod Ind 63:27+ F '54

Hometown jobs; Evansville employers launch stay home, young man, high school course. Bsns W p 116+ Ag 8 '53

How company-sponsored project helps teach economics in schools; General Mills uses comic-book technique. T. M. Jones. il Ptr Ink 243:58+ Je 19 '53

How to win friends and help students; Aramco is finding that its poster information program is paying off. il World Oil 137:83 S '53

Industry and education; the challenge ahead. G. W. Chapman. Management R 43:12-13 Ja '54

Industry in the classroom; Chemical market research association lecture series at Case institute of technology. Chem W 72:48+ Je 20 '53

Industry promotes study of the three R's. Gen Elec R 57:52-60 My '54

Insurance steps into basic education; Life Institute's family financial security education program. J. J. Robinson. il Spectator 162:24-5+ Ja '54

Life insurance and the changing pattern of education in today's secondary schools. R. W. Kelsey. East Underw 55:90+ pt 2 O 1 '54

Mutually profitable industry-campus program. C. W. Voris. Personnel J 32:338-40 F '54

Nation's schools to hear story of gas. il diag Gas Age 112:36 N 5 '53

Observations by industry on educating the technical graduate. W. S. Hill. Gen Elec R 57:17-18 Jl '54

Plant tours teach public; industry aids in economic education by showing facilities to students, community. il Iron Age 174:83 Ag 19 '54

Selling youngsters on the system; Indianapolis chemical men helping novel training program; instructional material for pupils from grade 4 to 12 in book, filmstrip, news magazine form. il Chem W 74:21 Ap 24 '54

Social study teachers learn chemical industry ABC's. Chem & Eng N 31:2280-2 Je 1 '53

Steps toward economic understanding. J. Burger. Advanced Management 19:24-6 Ap '54

Still room for improvement; results of Industrial council's forum at Rensselaer polytechnic institute. Chem W 73:14-15 N 21 '53

Trend between the lines; corporate support of scholarships and fellowships. Chem W 74:46 My 1 '54

Uphill to understanding; educator audience, industry panel. Chem W 72:13-14 My 30 '53

Urges school industry team. P. E. Clark. East Underw 54:29 O '53

What's my line? Dow research directors give high school students their scientific line. Chem & Eng N 32:612 F 15 '54

Youth gets industry attention; survey reveals firms engaged in activities to inform students. Elec World 141:73 F 8 '54

See also

Colleges and universities—Relations with business

Engineering education—Industry cooperation

EDUCATION and state

National science foundation advisory committee on government-university relationships. Opt Soc Am J 44:177 F '54

See also

Scholarships and fellowships, Government

EDUCATION of adults

See also

Forums, Open

Trade unions—Educational work

Directories

Adult education; a directory of national organizations represented in the Council of national organizations of the adult education association. 104p pa $2 Council of national organizations of the adult education assn, room 205, The Cooper Union, 4th av. at 7th st, New York 3 '54

International directory of adult education. 324p $4.75 United nations educational, scientific and cultural organization; for sale by Columbia univ. press, 2960 Broadway, New York 27 '52

EDUCATION of workers

Brass tacks on business for your employees; study courses offered in the meat field. I. C. Miller. Food Eng 26:82+ Jl '54

Current problems and practices in workers' education. B. Ghosh. bibliog Int Labour R 68:14-46 Jl '53

Economic education in industry. R. K. Burns. Am Pet Inst Proc 33(3):30-5 '53

Educating the office worker; a survey. A. H. Gager. Management R 42:455 Ag '53

Education; Stanford-Food machinery American ideals course. Chem Eng 61:228 My '54

Educational refund plan of Mutual Life spurs outside study. Nat Underw (Life ed) 57:1 Ag 21 '53

In-company scholarships. Chem & Eng N 32:2566-7 Je 28 '54

Package programs; a simple way to present economic education. C. J. Dover. Factory Management 112:108-9 Ja '54

Putting some buy into selling free enterprise; contest held in conjunction with Wisconsin state fair. A. G. Larke. il Dun's R & Mod Ind 62:61-3+ O '53

Successful community-industry project. C. J. Crosby and J. P. Nolan. Advanced Management 19:12-13 S '54; Same cond. Personnel J 33:103-4 Jl-Ag '54

Training courses, campaigns to help employe magazines. R. Newcomb and M. Sammons. Ind Marketing 38:154+ N '53

Training in-plant and outside courses; abstract. W. W. E. Ash, jr. Paper Tr J 137:55 D 11 '53

See also

Trade unions—Educational work

Vocational education

EDUCATIONAL advertising. See Advertising, Educational

EDUCATIONAL guidance

Counseling by statistics. F. J. Fornoff and R. N. Rhoda. J Chem Educ 30:194-5 Ap '53

EDUCATIONAL measurements

Validity of examinations. I. Wladaver. bibliog J Eng Educ 44:197-204 N '53

See also

Chemistry—Tests and scales

Teaching load

EFFICIENCY, Industrial

Better methods raise ouput, reduce costs, improve working conditions; Packard motor car co. D. G. Baird. il Mill & Factory 55:98-101 Jl '54

Boosting production efficiency; a case study. R. Levin. Management R 43:36-7 Ja '54

EFFICIENCY, Industrial—*Continued*

Good production methods reduce costs; work study. J. V. Connolly. Chem & Ind p670-4 Je 12 '54

How Alcoa's building ups efficiency. H. O. Brayer. il Am Bsns 24:10-12+ F '54

Human factors in machine indexing. D. G. Malcolm and G. L. Marshall. il Machine Design 25:143-5 N '53

Increased efficiency through production planning. D. B. Kirk. Advanced Management 18:25-8 Ap '53

Individuals and a team will make it work; work simplification program. H. P. Nissley. Advanced Management 18:7-8 D '53

New methods save money; Lyons metal products. il Mill & Factory 55:102-3 Jl '54

Older workers' efficiency in jobs of various types. M. W. Smith. bibliog Personnel J 32:19-23 My '53

Output; U.S. excels without magic; French industrialists look for source of U.S. productive power. M. Bonzel. Iron Age 173:73 Ap 1 '54

Planning pays off in higher efficiency, better working conditions; Ohio screw products inc. W. D. Latiano. il plan Iron Age 173:150-2 F 4 '54

Quality efficiency rating for paper mill production. R. A. Butler and T. D. Syme. Tappi 37:sup 192A-5A My '54

Rules of work simplification for supervisors. H. R. Nissley. Management R 43:38-40 Ja '54

Scientific management applied to the field of human relations. J. T. Diebold. Advanced Management 18:27-9 D '53

Why and how of wage incentives. B. Payne. il Dun's R & Mod Ind 63:60-2+ Ja '54

Work analysis cuts fatigue; Remington Rand. il Mill & Factory 54:127 Ja '54

Work simplification cuts plant and office costs. H. F. Burrows. N A C A Bul 34:1151-7 My '53

See also

Ability tests
Color in industry
Control charts
Employees—Rating
Employment management
Executives
Factory management
Fatigue
Foundry management
Industrial engineering
Industrial management
Labor productivity
Machine shop management
Machinery, Replacement of
Mechanical handling
Motion study
Office management
Planning
Standardization
Time study
Work sampling

EFFLORESCENCE of bricks. See Bricks—Efflorescence

EGG beaters

Manufacture

Better beater casting; Turner & Seymour mfg. co. il Steel 135:138 S 13 '54

EGG shells

Some physical and chemical properties of egg shells; abstract. C. Tyler. Chem & Ind p635-6 Je 27 '53

EGG trade

Poultry and eggs, 1949-1952. Survey of Cur Bsns 1953 Sup p 146 [supplemented in monthly numbers]

Great Britain

Eggs and the taxpayer. Economist 170:83-4 Ja 9 '54

EGGS

Mechanical handling of eggs. il Mod Packaging 28:202-3 S '54

Memory unit controls operations in automatic food plant; electro-mechanical egg candling, coating, and packaging machinery. il Food Eng 26:44-7 S '54

Symposium on eggs; abstracts. Chem & Ind p635-9 Je 27 '53

Preservation

Maintenance of quality in home-produced eggs during cold storage and during direct distribution; abstract. N. E. Holmes. Chem & Ind p636-7 Je 27 '53

Preservation of eggs; abstract. J. Brooks. Chem & Ind p636 Je 27 '53

EGGS, Frozen

Bacteriology of English frozen whole egg; abstract. C. L. Heller. Chem & Ind p637 Je 27 '53

Do frozen eggs have a future? A. R. Winter. Refrig Eng 62:55+ Jl '54

EGLESTON brothers and company

Egleston marks 125th year. il Steel 134:79 My 17 '54

EGYPT

See also

Chemical industries—Egypt
Electric apparatus industry—Egypt
Hydroelectric plants—Egypt
Petroleum industry and trade—Egypt

Commercial policy

Egypt extends its supply controls. For Comm W 50:8 Ag 24 '53

Economic conditions

Economic conditions abroad (cont). For Comm W 50:6 Ag 3; 6 Ag 17; 6 D 14 '53

Economic relations

Great Britain

Alternatives on the Canal. Economist 169:9-10 O 3 '53

Foreign relations

Dragon's teeth by the Nile; Egypt and the Sudan elections. Economist 169:641-2 N 28 '53

Neutral Egypt? Economist 170:13-14 Ja 2 '54

Great Britain

Final talks in Egypt? Economist 168:838-9 S 26 '53

Too quiet flows the Nile. Economist 169:591-2 N 21 '53

Industries and resources

Federation of Egyptian industries strengthened by passage of law. For Comm W 50:11 D 28 '53

Politics and government

Does Neguib see clear? dissolution of the Moslem brotherhood. Economist 170:240-1 Ja 23 '54

Year of Neguib. Economist 168:327-8 Ag 1 '53

EHRLICH, Paul, 1854-1915

Ehrlich centenary. Chem & Eng N 32:1107 Mr 22 '54

Father of chemotherapy. Chem Age (Lond) 70:15-16 Ja 2 '54

EICOSANE

Synthesis of 4,5-diamino-*n*-eicosane and of 2-methyl-3,4-diamino-*n*-nonadecane. M. Ikawa and C. Nieman. Am Chem Soc J 75:6314-15 D 20 '53

EIGENFUNCTIONS. See Atomic orbitals

EINSTEIN'S unified field theory. See Unified field theory

EISENHOWER, Dwight David, 1890-

Eisenhower; a study in contrasts. Bsns W p32-3 D 5 '53

Outlines program in state of the Union message. D. D. Eisenhower. por Comm & Fin Chr 179:167+ Ja 14 '54

President's late start. Economist 170:213-14 Ja 23 '54

Realistic appraisal of the President's program. H. DuBois. por Mag of Wall St 93:476-7+, 551-3+ Ja 23-F 6 '54

EJECTING devices (machine work)

Cam-operated air cylinder for rapid part ejection. G. J. Bowman. diag Am Mach 98:124 F 1 '54

Double-acting pressure pad aids part ejection. G. J. Bowman. diag Am Mach 98:117 Ja 4 '54

EJECTORS

How to check your jet utilities. P. Messina and others. bibliog il Chem Eng 61:161-4 Ja '54

ELAIDIC acid

Quantitative study of the autoxidation products of elaidic acid. G. King. Chem Soc J p2114-22 Je '54

ELASTICITY

Anelasticity of quartz. R. K. Cook and R. G. Breckenridge. bibliog diag Phys R 92:1419-23 D 15 '53

ELASTICITY—*Continued*

Apparatus for measuring the dynamic shear elasticity and viscosity of solids at high audio frequencies. J. J. Benbow. diags J Sci Instr 30:412-13 N '53

Approximations in linear viscoelasticity theory; delta function approximations. H. Leaderman. J Ap Phys 25:294-6 Mr '54

Damping, elasticity, and fatigue properties of temperature-resistant materials. B. J. Lazan and L. J. Demer. bibliog il diags Am Soc T M Proc 51:611-46; Discussion. 647-8 '51

Dynamic methods for determining the elastic constants and their temperature variation in metals; abstract. M. E. Fine. Metal Prog 65:184+ My '54

Elastic moduli of glasses by a dynamic method. S. Spinner. bibliog diags Am Cer Soc J 37:229-34 My 1 '54

Elastic wedge problem. J. H. Huth. J Ap Phys 25:929 Jl '54

Elasticity and thermal expansion of germanium between —195 and 275° C. M. E. Fine. bibliog J Ap Phys 24:338-40 Mr '53

Epicentral displacement caused by elastic waves in an infinite slab. A. G. Mencher. bibliog diag J Ap Phys 24:1240-6 S '53; Correction 24:1529 D '53; Discussion. A. S. Ginzbarg. 25:804; Reply. 804 Je '54

Experimental study of low-frequency effects on the dynamic modulus of a Buna-N rubber. A. Q. Hutton and A. W. Nolle. diag J Ap Phys 25:350-4 Mr '54

Force-temperature behavior of nylon filaments at fixed extensions. G. M. Bryant. bibliog Textile Res J 23:788-92 N '53

Free surface motion induced by shock waves in steel. W. A. Allen. bibliog il diag J Ap Phys 24:1180-5 S '53

G-modulus temperature coefficient for beryllium copper wire. J. T. Richards. J Metals 6:Trans 827-8 Jl '54

General system describing the visco-elastic properties of bitumens and its relation to routine test data. C. van der Poel. bibliog J Ap Chem 4:221-36 My '54

Improved method of measuring dynamic elastic constants, using electrostatic drive and frequency-modulation detection. H. Pursey and E. C. Pyatt. bibliog il diags J Sci Instr 31:248-50 Jl '54

Internal friction and Young's modulus of cold-worked copper single crystals. J. Weertman and J. S. Koehler. bibliog diags J Ap Phys 24:624-31 My '53

Low-temperature internal friction and elasticity effects in vitreous silica. M. E. Fine and others. bibliog J Ap Phys 25:402-5 Mr '54

Measurement of elastic constants at low temperatures by means of ultrasonic waves. H. J. McSkimin. bibliog(27 ref) diags J Ap Phys 24:988-97 Ag '53

Nonexistence of a finite critical time for linear viscoelastic columns. J. Kempner and F. V. Pohle. J Aeronautical Sci 20:572-3 Ag '53

Principle of complementary energy in nonlinear elasticity theory. H. L. Langhaar. bibliog Franklin Inst J 256:255-64 S '53

Reduced equation for viscoelastic behavior of amorphous polymers in the transition region. A. V. Tobolsky and E. Catsiff. Am Chem Soc J 76:4204-8 Ag 20 '54

Second-order elastic deformation of solids. D. S. Hughes and J. L. Kelly. bibliog diags Phys R 92:1145-9 D 1 '53

Shear shimmy; evaluation of dynamic mechanical properties of materials. diag Ind & Eng Chem 45:sup 15A+ O '53

Similarity of thermal stresses in elastic bodies. M. Lessen. J Aeronautical Sci 20:716-17 O '53

Specific heats of simple solids and moments of elastic frequency spectra. J. Hwang. J Chem Phys 22:154-5 Ja '54

Substructure of metals determines elastic behavior. N. P. Goss. il Steel 133:130 Ag 3 '53

Test of the theory of secondary viscoelastic stress. M. Mooney. bibliog J Ap Phys 24:675-8 Je '53

Thermal and elastic properties of α-keratin. H. B. Bull. bibliog J Phys Chem 58:101-3 F '54

Thermoelastic properties of synthetic fibres. J. F. Clark and J. M. Preston. bibliog diag Textile Inst J Trans 44:T596-608 D '53

Torsion of anisotropic elastic cylinders by forces applied on the lateral surface. H. Luxenberg. bibliog diag J Res Nat Bur Stand 50:263-76 My '53

Two axes of twist in elastic prisms. D. G. Ashwell. bibliog Engineering 176:769-71 D 18 '53

Viscoelastic properties of dilute polymer solutions. P. E. Rouse, jr. and K. Sittel. bibliog J Ap Phys 24:690-6 Je '53

Wave propagation in finite rods of viscoelastic material. E. H. Lee and I. Kanter. bibliog J Ap Phys 24:1115-22 S '53

See also

Aeroelasticity (term)
Compressibility
Creep of materials
Deformation (mechanics)
Elastometers
Friction, Internal
Photoelasticity
Plasticity
Poisson's ratio
Springs (mechanism)
Strains and stresses
Strength of materials
Torsion

ELASTOMERS. See Rubber, Artificial

ELASTOMETERS

Objectivity comes to food research; Monsanto's resonance elastometer. il Chem & Eng N 32:3356 Ag 23 '54

ELASTOVISCOSITY. See Viscosity

ELBOW

Painful elbow. G. G. Maida. Ind Med 22:567-8 D '53

ELECTIONS

See also

Campaign funds

Canada

Canada's election campaign. C. M. Short. Banking 46:76+ Ag '53

Canada's election prospects. Economist 168:31-2 Jl 4 '53

Liberals win in Canada. Economist 168:437 Ag 15 '53

China

China prepares for elections. Economist 169:110 O 10 '53

France

Elysée stakes; presidential election. Economist 169:322 O 31 '53

French presidency. Economist 169:872 D 19 '53

Germany

Electioneering in Germany. Economist 168:637-8 S 5 '53

New Germany; Adenauer election victory. Economist 168:677-8 S 12 '53

Great Britain

Labour and the by-elections. Economist 169:799-800 D 12 '53

Swing goes on; Abingdon by-election. Economist 168:8-9 Jl 4 '53

Portugal

Low poll in Portugal. Economist 169:574 N 21 '53

Russia

Russians to the polls in March to elect new deputies for their supreme Soviet. Economist 170:147 Ja 16 '54

Sudan

Dragon's teeth by the Nile; Egypt and the Sudan elections. Economist 169:641-2 N 28 '53

Sudan elections. Economist 169:476 N 14 '53

United States

Battle for Congress takes shape. Bsns W p25-6 N 14 '53

Yugoslavia

Tito's democracy. Economist 169:649-50 N 28 '53

ELECTRETS

Case of charged density distribution versus semi-permanent polarization as a basis for electret behavior. W. F. G. Swann. Franklin Inst J 256:167-75 Ag '53

ELECTRETS—*Continued*

Electrets. G. G. Wiseman and E. G. Linden. bibliog diags Elec Eng 72:869-72 O '53

Fundamentals in the behavior of electrets. W. F. G. Swann. diags Franklin Inst J 255:513-30 Je '53

ELECTRIC accidents. See Electricity, Injuries from

ELECTRIC alarms

Galvanometer operated alarm switch. J. L. Horrell. diag J Sci Instr 31:107 Mr '54

ELECTRIC analogies. See Aerodynamics—Electic analogies; Gas distribution—Electric analogies; Heat transmission—Electric analogies; Hydraulics—Electric analogies; Mechanics—Electric analogies; Physics—Electric analogies

ELECTRIC apparatus and appliances

Electrical engineering in 1953. il Engineer 197:103-5 Ja 15 '54

Wiring, lighting, fixtures, and electrically operated devices. il plans diags Am Bld 75:291+ Ap '53

See also

Airplanes—Electric equipment
Commutators
Electric apparatus and appliances, Domestic
Electric apparatus industry
Electric batteries
Electric cables
Electric capacitors
Electric circuit breakers
Electric coils
Electric controllers
Electric equipment
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Electric lamps
Electric machinery
Electric meters
Electric motors
Electric precipitation
Electric protective apparatus
Electric rectifiers
Electric switchgear
Electric transformers
Electricity in mining
Electricity on the farm
Electromagnets
Galvanometers
Incubators, Electric
Oscillators
Photoelectric cells
Potentiometers
Radar
Radio apparatus
Reactors
Refrigerators, Electric
Relays
Spark plugs
Storage batteries
Voltage regulators

Exhibitions

Engineering and marine exhibition, 19th, London; electrical exhibits. il Elec J 151:637-45, 725-8 Ag 28-S 4 '53; Elec R (Lond) 153:501-21 S 4 '53

Factory equipment exhibition. il Elec J 152:1027 Mr 26 '54; Elec R (Lond) 154:579 Mr 26 '54

Hotel and catering exhibition, London. il Elec J 152:282-3 Ja 22 '54; Elec R (Lond) 154:209-12 Ja 29 '54

International textile machinery and accessories exhibition, Manchester; electrical devices. il Elec R (Lond) 153:966-9 O 23 '53

Newark Electric stages its own trade show for 2,000 buyers. il Ind Marketing 39:72-3 Ap '54

Merchandizing

See also

Electric apparatus and appliances, Domestic—Merchandizing
Electric apparatus industry
Electric utilities—Appliance selling
Electric utilities—Dealer relations

Protection

Overload relays and circuit breakers for protecting motorized appliances and their branch circuits. G. W. Heumann. il diags Elec Eng 72:1056-60 D '53

Safety measures

Safety precautions in electronic apparatus, with particular reference to medical applications; discussion. Elec J 151:1677-8 N 20 '53; Elec R (Lond) 153:1177 N 20 '53

ELECTRIC apparatus and appliances, Domestic

Domestic electrical appliances, sales billed, 1949-1952. Survey of Cur Bsns 1953 Sup p 167 [supplemented in monthly numbers]

Domestic electrical equipment. il Elec R (Lond) 154:277-82, 406-10, 521-4 F 12, Mr 5, 19 '54

Electricity in the home; recent developments and apparatus; with directory of manufacturers. il Elec R (Lond) 153:832-87 O 16 '53

1954's appliances make their bow. il Elec World News ed 141:37-8 F 1 '54

No eyes to see; Western Pennsylvania school for the blind; Westinghouse sells new appliances to the school at half price. il Sales Management 71:28-9 Ag 15 '53

Research and engineering progress, 1953; appliances. il Gen Elec R 57:57-9 Ja '54

Study women, appliance designers told. J. C. Sharp. Machine Design 26:156+ Jl '54

See also

Dishwashing machines
Electric generator sets, Domestic
Electric stoves
Electric water heaters
Electricity in air conditioning
Electricity in the home
Refrigerators, Electric
Washing machines

Manufacture

Appliance Park; 100 acres of mechanization; General Electric; illustration with text. B. C. Brosheer. Am Mach 97:102-7 D 21 '53

GE keyed to competitive production in new plant; including one of the finest porcelain enameling operations. il Cer Ind 62:62-3+ F '54

High production applications of resistance welding at Frigidaire. C. D. Shultheis. il diags Welding J 33:768-77 Ag '54

Merchandizing

But you can't sell kilowatts on glamor. J. H. Collins. Pub Util 53:542-9 Ap 29 '54

Ceico saturation study on appliances gives picture of sales potential. Elec World News ed 140:39 Ag 31 '53

Does retailing meet the test? K. L. Hampton. Elec West 111:127-9 S '53

Domestic development. E. A. Fowler. il Elec R (Lond) 153:1093-8 N 13 '53

Electrical appliances; revolution in merchandising. R. W. Armstrong. il Trusts & Estates 92:640-3 S '53

Free-trial promotion zooms appliance sales; General Electric and Maison Blanche, New Orleans, cooperate on successful try it, then buy it promotion. B. L. Gough. il Ptr Ink 244:38+ Ag 7 '53

G-E adds up on Operation choo-choo. J. F. McBride. il Sales Management 71:28-9 Jl 15 '53

Gibson closes sales with a tv twist. Sales Management 70:108 Ap 1 '53

It's still the best way to sell. il Elec West 111:122-3 O '53

Shows 'em how to demonstrate. il Elec West 111:111-12 N '53

Thor tells 'em what they want to hear; stage presentation for distributors. il Sales Management 70:91 My 20 '53

Traffic-building idea woos, sells club women on Thor appliances. il Sales Management 71:28-9 D 15 '53

Protection

Miniature fuses for appliance circuits' protection. A. J. Steele. il Elec Eng 72:994-5 N '53

Role of fuses in appliance protection. J. C. Lebens. il Elec Eng 72:901-3 O '53

Testing

Testing house of the Electrical development association. il Engineer 196:503-4 O 16 '53; Elec J 151:1119-22 O 9 '53; Elec R (Lond) 153:785-7 O 9 '53

ELECTRIC apparatus industry

Appliance sales vs inadequate wiring. F. R. Innes. Elec World News ed 140:39-40 N 9 '53

Appliances; sales top predictions. K. W. Bennett. Iron Age 174:55-6 Jl 29 '54

Ask protection against imports; General Electric and Westinghouse call for curbs on sale of foreign electrical equipment in the United States. P. D. Reed; G. Price. Elec World 140:65-6 D 28 '53

Competition for contracts keen; Interior gives autotransformer orders to American electrical company and to foreign firm. Elec World News ed 141:9 F 15 '54

ELECTRIC apparatus industry—*Continued*

Controlmakers welcome competition. il Steel 134:45 Mr 22 '54

Electrical imports show rapid rise. Elec World News ed 140:6-7 D 21 '53

Electronics mark up record sales. R. C. Sprague. il Steel 134:55-6 Mr 1 '54

GE asks reversal; requests Corps of engineers to reconsider contract awarded to British concern. Elec World 141:80 Ja 11 '54

Good small appliance salesmen needed. il Steel 134:50-1 Ja 25 '54

Headed for trouble? no sir! J. C. Sharp. Elec World News ed 139:23+ Je 22 '53

Is the wholesaler losing out? GE and Hotpoint adopt direct shipments to dealers for mixed carloads. Bsns W p41-2 N 28 '53

Major appliance outlook for 1954; the customer's back at the switch. A. W. Zimmerman. Steel 133:40-1 D 21 '53

Manufacturers' prospects good. W. J. Donald and A. J. Nesti. Elec World 141:81 Ja 11 '54

Now, about appliances. Elec World 140:79 D 28 '53

Outlook bright for 1954 sales. Elec World 140:142 D 28 '53

Second best year coming; National electrical manufacturers association expects decline in its industry. il Steel 134:41 Ja 11 '54

Tackle distribution costs; manufacturers expect to achieve savings by centralizing manufacturing facilities. Elec World News ed 140:44-5 N 23 '53

Tariffs; some protection needed. Steel 134:39 Ja 11 '54

See also

Electric utilities—Appliance selling
Federal electric products company
General electric company
National electrical manufacturers association
Westinghouse electric corporation

Advertising

No more skippish ads for Hotpoint. J. F. McDaniel. il Sales Management 73:82+ Jl 1 '54

Securities

Can electrical equipments maintain prosperity? with table on position of leading electrical equipment companies. G. L. Merton. Mag of Wall St 92:557-9 Ag 8 '53

Statistics

Electrical equipment, 1949-1952. Survey of Cur Bsns 1953 Sup p 167 [supplemented in monthly numbers]

Manufacturing, 1953; charts and table. Elec World 141:184-5 Ja 25 '54

1953 appliance and tv-radio sales approach 1950 dollar volume record. Elec World 141: 228+ Ja 25 '54

Africa, East

East African imports; with table. Elec R (Lond) 154:88 Ja 8 '54

Brazil

Brazilian regulations revised. Elec R (Lond) 153:1291 D 4 '53

Brazilian trade prospects. Elec R (Lond) 154: 524 Mr 19 '54

Canada

Canadian electrical manufacture, 1951 and 1952. Elec R (Lond) 154:268 F 5 '54

Canadian exports. Elec R (Lond) 154:398 F 26 '54

Six months' Canadian imports. Elec R (Lond) 153:1354 D 11 '53

Egypt

Egyptian imports, 1952 and 1951 compared. Elec R (Lond) 153:524 S 4 '53

Germany

Western Germany today; electricity for the home; abstracts. E. J. Sharp. Elec J 152: 357-8 Ja 29 '54; Elec R (Lond) 154:199 Ja 29 '54

Great Britain

Beama forecasts downward trend. D. M. Buist. Elec J 151:1495 N 6 '53

British institute of management 8th annual conference, Harrogate, Nov. 11-14; abstracts of papers. Elec J 151:1666-8 N 20 '53

Crompton's seventy-five years. il Elec J 151: 1151-2 O 9 '53; Elec R (Lond) 153:795 O 9 '53

Electrical imports and exports; last quarter of 1953. Elec J 152:354-5 Ja 29 '54

Electrical manufacturing, 1953. il Elec R (Lond) 154:37-8, 85, 107-8, 205-6, 259-60, 468-9 Ja 1-15, 29-F 5, Mr 12 '54

Electricity in the home; recent developments and apparatus; with directory of manufacturers. il Elec R (Lond) 153:832-87; 154: 173-4 O 16 '53, Ja 22 '54

Engineering outlook; coal and electricity mining machinery, boilers and heavy electrical plant. Engineering 177:136-9 Ja 29 '54

Engineering outlook; light electrical and cable industries. Engineering 177:331-4 Mr 12 '54

Everything electrical; service to home and industry in 1953. il Elec J 152:770-2 Mr 5 '54

External trade classification. J. C. Hancock. Elec R (Lond) 154:17-18 Ja 1 '54

Generation, industry, transport and medicine. il Elec J 152:613-15 F 19 '54

Marine, aircraft, industrial and power plants. il Elec J 152:520-2 F 12 '54

Midlands are very busy. il Elec J 152:348-50 Ja 29 '54

Orders received during the past twelve months. il Elec J 151:2043-4 D 18 '53

Overseas electrical trade. Published in the last number of each month of Electrical review (London)

Malaya

Malayan electrical imports; first half of 1952 compared with first half of 1953. Elec R (Lond) 153:1284 D 4 '53

Portugal

Market in Portugal. Elec J 151:1047-8 O 2 '53

Rhodesia

Markets in Rhodesia. Elec J 151:1133-5 O 9 '53

Russia

Russia claims records in its 1953 production of electrical machinery, appliances and electricity. Elec World 141:194 F 22 '54

South Africa

South Africa and the electrical industry. Elec R (Lond) 154:470-1 Mr 12 '54

Western states

Great changes; now comes the time to digest them all. il Elec West 112:112-23 F '54

ELECTRIC arc

Arc-quenching circuit; abstract. B. H. Stonehouse. Elec R (Lond) 154:383 F 26 '54

Arcing at electrical contacts on closure; activation of contacts by organic vapor. L. H. Germer. il J Ap Phys 25:332-5 Mr '54

Arcing at electrical contacts on closure; cathode mechanism of extremely short arcs. P. Kisliuk. bibliog(36 ref) diag J Ap Phys 25:897-900 Jl '54

Arcing of electrical contacts in telephone switching circuits. M. M. Atalla. bibliog il diags Bell System Tech J 32:1231-44, 1493-506; 33:535-58 S-N '53, My '54

Controlling d-c arcs; abstract. R. L. Hurtle. il Elec Eng 72:1113 D '53

Electronic arc suppression in traction rectifiers. Engineering 176:773 D 18 '53

High-speed motion-picture photography of electrical arcs on a high-voltage power system. E. J. Harrington and H. C. Ramberg. il Soc Motion Picture & Tv Eng J 60:675-9 Je '53

Maximum arc energy during interruption of alternating current. H. Goldenberg. Engineer 196:597-8 N 6 '53

Method of determining the dynamic characteristics of electric arcs. D. O. Bishop. bibliog diag Inst E E Proc 100 pt 2:684-7 D '53

Motion of arc cathode spot in a magnetic field. R. M. St John and J. G. Winans. bibliog il diags Phys R 94:1097-102 Je 1 '54

ELECTRIC arc—*Continued*

Probe studies of energy distributions and radial potential variations in a low pressure mercury arc. R. M. Howe. bibliog diags J Ap Phys 24:881-94 Jl '53

Reaction occurring in CO_2–H_2O mixtures in a high-frequency electric arc. K. A. Wilde and others. Science 118:43-4 Jl 10 '53

Stability of 2,6-di-tertiary-butyl-para-cresol inhibited transformer oil in an arc. R. N. Hazelwood and others. bibliog Electrochem Soc J 101:185-8 Ap '54

Watch that arc; hazard in cathodic-protection cables. M. E. Parker. diags Oil & Gas J 52:97+ S 7 '53

See also

Electric lamps, Arc

Electric welding, Arc

ELECTRIC associations

See also

National electrical manufacturers association

ELECTRIC auto-lite company

Increased replacement business cutting dependence on new car volume. C. A. Clark, jr. Barron's 33:11+ S 7 '53

ELECTRIC batteries

Atom; convert energy directly; RCA's millionth-of-a-watt battery. il diag Iron Age 173:85 F 4 '54

Atomic battery employs radioactive tritium. Chem & Eng N 32:1622 Ap 19 '54

Atomic battery raises doubts. il Elec World 141:70 F 8 '54

Atomic cell; trillion microwatts shy. il diag Elec World News ed 141:25 F 15 '54

Atoms to amperes; device to convert nuclear radiation directly into electricity. Chem W 74:48 F 6 '54

Battery; claim 1950 cell converted nuclear to electric energy; Ohmart corp. Iron Age 173:84 F 18 '54

Bell solar battery. diags J Metals 6:722-3 Je '54

Correct application of the Gibbs-Helmholtz equation to reversible galvanic cells in which the compositions of some of the phases vary with temperature. R. E. Barieau. bibliog J Chem Phys 21:1827-8 O '53

Direct conversion of nuclear energy to usable electricity achieved. il diag Elec Eng 73:289-90 Mr '54

Electricity from sunlight; Bell telephone laboratories. il Chem & Eng N 32:1768 My 3 '54

Excitement over the atomic battery. Pub Util 53:244 F 18 '54

Experimental atomic battery. E. W. Engstrom. il diag Mech Eng 76:265-6 Mr '54

Matter of timing; Ohmart cell. il Chem W 74:96 F 20 '54

Nuclear energy direct to electric: atomic battery. il diag Chem & Eng N 32:592 F 15 '54

Semiconductors as solid electrolytes in electrochemical systems. K. Lehovec and J. Broder. bibliog Electrochem Soc J 101:208-9 Ap '54

Silicon converts light to electrical power. il Materials & Methods 39:7 Je '54

Slice-away battery assemblies designed for transistor use. Elec Eng 72:1044-5 N '53

Solar battery; Bell labs' unit converts light directly to electricity. Iron Age 173:51 Ap 29 '54

Will atomic battery change present methods of electrical generation? il diags Power 98:84-5 Ap '54

See also

Electrolytic cells

Photoelectric cells

Standard cells

Storage batteries

Manufacture

Three colors from one inventory; tops for flashlight batteries; Bright star industries. il Am Mach 98:104 Ja 4 '54

ELECTRIC blankets

History of the automatic blanket. G. C. Crowley and R. G. Holmes. il Gen Elec R 57:58-61 Mr '54

Manufacture

Making electric blankets; Warm-Glow co. il diag Elec J 152:342-3 Ja 29 '54

ELECTRIC brakes. See Brakes, Electric

ELECTRIC braking. See Braking, Electric

ELECTRIC breakdown. See Electric discharges

ELECTRIC broilers

Rating

Home rotisseries. il Consumers Res Bul 32:9-11 O '53

ELECTRIC bulbs. See Electric lamps

ELECTRIC cable reels

Simple jacks lift 15,000-lb reels. G. J. Newman. il Elec World 140:123 D 28 '53

Manufacture

Giant aluminum reels pose no problems; Combined equipment co. il Steel 133:159-60 N 9 '53

ELECTRIC cables

Assessment of the impregnated pressure cable. L. G. Brazier and others. bibliog diags Inst E E Proc 100 pt 2:641-52 D '53; Same cond. Engineer 195:745-8 My 22 '53; Discussion. Inst E E Proc 100 pt 2:652-60 D '53

Critical soil moisture condition affecting buried transmission cables. W. A. Hadley and R. Eisenstadt. Elec Eng 72:989-92 N '53

Electric wire and cable recommendations for the pulp and paper industry. A. O. Mortenson. Tappi 37:81-3 Mr '54

Electricity and aircraft; supply system. D. C. Flack. il Elec J 151:1832-6 D 4 '53

Evaluation of cable movement due to cyclic loading; abstract. C. A. Bauer and R. J. Nease. Elec Eng 73:62 Ja '54

Flexible leads for low-frequency electric furnaces. M. Eaton and S. B. Thomas. il diags Electrochem Soc J 101:110-16 F '54

Glands for electric cables. Engineering 177:119 Ja 22 '54

How to cut trolley-line costs; illustrations with text. Coal Age 59:96+ Ja '54

How to select size of rectifier cable. M. E. Parker. Oil & Gas J 52:161 O 19 '53

Mine-trailing cables. S. Bunish. il diags Coal Age 58:75-9 D '53; Same cond. Elec Eng 72:1061-5 D '53

132-kv three-core cable installation. Engineering 176:695 N 27 '53

Winterize with heating cable. J. L. Devlin and T. J. Roche. il Power Eng 58:68-9 Ag '54

See also

Electric lines

Installation

Co-op chooses underground for mountain top. il Elec World 141:126 F 22 '54

11-mile pipe cable completes 132-kv loop; illustrations with text. E. T. Carmichael and T. E. Starrs. Elec World 140:76-9 S 7 '53

How Orient installs a power cable in a shaft. il Coal Age 59:116 My '54

Installation of buried cables. G. W. Lee. diags Commun Eng 13:33 S '53

Installation of high-voltage mine-power feeder cables. T. R. Weichel and others. il diag Min Cong J 40:57-60 My '54

I.E.E. wiring regulations; supplements for cables and caravan installations. Elec R (Lond) 154:283 F 12 '54

Manchester Ship Canal cable installation. il Elec J 151:1769 N 27 '53

Mineral-insulated copper-sheath cable serves well in this hot, wet, cramped installation; E. R. Squibb & son. R. J. Bergler. il diags Power 98:102-4+ Ja '54

115-kv pipe-type compression cable installations at Toronto, Canada; abstract. G. E. Kewin and others. il Elec Eng 73:247 Mr '54

Pipe-type cable installation techniques; abstract. R. W. Gillette and F. M. Hull. Elec Eng 73:231 Mr '54

Power cable crossings on bridges and viaducts; abstract. D. C. Hawley. diag Elec Eng 73:40 Ja '54

Precast concrete manholes look good. B. L. Peter. il Elec West 111:93 N '53

ELECTRIC cables—Installation—*Continued*

Spinning street light cable saves $1,725. M. P. Bailey. il Elec World 141:110+ Ja 11 '54

What Con Edison has learned about pipe-cable application. R. W. Gillette. il map Elec World 139:82-4 Je 1 '53

Joints

For Al-Cu connections pressed aluminum proves best. M. D. Bergan. il Elec World News ed 141:47-8+ F 1 '54

How to duct-splice insulated lead-covered cable. J. B. Bowen. il Elec World 140:124-6 N 16 '53

Tests of fittings on insulated aluminum cable; abstract. J. Tompkins and E. K. Lanctot. il Elec Eng 72:1003 N '53

Maintenance and repair

Dry ice freezes oil, eases pipe-cable repair. il Elec World 141:91 Ja 11 '54

Manufacture

Barking-Ilford 132kv impregnated pressure cable. il diag Elec J 151:1211-14 O 16 '53; Elec R (Lond) 153:935-6 O 23 '53

Kerite observes its centennial. il Ry Age 136:38-9 My 3 '54

Know your materials; abstract and discussion. W. H. Lythgoe. Elec J 151:966-7 S 25 '53

New BICC factory at Leigh; Anchor works. il Elec J 151:1415 O 30 '53; Elec R (Lond) 153:1025 O 30 '53

Protection

Fire resisting cables; Pirelli-General cable works, ltd. Chem Age (Lond) 69:234 Ag 1 '53

Rating

Current ratings of aluminium cables. Elec J 152:665-6 F 26 '54; Elec R (Lond) 154:328-9 F 19 '54

Sheathing

Aluminium cable sheathing press. il diags Metallurgia 50:16-18 Jl '54

Aluminum sheathing by direct extrusion; General cable corp. Materials & Methods 40:236 S '54

Continuous incremental thickness measurements of non-conductive cable sheath. B. M. Wojciechowski. bibliog il diags Bell System Tech J 33:353-68 Mr '54

Fatigue test as applied to lead cable sheath. G. R. Gohn and W. C. Ellis. bibliog il Am Soc T M Proc 51:721-40; Discussion. 741-4 '51

Influence of frequency on the repeated bending life of acid lead. J. F. Eckel. bibliog il diags Am Soc T M Proc 51:745-56; Discussion. 757-60 '51

Polythene-insulated 11kv power cable. il Engineer 196:784 D 11 '53

Thickness measurement and control in the manufacture of polyethylene cable sheath. W. T. Eppler. il diags Bell System Tech J 33:559-77 My '54

Tables, calculations, etc.

Sags for no. 6, 3 and 1/0 aerial cables, 5 kv; engineering reference sheet. F. Sciotti. Elec World 140:112 D 28 '53

Terminals

Insulated multiple terminals solve space problem. M. Brenner. il Elec World 140:180 Ag 24 '53

Testing

Compression tests on lead alloys at extrusion temperatures. G. M. Bouton and G. S. Phipps. diag Am Soc T M Proc 51:761-70 '51

Indicator detects gas-filled cable leaks. W. J. Montgomery. diag Elec World 140:112 O 5 '53

Methods for locating faults on electrical cables; abstract. M. Fitzpatrick. Iron & Steel Eng 31:133-4 S '54

ELECTRIC cables, Submarine

Channel cable tests to start. Elec World News ed 140:18+ Jl 20 '53

Method of analysis of annual variations of harbor water and earth temperatures; abstract. W. N. McDaniel and E. F. Wolf. Elec Eng 73:147 F '54

New twist in submarine cables; Italcable's St Vincent-Recife transoceanic telegraph link. il Chem W 74:22 F 20 '54

Pepco lays five cables across the Potomac in 2 hr. 40 min. J. P. Moran and H. W. Dannettell. il plan Elec World 140:89-91 N 30 '53

Pipe cable can be pulled farther; methods established by Consolidated Edison on Narrows job. J. C. Fisher and R. W. Gillette. il diags Elec World 140:98-100 O 5 '53

Submarine cables; abstract. A. Bodicky. il Elec Eng 73:39 Ja '54

Test cable is laid in English channel. il Elec World News ed 140:6-7 Ag 17 '53

Underwater cable for Canada. Elec R (Lond) 154:290 F 12 '54

Vancouver Island tie cable ordered. map diag Elec World News ed 141:52 Mr 1 '54

ELECTRIC capacitance

Capacitance calculation. J. Webb. diags Elec R (Lond) 153:1155-7 N 20 '53

Capacitance measurements in the study of immersed paint coatings on metals. D. M. Brasher and others. Chem Age (Lond) 69:1323-4 D 26 '53

Electrical measurements in the study of immersed paint coating on metal; comparison between capacitance and gravimetric methods of estimating water-uptake. D. M. Brasher and A. H. Kingsbury. bibliog J Ap Chem 4:62-72 F '54; Abstract. Paint Oil & Chem R 117:22-3 My 6 '54

ELECTRIC capacitors

Automatically regulated capacitance gives you the best power factor control. E. H. Stivender. diags Power Eng 58:58-61+ F '54

Building and using dielectric amplifiers; constructing nonlinear barium-titanate capacitors. A. Silverstein. il diags Electronics 27:150-3 F '54

Capacitor commutator tachometers. F. K. Floyd and D. J. Cody. il diags Product Eng 24:182-5 Jl '53

Capacitor frontiers still expanding. V. A. Rydbeck and P. E. Hendrickson. Elec World 140:86-9 S 7 '53

Capacitor with definite loss angles for checking bridge measurements at power frequency. A. W. Stannett. diag J Sci Instr 31:304 Ag '54

Capacitors solve a southern transmission problem. H. K. McKeen and J. T. Logan. il map diag Elec World 141:94-6 Mr 8 '54

Chamberlain and Hookham relay for automatic power factor correction. il diag Engineer 196:625-6 N 13 '53; Engineering 176:671 N 20 '53

Diode-capacitor memory for high-speed computers. A. W. Holt. diags Tele-Tech 12:85+ N '53

Distribution of conductivity within dielectric films on aluminum. J. E. Lilienfeld and C. Miller. bibliog diags Electrochem Soc J 100:222-6 My '53

Flexible high-power laboratory capacitor bank for variety of switching tests to 65,000 kvar. R. E. Friedrich and D. J. Burns. il plan diags Elec Eng 73:225-9 Mr '54

General Electric tiny tantalum capacitors. il Steel 133:102+ O 5 '53; Elec Eng 72:1039 N '53

Generator saves $45,000 running as synchronous condenser. J. Kezer. il Elec World 141:122+ F 22 '54

Microstructure of capacitor paper. D. A. McLean, H. A. Birdsall and C. J. Calbick. bibliog il Ind & Eng Chem 45:1509-15 Jl '53

100,000 kvar in switched capacitors at NACA. T. S. Martin. il diag Elec World 139:78-81 Je 29 '53

Open conductors and capacitors can produce abnormal three-phase feeder voltages. P. E. Hendrickson and others. diags Elec World 141:84-7 Ja 11 '54

Performance of dried and sealed mica capacitors. G. H. Rayner and L. H. Ford. J Sci Instr 31:3-6 Ja '54

Portable equipment acid cleans coolers. J. G. Tapley. flow diag il Elec World 141:107 Mr 8 '54

ELECTRIC capacitors—*Continued*

Power factor and capacitance of mica capacitors at low frequencies. P. R. Bray. J Sci Instr 30:49-51 F '53

Power factor correction equipment. il Elec R (Lond) 154:434-5 Mr 5 '54

Shunt capacitors in large transmission networks; abstract. E. C. Starr and E. J. Harrington. Elec Eng 73:146 F '54

Simple three-terminal micrometer capacitor. M. C. McGregor. diags J Sci Instr 31:190-1 My '54

Static capacitors for South America. il Elec J 152:757-8 Mr 5 '54

Thermal meters control capacitor switching. J. H. Patton. diag Elec World 141:103+ Mr 8 '54

Thin film can mean smaller capacitors. il Aviation W 58:50-1 Je 8 '53

See also
Radio condensers

ELECTRIC cells. See Electric batteries; Electrolytic cells; Photoelectric cells; Standard cells

ELECTRIC charges

Charge storage in junction diodes. E. L. Steele. diag J Ap Phys 25:916-18 Jl '54

Charged disk in cylindrical box. W. R. Smythe. J Ap Phys 24:773-5 Je '53

Contact charging between a borosilicate glass and nickel. J. W. Peterson. bibliog diag J Ap Phys 25:501-4 Ap '54

Contact charging between nonconductors and metal. J. W. Peterson. il diags J Ap Phys 25:907-15 Jl '54

Determination of electrokinetic charge and potential by the sedimentation method; carborundum in aqueous solutions of some uni-univalent electrolytes. G. A. H. Elton and J. W. Mitchell. Chem Soc J p3690-3 N '53

Electrical phenomena in adhesion; electron atmospheres in dielectrics. S. M. Skinner and others. bibliog il diags J Ap Phys 24:438-50 Ap '53; Discussion. 25:1053-5; Reply. 1055-6 Ag '54

Radioactive charging effects with a dielectric medium. P. Rappaport and E. G. Linder. bibliog diags J Ap Phys 24:1110-14 S '53

See also
Electrets
Electric field
Space charge

ELECTRIC circuit breakers

Advance in pneumatic mechanisms for high-voltage power circuit breakers; abstract. R. C. Van Sickle and R. N. Yeckley. il Elec Eng 73:219 Mr '54

Compressed-air equipment for small-oil-volume switchgear. il diags Elec J 152:506-8 F 12 '54

Considerations in the operation of outdoor oil circuit breakers under low ambient temperatures. E. B. Rietz. il maps Elec Eng 72:907-11 O '53

GE ships 330-kv unit. il Elec World News ed 140:47 Ag 3 '53

How to prevent short-circuit current damage. W. R. Crites. il diag Mill & Factory 55:79-83 Jl '54

Maximum arc energy during interruption of alternating current. H. Goldenberg. Engineer 196:597-8 N 6 '53

New breaker shuns mechanical operators. Elec World 140:234 Jl 13 '53

Overload relays and circuit breakers for protecting motorized appliances and their branch circuits. G. W. Heumann. il diags Elec Eng 72:1056-60 D '53

Spring actuated linkage analysis to increase speed. R. C. Van Sickle and T. P. Goodman. il diags Product Eng 24:152-7 Jl '53

Stability of DBPC inhibited oil in oil circuit recloser operation; abstract. K. Oura and others. Elec Eng 72:988 N '53

Maintenance and repair

Electrical breaker racker saves time. G. K. Brown and S. J. Trippy. il Elec World 140:120 Jl 27 '53

Oilless

Application of air circuit breakers 15,000 volts and below. J. Butler and R. W. Lindberg. bibliog il diags Pulp & Pa of Can 55:115-26 Je '54

Compressed air, an answer to heavy-duty arc furnace switching. J. E. Schrameck and J. K. Walker. il diags Blast F & Steel Pl 42:67-9 Ja '54

Oscillograph tests high-speed air-blast breakers. F. Kunze. diags Elec World 140:107+ N 2 '53

Westinghouse compressed-air breaker. Steel 134:128-9 F 8 '54

Protection

What overcurrent settings for dc feeder circuit breakers? D. J. Baker and C. L. Brown. diag Coal Age 58:86-9 N '53

Rating

Is the European circuit breaker rating system really more conservative than the American? abstract. R. C. Van Sickle. Elec Eng 73:165 F '54

Testing

Field testing 400-kv circuit breakers. G. Jancke and U. Sandström. il diag Elec Eng 72:1015-20 N '53

Portable instrument checks breaker performance. F. Kunze. il diag Elec World 140:168 S 21 '53

Short-time impulse voltage characteristics of tank-type oil circuit breakers; abstract. V. E. Phillips and R. H. Miller. Elec Eng 73:232 Mr '54

10,000-mva 138-kv outdoor oil circuit breaker; abstract. A. W. Hill and G. B. Cushing. il diag Elec Eng 73:248 Mr '54

Tripping

A.c. tripping circuits. R. W. Bridgland. diags Elec R (Lond) 153:703-5 S 25 '53

ELECTRIC circuits

Application of Boolean algebra to the design of electronic switching circuits; abstract. S. H. Washburn. diags Elec Eng 73:164 F '54

Application of magnetic amplifier circuits to perform multiplication and other analytical operations; abstract. L. A. Finzi and R. A. Mathias. diags Elec Eng 72:1097 D '53

Application of the Laplace transformation and a mechanical harmonic synthesizer in the analysis of electric circuits. H. D. Schwetman and S. L. Brown. diags R Sci Instr 24:375-9 My '53

Arc-quenching circuit; abstract. B. H. Stonehouse. Elec R (Lond) 154:383 F 26 '54

Basic concepts in the analysis of stationary electric circuits; abstract. D. W. Spence and C. R. Cahn. Elec Eng 72:918 O '53

Calibration circuit. W. J. Hantz. diag Radio & Tv N 50:161 D '53

Circuit applications of surface-barrier transistors. J. B. Angell and F. P. Keiper, jr. il diags Inst Radio Eng Proc 41:1709-12 D '53

Contribution to the theory of nonlinear systems. L. A. Zadeh. bibliog diags Franklin Inst J 255:387-408 Ag '53

Darlington problem. L. Weinberg. diags J Ap Phys 24:776-9 Je '53

Easily disassembled plug-in circuits. il Product Eng 24:216 N '53

Effective circuit bandwidth for noise with a power-law spectrum. P. R. Karr. J Res Nat Bur Stand 51:93-4 Ag '53

Electric controls; basic building blocks. J. C. Ponstingl. flow chart il diags Tool Eng 33:49-55 Jl '54

Electronic circuits of the NAREC computer. P. C. Sherertz. il diags Inst Radio Eng Proc 41:1313-20 O '53

Experimental procedures for determining the efficiency of four-terminal networks. H. F. Mathis. bibliog diags J Ap Phys 25:982-6 Ag '54

Graphical analysis of nonlinear circuits using impedance concepts. J. S. Thomsen. diags J Ap Phys 24:1379-82 N '53

Interesting nonlinear effects. R. S. Mackay. il diags J Ap Phys 24:311-13 Mr '53

Method of approximate steady-state analysis for non-linear networks. G. R. Slemon. diags Inst E E Proc 100 pt 1:275-87 S '53

Physical theory of new circuit representation for junction transistors. J. Zawels. diags J Ap Phys 25:976-81 Ag '54

ELECTRIC circuits—*Continued*

Potential analog network synthesis for arbitrary loss functions. E. S. Kuh. bibliog diags J Ap Phys 24:897-902 Jl '53

RLC canonic forms. F. M. Reza. bibliog diags J Ap Phys 25:297-301 Mr '54

Single-phase load split on three phases; single-phase indirect arc furnace. B. W. Schafer. diags Elec World 140:92-3 N 30 '53

Solution of the field problem of the germanium gyrator. R. F. Wick. bibliog diags J Ap Phys 25:741-56 Je '54

Standby circuits for dining cars. D. H. Noble. diag Ry Loco & Cars 128:66 F '54

Switching in bistable circuits. R. S. Mackay. bibliog il diags J Ap Phys 25:424-9 Ap '54

Symmetrical cathode follower bridge circuit for direct spectrochemical analysis. W. G. Walker and S. C. Baker. bibliog diag J Sci Instr 30:328-30 S '53

Synthesis of reactance 4-poles. H. J. Carlin and R. La Rosa. J Ap Phys 24:1336-7 O '53

Synthesis without ideal transformers. F. M. Reza. diags J Ap Phys 25:807-8 Je '54

Testing directional circuits. J. H. Toule. diags Elec R (Lond) 153:1120-2 N 13 '53

Theorem on the impedance-transforming properties of reactive networks. L. Storch. bibliog diags J Ap Phys 24:833-8 Jl '53

Thevenin's theorem; its application to three-phase circuits. S. Holmes. diags Elec R (Lond) 153:1363-5 D 18 '53

Tolerance coefficients for r-c networks. C. Belove. J Ap Phys 24:745-7 Je '53

See also

Electric contacts	Electric rectifiers
Electric distribution	Radio circuits

Miniature circuits

Miniature intermediate-frequency amplifiers. R. K. Scal. il diags U S Nat Bur Stand Circ 548:1-46; pa 40c Supt. of doc. '54

Plastic embedded miniature unit circuits. W. A. Ernst. il Materials & Methods 40:90-1 Jl '54

Subminiaturization techniques for low-frequency receivers. G. Shapiro. il diags U S Nat Bur Stand Circ 545:1-64 bibliog(p60-4); pa 50c Supt. of doc. '54

Plastics embedment

Encapsulated test prods. R. L. Kuehn. il diags Tele-Tech 12:84-5+ D '53

Plastic embedded miniature unit circuits. W. A. Ernst. il Materials & Methods 40:90-1 Jl '54

Printed circuits

Automatic plant; from powder to product; Project Tinkertoy. flow sheet il Aviation W 59:72-4+ O 12 '53

Automation moves in on the electronic industry; Project Tinkertoy. A. N. Wecksler. il Mill & Factory 53:98-101 N '53

Boeing electrical circuits made by etching process. I. Petite. il Radio & Tv N 50:140 N '53

Cellular electronic construction. Franklin Inst J 256:268-9 S '53

Directory of printed-circuit product manufacturers. Tele-Tech 12:81 D '53

Economics of printed wiring. R. L. Swiggett and J. F. Carberry. il Tele-Tech 12:78-81+ D '53

Electronics plant; the longest step yet for automation; Project Tinkertoy. il Bsns W p72-4+ O 10 '53

Embossed wiring for printed circuits. O. I. Steigerwalt. il diags Tele-Tech 12:70-1 D '53

High-precision printed circuit automaton developed. D. D. Israel. Elec Eng 72:1043-4 N '53

Mechanized production of electronic equipment; submarine detectors. R. L. Henry and C. C. Rayburn. il diag Electronics 26:160-5 D '53

Metal-clad laminates used in printed circuitry. N. A. Skow. il Mech Eng 75:709-11+ S '53; Same cond. Machine Design 25:284+ S '53; Excerpts. Midwest Eng 5:19-20 My '53

Miniature electrostatic generator uses printed-circuit techniques. Elec Eng 73:189 F '54; Machine Design 26:206+ Mr '54

Modular assembly assures production flexibility; Project Tinkertoy. J. W. Greve. il plan Tool Eng 31:71-80 D '53

Modular design of electronic circuits. il Machine Design 25:126 N '53

Navy unveils automatic factory; Project Tinkertoy. il Aviation W 59:17-18 S 28 '53

Navy's Project Tinkertoy; production system will greatly simplify electronics manufacture, maintenance eased, too. il Steel 133:306+ O 12 '53

Printed circuit has different bonding method. il Product Eng 24:244 Je '53

Printed-circuit pliers. il diags Electronics 26:264+ D '53

Printed-wiring multiple soldering methods. A. E. Stones. il Tele-Tech 12:62-4+ D '53

Project Tinkertoy; ceramic wafers basis for speedier electric assembling. il Am Cer Soc Bul 32:437 D 15 '53

Project Tinkertoy; mechanized manufacture, inspection and assembly of electronic instruments. il Metal Prog 65:81-4 Mr '54

Project Tinkertoy; new concept of mechanized production. bibliog il diag Commun Eng 13:22-5+ N '53; Same cond. Instruments & Automation 27:462-3 Mr '54; Same cond. Mech Eng 75:1000-2 D '53; Same cond. Machine Design 25:192+ N '53; Excerpt. Elec Eng 72:1036-7 N '53; Abstract. Product Eng 24:206 O '53

Project Tinkertoy; step toward the automatic factory. A. F. Murray. il diag Tele-Tech 12:70-2+ N '53

Protective coatings for etched circuits. M. Weinberg and L. J. Martin. il Tele-Tech 12:88-9, 152+ D '53

Substitutes for wires; printed circuits new outlets for chemicals. il Chem W 74:52+ Ja 30 '54

Versatile electronic module simplifies mechanized production; Project Tinkertoy. il Materials & Methods 38:7+ D '53

See also

Microstrip

ELECTRIC circuits, Equivalent

Equivalent-circuit model of the transference cell. G. W. Murphy. bibliog diags Electrochem Soc J 101:44-52 Ja '54

Equivalent circuits for transformers and machines including non-linear effects. G. R. Slemon. bibliog diags Inst E E Proc 100 pt 2:577-81 O '53

ELECTRIC clocks. See Clocks, Electric

ELECTRIC codes

See also

National electrical code

ELECTRIC coils

Cosmotron; a review; magnet, coil. J. A. Kosh and M. S. Livingston. diags R Sci Instr 24:765-8 S '53

Temperature fields in electric coils; numerical solutions; abstract. P. J. Schneider. diag Elec Eng 72:1052 D '53

See also

Radio coils

Reactors

ELECTRIC communication

Microwave, backbone of TVA's expanded communications; telemetering, telephones, powerline carrier, and facsimile. G. E. Farmer. il Elec World 140:124-7 O 19 '53

Negentropy and information in telecommunications, writing, and reading. L. Brillouin. bibliog diags J Ap Phys 25:595-9 My '54

Science and scientists in telecommunications. R. M. Burns. bibliog Electrochem Soc J 100:sup90C-4C Ap '53

See also

Radio communication	Telephone
Radio telegraph	Teletype
Radio telephone	Television

ELECTRIC commutators. See Commutators

ELECTRIC companies public information program. See Electric utilities—Public relations

ELECTRIC condensers. See Electric capacitors

ELECTRIC conductivity

Apparatus for the measurement of ionic conductance of solid salts. P. W. M. Jacobs. bibliog diags J Sci Instr 30:204-7 Je '53

ELECTRIC conductivity—*Continued*

Bleaching properties of *F* centers in KBr at 5°K. J. J. Markham and others. bibliog diag Phys R 92:597-603 N 1 '53

Calibration of conductivity meters. L. G. Smith. diag R Sci Instr 24:998 O '53

Catalytic activity and electrical conductivity of chromic oxide catalysts. S. E. Voltz and S. Weller. bibliog Am Chem Soc J 75:5227-31 N 5 '53

Change of electrical conductivity of sodium chloride upon bombardment with high-energy protons. E. A. Pearlstein. bibliog diag Phys R 92:881-2 N 15 '53

Changes of surface conductivity of germanium with ambient. S. R. Morrison. diags J Phys Chem 57:860-3 N '53

Conductance and relaxation time of electrons in gold blacks from transmission and reflection measurements in the far infrared. L. Harris and A. L. Loeb. bibliog Opt Soc Am J 43:1114-18 N '53

Conductivity and Hall effect in the intrinsic range of germanium. F. J. Morin and J. P. Maita. Phys R 94:1525-9 Je 15 '54

Conductivity of oxide cathode coatings. T. B. Tomlinson. bibliog il diags J Ap Phys 25:720-4 Je '54

Determination of nitric acid strength by continuous conductivity measurements. M. L. Davis. Ind & Eng Chem 46:sup 119A Je '54

Distribution of conductivity within dielectric films on aluminum. J. E. Lilienfeld and C. Miller. bibliog diags Electrochem Soc J 100:222-6 My '53

Effect of draw ratio and temperature on electrical conduction in nylon filaments. E. P. Sharman and others. bibliog Textile Res J 23:793-8 N '53

Effect of hydrostatic pressure on the superconducting transition of tin and thallium. M. D. Fiske. Phys R 94:495-6 Ap 15 '54

Effect of traps on carrier injection in semiconductors. H. Y. Fan. Phys R 92:1424-8 D 15 '53

Electrical conductance of pressed powders, in particular of zinc oxide. J. C. M. Brentano and C. Goldberg. bibliog diag Phys R 94:56-60 Ap 1 '54

Electrical conduction in halide-contaminated ice. E. J. Workman and others. Phys R 94:1073 My 15 '54

Electrical conductivities of natural graphite crystals. W. Primak and L. H. Fuchs. bibliog il diags Phys R 95:22-30 Jl 1 '54

Electrical conductivity and density of molten cryolite with additives. J. D. Edwards and others. bibliog il Electrochem Soc J 100:508-12 N '53

Electrical conductivity induced by ionizing radiation in some polymeric materials. A. J. Warner and others. J Ap Phys 25:131 Ja '54

Electrical conductivity of Ag_2HgI_4, Cu_2HgI_4 and their eutectoid. L. Suchow and G. R. Pond. Am Chem Soc J 75:5242-4 N 5 '53

Electrical conductivity of magnesium oxide single crystals. E. Yamaka and K. Sawamoto. diag Phys R 95:848-50 Ag 1 '54

Electrical conductivity of rubber-carbon black vulcanizates. B. B. S. T. Boonstra and E. M. Dannenberg. bibliog Ind & Eng Chem 46:218-27 Ja '54

Electrical conductivity of supercritical solutions of sodium chloride and water. J. K. Fogo and others. bibliog J Chem Phys 22:212-16 F '54

Flow tube uses conductivity to study fast ionic reactions; abstract. R. E. Meeker. diag Chem & Eng N 31:4444-5 O 26 '53

Halides of niobium (columbium) and tantalum; the electrical conductivities of niobium and tantalum pentafluorides. F. Fairbrother, W. C. Frith and A. A. Woolf. Chem Soc J p 1031-3 Mr '54

High resistance bridge for conductivity measurements. M. Unz. bibliog diags J Sci Instr 30:179-84 Je '53

Intermediate state of a hollow superconducting tin cylinder. J. Gittleman. bibliog diags Phys R 92:561-5 N 1 '53

Ionic conductivity of impure polar crystals. A. B. Lidiard. bibliog Phys R 94:29-37 Ap 1 '54

Isotope effect in superconductivity. J. de Launay. bibliog Phys R 93:661-5 F 15 '54

Latent heat of transition of superconducting lead. R. L. Dolecek. Phys R 94:540-3 My 1 '54

Lorentz-Kamerlingh Onnes centenary conference on electron physics, Leiden, June 22-27. Science 118:393-9 O 9 '53

Magnaflux conductivity meter speeds test on nonferrous materials. il Iron Age 172:144+ S 3 '53

Measurement of the conductivity of a jet flame. F. P. Adler. il diag J Ap Phys 25:903-6 Jl '54

Retarding potential method for measuring electrical conductivity of oxide-coated cathodes. I. L. Sparks and H. R. Philipp. bibliog diags J Ap Phys 24:453-61 Ap '53

Structure and electrical conductivity of hydrocarbon-based solutions of the soluble oil type; a comparable aqueous system. J. Bromilow and P. A. Winsor. bibliog J Phys Chem 57:889-95 D '53

Studies of trifluoroacetic acid; the electrical conductivities of the ternary system, trifluoroacetic anhydride-acetic anhydride-water. J. E. B. Randles, J. C. Tatlow and J. M. Tedder. diags Chem Soc J p436-41 Ja '54

Superconductivity in tin-bismuth and tin-antimony alloys. W. F. Love. bibliog Phys R 92:238-43 O 15 '53

Superconductivity of pure metallic rhenium. J. K. Hulm. Phys R 94:1390-1 Je 1 '54

Superconductivity of some transition metal compounds. G. F. Hardy and J. K. Hulm. bibliog diag Phys R 93:1004-16 Mr 1 '54

Superconductivity of titanium. M. C. Steele. and R. A. Hein. bibliog Phys R 92:243-7 O 15 '53

Transition into the intermediate state of hollow superconducting cylinders. B. Serin and others. bibliog Phys R 92:566-8 N 1 '53

Variation of equivalent conductance with concentration. J. T. Stock. il diags J Chem Educ 31:410-12 Ag '54

See also

Dielectric constants
Dielectrics
Electric conductors
Electric resistance
Electrolytes—Conductivity
Hall effect
Photoconductivity

ELECTRIC conductors

Aluminum conductors for industry. il Mill & Factory 53:86-9 N '53

Extremely thin conductive graphite coatings. W. F. Lindsay. R Sci Instr 25:524 My '54

How to get long life from h-f water-cooled flexible conductors. il diag Mill & Factory 55:110-11 Ag '54

Insulator ties for copper conductors; engineering reference sheet. diags Elec World 141:210 Ja 25 '54

Open conductors and capacitors can produce abnormal three-phase feeder voltages. P. E. Hendrickson and others. diags Elec World 141:84-7 Ja 11 '54

Search for the Hall effect in a superconductor; experiment. H. W. Lewis. Phys R 92:1149-51 D 1 '53

Speculations on the behavior of positrons in superconductors. M. Dresden. Phys R 93:1413-14 Mr 15 '54

Superconducting alloys. B. T. Matthias and E. Corenzwit. Phys R 94:1069 My 15 '54

Superconducting compounds. B. T. Matthias and others. bibliog Phys R 93:1415 Mr 15 '54

Surface wave propagation over a coated conductor with small cylindrical curvature in direction of travel. K. Horiuchi. J Ap Phys 24:961-2 Jl '53

Theory of boundary effects of superconductors. J. Bardeen. bibliog Phys R 94:554-63 My 1 '54

Threshold field properties of some superconductors. E. Maxwell and O. S. Lutes. bibliog Phys R 95:333-8 Jl 15 '54

Transition temperatures of superconductors. B. T. Matthias. bibliog Phys R 92:874-6 N 15 '53

ELECTRIC conductors—*Continued*

Twin conductoring is adopted for 250-mile, 220-kv Terni-Genoa line. il Elec World News ed 141:47-8 Ja 4 '54

See also

Aluminum—Electrotechnical uses
Busbars
Electric cables
Electric distribution
Electric wire
Wave guides

Semiconductors

Aluminum-antimony alloy has wide applications in electronics. E. L. Lewis. Light Metal Age 11:11+ Ag '53

Band structure in disordered alloys and impurity semiconductors. H. M. James and A. S. Ginzbarg. bibliog J Phys Chem 57: 840-8 N '53

Bound states in dislocations. R. Landauer. Phys R 94:1386-8 Je 1 '54

Construction of radiation thermocouples using semi-conducting thermoelectric materials. D. A. H. Brown and others. diags J Sci Instr 30:195-9 Je '53

Diode theory in the light of hole injection. J. A. Swanson. bibliog diags J Ap Phys 25: 314-23 Mr '54

Drift mobilities in semiconductors; germanium. M. B. Prince. bibliog diags Phys R 92:681-7 N 1 '53

Drift mobilities in semiconductors; silicon. M. B. Prince. Phys R 93:1204-6 Mr 15 '54

Effect of nickel and copper impurities on the recombination of holes and electrons in germanium. J. A. Burton and others. bibliog diags J Phys Chem 57:853-9 N '53

Effect of traps on carrier injection in semiconductors. H. Y. Fan. Phys R 92:1424-8 D 15 '53

Electrical properties of selenium; microcrystalline selenium metal doped. H. W. Henkels and J. Maczuk. il J Ap Phys 25: 1-11 Ja '54

Electrical properties of semiconducting AlSb. R. K. Willardson and others. bibliog diag Electrochem Soc J 101:354-8 Jl '54

Evaporated multiple layers with semiconductor properties. J. C. M. Brentano and J. D. Richards. Phys R 95:841-3 Ag 1 '54

Graphical representation of the semiconductor Hall effect. L. P. Hunter. diags Phys R 94:1157-60 Je 1 '54

More exact treatment of the equations describing dielectric relaxation and carrier motion in semiconductors. J. Keilson. J Ap Phys 24:1198-200 S '53

New galvanomagnetic effect. C. Goldberg and R. E. Davis. Phys R 94:1121-5 Je 1 '54

New method of measuring dielectric constant and loss angles of semiconductors. B. Ichijō. diags J Ap Phys 24:307-11 Mr '53

Noise in semiconductors; spectrum of a two-parameter random signal. S. Machlup. J Ap Phys 25:341-3 Mr '54

Nonlinear semiconductor resistors. F. A. Schwertz and J. J. Mazenko. bibliog il diag J Ap Phys 24:1015-24 Ag '53

Preparation of *p-n* junctions by surface melting. K. Lehovec and E. Belmont. diags J Ap Phys 24:1482-4 D '53

Resonant cavity study of semiconductors. H. T. Hsieh and others. J Ap Phys 25:302-7 Mr '54

Self-powered semiconductor amplifier. C. G. B. Garrett and W. H. Brattain. diag Phys R 95:1091-2 Ag 15 '54

Semiconducting films of antimony. J. Cohen. bibliog diag J Ap Phys 25:798-801 Je '54

Semiconducting intermetallic compounds. R. G. Breckenridge. il Tele-Tech 12:86+ N '53

Semiconductor diode gates. L. W. Hussey. diags Bell System Tech J 32:1137-54 S '53

Semiconductors as solid electrolytes in electrochemical systems. K. Lehovec and J. Broder. bibliog Electrochem Soc J 101:208-9 Ap '54

Semiconductors; what they are, how they work. T. R. Lawson, jr. diags Materials & Methods 40:92-5 Jl '54

Some problems in the diffusion of minority carriers in a semiconductor. S. Visvanathan and J. F. Battey. bibliog J Ap Phys 25:99-102 Ja '54

Summary of semiconductor and transistor theory. R. A. Lefever. diags J Chem Educ 30:554-6 N '53

Techniques for making stable non-rectifying contacts to germanium and other semi-conductors. W. M. Mitchell. diags J Sci Instr 31:147-8 Ap '54

Theoretical resistivity and Hall coefficient of impure germanium near room temperature. P. G. Herkart and J. Kurshan. RCA R 14:427-40 S '53

Theory of ac space-charge polarization effects in photoconductors, semiconductors, and electrolytes. J. R. Macdonald. bibliog Phys R 92:4-17 O 1 '53

Theory of the flicker effect. T. B. Tomlinson and W. L. Price. bibliog J Ap Phys 24: 1063-5 Ag '53

Theory of thermoelectric power in semiconductors with applications to germanium. V. A. Johnson and K. Lark-Horovitz. bibliog Phys R 92:226-32 O 15 '53

Volume and surface recombination rates for injected carriers in germanium. J. P. McKelvey and R. L. Longini. bibliog diags J Ap Phys 25:634-41 My '54

See also

Transistors

ELECTRIC conduits

Easy-pull wire conduit. Steel 133:131 Ag 17 '53

Geiger counter locates hidden pull box. F. H. MacGinnis. il Elec World 140:169+ Jl 13 '53

Trimming tool tapers fibre conduit, saves time. E. M. Kueht. il Elec World 140:162+ O 19 '53

Tables, calculations, etc.

Pipe-line design for pipe-type feeders; abstract. R. C. Rifenburg. Elec Eng 73:213 Mr '54

ELECTRIC connections

Wrap-around connections. il Product Eng 24: 230 Je '53; Elec World 140:141-2 Jl 13 '53; il Iron Age 172:150-1 Ag 6 '53

ELECTRIC connectors

Aluminum connector requirements set up. I. Matthysse and H. P. Dupre. il diags Elec World 141:105-7+ F 22 '54

Are you making the best practical use of today's electrical connectors? M. Brenner. il diags Power 98:124-7 Je; 116-19 Jl '54

Compression connectors for aluminum and copper. il Elec World 140:206+ S 21 '53

Compression solves distribution connections. I. Matthysse and H. P. Dupre. il Elec World 140:159+ S 21 '53

Evaluation of test data in determining minimum design requirements for aluminum to copper connectors. D. C. Hubbard and others. Power 98:242+ Ap '54

For Al-Cu connections pressed aluminum proves best. M. D. Bergan. il Elec World News ed 141:47-8+ F 1 '54

Have your plant electricians follow this step-by-step guide when working with aluminum; illustrated instructions. Power 98: 107-11 Ag '54

Savings outweigh difficulties with aluminum distribution. J. H. Exum. il Elec World News ed 140:32-3 O 12 '53

Solderless multiple-spindle wiring. il Electronics 26:202, cover N '53

ELECTRIC contactors

Londex triple-pole 60 ampere mercury switch contactor. il Engineer 196:816 D 18 '53

Metropolitan-Vickers air-break mining contactor gate-end box. il Engineer 197:150 Ja 22 '54; Engineering 177:123 Ja 22 '54

See also

Brushes (electric machinery)

ELECTRIC contacts

Arcing at electrical contacts on closure; activation of contacts by organic vapor. L. H. Germer. il J Ap Phys 25:332-5 Mr '54

Arcing at electrical contacts on closure; cathode mechanism of extremely short arcs. P. Kisliuk. bibliog(36 ref) diag J Ap Phys 25:897-900 Jl '54

Arcing of electrical contacts in telephone switching circuits. M. M. Atalla. bibliog il diags Bell System Tech J 32:1231-44, 1493-506; 33:535-58 S-N '53, My '54

ELECTRIC contacts—*Continued*

Automatic percussion welding speeds contact assembly; Western electric co. A. L. Quinlan. il diags Mach 60:168-71 Je '54

Balanced polar mercury contact relay. J. T. L. Brown and C. E. Pollard. il diags Bell System Tech J 32:1393-411 N '53

Contact bush for use in lead castles with type M6 Geiger-Müller tubes. L. W. Blow. diags J Sci Instr 30:57-8 F '53

General Electric building-block construction of electrical control assemblies. il Machine Design 26:110 Jl '54

Life of silver-surfaced contacts on repetitive arcing duty; abstract. W. R. Wilson. Elec Eng 73:52 Ja '54

Properties of carbon contacts. R. O. Grisdale. bibliog il diags J Ap Phys 24:1288-96 O '53

Properties of metal to semiconductor contacts. R. F. Schwarz and J. F. Walsh. diags Inst Radio Eng Proc 41:1715-20 D '53

Sliding contacts; a review of the literature. F. Spayth and S. East. bibliog(43 titles) diags Elec Eng 72:912-17 O '53

Sparking potentials between separating contacts. C. W. Klee and H. E. Stauss. bibliog il J Ap Phys 24:368-9 Mr '53

Techniques for making stable non-rectifying contacts to germanium and other semi-conductors. W. M. Mitchell. diags J Sci Instr 31:147-8 Ap '54

Uhf contacts formed four times faster; illustrations with text. C. S. Selby. Am Mach 98:97-102 F 1 '54

Testing

Copper contacts can be operated above standard temperature limits. H. A. Adler and K. H. Wadleigh. il Elec World 140: 96-8 Jl 27 '53

ELECTRIC contractors

Let the contractor build that line. E. L. Buttner. il Elec West 111:88-9 N '53

ELECTRIC control

Automatic control equipment for oil field installations. P. King. Pet Eng 25:B83-4 Ag '53

Automatic drive for countercurrent distribution apparatus. E. S. Perry and W. H. Weber. il diags Anal Chem 26:498-502 Mr '54

Control center saves space, eases maintenance. il Factory Management 112:159 Ag '54

Control of chemical processes. A. J. Young. diags Instruments & Automation 27:622-6 Ap '54

Cut trouble time, segregate control circuits. E. H. Stivender. diags Power Eng 58:65 My '54

Electric controls. J. C. Ponstingl. flow chart il diags Tool Eng 33:49-55 Jl; 51-4 Ag; 51-9 S; 55-62 O '54 (to be cont)

Electrical problems in petrochemical process control. D. J. Pompeo. il diags Pet Refiner 32:127-30 Ag '53

Electrical systems for hot strip mills. R. E. Marrs. il diags Iron & Steel Eng 31: 99-106; Discussion. 106-8 F '54

Electronic approach to process control. C. J. Swartwout. il diags Instruments 26:728-30+ My '53

Electronic control in petroleum processing. W. T. Marchment. il diags Oil & Gas J 52:124+ N 9 '53

Electronic instrument controls adhesives in bonding operation; Tektors. il Rubber Age 75:388 Je '54

Electronics; a tool for communications and control in the gas industry. D. E. Noble. Am Gas Assn Proc 1953:417-20

Electronics is key to industrial revolution. il diags Cer Ind 62:126-8+ Ap '54

Industrial regulating system using rotating regulators; abstract. G. E. Shaad. Power 98:162+ My '54

Industrial regulating systems using electronic regulators; abstract. E. J. Luoma. diag Power 98:160 My '54

Modern automatic fuel shut-off system for soaking pits. A. L. Lancaster. il diags Iron & Steel Eng 30:69-76 D '53

Multiple station control schemes. P. H. Howland and D. W. Plumer. diags Blast F & Steel Pl 42:227-30 F '54

Performance specifications are needed for electronic control. B. Cooper. diag Machine Design 26:302+ Je '54

Process monitoring. A. F. Sperry. il diags Instruments 26:1014-16+ Jl '53

Remotely controlled miner works 350ft beyond highwall. il Coal Age 59:64-7 Ja '54

Rotating components for automatic control. S. Davis. bibliog il diags Product Eng 24: 129-60 N '53

Through thick and thin; Brookfield Viscometran coupled to capacitance recorder-controller. il diag Chem Eng 61:270 My '54

Tough plating requirements bring wider use of automatic controls. il Iron Age 172:130-1 O 15 '53

See also

Barretters
Carrier current control
Electric controllers
Electric motors—Control
Electric switchgear
Electrohydraulic control
Electropneumatic control
Photoelectric cells—Control uses
Radio control
Selsyn apparatus
Servomechanisms
Thyratron
Vacuum tubes—Control uses
Valves—Electric control
Valves, Hydraulic—Electric control
Voltage regulation

ELECTRIC controllers

New control for heavyweight rapid-transit cars; abstract. I. W. Lichtenfels. il Elec Eng 73:56 Ja '54

ELECTRIC converters

How to parallel conversion equipment. L. W. Scott. diags Coal Age 59:103-7 F '54

Magnetic amplifier applications in d-c conversion stations; abstract. W. A. Derr and E. J. Cham. il diag Elec Eng 73:148 F '54

ELECTRIC cooking

Electric cooking gets boost at annual EEI conference. Elec World News ed 139:38 Je 8 '53

Electric cooking reduces costs; Sagan cafeteria, Hartford, Conn. E. D. P. Gross. il Elec World 141:92-3 Mr 8 '54

High frequency looms as improved cooking method; Di-Thermal processing. L. E. Slater. il diags Food Eng 26:52-3+ Ja '54

Trailer sells commercial cooking. il Elec World 140:136 O 5 '53

See also

Electric broilers

ELECTRIC cranes. See Cranes, derricks, etc. —Electric equipment

ELECTRIC current integrators. See Integrators

ELECTRIC currents

Behaviour of standard cells in conditions which include the generation of appreciable current. L. Hartshorn and F. A. Manning. J Sci Instr 31:115-18 Ap '54

Current element near the edge of a conducting half-plane. R. F. Harrington. J Ap Phys 24:547-50 My '53

Current rectification and high frequency interference in inert gas welding. J. G. Murray. diags Welding J 33:561-3 Je '54

Determination of current efficiency of diaphragm alkali-chlorine cells by gas analysis. M. S. Kircher and others. diag Electrochem Soc J 100:448-51 O '53

Determination of the optimum current in an arc furnace. W. E. Schwabe. diags Iron & Steel Eng 31:87-9; Discussion. 89-90 Je '54

Effect of local action currents on the emf of the Weston standard cell. H. H. Uhlig. bibliog diag Electrochem Soc J 100:173-7 Ap '53

Investigation of parasitic brush currents in single-phase commutator machines with particular reference to the repulsion motor. D. Morris. bibliog diags Inst E E Proc 100 pt 2:575-7 O '53

Radiation from a line source adjacent to a conducting half plane. J. R. Wait. J Ap Phys 24:1528-9 D '53

See also

Eddy currents
Electric circuits
Electric conductivity
Electric conductors
Electric distribution
Electric measurements
Electric meters
Electric switchgear
Electric transformers
Electric transient phenomena
Hall effect

ELECTRIC currents, Alternating

Maximum arc energy during interruption of alternating current. H. Goldenberg. Engineer 196:597-8 N 6 '53

See also

Electric generators, Alternating current

Electric motors, Alternating current

ELECTRIC cutouts

See also

Electric fuses

ELECTRIC cutting

Air-electric torch cleans as it cuts. il Comp Air Mag 59:259 S '54

Carbide cuts carbide chipbreakers; Watertown arsenal. A. Ashburn. il diags Am Mach 98:185-7 Ap 12 '54

Electric spark machining, Sparcatron process. il Automobile Eng 44:295-7 Jl '54

Electrical-discharge machining. H. V. Harding and others. il diags Am Mach 98:137-48 Mr 15 '54

Electro-erosion method of strain-free cutting of metals. J. A. James and C. J. Milner. diag J Sci Instr 30:386-7 O '53

Electro-erosive metal cutting; abstract. Z. Baltz. Tool Eng 33:124-5 Ag '54

Electrospark machining. C. R. Alden. bibliog il diag Mech Eng 75:701-5 S '53

Exploratory tests of the air-carbon arc cutting process. A. R. Hard. il diags Welding J 33:sup261-4 Je '54

Facts about modern electric arc machining. il Mill & Factory 54:597 My '54

Four-station machining by electrical discharge. il diags Am Mach 98:170-1 Ag 16 '54

Machining metals by arcs and sparks. il Mill & Factory 54:104-6 Ja '54

Shielded-metal-arc cutting and grooving. H. Thielsch and J. Quaas. il diags Welding J 33:438-46 My '54

Welding without prebeveling lowers fabricating costs; Pacific car & foundry co. R. C. Hermon. il Iron Age 174:104-5 Ag 26 '54

ELECTRIC detonators. See Detonators, Electric

ELECTRIC discharges

Analysis and purification of rare gases by means of electric discharges. R. Riesz and G. H. Dieke. bibliog diags J Ap Phys 25:196-201 F '54

Calculated values of the parameters of noble gas discharges. W. J. Graham and A. J. Ruhlig. bibliog Phys R 94:25-9 Ap 1 '54

Condition on uniform field breakdown in electron-attaching gases. R. Geballe and M. L. Reeves. bibliog Phys R 92:867-8 N 15 '53

Decomposition of methane in an electrical discharge. H. Wiener and M. Burton. bibliog Am Chem Soc J 75:5815-23 D 5 '53

Electrical breakdown of gases. C. G. Morgan. Elec R (Lond) 154:212 Ja 29 '54

Electrical decomposition of sulfur hexafluoride. D. Edelson, C. A. Bieling and G. T. Kohman. bibliog il diag Ind & Eng Chem 45:2094-6 S '53

Electron energy distributions in stationary discharges. I. B. Bernstein and T. Holstein. bibliog diag Phys R 94:1475-82 Je 15 '54

Excitation of plasma oscillations. D. H. Looney and S. C. Brown. bibliog diag Phys R 93:965-9 Mr 1 '54

Fixation of nitrogen in a crossed discharge. W. S. Partridge, R. B. Parlin and B. J. Zwolinski. diag Ind & Eng Chem 46:1468-71 Jl '54

Formation of hydrazine in electric discharge decomposition of ammonia. J. C. Devins and M. Burton. bibliog diags Am Chem Soc J 76:2618-26 My 20 '54

Homomolecular exchange of nitrogen in a glow discharge. W. H. Johnston and R. M. Anstett. J Chem Phys 22:146 Ja '54

Influence of irradiation on the characteristic of a glow discharge in pure rare gases. K. W. Meissner and W. F. Miller. bibliog diags Phys R 92:896-8 N 15 '53

Lightning impulses shell the walnuts; Northwest nut growers in Portland. il diag Elec West 111:96-7 O '53; Elec World 140:138 N 2 '53

Long spark discharges; terrestrial and cosmical leader strokes. C. E. R. Bruce. bibliog Elec R (Lond) 153:1203-7 N 27 '53

Method of increasing photographic sensitivity by electrical discharges. K. S. Lion. il diag J Ap Phys 24:367-8 Mr '53

Methods of measuring the properties of ionized gases at high frequencies; null method of measuring the discharge admittance. L. Gould and S. C. Brown. diags J Ap Phys 24:1053-6 Ag '53

Relative time dependence of the emission of line and background from the vacuum spark. J. C. Wahr and others. Opt Soc Am J 43:804-5 S '53

Some aspects of breakdown streamers. L. B. Loeb. bibliog diag Phys R 94:227-32 Ap 15 '54

Some experiments on positive point-to-plane corona and spark breakdown of compressed gases. T. R. Foord. bibliog diags Inst E E Proc 100 pt 2:585-90 D '53

Sputtering at low ion velocities. G. Wehner and G. Medicus. diag J Ap Phys 25:698-702 Je '54

Transition from free to ambipolar diffusion. W. P. Allis and D. J. Rose. Phys R 93:84-93 Ja 1 '54

See also

Corona (electricity)

Electric arc

Electric spark

Ionization, Gaseous

Lightning

Vacuum tubes

ELECTRIC distribution

Adopt this four-point monthly check of your electrical distribution system. J. Sparks. il Power 98:124-5 My '54

Aycliffe New Town. il map Elec R (Lond) 154:56-9 Ja 8 '54

Banked secondary serves residential customers better. R. P. Ager and G. H. Ramandanes. plan Elec World 140:90-1 Jl 27 '53

Compression solves distribution connections. I. Matthysse and H. P. Dupre. il Elec World 140:159+ S 21 '53

Control of electric power systems in steel plants. K. S. Kuka. plan Iron & Steel Eng 31:105-12 Mr '54

Distribution seeks reliability. Elec World 140:76 D 28 '53

Don't blame idle distribution transformers for your bad power factor. R. S. Horn. Power Eng 57:67 D '53

Electric power distribution at Norton co. Grinding machine div., Worcester, Mass.; abstract. P. Russell. Power 98:230+ Ag '54

Electrical services in your 195X plant. il diags Factory Management 112:C 1-22+ pt 2 Je '54

Electricity distribution in the paper industry. J. L. Marshall. Pulp & Pa of Can 55:116-18 Ag '54

Factors in the design of electrical distribution systems. W. A. Sibson and others. diags Pet Processing 8:1342-4 S '53

Factory electrical installation; Ransome & Marles works. Elec R (Lond) 153:901-2 O 16 '53

Facts about modern industrial distribution systems. diags Mill & Factory 54:66-9 My '54

480-v closed loop for electrical distribution; Aluminum company of America. J. M. Bales and F. A. Gunther. il diags Power 98:84-7+ Ag '54

480 volts gaining ground in office buildings. Power 98:123 S '54

GE takes its own distribution medicine. il diag Power Eng 58:87 Ja '54

Higher network voltages in large buildings. D. Beeman and H. D. Kurt. bibliog il plan diags Elec World 141:80-5 Mr 8 '54

How distribution affects light. R. Marcum. Elec West 111:94-5 S '53

How to feed electricity to food plant equipment. K. P. Grenfell. il diags Food Eng 25:90-4 D '53

How to take care of your electrical distribution system. Factory Management 112:220+ My '54

London load handling. il map diag Elec R (Lond) 154:359-66 F 26 '54

Metering aids expansion. W. C. Morris, jr. il Elec World 141:96-7 F 22 '54

Modern electric distribution system for an oil refinery. V. L. Nealy. diag Elec Eng 72:1008-11 N '53

ELECTRIC distribution—*Continued*

Modernization program; field-tested ideas for electrical-distribution systems. il diags Power 98:76+ Mid-S '54

New Levittown has aluminum distribution and unit substations. C. E. Nelson. il maps diags Elec World 140:84-8+ O 5 '53

1000-cycle distribution system. A. P. Marion. diag J Chem Educ 30:608 D '53

Open conductors and capacitors can produce abnormal three-phase feeder voltages. P. E. Hendrickson and others. diags Elec World 141:84-7 Ja 11 '54

Open pit mining guidebook; maintenance and power distribution. il plan diags Eng & Min J 115:G 114-16+ My '54

Plan system for very rapid load growth; Houston lighting & power co. L. K. Del'Homme and S. L. Rieves. il map Elec World 141:92-5 Ja 11 '54

Power distribution conference, 6th, Austin, Oct. 19-21. Elec World 140:77-8 N 2 '53

Power distribution for ac mining. R. G. Gehlsen. il diags Coal Age 59:88-90 Ag '54

Power system expands with steel making capacity at Detroit Steel. L. DeFiore and M. N. Hickok. il maps plans diags Blast F & Steel Pl 42:767-77, inserts Jl '54

Provident planning for distribution dollars. J. F. Fuller. diags Elec West 111:83-7 N '53

Single-phase load split on three phases; single-phase indirect arc furnace. B. W. Schafer. diags Elec World 140:92-3 N 30 '53

Six ways to expand your electrical distribution system using existing gear. H. N. Hickock. il diags Power 98:81-5+ S '54

Telemetering for system operation. R. H. Dunn and C. H. Chambers. bibliog diags Inst E E Proc 100 pt 1:39-51 Mr '53; Same. il Elec Com 30:305-23 D '53; Abstract. Elec R (Lond) 151:1079 N 14 '52; Discussion. Inst E E Proc 100 pt 1:51-6 Mr '53; Elec R (Lond) 151:1079-80 N 14 '52; Elec J 149: 1515-16 N 14 '52

Transformers kept in pace with loads. il diag Elec World 140:116-17 N 16 '53

What Con Edison has learned about pipe-cable application. R. W. Gillette. il map Elec World 139:82-4 Je 1 '53

What heavy residential user needs; symposium conducted by the system planning committee of Pennsylvania electric association. Elec World 141:113 F 22 '54

Will today's plan for your distribution system be for long range economy? H. E. Campbell and E. H. Reilley, jr. diags Elec World 140:120-3 O 19 '53

See also

Busbars
Electric cables
Electric circuit breakers
Electric conductors
Electric conduits
Electric fuses
Electric lines
Electric plants—Interconnection
Electric power
Electric rectifiers
Electric service, Rural
Electric substations
Electric switchgear
Electric transformers
Electric transmission
Electric wiring
Voltage regulation

Change over

Organizing a voltage change over. A. R. Perdue. il diags Elec World 140:83-5 S 7 '53

Southern region change of frequency scheme. il Engineer 197:311-14 F 26 '54; Engineering 177:282-4 F 26 '54; Elec J 152:662-4 F 26 '54; map Elec R (Lond) 154:367-70 F 26 '54

They're learning new tricks with hot sticks; Indiana & Michigan electric co. il Elec World News ed 140:16-17 S 14 '53

Costs

Influence of legislation on the costs of metering; discussion. Elec J 151:1943-4 D 11 '53; Elec R (Lond) 153:1341-2 D 11 '53

Grounding

Cathodic protection for steel mill grounding systems. J. F. Headlee. diags Iron & Steel Eng 31:113-15 Mr '54

Earthing practice; abstract. P. W. Cave. Elec R (Lond) 153:793 O 9 '53

Electrical system grounding. G. P. Hobbs and R. H. Kaufmann. il diags Tappi 37:sup 116A-17A Jl '54; Abstract. Paper Tr J 137: 28 N 6 '53

Equipment grounding for industrial plants. L. J. Carpenter. diags Elec Eng 73:256-60 Mr '54

Grounded versus ungrounded low-voltage a-c systems. H. B. Thacker. diags Iron & Steel Eng 31:65-70; Discussion. 70-2 Ap '54

Grounding grids for high-voltage stations; abstract. E. T. B. Gross and others. Elec Eng 73:223 Mr '54

Hazards in industrial electric systems; protective grounding systems; abstract. R. H. Kaufman. Safety Maint & Prod 108:26 Ag '54

How well are your buildings grounded? diags Power Eng 58:92-3 Mr '54

Should we ground plant neutrals? answers. diags Power 98:146+ Je '54

System grounding in industrial plants. F. M. Dorey. diags Elec Eng 72:1098-103 D '53

Grounds and faults

Continuity of electricity supply; causes and clearance of faults on power systems. H. Leyburn. Engineering 177:76-7 Ja 15 '54; Abstracts. Elec J 152:207-8 Ja 15 '54; Elec R (Lond) 154:114-15 Ja 15 '54

Effect of fault resistance on ground fault current; abstract. M. J. Lantz. Elec Eng 72:974 N '53

Factors determining the potential rise in station ground mats. M. J. Lantz. il diags Elec World 140:127-9 D 14 '53

Fault locator finds one breakdown, pays for itself. W. H. Fisher. il Elec World 140: 101+ N 30 '53

Methods for locating faults on electrical cables; abstract. M. Fitzpatrick. Iron & Steel Eng 31:133-4 S '54

Overvoltage during line-to-ground fault; engineering reference sheet. D. P. Inwood. Elec World 140:152 D 14 '53

Pilot-wire relaying scheme utilizing the product differential relay. R. I. Ward and D. W. Gilman. il diags Elec Eng 73:137-42 F '54

Shoot line troubles with radar. J. L. Whysong and others. il diags Elec World 140:118-21 N 16 '53

6900-volt power system fault relay analysis; Alan Wood steel co. J. A. B. Pinney. il plan diags Iron & Steel Eng 31:99-109; Discussion. 109-13 Ja '54

Thyratron tube locator spots overhead grounds. F. M. Hartz. il diags Elec World 140:92-3 S 7 '53

Network analyzers

Transformer-analogue network analysers. M. W. H. Davies and G. R. Slemon. bibliog diags Inst E E Proc 100 pt 2:469-80; Discussion. 481-6 O '53

Which station gets the load? curve provides data for allocation of generation to plants of interconnected system. T. W. Schroeder. Elec World 141:97 Mr 8 '54

Stability

Better system stability is attainable. C. H. Hoffman. diag Elec World 141:80-1+ F 8 '54

System stability needs constant attention. C. H. Hoffman. diags Elec World 141:98-9+ Ja 11 '54

Supervisory control

Electricity supply board's load dispatching equipment. P. J. Campbell and G. S. Stritch. plan diags Inst E E Proc 100 pt 2: 661-4 D '53

Eugene water and electric board adopts supervisory control. J. I. Fuller and J. G. Kirwan. il diag Elec World 141:96-7 Ja 11 '54

First stage of Leeds 33kv reinforcement scheme. il Elec J 151:1508 N 6 '53; Elec R (Lond) 153:1127-8 N 13 '53

Multistation supervisory control over single-frequency carrier; abstract. W. M. Larson and others. diag Elec Eng 72:873 O '53

Penelec consolidates communication in strategic new dispatching center. C. H. Conrad. il Elec World 140:94-5 D 28 '53

Tables, calculations, etc.

Figuring neutral currents in three-phase four-wire systems. C. O. Von Dannenberg. diags Power Eng 58:100 Mr '54

ELECTRIC double layer

Detergency of carbon black; electrokinetic phenomena in Micronex dispersions in organic liquid media. F. H. Garner and others. pl diags Inst Pet J 38:986-97 D '52

Ionic components of charge in the electrical double layer. D. C. Grahame and B. A. Soderberg. bibliog J Chem Phys 22:449-60 Mr '54

ELECTRIC driving

Characteristics and control of rectifier-motor variable-speed drives. P. Bingley. diags Inst E E Proc 99 pt 2:189-202 bibliog(89 titles, p201-2) Je '52; Same cond. Engineering 173:61-2 Ja 11 '52; Discussion. Inst E E Proc 99 pt 2:202-6; 100 pt 2:674-8 Je '52, D '53

Continuous galvanizing line; design is key to simple controls. D. A. McArthur and others. il Steel 134:102-4 Ap 12 '54

Conveyor drive developments. W. H. Everett. il diags Power Eng 57:84-6 D '53

Driving and controlling wire drawing machines. J. R. Erbe and H. A. Dickerson. il diags Blast F & Steel Pl 42:1048-52, 1169-77 S-O '54

Electric drive transmission. il Elec R (Lond) 153:796-8 O 9 '53

Electric power for mobile cranes; generators and motors built on the turntable. il Elec J 151:1149 O 9 '53

New dynamometer drive extends testing possibilities and is another source of adjustable speed. E. H. Fredrick and M. F. Gay. il diags Tool Eng 31:51-6 D '53

Steam turbine vs. electric drive for the cat cracker blower; with cost data. H. C. Mayo. diags Oil & Gas J 52:86-8+ S 7 '53

Technical progress; drives and controls. il Steel 134:316-18+ Ja 4 '54

See also

Cranes, derricks, etc.—Electric equipment

Electric motors

Electric shovels

Electricity in mining

Gearmotors

Hoisting machinery, Electric

Locomotives, Diesel-electric

Locomotives, Gas turbine-electric

Machine tools—Electric driving

Mine hoisting, Electric

Mine pumping, Electric

Pumping machinery, Electric

Ship propulsion, Electric

Hoisting machinery

See Hoisting machinery, Electric

Paper and pulp mills

Application of a differential drive to paper machines. E. S. Skinner. il diags Tappi 37: 109-12 Mr '54

Engineering analysis of down time of electric sectional drives. R. F. Sorenson. Tappi 37: 249-52 Je '54

How Magamps are used on the new machine drive at West Tacoma. S. J. Campbell. il diag Paper Tr J 137:30-2 D 18 '53

Sectional paper machine drive with electronic control; Guard Bridge paper co. il diags Engineer 196:565-8 O 30 '53; Engineering 176:595-7 N 6 '53; Elec R (Lond) 153:1061-6 N 6 '53

Power plant auxiliaries

Today's power plant motors. C. D. Lawton. il Blast F & Steel Pl 41:1202-4, 1326-8 O-N '53

Unified boiler control at Trafford power station. S. E. Shaw. il diag Engineering 176:676-8 N 27 '53

Rolling mills

Combination bar and rod mill; Los Angeles plant. C. C. Brandt and P. Scarola. il plan diags Iron & Steel Eng 31:72-8 Jl '54

Control for a modern electric weld pipe and casing mill; Lone star steel co. C. E. Smith. il diags Iron & Steel Eng 31:124-30; Discussion. 130-1 Ap '54

Electric motors over three hundred horsepower applied to main roll drives in the iron and steel and allied industries during 1953; tabulation. Iron & Steel Eng 31:157-8 Ja '54

Electric systems for main drives. W. E. Miller. il diags Iron & Steel Eng 31:83-94; Discussion. 94-7 Jl '54

Electrical design and operation of a modern 46-in. high lift slabbing-blooming mill; Jones and Laughlin steel corp. G. A. Kaufman and A. W. Smith. il diags Iron & Steel Eng 30:61-6 O '53; Abstract. Steel 132:94 Je 29 '53; Discussion. Iron & Steel Eng 30:66-8 O '53

Electrical developments in 1953. W. E. Miller. il diags Blast F & Steel Pl 42:73-82 Ja '54

Electrical drive for a planetary rolling mill; Wednesfield works of Ductile planetary mills, ltd. il diags Engineer 197:458-9 Mr 26 '54; Elec J 152:1022 Mr 26 '54; Iron & Steel Eng 31:207-8+ S '54; Metallurgia 50: 32-3 Jl '54

Electrical drive of 14in. reversing cold strip mill; B.I.S.R.A. laboratories. il diag Engineer 196:728-30 D 4 '53

Electrical plant for the metal industries; progress in 1953. il Metallurgia 49:127-33 Mr '54

Helper drives help steel processing lines. E. E. Vonada. il diags Iron & Steel Eng 31:192-6; Discussion. 196 S '54

Jones & Laughlin retires steam-driven blooming mill. il Iron & Steel Eng 30:128+ O '53

Many new rolling mill installations completed in 1953. A. F. Kenyon. il diag Blast F & Steel Pl 42:83-9 Ja '54

Mile a minute rod mill. D. L. Siegelin. il diag Blast F & Steel Pl 42:928-33 Ag '54

Modernization of skelp mill at Wheeling Steel's Benwood works. S. W. Crisman. il diag Iron & Steel Eng 31:148-50 Ag '54

New combination rod mill will develop high speed. A. F. Kenyon. plan Iron & Steel Eng 31:210+ S '54

Powering the Fairless works two-stand tin temper mill. C. H. Legler. il diags Blast F & Steel Pl 42:521-3 My '54

Reconstruction of Colorado Fuel & Iron mill increases capacity and flexibility. W. Brill and R. H. Wright. il J Metals 5:1623-4 D '53

Shepcote-Lane plant of Firth-Vickers stainless steels, ltd. il Engineering 176:363-5, pl 24-6 S 18 '53

Speed regulation for tandem tube mill drives. F. H. Wickline. il diags Iron & Steel Eng 30:84-6 D '53

Tension regulator on Kaiser temper mill. W. R. Harris and L. F. Stringer. il diags Iron & Steel Eng 31:71-8 Ag '54

Unusual electric drive features applied to Fairless processing lines. E. E. Vonada. diags Iron & Steel Eng 31:114-19 Ap '54

Sawmills

Speed-variator log-carriage drives for small mills. Elec Eng 73:119 F '54

Textile mills

How Draper-Diehl drives are serviced at Cone mills. R. B. Pressley. il Textile World 104:74-5 S '54

New slasher drive eliminates maintenance; Avondale mills. G. Veigl. il diag Textile World 104:88-9+ My '54

Positive control for multimotor slasher drives. A. T. Bacheler and J. G. Stephenson. il Textile World 104:107+ S '54

Wool textile industry; abstracts. A. J. Francis and T. H. Carr. Elec R (Lond) 154:151-2 Ja 22 '54; Engineering 177:161 F 5 '54; Discussion. Elec R (Lond) 154:190 Ja 29 '54; Elec J 152:361-2 Ja 29 '54

ELECTRIC driving of ships. See Ship propulsion, Electric

ELECTRIC energy, inc.

Bechtel to finish building of Joppa plant. il Elec World 140:90 Ag 10 '53

Ebasco out as construction contractor on $189-million Joppa power plant. Bsns W p30 Ag 8 '53

EEInc receives Coffin award. il Elec World News ed 139:35 Je 22 '53

New labor trouble at Joppa. Elec World News ed 140:43 S 28 '53

ELECTRIC engineering

AIEE fall general meeting, Kansas City, Nov. 2-6; with abstracts of papers. Elec Eng 72:1115-19 D '53

ELECTRIC engineering—*Continued*

AIEE fall meeting, Kansas City; with abstracts of papers. Elec World News ed 140:32-5 N 23 '53

AIEE Pacific general meeting, Vancouver, B.C., Sept. 1-4; abstracts of papers. Elec West 111:106-9 O '53

A.I.E.E. winter general meeting; with abstracts of papers. Elec World 141:74-9+ F 8 '54

Electrical development seeks new and wider frontiers. il Power Eng 58:62-4 Ja '54

Electrical engineering and defence; speeches at the I.E.E. annual dinner. Elec R (Lond) 154:426-7 Mr 5 '54

Electrical engineering in 1953. il Engineer 197:24-7, pl 2, 63-5, 103-5 Ja 1-15 '54

Engineering in Europe; survey of current literature (cont). Elec R (Lond) 153:491-2, 579-80, 701-2, 815, 962, 1099-100, 1367-8, 1415-16; 154:39, 55, 103, 203-4, 245, 346, 371-2, 519, 548 S 4-11, 25, O 9, 23, N 13, D 18 '53-Ja 15, 29, F 5, 19-26, Mr 19-26 '54

1953 engineering developments; reviewed by AIEE technical committees. il Elec Eng 73:1-27 Je '54

Oil insulation standards urged; Doble engineering co. 21st annual conference, Boston. Elec World News ed 141:25+ F 1 '54

Physics in the supply industry; abstract. J. S. Forrest. Elec R (Lond) 154:484 Mr 12 '54

Research and engineering progress, 1953. il Gen Elec R 57:7-59 Ja '54

Southeastern electric exchange engineering and operating committees meeting, Pinehurst, N.C. Elec World News ed 140:9+ O 12 '53

Utilisation and the electrical engineer; abstract. B. L. Metcalf. Elec J 151:1393-4 O 30 '53

See also

Electric apparatus and appliances and other headings beginning Electric
Electricity in mining
Electricity on the farm
Electricity supply
Hydroelectric plants
Radio communication and other headings beginning Radio
Railroads—Electrification
Ship propulsion, Electric
Telegraph
Telephone
Voltage regulation

Periodicals

Periodical literature for electrical engineers. R. C. Coile. J Doc 8:209-26 D '52; Discussion. B. M. Crowther. 9:122-4 Je '53

Safety measures

See also

Electric equipment—Safety measures
Electric lines—Safety measures
Linemen's equipment

Study and teaching

Education and training in the electrical industry; abstracts. C. T. Melling. Elec J 151:1315-16 O 23 '53; Elec R (Lond) 153:991 O 30 '53

Marine electrical engineers; training and responsibilities; discussion. Elec R (Lond) 154:560-1 Mr 26 '54

Tables, calculations, etc.

Capacitance calculation. J. Webb. diags Elec R (Lond) 153:1155-7 N 20 '53

Complex algebra for relay circuits. M. Raspanti. diags Elec Eng 72:992-3 N '53

Control and drive equipment on d-c electric traveling crane bridges. D. C. McCrady. diag Iron & Steel Eng 31:55-63; Discussion. 63-6 Jl '54

Digital computers aid engineers; Detroit Edison co. T. H. Lee and A. P. Fugill. il Elec World 141:89-91 Mr 8 '54

Estimation of gradient. J. Webb. Elec R (Lond) 154:231-2 F 5 '54

General vector diagram. M. G. Scroggie. diags Elec R (Lond) 154:12-15, 104-6, 144-7 Ja 1, 15-22 '54

Graphical contribution to the analysis and synthesis of electrical networks. O. P. D. Cutteridge. bibliog Inst E E Proc 100 pt 3: 377-9 N '53

Sensitivity and output formulas for the resistance bridge; abstract. J. M. Andress. diags Elec Eng 72:1095 D '53

Voltage drop; measurement through reactors, transformers and overhead lines. U. G. Knight. Elec R (Lond) 154:465-7 Mr 12 '54

See also

Thévenin theorem

ELECTRIC engineers

Spot survey shows that one electrical engineer is needed for each 10,000 kw. Elec West 112:59-60 Ja '54

See also

American institute of electrical engineers
Illuminating engineering society

ELECTRIC equipment

Buy American policy in doubt. Elec World News ed 139:46 Je 8 '53

Electrical imports show rapid rise. Elec World News ed 140:6-7 D 21 '53

Electrical noise suppression. M. B. Ewalt. il diags Machine Design 26:161-6 S '54

Interior awards contracts for electrical equipment to Allis Chalmers and Japanese firm. Elec World 140:238 Ag 24 '53

Latest developments in electrical equipment. J. H. Jewell. il Mill & Factory 54:51-5+ My '54

Research and engineering progress, 1953. il Gen Elec R 57:7-59 Ja '54

See also

Brushes (electric machinery)
Electric apparatus and appliances
Electric cables
Electric capacitors
Electric control
Electric distribution
Electric driving
Electric instruments
Electric lighting
Electric plants (central stations)—Equipment
Electric switchgear
Electric wire
Electricity in mining
Electricity on the farm

also subdivision Electric equipment under special subjects, e.g.

Airplanes
Automobiles
Cars
Coal mines and mining
Cranes, derricks, etc.
Factories
Petroleum refineries
Rolling mills
Steel works

Cooling

Cooling electric equipment during supersonic flight. D. C. Wells. Machine Design 26: 332+ F '54

Maintenance and repair

Aids in electrical maintenance; illustrations with text. Mill & Factory 54:114 Ap '54

Cut costs, maintain electrical power equipment properly. diags Mill & Factory 54:87-94 My '54

Electrical equipment maintenance. R. W. Inman. il diags Diesel Power 32:48-51 F '54

Electrical maintenance standards hold production at high level; Bullard co. F. A. Westbrook. il Mill & Factory 54:122-4 Je '54

How to keep 'em sailing; trouble-shooting auxiliary control equipment. C. L. Eigelbach. il diags Marine Eng 58:81-5 D '53

How to maintain electrical equipment. H. R. Meyer. il World Oil 137:221-2 Jl '53

Manufacture

Application of quality-control requirements in manufacture of components for a coaxial-carrier system. A. T. Chapman. il A S M E Trans 76:585-91 My '54

Manufacturers' prospects good. W. J. Donald and A. J. Nesti. Elec World 141:81 Ja 11 '54

Power equipment makers face bright outlook; with table. Elec World 139:252+ Je 15 '53

Robot line builds electronic units. il Iron Age 172:56 O 15 '53

Russia claims records in its 1953 production of electrical machinery, appliances, and electricity. Elec World 141:194 F 22 '54

Temperature control apparatus; Electro methods, ltd. il Elec R (Lond) 154:373 F 26 '54

Protection

Protection of electric railway equipment. Engineering 177:328 Mr 12 '54

ELECTRIC equipment—*Continued*

Safety measures

Electric equipment. bibliog il Nat Safety N 69:189+ Mr '54
General Electric pressurised electrical system for hazardous atmospheres. il diags Engineer 196:662-3 N 20 '53
Lock out electric switch box hazard. S. Stahl. Pulp & Pa of Can 55:211-12 Je '54; Same cond. Safety Maint & Prod 108:39 Jl '54
Photo-electric protection of high-voltage equipment. Engineering 176:648 N 20 '53
Pressurized γ-radiation monitor for use in inflammable atmospheres. J. B. Marsh and others. il diags J Sci Instr 30:302-4 S '53
Safe use of electricity; abstract. S. J. Emerson. Chem Age (Lond) 70:1251-2 Je 5 '54
Ten-point locking-out program; electrical switch boxes. F. W. Michal. Factory Management 112:156 Ag '54
Three groups join to ensure safe equipment for hazardous locations. il Chem & Eng N 31:3919-20 S 21 '53
Visual aids demonstrate tag-out rule. il Nat Safety N 70:70 S '54
What explosion-proof really means. diags Power Eng 58:69 F '54

See also
Insulation (electric)

ELECTRIC fans
Draught-proof window fan. il Elec R (Lond) 153:567 S 11 '53

Manufacture

Tottenham tornadoes. il Elec J 151:1930-2 D 11 '53

Standards

Swiss fan construction. il diag Elec J 151: 1574-8 N 13 '53

ELECTRIC fans, Ventilating
Design of exhaust systems; fan characteristics. F. H. Stebbins. il diag Sheet Metal Worker 45:68-72 D '53; 88-90+ Ja; 74+ F; 68-70+ Mr; 88-9+ My '54
Evaluation in fan selection. A. N. Rogers. il Heat & Ven 51:63-7 Jl '54
Fan market outlook in 1954. il Sheet Metal Worker 45:44-5+ Ap '54
Fan motors for air conditioners. M. D. Irwin. Refrig Eng 61:1188-9+ N '53
Fans and ducting of corrosion-resistant plastic. il Engineering 177:60-1 Ja 8 '54
How much power does a fan need? J. F. Tobin. Power Eng 58:74-5 My '54
Motors for fans and blowers. T. E. M. Carville. il diags Refrig Eng 61:1320-4 D '53
Planning a fan merchandising program. il Sheet Metal Worker 45:86-7+ Je '54
324 fans cool reduction pots; Reynolds metals co. J. W. Hutchison. il diag Heating-Piping 26:123 S '54

Noise

Apparatus and procedures for predicting ventilation system noise. L. L. Beranek and others. diags Acoustical Soc Am J 25:313-21 Mr '53
Facts about sound levels for axial and propeller fans; data sheet. Heating-Piping 25:107-8 O '53; Discussion. R. E. Parker. 26:74 F '54
Noise of ventilating fans. C. F. Peistrup and J. E. Wesler. Acoustical Soc Am J 25:322-6 Mr '53

ELECTRIC field
Accurate mapping of electric fields in an electrolytic tank. K. F. Sander and J. G. Yates. diags Inst E E Proc 100 pt 2:167-75 Ap '53; Discussion. 100 pt 2:176-83, 569-70 Ap, O '53
Brightness waves and transitory phenomena in the quenching of luminescence by alternating electric fields. G. Destriau. bibliog il J Ap Phys 25:67-71 Ja '54
Degradation of dextran in an alternating electrical field. F. G. Pautard. bibliog Chem & Ind p 1316-17 D 5 '53
Design of the electric field in a Van de Graaff generator. J. W. Boag. bibliog diags Inst E E Proc 100 pt 1:339-42 N '53
Diffusion of decaying particles in a radial electric field. J. Keilson. J Ap Phys 24: 1397-400 N '53
Distortion of aerosol droplets by an electric field. C. T. O'Konski and H. C. Thacher, jr. bibliog J Phys Chem 57:955-8 D '53
Effect of alternating electric fields on the excitation of a strontium sulfide phosphor. W. Low and others. Opt Soc Am J 44:504-5 Je '54
Electric field meter with extended frequency range. L. G. Smith. il diags R Sci Instr 25:510-13 My '54
Electric field meters. R. Gunn. diags R Sci Instr 25:432-7 My '54
Experimental determinations of the electric field and equipotential surfaces using the heat conduction analogy. M. K. Gohar. il diags J Ap Phys 25:805-7 Je '54
Experiments on polymer solution in inhomogeneous electrical fields. P. Debye and others. J Chem Phys 22:152-3 Ja '54
Field emitter; fabrication, electron microscopy, and electric field calculations. W. P. Dyke and others. il diags J Ap Phys 24: 570-6 My '53
Focusing of an electron beam by periodic fields. A. M. Clogston and H. Heffner. bibliog diags J Ap Phys 25:436-47 Ap '54
Influence of electric and magnetic fields on angular correlations. A. Abragam and R. V. Pound. bibliog Phys R 92:943-62 N 15 '53
Measurement of the drift velocity of electrons in the electrical field in argon-alcohol mixtures. L. Colli and M. T. De Leonardis. bibliog il diag J Ap Phys 24:255-7 Mr '53
New galvanomagnetic effect. C. Golberg and R. E. Davis. Phys R 94:1121-5 Je 1 '54
Radiation fields of a horizontal dipole in a semi-infinite dissipative medium. J. R. Wait. J Ap Phys 24:958-9 Jl '53
Relativistic dynamics of a charged particle in crossed magnetic and electric fields with application to the planar magnetron. L. Gold. J Ap Phys 25:683-90 Je '54
Variations in the decay of phosphorescence with frequency of applied electric field. K. W. Olson. Phys R 92:1323 D 1 '53

See also
Electromagnetic field
Magnetic field
Stark effect
Unified field theory

ELECTRIC filters
Electronic filter for central power supplies for multi-unit analog computers. R. N. Riggs and J. D. Cronin. il diags Electronics 27:174-5 F '54
Highly selective low-frequency tuning-fork filter. H. L. Poss. R Sci Instr 25:299-300 Mr '54
Optimum nonlinear filters. L. A. Zadeh. bibliog diags J Ap Phys 24:396-404 Ap '53

See also
Radio filters

ELECTRIC fires
Snuffing a motor fire; dry-chemical fire-fighting equipment. il Power 98:123 S '54; Safety Maint & Prod 108:56-7 S '54

ELECTRIC furnaces
Crusilite; new silicon carbide furnace element. il Chem Age (Lond) 71:377 Ag 21 '54
Electric furnace as a producer of elemental phosphorus. H. A. Curtis. diags Electrochem Soc J 100:sup81C-9C Ap '53
High temperature furnace. A. E. DeBarr and B. Roberts. diags J Sci Instr 30:432-3 N '53
More on rotating phosphorus furnace. M. M. Striplin, jr. and others. il Chem Eng 60: 201-4 S '53

Control

Independent control of several furnaces with one temperature regulator. A. E. De Barr and B. Roberts. J Sci Instr 31:71 F '54
Synthetic mica investigations; precision-controlled electric furnaces for temperatures to 1500°C. R. A. Humphrey and E. C. Worden. il diags Am Cer Soc J 37:196-202 Ap 1 '54

Electrodes

Reverse selling for long-term gains; Great Lakes Carbon's customer education shows how to use fewer electrodes. il Steel 134:85 Mr 8 '54

ELECTRIC furnaces—*Continued*

Lining

Problem of correct thermal insulation of bottom linings of aluminum furnaces. J. Wleugel and O. C. Böckman. bibliog Electrochem Soc J 101:sup 145C-50C Je '54

ELECTRIC furnaces, Annealing

Annealing of copper strip; G.E.C.'s new furnace. il Chem Age (Lond) 69:1221 D 12 '53

Electric annealing of white iron. R. W. Parsons. il Foundry 81:112-15 N '53

Industrial furnaces; controlled heating and cooling. il diags Iron Age 173:supF 12-18 F 25 '54

ELECTRIC furnaces, Carburizing

Carbon controller makes possible accurate carburizing, carbon restoration, and homogeneous carburizing. W. L. Besselman. il Materials & Methods 39:110-12 F '54

Liquid carburizing. T. M. Dougherty. il Metal Prog 66:89-90 Ag '54

Through-carburizing simplifies production of formed parts. W. D. Latiano. il diag Iron Age 174:115-17 Jl 22 '54

ELECTRIC furnaces, Enameling

No flaws, no rejects. D. Mahoney. il Elec West 111:100 O '53

ELECTRIC furnaces, Forging

Induction forging can be versatile; Massey-Harris co. F. T. Chesnut. il plan Steel 133: 112-13 S 7 '53

Atmosphere control

Centralize atmosphere generators to improve furnace layout; Bingham Herbrand corp. W. D. Latiano. il plan Iron Age 173:115-17 My 27 '54

ELECTRIC furnaces, Foundry

Equipment for the small foundry; melting and pouring. il Foundry 82:182-5 My '54

Induction melting of metals. il Metallurgia 50:25-8 Jl '54

Single-phase load split on three phases; single-phase indirect arc furnace. B. W. Schafer. diags Elec World 140:92-3 N 30 '53

See also

Electric furnaces, Iron founding

Electric furnaces, Non-ferrous melting

Control

New electrode control cuts operating costs of indirect arc furnaces. H. F. Arndt and R. J. Songer. il Foundry 82:325+ My '54

ELECTRIC furnaces, Heat treating

Austempered shaver head; Schick, inc. il Steel 135:136 Jl 12 '54; Iron Age 174:131 Ag 5 '54

Comparison of economics and methods for heating steel strip. C. E. Peck. Blast F & Steel Pl 42:791-9 Jl '54

Equipment for the small foundry; related equipment. il Foundry 92:194-7 My '54

Heat treating; Ryan installs big furnace for handling aluminum. il Iron Age 172:213 S 10 '53

Putting heat-treatment on the line; Allen mfg. co. il Steel 133:90 N 23 '53

Salt bath furnaces gain; abstract. L. B. Rosseau. Steel 133:274 O 12 '53

Salt baths, versatile performers on the heat treating team. L. B. Rosseau. il Steel 134: 108-11 F 15 '54

Atmosphere control

Birlec steam atmosphere furnaces. il Automobile Eng 44:146 Ap '54

Carbon controller makes possible accurate carburizing, carbon restoration, and homogeneous carburizing. W. L. Besselman. il Materials & Methods 39:110-12 F '54

Centralize atmosphere generators to improve furnace layout; Bingham Herbrand corp. W. D. Latiano. il plan Iron Age 173:115-17 My 27 '54

Heat treat and quench unit features automatic control. il Materials & Methods 38: 145 N '53

Wild-Barfield steam tempering furnace. diag Engineer 196:665 N 20 '53

ELECTRIC furnaces, Heating

Selling electric power to steel men. il Bsns W p43-4+ D 5 '53

Steel forming; furnaces heat stainless steel billets for hot extrusion; Allegheny Ludlum steel corp. il Iron Age 173:179-80 Mr 4 '54; Steel 134:158 Mr 15 '54

ELECTRIC furnaces, High frequency

Effect of melting frequency on the properties of induction melted aluminum alloys. A. Saia and others. il Foundry 82:84-7+ Ag '54

Induction melting of metals. il Metallurgia 50:25-8 Jl '54

Survey of applications of British industrial high frequency induction heating equipment and their economic aspect. il diag Metallurgia 49:223-9 My '54

Use of silicon carbide powder as electrical and thermal insulation for very high-frequency induction furnaces. S. D. Mark, jr. diag Am Cer Soc Bul 33:43-5 F 15 '54

Lining

Linings for induction furnaces. H. E. White. il Metal Prog 66:99-106 S '54

ELECTRIC furnaces, Iron founding

Duplexing in the foundry; combination of cupola and electric arc furnace. F. J. Knight. il Metallurgia 49:137-8 Mr '54

ELECTRIC furnaces, Laboratory

Adaptation of a Geiger-counter X-ray diffractometer for high-temperature investigations. P. Chiotti. bibliog il diags R Sci Instr 25:683-8 Jl '54

Adiabatic apparatus for the study of self-heating of poorly conducting materials. W. H. Raskin and A. F. Robertson. il diags R Sci Instr 25:541-4 Je '54

Apparatus for crystal pulling in vacuum using a graphite resistance furnace. K. Lehovec and others. bibliog il diag R Sci Instr 24:652-5 Ag '53

Apparatus for the determination of the solidus temperatures of high-melting alloys. R. A. Oriani and T. S. Jones. il diag R Sci Instr 25:248-50 Mr '54

Arc melting as a lab tool. il Steel 133:168+ Ag 17 '53

Graphite tube resistance furnace and voltage regulator for equilibrium studies in the temperature range 1500-1800°C. W. E. Dennis and others. diags J Sci Instr 30: 453-5 D '53

High temperature furnaces for organic elementary analysis. W. Kirsten. bibliog il diags Anal Chem 25:805-6 My '53

High-temperature high-vacuum furnace. H. W. Davidson and T. H. Burwood. bibliog il diags Engineering 177:106-8 Ja 22 '54

Improved split graphite resistor furnace. H. A. Johansen and S. May. diag R Sci Instr 24:1147-9 D '53

Laboratory arc-melting furnace. M. L. Nielsen and I. B. Johns. bibliog il diags R Sci Instr 25:596-8 Je '54

New combustion apparatus employs high frequency heating. B. W. Thomas. Ind & Eng Chem 46:sup85A Ap '54

Self-operating single-crystal furnace. W. H. Bridges and others. diags R Sci Instr 24: 1149-50 D '53

Simple carbon resistor furnace for fusion point determination. C. E. A. Shanahan and F. Cooke. il diags Chem & Ind p 1050-1 O 3 '53

Control

New method of improving furnace temperature control. W. James. diag J Sci Instr 31:23-5 Ja '54

Simple controller for a platinum furnace. M. B. Reynolds. diags R Sci Instr 25:838-9 Ag '54

ELECTRIC furnaces, Metallurgical

Closed electric reduction furnaces permit utilization of furnace gas. M. O. Sem. il J Metals 6:30-2 Ja '54

Copper smelting in Boliden's Rönnskär works described. O. Herneryd and others. il diags J Metals 6:332-5 Mr '54

Flexible leads for low-frequency electric furnaces. M. Eaton and S. B. Thomas. il diags Electrochem Soc J 101:110-16 F '54

Molybdenum-wound electric furnaces; calculation of winding dimensions. A. B. Ashton. Metallurgia 49:191-4 Ap '54

ELECTRIC furnaces, Metallurgical—*Continued*

Powder metallurgy displaces die casting. L. B. Reed. il Elec West 111:92-4 O '53

See also

Electric furnaces, Foundry

Electric furnaces, Iron foundry

Electric furnaces, Steel making

Electric furnaces, Vacuum melting

ELECTRIC furnaces, Non-ferrous melting

Double melting produces homogeneous titanium alloys. R. J. Van Thyne and others. bibliog il diag Iron Age 172:146-8 Ag 6 '53

Double melting technique improves homogeneity, and purity of zirconium and titanium ingots. G. L. Miller. il diags Iron Age 174:116-19 S 23 '54

Electric melting makes precision castings. G. C. Jamison. il Elec World 140:131 S 7 '53

Induction furnaces; they stir as they melt brass, bronze. F. T. Chesnut. il Steel 133: 100-1 Ag 24 '53

New die casting plant features melting, handling economies; Mt Vernon die casting corp. G. B. Nyselius. il diag Iron Age 174: 108-11 S 2 '54

ELECTRIC furnaces, Steel making

American arc furnace practice. W. B. Wallis. il Metallurgia 48:199-203 O '53

Annual electric furnace steel conference, 11th, Cincinnati, Dec. 2-4. J Metals 6:87-9 Ja '54

Arc furnaces; trend of development in U.S.A. J. C. Howard. il Elec R (Lond) 154:254-5 F 5 '54; Discussion. 154:300 F 12 '54

Bethlehem-Pacific smogless electric furnace passes test. G. P. Larson. il Iron Age 172: 63 O 1 '53

Can the electric furnace compete with the open hearth? C. F. Ramseyer. il J Metals 5:1617-21 D '53

Case for electrics; abstract. W. B. Wallis. Iron Age 173:57 F 25 '54

Comparative economics of openhearth and electric furnaces for production of low-carbon steel. S. L. Case and others. Metal Prog 65:174+ Je; 66:168+ Jl 1; 146+ Ag '54

Cost comparisons of the open hearth and electric furnace. D. D. Moore. bibliog Iron & Steel Eng 31:55-65; Discussion. 65-9 Mr '54

Determination of the optimum current in an arc furnace. W. E. Schwabe. diags Iron & Steel Eng 31:87-9; Discussion. 89-90 Je '54

Economic possibilities of the electric furnace and their significance to the lime industry; abstract. D. D. Moore. Rock Prod 57:89-90 Je '54

Electric arc steel melting furnace. J. C. Howard. il Metallurgia 49:119-22 Mr '54

Electric furnace steel conference, 11th, Cincinnati, Dec. 2-4; with abstracts of papers. Foundry 82:128+ Ja '54

Electric-furnace study. il Mech Eng 75:901-2 N '53

Electric furnace vs. open hearth furnace in cold metal shops. L. F. Reinartz and H. C. Barnes. Blast F & Steel Pl 42:345-50+ Mr '54; Same abr. Iron & Steel Eng 31:114-19 Ja '54; Excerpts. Steel 134:96+ Ja 25 '54; Metal Prog 65:174+ My '54

Electric furnace west of the Rockies. W. B. Wallis. il Iron & Steel Eng 31:80-6 My '54

Electric furnaces for power, coal, steel industries. Elec World 140:106 Ag 24 '53

Electric steel furnaces. Elec R (Lond) 153: 995-6 O 30 '53

Electrical equipment for large arc furnaces. E. H. Browning. il Westinghouse Eng 13: 203-4 N '53

Elliptical electric furnace outperforms conventional circular type; Timken roller bearing co. J. K. Preston. il J Metals 6:18-20 Ja '54: Excerpts. Steel 134:77-8 Ja 11 '54

Furnace men report on advantages of induction stirrer; digest of papers presented at the Electric furnace steel conference of the American institute of mining and metallurgical engineers. Metal Prog 66:140+ Ag '54

Furnaces; electrics vs. openhearths; Battelle study of comparative steelmaking costs. J. B. Delaney. Iron Age 172:43 Ag 27 '53

Induction stirring gaining favor. diags Steel 135:160 S 20 '54

Large electric furnace of the future may be six-electrode unit. F. W. Brooke. il diags Iron & Steel Eng 30:123-4+ N '53

Modern arc furnace equipment and practices. E. H. Browning. il Iron & Steel Eng 31: 70-4; Discussion. 75 Mr '54

Open hearth challenged as more carbon steel goes electric; with cost data. A. G. Gray. il Steel 133:84+ Ag 24 '53

Selling electric power to steel men. il Bsns W p43-4+ D 5 '53

Smoke, dust, fumes closely controlled in electric furnaces; Bethlehem Pacific coast steel corp. R. S. Coulter. il plan Iron Age 173: 107-10 Ja 14 '54

Vacuum melting grows up. W. V. Packard. il Iron Age 174:71-2 Ag 12 '54

Control

Compressed air, an answer to heavy-duty arc furnace switching. J. E. Schrameck and J. K. Walker. il diags Blast F & Steel Pl 42:67-9 Ja '54

Simplified control curbs arc furnace power appetites; Hydro-arc furnace control. diag Steel 135:108+ Ag 23 '54

Westinghouse compressed-air breaker. Steel 134:128-9 F 8 '54

Lining

Vancouver steel co. uses mullite roofs on electric furnaces. G. R. Heffernan. il diag J Metals 5:884-5 Jl '53

ELECTRIC furnaces, Vacuum melting

Commercial vacuum-melted high temperature alloys. Metallurgia 49:155 Mr '54

Crucible Steel enters into vacuum melting of steel. il diag Iron & Steel Eng 31:124 Mr '54

Furnace insulation; boron nitride as a thermal and electrical insulation in furnaces for vacuum induction melting. R. V. Gray. Metal Prog 65:108-9 Mr '54

High-temperature high-vacuum furnace. H. W. Davidson and T. H. Burwood. bibliog il diags Engineering 177:106-8 Ja 22 '54

High temperature materials for vacuum service. H. B. Michaelson. bibliog il diag Materials & Methods 38:110-15 D '53

High vacuum equipment; pumping systems require close attention. G. P. Gerow. il Iron Age 173:142-4 F 18 '54

Metal melting under vacuum. il diag Chem Age (Lond) 69:805-6+ O 17 '53; Same. Metallurgia 48:259-60 N '53

New partnership in vacuum melting; Crucible Steel and National research corp. diag Iron Age 173:79 Mr 11 '54

Production vacuum melting; a step forward. H. E. Trout. il diag Blast F & Steel Pl 42:1066-8 S '54

Remelting titanium. il Steel 134:123 Je 7 '54

Vacuum furnace installed at Utica. il Blast F & Steel Pl 42:1073 S '54

Vacuum melting excludes inclusions. F. G. Stroke. il Steel 133:140-1 D 14 '53

Vacuum melting for special alloys; GE-process. R. McKechnie. il Chem & Eng N 32: 3358 Ag 23 '54

Vacuum melting grows up. W. V. Packard. il Iron Age 174:71-2 Ag 12 '54

Vacuum metallurgy grows, extra tough alloys melted and cast in vacuum. il Steel 135:102 Ag 16 '54

Vacuum metallurgy shifts from lab to production line. il Steel 135:74 S 20 '54

Vacuum-type titanium furnace in service; Titanium metals corporation of America. il Blast F & Steel Pl 42:948-9 Ag '54

ELECTRIC fuses

Analysis of an analogue solution applied to the heat conduction problem in a cartridge fuse; abstract. A. E. Guile and E. B. Carne. diag Elec Eng 73:224 Mr '54

Facts about modern fuses. diags Mill & Factory 54:74 My '54

Fuse maintenance prevents failures. D. H. Noble. Ry Loco & Cars 128:78 S '54

Fuses remote on electric ranges. Elec World 140:193 Ag 24 '53

How do reclosers affect fuse link performance? R. E. Riebs and R. H. Amundsen. diag Elec World 141:88-9+ F 8 '54

How to prevent short-circuit current damage. W. R. Crites. il diag Mill & Factory 55: 79-83 Jl '54

ELECTRIC fuses—*Continued*

Miniature fuses for appliance circuits' protection. A. J. Steele. il Elec Eng 72:994-5 N '53

Modern fuses give wide-range electric circuit protection. J. C. Lebens. il diags Power Eng 57:74-6+ D '53

Role of fuses in appliance protection. J. C. Lebens. il Elec Eng 72:901-3 O '53

Selective fusing saves breaker replacement. L. J. Langevin. Elec World 140:180 Ag 24 '53

Three improved fuses protect electric motors. J. C. Lebens. diags Textile World 104:112-13 Jl '54

ELECTRIC gages. See Gages, Electric

ELECTRIC generator sets

Compact high-output engine-generator set for lighting motion-picture and tv locations. M. A. Hankins and P. Mole. il Soc Motion Picture & Tv Eng J 61:731-41 D '53

Engine-generators for emergency service; engineering reference sheet. Elec World 140:132 Ag 10 '53

For microwave systems, emf unit supplies reliable power; protective relaying of transmission lines. B. W. David. diags Elec World 140:128-9 O 19 '53

Ford-engined generating set. il Engineering 177:187 F 5 '54

Heating, ventilating and power plant of civil defense centres. il Engineer 197:280 F 19 '54; Engineering 177:278 F 26 '54; Elec R (Lond) 154:492 Mr 12 '54

Historic motor generator set; Holmes motor-generator set. il Elec J 151:1752 N 27 '53; Elec R (Lond) 153:1228 N 27 '53

Pass-out generator sets at Coryton refinery. il Engineer 196:463 O 9 '53

Stand-by Diesel generator for airport. il Engineering 177:380 Mr 19 '54

Protection

Turbine-generator controls, protections, and accessories; abstract. G. W. Cunningham and M. A. Eggenberger. Elec Eng 73:261 Mr '54

ELECTRIC generator sets, Domestic

Home power plants. Consumers Res Bul 32:27-8 D '53

ELECTRIC generators

Electricity and aircraft; generators and alternators. D. C. Flack. il Elec J 151:1478-84 N 6 '53

Optimal loading of a thermoelectric generator. J. F. Perkins. J Ap Phys 25:1058 Ag '54

Power output of thermoelectric generators. M. Telkes. J Ap Phys 25:1058-9 Ag '54

Production and measurement of surge-ignition sparks. J. K. Richmond and A. L. Furno. bibliog il diag R Sci Instr 24:1107-12 D '53

Santa Fe solves generator drive problem; endless V-belts. J. V. Dobbs. il Ry Loco & Cars 128:56-7 Ja '54

Supply for precision measurement. il diag Elec J 151:1927-9 D 11 '53

See also

Electric machinery

Radio generators

Bearings

How to babbitt a large bearing; Consolidated Edison co. H. E. Linsley. il Am Mach 98:98-9 Ag 30 '54

Installation

Installing major electric equipment. A. B. Marvin. Pub Util 52:765-71 N 19 '53

Parallel operation

How to parallel conversion equipment. L. W. Scott. diags Coal Age 59:103-7 F '54

Protection

Backup protection for generators; abstract. E. T. B. Gross and L. B. LeVesconte. diag Elec Eng 72:1082 D '53

Protection of generators against unbalanced currents; abstract. J. E. Barkle and W. E. Glassburn. Elec Eng 72:1012 N '53

Trip unit when excitation is lost. G. E. Taylor. Elec World 140:96-7 O 5 '53

Temperature

Generator stator copper temperature indicator; abstract. A. L. Brownlee and H. E. Brown. diags Elec Eng 72:885 O '53

Testing

Supply cooling air for testing generators and alternators. A. F. Arnold. il diag Heating-Piping 26:110-11 Ag '54

Tests for 400-cycle and tachometer generators. il Ry Loco & Cars 128:58-9 Jl '54

ELECTRIC generators, Alternating current

Generator saves $45,000 running as synchronous condenser. J. Kezer. il Elec World 141:122+ F 22 '54

Measurement of interlaminar resistance of varnish-insulated silicon-steel sheet for large electrical machines. E. D. Taylor. diags Inst E E Proc 98 pt 2:377-85 Je '51; Discussion. 98 pt 2:385-8; 100 pt 2:565-7 Je '51, O '53

Power equalizer systems for aircraft alternators; abstract. J. A. Granath and A. K. Hawkes. diags Elec Eng 72:893 O '53

Small close-regulation alternator; Stavolt. A. H. Maggs. il diags Engineer 196:69-71 Jl 17 '53; Same. Elec R (Lond) 153:526-9 S 4 '53

Tractor will supply electricity for farm use; tractor-mounted generator. il Machine Design 26:44-6 S '54

Why alternator systems? abstracts. A. D. Gilchrist. il diag Automotive Ind 109:64-5+ N 1 '53; S A E J 61:35-6 D '53

Control

Automatic control of hydroelectric induction generators. J. G. Kirwan. Power 98:158+ Ja '54

Brush self-regulating alternators with Amplidex control. il diag Engineer 197:144 Ja 22 '54; Engineering 177:149 Ja 29 '54

Historical approach to speed and tie-line control; abstract. R. Brandt. Elec Eng 72:982 N '53

Cooling

Direct cooling of turbine-generator field windings; abstracts. C. H. Holley and H. D. Taylor. il Elec Eng 73:120 F '54; Power 98:158 Ap '54

Generator cooled for 114F ambient temperatures. J. H. Jupe. il Elec World 140:162 S 21 '53

New fully supercharged generator; abstract. S. Beckwith and L. T. Rosenberg. diags Power 98:158+ Ap '54

Ventilation of inner-cooled generators; abstract. R. A. Baudry and P. R. Heller. diags Power 98:160+ Ap '54

Parallel operation

Parallel operation of aircraft a-c generators; abstract. L. R. Larson. Elec Eng 72:1021 N '53

Power Engineering refresher; a-c generators in parallel. H. A. De Bonneval. Power Eng 58:84-5 Ap; 84-5 My '54

Protection

Characteristics of split-phase currents as a source of generator protection; abstract. H. R. Sills and J. L. McKeever. Elec Eng 72:899 O '53

Testing

Load test plant for large alternators; Witton works of the General electric co. il Engineer 196:834-6 D 25 '53; Engineering 177:28-9 Ja 1 '54; Elec J 151:2095-7 D 25 '53; Elec R (Lond) 153:1409-12 D 25 '53

Windings

Propagation of surge voltages through high-speed turbo-alternators with single-conductor windings. B. C. Robinson. bibliog diags Inst E E Proc 100 pt 2:453-67 O '53

ELECTRIC generators, Direct current

Can we reconnect a dc generator? answers. diags Power 98:142+ My '54

Flow of energy in d-c machines; abstract. E. I. Hawthorne. diag Elec Eng 73:222 Mr '54

Highspeed d.c. generators for continuous duty in jets. il Aviation W 59:97-8 D 14 '53

ELECTRIC generators, Direct current—*Cont.*

Industrial regulating systems using rotating regulators. G. E. Shaad. diags Machine Design 26:299-300+ My '54

See also

Amplidyne generator

History

50th anniversary of the cross-field dynamo. E. Rosenberg. bibliog il diags Elec Eng 73:203-8 Mr '54

ELECTRIC generators, Electrostatic

Design of the electric field in a Van de Graaff generator. J. W. Boag. bibliog diags Inst E E Proc 100 pt 1:339-42 N '53

High-intensity pulsed ion source. J. D. Gow and J. S. Foster, jr. bibliog diags R Sci Instr 24:606-10 Ag '53

Hydrogen supply and beam focusing for electrostatic generator. C. J. Strumski and others. bibliog il diag R Sci Instr 25:514 My '54

Miniature electrostatic generator uses printed-circuit techniques. Elec Eng 73:189 F '54; Machine Design 26:206+ Mr '54

Supervoltage radiography bows; Van de Graaff unit will photograph weld metal. il Chem & Eng N 32:312 Ja 25 '54

Use of soft X-rays for electrostatic generator stabilization. M. B. King and S. Devons. R Sci Instr 25:933 S '54

ELECTRIC generators, Portable

Are you ready for a fast switch to emergency power? portable Diesel generator. L. W. Fitzpatrick. il diags Power 98:120-1 S '54

Engineer corps gets 961 generator sets. il Diesel Power 32:56-8 Je '54

Hand generator requires low starting torque. il diags Machine Design 26:136 Ja '54

Mobile generators power five-yd. shovel. il Roads & Sts 97:48 Ja '54

ELECTRIC generators, Synchronous

Power system plant. W. J. Carfrae and M. G. Say. bibliog diags Elec J 152:109-14, 268-72, 422-6, 586-8 Ja 8, 22, F 5, 19 '54

Control

Magnetic amplifier for synchros; abstract. R. L. VanAllen. diags Elec Eng 72:925 O '53

Power system plant; load and frequency control. N. V. Pestereff. il diag Elec J 152:742-5 Mr 5 '54

Cooling

Non-salient-pole synchronous generators; mechanical problems. W. J. Carfrae. bibliog diags Elec J 152:109-12 Ja 8 '54

Windings

Non-salient-pole synchronous machines; electrical behavior. W. J. Carfrae. diags Elec J 152:269-70 Ja 22 '54

ELECTRIC guitar. See Guitar, Electric

ELECTRIC hammers

Black & Webster heavy-duty electric impact hammer with wide range of adjustment. il Mach 60:234 N '53

ELECTRIC hardening. See Case hardening—Electric hardening

ELECTRIC heaters

New heater generates own thermoelectric power to drive circulating fan. Heat & Ven 51:140+ Ap '54

Advertising

Ad cost-per-inquiry cut to $4.76 by Wiegand. Sales Management 71:136-7 O 15 '53

ELECTRIC heaters, Laboratory

Convenient constant-temperature heater. W. W. Wendlandt. diag J Chem Educ 31:312 Je '54

Specimen heater for electron diffraction. R. G. Picard and E. G. Dornfeld. il diags R Sci Instr 25:158-60 F '54

ELECTRIC heating

American Gas and Electric will promote resistance heating also. E. A. Snyder. Elec World 140:100 D 28 '53

Electric floor heating protects gas meters. G. K. Sauerwein. il Elec World 139:144+ Je 15 '53

Electric house heating flattens curve of residential load. Elec World 141:90-2 F 8 '54

Heat pump takes hold in the South. O. Ely. Pub Util 52:861-2 D 3 '53

Heating in Canada. Elec World 140:225+ Ag 24 '53

South hot for cricket brooding. il Elec World 139:156 Je 15 '53

Space heating. il plans Elec R (Lond) 153:1045-8 N 6 '53

Space heating load of Union Electric rising rapidly; with cost data. Elec World 140:92-3 N 2 '53

Tacoma City Light lifts ban on electric heating. Elec World News ed 140:24 Ag 3 '53

Control

Controlling the house heating load. W. F. Friend. Elec World 140:88-90 N 2 '53

Panel system

Cleveland utility reports experience with electric panel heating. Elec World 140:84-5 N 2 '53

Electric heat by the acre; Stones River development. M. H. Wessel. il Elec World 139:116 Je 1 '53

Electric house heating efficiency higher in colder weather? Elec World 140:94-5 N 2 '53

Farm family likes electric heating; with cost data. J. Myers. il plan Elec World 140:83 N 2 '53

Glass heating panels perform well in tests. P. R. Achenbach. Eng N 151:116+ Jl 16 '53

House heating seems a desirable load for farm lines. V. R. Beery. il Elec World 140:86-7 N 2 '53

Radiant heating systems for houses. W. J. McGuinness. diags Arch Rec 113:201+ Mr; 203 My '53

To cope with house heating load, local study is essential. J. B. Taylor and others. il Elec World 140:80-2 N 2 '53

Tables, calculations, etc.

FHA formula proves better for electric heating calculations. Elec World 140:91 N 2 '53

ELECTRIC heating, Industrial

Advantages of electric heat to industrial users discussed at AIEE conference. Elec World News ed 139:14 Je 8 '53

Applying electric heat. L. F. Spector. il diags Machine Design 25:142-58 D '53

Catterson-Smith portable furnace for heating aluminium alloy rivets. il Engineer 196:537 O 23 '53

Corrosion of heating electrodes in molten chloride baths. H. R. Copson. il Electrochem Soc J 100:257-64 Je '53; Discussion. 100:593 D '53

Electric heat prevents pond freezing. W. H. Clark. diag Elec West 111:100 O '53

Electric heat produces neater packages; Hall candy co. R. M. Pizza. il Elec World 141:136+ Mr 8 '54

Electric heat speeds hosiery production. J. W. Parris. il Elec World 141:152 F 22 '54

Electric heating offers advantages in plant and laboratory installations. D. E. Pierce. il Ind & Eng Chem 46:sup73A-4A+ My '54

Electric hot-galvanising bath. il Engineering 176:638 N 13 '53

Electric molds cut recapping; Gordy tire co. J. W. Parris. il Elec World 141:136 Mr 8 '54

Electric surface heating with Isomantles. il Chem Age (Lond) 71:667 S 25 '54

Electrical boosting ups tank capacity 22.5 percent. il Cer Ind 62:75 Mr '54

Electrically heated vibrating screens in tile making; Long House tileries of Henry Hawkins, ltd. il Engineer 196:838-9 D 25 '53; Elec R (Lond) 154:51 Ja 8 '54

Electrothermal heating of solutions. K. A. Kobe and C. J. Carlson. il diag Electrochem Soc J 101:155-7 Mr '54

Heat technology; electric heating methods. C. H. Chilton. diags Chem Eng 60:195-9 Je '53

Heating by electricity; possibilities for increasing production and reducing labour; abstracts. O. W. Humphreys. Engineering 177:277 F 26 '54; Elec J 152:602 F 19 '54; il Elec R (Lond) 154:323-4 F 19 '54

ELECTRIC heating, Industrial—*Continued*

High temperature torch speeds cleaning of castings; Kwik-Arc jet torch process. il Iron Age 173:150+ Ap 1 '54; Tool Eng 33:77 Jl '54

How to stop pipe weld failure. il Chem Eng 60:214 N '53

Induction hardening improves gear life, shortens heat treating cycle. W. L. Walz. il diags Iron Age 174:93-6 Ag 26 '54

Induction heating; low frequencies have advantages. J. A. Logan. il Iron Age 172:69-72 D 24 '53

Industrial heating use increases. Elec World 140:77 D 28 '53

Low frequency induction coils shorten billet heating time. il Iron & Steel Eng 30:130+ N '53; Steel 133:118 D 21 '53

Mains frequency billet heater. il Metallurgia 48:198 O '53

National industrial electric heating conference, Cincinnati, Jan. 18-22. Elec World News ed 141:47-8+ F 15 '54

Pipe heating; heating network sealed into PVC. il Chem Age (Lond) 71:640 S 25 '54

Portable plug-in elements heat magnesium forming dies. R. W. Peters. il Iron Age 174:112-13 Ag 12 '54

Radiant heat dries pill coatings faster. Elec World 141:154 F 22 '54

Radiant heat for high temperatures. C. F. Powell. Metal Prog 65:186+ Je '54

Resistance heating of mild-steel containers at power frequencies. C. A. M. Thornton. bibliog diags Inst E E Proc 99 pt 2:85-93 Ap '52; Discussion. 100 pt 2:679-83 D '53

Safe heating using electric heating mantles. A. Webster. il Chem Age (Lond) 68:961-3 Je 27 '53

Shrink fit perfects piston assembly; Cadillac motor car division. il Steel 133:103+ O 19 '53

60-cycle induction heating; Aluminum company of America. il Factory Management 111:110-13 N '53

Strip heaters provide uniform temperature distribution. C. L. Stapel. il Elec World 140:138 O 5 '53

Tank heaters warm heavy asphalt. R. M. Pizza. il Elec World 140:166 N 16 '53

Temperature gradients in inductively heated cylinders. R. J. Thorn and O. C. Simpson. J Ap Phys 24:297-9 Mr '53

See also

Electric furnaces
Electric furnaces, Heat treating
Electric welding
Electric welding, Arc
Infrared rays—Industrial heating

High frequency heating

High-frequency brazing of small rotors. P. H. Brace and E. B. Fitzgerald. il Westinghouse Eng 13:206-7 N '53

High frequency heating looms as improved cooking method; Di-Thermal processing. L. E. Slater. il diags Food Eng 26:52-3+ Ja '54

How to get long life from h-f water-cooled flexible conductors. il diag Mill & Factory 55:110-11 Ag '54

How you can control temperatures in induction heating. il Steel 133:149 Jl 6 '53

Induction heater boosts output of brazed and soldered parts; Illinois engineering co. O. W. Noeske and W. F. Sickels. il diags Iron Age 173:116-17 Ja 14 '54

Induction heating generators as production tools. P. A. Hassell. il Metal Prog 66:94-6 Jl 1 '54

Lindberg induction heating unit for rugged use. il Am Mach 98:190 My 24 '54

Plastic welding with new Metrovick dielectric heating unit. il Elec J 152:217 Ja 15 '54; Engineering 177:118 Ja 22 '54

Survey of applications of British industrial high frequency induction heating equipment and their economic aspect. il diag Metallurgia 49:223-9 My '54

Use of high-frequency cuts clayware drying time one-third. S. Copeland. diags Cer Ind 62:78-80 Mr '54

See also

Case hardening—Electric hardening

ELECTRIC heating elements

Design; diecast heater elements cut production costs. Iron Age 172:207 N 5 '53; Steel 133:162 N 9 '53

Domestic heating elements. H. Hodges. il Elec R (Lond) 153:607-12 S 18 '53; Discussion. 153:1115-16 N 13 '53

Film-type heating elements. R. E. Crump. il diag Product Eng 24:164-7 O '53

Napier electro-thermal de-icing equipment. il Engineer 197:420-2 Mr 19 '54; Engineering 177:378-9 Mr 19 '54

ELECTRIC ignition

Electric ignition for high-compression engines. E. Frederick. il diags Diesel Power 32:28-35 Je '54

Production and measurement of surge-ignition sparks. J. K. Richmond and A. L. Furno. bibliog il diag R Sci Instr 24:1107-12 D '53

ELECTRIC incubators. See Incubators, Electric

ELECTRIC industries

Chemist in the electrical industry. H. K. Cameron. Chem & Ind p952-6 S 12 '53

Continued strong growth of electric industry predicted. Pub Util 52:869-70 D 3 '53

Electrical industry forecast for 1954-63. Elec World 140:131-54 S 21 '53

Selling dominated industry in 1953. Elec World 140:78 D 28 '53

Seventy-five years of electric light. H. S. Bennion. Pub Util 53:15-26 Ja 7 '54

Tomorrow's industrial revolution. il Elec West 111:87 O '53

Electric homes exhibitions

Ideal home exhibition, London. il Elec J 152:767-8 Mr 5 '54; Elec R (Lond) 154:415-17 Mr 5 '54

Pepping up home sales through cooperation; Holiday home in San Diego. A. J. McCutcheon. il Elec World News ed 140:38-9 Ag 31 '53

Exhibitions

Building exhibition, London. il Elec J 151:1683-5 N 20 '53; Elec R (Lond) 153:1236-9 N 27 '53

Electrical engineers' exhibition, 3d, London, March 16-20. il Chem Age (Lond) 70:723-4 Mr 27 '54

Electrical engineers' exhibition, 3d, London, March 16-20. il Engineer 197:433-4, 455-7 Mr 19-26 '54; plan Elec J 152:841-63 Mr 12 '54; Elec R (Lond) 154:449-64 Mr 12 '54

Electricity and the chemist; Electrical engineers' exhibition, London, March 25-28. il Chem Age (Lond) 68:525-6 Ap 4 '53

Engineering industries display, London. Elec J 151:1231-2 O 16 '53

Fuel efficiency exhibition; Manchester, Nov. 18. il Elec J 151:1741-3 N 27 '53; Elec R (Lond) 153:1239-40 N 27 '53

Materials

Aluminum-antimony alloy has wide applications in electronics. E. L. Lewis. Light Metal Age 11:11+ Ag '53

Guide for steel buyers; electrical steel. Steel 135:48-50 sec 2 Jl 12 '54

Magnesium for electronics and electrical applications. R. G. Gillespie. il diags Machine Design 26:258+ Je '54

Materials for the electrical industry. Elec R (Lond) 154:22-4 Ja 1 '54

Pilot metal plant planned; Westinghouse electric corp. W. M. Trigg. Materials & Methods 40:241-2+ S '54

Progress in dielectrics. S. Whitehead. il Elec R (Lond) 153:1309-13 D 11 '53

Research and engineering progress, 1953; chemical and metallurgical. il Gen Elec R 57:53-5 Ja '54

Super-thin metal sheets; Arnold engineering co. il Steel 133:338-9 O 12 '53

Ultra-pure metal. Metal Prog 65:196+ Ap '54

Statistics

50th annual report on the electrical industry. Elec World 141:147-98 Ja 25 '54

Brazil

Developments in Brazil. Elec R (Lond) 153:1433-4 D 25 '53

ELECTRIC industries—*Continued*

France

Electrical development in France. Elec J 151:1233-4 O 16 '53
French electrical industry. E. W. Meiklereid. Elec R (Lond) 153:1133 N 13 '53

Great Britain

Economical strike; Electrical trades union claim. Economist 168:618-19 S 5 '53
Guerilla strikes inquiry. Elec J 151:979-80 S 25 '53
Industrial serenity; electricians' wage dispute. Economist 168:768 S 19 '53
Inquiry for electricians; strike of electricians. Economist 168:686 S 12 '53
New technique for strikes; Electrical trades union. Economist 168:555-6 Ag 29 '53

India

Engineering news from India. Elec R (Lond) 153:988 O 30 '53

Western states

Annual review number. il map Elec West 112:75-170 F '54

ELECTRIC instruments

A-c null-type recorder with balancing amplifier which provides damping and suppresses the quadrature component; abstract. A. J. Williams, jr. and J. F. Payne, jr. bibliog diag Elec Eng 72:1004 N '53
Apparatus for the measurement of ionic conductance of solid salts. P. W. M. Jacobs. bibliog diags J Sci Instr 30:204-7 Je '53
Bridges measure transistor parameters. L. J. Giacoletto. il diags Electronics 26:144-7 N '53
Device detects current in disconnect switch. H. A. Dilberger and E. T. Meldrin. il Elec World 140:142+ Ag 10 '53
Electrical indicating instruments used in early Edison central stations. H. B. Brooks. il diags Franklin Inst J 256:401-22 N '53
Electrical simulator in analysis of stresses in a delta-wing aircraft. H. U. Schuerch. S A E J 62:46-7 Mr '54
Electrolytic-remote-indicating manometer. J. T. Stock and M. A. Fill. diags Chem Age (Lond) 69:599-602 S 19 '53
50-kv dc unit tests rubber goods. R. L. Mortensen. il diag Elec World 141:128-9 Ja 11 '54
High resistance bridge for conductivity measurements. M. Unz. bibliog diags J Sci Instr 30:179-84 Je '53
Instrument electronics (cont). M. H. Aronson. il diags Instruments 25:1263-5+, 1426-7+, 1572-5+; 26:108-12+, 252-3 S-N '52, Ja-F '53
Instrument for the measurement of the density of aqueous ionic solutions. C. F. McCourt. diags J Sci Instr 30:241-4 Jl '53
Low-voltage surges test station. J. M. Clayton. il diag Elec World 139:74-5 Je 1 '53
Materials for special service; temperature-compensator alloys. W. S. Eberly. il diag Machine Design 26:152-6 My '54
Measurement of high source impedances. Engineering 177:376 Mr 19 '54
Measuring small voltage variations. R. W. Baker. diag Elec World 140:94-5 N 30 '53
Modification of the Smith bridge, type III. M. Gautier. diags J Sci Instr 30:381-2 O '53
Null-detector for power frequency bridges. J. S. T. Looms. diag J Sci Instr 30:290-1 Ag '53
Open-hearth instrumentation. R. A. Lambert. il diags Instruments 26:1370-1+; Discussion. W. H. Stewart. 1404+ S '53
Performance limits in electrical instruments. A. H. M. Arnold. diag Inst E E Proc 98 pt 2:701-10 D '51; Discussion. il 98 pt 2:710-13; 100 pt 2:543-4 D '51, O '53
Portable insulation test set. P. Asher. il diags Elec R (Lond) 153:685-8 S 25 '53
Research and engineering progress, 1953; testing and measuring. il Gen Elec R 57:17-21 Ja '54
Secrets in an instrument engineer's notebook. P. Hart and R. C. King. diags Instruments 26:1178-9+ Ag '53
Self-balancing thermistor bridge. A. F. Standing. diags J Sci Instr 31:343-4 S '54
Sensitivity and output formulas for the resistance bridge; abstract. P. M. Andress. diags Elec Eng 72:1095 D '53
Some electronic instruments for marine turbine research. J. Hare and R. B. Conn. diag Engineering 177:276 F 26 '54
Strain gauge bridge for creep tests. L. N. Clarke. diags J Sci Instr 31:300-1 Ag '54
Supervisory instruments for steam turbine. J. E. Spahr. diags Blast F & Steel Pl 41:1458-61, 42:102-3 D '53-Ja '54
Thermistor bridge correlator. V. C. Anderson and P. Rudnick. diag R Sci Instr 24:360-1 My '53
Thermocouple circuit restorer. A. Sherman. il diag Instruments & Automation 27:124-5 Ja '54

See also

Ammeters
Bolometers
Dynamometers
Electric apparatus and appliances
Electric measurements
Electric meters
Electrometers
Gages, Electric
Galvanometers
Hearing aids, Mechanical
Measuring instruments, Electric
Oscillators
Photoelectric cells
Potentiometers
Radio instruments
Recording instruments, Electric
Telemetering
Vacuum tubes—Measurement uses
Voltmeters

Bearings

Design factors for jewel bearing systems. A. C. Lawson. il diags Machine Design 26:132-7 Ap '54

Maintenance and repair

Maintenance and servicing of electronic instruments. J. Dobrin. bibliog il diag Instruments & Automation 27:122-3 Ja '54

Mounting

Individual shock mounts ruggedize another precision instrument. il diag Product Eng 24:168-9 Jl '53

Power supply

New series of d.c. regulated power supplies, dynamically compensated; Millivac instrument corp. R. H. Müller. il Anal Chem 26:sup37A-8A Mr '54

Testing

A.c. instrument testing equipment. Elec J 151:1771-2 N 27 '53
Calibrating a.c. instruments; abstract. A. H. M. Arnold. Elec R (Lond) 153:1191 N 20 '53; Discussion. 153:1227-8 N 27 '53
Testing electrical instruments. F. D. Weaver. bibliog diags Instruments 26:1362-3+ S '53

ELECTRIC insulation. See Insulation (electric)

ELECTRIC laboratories

Electrical engineering laboratory donated to Carnegie Tech by Westinghouse. il Elec Eng 73:100 Ja '54
Electrode development and manufacture; Quasi-Arc laboratories. il Metallurgia 49:246-8 My '54
Engineering research and design building; C. A. Parsons and co. il Engineer 197:397-400, pl 3-4 Mr 12 '54
Flexible high-power laboratory capacitor bank for variety of switching tests to 65,000 kvar. R. E. Friedrich and D. J. Burns. il plan diags Elec Eng 73:225-9 Mr '54
For electronic research and development; Varian associates. il plans diags Arch Rec 116:156-61 Jl '54
High-voltage testing laboratory; abstract. R. E. James. Elec J 151:2032 D 18 '53
Load test plant for large alternators; Witton works of the General electric co. il Engineer 196:834-6 D 25 '53; Engineering 177:28-9 Ja 1 '54; Elec J 151:2095-7 D 25 '53; Elec R (Lond) 153:1409-12 D 25 '53
Mobile electrical testing laboratory; English electric co. il Engineer 196:772 D 11 '53; Engineering 177:88 Ja 15 '54; Elec J 151:1942 D 11 '53
New E.D.A. testing house. il Elec J 151:1119-22 O 9 '53; Elec R (Lond) 153:785-7 O 9 '53
Testing house of the Electrical development association. il Engineer 196:503-4 O 16 '53

ELECTRIC laboratories—*Continued*

Safety measures

Safety in high-voltage testing. A. F. Rohlfs and T. Brownlee. diags Elec Eng 73:115-19 F '54

ELECTRIC lamps

Glow lamps for high-speed camera timing. H. M. Ferree. il diags Soc Motion Picture & Tv Eng J 61:742-8 D '53

Lighting progress in 1952-1953. il diags Illum Eng 49:153-74 Mr '54

Questions and answers on light sources (cont). diag Illum Eng 49:175, 224, 266, 361-2, 411-12, 461 Mr-My, Jl-S '54

Research and engineering progress, 1953; lighting. il Gen Elec R 57:49-52 Ja '54

See also

Safety lamps, Electric

Advertising

Lamp sales publicity. il Elec J 151:648, 1153 Ag 28, O 9 '53; Elec R (Lond) 153:540-1, 652 S 4, 18 '53

Merchandizing

Pacific Gas & Electric spotlights lamps; too many folks in the dark. il Sales Management 72:58+ Ap 1 '54

Miniature lamps

Selection and application of pilot lights. il Machine Design 26:128-31 Ap '54

Patents

Curtailing patent rights; General electric company ordered to dedicate to the public all existing patents on the manufacture of electric bulbs and parts. Product Eng 24:199-200 N '53

GE cartel action settled. Elec World 140:216 O 19 '53

GE may appeal lamp verdict. Elec World News ed 140:43 O 12 '53

Patent giveaway; court orders GE to throw open all light bulb patents to the public. Bsns W p34 O 10 '53

Temperature

See also

Electric lamps, Fluorescent—Temperature

Testing

Photometric lab operates by remote control system. Elec World News ed 139:46+ Je 22 '53

Some applications of high speed motion picture photography to lamp manufacturing. I. S. Goodman. il diags Illum Eng 48:620-4 D '53

ELECTRIC lamps, Arc

Carbon arc as an infrared source. J. H. Jaffe. Opt Soc Am J 43:619 Jl '53

Fully automatic continually operating, very high-intensity, carbon arc lamp. W. Finkelnburg and J. P. Latil. bibliog il diags Opt Soc Am J 44:1-5 Ja '54

High pressure xenon arc lamp; Siemens lamp research laboratories. J Sci Instr 30:173-4 My '53

Improved carbon-arc light source for three-dimensional and wide-screen projection. E. Gretener. diags Soc Motion Picture & Tv Eng J 61:516-24 O '53

Performance of high-intensity carbons in the blown arc. C. E. Greider. il Soc Motion Picture & Tv Eng J 61:525-32 O '53

Recent developments in carbons for motion-picture projection. F. P. Holloway and others. bibliog Soc Motion Picture & Tv Eng J 61:223-40 pt 2 Ag '53

ELECTRIC lamps, Fluorescent

Application of fluorescent dimming circuits; abstract. H. H. Ballin and W. J. Vine. Elec J 151:1596 N 13 '53

Applications of the new fluorescent tubes. A. E. Fothergill. il Elec J 152:593-4 F 19 '54

Built-in lighting for a laundry; data sheet. M. S. Taepke. il plan diags Illum Eng 49:197-8 Ap '54

Characteristics of mercury in lamps. L. J. Buttolph. il Illum Eng 49:321-8 Jl '54

Characteristics of phosphors. C. E. Weitz. il Illum Eng 49:227-35 My '54

Current industrial lighting practice applied; Wright-Hepp associates. J. Kerr, jr. il Illum Eng 49:243 My '54

Design of chrome inspection lighting device. F. Sell and D. Preston. il Illum Eng 49:392-3 Ag '54

Design of high-output fluorescent lamps; abstract. A. C. Barr and W. J. Karash. Illum Eng 49:447-8 S '54

Determinants of fluorescent lamp life; abstract. R. N. Thayer. Illum Eng 49:446-7 S '54

Developments in fluorescent lamps. Elec J 152:593 F 19 '54; il Elec R (Lond) 154:528 Mr 19 '54

Dimming hot cathode fluorescent lamps. J. H. Campbell and others. il diags Illum Eng 49:7-12; Discussion. 12-14 Ja '54

Directors' room lighting designed for dignity. R. R. Duncan. il Illum Eng 48:618-19 D '53

Discharge lamp dimming; application of gas-filled relay valves. C. E. Williams. il diags Elec R (Lond) 154:186-8 Ja 29 '54

Efficiency and appearance factors in luminous panels. M. E. Haskins, jr. bibliog il Illum Eng 48:587-91; Discussion. 591-2 N '53

Electric discharge lamps in street lighting service; abstract. J. W. Young. Illum Eng 49:431-2 S '54

Electrical characteristics of lamps and ballasts. W. C. Gungle. diag Illum Eng 48:579-83; Discussion. 583-4 N '53

Facts about modern fluorescent lighting. diags Mill & Factory 54:82-3 My '54

First fluorescent lamp dimmer is installed commercially. il Elec Eng 72:948 O '53

Flicker discomfort in relation to the lighting of buildings; abstract. J. B. Collins and R. G. Hopkinson. Elec R (Lond) 154:472 Mr 12 '54

Fluorescent lamps, past, present, and future. G. E. Inman. il Gen Elec R 57:34-8 Jl '54

Fluorescent lighting widening the colour field. A. G. Penny. Elec R (Lond) 154:321-2 F 19 '54

Fluorescent luminaire for intersections gives results. R. Matthews. il Pub Works 85:98 Mr '54

Fluorescent street lighting. W. Robinson. il Elec R (Lond) 153:774-6 O 9 '53

Fluorescent street lighting here and abroad. P. H. Houser. bibliog il Illum Eng 48:529-33 O '53; Discussion. 49:220-3 Ap '54

400 cycle fluorescent lighting; more light for less money. Power Eng 58:94 Ag '54

Frequency and fluorescent lamps. D. E. Spencer. bibliog diags Elec Eng 72:1066-70 D '53

Industry sees the light; improved quantity and quality of lighting in factories. Steel 133:54 N 23 '53

Integrated functional lighting of an executive office. N. Stuffer. il Illum Eng 48:560-1 N '53

Investigation of the damage hazard in spectral energy. L. S. Harrison. Illum Eng 49:253-7 My '54

Leapfrog to relight Hiller. il Elec West 112:74 Ja '54

Lighting a lavatory and vanity counter; lighting data sheet. il diag Illum Eng 49:360 Jl '54

Lighting a small reception area; data sheet. A. Page. il plan Illum Eng 49:136 Mr '54

Lighting a stained-glass window; data sheet. R. E. Cherne. il plan diag Illum Eng 49:183-4 Ap '54

Lighting a window wall; data sheet. il plan Illum Eng 49:107 F '54

Lighting a woodworking shop; data sheet. W. C. Hoch, jr. il plan Illum Eng 49:18 Ja '54

Lighting an entrance hall; lighting data sheet. il diags Illum Eng 49:251-2 My '54

Lighting Broadway tunnel. M. R. Humer. il Illum Eng 48:557-9 N '53

Lighting for a built-in sofa; lighting data sheet. il diag Illum Eng 49:357 Jl '54

Lighting for jelly and jam inspection; lighting data sheet. il diags Illum Eng 49:347-8 Jl '54

Lighting in a French airliner. diag Elec J 152:426 F 5 '54

ELECTRIC lamps, Fluorescent—*Continued*

Lighting Main street with fluorescents; Oakwood, Ohio. H. Nonneman. il Elec World 139:122 Je 29 '53

Lighting maintenance. F. K. Sampson. Elec West 111:93-4 S '53

Lighting the interior of the M.I.T. Engineering Library dome. il Illum Eng 49:117 F '54

Low-cost high-intensity lighting; luminous ceiling. il diags Arch Forum 98:152-3 My '53

Luminous glass ceiling in a Canadian home. H. H. Arnold. il Illum Eng 49:182 Ap '54

Measurement of quantum efficiency of fluorescent lamp phosphors. C. W. Jerome. Electrochem Soc J 100:586-7 D '53

My most interesting lighting job; keeping jelly clean and clear. R. P. Benton. il diags Elec West 111:104 S '53

One successful way to set up a group lamp-replacement program; John Hancock mutual life insurance co. il Power 98:122-3 My '54

Photographing fluorescent lighting installations in color. W. Allphin. Illum Eng 48:639-41; Discussion. 641-2 D '53

Physical processes in the fluorescent lamp which cause radio noise. H. L. Steele, jr. bibliog il Illum Eng 49:349-56 Jl '54

Practical dimming system developed for fluorescent lighting. il Arch Forum 98:214+ Ap '53

Selection of fluorescent lamps. Ry Loco & Cars 128:68 Ag '54

Some aspects of transductor design, with particular reference to discharge-lamp circuits. C. E. Williams. bibliog diag Inst E E Proc 100 pt 2:667-73 D '53

Some commercial colour-matching lamps. J. C. Guthrie and P. H. Oliver. bibliog(26 ref) Soc Dyers & Col J 69:430-5 N '53

Some problems involved in the design of fluorescent lamps; abstract. E. F. Lowry and others. Illum Eng 49:443-4 S '54

Suppression of radio interference in fluorescent lighting installations. G. Walters. Illum Eng 49:295-300 Je '54

Trends in industrial lighting. E. B. Sawyer. il Elec R (Lond) 153:668-70 S 25 '53

$24,500 worth of light for a net cost of $144; group replacement of fluorescent lamps at Hathaway mfg. co. R. B. Pressley. il Textile World 104:92-5 Mr '54

Two-in-one store lighting. L. E. Spears. il Illum Eng 48:566-7 N '53

U.S. geological survey building. G. E. Moen. il Illum Eng 49:309-10 Je '54

What's best scheme to replace lamps? answers. il diags Power 98:134-6+ Jl '54

Why of white fluorescent lamps. C. N. Clark. il Gen Elec R 56:15-18 N '53

Cold cathode

Cold cathode ballasts. R. C. Hultgren. diags Illum Eng 48:574-7; Discussion. 577 N '53

Cold cathode street lighting. il Elec R (Lond) 153:667-8 S 25 '53

Electronic lighting at Lyons. Elec J 151:1686 N 20 '53

Fluorescent dimming installation. Elec R (Lond) 153:1188 N 20 '53

Indirect lighting in a modernised hotel; Great western royal hotel, Paddington. il Elec J 152:128 Ja 8 '54

Lighting a new research and design building; Heaton works of C. A. Parsons, ltd. il Engineer 196:715 N 27 '53; Elec J 151:1776 N 27 '53

Public cold cathode lighting; Fenchurch Street station. il Elec J 152:454 F 5 '54

Manufacture

Recent developments in fluorescent tubes. il Engineering 176:388-9, pl 27 S 25 '53; Elec J 151:877-8 S 18 '53; Elec R (Lond) 153:612-14 S 18 '53

Standards

Let's have modular coordination in lighting. T. D. Wakefield. il Illum Eng 49:177-8 Ap '54

Starters

Cold cathode ballasts. R. C. Hultgren. diags Illum Eng 48:574-7; Discussion. 577 N '53

Temperature

Effect of ambient temperature on light output of fluorescent lamps. C. M. Holden. il Illum Eng 48:645-9; Discussion. 649-50 D '53

Effect of temperature on electrical and color parameters of 40T12 fluorescent lamps. C. W. Jerome. diag Illum Eng 49:237-41; Discussion. 241-2 My '54

Effect of temperature on fluorescent street lighting luminaires. J. E. Bock and J. S. Franklin. il map Illum Eng 49:110-14; Discussion. 115-16 F '54

Testing

I.E.S. guide for the electrical measurements of fluorescent lamps. diags Illum Eng 49:267-70 My '54

Ulbricht sphere for large luminaires. G. H. Sechrist. il Illum Eng 49:345-6 Jl '54

ELECTRIC lamps, Incandescent

Largest light bulb honors Edison. il Nat Safety N 69:51 Ap '54

Lighting a municipal parking lot; lighting data sheet. il plan Illum Eng 49:409-10 Ag '54

See also

Electric lamps—Tungsten

ELECTRIC lamps, Mercury vapor

Approaching sunlight; recent improvements in mercury vapour light sources. Elec J 151:1853-4 D 4 '53

Baltimore lights U.S. 1 and U.S. 40 interchange. W. C. Tome and W. R. Straus. il Elec World 140:104+ N 30 '53

Characteristics of mercury in lamps. L. J. Buttolph. il Illum Eng 49:321-8 Jl '54

Corona makes light work light work. V. J. Van Lint. il Elec World News ed 141:42-3 Ja 4 '54

Economics of mercury lighting for industrial areas; abstract. W. H. Johnson and others. Illum Eng 49:434-5 S '54

Electric discharge lamps in street lighting service; abstract. J. W. Young. Illum Eng 49:431-2 S '54

Fluorescent mercury vapor lights in New Orleans. G. B. Arthur. il Pub Works 85:81-2 Ag '54

High-pressure mercury-vapour discharge lamps for photo-printing. J. Whittemore. il Engineering 176:547-8 O 30 '53

Houston, the new city of light. T. Martin. il Pub Works 85:81-2 Ap '54

Lighting a shopping center parking area; data sheet. H. W. Grosh. il diag Illum Eng 49:125-6 Mr '54

Mercury lamp starting requirements for outdoor applications. A. E. Binder. bibliog map Illum Eng 49:32-6; Discussion. 36-8 Ja '54

Mercury vapor lighting for a heavily traveled thoroughfare. il Pub Works 85:76+ Jl '54

New bulb lasts much longer. E. W. Beggs. Midwest Eng 6:19 Je '53

Operation of mercury vapor lamps on series street lighting circuits; abstract. M. E. Keck and W. A. Oglesbee. diag Illum Eng 49:424-5 S '54

Outdoor store lighting with mercury vapor; illustrations with text. Illum Eng 49:108-9 F '54

Quick change to mercury vapor lighting. il Pub Works 85:112 Ap '54

Single-ballast street light system costs less. M. C. Harsh. diags Elec World 140:114+ N 30 '53

ELECTRIC lamps, Miniature. See Electric lamps—Miniature lamps

ELECTRIC lamps, Neon

Westinghouse neon glow lamp helps time missiles in action. Iron Age 173:195 Mr 4 '54

ELECTRIC lamps, Photoflash

Testing

Simple speedlamp tester. A. M. Ferres. diag Radio & Tv N 50:174-5 O '53

ELECTRIC lamps, Sodium vapor

Sodium lantern with built-in control gear. il Elec J 151:723 S 4 '53

ELECTRIC lamps, Tungsten

Interesting nonlinear effects. R. S. Mackay. il diags J Ap Phys 24:311-13 Mr '53

ELECTRIC lamps, Xenon

High pressure xenon arc lamp; Siemens lamp research laboratories. J Sci Instr 30:173-4 My '53

Xenon short arc lamps and their application; abstract. W. E. Thouret and G. W. Gerung. bibliog il Illum Eng 49:441-2 S '54

ELECTRIC lighting

Consistent effort sells light conditioning. H. W. Hobson. il Elec World 140:134+ Jl 27 '53

Data sheets sell home town lighting. J. D. Haverkamp. il Elec World 140:170+ D 14 '53

Here's how utilities are selling commercial and industrial lighting. il Elec World 140: 99-122 Ag 10 '53

Lighting promotion pays out ten to one. H. P. Lang. il Elec World News ed 140:38-9 O 26 '53

Nighttime lighting produces flowers for off-season market. H. Hall. il Elec World 141: 134 Ja 11 '54

Planning an entry for an EEI lighting award; New Orleans public service, inc. E. R. Tschirn. il Elec World News ed 140:29+ N 23 '53

See also

Airports—Lighting
Art galleries and museums—Lighting
Drafting rooms—Lighting
Electric lamps
Factories—Lighting
Office lighting
School buildings—Lighting
Store buildings—Lighting
Street lighting

Control

Daytime lighting of school classrooms. R. A. Boyd and T. D. Wakefield. il plan diag Illum Eng 49:388-91 Ag '54

ELECTRIC lighting sets

Lighting for emergencies. il plan Mill & Factory 55:110-11 S '54

ELECTRIC lines

For extra line capacity, reconductoring or bundling? P. S. Colby. Elec World 140:101-3 Jl 27 '53

Sepa asks sale of partially completed Clark Hill-Greenwood transmission line. Elec World News ed 139:7 Je 8 '53

See also

Electric cables
Electric conduits
Electric fuses
Electric plants—Interconnection
Electric service, Rural
Electric transmission
Electric utilities
Electric wiring
Overvoltage (electric lines)
Radio lines
Telephone cables
Trolley buses

Construction

Let the contractor build that line. E. L. Buttner. il Elec West 111:88-9 N '53

Outrigger bracket eliminates extra pole. il Elec World 141:123-4 Mr 8 '54

PG&E stages an "at sea"; illustrations with text. Elec World News ed 140:16-17 Ag 3 '53

Preformed grips cut guying costs by saving 50 per cent on labor and 20 per cent on material. M. L. Brown. il Elec West 111:90-1 N '53

See also

Electric lines—Overhead construction
Electric lines—Poles and towers

Damage from storms

Beating New England weather. T. E. J. Keena. Pub Util 52:883-96 D 17 '53

Hurricane does $150,000 damage to Carolina Power & Light. Elec World 140:107 Ag 24 '53

Tornadoes cause wide destruction. il Elec World News ed 139:9 Je 22 '53

Tower damage provides key to Worcester tornado data. C. A. Booker. map plan diags Elec World News ed 140:22-4 Ag 17 '53

Worcester tornado velocities found through tower failures on powerline. C. A. Booker. il Eng N 151:33 O 15 '53

Design

Bureau transmission crossings provide long-span design details; lines spanning the Sacramento, San Joaquin, and Missouri rivers. T. M. Austin and R. S. Dorcas. diags Elec World News ed 141:30-2 Ja 18 '54

Design economies in high voltage transmission lines. L. B. Murray and C. P. Ussery. diags Elec World 140:113-16 Ag 24 '53

Modern transmission designs adapt engineering advances; with tables of characteristics of typical modern transmission lines in the United States. diags Elec World 140:121-50 Ag 24 '53

Paralleling avoids replacing wires. D. Burns. il diags Elec World 141:100-1 Ja 11 '54

Grounding

See Electric distribution—Grounding

Ice problem

System operator's view of ice melting on a power line while in service; abstract. O. L. Oehlwein. diags Elec Eng 72:1014 N '53

Inductive interference

Controlling radio influence; American Gas & Electric 330-kv line. H. P. St Clair and C. A. Imburgia. Elec World 141:69 F 8 '54

Maintenance and repair

Air patrols prove economical and effective. E. A. Shultz. il Elec World 140:112+ Jl 27 '53

Catenary speeds service restoration after tornado. il Elec World 140:122+ Jl 27 '53

Economics of transmission-line maintenance and repair by helicopter; abstract. L. M. Alexander and O. K. Mangum. Elec Eng 72:1094 D '53

115-kv conductor repaired in 14 min. W. L. Rush. il Elec World 140:156+ D 14 '53

Sectionalizing tool speeds work on hot lines. F. H. Hanson and L. J. Gearhart. il Elec World 140:149 D 14 '53

Shoot line troubles with radar. J. L. Whysong and others. il diags Elec World 140:118-21 N 16 '53

See also

Linemen's equipment

Maps

Aerial surveys for line routes save time and money. il map Elec World 139:88-90 Je 29 '53

Models

Models educate the public by demonstrating high-line hazards. J. F. Phelan. il Elec World News ed 140:32-3 D 7 '53

Overhead construction

Aerial cable cost can be justified. F. C. Van Wormer and H. M. Bankus. Elec World 141:98-100 F 22 '54

Aerial cable storm-proofs 4-kv distribution system. F. Sciotti. il diags Elec World 140: 114-17 O 19 '53

Aerial cable streamlines area, cuts trouble. J. C. Smith. il diags Elec World 141:86-8 Mr 8 '54

Overhead line erection. il Elec R (Lond) 153: 986-7 O 30 '53

Service experience of the effect of corrosion on steel-cored-aluminium overhead-line conductors. J. S. Forrest and J. M. Ward. Engineer 197:170-1 Ja 29 '54; Excerpts. Engineering 177:183 F 5 '54; Elec R (Lond) 154:185 Ja 29 '54; Discussion. 154:238 F 5 '54; Elec J 152:441 F 5 '54

Streamlining was the compelling factor; Pacific power & light co. M. D. Duffy. il diags Elec West 111:80-2 D '53

See also

Electric railroads—Overhead construction

Poles and towers

ASTM doing research on strength of poles. Elec World News ed 141:55 Mr 1 '54

BPA's new tower is put to the test. il Elec World 140:118 S 21 '53

Crane trailer unit loads and sets poles. W. E. Hooper. il Elec World 141:203+ Ja 25 '54

ELECTRIC lines—Poles and towers—*Continued*

Erect high towers over busy railroad. il Constr Methods 35:148-9+ N '53

Four cranes hold split towers. il Constr Methods 36:176 Ap '54

Full-scale tests prove BPA's 345-kv tower designs. A. A. Osipovich. il diags Elec World 141:82-4 F 8 '54

Making concrete poles in Germany. A. Kemmelmaier. il Elec World 140:92-3 D 28 '53

Measure clearances easily with tower models. H. D. Fischer, jr. il Elec World 139:99 Je 29 '53

Pole anchors; concrete products specials. L. Lindin. il diags Concrete 61:28-9 D '53

Pole-hole borer; erection of transmission lines. il Engineering 177:221 F 12 '54; Elec J 152:446 F 5 '54; Elec R (Lond) 154:237 F 5 '54

Sectionalized gin pole speeds tower erection 25 per cent. A. N. Shealy. il Elec World News ed 139:32-3 Je 8 '53

Some aspects of joint use of wood pole lines with increasing line voltages. W. E. Bloecker and W. R. Bullard. Elec Eng 73:142-5 F '54

Spectacular tower raising job. il Roads & Sts 97:122 Ap '54

Tower footings conquer swamp. il Elec World 140:94-5 O 5 '53

Transformer attachment to poles; engineering reference sheet. diags Elec World 141:110 F 8 '54

Transmission towers 437 ft high support span of 3,810 ft; Sacramento River crossing of Shasta-Tracy line. G. E. Schumann. il diags Civil Eng 24:9-11 Ja '54

Tubular tower for transmission lines. il Engineering 176:678 N 27 '53; Elec R (Lond) 153:1043-4 N 6 '53; Discussion. A. E. Percivall. Engineering 176:787-8 D 18 '53

Western larch trees may fill need for transmission poles. F. M. Reiter. il Elec World News ed 141:54-5 Ja 18 '54

Protection

Continuity of electricity supply; causes and clearance of faults on power systems. H. Leyburn. Engineering 177:76-7 Ja 15 '54; Abstracts. Elec J 152:207-8 Ja 15 '54; Elec R (Lond) 154:114-15 Ja 15 '54

For microwave systems, emf unit supplies reliable power; protective relaying of transmission lines. B. W. David. diags Elec World 140:128-9 O 19 '53

Glass insulators cut replacements 50 per cent. A. G. Loudon. il Elec World 141:115-16+ F 8 '54

Insulation of high-voltage electrical installations. J. S. Cliff. Engineering 176:767 D 11 '53; Abstract. Elec R (Lond) 153:1042 N 6 '53; Discussion. 153:1117-18 N 13 '53; Elec J 151:1591-2 N 13 '53

Long river crossing has novel protection; line crossing over the James river near Hampton Roads. H. W. Furlong. il diags Elec World 141:88-90 Ja 11 '54

Modified clamp wraps armor on energized lines. A. E. Gallagher. il Elec World 141:116+ Mr 8 '54

Pilot-wire relaying scheme utilizing the product differential relay. R. I. Ward and D. W. Gilman. il diags Elec Eng 73:137-42 F '54

Probabilities set insulation levels. C. F. Wagner. Elec World 140:117-20 Ag 24 '53

Protective practices as a criterion for high-voltage transmission design. H. L. Rorden and R. S. Gens. il Elec World 141:101-4 F 22 '54

Protective relay installed. il Steel 134:122 Mr 29 '54

Simplified unit for distance relaying. A. W. Adams and F. R. Bergseth. il diags Elec Eng 73:249-50 Mr '54

Safety measures

Go fly a kite, but be careful; students are being inculcated with essentials of safety through a program instituted by Sacramento municipal utility district. D. H. Bohanon. il Elec World News ed 139:18 Je 8 '53

Tables, calculations, etc.

Conductor tension and guying tables for distribution lines; engineering reference sheet. H. C. Johansen. diags Elec World 140:112-13 N 30 '53

Determination of Q and resistance of line traps; engineering reference sheet. J. D. Moynihan. Elec World 139:104-5 Je 29 '53

Machine equipment calculates transmission line constants. R. H. Rankin and O. Torseth. il Elec World 139:129-30 Je 15 '53

Modern transmission designs adapt engineering advances; with tables of characteristics of typical modern transmission lines in the United States. diag Elec World 140:121-50 Ag 24 '53

Tree problem

Basal spraying extends season for chemical brush control. L. L. Coulter and K. C. Barrons. il Elec World 140:122-3 N 16 '53

Benefits of a selective tree-planting program. E. G. Stahl. il diags Elec West 111:71-3 D '53

They look up to their business; tree trimming by independent firms. H. F. Unger. Pub Util 54:259-65 S 2 '54

Underground lines

Concrete saw speeds replacement of street lighting fixtures. J. L. Quigley. Pub Works 85:146+ My '54

Underground storm abates; Connecticut PUC orders other disaster remedies. Elec World News ed 140:19 Ag 3 '53

Germany

Making concrete poles in Germany. A. Kemmelmaier. il Elec World 140:92-3 D 28 '53

Italy

Twin conductoring is adopted for 250-mile, 220-kv Terni-Genoa line. il Elec World News ed 141:47-8 Ja 4 '54

Oregon

Oregon tie-line to serve ferro-nickel plant. Elec World News ed 140:18 Jl 6 '53

Western states

Western utilities will increase spending in '54. il map Elec West 112:78-111 F '54

ELECTRIC locomotives

Comparative performance; rectifier-type locomotives vs. Diesels. F. D. Brown. Ry Age 136:67 Mr 8 '54

Electric locomotives for Manchester-Sheffield line. il Engineering 177:344-5 Mr 12 '54

Rectifier motive power; inductive coordination considerations. E. B. King and others. il Ry Age 136:67-8 Mr 8 '54

Technical details of Co-Co locomotives. Elec J 152:689 F 26 '54

2400 h.p. main line electric locomotive for Victoria. il Engineer 197:178-80 Ja 29 '54; Engineering 177:184 F 5 '54; Elec R (Lond) 154:349 F 19 '54

See also

Locomotives, Diesel electric

Locomotives, Gas turbine-electric

ELECTRIC locomotives, Mine

How to speed trolley-pole changes. diags Coal Age 58:112 D '53

Largest underground locomotive goes to work; Mathies coal co. Blast F & Steel Pl 42:244 F '54; Same. il Iron Age 173:176 F 4 '54

Low-height 15-ton mine locomotive for low-vein haulage; abstract. J. W. Brauns. il Elec Eng 72:1081 D '53

ELECTRIC logging. See Petroleum—Well logging

ELECTRIC losses

Analysis of losses in loop-interconnected systems; abstract. A. F. Glimm and others. diag Elec Eng 72:879 O '53

Corona loss curves for 138-kv and 161-kv lines; engineering reference sheet. M. H. Cohn. Elec World 140:116 O 5 '53

Corona loss curves for 69-kv and 115-kv lines; engineering reference sheet. M. H. Cohn. Elec World 140:166 S 21 '53

Corona loss curves for 230 kv lines; engineering reference sheet. M. H. Cohn. Elec World 140:146 O 19 '53

ELECTRIC losses—*Continued*

How system losses were reduced 57.5 per cent in five years. W. K. Billow. il Elec West 111:80-1 N '53

Loss and singing margins in radio and carrier channels. H. H. Smith. diag Electronics 26:238+ O '53

Scientists study causes of energy losses. Blast F & Steel Pl 42:sup74+ Ap '54

ELECTRIC machinery

Research and engineering progress, 1953; industry. il Gen Elec R 57:29-35 Ja '54

See also

Brushes (electric machinery)
Commutators
Cranes, derricks, etc.—Electric equipment
Electric apparatus and appliances
Electric driving
Electric generators
Electric locomotives
Electric motors
Electric protective apparatus
Electric transformers
Electric welding machines
Electricity in mining
Electricity on the farm
Hoisting machinery, Electric
Hydroelectric plants
Mine hoisting, Electric
Pumping machinery, Electric
Refrigerators, Electric
Rotors (electric machinery)
Ship propulsion, Electric
Voltage regulators

Cooling

Air filters in rotating electrical equipment cooling systems. F. C. Reutenauer. il diags Iron & Steel Eng 30:71-6; Discussion. 76-9 N '53

Design

Electrolytic tank; qualitative applications to engineering design problems; abstract. H. Diggle and E. R. Hartill. diag Elec R (Lond) 154:413; Discussion. 413-14 Mr 5 '54; Elec J 152:761-2 Mr 5 '54

Leaf-spring switches. R. G. Crockett. il diags Machine Design 26:116-20 Jl '54

Losses

Pole-face losses due to open slots on grooved and ungrooved faces; abstract. K. Aston and M. V. K. Rao. Inst E E Proc 100 pt 2:572-3 O '53

Maintenance and repair

Field repair of large rotating machinery. M. J. Wohlgemuth. il Iron & Steel Eng 31:106-8 S '54

Noise

Causes and measurement of residual potentiometer noise. J. R. Altieri. il diags Instruments 26:1712-13+ N '53

Transportation

How 122½-ton fan rotor traveled to West coast. il Gen Elec R 57:27-31 Mr '54

ELECTRIC measurements

Accuracy of measurement of electrical standards. A. Felton. bibliog Inst E E Proc 98 pt 2:694-700 D '51; Discussion. il 98 pt 2:710-13; 100 pt 2:543-4 D '51, O '53

Capacitor with definite loss angles for checking bridge measurements at power frequency. A. W. Stannett. diag J Sci Instr 31:304 Ag '54

Determination of electrokinetic charge and potential by the sedimentation method; carborundum in aqueous solutions of some uni-univalent electrolytes. G. A. H. Elton and J. W. Mitchell. Chem Soc J p3690-3 N '53

Fast-time analysis of intermittent point-to-plane corona in air. M. R. Amin. bibliog il diag J Ap Phys 25:210-16, 358-63, 627-33 F-Mr, My '54

Measurement of electrode polarization by the current-interrupter method. S. Barnartt. J Chem Phys 21:2090 N '53

Measurement of multimegohm resistors. A. H. Scott. il diag J Res Nat Bur Stand 50:147-52 Mr '53

Methods of measuring the properties of ionized gases at high frequencies; null method of measuring the discharge admittance. L. Gould and S. C. Brown. diags J Ap Phys 24:1053-6 Ag '53

Power factor measurement. R. L. Marrs. diags Elec R (Lond) 153:1213-14 N 27 '53

Stable and linear amplifier for the measurement of small direct currents. H. W. Fulbright. diag R Sci Instr 24:544-5 Jl '53

Stored energy measurements in irradiated copper. A. W. Overhauser. bibliog diag Phys R 94:1551-7 Je 15 '54

Two-emf method for the comparison of resistances. H. J. Hoge. diags R Sci Instr 25:902-7 S '54

See also

Dielectric constants
Dielectrics
Dynamometers
Electric conductivity
Electric engineering—Tables, calculations, etc.
Electric instruments
Electric meters
Electric resistance
Electric units
Electrometers
Frequency meters
Magnetic measurements
Oscillographs
Photoelectric cells—Measurement uses
Potential, Electric
Radio measurements
Vacuum tubes—Measurement uses
Voltmeters

ELECTRIC meters

Capabilities of meters discussed at joint meeting of EEI and AEIC committees. Elec World News ed 139:35 Je 8 '53

Circuit design is feature of German meters. il diags Product Eng 24:164-5 Jl '53

Electric field meter with extended frequency range. L. G. Smith. il diags R Sci Instr 25:510-13 My '54

Electric field meters. R. Gunn. diags R Sci Instr 25:432-7 My '54

Influence of legislation on the costs of metering; discussion. Elec J 151:1943-4 D 11 '53; Elec R (Lond) 153:1341-2 D 11 '53

Meter problems and consumers' load characteristics. L. B. S. Golds and P. Schiller. bibliog diags Inst E E Proc 100 pt 2:619-31; Discussion. 632-9 D '53

Metering aids expansion. W. C. Morris, jr. il Elec World 141:96-7 F 22 '54

Universal meter for measuring voltages at high impedances, micromicroamperes, and insulation resistance. W. R. Clark and others. il diags Elec Eng 73:41-5 Ja '54

See also

Ammeters
Demand meters
Electric measurements
Fluxmeters
Frequency meters
Milliammeters
Voltmeters
Wattmeters

Cleaning

Old washing machine cleans meter covers better. P. F. Jones, jr. il Elec World 140:108+ S 7 '53

Installation

Outdoor metering installations cut costs. C. E. Sloop. il Elec World 141:203 Ja 25 '54

Pole-top metering installation. H. Glick. il Elec World 141:205 Ja 25 '54

Manufacture

Paste solder cuts assembly costs. il Tele-Tech 12:71+ D '53

Standards

Standardization of meters; discussion at EEI, AEIC meter committee meeting. Elec World 140:76 N 2 '53

Testing

Meter handling methods save time of five men. E. H. Tyson. il Elec World 140:152 N 16 '53

Standard test set checks varhour meter phase angles. C. Van Luvanee. diag Elec World 140:170+ S 21 '53

Test boards check 15 meters simultaneously. J. Baker. il Elec World 141:134 F 22 '54

Time-run tests detect meter errors at low cost. E. H. Tyson. il Elec World 141:114+ Ja 11 '54

ELECTRIC mine hoisting. See Mine hoisting, Electric

ELECTRIC mixers

Electronic controlled laboratory mixer; Gerald K. Heller co. il Chem & Eng N 31:3794 S 14 '53

ELECTRIC moment

Comparison of the apparent dipole moments of the brominated methanes dissolved in benzene with the true values determined as gases. A. D. Buckingham and R. J. W. Le Fèvre. Chem Soc J p3432-5 N '53

Determination of the resultant dipole of the heart from measurements on the body surface. D. Gabor and C. V. Nelson. J Ap Phys 25:413-16 Ap '54

Dielectric constants, polarizations and dipole moments of some alkylbenzenes. A. P. Altshuller. bibliog J Phys Chem 58:392-5 My '54

Dipole moment of acetone in the liquid, dissolved, and gaseous states. A. D. Buckingham and R. J. W. Le Fèvre. Chem Soc J p4169-70 D '53

Dipole moments and absorption spectra of *o*-benzoquinone and its related substances. S. Nagakura and A. Kuboyama. bibliog Am Chem Soc J 76:1003-5 F 20 '54

Dipole moments, nuclear quadrupole coupling, and the bonding orbitals in group V; trihalides. P. Kisliuk. bibliog il J Chem Phys 22:86-92 Ja '54

Dipole moments of gaseous thallous halides. A. P. Altshuller. bibliog J Chem Phys 21:2074 N '53

Dipole moments of some Ni(II) mercaptoester chelates. J. J. Draney, jr. and M. Cefola. bibliog Am Chem Soc J 76:1975-7 Ap 5 '54

Dipole moments of *t*-butylperphthalic acid and di-*t*-butyldiperphthalate. S. E. Voltz. bibliog Am Chem Soc J 76:1025 F 20 '54

Effect of the atomic core on the nuclear quadrupole coupling. R. M. Sternheimer. bibliog Phys R 95:736-50 Ag 1 '54

Electric field gradients of atomic *p* electrons. R. G. Barnes and W. V. Smith. bibliog Phys R 93:95-8 Ja 1 '54

Electric moments, association and structure of some N-monosubstituted amides. J. E. Worsham, jr. and M. E. Hobbs. bibliog Am Chem Soc J 76:206-8 Ja 5 '54

Electric moments of organosilicon compounds; bromides. E. L. Reilly, C. Curran and P. A. McCusker. Am Chem Soc J 76:3311-12 Je 20 '54

Electromagnetic field of a dipole source above a grounded dielectric slab. Y. T. Lo. bibliog diags J Ap Phys 25:733-40 Je '54

Hyperfine structure formulas for *LS* coupling. R. E. Trees. bibliog Phys R 92:308-14 O 15 '53

Isotope effect on the dipole moments of diatomic molecules. A. P. Altshuller. bibliog J Chem Phys 21:2241-2 D '53

Line width of rotational spectra of some symmetric top molecules due to nuclear quadrupole moments. T. Ito and others. bibliog Phys R 93:1242-8 Mr 15 '54

Microwave spectra, structure, and dipole moment of stable pentaborane. H. J. Hrostowski and R. J. Myers. diags J Chem Phys 22:262-5 F '54

Moments of Na^{23}. M. F. Scharff. Phys R 95:1114 Ag 15 '54

Nuclear quadrupole coupling in polar molecules. H. M. Foley and others. bibliog Phys R 93:734-42 F 15 '54

Pure quadrupole spectra in solids. R. Livingston. bibliog il Science 118:61-6 Jl 17 '53

Quadrupole moments of Sb^{121} and Sb^{123}. G. Sprague and D. H. Tomboulian. bibliog diags Phys R 92:105-8 O 1 '53

Reaction field of polar liquids. T. G. Scholte. J Chem Phys 21:2087 N '53

Relation between configuration and conjugation in diphenyl derivatives; the dipole moments of the 2 : 2′-dihalogeno- and 2 : 2′- and 3 : 3′-dinitro-diphenyls. A. C. Littlejohn and J. W. Smith. Chem Soc J p2552-6 Jl '54

Sign of the quadrupole interaction of Li^{6} in LiCl. P. Kusch. bibliog Phys R 92:268-70 O 15 '53

Slow beats in nuclear quadrupole induction. M. Bloom. il Phys R 94:1396-7 Je 1 '54

Structure investigations through dielectric measurements. C. P. Smyth. Chem & Eng N 32:1208-9 Mr 29 '54

Sulfur bonds and the quadrupole moments of O, S, and Se isotopes. G. R. Bird and C. H. Townes. bibliog Phys R 94:1203-8 Je 1 '54

Tendency for positive nuclear quadrupole moments. S. A. Moszkowski and C. H. Townes. bibliog Phys R 93:306-12 Ja 15 '54

Time-dependent quadrupole interaction in angular correlation of nuclear radiation; Cd^{111}. P. B. Hemmig and R. M. Steffen. bibliog Phys R 92:832-3 N 1 '53

ELECTRIC motors

Boosting 50-hp motor with a 25-hp unit saves dollars on dual drive. L. E. Sharp. il diag Power 98:120 Ap '54

Comparison of electric motors and steam turbines as drivers for fluid catalytic cracking units. H. C. Mayo. flow diags diags Pet Refiner 32:96-100 Ag '53

Electric motors over three hundred horsepower applied to main roll drives in the iron and steel and allied industries during 1953; tabulation. Iron & Steel Eng 31:157-8 Ja '54

Guide to the selection of electric motors. Power Eng 58:94+ My '54

How many spare motors? il Factory Management 112:150+ F '54

How to get what you need when you order electric motors. D. P. Thornton, jr. Pet Processing 8:1318-24 S '53

How to select motors and controls for pipeline pumping stations. R. J. Osborn. il Oil & Gas J 52:111-12+ D 14 '53

Louis Allis electric motors. il Blast F & Steel Pl 42:460 Ap '54

Motors for refrigerating plants. D. H. Ruark. il Heat & Ven 51:83-8 Ap '54

Motors hum near 1953's rate. il Steel 134:74 Je 21 '54

Pipe line applications of electric motors. E. F. Greiwe. il Pet Eng 25:D8+ N '53

Tiny, but mighty motor by Westinghouse electric corp. il Steel 133:148 Jl 13 '53

What motors are where in your plant? Hawaiian pineapple co. H. Jefferson. Factory Management 112:106-7 Ja '54

See also

Commutators
Electric driving
Electric locomotives
Electric machinery
Electric motors, Direct current
Electric motors, Induction
Electric motors, Railway
Gearmotors

Bearings

Tips on ball bearing maintenance. J. Cannon. Pet Processing 8:1550, 1732-3, 1904-5 O-D '53

Control

Applications of fluid couplings in electric motors, and Diesel engines. E. C. Farrer. diag Elec J 151:1873 D 4 '53

Automatic position control; application of thyratrons. J. C. West and D. K. Partington. bibliog diags Elec R (Lond) 154:137-40 Ja 22 '54

Brook magnetic brake for mounting on electric motors. il Engineer 196:816 D 18 '53

Continuous galvanizing line; design is key to simple controls. D. A. McArthur and others. il Steel 134:102-4 Ap 12 '54

Electric motor controls. Steel 133:56 S 28 '53

Electric motor controls; how to pick one for your plant. L. T. Ellis and A. L. R. Maynard. bibliog il diag Pet Processing 8:1692-6 N '53

Electronic motor control; abstract. A. O. Dalton. Elec R (Lond) 154:382-3 F 26 '54

Facts about modern motor controls. il Mill & Factory 54:62-4 My '54

Lancashire four-inch electromagnetic motor brake. il Engineer 197:424-5 Mr 19 '54

Motor control gear exhibition. il Elec J 151:948 S 25 '53

Westinghouse magnetic amplifiers team ac and dc motors. il Steel 133:113 D 21 '53

Design

Fan motors for air conditioners. M. D. Irwin. Refrig Eng 61:1188-9+ N '53

ELECTRIC motors—*Continued*

Fractional horsepower

Crabtree hand-operated starters for fractional horsepower motors. il Engineer 197:293 F 19 '54

Facts about modern fractional horsepower motors. il diags Mill & Factory 54:60-1 My '54

Oil burner installation practice; electric motors are not complicated. C. H. Burkhardt. diags Sheet Metal Worker 45:70-2 Ag '54

Lubrication

High temperature lubrication of electric motor ball bearings. J. E. Brophy and others. diag Product Eng 24:298-300+ S '53

Maintenance of electrical motors. F. H. Walker, jr. and W. J. O'Meara. diag Am Pet Inst Proc 33(3):344-50 '53; Same. Pet Refiner 32:127-31 My '53; Same. Pet Eng (Ref annual) 25:C28+ Jl 15 '53; Same cond. Oil & Gas J 52:172+ My 25 '53; Abstract. Pet Processing 8:693 My '53; Discussion. Am Pet Inst Proc 33(3):350-4 '53

Maintenance and repair

Check all these points to stop motor vibration. J. H. Jones. il diag Power Eng 58:78-9 Je '54

Nine tips on keeping motors humming. diags Food Eng 26:90-3 F '54

Three tools to speed motor maintenance. F. W. Kraus. il Power 98:122 Ap '54

Trouble-shooting on electric motors; illustrated instructions. Mill & Factory 54:100-2 Je '54

Use this checklist to stop motor overheating. Textile World 104:221-2 Ja '54

See also

Electric motors, Railway—Maintenance and repair

Manufacture

Assembled electric motors painted automatically; Ohio electric mfg. co. T. Slavik. il Mach 60:176-7 Ag '54

Mounting

Facts about modern motor bases. diags Mill & Factory 54:193 My '54

Protection

Determining the correct type of thermal protection for electric motors used in the pipe line industry. B. Kleinman. il diags Pet Eng 25:D 14-18 O '53

Motor circuit protection. G. W. Heumann. il diags Machine Design 26:123-38 Je '54

Motor insulation life as measured by accelerated tests and dielectric fatigue. C. J. Herman. bibliog il diag Elec Eng 73:33-7 Ja '54

Motor protection; overload trip relay. il Elec R (Lond) 154:215 Ja 29 '54

Motors for hazardous locations. D. K. Adams. il diags Product Eng 24:148-51 Jl '53

Now you can test your motor overload relays. M. S. Coben. il diags Power Eng 58:70 Ja '54

Polyphase motor protection. Elec J 151:1309 O 23 '53

Protecting integral HP sealed motors on packaged air conditioners. H. Wolf and H. Soumerai. Refrig Eng 62:33-5+ F '54

Selection of hermetic motor protectors. E. W. Scott. Refrig Eng 62:50-4+ Ag '54

Three improved fuses protect electric motors. J. C. Lebens. diags Textile World 104:112-13 Jl '54

Tiltman Langley safety device for torque overload. il Engineering 176:682 N 27 '53

Today's power plant motors. C. D. Lawton. il Blast F & Steel Pl 41:1326-8 N '53

Witton overload relay for motors driving high-inertia loads. il Engineer 196:822 D 18 '53

Standards

More power in smaller units; new NEMA frame standards. diags Mill & Factory 54:112-13 F '54

Motors for fans and blowers. T. E. M. Carville. il diags Refrig Eng 61:1320-4 D '53

New motors to have more power; revision of NEMA standards. diag Chem Eng 60:250+ O '53

New-type electric motors are smaller and better. W. H. Formhals. diags Textile World 104:102-3+ Mr '54

Starting

Crabtree hand-operated starters for fractional horsepower motors. il Engineer 197:293 F 19 '54

Testing

High-current rig speeds motors tests. P. J. Belcourt. il diag Power 98:126-7 F '54

ELECTRIC motors, Alternating current

Crompton Parkinson self-regulating alternator. il Engineering 177:87 Ja 15 '54

Effect of polyphase motors on the voltage regulation of circuits supplying three-phase welder loads. M. A. Faucett and others. il diags Ill U Eng Exp Sta Bul 418:1-42 '53 (pa 40c)

Electrical power principles for air conditioning. G. B. Priester. bibliog il diags Heat & Ven 51:83-91 F '54

Facts about modern integral horsepower motors; a-c. il diags Mill & Factory 54:56-7 My '54

How Reliance overcame All motors are alike. E. E. Helm. il Sales Management 70:108+ Je 15 '53

How to keep 'em sailing; keeping auxiliary a-c motors running. N. C. Pappas. il diag Marine Eng 58:80-7 N '53

New motor, new grinder; NEMA motors on belt grinders. il Steel 134:124 My 3 '54

See also

Electric motors, Induction

Electric motors, Synchronous

Control

Comparison and evaluation of dc braking. H. W. Jones. Machine Design 26:242+ Jl '54

Electric controls; a-c motor control. J. C. Ponstingl. il diags Tool Eng 33:51-9 S '54

Speed control of a.c. winders. diags Engineer 196:365-7 S 18 '53; Same. Elec R (Lond) 153:587-92 S 11 '53

Design

Up-rated motors; bigger inside, smaller outside. T. F. Hruby. il diags Steel 133:128-30 S 21 '53

Rating

Re-rating program; more motor in same space. S. H. Keller. diags Westinghouse Eng 13:204-6 N '53

Standards

A-c motor dimensions; reference sheet. diags Tool Eng 32:83-4 Ja '54

Starting

How to reduce line voltage dips when starting a-c motors. E. H. Stivender. diag Power Eng 57:53 N '53

Tables, calculations, etc.

Ampere factors aid in calculations of three-phase motor currents; engineering reference sheet. Elec World 139:98 Je 1 '53

ELECTRIC motors, Direct current

Facts about modern direct current motors. diags Mill & Factory 54:59 My '54

General Electric totally-enclosed unit-cooled d-c motor. il Blast F & Steel Pl 42:116 Ja '54

How to adjust commutation accurately from brush-potential measurements. G. H. Gunnoe and R. M. Dunaiski. il diags Power 98:82-7+ My '54

Motor has independent cooling system; dc motors developed by General electric co. il Machine Design 26:162 Ag '54

Shooting trouble on dc machines. S. Spence. il Power 97:129a-129b D '53

Standard d-c motor connections and terminal markings. diags Power Eng 57:71 N '53

ELECTRIC motors, Induction

Allis-Chalmers squirrel cage induction motors. il Blast F & Steel Pl 42:459-60 Ap '54

ELECTRIC motors, Induction—*Continued*

Application of shaded pole motors to room air conditioners. R. W. Morgan. il diags Refrig Eng 61:1315-19+ D '53

Engineering development and research improves motor design and performance; General electric company's Tri-Clad 55. il Elec Eng 72:1035-6 N '53; Iron & Steel Eng 30:202+ N '53; Blast F & Steel Pl 41:1478-9 D '53; Food Eng 25:99 D '53; Marine Eng 58:95 D '53

GE line of 55 motors offers decreased size, higher efficiency. il Am Mach 97:172 O 26 '53; Automotive Ind 109:82 N 1 '53; Mill & Factory 53:145 N '53; Ry Age 135:77 N 16 '53

Life-Line-A motors are completely changed. il Automotive Ind 110:64 Mr 1 '54; Am Mach 98:150 Mr 1 '54; Blast F & Steel Pl 42:372+ Mr '54; Chem & Eng N 32:928 Mr 8 '54; Machine Design 26:212+ Ap '54; Ry Age 136:51 Ap 5 '54; Elec Eng 73:285-6 Mr '54

Modern motor design; Allis-Chalmers two pole squirrel cage boiler feed pump motor. il Power Eng 58:90 Je '54

More horsepower in less space with new electric motors. il diag Machine Design 26:130-1 Ja '54

More power in equal space; Allis-Chalmers ac squirrel cage induction motors. il Machine Design 26:204 My '54

Reliance alternating-current motors. il Mach 60:228 F '54

Stator and rotor slot numbers. H. K. Whitehorn. Elec J 151:952-3 S 25 '53

Synchrotie systems; consist of two or more wound-rotor induction motors with similar rotor characteristics. S. J. Campbell. il diags Westinghouse Eng 13:178-83 N '53

See also
Electric motors, Synchronous

Control

Ac dynamic brake motor; abstracts. S. Noodleman. Machine Design 26:312+ F '54; Tool Eng 32:148-9 My '54

Dynamic braking of squirrel-cage induction motors; abstract. C. F. Evert, jr. Elec Eng 73:162 F '54

Dynamic braking of squirrel cage motors. S. Noodleman. il diags Product Eng 24:178-83 Ag '53

ELECTRIC motors, Railway

Diesel-electrics; how to keep 'em rolling; transition. B. L. Judy and A. V. Johansson. diags Ry Loco & Cars 127:71-6 D '53

Diesel-electrics; how to keep 'em rolling; trouble shooting. B. L. Judy. il diags Ry Loco & Cars 128:72-7 F '54

From fuel rack to coupler. M. C. Swanson and D. W. McLaughlin. Ry Loco & Cars 128:70-3 Ag '54

Motor lead switch saves time and trouble. il Ry Loco & Cars 128:53-4 Jl '54

New axle-drive M-G set. il Ry Age 136:91 My 17 '54

New Haven's ignitron multiple-unit cars near completion. E. W. Ames and others. il diag Ry Loco & Cars 128:76-80 Mr '54; Same cond. Ry Age 136:66-8 Mr 15 '54

New Westinghouse induction motors. il Ry Age 136:51 Ap 5 '54

Silicone rubber insulation for traction motor frame coils. il Ry Loco & Cars 127:65-8 D '53

Bearings

Hourglass axle bearings. W. P. Welch. diag Ry Loco & Cars 127:70 D '53

New bearing uses less oil. Z. G. Brandenstein and J. B. MacPherson. il Ry Age 135:50-1 D 28 '53

Lubrication

New bearing uses less oil. Z. G. Brandenstein and J. B. MacPherson. il Ry Age 135:50-1 D 28 '53

Maintenance and repair

All-purpose electric shop; Baltimore and Ohio. il Ry Loco & Cars 128:58-64 Ja '54; Excerpt. Ry Age 135:96-9 D 14 '53

Do degreasers affect insulating varnish? il Ry Loco & Cars 128:80-1 Mr '54

Fundamentals of flashing of Diesel-electric motors and generators. C. A. Atwell. il diags Ry Loco & Cars 128:72-5 Mr '54

Here is an all-purpose electric shop. il Ry Age 135:96-9 D 14 '53

Rewiring Baldwin-Westinghouse locomotives. il Ry Loco & Cars 128:70-2 Ap '54

Rewiring of Diesel locomotives. Ry Loco & Cars 127:106-7 N '53

Rating

Rating and service capacity of traction motors. B. J. Prigmore. bibliog diags Inst E E Proc 100 pt 2:570-2 O '53

ELECTRIC motors, Squirrel cage. See Electric motors, Induction

ELECTRIC motors, Synchronous

Big new wind tunnel to have an 83,000 hp electric motor. Iron Age 172:180+ S 10 '53

Equivalent circuits for transformers and machines including non-linear effects. G. R. Slemon. bibliog diags Inst E E Proc 100 pt 2:577-81 O '53

Facts about modern synchronous motors. il Mill & Factory 54:58 My '54

How to reduce line voltage dips when starting a-c motors. E. H. Stivender. diag Power Eng 57:53 N '53

How to select synchronous motors for taconite grinding mills. J. C. Marous and E. F. Merrill. il Eng & Min J 155:84-7 Jl '54

Loss-of-field protection for synchronous machines; abstract. R. L. Tremaine and J. L. Blackburn. Power 98:204+ My '54

Rotating components for automatic control; synchros. S. Davis. il diags Product Eng 24:143-6 N '53

Servo-drive for accurate speed control; high-frequency phonic motor. D. E. Caro and others. diags J Sci Instr 31:170-3 My '54

Control

Magnetic amplifier for synchros; abstract. R. L. VanAllen. diags Elec Eng 72:925 O '53

Precise control for lock 27. B. Frick and S. S. Browne. il diag Westinghouse Eng 13:184-7 N '53

Synchronous motor control; what do you expect it to do? R. R. Gobeli. il diags Mill & Factory 54:86-9 Mr '54

ELECTRIC musical instruments. See Musical instruments, Electric

ELECTRIC network analyzers. See Electric distribution—Network analyzers

ELECTRIC networks. See Electric distribution

ELECTRIC organ. See Organ, Electric

ELECTRIC outages. See Electric power—Interruptions

ELECTRIC ovens

Drying oven cuts maintenance costs. O. E. Fawcett. il Elec World 140:142+ Jl 13 '53

Electric oven setup for deposited carbon resistors. il Electronics 26:264 D '53

Low temperature oven; new model for laboratory work. il Chem Age (Lond) 69:1170 D 5 '53

Quasi-Arc company electrode drying ovens. il Chem Age (Lond) 71:660 S 25 '54

Variable temperature and humidity oven. J. N. Burcham. bibliog diags J Sci Instr 30:335-6 S '53

ELECTRIC plants

See also
Electric generator sets
Electric plants (central stations)
Electric substations
Power plants
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Interconnection

Analysis of losses in loop-interconnected systems; abstract. A. F. Glimm and others. diag Elec Eng 72:879 O '53

Detroit Edison, Ontario Hydro ready interchange. Elec World News ed 140:9 Ag 31 '53

FPC report finds California-Oregon tie feasible. il map Elec World News ed 141:30-1 Ja 4 '54

Interconnected systems energy accounting procedure and related operating practices; abstract. M. J. Lacopo. Elec Eng 73:68 Ja '54

Intertie helps Atlantic City Electric delay new plant. W. E. Caven. il map Elec World 140:138-40 D 14 '53

ELECTRIC plants—Interconnection—*Continued*

Intertie talks; Idaho power co. and BPA. Elec World 139:159 Je 29 '53

London load handling. il map diag Elec R (Lond) 154:359-66 F 26 '54

Microwaves protect new 132-kv interconnection. G. W. McKenna and F. H. Travers. il Elec World 139:76-7 Je 1 '53

New look at Oregon-California intertie. maps Elec West 112:61-4 Ja '54

New S.E.P. co-ordinating centre opened in the Netherlands. il map Elec J 152:30-4 Ja 1 '54

NW tie line planned by Montana power co. Elec World News ed 140:21 S 14 '53

150-mva lines link Detroit Edison with Ontario Hydro. il map Elec World News ed 141:42-3 F 15 '54

Plan system for very rapid load growth; Houston lighting & power co. L. K. Del'Homme and S. L. Rieves. il map Elec World 141:92-5 Ja 11 '54

Prime mover speed governors and the interconnected system; abstracts. P. G. Ipsen and J. R. Norton. Power 97:158 My '53; Elec Eng 73:50 Ja '54

Puget Sound Power & Light orders study on proposed plant. Elec World 140:106-7 Ag 24 '53

Serving co-ops; Northern States and Otter Tail Power companies. Elec World News ed 140:21 Ag 17 '53

Single channel controls system load and frequency. G. S. Lunge. il diag Elec World 140:86-8 N 30 '53

Taxes, interest, and interconnections. E. L. Hough. il Gen Elec R 56:28-31 N '53

Tie line power and frequency control; abstract. C. Concordia and L. K. Kirchmayer. Elec Eng 73:130 F '54

U.S.A. and Canada power link. il Elec J 152:131 Ja 8 '54

Which station gets the load? curve provides data for allocation of generation to plants of interconnected system. T. W. Schroeder. Elec World 141:97 Mr 8 '54

Industrial plants

Parallel operation of public and private electricity systems. Engineering 176:626 N 13 '53

Pottery power plant; Burslem works of Doulton & co. il Elec R (Lond) 154:273-5 F 12 '54

Private generating plant. Elec R (Lond) 153:1119 N 13 '53

Problems relating to interconnecting of large pulp and paper mills with large utility power systems; abstract. H. A. Rose and H. E. Springer. Power 98:152+ Ag '54

6900-volt power system fault relay analysis; Alan Wood steel co. J. A. B. Pinney. il plan diags Iron & Steel Eng 31:99-109; Discussion. 109-13 Ja '54

Isolated plants vs. purchased power

Electric power checklist; are you better off buying electric power or generating your own? H. C. Bauman. Chem W 72:56-7 Ap 18 '53

ELECTRIC plants (central stations)

Largest U.S. central power stations; data sheet. Power 98:105 Ja '54

New Wilmington power plant installs quarter-mile plastic pipeline. il Power Eng 58:79 Mr '54

1954 design survey of typical new steam central-station installations; tabulation. Power 98:40-3 Mid-S '54

Power generation expansion; Niagara Mohawk power corp. H. I. Howell. map Iron & Steel Eng 31:132-4 My '54

Power; more for ore beneficiation; planned $6-million power plant near Marquette. R. M. Lorz. il Iron Age 172:40 O 1 '53

Shawnee and Joppa, race of the power giants. P. C. Ziemke. il Power Eng 58:72-3 S '54

Trends in utility plants. Power 98:38-9 Mid-S '54

Utility steam-electric stations; summary of development in the United States. L. Elliott. il Electrochem Soc J 100:sup261C-3C S '53

See also

Electric distribution
Electric utilities
Hydroelectric plants
Steam plants

Air conditioning

Modern station's packaged air conditioner helps give power-plant operators more working comfort, greater efficiency on the job; Dayton power and light co. A. A. Hanson. il diag Power 98:124-5 Ja '54

Cleaning

Chemical cleaning in central stations. P. H. Cardwell. bibliog il diags A S M E Trans 76:47-55; Discussion. 55-9 Ja '54

Costs

Cooling pond proves cheaper for Mississippi power & light co. R. W. Braswell. il Elec World 140:84-5 N 30 '53

For low-cost generation, study heat cycle arrangement. D. E. Hart. flow diag Elec World 140:96-9 D 28 '53

Steam power plant costs drop. Eng N 151:151+ O 8 '53

Steam station cost survey. A. E. Knowlton. il Elec World 140:121-36 Jl 13 '53

Design

Design features of certain British power stations. S. D. Whetman and A. E. Powell. plans diags Inst E E Proc 100 pt 1:225-47 S '53; Same cond. Engineering 175:349-50, 447-8, 474-5 Mr 13, Ap 3-10 '53; Abstracts. Inst Mech Eng Proc (A) 167 no 3:313-14 '53; Elec R (Lond) 152:585 Mr 13 '53; Discussion. Inst E E Proc 100 pt 1:247-55 S '53; Inst Mech Eng Proc (A) 167 no 3:314-18 '53; Elec R (Lond) 152:585-6 Mr 13 '53; Elec J 150:871-2 Mr 13 '53

Economy in power station construction; construction of power stations. Engineering 176:498 O 16 '53; Elec J 151:1226 O 16 '53; Elec R (Lond) 153:911 O 16 '53

New Kearny generating station; Public service electric and gas co. F. P. Fairchild. il plan diags A S M E Trans 76:735-48 Jl '54

Problems of civil and structural design of steam electric plants for the Pacific gas and electric company in central California, at Antioch and at Pittsburgh. W. L. Dickey. il map diags Am Soc C E Proc 79 [no 342]:1-28 N '53

Rapid expansion of new Elrama demands system changes. J. S. Brown. il map diags Elec World 140:123-6 D 14 '53

Some design features of the semi-outdoor power station at Ince. F. H. S. Brown. il plan diag Engineer 196:806-9 D 18 '53; Abstract. Elec R (Lond) 153:1383-4 D 18 '53; Discussion. 153:1437-8 D 25 '53; Elec J 151:2103-4 D 25 '53

Diesel engine stations

Caribou integrates steam, Diesel and hydro. M. S. Blackwell. il diags Power Eng 58:66-8+ My '54

Coya Sur, Chile; new Diesel-powered generating station. il plans diags Diesel Power 32:46-51 Jl '54

Diesels south of the border. W. J. Granberg. il Diesel Power 32:50-2 Ja '54

Diesels supplement hydro power; Paul Smith's electric light and power and railroad co. W. J. Fritton. il Diesel Power 31:32-5 N '53

Dual-fuel engine cuts costs by 55.5 per cent; Herington, Kansas, Municipal water and electric department. E. Purcell. il Pub Works 85:84 Mr '54

F-M model 32 dual-fuel conversion; Broken Bow municipal power plant. il diag Diesel Power 32:46-7 F '54

First for Fredonia; dual-fuel engine. G. W. Otto. il Diesel Power 32:68-9 Ap '54

Foresighted selection of dual fuel engine cuts Kennett costs. M. E. Veltzen. il Pub Works 84:86 D '53

Grand Haven thrives with more Diesels. J. B. Sims. il Power 97:75-7 N '53

Hamilton engine; Freeport's latest. il diags Diesel Power 31:36-41 D '53

Kansas plant halves fuel costs. E. Purcell. il Diesel Power 32:44-6 Mr '54

Municipal power plant saves $11,700 in year. il Pub Works 85:92 Ap '54

Neodesha adds duafuel unit. il Diesel Power 31:54-6 D '53

New co-op Diesel plant proves efficient on oil or gas. L. W. Wilson and R. T. Potthoff. il diag Elec World 140:92-3 O 5 '53

ELECTRIC plants (central stations)—Diesel engine stations—*Continued*

Ponca City Diesel plant boosts its output and efficiency. P. Schlesinger. il Power 98:102-4 My '54

Power and profits at Westbrook, Minnesota. il Diesel Power 32:46-9 Ag '54

Power plant is a civic show place. il Pub Works 85:110+ S '54

Residual fuel for Diesels saves up to $4500 a month; Clay electric co-op. R. Dodd. diag Power 98:116-17+ Ja '54

Teague, Texas adds an engine. R. D. Slonneger. il Diesel Power 31:40-3 N '53

Winterizing Milaca's Diesel plant. D. L. Cochrane. il diag Power Eng 58:84-5 Ag '54

Employees

Developing a good system dispatcher. J. Paschall. Elec World News ed 140:39 S 14 '53

I am a superintendent of a steam power plant. H. F. Unger. Pub Util 53:601-7 My 13 '54

Training operators; Glenwood station, Long Island lighting co. S. Elonka. il Power 97:103-5 N '53

Equipment

Art of engineering a power station. R. E. Marion. il Instruments & Automation 27:930-1 Je '54

Bokaro thermal power station. il map Engineer 197:327-30 F 26 '54

Coal handling at Danskammer. C. A. Hoya. il Power Eng 58:80-1 Ja '54

Con Edison's Astoria station features. H. Knecht and J. G. Noest. il plan diags Elec World 140:92-5+ Jl 27 '53

Coya Sur, Chile; new Diesel-powered generating station. il plans diags Diesel Power 32:46-51 Jl '54

Electrical and mechanical features of the Niles generating station; abstract. C. E. Asbury and J. C. Beres. Power 98:236+ Mr '54

Electrical engineering in 1953. il Engineer 197:24-7, pl 2, 63-4 Ja 1-8 '54

Electrical features of Eastlake generating station, units 1, 2 and 3. C. F. Paulus. Power 98:234+ Ap '54

Electrical indicating instruments used in early Edison central stations. H. B. Brooks. il diags Franklin Inst J 256:401-22 N '53

Erection tower moves stator; illustrations with text. P. M. Barnes. Power 97:98 N '53

Extra boiler tubes up capacity; Tacoma Light remodels old installation. J. F. Ward. diag Elec World News ed 141:54-5 Mr 1 '54

GPU's new cyclone boiler cuts generating costs. O. Ely. Pub Util 52:930-1 D 17 '53

High-pressure plant at Portobello power station. il plan diags Engineering 177:174-9, 206-9 F 5-12 '54

Kearny numbers 7 and 8. il diags Power Eng 58:66-8+ Ap '54

Kearny station discussed at meeting of Pennsylvania electric association. Elec World News ed 141:32 Mr 1 '54

Littlebrook. il plan diags Elec R (Lond) 154:3-11 Ja 1 '54

Malta's new power station. il map Elec J 151:2023-6 D 18 '53

Mechanical draught cooling towers; their use in power station plant. M. E. O. Trowbridge. Elec J 151:789-92 S 11 '53

Methane gas power station; Emilia power station of the Societá Edison. il Elec R (Lond) 153:923-6 O 23 '53

Modern homelike plant; new Titus plant in Reading, Pa. S. Elonka. il Power 97:111-13 D '53

New firing method cuts power cost; Cyclone furnace. S. T. MacKenzie. diags Elec World 140:130-3 D 14 '53

New power generation milestone; Philo station of Ohio power co. P. Sporn. il diags Elec World 139:72-6+ Je 29 '53

New reheat turbines at Kearny; first to use 1100-F throttle steam; illustrations and diagrams with text. Power 98:100-4 Ap '54

Ohio Edison selects load center generation; Niles station in Youngstown-Warren area. J. H. Foote. il maps diags Elec World News ed 141:16-18+ F 1 '54

Peat fired power station. il Elec R (Lond) 153:1010-12 O 30 '53

Penal power station. il Elec J 151:1381-4 O 30 '53

Power system plant. W. J. Carfrae and others. bibliog il diags Elec J 152:109-14, 268-72, 422-6, 586-8, 742-5, 926-30 Ja 8, 22, F 5, 19, Mr 5, 19 '54

Several firsts for Detroit mark new St Clair plant. H. A. Wagner and W. W. Brown. il diags Elec World News ed 140:32-4 Ag 3 '53

Silicone helps solve insulation problems; Consolidated Edison's new Astoria power plant. J. G. Noest. il diags Elec World 140:112-15 N 16 '53

Skimmer wall to catch cooler cooling water; TVA devises novel gate for steam-station intake channels. diags Eng N 152:47-8 Mr 18 '54

System centers its operations in new underground control room; Long Island lighting co. J. L. Davidson and J. R. Gummersall. il maps plan Elec World 140:78-80 N 30 '53

Today's camera techniques save time, cut costs; Detroit Edison. il Power 98:77-81 My '54

Twin stacks improve flue-gas ducting; Philadelphia electric co. Delaware station. S. Moyer. il diags Power 98:96-100 S '54

Unified boiler control at Trafford power station. S. E. Shaw. il diag Engineering 176:676-8 N 27 '53

Unit no. 2 on line at St Clair. il Power Eng 58:71 Mr '54

Uskmouth power station. il diag Engineer 196:458-61 O 9 '53; Engineering 176:552-5, pl 31 O 30 '53; Elec J 151:1115-18 O 9 '53; Elec R (Lond) 153:809-14 O 9 '53

Fires and fire protection

Need of modern fire protection grows in utilities with big rise in values. Nat Underw 58:19 Ja 14 '54

System fire protection. F. J. Schneider. Elec World 140:111+ N 16 '53

Flood damage

Anti-flood measures keep Fort Dodge operating; illustrations with text. H. N. Josleyn. Power Eng 58:69 S '54

Fuel

Cable life increased on coal-unloading tower. G. K. Brown. il Elec World 141:139-40+ F 22 '54

Coal, oil, and gas consumption at new levels. Elec World 141:179-81 Ja 25 '54

Colliery sludge as power station fuel; Emile Huchet power station. R. Gibrat and F. Chenin. Engineering 177:308-9 Mr 5 '54; Abstracts. Elec J 152:694 F 26 '54; Elec R (Lond) 154:374 F 26 '54; Discussion. Elec J 152:762 Mr 5 '54; Elec R (Lond) 154:414 Mr 5 '54

Heat and fuel requirements for thermal-electric generation in 1960; charts; engineering reference sheet. Elec World 140:150 Jl 13 '53

Nashwaak has some plans; power to burn in making alumina out of oil shale. Can Chem Process 38:11-12 Ag '54

Oak Creek's fair-weather slip saves money, speeds coal handling; illustrations with text. Power Eng 57:62-3 N '53

Prevention of spontaneous combustion in coal stocks. il Engineering 176:727 D 4 '53

Gas turbine stations

Belle Isle gas turbine; after 30,000 hours. J. W. Blake. il diags Power 98:75-9+ Ag '54

Gas-turbines at Beznau power station. E. A. Kerez. diag Engineering 177:146-7 Ja 29 '54; Abstracts. Elec J 152:284-5 Ja 22 '54; il Elec R (Lond) 154:141-2 Ja 22 '54

Meeting a municipal power problem. il Pub Works 85:77 Je '54

Hot water distribution

Pimlico district heating undertaking. B. Donkin and others. flow diag diag Engineer 196:850-2 D 25 '53

Interconnection

See Electric plants—Interconnection

ELECTRIC plants (central stations)—*Continued*

Load

Controlling the house heating load. W. F. Friend. Elec World 140:88-90 N 2 '53

Economy loading simplified; abstract. J. B. Ward. Elec Eng 73:38 Ja '54

Electric house heating flattens curve of residential load. Elec World 141:90-2 F 8 '54

Here's the case for well rounded load building. Elec World News ed 140:41 D 7 '53

Load forecasting; Ontario commission's weather studies. W. Prentice. Elec R (Lond) 153:1447 D 25 '53

London load handling. il map diag Elec R (Lond) 154:359-66 F 26 '54

Plan system for very rapid load growth; Houston lighting & power co. L. K. Del'Homme and S. L. Rieves. il map Elec World 141:92-5 Ja 11 '54

Power distribution; design and operation of system-wide automatic load-frequency control; abstract. H. A. Bauman and others. Power 98:152 Ag '54

Power system plant; load and frequency control. N. V. Pestereff. il diag Elec J 152:742-5 Mr 5 '54

Present trends in surge tank design. C. Jaeger. bibliog diags Engineer 196:639-43 N 13 '53; Excerpts. Elec J 151:1597-8 N 13 '53; Discussion. Engineer 196:634-5 N 13 '53

Load dispatching

Calculator replaces daily load schedule. C. H. Conrad. il Elec World 140:127 Ag 10 '53

Developing a good system dispatcher. J. Paschall. Elec World News ed 140:39 S 14 '53

Electricity supply board's load dispatching equipment. P. J. Campbell and G. S. Stritch. plan diags Inst E E Proc 100 pt 2: 661-4 D '53

Frequency-shift telemetering, key to multistation dispatching; Southwestern public service co. G. W. Dupree and W. H. Burnham. il diags Elec World 140:89-91 O 5 '53

Penelec consolidates communication in strategic new dispatching center. C. H. Conrad. il Elec World 140:94-5 D 28 '53

Perforated dispatching board design. A. H. Gravely, jr. il Elec World 141:112 Mr 8 '54

Maintenance and repair

Automatic hard-facing of worn pulverizer parts pays off; Cleveland electric illuminating co. R. Ruggie. il Power Eng 58:72-3 Ap '54

Growing electronic applications bring new plant maintenance problems at Ridgeland station. H. L. Garton. il Elec World 140: 111-13+ O 19 '53

Metered maintenance at Broken Bow, Neb. L. E. Clark. il Diesel Power 31:58-60 N '53

Multi-purpose lithium grease cuts power plant maintenance; Consolidated Edison's East River plant. G. H. Link. il Power Eng 58:74-5 Ag '54

Plant housekeeping plan; Pennsylvania electric association prime movers committee meeting, Erie. Elec World News ed 139:34 Je 8 '53

Today's camera techniques save time, cut costs; Detroit Edison. il Power 98:77-81 My '54

Winterizing Milaca's Diesel plant. D. L. Cochrane. il diag Power Eng 58:84-5 Ag '54

Outdoor stations

Glenwood number 3 outdoor power station; abstracts. E. F. DeTurk and W. J. Burns. il Elec Eng 73:155 F '54; Power 98:238+ Ap '54

How real are outdoor-plant savings? il Power 98:105-7 F '54

Some design features of the semi-outdoor power station at Ince. F. H. S. Brown. il plan diag Engineer 196:806-9 D 18 '53

Protection

Protection of turbine-generators and boilers by automatic tripping. H. A. Bauman and others. il diags Elec Eng 73:149-54 F '54; Excerpts. Power 98:156+ Ja '54

Records

Card system simplifies maintenance scheduling. A. W. Hall. il Elec World 140:154+ O 19 '53

Statistics

50th annual report on the electrical industry. Elec World 141:147-98 Ja 25 '54

New electric generating facilities to be installed, 1953-56; tabulation. Elec World 140:128-30 S 21 '53

Steam accounts for 83 per cent of power company capacity. Elec World 140:100 N 2 '53

Survey of 267 new central-station units; tabulated data for 174 central stations, 1953-1956. map Power 98:81-5 Mr '54

Utility performance shows improvement; data on average central-station heat rates, fuel costs and fuel utilization, 1948-1952. Power 97:104-5 D '53

Supervisory systems

Power system plant; remote control and indication. N. V. Pestereff. il diags Elec J 152: 926-30 Mr 19 '54

Underground stations

Complex excavation pattern cuts out underground powerhouse. W. G. Huber. il plan diags Civil Eng 23:396-401 Je '53

High-head underground hydro plant will serve huge aluminum refinery in British Columbia. il diags Power 98:85-9+ F '54

Waste

Power generating stations can develop stream pollution problems. S. T. Powell. Ind & Eng Chem 46:sup 112A-13A Mr '54

England

Design features of certain British power stations. S. D. Whetman and A. E. Powell. plans diags Inst E E Proc 100 pt 1:225-47 S '53; Same cond. Engineering 175:349-50, 447-8, 474-5 Mr 13, Ap 3-10 '53; Abstracts. Inst Mech Eng Proc (A) 167 no 3:313-14 '53; Elec R (Lond) 152:585 Mr 13 '53; Discussion. Inst E E Proc 100 pt 1:247-55 S '53; Inst Mech Eng Proc (A) 167 no 3:314-18 '53; Elec R (Lond) 152:585-6 Mr 13 '53; Elec J 150:871-2 Mr 13 '53

Littlebrook. il plan diags Elec R (Lond) 154: 3-11 Ja 1 '54

Some design features of the semi-outdoor power station at Ince. F. H. S. Brown. il plan diag Engineer 196:806-9 D 18 '53; Abstract. Elec R (Lond) 153:1383-4 D 18 '53; Discussion. 153:1437-8 D 25 '53; Elec J 151: 2103-4 D 25 '53

France

Colliery sludge as power station fuel; Emile Huchet power station. R. Gibrat and F. Chenin. Engineering 177:308-9 Mr 5 '54; Abstracts. Elec J 152:694 F 26 '54; Elec R (Lond) 154:374 F 26 '54; Discussion. Elec J 152:762 Mr 5 '54; Elec R (Lond) 154:414 Mr 5 '54

Generation in France; tidal power project; abstracts. M. J. Couture. Elec J 151:1497-8 N 6 '53; Elec R (Lond) 153:1157 N 20 '53

Germany

German plant uses double reheat. F. Marguerre. flow diag Elec World News ed 141: 26 Ja 18 '54

Great Britain

B.E.A. generating plant installed in 1953 yielded additional output capacity; tabulation. Engineer 197:68 Ja 8 '54; Same. Engineering 177:68 Ja 15 '54; Same. Elec J 152:105 Ja 8 '54; Same. Elec R (Lond) 154: 67 Ja 8 '54

Developments and future possibilities in electricity generation. J. Hacking. Engineering 176:827-8 D 25 '53; Abstracts. Elec J 151:2056 D 18 '53; Elec R (Lond) 153:1389-90 D 18 '53

Economy in power stations. Economist 169: 202 O 17 '53

Electrical engineering in 1953. il Engineer 197:24-7, pl 2, 63-4 Ja 1-8 '54

Evaluation of British electricity supply practice. Engineering 177:164 F 5 '54

ELECTRIC plants (central stations)—*Continued*

Greece

Greek thermal plant on line. il Elec World News ed 140:29 Jl 20 '53

India

Bokaro thermal power station. il map Engineer 197:327-30 F 26 '54

Ireland

Peat fired power station. il Elec R (Lond) 153:1010-12 O 30 '53

Italy

Methane gas power station; Emilia power station of the Societá Edison. il Elec R (Lond) 153:923-6 O 23 '53

Kentucky

Site dewatering wells stay put to control uplift; TVA's big Shawnee steam plant. il Eng N 152:36-7+ Ap 1 '54

Malta

Malta's new power station. il map Elec J 151:2023-6 D 18 '53

Mexico

Diesels south of the border. W. J. Granberg. il Diesel Power 32:50-2 Ja '54

Scotland

High-pressure plant at Portobello power station. il plan diags Engineering 177:174-9, 206-9 F 5-12 '54

Peat-burning power plant is planned in Scotland. Elec World 140:205-6 Ag 10 '53

Tennessee

TVA dambuilders turn to steam. A. J. Fox, jr. il map Eng N 152:30-4+ F 25 '54

Trinidad

Penal power station. il Elec J 151:1381-4 O 30 '53

Second Trinidad power station. il Elec R (Lond) 153:996 O 30 '53

Wales

Uskmouth power station. il diag Engineer 196:458-61 O 9 '53; Engineering 176:552-5, pl 31 O 30 '53; Elec J 151:1115-18 O 9 '53; Elec R (Lond) 153:809-14 O 9 '53

Western states

Western utilities will increase spending in '54. il map Elec West 112:78-111 F '54

ELECTRIC plants, Cooperative

Arkansas Co-op alters plan for building steam plant in state. Elec World News ed 140:9 S 28 '53

Co-op seeks to enforce pact; Central electric power cooperative in Missouri sues government to honor contract made with SPA. Elec World News ed 140:9 N 9 '53

Co-op wins case. Elec World News ed 140:35 Jl 6 '53

Heavy fuel for Diesels is saving dollars at Clay electric co-op. R. Dodd. il Power 98:120-1+ Jl '54

Kentucky co-op-utility fight now before PSC. Elec World News ed 139:18 Je 22 '53

Worry; one word story of a co-op. Elec World News ed 140:21+ D 7 '53

ELECTRIC plants, Municipal

Dual-fuel conversion saves Anadarko 50 percent. K. C. Finch. Pub Works 85:102 Ja '54

Dual-fuel engine cuts costs by 55.5 per cent; Herington, Kansas, Municipal water and electric department. E. Purcell. il Pub Works 85:84 Mr '54

F-M model 32 dual-fuel conversion; Broken Bow municipal power plant. il diag Diesel Power 32:46-7 F '54

First for Fredonia; dual-fuel engine. G. W. Otto. il Diesel Power 32:68-9 Ap '54

Foresighted selection of dual fuel engine cuts Kennett costs. M. E. Veltzen. il Pub Works 84:86 D '53

Hamilton engine; Freeport's latest. il diags Diesel Power 31:36-41 D '53

Kansas plant halves fuel costs. E. Purcell. il Diesel Power 32:44-6 Mr '54

Meeting a municipal power problem. il Pub Works 85:77 Je '54

Metered maintenance at Broken Bow, Neb. L. E. Clark. il Diesel Power 31:58-60 N '53

Municipal power plant saves $11,700 in year. il Pub Works 85:92 Ap '54

Neodesha adds duafuel unit. il Diesel Power 31:54-6 D '53

Ponca City Diesel plant boosts its output and efficiency. P. Schlesinger. il Power 98:102-4 My '54

Power and profits at Westbrook, Minnesota. il Diesel Power 32:46-9 Ag '54

Power plant is a civic show place. il Pub Works 85:110+ S '54

Teague, Texas adds an engine. R. D. Slonneger. il Diesel Power 31:40-3 N '53

Finance

Grand Haven thrives with more Diesels. J. B. Sims. il Power 97:75-7 N '53

ELECTRIC potential. See Potential, Electric

ELECTRIC power

Estimated future power requirements. O. Ely. Pub Util 54:206-10 Ag 19 '54

Forecast of industrial power needs in 1963. T. Fort. Pub Util 53:764-6 Je 10 '54

Forecasting electric power growth. P. Sporn. Pub Util 53:241-4 F 18 '54

Power industry as challenge to engineers. W. H. Sammis. Pub Util 53:623-5 My 13 '54

Research and engineering progress, 1953; power. il Gen Elec R 57:22-8 Ja '54

Round-table discussion on energy, Washington, Dec. 2-4. Elec World 140:116-18 D 14 '53

See also

Electric distribution
Electric driving
Electric engineering
Electric plants
Electric plants (central stations)
Electric transmission
Electric welding—Power supply
Electricity supply
Hydroelectric power
Power factor
Power plants
Voltage regulation

International aspects

U.S.A. and Canada power link. il Elec J 152:131 Ja 8 '54

Yugoslavia to export power. Elec World News ed 140:34 S 14 '53

Interruptions

Guard essential services against power failure. il Safety Maint & Prod 107:59 F '54

Mobile transformer units reduce outages 75 per cent. E. F. Mayo. il Elec World 140:154 Ag 24 '53

What's best unit for emergency power? answers. il diags Power 98:136-8 F '54

Statistics

Domestic use of energy doubles in ten years. Elec World 140:136 N 16 '53

Figures of the year; some finals by FPC. Elec World 141:116 F 22 '54

Industrial use of electric energy; 402 billion kwhr by 1962? D. C. Hooper. Elec World News ed 139:22-4 Je 8 '53

Manufacturers buying more electrical energy. Elec World 141:104 Ja 11 '54

New EEI power survey. O. Ely. Pub Util 53:44-5+ Ja 7 '54

Production and sales to ultimate consumers, 1949-1952. Survey of Cur Bsns 1953 Sup p 131-2 [supplemented in monthly numbers]

ELECTRIC power factor. See Power factor

ELECTRIC precipitation

Dust collectors tested in field; A.E.C.-Harvard survey. R. Dennis and others. Chem Eng 61:187-9 My '54

Electric air cleaner. G. F. Landgraf and R. W. McGuire. il diag Iron & Steel Eng 30:106-10 O '53

New approach to the theory and operation of electrostatic precipitators for use on pulverised fuel boilers; abstracts. N. Troost. Engineering 176:776 D 18 '53; Elec J 151:1850 D 4 '53; Elec R (Lond) 153:1261 D 4 '53; Discussion. Elec J 151:1850-1 D 4 '53; Elec R (Lond) 153:1261-2 D 4 '53

Precipitator energizer; patent. diag Electronics 26:248+ D '53

ELECTRIC precipitation—*Continued*

Precipitators pass smoke control tests. il diag Steel 133:78+ Ag 31 '53

Purifying precipitator; Howe-Baker corp. Ind & Eng Chem 45:sup 17A-18A+ D '53

Role of electrical precipitation in the steel industry. H. L. Richardson. bibliog il diags Iron & Steel Eng 30:95-100 O '53

Semiempirical equation of electrostatic precipitation. E. A. Walker and J. E. Coolidge. bibliog il diags Ind & Eng Chem 45:2417-22 N '53

Smoke, dust, fumes closely controlled in electric furnaces; Bethlehem Pacific coast steel corp. R. S. Coulter. il plan Iron Age 173:107-10 Ja 14 '54

ELECTRIC precipitators

Modification to the hot-wire thermal precipitator. J. K. Donoghue and D. G. Drummond. diags J Sci Instr 30:59 F '53

ELECTRIC properties

Comparative electrical properties of some metals; engineering file facts. Materials & Methods 40:123 Ag '54

Electrical properties of α-Fe_2O_3. F. J. Morin. Phys R 93:1195-9 Mr 15 '54

Electrical properties of black phosphorus. R. W. Keyes. bibliog Phys R 92:580-4 N 1 '53

Electrical properties of liquid selenium. H. W. Henkels and J. Maczuk. bibliog diags J Ap Phys 24:1056-60 Ag '53

Electrical properties of *N*-type germanium. P. P. Debye and E. M. Conwell. bibliog diag Phys R 93:693-706 F 15 '54

Electrical properties of NiO. F. J. Morin. Phys R 93:1199-204 Mr 15 '54

Electrical properties of pure tellurium and tellurium-selenium alloys. A. Nussbaum. bibliog diags Phys R 94:337-42 Ap 15 '54

Electrical properties of selenium; microcrystalline selenium metal doped. H. W. Henkels and J. Maczuk. il J Ap Phys 25:1-11 Ja '54

Electrical properties of semiconducting AlSb. R. K. Willardson and others. bibliog diag Electrochem Soc J 101:354-8 Jl '54

Electrical properties of single crystals and thin films of PbSe and PbTe. S. J. Silverman and H. Levinstein. bibliog diags Phys R 94:871-6 My 15 '54

Electronic properties of carbons and of their interstitial bisulfate compounds. E. A. Kmetko. bibliog diag J Chem Phys 21:2152-8 D '53

Magnetic and electric properties of magnetite at low temperatures. B. A. Calhoun. bibliog diags Phys R 94:1577-85 Je 15 '54

Some electrical and optical properties of synthetic single crystals of zinc sulfide. W. W. Piper. bibliog Phys R 92:23-7 O 1 '53

Some electrical properties of germanium crystals containing compensated impurities. V. Ozarow. Phys R 93:371-2 F 1 '54

Thermoelectric properties of metal-ammonia solutions; the thermoelectric power of sodium and potassium at -33°. J. F. Dewald and G. Lepoutre. bibliog diag Am Chem Soc J 76:3369-73 Jl 5 '54

See also

Ceramic materials—Electric properties
Glass—Electric properties
Plastic materials—Electric properties
Rubber—Electric properties

ELECTRIC propulsion of ships. See Ship propulsion, Electric

ELECTRIC protective apparatus

Application of transducers as relays to protective gear. R. K. Edgley and F. L. Hamilton. bibliog diags Inst E E Proc 99 pt 2:297-309 Ag '52; Discussion. 99 pt 2:309-13; 100 pt 2:640 Ag '52, D '53

Design and performance of surge diverters for the protection of alternating-current systems. T. F. Monahan. bibliog diags Inst E E Proc 98 pt 2:312-22 Je '51; Discussion. il 98 pt 2:322-30; 100 pt 2:664-5 Je '51, D '53

High-speed balanced current protective system using biased and unbiased relays. J. Rushton. diags Elec J 151:1660-5 N 20 '53

Moving-coil relay applied to modern high-speed protective systems. C. Ryder and others. diags Inst E E Proc 100 pt 2:261-73 Je '53; Discussion. 100 pt 2:273-6, 665-6 Je, D '53

See also

Electric circuit breakers
Electric distribution—Grounding
Electric fuses
Electric lines—Protection
Electric motors—Protection
Electric switchgear
Electric transformers—Protection
Lightning protection
Reactors
Relays

ELECTRIC pumping machinery. See Pumping machinery, Electric

ELECTRIC railroads

See also

Cars, Electric railroad
Electric locomotives
Electric motors, Railway
Railroads—Electrification

Cars

See Cars, Electric railroad

Equipment and supplies

Protection of electric railway equipment. Engineering 177:328 Mr 12 '54

Overhead construction

British engineers develop adjustable catenary structures. il Ry Age News ed 136:22 Ja 4 '54

Power

Canada's first subway. il Elec J 152:1015-18 Mr 26 '54

Electronic arc suppression in traction rectifiers. Engineering 176:773 D 18 '53

First stage of the electrification of the Estrada de ferro Santos a Jundiai. R. J. B. Chatterton and D. H. Rooney. map plans diags Inst E E Proc 100 pt 1:319-31; Discussion. 332-8 N '53

Greater use of electricity by French railways. Elec J 151:2111 D 25 '53

Southern region change of frequency scheme. il Engineer 197:311-14 F 26 '54; Engineering 177:282-4 F 26 '54; Elec J 152:662-4 F 26 '54; map Elec R (Lond) 154:367-70 F 26 '54

Surrey Docks substation. il Engineer 196:438-40 O 2 '53; Engineering 176:437-8 O 2 '53; Elec J 151:945-7 S 25 '53; Elec R (Lond) 153:725-7 O 2 '53

Rolling stock

Electric rolling stock for Toronto subway. il Engineer 197:347-8 Mr 5 '54; Engineering 177:342-3 Mr 12 '54

Track

Details of track construction on the Toronto subway. il Roads & Constr 91:103-4 D '53

Australia

Direct-current locomotives for Australia. il Engineering 177:184 F 5 '54

France

Greater use of electricity by French railways. Elec J 151:2111 D 25 '53

See also

Railroads—Electrification—France

ELECTRIC rates

Adjustment clause, an aid to rate regulation. O. S. Vogel. Pub Util 53:465-73 Ap 15 '54

Coast Counties G&E gets hike. Elec World News ed 141:62 Ja 4 '54

Commonwealth gets increase. Elec World News ed 141:62+ F 15 '54

Connecticut Light & Power rates hiked. Elec World 140:101-2 N 2 '53

Does TVA influence electric rates? Pub Util 53:826-7 Je 24 '54

Duquesne's rate case ends. Elec World News ed 141:62 Ja 18 '54

Electric rate case. C. A. Bane. Pub Util 54:404-6 S 30 '54

First rate boost will be asked by Public service co. of Colorado. J. E. Loiseau. Elec World 140:266 S 21 '53

Florida rate verdict may have wide effect. C. P. Guercken. Elec World News ed 140:44-5 S 28 '53

ELECTRIC rates—*Continued*
Florida's rate adjustment plan. C. E. Wright. Pub Util 53:157-60 F 4 '54
Georgia Power & Light gets hike in rates. Elec World 140:137-8+ N 16 '53
Illinois goes fair value. Elec World 139:93 Je 29 '53
Iowa-Illinois rates change. Elec World 140:143-4+ D 14 '53
Maine utility gets rate hike. Elec World News ed 140:47-8 D 21 '53
New Hampshire PSC order grants substantial portion of annual rate hike. Elec World News ed 141:62 Mr 1 '54
Northern Kentucky utilities district asks rate rehearing. Elec World News ed 141:52 F 1 '54
Oregon fuel group attacks electric rate reduction. H. Cockerline. Elec World News ed 141:64 F 1 '54
Pepco rate case remanded to PUC by District court. Elec World 141:95-6+ F 8 '54
Price indexes of gas, other fuels and electricity; tabulation. Am Gas J 181:22 Jl '54
Rate hike cited; WWP-Puget merger. Elec World News ed 140:45 Ag 3 '53
Rate increase grants are much less in 1953. map Elec World 141:175 Ja 25 '54
Rate increases granted Public Service of New Mexico. Elec West 112:102 Ja '54
Should there be rules about escalator clauses? P. P. Ardery. Pub Util 53:35-41 Ja 7 '54
Slight upward trend in average electric bills. Elec World 140:125 S 21 '53
SPA tale; up rates, low water. D. G. Wright. Elec World News ed 140:6-7 N 23 '53
State Corp. grants Vepco $4.8-million rate hike. Elec World 141:280 Ja 25 '54
Superior court halts Georgia PSC rate order. Elec World 141:183-4+ Mr 8 '54
Surcharge case dismissed by Oregon court. Elec World 141:198 F 22 '54
Surcharge hearings ended. Elec World 140:126-7 S 21 '53
Surcharge hearings resume in Oregon. Elec World News ed 140:48 S 14 '53
TVA replies on low rate charge. P. L. Evans. Pub Util 54:198-9 Ag 19 '54
Three utilities sued by Oregon consumers for over collection of surcharges. Elec World News ed 140:48-9 Ag 17 '53
Trim cost of electrical power. H. C. Bauman. il Power 98:75-9 Ap '54
West Coast PUC's grant hike to California-Oregon power co. Elec World 141:105-6 Ja 11 '54
Yale project PUC order issued with respect to treatment of accelerated amortization. Elec World News ed 141:52 F 1 '54

ELECTRIC reactors. See Reactors

ELECTRIC rectifiers
Characteristics and control of rectifier-motor variable-speed drives. P. Bingley. diags Inst E E Proc 99 pt 2:189-202 bibliog(89 titles, p201-2) Je '52; Same cond. Engineering 173:61-2 Ja 11 '52; Discussion. Inst E E Proc 99 pt 2:202-6; 100 pt 2:674-8 Je '52, D '53
Contact rectifiers; abstract. D. R. Smith. Elec R (Lond) 154:383-4 F 26 '54
Electronic arc suppression in traction rectifiers. Engineering 176:773 D 18 '53
Fumes and gases from selenium rectifiers abused by gross overloading. P. Drinker and K. W. Nelson. diag A M A Archives Ind Hygiene & Occup Med 8:185-9 Ag '53
Germanium. G. W. O. Howe. diag Wireless Eng 30:185-6 Ag '53
How to select size of rectifier cable. M. E. Parker. Oil & Gas J 52:161 O 19 '53
Into the low-voltage gap; germanium rectifiers. il Chem W 74:97-8+ Mr 20 '54
Mercury-arc rectifiers; abstract. H. von Bertele. Elec R (Lond) 154:570 Mr 26 '54
Now! 97 per cent efficiency with the mechanical rectifier. il diag Power 98:77-81 F '54
Opération and maintenance of rectifiers. J. C. Berringer. il Pet Eng 25:D 19-20+ Ag '53
Outsized potential; Westinghouse's germanium rectifier and Bell's silicon diode. il Chem W 74:98 Mr 20 '54
Phase-sequence indicator using back-to-back rectifiers. J. E. Parton. bibliog diags J Sci Instr 30:375-8 O '53
Philips dual-current rectifier for welding. il Engineer 197:294-5 F 19 '54
Production of a *P*-type CdS rectifier by high local heating of *N*-type crystals. G. Strull. J Ap Phys 24:1411 N '53
Salford mobile power rectifier unit; facilitates ground maintenance and testing of aircraft. il diag Elec J 151:1841-2 D 4 '53; Engineering 177:85 Ja 15 '54
Selenium rectifier serves Russel Fork 3A. A. M. Ayers. il Coal Age 59:102-3 S '54
Selenium rectifiers; factors in their application. J. Gramels. bibliog diags Bell System Tech J 32:1469-92 N '53
Short-stopping selenium rectifier troubles. L. W. Fitzpatrick. diag Power Eng 57:88 N '53
Simpler with silicon; Westinghouse new silicon rectifier. Chem W 75:41 Jl 17 '54
Thermal effects in point contact rectifiers. H. L. Armstrong. bibliog J Ap Phys 24:1332-3 O '53; Correction. 25:136 Ja '54
See also
Ignitron
Radio rectifiers
Thyratron

ELECTRIC refrigerators. See Refrigerators, Electric

ELECTRIC relays. See Relays

ELECTRIC research
Firm moves research center. Midwest Eng 6:20 Jl '53
Seventy-five years of research in General Electric. C. G. Suits. il Science 118:451-6 O 23 '53

Bibliography

E.R.A. technical reports (cont). Elec J 151:708, 1136, 1760, 2038; 152:219-20, 950 S 4, O 9, N 27, D 18 '53, Ja 15, Mr 19 '54; Elec R (Lond) 153:562-3, 933-4, 1105-6; 154:148, 516 S 11, O 23, N 13 '53, Ja 22, Mr 19 '54

ELECTRIC resistance
Analysis of magnetoresistance and Hall coefficient in *p*-type indium-antimonide and *p*-type germanium. T. C. Harman and others. Phys R 95:699-702 Ag 1 '54
Depth determinations by electrical resistivity. H. M. Mooney. bibliog(31 titles) Min Eng 6:Trans 915-18 S '54
Determination of setting and hardening time of high-alumina cements by electrical resistance techniques. J. Calleja. bibliog Am Concrete Inst J 25:249-56 N '53; Discussion. 26:256^1-256^7 pt 2 D '54
Effect of cold work and anneal on resistivity of alpha brass. H. I. Fusfeld. J Ap Phys 24:1062-3 Ag '53
Effect of elastic strain on the electrical resistance of metals. G. C. Kuczynski. diag Phys R 94:61-4 Ap 1 '54
Electrical properties of limestone cores. R. L. Whiting and others. bibliog diags Oil & Gas J 52:309+ Jl 27 '53
Electrical resistance of titanium metal. J. L. Wyatt. J Metals 5:Trans 903-5 Jl '53
Electrical resistance of wool and other textile materials. M. L. Wright. Soc Dyers & Col J 70:120 Mr '54
Electrical resistivities of carbon black loaded rubber compounds. M. L. Studebaker. bibliog India Rubber World 129:485-8 Ja '54
Electrical resistivity of dilute binary terminal solid solutions. W. R. Hibbard, jr. J Metals 6:Trans 594-602 sec 2 bibliog(87 ref, p601-2) My '54
Electrical resistivity of liquid metals and of dilute liquid metallic solutions. E. Scala and W. D. Robertson. bibliog diags J Metals 5:Trans 1141-7 sec 2 S '53
Electrical subsurface exploration simplified. H. E. Barnes. diag Roads & Sts 97:81-4+ My '54
Four-probe instrument for resistivity measurements of germanium and silicon. A. L. MacDonald and others. il R Sci Instr 24:884-5 S '53
High-frequency resistance of thin films. R. Broudy and H. Levinstein. bibliog diags Phys R 94:285-9 Ap 15 '54
Instrument for measurement of very high resistance. F. J. Lynch and C. L. Wesenberg. il diags R Sci Instr 25:251-5 Mr '54

ELECTRIC resistance—*Continued*

Measurement of interlaminar resistance of varnish-insulated silicon-steel sheet for large electrical machines. E. D. Taylor. diags Inst E E Proc 98 pt 2:377-85 Je '51; Discussion. 98 pt 2:385-8; 100 pt 2:565-7 Je '51, O '53

Measurement of the electrical resistance of metals and alloys at high temperatures. P. Chiotti. bibliog il diags R Sci Instr 25: 876-83 S '54

Measurement of winding resistance of a 132 kv power transformer in service; abstract and discussion. K. J. R. Wilkinson and J. D. Harmer. Elec J 152:523-4 F 12 '54

Measuring the resistance of polarographic cell circuits. M. R. Pesce, S. L. Knesbach and R. K. Ladisch. bibliog Anal Chem 25: 979-80 Je '53

Method for increasing the electrical resistivity of insulators under ionizing radiation. J. H. Coleman and D. Bohm. J Ap Phys 24:497-8 Ap '53

Method of determining electrical resistivities at low temperatures. D. C. Baird and W. S. Boyle. il J Ap Phys 24:958 Jl '53

Minimum in the electrical resistance of metals at low temperatures. A. B. Bhatia. bibliog Phys R 95:914-16 Ag 15 '54

Pauli principle scattering and the resistivity minimum. J. S. Koehler. diag Phys R 94: 1071-2 My 15 '54

Piezoresistance effect in germanium and silicon. C. S. Smith. bibliog diags Phys R 94: 42-9 Ap 1 '54

Pressure dependence of the resistivity of germanium. W. Paul and H. Brooks. bibliog Phys R 94:1128-33 Je 1 '54

Resistance anomalies in some rare-earth metals. R. J. Elliott. bibliog Phys R 94: 564-8 My 1 '54

Resistance of a bar with a transverse hole. W. R. Smythe. J Ap Phys 25:930 Jl '54

Resistivity changes in copper, silver, and gold produced by deuteron irradiation near 10°K. H. G. Cooper and others. Phys R 94:496 Ap 15 '54

Resistivity; one clue to the electrostatic behavior of fabric. N. A. Teixeira and S. M. Edelstein. bibliog il diags Am Dyestuff Rep 43:195-9+ Mr 29 '54

Resistivity striations in germanium crystals. P. R. Camp. bibliog il diag J Ap Phys 25: 459-63 Ap '54

Structural defects in copper and the electrical resistivity minimum. T. H. Blewitt and others. Phys R 93:891 F 15 '54

Surveying tapes calibrated accurately and fast. il diag Elec World 140:120+ O 5 '53

Theoretical resistivity and Hall coefficient of impure germanium near room temperature. P. G. Herkart and J. Kurshan. RCA R 14: 427-40 S '53

Theory of the effect of electrode resistance on current density distribution in electrolytic cells. C. W. Tobias and R. Wijsman. bibliog diag Electrochem Soc J 100:459-67 O '53

Thermal conductivity, electrical resistivity, and thermoelectric power of uranium. W. W. Tyler and others. bibliog il J Metals 5:Trans 1238-9 sec 2 S '53

Two-emf method for the comparison of resistances. H. J. Hoge. diags R Sci Instr 25:902-7 S '54

Use of electrical resistance in high pressure calibration. P. W. Bridgman. diag R Sci Instr 24:400-1 My '53

Variational methods for problems in resistance. J. F. Carlson and T. J. Hendrickson. J Ap Phys 24:1462-5 D '53

What you should know about the effects of electricity in textiles. J. W. S. Hearle. bibliog diags Mod Textiles Mag 35:32-3+ My '54

See also
Electric conductivity

ELECTRIC resistors

Current noise in thermistor bolometer flakes. J. J. Brophy. bibliog diag J Ap Phys 25: 222-4 F '54

Design and performance of surge diverters for the protection of alternating-current systems. T. F. Monahan. bibliog diags Inst E E Proc 98 pt 2:312-22 Je '51; Discussion. il 98 pt 2:322-30; 100 pt 2:664-5 Je '51, D '53

Measurement of multimegohm resistors. A. H. Scott. il diag J Res Nat Bur Stand 50: 147-52 Mr '53

Molybdenum-wound electric furnaces; calculation of winding dimensions. A. B. Ashton. Metallurgia 49:191-4 Ap '54

Nonlinear semiconductor resistors. F. A. Schwertz and J. J. Mazenko. bibliog il diag J Ap Phys 24:1015-24 Ag '53

Performance of thermistor hygrometers under tropical conditions. G. W. Smith. il J Sci Instr 30:414-18 N '53

Self-balancing thermistor bridge. A. F. Standing. diags J Sci Instr 31:343-4 S '54

Thermistor bridge correlator. V. C. Anderson and P. Rudnick. diag R Sci Instr 24:360-1 My '53

Thermistor McLeod gauge for a pressure range $1\text{-}10^{-7}$ mm of mercury. R. S. Bradley. diags J Sci Instr 31:129-30 Ap '54

Use of thermistors in precise measurement of small temperature differences; thermometric determination of molecular weights. R. H. Müller and H. J. Stolten. bibliog diags Anal Chem 25:1103-6 Jl '53

Wide range temperature controller using a resistance element. S. J. Borgars. diags J Sci Instr 30:46-9 F '53

Wide-range thermistor radiometer for the measurement of skin temperature and environmental radiant temperature. A. M. Stoll. bibliog diags R Sci Instr 25:184-7 F '54

See also
Electric heating elements
Radio resistors

Manufacture

Thermistor production. W. T. Gibson. il Elec Com 30:262-70 D '53

ELECTRIC saws. See Saws, Electric

ELECTRIC service, Rural

House heating seems a desirable load for farm lines. V. R. Beery. il Elec World 140:86-7 N 2 '53

Rural electrification today; abstract. C. R. King. Elec J 152:119 Ja 8 '54

Series resonant circuits for carrier trapping of resonant taps; abstract. S. Lubin and N. M. Levinson. il Elec Eng 72:1111 D '53

See also
Electricity on the farm
Rural electrification administration
Telephone service, Rural

Cooperative lines

Co-op gets ready to go it alone; Henry county rural electric membership corp. il Elec World News ed 140:32-3 S 14 '53

Co-op marks site of first REA pole. il Elec World News ed 140:16-17 Ag 17 '53

Co-op wins case. Elec World News ed 140: 35 Jl 6 '53

Co-ops face tough hoeing. C. T. Ellis. Elec World 140:119-20 S 21 '53

Co-ops upheld on use of REA funds. Elec World 139:66 Je 29 '53

Extension granted to Arkansas generating and transmission co-op by REA. Elec World News ed 141:8 F 15 '54

Four-state co-op bloc organized. Elec World 140:72 N 30 '53

Kentucky co-op-utility fight now before PSC. Elec World News ed 139:18 Je 22 '53

Policy switch short-circuits power deal. map Bsns W p 186+ S 19 '53

REA look at industry co-operation. A. Nelsen. Pub Util 53:740-4 Je 10 '54

See also
National rural electric cooperative association

ELECTRIC shavers

Manufacture

Austempered shaver head; Schick, inc. il Steel 135:136 Jl 12 '54; Iron Age 174:131 Ag 5 '54

Austempering thin steel parts reduces cracks, increases toughness. C. Fay. il Materials & Methods 39:101 Je '54

ELECTRIC ship propulsion. See Ship propulsion, Electric

ELECTRIC shops (repair)

See also

Electric utilities—Shops

ELECTRIC signals

Remote signalling with telecommand equipment. il Elec Com 30:217-21 S '53

See also

Electric alarms
Fire alarms
Light signals
Mine signals, Electric
Railroads—Signals

ELECTRIC spark

Application of ideal gas theory to the gaseous expansion from an electric spark. R. B. Edmonson and others. bibliog il diags J Ap Phys 25:1008-13 Ag '54

Emission characteristics of vacuum spark discharges; aluminum spectra in the extreme ultraviolet. R. W. Kebler and others. Opt Soc Am J 44:270-5 Ap '54

Short period investigations in spark discharges. D. W. Steinhaus and others. bibliog diags Opt Soc Am J 43:257-70 Ap '53

Sparking potentials between separating contacts. C. W. Klee and H. E. Stauss. bibliog il J Ap Phys 24:368-9 Mr '53

ELECTRIC standards

Accuracy of measurement of electrical standards. A. Felton. bibliog Inst E E Proc 98 pt 2:694-700 D '51; Discussion. il 98 pt 2: 710-13; 100 pt 2:543-4 D '51, O '53

See also

Electric units
Frequency standards
Radio standards
Standard cells
Voltage standards

also subdivision Standards under special headings, e.g. Electric transformers—Standards

ELECTRIC stoves

English Electric automatic cooker. il Elec R (Lond) 153:735 O 2 '53

Fuses remote on electric ranges. Elec World 140:193 Ag 24 '53

Advertising

I want an electric range because; promotional program. il Elec World News ed 140:40-1 Ag 17 '53

Control

Brain of the cooker; thermostats in the making; Diamond H switches, ltd. il Elec J 151:2100-2 D 25 '53

Merchandizing

It's hands in the dough for Hotpoint's commercial sales force; commercial workshop. il Sales Management 70:30-2+ Ap 1 '53

Old and new salespeople took to GE's contest. B. Cloud. il Sales Management 71: 147+ N 10 '53

Range sales hot during summer frolic. M. Surles. Elec World 140:128 N 30 '53

Selling electric cookers. J. Whitgift and C. D. Braithwaite. il Elec R (Lond) 153: 897-900 O 16 '53

ELECTRIC substations

Air conditioning

Air conditioned substations. diag Factory Management 112:97 Jl '54

Design

Aesthetic and utilitarian; British Columbia electric co.'s all-glass front substation. T. Ingledow. il Elec West 111:82 N '53

New design helps get substation sites. E. M. Gue. il diag Elec World News ed 140:32-4 S 28 '53

New Levittown has aluminum distribution and unit substations. C. E. Nelson. il maps diags Elec World 140:84-8+ O 5 '53

100,000 kvar in switched capacitors at NACA. T. S. Martin. il diag Elec World 139:78-81 Je 29 '53

Showcase for electricity; Dal Grauer substation, Vancouver. il diags Arch Forum 101:126-7 S '54

Substation one-line diagrams; AIEE committee report. E. M. Hunter and others. diags Elec Eng 72:998-1002 N '53

Wood structure cuts distribution substation cost. W. Hammond. il Elec World 141:118 Mr 8 '54

Equipment

Magnetic amplifier applications in d-c conversion stations; abstract. W. A. Derr and E. J. Cham. il diag Elec Eng 73:148 F '54

Reconstructed 33kv sub-station; Clevedon road, Midsomer Norton. il Elec J 151:1944 D 11 '53

Southern region change of frequency scheme. il Engineer 197:311-14 F 26 '54; Engineering 177:282-4 F 26 '54; Elec J 152:662-4 F 26 '54; map Elec R (Lond) 154:367-70 F 26 '54

Surrey Docks substation. il Engineer 196: 438-40 O 2 '53; Engineering 176:437-8 O 2 '53; Elec J 151:945-7 S 25 '53; Elec R (Lond) 153:725-7 O 2 '53

Fires and fire protection

Fire system protects waterless station. il diag Elec World 140:143-4 N 16 '53

Models

Relief model simplifies substation grading and location. M. C. Galiyano. il Elec World 140:103 S 7 '53

Protection

Factors determining the potential rise in station ground mats. M. J. Lantz. il diags Elec World 140:127-9 D 14 '53

Grounding grids for high-voltage stations; abstract. E. T. B. Gross and others. Elec Eng 73:223 Mr '54

Lightning protection in extra-high-voltage stations; influence of multiple circuits; analogue computer study. I. W. Gross and others. bibliog diags Elec Eng 72:967-72 N '53

Safety measures

Ways to get hurt in a substation; illustrations with text. Power Eng 58:74 Ap '54

ELECTRIC substations, Outdoor

Advantages for you in outdoor metal clad switchgear. E. R. Hoyle. il Pet Processing 9:55-7 Ja '54

Oldbury outdoor sub-station. il Elec J 151: 1953-4 D 11 '53

ELECTRIC substations, Portable

Experience suggests changes in new mobile substations. R. F. Stuart. il Elec World 140:150+ O 19 '53

Portable substation insures service continuity. W. K. Bellows. il Elec World 140:154 N 16 '53

Substation, blunger cut costs. il Elec World 140:122 Jl 27 '53

ELECTRIC switches. See Electric switchgear

ELECTRIC switchgear

Advantages for you in outdoor metal clad switchgear. E. R. Hoyle. il Pet Processing 9:55-7 Ja '54

Automatic selector switch with low residual e.m.f. J. Middlehurst and J. K. Braithwaite. bibliog il diag J Sci Instr 31:212-13 Je '54

Blasting switch gives automatic warning. il Can Min J 75:66 Jl '54

Corona-free switchgear; bigger factor as plant voltages continue to climb. C. E. Mercier. il diags Power 98:86-7 S '54

Crane power limit switches. R. W. Graham. il diags Iron & Steel Eng 31:98-102; Discussion. 102-3 My '54

Cut trouble time, segregate control circuits. E. H. Stivender. diags Power Eng 58:65 My '54

Fact about modern industrial switchgear equipment. il diags Mill & Factory 54:71-3 My '54

General Electric pressurised electrical system for hazardous atmospheres. il diags Engineer 196:662-3 N 20 '53

General Electric rotation switches for mechanical handling systems. Metallurgia 49: 252 My '54

General Electric 33-kv on-load tapping switch. il Engineering 177:405-6 Mr 26 '54

How do reclosers affect fuse link performance? R. E. Riebs and R. H. Amundsen. diag Elec World 141:88-9+ F 8 '54

How to select motors and controls for pipeline pumping stations. R. J. Osborn. Oil & Gas 52:116+ D 14 '53

Leaf-spring switches. R. G. Crockett. il diags Machine Design 26:116-20 Jl '54

ELECTRIC switchgear—*Continued*

Machine aid for switching circuit design. C. E. Shannon and E. F. Moore. il diag Inst Radio Eng Proc 41:1348-51 O '53

Maintaining switchgear. P. Belsky. Factory Management 112:142-4 Ag '54

Maintenance of switchgear in petroleum refineries. H. B. Wortman. il Am Pet Inst Proc 33(3):337-42 '53; Same. Oil & Gas J 52:105-6+ Je 8 '53; Discussion. Am Pet Inst Proc 33(3):342-3 '53

Mercury jet switch and its applications. R. Hoff. diags Instruments 26:1538-40 O '53

Mercury switch for pulsed operation. E. J. Saxl. il diags R Sci Instr 24:1150-1 D '53

Motor lead switch saves time and trouble. il Ry Loco & Cars 128:53-4 Jl '54

Operating charts simplify switch sequence data. C. T. Older and T. S. Michaels. diags Elec World 140:150 D 14 '53

Relay-operated two-channel commutator switch. U. C. Gupta and R. Parshad. diag R Sci Instr 24:883 S '53

Rotation switches for conveyor systems. il Engineer 197:350 Mr 5 '54

Sensitive pressure switch. S. K. Dean. il Engineer 196:538 O 23 '53

Short-circuit protection. R. L. Marrs. diags Elec R (Lond) 153:1430-1 D 25 '53

Six ways to expand your electrical distribution system using existing gear. H. N. Hickock. il diags Power 98:81-5+ S '54

Switch accurately controls short circuit testing. D. D. McStack. il diags Elec World 140:118+ O 5 '53

Switches and the safety interlock. A. L. Riche. il Safety Maint & Prod 106:13+ N '53

Switchgear replaced in record time; Shell Petroleum's Cardon, Venezuela refinery. il Pet Eng 26:C15 Ja '54

Unit mounting plates cut installation costs one-third. E. W. Hutloff. il Elec World 139:130+ Je 15 '53

Why distributors now spend more time with Trumbull. W. B. Dixey. il Sales Management 70:30-2+ Je 15 '53

See also
Electric circuit breakers

Control

Control system provides position indication and circuit supervision. I. D. Perry. diags Elec World 140:108 S 7 '53

Design

Dielectric and other problems in the design of a new 330-kv outdoor air switch; abstract. A. H. Powell. il Elec Eng 73:230 Mr '54

330-kv air switch; abstract. I. W. Gross and others. il Elec Eng 73:239 Mr '54

Manufacture

Electrical manufacturing extensions in Loughborough; Brush electrical engineering co. il Engineer 196:428-9 O 2 '53; Engineering 176:569 O 30 '53; Elec J 151:1069-70 O 2 '53; Elec R (Lond) 153:727-9 O 2 '53

Side cams on assembly die speed switch assembly. F. Strasser. diags Am Mach 98:145 Ag 16 '54

Testing

Dc instrument tests recloser insulation. R. W. Bethke. il Elec World 140:164+ D 14 '53

Flexible high-power laboratory capacitor bank for variety of switching tests to 65,000 kvar. R. E. Friedrich and D. J. Burns. il plan diags Elec Eng 73:225-9 Mr '54

Making and breaking tests on mercury switches. il(p 127) Elec J 152:126 Ja 8 '54

ELECTRIC symbols

Symbol stamps save drafting time. il diags Product Eng 24:213 N '53

You, too, can understand your plant's electrical system. diags Factory Management 112:112-13 Jl '54

ELECTRIC testing

Supply for precision measurement. il diag Elec J 151:1927-9 D 11 '53

See also
Dynamometers
Electric instruments
Electric laboratories
Electric measurements
also subdivision **Testing** under special subjects, e.g. **Insulation (electric)—Testing**

ELECTRIC testing of metals

Electrical resistance apparatus for studying transformations in metals; its application to transformations in stainless steel. W. H. Colner and O. Zmeskal. bibliog diags Am Soc for Metals Trans 44:1158-68 '52

General Electric electronic units make fast check on part quality. D. Eldred. il Iron Age 173:89-91 Ap 29 '54

Industrial application of eddy-current testing. W. A. Cannon, jr. Metal Prog 65:134+ Mr '54

Institute of physics conference, Birmingham; with abstracts of papers on non-destructive testing. Metallurgia 50:78-80 Ag '54

ELECTRIC toasters

Domestic electrical equipment; toasters and mixers. il Elec R (Lond) 154:521-4 Mr 19 '54

ELECTRIC tools

How fast is a power tool? il Am Bld 76:62-6 F '54

Versatile home workshop tool redesigned; Mark 5 Shopsmith. il diag Machine Design 26:132-3 Ag '54

ELECTRIC tools, Portable

Anderson shoots up fasteners to speed maintenance jobs; powder-actuated tool. J. L. Burriss. il Textile World 104:80-1 Ag '54

Contest dredges up new uses for Porter-Cable tools. J. A. Proven. il Sales Management 70:68+ Ap 1 '53

Do-it-yourself; exposition bonanza. il Sales Management 73:16+ pt 2 Jl 1 '54

Facts about modern portable electric tools. il diags Mill & Factory 54:594-5 My '54

Four ways to cut costs with portable power tools. H. P. Bailey and others. il plan diags Factory Management 112:104-9 F; 114-17 Mr; 104-6 Ap; 109-12 My '54

How a contest opened new dealers for Portable Electric. G. W. Weatherby. il Sales Management 71:102+ S 15 '53

How portable power tools help lick the housing shortage. il diags Am Bld 75:176-8 S '53

Industry gets going with a whopping do-it-yourself show. il Sales Management 70:108-9 Ap 15 '53

Portable drill handles bulky jobs. il Eng N 152:94 Mr 25 '54

Putting the do in do-it-yourself; Black & Decker's experiences. A. G. Decker. il Dun's R & Mod Ind 62:137-8+ D '53

Rotary or reciprocating motion available from saw-drill. il diag Machine Design 26:190 S '54

Selecting, operating, servicing portable electric tools. B. B. Ramey. il Mach 60:173-7 Ja '54

Wolf portable electric grinder. il Engineering 176:575 O 30 '53

Safety measures

Why electrical tools are safe. E. L. Connell. il diags Nat Safety N 69:34-5+ Ap '54

See also
Saws, Electric—Safety measures

ELECTRIC traction

Electric traction business in 1953. J. H. Cansdale. il Elec J 152:535-6 F 12 '54

See also
Electric locomotives
Electric railroads
Railroads—Electrification
Rapid transit
Subways
Trolley buses

ELECTRIC transformers

Automatic position gaging. H. E. Grimes. il diags Instruments & Automation 27:1078-9 Jl '54

Design and construction of transformers for the steel industry; abstract. W. W. Renberg, jr. Iron & Steel Eng 31:143 S '54

Distribution transformers start Korean Diesel. R. S. Horn. diags Power Eng 57:72-3 N '53

Don't blame idle distribution transformers for your bad power factor. R. S. Horn. Power Eng 57:67 D '53

Engineered system fills bill for fabricators; Moloney electric co. il Steel 134:150 Mr 15 '54

Equivalent circuits for transformers and machines including non-linear effects. G. R. Slemon. bibliog diags Inst E E Proc 100 pt 2:577-81 O '53

ELECTRIC transformers—*Continued*

Facts about modern industrial type distribution transformers. il Mill & Factory 54:75 My '54

High strength low alloy steels in transformer equipment. M. M. Aronson. il Materials & Methods 39:134-6 Ja '54

Insulating instrument transformers, a continuing challenge. R. S. Norman. il Gen Elec R 57:42-5 Jl '54

Measurement of interlaminar resistance of varnish-insulated silicon-steel sheet for large electrical machines. E. D. Taylor. diags Inst E E Proc 98 pt 2:377-85 Je '51; Discussion. 98 pt 2:385-8; 100 pt 2:565-7 Je '51, O '53

Multitransformer welding presses. J. Ogden. diags Elec Eng 72:919-24 O '53

New type of transformer produced at Welland plant; Reliance electric & engineering (Canada) ltd. il Munic Util 91:7 D '53

7.2-kv transformer without taps. E. A. Paine and S. E. Caldwell. Elec West 111:92 N '53

Synthesis without ideal transformers. F. M. Reza. diags J Ap Phys 25:807-8 Je '54

Training course in transformers. il Elec World News ed 141:52 Ja 4 '54

Transformation through half-a-century of progress results in achievement of unvarying voltage. il diags Elec J 151:1124-8 O 9 '53

Transformer-analogue network analysers. M. W. H. Davies and G. R. Slemon. bibliog diags Inst E E Proc 100 pt 2:469-80; Discussion. 481-6 O '53

Transformer steels; their choice and present state of development. C. D. Mee. il diags Elec R (Lond) 153:551-5 S 11 '53

Transformers for the steel industry. D. C. Graham and others. il diags Iron & Steel Eng 31:118-35 Ag '54

Transformers kept in pace with loads. il diag Elec World 140:116-17 N 16 '53

Utility adopts permanently sealed subway transformers. J. R. Kelley. diag Elec World 140:139+ O 19 '53

Zero-flux current transformer; abstract. A. Hobson. diag Elec Eng 72:904 O '53

See also
Electric substations
Radio transformers

Connections

Banked secondary serves residential customers better. R. P. Ager and G. H. Ramandanes. plan Elec World 140:90-1 Jl 27 '53

Do open-delta banks cost more? J. E. Mulligan. Elec World 139:119 Je 15 '53

Reconnected transformers reverse power. B. Albert. diags Elec World 140:105+ D 28 '53

Cooling

Coolers increase transformer capacity. W. H. McClure and R. L. Murray. il diag Elec World 141:102+ F 8 '54

Modern forced-air cooling of power transformers. W. D. Albright. il Elec Eng 72:1071-5 D '53; Abstract. Westinghouse Eng 13:194-6 N '53

New milestone in transformer-radiator evolution. H. L. Cole. il diags Westinghouse Eng 13:188-91 N '53

Transformer development; air-cooled unit application. il Elec J 151:884 S 18 '53

Design

Design of transformers for resistance welding machines. D. L. Knight. il diags Elec Eng 72:1088-93 D '53

Electromagnetic model, power transformer unveiled. P. A. Abetti. il diags Gen Elec R 57:23-6 Mr '54

Molded transformers aid airport lighting. il Elec World 140:116 D 28 '53

New scrapless laminations reduce transformer weight. diags Iron Age 173:160+ My 13 '54

Drying

Transformer drying oven; Brush electrical engineering co. il Elec R (Lond) 154:327 F 19 '54

Fires and fire protection

Sealed dry-type transformers proved safe by test. E. W. Tipton. il Elec Eng 72:894-7 O '53

Installation

Pre-assembled units reduce vault costs. H. W. Dornbush. il diags Elec World 141:119+ F 22 '54

Shop fabricated rack saves time and money. il Elec World 140:124+ Jl 27 '53

Transformer attachment to poles; engineering reference sheet. diags Elec World 141:110 F 8 '54

Transformer ready; time, 51 hours. il Elec World News ed 140:32-4 D 21 '53

Transformer site design lowers plant fire risk. J. C. Damon. il Elec World 140:168+ S 21 '53

Losses

Energy loss in steel. il Steel 134:124 Mr 15 '54

Iron losses and hysteresis loops; I.E.E. measurements section meeting, March 2; discussion of two papers. Elec J 152:955 Mr 19 '54; Elec R (Lond) 154:471-2 Mr 12 '54

Maintenance and repair

Aluminum glyptal seals welds. A. F. Pfandenhauer. il Elec World 140:148 Jl 13 '53

Central shop repairs transformers. il plan Elec World News ed 140:32-4 Jl 6 '53

Drying oven cuts maintenance costs. O. E. Fawcett. il Elec World 140:142+ Jl 13 '53

Maintaining transformers. P. Belsky. Factory Management 112:134-5 S '54

Mobile unit cuts costs of outage or changeover. R. F. Eggers and W. Miller. il Elec World 139:92+ Je 1 '53

Power transformer preventive maintenance in the steel industry. E. A. Elge. il diags Iron & Steel Eng 31:128-35 Ag '54

Transformer maintenance. B. L. Britt. il Iron & Steel Eng 31:101-4; Discussion. 104-5 S '54

Manufacture

Blanked parts utilize entire strip stock. F. Strasser. diags Mach 60:223-4 N '53

New plant mass-produces power transformers; illustrations and plan with text. Gen Elec R 57:22-7 Jl '54

Production line methods for job shop work cut cycle time 43 per cent; General electric co. il plan Factory Management 112:78-85 Je '54; Mill & Factory 54:112-13 Je '54

Transformer development; Foster transformers, ltd. il Elec R (Lond) 153:781-4 O 9 '53

Transformer factory; Foster transformers, ltd. il Engineering 176:464, 471 O 9 '53

Oil

See Insulating oil

Parallel operation

144 ways to parallel transformers. R. S. Horn. diags Power Eng 58:72-3 Mr '54

Protection

Analysis of the delta-grounded transformer; abstract. E. T. B. Gross and K. J. Rao. diags Elec Eng 73:156 F '54

Lightning investigations at two major 115/230-kv stations; abstract. H. M. Ellis. il Elec Eng 72:892 O '53

Lightning protection in extra-high-voltage stations; influence of multiple circuits; analogue computer study. I. W. Gross and others. bibliog diags Elec Eng 72:967-72 N '53

Low-voltage surges test station. J. M. Clayton. il diag Elec World 139:74-5 Je 1 '53

Standard ratings for transformer three-phase, distribution, overhead type; engineering reference sheet. Elec World 140:148 N 16 '53

Standard ratings for transformers single-phase, distribution, overhead type; engineering reference sheet. Elec World 140:112 N 2 '53

Standards

EEI-NEMA committee issues new distribution transformer standards. E. V. Sayles and J. B. Hodtum. Elec World 140:99 Jl 27 '53

Rating

Protective transformers; discussion. Elec J 151:1605 N 13 '53; Elec R (Lond) 153:1185 N 20 '53

ELECTRIC transformers—*Continued*

Testing

Finishes tests on 600-kv unit. il Elec World News ed 140:43 S 14 '53

New bench speeds instrument transformer testing. J. T. Lang. il Elec World 140:166+ Ag 24 '53

Portable bench cuts test set-up time. W. A. Erskine. il Elec World 140:128 Ag 10 '53

Sealed dry-type transformers proved safe by test. E. W. Tipton. il Elec Eng 72:894-7 O '53

6,000-amp transformer for ct testing. L. A. Baunsgard. il Elec World 139:110+ Je 29 '53

Test bench provides accuracy and safety. F. A. Redding and D. Kimball. il Elec World 140:146+ Jl 13 '53

Transportation

135-ton wagons for British railways; transport of large power transformers. il Engineering 177:220 F 12 '54

Windings

Measurement of the resistance of the winding of a 132kv 60 mva transformer in service; abstracts. K. J. R. Wilkinson and J. D. Harmer. Elec R (Lond) 154:250 F 5 '54; Elec J 152:523 F 12 '54; Discussion. Elec R (Lond) 154:305 F 12 '54; Elec J 152:523-4 F 12 '54

Precut transformer coils. il Steel 133:120 Jl 13 '53

ELECTRIC transformers, Portable

Mobile transformer units reduce outages 75 per cent. E. F. Mayo. il Elec World 140:154 Ag 24 '53

Mobile unit cuts long outages. P. S. Pugh. il Elec World News ed 140:34 D 7 '53

ELECTRIC transient phenomena

Anacom solves system transients. C. L. Wagner. il diags Elec World 140:127-9 N 16 '53

Direct-current transients in polymethyl methacrylate and in polystyrene. P. Ehrlich. bibliog diag J Ap Phys 25:1056-8 Ag '54

Earth fault relays; operation on d.c. transients. T. A. Ledward. diags Elec J 151:1215-18 O 16 '53

Engravement of transient stress wave particle velocities. J. S. Rinehart and J. Pearson. bibliog il diags J Ap Phys 24:462-9 Ap '53

Photomechanical wave analyser for Fourier analysis of transient waveforms. J. Darbyshire and M. J. Tucker. J Sci Instr 30:212 Je '53

Propagation of surge voltages through high-speed turbo-alternators with single-conductor windings. B. C. Robinson. bibliog diags Inst E E Proc 100 pt 2:453-67 O '53

Recovery currents in germanium *p—n* junction diodes. R. G. Shulman and M. E. McMahon. il diags J Ap Phys 24:1267-72 O '53

Transient analysis of transistor amplifiers. W. F. Chow and J. J. Suran. diags Electronics 26:189-91 N '53

Transient analyzer for magnetic amplifiers; abstract. E. J. Smith. diag Elec Eng 73:218 Mr '54

Transient response of the glass electrode to *p*H step variations. A. Distèche and M. Dubuisson. bibliog il diags R Sci Instr 25:869-75 S '54

Transient response of the grounded base transistor amplifier with small load impedance. J. S. Schaffner and J. J. Suran. diag J Ap Phys 24:1355-7 N '53

Transient voltage indicator and information display panel. A. Bramley and J. E. Rosenthal. R Sci Instr 24:471-2 Je '53

Transistor transient response. J. J. Suran and W. F. Chow. bibliog diags Tele-Tech 12:67-9+ N '53

ELECTRIC transmission

Capacitors solve a southern transmission problem. H. K. McKeen and J. T. Logan. il map diag Elec World 141:94-6 Mr 8 '54

Economy loading simplified; abstract. J. B. Ward. Elec Eng 73:38 Ja '54

Equipment for American gas and electric 330-kv system; abstract. F. A. Lane and others. Elec Eng 73:61 Ja '54

Ehv dominates 1953 transmission. Elec World 140:75 D 28 '53

Protective practices as a criterion for high-voltage transmission design; abstract. H. L. Rorden and R. S. Gens. il Elec Eng 73:161 F '54

See also

Electric cables
Electric conductors
Electric distribution
Electric driving
Electric lines
Electric plants—Interconnection
Electric power
Electric switchgear
Voltage regulation

Tables, calculations, etc.

Power circle diagrams lead to a new transmission line calculating board. F. D. Chard. diags Elec J 152:1012-14 Mr 26 '54

ELECTRIC trucks

Tallero battery-driven lorry. il Elec J 151:1293 O 23 '53

ELECTRIC trucks, Industrial

Clark powered hand truck. il Machine Design 26:174 Mr '54

Elwell-Parker platform truck. il Blast F & Steel Pl 42:967-8 Ag '54

Elwell-Parker's rotating clamp reaches all positions. il Steel 134:130+ Mr 8 '54

Facts about modern electric trucks. il Mill & Factory 54:259 My '54

Handling; mechanized methods save time and storage space; General metal products co. il Iron Age 174:148-9 Ag 19 '54

Lansing Bagnall mechanical handling vehicles. il Engineering 177:186-7 F 5 '54

Lansing Bagnall power pallet truck. il Elec R (Lond) 154:375 F 26 '54; Elec J 152:595 F 19 '54

No walk, no wait for lunch as fleet of cafeteria trains serves 250 meals a minute. il Factory Management 112:133 F '54

Two-truck fleet; Love brothers foundry. il Steel 134:110 F 22 '54

Maintenance and repair

Electric trucks show 98 per cent availability; Pennsylvania's Polk Street freight terminal. il Ry Loco & Cars 128:51-4 Ja '54

Tips on battery room layout. K. A. Vaughan. il Iron & Steel Eng 31:148+ My '54

Truck maintenance; charge timetable makes fleet tick; Studebaker corp.'s parts and accessory division warehouse. il Steel 133:110-11 O 5 '53

Safety measures

Trucking safety solved; putting ball bearings in hub caps, jingling warns of truck approach. il Steel 133:100 O 5 '53

Statistics

Industrial electric trucks and tractors, 1949-1952. Survey of Cur Bsns 1953 Sup p 194 [supplemented in monthly numbers]

Testing

Truck efficiency test tells when corrective measures are needed. H. Milz. il Iron & Steel Eng 30:143-4+ O '53; Excerpts. il Iron Age 172:124+ O 1; 114-15 O 29 '53

ELECTRIC units

Electrical units in Russian. G. F. Schultz. Inst Radio Eng Proc 42:349 Ja '54

What is the meaning of total rationalization? G. W. O. Howe. Wireless Eng 30:293-4 D '53

ELECTRIC utilities

Electric companies have eyes on the future. A. B. Marvin. Pub Util 54:61-7 Jl 22 '54

Lessons of seventy-five years of service; symposium. A. D. Barney and others. Pub Util 53:702-9 Je 10 '54

See also

Association of Edison illuminating companies
Commonwealth Edison company
Detroit Edison company
Electric industries
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Florida power corporation
Holding companies
Mountain states power company
Niagara Mohawk power corporation
Southern California Edison company

ELECTRIC utilities—*Continued*

Accounting

Billing costs cut $20,000 a year; Central power & light co. N. A. Easter. il Elec World News ed 140:32-3 O 26 '53

Electronics seminar, New York, Oct. 7-8. Am Gas Assn Mo 35:13-14 N '53

FPC should follow states in establishing accounting procedures. Elec World News ed 140:48-9 O 12 '53

Interconnected systems energy accounting procedure and related operating practices; abstract. M. J. Lacopo. Elec Eng 73:68 Ja '54

National conference of electric and gas utility accountants, Boston, April 12-14. Am Gas Assn Mo 36:31-3 My '54

Summary of accelerated amortization dispositions for electric utility industry; table. Elec World 140:133 O 19 '53; Elec World News ed 140:44 O 26 '53

Utilities, NRECA express views on accounting rule. Elec World News ed 140:7 O 26 '53

Utility accounting in Brazil; Brazilian traction, light & power co. Am Gas Assn Proc 1953:244-7

Yale project PUC order issued with respect to treatment of accelerated amortization. Elec World News ed 141:52 F 1 '54

Advertising

Ad expense nears $1 per customer. Elec World 140:116 Jl 13 '53

Electric companies' public relation advertising switches public to business' side. Ptr Ink 244:47 Ag 7 '53

How to use tv. D. Sherrill and C. Filsinger. Elec West 111:121 O; 113-14 N; 83-4 D '53

Reddy kilowatt awards to four utilities. Elec World 140:74-5 S 7 '53

Appliance selling

Calendar co-ordinates sales department operations; chart. Elec World 139:120+ Je 29 '53

It's one promotion after another; Cincinnati gas and electric co. E. W. Hodgetts. il Sales Management 71:48-9+ O 1 '53

Montana power co. puts a premium on rural sales. D. J. McGonigle. il Elec World 140:180+ Jl 13 '53

New perspective on utility selling. G. N. Hawley. il Elec World News ed 141:47-8+ Mr 1 '54

Sell or die! H. Branch, jr. Elec World News ed 141:25 Ja 18 '54

Selling appliances on the point system; Iowa electric light & power co's plan. Elec World 140:156+ Ag 10 '53

Selling dominated industry in 1953. Elec World 140:78 D 28 '53

Tv viewers having a ball with electric range party. Elec World News ed 141:49 Ja 18 '54

They're back in there selling. Elec West 111:104-5 N '53

Washington Water Power launches first sales drive in a decade. Elec World 140:162+ N 16 '53

Buildings

Centralized HQ dedicated; Long Island lighting co. il Elec World News ed 140:34-5 Jl 6 '53

Long Island Lighting's headquarters built to expand with operating needs. A. J. Pansini. il Elec World 140:134-7 D 14 '53

Utility lights up office building for celebrations; Atlantic City electric co. J. J. Tynan. il Elec World News ed 140:37 S 14 '53

Utility sets lighting example. J. F. Whitney. il plan Elec World 140:90-1 S 7 '53

Consolidation

Merger foes to be heard. Elec World News ed 139:44-5 Je 8 '53

Merger okayed; Washington PSC authorizes WWP to take over Puget Power & Light. Elec World News ed 140:45 O 26 '53

Partnership provides solution to northwest power situation. K. M. Robinson. Pub Util 53:734-9 Je 10 '54

Puget to operate separately. F. McLaughlin. Elec World News ed 140:47-8 N 23 '53

Rate hike cited; WWP-Puget merger. Elec World News ed 140:45 Ag 3 '53

Section 30 utilities. H. Murphy. Barron's 33:11-12 Ag 10 '53

WWP-PUD battle brewing. Elec World 139:87 Je 1 '53

WWP-Puget hearings end. Elec World 140:111 Ag 24 '53

WWP-Puget hearings go on. Elec World News ed 140:48 Ag 17 '53

WWP-Puget hearings reopen. Elec World News ed 140:44 Jl 20 '53

WWP-Puget merger queried. Elec World 140:107 Jl 27 '53

Yale plus Kalispell equals major Northwest merger. il Elec World News ed 141:30-2 F 15 '54

Costs

American public power association study compares operating statistics of public and privately owned utilities. Elec World News ed 140:35 Ag 3 '53

Capital expenditures to peak in 1954. Elec World 140:144 S 21 '53

Construction expenditures. Elec World 141:149-53 Ja 25 '54

Handy-Whitman index, public utility construction costs. Eng N 151:103 O 8 '53

Maintenance costs; tabulation. Elec World 141:160 Ja 25 '54

Transmission and distribution expenditure; tabulation. Elec World 141:157 Ja 25 '54

Utility plant construction costs doubled since '47. Barron's 33:22 O 12 '53

Customer relations

Sales offices serve as lighting clinic; Portland general electric co. il Elec West 112:71 Ja '54

Scholarships offered children of customers; Pennsylvania power & light co. Elec World 141:114 F 22 '54; Correction. 141:201 Ap 5 '54

Dealer relations

Consistent effort sells light conditioning. H. W. Hobson. il Elec World 140:134+ Jl 27 '53

Development work

Water, forests, soil; Duke Power's land program preserves all three. il Elec World News ed 140:22-4 S 28 '53

Emergency problems

Beating New England weather. T. E. J. Keena. Pub Util 52:883-96 D 17 '53

Employees

Active Communist cell operating in San Francisco area public utilities. Elec World 140:104 Ag 24 '53

Arizona supervisors train themselves. K. Turley. il Elec World News ed 140:22-4 Jl 20 '53

Central Hudson's course for non-technical workers is taking the question mark out of electricity. il Elec World News ed 140:43 N 23 '53

Cleveland Electric Illuminating stock plan popular with its employees and officers. Elec World News ed 141:52 F 15 '54

Con Edison's staff enlarges its view. il Elec World News ed 141:50 Ja 18 '54

Driver training program in the Long Island lighting co. V. A. Howell. Am Gas Assn Proc 1953:617-19

Employee fired for alleged doubtful loyalty. A. R. Bailey. Elec World 140:164 S 7 '53

Films that offer no pat answers. F. G. Lippert. il Elec World News ed 139:32-3 Je 22 '53

Getting Utah P&L's message across. il Elec World News ed 140:22-3 D 7 '53

How job enlargement cuts absenteeism and overtime; Detroit Edison co. D. G. Baird. il Am Bsns 24:10-12 Jl '54

Investigation reveals disloyal utility workers in San Francisco Bay area. il Elec West 111:150 S '53

Job enlargement, a key to employee satisfaction; Detroit Edison's new billing setup. il Elec World News ed 141:16-17+ Ja 4 '54

Pacific G&E boosts wages 3½ per cent. Elec World News ed 140:39 D 7 '53

ELECTRIC utilities—Employees—*Continued*

Putting human relations research to work; Detroit Edison co. R. E. Schwab. Pub Util 53:283-90 Mr 4 '54
San Diego Gas & Electric puts itself up for trial by ballot. il Elec World News ed 140:16-18+ O 26 '53
Spot survey shows that one electrical engineer is needed for each 10,000 kw. Elec West 112:59-60 Ja '54
Teaching utility drivers to be safe. E. F. Hockenbeamer. il plan Elec World News ed 140:16-18 Jl 20 '53
They're learning new tricks with hot sticks; Indiana & Michigan electric co. il Elec World News ed 140:16-17 S 14 '53
Training course in transformers. il Elec World News ed 141:52 Ja 4 '54
Union shop out at California electric power co. A. Cage. Elec World News ed 140:38 O 12 '53
Wage chronology; Commonwealth Edison co. of Chicago, 1945-52. D. T. Bond and M. R. Robbins. Mo Labor R 76:404-11 Ap '53
Wages, employment hit new highs in 1953. Elec World 141:182-3 Ja 25 '54
Wages in electric and gas utilities, July 1952. F. Mohr. Mo Labor R 76:398-402 Ap '53
Work and learn plan trains future supervisors at Florida power & light co. D. Johnson and L. Bowers. il Elec World News ed 141:42-3 Mr 1 '54

See also
Electric plants (central stations)—Employees

Equipment and supplies

Crane trailer unit loads and sets poles. W. E. Hooper. il Elec World 141:203+ Ja 25 '54
Electrical breaker racker saves time. G. K. Brown and S. J. Trippy. il Elec World 140:120 Jl 27 '53
Equipment for American gas and electric 330-kv system; abstract. F. A. Lane and others. Elec Eng 73:61 Ja '54
Hundreds of engineering man-hours saved by 3-D pix; Florida power & light co. L. Bowers. il Elec World 141:110-12 F 22 '54
Latest thing in utility service centers; Quebec hydro-electric commission. il diag Power Eng 58:72-4 Jl; 92-3 Ag '54
Line jeep power winch handles 80-ft. poles. V. Bushong. il Elec World 140:118 S 7 '53
Multipurpose truck does everything. L. Nielson. il Elec West 111:117 S '53
New equipment buying continues upward trend. Elec World 140:142 D 14 '53
Portable equipment acid cleans coolers. J. G. Tapley. flow diag il Elec World 141:107 Mr 8 '54
Simple jacks lift 15,000-lb reels. G. J. Newman. il Elec World 140:123 D 28 '53
Tripod derrick saves storage space on truck. W. E. McGowan. il Elec World 140:124+ O 5 '53
Truck platform extending over cars speeds street light maintenance. il Elec World 140:130 Ag 10 '53

Finance

Earnings are expected to hover around '53 for five electric holding companies. Elec World News ed 141:63-4 F 15 '54
Efficiency versus earnings in the electric industry. C. P. Guercken. Pub Util 54:293-306 S 16 '54
Electric power firms show 12 per cent gain in net. Barron's 33:18 N 23 '53
Electric utilities income shows 12-month gain. E. R. Abrams. Barron's 33:38 Ag 31 '53
Expects no downturn in revenues or net. W. H. Sammis. Pub Util 53:305-7 Mr 4 '54
Fears Puget Power seizure. Elec World News ed 141:63 Ja 18 '54
FPC's rate of return policy reversed; case of Northern natural gas co. may have bearing on regulation of electric utilities. C. P. Guercken. Elec World 140:97-8+ S 7 '53
Higher rates of return are needed to provide for economic depreciation. C. P. Guercken. Elec World 139:112-13+ Je 15 '53
IBA public service securities committee hails new era for private utility industry. Comm & Fin Chr 178:2400+ D 17 '53
1953 reports of the foreign utilities. Pub Util 54:39-43 Jl 8 '54
Proxy soliciting by a Puget Sound P&L stockholders group. F. McLaughlin. Elec World 140:227-8 D 14 '53
Puget sound power & light company. C. Tatham, jr. Pub Util 53:446 Ap 1 '54
Revenue, finance, 1953. Elec World 141:168-74 Ja 25 '54
SEC proposal considers changes in holding companies' annual report form. Elec World News ed 141:64 Mr 1 '54
SEC to slash red tape by dovetailing reports. Elec World 141:198 F 22 '54
Utilities' future in Latin America. H. Bratter. Pub Util 54:18-28 Jl 8; 77-84 Jl 22 '54
Utility earnings and business recessions. S. W. John. Pub Util 52:897-906 D 17 '53
Utility earnings will be maintained in the next recession. C. P. Guercken. Elec World 140:145-50 S 21 '53
Utility investments nearing 23 billion. Elec World 140:98 N 30 '53
Utility plant investment versus annual revenue. Elec World 140:132 O 19 '53
Western utilities will increase spending in '54. il map Elec West 112:78-111 F '54
Year-end balance sheet class A&B electric companies. Elec World 140:96 Ag 10 '53

See also
Electric rates
Electric utilities—Securities
Electric utilities—Taxation
Pacific gas and electric company

Government ownership

After 20 years, a new federal power policy. Elec World 140:80-1 D 28 '53
American public power association study compares operating statistics of public and privately owned utilities. Elec World News ed 140:35 Ag 3 '53
By airfari nine journalists hop to private-public power hot spots. il Elec World News ed 140:15-18 D 21 '53
Government electric power invades free enterprise. W. H. Sammis. Comm & Fin Chr 178:1534+ O 22 '53
GOP implements federal-local plans. il Elec World 141:90-1 F 22 '54
New light on an old subject. D. E. Goggin. Pub Util 53:479-86 Ap 15 '54
Observations on private versus public power. P. Sporn. Pub Util 53:717-33 Je 10 '54
Power policy to be scrutinized. Elec World News ed 140:9 Ag 17 '53
Public power and power technology. A. Lepawsky. Pub Util 54:235-50 S 2 '54
Public power groups rallying. Elec World News ed 140:8-9 D 21 '53
Sammis plan; curb federal power. Elec World 139:96-7 Je 15 '53

See also
Hydroelectric plants—Government ownership

Management

Apply operating practices for savings; check list; engineering reference sheet. E. W. Robinson, comp. Elec World 140:106 S 7 '53
Con Ed sums up its policy and practice. H. R. Searing and others. Gas Age 113:48-51 F 11 '54
Edison electric institute industrial relations committee's annual round table conference, Chicago, Oct. 12-14. Elec World News ed 140:34-5 O 26 '53
Efficiency versus earnings in the electric industry. C. P. Guercken. Pub Util 54:293-306 S 16 '54
Georgia Power execs see two sides to progress. il Elec World News ed 140:22-4 O 12 '53
How should a manager spend his time? P. F. Drucker. Elec Eng 73:166-8 F '54
How system losses were reduced 57.5 per cent in five years. W. K. Billow. il Elec West 111:80-1 N '53
Management at Vepco has depth. W. E. Wood. Elec World News ed 139:16-17 Je 8 '53
Management trains for new tasks. Elec World 140:91 D 28 '53

ELECTRIC utilities—Management—*Continued*

Management's responsibility in the atomic age. W. H. Sammis. Pub Util 53:116-20 Ja 21 '54
Observations on private versus public power. P. Sporn. Pub Util 53:717-33 Je 10 '54
Provident planning for distribution dollars. J. F. Fuller. diags Elec West 111:83-7 N '53
Utility chief who knows his politics. Bsns W p54-6+ O 24 '53
With opportunities go responsibilities. W. H. Sammis. Pub Util 53:697-701 Je 10 '54

Municipal ownership

Oregon municipal spreads out; Eugene water and electric board. il Elec World News ed 140:8-9 Ag 3 '53

Public relations

Companies adopt fuller programs. Elec World 140:87 D 28 '53
Easy does it; Consumers power co's kitchen demonstration van includes numerous ideas usable by the handicapped. il Elec World News ed 140:24 D 21 '53
Electric companies public information program 4th annual workshop, Chicago, Oct. 22-23. Elec World 140:130-3 N 16 '53
Here is the public's opinion of you. Elec World News ed 139:14-15 Je 22 '53
Youth gets industry attention; survey reveals firms engaged in activities to inform students. Elec World 141:73 F 8 '54

Purchasing

Public utility buyers' group of National association of purchasing agents 23d annual mid-winter conference, Baltimore. Elec World 141:178+ Mr 8 '54

Radio communication

Construction of a mountain-top; remote base station; Central Vermont public service corp. H. V. Church. il map Commun Eng 13:22-5+ S '53
Not too tough for microwave; circuit between the Gorge and Diablo power plants. R. A. Benson. il map diag Elec West 112: 65-7 Ja '54
170-megacycle radiation survey for Bonneville system mobile coverage. D. E. Johannson and D. R. Wilson. il map Elec Eng 73: 157-60 F '54
Portable radio receivers aid crews, show savings. J. H. Gibson. il Elec World 140:120 D 28 '53

Rates

See Electric rates

Records

System that cured our record keeping headaches; water, gas and electric departments, Danville, Va. W. S. Jeffries. il Pub Works 85:77-8+ Ag '54

Regulation

FPC's rate of return policy reversed; case of Northern natural gas co. may have bearing on regulation of electric utilities. C. P. Guercken. Elec World 140:97-8+ S 7 '53
Illinois reaffirms fair value stand. Elec World 140:86 D 28 '53
Rigid law enforcement; less red tape. Elec World News ed 141:6 Ja 4 '54

Reports

High lights of reports to stockholders. O. Ely. Pub Util 53:760-4 Je 10 '54
Reducing statistical data required by federal agencies. Pub Util 53:375-80 Mr 18 '54

Safety measures

Adopt uniform safety rules; PCEA. il Elec West 111:116 S '53
Effective safety manual for American Gas & Electric system. A. M. Perry. il Elec World News ed 140:16-18 N 23 '53
Models educate the public by demonstrating high-line hazards. J. F. Phelan. il Elec World News ed 140:32-3 D 7 '53
Safety is for men and tools; winter meeting of the Edison electric institute's accident prevention committee, Boston, Jan. 18-19. Elec World News ed 141:15 F 1 '54
Special stunts help sell safety; New England electric system. H. F. Lovering. il Am Gas Assn Mo 36:19-21+ Ja '54

See also
Electric lines—Safety measures
Linemen's equipment

Securities

Atomic energy and electric utility securities. E. H. Scott. Comm & Fin Chr 179:263+ Ja 21 '54
Bidding proposal causes furor; SEC's offer to relax rule on competitive bids. Elec World News ed 141:63 Mr 1 '54
Book value and market prices of electric utility common stocks. C. Tatham, jr. Pub Util 52:925-8 D 17 '53
Can profits grow as fast as sales? Bsns W p58+ O 10 '53
Earning power of electric utilities well maintained. R. S. Byfield. Manuf Rec 123:28 Ag '54
Effects of dilution on utility shares. J. Curtis. Mag of Wall St 93:564-5+ F 6 '54
Electric utilities' yield to shareholders rising. Barron's 33:20 O 5 '53
Expanding age of power; investment opportunities in utilities. E. L. Hall. Spectator 162:34-5 Je '54
FRB policy change boosts bond prices. Elec World 140:88 D 28 '53
Financial analyst on the utility beat. Elec World News ed 140:16-18 S 28 '53
Five public utility candidates for higher dividends; with comparative balance sheet items. Mag of Wall St 93:379-81 D 26 '53
Interest saved as Tacoma Public utilities board delays issuance of bonds. Elec World News ed 141:63 Ja 4 '54
Market outlook for electric utility common stocks. T. W. Locke. Elec World 140:150-4 S 21 '53
More on the small shareholder. E. F. Lloyd. Pub Util 54:251-8 S 2 '54
New money bond sales set record. Elec World 140:97-8+ Ag 10 '53
Nuclear power and utility securities. E. H. Scott. Pub Util 53:821-6 Je 24 '54
Recent trends in utility financing. O. Ely. Pub Util 54:91-2+ Jl 22 '54
Rule U-50 change asked by SEC, will amend competitive bidding on securities. Elec World News ed 140:48 D 7 '53
Security sales to public hit record in 1953. Elec World 141:101-2 Mr 8 '54
Utility stock lag. R. A. Gilbert. Barron's 34: 17-18 Ja 18 '54

Service

Benefits of a selective tree-planting program. E. G. Stahl. il diags Elec West 111:71-3 D '53
Ceico-builder teamwork spurs residential sales. Elec World 140:188+ Ag 24 '53
Clearing house for wiring problems. il Elec World 140:190 S 21 '53
Data sheets sell home town lighting. J. D. Haverkamp. il Elec World 140:170+ D 14 '53
Emergency installation serves temporary need. E. D. P. Gross. il Elec World 140:194+ S 21 '53
Georgia Power puts pep in home service; illustrations with text. Elec World News ed 141:54-5 Ja 4 '54
How Seattle handles tv interference. J. C. Whaley. il Elec West 111:112-13 S '53
Latest thing in utility service centers; Quebec hydro-electric commission. il diag Power Eng 58:72-4 Jl; 92-3 Ag '54
Lighting maintenance pays in lower costs and better illumination for schools in Birmingham, Ala. il Elec World 141:128+ Mr 8 '54
Service center produces faster response to customer problems. Elec World News ed 139:39 Je 8 '53
Special receiver locates tv interference sources; Ohio power co. F. L. Greene. il Elec World 140:111 O 5 '53
You have no pain in your pocketbook when utility finances wiring. il Elec World 141:146 F 22 '54

See also
Electric service, Rural

ELECTRIC utilities—*Continued*

Shops

Central shop repairs transformers. il plan Elec World News ed 140:32-4 Jl 6 '53

Statistics

Electricity sales and billings; charts; engineering reference sheet. Elec World 139:134 Je 15 '53
50th annual report on the electrical industry. Elec World 141:147-98 Ja 25 '54

Taxation

Changed value of dollar should be recognized in computing allowable depreciation deduction for income taxes. Elec World News ed 140:44-5 Ag 31 '53
Hitting back at fast tax write-offs. G. R. Clapp. Elec World News ed 140:8 O 12 '53
Write-off rule favors utilities; rapid tax amortization. Elec World 140:121 D 14 '53

Valuation

Colorado utilities win $11 million valuation cuts. J. Seaman. Elec World 140:163 S 7 '53
Higher valuations ordered for Colorado utilities. Elec World News ed 140:44 Jl 20 '53

War problems

ODM plans for bomb attack on industry. Elec World News ed 140:6 O 12 '53

Alabama

Alabama bill provides for operating TVA plants. Elec World 140:122 S 21 '53

Alaska

Budget accents new capacity. Elec World 141:161 Ja 25 '54

California

See also
Central Valley project, California

Canada

Canada, 1953. Elec World 141:189-91 Ja 25 '54

Colorado

Colorado utilities win $11 million valuation cuts. J. Seaman. Elec World 140:163 S 7 '53
Higher valuations ordered for Colorado utilities. Elec World News ed 140:44 Jl 20 '53

Connecticut

Stamford granted right to condemn utility's land. Elec World 140:206 Ag 10 '53
Underground storm abates; Connecticut PUC orders other disaster remedies. Elec World News ed 140:19 Ag 3 '53

Guatemala

Guatemala holds U.S. utility. Elec World News ed 140:43 Ag 31 '53

Hawaii

Budget accents new capacity. Elec World 141:161 Ja 25 '54

Illinois

Full generation in six years; Illinois Power's Hennepin station. map Elec World News ed 140:22-4 Ag 3 '53

Kentucky

Co-op wins case. Elec World News ed 140:35 Jl 6 '53
Kentucky co-op-utility fight now before PSC. Elec World News ed 139:18 Je 22 '53
New approach by REA to end squabble between Kentucky co-ops and power companies. A. Nelson. Elec World News ed 140:9 Ag 17 '53

Latin America

Utilities' future in Latin America. H. Bratter. Pub Util 54:18-28 Jl 8; 77-84 Jl 22 '54

Missouri

Missouri case; utilities appeal decision upholding lend-lease plan. Elec World 140:110 N 16 '53
Worry; one word story of a co-op. Elec World News ed 140:21+ D 7 '53

Northwestern states

Northwestern utilities set for federal tie. Elec World 140:119 D 14 '53
Partnership provides solution to northwest power situation. K. M. Robinson. Pub Util 53:734-9 Je 10 '54
Utilities sign 20-year pacts with BPA. Elec World News ed 140:6-7 S 28 '53
West sees merger try and 20-year pact. Elec World 140:82 D 28 '53

Ohio

Co-op marks site of first REA pole. il Elec World News ed 140:16-17 Ag 17 '53
See also
Ohio Valley electric corporation

Oregon

Oregon municipal spreads out; Eugene water and electric board. il Elec World News ed 140:8-9 Ag 3 '53
Surcharge hearings ended. Elec World 140:126-7 S 21 '53
Surcharge hearings resume in Oregon. Elec World News ed 140:48 S 14 '53
Three utilities sued by Oregon consumers for over collection of surcharges. Elec World News ed 140:48-9 Ag 17 '53

Phoenix, Arizona

Utility and power district dispute service areas. Elec World 139:261-2 Je 15 '53

Puerto Rico

Budget accents new capacity. Elec World 141:161 Ja 25 '54

United States

Economic impact of atomic energy on electric power industry. E. H. Dixon. Comm & Fin Chr 178:1846-7 N 12 '53
Electrical industry forecast for 1954-63. Elec World 140:131-54 S 21 '53
43 per cent rise in power sales by '58. T. Fort. Elec World News ed 140:14 S 28 '53
Industry's performance in 1953. W. H. Sammis. Elec World 140:64-5 D 28 '53
Yearend round-up and forecast. Elec World 140:73-91 D 28 '53

Washington (state)

PUDS get a shot in the arm; Washington court allows joint acquisition of private power facilities. Elec World 140:126 S 21 '53
Tacoma's building queried. Elec World News ed 140:44 Ag 3 '53

Western states

Annual review number. il map Elec West 112:75-170 F '54
Half century that electrified the Rocky Mountain area. il Elec World News ed 140:22-3 N 23 '53

ELECTRIC vehicles

Electric carriage in hospitals. R. A. Harvey. Elec J 151:716 S 4 '53
Motoring reminiscence; International inventions exhibition, London. il Elec J 151:1388-9 O 30 '53
See also
Electric trucks
Electric trucks, Industrial

ELECTRIC water heaters

Heating with water heaters. C. P. Wagner. il Elec World 139:158+ Je 15 '53
Water heating prospects. P. Honey. il Elec R (Lond) 153:939-42 O 23 '53

ELECTRIC waves

Engravement of transient stress wave particle velocities. J. S. Rinehart and J. Pearson. bibliog il diags J Ap Phys 24:462-9 Ap '53
Property of a family of equiangular spirals and its application to some problems of wave propagation. K. Landecker. bibliog diags J Ap Phys 25:41-8 Ja '54
Susceptance of a circular obstacle to an incident dominant circular-electric wave. L. S. Sheingold. bibliog diags J Ap Phys 24:414-22 Ap '53
Variable phase contact breaker for stroboscopic determination of waveform. V. R. Peterson. il diags J Sci Instr 30:457-8 D '53
See also
Harmonics (electric waves)
Radio waves
Wave guides

ELECTRIC welding

Advances in welding technique. C. W. Brett. il Elec J 151:2019-22 D 18 '53

All-welded gondolas for Santa Fe. il Ry Age 136:27-8 My 10 '54

Automatic percussion welding speeds contact assembly; Western electric co. A. L. Quinlan. il diags Mach 60:168-71 Je '54

Automatic welding lines for Fisher body components. T. Mac New. il plan Automotive Ind 110:56-9 Ja 1 '54

Buick fender production involves mash welding. A. B. Mooers. il Mach 60:191-3 Je '54

Cold roll forming; tube mill developed by Yoder co. il diag Mech Eng 76:173-4 F '54

Concave tank ends are easy insulating jobs with welded anchors. diags Welding J 33:152-3 F '54

Correct welding procedure (cont.) L. F. Spencer. Sheet Metal Worker 45:63-4 N; 62-4 D '53

Designing and making welded structural steel members for cyclic loading. Welding J 33:sup386-7 Ag '54

Dissimilar metals can be flash welded. L. F. Spencer. il Steel 134:132-3 Je 28 '54

Facts about modern resistance welding. il diag Mill & Factory 54:583 My '54

Fast roll-spot technique doubles welding speeds; Ryan aeronautical co. J. R. Fullerton. il Automotive Ind 109:46-7+ Ag 15 '53; Same. Automobile Eng 44:326 Ag '54

Fatigue factor in welded design. A. Erker. bibliog(54 titles) diags Welding J 33:sup295-304 Je '54

Flash welding tubing to forgings. il Welding J 33:482 My '54

High production applications of resistance welding at Frigidaire. C. D. Shultheis. il diags Welding J 33:768-77 Ag '54

High-speed motion picture photography applied to resistance welding. I. S. Goodman. il diags Welding J 33:548-52 Je '54

Inconel; which welding process fits your job? K. M. Spicer. il Iron Age 172:150-2 D 10 '53

Induction welding process speeds light metals tubing production; Yoder co. T. J. Crawford. il diag Light Metal Age 11:14-15+ O '53

Induction welding speeds nonferrous tube output; mill handles thin gages; Yoder co. il Materials & Methods 39:7+ F '54

Mechanizing welding method picks up production; Bingham-Herbrand corp. il Tool Eng 32:112-13 Mr '54

Metallurgy of welding. W. I. Pumphrey. il Metallurgia 50:3-9 Jl '54

Method allows nonferrous tubing to be welded at high speed; Yoder co. il Tool Eng 31:107 N '53; Welding J 32:1098-9 N '53

Modern electric weld pipe and casing mill; Lone star steel co. N. C. Rubin. il diag Iron & Steel Eng 31:120-4 Ap '54

New development in fluxes for automatic welding and hard surfacing. L. K. Stringham. il Welding J 33:132-6 F '54

New spot-welding method reapplies stainless steel car sidings. il Welding J 33:575-6 Je '54

New spot-welding wrinkle conserves titanium; Martin aircraft co. il Comp Air Mag 59:177 Je '54

Optimum spot and seam welding conditions for Inconel X. E. F. Nippes and H. B. Fishman. bibliog il Welding J 33:sup 1-14 Ja '54

Precontrol aids resistance weld uniformity, quality. M. Zucker. Iron Age 172:172-6 D 10 '53

Projection welding; fewer steps in aluminum assembly; Ford instrument co. il Steel 135:68 Jl 5 '54

Recent progress in joining titanium; welding titanium. J. H. Johnston. il Materials & Methods 39:107-9 Je '54

Recommended conditions for seam-welding monel sheet; data sheet. Mach 60:257 D '53

Resistance spot welding of titanium and its alloys. A. J. Rosenberg. il Welding J 33:324-8 Ap '54

Resistance welder manufacturers association prize winners. Welding J 32:1122+ N '53

Resistance welding in jet engine manufacturing. F. J. Wallace. il diags Welding J 33:762-7 Ag '54

Resistance welding of coated steels; abstract. J. E. Roberts. Metal Prog 66:162+ S '54

Ring welding cuts business machine costs. il diags Product Eng 24:160-1 O '53

Setting up automatic processes; abstract. W. H. Simon. Tool Eng 33:148 Jl '54

Solving light welding problems economically. H. J. Chamberland. il Mill & Factory 53:105-7 N '53

Some recent advances in the welding of molybdenum. W. H. Kearns and others. bibliog il diags Welding J 32:1082-8 N '53

Spot welding aluminum; reference book sheet. diags Am Mach 98:123, 125, 127 Ja 4 '54

Spot welding of aluminum, aluminum alloys and steel. W. J. Wilson. il diags Welding J 32:1175-80 D '53

Spot welding of titanium. E. R. Funk. il Welding J 33:sup397-400 Ag '54

Spot welding of titanium-carbon alloys. E. F. Holt and others. il diags Welding J 32:1057-66 N '53

Studies in resistance welding yield improvements in the manufacture of thin-wall steel tubing. D. P. Worden. Metal Prog 66:supA 146+ Jl 15 '54

Suspension of portable welding and riveting equipment. il Engineering 177:121 Ja 22 '54

Technical progress; joining and assembly. il Steel 134:394-5+ Ja 4 '54

Titanium; spot welded in liquid; Martin aircraft co. il Iron Age 173:125-6 Ap 22 '54

Welding high-temperature materials. F. H. Stevenson. il Tool Eng 32:73-6 Je '54

Welding review and forecast. il Iron Age 173:332-3 Ja 7 '54

Welding; sales upcurve in sight. K. W. Bennett. Iron Age 173:81-3 Je 3 '54

Welding without prebeveling lowers fabricating costs; Pacific car & foundry co. R. C. Hermon. il Iron Age 174:104-5 Ag 26 '54

Bibliography

Resistance welding bibliography. $1.25 Resistance welder manufacturers assn, 1900 Arch st, Philadelphia 3 '53

Control

Automatic process control; welding. il Iron Age 172:294-7 O 8 '53

Electrodes

Assembly; contact electrodes save time, end welding rejects. Iron Age 172:214+ D 10 '53

Down, but not desperate; welding rod shipments drop for the second consecutive year in 1954. il Steel 135:56 Ag 16 '54

Effect of electrode type in the notch slow-bend test. W. J. Murphy and R. D. Stout. Welding J 33:sup305-10 Jl '54

Modern electrode plant; Eastern welding electrode plant of A. O. Smith corp. il Welding J 33:147-8 F '54

Moisture in low-hydrogen welding electrodes; abstract. C. DeRop and H. Schmidt-Bach. Welding J 33:sup 39 Ja '54

Stainless steel welding rods and bare electrodes. diags Welding J 33:433-7 My '54

Welding electrodes, shipments, 1939-1953; tabulation. Steel 134:182 Ja 4 '54

Power supply

Control for a modern electric weld pipe and casing mill; Lone star steel co. C. E. Smith. il diags Iron & Steel Eng 31:124-30; Discussion. 130-1 Ap '54

Effect of polyphase motors on the voltage regulation of circuits supplying three-phase welder loads. M. A. Faucett and others. il diags Ill U Eng Exp Sta Bul 418:1-42 '53 (pa 40c)

Packaging welding generators. A. F. Fino. il Welding J 33:660-2 Jl '54

Philips dual-current rectifier for welding. il Engineer 197:294-5 F 19 '54

Testing

Alloy welds deposited in unalloyed titanium base metal. C. E. Hartbower and D. M. Daley, jr. bibliog il diags Welding J 22:sup 311-26, sup401-14 Jl-Ag '54

Effect of electrode type in the notch slow-bend test. W. J. Murphy and R. D. Stout. Welding J 33:sup305-10 Jl '54

ELECTRIC welding—Testing—*Continued*

Effect of thermal activation on fatigue life of butt welds. A. M. Freudenthal and R. A. Heller. bibliog diag Welding J 33:sup327-38 Jl '54

Effects of peening last pass of welds. W. S. Pellini and E. W. Eschbacher. il Welding J 33:sup71-6 F '54

Fatigue strength of butt welds made with different electrodes; abstract. G. Becker and R. Rieger. Welding J 33:sup284 Je '54

Fatigue strength of welds made with low-hydrogen electrodes; abstract. Welding J 33:sup 128 Mr '54

Fatigue tests of spot welds in Cor-Ten and mild steel. G. Welter and A. Choquet. bibliog diags Welding J 33:sup 134-40 Mr '54

Fatigue tests of welded beam connections. O. Graf. diags Welding J 33:sup365-8 Jl '54

Field-weld test for mild steel welds at low temperatures. J. R. Watt and J. J. Smetana. il Welding J 33:sup79-82 F '54

Large welded parts feasible when proof-tested; large aircraft landing gears. il Automotive Ind 111:100 Ag 1 '54

Significance of the tension test for spot welds. E. R. Funk. diags Welding J 33:sup363-5 Jl '54

Stress distribution and fatigue resistance of Alclad 24ST multiple spot welds. G. Welter and A. Choquet. bibliog diags Welding J 33:sup91-8 F '54

Study of the cooling rates in flash welds in steel. E. F. Nippes and others. il diag Welding J 33:sup339-62 Jl '54

Tension, shear and impact strengths of spot-welded titanium joints. M. L. Begeman and others. bibliog il Welding J 32:sup599-604 D '53

ELECTRIC welding, Arc

Arc welded molybdenum apparatus for high temperature research. J. W. Tomlinson and others. diags J Sci Instr 31:107-8 Mr '54

Arc welded motor-cycle frames. il Engineer 197:365 Mr 5 '54

Bode clamping machine for strip welding. il Engineering 176:726 D 4 '53

Edmonton contracting firm uses welding to good effect. W. J. Kennedy. il Roads & Eng Constr 92:94+ S '54

Electric arc and the welding engineer; abstracts. H. West. Elec J 151:1141-2 O 9 '53; Elec R (Lond) 153:819 O 9 '53

Engineered system fills bill for fabricators; Moloney electric co. il Steel 134:150 Mr 15 '54

Fabricator lowers tooling costs, improves productivity, through wide use of stud welding; Barry-Wehmiller machinery co. J. W. Jones. il diag Iron Age 174:161-4 S 16 '54

Factors in welding and brazing heat exchanger tubes. H. A. Huff and A. N. Kugler. diags Power Eng 58:94-5 Je '54

Facts about modern arc welding. il diags Mill & Factory 54:580-1 My '54

Ferrous and nonferrous stud welding. R. C. Singleton. Machine Design 26:282+ Je '54

Heavyweight welding; Buffalo forge co. il Steel 133:127+ N 16 '53

John Shaw all-welded metal press. il Elec J 151:2108 D 25 '53

Joining of ductile iron by several arc welding methods. T. E. Kihlgren and H. C. Waugh. il Welding J 32:947-56 O '53; Abstract. Metal Prog 66:150+ Jl 1 '54

Large coliseum welded in shop. il Steel 133:143 Jl 20 '53

Modern practice in the welding of pipes; background and present trends. E. Fuchs and A. J. P. Tucker. Metal Prog 64:140+ D '53

Multipass welding increases ductility. F. W. Myers, jr. il Iron Age 173:104-5 Ja 21 '54

Nelson stud welding gun solves tough assembly problem. il Iron Age 173:164 My 6 '54

New results in tool and die welding. R. Groman. il diags Welding J 33:543-8 Je '54

New welding tools rate a chance to show their stuff! report of panel on welding. Q. Ingerson. il S A E J 62:59-60 Mr '54

Pick the right arc welding method. T. F. Hruby. il Steel 133:84-7 N 23 '53

Pins welded to big ball hold insulation; Knolls atomic power laboratory. il Constr Methods 36:61 Mr '54

Rebuilding steel mill rolls. R. Hall. il Iron & Steel Eng 31:109-12 S '54

Research of welding arc. M. Ozawa and T. Morita. bibliog diags Welding J 33:sup280-4 Je '54

Special fixtures speed army tractor hull welding; Allis-Chalmers mfg. co. H. W. Lindsay. il Am Mach 97:113-17 O 26 '53

Stud-weld your insulation. il Power Eng 58:74-5 Mr '54

Stud welding. Automobile Eng 43:419-20 O '53

Stud welding; fastening cost takes 30 per cent cut; Bingham stamping division, Bingham-Herbrand corp. il Steel 134:91 Ja 18 '54

Stud welding speeds insulation; submarine reactor testing sphere near West Milton, N.Y. il Iron Age 173:69 F 11 '54

Tubular parts arc welded automatically; production of gas-operated refrigerators by Servel, inc. R. Martin. il Am Mach 98:119 S 27 '54

2500-mph wind tunnel provides stud welding's biggest job. il Welding J 33:571-2 Je '54

Welding copper and copper alloy castings; Wheeling bronze casting co. A. O. Dodge. il Foundry 82:165+ S '54

Welding; new method so simple everyone can use; Selfweld. Iron Age 174:194 S 16 '54

Welding of nickel and high nickel alloys. L. F. Spencer. il Sheet Metal Worker 45:71-2+ Mr '54

Welding of 90/10 copper-nickel alloy. G. R. Pease and T. E. Kihlgren. bibliog il Welding J 33:329-38 Ap '54; Discussion. K. M. Weigert. 33:1184-5 D '54

Welding procedure for welding tubes in heat exchangers. W. E. Battles. il Welding J 33:739-42 Ag '54

Welding saves thousands of dollars; Crawford furniture manufacturing corp. il Mill & Factory 55:122-3 S '54

Welding speed quadrupled with semiautomatic methods. il Iron Age 172:102-4 Jl 30 '53

Electrodes

Austenitic manganese steel welding electrodes. H. S. Avery and H. J. Chapin. bibliog il diags Welding J 33:459-79 My '54

Carbon-steel electrodes for use with inert gas shields. H. C. Cook and G. R. Rothschild. il diags Welding J 33:361-71 Ap '54

Cast iron rod; new electrode developed to weld cast iron cold. il Iron Age 172:226 D 10 '53

Coated welding rod gives speed and quality. il Tool Eng 32:181-2 Ap '54

Effect of welding variables on hard-facing deposits. A. Zvanut and V. Peters. Welding J 33:778-82 Ag '54

Effects of temperature on weld metal properties. J. Heuschkel. il diags Welding J 33:sup388-97 Ag '54

Electrode development and manufacture; Quasi-Arc laboratories. il Metallurgia 49:246-8 My '54

Electrodes in construction. il Steel 135:154 S 13 '54

Evolution of hydrogen from weld metal. K. Winterton and C. L. M. Cottrell. il Metallurgia 49:3-7 Ja '54

Iron powder coatings; electrode design matches advance billing. J. Hinkel. diags Steel 135:104-5 Jl 19 '54

Jetweld. Tool Eng 31:115-16 D '53; Same. Iron Age 172:177-8 N 19 '53

Newest welding idea; braided electrodes. il Product Eng 24:208-9 Jl '53

Pick the right arc welding method; coated electrodes. T. F. Hruby. il Steel 133:85-6 N 23 '53

Powdered iron invades electrode design. L. K. Stringham. il Iron & Steel Eng 31:127-8 Mr '54; Same. Welding J 33:788-9 Ag '54; Same cond. Roads & Eng Constr 92:102 Ap '54

Powdered metal electrodes cut welding costs, gain wider acceptance. A. C. Ward. il Iron Age 174:126-7 S 9 '54

Powdered metal electrodes improve welding. Mach 60:181 Je '54

Quasi-Arc company electrode drying ovens. il Chem Age (Lond) 71:660 S 25 '54

Stabilizing austenitic chrome-nickel weld metal against intergranular corrosion. H. C. Campbell. il Welding J 32:sup577-83; Discussion. sup583-4 D '53

ELECTRIC welding, Arc—Electrodes—*Cont.*

Use of powdered metal electrodes; abstract. J. E. Hinkel. Tool Eng 33:158 S '54

Welding rod and electrode charts; producers of rods. Iron Age 172:153-8 D 10 '53

Zirconiated tungsten for argon arc welding. Chem Age (Lond) 70:1006 My 1 '54; Metallurgia 49:304 Je '54

Heliarc process

Butt welding stainless sheets; illustrations with text. H. E. Jackson. Mill & Factory 54:81 Mr '54

Evaporator units for refrigerators welded. il Iron Age 173:159 F 11 '54

Heliarc and sigma welding team up. il Welding J 33:783 Ag '54

Heliarc weld economies; Linde air products co. il Steel 134:158 F 8 '54

Magnesium shell racks, a lightweight job for Heliarc welding. il Welding J 33:681 Jl '54

Welding; steam-tight pocket made in stainless steel kettle; Groen mfg. co. il Iron Age 173:196-7 F 25 '54; Welding J 33:373 Ap '54

Inert gas shielding

Arc characteristics for consumable-electrode gas-shielded welding. R. W. Tuthill. il diag Welding J 33:128-32 F '54

Arc weld repairs on high speed tool steel. K. Rose. il Materials & Methods 40:144-5 S '54

Argonarc welding exhibition, Scotland, March 8-12. il Metallurgia 49:194 Ap '54

Carbon-steel electrodes for use with inert gas shields. H. C. Cook and G. R. Rothschild. il diags Welding J 33:361-71 Ap '54

Cone-arc welding. P. Patriarca and G. M. Slaughter. diag Metal Prog 65:194+ My '54

Consumable insert method of root pass welding. T. A. Risch and A. E. Dohna. il diags Welding J 33:670-9 Jl '54

Contour welding performed automatically; Ryan aeronautical co. il Am Mach 98:107 F 1 '54; Steel 133:314+ O 12 '53

Current rectification and high frequency interference in inert gas welding. J. G. Murray. diags Welding J 33:561-3 Je '54

Effect of alloying elements on welds in titanium. G. E. Faulkner and others. il diags Welding J 32:sup481-97 O '53; Abstract. Metal Prog 65:170+ Je '54

Effect of alloying elements on welds in titanium; abstract. G. E. Faulkner. Tool Eng 33:149 Jl '54

Effect of atmospheric contaminants on arc welds in titanium. J. C. Barrett and I. R. Lane, jr. il Welding J 33:sup 121-8 Mr '54

Effect of power supply characteristics on sigma welding. W. H. Helmbrecht and R. L. Hackman. il Welding J 33:531-6 Je '54

Fabrication of a zirconium-lined reaction vessel. O. G. Paasche and A. J. Killin. il diags Welding J 33:115-18 F '54

Faster fusion; shielded arc welding. J. R. Fullerton. il Welding J 33:47-51 Ja '54

Fusion welding of commercially pure titanium. F. H. Stevenson. il Welding J 33:sup 147-53 Mr '54

Giant aluminum reels pose no problems; Combined equipment co. il Steel 133:159-60 N 9 '53

Heliarc and sigma welding team up. il Welding J 33:783 Ag '54

Inert-arc field welding of pressure piping. R. T. Pursell. il diags Welding J 33:41-6 Ja '54

Inert gas gives titanium tubing protective weld backing. J. M. Thompson, jr. il Iron Age 173:118-19 My 27 '54

Inert-gas-shielded metal-arc welding of low-carbon steels. G. C. Christopher and R. C. Becker. bibliog il Welding J 33:7-22 Ja '54

Inert-gas shielded welding proves cost saver on steel tanks. W. L. Wyman. il diag Steel 134:106-7 Je 7 '54

Inert-gas welding cuts cost of SAE 1020 dolly wheels; Youngstown steel car corp. D. V. Wilcox. il Iron Age 173:118-19 Ja 28 '54

Inert gases prevent oxidation, speed welding of magnesium. R. L. Nelson. il diag Iron Age 172:145-7 D 10 '53

Inert-tungsten arc welding of stainless steel piping. F. J. Pilia. il diags Welding J 32:1167-74 D '53

New developments in sigma welding of carbon steel. T. McElrath and R. T. Telford. il diags Welding J 33:201-7 Mr '54; Same cond. Steel 134:104-6 F 22 '54

Pick the right arc welding method; inert gas-shielded arc. T. F. Hruby. il Steel 133:87 N 23 '53

Process adjustment in inert-gas-shielded arc welding. E. B. LaVelle. il diags Welding J 33:553-60 Je '54

Pushbutton welding, a step closer. R. W. Tuthill. il Steel 135:76-7 Ag 30 '54

Repair welding of ceramic-coated alloys. J. M. Riordan. bibliog il Welding J 32:1160-6 D '53

Shielded-arc techniques dominate Ryan fusion welding. il Mach 60:180-5 Mr '54

Shielded arc welding. il Automobile Eng 44:108-10 Mr '54

Slag-gas shielded welding. diags Welding J 33:680 Jl '54

Storage system cuts argon costs; Ryan aeronautical co. il Steel 133:118 O 26 '53; Same abr. Automotive Ind 109:55+ D 15 '53

Titanium fusion welded on production basis; Glenn L. Martin co. L. Barrett and H. D. Justis. il Iron Age 173:106-9 Je 24 '54

Titanium welding in a tank; I.T.E. circuit breaker co. il Steel 134:114-15 Mr 1 '54; Light Metal Age 12:15+ Ap '54

Welding; new equipment developed for gas-shielded process; General electric co.'s Fillerarc. il Iron Age 172:116 Ag 27 '53

Working conditions ambient to inert-gas-shielded metal-arc welding. L. Silverman and H. Gilbert. bibliog il diag Welding J 33:sup218-29 My '54

Safety measures

Working conditions ambient to inert-gas-shielded metal-arc welding. L. Silverman and H. Gilbert. bibliog il diag Welding J 33:sup218-29 My '54

Submerged arc

A frame gets an *A* in welding problem. il Welding J 33:153-4 F '54

Automatic horizontal and vertical welding of field erected structures. A. R. Meyer. il diags Welding J 33:651-9 Jl '54

Automatic welding fixture. A. M. Troyer and D. Lorain, jr. il diag Am Mach 98:108-9 Ap 26 '54

Automatic welding goes into the field to assemble tunnel-lining sections. il Eng N 151:39+ N 26 '53

Automatic welding of long seams; Altoona works of the Pennsylvania railroad. il Tool Eng 33:74-6 S '54

Center sills welded with multiple electrode setup; fabrication of sills for box cars. il Iron Age 173:150 My 6 '54

Economical roll reclamation; Inland steel co. J. Goldstein. il diags Iron & Steel Eng 31:112-14 S '54

Fast welding done on floors for army cargo trailers. H. Chase. il Welding J 33:242-4 Mr '54

Flux supplies alloy for hard surfacing manipulators. F. H. Knibbs. il Iron Age 172:98-9 O 29 '53

Giant steelmill pipe joined with novel traveling fixture. il Iron Age 172:183 S 17 '53

Hidden arc speeds sheet section welding; Pennsylvania railroad's car building and repair center. il Steel 134:112 Mr 22 '54

How to make a casting when you can't get the core out; Cooper-Bessemer corp. il Foundry 82:155+ S '54

Layout for welding fish-belly underframe parts. il Ry Loco & Cars 128:60-1 F '54

Multiple electrode welding by Unionmelt process. D. E. Knight. il diags Welding J 33:303-12 Ap '54

New developments teamed up to make high-quality, low-cost hard surfacing deposits. L. K. Stringham. il Iron Age 174:103-5 S 2 '54

Parts costs halved by automatic welding and hardfacing. il Roads & Sts 97:71-3+ S '54

Pick the right arc welding method; submerged arc. T. F. Hruby. il Steel 133:86 N 23 '53

Submerged arc welding of chromium-bearing steels. C. E. Jackson and A. E. Shubsall. il Welding J 33:752-8 Ag '54

ELECTRIC welding, Arc—Submerged arc—*—Continued*

Tolerance and control on fillet welds; submerged-arc welding process. J. Mikulak and M. Dillman. il diags Welding J 33:449-58 My '54; Correction. 33:767 Ag '54

Tractor wheels; modern welding helps build huge earthmoving equipment; Caterpillar tractor co. il Iron Age 172:225 D 10 '53

Twinarc submerged arc welding. T. Ashton. il diag Welding J 33:350-5 Ap '54

Universal welder reduces welding costs. il diags Am Mach 97:126-8 N 9 '53

Weld seal; submerged arc used to close refrigerating units; General electric co. il Iron Age 172:218+ D 10 '53

Weld-surfacing of cement mill equipment. W. M. Davis. il Rock Prod 57:114+ F '54

Welded design improves rear axle. il Machine Design 26:140 F '54

Welding jig for gondola side gussets. il Ry Loco & Cars 127:61 D '53

Welding of heavy sections. W. Spraragen and M. A. Cordovi. bibliog il diags Welding J 33:sup369-86 Ag '54

Testing

Arc characteristics for consumable-electrode gas-shielded welding. R. W. Tuthill. il diag Welding J 33:128-32 F '54

Army first pass groove weld crack susceptibility test. Z. J. Fabrykowski and others. il diags Welding J 33:sup 168-72 Ap '54

Destruction tests and design data for welded pressure vessels; Alcoa's aluminum alloy A54S. J. B. Custer. il diags Welding J 33:sup65-70 F '54

Ductility transition of weld metal. W. S. Pellini and E. W. Eschbacher. il diags Welding J 33:sup 16-20 Ja '54

Effect of low-temperature stress-relieving on stress-corrosion cracking. C. R. McKinsey. bibliog il Welding J 33:sup 161-6 Ap '54

Effect of nitrogen and carbon dioxide atmospheres on arc welding. F. W. Sowa and others. il Welding J 32:sup619-24 D '53

Effect of power supply characteristics on sigma welding. W. H. Helmbrecht and R. L. Hackman. il Welding J 33:531-6 Je '54

Effects of temperature on weld metal properties. J. Heuschkel. il diags Welding J 33:sup388-97 Ag '54

Factors which influence weld hot cracking. W. R. Apblett and W. S. Pellini. il diags Welding J 33:sup83-90 F '54

Fatigue strength butt joints in ⅜-in. thick aluminum alloy plates. E. C. Hartmann and others. bibliog il diags Welding J 33:sup21-30 Ja '54

Initiation and propagation of brittle fracture in structural steels. P. P. Puzak and others. bibliog il diags Welding J 31:sup561-81 D '52; Discussion. B. Persson. 33:sup 166; Reply. sup 167 Ap '54

Low-temperature bend test properties of bead-on-plate welds. L. A. Harris and others. bibliog il diags Welding J 32:sup 585-99 D '53

Penetration factors in metallic arc welding. R. C. Waugh and O. P. Eberlein. bibliog il diags Welding J 33:sup285-8 Je '54

Tolerance and control on fillet welds; submerged-arc welding process. J. Mikulah and M. Dillman. il diags Welding J 33:449-58 My '54; Correction. 33:767 Ag '54

Weldments in the titanium-manganese sheet alloy RC-130A. H. M. Meyer. il Welding J 33:sup417-21 Ag '54

Working conditions ambient to inert-gas-shielded metal-arc welding. L. Silverman and H. Gilbert. bibliog il diag Welding J 33:sup218-29 My '54

ELECTRIC welding machines

Adaptation of the semi-automatic welder to magnetic flux. R. A. Hand. il diag Roads & Sts 97:83-4 F '54; Same. Welding J 33:573-4 Je '54; Same cond. Brick & Clay Rec 124:46 My '54; Same cond. Cer Ind 63:106-7 Ag '54

Automatic welding improves stainless tube output; Damascus tube co. il Steel 133:190-1 S 21 '53

Balancing ignitrons in frequency converter three-phase spot welder; cathode-ray oscilloscope. G. C. Woodmancy. diags Welding J 33:236-8 Mr '54

Design of transformers for resistance welding machines. D. L. Knight. il diags Elec Eng 72:1088-93 D '53

D-c welders, rectifiers or motor generator sets? S. Oestreicher. il diags Welding J 33:356-60 Ap '54

Electro-pneumatic riveting and projection welding machines. il diags Engineering 177:246-7 F 19 '54

Field welds; automatic machinery developed for welding vertical plate; Graver tank & mfg. co. il Iron Age 172:228 D 10 '53

Fillerarc consumable-electrode welder. il Tool Eng 31:131 D '53

General Electric 400 amp d.c. rectifier-type welder. il Materials & Methods 39:154 Ap '54; Blast F & Steel Pl 42:1092 S '54

Leader Model 700 automatic welding machine uses motorized pedestal. il Am Mach 97:198 D 7 '53

Lincoln Spreadarc automatic welding equipment. il Mach 60:237 Je '54; Am Mach 98:172 Ag 2 '54

Machine welds powder cans at 100 ipm; Harrison sheet steel co. E. A. Hess. il Am Mach 97:118-19 O 26 '53

Mobile arc welders go directly to jobs. il Welding J 33:569-70 Je '54

Multitransformer welding presses. J. Ogden. diags Elec Eng 72:919-24 O '53

National Supply automatic welding machine speeds output, improves quality. il Iron Age 172:143 O 22 '53

Planetary geared rollwelder. il Mech Eng 75:651 Ag '53

Resistance welder for longitudinal and circular seam-welding. il Mach 60:221-2 Je '54

Sciaky stitch-seam welder. il Automobile Eng 44:102 Mr '54

Semi-automatic welder adapted to magnetic flux. il Am Mach 98:194 F 15 '54

Semi-automatic welder adapted to magnetic flux by new process. il diag Constr Methods 36:178+ Jl '54

Small non-ferrous components spot welded; General Electric electronically-controlled spot welder. il Engineering 177:407 Mr 26 '54

Spot welder retooled for greater production. W. E. Cain. diags Tool Eng 32:75-6 F '54

Static rectifier d-c welders use standardized parts. il Tool Eng 31:112-13 N '53

Stoody squirt welder adapted for magnetic flux. diag Materials & Methods 39:162 F '54

This mechanical octopus welding machine makes 62 simultaneous welds. il Mill & Factory 54:141-2 F '54

Welders work around the clock; batteries of industrial trucks charged at night from shop's welding sets. il diag Ry Loco & Cars 128:67-8 Ag '54

Westinghouse d-c arc welder offers many advantages. Elec Eng 72:1042 N '53; Westinghouse Eng 13:208 N '53; Eng N 151:160 D 10 '53

Wide application of automation to welding. P. Kennedy. il diag Automotive Ind 110:44-9+ F 15 '54

Control

Current-slope control for resistance welders. R. O. Johnsen. il diags Electronics 26:158-9 N '53

Spot welding an electronically-controlled machine developed by the General electric co. il Automobile Eng 44:209-10 My '54; Metallurgia 49:218-19 My '54

Tolerance and control on fillet welds; submerged-arc welding process. J. Mikulak and M. Dillman. il diags Welding J 33:449-58 My '54

Maintenance and repair

How to keep your welding equipment on the job. L. J. Murphy. il diags Mill & Factory 53:102-8 D '53

ELECTRIC welding machines, Portable

New automatic welder used in laying longest aluminum pipe line. il Welding J 33:566-7 Je '54; Same cond. Steel 134:114 Ap 5 '54; Same cond. Light Metal Age 12:18 Ap '54

Portable welder for oilfield work. M. Frederick, jr. il Pet Eng 25:B55+ Je '53

Ring Motors portable spot-welders. il Engineering 176:352 S 11 '53

ELECTRIC winches. See Winches, Electric

ELECTRIC wire

Electric wire and cable recommendations for the pulp and paper industry. A. O. Mortenson. Tappi 37:81-3 Mr '54

Formula for estimating wire size is revived. C. P. Nachod. Product Eng 24:280+ O '53

Some new magneto-mechanical torsion experiments. A. W. Cochardt. bibliog diags J Ap Phys 25:670-3 My '54

Specification and color coding of electrical wire. J. A. Pettit, jr. il Product Eng 24:219-26 Je '53

Testing

Positive d-c corona on polyethylene-insulated wire in air. D. S. Rodbell and others. bibliog il diags Electrochem Soc J 101:91-8 F '54

ELECTRIC wire strippers

Wire stripper pays for itself in first few days. J. Shepard. il Elec World 140:134+ Ag 10 '53

ELECTRIC wiring

Angel hotel, Guildford. Elec J 151:1679-80 N 20 '53

Appliance sales vs inadequate wiring. F. R. Innes. Elec World News ed 140:39-40 N 9 '53

Basic elements in the planning of electrical systems. F. B. Graham. il plans diags Arch Rec 115:206-9 F; 204-7 Mr; 201-5 My; 116:200-4 Ag '54

Boom that has led to a crisis; inadequate wiring. Bsns W p 103-4+ O 3 '53

Clearing house for wiring problems. il Elec World 140:190 S 21 '53

Consolidated Edison makes a play for adequate wiring. il Elec World 140:76-7 N 30 '53

Designing simplicity, ease of manufacture, and safety into an automotive electrical system. E. A. Leavengood and D. W. Severance. il diag Machine Design 26:264+ Ag '54

Economies in wiring practice; discussion. Inst E E Proc 100 pt 2:683-4 D '53; Elec J 150:1152 Ap 3 '53; Elec R (Lond) 152:758 Ap 3 '53

Effect on tv to sell adequate wiring idea; exhibit at the Utah state fair. il Elec West 111:105 N '53

Facts about modern industrial wiring. il diags Mill & Factory 54:78-9 My '54

House & Home suggests how to get adequate wiring for less money. il plans diags House & Home 4:132-5 N '53

How to plan and sell your next house; better wiring and better lighting. il House & Home 3:166-9 My '53

Improved wiring; new design feature of the control units of all-electric adjustable-speed V*S drives. Iron & Steel Eng 31:311-12 S '54

I.E.E. wiring regulations; supplements for cables and caravan installations. Elec R (Lond) 154:283 F 12 '54

Maximum wiring in a competitive house. il plan House & Home 4:134+ Ag '53

NAHB standard seeks to boost electrical capacity of homes. Am Bld 76:183-4 Jl '54

New floor utility service channel system answers a much-looked for need. il Mill & Factory 54:133 Je '54

Postwar awareness of inadequate wiring. H. J. Carswell. Pub Util 54:190-7 Ag 19 '54

Q-floor wiring for your new home. W. E. Eipel. il diag Gen Elec R 57:15-17 My '54

Remodeling demands better wiring. diags Arch Forum 100:177+ My '54

Research and engineering progress, 1953; for building construction. il Gen Elec R 57:56 Ja '54

Ten-point better wiring promotion gets started in Chicago. il Elec World News ed 141:54-5 F 15 '54

Tool cuts switch box holes in drywall. il Am Bld 76:270-1 Je '54

What's new in locomotive wiring. W. S. O'Kelly and W. F. Powers. il Ry Loco & Cars 128:55-7 Jl '54

Wiring for sales appeal. il plan House & Home 4:150+ Jl '53

Wiring, lighting, fixtures, and electrically operated devices. il plans diags Am Bld 75:291+ Ap '53

Wiring tips from an all-electric house. il plan House & Home 3:160, 196-7 Je '53

You have no pain in your pocketbook when utility finances wiring. il Elec World 141:146 F 22 '54

See also

Electric cables
Electric conduits
Electric distribution
Electric fuses
Electric lighting
Electric lines
Electric transmission
National electrical code

Advertising

Is this house dated? television advertising for certified adequate wiring. Elec West 111:115-16 O '53

Diagrams

You, too, can understand your plant's electrical system. diags Factory Management 112:112-13 Jl '54

Safety measures

Electrical wiring advisory service; Consolidated Edison of New York. Safety Maint & Prod 108:31 S '54

ELECTRIC wiring tools

Lead-coiling tool. P. C. Boire. il diags Electronics 27:266+ Ja '54

Wrap-around connections. il Product Eng 24:230 Je '53; Elec World 140:141-2 Jl 13 '53; il Iron Age 172:150-1 Ag 6 '53

ELECTRIC workers

Compensation dispute declared closed; International brotherhood of electrical workers attempt to twist workmen's compensation insurance policies. D. N. Sugarman. Weekly Underw 171:583 S 11 '54

Education and training in the electrical industry; abstracts. C. T. Melling. Elec J 151:1315-16 O 23 '53; Elec R (Lond) 153:991 O 30 '53

Electrical unions square off. Bsns W p 173-4 S 12 '53

Employment is tripled in electrical equipment plants. Elec West 112:114 Ja '54

GE employees retain IU as agent in Massachusetts plants. Elec World News ed 140:44 D 21 '53

GAW test case at Westinghouse. J. B. Delaney. Iron Age 173:69 Ap 15 '54

International brotherhood of electrical workers charged with unfair labor practice on workmen's compensation switch. East Underw 55:32 F 5 '54; Nat Underw 58:38 F 11 '54; Weekly Underw 170:339 F 6 '54

Labor agreement in New York puts group workmen's compensation in state fund, brokers protest. Nat Underw 58:10 Ja 7 '54

New wrinkle for construction; annuity plan is established for electricians. Eng N 151:32 D 10 '53

No raiding agreement may go into effect next January. Elec World News ed 139:41 Je 22 '53

Training; stress basic principles; Electric regulator corp. starts employee course on college level. G. G. Carr. il Iron Age 172:57 N 26 '53

UWUA looks to a merger. J. Fisher. Elec World News ed 140:43 Jl 6 '53

See also

Electric utilities—Employees

ELECTRICAL contractors' association

Annual dinner, London, Jan. 27. Elec J 152:438-9 F 5 '54; Elec R (Lond) 154:228-30 F 5 '54

ELECTRICAL manufacturers association, National. See National electrical manufacturers association

ELECTRICITY

Francis Hauksbee; first established a connection between electricity and light and lay the groundwork for new discoveries in electrostatics. D. Roller and D. H. D. Roller. il diags Sci Am 189:64-9 Ag '53

See also

Atmospheric electricity
Corona (electricity)
Dielectrics
Electric currents
Electrons
Electrophysiology
Electrostatics
Electrotherapeutics
Hall effect
Insulation (electric)
Ionization, Electrolytic
Photoelectric cells
Photoelectric effect
Photoelectricity
Piezoelectricity
Potential, Electric
Radio communication
Telegraph
Telephone
Thermoelectricity

ELECTRICITY, Accidents from
See also
Electricity, Injuries from

ELECTRICITY, Atmospheric. See Atmospheric electricity

ELECTRICITY, Injuries from
Dangerous use of electricity. C. F. Mayson. Elec R (Lond) 154:558 Mr 26 '54
Electrical accidents. Engineering 177:100 Ja 22 '54
Electrical accidents and their causes. Elec J 151:792 S 11 '53
Electrical accidents; principal causes in industry. il Elec R (Lond) 154:71-2 Ja 8 '54
Hot subject; 440 volts is much more deadly than 2300 volts. R. L. Miller. Elec World 141:152 F 8 '54; Discussion. 141:170 Mr 8 '54

ELECTRICITY, Static
Conductive floor tile helps prevent explosions in operating rooms. il Arch Forum 99:232+ S '53
Controlling static electricity with electrostatic neutralizers. R. Beach. il diags Product Eng 24:177-81 O; 167-71 N '53
Discharge of electrified textiles. J. A. Medley. bibliog diags Textile Inst J Trans 45:T 123-41 F '54
Electrostatic detearing improves dip-coating quality; process developed by Ransburg electro-coating corp. J. J. Obrzut. il Iron Age 173:153-5 F 4 '54
Electrostatic effects in fiber filters for aerosols. A. T. Rossano, jr. and L. Silverman. bibliog il diag Heat & Ven 51:101-8 My '54
Electrostatic properties of rubber and plastics. H. A. Endres and W. T. Van Orman. bibliog(28 ref) il India Rubber World 129: 359-63 D '53
Eliminate the danger of static electricity. Can Chem Process 38:92 Ap '54
Evil genie of petroleum. J. C. Howard. Safety Maint & Prod 106:25-7+ D '53
How can we keep static off belts? answers. diags Power 98:136+ Jl '54
Industrial fires and explosions from electrostatic origin. R. Beach. bibliog diag Mech Eng 75:307-13 Ap '53; Discussion. 75:743-5 S '53
Let the belt carry the static. F. H. Rumble. il Safety Maint & Prod 107:13-14 Ja '54
Measurement of triboelectric response of raw cottons. C. E. Kirkwood and others. bibliog diags Textile Res J 24:853-60 S '54
Some fundamental questions concerning the static electrification of textile yarns. V. E. Gonsalves. bibliog diags Textile Res J 23: 711-18; 24:1-12 O '53, Ja '54
Static charges might cause turbine bearing failures. Power Eng 58:73-4 My '54
Static electricity. il Nat Safety N 69:216 Mr '54
See also
Textile fabrics—Electrostatic properties

ELECTRICITY in air conditioning
Application of shaded pole motors to room air conditioners. R. W. Morgan. il diags Refrig Eng 61:1315-19+ D '53
Electric service for air conditioning units; data sheet. Heating-Piping 26:147-8 Mr '54
Electrical power principles for air conditioning. G. B. Priester. bibliog il diags Heat & Ven 51:83-91 F '54
Power factor improvement; room air conditioners. C. E. Baugh. Refrig Eng 62: 43-6+ Ag '54
Protecting integral HP sealed motors on packaged air conditioners. H. Wolf and H. Soumerai. Refrig Eng 62:33-5+ F '54
Research and engineering progress, 1953; air conditioning. il Gen Elec R 57:43 Ja '54
Today's problems of serving room coolers. F. G. Hamner. il Elec World 140:86-9 Jl 27 '53; Discussion. 140:149-51 S 7; 227-8 S 21 '53
Utility cooling load problems; case for electricity. S. J. Levine. il Sheet Metal Worker 45:sup67+ Jl '54
Utility seeks to improve air cooler power factors. M. E. Skinner. Elec World News ed 141:9 F 1 '54

ELECTRICITY in mining
Installation of high-voltage mine-power feeder cables. T. R. Weichel and others. il diag Min Cong J 40:57-60 My '54
Late developments in mining at Carlsbad. A. B. Chafetz and E. C. Skinner. il Min Cong J 40:73-4 Ap '54
Mine-trailing cables. S. Bunish. il diags Coal Age 58:75-9 D '53; Same cond. Elec Eng 72:1061-5 D '53
See also
Coal mines and mining—Electric equipment
Coal mines and mining—Power
Electric locomotives, Mine
Mine hoisting, Electric
Mine pumping, Electric
Mine signals, Electric
Mining engineering—Power

ELECTRICITY in refrigeration
See also
Refrigerators, Electric

ELECTRICITY in the home
All-electric living in contemporary style; Wonder homes sponsored by the General electric co. il plan Am Bld 75:100-1 N '53
Boom that has led to a crisis; inadequate wiring. Bsns W p 103-4+ O 3 '53
Changing house; electricity and lighting. diag Am Bld 76:134-6 Ag '54
Electric home for a hero. il Elec West 111: 101 N '53
Electrical home service. C. Haslett. Elec R (Lond) 153:827-30 O 16 '53
Electrical living values shown to home builders. il Elec World News ed 141:42-3 F 1 '54
Electricity more efficient than LP gas in home uses, government tests show. Elec World News ed 140:40 D 7 '53
House & Home suggests how to get adequate wiring for less money. il plans diags House & Home 4:132-5 N '53
Housecraft advisers' conference, London Elec R (Lond) 154:251-3 F 5 '54
Household electric use growth rate slows down. Barron's 33:21 S 14 '53
How to plan and sell your next house; better wiring and better lighting. il House & Home 3:166-9 My '53
Light conditioned kitchen and living room. il plan diag Am Bld 75:130-1 Mr '53
Maximum wiring in a competitive house. il plan House & Home 4:134+ Ag '53
NAHB standard seeks to boost electrical capacity of homes. Am Bld 76:183-4 Jl '54
Out went gas in all-electric switch. il Elec West 112:72 Ja '54
Residential use leads. Elec World 140:136-9 S 21 '53
To cope with house heating load local study is essential. J. B. Taylor and others. il Elec World 140:80-2 N 2 '53
Western Germany today; electricity for the home; abstracts. E. J. Sharp. Elec J 152: 357-8 Ja 29 '54; Elec R (Lond) 154:199 Ja 29 '54
What heavy residential user needs; symposium conducted by the system planning committee of Pennsylvania electric association. Elec World 141:113 F 22 '54
Wiring for sales appeal. il plan House & Home 4:150+ Jl '53
Wiring tips from an all-electric house. il plan House & Home 3:160, 196-7 Je '53
See also
Electric apparatus and appliances, Domestic
Electric generator sets, Domestic

Cost

Maximum, minimum and average costs after purchase of home appliances to be added to the price. Elec World 140:96-7 N 2 '53

ELECTRICITY in the petroleum industry
See also
Petroleum—Pumping, Electric
Petroleum pipe lines—Pumping stations, Electric
Petroleum refineries—Electric equipment

ELECTRICITY on the farm
Applications of electricity to farming; abstract. E. C. Claydon. Elec J 152:119 Ja 8 '54

ELECTRICITY on the farm—*Continued*

British experiment with electric farm aids. J. H. M. Sykes. il Elec World News ed 140:38-9 Ag 3 '53

Circus of promotion activity; farm tent displayed by Utah power & light co. at the Utah state fair. il Elec West 111:106 N '53

Dairy show, London. Elec J 151:1374-5 O 30 '53

Electricity in grain drying. W. Cover. il Elec J 152:514-16 F 12 '54

Electricity on the farm. Elec R (Lond) 154: 344-5 F 19 '54

Farm family likes electric heating; with cost data. J. Myers. il plan Elec World 140:83 N 2 '53

Farming in southern Rhodesia. J. G. Neville. il Elec R (Lond) 154:74-6 Ja 8 '54

Heating with water heaters. C. P. Wagner. il Elec World 139:158+ Je 15 '53

Looking through a model farm. il Elec World 140:194 S 21 '53

National poultry show, Olympia. Elec J 151: 2022 D 18 '53; il Elec R (Lond) 153:1381-2 D 18 '53

Processing grain with push buttons. L. A. Brooks. il diag Elec World News ed 140: 42-3 Jl 20 '53

Profitable side-line; pig and poultry rearing aided by electricity. il Elec R (Lond) 153: 615-16 S 18 '53

Research in agriculture; National power farming conference, 4th, Cheltenham; with abstracts of papers. Elec R (Lond) 154: 286-7 F 12 '54

Rural electrification and telephones as reported in U.S. census of 1940, 1945 and 1950; farm facilities and equipment by region and state; vehicles on farms as reported in U.S. census of 1940, 1945 and 1950. W. Alderson, comp. maps Ptr Ink 245:272, 276-8 sec 2 O 23 '53

Selling and installing grain drying plants; abstract. J. T. Taylor. Elec J 152:120 Ja 8 '54

Selling electric steam raising and hot water to the farmer; abstract. M. M. Harvey. Elec J 152:120 Ja 8 '54

Selling electricity to farmers. il Elec World 139:119 Je 1 '53

Selling electricity to farmers; East Midlands electrical board and contractors discussion. Elec J 151:1139-40 O 9 '53; Elec R (Lond) 153:895-6 O 16 '53

Smithfield show and agricultural machinery exhibition, London; electrical displays. il Elec J 151:1949 D 11 '53; Elec R (Lond) 153:1369-71 D 18 '53

Tractor will supply electricity for farm use; tractor-mounted generator. il Machine Design 26:44-6 S '54

See also

Electric service, Rural
Electrohorticulture
Rural electrification administration

Cost

What price farm power? Elec World News ed 140:38 S 14 '53

ELECTRICITY supply

Fuel, power, raw materials; tabulations. Steel 134:202-3 Ja 4 '54

Nation to develop commercial atomic power. Blast F & Steel Pl 41:1491 D '53

U.S. generates half of world's electric power; with tables, 1951 and 1952. Barron's 33:26 O 12 '53

World's power shortages becoming less acute. Elec World 140:90 D 28 '53

See also

Electric lines
Electric plants
Electric power
Electric utilities

Australia

Improvement in South Australia. Elec R (Lond) 154:338 F 19 '54

Aycliffe, England

Aycliffe New Town. il map Elec R (Lond) 154:56-9 Ja 8 '54

Brazil

Brazilian news. Elec R (Lond) 153:523-4 S 4 '53

Brazil's investment policy. Elec R (Lond) 154:30 Ja 1 '54

IBRD makes loan to Brazil for power. For Comm W 50:5 Ag 10 '53; Same abr. Elec World News ed 140:24 S 14 '53

Bristol, England

Diamond jubilee in Bristol; electricity supply, 1893-1953. Elec J 151:885-6 S 18 '53

California

Challenge of the West Coast's dynamic growth; Pacific gas and electric co. J. E. Conant. Pub Util 53:217-24 F 18 '54

See also

Central Valley project, California

Canada

Canadians push power developments northward. J. Montagnes. Barron's 33:16 N 9 '53

Fist of energy; sources of power plentiful in Canada. Can Chem Process 38:16+ Ag; 20+ S '54

Christchurch, New Zealand

Christchurch N.Z. supply. Elec J 152:34 Ja 1 '54

Europe

Total electricity consumption in European countries, 1951; tabulation. Elec World News ed 140:29 Ag 17 '53

UN reports on power construction in Europe. Elec World 140:106 Jl 27 '53

France

Can France stay ahead of the game in power? il Elec World News ed 140:16-18 Jl 6 '53

Georgia

Georgia story; power and fuel. il Manuf Rec 123:74-7 My '54

Germany

West German problem; transmission and taxes. il map Elec World News ed 140:22-4 Ag 31 '53

Great Britain

Annual report and statement of accounts, year ended March 31, 1953. Engineer 196:434 O 2 '53

Britain inaugurates 275-kv supergrid. J. H. M. Sykes. il map Elec World News ed 140: 32-3 Ag 31 '53

Britain's kwhr bills up ten per cent. Elec World 141:145-6+ Ja 25 '54

B.E.A.'s annual reports. Elec R (Lond) 153: 717-24, 805-6, 909-10, 955-6 O 2-23 '53; Elec J 151:1031-7 O 2 '53

British electricity supply system. Engineer 197:177 Ja 29 '54

British electricity system; comments of B.E.A. and Area boards on 1953 report of U.S. productivity team. Elec J 152:356 Ja 29 '54

Economics of the super-grid. Economist 169: 263-5 O 24 '53

Electricity and water supply. H. R. Lupton. il Elec J 150:1041-3; 151:40-4, 341-5, 633-6, 949-51, 1395-8 Mr 27, Jl 3, 31, Ag 28, S 25, O 30 '53

Electricity recovers too; BEA first five months, financial year to March, 1953. Economist 169:46-7 O 3 '53

Electricity supply, the first five years of nationalisation. V. Clements. Engineering 176:663-4 N 20 '53; Abstract. Elec R (Lond) 153:1184 N 20 '53

First section of new grid in Britain is completed. Elec World 140:203 Ag 10 '53

Fuel and power economy; abstract. F. M. H. Taylor. Elec R (Lond) 153:1215-16 N 27 '53

Ministry of fuel and power statistical digest. Elec J 151:1938 D 11 '53

National electricity supply, review of British electricity authority, fifth report and statement of accounts for the year ended March 31, 1953. Engineering 176:466 O 9 '53

Planning without prices; BEA program. Economist 169:47-8 O 3 '53

Production and use of energy in Great Britain; abstracts. J. Hacking. Chem Age (Lond) 68:895-7 Je 13 '53; Engineering 175: 758-9 Je 12 '53; Elec J 150:2093-4+ Je 12 '53; Elec R (Lond) 152:1343-5 Je 12 '53

ELECTRICITY supply—*Continued*

Hillman, Michigan

Face on many jobs is that of Earl Elowsky. il Elec World News ed 140:16-17 D 7 '53

Houston, Texas

Houston Lighting; where tomorrow arrived today. il Elec World News ed 140:22-4 Jl 6 '53

Plan system for very rapid load growth; Houston lighting & power co. L. K. Del'Homme and S. L. Rieves. il map Elec World 141:92-5 Ja 11 '54

Idaho

Idaho Power to lease Utah Power & Light unit. il map Elec World 140:80-1 Jl 27 '53

India

India's TVA shows good progress. il maps Eng N 152:46+ Mr 4 '54

Ireland

Electricity in Ireland. Elec J 151:1323 O 23 '53; map Elec R (Lond) 153:951-2 O 23 '53

Electricity in northern Ireland. T. G. Christie. Elec J 152:125 Ja 8 '54

Italy

Italy's power output increases. il Elec J 151: 2129 D 25 '53

Japan

Hydro power; key to Japan's economy. il map Elec World News ed 140:22-4 O 26 '53

Japan granted loans to develop power. For Comm W 50:5 N 9 '53

World bank loans for Japan. Economist 169: 272 O 24 '53

Korea

South Korea power expansion. Elec World News ed 140:18 N 9 '53

Leeds, England

First stage of Leeds 33kv reinforcement scheme. il Elec J 151:1508 N 6 '53; Elec R (Lond) 153:1127-8 N 13 '53

Levittown, Pennsylvania

New Levittown has aluminum distribution and unit substations. C. E. Nelson. il maps diags Elec World 140:84-8+ O 5 '53

London

London load handling. il map diag Elec R (Lond) 154:359-66 F 26 '54

Malaya

Electricity in Malaya. il Elec J 151:730 S 4 '53

Meeting demand in Malaya; progress of C.E.B's construction programme. il map Elec R (Lond) 153:530-1 S 4 '53

Mecca, Arabia

Electricity comes to Mecca. il Elec J 151: 1571-2 N 13 '53

Michigan

Electricity cutoff looms in Michigan's upper peninsula. Elec World News ed 140:14 Ag 31 '53

REA OK's loan for Michigan cooperative. Elec World News ed 141:9 Ja 18 '54

Middle western states

Marketing criteria eased for cooperatives purchasing power from federal projects in Missouri River basin. Elec World News ed 140:7-8 D 21 '53

Power needs of Missouri River region will increase 170 per cent. K. G. Tower. Elec World 139:260-1 Je 15 '53

Netherlands

New S.E.P. co-ordinating centre opened in the Netherlands. il map Elec J 152:30-4 Ja 1 '54

New York (city)

What Con Edison has learned about pipe-cable application. R. W. Gillette. il map Elec World 139:82-4 Je 1 '53

New York (state)

Power generation expansion; Niagara Mohawk power corp. H. I. Howell. map Iron & Steel Eng 31:132-4 My '54

New Zealand

Costs and tariffs in New Zealand. Elec R (Lond) 153:1450 D 25 '53

New Zealand power shortage. J. Cardew. Elec R (Lond) 153:681-2 S 25 '53

Nicaragua

IBRD grants Nicaragua highway, power loans. For Comm W 50:5 S 21 '53

North Carolina

North Carolina story; abundant power. il Manuf Rec 123:78-9 Ja '54

Northwestern states

Equitable power allocation; revised draft of 20-year BPA contract. P. J. Raver. Elec World News ed 140:8-9 S 14 '53

FPC report finds California-Oregon tie feasible. il map Elec World News ed 141: 30-1 Ja 4 '54

Interstate compact in Columbia basin urged. C. A. Sprague. Elec West 111:126 D '53

NW power contract revised. Elec World 140: 75 S 7 '53

NW tie line planned by Montana power co. Elec World News ed 140:21 S 14 '53

Pacific Northwest 1952 power shortage. J. P. Jolliffe. Elec Eng 73:111-15 F '54

Power agencies plentiful in Northwest. Elec World News ed 141:25+ Mr 1 '54

Private power will play bigger role in fighting shortage in Northwest. Bsns W p30 D 19 '53

Trilemma unhorned; contract between Bonneville power administration and private utilities in northwest area. Chem W 73: 19 S 19 '53

Ohio

Atomic power in Ohio. P. Sporn. il Elec Eng 72:1047-51 D '53

Ontario

See also
Ontario—Hydroelectric power commission

Pacific coast

New look at Oregon-California intertie. maps Elec West 112:61-4 Ja '54

Philippine Islands

Power is a cooperative venture in the Philippines. il Elec World News ed 141:42-3+ Ja 18 '54

Rhodesia

Farming in southern Rhodesia. J. G. Neville. il Elec R (Lond) 154:74-6 Ja 8 '54

Supply in southern Rhodesia. D. Spencer. Elec R (Lond) 154:554 Mr 26 '54

Rocky Mountain region

Electric power availability in Rocky Mountain states. A. B. Martin. bibliog maps Ind & Eng Chem 45:2467-74 N '53

Russia

Russia claims records in its 1953 production of electrical machinery, appliances, and electricity. Elec World 141:194 F 22 '54

Salvador

El Salvador proposes power distribution. For Comm W 51:5 Ja 18 '54

El Salvador puts big bet on volcanic steam power. M. Bannell. Barron's 33:10 N 23 '53

Scotland

New board for Scotland. Elec J 152:350 Ja 29 '54

South Africa

News from South Africa. Elec R (Lond) 154:398 F 26 '54

South African commission's report, power station construction progress. Elec R (Lond) 153:700 S 25 '53

South African news. Elec R (Lond) 153:1443-4 D 25 '53

South Carolina

Santee-Cooper; fanning its framework over South Carolina. il maps Elec World News ed 141:16-17+ Mr 1 '54

ELECTRICITY supply—*Continued*

Southern states

Interim contracts; sale of federal power to Georgia Power, Appalachian Electric. Elec World 140:110-11 Jl 13 '53

Southwestern states

Four-state co-op bloc organized. Elec World 140:72 N 30 '53

Power pacts are sought for interim between southwestern co-ops and Interior department. Elec World News ed 140:10 Ag 31 '53

Spain

Spain further limits power consumption. For Comm W 50:2 O 19 '53

Sweden

Swedish record power output. map Elec J 152:676 F 26 '54

Texas

Texas story; power. il Manuf Rec 122:101-3 N '53

Uganda

African protectorate's power. il Elec J 152:956 Mr 19 '54

Load prospects in Uganda; utilizing output from Owen Falls. map Elec R (Lond) 154:412 Mr 5 '54

United States

Business uncertain? electrical industry up. il Power Eng 58:56-7 Ja '54

EEI forecasts 17.1 per cent reserve. Elec World 140:120 D 14 '53

Electric generation by gas increasing. Barron's 33:14 D 21 '53

Electric power supply at the end of 1953. Mech Eng 76:182-4 F '54

Future power supplies. A. G. Christie. Mech Eng 75:1004-5 D '53

New electric generating facilities to be installed, 1953-56; tabulation. Elec World 140:128-30 S 21 '53

Power resources; East north central states. F. D. Campbell and A. S. Griswold. Ind & Eng Chem 46:494-6 Mr '54

Power under the Republicans. il Chem & Eng N 32:1200-1 Mr 29 '54

We'll need 94 per cent more electricity by 1963. il Chem Eng 61:379-83 Je '54

Vancouver, British Columbia

Vancouver Island tie cable ordered. map diag Elec World News ed 141:52 Mr 1 '54

Victoria

State electricity commission of Victoria; 34th annual general report. Elec J 152:677 F 26 '54

Western states

Annual review number. il map Elec West 112:75-170 F '54

ELECTROACOUSTIC transducers

Broad band directional barium titanate transducers. L. Camp. Acoustical Soc Am J 25:297-301 Mr '53

Crystal acoustic arrays. W. Welkowitz. Acoustical Soc Am J 25:336-7 Mr '53

Transducers for producing ultrasonic waves. O. Mattiat. il diags Acoustical Soc Am J 25:291-6 Mr '53

See also

Loud speaking apparatus

Microphones

ELECTROCARDIOGRAPH

Polar cardioscope. J. W. Trank and O. H. Schmitt. il diag R Sci Instr 25:918-20 S '54

Potential of two current point sources in a homogeneous conducting prolate spheroid. J. R. Wait. J Ap Phys 24:496-7 Ap '53; Correction. 24:1334 O '53

Recording coil driver for an electrocardiograph; patent. diags Electronics 27:242+ Ja '54

Stereovectorcardiograph. A. C. Guyton. il Electronics 26:198+ N '53

Time-marker for electrocardiography. M. A. Bullen and L. A. Daynes. diag J Sci Instr 31:6-7 Ja '54

ELECTROCHEMICAL analysis

Determination of tritium by ion current measurment. K. E. Wilzbach, A. R. Van Dyken and L. Kaplan. bibliog(25 ref) Anal Chem 26:880-3 My '54

Determination of zinc in brass by controlled potential electrolysis. D. G. Foster. bibliog Anal Chem 25:669-70 Ap '53

Electroanalysis; review of past two years. D. D. DeFord. Anal Chem 26:135-40 bibliog(149 ref, p 139-40) Ja '54

Electrochemical method for oxygen determination in gases. M. G. Jacobson. bibliog flow diag il diags Anal Chem 25:586-91 Ap '53

Electrolytic determination of copper with an isolated anode. D. C. Foster. diag Anal Chem 25:1557-8 O '53

Fisher adds potential control; Electro-Analyzer utilizes servomechanism. il Chem & Eng N 32:768-9 F 22 '54

Inexpensive, portable electroanalyzer. P. S. Farrington and R. L. Pecsok. il J Chem Educ 30:461-3 S '53

Use of perchloric acid in electrochemical analysis. G. Norwitz. bibliog Metallurgia 48:257-8 N '53

ELECTROCHEMICAL industries

Power

Power for Gulf Coast electrochemical plants. H. L. Norris, jr. il Electrochem Soc J 100:sup 185C-7C Jl '53

British Columbia

New electrochemical industry for the Yukon and B.C. Can Chem Process 38:80 My '54

California

Southern California, Nevada area. J. C. Schumacher. il map Electrochem Soc J 100:sup247C-58C S '53

Canada

Electrochemical and electrometallurgical industries of Canada. V. G. Bartram; A. C. Holm. il Electrochem Soc J 100:sup295C-302C; 101:sup7C-16C, sup41C-9C, sup67C-72C N '53, Ja-Mr '54; Excerpts. Can Chem Process 38:26+ F; 72+ My '54

Industrial progress in Canada, 1952. A. C. Holm. Electrochem Soc J 100:sup 162C-3C Je '53

Gulf Coast region

Golden Gulf coast. O. Osborn and others. bibliog flow sheets il map Electrochem Soc J 100:sup 173C-87C Jl '53

India

Electrochemical research in India during 1953. bibliog Chem Age (Lond) 70:1055-6+ My 8 '54

Middle western states

Milwaukee-Chicago-Gary industrial area. O. W. Storey. bibliog il Electrochem Soc J 100:sup211C-21C Ag '53

Nevada

Southern California, Nevada area. J. C. Schumacher. il map Electrochem Soc J 100:sup247C-58C S '53

Northwestern states

Electrochemistry in the Pacific Northwest. J. Schulein. il map Electrochem Soc J 100:sup 143C-53C Je '53

Tennessee valley

Electroprocess plants in the TVA power service area. H. A. Curtis. bibliog Electrochem Soc J 101:sup 119C-27C My '54

Yukon

New electrochemical industry for the Yukon and B.C. Can Chem Process 38:80 My '54

ELECTROCHEMICAL society

Fall meeting, Boston, Oct. 3-7; program. Electrochem Soc J 101:sup227C-31C S '54

Meeting, 103d, New York, April 13-16. Electrochem Soc J 100:sup 160C-1C Je '53

Meeting, 103d, New York, April 13-16; program. Electrochem Soc J 100:sup95C-100C Ap '53

ELECTROCHEMICAL society—*Continued*

Meetings, 104th, Wrightsville Beach, N.C. Sept. 13-16. Chem & Eng N 31:4004+ S 28 '53

Meeting, 105th, Chicago; abstracts of papers. Chem & Eng N 32:1998-9 My 17 '54; Oil Paint & Drug Rep 165:5+ My 10 '54

Revised constitution needs approval. Electrochem Soc J 101:sup 178C-80C Jl '54

Society progress and comment on a national problem; presidential address. J. C. Warner. Electrochem Soc J 100:sup231C-2C Ag '53

ELECTROCHEMISTRY

Anodic formation of coatings on magnesium, zinc, and cadmium. K. Huber. bibliog il Electrochem Soc J 100:376-82 Ag '53

Chlorine and caustic in Italy; amalgam cell production. R. L. Kenyon and P. Gallone. bibliog flow sheet il diags Ind & Eng Chem 45:1162-72 Je '53

Effect of chain branching on electrochemical carbon-halogen bond fission. P. J. Elving and others. bibliog(36 ref) Electrochem Soc J 101:195-202 Ap '54

Electrochemical behaviour of metals and corrosion. M. Pourbaix. diags Chem & Ind p780-6 Jl 25 '53

Electrochemical chloride-caustic soda production in the Gulf Coast area. F. Chrencik. il map Electrochem Soc J 100:sup 182C-4C Jl '53

Electrochemical research in India during 1953. bibliog Chem Age (Lond) 70:1055-6+ My 8 '54

Electrochemical study of salmine salts. C. W. Davies and G. H. Nancollas. Chem Soc J p 1112-16 Mr '54

Electrochemical techniques for fabrication of surface-barrier transistors. J. W. Tiley and R. A. Williams. il diags Inst Radio Eng Proc 41:1706-8 D '53

Electrochemistry of ion-exchange resins. K. S. Spiegler. bibliog(78 ref) il diags Electrochem Soc J 100:sup303C-16C N '53

Electrochemistry of the first layers of electrodeposited metals. T. Mills and G. M. Willis. bibliog diag Electrochem Soc J 100:452-8 O '53

Electrolytic caustic and chlorine industries. W. C. Gardiner. il diags J Chem Educ 30:116-20 Mr '53

Electrolytic process gives pure boron in commercial quantities. il Chem & Eng N 31:2880+ Jl 13 '53

Faraday's electrochemical laws and the determination of equivalent weights. R. G. Ehl and A. J. Ihde. bibliog il J Chem Educ 31:226-32 My '54

Interaction of organic compounds with the surface during the electrodeposition of nickel. C. C. Roth and H. Leidheiser, jr. Electrochem Soc J 100:553-65 D '53

Mercury cell chlorine and caustic; staff-industry collaborative report. H. J. Sanders, W. C. Gardiner and J. L. Wood. bibliog flow sheets il diags Ind & Eng Chem 45:1824-35 S '53

New outlooks in electrochemistry; abstract. W. F. K. Wynne-Jones. Chem & Ind p 154 F 6 '54

Rate of dissolution of zinc and cadmium in chromic chloride solutions. C. V. King and N. Mayer. bibliog Electrochem Soc J 100:473-9 N '53

Some electrochemical properties of new synthetic ion exchange membranes. A. G. Winger and others. bibliog Electrochem Soc J 100:178-84 Ap '53

See also

Electric precipitation
Electrochemical analysis
Electrodeposition of metals
Electrodes
Electrolysis
Electrolytes
Electrolytic cells
Electroplating
Ionization, Electrolytic
Passivity
Reduction, Electrolytic

Patents

Recent patents; selected for electrochemists. F. W. Dodson. Published in monthly numbers of Journal of the Electrochemical society

ELECTROCHROMATOGRAPHIC analysis. See Chromatographic analysis

ELECTROCHROMATOGRAPHY (term)

Suggested term. H. H. Strain and T. R. Sato. Chem & Eng N 32:1190+ Mr 29 '54

ELECTRODE potential. See Potential, Electric

ELECTRODEPOSITION of metals

Aluminum electrodeposits made adherent. W. C. Schirckner. il Steel 133:125 N 2 '53

Correlation of limiting currents under free convection conditions. C. R. Wilke and others. bibliog il diag Electrochem Soc J 100:513-23 N '53

Development and manufacture of electroformed conductor for telephone drop wire. A. N. Gray and G. E. Murray. il Bell System Tech J 32:1099-135 S '53

Effect of chloride on the deposition of copper, in the presence of arsenic, antimony, and bismuth. V. Hospadaruk and C. A. Winkler. bibliog J Metals 5:Trans 1375-7 O '53

Effect of rapid cathode rotation and magnetic fields on crystal orientation in electrodeposited metals. Ling Yang. bibliog il diag Electrochem Soc J 101:456-60 S '54

Electrochemistry of the first layers of electrodeposited metals. T. Mills and G. M. Willis. bibliog diag Electrochem Soc J 100:452-8 O '53

Electrodeposition apparatus for student laboratories. P. J. Elving and others. il diags J Chem Educ 30:254-6 My '53

Electrodeposition of bismuth. K. B. Morris and others. bibliog Electrochem Soc J 101:343-7 Jl '54

Electrodeposition of metals on sodium tungsten bronze crystals. D. Stirpe. R Sci Instr 24:1071 N '53

Electrodeposition of ruthenium from very dilute solutions. M. H. Lietzke and J. C. Griess, jr. Electrochem Soc J 100:434-41 O '53

Electroforming embossing and graining plates. E. Schore. il diags Metal Finishing 52:74-6 Ja '54

Electroforming for producing intricate shapes. V. A. Lamb and W. H. Metzger, jr. il diags Tool Eng 33:55-62 Ag '54

Electrolytic deposition of iron as an analytical technique. J. O. Lay. bibliog Metallurgia 48:313-14 D '53

Electron diffraction study of the structures of antimony electrodeposited on antimony cleavage face. Ling Yang. il diags J Ap Phys 25:184-8 F '54

Electronic configuration in electrodeposition from aqueous solutions. E. H. Lyons, jr. and others. bibliog(174 ref) Electrochem Soc J 101:363-81, 410-14 Jl-Ag '54

NBS electrodeposits pure molybdenum. il diags Materials & Methods 39:236+ Mr '54

Quantitative electrodeposition of radioruthenium. J. C. Griess, jr. bibliog Electrochem Soc J 100:429-33 O '53

Simultaneous electrodeposition of copper and lead from nitric acid-hydrofluoric acid-beryllium nitrate solution. C. Goldberg. bibliog Anal Chem 25:1405 S '53

Some properties of tin-II sulfate solutions and their role in electrodeposition of tin; solutions with tin-II sulfate and sulfuric acid present. C. A. Discher. Electrochem Soc J 100:480-4 N '53

Special property nickel plate; nickel sulphamate baths. M. B. Diggin. Steel 134:135 Je 21 '54

Structure of electrodeposits. J. J. Dale. bibliog(35 ref) il Metal Finishing 52:52-6+ Jl; 67-72 Ag '54

See also

Electroplating

ELECTRODES

Air-cooled electrodes for the spectrochemical analysis of powders. B. J. Stallwood. il diags Opt Soc Am J 44:171-6 F '54

Anodic processes; anodisation at low current densities of mercury in hydrochloric acid. R. H. Cousens, D. J. G. Ives and R. W. Pittman. Chem Soc J p3972-80 D '53

Anodic processes; oscillographic studies of processes at the mercury anode in hydrochloric acid. R. H. Cousens, D. J. G. Ives and R. W. Pittman. Chem Soc J p3980-7 D '53

Anodic processes; the passivation of mercury in hydrochloric acid. R. H. Cousens, D. J. G. Ives and R. W. Pittman. Chem Soc J p3988-90 D '53

ELECTRODES—*Continued*

Application of polarized mercury pool electrodes to polarography. C. A. Streuli and W. D. Cooke. bibliog J Phys Chem 57:824-6 N '53

Application of the cathode-ray polarography to rotating platinum electrodes. I. Shain and A. L. Crittenden. bibliog diag Anal Chem 26:281-4 F '54

Approximate solutions of the space-charge problem of some unusual electrode geometries. H. F. Ivey. bibliog diags J Ap Phys 24:1466-72 D '53; Correction. 25:543 Ap '54

Behavior of the silver-silver sulfate and the mercury-mercurous sulfate electrodes at high temperatures. M. H. Lietzke and R. W. Stoughton. Am Chem Soc J 75:5226-7 N 5 '53

Capacity of polarized platinum electrodes in hydrochloric acid. W. D. Robertson. bibliog diags Electrochem Soc J 100:194-201 Ap '53

Carbon in the engineering and metallurgical industries; refractories, electrodes and other metallurgical uses. V. S. Kingswood. bibliog il diags Metallurgia 48:221-7 N '53

Convection controlled limiting currents (convection currents); the platinum wire convection electrode. I. M. Kolthoff and J. Jordan. bibliog Am Chem Soc J 76:3843-5 Jl 20 '54

Corrosion of heating electrodes in molten chloride baths. H. R. Copson. il Electrochem Soc J 100:257-64 Je '53; Discussion. 100:593 D '53

Cosmotron; a review; control system; pickup electrodes. C. E. Swartz. il diag R Sci Instr 24:851-3 S '53

Depolarization effects after current reversal at silver anodes and cathodes. A. L. Ferguson and D. R. Turner. bibliog diags Electrochem Soc J 101:382-6 Jl '54

Determination of calcium and magnesium in lake waters by means of a rotating silver disk electrode. V. W. Meloche and R. Shapiro. bibliog il diags Anal Chem 26:347-50 F '54

Diffusion currents at cylindrical electrodes; a study of organic sulfides. M. M. Nicholson. bibliog Am Chem Soc J 76:2539-45 My 5 '54

Effect of different types of electrodes in electrophonic hearing. G. Flottorp. bibliog il Acoustical Soc Am J 25:236-45 Mr '53

Electrodes of mixed manganese dioxide and oxyhydroxide. R. S. Johnson and W. C. Vosburgh. Electrochem Soc J 100:471-2 O '53

Electrodes with convection controlled limiting currents (convection electrodes). I. M. Kolthoff and J. Jordan. Am Chem Soc J 75:4869 O 5 '53

E.m.f. measurements in ten per cent solutions of acetone in water. D. Feakins and C. M. French. Chem & Ind p 1107-8 S 4 '54

Graphite electrodes. R. N. Hader, B. W. Gamson and B. L. Bailey. bibliog flow sheets il Ind & Eng Chem 46:2-11 Ja '54

Growth of parallel grooves on soluble anodes of electrolysis. T. B. Horiuchi. il diags Metal Finishing 51:70-4 N '53

Importance of surface reactions. H. Eyring. Chem & Eng N 32:1342+ Ap 5 '54

Industrial pH control; developments in electrodes. il Chem Age (Lond) 68:598 Ap 18 '53

Instrument for the production of micro-electrodes used in electrophysiological studies. J. T. Alexander and W. L. Nastuk. bibliog il diag R Sci Instr 24:528-31 Jl '53

Internal bridge calomel electrode. S. Lewin. diag J Sci Instr 31:302-3 Ag '54

Ionic mass transfer and concentration polarization at rotating electrodes. M. Eisenberg and others. bibliog(48 ref) il diag Electrochem Soc J 101:306-20 Je '54

Limiting current on a rotating disc electrode in potassium iodide-potassium triiodide solutions. E. A. Hogge and M. B. Kraichman. bibliog diag Am Chem Soc J 76:1431-3 Mr 5 '54

Mathematical studies on galvanic corrosion; coplanar electrodes with negligible polarization. J. T. Waber. bibliog il diags Electrochem Soc J 101:271-6 Je '54

Measurement of ionic activities in solution with electrodes containing ion-exchange-resin membranes. T. R. E. Kressman. bibliog diag J Ap Chem 4:123-31 Mr '54

Metal-filled microelectrode. R. M. Dowben and J. E. Rose. bibliog diags Science 118:22-4 Jl 3 '53

Micro-electrode devices for potentiometric and other electrometric titrations. J. T. Stock. bibliog diags Chem Age (Lond) 71:575-8+, 719-22 S 18, O 2 '54

Phosphorized anodes produce smoother, heavier copper plate. R. P. Nevers and others. il Iron Age 174:114-16 Ag 12 '54

Plastic anode cage; William Parker co. il Metal Finishing 52:126-8 Je '54

Polarographic studies with a stationary mercury-plated platinum electrode. T. L. Marple and L. B. Rogers. bibliog Anal Chem 25:1351-4 S '53

Polarographic studies with gold, graphite, and platinum electrodes. S. S. Lord, jr. and L. B. Rogers. bibliog(26 ref) Anal Chem 26:284-95 F '54

Portable polarographic reference electrode. R. K. Ladisch and S. Knesbach. bibliog diags Anal Chem 26:941-2 My '54

Potentiometric determination of cations and anions with permselective collodion and protamine-collodion membrane electrodes. H. P. Gregor and K. Sollner. bibliog J Phys Chem 58:409-15 My '54

Reference electrode for potentiometric titrations in glacial acetic acid. R. A. Glenn. diag Anal Chem 25:1916-17 D '53

Rotated and stationary platinum wire electrodes. I. M. Kolthoff and N. Tanaka. bibliog(25 ref) Anal Chem 26:632-6 Ap '54

Rotating platinum electrode for amperometric titration of sulfhydryl groups; abstract. F. J. Herbert and J. R. Denson. diag Anal Chem 26:440 F '54

Separations with a micro mercury cathode. R. B. Hahn. diags Anal Chem 25:1749-50 N '53

Silver-silver halide electrodes; preparation, stability, reproducibility, and standard potentials in aqueous and non-aqueous media. G. J. Janz and H. Taniguchi. diags Chem R 53:397-437 bibliog (p435-7) D '53

Spectrochemical analysis of aluminum alloys using molten metal electrodes. L. D. Frederickson, jr. and J. R. Churchill. il diags Anal Chem 26:795-800 My '54

Stoody alloy electrode. il Iron & Steel Eng 30:208+ N '53

Suppression of overtones of thickness-shear and flexural vibrations of crystal plates. R. D. Mindlin and H. Deresiewicz. J Ap Phys 25:25-7 Ja '54

Theory of the effect of electrode resistance on current density distribution in electrolytic cells. C. W. Tobias and R. Wijsman. bibliog diag Electrochem Soc J 100:459-67 O '53

Thickness-shear vibrations of piezoelectric crystal plates with incomplete electrodes. R. D. Mindlin and H. Deresiewicz. diag J Ap Phys 25:21-4 Ja '54

Use of the mercury cathode in the dielectric breakdown of liquids. A. H. Sharbaugh and others. J Ap Phys 24:814-15 Je '53

See also

Cathodes
Electric welding—Electrodes
Electric welding, Arc—Electrodes
Electrolytic cells
Overvoltage

Manufacture

Design for better quality; A. O. Smith corp. il Steel 133:110-11 N 16 '53

ELECTRODES, Glass

Application of the glass electrode in liquid ammonia systems. A. H. A. Heyn and M. J. Bergin. bibliog Am Chem Soc J 75:5120-2 O 20 '53

Effect of temperature on the electrical resistance and voltage departures (errors) of glass electrodes, and upon the hygroscopicity of glass. D. Hubbard. bibliog diag J Res Nat Bur Stand 50:337-42 Je '53

Micro glass electrode for continuous recording of brain *p*H in situ. R. R. Sonnenschein and others. diags R Sci Instr 24:702-4 Ag '53

ELECTRODES, Glass—*Continued*

Temperature control in glass electrode pH measurements. S. Lewin. bibliog diags Chem & Ind p 1193-7 N 7 '53

Transient response of the glass electrode to *p*H step variations. A. Distèche and M. Dubuisson. bibliog il diags R Sci Instr 25:869-75 S '54

ELECTRODIALYSIS. See Dialysis

ELECTRODISINTEGRATION. See Nuclear reactions

ELECTRODYNAMICS

Conservation theorems in modified electrodynamics. J. W. Dettman and A. Schild. Phys R 95:1057-60 Ag 15 '54

Dimensional relations in magnetohydrodynamics. W. M. Elsasser. bibliog Phys R 95:1-5 Jl 1 '54

See also

Quantum electrodynamics

ELECTROFORMING. See Electrodeposition of metals

ELECTROGALVANIZING. See Zinc plating

ELECTROHORTICULTURE

Developments in horticulture; abstract. F. E. Rowland. Elec J 151:1697 N 20 '53

ELECTROHYDRAULIC control

Chamberlain high-speed automatic bending machine. il diags Engineer 197:147-8 Ja 22 '54; Automobile Eng 44:169-70 Ap '54

Electro-hydraulic pressure control servo valve. il diag Product Eng 24:241 Je '53

Nassovia two-spindle die sinker has electro-hydraulic control. il Am Mach 98:156 Mr 29 '54

New Eastham oil dock; electro-hydraulic operation of lock gates. il Elec R (Lond) 154:181-4 Ja 29 '54

Plan electro-hydraulic system to power auto appliances. L. H. Middleton. Iron Age 173:85 Ap 15 '54

ELECTROLUMINESCENCE. See Luminescence

ELECTROLYSIS

Anodic behavior of aluminum and its alloys in sulfuric acid electrolytes. R. B. Mason and P. E. Fowle. bibliog Electrochem Soc J 101:53-9 F '54

Anodic oxidation of magnesium metal; evidence for the existence of unipositive magnesium. R. L. Petty, A. W. Davidson and J. Kleinberg. bibliog diag Am Chem Soc J 76:363-6 Ja 20 '54

Cathodic lead disintegration and hydride formation. H. W. Salzberg. bibliog Electrochem Soc J 100:146-51 Ap '53; Discussion. 100:588-9 D '53

Continuous and uniform generation of stibine. A. Reisman and others. Electrochem Soc J 101:387-8 Jl '54

Coulometry; related phenomena of electrolysis and current-sweep polarography. N. H. Furman. bibliog(36 ref) diags Electrochem Soc J 101:sup 19C-22C Ja '54

Detroit committee on electrolysis; abstract. R. L. Rayner. Elec Eng 73:135 F '54

Electric system for potential control; American Instrument's Redox-O-Trol. il Chem & Eng N 32:1073 Mr 15 '54

Electrolytic preparation of beryllium hydroxide. R. K. Parikh and K. Kammermeyer. diags Ind & Eng Chem 45:1583-5 Jl '53

Formation of anodic oxide films on cathodes. D. A. Vermilyea. diags Electrochem Soc J 101:389-92 Ag '54

Free-convection mass transfer at vertical plates. C. R. Wilke, C. W. Tobias and M. Eisenberg. bibliog il diags Chem Eng Prog 49:663-74 D '53

Glow-discharge electrolysis; the anodic oxidation of ferrous sulphate. A. Hickling and J. K. Linacre. diag Chem Soc J p711-20 F '54

Growth of parallel grooves on soluble anodes by electrolysis. T. B. Horiuchi. il diags Metal Finishing 51:70-4 N '53

Mechanism of the anodic formation of lead chromate. C. Wagner. bibliog Electrochem Soc J 101:60-2 F '54

Metal-salt miscibility; abstract. M. A. Bredig. il Chem & Eng N 32:1450-1 Ap 12 '54

Non-steady state electrolysis under constant current. L. Gierst and A. L. Juliard. bibliog J Phys Chem 57:701-6 O '53

Rate of displacement of silver from aqueous silver nitrate by zinc and copper. R. Glicksman and others. bibliog Electrochem Soc J 100:580-5 D '53

Theory of electrolysis at constant current in unstirred solution; experimental study of potential-time curves. P. Delahay and C. C. Mattax. bibliog diags Am Chem Soc J 76:874-8 F 5 '54

See also

Electrochemical analysis

Electrolytic cells

Moving boundary systems

Overvoltage

Water purification—Electrolytic treatment

ELECTROLYTES

Aggregation of suspensions by polyelectrolytes. A. S. Michaels. bibliog diags Ind & Eng Chem 46:1485-90 Jl '54; Correction. 46:2202 O '54

Amalgam partition method for the determination of ionic free energies in nonaqueous solutions. K. Schug and H. L. Friedman. Am Chem Soc J 76:3609-10 Jl 5 '54

Corrosion of aluminum in potassium chloride solutions. W. Beck and others. bibliog diags Electrochem Soc J 101:393-9 Ag '54

Dissociation, chemical exchange, and the proton magnetic resonance in some aqueous electrolytes. H. S. Gutowsky and A. Saika. bibliog J Chem Phys 21:1688-94 O '53

Effect of solvents and electrolytes on polarograms of carbon tetrachloride. J. J. Lothe and L. B. Rogers. bibliog Electrochem Soc J 101:258-66 My '54

Electrolyte-solvent interaction; tetrabutylammonium bromide in methanol-methyl ethyl ketone mixtures. F. M. Sacks and R. M. Fuoss. bibliog Am Chem Soc J 75:5172-5 N 5 '53

Electrolyte symposium abstracts. Chem & Eng N 32:2576-7 Je 28 '54

Electrolytic properties of aqueous solutions of polymeric electrolytes. F. T. Wall and R. H. Doremus. Am Chem Soc J 76:1557-60 Mr 20 '54

Electrothermal heating of solutions. K. A. Kobe and C. J. Carlson. il diag Electrochem Soc J 101:155-7 Mr '54

Ion exchange membrane purification of organic electrolytes. E. N. Lightfoot and I. J. Friedman. bibliog Ind & Eng Chem 46:1579-83 Ag '54

Light scattering in solutions of a linear polyelectrolyte. A. Veis and D. N. Eggenberger. bibliog Am Chem Soc J 76:1560-3 Mr 20 '54

Low-temperature electrolytes. F. Rakowsky and A. B. Garrett. bibliog Electrochem Soc J 101:117-19 Mr '54

Macro-ions; the solution behavior of a polymeric ampholyte. G. Ehrlich and P. Doty. bibliog Am Chem Soc J 76:3764-77 Jl 20 '54

Magnetic model of polyelectrolyte interaction. B. E. Conway. bibliog il diag J Chem Educ 31:477-80 S '54

Molar activity coefficients of electrolytes predicted from conductivity data. H. P. Marshall and E. Grunwald. bibliog J Chem Phys 21:2143-51 D '53

Partition of electrolytes between aqueous and organic phases; the partition of the alkali reineckates and perrhenates between water and nitromethane. H. L. Friedman and G. R. Haugen. bibliog Am Chem Soc J 76:2060-3 Ap 20 '54

Polyphosphates as polyelectrolytes; viscosity of aqueous solutions of Graham's salts. U. P. Strauss and E. H. Smith. bibliog Am Chem Soc J 75:6186-8 D 20 '53

Semiconductors as solid electrolytes in electrochemical systems. K. Lehovec and J. Broder. bibliog Electrochem Soc J 101:208-9 Ap '54

Solubility of ethyl acetate in aqueous electrolyte solutions. A. P. Altshuller and H. E. Everson. bibliog Am Chem Soc J 75:4823-7 O 5 '53

Variation of transference numbers with concentration. R. H. Stokes. bibliog Am Chem Soc J 76:1988-90 Ap 5 '54

See also

Electric double layer

Electrolytic cells

Moving boundary systems

ELECTROLYTES—*Continued*

Conductivity

Application of Onsager's theory of conductance to the conductances and transference numbers of unsymmetrical electrolytes. J. L. Dye and F. H. Spedding. Am Chem Soc J 76:888-92 F 5 '54

Conductances of some salts and ion-pair equilibria in acetic acid at 30°. M. M. Jones and E. Griswold. Am Chem Soc J 76:3247-9 Je 20 '54

Conductances, solubilities and ionization constants of some rare earth sulfates in aqueous solutions at 25°. F. H. Spedding and S. Jaffe. bibliog Am Chem Soc J 76:882-4 F 5 '54

Conductances, transference numbers and activity coefficients of aqueous solutions of some rare earth chlorides at 25°. F. H. Spedding and J. L. Dye. Am Chem Soc J 76:879-81 F 5 '54

Conductances, transference numbers and activity coefficients of some rare earth perchlorates and nitrates at 25°. F. H. Spedding and S. Jaffe. Am Chem Soc J 76:884-8 F 5 '54

Conductimetric studies in ketonic solvents; acetone as solvent. J. F. J. Dippy and S. R. C. Hughes. Chem Soc J p953-8 Mr '54

Conductivity and solubility studies of some glycollates and lactates. W. P. Evans and C. B. Monk. Chem Soc J p550-7 F '54

Conductivity of electrolytes in non-aqueous and mixed solvents. V. S. Griffiths. Chem Soc J p686-90 F '54

Differential conductance manometer. J. R. Pappenheimer. bibliog il diags R Sci Instr 25:912-17 S '54

Diffusion coefficients and conductances of some concentrated electrolyte solutions at 25°. B. F. Wishaw and R. H. Stokes. bibliog Am Chem Soc J 76:2065-71 Ap 20 '54

Electrical conductivity of uranyl fluoride in aqueous solution. R. D. Brown and others. Am Chem Soc J 76:1580-1 Mr 20 '54

Electrolytic transference properties of polyphosphates. F. T. Wall and R. H. Doremus. bibliog Am Chem Soc J 76:868-70 F 5 '54

Inexpensive conductivity-determining equipment R. M. Creamer and D. H. Chambers. diags Anal Chem 26:1098-9 Je '54

Instrument for the measurement of the density of aqueous ionic solutions. C. F. McCourt. diags J Sci Instr 30:241-4 Jl '53

New bridge circuit for conductometric titrations. H. J. Svec. diags J Chem Educ 31:193-4 Ap '54

Self-diffusion and ionic conductivity in sodium bromide. H. W. Schamp, jr. and E. Katz. bibliog diag Phys R 94:828-36 My 15 '54

Variation of equivalent conductance with concentration and temperature. R. A. Robinson and R. H. Stokes. bibliog Am Chem Soc J 76:1991-4 Ap 5 '54

ELECTROLYTIC cells

Determination of current efficiency of diaphragm alkali-chlorine cells by gas analysis. M. S. Kircher and others. diag Electrochem Soc J 100:448-51 O '53

Diaphragm type amalgam caustic-chlorine cell. C. Potter and A. L. Bisio. bibliog diag Electrochem Soc J 101:158-61 Mr '54

Electrolytic caustic and chlorine industries. W. C. Gardiner. il diags J Chem Educ 30:116-20 Mr '53

Electrolytic tank; qualitative applications to engineering design problems; abstract. H. Diggle and E. R. Hartill. diag Elec R (Lond) 154:413; Discussion. 413-14 Mr 5 '54; Elec J 152:761-2 Mr 5 '54

Equivalent-circuit model of the transference cell. G. W. Murphy. bibliog diags Electrochem Soc J 101:44-52 Ja '54

Test cell for the measurement of the conductivity of butter and margarine. J. H. Prentice. diag J Sci Instr 31:29-30 Ja '54

Theory of the effect of electrode resistance on current density distribution in electrolytic cells. C. W. Tobias and R. Wijsman. bibliog diag Electrochem Soc J 100:459-67 O '53

Thermodynamics of reversible galvanic cells in which the compositions of some of the phases vary with temperature. J. W. Stout. J Chem Phys 21:1829-30 O '53

Manufacture

Assembly-line methods cut chlorine cell costs; Hooker electrochemical co. il Chem Eng 61:128+ F '54

ELECTROLYTIC depolarization. See Depolarization, Electrolytic

ELECTROLYTIC grinding. See Grinding, Electrolytic

ELECTROLYTIC ionization. See Ionization, Electrolytic

ELECTROLYTIC oxidation. See Oxidation, Electrolytic

ELECTROLYTIC polarization. See Polarization, Electrolytic

ELECTROLYTIC polishing. See Polishing, Electrolytic

ELECTROLYTIC reduction. See Reduction, Electrolytic

ELECTROMAGNETIC field

Asymptotic evaluation of the field at a caustic. I. Kay and J. B. Keller. diags J Ap Phys 25:876-83 Jl '54

Canonical transformation for an electron-positron field coupled to a time-independent electromagnetic field. H. E. Moses. Phys R 89:115-22; 95:237-42 Ja 1 '53, Jl 1 '54

Classical theory of particles interacting with electromagnetic and mesonic fields. P. Havas. bibliog Phys R 93:882-8 F 15 '54

Electromagnetic field expansions in loss-free cavities excited through holes. T. Teichmann and E. P. Wigner. diag J Ap Phys 24:262-7 Mr '53

Electromagnetic field near a dielectric lens. D. C. Hogg. J Ap Phys 25:542 Ap '54

Electromagnetic field of a dipole source above a grounded dielectric slab. Y. T. Lo. bibliog diags J Ap Phys 25:733-40 Je '54

Equivalent mass and other effects of a non-local electromagnetic field in interaction with a constant *E*, *H* field. C. Gregory. Phys R 92:1554-7 D 15 '53

Flow of energy in d-c machines; abstract. E. I. Hawthorne. diag Elec Eng 73:222 Mr '54

Matrix elements for the nuclear photoeffect. L. L. Foldy. bibliog Phys R 92:178-88 O 1 '53

Measurement of electromagnetic field in resonant cavities by introduction of small metallic rings. A. Gilardini. J Ap Phys 25:1064-5 Ag '54

Quantum effects in the interaction between electrons and high-frequency fields. I. R. Senitzky. Phys R 95:904-11 Ag 15 '54

Stored energy and power flow in electron beams. L. R. Walker. J Ap Phys 25:615-18 My '54

Theory of quantized fields. J. Schwinger. Phys R 93:615-28; 94:1362-84 F 1, Je 1 '54

See also

Field theories (physics)

ELECTROMAGNETIC properties

Electromagnetic effects in two-nucleon systems. S. Deser. Phys R 92:1542-7 D 15 '53

ELECTROMAGNETIC shielding

Copper-lined room at GE plant excludes electromagnetic wave; anechoic chamber of sound test building. Iron Age 173:150+ My 13 '54

Is your rig r.f.-tight? O. P. Schreiber. il diags Q S T 37:29-30 Ag '53

ELECTROMAGNETIC theory

Collective description of electron interactions; Coulomb interactions in a degenerate electron gas. D. Bohm and D. Pines. bibliog Phys R 92:609-25 N 1 '53

Collective description of electron interactions; electron interaction in metals. D. Pines. bibliog Phys R 92:626-36 N 1 '53

Electromagnetic mass and a particle model in Darling's theory of elementary particles. H. Freistadt. bibliog Phys R 92:1015-16 N 15 '53

Meaning of the vector Laplacian. P. Moon and D. E. Spencer. bibliog Franklin Inst J 256:551-8 D '53

New modification of classical electromagnetic theory. A. Schild. bibliog Phys R 92:1009-14 N 15 '53

Radiation in metals. N. W. Snyder. bibliog A S M E Trans 76:541-8 My '54

ELECTROMAGNETIC theory—*Continued*

Reaction concept in electromagnetic theory. V. H. Rumsey. bibliog diags Phys R 94:1483-91 Je 15 '54

Reciprocity theorems in electromagnetic theory. T. H. Crowley. bibliog J Ap Phys 25:119-20 Ja '54

ELECTROMAGNETIC waves

Dielectric constant measurements at 8.6-mm wavelength. P. Hertel, jr. and others. J Ap Phys 24:956-7 Jl '53

Diffraction of electromagnetic waves by an aperture in a large screen. G. Bekefi. bibliog(25 ref) J Ap Phys 24:1123-30 S '53; Discussion. bibliog 25:269-70, 808-9, 1053, 1342-3 F, Je, Ag, O '54

Diffraction of spherical vector waves by an infinite half-plane. K. L. McDonald. bibliog Opt Soc Am J 43:641-7 Ag '53

Dispersion formula for plasma waves. L. R. Walker. J Ap Phys 25:131-2 Ja '54

Electromagnetic transmission characteristics of the two-dimensional lattice medium. H. S. Bennett. bibliog(61 refs) diags J Ap Phys 24:785-810 Je '53

Penetration of an electromagnetic wave into a ferromagnetic material. A. Papoulis. il diags J Ap Phys 25:169-76 F '54

Scattering of electromagnetic waves by turbulent atmospheric fluctuations. F. Villars and V. F. Weisskopf. bibliog diags Phys R 94:232-40 Ap 15 '54

Transmission of electromagnetic waves through pairs of parallel wire grids. W. E. Groves. J Ap Phys 24:845-54 Jl '53

Vector wave function solution of the diffraction of electromagnetic waves by circular disks and apertures. C. Flammer. bibliog J Ap Phys 24:1218-31 S '53; Correction. 25:543 Ap '54

See also

Radio waves

ELECTROMAGNETISM

Centripetal and centrifugal electromagnetophoresis. A. Kolin. diags J Ap Phys 25:1065-6 Ag '54

Dimensional relations in magnetohydrodynamics. W. M. Elsasser. bibliog Phys R 95:1-5 Jl 1 '54

Dynamic measurements on electromagnetic devices. M. A. Logan. bibliog il diags Bell System Tech J 32:1413-67 N '53

Electromagnetic spectrum in chemistry. M. Davies. J Chem Educ 31:89-91 F '54

Electronic witch takes guesswork out of pipe finding. G. M. MacLeod. il Pub Works 85:95-6 Ap '54

Fundamentals of electromagnetism; Institution of electrical engineers meeting, Feb. 11; discussion. Elec J 152:611-12 F 19 '54

See also

Faraday effect
Magnetic field
Magnetic induction
Unified field theory

ELECTROMAGNETS

Analysis of measured magnetization and pull characteristics. R. L. Peek, jr. il diags Bell System Tech J 33:79-108 Ja '54

Apparatus for nuclear magnetic resonance. H. S. Gutowsky and others. bibliog il diags R Sci Instr 24:644-52 Ag '53

Cosmotron; a review; magnet. J. P. Blewett and others. bibliog diag R Sci Instr 24:737-78 S '53

Electromagnetic method of measurement of density or specific gravity of liquids. K. R. Honick. diags J Sci Instr 31:1-2 Ja '54

Electromagnetic pumps for high temperature liquid metal. J. F. Cage, jr. il diag Machine Design 25:178-9+ Mr '53; Same. Mech Eng 75:467-71 Je '53

Electromagnetic vibration pick-ups with simple seismic suspension. J. A. Macinante. il diags J Sci Instr 30:155-8 My '53

Electromagnetic viscometer for molten silicates at temperatures up to 1800° C. J. O. Bockris and D. C. Lowe. bibliog diags J Sci Instr 30:403-5 N '53

Joyce, Loebl and co. magnetic transit detector. il J Sci Instr 30:391 O '53

Loudspeaker magnetizer at Stromberg-Carlson plant. il Electronics 26:305-7 D '53

Measurement of two-dimensional fields; study of a quadrupole magnet. I. E. Dayton and others. bibliog il diag R Sci Instr 25:485-9 My '54

Ophthalmic magnet. L. R. Blake. diags J Sci Instr 31:237-40 Jl '54

Pulley; big electro-magnetic unit installed to remove tramp iron; Oak Creek power station. il Iron Age 172:214 D 3 '53; Steel 133:155 D 7 '53

Simple electromagnetic microviscometer for semi-transparent liquids. J. Hart. diag J Sci Instr 31:182-4 My '54

See also

Chucks, Magnetic
Lifting magnets
Magnetic separators

ELECTROMECHANICAL devices

Electro-mechanical programme controller. A. F. Watson and P. K. C. Wiggs. il diag J Sci Instr 30:324-6 S '53

Electromechanical system developed for sorting items. il Elec Eng 73:103 Ja '54; Same abr. diag Machine Design 26:208 F '54; Same abr. Mech Eng 76:270-1 Mr '54

Rotating components for automatic control; nonlinear function generation; induction components. S. Davis. il diags Product Eng 24:136-42 N '53

ELECTROMECHANICAL transducers

Joyce, Loebl and co. magnetic transit detector. il J Sci Instr 30:391 O '53

Movable-anode tube gages surface roughness. J. B. Bidwell. il diags Electronics 26:181-3 N '53

Remote indication of pressures. il diag Chem Age (Lond) 69:753-4 O 10 '53

Salford transducer system for remote indication. il diag Engineer 196:537-8 O 23 '53; Engineering 176:672 N 20 '53

ELECTROMETALLURGY

Electrochemical and electrometallurgical industries of Canada. V. G. Bartram; A. C. Holm. il Electrochem Soc J 100:sup295C-302C; 101:sup7C-16C, sup41C-9C, sup67C-72C N '53, Ja-Mr '54; Excerpts. Can Chem Process 38:26+ F; 72+ My '54

Magnesium production in the Southwest. W. J. Rave. bibliog flow sheets il Electrochem Soc J 100:sup 179C-81C Jl '53

New metallurgical process may unlock refractory ore. G. H. Cleaver. diag Eng & Min J 155:98-9 Jl '54

Pure metals direct from raw ores; high-intensity-arc refining process. Am Mach 98:174 Je 7 '54

Refining light metals; new arc process. C. Sheer and S. Korman. il Steel 134:128 Je 7 '54

Survey of the literature on the extractive metallurgy and electrolytic refining of bismuth. P. M. Gruzensky and W. J. Crawford. bibliog(50 titles) U S Bur Mines Information Circ 7681:1-12 '54

See also

Aluminum metallurgy—Electrometallurgy
Chromium metallurgy—Electrometallurgy
Copper metallurgy—Electrometallurgy
Electric furnaces, Metallurgical
Electrodeposition of metals
Electroplating
Magnetic separation of ores
Manganese metallurgy—Electrometallurgy
Molybdenum metallurgy—Electrometallurgy
Steel metallurgy—Electrometallurgy
Zinc metallurgy—Electrometallurgy
Zirconium metallurgy—Electrometallurgy

ELECTROMETERS

Aerial electrometer will study atmospheric electricity. Elec Eng 73:187-8 F '54

Aerosol analyzer. J. I. Masters. diag R Sci Instr 24:586-8 Ag '53

Ac operated portable electrometer-type millivoltmeter. O. H. Schmitt and C. H. MacPherson. il diag R Sci Instr 25:910-12 S '54

Balanced electrometer amplifier. D. R. Hardy. bibliog diags J Sci Instr 31:77-81 Mr '54

Electrometer triode follower. S. Krakauer. diags R Sci Instr 24:496-500 Jl '53

Electrometer tubes. D. L. Collins. diag Instruments 26:1708-9+ N '53

General-purpose electrometer. R. M. Fry. diags J Sci Instr 31:269-71 Ag '54

Oscillator electrometer; abstract. T. A. Rich and J. E. Bigelow. diags Electronics 26:224+ D '53

ELECTROMETERS—*Continued*

Portable quadrant electrometer of high sensitivity. G. F. Schilling and P. Kreager. il R Sci Instr 24:877-8 S '53

Simple electrometer for small-scale potentiometric titrations. D. M. W. Anderson and C. T. Greenwood. bibliog diag Chem & Ind p476 My 16 '53

Transient response of the glass electrode to *p*H step variations. A. Distèche and M. Dubuisson. bibliog il diags R Sci Instr 25:869-75 S '54

Variable resistance electrometer head. H. House and M. J. Morant. diags J Sci Instr 31:342-3 S '54

Vibrating needle electrometer. Y. L. Yousef and R. Kamel. diag J Sci Instr 31:13-15 Ja '54

ELECTROMETRIC titration. See Volumetric analysis

ELECTROMICROCAUTER

Improved electromicrocauter apparatus. G. C. Riggle. il diag R Sci Instr 24:402 My '53

ELECTROMOTIVE force. See Potential, Electric

ELECTRON accelerators

Angle-energy distribution of radiation from high-energy electron accelerators. R. M. Warner, jr. and E. F. Shrader. bibliog R Sci Instr 25:663-7 Jl '54

Axial motion of electrons in a linear accelerator with β=1. J. Swihart and E. Akeley. J Ap Phys 24:640-3 My '53

Linear accelerator and cyclotron. il Elec J 151:1298 O 23 '53; Elec R (Lond) 153:963 O 23 '53

Metropolitan-Vickers 8 linear accelerator for X-ray therapy. il diags Engineer 196:554-6 O 30 '53

Microwave accelerator employed for cancer treatment. Chem & Eng N 32:2590 Je 28 '54

Pig ion source; Phillips ionization gauge type ion source used on a Cockcroft-Walton type accelerator. C. F. Barnett and others. diag R Sci Instr 24:394-5 My '53

Probing deeper into the atom; electron linear accelerator. il Chem Eng 60:156 O '53

Regulator for a 20- to 250-kilovolt Cockcroft-Walton accelerator. C. J. Cook and W. A. Barrett. diags R Sci Instr 24:638-40 Ag '53

Transverse motion of an electron in a constant wave speed section of a linear accelerator. I. Jacobs and E. S. Akeley. J Ap Phys 25:572-6 My '54

X-ray therapy; experience with 8 Mev linear accelerator; abstract. C. W. Miller. Elec R (Lond) 154:520; Discussion. 520 Mr 19 '54; Elec J 152:943-4 Mr 19 '54

See also

Betatron
Cyclotron

ELECTRON diffraction cameras. See Cameras, Electron diffraction

ELECTRON gun

Electron gun aimed at insects. V. H. Baker and others. il diag Food Eng 26:64-6 Ap '54

Modification of an early demountable X-ray tube to give a fine focus. G. K. Williamson and R. E. Smallman. il diags J Sci Instr 31:68-9 F '54

ELECTRON lens. See Electron optics

ELECTRON microscope

Absolute method of sampling and measurement of solid air-borne particulates; combined use of the molecular filter membrane and electron microscopy. D. A. Fraser. il A M A Archives Ind Hygiene & Occup Med 8:412-19 N '53

Application and limitations of the edge-diffraction test for astigmatism in the electron microscope. M. E. Haine and T. Mulvey. bibliog il diags J Sci Instr 31:326-32 S '54

Application of electron microscopy to the study of cellulose acetate fibers. V. Peck and W. Kaye. bibliog il Textile Res J 24:300-6 Ap '54

Auxiliary circuit to reduce high-voltage arcing in the RCA EMU electron microscope. R. Q. Gregg. diag R Sci Instr 24:1065-6 N '53

Chromatic field aberration of the magnetic electron lens in the electron microscope. N. Morito. bibliog J Ap Phys 25:986-93 Ag '54

Compact console-type electron microscope. R. S. Page. il diags J Sci Instr 31:200-5 Je '54

Construction of a universal electron diffraction microscope and its optical features. K. Tanaka and H. Hashimoto. il diags R Sci Instr 24:669-75 Ag '53

Contour lines on the shadowed side in the electron microscope. K. Tokuyasu. il J Ap Phys 24:956 Jl '53

Coupled through-focus control for the RCA type EMU-2B electron microscope. F. W. Bishop and M. L. Cook. il diag R Sci Instr 24:1064-5 N '53

Damage to specimens by shadowing bombardment. K. Tokuyasu. il J Ap Phys 24:953-4 Jl '53

Decompositions of inorganic specimens during observation in the electron microscope. R. B. Fischer. il J Ap Phys 25:894-6 Jl '54

Diffraction grating copies for electron microscope calibration. B. E. Williams. il J Sci Instr 31:190 My '54

Electron microscope examination of wool; fraction resistant to peracetic acid, ammonium hydroxide treatment. B. Manogue and R. L. Elliott. bibliog 2pls Soc Dyers & Col J 69:113-14 Ap '53

Electron microscope investigation of glass. A. F. Prebus and J. W. Michener. il Ind & Eng Chem 46:147-53 Ja '54

Electron microscope study of the performance of a detergent oil; abstract. J. B. Peri. S A E J 62:40-1 Mr '54

Electron microscope view of a soap. H. M. Allred. il Chem & Eng N 32:714 F 22 '54

Electron microscopical studies of the latent image obtained by exposures to alpha particles, X-rays, and light. H. Hoerlin and F. A. Hamm. bibliog il J Ap Phys 24:1514-19 D '53

Electron microscopy. M. Swerdlow. Anal Chem 26:34-42 bibliog(188 ref, p40-2) Ja '54

Electron microscopy of photographic grains; specimen preparation techniques and applications. F. A. Hamm and J. J. Comer. bibliog(30 ref) il J Ap Phys 24:1495-513 D '53

Electron microscopy of synthetic elastomer latices. R. R. Stromberg and others. bibliog il diag J Res Nat Bur Stand 50:299-309 Je '53

Electron optical study of oxidation of high purity iron at low oxygen pressures. E. A. Gulbransen and others. bibliog il diags J Metals 6:Trans 1027-35 sec 2 S '54

Expansion head for thin section cutting. A. F. Howatson and P. R. Price. il diag J Sci Instr 30:254 Jl '53

External condenser aperture-centering and interchanging device for the RCA emu electron microscope. F. W. Bishop. il diag R Sci Instr 25:188-90 F '54

External control of the spacing of the projector pole-piece elements of the RCA EMU electron microscope. F. W. Bishop and S. B. Elliott. il diags R Sci Instr 24:459-60 Je '53

Field emitter; fabrication, electron microscopy and electric field calculations. W. P. Dyke and others. il diags J Ap Phys 24:570-6 My '53

Optical and electron microscopic studies of cotton fiber structure. M. L. Rollins and V. W. Tripp. bibliog il Textile Res J 24:349-56 Ap '54

Plated electron-microscope specimen screens. F. W. Bishop. R Sci Instr 24:986 O '53

Preparation of aerosols for electron microscopy. E. H. Kalmus. il J Ap Phys 25:87-9 Ja '54

Reinforced rubber stocks under the electron microscope. M. M. Chappuis and others. bibliog il Rubber World 130:507-9+ Jl '54

Russian research on aluminium alloys; oxide films examined under the electron microscope. N. N. Buinov and L. I. Podrezov. bibliog Chem Age (Lond) 68:601-2 Ap 18 '53

Shadowing technique for electron microscopy; a possible substitute for the high-vacuum evaporation technique. A. E. Bills and R. Lefker. il J Ap Phys 25:901-3 Jl '54

ELECTRON microscope—*Continued*

Small electron microscope available from Philips. Chem & Eng N 31:4826 N 16 '53

Solvent etching of cellulose acetate specimens for electron microscopy. V. Peck and W. Kaye. bibliog il Textile Res J 24:295-300 Ap '54

Some X-ray diffraction and electron microscope observations on temper-brittle steels. S. R. Maloof. bibliog il Am Soc for Metals Trans 44:264-74; Discussion. 274-81 '52

Specimen screening aperture for the electron microscope. R. S. Page and A. W. Agar. diag J Sci Instr 31:27 Ja '54

Study of the propagation mode for metallic vapors in shadow-casting by vacuum evaporation of Au^{198} and Cr^{51}. L. E. Preuss. bibliog il diags J Ap Phys 24:1401-9 N '53

Using the electron microscope in today's laboratories. V. W. Palen. il Can Chem Process 38:108-10 S '54

Viruses within cells. J. L. Melnick. il Sci Am 189:38-41 D '53

Replica technique

High-resolution replicas and their application. T. Hibi and K. Yada. bibliog il diag J Ap Phys 25:712-19 Je '54

Improved replica technique for electron microscopy of paint films. A. S. Powell and others. il J Ap Phys 25:757-60 Je '54

Metallic grating replicas as internal standards for calibrating electron microscopes. S. R. Rouze and J. H. L. Watson. il J Ap Phys 24:1106-9 S '53

Method of preparing replicas for electron microscopic examinations. W. S. Smith and W. G. Kirchgessner. il J Ap Phys 24:662 My '53

Microstructure of paint films. E. G. Bobalek and others. bibliog il Ind & Eng Chem 46:572-7 Mr '54

Optical properties of uniform particle-size latexes. T. Alfrey, jr. and others. bibliog il diags Opt Soc Am J 44:603-9 Ag '54

Oxide replica in electron microscopy. S. Yamaguchi. il J Ap Phys 25:927-8 Jl '54

Replica technique in the study of chemical precipitation processes. R. B. Fischer and J. P. Ellinger. il J Ap Phys 24:1051-3 Ag '53

Spin-coated polyvinyl alcohol replicas for electron microscope use. F. E. Bulette. il J Ap Phys 25:810-11 Je '54

Titanium replica for electron microscopy. S. Yamaguchi and T. Nakayama. il J Ap Phys 24:658 My '53

ELECTRON microscope society of America

Annual meeting, Pocono Manor, Pa. Nov. 5-7; abstracts of papers. J Ap Phys 24:1414-26 N '53; Excerpts. Anal Chem 26:437-8 F '54

ELECTRON optics

Diffraction of electromagnetic waves by an aperture in a large screen. G. Bekefi. bibliog(25 ref) J Ap Phys 24:1123-30 S '53; Discussion. bibliog 25:269-70, 808-9, 1342-3 F, Je, O '54

Electron diffraction apparatus with a new electron optical system designed for the examination of surface structure. C. S. Lees. il(p88) diags J Sci Instr 31:84-6 Mr '54

Electron interferometry. L. Marton. bibliog diags Science 118:470-4 O 23 '53

Electronic fringe interpolator for an optical interferometer. R. D. Huntoon and others. il diags Opt Soc Am J 44:264-9 Ap '54

Electronic location of interference fringes. J. Peters and G. Stroke. il diags Opt Soc Am J 43:668-72 Ag '53

Electrostatic potential plotting for use in electron optical systems. K. C. Ho and R. J. Moon. bibliog il diags J Ap Phys 24:1186-93 S '53

Evacuating photographic materials for use in electron optical apparatus. J. H. Reisner. R Sci Instr 25:477-9 My '54

Formation of black carbon. R. O. Grisdale. bibliog il diags J Ap Phys 24:1082-91 S '53

High precision electron-diffraction unit for gases. L. O. Brockway and L. S. Bartell. bibliog il diags R Sci Instr 25:569-75 Je '54

Instrumentation and experimental procedure for studies of electron ejection by ions and ionization by electron impact. H. D. Hagstrum. bibliog il diags R Sci Instr 24:1122-42 D '53

Magnetic electron lens aberrations due to mechanical defects. G. D. Archard. bibliog diags J Sci Instr 30:352-8 O '53

Physicochemical studies on dusts; electron-optical examination of finely ground silica. J. G. Gibb, P. D. Ritchie and J. W. Sharpe. bibliog 2pls J Ap Chem 3:213-18 My '53

Solid-state image intensifier. R. K. Orthuber and L. R. Ullery. bibliog il diag Opt Soc Am J 44:297-9 Ap '54

Space charge requirements in some ideally focused electron-optical systems. N. Wax. bibliog J Ap Phys 24:727-30 Je '53

Trajectories in the symmetrical electron lens. L. Jacob and J. R. Shah. bibliog il J Ap Phys 24:1261-6 O '53

Visual presentation of X-ray diffraction patterns by electronic means. E. P. Bertin. bibliog(45 ref) il diags Anal Chem 25:708-17 My '53

See also

Electron microscope
Electronics
Oscillographs, Cathode ray
Television

ELECTRON transfer catalysis. See Catalysis

ELECTRON traps

Some properties of electron traps in a ZnS:Cu phosphor. J. L. Gillison, jr. Opt Soc Am J 44:341-2 Ap '54

ELECTRON tubes. See Vacuum tubes

ELECTRONEGATIVITY (term)

Electronegativities in inorganic chemistry. R. T. Sanderson. bibliog J Chem Educ 29:539-44; 31:2-7, 238-45 N '52, Ja, My '54

ELECTRONIC calculator. See Calculating machines

ELECTRONIC circuits. See Electric circuits

ELECTRONIC computers. See Calculating machines

ELECTRONIC gating knockmeter. See Internal combustion engines—Combustion research

ELECTRONIC musical instruments. See Musical instruments, Electric

ELECTRONIC switch. See Vacuum tubes—Control uses

ELECTRONIC technicians

Mobility of electronic technicians, 1940-52; work experience, training, and personal characteristics of workers in a new skilled occupation. J. J. Treires. U S Bur Labor Statistics Bul 1150:1-79; pa 50c Supt. of doc. '54

ELECTRONIC voltmeters. See Voltmeters, Vacuum tube

ELECTRONICS

Automatic plant; from powder to product; Project Tinkertoy. flow sheet il Aviation W 59:72-4+ O 12 '53

Automation moves in on the electronic industry; Project Tinkertoy. A. N. Wecksler. il Mill & Factory 53:98-101 N '53

Cost reduction through electronic production control. R. G. Canning. flow diag diag Mech Eng 75:887-90 N '53

Electrical revolution. L. G. Brazier. Engineer 196:637-8 N 13 '53

Electrical revolution; abstracts. L. G. Brazier. Elec J 151:1505-6 N 6 '53; Elec R (Lond) 153:1049-50 N 6 '53

Electronic approach to process control. C. J. Swartwout. il diags Instruments 26:728-30+ My '53

Electronic headquarters at Syracuse celebrates GE's 75th anniversary. il Tele-Tech 12:98-102+ N '53

Electronics; a tool for communications and control in the gas industry. D. E. Noble. Am Gas Assn Proc 1953:417-20

Electronics in surveying. C. I. Aslakson. il map diags Am Soc C E Proc 79 [no 284]: 1-15 S '53

Electronics in the AEC biomedical program. J. C. Bugher. Elec Eng 72:865-7 O '53

Electronics in the switching of telephone calls. L. J. Murray. diags Engineering 176:413-15, 445-7 S 25-O 2 '53; Abstract and discussion. Elec R (Lond) 153:565-6 S 11 '53

ELECTRONICS—*Continued*

Electronics industry, billion dollar infant. H. L. Hoffman. Comm & Fin Chr 178:9+ sec 2 O 8 '53

Electronics industry sees 1954 sale of $5 billion-plus. il Steel 134:66 Je 28 '54

Electronics make car driving automatic. Iron Age 172:80-1 Ag 6 '53

Electronics; New England's rising potential. il Steel 133:46-7 N 23 '53

Electronics; 1953 was industry's best year, but '54 looks even better. R. C. Sprague. Iron Age 173:55 F 25 '54

For electronic research and development; Varian associates. il plans diags Arch Rec 116:156-61 Jl '54

For Otis; more electronics. Bsns W p 119-20 O 17 '53

Future of R.C.A. H. L. Blackburn. Mag of Wall St 93:443+ Ja 9 '54

Instrument electronics (cont). M. H. Aronson. il diags Instruments 25:1263-5+, 1426-7+, 1572-5+; 26:108-12+, 252-3 S-N '52, Ja-F '53

Maintenance and servicing of electronic instruments. J. Dobrin. bibliog il diag Instruments & Automation 27:122-3 Ja '54

National electronics conference, 9th, Chicago reports electronic advances. il Aviation W 59:52+ N 2 '53

Navy unveils automatic factory; Project Tinkertoy. il Aviation W 59:17-18 S 28 '53

New profits for you behind tomorrow's hot headlines; electronics; great acceleration. W. W. MacDonald. il Sales Management 72:34 Ja 1 '54

1953 engineering developments; reviewed by AIEE technical committees. il Elec Eng 73: 1-27 Ja '54

Plastics in the electronics industries. R. L. Mondano. J Chem Educ 31:383-6 Jl '54

Potential for electronics in banking. Banking 46:52-3+ O '53

Project Tinkertoy; new concept of mechanized production. bibliog il diag Commun Eng 13:22-5+ N '53; Same cond. Instruments & Automation 27:462-3 Mr '54; Same cond. Mech Eng 75:1000-2 D '53; Same cond. Machine Design 25:192+ N '53; Excerpt. Elec Eng 72:1036-7 N '53; Abstract. Product Eng 24:206 O '53

Psychologist views electronic equipment complexity. B. J. Covner. Elec Eng 72:857-60 O '53

Reliability of electronic components. T. W. Rogers. Machine Design 26:288+ F '54

Research and engineering progress, 1953; electronics. il Gen Elec R 57:44-8 Ja '54

Second industrial revolution? USAF-Stanford research institute symposium on the automatic production of electronic equipment, San Francisco, April 19-20. il Am Mach 98: 190-1 My 10 '54

Setting up a research arm; Ramo Woolridge corp. Bsns W p 126 S 26 '53

Study of vital trends in tv-electronics industry, 1952 and first half of 1953. G. L. Merton. Mag of Wall St 93:78-80+ O 17 '53

Using electronics in plant operations. W. A. Black. il Nat Safety N 69:24-5+ Ja '54

See also

Airplanes—Electronic equipment
Electron microscope
Electron optics
Electrons
Leach industries
Oscillographs, Cathode ray
Photoelectric cells
Pulse techniques (electronics)
Radio engineering
Television
Vacuum tubes

Bibliography

Industrial engineering notes. Inst Radio Eng Proc 42:sup84A+ Ja '54

Military use

Electronic warfare and techniques. il Aviation W 59:300+ Ag 17 '53

Patents

Pertinent patents (cont). diags Electronics 26:216+ N; 248+ D '53; 27:236+ Ja; 246+ F '54

Study and teaching

Aid to teaching electronic theory. A. A. Humffray. J Chem Educ 30:635-7 D '53

ELECTRONICS in aeronautics

Airlines electronic engineering committee of Aeronautical radio, inc. acts on avionic problems. P. Klass. Aviation W 59:71-2+ N 16 '53

Avionics in the air force. il Aviation W 59: 249-52+ Ag 17 '53

Avionics research group reorganized; Stanford research institute, Radio systems laboratory. Aviation W 59:83-4 S 14 '53

Makers announce avionics components. il diag Aviation W 59:79-80 O 12 '53

NAA builds expert avionics team. P. Klass. il Aviation W 59:48+ Jl 13 '53

Putting avionics research to work; Electronics research directorate. il Aviation W 59:316+ Ag 17 '53

Role of electronics in powered flight. W. R. G. Baker. Aviation W 59:63-4+ N 9 '53

ELECTRONICS laboratory. See United States—Navy—Electronics laboratory

ELECTRONS

Angular distribution of photoelectrons from gamma radiation of 0.4 and 1.3 Mev. A. Hedgran and S. Hultberg. Phys R 94: 498-9 Ap 15 '54

Angular distribution of photoelectrons produced by 0.4-0.8-Mev polarized photons. W. H. McMaster and F. L. Hereford. bibliog diags Phys R 95:723-6 Ag 1 '54

Axial motion of electrons in a linear accelerator with $\beta=1$. J. Swihart and E. Akeley. J Ap Phys 24:640-3 My '53

Bridged activated complex for the electron exchange of chromium(II) and monochlorochromium(III) ion. H. Taube and E. L. King. Am Chem Soc J 76:4053-4 Ag 5 '54

Canonical transformation for an electron-positron field coupled to a time-independent electromagnetic field. H. E. Moses. Phys R 89:115-22; 95:237-42 Ja 1 '53, Jl 1 '54

Collective description of electron interactions; Coulomb interactions in a degenerate electron gas. D. Bohm and D. Pines. bibliog Phys R 92:609-25 N 1 '53

Collective description of electron interactions; electron interaction in metals. D. Pines. bibliog Phys R 92:626-36 N 1 '53

Compton scattering of 2.62-Mev gamma rays by polarized electrons. S. B. Gunst and L. A. Page. bibliog diag Phys R 92:970-3 N 15 '53

Conductance and relaxation time of electrons in gold blacks from transmission and reflection measurements in the far infrared. L. Harris and A. L. Loeb. bibliog Opt Soc Am J 43:1114-18 N '53

Correlation of proton magnetic resonance chemical shifts with electronegativities of substituents. J. N. Shoolery. bibliog il J Chem Phys 21:1899-900 O '53

Decay-electron spectrum of the μ meson. J. H. Vilain and R. W. Williams. plan Phys R 92:1586-7 D 15 '53

Determination of h/e by a new method. F. G. Dunnington and others. bibliog diag Phys R 94:592-8 My 1 '54

Diffusion cooling of electrons in ionized gases. M. A. Biondi. bibliog Phys R 93:1136-40 Mr 15 '54

Dissociation of H_2^+ by electron impact. E. H. Kerner. bibliog Phys R 92:1441-7 D 15 '53

Effect of atomic electron screening on the shape of forbidden beta spectra. R. H. Good, jr. bibliog Phys R 94:931-3 My 15 '54

Effect of nickel and copper impurities on the recombination of holes and electrons in germanium. J. A. Burton and others. bibliog diags J Phys Chem 57:853-9 N '53

Effect of the surface on the magnetic properties of an electron gas. F. S. Ham. bibliog Phys R 92:1113-19 D 1 '53

Eigenfunctions of S^2 by a spin operator method. G. W. Pratt, jr. bibliog Phys R 92:278-88 O 15 '53

Electric field gradients of atomic *p* electrons. R. G. Barnes and W. V. Smith. bibliog Phys R 93:95-8 Ja 1 '54

Electrical phenomena in adhesion, electron atmospheres in dielectrics. S. M. Skinner and others. bibliog il diags J Ap Phys 24: 438-50 Ap '53; Discussion. 25:1053-5; Reply. 1055-6 Ag '54

ELECTRONS—*Continued*

Electron compounds of transition elements. H. J. Beattie, jr. bibliog il J Ap Phys 24:1322-4 O '53

Electron configuration in 8-coordinated and other complexes. B. Higman. J Chem Phys 21:2224-5 D '53

Electron distribution in molecules; phosphorus magnetic resonance shifts. H. S. Gutowsky and D. W. McCall. bibliog J Chem Phys 22:162-4 F '54

Electron energy distributions in stationary discharges. I. B. Bernstein and T. Holstein. bibliog diag Phys R 94:1475-82 Je 15 '54

Electron physics; proceedings of the 10th NBS semicentennial symposium at NBS, Nov. 5-7, 1951. il diags U S Nat Bur Stand Circ 527:1-416; $2.75 Supt. of doc. '54

Electron resonance in *F* centers. J. Korringa. Phys R 94:1388-9 Je 1 '54

Electron spin pioneers honored; Goudsmit and Uhlenbeck honored by Research corp. scientific award. Chem & Eng N 32:480 F 8 '54

Electron straggling in thin foils. E. T. Hungerford and R. D. Birkhoff. diag Phys R 95:6-7 Jl 1 '54

Electron transfer and other processes involved in the spontaneous bleaching of acidified aqueous solutions of ferric thiocyanate. R. H. Betts and F. S. Dainton. bibliog Am Chem Soc J 75:5721-7 N 20 '53

Electron transfer between naphthalene negative ion and naphthalene. R. L. Ward and S. I. Weissman. Am Chem Soc J 76:3612 Jl 5 '54

Electron transfer in alkali metal-hydrocarbon complexes. W. A. Holmes-Walker and A. R. Ubbelohde. diags Chem Soc J p720-8 F '54

Electron-transfer reactions between metallic ions, co-ordination complexes, and hæmoglobin. P. George and D. H. Irvine. Chem Soc J p587-93 F '54

Electron tunnelling hypothesis for electron exchange reactions. R. J. Marcus, B. J. Zwolinski and H. Eyring. bibliog J Phys Chem 58:432-7 My '54

Electron-voltaic effect in *p-n* junctions induced by beta-particle bombardment. P. Rappaport. Phys R 93:246-7 Ja 1 '54

Energy determination of Cs^{137} *K* conversion electrons. S. K. Bhattacherjee and others. bibliog Phys R 95:404-6 Jl 15 '54

Energy distribution function of electrons in pure helium. F. H. Reder and S. C. Brown. bibliog Phys R 95:885-9 Ag 15 '54

Energy loss and straggling of electrons. C. Warner, 3d and F. Rohrlich. bibliog Phys R 93:406-7 F 1 '54

Energy loss of electrons in passage through thin films. L. Marton and L. B. Leder. bibliog il Phys R 94:203-4 Ap 1 '54

Energy loss of moving electrons to dipolar relaxation. H. Fröhlich and R. L. Platzman. bibliog Phys R 92:1152-4 D 1 '53

Energy of trapped electrons in ionic solids. K. Lehovec. bibliog diags Phys R 92:253-8 O 15 '53

Energy spectrum resulting from electron slowing down. L. V. Spencer and U. Fano. bibliog Phys R 93:1172-81 Mr 15 '54

Evidence for a bridged activated complex for electron transfer reactions. H. Taube and H. Myers. Am Chem Soc J 76:2103-11 Ap 20 '54

Exchange potential in an electron gas at nonzero temperature. H. Zirin. Phys R 90:795 Je 1 '53; Reply. N. H. March. 92:510-11 O 15 '53

Exchange potential in the surface region of a free-electron metal. H. J. Juretschke. bibliog Phys R 92:1140-4 D 1 '53

Excitation of plasma oscillations. D. H. Looney and S. C. Brown. bibliog diag Phys R 93:965-9 Mr 1 '54

Excitation of zinc oxide phosphors by low-energy electrons. R. E. Shrader and S. F. Kaisel. bibliog diags Opt Soc Am J 44:135-9 F '54

Experimental confirmation of the Drude free electron theory of the optical properties of metals for silver, gold, and copper in the near infrared. L. G. Schulz. bibliog diags Opt Soc Am J 44:540-5 Jl '54

Experimental measurement of the gyromagnetic ratio of the free electron. W. H. Louisell and others. bibliog diags Phys R 94:7-16 Ap 1 '54

Free-electron network model for conjugated systems. C. W. Scherr and K. Ruedenberg. bibliog diags J Chem Phys 21:1413-14, 1565-96 Ag-S '53; Correction. 22:151 Ja '54

Gases liberated during the high voltage electron irradiation of polyethylene. E. J. Lawton, P. D. Zemany and J. S. Balwit. bibliog Am Chem Soc J 76:3437-9 Jl 5 '54

Hall mobility of electrons and holes in silicon. P. P. Debye and T. Kohane. Phys R 94:724-5 My 1 '54

Interaction of a nonrelativistic particle with a scalar field with application to slow electrons in polar crystals. T. Lee and D. Pines. Phys R 92:883-9 N 15 '53

Internal conversion electrons from Coulomb excited Ta and W. T. Huus and J. H. Bjerregaard. diag Phys R 92:1579-81 D 15 '53

Introduction to the electron theory of metals. R. A. Lefever. bibliog diags J Chem Educ 30:486-90 O '53

K-auger electrons, positrons, and conversion electrons of Zn^{65} above 5 kev. J. F. Perkins and S. K. Haynes. bibliog Phys R 92:687-93 N 1 '53

Low temperature diamagnetism of electrons in a cylinder. W. Band. diag Phys R 91:249-55 Jl 15 '53; Correction. 93:350-1 Ja 15 '54; Discussion. R. B. Dingle. 92:1320 D 1 '53

Magnetic properties of an electronic Einstein model solid. M. F. M. Osborne and M. C. Steele. bibliog Phys R 92:1403-19 D 15 '53

Measurement of the spin paramagnetism of conduction electrons. R. T. Schumacher and others. il Phys R 95:1089-90 Ag 15 '54

Microwave determination of the probability of collision of electrons in helium. L. Gould and S. C. Brown. bibliog diags Phys R 95:897-903 Ag 15 '54

Mu-mesonic X-rays and the shape of the nuclear charge distribution. D. L. Hill and K. W. Ford. bibliog Phys R 94:1617-29 Je 15 '54

Paramagnetic susceptibility of conduction electrons. D. Pines. Phys R 95:1090-1 Ag 15 '54

Polaron self-energy and Bloch-Nordsieck method. K. S. Singwi and B. M. Udgaonkar. Phys R 94:38-42 Ap 1 '54

Precise momentum measurement of the *F* line of thorium B. D. I. Meyer and F. H. Schmidt. bibliog diags Phys R 94:927-30 My 15 '54

Probe studies of energy distributions and radial potential variations in a low pressure mercury arc. R. M. Howe. bibliog diags J Ap Phys 24:881-94 Jl '53

Quantum effects in the interaction between electrons and high-frequency fields. I. R. Senitzky. Phys R 95:904-11 Ag 15 '54

Range measurement of low-voltage electrons. M. Davis. bibliog Phys R 94:243-5 Ap 15 '54

Rate of the electron-transfer exchange reaction between manganate and permanganate ions. J. C. Sheppard and A. C. Wahl. Am Chem Soc J 75:5133-4 O 20 '53

Reactions of organic derivatives of elements capable of valency-shell expansion; preliminary considerations. E. Rothstein. Chem Soc J p3991-4 D '53

Reactions of organic derivatives of elements capable of valency-shell expansion; unsaturated quaternary phosphonium salts. E. Rothstein, R. W. Saville and P. E. Horn. Chem Soc J p3994-4004 D '53

Relation between the chemical reactivity and energy levels of the chemical reagent. S. Nagakura and J. Tanaka. bibliog J Chem Phys 22:563 Mr '54

Relativistic configuration space formulation of the multi-electron problem. M. Günther. diags Phys R 94:1347-57 Je 1 '54

Role of 3*d*-electrons in valency states of first-row elements. M. J. S. Dewar. Chem Soc J p2885-9 O '53

Spin-spin interaction of electrons and the ionization energy of helium. A. M. Sessler and H. M. Foley. Phys R 92:1321 D 1 '53

ELECTRONS—*Continued*

Theory of boundary effects of superconductors. J. Bardeen. bibliog Phys R 94:554-63 My 1 '54

Three-photon annihilation of positrons and electrons. S. DeBenedetti and R. T. Siegel. bibliog diags Phys R 94:955-9 My 15 '54

Transmission of 0-40 kev electrons by thin films with application to beta-ray spectroscopy. R. O. Lane and D. J. Zaffarano. bibliog diag Phys R 94:960-4 My 15 '54

Transverse motion of an electron in a constant wave speed section of a linear accelerator. I. Jacobs and E. S. Akeley. J Ap Phys 25:572-6 My '54

Traps and trapping processes. R. H. Bube. bibliog diag J Phys Chem 57:785-90 N '53

Vacuum fluctuation noise. J. Weber. diag Phys R 94:215-17 Ap 15 '54

Visible light from localized surface charges moving across a grating. S. J. Smith and E. M. Purcell. il Phys R 92:1069 N 15 '53

Waves in an electron stream with general admittance walls. C. K. Birdsall and J. R. Whinnery. bibliog diags J Ap Phys 24:314-23 Mr '53

What holds the nucleus together? H. A. Bethe. il diags Sci Am 189:58-63 S '53

See also

Auger effect
Beta rays
Cathode rays
Counters (electrons, ions, etc.)
Electric discharges
Electromagnetic theory
Electronics
Ions
Neutrons
Pauli exclusion principle
Photoelectric effect
Positronium
Positrons
Vacuum tubes

Absorption

Long-wavelength edge of photographic sensitivity and of the electronic absorption of solids. F. Urbach. bibliog Phys R 92:1324 D 1 '53

Beams

Change of electron temperature in an electron beam. H. M. Mott-Smith. bibliog J Ap Phys 24:249-55 Mr '53

Combined slow-wave circuit and beam focusing structure. P. Rice. diags J Ap Phys 25:680-1 My '54

Crossed electron beam technique for displaying short pulses. P. D. Coleman and M. D. Sirkis. il diag J Ap Phys 24:952-3 Jl '53

Crossed electron beam technique for measuring space-charge effects in beams. P. D. Coleman and others. il diags J Ap Phys 25:679-80 My '54

Electrical revolution; packaged electron energy. L. G. Brazier. Engineer 196:637 N 13 '53

Electron-beam head for magnetic tape playback. A. M. Skellett and others. il diags Electronics 26:168-71 O '53

Electron-beam tube for analog multiplication. E. J. Angelo, jr. diags R Sci Instr 25:280-4 Mr '54

Electron flow through small tubes with magnetic focusing. J. L. Stewart. bibliog diags J Ap Phys 24:1236-40 S '53

Electron shadowgraphs and afterglow pictures of gas jets at low densities. A. E. Grün and others. il diags J Ap Phys 24:1527-8 D '53

Experiments on radiation by fast electron beams. H. Motz and others. bibliog il diags J Ap Phys 24:826-33 Jl '53

Focusing of an electron beam by periodic fields. A. M. Clogston and H. Heffner. bibliog diags J Ap Phys 25:436-47 Ap '54

Focusing of high-current electron beams. G. R. Brewer. bibliog diags J Ap Phys 25:243-51 F '54

Helix impedance measurements using an electron beam. D. A. Watkins and A. E. Siegman. bibliog il diags J Ap Phys 24:917-22 Jl '53

High-energy bunched beam analyzer. I. Kaufman. diag J Ap Phys 24:1413 N '53

Luminescent screen for use with very low-velocity electrons. S. F. Kaisel and C. B. Clark. Opt Soc Am J 44:134-5 F '54

Pulsed magnetic extractor for removing the electron beam from a betatron. R. S. Foote and B. Petree. bibliog il diags R Sci Instr 25:694-8 Jl '54

Space charge spread of reflected electron beams studied by a photographic method. J. T. Wallmark. il diags J Ap Phys 24:590-7 My '53

Space-charge-wave amplification along an electron beam by periodic change of the beam impedance. R. W. Peter and others. bibliog il diags RCA R 15:113-20 Mr '54

Space charge waves in inhomogeneous electron beams. G. Kent. bibliog diag J Ap Phys 25:32-41 Ja '54

Spatially alternating magnetic fields for focusing low-voltage electron beams. J. R. Pierce. J Ap Phys 24:1247 S '53

Stored energy and power flow in electron beams. L. R. Walker. J Ap Phys 25:615-18 My '54

Theorem concerning noise in electron streams. J. R. Pierce. J Ap Phys 25:931-3 Ag '54

Thermal effect in an electron beam on the gain of traveling-wave tubes. K. Udagawa and M. Sumi. J Ap Phys 25:135-6 Ja '54

Transmission-line analog of a modulated electron beam. S. Bloom and R. W. Peter. bibliog il diags RCA R 15:95-112 Mr '54

Ultra-high frequency beam analyzer. L. R. Bloom and H. M. VonFoerster. bibliog il diags R Sci Instr 25:649-53 Jl '54

Wave propagation along a magnetically-focused cylindrical electron beam. W. W. Rigrod and J. A. Lewis. bibliog Bell System Tech J 33:399-416 Mr '54

Capture

Double vacancies in the *K* shell associated with *K*-electron capture in A^{37}. J. A. Miskel and M. L. Perlman. bibliog Phys R 94:1683-7 Je 15 '54

Electron capture in the decay of Na^{22}. R. Sherr and R. H. Miller. bibliog Phys R 93:1076-81 Mr 1 '54

Inner bremsstrahlung in the electron capture process, Ge^{71}. B. Saraf. Phys R 95:97-8 Jl 1 '54

Radiative capture of orbital electrons. R. J. Glauber and P. C. Martin. Phys R 95:572-3 Jl 15 '54

Radiative electron capture of Fe^{55}, A^{37}, and Ni^{59}. W. S. Emmerich and others. bibliog Phys R 94:113-16 Ap 1 '54

Scintillation spectrometer determination of *L*-capture to *K*-capture ratio in Cd^{109} and I^{125}. E. der Mateosian. bibliog Phys R 92:938-40 N 15 '53

Diffraction

Calibration of photographic emulsions for electron diffraction investigations. L. S. Bartell and L. O. Brockway. J Ap Phys 24:656-7 My '53; Discussion. 24:1523 D '53

Construction of a universal electron diffraction microscope and its optical features. K. Tanaka and H. Hashimoto. il diags R Sci Instr 24:669-75 Ag '53

Electron and X-ray diffraction studies of iron Fischer-Tropsch catalysts. J. T. McCartney and others. bibliog diag J Phys Chem 57:730-6 O '53

Electron diffraction investigation of the molecular structure of hexafluoroethane. J. L. Brandt and R. L. Livingston. bibliog Am Chem Soc J 76:2096-9 Ap 20 '54

Electron diffraction study of disulfur decafluorodioxide. R. B. Harvey and S. H. Bauer. bibliog Am Chem Soc J 76:859-64 F 5 '54

Electron diffraction study of the structures of antimony electrodeposited on antimony cleavage face. Ling Yang. il diags J Ap Phys 25:184-8 F '54

Fourier inversion of diffraction data. J. Waser and V. Schomaker. bibliog(50 ref) Rs Mod Phys 25:671-90 Jl '53

High precision electron-diffraction unit for gases. L. O. Brockway and L. S. Bartell. bibliog il diags R Sci Instr 25:569-75 Je '54

Intensity anomalies in electron diffraction patterns of CuO. J. M. Cowley. bibliog il Electrochem Soc J 101:277-80 Ja '54

Investigation of the molecular structure of phosphorus oxytrichloride by electron diffraction. G. R. Badgley and R. L. Livingston. bibliog Am Chem Soc J 76:261-2 Ja 5 '54

ELECTRONS—Diffraction—*Continued*

Mechanical analog computer for reading electron diffraction patterns. W. R. McMillan. bibliog il diag R Sci Instr 25:545-7 Je '54

Thermionic emission and electron diffraction from thin films of barium oxide. P. N. Russell and A. S. Eisenstein. bibliog il diags J Ap Phys 25:954-61 Ag '54

Titanium observed by electron diffraction. S. Yamaguchi. il J Ap Phys 25:408 Mr '54

X-ray and electron diffraction, 11th annual conference, Pittsburgh. Chem & Eng N 31:4880 N 23 '53

Emission from metals

Crystallographic variations of field emission from tungsten. M. K. Wilkinson. bibliog il diag J Ap Phys 24:1203-9 S '53

Electron ejection by slow positive ions incident on flashed and gas-covered metallic surfaces. J. H. Parker, jr. bibliog il diags Phys R 93:1148-56 Mr 15 '54

Field emission current-density distribution. W. P. Dyke and others. bibliog(28 ref) il diag J Ap Phys 25:106-12 Ja '54

Instrumentation and experimental procedure for studies of electron ejection by ions and ionization by electron impact. H. D. Hagstrum. bibliog il diags R Sci Instr 24:1122-42 D '53

Preliminary results on photoelectric yields of Pt and Ta and on photoionization in O_2 and N_2 in the vacuum ultraviolet. N. Wainfan and others. bibliog diag J Ap Phys 24:1318-21 O '53

Space-charge effects in field emission. J. P. Barbour and others. bibliog il diag Phys R 92:45-51 O 1 '53

Surface analysis with the X-ray photoelectron spectrometer. R. G. Steinhardt, jr. and E. J. Serfass. bibliog diag Anal Chem 25:697-700 My '53

Temperature-and-field emission of electrons from metals. W. W. Dolan and W. P. Dyke. bibliog Phys R 95:327-32 Jl 15 '54

Theory of secondary electron cascade in metals. P. A. Wolff. bibliog diag Phys R 95:56-66 Jl 1 '54

Work function in field emission; chemisorption. R. Gomer. bibliog diags J Chem Phys 21:1869-76 O '53

Energy levels

Electronic energy bands in crystals. T. Wainwright and G. Parzen. bibliog Phys R 92:1129-34 D 1 '53

Electronic excitation of the L_{III} state of 5*d* elements. G. Schwarz and G. L. Rogosa. Phys R 92:88-9 O 1 '53

Electronic states of diatomic molecules; the oxygen molecule. F. G. Fumi and R. G. Parr. bibliog J Chem Phys 21:1864-8 O '53

Ground and excited electronic states and molecular vibrations of some polyatomic molecules. J. Duchesne and L. Burnelle. bibliog J Chem Phys 21:2005-8 N '53

Theoretical calculations of *F*-center energy levels. J. A. Krumhansl. Phys R 93:245-6 Ja 1 '54

Pairs

Angle of divergence of pairs produced by photons. K. Hintermann. Phys R 93:898-9 F 15 '54

Contributions of bremsstrahlung conversion in trident experiments. M. M. Block and D. T. King. bibliog Phys R 95:171-4 Jl 1 '54

Gamma rays and internal pairs from $Be^9 + H^1$. R. J. Mackin, jr. Phys R 94:648-50 My 1 '54

High-energy, large-angle distribution of pair electrons produced by bremsstrahlung. R. C. Miller. diag Phys R 95:796-8 Ag 1 '54

Theory of bremsstrahlung and pair production. H. A. Bethe and others. bibliog Phys R 93:768-84, 788-95 F 15 '54

Recombination

Photon-radiative recombination of electrons and holes in germanium. W. van Roosbroeck and W. Shockley. Phys R 94:1558-60 Je 15 '54

Recombination of holes and electrons at lineage boundaries in germanium. F. L. Vogel and others. diag Phys R 94:1791-2 Je 15 '54

Reflection, scattering, etc.

Application of Ellis' theory on plural electron scattering to razor edge. S. Yamaguchi. il J Ap Phys 25:811-13 Je '54

Backscattering of kilovolt electrons from solids. E. J. Sternglass. bibliog diags Phys R 95:345-58 Jl 15 '54

Bremsstrahlung and electron scattering cross sections in Au for 247-Mev electrons and positrons. P. C. Fisher. bibliog diags Phys R 92:420-7 O 15 '53

Elastic scattering of electrons by the Coulomb field of nuclei using Born approximation. Vachaspati. bibliog diag Phys R 93:502-13 F 1 '54

Elastic scattering of 1-Mev electrons from aluminum and gold. R. T. Bayard and J. L. Yntema. Phys R 93:1412 Mr 15 '54

Electron-electron and positron-electron scattering measurements. A. Ashkin and others. bibliog diags Phys R 94:357-62 Ap 15 '54

Electron-electron scattering in alkali metals. E. Abrahams. Phys R 95:839-40 Ag 1 '54

Generalized variational equations for the scattering of electrons by hydrogen atoms. M. M. Gordon and J. G. Jones. bibliog Phys R 92:1428-33 D 15 '53

High-energy electron scattering and nuclear structure determinations. R. Hofstadter and others. bibliog diag Phys R 92:978-87; 95:512-15 N 15 '53, Jl 15 '54

High-energy electron scattering by nuclei. R. W. Pidd and others. bibliog plan Phys R 92:436-7 O 15 '53

Higher-order potential effects in the radiative correction to scattering of slow electrons. M. H. Mittleman. Phys R 93:453-4 F 1 '54

Inelastic scattering of 190-Mev electrons in beryllium. J. A. McIntyre and others. Phys R 94:1084-5 My 15 '54

Interaction of electrons with grain boundaries. M. H. Cohen and C. S. Barrett. Phys R 95:1094-5 Ag 15 '54

Interpretation of electron scattering experiments. L. I. Schiff. bibliog Phys R 92:988-93 N 15 '53

Multiple scattering of relativistic electrons. L. V. Spencer and C. H. Blanchard. Phys R 93:114-16 Ja 1 '54

Nonsingle scattering of electrons at oblique incidence. M. Hamermesh and J. Monahan. diags Phys R 93:963-5 Mr 1 '54

Nuclear scattering of high-energy electrons. J. H. Smith. Phys R 95:271-6 Jl 1 '54

Phase-shift calculation of high-energy electron scattering. D. R. Yennie and others. bibliog Phys R 95:500-12 Jl 15 '54

Phase-shift calculation of high-energy electron scattering by nuclei. D. R. Yennie and others. bibliog Phys R 92:1325-6 D 1 '53

Positron-electron differences in energy loss and multiple scattering. F. Rohrlich and B. C. Carlson. bibliog Phys R 93:38-44 Ja 1 '54

Scattering of high-energy electrons by heavy nuclei. E. U. Baranger. Phys R 93:1127-8 Mr 1 '54

Sign of the phase shift in the elastic scattering of electrons. D. R. Yennie and others. Phys R 93:1128-9 Mr 1 '54

Variational calculation of the elastic scattering of electrons by hydrogen atoms. H. Boyet and S. Borowitz. bibliog Phys R 93:1225-7 Mr 15 '54

Scattering

See Electrons—Reflection, scattering, etc.

Secondary emission

Effect of organic vapor on the secondary emission of phosphors. P. H. Dowling and J. R. Sewel. J Ap Phys 25:228-30 F '54

Electron bunches of short time duration. E. W. Ernst and H. VonFoerster. il diag J Ap Phys 25:674-5 My '54

Emission of δ- and X-rays from targets bombarded by accelerated ions. C. Zupančič and T. Huus. bibliog Phys R 94:205-6 Ap 1 '54

Energy and temperature dependence of the secondary emission of MgO. A. J. Dekker. Phys R 94:1179-82 Je 1 '54

ELECTRONS—Secondary emission—*Continued*

Influence of secondary electrons on noise factor and stability of traveling-wave tubes. R. W. Peter and J. A. Ruetz. diags RCA R 14:441-52 S '53

Liberation of electrons by positive-ion impact on the cathode of a pulsed Townsend discharge tube. R. N. Varney. il Phys R 93: 1156-60 Mr 15 '54

Mechanism of secondary electron emission. A. O. Barut. bibliog Phys R 93:981-4 Mr 1 '54

Methods of processing silver-magnesium secondary emitters for electron tubes. P. Rappaport. il diags J Ap Phys 25:288-92 Mr '54

Modified theory of production of secondary electrons in solids. A. van der Ziel. bibliog Phys R 92:35-9 O 1 '53

Potential distribution and prevention of a space-charge-induced minimum between a plane secondary electron emitter and parallel control grid. G. C. Sponsler. diags J Ap Phys 25:282-7 Mr '54

Secondary electron emission from germanium. J. B. Johnson and K. G. McKay. bibliog Phys R 93:668-72 F 15 '54

Secondary electron emission produced by high energy primary electrons. J. F. Marshall and others. Franklin Inst J 246:574-5 D '53

Secondary electron resonance mechanism of low-pressure high-frequency gas breakdown. A. J. Hatch and H. B. Williams. bibliog diags J Ap Phys 25:417-23 Ap '54

Secondary emission from nichrome V, CuBe, and AgMg alloy targets due to positive ion bombardment. M. J. Higatsberger and others. bibliog diag J Ap Phys 25:883-6 Jl '54

Wide-band amplifiers using secondary-emission tubes. C. H. Chandler and G. D. Linz. il diags RCA R 14:367-78 S '53

Thermionic emission

Thermionic emission and electron diffraction from thin films of barium oxide. P. N. Russell and A. S. Eisenstein. bibliog il diags J Ap Phys 25:954-61 Ag '54

Velocity

Brillouin flow with thermal velocities. J. R. Pierce and L. R. Walker. J Ap Phys 24: 1328-30 O '53

Electron transit times in Geiger counters. J. R. Heirtzler. bibliog diag R Sci Instr 25:243-5 Mr '54

Measurement of the drift velocity of electrons in the electrical field in argon-alcohol mixtures. L. Colli and M. T. De Leonardis. bibliog il diag J Ap Phys 24:255-7 Mr '53

See also
Electron accelerators

ELECTRO-OPTICS

Fast, electro-optical, hot-gas pyrometer. G. H. Millar and others. bibliog il diags Opt Soc Am J 43:609-17 Jl '53

Processing of two-dimensional patterns by scanning techniques. L. S. G. Kovasznay and H. M. Joseph. il diags Science 118:475-7 O 23 '53

See also
Kerr effect

ELECTRO-OSMOSIS. See Osmosis

ELECTROPHONIC hearing. See Hearing

ELECTROPHORESIS

Application of electrophoresis to the identification of biological activity with characteristic particles. R. E. Hartman and M. A. Lauffer. bibliog Am Chem Soc J 75: 6205-9 D 20 '53

Centripetal and centrifugal electromagnetophoresis. A. Kolin. diags J Ap Phys 25: 1065-6 Ag '54

Channel area in electroconvection apparatus. S. Raymond. bibliog diag Science 118:388-9 O 2 '53

Colloidal fractionator; electrophoresis. il Ind & Eng Chem 46:sup 17A-18A My '54

Comparative analysis of serum proteins by chemical and electrophoretic means. F. Lionetti and M. M. Davison. J Chem Educ 31:378-9 Jl '54

Competitive interaction between proteins and surface active anions demonstrated by electrophoresis. J. F. Foster and Jen Tsi Yang. bibliog Am Chem Soc J 75:5743-4 N 20 '53

Continuous scanning device for paper electrophoresis and strip chromatography. O. Bassir. diag Chem & Ind p709-10 Je 19 '54

Detergency of carbon black; electrokinetic phenomena in Micronex dispersions in organic liquid media. F. H. Garner and others. pl diags Inst Pet J 38:986-97 D '52

Electrophoresis of pigments in organic media; abstract. H. Brintzinger and others. Paint Oil & Chem R 117:24-5 Je 3 '54

Electrophoretic behavior of acid phosphatase in human prostatic extracts. M. A. Derow and M. M. Davison. il Science 118:247-8 Ag 28 '53

Electrophoretic mobility study of fresh hevea latex. W. W. Bowler. bibliog Ind & Eng Chem 45:1790-4 Ag '53

Filter paper electrophoresis. Sister M. Martinette. bibliog il J Chem Educ 31:18-19 Ja '54

Filter paper electrophoresis of avian serum proteins. R. H. Common and others. bibliog il Science 118:86-9 Jl 17 '53

Fully automatic recording densitometer for scanning paper electrophoresis patterns. D. J. R. Laurence. bibliog il diag J Sci Instr 31:137-8 Ap '54

Improved electrophoresis apparatus for small volumes. L. G. Longsworth. bibliog il diags Anal Chem 25:1074-8 Jl '53

Paper chromatography and electrophoresis; exhibition of apparatus and demonstrations of techniques. Chem & Ind p243-6 F 27 '54

Paper electrophoresis; abstract. D. F. Muggleton. Chem & Ind p243 F 27 '54

Simple apparatus and technique for preparative paper electrophoresis. J. R. Cannon and A. R. Gilson. il diag Chem & Ind p 120-1 Ja 30 '54

Tracer electrophoresis; free liquid method. H. W. Hoyer, K. J. Mysels and D. Stigter. diags J Phys Chem 58:385-8 My '54

Trends in paper chromotography and electrophoresis; abstract. T. S. G. Jones. Chem & Ind p242 F 27 '54

Variation of transference numbers with concentration. R. H. Stokes. bibliog Am Chem Soc J 76:1988-90 Ap 5 '54

Weak electrolyte moving boundary systems analogous to the electrophoresis of a single protein. E. B. Dismukes and R. A. Alberty. bibliog Am Chem Soc J 76:191-7 Ja 5 '54

ELECTROPHYSIOLOGY

Determination of the resultant dipole of the heart from measurements on the body surface. D. Gabor and C. V. Nelson. diags J Ap Phys 25:413-16 Ap '54

Effect of different types of electrodes in electrophonic hearing. G. Flottorp. bibliog il Acoustical Soc Am J 25:236-45 Mr '53

Electrical response of the human eye during dark adaptation. M. Alpern and J. J. Faris. bibliog il diag Opt Soc Am J 44: 74-9 Ja '54

Electrical responses of the light-adapted eye. J. C. Armington. bibliog diags Opt Soc Am J 43:450-6 Je '53

Perception by the skin of electrically induced vibrations. E. Mallinckrodt and others. Science 118:277-8 S 4 '53

Stray light and the human electroretinogram. R. M. Boynton. bibliog diags Opt Soc Am J 43:442-9 Je '53

See also
Electricity, Injuries from

Apparatus

Development of a high-fidelity preamplifier for use in the recording of bioelectric potentials with intracellular electrodes. S. J. Solms and others. bibliog il diags R Sci Instr 24:960-7 O '53

Dynamic heart-body simulator. E. Frank. bibliog il diags R Sci Instr 25:611-15 Je '54

Instrument for the production of microelectrodes used in electrophysiological studies. J. T. Alexander and W. L. Nastuk. bibliog il diag R Sci Instr 24:528-31 Jl '53

Revised frequency analyzer for bioelectric potentials in the sub-audio range. T. A. Estrin and P. F. A. Hoefer. diag R Sci Instr 25:840-1 Ag '54

See also
Electrocardiograph

ELECTROPLATING

American electroplaters society 41st annual meeting, New York, July 12-15; abstracts of papers. Steel 135:100-2 Ag 2 '54
Brush plating. il Consumers Res Bul 32:16 D '53
Brush plating saves time in plating equipment in service. Iron Age 174:157 S 9 '54
Determination of the surface stress by means of electroplating. H. Ōkubo. il diags J Ap Phys 24:1130-3 S '53
Electrodeposition of copper from the monoethanolamine bath. T. L. Rama Char and N. B. Shivaraman. bibliog Electrochem Soc J 100:227-31 My '53; Same. Metal Finishing 51:75-8 N '53
Electroplating in Israel. M. Rubinstein. il Metal Finishing 51:58-62 N; 69-73+ D '53
Electroplating in Turkey and Cyprus. M. Rubinstein. il Metal Finishing 52:64-9 Ja '54
Electroplating on beryllium. J. G. Beach and C. L. Faust. flow sheet Electrochem Soc J 100:276-9 Je '53
Electroplating on titanium. W. H. Colner and others. il Metal Finishing 52:72-5 F '54; Same. Electrochem Soc J 100:485-9 N '53
Electroplating on zirconium. W. C. Schickner and others. il Electrochem Soc J 100:289-91 Je '53; Same. Metal Finishing 52:57-9 Jl '54
Electroplating prior to hot galvanizing for improved results. A. T. Baldwin. il Metal Prog 64:76-81 D '53
Extracts from the world's plating literature (cont). Metal Finishing 51:79-80 Ag; 78-80 S; 81-3 O; 78-80 N '53; 52:76-7 F; 77-8 Mr; 87+ Ag; 88-93 S '54
Fatigue strength and electroplating. Product Eng 24:276-9 Ag '53
German metal sheet technical section electroplating meeting; abstracts of papers. Metal Finishing 52:82-5 Ap; 84-6 My; 108-11 Je; 76-9 Jl '54
Handbook of industrial electroplating. E. A. Ollard and E. B. Smith. 2d ed rev & enl 366p 30s Iliffe and sons, Dorset House, Stamford st, London, S.E. 1 '54
Inspection, heat-treat, joining, finishing; plating and coating. il Am Mach 97:E 15-17 Mid-N '53
International conference on electrodeposition and metal finishing, 4th; abstracts of papers. Metal Finishing 52:102-5 Je '54
Lead-tin alloy coating improves workability of strip steel. E. J. Roehl. il Iron Age 173:140-2 Mr 18 '54
Metal cleaning and finishing handbook; characteristics of electrodeposited coatings; table. Iron Age 174:sup F23 Jl 29 '54
Plating in the automotive industry; its history and development. W. M. Phillips. il Metal Finishing 52:60-5 Jl; 73-7 Ag; 76-9+ S '54
Plating on aluminum; phosphoric acid anodizing pretreatment. B. E. Bunce. il flow sheet Metal Finishing 52:70-3+ Ja '54
Plating on lead alloys, pewter and Britannia. J. Haas. Metal Finishing 52:56-61 Ap '54
Proper plating techniques give good surface finishes. H. H. Hausner and H. B. Michaelson. bibliog il Iron Age 174:88-90 S 30 '54
Semiautomatic plating pays where sizes, shapes vary; Speakman co. T. Stoddard. il diag Iron Age 173:122-4 Ja 14 '54
Specification plating. C. B. F. Young. Iron Age 174:sup F28-30+ Jl 29 '54
Surface preparation by blast cleaning prior to electroplating. V. F. Stine. il diags Metal Finishing 52:65-71 F '54
Technical development of 1953. N. Hall. Metal Finishing 52:52-61 bibliog and patent list(311 ref, p59-61) Ja '54
Thermostatic control in electroplating. L. Walter. il diags Metal Finishing 52:78-81 My '54
Tin-nickel alloy plating. Automobile Eng 44:320-2 Ag '54
Tough plating requirements bring wider use of automatic controls. il Iron Age 172:130-1 O 15 '53
Vacuum metallizing and plating; a comparison. I. Cross. il Metal Finishing 51:59-63+ D '53; Discussion. J. G. Seiter. 52:100-2 Mr '54
Wagner automatic plating machine. il Tool Eng 31:115-16 N '53
Wagner brothers automatic plating transfer machine employs only two basic motions. il Am Mach 97:188 N 9 '53
What to plate. A. G. Gray. il diags Steel 133:84-8+ Jl 20 '53

See also

Aluminum plating
Cadmium plating
Chromium plating
Copper plating
Electrodeposition of metals
Nickel plating
Silver plating
Zinc plating

Testing

Gaging; electronic devices gage metal coating thickness. il Iron Age 174:152-4 Ag 19 '54
Porosity test for electrodeposits on zinc-base die-castings. H. K. Lutwak. bibliog Metal Finishing 52:76-8 Ap '54
Specifications and tests for electrodeposited metallic coatings. 85p pa $1.85 Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '53
Tests of the protective value of metallic coatings under sheltered conditions (marine atmosphere). S. G. Clarke and W. N. Bradshaw. bibliog il diag J Ap Chem 3:147-54 Ap '53

Waste

Biological treatment of cyanides with and without sewage. A. E. J. Pettet and E. V. Mills. bibliog J Ap Chem 4:434-44 Ag '54
Disposal of electroplating wastes by Oneida, ltd. C. A. Walker and others. bibliog flow diags plan diag Sewage & Ind Wastes 26:843-53, 1002-13, 1130-5 Jl-S '54; Abstract. Water & Sewage Works 101:181-2 Ap '54
Integrated treatment for metal-finishing wastes. L. E. Lancy. bibliog flow sheets Sewage & Ind Wastes 26:1117-25 S '54
New waste treatment plant kills cyanides; Oneida, ltd. il diag Chem Eng 61:142+ Jl '54
Simplified waste treatment methods for the electroplating industry. L. E. Lancy. bibliog il Metal Finishing 52:66-71 Jl '54
Waste purification; plater profits two ways; Pontiac motor division. A. J. D'Orazio. flow diag Steel 135:130-1 Jl 19 '54
Went all-out to lick stream pollution; Oneida, ltd. il Factory Management 112:118-20 Jl '54

ELECTROPNEUMATIC control

Air units speed the assembly of spark plugs. il Mach 60:203 Ja '54
Control of chemical processes. A. J. Young. diags Instruments & Automation 27:778-9 My '54
Dynamic behavior of pneumatic devices. L. A. Gould and P. E. Smith, jr. diags Instruments 26:886-91, 1026-33 Je-Jl '53
Electro-pneumatic riveting and projection welding machines. il diags Engineering 177:246-7 F 19 '54
Filter field control. J. W. Hood. il diag Instruments & Automation 27:287+ F '54
Frequency response analyser for pneumatic process control systems. C. R. Webb and D. J. Ozanne. bibliog diags J Sci Instr 30:424-6 N '53

ELECTROPOLISHING. See Polishing, Electrolytic

ELECTROSCOPES

Survey meters and electroscopes for monitoring radioactivity in water. W. J. Lacy and B. Kahn. Am Water Works Assn J 46:61-5 Ja '54

ELECTROSTATIC analyzer

Effective length of an electrostatic analyzer. J. E. Monahan. diags J Ap Phys 24:434-8 Ap '53
Mechanical precision required in electrostatic analysers. M. Hoyaux and J. Geets. J Sci Instr 31:149-50 Ap '54

ELECTROSTATIC generators. See Electric generators, Electrostatic

ELECTROSTATIC neutralizers. See Electricity, Static

ELECTROSTATIC paint spraying. See Paint spraying, Electrostatic

ELECTROSTATIC separators

Purifying precipitator; Howe-Baker corp. Ind & Eng Chem 45:sup 17A-18A+ D '53

ELECTROSTATICS

Electrostatic potential plotting for use in electron optical systems. K. C. Ho and R. J. Moon. bibliog il diags J Ap Phys 25:1186-93 S '53

Francis Hauksbee; first established a connection between electricity and light and lay the groundwork for new discoveries in electrostatics. D. Roller and D. H. D. Roller. il diags Sci Am 189:64-9 Ag '53

Improved method of measuring dynamic elastic constants, using electrostatic drive and frequency-modulation detection. H. Pursey and E. C. Pyatt. bibliog il diags J Sci Instr 31:248-50 Jl '54

Potential distribution and prevention of a space-charge-induced minimum between a plane secondary electron emitter and parallel control grid. G. C. Sponsler. diags J Ap Phys 25:282-7 Mr '54

See also

Electric capacitance
Electric capacitors
Electric charges
Electric discharges
Electricity, Static
Textile fabrics—Electrostatic properties

ELECTROTHERAPEUTICS

Apparatus and supplies

Electricity in medical treatment; new apparatus. Elec J 151:817 S 11 '53

Electronics in the AEC biomedical program. J. C. Bugher. Elec Eng 72:865-7 O '53

Safety precautions in electronic apparatus, with particular reference to medical applications; discussion. Elec J 151:1677-8 N 20 '53; Elec R (Lond) 153:1177 N 20 '53

ELEMENTS, Chemical. See Chemical elements

ELEMOLIC acid

Chemistry of the triterpenes and related compounds; some aspects of the chemistry of the elemi acids. T. G. Halsall, G. D. Meakins and R. E. H. Swayne. Chem Soc J p4139-48 D '53

ELEVATED roads. See Roads, Elevated

ELEVATORS

Automatic take-up and aligning device protects elevator belts. R. J. Bell. il Foundry 82:201 Ap '54

Conveyors and elevators; Chemical Engineering report. H. L. Strube. il diags Chem Eng 61:195-210 Ap '54 (reprints 50c)

Electric lifts in block dwellings; abstracts. C. G. L. Morley. Engineering 177:30 Ja 1 '54; Elec R (Lond) 153:1327 D 11 '53; Discussion. 153:1432 D 25 '53; Elec J 151:2031-2 D 18 '53

Facts about modern freight elevators. diags Mill & Factory 54:282 My '54

Freight elevators. Arch Forum 99:164+ Jl '53

Hydraulic units stage comeback in modern low-rise elevators and lifts. F. A. Annett. il diags Power 98:97-9+ F '54

16 ways to improve elevator operation. Textile World 103:196+ N '53

These freight elevators modernized at one-third cost of new units; A. P. Smith co. W. J. Prise and W. Willeke. il diags Power 97:128-9 D '53

Control

Electronic elevatoring demonstrated by the Otis elevator co. il Mech Eng 75:732 S '53

Elevator economics; operatorless cars with electronic-group supervisory controls; with cost data. il Arch Forum 100:178-9 My '54

Elevators are getting smarter; operatorless elevators, or servolifts. G. B. Gusrae. Arch Rec 115:210-15 Ap '54

Modern electric-hydraulic elevators, lifts. F. A. Annett. il diags Power 98:96-8+ Jl '54

Operatorless elevators. il diags Arch Forum 98:154-5 Ja '53

Robot elevators. Steel 133:48 Jl 20 '53

History

He reached for the sky; Elisha Graves Otis. diag Comp Air Mag 58:347 D '53

Maintenance and repair

Elevator gears gone sour? take these measurements for replacements. W. J. Prise and W. Willeke. il diags Power 98:124-5 Jl '54

13 steps in reroping today's elevators. W. J. Prise and W. Willeke. il diags Power 98:126-9+ Ja '54

Safety measures

Safety device for operatorless elevators. diag Arch Rec 113:214+ Je '53

ELEVATORS, Grain. See Grain elevators

ELEVATORS, Portable

Facts about modern portable lifts and elevators. il Mill & Factory 54:270 My '54

ELGIN national watch company

Elgin plans its own metamorphosis. Steel 134:77 F 8 '54

ELLIOTT, Benjamin George, 1889-

Sketch. Mech Eng 76:208-9 F '54

ELLIPSOID

Electric permittivity of a dilute suspension of membrane-covered ellipsoids. H. Fricke. J Ap Phys 24:644-6 My '53

ELLIPSOMETER

New look into the invisible; continuous thickness measurements of adsorbed layers with ellipsometer. il Chem & Eng N 32:1680 Ap 26 '54

ELLIPTIC functions. See Functions, Elliptic

ELLIPTIC integrals. See Functions, Elliptic

ELM, Adolf C. 1900-

Outstanding paint technologist to deliver Mattiello lecture. por(cover) Chem & Eng N 31:4202 O 12 '53

ELON. See Metol

ELOWSKY, Earl

Face on many jobs. pors Elec World News ed 140:16-17 D 7 '53

EL PASO electric company

End of excess profits tax may spur dividend rise. Barron's 33:29-30 S 28 '53

Public utility securities. O. Ely. Comm & Fin Chr 179:499 Ja 28 '54

EL SALVADOR. See Salvador

ELSEVIER press, inc.

John Klautz, Dutch publisher, is moving into U.S. markets. Bsns W p 164-5 O 3 '53

EMANATION. See Radon

EMBALMING

After you're gone; chemistry invading mortuary. Ind & Eng Chem 46:sup 11A+ F '54

EMBANKMENTS

Blithfield reservoir. il map diag Engineering 176:598-600, pl 33 N 6 '53

Concept of slope design of earth dam embankment. C. Y. Li. diags Am Soc C E Proc 79 [no 327]:1-9 N '53

Grouted rails pin sliding railroad bank. il Constr Methods 36:54-6 F '54

Shelved riprap for steep slope. il Roads & Sts 97:123 My '54

Vertical sand drains for stabilization of muck-peat soils. J. C. Carpenter and E. S. Barber. bibliog il diags Am Soc C E Proc 79 [no 351]:1-17 N '53

See also

Causeways
Dikes (engineering)
Levees
Railroads—Earthwork

EMBARGO

Embargo imbroglio over shipment of chemicals to red China. Chem W 74:18 Ap 17 '54

Russia; how it scuttles our trading ban. Iron Age 172:55-6 Ag 20 '53

War goods embargo cut. Chem & Eng N 32:3508 S 6 '54

EMBASSY buildings

Congressional architecture critics object to the contemporary design of US embassies. il Arch Forum 100:45 Mr '54

EMBEZZLEMENT

Bank fidelity loss ratios have improved; trend revealed by the ABA. H. F. Harrington. East Underw 54:32-3 N 6 '53

Embezzlement umbrella; Bank-share owners advisory league. Burroughs Clearing House 37:18-19 Ag '53

Fidelity and Deposit puts emphasis on embezzlement controls for employers. L. A. Pratt. East Underw 54:15+ pt 2 Jl 3 '53

Foiling the light-fingered; abstract. C. S. Cooper. Management R 42:325-6 Je '53

Four safeguards against imposter embezzlers. W. L. Flynn. Weekly Underw 169:1007 O 24 '53

EMBEZZLEMENT—*Continued*
Guarding against internal fraud; abstract. J. H. Jackson. Management R 43:198-9 Mr '54
Management's responsibility for embezzlement prevention. V. G. Sheffield. N A C A Bul 35:543-4 D '53
Trusting the employees is too expensive; fidelity insurance one answer. F. C. Ayres. Credit & Fin Management 55:14-15+ O '53

EMBOSSING
Electroforming embossing and graining plates. E. Shore. il diags Metal Finishing 52:74-6 Ja '54

EMBOSSING (textiles)
Coloring embossed fabrics; patent. diags Am Dyestuff Rep 43:636 S 13 '54

EMBRYOLOGY
Inductive epithelio-mesenchymal interaction in cultured organ rudiments of the mouse. C. Grobstein. bibliog il Science 118:52-5 Jl 10 '53
Ribonucleic acid and protein in the growing oocytes of triturus pyrrhogaster. S. Osawa and Y. Hayashi. bibliog Science 118:84-6 Jl 17 '53

EMETINE
Reduction products of the rubremetinium cation. R. F. Teitz and W. E. McEwen. bibliog Am Chem Soc J 75:4945-9 O 20 '53

EMIGRATION. See Immigration and emigration

EMINENT domain
Acquisition of underground gas storage rights. C. W. Studt. Am Gas Assn Proc 1953:449-53; Same. Am Gas Assn Mo 35:31-3+ N '53; Same. Pet Eng 25:D7-8+ D '53
Crichel Down; former bombing range. Economist 169:168 O 17 '53
Friendly case to test San Francisco agency's right to the use of eminent domain. Eng N 151:70+ Jl 16 '53
Redevelopment suit; question of resale to private interests goes to U.S. Supreme court. Eng N 152:24 Mr 25 '54
TVA land acquisition experience applied to dams in the Missouri basin. K. Kristjanson. Land Econ 30:274-6 Ag '54

EMMETT, Paul Hugh, 1900-
Catalysis shapes a career. por(cover) Chem & Eng N 31:5360 D 28 '53

EMOTIONS
Your emotions, using them at work. Dun's R & Mod Ind 62:59-61 Ag '53

EMPLOYEE embezzlement. See Embezzlement

EMPLOYEE handbooks. See Employees' manuals

EMPLOYEE turnover. See Labor turnover

EMPLOYEES
Code of responsibilities, by and for employees; abstract. H. H. Carey. Management R 43:578-9 S '54
Getting employee cooperation; from studies in group dynamics. D. Laird. Am Bsns 24:22-3 Je '54
Philosophy for the employee. J. P. Woods. Advanced Management 18:18-19 Je '53
Should employees rate their supervisors? A. R. Laney, jr. Personnel J 32:255-7 D '53
Try pleasing your boss. E. J. Engle. Am Mach 98:105 Ap 26 '54

See also
Ability tests
Absenteeism (labor)
Age and employment
Apprentices
Arbitration, Industrial
Bank employees
Bonus system
Building trades—Labor conditions
Chemical workers
Collective bargaining
Credit unions
Disabled—Rehabilitation
Efficiency, Industrial
Electric workers
Employees' benefit plans
Employees' representation in management
Employment management
Employment systems
Eye—Examination
Foremen
Government employees
Handicapped
Hygiene, Industrial
Industrial relations
Job analysis
Labor and laboring classes
Labor productivity
Medical service, Industrial
Metal workers
Military service—Labor problems
Motor truck drivers
Negroes—Employment
Office workers
Payrolls
Pensions, Industrial
Petroleum workers
Physical examinations
Research workers
Salesmen
Saving
Sickness
Steel workers
Suggestion systems
Supervisory workers
Textile workers
Wage payment plans
Wages
Woman—Employment

also subdivision Employees under special subjects, e.g.
Accountants, Public
Airplane factories
Automobile factories
Electric utilities
Gas companies
Motor bus lines
Paper and pulp mills
Petroleum refineries
Public utilities
Railroads
Rapid transit
Rubber factories
Shipyards
Telephone companies

Attitude

See Employees—Opinion polls

Clothing

See Clothing, Protective; Work clothes

Dismissal

See Employees, Dismissal of

Length of service

Method for combining length of service and job rating in setting wage rates. H. W. Daniels and R. A. Katzell. Personnel 30:295-8 Ja '54

See also
Labor turnover
Trade agreements—Seniority provisions

Opinion polls

Are your engineers happy on the job? Management R 43:21-2 Ja '54
Asking for labor criticism; San Diego gas & electric co. Bsns W p 167 N 7 '53
Attitude survey followed up by feedback sessions. R. H. Milligan and J. E. Osmanski. Personnel J 33:92-6 Jl-Ag '54
Benge study pinpoints disturbing employee attitudes. M. P. Miller. Textile World 104:94 F '54
Employee opinion survey by remote control. H. G. Heneman, jr. and D. Yoder. Personnel J 32:169-72 O '53
Inside information for retailers; study of employee attitudes. E. D. Fraser. J Retailing 30:21-8+ Spring '54
Management-mindedness in the supervisory ranks; a study of attitudes in relation to status. J. M. Pfiffner and R. C. Wilson. bibliog Personnel 30:122-5 S '53
Morale or attitude audit; a frontier in employer-employee relationships. B. N. Taylor. Advanced Management 18:23-6 Ag '53
Morale survey ready-made style; SRA employee inventory. Dun's R & Mod Ind 62:48-50 Ag '53
Opinion poll for labor. il Bsns W p 114-15 Ag 8 '53
San Diego Gas & Electric puts itself up for trial by ballot. il Elec World News ed 140:16-18+ O 26 '53
So, you think you have troubles; attitude study conducted among supervisors. V. I. Bumagin. Mill & Factory 54:119-21 Ap '54
Supervisor assesses his job in management; highlights of a Nation-wide survey. J. H. Mullen. Personnel 31:94-108 S '54
We survey attitudes annually by mail; General finance corp. E. F. Wonderlic. Personnel J 32:91-3 Jl-Ag '53
Worker values in job evaluation; impact of job evaluation on worker attitudes. L. R. Sayles. Personnel 30:266-74 Ja '54

Physical examinations

See Physical examinations

Promotion

Don't guess when you're selecting the best supervisors. M. Radom. Pet Processing 8:1013-16 Jl '53
Employees who desire promotions should develop indirect approach. W. von Pechmann. Ind & Eng Chem 45:sup 103A-4A S '53
Parallel promotions; researchers' rewards; Standard oil co. (Indiana). M. Carpenter. Chem W 74:20 F 20 '54

EMPLOYEES—Promotion—*Continued*

Promotion from within; does it really pay off? M. G. Blansfield. Management R 42:256-7 My '53

Promotion isn't everybody's dish. J. Bender. Management R 43:26 Ja '54

Some problems arising from executives' promotions, transfers. P. L. Mitzner and A. E. Schneider. Personnel J 33:138-40 S '54

There's talent in your plant. E. J. Benge. Factory Management 111:104-7 N '53

See also

Employees—Rating

Rating

Appraising performance of exempt personnel. D. C. Spooner, jr. Personnel J 32:127-32 S '53

Budgeting merit increases. G. I. Cuthbert. Personnel J 32:328-33 F '54

Communication of merit ratings; a philosophy and a method. B. J. Covner. Personnel 30:88-98 S '53

Don't guess when you're selecting the best supervisors. M. Radom. Pet Processing 8:1013-16 Jl '53

Employee evaluation systems can be good investments. W. von Pechmann. Ind & Eng Chem 45:sup99A-100A+ O '53

Evaluation policies and their effects upon performance; psychological interpretation. D. A. Rodgers. Personnel 30:99-105 S '53

Getting back into focus on performance ratings. W. G. Waggoner. Personnel J 33:17-18 My '54

Merit rating, it's one way to eliminate pay inequities in your plant. Steel 135:60-1 Ag 23 '54

New kind of performance review emphasizes executives' development. E. P. Johnson. Personnel J 33:131-3 S '54

See also

Supervisory workers
—Rating

Testing

See Ability tests

EMPLOYEES, Age of. See Age and employment

EMPLOYEES, Dismissal of

Brand loyalty; NLRB says you can't fire them for refusing to buy and use the company's products. Bsns W p 162-3 D 19 '53

Discharge and discipline provisions in current union contracts. Management R 43:23-4 Ja '54

Discharge for absenteeism under union contracts. E. Ahern. Personnel J 32:173-7 O '53

Indiana strike discharges upheld; Indiana Bell telephone co. Pub Util 53:818-19 Je 24 '54

Management rights to fire maintained by U.S. Circuit court of appeals. N. C. Rockwood. Rock Prod 56:71+ O '53

Management rights to fire; unions can be sued under anti-trust laws. N. C. Rockwood. Rock Prod 57:55+ My '54

Right to fire for cause upheld. N. C. Rockwood. Rock Prod 56:77+ D '53

When can you fire a red? Bsns W p 162+ O 24 '53

You're fired! A. Uris. Pet Refiner 32:296+ N '53; Same. World Oil 138:51-2+ Ja '54; Same cond. Textile World 104:99+ Ap '54

See also

Layoff systems

EMPLOYEES, Economic education of. See Economics—Study and teaching

EMPLOYEES, Government. See Government employees

EMPLOYEES, Identification of

It's a badge, a dosimeter, too. il diag Nat Safety N 69:26-7 F '54

EMPLOYEES, New. See Employment management—New employees

EMPLOYEES, Retirement of. See Retirement

EMPLOYEES, Training of

Alcoa's answer to the secretarial shortage. A. R. Plante. Personnel J 33:21-3 My '54

At American Enka, training and appraisal are a way of life. L. Zerfoss and others. Textile World 103:104-5+ D '53

Automakers push mechanic training, start service courses. R. D. Raddant. il Iron Age 172:72+ S 3 '53

Autopsy on a training project. C. S. Weber. Personnel J 32:297-8 Ja '54

Better operators through schooling; Crown Zellerbach paper school. Chem Eng 61:248+ S '54

Boosting production efficiency; a case study. R. Levin. Management R 43:36-7 Ja '54

Central Hudson's course for non-technical workers is taking the question mark out of electricity. il Elec World News ed 140:43 N 23 '53

Classroom on wheels for California state highway equipment men. il Roads & Sts 96:86 N '53

Climate of employee development. M. G. Blansfield. Management R 43:17-18 Ja '54

Columbia solves cadet engineer training riddle. il Am Gas Assn Mo 35:4-6+ N '53

Comic film helps cut careless handling practices. R. Coleman. il Iron Age 173:126-8 My 27 '54

Commission agents are as good as their company makes them; Central Greyhound lines. C. H. Bullen. Bus Transportation 33:28-32 S '54

Courses of instruction for and certification of waterworks operators; Canadian section, A.W.W.A. committee report. Munic Util 92:38+ My '54

Developing a good system dispatcher. J. Paschall. Elec World News ed 140:39 S 14 '53

Effective training for quality control; abstract. A. V. Feigenbaum. Management R 43:597-8 S '54

Employe training handbook. B. von Bleicken. 300p bibliog(p293-4) Conover-Mast publications, Book division, 205 E. 42d st, New York 17 '53 ($5.50)

Engineers need more than technical training. M. Berkowitz and G. S. Odiorne. Advanced Management 18:17-18+ Jl '53

Getting off on the right foot; General electric co. employee training and educational programs. il Chem Eng 61:260+ Je '54

Give your training program a chance. G. S. Odiorne. Personnel J 33:19-20+ My '54

Graduate in mechanical engineering; arranging practical training in industry; abstracts of four papers at Institution of mechanical engineers meeting. Engineering 177:4-5 Ja 1 '54

High school trainees make good; Central national bank, Yonkers. C. S. King. Bankers Mo 71:24+ F '54

How industry is using the S.A.M. performance rating films. Advanced Management 19:6 Ap '54

How is your training program? J. H. Hazlehurst. il Radio & Tv N 51:66+ Mr '54

How management can improve human relations; Unitcast corp. J. C. Miske. il Foundry 82:90-1+ Jl '54

How Milwaukee trains servicemen. il Gas Age 114:26-7 Ag 26 '54

How not to scare the participating trainee. L. G. Young. Personnel J 33:134-6 S '54

How Tuscola trained operators. J. F. McDonald. Pet Processing 8:1892-3 D '53

Increasing importance of staff training programs. E. M. Boulter. J Account 98:173-8 Ag '54

Instructors are key people in operator-training program; Drayton mills. M. B. Self. Textile World 103:104-5+ D '53

Joint training in time study. G. S. Odiorne. Personnel 30:203-5 N '53

Koppers sets up training workshop for employees. il Am Bsns 23:47 N '53

Learning curve as a production tool; forecasting labor time and cost. F. J. Andress. Harvard Bsns R 32:87-97 Ja '54

Learning how to make a million lifts a year; crane operators. H. F. Sherman. il Mill & Factory 54:107-9 Ja '54

Lessons in integration; Shell development co. employee instruction. il Chem W 74:70-2+ Ap 3 '54

Make your own engineers. H. J. Gresens. il Am Mach 98:127-9 F 15 '54

Making machinists in 30 days; Los Angeles' Pacific gage co. J. Joseph. il Mill & Factory 53:125-7 D '53

Meeting the shortage of trained typists. W. H. Brown. Management R 42:520-2 S '53

EMPLOYEES, Training of—*Continued*
1953 operators' forum; training programs for plant personnel. Sewage & Ind Wastes 26:680-5 My '54
Personnel in distribution. il Steel 135:91-8 Jl 19 '54
Philosophy for developing employees. L. F. Urwick. Am Pet Inst Proc 33(3):24-9 '53
Pittsburgh Steel does a training job. il Steel 133:45 Jl 20 '53
Point IV program, the private capital way; Kuwait oil company's education program. il World Oil 137:270-1 S '53
Practical training in industry for the graduate in mechanical engineering. K. R. Evans. Engineer 196:817-18 D 18 '53
Psychologist on the job appraises a training program in an aircraft plant. R. H. Bloomer. Personnel J 33:6-9 My '54
School on wheels instructs service men; Robertshaw-Fulton field service program. il Gas Age 114:36-7 S 9 '54
Selection and training of engineers. M. S. Viteles. bibliog Pet Eng 25:D28+ O '53; Same. Am Gas Assn Proc 1953:1068-72
Seven roadblocks to effective training. G. M. Davey. Factory Management 112:234+ Mr '54
Some practical aspects of training in paper mills. R. P. Beaudette. Tappi 37:sup 129A-31A Ja '54
Tapping the intangibles. il Chem W 74:36+ My 8 '54
They're learning new tricks with hot sticks; Indiana & Michigan electric co. il Elec World News ed 140:16-17 S 14 '53
This new method cuts looper-training time. G. H. Ladhams. il diag Textile World 104:98-9+ Mr '54
Train your craftsman in preventive maintenance; Warner & Swasey. il Factory Management 112:148 S '54
Trainees grouped themselves and selected their problems. E. E. Jennings. Personnel J 32:140-4 S '53
Training course in transformers. il Elec World News ed 141:52 Ja 4 '54
Training for better mine operations; Red Jacket coal corp. J. J. Plasky. il Coal Age 58:98-101 N '53
Training for the job beyond the job; General electric co. F. T. Lewis. il Tool Eng 31:35-40 N '53
Training in-plant and outside courses; abstract. W. W. E. Ash, jr. Paper Tr J 137:55 D 11 '53
Training operators; Glenwood station, Long Island lighting co. E. Elonka. il Power 97:103-5 N '53
Training program for Joe Doakes, jr. Management R 42:517 S '53
Training schedule for underground personnel. D. E. Barthel. il Am Gas Assn Proc 1953:624-7
Training; stress basic principles; Electric regulator corp. starts employee course on college level. G. G. Carr. il Iron Age 172:57 N 26 '53
Training; technology forces expansion. Steel 135:31 Jl 5 '54
Training woods employees. L. Kerr. Pulp & Pa of Can 55:79-81 Ap '54
Your own men can care for those machines. E. Minneman. il diags Food Eng 26:63-5+ Je '54

See also
Apprentices
Bank employees—Training
Employees' manuals
Executives—Training
Foremen—Training
Instruments—Study and teaching
Railroads—Employees—Training
Safety instructions and training
Salesmen—Training
Supervisory workers—Training

EMPLOYEES, Transfer of
Cross-country scouting party; Socony-Vacuum Oil trying new tactic. il Chem W 75:24-5 S 11 '54
Employee moving allowances; a survey. H. Price. Management R 43:426-7 Jl '54
Paying expenses for transfers. W. Norris. Am Bsns 24:16-17 Ag '54
Some problems arising from executives' promotions, transfers. P. L. Mitzner and A. E. Schneider. Personnel J 33:138-40 S '54
Transfers trend is up. Chem Eng 60:292-3 O '53

EMPLOYEES, Transportation of
Pickup in Freeport; intraplant buses move 2,800 Dow workers a day. il Chem W 74:56-8 Ap 3 '54

EMPLOYEES as customers
Brand loyalty; NLRB says you can't fire them for refusing to buy and use the company's products. Bsns W p 162-3 D 19 '53

EMPLOYEES as owners
Employee owners; A. D. Little Employees' trust buys common stock control of company. Eng N 151:89 Jl 9 '53
Employees' trust purchases control of Arthur D. Little. il Chem & Eng N 31:2872-4 Jl 13 '53
Two under one roof; dissolution of Pfanstiehl chemical corp. il Chem W 75:16 Ag 21 '54

EMPLOYEES as salesmen
All-employe contest adds 4,200 milk buyers; Rieck Dairy. J. E. Alexander. Sales Management 71:84+ S 1 '53
All-employe contest checks capital's seasonal slump. il Sales Management 70:52-3+ Je 1 '53

EMPLOYEES as stockholders
Cleveland Electric Illuminating stock plan popular with its employees and officers. Elec World News ed 141:52 F 15 '54
Dealing in on dividends; chemical companies stock option plans as means of dealing in their employees. Chem W 75:15-16 Jl 24 '54
Employee stock ownership; one company's experience; abstract. Management R 43:190-1 Mr '54
Employee stock purchase and option plans; a survey. Management R 42:221-2 Ap '53
Employee stockholders; their numbers grow. Management R 43:314-15 My '54
Gift or pay? union demands Richfield Oil bargain over offer to help employees buy company stock. Bsns W p86+ D 5 '53
Make capitalists out of workers? some pros and cons. L. Stessin. Management R 43:546-7 Ag '54
Making owners out of workers; abstract. L. Stone. Management R 42:173-4 Mr '53
Mutual funds and employee stock purchase. N. Belfer. Comm & Fin Chr 178:537+ Ag 13 '53
New wrinkle in employee stock purchase is offered by Eastman. Bsns W p 126 O 17 '53
Options; for the few or many? S. Altschul. Aviation W 59:95-7 O 12 '53
Profit sharing and stock ownership show steadily increasing acceptance. S. Fish. Manuf Rec 123:32-3 S '54
Pros and cons of employee stock-purchase plans. I. S. Kogan. Management R 42:734-5 D '53
This mill's stock pays dividends in better community relations. M. B. Andrews. Textile World 104:129 Jl '54

EMPLOYEES' attitudes. See Employees—Opinion polls

EMPLOYEES' benefit plans
Aids in technical recruitiment; use of booklets describing the chemical industry and companies. il Chem & Eng N 32:706-7 F 22 '54
Benefits; fringe costs soar. E. C. Kellogg. Iron Age 174:54-5 Ag 26 '54
Benefits; get braced for new demands. R. M. Lorz. Iron Age 173:73 F 11 '54
Benefits; must be tailored to fit; American management assn. conference, New York. Iron Age 173:83 Mr 25 '54
Bidding for executives is lively, high. Bsns W p 114+ S 26 '53
Big costs of little fringes. A. M. Fisher and J. F. Chapman. Harvard Bsns R 32:35-44 S '54
Development of employee benefit plans in General Motors reviewed. J. M. Gillen. Weekly Underw 171:459+ Ag 28 '54
Don't be fooled by fringes. I. M. Miller. Food Eng 26:88-9+ My '54
Employee benefits; a survey of recent trends; abstract. Management R 42:376-7 Jl '53
Employee death benefits and new provision of the federal income tax law. F. L. Morton. Spectator 161:35-7 Jl '53

EMPLOYEES' benefit plans—*Continued*

Employee insurance in distribution. Spectator 162:34-5+ Ap '54

Fringe benefits; cost or profit. A. S. Bennion. N A C A Bul 35:162-7 sec 3 S '53

Fringe benefits; do we know enough about them? C. W. Sargent. Personnel 30:462-72 My '54; Discussion. L. Teplow. 31:86-7 Jl '54

Fringe benefits for non-ops. Ry Age 136:37-8 My 24 '54

Fringe benefits or benefits. W. A. Kissock. Food Eng 26:69+ Ap '54

Fringe benefits to wear; chemical plant worker. il Chem W 73:67-8+ O 31 '53

Fringe benefits today; a survey; abstract. Management R 43:499-500 Ag '54

Getting the most from employee benefits. C. Gardner, 3d. Paper Tr J 138:24+ Je 4 '54

Group security protection covers 45 per cent of population; collective bargaining for employe welfare benefit programs. P. H. Peters. East Underw 54:16 Ag 28 '53; Same. Nat Underw 57:2 S 3 '53

Help wanted; for benefit plans; abstract. Management R 42:135-6 Mr '53

Mutual Life's new employe benefit plan for small, medium employers. East Underw 54:9 Jl 31 '53

No rush for the exits; step-up in chemical company fringe benefits. Chem W 74:28-9 Je 26 '54

Private retirement, welfare programs discussed at New York university's annual conference on labor. Nat Underw (Life ed) 58:1+ My 14 '54; Same. Nat Underw 58:35 Je 10 '54

Related wage practices in major labor markets, 1951-52. L. E. Lewis. Mo Labor R 76:268-72 Mr '53

Selling benefit plans to your employees. R. D. Collins. Management R 42:479-80 Ag '53

Senators ready to proceed with probe of welfare funds. Nat Underw (Life ed) 58:1 Jl 2 '54

Some changes made; analysis of changes in wages and benefits between 1950 and 1953. B. F. McClancy. Personnel 30:126-35 S '53

Sound-slide film explains insured benefits to employees; Daystrom, inc. Weekly Underw 169:144 Jl 18 '53

Trends in employee benefits and incentives. W. B. Dunckel. Am Pet Inst Proc 32(1):303-5 '52

Wages and related benefits in the machinery industries; postwar wage trends; survey of 20 labor markets, 1953-54. O. R. B. Hollberg and A. N. Jarrell. U S Bur Labor Statistics Bul 1160:1-60; pa 40c Supt. of doc. '54

Wages and related benefits, major labor markets, 1953-1954. U S Bur Labor Statistics Bul 1157-1:1-116; 1157-2:1-94; pa ea 60c; 1157-3:1-135; pa 70c Supt. of doc. '54

Wages and related benefits, 20 labor markets, 1952-1953. L. E. Lewis and O. R. B. Hollberg. U S Bur Labor Statistics Bul 1116:1-76; pa 55c Supt. of doc. '53

Warns of welfare plan abuse in New York state; abstract. A. J. Bohlinger. East Underw 55:20 My 14 '54; Nat Underw 58:6 My 13 '54; Nat Underw (Life ed) 58:8+ My 14 '54; Weekly Underw 170:1202 My 15 '54

See also

Employees' trusts
Pensions, Industrial
Profit sharing

EMPLOYEES' buildings

For Heinz in Pittsburgh, a new variety of industrial architecture; remodeling of the employees' services building. il plans diags Arch Forum 100:118-23 Ja '54

Electric equipment

All-electric facilities build employee morale. L. B. Reed. il Elec World 140:180+ S 21 '53

EMPLOYEES' Christmas parties. See Christmas parties, Employees'

EMPLOYEES' clothing. See Clothing, Protective; Work clothes

EMPLOYEES' clubs

Employee club prevents labor trouble; Argus Cameras recreation club. D. G. Baird. il Am Bsns 24:18+ Je '54

EMPLOYEES' conferences

Arizona supervisors train themselves. K. Turley. il Elec World News ed 140:22-4 Jl 20 '53

Getting Utah P&L's message across. il Elec World News ed 140:22-3 D 7 '53

It's informality that counts; Dow's mode of developing latent managerial skills. il Chem W 73:14 Jl 11 '53

Nash people get acquainted at town hall meetings. D. G. Baird. il Am Bsns 23:18-19+ D '53

Not just pulling, pulling together; Cyanamid's Kilby. Chem W 73:16-17+ Jl 4 '53

Profits in pooled ideas. W. Sandburg. Chem W 72:42+ My 16 '53

Psychologists at work; American cyanamid co. Bsns W p52-4 S 19 '53

Will to work; a program for developing employee relations through supervisors. R. M. Crooks. Advanced Management 19:9-12 F '54

EMPLOYEES' contests

All-employe contest checks capital's seasonal slump. il Sales Management 70:52-3+ Je 1 '53

Is quality your headache? R. Newcomb and M. Sammons. il Mill & Factory 55:75-8 Ag '54

Kemano rodeo drillers compete for cash. il Comp Air Mag 58:315 N '53

Milwaukee chapter gives You be the boss content; story of a successful chapter activity. F. U. Vass and others. Advanced Management 19:20-3 F; 12-15 Mr '54

Putting some buy into selling free enterprise; contest held in conjunction with Wisconsin state fair. A. G. Larke. il Dun's R & Mod Ind 62:61-3+ O '53

Qunch; novel twist in training follow-up. H. R. Nissley. Management R 42:380-2 Jl '53

RCA turns promotion on own foremen, hikes product quality. E. T. Jones. il Ind Marketing 39:66-8 Ag '54

Why Dravo encourages employes to share know-how with industry; Technical papers competition. Sales Management 71:44+ Jl 15 '53

EMPLOYEES' counselors

Client-centered therapy in industry. E. Schoenfeld. Personnel J 32:410-12 Ap '54

EMPLOYEES' inventions. See Inventions, Employees'

EMPLOYEES' lunches. See Lunches, Employees'

EMPLOYEES' lunchrooms and cafeterias. See Lunchrooms and cafeterias, Employees'

EMPLOYEES' magazines

Can annual reports be conversational? he's trying it on Pillsbury people; Ward B. Stevenson. Ind Marketing 38:120 D '53

Company bulletins for middle management; abstract. Management R 42:441-3 Ag '53

Editing for employees who read hardly anything. A. E. Heusser. Personnel J 32:423-7 Ap '54

Employee publications; there's room for improvement. T. Allison. Personnel 31:56-9 Jl '54

Employee-written publications talks up to management. A. E. Heusser. Personnel J 32:59-64 Je '53

Employees into pals via frank finesse; internal house organs vital pipeline to the worker's heart and mind. Chem W 74:23-4 F 27 '54

Employes get picture of competition. Nat Pet N 45:85 Ag 19 '53

How managements talk to supervisors. W. C. Lewis. Dun's R & Mod Ind 62:189-90+ O '53

How Texas engineers swap ideas; monthly bulletin serves as an exchange of ideas, methods and experiences. il Roads & Sts 96:58+ D '53

How to keep the plant reporter from hating his job; plant reporter manual. R. Newcomb and M. Sammons. Ind Marketing 39:106+ Ag '54

How well read are internal house organs? il Ptr Ink 243:32 Ap 10 '53

It's not twaddle, not sentiment, he jolts management with a story; Elmer M. Applegit. Ind Marketing 39:120 My '54

EMPLOYEES' magazines—*Continued*

Speeding factory news to employees; Wolverine tube division, weekly newsletter called The Reporter. R. C. McCoy. il Factory Management 112:113 My '54

Writing for company publications. R. Kruger. Am Gas Assn Proc 1953:332-3

See also

Newspapers—Employees' magazines

Editors

Ex-newspaper man scorns local news, builds a national company publication; John Marston. Ind Marketing 39:136 Ap '54

Want a company magazine editor? see Clark, but you may stand in line. Ind Marketing 39:110 Ag '54

EMPLOYEES' manuals

Effective safety manual for American Gas & Electric system. A. M. Perry. il Elec World News ed 140:16-18 N 23 '53

How to keep the plant reporter from hating his job; plant reporter manual. R. Newcomb and M. Sammons. Ind Marketing 39: 106+ Ag '54

How to keep your servicemen informed; service manuals. G. J. Sandusky. il Am Gas Assn Mo 36:8-10+ S '54

EMPLOYEES' publications

See also

Employees' magazines

Employees' manuals

EMPLOYEES' recreation. See Recreation

EMPLOYEES' representation in management

Burroughs' personnel ideas add up to efficiency. F. G. Armstrong. Steel 133:82-3 O 26 '53

Expansion of co-determination in west German industry. T. Lit. Mo Labor R 76:393-5 Ap '53

Human relations; joint consultation. A. V. Kingston. Chem & Ind p 1152-4 S 18 '54

EMPLOYEES' saving plans. See Saving

EMPLOYEES' suggestions. See Suggestion systems

EMPLOYEES' trusts

Block plant where brass shares its gold; National cement products co. Concrete 62: 6-7 Je '54

Deferred compensation plans; employee stock options. M. F. Blake. J Account 98:349-52 S '54

Employer securities in employee trusts. C. E. Haines. Trusts & Estates 92:949-51 D '53

Fundamentals of pension and profit-sharing plans. M. M. Goldstein. East Underw 55: 114+ pt 2 O 1 '54

Guaranteed annual wage; small company's answer; Employees' saving and profit sharing fund of Resistoflex corp. R. T. Dale. Personnel 30:299-301 Ja '54

Investing profit-sharing funds in insurance. E. A. Starr. Life Ins Courant 58:30-2+ D '53

Mutual funds and employee stock purchase. N. Belfer. Comm & Fin Chr 178:537+ Ag 13 '53

Pension and profit-sharing trusts; ABA committee report. Trusts & Estates 92:775-6 O '53

Pension changes in new '54 revenue code analyzed. M. M. Goldstein. East Underw 55:3+ Ag 13 '54; Excerpt. Nat Underw (Life ed) 58:7 Ag 13 '54

Profit sharing retirement plan. J. G. Sidak. N A C A Bul 35:218-23 O '53

Profit-sharing retirement trust too little used as means of accumulating estate. D. R. L. Franklin. J Account 96:600-4 N '53

Profit sharing trusts, an expanding market for life insurance. D. Marks, jr. East Underw 55:82+ pt 2 O 1 '54

Small firms are big market for pension, profit-sharing plans; Solomon Huber agency forum. S. Huber. Nat Underw (Life ed) 57:24 D 11 '53

Solving the retirement problem. C. E. Prier. Life Ins Courant 58:30-1 S '53

See also

Pension trusts

EMPLOYERS' associations

Employers' group in flux; San Francisco employers council, Federated employers of San Francisco. Bsns W p 175+ O 3 '53

EMPLOYERS labor relations information committee, inc.

New employers' group opens national offices. Bsns W p 163 D 19 '53

EMPLOYERS' liability

Employer held liable for physician's negligence in examining job applicant; Mrachek v. Sunshine biscuit, inc. Weekly Underw 170:436 F 13 '54

See also

Insurance, Employers' liability

Workmen's compensation

EMPLOYERS' liability insurance. See Insurance, Employers' liability

EMPLOYMENT

Baker's dozen; chemist's shelter against mass layoffs. V. Conquest; N. Shepard. Chem W 73:34+ N 21 '53

Business men and teen-agers; summer employment. R. W. Babson. Comm & Fin Chr 178:733 Ag 27 '53

Changing geography of American jobs; abstract. S. L. Wolfbein. Management R 42: 579-80 O '53

Employment of cardiacs and their effect on employe coverages. L. S. Ylvisaker. Nat Underw 57:17+ D 10 '53; Same. Nat Underw (Life ed) 58:7 Ja 1 '54

Employment outlook for physicists. N. Seltzer and R. W. Cain. il U S Bur Labor Statistics Bul 1144:1-24; pa 25c Supt. of doc. '53

Employment outlook in banking occupations. il map U S Bur Labor Statistics Bul 1156: 1-42; pa 30c Supt. of doc. '54

Employment outlook in the social sciences. U S Bur Labor Statistics Bul 1167:1-66; pa 30c Supt. of doc. '54

Employment trends for college graduates. Chem Eng 61:242 Ja '54

Employment trends in the chemical profession. B. R. Stanerson. Chem & Eng N 32:746-8+ F 22 '54

Faster pickup, steadier drive in chemical employment. Chem W 74:16-17 Ap 24 '54

'54 grads; industry seeks top talent. J. R. Whipple. Iron Age 173:73-4 Je 10 '54

Labor, New England's precious resource. W. V. Packard. Iron Age 173:132-3 Je 24 '54

1954 national and international employment handbook for specialized personnel. J. L. Angel. 3d ed 117p bibliog(p 114-17) World trade academy press, 11 W. 42d st, New York 36 '54 (pa $3.50)

Quick appraisal of the labor market. Bsns W p 112-13 Ag 22 '53

Swing toward stability; chemical employment not too swollen for peaceful period. Chem W 73:13 O 24 '53

See also

Absenteeism (labor)

Age and employment

Applications for positions

Employment departments

Handicapped

Labor supply

Negroes—Employment

Unemployment

Woman—Employment

Job choosing

Better off working for a small company, or a big one? R. V. Reeves. Chem Eng 60:197-200 S '53

Stability

Can we stabilize employment? J. L. McCaffrey. Comm & Fin Chr 179:449+ Ja 28 '54

United nations and full employment. A. A. P. Dawson. bibliog Int Labour R 67:401-33 My '53

See also

Labor turnover

Statistics

Employment and payrolls. Published in Monthly labor review

Employment in manufacturing by countries; yearly, 1937-1951; monthly, 1952. Int Labour R Stat Sup 67:49-51 Mr '53 [cont quarterly]

Employment in nonagricultural establishments by industry division, yearly 1945-1952 and monthly Nov. 1952-Nov. 1953. Fed Res Bul 40:82 Ja '54 [cont monthly]

EMPLOYMENT—Statistics—*Continued*

Employment statistics, 1949-1952. Survey of Cur Bsns 1953 Sup p55-62 [supplemented in monthly numbers]

General level of employment by countries; yearly, 1937-1951; monthly, 1952. Int Labour R Stat Sup 67:47-8 Mr '53 [cont quarterly]

Jobs; who works where, at what? nonfarm employment in the U.S., 1939-1952. map Iron Age 173:70-2 Ap 1 '54

Labor force; tabulations. Automotive Ind 110: 326 Mr 15 '54

Metalworking wages and hours; production workers; employment; tabulations. Steel 134:196 Ja 4 '54

Production worker employment in manufacturing industries, monthly Nov. 1952-Nov. 1953. Fed Res Bul 40:80-1 Ja '54 [cont monthly]

Since Korea, nonfarm employment has risen by five million. Iron Age 172:76 Ag 6 '53

Steel employment, wages, hours and payrolls, 1938-1953; tabulations. Steel 134:197 Ja 4 '54

Trends in employment in manufacturing, 1946-52. Int Labour R Stat Sup 67:75-8 Ap '53

Great Britain

Employment in Britain. Engineering 177:94 Ja 15 '54

Engineering loses workers. Economist 168:657 S 5 '53

Working and spending. Economist 169:121 O 10 '53

EMPLOYMENT agencies, Government

Organised movement of seasonal farm workers; methods adopted by some national employment services. Int Labour R 67:367-75 Ap '53

EMPLOYMENT contracts. See Labor contracts

EMPLOYMENT departments

Building a functional personnel budget. D. Yoder. Management R 42:504-13 S '53

How to sell your personnel program. C. A. McKeand. Personnel J 33:46-8 Je '54

Opportunity costs in personnel administration. O. W. Roberts. N A C A Bul 34: 1599-608 Ag '53

Records

Keeping track of exempt employees. M. C. Campbell, jr. Personnel J 32:253-4 D '53

Measuring progress toward industrial relations objectives; some methods of reporting results of personnel activities; Crucible steel company of America. S. H. French, jr. Personnel 30:338-47 Mr '54

Personnel records simplified. C. S. Adams, jr. Personnel J 32:334-7 F '54

See also

Time clocks

EMPLOYMENT management

Administrator's skill; communication. F. J. Roethlisberger. Harvard Bsns R 31:55-62 N '53

Analysis method helps management solve personnel problems; Activity vector analysis. W. B. Olson. Iron Age 172:114-17 O 15 '53

Are the assumptions of modern management's personnel policies consistent with fact? A. J. Spector. Advanced Management 18: 24-5 S '53

Building employee morale. G. D. Blake. Personnel J 32:299-303 Ja '54

Check list on management personnel policies. Bsns W p 166 D 19 '53

Developing personnel policies. A. M. Whitehill, jr. Personnel J 32:15-18 My '53

Does the open door policy really work? L. Stessin. Management R 42:646 N '53

Employe cooperation can be wooed, won. C. Rumble. Ed & Pub 86:56 Ap 18 '53

Employee security; can management meet the challenge? abstract. H. C. McClellan. Management R 43:493-4 Ag '54

Engineering efficiency in business economy means swift recognition of the broad approach. G. S. Odiorne and M. Berkowitz. Advanced Management 18:17-20 D '53

Enlightened industrial relations procedure; Seabrook. Food Eng 26:30 Ja '54

Executive development takes new step; Bettinger corp. M. L. Jones. il Dun's R & Mod Ind 62:61-3 S '53

Fine art of getting and keeping good station men. il Nat Pet N 45:80-1+ Ag 19 '53

Foreman, the worker and human relations. D. F. Tver. Pet Refiner 32:190-1+ Ag '53

Foremen, key to worker morale. A. N. Turner. Harvard Bsns R 32:76-86 Ja '54

Foundries; what they do for workers. Iron Age 173:83 Mr 11 '54

Functions of personnel, industrial, and public relations; management data sheet. A. L. Belcher and others. Factory Management 112:154+ F '54

Get your engineers, then hold them; National society of professional engineers survey. Chem & Eng N 32:220-2 Ja 18 '54

Getting employees interested in quality control; abstract. J. F. Verigan. Management R 42:527-8 S '53

Getting results from personnel surveys. M. E. Bovarnick. Personnel 30:78-87 S '53

Giving effective orders. R. B. Ross. Am Bsns 24:14-15+ Je '54

Handling personnel problems. T. H. Kemp. Coal Age 59:122+ F '54

How a large or small business can set up an employee development program. M. Brown. Advanced Management 19:13-16 F '54

How company keeps turnover low; Shwayder brothers. W. Norris. il Am Bsns 23:16-17+ N '53

How management can improve human relations; Unitcast corp. J. C. Miske. il Foundry 82:90-1+ Jl '54

How to deal with resistance to change. P. R. Lawrence. Harvard Bsns R 32:49-57 My '54

How to handle people. Am Mach 97:154-9 N 9 '53

How to win an arbitration. P. A. King. Textile World 104:129 Ja '54

How's your company's climate? M. L. Jones. Dun's R & Mod Ind 62:70-2 O '53

Human relations in a bank. C. Argyris. Harvard Bsns R 32:63-72 S '54

Human relations in management. T. D. Hartsell. Midwest Eng 6:9+ Ag '53

Human relations in the bookkeeping department; bookkeepers' point of view. C. Argyris. Banking 46:52-3+ Ja '54

Important management help; a planned program for personnel quality control. T. J. Wright. Advanced Management 18:17-20 O '53

Industrial relations round-table. W. T. Simmons, ed. Published in American gas association monthly

Laborgrams; latest trends on labor and employe relations. L. Stessin. Published in monthly numbers of Mill and factory

Modern business republic; eleven principles are emerging as a business bill of rights. J. J. Babb. Advanced Management 18:21-3 O '53

Modern philosophy of personnel administration. T. A. Toedt. Personnel J 32:178-80 O '53

NFA surveys labor practices. Foundry 82:222 S '54

National personnel conference of the gas industry, 6th, Chicago, April 15-16. Am Gas Assn Mo 36:21 My '54

Office personnel practices, a survey. Management R 43:368-9 Je '54

People; make them work, like it; Pitney-Bowes, inc. E. C. Kellogg. Iron Age 172: 218 O 8 '53

People; plant building's number one factor; Electromet used human engineering in building Marietta plant. il Iron Age 172: 67-8 Ag 20 '53

Personnel administration. H. H. Allen. Nat Underw (Life ed) 57:1+ S 25 '53; Same cond. East Underw 54:10 S 25 '53

Personnel directors eye home office problems needing close attention. Nat Underw (Life ed) 58:4+ F 26 '54

Personnel is an executive function. W. G. Caples. Advanced Management 18:25-6 D '53

Personnel policy, a track to run on. E. C. Schleh. Personnel 30:445-53 My '54

Pregnancies; a policy for employment and leaves of absence. H. M. Giller. Personnel 31:148-50 S '54

Production clinic; labor trouble in a smaller factory, production man's burden. E. G. Thomssen. Soap & Chem Spec 30:109 My '54

EMPLOYMENT management—*Continued*

Public libraries offer help to personnel directors. E. Di Roma. Personnel J 32:181-3 O '53

Public relations begins at home; abstract. M. Jackson. Management R 42:698-9 D '53

Put realism into your on-the-job relationships. W. G. Mahler. Textile World 104:77+ Ja '54

Putting human relations research to work; Detroit Edison co. R. E. Schwab. Pub Util 53:283-90 Mr 4 '54

Review of problems necessary to bring employment practices up to date. W. von Pechmann. Ind & Eng Chem 45:sup97A-8A+ Je '53

Shop thief! how can pilferage losses be kept down. B. A. Hall. Am Mach 98:156-7 Mr 15 '54

Supervision by suggestion. E. E. Jennings. Personnel J 32:288-92 Ja '54

Systematic employee relations on the CNR. W. T. Wilson. Ry Age 135:88-9+ N 16 '53

Ten ways to save personnel. H. L. Wylie. il Am Bsns 23:20-1 N '53

Theft control; here are seven suggestions. Steel 135:53 Ag 23 '54

Thefts; how you can prevent them. Iron Age 174:61 S 2 '54

Theoretical versus practical labor relations. A. A. Ahner. Ind & Eng Chem 46:sup99A-100A+ Je '54

They looked at their problems and licked them; Pioneer manufacturing co. M. L. Jones. il Dun's R & Mod Ind 63:36-9 Ja '54

Three personnel ideas; Manufacturers national bank of Detroit. W. G. McCarty. Banking 46:143-4 F '54

Three ways to humanize your handling of workers. R. A. Enion. Personnel J 33:62 Je '54

Trends in personnel and compensation practices for foremen. J. G. Piccoli. Personnel 30:324-30 Ja '54

Two heads are better; building a bank team for excellence of performance. C. H. Broaded. Bankers Mo 70:48+ F '54

What a visual program means. L. F. Johnson. Ind Med 22:102 Mr '53

What your employees want! L. W. Mann. Paper Tr J 137:18+ N 6 '53

Wrong approach? Bsns W p 125-6 N 14 '53

See also

Ability tests
Absenteeism (labor)
Apprentices
Bank employees
Bonus system
Building trades—Labor conditions
Collective bargaining
Efficiency, Industrial
Employees—Opinion polls
Employees—Promotion
Employees—Rating
Employees, Dismissal of
Employees, Training of
Employees' benefit plans
Employees' contests
Employees' counselors
Employees' magazines
Employees' manuals
Employees' representation in management
Employment departments
Employment systems
Factory management
Foremen
Hygiene, Industrial
Incentives in industry
Industrial relations
Job analysis
Job enlargement
Labor and laboring classes
Labor turnover
Layoff systems
Lunches, Employees'
Lunchrooms and cafeterias, Employees'
Medical service, Industrial
Mine foremen
Monotony
Music in industry
Night labor
Overtime
Profit sharing
Psychology, Industrial
Recreation
Rest periods
Safety devices and measures
Sales management
Suggestion systems
Supervisory workers
Time study
Wage payment plans
Woman—Employment
Work sampling

Alcohol problem

How many alcoholics on your payroll? abstract. Management R 43:227-8 Ap '54

Let's face alcoholism; forward-looking companies facing facts. il Chem & Eng N 31:5270-4 D 21 '53

Problem drinker. Safety Maint & Prod 107:65-6 Ja '54

Problem drinking and industry; conference at the New York academy of medicine. Ind Med 22:175-8 Ap '53

Problem drinking in industry; top management approach; abstract. A. A. Law. Management R 42:434-5 Ag '53

Understanding the alcoholic. B. B. Reeve. Nat Safety N 69:20-1+ Ap '54; Abstract. Pet Refiner 32:244 O '53

Bibliography

Books. Published in monthly numbers of Personnel journal

Communist problem

Combing Communists out of GE. Bsns W p29-30 D 19 '53

When can you fire a red? Bsns W p 162+ O 24 '53

Costs

How much do personnel activities cost? operational personnel budgets and functional personnel ratios; 1953. D. Yoder and L. P. Wilson. Personnel 30:73-8 S '53

Is your company spending enough for personnel management? Chem Eng 60:252+ N '53

Discipline

Your key to good plant discipline; the foremen. A. C. Croft. Steel 133:49-51 Ag 24 '53

Grievances

Arbitration and the handling of grievances. A. C. Croft. Advanced Management 18:19-21+ Jl '53

Foreman, your best answer to grievances. D. J. Wood. Mill & Factory 54:94-7 Je '54

How to handle complaints. M. A. Cross. Textile World 104:137+ Je '54

Reducing the cost of grievance processing; abstract. Management R 43:579-80 S '54

Training supervisors to counsel. J. Tarnopol and L. Tarnopol. Personnel J 32:216-21 N '53

We handle grievances; abstract. T. E. Brookover. Paper Tr J 137:52 D 11 '53

Information sharing

Administering the information rack program. Management R 42:137-8 Mr '53

Birthday greetings, visits to sick, semi-annual plant meetings make hit; Carl E. Steiger. Ind Marketing 39:86 Je '54

Communications in employment relations; proceedings of a conference held April 14-15, 1953, with the cooperation of the Twin Cities chapter of the Society for advancement of management through the Center for continuation study, University of Minnesota. (Research and tech. rep. 14) 48p pa $1.50 W. C. Brown co, Dubuque, Iowa '53

Communications; what are employees really interested in? P. F. Drucker. Advanced Management 18:23-4 D '53

Company information sources; how do they rate with workers? abstract. Management R 42:314-15 Je '53

Developing good attitudes among our people. R. M. Crooks. Personnel J 32:374-7 Mr '54

Dial eight for news. J. M. Black. Management R 43:419-20 Jl '54

Effective English; make it work for you; communicating to workers, the stockholders, and community. M. Graney. Dun's R & Mod Ind 63:46-7+ Ja '54

Employee relations go self-serve; reading racks. J. H. Collins. Pub Util 53:385-6 Mr 18 '54

Exit the attitude; I just work here. Chem W 74:20-1 Mr 20 '54

Explaining the annual report; Caterpillar Tractor puts questions and answers in its employee magazine. A. N. Whitlock. J Account 96:84-6 Jl '53

GM's idea cafeteria reaches employees without pressure; information rack program. R. Newcomb and M. Sammons. il Ind Marketing 39:86+ Mr '54

Handling 1,500 executives; Macy's New York uses a system of regular small-group discussions. Bsns W p 181-2 O 31 '53

EMPLOYMENT management — Information sharing—*Continued*

Home-made employee communications; Pacific electric railway co., Los Angeles. il Dun's R & Mod Ind 62:183-4 N '53

How managements talk to supervisors. W. C. Lewis. Dun's R & Mod Ind 62:189-90+ O '53

How to pass the word. T. A. Jackson. Am Mach 98:148 Jl 5 '54

How well do you pass the word along? P. R. Beall. Advanced Management 18:13-16+ Jl '53

Human relations; joint consultation. A. V. Kingston. Chem & Ind p 1152-4 S 18 '54

Industrial relations as a modern challenge to managements capacity for salesmanship. W. L. McGrath. Advanced Management 19:5-8 F '54

Information racks; new frontier in industrial communications. Management R 42:75-6 F '53

Keeping 185,000 Ford employees informed. W. Norris. il Am Bsns 24:16-17+ Je '54

Labor; curing chronic relations ills; case history of an employee communications program. E. C. Kellogg. Iron Age 172:60 O 15 '53

Lionel builds little trains, big employe relations program. R. Newcomb and M. Sammons. il Ind Marketing 39:170+ S '54

Making your workers competition-conscious; abstract. Management R 42:641-2 N '53

Nash people get acquainted at town hall meetings. D. G. Baird. il Am Bsns 23:18-19+ D '53

Policy; keep record straight by phone; Westinghouse uses telephonic communicator to keep supervisors, workers posted. J. B. Delaney. il Iron Age 172:71-2 Jl 2 '53

Productivity and morale directly related; abstract. F. Fischer. Chem & Eng N 32:1258 Mr 29 '54

Railroad checks on its communications; Chesapeake and Ohio railway co. F. J. Householder, jr. Personnel J 32:413-15 Ap '54

Reading racks; new industry communication tool; Arizona public service. J. E. Boulet. Pub Util 53:381-5 Mr 18 '54

Selling tomorrow's automation to the rank-and-file; movie released by Ford motor co. il Bsns W p66-7+ O 3 '53

Small company builds big program on a modern budget; Hoerner corp. R. Newcomb and M. Sammons. il Ind Marketing 39:132+ Ja '54

Trends in company communications programs; abstract. Management R 43:216-17 Ap '54

What are 78,000 employees willing to read? Pacific Telephone reading rack service. J. H. Collins. Pub Util 53:807-14 Je 24 '54

When you introduce anything new, sell your own employees first; Dayton pump & manufacturing co. L. Wozar. il Ptr Ink 243:65+ Je 12 '53

Your people's pay; how much should you tell them about it? Personnel J 33:127-30 S '54

See also

Communication

Interviewing

Communication of merit ratings; a philosophy and a method. B. J. Covner. Personnel 30:88-98 S '53

Corrective interview; one key to good morale. D. J. Wood. Am Mach 97:128 N 23 '53

How to be interviewed. P. M. Stokes. Factory Management 111:84-9 N '53

How to correct workers. E. P. Johnson. Personnel J 32:341-2 F '54

How to get a salesman to tell the real reason he quit your job. J. S. Arnold. Sales Management 71:34+ N 1 '53

Loyalty problem

Every employer a sentinel. Chem W 74:15 My 1 '54

General Electric states policy on employees alleged to be security risks. Chem & Eng N 31:5352 D 28 '53

New employees

Employee indoctrination and orientation survey. D. A. Hardesty. Am Gas Assn Proc 1953:221-3

How bank makes new employees feel at home in a hurry; International bank for reconstruction and development. M. D. Bryce. Am Bsns 23:38-9 D '53

What worries new workers? Management R 42:260 My '53

Workers; make 'em happy at the start; Carboloy dept. orientation course. Iron Age 173:101 Mr 4 '54

See also

Employees' manuals

EMPLOYMENT management associations

Directories

Directory of local personnel and training groups; 1953. Personnel 30:208-17 N '53

EMPLOYMENT managers

Desirable characteristics for personnel directors. E. G. Williams and K. Davis. Personnel J 32:258-62 D '53

Dilemma of the industrial relations director. D. E. McFarland. Harvard Bsns R 32:123-32 Jl '54

Ethics in personnel administration. Personnel 30:180-6 N '53

Let us recognize the personnel technician. J. E. Wilson. Personnel J 32:213-15 N '53

People are his problem; Nopco chemical co.'s, Lewis Carter. Chem W 72:18-20 My 16 '53

Personnel managers mirrored. M. N. Brown. Personnel J 33:90-1 Jl-Ag '54

Salaries and ratios in industrial relations, 1954. D. Yoder and L. N. Wilson. Personnel 31:5-10 Jl '54

White shirt barrier. J. H. Foegen. Personnel J 32:343-5 F '54

Wife, home, greatly affect personnel man's progress. L. A. Appley. Personnel J 32:10-14 My '53

Directories

Angel's directory of personnel managers in the United States, 1954-1955. J. L. Angel, comp. 300 l pa $20 World trade academy press, 11 W. 42d st, suite 518, New York 36 '54

Salaries

Personnel relations come higher this year. Bsns W p 175 N 28 '53

EMPLOYMENT systems

Analysis method helps management solve personnel problems; Activity vector analysis. W. B. Olson. Iron Age 172:114-17 O 15 '53

College boys are hired all year round. J. H. Collins. Pub Util 52:844-51 D 3 '53

College market in the search for personnel; banks. H. Hilton, jr. Banking 46:45+ Ag '53

Current personnel selection procedures. D. C. Adkins. Science 118:sup3 Ag 7 '53

Developing a campus recruitment program. F. S. Endicott. Management R 43:358-9 Je '54

Employee and clerical costs. E. R. Eberle. Am Gas Assn Mo 36:31-3+ F '54

Filling and not filling skilled job vacancies under union contracts. N. C. Rockwood. Rock Prod 57:73+ Ap '54

High-school recruitment can pay off! abstract. R. M. Smith. Management R 42:592-3 O '53

High-speed handling of employment applications. J. V. Young. Personnel 30:205-7 N '53

Hiring the right man; Illinois Central standardized employment procedure. il Ry Age 137:28-9+ Ag 16 '54

How can we test job applicants? answers. Power 98:138+ Ja '54

How do you choose the right employee? M. P. Miller. Textile World 104:133+ F '54

If you've lost out in hiring this year's graduate engineers; Worthington plan. J. J. Thompson. Sales Management 72:36-7+ Je 15 '54

Recruiting manpower can be improved. Chem Eng 60:293-4 O '53

Selecting Americans for overseas employment. M. M. Mandell and S. H. Greenberg. bibliog Personnel 30:357-66 Mr '54

Seniors talk back to recruiters; what graduates think of recruiter and his merchandising. W. A. Cunningham and H. F. Rase. Chem Eng 60:286+ O '53

EMPLOYMENT systems—*Continued*

Trends in personnel selection and induction. W. R. Spriegel and A. G. Dale. Personnel 30:169-75 N '53

Trial and error in hiring copy writers. D. McDowell. Ptr Ink 244:166 S 18 '53

Validity of using psychological selection procedures. E. K. Taylor and E. C. Nevis. Personnel 30:187-9 N '53

Woo the worker; pay the costs. W. F. Parke. Personnel J 33:136-7 S '54

See also

Ability tests
Age and employment
Civil service
Disabled—Rehabilitation
Employees—Rating
Employment management
Executives
Handicapped
Job analysis
Labor recruiting
Layoff systems
Physical examinations
Salesmen—Selection

Advertising aids

Advertising produces missing link in vital personnel procurement drive; Link aviation, inc. R. J. Flood. il Ptr Ink 244:58+ S 18 '53

How to put more pull into help wanted ads. W. H. Megary. Sales Management 71:87-8 N 1 '53

Age barriers

See Age and employment

Interviews

Employment interview as seen by job applicants. H. Seligson and D. Brooks. Personnel J 33:141-3 S '54

How Drexel institute helps companies recruit. R. R. MacMurray. Personnel J 32:381-4 Mr '54

How they stand up under pressure; Williamson-Dickie's sales applicants tested on the Interaction Chronograph. J. T. Norman. Sales Management 73:36-7+ Ag 1 '54

How to improve employment interviews. P. Wentworth. Personnel J 32:46-9 Je '53

How to weed out character risk workers. R. N. McMurry. Iron Age 173:60-1 Ja 14 '54

Interviewing the college graduate. R. S. Uhrbrock. Chem & Eng N 31:2480-2 Je 15 '53

Manpower; tap GI talent pool. M. H. Hochstein. Iron Age 174:53 Ag 26 '54

New approach to executive selection. A. S. Judson. Harvard Bsns R 32:127-36 Mr '54

What are interviews made of? H. W. Daniels. Personnel 30:176-9 N '53

Want ads

See Advertisements, Classified—Want ads

EMPLOYMENT systems, Cooperative

Mutual hiring saves headaches; non-profit employer co-op formed to give the advantages of big-company employment methods at small-company cost. il Am Mach 98:121-3 F 1 '54

EMPLOYMENT tests. See Ability tests

EMULSIFIERS

Atlas plant to make emulsifiers at Brantford, Ont. Can Chem Process 38:50 Ap '54

Emulsifying agents. G. B. Frost. Chem Age (Lond) 70:427 F 13 '54

Farm products to chemicals; Atlas multiplant production of surfactants. Chem & Eng N 32:708-9 F 22 '54

How to emulsify ultrasonically; patent. Chem Eng 61:260 F '54

New Sharples emulsifier; isopropylaminoethanols (IPAE). Soap & San Chem 30:97 Ap '54

New synthetic rubber soap specs. Soap & Chem Spec 30:89+ Ag '54

Nonionic, anionic and cationic emulsifiers in GR-S polymerizations. A. F. Helin and others. bibliog Ind & Eng Chem 45:1330-6 Je '53

Thought for food; Atlas emulsifiers strengthening trade position. il Chem W 74:74-6 F 20 '54

EMULSIONS

Aqueous phase diluents in emulsion polymerization of synthetic rubber. L. H. Howland, J. A. Reynolds and R. W. Brown. bibliog Ind & Eng Chem 45:2738-42 D '53

Comparative cleaning of diphase and emulsion systems. L. Osipow and others. bibliog Ind & Eng Chem 45:2779-82 D '53

Comparison of emulsion paint systems; abstract. A. McLean. Paint Oil & Chem R 117:26-7 Ag 12 '54

Concentrated oil-in-water emulsions for dyeing and printing. Am Dyestuff Rep 43:54 Ja 18 '54

Determination of interfacial area in unstable emulsions by light transmission. G. E. Langlois and others. diags R Sci Instr 25:360-3 Ap '54

Effect of initiation temperature on continuous emulsion polymerization. M. Feldon and R. F. McCann. bibliog Ind & Eng Chem 46:465-7 Mr '54

Emulsion polymers for the textile industry. L. Shapiro. bibliog Am Dyestuff Rep 43:132-40 Mr 1 '54

Emulsions of seawater in admiralty fuel oil, with special reference to their demulsification. W. Killner. diag Inst Pet J 39:51-5 Ja '53

How much oil in your feedwater? G. S. Emmerson. diags Power Eng 57:78-9+ D '53

Hydrometer method for measuring emulsion stability. H. L. Sanders and others. Soap & Chem Spec 30:99+ My '54

Molecular interactions at the solid-liquid interface, with special reference to emulsions stabilised with solid particles. J. H. Schulman. Chem Age (Lond) 69:1327 D 26 '53

Pigment-pad dyeing emulsion; free of organic solvents; patent. Am Dyestuff Rep 42:892 D 21 '53

Polyvinyl acetate emulsions stabilized with styrene-butadiene copolymers. Am Dyestuff Rep 43:53-4 Ja 18 '54

Reagents in ore-treating emulsions controlled by weighing timed samples at regular intervals. F. A. McGonigle. il Ind & Eng Chem 46:sup 107A Jl '54

Resin polymer emulsions; their manufacture and use. F. B. Parker. il Can Chem Process 37:30+ D '53

Tips on building a better emulsion. il Soap & San Chem 29:179+ D '53

Troubles besetting the manufacturer of emulsions. E. G. Thomssen. Soap & San Chem 30:101 Ap '54

See also

Colloids
Foam
Petroleum—Emulsions

EMULSIONS, Photographic. See Photographic emulsions

ENAMEL and enameling

Aluminum coated with frit will find many markets. Chem Eng 60:146 Ag '53

Another porcelain enamel headache overcome; multi-color, raised-letter, porcelain enameled signs. il Cer Ind 63:64-5 Ag '54

Better properties extend uses for porcelain enamels. W. A. Barrows. il Iron Age 173:121-4 My 13 '54

Better steels and enamels sought. Midwest Eng 6:25 Ag '53

Bright gold screening on porcelain enamel. R. J. Miller. Cer Ind 63:112 S '54

Building research advisory board porcelain enamel conference. Arch Forum 99:150+ D '53

Ceramic coating extends use of nickel for high-temperature applications. Iron Age 172:177 N 19 '53

Ceramics for high temperatures. A. Pechman. bibliog il Chem Eng 60:186-90 N '53

Cleaning aluminum surface for porcelain enameling. Cer Ind 63:67 Jl '54

Custom orders challenge enameler's resources; Challenge stamping & porcelain co. il Cer Ind 63:66 S '54

Differential thermal analysis of titania-opacified enamels. F. D. Olympia. bibliog Am Cer Soc Bul 32:412-14 D 15 '53

Effect of ceramic coatings on fatigue strength of metal. W. J. Plankenhorn. bibliog il diags Am Cer Soc J 37:281-8 Je 1 '54

Enamel; study how steel takes it. il Iron Age 172:42-3 Jl 30 '53

Enameling aluminum, nickel, and steel. Dun's R & Mod Ind 62:162-3 O '53

Enameling without mystery. K. Berl. il diags Am Cer Soc Bul 32:385-8 N 15 '53

ENAMEL and enameling—*Continued*

Executive fashions porcelain enameled cocktail table. il Cer Ind 61:102 N '53

$45 million plant now in operation; Electric appliance division of Westinghouse electric corp. il Cer Ind 62:66-9 My '54

Furnace tools get new lease on life; new high temperature ceramic coatings keep down tool scale. T. F. Moeller. il Steel 133:139 D 7 '53

Gas evolution from gray cast iron during enameling. L. F. Porter and P. C. Rosenthal. bibliog il diags Am Soc for Metals Trans 44:310-30; Discussion. 330-5 '52

GE keyed to competitive production in new plant; including one of the finest porcelain enameling operations. il Cer Ind 62:65-6+ F '54

Glass + aluminum = durability + low weight; Du Pont. il Chem Eng 61:136+ Ja '54

High temperature coatings. B. L. Paris. il Tool Eng 32:145-7 Mr '54

How to make steel last three times as long; ceramic coatings. F. B. Shaw. il Am Mach 97:97-9 D 21 '53

How to produce matte enamel finishes. P. S. Cecil. Cer Ind 63:66-7 Jl '54

Japanese Shippo-art enameling. D. V. Van Gordon. il Am Cer Soc Bul 33:37-41 F 15 '54

Joint study reveals merits of architectural porcelain enamel; Porcelain enamel institute and Building research advisory board. Cer Ind 61:72-4 D '53

New Hotpoint plant is panorama of future. il Cer Ind 62:64-6+ Mr '54

One-coat gray speckled titanium enamels; abstract. H. L. Latimer. Cer Ind 62:88 Je '54

101 new ideas in action; practical plant operating ideas. il Cer Ind 62:68-9+ Ap '54

One school uses porcelain enamel in 20 ways. il Arch Rec 115:20 F '54

Out of the kitchen; porcelain enamel moves into bigger role in building. J. C. Potter. Barron's 33:17-18 N 16 '53

Porcelain enamel fights corrosion. W. A. Barrows. il Power 98:111-13+ Jl '54

Porcelain enamel; industry growth. G. G. Carr. il Iron Age 174:39-41 S 30 '54

Porcelain enamel institute annual shop practice forum. Cer Ind 61:62+ N '53

Porcelain enamel institute shop practice forum, Columbus, Ohio; abstracts. Iron Age 172:122-4 O 22 '53

Porcelain enameled aluminum. D. R. Goetchius. il Cer Ind 62:159+ Ap; 72-3+ My '54

Porcelain enameling at Westinghouse. il Am Cer Soc Bul 33:152-3 My 15 '54

Porcelain pipe welding process. il Materials & Methods 40:244+ S '54

Properties of HAE finish for magnesium. R. G. Gillespie. il Materials & Methods 38:104-5 N '53

Repair welding of ceramic-coated alloys. J. M. Riordan. bibliog il Welding J 32:1160-6 D '53

Selecting ceramic coatings for jet engine parts. W. C. Rous, jr. il Materials & Methods 38:116-19 D '53

Single coat enameling; titanium in enameling iron stabilizes carbon and does away with need for ground coat; Ti-namel. il Steel 133:162 O 26 '53

Some properties of the system Na_2O-NaF-B_2O_3-H_2O. B. W. King. bibliog Am Cer Soc J 37:238-42 My 1 '54

Study of the problem of the design of ceramic lined digesters. F. M. Kraus. diags Pulp & Pa of Can (Convention no) 55:204-12 [F] '54; Correction. 55:96 Ap '54

Three steps to progress in porcelain enameling. R. A. Weaver, jr. Cer Ind 61:61+ N '53

Two new high temperature coatings. A. Pechman. il Materials & Methods 39:94-6 Ap '54

Versatile porcelain enamel. Steel 133:47 N 23 '53

See also

Electric furnaces, Enameling
Enamel spraying
Enameled ware
Furnaces, Enameling
Sheet metal, Enameled

Adherence

Galvanic corrosion theory for adherence of porcelain enamel ground coats to steel. D. G. Moore and others. bibliog il diags Am Cer Soc J 37:1-6 Ja 1 '54

Relation between roughness of interface and adherence of porcelain enamel to steel. J. C. Richmond and others. bibliog il diag Am Cer Soc J 36:410-16 D 1 '53

Color

Hot process screening on porcelain enamel saves time and labor. R. G. King. diags Cer Ind 62:156-7 Ap '54

Titania enamels in all colors; abstract. W. J. Fitzpatrick. Cer Ind 62:88 Je '54

Defects

Corrections for seven defects in enameled aluminum. Cer Ind 63:67-8 Ag '54

Evaluation of the use of the refractory oxides Al_2O_3 and SiO_2 in eliminating a gas-produced enamel defect. R. G. Rion. bibliog Am Cer Soc Bul 33:16-20 Ja 15 '54

Manufacturing defects in chinaware, porcelain enamel, glass containers; their causes and cures. Cer Ind 62:137-8+ Ja '54

Relation of bubble structure of porcelain enamel to fish-scaling. C. G. Bergeron. bibliog il diags Am Cer Soc J 36:373-6 N 1 '53

Some influences of carbon in enameling of steel. G. P. K. Chu and others. bibliog il diags Am Cer Soc J 37:391-401 S 1 '54

Study of hairlining. J. E. Cox and A. I. Andrews. bibliog il Am Cer Soc J 37:186-91 Ap 1 '54

Testing

Abrasion resistance of some dry-process enamels. W. C. Spangenberg. Am Cer Soc J 37:48-51 F 1 '54

Study of strains between enamel and iron as related to physical properties of each. J. D. Walton, jr. bibliog diags Am Cer Soc J 37:153-60 Mr 1 '54

Westinghouse proves advantages of torsion testing. M. E. Pingel. Cer Ind 61:74 D '53

ENAMEL spraying

Conveyor speeds coating; San Diego, Calif. plant of Solar aircraft co. il Chem Eng 60:134 O '53

Porcelain coating in field. il Steel 133:106+ Jl 13 '53

Ryan developing spray technique for jet parts; flame-spraying. il Cer Ind 63:65 Ag '54

ENAMELED sheet metal. See Sheet metal, Enameled

ENAMELED ware

Enameled gray iron cookware expands market for castings. R. H. Herrmann. il Foundry 82:186 S '54

How Crane saves 25 per cent on packaging costs. il Cer Ind 62:62-3 My '54

Porcelain coat on aluminum finds new field in gift market. Bsns W p68 S 5 '53

Porcelain enamel; its use and manufacture for household appliances; abstract. W. H. Pfeiffer. Metal Prog 66:146+ S '54

Protection and handling ease are wooden box features. il Cer Ind 63:52-3+ S '54

Manufacture

Modern enameling plant rides building boom; Kaiser metal products, inc.; illustrations with text. Cer Ind 63:64-5 S '54

ENAMELING furnaces. See Furnaces, Enameling

ENCEPHALITIS, Epidemic

1952 encephalitis outbreak in California. W. L. Halverson and others. il map Pub Health Rep 68:368-77 Ap '53

ENCYCLOPEDIAS

Basic everyday encyclopedia. J. Stein, ed. 574p $2.95 Random House, 457 Madison av. New York 22 '54

ENEMY property

Big prize in alien property plan; chemicals. Chem W 75:24+ Ag 21 '54

Colombia will return axis funds, property. For Comm W 50:8 N 23 '53

Continuity compromise; General aniline & film corp. Chem W 72:14-15 My 30 '53

ENEMY property—*Continued*

Dollar limit may ban GAF return. Chem & Eng N 32:3266 Ag 16 '54

GAF-GDC sale still bogged down. Chem & Eng N 31:4980+ N 30 '53

Interhandel again bids for General Aniline trial. Oil Paint & Drug Rep 165:4+ My 17 '54

Interhandel case dismissed for lack of Swiss documents. Oil Paint & Drug Rep 164:3 N 23 '53

Interhandel to dispose of GAF stock in the U.S. Chem & Eng N 31:4210 O 12 '53

Interhandel urges return of GAF; Justice summons stockholders. Chem & Eng N 31:3552 Ag 31 '53

Out-of-court plan to regain the GAF shares. Chem W 73:23 Ag 29 '53

President scores alien property bills. Chem & Eng N 32:3360 Ag 23 '54

Retroactive asset recovery. Chem W 75:14 Jl 17 '54

Treasury department to auction off $16 million Czech steel mill. Iron Age 173:78 Ap 1 '54

U.S. war seizure payments, reward for Nazi war. F. C. Brown. Oil Paint & Drug Rep 166:4 Jl 19 '54

ENERGY. See Force and energy

ENGELHARDT, Carl L.

Chemistry's impact on paints; winners of 1954 PaVaC award. por(cover) Chem & Eng N 32:2278+ Je 7 '54

ENGINEER corps. See United States—Army—Engineer corps

ENGINEERING

Annual materials engineering review and forecast. T. C. DuMond. il Materials & Methods 39:111-26 Ja '54

Designation of man-made wonders progresses. C. M. Bayer. Civil Eng 23:629 S '53

Engineering in the next two thousand years. D. Gordon. Engineer 196:292-5 S 4 '53; Same. Engineering 176:381-3 S 18 '53; Excerpts. Elec J 151:707 S 4 '53

Engineering mode of analysis. G. A. Hawkins and L. M. K. Boelter. bibliog Mech Eng 75:799-800+ O '53

How to file engineering data and material. Paper Tr J 138:15 Ap 23 '54

How to keep track of your men and jobs; peg board modified from production control board. il Chem Eng 61:138+ S '54

New engineering materials. il Product Eng 24:139-45 Je '53

Position of the technical press in relation to industry. J. F. Petree. Mech Eng 75:967-9 D '53; Same cond. Machine Design 26:284-6+ F '54

Research and the engineering process, with particular reference to the automobile industry. H. E. Merritt. Inst Mech Eng Proc (Auto div pt 2):47-51 '52-53; Same abr. Engineer 194:807-9 D 12 '52; Discussion. il diag Inst Mech Eng Proc (Auto div pt 2):51-71 '52-53

Utilisation of electronic digital computers in engineering practice. R. K. Livesley. Engineering 176:349-50 S 11 '53

See also

Aeronautic engineering
Air conditioning
Airports
Aqueducts
Automobile engineering
Blasting
Breakwaters
Bridges
Chemical engineering
City planning
Civil engineering
Concrete construction
Construction equipment
Dams
Dikes (engineering)
Docks
Drainage
Drilling and boring (earth and rocks)
Earthwork
Electric engineering
Engineers
Foundations
Gas engineering
Harbors
Heating
Highway engineering
Hydraulic engineering
Industrial engineering
Irrigation
Lighting
Machinery
Marine engineering
Mechanical engineering
Mechanical handling
Mining engineering
Pavements
Petroleum engineering
Pipe laying
Plastics engineering
Public works
Pumping
Radio engineering
Railroad engineering
Railroads—Construction
Refrigerating engineering
Refrigeration and refrigerating machinery
Reservoirs
Roads
Sanitary engineering
Sewerage
Standards, Engineering
Steam engines
Steel construction
Strains and stresses
Streets
Strength of materials
Structural engineering
Surveying
Technology
Telephone
Tunnels and tunneling
Ventilation
Water supply engineering

Bibliography

Reviews of books and notes on books received in the Engineering societies library. Published in monthly numbers of Mechanical engineering

History

Engineering history; a pedagogist's problem. C. L. Sonnenschein. bibliog J Eng Educ 43:504-8 My '53

Social aspects

Engineering America's future. G. A. Price. Mech Eng 76:21-2+ Ja '54

Study and teaching

Bases of engineering problem-solving skills. J. F. Calvert and others. bibliog J Eng Educ 43:509-14 My '53

Engineer in management. H. Bainbridge. Elec J 152:599-600 F 19 '54

Engineering course on tv; University of Michigan, College of engineering. Chem Eng 61:242 F '54

Get generalities in school, specialization from job, industry tells students. S A E J 62:109-11 S '54

1 : 3 : 1 course; abstract. K. R. Evans. Engineering 177:4 Ja 1 '54

Problem-solving skill in engineering drawing and descriptive geometry. R. A. Kliphardt. J Eng Educ 43:515-18 My '53

Why shop courses in college? E. W. Dunlap. Am Mach 98:100-1 Mr 1 '54

See also

Chemical engineering—Study and teaching
Electric engineering—Study and teaching
Engineering colleges
Engineering education
Mechanical engineering—Study and teaching

Tables, calculations, etc.

Application of the power series transform to linear difference equations in engineering. L. McFadden. diags Am Soc C E Proc 79 [no 225]:1-14 Jl '53

Calculating dimensions of a cone frustrum for a given volume. W. Rosenberg. diag Mach 61:208 S '54

Experimental analysis. D. H. Pletta and D. Frederick. bibliog diags Am Soc C E Proc 79 [no 224]:1-23 Jl '53

Extending engineering skills with large-scale digital computers. A. Keller. diags Mech Eng 75:891-5 N '53

South Africa

African engineering news. Engineer 196:716 N 27 '53

ENGINEERING, Structural. See Structural engineering

ENGINEERING colleges

Accrediting and evaluation discussed at ASEE-ECPD meeting. Mech Eng 75:1037-9 D '53

Engineer-in-training program; its relation to education. C. S. Crouse. Midwest Eng 6:5-6+ S '53

Integrating the activities of an agricultural engineering department in a school of engineering. G. A. Marston. J Eng Educ 43:570-2 Je '53

Training in research. F. C. Lindvall. J Eng Educ 43:578-80 Je '53

See also

Engineering graduates
Engineering students

also Florida university; Massachusetts institute of technology; Royal technical college, Glasgow; United States naval postgraduate school

ENGINEERING colleges—*Continued*

Curriculum

Curriculum and cocurriculum. C. M. Duke. diag J Eng Educ 43:558-61 Je '53
Education for the engineering spectrum. R. J. Smith. J Eng Educ 44:88-93 O '53
English and history as professional equipment for the engineer. H. D. Piper. J Eng Educ 43:460-4 Ap '53
Five-year engineering program. S. C. Hollister. Gen Elec R 56:10-12 N '53
Four-year engineering program. J. F. D. Smith. Gen Elec R 56:8-10 N '53
Improving the product. L. Harrisberger. J Eng Educ 44:82-7 O '53
Present limitations and future possibilities of accreditation and its effect on the standards of engineering education. J. C. Osborn. J Eng Educ 44:277-9 D '53
Progress in the humanistic-social division. S. W. Chapman. J Eng Educ 44:192-6 N '53
Stronger engineering graduates. G. E. Doan. J Eng Educ 43:534-6 My '53
Summary of preliminary report; committee on evaluation of engineering education. Elec Eng 73:121-3 F '54; Same cond. Civil Eng 24:110-11 F '54
Unified engineering curriculum. L. M. K. Boelter. Gen Elec R 56:12-14 N '53

Enrollment

Forecast of engineering freshmen and graduates during this decade. N. N. Barish. J Eng Educ 44:181-7 N '53
Gain in mineral engineering enrollment only half that in all engineering. W. B. Plank. Min Eng 6:496 My '54
Record enrollment approached by 1952 engineering students. Chem Eng Prog 49:sup 24+ My '53

Graduate work

Post-graduate metallurgical training. Metallurgia 50:37-8 Jl '54
Report on graduate curricula. G. R. Arthur and C. Süsskind. Inst Radio Eng Proc 41: 1700-1 D '53
Summary of ASEE Manual of graduate study in engineering, committee on revision, 1952. J Eng Educ 43:545-7 My '53
Types of graduate subsidy and their relation to educational values. E. Weber. J Eng Educ 44:188-91 N '53

Libraries

See also
Georgia institute of technology—Library

Professors and instructors

How can competent young instructors be attracted to colleges? what intangible rewards are available? W. N. Jones. J Eng Educ 44:157-8 N '53

Relations with industry

See also
Engineering education—Industry cooperation

Research

Are colleges research-minded? survey of 139 engineering colleges. Chem & Eng N 32: 810+ Mr 1 '54
Cooperative research. F. M. Dawson and A. B. Çambel. J Eng Educ 44:121-2 O '53
Encouragement of fundamental research as an aid to education and engineering. E. A. Walker and others. J Eng Educ 44:17-28 S '53
Fundamental research from the viewpoint of the private foundation. J. W. Barker. J Eng Educ 44:28-35 S '53
Research in small colleges. W. E. Wilson and R. H. Cook. J Eng Educ 44:253-6 D '53
Training in research. R. L. Pigford. J Eng Educ 44:179-80 N '53

ENGINEERING contracts

Bidding for engineering services; editorial. Eng N 151:167-8 N 19 '53; Discussion. 152: 42-3+ Ja 28; 32-3+ F 4; 39-40 Ap 1 '54
Legal decisions; summaries of decisions relating to construction (cont). I. V. Werbin. Eng N 151:76 N 12; 96 D 10; 42-3 D 31 '53; 152:227-8+ F 18; 87-8 Mr 18; 59-61 Ap 1; 89-90 Ap 8; 87-8+ Ap 29; 111+ My 20; 74+ Je 3; 88+ Je 17; 153:82+ Jl 8; 71-2+ Ag 12; 108+ Ag 19; 86+ S 2; 40 S 30; 309-10+ O 7; 48-9 O 21 '54
Let's clean house. J. R. Snell. J Eng Educ 43:497-503 My '53

See also
Building contracts
Contracts, Letting of
Roads—Contracts

ENGINEERING departments

Du Pont construction force; engineering tomorrow's world. J. P. Chamberlain. il Eng N 151:42-4+ Ag 6 '53
Engineering work control; abstract. J. E. Thompson. Tool Eng 33:150 Jl '54
Keeping engineers posted; system for effective utilization of current technical literature. R. T. Casey. il Machine Design 26: 119-22 Je '54
Keeping track of projects with control boards. W. E. Elder. il Product Eng 24:141-3 S '53
Organization for production engineering. R. H. McCarthy. Mech Eng 75:785-8+ O '53; Same cond. Tool Eng 32:168-73 F '54

See also
Materials departments

ENGINEERING drawing

Dimensioning castings. E. V. Lundstedt. il diags Machine Design 26:98-110 Ja '54
Dimensions required for inspection. G. A. G. Saywell. diags Roy Aeronautical Soc J 57: 463-4 Jl '53; Discussion. A. C. Parks. il 57:725-8 N '53
Problem-solving skill in engineering drawing and descriptive geometry. R. A. Kliphardt. J Eng Educ 43:515-18 My '53
Simulated perspective sketching. P. F. Kranz. il diags Machine Design 26:108-13 Ag '54

ENGINEERING economics

Economics for engineers? abstract. W. H. Winfield. Chem & Eng N 32:2624 Je 28 '54

ENGINEERING education

Accrediting and evaluation discussed at ASEE-ECPD meeting. Mech Eng 75:1037-9 D '53
American society for engineering education and Engineer's council for professional development joint meeting, New York. Chem & Eng N 31:4434+ O 26 '53
Are we ready to consider a major change in policy. W. S. Evans. J Eng Educ 43: 476-8 Ap '53
Conference on selection and training of railroad management personnel, Ann Arbor, Feb. 10-11. Ry Age 136:9-11 F 22 '54
Echelons of engineering education. K. L. Holderman and others. J Eng Educ 44:234-42 D '53
Education for professional engineering responsibilities (from origin to present challenge). W. R. Woolrich. J Eng Educ 44: 9-16 S '53
Engineer-in-training program; its relation to education. C. S. Crouse. Midwest Eng 6:5-6+ S '53
Engineering education. Comp Air Mag 58: 351 D '53
Engineering education. C. O. Brown. Ind & Eng Chem 45:sup25A-6A D '53
Engineering education and engineer-in-training examinations. J. H. Lampe and others. J Eng Educ 44:95-107 O '53
Engineering education from industry's viewpoint; one man's impressions. R. H. Leach. J Eng Educ 44:174-8 N '53
Engineering history; a pedagogist's problem. C. L. Sonnenschein. bibliog J Eng Educ 43:504-8 My '53
Engineers, educators propose changed engineering education. Machine Design 25:251-2 D '53
Important need in engineering education; ASEE 61st annual meeting, Gainesville, Fla. Mech Eng 75:681-2 Ag '53
Make your own engineers. H. J. Gresens. il Am Mach 98:127-9 F 15 '54

ENGINEERING education—*Continued*

Nature of education in metallurgical engineering. R. F. Mehl. il J Metals 6:728-33 Je '54

New kind of technical specialist is coming your way; plumbing engineering course. il Dom Eng 184:118-19+ Ag '54

1953-54 a year of evaluation. L. E. Grinter. J Eng Educ 44:3-4 S '53

Plans for raising standards; preliminary report of committee on evaluation of engineering education of American society for engineering education. Chem Eng Prog 50:sup42A F '54

Present limitations and future possibilities of accreditation and its effect on the standards of engineering education. J. C. Osborn. J Eng Educ 44:277-9 D '53

Production engineering education trends. O. W. Boston. Tool Eng 33:156-8 S '54

Report of ASCE committee on education commended. Civil Eng 24:109 F '54

Role of professional licenses in engineering education. E. J. Nunan. J Eng Educ 43:575-7 Je '53

Selected reports by institutional committees on evaluation of engineering education. J Eng Educ 44:257-74 D '53

Summary of preliminary report; committee on evaluation of engineering education. Elec Eng 73:121-3 F '54; Same cond. Civil Eng 24:110-11 F '54

Training engineers for more effective results in industry. R. C. Sprague. bibliog J Eng Educ 43:451-6 Ap '53

Unified engineering curiculum. L. M. K. Boelter. Gen Elec R 56:12-14 N '53

University president looks at engineering education. R. G. Sproul. Civil Eng 23:394-5 Je '53

What should an engineer expect from a university education? W. V. Houston. Am Pet Inst Proc 33(1):78-83 '53; Same. il Oil & Gas J 52:225-6+ N 16 '53; Discussion. Am Pet Inst Proc 33(1):83-4 '53

What's ahead in engineering education? symposium. J. F. D. Smith and others. Gen Elec R 56:8-14 N '53

See also

Engineering colleges
Engineering students
Technical education
Westinghouse, George, award in engineering education

also subdivision Study and teaching under engineering subjects, e.g.

Electric engineering
Mathematics
Mechanical engineering

also Engineers' council for professional development; Massachusetts institute of technology

Cooperative plan

Co-op training; Dow's Texas division and Georgia institute of technology. il Chem W 74:24 Mr 27 '54

Wanted, civil engineers; recruiting engineering students among high-school lads in Michigan with contractor association, college and highway department cooperation. C. J. Carroll. Roads & Sts 96:96-7+ N '53

Industry cooperation

Educators in industry's classroom. R. H. Buescher. il diags Gen Elec R 57:55-7 Mr '54

Liaison between university and industry; abstract. J. A. Pope. Engineering 177:5 Ja 1 '54

More funds mean more engineers; Lehigh seeks industry's financial aid. Chem & Eng N 32:160 Ja 11 '54

France

Education of engineers in France. M. Y. Letort. Am Cer Soc Bul 33:175 Je 15 '54

Russia

Engineering education in Russia; abstracts. M. H. Trytten. Am Mach 98:158 S 27 '54; Chem Eng Prog 50:sup46 Ap '54

ENGINEERING education, American society for. See American society for engineering education

ENGINEERING ethics

Engineering integrity. J Eng Educ 44:223-33 D '53

ENGINEERING graduates

Athlone fellowship scheme for the practical training in industry of Canadian engineering graduates in Great Britain. W. Abbott. Inst Mech Eng Proc (A) 167 no 3:258-61 '53; Same abr. Engineer 195:561-3 Ap 17 '53; Same abr. Inst E E Proc 100 pt 1:221-4 S '53; Discussion. Inst Mech Eng Proc (A) 167 no 3:261-74 '53; Engineer 195:567-8, 587-8 Ap 17-24 '53

Class of '54; going fast. Eng N 152:23-4 Ap 22 '54

Columbia solves cadet engineer training riddle. il Am Gas Assn Mo 35:4-6+ N '53

'54 grads; industry seeks top talent. J. R. Whipple. Iron Age 173:73-4 Je 10 '54

Observations by industry on educating the technical graduate. W. S. Hill. Gen Elec R 57:17-18 Jl '54

Post-graduate apprenticeship; abstract. R. S. Medlock and D. P. Lant. Engineering 177:4-5 Ja 1 '54

Seniors talk back to recruiters; what graduates think of recruiter and his merchandising. W. A. Cunningham and H. F. Rase. Chem Eng 60:286+ O '53

Seniors, they're out to get you; famine in technical manpower continues. il Chem & Eng N 32:124-5 Ja 11 '54

Today's pay of a five-year grad. Elec World News ed 140:43 Ag 31 '53

See also

Engineering colleges—Graduate work

ENGINEERING institute of Canada

Annual meeting, 68th, Quebec, May 12-14; with abstracts of papers. Roads & Eng Constr 92:105-7+ My '54

ENGINEERING laboratories

Detroit arsenal unveils engineering facilities. Automotive Ind 111:39+ Ag 1 '54

Electrical drive of 14in reversing cold strip mill; B.I.S.R.A. laboratories. il diag Engineer 196:728-30 D 4 '53

Fluid dynamics and combustion research laboratory at Baden; Brown Boveri and co. il diags Engineer 196:494-5 O 16 '53; Engineering 176:609-13 N 13 '53

In the Ford engineering laboratories, 100 copies in five minutes for 87 cents; photo-offset process called Xerography. il Mill & Factory 53:114-15 D '53

Motor truck engineering and laboratory building; International harvester co. il plan Heat & Ven 50:68-71 N '53

National Malleable opens technical center. il Marine Eng 58:93 D '53

New metal finishing lab duplicates plant conditions; Wyandotte chemicals corp. W. G. Patton. il plan Iron Age 172:124-6 S 24 '53

Research facilities for heat exchange; Trane co.'s research, product development and testing program. il plans diags Arch Rec 116:144-50 Jl '54

See also

Aeronautic laboratories
Automobile laboratories
Chemical engineering laboratories
Electric laboratories

Electric equipment

New central electrical installation for Swiss research laboratories. il plan diag Elec J 152:344-5 Ja 29 '54

Steel research laboratories; investigations into electrical operation. il Elec R (Lond) 153:1208-11 N 27 '53

Equipment

British iron and steel research association's new Sheffield laboratories. il Metallurgia 48:265-72 D '53; Engineer 196:694-7 N 27 '53; Engineering 176:683-5, 688 N 27 '53

British steel industry unifies research; laboratories of the British iron and steel research association. il Steel 135:72+ Jl 5 '54

ENGINEERING law

Corporate engineers in jeopardy through defeat in New York legislature. Chem & Eng N 32:1871-3 My 10 '54

ENGINEERING law—*Continued*

New corporate-practice battle? Eng N 152:23 Ja 7 '54

Teamwork on trial; dispute over state laws to limit practice of engineering to individuals and partnerships. Chem W 74:22 Je 19 '54

ENGINEERING libraries

See also

Engineering societies library, New York

Massachusetts institute of technology—Engineering library

Technical libraries

ENGINEERING literature

English and history as professional equipment for the engineer. H. D. Piper. J Eng Educ 43:460-4 Ap '53

Keeping engineers posted; system for effective utilization of current technical literature. R. T. Casey. il Machine Design 26:119-22 Je '54

Undergraduate training in the use of printed materials in engineering and science. M. J. Voigt. J Eng Educ 43:519-23 My '53

ENGINEERING manpower commission. See Engineers joint council—Engineering manpower commission

ENGINEERING materials. See Materials

ENGINEERING reports

Engineering reports for water and sewer systems. J. S. Watkins. Am Water Works Assn J 46:31-4 Ja '54

Report writing program at Purdue. T. C. Doody and V. E. Gibbens. J Chem Educ 31:8-12 Ja '54

See also

Technical writing

ENGINEERING research

Creative technology. E. P. Stevenson. Mech Eng 75:564-6 Jl '53

Encouragement of fundamental research as an aid to education and engineering. E. A. Walker and others. J Eng Educ 44:17-28 S '53

Engineering plus research. Bsns W p 148 N 7 '53

Engineering research institute established at Tulane. Mech Eng 76:116 Ja '54

First hundred years of research at the Franklin institute. T. Coulson. il Franklin Inst J 256:1-25 Jl '53

Pametrada research station. il Engineer 196:492-3 O 16 '53; Engineering 176:491-3, 496 O 16 '53

Production engineering research association. D. F. Galloway. il Metallurgia 48:192-6 O '53

Research and the engineering process, with particular reference to the automobile industry. H. E. Merritt. Inst Mech Eng Proc (Auto div pt 2):47-51 '52-53; Same abr. Engineer 194:807-9 D 12 '52; Discussion. il diag Inst Mech Eng Proc (Auto div pt 2): 51-71 '52-53

Training in research. F. C. Lindvall. J Eng Educ 43:578-80 Je '53

Tulane university forms engineering research institute. R. C. Harris. Manuf Rec 122:128 N '53

See also

Aeronautic research
Electric research
Engineering colleges—Research
Engineering laboratories
Gas research
Highway research
Hydraulic research
Industrial research
Petroleum research
Railroad research
Scientific research

ENGINEERING societies

Cities woo engineers; offers for new location and establishment of engineering center. il Chem & Eng N 32:802-3 Mr 1 '54

City engineers' association annual meeting, Toronto, Feb. 22. Munic Util 92:34-5+ Mr '54; Roads & Eng Constr 92:127+ Mr '54

Engineering societies of America (cont). J. H. Perry and others. il Gen Elec R 56:34-6 N '53; 57:47-9 Mr; 34-6 My; 39-41 Jl '54

Labor legislation as it affects the engineers. J Metals 5:1080 S '53

Metalworking meetings for 1954. Iron Age 173:383-4+ Ja 7 '54

Professional engineer: ascending to new heights or leveling off to mediocrity? W. R. Woolrich. J Eng Educ 43:439-41 Ap '53

Shielding scientists' toes; local technical societies council. Chem W 74:24 F 20 '54

See also

American institute of chemical engineers
American institute of electrical engineers
American institute of mining and metallurgical engineers
American society of civil engineers
American society of mechanical engineers
Illuminating engineering society
Institute of electrical engineers
National society of professional engineers

China

See also

Chinese institute of chemical engineers

Great Britain

Rugby engineering society's jubilee. Elec R (Lond) 153:727-8 O 2 '53

ENGINEERING societies, Pan American union of. See Pan American union of engineering societies

ENGINEERING societies library, New York

Our library service grows. R. H. Phelps. Civil Eng 23:849 D '53

ENGINEERING standards. See Standards, Engineering

ENGINEERING students

Critical evaluation of counseling received as undergraduate. L. B. Bradshaw. J Eng Educ 43:567-9 Je '53

Forecasting academic achievement in the college of engineering. L. E. Drake and W. F. Thomas. J Eng Educ 44:275-6 D '53

Helping the student master the art of thinking. K. N. Tong. J Eng Educ 44:169-72 N '53

High school students college entrance program; University of Dayton. Chem Eng 60:257-8 Jl '53

How can we instill in our engineering students a desire for continuing self-improvement? J. W. Shupe. J Eng Educ 44:165-8 N '53

1953 ASME regional student conference prize winners. Mech Eng 75:848-9 O '53

Undergraduate training in the use of printed materials in engineering and science. M. J. Voigt. J Eng Educ 43:519-23 My '53

ENGINEERING teachers

Education for educators. A. B. Cambel. J Eng Educ 43:457-9 Ap '53

Keeping abreast of advancing frontiers; a proposal for a new type of summer institute. A. Bronwell. J Eng Educ 44:77-9 O '53

Summer schools for engineering teachers. B. J. Robertson. J Eng Educ 44:40-5 S '53

See also American society for engineering education—Committee for young engineering teachers

ENGINEERING writing

Engineers can write better. H. J. Tichy. bibliog Chem Eng Prog 50:104-7, 206-13, 365-71 F, Ap, Jl '54 (reprint 50c)

How does your writing measure up at these nine vital points? J. R. Gould and N. G. Shidle. Chem Eng 61:250+ Jl '54

Words. L. A. Vincent. Midwest Eng 6:7-8+ Jl '53

ENGINEERS

All engineering is sales engineering. C. A. Maynard. Am Mach 97:153-5 D 7 '53

Are design engineers professionals? court decisions establish their legal status in cases tried under the Fair labor standards act. A. W. Gray. bibliog Machine Design 26:112-15 Jl '54

Are your engineers happy on the job? Management R 43:21-2 Ja '54

B.L.S. research report studies engineers. Chem Eng Prog 49:sup30 D '53

Components department aids project engineers. S. Kramer and S. Gurian. il Electronics 26:141-3 Ag '53; Same cond. Product Eng 24:310+ S '53

Corporate engineers in jeopardy through defeat in New York legislature. Chem & Eng N 32:1871-3 My 10 '54

ENGINEERS—*Continued*

Developing engineers into executives. R. F. Pearse. bibliog Mech Eng 75:719-22 S '53
Developing professional consciousness in the young engineer in industry. R. E. Burton. Mech Eng 75:458-60 Je '53
Distribution of engineers in industry. Chem Eng Prog 49:sup72 Jl '53
Economics and the engineer. P. M. McKenna. Mech Eng 76:13-16 Ja '54
Engineer and the prospective employer. L. Stemp. Midwest Eng 6:7-8+ Ag '53
Engineer as an individual in industry. H. N. Muller, jr. J Eng Educ 43:562-6 Je '53
Engineer manager; training the technician for executive responsibilities. J. C. Stephens and G. C. Jacobus. bibliog Personnel 30:374-82 Mr '54
Engineering centenaries in 1954; Parsons, Ohm and Murdock. Engineering 177:6 Ja 1 '54
Engineering efficiency in business economy means swift recognition of the broad approach. G. S. Odiorne and M. Berkowitz. Advanced Management 18:17-20 D '53
Engineers' enigma; lone or team, matter of law. Chem W 74:28+ F 20 '54
Engineers, how to attract and hold them. il Machine Design 26:195 F '54
Engineers need more than technical training. M. Berkowitz and G. S. Odiorne. Advanced Management 18:17-18+ Jl '53
Engineers should have program for administrative development; abstract. J. E. Walters. Chem & Eng N 32:2574 Je 28 '54
Engineer's task in future wars: abstract. G. N. Tuck. Engineering 177:133 Ja 29 '54
Engineers try radio recruiting. il Elec World News ed 140:16-18 O 12 '53
Field trial; Ohio turnpike is center of organizing attempt. Eng N 152:23-4 Mr 18 '54
For cost accountants and engineers only. P. C. Taylor. N A C A Bul 35:1613-21 Ag '54
How can we recruit more engineers? abstract. E. D. Seraphine. Management R 42:312-13 Je '53
How to attract and hold engineering talent; results of surveys of Professional engineers conference board for industry and the National society of professional engineers. Chem Eng 61:234+ Ja '54; Chem & Eng N 32:220-2 Ja 18 '54
How to reach the top, if that's what you really want. Chem Eng 61:234+ Ap '54
If you've lost out in hiring this year's graduate engineers; Worthington plan. J. J. Thompson. Sales Management 72:36-7+ Je 15 '54
Industry's responsibility in the shortage of engineers. H. P. Liversidge. Franklin Inst J 256:305-10 O '53
International relations centers for scientists and engineers announced. Mech Eng 75:759 S '53
Labor legislation as it affects the engineers. J Metals 5:1080 S '53
More engineers needed; abstract. K. Tupper. Chem & Eng N 32:2709 Jl 5 '54
More than technology. M. W. Reed. Iron & Steel Eng 31:77-9 Je '54
New register of scientists begun; National science foundation's program. Chem & Eng N 32:2388 Je 14 '54
Obligations of an engineer to his juniors. J. F. Peters. Elec Eng 73:217 Mr '54
Paper-industry engineers. D. G. Moon. Mech Eng 75:567-8 Jl '53
Patents and the engineer. R. J. Schwarz. Midwest Eng 6:3-4+ S '53
Recommendations made for engineer utilization. Machine Design 25:256 D '53
Returns from questionnaire on employment conditions, 1953, summarized. Civil Eng 23:777-8 N '53
Rounding out young engineers; ECPD evolves program for continuing professional development. Chem & Eng N 32:2896 Jl 19 '54
Scientific societies take part in NSF program to gather information on 100,000 scientists and engineers. Mech Eng 75:759 S '53
Selection and training of engineering personnel. M. S. Viteles. bibliog Am Gas Assn Proc 1953:1068-72; Same. Pet Eng 25:D 28+ O '53
Selection and training of engineers. J. Gammell. Tool Eng 32:276-7 Ap '54
Slide rules and executive posts. Bsns W p48 D 26 '53
Stimulating invention by engineers. R. H. MacCutcheon. Machine Design 26:125 Ja '54
Survey shows engineers' thinking about collective bargaining issue; American society of civil engineers. Eng N 151:28 N 12 '53
Technician and the engineer. C. J. Freund. J Eng Educ 44:108-9 O '53
Unionization of professional personnel. K. B. McEachron. J Eng Educ 44:148-56 N '53
Utilizing engineers, 12 steps; National manpower council. Chem Eng 61:250 Mr '54
What engineering management requires of the engineer; abstract. C. W. Frederick. S A E J 62:54 Ap '54
What industry can do about the shortage of engineers. Management R 42:140 Mr '53
What management expects from the engineer. H. B. Riehl. Machine Design 25:294+ N '53; Same cond. Chem Eng 60:254+ Jl '53
What's a professional engineer? W. H. Hillyer. Heating-Piping 26:105 F '54
When incentives cover engineers, productivity goes up; East Dayton tool & die co. il Steel 133:80-1 N 16 '53

See also

Chemical engineers
Consulting engineers
Electric engineers
Engineering colleges
Engineering education
Engineering graduates
Engineering societies
Engineers and scientists of America
Engineers' council for professional development
Safety engineers
Sanitary engineers

Examinations

Written examinations for professional engineers. J. D. Constance. Power Eng 58:81 Jl '54

Public relations

Engineers' responsibility in educating the public. C. F. Kettering. Mech Eng 75:953-6 D '53
Engineer's stake and status in human relations. R. L. Demmerle. il Chem Eng Prog 49:424-6 Ag '53
Help wanted for community service. T. E. Millsop. Mech Eng 76:3-5 Ja '54
You vs. the man in the street. Chem Eng 61:244+ S '54

Registration

Engineer-in-training program; its relation to education. C. S. Crouse. Midwest Eng 6:5-6+ S '53
Engineering license laws. A. W. Gray. bibliog Machine Design 25:137-9 N '53
Professional engineering registration and the young engineer. H. L. Solberg. Mech Eng 75:846 O '53
Role of professional licenses in engineering education. E. J. Nunan. J Eng Educ 43:575-7 Je '53
Tool engineer and professional registration. Tool Eng 32:51-8 Ap '54
What is qualifying experience for the professional engineer's license? J. D. Constance. Power Eng 57:77+ D '53

Salaries

Engineers joint council surveys professional income. Chem & Eng N 32:1873-4 My 10 '54
Professional engineers' salaries. Product Eng 24:210 Ag '53
Salaries are still climbing. Chem Eng 60:254+ N '53

See also

Civil engineers—Salaries

Canada

Canadian engineers deserve great praise for country's rapid development. R. H. Saunders. Roads & Eng Constr 92:88+ Mr '54

Great Britain

Facts against more pay. Economist 169:86 O 10 '53

ENGINEERS, Sanitary. See Sanitary engineers

ENGINEERS and scientists of America
Solidarity for scientists. Chem W 74:24 My 15 '54
Union vs. ASCE. Eng N 152:21-2 Mr 18 '54

ENGINEERS, architects and scientists, National professional association. See National professional association engineers, architects and scientists

ENGINEERS' council for professional development
American society for engineering education and Engineer's council for professional development joint meeting, New York. Chem & Eng N 31:4434+ O 26 '53
Joint meeting with American society for engineering education, New York, Oct. 14-17. Mech Eng 75:1036-40 D '53
Joint meeting with American society for engineering education, New York, Oct. 14-17; with abstracts of papers. Elec Eng 72:1136 D '53

ENGINEERS joint council
Denied right to incorporate. Civil Eng 23:411 Je '53
EJC and the engineering profession. T. A. Marshall, jr. Am Water Works Assn J 46:317-24 Ap '54
Incorporation opposed. Chem Eng Prog 49:sup32 My '53
NSPE declines bid; Engineers joint council affiliation is rejected. Eng N 151:25 D 3 '53

Engineering manpower commission

Engineering manpower commission announces program for 1954. Elec Eng 72:1037-8 N '53
EMC on universal military training. Mech Eng 75:1040-1 D '53

ENGINES
See also
Air engines
Air turbines
Airplane engines
Automobile engines
Crankcases
Diesel engines
Gas engines
Gas turbines
Internal combustion engines
Locomotives
Motor bus engines
Motor truck engines
Pistons
Pumping machinery
Rocket engines
Steam engines
Steam turbines

ENGLAND
See also
Electric plants (central stations)—England

Antiquities

See also
Stonehenge, England

ENGLEHARD industries
Adding to the castle. Chem W 73:28+ S 12 '53

ENGLISH channel
Test cable is laid. il Elec World News ed 140:6-7 Ag 17 '53

ENGLISH electric company
More capital for English Electric. Economist 168:126+ Jl 11 '53

ENGLISH language
Effective English; make it work for you; communicating to workers, the stockholders, and community. M. Graney. Dun's R & Mod Ind 63:46-7+ Ja '54
See also
Technical writing

ENGRAVING
Electrolytic engraving on glass. F. Gutmann and L. W. O. Martin. il J Sci Instr 31:221-2 Je '54

ENID, Oklahoma

Sewerage

City boasts progress, then proves it. il Eng N 152:54+ Ap 29 '54
Sewage treatment and sewer extensions; a sign of progress. B. H. Swab. il Pub Works 85:70-2 Je '54

ENIWETOK island
See also
Geology—Eniwetok island

ENOLIZATION. See Isomerization

ENOLS
Preparation and reactions of steroidal $\Delta^{17,(20)}$-enol acetates. H. V. Anderson and others. bibliog Am Chem Soc J 76:743-6 F 5 '54

ENOMOTO, Kamajiro, viscount, 1839-1909
Admiral Enomoto and the imperial restoration. H. Kublin. U S Naval Inst Proc 79:408-19 Ap '53

ENTAMOEBA. See Ameba

ENTHALPY. See Thermodynamics

ENTOMOLOGISTS
Entomology centennial. Soap & San Chem 29:159+ D '53

ENTROPY
Bounds for entropy. N. M. Blachman. J Ap Phys 24:1340 O '53
Comparison of the heats of vapour and gas evolution from low-vapour-pressure liquids. G. Burrows. bibliog J Ap Chem 4:394-400 Jl '54
Computation of entropy increments in gaseous bimolecular associations; donoracceptor reactions. A. Shepp and S. H. Bauer. bibliog Am Chem Soc J 76:265-70 Ja 5 '54
Computations of entropy increments in gaseous bimolecular associations; the dimerization of carboxylic acids, and the addition of fluorine to halogen fluorides. L. Slutsky and S. H. Bauer. bibliog diags Am Chem Soc J 76:270-5 Ja 5 '54
Correlation of entropies of transition and fusion. G. C. Hood. Am Chem Soc J 75:6315-16 D 20 '53
Entropy calculations at low temperature. G. Calingaert. J Chem Educ 31:487 S '54
Heats of formation and entropies of HS^- and $S^=$; potential of sulfide-sulfur couple. J. W. Kury and others. bibliog Electrochem Soc J 100:468-70 O '53
Magnesium-cadmium alloys; heat capacities between 12 and 320°K. and the entropies at 25° of magnesium and cadmium. R. S. Craig and others. bibliog diag Am Chem Soc J 76:238-40 Ja 5 '54
Magnesium-cadmium alloys; low temperature heat capacities and a test of the third law of thermodynamics for the MgCd superlattice. C. B. Satterthwaite, R. S. Craig and W. E. Wallace. bibliog diags Am Chem Soc J 76:232-8 Ja 5 '54
Magnesium-cadmium alloys; low temperature heat capacities of $MgCd_3$ and Mg_3Cd and a test of the third law of thermodynamics for the $MgCd_3$ superlattice. L. W. Coffer and others. bibliog Am Chem Soc J 76:241-4 Ja 5 '54
Negentropy and information in telecommunications, writing, and reading. L. Brillouin. bibliog diags J Ap Phys 25:595-9 My '54
Negentropy principle of information. L. Brillouin. bibliog J Ap Phys 24:1152-63 S '53
New multilayer isotherm with reference to entropy. W. M. Champion and G. D. Halsey, jr. bibliog Am Chem Soc J 76:974-8 F 20 '54
Partition chromatography, an isentropic separation process. A. Klinkenberg. diag J Chem Educ 31:423 Ag '54
Residual entropy of the polar structure of ice. W. N. Lipscomb. diag J Chem Phys 22:344 F '54
Thermistor calorimeter for heats of wetting; entropies from heats of wetting and adsorption data. A. C. Zettlemoyer and others. bibliog diag J Phys Chem 57:649-52 O '53
Thermodynamic functions of elements and compounds; entropies of inorganic substances. E. T. Turkdogan and J. Pearson. bibliog J Ap Chem 3:495-501 N '53
Thermodynamics of reversible galvanic cells in which the compositions of some of the phases vary with temperature. J. W. Stout. J Chem Phys 21:1829-30 O '53
See also
Heat
Thermodynamics

ENTWISTLE, Elsie
Purchasing by the distaff side. pors Chem W 72:48-9 Je 27 '53

ENVELOPES
Highlights of the envelope industry. E. L. Wight. il diags Paper Tr J 137:220-5 N 13 '53

Manufacture

Infrared dries sealing gum in seconds. V. H. Berwick. il Elec World 139:150+ Je 15 '53

ENZYMES

Adsorption and reactions of enzymes and proteins on kaolinite. A. D. McLaren. bibliog J Phys Chem 58:129-37 F '54

Chemistry of silk fibroin. B. Drucker and others. bibliog il diag Textile Inst J Trans 44:T420-35 O '53

Condensing enzyme in aspergillus niger. C. V. Ramakrishnan and S. M. Martin. bibliog Chem & Ind p 160 F 6 '54

Dextrinizing value of enzymes (enzyme activity); TAPPI suggested method T 643 sm-54. Tappi 37:sup 113A-15A Jl '54

Enzymatic formation of 4-amino-5-imidazolecarboxamide ribotide from inosinic acid. J. G. Flaks and J. M. Buchanan. bibliog Am Chem Soc J 76:2275-6 Ap 20 '54

Enzymatic removal of oxygen for polarography and related methods. R. E. Benesch and R. Benesch. bibliog Science 118:447-8 O 16 '53

Enzymatic synthesis of the enantiomorphs of ethanol-1-*d*. F. A. Loewus, F. H. Westheimer and B. Vennesland. bibliog Am Chem Soc J 75:5018-23 O 20 '53

Enzyme action in desizing; abstract. H. Appleyard. Am Dyestuff Rep 43:19-20 Ja 4 '54

Enzyme acts as tenderizer; vine-ripe quality restored to peas; Mammoth springs canning co. H. E. Bode. il Food Eng 26:94+ Jl '54

Enzymes give good results in sewage treatment plant. Pub Works 85:116-17 Ap '54

Enzymes in occupational diseases. Ind Med 22:182 Ap '53

Hydrolytic enzymes in hyaluronidase preparations. H. Chauncey and others. bibliog Science 118:219-20 Ag 21 '53

Immunochemical studies on blood groups; the action of enzyme from snail (busycon) liver on blood group A and O(H) substances (hog). C. Howe and E. A. Kabat. bibliog Am Chem Soc J 75:5542-7 N 20 '53

Measurement of enzyme reaction velocities at low temperatures. V. P. Maier and A. L. Tappel. bibliog diag Anal Chem 26:564-6 Mr '54

Mechanism of enzyme action symposium. Baltimore, June 16-19. Science 118:152-3 Ag 7 '53

Mechanism of the enzymatic synthesis of glutamine. G. C. Webster and J. E. Varner. bibliog Am Chem Soc J 76:633 Ja 20 '54

Mode of action of the Q-enzyme of polytomella coeca. S. A. Barker, A. Bebbington and E. J. Bourne. Chem Soc J p4051-7 D '53

New techniques for enzyme converting starch. L. J. Wood, jr. and J. R. Mazeau. Tappi 36:sup 141A-3A D '53

Paul-Lewis award winner charts new enzyme paths in metabolism. Chem & Eng N 31:4110 O 5 '53

Research on industrial enzymes. R. W. Watson. bibliog(31 ref) Can Chem Process 37:72+ D '53

S factor, microbial enzyme which increases the swelling of cotton in alkali. P. B. Marsh and others. bibliog diag Textile Res J 23:878-88 D '53

Some mechanisms for the interpretation of the effects of *p*H and buffer salts on a simple enzymatic reaction. R. A. Alberty. bibliog Am Chem Soc J 76:2494-8 My 5 '54

Specificity is the sell; enzymes in industrial applications, food processing and other markets. il Chem W 73:57-8 S 26 '53

Substrate and cosubstrate requirements for enzymatic transfructosidation. J. H. Pazur. bibliog Am Chem Soc J 75:6323-4 D 20 '53

Use of enzymes in sulfa drug analysis. C. R. Szalkowski and W. J. Mader. Science 118:364 S 25 '53

Value of culture and enzyme additions in promoting digestion. H. Heukelekian and M. Berger. Sewage & Ind Wastes 25:1259-67 N '53

Variation of the Michaelis constant with the concentrations of the reactants in an enzyme-catalyzed system. L. L. Ingraham and B. Makower. bibliog J Phys Chem 58:266-70 Mr '54

See also

Acetylcholinesterase
Amylases
Cellulase
Cholinesterase
Chymotrypsin
Coenzymes
Dehydrogenases
Esterases
Fermentation
Fumarase
Hydrogenases
Oxidases
Papain
Pepsin
Peroxidases
Phosphohexokinase
Proteases
Reductases
Ribonuclease
Saponases
Trypsin
Tyrosinase
Urease
Uricase

Inactivation

Enzyme inhibitors for dentifrices; abstracts. R. S. Manly. Oil Paint & Drug Rep 165:57 My 17 '54; Chem & Eng N 32:2198 My 31 '54

Enzyme squelchers in toothpastes have upped sales. Chem W 73:87 N 28 '53

Starting all over again; anti-enzymes to halt tooth decay. Chem W 73:50-1 Ag 29 '53

EOSIN

Quenching of the fluorescence of the eosin ion. W. J. Svirbely and N. E. Sharpless. bibliog diag Am Chem Soc J 76:1404-9 Mr 5 '54

EPICHLOROHYDRIN

Condensation of epichlorohydrin with monohydric phenols and with catechol. O. Stephenson. Chem Soc J p 1571-7 My '54

EPICYCLIC gearing. See Gearing, Planetary

EPIDEMIC encephalitis. See Encephalitis, Epidemic

EPILEPSY

See also

Anticonvulsants

EPINEPHRINE. See Adrenalin

EPON resins. See Resinous products

EPOXIDES

Condensations of epoxides with 2-thienyl-sodium and 2-thienylmagnesium bromide. G. Van Zyl and others. Am Chem Soc J 76:707-9 F 5 '54

1 : 3-Epoxide formation in the *cyclo*hexane series. R. B. Clayton and H. B. Henbest. Chem & Ind p 1315-16 D 5 '53

Introduction of the 11-oxo- and the 11α-hydroxy-group into ring C unsubstituted steroids; the epoxides of $\Delta^{7:9(11)}$-5α-hydroxysapogenins. C. Djerassi and others. Chem Soc J p2346-51 Jl '54

Products from the alkaline and reductive fission of the epoxide ring of methyl 3 : 4- and 2 : 3-anhydro-6-deoxy-α-L-taloside and of their methylated derivatives. G. Charalambous and E. Percival. Chem Soc J p2443-8 Jl '54

Reaction of epoxides with thiourea. F. G. Bordwell and H. M. Andersen. bibliog Am Chem Soc J 75:4959-62 O 20 '53

Reaction of sodium azide with some representative epoxides. C. A. VanderWerf, R. Y. Heisler and W. E. McEwen. bibliog Am Chem Soc J 76:1231-5 Mr 5 '54

Some reactions of epoxides of steroid enol acetates. A. H. Soloway and others. bibliog Am Chem Soc J 76:2941-3 Je 5 '54

Studies of steroid ring D epoxides of enol acetates; a new synthesis of estriol and of androstane-3β,16α,17β-triol. N. S. Leeds, D. K. Fukushima and T. F. Gallagher. bibliog Am Chem Soc J 76:2943-8 Je 5 '54

Studies on the epoxides of 5α-hydroxy- and 5α-acetoxy-$\Delta^{7:9}$-steroids. D. C. Burke, J. H. Turnbull and W. Wilson. Chem Soc J p3237-44 O '53

See also

Styrene oxide

Analysis

Determination of epoxides with sodium sulfite. J. D. Swan. bibliog Anal Chem 26:878-80 My '54

EPOXYBUTANE

Some nucleophilic displacements on 3-bromo-1,2-epoxybutane and 1-bromo-2,3-epoxybutane. R. C. Waters and C. A. VanderWerf. bibliog Am Chem Soc J 76:709-13 F 5 '54

Synthesis of 1,3-butylene oxide. F. Sondheimer and R. B. Woodward. bibliog Am Chem Soc J 75:5438-9 N 5 '53

EPOXY cement. See Cements

EPOXY compounds

Another surge of chemical uses for epoxies. il Chem Eng 60:380-1 S '53

Epoxies on the ascent. Chem W 73:81-2 S 19 '53

Epoxy fatty acid ester plasticizers. F. P. Greenspan and R. J. Gall. bibliog il Ind & Eng Chem 45:2722-6 D '53

EPOXY compounds—*Continued*

Epoxyethers; a triphenyl substituted epoxyether. C. L. Stevens and J. J. DeYoung. bibliog Am Chem Soc J 76:718-20 F 5 '54

Epoxyethers; mechanism of the opening of an epoxyether with an organic acid. C. L. Stevens and S. J. Dykstra. bibliog Am Chem Soc J 75:5975-8 D 5 '53

Epoxyethers; reaction of α-haloaldehydes with base. C. L. Stevens, E. Farkas and B. Gillis. bibliog Am Chem Soc J 76:2695-8 My 20 '54

Epoxyethers; the reaction of epoxyethers with Grignard reagents. C. L. Stevens, M. L. Weiner and C. T. Lenk. bibliog Am Chem Soc J 76:2698-700 My 20 '54

Epoxyethers; the reaction of perbenzoic acid with vinyl ethers. C. L. Stevens and J. Tazuma. bibliog Am Chem Soc J 76:715-17 F 5 '54

Epoxys for cements and coatings. R. B. Seymour and R. H. Steiner. Chem Eng 61:244+ Ap '54

New epoxy bridge; Du Pont's epoxidation. Chem W 75:100 Ag 21 '54

Rearrangement of α,β-epoxy ketones; chalcone oxides. H. O. House. bibliog Am Chem Soc J 76:1235-7 Mr 5 '54

Spectrum

Infrared absorption bands characteristic of the oxirane ring. W. A. Patterson. bibliog Anal Chem 26:823-35 My '54

EPOXYMORPHINAN

N-substituted epoxymorphinans. R. L. Clark and others. bibliog Am Chem Soc J 75:4963-7 O 20 '53

EPOXY resins. See Resinous products

EQUATION of motion

Classical theory of particles interacting with electromagnetic and mesonic fields. P. Havas. bibliog Phys R 93:882-8 F 15 '54

Equations of motion in Einstein's new unified field theory. J. Callaway. bibliog Phys R 92:1567-70 D 15 '53

Equations of motion of charged test particles in general relativity. D. M. Chase. bibliog Phys R 95:243-6 Jl 1 '54

Gravitational field equations. R. L. Kirkwood. Phys R 95:1051-6 Ag 15 '54

Multipole singularities of classical scalar and pseudoscalar meson fields. P. Havas. bibliog Phys R 93:1400-11 Mr 15 '54

EQUATION of state

Application of Benedict equation of state to propane. F. T. Selleck, J. B. Opfell and B. H. Sage. bibliog Ind & Eng Chem 45:1350-4 Je '53

Benedict equation of state. J. B. Opfell, W. G. Schlinger and B. H. Sage. bibliog Ind & Eng Chem 46:1286-91 Je '54

Equation of state and the energy of quantum-liquids at the critical point. J. van Dranen. J Chem Phys 21:2095-6 N '53

Equations of state and detonation theory. S. Paterson and J. M. Davidson. J Chem Phys 22:150 Ja '54

Theory of the virial development of the equation of state of monoatomic gases. R. J. Riddell, jr. and G. E. Uhlenbeck. bibliog diags J Chem Phys 21:2056-64 N '53

See also

Virial coefficients

EQUATIONS

Application of the power series transform to linear difference equations in engineering. L. McFadden. diags Am Soc C E Proc 79 [no 225]:1-14 Jl '53

Equations and charts for the rapid estimation of hinge-moment and effectiveness parameters for trailing-edge controls having leading and trailing edges swept ahead of the Mach lines. K. L. Goin. bibliog diags U S Nat Advisory Com for Aeronautics 1951:937-1007 '52

Form of a wide-range vapor pressure equation. W. Waring. bibliog Ind & Eng Chem 46:762-3 Ap '54

Formulation of stability equations and derivation of new constructions with complete systems of design-formulae for variable-speed control mechanisms. M. S. Frenkel. bibliog diags Inst Mech Eng Proc (A) 167 no 3:319-30; Discussion. 331-9 '53

Linear recurrence equations for analyzing multilayers. H. Osterberg and N. E. Page. Opt Soc Am J 43:728-32 S '53

More exact treatment of the equations describing dielectric relaxation and carrier motion in semiconductors. J. Keilson. J Ap Phys 24:1198-200 S '53

Nature of solutions of a Rayleigh-type forced vibration equation with a large coefficient of damping. P. Brock. bibliog diags J Ap Phys 24:1004-7 Ag '53

Nomogram solves parabolic empirical equations. S. Kolupaila. Civil Eng 24:247-8 Ap '54

Nonlinear diffusion equation applied to the magnetization of saturable reactors. S. H. Chow. J Ap Phys 25:377-81 Mr '54

Steady-state solution of the two-dimensional diffusion equation for transistors. J. S. Schaffner and J. J. Suran. diags J Ap Phys 25:863-7 Jl '54

Symmetry as a factor in finite difference approximations. C. M. Fowler. J Ap Phys 25:293-4 Mr '54

See also

Differential equations
Hammett equation
Integral equations
Van Der Pol equation

EQUATIONS, Algebraic

Solution of algebraic equations. L. E. Aldrich. Franklin Inst J 256:59-69 Jl '53

EQUATIONS, Chemical. See Chemical equations

EQUATIONS, Cubic

Study of cubic characteristic equation by root-locus method. Yaohan Chu and V. C. M. Yeh. bibliog diags A S M E Trans 76:343-8 Ap '54

EQUATIONS, Integral. See Integral equations

EQUATIONS, Roots of

Roots of transcendental equations. A. F. Kay. bibliog J Ap Phys 25:811 Je '54

Summation of series involving roots of transcendental equations and related applications. M. R. Speigel. J Ap Phys 24:1103-6 S '53; Discussion. G. Kuerti. 25:133-4 Ja '54

EQUILENIN

Alteration products of equilenin; the oxidation of equilenin acetate. N. L. McNiven. bibliog Am Chem Soc J 76:1725-8 Ap 5 '54

EQUILIBRIUM, Chemical. See Chemical equilibrium

EQUIPMENT industries

Business adjustment without a squeak; centralized lubricating system manufacturers have increased shipments. Steel 134:60 Je 28 '54

Capital equipment outlook; continued above-trend sales in 1954. Steel 134:57 Mr 15 '54

Capital goods; a $58-billion impact. Steel 133:38 D 21 '53

Capital goods demand in late 1953. Survey of Cur Bsns 33:3-5 S '53

Capital goods; marked gain for '53. Iron Age 172:28 D 31 '53

Capital goods; see third quarter plant spending equal to second quarter. Iron Age 173:106 Je 17 '54

Engineering exports in the balance. Economist 168:470-1 Ag 15 '53

Equipment still best buy; MAPI. Steel 133:37 D 28 '53

Older machines mean bigger sales. Steel 134:63-4 Je 7 '54

Outlook for durable products. E. C. Bratt. Comm & Fin Chr 178:2060 N 26 '53

Plant and equipment spending; outlook for '54 is good. Am Mach 98:146 Mr 29 '54

Productivity sits on prices. Steel 133:51 S 28 '53

Pumps; primed for mild surge. K. W. Bennett. Iron Age 174:61-2 Ag 26 '54

See steady capital goods growth. J. B. Delaney. Iron Age 174:107-8 S 16 '54

Spending for production equipment rises. Steel 133:60 N 30 '53

EQUIPMENT industries—*Continued*

What's ahead for handling equipment? interview with Sheldon K. Towson. Iron Age 173:56-7 Ja 14 '54

See also

Automobile accessories industry
Construction equipment
Electric apparatus industry
Industrial market
Machine tool industry
Machinery industry
Office equipment industry
Petroleum equipment industries
Plumbing supplies industry

Directories

Canadian association of equipment distributors; active members. Roads & Eng Constr 92:252 Je '54

Classified list of companies supplying products and services to the textile industry. Textile World 103:311-89 Mid-N '53

Equipment distributors, Canada; listing the principles whom they represent. Roads & Eng Constr 92:316+ Je '54

Manufacturers; their products and their distributors in Canada. Munic Util 92: 130+ Ja '54

Manufacturers; their products and their distributors in Canada. Roads & Eng Constr 92:174+ Je '54

1954 American Machinist production preview. il Am Mach 98:121-264 Ja 18 '54

1954 buyers' guide; bus parts, materials, accessories, shop equipment and tools. Bus Transportation 33:53+ Je '54

Preparation buying guide. Coal Age 59:75-6+ Mr '54

Products index; buyer's guide; international directory of construction equipment. Roads & Eng Constr 92:390+ Je '54

Rock Products directory of manufacturers' equipment, 1954. Rock Prod 57:269-98 Ja '54

Securities

Rental equipment group; investment study of some companies active in the field. P. Dobbs. il Mag of Wall St 93:676-7+ Mr 6 '54

Statistics

Investment in production equipment, 1929-52; with tables. R. C. Wasson. Survey of Cur Bsns 33:11-20 N '53

Machinery and equipment; tabulations. Steel 134:182-5 Ja 4 '54

US 1953 capital goods output tops 1952's $54 billion. Am Mach 98:274-5 Ja 18 '54

EQUITABLE life assurance society of the United States

Board guarantees Parkinson to leave at end of his term. R. B. Mitchell. Nat Underw (Life ed) 57:1+ N 6 '53

Commissioner Holmes, Montana, criticizes handling of triennial report on Equitable society. East Underw 54:3 D 4 '53; Same. Nat Underw (Life ed) 57:3 N 27 '53; Same. Weekly Underw 169:1290 N 28 '53; Abstract. Nat Underw 57:6 N 26 '53

Dispute between Parkinson and Bohlinger emphasizes position company occupies in business world; comment on examination report. Weekly Underw 169:1085+ N 7 '53; Excerpt. Nat Underw (Life ed) 57:11 N 6 '53

Equitable society's great growth under Parkinson's administration. East Underw 54:4 N 6 '53

Equitable society's 95th anniversary meeting, New York. East Underw 55:3-4+ Jl 30 '54; Nat Underw (Life ed) 58:1+ Jl 30 '54; Weekly Underw 171:221+ Jl 31 '54

Equitable's board acts on New York department triennial report; Parkinson retirement. East Underw 54:1+ N 6 '53

Equitable's Gateway investments are O.K. A. J. Bohlinger. Nat Underw (Life ed) 57:1+ D 25 '53

New York department's press conference. East Underw 54:5 N 6 '53

Parkinson drama reviewed. Spectator (Endorsement no) 161:100-3 D '53

Parkinson will retire from Equitable society. Weekly Underw 169:1125 N 7 '53

State officials weigh own course in suit against Equitable. Nat Underw (Life ed) 57:4 N 20 '53

Triennial report, three year period of 1948-1950. East Underw 54:3+ N 6 '53

Who runs Equitable Life? Bsns W p29 N 7 '53

EQUIVALENT weights

Faraday's electrochemical laws and the determination of equivalent weights. R. G. Ehl and A. J. Ihde. bibliog il J Chem Educ 31:226-32 My '54

ERBIUM

Structure of Gd, Dy, and Er at low temperatures. J. R. Banister and others. bibliog Phys R 94:1140-2 Je 1 '54

Nuclear reactions

Erbium^{163} and thulium^{165}. T. H. Handley and E. L. Olson. bibliog Phys R 92:1260-1 D 1 '53

ERGOSTADIENE

Studies in the steroid group; some reactions starting from 3β-acetoxy-9α : 11α-epoxyergosta-7 : 22-diene. H. B. Henbest and A. A. Wagland. Chem Soc J p728-31 F '54

ERGOSTADIENETRIOL. See Cerevisterol

ERGOSTANONE

Steroids; 7 : 8-epoxides of 9α- and 9β-ergostan-11-one derivatives. J. Grigor and others. Chem Soc J p2333-45 Jl '54

ERGOSTENEDIOL

Studies in the steroid group; formation of ergost-14-ene-3β : 5α-diol and related compounds. P. Bladon. Chem Soc J p736-8 F '54

ERGOSTENONE

Studies in the synthesis of cortisone; a new synthesis of 3β-acetoxyergost-22-en-11-one. J. Elks and others. Chem Soc J p2933-9 O '53

ERGOSTEROL

Conversion of ergosterol into progesterone. F. Johnson and others. Chem & Ind p 1230 N 14 '53

Modified route to cortisone from ergosterol. D. Maclean and others. bibliog Chem & Ind p 1259-60 N 21 '53

Some oxidation products of ergosta-7 : 14 : 22-trien-3β-yl acetate (ergosterol B$_3$ acetate). D. H. R. Barton and G. F. Laws. Chem Soc J p52-63 Ja '54

Steroids; 7- and 11-oxo-steroids from 22 : 23-dibromo-7ξ : 11α-dihydroxyergost-8-en-3β-yl acetate. D. Maclean and F. S. Spring. Chem Soc J p328-31 Ja '54

Steroids; 22 : 23-dichloroergosta-7 : 9(11)-dien-3β-yl acetate (ergosteryl-D acetate 22 : 23-dichloride). J. Paterson and F. S. Spring. Chem Soc J p325-7 Ja '54

Steroids; the conversion of ergosterol into progesterone. F. Johnson, G. T. Newbold and F. S. Spring. Chem Soc J p 1302-6 Ap '54

Studies in the synthesis of cortisone; conjugated trienones derived from ergosterol. J. Elks. Chem Soc J p468-9 Ja '54

Studies in the synthesis of cortisone; the degradation of the ergosterol side chain. A. F. B. Cameron and others. Chem Soc J p3864-9 D '53

Analysis

Determination of ergosterol in yeast; abstract. W. H. C. Shaw and J. P. Jefferies. Chem & Ind p590 Je 13 '53; Same. Anal Chem 25: 1130 Jl '53

ERGOSTERYL acetate

Action of perphthalic acid on 5-dihydroergosteryl and ergosteryl acetates. G. H. Alt and D. H. R. Barton. Chem Soc J p 1356-61 My '54

ERGOT

Tryptophan synthesis in claviceps purpurea. V. E. Tyler, jr. and A. E. Schwarting. bibliog Science 118:132-3 Jl 31 '53

ERHARD, Ludwig, 1897-

Made in Germany; Adenauer's probable successor outlines his trade objectives. F. Morley. Barron's 34:5-6+ Ja 18 '54

Planning new props for prosperity. por Bsns W p 156-7 N 7 '53

ERIE forge and steel corporation

Security I like best; Erie forge & steel corporation six per cent convertible first preferred. S. M. Beringer. Comm & Fin Chr 178:1422 O 15 '53

ERIOCHROMECYANINE
Rapid spectrophotometric determination of fluoride with zirconium-eriochrome cyanine R lake. S. Megregian. bibliog Anal Chem 26:1161-6 Jl '54

EROSION
Chemical cover crop; Orzan as wind erosion preventive. il Chem W 74:64 Je 12 '54
Erosion control on highway slopes. diags Pub Works 84:67-8+ N '53
Gully stabilization structures check erosion in western Iowa. G. M. Brune. il map Civil Eng 23:590-1 S '53
Some practical facts about beach erosion in Florida. M. N. Lipp. il Am Soc C E Proc 79 [no 238]:1-6 Ag '53

EROSION of materials
Erosion by melting and evaporation. K. Berman. bibliog il diag A S M E Trans 76:397-405 Ap '54

EROSION of metals
Cut impeller erosion easily; by-pass arrangement. T. W. Edwards. il diag Chem Eng 60:170-1 D '53
Isotopes lead to improvement of materials. il Materials & Methods 40:11+ Jl '54
Water side deterioration of Diesel cylinders. F. L. LaQue. il Power Eng 58:76-7 Ja '54

ERRORS
How three firms do it; controlling clerical errors. il Am Bsns 24:13+ F '54
See also
Accounting—Errors

ERRORS and omissions insurance. See Insurance, Errors and omissions

ERYSIPELOID
New disinfectant role; sodium hypochlorite useful in controlling fish-bone disease. J. G. Ellis and C. K. Crocker. bibliog Soap & San Chem 29:179+ My '53

ERYTHRINA
Syntheses in the series of erythrina alkaloids. A. J. Manson and K. Wiesner. Chem & Ind p641-2 Je 27 '53
Synthesis of erythrinane. B. Belleau. bibliog Am Chem Soc J 75:5765-6 N 20 '53

ERYTHROAPHINS
Colouring matters of the aphididæ; studies on the nature of the aromatic ring system in the erythroaphins. B. R. Brown and others. Chem Soc J p 107-12 Ja '54

ERYTHRODIOL

Analysis

Terpenoids; the isolation of erythrodiol, oleanolic acid and a new triterpene triol, longispinogenin, from the cactus lemaireocereus longispinus. C. Djerassi, R. M. McDonald and A. J. Lemin. bibliog Am Chem Soc J 75:5940-2 D 5 '53

ERYTHROMYCIN
Crystallographic data; erythromycin and some of its derivatives. H. A. Rose. Anal Chem 26:938-9 My '54
Crystallographic data; erythromycin hydroiodide hydrate. H. A. Rose. il diags Anal Chem 25:1571 O '53
Erythromycin; properties and degradation studies. E. H. Flynn and others. bibliog Am Chem Soc J 76:3121-31 Je 20 '54
Isolation of a second crystalline antibiotic from streptomyces erythreus. C. W. Pettinga, W. M. Stark and F. R. Van Abeele. Am Chem Soc J 76:569-71 Ja 20 '54

Analysis

Colorimetric determination of erythromycin. J. H. Ford and others. Anal Chem 25:1195-7 Ag '53

ERYTHRYL dilinoleate
Fatty acid esters of 3-butene-1,2-diol; the copolymerization of erythryl dilinoleate with styrene. G. A. Weisgerber and E. Dyer. bibliog Am Chem Soc J 76:1784-7 Ap 5 '54

ESCALATOR wage clauses. See Trade agreements—Wage clauses

ESCALATORS
Water-fog equipment under escalators. Engineering 176:822 D 25 '53

ESCHERICHIA coli
Accumulation of phenylalanine by a phenylalanineless mutant of escherichia coli. M. Katagiri and R. Sato. Science 118:250-1 Ag 28 '53
Adaptive behaviour of coliform bacteria to certain sugars. N. M. Mims and C. Hinshelwood. Chem Soc J p3167-70 O '53
Aromatic biosynthesis; identification of an early precursor as 5-dehydroquinic acid. U. Weiss, B. D. Davis and E. S. Mingioli. bibliog Am Chem Soc J 75:5572-6 N 20 '53
Aromatic biosynthesis; the isolation of a precursor of shikimic acid. I. I. Salamon and B. D. Davis. bibliog Am Chem Soc J 75:5567-71 N 20 '53
Autocatalytic growth of a mutant due to accumulation of an unstable phenylalanine precursor. B. D. Davis. Science 118:251-2 Ag 28 '53
Effect of streptomycin on oxygen uptake and viability of resting suspensions of escherichia coli. T. F. Paine, jr. and L. S. Clark. Science 118:73-4 Jl 17 '53
Lipoic acid dehydrogenase; the function of E. coli fraction B. L. P. Hager and I. C. Gunsalus. bibliog Am Chem Soc J 75:5767-8 N 20 '53
Racemase for threonine in escherichia coli. H. Amos. bibliog Am Chem Soc J 76:3858 Jl 20 '54
Sex in bacteria; genetic studies, 1945-1952. J. Lederberg and E. L. Tatum. bibliog il diag Science 118:169-75 Ag 14 '53
Survival of E. coli in water from Great Salt lake. R. S. Fraser and C. I. Argall. Sewage & Ind Wastes 26:1141-4 S '54
Type differentiation of coliform organisms with membrane filter technique. H. L. Jeter and others. bibliog Am Water Works Assn J 46:386-94 Ap '54

ESCROWS
Functions of the accountant in auditing businesses handling escrow agreements. F. Barker. J Account 96:324-30 S '53

ESSENTIAL oils
Essential oils. A. J. Haagen-Smit. il Sci Am 189:70-2+ Ag '53
Essential oils feeling changes in South America. E. Guenther. Oil Paint & Drug Rep 164:5+ D 28 '53; Same. Soap & San Chem 30:69 Ja '54
Essential oils of interest to flavoring industry; abstract. H. Wesemann. Oil Paint & Drug Rep 165:5+ My 24 '54
Essential oils, other aromatics. Published in weekly numbers of Oil, paint and drug reporter
Essential oils prices seen in firmer position in 1954. W. Reis. Oil Paint & Drug Rep 165:5+ Ja 18 '54
European essential oils today. Soap & San Chem 29:47 N '53
Terpenes in the essential oil of haplopappus laricifolius, Gray. W. F. McCaughey and T. F. Buehrer. bibliog Am Chem Soc J 75:4851 O 5 '53
See also
Citronella oil
Flavoring materials
Terpenes

Analysis

Characterization of essential oils by chromatography. R. H. Reitsema. Anal Chem 26:960-3 Je '54
Chromatostrips for identifying constituents of essential oils. J. M. Miller and J. G. Kirchner. Anal Chem 25:1107-9 Jl '53
Infrared analysis; abstract. E. T. Theimer. Chem & Eng N 32:2199 My 31 '54

Prices

Essential oils, other aromatics; 1953 market trends. Oil Paint & Drug Rep 165:44-6 sec 2 F 1 '54

ESTATE planning
Estate planning for businessmen. W. G. McKenney. Trusts & Estates 92:564-5 Ag '53
Estate planning sells and retains trust business. N. B. Staub. Trusts & Estates 92:871 N '53
Estate planning team; abstract. N. B. Maddox. Trusts & Estates 92:896-7 D '53
Experiment in specialized trust promotion among professional men. W. S. McClanahan. Trusts & Estates 92:568-9 Ag '53
Mapping out the future; more firms study estate planning. Chem W 75:62+ Ag 7 '54

ESTATE planning—*Continued*
When the fiduciary takes over. A. B. Pfleiderer. Trusts & Estates 93:107-9 F '54
See also
Insurance, Life—
Estate protection

ESTATE tax. See Inheritance tax

ESTATES (law)
Handling businesses in trust; legal aspects. J. Trachtman. Trusts & Estates 93:106 F '54
State legislation affecting trusts and estates; ABA committee report. Trusts & Estates 92:788-92 O '53
See also
Joint tenancy
Perpetuities
Probate law

ESTATES, Decedents'
Tax savings under Sections 113, 126 and 162; report of ABA committee on state and federal taxation. bibliog Trusts & Estates 92:731-40 O '53
See also
Wills

ESTER gums
Ester gum by esterification of rosin with glycerol. J. D. Hind, T. T. Kanno and C. S. Miner, jr. bibliog diag Ind & Eng Chem 46:441-52 Mr '54

ESTERASES
Anticholinesterases; esterase levels in the nervous system of animals during demyelination by tri-*ortho*-cresyl phosphate. R. H. S. Thompson. bibliog Chem & Ind p749-51 Je 26 '54
Effect of culture medium on lipase and esterase activities of aspergillus niger. C. V. Ramakrishnan. bibliog Chem & Ind p250-1 F 27 '54
Preparation of alkyl 2-naphthyl carbonates as chromogenic substrates for esterases. K. C. Tsou and A. M. Seligman. bibliog Am Chem Soc J 76:3704-6 Jl 20 '54
Thioesterases for acyl and aminoacyl mercaptans. H. J. Strecker, H. Sachs and H. Waelsch. bibliog Am Chem Soc J 76:3354-5 Je 20 '54

ESTERIFICATION
Catalytic esterification by metal halides. M. E. Hill. bibliog Am Chem Soc J 76:2329-33 My 5 '54
Chemical engineering unit processes. E. E. Reid. il Ind & Eng Chem 45:1937-43 bibliog(284 ref, p 1940-3); 46:1801-8 bibliog(242 ref, p 1806-8) S '53, S '54
Ester gum by esterification of rosin with glycerol. J. D. Hind, T. T. Kanno and C. S. Miner, jr. bibliog diag Ind & Eng Chem 46:441-52 Mr '54
Esterification of carbohydrates with formic acid. B. L. Browning and L. O. Sell. bibliog Textile Res J 23:939-41 D '53
Preparation of metallic phenates and the use of zinc salts in trans-esterification. L. P. McHatton and M. J. Soulal. Chem & Ind p 1337 D 12 '53
Trans-esterification as a means of halide esterification under neutral conditions. W. M. Corbett and J. Kenner. Chem Soc J p3572-5 N '53

ESTERS
Aliphatic esters. G. Cohen and others. bibliog(38 ref) Ind & Eng Chem 45:1766-75 Ag '53
Alkoxide-catalyzed autoxidative cleavage of ketones and esters. W. V. Doering and R. M. Haines. bibliog Am Chem Soc J 76:482-6 Ja 20 '54
Alkyl-oxygen fission in carboxylic esters; 1-*o*-methoxyphenylethyl and α-naphthylphenylmethyl compounds; the relative effects of the introduction of *o*- and of *p*-methoxyl groups into phenylmethyl compounds. R. E. Dabby and others. Chem Soc J p3619-23 N '53
Alkyl-oxygen fission in carboxylic esters; the resolution and reactions of 1 : 2 : 2 : 2-tetraphenylethanol; crystalline solvent complexes of (+)-1 : 2 : 2 : 2-tetraphenylethyl hydrogen phthalate. L. Ellison and J. Kenyon. Chem Soc J p779-84 Mr '54
Allyl esters of phosphonic acids; influence of substituents on polymerization characteristics. A. D. F. Toy and R. S. Cooper. bibliog Am Chem Soc J 76:2191-5 Ap 20 '54
Antispasmodics; β-diethylaminoethyl esters of β,β-diphenylglycidic, β,β-diphenyllactic and β,β-diphenylglyceric acids. F. F. Blicke and J. A. Faust. bibliog Am Chem Soc J 76:3156-9 Je 20 '54
Antispasmodics; β-diethylaminoethyl esters of substituted acetic and glycidic acids. F. F. Blicke, J. A. Faust and H. Raffelson. bibliog Am Chem Soc J 76:3161-3 Je 20 '54
Antispasmodics; β-diethylaminoethyl esters of substituted lactic and acrylic acids. F. F. Blicke and J. A. Faust. bibliog Am Chem Soc J 76:3159-61 Je 20 '54
Antispasmodics; esters of basic bicyclic alcohols and their quaternary salts. Am Chem Soc J 75:6068-9 D 5 '53
Application of high frequency oscillators. D. G. Flom and P. J. Elving. bibliog il diags Anal Chem 25:541-9 Ap '53
Aromatic esters of fluorocarbon acids. R. F. Clark and J. H. Simons. Am Chem Soc J 75:6305-6 D 20 '53
Betaine esters; a study of their reactions. W. V. Cohen and A. H. Corwin. bibliog Am Chem Soc J 75:5880-3 D 5 '53
Carboxylate ion displacement in dimesitylmethyl esters. R. C. Fuson and others. bibliog Am Chem Soc J 76:499-500 Ja 20 '54
Chemistry of polymerised oils; thermal polymerisation of some long chain unsaturated fatty esters. A. L. Clingman, D. E. A. Rivett and D. A. Sutton. Chem Soc J p 1088-90 Mr '54
Chemistry of the aliphatic esters of phosphorothioic acids; alkoxide cleavage of O,O,S-trialkyl phosphorodithioates. W. E. Bacon and W. M. LeSuer. bibliog Am Chem Soc J 76:670-6 F 5 '54
Densities and optical properties of organic compounds in the liquid state; the densities of esters from fatty acids and normal alcohols. M. L. Huggins. Am Chem Soc J 76:847-50 F 5 '54
α,α-Dimethylcholine; esters and carbamates. W. B. Wheatley. bibliog Am Chem Soc J 76:2832-5 My 20 '54
Dispersion of ultrasonic waves in esters. S. Parthasarathy and others. Acoustical Soc Am J 25:335 Mr '53
Effect of structure on reactivity; a study of the aminolysis of esters of trichloro- and trifluoroacetic acids. M. M. Joullié and A. R. Day. Am Chem Soc J 76:2990-3 Je 5 '54
Epoxy fatty acid ester plasticizers. F. P. Greenspan and R. J. Gall. bibliog il Ind & Eng Chem 45:2722-6 D '53
Esters of distilled and acid refined tall oil as varnish vehicles. P. D. Patrick, jr. and others. Tappi 36:561-4 D '53
Esters of germanium. D. C. Bradley and others. Chem & Ind p746-7 Jl 18 '53
Esters of nopol; their soap perfuming possibilities. B. T. Bush. Soap & San Chem 29:71 Jl '53
Further studies on silicon-containing carbonyl compounds; diketones, ketoesters and cyclic unsaturated ketones. L. H. Sommer and R. P. Pioch. bibliog Am Chem Soc J 76:1606-9 Mr 20 '54
Heats of combustion of the five-carbon fatty acids and their methyl and ethyl esters. C. E. Hancock, G. M. Watson and R. F. Gilby. bibliog J Phys Chem 58:127-9 F '54
Identification of dicarboxylic acids in polymeric esters. R. W. Stafford, J. F. Shay and R. J. Francel. bibliog Anal Chem 26:656-61 Ap '54
Identification of esters of phenols. G. Carbone. J Chem Educ 30:315 Je '53
Malonic ester syntheses with organosilicon compounds; new silicon-containing malonic esters, mono- and dicarboxylic acids, barbituric acids and a disiloxanetetracarboxylic acid. L. H. Sommer and others. bibliog Am Chem Soc J 76:1609-12 Mr 20 '54
Mechanism of the peracid ketone-ester conversion; analysis of organic compounds for oxygen-18. W. V. Doering and E. Dorfman. bibliog Am Chem Soc J 75:5595-8 N 20 '53
Michael condensations with substituted sorbic esters; methyl β-*iso*butenyl-αα′-dimethoxycarbonylglutarate. E. B. Reid and H. W. Sause. Chem Soc J p516-20 F '54

ESTERS—*Continued*

Monomer synthesis; synthesis of a vinyltriazine and a study of the reaction of phenylbiguanide with acrylate esters. C. G. Overberger and S. L. Shapiro. bibliog Am Chem Soc J 76:1061-5 F 20 '54

Nitrate esters of 2,2-dimethylol-1-propanol monoacetate and diacetate. N. S. Marans and R. F. Preckel. Am Chem Soc J 76:3223-4 Je 20 '54

Organic acid esters of pentaerythritol trinitrate. N. S. Marans, D. E. Elrick and R. F. Preckel. bibliog Am Chem Soc J 76:1304-6 Mr 5 '54

Organic esters of mannitol pentanitrate. D. E. Elrick, N. S. Marans and R. F. Preckel. Am Chem Soc J 76:1373-4 Mr 5 '54

Ortho esters, imidic esters and amidines; the mechanism of the reaction of aniline with ethyl orthoformate. R. M. Roberts and R. H. DeWolfe. bibliog Am Chem Soc J 76:2411-14 My 5 '54

Oxygen exchange during the acidic and basic hydrolyses of amides and the enzymatic hydrolysis of esters. M. L. Bender, R. D. Ginger and K. C. Kemp. Am Chem Soc J 76:3350-1 Je 20 '54

Phenyl esters. A. R. Bader and A. D. Kontowicz. Am Chem Soc J 75:5416-17 N 5 '53

Pinic acid diesters. Chem Age (Lond) 69: 801-4 O 17 '53

Polymeric plasticizers; preparation and characterization of a series of terminated polyesters. J. E. Koroly and E. M. Beavers. bibliog Ind & Eng Chem 45:1060-3 My '53

Preparation of the monocholine ester of succinic acid and some related derivatives. A. P. Phillips. Am Chem Soc J 75:4725-7 O 5 '53

Properties of fluorine-containing diesters. R. Filler and others. bibliog Ind & Eng Chem 46:544-7 Mr '54

Pyrrolidine esters. E. Van Heyningen. bibliog Am Chem Soc J 76:3043-4 Je 5 '54

Reaction of α,β-dibromo acid esters with benzylamine. M. A. Stolberg, J. J. O'Neill and T. Wagner-Jauregg. bibliog Am Chem Soc J 75:5045-7 O 20 '53

Reaction of esters with phenylhydrazine in the presence of phosphoric acid. T. O. Jones, R. E. Halter and W. L. Myers. bibliog Am Chem Soc J 75:6055-6 D 5 '53

Rearrangement of some dibromopropyl esters. W. G. H. Edward and R. Hodges. Chem Soc J p3427-9 N '53

Recent research on oxidation of monoethenoid fatty acids and esters. J. H. Skellon. bibliog(29 ref) Chem & Ind p 1047-9 O 3 '53

Reduction of fluorine containing esters by Grignard reagents. O. R. Pierce, J. C. Siegle and E. T. McBee. Am Chem Soc J 75:6324-5 D 20 '53

Reformatsky type condensation of aroyl chlorides with ethyl α-bromoisobutyrate by means of zinc to form β-keto esters. P. L. Bayless and C. R. Hauser. bibliog Am Chem Soc J 76:2306-8 My 5 '54

Researches on acetylenic compounds; the reaction between nickel carbonyl and some esters of ω-acetylenic acids. E. R. H. Jones, G. H. Whitham and M. C. Whiting. Chem Soc J p 1865-8 Je '54

Role of metallic cation in aldol condensation of metallo esters with acetophenone to form β-hydroxy esters; reversal to Claisen acylation or self-condensation of the ketone. C. R. Hauser and W. H. Puterbaugh. bibliog Am Chem Soc J 75:4756-9 O 5 '53

Some new esters of 2,4-dichlorophenoxyacetic acid and their herbicidal activity. C. R. Wagner, C. L. Hamner and H. M. Sell. Am Chem Soc J 75:4861-2 O 5 '53

Specific effects in acid catalysis by ion exchange resins; hydrolysis of esters in water solution. S. A. Bernhard and L. P. Hammett. bibliog Am Chem Soc J 75:5834-5 D 5 '53

Studies on organic fluorine compounds; some esters of monofluoroacetic acid and related compounds. E. D. Bergmann and I. Blank. Chem Soc J p3786-8 D '53

Studies relating to the formation and reactions of glycidic esters. W. S. Johnson and others. bibliog Am Chem Soc J 75: 4995-5001 O 20 '53

Synthesis and reactions of certain α-substituted glycidic esters. H. H. Morris and M. L. Lusth. bibliog Am Chem Soc J 76: 1237-41 Mr 5 '54

Synthesis of 2-ethylhexanol-1-C^{14} and esters. J. L. Kalinsky and A. Weinstein. Am Chem Soc J 76:3730 Jl 20 '54

Synthesis of glycol bis-(alkyl sulfites). D. C. Morrison. bibliog Am Chem Soc J 76:3224-5 Je 20 '54

Synthetic hypotensive esters from germine. F. L. Weisenborn and others. bibliog Am Chem Soc J 76:1792-5 Ap 5 '54

Thermal decomposition of nitrate esters; ethyl nitrate. J. B. Levy. bibliog Am Chem Soc J 76:3254-7 Je 20 '54

Use of hydrolysable esters in the control of dyebaths. R. J. Hannay and W. H. Major. diag Soc Dyers & Col J 69:195-201 Je '53

Watford Chemicals new ester plant in Toronto. il Can Chem Process 37:76+ N '53

See also

Cellulose esters

Sultones

Spectra

Infrared spectra of enolate ions. M. L. Bender and J. Figueras. Am Chem Soc J 75: 6304 D 20 '53

ESTIMATES

Construction of a product profit indicator. L. M. Farmen. N A C A Bul 35:1641-3 Ag '54

Definitive cost estimating. H. Bottomley. Pet Refiner 32:110-12 O '53

Estimates as the embryo of a cost system. W. F. Laudenslayer. N A C A Bul 36:83-4 S '54

Estimating demand for cement. N. H. Schein. Rock Prod 57:132-3+ Ag '54

Estimating motor room installation costs. W. Dudley. Iron & Steel Eng 31:87-90; Discussion. 90-1 My '54

How I figure estimates, why my system works! P. Shafer. Dom Eng 183:96-7 Ja '54

How to prepare cost estimates. H. Bottomley. Pet Refiner 32:211-14 S '53

Plumbing and heating estimating. J. Williams. diag Dom Eng 183:94-5+ Ja; 110-13 F; 130-1 Mr '54

Quicker cost estimating; short-cut method of figuring cost of building refinery process unit. J. F. Gilmore, jr. Oil & Gas J 52:59-60 O 26 '53

Simple approach to cost estimating. R. Cleveland. diags Product Eng 24:178-81 Jl '53

Standard proposed for indicating the precision of construction cost estimates. G. Wrigley, jr. Civil Eng 24:150-1 Mr '54

See also

Building—Estimates

Painting, Industrial
—Estimates

Roads—Estimates

ESTRADIOL

Synthesis of 17β-estradiol-16-C^{14}. M. Levitz. bibliog Am Chem Soc J 75:5352-5 N 5 '53

ESTRIOL

Studies of steroid ring D epoxides of enol acetates; a new synthesis of estriol and of androstane-3β,16α,17β-triol. N. S. Leeds, D. K. Fukushima and T. F. Gallagher. bibliog Am Chem Soc J 76:2943-8 Je 5 '54

ESTROGENS

Correlation of chemical constitution and œstrogenic activity. J. Grundy. bibliog Chem & Ind p659-61 Je 5 '54

Estrogen excreton in women with mammary cancer before and after adrenalectomy. T. L. Y. Dao. bibliog Science 118:21-2 Jl 3 '53

Estrogenic activity of isoflavone derivatives extracted and prepared from soybean oil meal. E. Cheng and others. bibliog Science 118:164-5 Ag 7 '53

Formation of five- and six-membered rings by the acyloin condensation; the natural estrogenic steroids. J. C. Sheehan, R. A. Coderre and P. A. Cruickshank. Am Chem Soc J 75:6231-3 D 20 '53

Oestrogenic isoflavones in red clover and subterranean clover. G. S. Pope and H. G. Wright. bibliog Chem & Ind p 1019-20 Ag 14 '54

ESTROGENS—*Continued*

Synthetic œstrogens. J. Grundy. Chem Soc J p2649 Jl '54

Synthetic estrogens; halotriphenylethylene derivatives. R. S. Shelton and others. bibliog Am Chem Soc J 75:5491-5 N 20 '53

Synthetic œstrogens; the synthesis of tetra-alkyldibenzyls and substituted succinonitriles by free-radical dimerisation. R. L. Huang and L. Kum-Tatt. Chem Soc J p2570-7 Jl '54

ESTRONE

Facile synthesis of 19-nortestosterone and 19-norandrostenedione from estrone. A. L. Wilds and N. A. Nelson. bibliog Am Chem Soc J 75:5366-9 N 5 '53

ESTUARIES

Sedimentation rates in Texas estuaries and lagoons. F. P. Shepard. maps Am Assn Pet Geologists Bul 37:1919-34 Ag '53

ETAWAH pilot project. See Agriculture—India

ETCHING (metals)

Cathodic vacuum etching. T. R. Padden and F. M. Cain, jr. bibliog il diag Metal Prog 66:108-12+ Jl 1 '54

Electrolytic etch cuts corrosion test time. J. D. Roach and H. H. Hollenbeck. il Iron Age 173:100-3 Je 24 '54

Electrolytic etching; the sigma phase steels. J. J. Gilman. bibliog il diag Am Soc for Metals Trans 44:566-96; Discussion. 597-600 '52

Etch pits and dislocations in germanium and silicon. J. J. Oberly. il J Metals 6:Trans 1025-6 sec 2 S '54

Mechanism of metallographic etching. G. L. Kehl and M. Metlay. il Electrochem Soc J 101:124-7 Mr '54

Metal cleaning and finishing handbook; etching, paints, lacquers, etc. Iron Age 174: sup F 12-13 Jl 29 '54

Method for the electrolytic etching of aluminium for microscopic examination. P. A. Raine and others. il diag Metallurgia 50: 45-6+ Jl '54

New etches for germanium. R. C. Ellis, jr. and S. P. Wolsky. il J Ap Phys 24:1411-12 N '53

Optical goniometer for the examination of long metal single crystals. A. J. Goss. bibliog diags J Sci Instr 30:283-5 Ag '53

Phases in titanium alloys identified by cumulative etching. E. Ence and H. Margolin. il diag J Metals 6:346-8 Mr '54

Screening cast stainless steels by electrolytic etching in oxalic acid; abstract. G. W. Jackson and W. A. Luce. Metal Prog 66: 166+ Jl 1 '54

ETHANE

Assignment of torsional frequencies in some halogenated ethanes. N. W. Luft. J Chem Phys 22:155-6 Ja '54

Benedict equation of state. J. B. Opfell, W. G. Schlinger and B. H. Sage. bibliog Ind & Eng Chem 46:1286-91 Je '54

Mechanism of the thermal decomposition of ethane-d_6. F. O. Rice and R. E. Varnerin. bibliog Am Chem Soc J 76:324-7 Ja 20 '54

New synthesis of 1,2-dialkoxyethanes. L. A. Gist, jr. and C. T. Mason. Am Chem Soc J 76:3728-9 Jl 20 '54

Operating the gasoline plant for high ethane and propane recovery. T. D. Tabbert. flow sheet Oil & Gas J 52:98+ S 7 '53

Physical adsorption; two-dimensional condensation of ethane on surfaces of solids at 90°K. S. Ross and W. Winkler. bibliog Am Chem Soc J 76:2637-40 My 20 '54

Problems in hydrocarbon extraction. D. L. Katz and others. Oil & Gas J 52:118+ S 28 '53

Pyrolysis of C_2 and C_3 hydrocarbons. R. E. Kinney and D. J. Crowley. bibliog diag Ind & Eng Chem 46:258-64 F '54

Reduction of ethylene platinous chloride with deuterium; the mass spectra of deuterated ethanes. J. H. Flynn and H. M. Hulburt. bibliog Am Chem Soc J 76:3396-400 Jl 5 '54

Two dimensional phase transition of ethane on sodium chloride. H. Clark and S. Ross. bibliog Am Chem Soc J 75:6081-2 D 5 '53

ETHANEDIAL. See Glyoxal

ETHANOL. See Alcohol

ETHANOLAMINE

Electrodeposition of copper from the monoethanolamine bath. T. L. Rama Char and N. B. Shivaraman. bibliog Electrochem Soc J 100:227-31 My '53; Same. Metal Finishing 51:75-8 N '53

Periodic acid oxidation of diethanolamine. M. A. Smith and B. R. Willeford, jr. bibliog Am Chem Soc J 76:2502 My 5 '54

Reactions of aminoalcohol-aldehyde anhydro compounds. E. P. Goldberg and H. R. Nace. bibliog Am Chem Soc J 75:6260-2 D 20 '53

Substituted 1-phenyl-2-alkylaminoethanols and -propanols. J. R. Corrigan and others. bibliog Am Chem Soc J 75:6258-60 D 20 '53

Analysis

Carbon dioxide content of ethanolamine solutions. P. T. Wagner and M. Lew. Anal Chem 26:575-6 Mr '54

ETHERIFICATION

Transetherification of ethyl β-ethyoxycrotonate with cinnamyl alcohol. W. M. Lauer and N. Brodoway. bibliog Am Chem Soc J 75:5406-7 N 5 '53

ETHERS

Acetolysis of some carbohydrate benzyl ethers. R. Allerton and H. G. Fletcher, jr. bibliog Am Chem Soc J 76:1757-60 Ap 5 '54

Acetylenic ethers; phenylakoxyacetylenes. T. L. Jacobs and W. R. Scott, jr. bibliog Am Chem Soc J 75:5497-500 N 20 '53

Allyl ethers in the thiophene series. C. D. Hurd and H. J. Anderson. Am Chem Soc J 76:1267-8 Mr 5 '54

Cleavage and rearrangement of ethers with bases; ethers of benzoin and ethyl mandelate. D. Y. Curtin and W. R. Proops. bibliog Am Chem Soc J 76:494-9 Ja 20 '54

Cleavage of ethers. R. L. Burwell, jr. Chem R 54:615-85 bibliog(p678-85) Ag '54

Condensations by sodium; the metalation and cleavage of ethers, principally of alkyl phenyl ethers, by amylsodium and sodium. A. A. Morton and A. E. Brachman. bibliog Am Chem Soc J 76:2973-80 Je 5 '54

Co-ordination compounds of boron trihalides; boron trichloride-cyclic ethers. J. Grimley and A. K. Holliday. Chem Soc J p 1212-15 Ap '54

Co-ordination compounds of boron trihalides; compounds of boron trifluoride with cyclic ethers and dioxan. J. Grimley and A. K. Holliday. Chem Soc J p 1215-18 Ap '54

Course of ring opening of glycidyl ethers with nucleophilic reagents. G. Van Zyl and others. bibliog Am Chem Soc J 75:5002-6 O 20 '53

Epoxyethers; a triphenyl substituted epoxyether. C. L. Stevens and J. J. DeYoung. bibliog Am Chem Soc J 76:718-20 F 5 '54

Epoxyethers; mechanism of the opening of an epoxyether with an organic acid. C. L. Stevens and S. J. Dykstra. bibliog Am Chem Soc J 75:5975-8 D 5 '53

Epoxyethers; reaction of α-haloaldehydes with base. C. L. Stevens, E. Farkas and B. Gillis. bibliog Am Chem Soc J 76:2695-8 My 20 '54

Epoxyethers; the reaction of epoxyethers with Grignard reagents. C. L. Stevens, M. L. Weiner and C. T. Lenk. bibliog Am Chem Soc J 76:2698-700 My 20 '54

Epoxy resins from bis-, tris-, and tetrakis-glycidyl ethers. E. C. Dearborn and others. bibliog(46 ref) diag Ind & Eng Chem 45:2715-21 D '53

Glycerol ethers; alkaminoalkyl ethers of 1,3-bis-(aryloxy)-2-propanols and related compounds. W. F. Minor, R. R. Smith and L. C. Cheney. bibliog Am Chem Soc J 76: 2993-6 Je 5 '54

Grignard reagents and unsaturated ethers; reaction of Grignard reagents with β,γ-unsaturated ethers. C. M. Hill and others. bibliog Am Chem Soc J 75:5408-9 N 5 '53

Halogenation of phenolic ethers and anilides; kinetics of the chlorination of diphenylyl and naphthyl ethers. B. Jones and J. P. Sleight. Chem Soc J p 1775-80 Je '54

Hydrocarbons and ethers as antiknock blending agents. bibliog U S Nat Advisory Com for Aeronautics 1951:532-55 '52

ETHERS—*Continued*

Inhibition of phenol alkylations by ethers; kinetic evidence for phenol-ether complexes. H. Hart, F. A. Cassis and J. J. Bordeau. bibliog Am Chem Soc J 76:1639-41 Mr 20 '54

Mercuration of monoallyl ethers of polyols. L. H. Werner and C. R. Scholz. bibliog Am Chem Soc J 76:2701-5 My 20 '54

Molecular addition compounds of dinitrogen tetroxide; binary systems with a series of aliphatic and alicyclic mono-, di- and tribasic ethers. J. G. Whanger and H. H. Sisler. Am Chem Soc J 75:5188-91 N 5 '53

Organic peroxides; α-hydroperoxyethers and related peroxides. N. A. Milas, R. L. Peeler, jr. and O. L. Mageli. bibliog Am Chem Soc J 76:2322-5 My 5 '54

para-Claisen rearrangement; the preparation and rearrangement of the α- and γ-ethylallyl ethers of methyl *o*-cresotinate; a reinvestigation. S. J. Rhoads, R. Raulins and R. D. Reynolds. bibliog Am Chem Soc J 76:3456-63 Jl 5 '54

Preparation and properties of certain 1,3-dichlorobutyl ethers. C. T. Mason, C. W. R. Wade and H. W. Pouncy, jr. bibliog Am Chem Soc J 76:2255-6 Ap 20 '54

Preparation and properties of some octyl ethers. L. W. Devaney and G. W. Panian. Am Chem Soc J 75:4836-7 O 5 '53

Preparation of enol ethers from certain β-keto-nitriles. B. H. Chase and J. Walker. Chem Soc J p3518-25 N '53

Reactions of thiols and thioethers; an analogue of the Mannich reaction involving thiols, formaldehyde, and active methylene or methylidyne compounds. F. Poppelsdorf and S. J. Holt. Chem Soc J p 1124-30 Mr '54

Rearrangement of N-phenylbenzimidoyl γ,γ-dimethylallyl ether. W. M. Lauer and R. G. Lockwood. bibliog Am Chem Soc J 76:3974-6 Ag 5 '54

Stereochemistry of aromatic alkylations; the thermal rearrangement of alkyl aryl ethers. H. Hart and H. S. Eleuterio. bibliog Am Chem Soc J 76:519-22 Ja 20 '54

Stereochemistry of ether cleavage. H. Hart and H. S. Eleuterio. Am Chem Soc J 76:1379-80 Mr 5 '54

Stereochemistry of the reaction of aluminum bromide with α-phenethyl aryl ethers. H. Hart and R. J. Elia. Am Chem Soc J 76:3031-2 Je 5 '54

Study of the chlorination of fluorinated aliphatic ethers. J. D. Park, B. Stricklin and J. R. Lacher. Am Chem Soc J 76:1387-8 Mr 5 '54

Superior method for reducing phenol ethers to dihydro derivatives and unsaturated ketones. A. L. Wilds and N. A. Nelson. bibliog Am Chem Soc J 75:5360-5 N 5 '53

Syntheses in the piperidine series; the preparation of piperidyl ethers and related compounds. K. Bowden and P. N. Green. Chem Soc J p 1795-8 Je '54

Syntheses of methyl ethers of fructose. E. L. Hirst and others. Chem Soc J p3170-6 O '53

Vapor phase nitration of aliphatic ethers, alcohols, ketones and carboxylic acids. H. B. Hass and D. E. Hudgin. bibliog Am Chem Soc J 76:2692-4 My 20 '54

See also
Ethyl ether
Vinyl ethers

ETHICS

See also
Accounting ethics
Advertising ethics
Conduct of life
Engineering ethics
Newspaper ethics

ETHIONINE. See Butyric acid

ETHOXYCOUMARIN

Reaction of Grignard reagents with 4-hydroxy- and 4-ethoxycoumarin. S. Wawzonek, R. C. Nagler and L. J. Carlson. bibliog Am Chem Soc J 76:1080-2 F 20 '54

ETHOXYLINE resins. See Resinous products

ETHYL acetate

Mechanism of the O-benzoylation of ethyl benzoylacetate in pyridine. W. R. Gilkerson, W. J. Argersinger, jr. and W. E. McEwen. bibliog diags Am Chem Soc J 76:41-7 Ja 5 '54

Solubility of ethyl acetate in aqueous electrolyte solutions. A. P. Altshuller and H. E. Everson. bibliog Am Chem Soc J 75:4823-7 O 5 '53

Synthesis of α-alkoxy-β-haloethyl acetates and 2-aminothiazole. S. Akiyoshi and K. Okuno. Am Chem Soc J 76:693-4 F 5 '54

Ternary solubility data. J. H. Jones and J. F. McCants. Ind & Eng Chem 46:1956-8 S '54

ETHYL acetoacetate

Isomerisation of ethyl α-2 : 3 : 4 : 5-tetrahydrobenzoylacetoacetate. D. A. A. Kidd, P. A. Robins and J. Walker. Chem Soc J p3244-7 O '53

Structures of the products obtained by the condensation of phenyl benzimino chloride and ethyl-sodio-acetoacetate and subsequent cyclization. G. Singh and G. V. Nair. Chem & Ind p253-4 F 27 '54

ETHYL adipamate. See Ethyl valerate

ETHYL alcohol. See Alcohol

ETHYLAMINE

Chemical reactivity of ethylamine-treated cotton as indicated by acetylation. L. Loeb and L. Segal. bibliog Textile Res J 24:654-8 Jl '54

Condensation of α-keto-acids with 2-3′ : 4′-dihydroxyphenylethylamine. J. S. Little and others. Chem Soc J p2636-7 Jl '54

Conversion of cellulose I to cellulose III by ethylamine. J. Mann and H. J. Marrinan. Chem & Ind p 1092-3 O 10 '53

Preparation of cellulose III with ethylamine. L. Segal. Textile Res J 24:861-2 S '54

Two liquid phases in the lithium-ethylamine system at 0°. W. H. Howland and L. F. Epstein. Am Chem Soc J 76:292 Ja 5 '54

ETHYL benzene

Distribution of isomers in the mononitration of ethyl- and isopropylbenzene; further evidence for a steric effect in isomer distribution. H. C. Brown and W. H. Bonner. bibliog Am Chem Soc J 76:605-6 Ja 20 '54

Ethylbenzene; manufacturing process. diag Pet Refiner 32:160-1 N '53

Ethylbenzene; mother of petrochemicals. A. L. Foster. il Pet Eng 25:C3-4 O '53

How Koppers makes ethylbenzene. il diag Pet Processing 8:1048-9 Jl '53

Ternary liquid-liquid equilibria. L. F. Crooke, jr. and M. Van Winkle. bibliog Ind & Eng Chem 46:1474-7 Jl '54

Vapor-liquid equilibria of ethyl-benzene-styrene binary system. W. S. White and M. Van Winkle. bibliog Ind & Eng Chem 46:1284-5 Je '54

Analysis

Accurate analysis with an infrared double-beam spectrophotometer. R. Schnurmann and E. Kendrick. bibliog Anal Chem 26:1263-9 Ag '54

ETHYL bromomalonate

Kinetics of the reaction of ethyl bromomalonate with thiosulfate. W. J. Broach and E. S. Amis. bibliog J Chem Phys 22:39-42 Ja '54

ETHYL chloride

Ethyl chloride; process applied to manufacture. diag Pet Refiner 32:134-5 N '53

What's unique about Tuscola? plant of National petro-chemicals corp. il plan Pet Processing 8:1889-91 D '53

ETHYL chlorocholenate

Seroflocculating steroids; ethyl 3β-chloro-Δ^{11}-cholenate. F. C. Chang and D. H. Sprunt. bibliog Am Chem Soc J 76:3213 Je 20 '54

ETHYL cinnamate

Preparation of ethyl *o*-cyanocinnamate and *o*-carbethoxycinnamonitrile. J. W. Curry. bibliog Am Chem Soc J 75:5740-1 N 20 '53

ETHYL crotonate

Transetherification of ethyl β-ethyoxycrotonate with cinnamyl alcohol. W. M. Lauer and N. Brodoway. bibliog Am Chem Soc J 75:5406-7 N 5 '53

ETHYL cyanoacetate

Structure of the adduct of 3-methyl-2-cyclohexenone and ethyl cyanoacetate; the question of meta- and para-bridged rings. P. R. Shafer, W. E. Loeb and W. S. Johnson. bibliog Am Chem Soc J 75:5963-7 D 5 '53

ETHYL diazoacetate

Reactions of ethyl diazoacetate with aromatic compounds containing hetero atoms attached to the benzyl carbon. C. D. Gutsche and M. Hillman. bibliog Am Chem Soc J 76:2236-40 Ap 20 '54

ETHYL ether

Determination of the fatty matter in wool by extraction with diethyl ether. F. F. Elsworth and J. Barritt. Textile Inst J 44: P754-9 N '53

2 : 3- and 2 : 5-diaminoquinol diethyl ether. E. S. Lane and C. Williams. Chem Soc J p4187-8 D '53

Ethyl alcohol and ethyl ether; esterification-hydrolysis process. flow diag Pet Refiner 32:126-7 N '53

Synthesis of 1-C^{14}-labeled diethyl ether. J. G. Burtle and W. N. Turek. bibliog Am Chem Soc J 76:2498 My 5 '54

ETHYL fluoroacetate

Hydrolysis of ethyl fluoroacetates. G. Gorin, O. R. Pierce and E. T. McBee. bibliog Am Chem Soc J 75:5622-5 N 20 '53

ETHYL formate

Monomer synthesis; triazines; the reaction of phenylbiguanide with ethyl oxalate and ethyl formate. C. G. Overberger and S. L. Shapiro. bibliog Am Chem Soc J 76: 93-6 Ja 5 '54

ETHYL hexanol

Synthesis of 2-ethylhexanol-1-C^{14} and esters. J. L. Kalinsky and A. Weinstein. Am Chem Soc J 76:3730 Jl 20 '54

ETHYLHEXYL bromide

Concerning the reaction of lithium, sodium and potassium ethoxide in ethanol with 2-ethylhexyl bromide. M. S. Newman and F. J. Evans, jr. Am Chem Soc J 76:4187-8 Ag 20 '54

ETHYLHEXYL diphenyl phosphate

Toxicity of 2-ethylhexyl diphenyl phosphate. J. F. Treon and others. A M A Archives Ind Hygiene & Occup Med 8:170-84 Ag '53

Physiological effect

Toxicity of 2-ethylhexyl diphenyl phosphate. J. F. Treon and others. A M A Archives Ind Hygiene & Occup Med 8:170-84, 268-85 Ag-S '53

ETHYL iodide

Densities and thermal expansion coefficients for cobaltous chloride hexahydrate and ethyl iodide. D. A. Hutchison. bibliog Am Chem Soc J 76:1022-4 F 20 '54

ETHYL magnesium bromide

Hydrocarbon products from the reactions of methyllithium and ethylmagnesium bromide with heavy metal salts. H. Gilman, R. G. Jones and L. A. Woods. bibliog Am Chem Soc J 76:3615-17 Jl 20 '54

ETHYL mandelate

Cleavage and rearrangement of ethers with bases; ethers of benzoin and ethyl mandelate. D. Y. Curtin and W. R. Proops. bibliog Am Chem Soc J 76:494-9 Ja 20 '54

ETHYL methyl picrate

Ethylmethylpicrate as a reagent for barium. E. R. Caley and C. E. Moore. Anal Chem 26:939-40 My '54

ETHYL nitrate

Low-temperature calorimetry and the thermodynamic properties of ethyl nitrate. P. Gray and P. L. Smith. Chem Soc J p769-73 Mr '54

Thermal decomposition of nitrate esters; ethyl nitrate. J. B. Levy. bibliog Am Chem Soc J 76:3254-7 Je 20 '54

Thermal decomposition of nitrate esters; the effect of additives on the thermal decomposition of ethyl nitrate. J. B. Levy. bibliog Am Chem Soc J 76:3790-3 Jl 20 '54

ETHYL orthoformate

Ortho esters, imidic esters and amidines; the mechanism of the reaction of aniline with ethyl orthoformate. R. M. Roberts and R. H. DeWolfe. bibliog Am Chem Soc J 76:2411-14 My 5 '54

ETHYL oxalate

Monomer synthesis; triazines; the reaction of phenylbiguanide with ethyl oxalate and ethyl formate. C. G. Overberger and S. L. Shapiro. bibliog Am Chem Soc J 76: 93-6 Ja 5 '54

ETHYL phosphates

Two give a clue; diethyl 2-chlorovinyl phosphate and dimethyl 1-carbomethoxy-1-propen-2-yl phosphate. Chem W 73:45 Ag 15 '53

ETHYL propionate

Ethyl α-(α′-ethoxy-β′-phenylethylideneamino)-β,β-diethoxypropionate. H. Adkins and G. Gilbert. bibliog Am Chem Soc J 76:275-6 Ja 5 '54

Experiments on the synthesis of santonin; preparation and bromination-dehydrobromination of ethyl α-(2 : 3 : 4 : 5 : 6 : 7 : 8 : 10-octahydro-1 : 10-dimethyl-2-oxo-7-naphthyl) propionate. F. D. Gunstone and A. P. Tulloch. bibliog(27 ref) J Ap Chem 4:291-6 Je '54

ETHYL pyridine

Condensation of aromatic aldehydes with 2-ethylpyridine and with 4-ethylpyridine. A. P. Phillips. bibliog Am Chem Soc J 76: 3986-7 Ag 5 '54

ETHYL pyrrocoline

6-Ethylpyrrocoline. G. R. Clemo, B. W. Fox and R. Raper. Chem Soc J p4173-5 D '53

ETHYL sulfone

Descent of the aldose series via *bis*-(ethylsulphonyl)-derivatives. L. Hough and T. J. Taylor. Chem & Ind p575-6 My 15 '54

ETHYL trichloroacetate

Reaction of ethyl trichloroacetate with aromatic Grignard compounds. A. Kaluszyner and S. Reuter. bibliog Am Chem Soc J 75: 5126-7 O 20 '53

ETHYL valerate

Synthesis of ethyl adipamate and 2-keto-6,6-dihydroperfluorohexamethylenimine. W. H. Rauscher and H. Tucker. bibliog Am Chem Soc J 76:3599-601 Jl 5 '54

ETHYL xylene

New process yields heat-stable plasticizer 1,3,5-ethylxylene; patent. diag Chem Eng 61:268+ Mr '54

ETHYLENE

Air leakage and gas concentrations in commercial fruit storages. G. F. Sainsbury and F. Gerhardt. bibliog il Refrig Eng 62: 61-6+ Mr '54

Conversion of ethylene to ethanol. C. V. Mace and C. F. Bonilla. bibliog flow sheet diag Chem Eng Prog 50:385-95 Ag '54

Effects of ionizing radiation on heterogeneous catalysts; zinc oxide as a catalyst for the hydrogenation of ethylene. E. H. Taylor and J. A. Wethington, jr. Am Chem Soc J 76:971-3 F 20 '54

Ethylene oxide by direct oxidation of ethylene and from chlorohydrin. E. T. Borrows and D. A. Caplin. bibliog diags Chem & Ind sup S32-7 Ag 10 '53

Ethylene, prolific precursor. Chem W 74:87-8+ F 20 '54

Kinetic study of the diborane-ethylene reaction. A. T. Whatley and R. N. Pease. Am Chem Soc J 76:835-8 F 5 '54

Kinetics of propylene and ethylene hydrogenation. M. V. Sussman and C. Potter. bibliog(27 ref) flow diag diag Ind & Eng Chem 46:457-65 Mr '54

Mechanism of the Hg $(^3P_1)$ photosensitized decomposition of ethylene. A. G. Mitchell and D. J. Le Roy. J Chem Phys 21:2075-6; Discussion. B. D. Darwent. 2076 N '53

Mercury-photosensitized reactions of tritium with acetylene and ethylene. L. Kaplan. bibliog Am Chem Soc J 76:1448-9 Mr 5 '54

Nickel, copper and some of their alloys as catalysts for ethylene hydrogenation. R. J. Best and W. W. Russell. bibliog Am Chem Soc J 76:838-42 F 5 '54

Organic building blocks. P. W. Cornell. il Chem & Eng N 31:2957-60 Jl 20 '53

π-Energy levels of ethylene. C. M. Moser. J Chem Phys 21:2098-9 N '53

Pyrolysis of C_2 and C_3 hydrocarbons. R. E. Kinney and D. J. Crowley. bibliog diag Ind & Eng Chem 46:258-64 F '54

Rates of formation of different deuteroethylenes and deuteroethanes in the reaction of ethylene and deuterium. T. Keii. J Chem Phys 22:144-5 Ja '54

Removing acetylene from gas streams by selective hydrogenation. H. W. Fleming and others. bibliog Pet Refiner 32:138-9+ S '53

ETHYLENE—*Continued*

Telomeric reactions of ethylene and alcohols. E. R. Gilliland and R. J. Kallal. flow diag il diag Chem Eng Prog 49:647-52 D '53

Thermal addition of β-methylcrotononitrile to ethylene. M. J. Hogsed and R. V. Lindsey. bibliog Am Chem Soc J 76:2305-6 My 5 '54

Thermal conductivity of gas mixtures at high pressure; ethylene, nitrogen and ethylene, carbon dioxide. W. A. Junk and E. W. Comings. bibliog diag Chem Eng Prog 49: 263-6 My '53

Trend in petrochemicals may be establishment of refinery-operated ethylene units. H. Stenerson. Chem & Eng N 31:2818 Jl 6 '53

Unified orbital treatment of ethylene. C. R. Mueller. bibliog J Chem Phys 22:120-2 Ja '54

Vinyl chloride from ethylene; manufacturing process. diag Pet Refiner 32:136-7 N '53

Manufacture

Ethylene and propylene; Lummus co. flow diag Pet Refiner 32:130-1 N '53

Ethylene manufacture is big business. P. W. Cornell. Oil & Gas J 52:111+ Ag 17 '53

Ethylene production methods. A. L. Foster. Pet Eng 25:C35-6 Ag '53

Ethylene production; Stone & Webster-Badger. diag Pet Refiner 32:130-1 N '53

Ethylene with pebble heater; Phillips petroleum co. flow diag Pet Refiner 32:132-3 N '53

Petrochemical reactions; production of olefins. L. F. Hatch. flow diag diag Pet Refiner 33:155-7 Ja '54

Problems in light olefine recovery plant design. E. O. Curtiss. bibliog diags Chem & Ind sup S18-23 Ag 10 '53

Spectrum

Absorption coefficients of ethylene in the vacuum ultraviolet. M. Zelikoff and K. Watanabe. bibliog Opt Soc Am J 43:756-9 S '53

ETHYLENE chloride

Kinetic study of the addition of bromine to crotonic acid in ethylene chloride. R. E. Buckles and J. P. Yuk. bibliog Am Chem Soc J 75:5048-52 O 20 '53

Spectrum

Assignments of the Raman and infrared frequencies of 1,2-dichloroethane observed in the gaseous, liquid, and solid states. I. Nakagawa and S. Mizushima. bibliog J Chem Phys 21:2195-8 D '53

ETHYLENE chlorohydrin

Synthesis of ethylene chlorohydrin. W. G. Domask and K. A. Kobe. bibliog flow diag il diag Ind & Eng Chem 46:680-9 Ap '54

ETHYLENE compounds

Analysis

Rapid estimation of ethylenes with mercuric acetate. M. N. Das. Anal Chem 26:1086-7 Je '54

ETHYLENEDIAMINE

Amides of ethylenediamines; substituted cinnamides as local anesthetic agents. F. J. Villani, J. Lang and D. Papa. bibliog Am Chem Soc J 76:87-8 Ja 5 '54

Amidines derived from ethylenediamine; diamidines. A. J. Hill and J. V. Johnston. Am Chem Soc J 76:920-2 F 5 '54

Amidines derived from ethylenediamine; imidazolines. A. J. Hill and J. V. Johnston. bibliog Am Chem Soc J 76:922-3 F 5 '54

Analysis of commercial allethrin. J. N. Hogsett, H. W. Kacy and J. B. Johnson. bibliog Anal Chem 25:1207-11 Ag '53

Anhydrous ethylenediamine. R. M. Creamer and D. H. Chambers. Electrochem Soc J 101:162 Mr '54

Heats of formation of complex ions containing ethylenediamine. T. Davies, S. S. Singer and L. A. K. Staveley. diag Chem Soc J p2304-11 Jl '54

Mechanism of substitution reactions in complex ions; kinetics of the reactions of *cis*- and *trans*-chloronitro-bis-(ethylenediamine)-cobalt(III) and aquonitro-bis-(ethylenediamine)-cobalt(III) ions with various reagents in aqueous solutions. F. Basolo and others. bibliog Am Chem Soc J 76:3079-82 Je 5 '54

Nature of the acetyl cholinesterase surface; the ring effect in enzymatic inhibitors of the substituted ethylenediamine type. S. L. Friess and W. J. McCarville. bibliog Am Chem Soc J 76:2260-1 Ap 20 '54

Racemization of tris-(ethylenediamine)-cobalt(III) ion in the presence of decolorizing carbon. B. E. Douglas. Am Chem Soc J 76:1020-1 F 20 '54

Separation of benzene and *n*-hexane by means of ethylenediamine as solvent; molar solutropy. A. P. C. Cumming and F. Morton. bibliog J Ap Chem 3:358-66 Ag '53

Silicon tetrafluoride complex with ethylenediamine. W. C. Schumb and P. S. Cook. Am Chem Soc J 75:5133 O 20 '53

Spectrophotometric investigation of a mixed complex ion formed by copper (II) ion with pyrophosphate ion and ethylenediamine. J. I. Watters and E. D. Loughran. bibliog Am Chem Soc J 75:4819-23 O 5 '53

Spectrophotometric investigation of a mixed complex of copper(II) ion with oxalate ion and ethylenediamine. R. DeWitt and J. I. Watters. Am Chem Soc J 76:3810-14 Jl 20 '54

Stabilities of complexes formed by some bivalent transition metals with *N*-alkyl-substituted ethylenediamines. H. Irving and J. M. M. Griffiths. diag Chem Soc J p213-23 Ja '54

Stability of metal chelates; N,N′-ethylenediaminedipropionic acid and N,N′-ethylenediaminetetrapropionic acid. R. C. Courtney, S. Chaberek, jr. and A. E. Martell. bibliog Am Chem Soc J 75:4814-18 O 5 '53

Steric effects and the stability of complex compounds; the chelating tendencies of C-substituted ethylenediamines with copper(II) and nickel(II) ions. F. Basolo, Yun Ti Chen and R. K. Murmann. bibliog Am Chem Soc J 76:956-9 F 20 '54

Steric effects and the stability of complex compounds; the chelating tendencies of N,N′-dialkylethylenediamines with copper (II) and nickel(II) ions. F. Basolo and R. K. Murmann. bibliog Am Chem Soc J 76: 211-14 Ja 5 '54

ETHYLENEDIAMINE tetraacetic acid

Amperometric titration of calcium with the disodium salt of ethylenediaminetetraacetic acid. H. A. Laitinen and R. F. Sympson. bibliog Anal Chem 26:556-8 Mr '54

Application of the complexones in metallurgical analysis. E. G. Brown. bibliog Metallurgia 49:101-5, 151-5 F-Mr '54

Chelation. H. F. Walton. il diags Sci Am 188: 68-70+ Je '53

Complex ions of chromium; the ethylenediaminetetraacetic acid complex with chromium (III). R. E. Hamm. Am Chem Soc J 75:5670-2 N 20 '53

Complexones in analytical chemistry. T. S. West. bibliog(41 ref) Chem Age (Lond) 69: 15-22 Jl 4 '53

Conductometric standardization of solutions of common divalent metallic ions. J. L. Hall and others. bibliog Anal Chem 26: 1484-6 S '54

Copper-ethylenediaminetetraacetic acid complex in alkaline solution. H. Wagreich and B. Harrow. bibliog Anal Chem 25: 1925-6 D '53

Determination of calcium and magnesium in limestones by the ethylenediamine tetraacetate method. J. W. Jordan and K. L. Robinson. Chem & Ind p687-8 Jl 11 '53

Determination of nickel in nickel plating solutions using disodium ethylenediamine tetra-acetate. K. E. Langford. Metal Finishing 52:71-3 S '54

Determination of tetraethyllead in gasoline by titration with ethylenediamine tetraacetate. O. I. Milner and G. F. Shipman. bibliog Anal Chem 26:1222-3 Jl '54

Effect of ethylenediamine tetraacetic acid on adenosinetriphosphatase activity. M. Gross. bibliog Science 118:218-19 Ag 21 '53

ETHYLENEDIAMINE tetraacetic acid—*Cont.*

Enhancement of lead excretion in humans by disodium calcium ethylenediamine tetraacetate. M. Rubin and others. bibliog Science 117:659-60 Je 12 '53

Improvements in the determination of small amounts of sulphur. D. M. Fitzgerald. bibliog(32 ref) J Ap Chem 4:490-6 S '54

Indirect titrimetric determination of the sulphate ion using ethylenediamine tetraacetic acid. R. Belcher and others. Chem & Ind p850-1 Jl 10 '54

Lanthanon complexes with ethylenediaminetetra-acetic acid. R. C. Vickery. Chem Soc J p 1181-8 Ap '54

Minor nutrients grow up. il Chem W 72:74+ Ap 11 '53

Modification of the distribution and excretion of radioisotopes by chelating agents. H. Hart and D. Laszlo. bibliog Science 118:24-5 Jl 3 '53

New treatment for lead poisoning. H. H. Schrenk. Ind & Eng Chem 46:sup 101A F '54

Noninterference of phosphate in an ethylenediamine tetraacetate method for serum calcium. A. D. Kenny and S. U. Toverud. Anal Chem 26:1059 Je '54

Polarographic determination of relative formation constants of metal complexes of ethylenediaminetetraacetic acid. K. Bril and P. Krumholz. bibliog J Phys Chem 57:874-9 D '53

Polarographic reduction of copper ethylenediamine tetraacetate. K. Bril and P. Krumholz. bibliog J Phys Chem 58:339-44 Ap '54

Polarographic study of the titanium-ethylenediaminetetraacetate complexes. R. L. Pecsok and E. F. Maverick. bibliog Am Chem Soc J 76:358-62 Ja 20 '54

Polarography of copper in ethylenediaminetetraacetic acid solutions. R. L. Pecsok. bibliog Anal Chem 25:561-4 Ap '53

Purification and properties of disodium salt of ethylenediaminetetraacetic acid as a primary standard. W. J. Blaedel and H. T. Knight. bibliog Anal Chem 26:741-3 Ap '54

Separation of adjacent rare earths with ethylenediamine-tetraacetic acid by elution from an ion-exchange resin. F. H. Spedding, J. E. Powell and E. J. Wheelwright. bibliog Am Chem Soc J 76:612-13 Ja 20 '54

Simultaneous titration of iron and copper with ethylenediaminetetraacetic acid. A. L. Underwood. Anal Chem 25:1910-12 D '53

Spectrophotometric determination of the stabilities of ethylenediaminetetraacetate chelates. V. L. Hughes and A. E. Martell. bibliog J Phys Chem 57:694-9 O '53

Spectrophotometric titrations with ethylenediaminetetraacetic acid; determination of magnesium, calcium, zinc, cadmium, titanium, and zirconium. P. B. Sweetser and C. E. Bricker. Anal Chem 26:195-9 Ja '54

Stoichiometry of titration of metal ions with disodium salt of ethylenediaminetetraacetic acid. W. J. Blaedel and H. T. Knight. bibliog Anal Chem 26:743-6 Ap '54

Thermodynamic quantities associated with the interaction between ethylenediaminetetraacetate and alkaline earth ions. F. F. Carini and A. E. Martell. bibliog Am Chem Soc J 76:2153-7 Ap 20 '54

Thermodynamics of metal chelate formation; the third and fourth dissociation constants of ethylenediaminetetraacetic acid. F. F. Carini and A. E. Martell. bibliog Am Chem Soc J 75:4810-13 O 5 '53

Titration of bismuth with ethylenediaminetetraacetic acid. A. L. Underwood. bibliog Anal Chem 26:1322-4 Ag '54

Titration of calcium and magnesium in milk and milk fractions with ethylenediamine tetraacetate. R. Jenness. bibliog Anal Chem 25:966-8 Je '53

Use of copper as the retaining ion in the elution of rare earths with ammonium ethylenediamine tetraacetate solutions. F. H. Spedding, J. E. Powell and E. J. Wheelwright. bibliog Am Chem Soc J 76:2557-60 My 5 '54

Analysis

Colorimetric determination of EDTA in soaps and detergents. A. Darbey. bibliog Soap & San Chem 29:81+ Ag '53

ETHYLENE glycol. See Glycol

ETHYLENE imine. See Ethylenimine

ETHYLENE oxide

Long glycol upturn halted. Chem & Eng N 31:5402 D 28 '53

Outlook for the oxide; more will be produced by ethylene oxidation than via ethylene chlorohydrin. Chem W 72:46+ My 23 '53

Reactions of anhydrosugars of the ethylene oxide type. A. K. Bose and others. bibliog Chem & Ind p869-70, 1257-8 Ag 15, N 21 '53

Thermal decomposition of ethylene oxide. K. H. Mueller and W. D. Walters. bibliog Am Chem Soc J 76:330-2 Ja 20 '54

Manufacture

Ethylene oxide and ethylene glycol; Stone & Webster-Badger. diag Pet Refiner 32:140-1 N '53

Ethylene oxide by direct oxidation. R. Landau. il Pet Refiner 32:146-7+ S '53

Ethylene oxide by direct oxidation of ethylene and from chlorohydrin. E. T. Borrows and D. A. Caplin. bibliog diags Chem & Ind sup S32-7 Ag 10 '53

Ethylene oxide; the Atlantic refining co., the Vulcan copper & supply co. diag Pet Refiner 32:140-1 N '53

Yields more ethylene oxide; direct oxidation of ethylene at Naphtachimie, France. il Chem Eng 61:136 F '54

ETHYLENIMINE

Ethylene imine ketones; stereochemistry and mechanisms of three-ring cleavage and closure. N. H. Cromwell and others. bibliog Am Chem Soc J 75:5384-9 N '53

Ethylenimine ketones, the stereoisomerism of 1-cyclohexyl-2-methyl-3-(*p*-phenylbenzoyl)-ethylenimine. N. H. Cromwell and R. J. Mohrbacher. bibliog Am Chem Soc J 75:6252-6 D 20 '53

Extensive animation of cotton with ethylenimine. L. M. Soffer and E. Carpenter. bibliog il Textile Res J 24:847-52 S '54

Synthesis and polymerization of N-phenylethylenimine and the synthesis of N,N'-diphenylpiperazine. H. W. Heine, B. L. Kapur and C. S. Mitch. Am Chem Soc J 76:1173 F 20 '54

Synthesis of some N-arylethylenimines. H. W. Heine and others. Am Chem Soc J 76:2503 My 5 '54

EUCALYPTUS oil

Processing eucalyptus oils; pictorial presentation of J. Bosisto & co., Melbourne, Australia. Chem & Eng N 31:4450-1 O 26 '53

EUCLID road machinery company

Earthmoving; everyone gets in the act; GM's purchase of Euclid Road Machinery. il Bsns W p56+ Ag 15 '53

EUCRYPTITE

Phase equilibria in the system lithium metasilicate; β-eucryptite. M. K. Murthy and F. A. Hummel. bibliog Am Cer Soc J 37:14-17 Ja 1 '54

EUGENITIN

Furo-chromones and -coumarins; degradation of visnagin, khellin and related substances; experiments with chromic acid and hydrogen peroxide; and a synthesis of eugenitin. A. Schönberg, N. Badran and N. A. Starkowsky. bibliog Am Chem Soc J 75:4992-5 O 20 '53

EUGENOL

Lignin synthesized by oxidation of eugenol with H_2O_2. S. M. Siegel. Chem & Eng N 32:3730+ S 20 '54

EULER, Leonhard, 1707-1783

Leonhard Euler and the Koenigsberg bridges. por Sci Am 189:66-70 Jl '53

EUPHADIENOL

Experiments on the side-chain of euphadienol. S. A. Knight and J. F. McGhie. bibliog Chem & Ind p24-5 Ja 2 '54

Studies in the euphadienol group. S. A. Knight and J. F. McGhie. bibliog Chem & Ind p920-1 Ag 29 '53

EUREKA Williams corporation

Sale approved. Comm & Fin Chr 178:2572 D 28 '53

EUROPE

European impressions, and a moral. J. J. McCloy. Am Pet Inst Proc 33(1):17-22 '53

See also

Electricity supply—Europe

Petroleum industry and trade—Europe

Steel industry and trade—Europe

Textile industry—Europe

Commerce

Europe is closing down dollar gap. Iron Age 172:80-1 D 17 '53

Freer trade and freer currencies. R. Makins. Comm & Fin Chr 178:2056-7 N 26 '53

OEEC members' trade now 75.7 percent free. For Comm W 51:10 F 22 '54

Standstill for export subsidies? Economist 169:360 O 31 '53

Trade between East and West. Economist 168:458-9 Ag 15 '53

Trade; why Europe looks to the East. il Iron Age 172:56-7 Ag 20 '53

See also

European payments union

Commercial policy

Freer trade in Europe. Economist 169:315-16 O 31 '53

Defenses

Atlantic decision; it's time to build the European army. Barron's 33:1 N 23 '53

Can Europe afford more defense? Steel 135:55 Jl 26 '54

See also

European defense community

Economic conditions

Developing European mass markets. R. Bartels. il Dun's R & Mod Ind 62:59-60+ O '53

Europe in perspective. Economist 169:496+ N 14 '53

Report on Europe; by Organisation for European economic cooperation. Economist 168:702-4 S 12 '53

Economic relations

United States

Agonizing reappraisal; Dulles stand in Paris has strong congressional support. F. Morley. Barron's 33:9 D 21 '53

American aid for Europe. Economist 169:967-8 D 26 '53

Politics and government

Choice for Europe. Economist 169:791-2 D 12 '53

Cloak and dagger. Economist 170:149 Ja 16 '54

From cold war to hot peace. M. Palyi. Comm & Fin Chr 178:2363+ D 17 '53

See also

European defense community

European political community (proposed)

EUROPE, Eastern

Behind the curtain. Economist 168:81-2 Jl 11 '53

See also

Agriculture—Europe, Eastern

Building trades—Europe, Eastern

Labor and laboring classes—Europe, Eastern

Machine tool industry—Europe, Eastern

Commerce

Butter for Soviet guns. Economist 170:225 Ja 23 '54

Swiss trade behind the Curtain. Economist 168:859 S 26 '53

Economic conditions

Truthcasts through the iron curtain; Radio free Europe operation. W. H. Nelson. Banking 46:120+ F '54

Economic policy

Communists and consumers. Economist 169:797-8 D 12 '53

Inflation in Communist countries. P. Einzig. Comm & Fin Chr 178:830 S 3 '53

Politics and government

Jugoslavia's troubled borders. Economist 168:316 Ag 1 '53

EUROPEAN atomic energy society

Europe forms atomic energy body. Chem & Eng N 32:3424 Ag 30 '54

EUROPEAN defense community

Agonizing reappraisal; Dulles stand in Paris has strong congressional support. F. Morley. Barron's 33:9 D 21 '53

American aid for Europe. Economist 169:967-8 D 26 '53

Europe and the defence community. Economist 168:183-4, 264-5 Jl 18-25 '53

Green light at Strasbourg. Economist 168:840-1 S 26 '53

Idea for Bermuda; EDC difficulties. Economist 169:467-8 N 14 '53

Laniel's pyrrhic victory. Economist 169:729-30 D 5 '53

M Bidault and the EDC. Economist 169:407-8 N 7 '53

Problems of the European defense community. M. Palyi. Comm & Fin Chr 178:1829+ N 12 '53

Threats between friends; Mr Dulles and M Bidault. Economist 169:871-2 D 19 '53

Two thoughts for Berlin. Economist 170:219 Ja 23 '54

EUROPEAN economic co-operation, Organization for. See Organization for European economic cooperation

EUROPEAN payments union

Convertibility in high German. Economist 169:681 N 28 '53

EPU and convertibility. Economist 168:717-18 S 12 '53

Future of EPU. Economist 169:438 N 7 '53

Red gold to the rescue. Economist 170:113 Ja 9 '54

EUROPEAN political community (proposed)

European political community. Economist 169:593-4+, 671-2 N 21-28 '53

EUROPEAN war, 1914-1918

Submarine operations

Q-ship; cause and effect. R. W. Smith. il U S Naval Inst Proc 79:532-41 My '53

EUROPIUM

Europium activation studies with monochromatic neutrons. R. E. Wood. Phys R 95:453-5 Jl 15 '54

Slow neutron resonances in europium. V. L. Sailor and others. bibliog Phys R 93:1292-6 Mr 15 '54

Analysis

Europium determination in rare earth mixtures. D. C. Foster and H. E. Kremers. Anal Chem 25:1921-2 D '53

Nuclear reactions

Radioactivity of Sm^{153} and Eu^{155}. M. R. Lee and R. Katz. bibliog Phys R 93:155-9 Ja 1 '54

EUTECTICS

Electrical conductivity of Ag_2HgI_4, Cu_2HgI_4 and their eutectoid. L. Suchow and G. R. Pond. Am Chem Soc J 75:5242-4 N 5 '53

EVANSTON, Illinois

Streets

Alternate night parking works. F. M. Andrews. Roads & Sts 96:54-5 D '53

Evanston's engineered traffic safety. P. Hirsch. il plan Pub Works 84:74-5 D '53

EVANSVILLE, Indiana

Industries

Hometown jobs; Evansville employers launch stay home, young man, high school course. Bsns W p 116+ Ag 8 '53

EVAPORATION

American potash & chemical corp. main plant cycle. M. L. Leonardi. flow sheet il diags Min Eng 6:Trans 203-8 F '54

Automatic evaporation of solutions. A. L. Downing and others. diags Chem & Ind p478-9 My 16 '53

Chemical engineering unit operations; evaporation. W. L. Badger and R. A. Lindsay. bibliog(64 ref) Ind & Eng Chem 46:87-90 Ja '54

EVAPORATION—*Continued*

Correlation of the solubilities of gases in low-vapour-pressure liquids by an evaporation analogy. G. Burrows and F. H. Preece. bibliog diags J Ap Chem 3:451-62 O '53

Energy aspects of evaporation. B. N. Reavell. Chem Age (Lond) 70:1050-1 My 8 '54; Abstract. Chem & Ind p601 My 22 '54

Erosion by melting and evaporation. K. Berman. bibliog il diag A S M E Trans 76: 397-405 Ap '54

Evaporation error in volume fractionation chromatography. C. Mader and G. Mader, jr. bibliog diags Anal Chem 25:1556-7 O '53

Evaporation from drops. W. E. Ranz and W. R. Marshall, jr. bibliog il diag Chem Eng Prog 48:141-6, 173-80 Mr-Ap '52; Discussion. H. Tonn. 49:388-9 Jl '53

Evaporation of germanium films from a carbon crucible. K. Lehovec and others. il J Ap Phys 24:513-14 My '53

Evaporation of liquids into their superheated vapors. Ju Chin Chu, A. M. Lane and D. Conklin. bibliog diag Ind & Eng Chem 45: 1586-91 Jl '53

Evaporation of resting water. K. C. D. Hickman and W. A. Torpey. il diag Ind & Eng Chem 46:1446-50 Jl '54

Evaporation of solids into laminar air streams. A. C. Plewes, R. M. Butler and H. E. Marshall. bibliog diags Chem Eng Prog 50:77-80 F '54

Factors influencing the properties of spray-dried materials. J. A. Duffie and W. R. Marshall, jr. bibliog il diags Chem Eng Prog 49:417-23 Ag '53

How Hanford evaporates fission wastes. C. E. Hirsch. il diag Chem Eng 60:184-5 N '53

Material transfer in turbulent gas streams; influence of shape on evaporation of drops of *n*-heptane. N. T. Hsu, K. Sato and B. H. Sage. bibliog(40 ref) diags Ind & Eng Chem 46:870-6 My '54

Maximum evaporation coefficient of water. K. C. D. Hickman. bibliog il diag Ind & Eng Chem 46:1442-6 Jl '54

Natural-circulation evaporation; two-phase heat transfer. E. L. Piret and H. S. Isbin. bibliog diag Chem Eng Prog 50:305-11 Je '54

Rate of evaporation of glycerol in high vacuum. D. J. Trevoy. bibliog diag Ind & Eng Chem 45:2366-9 O '53

Study of the propagation mode for metallic vapors in shadow-casting by vacuum evaporation of Au^{198} and Cr^{51}. L. E. Preuss. bibliog il diags J Ap Phys 24:1401-9 N '53; Correction. 25:136 Ja '54

Surface structures and the evaporation process; abstract. D. Wapler. Paint Oil & Chem R 116:20 D 31 '53

Variational formulas in evaporation theory. J. Greenstadt. bibliog Phys R 93:1140-8 Mr 15 '54

Which will it be demineralization or evaporation? S. B. Applebaum and M. C. McKeown. il Power Eng 58:76-7 Je '54

EVAPORATORS

Evaporative condenser head pressure control. Heat & Ven 51:93-4 Ja '54

Heat transfer of evaporating Freon with inner-fin tubing. C. Boling and others. bibliog diags Refrig Eng 61:1338-40+ D '53; Discussion. 62:60-1 Ja; 53+ F; 42 S '54

Increasing the capacity of a multiple-effect evaporator. S. Cottrell. Ind & Eng Chem 46:sup 113A-14A S '54

Laboratory evaporator. il Chem Age (Lond) 68:987 Je 27 '53

Maxim's tubeless evaporators. il diag Marine Eng 59:59-61 Mr '54

Replacement flow direct separation evaporator. M. S. Frenkel. diags Chem Age (Lond) 70:1099-103 My 15 '54

Self-cleaning evaporator with revolving wipers. diags Paper Tr J 138:26 Jl 30 '54

Small glass circulating evaporator for laboratory use. M. Beroza. diag Anal Chem 26: 1251-2 Jl '54

Thermal compression evaporator for spent sulphite liquor. D. Craig and others. flow diag il Pulp & Pa of Can 55:97-102 Ap '54

World's largest anti-pollution evaporator started by Northern. il Paper Ind 35:867-8 N '53

See also

Drying apparatus

Cleaning

Descaling of evaporator heating surfaces in cane sugar factories. N. O. Schmidt and L. F. Wiggins. il Ind & Eng Chem 46:867-70 My '54

EVERETT, Washington

Harbor

Deep-water disposal of pulp mill wastes into Port Gardner bay. G. T. Orlob and E. F. Eldridge. maps Sewage & Ind Wastes 26: 520-30 Ap '54

EVERGLADES

Conservation of the Everglades. H. W. Schull, jr. maps Am Soc C E Proc 79 [no 242]:1-5 Ag '53

Mapping the unknown Everglades. J. S. Beazley. Am Soc C E Proc 79 [no 210]:1-4 Jl '53

Pumps to tame Florida floods. H. W. Schull, jr. il maps Eng N 152:36-7 Ap 22 '54

Special equipment developed for surveying in Florida Everglades. K. M. Hartsfield. il map Civil Eng 23:474-6 Jl '53

EVIDENCE, Expert. See Expert evidence

EVIS manufacturing company

Magic in the metal; Evis water conditioner faces Federal trade commission charges. Chem W 74:28 Mr 27 '54

EVOLUTION

Evolution observed; study of bacteria through as many as 7,000 generations. F. J. Ryan. il diags Sci Am 189:78-80+ O '53

Is man alone in space? L. C. Eiseley. il Sci Am 189:80-2+ Jl '53

See also

Man—Origin and antiquity

EWING, Scott Preston, 1898-

R. M. Burns and Scott Ewing receive 1953 Whitney and Speller awards. por Electrochem Soc J 100:sup 101C Ap '53

EXAMINATIONS, Physical. See Physical examinations

EXCAVATING machinery

Adapting the machine to the man; International minerals & chemicals corp. T. M. Ware. il Min Cong J 40:40-3 Ag '54

Annual earthmoving industry conference, 5th. S A E J 62:75-9 Je '54

Bay City unwraps its biggest crawler. il Eng N 151:111+ O 29 '53

Clean machine is a better machine. il Constr Methods 36:142 S '54

Earthmoving and excavating equipment; shipments tabulated. Steel 134:184 Ja 4 '54

Earthmoving; everyone gets in the act; GM's purchase of Euclid Road Machinery. il Bsns W p56+ Ag 15 '53

Equipment geared for big fill job; Cherry Valley dam. L. L. Wise. il Constr Methods 36:50-3 S '54

Fast fleet moves 5,000,000 yd. for Vermillion Valley dam's earth fill. il Constr Methods 36:64-5 F '54

Film portrays big equipment accidents; safety film called The gamblers. il Constr Methods 36:74-5+ F '54

Fluid carriers for hydraulic units in earthmoving equipment; abstract. J. E. Jass. Automotive Ind 109:138+ N 1 '53

Four-day quickie; versatile earthmover performs all operations in fast-moving storage tank renewal. il Constr Methods 36:60-1 S '54

Gradalls pile up high score in five years with TVA. il Constr Methods 36:110+ Mr '54

Grader elevator moves 1,200 yd per hr. il Eng N 152:68+ F 25 '54

Latest in equipment, Russian version. il Constr Methods 36:154-6 Mr '54

Multiple uses of new convertible power equipment make it feasible to own. il Am Bld 75:164-6+ O '53

Open pit mining guidebook; earthmoving, bigger units call for better handling. il diags Eng & Min J 155:G34-7+ My '54

Pit material blended with dozers. il Roads & Sts 97:87-9 Ja '54

Power digger saves money for city. il Pub Works 85:75-6 Ag '54

EXCAVATING machinery—*Continued*

Raising strip-mine life; new-design eight-cu-yd dragline installed at the Lloyd no. 3 mine. A. E. Flowers. il Coal Age 59:82-6 Ja '54

Revolution in control; mining with big draglines in Florida phosphate field. R. H. Ramsey. il plans diag Eng & Min J 155:72-7 Ap '54

Rubber-tired earthmovers speed progress on Trans-Canada highway. il Roads & Eng Constr 92:132+ F '54

Stripping and loading coal with dragline units. il Coal Age 59:94-7 Je '54

What the contractor wants in earthmoving equipment. K. F. Park. Roads & Sts 97:52-5+ Jl '54

See also

Dredges
Earthmoving industry conference
Mining machinery
Road making machinery
Rock drills
Shoveling machines
Trenching machinery

Maintenance and repair

Dragline tracks reworked with welding. il Roads & Sts 97:62 F '54

Ease of maintenance, army style; illustrations with text. Constr Methods 36:66-8 Mr '54

Increase blade life, use less power. J. D. Newkirk. il diags Constr Methods 36:126+ Ap '54

Parts costs halved by automatic welding and hardfacing. il Roads & Sts 97:71-3+ S '54

EXCAVATION

Excavating presents tricky problem on park-topped underground garage in Mellon square, Pittsburgh. il Eng N 151:48+ N 5 '53

See also

Blasting
Drilling and boring (earth and rocks)
Excavating machinery
Shaft sinking
Street openings
Trenching machinery
Tunnels and tunneling
Wellpoint system

EXCAVATION, Subaqueous

See also

Blasting, Subaqueous
Petroleum—Well drilling, Subaqueous
Sulfur mines and mining—Subaqueous mining

EXCAVATIONS (archeology)

Amateur sicentist; the archaeology of New York city. A. G. Ingalls. il Sci Am 189:94-6 Jl '53

Forgotten empire of antiquity. S. Piggott. il maps Sci Am 189:42-8 N '53

History in a peat bog; floor of an ancient Danish lake yields relics of dark age tribal conflicts that are remembered today in the legends of Beowulf and King Arthur. T. G. Bibby. il map Sci Am 189:84-6+ O '53

EX-CELL-O corporation

Dairy machinery rentals adding to Ex-Cell-O's net. Barron's 33:23-4 D 21 '53

Five candidates for extra dividends; with comparative balance sheet items. Mag of Wall St 93:199 N 14 '53

EXCESS profits tax

After excess profits? problems for top management. J. F. H. Turton. Dun's R & Mod Ind 63:57-9+ F '54

Court construes outstanding indebtedness evidenced by bills of exchange in Excess profits tax law. Banking 46:70+ S '53

Excess profits; consumer apt to gain what government loses. J. Chamberlain. Barron's 33:3+ D 28 '53

EPT dies, no tears from industry. Steel 134:32 Ja 11 '54

Excess-profits-tax gadgets. H. J. Rudick. J Account 95:597-8 My '53

High taxes, a cushion but how soft? Bsns W p72-4 Ag 22 '53

Same, only more so; how death of excess profits tax would affect company strategy. Bsns W p27-8 D 5 '53

Truth about advantage of repeal. W. Gates. Mag of Wall St 93:318-19+ D 12 '53

What effect will the expiration of the excess profits tax have upon advertising expenditures? panel. Adv Agency 46:55+ Ag '53

EXCESS reinsurance association

Annual meeting, 20th, New York, March 24. Weekly Underw 170:768 Mr 27 '54

EXCHANGE, Foreign. See Foreign exchange

EXCHANGE rates. See Foreign exchange—Rates

EXCHANGES

Commodity markets, volume of trading in grain futures, 1949-1952. Survey of Cur Bsns 1953 Sup p97 [supplemented in monthly numbers]

See also

Cotton exchanges
Hedging

EXCHANGES, Literary and scientific

Facsimile for federal libraries. S. Adams. bibliog Special Lib 44:169-72 My-Je '53

Librarian and the development of machines. I. A. Warheit. Special Lib 44:272-3 S '53

O.E.E.C. documents exchange scheme. Chem & Ind p 1312 D 5 '53

EXCHANGES, Stock. See Stock exchange

EXCISE tax

Excise tax payments; changed procedure. Banking 46:101 O '53

Price tags must be cut. T. Metaxas. Iron Age 172:83 Ag 13 '53

Program for excise tax reduction. B. Ruml. Comm & Fin Chr 178:634 Ag 20 '53

Retailers' excise tax and the manufacturer. E. C. Brinkman. N A C A Bul 34:861-8 Mr '53

Ten reasons why the excise taxes on appliances should be repealed! Dom Eng 182:137+ N '53; Excerpt. Gas Age 112:86 O 22 '53

What the excise cuts mean to contractors. Dom Eng 183:121 My '54

EXCITATION equipment

Construction of a combined sources unit for emission spectrography. R. G. Stone and H. L. Bolton. bibliog diags J Sci Instr 31:175-8 My '54

New exciter omits commutator. il Power Eng 58:67 Je '54

Wrong lubricant causes failure of exciter coupling. il Elec World 140:154+ N 16 '53

EXCLUSIVE sales contracts. See Restraint of trade

EXCURSION boats

Miss Liberty, new excursion boat. il Marine Eng 59:52-3 Ag '54

EXECUTIVES

Answer to pressure; survey of research executives' hobbies. Chem W 74:62+ My 8 '54

Beating the odds on executive mortality; abstract. J. D. Ratcliff. Management R 42:66-7 F '53

Better health for executives. B. B. Reeve. Pet Refiner 33:253 Ja; 246+ F; 271 Ap; 203 Ag '54

Bosses' health; 6th Industrial health conference, Houston. Bsns W p 135 O 17 '53

Can executives be taught to think? B. H. Jarman. Advanced Management 19:5-8 Ja '54

Can young executives make the grade? interview with Douglas O. Yoder. Iron Age 173:74-5 F 11 '54

Continuously burgeoning industrial system calls for more and better top men. J. W. Irwin. Chem & Eng N 31:2526+ Je 15 '53

Day in the life of sanitary supply firm's head; Joseph Lassen of American chemical manufacturing co. D. Markstein. il Soap & San Chem 29:130-1+ N '53

Decision-making; acid test of executive competence; abstract. C. B. Randall. Management R 42:569-70 O '53

Designing a plant manager. Chem W 74:46+ Ap 24 '54

Developing engineers into executives. R. F. Pearse. bibliog Mech Eng 75:719-22 S '53

Developing Uncle Sam's management team. J. J. Corson. Advanced Management 18:8-13 Je '53

Do top men need aides? Bsns W p 122+ Ag 22 '53

Do we need an executive reserve? Chem & Eng N 32:3738+ S 20 '54

Do you want to be a president? J. F. Bassill. Management R 43:217-18 Ap '54

Evaluate your own executive methods. Management R 43:569-71 S '54

EXECUTIVES—*Continued*

Executive conservation. F. J. Curtis. Chem & Eng N 32:2131-3 My 24 '54

Executive turnover; growing headache. Chem W 73:20 D 5 '53

Executives face special health hazards. T. A. March. Iron Age 173:73-4 Je 3 '54

Executives have their retirement problems too; review of some observations on executive retirement, by H. R. Hall. H. Terrell. Personnel J 32:65-6 Je '53

Executives, what are they? M. Thorpe. Management R 43:82 F '54

For incentives; slashed red tape. Chem W 72:23-4 Ap 25 '53

Giving effective orders. R. B. Ross. Am Bsns 24:14-15+ Je '54

Good management men delegate authority. J. H. Gorsuch. Advanced Management 19:5-8 S '54

Greener fields; executive job-hunting. L. Stewart and J. Westerman. il Dun's R & Mod Ind 62:46-7+ N '53

Handling 1,500 executives; Macy's New York uses a system of regular small-group discussions. Bsns W p 181-2 O 31 '53

Helping executives remember; more and more companies try reading and memory courses. Bsns W p 132+ Ag 22 '53

Helping executives survive; Peoria adult physical fitness program. M. French. il Am Bsns 24:24-6+ Je '54

How many managers? abstract. R. D. Loken and W. C. J. Thake. Management R 42:64-5 F '53

How should a manager spend his time? P. F. Drucker. Elec Eng 73:166-8 F '54

How to reach the top, if that's what you really want. Chem Eng 61:234+ Ap '54

How to teach objective thinking to executives. W. C. Jackson. Advanced Management 19:17-20 S '54

How's your health? il Factory Management 112:68-74 Jl '54

Keep executives shipshape, too; Cleveland land survey shows how 18 companies handle physical examination plans. Steel 135:79 S 13 '54

Live executives are best! G. M. Saunders. bibliog A M A Archives Ind Hygiene & Occup Med 9:133-41 F '54; Same cond. Pet Refiner 32:287-8+ N '53; Abstract. Nat Safety N 69:70+ My '54

Make success your habit. R. S. Schultz. Factory Management 112:84-7 Ag '54

Making the most of a vacation. W. Schweisheimer. il Am Bsns 24:13+ Jl '54

Man-hunt for top executives. R. N. McMurry. Harvard Bsns R 32:46-62 Ja '54

Man who never has time. C. McPherson. Am Bsns 24:14-15 Ja '54

Must executives die young? abstract. Management R 43:562-3 S '54

New approach to executive selection. A. S. Judson. Harvard Bsns R 32:127-36 Mr '54

New illiteracy; abstract. W. H. Whyte, jr. Management R 43:80-1 F '54

Personalities; their impact on management action. W. J. E. Crissy. Personnel J 32:87-90 Jl-Ag '53

Quest for executive theories. Bsns W p50 S 19 '53

Records prove business executives good risks. H. E. Ungerleider. Weekly Underw 169:1455 D 12 '53; Same. East Underw 54:44 D 11 '53; Same cond. Nat Underw (Life ed) 57:23 D 11 '53

R.I.P.; the overworked executive; abstract. J. Kirk. Management R 43:143-4 Mr '54

Righting pension wrongs; plans for management in chemical industry. Chem W 74:19 F 6 '54

Salary insurance for disabled executives; abstract. E. Wheeler. Management R 43:626-7 S '54

Scott sales department recruits and trains future executives. Paper Ind 35:1006-9 D '53

Slide rules and executive posts. Bsns W p48 D 26 '53

Some characteristics of successful executives. C. Argyris. Personnel J 32:50-5 Je '53

Some problems arising from executives' promotions, transfers. P. L. Mitzner and A. E. Schneider. Personnel J 33:138-40 S '54

Speaking up for business. C. H. Greenewalt. il Dun's R & Mod Ind 62:1+ Ag '53

Target; executive stockpile. Chem W 75:22 Ag 21 '54

Test your executive pulling power. R. K. Malcolm. J Retailing 29:159-66+ Winter '53-54

Top executive; a firsthand profile. R. M. Wald and R. A. Doty. Harvard Bsns R 32:45-54 Jl '54

Wanted at once; top talent in the chemical industry. Chem W 73:14 Ag 8 '53

What American management men can learn from visiting European executive groups. W. T. Seney. Advanced Management 18:13-18 N '53

What has happened to Ward's former executives? W. Norris. Am Bsns 23:10-13 D '53

What it takes to be an executive in the paper industry. H. E. Whitaker. Tappi 37:sup 10A+ My '54

What makes a good executive? C. H. Greenewalt. Paper Ind 35:884-5 N '53

Why executives should advertise themselves. H. G. Bailey. Ptr Ink 243:138 Ap 24 '53

Your emotions, using them at work. Dun's R & Mod Ind 62:59-61 Ag '53

See also

Advertising managers
Business management
Corporations—Directors
Corporations—Presidents
Credit managers
Efficiency, Industrial
Employment management
Factory management
Foremen
Insurance companies—Officials
Organization in industry
Sales managers
Supervisory workers
Women as executives

Bibliography

Current reading list for sales executives and salesmen; executive development and leadership. Sales Management 72:97-9 Ap 1 '54

Salaries

Bidding for executives is lively, high. Bsns W p 114+ S 26 '53

Deferred compensation for executives. E. S. Hewitt. Trusts & Estates 92:901-5 D '53

Executive compensation; are gimmicks necessary? abstract. A. Patton. Management R 43:258-9 Ap '54

Executive compensation rose only one per cent in 1952 report of A.M.A. Chem & Eng N 32:224-5 Ja 18 '54

Executive compensation; tax gimmicks vs. incentives. A. Patton. Harvard Bsns R 31:113-19 N '53

Executive pay hikes slow up. Bsns W p66 D 12 '53

Executive salaries fluctuate with variable-fixed charges. D. Martin. Personnel J 32:97-8 Jl-Ag '53

Legacies of the salary freeze. A. Patton. Personnel J 32:133-9 S '53

New facts on executive compensation. Management R 42:97-8 F '53

Overtime pay policies for executive, administrative, and professional employees. J. M. Rosow. Personnel 30:105-12 S '53; Excerpts. Chem Eng 60:270+ D '53

Tricky to handle. Chem W 73:13-14 S 5 '53

Training

Build better bosses. Steel 134:81-8 Mr 22 '54

Business and industry must stop the increasing loss of good executives. D. C. Mitchell. Chem & Eng N 31:4207 O 12 '53

Catalyzing executives on the way up; Management development associates. Chem Eng 60:284+ S '53

Charting a realistic course for executive development. M. L. Rock and J. J. Grela. Personnel 30:367-74 Mr '54; Discussion. J. M. Trickett. 31:85-6 Jl '54; Reply. 31:183 S '54

Creative technique in executive development. H. H. Jacobs. Pub Util 53:208-16 F 18 '54

Developing managerial talent; abstract. F. J. Curtis. Chem & Eng N 32:2708 Jl 5 '54

Educational programs and executive development. J. W. Towle. Advanced Management 19:27-30 Je '54

Engineers should have program for administrative development; abstract. J. E. Walters. Chem & Eng N 32:2574 Je 28 '54

EXECUTIVES—Training—*Continued*

Evaluation of a unique two-year executive development plan; Bigelow-Sanford carpet co. R. D. MacTavish. Advanced Management 19:17-18 My '54

Evaluation of management development programs. W. R. Mahler. Personnel 30:116-22 S '53

Executive development; in-company vs. university programs. M. Anshen. Harvard Bsns R 32:83-91 S '54

Executive development program increases reading speed. il Am Bsns 23:22-3 D '53

Executive development takes new step; Bettinger corp. M. L. Jones. il Dun's R & Mod Ind 62:61-3 S '53

Executive training; abstract. M. I. Pickus. Tappi 37:sup 125A-6A My '54

Executive training, your neglected problem? D. F. Tver. Pet Refiner 32:93-4 N '53; 33: 241-2+ Ja '54

Executives learn by doing! E. C. Schleh. Personnel 31:81-4 Jl '54

Getting back to fundamentals in executive development. R. K. Stolz. Personnel 30: 434-44 My '54

Growing pains of executive development. P. Stryker. Advanced Management 19:14-16 Ag '54

How one company appraises management development programs; Humble oil & refining co. C. E. Reistle, jr. Min Eng 6: 802-4 Ag '54

How to think and act like an executive. C. D. Williamson. Sales Management 71:24-5+ Ag 15 '53

How we stimulated our executives' growth. V. E. Clark. Personnel J 33:101-2 Jl-Ag '54

How's your company's climate? M. L. Jones. Dun's R & Mod Ind 62:70-2 O '53

It's informality that counts; Dow's mode of developing latent managerial skills. il Chem W 73:14 Jl 11 '53

Learn to think straight; Executive methods group. il Chem Eng 61:242+ Mr '54

Management development; public utility executive program, University of Michigan. R. L. Dixon. Am Gas Assn Proc 1953: 81-4

New science of thinking for communicating, training, problem-solving; general semantics. M. L. Jones. il Dun's R & Mod Ind 62:43-5+ D '53

Not just pulling, pulling together; Cyanamid's Kilby. Chem W 73:16-17+ Jl 4 '53

Operation big switch; chemical division of Celanese corp. Chem W 75:18 Jl 3 '54

Rotational role playing used to develop executives. B. J. Speroff. Personnel J 33:49-50 Je '54

$10,000-50,000-a-year freshmen; how American management association trains executives. il Chem Eng 60:258+ D '53

Top-management view of supervisory and management development. O. A. Ohmann. Am Pet Inst Proc 33(1):73-7 '53

Train executives while they work. R. C. Sampson. Harvard Bsns R 31:42-54 N '53

Training for management in the large concern. E. L. K. Frost. Chem & Ind p412-14 Ap 10 '54

Training for management in the medium concern. J. Maddock. Chem & Ind p470-2 Ap 24 '54

Training tomorrow's leaders; a continuing challenge. D. McGregor. Management R 43:280-2 My '54

What good are role-playing techniques? executive development program. B. Wilkinson and J. H. Myers. Advanced Management 19: 23-4 My '54

Which university program for executives? M. D. Cleary. Am Bsns 24:22+ Jl '54

Woodsmen no longer; policy on management training. Chem W 75:14-15 Jl 3 '54

EXECUTIVES' wives

Wife, home, greatly affect personnel man's progress. L. A. Appley. Personnel J 32:10-14 My '53

EXECUTORS and administrators

Basic trust services, executorship. E. C. MacNeill. Banking 46:65-6 Ag; 58-9 S '53

Fiduciary capacity; national banks. F. C. Fiechter, jr. Burroughs Clearing House 38:90+ F '54

Trust accounting and auditing; laws and government regulations. H. S. Croft. Trusts & Estates 92:654-6 S '53

EXHAUST systems

Annual cost to own and operate the industrial duct system. A. C. Stern. Heat & Ven 51:118+ Ag '54

Checking dust control systems. W. G. Hazard. il Safety Maint & Prod 108:44-6 S '54

Controlling uranium dust. H. I. Miller, jr. diags Heating-Piping 26:109-13 S '54

Design factors in a dust control system. W. O. Vedder. plan diags Sheet Metal Worker 45:54-5 Jl; 78-81 Ag '54

Design of exhaust systems; new series (cont). F. H. Stebbins. il diags Sheet Metal Worker 45:67-70 N; 68-72 D '53; 88-90+ Ja; 74+ F; 68-70+ Mr; 88-9+ My; 56-7 Jl '54

Exhaust for hot processes. W. C. L. Hemeon. diags Heat & Ven 51:83-90 Ag '54

Report on closed hood installations at Iroquois Falls. J. C. Jordan. il diags Paper Tr J 138:14-19 Ap 30 '54

Turner & Brown corrosive fume exhaustion equipment. il Metallurgia 49:142-3 Mr '54; Same abr. Chem Age (Lond) 69:1286 D 19 '53

Ventilation problem; fumes given off from tank during a hot dip cleaning operation not properly handled by hood. N. N. Wolpert. diag Heat & Ven 51:124-6 Mr '54

EXHIBITION buildings

Coliseum construction to start in April for New York's first public exhibit area. il Eng N 152:26 Mr 25 '54

New York's new show place; Kingsbridge armory. il Bsns W p27 N 21 '53

Parabolic pavilion, a spectacular testimonial to architect-engineer collaboration; livestock-judging pavilion of a state fair. il diags Arch Forum 97:134-9 O '52

Precast structural members produced on floor slab of beef exhibit barn. il Constr Methods 36:78-9+ Ap '54

Prestressed cow palace for Los Angeles. C. J. Pankow, jr. il Concrete 61:3-4+ D '53

Heating and ventilation

Heating all outdoors at Chicago's navy pier. M. W. Oettershagen and H. C. Gurney. il diags Heating-Piping 26:104-5 Jl '54

EXHIBITIONS

Basic materials conference and exposition, 2d, Chicago, May 17-20; list of committee members, sponsors, exhibitors, description of exhibits, speakers; program. Materials & Methods 39:119+ My '54

Diamond jubilee of 1954 and its effect on street lighting of tomorrow. W. E. Hawkins and others. il Illum Eng 49:427-30 S '54

Do-it-yourself; exposition bonanza. il Sales Management 73:16+ pt 2 Jl 1 '54

Expert looks at European expositions. S. Poliak. il Sales Management 70:21-2+ pt 2 Ap 1 '53

Fairs and exhibitions. Published irregularly in Foreign commerce weekly

Here is the man you have to sell at a show. J. T. Fosdick. Sales Management 72:59-60+ pt 2 Ja 1 '54

How a show is put together. il Sales Management 72:18-20 pt 2 Ja 1 '54

How do you know who's at the show? audit of attendance and audience reaction study. J. T. Fosdick. Sales Management 71:20+ pt 2 Jl 1 '53

Industrial shows. Published in monthly numbers of Industrial marketing

Industry gets going with a whopping do-it-yourself show. il Sales Management 70:108-9 Ap 15 '53

Los Angeles has own show organization. il Sales Management 72:67-8 pt 2 Ja 1 '54

Show 'em what to see; delegates see motion pictures of displays in exhibit hall as stimulus to visit exhibits. il Sales Management 71:70+ pt 2 O 1 '53

Survey of a first show a daring project; Clapp & Poliak, inc. tossed show research project to exhibitors. J. T. Fosdick. Sales Management 71:53-4 pt 2 O 1 '53

EXHIBITIONS—*Continued*

Unions promote their labels with a trade show; AFL Union label industries exposition. R. F. Leheney. Sales Management 71:59-62 pt 2 Jl 1 '53
What goes into the promotion of a successful industrial exposition? H. E. Conrad. il Sales Management 71:49-53 pt 2 Jl 1 '53
What it takes to get publicity at a trade show. A. Rose and H. A. Smith. Sales Management 73:20+ pt 2 Jl 1 '54

See also
British industries fair
Fairs
also subdivision Exhibitions under special subjects, e.g.
Aeronautics
Automobiles
Chemical industries
Construction equipment
Electric apparatus and appliances
Electric industries
Heating industry
Household products industries
Machinery
Office appliances
Packaging
Physical instruments
Radio apparatus
Road making machinery
Textile machinery

Europe

European trade shows beckon U.S. industrial exporters. M. Moskowitz. il Ind Marketing 39:54-6+ Mr '54
What a display builder sees in Europe. L. Levi. il Sales Management 71:23-8 pt 2 O 1 '53

EXHIBITS

Ban on free sketch means more value to exhibit buyer. L. E. Levi. il Sales Management 72:sup25A-6A pt 2 Ap 15 '54
Bell measures impact of county fair exhibit. il Sales Management 70:54+ pt 2 Ap 1 '53
Can industrial exhibitors use museum display techniques. D. M. MacMaster. il Ind Marketing 39:54-6 Jl '54
Colorful displays for good public relations; Ready mixed concrete co. R. A. Latimer. il Rock Prod 57:219+ Ag '54
Commercial exhibit. J. M. Rathmell. J Marketing 18:271-81 Ja '54
Co-op exhibit economical; United book displays co. il Sales Management 73:26+ pt 2 Jl 1 '54
Cost reduction show; Chambers works. il plan Factory Management 112:84-97 F '54
Dedicate million dollar stone plant; New York trap rock corp.'s unique floating exhibit, the Riverama. L. Amacher. il Rock Prod 57:84-5 Jl '54
Don't sell sex short; models at trade shows. J. Lowry and P. Ramsdale. il Sales Management 71:13-15 pt 2 Jl 1 '53
European trade shows beckon U.S. industrial exporters. M. Moskowitz. il Ind Marketing 39:54-6+ Mr '54
Exhibit clinic. il Sales Management 72:39-43 pt 2 Ja 1; 73:33-5 pt 2 Jl 1 '54
Homelite takes a fancy to fairs. P. J. Halperin. il Sales Management 71:48-50 pt 2 O 1 '53
How to put up an exhibit in Juarez, Mex. R. B. Stockton. Adv Agency 46:80-2+ Je '53
Kenilworth Steel holds novel production show to demonstrate new ideas. Automotive Ind 110:20 Je 15 '54
Looked at your exhibit results lately? J. T. Fosdick. Sales Management 72:sup 13A-14A pt 2 Ap 15 '54
Minikin millions; display by International Nickel to dramatize rarity of platinum group. il Chem W 74:47 Ja 2 '54
Most versatile display unit gains popularity. il diags Sales Management 71:30-2+ pt 2 Jl 1 '53
NIAA exhibit contest. il Sales Management 71:37-8+ pt 2 Jl 1 '53
Phonomimicry; new exhibit technique; add recorded sound to pantomime. Sales Management 71:15-16 pt 2 O 1 '53
Pre-fab exhibit solves tight budget problem. C. B. Anderson. il Sales Management 71:31-3 pt 2 O 1 '53
Printers' ink 1954 advertisers' annual; exhibits. Ptr Ink 245:366-8+ sec 2 O 23 '53
Show research costs exhibitors little. J. T. Fosdick. Sales Management 70:36+ pt 2 Ap 1 '53
Special shows sell. Steel 133:95 D 7 '53
Televised lab test knocks screws loose at trade show; Standard pressed steel co. il Ind Marketing 39:84 Jl '54
They've put a new twist on promotional medium; Hiram Walker, Behr-Manning. il Sales Management 72:50-6 pt 2 Ja 1 '54
Too many trade shows? industrialists differ. Ind Marketing 39:142-9 Je '54
What a buyer wants at a show. S. W. MacKenzie. Sales Management 72:26+ pt 2 Ja 1 '54
What good are exhibitless exhibits? Triple industrial supply convention conference booth program. Sales Management 73:42 pt 2 Jl 1 '54
What they don't know hurts you; exhibit impact studies can tell what show visitors see and remember. J. T. Fosdick. il Sales Management 73:52+ pt 2 Jl 1 '54

See also
Banks and banking—Exhibits
Gas companies—Exhibits
Insurance companies—Exhibits
Museum exhibits

EXHIBITS, Traveling

Auditorium on wheels; Armstrong cork company's Merchandising motorcade. il Sales Management 73:40-1 Jl 15 '54
Classroom tv; something new in industrial exhibits? il Ind Marketing 39:65 Ap '54
Easy does it; Consumers power co.'s kitchen demonstration van includes numerous ideas usable by the handicapped. il Elec World News ed 140:24 D 21 '53
40 suitcases pack this complete stage; six men can set it up in three hours; portable setting for the Sealtest sales meetings. il Ptr Ink 243:44-5 Ap 24 '53
Four reasons for exhibiting at fairs; Hotpoint exhibit trailer. C. W. Meade. il Sales Management 72:sup29A-30A pt 2 Ap 15 '54
G-E adds up on operation choo-choo. J. F. McBride. il Sales Management 71:28-9 Jl 15 '53
Industrial circus starts two-year pilgrimage; Yale & Towne mfg. co. il Ptr Ink 243:44 Ap 10 '53
It sold 4,000 bedroom sets; Furniturama, rolling furniture showroom. il Sales Management 72:48 Ja 1 '54
Merchandizing on wheels. Steel 135:129 Jl 19 '54
Mobile exhibit and meeting roll up sales; Westinghouse electric corp. il Sales Management 71:57-9 pt 2 O 1 '53
Mobile exhibit brings along its own portable auditorium; Carborundum co. il Ind Marketing 39:46 F '54
Mobile showrooms move the goods. il Steel 133:55 N 23 '53
Montana power co. puts a premium on rural sales. D. J. McGonigle. il Elec World 140:180+ Jl 13 '53
New Westinghouse display coach doubles as auditorium and exhibit hall on wheels. il Ptr Ink 244:44 Ag 28 '53
Now machine tools hit the road; Cincinnati lathe & tool co. il Sales Management 72:100+ Mr 15 '54
Packing cases unfold into display cases for traveling exhibit. il diags Arch Forum 100:146-9 Ja '54
Plexiglas tells all through application exhibit. il Sales Management 70:88-90 My 20 '53
Roll-along demonstrators. il Sales Management 73:64-6 S 1 '54
Sales shows hit the road. il Steel 134:76 F 1 '54
Sanitary supply showroom on wheels. il Soap & San Chem 29:148-9 Mr '53
Shows; industry box office strong. R. M. Lorz. il Iron Age 172:88-9 Ag 13 '53
Siamese trucks, collapsible walls make mobile exhibit; Armstrong cork co. il Ind Marketing 39:51 My '54
Tailoring a truck body that will be a rolling show room. il Bsns W p78-80+ O 17 '53
Trailer sells commercial cooking. il Elec World 140:136 O 5 '53
Try traveling demonstrations. il Sales Management 71:121-2+ O 1 '53

EXHIBITS, Traveling—*Continued*

Yale takes its mountain to Mahomet. J. A. Shellenberger. il Sales Management 70:59-61 pt 2 Ap 1 '53

See also

Motor trucks in selling

EXPANDED metal. See Sheet metal, Expanded

EXPANDED plastics. See Plastic materials, Cellular

EXPANDED shale institute

Annual fall meeting, Portland, Ore. Sept. 23-26. Rock Prod 56:139+ N '53

Annual meeting, Portland. Concrete 61:44 N '53

Annual meeting, 2d, Louisville, April 24-27. Concrete 62:34 Je '54; Rock Prod 57:85 Jl '54

EXPANDED sheet metal. See Sheet metal, Expanded

EXPANDING universe. See Universe

EXPANSION (heat)

Adiabatic compression and expansion of polystyrene. H. L. Toor and S. D. Eagleton. bibliog diag J Ap Chem 3:351-4 Ag '53

Coefficients of thermal expansion for zirconium. R. B. Russell. bibliog(35 ref) il J Metals 6:Trans 1045-52 sec 2 S '54

Elasticity and thermal expansion of germanium between −195 and 275° C. M. E. Fine. bibliog J Ap Phys 24:338-40 Mr '53

Lattice parameters, expansion coefficients, and atomic and molecular weights; X-ray techniques for precision determination. M. E. Straumanis. bibliog(36 ref) il diags Anal Chem 25:700-4 My '53

New method for determining linear thermal expansion of invar geodetic surveying tapes. P. Hidnert and R. K. Kirby. bibliog il diag J Res Nat Bur Stand 50:179-85 Ap '53

Thermal contraction of a split hollow cylinder. W. Karush and A. V. Martin. J Ap Phys 24:1427-31 D '53

Thermal expansion of anisotropic metals. B. G. Childs. bibliog(36 ref) Rs Mod Phys 25:665-70 Jl '53

Thermal expansion of invar tapes tested by electrical resistance. il Civil Eng 23:568 Ag '53; Same cond. diag Elec World 140:120+ O 5 '53

EXPANSION of gases. See Gases

EXPANSION problems. See Business management—Expansion problems; Industrial expansion

EXPENSE accounts. See Salesmen—Expenses

EXPERIMENTAL biology, Federation of American societies for. See Federation of American societies for experimental biology

EXPERIMENTAL roads. See Roads, Experimental

EXPERT evidence

Expert witness. W. V. Evans. Ind & Eng Chem 46:sup25A-6A+ Ag '54

Technical witness; preparation for court appearance; the attorney's viewpoint. T. D. Wade. Ind Med 22:529-33 N '53

EXPLOSIONS

Absorption spectroscopy of explosions. P. L. Hanst and A. L. Myerson. diags R Sci Instr 25:469-70 My '54

Cause of Novadel explosion at Buffalo still undetermined. il Chem & Eng N 31:4098+ O 5 '53

Engineers probe Cleveland street blast. il Eng N 151:24 S 24 '53

Fire and explosive hazards. R. Long. bibliog il Chem Age (Lond) 70:567-73, 785-8 Mr 6, Ap 3 '54

Gas explosion liabilities determined by courts. L. T. Parker. Am Gas J 180:24+ Ja '54

Heavy casualty loss in chemical blast near Buffalo; Lucidol division plant of Novadel-Agene corp., at North Tonawanda. Nat Underw 57:2 O 1 '53

Industrial fires and explosions from electrostatic origin. R. Beach. bibliog diag Mech Eng 75:307-13 Ap '53; Discussion. 75:743-5 S '53

New concept of explosion testing of aircraft equipment; abstract and discussion. W. K. Klose. S A E J 62:21 Ap '54

Report of research and technologic work on explosives, explosions, and flames; fiscal years 1951 and 1952. B. Lewis. bibliog (81 titles) 51 pls U S Bur Mines Rep of Invest 5006:1-66 '53

Spall effects produced by a cylindrical and a spherical charge of high explosive. W. A. Allen and W. Goldsmith. bibliog il diags J Ap Phys 25:813-14 Je '54

Spectral and pressure observations of explosion phenomena. B. W. Bullock and S. Silverman. il diags Opt Soc Am J 43:389-94 My '53

Surface motion associated with obliquely incident elastic waves. J. Pearson and J. S. Rinehart. diags Acoustical Soc Am J 25:217-19 Mr '53

Texas congressman seeks probe of claims from Texas City disaster. C. W. Thompson. East Underw 54:26 Jl 3 '53

Thermal explosions of diborane-oxygen mixtures. A. T. Whatley and R. N. Pease. bibliog Am Chem Soc J 76:1997-9 Ap 5 '54

Two Michigan explosions. Sewage & Ind Wastes 26:240 F '54

Velocity attenuation of explosive-produced air shocks. J. Savitt and R. H. F. Stresau. diags J Ap Phys 25:89-91 Ja '54; Correction. 25:1208 S '54

Victims unrequited; 1947 Texas City disaster. Chem W 72:22+ Je 20 '53

Violent reaction between Al and chlorinated hydrocarbons cited. Chem & Eng N 32:1824 My 3 '54

See also

Coal mines and mining—Accidents and explosions

Crankcases—Explosions

Detonation

Diesel engines—Explosions

Dust explosions

Inflammable liquids

Inflammable mixtures

Photography of explosions

Sewer explosions

EXPLOSIONS, Photography of. See Photography of explosions

EXPLOSIVES

Determination of the critical constants of liquid explosives. D. T. Lewis. bibliog(30 ref) J Ap Chem 3:154-60 Ap '53

Explosive decomposition of triethylammonium nitrate-dinitrogen tetroxide mixtures. C. C. Addison and N. Hodge. Chem & Ind p 1315 D 5 '53

Explosive nature of the reaction between certain diazotized substituted benzenes and sodium polysulphide. R. G. W. Hollingshead and P. E. Garner. bibliog Chem & Ind p 1179-80 O 31 '53

Factors affecting the incendivity of permissible explosives. N. E. Hanna and others. pl U S Bur Mines Rep of Invest 5051:1-11 '54

Government held not liable for injuries caused by explosives left in former camp; United States v. Inmon. Weekly Underw 169:969 O 17 '53

Hardness plateaus and twinning in explosively loaded mild steel. J. Pearson and J. S. Rinehart. il diag J Ap Phys 25:778-81 Je '54

Headed for another bang-up year. il Steel 135:55 Jl 19 '54

Investigations on the explosibility of ammonium nitrate. J. J. Burns and others. bibliog 16pls U S Bur Mines Rep of Invest 4994:1-19 '53

New method of measurement of the incendivity of explosives to firedamp. R. L. Grant and others. pl U S Bur Mines Rep of Invest 5050:1-4 '54

Report of research and technologic work on explosives, explosions, and flames; fiscal years 1951 and 1952. B. Lewis. bibliog (81 titles) 51 pls U S Bur Mines Rep of Invest 5006:1-66 '53

Test new explosive at experimental taconite mine. il Iron Age 174:62 Jl 15 '54

See also

Blasting

Detonation

Nitrocellulose

Nitromethane

Safety measures

Ammonium nitrate wharf rules relaxation announced. Oil Paint & Drug Rep 165:4+ Mr 8 '54

EXPLOSIVES—Safety measures—*Continued*

Safe storage, handling, and use of commercial explosives in metal mines, nonmetallic mines, and quarries. D. Harrington and J. H. East, jr. bibliog 12pls U S Bur Mines Information Circ 7674:1-28 '54

Transportation

I.C.C. raps driving of truck that exploded. Ry Age News ed 136:9-10 Ja 4 '54

EXPORT advertising. See Advertising, Foreign

EXPORT credit insurance. See Insurance, Export credit

EXPORT-import bank of Washington

Business has its say on Ex-im. Bsns W p 142 O 31 '53

Earns $53.8 million net in year 1953. For Comm W 51:23 Ja 25 '54

Export-import bank finances sales of U.S. cotton to Japanese market. For Comm W 50:26 N 16 '53

Ex-im bank insures cotton exports against war risk, expropriation. For Comm W 50:24 N 23 '53

Eximbank loans to foreign governments and foreign nationals prove profitable for U.S. R. G. Gibbs. Chem & Eng N 31:4064+ O 5 '53

Ex-im bank pays $22.5 million in dividends. For Comm W 50:4 O 5 '53

Fighting out ex-im's pursestring policy. Bsns W p 136-8 Ag 15 '53

Latin America expresses anxiety over possible new loan restrictions. Eng N 151: 73-4 Ag 20 '53

New Zealand plans lumber, paper projects with export-import loan. For Comm W 51: 28 F 22 '54

Protection provided for overseas loans; role of bank. E. Stone. Spectator 162:32-3+ Je '54

EXPORT trade

Annual review of developments in chemical and chemical process industries; import-export gap narrows. L. N. Markwood. Chem & Eng N 32:17-19 Ja 4 '54

Bullish exporters. Bsns W p 170-1 N 21 '53

Chrysler takes more than its share of increased auto export business. F. G. Lawrence. il Steel 135:83-4 S 20 '54

Competition for steel exports. Economist 169:833-5 D 12 '53

Engineering exports in the balance. Economist 168:470-1 Ag 15 '53

Export policy toward Soviet bloc is unchanged. S. Weeks. For Comm W 51:22 Ja 25 '54

Export trade; its industry's job now. S. W. Baker. Steel 134:50-1 My 31 '54

Foreign trade; a fair, fast course; McGraw-Hill international corp. report on outlook. Chem W 74:34+ Ja 2 '54

Future brightens for export trade. Steel 134: 103 Ap 19 '54

Marriage of convenience; exporters and chemical producers. il Chem W 73:50+ N 7 '53

Putting the pressure on exports. Chem W 73:46-8 O 17 '53

Uncompetitive exports. Economist 169:682 N 28 '53

U.S. agricultural exports down 30 percent. For Comm W 50:13 N 9 '53

Why industrial public relations is a means to market development and a weapon against communism. K. E. Jensen. Ptr Ink 245:48-9 O 2 '53

World chemical trade realigns. Chem & Eng N 32:2464-5 Je 21 '54

World trade leads. Published in Foreign commerce weekly

See also

Balance of payments
Commerce
Consular invoices
Foreign exchange
Memphis international center
Tariff
United States—Commerce

Advertising

See Advertising, Foreign

Bibliography

World trade publications. Published irregularly in Foreign commerce weekly

Finance

Aircraft and exports. Economist 170:51 Ja 2 '54

CIC and bank lending. Economist 169:977-8 D 26 '53

Easier export finance for aircraft and aero-engines; Air finance, ltd. Economist 169: 273, 513 O 24, N 14 '53

Export subsidies to go. P. Einzig. Comm & Fin Chr 178:1738 N 5 '53

Extended credits for exports? Economist 169:761-2 D 5 '53

Finance for aircraft exports. Economist 168: 719 S 12 '53

Financing German exports; German-Greek transaction. Economist 169:669+ N 28 '53

Protection provided for overseas loans; role of Export-import bank. E. Stone. Spectator 162:32-3+ Je '54

See also

Export-import bank of Washington

Government aid

Government drive on to expand market for farm products abroad. Oil Paint & Drug Rep 164:3+ N 30 '53

Orientation sessions offered for traders. For Comm W 51:7 F 15 '54

Marketing

Export markets worth fighting for. Steel 135:77 Jl 12 '54

Exports; U.S. faces tougher selling. K. W. Bennett. il Iron Age 173:75 Mr 18 '54

World markets problem studied by Trade board. Oil Paint & Drug Rep 165:36 Je 28 '54

Worldwide cheesecake. W. C. Grant. Bsns W p62 Ag 22 '53

Regulation

Bureau of foreign commerce chemical export procedures overhauled. Oil Paint & Drug Rep 165:3+ F 22 '54

Controls extended to vessels for scrapping. For Comm W 50:24 O 5 '53

Ease-up on exports. Chem W 74:15-16 My 8 '54

Export controls relaxed on chemicals, other items. Oil Paint & Drug Rep 165:3+ Ap 5 '54

Export declarations for official use only. For Comm W 50:18 Ag 10 '53

Exports; ease east Europe embargo. N. R. Regeimbal. Iron Age 174:65-6 S 2 '54

Increasing foreign barriers to U.S. motor vehicle exports. Automotive Ind 110:68-70+ Ap 1 '54

New license to aid U.S. exporters. For Comm W 50:19 Ag 17 '53

New licenses save time for exporters. For Comm W 50:17 N 16 '53

New Yorkers denied export privileges; Atlantic & Pacific wire & cable co. For Comm W 50:19 Ag 3 '53

Pig iron and other metal products placed under general license. For Comm W 50:19 N 9 '53

Supplies improve, export controls eased on 70 steel mill products. For Comm W 50:19 Ag 31 '53

Trade with Russia; the lid is off on 30 per cent of once-banned metalworking equipment. Am Mach 98:198-9 S 13 '54

U.S. government actions. Published in Foreign commerce weekly

Statistics

Foreign trade; competition returns, U.S. trade levels off; biennial facts and figures. K. L. Anderson and C. P. Blackwell. Ind & Eng Chem 46:1135-8 Je '54

Foreign trade; value of exports by geographic regions and by leading countries, by economic classes and by principal commodities, 1949-1952. Survey of Cur Bsns 1953 Sup p 105-8 [supplemented in monthly numbers]

EXPRESS companies

See also

Railway express agency

EXPRESSWAYS
Atlanta builds freeway to relieve congestion. M. E. Cox and others. il maps diags Civil Eng 24:141-9 Mr '54
Boston artery link gets green light. il Eng N 152:45-6 Ap 22 '54
Detroit pushes expressway system through congested urban area. H. C. Coons. il maps diag Civil Eng 24:18-21 Ja '54
Expressway programs need good legal tools. D. R. Levin. il Roads & Sts 97:50-4 Je '54
Heating provides built-in safety for expressway ramps. L. F. DeMarsh. il Pub Works 85:92+ Ag '54
Modern macadam pavement chosen for heavy duty expressway. F. Swineford. il Pub Works 85:69 Je '54
St Louis waited 25 years. il map Bsns W p 194-6 N 14 '53
Traffic signs for expressways; abstract. W. F. Bauch, jr. Roads & Eng Constr 92:163-4 Ap '54
Urban expressways need flexible plan. M. E. Cox. Roads & Sts 97:68 Ap '54

EXTENSOMETERS
Creep tests in inert atmospheres. A. J. Fenner and G. Willoughby. il diags J Sci Instr 30:406-7 N '53
Design of extensometer for creep studies. B. R. Gossick. il diags R Sci Instr 25:907-9 S '54
Extensometer for polymeric materials. A. G. H. Dietz and F. J. McGarry. il diags R Sci Instr 25:740-5 Ag '54
Sensitive recording extensometer. G. R. Hyde. diags J Sci Instr 31:313-14 S '54
Single crystal extensometer. A. J. Kennedy. bibliog diags R Sci Instr 24:505-7 Jl '53

EXTRA editions. See Newspapers—Extra editions

EXTRA expense insurance. See Insurance Extra expense

EXTRACTION apparatus
Characteristics of a Podbielniak centrifugal extractor. N. Barson and G. H. Beyer. bibliog(27 ref) il diags Chem Eng Prog 49:243-52 My '53
Concentration gradients in spray and packed extraction columns. T. E. Gier and J. O. Hougen. bibliog flow sheet il diags Ind & Eng Chem 45:1362-70 Je '53
Continuous liquid-liquid extraction apparatus. J. E. Danieley. bibliog diag J Chem Educ 30:179 Ap '53
Continuous liquid-liquid extractor for organic solvents denser than water. R. E. Harman. diag J Chem Educ 30:261 My '53
Correlation of flooding velocities in packed columns. E. H. Hoffing and F. J. Lockhart. bibliog diag Chem Eng Prog 50:94-103 F '54
Effect of tower height in a solvent extraction tower. R. M. Kreager and C. J. Geankoplis. bibliog flow diag diags Ind & Eng Chem 45:2156-65 O '53
Extraction equipment. D. C. Freshwater. bibliog(34 ref) il diags Chem Age 71:647-52 S 25 '54
Flow of liquids through perforated-plate liquid extraction towers. R. J. Bussolari, S. Schiff and R. E. Treybal. bibliog diag Ind & Eng Chem 45:2413-17 N '53
Generalized correlation of flooding rates. B. C. Sakiadis and A. I. Johnson. bibliog(26 ref) Ind & Eng Chem 46:1229-39 Je '54
Improved extractor design; patent. diag Chem Eng 61:256 Ap '54
Inside a spinning tube centrifugal liquid-liquid extraction. il diag Chem Eng 61:284+ F '54
Large scale continuous extractor for laboratory purposes. H. S. Kamphausen. diags Chem & Ind p 1053-4 O 3 '53
Liquid-liquid extraction in refineries. P. W. Sherwood. il Chem Age (Lond) 70:623-5 Mr 13 '54
Liquid-liquid extractor. il Chem Eng 61:286 Ja '54
Miniature mixer settler for continuous countercurrent solvent extraction. H. W. Alter, J. W. Codding and A. S. Jennings. diags Anal Chem 26:1357-61 Ag '54
Mixer-settler extraction equipment. M. W. Davis, jr., T. E. Hicks and T. Vermeulen. bibliog il diags Chem Eng Prog 50:188-97 Ap '54
Modified Hershberg-Wolf extractor. E. Heftmann and D. F. Johnson. bibliog diag Anal Chem 25:1578 O '53
New extraction tower for Udex ups efficiency. diags Chem Eng 60:346+ N '53
New extractor uses pump-mixer; processing radioactive solutions. diag Chem Eng 61:132+ Mr '54
New Soxhlet extractor; Quickfit & quartz, ltd. il Chem Age (Lond) 69:862 O 24 '53
Performance of a pulse extraction column. R. M. Cohen and G. H. Beyer. bibliog il Chem Eng Prog 49:279-86 Je '53
Processing variables in solvent extraction towers. H. J. Vogt and C. J. Geankoplis. bibliog diags Ind & Eng Chem 46:1763-8 S '54
Pulse columns. R. Stephenson. diags Chem Eng Prog 49:340 Jl '53
Pump-mix mixer settler, a new liquid-liquid extractor. B. V. Coplan, J. K. Davidson and E. L. Zebroski. bibliog il diags Chem Eng Prog 50:403-8 Ag '54
Smoke rings up extraction; patent. diags Chem Eng 61:264+ Mr '54
Three new extractors; patents. diags Chem Eng 61:282+ Je '54
20-stage liquid-liquid extractor; NRC Mix-and-Settle extractor. il Chem & Eng N 32:350 Ja 25 '54
Universal apparatus for continuous extraction of an aqueous solution with solvents more dense than water. D. C. Iffland. il Anal Chem 25:1577-8 O '53

Design
Effect of packing size and column diameter on mass transfer in liquid-liquid extraction. I. Leibson and R. B. Beckmann. bibliog flow diag il diag Chem Eng Prog 49:405-16 Ag '53

EXTRACTION processes
Acetylacetone as an analytical extraction agent. J. F. Steinbach and H. Freiser. bibliog Anal Chem 26:375-9 F '54
Acetylacetone in the dual role of solvent and reagent in extraction of metal chelates. J. F. Steinbach and H. Freiser. bibliog Anal Chem 25:881-4 Je '53
Application of impulse rendering to the animal-fat industry. I. H. Chayen and D. R. Ashworth. flow diag il J Ap Chem 3:529-37 D '53
British report new fat extraction technique. Chem & Eng N 32:3271-2 Ag 16 '54
Chemical engineering unit operations; liquid extraction. R. E. Treybal. il diags Ind & Eng Chem 46:91-9 bibliog(239 ref, p97-9) Ja '54
Compression extraction method for extracting textile materials. H. W. Wolf and R. S. Rankl. il diag Am Dyestuff Rep 42:617-20 S 14 '53
Correlation of ternary liquid-liquid equilibria; an explanation of solutropy. G. N. Vriens and E. C. Medcalf. bibliog Ind & Eng Chem 45:1098-104 My '53
Cresol separation by fractional solvent extraction; countercurrent contacting apparatus. E. L. Compere and A. Ryland. bibliog il Ind & Eng Chem 45:1682-6 Ag '53
Determination of purity of compounds by an extraction-solubility method. V. A. Stenger, W. B. Crummett and W. R. Kramer. bibliog Anal Chem 25:974-7 Je '53
Direct extraction-pycnometer method for oil content of refinery effluents. W. S. Levine, G. S. Mapes and M. J. Roddy. bibliog il diag Anal Chem 25:1840-4 D '53
Double solvent extraction yields aromatics. diag Chem Eng 60:342 Jl '53
Emphasis on the meal; peanut meal base for Ardil, a wool-like synthetic fiber. il Chem Eng 60:144+ Je '53
Extraction. L. Craig. Anal Chem 26:110-15 bibliog(186 ref, p 114-15) Ja '54
Extraction of heteropoly acids. C. Wadelin and M. G. Mellon. bibliog(31 ref) Anal Chem 25:1668-73 N '53
Extraction of hydrogen chloride from aqueous solutions. E. D. Crittenden, jr. and A. N. Hixson. bibliog flow diag Ind & Eng Chem 46:265-74 F '54
Fractional liquid extraction of 2,6-lutidine, 3-picoline, and 4-picoline. A. E. Karr and E. G. Scheibel. bibliog flow sheet Ind & Eng Chem 46:1583-9 Ag '54

EXTRACTION processes—*Continued*
From California natural gas, liquid fractions by refrigeration. D. E. McFaddin. flow diag Pet Refiner 33:162-4 Ja '54
Holdup and residual saturation of hexane in gravity-drained soybean flake beds. B. M. Kocatas and D. Cornell. il Ind & Eng Chem 46:1219-24 Je '54
Hydrocarbon recovery at Tuscola. J. F. McDonald. flow diags il Pet Processing 8:1894-6 D '53
Hydrocarbons from pipe-line gas. N. L. Foskett and R. C. Foster. diags Pet Refiner 32:116-17+ S '53
Hydrotropic extraction of certain organic compounds containing oxygen. E. C. Lumb and P. A. Winsor. bibliog il Ind & Eng Chem 45:1086-93 My '53
Improve your liquid-liquid extraction; Dualayer process. diag Chem Eng 61:144+ My '54
Isolation of fine chemicals from natural sources. W. Mitchell. Chem & Ind p 1132-7 O 24 '53
Key to better extraction. H. F. Wiegandt and R. L. Von Berg. bibliog diag Chem Eng 61:183-8 Jl '54
Last nut; solvent extraction adapted to processing tung nuts. il Ind & Eng Chem 46:sup 13A+ Je '54
Liquid-liquid extraction at high flow rates in a spray tower. J. F. Fleming and H. F. Johnson. bibliog flow diag il Chem Eng Prog 49:497-502 S '53
Mechanism of solute transfer from droplets. F. H. Garner and A. H. P. Skelland. bibliog diags Ind & Eng Chem 46:1255-64 Je '54
New Filtrex process. Soap & San Chem 29: 87 N '53
New solvent-extraction process for oilseed; filtration extraction. il Chem Eng Prog 49: sup22+ S '53
Problems in hydrocarbon extraction. D. L. Katz and others. bibliog(50 titles) Oil & Gas J 52:118+ S 28; 108+ N 2 '53
Pulse column variables; solvent extraction of uranyl nitrate with tributyl phosphate. G. Sege and F. W. Woodfield. il diag Chem Eng Prog 50:396-402 Ag '54
Recovery of aromatics with liquid sulphur dioxide. P. W. Sherwood. Chem Age (Lond) 71:363-6 Ag 21 '54
Separation of niobium and tantalum by liquid-liquid extraction. J. Y. Ellenburg, G. W. Leddicotte and F. L. Moore. bibliog Anal Chem 26:1045-7 Je '54
Separation of tantalum and niobium by liquid-liquid extraction. J. R. Werning and others. bibliog il diag Ind & Eng Chem 46: 644-52 Ap '54
Separation of tantalum and niobium by solvent extraction. P. C. Stevenson and H. G. Hicks. Anal Chem 25:1517-19 O '53
Solute transfer from single drops in liquid-liquid extraction. W. Licht, jr. and W. F. Pansing. bibliog diags Ind & Eng Chem 45:1885-96 S '53
Solvent extraction for characterising tar creosotes and petroleum derivatives. R. E. Heiks and others. Chem Age (Lond) 71: 85-8 Jl 10 '54
Solvent extraction methods in inorganic analysis. T. S. West. Chem Age (Lond) 71:171-6, 225-7 Jl 24-31 '54
Solvent extraction separations of zirconium and niobium. E. M. Scadden and N. E. Ballou. bibliog Anal Chem 25:1062-4 N '53
SO_2 extraction process for aromatics recovery. W. F. Wilkinson, J. R. Ghublikian and P. Obergfell. bibliog flow diags il Chem Eng Prog 49:257-62 My '53; Same. Pet Eng (Ref annual) 25:C3-6 Jl 15 '53
Technique for analysis by countercurrent extraction. M. A. Cookson and D. H. Laney. bibliog(31 ref) il Chem & Ind p450-2 Ap 17 '54
Ternary liquid-liquid equilibria. L. F. Crooke, jr. and M. Van Winkle. bibliog Ind & Eng Chem 46:1474-7 Jl '54
Ternary system; furfural-methyl isobutyl ketone-water at 25° C. J. B. Conway and J. B. Philip. bibliog Ind & Eng Chem 45: 1083-5 My '53
Thermodynamic data required for deep extraction. D. L. Katz and others. bibliog(50 titles) Pet Refiner 32:101-4 Ag '53
Two-layer extraction of mercaptans from petroleum products. flow diag Chem & Eng N 32:1508 Ap 12 '54

See also
Leaching
Solvents

Tables, calculations, etc.

Batchwise fractional liquid extraction. E. L. Compere and others. bibliog Ind & Eng Chem 46:24-45 Ja '54
Calculation of liquid-liquid extraction processes. E. G. Scheibel. bibliog Ind & Eng Chem 46:16-24 Ja '54; Correction. 46:1967 S '54
Correlation of flooding velocities in packed columns. E. H. Hoffing and F. J. Lockhart. bibliog diag Chem Eng Prog 50:94-103 F '54
Extraction design; graphical method for four-component processes. J. E. Powers. bibliog flow diags diag Chem Eng Prog 50:291-8 Je '54

EXTREME value theory. See Statistical methods

EXTRUSION machines
AF heavy press program gets under way; German-built extrusion press at Alcoa Lafayette. il Am Mach 98:173 Je 7 '54
Alcoa starts operation of giant extrusion press. il Iron & Steel Eng 31:119-20+ Je '54
Design and construction of large forging and extrusion presses for light metals. M. D. Stone. bibliog il diags A S M E Trans 75:1493-512; Discussion. 1534-6 N '53
Fabricators install extrusion presses for quick service; Watson-Stillman press. W. G. Patton. il diag Iron Age 172:165-7 N 5 '53
14,000-ton press produces big extrusions. il Mach 61:178-80 S '54
14,000-ton press starts production. il Materials & Methods 40:10 Jl '54
Heavy-duty tooling for cold extrusion of steel. il diags Mach 60:170-5+ Ap '54
Heavy press starts regular output; Aluminum co. of America. il Iron Age 173:79-80 My 27 '54; Same abr. Steel 134:96 My 31 '54
Heavy presses near completion. A. H. Allen. il Metal Prog 66:81-5 Jl 1 '54
Large-extrusion-press operation and production problems. T. F. McCormick. bibliog il diags A S M E Trans 75:1525-33 N '53; Same cond. Aeronautical Eng R 12:27-33 F '53; Same cond. Iron Age 170:158-61 D 11 '52; Same cond. Machine Design 25:184-5+ My '53; Abstracts. Automotive Ind 108:44-5 Ja 15 '53; Metal Prog 63:114+ Mr '53
Large extrusion presses will advance design and production of high speed aircraft. G. E. Moni. il Tool Eng 31:141-3 N '53
Progress report on heavy presses. R. M. Stroupe. Iron Age 173:95 Mr 4 '54
Symposium on heavy presses for light-metal forgings and extrusions. bibliog il diags A S M E Trans 75:1481-533; Discussion. 1534-42 N '53
Vertical mechanical extrusion presses; abstract. A. L. Thurman. Iron Age 173:57 F 25 '54
World's largest extrusion press; illustrations with text. Automotive Ind 110:51 Je 1 '54

EXTRUSION machines (for plastics)
Multiple screw design is basis of plastic extruder. il diags Product Eng 24:166-7 Jl '53
Theory of extrusion; symposium. bibliog il diags Ind & Eng Chem 45:969-93 My '53

EXTRUSION process
Allegheny Ludlum hot extrudes stainless, high alloy steels. E. C. Beaudet. il Iron Age 173:137-40 Mr 25 '54
Alloy steel, titanium successfully hot extruded. K. A. Wilhelm and G. A. Moudry. il Iron Age 173:98-102 Ap 29; 126-9 My 13 '54
Aluminium cable sheathing press. il diags Metallurgia 50:16-18 Jl '54
Aluminum extruders eye new markets; Reynolds developing large diam oil pipe. T. M. Rohan. il Iron Age 172:81 O 22 '53
Aluminum tubing, small diameter and thin walls obtained by extrusion; AiResearch manufacturing co. G. C. Close. il Light Metal Age 11:8-9+ O '53
Beryllium, next wonder metal. P. L. Lowenstein and others. il diags Am Mach 98:203-6 Ap 12 '54
Cold extrusion of steel. R. F. Huber. il diags Steel 133:78-82+ Jl 27 '53

EXTRUSION process—*Continued*

Cold extrusion offers production economies. H. Schultz. diags Product Eng 24:271-4 Jl '53

Cold extrusion primed for mass production. R. H. Eshelman. il diags Tool Eng 33:77-86 S '54

Cold extrusion saves metal, time; Oliver corp. il Steel 133:124 N 2 '53

Compression tests on lead alloys at extrusion temperatures. G. M. Bouton and G. S. Phipps. diag Am Soc T M Proc 51:761-70 '51

Creep behavior of extruded electrolytic magnesium. C. S. Roberts. bibliog il J Metals 5:Trans 1121-6 S '53; Discussion. 6:Trans 690-3 sec 2 My '54

Creep properties of two tempers of 63S extruded aluminum alloy. O. D. Sherby and J. E. Dorn. bibliog Am Soc T M Proc 51: 945-53; Discussion. 977-80 '51

Design of steel parts for cold extrusion. D. I. Brown. diags Tool Eng 33:63-5 Ag '54

Designing magnesium impacts. T. L. Patton. il diags Machine Design 26:124-8 F '54

Diecastings and extruded sections. H. K. Barton and L. C. Barton. diags Product Eng 24:266-8 O '53

Experimental study of metal extrusions at various strain rates. J. Frisch and E. G. Thomsen. bibliog il diag A S M E Trans 76: 599-606 My '54

Extruded blades; Propeller division, Curtiss-Wright corp. il Metal Prog 65:100-1 Je '54

Extruded steel for planes, Lockheed aircraft corp. il Steel 133:114+ S 28 '53

Extruding aluminum fans to close tolerances at low cost; AiResearch mfg. co. il Mill & Factory 55:130 S '54

Extruding fastener holes simplifies sheet-metal assembly. F. Strasser. diags Iron Age 172:151-3 N 19 '53

Extrusion review and forecast. bibliog il Iron Age 173:318-20 Ja 7 '54

Extrusion scale checked. diag Steel 133:115 Jl 27 '53

Extrusion speeds piston output; Thompson products, inc. il Iron Age 173:88 My 20 '54

Extrusion; squeeze new alloy shape. T. M. Rohan. il diag Iron Age 172:59-60 S 24 '53

Extrusions squeeze into new fields. il Steel 133:37 Jl 27 '53

Five-step cold extrusion line forms 60-mm mortar shells; Oliver corp. E. Olsen. il Iron Age 172:147-50 N 19 '53

Forum answers heavy press questions. il diags Aviation W 58:28-32 Je 29 '53

Hot extrude stainless shapes; Allegheny Ludlum steel corp. il Iron Age 173:57 Ap 29 '54; Steel 134:61 Ap 26 '54; Blast F & Steel Pl 42:716-17 Je '54

Hot extruding aluminum fan blades to 0.001-in. tolerance in 1100-ton press; AiResearch mfg. co. of Arizona. il Am Mach 98:184-5 F 15 '54

Hot extrusion; better fans made faster by preheating 14S slugs; Garrett corp. il Iron Age 173:134-6 Ja 28 '54

Hot extrusion; new family of uses; modified Ugine-Sejournet process; Scaife co. A. V. Murray. diags Iron Age 173:43 Ja 21 '54

Hot steel extrusions. T. B. Merrill, jr. il Materials & Methods 39:96-7 F '54

Impact extrusion; abstract. L. Schuler. il Tool Eng 33:149-51 Ag '54

Impact extrusion of magnesium. H. Chase. il diags Steel 133:114-16 O 26 '53

Koldflo extrusion permits new advances in design; abstract. D. I. Brown. S A E J 62: 98-9 Je '54

New extrusion techniques; abstract. H. Albers and others. diags Tool Eng 32:195-7 Je '54

Panel extrusions in aircraft structures. H. Kastan. bibliog diags Mech Eng 75:715-18 S '53

Production problems on supersonic planes. A. Ashburn. il Am Mach 98:139-41 Jl 5 '54

Requirements for large light-metal forgings and extrusions in the aircraft industry. G. W. Papen. bibliog il plan diags Aeronautical Eng R 12:24-33 Ja '53; Same. A S M E Trans 75:1483-91 N '53; Excerpts. Automotive Ind 108:41-4 Ja 15 '53

Some factors affecting the quality of extrusions. C. Smith and N. Swindells. Metal Prog 66:supA 170+ Jl 15 '54

Steel and titanium alloy extruded shapes in modern aircraft. K. A. Wilhelm. diag Automotive Ind 110:266-70+ Mr 15 '54

Steel extrusion and its value to the designer; abstracts. S. O. Evans. il diags S A E J 62: 35-9 S '54; Machine Design 26:294-6+ My '54

Steel extrusion in wider use. il Materials & Methods 39:226+ Je '54

Steel extrusions; French Ugine-Sejournet process. diags Machine Design 25:158-9 N '53

Steel forming; furnaces heat stainless steel billets for hot extrusion; Allegheny Ludlum steel corp. il Iron Age 173:179-80 Mr 4 '54

Straightening extruded shapes. L. Hoffmann. il Mech Eng 76:139-42 F '54

Tapco hot-extrudes aluminum pistons. il Am Mach 98:172 My 10 '54

Technical progress; forming. il Steel 134:356-7+ Ja 4 '54

Thin-walled extrusion on the drill press; Uniskan extrusion process. W. N. Parker. il diags Tool Eng 33:79-80 Ag '54

Titanium and steel hot-extruded on Coast; Harvey machine co. il diag Am Mach 98: 256-7 Ap 12 '54

Tooling solves a problem in cold extruding rocket projectile noses. il diags Steel 134:99 My 3 '54

What about cold extrusions? J. F. Leland and J. W. Helms. Materials & Methods 39: 176+ Je '54

EXTRUSION process (for rubber). See Rubber goods—Manufacture

EXTRUSION process (plastics)

Application of adiabatic techniques to polyethylene extrusion. E. C. Bernhardt and J. M. McKelvey. diags Rubber World 130: 513-15, 655-8 Jl-Ag '54

Extrusion of rigid PVC tubing. il Chem Age (Lond) 68:515-17 Ap 4 '53

Plastics extrusions grow. R. Marx. il Materials & Methods 39:100-1 Ja '54

Rheology of lubricated polytetrafluoroethylene compositions. E. E. Lewis and C. M. Winchester. il diags Ind & Eng Chem 45:1123-7 My '53

Theory of adiabatic extruder operation. J. M. McKelvey. diag Ind & Eng Chem 46: 660-4 Ap '54

Theory of extrusion; symposium. bibliog il diags Ind & Eng Chem 45:969-93 My '53

EYE

Toxicity; germicidal power; similarity in activity ratios between toxicity to eye mucosa of surface-active agents and their bactericidal activity. R. Fischer. Soap & San Chem 29:155 D '53

See also

Color sense
Optics, Physiological
Retina
Sight

Accommodation and refraction

Accommodation and night myopia. R. Tousey and others. bibliog Opt Soc Am J 43: 926-7 O '53

Automatic-recording visual adaptometer. S. C. McLaughlin, jr. il diags Opt Soc Am J 44:312-14 Ap '54

Dark adaptation to intermediate levels and to complete darkness. R. G. Hattwick. bibliog diag Opt Soc Am J 44:223-8 Mr '54

Effect of different preadapting luminances on the resolution of visual detail during dark adaptation. J. L. Brown. bibliog Opt Soc Am J 44:48-55 Ja '54

Effect of duration of light adaptation on time required for detection of a target on a simulated PPI scope. J. L. Brown and others. bibliog Opt Soc Am J 43:1147-52 D '53

Effectiveness of red light on dark adaptation. W. R. Miles. bibliog Opt Soc Am J 43:435-41 Je '53

Electrical response of the human eye during dark adaptation. M. Alpern and J. J. Faris. bibliog il diag Opt Soc Am J 44: 74-9 Ja '54

Electrical responses of the light-adapted eye. J. C. Armington. bibliog diags Opt Soc Am J 43:450-6 Je '53

Facilitative effect of red light on dark adaptation. S. W. Smith and F. L. Dimmick. bibliog Opt Soc Am J 43:541 Je '53

EYE—Accommodation and refraction—*Cont.*
- Human reaction time during dark adaptation. S. MacLeod and N. R. Bartlett. Opt Soc Am J 44:374-9 My '54
- Instantaneous threshold and early dark adaptation. H. D. Baker. bibliog diag Opt Soc Am J 43:798-803 S '53
- Light sensitivity and form perception in dark adaptation. W. R. Miles. bibliog diag Opt Soc Am J 43:560-6 Jl '53
- Luminosity curve as affected by the relation between rod and cone adaptation. C. S. Bridgman. bibliog Opt Soc Am J 43:733-7 S '53
- Measurement of accommodation in dim light and in darkness by means of the Purkinje images. J. M. Otero. Opt Soc Am J 43:925 O '53
- Perception of color in 1° fields for different states of adaptation. R. W. G. Hunt. bibliog diags Opt Soc Am J 43:479-84 Je '53
- Rapid changes in foveal sensitivity resulting from direct and indirect adapting stimuli. R. M. Boynton and others. bibliog diags Opt Soc Am J 44:56-60 Ja '54
- Spectral sensitivity of the fovea. L. M. Hurvich and D. Jameson. bibliog(92 ref) diags Opt Soc Am J 43:485-94, 552-9; 44:213-22 Je-Jl '53, Mr '54
- Twilight myopia. F. W. Campbell. Opt Soc Am J 43:925-6 O '53

Care and hygiene
- Eyes of the industrial worker, vision in small plants metal trades, Detroit area; abstract. R. W. Ryan and O. T. Mallery, jr. Nat Safety N 70:70-1+ Ag '54
- Facts and fallacies about your eyes. H. S. Kuhn. diag Nat Safety N 70:20-1+ Jl '54
- Tips for eye care. F. W. Jobe. Safety Maint & Prod 107:44+ F '54

Diseases and defects
- Danger in the use of fish lens protein in the treatment of cataracts. Ind Med 22: sup34-5 Jl '53
- Glaucoma case finding in Philadelphia. E. K. Hankla. bibliog Pub Health Rep 68:1059-64 N '53

See also
Color blindness

Examination
- Aniseikonia and the Howard-Dolman test. L. L. Sloan and A. Altman. bibliog diags Opt Soc Am J 43:473-8 Je '53
- Disappearance of steadily fixated visual test objects. L. A. Riggs and others. bibliog diags Opt Soc Am J 43:495-501 Je '53
- This is the age of seeing. R. A. Sherman. bibliog il Nat Safety N 69:20-1+ My '54
- Variation of visual acuity with the orientation of the test object. H. Leibowitz. bibliog Opt Soc Am J 43:902-5 O '53
- Vision testing; abstract. R. H. Wilson. Safety Maint & Prod 108:35 Jl '54

See also
Color blindness

Injuries
- Can your eye program take it? R. F. Brimmer. il Safety Maint & Prod 107:20-2+ Ap '54
- Eye injuries constitute a costly problem. D. C. Braun. Ind & Eng Chem 45:sup 111A-13A Je '53
- Rays that injure eyes. A. L. Koven. il Nat Safety N 69:22-3+ F '54

Movements
- Eye camera shows how to improve inspection techniques; Timken roller bearing co. il diags Factory Management 111:88-9 D '53
- Frequency and amplitude of ocular tremor. G. C. Higgins and K. F. Stultz. il diags Opt Soc Am J 43:1136-40 D '53
- Motions of the retinal image during fixation. L. A. Riggs and others. bibliog il diags Opt Soc Am J 44:315-21 Ap '54
- Pupillary psychosensory restitution and aging. L. S. Kumnick. il diag Opt Soc Am J 44:735-41 S '54
- Regularly occurring periods of eye motility, and concomitant phenomena, during sleep. E. Aserinsky and N. Kleitman. bibliog Science 118:273-4 S 4 '53

Protection
- Before eye program not after. J. E. Nichols. il Safety Maint & Prod 107:14-16 Mr '54
- Blind man opens many eyes; need for eye protection. W. H. Bleakley. il Nat Safety N 69:34-5 Je '54
- Can your eye program take it? R. F. Brimmer. il Safety Maint & Prod 107:20-2+ Ap '54
- Eye conservation. diags Nat Safety N 69:81-2+ Mr '54
- Eye injuries constitute a costly problem. D. C. Braun. Ind & Eng Chem 45:sup 111A-13A Je '53
- Eye safety in the school shop program. S. B. Hopping. il Safety Maint & Prod 107:64 Je '54
- Eyes, facts and fallacies. H. S. Kuhn. il Safety Maint & Prod 107:27-9+ My '54
- One saved, how many more? J. Twersky. il Safety Maint & Prod 108:13-14 S '54
- Survey and conclusions on eye protection underground. G. G. Mabee. Can Min J 75:85-7; Discussion. A. F. Heather. 87 S '54

See also
Goggles

EYE, Photography of
- Eye camera shows how to improve inspection techniques; Timken roller bearing co. il diags Factory Management 111:88-9 D '53
- Frequency and amplitude of ocular tremor. G. C. Higgins and K. F. Stultz. il diags Opt Soc Am J 43:1136-40 D '53

EYE strain
- Visual fatigue. H. C. Weston. bibliog(30 ref) il diag Illum Eng 49:63-74; Discussion. 74-6 F '54

F

FABER, Harry A.
- H. A. Faber becomes managing editor of Water & sewage works. por Water & Sewage Works 101:299 Jl '54

FABRICS, Military. See Military fabrics

FACSIMILE transmission
- Double troubleshooter; N, N′-di-β-naphthyl-p-phenylenediamine key to new facsimile paper. il Chem W 74:111-12 My 15 '54
- Facsimile for federal libraries. S. Adams. bibliog Special Lib 44:169-72 My-Je '53
- Facsimile plus xero. il Bsns W p88+ O 31 '53
- Librarian and the development of machines. I. A. Warheit. Special Lib 44:272-3 S '53
- Speedier photo service is perfected. J. Walker. Ed & Pub 86:7 Mr 28 '53

See also
Radio facsimile

FACTOR of safety
- Safety factor in the design of seamless steel gas cylinders. S. E. Mitchell. Metallurgia 50:87-9 Ag '54

FACTORIES
- Assembly-line precasting, erection yield 10,000 sq ft of factory daily. R. C. Hilton and B. Coulson. il Eng N 151:40-1 D 10 '53
- Automation, the new technology. J. Diebold. Harvard Bsns R 31:63-71 N '53
- Builders for industry; H. K. Ferguson co. applies the analytic approach to plant construction. il plan diags Arch Forum 97: 116-25 D '52
- Building the plant around the manufacturing process; factory building; with blueprints. il Am Bld 75:54-9 Ap '53
- Designed to fit 195X needs for product and people; new Hallmark plant. il diag Factory Management 112:86-9 Je '54
- Factors affecting industrial building design. il map Arch Rec 116:151-5 Jl '54
- Factory for oldsters; Sons of rest. A. K. Astbury. il Mill & Factory 53:116-17 D '53
- Factory of the future; completely automatic. H. L. Waddell. Advanced Management 18: 11-15 S '53

FACTORIES—*Continued*

Flexible factory; Fairchild engine and airplane corp. il plans diags Arch Forum 97:144-7 N '52

GM fire; will alter plant layout. R. D. Raddant. il Iron Age 172:44-5 Ag 27 '53

GM Livonia fire; steps being taken to get back in production. F. G. Lawrence. il Steel 133:43-4 Ag 31 '53

Industrial buildings; building types study. il plans Arch Rec 114:153-66 Ag '53

Industrial noise. N. S. Symons and others. il diag Factory Management 111:113-36 D '53

Know-how handbook; building. il plans diags Mill & Factory 54:367-448 My '54

Know-how handbook; power plant and service equipment. il diags Mill & Factory 54:449-554 My '54

Latest developments in industrial buildings. H. A. Anderson. il plan Mill & Factory 54:369-71+ My '54

Lighting, air conditioning emphasized in new plant; Mennen co. il Eng N 151:32 Jl 2 '53

Look at tomorrow's factory. K. J. Eaton. Management R 42:87-8 F '53

Low-cost glass walls. il diags Arch Forum 98:165 Ap '53

Mennen's new face, Morris township, N.J.; illustrations with text. Dun's R & Mod Ind 62:135-6+ Ag '53

New factory for Honeywell-Brown. il Metallurgia 48:191 O '53

New thinking on industrial buildings. il plans diag Arch Forum 99:91-109 Ag '53

Plant designed for high utility and low maintenance; Joy manufacturing co. il Mill & Factory 53:123-4 D '53

Plant you can clean with a damp rag; C. P. Clare's new plant. il Factory Management 112:96-9 Je '54

Prefab units hasten plant completion. il Eng N 152:43 Ja 7 '54

Tubular steel factory. il Engineer 196:626 N 13 '53; Engineering 176:617-18 N 13 '53

Updated factory respects old landscaping and architecture. il plan Arch Forum 100:166-8 My '54

Welded tubular steel factory structure; Rotax, ltd. il diags Engineer 196:570-1 O 30 '53

Will GM break Willow Run jinx? R. D. Raddant. il Iron Age 172:106+ N 19 '53

Your 195X plant; how to plan it. il plan diags Factory Management 112:A 1-D 118 pt 2 Je '54

See also

Airplane factories
Automobile factories
Branch factories, Foreign
Brick works
Canneries
Carpet factories
Cement plants
Chemical plants
Cigar factories
Clay products plants
Concrete products plants
Cotton mills
Dye factories
Factory management and other headings beginning Factory
Flour mills
Food factories
Foundries
Glass factories
Ice cream factories
Industrial buildings
Lavatories
Machine shops
Machine works
Metal working plants
Metallurgical plants
Munition factories
Paint factories
Paper and pulp mills
Petroleum refineries
Potteries
Rayon mills
Rock products plants
Rolling mills
Rubber factories
Shoe factories
Soap factories
Steel works
Textile mills
Tire factories
Water supply for factories

Accounting

Automation is in the cards; prepare for it. A. E. Puutio. N A C A Bul 35:1245-51 Je '54

Developmental costs incurred in the plant. M. J. Moss. N A C A Bul 35:1114-23 My '54

Equipment replacement policy and application. E. N. Martin. N A C A Bul 35:715-30 F '54

Forget about the pennies; abstract. F. W. Peart. Management R 43:459-61 Jl '54

Good start for plant accounting. J. L. Schneider; R. R. Cockrell. N A C A Bul 34:1040-3 Ap '53

How direct costing works internally and externally for a small manufacturer. O. Nielsen. J Account 96:197-205 Ag '53

How we built standard costs into control and planning. G. K. Bryant. N A C A Bul 35:1099-113 My '54

Keeping tabs on your plant investment; abstract. A. W. Crump. Management R 42:406-7 Jl '53

Mass production; durable goods. N A C A Bul 36:123-8 sec 3 S '54

Mass production, soft goods. N A C A Bul 36:129-34 sec 3 S '54

Material handling overhead affects unit cost. C. W. Bendel. N A C A Bul 35:643-52 Ja '54

Out-reach of industrial accounting. P. C. Taylor. N A C A Bul 34:959-64 Ap '53

Practical engineering of burden distribution. E. Waygren. N A C A Bul 35:652-9 Ja '54

Processing industries. N A C A Bul 36:141-4 sec 3 S '54

Purchased parts variance accounting. R. W. Day. N A C A Bul 36:61-8 S '54

Reducing production costs to a minimum. L. J. Sorensen. N A C A Bul 35:1512-24 sec 3 Jl '54

Return on investment; gist of a technical service survey. D. G. Mackenzie. N A C A Bul 35:711-14 F '54

Seven-segment application of plant burden. H. C. Arnold. il N A C A Bul 35:1416-39 Jl '54

Some problems of plant project accounting. B. F. Young. N A C A Bul 34:918-26 Mr '53

What is industry's break even point? Mill & Factory survey. Mill & Factory 54:69-70 F '54

What our plant accounting program covers; General electric co. G. W. Marsh. N A C A Bul 34:1021-30 Ap '53

See also

Heat treatment shops—Accounting
Machine shops—Accounting
Overhead expense
Payrolls—Accounting

Air conditioning

Air conditioned rest areas boost worker productivity. L. A. Brouha. Iron Age 174:125-7 Ag 19 '54

Cooling hot spots in industry. A. B. Wason. diags Heat & Ven 51:87-94 S '54

Facts about modern air conditioning. il plan Mill & Factory 54:386-7 My '54

Industrial plant served by 10,500-ton air conditioning system. W. G. Moses. il Heat & Ven 51:83-7 My '54

Low pressure steam cools, heats plant; furnished by two packaged boilers; Mennen co. il Heating-Piping 26:114-15 S '54

Need for industrial air conditioning. Safety Maint & Prod 107:29-30 F '54

New windowless air conditioned plant; C. P. Clare & co. D. R. Dooley. il Heating-Piping 26:89-91 S '54

Zoning for air conditioning for an industrial plant. N. N. Wolpert. diags Heat & Ven 51:114-15 Ap '54

See also

Air conditioning, Industrial
Textile mills—Air conditioning

Aisles

How trailability determines tractor-trailer aisle widths. J. J. Sichman. il diags Iron & Steel Eng 31:120+ F '54; Same cond. Iron Age 173:168+ F 4 '54

Cleaning

Facts about modern plant housekeeping. il Mill & Factory 54:384-5 My '54

Good housekeeping in the plant. il Mill & Factory 54:87-102 Ja '54

Maintenance; cleaning costs cut with mechanical sweepers. il Iron Age 173:154-5 Mr 11 '54

Plant housekeeping. il Nat Safety N 69:19-20+ Mr '54

Score your plant housekeeping contest fairly and clean up! Safety Maint & Prod 107:39 Ap '54

FACTORIES—Cleaning—*Continued*

Together they keep the plant clean; Studebaker corporation, General housekeeping and sanitation division. il Nat Safety N 69:26-7 My '54

What does good housekeeping look like? il Safety Maint & Prod 107:16-17 Ja '54

Cleanliness

Design for better quality; A. O. Smith corp. il Steel 133:110-11 N 16 '53

Dollars for cleanliness; Olin industries, inc. il Nat Safety N 69:32-3+ Ja '54

Dust collectors keep plant clean and safe. E. F. Anderson. il Mill & Factory 54: 94-5 Ja '54

Good housekeeping improves efficiency and morale at Mississippi Glass. J. A. Mazzoni. Glass Ind 35:127-8 Mr '54

Rating and recognition; incentives to housekeeping and safety; Monsanto chemical co. J. L. Hawn. il Nat Safety N 69:24-5+ F '54

See also

Factory sanitation

Electric equipment

Aluminum conductors for industry. il Mill & Factory 53:86-9 N '53

Are you making the best practical use of today's electrical connectors? M. Brenner. il diags Power 98:124-7 Je; 116-19 Jl '54

Basic elements in the planning of electrical systems. F. B. Graham. diags Arch Rec 116:200-4 Ag '54

Check your overload relays and avoid costly shutdowns. D. Pollock and D. Kiefer. Factory Management 112:118-19 My '54

Electrical accidents; principal causes in industry. il Elec R (Lond) 154:71-2 Ja 8 '54

Electrical services in your 195X plant. il diags Factory Management 112:C 1-22+ pt 2 Je '54

Electronic chassis. Mill & Factory 53:256+ D '53

Equipment grounding for industrial plants. L. J. Carpenter. diags Elec Eng 73:256-60 Mr '54

Factory electrical installation; Ransome & Marles works. Elec R (Lond) 153:901-2 O 16 '53

Factory equipment exhibition. il Elec J 152: 1027 Mr 26 '54; Elec R (Lond) 154:579 Mr 26 '54

GE takes its own distribution medicine. il diag Power Eng 58:87 Ja '54

How to get longer life from electronic tubes. D. J. Pearse. il Mill & Factory 54:90-1 F '54

How to take care of your electrical distribution system. Factory Management 112:220+ My '54

Joe's department; electrical ideas every plant man can use. J. St Andre. Published in monthly numbers of Factory management and maintenance

Know-how handbook; electrical. il diags Mill & Factory 54:49-132 My '54

Load centers and bus duct provide flexibility; McCulloch motors. L. B. Reed. il Elec World 140:174 O 19 '53

Modernization program; field-tested ideas for electrical-distribution systems. il diags Power 98:76+ Mid-S '54

Power factor, its cause and cure. V. N. Friedman. il Mill & Factory 53:92-5 D '53

Research and engineering progress, 1953; industry. il Gen Elec R 57:29-35 Ja '54

Scottish firm's works extension; James Howden and co. il diag Elec J 152:947-8 Mr 19 '54

System grounding in industrial plants. F. M. Dorey. diags Elec Eng 72:1098-103 D '53

Ten-point locking-out program; electrical switch boxes. F. W. Michal. Factory Management 112:156 Ag '54

Transformer site design lowers plant fire risk. J. C. Damon. il Elec World 140:168+ S 21 '53

240/416-volt three-phase four-wire power and lighting supply for modern industrial plants; abstract. W. Shuler. Elec Eng 72: 1110 D '53

See also

Electric driving
Electric welding machines
Paper and pulp mills—Electric equipment

Equipment

Automatic factory; a critical examination. S. A. June and others. Instruments & Automation 27:1476-8, 1620-1 S-O '54

Automatic process control. il diags Iron Age 172:273-304 O 8 '53

Do it easier with automatic door controls; illustrations with text. Factory Management 112:134-5 Ja '54

Electrical manufacturing extensions in Loughborough; Brush electrical engineering co. il Engineer 196:427-9 O 2 '53; Elec R (Lond) 153:737-9 O 2 '53

Equipment costs still going up. Chem Eng 61:214-15 Mr '54

Equipment for industrial buildings. il Arch Rec 114:183+ Ag '53

Handy ideas from Ashtabula bow socket; illustrations with text. W. Rudolph. Mill & Factory 53:128-9 N '53

How to get the most from your compressed air system. L. J. Murphy. il diags Mill & Factory 54:81-5 F '54

Is this the best-looking plant of the year? Parker pen co. il Factory Management 112: B20-2 pt 2 Je '54

Know-how handbook. il plans diags Mill & Factory 54:2-766 My '54

More job ideas for air power; illustrations with text. Factory Management 111:152 N '53

New literature to help cut costs. Published in monthly numbers of Mill and factory

1954 American Machinist production preview; plant service equipment; parts and materials. il Am Mach 98:229-64 Ja 18 '54

Now lab instruments are doing production jobs. J. W. St Andre. il Factory Management 111:94-7 D '53

One dispatcher with conveyor delivery and pushbutton control keeps 185 operators busy; Brook motors ltd. il Factory Management 112:90-1 S '54

Plant equipment previews. Published in monthly numbers of Mill and factory

Plant services in your 195X plant. il Factory Management 112:D 1-20+ pt 2 Je '54

Standard Yeast's new factory. il Chem Age (Lond) 69:65-8 Jl 11 '53; flow diag Engineering 176:76-7 Jl 17 '53

Ten ideas that made a better plant; A. O. Smith corp. il Factory Management 111: 134-5 N '53

These freight elevators modernized at one-third cost of new units; A. P. Smith co. W. J. Prise and W. Willeke. il diags Power 97:128-9 D '53

What's new in equipment. Published in monthly numbers of Factory management and maintenance

See also

Chemical plants—Equipment
Conveying machinery
Factory communication
Lavatories
Machinery, Replacement of
Mechanical handling
Power plants

Expansion

Extensions to an industrial truck factory. Engineer 197:170 Ja 29 '54

Mechanical handling; extension of Lansing Bagnall works. il Elec R (Lond) 154:191 Ja 29 '54

1900 on the outside, 195X on the inside; Albany felt co. il plan Factory Management 112:B 12-15 pt 2 Je '54

Vacuum equipment production; Edwards' new works at Crawley. il Metallurgia 49:203-5+ Ap '54

Fire protection

See Fire protection

Floors

Facts about modern industrial floors. il Mill & Factory 54:375 My '54

How to keep floors ship-shape. A. L. Sodergreen. il Food Eng 25:70-1 N '53; Same. Steel 134:112-13 Ja 25 '54

How to repair a cement floor; illustrated instructions. Mill & Factory 54:100 Ja '54

How to repair a wood block floor; illustrated instructions. Mill & Factory 54:101 Ja '54

FACTORIES—Floors—*Continued*

How to select the right floors for your plant. N. Weissman and C. G. Wyder. il Factory Management 112:84-93 My '54

Industrial floors. il Nat Safety N 69:12+ Mr '54

More than elbow grease! Safety Maint & Prod 107:18-20 My '54

Movable solid floor. il Chem Age (Lond) 68:518 Ap 4 '53

New floor utility service channel system answers a much-looked for need. il Mill & Factory 54:133 Je '54

Plant floor in the morning turns into playroom at lunchtime; North American aviation, inc. il Bsns W p 120+ Ag 8 '53

Quick and fancy on the draw; mineral absorbents. R. A. Hogan. il Mill & Factory 54:92-3 Ja '54

Safety requirements of floors in chemical works. Chem Age (Lond) 69:713-15 O 3 '53

Thirsty granules; absorbents get rid of many hazards under foot. W. A. Jaffee. il Nat Safety N 68:42+ D '53; Safety Maint & Prod 108:19-20+ S '54

Foreign branches

See Branch factories, Foreign

Heating and ventilation

All-new central heat; Vascoloy-Ramet corp. il Factory Management 111:150 N '53

Design criteria for industrial heating and ventilation. M. A. O'Neill. diags Heat & Ven 51:80-2 Je '54

Facts about modern ventilation and dust control. il Mill & Factory 54:388-9 My '54

High temperature hot water system serves Personal Products plant 13 years. L. Smith and S. Senko. il diags Heating-Piping 26:83-6 Jl '54

How to determine best plant temperature for off-hours. H. B. Clay. Factory Management 111:104-7 D '53

Industrial ventilation. Can Chem Process 37:54+ D '53

Latest developments in heating systems. C. F. Craigie, jr. il Mill & Factory 54:456-8 My '54

Portable ventilation; Pittsburgh coke & chemical co. il Steel 134:106 Mr 1 '54

Seven ways to spot-heat a plant; illustrations with text. Factory Management 111:128-9 N '53

Unusual venting system uses clay flue liners; Allen-Bradley co. il Arch Rec 114:221+ N '53

Ventilation. bibliog il Nat Safety N 69:51-2+ Mr '54

Winter's coming; check your plant heating system. E. J. Clement. il diags Mill & Factory 55:81-6 S '54

See also

Exhaust systems

Layout

Controlled conditions, room to grow; W. A. Sheaffer pen company of Canada. il Nat Safety N 70:34-5+ Ag '54

Engineering for production control; abstract. J. M. Druliner. Safety Maint & Prod 107:24 F '54

Factory-within-a-factory for your specials; Thomas & Betts. Factory Management 112:122-3 Ap '54

Good production methods reduce costs; works layout. J. D. Brown. Chem & Ind p612-16 My 29 '54

How plant layout and material handling should and can be tied together; symposium. R. Muther. Advanced Management 18:28-30 Ag '53

How two new bays opened up big savings; Manning, Maxwell & Moore. R. H. Parkhill. il Factory Management 112:100-3 Je '54

Magnet and template combination simplifies plant layout work. il Iron Age 172:171-2 Ag 13 '53

Planning the safe plant. il plans Nat Safety N 69:9-10+ Mr '54

Production and floor space utilization increased by efficient layout and planning; Brush division of Pittsburgh plate glass co. T. W. Rodes. il Ind & Eng Chem 45:sup 117A-19A S '53

Production line methods for job shop work cut cycle time 43 per cent; General electric co. il plan Factory Management 112:78-85 Je '54

Tips on battery room layout. K. A. Vaughan. il Iron & Steel Eng 31:148+ My '54

See also

Foundries—Layout

Machine works—Layout

Models, Layout

Lighting

Continuous wall-ceiling lighting in an industrial plant. il Illum Eng 49:31 Ja '54

Economic lighting maintenance. il Safety Maint & Prod 107:14-15 F '54

Facts about modern fluorescent lighting. diags Mill & Factory 54:82-3 My '54

Facts about modern industrial lighting systems. diags Mill & Factory 54:70, 80-1 My '54

How distribution affects light. R. Marcum. Elec West 111:94-5 S '53

Industry sees the light; improved quantity and quality of lighting in factories. Steel 133:54 N 23 '53

Leapfrog to relight Hiller. il Elec West 112:74 Ja '54

Leased lighting; Cleveland maintenance firm owns factory systems. Eng N 151:103 N 5 '53

Lighting for emergencies. il plan Mill & Factory 55:110-11 S '54

Lighting for visual performance in a tv set assembly plant; abstract. R. M. Smart and W. Allphin. il Illum Eng 49:436 S '54

Lighting maintenance gets a lift! M. E. Mitchell. il Safety Maint & Prod 107:20-1+ Mr '54

Lighting the workplace. il Nat Safety N 69:10-11+ Mr '54

Practical lab tests light and quiet; F. W. Wakefield brass co. C. A. Schroeder. il Am Mach 98:124-5 My 24 '54

Program your lighting maintenance. D. Phillips. il Steel 134:114-16 My 3 '54

Psychromatics for safety and efficiency. K. R. Gibbins. il Chem Age (Lond) 70:781-5 Ap 3 '54

Revolution in lighting. E. A. Linsday. il Nat Safety N 69:38-9+ Ja '54

Some techniques for maintenance. B. J. Hartmann. il Elec West 111:95 S '53

Trends in industrial lighting. E. B. Sawyer. il Elec R (Lond) 153:668-70 S 25 '53

Upward component lighting can increase industrial lighting levels. W. H. Kahler. il Elec World 140:118-19 O 19 '53

Values of illumination for various industrial activities. Mill & Factory 54:84 My '54

We got the most for our lighting dollar by licking these two problems. J. J. Kimball. il Factory Management 112:120-1 Ap '54

What are you getting from your lighting system, lumens or lemons? L. C. Vipond. il Mill & Factory 54:128-31 Ja '54

See also

Food factories—Lighting

Machine shops—Lighting

Steel works—Lighting

Textile mills—Lighting

Location

Every city a suitor. Chem W 73:28 O 3 '53

Industrial traffic officers are important in selecting new plant sites. il Ry Age 135:56-7 N 2 '53

Industry must disperse, South is still best location. S. Fish. Manuf Rec 123:39+ My '54

Land for industry; neglected problem. D. A. Muncy. Harvard Bsns R 32:51-63 Mr '54

Move cautiously on plant moves. il Steel 134:55 Ap 12 '54

New site selection factors require careful appraisal. S. Fish. Manuf Rec 123:32+ Ag '54

Picking a new plant site; abstract. R. P. Danielson. Management R 42:309-10 Je '53

Pitfalls in plant site selection. A. K. Ferguson. Management R 43:415-16 Jl '54

Plant settles in Louisville; General Electric. R. P. Steptoe. il Banking 46:60+ N '53

FACTORIES—Location—*Continued*

Plant site location studies. J. A. McCoubrey. Can Chem Process 38:44 Je 20 '54
Scientific plant site selection in spotlight. S. Fish. Manuf Rec 122:60-1 N '53
Selecting your new plant location. S. Fish. Management R 43:14-15 Ja '54
Should industry move South? C. R. Walker. Manuf Rec 122:32 D '53
Wage arrow points South. map Chem W 73:30-2+ N 14 '53

See also
Chemical plants—Location

Lunchrooms

See Lunchrooms and cafeterias, Employees'

Maintenance and repair

Adapting engineered maintenance to smaller plants. C. N. Lanier, jr. and J. D. Quinn. Tool Eng 32:268-70 Ap '54
Cut costs here with modern scaffolding, rolling towers. il diag Iron Age 172:159-60 Ag 6 '53
Cut costs, install and maintain mechanical power transmission equipment properly. diags Mill & Factory 54:185-92 My '54
Cut costs, maintain buildings properly. il diags Mill & Factory 54:393-400 My '54
Cut costs, maintain electrical power equipment properly. diags Mill & Factory 54:87-94 My '54
Cut costs, maintain materials handling equipment properly. il Mill & Factory 54:287-94 My '54
Cut costs, maintain power plant and service equipment properly. il diag Mill & Factory 54:475-82 My '54
Handy aids for maintenance jobs; drawings with text. S. V. Worth. Mill & Factory 54:128-9 F '54
How building design ties in with good maintenance; A. B. Dick co. F. R. Malmgren. Textile World 104:101+ My '54
Industry studies housekeeping costs; fifth plant maintenance show, Chicago. Iron Age 173:87-8 F 4 '54
Installing a planned maintenance program; abstract. W. P. Armstrong. Management R 43:246-7 Ap '54
Just call for repairs. il Mill & Factory 53:95 N '53
Let's not be victims of paperwork! J. Balla. Factory Management 112:256+ S '54
Maintaining switchgear. P. Belsky. Factory Management 112:142-4 Ag '54
Maintaining transformers. P. Belsky. Factory Management 112:134-5 S '54
Maintenance incentives are practical, but. W. C. Cooling. Factory Management 112:127-31 F '54
Maintenance pointers for plant operating executives. C. G. Wyder. Published in monthly numbers of Factory management and maintenance
Maintenance practices that pay; Pacific car & foundry co. H. E. Jackson. il Mill & Factory 54:106-7 Ap '54
Maintenance; selling, organization come first; industry conference, Chicago; abstracts of papers. Steel 134:134-6 F 22 '54
Management needs good maintenance reports; Perfection stove company. A. D. Buschmann. Factory Management 112:130-1 Ap '54
National plant maintenance and engineering conference, 5th, Chicago. Chem & Eng N 32:664 F 15 '54
Plan for preventive maintenance. O. W. Graveley. Heating-Piping 26:117-18 Mr '54
Plant maintenance and engineering conference, Chicago. Chem W 74:56+ F 13 '54
Plant maintenance and engineering 5th show and conference, Chicago; with abstracts of papers. Food Eng 26:67-8+ Mr '54; Heating-Piping 26:112-18 Mr '54; Safety Maint & Prod 107:13+ Mr '54
Plant maintenance conference, 5th, Chicago. Mill & Factory 54:308+ Mr '54
Savings effected in the cost of maintenance and repairs will increase operating profit. D. E. Pierce. Ind & Eng Chem 45:sup 81A-2A+ Je '53
Sure cure for rush-job headache. Factory Management 112:270+ Mr '54
Taking the slack out of maintenance scheduling. J. W. Sawyer. il Mill & Factory 54:86-9 F '54
Technical progress; service and maintenance. il Steel 134:432-3+ Ja 4 '54
These three forms provide simple maintenance control for the small plant. S. J. Burwell. Factory Management 112:90-2 Jl '54
Toward more effective building maintenance. R. C. Austin. Management R 43:591-2 S '54
Train your craftsman in preventive maintenance; Warner & Swasey. il Factory Management 112:148 S '54
Welding saves thousands of dollars; Crawford furniture manufacturing corp. il Mill & Factory 55:122-3 S '54
Wet blasting speeds cleaning of furnace, press parts. il Iron Age 173:160+ Mr 25 '54
Why have a fire when maintenance can prevent it! G. G. Blair. il Safety Maint & Prod 107:42-6+ Ja '54

See also
Automobile factories—Maintenance and repair
Factories—Painting
Maintenance departments
Repair parts

Moving

Don't lose your workers on moving day! L. Stessin. Management R 42:139 Mr '53
Moving your business, painlessly; abstract. Management R 43:213-15 Ap '54

Painting

Color in the plant. Nat Safety N 69:36+ Mr '54
Facts about modern surface protection. il Mill & Factory 54:390 My '54
How to get the most out of color in your plant. F. Birren. Factory Management 112:110-12 F '54

See also
Paper and pulp mills—Painting

Printing

Easy way to make black and white prints. W. A. Williams. diags Mill & Factory 54:113 Mr '54

Protection

Businessmen's conference on industrial defense in the atomic age, Washington. Chem & Eng N 32:2568-9 Je 28 '54
Emergency and disaster planning. il Chem & Eng N 31:5348-9 D 28 '53
Facts about modern plant protection. Mill & Factory 54:391 My '54
Facts about modern plant security. il Mill & Factory 54:379 My '54
Gulf Coast civil defense gets benefit of seven years experience of chemical plants. Chem & Eng N 32:2640 Je 28 '54
Low-cost flood wall keeps the river away. D. E. Southwick. il diag Factory Management 112:136-7 Ag '54
Mutual aid for civil defense. A. Dunlap. Chem & Eng N 32:2640 Je 28 '54
Nine points for survival. Peterson. Chem & Eng N 32:2202 My 31 '54
Prepare for the worst; what must industry do to prepare for atomic attack? Chem W 74:16-17 Ja 2 '54
What the H-bomb means to industry and you. Factory Management 112:112A-112D My '54

See also
Factory fire brigades
Factory guards

Reconversion

From jets to refrigerators; Hotpoint converts its Chicago refrigerator plant to civilian production. Steel 133:44 N 2 '53

Records

Materials control plan for a job shop; Specialty assembling & packing co. S. Eisenberger. Factory Management 111:99-101 O; 154+ N; 148+ D '53
Production control number system is better than dates. F. M. Gilbreth. Steel 133:173-4 S 14 '53
Streamlined inventory control. O. G. Wechmeyer. il Mill & Factory 54:106 F '54

FACTORIES—Records—*Continued*

Streamlined records fatten profits. J. T. O'Connell. Steel 135:72+ Ag 30 '54

What motors are where in your plant? Hawaiian pineapple co. H. Jefferson. Factory Management 112:106-7 Ja '54

See also

Employment departments—Records

Orders

Production control

Punched card system

Roofs

Facts about modern roofs. il Mill & Factory 54:374 My '54

Fire; Ford bans vapor seal in new plant roofs after tests. il Iron Age 172:114 N 5 '53; Steel 133:45 N 2 '53

Fire prevention; new material, methods developed for roofing; Lexsuco, inc. il Iron Age 172:85 D 24 '53

Fire-retardant roof eliminates hazards of conventional roofs. il Chem & Eng N 32: 92 Ja 4 '54

Fire tests of factory roofs. il diags Arch Forum 100:158-9+ F '54

Ford simulates plant fire in tests; decides against using pitch vapor seal in roofing. Eng N 151:24 N 5 '53

Insulated factory roof withstands 1700° fire test. il Arch Rec 116:16 Ag '54

New roof design retards fire spread. Eng N 151:102+ D 3 '53

Raisin' the roof; illustrations with text. Mill & Factory 53:130 N '53

You can turn roof space into production space; Remington Rand inc. il Factory Management 112:116-17 Ag '54

Sanitation

See Factory sanitation

Shutdowns

Vacations; industry takes breather. J. B. Delaney. Iron Age 172:76 Jl 16 '53

Vacations; shutdown trend slows down. Steel 134:50 My 17 '54

Visitors

See Visitors

Water supply

See Water supply for factories

Yards

Facts about modern yard equipment. il Mill & Factory 54:277 My '54

Industrial weed control. W. S. Jackson. il Soap & Chem Spec 30:160-1+ My '54

FACTORY accounting. See Factories—Accounting

FACTORY communication

Communication; airtubes link production control centers; Reliance electric & engineering co. il Iron Age 173:146 F 11 '54

Conveyor belt eliminates paper pile-up. Steel 135:47 Jl 26 '54

Conveyor speeds blue-print handling at Pratt & Whitney. il Iron Age 174:59 Jl 8 '54

Conveyors and telephones speed schedules; Woodward governor co.; illustrations with text. W. A. Ring. diags Am Mach 98:134-6 S 13 '54

Pneumatic tubes speed steel plant communications. A. M. Brown. il Iron Age 173: 141-3 Mr 25 '54

Policy; keep record straight by phone; Westinghouse uses telephonic communicator to keep supervisors, workers posted. J. B. Delaney. il Iron Age 172:71-2 Jl 2 '53

Rediffusion at ice cream store; Acton factory of T. Wall and sons, ltd. Elec J 151: 1862 D 4 '53

Televoice forestalls work stoppages. J. Giampolo. il Factory Management 112:102-3 Ap '54

See also

Employees' manuals

Radio telephone in factories

FACTORY costs

Are these your big problems? sales and costs. A. R. Gardner. Dun's R & Mod Ind 62:48-50+ D '53

Coordinating your cost-reduction program; abstract. H. N. Meixner. Management R 43:106 F '54

Cost control and budgeting; Stanley home products inc.; abstract. J. A. Openshaw. Steel 134:135 F 22 '54

Cost index. Factory Management 112:113-28 Ja '54 [cont monthly]

Cost reduction; a job for the foreman; abstract. G. S. Odiorne. Management R 42: 710 D '53

Cost reduction show; Chambers works. il plan Factory Management 112:84-97 F '54

Cost reduction through industrial engineering. R. C. Cooper. Advanced Management 19:7-10 Ag '54

Costs cut and production tripled; Argus cameras, inc. D. G. Baird. il Mill & Factory 54: 109-11 F '54

Equipment costs still going up. Chem Eng 61:214-15 Mr '54

Four ways to cut costs with portable power tools. H. P. Bailey and others. il plan diags Factory Management 112:104-9 F; 114-17 Mr; 104-6 Ap; 109-12 My '54

Helping the foreman control costs. R. E. Stockmeyer. N A C A Bul 35:751-65 F '54

How labor dollars control our production loads; National Cash Register. W. G. Flanagan. il Factory Management 112:106-8 My '54

Keep your inventory carrying costs down. R. C. Hartigan and B. Grad. Mill & Factory 54:79-81 Ap '54

135 case histories; how to reduce costs through materials selection. il diags Materials & Methods 39:69-116 My '54

Planned cost reduction; one company's program; abstract. R. C. Shaw. Management R 43:595-6 S '54

Programming maintenance shop cost reduction. W. C. Perkins. N A C A Bul 35: 78-88 S '53

Savings effected in the cost of maintenance and repairs will increase operating profit. D. E. Pierce. Ind & Eng Chem 45:sup81A-2A+ Je '53

Subjecting maintenance costs to budgetary control. W. C. Wickenden. N A C A Bul 35:72-8 S '53

Using standards as controls in factory management. C. E. Heitman. Advanced Management 19:12-14 Jl '54

Value analysis lowers plant costs. L. D. Miles. Midwest Eng 6:22 S '53

What productivity costs. Economist 168:129-30 Jl 11 '53

What to do when the boss says cut costs! R. S. Rice. Factory Management 112:118-22 S '54

See also

Labor cost

Power cost

FACTORY fire brigades

Chemical works fire fighters; Albright & Wilson's brigade. Chem Age (Lond) 69:961-2 N 7 '53

Fire first aid for the plant. G. W. Tisdale. Spectator 162:28-9+ O '54

Fire training school; Ansul chemical co. Safety Maint & Prod 107:53 Ap '54

Plant forces quell 87 per cent of factory fires. Nat Safety N 69:86+ Ja '54; Same abr. East Underw 54:21 Jl 24 '53

With Champion Paper's firefighters on the alert, fire never gets an even break. il Nat Safety N 70:22-3 Jl '54

FACTORY guards

Guards; vital for plant protection. R. D. Raddant. Iron Age 172:78 Jl 9 '53

FACTORY inspection

See also

Drug factories—Inspection

Food factories—Inspection

FACTORY insurance association

Annual meeting, 64th, New York. East Underw 55:29 Ap 2 '54

Names regional advisers; list. Nat Underw 58:18 Ap 8 '54

FACTORY laws and legislation

See also

Employers' liability

Minimum wage

Great Britain

Duty to fence dangerous machinery. C. F. Mayson. Engineering 176:615-16 N 13 '53

FACTORY management

Appliances; size no sales necessity; Cleveland's Perfection stove co. R. M. Lorz. il Iron Age 172:118-19 N 12 '53

Can all operations be placed on incentive? W. C. Cooling. il diags Mill & Factory 54:98-101 Mr '54

Cases in methods improvement. il Factory Management 111:90-3 N '53; 112:116-18 F; 130-3 Mr; 116-19 Ap; 96-8 Ag; 96-9 S '54

Effective leadership basic requirement in achieving ideals in plant management. C. E. Lyon. Ind & Eng Chem 46:sup89A-90A F '54

Eleven easy steps to sure failure in management. C. S. Steinmetz. Factory Management 112:100-1 Mr '54

Factory-within-a-factory for your specials; Thomas & Betts. plans Factory Management 112:122-3 Ap '54

Factory's A-B-C rating chart for plant operation for your 195X planning. Factory Management 112:72-6 Je '54

Followership; new step to better leadership. A. Uris. Factory Management 112:100-3 My '54

His job, keeping the team on the beam; William P. Bitler of Kay-Fries chemicals. il Chem W 73:54-6+ Jl 25 '53

How many people for the job? W. C. Cooling and J. H. Thomas. Mill & Factory 53:116-17 N '53

How to analyze your materials handling problems. G. Nadler and J. Goldman. flow diags il Mill & Factory 55:89-93 Jl '54

How to investigate a theft in your plant. Factory Management 112:228+ S '54

How to keep your incentive system in line. S. W. Wuchina. Mill & Factory 55:104-7 Jl '54

How to look at automation; abstract. G. M. Muschamp. Management R 43:79-80 F '54

Is quality your headache? R. Newcomb and M. Sammons. il Mill & Factory 55:75-8 Ag '54

Job grouping; key to more productive manhours; abstract. W. S. Lienhardt. Management R 43:108 F '54

Managing the automatic plant. C. E. Knight. il Chem Eng 61:225-9 Je '54; Abstract. Tool Eng 32:149 Mr '54

Methods and materials. il Dun's R & Mod Ind 63:108-12+ Ja '54 [cont monthly]

Production and floor space utilization increased by efficient layout and planning. Brush division of Pittsburgh plate glass co. T. W. Rodes. il Ind & Eng Chem 45:sup 117A-20A S '53

Self-analysis check list for management. G. H. Elliot and C. Heyl. Mill & Factory 55:84-7 Jl '54

Start your selling on the production line. R. H. Wilcox. il Mill & Factory 54:100-3 F '54

Stop the thief in your plant. il Factory Management 112:84-9 S '54

Using standards as controls in factory management. C. E. Heitman. Advanced Management 19:12-14 Jl '54

What management wants: National lead co; abstract. K. W. Pratt. Steel 134:134-5 F 22 '54

What to do when the boss says cut costs! R. S. Rice. Factory Management 112:118-22 S '54

Why automation is for you. C. F. Hautau. il diags Factory Management 112:80-9 Jl; 118-25 Ag '54

Work sampling; simple method based on probabilities aids in work analysis; abstract. C. L. Brisley. Iron Age 172:270 N 12 '53

Work-sampling technique. A. J. Rowe. bibliog plan A S M E Trans 76:331-5 F '54

See also

Airplane factories—Management
Assembling methods
Chemical plants—Management
Control boards
Control charts
Efficiency, Industrial
Employees
Employees' benefit plans
Employees' representation in management
Employment management
Employment systems
Executives
Factories—Accounting
Factories—Cleaning
Factories—Heating and ventilation
Factories—Maintenance and repair
Factories—Records
Factory costs
Factory transportation
Foremen
Foundry management
Hygiene, Industrial
Industrial engineering
Industrial management
Inspection
Inventories
Job analysis
Machine shop management
Machinery, Replacement of
Maintenance departments
Material control
Material handling
Mechanical handling
Medical service, Industrial
Metal waste
Metal working plants—Management
Motion study
Music in industry
Night labor
Noise
Office management
Orders
Organization in industry
Packaging
Packing for shipment
Piece work
Planning
Production and sales, Coordination of
Production control
Purchasing
Purchasing departments
Safety devices and measures
Salvage (waste, etc.)
Shipment of goods
Standardization
Stores systems
Suggestion systems
Textile mills—Management
Time study
Tool engineering
Tool rooms
Traffic departments, Industrial
Visitors
Wage payment plans
Work sampling

Quality control

Accept the batch? or reject it? quality-control testing of foods. O. P. Kharbanda. Food Eng 26:49 Ja '54

Application of quality-control requirements in manufacture of components for a coaxial-carrier system. A. T. Chapman. il A S M E Trans 76:585-91 My '54

Assuring a quality product; General Electric quality control method for its packaged air conditioners. R. G. Cordes. il Refrig Eng 62:38-40 Ja '54

Costs cut and production tripled; Argus cameras, inc. D. G. Baird. il Mill & Factory 54:109-11 F '54

Effective training for quality control; abstract. A. V. Feigenbaum. Management R 43:597-8 S '54

Getting employees interested in quality control; abstract. J. F. Verigan. Management R 42:527-8 S '53

How to detect the type of an assignable cause. P. S. Olmstead. Metal Prog 65:178+ Ap '54

How to motivate for quality; abstract. H. Thompson. Management R 42:395-6 Jl '53

Integrating instruments for simplified quality-control measurements; abstract. D. M. Longenecker. il Elec Eng 72:966 N '53

Making quality control pay its way; abstract. J. M. Juran. Management R 42:459-60 Ag '53

Management's responsibility for the use of statistical techniques in industry. W. E. Deming. Advanced Management 18:8-12 N '53

Mathematics necessary for quality control in mass production. M. Parran. Metal Prog 66:supA 166+ Jl 15 '54

Nine steps to better quality. J. M. Juran. Factory Management 112:106-8 Mr '54

Nondestructive testing checks quality from start to finish; Ford motor co. D. C. Hart. il Steel 134:124-5 Je 21 '54

Nondestructive tests check forging quality, spot equipment troubles; General drop forge corp. S. C. Totaro. il Iron Age 174:117-19 Ag 12 '54

Practical production tolerances in the design of electric timing units. W. J. Grosjean. il diags Machine Design 26:108-14 Je '54

Practical uses of statistical quality control M. H. Saltz. il Tool Eng 32:49-52 F; 66-71 Mr '54

Production should supervise quality control. D. R. King. Am Mach 98:128-9 Jl 19 '54

Quality control and inspection. W. L. Young. il Instruments 26:1884 D '53

Quality control of purchased materials. S. J. Rogers. il Steel 135:92-3 S 6 '54

Quality control takes teamwork. H. A. Prelinger. il Steel 133:101-2 Jl 13 '53

FACTORY management—Quality control—*Cont.*

Sampling plans reduce inspection time. M. H. Saltz. flow chart il Tool Eng 33:45-50 S '54

Statistical quality control approach to the control of plating solutions. A. D. Woodell. il Metal Finishing 51:54-8 D '53

Statistical quality control in small-lot heavy manufacturing; Imperial works. L. W. Bosch. Factory Management 111:98-101 N '53

See also

Candy factories—Quality control
Chemical plants—Quality control
Food factories—Quality control
Foundry management—Quality control
Inspection
Paper and pulp mills—Quality control
Petroleum refineries—Quality control
Steel works—Quality control
Textile mills—Quality control
Welding shops—Quality control

FACTORY sanitation

Concealed hazard and health of industrial workers. Chem Age (Lond) 71:277-80 Ag 7 '54

Facts about modern employe facilities. il plan Mill & Factory 54:382-3 My '54

Formaldehyde method for disinfecting industrial rooms. V. R. Croswell. Ind & Eng Chem 46:sup 103A-4A S '54

Investigation of atmospheric contaminants in factories. N. W. Goldblatt and J. C. Gage. Chem Age (Lond) 70:1257-9 Je 5 '54

Place of sanitation in plant maintenance. J. L. Barron. Factory Management 112:254+ F '54

Rodent and insect control. Nat Safety N 69: 62+ Mr '54

Sanitation good business; Plant maintenance and engineering conference, Chicago. Soap & San Chem 30:159+ Mr '54

Washrooms and lockers. il Nat Safety N 69: 53-4+ Mr '54

Where does sanitation fit into plant maintenance? V. J. Del Giudice. il Safety Maint & Prod 108:21-2 Ag '54

See also

Dust collectors
Factories—Air conditioning
Food factories—Sanitation
Hygiene, Industrial
Lavatories

FACTORY tours. See Visitors

FACTORY transportation

Freewheeling cost reduction; United States metals refining co. il Chem W 74:48+ Ap 10 '54

See also

Conveying machinery
Electric trucks, Industrial
Material handling
Monorail conveyors
Motor trucks, Industrial
Pallets
Tractors, Industrial
Trucks

FACTORY visitors. See Visitors

FACTORY waste. See Trade waste

FADEOMETER

Effect of temperature and humidity on the light fastness of synthetics in the Fade-Ometer. bibliog Am Dyestuff Rep 43:497-505 Ag 2 '54

Fade-Ometer vs. sunlight tests. Mod Textiles Mag 34:72+ D '53

New recommended test conditions and operating practices for light fastness tests in the Fade-Ometer. J. E. Norton. Am Dyestuff Rep 43:628-31 S 13 '54

Report on comparative sunlight and Fade-Ometer tests of selected dyed manufactured fiber samples. M. J. Babey. Am Dyestuff Rep 42:748-52 N 9 '53

Study of anomalous fading in the Fade-Ometer. il Am Dyestuff Rep 42:379-85 Je 8 '53

FADING. See Dyes, Fastness of

FAIR trade laws. See Price fixing, Resale

FAIRBANKS, Alaska

Water supply

Arctic water supply; it must circulate or freeze. il plan diags Eng N 152:30-1 F 4 '54

How a water supply was designed for a permafrost area. J. R. Wallace, jr. il plan diags Pub Works 85:64-6+ Ja '54

FAIRBANKS-MORSE and company

New pump plant dedication. il Water & Sewage Works 101:308-11 Jl '54

FAIRCHILD camera and instrument corporation

Security I like best. B. K. Thurlow. Comm & Fin Chr 178:1002+, 2626 S 17, D 31 '53

FAIRFIELD chemical division. See Food machinery and chemical corporation

FAIRLESS, Benjamin Franklin, 1890-

Burying the hatchet in steel. Bsns W p 160 D 5 '53

Vermilye medal presentation. por Franklin Inst J 256:105-8 Ag '53

What's behind their company tour? por Bsns W p 176-7 N 14 '53

FAIRS

Canada's international trade fair, Toronto, May 31-June 11. Am Mach 98:166-7 Je 21 '54

Canadian international trade fair, Toronto, May 31-June 11. Can Chem Process 38:46+ Je 1 '54

Fairs and exhibitions. Published irregularly in Foreign commerce weekly

Go prospecting with a good booth at your county fair; Clinton insurance service agency, Clinton, Tenn. R. B. Johnson. il Rough Notes 97:33+ My '54

Texas throws the biggest fair. il Bsns W p 100-2+ O 24 '53

See also

Exhibitions

FALKLAND islands

Necessity for continental drift. D. L. Niddrie. bibliog Am Assn Pet Geologists Bul 37: 2175-7 S '53

FAMILY

Housing design and family values. J. P. Dean. bibliog Land Econ 29:128-41 My '53

Norway's distribution of books on family problems. T. D. Eliot. J Doc 10:19-25 Mr '54

FAMILY albums. See Albums

FAMILY of products

See also

Package design—Family of products

FAMILY partnerships. See Partnership—Taxation

FANNY Mae. See Federal national mortgage association

FANS, Electric. See Electric fans

FANS, Mechanical

Big fans ventilate new Pittsburgh tunnel. il Heating-Piping 25:98 N '53

Effect of fan connections; abstract. W. Tracey. Heating-Piping 26:96 Ap '54

Equipment for the small foundry; related equipment. il Foundry 82:194-7 My '54

Fitting old centrifugal fans to new jobs; maintenance data sheet. O. W. Acheson. Factory Management 112:146+ Ap '54

Flow and fan; principles of moving air through ducts (cont). C. H. Berry. diags Heat & Ven 50:102-7 D '53

Hot extruding aluminum fan blades to 0.001-in. tolerance in 1100-ton press; Air-Research mfg. co. of Arizona. il Am Mach 98:184-5 F 15 '54

How to select the right fan. J. F. Tobin. diags Power Eng 58:94-5 Mr '54

Modern forced-air cooling of power transformers. W. D. Albright. il Elec Eng 72: 1071-5 D '53; Abstract. Westinghouse Eng 13:194-6 N '53

There is a fan for every need. J. F. Tobin. il Power Eng 58:78-9 Ja '54

What fan control method is best? J. F. Tobin. il Power Eng 58:82-3+ S '54

See also

Electric fans, Ventilating
Fans, Mine

Manufacture

Hot extrusion; better fans made faster by preheating 14S slugs; Garrett corp. il Iron Age 173:134-6 Ja 28 '54

Silver brazing goes semi-automatic. C. P. Spiesz and F. G. Leuthner. il diag Am Mach 98:121-4 My 10 '54

FANS, Mine

Broken Hill installing world's largest axial flow fan. il Min Eng 5:1075 N '53

FAR EAST

See also

China

Japan

Paper industry and trade—Far East

Petroleum industry and trade—Far East

Commerce

United States-Far East trade declines. For Comm W 50:3+ Ag 3 '53

Economic conditions

Effect of population trends on economic development. S. W. Anderson. For Comm W 50:10-12+ O 12 '53; Same. Comm & Fin Chr 178:1940-1 N 19 '53

FARADAY, Michael, 1791-1867

Faraday's electrochemical laws and the determination of equivalent weights. R. G. Ehl and A. J. Ihde. bibliog por J Chem Educ 31:226-32 My '54

Michael Faraday; discoveries in electromagnetism founded the electrical industry; greatest achievement was the field concept. H. Kondo. pors Sci Am 189:90-4+ O '53

FARADAY effect

Faraday effect of some molecules chelated or associated by hydrogen bonding. C. E. Waring and R. L. Custer. bibliog Am Chem Soc J 76:2058-60 Ap 20 '54

Faraday shutter freezes transient. diags Electronics 27:198+ F '54

Ferrites in microwave applications. J. H. Rowen. diags Bell System Tech J 32: 1333-69 N '53

Method for measuring small angles of microwave Faraday rotation. P. J. Allen. diag R Sci Instr 25:394-5 Ap '54

Susceptibility tensor and the Faraday effect in ferrimagnetics. R. K. Wangsness. bibliog Phys R 95:339-45 Jl 15 '54

See also

Verdet constant

FARBENINDUSTRIE. See Interessen gemeinschaft farbenindustrie aktiengesellschaft

FARM buildings

Construction on the farms, with forecast, 1979. D. G. Carter. il plan diag Am Bld 76: 186-9 Ag '54

How USS is expanding the market for structural steel on the farm. F. J. Reynolds. il Sales Management 71:40-2 Jl 15 '53

See also

Barns and stables

Dairies

Milk houses

FARM credit. See Agricultural credit

FARM forestry. See Woodlots

FARM income

Agricultural marketing and income. L. J. Atkinson. Survey of Cur Bsns 33:11-14 O '53

Farm income; cash receipts and farm marketings, 1949-1952. Survey of Cur Bsns 1953 Sup p9-10 [supplemented in monthly numbers]

FARM labor

Conditions of work and productivity in North-European agriculture. Int Labour R 67:173-8 F '53

Organised movement of seasonal farm workers; methods adopted by some national employment services. Int Labour R 67:367-75 Ap '53

Trade unionism among agricultural workers in Chile. F. W. Linares. Int Labour R 68: 509-23 D '53

FARM land. See Farms

FARM loans. See Agricultural credit

FARM machinery. See Agricultural machinery

FARM management

Builds farm customers; Osage-farmers national bank. J. H. Peters. il Bankers Mo 70:12+ N '53

Farm management as a trust service. N. T. Robinson. Banking 45:150 My; 104 Je; 46: 87 Jl; 104 Ag; 107 N; 102 D '53

FARM market

Boost in farm sales is forecast. Nat Pet N 45: 15-18 D 9 '53

Building a summer market for bottled gas on farm. il Bsns W p52-4 Ag 15 '53

Canada's farm markets. Ptr Ink 245:496-8 sec 2 O 23 '53

City-country gap; Easy Washing Machine is pushing its nonautomatic model in rural areas. Bsns W p46 O 10 '53

Farm money tight; collecting bills holds key to oil marketers' profits in 1954. Nat Pet N 46:20-1 Ja 13 '54

Printers' Ink 1954 advertisers' annual; farm. W. Alderson, comp. Ptr Ink 245:265-7+ sec 2 O 23 '53

Put your accent on youth in planning farm advertising. O. Ellis. Ptr Ink 245:71-2+ O 9 '53

These promotions pull farm families into city dealerships. il Sales Management 72: 100+ F 1 '54

What is the outlook for the farm market in 1954? L. E. Partain. Adv Agency 47:37-9 Ja '54

Zonolite expands the market with do-it-yourself ideas. il Sales Management 71:89-90+ S 15 '53

See also

Advertising—Farmers, Appeal to

Electricity on the farm

Plumbing trade—Farm market

FARM ownership

Fundamentals of resource ownership policy. E. O. Heady. diag Land Econ 29:44-56 F '53

FARM produce

Agricultural conditions. Nat City Bank p 128-31 N '53

Farm surplus procedure drawn up. Oil Paint & Drug Rep 166:5+ S 20 '54

President authorized to use surplus farm products for emergency relief overseas. For Comm W 50:18 Ag 17 '53

U.K. reduces imports of U.S. farm products. For Comm W 50:16 Ag 31 '53

U.S. agricultural exports down 30 per cent. For Comm W 50:13 N 9 '53

U.S. cooperative trade with Europe studied. For Comm W 50:18 O 5 '53

U.S. surplus agricultural products to be purchased for use overseas. For Comm W 50: 19 N 2 '53

See also

Agricultural products

Dairy products

Grain

Livestock

Wheat

By-products

Farm products to chemicals; Atlas multiplant production of surfactants. Chem & Eng N 32:708-9 F 22 '54

Marketing

Government drive on to expand market for farm products abroad. Oil Paint & Drug Rep 164:3+ N 30 '53

See also

Commodity credit corporation

Price supports

Appraisal of our free enterprise system. J. A. McConnell. Paint Oil & Chem R 116:32-5 N 5 '53

Basic nonsense; price supports benefit the privileged few. Barron's 33:1 O 19 '53

Dairy supports slashed to 75 percent of parity. Oil Paint & Drug Rep 165:3+ F 22 '54

Farm subsidy headache. F. R. Walters. Mag of Wall St 92:602-3+ Ag 22 '53

Flexible farm price support program will aid foreign trade. G. D. Aiken. Comm & Fin Chr 178:2070-1 N 26 '53

Justice for the farmer and the rest of us. H. C. Taylor. Land Econ 30:1-11 F '54

Message urging new farm price policy. D. D. Eisenhower. Comm & Fin Chr 179:169-71 Ja 14 '54

Political solution to farm problem now seems inevitable. R. S. Byfield. Manuf Rec 122:58 N '53

Politics point to extension of farm price support. E. L. Butz. Comm & Fin Chr 178: 2262+ D 10 '53

Price supports today. O. B. Jesness. Bankers Mo 70:62+ S '53; Discussion. J. H. Peters. 70:4 D '53

FARM produce—Price supports—*Continued*
Pushing a new farm policy. il Bsns W p27 S 26 '53
Supports for farmers; cereals scheme. Economist 168:761-2 S 19 '53
Two-price politics. Chem W 74:11 Je 5 '54

Prices

Agricultural marketing and income. L. J. Atkinson. Survey of Cur Bsns 33:11-14 O '53
Agricultural supply and price developments. Fed Res Bul 39:933-9 S '53
Battle over Danish bacon. Economist 168: 268 Jl 25 '53
Commodity prices; prices received and paid by farmers, 1949-1952. Survey of Cur Bsns 1953 Sup p25 [supplemented in monthly numbers]
Prospects for agriculture. Nat City Bank p 104-7 S '53

Statistics

Agricultural production, 1953; with figures for other years. Survey of Cur Bsns 34:17-19 F '54
Farm income; cash receipts and farm marketings, 1949-1952. Survey of Cur Bsns 1953 Sup p9-10 [supplemented in monthly numbers]
Value of farm products sold by region and state. W. Alderson, comp. Ptr Ink 245:270 sec 2 O 23 '53

FARM underwriters association
Annual meeting, Chicago. Nat Underw 58:1+ Ja 28 '54

FARMER, Ernest Harold, 1890-1952
Sketch. F. L. Warren. Chem Soc J p 1654-9 My '54

FARMERS
Balance sheet of agriculture, 1953. F. L. Garlock and others. maps Fed Res Bul 39:822-34 Ag '53
See also
Advertising—Farmers, Appeal to
Agricultural credit
Farm income
Farm labor
Farm market
Insurance, Life—Farmers as prospects

Insurance requirements

See also
Insurance, Agricultural
Insurance, Liability—Farm policies

Political activities

Farmers at the polls. J. C. Perham and J. C. W. Schaie. Barron's 33:5 S 21 '53
Way farmers feel is a problem for Republicans, businessmen. Bsns W p25-7 O 24 '53

FARMERS' cooperative associations
Picking up momentum; surge of farmer-interest in cooperatives. il Chem W 75:15-16 S 4 '54
Want customers to know about you? Southern states cooperative quiz. T. K. Wolfe. Sales Management 72:88+ F 1 '54

FARMS
Effect of three wars on farm land prices; charts. Banking 46:56-7 S '53
Reliability of deed samples as indicators of land market activity. R. L. Tontz and others. bibliog Land Econ 30:44-51 F '54
See also
Farm ownership

FARRY, Otis T. 1901-
AIEE fellows elected. por Elec Eng 72: 1129 D '53

FASHION
Color development and its relationship to fashion. H. Sisson. Am Dyestuff Rep 43: 76-8 F 1 '54
Is the fashion approach to color old-fashioned? F. H. Rahr. J Retailing 29:109-14 Fall '53
Man-made fibers in fashion. C. Boyer. Am Dyestuff Rep 43:494-6 Ag 2 '54
No new look; dress trade moves slowly on Dior's short skirt. Bsns W p56 Ag 8 '53

FASHION shows
Pajama party fashion shows hoist volume for Kaylon. il Sales Management 70:72+ Ap 1 '53

FASTENINGS
Changing trends in mechanical fasteners. W. C. Stewart. il Machine Design 26:220+ S '54
Corrective period for fasteners. il Steel 133: 89 D 7 '53
Facts about modern fasteners. il diags Mill & Factory 54:598-9 My '54
Fasteners; design for specials becomes standard. W. R. Wolfe. il diags Steel 135:96-8 Ag 16 '54
Fasteners for high temperature service. J. L. Everhart. il Materials & Methods 40:104-6 S '54
Fasteners suffer inventory slump. R. M. Lorz. Iron Age 172:24 D 31 '53
Fastening costs take a nose dive; Metalacing. il Steel 134:100-1 Ap 12 '54
Fuel cell fastener eliminates wall piercing. Aviation W 59:68+ O 5 '53
Got a special joining job? get a special fastener! J. E. Hyler. il diags Mill & Factory 54:115-18 F '54
Impact fastening of sheet metal assemblies. il Machine Design 26:127 Ap '54
Reawakening in fastener markets? il Steel 134:59 Mr 29 '54
Silentbloc quick-action fastener. diags Engineer 197:36 Ja 1 '54; Engineering 176: 827 D 25 '53
Spring-locking fasteners. il diags Machine Design 26:182 F '54
Technical progress; joining and assembly. il Steel 134:394-5+ Ja 4 '54
Titanium fasteners; planemakers pool technology to improve them. il Am Mach 98: 128-30 Ag 30 '54
Versatility, key to efficient heat treat layout; H. M. Harper co. K. G. Hookanson. il Iron Age 173:148-50 Mr 25 '54
See also
Bolts and nuts
Latches

FASTNESS of dyes. See Dyes, Fastness of

FAT
Investigations on animal fats; abstract. J. Holmburg. Chem & Ind p458 Ap 17 '54
Oxidation of chicken fat tissue. H. J. Phillips and I. L. Williams. Science 117:658-9 Je 12 '53
Protamine, chylomicrons, and clot formation. W. D. Brown. bibliog Science 118:46-7 Jl 10 '53
Rheology of fats; abstract and discussion. G. W. S. Blair. Chem & Ind p304-5 Mr 13 '54
See also
Oils and fats

FAT analysis
Determination of DDT and related substances in human fat. A. M. Mattson and others. bibliog Anal Chem 25:1065-70 Jl '53

FATIGUE
Analysis of work decrement factors in a repetitive industrial operation. L. E. Davis and P. D. Josselyn. bibliog Advanced Management 18:5-9 Ap '53
Are you always tired? W. Schweisheimer. Am Bsns 24:20-1+ F '54
Fatigue; measuring and reducing it. L. Brouha. bibliog Advanced Management 19: 9-19 Ja '54; Same. Ind Med 22:547-54 D '53; Abstract. Nat Safety N 69:40-1+ F; 166 Mr '54
Ten ways to save fatigue. H. L. Wylie. Am Bsns 24:16-17 Ap '54
Work analysis cuts fatigue; Remington Rand. il Mill & Factory 54:127 Ja '54
See also
Monotony

FATIGUE in metals
Accident and fatigue investigations at Farnborough. Engineer 197:180-1 Ja 29 '54
Apparatus for study of effects of cyclic thermal stresses on ductile metals. L. F. Coffin, jr. and R. P. Wesley. il diags A S M E Trans 76:923-30 Ag '54
Biaxial fatigue properties of pressure vessel steels. C. E. Bowman and T. J. Dolan. bibliog il diags Welding J 32:sup529-37 N '53

FATIGUE in metals—*Continued*

Concept of fatigue damage. S. M. Marco and W. L. Starkey. il diag A S M E Trans 76:627-32 My '54

Damping, elasticity, and fatigue properties of temperature-resistant materials. B. J. Lazan and L. J. Demer. bibliog il diags Am Soc T M Proc 51:611-46; Discussion. 647-8 '51

Damping, fatigue, and dynamic stress-strain properties of mild steel. B. J. Lazan and T. Wu. bibliog il diags Am Soc T M Proc 51:649-78; Discussion. 678-81 '51

Effect of ceramic coatings on fatigue strength of metal. W. J. Plankenhorn. bibliog il diags Am Cer Soc J 37:281-8 Je 1 '54

Effect of residual stress on the fatigue strength of notched specimens. D. Rosenthal and G. Sines. bibliog il diags Am Soc T M Proc 51:593-608; Discussion. 608-10 '51

Effect of shot-peening variables and residual stresses on fatigue life. R. L. Mattson and W. S. Coleman, jr. il Metal Prog 65:108-12 My '54

Effect of thermal activation on fatigue life of butt welds. A. M. Freudenthal and R. A. Heller. bibliog diag Welding J 33:sup327-38 Jl '54

Effects of residual stress on fatigue life of metals. R. L. Mattson. Machine Design 26:274-6+ My '54; Abstract. S A E J 62:58-9 My '54

Energy state of fatigued copper. B. Welber and R. Webeler. J Metals 5:Trans 1558-9 sec 2 N '53

Fatigue; American society for testing materials meeting, Chicago. Iron Age 173:73-4 Jl 1 '54

Fatigue as a factor in pressure vessel design. T. J. Dolan. bibliog(48 titles) il Welding J 33:sup265-75 Je '54

Fatigue at high temperatures. H. J. Tapsell. diag Metal Prog 64:173-4+ N '53

Fatigue factor in welded design. A. Erker. bibliog(54 titles) diags Welding J 33:sup 295-304 Je '54

Fatigue life of thick-skinned tension joints. E. W. Thrall, jr. il diags Aeronautical Eng R 12:37-46 N '53

Fatigue of aeroplane structures; abstract. R. V. Rhodie. Engineering 176:423-4 O 2 '53

Fatigue properties of some binary alpha solid solutions of aluminum. J. W. Riches and others. bibliog diag Am Soc for Metals Trans 44:882-95 '52

Fatigue strength and electroplating. Product Eng 24:276-9 Ag '53

Fatigue strength butt joints in ⅜-in. thick aluminum alloy plates. E. C. Hartmann and others. bibliog il diags Welding J 33:sup21-30 Ja '54

Fatigue strength characteristics of gear teeth; symposium. E. J. Wellauer and others. Automotive Ind 111:64-5+ Jl 1 '54

Fatigue strength of ball bearing races and heat-treated 52100 steel specimens. H. Styri. bibliog il diags Am Soc T M Proc 51:682-97; Discussion. 697-700, 719-20 '51

Fatigue strength of butt welds made with different electrodes; abstract. G. Becker and R. Rieger. Welding J 33:sup284 Je '54

Fatigue strength of welds made with low-hydrogen electrodes; abstract. Welding J 33:sup 128 Mr '54

Fatigue test as applied to lead cable sheath. G. R. Gohn and W. C. Ellis. bibliog il Am Soc T M Proc 51:721-40; Discussion. 741-4 '51

Fatigue tests at elevated temperatures; abstract. P. H. Frith. Metal Prog 64:174+ D '53

Fatigue tests in axial compression. N. M. Newmark and others. bibliog il diags Am Soc T M Proc 51:792-803; Discussion. 804-10 '51

Fatigue tests of spot welds in Cor-Ten and mild steel. G. Welter and A. Choquet. bibliog diags Welding J 33:sup 134-40 Mr '54

Fatigue tests of steel specimens prepared for metallizing. R. C. Miller, jr. and A. W. Brunot. il diags Welding J 33:sup275-9 Je '54

Fatigue tests of welded beam connections. O. Graf. diags Welding J 33:sup365-8 Jl '54

Influence of grain size on work hardening and fatigue characteristics of alpha brass. G. M. Sinclair and W. J. Craig. bibliog Am Soc for Metals Trans 44:929-46; Discussion. 946-8 '52

Influence of surface roughness on the fatigue life and scatter of test results of two steels. P. G. Fluck. bibliog Am Soc T M Proc 51:584-91; Discussion. 591-2 '51

Light metallurgy; fatigue. R. P. Lister. il Metal Prog 66:91-2 Jl 1 '54

Magnetic fatigue tester. Steel 135:112 S 6 '54

Nature of fatigue weakness in metals. T. J. Dolan. S A E J 62:105-7 My '54

Plastic fatigue strength of pressure vessel steels. J. H. Gross and others. il diags Welding J 33:sup31-9 Ja '54

Secondary fatigue loading of helicopters; abstract. H. Tobey. S A E J 62:98 Je '54

Service and testing observations of fatigue failures in helicopter components. R. M. Carlson and F. D. Schnebly. il S A E J 62:28-31 S '54

Shotblasting; costs of method used to increase fatigue life can be reduced. Iron Age 172:140-1 O 22 '53

Study of the effects of cyclic thermal stresses on a ductile metal. L. F. Coffin, jr. bibliog(44 titles) il diags A S M E Trans 76:931-50 Ag '54

Vulnerability of drill pipe to corrosion fatigue. S. C. Moore and A. P. Farr. il diags World Oil 137:200+ O '53

FATS and oils. See Oils and fats

FATTY acids. See Acids, Fatty

FAUCETS

In Freeport; they call him the faucet man; Louis Conter. il Dom Eng 183:102-4 F '54

FAULTS (geology)

Curvature of low-angle faults at Las Mercedes, Venezuela. M. Kamen-Kaye. diags Am Assn Pet Geologists Bul 37:2178-82 S '53

Shears of the second order. H. E. McKinstry. bibliog diags Am J Sci 251:401-14 Je '53

FAVORSKII reaction

Mechanism of the Favorski reaction. J. G. Burr, jr. and M. J. S. Dewar. Chem Soc J p 1201-3 Ap '54

FAY, Joseph S.

What's the mystery about Joe Fay? por Bsns W p 160-1 O 24 '53

FECES

Protozoans in stools unpreserved and preserved in PVA-fixative. M. Goldman and M. M. Brooke. Pub Health Rep 68:703-6 Jl '53

FECUNDITY

Failure of phosphorylated hesperidin to influence fertility in rodents. N. Millman and F. Rosen. Science 118:212-13 Ag 21 '53

FEDDERS-QUIGAN corporation

Fedders-Quigan top dealers fly to their reward. il Bsns W p54-7 N 21 '53

FEDERAL barge lines. See Inland waterways corporation

FEDERAL civil defense administration

FCDA delegates authority. Chem & Eng N 32:3056+ Ag 2 '54

FEDERAL commissions. See United States—Executive departments

FEDERAL communications commission

Advantages of FCC form 400. M. E. Floegel. Commun Eng 13:19+ N '53

Economic and regulatory problems in the broadcast field. H. H. Goldin. Land Econ 30:223-33; Discussion. P. O. Steiner. 233-6 Ag '54

FCC dilemma; how to give industrial radio a bigger slice of the air waves. E. C. Kreutzberg. Steel 134:54 My 17 '54

See also

Radio laws and regulations

FEDERAL crop insurance corporation

Federal crop corp. to sell through agents. East Underw 54:32 N 20 '53

Federal Crop cover shifts to local agents come Jan. 1. Nat Underw 57:11 N 5 '53

Hastens to quash rumor regarding FCIC's new method of operation. C. S. Laidlaw. Nat Underw 58:4 Ja 14 '54

Local agents will handle ten per cent of sales work after Jan. 1. Nat Underw 57:9 D 24 '53

FEDERAL electric products company

Making a big one out of a little one. Bsns W p 134+ Ag 8 '53

FEDERAL employees. See Government employees

FEDERAL housing administration

Action follows fast after round table protest to Hollyday and King on valuations. House & Home 5:140-51 Mr '54

Baltimore ex-FHA chief indicted on bribery count; FHA industry Advisory board named. House & Home 3:41+ My '53

Bold experiment is twenty years old. Am Bld 76:88+ Je '54

Can new field chiefs pep up FHA? House & Home 4:49+ N '53

Close look at South Carolina reveals cozy tieup between ex-FHA chief, 608 operatives. House & Home 5:43+ Je '54

FHA adds ½ per cent service fee to woo mortgage money for pint-sized Title I section 8 loans. House & Home 3:37 Ja '53

FHA and the welfare state; how mutual insurance system of 1934 was transformed into an agency for social manipulation of the mortgage market. M. L. Colean. House & Home 3:180-1 Ja '53

FHA cracks down on Title I repair rackets. House & Home 4:137 N '53

FHA gives house trade-ins a tryout. Bsns W p27 Ag 1 '53

FHA probe on the move. House & Home 6:39-40 S '54

FHA scandals after three months. House & Home 6:35-6 Jl '54

FHA scandals lead Senate banking committee to ask crippling changes for rental housing. Arch Forum 100:40 Je '54

FHA starts a big shakeup of its underwriting. il House & Home 5:170-1 My '54

FHA takes a new tack. House & Home 5:38-9 Ja '54

FHA will seek major overhaul to simplify titles next year. House & Home 4:136-7 N '53

FHA yields to year's urging, raises defense housing mortgage ceilings in dozen areas. House & Home 3:47 Ja '53

FHA's five-year-old scandal. House & Home 5:sup 1A-1P My '54

FHA's time of troubles. Arch Forum 100:35 My '54

Guy Hollyday, former mortgage banker president, to head FHA. House & Home 3:37 Ap '53

Hollyday out; White House announces probe of FHA. Am Bld 76:41 My '54

Housing report asks for end of Fanny Mae; President's study group recommends liberalizing and broadening FHA terms. Eng N 151:22-3 D 17 '53

How much is there to the FHA scandal? Eng N 152:85 Ap 22 '54

Industry speaks up for FHA. House & Home 5:126-9 Je '54

Let competition rule FHA rates. E. A. Camp, jr. Nat Underw (Life ed) 57:8 O 16 '53

Low-cost title I, sec 8 FHA program gains momentum as Congress gets bill to end it. House & Home 5:43-4 Mr '54

Mason streamlines FHA procedure as investigations continue. Am Bld 76:38 Ag '54

Mortgage bankers, fearful HHFA power grab will imperil FHA, take plea to White House. House & Home 5:41 My '54

Much criticized 608 rental housing reaches 97.2 per cent occupancy but still has trouble spots. House & Home 5:135 Ja '54

National Life of Vermont's FHA loan experience. D. C. Davis. East Underw 55:4 My 28 '54

Senators call 608 builders on the carpet. House & Home 6:35+ Ag '54

Whither housing? future government policy in doubt as investigation rocks Nation. E. Mickel. Arch Rec 115:38 My '54

Will scandal cripple the housing bill? House & Home 5:142-5 Je '54

Insured mortgage plan

Boost for builders; new housing law. Eng N 151:86-7 Jl 9 '53

How good is a government guarantee? study of FHA and VA mortgages. S. E. Neel. Banking 46:47-8+ D '53

Life companies urge flexible rate on FHA mortgages. Nat Underw (Life ed) 57:1+ Ag 14 '53

Low-cost sec. 8 market zooms, gets three new models in $6,000 range. il plans House & Home 5:43+ My '54

Package mortgage; FHA removes roadblock for lenders. House & Home 3:77+ F '53

Warns on enlarging FHA mortgage risk. R. B. Patrick. East Underw 55:6 Ja 22 '54

FEDERAL manufacturing and engineering corporation

Security I like best. S. J. Sanford. Comm & Fin Chr 178:1002 S 17 '53

FEDERAL mediation and conciliation service. See United States—Federal mediation and conciliation service

FEDERAL national mortgage association

Fanny Mae; a headache for the White House. Eng N 151:54-5 D 31 '53

Fanny Mae; its future is clearer. Eng N 152:72 F 4 '54

Housing report asks for end of Fanny Mae; President's study group recommends liberalizing and broadening FHA terms. Eng N 151:22-3 D 17 '53

No help from FNMA. Eng N 151:92 Ag 13 '53

One-for-one plan; Fanny Mae is now working on its difficult price details. Eng N 151:87-8 Jl 9 '53

FEDERAL power commission

Digby fills last FPC vacancy. Elec World 140:93 Ag 10 '53

FPC authorized 6800 miles in 1953. Gas Age 113:43+ Ap 8 '54

FPC; it's always in the middle; agency's toughest chore is rate fixing. B. F. Linz. il Oil & Gas J 52:84+ Ag 24 '53

FPC power increased; Supreme court's refusal to review Northern Natural case. H. D. Ralph. Oil & Gas J 52:62 Ja 11 '54

FPC reversed; court ruling expected to boost natural gas earnings. E. R. Abrams. Barron's 33:17-18 O 12 '53

Five months as chairman of the Federal power commission. J. K. Kuykendall. Am Gas Assn Proc 1953:18-22; Excerpts. Am Gas Assn Mo 35:25-6 D '53

Five reasons why FPC should not control field prices of natural gas. H. H. Baker. Gas Age 112:32-3 D 3 '53

Highlights of cases. Am Gas Assn Mo 36:43-4 My; 45-6 Jl-Ag; 34-5 S '54

It is the task of the FPC to protect the public. J. K. Kuykendall. Gas Age 112:21+ N 5 '53

Natural gas pricing ruled FPC function. Oil Paint & Drug Rep 165:3+ Je 14 '54

FEDERAL reserve banks

Appointments of chairmen, deputy chairmen, and directors. Fed Res Bul 40:26-31 Ja '54

Fed opens new communications system; Federal leased wire system. Banking 46:61 Ag '53

Directors

Directors of Federal reserve banks and branches; list. Fed Res Bul 40:130-43 F '54

Member banks

Condition of banks; Federal reserve weekly reporting member banks, 1949-1952. Survey of Cur Bsns 1953 Sup p80-1 [supplemented in monthly numbers]

Condition statement of member banks. Published in weekly Monday numbers of Commercial and financial chronicle

Member bank earnings, first half of 1953 and comparisons, 1949-1952. Fed Res Bul 39:1048-9 O '53

Statistics

Federal reserve banks and Federal reserve weekly reporting member banks, 1949-1952. Survey of Cur Bsns 1953 Sup p79-81 [supplemented in monthly numbers]

Statement of condition of the twelve Federal reserve banks combined. Published in weekly Monday numbers of Commercial and financial chronicle

FEDERAL reserve board

Softening the sound dollar. Economist 169:531-3 N 14 '53

FEDERAL reserve board—*Continued*

Credit policy

Credit and monetary policy in competitive markets. W. M. Martin, jr. Fed Res Bul 40:125-9 F '54
Credit policy. Nat City Bank p6-9 Ja '54; Excerpt. Comm & Fin Chr 179:174-5 Ja 14 '54
Credit policy eased further. Nat City Bank p 111-13 O '53; Same abr. Comm & Fin Chr 178:1342 O 8 '53
Objectives of Federal reserve board. J. L. Robertson. Comm & Fin Chr 178:1232+ O 1 '53
Use of Federal Reserve repurchase deals. Burroughs Clearing House 38:10-11 F '54

FEDERAL reserve system
Money for still more growth. Bsns W p29-30 D 12 '53
Relation of currency supply to economic growth. W. E. Spahr. Comm & Fin Chr 179:253+ Ja 21 '54
Spring money pinch debated. Nat City Bank p 100-4 S '53

FEDERAL savings and loan associations
Saving and loan institutions, their responsibility to the Nation. C. L. Clements. Comm & Fin Chr 178:1128 S 24 '53
Savings and loan management guides; Second federal savings and loan association of Cleveland. C. W. Grove. Burroughs Clearing House 38:40-1+ O '53

FEDERAL services finance corporation
Debentures offered. Comm & Fin Chr 178:1568 O 26 '53

FEDERAL trade commission
Challenges and checks. Chem W 75:11 Ag 14 '54
Closer liaison between FTC and ad business gets favorable reaction from top execs. C. Day. Ptr Ink 243:38-9+ Ap 3 '53
Complaints increase; agreement reached with Food and drug administration. E. F. Howrey. Chem & Eng N 32:2650 Je 28 '54
Curtain raiser; dismissal of price discrimination charges against manufacturer of household bleaches. Chem W 74:22 My 29 '54
FTC eyes chlorophyll muddle and bites its nails. J. Shoenfeld. Sales Management 70:46+ Ap 1 '53
FTC fights to keep at minimum court modifications of its orders. Oil Paint & Drug Rep 166:3+ S 20 '54
FTC gains in 16 months. E. F. Howrey. Oil Paint & Drug Rep 166:5 Ag 23 '54
FTC insurance program is being reduced. Nat Underw (Life ed) 57:13 S 11 '53
FTC is still hardboiled; stringent rulings on Dictograph's exclusive distributor contracts and Eastman fair trade agreements. Bsns W p50+ O 17 '53
FTC jurisdiction pact with FDA now official. Oil Paint & Drug Rep 165:5+ Je 14 '54
FTC liberalizes views of price discrimination. Oil Paint & Drug Rep 165:4+ My 3 '54
FTC methods overhaul set in motion. Oil Paint & Drug Rep 165:4 Ja 4 '54
FTC now backs good faith price plea, pledges less railroading of business. Nat Pet N 45:15 Je 24 '53
FTC revamped. Steel 134:53 My 31 '54
FTC revamps proceedings setup. Oil Paint & Drug Rep 165:3+ My 17 '54
FTC seeks more public action. Chem & Eng N 32:2114+ My 24 '54
FTC takes on a new look. R. Y. Giles. Ptr Ink 243:54-5 My 29 '53
FTC urges voluntary compliance. E. F. Howrey. Oil Paint & Drug Rep 165:4+ Je 21 '54
I propose that the FTC establish an advisory committee on cost justification, set up a Bureau of consultation, submit to a survey by an outside firm of management engineers, revitalize its Bureau of industrial economics. E. F. Howrey. Sales Management 71:34 Jl 1 '53
Ike's Federal trade commission takes a new look at codes. J. Shoenfeld. Sales Management 72:54+ Mr 1 '54
Magic in the metal; Evis water conditioner faces Federal trade commission charges. Chem W 74:28 Mr 27 '54
New antitrust policy takes shape; FTC will assume preventive functions. Steel 133:35 Ag 31 '53
New enforcement tack. Chem W 74:34 My 22 '54
New FTC discarding theories for facts. Nat Pet N 46:15-16 F 17 '54
Preliminary look at Howrey's new FTC policies. J. Shoenfeld. Sales Management 71:48+ Jl 15 '53
Reorganized on functional lines. Oil Paint & Drug Rep 165:4+ My 24 '54
Trustbusting, '53 style. Chem W 73:15 Jl 11 '53

FEDERATION for railway progress
Annual meeting, New York, March 25. Ry Age 136:76 Ap 5 '54

FEDERATION of American scientists
Scientists blast Monmouth probe. Chem & Eng N 32:1892+ My 10 '54

FEDERATION of American societies for experimental biology
Annual meeting, 37th, Chicago, April 6-10. Science 117:705-6 Je 26 '53
Annual meeting, 38th, Atlantic City; abstracts of papers. Chem & Eng N 32:1666-7 Ap 26 '54

FEDERATION of paint and varnish production clubs
Annual meeting, 31st, Atlantic City. Chem & Eng N 31:4680+ N 9 '53
Annual meeting, 31st, Atlantic City, Oct. 29-31. Oil Paint & Drug Rep 164:69+ N 2; 69-71+ N 9 '53
Business meeting, Atlantic City, Oct. 29-31. Paint Oil & Chem R 116:18-19 N 5 '53

FEDERATION of Rhodesia and Nyasaland
Central Africa at the polls. Economist 169:824+ D 12 '53
Federal politics in Central Africa. Economist 169:38 O 3 '53
Federation achieved. Economist 168:311-12 Ag 1 '53
Federation begins. Economist 168:620-1 S 5 '53
Federation in Africa. Bsns W p 140-1 Ag 15 '53
Northern Rhodesia unagreed. Economist 168:841-2 S 26 '53
Restoring African confidence. Economist 168:621 S 5 '53
Rhodesias, Nyasaland united under federal government; interim ministry appointed. For Comm W 50:2 D 7 '53
Troubles in Nyasaland. Economist 169:16 O 3 '53
Victory for partnership. Economist 169:874 D 19 '53

FEDERATION of sewage and industrial wastes associations
Annual meeting, 26th, Miami. Eng N 151:23 O 22 '53
Annual meeting, 26th, Miami, Oct. 13-16. Sewage & Ind Wastes 26:113-17 Ja '54
Annual meeting, 26th, Miami, Oct. 13-16; with abstracts of papers. Munic Util 91:19-20+ D '53
Annual meeting, 26th, Miami, Oct. 13-16; with abstracts of papers. Water & Sewage Works 100:478-82; 101:31-5, 89-93 D '53-F '54
Annual meeting, 27th, Cincinnati, Oct. 11-14; program. Sewage & Ind Wastes 26:1182-8 S '54
Annual year book and directory, 1954. Sewage & Ind Wastes 26:349-444 Mr '54
Constitution and by-laws. Sewage & Ind Wastes 26:445-52 Mr '54

FEED mechanisms
Automatic feed press for small stampings. il Steel 135:117 Ag 23 '54
Automatic feeding device speeds machine operations. W. G. Patton. il Iron Age 172:133-5 Jl 2 '53
Automatic feeding devices produce small parts faster; Buick motor div., General motors corp. S. J. White. il Iron Age 172:157-9 S 17 '53
Cam feed speeds undercutting on 75-mm shell. S. F. Pasternak. il Am Mach 98:110-11 Ap 26 '54
Dial feeds increase press capacity. W. W. Schug. il Iron Age 173:194-7 Ap 22 '54
Feed tubes cut from square stock; Lipe-Rollway corp. il Steel 133:115 N 30 '53
High-speed punch press feed mechanism. B. Spector. diags Mach 60:202-3 Ag '54

FEED mechanisms—*Continued*
Magazine feed speeds second die operations. F. Strasser. diags Am Mach 98:165 Mr 15 '54
National broach & machine co., automatic broach loaders. il Tool Eng 32:128 Mr '54
Punch press feed; Hydrafeed. il Tool Eng 32:116-17 Ja '54
Vest-pocket automation. F. M. Butrick, jr. diag Steel 135:98 S 6 '54

FEED water
Boiler water chemistry; symposium. bibliog il diags Ind & Eng Chem 46:953-97 My '54 (reprints 75c)
Graphical solutions for power engineers; feed-water chemistry relations; charts. P. J. Grogan. Power Eng 58:88-9 Mr '54
Joint research committee on boiler feed water studies. E. P. Partridge. Ind & Eng Chem 46:997 My '54
What caused water level irregularities? diag Power Eng 58:92+ Ja '54
See also
Feed water purification

Testing
Determination of free and combined carbon dioxide in condensates and boiler feed waters, and standardization of the method against known amounts of carbon dioxide. D. Parkhouse. diag Chem & Ind p 1197-9 N 7 '53
How much oil in your feedwater? G. S. Emmerson. diags Power Eng 57:78-9+ D '53
How we licked our boiler-water problems; Wisteria hosiery mills, inc. S. Boyer. Textile World 104:97 Ag '54
New additive eases the testing for excess sulfite in boiler water. W. D. Turner. il Power 98:112-13 Je '54
Scheme for analysis of industrial water. J. H. Phillips and K. G. Stoffer. il Ind & Eng Chem 46:970-4 My '54
Significance and application of water analysis data. R. C. Ulmer. bibliog il diag Ind & Eng Chem 46:975-8 My '54

FEED water heaters
How cut feed water heater losses? W. S. Crooks. Power Eng 58:94 Ja '54
Rotary economiser. Chem Age (Lond) 69:1022 N 14 '53
Study feedwater heater drain pump systems. T. W. Edwards. diags Power Eng 58:78-9 My; 66-7 Jl '54

FEED water pumps. See Pumps, Feed water

FEED water purification
Comic characters help explain water treatment. il Power Eng 58:86 Ja '54
Control methods in boiler feed-water treatment. E. W. Ellis and H. E. Carlson. Oil & Gas J 52:341 N 16; 115 N 23; 105 N 30; 147 D 7 '53
Demineralization cuts power costs at Hawthorne plant. C. E. Morrow and F. C. Gehle. il diags Power Eng 58:86+ Jl '54
Device combats feedwater contamination; Lawson De-Oiler. il diags Marine Eng 59:70-1 My '54
Evaluation of several alkaline compounds for controlling corrosion-erosion in boiler feed-water systems; abstract. J. M. Decker and J. C. Marsh. Power 98:208+ Je '54
Feed water treatment problems at the Woodfibre, B.C. mill of Alaska pine & cellulose, ltd. W. A. Dale. Pulp & Pa of Can 54:121-2+ D '53
Hard sell for soft water; E. F. Drew & co. il Chem W 74:58+ Mr 13 '54
Hydrazine, new aid to water treatment. E. R. Woodward. il Power 97:91-3+ N '53
Leaving the salt behind; Pacific Gas & Electric's steam-electric generating plant will operate on water from the sea. il Chem W 75:52+ Ag 28 '54
New developments in the treatment of boiler feedwater. G. A. Taylor. flow diag il Can Chem Process 38:34+ My '54
Packaged watertube boiler treatment. P. Brindisi. diags Power 97:101+ D '53
Practical performance of water-conditioning gadgets. B. Q. Welder and E. P. Partridge. bibliog(106 ref) Ind & Eng Chem 46:954-60 My '54; Same. Refrig Eng 62:49-53+ Je '54
Preparation of feed water make-up. S. B. Applebaum. diags Ind & Eng Chem 46:985-8 My '54
Reduction of condensate-line corrosion. S. Jensen and E. R. Lang. plan A S M E Trans 76:245-9 F '54
Silica removal by salt splitting without demineralizing. S. B. Applebaum and B. W. Dickerson. Power 98:210+ Je '54
Water in high-pressure boiler. Tappi 37:sup 124A-7A Je '54
What part does chemical coagulation play in today's water-treatment practices? S. T. Powell. il Power 98:80-2+ Ja '54
Which will it be demineralization or evaporation? S. B. Applebaum and M. C. McKeown. il Power Eng 58:76-7 Je '54

FEED water regulators
Boiler feed regulation. diags Elec J 152:601-2 F 19 '54
Don't murder your feed regulator. J. Gorrie. diags Power 97:116-17 D '53

FEEDBACK in amplifiers. See Amplifiers, Vacuum tube

FEEDBACK phenomena
Quick methods for evaluating the closed-loop poles of feedback control systems; abstract. G. A. Biernson. Elec Eng 72:905 O '53
Static and sliding friction in feedback systems. J. Tou and P. M. Schultheiss. diags J Ap Phys 24:1210-17 S '53
Study of transients in linear feedback system by conformal mapping and the root-locus method. V. C. M. Yeh. bibliog diags A S M E Trans 76:349-59; Discussion. 359-61 Ap '54

FEEDERS
Chemical feed control. C. K. Perkins and W. H. Brown, jr. il diag Instruments & Automation 27:291 F '54
Chemical feeder puzzlers. R. J. Leveque. diags Water & Sewage Works 101:254-7 Je '54
Devices for the continuous addition of solids and liquids on the laboratory scale. D. E. Weiss. diags Chem & Ind p741-2 Jl 18 '53
Fischer & Porter's chemical feeder has built-in ejector. il diag Chem & Eng N 32:262 Ja 18 '54
Floating weir box provides constant feed rate. W. H. Decker. il diags Chem Eng 60:186 Jl '53
How to choose a disc feeder. J. G. Seanor. Brick & Clay Rec 124:41+ Mr '54
New overload release prevents breakdown. il Brick & Clay Rec 124:77 Mr '54

FEEDING and feeding stuffs
AFS package idea expanding; feed manufacturers taking more mixtures of antibiotics and vitamins. Chem & Eng N 32:268 Ja 18 '54
Cattle beefer; diethylstilbestrol in feed supplementation. Chem W 74:76+ Mr 13 '54
Estrogenic activity of isoflavone derivatives extracted and prepared from soybean oil meal. E. Cheng and others. bibliog Science 118:164-5 Ag 7 '53
Feed cycle; sewage disposal and algae. Ind & Eng Chem 46:sup 15A+ F '54
Food and the future; food and fodder yeast. A. C. Thaysen. Chem & Ind p446-7 My 9 '53
From sewage to vitamin B. Chem W 72:16 Je 27 '53
Let them eat fat; anti-oxidants will prevent rancidity in fats added to animal feeds. Chem W 74:95 Ja 23 '54
Meat market for chemicals; ammoniated molasses. il Chem W 73:70+ O 10 '53
New process turns sewage to cheap animal feed. il Chem Eng 61:372-3 My '54
Quality of cereals and their industrial uses; factors affecting suitability of oats for processing. J. B. Hutchinson. bibliog Chem & Ind p578-81 Je 13 '53
Sealing a barnyard bond; bond between livestock pathology and nutrition; Pfizer's new experimental farm and laboratories. il Chem W 72:36+ Ap 18 '53
Tallow for animal feed. J. E. Magoffin. Soap & San Chem 30:54-5+ Mr '54
Vitamin B_{12} feed supplement. A. S. Hester and G. E. Ward. bibliog flow sheet il Ind & Eng Chem 46:238-43 F '54
See also
Poultry—Feeding
Swine—Feeding

FEES

I.C.C. proposes licensing fees. Ry Age 136:8-9 Mr 1 '54

Professional fees; factors affecting fee setting in the several professions. J. Backman. bibliog J Account 95:554-66 My '53

See also

Accountants, Public—Fees

Lawyers—Fees

Trust fees

FELDSPAR

Feldspar, 1953. B. L. Gunsallus. Eng & Min J 155:112+ F '54

Properties of feldspars and their use in whitewares. J. C. Kyonka and R. L. Cook. Ill U Eng Exp Sta Bul 422:1-34 bibliog(p33-4) '54 (pa 60c)

Whiteware raw materials from Saskatchewan. G. S. Crawford. bibliog il Am Cer Soc Bul 33:49-50 F 15 '54

FELT

Action of carroting agents. E. H. Mercer. bibliog il diags Textile Inst J Trans 45:T719-22 S '54

Felts find wide use in industry for finishing operations. il Iron Age 173:155-6+ My 6 '54

Physical properties of felt; felt structure, extension and recovery. A. Baines. bibliog diags Textile Inst J Trans 44:T645-56 D '53

FELT, Paper

Progress at Ruberoid is progress in paper. B. Otis. il map Paper Tr J 138:14-18 Ag 27 '54

FELTS (paper making)

Cylinder felts for mills in the Syracuse area. B. L. Channer. Tappi 37:sup 126A-8A Ja '54

Experience with synthetic fibres in felts. Paper Tr J 138:22 Ap 30 '54

Experience with synthetic fibers in felts in Europe. E. Race. Paper Tr J 138:17-18 Je 11 '54

Felt research contributes to increased productivity in paper mills. H. F. Hedberg. Paper Ind 36:378-9 Jl '54

Functions of the felt in water removal on the papermaking machine; abstract. A. H. Nissan. Paper Tr J 138:21 O 1 '54

How three-roll expander unit improves felt handling at John Strange paper co. il diag Paper Tr J 138:96-7 My 14 '54

Press felt and its water content; abstract. K. F. Hansson. Paper Tr J 137:26 O 23 '53

Why is wool best for paper machine felts? J. Standish. Paper Tr J 138:21-2 Ja 15 '54

FENCES

How to build a privacy fence. il Am Bld 76:242-3 Mr '54

What they will do for the house. il plans diags Am Bld 75:44+ Mr '53

FENDERS, Automobile. See Automobiles—Fenders

FENDERS, Dock

Two novel fendering systems. il plans diags Engineer 196:519-21 O 23 '53

FERBERITE

Beneficiation of ferberite-scheelite ore from Germania consolidated mines, inc., Stevens county, Wash. P. H. Floyd and W. A. Stickney. pl U S Bur Mines Rep of Invest 5039:1-6 '54

FERGUSON, John D. 1891-

AIEE fellows elected. por Elec Eng 72:1129 D '53

FERMENTATION

Bacterial fermentations. F. J. Simpson. bibliog il Can Chem Process 37:78+ O '53

Bacteriological problems in translating from small equipment to the industrial scale; abstract. W. B. Emery. Chem & Ind p625 My 29 '54

Chemical engineering unit processes. D. Perlman, A. E. Tempel, jr. and W. E. Brown. bibliog Ind & Eng Chem 45:1944-69 bibliog (651 ref, p 1962-9) S '53

Chemical engineering unit processes. D. Perlman and C. L. Kroll. Ind & Eng Chem 46:1809-26 bibliog(591 ref, p 1821-6) S '54

Determination of fumaric, malic, and succinic acids in fermentation broths. N. Lemjakov. Anal Chem 26:1227-8 Jl '54

Development of a typical aerobic fermentation. O. G. Wegrich and R. A. Shurter, jr. bibliog il diag Ind & Eng Chem 45:1153-60 My '53

Engineering and microbiological processes. F. E. Warner and others. bibliog diags Chem & Ind p 114-19 Ja 30 '54

Liebig-Pasteur controversy. H. Finegold. bibliog J Chem Educ 31:403-6 Ag '54

Microbiology of the citric acid fermentation; abstract. J. L. Yuill. Chem & Ind p625 My 29 '54

Money from microbes; bacterial fermentation in Canada. Can Chem Process 37:8+ O '53

Problems of biochemical engineering; sterility in fermentation processes. J. J. H. Hastings. Chem Age (Lond) 69:1231-2 D 12 '53

Vitamin B_{12} by fermentation with streptomyces olivaceus. V. F. Pfeifer, C. Vojnovich and E. N. Heger. bibliog flow sheet Ind & Eng Chem 46:843-9 My '54

Vitamin B_{12} feed supplement. A. S. Hester and G. E. Ward. bibliog flow sheet il Ind & Eng Chem 46:238-43 F '54

See also

Bacteriology

Enzymes

Wine—Manufacture

Yeasts

FERRANTI, limited

Statement by the chairman. V. de Ferranti. Economist 169:457 N 7 '53

FERRATES

Cation distributions in mixed ferrites. J. S. Smart. bibliog Phys R 94:847-50 My 15 '54

Complex fluorides; studies on fluoroferrates and on hydrogen bonding in complex fluorides. B. Cox and A. G. Sharpe. Chem Soc J p 1798-803 Je '54

Cosmotron; a review; radio-frequency system; properties of ferromagnetic ferrites. J. P. Blewett and others. bibliog diag R Sci Instr 24:800-5 S '53

Effect of cross-section area and compression upon the relaxation in permeability for toroidal samples of ferrites. R. E. Alley, jr. and F. J. Schnettler. J Ap Phys 24:1524-5 D '53

Ferrite applications at microwave frequencies. D. Caswell. diags Electronics 26:246+ O '53

Ferrite formation associated with carbide precipitation in 18 CR-8 NI austenitic stainless steel. E. J. Dulis and G. V. Smith. bibliog il Am Soc for Metals Trans 44:621-32; Discussion. 632-42 '52

Ferrites for microwave circuits and digital computers. E. Albers-Schoenberg. bibliog diags J Ap Phys 25:152-4 F '54

Ferrites in microwave applications. J. H. Rowen. diags Bell System Tech J 32:1333-69 N '53

High-speed magnetic pulsing of ferrites. R. C. LeCraw. J Ap Phys 25:678-9 My '54

High temperature heat contents of calcium and magnesium ferrites. K. R. Bonnickson. Am Chem Soc J 76:1480-2 Mr 20 '54

Low-loss ferrites for applications at 4000 millicycles per second. L. G. Van Uitert and others. bibliog J Ap Phys 25:925-6 Jl '54

Magnetic resonance phenomena in ferrites. F. Brown and D. Park. bibliog diags Phys R 93:381-4 F 1 '54

Modes in wave guides containing ferrites. M. L. Kales. bibliog J Ap Phys 24:604-8 My '53

Review of new magnetic phenomena. R. E. Alley, jr. bibliog diags Bell System Tech J 32:1155-72 S '53

Sintered magnetic materials. G. W. O. Howe. Wireless Eng 30:235-7 O '53

Temperature dependence of ferromagnetic resonance line width in a nickel iron ferrite; a new loss mechanism. J. K. Galt and others. bibliog Phys R 93:1119-20 Mr 1 '54

See also

Manganese ferrates

FERRIC chloride. See Iron chlorides

FERRIHEMOGLOBIN. See Methemoglobin

FERRITES. See Ferrates

FERROALLOYS

Ferromagnetism of certain manganese-rich alloys. E. R. Morgan. bibliog il J Metals 6:Trans 983-8 S '54

Research reaps rewards; huge alloy plant to produce simplex ferrochrome, purer Cr and Mn; Electro metallurgical co. il J Metals 5:886-7 Jl '53

FERROALLOYS—*Continued*

Statistics

Pig iron and ferroalloys output by countries: tabulation. Steel 134:162 Ja 4 '54

FERROCENE. See Iron compounds

FERROCHROMIUM

Equilibrium controlling the decarburization of iron-chromium-carbon melts. W. E. Dennis and F. D. Richardson. bibliog Iron & Steel Inst J 175:264-6 N '53

FERROCYANIDES

Rate of the ferrocyanide-ferricyanide exchange reaction. A. C. Wahl and C. F. Deck. bibliog Am Chem Soc J 76:4054-5 Ag 5 '54

FERROELECTRIC effect

Domain formation and domain wall motions in ferroelectric $BaTiO_3$ single crystals. W. J. Merz. bibliog il diags Phys R 95:690-8 Ag 1 '54

Ferroelectric properties of lead metaniobate. G. Goodman. bibliog il diags Am Cer Soc J 36:368-72 N 1 '53

Phase transitions in ferroelectric $KNbO_3$. G. Shirane and others. bibliog Phys R 93:672-3 F 15 '54

Threshold field and free energy for the antiferroelectric-ferroelectric phase transition in lead zirconate. A. P. deBretteville, jr. diags Phys R 94:1125-8 Je 1 '54

FERROMAGNETISM. See Magnetism

FERROMANGANESE

Ferromanganese furnace fumes cleaned successfully; Duquesne works of United States steel corp. C. H. Good, jr. il diag Iron Age 174:95-7 Jl 8 '54

Ferromanganese gets a cleaning. Steel 133:106 Ag 3 '53

Prices

Ferromanganese 80 per cent, 1936-1953; tabulation. Iron Age 173:419 Ja 7 '54

FERROSILICON

Prices

50 per cent ferrosilicon, 1948-1953; tabulation. Iron Age 173:419 Ja 7 '54

FERRUGINOL

Total synthesis of DL-ferruginol. F. E. King and others. bibliog Chem & Ind p 108-9 Ja 23 '54

FERRY terminals

Winch gear for car-ferry bridge spans. il Engineering 177:25-6 Ja 1 '54; Elec J 152:47-8 Ja 1 '54; Elec R (Lond) 154:20-1 Ja 1 '54

FERRYBOATS

Carabobo, new ferryboat makes long voyage to Venezuela. il Marine Eng 58:76 D '53

Diesel ferryboat Kahloke built to new Canadian safety standards. il Marine Eng 59:72-4 Ja '54

Double-ended ferry. il Engineer 197:152 Ja 22 '54

Lengthened ferry is money maker. L. Hansen. il Marine Eng 59:66-7+ Jl '54

Mighty mite of the Mississippi; double-ended ferry, Cameron. il Marine Eng 59:63-4 Ag '54

West Coast ferry built in floating drydock. il diag Marine Eng 59:58-60 Ap '54

FERTILITY. See Fecundity

FERTILIZER association, National. See National fertilizer association

FERTILIZER control officials, Association of American. See Association of American fertilizer control officials

FERTILIZER factories

Fertilizer prescriptions filled here; Naco fertilizer co. il Chem Eng 61:136+ Jl '54

Maintenance incentive; scheme at I.C.I. fertiliser factory. Chem Age (Lond) 69:867-8 O 24 '53

Mixing plant goes granular; Eastern states farmers' exchange, Wilmington, Delaware plant. diag Chem Eng 60:116 D '53

Employees

Motivation to be studied in fertilizer industry. Nat Safety N 70:76 Ag '54

Equipment

Manufacture of phosphoric acid at Barton-on-Humber. il diag Chem Age (Lond) 69:593-6 S 19 '53; Engineer 196:409-10 S 25 '53

Raw materials handling; Farmers' manure co. il Chem Age (Lond) 71:643-4 S 25 '54

Power

Phosphates and the dam; Hell's canyon at center of country's struggle over national policy on development of natural resources. map Chem W 74:16-17 F 27 '54

Safety measures

Safety experts to see how CO_2 loosens fertilizer. Chem Eng 60:152+ S '53

Waste

Superphosphate plant effluents. R. Donald. Chem Age (Lond) 69:1171-2+ D 5 '53

FERTILIZER industry

Ammonia use climbs 34 percent on farms. Oil Paint & Drug Rep 166:5 Ag 2 '54

Better break from FOA. Chem W 75:11 Ag 28 '54

Cargo legislation is signed; fertilizer industry to benefit. Oil Paint & Drug Rep 166:3 Ag 30 '54

Chemistry in farming progress. W. G. Rouse. Comm & Fin Chr 178:1003+ S 17 '53

Direct use of anhydrous ammonia in soil continues to increase. H. Stenerson. Chem & Eng N 31:3502 Ag 24 '53

Drive for fall fertilizing. il Chem W 75:82+ S 11 '54

Farm slump touches fertilizers; annual review. Chem Eng 61:194 Mr '54

Fertilizer producers seek greater share of purchases made by FOA. Oil Paint & Drug Rep 166:3+ Ag 2 '54

Fertilizers, key element in agricultural progress; abstract. P. T. Truitt. Oil Paint & Drug Rep 165:52 Je 14 '54

Fertilizers; production goals near attainment; annual review. E. C. Kapusta. Chem & Eng N 32:29-31 Ja 4 '54

Fertilizers; steady growth, solid future. C. J. Matthew and S. E. Perkins. Chem W 75:35-42 Ag 28 '54

Government receives over thirty bids on fertilizer for Korea. Oil Paint & Drug Rep 166:5+ S 27 '54

Import icing on the cake; Bradley & Baker. il Chem W 72:60-2 Ap 18 '53

Minor nutrients grow up. il Chem W 72:74+ Ap 11 '53

Organizing a boom; direct-application ammonia's year. il Chem W 73:64+ Ag 15 '53

Picking up momentum; surge of farmer-interest in cooperatives. il Chem W 75:15-16 S 4 '54

Plant nutrient supply seen topping record. Oil Paint & Drug Rep 164:4+ N 23 '53

Spreading ammonia. il Chem W 72:52+ Ap 25 '53

Teaming up with bankers; Spencer chemical co. il Chem W 75:22 Jl 10 '54

US fertilizer gets no preference from FOA. Oil Paint & Drug Rep 165:3+ Ap 19 '54

Use increased in 1952-53. W. Scholl and others. Oil Paint & Drug Rep 165:3+ F 8 '54

See also

American plant food council

National fertilizer association

Lime as fertilizer

Statistics

Agricultural chemicals. Published in weekly numbers of Oil, paint and drug reporter

Fertilizer use peak reached in 1952-53. Oil Paint & Drug Rep 165:5 Ap 12 '54

Fertilizers, 1949-1952. Survey of Cur Bsns 1953 Sup p 123-4 [supplemented in monthly numbers]

Plant nutrient supply estimate lowered. Oil Paint & Drug Rep 165:4 Ap 5 '54

Plant nutrient supply rise seen. Oil Paint & Drug Rep 166:3+ S 27 '54

Brazil

Fertilisers in Brazil. Chem Age (Lond) 70:315 Ja 30 '54

Canada

Canadian fertilisers. Chem Age (Lond) 70:828 Ap 10 '54

FERTILIZER industry—Canada—*Continued*

Chemical Canada; fertilizers; tabulations. H. McLeod. Can Chem Process 38:6-8 Je 20 '54

Fertilizer facts and forecast. Can Chem Process 38:12+ F '54

Fertilisers in Canada. Chem Age (Lond) 70:578 Mr 6 '54

Europe

European fertilisers. Chem Age (Lond) 70:1142 My 22 '54

Recovery in European superphosphate industry. Chem & Eng N 31:3295 Ag 10 '53

Great Britain

Recovery of British fertilizer consumption. Chem & Eng N 31:4594 N 2 '53

Hawaiian Islands

Ammonia to Hawaii. Chem W 73:48 D 19 '53

India

Progress at Sindri. il Chem W 73:70 Jl 25 '53

Israel

Giant step taken; founding a fertilizer industry; Fertilizers & chemicals, ltd. il Chem W 73:21-2 O 17 '53

Korea

Still snarled up. il Chem W 74:16 F 13 '54

Sweden

Sweden expands fertilizer industry. Chem & Eng N 32:1900 My 10 '54

FERTILIZER research

Fertiliser technology research. F. G. C. Fison. Chem Age (Lond) 69:1071-2 N 21 '53

FERTILIZERS

A.C.S. Division of fertilizer and soil chemistry national meeting, Chicago; abstracts of papers. Chem & Eng N 31:3858-9 S 21 '53

A.C.S. Division of fertilizer and soil chemistry national meeting, New York; abstracts of papers. Chem & Eng N 32:3840-1 S 27 '54

Atomic energy in agriculture; abstract. S. Cole. Chem & Eng N 32:2571 Je 28 '54

Back to the soil; Climax molybdenum co. eyeing the farm. Chem W 74:66 My 15 '54

Bibliography of soil science and fertilizers with reference to India. K. K. Guha Roy, comp. 131p Rs 6-2 or 9s 6d Manager of publications, Delhi '54

Cheaper urea. Chem W 72:70+ Ap 18 '53

Emphasis on aqua; Brea Chemicals development and distribution of plant nutrients in solution form. il map Chem W 75:52-4 Ag 14 '54

Fertilizer barter pact entered into by USDA. Oil Paint & Drug Rep 165:3+ Ja 11 '54

Fertilizer, munitions sales return a profit, TVA reports. Oil Paint & Drug Rep 165:3+ Ja 11 '54

Fertilizer output cut set for 1955 by TVA. Oil Paint & Drug Rep 165:3+ Mr 29 '54

Fertilizer up front; Bandini's 44 products get trademark and design. il Mod Packaging 27:132-3 N '53

Fertilizers from oil and natural gas. il Can Chem Process 38:56-60 Je 1 '54

Minor nutrients grow up. il Chem W 72:74+ Ap 11 '53

Phosphatic slime; a potential mineral asset. P. M. Tyler and W. H. Waggaman. bibliog il Ind & Eng Chem 46:1049-56 My '54

Recent advances in fertilizer placement; abstract. J. W. S. Reith. Chem & Ind p753; Discussion. 754-5 Je 26 '54

Reports on chemical progress in 1953. map Ind & Eng Chem 46:sup35A+ Ja '54

Role of petrochemicals in fertilizers. G. Wash. Pet Refiner 32:112-13 N '53

Solution for summer slack; fuel tank trucks to spray liquid fertilizer. il Chem W 75:52+ Jl 10 '54

Special methods of applying fertilizer; abstract and discussion. G. W. Cooke. Chem & Ind p753; Discussion. 754-5 Je 26 '54

Straight to the soil; method of applying phosphoric acid directly to the soil. il Chem W 74:101 Je 19 '54

Trace element deficiencies; new soil additive ensures controlled replacement. Chem Age (Lond) 68:746 My 16 '53

USDA cautions against greater fertilizer use. Oil Paint & Drug Rep 165:3+ Mr 15 '54

See also

American plant food council
Ammonium nitrate
Ammonium sulfate
Calcium cyanamide
Lime as fertilizer
Phosphates
Potassium nitrate
Refuse as fertilizer
Sewage sludge as fertilizer

Analysis

Available potash and phosphate level throughout the year in fields growing crops. R. F. Milton and J. Buckett. Chem & Ind p919 Ag 29 '53

Manufacture

New nitrophosphate process. flow sheet il Chem Eng 60:115-16 Ag '53

See also

Phosphates—Manufacture

Prices

Agricultural chemicals, 1953 market trends. Oil Paint & Drug Rep 165:38-9 sec 2 F 1 '54

Transportation

Shipping rules altered aiding fertilizer trade. Oil Paint & Drug Rep 166:3 S 13 '54

FETUS

Adrenal gland response to circulatory distress in fetal lambs. S. R. M. Reynolds. Science 118:248-9 Ag 28 '53

FEVER

See also

Dengue
Malaria
Rat-bite fever

FIBER, Vulcanized. See Vulcanized fiber

FIBER board

Fibre drum. G. Mather. il Paper Tr J 137:166-8+ N 13 '53

How to install hardboard underlayment panels. il Am Bld 76:196+ F '54

Lumber, framing, millwork, plywood, and hardboards, framing and stairs. il diags Am Bld 75:131+ Ap '53

Making meter box tile in fiber forms. A. J. Brumbaugh. il Pub Works 85:90-1 Ag '54

Many styles of fiberboard boxes have been approved for shipping containers. T. W. Rodes. Ind & Eng Chem 46:sup 109A-11A S '54

Packaging; fiberboard material simplifies, speeds up shipping; Curtiss-Wright corp. il Iron Age 172:184-5+ D 3 '53; Steel 133:112-13 D 21 '53

Place to hide; diffusion board offers family protection to known chemical and biological warfare agents; abstract. W. M. Creasy. il Chem & Eng N 32:2202 My 31 '54

Record year fiber drums; new uses seen in 1954. G. Mather. Paper Tr J 138:65 Ja 29 '54

What's ahead in hardboards. Paper Tr J 138:64 Ja 29 '54

See also

Wall board

Manufacture

Chips to board, continuously; resin-bonded fiberboard. il Chem Eng 60:130+ Ag '53

Edgings and bark in hardboard; abstract. W. J. Runckel. Pulp & Pa of Can 55:132-3 My '54

Evaluation of refiner-plate designs used for experimental processing of hardboard stocks. H. D. Turner. bibliog il diag Tappi 36:513-17 N '53

Fabrication of solid fibre containers. N. W. Garrison, jr. il Paper Tr J 137:143-6 N 13 '53

Manufacture of hardboard in the United States. G. G. Marra. bibliog Paper Tr J 138:26+ Ap 2 '54

Medium board; resin-bound wood chips for use as medium-density plywood core material and structural board; pictured flowsheet. Chem Eng 60:276-9 S '53

New building board development to be manufactured at $750,000 plant; Pack river lumber co. il Paper Ind 36:461-2 Ag '54

FIBER board—Manufacture—*Continued*

Picture tour of the new hardboard mill at Klamath Falls; illustrations with text. Paper Tr J 138:14 F 19 '54

Preparation of hardboard from white oak. S. L. Schwartz. bibliog il Tappi 36:445-51 O '53

Problems affecting the wider use of wood as a technical raw material; hardboard production and bark utilization. H. F. Lewis. Paper Ind 36:55-7 Ap '54

Testing

Application of refining energy index concept to experimental evaluation of strength-yield relations for hardboard stocks. H. D. Turner. bibliog il Tappi 36:549-52 D '53

FIBERGLAS. See Glass fibers

FIBERGLAS fabrics. See Glass fabrics

FIBERS

Constitution and properties of fibrous materials; abstract. J. M. Preston. Chem & Ind p 1201-2 N 7 '53

Electrostatic effects in fiber filters for aerosols. A. T. Rossano, jr. and L. Silverman. bibliog il diag Heat & Ven 51:101-8 My '54

Fiber motions and flocculation; abstract. S. G. Mason. Paper Tr J 138:18 O 1 '54

Fiber structure and pulp properties; abstract. A. J. Watson and others. Paper Ind 35:920 N '53

Fibre technology. J. W. Wilson bibliog(204 ref) il diag Pulp & Pa of Can 55:84-91 Ap; 127-9 Je '54

Flow in fiber suspensions and the effects of turbulence; abstract. J. A. Van den Akker. Paper Tr J 138:16 O 1 '54

Hydrocellulose water flow number. O. A. Battista, J. A. Howsmon and S. Coppick. bibliog il Ind & Eng Chem 45:2107-12 S '53

Improved technique for photomicrographs of pulp and paper fibres. I. Strelis and H. V. Green. bibliog il Pulp & Pa of Can 54:117-20 D '53

Influence of fiberizing variables in producing semichemical pulp. F. A. Aflenzer. il Tappi 37:90-6 Mr '54; Excerpts. Paper Ind 36:391 Jl '54

Paper fiber from micro-organisms. Paper Ind 36:489 Ag '54

Relaxation of stretched animal fibres. G. C. Wood and N. H. Chamberlain. bibliog il diags Textile Inst J Trans 45:T147-61, T462-71 F, Je '54

Studies on smooth and cork-bark abies lasiocarpa; fibre length comparisons. R. W. Kennedy and J. W. Wilson. il Pulp & Pa of Can 55:130-2 Je '54

Uses of inorganic synthetic fiber paper. H. F. Arledter. Tappi 37:sup 152A-7A Jl '54

See also

Bast fibers
Bristles
Cotton fibers
Glass fibers
Hair
Jute
Rayon fibers
Textile fibers

FIBRINOGEN

Size and shape of bovine fibrinogen; studies of sedimentation, diffusion and viscosity. S. Shulman. bibliog il diags Am Chem Soc J 75:5846-52 D 5 '53

Species specificity of fibrinogen as revealed by end-group studies. L. Lorand and W. R. Middlebrook. bibliog Science 118:515-16 O 30 '53

Tyrosine-O-sulfate in a peptide from fibrinogen. F. R. Bettelheim. Am Chem Soc J 76:2838-9 My 20 '54

FIBROIN

Chemistry of silk fibroin. B. Drucker and others. bibliog il diag Textile Inst J Trans 44:T420-35 O '53

Chromatographic separation and identification of some peptides in partial hydrolysates of silk fibroin. L. M. Kay and W. A. Schroeder. bibliog Am Chem Soc J 76:3564-8 Jl 5 '54

FIBROLANE. See Textile fibers, Synthetic

FICTION

See also

Salesmen in fiction

FIDELITY insurance. See Insurance, Surety and fidelity

FIELD, Crosby

C. Field, engineer's engineer awarded ASME medal. H. T. Sharp. por Chem Eng 61:398-400 Ja '54

FIELD, John A. 1914-

BDSA appropriates Field talent. por(cover) Chem & Eng N 32:1894 My 10 '54

FIELD, Marshall, and company. See Marshall Field and company

FIELD glasses

Radioactive materials in prevention of mold growth in optical instruments. S. Berk and L. Teitell. bibliog il diags Ind & Eng Chem 46:778-84 Ap '54

FIELD houses. See Gymnasiums

FIELD theories (physics)

Covariant approximation scheme for Green's functions of coupled fields. R. Arnowitt and S. Gasiorowicz. diags Phys R 95:538-45 Jl 15 '54

Covariant formulation of the Tamm-Dancoff method. S. S. Schweber. Phys R 94:1089 My 15 '54

Equivalent mass and other effects of a non-local electromagnetic field in interaction with a constant *E*, *H* field. C. Gregory. Phys R 92:1554-7 D 15 '53

Field theory of equations with many masses. B. T. Darling. bibliog Phys R 92:1547-53 D 15 '53

Integral equations of quantized field theory. H. S. Green. bibliog Phys R 95:548-56 Jl 15 '54

Lattice-space quantization of a nonlinear field theory. L. I. Schiff. bibliog Phys R 92:766-79 N 1 '53

Lorentz-Kamerlingh Onnes centenary conference on electron physics, Leiden, June 22-27. Science 118:393-9 O 9 '53

Multipole singularities of classical scalar and pseudoscalar meson fields. P. Havas. bibliog Phys R 93:1400-11 Mr 15 '54

Nonsymmetric unified field theories. W. B. Bonnor. Phys R 92:1067-8 N 15 '53

Quantization of a nonlinear field theory. H. B. Rosenstock. Phys R 93:331-3 Ja 15 '54

See also

Unified field theory

FIELD warehousing. See Warehousing

FILAMENTS

Effect of stiffness and nonuniformity on vibroscopic determination of filament cross-sectional area. D. J. Montgomery. bibliog J Ap Phys 24:1092-9 S '53

FILES and filing (documents, etc.)

Big wheel cuts paperwork time; rotary card file. J. E. Jones. il Factory Management 112:118-20 Mr '54

Careful planning of your filing speeds office work. E. W. Fair. Rough Notes 97:30+ Je '54

Centralized vs. decentralized files; which system for your company? abstract. T. Beach. Management R 43:512-13 Ag '54

Filesmanship. N. Samstag. Management R 43:31-3 Ja '54

Filing, storage, and disposal of accounting office records. J Account 98:232+ Ag '54

Good files or bad? il Min Eng 6:489 My '54

How Dravo streamlines its advertising department filing system. R. C. Black. il Ptr Ink 244:62-4+ S 11 '53

How to file engineering data and material. Paper Tr J 138:15 Ap 23 '54

How to sell the new filing system. D. Knight. Management R 43:514 Ag '54

6,000 photos in Alcoa file, but they're easy to find. J. J. Maloney. il Ind Marketing 38:170-1 N '53

Solving operating problems in central-credit filing; United States national bank of Portland. P. V. Henley. il Burroughs Clearing House 38:42-4 O '53

Ten ways to save filing time. H. L. Wylie. il Am Bsns 24:22-3 Ja '54

FILES and rasps

Facts about modern files. il diags Mill & Factory 54:587 My '54

Smooth going for files. il Steel 133:69 Ag 3 '53

FILICINIC acid

Synthesis of filicinic acid. L. G. Angus and others. Chem & Ind p546 My 8 '54

FILIFORM corrosion. See Corrosion and anticorrosives

FILING machines

Band filing helps reduce foundry costs. H. J. Chamberland. il Foundry 82:108-9 Mr '54

Machine tool buyers' guide; cutting, sawing and filing machines. il Steel 133:204-6 sec 2 N 16 '53

Thiel precision filing machine. il Engineer 196:821-2 D 18 '53

FILLING

Accelerating fill settlement with explosives on a Massachusetts highway. H. F. Church, jr. il Explosives Eng 31:112-15 Jl '53

Air photos spot fill for dam in wilderness. il Eng N 151:47 O 29 '53

Backfilling by saturation and vibration; illustrations with text. Constr Methods 36: 63 Ja '54

Hauling 1,000,000 yards of fill through Chicago's streets. il Roads & Sts 97:78-80 My '54

How sanitary landfill solved our refuse problem. E. R. Warnicke. il Pub Works 85: 57-8+ Ja '54

How short line fills in bridges. il Ry Age 137:34-5 Ag 23 '54

Palisades dam, an earthfill with special features. il map diag Eng N 151:28-31 D 31 '53

Test of methods of backfilling trenches. Pub Works 85:126 Ag '54

With flood danger removed Illinois Central fills three long trestles. il map Ry Age 136:62-4 Je 28 '54

FILLING machines

Automatically in plastics; XLNT Spanish foods co. il Mod Packaging 27:88-90 Ag '54

Drum filler cuts costs to the bone. F. Breese. il Nat Pet N 45:76+ S 30 '53

New aerosol filling unit. il Soap & San Chem 29:149+ Ag '53

New equipment and techniques in manufacturing and packaging putty. L. A. Prosch. Paint Oil & Chem R 116:29 N 5 '53

One-man unit fills 1000 drums per day. il Pet Processing 8:1729-30+ N '53

Redesign pays off in higher productivity. W. G. Patton. il Iron Age 173:140-2 Ap 1 '54

24 low-cost devices automate package line; Instant Postum packaging line. I. C. Miller. il diags Food Eng 26:92-3+ Mr '54

Unit accurately fills 300 to 325 cans per minute. il diag Food Eng 26:147 Mr '54

See also

Bag filling machines

FILLING materials

Foam plastic as void filler. il Chem & Eng N 32:1472+ Ap 12 '54

See also

Paper making—
  Fillers

Wood flour

FILM strips. See Slide films

FILMS

All-dielectric high-reflecting layers. O. S. Heavens. Opt Soc Am J 44:371-3 My '54

Diffusion effects in the photochemistry of solid films. J. E. Wilson. bibliog diag J Chem Phys 22:334-43 F '54

Energy loss of electrons in passage through thin films. L. Marton and L. B. Leder. bibliog il Phys R 94:203-4 Ap 1 '54

Evaporated multiple layers with semiconductor properties. J. C. M. Brentano and J. D. Richards. Phys R 95:841-3 Ag 1 '54

Experimental evidence for structure in the helium II film. W. C. Knudsen and J. R. Dillinger. diag Phys R 95:279-80 Jl 1 '54

Film condensation with turbulent flow. R. A. Seban. A S M E Trans 76:299-303 F '54

Film flow in liquid helium II at low level differences. G. S. Picus. bibliog diags Phys R 94:1459-67 Je 15 '54

Film-type heating elements. R. E. Crump. il diag Product Eng 24:164-7 O '53

Fine platinum wire helps spot films on polished surface. il Iron Age 173:145-6 Ap 15 '54; Same. Blast F & Steel Pl 42:799 Jl '54

Fringes of equal reflection coefficient ratio and their application to the determination of the thickness and refractive index of monomolecular films. R. E. Hartman and others. bibliog il diags Opt Soc Am J 44:192-8 Mr '54

High-frequency resistance of photoconducting films. R. Broudy and H. Levinstein. diag Phys R 94:290-2 Ap 15 '54

High-frequency resistance of thin films. R. Broudy and H. Levinstein. bibliog diags Phys R 94:285-9 Ap 15 '54

Interfacial resistance; gas absorption in falling liquid films. R. E. Emmert and R. L. Pigford. bibliog diags Chem Eng Prog 50:87-93 F '54

Liquid-film properties for centrifugal spray nozzles. M. Doumas and R. Laster. il diags Chem Eng Prog 49:518-26 O '53

Liquid helium films. K. R. Atkins. bibliog Phys R 92:1571-2 D 15 '53

Oblique transmission factor of multilayer thin films. W. Weinstein. Opt Soc Am J 43:539 Je '53

Properties of films of adsorbed fluorinated acids. E. F. Hare, E. G. Shafrin and W. A. Zisman. bibliog J Phys Chem 58:236-9 Mr '54

Surface films of phenolic compounds. A. J. G. Allan and J. H. Schulman. Chem Soc J p 1238-41 Ap '54

Tensile properties of films from low temperature GR-S latex. R. W. Brown, W. E. Messer and L. H. Howland. bibliog il Ind & Eng Chem 45:1322-9 Je '53

Thickness of the helium film. L. Meyer. bibliog Phys R 93:655-6 F 15 '54

Transmission of 0-40 kev electrons by thin films with application to beta-ray spectroscopy. R. O. Lane and D. J. Zaffarano. bibliog diag Phys R 94:960-4 My 15 '54

Use of liquid films in the study of the absorption of gases by drops. B. E. Dixon and J. E. L. Swallow. il diags J Ap Chem 4:86-93 F '54

Use of multilayer films for surface topography interferometry. J. A. Belk and others. bibliog il Opt Soc Am J 44:5-10 Ja '54

Usefulness of the polarimetric method for the determination of the refractive index and of the thickness of one thin film on glass or on metal. A. Vašíček. Opt Soc Am J 44:664-5 Ag '54

See also

Membranes

Oil films

FILMS, Metallic

After-effects in polycrystalline cadmium. C. S. Barrett. J Metals 5:Trans 1652-4 D '53

Aluminum self-stops corrosion; protective oxide film is formed after initial penetration. C. J. Walton and others. il Steel 133: 134-6 S 7 '53

Amount of oxygen on the surface of passive stainless steel. H. H. Uhlig and S. S. Lord, jr. bibliog diag Electrochem Soc J 100:216-21 My '53; Discussion. 100:591-2 D '53

Anodizing of zirconium and other transition metals in nitric acid. R. D. Misch and W. E. Ruther. bibliog Electrochem Soc J 100: 531-7 D '53

Apparent density of thin evaporated films. M. S. Blois, jr. and L. M. Rieser, jr. bibliog diags J Ap Phys 25:338-40 Mr '54

Effect of chromate films on the corrosion resistance of hot dip galvanize in brine. F. J. Bubsey. il Metal Prog 65:122-4 My '54

Effect of vapor incidence on the structure of evaporated aluminum films. L. Holland. diags Opt Soc Am J 43:376-80 My '53

Electroluminescence in thin films of ZnS:Mn. R. E. Halsted and L. R. Koller. bibliog Phys R 93:349-50 Ja 15 '54

Epitaxial deposits of metals evaporated on salt substrates. O. G. Engel. bibliog(40 titles) il diags J Res Nat Bur Stand 50: 249-61 My '53

Film thickness measurement for grating blanks. F. A. McNally. diags Opt Soc Am J 43:540 Je '53

Films to aid galvanizing. A. T. Baldwin. Steel 133:170 S 14 '53

Formation of anodic oxide films on cathodes. D. A. Vermilyea. diags Electrochem Soc J 101:389-92 Ag '54

Graphical method for rapid estimation of the thickness of evaporated metal films. K. P. Nandy. R Sci Instr 25:523-4 My '54

Infrared absorption of thin metal films. C. Hilsum. Opt Soc Am J 44:188-91 Mr '54

New York academy of sciences' conference on properties of surfaces; abstracts of papers. Chem & Eng N 31:4767-8 N 16 '53

FILMS, Metallic—*Continued*

Optical properties of evaporated aluminum films. F. C. Essig and J. R. Holmes. Opt Soc Am J 44:253 Mr '54

Optical properties of thin films of cadmium sulfide. J. Gottesman and W. F. C. Ferguson. Opt Soc Am J 44:368-70 My '54

Oxidation of metals at high temperatures. W. J. Moore. bibliog(61 ref) Electrochem Soc J 100:302-13 Jl '53

Oxide film on nickel-chromium alloys; crystal structure studies. E. A. Gulbransen and W. R. McMillan. bibliog(30 ref) il diags Ind & Eng Chem 45:1734-44 Ag '53

Phase and intensity measurements for some aluminum films. K. Ishiguro and G. Kuwabara. diag Opt Soc Am J 43:365-7 My '53

Polarization by transmission with particular reference to selenium films in the infrared. G. K. T. Conn and G. K. Eaton. bibliog diags Opt Soc Am J 44:553-7 Jl '54

Reaction of silver alloys with sulfur in mineral oil; examination of films and mechanism of reaction. H. O. Spauschus and others. Electrochem Soc J 101:6-9 Ja '54

Reproduction of an evaporated highly reflecting film of desired reflectivity. E. V. Vernon. J Sci Instr 30:292 Ag '53

Resistivity of thin silver films. U. Oppenheim and J. H. Jaffe. bibliog J Ap Phys 24:1521 D '53

Semiconducting films of antimony. J. Cohen. bibliog diag J Ap Phys 25:798-801 Je '54

Solution of problems in odd job vapor coating. W. L. Bond. diags Opt Soc Am J 44:429-38 Je '54

Structural features of oxide coatings on aluminum. F. Keller and others. bibliog il diags Electrochem Soc J 100:411-19 S '53; Discussion. 101:335-6 Je '54

Study of the propagation mode for metallic vapors in shadow-casting by vacuum evaporation of Au^{198} and Cr^{51}. L. E. Preuss. bibliog il diags J Ap Phys 24:1401-9 N '53; Correction. 25:136 Ja '54

Sudden change in the arrangement of crystallites in thin evaporated bismuth films. L. L. Howard. bibliog il J Ap Phys 25:125-7 Ja '54; Correction. 25:543 Ap '54

Technique of soldering to thin metal films. R. B. Belser. bibliog il R Sci Instr 25:180-3 F '54

Thermomagnetic properties of thin metallic films. F. J. Blatt. Phys R 95:13-15 Jl 1 '54

Threshold energies for sputtering and the sound velocity in metals. G. K. Wehner. Phys R 93:633-4 F 1 '54

Titanium dioxide films as selective reflectors of the near-infrared. F. J. Studer and D. A. Cusano. il diags Opt Soc Am J 43:522-5 Je '53

Torsional after-effect measurement and applications to aluminum. C. S. Barrett and others. diag J Metals 5:Trans 1655-61 D '53

FILMS, Moving picture. See Moving picture films

FILTER cloth

Cleaned filter cloth lasts longer. C. E. Keefer. bibliog il Water & Sewage Works 101:239-41 My '54

Flow through textile filter media. G. E. Cunningham, G. Broughton and R. R. Kraybill. bibliog il diags Ind & Eng Chem 46:1196-200 Je '54

FILTER paper

Acetylation of paper for use in chromatography. H. S. Burton. Chem & Ind p 1229-30 N 14 '53

Elution chromatography with thick filter paper. W. J. Frierson, P. F. Thomason and H. P. Raaen. bibliog diags Anal Chem 26:1210-11 Jl '54

Filtration through paper. R. Ingalls and O. Axtell Tappi 36:509-12 N '53; Abstract. Paper Ind 36:63 Ap '54

Flow and distribution of solutions in filter paper. S. E. Wood and H. H. Strain. bibliog Anal Chem 26:260-4 F '54

Papers made from inorganic fibers as filter mats for Gooch crucibles. T. S. Ma and A. A. Benedetti-Pichler. Anal Chem 25:999-1000 Je '53

Special filter paper shows excellent performance in cleaning air. il diag Paper Ind 35:882-4 N '53

FILTER presses

Filter press control facilitates lab scheduling. C. J. Engle and W. E. Bergman. diag World Oil 137:151 N '53

FILTERS, Air. See Air filters

FILTERS, Electric. See Electric filters

FILTERS, Radio. See Radio filters

FILTERS and filtration

Diatomaceous-earth filtration in New York state. J. K. Fraser. Am Water Works Assn J 46:151-5 F '54; Abstract. Water & Sewage Works 100:487-8 D '53; Discussion. Am Water Works Assn J 46:156-9 F '54

Dorr co. water treatment system is packaged. il Eng N 152:112-13 Ap 15 '54

Ecusta Paper plants; water filter plant. Tappi 37:sup 115A-16A Ag '54

Filtration; industry's answer to poor water supplies. J. C. McQuay. diags Mill & Factory 53:82-5 N '53

Filtration of monodisperse electrically charged aerosols. G. G. Goyer, R. Gruen and V. K. LaMer. bibliog diag J Phys Chem 58:137-42 F '54

How a new loss of head meter improves filter operation; Fieldcrest mills, inc. W. A. Gardner. il Water & Sewage Works 101:158-61 Ap '54

How iron bacteria is being successfully removed with wire cloth filters. H. A. Ronningen. il Paper Tr J 138:26+ Je 18 '54

How sidestream filter helps in keeping cooling system clean. il Oil & Gas J 52:146 D 14 '53

Preventing carbon from passing through sand filters. A. Y. Hyndshaw. diag Munic Util 92:27+ My '54

Removing oil from water by flocculation and filtration. V. J. Calise. flow diag diag Power Eng 58:86-7+ Ap '54

Types of filter bottoms. M. L. Stuppy and others. il Am Water Works Assn J 46:548-54 Je '54

See also

Filtration plants
Sewage disposal—
  Filtration

Cleaning

Rapid sand filter washing. H. J. Krum and I. M. Glace. Water & Sewage Works 101: R 105-8 pt 2 My '54

Wash water measurement in filtration practice. R. W. Angus. diags Water & Sewage Works 101:78-80 F '54; Same. Munic Util 92:32-3+ Mr '54

Washing and maintenance of filters. J. R. Baylis. il diags Am Water Works Assn J 46:176-86 F '54

Water purification; reverse flow washing of sand beds. il Chem Age (Lond) 70:33 Ja 2 '54

FILTERS and filtration (bacteriology)

Membrane filter; mf and mpn water analysis methods compared. Eng N 152:81 Mr 18 '54

Membrane filter procedure applied in the field. E. J. Laubusch and others. il Pub Health Rep 68:1118-22 N '53

Technique of bacterial examination of water with molecular filter membranes. bibliog il diags Am Water Works Assn J 45:1196-210 N '53

Use of the membrane filter in the bacteriological examination of water. E. W. Taylor, N. P. Burman and C. W. Oliver. bibliog J Ap Chem 3:233-40 My '53

FILTERS and filtration (technical chemistry)

Application of glass fibers in filtration processes. C. A. Smucker and W. C. Marlow, jr. bibliog Ind & Eng Chem 46:176-8 Ja '54

Assemblies for suction filtration. I. A. Kaye and W. J. Burlant. diags J Chem Educ 31: 127 Mr '54

Better washing on new turntable filter. il Chem Eng 61:296+ Je '54

Carbon as filter aid; Nerofil. Chem & Eng N 31:4722 N 9 '53

Carbon cohort for diatoms; synthetic filter aid from petroleum coke and other carbonaceous materials. il Ind & Eng Chem 45:sup 15A+ D '53

Central coolant supply serviced by coarse-screen filter; Bower roller bearing co. J. W. Fauver. il Mach 60:169-71 Ag '54

FILTERS and filtration (technical chemistry) —*Continued*

Centrifuge type of ultrafiltration apparatus. T. Y. Toribara. diags Anal Chem 25:1286 Ag '53

Chemical engineering unit operations; filtration. S. A. Miller. Ind & Eng Chem 46: 100-5 bibliog(154 ref, p104-5) Ja '54

Cleaning coal tar; Russell separator. il Chem Age (Lond) 70:680 Mr 20 '54; Engineer 197: 424 Mr 19 '54

Cleaning fluids by means of ceramic filter media; microporous porcelain. G. V. Jordan, jr. bibliog il diags Mech Eng 75:559-63+ Jl '53

Determination of sulphur trioxide in gases. A. W. Fletcher. bibliog diag Chem & Ind p777-8 Jl 3 '54

Efficient filtration; Paterson Stellar filter for fine chemicals. il Chem Age (Lond) 69: 494 S 5 '53

Factors affecting percolation yields. E. J. Reeves. Pet Eng 25:C23-4 Jl '53

Filter design offers high capacity; revolving pan and scroll. il diag Chem & Eng N 31: 4826 N 16 '53

Filterability of cellulose acetate solutions. L. A. Cox and W. K. Mohney. bibliog il Ind & Eng Chem 45:1798-803 Ag '53

Filteraid gives clarity with high flowrate; Solka-Floc. il Chem Eng 61:148+ Ap '54

Filtration resistance of compressible materials. W. L. Ingmanson. bibliog diag Chem Eng Prog 49:577-84 N '53

Gas filter; Dorfan Impingo filter. diag Blast F & Steel Pl 42:968-9 Ag '54

Moisture content of a fine-coal filter cake; effect of viscosity and surface tension. C. E. Silverblatt and D. A. Dahlstrom. bibliog diags Ind & Eng Chem 46:1201-7 Je '54

More efficient filter; Eimco corp. il Chem Eng 61:288+ Jl '54

Moving coke-bed gas filter for dust removal. G. C. Egleson and others. il diags Ind & Eng Chem 46:1157-62 Je '54; Same. U S Bur Mines Rep of Invest 5033:1-8 '54

New phosphoric acid plant uses novel rotating-tray filter; Smith-Douglass. il diags Chem Eng 61:128+ Je '54

Newall filter for removing solids from liquids. il Engineer 196:643 N 13 '53

Novel filter design; patent. diag Chem Eng 60:394 S '53

Packaged filter takes little space; Denver Equipment. il Chem & Eng N 32:184 Ja 11 '54

Papermaking process as a filtration problem. P. E. Wrist. bibliog diags Pulp & Pa of Can 55:115-19 My '54

Plastic filter. il Product Eng 24:231 Je '53

Pressure filtrations. N. Nickolaus. Chem & Eng N 32:2204-5 My 31 '54

Process kinetics; filtration of fluid catalyst fines from effluent gases. D. B. Pall. diags Ind & Eng Chem 45:1197-202 Je '53

Rapid filtration and drying technique. R. H. Pierson. Anal Chem 25:1939 D '53

Replaceable micronic filters. E. Kane. bibliog il Chem Eng Prog 49:487-90 S '53

Resistance and compressibility of filter cakes. H. P. Grace. il diags Chem Eng Prog 49: 303-18, 367-77, 427-36 Je-Ag '53

Role of porosity in filtration. F. M. Tiller. bibliog il Chem Eng Prog 49:467-79 S '53

Sluicing pressure leaf filters. E. A. Ulrich. bibliog il Chem Eng Prog 49:561-5 O '53

Translate coolant filtration into dollars; Continental motors corp. G. L. Guymon. il Steel 134:116-17 My 31 '54

Unique filter system featured in pilot flood. R. O. Major. flow diag il World Oil 137:272+ O '53

Useful filtration apparatus. W. R. Battles. il Pet Eng 25:C33-4 Jl '53

Vacuum filters

New take-off knife strips sticky pastes; patent. diags Chem Eng 61:264+ Ja '54

FILTRATION plants

Purification plant waste disposal; disposal of wastes from filter plants and coagulation basins. J. B. Dean. Am Water Works Assn J 45:1226-37 N '53

Waterworks gets outdoor industrial look. il map Eng N 151:51-2+ S 10 '53

Equipment

Multiple water treatment units. E. H. Aldrich. il diags Water & Sewage Works 101:249-53 Je '54

Wash water measurement in filtration practice. R. W. Angus. diags Water & Sewage Works 101:78-80 F '54; Same. Munic Util 92:32-3+ Mr '54

Water filter plant features automatic operation; East Bay municipal utility district. L. E. Hanson. il Pub Works 85:70-1 Jl '54

FINANCE

Financial planning and control; a system of levees against business floods. J. E. Kusik. Advanced Management 19:16-18 Mr '54

See also

Amortization
Banks and banking
Bonds
Budget
Capital
Credit
Debt
Debts, Public
Finance companies
Foreign exchange
Gold as money
Holding companies
Housing finance
Income
Income tax
Inflation (finance)
Insurance
Interest
Investment trusts
Investments
Loans, Bank
Mining industry and finance
Money
Municipal finance
Prices
Profit
School finance
Securities
State finance
Stock exchange
Stocks
Trusts, Industrial
War finance

also subdivision Finance under special subjects, e.g.

Chemical industries
Coal mines and mining
Colleges and universities
Corporations
Electric utilities
Gas companies
Insurance, Life
Insurance companies
Public utilities
Railroads
Roads
Scientific research
Sewerage
Waterworks

Brazil

Brazilian balance. Bsns W p 150+ O 24 '53

Loans to Brazil will help railroad, power. For Comm W 51:5+ Ja 11 '54

Major change coming in Brazil? V. L. Horoth. Mag of Wall St 92:551-3+ Ag 8 '53

Ceylon

Ceylon looks for loans. Economist 169:653-4 N 28 '53

Denmark

Denmark achieves surplus of $2.5 million for 1952-53. For Comm W 50:4 N 2 '53

Europe

See also

European payments union

Germany

See also

Debts, Public—Germany

Great Britain

Bare balance, 1946-1953. Economist 169:347-9 O 31 '53

Commonwealth finance ministers in Sydney reaffirm prior agreements. For Comm W 51:5 F 15 '54

Controlling the fiduciary issue; Currency and bank notes bill. Economist 169:771-2 D 5 '53

Disquiet over dollars. Economist 169:438-9 N 7 '53

Exchequer accounts on target; first half of financial year, 1953-54. Economist 169:46 O 3 '53

Few headlines from Sydney; easier access to London? Economist 170:183 Ja 16 '54

Finance for development to Commonwealth governments. Economist 170:253 Ja 23 '54

Ghost bankers at Westminster; Currency and bank notes bill. Economist 169:841 D 12 '53

Imperial by default; Sydney communiqué. Economist 170:211-13 Ja 23 '54

Industry's fuller purse. Economist 168:335-7 Ag 1 '53

Postscript on the loan. Economist 169:439 N 7 '53

Record bank deposits. Economist 169:439-40 N 7 '53

Revenue prospect and the deficit. Economist 170:114, 116 Ja 9 '54

FINANCE—Great Britain—*Continued*

Those colonial balances. Economist 169:979 D 26 '53

Whitehall in the box; miller's tale; Public accounts committee and the Ministry of food. Economist 169:608-9 N 21 '53

See also

Bank of England

Bonds, Government —Great Britain

Commonwealth development finance corporation

Iceland

Iceland gets two IBRD loans, European funds. For Comm W 50:4+ S 28 '53

India

Indian enterprise seeks more funds. For Comm W 50:8 N 23 '53

India's sterling balances. Economist 168:284 Jl 25 '53

Ireland

Irish banks to assist state capital outlays. For Comm W 51:5 Ja 18 '54

Italy

IBRD grants loan for development in Italy. For Comm W 50:6 O 19 '53

Japan

Japan's sterling needs. Economist 169:838; 170:51 D 12 '53, Ja 2 '54

Kenya

Kenya's emptying kitty. Economist 169:411 N 7 '53

Malaya

How Malaya pays its way. Economist 168: 376-7 Ag 8 '53

Netherlands

Netherlands grants aid for new investments. For Comm W 50:5 N 2 '53

New England

Measure spending, manufacturing, saving. Iron Age 173:144-5 Je 24 '54

New England leads in financial resources and innovations. A. C. Neal. Iron Age 173:138-9 Je 24 '54

New Zealand

New Zealand plans lumber, paper projects with export-import loan. For Comm W 51:28 F 22 '54

New Zealand program requires funds. For Comm W 50:4 N 2 '53

Problems for Mr Holland. Economist 168:392-3 Ag 8 '53

£10 million for New Zealand. Economist 169: 836 D 12 '53

Nicaragua

Stable political climate aids Nicaraguan progress. M. Bannell. Barron's 33:14 O 26 '53

North Carolina

North Carolina story; finance, insurance. Manuf Rec 123:88 Ja '54

North Carolina story; steady and stable. E. Gill. Manuf Rec 123:65-6 Ja '54

South Africa

IBRD loans granted to South Africa. For Comm W 50:7 S 14 '53

More dollars for South Africa. Economist 168: 661 S 5 '53

South African budget calls for high taxes. For Comm W 50:6 Ag 24 '53

Texas

Texas story; legislation; taxes, finance, insurance. Manuf Rec 122:105-6 N '53

Turkey

IBRD makes new loan to Bank of Turkey. For Comm W 50:6 O 5 '53

United States

Business now free from unnecessary controls. G. M. Humphrey. Comm & Fin Chr 178:1323+ O 8 '53

Credit policy. Nat City Bank p6-9 Ja '54; Excerpt. Comm & Fin Chr 179:174-5 Ja 14 '54

Cross of gold; monetary policies of Eisenhower administration. Barron's 33:1 Ag 10 '53

Debt limit increase needed to solve Treasury's problems. G. Humphrey. Comm & Fin Chr 178:1719+ N 5 '53

Dilemma of balancing the budget. G. M. Humphrey. Comm & Fin Chr 178:1835+ N 12 '53

Excess profits tax lapse and tax cuts in offing. G. M. Humphrey. Comm & Fin Chr 178:1213+ O 1 '53

Federal government finance, 1940-1953; purchasing power of the 1947-49 dollar; corporate profits before and after taxes, 1939-1953; U.S. savings bonds, 1946-1953; tabulations. Automotive Ind 110:323 Mr 15 '54

Federal government finance, 1949-1952. Survey of Cur Bsns 1953 Sup p84-7 [supplemented in monthly numbers]

Getting federal budget under control. G. M. Humphrey. Comm & Fin Chr 178:2379+ D 17 '53

How government's money policy strives to balance inflation-deflation. H. Nicholson. Mag of Wall St 93:182-3+ N 14 '53

Limit on the federal debt. L. Stafford. Banking 46:37-9+ S '53

Monetary policy, business, and the banks. M. G. Lee. Comm & Fin Chr 178:1536+ O 22 '53

New Treasury policies. E. P. Tuttle. Comm & Fin Chr 178:1842-3 N 12 '53

1933 in Washington. H. M. Bratter. il Bankers Mo 70:30-2+ S '53

Objectives in fiscal and economic policy being achieved. M. B. Folsom. Comm & Fin Chr 178:2045 N 26 '53

Outlook for interest rates. R. L. Reierson. Comm & Fin Chr 178:1230+ O 1 '53

Pillars of sound money. W. R. Burgess. Comm & Fin Chr 178:1326 O 8 '53

Program for excise tax reduction. B. Ruml. Comm & Fin Chr 178:634 Ag 20 '53

Skillful timing wanted in approaching honest money goal. W. R. Burgess. Nat Underw (Life ed) 57:16 O 16 '53

Softening the sound dollar. Economist 169: 531-3 N 14 '53

Sound-money program under way in Treasury. C. B. Cleary. Nat Underw (Life ed) Daily ed 57:16+ Ag 26 '53; Same abr. East Underw 54:6+ Ag 28 '53

Spring money pinch debated. Nat City Bank p 100-4 S '53

Treasury cash income, outgo, and borrowing, 1950-1953, monthly Dec. 1952-Dec. 1953. Fed Res Bul 40:62-3 Ja '54 [cont monthly]

Treasury receipts, expenditures, and related items; with details of budget expenditures, trust and other accounts yearly 1950-1953, monthly Dec. 1952-Dec. 1953. Fed Res Bul 40:60-1 Ja '54 [cont monthly]

U.S. finances at a critical point. T. L. Godey. Mag of Wall St 92:596-8 Ag 22 '53

We must have both prosperous economy and national security. G. M. Humphrey. Comm & Fin Chr 178:2148+ D 3 '53

We should have a flexible monetary policy! M. Kestnbaum. Comm & Fin Chr 178:2156+ D 3 '53

What are they doing to our money in Washington? H. M. Bratter. Comm & Fin Chr 178:1321+ O 8 '53

What is a real dollar worth to you? E. L. Hall. Spectator 161:49-50 Jl '53

Will sound money policies be continued? A. G. Lanston. Trusts & Estates 93:30-3 Ja '54

See also

Bonds, Government —United States

Budget—United States

Debts, Public—United States

Income tax—United States

Inflation (finance)

Money—United States

Taxation—United States

Treasury certificates of indebtedness

United States—Appropriations and expenditures

United States—Treasury department

Yugoslavia

Tito's bonds. L. Tanzer. Barron's 33:19 Ag 31 '53

FINANCE, International

Area shifts in international transactions; first and second quarters, 1953. Survey of Cur Bsns 33:8-10 O '53

International financial statistics. Published in monthly numbers of Federal reserve bulletin

FINANCE, International—*Continued*

1954 prospects in world economy. P. Einzig. Comm & Fin Chr 178:2645 D 31 '53

Survey of international banking; supplement. Economist 169:527-46 N 14 '53

Third quarter balance of payments reflects continued advances abroad; with tables. Survey of Cur Bsns 33:5-7 D '53

Why the U.S. may stand alone in recession. V. L. Horoth. map Mag of Wall St 93:419-21+ Ja 9 '54

See also

Balance of payments
Foreign exchange
International bank for reconstruction and development
Loans, Foreign
also International monetary fund

FINANCE, Municipal. See Municipal finance

FINANCE, Personal

Family dollar (cont). E. S. MacNeill. Banking 46:72-4 D '53; 58-9 Ja '54

See also

Estate planning

Bibliography

Managing your pocketbook. M. E. Hunt and M. P. McLean, comps. (Business literature v 26, no 7) p75-6 Business library, Newark public lib, Newark, N.J. Mr '54

FINANCE, State. See State finance

FINANCE companies

Borrowing trends of finance companies. G. A. Bigley. Burroughs Clearing House 38:8-10 Ja '54

Business outlook and the coming test of management. W. W. Townsend. Comm & Fin Chr 178:1421+ O 15 '53

Comparison of two giants; C.I.T. Financial and Commercial Credit. P. Dobbs. Mag of Wall St 93:201+ N 14 '53

Equipment credit to push sales; Caterpiller sets up credit subsidiary. Eng N 152:86 Ap 22 '54

Industrial finance companies; they keep right on growing. Eng N 151:97-8 O 29 '53

Instalment sales financing; its services to the dealer. C. W. Phelps. (Studies in consumer credit, no. 2) 99p Commercial credit co, 14 Light st, Baltimore 2 '53

Loan firms aid station TBA sales. Nat Pet N 46:46 F 10 '54

See also

Beneficial loan corporation
C.I.T. financial corporation
Commercial credit company

Accounting

Finance and insurance industries. N A C A Bul 36:151-6 sec 3 S '54

Income determination by sales finance companies. R. W. Johnson and R. H. Gregory. J Bsns 26:125-32 Ap '53

Securities

Growing investment stature of finance companies. J. C. Clifford. Mag of Wall St 93:740-1+ Mr 20 '54

Lenders have to borrow; General motors acceptance corp. Bsns W p 110+ S 5 '53

FINANCE corporation for industry, limited

FCI and steel. Economist 168:660-1 S 5 '53

Statement by the chairman. Lord Bruce. Economist 168:893-6 S 26 '53

FINANCIAL advertisers association. See Financial public relations association

FINANCIAL advertising. See Bank advertising

FINANCIAL departments

Financial executive in modern management. T. F. Bradshaw. Am Pet Inst Proc 32(1):299-302 '52

FINANCIAL public relations association

Annual meeting, 38th, Detroit. Banking 46:110-12 D '53

Annual meeting, 38th, Detroit, Oct. 11-15. Burroughs Clearing House 38:15-17 N '53

Annual meeting, 38th, Detroit, Oct. 11-15. Trusts & Estates 92:827-30 N '53

FINANCIAL ratios

Fourteen important ratios for 36 manufacturing lines; tables. R. A. Foulke. il Dun's R & Mod Ind 62:64-6 D '53

Fourteen important ratios for 24 wholesaling lines; with tables. R. A. Foulke. Dun's R & Mod Ind 62:68-70 N '53

Fourteen important ratios in twelve retail lines, 1952. R. A. Foulke. Dun's R 62:73-4 O '53

FINANCIAL reports. See Corporations—Reports and yearbooks

FINANCIAL research

Basic research for the securities industry. R. J. Saulnier. Comm & Fin Chr 178:2387+ D 17 '53

FINANCIAL statements

Dependability in financial statements. R. G. Rankin. Banking 46:34+ N '53

Financial statements should show corporate surplus restrictions from Treasury stock purchases. F. K. Rabel. bibliog J Account 95:572-9 My '53

How important is the statement of funds? V. L. Gole. J Account 96:343-4 S '53

Problems encountered by accountant when expressing an opinion on cash-basis statements. G. M. Hill. J Account 96:309-15 S '53

Some problems regarding consolidated and parent company statements. J Account 96:570-6 N '53

What can we expect of direct costing as a basis for internal and external reporting? H. C. Heiser. flow charts N A C A Bul 34:1546-60 sec 3 Jl '53

What professional investors look for in financial statements. F. B. Wadelton, jr. Comm & Fin Chr 178:2548-9 D 24 '53

See also

Financial ratios
Funds statements

FINANCIAL statistics

Financial, industrial, and commercial statistics, United States. Published in monthly numbers of Federal reserve bulletin

Measure spending, manufacturing, saving in New England. Iron Age 173:144-5 Je 24 '54

Purchasing power of the dollar, 1942-1953; gross national product or expenditure, 1933-1953; U.S. revenues, expenditures, debt, 1918-1953; corporate income, taxes, dividends, 1945-1953; tabulations. Steel 134:201 Ja 4 '54

FINISHING materials

Annual materials engineering review and forecast; finishes and coatings. T. C. DuMond. il Materials & Methods 39:124-5 Ja '54

Chemical institute of Canada protective coatings meetings, Montreal, Feb. 25 and Toronto, Feb. 26. Paint Oil & Chem R 117:14-15, 50A-50B Mr 11 '54

Directory of materials; finishes and coatings, tradenames and information; index by type of material. Machine Design 26:157-60+ sec 2 My '54

Finishing handbook and directory, 1954. I. S. Hallows and A. G. Bennett, eds. 497p Sawell publications, 4 Ludgate circus, London, E.C.4 '54 21s

Future of industrial product finishes. L. S. Guthman. Oil Paint & Drug Rep 164:76-7 N 2 '53

Protective coatings make it easy to use; annual review. H. Burrell. Chem & Eng N 32:34-5 Ja 4 '54

See also

Floor wax
Lacquer and lacquering
Neoprene
Paint
Pearl essence
Resinous products—Finishing material
Textile finishing
Waxes

Testing

Custom testing service for protective coating based on KTA test panel. M. G. Fontana. il diag Ind & Eng Chem 45:sup91A-3A Ag '53

Technical service for solvents and finishes. J. Wyart and D. Hecht. Can Chem Process 37:60+ D '53

FINK, Colin Garfield, 1881-1953

Sketch. por Electrochem Soc J 100:sup317C N '53

FINLAND

See also

Hydroelectric plants—Finland
Mines and mineral resources—Finland

Politics and government

Cabinet crisis in Finland. Economist 168:36 Jl 4 '53

Finland fills some gaps; new non-party government. Economist 169:756 D 5 '53

FIR

See also

Alpine fir
Balsam fir
Douglas fir

FIRE

See also

Combustion
Fires
Flames
Fuel
Heat
Heating
Smoke

FIRE alarms

Cable triggers fire alarm. il diag Chem Eng 60:214 Jl '53

How the SS United States fire alarm system works. R. W. Frost and N. E. Carlson. il diags Marine Eng 59:69-71 Ja '54

Thermalarm fire detection and alarm system produced; Vulcan mfg. corp. of New York city. East Underw 54:22 Ag 21 '53

FIRE apparatus

Aluminum tubing helps fire fighters. Pulp & Pa of Can 55:184 S '54

Care, storage and distribution of fire fighting equipment. W. Armstrong. Pulp & Pa of Can 55:187-9+ S '54

Check your fire pumps. Safety Maint & Prod 107:35+ My '54

Extinguishing oil fires by fog nozzles. il Engineering 176:671 N 20 '53

Forest fire fighting equipment. E. L. Howie. il plan Pulp & Pa of Can 55:154+ S '54

Ready to fight fire or save life; locomotive shops of the Reading railroad. il Nat Safety N 69:156 Je '54

Tiny gas turbine engine supplies power to drive portable shipboard fire pump. il Chem & Eng N 31:3408 Ag 17 '53

Works fire-fighting equipment. A. Webster. il Chem Age (Lond) 69:1179-83 D 5 '53

See also

Fire extinguishers
Sprinkling systems

FIRE apparatus, Motor

Fire fighting vehicles' surface finish. il Engineer 197:403-4 Mr 12 '54

Specifications

Specifications for fire department apparatus. Safety Maint & Prod 107:51-2 Ap '54

FIRE blight

Antibiotics go arboreal; Agrimycin. il Chem W 74:56 Je 5 '54

Fire blight snuffer; Agri-mycin. Chem W 75:66 S 4 '54

FIRE boats

Fire-float for Hong Kong. il Engineering 177:120 Ja 22 '54

New York city gets new fire fighter. il plans Marine Eng 59:54-8 S '54

San Francisco fireboat Phoenix. il plans Marine Eng 59:47-9 Ag '54

FIRE brick

First quality fire clay brick; prices, 1946-1953; tabulation. Iron Age 173:419 Ja 7 '54

Insulating firebrick in periodic kilns. W. F. Creson and J. W. Moffat. il diags Am Cer Soc Bul 33:4-7 Ja 15 '54

See also

Silica brick

Manufacture

Most modern basic refractory brick plant; Canadian refractories, limited. il Can Min J 74:65 D '53

FIRE brigades, Factory. See Factory fire brigades

FIRE clay

Fireclay as a refractory material; abstract. R. W. Grimshaw. Chem & Ind p431 My 2 '53

Some effects of titania on refractory clays. D. R. Wilder and C. M. Dodd. bibliog Am Cer Soc J 36:400-3 D 1 '53

See also

Fire brick

FIRE damp

Mechanism of ignition of firedamp by explosives. R. L. Grant and C. M. Mason. bibliog 6pls U S Bur Mines Rep of Invest 5049:1-8 '54

Methane for openhearth fuel. D. W. Gillings. diags Metal Prog 66:91-3 Ag '54

New method of measurement of the incendivity of explosives to firedamp. R. L. Grant and others. pl U S Bur Mines Rep of Invest 5050:1-4 '54

See also

Methane

FIRE departments

See also

New York (city)—
Fire department

Great Britain

Brass helmets and bureaucrats. Economist 169:868-9 D 19 '53

FIRE detectors. See Detectors

FIRE extinction

Control of lithium-aluminum-hydride fires. Safety Maint & Prod 108:27 Jl '54

Extinction of liquid fires with water sprays. D. J. Rasbash and Z. W. Rogowski. Chem & Ind p693-5 Je 12 '54

Extinguishing typical natural gas fires with dry chemical equipment. il Gas Age 112:30-1+ D 3 '53; Excerpts. Nat Safety N 69:64 Ja '54

Extinguishment or control of oil fires by agitation. H. A. Ashton. Am Pet Inst Proc 33(5):76-8 '53

Fighting fire with fog. East Underw 55:35 Mr 26 '54

Fire behaviour and fire fighting tactics. G. D. MacAdam. Pulp & Pa of Can 55:209-10 S '54

First two minutes count the most. H. Chandler. il Steel 134:112-14+ F 8 '54

Fluid insulation protects storage tanks exposed to fire; Unox foam. il Chem & Eng N 32:2142 My 24 '54

How to fight a forest fire. G. A. Kingston. Pulp & Pa of Can 55:178+ S '54

Navy probes foam. il Chem W 72:38+ Ap 11 '53

Qualitative effect of extinguishing agents on burning diborane. P. D. George. Ind & Eng Chem 46:1709-10 Ag '54

Snuffing a motor fire; dry-chemical fire-fighting equipment. il Power 98:123 S '54; Safety Maint & Prod 108:56-7 S '54

Ten lbs. of dry chemical ends two-day oil well fire. Safety Maint & Prod 108:30 Jl '54

They didn't dare wet it; so they decided to smother it! il Safety Maint & Prod 107:57-8 Ap '54

They stop fires by remote control. P. W. Kearney. Nat Safety N 69:28-9+ Ap '54

Wetter water shortens fires. N. H. Davis, jr. il Safety Maint & Prod 106:54-6 D '53

See also

Coal mines and mining—Fires and fire protection
Fire boats
Fire extinguishers
Fire service (water supply)
Sprinkling systems

Study and teaching

Selling fire chemicals at school; Ansul Chemical's northwoods plant. il Chem W 73:30-1 Jl 4 '53

FIRE extinguishers

Dry chemical controls explosive dusts. Safety Maint & Prod 107:47-8+ Je '54

Extinguishing fires in vinyl chloride with dry chemicals. Rubber Age 74:761 F '54

Fire equipment for oil refineries. A. G. Thomson. il Chem Age (Lond) 70:1254-5 Je 5 '54

Fire extinguishers. Consumers Res Bul 32:23-5 N '53

Fire extinguishers; design standards and data. H. R. Sleeper. diags Arch Forum 101:166 Jl '54

Fire system protects waterless station. il diag Elec World 140:143-4 N 16 '53

First-aid extinguishers. il Nat Safety N 69:209+ Mr '54

How to make a fire extinguisher from a propane bottle. il World Oil 137:134 Jl '53

Know how to use the right fire extinguisher; illustrations with text. S. Elonka. Power 97:114-15 D '53

New fire-fighting chemical. Engineering 177:401 Mr 26 '54

FIRE extinguishers—*Continued*

Protection's hard to sell. il Chem W 74:61-3 My 1 '54

Resistance of fire-fighting foams to destruction by petrol. R. J. French and P. L. Hinkley. diag J Ap Chem 4:513-16 S '54

Testing by deliberate disasters; Unox-brand fire extinguishers. il Chem W 74:44-5 My 22 '54

US research on flame inhibitors. A. G. Thomson. il Chem Age (Lond) 71:35-7 Jl 3 '54

Vaporising liquids as fire extinguishers; abstract. E. H. Coleman. Chem Age (Lond) 68:599-600 Ap 18 '53

FIRE extinguishers, Carbon dioxide

Licks toughest fire hazards; Sylvania electric products. il Factory Management 112:120-1 My '54

FIRE hose

Fire-fighting fibers. Chem W 73:78 N 14 '53

Fire hose racks and cabinets; design standards and data. H. R. Sleeper. diags Arch Forum 101:167 Jl '54

Method of winding fire hose. D. Mealey. diags Pulp & Pa of Can 55:170 S '54

New fire hose material is light and tough; Dacron polyester fiber. Safety Maint & Prod 107:39 Ja '54

Revolving hose dryer. il Pulp & Pa of Can 55:163 S '54

Stability to water leaching of some textile fungicides applied to unlined flax forestry fire hose. G. R. F. Rose and C. H. Bayley. Textile Res J 24:229-34 Mr '54

FIRE houses

Fire station designed for display and action. il plans Arch Forum 100:155 Ja '54

Here's a fire station for a residential area. il plan Am Bld 75:304 O '53

Electric equipment

New fire station; Monmouthshire installation. il Elec R (Lond) 154:49-50 Ja 8 '54

New Kent fire station. il Elec R (Lond) 153:778-80 O 9 '53

FIRE hydrants. See Hydrants

FIRE inspection. See Insurance, Fire—Inspection

FIRE insurance. See Insurance, Fire

FIRE losses

Fire losses, 1949-1952. Survey of Cur Bsns 1953 Sup p39 [supplemented in monthly numbers]

Fire losses to reach billion dollar mark in 1953; abstracts. L. A. Vincent. East Underw 54:46 O 2 '53; Weekly Underw 169: 785+ O 3 '53

Indirect fire losses have serious effect on large and small business concerns. J. J. Crowley. Weekly Underw 171:246-7, 462+ Jl 31, Ag 28 '54

Large warehouse fire losses. East Underw 54:14 Ag 7 '53

Last year's fire losses. Safety Maint & Prod 108:29-30 Jl '54

1953 fire losses set another record at $903 million. Nat Underw 58:1 Ja 21 '54; Same abr. Safety Maint & Prod 107:45 Mr '54

FIRE protection

Alarms that do not forget; American district telegraph company central station protection system. il Spectator 162:24-5+ S '54

Better fire protection for our cities. L. A. Vincent. Weekly Underw 170:1089+ My 1 '54; Same abr. East Underw 55:18 Ap 30 '54

Defense against fire. il Nat Safety N 69: 207-8+ Mr '54

Dwelling house called fire safety problem. P. Bugbee. Weekly Underw 169:76 Jl 11 '53

Engineer urges protection of patterns, dies and molds against loss by fire. G. E. Stecher. Weekly Underw 170:1054 Ap 24 '54

Facts about modern fire protection. il plan Mill & Factory 54:380-1 My '54

Fieldman's role in fire prevention week. Rough Notes 97:18+ S '54

Fire commission in New York studying protection of schools, public buildings and privately-owned properties. East Underw 55:1 Jl 9 '54

Fire department instructors' annual meeting, Memphis. Nat Underw 58:17 Mr 4 '54

Fire department instructors annual meeting, Memphis. il Spectator 162:36-7 Ap '54

Fire first aid for the home. W. O. Lincoln. Spectator 162:28-9+ F '54

Fire prevention and cure; work at the Fire research station. Chem Age (Lond) 69:75-6 Jl 11 '53

Fire prevention code. Safety Maint & Prod 107:46 Mr '54

Fire prevention; new material, methods developed for roofing; Lexsuco, inc. il Iron Age 172:85 D 24 '53

Fire protection blueprint. G. S. Jamison and L. A. Allen. Safety Maint & Prod 107:49 Je '54

Fire protection can't stand still. M. M. Braidech. il Nat Safety N 69:30-1+ Ja '54; Same. Safety Maint & Prod 108:58-62 S '54

Fire protection; how much is not enough? Arch Rec 115:12+ Ap '54

Fire safety guide for nursing homes. Safety Maint & Prod 107:62-4 F '54

Fire tests of factory roofs. il diags Arch Forum 100:158-9+ F '54

45 rules for making your plant fire-safe during shutdowns; data sheet. Factory Management 112:152+ S '54

Fresh look at fire prevention. Bsns W p56-7+ N 28 '53

General Motors disaster offered no new factors; Livonia plant. C. I. Babcock. Weekly Underw 169:1087-8 N 7 '53; Same. East Underw 54:26 N 6 '53

How Philadelphia fought to cut fires. P. B. Hartenstein. East Underw 55:26 Mr 12 '54

How safe is your paint shop? il Mill & Factory 53:118-20 D '53

How to beat fire to the punch; Allen mfg. co. il Steel 134:120 Ja 25 '54

Insulated ductwork reduces fire hazard. diag Safety Maint & Prod 106:40 N '53

Large industrial losses stress need for fire protection design. M. M. Braidech. East Underw 55:26 Ap 23 '54; Same cond. Nat Underw 58:35 Ap 15 '54

Licks toughest fire hazards; Sylvania electric products. il Factory Management 112:120-1 My '54

Livonia taught business fire protection lesson. K. Kramer. Nat Underw 58:34 Je 10 '54

Michigan fire safety meeting; 1st post-war industrial fire safety conference, Kellogg Center, Michigan state college. Nat Underw 58:19 Ap 8 '54

Missouri field men have fire prevention effort in high gear. Nat Underw 58:19 F 11 '54

Never give fire a chance! Carrier corp. F. E. Feeney. il Safety Maint & Prod 107:36-8+ My '54

New fire problems attacked at National safety congress. Safety Maint & Prod 106:53+ D '53

Non-sparking tools. Chem Age (Lond) 69: 501-3 S 5 '53

Participation in fire prevention week hits peak; National Board material at record. Nat Underw 58:1+ O 7 '54

Plan broader Michigan inspection program after Livonia loss. Nat Underw 57:13 O 15 '53

Precautions that do help prevent loss of life and property by fire. East Underw 55:24 S 10 '54

Protect your plant against fire. Steel 133:36 Jl 27 '53

Twin terrors, fire and panic. Safety Maint & Prod 108:51-2 Ag '54

Weaknesses in fire fighting systems. H. S. Stanley. Nat Underw 57:19 Jl 16 '53

What makes a plant safe? W. K. Ousley. il Foundry 82:120-1+ Mr '54; Same cond. Am Mach 98:146-7 My 24 '54; Same cond. S A E J 62:29-31 My '54

What you can do to protect your plant. G. E. Stecher. Iron Age 172:36A-36D O 1 '53

Why have a fire when maintenance can prevent it! G. G. Blair. il Safety Maint & Prod 107:42-6+ Ja '54

FIRE protection—*Continued*

You have your welding safety rules, but what fire precautions do you take when contractors weld? il Safety Maint & Prod 107:52-3 Je '54

See also

Fire boats
Fire departments
Fire extinction
Fire extinguishers
Fire resisting materials
Fire service (water supply)
Fireproof construction
Fireproofing of textiles
Forest fires
Insurance, Fire—Inspection
Insurance, Fire—Preventive work
Magnesium—Fire hazards
National fire protection association
Oil tanks—Fire protection
Paint, Fire resisting
Sprinkling systems

also subdivision Fires and fire protection under special subjects, e.g.

Airplanes
Coal mines and mining
Distilleries
Petroleum pipe lines—Pumping stations
Petroleum refineries
Railroads
School buildings
Ships

Contests and awards

Fire prevention week contest winners; list. East Underw 55:18+ Ja 29 '54

Gold medal winners in tv, press and radio named by National board. East Underw 55:24 Mr 19 '54; Same cond. Weekly Underw 170:710 Mr 20 '54

Hartford top winner in fire wastes contest. East Underw 55:24 Ap 16 '54; Nat Underw 58:4 Ap 8 '54

Insurance aids Philadelphia to win Fire prevention week award. il East Underw 55:19 F 5 '54

Philadelphia story in fire prevention; city earns NFPA's Grand award. il Spectator 162:30-1 Mr '54

Philadelphia story on better fire prevention. R. W. Daum, jr. il Rough Notes 97:32-3+ My '54

WBZ-TV of Boston is awarded gold medal for fire prevention work. il East Underw 55:24 Mr 26 '54; Same. Weekly Underw 170:762 Mr 27 '54

Laws and regulations

National Board has newly-revised municipal model prevention code. East Underw 54:18 Jl 24 '53

N.Y. commission on fire laws organizes. East Underw 54:33 S 18 '53

Time extended for New York fire laws study commission. Weekly Underw 170:398 F 13 '54

FIRE protection association, National. See National fire protection association

FIRE pumps. See Fire apparatus; Pumps

FIRE resisting materials

Chemical coating Albi-R; Albi-Willesden, ltd. il Chem Age (Lond) 70:1003 My 1 '54

Chlorendic compounds. il Chem & Eng N 32:873+ Mr 1 '54

85 per cent magnesia withstands 2000 F flame test. il Marine Eng 59:59-60 S '54

Eye on the target; vapor barrier, fire retardant, insulator; all three in Flamemastic. Chem W 72:36+ Je 20 '53

Fire-retardant coatings; tests conducted by railroads show value of treated timber. W. E. Barnard. il Nat Safety N 70:38-9+ S '54

Flame-resistant polyesters from hexachlorocyclopentadiene. P. Robitschek and C. T. Bean. bibliog il Ind & Eng Chem 46:1628-32 Ag '54

Hydraulic fluid won't burn; Houghto-Safe. Steel 133:116 S 28 '53; Iron Age 172:148+ O 15 '53

Hydraulic fluids; nonflammable type fluid resists fire. il Iron Age 173:160+ Ap 1 '54

New fire-resistant polyester; Hetron. il Materials & Methods 39:98-101 F '54

New roof design retards fire spread. Eng N 151:102+ D 3 '53

Synthetic latex scrub-resistant intumescent coatings. I. J. Cummings. bibliog il Ind & Eng Chem 46:1985-91 S '54

Tunnel-type furnace shows safety-first hydraulics; Timken roller bearing co. il Steel 134:118 Ap 26 '54

See also

Concrete construction—Fire resistance
Fireproofing of textiles
Paint, Fire resisting
Plastic materials—Fire resistance
Refractory materials

Testing

Insulated factory roof withstands 1700° fire test. il Arch Rec 116:16 Ag '54

What do you mean fireproof? Underwriters' laboratories. N. H. Davis, jr. il Safety Maint & Prod 106:58-64 N '53

FIRE resisting paint. See Paint, Fire resisting

FIRE service (water supply)

Additional-cost basis for fire service rates. R. H. Ellis. Am Water Works Assn J 45:1151-8 N '53

Comparative costs of elevated and ground storage and the role of the pressure tank. J. C. D. Taylor. Munic Util 91:32-4+ O '53

Financial aspects of providing fire protection. I. P. Macnab. Munic Util 92:28-9+ S '54

Fire insurance rating problems; panel discussion. R. C. Dennett and others. Am Water Works Assn J 46:818-26 Ag '54; Abstract. Water & Sewage Works 101:389-90 S '54

Working with the insurance boards in improving water supplies. W. Shakespeare. Munic Util 92:35-6+ S '54

FIRE stations. See Fire houses

FIRE underwriters, National board of. See National board of fire underwriters

FIRE underwriters association of the Pacific

Annual meeting, San Francisco. Nat Underw 58:3+ Mr 11 '54

FIRE walls, Concrete

Design of bases of concrete firewalls. E. Wolfson. il diags Pet Eng 25:C31-2 O '53

Firewall is precast and prestressed. il Eng N 151:33+ D 17 '53

FIREARMS

See also

Guns

FIREBOATS. See Fire boats

FIREDAMP. See Fire damp

FIRELESS locomotives. See Locomotives, Fireless

FIREMEN

Firemen are good prospects; group accident for volunteer fire departments. Rough Notes 97:80 F '54

Time extended for New York fire laws study commission. Weekly Underw 170:398 F 13 '54

FIREMEN'S associations

See also

Benefit societies

FIREPLACES

Cutting fireplace costs in half. il Am Bld 75:270 S '53

Economical way to build two fireplaces; better detail plate. K. R. O'Neal. il plan diags Am Bld 76:112-13 Jl '54

Fireplace details; design standards and data. H. R. Sleeper. diags House & Home 5:151-4 Ja '54

Fireplace made integral with wall; detail plate. K. R. O'Neal. il diags Am Bld 75:200-1 O '53

Fireplace used as room divider; detail plate. K. R. O'Neal. Am Bld 76:222-3 F '54

Fireplaces back to back; better detail plate. K. R. O'Neal. il plan diags Am Bd 75:214-15 Je '53

How to build a cantilevered hearth. il diags Am Bld 75:222-3 S '53

Prefab fireplaces can be used anywhere in the house. il House & Home 41:150+ D '53

Raise the hearth for a more friendly fireplace. il Am Bld 75:176-7 D '53

These fireplaces fit the modified contemporary; with detail plate. K. R. O'Neal. il plans diags Am Bld 75:152-3 D '53

Windows are integral part of this fireplace; better detail plate. K. R. O'Neal. il plan diags Am Bld 76:152-3 Je '54

FIREPROOF construction

Fire protection is built-in; Bert Mills corp. il Nat Safety N 70:66+ Ag '54

Fire safe construction of piers and wharves. Safety Maint & Prod 108:52 Ag '54

FIREPROOF construction—*Continued*

GM fire; will alter plant layout. R. D. Raddant. il Iron Age 172:44-5 Ag 27 '53

Gypsum fireproofing reduces weight in steel frame buildings. il Am Bld 76:174-5 Jl '54

Plastic gaskets, and fireproof backing, help solve metal wall problems. il Arch Forum 101:159+ S '54

See also

Concrete construction
—Fire resistance

FIREPROOFING

Metal lath membrane fireproofing; with time-saver standards. diags Arch Rec 113:201 My '53

FIREPROOFING of textiles

Chemical finishing techniques; resistance to gas fading, static, pilling, flameproofing and rotproofing. A. C. Nuessle. Textile World 104:133+ Je '54

Cotton capers; flame-resistance tetrakis (hydroxymethyl) phosphonium chloride. Ind & Eng Chem 46:sup 15A+ Je '54

Fireproofing of fabrics with phosphorus-resin compounds; abstract. Am Dyestuff Rep 43:38 Ja 18 '54

Flameproofed cloth. J. A. Beattie. il Mech Eng 75:811 O '53

Flameproofed clothing protects workers. il Iron Age 172:75 Jl 9 '53

Flame-proofing cellulose acetate; abstract. Am Dyestuff Rep 42:765-6 N 9 '53

Flameproofing composition; precipitated antimony salt; patent. Am Dyestuff Rep 43:163 Mr 15 '54

Flameproofing compound passes fire and wash tests. Safety Maint & Prod 107:57 F '54

Flameproofing fabrics. W. Stark. Nat Safety N 70:72+ Jl '54

More flame resistance for cottons; tetrakis(hydroxymethyl)phosphonium chloride (THPC); abstract. J. D. Guthrie. Chem & Eng N 32:3864 S 27 '54

Protecting workers from burns; Treesdale compound Permaproof 300. il Dun's R & Mod Ind 62:123-4 Ag '53

THPC, new flame-resistant treatment, is permanent and effective. W. A. Reeves and J. D. Guthrie. Textile World 104:101+ F '54

THPC-resin flameproofing; abstract. W. A. Reeves. Am Dyestuff Rep 43:346 My 25 '54

Patents

Flame resistance by titanium salts. Am Dyestuff Rep 43:635 S 13 '54

Flameproofing textiles; concentrated titanium-antimony solutions. Am Dyestuff Rep 42:214 Mr 30 '53

Flameproofing; titanium chloride acylate. Am Dyestuff Rep 43:345 My 24 '54

Flameproofing with nitrogen-phosphorus-containing compounds. Am Dyestuff Rep 43:344 My 24 '54

Phosphorus oxychloride and ammonia; condensed in solvents and used as flame retardants. Am Dyestuff Rep 43:445 Jl 5 '54

FIRES

Careless smoking habits responsible for deaths; other causes, 1953; New York city. Weekly Underw 171:171 Jl 24 '54

Causes and lessons of the GM fire. D. G. Baird. il Mill & Factory 53:108-9 N '53

Construction fires reported far out of line. Weekly Underw 169:225 Jl 25 '53

Devastation of GM plant attributed partly to inadequate fire protection. il Eng N 151:28 Ag 20 '53

Disasters discussed; General Motors fire will result in new safety effort. P. Bugbee. Weekly Underw 169:1085+ N 7 '53

FIA tallies Livonia loss and details its final lessons. Nat Underw 57:15+ N 26 '53

Findings made on General Motors blaze. Eng N 151:24 O 15 '53

Fire; Ford bans vapor seal in new plant roofs after tests. il Iron Age 172:114 N 5 '53; Steel 133:45 N 2 '53

Fire; GM plant gutted, layoffs begin. R. D. Raddant. il Iron Age 172:58-9 Ag 20 '53

Fire prevention and cure; work at the Fire research station. Chem Age (Lond) 69:75-6 Jl 11 '53

Fire research, 1953; work of the Fire research station. Chem & Ind p923 Jl 24 '54

Fire that changed the course of an industry; General motors corp.'s giant transmission plant. il Bsns W p28-30 Ag 22 '53

Ford simulates plant fire in tests; decides against using pitch vapor seal in roofing. Eng N 151:24 N 5 '53

Fortune has penetrating study of Livonia fire. Nat Underw 57:9 O 29 '53

General Motors disaster offered no new factors; Livonia plant. C. I. Babcock. Weekly Underw 169:1087-8 N 7 '53; Same. East Underw 54:26 N 6 '53

General Motors experience is being assayed carefully. Nat Underw 57:1+ Ag 27 '53

GM's fire. C. W. Boyce. il plan Factory Management 111:114-21 N '53

GM's fire starts everybody worrying. il Bsns W p31 Ag 29 '53

GM fire; will alter plant layout. R. D. Raddant. il Iron Age 172:44-5 Ag 27 '53

G.M. gives insurers largest single risk loss in history; fire that destroyed the Detroit transmission division. Nat Underw 57:1+ Ag 20 '53

G.M.'s Livonia fire; Hydra-Matic division plant. il Spectator 161:24-5+ O '53

GM Livonia fire; steps being taken to get back in production. F. G. Lawrence. il Steel 133:43-4 Ag 31 '53

General Motors plant fire points to several protection weaknesses; Livonia, Mich. East Underw 54:30 S 11 '53; Same. Weekly Underw 169:604 S 12 '53

How fast could you recover if you were burned out? C&D batteries, inc. R. Letwin. il Sales Management 72:80+ F 15 '54

Industrial fire fighting forces quell 87 per cent of all factory fires. East Underw 54:21 Jl 24 '53

Industrial fires and explosions from electrostatic origin. R. Beach. bibliog diag Mech Eng 75:307-13 Ap '53; Discussion. 75:743-5 S '53

Inferior construction is called major factor in large-loss fires. C. P. Jervey. East Underw 55:23 My 21 '54; Same. Nat Safety N 70:40 Jl '54

Lessons from G.M. catastrophe are being catalogued; wholesale N.J. inspection ordered. Nat Underw 57:1+ S 10 '53

Lessons from the Livonia fire. Automotive Ind 109:105 D 1 '53

Number of fires drops. W. L. Nolen. East Underw 55:22 My 21 '54

Products of combustion in burning buildings. F. E. T. Kingman, E. H. Coleman and D. J. Rasbash. bibliog plans diags J Ap Chem 3:463-8 O '53

Rebuilding GM's machines. il Bsns W p33 S 12 '53

Review of 1953. F. H. Morasch. Weekly Underw 170:12+ Ja 2 '54

Scaled-down incendiarism; Britain's Joint fire research organization. il Chem W 74:108-9 Je 26 '54

Transmission-plant fire. plan Mech Eng 75:1002-4 D '53

Vinyl chloride fires. Safety Maint & Prod 107:40 My '54

Why and how fires start! J. J. Ahern. Safety Maint & Prod 108:54+ Ag '54

Worst fires in U.S. history. East Underw 54:19 O 2 '53

See also

Arson
Electric fires
Fire extinction
Fire protection
Forest fires
Inflammable liquids
Insurance, Fire
Oil fires
Plastic materials—
Fire hazards
Spontaneous combustion

also subdivision Fires and fire protection under special subjects, e.g.

Airplanes
Coal mines and mining
Electric plants (central stations)
Motor bus lines
Paper and pulp mills
Petroleum pipe lines
—Pumping stations
Petroleum refineries
Railroads
Ships

FIRES at sea. See Ships—Fires and fire protection

FIRESTONE tire and rubber company

Five stocks with exceptionally high earnings; with comparative balance sheet items. Mag of Wall St 93:324 D 12 '53

Sales of $1,029,402,035 set new record. Rubber Age 74:600 Ja '54

FIREWORKS
Pyrotechnic reaction employs magnesium and steam; Airtronic research, Bethesda, Md. il Chem & Eng N 31:4778 N 16 '53

Accidents

Use of fireworks declining. J. J. Ahern. East Underw 54:19 Jl 10 '53

FIRING
Half a million firelighters a day. A. J. Caddick. Chem Age (Lond) 70:833 Ap 10 '54
See also
Blowers
Boilers—Firing
Combustion
Kilns—Firing
Open hearth furnaces—Firing
Stokers, Mechanical

FIRST aid in illness and injury
Care of the injured. il Nat Safety N 69:231-2+ Mr '54
First-aid progress shown in film. il Nat Safety N 70:44 Ag '54
First aid training important factor in attaining good safety record. V. R. Croswell. Ind & Eng Chem 46:sup95A Jl '54
Ready when needed; Higgins, inc., emergency unit. L. J. Baker. il Nat Safety N 69:74+ Ja '54
Safety director's program saves son's life. Safety Maint & Prod 106:15 D '53
See also
Burns and scalds
Respiration, Artificial

FIRST class mail insurance. See Insurance, First class mail

FIRST national stores, inc.
Five selected debt-free companies; with comparative balance sheet items. Mag of Wall St 93:81 O 17 '53
Leads major food chains in pre-tax profit margin. C. A. Clark, jr. Barron's 32:19+ D 28 '53

FIRTH sterling, inc.
Debentures sold. Comm & Fin Chr 178:2572 D 28 '53

FISCHER, Emil, 1852-1919
Basic work of Fischer and Van't Hoff in carbohydrate chemistry. C. S. Hudson. J Chem Educ 30:120-1 Mr '53

FISCHER reagent
Determination of adsorbed moisture on uranium and uranium oxide. J. O. Hibbits and D. Zucker. il Anal Chem 26:1093-5 Je '54
Determination of moisture in sodium bicarbonate. L. N. Gard and R. C. Butler. bibliog Anal Chem 26:1367-8 Ag '54
Effect of aviation fuel components on the accuracy of the Karl Fischer electrometric titration. R. W. Sneed, R. W. Altman and J. C. Mosteller. bibliog Anal Chem 26:1018-20 Je '54
Moisture determination in refrigerant-oil solutions by the Karl Fischer method. F. T. Reed. bibliog il diags Refrig Eng 62:65-7+ Jl '54

FISCHER-TROPSCH process
Chemicals from the Fischer-Tropsch synthesis. M. D. Schlesinger and others. bibliog flow diag il Ind & Eng Chem 46:1322-6 Je '54
Developments in the Fischer-Tropsch process. Engineering 176:297 S 4 '53
Electron and X-ray diffraction studies of iron Fischer-Tropsch catalysts. J. T. McCartney and others. bibliog diag J Phys Chem 57:730-6 O '53
Fischer-Tropsch synthesis mechanism studies; the addition of radioactive alcohols to the synthesis gas. J. T. Kummer and P. H. Emmett. bibliog Am Chem Soc J 75:5177-83 N 5 '53
Fischer-Tropsch synthesis with cobalt catalysts; effect of nitrogen, carbon dioxide and methane in the synthesis gas. E. J. Gibson and C. C. Hall. bibliog J Ap Chem 4:464-8 Ag '54
Fischer-Tropsch synthesis with cobalt catalysts; effect of process conditions on composition of reaction products. E. J. Gibson and C. C. Hall. bibliog J Ap Chem 4:49-61 F '54: Abstract and discussion. Chem & Ind p299-300 Mr 13 '54
Role of alcohols in the mechanism of the Fischer-Tropsch synthesis; the decomposition of alcohols in the presence of cobalt catalysts. E. J. Gibson. bibliog J Ap Chem 3:375-84 Ag '53
Synthesis of petrochemicals; methods for production of synthesis gas from natural gas hydrocarbons. A. L. Foster. flow chart Pet Eng 25:C3-4 D '53

FISH, Canned. See Canned fish

FISH, Frozen
Danish floating fish freezing plants for Soviet Russia; abstract. O. Kramhoft and E. Schott. diag Refrig Eng 62:61 My '54
Fish freezing plant in Bergen, Norway. G. Lorentzen. il plans diag Refrig Eng 62:41-3+ Ap '54
Fish sticks; their acceptance mounts; processing detailed. il Food Eng 26:44+ Ja '54
How fish fillets are machine-processed; Gloucester fishing co.; picture flow sheet. Food Eng 26:120-3 F '54

FISH as food
Frying breaded fish non-stop; Empire fish co. J. V. Ziemba. il Food Eng 25:84-5+ D '53
See also
Canned fish
Fish, Frozen
Tuna fish

FISH bone disease. See Erysipeloid

FISH culture
Plankton priming; commercial fertilizers into jaws of fish. Chem W 74:79-80 Ja 30 '54

FISH handling
Goofballs in the fisheries; sodium amytal and seconal sodium for transporting fish. il Chem W 73:36+ Ag 1 '53

FISH oil

Statistics

Fish oils, 1949-1952. Survey of Cur Bsns 1953 Sup p 125 [supplemented in monthly numbers]

FISH poisons
Proposed toxicity test for industrial wastes. A. W. Anderson. Sewage & Ind Wastes 25:1450-1 D '53
Toxicity of metals in wastes to fish. H. R. Murdock. Ind & Eng Chem 45:sup99A-100A+ D '53
Toxicity of various refinery materials to fresh water fish. H. Turnbull, J. G. DeMann and R. F. Weston. bibliog il Ind & Eng Chem 46:324-33 F '54; Correction. 46:2202 O '54
What killed these carp on the Kalamazoo? il Eng N 151:37 N 26 '53
Will refinery wastes kill fish? H. P. Clemens and P. Summers. Pet Refiner 32:145-7 Ag '53

FISH ponds
See also
Fish culture

FISH protection
Fish rescue project at the Pacific gas and electric company's Contra Costa steam plant. J. E. Kerr. diag Am Soc C E Proc 79 [no 264]:1-10 S '53

FISH trade
Cold fish war; Icelandic government and British trawler owners dispute. Economist 168:772 S 19 '53
Fishy dealers; Icelandic-British trawler dispute. Economist 169:234 O 24 '53
Headed for a boom; fishermen at international convention, Miami Beach. il Bsns W p 102-4 N 28 '53
Herrings for Russia. Economist 168:49 Jl 4 '53

Statistics

Fish, 1949-1952. Survey of Cur Bsns 1953 Sup p 147 [supplemented in monthly numbers]

Georgia

Georgia story; commercial fishing. il Manuf Rec 123:73 My '54

Great Britain

Uphill fight for fish. Economist 168:249-50 Jl 25 '53

FISH waste
No fish story; protein plastics from fish. Ind & Eng Chem 45:sup 13A+ D '53

FISHER, Harry Linn, 1885-
ACS president for 1954. por(cover) Chem & Eng N 32:82 Ja 4 '54

FISHER award
Analysts honor Fisher award winner, G. F. Smith. Anal Chem 26:sup21A Ap '54
G. Frederick Smith receives Fisher award. Chem & Eng N 32:1138+ Mr 22 '54

FISHER body division. See General motors corporation—Fisher body division

FISHES

Daily movements of fishes. A. D. Hasler and J. R. Villemonte. bibliog il Science 118: 321-2 S 18 '53

Electronic fish-finder locates fish, indicates depth and underwater hazards; Echograph. il Elec Eng 73:186-7 F '54

New articular facet in the upper jaw of the cyprinid fish genus pseudorasbora. L. S. Ramaswami. bibliog diag Science 118:357 S 25 '53

FISHING bait

Big haul with plastic bait for Pacific tunamen. il Chem W 74:52+ F 20 '54

This new product blew up; Seymour packing co. poultry-blood fish bait. D. Ward. Sales Management 72:88+ My 20 '54

FISHING boats

Aluminum alloy fishing cruiser. il Engineer 196:816 D 18 '53; Engineering 176:777 D 18 '53

Fishing vessels of the Pacific coast of America; abstract. H. C. Hanson. Marine Eng 59:36 Jl '54

FISHING nets

Use of nylon yarns in fish netting; abstract. E. R. Needham. Am Dyestuff Rep 43:546 Ag 16 '54

FISHING tackle

Rod and reel; sport of Izaak Walton enjoys a boom. N. Willatt. Barron's 33:11 Ag 3 '53

Tacklemakers reel in $150 million a year. il Steel 135:54-5 Ag 9 '54

FISHING tackle, Plastic

Plastics fishing reel is ambidextrous. il diag Machine Design 26:160 S '54

FISONS, limited

Statement by the chairman. F. G. C. Fison. Economist 169:523-5 N 14 '53

FISSION, Nuclear. See Nuclear reactions

FITS (machinery)

Design of shrink fits. P. R. Paslay and R. Plunkett. diags A S M E Trans 75:1199-202 O '53

Designing for shrink fits. J. H. Faupel. bibliog diags Machine Design 26:114-24 Ja '54

Limits and fits for cylindrical parts; proposal for an American standard; reference book sheets. Am Mach 98:151, 153, 155 Jl 19; 143, 145, 147 Ag 2; 151, 153, 155 Ag 16; 119, 121 Ag 30 '54

Practical application of the new British standard system of limits and fits. G. J. Pearmain. diags Engineer 196:848-50 D 25 '53

Radiant heat for shrink fits. il Tool Eng 32: 66 My '54

Should we adopt standardized fits and limits? ABC system of limits and fits; symposium. R. W. Bolz and others. Machine Design 26: 116-29 Mr '54

Shrink fit perfects piston assembly; Cadillac motor car division. il Steel 133:103+ O 19 '53

Shrink fits; holding power can be increased. B. Trock. diags Iron Age 172:175-7 N 12 '53

Vacuum employed to shrink-fit large tubes; Solar aircraft co. il Mach 60:229 N '53

See also

Tolerance

FITZGERALD, George Francis, 1851-1901

G. F. FitzGerald. E. Whittaker. por Sci Am 189:93-4+ N '53

FIVE- and ten-cent stores

See also

Woolworth, F. W., company

FIXTURES, Lighting. See Lighting fixtures

FIXTURES, Machine tool. See Machine tools —Fixtures

FLAME hardening. See Case hardening

FLAME photometers. See Photometers

FLAME plating. See Tungsten carbide coating

FLAME propagation

Combustion. F. T. McClure and W. G. Berl. bibliog(42 ref) il Ind & Eng Chem 45:1415-25 Jl '53

Influence of hydrogen sulfide on flame speed of propane-air mixtures. P. F. Kurz. bibliog diags Ind & Eng Chem 45:2361-6 O '53

Pressure limits of flame propagation of propane-air mixtures. F. E. Belles, D. M. Simon and R. C. Weast. bibliog diag Ind & Eng Chem 46:1010-13 My '54

Theory of linear flame propagation; existence, uniqueness, and stability of the steady state. D. Layzer. bibliog J Chem Phys 22:222-9 F '54

Theory of linear flame propagation; structure of the steady state. D. Layzer. J Chem Phys 22:229-32 F '54

FLAMEPROOFING. See Fireproofing of textiles

FLAMES

Composition profiles in pre-mixed laminar flames. R. Prescott and others. il J Chem Phys 22:145-6 Ja '54

Determination of transient flame temperatures. G. W. Bauserman and others. bibliog diags R Sci Instr 25:640-3 Jl '54

Experiments on flame radiation in an empty open-hearth furnace. W. P. Cashmore and M. W. Thring. bibliog Iron & Steel Inst J 175:177-82 O '53

Flame stability in bluff body recirculation zones. J. P. Longwell, E. E. Frost and M. A. Weiss. bibliog Ind & Eng Chem 45:1629-33 Ag '53

Flame-stability studies on shielded Bunsen burners. P. F. Kurz. bibliog diags Ind & Eng Chem 46:746-54 Ap '54

Flame-stability studies with mixed fuels. P. F. Kurz. bibliog plan diags Ind & Eng Chem 45:2072-8 S '53

Flame studies with a vortex burner. P. F. Kurz. diag Ind & Eng Chem 46:1311-14 Je '54

Flame zone studies by the particle track technique; apparatus and technique. R. M. Fristrom and others. bibliog diags J Chem Phys 22:106-9 Ja '54; Correction. 22:1145 Je '54

Flat flames of ammonia in air. N. W. Luft and L. Cohen. bibliog il J Chem Phys 22: 348 F '54

International flame radiation research at IJmuiden. il diags Metallurgia 49:265-70 Je '54

International flame-radiation research— at Ijmuiden. G. W. V. Callenfels. il Engineering 176:555-6 O 30 '53

Investigation of flame temperature in a single-cylinder spark-ignition engine. J. H. Potter and R. B. Dillaway. bibliog il diags A S M E Trans 75:1311-21 O '53

Length of oil and gas flames. A. L. Cude. flow diag diags Iron & Steel Inst J 175: 304-12 N '53

Material transfer in turbulent gas streams. V. J. Berry, D. M. Mason and B. H. Sage. bibliog(34 ref) diags Ind & Eng Chem 45: 1596-602 Jl '53

Measurement of the conductivity of a jet flame. F. P. Adler. il diag J Ap Phys 25: 903-6 Jl '54

Method of measuring flame radiation and emissivity continuously in open-hearth furnaces. R. Mayorcas and D. Thomas. Iron & Steel Inst J 175:359 D '53

Microwave investigation of the ionization of hydrogen-oxygen and acetylene-oxygen flames. K. E. Shuler and J. Weber. bibliog il diags J Chem Phys 22:491-502 Mr '54

Reactions in turbulent free jets; turbulent diffusion flame. T. Baron. bibliog diag Chem Eng Prog 50:73-6 F '54

Report of research and technologic work on explosives, explosions, and flames; fiscal years 1951 and 1952. B. Lewis. bibliog(81 titles) 51 pls U S Bur Mines Rep of Invest 5006:1-66 '53

Thermodynamics of combustion gases; temperatures of acetylene-air flames. R. W. Smith, jr. and others. bibliog U S Bur Mines Rep of Invest 5035:1-14 '54

Vortex burner; a useful tool for studying the flame stability of gaseous fuels and fuel mixtures. P. F. Kurz. diags R Sci Instr 25: 418-21 My '54

See also

Combustion
Ignition
Oxyacetylene flame

FLAMMABILITY. See Inflammable mixtures; Textile fabrics—Inflammability

FLAMMABLE fabrics act, 1953
Rush on fiber rules in carrying out Flammable fabrics act. Chem W 74:19 My 8 '54

FLANGES
See also
Pipe flanges

FLANNEL
Educational order trial on 10.5-ounce shrink-resistant wool flannel shirting. L. I. Weiner and F. J. Rizzo. Am Dyestuff Rep 42:125-34 Mr 2 '53

FLARE stacks. See Petroleum refineries—Flare stacks

FLARES, Solar. See Sun—Prominences

FLASH welding. See Electric welding

FLASHING
How to install terne metal chimney flashing. il Am Bld 76:246 Mr '54
New cap flashing quickly installed. il diags Eng N 152:87+ Ja 14 '54

FLASHLIGHT photography. See Photography, Flashlight

FLASHOVER of commutators. See Commutators—Flashover

FLATS, Optical. See Optical flats

FLAVANDIOL
Conversion of melacacidin into 3 : 3′ : 4′ : 7 : 8-pentahydroxyflavylium chloride. W. Bottomley. bibliog Chem & Ind p516-17 My 1 '54
Isolation from acacia melanoxylon of a flavan-3 : 4-diol and its possible bearing on the constitution of phlobatannins. F. E. King and W. Bottomley. bibliog Chem & Ind p 1368 D 19 '53

FLAVANONES
2′Hydroxy-and 2′-methoxy-flavanones. T. H. Simpson and W. B. Whalley. Chem & Ind p 1111 S 4 '54

FLAVINS
Nucleotides; a synthesis of flavin-adenine dinucleotide. S. M. H. Christie, G. W. Kenner and A. R. Todd. Chem Soc J p46-52 Ja '54
Role of molybdenum and flavin in hydrogenase. A. L. Shug and others. Am Chem Soc J 76:3355-6 Je 20 '54

FLAVONES
Basic dissociation constants of some substituted flavones. C. T. Davis and T. A. Geissman. bibliog Am Chem Soc J 76:3507-11 Jl 5 '54
Chemistry of extractives from hardwoods; the occurrence of a flavan-3 : 4-diol (melacacidin) in acacia melanoxylon. F. E. King and W. Bottomely. Chem Soc J p 1399-403 My '54
Preparation of 3′,4′-dihydroxy-6-carboxyflavonol. T. Nagano and K. Matsumura. Am Chem Soc J 75:6237-8 D 20 '53
Rearrangement in the demethylation of 2′-methoxyflavones. K. M. Gallagher and others. Chem Soc J p3770-7 D '53
Rearrangement of 5 : 8-dihydroxyflavonols by treatment with hydriodic acid. D. M. Donnelly and others. bibliog Chem & Ind p567 Je 6 '53

FLAVONOIDS
Enzymatic hydrolysis studies on certain flavonoid glycosides. C. W. Nystrom, B. L. Williams and S. H. Wender. Am Chem Soc J 76:1950-1 Ap 5 '54
Two new flavonoid glycosides from the leaves of phellodendron amurense Ruprecht. M. Hasegawa and T. Shirato. bibliog Am Chem Soc J 75:5507-11 N 20 '53

FLAVONOLS. See Flavones

FLAVOPROTEINS
DPNH-cytochrome reductase, a ferro-flavoprotein. H. R. Mahler and D. G. Elowe. bibliog Am Chem Soc J 75:5769-70 N 20 '53

FLAVOR
Flavour assessment. H. G. Harvey; E. D. Adrian. bibliog Chem & Ind p 1163-7, 1274-6 O 31, N 28 '53
Flavour assessment; biometrician's viewpoint. J. O. Irwin. bibliog Chem & Ind p 1348-52 D 19 '53
Lilly's kids get a taste of their own medicine. il Sales Management 70:74+ My 20 '53
Symposium on flavour assessment; abstracts and discussion. Chem & Ind p562-5 Je 6 '53
Taste thermometer brings food quality into focus. L. E. Slater. il Food Eng 26:41-3+ Mr '54
Which really point the way in tests of a product? checks on bags of popcorn, observer-panel psychometrics. N. Schwartz. il Food Eng 26:64-5+ Jl '54

FLAVORING materials
Dry solubles; versatile seasoning agents. E. J. Hohhof. il Food Eng 26:83-4+ Je '54
Essential oils of interest to flavoring industry; abstract. H. Wesemann. Oil Paint & Drug Rep 165:5+ My 24 '54
Flavoring makers must give secret formulas. Oil Paint & Drug Rep 165:3 My 17 '54
Getting down to principles on the what and why of drink flavors. E. A. Morgan. il Food Eng 26:82-4 Ap '54
Taste doesn't tell. Chem W 72:39-40 Je 27 '53
True fruit flavors. P. Adams. bibliog il Food Eng 26:93-4+ Je '54
Vanilla-like synthetic cuts ice cream flavor cost; Vanitrope. W. S. Arbuckle and others. Food Eng 26:84-5+ F '54
See also
Essential oils
Vanilla

FLAVYLIUM compounds
Conversion of melacacidin into 3 : 3′ : 4′ : 7 : 8-pentahydroxyflavylium chloride. W. Bottomley. bibliog Chem & Ind p516-17 My 1 '54

FLAX
Structure of flax fibre strands. D. R. Gilling and D. E. J. Samuels. il Textile Inst J Trans 44:T609-18 D '53
Trickling filters treat flax wastes. W. H. Oldaker. Pub Works 85:171-2 My '54

FLAX straw
California central fibre corp. production of top-quality cigarette paper made entirely from seed flax tow. Tappi 37:sup 130A-1A My '54

FLAXSEED
Flaxseed world output seen higher for 1953. Oil Paint & Drug Rep 164:5+ N 2 '53

Analysis

Isolation of β-hydroxy-β-methylglutaric acid from the seed of flax (linum usitatissimum). H. J. Klosterman and F. Smith. bibliog Am Chem Soc J 76:1229-30 Mr 5 '54

Statistics

Flaxseed '53 output at low point. Oil Paint & Drug Rep 165:3 Mr 1 '54
Flaxseed, 1949-1952. Survey of Cur Bsns 1953 Sup p 128 [supplemented in monthly numbers]

FLEISHER, Walter Louis, 1880-
W. L. Fleisher to receive 1953 F. Paul Anderson award. por Heating-Piping 26:205-6 Ja '54

FLEMMING, Arthur Sherwood, 1905-
Senate confirms Flemming as new mobilization agency head. por(cover) Chem & Eng N 31:2692 Je 29 '53

FLEXIBILITY
Code for pressure piping; task force reports on piping flexibility. diags Heating-Piping 25:106-12 N; 88-91 D '53; 26:98-101 Ag '54
Flexibility of piping systems supported by equally spaced rigid hangers; abstract. J. E. Brock. Heating-Piping 26:100-1 F '54
Here's background of piping flexibility report. Heating-Piping 26:102-3 Ag '54
Piping flexibility analysis; abstract. A. R. C. Markl. Heating-Piping 26:101 F '54
Simple flexibility test. D. G. Stechert. il diag Anal Chem 25:1730-3 N '53

FLICKER fusion phenomena
Relationship between critical flicker-frequency and a set of low-frequency characteristics of the eye. H. de Lange Dzn. bibliog diags Opt Soc Am J 44:380-9 My '54
Study in binocular flicker. F. H. Perrin. bibliog(25 ref) il diags Opt Soc Am J 44:60-9 Ja '54

Bibliography

Annotated bibliography of flicker fusion phenomena covering the period 1740-1952. C. Landis, comp. 130p Armed forces-National research council, Vision committee secretariat, 3433 Mason Hall, Univ. of Mich, Ann Arbor '53

FLIES
Controlling the black fly. A. G. Roach. il Can Min J 75:62-4 Mr '54
Effect of fly control on diarrheal disease in an area of moderate morbidity. D. R. Lindsay and others. map Pub Health Rep 68:361-7 Ap '53
Fly control at a sewage treatment plant. W. N. Wells. il Pub Works 85:87-8 Je '54
Malathion for fly control. Soap & Chem Spec 30:183 S '54
Strobane; relative toxicity against house flies. N. Mitlin and others. Soap & San Chem 30:157+ Mr '54
Toxicant trials; how the housefly develops resistance to benzene hexachloride. Chem W 74:26+ Ja 2 '54
See also
Fly sprays and repellents
Tsetse flies

FLIGHT
See also
Aerodynamics
Aviation

FLIGHT, interplanetary. See Interplanetary flight

FLIGHT safety, inc.
Flight safety; advanced training for pilots of business planes. Bsns W p88 O 24 '53

FLIGHT simulator. See Aviators—Training; Aviators, Military—Training

FLOAT and sink process. See Sink and float process

FLOATING bridges. See Bridges, Floating

FLOATING cranes. See Cranes, Floating

FLOATING soap. See Soap, Floating

FLOCCULATION
Flocculation and flocculation basins. T. R. Camp. plan diags Am Soc C E Proc 79 [no 283]:1-18 S '53
Flocculation in flowing pulp suspensions. A. A. Robertson and S. G. Mason. bibliog diags Pulp & Pa of Can (Convention no) 55: 263-9 [F] '54
Flocculator for vertical mounting; Spirol-Mix. diag Chem & Eng N 32:1830 My 3 '54
Removing oil from water by flocculation and filtration. V. J. Calise. flow diag diag Power Eng 58:86-7+ Ap '54
Seroflocculating steroids; ethyl 3β-chloro-Δ^{11}-cholenate. F. C. Chang and D. H. Sprunt. bibliog Am Chem Soc J 76:3213 Je 20 '54
Studies on aging and coprecipitation; the irreversible flocculation of colloidal silver bromide and the aging in the flocculated state. I. M. Kolthoff and R. C. Bowers. il Am Chem Soc J 76:1510-15 Mr 20 '54

FLOETE, Franklin G.
Defense post filled. por Eng N 151:22 Jl 30 '53
Portrait. Bsns W p29 N 21 '53

FLOOD control
Bala Lake improvement scheme. Engineering 176:412 S 25 '53
Conservation of the Everglades. H. W. Schull, jr. maps Am Soc C E Proc 79 [no 242]:1-5 Ag '53
East Coast sea defence works. il maps diags Engineer 196:742-6, 758-61, 794-6 D 4-18 '53
Economy drive hits Willamette basin. il Eng N 151:25 Jl 23 '53
Flood control works on the river Welland. il map diags Engineer 197:233-6, 266-9 F 12-19 '54
Hydraulic problems of local interests under the central and southern Florida project. H. C. Gee. Am Soc C E Proc 79 [no 213]:1-8 Jl '53
Iraq to carry out record irrigation and flood control program. Eng N 151:230+ O 8 '53
Kansas River basin; flood control solution is being sought. Eng N 152:27 Ja 28 '54
Low-cost flood wall keeps the river away. D. E. Southwick. il diag Factory Management 112:136-7 Ag '54
New Rio Grande flood and silt control project near Albuquerque is completed; Jemez Canyon dam. il Eng N 151:76 O 8 '53
Pile loading tests; Morganza Floodway control structure. C. I. Mansur and J. A. Focht, jr. il diags Am Soc C E Proc 79 [no 324]:1-31 N '53
Pumps to tame Florida floods. H. W. Schull, jr. il maps Eng N 152:36-7 Ap 22 '54
Reservoir plan challenged for Kansas flood control. il map Eng N 151:53-5 Ag 20 '53
River use and control; with data on major projects. il maps Eng N 152:102-3+ F 18 '54
Selection of pumps and design of high volume-low head pumping stations. G. F. Snodgrass. plans diags Am Soc C E Proc 79 [no 229]: 1-13 Jl '53
Starting flood control in minor creek valleys. il maps Eng N 151:45-7 N 12 '53
Trinity River flood control bolstered; Lavon dam. Eng N 151:24 N 12 '53
See also
Central Valley project, California
Dams
Dikes (engineering)
Levees
Mississippi river—Flood control project
Rivers—Regulation

Cost

Big spread in bids for flood protection contract, North Dakota; unit prices. Eng N 152:83 Ap 22 '54

FLOOD insurance. See Insurance, Flood

FLOODLIGHTING. See Light projection

FLOODS
River-bed scour during floods. E. W. Lane and W. M. Borland. map diags Am Soc C E Proc 79 [no 254]:1-14 Ag '53
See also
Flood control
Railroads—Damage from floods, storms, etc.

Forecasting

How Santa Fe radio broadcasts flood warnings. il Ry Age 135:109 N 16 '53

Insurance aspects

Kansas City grain loss in 1951 due to flood, not explosion; federal court rules for insurers. East Underw 54:1 N 6 '53; Same. Nat Underw 57:1 N 5 '53; Same. Weekly Underw 169:1096+ N 7 '53
See also
Insurance, Flood

Great Britain

Defenceless sea defences; North Sea flooding conference, London, Dec. 16-17. Engineering 177:38-9 Ja 8 '54
East Coast sea defence works. il maps diags Engineer 196:742-6, 758-61, 794-6 D 4-18 '53

Iraq

Iraq to carry out record irrigation and flood control program. Eng N 151:230+ O 8 '53

Kansas

Reservoir plan challenged for Kansas flood control. il map Eng N 151:53-5 Ag 20 '53

Netherlands

Lowlanders repair defenses against the sea. il Eng N 151:34-5 O 15 '53

Ohio

High-low roadway for Ohio floods. H. R. Craig. il plan diag Roads & Sts 96:40-1 D '53

FLOOR cleaning
Efficient floor maintenance methods increase production, stop accidents. E. W. Merritt. il Safety Maint & Prod 107:14-16+ Je '54
More than elbow grease! Safety Maint & Prod 107:18-20 My '54

FLOOR cleaning machines
Big new scarifier cuts floor-cleaning costs 57 per cent. il Factory Management 111: 102-3 N '53
Cleaning greasy floors; self-powered Cowlard C50A. Chem Age (Lond) 69:1183 D 5 '53
Industrial floor-cleaning machine. il Engineering 176:831 D 25 '53
Industrial floor maintenance. il Elec J 152: 289 Ja 22 '54
Maintenance; cleaning costs cut with mechanical sweepers. il Iron Age 173:154-5 Mr 11 '54

FLOOR coverings
Bus floor covering problems. il Bus Transportation 33:41-3+ Jl '54
Effect of floor coverings on panel heating systems; abstract. L. F. Schutrum and C. M. Humphreys. Dom Eng 183:224+ Mr '54
Effects of non-uniformity and furnishings on panel heating performance. L. F. Schutrum and C. M. Humphreys. Heating-Piping 26:131-6 F '54; Abstract. Heat & Ven 51:93 Mr '54; Discussion. Heating-Piping 26:175-6 Mr '54
How to install hardboard underlayment panels. il Am Bld 76:196+ F '54
What can we do to grade-up our dealers? Armstrong cork co. R. C. Stabern. il Sales Management 71:78+ S 15 '53
See also
Carpets

FLOOR finishes
Shellac takes the floor; S. C. Johnson & son tests its grip on the term hard gloss applied to floor polish. il Chem W 73:65-6 D 12 '53

FLOOR polishers
Domestic electrical equipment; cleaners and polishers; with list of manufacturers. il Elec R (Lond) 154:277-82 F 12 '54

FLOOR wax
Eye catchers; Bruce's new containers. il Mod Packaging 27:98-100 Jl '54
F.T.C. holds final hearing on floor wax trade rules. Soap & San Chem 29:165+ O '53
F.T.C. holds hearing on third set of floor wax trade rules. Soap & San Chem 29:177 Ap '53
Johnson wax premium deal. il Soap & Chem Spec 30:165 Ag '54
New floor wax in flake form. Soap & San Chem 29:161+ O '53
Polystyrene type latices in self-polishing floor waxes. L. H. Perry and R. S. Sweet. Soap & Chem Spec 30:145-7+ S '54
Wax remover specification. Soap & San Chem 29:157 S '53
Wax with a bonus shine; Trio chemical works inc.'s germicidal Amazon floor wax. il Chem W 75:70 Ag 21 '54
Waxing vinyl floors. C. S. Kimball. Soap & San Chem 29:147+ Je '53; Abstract. Paint Oil & Chem R 117:48 F 25 '54

Specifications

New wax specification. Soap & San Chem 29:140f-140h Je '53

Testing

What difference does wax make on vinyl plastic floors? C. S. Kimball and others. Safety Maint & Prod 107:29-30+ Ap '54

FLOORING
Conductive floor tile helps prevent explosions in operating rooms. il Arch Forum 99:232+ S '53
Hardwood flooring, 1949-1952. Survey of Cur Bsns 1953 Sup p 155 [supplemented in monthly numbers]
Industrial floors. il Nat Safety N 69:12+ Mr '54
Interior wall, ceiling, flooring and utility materials. il plans diags Am Bld 75:349+ Ap '53

FLOORING, Plastic
How to prolong car-floor life; resurfacing with Plastinail. il Ry Age News ed 136:20-1 Ja 4 '54
Waxing vinyl floors. C. S. Kimball. Soap & San Chem 29:147+ Je '53; Abstract. Paint Oil & Chem R 117:48 F 25 '54
What difference does wax make on vinyl plastic floors? C. S. Kimball and others. Safety Maint & Prod 107:29-30+ Ap '54

FLOORS
Develop floor systems of steel joists wood panels. il Am Bld 76:268 Je '54
Field studies of floor panel control systems. A. B. Algren and others. plans Heating-Piping 26:117-27 Ap '54
How to patch and resurface rough floors; illustrated instructions. Power 98:144 Ja '54
Methods for remedying loose, squeaky floors. Am Bld 76:262 Ag '54
New prefab subfloor is laid in one hour in a house which boasts five other good ideas; with cost data. il plans House & Home 4:158-60 N '53
Tetrahedral floor system; Yale's new design laboratory. il diags 97:148-9 N '52
Thru-way floor truss. il Arch Forum 97:149 N '52
See also
Bridges—Floors
Factories—Floors
Flooring
Freight cars—Floors
Warehouses—Floors

FLOORS, Cement
How to repair a cement floor; illustrated instructions. Mill & Factory 54:100 Ja '54

FLOORS, Concrete
Cardboard concrete floors. il diag Arch Forum 98:150 My '53
Corrugated steel forms for concrete floors. il Constr Methods 36:164-5 Je '54
Floor aggregates. E. W. Scripture, jr. and others. bibliog il Am Concrete Inst J 25: 305-16 D '53; Discussion. 26:316^1-316^6 pt 2 D '54
Floor plank heating ducts. il plan diag Arch Forum 97:141 D '52
Heat flow characteristics of hot water floor panels. E. L. Sartain and W. S. Harris. il plan diags Heating-Piping 26:183-91 Ja '54; Abstract. Heat & Ven 51:93 Mr '54; Discussion. Heating-Piping 26:174-5 Mr '54
Hollow concrete floor combines radiant and forced-air heating and cooling. il diag Arch Forum 101:210 Jl '54
How to protect slab floors from frost and dampness. il diags Am Bld 75:74-5 My '53
Lightweight floors; thin two inch slab on light ten inch joists brings fireproofed floor costs down. il Arch Forum 98:155 Mr '53
Pouring floor for new atomic reactor. il Concrete 62:40 F '54
Precast concrete slabs for industrial floors. P. F. van der Meulen Bosma. il diags Rock Prod 56:182-3 D '53
Prestressed block floors. il diags Arch Forum 97:161 O '52
Prestressed waffle lift-slabs. il plan diag Arch Forum 98:168-9 Je '53
Slab-sanding costs less, does better job. il Am Bld 75:258 Je '53

Testing

What research has brought forth; digest of tests on concrete floor slabs, conducted by the University of Illinois Small homes council in cooperation with Levitt and sons. W. Egger. diags Am Bld 75:76-7 My '53

FLOORS, Steel
Steel grating floor cuts drying costs; Texas vitrified pipe co. J. F. Bailey and F. S. Trumbower. il Brick & Clay Rec 124:40 Mr '54

FLOORS, Wood
How to repair a wood block floor; illustrated instructions. Mill & Factory 54:101 Ja '54

FLORIDA
Topographic mapping by the U.S. Geological survey. D. Kennedy. map Am Soc C E Proc 79 [no 212]:1-5 Jl '53
See also
Architecture, Domestic—Florida
Canals—Florida
Chemical industries—Florida
Mines and mineral resources—Florida
Petroleum industry and trade—Florida
Phosphate rock—Florida

FLORIDA Everglades. See Everglades

FLORIDA Keys
New 126-mile aqueduct to serve phenomenal growth of Florida Keys. J. W. Greenleaf, jr. map Civil Eng 23:543-5 Ag '53

FLORIDA power corporation
Public utility securities. O. Ely. Comm & Fin Chr 178:1441 O 15 '53
Rapid growth in 1954-55 likely. Barron's 33: 21-2 N 23 '53

FLORIDA university
Current research in sanitary engineering. D. B. Smith. bibliog il Am Soc C E Proc 79 [no 207]:1-34 Jl '53

College of engineering

University of Florida. J Eng Educ 43:445-7 Ap '53

FLORISTS' shops

Lighting

Contrast; a keynote for a florist's display. il Illum Eng 49:244 My '54

FLOTATION agents

Froth-flotation reagents for coal; distillation fractions of commercial oils and some simple phenolic compounds. P. F. Whelan. il diag J Ap Chem 3:289-301 Jl '53

FLOTATION process

Canadians trying flotation to concentrate uranium ore. Chem Eng 60:143-4 Ag '53

Chemical engineering unit operations; flotation. R. B. Booth. bibliog(81 ref) Ind & Eng Chem 46:105-11 Ja '54

Flotation and the Gibbs adsorption equation. P. L. de Bruyn and others. bibliog Min Eng 6:Trans 519-23 My '54

Flotation characteristics of pyrrhotite with xanthates. C. S. Chang and others. bibliog il Min Eng 6:Trans 209-17 F '54

Flotation of oxidized zinc ores. M. Rey and others. bibliog flow sheet Min Eng 6:Trans 416-20 Ap '54

Flotation theory; molecular interactions between frothers and collectors at solid-liquid-air interfaces. J. Leja and J. H. Schulman. bibliog(30 ref) diags Min Eng 6:Trans 221-8 F '54

Froth flotation of iron ores; adsorption of starch products and laurylamine acetate. N. F. Schulz and S. R. B. Cooke. bibliog(29 ref) Ind & Eng Chem 45:2767-72 D '53

Humboldt process concentrates low grade ore. Blast F & Steel Pl 42:842 Jl '54

Measurement and evaluation of the rate of flotation as a function of particle size. T. M. Morris. bibliog Min Eng 4:Trans 794-8 Ag '52; Discussion. 5:Trans 1122-4 N '53

New plant successfully floats Michigan jasper; Humboldt mining co. R. Cochran and E. Nanno. flow sheet il Eng & Min J 155:100-4, 114 Ag '54

Petroleum sulfonate flotation of beryl. S. M. Runke. bibliog U S Bur Mines Rep of Invest 5067:1-19 '54

Recovering lithium by froth flotation; Foote mineral co. W. B. Lenhart. il Rock Prod 57:120-2 Je '54

Starches and starch products as depressants in amine flotation of iron ore. C. S. Chang and others. bibliog il Min Eng 5:Trans 1282-6 D '53

Substituted starches in amine flotation of iron ore. C. S. Chang. Min Eng 6:Trans 922-4 S '54

FLOTATION process (coal)

Effects of oxidation of coals on their flotation properties. S. Sun. bibliog diag Min Eng 6:Trans 396-401 Ap '54

Froth-flotation reagents for coal; distillation fractions of commercial oils and some simple phenolic compounds. P. F. Whelan. il diag J Ap Chem 3:289-301 Jl '53

Hypothesis for different floatabilities of coals, carbons and hydrocarbon minerals. S. Sun. bibliog(23 titles) diags Min Eng 6:Trans 67-75 Ja '54

Laboratory evaluation of vacuum flotation for cleaning coal fines. H. L. Riley and B. W. Gandrud. bibliog il diag U S Bur Mines Rep of Invest 5071:1-33 '54

Low-cost froth flotation. D. H. Gregory and others. diag Coal Age 58:94-5 N '53

FLOTATION process (non-metals)

Application of air flotation to refinery waste waters. G. A. Rohlich. bibliog flow diags il Ind & Eng Chem 46:304-8 F '54

Clarification by flotation and re-use of laundry waste water. H. J. Wollner and others. bibliog flow diag il diags Sewage & Ind Wastes 26:509-19 Ap '54

Deinking by the Froth flotation process. J. W. Jelks. il diag Tappi 37:sup 149A-50A Ja '54

Dispersed air reclaims solids. diag Chem Eng 61:134 F '54

Hypothesis for different floatabilities of coals, carbons, and hydrocarbon minerals. S. Sun. bibliog(23 titles) diags Min Eng 6:Trans 67-75 Ja '54

FLOTURN process. See Sheet metal work

FLOUR

Chemical engineering methods in the food industry. W. Price-Davies. bibliog Chem & Ind p745-7 Je 26 '54

Bleaching

Bleaching and improvement of bread doughs. J. P. Todd and others. bibliog il Chem & Ind p50-1 Ja 9 '54

Manufacture

Stone-ground livens market. il Food Eng 26:31-2 Ja '54

Transportation

Bulk-trailer plus-value; minimized storage; Omar inc. il Food Eng 26:55 Je '54

FLOUR beetles

Methods of obtaining quinones from flour beetles. R. K. Ladisch and B. McQue. bibliog il Science 118:324-5 S 18 '53

FLOUR handling

Bulk-cost burdens eased; General mills. W. G. Hoskins. il Food Eng 26:131+ My '54

Chemical engineering methods in the food industry; developments in handling and storage of flour. J. F. Lockwood and C. H. Wooll. il plan diags Chem & Ind p 1128-34 S 11 '54

FLOUR mills

Equipment

Air-controlled rolls up mill efficiency; Saskatchewan cooperative producers, ltd. flour mill. E. S. Gilbert. il diag Food Eng 26:83+ Jl '54

Chemical engineering methods in the food industry; developments in handling and storage of flour. J. F. Lockwood and C. H. Wooll. il plan diags Chem & Ind p 1128-34 S 11 '54

FLOUR trade

Advertising

Benson's butter headache cues flour promotion; International milling co. il Sales Management 71:58+ D 1 '53

Statistics

Wheat flour, 1949-1952. Survey of Cur Bsns 1953 Sup p 142 [supplemented in monthly numbers]

FLOW. See Fluids

FLOW birefringence. See Refraction, Double

FLOW integrator

Accurate flow-integrating device for hydrometallurgical studies. J. C. Ingles and J. L. Horwood. diags R Sci Instr 24:542 Jl '53

Integrator totals liquid flow rate. il diags Machine Design 25:146-7 N '53

FLOW meters

Automatic metering system charges liquid to bank of reactors. J. E. Smith and W. R. Ludka. diag Chem Eng 61:254 Je '54

Coefficients of float-type variable-area flowmeters. V. P. Head. bibliog il diags A S M E Trans 76:851-9; Discussion. 859-62 Ag '54

Compact flowmeters for use in the unanesthetized animal, an electronic version of Chauveau's hemodrometer. A. M. Scher and others. il diags Science 118:82-4 Jl 17 '53

Control valve serves as flow meter with hundred-to-one range. A. H. McKinney. diag Chem Eng 61:222+ S '54

Counting-timing techniques for flow control. M. G. Saake. diags Instruments & Automation 27:938-9 Je '54

Electromagnetic flow-meters; Tobiflux. Engineering 176:542 O 23 '53

Electronic flowmeter system. H. P. Kalmus. bibliog il diags R Sci Instr 25:201-6 Mr '54

Evaluation of the accuracy of the coefficient of discharge in the basic flow-measurement equation. A. L. Jorissen. A S M E Trans 75:1323-5; Discussion. 1325-6 O '53

Float type airflow meter for use on beds of agricultural grains. W. F. Williamson and J. McCloy. diag J Sci Instr 30:207-8 Je '53

Flow chart totalizing without approximation. il diag Product Eng 24:212 N '53

Flow tube uses conductivity to study fast ionic reactions; abstract. R. E. Meeker. diag Chem & Eng N 31:4444-5 O 26 '53

Flow tubes. E. W. Handle. diags Instruments 26:1879+ D '53

Flowmeter engineering. L. K. Spink and W. H. Howe. diags Instruments & Automation 27:783-7 My '54

FLOW meters—*Continued*

For cheaper heats, budget Btu's automatic control systems. M. F. Hall. il Steel 133: 130+ D 14 '53

Fundamentals of automatic rate of flow control. L. Walter. il diags Paper Ind 36:380-2 Jl '54

Gavco mass flowmeter. il Mech Eng 75:568-9 Jl '53

Here's a new flow meter design. A. L. Jorissen and others. bibliog diags Pet Processing 8:1870-3 D '53

How to meter accurately when liquids contain bubbles. L. Steber. diag Chem Eng 60:210 O '53

Light avionic flowmeter uses few vacuum tubes. il Aviation W 59:48 Ag 3 '53

Mass rate flowmeter measures gas, liquid, or solids. il diag Product Eng 24:211 S '53

Mechanical analog-computing elements and their applications to automatic control. A. Piatt. il diags A S M E Trans 76:883-8 Ag '54

Momentum principle measures mass rate of flow. V. A. Orlando and F. B. Jennings. bibliog il diags A S M E Trans 76:961-5 Ag '54; Abstract. Mech Eng 75:900-1 N '53

New flow meter; George Kent's KU. il Chem Age (Lond) 69:1019-20 N 14 '53; Engineer 196:643-4 N 13 '53; Engineering 176:702 N 27 '53

New transmitter simplifies flow measurement. il diag Product Eng 24:210 S '53

Photoelectric flow rate meter. W. R. S. Briggs and R. L. Werner. diag J Sci Instr 31:259 Jl '54

Pipe tee fluid flowmeter. L. Garwin and S. H. Landes. bibliog diags Ind & Eng Chem 46:665-9 Ap '54

Precession to mass flow rates; Gyro flowmeter. il diag Chem Eng 61:270+ F '54; Pet Processing 9:130 Ja '54

Relation between the velocity profile and the sensitivity of electromagnetic flowmeters. J. A. Shercliff. diag J Ap Phys 25:817-18 Je '54

Robust air-flow meter for field use. D. S. M. Phillips. diag J Sci Instr 30:382-3 O '53

Segmental lever design of a flowmeter pen drive. il Machine Design 26:123 Ap '54

Sensitive pressure switch. S. K. Dean. il Engineer 196:538 O 23 '53

Small nozzles and low values of diameter ratio. H. S. Bean and others. bibliog diags A S M E Trans 76:863-70; Discussion. 870-1 Ag '54

Tabbing the flow spots profits; Dodds Alderney dairy. il diag Food Eng 26:40+ Ja '54

Techniques for increasing flowmeter rangeability. E. A. Ford. diags Instruments & Automation 27:1319-20 Ag '54

Two-way flowmeter. J. J. Bresnahan. diag Power 98:114 Je '54

Variable-area flowmeters. D. V. Gayton. il Instruments & Automation 27:1482-4 S '54

See also

Gas meters
Orifice meters
Parshall flume
Pitometers
Steam meters
Venturi meters
Water meters

Testing

Calibration of glass-wool flowmeters. J. Grumer, H. Schultz and M. E. Harris. Anal Chem 25:840 My '53

Precision measurements of gas flow rates. S. Ergun. bibliog(39 ref) Anal Chem 25:790-2 My '53

FLOW of fluids. See Fluids; Hydrodynamics; Turbulence

FLOW regulators

Adjustable flow rate in a rotary valve for remote operation. il diags Machine Design 26:124 Ap '54

All-glass adjustable-head liquid reservoir for flow control. G. J. Janz and E. H. Stevens. diag Anal Chem 26:1395 Ag '54

Clamping flexible section controls flow. il diag Product Eng 24:164-5 Ag '53

Exercise of control of flowing wells and of input to gas lift installations by means of a differential flow control valve. L. R. de Verteuil. diags Inst Pet J 39:819-45 D '53

Method of control of a predetermined flow rate. H. H. Reamer and B. H. Sage. bibliog il diags R Sci Instr 24:362-6 My '53

Needle valve type of variable gas leak for mass spectrometers. E. F. Babelay and L. A. Smith. il diags R Sci Instr 24:508-10 Jl '53

Pressure regulation and flow control with expansible-tube valves. F. H. Wehrman. il diags Instruments 26:1543-6 O '53

Remote control electric valve operation. H. A. Altorfer. il diags Pet Eng (Ref annual) 25:D51-3+ Jl 15 '53

Why not use draft tubes? A. P. Weber. bibliog diags Chem Eng 60:183-7 O '53

FLOW sheets

Flow chart for the insurance manager. flow chart Management R 42:411-13 Jl '53

FLOWER shops. See Florists' shops

FLOWERING of plants. See Plants, Flowering of

FLOWERS

My most interesting lighting job; controlling flower growth with light. H. Hall. il Elec West 111:103 S '53

Nighttime lighting produces flowers for off-season market. H. Hall. il Elec World 141: 134 Ja 11 '54

FLOWMETERS. See Flow meters

FLOWSTRUT

Plant equipment from standard parts; Flowstrut slotted angle system. il Factory Management 111:160-1 N '53

FLUE dust

Air pollution control in the Bethlehem steel co. A. D. Brandt. il Iron & Steel Eng 31: 103-6; Discussion. 106-7 Ag '54

Blast furnace design problems. F. E. Kling. diags Blast F & Steel Pl 42:782-6 Jl '54

Blast furnace flue dust thickeners. J. D. Walker and E. N. Hower. il diags Blast F & Steel Pl 42:57-61 Ja '54

Bricks from fly ash. Chem Age (Lond) 71: 476 S 4 '54; Chem & Ind p 1095 S 4 '54

B.I.S.R.A. photo-electric dust concentration meter. Engineer 197:128 Ja 22 '54; Engineering 177:146 Ja 29 '54; Metallurgia 49: 156 Mr '54

British producing germanium from flue dust. J. A. Gay. J Metals 5:979 Ag '53

Dust and fume problems in the steel industry. R. F. O'Mara. flow diag diags Iron & Steel Eng 30:100-6 O '53

Dust sampling. Elec R (Lond) 153:498 S 4 '53

Dust sampling equipment. il Elec J 151: 717-18 S 4 '53

Dust sampling equipment and technique. W. C. Holton and E. J. Schulz. il diags A S M E Trans 75:1327-31 O '53

East's first fly-ash concrete dam. il Eng N 151:35-6 S 17 '53

Effect of fly ash on concrete; abstract. D. L. Bloem. Rock Prod 57:171 Mr '54

Effects of fly-ash replacement of cement. G. H. Larson. Concrete 62:38+ Mr '54; Abstract. Roads & Eng Constr 92:108-9 My '54

Fly ash improves concrete and lowers its cost. A. S. Pearson and T. R. Galloway. bibliog il Civil Eng 23:592-5 S '53

Fly ash may yield commercial germanium. R. C. Corey. Power Eng 58:65 Ja '54

Fly-ash use as concrete additive questioned by building inspectors. Eng N 152:22 Mr 25 '54

Gas filter; Dorfan Impingo filter. diag Blast F & Steel Pl 42:968-9 Ag '54

Grading of fly ash. D. H. Lucas. il diags Engineering 177:272-3 F 26 '54

Investigation of gravity reinjection of fly ash on a spreader-stoker-fired boiler unit. C. H. Morrow and others. diags A S M E Trans 75:1363-70; Discussion. 1370-2 O '53

Lime, fly ash, silica and cement in autoclaved concrete products. J. K. Selden. Rock Prod 57:142-3+ My '54

Measurement of air pollution. W. C. L. Hemeon and others. bibliog il Instruments 26:566-8+ Ap '53

New approach to the theory and operation of electrostatic precipitators for use on pulverised fuel boilers; abstract. N. Troost. Engineering 176:776 D 18 '53

Pneumatic conveying system returns dust to roasters. il Iron Age 172:114 N 26 '53

Precipitators pass smoke control tests. il diag Steel 133:78+ Ag 31 '53

FLUE dust—*Continued*

Smoke, dust, fumes closely controlled in electric furnaces; Bethlehem Pacific coast steel corp. R. S. Coulter. il plan Iron Age 173:107-10 Ja 14 '54

Steam jets efficiently remove dust from open hearth furnace flues. J. Peterson. il diag J Metals 5:794-5 Je '53

Steelmaking; dust meter checks cleanliness of blast-furnace gas. Iron Age 173:147-8 F 11 '54

Ultrasonic flue dust elimination. H. Manley. bibliog il diag Engineer 197:291 F 19 '54

What causes stack carbon in our plant? answers. Power 98:138+ F '54

Who'll buy my fly ash. Power Eng 58:70-1 Ap '54

Analysis

Determination of germanium in coal, coal ash, and flue dust. W. J. Frederick, J. A. White and H. E. Biber. bibliog diag Anal Chem 26:1328-30 Ag '54

Iodometric determination of selenium in ores and flue dusts. C. W. Sill and H. E. Peterson. bibliog U S Bur Mines Rep of Invest 5047:1-9 '54

FLUE gas

Air pollution and remedies. J. J. Seaver. diags Iron & Steel Eng 30:94-5 O '53

Air pollution control in the Bethlehem steel co. A. D. Brandt. il Iron & Steel Eng 31: 103-6; Discussion. 106-7 Ag '54

Closed electric reduction furnaces permit utilization of furnace gas. M. O. Sem. il J Metals 6:30-2 Ja '54

Design and operation of high-recovery regenerative-type air preheaters. G. Braddon and J. Waitkus. il diags A S M E Trans 76:697-712; Discussion. 712-14 Jl '54

Flue gas washing tower lined with tiles. Chem Age (Lond) 70:724 Mr 27 '54

Frontiers in heat extraction from the combustion gases of coal. E. R. Kaiser. bibliog(42 titles) diags Min Eng 6:Trans 304-13 Mr '54

Role of electrical precipitation in the steel industry. H. L. Richardson. bibliog il diags Iron & Steel Eng 30:95-100 O '53

See also

Blast furnace gas

Flue dust

Analysis

New method for determining SO_2 and SO_3 in flue gas. il diag Power Eng 57:87+ D '53

FLUES

Unusual venting system uses clay flue liners; Allen-Bradley co. il Arch Rec 114:221+ N '53

FLUID hydroforming process. See Gasoline—Manufacture

FLUIDIZATION

Blending and conveying of ceramic raw materials by fluidization. R. A. Koble and others. il diag Am Cer Soc Bul 32:367-72 N 15 '53

Conference on fluidization technology, London, 1952; discussion. Chem & Ind p 1015-31 S 26 '53

Evaluation of cracking catalysts. C. K. Viland. flow diag il Pet Processing 8:1874-9 D '53

Fluid bed oxidation of HCl produces alkyl chlorides from waste HCl; patent. diag Chem Eng 60:392+ O '53

Fluid coking of residua. A. Voorhies, jr. and H. Z. Martin. il diags Am Pet Inst Proc 33(3):39-46 '53; Same. Pet Refiner 32:127-30 D '53; Same abr. Oil & Gas J 52:204-7 N 16 '53; Abstract. Pet Processing 8:1880-1 D '53

Fluid-coking process; Standard Oil. flow sheet il Chem Eng Prog 49:sup28 S '53

Fluid coking process to extend crude oil supply. il Chem & Eng N 31:3474 Ag 24 '53

Fluidized bed heat transfer. W. W. Wamsley and L. N. Johanson. bibliog(26 ref) diags Chem Eng Prog 50:347-55 Jl '54

Fluidized-bed sulfate roasting of nonferrous metals. F. M. Stephens, jr. il Chem Eng Prog 49:455-8 S '53

Fluidized crystal dryer pays off; Carey salt co. C. W. Jobes. il diag Chem Eng 61: 166-8 Ja '54

Fluidized solids; abstract and discussion. F. Rumford. Chem & Ind p690 Je 12 '54

FluoSolids roasting at the new Carlton mill. T. B. Counselman. il diag Min Cong J 40: 53-5 Mr '54

FluoSolids roasting of zinc concentrates for contact acid. T. T. Anderson and R. Bolduc. flow sheet diags Chem Eng Prog 49:527-32 O '53

Iron reduction in fluid beds. flow sheet Chem Eng 60:398+ S '53

Low temperature carbonization rates in a fluidized bed. H. N. Stone, J. D. Batchelor and H. F. Johnstone. bibliog flow diag diags Ind & Eng Chem 46:274-8 F '54

Method of fluidizing lag in steel manufacture; patent. Iron & Steel Eng 31:12+ Je '54

New application of fluidization; production of sulfur dioxide. R. B. Thompson. flow sheet il Chem Eng Prog 49:253-6 My '53

New fluid coking process. flow chart il Pet Processing 8:1316-17 S '53; Pet Refiner 32: 102-3 S '53

New fluid coking process boosts domestic fuel yields from residual oils. A. L. Foster. flow chart il Pet Eng 25:C38 S '53

Oil-shale retorting through application of fluidized-solids techniques. H. F. Wigton and B. E. Lauer. bibliog flow chart il diag Chem Eng Prog 50:134-8 Mr '54

Prediction of catalyst activity in fluidized systems. S. L. Andersen and R. H. Matthias. Ind & Eng Chem 46:1296-8 Je '54

Process kinetics gas-flow patterns in beds of fluidized solids. E. R. Gilliland, E. A. Mason and R. C. Oliver. bibliog diags Ind & Eng Chem 45:1177-85 Je '53

Process kinetics; laboratory prediction of flow properties of fluidized solids. R. Diekman and W. L. Forsythe, jr. bibliog diags Ind & Eng Chem 45:1174-7 Je '53

Process kinetics; mechanism of heat transfer in fluidized beds. C. van Heerden, A. P. P. Nobel and D. W. van Krevelen. bibliog diag Ind & Eng Chem 45:1237-42 Je '53

℞ hot bath; fluidized solids show promise. diag Ind & Eng Chem 46:sup 13A+ F '54

Roasting metallic sulphides in a fluid column. H. M. Cyr and others. bibliog il diags J Metals 6:Trans900-4 Ag '54

Sonic energy fluidizes solids; patent. diag Chem Eng 61:252 My '54

Sulphur dioxide from pyrrhotite; Dorrco FluoSolids system. J. T. Hegeman. diag Pulp & Pa of Can 54:123-5 D '53; Same abr. Paper Tr J 137:14-16 N 6 '53; Same abr. Paper Ind 35:1118-19 Ja '54

Viscous flow in multiparticle systems; cubical assemblages of uniform spheres. J. Happel and N. Epstein. bibliog il diag Ind & Eng Chem 46:1187-94 Je '54

Viscous flow in multiparticle systems; motion of a sphere and fluid in a cylindrical tube. J. Happel and B. J. Byrne. bibliog Ind & Eng Chem 46:1181-6 Je '54

FLUIDS

Anomalous viscous flow at very low rate of shear and small shearing stress. J. T. Bergen and W. Patterson, jr. bibliog diag J Ap Phys 24:712-19 Je '53

Chemical engineering symposium on flow of fluids through porous media; abstracts of papers. Chem & Eng N 32:134+ Ja 11 '54

Chemical engineering unit operations; fluid dynamics. M. Weintraub. il Ind & Eng Chem 46:112-17 bibliog(206 ref, p 115-17) Ja '54

Cocurrent liquid-gas flow in a pipe-line contactor. G. E. Alves. bibliog il diags Chem Eng Prog 50:449-56 S '54

Computation charts and theory for rectangular and circular jets. H. G. Elrod, jr. bibliog Heating-Piping 26:149-55 Mr '54

Determination of the drag on a cylinder at low Reynolds numbers. R. K. Finn. bibliog diags J Ap Phys 24:771-3 Je '53

Direct determination of the flow curves of non-Newtonian fluids. I. M. Krieger and others. bibliog J Ap Phys 23:147-9; 24:134-6; 25:72-5 Ja '52, F '53, Ja '54

Electromagnetic velometry; elimination of the effects of induced currents in explorations of the velocity distribution in axially symmetrical flow. A. Kolin and F. Reiche. diags J Ap Phys 25:409-13 Ap '54

Evaluation of the accuracy of the coefficient of discharge in the basic flow-measurement equation. A. L. Jorrisen. A S M E Trans 75:1323-5; Discussion. 1325-6 O '53

FLUIDS—*Continued*

Facts for the cement industry on flow of slurries. J. R. Van Wazer. il Rock Prod 56:104-7 D '53

Flow determination by chemical method; data sheet. Pulp & Pa of Can 55:96 Ag '54

Flow of gasoline thickened by napalm. G. A. Agoston and others. Ind & Eng Chem 46:1017-19 My '54

Flow through porous media; symposium. bibliog il diags Ind & Eng Chem 46:1163-246 Je '54 (reprints 75c)

Fluid dynamics. T. Baron and A. K. Oppenheim. il diags Ind & Eng Chem 45:941-51 bibliog(p948-51); 46:922-31 bibliog(123 ref, p929-31) My '53, My '54

General relativistic variational principle for perfect fluids. A. H. Taub. Phys R 94:1466-70 Je 15 '54

Kinetic analogy. R. Lemlich. diag J Chem Educ 31:431-2 Ag '54

Laminar flow in channels with porous walls. A. S. Berman. bibliog J Ap Phys 24:1232-5 S '53

Markoff random processes and the statistical mechanics of time-dependent phenomena; irreversible processes in fluids. M. S. Green. bibliog J Chem Phys 22:398-413 Mr '54

Mass transfer in packed beds at low Reynolds number. C. E. Dryden, D. A. Strang and A. E. Withrow. bibliog(36 ref) diag Chem Eng Prog 49:191-6 Ap '53

Mixing; present theory and practice; fluids of relatively low viscosity. J. H. Rushton and J. Y. Oldshue. bibliog(62 ref) il diags Chem Eng Prog 49:161-8, 267-75 Ap-My '53

Molecular transport properties of fluids. E. F. Johnson. Ind & Eng Chem 45:902-7 bibliog(126 ref, p905-7); 46:889-93 bibliog(81 ref, p892-3) My '53, My '54

Optical techniques for fluid flow. N. F. Barnes. il diags Soc Motion Picture & Tv Eng J 61:487-511 bibliog(219 titles, p503-11) O '53

Pipe-line design for non-Newtonian fluids. A. B. Metzner. bibliog il Chem Eng Prog 50:27-34 Ja '54

Process kinetics; diffusion in a fluid moving at uniform velocity in a tube. A. Klinkenburg, H. J. Krajenbrink and H. A. Lauwerier. bibliog Ind & Eng Chem 45:1202-8 Je '53

Rheology of fluids. W. Roth. il Instruments 26:1710+ N '53

Saline dilution method of liquid flow measurements. J. H. Mappus, jr. il Tappi 37:sup 188A-9A My '54

Stability of fluid flows with spherical symmetry. M. S. Plesset. bibliog J Ap Phys 25:96-8 Ja '54

Steady-state diffusion into a streaming sphere at low Reynolds number. H. L. Frisch. bibliog J Chem Phys 22:123-5 Ja '54

Thermal conductivity of fluids. A. F. Schmidt and B. H. Spurlock, jr. bibliog(43 titles) diag A S M E Trans 76:823-30 Jl '54

Thermal lags in flowing systems containing heat capacitors. J. W. Rizika. diags A S M E Trans 76:411-20 Ap '54

Turbulent flow in circular pipe. S. I. Pai. bibliog Franklin Inst J 256:337-52 O '53

Unsteady flow of compressible viscous fluids. G. Ludford and others. J Ap Phys 24:490-5 Ap '53

Variation of transition Reynolds number with Mach number. A. H. Lange and others. J Aeronautical Sci 20:718-19 O '53

See also

Aerodynamics
Air flow
Drops
Equation of state
Flow meters
Gas flow
Gases
Hydraulics
Hydrodynamics
Jets
Liquids
Turbulence
Vaporization
Vapors
Viscosity
Vortex motion
Water flow

Bibliography

Fluid dynamics. T. Baron and A. K. Oppenheim. Ind & Eng Chem 45:948-51; 46:929-31 My '53, My '54

FLUMES

Density currents studied in glass-walled flume. D. R. F. Harleman. il diag Civil Eng 24:81 F '54

Pulpwood flume system. J. R. Fielding. il Tappi 37:113-15 Mr '54

Research flume requires no deflection correction; Illinois state water survey's laboratory. diag Eng N 151:48 D 24 '53

Total sediment load measured in turbulence flume. P. C. Benedict and others. bibliog il maps plans diags Am Soc C E Proc 79 [no 230]:1-48 Ag '53

See also

Parshall flume

Cleaning

Clean moss from flume in 13½ hours. G. K. Merz. il Elec World 140:158 Ag 24 '53

FLUON. See Teflon; Tetrafluoroethylene

FLUORANTHENE

Preparation of 2-substituted fluoranthenes. N. Campbell and J. F. K. Wilshire. Chem Soc J p867-9 Mr '54

Separation of fluoranthene and chrysene by molecular distillation. A. Cantoni, J. Feldman and M. Orchin. bibliog Anal Chem 26:1374-7 Ag '54

Synthesis of fluoranthenes; spectroscopic examination of fluoranthene derivatives. H. W. D. Stubbs and S. H. Tucker. Chem Soc J p227-33 Ja '54

FLUORENAMINE

7-Alkyl derivatives of 2-aminofluorene. E. Sawicki. bibliog Am Chem Soc J 76:2269-71 Ap 20 '54

Identification derivatives of 2-aminofluorene and of 2-aminofluorenone. C. W. Bennett and W. W. Muelder. Am Chem Soc J 75:6039-40 D 5 '53

FLUORENE

Bis-ammonium salts; derivatives of fluorene, carbazole and phenothiazine. C. J. Cavallito, A. P. Gray and E. E. Spinner. bibliog Am Chem Soc J 76:1862-6 Ap 5 '54

Chemistry of fluorene; the condensation of 9-fluorenylsodium with acid chlorides and anhydrides. E. J. Greenhow, E. N. White and D. McNeil. Chem Soc J p3099-105 O '53

3 : 6-Disubstituted fluorenes; the preparation of 3 : 6-diaminofluorene from fluorene, and the attempted internuclear cyclisation of derivatives of 4′: -diaminodiphenylmethane. A. Barker and C. C. Barker. Chem Soc J p870-3 Mr '54

Fluorene analogues of triphenylmethane dyes; calculation of their light absorption by the molecular-orbital method. D. A. Brown and M. J. S. Dewar. Chem Soc J p2134-6 Je '54

Synthesis of phenanthridines by the interaction of fluorene derivatives with hydrazoic and sulphuric acids. C. L. Arcus and M. M. Coombs. Chem & Ind p995 S 19 '53

Spectrum

Ultra-violet absorption spectra of 9-substituted fluorenes. C. Eaborn and R. A. Shaw. Chem Soc J p2027-30 Je '54

FLUORENE compounds

3 : 6-Disubstituted fluorenes; fluorene analogues of Michler's hydrol, malachite-green, and crystal-violet. A. Barker and C. C. Barker. Chem Soc J p 1307-9 Ap '54

Analysis

Identification of derivatives of fluorene and biphenyl by filter paper electrophoresis. J. H. Peters and H. R. Gutmann. bibliog Am Chem Soc J 76:2267-8 Ap 20 '54

FLUORESCENCE

Absorption and fluorescence of styrene vapor. J. V. Morgan. bibliog Am Chem Soc J 75:5055-7 O 20 '53

Analysis of fluorescent X-radiation by means of proportional counters. R. E. Rowland. J Ap Phys 24:811-12 Je '53

Analysis of lacquer thinners by fluorescent indicator adsorption method. W. H. Ellis and R. L. LeTourneau. Anal Chem 25:1269-70 Ag '53

Application of fluorescent agents in hydrogen peroxide bleaching of knit goods. J. F. Whalen. Am Dyestuff Rep 42:597 Ag 31 '53

Automatic measurement of light absorption and fluorescence on paper chromatograms. J. A. Brown and M. M. Marsh. il Anal Chem 25:1865-9 D '53

FLUORESCENCE—*Continued*

Calibration method for X-ray fluorescence spectrometry. H. J. Beattie and R. M. Brissey. Anal Chem 26:980-3 Je '54

Change in the fluorescence of Deltapine-15 seed cotton as a result of heat. W. C. Sheehan and others. bibliog Textile Res J 23:736-43 O '53

Determination of barium, calcium, and zinc in lubricating oils; use of fluorescent X-ray spectroscopy. E. N. Davis and R. A. Van Nordstrand. bibliog il diags Anal Chem 26:973-7 Je '54

Determination of bromine in liquids by X-ray fluorescent spectroscopy. G. T. Kokotailo and G. F. Damon. bibliog diag Anal Chem 25:1185-7 Ag '53

Energy transfer by means of collision in liquid organic solutions under high energy and ultraviolet excitations. M. Furst and H. Kallmann. bibliog Phys R 94:503-7 My 1 '54

First law of fluorescence. J. De Ment. Science 118:117 Jl 24 '53

Fluorescence measurements with the Beckman model DU spectrophotometer. J. S. McAnally. bibliog il diags Anal Chem 26:1526 S '54

Fluorescence reactions of steroids. J. W. Goldzieher, J. M. Bodenchuk and P. Nolan. bibliog Anal Chem 26:853-6 My '54

Fluorescence titration. J. De Ment. bibliog (33 ref) J Chem Educ 30:145-7 Mr '53

Fluorescent X-ray spectroscopy. L. S. Birks, E. J. Brooks and H. Friedman. bibliog diags Anal Chem 25:692-7 My '53

Low-cost plastic scintillator. G. E. Pugh. R Sci Instr 24:878+ S '53

Measurement of organic fluorescence decay times. C. F. Ravilious and others. bibliog diags Opt Soc Am J 44:238-41 Mr '54

Measurement of spark spectrum intensities in the vacuum ultraviolet with the fluorescence sensitized photomultiplier. S. E. Williams and others. bibliog diags Opt Soc Am J 44:654-8 Ag '54

Measurements of scintillation lifetimes. H. B. Phillips and R. K. Swank. bibliog il diag R Sci Instr 24:611-16 Ag '53

Monolayer fluorescent screens. L. R. Koller. Opt Soc Am J 43:620 Jl '53

Multi-wavelength fluorescence spectrometer. I. Adler and J. M. Axelrod. bibliog diags Opt Soc Am J 43:769-72 S '53

New alloy analyzer; use of fluorescent radiation; abstract. G. E. Noakes. Steel 133:152 Jl 13 '53

Nuclear resonance fluorescence in Hg^{198} and the lifetime of the 411-kev excited state of Hg^{198}. F. R. Metzger and W. B. Todd. Phys R 95:853-4 Ag 1 '54

Origin of the fluorescence in self-activated ZnS, CdS, and ZnO. F. A. Kröger and H. J. Vink. bibliog J Chem Phys 22:250-2 F '54

Scintillation limitations to resolving power in imaging devices. J. W. Coltman. il diag Opt Soc Am J 44:234-7 Mr '54

Sulfuric acid; induced fluorescence of corticosteroids. M. L. Sweat. bibliog Anal Chem 26:773-6 Ap '54

Temperature coefficients of fluorescence. E. J. Bowen and R. J. Cook. Chem Soc J p3059-61 O '53

Temperature dependence of organic scintillation materials. J. B. Birks. Phys R 95:277 Jl 1 '54

X-ray absorption and emission. H. A. Liebhafsky. Anal Chem 26:26-31 bibliog(127 ref, p30-1) Ja '54

X-ray fluorescence spectroscopy technique. B. W. Thomas. Ind & Eng Chem 46:sup 93A-4A+ Mr '54

See also

Dyes and dyeing—
  Fluorescence

Luminescence

Quenching

Brightness waves and transitory phenomena in the quenching of luminescence by alternating electric fields. G. Destriau. bibliog il J Ap Phys 25:67-71 Ja '54

New quenching effect in liquid scintillators. R. W. Pringle and others. Phys R 92:1582-3 D 15 '53

Quenching of mercury resonance radiation; the total effective cross sections of some saturated compounds. B. D. Darwent and M. K. Phibbs. J Chem Phys 22:110-13 Ja '54

Quenching of the fluorescence of anthracene gas. W. S. Metcalf. Chem Soc J p2485-6 Jl '54

Quenching of the fluorescence of anthracene; the transition from strong to weak quenching. H. W. Melhuish and W. S. Metcalf. diags Chem Soc J p976-9 Mr '54

Quenching of the fluorescence of the eosin ion. W. J. Svirbely and N. E. Sharpless. bibliog diag Am Chem Soc J 76:1404-9 Mr 5 '54

FLUORESCENCE spectra. See Spectrum—Fluorescence spectra

FLUORESCENT lamps. See Electric lamps, Fluorescent

FLUORIDATION of water. See Water supply—Fluorine content

FLUORIDES

Complex fluorides; studies on fluoroferrates and on hydrogen bonding in complex fluorides. B. Cox and A. G. Sharpe. Chem Soc J p 1798-803 Je '54

Fluoride model systems; systems LiF-BeF$_2$ and PbF$_2$-BeF$_2$. D. M. Roy and others. bibliog Am Cer Soc J 37:300-5 Jl 1 '54

Fluorides of permanganic and perrhenic acids, MnO$_3$F and ReO$_3$F. A. Engelbrecht and A. V. Grosse. bibliog Am Chem Soc J 76:2042-5 Ap 20 '54

Hard chrome solutions; which offers better plating properties? R. A. Balbierz and H. D. Burgess. bibliog il Iron Age 172:126-30 O 22 '53

Inorganic fluorides; abstract. R. D. Peacock. Chem & Ind p 1282 N 28 '53

Kinetics of isotope-exchange reactions of fluorine with some halogen fluorides. R. M. Adams and others. bibliog diag J Chem Phys 22:13-21 Ja '54

New manganese-activated fluoride phosphors. A. L. Smith. bibliog Electrochem Soc J 101:189-94 Ap '54

Recovery of soluble gas and aerosols from air streams. E. M. Berly, M. W. First and L. Silverman. bibliog diags Ind & Eng Chem 46:1769-77 S '54

Solubility of some metal fluorides in bromine trifluoride. I. Sheft, H. H. Hyman and J. J. Katz. bibliog diag Am Chem Soc J 75:5221-3 N 5 '53

Structures of complex fluorides; the structure of sodium octafluotantalate, Na$_3$TaF$_8$. J. L. Hoard and others. bibliog diags Am Chem Soc J 76:3820-3 Jl 20 '54

See also

Fluorspar

Analysis

Colorimetric determination of fluoride. M. L. Nichols and A. C. Condo, jr. bibliog Anal Chem 26:703-7 Ap '54

Determination of fluoride. L. Singer and W. D. Armstrong. bibliog diags Anal Chem 26:904-6 My '54

Determination of fluoride in vegetation. R. J. Rowley, J. G. Grier and R. L. Parsons. il Anal Chem 25:1061-5 Jl '53

Determination of fluoride ion using a monohydroxy azo dye, thorium lake. J. L. Lambert. Anal Chem 26:558-60 Mr '54

Determination of fluorides. J. M. Icken and B. M. Blank. Anal Chem 25:1741-2 N '53

Determination of silica and fluoride in fluorsilicates. H. R. Shell and R. L. Craig. bibliog Anal Chem 26:996-1001 Je '54

Determination of water in easily hydrolyzed fluorides. J. G. Feibig and J. C. Warf. bibliog Anal Chem 26:927-8 My '54

Fluoride analysis; abstract. C. E. Shoemaker. Chem & Eng N 32:1450 Ap 12 '54

Fluoride determination by electron transfer catalysis. W. D. Armstrong and L. Singer. Anal Chem 26:1047-9 Je '54

Fluorometric determination of small amounts of fluoride. W. A. Powell and J. H. Saylor. bibliog Anal Chem 25:960-4 Je '53

Pyrohydrolysis in the determination of fluoride and other halides. J. C. Warf, W. D. Cline and R. D. Tevebaugh. bibliog diag Anal Chem 26:342-6 F '54

FLUORIDES—Analysis—*Continued*

Rapid spectrophotometric determination of fluoride with zirconium-eriochrome cyanine R lake. S. Megregian. bibliog Anal Chem 26:1161-6 Jl '54

Spectrophotometric determination of fluoride ion with chrome azurol S. D. Revinson and J. H. Harley. bibliog Anal Chem 25:794-7 My '53

FLUORIMETERS. See Fluorometers

FLUORINATION

Effect of fluorine substitution on color and fastness of monoazo dyes. J. B. Dickey and others. bibliog(27 ref) Ind & Eng Chem 45:1730-4 Ag '53

Fluorination of organochlorodisiloxanes. D. S. Payne. Chem Soc J p2143-5 Je '54

FLUORINE

Computations of entropy increments in gaseous bimolecular associations; the dimerization of carboxylic acids, and the addition of fluorine to halogen fluorides. L. Slutsky and S. H. Bauer. bibliog diags Am Chem Soc J 76:270-5 Ja 5 '54

Condensed gas calorimetry; heat capacities, latent heats and entropies of fluorine from 13 to 85°K; heats of transition, fusion, vaporization and vapor pressures of the liquid. J. Hu, D. White and H. L. Johnston. bibliog Am Chem Soc J 75:5642-5 N 20 '53

Continuous disposal of fluorine; reaction with superheated steam. S. H. Smiley and C. R. Schmitt. bibliog diags Ind & Eng Chem 46:244-7 F '54

Density and surface tension of liquid fluorine between 66 and 80°K. D. White, J. Hu and H. L. Johnston. bibliog diags Am Chem Soc J 76:2584-6 My 5 '54

Dissociation energy of fluorine. R. T. Sanderson. bibliog J Chem Phys 22:345-6 F '54

Infrared emission of the hydrogen-fluorine (H_2-F_2) flame. W. S. Benedict and others. bibliog Opt Soc Am J 43:1106-13 N '53

Kinetics of the fast reaction between nitrogen dioxide and fluorine. R. L. Perrine and H. S. Johnston. bibliog diags J Chem Phys 21:2202-5 D '53

Measurement of heat of dissociation of fluorine by the effusion method. H. Wise. bibliog diag J Phys Chem 58:389-91 My '54

Method for preparation of fluorine-low calcium oxide. D. A. Weddle and R. L. Maurer. Anal Chem 26:584-5 Mr '54

Quantum-mechanical study of the fluorine molecule. H. Dinger and I. Fischer-Hjalmars. J Chem Phys 22:346 F '54

Reaction of fluorine with copper and some of its compounds; some properties of copper(II) fluoride. H. M. Haendler and others. bibliog Am Chem Soc J 76:2178-9 Ap 20 '54

Reaction of fluorine with tin, its oxides and sulfides. H. M. Haendler and others. Am Chem Soc J 76:2179-80 Ap 20 '54

Reaction of fluorine with titanium, zirconium and the oxides of titanium(IV), zirconium(IV) and vanadium(V). H. M. Haendler and others. bibliog Am Chem Soc J 76:2177-8 Ap 20 '54

Review of literature on health hazards of fluorine and its compounds in the mining and allied industries. S. J. Davenport and G. G. Morgis. U S Bur Mines Information Circ 7687:1-55 bibliog(101 ref, p49-55) '54

See also
Water supply—Fluorine content

Analysis

Analysis of fluorine-containing organic compounds. R. Belcher. bibliog Chem Age (Lond) 69:273-4 Ag 8 '53

Colorimetric determination of fluorine in waters and soil extracts. W. M. Shaw. bibliog il Anal Chem 26:1212-14 Jl '54

Determination of elemental fluorine. I. Sheft, H. H. Hyman and J. J. Katz. bibliog diag Anal Chem 25:1877-9 D '53

Estimation of fluorine in biological material. P. Venkateswarlu and D. Narayana Rao. Anal Chem 26:766-7 Ap '54

Fluorine determination improved by amperometric procedure; abstract. H. W. Safford. il Chem & Eng N 31:3851 S 21 '53

Gravimetric determination of fluorine as lanthanum fluoride. A. I. Popov and G. E. Knudson. bibliog Anal Chem 26:892-4 My '54

Isotopes

Energy levels in F^{18} from alpha-particle reactions in nitrogen. N. P. Heydenburg and G. M. Temmer. bibliog Phys R 92:89-92 O 1 '53

Kinetics of isotope-exchange reactions of fluorine with some halogen fluorides. R. M. Adams and others. bibliog diag J Chem Phys 22:13-21 Ja '54

Low excited states of F^{19}; angular distributions. R. F. Christy. Phys R 94:1077-8 My 15 '54

Low excited states of F^{19}; Coulomb excitation by α particles. R. Sherr and others. Phys R 94:1076-7 My 15 '54

Low excited states of F^{19}; lifetime measurements. J. Thirion and others. Phys R 94:1076 My 15 '54

Low excited states of F^{19}; proton inelastic scattering. R. W. Peterson and others. Phys R 94:1075 My 15 '54

Nuclear reactions

Beta decay of F^{17} and C^{11}. C. Wong. Phys R 95:765-6 Ag 1 '54

Beta decay of F^{20}. C. Wong. Phys R 95:761-4 Ag 1 '54

Gamma rays from Li^7, F^{19}, Ne^{22}, and Na^{22} produced by alpha-particle bombardment of lithium and fluorine. N. P. Heydenburg and G. M. Temmer. il diags Phys R 94:1252-7 Je 1 '54

Polarization of the gamma rays in the $F^{19}(p,\alpha\gamma)O^{16}$ reaction. L. W. Fagg and S. S. Hanna. bibliog Phys R 92:372-7 O 15 '53

Spectrum

Fluorine resonance shifts. A. Saika and C. P. Slichter. bibliog J Chem Phys 22:26-8 Ja '54

FLUORINE compounds

Complexing of indium(III) by fluoride ions in aqueous solution; free energies, heats and entropies. L. G. Hepler, J. W. Kury and Z. Z. Hugus, jr. bibliog J Phys Chem 58:26-8 Ja '54

Densities and thermal expansion coefficients of several organofluoro compounds. G. P. Rutledge and W. T. Smith, jr. Am Chem Soc J 75:5762-3 N 20 '53

Doubling of fluorinated chains. A. L. Henne. Am Chem Soc J 75:5750 N 20 '53

Evaluation of organic fluorine compounds for use in military aircraft. H. Rosenberg and J. C. Mosteller. bibliog Ind & Eng Chem 45:2283-6 O '53

Fluorine-containing barbituric acids. W. F. Bruce and R. D. Huber. bibliog Am Chem Soc J 75:4668-70 O 5 '53

Fluorine-substituted phenylhydrazines. H. Suschitzky. Chem Soc J p3326-7 O '53

Fluorochemical 101, a remedy for that cloudy sight glass. il Diesel Power 32:53 Ag '54

9α-Fluoro derivatives of cortisone and hydrocortisone. J. Fried and E. F. Sabo. Am Chem Soc J 76:1455-6 Mr 5 '54

Fluoroölefins; the addition of the Grignard reagent to fluoroölefins. P. Tarant and D. A. Warner. Am Chem Soc J 76:1624-5 Mr 20 '54

Fluoroölefins; the synthesis of 1,1-difluoro-3-methylbutadiene. P. Tarrant, J. Attaway and A. M. Lovelace. bibliog Am Chem Soc J 76:2343-5 My 5 '54

Free radical additions involving fluorine compounds; the addition of dibromodifluoromethane to hydrocarbon olefins. P. Tarrant and A. M. Lovelace. Am Chem Soc J 76:3466-8 Jl 5 '54

Heterocyclic fluorine compounds; monofluoro-1 : 2 : 3 : 4-tetrahydrocarbazoles and monofluorocarbazoles. F. L. Allen and H. Suschitzky. Chem Soc J p3845-9 D '53

Ionization constant of fluorinated acids. A. L. Henne and C. J. Fox. bibliog Am Chem Soc J 75:5750-1 N 20 '53

Ionization constants of fluorinated acids; unsaturated acids. A. L. Henne and C. J. Fox. bibliog Am Chem Soc J 76:479-81 Ja 20 '54

Ionization constants of some new fluorine-containing acids. E. T. McBee, O. R. Pierce and D. D. Smith. bibliog Am Chem Soc J 76:3722-5 Jl 20 '54

Organic fluoro-compounds; some indole derivatives. W. B. Whalley. Chem Soc J p 1651-3 My '54

FLUORINE compounds—*Continued*

Organic fluoro-compounds; some 2-trihalogenocoumarones. W. B. Whalley. Chem Soc J p3479-83 N '53

Organometallic and organometalloidal compounds; properties of trifluoromethylarsenic acids and of other fluorine-containing acids. H. J. Emeléus, R. N. Haszeldine and R. C. Paul. Chem Soc J p881-6 Mr '54

Preparation and reactions of some fluorine-containing nitro compounds. D. J. Cook, O. R. Pierce and E. T. McBee. bibliog Am Chem Soc J 76:83-7 Ja 5 '54

Properties of films of adsorbed fluorinated acids. E. F. Hare, E. G. Shafrin and W. A. Zisman. bibliog J Phys Chem 58:236-9 Mr '54

Properties of fluorine-containing diesters. R. Filler and others. bibliog Ind & Eng Chem 46:544-7 Mr '54

Reactions of highly fluorinated organic compounds. A. K. Barbour and others. bibliog J Ap Chem 4:341-51 Jl '54

Reactions of highly fluorinated organic compounds; 1H : 2H-hexafluoro*cyclo*butane and 1H-pentafluoro*cyclo*but-1-ene. M. W. Buxton and J. C. Tatlow. Chem Soc J p 1177-9 Ap '54

Reduction of fluorine-containing esters by Grignard reagents. O. R. Pierce, J. C. Siegle and E. T. McBee. Am Chem Soc J 75:6324-5 D 20 '53

Review of literature on health hazards of fluorine and its compounds in the mining and allied industries. S. J. Davenport and G. G. Morgis. U S Bur Mines Information Circ 7687:1-55 bibliog(101ref, p49-55) '54

Studies on organic fluorine compounds; some esters of monofluoroacetic acid and related compounds. E. D. Bergmann and I. Blank. Chem Soc J p3786-8 D '53

Studies upon α-trifluoromethylacrylic acid, α-trifluoromethylpropionic acid, and some derived compounds. M. W. Buxton, M. Stacey and J. C. Tatlow. Chem Soc J p366-74 Ja '54

Study of some fluorine-containing β-diketones. J. D. Park, H. A. Brown and J. R. Lacher. bibliog Am Chem Soc J 75:4753-6 O 5 '53

Synthesis of fluorine-containing organosilanes. O. R. Pierce, E. T. McBee and R. E. Cline. Am Chem Soc J 75:5618-20 N 20 '53

Wetting of fluorinated solids by hydrogen-bonding liquids. A. H. Ellison, H. W. Fox and W. A. Zisman. bibliog J Phys Chem 57:622-7 O '53

See also

Chlorotrifluoroethylene
Fluorocarbons
Perfluoro compounds
Teflon
Trifluoroacetic acid

Spectra

Spectral properties of fluorine-containing conjugated esters. R. Filler. bibliog Am Chem Soc J 76:1376-7 Mr 5 '54

FLUORINE oxides

Structure of oxygen fluoride. J. A. Ibers and V. Schomaker. J Phys Chem 57:699-701 O '53

FLUORINE poisoning

Review of literature on health hazards of fluorine and its compounds in the mining and allied industries. S. J. Davenport and G. G. Morgis. U S Bur Mines Information Circ 7687:1-55 bibliog(101ref, p49-55) '54

FLUOROACETATES

See also

Sodium fluoroacetate

FLUOROACETIC acid

Effect of temperature on the density and surface tension of monofluoroacetic acid. J. J. Jasper and P. G. Grodzka. bibliog Am Chem Soc J 76:1453-4 Mr 5 '54

FLUOROACETOPHENONE

Synthesis and properties of ω-fluoroacetophenone. F. Bergmann and A. Kalmus. bibliog Am Chem Soc J 76:4137-40 Ag 20 '54

FLUOROBENZENE

Bromination of halobenzenes. L. N. Ferguson, A. Y. Garner and J. L. Mack. bibliog Am Chem Soc J 76:1250-1 Mr 5 '54

Homolytic aromatic substitution; partial rate factors for the phenylation of fluorobenzene, bromobenzene, and iodobenzene. D. R. Augood and others. Chem Soc J p3412-17 N '53

Spectrum

Wavelength shifts in the near ultraviolet spectra of fluorinated benzenes. H. Sponer. bibliog J Chem Phys 22:234-5 F '54

FLUOROBORATES

Electrodeposition of cadmium from fluoborate solutions. T. R. Anantharaman and J. Balachandra. bibliog Electrochem Soc J 100:232-6 My '53

Electrogalvanizing from fluoborate solutions. T. R. Anantharaman and J. Balachandra. bibliog Electrochem Soc J 100:237-9 My '53

FLUOROCARBONS

Aromatic esters of fluorocarbon acids. R. F. Clark and J. H. Simons. Am Chem Soc J 75:6305-6 D 20 '53

Du Pont expands output of fluorinated products. Chem Eng 60:158+ O '53

Fluorocarbon aromatic ketones. J. H. Simons, W. T. Black and R. F. Clark. bibliog Am Chem Soc J 75:5621-2 N 20 '53

Future in the air; Poly-FBA. il Chem W 75:54+ S 11 '54

Lower cost fluorocarbon plastic; Fluoroplast. Materials & Methods 40:132 Ag '54

New acids containing fluorocarbon radical; abstract. H. J. Emeléus. Chem & Eng N 32:1582 Ap 19 '54

Reactions of fluorocarbon radicals; alternative syntheses, properties, and spectra of trifluoro-nitroso- and -nitro-methane. J. Jander and R. N. Haszeldine. Chem Soc J p912-19 Mr '54

Reactions of fluorocarbon radicals; hexafluoroazoxymethane. J. Jander and R. N. Haszeldine. Chem Soc J p919-22 Mr '54

Reactions of fluorocarbon radicals; synthesis and hydration of 1 : 1 : 1-trifluorobut-2-yne. R. N. Haszeldine and K. Leedham. Chem Soc J p 1261-4 Ap '54

Reactions of fluorocarbon radicals; synthesis and some reactions of trifluoromethanethiol and trifluoromethanesulphenyl chloride. R. N. Haszeldine and J. M. Kidd. Chem Soc J p3219-25 O '53

Reactions of fluorocarbon radicals; the synthesis of fluorocarbons and of fully fluorinated iodo-, bromo, and chloro-alkanes. R. N. Haszeldine. Chem Soc J p3761-8 D '53

Surface chemistry of fluorocarbons and their derivatives. H. M. Scholberg, R. A. Guenthner and R. I. Coon. bibliog J Phys Chem 57:923-5 D '53

Synthesis of fluorocarbon iodides without the use of liquid solvents or diluents. G. H. Crawford and J. H. Simons. diag Am Chem Soc J 75:5737-8 N 20 '53

Two new developments in the fluorocarbon plastics. il Materials & Methods 38:102-3 D '53

X-ray studies of three crystalline fluorocarbons showing rotational disorder. P. J. Schapiro and J. L. Hoard. Am Chem Soc J 76:3347-8 Je 20 '54

See also

Tetrafluoroethylene

Analysis

Detection, estimation, and removal of impurities in fluorocarbon liquids. D. Grafstein. Anal Chem 26:523-5 Mr '54

FLUOROCITRIC acid

Synthesis of monofluorocitric acid. D. E. A. Rivett. Chem Soc J p3710-11 N '53

FLUORODINITROBENZENE

1-Fluoro-2,4-dinitrobenzene as a quantitative reagent for primary and secondary amines. F. C. McIntire, L. M. Clements and M. Sproull. bibliog Anal Chem 25:1757-8 N '53

So-called 1-fluoro-3 : 4-dinitrobenzene. H. Suschitzky. Chem Soc J p3042-4 O '53

FLUOROFORM

Analysis

Raman apparatus for gases. H. H. Claassen and J. R. Nielsen. bibliog diags Opt Soc Am J 43:352-5 My '53

Spectrum

ν_2 Infrared band in gaseous fluoroform. W. F. Edgell and C. May. bibliog J Chem Phys 21:1901-2 O '53

FLUOROMETERS

Measurement of organic fluorescence decay times. C. F. Ravilious and others. bibliog diags Opt Soc Am J 44:238-41 Mr '54

Sensitive photometer using modulated light and its application in a uranium fluorimeter. C. D. Florida and C. N. Davey. diags J Sci Instr 30:409-12 N '53

FLUOROMETRIC analysis

Fluorometric analysis; review of past two years. C. E. White. Anal Chem 26:129-35 bibliog(194 ref, p 133-5) Ja '54

Fluorometric determination of aluminum; use of 8-quinolinol. E. Goon and others. Anal Chem 25:608-10 Ap '53

Fluorometric determination of cadmium. N. Evcim and L. A. Reber. Anal Chem 26:936-7 My '54

Fluorometric determination of small amounts of fluoride. W. A. Powell and J. H. Saylor. bibliog Anal Chem 25:960-4 Je '53

FLUOROPLATINIC acid

Fluoroplatinates; fluoroplatinic acid. R. S. Clarke, jr. and T. P. Perros. bibliog Am Chem Soc J 75:5734-5 N 20 '53

FLUOROPROPENE

2-Fluoropropene. P. R. Austin and others. Am Chem Soc J 75:4834-5 O 5 '53

FLUOROQUINOLINE

5-Fluoro-8-hydroxyquinoline (5-fluoro-oxine) and its sensitivity towards certain metals. R. G. W. Hollingshead. bibliog Chem & Ind p344-6 Mr 20 '54

Reaction of 5-fluoro-8-hydroxyquinoline (5-fluoro-oxine) towards ferrous and ferric iron. R. G. W. Hollingshead. Chem & Ind p 1108 S 4 '54

FLUOROSCOPE

Metropolitan-Vickers portable fluoroscope. il diags Engineer 196:461-2 O 9 '53; Engineering 176:573 O 30 '53; Chem Age (Lond) 69:750 O 10 '53

Portable fluoroscope using ultraviolet from daylight. J. W. Walley. il diags Chem & Ind p 1278-9 N 28 '53

Powerful fluoroscope uses gamma rays. Am Mach 98:150 F 1 '54

FLUOROSCOPY

Fluoroscope and Geiger counter for measuring ultraviolet absorption of chromatograms. T. D. Price and P. B. Hudson. bibliog(28 ref) il Anal Chem 26:1127-32 Jl '54

Fluoroscope image amplifying tube. F. Marshall. il diag Electronics 26:172-3 O '53

Inspection; low cost industrial fluoroscope developed. Iron Age 172:89 D 24 '54

Visual presentation of X-ray diffraction patterns by electronic means. E. P. Bertin. bibliog(45 ref) il diags Anal Chem 25:708-17 My '53

FLUOROTHENE. See Chlorotrifluoroethylene

FLUOROTOLUENE

Spectrum

Vibrational spectra of fluorinated aromatics; *p*-fluorotoluene. E. E. Ferguson and others. bibliog J Chem Phys 21:1736-40 O '53

FLUORSPAR

Flood of fluorspar. Chem W 73:20+ N 14 '53

Fluorspar, 1953. J. C. Arundale. Eng & Min J 155:105 F '54

Future for fluorspar; abstract. A. H. Miller. Chem & Eng N 32:818 Mr 1 '54

Milling Kentucky fluorspar tailings. L. West and R. R. Walden. flow sheet diag Min Eng 6:Trans 542-4 My '54

FLUOSILICATES

Analysis

Determination of silica and fluoride in fluorsilicates. H. R. Shell and R. L. Craig. bibliog Anal Chem 26:996-1001 Je '54

FLUOSOLIDS process. See Fluidization

FLUX

Adaptation of the semi-automatic welder to magnetic flux. R. A. Hand. il diag Roads & Sts 97:83-4 F '54; Same. Welding J 33:573-4 Je '54; Same cond. Brick & Clay Rec 124:46 My '54; Same cond. Cer Ind 63:106-7 Ag '54

Flux supplies alloy for hard surfacing manipulators. F. H. Knibbs. il Iron Age 172:98-9 O 29 '53

Hardsurfacing technique; alloy content of deposited metal is supplied by agglomerated granular flux. il Steel 133:164 N 9 '53

Improve your soldering with noncorrosive flux. W. S. Gale. il Iron Age 172:115-19 S 3 '53

Investigation of thickening and metal entrapment in a light alloy melting flux; abstract. A. H. Sully and others. Metal Prog 66:160 Ag '54

New development in fluxes for automatic welding and hard surfacing. L. K. Stringham. il Welding J 33:132-6 F '54

New developments teamed up to make high-quality, low-cost hard surfacing deposits. L. K. Stringham. il Iron Age 174:103-5 S 2 '54

New tin-depositing flux for soldering aluminum. D. C. Burch and R. L. Simpkins. il Materials & Methods 40:86-9 Ag '54

Semi-automatic welder adapted to magnetic flux by new process. il diag Constr Methods 36:178+ Jl '54

FLUXMETERS

Ac-dc gauss meter. A. B. Kaufman. il diags Instruments 26:1360-1+ S '53

Recording fluxmeter. R. S. Tebble. diags J Sci Instr 30:369-71 O '53

FLY ash. See Flue dust

FLY sprays and repellents

Fly control at a sewage treatment plant. W. N. Wells. il Pub Works 85:87-8 Je '54

Fly control on dairy farms. R. J. Dicke. Soap & Chem Spec 30:177+ My '54

Sanitation management in housefly control. R. J. Dicke. Soap & San Chem 29:113-14+ Jl '53

Testing

New house fly insecticides. W. A. Gersdorff and others. Soap & San Chem 30:133+ F '54

FLYING boats

Fifty years of powered flight; abstract. B. Lockspeiser. Engineer 196:363-4 S 18 '53

Princess flying boat. Engineering 176:653 N 20 '53

Testing

Convair flying boat test dock. il Aviation W 59:43 Jl 13 '53

Static testing; unusual testing fixture will try navy flying boat parts; San Diego, Calif. plant il Iron Age 172:178-80 S 10 '53

FLYING bombs. See Guided missiles

FLYING Enterprise salvage. See Salvage

FLYING saucers

ATIC begins study of saucer reports. Aviation W 59:18 O 19 '53

Phantasmagoria or unusual observations in the atmosphere. U. Liddel. Opt Soc Am J 43:314-17 Ap '53

That was no saucer, that was an echo; spurious radar targets laid to air refraction; same thing may cause flying saucer mirages. P. Klass. diags Aviation W 59:26+ Jl 20 '53

Those flying saucers. C. C. Wylie. Science 118:124-6 Jl 31 '53

Unusual aerial phenomena. J. A. Hynek. Opt Soc Am J 43:311-14 Ap '53

FLYING spot microscopy. See Microscope and microscopy

FLYWHEELS

Centrifugal casting solves non-magnetic flywheel problem. R. J. Severson. il Steel 133:120 N 23 '53

Transmission flywheel stores energy while braking; Gyreacta transmissions ltd. D. Scott. diag Automotive Ind 111:64+ Ag 1 '54

FOAM

Disengaging velocity may be increased when foam decreased. D. E. Pierce. diags Ind & Eng Chem 45:sup79A-80A+ N '53

Effect of detergent foaming on waste lines. C. J. Hunter; C. F. Hayward. Dom Eng 183:208+ My '54

Fire equipment for oil refineries. A. G. Thomson. il Chem Age (Lond) 70:1254-5 Je 5 '54

Fluid insulation protects storage tanks exposed to fire; Unox foam. il Chem & Eng N 32:2142 My 24 '54

Foam cooling clings; Peoria plant of Caterpillar tractor co. J. P. Mason and E. B. Weber. il diag Am Mach 98:174-6 Ap 12 '54

FOAM—*Continued*

Foam formation in sulfite spent liquors; abstract. T. Kleinert and M. Ruck-Floriantschitsch. Paper Ind 36:216 My '54

Foam on the paper machine, causes and cures. A. Wirpsa. Tappi 36:sup 146A-7A D '53

Foam screen licks a dust control poser; patent. diags Chem Eng 61:278 Jl '54

Foam stabilization by alkylolamides. H. L. Sanders and E. A. Knaggs. bibliog Soap & San Chem 29:45-8+ Je '53

Frothing nuisance at Michigan plant. W. J. Russell. il Sewage & Ind Wastes 26:1041-3 Ag '54

Navy probes foam. il Chem W 72:38+ Ap 11 '53

1953 operators' forum; control of frothing. Sewage & Ind Wastes 26:806-8 Je '54

Progress in the detergent battle. J. Finch. il Water & Sewage Works 101:330-1 Jl '54

Resistance of fire-fighting foams to destruction by petrol. R. J. French and P. L. Hinkley. diag J Ap Chem 4:513-16 S '54

Simple ebulliometric method with the aid of foaming substances. C. N. Polydoropoulos. diag Chem & Ind p 1000-2 Ag 14 '54

FOAM glass. See Glass, Cellular

FOAM plastics. See Plastic materials, Cellular

FOAM rubber. See Rubber, Sponge

FOAMING

Flotation theory; molecular interactions between frothers and collectors at solid-liquid-air interfaces. J. Leja and J. H. Schulman. bibliog(30 ref) diags Min Eng 6:Trans 221-8 F '54

Foam methods for gas-liquid interaction; recent Russian work. diags Chem Age (Lond) 71:369-71 Ag 21 '54

Holding down the foam. il Chem W 72:65-6+ Je 27 '53

Inhibition of foaming; synergistic effects of antifoaming agents. S. Ross and others. J Phys Chem 57:684-6 O '53

Inhibition of foaming; the transmission of light by unstable foams. S. Ross, B. Barth and J. F. Terenzi. bibliog J Phys Chem 58:247-50 Mr '54

Keeping bubbles under control; defoaming. Dun's R & Mod Ind 62:163-4 O '53

FOG

Chemical dispersal of fog. Chem Age (Lond) 69:1196 D 5 '53; Chem & Eng N 31:5377 D 28 '53

Deaths during the severe fog in London and environs, Dec. 5-9. P. Drinker. A M A Archives Ind Hygiene & Occup Med 7:275-6 Ap '53

Fog and deaths in London, Dec. 1952. J. A. Scott. Pub Health Rep 68:474-9 My '53

Weathermaster will kick New Jersey fog around. Steel 135:55 S 6 '54

FOLDING machines

Universal folding machine. il Engineer 196: 444 O 2 '53

FOLDS (geology)

Construction of geological sections of folds with steep-limb attenuation. W. D. Gill. diags Am Assn Pet Geologists Bul 37:2389-406 O '53

Parry Islands folded belt in the Canadian Arctic archipelago. Y. O. Fortier and R. Thorsteinsson. bibliog map Am J Sci 251: 259-67, pl 1-2 Ap '53

FOLIC acid

Synthesis of pteroic and pteroylglutamic acids. D. L. Weisblat and others. bibliog Am Chem Soc J 75:5893-6 D 5 '53

Analysis

Ion-exchange chromatography of pteroylglutamic acid and aminopterin. M. R. Heinrich, V. C. Dewey and G. W. Kidder. bibliog Am Chem Soc J 75:5425-6 N 5 '53

FOLIC acid, Analogs of

Analogs of pteroylglutamic acid; derivatives with substituents on the benzene ring. D. B. Cosulich and others. bibliog Am Chem Soc J 75:4675-80 O 5 '53

Analogs of pteroylglutamic acid; N¹-(pteridyl-2)-sulfanilamides. M. J. Fahrenbach and others. bibliog Am Chem Soc J 76: 4006-10 Ag 5 '54

N-{p-[(2,4-diamino-6-pteridylmethyl)-tosylamino]-benzoyl}-L-glutamic acid, a pteroylglutamic acid analog. B. J. Magerlein and D. I. Weisblat. Am Chem Soc J 76:3033 Je 5 '54

FOLKLORE

Superstitions and folklore of the miners. F. A. King. Can Min J 74:78-9 N '53

FOLLANSBEE steel corporation

Follansbee to sell assets. Steel 135:61 Ag 23 '54

Republic buys equipment. Steel 135:71 S 20 '54

FOLLOW-up systems

Are your mailers working this hard? Shur-Rane's direct mail and follow-up to inquiries. G. Svenson. il Sales Management 72:68-70 Je 1 '54

Following up samples effectively by mail. W. L. Rippeteau and C. Pacifico. diag Ind & Eng Chem 45:1294-7 Je '53

FOLSOM, Marion Bayard, 1893-

Folsom made for the job of Under Secretary of Treasury. por(cover) Chem & Eng N 31:4962+ N 30 '53

FOND DU LAC, Wisconsin

Sewerage

Treatment of tannery wastes and domestic sewage. B. J. Hartman. flow diag Sewage & Ind Wastes 25:1419-23 D '53

FOOD

Addition of chemicals to food; debate in House of Lords. Chem Age (Lond) 70:369-70 F 6 '54

Algae as food. H. W. Milner. il diag Sci Am 189:31-5 O '53

Biological value of algal proteins. A. E. Bender and others. Chem & Ind p 1340-1 D 12 '53

Chemicals in foods, where do they stand? B. L. Oser. il Food Eng 26:70-2+ Je '54

Food from the sea; abstract. H. F. Taylor. Chem & Eng N 32:134 Ja 11 '54

Monosodium glutamate unique flavor enhancer. il Food Eng 26:76-7 Je '54

New packages and products. Published in monthly numbers of Food engineering

Science, food and the people; H. E. Armstrong memorial lecture. R. T. Colgate. Chem & Ind p524-9 My 30 '53

See also

Bakers and bakeries
Biscuits
Bread
Butter
Cake
Canned food
Cereals, Prepared
Coloring matter in food
Dairy products
Diet
Eggs
Farm produce
Fish as food
Flavor
Flour
Food, Frozen
Food preservation
Food supply
Fruit
Grain
Infants' food
Jelly, jam, etc.
Meat
Milk
Nutrition
Potatoes
Poultry
Restaurants
Sugar
Vegetables
Vitamins
Yeasts

Bacteriology

Survival of bacteria in wholesome canned foods; abstract and discussion. O. Jones. Chem & Ind p302 Mr 13 '54

Chemistry

A.C.S. Division of agricultural and food chemistry 124th national meeting, Chicago; abstracts of papers. Chem & Eng N 31: 3957-60 S 28 '53

A.C.S. Division of agricultural and food chemistry 125th national meeting, Kansas City; abstracts of papers. Chem & Eng N 32:1309-11 Ap 5 '54

Building new gallate potential. il Chem W 74:40+ My 29 '54

Contribution of public analysts and other analytical chemists to public welfare. E. B. Hughes. Chem Age (Lond) 70:669-70 Mr 20 '54; Same. Chem & Ind p371-2 Mr 27 '54

Food and the future; synthetic food potentialities. W. F. J. Cuthbertson. Chem & Ind p553-5 Je 6 '53

Society of chemical industry Food group meeting, London, May 12. Chem & Ind p 1042-4 Ag 21 '54

Sources of information for the agricultural and food chemist. A. W. Marsden. bibliog Chem & Ind p 1138-41 S 11 '54

FOOD—Chemistry—*Continued*

Color

Color control is moving from lab to line; optical instruments. L. E. Slater. il diag Food Eng 26:70-5+ Ap '54

Puts brake on browning of ketchup in bottle necks; tests show corn syrup will do the retarding. W. L. Ogle and A. Kramer. Food Eng 26:67-8 S '54

See also

Browning

Coloring matter in food

Contamination

See Food contamination

Insect infestation

See also

Grain—Insect infestation

Patents

Recent inventions. Published in monthly numbers of Food engineering

Prices

Commodity prices; prices received and paid by farmers, 1949-1952. Survey of Cur Bsns 1953 Sup p25 [supplemented in monthly numbers]

Consumer price indices; food group by countries, 1937-Jan. 1953. Int Labour R Stat Sup 67:52-61 Mr '53 [cont quarterly]

Consumers' price indexes, 1945-1952, monthly Nov. 1952-Nov. 1953. Fed Res Bul 40:113 Ja '54 [cont monthly]

Food prices in Palo Alto. J. M. Luck. Science 118:362-3 S 25 '53

International comparisons of food price levels, Oct. 1952. Int Labour R Stat Sup 68:71-83 O-N '53

Price variability of non-branded food items among food stores in Champaign-Urbana. R. D. Millican and R. J. Rogers. J Marketing 18:282-4 Ja '54

Rationing

Farce of food rationing. Economist 168:375-6 Ag 8 '53

Standards

FDA food standards. Food Eng 26:226-7 Ja '54

Food standards changing procedures go into effect. Oil Paint & Drug Rep 166:3 Ag 2 '54

Zinc in foods; Food standards committee report. Chem Age (Lond) 70:470 F 20 '54

Storage

See also

Cold storage

Food, Frozen—Storage

Testing

Accept the batch? or reject it? quality-control testing of foods. O. P. Kharbanda. Food Eng 26:49 Ja '54

Electric hygrometer of small dimensions. W. A. Brastad and L. F. Borchardt. il diags R Sci Instr 24:1143-4 D '53

Gaging foods by psychometrics. D. Foster. il Food Eng 26:57-9+ My '54

Laboratory nose is a better sniffer. Chem & Eng N 32:2590 Je 28 '54

Rheology opens food frontiers. L. E. Slater. il diags Food Eng 26:74-8+ My '54

Symposium on flavour assessment; abstracts and discussion. Chem & Ind p562-5 Je 6 '53

Taste thermometer brings food quality into focus. L. E. Slater. il Food Eng 26:41-3+ Mr '54

Transportation

Food trailers travel railroad piggyback cutting five handlings down to two. il diags Food Eng 26:77-9 Ag '54

FOOD, Canned. See Canned food

FOOD, Dried

Dehydrated vegetable mix, three-way saver; navy's dehydrated tomato-type vegetable sauce premix. R. R. Barton and L. Trauberman. il Food Eng 25:79 N '53

See also

Fruit, Dried

Milk, Dried

FOOD, Frozen

Birthday for frozen foods. il Comp Air Mag 59:194-6 Jl '54

Converts locker plant to frozen-dinner processing; Tasty foods co. R. T. Foreman. il plan Food Eng 26:62-3+ S '54

Frozen dinners catch on; Quaker state foods corp. il Sales Management 72:58+ Ja 1 '54

Frozen food handling; abstract. A. M. Munter and others. Refrig Eng 61:1335 D '53

Looking backward at frozen foods. C. Birdseye. il Refrig Eng 61:1182-3+ N '53

New trends mirrored at frozen food show. il Food Eng 26:170+ Mr '54

Precooked frozen Chinese food; Temple's frosted foods, inc. J. V. Ziemba. il Food Eng 26:92-3 Ap '54

Quality of frozen foods. Refrig Eng 62:55 F '54

When individual incentive replaces group bonus, output per worker zooms; Seabrook farms co. I. C. Miller. il Food Eng 26:27-30+ Ja '54

See also

Bread, Frozen

Fish, Frozen

Freezers, Domestic

Freezing

Ice cream

Orange juice, Frozen

Shrimps, Frozen

Packages

Adds MSG solution at packaging-line speeds; Patterson frozen foods co. il diag Food Eng 26:56-7 Mr '54

Faster foil-tray packs for frozen pies and croquettes. il Mod Packaging 27:118-19 D '53

Frozen dinner is back; C. A. Swanson & sons. il Mod Packaging 27:134-5+ Mr '54

Frozen foods; giants of the packaging field. il Mod Packaging 27:102-7+ Jl '54

How frozen food bundling can reduce costs. E. Minneman and J. F. Hill. il diags Food Eng 26:78-81+ Mr '54

Minor changes bring major packaging gains; chopped frozen spinach line at Seabrook farms co. il diag Food Eng 26:92-3 Ag '54

Protective packaging of frozen foods. J. G. Woodroof and W. Rabak. il Refrig Eng 62:45-8 F '54

Storage

Built-in food storage; tomorrow's pattern. il Am Bld 76:246 Ag '54

Refrigerated warehouse for frozen foods. il plan Arch Rec 114:172 Ag '53

Zero storage facility features reflective insulation; cold storage rooms for fruit and vegetables. il Refrig Eng 61:1192-3 N '53

Transportation

5,880-mile deep freeze chalked up by new road reefer. il map Food Eng 26:94-5+ My '54

Navy's seagoing supermarket; refrigerated reefers. E. H. Honegger. il Refrig Eng 62:50-2 Ap '54

FOOD adulteration and inspection

Detection of adulteration of butter with vegetable oils by means of the tocopherol content. J. H. Mahon and R. A. Chapman. bibliog Anal Chem 26:1195-8 Jl '54

FOOD and agriculture organization of the United nations

Baffled by food surpluses: 1953 conference in Rome. Economist 170:31-2 Ja 2 '54

FOOD and drug administration. See United States—Food and drug administration

FOOD coloring. See Coloring matter in food

FOOD containers

Allergic reaction to materials in food containers. T. G. Randolph. Paper Tr J 138:32 F 5 '54

Automatically in plastics; XLNT Spanish foods co. il Mod Packaging 27:88-90 Ag '54

Insulated food container factory. il Engineer 197:244-5 F 12 '54; Engineering 177:218 F 12 '54

Metal containers for food; abstract and discussion. J. G. Huntley. Chem & Ind p 186-7 F 13 '54

New packages and products. Published in monthly numbers of Food engineering

Ray-sterilizing food wrappers. L. L. Kempe and others. bibliog il Food Eng 25:55-6+ N '53

FOOD containers—*Continued*

Round nesting paper drinking cups and food containers. H. N. Calver. il Paper Tr J 137:208-11 N 13 '53

Some tangential considerations in the production of liquid-tight containers. E. Reed. Paper Tr J 137:204-7 N 13 '53

Standards for cases; food distributors propose five simple points of design. il Mod Packaging 27:114-15+ D '53

See also

Candy boxes
Food packages
Milk containers

FOOD contamination

Limits for lead in food. Chem Age (Lond) 71:417-18 Ag 28 '54

Toxicity of 2-ethylhexyl diphenyl phosphate; studies of the extraction of Santicizer 141 from polyvinyl chloride films by foodstuffs under various conditions of storage. J. C. Kaskie. A M A Archives Ind Hygiene & Occup Med 8:281-3 S '53

Use of toxic chemicals in agriculture. Chem Age (Lond) 70:461-2 F 20 '54

FOOD factories

For Heinz in Pittsburgh, a new variety of industrial architecture. il plans diags Arch Forum 100:116-23 Ja '54

Stork margarine works at Purfleet. il Chem Age (Lond) 70:1151-4 My 22 '54

See also

Bakers and bakeries
Candy factories
Canneries
Flour mills
Packing houses
Sugar factories

Accidents

Accidents demand action; in our food plants they far exceed strike losses. I. C. Miller. Food Eng 26:66-8+ Jl '54

Cleaning

Chemical cleaning proving big aid in food industry. B. P. Robinson. bibliog il diag Food Eng 26:57-9+ Jl '54

Costs

Calculating equipment payoff. il Food Eng 26:127+ F '54

Mechanize your materials handling? here's how to figure it, ways and dollars. Food Eng 25:133-5 D '53

Electric equipment

Electricity in food preparation; Piper products, ltd. il Elec R (Lond) 153:642-4 S 18 '53

How to feed electricity to food plant equipment. K. P. Grenfell. il diags Food Eng 25:90-4 D '53

Nine tips on keeping motors humming. diags Food Eng 26:90-3 F '54

Employees

Don't be fooled by fringes. I. M. Miller. Food Eng 26:88-9+ My '54

More on the sphere of the technical man. O. W. Lang. Food Eng 26:67+ Ap '54

Sessions for, and with your supervisors. A. C. Croft. Food Eng 26:61-2+ F '54

Technical man in the food industry. R. E. Morse. Food Eng 25:96+ N '53

When individual incentive replaces group bonus, output per worker zooms; Seabrook farms co. I. C. Miller. il Food Eng 26:27-30+ Ja '54

Equipment

Aluminium in the food and chemical industries. R. W. Nuttall. il Metallurgia 49:63-70 F '54

Annual instrument exhibit, 8th, Chicago. il Food Eng 25:73-7 D '53

Better tanks speed processing. J. T. Winslow. il diag Food Eng 25:90-1 N '53

Calculating equipment payoff. il Food Eng 26:127+ F '54

Chemical engineering methods in the food industry; handling of liquids in the factory. R. Falconer. bibliog(27 ref) Chem & Ind p 1058-63 Ag 28 '54

Converts locker plant to frozen-dinner processing; Tasty foods co. R. T. Foreman. il plan Food Eng 26:62-3+ S '54

Doubles plant capacity by mechanization, and ups worker productivity 180 per cent; tomato prepackager, Jack Esformes corp. R. G. White. il plan Food Eng 26:64-6+ S '54

Equipment parade viewed by food engineers; Chemical industries exposition; illustrations with text. Food Eng 26:80-3 F '54

Mechanized dock ramps and how to pick them. C. W. Choromanski. il diags Food Eng 26:90-1+ Ag '54

Minor changes bring major packaging gains; chopped frozen spinach line at Seabrook farms co. il diag Food Eng 26:92-3 Ag '54

New equipment and supplies. Published in monthly numbers of Food engineering

New plant tailored to vegetable-oil ice cream; Frozen desserts inc. A. J. Reitz. il diag Food Eng 26:90-2 Jl '54

New technical tools exhibited at IFT show, Los Angeles; illustrations with text. Food Eng 26:54-5 S '54

Robot weigher-counter acts quick on misfills. il Food Eng 26:60 F '54

Sweetens noxious exhaust gas; catalytic fume killer. il Food Eng 25:95+ D '53

24 low-cost devices automate package line; Instant Postum packaging line. I. C. Miller. il diags Food Eng 26:92-3+ Mr '54

See also

Food machinery

Inspection

FDA inspection re-weighed. E. L. Holmes. il Food Eng 26:7-8+ Je '54

How FDA men inspect a plant. E. L. Holmes. il Food Eng 25:64-6 N '53; Discussion. J. Winston. 26:59+; Reply. 59+ Mr '54

Lighting

My most interesting lighting job; keeping jelly clean and clear. R. P. Benton. il diags Elec West 111:104 S '53

Plant lighting for best eye performance F. C. Lamb. il diags Food Eng 26:56-60+ S '54

Taste testing rooms; lighting for food technology. H. W. Spell and A. W. Lange. il diag Illum Eng 49:105-6 F '54

Maintenance and repair

Nine factors to point up in your plant maintenance; Exchange lemon products co. J. S. Hutchinson. Food Eng 26:65-9 Ag '54

Planning and scheduling your maintenance work. G. J. Martin. Food Eng 26:76-8 Ap '54

They're close to 100 per cent on package output efficiency; General foods corp. G. M. Woodruff. il diag Food Eng 25:64-6+ D '53

Management

From red to black without capital investment. Food Eng 26:125+ My '54

Power

Prime pointers on generating and using process steam. J. H. Bock and L. Newsome. il Food Eng 26:96-8 My '54

Quality control

Accept the batch? or reject it? quality-control testing of foods. O. P. Kharbanda. Food Eng 26:49 Ja '54

At Gerber's quality control reigns supreme. L. E. Slater. il Food Eng 26:60-3+ Ja '54

Carload to container quality control; Mrs Tucker's products. flow sheet(p 140-3) il Food Eng 26:64-6+ Mr '54

Safety measures

Management's plant-safety drive zeros lost-time accidents; General foods corp. A. J. Deile. il Food Eng 26:69-71+ Jl '54

They're chalking up safe man-hours by the millions; Crosse & Blackwell co. A. B. Ott. il Food Eng 25:84-5+ N '53

Sanitation

Beech-Nut's technique is top preventive sanitation. E. A. Glenar and J. V. Ziemba. il Food Eng 26:57-9+ Ap '54

Germicidal soaps in food handling industry. F. A. Korff. Soap & San Chem 30:44-5+ F '54

Sanitation is the way we live. L. A. King, jr. Nat Safety N 69:78+ Ja '54

What's your plant's sanitation quotient? il Food Eng 26:34-5 Ja '54

FOOD factories—Sanitation—*Continued*

You do it better when you sanitize separately. J. L. Barron. il Food Eng 26:60-3 My '54

See also

Food factories—Inspection

Waste

Land disposal by sprinkling or ridge-and-furrow methods practical and inexpensive. H. R. Murdock. Ind & Chem 45:sup 101A-3A Ag '53

Pilot-plant studies on treatment of vegetable processing wastes; Seabrook farms co. R. A. Webster. bibliog flow diags Sewage & Ind Wastes 25:1432-7 D '53

FOOD handling

Chemical engineering methods in the food industry; handling of liquids in the factory. R. Falconer. bibliog(27 ref) Chem & Ind p 1058-63 Ag 28 '54

Germicidal soaps in food handling industry. F. A. Korff. Soap & San Chem 30:44-5+ F '54

FOOD industry and trade

Birthday for frozen foods. il Comp Air Mag 59:194-6 Jl '54

Bulging hipline; it gave Tillie a $6,000,000 idea; Tasti-Diet, inc. E. Gidlow. il Sales Management 72:98+ Ja 15 '54

Institutional market; jack pot for Kraft foods. R. S. Lochridge. il Sales Management 73:105-8+ S 20 '54

Nestlé's global pioneering. J. D. Ratcliff. Adv Agency 47:60-1+ Ag '54

1954 problems and prospects for food processing industry; with statistics on leading food processors, 1951-1953. J. S. Williams. il Mag of Wall St 93:320-2+ D 12 '53

Our dieting millions; they're playing hob with the food industry. E. M. Kelley. il Sales Management 71:24-7+ Ag 1; 36-45 Ag 15; 88-94 S 1 '53

Retailers shape policy for food manufacturers; American food merchandising council. Sales Management 71:86+ Ag 1 '53

See also

American stores company
Bakers and bakeries
Beatrice foods company
Bread
Candy trade
Canned food
Chain stores
Coffee trade
Dairy products
Farm produce
Food, Dried
Food, Frozen
Food packages
Grocery trade
Infants' food
Meat industry and trade
Packing houses
Restaurants
Sugar industry and trade
Super markets

Advertising

Ac'cent gives a marketing lesson to industrial advertisers. il Ind Marketing 39:54-5 My '54

How out-of-season tie-in boosts sales for seasonal item; Ocean Spray's chicken and cranberry campaign. il Ptr Ink 244:49 Ag 14 '53

Only strong merchandising firms need apply for General Mills tie-ins. E. E. Schaefer. il Sales Management 72:40-1 My 1 '54

Bibliography

Catalogs and bulletins. Published in monthly numbers of Food engineering

Finance

Food chains; profit margins. J. S. Bowen. Barron's 33:9-10 Ag 24 '53

See also

Libby, McNeill and Libby

Patents

Recent inventions. Published in monthly numbers of Food engineering

Regulation

See also

Food laws and legislation

Statistics

Foodstuffs, 1949-1952. Survey of Cur Bsns 1953 Sup p 135-48 [supplemented in monthly numbers]

Yearbook of food and agricultural statistics, 1953; pt 1, Production. v7 334p Food and agriculture organization of the United nations; for sale by Columbia univ. press, 2960 Broadway, New York 27 '54 ($3.50)

Canada

Canadian census shows food stores in lead. For Comm W 50:5 Ag 3 '53

Denmark

Denmark raises food use, exports. For Comm W 50:19 D 7 '53

Western states

West coast; 1954. il Mod Packaging 27:136-41 Jl '54

FOOD laws and legislation

Additives control bill introduced by O'Hara. Oil Paint & Drug Rep 165:3+ Mr 22 '54

Additives in the arena. Chem W 73:16-18 O 10 '53

Chemical, food trades seek additives accord. Oil Paint & Drug Rep 165:3+ Mr 8 '54

Congress bills on food plant inspections, food standards and pesticides-residue tolerances. R. G. Gibbs. Chem & Eng N 31:3044 Jl 27 '53

Drug and cosmetic makers fight HEW on bar to three coaltar colors. Oil Paint & Drug Rep 165:3+ Mr 8 '54

Drug codification veto urged on Eisenhower because of amendments. Oil Paint & Drug Rep 166:3+ S 6 '54

Drug law codification need cited by industry attorneys. Oil Paint & Drug Rep 166:3+ S 13 '54

Eight recent legal decisions are tipoffs on staying out of trouble. L. T. Parker. Food Eng 26:133+ Ap '54

Miller files pesticide residue bill. Soap & San Chem 29:175 Ap '53

Miller offers new pesticides bill. Oil Paint & Drug Rep 165:3+ Ja 18 '54

See also

Coloring matter in food
Food factories—Inspection
United States—Food and drug administration

Canada

New food and drug laboratories in Toronto; 80th year of pure food laws in Canada. il Can Chem Process 38:84-5 F '54

Great Britain

Artificial sweeteners, ban on use in food; saccharin exempted. Chem Age (Lond) 69:493 S 5 '53

Cleaner food. Economist 169:476+ N 14 '53

FOOD machinery

Dewaters pectin gels. R. P. Graham and A. D. Shepherd. il Food Eng 26:69+ My '54

New equipment and supplies. Published in monthly numbers of Food engineering

Teams techniques to nail down specialty-food quality; Buitoni foods corp. J. V. Ziemba. il Food Eng 26:42-3+ Ja '54

See also

Nut shelling machines

Lubrication

Centralized lubrication cuts production costs. L. C. Rotter. il diag Food Eng 25:80-3+ N '53

FOOD machinery and chemical corporation

FMC forms new unit for insecticides setup; creation of the Fairfield chemical division. Oil Paint & Drug Rep 166:5 Ag 30 '54; Same. Soap & Chem Spec 30:173-4 S '54

Fresh start; chemical facilities at Fairfield, Md. acquired. Chem W 75:87-8 S 4 '54

Not four, but one; FMC's Ernest Hart. Chem W 73:15-16 Ag 8 '53

FOOD mixers

Domestic electrical equipment; toasters and mixers. il Elec R (Lond) 154:521-4 Mr 19 '54

FOOD mixes

Dehydrated vegetable mix, three-way saver; navy's dehydrated tomato-type vegetable sauce premix. R. R. Barton and L. Trauberman. il Food Eng 25:79 N '53

FOOD packages

Aluminum foil for packaging; users report on its sales appeal. D. P. Reynolds. il Sales Management 72:88+ Mr 15 '54

Chemical engineering methods in the food industry; recent developments in rigid food packages. J. G. Huntley. Chem & Ind p677-80 Je 12 '54

Chemistry in the grocery; Dow Chemical will tee off a drive for Saran-Wrap, its household food packaging material. il Chem W 73:81-2+ N 14 '53

Component package; flexible plastic package for popcorn. il Mod Packaging 27:140-3+ Mr '54

Crushproof cookies; multicell partition in film bags. il Mod Packaging 27:108-9+ Ag '54

Damage to packaged food and how to avoid it when shipping by rail. diags Food Eng 26:75-7+ Mr '54

Dry-packed foods. il Mod Packaging 27:86-92+ Ap '54

Feeding of men on the fire line. E. L. Howie. Pulp & Pa of Can 55:84+ F '54

Flexibles are revamping package pattern. J. V. Ziemba. il Food Eng 26:70-4+ Mr '54

Friendly Alphy; Alpha Beta food markets packaging program. il Mod Packaging 27:158-60+ Jl '54

Gerber's quads; variety baby-cereal pack. il Mod Packaging 27:116-18 Ja '54

How to slash your bagging costs. A. Burke. Food Eng 26:97-8 Ag '54

Machines crowded by materials at packaging exposition. il Food Eng 26:146+ My '54

More color for bread; Arnold bakers, inc. il Mod Packaging 27:162-4 Mr '54

New packages and products. Published in monthly numbers of Food Engineering

One-portion packets gaining. il Food Eng 26:89-90+ Mr '54

Paperboard in, wood out. J. Fahey. il Food Eng 26:127 My '54

Pie for a dime; simple tray pack with a cellophane topper sheet; Mrs Smith's pie co. il Mod Packaging 27:114-15 Jl '54

Piggy-back cans. il Mod Packaging 27:182-3 Mr '54

Polyethylene as a food film. C. J. B. Thor and M. Goldman. il Mod Packaging 27:155-8+ My '54

Pop it in the package; E-Z pop. il Mod Packaging 27:94-6 Jl '54

Really hot tamales; Xlnt's prize-winning label. il Mod Packaging 27:165 Mr '54

Single-portion packages. il Mod Packaging 27:79-84+ Ag '54

Stripcoating for cheese; special wax and plastic lacquer. il Mod Packaging 27:95-7+ Ja '54

What's become of brand names? design of food packages. J. Nash. Ptr Ink 244:31 Ag 7 '53

Zip-open biscuits; Puffin's tear-string canister with sparkling foil label. il Mod Packaging 27:130-2 My '54

See also

Food, Frozen—Packages
Food containers
Fruit—Prepackaging
Ice cream
Meat—Prepackaging
Vegetables—Prepackaging

Protection

Desiccating in the package. W. F. Talburt and others. bibliog il Food Eng 26:79-81+ Ap '54

Insecticide armor; food and grain packaging papers, treated to repell and kill insects. il Chem W 73:59-60 O 17 '53

Sorbic acid as a mold inhibitor. D. P. Smith and J. N. Rollin. il Mod Packaging 27:139-41+ D '53

Testing

How Kraft's package lab works. J. V. Ziemba and L. E. Slater. il Food Eng 26:82-5+ Mr '54

FOOD packaging

Bag sealer-labeler. il Mod Packaging 27:102-3 Je '54

West coast; 1954. il Mod Packaging 27:136-41 Jl '54

FOOD poisoning

Taste doesn't tell. Chem W 72:39-40 Je 27 '53

FOOD preservation

Design and use of ten-kilocurie source of gamma radiation. L. E. Brownell and others. bibliog il plan diags Chem Eng Prog 49:569-76 N '53

Expanding uses of antioxidants. A. L. Tappel. bibliog Food Eng 26:73-5+ Je '54

Forced air units solve tough heating problems in ten-acre food assembly warehouse. il Food Eng 25:131+ D '53

Gallic numerology; octyl and dodecyl gallate edible products. Chem W 73:42+ O 24 '53

Preservation of food with ionizing radiations; symposium abstracts and discussions. Chem & Ind p390-5 Ap 3 '54

Swedish preservation research. Chem Age (Lond) 70:24 Ja 2 '54

War on oxygen! il Ind & Eng Chem 46:sup 11A+ S '54

See also

Canned food
Canning and preserving
Cold storage
Food, Frozen
Food packages—Protection
Fruit—Preservation
Milk—Pasteurization

FOOD research

Better health in balanced diets; annual review. C. G. King. il Chem & Eng N 32:20-2 Ja 4 '54

Conquest receives Appert award for achievements in food field. Chem & Eng N 31:2770 Jl 6 '53

Developments in food research. Chem & Ind p 1104 S 4 '54

Food and container research must continue at all costs; annual meeting of the Research and development associates and Food and container institute, Washington. Chem & Eng N 31:2592+ Je 22 '53

Food investigation; report of Food investigation board and Director of food investigation, 1952; abstracts. Chem Age (Lond) 68:857-9 Je 6 '53; Chem & Ind p587 Je 13 '53

Food science, the food group and the future. H. D. Kay. Chem & Ind p 1186-90 N 7 '53

Objectivity comes to food research; Monsanto's resonance elastometer. il Chem & Eng N 32:3356 Ag 23 '54

Work of the food investigation organisation, D.S.I.R. F. Kidd. Chem & Ind p672-6; Discussion. 676-7 Jl 11 '53

FOOD stores

Food chains; profit margins. J. S. Bowen. Barron's 33:9-10 Ag 24 '53

Price variability of non-branded food items among food stores in Champaign-Urbana. R. D. Millican and R. J. Rogers. J Marketing 18:282-4 Ja '54

See also

Super markets

Advertising

Food chains push beef sales in newspaper ads. G. A. Brandenburg. Ed & Pub 86:32 Ap 18 '53

Employees

Recruiting for food stores. C. A. Voris. Personnel J 32:293-6 Ja '54

FOOD supply

Food and the future; efficient use of sunlight for food production. N. W. Pirie. bibliog diag Chem & Ind p442-5 My 9 '53

Food and the future; food and fodder yeast. A. C. Thaysen. Chem & Ind p446-7 My 9 '53

Food and the future; synthetic food potentialities. W. F. J. Cuthbertson. Chem & Ind p553-5 Je 6 '53

Food and the future; synthetic potentialities; synthetic fats. P. N. Williams. bibliog(44 ref) Chem & Ind p582-5 Je 13 '53

Prospects for agriculture. Nat City Bank p 104-7 S '53

See also

Food and agriculture organization of the United nations
Lumber camps—Food supply

Statistics

World food supplies; selected years, 1934-1952; charts. Economist 168:501 Ag 22 '53

FOOD supply—*Continued*

Alaska

Science and public health research in Alaska; Anchorage food study. E. M. Scott and E. S. Weiss. Pub Health Rep 68:541-2 My '53

China

Hungry China. Economist 168:10 Jl 4 '53

Great Britain

Bill for subsidies. Economist 169:680 N 28 '53
Budget shock; additional sum sought by Ministry of food. Economist 169:680 N 28 '53
Cheap food; subsidies. Economist 169:730+ D 5 '53
Conserving the featherbed. Economist 169:465-6 N 14 '53
Dear food; increase in import duties on fruit and vegetables. Economist 169:733 D 5 '53
Farce of food rationing. Economist 168:375-6 Ag 8 '53
Farmers' friends; agricultural support. Economist 169:874 D 19 '53
Food science, the food group and the future. H. D. Kay. Chem & Ind p 1186-90 N 7 '53
Last ration book. Economist 169:322-3 O 31 '53
Myth of starvation; food prices. Economist 169:474 N 14 '53
Protectionist assumption. Economist 169:874-5 D 19 '53

Russia

Great myth, the Russian granary. E. Truog and D. T. Pronin. maps Land Econ 29:200-8 Ag '53

FOOD technologists
Food science, the food group and the future. H. D. Kay. Chem & Ind p 1186-90 N 7 '53
Technologists for the food industry. E. M. Learmonth. Chem & Ind p846-7 Jl 10 '54
See also
Institute of food technologists

FOOD technologists, Institute of. See Institute of food technologists

FOOD technology
Advances in technology. Published in monthly numbers of Food engineering
Chemical engineering in the food industry; bulk storage and transport of sugar. E. T. Moss. il Chem & Ind p 1189-94 S 25 '54
Chemical engineering methods in the food industry. W. Price-Davies. bibliog(34 ref) Chem & Ind p742-9 Je 26 '54
Chemical engineering methods in the food industry; storage and bulk transport of potable liquids. J. D. Usher. il diags Chem & Ind p 1031-9 Ag 21 '54
Food technology; abstract. G. F. Garnatz. Chem & Eng N 32:132 Ja 11 '54
Rewarding careers await technical men in food industry. F. K. Lawler. flow sheet il Food Eng 26:63-70 F '54
Science in food. B. Lockspeiser. Chem Age (Lond) 70:727-9 Mr 27 '54
Society of chemical industry Food group meeting, London, May 12. Chem & Ind p 1042-4 Ag 21 '54

Study and teaching

Some aspects of education in food technology. J. D. Mounfield. Chem & Ind p931-6 S 5 '53

FOOT

Protection

Foot protection. il Nat Safety N 62:129+ Mr '54
See also
Shoes, Safety

FOOT bridges. See Bridges, Foot

FOOTBALL
Satellite soccer; Rumania. Economist 168:112 Jl 11 '53
Touchdowns, tv, and the law. Bsns W p32 N 21 '53

FOOTINGS
Continuous footings often wrongly designed. A. I. Gartner. diags Civil Eng 23:555 Ag '53
Footing in loose sand supports 250 tons; Franki foundations. il Constr Methods 36:95+ Ap '54
Machines greatly reduce costs of cutting column footings. il Eng N 152:55 Ja 14 '54

FOOTINGS, Concrete
Frost action on small footings; abstract. W. A. Trow. Roads & Eng Constr 92:130+ My '54
Grid-type footings support California State Capitol extension. F. A. Johnson. il plan diags Civil Eng 23:373-5 Je '53
High-speed foundation drilling. il diag Arch Forum 100:168 Mr '54
Practical design of thin retaining-wall footings. R. P. V. Marquardsen. diags Am Concrete Inst J 24:45-56 S '52; Discussion. 25:56^1-56^3 pt 2 D '53
Shearing strength of reinforced concrete column footings. E. Hognestad. plan diag Am Concrete Inst J 25:189-208 N '53
Tower footings conquer swamp. il Elec World 140:94-5 O 5 '53

FORAGE plants
See also
Clover

FORAMINIFERA, Fossil
Foraminifera, an evaluation. C. C. Church. Am Assn Pet Geologists Bul 37:1553-9 bibliog(p 1558-9) Jl '53
Foraminifera of late cenozoic in southern Florida. M. C. Schroeder and E. W. Bishop. bibliog Am Assn Pet Geologists Bul 37:2182-6 S '53

FORBIDDEN lines. See Spectrum—Forbidden lines

FORCE and energy
Activation energy for recrystallization in rolled silver. K. K. Tangri and D. S. Eppelsheimer. bibliog Mo U Sch Mines & Met Bul tech ser 83:1-18 '54
Cylindrical shock waves produced by instantaneous energy release. S. C. Lin. J Ap Phys 25:54-7 Ja '54; Discussion. M. Birk and others. 25:1208 S '54
Energy conversions in the flow of high polymers; applications to injection moulding. H. L. Toor and S. D. Eagleton. bibliog J Ap Chem 3:354-8 Ag '53
Energy resolution with proportional counters. G. S. Hurst and R. H. Ritchie. bibliog il diags R Sci Instr 24:664-8 Ag '53
Energy stored in metal chips during orthogonal cutting. M. B Bever and others. bibliog diags J Ap Phys 24:1176-9 S '53
Instrument for measuring small forces. R. Gibson and others. diags J Sci Instr 30:159-62 My '53
Mass-energy relationship. J. Riseman and I. G. Young. Opt Soc Am J 43:618; Reply. H. E. Ives. 618-19 Jl '53
Measurement of force required to pull through a one inch diameter Wilson vacuum seal. D. McLean and M. H. Farmer. diag J Sci Instr 30:293 Ag '53
Principle of complementary energy in nonlinear elasticity theory. H. L. Langhaar. bibliog Franklin Inst J 256:255-64 S '53
See also
Free energy
Impact

FORCE constants. See Chemical bonds

FORD foundation
Ford foundation provides more aid for rural India. For Comm W 50:5 Ag 10 '53

FORD motor company
Continental; Ford aims to recapture the carriage trade. Am Mach 98:168 My 24 '54
Ford's reorganization; the management story. R. E. Roberts. Advanced Management 19:9-12 My '54
Monopoly; Ford, GM may face FTC probe of alleged unfair practices. Iron Age 173:107 Ap 8 '54
New Ford line; Special products division. Bsns W p28 N 14 '53
New Ford sets out to regain sales lead. L. M. Hughes. il Sales Management 70:24-6+ My 20; 30-4+ Je 1 '53
Why Ford invests $6,500,000 in magazines; based on an interview with B. R. Donaldson. il Ptr Ink 244:82-3 S 18 '53

Research and engineering center

Built-in aids for product designers; styling building, fourth structure in the series. il Dun's R & Mod Ind 62:21-2+ D '53
New Ford research center. D. J. Davis. Am Mach 98:168 Jl 5 '54

FORECASTS (economics)
Analyzing the economic cycles. G. H. Moore. Dun's R & Mod Ind 62:64-6+ O '53
Economy; we'll get gentle recession. T. Metaxas. Iron Age 172:41-2 O 1 '53
Epitaph for planners. Economist 168:517-18 Ag 22 '53
Forecast of interest rates in 1954; Canada and U.S. J. R. Oborne. Comm & Fin Chr 178: 1739 N 5 '53
Forecasts and the market. J. W. Beck. Comm & Fin Chr 178:543 Ag 13 '53
1954; down to a sunny plateau. Bsns W p25-6 D 19 '53
1954 prospects in world economy. P. Einzig. Comm & Fin Chr 178:2645 D 31 '53
Reaching for economic tips; administration lays plans to set up a system of volunteer observers. Bsns W p32 Ag 29 '53
Reconsideration of the postwar forecasts. E. C. Bratt. bibliog J Bsns 26:71-83 Ap '53
Shape of economic things to come. M. Shields. Comm & Fin Chr 178:2145+ D 3 '53
Sustaining economic forces ahead. G. W. Ensley. Comm & Fin Chr 178:813+ S 3 '53
See also
Business forecasting

FORECASTS (technology)
What the next ten years may have in store for us. J. E. Haines. Comm & Fin Chr 178: 2153 D 3 '53

FOREIGN advertising. See Advertising, Foreign

FOREIGN branches. See Branch factories, Foreign

FOREIGN commerce, Bureau of. See United States—Foreign commerce, Bureau of

FOREIGN correspondents. See Newspapers—Foreign correspondents

FOREIGN exchange
Agenda for Sydney; finance ministers of the Commonwealth. Economist 170:11 Ja 2 '54
Convertible currencies in free world is on the way. W. R. Burgess. Comm & Fin Chr 178:2037+ N 26 '53
Dividends from Germany; Germany's capacity to pay. Economist 168:413 Ag 8 '53
IMF and convertibility. Economist 170:186 Ja 16 '54
International monetary fund envisages convertibility; 8th annual report. Comm & Fin Chr 178:1030 S 17 '53
Labyrinth of 2800 clearing currencies. F. Pick. Comm & Fin Chr 178:2540-1 D 24 '53
Limited currency convertibility will not work! F. Collin. Comm & Fin Chr 178:1542 O 22 '53
Our national stake in convertible currencies. L. W. Douglas. Am Pet Inst Proc 33(1):33-6 '53; Comm & Fin Chr 178:2157+ D 3 '53
See also
Balance of payments
Banks and banking
Commerce
Finance
Money

Rates

Foreign exchange rates. Published in weekly Monday numbers of Commercial and financial chronicle
Foreign exchange rates, 1948-1953; monthly Jan.-Dec. 1953. Fed Res Bul 40:111 Ja '54 [cont monthly]
Latin American exchange rates. Published irregularly in Foreign commerce weekly
U.S.-European currency relationships. For Comm W 50:17 S 7 '53; 51:12 Ja 25; 15 My 24 '54

Regulation

Free trade or free exchange; a British view. P. Einzig. Comm & Fin Chr 179:69 Ja 7 '54
Summary of foreign control regulations applying to imports from the United States; revised as of Oct. 15; tabulation. For Comm W 50:10-12 N 2 '53

Bolivia

Bolivia reduces 1953 exchange budget. For Comm W 50:3+ N 16 '53

Brazil

Brazil adopts new import, exchange regulations to stimulate exports. For Comm W 50:10 O 19 '53
Brazil alters dollar rates for cruzeiros. For Comm W 50:2 S 7 '53
Brazil exchange controls revised; new system to benefit exporters. For Comm W 50:8 S 14 '53
Complicated cruzeiro. Economist 169:202 O 17 '53

Burma

Survey report required on shipments to Burma. For Comm W 51:11 Ja 4 '54

Chile

Most Chilean trade at free bank rate. For Comm W 50:8 Ag 24 '53

Colombia

Colombia eases controls on gold at IMF price; internal trade freed. For Comm W 50:10 S 21 '53
Colombia modifies gold sale rules. For Comm W 50:11 N 16 '53

Europe

Britain extends scheme for currency arbitrage. For Comm W 50:6 N 23 '53

Germany

Freeing the D-mark. Economist 169:983 D 26 '53
Germany eases exchange rules for travelers. For Comm W 50:15 O 26 '53
HICOG explains German rules for investors. For Comm W 51:15 F 22 '54

Great Britain

Bank and commodities. Economist 170:181-2 Ja 16 '54
Britain against convertibility. Economist 169: 437-8 N 7 '53
Commodity shunting again; Lebanon. Economist 170:190+ Ja 16 '54
Revival in the exchange market. Economist 169:542+ N 14 '53
Sterling area fearful of U.S. trade recession. P. Einzig. Comm & Fin Chr 178:1544 O 22 '53
Sterling in world trade. Economist 168:345-6 Ag 1 '53

India

India liberalizes dollar imports under new July-December quotas. For Comm W 50:7 Ag 3 '53

Indonesia

Private fund transfer limited by Indonesia. For Comm W 51:10 Ja 25 '54

Japan

Hard sterling for Japan. Economist 168:532 Ag 22 '53
Japan searches for sterling. Economist 169: 613 N 21 '53

Netherlands

Freer Dutch exchanges. Economist 168:535 Ag 22 '53

Philippine Islands

Philippines allocates exchange to importers for July-December. For Comm W 50:6 Ag 31 '53

Rhodesia

Southern Rhodesia eases dollar import controls. For Comm W 50:6 Ag 31 '53

Russia

Convertible rouble. Economist 169:609 N 21 '53

South Africa

South Africa announces new import quota plan. For Comm W 50:10 N 16 '53

FOREIGN insurance association, American. See American foreign insurance association

FOREIGN investments. See Investments, Foreign

FOREIGN loans. See Loans, Foreign

FOREIGN operations administration
Better break from FOA. Chem W 75:11 Ag 28 '54
Fertilizer producers seek greater share of purchases. Oil Paint & Drug Rep 166:3+ Ag 2 '54

FOREIGN press association
History and some of the members. J. L. Collings. Ed & Pub 86:11 My 23 '53

FOREIGN service
Selecting Americans for overseas employment. M. M. Mandell and S. H. Greenberg. bibliog Personnel 30:357-66 Mr '54

FOREIGN students in the United States
Due to boomerang? scientific manpower still flowing in direction of U.S. Chem W 74: 20 F 27 '54

FOREIGN trade. See Commerce

FOREIGN trade zones. See Free ports and zones

FOREIGN visitors
Foreign visitors; list by countries. Published in Foreign commerce weekly
Round trip for ideas; State department's foreign exchange-visitor program. Chem W 73:15 Ag 15 '53
Wining and winning. Economist 169:949-50 D 26 '53

FOREMEN
Cost control facts for the foreman. B. R. Powell and F. J. Mancheski. N A C A Bul 34:1170-9 My '53
Cost reduction; a job for the foreman; abstract. G. S. Odiorne. Management R 42:710 D '53
Foreman and middle management. Advanced Management 18:14-17 Je '53
Foreman, the worker and human relations. D. F. Tver. Pet Refiner 32:190-1+ Ag '53
Foreman, your best answer to grievances. D. J. Wood. Mill & Factory 54:94-7 Je '54
Foremen; industry's country doctor. K. M. Bennett. Iron Age 172:43 O 1 '53
Foremen, key to worker morale. A. N. Turner. Harvard Bsns R 32:76-86 Ja '54
Foremen; what makes them happy? why foremen like, don't like their jobs, better communications improve work satisfaction. K. W. Bennett. Iron Age 172:78 D 10 '53
Foremen's problems and how to solve them. A. C. Croft. Foundry 81:118-19+ D '53
Getting the foreman's slant on labor relations; abstract. Management R 43:224-5 Ap '54
Helping the foreman control costs. R. E. Stockmeyer. N A C A Bul 35:751-65 F '54
How foremen feel. Bsns W p67 D 12 '53
How to talk to foremen, if you dare; Solar Aircraft. Factory Management 111:90-1 D '53
Increasing foreman effectiveness with management reports; abstract. D. C. Suhr. Management R 42:153-4 Mr '53
Making better foremen. Bus Transportation 33:37 Je; 49 Jl '54
Management must decide; will its foremen join the team or must they unionize? Advanced Management 18:8-10 S '53
National survey shows broad range in foremen's pay and duties. Iron & Steel Eng 30: 120 My '53; Same abr. Management R 42: 513-14 S '53
Place of the foreman in industry. H. G. Westlake. Chem & Ind p355-61 Mr 27 '54
Problems of the man with two countries. Bsns W p 112-14 N 14 '53
Speaking in public. Coal Age 59:110+ S '54
Survey of a growing problem; foreman-management relations. E. B. Lindsay. Advanced Management 19:25-8 S '54
Trends in personnel and compensation practices for foremen. J. G. Piccoli. Personnel 30:324-30 Ja '54
What a foreman expects of a safety program. E. D. Hargis. Tappi 37:sup222A-3A Je '54
Which do you need, working or thinking foremen? E. Fry. Foundry 82:216+ S '54
Your key to good plant discipline; the foremen. A. C. Croft. Steel 133:49-51 Ag 24 '53
See also
National association of foremen
Supervisory workers

Selection

How a General Motors plant gets top-notch foremen from scratch. H. T. Brian. Factory Management 112:134-6 Ap '54

Training

Advantages of forced leadership training. E. E. Jennings. Personnel J 32:7-9 My '53
Here's practical management training by proved methods; National association of foremen. I. C. Miller. Food Eng 26:94-6+ Ag '54
How a General Motors plant gets top-notch foremen from scratch. H. T. Brian. Factory Management 112:134-6 Ap '54
How to get foreman training going fast. B. Mason. il Factory Management 112:92-3 Ja '54
Resistance to training; foreman training program. J. R. Surface. Harvard Bsns R 32: 73-8 Mr '54
Unanticipated results of a foreman training program. W. H. Form and A. L. Form. Personnel J 32:207-12 N '53

FOREMEN, National association of. See National association of foremen

FOREST conservation
See also
Forest fires

FOREST experiment stations. See Forestry research

FOREST fires
Alerting the public on forestry protection. Pulp & Pa of Can 55:188 Ap '54
Aluminum tubing helps fire fighters. Pulp & Pa of Can 55:184 S '54
Back firing as a means of fire suppression. W. E. Land. il Pulp & Pa of Can 55:192+ S '54
Determining burned area by aerial mapping. A. M. Williams, jr. Pulp & Pa of Can 54:156+ D '53
Feeding of men on the fire line. E. L. Howie. Pulp & Pa of Can 55:84+ F '54
Fire behaviour and fire fighting tactics. G. D. MacAdam. Pulp & Pa of Can 55:209-10 S '54
Forest fire fighting equipment. E. L. Howie. il plan Pulp & Pa of Can 55:154+ S '54
Forest fire fighting twenty-four hours a day. W. Eden. Pulp & Pa of Can 55:212 S '54
Forest fire prevention. O. K. Welsh. Pulp & Pa of Can 55:204-6+ S '54
Forest fire prevention and public education. W. F. Myring. il Pulp & Pa of Can 55:173+ S '54
Forest fire prevention campaign. T. S. Jones. Pulp & Pa of Can 55:153 S '54
How to fight a forest fire. G. A. Kingston. Pulp & Pa of Can 55:178+ S '54
Let the public know your story. R. Black. Pulp & Pa of Can 55:152 S '54
Mando stands ready to battle forest fires. Pulp & Pa of Can 55:234 S '54
Ontario readies forest fire fighting forces. Pulp & Pa of Can 55:180 My '54
Ontario uses helicopters to aid in forest fire fighting and protection. il Pulp & Pa of Can 55:164+ S '54
Put out that cigarette. E. C. Wood. Pulp & Pa of Can 55:198+ S '54
Rainfall stimulation for forest fire prevention and control. C. S. Wetterer. Pulp & Pa of Can 55:166+ Je '54
Study of power saw fires. D. D. Robinson. Pulp & Pa of Can 55:129-30+ Ja '54
Weather forecasts in camps. L. Affleck. Pulp & Pa of Can 55:168+ S '54
Who are our fire fighters. G. A. Kingston. Pulp & Pa of Can 55:158+ Ap '54

FOREST management
British Columbia's timber policy and its relationship to the pulp and paper industry. J. T. B. Kingston. Pulp & Pa of Can 55: 90-3+ Jl '54
Factors affecting the size of a sustained yield management unit; panel discussion. Pulp & Pa of Can 55:140-2+ Jl '54
Field meeting on private land forest management, July 21-23. Pulp & Pa of Can 55:124-6+ Ag '54
Industry's forestry work zooms in seven years. Paper Tr J 138:14 Jl 2 '54
Management of spruce on the east slope of the Canadian Rockies. L. A. Degrace. Pulp & Pa of Can 55:178+ Je '54
Possibilities for improving per acre and per cord pulp yields by applying genetic principles and known management practices; abstract. H. L. Mitchell. Paper Ind 36:386 Jl '54
Pulp and paper company's approach to extension forestry; with particular reference to tree farms and farm woodlots. J. F. Walker. bibliog Pulp & Pa of Can 55:120+ Ja '54
Revested Oregon and California railroad grant lands, a problem in land management. W. C. Ballaine. bibliog map Land Econ 29: 219-32 Ag '53

FOREST management—*Continued*

Today's challenge to woods operators. J. H. Merrill. Pulp & Pa of Can 55:167+ My '54

University of New Brunswick forest. J. M. Gibson. Pulp & Pa of Can 54:180+ O '53

FOREST products

Georgia story. il Manuf Rec 123:67-9 My '54

Texas story. il Manuf Rec 122:91-2 N '53

See also

Gums and resins

Lumber

Wood

Wood pulp

Wood waste

Dictionaries

Wood industries dictionary. N. C. Brown, ed. 42p pa $1.50 Vance pub. corp, Chicago 2 '53

FOREST products research

See also

Wood research

FOREST roads

Economics of crushed gravel for use on bush roads. G. E. Cross. il Pulp & Pa of Can 55:120 Mr '54

Waterways and roads. J. B. Springer. Pulp & Pa of Can 55:149+ Jl '54

FOREST taxation

Maine forest tax. Tappi 37:sup86A+ F '54

New Hampshire forest tax. Tappi 36:sup96A N '53

FORESTERS

Foresters have both opportunities and obligations. C. W. Walker. Pulp & Pa of Can 55:146+ Ag '54

FORESTRY research

Federal forestry branch research policy and program. Pulp & Pa of Can 55:158+ Ag '54

Forest biology laboratory Fredericton, N.B. Canada. il map Pulp & Pa of Can 55:76-8+ F '54

Forestry research by a Canadian pulp and paper company; Canadian international paper co. L. S. Webb. Pulp & Pa of Can 54:174+ N '53

History and description of the Acadia forest experiment station. I. C. M. Place and C. C. Thomson. Pulp & Pa of Can 54:158+ N '53

Opportunities for strengthening forestry research and education. G. W. E. Nicholson. Pulp & Pa of Can 55:130+ Mr '54; Same. Tappi 37:sup24A+ Ap '54

Research in tree improvement at Lake City. K. B. Pomeroy. bibliog Tappi 36:sup 147A-50A N '53

Union bag and paper corporation, Woodlands division. Tappi 37:sup 119A-20A S '54

FORESTRY schools and education

New study centre in woodlot management. W. H. Brittain. il Pulp & Pa of Can 55:155-6 Ag '54

Northwest watersheds; forestry and logging. A. E. Thompson. il Am Water Works Assn J 46:733-9 Ag '54

Opportunities for strengthening forestry research and education. G. W. E. Nicholson. Pulp & Pa of Can 55:136+ Mr '54; Same. Tappi 37:sup28A+ Ap '54

Union Bag's educational program in forestry. G. W. E. Nicholson. Paper Ind 36:389-90 Jl '54

FORESTS and forestry

Canadian pulp and paper association Woodland section silvicultural field meeting, Fredericton, N.B. Aug. 26-28. Pulp & Pa of Can 54:144-6+ N '53

Factors affecting the size of a sustained yield management unit; panel discussion. Pulp & Pa of Can 55:140-2+ Jl '54

Forestry branch yield studies. G. H. D. Bedell. Pulp & Pa of Can 55:162+ Ap '54

Life on a timber cruise. W. G. Carey. Pulp & Pa of Can 55:172+ My '54

Use of helicopters in woods operations. G. A. Rotherham. Pulp & Pa of Can 55:147+ Je '54

See also

Forest fires

Foresters

Lumbering

Tree planting

Woodlots

Study and teaching

See Forestry schools and education

Alaska

Alaska's governor is newsprint booster. Ed & Pub 86:8 Mr 28 '53

Alberta

Alberta to build seven more forestry towers. Pulp & Pa of Can 55:197 S '54

British Columbia

British Columbia's timber policy and its relationship to the pulp and paper industry. J. T. B. Kingston. Pulp & Pa of Can 55:90-3+ Jl '54

Finland

Aerial forest sowing in Finland; abstract. Pulp of Pa of Can 55:164 Je '54

Finland forest products, 1953. Tappi 37:sup 116A-17A My '54

Georgia

Georgia story; forest products. il Manuf Rec 123:67-9 My '54

Great Britain

Forester's handbook. H. L. Edlin. 395p $7 John de Graff, 64 W. 23d st, New York 10 '53

Maine

Maine forest tax. Tappi 37:sup86A+ F '54

Maine industry shows off its timber. B. Otis. il Paper Tr J 138:23-5 O 1 '54

New Brunswick

Battle against the budworm. map Pulp & Pa of Can 55:177 Je '54

New Brunswick spraying no longer experimental; target, 1,000,000 acres. Paper Ind 36:179 My '54

North Carolina

North Carolina story; forestry. il Manuf Rec 123:99 Ja '54

Ontario

Forest management plan proposed for Ontario. Pulp & Pa of Can 55:155 My '54

Forest regeneration in Ontario. R. C. Hosie. Pulp & Pa of Can 55:139-40 Ja '54

Quebec (province)

Quebec's pulpwood resources. P. E. Lachance. bibliog(60 ref) maps Pulp & Pa of Can (Convention no) 55:276-8+ [F] '54

Texas

Texas story; forest products. il Manuf Rec 122:91-2 N '53

United States

Forest ownership and appraisal. Tappi 37:sup 102A+ Je '54

Make public forest resources contribute to national economy; abstract. W. D. Hagenstein. Paper Tr J 138:66 F 26 '54

U.S. forestry program. O. Lewis. Tappi 37:sup98A+ Ap '54

FORESTS and forestry, Mine

Research boosts timber yield; New River & Pocahontas consolidated coal co. B. Rhodes. il Coal Age 59:83 My '54

FORGE shops

Equipment

New hammer forge at Steel, Peech, & Tozer. Metallurgia 48:240 N '53

See also

Furnaces, Forging

FORGERY

See also

Checks, Fraudulent

FORGING

Aluminum cold forgings. R. A. Quadt. il Machine Design 26:156-60 Je '54

Aluminum; steel press forges huge 24S ingots in experiments. il Iron Age 174:56 Jl 8 '54

Beryllium requires special rolling and forging methods. S. M. Bishop. il Am Mach 98:207-8 Ap 12 '54

Big ingots tested for heavy press program. il Materials & Methods 40:226+ S '54

Case for cold heading. D. H. Samuelson. il diags Steel 135:110-11 Jl 12 '54

Cold heading. F. C. Boyd. il diags Machine Design 26:187-90 My '54

Design considerations associated with large aluminum forgings. C. W. Andrews. diags Mech Eng 75:777-84 O '53; Same cond. Machine Design 25:334+ O '53; Excerpts. Automotive Ind 109:32-3 Ag 15 '53; Discussion. Mech Eng 76:289-91 Mr '54

FORGING—*Continued*

Drop forging. R. H. Eshelman. il diags Tool Eng 32:73-82 Ja '54

Drop forging huge titanium aircraft propellers; Ladish co. il Light Metal Age 11:10 O '53

Forging review and forecast. bibliog il Iron Age 173:338-9 Ja 7 '54

Forging titanium; a prescripton for production headaches. J. J. Russ. il Steel 135:100-1 Ag 16 '54

Forging twists and tricks; report of panel on forging. H. Winkleman. il S A E J 62:27-8 Mr '54

Get the most out of cold heading. H. C. Weidner, jr. il diags Steel 134:74-5 Ja 11 '54

Giant aluminum ingots pass forge test. W. S. Peterson and J. J. Wegner. il diags Steel 134:138-9 Je 14 '54

Hot forging and rolling of iron castings. C. R. Austin. il Foundry 82:86-9+ Jl '54

Improved forging methods save steel, raise shell output; Oliver corp. South Bend works. W. G. Patton. il diags Iron Age 173:145-8 Ap 8 '54

Large-forging-press operations and production problems. G. W. Motherwell and others. il diags A S M E Trans 75:1519-23; Discussion. 1539-40 N '53

Light-alloy forging; design and production problems. A. E. Favre. diags Mech Eng 75:693-7+ S '53; Same abr. Aviation W 59:28-30+ S 14 '53; Same cond. Automotive Ind 110:52-6+ Mr 1 '54; Same cond. Light Metal Age 11:12-14 Ag '53; Excerpts. Steel 133:88-9 O 19 '53; Discussion. Mech Eng 76:104-6 Ja '54

Minimizing cost of forgings requires right combination of men, materials, machines; report of panel on forgings. H. Kilborn and R. T. Herdegen, jr. S A E J 62:50-1 Je '54

Modern forging practice. Blast F & Steel Pl 42:sup52 Ap '54

Press forging. R. H. Eshelman. il diags Tool Eng 32:77-86 Mr '54

Production of large forgings and castings. Tool Eng 32:265-8 Ap '54

Production problems on supersonic planes. A. Ashburn. il Am Mach 98:139-41 Jl 5 '54

Technical progress; forming. il Steel 134:356-7+ Ja 4 '54

Titanium; developments in forging methods. G. T. Fraser. il Light Metal Age 11:14+ Je '53

Trends in forging. R. G. Friedman. il Tool Eng 33:145-7 Ag '54; Abstract. S A E J 62:68-9 S '54

Ultrasonic testing lowers forging production costs; Allis-Chalmers mfg. co. R. N. Hafemeister. il Iron Age 173:117-20 My 13 '54

See also
Forge shops

FORGING furnaces. See Furnaces, Forging

FORGING machinery

Alcoa installing presses. Steel 135:101 S 13 '54

Cold forging of components from wire and strip; Henry Squire & sons, ltd. il Engineering 177:24-5 Ja 1 '54

De Roll precision forging machine. il Automobile Eng 43:480-1 N '53

Design and construction of large forging and extrusion presses for light metals. M. D. Stone. bibliog il diags A S M E Trans 75:1493-512; Discussion. 1534-6 N '53

Heavy press facts. il diags Product Eng 24:227-9 Je '53

Heavy presses near completion. A. H. Allen. il Metal Prog 66:81-5 Jl 1 '54

Heavy presses; program shows promise for light alloy forging industry. il Iron Age 172:164-6 Ag 13 '53

Hydraulic problems of large forging presses; abstract. E. V. Crane and W. R. Jackson. Automotive Ind 109:54-5 N 1 '53

National Machinery million pound machine to produce aircraft forgings. il Iron Age 173:171 Mr 11 '54

Press forging. R. H. Eshelman. il diags Tool Eng 32:77-86 Mr '54

Progress report on heavy presses. R. M. Stroupe. Iron Age 173:95 Mr 4 '54

Symposium on heavy presses for light-metal forgings and extrusions. bibliog il diags A S M E Trans 75:1481-533; Discussion. 1534-42 N '53

Tool engineers extend usefulness of heavy press; Pastushin aviation corp. il Iron Age 173:175-6 My 6 '54; Steel 134:123-4 Je 28 '54

Two giants for tool up; hydraulic forging press and planer add important muscle to Luken's fabricating shop. il Steel 133:102 Ag 3 '53

USSR induction forges. Am Mach 98:130 Ag 30 '54

See also
Steam hammers

Manufacture

Pick-a-back tooling machines forgings for giant press; Bethlehem steel co.; illustrations with text. W. M. Stocker, jr. Am Mach 98:117-21 Jl 19 '54

FORGINGS

Case of the yet-to-be-made large aircraft forging; based on papers by A. E. Favre and C. W. Andrews. S A E J 61:46-8 D '53

Forum answers heavy press questions. il diags Aviation W 58:28-32 Je 29 '53

Pickup in drop forgings coming. il Steel 135:32-3 Jl 5 '54

Requirements for large light-metal forgings and extrusions in the aircraft industry. G. W. Papen. bibliog il plan diags Aeronautical Eng R 12:24-33 Ja '53; Same. A S M E Trans 75:1483-91 N '53; Excerpts. Automotive Ind 108:41-4 Ja 15 '53

See also
Steel forgings

Testing

Preparation of miniature tensile test specimens. R. J. M. Payne. diags Metallurgia 48:315 D '53

Sonic measurement and control. il Steel 135:92 Ag 2 '54

FORMALDEHYDE

Action of hydrogen sulphide on certain aromatic amines in the presence of formaldehyde. D. Collins and J. Graymore. Chem Soc J p4089-90 D '53

Alkaline-catalyzed reaction of formaldehyde and the methylols of phenol; a kinetic study. J. H. Freeman and C. W. Lewis. bibliog Am Chem Soc J 76:2080-7 Ap 20 '54

Condensation of hydroxyaromatic compounds with formaldehyde and primary aromatic amines. W. J. Burke, K. C. Murdock and G. Ec. bibliog Am Chem Soc J 76:1677-9 Mr 20 '54

Condensation of thiophenols with secondary amines and formaldehyde. G. F. Grillot and others. bibliog Am Chem Soc J 76:3969-71 Ag 5 '54

2,3-Dihydro-1H-imidazo[1.5-a] pyrroles; condensation of pyrroles and formaldehyde and primary amines. W. J. Burke and G. N. Hammer. bibliog Am Chem Soc J 76:1294-6 Mr 5 '54

Formaldehyde. T. R. Aalto. Chem & Eng N 32:1398-401 Ap 5 '54

Formaldehyde condensations with phenol and its homologues; dinuclear monoalcohols. S. R. Finn, J. W. James and C. J. S. Standen. J Ap Chem 4:296-300 Je '54

Formaldehyde condensations with phenol and its homologues; trinuclear novolaks. S. R. Finn, J. W. James and C. J. S. Standen. bibliog J Ap Chem 4:497-506 S '54

Formaldehyde method for disinfecting industrial rooms. V. R. Croswell. Ind & Eng Chem 46:sup 103A-4A S '54

Formation of formaldehyde in the photo-oxidation of acetone. M. I. Christie. bibliog Am Chem Soc J 76:1979-81 Ap 5 '54

Melamine-formaldehyde molded plastics; properties, etc.; engineering file facts. Materials & Methods 38:139, 141 N '53

New Canadian plant produces formaldehyde, pentaerythritol. il Chem & Eng N 31:4096+ O 5 '53

Optimistic over plastics; St Maurice chemicals, ltd. il Chem W 73:27-8 O 3 '53

Phenol-, urea-, and melamine-formaldehyde plastics. P. O. Powers. bibliog(52 ref) Ind & Eng Chem 45:1063-6 My '53

Polymerization in melamine-formaldehyde molded resins. H. P. Wohnsiedler. bibliog Ind & Eng Chem 45:2307-11 O '53

FORMALDEHYDE—*Continued*

Production of formaldehyde during the oxidation of carbohydrates with periodate. J. F. O'Dea. bibliog Chem & Ind p 1338-9 D 12 '53

Reaction of triphenylsilylpotassium with formaldehyde. H. Gilman and T. C. Wu. bibliog Am Chem Soc J 76:2502 My 5 '54

Reactions between trimethylethylene and formaldehyde catalysed by stannic chloride. L. E. Addy and J. W. Baker. Chem Soc J p4111-13 D '53

Reactions of dinitriles and their derivatives with formaldehyde. H. Feuer and S. M. Pier. bibliog Am Chem Soc J 76:105-7 Ja 5 '54

Reactions of thiols and thioethers; an analogue of the Mannich reaction involving thiols, formaldehyde, and active methylene or methylidyne compounds. F. Poppelsdorf and S. J. Holt. Chem Soc J p 1124-30 Mr '54

Revival of formaldehyde-treated bacteria. T. Nash and A. Hirch. bibliog J Ap Chem 4:458-63 Ag '54

Some derived relations between viscosity and percentage of solvent in phenol-formaldehyde reaction mixtures. K. B. Goldblum. J Ap Chem 4:19-21 Ja '54

See also
Paraformaldehyde

Analysis

Determination of mole ratio of urea to formaldehyde. P. P. Grad and R. J. Dunn. bibliog diag Anal Chem 25:1211-14 Ag '53

Rapid determination of free formaldehyde in phenol-formaldehyde syrups. J. Haslam and W. W. Soppet. J Ap Chem 3:328-9 Jl '53

Manufacture

Formaldehyde and acetaldehyde. diag Pet Refiner 32:120-1 N '53

Reserves to spare; U.S. formaldehyde lineup. Chem W 73:26 N 7 '53

Thermodynamics of formaldehyde manufacture from methanol. E. Jones and G. G. Fowlie. bibliog J Ap Chem 3:206-13 My '53

Spectrum

Infrared and Raman spectra of formaldehyde-d_1 vapor. D. W. Davidson and others. bibliog J Chem Phys 22:289-94 F '54

FORMALDEHYDE bisulfite

Determination of formic acid in presence of formaldehyde bisulfite. L. Ahlén and O. Samuelson. bibliog Anal Chem 25:1263-4 Ag '53

FORMALDEHYDE sulfoxylate. See Sodium formaldehyde sulfoxylate

FORMALL process. See Sheet metal work

FORMAMIDE

Conversion of formamides into formamidines. H. G. Mandel and A. J. Hill. bibliog Am Chem Soc J 76:3978-82 Ag 5 '54

Influence of formamide on the bactericidal action of selected chemical compounds. E. A. Cooper and A. E. Goddard. J Ap Chem 4:107-9 Mr '54

Polarographic studies in non-aqueous media; formamide. H. Letaw, jr. and A. H. Gropp. bibliog J Phys Chem 57:964-5 D '53

Polarographic studies in non-aqueous media; formamide-acetamide mixtures. J. H. Hook, H. Letaw, jr. and A. H. Gropp. bibliog J Phys Chem 58:81-3 Ja '54

FORMAMIDINE

Conversion of formamides into formamidines. H. G. Mandel and A. J. Hill. bibliog Am Chem Soc J 76:3978-82 Ag 5 '54

FORMATES

Incorporation of isotopic formate into the thymine of bone marrow deoxyribonucleic acid in vitro. J. R. Totter. Am Chem Soc J 76:2196-7 Ap 20 '54

FORMATION, Heat of. See Thermochemistry

FORMAZANS

Oxidation of formazans to tetrazolium chlorides with t-butyl hypochlorite. F. R. Benson, E. A. Otten and R. E. Schachat. bibliog Am Chem Soc J 76:1695 Mr 20 '54

Polynitrogen systems from hydrazinocarbonic acids; diformazans. F. L. Scott, D. A. O'Sullivan and J. Reilly. bibliog Am Chem Soc J 75:5309-12 N 5 '53

FORMAZYL compounds

Colorimetric determination of zinc and copper with 2-carboxy-2′-hydroxy-5′-sulfoformazylbenzene. R. M. Rush and J. H. Yoe. bibliog Anal Chem 26:1345-7 Ag '54

FORMIC acid

Addition of formic acid to olefinic compounds; monoölefinic compounds. H. B. Knight, R. E. Koos and D. Swern. bibliog Am Chem Soc J 75:6212-15 D 20 '53

Dimerisation of 1-methyl*cyclo*hexene by formic or acetic acid containing perchloric acid. G. F. Bloomfield. Chem Soc J p3329-30 O '53

Distribution of formic acid between water and methyl isobutyl ketone. H. J. Vogt and C. J. Geankoplis. Ind & Eng Chem 45:2119-20 S '53

Esterification of carbohydrates with formic acid. B. L. Browning and L. O. Sell. bibliog Textile Res J 23:939-41 D '53

γ-ray-induced oxidation of aqueous formic acid-oxygen solutions; effect of pH. E. J. Hart. bibliog Am Chem Soc J 76:4198-201 Ag 20 '54

Imports flow, formic makers frown. map Chem W 74:89-90+ Ja 23 '54

Kinetics of oxidation by nitrous acid and nitric acid; oxidation of formic acid by nitrous acid. J. V. L. Longstaff and K. Singer. diag Chem Soc J p2604-10 Jl '54

Kinetics of oxidation by nitrous acid and nitric acid; oxidation of formic acid in aqueous nitric acid. J. V. L. Longstaff and K. Singer. diag Chem Soc J p2610-17 Jl '54

Reaction of cycloheptene oxide with formic acid. A. C. Cope and W. N. Baxter. Am Chem Soc J 76:279-80 Ja 5 '54

Reduction of acids to aldehydes with formic acid. A. J. Barduhn and K. A. Kobe. Chem Soc J p 1651 My '54

Sorption of formic acid by various celluloses; abstract. G. I. Borgin and others. Paper Ind 35:1048 D '53

Specific effect of formate ion on the reversible acid denaturation of horse ferrihemoglobin. E. M. Zaiser and J. Steinhardt. bibliog Am Chem Soc J 76:1788-91 Ap 5 '54

Structure of the monomer of formic acid. I. L. Karle and J. Karle. bibliog J Chem Phys 22:43-5 Ja '54

Analysis

Determination of formic acid by oxidation with lead tetraacetate. A. S. Perlin. bibliog Anal Chem 26:1053-4 Je '54

Determination of formic acid in presence of formaldehyde bisulfite. L. Ahlén and O. Samuelson. bibliog Anal Chem 25:1263-4 Ag '53

FORMING tools

Compensated angles add life to complicated form tools. R. G. Vare. diags Am Mach 98:215 Ap 12 '54

Firth Brown surfacing and forming tools; combined plane and file. il Engineering 177:86 Ja 15 '54

Form tool drills dozen 0.013-in. holes. G. W. Roderick. diags Am Mach 98:145 Jl 19 '54

FORMONONETIN. See Isoflavone

FORMOSA

Forgotten Formosa. Economist 168:617 S 5 '53

Formosa, the island fortress. map Economist 168:578-9 Ag 29 '53

Future of Chiang Kai-shek. Economist 170:226 Ja 23 '54

See also
Petroleum—Formosa

Economic conditions

Economic conditions abroad. For Comm W 51:3+ F 1 '54

FORMOSUL. See Sodium formaldehyde sulfoxylate

FORMS and blanks, Business

Cutting records costs; a new method; abstract. R. E. Weil. Management R 42:389-90 Jl '53

Equipment selection forms for heating, ventilating and air conditioning design. J. W. Habjan. il Heat & Ven 51:95-7 S; 90-2 O '54

How to speed processing of forms. R. Neumaier. il Am Bsns 24:28-30 Ja '54

FORMS and blanks, Business—*Continued*
Inventory your paper-work problem; abstract. F. M. Knox. Management R 42:148-9 Mr '53
Let's not be victims of paperwork! J. Balla. Factory Management 112:256+ S '54
Manufacture of business forms. B. J. Staneslow. il Paper Tr J 137:212-19 N 13 '53
Paperwork can be controlled! abstract B. S. Graham. Management R 43:96-8 F '54
Paper work claims as many U.S. workers as agriculture. Bsns W p79-80 O 3 '53
Paperwork cut in handling orders; Snap-on tools corp. C. S. Childress. il Am Bsns 24:30+ Je '54
Paperwork drive nets savings; Cleveland Electric work-simplification drive. L. Stemp. il Am Bsns 24:12-13+ Ja '54
Parade of papers. W. H. Conant. il Am Bsns 23:14-15+ N '53
Ten ways to save copying. H. L. Wylie. Am Bsns 24:18-19 Mr '54
These three forms provide simple maintenance control for the small plant. S. J. Burwell. Factory Management 112:90-2 Jl '54
Types three forms at same time; Copy-Typist unit. il Am Bsns 24:22 F '54
Watch out for bootleg forms! L. H. Matthies. Management R 43:369-70 Je '54
See also
Railroads—Forms and blanks

Standards

Can sales contracts be standardized? R. L. Fraser. il Dun's R & Mod Ind 62:67-9+ O '53

FORMULA floor products, inc.
Formula floor products, inc. il Soap & Chem Spec 30:46-8+ S '54

FORMVAR
Manufacture, properties, and uses of polyvinyl formal. A. F. Fitzhugh and others. bibliog(28 ref) flow sheet Electrochem Soc J 100:351-5 Ag '53

FORMYLATION
Formylation cofactor. G. R. Greenberg. Am Chem Soc J 76:1458-9 Mr 5 '54
Influence of hydrogen and carbon monoxide partial pressures on the rate of the hydroformylation reaction. G. Natta and others. Am Chem Soc J 76:4049-50 Ag 5 '54

FORT MONMOUTH, New Jersey
Scientists blast Monmouth probe. Chem & Eng N 32:1892+ My 10 '54

FORUMS, Open
Bank forums for women; survey of their extent, methods, and results. G. N. Gildersleeve. il Banking 46:64-7 F '54
Problems of an industry in transition; American paper and pulp association's open forum. Paper Ind 35:1308 Mr '54
Staging a big-scale women's finance forum. G. W. Sears. il Burroughs Clearing House 37:36-7+ Ag '53

FORWARDING companies
See also
River forwarders inc.

FOSBOND. See Phosphate coating

FOSSILS. See Paleontology

FOTOSETTER. See Phototypesetting machines

FOULING organisms
Mitigation of marine fouling by anaerobic treatment. H. T. Duplice and R. C. Alexander. il A S M E Trans 76:241-3 F '54

FOUNDATION soils
Foundation exploration for the Denver coliseum. R. B. Peck. il diags Am Soc C E Proc 79 [no 326]:1-14 N '53
Foundations for a paper mill; sand needn't be treacherous; compaction by vibration. A. Mystkowski. il Eng N 151:35-6 Jl 2 '53
Photoelastic analogy for non-homogeneous foundations. A. J. Curtis and F. E. Richart, jr. il diags Am Soc C E Proc 79 [no 211]:1-35 Jl '53
Site dewatering wells stay put to control uplift; TVA's big Shawnee steam plant. il Eng N 152:36-7+ Ap 1 '54
Unusual foundation conditions encountered on the central and southern Florida project. P. H. Shea. map diags Am Soc C E Proc 79 [no 227]:1-12 Jl '53
See also
Roads—Subgrades
Soil mechanics

Testing

Building foundations in San Francisco. C. H. Lee. map plans Am Soc C E Proc 79 [no 325]:1-32 N '53
Estimating the true consolidation behavior of clay from laboratory test results. J. H. Schmertmann. bibliog diags Am Soc C E Proc 79 [no311]:1-26 O '53
Load tests of soils in the Miami area. J. C. Jureit. diag Am Soc C E Proc 79 [no 215]:1-9 Jl '53

FOUNDATIONS
Bending of a constrained circular beam resting on an elastic foundation. E. Volterra and R. Chung. bibliog diags Am Soc C E Proc 79 [no 205]:1-13 Jl '53
Consolidated sand foundations. il diag Arch Forum 100:168 Mr '54
Design of continuous foundation still demands engineering judgment. T. H. Dale, jr. diag Civil Eng 24:245-7 Ap '54
Foundation design for iron and steel plants. G. S. Richardson. diag Iron & Steel Eng 31:73-6; Discussion. 76-7 Ap '54
Granby pumping plant foundations and design. W. R. Judd and W. H. Wolf. il maps plans diags Am Soc C E Proc 79 [no 269]:1-24 S '53
Soil cement used to stabilize ore hopper foundation. il diag Eng & Min J 154:99-100 D '53
See also
Basementless construction
Bridges—Foundations and piers
Caissons
Cofferdams
Concrete piling
Footings, Concrete
Foundation soils
Machinery—Foundations
Piles and pile driving
Roads—Foundations

FOUNDATIONS, Charitable and educational
Foundations and the community trust. E. L. Ryerson. Trusts & Estates 92:665 S '53
See also
Atkinson charitable foundation
Guggenheim, John Simon, memorial foundation

FOUNDATIONS, Industrial. See Industrial foundations

FOUNDATIONS, Subaqueous
See also
Bridges—Foundations and piers

FOUNDING. See Aluminum founding; Brass founding; Bronze founding; Foundry practice; Iron founding; Magnesium founding

FOUNDRIES
Big, the word for General Steel Castings. il Ry Age 136:60-3 F 22 '54
Foundries; business picks up but volume will be ten per cent lower than '53. Iron Age 173:63-5 Jl 1 '54
Foundry specializes in close-tolerance castings; AiResearch mfg. co. F. Warga. il Foundry 82:124-7 Ap '54
One-man foundry competes with Brake Shoe plant; John Brown retired employee. il Foundry 82:241-2 Mr '54
Report on the foundry industry. W. G. Gude. Foundry 82:183+ Jl '54
Southern foundry marks 65 years of progress; Ross-Meehan foundries. W. G. Gude. il Foundry 82:90-3+ Ag '54
Turkish foundryman, old and new. H. E. Henderson. il Foundry 82:153-4+ F '54
Will spring end foundry sales slump? Iron Age 173:74-5 Mr 25 '54
See also Foundry dust and other headings beginning Foundry

Accidents

Human side of accident statistics. L. Kaelin. Foundry 82:106-7 F '54

Accounting

See Foundry accounting

Electric equipment

And now the white collar foundry; Precision castparts corp. D. Kearton. il Elec West 111:91 O '53
See also
Electric furnaces, Foundry

FOUNDRIES—*Continued*

Employees

Anthracosilicosis occurring in a foundry employee. L. E. Hamlin. il A M A Archives Ind Hygiene & Occup Med 7:339-51 Ap '53
Dermatitis prevention in the foundry industry. F. Van Atta. il Foundry 82:289+ My '54
Engineer's role in the foundry. B. C. Yearley and others. Foundry 82:98-9+ Ja '54
Fitting the foundry worker to his job; job-placement medical examination program at American Brake shoe co. P. Hirsch. il Foundry 82:124-5+ S '54
Foundries attract, aid students. R. M. Lorz. il Iron Age 173:59 Je 24 '54
Foundries; what they do for workers. Iron Age 173:83 Mr 11 '54
Mobility of molders and coremakers, 1940-1952; study of the work experience, training, and personal characteristics of workers in a skilled occupation. A. Bluestone and S. Swerdloff. U S Bur Labor Statistics Bul 1162:1-105; pa 60c Supt. of doc. '54
NFA surveys labor practices. Foundry 82:222 S '54
Pensions; National foundry association survey. K. W. Bennett. Iron Age 174:76 Ag 19 '54

Equipment and supplies

Accuracy is essential in casting 280 mm artillery shell; Riverside crankshaft division of Auto specialties mfg. co. R. H. Herrmann. il Foundry 82:96-9+ Jl '54
Advanced practices in Italy. A. Oreffice. il plan diag Metal Prog 65:87-8+ Ja '54
Air moves the sand at Allis-Chalmers brass foundry. H. W. Olander. il diag Foundry 82:96-9+ F '54
Aluminum foundry has three strings for its bow; Aluminum match plate corp. E. Bremer. il plan Foundry 81:116-19+ N '53
Assembly-line methods speed output; Pacific chain and manufacturing co. A. Wintle. il Light Metal Age 11:10+ Ag '53
Automatic control of sand moisture; Neenah foundry co. E. F. Ross. il diag Foundry 81:120-3+ N '53
Automatic foundry nears reality; shell molding machines tied in with other modern handling equipment. L. J. Bishop. il plan Steel 133:98-100 Jl 13 '53
Automatic process control; foundry. il diag Iron Age 172:302-4 O 8 '53
Band filing helps reduce foundry costs. H. J. Chamberland. il Foundry 82:108-9 Mr '54
Better handling methods simplify hot metal distribution; McCulloch motors corp. il Iron Age 172:125 O 22 '53
Bimetallic castings achieved by bonding process. V. Delport. il Foundry 82:102-5+ S '54
Blast cleaning on a platter; Florida machine & foundry co. il Steel 135:106 Ag 23 '54
Canadian foundry completes modernization program. il Foundry 82:146+ S '54
Developments in foundry mechanization. R. J. Geitman. il diags Foundry 82:70-5+ Ag '54
Equipment for the small foundry. il diag Foundry 82:164-97 My '54
Foundry; automate for output, morale: Ford's Cleveland foundry. R. M. Lorz. il Iron Age 172:39-40 O 29 '53
Foundry completes new investment casting facilities; Howard foundry co. il Foundry 82:94-7+ Ag '54
Foundry core sand delivered by air; Ford's Cleveland foundry. E. J. Egan, jr. il diag Iron Age 173:97-9 Ja 21 '54
Foundry cuts costs with moderate investment; Union metal mfg. co. il Foundry 82:172-3+ Ap '54
Foundry equipment sales strong. il Steel 133:73 S 7 '53
Foundrymen hear 14 ways to trim grinding wheel costs. K. S. Cowlin. Iron Age 173:80 F 11 '54
Grinding operations in the cleaning room. G. S. Eisaman. il Foundry 82:384+ My '54
Handy clamp holds crucible safely in pouring shank. P. Dwyer. diag Foundry 81:242 N '53
Installation and maintenance of conveyor belting. il diags Foundry 82:86-93+ F '54
Installs modern core baking system; Riverside foundry. il Foundry 81:184 D '53
Inventory of foundry equipment; with tables. Foundry 82:146-63 My '54
Low-cost unit reclaims foundry sand; American foundry & machine co. D. Rosenblatt and B. Thompson. il diag Iron Age 172:122-3 S 24 '53
Magnesium sand foundry produces varied castings; Hills-McCanna co. R. H. Herrmann. il Foundry 82:102-7 Mr '54
Malleable foundry modernizes facilities; Marion malleable iron works. E. Bremer. il plan Foundry 82:108-11+ S '54
Mechanical handling raises foundry's efficiency; Howell foundry co. F. A. Westbrook. il Foundry 82:362+ My '54
Modern Swiss foundry incorporates automatic controls; Escher Wyss ltd. V. Frey. il plan diag Foundry 82:104-9 Ja '54
Modernize your foundry. L. B. Knight. il plans Foundry 82:132-9 My '54
Modernizes ingot mold foundry; U.S. Steel gray iron foundry at Edgar Thomson works. R. M. Love. il Foundry 82:188 Je '54
Molding sand preparation, past and present. A. A. Wickland. Foundry 82:242+ My '54
New die casting plant features melting, handling economies; Mt Vernon die casting corp. G. B. Nyselius. il diag Iron Age 174:108-11 S 2 '54
New foundry; it's mechanized, it's super-clean. il Factory Management 112:76-7 Jl '54
New malleable iron foundry yields better economy, quality; Crane co. G. A. Kelley. flow diag il Foundry 82:170-1 F '54
New processing plant has efficient dust control; Penn-Rillton co. il Foundry 82:164 Ag '54
Non-ferrous centrifugal foundry; Millspaugh, ltd. il Engineer 196:588-9 N 6 '53; Engineering 176:624, 629-30 N 13 '53
Permanent magnet foundry; Carboloy department, General electric co. R. H. Herrmann. il plan Foundry 82:86-91+ Ja '54
Plant equipment; American foundrymen's society annual meeting, Cleveland; abstracts of papers. Foundry 82:168 Jl '54
Pneumatic system handles sand ingredients; General steel castings corp. il diag Foundry 82:200 S '54; Steel 135:89 S 27 '54
Progressive policies feature successful steel foundry; Farrell-Cheek steel co. R. H. Herrmann. il Foundry 82:108-10+ Ap '54
Pushbutton foundry is approached in automatic molding system, malleable iron foundry of Crane co. R. H. Herrmann. il diag Foundry 81:154-6 D '53
Roll maker modernizes foundries; Blaw-Knox co. R. M. Love. il Foundry 82:246+ Mr '54
Small foundry is rebuilt into mechanized operation; Auburn foundry inc. R. H. Herrmann. il Foundry 82:78-83+ Jl '54
Trade names and suppliers of foundry equipment, supplies and services. Foundry 82:165-204 Mr '54
Two-truck fleet; Love brothers foundry. il Steel 134:110 F 22 '54
Versatile setups finish diecastings faster; Tractor works of International harvester co. F. E. Beers. il Iron Age 172:73-5 D 24 '53

See also

Cupola furnaces	Foundry machinery
Electric furnaces, Foundry	Molding machines
Foundry equipment manufacturers' association	Molds (for casting)
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Experimental foundries

General Electric establishes experimental shell mold foundry. il Foundry 82:266 S '54

Layout

Aluminum foundry has three strings for its bow; Aluminum match plate corp. E. Bremer. il plan Foundry 81:116-19+ N '53
Automatic foundry nears reality; shell molding machines tied in with other modern handling equipment. L. J. Bishop. il plan Steel 133:98-100 Jl 13 '53
Permanent magnet foundry; Carboloy department, General electric co. R. H. Herrmann. plan Foundry 82:87 Ja '54

Management

See Foundry management

FOUNDRIES—*Continued*

Models

Models; use by equipment makers drives home selling points; animated model foundry. il Iron Age 173:144-5 Je 10 '54

Safety measures

Design safety in accidents out; Foundry division of Eaton manufacturing co. il Nat Safety N 69:20-3+ Ja '54

How a safety program can operate. N. Miller. Foundry 82:256+ Mr '54

How to promote use of respirators; Richmond radiator co. il Foundry 82:344+ My '54

Industrial safety and health program; United engineering & foundry co. Weekly Underw 170:648 Mr 13 '54

Safety and hygiene; American foundrymen's society annual meeting, Cleveland; abstracts of papers. Foundry 82:140+ Jl '54

Safety is everybody's business; prize-winning papers submitted in contest conducted by Malleable founders' society. L. Kaelin and others. Foundry 82:106-7+ F '54

Safety works, if you work at it! H. A. Forsberg. il Foundry 82:80-3+ Ag '54

What one individual can do to help in a safety program. J. Guglielmino. Foundry 82:258+ Mr '54

Statistics

Foundry statistics. Published in monthly numbers of Foundry

Inventory of foundry equipment with tables. Foundry 82:146-63 My '54

U.S. foundry population hits 5387. Steel 133:72-3 S 7 '53

FOUNDRIES, Portable

Army engineers operate mobile foundry. F. G. Steinebach. il Foundry 81:112-13+ D '53

FOUNDRIES, Ship

Floating foundries. J. E. Bolt and W. H. Baer. il Foundry 82:88-9 Ag '54

FOUNDRY accounting

Alloy gray iron, what does it cost? il Foundry 82:122-3+ Mr '54

Foundry costs; American foundrymen's society annual meeting, Cleveland. Foundry 82:168 Jl '54

Foundry problem; costs for pricing. A. C. Sinnett. N A C A Bul 34:1443-8 Jl '53

FOUNDRY dust

Clean air for foundry; Chicago steel foundry co. il Steel 133:167-8 N 9 '53

Electric steel foundries control dust emissions in Los Angeles area. O. E. Erickson. J Metals 5:1625-6 D '53

New processing plant has efficient dust control; Penn-Rillton co. il Foundry 82:164 Ag '54

X-ray analysis of foundry dusts for quartz and iron in relation to silicosis and siderosis. G. L. Clark and others. bibliog il plan Anal Chem 26:1413-20 S '54

FOUNDRY educational foundation

Annual college-industry conference, 7th, Cleveland, March 10-11. Foundry 82:276+ My '54

FOUNDRY equipment manufacturers' association

Annual meeting, 35th, White Sulphur Springs, Oct. 15-17. Foundry 81:144 D '53

FOUNDRY exhibits

Seen at the foundry show; illustrations. Foundry 82:124-31 Jl; 115+ Ag '54

FOUNDRY laboratories

Time savers in the nonferrous foundry. C. Goldberg. Foundry 82:202+ Ap '54

FOUNDRY ladles

Hydraulic lifting and tilting truck ladle. il Engineer 197:425 Mr 19 '54

Nozzle replacement from outside is safe and efficient method. W. G. McDonough. il diag J Metals 6:443-6 Ap '54

FOUNDRY machinery

Automation for the foundry; Osborn mfg. co. il Bsns W p64+ S 5 '53

Automation in the foundry. W. E. Dougherty. il diag Foundry 82:140-5 My '54

Blowing machine makes shell molds and cores. L. E. Hexamer and G. A. Conger. il Foundry 82:351+ My '54

Core blowing equipment and use. P. Dwyer. diags Foundry 81:203+ D '53; 82:168+ Ja; 220+ F; 237-8 Mr '54

Core blowing in a steel foundry; Atlantic foundry co. K. G. Marshall. il Foundry 82:304+ Mr '54

Core-box venting. diag Engineering 177:341 Mr 12 '54

Design for shell molding. il Steel 134:121 F 22 '54

Foundry; lower core box wear helps cut maintenance costs. Iron Age 173:156-7 Mr 25 '54

Highly mechanized foundry developed around new shell molding machine; Walworth co. il Foundry 82:138+ Mr '54

Mechanizing a small foundry; Indiana brass co. D. Johnson. il diag Foundry 82:212+ Ag '54

Mold blower provides high production rate; John Deere malleable works. R. H. Herrmann. il Foundry 81:190+ N '53

Molding and coremaking; with tables. Foundry 82:148-9 My '54

More and better cores, less spoilage; Roto-Core machine. R. J. Myers. il Steel 133:160-1 S 7 '53

More cores per man-hour with automatic machines; Cadillac foundry. il Automotive Ind 110:72+ Je 1 '54

Shalco Model HO-4 shell-molding machine produces two parts per min. il Am Mach 97:196 D 7 '53; diags Machine Design 25:247 D '53

Shell moulding developments; equipment for core blowing and mould closing. il Metallurgia 50:34-6 Jl '54

Shell moulding machine. il Engineer 196:847 D 25 '53

Shell moulding machine. il Engineering 177:27-8 Ja 1 '54

Shell moulds and cores; Polygram process. il Automobile Eng 44:281-4 Jl '54

See also

Casting machines
Die casting machines
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Maintenance and repair

Maintenance of molding machines and core blowers. G. E. Miller. il Foundry 82:100-1+ F '54

FOUNDRY management

Casting buying vs buying castings. O. P. Ketter. il Foundry 82:102-5+ Je '54

Foundry cuts costs with moderate investment; Union metal mfg. co. il Foundry 82:172-3+ Ap '54

How management can improve human relations; Unitcast corp. J. C. Miske. il Foundry 82:90-1+ Jl '54

Industrial engineering; American foundrymen's society annual meeting, Cleveland; abstracts of papers. Foundry 82:150+ Je '54

Lower foundry costs start with part design. E. W. Moir. il diags Iron Age 173:128-31 Ap 15 '54

Maintenance of molding machines and core blowers. G. E. Miller. il Foundry 82:100-1+ F '54

Modernize your foundry. L. B. Knight. il plans Foundry 82:132-9 My '54

Plan for productive maintenance. J. C. Miske. il Foundry 82:122-3+ S '54

Progressive policies feature successful steel foundry; Farrell-Cheek steel co. R. H. Herrmann. il Foundry 82:108-10+ Ap '54

Which do you need, working or thinking foremen? E. Fry. Foundry 82:216+ S '54

See also

Castings—Cleaning
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Quality control

Close quality control aids in pouring magnesium casting; Rolle mfg. co. il Iron Age 173:150 F 11 '54

Composition control of steel castings improved by new furnace sampling methods. V. E. Belusko. il J Metals 5:1430-2 N '53

Control of quality in the melting and casting of aluminum alloys for working; abstract. R. T. Staples and H. J. Hurst. Metal Prog 65:136+ Ja '54

Controlling metal quality at Ford's Cleveland foundry; illustrations with text. Metal Prog 65:87-9 F '54

FOUNDRY management—Quality control— *Continued*

Foundryman considers quality. E. J. Jory. Foundry 82:112+ F '54

Quality control; spectrometry lab keeps tabs on large scale production; Ford's Cleveland foundry. il Iron Age 172:198-9 S 10 '53

Solving problems in the brass foundry. H. J. Roast. il Foundry 82:106-7+ S; 130-1+ O '54

Spectrographic analysis of foundry metal; Campbell, Wyant & Cannon foundry co. L. E. Harper. il Foundry 82:112-13 S '54

Statistical quality control; Buffalo works of Aluminum co. of America. A. J. Kukla. Foundry 81:120-4+ D '53

Test bars for copper and aluminum base alloy castings. R. A. Colton and D. L. Lavelle. il diags Foundry 82:96-101+ Je; 100-5+ Jl '54

FOUNDRY practice

ABC of foundry practice (cont). P. Dwyer and others. bibliog il diags Foundry 81:287-9 N; 203+ D '53; 82:168+ Ja; 220+ F; 237-8 Mr; 226+ Ap; 384+ My; 220+ Je; 224+ Ag '54

Asbestos-wrapped steel bar solves tricky coring problem. F. J. McCulloch. diag Foundry 82:167 F '54

Aspects of the continuous casting of nonferrous metals. B. H. C. Waters. Metal Prog 64:114+ N '53

Bimetallic castings achieved by bonding process. V. Delport. il Foundry 82:102-5+ S '54

Casting review and forecast. Iron Age 173:334-5 Ja 7 '54

Casting titanium. J. Ham and R. Veneklasen. il diag Foundry 82:94-5 F '54

Close tolerance castings. M. W. Riley. il Materials & Methods 40:121-36 S '54 [reprints 25c]

East Coast regional foundry conference, Philadelphia, March 19-20. Foundry 82:304+ My '54

Foundry; lower core box wear helps cut maintenance costs. Iron Age 173:156-7 Mr 25 '54

Foundry trends; report of foundry panel. J. Stirling. il S A E J 61:23-7 D '53

Gating factors. W. H. Johnson and others. bibliog il diags Foundry 82:102-7+ Ap '54

Heat transfer; American foundrymen's society annual meeting, Cleveland; abstracts of papers. Foundry 82:137-8 Jl '54

How to make a casting when you can't get the core out; Cooper-Bessemer corp. il Foundry 82:155+ S '54

Institute of British foundrymen 50th anniversary jubilee celebration. V. Delport. Foundry 82:180+ Je '54

Metal casting methods. J. B. McIntyre. bibliog il plan diags Metallurgia 47:179-82, 231-6, 292-4; 48:21-6, 63-7, 123-9, 165-8, 241-8, 273-6 Ap-D '53

Michigan regional foundry conference, East Lansing, Oct. 8-9. Foundry 81:162+ D '53

Mounting of loose patterns on squeezer board is simplified. diags Foundry 82:248 Mr '54

New casting techniques; precision castings. L. M. Christensen. Machine Design 26:292+ Ag '54

New England regional foundry conference, 13th, Cambridge, Mass. Oct. 23-24. Foundry 81:220+ D '53

Niagara frontier, regional conference, 1st, Buffalo, Sept. 17-18. Foundry 81:207-8+ N '53

Nitrogen degassing and metal-mold reaction in the production of gun metal castings; abstract. E. C. Mantle. Metal Prog 65:186+ Mr '54

Northwest regional conference, Bremerton, Wash., Oct. 16-17. Foundry 82:162+ Ja '54

Ohio regional foundry conference, 6th, Cincinnati, Sept. 24-25. Foundry 81:272+ N '53

Permanent magnet foundry; Carboloy department, General electric co. R. H. Herrmann. il plan Foundry 82:86-91+ Ja '54

Preliminary survey of some metallurgical bases for a titanium castings industry; abstract. R. F. Malone and others. Metal Prog 66:176+ S '54

Pressure-pouring steel car wheels; new process involves permanent molds machined from graphite. E. Q. Sylvester. il diags Mech Eng 76:152-8 F '54

Production of sound castings by controlled rate of heat transfer; abstract. C. A. Parlanti. Metal Prog 65:126+ F '54

Purdue metal casting conference, 6th, West Lafayette, Ind. Oct. 29-30. Foundry 81:190+ D '53

Recent developments in high-pressure molding. T. Barlow and W. R. Adams. diags Foundry 82:111+ Ap '54

Running and feeding of castings. R. W. Ruddle. bibliog diags Metallurgia 49:159-64 Ap '54

Southeastern regional foundry conference, Chattanooga, Feb. 18-19. Foundry 82:167+ Ap '54

Status of continuous casting at Allegheny Ludlum. W. B. Pierce. il diags Blast F & Steel Pl 41:1301-6 N '53; Same. Steel 133:256-8+ O 12 '53; Abstract. Iron Age 172:147 O 15 '53

Technical progress; casting. il Steel 134:236-8+ Ja 4 '54

Titanium casting experiments. il diags Light Metal Age 12:24+ F '54

Titanium casting process ready for licensing. il Iron Age 172:84 D 31 '53; diag Steel 133:88 D 28 '53

Use of shell cores in casting air-cooled engines. J. L. Schmieder. il Foundry 81:114-17 D '53

Welding copper and copper alloy castings; Wheeling bronze casting co. A. O. Dodge. il Foundry 82:165+ S '54

Wisconsin regional conference, Milwaukee, Feb. 11-12; with abstracts of papers. Foundry 82:153-4+ Ap '54

See also

Aluminum founding
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Bronze founding
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Casting, Centrifugal
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Steel ingots—Molds

Mercast process

Cast difficult parts in mercury pattern molds. D. Von Ludwig. il Iron Age 173:148-50 Je 17 '54

Close tolerance castings; investment castings. M. W. Riley. il Materials & Methods 40:131-4 S '54

Mercury for precision casting; technique employs frozen mercury; mercast method. I. R. Kramer. il Chem & Eng N 32:2002 My 17 '54

Take a close look at investment casting. il Steel 135:104-5 Ag 23 '54

Shell molding

Back-up material for shell molds. W. O. Faxon. flow sheet diag Foundry 81:178+ N '53

Blowing machine makes shell molds and cores. L. E. Hexamer and G. A. Conger. il Foundry 82:351+ My '54

Casting stainless steel in shell molds; Cooper alloy foundry co. H. J. Cooper and M. L. Katz. il Metal Prog 65:102-6 Ap '54

Close tolerance castings; shell mold castings. M. W. Riley. il Materials & Methods 40:130-1 S '54

D process for precision castings; abstract. H. W. Dietert. Metallurgia 50:67-8 Ag '54

Design for shell molding. il Steel 134:121 F 22 '54

Developments with synthetic resins in the foundry. P. G. Pentz. Engineering 177:404-5 Mr 26 '54

Economics of shell molding. L. L. Clark. il Steel 134:120 F 22 '54

Gray iron shell mold castings; International harvester company's truck engine works. K. Rose. il Materials & Methods 40:102-4 Ag '54

Highly mechanized foundry developed around new shell molding machine; Walworth co. il Foundry 82:138+ Mr '54

Improved closing methods cut shell casting costs; Cooper alloy foundry co. M. L. Katz and S. B. Donner il Iron Age 173:113-15 Je 3 '54

International Harvester in commercial production of shell mold castings. il Foundry 82:126+ Ag '54

FOUNDRY practice—Shell molding—*Continued*

Making castings by shell mold and investment processes; abstract. R. R. Dohrman. Metal Prog 65:196+ F '54

More automotive parts by shell molding; International harvester co. J. Geschelin. il Automotive Ind 111:52-4 Ag 1 '54

One company's experience with shell mold castings. T. W. Curry. il Materials & Methods 39:102-4 F '54

Part needs determine best casting method. D. Von Ludwig. il Iron Age 172:128-32 S 3 '53

Planning pays off in new foundry techniques; Indianapolis motor truck div., International Harvester. K. W. Bennett. il Iron Age 174:104-5 Ag 5 '54

Process for precoating sand speeds shell molding; Bakelite co. division of Union carbide and carbon corp. Iron Age 173:222 Je 24 '54; Am Mach 98:172 Jl 19 '54

Sand mixing simplified in shell mold foundry; Midwest foundry co. il Foundry 82:158 S '54

Shell-mold casting of automotive parts; Central foundry division, General motors corp. J. H. Smith. il Mach 60:186-95 N '53

Shell molding brings new foundry era; Walworth co. il diag Iron Age 173:55-7 Ja 28 '54

Shell moulding developments; equipment for core blowing and mould closing. il Metallurgia 50:34-6 Jl '54

Shell moulding machine. il Engineer 196:847 D 25 '53

Shell moulding machine. il Engineering 177:27-8 Ja 1 '54

Shell molding of stainless steel. W. H. Dunn and R. E. Day. il Product Eng 24:129-33 S '53

Shell molding reduces scrap loss. E. J. Clement. il Mill & Factory 54:103-4 Je '54

Shell molding; stainless steel jet engine rings cast in shells. il Iron Age 173:166-7 F 4 '54

Shell moulds and cores; Polygram process. il Automobile Eng 44:281-4 Jl '54

Small foundry switches to shell molding; Wasatch ball foundry, inc. J. C. Jensen. il Iron Age 173:148-50 Mr 18 '54

Student's seller; sales of shell-molding unit developed by Stanford group. Bsns W p80+ D 12 '53

Tricks that make shell molding click; report of panel on foundry operations. il S A E J 62:32-3 Ap '54

Study and teaching

British foundry education. J. B. McIntyre. il plan Foundry 82:92-5 Jl '54

Education; American foundrymen's society annual meeting, Cleveland; abstracts of papers. Foundry 82:148+ Je '54

Foundries attract, aid students. R. M. Lorz. il Iron Age 173:59 Je 24 '54

National foundry college. il Engineering 177:292 Mr 5 '54

National foundry college; at Wolverhampton. il Metallurgia 49:139-40 Mr '54

Robert E. Kennedy scholarship fund established by Chicago chapter, AFS. E. F. Ross. Foundry 82:252+ Mr '54

See also

Foundry educational foundation

FOUNDRY research

British cast iron research association. J. G. Pearce. bibliog il diag Metallurgia 48:175-7 O '53

Foundry research in England. W. S. Pellini. il Foundry 82:112-13+ Mr '54

pH value of molding sands; its effect on casting quality. V. E. Zang and G. J. Grott. il diag Foundry 82:116-19+ Je '54

Stress vs strain in hot tearing. J. B. Caine. bibliog il diags Foundry 82:76-9+ Ag '54

See also

Foundry laboratories

FOUNDRY sand. See Sand, Foundry

FOUNDRY workers. See Foundries—Employees

FOUNTAIN pens

Branch office pay-off; Parker Pen gave Hawaii the status of a branch office. il Sales Management 73:89-92 S 1 '54

Sheaffer fires dealer enthusiasm with three-day training clinics. R. H. Whidden. Sales Management 70:76+ Ap 1 '53

Advertising

New regional advertiser moves toward national distribution; Flo-Ball pens. L. F. Thomann. il Ptr Ink 243:39-40 Ap 24 '53

Rating

Ball-point pens. il Consumers Res Bul 32:24-7 S '53

FOURDRINIER machines. See Paper making machinery

FOURIER'S integrals. See Fourier's series

FOURIER'S series

Computing Fourier syntheses in X-ray crystal structure analysis; improved punched-card method. C. R. Hudgens and A. M. Ross. bibliog Anal Chem 25:734-6 My '53

Dirac delta-function and the summation of Fourier series. M. R. Spiegel. J Ap Phys 23:906-9 Ag '52; Discussion. E. R. Berger. 24:951 Jl '53

Fourier inversion of diffraction data. J. Waser and V. Schomaker. bibliog(50 ref) Rs Mod Phys 25:671-90 Jl '53

Fourier representation of Buerger's image-seeking minimum function. W. J. Taylor. J Ap Phys 24:662-3 My '53

Fourier treatment of optical processes. O. H. Schade. Opt Soc Am J 43:704-5 Ag '53

One-dimensional Fourier analog computer. L. V. Azaroff. bibliog il diags R Sci Instr 25:471-7 My '54

Optics and communication theory. P. Elias. bibliog Opt Soc Am J 43:229-32 Ap '53

Photomechanical wave analyser for Fourier analysis of transient waveforms. J. Darbyshire and M. J. Tucker. J Sci Instr 30:212 Je '53

Summation of Fourier series. J. A. McFadden. J Ap Phys 24:364 Mr '53

See also

Harmonic analyzers

FOVEA. See Retina

FOWLER, Gilbert John, 1868-1953

Sketch. H. E. Watson. Chem Soc J p4191-2 D '53

FRACTIONATION. See Distillation; Separation

FRACTIONATION research, inc.

From common ground. il Chem W 75:44+ Ag 28 '54

FRACTIONATOR. See Distillation apparatus

FRACTURE of glass. See Glass—Fracture

FRAMED structures

Analysis of rigid-jointed plane frameworks; use of an electronic digital computor. R. K. Livesley and T. M. Charlton. diags Engineering 177:239-40 F 19 '54

Collapse load factor for a rigid frame structure. M. R. Horne. bibliog diags Engineering 177:210-12 F 12 '54

Design of frames by relaxation of yield-hinges. J. M. English. diags Am Soc C E Proc 79 [no 322]:1-12 N '53

Design of monolithic concrete frame; prestressed. K. P. Milbradt and T. J. Kofodimos. diags Am Soc C E Proc 79 [no 127]:1-65 Jl '53

Investigation of welded rigid connections for portal frames. A. A. Toprac. bibliog il diags Welding J 33:sup40-56 Ja '54

Isodynamometer. J. Wright. bibliog diags Engineering 176:665-7 N 20 '53

Lateral buckling of I beams under thrust and unequal end moments. M. G. Salvadori. Am Soc C E Proc 79 [no 291]:1-25 O '53

Method for calculating stresses in rigid frame corners. H. C. Olander. diags Am Soc C E Proc 79 [no 249]:1-21 Ag '53

Numerical analysis of continuous frames in space. J. Michalos. diags Am Soc C E Proc 79 [no 261]:1-18 S '53

Numerical analysis of frames with curved girders. J. Michalos. plans diags Am Soc C E Proc 79 [no 250]:1-21 Ag '53

FRAMING (building)

Bolted frame for continuity. il diag Arch Forum 100:162 F '54

Concrete and steel framing combined in wide-open bank building; branch bank of the Manufacturers trust co. W. H. Weiskopf and J. W. Pickworth. il plan diags Civil Eng 24:240-2 Ap '54

FRAMING (building)—*Continued*

Dual-purpose framing; hollow steel box columns and beams double as warm-air heating ducts. diag Arch Forum 99:144 Ag '53

Framing a barn with a mow drive. il Am Bld 75:234-5 Ag '53

How to cut the cost of steel framing. Arch Forum 101:150-1 S '54

How to use roof framing table. diags Am Bld 75:150+ N '53

Is this tomorrow's structure? space-frame enthusiasts marshal many reasons for predicting it is. il diags Arch Forum 98:150-60 F '53

Light steel frame erected at low cost; Fountain-Inn-Simpsonville high school. il Eng N 152:43 Mr 25 '54

Lumber, framing, millwork, plywood, and hardboards, framing and stairs. il diags Am Bld 75:131+ Ap '53

Multistory precast framing. il diags Arch Forum 100:160-4 Ja '54

Prestressed concrete frames characterize U.S. army laundry in Germany. O. W. Steinhardt. il Civil Eng 23:388-9 Je '53

Prestressing comes to structural steel. il diags Arch Forum 101:158-9+ Jl '54

Problems of fabrication and erection in all-welded multi-storey framed buildings. D. C. C. Dixon. diags Engineer 196:749-51 D 4 '53

Rational design for building frames; abstract. J. L. de Stein. Roads & Eng Constr 92:139-40 My '54

Recent applications of welded design to industrial building framings. A. Amirikian and E. G. Odley. il diags Welding J 33:103-7 F '54

Research develops truss frames for 1½-story house. il diags Am Bld 75:40+ My '53

Simplified wall framing methods; with time-saver standards. plans diags Arch Rec 114:179+ D '53; 115:181+ Ja; 215+ Mr '54

Slotted angles bolt together to build utility structures; Flowstrut. il Arch Forum 101:152 Ag '54

Uses for Bailey Bridge equipment. il Engineering 176:601 N 6 '53

Welded rigid frame for store addition. il Arch Forum 100:160 F '54

FRANCE

See also

Airplanes, Military—France
Algerians in France
Electric railroads—France
Hydroelectric plants—France
Insurance, Social—France
Labor laws and legislation—France
Metal workers—France
Petroleum industry and trade—France
Railroads—Electrification—France

Colonies

France and its empire. Economist 168:107+ Jl 11 '53

Labour code for French overseas territories. P. Rivière; P. Devinat. Int Labour R 68:232-55 S '53

No policy for Morocco. Economist 168:493-4 Ag 22 '53

Towards a French commonwealth? Economist 168:85-6 Jl 11 '53

Commerce

France organizes High council for commerce. For Comm W 50:2 O 19 '53

French commodity trade balance unfavorable. For Comm W 50:7 N 23 '53

Defenses

Sword of France; state ownership of arms industries has blunted its edge. Barron's 33:9 D 7 '53

Economic conditions

Economic conditions abroad (cont). For Comm W 50:5 Ag 24 '53

Economic sermon for France; OEEC report. Economist 169:899 D 19 '53

France's economic ills. Economist 168:516-17 Ag 22 '53

Observations on France. E. B. George. il Dun's R & Mod Ind 63:51-3+ D '53; 63:52-3+ Ja '54

Economic policy

From first to second Monnet plan. Economist 169:592-3 N 21 '53

Economic relations

Switzerland

Swiss to obtain coal under loan guaranty. For Comm W 50:9 Ag 3 '53

United States

France and American aid. Economist 169:183-4 O 17 '53

Foreign relations

Behind M Bidault; Berlin conference and French politics. Economist 170:215-16 Ja 23 '54

Eighth year in Indo-China. Economist 170:29-30 Ja 2 '54

France at the centre. Economist 168:766-7 S 19 '53

France before Bermuda and EDC. Economist 169:567 N 21 '53

France between four and five. Economist 169:161 O 17 '53

France stands divided; EDC. Economist 169:646 N 28 '53

France's case on the Saar. Economist 169:755-6 D 5 '53

Laniel's pyrrhic victory; French government and EDC. Economist 169:729-30 D 5 '53

M Bidault and the EDC. Economist 169:407-8 N 7 '53

Paris on the Red river; Indo-China question. Economist 169:399-400 N 7 '53

Tourists on the Oder-Neisse; French parliamentarians visit Poland. Economist 169:875 D 19 '53

Under France's skin. Economist 169:799 D 12 '53

United States

Threats between friends; Mr Dulles and M Bidault. Economist 169:871-2 D 19 '53

Industries and resources

From first to second Monnet plan. Economist 169:592-3 N 21 '53

Politics and government

After the Congress of Versailles; new president of France, René Coty. Economist 170:30-1 Ja 2 '54

Conflict of powers. Economist 168:436-7 Ag 15 '53

End of the road; French strikes and growth of socialization. Barron's 33:1 Ag 17 '53

France elects a new president; René Coty. Economist 170:13 Ja 2 '54

France loses patience. Economist 168:498 Ag 22 '53

France; waiting for a change. il Bsns W p30-2 Ag 22 '53

France's crisis. P. Einzig. Comm & Fin Chr 178:731 Ag 27 '53

M. Laniel before the Assembly. Economist 169:3-4 O 3 '53

M. Laniel on a tightrope. Economist 168:685-6 S 12 '53

M. Laniel the concierge. Economist 168:8 Jl 4 '53

Neither Mendès nor Pinay? Economist 169:667-8 N 28 '53

Retrospect on Ho Chi Minh. Economist 168:33-4 Jl 4 '53

Versailles or Weimar? presidential election. Economist 169:950 D 26 '53

Social conditions

Structure of the employee classes in France during the last fifty years. M. Collinet. Int Labour R 67:212-35 Mr '53

FRANCIUM

Isotopes

Present status of elements 85 and 87. E. K. Hyde. bibliog J Phys Chem 58:21-6 Ja '54

Nuclear reactions

Radiations of AcK. E. K. Hyde. bibliog Phys R 94:1221-6 Je 1 '54

FRANKENBURG, Walter Gustave, 1893-

Basic research in tobacco chemistry. R. F. Dawson. por J Chem Educ 30:404-6 Ag '53

FRANKFURTERS. See Sausage

FRANKLIN, Benjamin, 1706-1790
Lead and lead poisoning in early America; Benjamin Franklin and lead poisoning. C. P. McCord. Ind Med 22:393-9 S '53

FRANKLIN, Wirt
Petroleum profile. por Pet Eng 25:A54 D '53

FRANKLIN institute
Annual report of the board of managers for the year 1952. Franklin Inst J 256:74-82 Jl '53
First hundred years of research. T. Coulson. il Franklin Inst J 256:1-25 Jl '53
Medal day proceedings. Franklin Inst J 256: 523-49 D '53

FRANKLIN medal
Presentation of medal to William Francis Gibbs; with response by W. F. Gibbs. Franklin Inst J 256:543-9 D '53

FRATERNAL actuarial association
Annual meeting, Atlantic City. Nat Underw (Life ed) 58:23 O 8 '54

FRATERNAL congress of America, National. See National fraternal congress of America

FRATERNAL field managers association
Annual meeting, Atlantic City. Nat Underw (Life ed) 58:21+ O 8 '54

FRATERNAL societies. See Benefit societies

FRATERNITY houses
Two clubhouses; college fraternity houses. il plan diags Arch Forum 99:114-19 Ag '53

FRAUD
Crooked bankrupt rarely escapes if creditors have will to nip him. M. S. Mattuck. Credit & Fin Management 55:18-19+ Ag '53
Drives on for local court action against home repair loan crooks. House & Home 6:37 Jl '54
NABAC fights fraud. Bankers Mo 71:22-3 Ja '54
Nine ways to prevent fraud. W. Norris. Am Bsns 24:20+ Jl '54
Open-end mortgage system would balk repair loan frauds by dynamiters. House & Home 6:93 Ag '54
Quackery in control of corrosion and in other fields. Consumers Res Bul 32:21-2 N '53
See also
Checks, Fraudulent
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FRAUDULENT checks. See Checks, Fraudulent

FRAUDULENT statements. See Insurance, Life—Fraudulent statements

FREE energy
Amalgam partition method for the determination of ionic free energies in nonaqueous solutions. K. Schug and H. L. Friedman. Am Chem Soc J 76:3609-10 Jl 5 '54
Characterization of physical adsorption systems; the equilibrium function and standard free energy of adsorption. D. Graham. bibliog J Phys Chem 57:665-9 O '53
Free energy in cation interchange as illustrated by plant root-substrate relationships. C. E. Marshall and W. J. Upchurch. bibliog J Phys Chem 57:618-21 O '53
Free energy of formation of the amide bond in polyamides. A. B. Meggy. bibliog J Ap Chem 4:154-9 Ap '54

FREE enterprise. See Capitalism

FREE offers. See Advertising copy—Free offers

FREE piston engines. See Gas turbines—Free piston engines

FREE ports and zones
Chile acts to make Arica free port. For Comm W 50:8 Ag 17 '53
Leveling the tariff barrier. Chem W 74:80 F 20 '54

FREE radicals. See Radicals (chemistry)

FREE speech
Ex-editor's appeal may test army gag rule. J. Harris. Ed & Pub 86:72+ Ap 18 '53

FREE trade and protection
For free trade; Eisenhower backs free traders in choosing members of economic policy group. Bsns W p26 Ag 29 '53
Free trade; theories and realities. O. Herres. Eng & Min J 154:79+ N '53
Let's not import depression! tariff correction rather than general tariff reduction. C. A. Campbell. Comm & Fin Chr 178:1939+ N 19 '53
Protection or free trade; electrical manufacturers find foreign competition growing. Bsns W p 140+ D 19 '53

FREE transportation. See Motor bus lines—Free transportation; Railroads—Free transportation

FREE trial. See Sales policies—Free trial

FREE university of Berlin. See Berlin—Free university

FREE zones. See Free ports and zones

FREEDOM. See Liberty

FREEDOM of information
ASNE report on freedom of information; the battle will never end. Ed & Pub 86: 15+ Ap 18 '53
Court opens records on reporters' petition. Ed & Pub 86:34 My 16 '53
Cross report to ASNE urges new info laws; review of the people's right to know, by H. L. Cross. R. Ellard. Ed & Pub 86:115 Ap 18 '53
Jelke case, pro and con. Ed & Pub 86:20+ Ap 25 '53
Local coverage helps break down barriers. G. A. Brandenburg. Ed & Pub 86:9+ My 30 '53
Too much secrecy in atomic energy program. Ed & Pub 86:108 Ap 25 '53
See also
Scientific information, Freedom of

FREEDOM of the press
Court denies press freedom involved in closed trial. Ed & Pub 86:11+ Mr 21 '53
Free press, fair trial principles debated. R. Erwin. Ed & Pub 86:9+ Mr 7 '53
Freedom for the German press. Economist 169:18 O 3 '53
Major victory in sight for free flow of news. Ed & Pub 86:24+ Ap 25 '53
Notes of caution for editors. H. Cross. Ed & Pub 86:106 Ap 25 '53
Press freedom battle is waged in Ecuador. B. Holbrook. Ed & Pub 86:57 My 2 '53
Worried journalists in the Americas. Economist 169:341 O 31 '53

FREEWAYS. See Expressways

FREEZE drying. See Drying

FREEZERS
Frozen foods in store and home. G. L. Mentley. il Refrig Eng 62:33-4 S '54

FREEZERS, Domestic
Capacity load freezing time in home freezers. F. Ehrenkranz and others. il diags Refrig Eng 62:62-4+ Je '54
Consumer analysis shows gain in home freezer market; tabulation. Ptr Ink 244:71 Ag 28 '53
Frozen foods in store and home. G. L. Mentley. il Refrig Eng 62:33-4 S '54
Home freezer sales tips given. J. F. McDaniel. Dom Eng 183:229-30 Ap '54
Indianapolis freezer-food plan protects customer and bank. G. S. Blue. Banking 46: 80+ S '53
What size freezer? Amana dials answer. Sales Management 71:86 D 15 '53

Rating

Two refrigerators and a combination refrigerator-freezer. Consumers Res Bul 32: 21-3 S '53

FREEZING
Brine immersion cooling and freezing of ready-to-cook poultry. W. B. Esselen and others. bibliog Refrig Eng 62:61-3+ Jl '54
Capacity load freezing time in home freezers. F. Ehrenkranz and others. il diags Refrig Eng 62:62-4+ Je '54
Desalting sea water by freezing. T. G. Thompson and K. H. Nelson. bibliog diags Refrig Eng 62:44-8+ Jl '54
Jet-freezing; newest quick-freeze system; Alford refrigerated warehouses. E. Simons. bibliog il diags Food Eng 25:57-61+ N '53
See also
Food, Frozen
Frost heaving
Refrigeration and refrigerating machinery
Soils—Freezing
Water pipes—Freezing

FREEZING of assets. See Foreign exchange—Regulation

FREEZING points

Apparatus for the rapid determination of freezing point diagrams. L. A. Burkardt and others. il diag R Sci Instr 24:461-2 Je '53

Cryoscopic behaviour of non-electrolytes in sulphuric acid. P. A. H. Wyatt. Chem Soc J p2647-8 Jl '54

Cryoscopic studies; concentrated solutions of hydroxy compounds. H. K. Ross. bibliog diag Ind & Eng Chem 46:601-10 Mr '54

Freezing point and purity data for some organic compounds. C. R. Witschonke. bibliog(33 ref) Anal Chem 26:562-4 Mr '54

Freezing point of water held in porous bodies at different vapor pressures. B. R. Puri, L. R. Sharma and M. L. Lakhanpal. bibliog diag J Phys Chem 58:289-92 Ap '54

Polarization of Mn^{55} nuclei; cryogenic aspects. J. W. T. Dabbs and L. D. Roberts. bibliog Phys R 95:970-4 Ag 15 '54

Solutions in sulphuric acid; a reconsideration of the value of the cryoscopic constant. R. J. Gillespie. Chem Soc J p 1851-4 Je '54

Solutions in sulphuric acid; cryoscopic measurements on some unsaturated aromatic ketones and aldehydes. R. J. Gillespie and J. A. Leisten. Chem Soc J p 1-7 Ja '54

FREIGHT, **Perishable.**

See also

Refrigerator cars

FREIGHT airplanes. See Airplanes, Freight

FREIGHT and freightage

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Air freight service
Airplanes, Freight
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Another idea in piggyback. J. Bridge. il Ry Age 137:59-60 Ag 9 '54

Box cars, hoppers carried two-thirds of '52 traffic. Ry Age 136:17 F 22 '54

Can railroads and truckers make hay together? il Bsns W p 110-12+ S 12 '53

Car distribution formula; should it be revised? G. C. Randall. il Ry Age 136:50-2+ Ja 25 '54

Cars may get faster amortization. Ry Age 136:11-12 Ap 26 '54

Cautious on piggy-backs. D. Beck. Ry Age News ed 135:9-10 N 23 '53

Do not hump card is obsolete. G. C. Randall. il Ry Age News ed 135:16-17 N 23 '53

Don't hog-tie piggyback; panel discussion. R. O. Small and others. Ry Age 137:11-12 Jl 12 '54

Fast turnaround for more net. J. E. Kusik. il Ry Age News ed 135:30-3 D 7 '53

Faster paper work speeds cars. il map Ry Age 135:85-7 N 16 '53

Food trailers travel railroad piggyback cutting five handlings down to two. il diags Food Eng 26:77-9 Ag '54

Freight fleet gained 19,271 cars in 1953. Ry Age News ed 136:11 F 1 '54

Highball for piggy back as ICC changes its mind. il Steel 135:52 Jl 19 '54

How goes the direct route plan? G. C. Randall. Ry Age 136:49-50 Ap 19 '54

I.C.C. will make piggyback rules. Ry Age News ed 136:8-9 Ja 18 '54

Katy moves toward piggyback. D. V. Fraser. Ry Age 136:10-11 Ap 19 '54

Movement of highway trailers by rail. P. H. Porter. Pub Util 54:419-20 S 30 '54

Moving freight by timetable; Baltimore & Ohio railroad. il Bsns W p72+ Ag 29 '53

New York Central considering piggyback. W. White. Ry Age 136:11 Ja 25 '54

Piggyback by rail becomes legitimate. Steel 135:58 Ag 16 '54

Piggyback case set for argument. Ry Age 136:9-10 My 3 '54

Piggyback; French style. il Ry Age 136:45+ Je 7 '54

Piggy-back; stopped at start; ICC blocks railroads' plan to haul truck trailers on flat cars. il Iron Age 173:57 Je 24 '54

Piggyback; to Chicago & Northwestern, it's a deal. K. W. Bennett. il Iron Age 174:63 Jl 22 '54

Piggyback's potential. E. F. Ryan. il Ry Age 137:12-13 S 27 '54

Pressing for piggy back. il Bsns W p 174 O 17 '53

Revised spotting rules proposed. Ry Age 137:9+ Jl 12 '54

Roads want piggybacking unfettered. Ry Age 137:11-12 Jl 5 '54

Shippers agree Do not hump card is obsolete. Ry Age 135:13-14 D 28 '53

Special device cars, do they pay off? J. W. Milliken. Ry Age 137:52-4+ Jl 12 '54

This is bi-partisan piggyback. D. V. Fraser. Ry Age 137:55+ Jl 12 '54

Truckers ask I.C.C. ruling on piggyback questions. Ry Age News ed 136:11-12 F 1 '54

What piggy and whose back? Ry Age News ed 135:14 D 7 '53

Who shall be piggyback'd? E. F. Ryan. Ry Age 136:25-6 My 10 '54

Who will piggyback what? panel discussion. il Ry Age 136:7-8 Je 7 '54

Why so many empty car miles? G. C. Randall. il Ry Age News ed 136:18-19 Ja 4 '54

See also

Freight cars—Interchange
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Car load

How bad is rail lcl? G. O. Griffith. Ry Age 136:16 My 17 '54

Rail-truck interchange of l.c.l? Ry Age 136:17 F 22 '54

FREIGHT cars

All-purpose flat car. il Ry Age 136:35-7 My 31 '54

Car facilities must be maintained. J. K. Knudson. Ry Age 136:7 Mr 29 '54

Car orders tailored to demand. A. H. Gass. Ry Age 136:6-7 Mr 29 '54

Freight car builders hit bumpy road. il Steel 134:71 Je 14 '54

Freight car building; will the U.S. press for the 1.85-million car goal? il Steel 133:96-7 S 21 '53

Freight cars; backlogs near bottom. E. C. Kellogg. Iron Age 172:91 N 19 '53

Freight cars, 1949-1952. Survey of Cur Bsns 1953 Sup p 192-3 [supplemented in monthly numbers]

How Monon will use 30 covered hopper cars. il Ry Age 137:64 Jl 12 '54

How to improve freight operation; spending more time on yard inspection. Ry Age 137:61-2 S 20 '54

New tricks for bulk shippers. il Chem Eng 60:210-11 Ag '53

North Western shows box car number one. il Ry Age News ed 135:11 N 9 '53

135-ton wagons for British railways; transport of large power transformers. il Engineering 177:220 F 12 '54

Open side pulpwood car made safe for northern shipments. il Paper Tr J 138:32 Ag 6 '54

Pullman-Standard tests new piggy-back mounts. il Ry Age News ed 135:18 N 23 '53

Railroads need a policy of long-term equipment planning. G. Metzman. Ry Age 136:67-8 Ap 5 '54

Trailers; ride rails two by two; Electro-Motive division flat car to carry two trailers. W. G. Patton. il Iron Age 172:59 O 15 '53

Western Pacific converts box cars to hoppers to haul sugar in bulk. il Ry Age News ed 135:26-7 N 23 '53

See also

Air brakes
Car department officer's association
Car painting and finishing
Car wheels
Loading and unloading—Cars
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Refrigerator cars
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Design

New flat car design details. il Ry Age 137:30-1 Ag 23 '54

New flat car designed to facilitate coordination of rail and truck hauls. il Eng N 151:27 N 12 '53

New freight car for bulk materials. W. J. Stebler. il Chem Eng Prog 49:sup30 My '53

FREIGHT cars—*Continued*

Doors

Battered hopper doors. il Ry Age 136:43 Ap 19 '54

Nailable steel doorposts applied by the CGW. il diag Ry Age 136:48 Ap 19 '54

New grain door may cut grain loss. il Ry Age 135:15 D 14 '53

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Car floors vs. lift trucks. il Ry Age News ed 135:10 O 26 '53

How to prolong car-floor life; resurfacing with Plastinail. il Ry Age News ed 136:20-1 Ja 4 '54

Interchange

Hearings begin on per diem fight. Ry Age 136:11-12 Ja 25 '54

High spots of the 1954 interchange rules. T. J. Boring. Ry Loco & Cars 128:55-9 Mr '54

Hits single per diem rate. H. K. Norton. Ry Age 136:12 Mr 15 '54

Interchange rules (cont). Ry Loco & Cars 127:86 D '53; 128:78 F; 87 Ap; 81 My; 85 Je; 68 Jl; 76 Ag; 84 S '54

Opinions; how high should the per diem rate be? J. P. Kiley and J. E. Kusik; G. F. Glacy. Ry Age 136:64-5 F 22 '54

Manufacture

A frame gets an *A* in welding problem. il Welding J 33:153-4 F '54

All-welded gondolas for Santa Fe. il Ry Age 136:27-8 My 10 '54

Big, the word for General Steel Castings. il Ry Age 136:60-3 F 22 '54

Center sills welded with multiple electrode setup; fabrication of sills for box cars. il Iron Age 173:150 My 6 '54

Gondola car side and end jigs. il Ry Loco & Cars 128:48 Ja '54

How roller bearings are applied to freight cars. il Ry Loco & Cars 128:58-9 F '54

Layout for welding fish-belly underframe parts. il Ry Loco & Cars 128:60-1 F '54

Let's budget car building. G. Metzman. il Ry Age 136:32-4 My 31 '54

Western Pacific completes flat car program. il Ry Loco & Cars 128:47-9 Jl '54

Painting

See Car painting and finishing

Reconstruction

Frisco gondola car rebuilding. il diags Ry Loco & Cars 128:62-5 Ap '54

How plastic spray upgrades box cars. il Ry Age 137:56-7 Jl 12 '54; Ry Loco & Cars 128:44-5 Ag '54

Repair

Bad-orders go through. G. W. Burke. il Ry Age 137:24-5 Ag 16 '54; Same. Ry Loco & Cars 128:54-7 S '54

Missouri Pacific box-car repair program. il Ry Loco & Cars 127:58-60 D '53

Welding jig for gondola side gussets. il Ry Loco & Cars 127:61 D '53

Statistics

32,114 freight-train cars ordered, 1953. C. B. Peck and F. C. Miles. il Ry Age 136:184-8 Ja 11 '54

FREIGHT cars, Aluminum

Aluminum alloys in hopper cars. E. T. Englehart and G. B. Hauser. il Ry Loco & Cars 128:62-6+ My '54; Same cond. Ry Age 136:43-5 My 31 '54

Aluminium mineral wagon; plating in excellent condition after seven years. il Metallurgia 49:141-2 Mr '54

Experimental wagons of aluminium construction. Engineering 176:798 D 18 '53

FREIGHT claims. See Railroads—Claims

FREIGHT elevators. See Elevators

FREIGHT handling

Conveyor delivers to trackside; Eckhart seed co. il Ry Age 136:74 F 8 '54

In T&NO freighthouses more l.c.l. with no more men. il Ry Age 135;63-4 N 30 '53

Questions and answers for the transportation department. Ry Age News ed 136:14 Ja 4 '54 [cont bi-weekly]

Safe load impacts. H. E. Walker. il Glass Ind 35:186-91+ Ap '54

See also

Airplanes, Freight
Cargo handling
Containers (for shipping)
Freight houses
Loading and unloading—Cars
Motor trucks in freight service
Railroads—Freight
Railroads—Terminals

FREIGHT houses

Why Monon moved to the suburbs. il plan diags Ry Age 137:36-8 Jl 26 '54

See also

Railroads—Terminals

Equipment

Electric trucks show 98 per cent availability; Pennsylvania's Polk Street freight terminal. il Ry Loco & Cars 128:51-4 Ja '54

These walls were bulging, so Erie switched to mechanized operation. il Ry Age 137:56-7 S 20 '54

This freight transfer expanded; Wabash East St Louis freighthouse. il plan Ry Age 137:25-7 Jl 19 '54

FREIGHT rates

Barge lines rate bill draws support of ICC. Oil Paint & Drug Rep 165:3+ Ap 12 '54

Will steel mills pay the freight? Bsns W p30-1 S 19 '53

See also

Railroads—Rates
Shipping—Rates

FREIGHT ships

Floating warehouses; Wyandotte Great Lakes shuttle service. il Chem & Eng N 32:2144 My 24 '54

Improved cargo operations via ideas, research and facts. C. L. Sauerbier. il Marine Eng 59:42-6 Mr '54

Merchant ship is no lady. E. B. Perry. il U S Naval Inst Proc 79:280-3 Mr '53

Method proposed for 18-knot Libertys. D. C. MacMillan. il plans Marine Eng 58:71-5 D '53

MSTS converts ships for superlifts. il diag Marine Eng 59:64-7 My '54

Modern ships for Grancolombiana. il Marine Eng 58:77-8+ D '53

MV Kpo-Farrell line's new feeder ship. il diag Marine Eng 59:49-51 Jl '54

Prefabricating 710-ft Lakes' giant with automatic welding. T. L. Dempsey. il Marine Eng 59:46-7 S '54

Proposed plan for trailer ships; coastwise shipping to be revived? il diag Marine Eng 59:47-8+ Ap '54

Sweet ship for sugar trade. il Marine Eng 59:41+ Mr '54

Three Mariners sold to Pacific Far East line. il Steel 133:67 S 7 '53

See also

Barges
Ore ships
Tank ships

Safety measures

See Safety at sea

FREIGHT terminals. See Railroads—Terminals

FREIGHT yards. See Railroads—Yards

FRENCH, James Benjamin, 1912-

Rebuff in Nevada; Henderson elects French. pors Chem W 72:15-16 Je 20 '53

FRENCH INDO-CHINA. See Indo-China, French

FRENCH language

Suggestions for translating German, French, and Italian chemical literature. H. Fischbach. J Chem Educ 30:388-93 Ag '53

FRENCH literature

Current publications on twentieth-century French literature. T. V. Benn. J Doc 9:220-3 D '53

FRENCH MOROCCO. See Morocco

FREON. See Chlorofluoromethanes

FREON 12. See Dichlorodifluoromethane

FREON 13. See Chlorotrifluoromethane

FREON 22. See Chlorodifluoromethane

FREON 142. See Chlorodifluoroethane

FREON 216. See Dichlorohexafluoropropane

FREQUENCY control

Power system plant; load and frequency control. N. V. Pestereff. il diag Elec J 152:742-5 Mr 5 '54

FREQUENCY control—*Continued*
Single channel controls system load and frequency. G. S. Lunge. il diag Elec World 140:86-8 N 30 '53
Tie-line power and frequency control; abstract. C. Concordia and L. K. Kirchmayer. Elec Eng 73:130 F '54

FREQUENCY measurement
Instrument evaluation by frequency response. B. D. Stanton. diags Instruments 26:745-9 My '53
Measurement of l.f. response of servomechanism components. E. J. P. Long. bibliog il diags Engineer 196:722-5 D 4 '53
Short-time frequency measurement of narrow-band random signals in the presence of wide-band noise. P. M. Schultheiss and others. diags J Ap Phys 25:1025-36 Ag '54
Techniques of frequency measurement in the centimetre-wave region. E. G. Hope. bibliog diag Inst E E Proc 100 pt 3:383-4 N '53

FREQUENCY meters
Adding a bandspread range to the BC-221 frequency meter. B. Dudley. diags Q S T 37:38-9+ Ag '53
Easily-built frequency meter for the audio range. J. Taylor and H. Bredemeier. diag Q S T 37:46 O '53
Frequency deviation meter. Franklin Inst J 256:178-80 Ag '53

FREQUENCY modulation. See Radio frequency modulation

FREQUENCY standards
Microwave frequency standard. L. C. Hedrick. diags R Sci Instr 24:565-8 Ag '53
Microwave frequency standard service. H. Lyons and L. J. Rueger. il Tele-Tech 12:84+ N '53
Microwave frequency standards. il diags Commun Eng 14:28-30 Ja '54; Abstract. Electronics 26:254+ O '53

FRESNEL lenses
Use of Fresnel lenses for cloud-chamber illumination. L. H. Berryman and others. diag R Sci Instr 24:397-8 My '53

FRETTING corrosion. See Corrosion and anticorrosives

FREY, Charles N. 1885-
Salute to Mr Yeast; Nicholas Appert medalist. por(cover) Chem & Eng N 32:2628-9 Je 28 '54

FRICTION
Friction and consumption characteristics of motor oils; effect of viscosity index improvers. D. Frazier, A. R. Klingel and R. C. Tupa. bibliog Ind & Eng Chem 45:2336-42 O '53
Friction facts, fortes and foibles; abstracts. C. S. Batchelor and E. L. Carey. Automotive Ind 110:496+ Mr 15 '54; S A E J 62:60-3; Discussion. 63-5 Ag '54
Friction of a fibre round a cylinder and its dependence upon cylinder radius. H. G. Howell. Textile Inst J Trans 45:T575-9 Ag '54
Friction of clean metals and oxides with special reference to titanium. E. S. Machlin and W. R. Yankee. bibliog il J Ap Phys 25:576-81 My '54
Friction terms in metal cutting. W. C. Leone and E. Saibel. bibliog diags A S M E Trans 76:195-7; Discussion. 197-8 F '54
Frictional adhesion of metal to glass, quartz, and ceramic surfaces. R. B. Belser. il R Sci Instr 25:862-4 S '54
Frictional properties of the wool fibre. B. Lincoln. bibliog(26 ref) diags Textile Inst J Trans 45:T92-107 F '54
Frictional properties of titanium and its alloys. E. Rabinowicz. il diag Metal Prog 65:107-10 F '54
Heat transfer and fluid friction during flow across banks of tubes; a study of a cylindrical baffled exchanger without internal leakage. O. P. Bergelin and others. il diags A S M E Trans 76:841-9; Discussion. 849-50 Jl '54
Heat transfer and fluid friction for fully developed turbulent flow of air and supercritical water with variable fluid properties. R. G. Deissler. bibliog A S M E Trans 76:73-83; Discussion. 83-5 Ja '54
Heat-transfer and friction characteristics for gas flow normal to tube banks; use of a transient-test technique. W. M. Kays and others. bibliog diag A S M E Trans 76:387-96 Ap '54
Measurements of average heat-transfer and friction coefficients for subsonic flow of air in smooth tubes at high surface and fluid temperatures. L. V. Humble and others. bibliog diags U S Nat Advisory Com for Aeronautics 1951:343-57 '52
Measuring friction at high speeds. W. W. Shugarts, jr. diags Franklin Inst J 256:187-9 Ag '53
Operating modes of a servomechanism with non-linear friction. H. Lauer. diags Franklin Inst J 255:497-511 Je '53
Static and sliding friction in feedback systems. J. Tou and P. M. Schultheiss. diags J Ap Phys 24:1210-17 S '53
Summary of NACA research on heat transfer and friction for air flowing through tube with large temperature difference. B. Pinkel. bibliog il diags A S M E Trans 76:305-17 F '54
See also
Bearings
Lubrication and lubricants
Skin friction

Bibliography

Literature survey on fiber friction. J. H. Langston and W. T. Rainey, jr. Textile Res J 24:643-53 bibliog(137 ref, p650-3) Jl '54

FRICTION, Internal
Anelastic behavior of pure gold wire. D. R. Mash and L. D. Hall. bibliog il J Metals 5:Trans 937-42 Jl '53
Apparatus for the accurate measurement of internal friction. J. R. Pattison. bibliog diags R Sci Instr 25:490-6 My '54
Internal friction and Young's modulus of cold-worked copper single crystals. J. Weertman and J. S. Koehler. bibliog diags J Ap Phys 24:624-31 My '53
Internal friction of molybdenum during tensile deformation. R. E. Maringer. J Ap Phys 24:1525 D '53
Internal friction of quartz. G. A. Alers. J Ap Phys 24:324-31 Mr '53
Internal friction of rock salt single crystals. D. R. Frankl. bibliog Phys R 92:573-9 N 1 '53
Low-temperature internal friction and elasticity effects in vitreous silica. M. E. Fine and others. bibliog J Ap Phys 25:402-5 Mr '54
Measurement of the heat of activation for sodium ion diffusion in glass. R. Kamel. bibliog diag J Ap Phys 24:1308-11 O '53
Moduli and internal friction of magnetite as affected by the low-temperature transformation. M. E. Fine and N. T. Kenney. bibliog diags Phys R 94:1573-6 Je 15 '54

FRICTION drives. See Power transmission

FRICTION materials
Testing friction materials at Johns-Manville research center. il Chem & Eng N 32:2680-1 Jl 5 '54

FRICTION meters
Simple direct-reading friction meter. V. E. Gough. il diags J Sci Instr 30:345-9 O '53

FRIEDEL-CRAFTS reaction
Alkylation with long chain *p*-toluene-sulfonates; Friedel-Crafts reaction of *n*-octadecyl *p*-toluenesulfonate and benzene. D. A. Shirley and J. R. Zietz, jr. Am Chem Soc J 75:6333-4 D 20 '53
Analysis of the Friedel-Crafts reaction. H. Burton and P. F. G. Praill. bibliog Chem & Ind p90-2 Ja 23 '54
Chemical engineering unit processes. H. T. Lacey. bibliog(84 ref) Ind & Eng Chem 46:1827-35 S '54
Elimination of carbon monoxide in the Friedel-Crafts cyclizations of *tert.* acid chlorides. E. Rothstein. Chem & Ind p403 Ap 3 '54
Friedel-Crafts acetylation of chrysene. W. Carruthers. Chem Soc J p3486-9 N '53
Friedel-Crafts acylations of phenylsilanes. H. H. Szmant and S. Skendrovich. Am Chem Soc J 76:2282 Ap 20 '54
Friedel-Crafts acylations with trimethylsilylbenzoyl chlorides. R. A. Benkeser and H. R. Krysiak. bibliog Am Chem Soc J 76:599-603 Ja 20 '54
Friedel-Crafts alkylation of aromatic compounds with vinyl sulfones. W. E. Truce, J. A. Simms and H. E. Hill. bibliog Am Chem Soc J 75:5411-13 N 5 '53

FRIEDEL-CRAFTS reaction—*Continued*

Friedel-Crafts alkylation of methyl 2-furoate. C. D. Hurd and G. L. Oliver. bibliog Am Chem Soc J 76:50-1 Ja 5 '54

Friedel-Crafts alkylation reaction catalysts and complexes. H. C. Brown and others. bibliog(75 ref) Ind & Eng Chem 45:1462-9 Jl '53

Friedel-Crafts cyclization of ω-(α-naphthyl)-1-alkanesulfonyl chlorides. W. E. Truce and G. A. Toren. bibliog Am Chem Soc J 76:695-8 F 5 '54

Friedel-Crafts reaction in the carbazole series; phenylacetyl compounds. D. A. Kinsley and S. G. P. Plant. Chem Soc J p 1341-3 My '54

Friedel-Crafts reaction with trimethylene oxide and *n*-propyl ether. S. Searles. bibliog Am Chem Soc J 76:2313-14 My 5 '54

Friedel-Crafts reactions of methanesulfonyl chloride with benzene and certain substituted benzenes. W. E. Truce and C. W. Vriesen. bibliog Am Chem Soc J 75:5032-6 O 20 '53

Kinetics of the reaction of representative benzyl halides with aromatic compounds; evidence for a displacement mechanism in the Friedel-Crafts reactions of primary halides. H. C. Brown and M. Grayson. bibliog Am Chem Soc J 75:6285-92 D 20 '53

Mechanism of Friedel-Crafts acylation. G. Baddeley and D. Voss. Chem Soc J p418-22 Ja '54

Mechanism of Friedel-Crafts acylation. J. M. Tedder. bibliog Chem & Ind p630 My 29 '54

FRIEDELIN

Friedelin and *epi*friedelinol from ceratopetalum apetalum D.Don. P. R. Jefferies. Chem Soc J p473-4 Ja '54

FRITS

Frit for Canadian porcelain enamel. il Can Chem Process 38:42+ Je 1 '54

High density grinding cuts milling time, increases lining life. J. B. Vernetti. Cer Ind 62:70+ Mr '54

FRITZ, John, medal

William E. Wrather wins. Min Eng 5:1135 N '53

FROEHLICH, Alfred, 1871-1953

Sketch. E. P. Pick and others. Science 118: 314 S 18 '53

FROLICH, Per Keyser, 1899-

Chemical Corps team shapes up. por(cover) Chem & Eng N 32:3418 Ag 30 '54

FRONTIER chemical company

Built on freight rates. Chem W 73:14-15 N 14 '53

FROST heaving

Frost action on small footings; abstract. W. A. Trow. Roads & Eng Constr 92:130+ My '54

FROTH. See Foam

FROTHING. See Foaming

FROZEN desserts. See Desserts, Frozen

FROZEN fish. See Fish, Frozen

FROZEN food. See Food, Frozen

FROZEN fruit. See Fruit, Frozen

FROZEN ground. See Soils—Freezing

FROZEN lemon juice. See Lemon juice, Frozen

FROZEN lime juice. See Lime juice, Frozen

FROZEN mercury process. See Foundry practice—Mercast process

FROZEN orange juice. See Orange juice, Frozen

FROZEN shrimps. See Shrimps, Frozen

FRUCTOMALTOSE

Fructomaltose, a recently discovered trisaccharide isolated from honeydew. H. E. Gray and G. Fraenkel. bibliog Science 118: 304-5 S 11 '53

FRUCTOSANS

Studies on fructosans; short-chain fructosans from lolium perenne. V. D. Harwood, R. A. Laidlaw and R. G. J. Telfer. Chem Soc J p2364-8 Jl '54

FRUCTOSE

Crystalline 2,4-dinitrophenylhydrazones of D-fructose. L. M. White and G. E. Secor. bibliog Am Chem Soc J 75:6343-4 D 20 '53

Degradation of carbohydrates by alkali; 3-*O*-methyl derivatives of glucose and fructose. J. Kenner and G. N. Richards. Chem Soc J p278-82 Ja '54

Degradation of carbohydrates by alkali; 1-*O*-methylfructose, glucose, and fructose. J. Kenner and G. N. Richards. Chem Soc J p 1784-9 Je '54

Determination of carbon 14 in the terminal positions of sugars; preparation of D-arabinose-5-C^{14} from D-fructose-1,6-C^{14}. H. L. Frush and H. S. Isbell. J Res Nat Bur Stand 51:167-70 O '53

Optical and crystallographic properties of D-fructose hemihydrate. F. T. Jones, F. E. Young and D. R. Black. bibliog il Anal Chem 25:649 Ap '53

Phase equilibria in sugar solutions; ternary system of water-glucose-fructose. F. H. C. Kelly. bibliog J Ap Chem 4:409-11 Ag '54

Photometric determination of glucose in presence of fructose. F. Stitt and others. bibliog il Anal Chem 26:1478-84 S '54

Syntheses of methyl ethers of fructose. E. L. Hirst and others. Chem Soc J p3170-6 O '53

FRUEHAUF trailer company

Debentures sold. Comm & Fin Chr 178:2476 D 21 '53

FRUIT

See also

Apples	Citrus fruit
Bananas	Fruit, Dried

Analysis

Determination of malic, tartaric, and citric acids in fruit by ion exchange chromatography. H. H. Schenker and W. Rieman, 3d. bibliog Anal Chem 25:1637-9 N '53

Prepackaging

Current pre-packaging trends. Mod Packaging 27:180+ Ag '54

New appeal for fruits-by-mail; Pinnacle Orchards. il Mod Packaging 27:165 Jl '54

Polyethylene for citrus. H. W. Hruschka and J. Kaufman. il Mod Packaging 27:135-8+ F '54

Pre-packaged produce today. flow chart il Mod Packaging 27:122-7+ My '54

Preservation

Influence of cultural conditions on the quality and preservation of fruit and vegetables; abstract and discussion. R. G. Tomkins. Chem & Ind p71-2 Ja 16 '54

Safer shipping for fruit; antifungal formulations, built around sodium orthophenylphenate. il Chem W 75:54+ Jl 10 '54

Storage

Air leakage and gas concentrations in commercial fruit storages. G. F. Sainsbury and F. Gerhardt. bibliog il Refrig Eng 62:61-6+ Mr '54

FRUIT, Dried

Manual to mechanized saves dry-fruit handlers; Rosenberg bros. co. il Food Eng 25: 83+ D '53

FRUIT, Frozen

Better frozen fruits with new corn syrup solids. P. E. Gilbert. il Food Eng 26:125+ Ag '54

Frozen fruits, 1949-1952. Survey of Cur Bsns 1953 Sup p 137 [supplemented in monthly numbers]

FRUIT handling

Their five-year modernization is paced to coming growth; Apple growers association. C. R. Shiner. il diags Food Eng 26:94-8+ Ap '54

FRUIT juices

See also

Grape juice

FRUIT juices, Frozen

See also

Lemon juice, Frozen
Orange juice, Frozen

FRUIT trade

See also

Apples
Citrus fruit
United fruit company

Advertising

How advertising helped Dole grow. Adv Agency 47:73 S '54

FRUIT trees

Diseases and pests

See also

Fire blight

FRYERS

Advertising

Which ad pulled best? Ptr Ink 243:56+ Ap 17 '53

FRYING

Frying breaded fish non-stop; Empire fish co. J. V. Ziemba. il Food Eng 25:84-5+ D '53

FUEL

AIME-ASME 16th annual joint fuels conference, Chicago, Oct. 29-30. Min Eng 5:1294-5 D '53

Climate as a factor in the selection of fuels and heating equipment. map Consumers Res Bul 32:16-18 S '53

Heat technology; fuels; choice and handling. J. C. McCabe. il Chem Eng 60:186-9 Je '53

How much heat are you getting out of your fuel? Consumers Res Bul 32:16-19 O '53

Role of aluminum as a special fuel. G. M. Babcock and F. B. Rethwisch. il Eng & Min J 155:84-6 Mr '54

Spontaneous ignition properties of fuels and hydrocarbons. J. E. Johnson, J. W. Crellin and H. W. Carhart. bibliog Ind & Eng Chem 45:1749-53 Ag '53

Wasted energy; Anglo-American productivity team impressions. Economist 168:719-20 S 12 '53

See also

Airplane engines—Fuel
Automobile engines—Fuel
Automotive fuel
Blast furnace gas
Boilers—Firing
Coal
Coal, Pulverized
Coke
Coke oven gas
Combustion
Diesel engines—Fuel
Electric plants (central stations)—Fuel
Fuel economy
Furnaces
Gas as fuel
Gas turbines—Fuel
Gas turbines, Aircraft—Fuel
Gasoline
Heating
Internal combustion engines—Fuel
Kerosene
Lignite
Liquid fuel
Locomotives—Fuel
Oil fuel
Peat
Pitch
Power plants—Fuel
Smoke
Waste fuel

FUEL economy

Fuel conservation; Productivity Council report. Chem Age (Lond) 69:650 S 26 '53

Fuel conservation report of team appointed under auspices of Anglo-American council on productivity; summary and recommendations. Engineer 196:345-6 S 11 '53

Fuel conservation; some expressions of opinion on heat-electric generation. Elec J 151:977-8 S 25 '53

Fuel economy. Elec R (Lond) 153:561-2 S 11 '53

Fuel efficiency in the dyeing and finishing industries. W. Short. diags Soc Dyers & Col J 69:329-35 S '53

How to determine best plant temperature for off-hours. H. B. Clay. Factory Management 111:104-7 D '53

How to get more for your fuel dollar. Management R 42:207-8 Ap '53

National fuel policy; Anglo-American productivity team report. Elec J 151:800 S 11 '53

See also

Furnaces, Recuperative and regenerative

FUEL oil. See Oil fuel

FUEL pumps. See Pumps, Fuel

FUEL research

Chemistry of fuels; investigation at Fuel research station. Chem Age (Lond) 69:25-7 Jl 4 '53

Fuel research, 1953. Chem & Ind p 1015-16 Ag 14 '54; Same cond. Chem Age (Lond) 71:131-2 Jl 17 '54

Government policy outlined on synthetic-fuels research. D. McKay. Coal Age 59:146 F '54

See also

Coal research
Gas research

FUEL supply

Fuel and power in the chemical industry; symposium abstracts. Chem & Eng N 32:2007 My 17 '54

Fuel, power, raw materials; tabulations. Steel 134:202-3 Ja 4 '54

Look at the world's energy resources. H. A. Kuljian. Power Eng 58:96-8 Mr '54

Mineral and fuel resources; East north central states. R. J. Lund and D. D. Moore. bibliog maps Ind & Eng Chem 46:483-7 Mr '54

See also

Coal supply
Petroleum supply

Canada

Energy consumption in Canada. Engineering 176:820 D 25 '53

Fist of energy; sources of power plentiful in Canada. Can Chem Process 38:16+ Ag; 20+ S '54

France

French power resources and their utilisation. J. Couture. Engineering 176:619 N 13 '53

Georgia

Georgia story; power and fuel. il Manuf Rec 123:74-7 My '54

Great Britain

Conservation of the Nation's fuel and power resources. F. M. H. Taylor. Engineering 176:735 D 4 '53; Abstract. Elec J 151:1762 N 27 '53

Domestic appliance industry and fuel usage in Great Britain; abstract. H. Hartley. Elec J 151:1152 O 9 '53

Fuel and power economy; abstract. F. M. H. Taylor. Elec R (Lond) 153:1215-16 N 27 '53

Fuel and productivity. A. Parker. Engineering 176:618-19 N 13 '53

Fuel efficiency. A. B. Gridley. Elec R (Lond) 154:19 Ja 1 '54

Fuel policy; House of Lords debate. Elec R (Lond) 153:1331-2 D 11 '53

Meeting the nation's fuel requirements; atomic energy as competitor to coal. Chem Age (Lond) 70:419-20 F 13 '54

National fuel resources and their utilisation; abstract. A. Parker. Chem & Ind p597-8 My 22 '54

Production and use of energy in Great Britain; abstracts. J. Hacking. Chem Age (Lond) 68:895-7 Je 12 '53; Engineering 175:758-9 Je 12 '53; Elec J 150:2093-4+ Je 12 '53; Elec R (Lond) 152:1343-5 Je 12 '53

FUGACITY

Fugacity of water at high temperatures and pressures. W. T. Holser. bibliog J Phys Chem 58:316-17 Ap '54

FUGITIVE dyes. See Dyes and dyeing—Fugitive dyes

FULLAGAR engines. See Diesel engines

FULLER, Ray E. 1896-

Sketch. por East Underw 54:57 D 11 '53

FULLER'S earth

Adsorption of normal saturated hydrocarbons on Fuller's earth. W. T. Granquist, F. A. Mitch and C. H. Edwards. bibliog Ind & Eng Chem 46:358-62 F '54

FULVALENE

1,2,3,4-Tetraphenylfulvalene. E. C. Schreiber and E. I. Becker. Am Chem Soc J 76:3354 Je 20 '54

FULVENE

Fulvenes. J. H. Day. Chem R 53:167-89 bibliog(p 187-9) O '53

FUMAGILLIN

Molecular weight and methanolysis of fumagillin. C. J. Brown and J. K. Landquist. bibliog Chem & Ind p973 S 12 '53

FUMARANILATES

Reactions of antiserum homologous to the *p*-azomaleanilate and *p*-azofumaranilate ion groups. M. Siegel and D. Pressman. bibliog Am Chem Soc J 76:2863-6 Je 5 '54

FUMARASE

Studies of the enzyme fumarase; isolation and physical properties of crystalline enzyme. C. Frieden, R. M. Bock and R. A. Alberty. bibliog il Am Chem Soc J 76:2482-4 My 5 '54

Studies of the enzyme fumarase; the dependence of the kinetic constants at 25° upon the concentration and *p*H of phosphate buffers. R. A. Alberty and others. bibliog Am Chem Soc J 76:2485-93 My 5 '54

FUMARIC acid

Flood due in fumaric? il Chem W 74:94+ Ap 24 '54

Analysis

Determination of fumaric, malic, and succinic acids in fermentation broths. N. Lemjakov. Anal Chem 26:1227-8 Jl '54

Maleic and fumaric acids. P. J. Elving and I. Rosenthal. bibliog Anal Chem 26:1454-9 S '54

Polarographic analysis of mixtures of fumaric and maleic acids, and their diethyl esters. P. J. Elving, A. J. Martin and I. Rosenthal. bibliog Anal Chem 25:1082-4 Jl '53

Polarographic determination of maleate unsaturation in polyesters. E. W. Hobart. Anal Chem 26:1291-3 Ag '54

FUMES

After five years, fume findings; joint Chicago fume control study at Illinois institute of technology. Selheimer. Paint Oil & Chem R 117:14E-14F My 20 '54

Chronic bronchopulmonary disease due to inhalation of sulfuric acid fumes. A. Goldman and W. T. Hill. il A M A Archives Ind Hygiene & Occup Med 8:205-11 S '53

Dust and fume problems in the steel industry. R. F. O'Mara. flow diag diags Iron & Steel Eng 30:100-6 O '53

Fumes and complaints knocked out by know-how; Du Pont's varnish plant. C. R. De Bow. il diags Chem Eng 61:124+ S '54

Fumes and gases from selenium rectifiers abused by gross overloading. P. Drinker and K. W. Nelson. diag A M A Archives Ind Hygiene & Occup Med 8:185-9 Ag '53

Oxycats kill wax fumes. Steel 133:153-4 Jl 6 '53

Smoke, dust, fumes closely controlled in electric furnaces; Bethlehem Pacific coast steel corp. R. S. Coulter. il plan Iron Age 173:107-10 Ja 14 '54

See also

Smoke

FUMIGANTS

AMA blasts vaporizer use, claims. Soap & San Chem 29:163 S '53

Analysis

Micro-determination of methyl bromide and ethylene dibromide in admixture in air; abstract. B. Berck. Can Chem Process 38:67-8 Je 20 '54

Testing

Para and naphtha as closet fumigants. J. W. Arnold. bibliog Soap & San Chem 29:134-5+ Ag '53

FUNCTIONS

Analytical determination of coupled bending-torsion vibrations of cantilever beams by means of station functions. A. Mendelson and S. Gendler. bibliog diag U S Nat Advisory Com for Aeronautics 1951:77-96 '52

Evaluation of the function $f\lambda(M,\hat{\omega})$. G. Zartarian and H. M. Voss. bibliog J Aeronautical Sci 20:781-2 N '53

Gaussian functions in molecular integrals. R. Kikuchi. J Chem Phys 22:148 Ja '54

Generating nonlinear functions with linear potentiometers. H. Levenstein. diags Tele-Tech 12:76-8+ O '53

Influence function for the beta activity of uranium-235 fission products. J. K. Thornton and W. J. Houghton. bibliog J Ap Phys 24:1374-8 N '53

Transfer function as a tool in the analysis of a resistance-capacitance coupled voltage amplifier. D. L. Ming and R. W. Thorpe. diags J Ap Phys 25:934-7 Ag '54

See also

Cicala function

FUNCTIONS, Elliptic

Electromagnetic scattering by an ellipsoid in the third approximation. A. F. Stevenson. bibliog J Ap Phys 24:1143-51 S '53

Some coordinate systems associated with elliptic functions. P. Moon and D. E. Spencer. bibliog diags Franklin Inst J 255:531-43 Je '53

FUNCTIONS, Trigonometric

Graphical method of evaluating trigonometric functions used in crystal structure analysis. H. J. Grenville-Wells. diags J Ap Phys 25:485-90 Ap '54

FUND statements

Funds statements further considered. E. O. Edwards. J Bsns 26:133-6 Ap '53

FUNGI

Chemistry of fungi; nidulin and nornidulin (ustin); chlorine-containing metabolic products of aspergillus nidulans. F. M. Dean, J. C. Roberts and A. Robertson. Chem Soc J p 1432-9 My '54

Constituents of the higher fungi; agrocybin. E. R. H. Jones and J. D. Bu'Lock. Chem Soc J p3719-20 N '53

Fungi in polluted water and sewage. W. B. Cooke. bibliog Sewage & Ind Wastes 26:539-49, 661-74, 790-4 Ap-Je '54

Microbiological deterioration of rubber insulation; abstract. J. T. Blake and others. il Elec Eng 72:960 N '53

Relative responsiveness of certain properties of cotton fiber to microbial action. P. B. Marsh and others. bibliog il Textile Res J 24:31-8 Ja '54

Significance of fungus growth in analytical and radiochemical work with strontium-containing solutions. S. Z. Lewin, P. J. Lucchesi and J. E. Vance. Am Chem Soc J 75:6058 D 5 '53

Studies in mycological chemistry; flaviolin, 2(or 3) : 5 : 7-trihydroxy-1 : 4-naphthaquinone, a metabolic product of aspergillus citricus (Wehmer) mosseray. B. D. Astill and J. C. Roberts. Chem Soc J p3302-7 O '53

See also

Molds (botany)
Paper—Fungus resistance
Phycomyces
Polyporus
Yeasts

Bibliography

Fungi in polluted water and sewage; literature review. W. B. Cooke. Sewage & Ind Wastes 26:539-49 bibliog(41 titles, p547-9) Ap '54

Culture mediums

Coprogen, the isolation of a new growth factor required by pilobolus species. C. Pidacks and others. bibliog Am Chem Soc J 75:6064-5 D 5 '53

FUNGI, Pathogenic

Treatment of cryptococcus neoformans in mice with stilbamidine. J. M. Miller and others. bibliog Science 118:31 Jl 3 '53

See also

Histoplasmosis
Mycosis

FUNGICIDES

Antifungal agents, some 3-imino-5-alkylmercapto-1,2,4-dithiazole salts. R. E. Allen, R. S. Shelton and M. G. Van Campen, jr. Am Chem Soc J 76:1158-9 F 20 '54

Compare phenyl mercurials. P. P. Hope. Soap & San Chem 29:175 D '53

Fungicides in paints; report number 1118 of Engineering research and development laboratories, Fort Belvoir, Va.; abstract. Chem Age (Lond) 68:917-18 Je 20 '53

Fungicides in textiles as sales-promotion tools. C. C. Yeager. il Am Dyestuff Rep 42:591-4 Ag 31 '53

Improvement in fungicides through formulations. C. C. Yeager. bibliog Can Chem Process 38:58-9 Je 20 '54

Investigations on organo-tin compounds; biocidal properties of organo-tin compounds. G. J. M. van der Kerk and J. G. A. Luijten. bibliog J Ap Chem 4:314-19 Je '54

Mildew-preventing activity of rhodanine derivatives. F. C. Brown and others. bibliog Ind & Eng Chem 45:1027-33 My '53

Preservatives; fungicidal agents based on Hercules' Rosin Amine D. Chem Eng 60:369-70 O '53

Relative toxicity of disinfectants available for use in the pulp and paper industry. B. F. Shema and J. H. Conkey. Tappi 36:sup20A+ N '53

Resolution and fungistatic action of 1,4-cyclohexanediol bis(bromoacetate). J. P. LaRocca and others. Science 118:278-9 S 4 '53

Review of mildewproofing treatments. E. C. Hansen and C. A. Bergman. bibliog Am Dyestuff Rep 42:466-8 Jl 20 '53

Safer shipping for fruit; antifungal formulations, built around sodium orthophenylphenate. il Chem W 75:54+ Jl 10 '54

FUNGICIDES—*Continued*

Stability to water leaching of some textile fungicides applied to unlined flax forestry fire hose. G. R. F. Rose and C. H. Bayley. Textile Res J 24:229-34 Mr '54

Synthesis and fungistatic activity of some 3-hydroxybiphenyl derivatives. C. K. Bradsher, F. C. Brown and H. K. Porter. bibliog Am Chem Soc J 76:2357-62 My 5 '54

Synthesis and fungistatic activity of some 5-(1-methyl-2-thioalkylethylidene)-rhodanines. C. K. Bradsher, F. C. Brown and R. J. Grantham. bibliog Am Chem Soc J 76: 114-15 Ja 5 '54

Urea-formaldehyde resin as a vehicle for semi-permanent insecticidal and fungicidal coatings on bookbindings and bookcases. P. Bracey and F. Barlow. bibliog J Doc 9:157-68, pl 1-2 S '53

See also
Diphenyl
Tetrachlorohydroquinone

FUR

Refrigeration for fur storage. plan diags Heat & Ven 51:88-92 Mr '54

See also
Dyes and dyeing—Fur

FUR insurance. See Insurance, Fur

FUR trade

Customer versus colleague ties among retail furriers. L. Kriesberg. J Retailing 29:173-6+ Winter '53-54

Poor man's mink. il Bsns W p68-9 Ag 1 '53

Directories

Fur age weekly, classified fur source directory. 320p pa $1 Fur vogue pub. co. 127 W. 30th st, New York 1 '53

FURADANTIN

First the hard way; Eaton laboratories, inc. il Chem W 72:34+ My 9 '53

FURAN

Derivatives of acetoacetic acid; the rearrangement of 3-acyl-2 : 5-dihydrofuran-2-one derivatives to furan-3-carboxylic acids. R. N. Lacey. Chem Soc J p822-6 Mr '54

Grignard reactions involving opening of the furan ring. R. C. Fuson and H. P. Wallingford. bibliog Am Chem Soc J 75:5950-2 D 5 '53

Pinacol rearrangement in the heterocyclic series; thiophene and furan analogs of benzopinacol. M. R. Kegelman and E. V. Brown. bibliog Am Chem Soc J 75:5961-3 D 5 '53

FURANOCHROMONE

Furanochromones derived from quinol. G. R. Ramage and C. V. Stead. Chem Soc J p3602-6 N '53

FURANOSIDES

Methyl β-D-gulofuranoside and certain other derivatives of D-gulose. H. G. Fletcher, jr. H. W. Diehl and R. K. Ness. bibliog Am Chem Soc J 76:3029-31 Je 5 '54

Synthesis of glucofuranosides. D. D. Phillips. Am Chem Soc J 76:3598-9 Jl 5 '54

See also
Ribofuranosides

FURETHRIN. See Pyrethrins

FURFURAL

Adiponitrile-from-furfural synthesis; abstract. O. W. Cass. Chem & Eng N 32:2196-7 My 31 '54

Furfural raw materials; abstract. P. A. Wells, jr. Chem & Eng N 32:3835 S 27 '54

Polarographic reduction of furfural. R. A. Day, jr. bibliog Am Chem Soc J 76:280-1 Ja 5 '54

Streamlined magic; Quaker oats co. promotes furfural with explanation-through-magic shows. il Chem W 73:14-15 O 31 '53

Ternary system; furfural-methyl isobutyl ketone-water at 25°C. J. B. Conway and J. B. Philip. bibliog Ind & Eng Chem 45: 1083-5 My '53

Analysis

Determination of furfural in oil in refinery operations by ultraviolet spectrophotometry. L. L. Gent, R. C. Pomatti and H. Levin. bibliog Anal Chem 26:413-14 F '54

FURFURYL alcohol

New furfuryl alcohol plant of Quaker oats co.; new catalytic hydrogenation process. il Chem Eng 60:150 D '53; Chem & Eng N 31:4298+ O 19 '53

FURMAN, Nathaniel Howell, 1892-

Nathaniel Howell Furman, the man and his work. R. M. Burns. Electrochem Soc J 101:sup22C-4C Ja '54

Palladium medal award. por Electrochem Soc J 100:sup233C Ag '53

FURNACE black. See Carbon black

FURNACES

Fixation of atmospheric nitrogen in a gas heated furnace. W. G. Hendrickson and F. Daniels. diag Ind & Eng Chem 45:2613-15 D '53

Furnaces for hot pressing. il diag Steel 133: 98+ Jl 20 '53

Heat-resistant furnace castings. W. L. Nelson. Oil & Gas J 52:143 Jl 20 '53

Heat technology; tubular process furnaces. C. Bliss. il diags Chem Eng 60:208-12 Je '53

Heat transfer in a gas fired furnace. S. J. Genna and others. bibliog diags A S M E Trans 76:527-36 My '54

Industrial furnaces. il diags Iron Age 173: supF 1-32+ F 25 '54

International flame radiation research at IJmuiden. il diags Metallurgia 49:265-70 Je '54

International flame-radiation research at Ijmuiden. G. W. V. Callenfels. il Engineering 176:555-6 O 30 '53

New type of radiant tubular heater. T. F. Kreipe. il diags A S M E Trans 76:337-40; Discussion. 340-2 Ap '54

Substitute materials make good, improve product; Bard mfg. co.'s furnaces. il Iron Age 174:133-4 Ag 5 '54

See also
Blast furnaces
Cement kilns
Coke ovens
Cupola furnaces
Electric furnaces
Glass furnaces
Glass tanks
Kilns
Lime kilns
Oil burners
Open hearth furnaces
Refractory materials

Atmosphere control

Brazing stainless steels in controlled atmosphere. Chem Age (Lond) 69:1082 N 21 '53

Carbo-nitriding; new Birlec controlled atmosphere furnace. il diags Automobile Eng 43: 550-2 D '53

How furnace atmospheres are made and controlled. Iron Age 173:supF34+ F 25 '54

How to get the best results from sintering furnaces. H. M. Webber. il Iron Age 174: 83-7 S 30 '54

Industrial furnaces; sintering, brazing. il diags Iron Age 173:supF 19-21 F 25 '54

Lining

Refractory materials for gas-fired equipment involve variety of selection-considerations. E. Blaha. Am Gas J 180:16-17+ F '54

Manufacture

Overhead assembly line brings bulky casings and other parts to assembly area; Coleman co. il Steel 134:109-10 Mr 1 '54

FURNACES, Annealing

Anneal furnace makes double play; Wilson foundry division of Willys motors, inc. W. M. Hepburn. il diag Steel 134:128-9 Je 14 '54

Continuous batch type annealing furnace; abstract. R. H. Gelder and W. E. Hand. Iron & Steel Eng 31:139 S '54

Industrial furnaces; controlled heating and cooling. il diags Iron Age 173:supF 12-18 F 25 '54

Jet principle blasts annealing troubles. W. K. Lombard. il diag Steel 133:80-1 Ag 24 '53

Portable base brightens annealers' future. il Steel 134:127-8 Mr 8 '54

Rotaflame burners heat rectangular furnace. W. Trinks. il Steel 135:132+ S 13 '54

Westinghouse gas fired, pit furnace. il Steel 133:254 O 12 '53

See also
Electric furnaces, Annealing

FURNACES, Annealing—*Continued*

Atmosphere control

Generating protective atmospheres for heat treatment. il Engineering 177:311 Mr 5 '54

Inert gas annealing puts zip in aluminum strip; Scovill manufacturing co. il Steel 135:112-13 Jl 12 '54

Nitroneal generator for producing protective atmospheres. il Chem Age (Lond) 70: 565-6 Mr 6 '54; Same. Metallurgia 49:134 Mr '54

FURNACES, Boiler

Boiler and furnace designed for spreader-stoker firing. L. H. Coykendall and P. R. Loughin. il diags A S M E Trans 76:873-7; Discussion. 877-81 Ag '54

New firing method cuts power cost; Cyclone furnace. S. T. MacKenzie. diags Elec World 140:130-3 D 14 '53

Pulsating combustion; an old idea may give tomorrow's boilers a new look. H. Kallen. il diags Power 98:88-91 Ag '54

FURNACES, Carburizing

Automatic carbon control. H. Ipsen and E. J. Rupert. il diags Metal Prog 66:98-102 Jl 1 '54

Continuous heat treat setup carburizes precision parts; Aircraft gear division, Dana corp. C. A. Payntor. il Iron Age 173:148-50 My 20 '54

FURNACES, Cupola. See Cupola furnaces

FURNACES, Electric. See Electric furnaces

FURNACES, Enameling

Furnace tools get new lease on life; new high temperature ceramic coatings keep down tool scale. T. F. Moeller. il Steel 133: 139 D 7 '53

Industrial furnaces; enameling, galvanizing. il diag Iron Age 173:supF26-7 F 25 '54

See also

Electric furnaces,
Enameling

FURNACES, Forging

Furnace on a lathe permits indicating at 1000 F; illustrations with text. W. M. Stocker, jr. Am Mach 97:108 D 21 '53

Industrial furnaces; heating for hot forming. il diags Iron Age 173:supF28-32 F 25 '54

See also

Electric furnaces,
Forging

FURNACES, Foundry

Inventory of foundry equipment; melting and heat treating; with tables. Foundry 82:152-4 My '54

See also

Cupola furnaces
Electric furnaces,
Foundry
Furnaces, Iron founding

Charging

Equipment for the small foundry; yard work and furnace charging. il diag Foundry 82: 179-81 My '54

Lining

Principles of refractories. T. H. Trevithick. Foundry 82:226+ Ap '54

Refractories; American foundrymen's society annual meeting, Cleveland; abstracts of papers. Foundry 82:154 Je '54

FURNACES, Galvanizing

Industrial furnaces; enameling, galvanizing. il diag Iron Age 173:supF26-7 F 25 '54

FURNACES, Heat treating

Automatic furnace line for heat treating aircraft screws; Standard pressed steel co. il Automotive Ind 109:39+ D 15 '53; Steel 133:134-5 O 5 '53

Automatic furnaces added; Jessop steel co. il Steel 133:164 O 26 '53

Comparison of economics and methods for heating steel strip. C. E. Peck. Blast F & Steel Pl 42:791-9 Jl '54

Double-end batch furnaces speed heat treatment of small parts. il Iron Age 172:136-7 Jl 2 '53

Heat processing in industry; facts and figures. F. O. Hess. il plan diags Iron & Steel Eng 31:73-84 F '54

Heat treatment furnace developments. il diags Metallurgia 49:283-300 Je '54

Industrial furnaces; lower temperatures. il Iron Age 173:supF22-5 F 25 '54

Integrated heat treating and machining setup triples production; Tractor works of International harvester co. A. A. Fisk. il Iron Age 172:174-6 D 3 '53

Inventory of foundry equipment; melting and heat treating; with tables. Foundry 82:152-4 My '54

Long cycle heat treating speeded; double-ended heat treating furnaces. il Mill & Factory 54:105 Ap '54

Method for improving temperature uniformity in furnaces. O. Lutherer and R. J. Reed. il plan Metal Prog 65:113-20 Ap '54

1954 American Machinist production preview. il Am Mach 98:205-8 Ja 18 '54

One setup heat treats wide variety of work; Elastic stop nut corp. of America. S. W. Chantler and F. C. Schaefer. il plan diag Iron Age 172:131-4 S 24 '53

Razor blade test for decarb. il Steel 134:91 F 1 '54

Short-cycle normalizing coordinates tube mill production; Lone star steel co. J. Kniveton. il diag Iron Age 173:136-8 My 6 '54

Tools for the heat treater. A. H. Koch. il diags Tool Eng 32:45-53 Mr '54

Versatility, key to efficient heat treat layout; H. M. Harper co. K. G. Hookanson. il Iron Age 173:148-50 Mr 25 '54

Westinghouse car type furnace. il Steel 135: 100 Ag 9 '54

See also

Electric furnaces,
Heat treating

Atmosphere control

Batch heat treating is versatile; Jack & Heintz inc. F. Crahen. il Steel 133:86-7 S 28 '53

Car-type furnace makes heat treating continuous; Steel processing corp. il Steel 134: 119 My 3 '54

Carbon restoration of bar stock with a batch-type furnace. H. W. Callahan. il diags Metal Prog 65:95-9 Je '54

Carburising atmosphere; GEC carbon gauge. Chem Age (Lond) 71:276 Ag 7 '54

Classification of prepared atmospheres; table; data sheet; supplement to 1948 edition of Metals handbook. C. C. Eeles and M. E. Shriner. Metal Prog 66:130B Jl 15 '54

Controlled atmospheres, their generation and utilization. O. E. Cullen. diags Metal Prog 64:101-6 D '53

Dew point; a means of measuring the carbon potential of prepared atmospheres. N. K. Koebel. flow diag il Metal Prog 65:90-6+ F '54

Electric Furnace portable, visual unit for testing special atmospheres. Blast F & Steel Pl 42:377+ Mr '54

Equilibrium between steels and dew points of a prepared furnace atmosphere; data sheet. N. K. Koebel. Metal Prog 65:96B F '54

Furnace line heat treats 50,000 fasteners an hour; Standard pressed steel co. il Iron Age 172:134 S 3 '53

General Metal Products iron lung for sick metals; heat treating of stainless steel. il Steel 133:132 S 7 '53

Heat treating; furnace on scaffold solves unusual plant problem; Auto specialties mfg. co. il Iron Age 173:177 F 4 '54

High temperature alloy fastenings require careful fabricating, precision heat treating; H. M. Harper co. T. W. Harker. il diag Iron Age 174:171-3 S 16 '54

Hot oil quenching toughens tractor shovel parts; Frank G. Hough co. R. H. Marshall. il plan Iron Age 172:67-71 D 31 '53

Industrial furnaces; surface treating and hardening. il diags Iron Age 173:supF4-11 F 25 '54

Lindberg gas-fired radiant tube atmosphere box furnace. Am Mach 98:136 Ag 30 '54

No-scale furnaces. Automobile Eng 43:420 O '53

Shaker furnace simplifies heat treating of small parts; Fred Heinzelman & sons heat treating plant. W. D. Latiano. il Iron Age 174:102-3 Ag 5 '54

Strict gas control halts decarb in aircraft tubing; Michigan seamless tube co. W. D. Latiano. il diag Iron Age 172:154-7 N 19 '53

Westinghouse shaker hearth furnace. il Mach 60:242+ Ja '54; Blast F & Steel Pl 41:1476 D '53

FURNACES, Heat treating—*Continued*

Control

Automatic process control; heat treating. il diags Iron Age 172:280-5 O 8 '53

Lining

Cast refractories lower heat treat furnace costs. T. F. Keegan. il Iron Age 172:113-15 O 22 '53

FURNACES, Heating

Alloy castings; chrome-nickel alloys meet high temperature conditions. il Iron Age 173:158-9 Mr 25 '54

Cast alloys tops for hot spots. E. A. Schoefer. il Steel 134:122-5 My 24 '54

Furnace; Allegheny Ludlum installs new fast slab heater. Iron Age 172:149 D 17 '53

High alloy castings reduce steel plant maintenance. il Iron & Steel Eng 31:132+ Ap '54

Industrial furnaces; heating for hot forming. il diags Iron Age 173:supF28-32 F 25 '54

New soaking pit facilities at steel division of Ford motor co. B. D. Barns and H. E. Raaflaub. il Iron & Steel Eng 31:109-12; Discussion. 112-14 My '54

Progress in the development and application of metallic recuperators in the American steel industry; abstract. E. A. Vierow. Steel 133:126+ O 26 '53

Soaking pit practice at the Normanby park steelworks of John Lysaght, ltd. A. H. Norris. il Iron & Steel Inst J 175:353-9 D '53

Suspended roofs for soaking pits; patents. M. Nord. diags Iron & Steel Eng 31:24+ My '54

Tunnel furnace built for billet heating; Timken co. il Iron & Steel Eng 31:112+ F '54; Iron Age 173:149 F 18 '54; Blast F & Steel Pl 42:353 Mr '54; Tool Eng 32:112 Mr '54; Steel 134:118 Ap 26 '54

See also

Furnaces, Recuperative and regenerative

Control

Instrumentation factors affecting production in slab-heating furnaces. C. M. Yaeger. Instruments 26:402-3+ Mr '53

Modern automatic fuel shut-off system for soaking pits. A. L. Lancaster. il diags Iron & Steel Eng 30:69-76 D '53

Soaking-pit instrumentation. L. F. Kopsa. il diags Instruments & Automation 27:130-1+ Ja '54

Soaking-pit instrumentation. F. R. Pullen. il diags Instruments 26:724-6+ My '53

Firing

Fuel selection for soaking pits; Johnstown plant of the Bethlehem steel co. F. R. Pullen. Iron & Steel Eng 31:80-2 Mr '54

Lining

Economical refractory bottom developed for reheating furnaces. Iron & Steel Eng 30:135 N '53

Use of plastic, castable and gunning materials in soaking pits. W. D. Rees. Iron & Steel Eng 31:59-63; Discussion. il 63-7 Je '54

FURNACES, Iron founding

Melting iron in the reverberatory furnace. C. G. de Laval. Foundry 82:224+ Mr '54

See also

Cupola furnaces

Electric furnaces, Iron founding

Lining

Cutting refractory costs in producing malleable iron. A. S. Johnson. diags Foundry 82:106-7+ Je '54

FURNACES, Metallurgical

Temperature ranges; table. Iron Age 173:supF70+ F 25 '54

See also

Blast furnaces

Cupola furnaces

Electric furnaces, Metallurgical

Furnaces, Steel making

Open hearth furnaces

Control

Automatic process control; melting and rolling. il diags Iron Age 172:288-91 O 8 '53

Lining

Current refractory practice as applied in copper smelting. W. F. Rochow and L. A. McGill. il diags J Metals 6:338-42 Mr '54

FURNACES, Non-ferrous melting

Equipment for the small foundry; melting and pouring. il Foundry 82:182-5 My '54

See also

Electric furnaces, Non-ferrous melting

FURNACES, Open hearth. See Open hearth furnaces

FURNACES, Recuperative and regenerative

Metallic recuperators in the steel industry. E. A. Vierow. il diags Iron & Steel Eng 31:57-67; Discussion. 67-70 Ag '54

FURNACES, Reverberatory

Gas combustion practice described for copper smelters of the Southwest. H. Foard. il J Metals 5:1629-30 D '53

Hurley furnace and boiler description and design; Kennecott copper corp. E. A. Slover. diags J Metals 5:Trans 1435-41 N '53

Melting iron in the reverberatory furnace. C. G. de Laval. Foundry 82:224+ Mr '54

Reverberatory furnace practice at Noranda. J. N. Anderson. bibliog plans diags J Metals 6:745-58 Je '54

FURNACES, Solar. See Solar furnaces

FURNACES, Steel making

Co-operation in research; illustrations from the iron and steel industry. F. H. Saniter. il diags Metallurgia 49:91-4 F '54

Length of oil and gas flames. A. L. Cude. flow diag diags Iron & Steel Inst J 175:304-12 N '53

See also

Electric furnaces, Steel making

Furnaces, Heating

Open hearth furnaces

Lining

Refractory types and applications. H. A. Robertson. Iron and Steel Eng 31:86-9 Ja '54

FURNACES, Warm air

Dealer stresses forced in furnace sales; Brandt home heating co. P. Lance. il Sheet Metal Worker 45:45-6 N '53

Proposed ASHVE code for testing and rating heavy duty furnaces and direct-fired unit heaters. Heating-Piping 26:143-7 Jl '54

Sheet metal worker's contractor survey; heating and cooling equipment. il Sheet Metal Worker 45:53-4+ Mr '54

Cleaning

Expand your heating business through furnace cleaning. il Sheet Metal Worker 45:82 Je '54

FURNAS, Clifford Cook, 1900-

Chemical engineer takes over as chancellor of University of Buffalo. P. C. Shaw. por Chem Eng 61:320-2 S '54

Eye on tomorrow's power. por(cover) Chem & Eng N 32:3520+ S 6 '54

FURNESS, Withy and company

Statement by the chairman. E. H. Murrant. Economist 168:671 S 5 '53

FURNITURE

Effects of non-unformity and furnishings on panel heating performance. L. F. Schutrum and C. M. Humphreys. Heating-Piping 26:131-6 F '54; Discussion. 26:175-6 Mr '54

See also

Office furniture

FURNITURE, Built-in

Built-ins for a den. il diags Am Bld 75:190 Jl '53

Dining table recesses under kitchen pass-through. il diags Am Bld 76:108 Jl '54

How to build in a sofa. il diags Am Bld 76:276 Ag '54

People want built-ins to save on furniture. il diags House & Home 5:154-6 My '54

See also

Beds, Built in

FURNITURE, Metal

Everybody said, hospitals are a tough market to sell! Royal metal mfg. co. A. E. Siegel. il Sales Management 70:34+ My 1 '53

FURNITURE, Metal—*Continued*

Manufacture

Engineering metal finish; methods, materials command equal stature. R. J. Deisenroth. il Steel 135:115-16+ Jl 19 '54

How one plater beat nickel shortage; Wes-X PR bright copper plating process of the Hanson-Van Winkle-Munning co. il diag Steel 133:174-5 S 21 '53

FURNITURE, Office. See Office furniture

FURNITURE, Plastic

More uses for plastic materials; fitting-out of boats. il Chem Age (Lond) 69:327 Ag 15 '53

FURNITURE covers. See Slip covers, Furniture

FURNITURE industry and trade

Contour chair story; new twist in selling furniture. R. M. Harmer. il Am Bsns 23:28+ D '53

Furniture hopes soaring. Bsns W p54 N 14 '53

It sold 4,000 bedroom sets; Furniturama, rolling furniture showroom. il Sales Management 72:48 Ja 1 '54

FURRIERS' customers insurance. See Insurance, Furriers' customers

FUSED quartz. See Silica, Fused

FUSED salts. See Salts, Fused

FUSED silica. See Silica, Fused

FUSEL oil

Amino acid from fusel oil; abstract. H. C. White. Can Chem Process 38:106 S '54

FUSELAGE. See Airplanes—Fuselage

FUSES, Electric. See Electric fuses

FUSION. See Melting

FUSION, Heat of

Heat capacity, heats of fusion and vaporization, and vapor pressure of tetrafluoroethylene. G. T. Furukawa and others. J Res Nat Bur Stand 51:69-72 Ag '53

FUTURE scientists of America foundation

Future scientists of America foundation; its work and objectives. H. H. Armsby. J Eng Educ 44:160-4 N '53

104 students win science achievement awards. Chem & Eng N 32:3646 S 13 '54

FUTURES

New idea in futures; Midwest stock exchange may try setting up a market for futures contracts for government bonds. Bsns W p 142+ N 28 '53

Whose markets? evidence on some aspects of futures trading. H. Working. J Marketing 19:1-11 Jl '54

See also

Hedging

G

G-GAS. See Chemical warfare

GADOLINIUM

Heat capacity of gadolinium from 15 to 355°K. M. Griffel and others. bibliog Phys R 93:657-61 F 15 '54

Structure of Gd, Dy, and Er at low temperatures. J. R. Banister and others. bibliog Phys R 94:1140-2 Je 1 '54

Isotopes

From atoms to ions; isotopes of gadolinium. Steel 134:106 Mr 15 '54

Gadolinium isotopes separated by mass spectrograph. il Chem & Eng N 32:1018 Mr 15 '54

Nuclear reactions

Radiations of ${}_{64}Gd^{159}$(18 hr) and ${}_{64}Gd^{161}$(3.7 min). W. C. Jordan and others. bibliog Phys R 92:315-18 O 15 '53

GAGES

Adjustable go-no go ID gages. A. G. Amos. diags Am Mach 98:141 S 27 '54

Automatic gage checks strip thickness. il Iron Age 173:123 Ja 28 '54

Automatic process control; gaging and sorting. il Iron Age 172:274-9 O 8 '53

Automatic process control; melting and rolling. il diags Iron Age 172:291-3 O 8 '53

Automation demands integral gaging. E. J. Egan, jr. Iron Age 174:95 S 23 '54

British Indicators, accurate measurement of bores up to eight ft. deep. il Engineering 177:85 Ja 15 '54

Center positioning gage for angular wheeltruing. H. J. Gerber. diag Am Mach 98:127 Mr 1 '54

Federal special gages. il Mach 60:249 Ap '54

Gage for checking sizes and location of tapers on shafts. W. Morson. diags Mach 60:211-13 Mr '54

Height gage. T. J. Bizzoco. diag Tool Eng 31:41-2 N '53

How functional specifications affect gaging requirements. E. Buckingham. diags Mach 60:185-91+ My '54

How navy probes bores; US naval gun factory; illustrations with text. J. A. Penn. diags Am Mach 98:160-2 Mr 15 '54

How position tolerances affect gaging requirements. E. Buckingham. diags Mach 60:181-90 F; 186-92 Mr '54

Indicator that gages external height from an internal surface. K. H. Steenburgh. diag Mach 60:214 D '53

Inexpensive gage helps match tapers. C. Jensen. diags Am Mach 98:124 F 1 '54

Isotope inspection controls quality of product. E. W. Bratton. il diag Tool Eng 33:78-81 Jl '54

Nuclear gage continuously checks coating thickness; Accuray reflection gage. diag Iron Age 173:111 Ap 29 '54

Precision limit switches for production gaging. S. Kopacz. diags Am Mach 98:162 My 24 '54

Production gaging; industry watches its waste line. R. F. Huber. il Steel 134:98-101 Mr 15 '54

Replaceable OD gages. W. V. Anderson. diag Tool Eng 32:39 My '54

Roll gages. il Iron & Steel Eng 30:199-200+ N '53

Scherr indicating thread gages for quick inspection. il Am Mach 98:202 Mr 15 '54

Slip gauge accessories; DoAll co. il J Sci Instr 30:173 My '53

Some problems of large-scale measurements in the heavy electrical industry; abstract. T. P. Jolly. Elec R (Lond) 153:1078-9 N 6 '53

Special gaging equipment records deviations in millionths. il Mill & Factory 54:143 F '54

Squat load-measuring gauge. C. W. Newberry. il diags Engineering 177:339-41 Mr 12 '54

Standard gage blocks can be used for practically any gaging or layout application. il Mill & Factory 54:142-3 Ap '54

Stock gages for dies; reference sheets. F. Strasser. diags Tool Eng 31:79-82 N '53

Technical progress; tooling and gaging. il Steel 134:344-6+ Ja 4 '54

Temco gage simplifies cutter adjustment for boring. Iron Age 173:168-9 My 20 '54

Tolerances get fast check; cam ring is used in torque converters. il Steel 133:145 Jl 13 '53

Universal depth gage. F. P. Colline. diag Tool Eng 32:43 Ap '54

See also

Betameters
Measuring instruments
Micrometers
Pressure gages
Rain gages
Strain gages
Thickness measurement
Vacuum gages

Manufacture

Precoated stock helps cut production costs; Rochester mfg. co. il Iron Age 173:151 Je 17 '54

Testing

National physical laboratory interferometer. D. C. Barnes and M. J. Puttock. il diags Engineer 196:763-6 D 11 '53; Same. Engineering 176:757-9 D 11 '53

Tool and gage inspection. M. C. Curtis. il Instruments & Automation 27:1314-16 Ag '54

GAGES, Electric

Capacitance displacement gauge. W. M. Todd. il diags J Sci Instr 31:246-7 Jl '54

Electric gage for automatic size control of cylindrical grinders. il Mach 60:226 My '54

Electrical systems for hot strip mills. R. E. Marrs. il Iron & Steel Eng 31:99-100 F '54

GAGES, Electric—*Continued*

Gaging; electronic devices gage metal coating thickness. il Iron Age 174:152-4 Ag 19 '54

Two new Sheffield gaging devices. il Mach 60:217-18 F '54

Testing

How to check an electronic gage. il Iron Age 172:79 D 17 '53

GAGES, Pneumatic

Air gaging; a challenge and an answer. F. Meyer, jr. il diags Steel 133:108-10 Jl 20 '53

Continual recording of comparative paper caliper by air gauging; Aerosensor. A. B. Daniels. il diag Paper Tr J 138:70-1 My 14 '54

Die castings fit a precision product; Sheffield corp. il Steel 135:130 S 13 '54

Dimensional gaging and inspection by air gages and dial indicators. F. H. Hunter. diags Instruments 26:404-5+ Mr '53

Federal gaging equipment. il Mach 60:227-8 Ag '54

Gaging cartridges and other recent developments in air gaging. W. I. Wilt and H. Kiefaber. il diags Tool Eng 32:73-6 Ap '54

Inspection; thirteen basic machining dimensions checked at once. il Iron Age 172:121 N 26 '53; Steel 133:204 D 7 '53

Pneumatic gauging applied to the measurement of the bore of tube. R. Chittleburgh and others. diags J Sci Instr 31:20-2 Ja '54

Sheffield gages for inspecting engine pistons and shell bodies. il Mach 61:231 S '54

Sheffield gaging and inspection equipment. il Mach 60:235 Mr '54

Sheffield Precisionaire bore and multiple-dimension gages. il Mach 60:218 Je '54

Sheffield Precisionaire equipment for crankshafts, jet blades, and automotive piston pins. il Mach 60:243-4 N '53

Two new Sheffield gaging devices. il Mach 60:217-18 F '54

GAGES, Vacuum. See Vacuum gages

GAGING

Application of automatic gaging and controlling equipment to oil field production operations. R. L. Beckwith. bibliog il diag Pet Eng (Ref annual) 25:B7-10+ Jl 15 '53

Remote tank gaging via telemetering. D. N. McMillan. il Pet Eng 25:D 19+ N '53

Swivel chair tank gages. il diag Pet Eng 25:E4 Jl '53

GAINESVILLE, Florida

Sanitary affairs

Disposal by sanitary fill costs 77.4 cents per ton. C. E. Wright. il Pub Works 84:76 D '53

GALACTAN

Galactan of strychnos nux-vomica seeds. P. Andrews, L. Hough and J. K. N. Jones. Chem Soc J p806-10 Mr '54

Structure of an arabogalactan from Jeffrey pine (pinus jeffreyi). W. H. Wadman, A. B. Anderson and W. Z. Hassid. bibliog Am Chem Soc J 76:4097-101 Ag 20 '54

GALACTIC systems

Why do galaxies have a spiral form? C. H. Payne-Gaposchkin. il Sci Am 189:89-99 S '53

GALACTOBIOSE

Crystalline galactobiose from acid hydrolysis of okra mucilage. R. L. Whistler and H. E. Conrad. bibliog Am Chem Soc J 76:1673-4 Mr 20 '54

GALACTOSE

Branched-chain sugars; the action of Grignard reagents on 1 : 2-3 : 4-di-O-*iso*propylidene-6-O-toluene-*p*-sulphonyl-α-D-galactose. W. G. Overend and G. Vaughan. Chem Soc J p2155-6 Je '54

Crystalline forms of galactose. M. L. Wolfrom, M. Schlamowitz and A. Thompson. Am Chem Soc J 76:1198-9 F 20 '54

D-galactose. W. A. P. Black and W. J. Cornhill. bibliog Chem & Ind p514-16 My 1 '54

Occurrence of D-xylose and D-galactose in brown seaweeds. E. T. Dewar. bibliog Chem & Ind p785-6 Jl 3 '54

Structure of the oxazoline derivatives of glucose and galactose. J. C. P. Schwarz. Chem Soc J p2644-6 Jl '54

GALACTOSIDES

Structure of galactosylglycerol from irideae laminarioides. E. W. Putman and W. Z. Hassid. bibliog Am Chem Soc J 76:2221-3 Ap 20 '54

GALACTURONIDES

Crystalline brucine salts of oligogalacturonides. R. M. McCready, E. A. McComb and D. R. Black. bibliog Am Chem Soc J 76:3035-6 Je 5 '54

GALE, Hoyt Stoddard, 1876-1952

Tribute. D. D. Condit. por Am Assn Pet Geologists Bul 37:2240-4 S '53

GALES. See Winds

GALLAGHER, William M.

Gallagher started out with a box camera. J. L. Collings. Ed & Pub 86:64 My 16 '53

GALLIC acid

Building new gallate potential. il Chem W 74:40+ My 29 '54

Gallic numerology; octyl and dodecyl gallate edible products. Chem W 73:42+ O 24 '53

GALLIUM

Mass spectrum of gallium vapor. S. Antkiw and V. H. Dibeler. bibliog J Chem Phys 21:1890-1 O '53

Relationship between *p*H and extraction characteristics of acetate-buffered gallium solutions. T. Moeller and others. Chem Age (Lond) 70:889-90 Ap 17 '54

Slow neutron velocity spectrometer studies; Re, Ta, Ru, Cr, Ga. E. Melkonian and others. Phys R 92:702-15 N 1 '53

Analysis

Acetylacetone as an analytical extraction agent. J. F. Steinbach and H. Freiser. bibliog Anal Chem 26:375-9 F '54

Separation and microscopic identification of gallium in the presence of aluminum. A. Wold, J. H. Baird and C. R. Hough. bibliog il Anal Chem 26:546-8 Mr '54

Volumetric determination of gallium. O. W. Rollins and C. K. Deischer. bibliog Anal Chem 26:769-70 Ap '54

Isotopes

Gallium, germanium, and arsenic nuclides produced in the bombardment of copper with 2.2-Bev protons. A. Turkevich and N. Sugarman. Phys R 94:728 My 1 '54

Isomeric state of Ga^{65}. B. Crasemann. Phys R 93:1034 Mr 1 '54

Nuclear quadrupole resonance of the stable gallium isotopes. H. G. Dehmelt. bibliog Phys R 92:1240 D 1 '53

Nuclear reactions

Decay of Ga^{66}. L. G. Mann and others. bibliog diag Phys R 92:1481-9 D 15 '53

Decay of gallium 67. W. E. Meyerhof and others. bibliog diags Phys R 92:758-65 N 1 '53

GALLIUM alloys

Gallium-indium system. W. J. Svirbely and S. M. Selis. bibliog J Phys Chem 58:33-5 Ja '54

Magnetization in nickel ferrite-aluminates and nickel ferrite-gallates. L. R. Maxwell and S. J. Pickart. bibliog il diags Phys R 92:1120-6 D 1 '53

GALLIUM antimonide

Some properties of *p*-type gallium antimonide between 15°K and 925°K. H. N. Leifer and W. C. Dunlap, jr. bibliog Phys R 95:51-6 Jl 1 '54

GALLIUM chlorides

Addition compounds of gallium trichloride with methyl halides. H. C. Brown, L. P. Eddy and R. Wong. bibliog diag Am Chem Soc J 75:6275-8 D 20 '53

GALLIUM compounds

High temperature gallate(III) formation. T. Moeller and G. L. King. bibliog Am Chem Soc J 75:6060-1 D 5 '53

Relationships among the absorption spectra of the 5,7-dihalo-8-quinolinol chelates of gallium(III) and indium(III). T. Moeller, F. L. Pundsack and A. J. Cohen. bibliog Am Chem Soc J 76:2615-18 My 20 '54

GALLS (botany)

Secondary galls and other plant growth-modifying effects induced by translocated α-methoxyphenylacetic acid. J. W. Mitchell and W. H. Preston, jr. il Science 118:518-19 O 30 '53

GALVANIC cells. See Electric batteries

GALVANIZING

Controlled hot dip galvanizing. K. S. Frazier. il diag Steel 134:102-3 F 22; 98-9 Mr 1; 138-9 Mr 8 '54

Electric hot-galvanising bath. il Engineering 176:638 N 13 '53

Electroplating prior to hot galvanizing for improved results. A. T. Baldwin. il Metal Prog 64:76-81 D '53

Films to aid galvanizing. A. T. Baldwin. Steel 133:170 S 14 '53

Kinetics of galvanizing. D. J. Blickwede. J Metals 5:Trans 807-8 Je '53

New angles for the galvanizing line; Wheeling steel corp. D. A. McArthur and others. il diag Steel 134:100-2 Ap 5; 102-4 Ap 12 '54

Process of tight coat hot dip galvanizing; patent. diags Iron & Steel Eng 30:24 N '53

Selas radiant burners improve galvanizing quality, cut costs. R. M. Breckenridge and K. E. Rasmussen. il diags Iron Age 172:168-71 N 5 '53

Wheeling Steel's continuous galvanizing line. F. L. Reed. Iron & Steel Eng 31:191 S '54

See also

Furnaces, Galvanizing

GALVANOMAGNETIC properties. See Magnetic properties

GALVANOMETERS

Anti-vibration mount for a sensitive instrument in a boiler house. O. P. T. Kantorowicz. diag J Sci Instr 31:28-9 Ja '54

Apparatus for measuring the dynamic shear elasticity and viscosity of solids at high audio frequencies. J. J. Benbow. diags J Sci Instr 30:412-13 N '53

Brownian fluctuations of a coupled galvanometer system. A. V. Hill. J Sci Instr 30:44-5 F '53

Galvanometer operated alarm switch. J. L. Horrell. diag J Sci Instr 31:107 Mr '54

Measurement of temperature by thermocouple and galvanometer. L. G. A. Sims. Engineering 177:180-1 F 5 '54

Moving coil galvanometer of extreme sensitivity. K. Copeland and others. diag J Sci Instr 30:40-4 F '53

Recording signals from resistance strain gauges. D. A. Senior. il diags Engineer 197:410-13, 446-9, 482-3 Mr 19-Ap 2 '54

Simple photocell amplifier attachment for galvanometers. M. W. Jervis. diag J Sci Instr 31:302 Ag '54

Tuned galvanometer amplifier. J. R. Beattie and G. K. T. Conn. bibliog diags R Sci Instr 25:888-91 S '54

Vibration-free galvanometer support. D. A. Lupfer. diags R Sci Instr 24:1073 N '53

GAMBLING

UAW warns; you can't win; union wars on in-plant gambling. Bsns W p 178-9 S 19 '53

GAMBLING machines. See Slot machines, Gambling

GAME

Wild game cooking festival draws men. il Gas Age 113:36-7 Mr 25 '54

GAMES

These fads have built a billion-dollar business; scrabble. il Bsns W p78-80+ N 28 '53

Toys and games; well-designed and well-aimed packages. il Mod Packaging 27:104-9+ Je '54

See also

Cards

GAMMA globulin. See Globulins

GAMMA ray spectrometer. See Spectrometers, Gamma ray

GAMMA rays

Alpha- and gamma-ray spectra of Pu^{238}. F. Asaro and I. Perlman. bibliog Phys R 94:381-5 Ap 15 '54

Alpha-gamma angular correlation in ionium (Th^{230}). G. M. Temmer and J. M. Wyckoff. bibliog diags Phys R 92:913-17 N 15 '53

Angular correlation between the first and third gamma rays in Ti^{48}. C. E. Whittle and P. S. Jastram. bibliog Phys R 92:205-6 O 1 '53

Angular correlation of the cascade gamma rays from the decay of Au^{198}. C. D. Schrader. bibliog diags Phys R 92:928-31 N 15 '53

Angular correlation of the cascade γ rays from the decay of ${}_{84}Po^{214}$. F. Demichelis and R. Malvano. Phys R 93:526-7 F 1 '54

Angular correlation of the gamma rays from Mn^{56}. F. R. Metzger and W. B. Todd. bibliog diag Phys R 92:904-6 N 15 '53

Angular correlations of gamma rays in Ta^{181}. F. K. McGowan. bibliog diag Phys R 93:471-7 F 1 '54

Angular distribution of photoelectrons from gamma radiation of 0.4 and 1.3 Mev. A. Hedgran and S. Hultberg. Phys R 94:498-9 Ap 15 '54

Attenuation of gamma rays. G. H. Peebles. bibliog J Ap Phys 24:1272-87, 1437-47 O, D '53

Beta-gamma polarization correlations. D. R Hamilton and others. bibliog diags Phys R 92:1191-8 D 1 '53

Build-up measurements on cobalt-60 gamma radiation in iron and lead. C. Garrett and G. N. Whyte. bibliog Phys R 95:889-91 Ag 15 '54

Calibration of gamma ray logs. A. Blanchard and J. T. Dewan. diags Pet Eng 25:B76+ Ag '53

Capture gamma rays from the proton bombardment of Be^{9}. W. F. Hornyak and T. Coor. bibliog Phys R 92:675-80 N 1 '53

Comparison of nuclear and gamma-ray energy scales. K. W. Jones and others. bibliog Phys R 94:947-52 My 15 '54

Coulomb excitation of Ta, W, and Au. W. I. Goldburg and R. M. Williamson. bibliog diag Phys R 95:767-71 Ag 1 '54

Degradation of gamma rays in water. M. M. Weiss and W. Bernstein. bibliog diag Phys R 92:1264-5 D 1 '53

Design and use of ten-kilocurie source of gamma radiation. L. E. Brownell and others. bibliog il plan diags Chem Eng Prog 49:569-76 N '53

Design fission irradiator to break trichinosis cycle. H. J. Gomberg and others. diags Food Eng 26:78-80+ S '54

Dipole and quadrupole transition probabilities in neutron-capture gamma radiation. B. B. Kinsey and G. A. Bartholomew. bibliog Phys R 93:1260-78 Mr 15 '54

Directional correlation of the γ rays of A^{38}. J. J. Kraushaar and others. bibliog Phys R 95:456-7 Jl 15 '54

Effect of gamma-rays upon dextran. C. R. Ricketts and C. E. Rowe. Chem & Ind p 189-90 F 13 '54

Evolution of halides from halogenated plastics exposed to gamma radiation. J. Byrne and others. Ind & Eng Chem 45:2549-52 N '53

Gamma-gamma angular correlation in Pd^{106}. E. D. Klema and F. K. McGowan. Phys R 92:1469-72 D 15 '53

Gamma-gamma directional correlation experiments with Mo^{93m}. J. J. Kraushaar. bibliog Phys R 92:318-20 O 15 '53

Gamma radiation from B^{10} bombarded by protons. R. B. Day and T. Huus. Phys R 95:1003-6 Ag 15 '54

Gamma radiation from certain nuclear reactions. R. M. Sinclair. bibliog Phys R 93:1082-6 Mr 1 '54

Gamma radiation from magnesium-26 under proton bombardment. L. N. Russell and others. bibliog Phys R 95:99-101 Jl 1 '54

Gamma radiation from proton bombardment of Li^{7}. A. A. Kraus, jr. Phys R 93:1308-10 Mr 15 '54

Gamma radiation from reactions induced by polarized particles. J. M. Kennedy and W. T. Sharp. Phys R 95:440 Jl 15 '54

Gamma radiation from the reaction $C^{13}(p,\gamma)N^{14}$. H. H. Woodbury and others. bibliog Phys R 92:1199-206 D 1 '53

Gamma-ray absorption coefficients for NaI, Cu, Ta, and W. P. R. Howland and W. E. Kreger. bibliog diag Phys R 95:407-10 Jl 15 '54

GAMMA rays—*Continued*

γ-ray-induced oxidation of aqueous formic acid-oxygen solutions; effect of *p*H. E. J. Hart. bibliog Am Chem Soc J 76:4198-201 Ag 20 '54

Gamma-ray polymerization of acrylamide in the solid state. R. B. Mesrobian and others. bibliog J Chem Phys 22:565-6 Mr '54

Gamma rays and internal pairs from Be^9+H^1. R. J. Mackin, jr. Phys R 94:648-50 My 1 '54

Gamma rays excited by the inelastic scattering of neutrons in lead, bismuth, iron, nickel and chromium. M. A. Rothman and C. E. Mandeville. diag Phys R 93:796-9 F 15 '54

Gamma rays from Cu due to neutron inelastic scattering. L. A. Rayburn and others. Phys R 94:1641 Je 15 '54

Gamma rays from Li^7, F^{19}, Ne^{22}, and Na^{22} produced by alpha-particle bombardment of lithium and fluorine. N. P. Heydenburg and G. M. Temmer. il diags Phys R 94:1252-7 Je 1 '54

Gamma rays from Ne. B. P. Foster and others. bibliog diags Phys R 93:1069-72 Mr 1 '54

Gamma rays from $N^{15}(p,\alpha\gamma)C^{12}$ and $N^{15}(p,\gamma)O^{16}$. A. A. Kraus, jr. Phys R 94:975-6 My 15 '54

Gamma rays from proton bombardment of B^{10}. R. W. Krone and L. W. Seagondollar. il diag Phys R 92:935-7 N 15 '53

Gamma rays from the inelastic scattering of 14-Mev neutrons in C^{12} and O^{16}. L. C. Thompson and J. R. Risser. diag Phys R 94:941-3 My 15 '54

Gamma rays from the proton bombardment of sodium. J. W. Teener and others. bibliog diag Phys R 93:1035-8 Mr 1 '54

Gamma rays from the $Si^{29}(p,\gamma)P^{30}$ reaction. P. M. Endt and others. Phys R 95:580 Jl 15 '54

Gamma rays offer new polymers; abstract. D. Ballantine. Chem & Eng N 32:812-13 Mr 1 '54

Gamma transitions in W^{182}. F. Boehm and others. Phys R 95:864-5 Ag 1 '54

Have you thought of catalyzing cracking with gamma radiation? Pet Processing 9:11 Ja '54

Housing for Co^{60} gamma-ray source for experimental work. R. F. Firestone and J. E. Willard. bibliog il diag R Sci Instr 24:904-6 O '53

How radiation affects important materials. S. S. Jones. il diag Gen Elec R 57:6-11 Jl '54

Internal conversion coefficients of Nb^{95}, Zn^{65}, and Sc^{46}. E. F. Sturcken and others. Phys R 93:1053-6 Mr 1 '54

Large NaI scintillation counter study of the neutron capture gamma rays from hydrogen. B. Hamermesh and R. J. Culp. Phys R 92:211 O 1 '53

Low-energy gamma radiation from the bombardment of carbon by protons. H. H. Woodbury and others. diag Phys R 93:1311-14 Mr 15 '54; Correction. 96:1713 D 15 '54

Magnetic internal Compton coefficients in the Born approximation. L. Spruch and G. Goertzel. Phys R 94:1671-8 Je 15 '54

Measure of K-shell internal conversion coefficients with a coincidence scintillation spectrometer. F. K. McGowan. bibliog diag Phys R 93:163-72 Ja 1 '54

Mixed gamma-mixed gamma angular correlation. M. E. Rose. Phys R 93:477 F 1 '54

More room for cobalt calibration; National bureau of standards Gamma ray laboratory. il Chem & Eng N 32:2376 Je 14 '54

n-γ coincidences produced by inelastic scattering of neutrons. P. Shapiro and others. diag Phys R 95:751-3 Ag 1 '54

Nuclear engineering materials, fuels; gamma-activation of syntheses; polymerization of ethylene. J. G. Lewis, J. J. Martin and L. C. Anderson. bibliog il Chem Eng Prog 50:249-55 My '54

Penetration of gamma radiation through iron. L. A. Beach and others. Phys R 92:355 O 15 '53

Penetration of 6-Mev gamma rays in water. P. A. Roys and others. Phys R 95:911-12 Ag 15 '54

Penetration of X- and gamma rays to extremely great depths. U. Fano. bibliog diags J Res Nat Bur Stand 51:95-122 Ag '53

Photodisintegration of the deuteron by 180-Mev and 260-Mev gamma rays. J. Keck and others. diag Phys R 93:827-8 F 15 '54

Polarization of the gamma rays in the $F^{19}(p,\alpha\gamma)O^{16}$ reaction. L. W. Fagg and S. S. Hanna. bibliog Phys R 92:372-7 O 15 '53

Precision measurement of uniformity of materials by gamma-ray transmission. A. I. Berman and J. N. Harris. il diags R Sci Instr 25:21-9 Ja '54

Pressurized γ-radiation monitor for use in inflammable atmospheres. J. B. Marsh and others. il diags J Sci Instr 30:302-4 S '53

Production of protons from carbon by monoenergetic gamma rays. J. W. Weil and B. D. McDaniel. bibliog diags Phys R 92:391-400 O 15 '53

Radiation sterilization; effect of high-energy gamma radiation from kilocurie radioactive sources on steroid hormones. W. Tarpley and others. bibliog(37 ref) il Ind & Eng Chem 46:1458-64 Jl '54

Radiography at bargain rates; gamma-ray radiography. il Steel 133:94+ O 5 '53

Ray-sterilizing food wrappers. L. L. Kempe and others. bibliog il Food Eng 25:55-6+ N '53

Scintillation counter study of gamma rays from proton capture in sodium. R. R. Carlson and others. bibliog diags Phys R 94:1311-16 Je 1 '54

Sequence of γ emission in triple correlations. E. J. Hellund and J. M. Jauch. bibliog Phy R 92:203 O 1 '53

Summation of γ-ray energies with a single-crystal spectrometer. D. C. Lu and M. L. Wiedenbeck. Phys R 94:501-2 Ap 15 '54

Theorem concerning angular correlations. J. Weneser and D. R. Hamilton. Phys R 92:321-2 O 15 '53

Theory of polarized particles and gamma rays in nuclear reactions. A. Simon. bibliog Phys R 92:1050-60 N 15 '53

Transmission of Co^{60} gamma-rays through thick uranium. L. H. Lanzl and others. R Sci Instr 24:394 My '53

Treatment of water and sewage by ionizing radiations. C. G. Dunn. bibliog il diags Sewage & Ind Wastes 25:1277-81 N '53

Triple gamma-ray cascade in Sb^{124}. L. M. Langer and J. W. Starner. Phys R 93:253-4 Ja 1 '54

V particles and the gamma decay of a neutral pion. T. Kinoshita. bibliog Phys R 94:1384-5 Je 1 '54

Vector addition coefficient identity. R. L. Guernsey and G. B. Arfken. bibliog Phys R 92:1270 D 1 '53

Yields of hydrogen and hydrogen peroxide in the irradiation of oxygen saturated water with cobalt gamma-rays. J. A. Ghormley and C. J. Hochanadel. Am Chem Soc J 76:3351-2 Je 20 '54

See also

Compton effect

Plastic materials, Irradiated

Spectrometers, Gamma ray

Measurement

γ-Ray detector with low efficiency for fast neutrons. G. R. Bishop and others. diag R Sci Instr 24:395-6 My '53

Inexpensive gamma detector. D. R. Cone and D. W. Garbellano. il diags R Sci Instr 25:632-5 Jl '54

Intensity corrections for iodine X-rays escaping from sodium iodide scintillation crystals. P. Axel. R Sci Instr 25:391 Ap '54

Photographic dosimetry of X- and gamma rays. M. Ehrlich. il diags U S Nat Bur Stand Handbook 57:1-28 bibliog(p28); pa 15c Supt. of doc. '54

Small-volume dosimeter for X-rays and gamma-rays. J. H. Schulman and H. W. Etzel. bibliog diag Science 118:184-6 Ag 14 '53

Scattering

Backscattering of the Co^{60} gamma rays from infinite media. E. Hayward and J. H. Hubbell. bibliog diag J Ap Phys 25:506-9 Ap '54

GAMMA rays—Scattering—*Continued*

Compton scattering of 2.62-Mev gamma rays by polarized electrons. S. B. Gunst and L. A. Page. bibliog diag Phys R 92:970-3 N 15 '53

Large-angle scattering of Co^{60} gamma rays. T. D. Strickler. bibliog diag Phys R 92: 923-6 N 15 '53

Nuclear scattering of gamma rays below meson threshold. G. E. Pugh and others. Phys R 95:590-1 Jl 15 '54

Resonant scattering of recoil-broadened gamma rays. K. Ilakovac and P. B. Moon. Phys R 93:254 Ja 1 '54

GANGPLANKS

Los Angeles terminal has new-type gangplank. il Marine Eng 59:66-7 Ja '54

GANTRY crane. See Cranes, derricks, etc.

GARAGE doors

Citizens band garage door control. H. B. Smith. il diags Radio & Tv N 51:35-8+ F '54

Crawford sidesteps price scrimmage; adds style to garage doors. D. C. Crawford. il Sales Management 73:40-2 Ag 1 '54

Garages, garage doors, hardware, and automatic operators. il plans diags Am Bld 75: 217+ Ap '53

GARAGE, parking and service station employes union

Picketed dealer signs with union. Nat Pet N 45:18 N 4 '53

GARAGES

Businesslike cure for rush-hour cramps. G. W. Keith. Pub Util 54:357-66 S 30 '54

Communication system speeds parking. il Arch Rec 116:205 Ag '54

Four-storey garage in Düsseldorf. il Engineer 197:363-4 Mr 5 '54

Garages grow up. il plans diags Arch Forum 98:120-41 F '53

Garages; mechanized car parking; Pigeon Hole parking system. T. M. Rohan. il Iron Age 172:81 D 10 '53

Garages vs. parking woes. il Arch Forum 99: 128-9 D '53

Glass garage hangs its ramps from roof; views and plans. Arch Forum 100:156-9 Ja '54

Land trade gave us a new public works garage. H. G. Kuhn. plans Pub Works 85:117-18 My '54

Low-cost garage and greenhouse. A. J. Wahl. il Sewage & Ind Wastes 26:795-6 Je '54

Low-cost prestressing for parking garage. il diags Arch Forum 97:144 D '52

Nine garages for city of Chicago make a frontal attack on parking problem. il plans Arch Rec 115:152-8 Mr '54

Parking garage designed for fast, low-cost construction; Dallas, Tex. il plan diags Arch Rec 115:198-200 My '54

Parking garage to cantilever over street. Eng N 151:25 Jl 16 '53

Precast concrete considered for parking structures. il Eng N 151:75 O 8 '53

Ramp-itis is no mental barrier here; three-level parking garage, Wilshire branch of May co., department store in Los Angeles. il diags Eng N 152:51-2+ Ap 29 '54

Sloping garage has neither ramps nor elevators. il diag Arch Forum 100:160-1 Je '54

What's wrong with mobile radio sales; use of radio by automobile clubs and garages. J. Courtney. Commun Eng 14:25+ Ja '54

See also

Motor bus lines—Garages

Electric equipment

Electricity in use at new bus garage, Stockwell. il Elec J 151:1317-18 O 23 '53

Employees

See also

Automobile mechanics

Lighting

Electricity in use at new bus garage, Stockwell. il Elec J 151:1317-18 O 23 '53

New London Transport garage; extensive use of fluorescent lighting. il Elec R (Lond) 153:949-50 O 23 '53

GARAGES, Private

Garages, garage doors, hardware, and automatic operators. il plans diags Am Bld 75: 217+ Ap '53

How to plan and sell your next house; garages and carports. il House & Home 3: 170-1 My '53

Volume garage sales from dealer tied to manufacturer's promotion. il Am Bld 75: 272-4 Je '53

See also

Carports

Garage doors

GARAGES, Underground

Buildings in Pittsburgh's Gateway Center include unusual structural features. J. Di Stasio and M. P. Van Buren. Civil Eng 23:604+ S '53

Design of underground parking garage achieves savings in cost and in space; San Francisco structure. il plans diags Eng N 152:44-6 Ap 29 '54

Excavating presents tricky problem on park-topped underground garage in Mellon square, Pittsburgh. il Eng N 151:48+ N 5 '53

Ready mix demonstrates versatility in 65000 yd. pour for underground garage. il Concrete 62:32 S '54

GARBAGE disposal. See Refuse disposal; Sewage disposal—Sludge and refuse mixing

GARDEN State parkway. See Roads—New Jersey

GARDEN tractors. See Tractors, Garden

GARDENS

Garden lighting, after sunset. il diags Illum Eng 49:190-1 Ap '54

See also

Patios

GARLAND, Texas

Sewerage

Sewage treatment meets amazing growth problem. il Pub Works 84:59-60 N '53

GARMENT industry

See also

Clothing trade

GARMENT workers

Plant level adjustments to technical change. K. G. Van Auken, jr. Mo Labor R 76:387-91 Ap '53

GARRISON dam. See Dams

GARRYINE

Skeleton of the garrya alkaloids and atisine. K. Wiesner and others. Chem & Ind p 132-3 Ja 30 '54

GARVAN medal

Betty Sullivan receives Garvan medal. Chem & Eng N 32:1138 Mr 22 '54

GARY, Indiana

Industries

Milwaukee-Chicago-Gary industrial area. O. W. Storey. bibliog il Electrochem Soc J 100:sup211C-21C Ag '53

GAS

American gas fundamentals; a continuing educational and refresher course in gas techniques, operations and management. Am Gas J 180:19-22 Ja '54 [cont monthly]

Gas hazards in manholes. O. R. Terry and J. C. Baxter. il diags Am Gas Assn Proc 1953:655-64

See also

Blast furnace gas

Butane

Coal distillation

Coke oven gas

Flue gas

Gas, Natural and other headings beginning Gas

Gases

Liquefied petroleum gas

Propane

Sewage sludge—Gas production

Manufacture

See Gas manufacture

Rates

See Gas rates

Sulfur content

Sulfur control; instrument measures concentrations of one part in ten million; Tritilog; abstract. H. Landsberg and E. E. Escher. Iron Age 172:263 N 12 '53

Sulphur in gas for glass working. H. K. Richardson. diag Glass Ind 35:319+ Je '54

GAS, Natural

Ammonia from natural or refinery gases and air. A. L. Foster. flow chart il Pet Eng 25: C3-5 S '53

Ammonia synthesis gas. B. J. Mayland and others. bibliog Can Chem Process 38:22+ Ag '54; Same cond. flow diags Chem Eng Prog 50:177-81 Ap '54

Basic chemicals from natural gas. N. C. Updegraff. bibliog flow diags il diag Can Chem Process 38:28+ Mr '54

Chemicals from natural gas still an infant. R. L. Bateman and T. R. Ragland. Chem Eng 61:384-6 Je '54

Five miracles of natural gas. H. W. Springborn. diags Gas Age 113:41-8 F 25 '54

Functions of the Land department. J. M. Shields. Am Gas J 180:19-22 Ja '54

Hazards of drilling with natural gas. L. S. Fuller. il World Oil 138:121-2+ Ja '54

Hydrocarbons from pipe-line gas. N. L. Foskett and R. C. Foster. diags Pet Refiner 32: 116-17+ S '53

Natural gas is raw material for Plexiglas, protecting pilot of helicopter; Rohm & Haas co. il Gas Age 112:38+ D 17 '53

Natural gas; past, present and future. A. W. Conover. Gas Age 113:38-41+ Mr 25 '54

Natural gas substitutes developed. H. R. Linden and others. Comm & Fin Chr 178: 1031 S 17 '53

Natural gas to alcohol; National petro-chemical corp.'s Tuscola, Ill. plant. il Oil & Gas J 52:60-4 N 30 '53

Role of natural gas in petrochemical manufacture. F. D. Kuenzly. Oil & Gas J 52:112+ O 26 '53

Some new economic implications for the natural gas industry. G. C. Griswold. Am Gas J 180:14-15+ Je '54

Vacuum method detects gas-bearing formations. J. E. Bliss. il diag World Oil 137:218+ O '53

Wet gas fractions are petrochemical raw materials. flow sheets diags Can Chem Process 38:66+ Mr '54

What's unique about Tuscola? plant of National petro-chemicals corp. il plan Pet Processing 8:1889-91 D '53

See also

American natural gas company
Gas as fuel—Natural gas
Gasoline, Natural
Liquefied petroleum gas
Methane
Petroleum

Acidation of wells

Compressed gas cuts Carthage acidizing costs. P. S. Clinkenbeard. il World Oil 137: 180+ Ag 1 '53

Gas-well deliverabilities stepped up by new high-pressure acidization techniques. J. A. Kornfeld. Oil & Gas J 52:56-7+ Ag 3 '53

New acidizing technique boosts La Gloria production. J. P. Nielsen and W. H. Justice. Oil & Gas J 52:140+ Ag 17 '53

Analysis

Absorption index; a simple test for an important property of natural gas. T. W. Legatski and others. il diags Oil & Gas J 52:266-7+ Jl 27 '53; Same. Pet Refiner 32: 155-8 Jl '53

Estimating natural-gas composition from absorption index and specific gravity. T. W. Legatski and others. Oil & Gas J 52:292-4+ Jl 27 '53; Same. Pet Refiner 32:105-8 Ag '53

Methods for determining hydrogen sulfide in gases. F. C. Riesenfeld and H. K. Orbach. bibliog(41 ref)Pet Eng 25:C32+ Je '53

You can analyze gas in the field; portable Orsat apparatus. M. L. Robinson. il diags World Oil 137:247-9 S '53

Compression

Compressor design and performance developments. B. T. Mast. Pet Eng 25:D28+ D '53

Economics of packaged compressor plants; with cost data. E. S. McRoberts. il Pet Eng 25:E4+ N '53

Fuel supply line; barges carrying compressed natural gas up the Mississippi. il Chem W 74:85+ My 8 '54

See also

Gas, Natural—Pipe lines—Compressor stations

Condensate wells

Deepest pay found. Oil & Gas J 52:96 D 14 '53

Gas-condensate reservoirs; selecting operating method. G. Hetherington and J. M. McDowell. bibliog Pet Eng 25:B 107-8+ N '53

How condensate recovery increased. H. O. Ebeling. flow diags World Oil 137:176+ Ag 1 '53

Conditioning

Amine gas treating. flow diag Pet Refiner 32: 124 S '53

Automatic controls effect real economy; unattended gas-purification plant near Wink, Tex. D. L. Nicol. flow sheet il Oil & Gas J 52:295-6+ S 21 '53

Better scrubber needed. R. C. Baird. il Oil & Gas J 52:99 O 12 '53

Catalytic reforming of natural gas; summary of operations of the Glenwood Landing plant, Long Island lighting co. W. E. Spengler. Am Gas Assn Proc 1953:832-4

Dirty pipe-line gas; its cause and cure in the petroleum industry. R. C. Baird. bibliog flow diag il plan diags Oil & Gas J 52:78-84+ Ja 4 '54

Equilibrium in the steam reforming of natural gas. H. A. Dirksen and C. H. Riesz. bibliog Ind & Eng Chem 45:1562-5 Jl '53

Hot-oil fogger for use in underground vaults. P. W. Kraemer. plan diags Am Gas Assn Mo 35:18-20+ N '53; Same. Am Gas J 179: 18-19 O '53; Same abr. Gas Age 112:30+ O 22 '53

Paterson plant experience with C.C.R. E. R. Griggs. il Gas Age 114:45-8+ Jl 15 '54

Purifying natural gas. flow diags il Can Chem Process 38:72+ Mr '54

Sulphur in gas for glass working. H. K. Richardson. diag Glass Ind 35:319+ Je '54

See also

Gas, Natural—Dehydration

Conservation

Conservation means good stewardship of oil and gas reservoirs. E. O. Thompson. Am Pet Inst Proc 33(1):101-4 '53

Conservation through cooperation. J. Murray. Am Pet Inst Proc 33(1):23-6 '53

Gas waste alleged; California's amended conservation laws to undergo test. D. H. Stormont. Oil & Gas J 52:40 Ag 3 '53

Has Oklahoma learned? editor and governor disagree on how well state has employed conservation lessons. H. D. Ralph. Oil & Gas J 52:85-6 D 14 '53

Texas flares are dimming. Oil & Gas J 52: 40-1 N 30 '53

Dehydration

Liquid desiccant dehydration plants. J. A. Gordon. bibliog flow diag Pet Eng 25:A74+ N '53; Same abr. Oil & Gas J 52:108-10 D 7 '53

Mobile units used for dehydration plant repairs. il Pet Eng 25:D34 Ag '53

New desiccant for drying natural gas; activated alumina. R. J. Getty and others. il Pet Eng 25:B7-10 Ag '53; Abstract. Oil & Gas J 52:132-3 Ag 17 '53

Fires and fire protection

Extinguishing typical natural gas fires with dry chemical equipment. il Gas Age 112: 30-1+ D 3 '53; Excerpts. Nat Safety N 69: 64 Ja '54

Geology

Black Warrior basin; the geology is favorable. F. F. Mellen. maps World Oil 137:97-8+ Jl '53

Ripalta gas field, Po valley, northern Italy. V. Fois. maps diags Am Assn Pet Geologists Bul 37:654-64 Ap '53

Laws and regulations

Court approval of price fixing to curb gas sales. World Oil 138:45-6+ Ja '54

Federal control can flow through gas lines. H. W. Head. bibliog il Pet Eng 25:A37-9+ S '53

FPC clarifies gas rule. Pub Util 54:268 S 2 '54

FPC freezes some natural gas prices. Gas Age 114:31-2+ Ag 12 '54

GAS, Natural—Laws and regulations—*Cont.*

FPC policies curtail gas supplies. L. J. Logan. World Oil 137:71-2+ Jl '53
FPC power increased; Supreme court's refusal to review Northern Natural case. H. D. Ralph. Oil & Gas J 52:62 Ja 11 '54
FPC regulation of producers set in Supreme court decision; Phillips ruling. J. E. Finley. Am Gas J 181:14+ Jl '54
FPC reversed; court ruling expected to boost natural gas earnings. E. R. Abrams. Barron's 33:17-18 O 12 '53
Federal regulation of natural gas industry's sales broadened by ruling of Supreme court on appeal. Gas Age 112:53 D 17 '53
Ferguson's gas bill. Pub Util 53:487-8 Ap 15 '54
Gas headaches; Phillips petroleum co. case. Bsns W p 132+ D 12 '53
Gas production problems. Pub Util 53:550-1 Ap 29 '54
Gas regulation by compact? S. H. Crosby. Pub Util 53:90-8, 161-8 Ja 21-F 4 '54
Gas revolt predicted. C. H. Hinton. Oil & Gas J 52:86 D 14 '53
Highlights of cases before Federal power commission. Am Gas Assn Mo 36:43-4 My '54
Hope renewed; Supreme court changed its mind in Phillips case. Chem W 74:26 Ja 30 '54
Important developments relating to the gas industry. C. C. McDugald. Pub Util 54:406-12 S 30 '54
Limiting FPC control over gas distribution. O. Maland and J. Zartman. Pub Util 53:413-20 Ap 1 '54
Natural gas act needs overhauling. J. E. Lyle, jr. Pub Util 52:713-18 N 5 '53
Natural gas industry; an economic appraisal of public policy. D. F. Pegrum. bibliog Land Econ 29:168-81; Discussion. H. M. Gray. 181-4 My '53
Natural gas pricing ruled FPC function. Oil Paint & Drug Rep 165:3+ Je 14 '54
Panhandle decision; an analysis of FPC's approval of new method to value gas production. Am Gas Assn Mo 36:19-20 Je '54
Petroleum company not exempted from gas rate regulation by Federal power commission. Pub Util 54:51-2 Jl 8 '54
Phillips decision confuses industry; Supreme court ruling. Gas Age 114:11-13 Jl 1 '54
Phillips review set. B. F. Linz. Oil & Gas J 52:111 Ja 25 '54
Phillips ruling to mean federal control; but to what extent? H. D. Ralph and B. F. Linz. diag Oil & Gas J 52:68-70 D 7 '53
Policy shift; gas operators cheered by FPC rulings on rates. R. H. Spencer. Barron's 33:13-14 N 16 '53
Steam for the gas bills; Panhandle eastern pipe line case. Pub Util 53:608-10 My 13 '54
What do the Panhandle and Phillips cases mean? E. Falck. Pub Util 53:639-51 My 27 '54
What do we face in Washington? J. F. Robinson. Gas Age 114:21-4+ Jl 29 '54
See also
Gas, Natural—Rates

Liquefaction

Liquefaction behind the Iron Curtain. P. S. Parker and R. H. Ormston. diags Gas Age 113:29-32 Mr 11 '54
Liquefaction; the answer to storage? R. H. Ormston. bibliog diags Gas Age 113:27-33 F 25 '54
Natural gas to be liquefied and transported by river barge. map diags Power Eng 58:92-3 Je '54

Measurement

Calculations for natural gas orifice-meter coefficients. H. R. Garabrant. Instruments 26:1897-8 D '53
How to measure an open flow. A. H. Reschke. diag Am Gas Assn Mo 36:27-8+ S '54
Joint A.G.A.-ASME research on measurement of natural gas using 30" meter tubes. E. E. Stovall. il diag Am Gas Assn Proc 1953:1043-52
Orifice metering tests near conclusion. il Gas Age 113:50-1+ F 25 '54

Moisture content

Instrument for the measurement of water vapor in natural gases. W. M. Deaton. il Am Gas Assn Proc 1953:1062-6; Same. Pet Eng 25:D27+ S '53
Nomograph gives water content of sulfur plant gas stream. S. Schwartz. Chem Eng 60:185-6 Jl '53

Odorizing

Factors involving design of odorizer installations. N. A. Manfred. il diag Am Gas Assn Proc 1953:711-18; Same. Gas Age 111:31-5 My 7 '53
Natural gas odorization. H. L. Cline. il diag Am Gas Assn Proc 1953:729-33; Same. Pet Eng (Ref annual) 25:D32-3+ Jl 15 '53
New odorometer shows good results. A. F. Cascioli and R. L. Coryell. il diag Gas Age 113:9-10+ Ja 28 '54
Odor intensity meter; abstract. R. L. Coryell. Am Gas J 181:25 Ag '54

Peak load

How to balance the utility's annual load factor. P. E. Peacock, jr. Am Gas J 181:20+ Ag '54
How to keep LP plants ready for use. D. B. Seifried. Am Gas Assn Proc 1953:734-9; Same. Gas Age 112:33-5+ Jl 16 '53
Peak shaving for natural gas systems. C. T. Chave and B. C. White. Am Gas Assn Mo 35:21-3+ O '53; Same cond. Am Gas J 179:14-16+ D '53
Process for economic solution of peak and standby problems. V. Stark. Am Gas J 181:16-18+ Jl '54
Producing natural gas substitutes. E. S. Pettyjohn and others. bibliog il diags Gas Age 113:19-26+ My 20 '54
Standby and peak shaving equipment. G. M. Horner. diags Can Chem Process 38:82-4+ Mr '54
See also
Gas, Natural—Storage

Pipe lines

A.G.A. Supply, transmission and storage conference, 2d, New Orleans, March 4-5. Gas Age 113:23-6+ Mr 25 '54; Am Gas Assn Mo 36:20-3+ Ap '54
Canadian interests to appeal, perhaps in U.S. courts. Gas Age 114:32 Jl 15 '54
Canadian pipeline. Bsns W p31 D 12 '53
Colorado gas men hail Rocky Mountain development. Gas Age 114:32 Jl 15 '54
Colorado-Western to build new pipe line to Colorado. Gas Age 114:48-9 S 9 '54
Columbia in 7th year of expansion program. il map World Oil 137:214-15 Ag 1 '53
Construction on the move; H. C. Price co. C. H. Vivian. il map Comp Air Mag 59:154-60 Je '54
Cross-country pipeline for Canada. S. J. Cook. Chem & Eng N 32:515 F 8 '54
Darndest pipe line ever constructed; Utah natural gas company's line from Clear Creek to near Provo, Utah. il World Oil 137:226-8 D '53
Defense line studied. B. F. Linz. Oil & Gas J 52:66 Ja 11 '54
Dirty pipe-line gas; its cause and cure in the petroleum industry. R. C. Baird. bibliog flow diag il plan diags Oil & Gas J 52:78-84+ Ja 4 '54
Eight backhoes help speed construction of new El Paso line. il Gas Age 113:28-9 Ja 28 '54
Electrical effects on pipelines; abstract. J. P. Daratt. diags Am Gas J 181:19 Jl '54
FPC authorized 6800 miles in 1953. Gas Age 113:43+ Ap 8 '54
Gas; expansion balloon gets bigger. E. C. Kellogg. Iron Age 172:78 Jl 2 '53
Gas for Toronto. R. M. Bleiberg. Barron's 33:3+ O 5 '53
Gas supply bolstered; Texas Eastern, Wilcox complete interconnected 452-mile system from Texas to Castor, La. il Oil & Gas J 52:70-1 Ag 10 '53

GAS, Natural—Pipe lines—*Continued*

Gulf Interstate nears half-way mark on 860-mile Big-Inch line. il Oil & Gas J 52:50 N 30 '53

Hands across the border; gas pipeline accord. W. Wells. Barron's 34:13 Ja 25 '54

Heavy wall pipe welded direct to thin wall pipe; Gulf interstate gas co. line. il Welding J 33:577-8 Je '54

How Northeastern uses telemetering. W. E. Rufleth. il map Gas Age 114:26-8 Jl 29 '54

How radio aids east Ohio operations. il Oil & Gas J 52:141-2 Ag 24 '53

How United gas system has grown to trillion-a-year magnitude. W. C. Grant. il map Gas Age 112:57-65+ O 22 '53

Huge gas program nearing end. W. P. Sterne. il map Oil & Gas J 52:58-60 N 2 '53

Inspecting lines during construction. N. F. Blundell. Gas Age 113:42+ Ap 22 '54

Insulating joints in long pipe lines; panel discussion. M. C. Miller and others. il diags Gas Age 113:34-41 Je 3 '54

Interconnected pipeline systems. C. T. Kallina. map Am Gas Assn Mo 36:4-6+ Mr '54; Same. Gas Age 113:49-50+ Mr 11 '54; Same cond. Am Gas J 180:21+ Mr '54

Kansas-Nebraska Natural allowed new facilities. Gas Age 114:45-6 Jl 29 '54

Lowering the Hudson River crossing. I. W. Dods. il Pet Eng 25:D42+ O '53

Microwave radio's longest private system. C. M. Heiden. il map diags Gen Elec R 56:52-5+ N '53

Midyear report; engineering and technological reviews; all phases of pipe lining undergoing expansion; U.S. and Canadian projects planned and under way. Oil & Gas J 52:263-5 Jl 27 '53

More gas more places; Federal power commission has given the go-ahead to Pacific northwest pipeline corp. map Chem W 75:13 Jl 3 '54

Natural gas aids in solving Italy's industrial problems. F. Salimbeni. il map Oil & Gas J 52:129-30 Ag 17 '53

Natural gas for New York and New England; pipeliners' nightmares are over. R. H. Dodds. il map Eng N 151:37+ Ag 13 '53

New automatic welder used in laying longest aluminum pipe line. il Welding J 33:566-7 Je '54; Same cond. Steel 134:114 Ap 5 '54

New 8⅝-in., 12-mile line is laid with ¼-in. wall aluminum pipe. W. C. Grant. il Gas Age 113:25-6 Ap 8 '54

Northern Natural boosts three firsts in '53. J. T. Innis. il map Oil & Gas J 52:265-7 S 21 '53

Northern natural gas co. il map World Oil 137:224-5 Jl '53

Oakford to New Jersey line progressing rapidly. Gas Age 114:28 Jl 29 '54

Oil and gas; from their growth come new markets. il Steel 133:63-4 S 14 '53

Oklahoma Natural testing new microwave-v.h.f. radio system. W. R. Kubista. il diag Oil & Gas J 52:300+ S 21 '53

$1,900,000,000 to be spent for gas lines. Pet Eng 25:D36 Ag '53

Panhandle Eastern ups capacity by half. Gas Age 114:17+ Jl 1 '54

Permian basin to get important gas outlet. il map World Oil 137:305-9 O '53

Pipeline and network gas dispatching. S. A. Chadwell. diag Am Gas J 180:25-8 Ap '54

Pipeline report. M. R. Hecht. Can Chem Process 38:6+ Mr '54

Pipeline research, an obligation and an opportunity. J. T. Innis. Am Gas Assn Proc 1953:1066-8

Pipe-line-system telemetering. G. C. Wilson. diags Instruments & Automation 27:294-6 F '54

Pipeline to a national energy system; Canada's pipeline. il maps Can Chem Process 38:61-4 Mr '54

Pipeliner meets the public. F. M. Banks. Am Gas Assn Proc 1953:1080-3; Same. Pet Eng 25:D25-9 Jl '53; Same cond. Am Gas Assn Mo 35:27-8+ My '53

Pipe lines take oil and gas when found. F. H. Love. il Pet Eng 25:A48+ O '53

Planning for assured service of gas-transmission lines across rivers. D. C. Palm. il map diag Oil & Gas J 52:172-3+ S 21 '53

Practical way to calculate gas flow for pipe lines. World Oil 137:243 N '53

Productivity team report on the American gas industry; Anglo-American council on productivity; pipe lines. diag Gas Age 113:41-2+ F 11 '54

Products, natural-gas projects lead in projected expansion. map Oil & Gas J 52:158-9 Ja 25 '54

Radio communications are expanding; microwave systems. J. E. Keller. Gas Age 113:27+ Mr 25 '54

San Juan gas to serve Northwest. maps Gas Age 114:29-31+ Jl 15 '54

Southern Natural completing mammoth underwater line. il Gas Age 113:12-13 Ja 28 '54

Southern Natural passes the billion mark. il maps World Oil 137:223-8 N '53

Special jet trencher used to lower Hudson River crossing; Transco's gas line. I. W. Dods. il diag Oil & Gas J 52:174-5+ S 21 '53

Stopping corrosion on undersea lines. R. C. Ledford. Gas Age 114:36-7+ Ag 26 '54

Supply will exceed 500 trillion cu. ft. L. F. Terry. Gas Age 113:38-40+ F 25 '54

Telemetering and remote control of gas flow. W. E. Rufleth. il map Pet Eng 25:D4-6 O '53

Tennessee Gas bid for pipeline link to Philadelphia-New York area. Bsns W p31 N 21 '53

Tetco to reconvert Little Big Inch back to petroleum products service. G. T. Naff. map Gas Age 113:43 Ap 22 '54

Texas Eastern Transmission turns Big Inch into a big operation. il map World Oil 137:250-1 S '53

This holder, 12 mi. long, 16 in. diameter, solved a storage-transmission problem; Southern counties gas co. of California. W. C. Orvis. plan Gas Age 112:15-16 N 5 '53

Trans-Canada hearing. Gas Age 114:68+ Jl 15 '54

Trans-Canada line snafu. Gas Age 114:43-4 Jl 1 '54

Transco expanding. W. P. Sterne. Oil & Gas J 52:49 N 30 '53

Transcontinental to increase peak capacity of its system by 50 per cent. T. P. Walker. map Gas Age 112:45+ D 17 '53

Two boys killed playing on aluminum pipe span. Gas Age 113:46 My 6 '54

Two new projects will boost California natural-gas supply. F. M. Banks. il Oil & Gas J 52:260+ S 21 '53

Unique organization to cut costs on first big fee gas pipe line; Gulf interstate gas co. P. Reed. il map Oil & Gas J 52:50-2 Ja 18 '54

United Gas completes Houston loop. il map Gas Age 113:31-3 Mr 25 '54

Use of piston-operated pipe-line valves. F. M. Partridge and G. C. Wilson. diags Oil & Gas J 52:125+ Jl 20 '53

What earthquake did to 34-in. line; Pacific gas & electric co. R. J. Lind. map Gas Age 114:29-31+ Jl 29 '54

What earthquakes do to pipe lines; Southern California gas co. A. B. Newby. map Gas Age 114:37-8 Jl 15 '54

When pipe lines take a water route; Southern natural gas co.'s south Louisiana project. P. H. Timothy. il map diag Oil & Gas J 52:105-8+ Ja 18 '54

See also

Alabama-Tennessee natural gas company

Lone star gas company

Accounting

Mechanics of pipeline cost allocation. J. J. Franks. flow chart Am Gas J 180:18-19+ F '54

Cleaning

Cleaning gas lines internally during operation. E. T. Robinson, jr. il diags Pet Eng 25:D 19-20+ O '53; Same cond. Oil & Gas J 52:375-9+ Jl 27 '53

Filter unit removes dust from dirty line. il diags Oil & Gas J 52:102-3 Jl 6 '53

GAS, Natural—Pipe lines—*Continued*

Compressor stations

Automatic control of gas turbines for natural-gas pipe line pumping. C. R. Ingemanson and others. diags Elec Eng 72:955-9 N '53; Same cond. Gas Age 112:50+ S 10 '53; Excerpts. Oil & Gas J 52:337 N 16 '53

Biggest Inch sets new record. il Gas Age 113:32 Mr 11 '54

Butterfly regulates compressor speed. il diag Pet Refiner 32:217 Ag '53

Compressor detonation dampened by cooling scavenger air. F. R. Cramer. diags Oil & Gas J 52:119-20+ Ag 24 '53

Efficiencies of centrifugal compressors. H. Woodhouse. Pet Eng 25:D 11-12 O '53

El Paso's Navajo compressor station uses pipeline gas for engine fuel. il Am Gas J 179:18-19 N '53; Same. Diesel Power 31:46-9 D '53; Same. Gas Age 112:22-4+ D 3 '53

Experiences on El Paso Natural's lines. S. R. Sawyer. il plan diags Pet Eng 25:D38+ D '53

Five compressor stations deliver the goods; Pacific Gas & Electric Super Inch gas line. T. L. Kopp. il map plan Oil & Gas J 52:234+ S 21 '53

Gas transmission and pressure control on Niagara Mohawk system. G. W. Day and H. A. Anderson. il Oil & Gas J 52:327+ S 21 '53

Gas turbine driven centrifugal compressors for gas transmission; El Paso natural gas co. E. A. Walsh. il map Am Gas Assn Proc 1953:454-62; Same. Gas Age 112:58-60+ N 19 '53

Gas turbine on Mississippi line. G. C. Cooper, jr. map Pet Eng 25:D36+ N '53

Gas turbines and centrifugal compressors. T. R. Rhea and J. S. Quill. flow diag il map plan diag Mech Eng 75:534-40 Jl '53; Same cond. Oil & Gas J 51:133 F 9; 169 F 16; 197 F 23; 91 Mr 2; 117 Mr 9; 147 Mr 16 '53; Discussion. Mech Eng 76:108-9 Ja '54

Gas turbines; here are the experiences of four companies. Pet Refiner 32:120 D '53

How to operate compressor stations. R. V. Campbell. Gas Age 113:34-5+ Mr 25 '54

How United's first turbine operates. il diag Gas Age 114:33-6+ Ag 12 '54

Hydraulic system drives cooling fans. flow diag il World Oil 137:219+ S '53

Navajo station doing king-sized job. il Pet Eng 26:D43-5 Ja '54

Noisy compressor engines get mufflers. W. N. Lindblad. diags Oil & Gas J 52:126-7 Jl 20 '53

Operating experience with first pipe-line centrifugal compressor. G. C. Cooper, jr. map Oil & Gas J 52:131-2+ Jl 13 '53

Save $20 per hp on station costs; Texas gas transmission co. D. M. Taylor. il diags World Oil 137:230-2+ N '53

Some recent developments in the gas turbine for centrifugal compressor drive. F. O. Hennig and R. M. Greene. il plan diags Am Gas Assn Proc 1953:1073-9

Stop compressor-plant vibration. N. H. Moerke and C. Newman. bibliog il Oil & Gas J 52:100+ Ja 11 '54

Texas Illinois adds 134 mmcf daily. il Gas Age 113:39-41 Mr 11 '54

Exchange agreements

El Paso and Northern Natural swap gas. il map Gas Age 113:20-1 Ja 28 '54

Failure

Diver used to repair gas line break. C. Thompson. il diag Pet Eng 25:D50-2 N '53

Finance

New problems on the horizon for natural gas. R. Carleson. Mag of Wall St 93:136-8+ O 31 '53

Rates of progress in natural gas. I. U. Cobleigh. Comm & Fin Chr 178:1526 O 22 '53

Texas Gas Transmission and other natural gas transmission stocks. P. J. Rafferty. Comm & Fin Chr 178:718+ Ag 27 '53

Maps

United States and Canadian natural-gas pipeline systems. Oil & Gas J 52:supp S 21 '53

Safety measures

Accident prevention is good business. W. A. Johnson, jr. Pet Eng 25:D30-2 Jl '53

Pipelines accent safety. S. Owens. Am Gas Assn Mo 35:11+ F '53; Same. Pet Eng 25:D26+ N '53

Safety for the pipe line contractor. L. F. Dishman. Gas Age 113:48+ Ap 22 '54

Standards

Gas transmission and distribution piping code is being revised. F. A. Hough. Oil & Gas J 52:270+ S 21 '53

Statistics

U.S. and Canadian natural-gas pipe-line projects planned and under way; tabulation. P. Reed. Oil & Gas J 52:337 S 21 '53

Production cost

Pioneering in natural gas production costs. R. D. Demme. N A C A Bul 34:1659-63 Ag '53

Production methods

Calculating recovery of light hydrocarbons by gas cycling semidepleted dark oil sands. C. N. Simm. bibliog diag Oil & Gas J 52:104-7 D 7 '53

Carthage field compressor system. C. A. Brashear. il map Pet Eng 25:B73-4+ S '53

High pressure gas heaters in Carthage field. J. L. Wiggins. il diag Pet Eng 25:B 16+ Jl '53

Hydraulic fracturing of oil and gas wells. R. C. Clark, jr. bibliog il diags Oil & Gas J 52:122-5+ S 14 '53

Portable compressors cut gas waste; United Gas system. il Gas Age 114:28-9+ S 9 '54

See also

Gas, Natural—Acidation of wells

Rates

Advantages of adequate rates for interruptible industrial gas. P. E. Peacock, jr. Am Gas J 180:16-17+ Ja '54

FPC backlog of gas rate cases. O. Ely. Pub Util 53:107-13 Ja 21 '54

FPC freezes some natural gas prices. Gas Age 114:31-2+ Ag 12 '54

FPC gas freeze order. Pub Util 54:146-8 Ag 5 '54

FPC; it's always in the middle; agency's toughest chore is rate fixing. B. F. Linz. il Oil & Gas J 52:84+ Ag 24 '53

FPC regulation of producers set in Supreme court decision; Phillips ruling. J. E. Finley. Am Gas J 181:14+ Jl '54

FPC return rate eases. il Pub Util 53:299-300 Mr 4 '54

FPC to aid pipe line produced gas. Gas Age 113:44+ My 20 '54

Gas rate policies. J. K. Kuykendall. Pub Util 52:734-7 N 5 '53

Highlights of cases before Federal power commission. Am Gas Assn Mo 36:43-4 My; 45-6 Jl-Ag; 34-5 S '54

How Oklahoma Natural employees aided in rate increases. M. H. North. Gas Age 112:31 N 5 '53

How to balance the utility's annual load factor. P. E. Peacock, jr. Am Gas J 181:20+ Ag '54

Investor's eye view of gas rate regulation. C. A. O'Neil. Pub Util 52:707-12 N 5 '53

It is the task of the FPC to protect the public. J. K. Kuykendall. Gas Age 112:21+ N 5 '53

Natural gas for the future. H. H. Baker. Am Gas Assn Proc 1953:42-6; Excerpt. Gas Age 112:32-3 D 3 '53

Natural gas industry pricing rules drawn. Oil Paint & Drug Rep 166:5 Jl 26 '54

Natural gas prices approaching top? W. B. Tippy. Gas Age 113:33+ My 20 '54; Same. Pub Util 53:680-2 My 27 '54

Natural gas prices going higher. R. J. Gonzalez. Gas Age 113:34-41+ My 20 '54

Natural gas pricing rules are amended. Oil Paint & Drug Rep 166:5 Ag 16 '54

Needs for firm industrial gas service now under specific study. P. E. Peacock, jr. Am Gas J 180:20+ Je '54

Principles of gas rate making. R. W. Fouse. Am Gas Assn Mo 36:17+ Je '54

GAS, Natural—Rates—*Continued*

Rate reduction in United Fuel settlement is OK'd. Gas Age 113:50 Je 3 '54

Report of subcommittee on rate increases under bond. Am Gas Assn Proc 1953:89-99

Six companies file hikes totaling $22½ million. Gas Age 113:50 Je 3 '54

Sliding scales; natural gas utilities eye profit-sharing rates. E. R. Abrams. Barron's 33:11-12 O 19 '53

Transitional loss allowance; cure for regulatory lag? G. M. Blackstock. Pub Util 53:201-7 F 18 '54

Why industry needs firm gas. R. L. Manier. Gas Age 114:36+ Jl 15 '54

Recycling

Calculating recovery of light hydrocarbons by gas cycling semidepleted dark oil sands. C. N. Simm. bibliog diag Oil & Gas J 52:104-7 D 7 '53

Research

Pipeline research, an obligation and an opportunity. J. T. Innis. Am Gas Assn Proc 1953:1066-8

Bibliography

Publications and articles reporting work accomplished through cooperation of the Bureau of mines and the American gas association. Am Gas Assn Proc 1953:1014-18

Sampling

Split stream testing of two-phase gas streams. D. Attaway. flow diags il diags Pet Eng 26:B66+ Ja '54

Statistics

FPC reports natural gas gains in 1953; tabulation. Gas Age 113:31 Ap 22 '54

Future gas requirements to increase. Am Gas Assn Mo 36:11-12 Ja '54

Gas requirements and supplies of the gas utility and pipeline industry. O. Ely. Pub Util 53:493-7 Ap 15 '54

Marketed production of natural gas increased seven per cent last year; with tabulations. Gas Age 112:42-4 D 17 '53

Natural gas heads for still another record. J. A. Kornfeld. Oil & Gas J 52:192-3 Ja 25 '54

Natural gas in the world. Gas Age 113:62+ Ja 14 '54

Natural gas reserves at all-time high; abstracts. Gas Age 113:33-5+ Ap 8 '54; Am Gas Assn Mo 36:5-7+ Ap '54; Am Gas J 180:19 Mr '54

Storage

Acquisition of underground gas storage rights. C. W. Studt. Am Gas Assn Proc 1953:449-53; Same. Am Gas Assn Mo 35:31-3+ N '53; Same. Pet Eng 25:D7-8+ D '53

A.G.A. Supply, transmission and storage conference, 2d, New Orleans, March 4-5. Gas Age 113:23-6+ Mr 25 '54; Am Gas Assn Mo 36:20-3+ Ap '54

Development and operation of an underground storage program; Ohio fuel gas co. W. E. Ferguson. maps Am Gas Assn Proc 1953:1028-42; Same. Gas Age 111:45-9+ My 7 '53; Same. Pet Eng 25:D 10+ S '53

Ohio Fuel Gas; Weaver project. il Oil & Gas J 52:138+ Jl 13 '53

Ohio Fuel increases storage areas. map Gas Age 114:35 Jl 29 '54

Panhandle Eastern ups capacity by half. Gas Age 114:17+ Jl 1 '54

Storing gas in depleted oil field; Lone star gas co. W. F. Burke and T. W. Clay. flow diag maps diags Gas Age 113:44-7+ Mr 11 '54

This holder, 12 mi. long, 16 in. diameter, solved a storage-transmission problem; Southern counties gas co. of California. W. C. Orvis. plan Gas Age 112:15-16 N 5 '53

Transcontinental to increase peak capacity of its system by 50 per cent. T. P. Walker. map Gas Age 112:45+ D 17 '53

Underground storage. D. Ball. diags Oil & Gas J 52:316+ Jl 27 '53

Underground storage is 1.7 trillion. Gas Age 113:38-41 Ap 22 '54; Excerpts. Am Gas Assn Mo 36:13-14 Ap '54

Underground storage of gas in the United States, Dec. 31, 1952. Am Gas Assn Proc 1953:1053-62

Underground storage of natural gas. E. E. Roth. il diags Pet Eng 25:D86+ My '53; Same cond. Am Gas J 179:29-32 O '53

Victory field to store gas from Gulf interstate pipe line. S. G. Day. il Oil & Gas J 52:328+ S 21 '53

Sulfur content

H_2S low but sulfur recovery high. J. F. Mullowney. flow diag il Pet Processing 8:1345-7 S '53

Methods for determining hydrogen sulfide in gases. F. C. Riesenfeld and H. K. Orbach. bibliog(41 ref) Pet Eng 25:C32+ Je '53

Purifying natural gas. flow diags il Can Chem Process 38:72+ Mr '54

Texas plant gets sulfur from casinghead gas. Chem Eng 60:161-2 S '53

Taxation

Natural gas tax of Texas ruled invalid by high court. Oil Paint & Drug Rep 165:3+ F 15 '54

Texas tax knocked out. Pub Util 53:300-1 Mr 4 '54

Testing

See also

Gas, Natural—Sampling

Well drilling

Crisis every 30 minutes; Clear Creek field in central Utah. D. M. Taylor. il World Oil 137:115-18 N '53

Well pressure

Estimating gas reservoir pressure from surface data. L. E. Foster. World Oil 138:168+ Ja '54

Well tubing

Triple completion takes three tubing strings. R. W. Reiss. il diags World Oil 137:169-70+ N '53

Alberta

Alberta development dominates Canadian scene. D. K. Yorath. Gas Age 113:52-3+ Ja 14 '54

Alberta's natural gas. map Economist 169:256-7 O 24 '53

Canadian pipeline. Bsns W p31 D 12 '53

Carbon black from natural gas. G. W. Govier and others. il Can Chem Process 38:62+ My '54

Gas deadlock prolonged. Oil & Gas J 52:97-8 D 14 '53

Where is Canada going in petrochemicals? E. F. Gibbons. map Pet Refiner 32:89-90+ Jl '53

California

Challenge of the West Coast's dynamic growth; Pacific gas and electric co. J. E. Conant. Pub Util 53:217-24 F 18 '54

Court closes wells; gas waste blamed for shut-in of 27 Coalinga Nose wells. D. H.

Gas waste alleged; California's amended conservation laws to undergo test. D. H. Stormont. Oil & Gas J 52:40 Ag 3 '53

California, Supply to

Two new projects will boost California natural-gas supply. F. M. Banks. il Oil & Gas J 52:260+ S 21 '53

Canada

Fist of energy; natural gas. Can Chem Process 38:26 S '54

Gas export indicated; evidence expected to show Alberta able to ship to eastern Canada. Oil & Gas J 52:69-70 Ag 10 '53

Hands across the border; gas pipeline accord. W. Wells. Barron's 34:13 Ja 25 '54

National energy policy. G. S. Hume. Can Chem Process 38:98+ Mr '54

Natural gas in the metallurgical industries. il Can Chem Process 38:54+ Mr '54

Pipeline report. M. R. Hecht. Can Chem Process 38:6+ Mr '54

Trans-Canada line snafu. Gas Age 114:43-4 Jl 1 '54

Western Canada oil and gas map. World Oil 137:supp D '53

Western Canada will prove 200 trillion. W. C. Mainwaring. Gas Age 113:49+ F 25 '54

GAS, Natural—*Continued*

Canada, Supply to

FPC lets natural gas company ship to Canada. Bsns W p30 S 5 '53

Chicago, Supply to

Barging natural gas up the Mississippi. K. P. Partch. il Gas Age 113:23-4+ My 6 '54

Pipeline system growth increases Chicago area gas supply. il Am Gas Assn Mo 36:32 Mr '54

Texas Illinois adds 134 mmcf daily. il Gas Age 113:39-41 Mr 11 '54

Great Britain

Discovery of natural gas. Chem & Ind p778 Jl 3 '54

Natural gas found in Sussex. il Chem Age (Lond) 71:41 Jl 3 '54

Gulf Coast region

How United gas system has grown to trillion-a-year magnitude. W. C. Grant. il map Gas Age 112:57-65+ O 22 '53

Houston, Texas, Supply to

United Gas completes Houston loop. il map Gas Age 113:31-3 Mr 25 '54

Italy

Italian oil and gas resources. F. Reeves. maps diags Am Assn Pet Geologists Bul 37:601-53 bibliog(p652-3) Ap '53

Natural gas aids in solving Italy's industrial problems. F. Salimbeni. il map Oil & Gas J 52:129-30 Ag 17 '53

Ripalta gas field, Po valley, northern Italy. V. Fois. maps diags Am Assn Pet Geologists Bul 37:654-64 Ap '53

Kansas

New gas pays for Hugoton field. J. A. Kornfeld. map Oil & Gas J 52:125 Ja 4 '54

Kentucky

Oil and gas developments in Kentucky in 1952. F. H. Walker. bibliog map Am Assn Pet Geologists Bul 37:1289-97 Je '53

Mississippi

Eastern Gulf Province gas pays spark search for Smackover objective. J. A. Kornfeld. maps Oil & Gas J 52:152-3 Ja 18 '54

New Mexico

San Juan, Rockies' greatest gas-producing basin. il map Oil & Gas J 52:113-14+ Ag 31 '53

New York (state)

Developments in New York in 1952. E. R. McAuslan. bibliog map Am Assn Pet Geologists Bul 37:1264-7 Je '53

Northwestern states, Supply to

San Juan gas to serve Northwest. maps Gas Age 114:29-31+ Jl 15 '54

Oklahoma

Has Oklahoma learned? editor and governor disagree on how well state has employed conservation lessons. N. D. Ralph. Oil & Gas J 52:85-6 D 14 '53

Pennsylvania

Developments in Pennsylvania in 1952. C. R. Fettke. bibliog map Am Assn Pet Geologists Bul 37:1268-79 Je '53

Rocky Mountain region

Rocky Mountain area's natural gas reserves. W. T. Nightingale. Comm & Fin Chr 178: 7+ sec 2 O 8 '53

Russia

Liquefaction behind the Iron Curtain. P. S. Parker and R. H. Ormston. diags Gas Age 113:29-32 Mr 11 '54

Saskatoon, Saskatchewan, Supply to

When natural gas came to Saskatoon. J. R. Sarsfield. Gas Age 114:11-14+ Jl 29 '54

Tennessee

Oil and gas developments in Tennessee in 1952. H. C. Milhous. map Am Assn Pet Geologists Bul 37:1298-300 Je '53

Texas

Hugoton area hits again. J. C. McCaslin. map Oil & Gas J 52:151 Ja 18 '54

Spraberry looking up. R. J. Enright. Oil & Gas J 52:75-6 Ag 24 '53

Texas flares are dimming. Oil & Gas J 52:40-1 N 30 '53

Texas story; oil and gas. il Manuf Rec 122:93-5 N '53

Woodlawn gas field. J. L. Wiggins. il Pet Eng 25:B90 Ag '53

Toronto, Supply to

Gas for Toronto. R. M. Bleiberg. Barron's 33:3+ O 5 '53

Toronto expects American gas Nov. 1. Gas Age 114:31 Jl 1 '54

United States

Big stake; natural gas securities. E. R. Abrams. Barron's 33:13-14 S 14 '53

Economics of a growth industry; natural gas. il Bsns W p85-8+ S 26 '53

Exploration and discovery of natural gas. P. Kayser. Pub Util 52:674-9 N 5 '53

Field prices key to more gas expansion. H. D. Ralph. Oil & Gas J 52:188+ Ja 25 '54

Marketed production of natural gas increased seven per cent last year; with tabulations. Gas Age 112:42-4 D 17 '53

Midyear report; engineering and technological reviews; gas demand soars despite huge expansion. H. D. Ralph. Oil & Gas J 52: 243-4 Jl 27 '53

Natural gas reserves at all-time high; abstracts. Gas Age 113:33-5+ Ap 8 '54; Am Gas Assn Mo 36:5-7+ Ap '54; Am Gas J 180:19 Mr '54

Oil and gas stand side by side. P. Kayser. diag World Oil 137:68+ Ag 1 '53

Reserve build-up; new gas discoveries keep supplies outpacing annual consumption. E. R. Abrams. Barron's 33:15-16 N 16 '53

Supply will exceed 500 trillion cu. ft. L. F. Terry. Gas Age 113:38-40+ F 25 '54

United Gas controls the largest reserves in the country. P. Sutor. Barron's 33:17-18 O 5 '53

Utah

Crisis every 30 minutes; Clear Creek field in central Utah. D. M. Taylor. il World Oil 137:115-18 N '53

Venezuela

Venezuela begins conservation program of natural gas. Chem & Eng N 31:2508 Je 15 '53

Virginia

Natural-gas developments in southwest Virginia. D. M. Young. maps Oil & Gas J 52: 104+ Ag 24 '53

West Virginia

Oil and gas developments in West Virginia in 1952. R. C. Tucker. Am Assn Pet Geologists Bul 37:1285-8 Je '53

Wisconsin, Supply to

Introduction and utilization of natural gas; Wisconsin experience. H. J. O'Leary. Land Econ 29:13-22 F '53; Discussion. J. R. Rose. 29:184-5 My '53

Wyoming

Beaver Creek natural-gas production 30 million cubic feet per day. J. A. Kornfeld. il map Oil & Gas J 52:223-5 O 5 '53

Green river, Wyoming's most promising basin for big gas reserves. il map Oil & Gas J 52:100+ Ag 31 '53

GAS, Oil

Control and resolution of high-Btu oil gas tar emulsions. H. R. Linden and R. Parker. Am Gas Assn Proc 1953:740-50

Experience with the centrifugal dehydration of gas tar, particularly from high Btu oil gas production; Sharples corp. J. T. Costigan. flow sheet Am Gas Assn Proc 1953: 765-6

Improvements in high Btu oil gas equipment; Semet-Solvay engineering division, Allied chemical & dye corp. L. W. Herbst, jr. il diags Am Gas Assn Proc 1953:778-80

GAS, Oil—*Continued*

Influence of operating variables upon the substitutability of high Btu oil gases. E. F. Searight and H. R. Linden. il Am Gas Assn Proc 1953:858-76

Natural gas prices approaching top? W. B. Tippy. Gas Age 113:33+ My 20 '54; Same. Pub Util 53:680-2 My 27 '54

Production of natural gas substitutes by catalytic autohydrogenation of high-Btu oil gases. H. A. Dirksen and C. E. Pierson. flow diag Am Gas Assn Proc 1953:877-91

South Carolina Electric & Gas reviews three years of high-Btu oil gas. J. Sholar. il diag Am Gas J 179:20-1+ O '53

TPC oil-gas process. T. F. Loughry. il diag Am Gas Assn Proc 1953:924-8

See also

Gas oil

Manufacture

Gas from oil plant; Segas process. diag Engineer 197:19 Ja 1 '54; il Engineering 177: 52-3 Ja 8 '54; Chem Age (Lond) 70:313-14 Ja 30 '54

Oil gas is produced by newly-designed plant in Argentina. M. Fernandez Romero. diags Am Gas J 180:18-19+ Ap '54

Producing natural gas substitutes. E. S. Pettyjohn and others. bibliog il diags Gas Age 113:19-26+ My 20 '54

GAS, Water

Methane from watergas. Chem Age (Lond) 69:661-2 S 26 '53

Manufacture

Kinetics of carbon gasification by steam; mechanism of interaction of low temperature char and steam-hydrogen mixtures at 1600°F. G. E. Goring and others. bibliog Ind & Eng Chem 45:2586-91 N '53

Silicon carbide refractories in gas production processes; Carborundum co. A. A. Turner. diag Am Gas Assn Proc 1953:829-31

Switch in synthesis. Chem W 72:36 Je 6 '53

GAS absorption. See Absorption

GAS analysis

Accurate analysis of waste gas with soap film apparatus. W. J. Gooderham. Chem & Ind p 121-2 Ja 30 '54

Acoustic apparatus for determination of mixture ratio by analysis of engine exhaust gas. E. F. Weller. bibliog il diags Anal Chem 26:488-91 Mr '54

Acoustic methods for gas analysis. L. E. Lawley. bibliog il diag Chem & Ind p200-3 F 20 '54

Analysis of the unsaturated hydrocarbons in fuel gases by infra-red spectroscopy. J. H. Towler and B. H. Holland. bibliog diag J Ap Chem 4:517-24 S '54

Apparatus for measuring the products from, and the oxygen required in, the combustion of gases. W. J. Gooderham. bibliog diag Chem & Ind p477-8 My 16 '53

Automatic recorder for continuous determination of oxygen in gases using the dropping mercury electrode. T. B. Larchar and M. Czuha, jr. bibliog diags Anal Chem 26: 1351-4 Ag '54

Chromatography of gases and vapours; the determination of adsorption isotherms. D. H. James and C. S. G. Phillips. diag Chem Soc J p 1066-70 Mr '54

Detection of traces of oxygen; Deoxo indicator, made by Baker platinum, ltd. Chem Age (Lond) 69:1226 D 12 '53

Determination of current efficiency of diaphragm alkali-chlorine cells by gas analysis. M. S. Kircher and others. diag Electrochem Soc J 100:448-51 O '53

Determination of hydrocarbon gases as air contaminants. E. R. Quiram, S. J. Metro and J. B. Lewis. Anal Chem 26:352-4 F '54

Determination of solid and liquid impurities in synthesis gas. L. J. Kane and others. bibliog(61 ref) 11pls U S Bur Mines Rep of Invest 5045:1-23 '54

Device for preparing gas mixtures for calibration. A. Opler and E. S. Smith. diag Anal Chem 25:686 Ap '53

Dual analyzer for gas streams; Liston-Becker. il Chem & Eng N 32:1720 Ap 26 '54

Electrochemical method for oxygen determination in gases. M. G. Jacobson. bibliog flow diag il diags Anal Chem 25:586-91 Ap '53

Gas chromatography. N. H. Ray. bibliog diag J Ap Chem 4:21-5, 82-5 Ja-F '54

Gas titrations. S. Katz and J. T. Barr. bibliog diags Anal Chem 25:619-24 Ap '53

Infrared gas analyzer for butane splitter control. R. L. Martin and B. W. Thomas. bibliog diags Ind & Eng Chem 46:1393-6 Jl '54

Liston-Becker gas analyzer model 21. R Sci Instr 24:476-7 Je '53

LTFD calculation procedures. S. T. Preston, jr. diags Pet Refiner 32:109-14 Ag '53

Mass spectrometric determination of gas impurities separable by condensation. A. S. Newton. bibliog diags Anal Chem 25:1746-9 N '53

Metal column for distillation of corrosive gas mixtures at low temperatures. N. C. Orrick and J. D. Gibson. bibliog diags Anal Chem 25:1100-3 Jl '53

Methods for determining hydrogen sulfide in gases. F. C. Riesenfeld and H. K. Orbach. bibliog(41 ref) Pet Eng 25:C32+ Je '53

New gas analyser. Chem Age (Lond) 70:18 Ja 2 '54

Pneumatic refractometer. H. G. Clamann. il diags Instruments 26:740-2 My '53

Potentiometric instrument for sulfur determination. H. Landsberg and E. E. Escher. bibliog il diags Ind & Eng Chem 46:1422-8 Jl '54

Quantitative determination of methyl mercaptan, dimethyl disulfide, and dimethyl sulfide in a gas mixture. W. Segal and R. L. Starkey. bibliog diag Anal Chem 25: 1645-8 N '53

Reciprocating mercury pump for gas analysis apparatus. E. A. C. Chamberlain and others. il J Sci Instr 31:66-7 F '54

Recording infrared analyzer. V. N. Smith. bibliog il diags Instruments 26:421-7 Mr '53

Save LTFD calculation time with these sheets; low temperature fractionation equipment for analysis of gases. W. F. Krause and others. Pet Refiner 32:115-18 Ag '53

Sensitive versatile acoustic gas analyzer particularly suitable for the analysis of anesthetic mixtures. J. E. Wilson. diag R Sci Instr 25:927-8 S '54

Supersensitive gas detector permits accurate detection of toxic or combustible gases in extremely low concentrations. R. H. Müller. il diag Anal Chem 26:sup39A-40A+ S '54

Two new forms of melting point calorimeters for determining purity of liquids of condensed gases. J. T. Clarke, H. L. Johnston and W. De Sorbo. bibliog diags Anal Chem 25:1156-9 Ag '53

Use of soap films in gas analysis and gas calorimetry. W. J. Gooderham. bibliog Chem Age (Lond) 70:829-32+ Ap 10 '54

Utility of the mass spectrometer in gas industry analyses. D. V. Kniebes and others. il diag Am Gas Assn Proc 1953:932-7

Water vapor saturation in gas-measuring burets. T. W. Stein and R. C. Reid. Anal Chem 25:1919-20 D '53

See also

Air—Analysis
Carbon dioxide—Analysis
Chlorine—Analysis
Gas, Natural—Analysis
Gas sampling
Orsat apparatus
Oxygen—Analysis

GAS appliance industry

By '58-59 million appliance sales? Am Gas Assn Mo 36:11-12 Ap '54

Gas appliance and heating outlook. Dom Eng 183:217-18 Ap '54

Gas appliance industry looks for better business ahead. E. R. Martin. Dom Eng 183: 233+ Mr '54

GAMA sees favorable 1954 potential for gas appliance sales. E. R. Martin. Am Gas J 180:46+ F '54

Gas appliance outlook is B.t.u.-tiful. S. Coleman. Gas Age 113:47 Ja 14 '54; Same. Am Gas Assn Mo 36:9-10 Ja '54

Most G.A.M.A. members optimistic. Gas Age 113:57+ F 25 '54

Seriousness of gas industry situation demands immediate and urgent action. S. Coleman. Am Gas J 180:47-9 Ap '54

GAS appliance industry—*Continued*

Advertising

Advertise more, sell more, make it for less, reduce price; inside story of Servel advertising. W. P. Jones. Ptr Ink 244:39-41+ S 25 '53
American Meter proposes new industry-support program. Am Gas J 180:30 Je '54

Directories

Gas engineering and appliance directory. Gas Age 113:67-155 Je 17 '54

Statistics

AGA sees five-year sales of 59 million appliances. Am Gas J 180:50 Mr '54; Same. Gas Age 113:47+ Ap 8 '54

GAS appliance manufacturers association

Annual meeting, 19th, Chicago. Am Gas Assn Mo 36:42 Jl-Ag '54
Annual meeting, 19th, Chicago. Dom Eng 184: 194+ Ag '54
Annual meeting, 19th, Chicago. Gas Age 114: 26-7+ Jl 1 '54
GAMA's public relations program. J. F. Donnelly. Pub Util 52:737-9 N 5 '53
Public relations; a high-yield investment. G. Swinehart. Am Gas Assn Proc 1953:37-42

GAS appliances

A.G.A. wins seal of approval suit. il Am Gas Assn Mo 36:13 F '54
Court decision protects gas industry customers. Gas Age 113:42 F 11 '54
Super-diners hold vast sales potential. il Am Gas J 180:42-3 Je '54

See also
Gas appliances, Domestic
Gas burners
Gas cooking
Gas stoves
Gas water heaters
Refrigerators, Gas

Ignition devices

See Gas burners—Ignition devices

Repair

Survey of industry servicing policies. C. G. Segeler. Am Gas Assn Proc 1953:718-23; Same. Am Gas Assn Mo 35:21-3+ Jl-Ag '53

Safety measures

Vancouver rooming houses install safety valves. Gas Age 113:26 Ja 28 '54

Testing

Utility company laboratories; why? E. L. Hall. Gas Age 113:39+ Ap 8 '54

See also
American gas association—Appliance testing laboratory

Ventilation

Gas venting becomes of age. A. Kinkead. Am Gas Assn Proc 1953:466-8
Multi-story venting for apartment houses. E. C. Adams. il diags Am Gas Assn Mo 36: 13+ Mr '54; Same. Gas Age 114:55+ Jl 15 '54

GAS appliances, Domestic

Gas kitchens shine on parade; illustrations with text. Am Gas Assn Mo 36:26-7 Ja '54

Merchandizing

Action at Abilene lifts sales. W. C. Grant. Gas Age 114:25-7+ S 9 '54
Challenge of the gas incinerator. H. Zeamer. il Am Gas Assn Mo 36:18-21+ F '54
Easy way out. J. F. Donnelly. Am Gas Assn Proc 1953:28-31; Excerpts. Am Gas Assn Mo 35:25-6 D '53
Gas fights glamor with glamor. J. H. Collins. Pub Util 52:699-706 N 5 '53
Gas home laundries create sales. il Am Gas Assn Mo 36:10-11+ Je '54
Gas industry campaigns to hit new high in '54. R. Little. Gas Age 113:48+ Ja 14 '54
How sales action is being demonstrated. C. Payne, jr. Gas Age 113:23-5+ Je 3 '54; Same abr. Am Gas J 180:19+ Je '54
It's one promotion after another; Cincinnati gas and electric co. E. W. Hodgetts. il Sales Management 71:48-9+ O 1 '53
Manufacturers-dealers-utility unite for Philadelphia incinerator drive. il Am Gas J 179: 60+ O '53
My housewife. E. Foley. Am Gas Assn Proc 1953:328-31
Philadelphia gas works enlarges scope of cooperative incinerator sales campaign. il Am Gas J 180:47+ Mr '54
Selling through home service. G. M. Jones. Gas Age 113:37+ My 6 '54
Success story of the gas clothes dryer. il Am Gas Assn Mo 36:8-9+ Mr '54

See also
Gas companies—Appliance selling
Gas companies—Dealer relations

Safety measures

Safe practices on customers' premises. H. S. Blanding. Am Gas Assn Proc 1953:647-50

Testing

How testing aids merchandising. C. V. Kroeger. Am Gas J 181:43-4+ S '54

GAS as fuel

A.C.S. Division of gas and fuel chemistry 124th national meeting, Chicago; abstracts of papers. Chem & Eng N 31:3971-2 S 28 '53
Analysis of the unsaturated hydrocarbons in fuel gases by infra-red spectroscopy. J. H. Towler and B. H. Holland. bibliog diag J Ap Chem 4:517-24 S '54
Characteristics of gases as industrial fuels. Cer Ind 63:53+ Ag '54; Same abr. Brick & Clay Rec 125:67+ Ag '54
Gaseous fuel vital to modern industry. F. O. Hess. Gas Age 114:44-5+ S 9 '54; Excerpts. Am Gas J 181:21+ Ag '54
Graphic approach to the problem of interchangeability. M. F. Knoy. bibliog Am Gas Assn Proc 1953:938-47
Heat transfer in a gas-fired furnace. S. J. Genna and others. bibliog diags A S M E Trans 76:527-36 My '54
Industry's most versatile fuel. C. C. Eeles. il Am Gas Assn Mo 36:25-6 F '54
Interchangeability of various fuel gases. G. V. McGurl. Am Gas J 181:27-30 S '54
Quality control of fuel gases. R. A. Sloan. il diag Am Gas Assn Proc 1953:948-53
Sulphur in gas for glass working. H. K. Richardson. diag Glass Ind 35:319+ Je '54
Use of gas in the chemical industry; abstract. R. F. Hayman. Chem & Ind p601-2 My 22 '54

See also
Blast furnace gas
Boilers—Gas firing
Butane
Coke oven gas
Gas appliances, Domestic
Gas burners
Gas cooking
Gas heaters
Gas heating
Gas heating, Industrial
Gas stoves
Liquefied petroleum gas
Propane
Sewage sludge—Gas production

Natural gas

Electric generation by gas increasing. Barron's 33:14 D 21 '53
Flame hardening; more extensive use of natural gas possible with new equipment; National supply co. il Iron Age 172:191-2+ S 17 '53; Same cond. Steel 133:123-4 S 28 '53
Fuel handling and storage. J. C. McCabe. Power 97:97-8 D '53
Gas combustion practice described for copper smelters of the Southwest. H. Foard. il J Metals 5:1629-30 D '53
Gas; expansion balloon gets bigger. E. C. Kellogg. Iron Age 172:78 Jl 2 '53
How irrigation improves load factor. R. M. Curry. il Gas Age 114:32-5 Ag 26 '54
How natural gas helps make aluminum, key material for airframes. A. Q. Smith. il Gas Age 112:36-7 D 17 '53
How to convert from LP-gas to natural. F. Foster. plans Gas Age 113:54-6+ F 25 '54
Largest customer in New England; new year turn-on at Wyman-Gordon plant by Worcester Gas Light. J. J. Malloy. il Gas Age 113:11+ Ja 28 '54
National energy policy. G. S. Hume. Can Chem Process 38:98+ Mr '54
Natural gas in the metallurgical industries. il Can Chem Process 38:54+ Mr '54
Needs for firm industrial gas service now under specific study. P. E. Peacock, jr. Am Gas J 180:20+ Je '54

GAS as fuel—Natural gas—*Continued*
Propane-air standby for industrial plants. H. E. Thomas. Am Gas Assn Proc 1953:929-31
Standby fuel system can prevent production shutdowns. il Iron Age 172:136-7 S 24 '53
Why industry needs firm gas. R. L. Manier. Gas Age 114:36+ Jl 15 '54

GAS associations
Be a better association member. C. Belden. Am Gas Assn Mo 36:11-13 My '54

GAS bubbles. See Bubbles

GAS burners
A.G.A. unveils new gas range designs. V. O'Brien. il diag Gas Age 113:33-40+ F 11 '54
Build a flare for under $5,000; use of pit instead of stack. M. R. Beychok. flow diag il Pet Processing 8:1162-3 Ag '53
Choose right oil and gas burners. P. R. Unger. il diags Power Eng 57:78-80+ N '53
Drying converted paper products with radiant gas burners. J. L. Kusnerus and R. E. Moehlman. il Paper Ind 35:1314-17 Mr '54
Flame studies with a vortex burner. P. F. Kurz. diag Ind & Eng Chem 46:1311-14 Je '54
Gas combustion practice described for copper smelters of the Southwest. H. Foard. il J Metals 5:1629-30 D '53
Length of oil and gas flames. A. L. Cude. flow diag diags Iron & Steel Inst J 175: 304-12 N '53
Nature of gas burner flash back on turndown. J. Grumer. bibliog il Ind & Eng Chem 45:1775-6 Ag '53
New type of radiant tubular heater. T. F. Kreipe. il diags A S M E Trans 76:337-40; Discussion. 340-2 Ap '54
Research unveils new range units; series of demonstrations. il Am Gas Assn Mo 36:4-8+ F '54
Selas radiant burners improve galvanizing quality, cut costs. R. M. Breckenridge and K. E. Rasmussen. il diags Iron Age 172: 168-71 N 5 '53
Smokeless burning of waste process gases. R. D. Reed. A S M E Trans 76:251-3 F '54
Some aspects of burner design and operation currently revealed by research. E. J. Weber and H. Luoma. Am Gas Assn Proc 1953: 463-6
Typical gas and air mixing systems for gas burners. diags Cer Ind 63:54+ S '54; Same. Brick & Clay Rec 125:79-80 S '54
Vortex burner; a useful tool for studying the flame stability of gaseous fuels and fuel mixtures. P. F. Kurz. diags R Sci Instr 25: 418-21 My '54
See also
Bunsen burner

Control

Develop automatic control for gas range burners and ovens. il Am Gas Assn Mo 36: 43 Jl-Ag '54

Ignition devices

Flame failure devices; abstract. R. C. Haslock. Chem Age (Lond) 70:1253 Je 5 '54
Road cleared for cold range drive; field test project proves the practicality of electric and gas single-point ignition. il diags Am Gas Assn Mo 35:4-6 D '53

Maintenance and repair

Practical notes on gas burner service (cont). P. K. Wadsworth. il diags Sheet Metal Worker 45:50-2+ N; 46-7 D '53; 48-9+ F '54

GAS burning equipment
Refractory materials for gas combustion equipment. E. Blaha. diags Ind & Eng Chem 46:183-5 Ja '54
See also
Gas heaters
Gas heating, Industrial
Gas water heaters

GAS carburizing. See Case hardening—Gas carburizing

GAS cleaning
Dirty pipe-line gas; its cause and cure in the petroleum industry. R. C. Baird. bibliog flow diag il plan diags Oil & Gas J 52:78-84+ Ja 4 '54
Gas cleaners today and tomorrow. T. S. Bacon. Gas Age 113:35+ Ap 22 '54
Moving coke-bed gas filter for dust removal. G. C. Egleson and others. il diags Ind & Eng Chem 46:1157-62 Je '54; Same. U S Bur Mines Rep of Invest 5033:1-8 '54
Superphosphate plant effluents. R. Donald. Chem Age (Lond) 69:1171-2+ D 5 '53
See also
Blast furnace gas—Cleaning
Electric precipitation
Gas purification

GAS coke and chemical workers of America, United. See United gas, coke and chemical workers of America

GAS companies
Corporate contributions. R. M. Drevs. Am Gas Assn Proc 1953:156-8
How Seattle gas co. plans ahead with the city engineers. M. C. Nutter. Am Gas J 180:20+ Ap '54

Accidents

Accident frequency at new low. Am Gas Assn Mo 36:27-8 My '54
Kill the cause and cut the cost. W. B. Johnston. Am Gas Assn Mo 36:22-3+ F '54

Accounting

Business applications and limitations of electronic computers; UNIVAC. L. A. Harr. Am Gas Assn Proc 1953:231-8
Computing depreciation reserves. G. T. Logan. Am Gas Assn Mo 36:29-31+ Jl-Ag '54
Discounts and deposits. L. J. Rauh. Am Gas Assn Proc 1953:239-44
Electronics seminar, New York, Oct. 7-8. Am Gas Assn Mo 35:13-14 N '53
Influence of accounting concepts in federal taxation. N. A. Sugarman. Am Gas Assn Proc 1953:255-9
National conference of electric and gas utility accountants, Boston, April 12-14. Am Gas Assn Mo 36:31-3 My '54
New capacity credit method provides for allocations of costs in gas systems. H. E. Nissel. Am Gas J 179:16-17+ O; 16-17+ N '53
Taxes and depreciation policy. R. C. Staebner. Am Gas Assn Mo 35:27-8 N '53
What does top management expect of the credit man? J. F. Rooney. Am Gas Assn Mo 36:27-9+ F '54
Working capital in rate bases. W. C. Young. il Am Gas Assn Mo 36:21-4 S '54

Appliance renting

Blackstone Valley G&E using water heater rental plan to increase installations. Am Gas J 181:42 Jl '54
How we are renting water heaters; Haverhill gas light co. F. J. McLaughlin. il Gas Age 113:34-5+ Mr 11 '54; Same cond. Sales Management 72:70-2 Je 1 '54
Rentals build water heating load; Blackstone valley gas and electric co. J. E. Pemberton. il Am Gas Assn Mo 36:29-32 S '54

Appliance selling

Action at Abilene lifts sales. W. C. Grant. Gas Age 114:25-7+ S 9 '54
Action in Abilene; Lone star gas co. H. C. Mendell. il Am Gas Assn Mo 36:11-12+ S '54
AGA sales promotion program for 1954 designed to aid utility merchandising. Am Gas J 179:45-6 D '53
First Matchless group promotion sells 20,000 ranges. V. O'Brien. il Gas Age 113:34-6 F 25 '54
Gas merchandising effectively tied to conversion in Fall River. il Am Gas J 180:42 Ja '54
Gas show starts action program; Springfield gas light co. il Am Gas Assn Mo 36:26-7 Ap '54
Home service promotions for display; symposium. M. E. Huck and others. Am Gas Assn Proc 1953:341-6
Houston Natural opens Hospitality House. il Gas Age 113:42-3 Mr 25 '54
How Peoples builds its cooking load. il Am Gas Assn Mo 36:15-16+ Jl-Ag '54
How sales action is being demonstrated. C. Payne, jr. Gas Age 113:23-5+ Je 3 '54; Same abr. Am Gas J 180:19+ Je '54
How two companies stage Matchless sales contest. il Gas Age 113:36-7 F 25 '54

GAS companies—Appliance selling—*Continued*

Keep the accent on action. E. H. Eacker. Am Gas Assn Mo 36:16-18+ Ap '54

Laclede has big cooperative merchandising display in parade of kitchens. il Am Gas J 179:42-3 D '53

Savannah, action city! Savannah gas co. il Am Gas Assn Mo 36:17-18 Jl-Ag '54

Southern Union after workers leads as spring style show gets under way. il Am Gas J 180:65+ My '54

30 gas equals 80 electric; water heater promotion by Gas institute of central Florida. C. Spink. il Gas Age 114:43-4+ Jl 15 '54

Utilities in seven-state area adopt matchless range promotion. V. O'Brien. il Gas Age 112:70-2 O 22 '53

What action cities are doing; promotional activities. H. C. Mendell. il Am Gas Assn Mo 36:7-8+ Je '54

What's the score for '54? H. V. Potter. Am Gas Assn Proc 1953:316-21

What's your score in '54? Am Gas Assn Mo 35:27 D '53

Combination with electric utilities

See also
Consolidated Edison company of New York

Costs

Capital expenditure management of the motor vehicle program. J. Dean. Am Gas Assn Proc 1953:536-47

Handy-Whitman index, public utility construction costs. Eng N 151:103 O 8 '53

Customer relations

Accountants scrutinize poll methods. J. H. Purdy. Am Gas Assn Mo 36:29-30+ Ap '54

Close follow-up collects bills. L. J. Hamilton. Am Gas Assn Mo 36:21-2+ Je '54

Credit and collection experience; January 1-June 30, 1953. Am Gas Assn Mo 35:25+ N '53

Credit and collection experience, July 1-December 31, 1953. Am Gas Assn Mo 36:29+ My '54

Customer relations training by manual and film. B. J. McMillen. Am Gas Assn Proc 1953:248-50

Sound selling creates sound customer relations. E. H. Eacker. Am Gas Assn Proc 1953:272-4; Same cond. Am Gas Assn Mo 35:29-30+ N '53

Tampa gas co. installs new wrinkle to improve customer service, cut expense. L. C. Jewett. il Am Gas J 180:30-1+ My '54

What does top management expect of the credit man? J. F. Rooney. Am Gas Assn Mo 36:27-9+ F '54

Dealer relations

Dealer training programs; Rochester gas and electric corp.; abstract. J. MacLarty. Am Gas J 181:25 Ag '54

How Minneapolis sold 2200 ranges; Recipes-of-the-month cook book, heart of six-week promotion. D M. Lyons. il Gas Age 113:19+ Ja 28 '54

Philadelphia gas works enlarges scope of cooperative incinerator sales campaign. il Am Gas J 180:47+ Mr '54

Pioneer natural gas co. cooperates with dealers to boost appliance sales. il Am Gas J 180:63+ My '54

Preparing the way for sales; B. C. electric co. J. H. Taylor. il Am Gas Assn Mo 36:18-20 My '54

Southern California Gas reveals dealer relations creed. W. Q. Kringle. Am Gas Assn Mo 35:26 N '53

Development work

Oklahoma natural gas co. promotes industrial development in service area. J. Bowes. Am Gas J 180:35 My '54

Electric utility competition

Gas fights glamor with glamor. J. H. Collins. Pub Util 52:699-706 N 5 '53

Emergency problems

Restoring gas facilities in emergency. Gas Age 114:16-20+ Jl 29 '54

Urge plans for emergency gas service. Nat Safety N 70:96-7 S '54

What we learned from Waco's tornado; Lone star gas co. A. P. Rowland. il Gas Age 113:29-33+ Je 3 '54

Employees

Better street employees; abstract. M. F. Hall. Am Gas J 181:19-20 S '54

Columbia solves cadet engineer training riddle. il Am Gas Assn Mo 35:4-6+ N '53

Employee and clerical costs. E. R. Eberle. Am Gas Assn Mo 36:31-3+ F '54

Employee economic education survey. L. A. Brandt. Am Gas Assn Proc 1953:224-7

Employee indoctrination and orientation survey. D. A. Hardesty. Am Gas Assn Proc 1953:221-3

Explaining the rate case to the employee; Peoples gas light and coke co. J. F. Oates, jr. Pub Util 52:686-9 N 5 '53

Gas dispatching in network systems. S. A. Chadwell. Am Gas Assn Proc 1953:423-6; Excerpt. Am Gas J 179:17+ D '53

How Milwaukee trains servicemen. il Gas Age 114:26-7 Ag 26 '54

How Oklahoma Natural employees aided in rate increases. M. H. North. Gas Age 112:31 N 5 '53

How to keep your servicemen informed; service manuals. G. J. Sandusky. il Am Gas Assn Mo 36:8-10+ S '54

National personnel conference of the gas industry, 6th, Chicago, April 15-16. Am Gas Assn Mo 36:21 My '54

Report of subcommittee on absenteeism due to illness for 1952. Am Gas Assn Proc 1953:214-20

School on wheels instructs service men; Robertshaw-Fulton field service program. il Gas Age 114:36-7 S 9 '54

Selecting service supervisors; abstract. W. H. Weber. Am Gas J 181:17-18 S '54

Selection and training of engineering personnel. M. S. Viteles. bibliog Am Gas Assn Proc 1953:1068-72

Training schedule for underground personnel. D. E. Barthel. il Am Gas Assn Proc 1953:624-7

Wages in electric and gas utilities, July 1952. F. Mohr. Mo Labor R 76:398-402 Ap '53

Equipment and supplies

Capital expenditure management of the motor vehicle program. J. Dean. Am Gas Assn Proc 1953:536-47

How company solved office duplicating problems; Michigan consolidated gas co. D. G. Baird. il Am Bsns 24:24-5+ Ag '54

How operating equipment is cleaned without dismantling. M. B. Barbarin. il diags Am Gas J 180:16-17+ Je '54

Principles of fleet management. T. L. Preble. Am Gas Assn Proc 1953:577-82

Symposium on selection of aerial apparatus and related chassis. R. Balogh and others. il diags Am Gas Assn Proc 1953:671-83

Exhibits

Central Illinois light co. promotes appliances to 30,000 persons. il Gas Age 112:28 D 3 '53

Extension policies

Gas utilities advised on service area extensions. L. T. Parker. Am Gas J 178:23 N '53

Finance

Gas operating revenues of 150 companies were $2.3 billion last year. Gas Age 112:20-1 D 3 '53

Outlook for natural gas utilities improved by new FPC rate policy. O. Ely. Pub Util 53:671-3 My 27 '54

Record gas financing in '53. Am Gas Assn Mo 36:7 Mr '54

Law

Dealers and manufacturers cautioned on sales-contract entanglements. L. T. Parker. Am Gas J 179:26+ O '53

Decisions on rate-making reviewed. L. T. Parker. Am Gas J 179:23+ D '53

Extent of utility liabilities in law of attractive nuisance. L. T. Parker. Am Gas J 180:46+ My '54

Facts on the law of representation offered in recent decisions. L. T. Parker. Am Gas J 180:21+ F '54

GAS companies—Law—*Continued*

Gas company rights and liabilities reviewed in court actions. L. T. Parker. Am Gas J 180:22+ Ap '54

Gas explosion liabilities determined by courts. L. T. Parker. Am Gas J 180:24+ Ja '54

Gas utilities advised on service area extensions. L. T. Parker. Am Gas J 179:23+ N '53

How interstate laws affect gas company operations. L. T. Parker. Am Gas J 181:22+ Ag '54

How to avoid employment contract liability. Am Gas J 181:36 S '54

Legal considerations of various gas company employment contracts. L. T. Parker. Am Gas J 180:27+ Je '54

Trademark and copyright laws affecting gas companies. L. T. Parker. Am Gas J 181:29+ Jl '54

See also

Gas, Natural—Laws and regulations

Gas companies—Regulation

Management

Con Ed sums up its policy and practice. H. R. Searing and others. Gas Age 113:48-51 F 11 '54

Coordinated purchasing and stores. J. S. Phillips. Am Gas Assn Mo 36:13+ S '54

Developing today's management. L. A. Brandt. Am Gas Assn Mo 36:7-8+ My '54

Duties of a gas company corporate secretary. B. H. Harper. Am Gas Assn Proc 1953:149-55

How Columbia controls corrosion; complete cooperation between line and staff organization. W. J. Kretschmer. Gas Age 114:20-2+ Jl 1 '54

How Lake Shore opened all-out gas offensive. il Am Gas Assn Mo 36:8-10+ Ap '54

Market research removes the blindfold; Peoples gas light and coke co. G. A. Morgan. map Am Gas Assn Mo 35:8-10 N '53

Public relations

After natural gas came to Torrington. S. Ferguson, jr. il Am Gas Assn Mo 36:16-17+ My '54

Brooklyn Union talks shop with investment folks. il Sales Management 70:60+ Ap 15 '53

Company publication tells the world; Northern natural gas co. W. J. Quinlan. Pub Util 52:680-5 N 5 '53

Gas industry joint regional public relations conference, Boston, June 16. Am Gas Assn Mo 36:22-3 Jl-Ag '54

Gas industry public relations conference, Omaha, July 26; with abstracts of papers. Gas Age 114:24-5+ Ag 26 '54; Am Gas Assn Mo 36:17-18+ S '54

How Lake Shore opened all-out gas offensive. il Am Gas Assn Mo 36:8-10+ Ap '54

Independent natural gas association of America stresses public information program. C. P. Rather. Gas Age 113:49+ Ja 14 '54

Independent natural gas association 1st workshop conference, Dallas, Sept. 10; with abstracts of papers. Gas Age 112:78-9+ O 22 '53

Independent natural gas association 2d workshop conference, New Orleans, March 29. Gas Age 113:32-3 My 6 '54

Junior Achievement program helps build America; Blackstone Valley gas and electric co. has expanded support. il Gas Age 113:22-3 Ja 28 '54

Pipeliner meets the public. F. M. Banks. Am Gas Assn Proc 1953:1080-3; Same. Pet Eng 25:D25-9 Jl '53; Same cond. Am Gas Assn Mo 35:27-8+ My '53

Principal public relations job. S. F. Silloway. Gas Age 113:38-40+ My 6 '54

Promoting more teamwork in the gas industry; INGA's public information program. W. E. Wilson. Pub Util 54:338-41 S 16 '54

Rochester reports on tv. map Gas Age 114:42 Jl 15 '54

Techniques in public relations. H. Brayman. Am Gas Assn Proc 1953:252-5; Same cond. Am Gas Assn Mo 35:7-8+ D '53

Three prongs of public relations. W. M. Jacobs. il Am Gas Assn Mo 36:4-6+ Je '54

20,000-meter changeout packaged deal for South Atlantic gas co. H. H. Hillyer. il Am Gas J 181:14+ S '54

When natural gas came to Saskatoon. J. R. Sarsfield. Gas Age 114:11-14+ Jl 29 '54

Radio communication

Electronics; a tool for communications and control in the gas industry. D. E. Noble. Am Gas Assn Proc 1953:417-20

Gas industry communications expanding in scope, precision and dependability. H. H. Carlson. il diags Am Gas J Hdbk 179:6-9 O 1 '53

How Hartford gas co. uses two-way radio to speed service calls and repairs. il Gas Age 112:17-20 N 5 '53

How microwave serves Texas-Illinois. il map Gas Age 114:38-40 Ag 26 '54

Mobile radio; present and future. T. G. Humphrey, jr. Gas Age 113:27+ Ap 8 '54

Two-way radio has two-way benefit; United gas corp. C. C. McEachern. Gas Age 114:52-3+ Ag 12 '54

Rates

See Gas rates

Records

System that cured our record keeping headaches; water, gas and electric departments, Danville, Va. W. S. Jeffries. il Pub Works 85:77-8+ Ag '54

Tampa gas co. installs new wrinkle to improve customer service, cut expense. L. C. Jewett. il Am Gas J 180:30-1+ My '54

Vehicle maintenance record questionnaire. S. G. Page. Am Gas Assn Proc 1953:630-1

Regulation

Investor's eye view of gas rate regulation. C. A. O'Neil. Pub Util 52:707-12 N 5 '53

States' rights; its privileges and responsibility. E. S. Loughlin. Am Gas Assn Proc 1953:31-6; Excerpts. Am Gas Assn Mo 35:24 D '53

See also

Gas rates

Reports

Can annual reports be improved? D. Cowan. Am Gas Assn Mo 36:23-5 Ja '54

High lights of 1952 gas reports to stockholders. O. Ely. Pub Util 52:725-6+ N 5 '53

Reducing statistical data required by federal agencies. Pub Util 53:375-80 Mr 18 '54

Safety measures

Following established safety rules. M. M. Braidech. Am Gas Assn Proc 1953:954-7

Holder maintenance and painting sets accident-free record. il Gas Age 113:35 Mr 25 '54

Home service in a safety program. I. L. Muntz. Am Gas Assn Proc 1953:334-7

How Dallas won southern safety award; Lone star gas co.'s Dallas division of distribution. W. C. Grant. il Gas Age 113:25-9 Ap 22 '54

How Lone star gas co. practices safety and makes it pay off. A. W. Breeland. Am Gas J 180:45+ My '54

Living with the Wisconsin code. A. J. Demse. Gas Age 113:41-4+ My 6 '54

Management makes safety pay; Columbia Gas System's Pittsburgh group. il Am Gas Assn Mo 36:9-12 F '54

Nine ways to promote safety. W. H. Adams. Gas Age 113:53-4+ F 11 '54; Same cond. Am Gas Assn Mo 35:25-6+ O '53; Same cond. Am Gas J Hdbk 179:10-12 O 1 '53

One man's view of gas industry safety. R. N. Papich. Am Gas Assn Mo 36:28+ Jl-Ag '54

Safe practices on customers' premises. H. S. Blanding. Am Gas Assn Proc 1953:647-50

Special stunts help sell safety; New England electric system. H. F. Lovering. il Am Gas Assn Mo 36:19-21+ Ja '54

We need more safety salesmen; interview with W. H. Adams. Am Gas Assn Mo 36:29-30 Ja '54

Securities

Analyzing the outlook for natural gas securities. O. Ely. Pub Util 52:728-31 N 5 '53

Big stake; natural gas securities. E. R. Abrams. Barron's 33:13-14 S 14 '53

Bond market at new three-year high. J. F. Falvey. Am Gas J 180:18+ Mr '54

Good bond market seen for 1954. J. F. Falvey. Am Gas J 180:25+ Ja '54

Index of yields; selected utilities stocks. Published in monthly numbers of American gas journal

GAS companies—Securities—*Continued*

Institutional investors increase gas industry holdings. Am Gas Assn Mo 36:33 Ap '54

Investor's eye view of gas rate regulation. C. A. O'Neil. Pub Util 52:707-12 N 5 '53

New problems on the horizon for natural gas. R. Carleson. Mag of Wall St 93:136-8+ O 31 '53

Present economy relatively stable but future expansion is seen. J. F. Falvey. Am Gas J 181:23+ S '54

Rates of progress in natural gas. I. U. Cobleigh. Comm & Fin Chr 178:1526 O 22 '53

Report on gas industry investor relations. T. H. Wheat. bibliog Am Gas Assn Proc 1953: 159-88

Wave of refunding operations seen. J. F. Falvey. Am Gas J 180:21+ Ap '54

Service

Home service fosters local UN; utility-trade union-school plan. Am Gas Assn Mo 35: 23 N '53

Home service in a safety program. I. L. Muntz. Am Gas Assn Proc 1953:334-7

Home service promotions for display; symposium. M. E. Huck and others. Am Gas Assn Proc 1953:341-6

How Nashville services air conditioning. J. P. McGovern. Gas Age 114:25+ Jl '54

How to be a master key. G. B. Price. Am Gas Assn Mo 36:19+ Mr '54

How to keep your servicemen informed; service manuals. G. J. Sandusky. il Am Gas Assn Mo 36:8-10+ S '54

Meeting 3986 service calls in one day; Boston consolidated gas co. J. F. Kelley. il Gas Age 113:33+ Mr 11 '54

Secrets of home service. M. E. Huck. Am Gas Assn Mo 36:19 Mr '54

Selling through home service. G. M. Jones. Gas Age 113:37+ My 6 '54

Service as the salesman sees it. J. J. Quinn. Am Gas Assn Mo 35:21-2+ N '53

Servicing air conditioning units; Arkansas Louisiana gas co. M. S. Bolinger. Gas Age 113:26+ Je 3 '54; Abstract. Am Gas J 181: 24-5 Ag '54

Seven ways to improve customer service. E. F. Davis. Gas Age 113:42-3+ Mr 11 '54

Survey of industry servicing policies. C. G. Segeler. Am Gas Assn Proc 1953:718-23; Same. Am Gas Assn Mo 35:21-3+ Jl-Ag '53; Excerpts. Am Gas J 178:16-17+ Je '53

Why home service is most welcome ambassador of gas company. F. H. Faulstich. Gas Age 112:52+ D 17 '53

Stores systems

American gas association 3d national purchasing and stores conference, Atlanta, April 19-21. Am Gas Assn Mo 36:25-6+ My '54; Gas Age 113:42 Je 3 '54

How Transcontinental gas pipe line corp. controls its inventory. A. H. Cannon. Gas Age 114:38-9+ S 9 '54

Taxation

Natural gas firms getting tax aid needn't cut rates; FPC. Oil Paint & Drug Rep 164: 3+ D 14 '53

Telephone

Gas industry communications expanding in scope, precision and dependability. H. H. Carlson. il map Am Gas J Hdbk 179:4-5 O 1 '53

Meeting 3986 service calls in one day; Boston consolidated gas co. J. F. Kelley. il Gas Age 113:33+ Mr 11 '54

GAS compressors

Butterfly regulates compressor. diag Pet Refiner 33:171 Ja '54

Carthage field compressor system. C. A. Brashear. il map Pet Eng 25:B73-4+ S '53

Compressed gas cuts Carthage acidizing costs. P. S. Clinkenbeard. il World Oil 137: 180+ Ag 1 '53

Compression giant for three individual streams to different pressure levels. il Chem & Eng N 32:1613 Ap 19 '54

Compressor design and performance developments. B. T. Mast. Pet Eng 25:D28+ D '53

Development of 105 Cfm portable compressor for utility service; Ingersoll-Rand co. J. E. Elliott. il diag Am Gas Assn Proc 1953: 803-12

Economics of packaged compressor plants; with cost data. E. S. McRoberts. il Pet Eng 25:E4+ N '53

Efficiencies of centrifugal compressors. H. Woodhouse. Pet Eng 25:D 11-12 O '53

Gas turbines and centrifugal compressors. T. R. Rhea and J. S. Quill. flow diag il map plan diag Mech Eng 75:534-40 Jl '53; Same cond. Oil & Gas J 51:133 F 9; 169 F 16; 197 F 23; 91 Mr 2; 117 Mr 9; 147 Mr 16 '53; Discussion. Mech Eng 76:108-9 Ja '54

How speed affects performance of multistage centrifugal compressors. T. E. Corrigan and A. F. Johnson. il Chem Eng 61:209-10 F '54

New compressors for new processes; Clark bros. co. G. W. Probst. il diags Am Gas Assn Proc 1953:781-7

Packaged compressor plants; abstract. E. S. McRoberts. Oil & Gas J 52:72 N 2 '53

Portable compressors cut gas waste; United Gas system. il Gas Age 114:28-9+ S 9 '54

See also

Gas, Natural—Compression

Gas, Natural—Pipe lines—Compressor stations

Control

Butterfly regulates compressor speed. il diag Pet Refiner 32:217 Ag '53

Cooling

Compressor detonation dampened by cooling scavenger air. F. R. Cramer. diags Oil & Gas J 52:119-20+ Ag 24 '53

Maintenance and repair

Reclaiming compressors. il Steel 134:102 Ja 11 '54

GAS cooking

Boston cooking festival attracts 24,000. il Gas Age 112:66 N 19 '53

Home service fosters local UN; utility-trade union-school plan. Am Gas Assn Mo 35: 23 N '53

Wild game cooking festival draws men. il Gas Age 113:36-7 Mr 25 '54

GAS distribution

Considerations or relief valves on customer meter sets in California. G. M. Fox. diags Am Gas J 180:16-17+ Ap '54; Same. Gas Age 113:32-4+ Ap 22 '54

Current status of the work of subcommittee eight of ASA B31 on safety code for gas transmission and distribution facilities. F. A. Hough. Am Gas Assn Proc 1953:697-702

Economical capacity increases for low pressure systems. L. C. Rohret. map Am Gas J 181:18-19 Ag '54

Effect of heating load on pressures. E. M. Jorgensen. il map Gas Age 113:34-6 My 6 '54

Gas dispatching in distributing utilities. M. K. Wrench. diags Am Gas J 180:23-6 Je '54

Gas dispatching in network systems. S. A. Chadwell. Am Gas Assn Proc 1953:423-6; Excerpt. Am Gas J 179:17+ D '53

How irrigation improves load factor. R. M. Curry. il Gas Age 114:32-5 Ag 26 '54

How Public Service is laying 257 miles of main in Newark expansion. G. E. Symons. il Gas Age 112:17-19 D 3 '53

How to dispatch interruptible loads. D. J. Robison. maps Gas Age 113:44-7+ Ap 22 '54

Load dispatching. T. B. Kelley. Am Gas Assn Proc 1953:421-2

Load forecasting and its relation to distribution design; symposium. diags Am Gas Assn Proc 1953:592-605; Same. Gas Age 112:26-34 Jl 30 '53

One crew, four extensions a day; Hattendorf-Bliss, inc. il Gas Age 113:31 My 6 '54

Over pressure protection in gas distribution systems. L. C. Rohret. diags Am Gas Assn Proc 1953:702-6

Over-pressure protection panel. G. G. Dye and others. diags Am Gas Assn Proc 1953: 409-16; Same abr. Gas Age 112:32-5 N 5 '53

Packaged district regulator developed; Lone Star gas co. il Gas Age 114:22-3 Ag 26 '54

Productivity team report on the American gas industry; Anglo-American council on productivity; distribution. diags Gas Age 113:43-7+ F 11 '54

GAS distribution—*Continued*

Relief devices for gas distribution systems. D. G. Findlay. Am Gas Assn Proc 1953: 644-7

Safe design to prevent overpressuring of gas distribution systems. W. P. Dick. diags Am Gas Assn Proc 1953:692-7

Small LP utility operations; abstract. C. M. Swan. Am Gas J 181:20 S '54

See also

Gas, Natural—Pipe lines

Gas leakage

Gas mixing

Gas pipes

Change over

After natural gas came to Torrington. S. Ferguson, jr. il Am Gas Assn Mo 36:16-17+ My '54

Gas merchandising effectively tied to conversion in Fall River. il Am Gas J 180:42 Ja '54

How to convert from LP-gas to natural. F. Foster. plans Gas Age 113:54-6+ F 25 '54

20,000-meter changeout packaged deal for South Atlantic gas co. H. H. Hillyer. il Am Gas J 181:14+ S '54

When natural gas came to Saskatoon. J. R. Sarsfield. Gas Age 114:11-14+ Jl 29 '54

Electric analogies

Pipeline planning made easy; McIlroy pipeline network analyzer. il Bsns W p74+ S 19 '53

Long distance lines

See also

Gas, Natural—Pipe lines

Tables, calculations, etc.

Development of load data and distribution system design at Laclede gas co. E. F. Trunk. Am Gas Assn Proc 1953:594-5; Same. Gas Age 112:33-4 Jl 30 '53

Forecasting adequacy of distribution. J. J. Pugh. Gas Age 114:42-5+ Ag 12 '54

Method used in forecasting loads and making load studies. B. E. Hunt. Am Gas Assn Proc 1953:602-5; Same. Gas Age 112:31-3 Jl 30 '53

Use of the Hardy Cross analysis for calculating gas distribution network pressures. E. F. Trunk and others. diags Am Gas Assn Proc 1953:596-602; Same. Gas Age 112:27-31 Jl 30 '53

GAS engine plants. See Power plants—Gas engine plants

GAS engineering

American gas handbook. C. R. Bellamy, ed. Am Gas J Hdbk 179:3-212 O 1 '53

News from the European gas press. L. T. Minchin. bibliog map diag Gas Age 111: 48-50+ Je 4; 112:24-6+ N 5 '53

See also

Gas distribution

Gas heating

Gas manufacture

Gas pipes

Gas works

Bibliography

Bibliography of technical presentations before gas associations, 1952-1953. Am Gas J Hdbk 179:145-8 O 1 '53

Study and teaching

Natural gas educational and research programs expand at Texas A & I college. F. H. Dotterweich. il Am Gas J 180:32-3+ My '54

See also

Institute of gas technology

GAS engines

Fully turbocharged two-cycle gas engine compressor. diags Diesel Power 32:46-7 Ja '54

Gas-burning pump engines; Del Este water co. K. H. Beard. Am Water Works Assn J 46:675-6 Jl '54

Ingersoll-Rand develops new unit; 2000-hp type 412 KVS gas-engine-compressor. il Diesel Power 32:47 Mr '54

Modern high efficiency gas engines; Cooper-Bessemer corp. R. F. Lay. il Am Gas Assn Proc 1953:788-95

Photographic study of events in a 14-in. two-cycle gas-engine cylinder. R. L. Boyer and others. il diags A S M E Trans 76:97-106; Discussion. 106-8 Ja '54

See also

Power plants—Gas engine plants

Cooling

Why not use more latent cooling? H. Menard and E. D. Blossom. diags Gas Age 114:39-41+ Jl 15 '54

Cost of operation

Gas engines make cheap power. il Chem Eng 60:118 Jl '53

Maintenance and repair

Dual-fuel maintenance. C. M. Jones. il diags Power 97:114-15 N '53

Specifications

Engine specifications, 1954; Diesel, dual-fuel, natural gas. Diesel Power 32:85-100 Ap '54

Superchargers

New two-cycle turbocharged gas-engine compressor. diags Oil & Gas J 52:110 Ja 18 '54

Supercharged gas engine. il diags Engineer 196:766-7 D 11 '53; Engineering 176:748-9 D 11 '53; Elec J 151:1939-40 D 11 '53

Turbochargers boost compressor output. il diags Comp Air Mag 58:348-9 D '53

Turbocharging the two-cycle gas engine. R. L. Boyer. il Diesel Power 32:70-2 Ap '54

Two-cycle fully turbocharged gas engine compressor. O. H. Moore and C. H. Stevenson. diag Gas Age 113:40 F 25 '54

GAS explosions. See Explosions

GAS fading. See Dyes, Fastness of

GAS flow

Basic factors of oxygen transfer in aeration systems. A. T. Ippen and C. E. Carver, jr. bibliog diag Sewage & Ind Wastes 26:813-27; Discussion. W. E. Dobbins. 827-9 Jl '54

Chrono-interferometer for measuring gas density during transient flows. C. W. Curtis and others. il diags R Sci Instr 25:679-82 Jl '54

Cocurrent liquid-gas flow in a pipe-line contactor. G. E. Alves. bibliog il diags Chem Eng Prog 50:449-56 S '54

Comparison of theory and experiment for high-speed free-molecule flow. J. R. Stalder and others. bibliog il diags U S Nat Advisory Com for Aeronautics 1951: 735-56 '52

Constant-pressure device for gas flow system. A. Charnley and G. L. Isles. diag Anal Chem 25:1942 D '53

Determination of size distribution of macropores in porous materials. S. Ergun and J. Owen. bibliog Anal Chem 25:1222-6 Ag '53

Effect of gas slip on unsteady flow of gas through porous media. J. S. Aronofsky. bibliog diag J Ap Phys 25:48-53 Ja '54

Electrically operated all metal capillary vacuum valve for adjustable gas flow. G. W. Green. diag J Sci Instr 30:171-2 My '53

Five-branch gas flow valve. D. E. Nagle. diag R Sci Instr 24:464 Je '53

Flow of gases through consolidated porous media. D. Cornell and D. L. Katz. bibliog(25 ref) il diag Ind & Eng Chem 45: 2145-52 O '53

Flow of gases through plastic membranes. D. W. Brubaker and K. Kammermeyer. bibliog il diag Ind & Eng Chem 45:1148-52 My '53

Gas flow past slender bodies. M. M. Munk. diag J Ap Phys 24:584-9 My '53

Gas flow through small orifices. J. O. Osburn and K. Kammermeyer. Chem Eng Prog 50:198-9 Ap '54

Heat-transfer and friction characteristics for gas flow normal to tube banks; use of a transient-test technique. W. M. Kays and others. bibliog diag A S M E Trans 76:387-96 Ap '54

How to measure an open flow. A. H. Reschke. diag Am Gas Assn Mo 36:27-8+ S '54

Method for predicting pressure drops in pneumatic components and systems. M. M. Slawsky and others. Chem Eng 60:170 S '53

GAS flow—*Continued*

Nomograph speeds up orifice meter computations for gas flow. C. J. Carmichael, jr. Chem Eng 61:256 Je '54

Practical way to calculate gas flow for pipe lines. World Oil 137:243 N '53

Precision measurements of gas flow rates. S. Ergun. bibliog(39 ref) Anal Chem 25:790-2 My '53

Prediction of gas-flow performance of rotameters. J. O. Hougen. Instruments 26:1716+ N '53

Pressure regulation and flow control with expansible-tube valves. F. H. Wehrman. il diags Instruments 26:1543-6 O '53

Process kinetics; flow distribution in packed beds. C. E. Schwartz and J. M. Smith. bibliog il diag Ind & Eng Chem 45:1209-18 Je '53

Process kinetics; gas-flow patterns in beds of fluidized solids. E. R. Gilliland, E. A. Mason and R. C. Oliver. bibliog diags Ind & Eng Chem 45:1177-85 Je '53

Pulsation exploration and gas measurement. E. J. Lindahl. diags Am Gas Assn Mo 36:14-15+ Mr '54; Same. Gas Age 113:28-30+ Mr 25 '54; Same. Am Gas J 180:14-15+ Mr '54

Static-flow characteristics of single and two-stage spring-loaded gas pressure regulators. A. S. Iberall. diags A S M E Trans 76:363-73 Ap '54

Use of the Hardy Cross analysis for calculating gas distribution network pressures. E. F. Trunk and others. diags Am Gas Assn Proc 1953:596-602; Same. Gas Age 112:27-31 Jl 30 '53

Very accurate measurements of fringe shifts in an optical interferometer study of gas flow. E. H. Winkler. R Sci Instr 24:1067-8 N '53

Visualizing gas-solid dynamics in catalytic processes. F. A. Zenz. bibliog(68 ref) flow diags diags Pet Refiner 32:123-8 Jl '53

See also

Air flow

Fluidization

Gas meters

Turbulence

GAS governors

How to test gas service regulators. H. J. Evans. diag Gas Age 114:40+ S 9 '54

GAS heaters

Biggest job for gas unit heaters; General depot of Army quartermaster corps warehouse buildings. il Gas Age 113:30 Ap 22 '54

Develop new type low cost space heater; Pacific clay products. il Brick & Clay Rec 124:77-8 My '54; Same. Cer Ind 63:61 S '54

Heating all outdoors at Chicago's navy pier. M. W. Oettershagen and H. C. Gurney. il diags Heating-Piping 26:104-5 Jl '54

Multi-story venting for apartment houses. E. C. Adams. il diags Am Gas Assn Mo 36:13+ Mr '54; Same. Gas Age 114:55+ Jl 15 '54

GAS heating

Effect of heating load on pressures. E. M. Jorgensen. il map Gas Age 113:34-6 My 6 '54

Gas appliance and heating outlook. Dom Eng 183:217-18 Ap '54

Gas heat restrictions lifted in Ohio. Dom Eng 183:233-4 My '54

Gas heating and related loads. Am Gas Assn Mo 35:11-12 N '53

Gas househeating forecasts reflect steady increase. Heat & Ven 51:152+ S '54

Gas househeating rises again, 1953. Am Gas Assn Mo 36:15-16 Je '54; Gas Age 114:24-5+ Jl 1 '54

Ohio PUC lifts gas heat restrictions. Gas Age 113:45 My 20 '54

Residential heating; oil vs gas. A. L. Carroll. Am Gas Assn Mo 36:19-20+ Jl-Ag '54

See also

Gas heaters

GAS heating, Industrial

Fixation of atmospheric nitrogen in a gas heated furnace. W. G. Hendrickson and F. Daniels. diag Ind & Eng Chem 45:3613-15 D '53

Industrial heat processing with gas. H. H. Carlson. diag Am Gas J 181:29-32 Ag '54

Industry's most versatile fuel. C. C. Eeles. il Am Gas Assn Mo 36:25-6 F '54

Influence of gas on industry. F. O. Hess. Am Gas J 181:21+ Ag '54

Largest customer in New England; new year turn-on at Wyman-Gordon plant by Worcester Gas Light. J. J. Malloy. il Gas Age 113:11+ Ja 28 '54

Refractory materials for gas combustion equipment. E. Blaha. diags Ind & Eng Chem 46:183-5 Ja '54

Review responsibility to industrial economy. F. O. Hess. Am Gas J 181:21+ Ag '54

Six fundamentals that help promote the sale of industrial gas. C. C. Eeles. Gas Age 112:29-31+ N 5 '53

Westinghouse gas fired, pit furnace. il Steel 133:254 O 12 '53

Why gas fuel is expanding its usefulness with light metal alloys. C. G. Segeler. il Gas Age 112:34-5+ D 17 '53

See also

Gas as fuel

GAS holders

Booster control for a coke-oven gas holder. F. Revell. diag Instruments & Automation 27:1084-5 Jl '54

Wiggins gasholder. il Chem Age (Lond) 69:973-5 N 7 '53; Engineer 196:605 N 6 '53

Painting

How Rochester painted a three-lift MMcf holder by the flotation method. R. H. Cook. il Gas Age 112:73+ O 22 '53

GAS in air conditioning

Gas air conditioning survey clears the air. Am Gas Assn Mo 36:10-12+ Mr '54; Excerpts. Gas Age 113:44-5 Ap 8 '54

Selling all-year gas air conditioning. F. S. Thomas. Gas Age 113:45-6 Ap 8 '54

Servicing all-year gas air conditioning. D. W. Gentry. Gas Age 113:46+ Ap 8 '54

Utility cooling load problems; case for gas. W. J. Hoeing. il Sheet Metal Worker 45:sup66+ Jl '54

Where we stand on air conditioning. W. A. Collins, jr. Am Gas Assn Proc 1953:304-7; Same. map Gas Age 113:24-6+ Ja 28 '54

GAS in refrigeration

See also

Refrigerators, Gas

GAS industry

Communications in the gas industry. H. H. Carlson. diags Am Gas J 179:19-22 D '53

Current gas industry topics. diags Am Gas J 181:19-21 Jl; 23-5 Ag; 17-20 S '54

Fifteen ways to speed gas industry development. Am Gas Assn Mo 36:10 Ja '54

Lack of coordination in gas industry seen as basic weakness. H. K. Griffin. Am Gas J 180:18+ Je '54

Mid-West gas association 49th annual meeting, Des Moines, March 15-17. Gas Age 113:40-1+ Ap 8 '54

Mrs America contest for 1954 will be gas industry promotion, exclusively. il Am Gas J 179:46-8 N '53

Nation's schools to hear story of gas. il diag Gas Age 112:36 N 5 '53

Natural gas; past, present and future. A. W. Conover. Gas Age 113:38-41+ Mr 25 '54

On our way. F. C. Smith. Am Gas Assn Proc 1953:9-15; Same cond. il Am Gas Assn Mo 35:14-15+ D '53

Our age of illusions. T. T. Arden. Am Gas J 181:16 S '54

Promoting more teamwork in the gas industry; INGA's public information program. W. E. Wilson. Pub Util 54:338-41 S 16 '54

Seriousness of gas industry situation demands immediate and urgent action. S. Coleman. Am Gas J 180:47-9 Ap '54

See also

Gas companies

Gas distribution

Gas heating

Gas in air conditioning

Gas manufacture

Gas works

Advertising

AGA sales promotion program for 1954 designed to aid utility merchandising. Am Gas J 179:45-6 D '53

American meter company starts promoting gas to appliance-buying public. il Am Gas J 179:61 O '53

Cincinnati promotion talks turkey. il Am Gas Assn Mo 36:24 F '54

Equitable Gas starts tv show. il Gas Age 113:27 Ja 28 '54

Glorifying gas in the home; series of posters by Columbia gas system. il Am Gas Assn Mo 36:12-13 Jl-Ag '54

GAS industry—Advertising—*Continued*

Greeley gas co. wins third award in western advertising contest. il Gas Age 112: 69 O 22 '53

How INGAA publicizes gas industry. W. E. Wilson. Am Gas J 181:15+ S '54

Laclede has big three on tv. il Gas Age 113: 27 Je 3 '54

Mrs America, gas industry's top homemaker. il Am Gas Assn Mo 36:4-6+ My '54; Am Gas J 180:46-7 Je '54; Gas Age 113:22 Je 3 '54

Mrs America quota over the top. il Am Gas Assn Mo 36:27+ Jl-Ag '54

Northern Natural launches national ads promoting area. il Am Gas J 181:15+ Jl '54

Operation blue flame; tv film series. W. M. Himsworth. Am Gas Assn Proc 1953:323-4

Operation Mrs America. il Am Gas Assn Mo 36:14-17+ Ja '54

Radio features appliance execs. Am Gas J 181:41-2 Jl '54

Sales promotion isn't all. W. G. Heren. Gas Age 113:58 Ja 14 '53

Search for Mrs America in high gear in Florida. Am Gas Assn Mo 36:17-18 Mr '54

7,655 showings of Columbia's Dan and Gus tell public of utility operating problems. il Am Gas J 180:23+ Ap '54

Word to the wives; movie featuring an all-gas kitchen-laundry. il Am Gas Assn Mo 36:14-15 S '54

Exhibitions

British gas industry opens museum exhibit. Chem & Eng N 32:2390+ Je 14 '54

Food display takes Milwaukee around the world; Milwaukee gas light co. E. L. Lambert. Am Gas Assn Mo 36:12 Mr '54

Gas displays impress 100,000 visitors at 35th National metal exposition. il Gas Age 112: 34 D 3 '53

Modern kitchens and perfume draw crowds at Texas state fair. il Gas Age 112:27+ N 5 '53

National metal exposition, 35th, Cleveland. il Am Gas Assn Mo 35:42 D '53

Pennsylvania natural gas men's association Engineers for Pittsburgh's future 1st annual show. il Gas Age 113:14 Ja 28 '54

Finance

$1,900,000,000 to be spent for gas lines. Pet Eng 25:D36 Ag '53

Policy shift; gas operators cheered by FPC rulings on rates. R. H. Spencer. Barron's 33:13-14 N 16 '53

See also
Gas companies—Finance

Merchandizing

A.G.A. industrial and commercial gas sales conference, Chicago. Am Gas Assn Mo 36: 34-5+ My '54; Gas Age 113:28-9+ My 20 '54

Both feet on gas. D. H. Mitchell. Am Gas Assn Proc 1953:52-3

Eastern natural gas regional sales conference, Pittsburgh, April 19-20. Am Gas Assn Mo 36:38-40 My '54; Gas Age 113:45-6 My 20 '54

Has gas got it? J. F. Oates, jr. Am Gas Assn Proc 1953:50-2

Industrial gas at the crossroads. F. H. Adams. Am Gas Assn Proc 1953:295-300; Same cond. Am Gas Assn Mo 35:29-32+ D '53

Interruptible sales are essential. E. V. Bowyer. il Gas Age 114:33-5 Jl 15 '54

Keep the accent on action. E. H. Eacker. Am Gas Assn Mo 36:16-18+ Ap '54

Keep your coats off for action in 1954; panel discussion. F. C. Smith and others. Am Gas Assn Mo 35:16-18 D '53

Mid-west regional gas sales conference, Chicago, April 26-28. Am Gas Assn Mo 36: 28-30+ Je '54; Gas Age 113:42-3 Je 3 '54

New York-New Jersey regional gas sales conference, Spring Lake, N.J. June 21-22. Am Gas Assn Mo 36:38-9+ Jl-Ag '54; Same cond. Gas Age 114:58-60 Jl 15 '54

Nine ways to sell more gas in Canada. W. C. Mainwaring. Gas Age 114:28-31+ Ag 26 '54

RKO film offers tie-in promotion. H. D. Nicholson. il Am Gas Assn Mo 36:24-6 Jl-Ag '54

Revolution and revenue in laundry; gas industry can benefit if it upgrades all gas water heaters to meet demand. C. E. Bartlett. Gas Age 114:49-51+ Ag 12 '54

Sales ahead. G. Flack. Am Gas Assn Proc 1953:322-3

Shadowboxing can't win! L. C. Harvey. Am Gas Assn Proc 1953:53-8

Six fundamentals that help promote the sale of industrial gas. C. C. Eeles. Gas Age 112:29-31+ N 5 '53

Sound selling creates sound customer relations. E. H. Eacker. Am Gas Assn Proc 1953:272-4; Same cond. Am Gas Assn Mo 35:29-30+ N '53

We have what it takes. G. M. Jones. Am Gas Assn Proc 1953:301-4

See also
Gas heating

Securities

Gas industry's problems from the investor viewpoint. S. F. Silloway. Pub Util 53: 652-9 My 27 '54

Statistics

Gas sales and revenues gain in first quarter. Gas Age 114:49-50 S 9 '54

Gas sales to rise 25 per cent in 1954-56 period. Gas Age 113:46 Ja 14 '54

Impressive gains seen for gas utilities, pipe lines. Heating-Piping 26:107 Ap '54

Industry to expand by billion a year, 1954-57. Gas Age 114:15 Jl 29 '54

Manufactured and mixed gas and natural gas, 1949-1952. Survey of Cur Bsns 1953 Sup p 132-3 [supplemented in monthly numbers]

1954 could be made the big opportunity for the gas industry. H. H. Carlson. Am Gas J 180:14-15+ Ja '54

1954 outlook parallels 1953 gains. E. H. Eacker. Gas Age 113:41-6+ Ja 14 '54; Same. Am Gas Assn Mo 36:5-8 Ja '54; Same cond. Pub Util 53:176-8+ F 4 '54; Abstract. Oil & Gas J 52:49-50 Ja 4 '54

Terminology

Glossary of gas industry terms. R. M. Poe, comp. Am Gas J 178:27-30 Mr; 31-4 Ap; 179:23-6 Ag; 23-6 S; 25-8 N '53; 180:23-6 F; 23-6 Mr; 41-4 My; 181:25-8 Jl '54

Terms used in underground gas storage operations. Am Gas Assn Mo 36:14 Ap '54

Canada

Chemical Canada; natural and manufactured gas; tabulation. H. McLeod. Can Chem Process 38:22 Je 20 '54

Nine ways to sell more gas in Canada. W. C. Mainwaring. Gas Age 114:28-31+ Ag 26 '54

Europe

Better coal gasifiers. Chem & Eng N 32: 2213 My 31 '54

News from the European gas press. L. T. Minchin. bibliog map diag Gas Age 111: 48-50+ Je 4; 112:24-6+ N 5 '53

Great Britain

Cut in gas prices. Economist 169:838+ D 12 '53

Firedamp in the oven. Economist 168:800-1 S 19 '53

Footing the gas bill. Economist 169:352 O 31 '53

Gas council's annual report. Engineer 196: 568 O 30 '53

Gas council's report. Elec R (Lond) 153:1044 N 6 '53

Gas industry's expansion plans. Chem Age (Lond) 70:1343-4 Je 19 '54

Gas industry's programme. Chem & Ind p845 Jl 10 '54

Natural gas in Britain; report of Gas council for year ended March 31. Chem Age (Lond) 69:967-9 N 7 '53

Research and development work in the gas industry; abstract. H. Smith. Engineer 197: 220-1 F 5 '54

New England

New England letter. J. Alden. map Gas Age 113:48+ Mr 11; 32+ Ap 8; 27+ My 20; 28 Je 3; 114:23+ Jl 1; 37+ Ag 12 '54

Sales, promotion increases head New England gains. J. L. Johnson. Gas Age 113: 59-60+ Ja 14 '54

GAS industry—*Continued*

Pacific coast

Pacific Coast industry matches area's growth. W. C. Mainwaring. Gas Age 113:60 Ja 14 '54

Southern states

Emphasis on year-'round air conditioning is feature of southern construction. Am Gas J 180:34+ My '54

Southern gas association enjoys year of great progress. H. K. Griffin. Gas Age 113:61+ Ja 14 '54

United States

Gas industry in the USA; British productivity team's report. il Chem Age (Lond) 68:733-8 My 16 '53

Gas industry is a united industry. F. C. Smith. Pub Util 52:669-73 N 5 '53

Impressive gains seen for gas utilities, pipe lines. Heating-Piping 26:107 Ap '54

1954 as the forecasters see it. Am Gas Assn Mo 36:13+ Ja '54

1954 could be made the big opportunity for the gas industry. H. H. Carlson. Am Gas J 180:14-15+ Ja '54

1954 outlook parallels 1953 gains. E. H. Eacker. Gas Age 113:41-6+ Ja 14 '54; Same. Am Gas Assn Mo 36:5-8 Ja '54; Same cond. Pub Util 53:176-8+ F 4 '54

Productivity team report on the American gas industry; Anglo-American council on productivity. diags Gas Age 113:41-7+ F 11 '54

See also
American gas association

GAS laboratories

Utility company laboratories; why? E. L. Hall. Gas Age 113:39+ Ap 8 '54

See also
American gas association—Appliance testing laboratory

GAS leakage

How Public Service traces leaks in northern Illinois. il Gas Age 112:32-3 S 24 '53; Nat Safety N 69:69+ Ja '54

Southern union gas co. uses new device for finding and locating gas leaks. W. V. Gilpin. il diag Am Gas J 180:28-9 My '54

GAS lifts

Exercise of control of flowing wells and of input to gas lift installations by means of a differential flow control valve. L. R. de Verteuil. diags Inst Pet J 39:819-45 D '53

How Shell conducts gas lift in TXL, west Texas. R. F. Carlson. il map diag Oil & Gas J 52:89+ Jl 6 '53

How to solve problems in gas measurement. D. C. Penick. World Oil 137:194+ N '53

New lift method for moving solids; Hyperflow. il diags Pet Processing 8:1024-5 Jl '53

Why worry about port size in gas lift valves? B. J. Rhoads, jr. diags World Oil 137:187-8 N '53

GAS manufacture

Accelerated continuous carbonisation by the Rochdale process. Engineer 197:476 Mr 26 '54

A.G.A. chemical, engineering and manufactured gas production conference, Pittsburgh, May 24-26. Gas Age 114:32+ Jl 1 '54; Am Gas Assn Mo 36:35-7+ Jl-Ag '54

Ammonia synthesis gas. B. J. Mayland and others. bibliog Can Chem Process 38:22+ Ag '54; Same cond. flow diags Chem Eng Prog 50:177-81 Ap '54

Better coal gasifiers. Chem & Eng N 32:2213 My 31 '54

Chemical engineering aspects of gas manufacture; abstract. J. J. Priestley. Chem Age (Lond) 70:1049-50 My 8 '54; Same. Chem & Ind p600-1 My 22 '54

Coal-partial-combustion; new, continuous, and soot-free process for producing synthesis gases. Mech Eng 75:572 Jl '53

Control and resolution of high-Btu oil gas tar emulsions. H. R. Linden and R. Parker. Am Gas Assn Proc 1953:740-50

Du Pont tries new route to synthesis gas. il diag Chem Eng 61:114-16 Mr '54

Experiences in the production of high Btu gas from naphtha and kerosene using the UGI cyclic catalytic reforming process. E. H. Smoker. Am Gas Assn Proc 1953:852-3

Gas industry in the USA; British productivity team's report. il Chem Age (Lond) 68:733-8 My 16 '53

Gasification of pulverized coal with steam and oxygen at atmospheric pressure. G. R. Strimbeck and others. bibliog 31pls U S Bur Mines Rep of Invest 5030:1-37 '54

Girdler catalytic reforming units at Philadelphia electric co. N. C. Updegraff. il Am Gas Assn Proc 1953:798-801

Influnce of operating variables on synthesis gas production in pressure coal gasification. C. G. Von Fredersdorff and E. J. Pyrcioch. bibliog flow diag il diags Am Gas Assn Proc 1953:968-1001

Kinetics of coal gasification. H. R. Batchelder, R. M. Busche and W. P. Armstrong. Ind & Eng Chem 45:1856-78 bibliog(221 ref, p1876-8) S '53

Manufactured gas. E. J. Burrough. flow sheets il diags Can Min J 74:63-8 N '53

Methods of making a high Btu gas from coal. N. K. Chaney. Am Gas Assn Mo 35:33-4 D '53

Modern methods of gasification; abstract. F. J. Dent. Chem & Ind p306 Mr 13 '54

Natural gas substitutes developed. H. R. Linden and others. Comm & Fin Chr 178:1031 S 17 '53

New cracking process; cellulose and pinewood; abstract. A. Pacault and G. Sauret. Chem Age (Lond) 69:81 Jl 11 '53

New gas-making process in operation; Rochdale process. il Chem Age (Lond) 71:275-6 Ag 7 '54

Operation of a powdered-coal gasifier at Louisiana, Mo. R. G. Dressler and others. 16pls U S Bur Mines Rep of Invest 5038:1-35 '54

Partial oxidation premieres; synthesis gas for ammonia production at Spencer chemical co. il Chem W 74:60+ F 20 '54

Peat for gasification; abstract. D. MacDougall. Chem & Eng N 32:3271 Ag 16 '54

Process for economic solution of peak and standby problems. V. Stark. Am Gas J 181:16-18+ Jl '54

Producing natural gas substitutes. E. S. Pettyjohn and others. bibliog il diags Gas Age 113:19-26+ My 20 '54

Production of natural gas substitutes by catalytic autohydrogenation of high-Btu oil gases. H. A. Dirksen and C. E. Pierson. flow diag Am Gas Assn Proc 1953:877-91

Pulverized-coal-fired gasifier for production of carbon monoxide and hydrogen. P. R. Grossman and R. W. Curtis. flow diag diags A S M E Trans 76:689-95 My '54

Research on pressure gasification of coal; abstract. R. S. Andrews. Chem & Ind p711-12 Je 19 '54

Synthesis gas from the Koppers-Totzek gasifier. F. Totzek. flow diag il diags Chem Eng Prog 50:182-7 Ap '54

TPC, latest road to high-Btu. fuel gas; Surface combustion corp.'s new Thermofor pyrolytic cracking process. il diag Chem Eng 60:122+ N '53

See also
Coal mines and mining—Gas generation
Gas, Oil
Gas, Water—Manufacture
Gas companies
Gas works

Coal mine gasification

Controlled underground gasification. L. F. Gerdetz. plan diags Coal Age 58:80-1 N '53

Out but not down. il Chem W 73:46+ Jl 18 '53

Relighting the torch; Bureau of mines underground coal gasification project. Chem W 75:40+ Jl 10 '54

GAS measurement

How to solve problems in gas measurement. D. C. Penick. World Oil 137:194+ N '53

Pulsation exploration and gas measurement. E. J. Lindahl. diags Am Gas Assn Mo 36:14-15+ Mr '54; Same. Gas Age 113:28-30+ Mr 25 '54; Same. Am Gas J 180:14-15+ Mr '54

See also
Gas, Natural—Measurement
Gas meters

GAS meters

Basementless service design; abstract. B. Hunt. diags Am Gas J 181:19-20 Jl '54

Calculations for natural gas orifice-meter coefficients. H. R. Garabrant. Instruments 26: 1897-8 D '53

Considerations of relief valves on customer meter sets in California. G. M. Fox. diags Am Gas J 180:16-17+ Ap '54; Same. Gas Age 113:32-4+ Ap 22 '54

Electric floor heating protects gas meters. G. K. Sauerwein. il Elec World 139:144+ Je 15 '53

For metering gas flow, Venturi tube vs. orifice plate. D. T. McDonald. il Pet Processing 9:66-71 Je '54

Metering fluctuating gas loads. F. Peters. il diags Am Gas Assn Proc 1953:606-12

New meter counts losses; Standard Oil development co. il Chem W 75:40 S 11 '54

Progress in large volume measurement. F. M. Partridge. Am Gas Assn Proc 1953:405-8; Excerpts. Am Gas Assn Mo 35:24 D '53

Proper handling of gas meters. J. Webb. il Am Gas Assn Proc 1953:501-19; Same. Gas Age 112:34-40 Ag 13 '53

20,000-meter changeout packaged deal for South Atlantic gas co. H. H. Hillyer. il Am Gas J 181:14+ S '54

Volume measurement, distribution; abstract. R. J. Ott. Am Gas J 181:18-19 S '54

See also
Gas flow

Repair

Mechanized meter operations; abstract. R. A. Seifert. Am Gas J 181:23 Ag '54

Standards

Meter standardization is vital. P. V. Resko. Gas Age 114:40-1 Ag 12 '54

GAS mixing

Apparatus for producing a number of different gas mixtures for a long period of time. S. W. Bailey. diags J Sci Instr 31:93-5 Mr '54

Gas mixing control for three gas mixtures; Cutler-Hammer, inc. C. W. Warner. flow diag diags Am Gas Assn Proc 1953:756-64

Peak shaving for natural gas systems. C. T. Chave and B. C. White. Am Gas Assn Mo 35:21-3+ O '53; Same cond. Am Gas J 179:14-16+ D '53

Standby fuel system can prevent production shutdowns. il Iron Age 172:136-7 S 24 '53

Typical gas and air mixing systems for gas burners. diags Cer Ind 63:54+ S '54; Same. Brick & Clay Rec 125:79-80 S '54

GAS oil

Catalytic polyforming of gas oil. L. Berg and others. diags Pet Eng 25:C7-8+ S '53

Is there a relation between crude source and desulfurization. J. H. Gary and H. E. Schweyer. flow diag il diags Pet Refiner 32: 225-8 S '53

Stability of fuel oil-gas oil blends. D. G. Butlin. Inst Pet J 39:294-303 My '53

Analysis

Analysis of gas oil and cycle stock from catalytic cracking. E. M. Charlet, K. P. Lanneau and F. B. Johnson. bibliog diags Anal Chem 26:861-71 My '54

GAS pipes

Basementless service design; abstract. B. Hunt. diags Am Gas J 181:19-20 Jl '54

Blanking lines in six steps. diags Pet Refiner 32:241 S '53

Blow-down valves require special foundations. il Gas Age 114:37 Ag 26 '54

Fabricating pipe for the Super Inch gas line. G. B. Ashmead. il Mach 60:168-72 F '54

How to convert from LP-gas to natural. F. Foster. plans Gas Age 113:54-6+ F 25 '54

Installation of fuel gas piping on premises of industrial consumers. E. L. Spanagel. Power 97:226+ D '53; Abstract. Heating-Piping 26:100 F '54

New Orleans new Union Passenger terminal created gas distribution problems. W. C. Grant. il Gas Age 112:39-41 D 17 '53

Problems in maintaining public-utility services during construction of Toronto subway. R. L. Clark. il plans Munic Util 92:56-9+ Ap '54

Trenching crew makes four or five main extensions daily. il Pub Works 85:167 My '54

See also
Gas, Natural—Pipe lines
Gas distribution

Cleaning

How to clean and test gas lines. C. McClure. diags Gas Age 113:36-8+ Ap 8 '54

See also
Gas, Natural—Pipe lines—Cleaning

Corrosion

Fundamentals of underground corrosion. F. E. Costanzo. diags Gas Age 114:49-54+ Jl 15 '54

Protective value of zinc coatings for iron and steel in soils. I. A. Denison. bibliog il Am Gas Assn Proc 1953:554-61

When will corroded pipe burst? study of corrosion of nickel cast irons in soils. I. A. Denison and M. Romanoff. il Gas Age 114: 35+ S 9 '54

See also
Gas pipes—Protection

Deposits

Control of dust in gas distribution systems. J. H. Glamser. Am Gas Assn Proc 1953: 613-16; Same cond. Am Gas J 178:42+ My '53

Filter unit removes dust from dirty line. il diags Oil & Gas J 52:102-3 Jl 6 '53

Failure

Causes of brittle fractures in steel. E. R. Parker. bibliog il Am Gas Assn Proc 1953: 1019-27; Same. Pet Eng (Ref annual) 25: D39-40+ Jl 15 '53

Protection

Case history of cathodic protection for the underground distribution gas lines of the Montana power co. C. R. Davis. il maps diags Am Gas Assn Proc 1953:562-76; Same. Gas Age 111:32-4+ Je 4 '53; Same abr. Am Gas Assn Mo 35:23-5 My '53

Coordination of corrosion control. H. L. Hamilton. Am Gas Assn Proc 1953:446-8

Corrosion practices for short main extensions. N. P. Peifer. diags Am Gas Assn Proc 1953: 706-11

Eight uses for insulating joints. A. W. Peabody. diags Gas Age 113:25-30+ My 6 '54

Fire tests favor 85 per cent magnesia thermal insulation. il Gas Age 114:30 S 9 '54

How to handle and store coated and wrapped pipe. H. F. Mensch. diags Gas Age 112: 74-5 O 22 '53

Insulating joints in long pipe lines; panel discussion. M. C. Miller and others. il diags Gas Age 113:34-41 Je 3 '54

Is internal coating the answer? F. E. Hangs. il Gas Age 114:32-4 Jl 29 '54

New anode installation cuts costs; Cincinnati gas & electric co. il Gas Age 114:14-15+ Jl 1 '54

New techniques and current problems in control of underground corrosion. O. C. Mudd. plan diags Gas Age 112:46-51+ D 17 '53

Plan for corrosion mitigation. W. T. Burgess. Gas Age 113:58-9 F 25 '54

Plastic tape protects gas pipeline from corrosion. Chem & Eng N 32:3734 S 20 '54

Protective pipe coatings. N. P. Peifer. Am Gas J 181:20-1 Jl '54

Stray cathodic protection currents; abstract. C. A. Erickson. Am Gas J 181:23-4 Ag '54

Survey of corrosion mitigation practices on underground gas pipes. bibliog Am Gas Assn Proc 1953:520-35

Use of plastic tape versus hot enamels. N. P. Peifer. il Am Gas Assn Proc 1953:548-53; Same. Gas Age 111:41-3+ My 21 '53

Where to place the reference electrode on a pipeline. L. P. Sudrabin and J. A. Lehmann. diags Am Gas J 181:16-17+ Ag '54

Repair

Application of fire control and slug purge for pipeline maintenance. W. H. Krammes. il diags Am Gas Assn Proc 1953:431-44

GAS pipes—Repair—*Continued*
Policies in replacement of distribution mains and services; with data sheets. W. K. MacMahon. Am Gas Assn Proc 1953:473-500
Repairing a main 16 ft. under water; Ohio fuel gas co. il Gas Age 113:30-1 Ap 8 '54
San Diego Gas & Electric has standard sets of air equipment for street crews. il Am Gas J 180:23 Ja '54

Stoppers

Application of fire control and slug purge for pipeline maintenance. W. H. Krammes. il diags Am Gas Assn Proc 1953:431-44

Tables, calculations, etc.

Sizing gas piping; reference data. Heat & Ven 50:150a-150b N '53

Testing

How Public Service traces leaks in northern Illinois. il Gas Age 112:32-3 S 24 '53; Nat Safety N 69:69+ Ja '54
Use of X-ray to control weld quality on pipeline construction. H. Hovland. Am Gas Assn Proc 1953:620-3

GAS pipes, Plastic
Experience to date with plastics in the gas industry. J. F. Fugazzi. Am Gas Assn Proc 1953:628-9; Same. Gas Age 111:54+ My 7 '53
Physical and chemical properties of plastics pipe materials. W. Swissheim and others. Am Gas Assn Proc 1953:631-43

GAS plating. See Metal coating

GAS producers
Control of gas producers; new regulating mechanism completely automatic. Chem Age (Lond) 68:901-2 Je 13 '53; diag Engineer 195:841 Je 12 '53; Engineering 175: 751 Je 12 '53; Metallurgia 47:287 Je '53

GAS purification
Cleaning gases; Peabody scrubber. il Chem Age (Lond) 71:664 S 25 '54
Method of preparing a high Btu standard gas for use in studying the accuracy of a recording gas calorimeter. J. H. Eiseman. il Am Gas Assn Proc 1953:854-7
Plant purification of synthesis gas. L. P. Wenzell, jr., R. G. Dressler and H. R. Batchelder. bibliog flow diag diag Ind & Eng Chem 46:858-62 My '54
Scrub with liquid nitrogen. flow sheet Chem Eng 60:133-4 Jl '53
See also
Blast furnace gas—
Cleaning

Sulfur removal

Flue gas washing tower lined with tiles. Chem Age (Lond) 70:724 Mr 27 '54
Selective absorption of hydrogen sulfide from synthesis gas. H. W. Wainwright and others. bibliog il Ind & Eng Chem 45: 1378-84 Je '53

GAS ranges. See Gas stoves

GAS rates
Commonwealth gets increase. Elec World News ed 141:62+ F 15 '54
Decisions on rate-making reviewed. L. T. Parker. Am Gas J 179:23+ D '53
Explaining the rate case to the employee; Peoples gas light and coke co. J. F. Oates, jr. Pub Util 52:686-9 N 5 '53
Five months as chairman of the Federal power commission. J. K. Kuykendall. Am Gas Assn Proc 1953:18-22; Excerpts. Am Gas Assn Mo 35:25-6 D '53
Price indexes of gas, other fuels and electricity; tabulation. Am Gas J 181:22 Jl '54
Principles of gas rate making. R. W. Fouse. Am Gas Assn Mo 36:17+ Je '54
Report of rate committee. B. P. Dahlstrom. Am Gas Assn Proc 1953:85-8
Report of subcommittee on customer load characteristics. Am Gas Assn Proc 1953: 99-116
Report of subcommittee on 1952 rate changes. Am Gas Assn Proc 1953:122-30
Report of subcommittee on rate adjustment clauses. Am Gas Assn Proc 1953:131-8
Report of subcommittee on rate increases under bond. Am Gas Assn Proc 1953:89-99
Should there be rules about escalator clauses? P. P. Ardery. Pub Util 53:35-41 Ja 7 '54
Trends in rate regulations. P. Grady. Am Gas Assn Proc 1953:259-66
Working capital in rate bases. W. C. Young. il Am Gas Assn Mo 36:21-4 S '54
See also
Gas, Natural—Rates

GAS refrigerators. See Refrigerators, Gas

GAS research
American gas association domestic gas research and utilization conference, Los Angeles, March 23-24. Am Gas Assn Mo 36: 22-3+ My '54
American gas association 9th research and utilization conference, Cleveland, June 2-3. Am Gas Assn Mo 36:8-9+ Jl-Ag '54; Gas Age 114:37-9 Jl 29 '54; Dom Eng 184:213-14 Ag '54
Fundamental research is job of trade association researchers; American gas association production and chemical conference, New York, May 25. Chem & Eng N 31:2398 Je 8 '53
Natural gas educational and research programs expand at Texas A & I college. F. H. Dotterweich. il Am Gas J 180:32-3+ My '54
Presentation of conservation service award of United States Department of the interior to American gas association. R. A. Cattell. bibliog Am Gas Assn Proc 1953:1013-18; Same. Am Gas Assn Mo 35:17+ My '53
Research and development work in the gas industry; abstract. H. Smith. Engineer 197: 220-1 F 5 '54
Research in review. T. L. Robey. Am Gas Assn Proc 1953:683-91

Bibliography

Publications and articles reporting work accomplished through cooperation of the Bureau of mines and the American gas association. Am Gas Assn Proc 1953:1014-18

GAS sampling
Determining suspended solids in gas; automatic lampblack sampler, indicator and recorder. R. W. Gilkinson. il diag Gas Age 114:31-4+ S 9 '54
See also
Gas, Natural—
Sampling

GAS scrubbers. See Gas purification

GAS storage
See also
Gas, Natural—
Storage

GAS stoves
A.G.A. unveils new gas range designs. V. O'Brien. il diag Gas Age 113:33-40+ F 11 '54
Newly developed principles of domestic range equipment presented to industry. H. H. Carlson. Am Gas J 180:27+ F; 16-17+ Mr '54
Research unveils new range units; series of demonstrations. il Am Gas Assn Mo 36: 4-8+ F '54
Road cleared for cold range drive; field test project proves the practicality of electric and gas single-point ignition. il diags Am Gas Assn Mo 35:4-6 D '53
Trends in today's gas ranges. E. Kafka. il Am Gas Assn Mo 36:19+ S '54

Merchandizing

AGA's Performance-economy-profit campaign underway next month. Am Gas J 181:49 Ag '54
Cincinnati promotion talks turkey. il Am Gas Assn Mo 36:24 F '54
First Matchless group promotion sells 20,000 ranges. V. O'Brien. il Gas Age 113:34-6 F 25 '54
Gas appliance manufacturers association 5th annual automatic gas range conference, New York, April 22. Am Gas Assn Mo 36: 28 My '54; Am Gas J 180:44 Je '54
Here's how two southern companies are combating electric cooking. il Gas Age 112: 77 O 22 '53
How Brooklyn Union sells with Mrs America. V. O'Brien. il Gas Age 113:36-8 Mr 11 '54
How Minneapolis sold 2200 ranges; Recipes-of-the-month cook book, heart of six-week promotion. D. M. Lyons. il Gas Age 113: 19+ Ja 28 '54

GAS stoves—Merchandizing—*Continued*

How Peoples builds its cooking load. il Am Gas Assn Mo 36:15-16+ Jl-Ag '54

How two companies stage Matchless sales contest. il Gas Age 113:36-7 F 25 '54

New PEP program slated for fall. il Am Gas Assn Mo 36:32-3 Jl-Ag '54

Pioneer natural gas co. cooperates with dealers to boost appliance sales. il Am Gas J 180:63+ My '54

Southern Union after workers leads as spring style show gets under way. il Am Gas J 180:65+ My '54

Three-step plan puts this regional brand into fight for national leadership; Caloric stove co. J. W. Dragonetti. Ptr Ink 245: 35-7 O 16 '53

Upgrading is the word in Wisconsin; development clinics to spur automatic range sales. A. G. Bur. il Am Gas Assn Mo 35: 15-16 N '53

Utilities in seven-state area adopt matchless range promotion. V. O'Brien. il Gas Age 112:70-2 O 22 '53

GAS supply

Boston

Load forecasting and its relation to distribution design. A. L. Higgins. Am Gas Assn Proc 1953:592-3; Same. Gas Age 112: 26-7 Jl 30 '53

GAS tanks

How Long Island lighting co. installed and protected its underground propane tanks. W. F. Seewagen. il diags Am Gas J 179: 14-15+ N '53

How to protect propane storage tanks. H. E. Thomas. Gas Age 112:26-7+ D 3 '53

GAS testing

New odorometer shows good results. A. F. Cascioli and R. L. Coryell. il diag Gas Age 113:9-10+ Ja 28 '54

Quality control of fuel gases. R. A. Sloan. il diag Am Gas Assn Proc 1953:948-53

See also

Gas sampling

GAS turbine-electric locomotives. See Locomotives, Gas turbine-electric

GAS turbine locomotives. See Locomotives, Gas turbine

GAS turbine plants. See Power plants—Gas turbine plants

GAS turbines

American gas turbines in 1953. il diag Engineer 197:249-51 F 12 '54

Applications for the combustion gas turbine in the pulp and paper industry. W. B. Wilson. il diags Pulp & Pa of Can 54: 139-44 O '53

Belle Isle gas turbine; after 30,000 hours. J. W. Blake. il diags Power 98:75-9+ Ag '54

Continental gas turbines in 1953. il diag Engineer 197:272-5 F 19 '54

Elastic-fluid centripetal turbine for high specific outputs. R. Birmann. il diags A S M E Trans 76:173-85; Discussion. 185-7 F '54

Experience on El Paso Natural's lines. S. R. Sawyer. il plan diags Pet Eng 25:D38+ D '53

Experimental investigations of propagating stall in axial-flow compressors. T. Iura and W. D. Rannie. diags A S M E Trans 76: 463-71 Ap '54

Gas turbine. L. P. Lessing. il diags Sci Am 189:65-72 N '53

Gas turbine driven centrifugal compressors for gas transmission; El Paso natural gas co. E. A. Walsh. il map Am Gas Assn Proc 1953:454-62; Same. Gas Age 112:58-60+ N 19 '53

Gas turbine installed in 27 hours. Engineering 177:68 Ja 15 '54

Gas turbine on Mississippi line. G. C. Cooper, jr. map Pet Eng 25:D36+ N '53

Gas turbines and centrifugal compressors. T. R. Rhea and J. S. Quill. flow diag il map plan diag Mech Eng 75:534-40 Jl '53; Same cond. Oil & Gas J 51:133 F 9; 169 F 16; 197 F 23; 91 Mr 2; 117 Mr 9; 147 Mr 16 '53; Discussion. Mech Eng 76:108-9 Ja '54

Gas turbines can also use steam! B. Miller. diags Power 98:94-5 Ag '54

Gas turbines; here are the experiences of four companies. Pet Refiner 32:120 D '53

Gas turbines in 1953. il diags Engineer 197: 87-9, 133-5 Ja 15-22 '54

Gas turbines used for oil wells. Franklin Inst J 256:254 S '53

How United's first turbine operates. il diag Gas Age 114:33-6+ Ag 12 '54

Industrial and aeronautical applications of the small gas turbine. F. R. Bell. il diags Engineer 196:627-9 N 13 '53; Abstract. Engineering 176:668 N 20 '53

Let's put dollar signs on the gas turbine. C. J. Burke. il diags Power Eng 58:76-8+ Mr '54

Metallurgical aspects of high-temperature steam and gas turbine plants; abstract. J. M. Robertson. Engineer 197:169 Ja 29 '54

Metallurgical aspects of the development of small gas turbines; Boeing airplane co. W. L. Slosson. il diag J Metals 5:1419-26 N '53

New alloy; boost to turbines, relief for stockpile. A. G. Gray. il Steel 133:68-70 D 28 '53

Nuclear power; application to gas turbines. F. Daniels. Chem Age (Lond) 68:865 Je 6 '53

Operating experience with first pipe-line centrifugal compressor. G. C. Cooper, jr. map Oil & Gas J 52:131-2+ Jl 13 '53

Prospects for small industrial gas turbines. H. C. Hill. il diag Automotive Ind 111:46-8+ Jl 15 '54

Range of small gas turbines. il diags Engineer 197:285-8 F 19 '54

Some recent developments in the gas turbine for centrifugal compressor drive. F. O. Hennig and R. M. Greene. il plan diags Am Gas Assn Proc 1953:1073-9

Special steels for gas turbines; abstract. W. E. Bardgett and G. R. Bolsover. Metal Prog 65:154+ Je '54

Turbine developments; marine and land, steam and gas; abstract. T. W. F. Brown. Engineering 177:148-9 Ja 29 '54

See also

Electric plants (central stations)—Gas turbine stations

Locomotives, Gas turbine

Power plants—Gas turbine plants

Bibliography

Bibliography of books and published reports on gas turbines, jet propulsion, and rocket power plants, Jan. 1950 through Dec. 1953. E. F. Fiock and C. Halpern. U S Nat Bur Stand Circ Sup 509:1-110; pa 50c Supt. of doc. '54

Blades

Calculation of transpiration-cooled gas-turbine blades. J. N. B. Livingood and E. R. G. Eckert. bibliog il diags A S M E Trans 75:1271-8 O '53

Gas turbine blades; which forming method? B. P. Dabell and L. H. Williams. Materials & Methods 39:264+ My '54

Gas turbine component manufacture. Engineer 197:254 F 12 '54

Control

Automatic control of gas turbines for natural-gas pipe line pumping. C. R. Ingemanson and others. diags Elec Eng 72: 955-9 N '53; Same cond. Gas Age 112: 50+ S 10 '53; Excerpts. Oil & Gas J 52: 337 N 16 '53

Cooling

Calculation of transpiration-cooled gas-turbine blades. J. N. B. Livingood and E. R. G. Eckert. bibliog il diags A S M E Trans 75:1271-8 O '53

Experimental single-stage air-cooled turbine. J. Reeman and others. bibliog diags Inst Mech Eng Proc (A) 167 no 4:341-62, pl 1-4 '53; Same cond. il Engineer 195:674-5, 712-16, 731-4 My 8-22 '53; Discussion. Inst Mech Eng Proc (A) 167 no 4:363-70 '53; Engineer 195:688-90 My 15 '53

Design

Experimental single-stage air-cooled turbine. J. Reeman and others. bibliog diags Inst Mech Eng Proc (A) 167 no 4:341-62, pl 1-4 '53; Same cond. il Engineer 195:674-5, 712-16, 731-4 My 8-22 '53; Discussion. Inst Mech Eng Proc (A) 167 no 4:363-70 '53; Engineer 195:688-90 My 15 '53

GAS turbines—*Continued*

Efficiency

Gas turbines promise high thermal efficiency; progress report on gas turbine research at McGill's gas dynamics laboratory. D. L. Mordell. flow diag il Can Chem Process 38:62+ Je 20 '54

Free piston engines

Cooper-Bessemer corp. new power generating unit. Chem W 72:44+ Ap 25 '53

Development of high-output free-piston gas generators. R. A. Lasley and F. M. Lewis. diags A S M E Trans 76:453-62 Ap '54

Free-piston gas generators. diags Engineer 197:149-50 Ja 22 '54

Free-piston gas turbine. il diag Chem Eng 60:206-7 Jl '53

Free-piston type of gas-turbine plant and applications. J. J. McMullen and R. P. Ramsey. il plans diags A S M E Trans 76:15-27 Ja '54; Abstract. Power Eng 57:77 N '53; Discussion. A S M E Trans 76:27-9 Ja '54

Free pistons and gas turbine engines compounded; abstract. A. L. London. Automotive Ind 110:44-5 Mr 1 '54

New turbine design saves fuel. il Pet Processing 8:1090 Jl '53

Performance of free piston gas generators. J. J. McMullen and W. G. Payne. bibliog il diags A S M E Trans 76:1-10 Ja '54; Abstract. Mech Eng 75:496 Je '53; Discussion. A S M E Trans 76:10-13 Ja '54

Turbine driven by free piston engine. il Pet Eng 25:D37 Ag '53

Fuel

American gas turbines in 1953. il diag Engineer 197:250-1 F 12 '54

Gas turbines; U.K. may try to operate turbines on blast furnace gas. Iron Age 172:108 S 17 '53

Problem of fuel-oil ash deposition in open-cycle gas turbines. A. T. Bowden and others. bibliog diags Inst Mech Eng Proc (A) 167 no 3:291-300, pl 1-4 '53; Same cond. Engineer 195:639-42 My 1 '53; Discussion. il Inst Mech Eng Proc (A) 167 no 3:300-12 '53; Engineer 195:627-8, 659-60 My 1-8 '53

Residuals look better; heavy fuels may see wider use in gas turbines. G. Weber. Oil & Gas J 52:90 D 14 '53

Still another new fuel studied for railroad locomotive use, propane. Pet Processing 8:971 Jl '53

Utilising Scotland's peat; development of peat-burning turbines to continue. Engineering 177:304 Mr 5 '54

Maintenance and repair

Gas-turbine maintenance cost is low. il Power 98:108 My '54

Manufacture

Gas turbine component manufacture. Engineer 197:254 F 12 '54

Precision machining of small gas turbines; Continental aviation and engineering corp. F. H. Minturn. il Mach 60:212-17 Jl '54

Testing

Predicts turbine life; machine simulates heat and vibration conditions. Steel 133:156 Jl 6 '53

Temperature and gas-analysis surveys in the combustion zone of a gas-fired gas-turbine combustor. K. L. Rieke. il diags A S M E Trans 75:1233-9 O '53

GAS turbines, Aircraft

AF permits first look at P&WA J57. il Aviation W 59:17-18 N 16 '53

Aircraft engines; abstracts of SAE annual meeting papers. S A E J 62:63-5+ F '54

Analysis of plane-plastic-stress problems with axial symmetry in strain-hardening range. M. H. Lee Wu. bibliog diags U S Nat Advisory Com for Aeronautics 1951:359-81 '52

Baby turbojet powers guided missiles. il Bsns W p48-51 D 5 '53

Basic compressor characteristics from tests of a two-stage axial-flow machine. W. R. New and others. il diags A S M E Trans 76:473-81 Ap '54

Development of blowdown turbine for Wright turbo compound aircraft engine; abstract. F. J. Wiegand and W. R. Eichberg. diag Automotive Ind 110:43-4 Mr 1 '54

Ducted fan key to jet airliners. H. E. Hoben and W. C. Lawrence. Aviation W 59:88+ N 23 '53

Effect of a turbojet engine on the dynamic stability of an aircraft. H. C. Vetter. diags J Aeronautical Sci 20:797-9 N '53

Effective utilisation of material. F. Nixon. il diags Engineer 197:400-1, 435-8 Mr 12-19 '54; Same cond. Engineering 177:305-7 Mr 5 '54

First turboprop seaplane takes to air. il Machine Design 26:192-3 My '54

Ford prepares to push production of turbojets. E. F. Ross. il Foundry 82:151-2 Ja '54

French test jet thrust reverser. il diag Aviation W 58:40 Je 8 '53

Has the teapot tempest come of age? H. J. Wood. il S A E J 62:21-3 Je '54

Helicopter flight experience with the Continental XT-51 fixed shaft turbine. R. P. Alex. Automotive Ind 111:50-1 Jl 1 '54

Hisso boosts centrifugal jet's thrust. D. A. Anderton. il Aviation W 59:45-6 O 19 '53

Impact of the gas turbine on civil aviation. M. Thomas. Engineering 177:195 F 12 '54

Jet units may raise C-46 profitability; El Al Israel airlines. G. L. Christian. il Aviation W 59:38-9 Ag 10 '53

New airline workhorse; turboprop. il Bsns W p 183-4 O 24 '53

New high speed wind tunnel powered by turbojet engines; de Havilland aircraft co. il Automotive Ind 111:70-1 Ag 15 '54

Optimum exit-nozzle performance for jet engines. R. G. Laucher and J. S. Winter. il diags Aeronautical Eng R 12:41-5 S '53

Problems in developing alloy steels for aircraft gas turbines. F. L. Ver Snyder. bibliog flow diag il Iron & Steel Eng 31:115-23 My '54

Research and development in the field of carbides, nitrides, silicides, and borides for aircraft propulsion. L. D. Richardson. Electrochem Soc J 101:sup222C-4C S '54

Reverse thrust for jet transports. J. Sutter. il S A E J 62:75-7 Ag '54

Society of British aircraft constructors flying display and static exhibition, Farnborough, Sept. 7-13. il Engineer 196:307-10 S 4 '53

Status of the turbine-powered transport in the United States. M. W. Arnold. il Aeronautical Eng R 12:37-9 Ag '53

Status of the turbine-powered transport in the United States. F. B. Lee. il Aeronautical Eng R 12:29-33 Ag '53

Super refractories for use in jet engines; cermets. W. L. Havekotte. il Metal Prog 64:67-70 D '53

Supersonic Gyron. Economist 168:405-6 Ag 8 '53

System of jet deviation developed in France. il diags Automotive Ind 111:69 Ag 1 '54

Test titanium carbide turbine parts; Kennametal inc. il Iron Age 174:88 S 9 '54; Steel 135:103 S 27 '54

Testing; jet engine sucks air for wind tunnel tests; Chance Vought Aircraft. il Iron Age 173:170-1 Mr 11 '54

Titanium alloys give promise of high temperature applications. F. A. Crossley and H. D. Kessler. bibliog J Metals 6:119-21 F '54

Transport trend hinges on BOAC choice. D. A. Anderton. il Aviation W 59:32+ D 14 '53

Turbine-powered commercial aircraft. D. C. Ramsey. Aeronautical Eng R 12:34-6 Ag '53

Turbojet engine design problems for supersonic flight. J. S. Alford and E. L. Anyer. Automotive Ind 110:514+ Mr 15 '54

Turbojet-engine simulator. Mech Eng 75:570-1 Jl '53

Turboprops to power transports. il Product Eng 24:200-1 O '53

Turboprops versus turbojets; an airline view. W. C. Lawrence and H. E. Hoben. S A E J 62:52-8 Mr '54

U.K. revives interest in turboprop liners. Aviation W 59:47 Ag 24 '53

U.S. challenge to British Viscounts; Convair will convert 340 to turboprop. R. Hotz. il plan Aviation W 59:13-15 Ag 10 '53

Viper ASV3 jet engine. il diag Engineering 176:329-30, 336 S 11 '53

GAS turbines, Aircraft—*Continued*

Viscounts lure opposition traffic. N. McKitterick. Aviation W 59:16-17 D 14 '53

See also

Airplane engines—Compounding

Airplanes, Jet propelled

After burners

Afterburners, are they worth while? F. C. Newton. Aeronautical Eng R 12:42-7 O '53

Fabricating high temperature metals into jet-engine afterburners; Ryan aeronautical co. L. Limbach. il Mach 60:174-81 Jl '54

New valve controls fuel in afterburners, rockets. il diag Aviation W 59:63 Jl 27 '53

Air supply

Better turbojet inlet screens are badly needed; based on papers by W. R. Travers and others. il S A E J 62:76-9 S '54

Bearings

Lubrication of ball and roller bearings at high speed. A. Fogg and J. S. Webber. pl diags Inst Pet J 39:743-64 N '53

Bibliography

Bibliography of books and published reports on gas turbines, jet propulsion, and rocket power plants, Jan. 1950 through Dec. 1953. E. F. Fiock and C. Halpern. U S Nat Bur Stand Circ Sup 509:1-110; pa 50c Supt. of doc. '54

Blades

Aerodynamic interference between moving blade rows. N. H. Kemp and W. R. Sears. bibliog J Aeronautical Sci 20:585-97+ S '53

Aerodynamics of compressor blade vibration. H. Pearson. Engineer 196:473-6 O 9 '53

Diffusion of chromium in alpha cobalt-chromium solid solutions. J. W. Weeton. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:397-411 '52

Effect of tunnel configuration and testing technique on cascade performance. J. R. Erwin and J. C. Emery. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:263-77 '52

Fatigue tests at elevated temperatures; abstract. P. H. Frith. Metal Prog 64:174+ D '53

Future jet blades; castings or forgings? W. H. Woodward. Steel 133:119 Ag 10 '53

Inspection; thirteen basic machining dimensions checked at once. il Iron Age 172:121 N 26 '53; Steel 133:204 D 7 '53

Jet engine blades trimmed by friction sawing. il Automotive Ind 110:31 Mr 1 '54

Jet engine metallurgy. R. B. Johnson, jr. il S A E J 61:28-9 D '53

Laminar boundary layer over a rotating blade. H. S. Tan. bibliog J Aeronautical Sci 20:780-1 N '53

Some blade designs for an axial flow compressor stage. R. G. Taylor. bibliog Roy Aeronautical Soc J 58:61-4 Ja '54

Stall-flutter in cascades. F. Sisto. bibliog J Aeronautical Sci 20:598-604 S '53

Control

Analog computers; successor to cut and try; developing control systems for jet engines. C. E. Bradford and W. M. Gaines. il diags Gen Elec R 56:24-7+ N '53

F-86D flies with automatic engineer; GE unit controls both engine and afterburner. P. Klass. il diag Aviation W 59:48-50 S 21 '53

Turboprop controls; how complicated? abstract. T. B. Rhines. diags S A E J 62:41 Mr '54

Cooling

Analysis of turbulent free-convection boundary layer on flat plate. E. R. G. Eckert and T. W. Jackson. bibliog diags U S Nat Advisory Com for Aeronautics 1951: 255-61 '52

Design

Analysis bares J47 jet design details. il diags Aviation W 59:27-8+ O 26 '53

Design features of Napier Eland turboprop. D. Scott. flow diag il diags Automotive Ind 111:60-2 S 1 '54

Fairchild stresses simplicity in J44 jet. I. Stone. il diags Aviation W 59:30-2+ N 30 '53

High performance jet engine design dependent upon metallurgical ingenuity. I. Perlmutter. il diag J Metals 6:113-18 F '54

Measurement of the profile drag of compressor and turbine cascades and the effect of wakes in exciting vibration. J. M. Stephenson. bibliog diags Roy Aeronautical Soc J 57:722-5 N '53

Novel jet engine is designed for production; Fairchild J-44 engine. il diags Automotive Ind 109:58-9 D 1 '53

Some stall and surge phenomena in axial-flow compressors. M. C. Huppert and W. A. Benser. il diag J Aeronautical Sci 20:835-45 D '53

Turbojet engine design problems for supersonic flight; abstract. J. S. Alford and E. L. Auyer. diag S A E J 62:39-40 S '54

Efficiency

Dynamics of a turbojet engine considered as a quasi-static system. E. W. Otto and B. L. Taylor, 3d. diag U S Nat Advisory Com for Aeronautics 1951:177-88 '52

Fuel

Alumina-adsorption analysis of petroleum aromatics in 420° to 600° F range. C. M. McKinney and R. L. Hopkins. bibliog Anal Chem 26:1460-5 S '54

Combustion of a low-volatility fuel in a turbojet combustion chamber; effects of fuel vaporization. V. V. Holmes and others. bibliog A S M E Trans 75:1303-10 O '53

Fuels for gas turbines and turbojet engines; symposium abstracts. Chem & Eng N 32: 1446-7 Ap 12 '54

JP-4 jet fuel. Aero Digest 67:44+ D '53; Same. Automotive Ind 110:186+ F 15 '54

National annual survey of aviation gasoline and aviation jet fuel, 1952 production. O. C. Blade. 5pls U S Bur Mines Rep of Invest 4982:1-15 '53; Excerpt. Oil & Gas J 52:95 Jl 6 '53

National annual survey of aviation gasoline and aviation jet fuel, 1953 production. O. C. Blade. 5pls U S Bur Mines Rep of Invest 5036:1-15 '54

Stability predicter for jet fuel; abstract. A. C. Nixon and C. A. Cole. Chem & Eng N 32: 1447 Ap 12 '54

Fuel feeding

Characteristics of a vaporizing combustor for aviation gas turbines. W. D. Pouchot and J. R. Hamm. diags A S M E Trans 76:801-7 Jl '54

Fuel system complexity; how much is necessary? R. R. Higginbotham and W. R. Petersen. diags S A E J 62:25-30 Ap '54

Jet fuel controls tested cheaper. G. L. Christian. il Aviation W 58:62+ Je 15 '53

Installation

Engine installations for jet transports; based on papers by B. T. Salmon and others. il S A E J 62:52-5 Ag '54

Light aircraft turbo-propeller installations. J. H. Gerteis. il S A E J 62:56-9 Ag '54

Lubrication

New twist on lubes. Chem W 72:46+ Ap 11 '53

Synthetics help meet stiff lube needs of turboengines; report of forum on synthetic oils for aircraft gas turbines. R. I. Cross. il diags S A E J 62:32-8 Mr '54

Maintenance and repair

Jet-engine overhaul reduces defense costs. J. C. Cunningham. il Mach 60:208-11+ Jl '54

Manufacture

Automatic brushing deburrs turbine disks; Westinghouse aviation gas turbine division. R. DePastina and R. E. Eyre. il Am Mach 98:124-5 Jl 5 '54

Automatic ultrasonic inspection. il Automotive Ind 111:49+ Jl 15 '54; Materials & Methods 40:230+ S '54

Budget tooling methods save time, money on short run; Pratt & Whitney aircraft div. A. A. Merry and J. H. Lareau. il Iron Age 174:100-1 Ag 5 '54

Conveyor speeds coating; San Diego, Calif. plant of Solar aircraft co. il Chem Eng 60: 134 O '53

GAS turbines, Aircraft—Manufacture—*Cont.*

Curtiss-Wright automates turbo-compound engine assembly line at Wood-Ridge. il plan Am Mach 97:170-2 N 23 '53

Deburrer beats hand method; compressor-rotor wheels for Allison jet engines. il Steel 133:94 Jl 20 '53

Fabricating high temperature metals into jet-engine afterburners; Ryan aeronautical co. L. Limbach. il Mach 60:174-81 Jl '54

Factory for turbo-jet engines; East Kilbride works. il Engineer 196:710 N 27 '53; Engineering 176:717, 720 D 4 '53

Flame spraying; answer to ceramic coating problem; Ryan aeronautical co. il Steel 134:106 Ap 26 '54

Flow-turning; Pratt & Whitney aircraft div. il Iron Age 174:50-1 Jl 29 '54; Steel 135:90 Ag 2 '54

Frauenthal precision turning and grinding machine developed for jet-engine work. il Mach 60:216 Je '54

How Buick builds Sapphire jet engines. C. H. Wick. il Mach 60:155-62 D '53

Jet engine production; Ryan aeronautical co. il Automobile Eng 44:242-4 Je '54

Lathes play important part in jet engine manufacture; illustrations with text. Mach 60:202-3 Je '54

Machining turbine and compressor parts for Sapphire jet engines; Oldsmobile division of General motors corp. C. H. Wick. il Mach 60:157-65 Ja '54

Making jet buckets and blades better; Society of automotive engineers' national aeronautic meeting forum, New York. Aviation W 59:29-30+ Jl 13 '53

Manufacturing methods development; bridging the gap between engineering design and production. R. J. Moran and M. Field. il S A E J 62:25-8 My '54

Metal cutters slowly gaining on tough jet engine materials; report of panel on machining. E. J. Weller. il S A E J 62:53-6 Ja '54

New carbide cutting tools reduce production costs; Lynn River works of General electric co. il Iron Age 173:144 Ap 15; 173-4 My 6 '54; Steel 134:122 My 3 '54

Precision chucking of thin-walled parts. K. W. Cole. il diags Tool Eng 33:37-41 S '54

Proper tooling simplifies machining of jet parts. D. G. Jones. il Iron Age 172:76-9 D 31 '53

Resistance welding in jet engine manufacturing. F. J. Wallace. il diags Welding J 33:762-7 Ag '54

Selecting ceramic coatings for jet engine parts. W. C. Rous, jr. il Materials & Methods 38:116-19 D '53

Vacuum employed to shrink-fit large tubes; Solar aircraft co. il Mach 60:229 N '53

Vacuum impregnation; magnesium castings meet jet standards. il Steel 133:140-1 D 7 '53

Welding high-temperature materials. F. H. Stevenson. il Tool Eng 32:73-6 Je '54

Wire thread inserts for magnesium applications. P. E. Wolfe. diags Tool Eng 32:273-5 Ap '54

Wright turbo compound engines built on automatic assembly lines. il plan Automotive Ind 109:52-5 D 1 '53

Mounting

Security scuttles jet pod debate; Anglo-American air conference. D. A. Anderton. Aviation W 59:19 S 28 '53

Noise

Aircraft noise stops growing like Topsy; based on papers by A. C. Pietrasanta and others. diags S A E J 62:22-7 S '54

Tailpipe teeth cut jet engine noise. F. B. Greatrex. il Aviation W 59:28-9 Jl 6 '53

Specifications

1954 U.S. and British aircraft gas turbines; tabulations. Automotive Ind 110:252-3 Mr 15 '54

Starting

Plessey liquid-fuel turbo-starter for gas turbines. il diag Engineering 176:733 D 4 '53

Temperature

Electrical techniques for time lag compensation of thermocouples used in jet engine gas temperature measurements. C. E. Shepard and I. Warshawsky. il diags Instruments 26:1725-30 N '53

Testing

Aero-engine compressor and turbine test house; Armstrong Siddeley motors ltd. il plans Engineering 177:214-17 F 12 '54

Build successful jet engine test cell with refractory blocks; Norton refractories. D. G. Bolan. il diag Brick & Clay Rec 124:65-7 F '54

Ceramic stress coating. H. J. Jackson. il diag Machine Design 26:184 Mr '54

Considerations entering into the selection of probes for pressure measurement in jet engines. C. C. Gettelman and L. N. Krause. bibliog diags Instruments 26:1385-8 S '53

Ford unwraps six new engine test cells for J-57's. il Iron Age 173:66 Ap 15 '54

Gas turbine and supersonic flight research; NACA Lewis flight propulsion laboratory; illustrations with text. Automotive Ind 111:54-5 Jl 1 '54

Investigation of frequency-response characteristics of engine speed for a typical turbine-propeller engine. B. L. Taylor, 3d and F. L. Oppenheimer. diags U S Nat Advisory Com for Aeronautics 1951:279-89 '52

Jet engine testing. il Elec R (Lond) 153:1314 D 11 '53

Jet-engine testing; instruments and techniques for transient testing of jet engines at the engineering laboratory, Jet engine department, General electric co. R. D. Burdett and B. F. Burdick. il Instruments & Automation 27:1294-5 Ag '54

Latest in jet test cells. il diag Automotive Ind 110:55 Je 1 '54

Now showing on tv; jet tests. il Aviation W 58:43 Je 29 '53

Simulated flight for engines at AEDC. G. W. Newton. il map diag S A E J 62:28-32 Jl '54

Stress-rupture test guarantees jet engine parts; Pratt & Whitney aircraft. il Iron Age 173:145 F 18 '54

Turboprop test stands developed. G. L. Christian. il Aviation W 59:82+ D 14 '53

Thrust augmentation

Analysis of thrust augmentation of turbojet engines by water injection at compressor inlet including charts for calculating compression processes with water injection. E. C. Wilcox and A. M. Trout. bibliog U S Nat Advisory Com for Aeronautics 1951:97-116 '52

Jet engine thrust increased, specific fuel reduced; Hispano-Suiza co. il Automotive Ind 110:96 Ja 1 '54

Propulsive efficiency and best division of power in an augmented jet engine. J. M. Stephenson. J Aeronautical Sci 20:576-7 Ag '53

Vibration

Analytical determination of coupled bending-torsion vibrations of cantilever beams by means of station functions. A. Mendelson and S. Gendler. bibliog diag U S Nat Advisory Com for Aeronautics 1951:77-96 '52

GAS turbines, Automotive

Auto gas turbine combines economy, performance; Chrysler corp. il diag Machine Design 26:195-6 My '54

Boeing gas turbine. H. W. Perry. il Automobile Eng 44:41-2 Ja '54

Chrysler develops a turbine for Plymouths, but problems remain. F. G. Lawrence. il Steel 134:71-2 Mr 29 '54

Develop commercial auto gas turbine; Chrysler testing sports coupe with turbine power plant. R. D. Raddant. Iron Age 173:79 Mr 25 '54

Don't write off piston engines yet. R. D. Raddant. Iron Age 173:64+ Ap 29 '54

End of road for piston engines? gas turbine is logical successor. R. D. Raddant. Iron Age 173:32+ Ap 15 '54

Experimental car tests possible use of gas turbine engine. il Elec Eng 73:291-2 Mr '54

GAS turbines, Automotive—*Continued*

Fiat experimental car has 200-hp turbine engine. il diag Automotive Ind 110:49+ Je 15 '54

First gas-turbine auto. il Oil & Gas J 52:60 Ja 18 '54

Gas turbine car uses heat exchanger; British motor corp. Chem & Eng N 32:3874 S 27 '54

Gas turbine; good bet for trucks, busses, but not autos. W. A. Turunen. Steel 134:59-60 F 1 '54

Gas turbines; on tomorrow's cars? Chrysler's working prototype. W. G. Patton. il Iron Age 173:67-8 Ap 15 '54

General Motors Firebird has gas turbine engine. il Automotive Ind 110:42-3+ Ja 15 '54

General Motors rides a bus to test the turbine's performance. F. G. Lawrence. il Steel 134:81-2 Je 14 '54

GM turbine-powered Firebird takes off; experimental car follows aerodynamic design. R. D. Raddant. il Iron Age 173:66+ Ja 14 '54

GM unveils commercial gas turbine. R. D. Raddant. Iron Age 173:94+ Je 10 '54

Pinwheels or pistons. W. A. Turunen. il diag S A E J 62:19-27 Jl '54; Excerpts. Automotive Ind 111:51-3 Jl 1 '54

Pinwheels or pistons as power for automotive equipment? world's first turbine bus. il Chem & Eng N 32:2487 Je 21 '54

370-hp gas turbine tested on the road. il diag Power 98:100 Mr '54

Turbine-powered autos, here to stay? Chrysler corp. il Am Mach 98:259 Ap 12 '54

See also

Locomotives, Gas turbine

GAS turbines, Marine

British lead with navy gas turbine. C. M. Jones. il diags Marine Eng 59:54-61 My '54

Designing gears for gas-turbine marine applications; abstract. R. J. Hoard and L. A. Acurso. Marine Eng 59:36-7 Jl '54

French coaster Catenac, first merchant ship to be fitted with propelling machinery consisting of free-piston gas generator and gas turbine. Engineer 197:425 Mr 19 '54

Fuel systems and controls for marine gas turbines; discussion. Engineer 196:740-2 D 4 '53

High temperature turbine machinery for marine propulsion. T. W. F. Brown. il diags Engineer 197:158-61, 194-6 Ja 29-F 5 '54

Main propulsion gas turbine set for the oil tanker Auris. B. E. G. Forsling. diags Engineer 196:733-5; Discussion. 740-2 D 4 '53

Marine gas turbine built by Rolls-Royce ltd. diag Mech Eng 76:178-9 F '54

Marine gas turbine; conclusions from two years' operation; abstract. J. Lamb and R. M. Duggan. Elec R (Lond) 153:936 O 23 '53

Marine gas turbines; Institution of mechanical engineers meeting, London, Nov. 27; abstracts of papers. Elec R (Lond) 153:1263 D 4 '53

R.M. 60 marine gas turbine. il diags Engineer 196:617-21, insert N 13 '53

Rolls-Royce gas turbine for marine propulsion. il diag Engineering 176:673-6, pl 36 N 27 '53

Tiny gas turbine engine supplies power to drive portable shipboard fire pump. il Chem & Eng N 31:3408 Ag 17 '53

Testing

Electronics in turbine development. Elec J 151:1135 O 9 '53

Pametrada research station. il Engineer 196: 492-3 O 16 '53; Engineering 176:491-3, 496 O 16 '53

Pametrada research station; material investigations in progress. il Metallurgia 48:228-32 N '53

GAS washing

See also

Gas purification

GAS water heaters

Gas water heating assures sanitation. il Gas Age 113:52 F 11 '54

How much gas to heat plant water? Mill & Factory 53:81 D '53

How we are renting water heaters; Haverhill gas light co. F. J. McLaughlin. il Gas Age 113:34-5+ Mr 11 '54; Same cond. Sales Management 72:70-2 Je 1 '54

Rentals build water heating load; Blackstone valley gas and electric co. J. E. Pemberton. il Am Gas Assn Mo 36:29-32 S '54

Revolution and revenue in laundry; gas industry can benefit if it upgrades all gas water heaters to meet demand. C. E. Bartlett. Gas Age 114:49-51+ Ag 12 '54

Advertising

30 gas equals 80 electric; water heater promotion by Gas institute of central Florida. C. Spink. il Gas Age 114:43-4+ Jl 15 '54

Merchandizing

Blackstone Valley G&E using water heater rental plan to increase installations. Am Gas J 181:42 Jl '54

Commercial water heater drive opened. il Am Gas Assn Mo 36:34-5 F '54; Same abr. Gas Age 113:47 F 11 '54

Commercial water heater sales campaign is sponsored by AGA. Dom Eng 183:256 Mr '54

Ruud and utilities hold laundry shows promoting high-temperature water. il Am Gas J 180:46 Ap '54

To press commercial water heating sales, education. Am Gas Assn Mo 36:34 Jl-Ag '54

GAS welding

Gas-welding hard surfaces for precision; illustrations with text. T. Wischhusen. Am Mach 98:126-8 My 24 '54

GAS works

Equipment

Activities for 1952; Koppers co. J. H. Taussig, jr. and G. C. Pfaff. Am Gas Assn Proc 1953:801-3

Blaw-Knox equipment and processes for the gas industry. R. H. Hazlett. il diag Am Gas Assn Proc 1953:766-77

Construction and development activities of United engineers & constructors inc. C. A. Schlegel. il Am Gas Assn Proc 1953:813-19

Design and operation of a simple pressure alarm system. C. V. Kroeger. il diags Am Gas J 180:14-15+ F '54

Gas engineering and appliance directory. Gas Age 113:67-155 Je 17 '54

Gas mixing control for three gas mixtures; Cutler-Hammer, inc. C. W. Warner. flow diag diags Am Gas Assn Proc 1953:756-64

Girdler catalytic reforming units at Philadelphia electric co. N. C. Updegraff. il Am Gas Assn Proc 1953:798-801

Improvements in high Btu oil gas equipment; Semet-Solvay engineering division, Allied chemical & dye corp. L. W. Herbst, jr. il diags Am Gas Assn Proc 1953:778-80

Oil gas is produced by newly-designed plant in Argentina. M. Fernandez Romero. diags Am Gas J 180:18-19+ Ap '54

Paterson plant experience with C.C.R. E. R. Griggs. il Gas Age 114:45-8+ Jl 15 '54

Recent heat transfer equipment developments; National radiator co. R. A. Specht. il Am Gas Assn Proc 1953:819-24

Report of the Gas machinery co. A. M. Cunningham. il diags Am Gas Assn Proc 1953:825-8

Simple formulas to calculate checkerbrick requirements. G. H. Knobloch. Gas Age 112: 66-9 O 22 '53

Swan Village gasworks. il Engineer 196:487-9 O 16 '53

Unique insulation solved peak problem; New Jersey natural gas co. lp-gas plant. il diag Gas Age 114:18-19 Jl 1 '54

Load

Development of load data for distribution system design. G. A. Morgan. Am Gas Assn Proc 1953:650-4; Same. Gas Age 112:35-7+ Jl 30 '53

Load forecasting and its relation to distribution design; symposium. diags Am Gas Assn Proc 1953:592-605; Same. Gas Age 112:26-34 Jl 30 '53

Peak load

LP in utility plant of tomorrow. J. L. Turnan. Am Gas Assn Proc 1953:1008-9; Same. il diag Am Gas J 179:16-17+ S '53

GAS works—*Continued*

Safety measures

Safety in maintenance and operation of stand-by gas production plants. W. J. Ball. Am Gas Assn Proc 1953:958-63

Waste

Disposal of effluents produced by gas industry; abstract and discussion. E. T. Pickering. Chem & Ind p512-14 My 23 '53

Gas works liquors; abstract. J. J. Priestley. Chem & Ind p434-5 My 2 '53

GASEOUS ionization. See Ionization. Gaseous

GASES

Adsorption of gases on carbon; abstract. H. Harker. Chem & Ind p 1282-3 N 28 '53

Application of ideal gas theory to the gaseous expansion from an electric spark. R. B. Edmonson and others. bibliog il diags J Ap Phys 25:1008-13 Ag '54

Chemical engineering fundamentals; chemical equilibrium. T. E. Corrigan. diags Chem Eng 61:222+ Mr; 212+ Ap; 202+ My '54

Chemical engineering fundamentals; compression and expansion. T. E. Corrigan and A. F. Johnson. diags Chem Eng 60:211-16 D '53; 61:210+ Ja '54

Chemistry in the stratosphere and upper atmosphere. L. E. Miller. bibliog(43 ref) il J Chem Educ 31:112-24 Mr '54

Comparison of the heats of vapour and gas evolution from low-vapour-pressure liquids. G. Burrows. bibliog J Ap Chem 4:394-400 Jl '54

Contributions to thermodynamics; specific heat of an ideal gas. J. McQuirg. J Chem Educ 31:299 Je '54

Correlation of the solubilities of gases in low-vapour-pressure liquids by an evaporation analogy. G. Burrows and F. H. Preece. bibliog diags J Ap Chem 3:451-62 O '53

Corrosive action of dissolved gases on steel in water. J. W. Watkins and J. Wright. bibliog il diags Pet Eng 25:B50-1+ N '53

Electrical breakdown of gases. C. G. Morgan. Elec R (Lond) 154:212 Ja 29 '54

Estimating differential scattering cross sections in gases. T. Ahrens. J Ap Phys 25:505-6 Ap '54

Expansion of a fissionable gas as a source of atomic power. E. H. Kerner. diag J Ap Phys 24:815-16 Je '53

Faraday effect in gases and vapors. L. R. Ingersoll and D. H. Liebenberg. diags Opt Soc Am J 44:566-71 Jl '54

Foam methods for gas-liquid interaction; recent Russian work. diags Chem Age (Lond) 71:369-71 Ag 21 '54

Fumes and gases from selenium rectifiers abused by gross overloading. P. Drinker and K. W. Nelson. diag A M A Archives Ind Hygiene & Occup Med 8:185-9 Ag '53

Gas dissociation energies; abstract. R. K. Edwards and G. T. Malloy. Chem & Eng N 32:3847-8 S 27 '54

General method and thermodynamic tables for computation of equilibrium composition and temperature of chemical reactions. V. N. Huff and others. bibliog(45 titles) U S Nat Advisory Com for Aeronautics 1951:829-85 '52

Graphical solutions for power engineers; determining properties of gases. P. J. Grogan. Power Eng 58:90-1 S '54

Homogeneous gas processes and time dependent perturbation theory. H. Aroeste. bibliog J Chem Phys 21:1897-8 O '53

Imperfect gas. T. H. Berlin and others. Phys R 92:189-201 O 1 '53

Imperfect gas as an association problem. W. Weltner, jr. bibliog J Chem Phys 22:153-4 Ja '54

Magnetic pumps for corrosive gases and liquids. F. D. Rosen. diags R Sci Instr 24:1061-2 N '53

Manometric method for study of solid-gas reactions at moderate temperatures. P. Souter, J. R. Willimott and T. G. Hunter. bibliog il Anal Chem 26:484-7 Mr '54

Material transfer in turbulent gas streams. V. J. Berry, D. M. Mason and B. H. Sage. bibliog(34 ref) diags Ind & Eng Chem 45:1596-602 Jl '53

Measurement of the viscosity of five gases at elevated pressures by the oscillating-disk method. J. Kestin and K. Pilarczyk. bibliog(41 titles) diags A S M E Trans 76:987-97; Discussion. 998-9 Ag '54

Model for collision processes in gases; small amplitude processes in charged and neutral one-component systems. P. L. Bhatnagar and others. bibliog Phys R 94:511-25 My 1 54

Negative cluster concentrations and association constants. H. Winston. J Chem Phys 21:2245-6 D '53

Observation of shock formation and growth. A. B. Laponsky and R. J. Emrich. bibliog diags J Ap Phys 24:1383-8 N '53

Paramagnetic resonance in gases at low fields. M. A. Garstens. Phys R 93:1228-31 Mr 15 '54

Process kinetics; countercurrent heating and cooling of granular solids with gases. J. W. Payne, C. H. Lechthaler and R. D. Drew. diags Ind & Eng Chem 45:1233-6 Je '53

Process kinetics; kinetics of gas-liquid reactions. R. H. Perry and R. L. Pigford. Ind & Eng Chem 45:1247-53 Je '53

Radiation-conduction correction for temperature measurements in hot gases. W. E. West, jr. and J. W. Westwater. bibliog diag Ind & Eng Chem 45:2152-6 O '53

Role of water vapor on the stoichiometric reactions of solid proteins with polar gases. S. W. Benson and others. bibliog Am Chem Soc J 75:6040-1 D 5 '53

Second virial coefficients of gases obeying a modified Buckingham (exp-six) potential. W. E. Rice and J. O. Hirschfelder. J Chem Phys 22:187-192 F '54

Secondary electron resonance mechanism of low-pressure high-frequency gas breakdown. A. J. Hatch and H. B. Williams. bibliog diags J Ap Phys 25:417-23 Ap '54

Separation of gases by free double diffusion. F. A. Schwertz. bibliog diags Ind & Eng Chem 45:1592-6 Jl '53

Separation of gases by means of porous membranes. H. E. Huckins and K. Kammermeyer. bibliog(36 ref) diags Chem Eng Prog 49:180-4, 294-8 Ap, Je '53

Separation of gases by plastic membranes. D. W. Brubaker, K. Kammermeyer and J. O. Osburn. bibliog flow diag il diags Ind & Eng Chem 46:733-42 Ap '54

Smokeless burning of waste process gases. R. D. Reed. A S M E Trans 76:251-3 F '54

Solubility of gases in lubricating oils and fuels. R. R. Baldwin and S. G. Daniel. bibliog diags Inst Pet J 39:105-24 F '53

Some effects of gases on properties of fibre suspensions. G. Gavelin. bibliog il diags Pulp & Pa of Can (Convention no) 55:191-200 [F] '54

Stopping cross section of gases for protons, 30-600 kev. H. K. Reynolds and others. bibliog diag Phys R 92:742-8 N 1 '53

Theory of the virial development of the equation of state of monoatomic gases. R. J. Riddell, jr. and G. E. Uhlenbeck. bibliog diags J Chem Phys 21:2056-64 N '53

Thermal conductivity chart for gases. A. I. Johnson and C. Huang. Chem Eng 61:204-5 F '54

Thermal conductivity of gases. F. G. Keyes. bibliog(28 titles) diag A S M E Trans 76:809-16 Jl '54

Thermodynamic properties of gaseous titanium. H. G. Kolsky and P. W. Gilles. J Chem Phys 22:232-3 F '54

Thermodynamics of critical phenomena in gases. J. F. Lee. bibliog Franklin Inst J 256:245-8 S '53

Transport properties of gases obeying a modified Buckingham (exp-six) potential. E. A. Mason. bibliog J Chem Phys 22:169-86 F '54

Use of liquid films in the study of the absorption of gases by drops. B. E. Dixon and J. E. L. Swallow. il diags J Ap Chem 4:86-93 F '54

Viscosimetry of gases at high temperatures and pressures. Franklin Inst J 255:445-8 Ag '53

Viscosity, thermal conductivity, and Prandtl number for air, O_2, N_2, NO, H_2, CO, CO_2, H_2O, He, and A. J. Hilsenrath and Y. S. Touloukian. A S M E Trans 76:967-83 bibliog(111 titles, p981-3); Discussion. 983-5 Ag '54

GASES—*Continued*

Volume of sulphur-burner gases; data sheet. Pulp & Pa of Can 55:112 S '54

X-ray diffraction studies on carbon gasification. P. L. Walker, jr., H. A. McKinstry and J. V. Pustinger. bibliog Ind & Eng Chem 46:1651-8 Ag '54

See also

Absorption
Accommodation coefficients
Acetylene
Adsorption
Aerodynamics
Air
Ammonia
Arsine
Blast furnace gas
Boltzmann equation
Bubbles
Carbon dioxide
Chlorine
Coke oven gas
Dew points
Diffusion
Electric discharges
Equation of state
Flame propagation
Flue gas
Gas
Gas, Natural
Gas analysis
Gas flow
Helium
Henry's law
Hydrogen
Inflammable mixtures
Ionization, Gaseous
Methane
Nitrogen
Oxygen
Vapor pressure
Vaporization
Vapors

Apparatus

Absolute beta-counting of gases containing P-32 using end-window Geiger-Müller tubes. F. D. Rosen and W. Davis, jr. bibliog diags R Sci Instr 24:349-54 My '53

Accurate analysis of waste gas with soap film apparatus. W. J. Gooderham. Chem & Ind p 121-2 Ja 30 '54

Acoustic apparatus for determination of mixture ratio by analysis of engine exhaust gas. E. F. Weller. bibliog il diags Anal Chem 26:488-91 Mr '54

Apparatus for measuring the products from, and the oxygen required in, the combustion of gases. W. J. Gooderham. bibliog diag Chem & Ind p477-8 My 16 '53

Apparatus for producing a number of different gas mixtures for a long period of time. S. W. Bailey. diags J Sci Instr 31:93-5 Mr '54

Application of a fast-scanning infrared spectrometer to gas-phase kinetic studies. G. R. Cowan and others. Opt Soc Am J 43:710-11 Ag '53

Automatic system for the study of catalytic reactions involving gases. K. W. Hannah and others. diags R Sci Instr 25:636-9 Jl '54

Centrifugal gas absorbers; symposium abstracts. diag Chem & Eng N 32:1688+ Ap 26 '54

Fast, electro-optical, hot-gas pyrometer. G. H. Millar and others. bibliog il diags Opt Soc Am J 43:609-17 Jl '53

From air to oxygen. D. S. Goalwin. flow diag Pet Refiner 32:176 S '53

Gas analysis. diags Can Chem Process 37:108-9 O '53

General Electric new gas analyzer will be used to track entrapped gas. Iron Age 173:145-7 Je 10 '54

High precision electron-diffraction unit for gases. L. O. Brockway and L. S. Bartell. bibliog il diags R Sci Instr 25:569-75 Je '54

High-pressure gas valve for use up to 3000 atmospheres. D. W. Robinson. diag J Sci Instr 30:483-4 D '53

Intense drying of gases with potassium metal. E. R. Harrison. diags J Sci Instr 30:38-9 F '53

Long path gas absorption cell. R. G. Pilston and J. U. White. il diag Opt Soc Am J 44:572-3 Jl '54

Magnetic mercury cut-off. F. W. Thompson. diag J Sci Instr 31:145 Ap '54

Modified Bodenstein valve for use with corrosive gases. K. Judge and G. W. Luckey. bibliog diag R Sci Instr 24:1150 D '53

Nitroneal generator for producing protective atmospheres. il Chem Age (Lond) 70:565-6 Mr 6 '54; Same. Metallurgia 49:134 Mr '54

Optical measurement controls gas concentration; abstract. P. M. Engel and G. P. Bentley. diags Electronics 27:196+ F '54

Plant control by gas analysis. A. W. Angerhofer and B. M. Dewey. il diags Instruments 26:580-3 Ap '53

Raman apparatus for gases. H. H. Claassen and J. R. Nielsen. bibliog diags Opt Soc Am J 43:352-5 My '53

Reciprocating mercury pump for gas analysis apparatus. E. A. C. Chamberlain and others. il J Sci Instr 31:66-7 F '54

Sensitive versatile acoustic gas analyzer particularly suitable for the analysis of anesthetic mixtures. J. E. Wilson. diag R Sci Instr 25:927-8 S '54

Separation of gases by plastic membranes; new diffusion cell design. J. O. Osburn and K. Kammermeyer. bibliog il diags Ind & Eng Chem 46:739-42 Ap '54

Simple, automatic gas buret. R. D. Goodwin. diag J Chem Educ 31:369-70 Jl '54

Simple pump for circulating pure gas. J. A. Earl. diag R Sci Instr 25:397-8 Ap '54

Sorption in gas and air drying. F. M. Waterhouse. il diags Chem Eng 61:237-42 Je '54

Specific gravity of gases. B. J. Willard. il diags Instruments & Automation 27:945-9 Je '54

Supersensitive gas detector permits accurate detection of toxic or combustible gases in extremely low concentrations. R. H. Müller. il diag Anal Chem 26:sup39A-40A+ S '54

Survey of gauges for measurement of low absolute gas pressures. R. B. Lawrance. bibliog il diags Chem Eng Prog 50:155-60 Mr '54

Thermally-operated gas valve. E. S. Shire. diag J Sci Instr 31:192 My '54

Vibrating needle variable gas leak. A. J. Stinnett. diag R Sci Instr 24:883-4 S '53

Water-separating cyclone. A. M. Godridge and G. G. Thurlow. diags J Sci Instr 31:258 Jl '54

See also

Absorption apparatus
Nitrites—Analysis

Liquefaction

See also

Chlorine, Liquid
Gases, Liquefied

GASES, Asphyxiating and poisonous

Chemistry and pharmacology of nerve gases; abstract. B. Holmsted. Chem & Eng N 31:4676+ N 9 '53

GB nerve gas; distasteful deterrent. il Chem W 74:30 Ap 10 '54

How you can combat hydrogen sulfide hazards. G. Austin. il World Oil 137:190+ N '53

Nickel carbonyl caused two deaths at Port Arthur refinery. Chem & Eng N 31:3016 Jl 20 '53

Portable ventilation; Pittsburgh coke & chemical co. il Steel 134:106 Mr 1 '54

Potential hazard in flame photometry. F. B. Moreland. Science 118:494 O 23 '53

Products of combustion of chlorinated plastics. E. H. Coleman and C. H. Thomas. bibliog diag J Ap Chem 4:379-83 Jl '54

See also

Arsine
Carbon disulfide
Carbon monoxide poisoning
Chemical warfare
Fumigants
Hydrogen sulfide
Ketene
Methylene chloride
Nitrogen oxides
Phosgene
Respiratory apparatus

GASES, Compressed

Application of compressibility factors to process gases. D. L. Reed. Am Gas Assn Proc 1953:795-7

Chemical engineering fundamentals; compression and expansion. T. E. Corrigan and A. F. Johnson. diags Chem Eng 60:211-16 D '53; 61:210+ Ja; 212+ F '54

Compressibility of gases; krypton in the temperature range 0 to 600 C and pressure range 10 to 80 atm. E. Whalley and W. G. Schneider. bibliog diag A S M E Trans 76:1001-4 Ag '54

Compression work. W. M. Spicer and J. Hine. J Chem Educ 30:501-2 O '53

Demonstration of compressibility measurements on gaseous fluids. J. D. Baron and G. M. Watson. bibliog il diags J Chem Educ 31:74-7 F '54

Engineered for pressures; General Aniline & Film plant for high-pressure acetylene derivatives. il Chem W 74:58 Ap 24 '54

High-pressure gas valve for use up to 3000 atmospheres. D. W. Robinson. diag J Sci Instr 30:483-4 D '53

How to use the new generalized compressibility charts. L. C. Nelson and E. F. Obert. Chem Eng 61:203-8 Jl '54

GASES, Compressed—*Continued*

Measurement and correlation of thermal conductivities of gases at high pressure. J. M. Lenoir, W. A. Junk and E. W. Comings. bibliog Chem Eng Prog 49:539-41; Discussion. 541-2 O '53

Some experiments on positive point-to-plane corona and spark breakdown of compressed gases. T. R. Foord. bibliog diags Inst E E Proc 100 pt 2:585-90 D '53

Thermal conductivity of gas mixtures at high pressure; ethylene, nitrogen and ethylene, carbon dioxide. W. A. Junk and E. W. Comings. bibliog diag Chem Eng Prog 49:263-6 My '53

Viscosimetry of gases at high temperatures and pressures. Franklin Inst J 255:445-8 Ag '53

Safety measures

Marking of compressed-gas containers; reference book sheet. F. R. Fetherstone. Am Mach 98:191 S 13 '54

Safety factor in the design of seamless steel gas cylinders. S. E. Mitchell. Metallurgia 50:87-9 Ag '54

See also

Gas, Natural—Compression

GASES, Diffusion of. See Diffusion

GASES, Kinetic theory of

Problem on the energies of molecules. E. J. Slowinski, jr. J Chem Educ 30:579-80 N '53

Temperature jump and velocity of slip at the boundary of a gas. H. Payne. J Chem Phys 21:2127-31 D '53

GASES, Liquefied

How to design for low temperatures. R. J. Sweeney. il Chem Eng 61:197-202 Jl '54

Liquid level indicator for condensed gases at low temperatures. W. E. Williams, jr. and E. Maxwell. il diags R Sci Instr 25: 111-14 F '54

Low temperature liquid level indicator. Can Chem Process 38:32 Ja '54

NBC-AEC cryogenic lab; will unfold data on liquefied gases and their effect on materials. il Steel 133:134+ N 2 '53

Viscosity of nitric oxide-nitrogen dioxide system in liquid phase. H. H. Reamer, G. N. Richter and B. H. Sage. bibliog Ind & Eng Chem 46:1471-4 Jl '54

See also

Argon, Liquid
Helium, Liquid
Nitrogen, Liquid

GASES, Rare

Analysis and purification of rare gases by means of electric discharges. R. Riesz and G. H. Dieke. bibliog diags J Ap Phys 25: 196-201 F '54

Calculated values of the parameters of noble gas discharges. W. J. Graham and A. J. Ruhlig. bibliog Phys R 94:25-9 Ap 1 '54

Compressibility chart for hydrogen and inert gases. F. D. Maslan and T. M. Littman. bibliog Ind & Eng Chem 45:1566-8 Jl '53

Decomposition of nitrogen pentoxide in the presence of nitric oxide; effect of noble gases. D. J. Wilson and H. S. Johnston. Am Chem Soc J 75:5763 N 20 '53

Determination of traces of hydrogen fluoride in inert gases. D. L. Manning and J. C. White. Anal Chem 25:1648-50 N '53

Effects of inert atmosphere on emission spectra in the interrupted arc. H. Stone. diag Opt Soc Am J 44:411-13 My '54

Mobilities of atomic and molecular ions in the noble gases. M. A. Biondi and L. M. Chanin. bibliog diags Phys R 94:910-16 My 15 '54

Quantitative determination of oxygen in gases. L. P. Pepkowitz and E. L. Shirley. il diag Anal Chem 25:1718-20 N '53

Solubilities of sulfur hexafluoride in water and of the rare gases, sulfur hexafluoride and osmium tetroxide in nitromethane. H. L. Friedman. bibliog Am Chem Soc J 76:3294-7 Je 20 '54

See also

Argon
Helium
Krypton
Neon
Xenon

GASKETS

Gaskets. S. Elonka. il diags Power 98:105-24 Mr '54

Mechanical applications of flowed-in gaskets. W. M. Rand, jr. diags Rubber Age 72:477-81 Ja '53; Same. Mech Eng 75:541-4 Jl '53

This handy gasket cutter does better work, saves money. S. Elonka. il Power 98:112-13 Ag '54

Threadless subplates prevent hydraulic valve leakage. R. C. Hupp. il diags Tool Eng 31: 46-50 D '53

GASKETS, Plastic

Machine produces re-usable gaskets. T. E. Mucho. il Elec World 139:140+ Je 15 '53

Plastic gaskets, and fireproof backing, help solve metal wall problems. il Arch Forum 101:159+ S '54

GASKINS, Thomas, 1909-

Florida entrepreneur, a rugged individualist; cypress knee workshop and museum. por Manuf Rec 123:31 S '54

GASOLINE

Add as you go; tricresyl phosphate for gasoline. Chem W 74:64-5 My 1 '54

Additive fight shapes gasoline future. Nat Pet N 46:15-16 Ja 20 '54

Advances in gasoline technology mean big changes ahead in autos. F. G. Lawrence. Steel 134:65-6 Mr 1 '54

Boron out of the bag; Standard Oil of Ohio's Boron Supreme. Chem W 75:123-5 S 25 '54

Comparison of LPG, gasoline, and Diesel fuels in city-bus operation. F. C. Burk and others. Am Pet Inst Proc 33(3):132-6 '53; Same. Pet Refiner 32:119-21 Je '53; Same cond. Diesel Power 31:50-3 N '53

Easy on the valves; Texaco's Petrox. il Chem W 74:60 Ap 17 '54

Flow of gasoline thickened by napalm. G. A. Agoston and others. Ind & Eng Chem 46: 1017-19 My '54

Gasoline market brought tricresyl phosphate into spotlight. H. Stenerson. Chem & Eng N 31:3580 Ag 31 '53

JP-4 jet fuel. Aero Digest 67:44+ D '53; Same. Automotive Ind 110:186+ F 15 '54

National annual survey of aviation gasoline and aviation jet fuel, 1953 production. O. C. Blade. 5pls U S Bur Mines Rep of Invest 5036:1-15 '54

National motor-gasoline survey, winter 1952-53. O. C. Blade. Oil & Gas J 52:131 Ag 31 '53

National motor-gasoline survey; summer 1953. O. C. Blade. 2pls map U S Bur Mines Rep of Invest 5041:1-24 '54

National motor-gasoline survey, winter 1953-54. O. C. Blade. map U S Bur Mines Rep of Invest 5066:1-24 '54

New claims for gasoline containing tricresyl phosphate. Consumers Res Bul 32:15 S '53

Phosphorous compound combats fouling; gasoline additive. Chem Eng 61:389-90 F '54

Pre-ignition in automotive engines. J. R. Sabina and others. bibliog il diags Am Pet Inst Proc 33(3):137-47 '53; Same cond. Oil & Gas J 52:66-70 Je 29 '53; Discussion. Am Pet Inst Proc 33(3):147-50 '53

Resistance of fire-fighting foams to destruction by petrol. R. J. French and P. L. Hinkley. diag J Ap Chem 4:513-16 S '54

TCP on the road. Chem W 72:68+ Je 20 '53

See also

Airplane engines—Fuel
Anti-freeze solutions
Automobile engines—Fuel
Automotive fuel
Gasoline service stations
Internal combustion engines—Fuel
Petroleum refining

Analysis

Determination of tetraethyllead in gasoline by titration with ethylenediamine tetraacetate. O. I. Milner and G. F. Shipman. bibliog Anal Chem 26:1222-3 Jl '54

Determining TEL in gasoline by flame photometry. J. H. Jordan, jr. il Pet Refiner 32:130-40 Ag '53

Effect of aviation fuel components on the accuracy of the Karl Fischer electrometric titration. R. W. Sneed, R. W. Altman and J. C. Mosteller. bibliog Anal Chem 26:1018-20 Je '54

Photometric determination of copper in gasoline. J. K. Livingstone and N. D. Lawson. Anal Chem 25:1917-18 D '53

GASOLINE—Analysis—*Continued*
Use of the polarograph in the determination of lead in gasoline engine fuel, lubricants, and deposits. B. W. Swanson and P. H. Daniels. diag Inst Pet J 39:487-97 Ag '53
Useful filtration apparatus. W. R. Battles. il Pet Eng 25:C33-4 Jl '53

Anti-knock and anti-knock mixtures

Antiknock blending characteristics of fuels. bibliog il U S Nat Advisory Com for Aeronautics 1951:581-98 '52
Antiknock performance scales. bibliog U S Nat Advisory Com for Aeronautics 1951: 511-19 '52
Aromatic amines as fuel additives. bibliog diag U S Nat Advisory Com for Aeronautics 1951:556-68 '52
Gasoline; hottest battle in years; additives vs. octanes. il Bsns W p61-2+ N 14 '53
Gasoline roundelay. il Chem & Eng N 32:1864-6 My 10 '54
Hydrocarbons and ethers as antiknock blending agents. bibliog U S Nat Advisory Com for Aeronautics 1951:532-55 '52
Octane number requirement survey, 1952. S A E J 62:48-51 Mr '54
Octane numbers rising; latest duPont survey. Oil & Gas J 52:68 N 2 '53
Octanes reach new heights, still going up. Nat Pet N 45:17-19 Ag 12; 41 N 11 '53; 46:17 F 10 '54
Premium gasoline new king in market. il Nat Pet N 45:13-17 N 11 '53
Tetraethyl lead as a fuel additive. bibliog il U S Nat Advisory Com for Aeronautics 1951:569-80 '52
Trend to high octane is sound. E. V. Murphree and others. diags Pet Refiner 33: 229-30+ Ja '54; Abstracts. S A E J 62:38-9 Jl '54; Oil & Gas J 52:66-7 N 2 '53
What can we get from higher octane number fuels. W. H. Holaday. diags S A E J 62:27-9 Ag '54

Blending

Antiknock blending characteristics of fuels. bibliog il U S Nat Advisory Com for Aeronautics 1951:581-98 '52

Evaporation losses

Evaporation loss of petroleum from storage tanks; symposium. il diags Am Pet Inst Proc 32(1):213-81 '52

Manufacture

Accent is on premium octanes. V. B. Guthrie. Pet Processing 8:1157-8 Ag '53
Atlas gasoline-upgrading plant produces better-than-nitration-grade benzene. flow diag il Oil & Gas J 52:105+ Jl 13 '53
Cat reforming boom is on. G. Weber. il Oil & Gas J 52:46-9 D 28 '53
Catalytic polyforming of gas oil. L. Berg and others. diags Pet Eng 25:C7-8+ S '53
Catalytic reforming is versatile addition to modern refining processes. il Can Chem Process 38:42+ Jl '54
Catformer goes on stream; first phase of Atlantic's refinery modernization. il Chem & Eng N 32:474 F 8 '54
Design and operation of Orthoflow units. W. J. Degnen and J. F. Skelly. il diags Pet Eng (Ref annual) 25:C7-10 Jl 15 '53
Desulfurization today; with descriptive data on Autofining, Unifining, Cycloversion, Tannin Solutizer, Gray desulfurization, Unisol mercaptan extraction, Mercapsol treating, electrolytic caustic regeneration and Shell hydrodegeneration processes. V. A. Kalichevsky and E. H. Peters. flow diags diags Pet Refiner 32:82-92 D '53
Everybody's after more gasoline; Europe, Africa, South America, Australia. il Chem Eng 61:195-6 Jl '54
First cat cracker in New England. flow diag il Pet Processing 8:1689-91 N '53
First complete New England refinery at Everett, Mass. E. B. Brien. flow chart il Pet Eng 26:C41-2 Ja '54
Fluid coking may provide more gasoline and Diesel fuel. Bsns W p48+ Ag 22 '53
Fluid hydroforming. H. G. McGrath. bibliog flow diag diag J Ap Chem 4:26-38 Ja '54
Gasoline from coal by controlled combustion and resynthesis; South African coal, oil and gas corp. il Can Chem Process 38:42 Je 20 '54
Houdriflow cat-cracker for Montreal refinery. diag Can Chem Process 38:42 F '54
Houdriforming economics; effect of feedstock boiling range and reforming severity. H. D. Noll and others. Am Pet Inst Proc 33(3):91-7 '53; Same. Pet Refiner 32:113-16 My '53; Same. Pet Eng (Ref annual) 25:C 15-16+ Jl 15 '53
How a small plant makes octanes. D. P. Thornton, jr. il Pet Processing 8:1159-61 Ag '53
How to design fluid catalytic hydroforming units. R. A. Harang. flow sheet diags Oil & Gas J 52:280-2+ O 5 '53; Same. Pet Refiner 32:135-8 O '53; Same. Pet Eng 25: C31-2+ D '53
How to get optimum conversion from your cat poly unit. F. P. Lobban. diags Oil & Gas J 52:104-5+ S 14 '53
How to predict polyform gasoline octane. J. D. Wall. flow diag Pet Processing 8:1032-5 Jl '53
Hyperforming, Union Oil's new process for upgrading product. C. Berg. flow diag diags Pet Processing 8:1018-23 Jl '53
Look at commercial Catforming. H. R. Grane. il diag Pet Refiner 32:112-13+ S '53
New-catalyst results. Oil & Gas J 52:64-5 Jl 20 '53
New catalytic reforming process. J. W. Teter and others. flow diag Oil & Gas J 52:118-21+ O 12 '53; Same cond. Pet Processing 8:1519-23 O '53
New design features of Houdriflow. R. M. Shirk and D. B. Ardern. diags Pet Refiner 32:121-5 D '53
New hydroformer is 15-20 percent cheaper; Standard Oil development's new Model II. diags Chem Eng 61:116+ Ag '54
New refinery for Canada's chemical valley; Sun oil co. flow diag il Can Chem Process 38:28+ Je 1 '54
New reforming process; Indiana Standard introduces Ultraforming; cyclic catalyst regeneration method. flow chart Oil & Gas J 52:186-7 N 16 '53
New reforming process uses platinum catalyst; Standard oil co. of Indiana. Chem Eng 61:132 Ja '54
Reduce gum in avgas component distillation by adding inhibitor; patent. diag Pet Processing 8:1063 Jl '53
Three electric processes; electric distillate treating. diag Pet Refiner 32:125+ S '53
Union Oil to build first unifiner; will produce, through a hydro-desulfurization process, 95-100 octane leaded gasoline. Nat Pet N 45:17 D 16 '53
What can we get from higher octane number fuels. W. M. Holaday. diags S A E J 62: 27-9 Ag '54
World's largest Houdriflow cat cracker goes on stream; Texas City refining, inc. il Chem & Eng N 31:4204-5 O 12 '53
See also
Gasoline, Natural—
Manufacture

Price cutting

Cause and cure of price wars. H. F. Remington, jr. il Nat Pet N 45:34+ N 18 '53
Gasoline wars; and how to stop them. il Nat Pet N 45:20-5+ D 16 '53
Limiting station sites won't halt price wars; editorial. Nat Pet N 45:23-4 Ag 12 '53
Oil men wait as FTC gets Detroit case. Nat Pet N 46:13-14 Ja 27 '54

Price fixing

Oil ready to refute Department of justice price charges. Nat Pet N 45:13-14 O 7 '53

Prices

Cuts urged in gasoline output to stop the decline in wholesale gasoline prices. C. J. Hedlund. Nat Pet N 46:19 F 17 '54
Dealer and service station prices for regular-grade gasoline in 50 representative cities as of Sept. 1, 1953; tabulation. Nat Pet N 45:17 O 21 '53
Future and vigor of price probes uncertain as evidence falls flat. Nat Pet N 45:20-1 Ag 12 '53

GASOLINE—Prices—*Continued*

Higher prices hold, competition main threat. Nat Pet N 45:13-14 Jl 22 '53

How prices and credit affect sales. Nat Pet N 45:26+ N 4 '53

New Jersey governor spells out reasons for turning down gasoline pricing bill. R. E. Bjorkback. Nat Pet N 45:25-6 Ag 26 '53

Oil company facts deflate price investigation. Nat Pet N 45:29-33 Jl 15 '53

Oil price protests grow; majors to testify. Nat Pet N 45:33-6 Jl 1 '53

Oil prices under fire; jobber margins rise. Nat Pet N 45:17-20 Jl 8 '53

Price leader attack disturbs marketers. Nat Pet N 45:29-30 Ag 19 '53

Southwest independents demand margin boost. Nat Pet N 45:13-14 Jl 29 '53

Rating

Armed services-industry cooperative study of aircraft fuel rating methods. D. L. Nowell. S A E J 62:63-4 Mr '54

Influence of naphthalene on octane ratings. G. E. Mapstone and J. S. Durham. Inst Pet J 39:276-7 My '53

Standards

Standard for fifth avgas grade approved. Pet Processing 8:1173 Ag '53

Sulfur content

Acid treatment of shale gasoline. G. E. Mapstone and others. Inst Pet J 39:153-81 bibliog(48 ref, p 180-1) Mr '53

Hydrodesulfurization of gasolines over vanadium oxide. V. I. Komarewsky, E. A. Knaggs and C. J. Bragg. bibliog diag Ind & Eng Chem 46:1689-95 Ag '54

Improve your liquid-liquid extraction; Dualayer process. diag Chem Eng 61:144+ My '54

Mexican gasoline desulfurized. H. J. Burns and C. L. Corcuera. il Pet Eng 25:C 17-18 O '53; Same cond. Pet Refiner 32:118 Jl '53

Rapid method for determination of sulfur in gasoline. W. R. Battles. il Pet Eng 25:C47-9+ N '53

Test for mercaptans in gasoline. G. E. Mapstone. Chem & Ind p 1113-14 S 4 '54

Two-layer extraction of mercaptans from petroleum products. flow diag Chem & Eng N 32:1508 Ap 12 '54

Taxation

Estimate of user taxes paid by vehicles in different type and weight groups. E. M. Cope and others. map Pub Roads 28:17-26 Je '54

Ohio votes axle-mile levy; hikes gasoline tax one cent. Nat Pet N 45:84 Jl 15 '53

Testing

Effective storage temperatures of gasoline. D. B. Luten, jr. and K. Hedberg. bibliog diag Ind & Eng Chem 45:2098-106 S '53

Field studies on gasolines and motor oils under severe service conditions. J. G. McNab. bibliog il Am Pet Inst Proc 33(3): 178-83 '53

Proposed method of test for motor and research octane numbers of small samples. diags Am Soc T M Proc 51:329-37 '51

Proposed method of test for motor and research octane numbers of small samples by multi-pipet system. diags Am Soc T M Proc 51:338-42 '51

Transportation

See also
Tank trucks

Volatility

Effect of gasoline volatility on the performance of passenger cars. C. J. Domke and others. bibliog Am Pet Inst Proc 33(3):112-16 '53; Same. Pet Refiner 32:151-3 Jl '53

Fuel volatility. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:599-611 '52

GASOLINE, Natural

Gas-handling capacity due for sharp rise. map Oil & Gas J 52:156 Ja 25 '54

How to predict natural-gasoline content of produced fluids from field separation data. S. G. Miller. Oil & Gas J 52:85+ N 23 '53

Natural gasoline in '53 as the Journal followed its progress. il Oil & Gas J 52:166-7 Ja 25 '54

Volume equivalent of various grades of natural gasoline. W. L. Nelson. Oil & Gas J 52:149-50 Jl 13 '53

Manufacture

Air cooling improves economy of new gasoline plant operation. A. L. Foster. il Pet Eng 25:C5-7 N '53

Arkansas Louisiana gas cuts maintenance costs. F. L. Resen. il Oil & Gas J 52:148+ Ag 17 '53

Five-field natural-gasoline plant. M. R. Lents and W. S. Hudson. flow diags il map Oil & Gas J 52:104-9+ O 19 '53

Fractionation, dehydration innovation in Ambrose gasoline plant. M. F. Wirges. flow diag il diag Pet Eng 25:C 14+ D '53

From California natural gas, liquid fractions by refrigeration. D. E. McFaddin. flow diag Pet Refiner 33:162-4 Ja '54

How to design and evaluate absorbers. R. J. Hull and K. Raymond. Oil & Gas J 52:163 N 9; 339 N 16; 111-12 N 23; 101-2 N 30; 141-2 D 7; 153-4 D 14; 101-2 D 28 '53; 97-8 Ja 4; 123-4 Ja 11; 121-2 Ja 18 '54

Instrumentation of packaged gasoline plants. T. D. Tabbert. diags Instruments 26:1367-9, 1414 S '53

Midyear report; engineering and technological reviews; natural-gas processing-plant expansion projects, U.S. and Canada. Oil & Gas J 52:260-1 Jl 27 '53

Modern process control at East Vealmoor. R. S. White. flow sheet il Oil & Gas J 52:110-12+ O 19 '53

Natural-gasoline and cycle plants in the United States, Jan. 1, 1954. D. S. Colby and L. V. Harvey. U S Bur Mines Information Circ 7700:1-10 '54

Operating the gasoline plant for high ethane and propane recovery. T. D. Tabbert. flow sheet Oil & Gas J 52:98+ S 7 '53

Rectified condensate used as still reflux. A. L. Foster. flow chart il Pet Eng 25:C30-2 Jl '53

Thermodynamic data required for deep extraction. D. L. Katz and others. bibliog(50 titles) Pet Refiner 32:101-4 Ag '53

Prices

Relative prices of various grades of natural gasoline. W. L. Nelson. Oil & Gas J 52:149 S 28 '53

Statistics

Midyear report; engineering and technological reviews, light hydrocarbon's gain smallest since 1949. Oil & Gas J 52:238 Jl 27 '53

Natural-gas-liquids gain below 11-year average. J. C. Casper. Oil & Gas J 52:148-9 Ja 25 '54

Natural-gasoline and cycle plants in the United States, Jan. 1, 1954. D. S. Colby and L. V. Harvey. U S Bur Mines Information Circ 7700:1-10 '54

GASOLINE handling

See also
Gasoline pumps

Safety measures

Tight fills offer safety and speed; connections between truck tanks and service station gasoline storage tanks. I. H. Passel. il diags Nat Pet N 45:37+ O 7 '53

GASOLINE industry

Gas drive pays off because field men helped to plan it; Pan-Am southern corp. il Sales Management 71:110-11 Jl 15 '53

High inventories put pressure on markets; month-by-month review. Oil & Gas J 52: 180+ Ja 25 '54

How petroleum goes to market. J. S. Cross and R. F. King. diags Nat Pet N 45:19-20 Jl 22 '53

Industry is warming up for gasoline fight. il map Nat Pet N 45:33-5 S 2 '53

Oil marketing faces a challenge. A. W. Peake. Nat Pet N 45:16-17 N 18 '53

Oil men joining parking lot fight. Nat Pet N 45:53-4 Je 10 '53

Oil's aim; higher octanes, stock balance. Nat Pet N 45:62-4 D 16 '53

GASOLINE industry—*Continued*

Some marketing problems on the retail level. H. Inness Brown. Am Pet Inst Proc 33(2): 14-19 '53

Years ahead offer the jobber the greatest opportunity he has ever had. B. M. Hynes. Nat Pet N 46:22-3 Ja 20 '54

Advertising

Esso ads aim at motorist education. il Nat Pet N 45:34 Jl 15 '53

Statistics

Motor fuel, 1949-1952. Survey of Cur Bsns 1953 Sup p 173 [supplemented in monthly numbers]

Great Britain

Cheaper petrol. Economist 169:444 N 7 '53

Competition in commercial fuel. Economist 169:125-6 O 10 '53

War at the pump; oil companies' sales campaign for premium petrols. Economist 170: 189-90 Ja 16 '54

GASOLINE pipe lines

Lay jet fuel line in city; are utilities threatened? Eng N 151:56+ D 10 '53

GASOLINE pumps

Gasoline vapor trap proposed for stations. diags Nat Pet N 46:33 Ja 27 '54

GASOLINE research

Acid treatment of shale gasoline. G. E. Mapstone and others. Inst Pet J 39:153-81 bibliog(48 ref, p 180-1) Mr '53

Synthesis, purification, and properties of hydrocarbons of low molecular weight; report on API research project 45. C. E. Boord and W. G. Lovell. bibliog Am Pet Inst Proc 32(1):130-8 '52

GASOLINE service stations

Atlantic gives distributors station aid. Nat Pet N 45:43 Jl 15 '53

Department of justice renews war on Sun station contracts. Nat Pet N 45:13-14 D 16 '53

How prices and credit affect sales. Nat Pet N 45:26+ N 4 '53

It pays to sell stations to dealers. il Nat Pet N 45:64-5 D 16 '53

Motor oil sales ratios skid to record low. H. Ridder. map Nat Pet N 45:29-31+ Je 10 '53

Porcelain enamel and the station. il Nat Pet N 45:54 O 21 '53

Sales ideas from supermarkets. G. L. Savory. il Nat Pet N 45:52 N 18 '53

Station construction tempo rises. il Nat Pet N 45:22-3 S 30 '53

Stations round the world; illustrations. Nat Pet N 45:44-5 S 30 '53

See also

Airplane service stations

Motor truck service stations

Air conditioning

Cooling 'em off for more sales. il Nat Pet N 45:63+ N 18 '53

Automobile accessories

Are dealers too proud to sell TBA? F. C. Sturtevant. Nat Pet N 46:33-4 F 3 '54

Auto lamps are always profitable. il Nat Pet N 45:72-3 S 30 '53

Better service; key to battery sales. Nat Pet N 45:34+ D 23 '53

Beyond the gas pump; auto chemical sales. il Chem W 73:71-2+ S 5 '53

Car service a natural for TBA. il Nat Pet N 45:64-6 Jl 1 '53

Formula for fan belt selling. il Nat Pet N 45:57+ O 7 '53

Helping dealers boost sales of TBA; Associated tires, inc. il Nat Pet N 45:28-9+ D 9 '53

How to wake up station men on TBA sales. F. Breese. il Nat Pet N 45:64-6+ S 2 '53

Is dry-charging catching on? F. C. Sturtevant. il Nat Pet N 45:48+ S 9 '53

It's easy, and profitable, to sell lamps. Nat Pet N 45:34-5 N 11 '53

Jobber shares profits to boost TBA sales. M. Reid. il Nat Pet N 45:24-8 S 23 '53

Loan firms aid station TBA sales. Nat Pet N 46:46 F 10 '54

Motorist's failure to care for car opens door to sales push by dealer. F. C. Sturtevant. Nat Pet N 45:68 Jl 1 '53

Oil industry's emphasis on prices may be hurting dealers' TBA profits. F. C. Sturtevant. Nat Pet N 45:85+ S 2 '53

Planning takes guesswork out of display. J. R. Flannery, jr. il Nat Pet N 45:70-1+ Jl 1 '53

Selling on time boosts TBA volume; Huber oil co. M. Reid. il Nat Pet N 45:71-2+ S 2 '53

Small station has big accessory volume. il Nat Pet N 45:48+ N 4 '53

Stations are losing sales to trucks. F. C. Sturtevant. il Nat Pet N 45:38+ N 18 '53

Stations lead all outlets in TBA sales to motorists. Nat Pet N 46:34-5 Ja 13 '54

Stations spark bid for volume. il Nat Pet N 45:68+ Ag 5 '53

Tire changer helps tire sales. Nat Pet N 45: 31+ D 9 '53

Tire consignment clicks with dealers. Nat Pet N 46:24-5 Ja 20 '54

TBA displays that sell. T. Cunningham. il Nat Pet N 45:78-80 Je 3 '53

TBA men spotlight better ways to sell. F. Sturtevant. Nat Pet N 45:62+ Je 3 '53

12-volt batteries; TBA's problem child. Nat Pet N 45:82-4 Jl 1 '53

What makes a budget plan work? F. C. Sturtevant. il Nat Pet N 45:62-4 Ag 5 '53

Winter breakdowns can be cut. Nat Pet N 45:46 O 21 '53

Construction and design

Design for stopping motorists. il plan Nat Pet N 46:25-6 Ja 13 '54

Designed to serve them all. L. Castle. il Nat Pet N 45:53-5 S 9 '53

New concept in station designing. il Nat Pet N 45:23 Jl 29 '53

Prototype for a chain of service stations. plan Arch Rec 113:165 My '53

Sensible planning for turnpike stations. H. Ridder. plans Nat Pet N 45:30-1+ O 21 '53

Station geared to serve new town; Meenan oil co., Levittown, Pa. il Nat Pet N 45: 16-19 Ag 26 '53

They're stretching out pump islands. il Nat Pet N 45:62-4 S 30 '53

Costs

Cost of operating a service station. Nat Pet N 45:38+ N 4 '53

Employees

Canadian dealers are going back to school. F. C. Sturtevant. il Nat Pet N 45:30-2 Je 24 '53

Fine art of getting and keeping good station men. il Nat Pet N 45:80-1+ Ag 19 '53

OWIU won't press unionizing of stations. Nat Pet N 45:15 N 25 '53

Philadelphia dealers fight back at union. il Nat Pet N 45:19-20 D 9 '53

Philadelphia proposed agreement. Nat Pet N 46:18 Ja 27 '54

Teamsters set sights on stations. Nat Pet N 45:13 O 28 '53

What dealers should know about labor union organizing. Nat Pet N 46:16-17 Ja 27 '54

See also

Garage, parking and service station employes union

Equipment

Lube equipment with sales appeal. H. Ridder. il Nat Pet N 45:53-5+ S 30 '53

Machine whips tank replacement problem. il Nat Pet N 46:34 Ja 20 '54

Oil marketing equipment demand good. C. Boyd, jr. Nat Pet N 45:54+ O 7 '53

Permanent displays build sales. il diags Nat Pet N 46:49-50 F 10 '54

See also

Gasoline pumps

Tire changing machines

Finance

Capital for station expansion programs. il Nat Pet N 45:65-7+ S 30 '53

Hours of business

Does a 24-hour station pay? il Nat Pet N 45:92+ Je 17 '53

There's money to be made after dark. il Nat Pet N 45:4-6 S 30 '53

GASOLINE service stations—*Continued*

Insurance selling

A.&H.-gasoline sales tie-in is going over big in California. Nat Underw 57:6 Ag 6 '53

Leasing

New station lease plan; Richfield oil corp. F. Breese. Nat Pet N 45:52 D 2 '53
Tips on selecting station dealers. O. B. Lloyd. Nat Pet N 45:70-1 S 30 '53

Lighting

How Union Oil lights its service stations. il plan Nat Pet N 45:38-40 N 25 '53
Lighting is a powerful sales tool. C. Boyd, jr. il Nat Pet N 45:30+ S 30 '53

Location

Competition on the Ohio turnpike. plan Nat Pet N 45:40 D 16 '53
Esso gets turnpike stations. Nat Pet N 45:22 S 23 '53
Industry's views on turnpike competition. il Nat Pet N 45:15-19 D 2 '53
Limiting station sites won't halt price wars; editorial. Nat Pet N 45:23-4 Ag 12 '53
Look before leaping for station site. M. O'Brien. il Nat Pet N 45:23-4+ O 7 '53
Off-highway gas slump. Bsns W p50 N 21 '53
Price of turnpike prestige is going up; editorial. Nat Pet N 46:39 Ja 6 '54
Sensible planning for turnpike stations. H. Ridder. plans Nat Pet N 45:30-1+ O 21 '53
16 stations in pairs set for Ohio turnpike. map plan Nat Pet N 46:60 F 24 '54
Toll roads are swinging to brand competition. il Nat Pet N 45:13-15 Ag 26 '53

Lubricating service

How dealers rate as lube salesmen. H. Ridder. Nat Pet N 45:41-2 Jl 22 '53
Jobber's lube contracts boost sales; Felker co. Nat Pet N 46:13-15 Ja 13 '54
Lube equipment with sales appeal. H. Ridder. il Nat Pet N 45:53-5+ S 30 '53
Motor oil ratios are climbing. H. Ridder. il Nat Pet N 45:29-30 O 14 '53
Motor oil ratios at stations show signs of leveling off. maps Nat Pet N 46:21-4 F 3 '54
Proof of dirty oil sells motorists. Nat Pet N 45:30+ N 18 '53
Service contract, new star salesman. H. Ridder. il Nat Pet N 45:14-19 S 23 '53
Stations may sell more, better lube jobs. H. Ridder. Nat Pet N 45:26+ N 18 '53

Multiple pump stations

Big stations thrive on price appeal. il Nat Pet N 45:11-12 S 23 '53
Urich sells 25 of 31 multi-pumps. Nat Pet N 45:24 N 4 '53

Parking service

Parking builds new business; pigeonhole storage units for cars combined with service station. il Nat Pet N 45:19 D 2 '53

Safety measures

Tight fills offer safety and speed; connections between truck tanks and service station gasoline storage tanks. I. H. Passel. il diags Nat Pet N 45:37+ O 7 '53

Self service stations

Self-serve in trouble in Oakland, Calif. F. Breese. Nat Pet N 45:67-8 D 16 '53

Service

Cars and oil; a growing market. H. Ridder. Nat Pet N 45:43+ N 4 '53
Now you can book movies at a service station; Imperial oil, limited. Sales Management 70:129 Ap 15 '53
You can't turn down tire jobs. il Nat Pet N 45:32-3 S 16 '53

See also
Gasoline service stations—Parking service

Side line selling

TBA sales in growing Canadian market. Nat Pet N 45:45-6 Je 3 '53

Signs

Better signs boost station volume. F. Breese. il Nat Pet N 45:47-9+ S 30 '53

GASOLINE storage

Effective storage temperatures of gasoline. D. B. Luten, jr. and K. Hedberg. bibliog diag Ind & Eng Chem 45:2098-106 S '53

GASOLINE tanks

Four-day quickie; versatile earthmover performs all operations in fast-moving storage tank renewal. il Constr Methods 36:60-1 S '54
Machine whips tank replacement problem. il Nat Pet N 46:34 Ja 20 '54
Vapor concentration in gasoline tanks varies with conditions. G. E. Mapstone. Pet Eng 26:C32+ Ja '54

Standards

Underground tank standards set. Nat Pet N 46:29 F 3 '54

GASPÉ peninsula

Gaspé peninsula; its history, resources and development. A. Buisson. bibliog il map Can Min J 75:59-64 Ja '54

GATES, Hydraulic

Discharge characteristics of tainter gates. A. Toch. bibliog diag Am Soc C E Proc 79 [no 295]:1-20 O '53
Dominion Bridge builds pair of monster water gates. il Iron Age 173:72 My 13 '54
Flood control works on the river Welland. il diags Engineer 197:266-9 F 19 '54
Improved lock gate design reduces filling turbulence; Intracoastal waterway near New Orleans. il diag Eng N 151:42+ N 26 '53
Niagara power development uses largest hydraulic regulating gates. il Roads & Eng Constr 92:95+ S '54
Overhaul of a large caisson gate. Engineer 197:476 Mr 26 '54
Precise control for lock 27. B. Frick and S. S. Browne. il diag Westinghouse Eng 13:184-7 N '53
Skimmer wall to catch cooler cooling water; TVA devises novel gate for steam-station intake channels. diags Eng N 152:47-8 Mr 18 '54

See also
Locks (hydraulic engineering)
Valves, Hydraulic

GATT. See Commercial treaties and agreements

GAUDÍ Y CORNET, Antonio, 1852-1926

Strange work of Antonio Gaudi. por Arch Rec 116:46+ Jl '54

GAUSS meters. See Flux meters

GAYLORD, Edward K. 1873-

E. K. Gaylord marks 50 years in business. B. Berger. por Ed & Pub 86:9+ F 28 '53

GEAR cutting

Design for production savings; Spicer mfg. co., division of Dana corp. diags Steel 135:138 S 13 '54
Form cutters for helical gears; reference book sheet. O. Saari. Am Mach 98:131, 133 F 1 '54
Gear cutting savvy in 16 easy steps. R. S. Hildreth. il diags Am Mach 98:99-103 Mr 29 '54
Gear shaving insures close backlash control; Harris-Seybold co. W. Newell. il Iron Age 174:104-6 Jl 8 '54
Gears broached in two steps; while four are being cut, other four are in load-unload positions. il Steel 133:109 N 23 '53
High-speed hobbing proved practical in extensive tests. J. W. Rapp. il Tool Eng 32:77-80 Je '54
High-speed hobbing results in important savings. il Mach 60:176-83 Ap '54
Loading devices speed gear-shaving production. T. S. Gates. il diags Mach 61:163-70 S '54
New look at wormgear hobbing. E. Wildhaber. diags Am Mach 98:149-56 Je 21 '54
Shaper attachment generates bevel gears. H. Murro. diags Am Mach 98:122-4 Mr 1 '54
Tests evaluate Wildhaber formulas. il Am Mach 98:166 Jl 5 '54
Tooling problems when specifying ultrafine pitch gears. L. D. Martin. il diags Tool Eng 32:45-51 Ja '54

GEAR cutting machines

Automatic loader for gear shavers. il Tool Eng 33:117 Ag '54

Deburring; gears are burred and chamfered in high speed machine. il Iron Age 172: 202+ S 10 '53

Farrel-Sykes gear generator redesigned for higher speeds. il Am Mach 98:188 Mr 15 '54

Farrel-Sykes twin-head gear generator. il diags Mach 60:216-17 Mr '54

Fellows gear shaper of six-inch capacity. il Mach 61:219 S '54

Gear hobbing; Michigan ultra-speed gear hobber. il Automobile Eng 43:405-6 O '53

Gear shaver; new underpass machine. il Iron Age 172:172-4 Ag 13 '53; Steel 133:175-6 Ag 17 '53

Gear shaver; two-gear clusters handled rapidly, accurately. il Iron Age 173:178-9 F 4 '54

Gleason hypoid generator cuts gears to 8½-in. diameter. il Am Mach 97:192 N 9 '53

Improved Red Ring horizontal gear-shaving machine. il Am Mach 97:191 N 9 '53; Mach 60:233-4 N '53

Internal spur, helical gears shaved on Red Ring machine. il Am Mach 98:148 Mr 1 '54; Mach 60:221-2 Mr '54

Machine tool buyers' guide; gear cutting and finishing machines. il Steel 133:112-15 sec 2 N 16 '53

Michigan flexible shaver. Steel 134:140 F 1 '54

Michigan work clamp and ejector for gear shaper. diag Engineering 177:89 Ja 15 '54

Morey gear hobber. il Am Mach 98:208 S 13 '54

National gear production machine shaves, inspects, and sorts. il Am Mach 98:138 Ag 30 '54

New devices available for shear-speed gear shaper; pneumatic work-holder and hydraulic ejector. diag Mach 60:233-4 Ja '54

1954 American Machinist production preview; gear cutting and finishing. il Am Mach 98: 156-9 Ja 18 '54

Red Ring horizontal gear-shaving machine. il Mach 60:241 Ap '54; Am Mach 98:199 My 10 '54

Replace with modern machine tools; gear making. Am Mach 97:B20-1 Mid-N '53

Schiess RF gear hobbers capacity ranges to 23 ft. il Am Mach 98:150 Ja 4 '54; Mach 60:218 Ja '54

Shaver adapts to two-gear cluster. il Automotive Ind 110:63 Mr 1 '54

World's largest turbine gear shaving machine; David Brown machine tools, ltd. il Metallurgia 48:305 D '53; Engineering 176: 730 D 4 '53

GEAR grinding machines

How to calculate exact wheel profiles for form grinding helical-gear teeth. O. Saari. diags Am Mach 98:172-5 S 13 '54

GEAR motors. See Gearmotors

GEAR testing machines

Fellows Red Liner instrument for checking fine-pitch gears. il Mach 60:213 F '54

Michigan Sine-Line involute checker for large spur and helical gears. il Mach 60: 239-40 N '53

Michigan speeders for testing transmission gears. il Mach 60:224 D '53

S & F gear tester. il Tool Eng 31:139 D '53

Sonntag special testing machine simulates gear fatigue. il Am Mach 98:169 Ag 16 '54

Universal gear tester inspects all types of fine-pitch gears. il Am Mach 97:178 S 28 '53; Mach 60:241-2 N '53

GEARING

Applying eccentric gearing. P. Grodzinski. diags Machine Design 26:147-51 Jl '54

Elevator gears gone sour? take these measurements for replacements. W. J. Prise and W. Willeke. il diags Power 98:124-5 Jl '54

Facts about modern gears and gear drives. il diags Mill & Factory 54:178-9 My '54

Fatigue strength characteristics of gear teeth; symposium. E. J. Wellauer and others. Automotive Ind 111:64-5+ Jl 1 '54

Gear lubrication; abstract. N. Blamforth. Engineering 176:632 N 13 '53

Gears; nylon inserts in gear teeth reduce backlash. diags Iron Age 174:134-5 S 2 '54

Marine reversing gear. il Engineer 196:678 N 20 '53

Use gear units right, don't abuse them. E. J. Clement. il Mill & Factory 53:123-6 N '53

See also

Chain gear

Power transmission

also subdivision Gearing under special subjects, e.g.

Automobiles

Design

Application and design of noncircular gears. H. E. Peyrebrune. il diags Machine Design 25:185-93 D '53

Calculating design data from sample gears; reference book sheet. A. Bishop. Product Eng 24:215 Jl '53

Designing gears for gas-turbine marine applications; abstract. R. J. Hoard and L. A. Acurso. Marine Eng 59:36-7 Jl '54

Instrument gears; which pressure angle? L. D. Martin. diags Machine Design 26:129-35 F '54

Line-of-action analysis leads to optimum geometry and practical tolerances for precision gear tooth action. A. H. Ahlberg. diags Machine Design 26:121-4 Jl '54

New concept; the slide-sweep ratio aids selection of addendum ratio for most favorable gear-tooth lubrication. W. A. Tuplin. il diags Machine Design 26:125-31 Ag '54

Predicting minimum-inertia power gear trains; data sheet. D. P. Petersen. Machine Design 26:161-7 Je '54

Utilizing irregular gears for inertia control; shaker conveyors. W. W. Sloane. il diag Machine Design 25:193-6 D '53

Failure

Lubrication requirements of gears as seen by a gear engineer. L. J. Collins. il Power 97: 102-3 D '53

M-47 tank gears fail in the field. Am Mach 97:179 D 7 '53

Manufacture

Continuous heat treat setup carburizes precision parts; Aircraft gear division, Dana corp. C. A. Payntor. il Iron Age 173:148-50 My 20 '54

Engineer evaluation of gear manufacturing processes. W. E. Gustin and D. C. Smiley. diags Machine Design 26:302-4+ Ap '54; Excerpts. Tool Eng 32:271-2 Ap '54

Engineering evaluation of gear manufacturing processes. W. E. Gustin and D. C. Smiley. il S A E J 62:60-3 My '54

Flexible electronic controls improve gear lapping operations; Buick motor div. W. G. Patton. il Iron Age 174:112-13 S 23 '54

Gear deburring brush setup matches production pace; Yale & Towne mfg. co. W. J. Maund. il Steel 133:120-2 S 28 '53

Gear steels; heat treating gives them life. J. Obrebski. il diag Steel 133:94-6 Ag 31 '53

Grob corp.'s automatic machine for cold-forming gears and splines. il Am Mach 98:169-70 Je 21 '54

High-speed gear units require close-tolerance machining; Western gear works. J. Morris. il Mach 60:193-6 Mr '54

High speed production of aluminum gears by die casting. E. L. Lewis. il Light Metal Age 11:12-13+ O '53

Induction hardening improves gear life, shortens heat treating cycle. W. L. Walz. il diags Iron Age 174:93-6 Ag 26 '54

Just spin them in salt; selective hardening in a salt bath needs only a simple motorized fixture, is fast, and minimizes gear distortion. C. G. Lee. il Am Mach 98:132-3 My 10 '54

Osborn brushing lathe deburrs gears automatically. il Mach 60:204-5 Mr '54

Osborn gear brushing machine. il Tool Eng 31:114 N '53; Steel 133:98+ O 19 '53; Am Mach 98:146 F 1 '54

Reports of panels on gears and heat treating. L. Higgins and E. J. Borisch. S A E J 62:61-2 Mr '54

Shot peening gears. J. C. Straub. Tool Eng 31:143-4 N '53

Trepanning tool speeds gear production. W. Jellig. il diags Iron Age 172:108-11 O 1 '53

GEARING—Manufacture—*Continued*

Two-step broaching operation produces 280 parts per hour. il Mach 60:202 F '54

Wire brushing; speeds deburring, blending of gear rack edges. il Iron Age 173:166+ Ap 8 '54; Same abr. Steel 134:135 Ap 5 '54

See also
Gear cutting
Gear cutting machines

Measurement

Span measurement of involute gear teeth. J. E. Van Acker. il diags Mach 61:153-62 S; 192-7 O '54; Abstract. Tool Eng 33:87-90 S '54

Tables, calculations, etc.

Contact ratios for undercut gear teeth; reference book sheet. O. Saari. Am Mach 98: 269, 271 Ja 18 '54

Converting decimal fractions into compound gear trains. H. C. Gray. Product Eng 24: 215 Je '53

How to calculate exact wheel profiles for form grinding helical-gear teeth. O. Saari. diags Am Mach 98:172-5 S 13 '54

Minimization of gear-train inertia. E. G. Burgess, jr. diags A S M E Trans 76:493-6 Ap '54

Testing

Automatic selector inspects spur and helical gears. il Am Mach 98:218 Je 7 '54

Choose gear inspection methods to meet product needs. F. Bohle. il diags Iron Age 173:120-5 My 27 '54

Laboratory evaluation of materials for marine propulsion gears. M. R. Gross. bibliog il diags Am Soc T M Proc 51:701-16; Discussion. 716-20 '51

National gear speeder inspection unit loads and tests automatically. il Am Mach 98:136 Ag 30 '54

Optical Gaging Products' gear analyzer. il Tool Eng 32:112 Ja '54

Red Ring gear gaging, sorting machine first of automatic line. diag Am Mach 98:170 Jl 19 '54

Simplicity emphasized in styling of gear comparator. il Machine Design 26:154-5 Je '54

See also
Gear testing machines

GEARING, Bevel

Accuracy of helical bevel gears; abstract. W. Krumme. Tool Eng 33:124 Ag '54

Shaper attachment generates bevel gears. H. Murro. diags Am Mach 98:122-4 Mr 1 '54

Trepanning tool speeds gear production. W. Jellig. il diags Iron Age 172:108-11 O 1 '53

GEARING, Epicyclic. See Gearing, Planetary

GEARING, Helical. See Gearing, Spiral

GEARING, Hypoid

Commercial vehicle synchromesh gearbox and a railcar hypoid transmission. il Engineer 197:280-1 F 19 '54

GEARING, Planetary

Leyland epicyclic gearbox without clutch pedal. il Engineer 196:672 N 20 '53; Engineering 176:694 N 27 '53

Planetary booster gears. il Machine Design 26:115 Je '54

Planetary gear attachment speeds lathe drilling. H. Gifford. diag Am Mach 97:164 N 9 '53

Reversing reduction epicyclic gears for marine use. il diags Engineer 197:183-4 Ja 29 '54; Engineering 177:185 F 5 '54

GEARING, Plastic

Tooling for injection molded nylon gears. L. D. Martin. il diags Tool Eng 33:61-6 Jl '54

GEARING, Spiral

Application of helical gear pumps. G. H. Zimmer. il diags Can Chem Process 38:52+ S '54

Form cutters for helical gears; reference book sheet. O. Saari. Am Mach 98:131, 133 F 1 '54

Gear shaving insures close backlash control; Harris-Seybold co. W. Newell. il Iron Age 174:104-6 Jl 8 '54

Graphical method speeds design of right-angle helical gears; data sheet. D. M. Marshall. diags Machine Design 26:175-7 Ag '54

Homemade checker bridges gap; lead comparator for helical gears is fabricated in the tool-room. F. M. Butrick, jr. diags Steel 133:91 D 28 '53

How to calculate exact wheel profiles for form grinding helical-gear teeth. O. Saari. diags Am Mach 98:172-5 S 13 '54

Span measurement of involute gear teeth. J. E. Van Acker. il diags Mach 61:153-62 S; 192-7 O '54

GEARING, Spur

Chart simplifies design of gear pumps; data sheet. R. J. Auman. diag Machine Design 26:185-7 Mr '54

Efficiency of gear trains. H. Clausen. diags Engineering 177:366-7 Mr 19 '54

Gear shaving insures close backlash control; Harris-Seybold co. W. Newell. il Iron Age 174:104-6 Jl 8 '54

Span measurement of involute gear teeth. J. E. Van Acker. il diags Mach 61:153-62 S; 192-7 O '54

This automatic turning gear slowly feels its way until gears mesh. S. D. Phillips. il diags Power 98:123+ Ap '54

GEARING, Worm

Efficiency of gear trains. H. Clausen. diags Engineering 177:366-7 Mr 19 '54

New look at wormgear hobbing. E. Wildhaber. diags Am Mach 98:149-56 Je 21 '54

Proposal for a standard design for general industrial coarse-pitch cylindrical worm gearing. F. G. East. diag A S M E Trans 76:163-8 F '54; Same. Machine Design 25:248-50+ Jl '53; Discussion. A S M E Trans 76:168-72 F '54

Selecting and housing worm gearing. J. E. Gutzwiller. il Iron & Steel Eng 31:138+ Ap '54

Simplicity of worm gearing. W. A. Tuplin. diags Engineer 196:622-3 N 13 '53

Tests evaluate Wildhaber formulas. il Am Mach 98:166 Jl 5 '54

Worm gearing lubrication. Automobile Eng 44:325 Ag '54

GEARMOTORS

Higgs Motors low-speed geared-motor units. il Engineering 176:320 S 4 '53

Philadelphia floating gearmotor. il Blast F & Steel Pl 42:1094-5 S '54

Use gear units right, don't abuse them. E. J. Clement. il Mill & Factory 53:123-6 N '53

GEBAUER, Charles

Aerosol pioneer. Chem W 75:66+ Ag 7 '54

GEIGER, Marlin George, 1897-

Today's chemical president a 3-D man. pors Chem W 74:22-4+ Ap 17 '54

GEIGER-MÜLLER counters

Absolute beta-counting of gases containing P-32 using end-window Geiger-Müller tubes. F. D. Rosen and W. Davis, jr. bibliog diags R Sci Instr 24:349-54 My '53

Adaptation of a Geiger-counter X-ray diffractometer for high-temperature investigations. P. Chiotti. bibliog il diags R Sci Instr 25:683-8 Jl '54

Contact bush for use in lead castles with type M6 Geiger-Müller tubes. L. W. Blow. diags J Sci Instr 30:57-8 F '53

Design and operation of a precision Geiger-Müller counter X-ray diffraction spectrometer. R. C. Coyle and others. bibliog il diag J Sci Instr 30:151-5 My '53

Discharge mechanism in Geiger counters. S. A. Korff. R Sci Instr 24:1071-2 N '53

Dynamics of corona discharge between cylindrical electrodes. L. Colli and others. il diag J Ap Phys 25:429-35 Ap '54

Efficient Geiger counter for use with molybdenum Kα X-rays. G. K. Williamson and R. E. Smallman. diag J Sci Instr 30:486 D '53

Electron transit times in Geiger counters. J. R. Heirtzler. bibliog diag R Sci Instr 25: 243-5 Mr '54

Elimination of dead-time corrections in monitored Geiger-counter X-ray measurements. J. N. Eastabrook and J. W. Hughes. bibliog diags J Sci Instr 30:317-20 S '53

Error in the correction formula for the dead time of a Geiger-Müller counter. S. J. Wyard. diags J Sci Instr 30:389 O '53

Fluoroscope and Geiger counter for measuring ultraviolet absorption of chromatograms. T. D. Price and P. B. Hudson. bibliog(28 ref) il Anal Chem 26:1127-32 Jl '54

GEIGER-MÜLLER counters—*Continued*

γ-Ray detector with low efficiency for fast neutrons. G. R. Bishop and others. diag R Sci Instr 24:395-6 My '53

Geiger counter locates hidden pull box. F. H. MacGinnis. il Elec World 140:169+ Jl 13 '53

Geiger counter X-ray crystal spectrometer. P. J. A. McKeown and A. R. Ubbelohde. bibliog il diags J Sci Instr 31:321-6 S '54

Increasing range of Geiger tubes by pulsed operation. Electronics 26:206+ O '53

Inexpensive X-ray detectors. U. W. Arndt. J Sci Instr 31:192-3 My '54

Large thin-wall Geiger counter. T. T. Sugihara and others. diags R Sci Instr 24:511-12 Jl '53

Monitoring a Geiger-counter spectrometer beam. E. Gillam and D. G. Cole. diags J Sci Instr 30:429-30 N '53

Quantitative analysis of powder mixtures with the Geiger-counter spectrometer. H. P. Klug. bibliog Anal Chem 25:704-8 My '53

Radiation monitor protects lab workers. R. H. Delgado. il diags Electronics 26:150-3 N '53

Recent developments in the production of halogen-quenched Geiger-Müller counting tubes. L. B. Clark. bibliog il R Sci Instr 24:641-3 Ag '53

Response of a pulsed Geiger tube. H. B. Rosenstock. bibliog J Ap Phys 25:275-82 Mr '54

Simple mercury cup connexion for Geiger counters. A. H. Ward. diag J Sci Instr 31:145 Ap '54

Survey meters and electroscopes for monitoring radioactivity in water. W. J. Lacy and B. Kahn. il Am Water Works Assn J 46:55-60 Ja '54

Use of precision X-ray Geiger-counter spectrometers. G. K. Williamson and R. E. Smallman. J Sci Instr 30:341 S '53

Use of quenching circuits with Geiger-Müller counters. R. L. Gordon. J Sci Instr 31:306 Ag '54

GELATIN

Accent on gelatin; abstract. J. W. Williams. Chem & Eng N 32:2576 Je 28 '54

Acid and alkaline hydrolysis of gelatin. R. J. Croome. bibliog J Ap Chem 3:280-6 Je '53

Biological value of gelatin. A. E. Bender and others. bibliog Chem & Ind p799 Jl 25 '53

Gelatine; preparation and properties. A. E. Williams. bibliog il diag Chem Age (Lond) 70:835-9 Ap 10 '54

Low-temperature drying of gelatin sponge. M. M. Harmon. Chem Eng Prog 49:sup20+ My '53

Recent advances in gelatin research. A. G. Ward. bibliog(35 ref) Chem & Ind p502-5 My 1 '54

Use of gelatin models in structural analysis. J. D. C. Crisp. bibliog il diags Inst Mech Eng Proc (B) 1B no 12:580-8; Discussion. 589-604, pl 5-6 '52-53

Variation of the viscosity of gelatin sols with temperature. R. J. Croome. bibliog J Ap Chem 3:330-4 Jl '53

Viscosity of gelatin solutions; abstract. W. M. Ames. Chem & Ind p567-9 My 15 '54

Analysis

Constitution of gelatin; separation and estimation of peptides in partial hydrolysates. W. A. Schroeder and others. bibliog Am Chem Soc J 76:3556-64 Jl 5 '54

GELATINE and glue research association, British. See British gelatine and glue research association

GELATION

Kinetics of protein denaturation; the viscosity and gelation of urea solutions of ovalbumin. H. K. Frensdorff, M. T. Watson and W. Kauzmann. bibliog diags Am Chem Soc J 75:5157-66 N 5 '53

GELLING agents (bentones). See Bentones

GELS. See Colloids

GEMS

See also
Diamonds

GEMS, Artificial

Hard-to-get help; bid for relief by Linde air products; importer seeking to forestall action by Tariff commission to cut off flow of German-made synthetic gems into the U.S. Chem W 74:7 Ja 2 '54

GENERAL agents and managers conference. See National association of life underwriters—General agents and managers conference

GENERAL agreement on tariffs and trade. See Commercial treaties and agreements

GENERAL aniline and film corporation

Close to integration. Chem W 73:14-15 N 7 '53

Continuity compromise. Chem W 72:14-15 My 30 '53

GAF-GDC sale still bogged down. Chem & Eng N 31:4980+ N 30 '53

General Dyestuff, General Aniline merger given GAF approval. Oil Paint & Drug Rep 166:4 Jl 5 '54

Interhandel again bids for General Aniline trial. Oil Paint & Drug Rep 165:4+ My 17 '54

Interhandel case dismissed for lack of Swiss documents. Oil Paint & Drug Rep 164:3 N 23 '53

Interhandel to dispose of GAF stock in the U.S. Chem & Eng N 31:4210 O 12 '53

Interhandel urges return of GAF; Justice summons stockholders. Chem & Eng N 31:3552 Ag 31 '53

Out-of-court plan to regain the GAF shares. Chem W 73:23 Ag 29 '53

GENERAL bronze corporation

New product lines brighten prospects. Barron's 33:15-16 S 7 '53

GENERAL dyestuff corporation

Close to integration. Chem W 73:14-15 N 7 '53

General Dyestuff, General Aniline merger given GAF approval. Oil Paint & Drug Rep 166:4 Jl 5 '54

GENERAL dynamics corporation

Companies with high earnings; with comparative balance sheet items. Mag of Wall St 93:254 N 28 '53

General Dynamics; its profits are from the air and under the sea. T. C. Pryor. Barron's 34:19-22 Ja 18 '54

GENERAL electric company

Combing Communists out of GE. Bsns W p29-30 D 19 '53

Consumers group scores GE for advertisement advocating development of Niagara power by private utilities. Elec World 141:77 Mr 8 '54

Dissecting five key companies. G. L. Merton. Mag of Wall St 93:251-2 N 28 '53

Electronic headquarters at Syracuse celebrates GE's 75th anniversary. il Tele-Tech 12:98-102+ N '53

GE tailors a plant project for simpler managing. il Bsns W p 120-2+ N 7 '53

Refresher in physics; GE's Science fellowship program. il Elec World News ed 140:16-18 Ag 31 '53

Rosy look for GE. Bsns W p 100+ D 26 '53

Seventy-five years of research. C. G. Suits. il Science 118:451-6 O 23 '53

Stocks to hold for dollar averaging; with comparative balance sheet items. Mag of Wall St 93:25 O 3 '53

GENERAL excavator company

Marion power shovel co. now controls the Osgood co. and the General excavator co. Roads & Eng Constr 92:68 Jl '54

GENERAL federation of women's clubs

Club federation's forum contest. R. Fichtel. Banking 46:126 N '53

GENERAL foods corporation

Three sound stocks with dependable dividends. Mag of Wall St 92:729+ S 19 '53

GENERAL mills, inc.

Earnings. Comm & Fin Chr 179:204 Ja 18 '54

Sales reach all-time high. Comm & Fin Chr 178:385-6 Ag 3 '53

When a small company joins a giant. Bsns W p43-4 S 19 '53

GENERAL motors acceptance corporation

Debentures offered. Comm & Fin Chr 178:1056-7 S 21 '53

Lenders have to borrow. Bsns W p 110+ S 5 '53

GENERAL motors corporation
Billion dollar GM expansion program. H. H. Curtice. Automotive Ind 110:55+ F 1 '54
Causes and lessons of the GM fire. D. G. Baird. il Mill & Factory 53:108-9 N '53
Debentures sold. Comm & Fin Chr 178:2305 D 14 '53
Dissecting five key companies. G. L. Merton. Mag of Wall St 93:252 N 28 '53
Earthmoving; everyone gets in the act; GM's purchase of Euclid Road Machinery. il Bsns W p56+ Ag 15 '53
GM buys Kaiser's Willow Run factory. Aviation W 59:15 N 16 '53
GM command thrives on committee rule. R. D. Raddant. Iron Age 174:96+ S 9 '54
General Motors gives details on $1-billion spending plan. Eng N 152:58-9 F 11 '54
GM, new challenger in earthmoving. R. D. Raddant. il Iron Age 174:84+ S 23 '54
General Motors optimistic. H. H. Curtice. Comm & Fin Chr 179:262 Ja 21 '54
GM plans record financing; will offer $300-million new bonds. Bsns W p 146+ N 21 '53
GM puts billion in prosperity pot; abstracts. H. H. Curtice. Iron Age 173:58 Ja 28 '54; Steel 134:51 Ja 25 '54
GM sales in 1953 soared to $10 billion peak; net earnings in third place. Automotive Ind 110:34 Ap 1 '54
GM throws $1 billion into the pot. il Eng N 152:100+ Ja 28 '54
GM's fire. C. W. Boyce. il plan Factory Management 111:114-21 N '53
Monopoly; Ford, GM may face FTC probe of alleged unfair practices. Iron Age 173:107 Ap 8 '54
Willow Run sold. Bsns W p29 N 14 '53

Fisher body division

Fisher body story. il Steel 133:57-8 N 23 '53

GENERAL package corporation
Security I like best. R. B. Williams. Comm & Fin Chr 179:450 Ja 28 '54

GENERAL precision equipment corporation
Preferred stock offering underwritten. Comm & Fin Chr 178:1876 N 16 '53

GENERAL public utilities company
Five public utility candidates for higher dividends; with comparative balance sheet items. Mag of Wall St 93:380 D 26 '53

GENERAL services administration. See United States—General services administration

GENERAL telephone corporation
Can General Telephone continue its growth? R. Carleson. Mag of Wall St 93:329+ D 12 '53
Independents take a bigger slice. Bsns W p 178+ N 7 '53
Sharp growth in revenues, earnings continuing. Barron's 33:22-3 N 30 '53
Stock offered. Comm & Fin Chr 178:666 Ag 24 '53

GENERAL tire and rubber company
1953 sales of $205,371,098 set new General Tire record. Rubber Age 74:957 Mr '54

GENERATORS, Electric. See Electric generators

GENETICS
Genetics of the Dunkers. H. B. Glass. il Sci Am 189:76-81 Ag '53
Sex in bacteria; genetic studies, 1945-1952. J. Lederberg and E. L. Tatum. bibliog il diag Science 118:169-75 Ag 14 '53

GENTIOBIOSE
Radioisotopic dilution analysis for D-glucose and gentiobiose in hydrol. J. C. Sowden and A. S. Spriggs. bibliog Am Chem Soc J 76:3539-41 Jl 5 '54

GEOCHEMISTRY
Abundance and distribution of the chemical elements in the earth's crust. M. Fleischer. bibliog(27 titles) J Chem Educ 31:446-55 S '54
Chlorine in igneous rocks. P. K. Kuroda and E. B. Sandell. bibliog Geol Soc Bul 64:879-96 Ag '53
Diagrams relating the periodic table to geochemistry. V. P. Sokoloff. bibliog J Chem Educ 31:15-17 Ja '54
Elementary composition of the earth's crust. I. Asimov. J Chem Educ 31:70-2 F '54
Geochemical table of the elements for 1953. J. Green. 2 fold pls Geol Soc Bul 64:1001-12 bibliog(p 1009-12) S '53
Geology and geochemistry of base metal deposits. H. D. B. Wilson. map diags Econ Geol 48:370-407 bibliog(p406-7) Ag '53
Great analysis; Composition of the earth's crust. A. R. Martin. J Chem Educ 30:566-8 N '53
Relation of pH and oxidation potential to sedimentary iron mineral formation. N. K. Huber and R. M. Garrels. bibliog diags Econ Geol 48:337-57 Ag '53
Stability of jadeite. L. H. Adams. Am J Sci 251:299-308 Ap '53

See also
Ore deposits
Rocks—Analysis
Soils

GEOGRAPHICAL names. See Names, Geographical

GEOGRAPHY

Bibliography

Selected list of periodical literature on topics related to Canadian geography for the period, 1930-1939. (Bibliog. ser. no. 11) 97p pa 50c Dept. of mines and technical surveys, Geographical branch, Ottawa, Canada '54

GEOLOGICAL age. See Geological time

GEOLOGICAL chemistry. See Geochemistry

GEOLOGICAL society of America
Joint meeting with Mineralogical society of America and associated organizations, Toronto. Chem & Eng N 31:4874+ N 23 '53; Same cond. Can Chem Process 37:66 D '53

GEOLOGICAL surveys
Geological survey of Werner Lake area. H. D. Carlson. Can Min J 74:77 N '53
Ontario geological surveys. Can Min J 74:55 D '53

GEOLOGICAL time
Age of Bliss sandstone, New Mexico. R. H. Flower. Am Assn Pet Geologists Bul 37:2054-5 Ag '53
Branching ratio of K^{40}. G. J. Wasserburg and R. J. Hayden. bibliog Phys R 93:645 F 1 '54
Dating with carbon 14. J. L. Kulp. bibliog J Chem Educ 30:432-5 S '53
Definition of time line separating a glacial and inter-glacial age in the pleistocene. J. C. Frye and A. B. Leonard. diags Am Assn Pet Geologists Bul 37:2581-6 N '53
Lead isotope method of age determination. D. W. Allan and others. Science 118:486-8 O 23 '53
Radiation damage in zircon; a possible age method. P. M. Hurley and H. W. Fairbairn. bibliog Geol Soc Bul 64:659-73 Je '53
Radiocarbon dating extended to 44,000 years. Chem & Eng N 32:586 F 15 '54
Time-stratigraphy and the miocene epoch. M. F. Glaessner. Geol Soc Bul 64:647-58 bibliog(p657-8) Je '53
Use of ion exchange columns in mineral analysis for age determination. L. T. Aldrich and others. bibliog diag Am J Sci 251:377-87 My '53
Utilization of radioactivity in the age determination of minerals. C. Asgian. bibliog diags Can Min J 75:57-61 Mr '54

GEOLOGISTS

Directories

Directory of Missouri geologists. O. R. Grawe, comp. (General ser. v. 46, no. 1, supp) 15p Missouri school of mines and metallurgy, Rolla, Mo. '54

Missouri

Directory of Missouri geologists. O. R. Grawe, comp. (General ser. v. 46, no. 1, supp) 15p Missouri school of mines and metallurgy, Rolla, Mo. '54

GEOLOGISTS, Petroleum
Contributions of the petroleum geologist. M. J. Davis. bibliog Am Assn Pet Geologists Bul 37:1545-52 Jl '53

GEOLOGY

Geologic importance of variations in stable isotopic abundances. M. L. Jensen. bibliog (27 titles) Econ Geol 48:161-76 My '53

See also

- Dip and strike, Determination of
- Drift
- Faults (geology)
- Folds (geology)
- Gas, Natural—Geology
- Geochemistry
- Geophysics
- Glacial geology
- Landslides
- Metamorphism
- Mines and mineral resources
- Ocean
- Ore deposits
- Paleontology
- Petroleum—Geology
- Rocks
- Salt domes
- Sand
- Sedimentation and deposition
- Soils
- Volcanoes
- Water, Underground

Bibliography

Bibliography and index of geology exclusive of North America. M. Siegrist and others. v 18 599p Geological society of America, 419 W. 117th st, New York 27 '54

Alaska

Origin of Alaska silts. S. Taber. bibliog map Am J Sci 251:321-36 My '53

Alberta

Dolomitic mottling in Palliser (Devonian) limestone, Banff and Jasper national parks, Alberta. F. W. Beales. bibliog il Am Assn Pet Geologists Bul 37:2281-93 O '53

Mississippian cyclic sedimentation, Sunwapta Pass area, Alberta, Canada. A. C. Spreng. bibliog il maps diags Am Assn Pet Geologists Bul 37:665-89 Ap '53

Arizona

Sedimentary rocks at Cananea, Sonora, Mexico, and tentative correlation with the sections at Bisbee and the Swisshelm mountains, Arizona. R. B. Mulchay and J. R. Velasco. bibliog diag Min Eng 6:Trans 628-32 Je '54

Arkansas

Morrow group and lower Atoka formation of Arkansas. L. G. Henbest. bibliog diag Am Assn Pet Geologists Bul 37:1935-53 Ag '53

Canada

Correlation of the Jurassic formations of Canada. H. Frebold. map Geol Soc Bul 64:1229-46, pl 1 bibliog(105 titles, p 1242-5) O '53

Correlation of the triassic formations of Canada. F. H. McLearn. maps Geol Soc Bul 64:1205-27, pl 1 bibliog(130 titles, p 1224-7) O '53

Probable Wisconsin substages and late-Wisconsin events in northeastern United States and southeastern Canada. R. F. Flint. map Geol Soc Bul 64:897-919, pl 1-3 bibliog(p917-19) Ag '53

Bibliography

Canadian geological abstracts. Can Min J 74:88+ D '53; 75:82+ Mr; 102+ Je '54

Canadian Arctic archipelago

Parry Islands folded belt in the Canadian Arctic archipelago. Y. O. Fortier and R. Thorsteinsson. bibliog map Am J Sci 251:259-67, pl 1-2 Ap '53

Chile

Geology and ground-water conditions in the lower valley of the Rio Elqui of Chile. P. H. Jones. bibliog il map diag Econ Geol 48:457-91 S '53

Colombia

Vertebrate paleontology and continental stratigraphy in Colombia. R. A. Stirton. bibliog maps diags Geol Soc Bul 64:603-22 Je '53

Colorado

Definition of a mineral belt in south central Colorado. J. W. Gabelman. bibliog(27 titles) maps Econ Geol 48:177-210 My '53

Dotsero and Manitou formations, White River plateau, Colorado, with special reference to Clinetop algal limestone member of Dotsero formation. N. W. Bass and S. A. Northrop. bibliog il maps diags Am Assn Pet Geologists Bul 37:889-912 My '53

Geology of the Golden-Green Mountain area, Jefferson county, Colorado. S. O. Reichert. bibliog(34 titles) il Colorado School of Mines [Golden] Quarterly v 49 no 1:1-96, pl 1-13 [in pocket] '54 (pa $1.50)

Paleozoic history of southeastern Colorado. J. C. Maher. bibliog maps Am Assn Pet Geologists Bul 37:2475-89 N '53

Permian and Pennsylvanian rocks of southeastern Colorado. J. C. Maher. bibliog maps diags Am Assn Pet Geologists Bul 37:913-39 My '53

Tectonic history of Denver basin. A. W. McCoy. bibliog maps Am Assn Pet Geologists Bul 37:1873-93 Ag '53

Ecuador

Oil explorations in the Oriente of Ecuador, 1938-1950. H. J. Tschopp. bibliog maps diags Am Assn Pet Geologists Bul 37:2303-47 O '53

Eniwetok island

Drilling on Eniwetok atoll, Marshall islands. H. S. Ladd and others. bibliog il maps diags Am Assn Pet Geologists Bul 37:2257-80 O '53

France

Triassic diapiric salt structures, southwestern Aquitaine basin, France. J. Dupouy-Camet. bibliog maps diags Am Assn Pet Geologists Bul 37:2348-88 O '53

Gaspé peninsula

Outline of the geology of Gaspé peninsula. H. W. McGerrigle. bibliog il map Can Min J 75:57-63 Ag '54

Guadalupe Island

Geology of Guadalupe Island, Mexico. C. W. Johnson. maps Am J Sci 251:231-6, pl 1-2 Mr '53

Illinois

Significance of pleistocene deposits in the groundwater resources of Illinois. J. W. Foster. map diag Econ Geol 48:568-73 N '53

India

Origin of charnockitic assemblages of east Manbhum, Bihar. S. Sen. bibliog Am J Sci 251:388-92 My '53

Indiana

Petrology of laminated limestones in Indiana. J. B. Patton. Roads & Sts 97:85 Ag '54

Italy

Italian oil and gas resources. F. Reeves. maps diags Am Assn Pet Geologists Bul 37:601-53 bibliog(p652-3) Ap '53

Japan

Petrochemical studies on the alkalic rocks of the Morotu district, Sakhalin. K. Yagi. maps diags Geol Soc Bul 64:769-809, pl 1-4 bibliog(p807-9) Jl '53

Kansas

Tectonic history of Denver basin. A. W. McCoy. bibliog maps Am Assn Pet Geologists Bul 37:1873-93 Ag '53

Louisiana

Salt structure of Jefferson Island salt dome, Iberia and Vermilion parishes, Louisiana. R. Balk. bibliog il maps diags Am Assn Pet Geologists Bul 37:2455-74 N '53

Mexico

Sedimentary rocks at Cananea, Sonora, Mexico, and tentative correlation with the sections at Bisbee and the Swisshelm mountains, Arizona. R. B. Mulchay and J. R. Velasco. bibliog diag Min Eng 6:Trans 628-32 Je '54

Nebraska

Tectonic history of Denver basin. A. W. McCoy. bibliog maps Am Assn Pet Geologists Bul 37:1873-93 Ag '53

New Brunswick

Carboniferous stratigraphy and structural geology of New Brunswick, Canada. W. C. Gussow. maps diags Am Assn Pet Geologists Bul 37:1713-816 bibliog(p 1814-16) Jl '53

GEOLOGY—*Continued*

New Hampshire

Relation of gravity anomalies to the geology of central Vermont and New Hampshire. R. J. Bean. bibliog maps diags Geol Soc Bul 64:509-37, pl 1-3 My '53

New Mexico

Age of Bliss sandstone, New Mexico. R. H. Flower. Am Assn Pet Geologists Bul 37: 2054-5 Ag '53

Cenozoic fill and evaporate solution in the Delaware basin, Texas and New Mexico. V. C. Maley and R. M. Huffington. map Geol Soc Bul 64:539-45, pl 1-3 My '53

Pennsylvanian and related sediments of upper Pecos valley, New Mexico. R. Sidwell and G. F. Warn. bibliog il maps diags Am Assn Pet Geologists Bul 37:975-1013 My '53

Tohatchi formation of Mesaverde group, western San Juan basin, New Mexico. J. E. Allen. Am Assn Pet Geologists Bul 37:2569-71 N '53

Upper cretaceous rocks of Galisteo-Tonque area, north-central New Mexico. C. E. Stearns. bibliog il map diag Am Assn Pet Geologists Bul 37:961-74 My '53

Upper Ordovician and Silurian stratigraphy of Sacramento mountains, Otero county, New Mexico. L. C. Pray. bibliog il maps diags Am Assn Pet Geologists Bul 37:1894-918 Ag '53

New York (state)

Grenville series in the northwest Adirondack mountains, N.Y. A. E. J. Engel and C. G. Engel. maps plan diags Geol Soc Bul 64:1013-97, pl 1-2 bibliog(p 1045-7, 1095-7) S '53

Structure of graywacke areas and Taconic range, east of Troy, N.Y. R. Balk. maps diags Geol Soc Bul 64:811-64, pl 1-12 bibliog(p863-4) Jl '53

Northwest Territories, Canada

Glaciation of central Keewatin, Northwest Territories, Canada. J. B. Bird. bibliog maps Am J Sci 251:215-30 Mr '53

Shear zone systems of the Yellowknife greenstone belt. R. W. Boyle. bibliog il maps diags Can Min J 75:59-64 Je; 69-75 Jl '54

See also
Geology—Canadian
Arctic archipelago

Ohio

Sangamon soil and early Wisconsin loesses at Cleveland. G. W. White. bibliog diag Am J Sci 251:362-8 My '53

Oklahoma

Cave sandstones in Cotter dolomite, northeastern Oklahoma. C. E. Gore, jr. Am Assn Pet Geologists Bul 37:2186-8 S '53

Hilltop formation, upper Pennsylvanian, Seminole county, Oklahoma. W. F. Tanner. map diags Am Assn Pet Geologists Bul 37:2046-50 Ag '53

Krebs and Cabaniss groups, of Pennsylvanian age, in Oklahoma. M. C. Oakes. diag Am Assn Pet Geologists Bul 37:1523-6 Je '53

Ouachita chert facies, southeastern Oklahoma. B. H. Harlton. il map diag Am Assn Pet Geologists Bul 37:778-96 Ap '53

Ontario

Engineering study of glacial deposits at Steep Rock lake, Ontario, Canada. R. F. Legget and M. W. Bartley. bibliog il maps Econ Geol 48:513-40 N '53

Silurian reefs of James Bay lowland, Ontario. W. C. Gussow. diags Am Assn Pet Geologists Bul 37:2422-4 O '53

Pennsylvania

Petrology of granophyre in diabase near Dillsburg, Pa. P. E. Hotz. bibliog maps diags Geol Soc Bul 64:675-704 Je '53

Peru

La Brea-Pariñas oil field, northwestern Peru. R. B. Travis. bibliog maps diags Am Assn Pet Geologists Bul 37:2093-118 S '53

Upper paleozoic of Peru. N. D. Newell and others. (Memoir 58) 276p, 44pls Geological soc. of America, 419 W. 117th st, New York 27 '53 ($4)

Rocky Mountain region

Regional stratigraphic analysis of upper cretaceous rocks of Rocky Mountain region. W. C. Krumbein and F. G. Nagel. bibliog maps Am Assn Pet Geologists Bul 37:940-60 My '53

Saskatchewan

Preliminary description of the geology and mineralogy of the Gunnar deposit, Saskatchewan. J. A. Fraser and S. C. Robertson. maps Can Min J 75:59-62 Jl '54

South Dakota

Black Hills mineral atlas, South Dakota. 3pls U S Bur Mines Information Circ 7688:1-123 bibliog(68 titles, p 120-3) '54 (to be cont)

Pleistocene geology of part of central South Dakota. D. R. Crandell. bibliog maps diags Geol Soc Bul 64:581-98, pl 1 My '53

Sweden

Tracing of glacial boulders as an aid to ore prospecting in Sweden. E. Grip. bibliog maps Econ Geol 48:715-25 D '53

Tennessee

Wilcox deposits in explosion craters, Stewart county, Tenn. and their relations to origin and age of Wells Creek basin structure. C. W. Wilson, jr. bibliog maps diag Geol Soc Bul 64:753-68, pl 1 Jl '53

Texas

Cenozoic fill and evaporate solution in the Delaware basin, Texas and New Mexico. V. C. Maley and R. M. Huffington. map Geol Soc Bul 64:539-45, pl 1-3 My '53

Petrography and petrology of Scurry reef, Scurry county, Texas. R. Bergenback and R. T. Terriere. il maps Am Assn Pet Geologists Bul 37:1014-29 My '53

Sedimentation rates in Texas estuaries and lagoons. F. P. Shepard. maps Am Assn Pet Geologists Bul 37:1919-34 Ag '53

Upper Ordovician of central Texas. V. E. Barnes and others. bibliog maps Am Assn Pet Geologists Bul 37:1030-43 My '53

Transvaal

Witswatersrand geology unique. B. B. Brock. diag Can Min J 75:81-2 Ap '54

Turkey

Major companies examine oil prospects in southeastern Turkey. C. E. Tasman. il maps diag Oil & Gas J 52:88+ N 2 '53

United States

Probable Wisconsin substages and late-Wisconsin events in northeastern United States and southeastern Canada. R. F. Flint. map Geol Soc Bul 64:897-919, pl 1-3 bibliog(p917-19) Ag '53

Utah

Granitization and hydrothermal alteration at Bingham, Utah. B. Stringham. bibliog map diags Geol Soc Bul 64:945-91, pl 1-5 Ag '53

Marlstone; a misnomer as used in Uinta basin, Utah. M. D. Picard. Am Assn Pet Geologists Bul 37:1075-7 My '53

Source direction of Ferron sandstone in Utah. P. J. Katich, jr. bibliog maps Am Assn Pet Geologists Bul 37:858-61 Ap '53

Venezuela

Curvature of low-angle faults at Las Mercedes, Venezuela. M. Kamen-Kaye. diags Am Assn Pet Geologists Bul 37:2178-82 S '53

Geology of Venezuela and its oil fields. E. Mencher and others. bibliog maps diags Am Assn Pet Geologists Bul 37:690-777 Ap '53

Stratigraphic studies, Greater Oficina, Venezuela. D. A. Probst. maps diags Am Assn Pet Geologists Bul 37:2073-92 S '53

GEOLOGY—*Continued*

Vermont

Relation of gravity anomalies to the geology of central Vermont and New Hampshire. R. J. Bean. bibliog maps diags Geol Soc Bul 64:509-37, pl 1-3 My '53

Western states

Continental framework and petroleum exploration in western United States. W. W. Mallory. bibliog maps Am Assn Pet Geologists Bul 37:2490-7 N '53

Wyoming

Composition of crude oil and its relation to stratigraphy in Wyoming. J. M. Hunt. bibliog map Am Assn Pet Geologists Bul 37:1837-72 Ag '53

Northwest Lake Creek area, Hot Springs county, Wyo. T. H. Green and C. W. Ziemer. map diag Oil & Gas J 52:178 Jl 13 '53

Tectonic history of Denver basin. A. W. McCoy. bibliog maps Am Assn Pet Geologists Bul 37:1873-93 Ag '53

GEOLOGY, Mining. See Mining geology

GEOLOGY, Stratigraphic

Composition of crude oil and its relation to stratigraphy in Wyoming. J. M. Hunt. bibliog map Am Assn Pet Geologists Bul 37:1837-72 Ag '53

Mistakes can be costly in geologic correlations. C. A. Moore. map diags World Oil 137:109-12 Jl '53

North Dakota; new oil state. S. H. Harris. bibliog il maps Pet Eng 25:B7-10+ Jl '53

Stratigraphic studies, Greater Oficina, Venezuela. D. A. Probst. maps diags Am Assn Pet Geologists Bul 37:2073-92 S '53

Tectonic history of Denver basin. A. W. McCoy. bibliog maps Am Assn Pet Geologists Bul 37:1873-93 Ag '53

Vertebrate paleontology and continental stratigraphy in Colombia. R. A. Stirton. bibliog maps diags Geol Soc Bul 64:603-22 Je '53

Nomenclature

Designation of stratigraphic units. H. E. Wheeler and V. S. Mallory. bibliog diags Am Assn Pet Geologists Bul 37:2407-21 O '53

Stratigraphic classification and nomenclature. W. P. Woodring. Am Assn Pet Geologists Bul 37:1081-3 My '53

Carboniferous

Carboniferous stratigraphy and structural geology of New Brunswick, Canada. W. C. Gussow. maps diags Am Assn Pet Geologists Bul 37:1713-816 bibliog(p 1814-16) Jl '53

Cenozoic

Cenozoic fill and evaporate solution in the Delaware basin, Texas and New Mexico. V. C. Maley and R. M. Huffington. map Geol Soc Bul 64:539-45, pl 1-3 My '53

Cretaceous

Regional stratigraphic analysis of upper cretaceous rocks of Rocky Mountain region. W. C. Krumbein and F. G. Nagel. bibliog maps Am Assn Pet Geologists Bul 37:940-60 My '53

Upper cretaceous rocks of Galisteo-Tonque area, north-central New Mexico. C. E. Stearns. bibliog il map diag Am Assn Pet Geologists Bul 37:961-74 My '53

Devonian

Dolomitic mottling in Palliser (Devonian) limestone, Banff and Jasper national parks, Alberta. F. W. Beales. bibliog il Am Assn Pet Geologists Bul 37:2281-93 O '53

Jurassic

Correlation of the Jurassic formations of Canada. H. Frebold. map Geol Soc Bul 64:1229-46, pl 1 bibliog(105 titles, p 1242-5) O '53

Miocene

Time-stratigraphy and the miocene epoch. M. F. Glaessner. Geol Soc Bul 64:647-58 bibliog(p657-8) Je '53

Ordovician

Mineralogy and petrology of some Ordovician K-bentonites and related limestones. C. E. Weaver. bibliog diags Geol Soc Bul 64:921-43, pl 1-2 Ag '53

Upper Ordovician and Silurian stratigraphy of Sacramento mountains, Otero county, New Mexico. L. C. Pray. bibliog il maps diags Am Assn Pet Geologists Bul 37:1894-918 Ag '53

Upper Ordovician of central Texas. V. E. Barnes and others. bibliog maps Am Assn Pet Geologists Bul 37:1030-43 My '53

Paleozoic

Paleozoic history of southeastern Colorado. J. C. Maher. bibliog maps Am Assn Pet Geologists Bul 37:2475-89 N '53

Upper paleozoic of Peru. N. D. Newell and others. (Memoir 58) 276p, 44pls Geological soc. of America, 419 W. 117th st, New York 27 '53 ($4)

Pennsylvanian

Hilltop formation, upper Pennsylvanian, Seminole county, Oklahoma. W. F. Tanner. map diags Am Assn Pet Geologists Bul 37:2046-50 Ag '53

Krebs and Cabaniss groups, of Pennsylvanian age, in Oklahoma. M. C. Oakes. diag Am Assn Pet Geologists Bul 37:1523-6 Je '53

Morrow group and lower Atoka formation of Arkansas. L. G. Henbest. bibliog diag Am Assn Pet Geologists Bul 37:1935-53 Ag '53

Pennsylvanian and related sediments of upper Pecos valley, New Mexico. R. Sidwell and G. F. Warn. bibliog il maps diags Am Assn Pet Geologists Bul 37:975-1013 My '53

Permian and Pennsylvanian rocks of southeastern Colorado. J. C. Maher. bibliog maps diags Am Assn Pet Geologists Bul 37:913-39 My '53

Permian

Permian and Pennsylvanian rocks of southeastern Colorado. J. C. Maher. bibliog maps diags Am Assn Pet Geologists Bul 37:913-39 My '53

Pleistocene

Definition of time line separating a glacial and inter-glacial age in the pleistocene. J. C. Frye and A. B. Leonard. diags Am Assn Pet Geologists Bul 37:2581-6 N '53

Pleistocene geology of part of central South Dakota. D. R. Crandell. bibliog maps diags Geol Soc Bul 64:581-98, pl 1 My '53

Sangamon soil and early Wisconsin loesses at Cleveland, Ohio. G. W. White. bibliog diag Am J Sci 251:362-8 My '53

Significance of pleistocene deposits in the groundwater resources of Illinois. J. W. Foster. map diag Econ Geol 48:568-73 N '53

Silurian

Silurian reefs of James Bay lowland, Ontario. W. C. Gussow. diags Am Assn Pet Geologists Bul 37:2422-4 O '53

Upper Ordovician and Silurian stratigraphy of Sacramento mountains, Otero county, New Mexico. L. C. Pray. bibliog il maps diags Am Assn Pet Geologists Bul 37:1894-918 Ag '53

Tertiary

Early tertiary vulcanism in the Galisteo-Tonque area, north-central New Mexico. C. E. Stearns. bibliog maps diags Am J Sci 251:415-52, pl 1 Je '53

Triassic

Correlation of the triassic formations of Canada. F. H. McLearn. maps Geol Soc Bul 64:1205-27, pl 1 bibliog(130 titles, p 1224-7) O '53

Stratigraphy and history of the moenkopi formation of triassic age. E. D. McKee. (Memoir 61) 133p, 12pls bibliog(p123-6) Geological soc. of America, 419 W. 117th st, New York 27 '54 ($3)

Triassic diapiric salt structures, southwestern Aquitaine basin, France. J. Dupouy-Camet. bibliog maps diags Am Assn Pet Geologists Bul 37:2348-88 O '53

GEOMAGNETISM. See Magnetism, Terrestrial

GEOMETRICAL drawing

See also

Projection, Axonometric

GEOMETRICAL optics. See Optics, Geometrical

GEOMETRY

See also

Topology

GEOMETRY, Analytic

Property of a family of equiangular spirals and its application to some problems of wave propagation. K. Landecker. bibliog diags J Ap Phys 25:41-8 Ja '54

GEOMETRY, Descriptive

Problem-solving skill in engineering drawing and descriptive geometry. R. A. Kliphardt. J Eng Educ 43:515-18 My '53

GEOMORPHOLOGY. See Physical geography

GEOPHYSICAL instruments

High resistance bridge for conductivity measurements. M. Unz. bibliog diags J Sci Instr 30:179-84 Je '53

GEOPHYSICISTS

What differentiates the geophysical engineer? J. B. Macelwane. Min Eng 6:390-2 Ap '54

GEOPHYSICS

Heat generation in the earth by solar neutrinos. A. M. Cormack. Phys R 95:580-1 Jl 15 '54

See also

Auroras
Earthquakes
Geophysical instruments
Magnetism, Terrestrial
Petroleum—Prospecting—Geophysical methods
Prospecting—Geophysical methods
Sedimentation and deposition
Water, Underground
Waves

Bibliography

Geophysical abstracts 152, January-March, 1953 (numbers 14184-14388). M. C. Rabbitt and others. U S Geol S Bul 1002-A:1-61; pa 25c Supt. of doc. '53

Geophysical abstracts 153, April-June, 1953 (numbers 14389-14598). M. C. Rabbitt and others. U S Geol S Bul 1002-B:63-121; pa 25c Supt. of doc. '53

Geophysical abstracts 154, July-September, 1953 (numbers 14599-14804). M. C. Rabbitt and others. U S Geol S Bul 1002-C:123-78; pa 25c Supt. of doc. '53

Geophysical abstracts 155, Oct.-Dec. 1953 (numbers 14805-15026). M. C. Rabbitt and others. U S Geol S Bul 1002-D:179-284; pa 25c Supt. of doc. '54

Geophysical abstracts 156, January-March 1954. M. C. Rabbitt and others. U S Geol S Bul 1022-A:1-70; pa 25c Supt. of doc. '54

Geophysical abstracts 157, April-June 1954. M. C. Rabbitt and others. U S Geol S Bul 1022-B:71-133; pa 25c Supt. of doc. '54

GEORGIA

Georgia story; climate, recreation. il Manuf Rec 123:81, 87-90 My '54

See also

Forests and forestry—Georgia

Industries and resources

Georgia story. il Manuf Rec 123:51-90 My '54

New containerboard mill nears completion in Georgia; Rome kraft co. il Manuf Rec 123:37 F '54

GEORGIA institute of technology

Library

Georgia Tech opens new library. il Chem & Eng N 31:5380 D 28 '53

GERBER products company

Security I like best. A. M. Steiner. Comm & Fin Chr 178:622 Ag 20 '53

GERIATRICS. See Old age

GERMAN Baptist brethren. See Church of the brethren

GERMAN language

Suggestions for translating German, French, and Italian chemical literature. H. Fischbach. J Chem Educ 30:388-93 Ag '53

GERMANE. See Germanium hydrides

GERMANICOL

Triterpene resinols and related acids; oleana-9(11):13(18)-dienol and oleana-9(11):18-dienol; the conversion of β-amyrin into germanicol. J. M. Beaton and others. Chem Soc J p3660-72 N '53

GERMANIUM

Analysis of magnetoresistance and Hall coefficient in *p*-type indium-antimonide and *p*-type germanium. T. C. Harman and others. Phys R 95:699-702 Ag 1 '54

Anisotropy of cyclotron resonance of holes in germanium. R. N. Dexter and others. Phys R 95:557-8 Jl 15 '54

Annealing of bombardment damage in germanium; experimental. W. L. Brown and others. bibliog Phys R 92:591-6 N 1 '53

British producing germanium from flue dust. J. A. Gay. J Metals 5:979 Ag '53

Calculation of the energy band structures of the diamond and germanium crystals by the method of orthogonalized plane waves. F. Herman. bibliog il Phys R 93:1214-25 Mr 15 '54

Change in ingot shape during zone melting. W. G. Pfann. bibliog diags J Metals 5:Trans 1441-2 N '53

Changes of surface conductivity of germanium with ambient. S. R. Morrison. diags J Phys Chem 57:860-3 N '53

Complex-forming behaviour of tin, germanium, and titanium with some dibasic carboxylic acids. G. Mattock. Chem Soc J p989-97 Mr '54

Conductivity and Hall effect in the intrinsic range of germanium. F. J. Morin and J. P. Maita. Phys R 94:1525-9 Je 15 '54

Conductivity of germanium at 2.4X10¹⁰ cps. Y. Klinger. Phys R 92:509-10 O 15 '53

Diffusion of impurities in germanium. W. C. Dunlap, jr. diags Phys R 94:1531-40 Je 15 '54

Diffusivity and solubility of copper in germanium. C. S. Fuller and others. bibliog il diag Phys R 93:1182-9 Mr 15 '54

Direct measurement of the dielectric constants of silicon and germanium. W. C. Dunlap, jr. and R. L. Watters. Phys R 92:1396-7 D 15 '53

Directional properties of the cyclotron resonance in germanium. B. Lax and others. Phys R 93:1418-20 Mr 15 '54

Dislocations in plastically deformed germanium. G. L. Pearson and others. il Phys R 93:666-7 F 15 '54

Distribution of solute in crystals grown from the melt; experimental. J. A. Burton and others. bibliog il diag J Chem Phys 21:1991-6 N '53

Distribution of solute in crystals grown from the melt; theoretical. J. A. Burton and others. bibliog J Chem Phys 21:1987-91 N '53

Drift mobilities in semiconductors. M. B. Prince. bibliog diags Phys R 92:681-7 N 1 '53

Effect of germanium on the transformation of white to gray tin, at comparatively low temperature. R. R. Rogers and J. F. Fydell. bibliog il Electrochem Soc J 100:161-4 Ap '53; Discussion. 100:589-90 D '53

Effect of nickel and copper impurities on the recombination of holes and electrons in germanium. J. A. Burton and others. bibliog diags J Phys Chem 57:853-9 N '53

Elasticity and thermal expansion of germanium between -195 and 275°C. M. E. Fine. bibliog J Ap Phys 24:338-40 Mr '53

Electrical properties of *N*-type germanium. P. P. Debye and E. M. Conwell. bibliog diag Phys R 93:693-706 F 15 '54

Energy levels and photoconductivity in electron-bombarded germanium. H. Y. Fan and others. Phys R 95:1087-8 Ag 15 '54

Energy of the high-lying acceptor level in copper-doped germanium. J. F. Battey and R. M. Baum. Phys R 94:1393 Je 1 '54

Etch pits and dislocations in germanium and silicon. J. J. Oberly. il J Metals 6:Trans 1025-6 sec 2 S '54

Evaporation of germanium films from a carbon crucible. K. Lehovec and others. il J Ap Phys 24:513-14 My '53

Experimental evidence concerning degeneracy in germanium. E. M. Conwell. Phys R 93:1118 Mr 1 '54

Fly ash may yield commercial germanium. R. C. Corey. Power Eng 58:65 Ja '54

Four-probe instrument for resistivity measurements of germanium and silicon. A. L. MacDonald and others. il R Sci Instr 24:884-5 S '53

GERMANIUM—*Continued*

General Electric tiny photocell for industry. Steel 133:224 D 7 '53

Germanium. G. W. O. Howe. diag Wireless Eng 30:185-6 Ag '53

Germanium-diode push-pull voltmeter. D. D. Davis. diag Electronics 27:212+ F '54

Germanium diodes from spherical pellets. W. C. Dunlap, jr. il diags J Ap Phys 25: 448-51 Ap '54

Germanium in transistors. J. J. Sutherland. Can Min J 75:62 Jl '54

Germanium N-P-N alloy junction transistor. D. A. Jenny. Inst Radio Eng Proc 41:1728-34 D '53

Germanium, pure and simple; zone melting technique. il Chem W 74:82 Mr 13 '54

Germanium under ultrasonic stress. G. S. Baker and others. J Ap Phys 24:1331-2 O '53

Hall coefficient in germanium. T. C. Harman and others. Phys R 94:1065-7 My 15 '54

High-field effects in germanium. E. M. Conwell. Phys R 94:1068 My 15 '54

Index of refraction of germanium measured by an interference method. D. H. Rank and others. bibliog diags Opt Soc Am J 44:13-16 Ja '54

Infrared absorption, photoconductivity, and impurity states in germanium. W. Kaiser and H. Y. Fan. Phys R 93:977-80 Mr 1 '54

Infrared photoconductivity due to neutral impurities in germanium. E. Burstein and others. bibliog diag Phys R 93:65-8 Ja 1 '54

Into the low-voltage gap; germanium rectifiers. il Chem W 74:97-8+ Mr 20 '54

Ionization energies of groups III and V elements in germanium. T. H. Geballe and F. J. Morin. Phys R 95:1085-6 Ag 15 '54

Lattice-scattering mobility in germanium. F. J. Morin. Phys R 93:62-3 Ja 1 '54

Living plants possible source of germanium. H. Brauchli. Chem & Eng N 31:3762+ S 14 '53

Magnetic susceptibility of germanium. D. K. Stevens and J. H. Crawford, jr. Phys R 92:1065-6 N 15 '53

Measurement of elastic constants at low temperatures by means of ultrasonic waves. H. J. McSkimin. bibliog(27 ref) diags J Ap Phys 24:988-97 Ag '53

Measurement of the thermoelectric power of germanium at temperatures above 78°K. A. E. Middleton and W. W. Scanlon. bibliog diags Phys R 92:219-26 O 15 '53

Mobility of impurity ions in germanium and silicon. J. C. Severiens and C. S. Fuller. Phys R 92:1322-3 D 1 '53

New electronics age developing and efforts of leading companies. L. A. Lukens. il Mag of Wall St 93:14-15+ O 3 '53

New etches for germanium. R. C. Ellis, jr. and S. P. Wolsky. il J Ap Phys 24:1411-12 N '53

Observation of cyclotron resonance in germanium crystals. G. Dresselhaus and others. bibliog Phys R 92:827 N 1 '53

Orientation relationships in cast germanium. W. C. Ellis and J. Fageant. bibliog il J Metals 6:Trans 291-4 sec 2 F '54

Oxygen and the surface energy-level structure on germanium. E. N. Clarke. bibliog Phys R 95:284-5 Jl 1 '54

Phenomena observed in the melting and solidification of germanium. S. E. Bradshaw. bibliog il Electrochem Soc J 101:293-7 Je '54

Photomagnetoelectric effect in germanium and silicon. H. Bulliard. bibliog diags Phys R 94:1564-6 Je 15 '54

Photon-radiative recombination of electrons and holes in germanium. W. van Roosbroeck and W. Shockley. Phys R 94:1558-60 Je 15 '54

Piezoresistance effect in germanium and silicon. C. S. Smith. bibliog diags Phys R 94:42-9 Ap 1 '54

Power efficiency for the photovoltaic effect in a germanium grown junction. R. P. Ruth and J. W. Moyer. Phys R 95:562-4 Jl 15 '54

Pressure dependence of the resistivity of germanium. W. Paul and H. Brooks. bibliog Phys R 94:1128-33 Je 1 '54

Production of acceptor centers in germanium and silicon by plastic deformation. W. C. Ellis and E. S. Greiner. bibliog Phys R 92:1061-2 N 15 '53

Production of germanium. Chem Age (Lond) 69:307-10 Ag 15 '53

Recombination of holes and electrons at lineage boundaries in germanium. F. L. Vogel and others. diag Phys R 94:1791-2 Je 15 '54

Recovery currents in germanium *p—n* junction diodes. R. G. Shulman and M. E. McMahon. il diags J Ap Phys 24:1267-72 O '53

Recrystallization of germanium from indium solution. J. I. Pankove. il diags RCA R 15:75-85 Mr '54

Resistivity striations in germanium crystals. P. R. Camp. bibliog il diag J Ap Phys 25: 459-63 Ap '54

Secondary electron emission from germanium. J. B. Johnson and K. G. McKay. bibliog Phys R 93:668-72 F 15 '54

Seebeck effect in germanium. T. H. Geballe and G. W. Hull. diag Phys R 94:1134-40 Je 1 '54

Segregation of impurities during the growth of germanium and silicon crystals. R. N. Mall. bibliog J Phys Chem 57:836-9 N '53

Self-diffusion in germanium. H. Letaw, jr. and others. Phys R 93:892-3 F 15 '54

Simpler explanation for the observed shot effect in germanium filaments. A. van der Ziel. J Ap Phys 24:1063 Ag '53

Solution of the field problem of the germanium gyrator. R. F. Wick. bibliog diags J Ap Phys 25:741-56 Je '54

Some consequences of possible degeneracy of energy bands in Ge. E. N. Adams, 2d. bibliog Phys R 92:1063-4 N 15 '53

Some electrical properties of germanium crystals containing compensated impurities. V. Ozarow. Phys R 93:371-2 F 1 '54

Spin orbit interaction and the effective masses of holes in germanium. G. Dresselhaus and others. Phys R 95:568-9 Jl 15 '54

Studies in the chemistry of quadrivalent germanium; ion-exchange studies of solutions of germanates. D. A. Everest and J. E. Salmon. Chem Soc J p2438-43 Jl '54

Surface-barrier transistor. W. E. Bradley and others. il diags Inst Radio Eng Proc 41: 1702-34 D '53

Techniques for making stable non-rectifying contacts to germanium and other semiconductors. W. M. Mitchell. diags J Sci Instr 31:147-8 Ap '54

Theoretical resistivity and Hall coefficient of impure germanium near room temperature. P. G. Herkart and J. Kurshan. RCA R 14: 427-40 S '53

Theory of the galvanomagnetic effects in germanium. B. Abeles and S. Meiboom. Phys R 95:31-7 Jl 1 '54

Theory of the galvanomagnetic effects in *n*-germanium. S. Meiboom and B. Abeles. Phys R 93:1121 Mr 1 '54

Theory of thermoelectric power in semiconductors with applications to germanium. V. A. Johnson and K. Lark-Horovitz. bibliog Phys R 92:226-32 O 15 '53

Thermal effects in point contact rectifiers. H. L. Armstrong. bibliog J Ap Phys 24:1332-3 O '53; Correction. 25:136 Ja '54

Thermoelectric power of germanium below room temperature. H. P. R. Frederikse. bibliog diag Phys R 92:248-52 O 15 '53

Transistors; pass trial by fire and water with new-type crystals. Iron Age 173:82 Mr 18 '54

Ultra-pure metal. Metal Prog 65:196+ Ap '54

Vacancies and interstitials in heat treated germanium. S. Mayburg. bibliog diag Phys R 95:38-43 Jl 1 '54

Volume and surface recombination rates for injected carriers in germanium. J. P. McKelvey and R. L. Longini. bibliog diags J Ap Phys 25:634-41 My '54

Zone melting provides ultra-pure materials. il Materials & Methods 39:7+ Ap '54

Zone melting purifies germanium. R. L. Hatschek. il Iron Age 173:78 Mr 11 '54

See also

Oscillators

Transistors

GERMANIUM—*Continued*

Analysis

Determination of germanium in coal, coal ash, and flue dust. W. J. Frederick, J. A. White and H. E. Biber. bibliog diag Anal Chem 26:1328-30 Ag '54

Determination of impurities in germanium and silicon. C. L. Luke and M. E. Campbell. bibliog Anal Chem 25:1588-93 N '53

Determination of traces of copper in germanium by activation analysis. G. Szekely. Anal Chem 26:1500-2 S '54

Effect of ashing temperature on the volatility of germanium in low-rank coal samples. C. L. Waring and W. P. Tucker. bibliog Anal Chem 26:1198-9 Jl '54

Mass spectrometric analysis of germanium. R. E. Honig. bibliog diags Anal Chem 25:1530-5 O '53

Qualitative test for silicon in organosilicon compounds and for germanium in organogermanium compounds. H. Gilman, R. K. Ingham and R. D. Gorsich. bibliog Am Chem Soc J 76:918-19 F 5 '54

Spectrochemical determination of germanium in silicates. P. G. Harris. bibliog Anal Chem 26:737-9 Ap '54

Isotopes

Gallium, germanium, and arsenic nuclides produced in the bombardment of copper with 2.2-Bev protons. A. Turkevich and N. Sugarman. Phys R 94:728 My 1 '54

Inner bremsstrahlung in the electron capture process, Ge^{71}. B. Saraf. Phys R 95:97-8 Jl 1 '54

Metastable states of Ge^{73}. J. P. Welker and others. bibliog Phys R 92:401-5 O 15 '53

Pharmacological studies of radiogermanium (Ge^{71}). H. C. Dudley and E. J. Wallace. bibliog diags A M A Archives Ind Hygiene & Occup Med 6:263-70; 8:528-30 S '52, D '53

Spin and magnetic moment of Ti^{47} and Ti^{49} and the magnetic moment of Ge^{73}. C. D. Jeffries. bibliog Phys R 92:1262-3 D 1 '53

Nuclear reactions

Radionuclides of arsenic produced by deuteron bombardment of germanium. H. J. Watters and J. F. Fagan, jr. Phys R 92:1248-9 D 1 '53

Physiological effect

Pharmacological studies of radiogermanium (Ge^{71}). H. C. Dudley and E. J. Wallace. bibliog diags A M A Archives Ind Hygiene & Occup Med 6:263-70; 8:528-30 S '52, D '53

Spectrum

Infrared absorption spectrum of germanium. L. H. Hall and others. Phys R 95:559-60 Jl 15 '54

Infrared lattice absorption bands in germanium, silicon, and diamond. R. J. Collins and H. Y. Fan. bibliog Phys R 93:674-8 F 15 '54

Vibrational spectrum and the specific heat of germanium and silicon. Y. Hsieh. bibliog J Chem Phys 22:306-11 F '54

GERMANIUM alloys

Energy gap of germanium-silicon alloys. A. Levitas and others. Phys R 95:846 Ag 1 '54

Equilibrium thermochemistry of solid and liquid alloys of germanium and of silicon. C. D. Thurmond and J. D. Struthers. bibliog J Phys Chem 57:827-35 N '53

Photoconductivity in gold-germanium alloys. R. Newman. Phys R 94:278-85 Ap 15 '54

Some properties of germanium-silicon alloys. E. R. Johnson and S. M. Christian. Phys R 95:560-1 Jl 15 '54

Speculation on the energy band structure of Ge-Si alloys. F. Herman. Phys R 95:847-8 Ag 1 '54

GERMANIUM chlorides

Analysis

Purification of germanium tetrachloride by solvent extraction. G. H. Morrison, E. G. Dorfman and J. F. Cosgrove. bibliog Am Chem Soc J 76:4236-8 Ag 20 '54

GERMANIUM compounds

Chemistry of bivalent germanium compounds; formation of germanous salts by reduction by hypophosphorous acid. D. A. Everest. Chem Soc J p4117-20 D '53

New reaction of organogermanium compounds. R. West. bibliog Am Chem Soc J 75:6080-1 D 5 '53

Partial resolution of the tris-(oxalato)-germanate(IV) ion. T. Moeller and N. C. Nielsen. bibliog Am Chem Soc J 75:5106-7 O 20 '53

Preparation and properties of molybdenum-germanium compounds. A. W. Searcy and R. J. Peavler. bibliog Am Chem Soc J 75:5657-9 N 20 '53

Some esters of germanium. D. C. Bradley and others. Chem & Ind p746-7 Jl 18 '53

Spectra

Vibrational spectra of some tin and germanium halogen metalorganic compounds. E. R. Lippincott, R. Mercier and M. C. Tobin. bibliog J Phys Chem 57:939-42 D '53

GERMANIUM hydrides

Analogs of hexaphenylethane; triphenylmethyltriphenylgermane, triphenylgermanecarboxylic acid and some of its derivatives. A. G. Brook and H. Gilman. Am Chem Soc J 76:77-80 Ja 5 '54

Preparation of the methylmethoxygermanes. R. West, H. R. Hunt, jr. and R. O. Whipple. bibliog Am Chem Soc J 76:310 Ja 5 '54

Refractive index of germane. M. Green and P. H. Robinson. J Phys Chem 57:938 D '53

Some physical properties of the deutero-germanes. A. H. Zeltmann and G. C. Fitzgibbon. bibliog Am Chem Soc J 76:2021-2 Ap 5 '54

Analysis

Rapid interferometric analysis of germane-hydrogen mixtures. M. Green and P. H. Robinson. diag Anal Chem 25:1913-14 D '53

Spectra

Infrared spectra of monochlorogermane and monochlorogermane-d_3. R. C. Lord and C. M. Steese. bibliog J Chem Phys 22:542-6 Mr '54

GERMANIUM poisoning

Studies of the acute and chronic toxicity of germanium. G. Rosenfeld and E. J. Wallace. bibliog A M A Archives Ind Hygiene & Occup Med 8:466-79 N '53

GERMANS in Pennsylvania

Pennsylvania Dutch; industries and arts. J. S. Muller. il diags Comp Air Mag 59:34-40 F '54

GERMANY

Germany being reborn. J. B. Conant. Chem & Eng N 32:1896 My 10 '54

New Germany; nucleus of a new European economy? map Bsns W p 100-2+ D 12 '53

See also

Airlines—Germany
Airplane industry and trade—Germany
Automobile industry and trade—Germany
Bonds, Government—Germany
Chemical industries—Germany
Debts, Public—Germany
Electric lines—Germany
Machine tool industry—Germany
Metal working industries—Germany
Moving picture industry—Germany
Petroleum industry and trade—Germany
Plastic industries—Germany
Political parties—Germany
Railroads—Germany
Steel industry and trade—Germany

Boundaries

Locarno on the Oder-Neisse. map Economist 168:238-40 Jl 25 '53

Commerce

Berlin exports rise; capacity increases. For Comm W 50:5 S 7 '53

German dollar trade nearly in balance. For Comm W 50:2 Ag 3 '53

German export of glass and glassware in North, Central and South America. E. Stein. Glass Ind 35:371-3 Jl '54

Germany and the Arabs. Economist 168:791-2 S 19 '53

Made in Germany; Adenauer's probable successor outlines his trade objectives; Dr Ludwig Erhard. F. Morley. Barron's 34:5-6+ Ja 18 '54

GERMANY—Commerce—*Continued*

New tack needed; West German trade with Latin America. Chem W 75:30 S 4 '54

Swedish and East German agencies conclude private compensation trade arrangement. For Comm W 51:12 Ja 4 '54

Trade; West Germany's wheels whir. E. C. Kellogg. Iron Age 172:62 S 3 '53

West Germany seeks to improve export credit. For Comm W 50:5 Ag 24 '53

China

Satellite trade with China. Economist 168:644 S 5 '53

Commercial policy

Financing German exports; German-Greek transaction. Economist 169:669+ N 28 '53

German banks protest Bonn foreign trade negotiations. Economist 169:879 D 19 '53

German Soviet zone promotes export trade. For Comm W 51:6 F 15 '54

Economic conditions

German comeback. J. Joesten. Barron's 33:3 Ag 24 '53

Mysteries in Soviet Germany. Economist 169:408 N 7 '53

West German economy progresses but rate of growth slows down. For Comm W 51:2 Ja 25 '54

West Germany's remarkable recovery. H. H. Heksch. Comm & Fin Chr 178:2627+ D 31 '53

Economic policy

German industry's demands. Economist 170:33-4 Ja 2 '54

Germany's economy before the elections. Economist 168:515-16 Ag 22 '53

Planning new props for prosperity. Bsns W p 156-7 N 7 '53

Economic relations

India

India signs agreements for new steel plant. For Comm W 51:10 F 1 '54

Foreign relations

German illwill to Britain. Economist 170:17 Ja 2 '54

Keeping West Germany allied with the U.S. Bsns W p 160-1 S 12 '53

Industries and resources

German industry's demands. Economist 170:33-4 Ja 2 '54

Wanted; a market for a $275,000,000 product; West Germany's '53 output looking for smart advertising to move it in the U.S. L. Cherne. il Ptr Ink 244:33-5 Jl 17 '53

West German commodity survey shows Ruhr area business good. For Comm W 50:17-18 S 14 '53

Military occupation

Tale of two cities. F. Morley. Barron's 33:5-6 S 28 '53

Politics and government

Adenauer way. Economist 168:759-60 S 19 '53

Adenauer's triumph. F. Morley. Barron's 33:5 S 14 '53

Adenauer's victory and European unity. M. Palyi. Comm & Fin Chr 178:1421+ O 15 '53

Behind M Bidault; Berlin conference and French politics. Economist 170:215-16 Ja 23 '54

Bonn galaxy; parliamentary candidates. Economist 168:787-8 S 19 '53

Decade after Stalingrad. Economist 169:321-2 O 31 '53

German refugees settle down. Economist 169:803-4 D 12 '53

Germans under the Gosplan. Economist 168:640+ S 5 '53

High stakes in Germany. Economist 170:139-41 Ja 16 '54

Molotov stalls; foreign ministers' Berlin meeting. Economist 169:948 D 26 '53

New Germany; Adenauer election victory. Economist 168:677-8 S 12 '53

Opening day in Bonn; problems of the new cabinet. Economist 169:233 O 24 '53

Rhine minute men. Bsns W p 171 S 19 '53

Verdicts on Adenauer's victory. Economist 168:709 S 12 '53

Voice of Molotov. Economist 168:365 Ag 8 '53

See also

Communism—Germany

Political parties—Germany

GERMICIDAL lamps. See Ultraviolet rays—Lamps

GERMICIDES. See Disinfection and disinfectants

GERMINE

Nature of the germine-isogermine-pseudogermine isomerizations. S. M. Kupchan and others. Am Chem Soc J 76:1200-1 F 20 '54

Synthetic hypotensive esters from germine. F. L. Weisenborn and others. bibliog Am Chem Soc J 76:1792-5 Ap 5 '54

GESELLSCHAFT deutscher chemiker

Annual meeting, Hamburg, Sept. 14-19. Chem & Eng N 31:4094-5 O 5 '53

GIANNINI, G. M., and company, inc.

Giannini progresses in avionics. S. Altschul. Aviation W 59:71 S 7 '53

Security I like best. R. E. Anderson. Comm & Fin Chr 178:1930 N 19 '53

GIBBERELLA

Gibberellic acid; a new metabolite from the culture filtrates of gibberella fujikuroi. P. J. Curtis and B. E. Cross. Chem & Ind p 1066 Ag 28 '54

GIBBS, Josiah Willard, 1839-1903

Gibbs drive renewed; to install bust in New York university's Hall of fame. por Chem & Eng N 32:2024 My 17 '54

GIBBS, Willard, medal

Bolton receives Chicago section, A.C.S., 1954 Willard Gibbs medal. Rubber World 130:375 Je '54

Hildebrand receives Gibbs award for teaching and research. Chem & Eng N 31:4194 O 12 '53

His job, to pick the winners; Willard Gibbs medalist, Elmer K. Bolton. Chem & Eng N 32:2197-8 My 31 '54

GIBBS, William Francis, 1886-

Presentation of the Franklin medal; with response by W. F. Gibbs. por Franklin Inst J 256:543-9 D '53

GIBBS-HELMHOLTZ equation

Correct application of the Gibbs-Helmholtz equation to reversible galvanic cells in which the compositions of some of the phases vary with temperature. R. E. Barieau. bibliog J Chem Phys 21:1827-8 O '53

GIFT packages. See Package goods—Gift packages

GIFT tax

Correcting joint property evils; five alternative ways out and their tax effects. L. G. Knecht. Trusts & Estates 93:8-11, 84-6+ Ja-F '54

Divorce property settlements; estate and gift tax consequences. C. B. Bayly, jr. Trusts & Estates 92:560-2+ Ag '53

Estate and gift taxes under the new code. W. M. Bury. J Account 98:376-8 S '54

Insurance to mistress taxed as gift by wife; Revenue ruling 48 (1953). E. T. Roehner. Trusts & Estates 93:75-6 F '54

Premium-payment test, thing of the past; gift tax consequences and marital deduction. F. L. Morton. Spectator 162:56+ O '54

Tax status of gifts. C. W. Tye. Rough Notes 97:58+ Je '54

GIFTS

Bromfield puts Malabar farm into the gift-food business. L. M. Hughes. Sales Management 71:32+ O 1 '53

GIFTS (in business)

See also

Christmas gifts—Business gifts

GIFTS (law)

Assignment of bank account. Banking 46:109 N '53

Definitions; contemplation of death. E. S. MacNeill. Banking 46:59-60 S '53

How to increase the charitable deduction by gifts other than cash. J. K. Lasser. J Account 95:701-5 Je '53

Testamentary check. F. C. Fiechter, jr. Burroughs Clearing House 37:71-2 Ag '53

See also

Gift tax

GILBRETH, Lillian, 1878-

L. Gilbreth wins international award; gold medal of the International committee of scientific management. R. Gleason. Advanced Management 19:27 Ap '54

GILDS
Historical notes on the wet-processing industry; a look at the early dyers' guilds. S. M. Edelstein. il Am Dyestuff Rep 43:119-20 F 15 '54

GILLAM soap works
Gillam soap works is sold. Soap & San Chem 29:63 Ag '53

GILLETTE company
Earnings downtrend will be reversed this year. D. S. Greene. Barron's 33:19-22 D 7 '53

GILLIS, Jean Baptiste, 1893-
Jean Baptiste Gillis. R. E. Oesper. por(front) J Chem Educ 30:622-3 D '53

GIMBEL brothers, inc.
Private brand soaps. F. W. Brewer. il Soap & San Chem 29:50-2 O '53
Security I like best; Gimbel Brothers common. E. J. Mann. Comm & Fin Chr 178:1110 S 24 '53

GIN
Gin and tonic peps up sales. il Bsns W p 110+ Ag 15 '53

GINGER ale

Manufacture

Plant that's long on engineering show-cases its process; James Vernor co. J. N. Sutton and A. V. Gemmill. flow sheet(p 118-21) il Food Eng 26:61-3 Ag; 48-50+ S '54

GINGIVA
Effects of hyaluronidase on human gingival epithelium. S. Schultz-Haudt and others. il Science 117:653-5 Je 12 '53

GIRARD reagents
Paper chromatography of aldehydes and ketones as Girard derivatives. R. B. Seligman and others. bibliog Chem & Ind p 1195 S 25 '54

GIRDERS. See Beams and girders

GITOGENIN
Partial synthesis of gitogenin. J. Herrán and others. bibliog Chem & Ind p824 Ag 1 '53

GLACIAL drift. See Drift

GLACIAL epoch
Definition of time line separating a glacial and inter-glacial age in the pleistocene. J. C. Frye and A. B. Leonard. diags Am Assn Pet Geologists Bul 37:2581-6 N '53
Radiocarbon dating of the Alleröd period. J. Iversen. bibliog il Science 118:9-11 Jl 3 '53

GLACIAL geology
Engineering study of glacial deposits at Steep Rock lake, Ontario, Canada. R. F. Legget and M. W. Bartley. bibliog il maps Econ Geol 48:513-40 N '53
Glaciation of central Keewatin, Northwest Territories, Canada. J. B. Bird. bibliog maps Am J Sci 251:215-30 Mr '53
Tracing of glacial boulders as an aid to ore prospecting in Sweden. E. Grip. bibliog maps Econ Geol 48:715-25 D '53
See also
Drift

GLACIERS
Effect of the melting of polar ice on the length of the day. S. A. Korff. Phys R 95:296-7 Jl 1 '54

GLADIOLIC acid
Gladiolic acid; syntheses of some methoxybenzenetricarboxylic acids. D. Gardner, J. F. Grove and D. Ismay. Chem Soc J p 1817-19 Je '54
Gladiolic acid; synthesis of 5-methoxy-6-methylphthalide. D. Gardner and J. F. Grove. Chem Soc J p3646-7 N '53
Gladiolic acid; the structures of nor*iso*gladiolic acid, dihydrogladiolic acid, and cyclopolic acid. L. A. Duncanson, J. F. Grove and J. Zealley. Chem Soc J p3637-45 N '53
*iso*Naphthazarin derived from gladiolic acid. F. Weygand and others. Chem & Ind p 106 Ja 23 '54
Phthalaldehydes and related compounds; synthesis of gladiolic acid. J. J. Brown and G. T. Newbold. Chem Soc J p 1076-8 Mr '54
Synthesis of gladiolic acid. J. J. Brown and G. T. Newbold. Chem & Ind p 1151 O 24 '53

GLADIOLUS
Tetrazolium test for dormancy and germinability of gladiolus cormels. C. N. Roistacher and others. Science 118:186-7 Ag 14 '53

GLANDS
See also
Adrenal glands
Prostate gland
Thyroid gland

GLARE
Comparative analysis of comfort and glare. D. E. Spencer. bibliog il diags Illum Eng 49:39-45; Discussion. 45-9 Ja '54
Re-evaluation of the scattering theory of glare. G. A. Fry. bibliog Illum Eng 49:98-102 F '54
Visual fatigue. H. C. Weston. bibliog(30 ref) il diag Illum Eng 49:63-74; Discussion. 74-6 F '54

GLASS
Adsorption of ethyl alcohol vapor on glass spheres in systems of different porosities. J. L. Shereshefsky and E. R. Russell. bibliog diag J Phys Chem 57:660-5 O '53
Borates for the glass industry. M. H. Pickard. flow sheet il map Glass Ind 35:73-7+ F '54
Characteristics of lighting glassware. A. R. Jaeger. il Illum Eng 49:280-4 Je '54
Effects of very high pressures on glass. P. W. Bridgman and I. Simon. il diag J Ap Phys 24:405-13 Ap '53
Electrolytic engraving on glass. F. Gutmann and L. W. O. Martin. il J Sci Instr 31:221-2 Je '54
Glass considered as a polymer. J. M. Stevels. bibliog il Glass Ind 35:69-72+, 135-8+ F-Mr '54
Glass heating panels perform well in tests. P. R. Achenbach. Eng N 151:116+ Jl 16 '53
International commission on glass 5th annual meeting, Vaxjo, Sweden, June 14-20. Am Cer Soc Bul 33:252-3 Ag 15 '54
International commission on glass 5th annual meeting, Vaxjo, Sweden, June 14-20; with abstracts of papers. Glass Ind 35:430-2+ Ag '54
International congress on glass, 3d, Venice, June 29-July 4. Glass Ind 43:422-5 Ag '53; Cer Ind 61:68-9+ S '53; Am Cer Soc Bul 32:347-8, 390-1 O 15-N 15 '53
Materials for special service; mechanical glass. R. L. Edwards. il Machine Design 26:170-4 My '54
Measurement of the heat of activation for sodium ion diffusion in glass. R. Kamel. bibliog diag J Ap Phys 24:1308-11 O '53
Metals in the atomic state in glasses. W. A. Weyl. bibliog J Phys Chem 57:753-7 N '53
1953 glass industry in review. H. E. Simpson. il Cer Ind 62:68-9+ F; 72-4+ Mr '54
101 new ideas in action; practical plant operating ideas. il Cer Ind 62:68-9+ Ap '54
Paramagnetic resonances in irradiated glasses. E. L. Yasaitis and B. Smaller. Phys R 92:1068-9 N 15 '53
Recent developments in ceramics and glass; symposium. bibliog il diags Ind & Eng Chem 46:141-82 Ja '54
Recent translations of Russian papers of interest to the glass industry (cont). diags Glass Ind 35:78-80+, 492-4 F, S '54
Reduction of potassium permanganate in the presence of glass. M. J. Cotter. Chem & Ind p433 Ap 10 '54
Use glass cord to build up commutator ring. R. E. Brown. il diags Power 98:125 Mr '54
Viscosity of sodium-calcium-aluminum silicate glasses; abstract. M. V. Okhotin and R. I. Tsoi. Glass Ind 35:104 F '54
See also
Ampuls
Glass manufacture
Glassware
Glazes
Insurance, Glass
Pyrex
Windows

Adhesion to metal

Frictional adhesion of metal to glass, quartz, and ceramic surfaces. R. B. Belser. il R Sci Instr 25:862-4 S '54

Analysis

Determination of potassium in glass with the hydrogen flame photometer and the Beckman model DU spectrophotometer. P. Close and M. T. Watson, jr. bibliog Am Cer Soc J 37:235-8 My 1 '54

GLASS—Analysis—*Continued*

Flame spectrophotometric analysis of glasses and ores; lithium, sodium, potassium, rubidium, and cesium. J. P. Williams and P. B. Adams. bibliog Am Cer Soc J 37:306-11 Jl 1 '54

Glass analysis time reduced from 1½ days to two hours. Glass Ind 35:487 S '54

Recent trends in glass analysis. F. W. Glaze. bibliog Am Cer Soc Bul 33:45-8 F 15 '54

Simple method for differentiating between borosilicate and soft glass. M. K. Carron and R. E. Stevens. Anal Chem 25:1782 N '53

Coating

Silicone coating reduces breakage, Brockway full-scale test shows. Glass Ind 35:201 Ap '54

Silicone toughens bottles; Brockway glass co. il Food Eng 26:121+ Jl '54

Color

Color centers in alkali silicate glasses. R. Yokota. Phys R 93:896-7 F 15 '54

New glass comparator; plastic foam. A. Silverman. Glass Ind 35:374 Jl '54

Some aspects of controlling the color of glasses; abstract. A. Ottoson and C. J. Uhrmann. Glass Ind 34:605 N '53

Decoration

Hot color speeds decorating at Brockway. C. E. Doolittle. il Glass Ind 34:661-2+ D '53

Silk screen printing with bright gold. R. J. Miller. Glass Ind 35:486+ S '54; Same. Cer Ind 63:92 O '54

Defects

Application of the laws of chance to problems involving defects in optical glass. J. C. Young. diag Am Cer Soc Bul 32:407-12; 33:8-11 D 15 '53-Ja 15 '54

Manufacturing defects in chinaware, porcelain enamel, glass containers; their causes and cures. Cer Ind 62:137-8+ Ja '54

Electric properties

Contact charging between a borosilicate glass and nickel. J. W. Peterson. bibliog diag J Ap Phys 25:501-4 Ap '54

Contact charging between nonconductors and metal. J. W. Peterson. il diags J Ap Phys 25:907-15 Jl '54

Dielectric constant and dissipation factor of soda-potassia-silica glasses at frequencies of one to 300 kilocycles at room temperature. G. F. Stockdale. diags Ill U Eng Exp Sta Bul 411:1-27 '53 (pa 30c); Excerpts. Glass Ind 35:381+ Jl '54

Effect of temperature on the electrical resistance and voltage departures (errors) of glass electrodes, and upon the hygroscopicity of glass. D. Hubbard. bibliog diag J Res Nat Bur Stand 50:337-42 Je '53

Glass bonded mica. J. H. Dubois. Product Eng 24:303-4+ Je '53

Preparation and some properties of conducting transparent glass. R. Gomer. R Sci Instr 24:993 O '53

Surface conductance of glasses in a humid atmosphere; abstract. A. Y. Kuznetsov. Glass Ind 35:79-80 F '54

Use of electrically conducting glass in cloud-chamber construction. C. Bowness and N. Cusack. J Sci Instr 31:345 S '54

See also
Electrodes, Glass

Fracture

Experimental study of fractures of glass. E. B. Shand. bibliog(39 titles) il Am Cer Soc J 37:52-60, 559-72 F 1, D 1 '54

Heat transmission

Cooling loads from sunlit glass and wall. C. O. Mackay and N. R. Gay. il diag Heating-Piping 26:123-8 Ag '54; Discussion. 26:155-6 S '54

Transmission of radiation through glass in tank furnaces. B. S. Kellett. Glass Ind 35:131-4 Mr '54

History

Glass in the biblical literature. E. R. Silverman and A. Silverman. J Chem Educ 30:415-16 Ag '53

Infrared rays transmission

Transmission of near-infrared energy by some two- and three-component glasses. J. M. Florence and others. bibliog J Res Nat Bur Stand 50:187-96 Ap '53

Joining

Cementing optical glasses to obtain strong joints free from striae. E. Djurle and others. il diags J Sci Instr 31:86-7+ Mr '54

Glass-refractory seals. P. J. C. Kent. J Sci Instr 30:485 D '53

Joining to metal

Adhesives; agents for bonding fibrous glass pads to metal. W. J. Clayton. il Iron Age 172:160-3 S 17 '53

Hermetic terminals ready for bigger role. A. Wyzenbeek. il diag Steel 134:112+ F 1 '54

Metal-to-glass seals for sub-λ point helium apparatus. W. S. Corak and A. Wexler. diag R Sci Instr 24:994-5 O '53

Method for joining metal pipe to glass tubing. R. G. Nester. diags R Sci Instr 25:95 Ja '54

Light transmission

Color and spectral transmittance of amber bottle glass. F. R. Bacon and C. J. Billian. bibliog Am Cer Soc J 37:60-6 F 1 '54

Manufacture

See Glass manufacture

Patents

See also
Glass manufacture—
Patents

Permeability

Diffusion coefficient, solubility, and permeability for helium in glass. W. A. Rogers and others. bibliog diags J Ap Phys 25:868-75 Jl '54

Polishing

Formation of a thin opaque surface layer during glass grinding; abstract. I. E. Shapiro. Glass Ind 35:492 S '54

Multiple-beam fringes of equal chromatic order; mechanism of polishing glass. W. F. Koehler. bibliog il Opt Soc Am J 43:743-7 S '53; Excerpts. Glass Ind 34:679+ D '53

Stones

Dragnet has nothing on glass plant lab staff; reveal kyanite build-up as offender in glass plant's blue shop. P. J. Kircher. il Cer Ind 62:166+ Ap '54

Strains and stresses

Re-evaluation of glass viscosities at annealing and strain points. H. R. Lillie. diag Am Cer Soc J 37:111-17 Mr 1 '54

Use of strain gauges as a means for determining pressure-strain relationships on television envelopes. A. Cohen and R. F. Doran. il diags Am Cer Soc Bul 33:1-3 Ja 15 '54

Strength

Dependence of ultimate strength of glass under constant load on temperature, ambient atmosphere, and time. D. A. Stuart and O. L. Anderson. bibliog Am Cer Soc J 36:416-24 D 1 '53

See also
Glass—Fracture

Surface

Formation of a thin opaque surface layer during glass grinding; abstract. I. E. Shapiro. Glass Ind 35:492 S '54

Method of studying and estimating the surface quality of ground glass; abstract. Y. A. Brodskii. Glass Ind 35:492 S '54

Surface durability of optical glass. H. E. Simpson. Glass Ind 35:88-9 F '54

Temperature effect

Density phenomena in the transformation range of a borosilicate crown glass. H. N. Ritland. bibliog Am Cer Soc J 37:370-8 Ag 1 '54

Effect of heat-treatment on color of amber bottle glass. W. L. Spix and F. R. Bacon. bibliog Am Cer Soc J 36:377-83 N 1 '53

GLASS—Temperature effect—*Continued*

Effect of temperature on the electrical resistance and voltage departures (errors) of glass electrodes, and upon the hygroscopicity of glass. D. Hubbard. bibliog diag J Res Nat Bur Stand 50:337-42 Je '53

Thermal shock resistance of sheet glass. W. C. Levengood and E. C. Montgomery. Glass Ind 35:273+ My '54

Testing

Physical properties for glass control. H. R Lillie. bibliog Glass Ind 35:481-4+ S '54

Reactions between glass and water. I. R. Beattie. Glass Ind 35:29+ Ja '54

Surface durability of optical glass. H. E. Simpson. Glass Ind 35:88-9 F '54

Thermal shock resistance of sheet glass. W. C. Levengood and E. C. Montgomery. Glass Ind 35:273+ My '54

See also

Glass—Fracture

Uses

Chlorination plant; use of all-glass equipment. il Chem Age (Lond) 69:176 Jl 25 '53

What's new in glass. A. Silverman. il Ind & Eng Chem 46:143-7 Ja '54

GLASS, Cellular

Panel employs cellular glass core. il Eng N 151:66 O 22 '53

Stud welding speeds insulation; submarine reactor testing sphere near West Milton, N.Y. il Iron Age 173:69 F 11 '54

Today's roof insulation is tomorrow's flooring; Peter Eckrich & sons, inc. il Food Eng 26:73 Ag '54

GLASS, Colored

Color and spectral transmittance of amber bottle glass. F. R. Bacon and C. J. Billian. bibliog Am Cer Soc J 37:60-6 F 1 '54

Copper ruby glass; patent. Glass Ind 34:675 D '53

Effect of heat-treatment on color of amber bottle glass. W. L. Spix and F. R. Bacon. bibliog Am Cer Soc J 36:377-83 N 1 '53

Factors influencing control of color in amber glasses. R. W. Hopkins and W. H. Manring. bibliog Glass Ind 34:251-4+ My '53; Same. Cer Ind 61:78-9 D '53; 62:72+ F '54

Studies on red-colored silver glass. B. K. Banerjee. il Am Cer Soc J 37:288-90 Je 1 '54

GLASS, Effect of radiation on

Absorption law for samples of nonuniform concentration with special reference to the spectroscopy of irradiated glasses. I. G. Ross. bibliog diags Opt Soc Am J 44:40-4 Ja '54

Some effects of high energy radiation on glass. N. J. Kreidl. bibliog Ind & Eng Chem 46:170-1 Ja '54

GLASS, Effect of temperature on. See Glass—Temperature effect

GLASS, Heat absorbing

Night-seeing qualities of heat-absorbing glass; report of round table. W. F. Sherman. S A E J 61:44-5 D '53

GLASS, Opal

Determination of the diffuse transmittance of opal glass and the use of opal glass as a standard diffusor in light-scattering photometers. B. A. Brice and M. Halwer. Opt Soc Am J 44:340 Ap '54

GLASS, Optical

Application of the laws of chance to problems involving defects in optical glass. J. C. Young. diag Am Cer Soc Bul 32:407-12; 33:8-11 D 15 '53-Ja 15 '54

Cementing optical glasses to obtain strong joints free from striae. E. Djurle and others. il diags J Sci Instr 31:86-7+ Mr '54

Index of refraction of fused quartz glass for ultraviolet, visible, and infrared wavelengths. W. S. Rodney and R. J. Spindler. bibliog Opt Soc Am J 44:677-9 S '54

New optical glasses with good transparency in the infrared. R. Frerichs. bibliog Opt Soc Am J 43:1153-7 D '53

Optical characteristics of a 980:222 glass. R. A. Weidel. Opt Soc Am J 43:540-1 Je '53

Some effects of high energy radiation on glass. N. J. Kreidl. bibliog Ind & Eng Chem 46:170-1 Ja '54

Surface durability of optical glass. H. E. Simpson. Glass Ind 35:88-9 F '54

Testing

Elastic moduli of glasses by a dynamic method. S. Spinner. bibliog diags Am Cer Soc J 37:229-34 My 1 '54

See also

Lenses, Photographic—Testing

GLASS, Photosensitive

Method of opacifying the surface of glass articles; patent. Glass Ind 35:27-8 Ja '54

Recent developments in radiation-sensitive glasses. S. D. Stookey. il Ind & Eng Chem 46:174-6 Ja '54

GLASS, Porous. See Glass, Cellular

GLASS, Safety

Shawinigan ups polyvinyl butyral capacity; with pictured flow sheet. il Chem Eng 61:122+, 346-91 F '54

GLASS, Structural

Glass, glass block, glazing and caulking. il diags Am Bld 75:377+ Ap '53

New way to apply decorative glass on bathroom walls. il Am Bld 76:330+ Ja '54

See also

Glass construction

GLASS as lubricant

Hot extrusion; new family of uses; modified Ugine-Sejournet process; Scaife co. A. V. Murray. diags Iron Age 173:43 Ja 21 '54

GLASS bending

Precision shaping of panoramic windshield glass. il Automotive Ind 111:69 S 15 '54

GLASS blocks

Functional top lighting with glass block. H. F. Kingsbury and others. il diags Illum Eng 49:185-7; Discussion. 188-9 Ap '54

Glass, glass block, glazing and caulking. il diags Am Bld 75:377+ Ap '53

How to install glass blocks. diag Am Bld 75:218-19 Jl '53

How to install new glass block skylight. il plans diag Am Bld 76:299+ Ja '54

Is there a future for fused silica tank block? bibliog diags Brick & Clay Rec 125:74-5+ S '54

New freeze-room construction; Luick ice cream co. W. E. Sprinkman. il Food Eng 25:86 D '53

New glass block is developed for skylights. il diag Arch Rec 113:197+ Mr '53

Novel and practical use of glass block appeals to many home buyers. il Am Bld 75:204-5 Ag '53

Skylight glass block. il diags Arch Forum 98:158-9 Mr '53

GLASS construction

Aluminum foil honeycomb structural core is shown off in new glass sandwich. il Arch Forum 100:196+ My '54

Band shell under a glass tent. il diags Arch Forum 99:119 N '53

Bank building enclosed in glass; Fifth avenue office of the Manufacturers trust co. in New York city. Heat & Ven 51:114 F '54

Building hangs from concrete arches to permit maximum glass wall area. il Eng N 151:77-8 Ag 20 '53

Glass garage hangs its ramps from roof; views and plans. Arch Forum 100:156-9 Ja '54

Here's a way to get the new look with wood and glass; facade for the specialty sales building of Louis Best, lumber dealer. il plan diags Am Bld 75:219-21 Je '53

Low-cost glass walls. il diags Arch Forum 98:165 Ap '53

Our new crystal towers; working mainly with glass, four architects come out with four widely different interpretations. il Arch Forum 98:142-5 F '53

See also

Glass, Structural

Glass blocks

Walls, Glass

GLASS container industry

Accounting

Direct costing in a glass container plant. R. E. Longenecker. N A C A Bul 34:1280-96 Je '53

Advertising

One theme for six markets; Brockway Glass advertising campaign. il Sales Management 71:94 O 15 '53

GLASS container industry—*Continued*

Finance

Glass containers; producers manage modest growth despite inroads of rivals. H. Murphy. Barron's 33:13-14 N 2 '53

GLASS container manufacturers institute

Annual meeting, 10th. Cer Ind 63:68-9 Jl '54

Annual meeting, 10th, White Sulphur Springs, W.Va. May 17-19. Glass Ind 35:314-16 Je '54

Fall meeting, Fort Lauderdale, Dec. 1-3. Cer Ind 62:165 Ja '54; Glass Ind 35:21+ Ja '54

GLASS containers

Balanced packaging saves package costs and reduces losses. R. O. Spalding. diags Cer Ind 62:165+ Ap '54

Glamorizing with glass; glass aerosol. il Chem W 75:59-60+ S 18 '54

24 low-cost devices automate package line; Instant Postum packaging line. I. C. Miller. il diags Food Eng 26:92-3+ Mr '54

See also

Bottles

Glass jars

Manufacture

Factors influencing plant design for the production of glass containers. M. Cressy. maps diag Glass Ind 34:605-8+ N '53

Hot color speeds decorating at Brockway. C. E. Doolittle. il Glass Ind 34:661-2+ D '53

Testing

You get faster throughput by checking your supplies; glass-container pre-checks and specs. il Food Eng 26:79+ My '54

GLASS cutting

Automatic glass cutter; abstract. V. M. Obukhov. diags Glass Ind 35:80+ F '54

GLASS electrodes. See Electrodes, Glass

GLASS fabrics

Finishes for glass fabrics for reinforcing polyester plastics. L. P. Biefeld and T. E. Philipps. bibliog(36 ref) il Ind & Eng Chem 45:1281-6 Je '53

Finishing, dyeing and printing of glass decorative fabrics. R. F. Caroselli. diag Am Dyestuff Rep 43:327-8 My 24 '54

New clothing. il Safety Maint & Prod 106:14-16 N '53

New glass cloth has high strength, lower cost. Materials & Methods 40:146 Jl '54

New industrial applications of fiberglas textiles. R. C. Horton. Am Dyestuff Rep 43:330 My 24 '54

New method of repairing piping is use of plastic patches. H. S. Dewey. il Heating-Piping 26:170-1 Ja '54

Wash-and-hang demonstrations break retail jam for fiberglas. J. W. Dougherty. il Sales Management 70:50-2+ Ap 1 '53

GLASS factories

Fourcault plants abroad. T. G. White. il Am Cer Soc Bul 33:163-7 Je 15 '54

Good housekeeping improves efficiency and morale at Mississippi Glass. J. A. Mazzoni. Glass Ind 35:127-8 Mr '54

Life begins at 52 for L. J. Houze convex glass co. il Glass Ind 35:258-9+ My '54

Plant design and layout. R. S. Arrandale. diags Cer Ind 61:65-7+ S; 79+ O; 64-6 N; 80 D '53; Excerpts. Glass Ind 34:667-73+ D '53

Westinghouse gives it away; glass plant near Hot Springs. il Bsns W p29 D 26 '53

See also

Bottle factories

Electric equipment

Electronics is key to industrial revolution. il diags Cer Ind 62:126-8+ Ap '54

Equipment

Automatic control of glass forehearths. J. R. Green. il diags Am Cer Soc Bul 33:204-12 Jl 15 '54

Efficient material handling requires efficient equipment. R. W. Spain. Cer Ind 63:70+ Jl '54

Factors influencing plant design for the production of glass containers. M. Cressy. maps diag Glass Ind 34:605-8+ N '53

Handling of factory cullet from machine to storage. R. W. Spain. il Cer Ind 63:71-2+ S; 97-8+ O '54

Procedure for unloading and storing raw materials. R. W. Spain. Cer Ind 63:73-4 Ag '54

Pushbutton batching system pays off in two years; Gustin-Bacon manufacturing co. il Factory Management 112:126-8 Mr '54

Selection, installation and operation of woven wire belts for the glass industry. J. F. Reid. diags Glass Ind 35:260-5 My '54

See also

Glass tanks

Heating and ventilation

Ventilation problems in the glass and ceramics industry. W. G. Hazard. Glass Ind 35:139 Mr '54

Management

Oddities of glass demand effective material handling. R. W. Spain. Cer Ind 62:74-5 My '54

Scheduling of glass factory batch materials. R. W. Spain. Cer Ind 62:162-3+ Ap '54

Safety measures

National safety council Glass and ceramic section annual meeting, Chicago, Oct. 19-20; with abstracts of papers. Glass Ind 34:612-14+ N '53

Waste

Coagulating rouge with calcium chloride. J. A. McCarthy. Pub Works 85:170-1 My '54

GLASS fibers

Adhesives; agents for bonding fibrous glass pads to metal. W. J. Clayton. il Iron Age 172:160-3 S 17 '53

Application of glass fibers in filtration processes. C. A. Smucker and W. C. Marlow, jr. bibliog Ind & Eng Chem 46:176-8 Ja '54

Damping measurements on low frequency transverse vibrations of fibres. P. L. Kirby. diag J Sci Instr 30:339-40 S '53

Dielectric, physical properties improved in fiber glass tubing. Iron Age 172:152+ Ag 6 '53

Fiberglas as a papermaking material; abstract. T. S. Chambers. Pulp & Pa of Can 55:148 S '54

Filtration of microorganisms from air by glass fiber media. H. M. Decker and others. il diag Heating-Piping 26:155-8 My '54

Fire-fighting fibers. Chem W 73:78 N 14 '53

Glass fibers; chemical characteristics and coating techniques. A. Marzocchi. Am Dyestuff Rep 43:329-30 My 24 '54

Metal mutation; new fibrous glass-reinforced structural material. Chem W 75:42 S 11 '54

Method of measuring ultrafine glass fibers. R. K. Ladisch, B. McQue and S. L. Knesbach. bibliog diag Anal Chem 26:399-400 F '54

Navy develops structural material for modern equipment. Chem & Eng N 32:3734 S 20 '54

Pipe wrapped in glass blanket. il Chem Eng 60:250 Je '53

Progress in glass. il Mod Textiles Mag 35:47 S '54

Resin-glass; more puff than poundage. il Chem W 73:61-2 O 31 '53

Substitute materials make good, improve product; Bard mfg. co.'s furnaces. il Iron Age 174:133-4 Ag 5 '54

See also

Glass fabrics

Paper, Glass

Plastic materials—Glass reinforcement

Plastic materials, Laminated—Glass reinforcement

Manufacture

Glass fiber drawing device; patent. diag Glass Ind 35:26-7 Ja '54

Immersion heater for glass fiber manufacture; patent. diag Glass Ind 35:26 Ja '54

Method of producing fiber; patents. diag Glass Ind 34:675-6 D '53

GLASS furnaces

Assessment of the efficiency of glass tank furnaces. W. M. Hampton. Glass Ind 35:501+ S '54

Closer forehearth control increases container pack. il diag Cer Ind 62:71-2+ Je '54

Cut tank heating costs ten per cent with proper insulation. H. W. Baque. Cer Ind 62:77+ Mr '54; Abstract. Glass Ind 35:193 Ap '54

GLASS furnaces—*Continued*

Electric glass furnace uses moly electrodes; Northwestern glass co. il Chem Eng 61:136+ My '54

Evaluating the performance of continuous glass melting tank furnaces. D. E. Sharp and L. B. Ginther. Glass Ind 35:254-7+ My '54

See also

Glass tanks

Electric heating

Electric annealing and auxiliary heating in the glass industry; tr. by S. R. Scholes. J. Horowitz. il diags Glass Ind 34:599-603+, 663-6 N-D '53

Firing

Heating-up glass melting furnaces after rebuilding. L. F. Robertson. diag Am Cer Soc Bul 33:244-6 Ag 15 '54

Reduce your firing costs with proper oil supply system. diags Cer Ind 62:72+ Je '54

Lining

Heat; how it is applied, contained and controlled in all of the ceramic industries. W. L. Fabianic. diags Cer Ind 61:53-4+ D '53; 62:57-8 F; 55-6+ Mr; 148+ Ap '54; Same. Brick & Clay Rec 123:45-9 D '53; 124:97-8+ Mr; 99+ Ap; 66+ My '54

Type and design of refractories for glass melting furnaces. J. A. Johnson. Glass Ind 35:485+ S '54

Use of special refractories in superstructure and feeder. R. W. Knauft. il Brick & Clay Rec 125:71-3 Jl; 69+ Ag '54; Same. Cer Ind 63:70-1+ Ag; 59+ S '54; Abstract. Glass Ind 35:220+ Ap '54

GLASS handling

Evaluation of carloading methods and packages by split load shipments. J. G. Turk. diags Glass Ind 35:195-6+ Ap '54

Safe load impacts. H. E. Walker. il Glass Ind 35:186-91+ Ap '54

GLASS insurance. See Insurance, Glass

GLASS jalousies. See Blinds, Glass

GLASS jars

Tacky-Stacky; device for coating jar tops and bottoms. il Mod Packaging 27:122-3 Ja '54

GLASS lining

Combination heat exchangers; Pfaudler combines Hastelloy and glassed steel. il Chem & Eng N 32:2532 Je 21 '54

Glass-surfaced storage unit ends maintenance upkeep; Harvestore. il Chem & Eng N 32:3902 S 27 '54

GLASS machinery

Some mechanical problems of glass presses. N. A. Nichols. Glass Ind 35:441-2+ Ag '54

Patents

Inventions and inventors. Published in monthly numbers of Glass industry

GLASS making materials

How to save time and labor in receiving raw materials. R. W. Spain. il Cer Ind 62:92-3 Je '54

Lime, an essential in glassmaking; abstract. S. R. Scholes. Rock Prod 57:92 Je '54

GLASS manufacture

Alkalies and glass; allied industries. H. W. Harrington and R. V. Yount. flow diag Glass Ind 35:488-90 S '54

Annealing of flat glass; tr. by K. G. Eells and N. M. Brandt. B. Daragan. Glass Ind 35:423-9+ Ag '54

Conference on glass problems, 14th, Urbana, Ill. Dec. 3-4. Cer Ind 62:162-4 Ja '54; Glass Ind 35:15-18+ Ja '54

Electric annealing and auxiliary heating in the glass industry; tr. by S. R. Scholes. J. Horowitz. il diags Glass Ind 34:599-603+, 663-6 N-D '53

Engineering for increased glass productions. R. W. Shute and B. W. King. Ind & Eng Chem 46:172-4 Ja '54

Fourcault plants abroad. T. G. White. il Am Cer Soc Bul 33:163-7 Je 15 '54

Glass and batch control assures uniform product. J. B. Poole. Cer Ind 62:95-6+ Je '54; Same cond. Glass Ind 35:194-5 Ap '54

Local sand makes good in Kansas City area. il Ind & Eng Chem 46:sup 15A+ Ap '54

Method for obtaining glass samples from a continuous glass tank. E. L. Woodall, jr. Glass Ind 35:365-6+ Jl '54; Abstract. Cer Ind 62:78 My '54

Re-evaluation of glass viscosities at annealing and strain points. H. R. Lillie. diag Am Cer Soc J 37:111-17 Mr 1 '54

See also

Glass containers—Manufacture	Glass factories
	Glass tanks

History

Henry William Stiegel, pioneer iron and glass maker. R. D. Billinger. bibliog il J Chem Educ 30:356-62 Jl '53

Patents

Inventions and inventors. Published in monthly numbers of Glass industry

GLASS melting

Physical properties for glass control. H. R. Lillie. bibliog Glass Ind 35:481-4+ S '54

GLASS paper. See Paper, Glass

GLASS pipes. See Pipes, Glass

GLASS reinforcement of plastics. See Plastic materials—Glass reinforcement; Plastic materials, Laminated—Glass reinforcement

GLASS research

Action of hydrochloric acid solutions on borosilicate and soda-lime glass bottles. F. C. Raggon and F. R. Bacon. bibliog Am Cer Soc Bul 33:267-71 S 15 '54

Color and spectral transmittance of amber bottle glass. F. R. Bacon and C. J. Billian. bibliog Am Cer Soc J 37:60-6 F 1 '54

Constitution of soluble phosphate glasses. A. E. R. Westman and J. Crowther. bibliog il Am Cer Soc J 37:420-7 S 1 '54

Density phenomena in the transformation range of a borosilicate crown glass. H. N. Ritland. bibliog Am Cer Soc J 37:370-8 Ag 1 '54

Electron microscope investigation of glass. A. F. Prebus and J. W. Michener. il Ind & Eng Chem 46:147-53 Ja '54

Energy relations in binary alkali borates. L. Shartsis and W. Capps. bibliog Am Cer Soc J 37:27-32 Ja 1 '54

Galvanic potentials in silicate melts. bibliog diags Glass Ind 35:433-6+ Ag '54

Glass research problems; list of proposed fundamental research projects. Am Cer Soc Bul 33:292 S 15 '54

Re-evaluation of glass viscosities at annealing and strain points. H. R. Lillie. diag Am Cer Soc J 37:111-17 Mr 1 '54

Research digest. Published in monthly numbers of Glass industry

Some applications of radioactive tracers to glass problems; tr. by R. Brantlinger. I. Peyches. bibliog diags Glass Ind 35:309-13+ Je '54

Some uses of radioactive tracers in glass technology. S. F. Cox and K. M. Laing. bibliog Glass Ind 35:183-4+ Ap '54

Study of the reaction rates between silica and other oxides at various temperatures. Abd-El-Moneim Abon-El-Azim and H. Moore. Glass Ind 34:621+ N '53

Viscosity data on commercial glass. A. K. Lyle. bibliog Ind & Eng Chem 46:166-70 Ja '54; Abstract. Cer Ind 62:76 My '54

GLASS sand. See Sand

GLASS tanks

Electrical boosting ups tank capacity 22.5 percent. il Cer Ind 62:75 Mr '54

Glass tank with forced cooling of the sidewalls; abstract. M. I. Kozmin. diags Glass Ind 35:78 F '54

Sidewall and superstructure refractories application in glass tanks. O. White. Glass Ind 35:129-30+ Mr '54

Some factors in glass tank operation and design. F. L. Bishop. diags Am Cer Soc Bul 32:212-14 Je 15 '53; Same cond. Glass Ind 35:145+ Mr '54

Use of special refractories in superstructure and feeder. R. W. Knauft. il Brick & Clay Rec 125:71-3 Jl; 69+ Ag '54; Same. Cer Ind 63:70-1+ Ag; 59+ S '54; Abstract. Glass Ind 35:220+ Ap '54

GLASS trade

5000 years old, with a bright future. C. Williams. Glass Ind 34:634-5 N '53

1953 glass industry in review. H. E. Simpson. il Cer Ind 62:68-9+ F; 72-4+ Mr '54

Securities

Romance of the new glass industry; with brief sketch of nine major companies. S. Devlin. il Mag of Wall St 93:434-6+ Ja 9 '54

Statistics

Glass products, 1949-1952. Survey of Cur Bsns 1953 Sup p 184 [supplemented in monthly numbers]

Germany

German export of glass and glassware in North, Central and South America. E. Stein. Glass Ind 35:371-3 Jl '54

Russia

U.S.S.R. expands glass production. Chem & Eng N 32:728 F 22 '54

GLASS tubing

Hints for better cuts in large glass tubing. V. S. Gupta. Chem Eng 60:200-1 Ag '53

How to do the near-impossible with glass tubes; Oldbury electro-chemical's perchloric acid plant. il diag Chem Eng 60:130+ O '53

Manufacture

Stems without strains; Sylvania electric products, inc. C. R. Cowley. il Glass Ind 35:192+ Ap '54

GLASS walls. See Walls, Glass

GLASSWARE

Don't sell the glass, sell the use. il Sales Management 72:93-4+ Je 15 '54

Further study asked on glassware regarding effect of imports. For Comm W 50:22 N 30 '53

See also

Ampuls

GLASSWARE, Laboratory

All-glass atomizer for chromatographic analysis procedures. V. H. Ortegren. diags Anal Chem 26:943-4 My '54

All-glass valve for cannon automatic dispenser. P. L. Hoogland. diag Anal Chem 25:685 Ap '53

Centrifugal pump target assembly for the cyclotron bombardment of liquids. W. M. Garrison and others. il diags R Sci Instr 24:462-3 Je '53

Cleaning, care and maintenance of glass, metal and plastics apparatus. J. A. Edwards. Chem Age (Lond) 70:1433-6 Je 26 '54

Glass and chemistry; James A. Jobling & co. il Chem Age (Lond) 70:1467 Je 26 '54

Glass and O-ring vacuum valves. G. W. Preckshot and V. E. Denny. diags Anal Chem 26:1398 Ag '54

Glass leak and control valves. E. R. Harrison. bibliog diags J Sci Instr 30:170-1 My '53

Glass solenoid pump. L. E. Leake. diags J Sci Instr 30:434 N '53

Improved glass distillation column easier to handle, less subject to breakage. diags Oil & Gas J 52:129 D 7 '53

Polyethylene-coated glass flasks; abstract. G. A. Simmons, jr. Anal Chem 26:248 Ja '54

Simple agitation device for highly radioactive volumetric flasks. L. E. Preuss and M. A. Edsel. il diags J Sci Instr 30:252-3 Jl '53

Two effective but inexpensive antiwetting agents. J. E. Taylor. J Chem Educ 31:124 Mr '54

Universal reagent for cleaning glassware; hydrofluoric acid. R. H. A. Crawley. Chem & Ind p 1205-6 N 7 '53

See also

Pipets

GLASSY state

Fundamental approaches to the glassy state through radioactive tracers; abstract. H. H. Blau. Cer Ind 62:85 F '54

Preparation of plates of boric acid glass for use in the study of luminescence. F. E. E. Germann and others. bibliog diags Opt Soc Am J 44:496-8 Je '54

Relaxation distribution function of polyisobutylene in the transition from rubber-like to glass-like behavior. J. D. Ferry and others. bibliog(27 ref) J Ap Phys 24:911-16 Jl '53

Segmental mobility of polymers near their glass temperature. F. Bueche. bibliog J Chem Phys 21:1850-5 O '53

Small adjustable X-ray crystal monochromator. J. Fortey and E. Cohen. diags J Sci Instr 31:11-13 Ja '54

Statistical theories as applied to the glassy state. O. L. Anderson and D. A. Stuart. bibliog(40 ref) Ind & Eng Chem 46:154-60 Ja '54

GLAUCOMA. See Eye—Diseases

GLAZES

China defects; causes and cures; glaze defects from faulty bisque. J. A. Burns. Cer Ind 61:82 D '53

Control tests for glazed structural tile. P. D. Martino. bibliog diags Am Cer Soc Bul 33:13-15 Ja 15 '54

Crawling of glazes. R. R. Danielson. bibliog Am Cer Soc Bul 33:73-4 Mr 15 '54

Defects in hotel chinaware glaze; their causes and cures. J. A. Burns. Cer Ind 62:172 Ap '54

Effects of zirconium-type opacifiers on properties of glasses. C. W. F. Jacobs and W. J. Baldwin. il Am Cer Soc J 37:258-66 Je 1 '54

Glaze binders. T. Knapp. Am Cer Soc Bul 33:11-12 Ja 15 '54

How to control quality in colored glazes. W. G. Coulter. il Cer Ind 63:79-80+ Jl; 79-80+ Ag '54

How to prepare and apply engobes and body stains. W. G. Coulter. Cer Ind 63:76-7 S '54

Interface reaction between glazes and the crystal phases in a high-talc tile body. A. C. Perricone and R. L. Stone. bibliog il Am Cer Soc J 37:33-8 F 1 '54

Opacifying crystalline phases present in zirconium-type glazes. C. W. F. Jacobs. bibliog Am Cer Soc J 37:216-20 My 1 '54

Producer has spit-out trouble. Cer Ind 63:100 S '54

Triaxial test offers glaze control method. F. C. Ball. Cer Ind 61:84-5+ D '53

See also

Frits

GLEMSER, Oskar, 1911-

Oskar Glemser. R. E. Oesper. por(front) J Chem Educ 30:550-1 N '53

GLIDERS

MacCready is champ at glider meet. Aviation W 59:16 Ag 3 '53

GLOBULINS

Armour laboratories operates globulin-albumin plant. il Chem & Eng N 31:2687 Je 29 '53

Composition and hydration of protein crystals in salt solutions. T. L. McMeekin, M. L. Groves and N. J. Hipp. bibliog Am Chem Soc J 76:407-13 Ja 20 '54

Distribution and use of gamma globulin. bibliog Pub Health Rep 68:660-5 Jl '53

Gamma globulin failed to make polio inroads. Oil Paint & Drug Rep 165:5 Mr 1 '54

Gamma globulin for polio. Sci Am 188:50+ Je '53

Gamma globulin in a poliomyelitis outbreak in Montgomery, Ala. 1953. D. G. Gill. il Pub Health Rep 68:1021-4 N '53

Gamma globulin in polio. W. M. Hammon. il Sci Am 189:25-9 Jl '53

Gamma globulin stop-gap; staff report. il Chem & Eng N 31:3060-3 Jl 27 '53

Kinetics of protein denaturation; the optical rotations of serum albumin, β-lactoglobulin and pepsin in urea solutions. W. Kauzmann and R. B. Simpson. bibliog Am Chem Soc J 75:5154-7 N 5 '53

Mexico to control use, sale of gamma globulin. For Comm W 50:12 D 7 '53

Optical rotation of human serum albumin and γ-globulin. B. Jirgensons and S. Sirotzky. bibliog Am Chem Soc J 76:1367-70 Mr 5 '54

Organizing mass gamma globulin clinics in three North Carolina counties. C. M. Cameron, jr. il Pub Health Rep 68:1025-33 N '53

Plan for the allocation of gamma globulin. Pub Health Rep 68:666-8 Jl '53

Temperature control; key to gamma globulin. il Chem Eng 60:117-18+ N '53

GLOBUS, Joseph Haim, 1885-1952

Sketch. N. A. Michels. Science 118:233 Ag 28 '53

GLOSS

Comparison of colorimetric results from a normal-diffuse spectrophotometer with those from a 45-degree-normal colorimeter for semiglossy specimens. W. E. K. Middleton. bibliog Opt Soc Am J 43:1141-3 D '53

Glossmeter design and gloss standards. Oil Paint & Drug Rep 164:80 N 2 '53

GLOSS measurement. See Paper—Gloss measurement

GLOVES

Three basic methods for knitted gloves. D. Singer. il diags Mod Textiles Mag 34:54-6 N '53

GLOVES, Safety

Gloves cut costs; John J. Nesbitt inc. Steel 134:166 F 8 '54

Gloves solve burning problem. Nat Safety N 69:165 Mr '54

Hand in glove; plastic coating. il Safety Maint & Prod 108:23-4 S '54

What kind of a glove program? H. H. Colehower. il Safety Maint & Prod 107:25-6 F '54

Woodsmen spare their hands! K. Strobel. il Safety Maint & Prod 106:25-6 N '53

GLOW discharges. See Electric discharges

GLUCOFURANOSE

2,5-Dimethyl-D-glucofuranose and two new crystalline derivatives. R. E. Reeves. Am Chem Soc J 76:934-5 F 5 '54

GLUCONIC acid

Production of organic acids by molds. S. M. Martin. Can Chem Process 37:33-4 O '53

Reduction of 5-keto-D-gluconic acid with sodium borohydride. J. K. Hamilton and F. Smith. bibliog Am Chem Soc J 76:3543-4 Jl 5 '54

GLUCOPYRANOSE

Spectrum

Infra-red spectra of carbohydrates; some derivatives of D-glucopyranose. S. A. Barker and others. Chem Soc J p 171-6 Ja '54

GLUCOPYRANOSYLBROMIDE

Reactivity of the *O*-acylglycosyl halides; the solvolytic reactions of tetra-*O*-acetyl-α-D-glucopyranosyl 1-bromide. F. H. Newth and G. O. Phillips. Chem Soc J p2896-900 O '53

GLUCOSAMINE

D-glucosamine as an antagonist of glucose in carbohydrate metabolism of yeast. G. E. Woodward and M. T. Hudson. bibliog Franklin Inst J 255:556-60 Je '53

Effect of glucosamine on culture of embryo chicken heart cells. J. O. Ely and others. il Franklin Inst J 255:561-2 Je '53

Glucosamine 6-phosphate. J. M. Anderson and E. Percival. bibliog Chem & Ind p 1018 Ag 14 '54

GLUCOSAMINIDE

Correlation of the rates of deamination of glucosaminides with configuration at the glycosidic centre. A. B. Foster and others. bibliog Chem & Ind p825-6 Ag 1 '53

GLUCOSAN

Characterization of branched α:1-4-glucosans. D. M. W. Anderson and C. T. Greenwood. bibliog Chem & Ind p642 Je 27 '53

α-1 : 4-Glucosans; the inter-chain linkages in glycogens. D. J. Bell and D. J. Manners. Chem Soc J p 1891-3 Je '54

Polysaccharide aryl carbamates; tricarbanilates of polyglucosans with various glucosidic linkages. I. A. Wolff, P. R. Watson and C. E. Rist. bibliog Am Chem Soc J 75:4897-9 O 20 '53

Studies of aspergillus niger; the structure of the polyglucosan synthesised by aspergillus niger 152. S. A. Barker, E. J. Bourne and M. Stacey. Chem Soc J p3084-90 O '53

GLUCOSE

Browning reaction between glucose and ammonia. L. Hough and others. bibliog Chem & Ind p545-6 My 8 '54

Carbohydrate analogs as antagonists of glucose in carbohydrate metabolism of yeast. G. E. Woodward and others. Franklin Inst J 256:577-87 D '53

Cheaper sugar from wood; improvements in Rheinau process. diag Ind & Eng Chem 46: sup 13A+ Mr '54

Chemical degradation of ^{14}C-glucose and its application to ^{14}C-starch from polytomella coeca. J. C. Bevington and others. bibliog Chem & Ind p 1390-1 D 26 '53

Degradation of carbohydrates by alkali; 3-*O*-methyl derivatives of glucose and fructose. J. Kenner and G. N. Richards. Chem Soc J p278-82 Ja '54

Degradation of carbohydrates by alkali; 1-*O*-methylfructose, glucose, and fructose. J. Kenner and G. N. Richards. Chem Soc J p 1784-9 Je '54

Degradation of glucose. C. T. Bishop. bibliog Science 117:715-17 Je 26 '53

D-glucosamine as an antagonist of glucose in carbohydrate metabolism of yeast. G. E. Woodward and M. T. Hudson. bibliog Franklin Inst J 255:556-60 Je '53

Development of the activated hydroperoxide-dextrose formula for hot rubber. R. F. McCann and others. bibliog India Rubber World 129:209-12+ N '53

Diffusion in sugar solutions; diffusion of sucrose in glucose solutions as solvent. D. M. Clarke and M. Dole. bibliog Am Chem Soc J 76:3745-51 Jl 20 '54

Effect of acid and heat on dextrose and dextrose polymers. W. R. Fetzer and others. bibliog(46 ref) Ind & Eng Chem 45:1075-83 My '53

Importance of glycolytic and oxidative pathways in glucose utilization by liver. J. Katz and others. Am Chem Soc J 76:2277-8 Ap 20 '54

Kinetics of the chlorite-glucose reaction. H. F. Launer and Y. Tomimatsu. Am Chem Soc J 76:2591-3 My 5 '54

Occurrence of glucose residues in inulin. G. O. Aspinall and R. G. J. Telfer. bibliog Chem & Ind p490 My 16 '53

Pathways of glucose catabolism. B. Bloom and D. Stetten, jr. Am Chem Soc J 75: 5446 N 5 '53

Phase equilibria in sugar solutions; ternary system of water-glucose-fructose. F. H. C. Kelly. bibliog J Ap Chem 4:409-11 Ag '54

Polarographic investigation of the mechanism of mutarotation of *d*-glucose. J. M. Los and K. Wiesner. bibliog Am Chem Soc J 75:6346-7 D 20 '53

Polyglucose structures with special reference to the dextran group; abstract. M. Stacey. Chem & Ind p38-9 Ja 9 '54

Potassium acid saccharate by nitric acid oxidation of dextrose. G. C. Mustakas, R. L. Slotter and R. L. Zipf. bibliog flow sheet il diag Ind & Eng Chem 46:427-34 Mr '54

Radioisotopic dilution analysis for D-glucose and gentiobiose in hydrol. J. C. Sowden and A. S. Spriggs. bibliog Am Chem Soc J 76: 3539-41 Jl 5 '54

Structure of the oxazoline derivatives of glucose and galactose. J. C. P. Schwarz. Chem Soc J p2644-6 Jl '54

Wood challenges corn as dextrose source; with cost data. diags Chem Eng 61:138+ F '54

See also

Dextran

Analysis

Acid reversion products from D-glucose. A. Thompson and others. bibliog Am Chem Soc J 76:1309-11 Mr 5 '54

Determination of D-glucose in corn sirups. R. L. Whistler, L. Hough and J. W. Hylin. bibliog Anal Chem 25:1215-16 Ag '53

Determination of glucose by means of sodium chlorite. H. F. Launer and others. bibliog J Res Nat Bur Stand 51:237-45 N '53

New color reagent for determination of hexoses; determination of glucose in blood serum. B. Klein and M. Weissman. bibliog Anal Chem 25:771-4 My '53

Photometric determination of glucose in presence of fructose. F. Stitt and others. bibliog il Anal Chem 26:1478-84 S '54

Reaction between chlorous acid and glucose. H. F. Launer and Y. Tomimatsu. bibliog Anal Chem 26:382-6 F '54

GLUCOSE dehydrogenase

Determination of D-glucose in corn sirups. R. L. Whistler, L. Hough and J. W. Hylin. bibliog Anal Chem 25:1215-16 Ag '53

GLUCOSIDES. See Glycosides

GLUCURONIC acid
Preparation of salts of glucuronic acid. W. Hach and D. G. Benjamin. Am Chem Soc J 76:917-18 F 5 '54

GLUE
Gelatine and animal glues; improvement in jelly strength testing. il Chem Age (Lond) 69:707 O 3 '53
Glue from tree waste. Chem Age (Lond) 70: 1248 Je 5 '54
Infrared lamps cure glue rapidly. L. B. Reed. il Elec World 141:136 F 8 '54
Sveen glue. R. Tutt, jr. Pulp & Pa of Can (Convention no) 55:171-2+ [F] '54; Same cond. Tappi 36:sup 143A-4A D '53
See also
Adhesives
British gelatine and glue research association

GLUTAMATES
Amine glutamates. B. Vassel and W. G. Skelly. Am Chem Soc J 76:308-9 Ja 5 '54

GLUTAMIC acid
Metal chelating tendencies of glutamic and aspartic acids. R. F. Lumb and A. E. Martell. bibliog J Phys Chem 57:690-3 O '53
N-{p-[(2,4-diamino-6-pteridylmethyl)-tosylamino]-benzoyl}-L-glutamic acid, a pteroylglutamic acid analog. B. J. Magerlein and D. I. Weisblat. Am Chem Soc J 76: 3033 Je 5 '54
Optical rotation of peptides; glutamic acid tripeptides. H. Sachs and E. Brand. bibliog Am Chem Soc J 76:1811-14 Ap 5 '54
Resolution of glutamic acid with 1-hydroxy-2-aminobutane. F. H. Radke, R. B. Fearing and S. W. Fox. bibliog Am Chem Soc J 76:2801-3 My 20 '54
Structure of bacterial polyglutamic acid. S. G. Waley. bibliog Chem & Ind p 1148 S 11 '54

GLUTAMINE
Imides from asparagine and glutamine. E. Sondheimer and R. W. Holley. bibliog Am Chem Soc J 76:2467-70 My 5 '54
Mechanism of the enzymatic synthesis of glutamine. G. C. Webster and J. E. Varner. bibliog Am Chem Soc J 76:633 Ja 20 '54
γ-Methyleneglutamine and γ-methyleneglutamic acid in the tulip (tulipa gesneriana). R. M. Zacharius, J. K. Pollard and F. C. Steward. Am Chem Soc J 76:1961-2 Ap 5 '54
Synthesis of L-glutaminyl-L-asparagine, L-glutamine and L-isoglutamine from p-toluene-sulfonyl-L-glutamic acid. J. M. Swan and V. du Vigneaud. bibliog Am Chem Soc J 76:3110-13 Je 20 '54
Synthesis of peptides of L-glutamine by the carbobenzoxy azide method. E. Sondheimer and R. W. Holley. bibliog Am Chem Soc J 76:2816-18 My 20 '54

GLUTAMYL peptide
Conversion of α-glutamyl peptide derivative into the γ-isomer. D. W. Clayton and G. W. Kenner. bibliog Chem & Ind p 120-5 N 7 '53
Glutamyl polypeptide promising as blood expander. Chem & Eng N 32:1999-2000 My 17 '54

GLUTARIC acids
Synthesis of substituted β-thienyl- and β-furylglutaric acids. W. T. Smith, jr. and R. W. Shelton. bibliog Am Chem Soc J 76:2731-2 My 20 '54

Analysis

Isolation of β-hydroxy-β-methylglutaric acid from the seed of flax (linum usitatissimum). H. J. Klosterman and F. Smith. bibliog Am Chem Soc J 76:1229-30 Mr 5 '54
Polarographic determination of alpha-keto-glutaric acid. J. K. Palmer and C. O. Jensen. bibliog Anal Chem 26:1049-50 Je '54

GLUTATHIONE
Mechanism of the enzymatic synthesis of glutathione. J. E. Snoke. Am Chem Soc J 75:4872-3 O 5 '53
Reactions between mercuric mercury and cysteine and glutathione; apparent dissociation constants, heats and entropies of formation of various forms of mercuric mercapto-cysteine and -glutathione. W. Stricks and I. M. Kolthoff. bibliog Am Chem Soc J 75:5673-81 N 20 '53
Stability of zinc complexes with glutathione and oxidized glutathione. N. C. Li, O. Gawron and G. Bascuas. bibliog Am Chem Soc J 76:225-9 Ja 5 '54

Analysis

Amperometric titration of oxidized glutathione in presence of cystine. W. Stricks and I. M. Kolthoff. bibliog Anal Chem 25: 1050-7 Jl '53
Polarographic and amperometric mercurometric determination of disulfide groups. W. Stricks, I. M. Kolthoff and N. Tanaka. bibliog Anal Chem 26:299-303 F '54

GLYCERIC acid
Antispasmodics; β-diethylaminoethyl esters of β,β-diphenylglycidic, β,β-diphenyllactic and β,β-diphenylglyceric acids. F. F. Blicke and J. A. Faust. bibliog Am Chem Soc J 76:3156-9 Je 20 '54
New synthesis of 2-phosphoryl-D-glyceric acid. C. E. Ballou and H. O. L. Fischer. bibliog Am Chem Soc J 76:3188-93 Je 20 '54

GLYCERIDES
Displacement analysis of lipids; model mixtures of glycerides. J. G. Hamilton and R. T. Holman. bibliog Am Chem Soc J 76: 4107-9 Ag 20 '54
Equilibrium between symmetrical and unsymmetrical monoglycerides and determination of total monoglycerides. J. B. Martin. bibliog Am Chem Soc J 75:5483-6 N 20 '53
Preparation of saturated and unsaturated symmetrical monoglycerides. J. B. Martin. bibliog Am Chem Soc J 75:5482-3 N 20 '53
Stretching it out; coplasticizers for high polymers. Ind & Eng Chem 46:sup 13A+ S '54

GLYCERIN
Economics of glycerine, today and tomorrow; abstract. E. S. Pattison. Soap & San Chem 30:37 F '54
Ester gum by esterification of rosin with glycerol. D. D. Hind, T. T. Kanno and C. S. Miner, jr. bibliog diag Ind & Eng Chem 46:441-52 Mr '54
Glycerin boosters; 1953 research awards of Glycerine producers' association. Chem W 74:48 F 6 '54
Glycerine downslide skids to a halt. Chem W 74:73-4+ Ja 30 '54
Glycerine; expanding uses. M. A. Lesser. bibliog Soap & Chem Spec 30:37-40 Jl '54
Glycerine today. E. S. Pattison. Soap & San Chem 29:50-3 F '53
Polarography in glycerol at elevated temperatures. T. De Vries and D. B. Bruss. bibliog Electrochem Soc J 100:445-7 O '53
Rate of evaporation of glycerol in high vacuum. D. J. Trevoy. bibliog diag Ind & Eng Chem 45:2366-9 O '53
What's ahead for glycerine? E. S. Pattison. Soap & San Chem 30:48-50+ Mr '54

Analysis

Changes glycerol test; American oil chemists' society. Soap & Chem Spec 30:95 Je '54
Colorimetric determination of glycerol. H. D. Reese and M. B. Williams. bibliog(25 ref) Anal Chem 26:568-70 Mr '54
Rapid determination of glycerol by the potassium periodate method. L. Hartman. bibliog J Ap Chem 3:308-11 Jl '53
Spectrophotometric determination of glycerol as sodium-cupri-glycerol complex. F. Spagnolo. Anal Chem 25:1566-8 O '53
Stamp of approval; American oil chemists society leaves only sodium periodate method of glycerine analysis officially recognized. Chem W 74:44+ Je 5 '54; Oil Paint & Drug Rep 165:64 Je 14 '54

Manufacture

Glycerol; manufacturing process. diag Pet Refiner 32:138-9 N '53

Physiological effect

Comparative toxicity of synthetic and natural glycerin. C. H. Hine and others. bibliog flow diag A M A Archives Ind Hygiene & Occup Med 7:282-91 Ap '53

GLYCERIN soap. See Soap, Transparent

GLYCEROL. See Glycerin

GLYCERYL borate

Synthesis of glyceryl borate. T. Ahmad and M. H. Khundkar. bibliog Chem & Ind p248-9 F 27 '54

GLYCIDIC acid

Antispasmodics; β-diethylaminoethyl esters of β,β-diphenylglycidic, β,β-diphenyllactic and β,β-diphenylglyceric acids. F. F. Blicke and J. A. Faust. bibliog Am Chem Soc J 76:3156-9 Je 20 '54

Antispasmodics; β-diethylaminoethyl esters of substituted acetic and glycidic acids. F. F. Blicke, J. A. Faust and H. Raffelson. bibliog Am Chem Soc J 76:3161-3 Je 20 '54

Studies relating to the formation and reactions of glycidic esters. W. S. Johnson and others. bibliog Am Chem Soc J 75:4995-5001 O 20 '53

Synthesis and reactions of certain α-substituted glycidic esters. H. H. Morris and M. L. Lusth. bibliog Am Chem Soc J 76:1237-41 Mr 5 '54

GLYCIDOL

Course of ring opening of glycidyl ethers with nucleophilic reagents. G. Van Zyl and others. bibliog Am Chem Soc J 75:5002-6 O 20 '53

GLYCINAMIDE

Enzymatic cleavage of glycinamide from vasopressin and a proposed structure for this pressor-antidiuretic hormone of the posterior pituitary. V. du Vigneaud, H. C. Lawler and E. A. Popenoe. Am Chem Soc J 75:4880-1 O 5 '53

Synthesis of the tetrapeptide amide s-benzyl-L-cysteinyl-L-prolyl-L-leucylglycinamide. C. Ressler and V. du Vigneaud. bibliog Am Chem Soc J 76:3107-9 Je 20 '54

GLYCINE

Amino-acids and peptides; the kinetics of the self-condensation of glycylglycylglycine methyl ester. P. S. Rees, D. P. Tong and G. T. Young. Chem Soc J p662-5 F '54

Biosynthesis of streptomycin; studies with C-14-labeled glycine and acetate. P. Numerof and others. bibliog Am Chem Soc J 76:1341-4 Mr 5 '54

Conversion of glycine to serine by human liver tissue. C. M. Grossman and others. Science 118:330 S 18 '53

Copper(II) and zinc complexes of some amino acids and glycylglycine. N. C. Li and E. Doody. bibliog Am Chem Soc J 76:221-5 Ja 5 '54

Cyclization of substituted *N*-thiocarbamoylglycines, and some *mero*cyanine dyes derived from the products. R. A. Jeffreys. Chem Soc J p2221-30 Jl '54

Physicochemical studies of the simpler polypeptides; the acid- and base-catalyzed hydrolysis of di-, tri-, tetra-, penta- and hexaglycine. E. F. Hammel, jr. and S. Glasstone. bibliog Am Chem Soc J 76:3741-5 Jl 20 '54

Preparation of hydroxyphenylserines from benzaldehydes and glycine. W. A. Bolhofer. bibliog Am Chem Soc J 76:1322-6 Mr 5 '54

Preparation of N-dialkylphosphorylated glycine. T. Lies, R. E. Plapinger and T. Wagner-Jauregg. bibliog Am Chem Soc J 75:5755-6 N 20 '53

Reaction between glycine and the hexose phosphates. S. Schwimmer and H. S. Olcott. bibliog Am Chem Soc J 75:4855-6 O 5 '53

Steric effects and the stability of complex compounds; the chelating tendencies of N-alkylglycines and N-dialkylglycines with copper(II) and nickel(II) ions. F. Basolo and Yun Ti Chen. bibliog Am Chem Soc J 76:953-5 F 20 '54

Synthesis of glycyl and alanyl chlorides. S. Levine. Am Chem Soc J 76:1382 Mr 5 '54

GLYCOGEN

Demonstration of glycogen synthesis by rat kidney slices in vitro. J. B. Marsh and K. L. Miller. Science 118:416-17 O 9 '53

α-1 : 4-Glucosans; the inter-chain linkages in glycogens. D. J. Bell and D. J. Manners. Chem Soc J p 1891-3 Je '54

Identification of glycogen in whole bacterial cells by infrared spectrophotometry. S. Levine and others. Science 118:141-2 Jl 31 '53

GLYCOL

3-Acylacetamidobenzaldehyde ethylene glycol acetals. J. O. Corner and E. L. Martin. Am Chem Soc J 76:3593-4 Jl 5 '54

Allied dedicates Texas plant. il Chem & Eng N 32:2184 My 31 '54

Long glycol upturn halted. Chem & Eng N 31:5402 D 28 '53

Mechanism of oxidation of α-glycols by periodic acid; ethylene glycol. G. J. Buist and C. A. Bunton. Chem Soc J p 1406-13 My '54

Outlook for ammonia, phenol and ethylene glycol. Chem Eng 60:363-4 Je '53

Pyrolysis of sulfites; glycol sulfites. C. C. Price and G. Berti. bibliog Am Chem Soc J 76:1211-13 Mr 5 '54

Seven for glycol. Chem W 75:78+ Ag 7 '54

Analysis

Determination of 1,2-propylene glycol in ethylene glycol. I. M. Baumel. bibliog Anal Chem 26:930-1 My '54

Determination of 1,2-propylene glycol in ethylene glycol mixture. C. B. Jordan and V. O. Hatch. bibliog Anal Chem 25:636-8 Ap '53

Dichromate oxidation of diethylene glycol. M. J. Cardone and J. W. Compton. bibliog Anal Chem 25:1869-74 D '53

Manufacture

Catalytic oxidation of aqueous wastes. J. Oliver. diags Chem Eng Prog 50:425-7 Ag '54

Ethylene oxide and ethylene glycol; Stone & Webster-Badger. diag Pet Refiner 32:140-1 N '53

Ethylene oxide and glycol; cost summary. flow diag Pet Refiner 32:154-5+ S '53

GLYCOLAMIDE

Study of the diffusion of glycolamide in water at 25° with the Gouy interference method. P. J. Dunlop and L. J. Gosting. bibliog Am Chem Soc J 75:5073-5 O 20 '53

GLYCOLATES

Conductivity and solubility studies of some glycollates and lactates. W. P. Evans and C. B. Monk. Chem Soc J p550-7 F '54

Physiological effect

Chronic oral toxicity of ethyl phthalyl ethyl glycolate in rats and dogs. H. C. Hodge and others. il A M A Archives Ind Hygiene & Occup Med 8:289-95 S '53

GLYCOLIC acid

Role of chloroacetylpolyglycolic acids in the potassium bromide catalyzed conversion of chloroacetic acid and naphthalene into α-naphthylacetic acid. P. L. Southwick and others. bibliog Am Chem Soc J 76:754-7 F 5 '54

GLYCOLS

Cleavage reaction of 1,3-diols. H. E. Zimmerman and J. English, jr. bibliog Am Chem Soc J 76:2285-90 My 5 '54

Cleavage reaction of 1,3-diols; the synthesis, cleavage and proof of configuration of two pairs of diastereomeric secondary-tertiary 1,3-diols. H. E. Zimmerman and J. English, jr. bibliog Am Chem Soc J 76:2291-4 My 5 '54

Cleavage reaction of 1,3-diols; the synthesis of a pair of diastereomeric ditertiary 1,3-diols and an effect of configuration on mode of cleavage. H. E. Zimmerman and J. English, jr. bibliog Am Chem Soc J 76:2294-300 My 5 '54

Composition of some tetra-*t*-butyl titanate-glycol reaction products. R. E. Reeves and L. W. Mazzeno, jr. Am Chem Soc J 76:2533-6 My 5 '54

Conformation of 2-(2,3-dimethoxyphenyl)-cyclohexane-1,2-diol, a *cis*-glycol. D. Ginsburg. bibliog Am Chem Soc J 75:5746-7 N 20 '53

Elimination of water from glycols; dehydration of racemic 1 : 4-glycols derived from acenaphthene. R. Roger and D. M. Shepherd. Chem Soc J p812-14 Mr '54

Kinetics of the periodate oxidation of ethylene glycol and a series of methylated ethylene glycols. F. R. Duke and V. C. Bulgrin. Am Chem Soc J 76:3803-6 Jl 20 '54

GLYCOLS—*Continued*

p-Menthane-2 : 3-diols; reductions of diosphenol with aluminium *iso*propoxide and with lithium aluminium hydride. A. K. Macbeth and W. G. P. Robertson. Chem Soc J p701-4 F '54

p-Menthane-2 : 3-diols; the reaction of mercuric acetate with (±)-menthone and (±)-*iso*menthone. P. R. Jefferies, A. K. Macbeth and B. Milligan. Chem Soc J p705-8 F '54

Organic phosphorus compounds; reactions of methanephosphonyl dichloride with diols. A. F. McKay and others. bibliog Am Chem Soc J 76:3546-8 Jl 5 '54

Pinacol rearrangement of some α,β-acetylenic glycols. R. B. Davis and W. F. Erman. bibliog Am Chem Soc J 76:3477-8 Jl 5 '54

Preparation and properties of the epimeric 2,3-dimethylbutane-1,4-diols and some derivatives. G. E. McCasland and S. Proskow. bibliog Am Chem Soc J 76:3486-8 Jl 5 '54

Reducing action of glycols in alkaline medium; mechanism of formation of stilbenes from substituted benzaldehydes. W. Tadros, L. Ekladius and A. B. Sakla. Chem Soc J p2351-3 Jl '54

Selective oxidation of some steroid diols. R. E. Jones and F. W. Kocher. Am Chem Soc J 76:3682-3 Jl 20 '54

Studies on the chemistry of heterocyclics; investigations on diacetylenes and diacetylenic glycols in the thiophene series. A. Vaitiekunas and F. F. Nord. bibliog Am Chem Soc J 76:2733-6 My 20 '54

Synthesis of glycol bis-(alkyl sulfites). D. C. Morrison. bibliog Am Chem Soc J 76:3224-5 Je 20 '54

Wool wax; the constitution of the aliphatic diols. D. H. S. Horn and F. W. Hougen. Chem Soc J p3533-8 N '53

Analysis

Chromatographic separation of glycols and monohydric alcohols. S. Dal Nogare. diag Anal Chem 25:1874-7 D '53

Quantitative determination of 1,2-glycols in mixtures. E. A. Adelberg. Anal Chem 25:1553-4 O '53

Some applications of the Komarowsky reaction. S. Dal Nogare and J. Mitchell, jr. bibliog Anal Chem 25:1376-9 S '53

Spectrophotometric determination of vicinal glycols; application to the determination of ribofuranosides. J. S. Dixon and D. Lipkin. Anal Chem 26:1092-3 Je '54

GLYCOPROTEINS

Crystallization and properties of a glycoprotein isolated from human plasma. R. K. Brown and others. Am Chem Soc J 76:4244-5 Ag 20 '54

GLYCOSIDES

Cardiac glycosides of gomphocarpus fruticosus (R.Br.). T. R. Watson and S. E. Wright. bibliog Chem & Ind p 1178 S 18 '54

Configuration of the glycosidic unions in streptomycin. M. L. Wolfrom and others. bibliog Am Chem Soc J 76:3675-7 Jl 20 '54

Correlation of the rates of deamination of glucosaminides with configuration at the glycosidic centre. A. B. Foster and others. bibliog Chem & Ind p825-6 Ag 1 '53

Digitalis glucosides; the structure of the digitalis anhydrogenins and the orientation of the hydroxy-groups in digoxigenin and gitoxigenin. H. M. E. Cardwell and S. Smith. Chem Soc J p2012-23 Je '54

Isolation of podophyllotoxin glucoside. A. Stoll, J. Renz and A. V. Wartburg. bibliog Am Chem Soc J 76:3103-4 Je 5 '54

Methyl glycosides of D-*manno*hexodialdose. C. E. Ballou and H. O. L. Fischer. Am Chem Soc J 75:4695-8 O 5 '53

Polysaccharide aryl carbamates; tricarbanilates of polyglucosans with various glucosidic linkages. I. A. Wolff, P. R. Watson and C. E. Rist. bibliog Am Chem Soc J 75:4897-9 O 20 '53

Rearrangement of acetylated and benzoylated β-glucosides catalyzed by titanium tetrachloride. R. E. Reeves and L. W. Mazzeno, jr. bibliog Am Chem Soc J 76:2219-21 Ap 20 '54

Stability of *N*-glycosides in aqueous and non-aqueous solvents. J. L. Barclay and others. bibliog Chem & Ind p462-3 My 9 '53

Steroidal sapogenins; hydrolysis of 5α-22a-spirostane glycosides by fungal saponases. M. M. Krider, T. C. Cordon and M. E. Wall. Am Chem Soc J 76:3515-17 Jl 5 '54

Steroidal sapogenins; hydrolysis of 5α,22a-spirostane glycosides by plant enzymes. M. M. Krider and M. E. Wall. bibliog Am Chem Soc J 76:2938-40 Je 5 '54

Studies of aspergillus niger; transglycosidation by aspergillus niger. S. A. Barker and T. R. Carrington. Chem Soc J p3588-93 N '53

Synthesis of sophoricoside, one of the glycosides of sophora japonica, L. R. Bognár and V. Szabó. bibliog Chem & Ind p518 My 1 '54

Two new flavonoid glycosides from the leaves of phellodendron amurense Ruprecht. M. Hasegawa and T. Shirato. bibliog Am Chem Soc J 75:5507-11 N 20 '53

See also

Kellin

Analysis

Detection of glycosides and other carbohydrate compounds on paper chromatograms. J. A. Cifonelli and F. Smith. bibliog Anal Chem 26:1132-4 Jl '54

GLYCOSIN. See Alkaloids

GLYCOSMIS arborea

Alkaloids of glycosmis arborea; isolation of arborine and arborinine; the structure of arborine. D. Chakravarti, R. N. Chakravarti and S. C. Chakravarti. Chem Soc J p3337-40 N '53

GLYCOSMIS pentaphylla

Alkaloids of glycosmis pentaphylla (Retz.) DC. A. Chatterjee and S. G. Majumdar. bibliog Am Chem Soc J 76:2459-63 My 5 '54

GLYCOSYL compounds

Kinetics of the reactions of *O*-acylglycosyl bromides with amines in acetone. N. B. Chapman and W. E. Laird. bibliog Chem & Ind p20-1 Ja 2 '54

Reactivity of the *O*-acylglycosyl halides. F. H. Newth and G. O. Phillips. pl Chem Soc J p2896-909 O '53

GLYCYRRHETINIC acid

Terpenoids; experiments in the glycyrrhetic acid series. C. Djerassi and C. M. Foltz. bibliog Am Chem Soc J 76:4085-8 Ag 20 '54

GLYOXAL

Condensation of glyoxal and *iso*nicotinoylhydrazine (isoniazid). V. C. Barry and P. W. D. Mitchell. Chem Soc J p3723-5 N '53

Polarographic behavior of glyoxal. P. J. Elving and C. E. Bennett. bibliog Am Chem Soc J 76:1412-15 Mr 5 '54

Analysis

Spectrophotometric determination of ethanedial. J. M. Dechary, E. Kun and H. C. Pitot. bibliog Anal Chem 26:449-52 Mr '54

GLYOXALINE. See Imidazole

GLYOXYLIC acid

Transamination of pyridoxamine and amino acids with glyoxylic acid. D. E. Metzler, J. Olivard and E. E. Snell. bibliog Am Chem Soc J 76:644-8 F 5 '54

GNEISS

Classification and genesis of gneisses and their associated mineral deposits. G. V. Douglas. bibliog diags Can Min J 75:73-6 Je '54

Grenville series in the northwest Adirondack mountains, N.Y.; origin and metamorphism of the major paragneiss. A. E. J. Engel and C. G. Engel. maps plan diags Geol Soc Bul 64:1049-97, pl 1-2 bibliog(p 1095-7) S '53

GODFREY, Grover A.

Home shows become big business. Eng N 151:64+ N 12 '53

GODSHO, Albert P. 1894-

AIEE fellows elected. por Elec Eng 72:1129-30 D '53

GOGGLES

Eye conservation. diags Nat Safety N 69:81-2+ Mr '54

Eyes don't get it; Houdry's safety glass program. il Chem & Eng N 32:2916-17 Jl 19 '54

Goggles check-up, goggle fitting cut eye injuries in half. R. J. George. il Factory Management 112:114-15 Jl '54

GOGGLES—*Continued*

Miners can wear glasses. J. W. Waugh. Can Min J 75:84-5 S '54

Molten metal miracle. il Nat Safety N 70:80 S '54; Same. Safety Maint & Prod 108:25-6 O '54

GOLD

Anion-exchange studies; ion exchange in concentrated electrolytes; gold(III) in hydrochloric acid solutions. K. A. Kraus and F. Nelson. bibliog Am Chem Soc J 76:984-7 F 20 '54

Bilateral asymmetric deposition of gold in wool fibers. G. Laxer and D. A. Ross. il Textile Res J 24:672-4 Jl '54

Bright gold screening on porcelain enamel. R. J. Miller. Cer Ind 63:112 S '54

Conductance and relaxation time of electrons in gold blacks from transmission and reflection measurements in the far infrared. L. Harris and A. L. Loeb. bibliog Opt Soc Am J 43:1114-18 N '53

Coulomb excitation of Ta, W, and Au. W. I. Goldburg and R. M. Williamson. bibliog diag Phys R 95:767-71 Ag 1 '54

Decline in free gold. Economist 169:545-6 N 14 '53

Determination of the self-diffusion coefficients of gold by autoradiography. H. C. Gatos and A. D. Kurtz. diags J Metals 6:Trans 616-19 sec 2 My '54

Diffusion of gold into copper. A. B. Martin and others. bibliog J Ap Phys 25:364-9 Mr '54

Elastic scattering of 1-Mev electrons from aluminum and gold. R. T. Bayard and J. L. Yntema. Phys R 93:1412 Mr 15 '54

Experimental confirmation of the Drude free electron theory of the optical properties of metals for silver, gold, and copper in the near infrared. L. G. Schulz. bibliog diags Opt Soc Am J 44:540-5 Jl '54

Formation of colloidal gold. J. Turkevich, P. C. Stevenson and J. Hillier. bibliog J Phys Chem 57:670-3 O '53

Gold; a steady downward drift. Bsns W p 152-5 D 12 '53

Gold as a donor in silicon. E. A. Taft and F. H. Horn. Phys R 93:64 Ja 1 '54

Gold content of sea water. G. L. Putnam. bibliog(35 ref) il J Chem Educ 30:576-9 N '53

Gold, 1953. M. A. Kriz. Eng & Min J 155:72-5 F '54

How to prepare gold for china decoration. A. H. Kaufmann. Cer Ind 62:174-5+ Ap '54

Hydrogen-deuterium exchange on copper, silver, gold and alloy surfaces. R. J. Mikovsky, M. Boudart and H. S. Taylor. bibliog diag Am Chem Soc J 76:3814-19 Jl 20 '54

Optical constants of silver, gold, copper, and aluminum. L. G. Schulz and F. R. Tangherlini. bibliog diags Opt Soc Am J 44:357-68 My '54

Photoconductivity in gold-doped silicon. R. Newman. Phys R 94:1530-1 Je 15 '54

Polarographic studies with gold, graphite, and platinum electrodes. S. S. Lord, jr. and L. B. Rogers. bibliog(26 ref) Anal Chem 26:284-95 F '54

Resistivity changes in copper, silver, and gold produced by deuteron irradiation near 10° K. H. G. Cooper and others. Phys R 94:496 Ap 15 '54

Silk screen printing with bright gold. R. J. Miller. Glass Ind 35:486+ S '54; Same. Cer Ind 63:92 O '54

Silver and gold for brazing electronic components. A. W. Swift and R. J. Metzler. bibliog il Welding J 33:119-23 F '54

Silver and gold in 1953. P. McCarran. il Min Cong J 40:103-5 F '54

Slow neutron resonances in cesium, palladium, and gold. H. H. Landon and V. L. Sailor. bibliog Phys R 93:1030-3 Mr 1 '54

Study of the propagation mode for metallic vapors in shadow-casting by vacuum evaporation of Au^{198} and Cr^{51}. L. E. Preuss. bibliog il diags J Ap Phys 24:1401-9 N '53; Correction. 25:136 Ja '54

Thermal neutron absorption cross sections of boron and gold. R. S. Carter and others. bibliog Phys R 92:716-21 N 1 '53

Analysis

Polarographic determination of zinc in gold. S. B. Deal. Anal Chem 26:1459-60 S '54

Isotopes

Determination of radioactive gold in biological tissue. L. C. Weiss, A. W. Steers and H. M. Bollinger. bibliog Anal Chem 26:586-7 Mr '54

Inelastic scattering of neutrons by In^{115} and Au^{197}. A. A. Ebel and C. Goodman. Phys R 93:197-8 Ja 1 '54

Low concentration chemistry; some properties of tracer gold in solution. G. K. Schweitzer and W. N. Bishop. bibliog Am Chem Soc J 75:6330-2 D 20 '53

Remote valve for dispensing colloidal ^{198}Au solutions. L. E. Preuss. diag J Sci Instr 31:29 Ja '54

Some regularities in the nuclear level spacings of Hg, Au, and Pt. J. W. Mihelich and A. de-Shalit. bibliog Phys R 93:135-9 Ja 1 '54

Nuclear reactions

Activities produced in gold by proton bombardment. C. H. Braden and others. bibliog diag Phys R 95:758-60 Ag 1 '54

Angular correlation of the cascade gamma rays from the decay of Au^{198}. C. D. Schrader. bibliog diags Phys R 92:928-31 N 15 '53

Bremsstrahlung and electron scattering cross sections in Au for 247-Mev electrons and positrons. P. C. Fisher. bibliog diags Phys R 92:420-7 O 15 '53

Cross sections for production of In^{115}m and Au^{197}m by inelastic scattering of neutrons. H. C. Martin and others. bibliog Phys R 93:199-204 Ja 1 '54

Prices

American gold policy. E. A. Goldenweiser. Comm & Fin Chr 178:2266+ D 10 '53

American prejudices and the price of gold. W. J. Busschau. Comm & Fin Chr 178:1431+ O 15 '53

Gold in a free economy. D. H. McLaughlin. Comm & Fin Chr 178:445+ Ag 6 '53; Discussion. W. E. Spahr. 178:1122-3 S 24 '53

Gold market in 1953 and 1954. J. P. de Wet. Can Min J 75:64-6 Jl '54

Gold price slump. P. Einzig. Comm & Fin Chr 178:1855 N 12 '53; Discussion. G. F. Bauer. 178:2066 N 26 '53

Kaffirs lose their premium. Economist 169:675-7 N 28 '53

Price of gold. P. Cortney. Comm & Fin Chr 177:2519+ Je 11 '53; Discussion. 177:2751; 178:360, 544, 641, 829, 1237, 1641, 1854 Je 25, Jl 30, Ag 13, 20, S 3, O 1, 29, N 12 '53

Reasons for declining gold price. P. Einzig. Comm & Fin Chr 178:1139 S 24 '53

Slump in free gold. Economist 169:356+ O 31 '53

Soggy gold. I. U. Cobleigh. Comm & Fin Chr 179:56 Ja 7 '54

Under gold coinage, is gold just another commodity? advocates use of a food price index in measuring value of money. A. A. Potter. Comm & Fin Chr 178:727+ Ag 27 '53

What is behind the slump in gold? V. L. Horoth. Mag of Wall St 93:247-9+ N 28 '53

Spectrum

Hyperfine structures of silver and gold by the atomic beam magnetic resonance method. G. Wessel and H. Lew. bibliog diags Phys R 92:641-6 N 1 '53

Statistics

Gold and silver, 1949-1952. Survey of Cur Bsns 1953 Sup p91 [supplemented in monthly numbers]

Gold production, outside USSR, 1947-1952; monthly Oct. 1952-Oct. 1953. Fed Res Bul 40:101-3 Ja '54 [cont monthly]

GOLD alloys

Order-disorder transformation in Cu-Au alloys near the composition CuAu. J. B. Newkirk. bibliog J Metals 5:Trans 823-6 Je '53; Discussion. il 6:Trans 673-5 sec 2 My '54

Photoconductivity in gold-germanium alloys. R. Newman. Phys R 94:278-85 Ap 15 '54

Shorting and field corrections in Hall measurements. W. F. Flanagan and others. R Sci Instr 25:593-5 Je '54

Temperature variation of the mean Debye temperature of Cu_3Au, 20°C to 450°C. S. L. Quimby. Phys R 95:916 Ag 15 '54

GOLD as money

American monetary policies and their impact on world. P. Cortney. Comm & Fin Chr 178:1717+ N 5 '53
American prejudices and the price of gold. W. J. Busschau. Comm & Fin Chr 178:1431+ O 15 '53
Economics and the engineer; prevalent monetary fallacies should be corrected. P. M. McKenna. Comm & Fin Chr 178:2149+ D 3 '53
Foreign gold and dollar holdings growing. Nat City Bank p91-5 Ag '53
Gold as a defence weapon; review of Roy Harrod's Sir George Watson lectures. J. P. deWet. Can Min J 75:72-4 Ap '54
Gold hoarding slackened in 1952. Comm & Fin Chr 178:474 Ag 6 '53
Gold in a free economy. D. H. McLaughlin. Comm & Fin Chr 178:445+ Ag 6 '53; Discussion. 178:1122-3, 1733 S 24, N 5 '53
Gold, 1953. M. A. Kriz. Eng & Min J 155:72-5 F '54
Gold, silver and monetary problems; American mining congress Western division; abstracts of papers. Min Cong J 39:90-2 N '53
Price level more in line with gold supply. F. A. Pearson. Comm & Fin Chr 178:632 Ag 20 '53
Price of gold. P. Cortney. Comm & Fin Chr 177:2519+ Je 11 '53; Discussion. 177:2751; 178:360, 544, 641, 829, 1237, 1641, 1854 Je 25, Jl 30, Ag 13, 20, S 3, O 1, 29, N 12 '53
Reasons for declining gold price. P. Einzig. Comm & Fin Chr 178:1139 S 24 '53
Sound money, not money managers! M. E. Shoup. Comm & Fin Chr 178:1538 O 22 '53
Sterling area's gold, dollar reserves rise. For Comm W 50:6 D 28 '53
Turn in gold. K. Bloch. Barron's 34:5 Ja 11 '54
Under gold coinage, is gold just another commodity? advocates use of a food price index in measuring value of money. A. A. Potter. Comm & Fin Chr 178:727+ Ag 27 '53

Colombia

Colombia eases controls on gold at IMF price; internal trade freed. For Comm W 50:10 S 21 '53
Colombia modifies gold sale rules. For Comm W 50:11 N 16 '53

Russia

Gold from Russia. Economist 170:48+ Ja 2 '54
Is Russia selling gold? P. Einzig. Comm & Fin Chr 178:1632 O 29 '53
Reasons for the red gold. Economist 169:767-8 D 5 '53

Tangier, Morocco

Gold Hercules; new gold ounce in coin form. il Burroughs Clearing House 37:5-6 Ag '53

United States

American gold policy. E. A. Goldenweiser. Comm & Fin Chr 178:2266+ D 10 '53
Calls for gold redeemable money with gold at $70 per ounce. H. E. Barton. Comm & Fin Chr 178:828 S 3 '53
Currency convertibility and the gold standard. F. G. Shull. Comm & Fin Chr 178:1126 S 24 '53
Gold policy to be reconsidered in 1954. H. Bratter. Banking 46:42+ Ja '54
Problem of issuing gold coins. P. Einzig. Comm & Fin Chr 178:452 Ag 6 '53
What about the gold standard! R. T. Patterson. Comm & Fin Chr 178:621+ Ag 20 '53

GOLD chlorides

Induced exchange of Cl^- and $AuCl_4^-$; evidence for Au(II). R. L. Rich and H. Taube. J Phys Chem 58:6-11 Ja '54
Uncatalyzed exchange of Cl^- and $AuCl_4^-$. R. L. Rich and H. Taube. bibliog J Phys Chem 58:1-5 Ja '54

GOLD COAST, Africa

Rules for developers. Economist 170:6+ Ja 2 '54
Towards independence. Economist 167:889-90; 168:163 Je 27, Jl 18 '53

Politics and government

Moderation in Africa. Economist 168:328-9 Ag 1 '53

GOLD metallurgy

See also
Cyanide process

GOLD mines and mining

Securities

Future of Canadian gold stocks. J. C. Clifford. Mag of Wall St 93:570-1+ F 6 '54
Soggy gold. I. U. Cobleigh. Comm & Fin Chr 179:56 Ja 7 '54

Australia

Australia's Golden Mile. J. W. Morris. il Min Cong J 39:42-4 D '53
Western mining corporation, limited; Kalgoorlie southern gold mines; Gold mines of Kalgoorlie (Australia) annual general meetings, Melbourne. Economist 168:824 S 19 '53

Canada

Future of Canadian gold stocks. J. C. Clifford. Mag of Wall St 93:570-1+ F 6 '54

Ontario

Machine loading at Renabie mines. P. S. Cross. diags Eng & Min J 155:75-7 Ja '54

Saskatchewan

Mineral development in Saskatchewan in 1953. L. F. Singer. il Can Min J 75:72-6 F '54

South Africa

Another uranium boomlet. Economist 170:263-4 Ja 23 '54
Kaffirs lose their premium. Economist 169:675-7 N 28 '53
Notes from South Africa. Can Min J 75:122 F '54
South African quarterly progress reports of the gold mines. Can Min J 75:394 My '54

See also
Gold mines and mining—Transvaal

South Dakota

Homestake swings to light, portable equipment. C. N. Kravig. il Min Eng 6:886-8 S '54

Transvaal

Blyvooruitzicht gold mining co. 16th annual meeting, Johannesburg. Economist 169:705 N 28 '53
40 years of safety in Rand mines. il map Nat Safety N 69:18-19+ Ja '54
Gold, uranium, and sulfuric acid in South Africa; Daggafontein mines, ltd. flow sheet il Chem & Eng N 32:1364-5 Ap 5 '54
More Kaffir dividends. Economist 169:984 D 26 '53
Seasonable cheer in Kaffirs. Economist 169:913 D 19 '53
Witswatersrand geology unique. B. B. Brock. diag Can Min J 75:81-2 Ap '54

Washington (state)

Knob Hill sand-fill system combats heavy, blocky ground. A. R. Patterson. il Eng & Min J 154:96-9 N '53

GOLD plating

Baths for thick gold deposits; abstract. Metal Finishing 52:87 Ag '54
Bright gold plating baths; abstract. B. Wullhorst. Metal Finishing 52:90 Ag '54
Preparation of articles for gold plating; abstract. A. Darlay. Metal Finishing 52:77-8 Jl '54

GOLDBERG, Julius Bethram, 1905-

What makes Goldberg run? S. H. Brown. pors Mod Textiles Mag 34:35+ N '53

GOLDBERGER, Joseph, 1874-1929

Sketch. J. M. Hundley. por Pub Health Rep 68:738-9 Ag '53

GOLDSMITH, Alfred Norton, 1887-

Sketch. por Inst Radio Eng Proc 42:3 Ja '54

GOLF

How to play a customer's game of golf. V. Richards. Sales Management 72:38-9 Ap 15 '54

GOLF links
Replace all divots; new reservoir top will support tee and fairway at the Omaha, Neb. field club. il diag Eng N 151:45-6 S 24 '53

GOMPHOCARPUS fruticosus
Cardiac glycosides of gomphocarpus fruticosus (R.Br.). T. R. Watson and S. E. Wright. bibliog Chem & Ind p 1178 S 18 '54

GONIOMETERS
Automatic pole figure recorder. A. H. Geisler. il diags R Sci Instr 25:727-32 Ag '54
Goniometric spectrometer for the measurement of diffuse reflectance and transmittance of skin in the infrared spectral region. C. Clark and others. bibliog il diags Opt Soc Am J 43:993-8 N '53
Low-temperature X-ray goniometer for structural studies of crystal transitions. R. Keeling and others. il diags R Sci Instr 24:1087-95 D '53
New goniometers for single-crystal neutron diffraction studies. R. Pepinsky and others. il diag R Sci Instr 25:699-703 Jl '54
Optical goniometer. J. K. Logan. il diag R Sci Instr 24:885-6 S '53
Optical goniometer for the examination of long metal single crystals. A. J. Goss. bibliog diags J Sci Instr 30:283-5 Ag '53
Reflection goniometer for the microscope. B. Rankin. il diag R Sci Instr 25:496-8 My '54
Single-crystal adaptor for the Norelco high-angle diffractometer. S. C. Abrahams and H. J. Grenville-Wells. il diag R Sci Instr 25:519-20 My '54
Versatile photometric goniometer. Franklin Inst J 256:266-8 S '53

GONIOPHOTOMETERS
Instrumentation studies; study on gloss; goniophotometric study of high-gloss papers. W. A. Wink and others. diags Tappi 36:163A-72A D '53

GOOD will in business
Valuation of goodwill in a professional practice. J Account 96:361-2+ S '53

GOODALL, Frederic Leathley, 1902-1954
Appreciation. por Soc Dyers & Col J 70:356-8 Ag '54
Sketch. J. B. Speakman. Textile Inst J 45: P531-2 Ag '54

GOODLASS wall and lead industries, limited
Statement by the chairman. J. L. McConnell. Economist 168:215-16 Jl 18 '53

GOODRICH, B. F., company
Five candidates for extra dividends; with comparative balance sheet items. Mag of Wall St 93:199 N 14 '53
Goodrich sales in 1953 set new all-time company record. Rubber Age 74:957 Mr '54

GOODWIN, William, 1873-1953
Sketch. R. L. Wain. Chem Soc J p 1660 My '54

GOODYEAR medal
Blake wins Goodyear medal for outstanding rubber research. Chem & Eng N 31:2886 Jl 13 '53
Dr George S. Whitby named Goodyear medalist for 1954. Rubber Age 75:253 My '54

GOODYEAR tire and rubber company
Goodyear sales in 1953 hit new all-time company record. Rubber Age 74:956 Mr '54
Prospects bright in 1954. Barron's 33:31-2 D 14 '53

GOSSARD, limited
Statement by the chairman. B. M. L. Fynn. Economist 168:295 Jl 25 '53

GOSSYPOL

Spectrum

Infrared spectra of gossypol. R. T. O'Connor and others. bibliog Am Chem Soc J 76:2368-73 My 5 '54

GOUT
Keeping the patient with gout employable. A. B. Gutman. Ind Med 22:311-12 Jl '53

GOUY interference method. See Diffusion

GOVERNMENT accounting
Budget balancing by definition; United States and abroad. Nat City Bank p 136-40 D '53; Excerpt. Comm & Fin Chr 178:2167 D 3 '53
County controller reviews his first two years in office. T. P. Strunck. J Account 98: 54-7 Jl '54
Problems of property utilization and accounting in the federal government. W. E. Katon. J Account 96:316-23 S '53
Property control in the Interior department. D. D. Carruth. N A C A Bul 34:1030-40 Ap '53
Watchdog on the boards? Economist 168: 437-8 Ag 15 '53

See also
Municipal accounting

GOVERNMENT aid to business

See also
Government loans and grants
Information service, Government
Reconstruction finance corporation
Subsidies

GOVERNMENT boards and commissions
Government commissions do a lot of things. Bsns W p90+ O 10 '53

GOVERNMENT bonds. See Bonds, Government

GOVERNMENT buildings. See Public buildings

GOVERNMENT checks. See Checks, Government

GOVERNMENT competition with business
Big government is big business. Management R 42:372-3 Jl '53
Big government on the wane! L. A. Lincoln. Comm & Fin Chr 178:1640-1 O 29 '53
Federal powers; thousands are suffering from tax paying delusions. L. F. Lee. Weekly Underw 169:717+ S 26 '53
Government competition; problem and perspective; abstract. Management R 43:350-1 Je '54
Government will stop competing with business. S. Weeks. Comm & Fin Chr 178: 1222+ O 1 '53
Liquidating government's $30 billion business empire. H. DuBois. Mag of Wall St 93: 606-7+ F 20 '54
NPVLA endorses legislation to remove government competition. Oil Paint & Drug Rep 166:3+ Jl 19 '54
Paint policy of navy attacked again. Oil Paint & Drug Rep 165:3+ My 24 '54
Stop centralization; check government competition. L. F. Lee. East Underw 54:6 S 18 '53; Same abr. Weekly Underw 169:686-7 S 19 '53
Will goverment displace the mortgage bankers? W. Moir. House & Home 5:134-5 Ap '54

See also
Government ownership

GOVERNMENT contracts. See Contracts, Government

GOVERNMENT corporations
Government corporations and credit agencies, assets, liabilities, etc., 1949-1952. Survey of Cur Bsns 1953 Sup p86-7 [supplemented in monthly numbers]
Government corporations and credit agencies, principal assets and liabilities: Dec. 1944-1951, quarterly September 1952-June 1953. Fed Res Bul 40:57 Ja '54 [cont monthly]
Profits, taxes and dividends, current assets and liabilities of United States corporations, 1939-1951, quarterly 1952-1953. Fed Res Bul 40:68 Ja '54 [cont monthly]

See also
Commodity credit corporation
Reconstruction finance corporation

GOVERNMENT employees
Commissionless federal group stirs varying responses. R. B. Mitchell. Nat Underw (Life ed) 58:1+ My 28 '54
Current personnel selection procedures. D. C. Adkins. Science 118:sup3 Ag 7 '53
Developing Uncle Sam's management team. J. J. Corson. Advanced Management 18:8-13 Je '53
Difficult first year of the agent. L. T. Smith. Nat Underw (Life ed) Daily ed 58:22+ S 22 '54
Federal group life program in effect. Weekly Underw 171:437+ Ag 28 '54
Government employes group program goes into effect Aug. 29; administered by Metropolitan Life. East Underw 55:1+ Ag 27 '54; Nat Underw (Life ed) 58:1+ Ag 27 '54
Illinois backs up National association on U.S. group; asks say for agents. C. C. Clarke. Nat Underw (Life ed) 58:2+ My 28 '54

GOVERNMENT employees—*Continued*
Indiana agents ask NALU turnabout on U.S. group proposal. Nat Underw (Life ed) 58:1+ My 21 '54
Introduce bill to provide group A&H for U.S. employees. Nat Underw 58:2+ Ag 5 '54; Same. Nat Underw (Life ed) 58:1+ Ag 6 '54
May be largest single group cover in history; federal civilian workers. East Underw 55:21 Mr 26 '54; Same. Weekly Underw 170:757+ Mr 27 '54
NALU OK's group for federal employes, opposes it in mutual fund tie-up. Nat Underw (Life ed) 58:1+ Mr 26 '54
Not pocketbook concern; Indiana assn. of life underwriters arguments vs. federal group plan. O. Pritchard. Nat Underw (Life ed) 58:19 Je 18 '54
Overseas employes tough problem in federal A&H group. Nat Underw (Life ed) 58:4 O 15 '54
Result of protest, 25-case minimum out of U.S. group. E. J. Schmuck. Nat Underw (Life ed) 58:1+ Je 18 '54
Servants' sacrifice; enforcement of conflict of interest law. Chem W 74:15 F 13 '54
Smaller group insurers favored in U.S. employe plan. Nat Underw (Life ed) 58:1+ Je 4 '54
There are real incentives in federal work. J. C. Worthy. Advanced Management 18:24-6 Je '53
See also
Civil service
Public officials

Salaries
Federal salaries; comparable to private pay except for top men. E. C. Kreutzberg. Steel 134:80 Mr 8 '54
Salaries and hours of work in government service; an international comparison. Int Labour R 68:407-18 O-N '53

GOVERNMENT employment agencies. See Employment agencies, Government

GOVERNMENT expenditures
Defense expenditure and the problem of deflation. G. H. Hildebrand. Comm & Fin Chr 179:258+ Ja 21 '54
See also
Budget—United States
United States—Appropriations and expenditures

GOVERNMENT finance
See also
Municipal finance

GOVERNMENT housing. See Housing projects, Government

GOVERNMENT investigations
Congress probers eye stockpiling. Bsns W p 186+ O 3 '53
Harvard and the fifth amendment. Science 117:647-8 Je 12 '53
Post publisher says David stoned Goliath. Ed & Pub 86:13 My 23 '53
Scientists blast Monmouth probe. Chem & Eng N 32:1892+ My 10 '54
Walters refers Wechsler protest to special group. Ed & Pub 86:9+ My 16 '53
Wechsler implores ASNE to speak out eloquently. Ed & Pub 86:7-8 My 9 '53

GOVERNMENT liability
Federal government held liable for failure to clear former firing range; United States v. White. Weekly Underw 170:1376 My 29 '54
Government held not liable for injuries caused by explosives left in former camp; United States v. Inmon. Weekly Underw 169:969 O 17 '53
Is the government liable for a wrong weather forecast? National manufacturing co. et al. v. U.S. L. A. Burke. Spectator 162:62 Jl '54
Settle subrogation suit by paying $356,018; Nakat packing corp. case. Weekly Underw 171:228 Jl 31 '54
Texas congressman seeks probe of claims from Texas City disaster. C. W. Thompson. East Underw 54:26 Jl 3 '53
Three courts hold against recovery in Kansas City flood losses. Nat Underw 58:1 Mr 18 '54
Two bills in Congress facilitate settling Texas City disaster claims. East Underw 55:46 Ap 16 '54
Victims unrequited; 1947 Texas City disaster. Chem W 72:22+ Je 20 '53

GOVERNMENT libraries
Facsimile for federal libraries. S. Adams. bibliog Special Lib 44:169-72 My-Je '53
Library binding costs in Washington. Special Lib 44:199-200 My-Je '53
Map procurement in government agencies. E. De Wald. Special Lib 44:175-7 My-Je '53

GOVERNMENT loans and grants
Government corporations and credit agencies, assets, liabilities, etc., 1949-1952. Survey of Cur Bsns 1953 Sup p86-7 [supplemented in monthly numbers]
Government corporations and credit agencies, classification by agency, June 30, 1953. Fed Res Bul 40:57 Ja '54 [cont monthly]
Government corporations and credit agencies; selected assets and liabilities; loans, by purpose and agency 1944-1951; quarterly 1952-1953. Fed Res Bul 40:56 Ja '54 [cont monthly]
Let's have less federal handouts! E. Martin. Comm & Fin Chr 178:1137 S 24 '53
Municipal group protests federal competition; report of IBA municipal committee. Comm & Fin Chr 178:2388+ D 17 '53
Simplifying state accounting for federal health grants. P. E. Fox and D. I. Zwick. Pub Health Rep 68:1071-7 N '53
See also
Airlines—Federal aid
Airports—Federal aid
Reconstruction finance corporation
Rural electrification administration

GOVERNMENT loans to industry
Government loan rush tightens cotton supply. Barron's 34:35-6 Ja 18 '54
Off to a slow start; Small business administration loans. Chem W 75:13 Jl 17 '54
Small business loan formula issued; Loan policy board, Small business administration. J. Donoghue. Burroughs Clearing House 38:45-6 O '53
Uncle Sam; money lender; government agencies to give financial assistance to smaller businesses. Steel 135:57 Ag 16 '54
See also
United States—Small business administration

GOVERNMENT lotteries. See Lotteries, Government

GOVERNMENT office buildings. See Office buildings, Government

GOVERNMENT officials. See Public officials

GOVERNMENT ownership
Aim new blast at military; scrap operations should be turned over to industry. N. R. Regeimbal. Iron Age 174:53+ Jl 8 '54
Britain moves to denationalize steel; two companies now sold. For Comm W 50:15 N 23 '53
British chemical industry's future. J. Rogers; H. West. Chem Age (Lond) 68:954 Je 27 '53
Caution, or moderation? Trades union congress position. Economist 168:684 S 12 '53
Chemicals in atom age; liberty or leash? Chem W 75:28-30 Ag 14 '54
Coals to Newcastle; Britain's key industry seven years after its nationalization. F. Morley. Barron's 33:5 Ag 3 '53
Denationalization bogs down in British steel industry. Steel 134:67 Mr 15 '54
England finds steel decontrol tough. F. H. Harley. Iron Age 173:100 Mr 4 '54
Financing denationalization. P. Einzig. Comm & Fin Chr 178:1946 N 19 '53
I.C.I. and nationalisation; commentary on Labour party's proposals. Chem Age (Lond) 70:507-10 F 27 '54
Measurement of productivity in state undertakings and public services. G. Ardant. Int Labour R 67:434-52 My '53
Nationalized industries. Elec R (Lond) 153:1329-30 D 11 '53
Oil monopoly in Brazil. Bsns W p 168 S 26 '53
Parliament and the boards. Economist 168:523-5 Ag 22 '53
Politicians and trustees; nationalised industries. Economist 169:313-14 O 31 '53
Public ownership; views of the T.U.C. general council. Elec R (Lond) 153:497-8 S 4 '53
Republic Steel calls for end to government ownership. T. F. Patton. Manuf Rec 123:48 Ap '54

GOVERNMENT ownership—*Continued*

State chemicals in Britain? Chem & Eng N 32:1027-8 Mr 15 '54

Unions and socialism. Economist 168:609-11 S 5 '53

Water under fire; nationalisation. Economist 168:686-7 S 12 '53

See also

Electric utilities—Government ownership

Hydroelectric plants—Government ownership

GOVERNMENT paper. See Paper, Government

GOVERNMENT publications

American technical reports; their importance and how to obtain them. J. E. Woolston. bibliog J Doc 9:211-19 D '53

Government reports can save you money; abstract. J. Robins. Management R 42:635-6 N '53

Government statistics can help you; quick guide on where to get reliable statistics. il Chem Eng 61:353-4 F '54

Those government pamphlets; silly or worthwhile? J. Shoenfeld. Sales Management 72:48+ Mr 15 '54

Bibliography

Aids for small business issued by the S.B.A. Automotive Ind 110:148+ My 15 '54

Federal publications containing statistics. Ptr Ink 245:415 sec 2 O 23 '53

United States

Indexes

United States government publications monthly catalog; decennial cumulative index, 1941-1950. 1848p $25 Supt. of doc, U.S. govt. printing office, Washington 25 '53

GOVERNMENT publicity

Price of publicity. Economist 168:845 S 26 '53

GOVERNMENT purchasing. See Purchasing, Government

GOVERNMENT regulation of industry

Business man and the Constitution. A. A. Ballantine. Comm & Fin Chr 178:626 Ag 20 '53

Legislative and judicial developments in marketing. W. F. Brown, ed. Published in monthly numbers of Journal of marketing

Management-union future; collective bargaining and voluntary arbitration or government control. M. M. Semel. Advanced Management 18:5-7 S '53

New era in federal regulation of business. W. H. Crawford. Mag of Wall St 92:710-11+ S 19 '53

Shall it be individualism or nationalism? O. H. Ellis. Am Pet Inst Proc 32(2):16-19 '52

To communism, via majority vote. B. Moreell. Am Pet Inst Proc 32(2):20-7 '52

See also

Commercial policy

Electric utilities—Regulation

Federal trade commission

Food laws and legislation

Government ownership

Industry and state

Insurance companies—Regulation

Interstate commerce commission

Labor laws and legislation

Prices—Regulation

Public utilities—Regulation

Railroads and state

Trade marks

Trusts, Industrial—Law

GOVERNMENT research

Administration of research 7th annual conference, Berkeley, Aug. 31-Sept. 5. Chem & Eng N 31:3750+ S 14 '53

Atomic program to expand in economy budget. Chem & Eng N 32:398+ F 1 '54

Basic research, a good investment. L. L. Strauss. Chem & Eng N 31:3455-6 Ag 24 '53

Big changes are in the making. Bsns W p81-3 S 12 '53

Chemical industry help is sought by government on technical problems. Oil Paint & Drug Rep 166:3+ Ag 23 '54

Dedicate Robert A. Taft Sanitary engineering center. il Soap & Chem Spec 30:212-13 My '54

Federal support of basic chemical research. Chem & Eng N 31:3534-7, 3615-18 Ag 31-S 7 '53

Federal support of basic research at a state university. H. Eyring. J Chem Educ 31:251-2 My '54

Future military elastomer research program; effect of Government facilities disposal act of 1953. J. H. Faull, jr. Rubber World 130:358-61 Je '54

Government erects $3,500,000 low temperature laboratory; NBS-AEC cryogenic engineering laboratory. flow diag il Refrig Eng 61:1082-4+ O '53; Same. Comp Air Mag 58:340-3 D '53

Government projects may help you. R. M. Stroupe. Iron Age 172:48 N 26 '53

Government research in peril? House subcommittee on military operations report. Chem & Eng N 32:3134+ Ag 9 '54

Industry-sponsored basic research could avert government control; discussion at annual meeting of the American society for engineering education, Gainesville. Chem & Eng N 31:2975 Jl 20 '53

Insuring your progress through research; industry can use government research data. J. C. Green. il Product Eng 24:200-2 Je '53

Needed, a new balance. Chem W 73:35-6+ Ag 8 '53

New business ideas from government? J. Shoenfeld. Sales Management 71:56+ O 1 '53

New center to study environmental health problems; Robert A. Taft Sanitary engineering center. il Chem & Eng N 32:1878 My 10 '54

No appreciable cutback in government-sponsored research. Chem & Eng N 31:4294-6 O 19 '53

Nonmilitary research and development appropriations hold firm. R. G. Gibbs. Chem & Eng N 31:3440 Ag 24 '53

Prudent or penurious? everybody in favor of fundamental research, but nobody wants to pay. Chem W 73:11-13 Jl 4 '53

Time control of contract research. D. S. Moffitt. N A C A Bul 34:1340-6 Je '53

U.S. housing research program comes to an end. E. Mickel. bibliog Arch Rec 115:24+ Ap '54

See also

Great Britain—Scientific and industrial research, Department of

Military research

National science foundation

United States—Naval research, Office of

GOVERNMENT scholarships and fellowships. See Scholarships and fellowships, Government

GOVERNMENT statistics

Chemicals data project gets trade go-ahead from chemical and rubber industry. Oil Paint & Drug Rep 164:3+ D 21 '53

Government statistics can help you; quick guide on where to get reliable statistics. il Chem Eng 61:353-4 F '54

Sources of income data. L. Carson. Dun's R & Mod Ind 62:78 O '53

Warning from industry re attrition of government statistics. Chem W 74:28 Mr 20 '54

Bibliography

Federal publications containing statistics. Ptr Ink 245:415 sec 2 O 23 '53

Great Britain

Delayed data. Economist 170:227 Ja 23 '54

GOVERNORS (machinery)

Centrifugal friction governor for Bell System telephone dials. diags Machine Design 26:115 Ag '54

Engine stalling; a study of Diesel behaviour. P. H. Schweitzer. diags Automobile Eng 44:290-2 Jl '54

Formulation of stability equations and derivation of new constructions with complete systems of design-formulae for variable-speed control mechansms. M. S. Frenkel. bibliog diags Inst Mech Eng Proc (A) 167 no 3:319-30; Discussion. 331-9 '53

Little design change saved a lot of money; making governor weights for Small motor division of Westinghouse. C. M. Modd. il diags Am Mach 98:103 F 1 '54

GOVERNORS (machinery)—*Continued*

Pressure governor for handwheel of lathe tailstock. W. Morson. diags Mach 60:207-8 F '54

Prime mover speed governors and the interconnected system; abstracts. P. G. Ipsen and J. R. Norton. Power 97:158 My '53; Elec Eng 73:50 Ja '54

Water turbine governors. N. G. Dennis. bibliog il diags Inst Mech Eng Proc (B) 1B no 9:379-91; Discussion. 391-400 '52-53; Engineer 194:660-1 N 14 '52

GOVERNORS, Gas. See Gas governors

GRACE, Robert F.

He was given the brush-off; Grace fabritool co., inc. E. C. Hanford. por Sales Management 73:48+ Jl 15 '54

GRACE, W. R., and company

Another string to its bow; merger of W. R. Grace & co. and Dewey and Almy chemical co. Chem W 75:14 Ag 7 '54

Diversification. E. H. Carter. Mag of Wall St 93:385+ D 26 '53

Twentieth century objective; invasion of chemical industry. Chem W 74:14-16 Ja 16 '54

W. R. Grace growth program. W. P. Gage. Chem & Eng N 31:2688 Je 29 '53

GRADE crossing accidents

Grade crossing deaths cut 97.4 per cent. R. B. Thomas. il Ry Age 136:88-9 Mr 22 '54

1953 crossing accidents. Ry Age 137:17 Ag 9 '54

GRADE crossing elimination

Canadian good roads association advocates system of priorities for level crossing elimination. Roads & Eng Constr 92:134+ Ap '54

City eliminates 144 grade crossings; five rail stations replaced by one. il Eng N 152:57-8+ Ja 28 '54

New Orleans Union passenger terminal; grade separation on a grand scale. il Ry Age 136:30-1 Ap 26 '54

Twenty-five level-crossing eliminations under construction or ready to proceed in Ontario. G. H. Doucett. Roads & Eng Constr 91:49+ D '53

GRADE crossings

City and railway collaborate; invent new pavement guard. il Eng N 151:37 O 1 '53

Gates at three crossings, barriers at four at Auburn, Ill. il plan Ry Age 137:52-3 Ag 9 '54

Grade crossing deaths cut 97.4 per cent. R. B. Thomas. Ry Age 136:88-9 Mr 22 '54

High-level trolley wire handles supply-track crossing. il Coal Age 59:118 My '54

Railway grade-crossing problem in Canada. F. M. MacPherson. il Roads & Eng Constr 92:96-8+ Ja '54

GRADERS, Road. See Road making machinery

GRADING (earthwork)

Approach to the problem of grading. il plans diag Am Bld 76:58-60+ Ja '54

GRADUATE work. See Engineering colleges—Graduate work

GRAHAM salt. See Sodium hexametaphosphate

GRAIN

Chemical seed treatment for Canada's major grain crops. A. W. A. Henry. Can Chem Process 38:64 Ap '54

Electricity in grain drying. W. Cover. il Elec J 152:514-16 F 12 '54

Great myth, the Russian granary. E. Truog and D. T. Pronin. maps Land Econ 29:200-8 Ag '53

Quality of cereals and their industrial uses; Food and agriculture groups conference discussions. Chem & Ind p890-6 Ag 22 '53

Resistance of grains and seeds to air flow. C. K. Shedd. Heat & Ven 51:87-8 Ja '54

X-rays show more than insects; process control. M. J. Zunick and A. Pace. bibliog il Food Eng 26:64-5+ My '54

See also

Barley
Corn
Flour
Oats
Rice
Wheat

Insect infestation

Aural detection of grain infested internally with insects. R. E. Adams and others. bibliog il Science 118:163-4 Ag 7 '53

Electron gun aimed at insects. V. H. Baker and others. il diag Food Eng 26:64-6 Ap '54

Wired for protection; new device detects deterioration in stored grain. il diag Safety Maint & Prod 107:31-2 My '54

GRAIN elevators

Prestressed-concrete grain silo at Dublin. T. J. S. Mallagh. flow diag il plans diags Engineering 176:577-81, pl 32 N 6 '53

GRAIN handling

Processing grain with push buttons. L. A. Brooks. il diag Elec World News ed 140:42-3 Jl 20 '53

See also

Grain elevators

GRAIN storage

Grain; storage bin needs grow. A. K. Rannells. Iron Age 172:101 S 17 '53

Wired for protection; new device detects deterioration in stored grain. il diag Safety Maint & Prod 107:31-2 My '54

See also

Grain elevators

GRAIN trade

Statistics

Grains and grain products, 1949-1952. Survey of Cur Bsns 1953 Sup p 138-42 [supplemented in monthly numbers]

Great Britain

Futures trading in grains. Economist 169:198+; 170:118 O 17 '53, Ja 9 '54

Grains and nonsense. Economist 170:220 Ja 23 '54

Limited freedom for grains. Economist 168:650-2 S 5 '53

Price arrangements for home grains. Economist 168:810 S 19 '53

Supports for farmers; cereals scheme. Economist 168:761-2 S 19 '53

GRAIN transit insurance. See Insurance, Grain transit

GRAININESS (photography)

Concerning photographic grain, signal-to-noise ratio, and information. P. Fellgett. bibliog il diags Opt Soc Am J 43:271-82 Ap '53

GRAMICIDIN

Synthesis of peptides related to gramicidin S. B. F. Erlanger, H. Sachs and E. Brand. bibliog Am Chem Soc J 76:1806-10 Ap 5 '54

GRAMINE

Reactions of gramine with sulfur compounds. J. J. Licari and G. Dougherty. Am Chem Soc J 76:4039-40 Ag 5 '54

GRAND CONTOUR canal. See Canals—England

GRAND Union company

Net may top three dollars a share in fiscal '54. Barron's 33:23 O 19 '53

GRANDSTANDS

Prestressing in two similar structures. il plans diags Arch Rec 114:183-6 Jl '53

GRANITE

Granitization and hydrothermal alteration at Bingham, Utah. B. Stringham. bibliog map diags Geol Soc Bul 64:945-91, pl 1-5 Ag '53

Molybdenum bearing granite and granodiorite, Rautio, Finland. V. Marmo and L. Hyvarinen. bibliog il diags Econ Geol 48:704-14 D '53

Quarrying a massive granite formation in Virginia. R. W. McCall. il Explosives Eng 31:149-51 S '53

GRANODIORITE

Molybdenum bearing granite and granodiorite, Rautio, Finland. V. Marmo and L. Hyvarinen. bibliog il diags Econ Geol 48:704-14 D '53

GRANOPHYRE

Petrology of granophyre in diabase near Dillsburg, Pa. P. E. Hotz. bibliog maps diags Geol Soc Bul 64:675-704 Je '53

GRANT, Richard Hallum, 1878-

Sales champion, unrivaled, unchallenged. L. M. Hughes. pors Sales Management 71:30-4+ O 15 '53

GRANTS-in-aid

New NSF grants. Chem & Eng N 32:482, 1880 F 8, My 10 '54

Petroleum research funds available; program activated for grants-in-aid. Chem & Eng N 32:1704+ Ap 26 '54

GRANULAR materials

Bin flow simplified. il Chem & Eng N 32:344-5 Ja 25 '54

Flow control for dry materials; Scrayco level control. il Chem & Eng N 32:670 F 15 '54

Granular desiccants for drying liquids by adsorption. W. E. Smith and M. Leva. il diags Pet Processing 8:1194-9 Ag '53

Mixing plant goes granular; Eastern states farmers' exchange, Wilmington, Delaware plant. diag Chem Eng 60:116 D '53

Thermal conductivity of granulated beds. H. S. Strickler; W. G. Schneider. Ind & Eng Chem 46:828 Ap '54

See also

Powders

GRAPE juice

Manufacture

Full flavor concentrates by new essence-recovery technique; Keystone's grape juice. J. G. Moore. flow diag il Food Eng 26:55-7+ Ja '54

GRAPHIC arts

Developments in the graphic arts, 1953. R. H. Simmons. Tappi 37:sup38A+ Jl '54

Bibliography

Selected bibliography for apprentice related training programs. F. J. Hartman. Tappi 37:sup 109A-11A F '54

GRAPHIC methods

Automatic computation of spot diagrams. O. N. Stavroudis and D. P. Feder. diags Opt Soc Am J 44:163-70 F '54

British study in profit graphs to control profit. A. W. H. Lamond. N A C A Bul 35:947-62 Ap '54

Cam curvature. A. R. Holowenko and A. S. Hall. diags Machine Design 25:170-7 Ag; 162-9 S; 148-56 N '53

Computation of impedance and efficiency of transmission line with high standing-wave ratio. W. W. Macalpine. diags Elec Com 30:238-46 S '53; Abstract. Elec Eng 72:868 O '53

Curve analyzer and general purpose graphical computer. C. S. French and others. il diags R Sci Instr 25:765-75 Ag '54

Determination of Q and resistance of line traps; engineering reference sheet. J. D. Moynihan. Elec World 139:104-5 Je 29 '53

Die design; how to save development time. B. K. H. Bao. diags Tool Eng 33:65-8 S '54

Discussion on a philosophy of graphics. J. S. Campbell. J Eng Educ 43:487-8 Ap '53

Distillation control problems; application of the McCabe-Thiele diagram. R. L. Bauer and C. P. Orr. Chem Eng Prog 50:312-18 Je '54

Establishing the composition of organic solvent-water mixture in analytical precipitations. R. E. Jentoft and R. J. Robinson. Anal Chem 26:1156-8 Jl '54

Estimation of correlation coefficients from scatter diagrams. G. R. Sugar. bibliog diags J Ap Phys 25:354-7 Mr '54

Evaluation of particle loss due to multiple scattering in foils. W. C. Dickinson and D. C. Dodder. bibliog diag R Sci Instr 24:428-31 Je '53

Experimental procedures for determining the efficiency of four-terminal networks. H. F. Mathis. bibliog diags J Ap Phys 25:982-6 Ag '54

Extraction design; graphical method for four-component processes. J. E. Powers. bibliog flow diags diag Chem Eng Prog 50:291-8 Je '54

Flash charts show facts instantly; Northrop aircraft, inc. G. C. Close. il Mill & Factory 54:112-13 Ap '54

Graph simplifies calculations for 5-kv circuit impedance; engineering reference sheet. F. E. Reeves. Elec World 140:164 Ag 24 '53

Graphic approach to the problem of interchangeability. M. F. Knoy. bibliog Am Gas Assn Proc 1953:938-47

Graphical absorbance-ratio method for rapid two-component spectrophotometric analysis. R. C. Hirt, F. T. King and R. G. Schmitt. Anal Chem 26:1270-3 Ag '54

Graphical analysis in objective ratings. A. D. J. Emerzian. Advanced Management 19:10-14 Ap '54

Graphical analysis of nonlinear circuits using impedance concepts. J. S. Thomsen. diags J Ap Phys 24:1379-82 N '53

Graphical construction for the deflection of structural members of variable moment of inertia. A. Hoadley. diags Am Soc C E Proc 79 [no 256]:1-13 Ag '53

Graphical contribution to the analysis and synthesis of electrical networks. O. P. D. Cutteridge. bibliog Inst E E Proc 100 pt 3: 377-9 N '53

Graphical determination of blank diameters for drawn cylindrical shells. diags Tool Eng 32:90 F '54

Graphical method for combining aggregates. J. R. Martin. Roads & Sts 97:106-8 Mr '54

Graphical method for rapid estimation of the thickness of evaporated metal films. K. P. Nandy. R Sci Instr 25:523-4 My '54

Graphical method of evaluating trigonometric functions used in crystal structure analysis. H. J. Grenville-Wells. J Ap Phys 25:485-90 Ap '54

Graphical method speeds design of right-angle helical gears; data sheet. D. M. Marshall. diags Machine Design 26:175-7 Ag '54

Graphical solutions for power engineers. P. J. Grogan. Power Eng 58:66-7 Ja; 88-9 Mr; 61 Ap; 76-7 My; 78-80 Ag; 90-1 S '54

Graphs save time in dike design. J. R. Wilson. diag Pet Eng 25:C34+ O '53

How to use system-head curves. M. Mann. diags Chem Eng 60:162-4 F '53; Same. Power 97:88-90 N '53

Linkage design; a note on one method. A. S. Hall, jr. and D. C. Tao. diags A S M E Trans 76:633-7 My '54

Production planning; abstract. C. W. Fabry. Tool Eng 33:161 S '54

Pumping stations for drainage areas designed graphically. O. J. Parsons. Civil Eng 23:553-4 Ag '53

Selection of optimal spacers in Perot-Fabry interferometry. G. V. Deverall and others. Opt Soc Am J 43:673-80 Ag '53

Simple graphic method for the additive mixture of two colors on the CIE chromaticity diagram. H. von Schelling. Opt Soc Am J 43:706-7 Ag '53

Solve for vessel thickness graphically. J. A. Hunter, jr. Pet Refiner 32:112 Jl '53

Torsional deflection; graphical method for finding angle of twist of shafts having variable cross-sections; data sheet. W. H. Mann. diags Machine Design 25:179-81 N '53

Transformation of chromaticity diagrams. F. J. Bingley. Opt Soc Am J 44:109-12 F '54

See also

Charts (calculating)
Control charts
Curve plotting
Least squares
Nomographs

GRAPHIC panels

Case of the graphic panel. R. L. Nichols. il Instruments 26:870-1+ Je '53

Instrumentation; graphic control panels. il diags Paper Ind 36:160-3 My '54

Process monitoring by graphic panels and automatic scanners. L. Walter. il Chem Age (Lond) 69:444-6 Ag 29 '53

GRAPHITE

Band structure of graphite. J. L. Carter and J. A. Krumhansl. J Chem Phys 21:2238-9 D '53

Carbon in chemical engineering; Morgan crucible co. il Chem Age (Lond) 69:129-32 Jl 18 '53

Carbon in the engineering and metallurgical industries. V. S. Kingswood. bibliog flow sheet il diags Metallurgia 48:55-62, 133-6, 169-74, 221-7, 301-5 Ag-D '53

Combustion rate of artificial graphites from 700°C to 2000°C in air. J. Okada and T. Ikegawa. bibliog J Ap Phys 24:1249-50 S '53

Design for longer pickling equipment life. J. F. Revilock. il diags Steel 133:84+ D 21 '53

Dynamics of the graphite lattice. H. B. Rosenstock. bibliog J Chem Phys 21:2064-9 N '53

Electrical conductivities of natural graphite crystals. W. Primak and L. H. Fuchs. bibliog il diags Phys R 95:22-30 Jl 1 '54

GRAPHITE—*Continued*
Extremely thin conductive graphite coatings. W. F. Lindsay. R Sci Instr 25:524 My '54
Graphite electrodes. R. N. Hader, B. W. Gamson and B. L. Bailey. bibliog flow sheets il Ind & Eng Chem 46:2-11 Ja '54
Graphite tube resistance furnace and voltage regulator for equilibrium studies in the temperature range 1500-1800° C. W. E. Dennis and others. diags J Sci Instr 30:453-5 D '53
Graphitization processes in cokes and carbon blacks. A. E. Austin and W. A. Hedden. bibliog Ind & Eng Chem 46:1520-4 Jl '54
Hall constant of graphite. D. F. Johnston. Phys R 93:1420 Mr 15 '54
Heat of sublimation of graphite and the composition of carbon vapor. G. Glockler. bibliog J Chem Phys 22:159-61 F '54
Heat of wetting of copper, graphite and silica gel. F. E. Bartell and R. M. Suggitt. bibliog diag J Phys Chem 58:36-40 Ja '54
How colloidal graphite protects bearing surfaces. H. Warburton. Iron Age 172:135-6 Jl 9 '53
How, when and where to use non-metallic materials; carbon-graphite. F. F. Ruhl. Machine Design 26:284+ Ag '54
Impervious carbon and graphite. C. E. Ford. Chem Eng Prog 49:624 N '53
Lattice vibration specific heat of graphite. J. Krumhansl and H. Brooks. diags J Chem Phys 21:1663-9 O '53
Low-temperature thermal conductivity of a Canadian natural graphite. A. W. Smith. Phys R 95:1095-6 Ag 15 '54
Magnetic susceptibility of carbons and polycrystalline graphites. H. T. Pinnick. bibliog Phys R 94:319-26 Ap 15 '54
Mass spectrometric study of the molecular sublimation of graphite. R. E. Honig. bibliog diags J Chem Phys 22:126-31 Ja '54
Materials of construction for chemical engineering; carbon and graphite. W. M. Gaylord. bibliog(39 ref) il Ind & Eng Chem 45:2182-4 O '53
Mold lubricant; Aquadag. Metal Prog 65:110 Mr '54
Paramagnetic resonance absorption in graphite. J. G. Castle, jr. Phys R 92:1063 N 15 '53
Paramagnetic resonance absorption in graphite. G. R. Hennig and others. bibliog Phys R 95:1088-9 Ag 15 '54
Polarographic studies with gold, graphite, and platinum electrodes. S. S. Lord, jr. and L. B. Rogers. bibliog(26 ref) Anal Chem 26:284-95 F '54
Pressure-pouring steel car wheels; new process involves permanent molds machined from graphite. E. Q. Sylvester. il diags Mech Eng 76:152-8 F '54
Properties of chemical engineering materials of construction. W. M. Gaylord. Ind & Eng Chem 45:2272-3 O '53
Reactions of carbon; X-ray diffraction studies of a graphitized carbon. P. L. Walker, jr., H. A. McKinstry and C. C. Wright. bibliog diag Ind & Eng Chem 45:1711-15 Ag '53
Russian anti-friction materials; abstract. I. V. Temkin. Materials & Methods 39:170-1 Mr '54
Specific heat of graphite from 13° to 300°K. W. DeSorbo and W. W. Tyler. bibliog J Chem Phys 21:1660-3 O '53
Spectral emissivities of graphite and carbon. R. J. Thorn and O. C. Simpson. bibliog diag J Ap Phys 24:633-9 My '53
X-ray diffraction studies on carbon gasification. P. L. Walker, jr., H. A. McKinstry and J. V. Pustinger. bibliog Ind & Eng Chem 46:1651-8 Ag '54
Zone structure of graphite. S. Mrozowski. bibliog diags Phys R 92:1320-1 D 1 '53
See also
Cast iron—Graphitization

GRAPHITE bearings. See Bearings, Graphite

GRAPHITE sulfate
Electronic properties of carbons and of their interstitial bisulfate compounds. E. A. Kmetko. bibliog diag J Chem Phys 21:2152-8 D '53

GRAPHITIC acid
Pyrolysis of graphitic acid. E. Matuyama. bibliog J Phys Chem 58:215-19 Mr '54

GRAPHITIZATION of iron. See Cast iron—Graphitization

GRAPHON
Thermodynamics of the adsorption of water on graphon from heats of immersion and adsorption data. G. J. Young and others. bibliog J Phys Chem 58:313-15 Ap '54

GRASS lands
Lime for grass lands. F. S. Prince. Rock Prod 57:119 Ap '54

GRASSES
Protein extracted from grass juice by Dutch. Oil Paint & Drug Rep 166:7 Jl 19 '54
Studies on fructosans; short-chain fructosans from lolium perenne. V. D. Harwood, R. A. Laidlaw and R. G. J. Telfer. Chem Soc J p2364-8 Jl '54

GRASSHOPPERS
Locust threat broken in Middle East area. For Comm W 50:3 O 12 '53

GRAVEL
Stabilization of bank-run gravel with calcium chloride; abstract. A. S. Yalcin and F. O. Slate. Roads & Eng Constr 92:110-11 My '54
Two birds with one stone (pile); gravel hill which had to come out to ease a dangerous curve. il Roads & Sts 97:79-80 Ag '54
See also
Aggregates

GRAVEL handling
See also
Sand and gravel plants

GRAVEL plants. See Sand and gravel plants

GRAVIMETRIC analysis
Alternative method for the calculations of indirect gravimetry. B. A. Fiekers. J Chem Educ 31:100-1 F '54
Analysis of cobalt. bibliog Chem Age (Lond) 69:751-2+ O 10 '53
Analytical chemistry of W and Mo. bibliog Chem Age (Lond) 70:267-74 Ja 23 '54
Benzilic acid as a reagent in gravimetric determination of zirconium. J. J. Klingenberg, P. N. Vlannes and M. G. Mendel. bibliog il Anal Chem 26:754-6 Ap '54
Coprecipitation from homogeneous solution. L. Gordon, H. Teicher and B. P. Burtt. bibliog diag Anal Chem 26:992-6 Je '54
Determination of phenanthrene in coal-tar products. L. Blom and W. J. Vranken. bibliog diags Anal Chem 26:404-7 F '54
Direct extraction-pycnometer method for oil content of refinery effluents. W. S. Levine, G. S. Mapes and M. J. Roddy. bibliog il diag Anal Chem 25:1840-4 D '53
Gravimetric determination of fluorine as lanthanum fluoride. A. I. Popov and G. E. Knudson. bibliog Anal Chem 26:892-4 My '54
Gravimetric determination of lithium by precipitation as trilithium phosphate. E. R. Caley and G. A. Simmons, jr. bibliog Anal Chem 25:1386-9 S '53
Gravimetric determination of murexide. J. H. Moser and M. B. Williams. Anal Chem 26:1167-8 Jl '54
Gravimetric determination of tetramethylphosphonium ion; use of chloroplatinic acid as precipitant. C. J. Anderson and R. A. Keeler. Anal Chem 26:213-14 Ja '54
Gravimetric methods for zinc and its separation from certain elements; use of radioisotope in evaluation of analytical procedures. J. E. Vance and R. E. Borup. bibliog Anal Chem 25:610-15 Ap '53
Inorganic gravimetric analysis. F. E. Beamish and W. A. E. McBryde. Anal Chem 26:140-55 bibliog(347 ref, p 151-5) Ja '54
Methods for analysis of titanium alloys; nephelometric and gravimetric determination of small amounts of calcium in titanium alloys. M. Codell, A. Cherney and G. Norwitz. bibliog(29 ref) Anal Chem 25:1434-6 O '53
Rapid precipitation of barium sulfate. R. B. Fischer and T. B. Rhinehammer. bibliog diags Anal Chem 25:1544-8 O '53
Reaction between zinc and salicylaldoxime. S. H. Simonsen and P. Christopher. bibliog Anal Chem 26:681-3 Ap '54

GRAVIMETRIC analysis—*Continued*
Spectrochemical study of gravimetric procedure for barium, strontium and calcium. P. R. Wilkinson, J. A. Gibson, jr. and A. J. W. Headlee. bibliog Anal Chem 26: 767-9 Ap '54

GRAVITATION
Gravitational effects in PVT measurements in the critical region. W. G. Schneider and H. W. Habgood. bibliog J Chem Phys 21: 2080-2 N '53
Gravitational field equations. R. L. Kirkwood. Phys R 95:1051-6 Ag 15 '54
Physical basis of gravitation. R. L. Kirkwood. Phys R 92:1557-62 D 15 '53

GRAVITY
Relation of gravity anomalies to the geology of central Vermont and New Hampshire. R. J. Bean. bibliog maps diags Geol Soc Bul 64:509-37, pl 1-3 My '53
Role of gravity in an exploration program; symposium. maps diags Oil & Gas J 52:106-7+ S 28 '53

GRAY iron. See Cast iron

GRAY iron founders' society
Annual meeting, 25th, St Louis. Steel 133: 50-1 O 19 '53
Annual meeting, 25th, St. Louis, Oct. 8-9. Foundry 81:144+ N '53

GRAZING
Administration of grazing districts. J. R. Penny and M. Clawson. bibliog Land Econ 29:23-34 F '53
Grazing management; abstract and discussion. W. Davies. Chem & Ind p 124-5 Ja 30 '54

GREASE
Floatability of oil and grease in waste waters. R. Pomeroy. Sewage & Ind Wastes 25:1304-13 N '53
Tallow for animal feed. J. E. Magoffin. Soap & San Chem 30:54-5+ Mr '54
Two new methods for the determination of grease in sewage. F. W. Gilcreas and others. bibliog Sewage & Ind Wastes 25: 1379-90 D '53
See also
Lubricating greases

GREASEPROOF paper. See Paper, Greaseproof

GREAT BRITAIN
See also
Agriculture—Great Britain
Airplane industry and trade—Great Britain
Airplanes, Military—Great Britain
Automobile industry and trade—Great Britain
Barclays bank, limited
Bonds, Government—Great Britain
Chemical education—Great Britain
Chemical industries—Great Britain
Cities and towns—Great Britain
Civil service—Great Britain
Coal mines and mining—Great Britain
Cotton trade—Great Britain
Debts, Public—Great Britain
Education—Great Britain
Electric apparatus industry—Great Britain
Electric industries—Great Britain
Electricity supply—Great Britain
Finance—Great Britain
Food supply—Great Britain
Foreign exchange—Regulation—Great Britain
Gas industry—Great Britain
Housing—Great Britain
Industry and state—Great Britain
Insurance, Life—Great Britain
Investments, Foreign—Great Britain
Labor and laboring classes—Great Britain
Labor laws and legislation—Great Britain
Machine tool industry—Great Britain
Moving picture industry—Great Britain
Petroleum industry and trade—Great Britain
Radio broadcasting—Great Britain
Schools—Great Britain
Scientific education—Great Britain
Scientists—Great Britain
Steel industry and trade—Great Britain
Tariff—Great Britain
Television broadcasting—Great Britain
Textile industry—Great Britain
Wood trade—Great Britain

Air force
RAF; brilliant planes but laggard production. il Bsns W p 162-4 S 12 '53
RAF centers strength in A-bomb force. D. A. Anderton. il Aviation W 59:14-15 O 19 '53

Army
Supply of technical officers for the army. F. Evans. Engineer 196:299-300 S 4 '53

Cabinet
Marking time in Cabinet. Economist 168: 679-80 S 12 '53

Colonies
Capital, colonies and conscience. Economist 168:246 Jl 25 '53
Censure on labour; colonial policy, Africa. Economist 169:870-1 D 19 '53
Colonial bogeyman; Labour and Conservative colonial policies. Economist 169:793-4 D 12 '53
Commonwealth looks ahead; conference of finance ministers, Sydney. Economist 170: 45-6 Ja 2 '54
Dilemmas in Uganda. map Economist 169: 897-8 D 19 '53
Mechanising colonial agriculture. J. E. Mayne. Engineer 196:377-8 S 18 '53
Money for the colonies. Economist 168:13 Jl 4 '53

Commerce
Aid for trade. Economist 168:724 S 12 '53
Bank and commodities. Economist 170:181-2 Ja 16 '54
Bigger coal exports; other items. Economist 170:255 Ja 23 '54
Blur from Sydney; finance ministers' communique. Economist 170:253 Ja 23 '54
Exports in a rut. Economist 169:201 O 17 '53
Exports mark time. Economist 170:183-4 Ja 16 '54
Exports, 1953 and after. Economist 169:908 D 19 '53
Few headlines from Sydney; easier access to London? Economist 170:183 Ja 16 '54
Imperial by default; Sydney communiqué. Economist 170:211-13 Ja 23 '54
Improving picture in exports; revised classification of Board of trade figures. Chem Age (Lond) 70:520-1 F 27 '54
Seasonal rebound in exports; imports. Economist 169:514 N 14 '53
Signals in export prices. Economist 168:878 S 26 '53
Sweden, United Kingdom plan trade. For Comm W 51:13 F 22 '54
Terms of trade improve. Economist 170: 254-5 Ja 23 '54
Terms of trade to the rescue; 1952 and January-June, 1953. Economist 168:276-7 Jl 25 '53
Third quarter's trade. Economist 169:267 O 24 '53
Thumping for British trade. Bsns W p 170 S 19 '53
Uncompetitive exports. Economist 169:682 N 28 '53
United Kingdom exports maintain upward trend; imports decrease. For Comm W 51: 2 Ja 18 '54
U.K. payments surplus estimated at £81 million for first half of '53. For Comm W 50:6 N 16 '53
U.K. reduces imports of U.S. farm products. For Comm W 50:16 Ag 31 '53
U.K.'s exports reveal sharp upward trend. For Comm W 50:5 S 28 '53
Volume of exports increases. Economist 168: 878-9 S 26 '53
Windfall for the reserves? sterling area's gold and dollar reserves, Nov. 1952-1953. Economist 169:767 D 5 '53

Near East
Commodity shunting again; Lebanon. Economist 170:190+ Ja 16 '54

United States
New operating rules planned for British import plan in 1954. For Comm W 51: 8-9+ F 15 '54
U.K. to purchase beef under FOA program. For Comm W 51:14 Ja 25 '54

GREAT BRITAIN—*Continued*

Commercial policy

Britain alarms Dutch traders. Economist 168:860+ S 26 '53
British token import plan extended; new procedures to be established. For Comm W 51:10 Ja 4 '54
Dear food; increase in import duties on fruit and vegetables. Economist 169:733 D 5 '53
Financial discussions in spate; United Kingdom and foreign countries. Economist 169:772 D 5 '53
Free trade or free exchanges, a British view. P. Einzig. Comm & Fin Chr 179:69 Ja 7 '54
Safety at 75 per cent? operation liberalisation. Economist 169:605 N 21 '53
Sterling area fearful of U.S. trade recession. P. Einzig. Comm & Fin Chr 178:1544 O 22 '53
United Kingdom tightens financial controls over Middle East trade. For Comm W 51:9 F 15 '54

Cultural relations

See also
British council

Economic conditions

ABC of input-output. Economist 168:797-9, 870-1 S 19-26 '53
Brightening now, horizon hazy. Bsns W p 122-4 S 5 '53
Britain facing wave of strikes; wage claims and grants. P. Einzig. Comm & Fin Chr 179:271 Ja 21 '54
Britain; just marking time. Bsns W p 142+ O 24 '53
Britain making big strides toward recovery. W. Rootes. Roads & Eng Constr 92:76 My '54
British review, 1953. P. Bareau. Barron's 34:13 Ja 4 '54
Cash for Christmas. Economist 170:52 Ja 2 '54
Economic conditions abroad. For Comm W 50:5 D 21 '53; 51:5 F 1 '54
Education in inflation. Economist 168:689-90 S 12 '53
Profits turn the corner; with tables. Economist 170:249-51 Ja 23 '54
Realism from the bankers; economic progress, 1953. Economist 170:253-4 Ja 23 '54
Recession not likely in Britain. P. Einzig. Comm & Fin Chr 179:172 Ja 14 '54
Recession small or large? Economist 169:639-41 N 28 '53
Twilight of the boom? economic review, 1953, and outlook. Economist 170:35-40 Ja 2 '54
Wages, prices and exports. Economist 168:245 Jl 25 '53

Economic policy

Commonwealth economic plan. P. Einzig. Comm & Fin Chr 178:544 Ag 13 '53
Credits discredited. Economist 169:234 O 24 '53

See also
Commonwealth development finance corporation

Economic relations

Canada

U.K., Canada agree on loan repayment. For Comm W 50:8 S 7 '53

Latin America

South America has a North; British attention to the Latin American markets. Economist 170:84+ Ja 9 '54

Malaya

Money for Malaya. Economist 168:612-14 S 5 '53

United States

Revolving loan for industry. Economist 168:406 Ag 8 '53
Tobacco comes first; surplus American commodities to be sold to Britain for sterling. Economist 169:512-13 N 14 '53

Foreign office

Fifth wheel misplaced; fifth minister in Foreign office. Economist 169:568 N 21 '53

Foreign relations

Bermuda, backbenchers and Egypt. Economist 169:729 D 5 '53
Britain's responsibility in the free world. R. Makins. Comm & Fin Chr 178:452+ Ag 6 '53
Our patience was exhausted; domestic political events and official policy. Economist 169:946-7 D 26 '53
Policy plain or purl? Economist 169:156-8 O 17 '53

See also
British council

Burma

For Burma's defence; renewing defence agreement with Britain. Economist 170:150+ Ja 16 '54

China

Handling China. Economist 168:860-2 S 12 '53

Egypt

Facts about the canal. Economist 169:870 D 19 '53
Final talks in Egypt? Economist 168:838-9 S 26 '53
Too quiet flows the Nile. Economist 169:591-2 N 21 '53
Tory rebels. Economist 169:870 D 19 '53

Germany

German illwill to Britain. Economist 170:17 Ja 2 '54

Iran

Back to Persia. Economist 169:800-1 D 12 '53
Oil talks to resume. Oil & Gas J 52:100-1 D 14 '53

Japan

Britain and Japan. Economist 169:469-70 N 14 '53

Libya

Libya and Britain. map Economist 168:372+ Ag 8 '53

Malaya

Malaya without Templer. Economist 170:77-8 Ja 9 '54

Near East

Middle Eastern alternatives. Economist 169:561-2 N 21 '53

Industries and resources

Engineering orders on the decline? Economist 170:259-60 Ja 23 '54
Parliament and the boards. Economist 168:523-5 Ag 22 '53

National physical laboratory, Teddington

Annual report. Chem Age (Lond) 68:773-5 My 23 '53
Annual report for 1953. Chem Age (Lond) 70:1097-8 My 15 '54
National physical laboratory extension; new metallurgical laboratory opened. il plans Metallurgia 49:257-60 My '54
National physical laboratory open day May 15. Chem & Ind p609-10 Je 20 '53
National physical laboratory open day, May 7. Chem & Ind p564 My 15 '54
National physical laboratory; report for 1952. Chem & Ind p552 Je 6 '53
New laboratory for NPL. il Chem Age (Lond) 70:881-3 Ap 17 '54
New metallurgy building. Chem & Ind p455 Ap 17 '54
Recent work at the National physical laboratory. J Sci Instr 31:307-8 Ag '54

National research development corporation

Finance in search of inventions. Economist 169:910 D 19 '53
Report for year ended 30 June, 1953. Chem Age (Lond) 70:17-18 Ja 2 '54

Navy

Newer look at Dartmouth. Economist 169:735-6 D 5 '53
Royal navy, 1953. il Engineer 197:45-8, pl 1-2 Ja 8 '54

See also
Warships—Great Britain

GREAT BRITAIN—*Continued*

Parliament

Aiding Parliament's digestion; programme for the session. Economist 170:145-6 Ja 16 '54

Delegated legislation; report of Select committee. Economist 169:735 D 5 '53

Quiet flows the House. Economist 170:219-20 Ja 23 '54

House of commons

Committee for the best club; question of accommodation in the House of commons. Economist 169:650 N 28 '53

House of lords

Lords and parties; reform of the House of lords. Economist 169:407 N 7 '53

Politics and government

Jobs for the juniors in Britain's ministerial structure. Economist 170:222 Ja 23 '54

Politicians and trustees; nationalised industries. Economist 169:313-14 O 31 '53

Second session of Parliament. Economist 168:363-4 Ag 8 '53

See also

Labor party (Great Britain)

Royal fine arts commission

Fine arts and finicky ironwork. Economist 168:444 Ag 15 '53

Sanitary affairs

Current lines of attack on the smoke problem. P. C. G. Isaac. A M A Archives Ind Hygiene & Occup Med 8:212-18 S '53

Scientific and industrial research, Department of

Annual report, 1952-53. Chem & Ind p363 Mr 27 '54

Government research; annual report of the D.S.I.R. Elec R (Lond) 154:570 Mr 26 '54

Green light for DSIR. Economist 169:768 D 5 '53

New deal for research; increased grants to DSIR. Chem Age (Lond) 69:1317-18 D 26 '53

Report for year, 1952-3. Chem Age (Lond) 70:719-21 Mr 27 '54

Work of the food investigation organisation, D.S.I.R. F. Kidd. Chem & Ind p672-6; Discussion. 676-7 Jl 11 '53

Social life and customs

What goes into coming out; debutantes. Economist 168:6-7 Jl 4 '53

Supreme court

Legal engine overhauled; report of committee appointed to inquire into the practice and procedure of the Supreme court, Great Britain. Economist 168:156-8 Jl 18 '53

Treasury

Changes at the Treasury; administrative. Economist 168:11-12 Jl 4 '53

GREAT LAKES

Forecasting Great Lakes levels aids power and navigation. L. D. Kirshner. il map Civil Eng 24:98-101 F '54

See also

Shipping—Great Lakes

GREAT LAKES steel corporation

$35-million bet on auto steel. il Bsns W p32 N 7 '53

GREAT northern railway

Railroad securities. Comm & Fin Chr 178:837 S 3 '53

GREAT Salt lake

Survival of E. coli in water from Great Salt lake. R. S. Fraser and C. I. Argall. Sewage & Ind Wastes 26:1141-4 S '54

GREAT Salt Lake desert, Utah

Gypsum-oölite dunes, Great Salt Lake desert, Utah. D. J. Jones. bibliog il map diag Am Assn Pet Geologists Bul 37:2530-8 N '53

GREATER New York insurance brokers' association

Annual membership meeting, New York. East Underw 54:19 D 18 '53

Greater New York insurance day, 1st, New York, Sept. 22. East Underw 54:1+, 30-3 S 25 '53; Nat Underw 57:39 S 24 '53; Weekly Underw 169:719+ S 26 '53

GREECE

See also

Automobile touring—Greece

Petroleum—Greece

Commercial policy

Greece expands imports against time drafts. For Comm W 50:7 D 14 '53

Greece sets terms of import credit. For Comm W 50:8 N 2 '53

Economic conditions

Greek economy in forward trend; third quarter of 1953. For Comm W 50:3 N 30 '53

Some economic and social problems. C. Evelpidis. Int Labour R 68:151-65 Ag '53

GREENE, Arthur Maurice, 1872-1953

Tribute. por Mech Eng 75:773-6 O '53

GREENHOUSES

Low-cost garage and greenhouse. A. J. Wahl. il Sewage & Ind Wastes 26:795-6 Je '54

Air conditioning

Effects of air conditioning on plant growth. F. W. Went. il Heating-Piping 26:159-64 My '54; Abstract. Dom Eng 183:228 Mr '54

Heating and ventilation

Heating an orchid greenhouse; Vattimo florists. Dom Eng 183:212 Mr '54

GREEN'S function

Green's function method for strongly interacting particles. M. Neuman. Phys R 92:1021-2 N 15 '53

GREENSBORO, North Carolina

Income good in southern cities. C. R. Walker. Manuf Rec 123:30-1 Ag; 27-8 S '54

GREER hydraulics, inc.

Debentures offered. Comm & Fin Chr 178:1160 S 28 '53

GREYHOUND corporation

Greyhound buys out railroad bus interests. Bus Transportation 32:68 N '53

Greyhound its own master; bus company is buying out railroad interest in its operating companies. Bsns W p33 O 3 '53

GRIEVANCES. See Employment management—Grievances; Labor disputes

GRIFFEN, Richard F.

Sketch. por East Underw 55:3 Ja 1 '54

GRIFFIN and George, limited

New company has ancient ancestry. Chem Age (Lond) 71:181-2 Jl 24 '54

GRIFFITHS, Hugh, 1891-1954

Sketch. por Chem & Ind p 1172-3 S 18 '54

GRIGNARD reaction

Abnormal Grignard reaction. F. G. Mann and F. H. C. Stewart. bibliog Chem & Ind p 1153 O 24 '53

Grignard reactions involving opening of the furan ring. R. C. Fuson and H. P. Wallingford. bibliog Am Chem Soc J 75:5950-2 D 5 '53

Mechanisms of Grignard reactions; addition to acid halides; metallic halides as Lewis acids. R. T. Morrison and M. Wishman. bibliog Am Chem Soc J 76:1059-61 F 20 '54

Organoboron compounds; the preparation of ethylene dialkylborinates by the Grignard reaction. R. L. Letsinger and I. Skoog. bibliog Am Chem Soc J 76:4174-6 Ag 20 '54

GRIGNARD reagents

Action of Grignard reagents; action of Grignard reagents on N-(phenylsulfonyl) derivatives of 1,2-benzisothiazolone, phthalimide and naphthosultam. A. Mustafa and O. H. Hishmat. bibliog Am Chem Soc J 75:4647-9 O 5 '53

Action of Grignard reagents on *O*-, *M*- and *P*-alkoxymethylanilines. F. G. Mann and F. H. C. Stewart. Chem & Ind p373-4 Mr 27 '54

Alkylation of duryl phenyl ketone with the Grignard reagent. R. C. Fuson and J. P. Freeman. Am Chem Soc J 76:911-12 F 5 '54

Branched-chain sugars; the action of Grignard reagents on 1 : 2-3 : 4-di-O-*iso*-propylidene-6-O-toluene-*p*-sulphonyl-α-D-galactose. W. G. Overend and G. Vaughan. Chem Soc J p2155-6 Je '54

GRIGNARD reagents—*Continued*

Convenient technique for micro Zerewitinoff determinations. H. C. Brown and O. Hafliger. bibliog diags Anal Chem 26:757-9 Ap '54

Displacement of substituents in phenyl 2,4,6-triisopropylphenyl ketone by the action of Grignard reagents. R. C. Fuson and W. S. Friedlander. Am Chem Soc J 75:5410-11 N 5 '53

Epoxyethers; the reaction of epoxyethers with Grignard reagents. C. L. Stevens, M. L. Weiner and C. T. Lenk. bibliog Am Chem Soc J 76:2698-700 My 20 '54

Fluoroölefins; the addition of the Grignard reagent to fluoroölefins. P. Tarrant and D. A. Warner. Am Chem Soc J 76:1624-5 Mr 20 '54

Grignard reagents and unsaturated ethers; reaction of Grignard reagents with β,γ-unsaturated ethers. C. M. Hill and others. bibliog Am Chem Soc J 75:5408-9 N 5 '53

Grignard reagents of sulfones; reactions with carbonyl compounds. L. Field and J. W. McFarland. bibliog Am Chem Soc J 75:5582-6 N 20 '53

Lithium aluminum hydride reduction of Grignard-nitrile adducts to primary amines. A. Pohland and H. R. Sullivan. bibliog Am Chem Soc J 75:5898-9 D 5 '53

Perfluoroalkyl Grignard and Grignard-type reagents; heptafluoro-*n*-propylzinc iodide. R. N. Haszeldine and E. G. Walaschewski. Chem Soc J p3607-10 N '53

Perfluoroalkyl Grignard and Grignard-type reagents; trifluoromethylmagnesium iodide. R. N. Haszeldine. Chem Soc J p 1273-9 Ap '54

Reaction of certain nitriles with Grignard reagents. F. F. Blicke and E. Tsao. bibliog Am Chem Soc J 75:5587-90 N 20 '53

Reaction of chloroacetone with aryl Grignard reagents. R. L. Huang. Chem Soc J p2539-40 Jl '54

Reaction of ethyl trichloroacetate with aromatic Grignard compounds. A. Kaluszyner and S. Reuter. bibliog Am Chem Soc J 75:5126-7 O 20 '53

Reaction of Grignard reagents with 4-hydroxy- and 4-ethoxycoumarin. S. Wawzonek, R. C. Nagler and L. J. Carlson. bibliog Am Chem Soc J 76:1080-2 F 20 '54

Reaction of Grignard reagents with lactones; ethyl and methyl Grignard reagents with 2,2-diphenyl-4-butanolactones. N. R. Easton and others. bibliog Am Chem Soc J 75:4731-2 O 5 '53

Reaction of Grignard reagents with α,β-olefinic acids. J. H. Wotiz, J. S. Matthews and H. Greenfield. bibliog Am Chem Soc J 75:6342-3 D 20 '53

Reaction of phenylmagnesium bromide and diphenylmagnesium with 9,10-diphenylacridyl chloride and *p*-dimethylaminotriphenylmethyl chloride. G. M. Kosolapoff and C. S. Schoepfle. bibliog Am Chem Soc J 76:1276-8 Mr 5 '54

Reduction of fluorine containing esters by Grignard reagents. O. R. Pierce, J. C. Siegle and E. T. McBee. Am Chem Soc J 75:6324-5 D 20 '53

Reduction of some Grignard reagent-carbon dioxide adducts to primary alcohols by lithium aluminum hydride. A. P. Mathers and M. J. Pro. Am Chem Soc J 76:1182 F 20 '54

Studies with acetylenes; some reactions of Grignard reagents with alk-1-ynyl and alk-1-enyl halides. H. K. Black, D. H. S. Horn and B. C. L. Weedon. Chem Soc J p 1704-9 Je '54

Synthesis of polyenes; the reaction of β-ionone with Grignard reagents. W. Oroshnik, G. Karmas and R. A. Mallory. bibliog Am Chem Soc J 76:2325-9 My 5 '54

Unsymmetrical quaternary carbon compounds; the comparative 1,4-additions of Grignard reagents to several conjugated systems. F. S. Prout and others. bibliog Am Chem Soc J 76:1911-13 Ap 5 '54

Unsymmetrical tetraalkylmethanes; coupling of alkylmagnesium bromides with tertiary bromides. N. Rabjohn and M. J. Latina. bibliog Am Chem Soc J 76:1389-90 Mr 5 '54

GRINDERS, Wood. See Wood grinders

GRINDING

Belt grinding of titanium; reference book sheet. Am Mach 98:163, 165, 167 Je 7 '54

Caterpillar hollow-grinds clamped carbide tips. M. Aljanich. il diags Am Mach 98:89-91 Ja 4 '54

Chemical reaction; the grinder's friend or foe? H. R. Letner. Am Mach 98:197 S 13 '54

Control particle shape and size. F. C. Bond. il diags Chem Eng 61:195-8 Ag '54

Cradle grinding makes abrasive belts more automatic; illustrations with text. Am Mach 98:153 F 15 '54

Dodge doubles up grinding on rocker-arm pads. il diags Am Mach 97:145 O 26 '53

Electrical-discharge machining. H. V. Harding and others. il Am Mach 98:146-8 Mr 15 '54

Grinding; adapter proves aid in sharpening special cutters; Chance Vought aircraft plant. il Iron Age 173:136 Ja 28 '54

Grinding cemented carbide tools. il Min Cong J 40:51+ Jl '54

Grinding hazards. W. R. Hardwick. il Metallurgia 49:21-5 Ja '54

Grinding; incentives up accuracy; Timken roller bearing co. T. M. Rohan. il Iron Age 174:71 S 23 '54

Grinding operations in the cleaning room. G. S. Eisaman. bibliog il Foundry 82:384+ My; 220+ Je '54

Grinding titanium no longer a problem. E. J. Krabacher. diag Am Mach 98:124-5 Je 21 '54

Grinding; titanium successfully ground with slower wheel speeds. Iron Age 172:207-8 D 3 '53

How to centerless-grind parts of plastic and wood rod; illustrations with text. C. Gentile and L. Schaper. diags Am Mach 98:134-6 My 10 '54

How to grind titanium. C. I. Bradford. il Steel 134:118-19 My 17 '54

Improved techniques developed for grinding titanium carbides. F. J. Lennon, jr. il Iron Age 172:144-6 D 17 '53

Industrial abrasives. il diags Mill & Factory 55:87-94 S '54

Line grinding solves cutting problems. H. J. Chamberland. il diag Steel 133:114+ Ag 17 '53

Lubricants aid abrasive-belt grinding and polishing. J. Durnan. il Mach 60:173-6 F '54

Machining and grinding; developments of new processes. Mech Eng 76:272-3 Mr '54

Magnesium; grinding precautions. il diags Light Metal Age 12:18-19+ F '54

Methods of grinding cylindrical parts; drawings; reference book sheet. Am Mach 98:131, 133 Mr 1 '54

Non-cylindrical contours; how you can grind them. J. P. Wright. il diags Am Mach 98:137-56 My 10 '54

Oscilloscope reduces cost of jig grinding operations; Western electric co. W. W. Rea. il diags Mach 60:201-3 D '53

Shoe centerless internal grinding attains new standards of accuracy; Bryant chucking grinder co. W. A. Boyd, jr. il diags Mach 60:178-80 Ja '54

Shoe centerless internal grinding fixture. il Mach 60:231 My '54

Shuttle-type chucks speed centerless grinding; International harvester co. C. Wies. il Iron Age 172:106-7 N 26 '53

Smooth out your disc grinding problems. J. K. McLaughlin. il Steel 133:92-4 N 2 '53

Surface tempering caused by grinding; abstracts. G. Murphy. Mach 60:202-3 Ja '54; Tool Eng 32:185-7 Je '54

Theory of regenerative chatter in precision-grinding operations. R. S. Hahn. bibliog diags A S M E Trans 76:593-7 My '54

Titanium; air force machinability report. il Iron Age 173:122-4 Je 10 '54

Wheels maintained exclusively by grinding. il Ry Loco & Cars 128:37-41 Ja '54; Excerpt. Ry Age News ed 135:23 D 21 '53

See also

Abrasive belts
Grinding machines
Lubrication and lubricants (cutting and grinding)

GRINDING—*Continued*

Tables, calculations, etc.

How to estimate disk grinding time; nomograph. L. J. Murphy. Mill & Factory 55: 124 S '54

GRINDING, Electrolytic

Electrolytic grinding or machining of metals. O. W. Storey. bibliog Electrochem Soc J 100:sup 125C-6C My '53
Why line your sludge tank with diamonds? electrolytically-assisted carbide grinding. N. W. Thibault and B. H. Anderson. il Am Mach 98:154-6 F 15 '54

GRINDING machines

Atkins special machine tools. il Engineer 197:292 F 19 '54
Automation applied to crankpin grinding machines. diag Mach 60:234 Jl '54
Belt swing frame grinders; versatile tool for metal fabricators. J. K. McLaughlin. il Steel 135:128-9 S 13 '54
Bourdon surface grinding machine. il Engineering 176:511 O 16 '53
Brass wheels grind carbides; Pratt & Whitney Aircraft. A. A. Merry and L. F. Wheeler. il Mach 61:174-7 S '54
Brockhouse slideway grinding head. il Engineer 197:404 Mr 12 '54; diags Engineering 177:349 Mr 12 '54
Centreless grinding machine; B.S.A. tools, ltd. il Engineering 176:476-7 O 9 '53
Cut finishing time ⅝ on 120-mm powder chambers. A. Ashburn. il diags Am Mach 97:100-1 D 21 '53
Cylindrical grinder provides automatic sizing control. il Am Mach 98:202 F 15 '54
Design of precision grinding machines. G. H. Asbridge. diags Inst Mech Eng Proc (A) 167 no 4:402-7, pl 1-2 '53; Same abr. Engineering 175:149-51, 186-7 Ja 30-F 6 '53; Discussion. Inst Mech Eng Proc (A) 167 no 4:407-13 '53; Engineer 195:177-8 Ja 30 '53
DoAll grinder has automatic downfeed and crush-roll-dresser attachments. il Am Mach 98:262 Ap 12 '54
DoAll large-size precision surface grinders with automatic features. il Mach 60:220 My '54; Iron Age 173:148+ My 13 '54
Double-column German machine for grinding machine tool beds. il Am Mach 98:162 Mr 29 '54
Duplex grinding; special purpose Rowland machine. il Automobile Eng 44:216 My '54
Elliott twist drill grinding machine. il Engineer 196:572 O 30 '53
Facts about modern grinding machines. diags Mill & Factory 54:564-5 My '54
Fosdick angular wheel slide grinder cuts production time and cost. il Am Mach 98:172 Jl 5 '54
Frauenthal precision turning and grinding machine developed for jet engine work. il Mach 60:216 Je '54
German hydraulic cylindrical grinders. il Am Mach 97:186 N 23 '53; Same. Automotive Ind 109:66 D 15 '53
Grinding long knives. il Engineering 177:151 Ja 29 '54
Grinding machines and what they can do for you. F. X. Curran. il diags Mill & Factory 54:88-97 Ap '54
Grinding machines for power steering gear components. T. Mac New. il diag Automotive Ind 110:42-7 Ap 15 '54
Gyratory motion grinds polygons; Polygon universal grinding machine. il diags Product Eng 24:155 Je '53
Hanchett knife and shear blade grinder. il Tool Eng 32:133 My '54; Am Mach 98:184 Jl 5 '54
Heald boring and grinding machine maintains work concentricity. il Mach 60:191-3 Ja '54
High speed grinding spindle. il Automobile Eng 44:81 F '54
Hydraulic motor increases grinder's sizing accuracy. il diags Product Eng 24:172-5 N '53
Hydraulic surface grinders. il Tool Eng 32: 116 Ja '54
Inventory of foundry equipment; cleaning and finishing; with tables. Foundry 82:158-61 My '54
Jig holds castings in automatic grinding machine operation. R. H. Herrmann. il Foundry 82:156 Ja '54
Karlebo profile grinding machine. il Engineer 196:644 N 13 '53
Landis centerless grinder. il Mach 60:241-2 Jl '54; Same cond. Am Mach 98:178 Je 21 '54
Landis centerless grinder redesigned for automatic cycling. il Am Mach 98:169 Jl 19 '54; Mach 60:219 Ag '54
Machine tool buyers' guide; grinding, honing and lapping machines. il Steel 133:120-31 sec 2 N 16 '53
Moore head combined with Fosdick table. il Am Mach 98:134 Ag 30 '54
New motor, new grinder; NEMA motors on belt grinders. il Steel 134:124 My 3 '54
1954 American Machinist production preview; grinding, honing, lapping. il Am Mach 98: 147-55 Ja 18 '54
Pratt & Whitney hydraulic vertical surface grinder. il Mach 60:240 Ap '54; Am Mach 98:198 Mv 10 '54
Profile grinding attachment; Svenska ackumulator aktiebolaget Jungner. il Engineer 196:572 O 30 '53
Replace with modern machine tools; grinding, lapping, honing. il diags Am Mach 97: B 15-20 Mid-N '53
Rowland duplex grinding machine. il Engineer 197:350 Mr 5 '54
Schütte tool- and cutter-grinding machine. il Automobile Eng 43:477 N '53
Seismograph places grinders. il Am Mach 98: 209 Ap 12 '54
Single cycle for grinding several diameters; Norton type CM-1 multi-wheel grinder. il Automotive Ind 110:81 Ja 1 '54; Same cond. Am Mach 97:149 D 21 '53; Same cond. Mach 60:221-2 Ja '54
Springfield machine does nine operations in one chucking. il diag Am Mach 98:172-3 My 24 '54
Springfield vertical universal grinder. il Mach 60:239-40 Jl '54; Tool Eng 33:111 Jl '54
Swarf problem solved. Steel 134:124+ Mr 15 '54
Take the strain out of slab grinding; Rotary electric steel co. il Steel 134:115-16 Mr 29 '54
Thomas Prosser precision grinder for full wet grinding. il Am Mach 98:190 F 15 '54
Thompson line of hydraulic heavy duty surface grinder. il Am Mach 98:206 S 13 '54
Thompson production grinders. il Mach 60: 218 Mr '54
Transfer machine automates crankpin grinding. H. P. Chace. diags Iron Age 173:187-9 Ap 22 '54
Traveling-head grinders finish heavy work. J. Horth and C. E. Stevens. il diag Am Mach 97:128-30 D 7 '53
Walter automatic cutter-grinder. il Automobile Eng 43:477-8 N '53
Wolf portable electric grinder. il Engineering 176:575 O 30 '53

See also
Abrasive belts
Burrs
Grinding wheels

Manufacture

New concept of product flow cuts cycle from months to weeks; Norton co. il diags Factory Management 112:84-91 Ja '54

GRINDING machines, Laboratory

Precision grinding machine for diffusion studies. H. Letaw, jr. and others. il diags R Sci Instr 25:865-8 S '54

GRINDING wheels

Carbide tool grinding with resin bonded wheels. N. P. Robie and A. D. Stover. il Tool Eng 31:65-8 N '53
Ceramic wheel sphere grinder. P. Senio and C. W. Tucker, jr. R Sci Instr 24:549 Jl '53
Conservation of diamond wheels. Mach 61: 198 S '54
Diamonds; new wheel looks good; new electronickel non-porous bond diamond grinding wheel. R. M. Lorz. il Iron Age 172:37 Jl 30 '53
Foundrymen hear 14 ways to trim grinding wheel costs. K. S. Cowlin. Iron Age 173:80 F 11 '54

GRINDING wheels—*Continued*

Mounting cylindrical grinding wheels; reference book sheet. diags Am Mach 98:243 Ap 12 '54

Plastics; how to machine glass reinforced plastics. il Iron Age 173:186-90+ Mr 4 '54

Shorter chipbreakers save diamonds. W. A. Fanger. il Am Mach 98:113-15 My 24 '54

Step up efficiency in carbide grinding. F. J. Lennon. il Steel 135:92-3 Ag 9 '54

Take your pick of a million grinding wheels. N. P. Robie. il Am Mach 98:114-16 Ag 2 '54

Manufacture

Design new type kiln for abrasive wheels. G. B. Remmey. il diag Brick & Clay Rec 124:73-4+ Je '54; Same. Cer Ind 63:54+ Ag '54

Safety measures

In grinding wheel safety simple things count. G. Whitacre. il Safety Maint & Prod 107: 27-8 Je '54

Truing

Center positioning gage for angular wheeltruing. H. J. Gerber. diag Am Mach 98:127 Mr 1 '54

GRINTER, Linton Elias, 1902-

L. E. Grinter, president, A.S.E.E., 1953-54. por J Eng Educ 44:1-2 S '53

GRISEOFULVIN

Griseofulvin; isolation of the bromo-analogue from penicillium griseofulvum and penicillium nigricans. J. MacMillan. Chem Soc J p2585-7 Jl '54

Griseofulvin; syntheses of the alkaline rearrangement products. J. MacMillan and others. Chem Soc J p429-35 Ja '54

GROCERY stores

Drive-ins thrive on supermarket crumbs. il Bsns W p48-50+ O 31 '53

GROCERY trade

What's ahead in sales of toiletries and soft goods in the grocery field. C. Sigler. Ptr Ink 245:40-1 O 23 '53

See also

Canned food
Chain stores
Coffee trade
Food industry and trade

also Bohack, H. C., company, inc.; Grand Union company

Advertising

Retailers run this co-op ad plan; United grocers. R. B. Johnson. il Sales Management 71:52+ Ag 1 '53

Sales up when family goes shopping. il Sales Management 72:116+ Mr 15 '54

Finance

See also

First national stores, inc.

Securities

Links in the food chains. I. U. Cobleigh. Comm & Fin Chr 178:1218-19 O 1 '53

Seattle

Mortality of Seattle grocery wholesalers. R. R. Still. J Marketing 18:160-5 O '53

GROOVING

Disposable insert tool. il Steel 135:153 S 13 '54

Ingenious holding method helps mill helical groove. A. Vetsch. diags Am Mach 98:157 Je 7 '54

Pivoted cutter forms oil grooves. J. E. Bittern. diag Am Mach 98:166 F 15 '54

GROSSE POINTE FARMS, Michigan

How it was done; the development of a small municipal park. H. F. Reves. il Pub Works 85:85-6 Jl '54

GROUND control approach. See Radar aids to aviation

GROUND water. See Water, Underground

GROUNDNUTS. See Peanuts

GROUNDS and faults. See Electric distribution—Grounds and faults

GROUP behavior

Getting employee cooperation; from studies in group dynamics. D. Laird. Am Bsns 24: 22-3 Je '54

GROUP insurance. See Insurance, Group

GROUP life insurance. See Insurance, Group life

GROUP selling. See Salesmanship—Group selling

GROUPS, Theory of

Phenomenological many-body exchange forces. L. E. H. Trainor. bibliog Phys R 95:801-10 Ag 1 '54

GROUTING

Grouting of railway embankments. Engineer 196:551 O 30 '53; diags Engineering 176:779 D 18 '53

Grouting solves water problem at Kennecott's Deep Ruth shaft. J. B. Huttl. il diags Eng & Min J 154:94-5 N '53

Intrusion grouting seals porous coral rock for Vedado cofferdam; Almendares River tunnel. J. C. King and J. R. Anderson. il diags Civil Eng 23:454-7 Jl '53

Pressure grouting at Deep Creek; Goldfield consolidated mines co. A. V. Quine. il Min Eng 6:279-81 Mr '54

GROWTH

Human growth. G. W. Gray. il Sci Am 189: 65-74+ O '53

GROWTH inhibiting substances

Benzimidazoles and benzotriazoles as growth antagonists. H. B. Gillespie, M. Engelman and S. Graff. bibliog Am Chem Soc J 76: 3531-3 Jl 5 '54

Increased translocation of plant-growth-modifying substances due to application of boron. J. W. Mitchell and others. bibliog il Science 118:354-5 S 25 '53

Secondary galls and other plant growth-modifying effects induced by translocated α-methoxyphenylacetic acid. J. W. Mitchell and W. H. Preston, jr. il Science 118:518-19 O 30 '53

Slower pace for plants; growth regulator B-214. il Chem W 74:82 Je 19 '54

Triazolopyrimidine analog of 6-mercaptopurine. C. T. Bahner, B. Stump and M. E. Brown. bibliog Am Chem Soc J 75:6301-2 D 20 '53

See also

Dihydropyridazinedione
Maleic hydrazide

GROWTH promoting substances

Antibiotics and endocrine stimulants as promoters of growth in fattening pigs. R. S. Barber and others. Chem & Ind p76 Ja 16 '54

Chemistry of plant-growth regulators; 2 : 4-dichloro-6-hydroxyphenoxyacetic acid and related compounds. G. W. K. Cavill and D. L. Ford. Chem Soc J p565-8 F '54

Chemistry of plant growth-regulators; modification of the side-chain of 2 : 4-dichlorophenoxyacetic acid. G. W. K. Cavill and D. L. Ford. Chem Soc J p 1388-91 My '54

Coprogen, the isolation of a new growth factor required by pilobolus species. C. Pidacks and others. bibliog Am Chem Soc J 75:6064-5 D 5 '53

Improved holder for seedlings in the Avena test. M. J. Kent. diag Science 118:214-15 Ag 21 '53

Improvement in frost resistance of parsnip tops sprayed with chemical growth substances. W. G. Corns. Science 118:281 S 4 '53

Increased translocation of plant-growth-modifying substances due to application of boron. J. W. Mitchell and others. bibliog il Science 118:354-5 S 25 '53

Isolation of a new plant-growth hormone, 3-indolylacetonitrile. H. B. Henbest, E. R. H. Jones and G. F. Smith. Chem Soc J p3796-801 D '53

Rôle of the ortho position in the benzoic and aryloxyalkanecarboxylic acid plant growth regulators. J. Grundy. bibliog Chem & Ind p 1071-2 Ag 28 '54

Synthesis of plant-growth regulators; ω-2-naphthyloxyalkanecarboxylic acids. P. M. Pope and D. Woodcock. Chem Soc J p 1721-4 Je '54

Xanthinin; a plant growth-regulating compound from xanthium pennsylvanicum. T. A. Geissman and others. bibliog Am Chem Soc J 76:685-7 F 5 '54

See also

Dichlorophenoxyacetic acid
Folic acid
Mycobactin
Vitamins

GRUEN watch company
Security I like best. E. P. Rochat. Comm & Fin Chr 178:1718+ N 5 '53

GUADALUPE ISLAND
See also
Geology—Guadalupe Island

GUANAMINES. See Diaminotriazine

GUANIDES
Some N^1-(6-methoxy-8-quinolylaminoalkyl)-N^5-isopropyldiguanides and related compounds. N. L. Drake and R. J. Kray. bibliog Am Chem Soc J 76:1320-1 Mr 5 '54

GUANIDINE
Derivatives of acetoacetic acid; the reaction of diketen with thioureas, amidines, guanidines, and *S*-substituted thioureas. R. N. Lacey. Chem Soc J p839-44 Mr '54
Reaction of guanidine with α,β-unsaturated carbonyl compounds; cinnamic acid derivatives. A. P. Phillips and J. Mentha. Am Chem Soc J 76:574-6 Ja 20 '54
Sakaguchi and biacetyl reactions for the identification of alkyl guanidines. J. D. Mold, J. M. Ladino and E. J. Schantz. bibliog Am Chem Soc J 75:6321-2 D 20 '53
Structural isomerism of sulfanilylmethylaminoguanidine. A. H. Greer and G. B. L. Smith. bibliog Am Chem Soc J 76:1141-5 F 20 '54
Thermal decomposition of guanidine perchlorate; catalysts and time-lag before ignition. A. Glasner and A. Makovky. Chem Soc J p 1606-10 My '54

GUANIDINIUM compounds
Association of acetate with ammonium and guanidinium ions. C. Tanford. Am Chem Soc J 76:945-6 F 5 '54
Kinetics of protein denaturation; the optical rotation of ovalbumin in solutions of guanidinium salts. J. Schellman, R. B. Simpson and W. Kauzmann. Am Chem Soc J 75:5152-4 N 5 '53

GUAR
Boost for nature. il Chem W 73:54 O 3 '53

GUARANTEED wages. See Wage payment plans—Guaranty of earnings

GUARANTY. See Suretyship and guaranty

GUARANTY of earnings. See Wage payment plans—Guaranty of earnings

GUARANTY of products
What's the score on guarantees. Ptr Ink 243:35-6 My 29 '53

GUARDIAN and ward
Guardian's liability; not responsible for torts of persons using property of its ward. Banking 46:74 Ja '54

GUATEMALA

Commercial policy

Guatemala controls more cotton goods. For Comm W 50:7 D 14 '53
Guatemala widens controls over foreign vs. home cotton goods. For Comm W 51:15+ F 8 '54

Economic conditions

Economic conditions abroad (cont). For Comm W 50:6 S 21; 4 D 28 '53

GUDGEON pins. See Piston pins

GUERBET reaction
Disproportionative condensations; modified Guerbet reactions. E. F. Pratt and D. G. Kubler. bibliog Am Chem Soc J 76:52-6 Ja 5 '54

GUEST, Keen and Nettlefold, limited
Statement by the chairman. J. H. Jolly. Economist 168:62-3 Jl 4 '53

GUGGENHEIM, Daniel, medal
Charles A. Lindbergh receives award at IAS meeting. Mech Eng 76:307 Mr '54
1953 Guggenheim medal awarded to Charles A. Lindbergh. il Aeronautical Eng R 12:35 D '53; Elec Eng 73:100 Ja '54

GUGGENHEIM, John Simon, memorial foundation
Guggenheim fellowships totaling $1 million go to 243 Americans. Chem & Eng N 32:2101 My 24 '54

GUIANA, British. See British Guiana

GUIDANCE, Educational. See Educational guidance

GUIDE books. See Guidebooks

GUIDEBOOKS
Guide books. Economist 168:308-9 Ag 1 '53
New trend in giveaways; guide books to convention areas. il Sales Management 72:74-5 pt 2 Ja 1 '54

GUIDED missiles
Airflow about cone-cylinders with curved shock waves. V. E. Bergdolt. bibliog il J Aeronautical Sci 20:751-6 N '53
Analysis of base pressure at supersonic velocities and comparison with experiment. D. R. Chapman. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:1187-209 '52
Baby turbojet powers guided missiles. il Bsns W p48-51 D 5 '53
British missile work expands. il Aviation W 59:34 Ag 10 '53
Chance Vought Regulus. il Aero Digest 67:48 D '53
Combat units to get new rocket and guided missile. il Iron Age 173:58 Ap 29 '54
Design trends; guided missiles. C. B. Millikan. Aeronautical Eng R 12:82-7+ D '53
First closeups of Fairchild Lark. il Aviation W 59:39 Jl 20 '53
Guided boomerangs. R. Gibson. Aviation W 58:40-2 Je 15 '53
Guided missile data distribution; radio telemetered information. J. B. Wynn, jr. and S. L. Ackerman. il Tele-Tech 12:65-7+ D '53
Guided missiles; comments on surface-based antiaircraft missiles. H. H. Porter. il map diags Aeronautical Eng R 12:24-9 Jl '53
Guided missiles; is technical cloak-and-daggerism hiding a snafu? Am Mach 98:162 Jl 5 '54
Holding the reins on 300,000 horsepower; abstract. J. C. Wise. S A E J 61:85-6 N '53
Matador prompts fresh look at design. I. Stone. il Aviation W 59:28-31 O 5 '53
Missile center expands for long-range flights. il map Aviation W 59:170-2+ Ag 17 '53
Missiles have progressed enough to close special office. Iron Age 172:50 O 1 '53
New Fairchild Petrel missile hunts subs. E. J. Bulban. il Aviation W 59:15 S 21 '53
Nose rockets boost new British missile. Aviation W 59:48 S 14 '53
Plane, missile reliability needs differ; electronic components. P. Klass. Aviation W 58:53-4+ Je 15 '53
Production study of Martin Viking. I. Stone. il Aviation W 59:55 N 9 '53
Rockets in the air. Economist 168:589 Ag 29 '53
Sonic barrier; raises heat barrier on metals. A. G. Gray. il Steel 133:72-4 Ag 31 '53
Thermal stresses in conical shells. J. H. Huth. bibliog diag J Aeronautical Sci 20:613-16 S '53
Trend of complete aircraft and guided-missile structures toward reinforced plastics. W. E. Braham. il Aeronautical Eng R 12:37-40+ S '53

Control

Guided missile control. Engineer 197:223-4 F 5 '54
Servo design for missile and aircraft flight control. R. J. Bibbero and R. Grandgent. il diags Tele-Tech 12:74-6+ N '53
U.S. unveils defensive missile system; army Nike rocket rides radar beam to target. il Aviation W 59:13-14 D 28 '53

Testing

Holloman tests missiles and pilotless aircraft. il Aviation W 59:186-8+ Ag 17 '53
Instrumentation of rockets and missiles. il diag Instruments & Automation 27:606-7 Ap '54
Missile off; on money! White Sands proving ground. il Gen Elec R 57:8-22 Mr '54
Missile testing at Huntsville. T. L. Greenwood. il Aero Digest 67:22-6 S '53
Proving ground for safety. il Nat Safety N 68:26-7+ N '53
Telemetry for guided weapons. il Engineering 176:518-19 O 23 '53

GUIDED missiles institute
Missile group; soliciting industry support for the organization of a missile trade association. Aviaton W 59:15 N 2 '53

GUILDS. See Gilds

GUITAR, Electric
Transistor guitar amplifier. L. E. Garner, jr. il diag Radio & Tv N 50:74-5+ N '53

GULDBERG, Cato Maximilian, 1836-1902
Some chemical relics of Peter Waage and Cato Maximilian Guldberg. R. E. Oesper. por J Chem Educ 30:193-4 Ap '53

GULF cities gas corporation
Stock offered. Comm & Fin Chr 178:1877 N 16 '53

GULF Coast leaseholds, inc.
Stock offered. Comm & Fin Chr 178:1273 O 5 '53

GULF Coast region
See also
Chemical industries—Gulf Coast region
Electrochemical industries—Gulf Coast region
Petroleum industry and trade—Gulf Coast region

GULF, Mobile and Ohio railroad
Railroad securities. Comm & Fin Chr 178:557 Ag 13 '53

GULF of Mexico. See Mexico, Gulf of

GULF oil corporation
Companies whose sound planning made them stronger. W. Gates. Mag of Wall St 92:601+ Ag 22 '53

GULF states utilities company
Bonds offered. Comm & Fin Chr 178:2092 N 30 '53

GUMS and resins
Botanical drugs, spices, gums. Published in weekly numbers of Oil, paint and drug reporter
Chemistry of the triterpenes and related compounds; some aspects of the chemistry of the elemi acids. T. G. Halsall, G. D. Meakins and R. E. H. Swayne. Chem Soc J p4139-48 D '53
Constituents of pine oleoresins, a review. P. M. Daugherty. (Bul. 19) 26p bibliog(p23-6) Georgia inst. of technology. Engineering experiment station, Atlanta '54
Constitution of sapote gum; components of the methyl ether derivative. E. V. White. Am Chem Soc J 75:4692-4 O 5 '53
Gum of acacia pycnantha. E. L. Hirst and A. S. Perlin. Chem Soc J p2622-7 Jl '54
Hydrogen bonding in phenolic resin intermediates. G. R. Sprengling. bibliog Am Chem Soc J 76:1190-3 F 20 '54
Natural gum products in the production of paper containing mineral fillers; Lycoid. M. L. Cushing. Tappi 36:sup 140A-1A D '53
Not rosy for rosin. Chem W 73:61-2+ Ag 8 '53
Studies on xanthorrhoea resins; isolation of chrysophanic acid (1 : 8-dihydroxy-3-methylanthraquinone) and of 2′ : 4-dihydroxy-4′-methoxychalkone. H. Duewell. Chem Soc J p2562-4 Jl '54
See also
Ester gums
Lac
Locust bean gum
Mesquite gum
Resinous products
Rosin

Analysis

Isolation of oligosaccharides from gums and mucilages. P. Andrews, D. H. Ball and J. K. N. Jones. Chem Soc J p4090-5 D '53; p 1724-6 Je '54

Prices

Botanical drugs, spices, gums; 1953 market trends. Oil Paint & Drug Rep 165:42-3 sec 2 F 1 '54

GUN metal
Insulating feeders for use with copper alloy sand castings; abstract. R. A. Skinner and R. W. Ruddle. Metal Prog 65:190+ Mr '54
Pinhole porosity in brass and gunmetal castings; abstract. N. B. Rutherford. Foundry 82:188+ S '54

GUNBY, Frank McClellan, 1882-
Sketch. Mech Eng 76:209 F '54

GUNITE
Discover method of guniting piles. il Iron Age 173:51 Ap 29 '54
Gunite repair for a concrete arch bridge. C. L. Wood. il Pub Works 85:81+ Je '54
Pilot guniting contract, marks beginning of repair program for San Francisco Bay trestle. il Roads & Sts 96:66+ D '53
Timely and low-cost repairs save deteriorating piling. il Constr Methods 36:54-5 Mr '54

GUNNERY
See also
Range finders

GUNS
Gun-barrel measurements involve rapidly fluctuating temperatures. J. M. Chenoweth and others. bibliog diags Instruments 26: 1714-15+ N '53

GUNS (ordnance)
See also
Guns, Aircraft
Machine guns

History

Materials for large army gun tubes, a history. P. R. Kosting. bibliog il diags Metal Prog 65:90-5+ My; 91-5 Je '54

Manufacture

Cut finishing time ⅔ on 120-mm powder chambers. A. Ashburn. il diags Am Mach 97:100-1 D 21 '53
Found; lost-wax profits; army ordnance producing small gun castings at Watervliet. Steel 133:133 Ag 3 '53
Gun barrels deburred and cleaned by liquid honing. W. G. Patton. il Iron Age 172: 102-3 Ag 27 '53
How navy probes bores; US naval gun factory; illustrations with text. J. A. Penn. diags Am Mach 98:160-2 Mr 15 '54
Line of salt baths heat treats 90-mm-gun recoil mechanism. G. F. Hyde. il plan Metal Prog 65:104-8 My '54

GUNS, Aircraft

Manufacture

Conventional tools machine titanium; Pontiac motor co. R. Satterlee. il diags Am Mach 98:94-7 Ag 30 '54

GUNS, Industrial
Impactool helps load oil-well gun. il Comp Air Mag 59:48 F '54

GURNEY, E. Holt, 1882-1954
Sketch. por Heating-Piping 26:183 My '54

GUTTERS (roofs)
Constructing terne metal gutters. il Am Bld 75:212-15 N '53

GUYS
Conductor tension and guying tables for distribution lines; engineering reference sheet. H. C. Johansen. diags Elec World 140:112-13 N 30 '53
Performed grips cut guying costs by saving 50 per cent on labor and 20 per cent on material. M. L. Brown. il Elec West 111: 90-1 N '53

GYMNASIUMS
Long-span prestressed-concrete beams used in army field house. R. E. Snetzer. il diags Civil Eng 24:217-19 Ap '54
Park-school cooperation adds to funds; Loyal Heights fieldhouse, Seattle, Wash. il plans Arch Rec 115:150-1 Ja '54
Welded arches span gymnasium. il Arch Forum 101:163 Jl '54

Lighting

Gymnasium lighting; data sheet. A. G. Caplan. Illum Eng 49:59 Ja '54
Lighting a university field house; lighting data sheet. A. G. Caplan il diag Illum Eng 49:285-6 Je '54

GYMNODINIUM brevis. See Dinoflagellata

GYMNOSPORANGIUM
Meiosis in gymnosporangium and the cytological effects of certain antibiotic substances. M. D. Berliner and L. S. Olive. bibliog il Science 117:652-3 Je 12 '53

GYPSUM
Gypsum and products, 1949-1952. Survey of Cur Bsns 1953 Sup p 185 [supplemented in monthly numbers]
Gypsum-oölite dunes, Great Salt Lake desert, Utah. D. J. Jones. bibliog il map diag Am Assn Pet Geologists Bul 37:2530-8 N '53
Thermography of gypsum. R. R. West and W. J. Sutton. bibliog(24 titles) Am Cer Soc J 37:221-4 My 1 '54

GYPSUM products
First gypsum plant in Northwest; Kaiser Gypsum's Seattle plant. il Chem & Eng N 32:3852-3 S 27 '54
Gypsum fireproofing reduces weight in steel frame buildings. il Am Bld 76:174-5 Jl '54

GYPSUM products—*Continued*
Gypsum products sold or used, 1949-1952. Survey of Cur Bsns 1953 Sup p 185 [supplemented in monthly numbers]
National Gypsum's new research center. C. J. Koehler. il Rock Prod 57:112-15 Je '54

GYRATOR (electric circuit). See Electric circuits

GYRO compass
Compass manufacture typifies diversity of Sperry operations. C. A. Mistron. il Mach 60:182-9 Jl '54

GYROMAGNETIC effect
Topics in guided-wave propagation through gyromagnetic media. H. Suhl and L. R. Walker. bibliog diags Bell System Tech J 33:579-659, 939-86, 1133-94 My-S '54

GYROMAGNETIC ratio. See Magnetic moment; Nuclear spin

GYROSCOPE
General theory and operational characteristics of the Gyrotron angular rate tachometer. R. E. Barnaby and others. il diags Aeronautical Eng R 12:31-6+ N '53
Gyroscope research at the Franklin institute. H. H. Brown. diag Franklin Inst J 256:281-2 S '53
Gyroscopic effect of rotors on the whirling of shafts. J. Mann and B. B. Clements. bibliog diags Engineer 197:308-11 F 26 '54
Miniature gyros. il Aviation W 59:32 Jl 20 '53
New space rate sensing instrument; Gyrotron. J. Lyman. il diags Aeronautical Eng R 12:24-30 N '53
Precession to mass flow rates; Gyro flowmeter. il diag Chem Eng 61:270+ F '54; Pet Processing 9:130 Ja '54
Vibragyro takes cue from housefly; vibrating tuning fork in Sperry gyro helps sense changes in direction. P. Klass. il diags Aviation W 59:57-8+ N 23 '53
Vibrational speed sensing in a unique new gyroscope design. diags Machine Design 26:123 F '54

H

h (Planck's constant). See Planck's constant

H and B American machine company, inc.
Susquehanna Mills merges with H&B American machine co.; sells out textile interests. Am Mach 98:145 Mr 29 '54

HACKNEY brothers body company
Century-old body firm to open new plant. Manuf Rec 123:33 F '54

HAE finish. See Enamel and enameling

HAFNIUM
Hafnium. J. Lomas. Can Min J 74:80-1 N '53
Hafnium helps refractories. Materials & Methods 39:232+ Ap '54
Physical, thermal and electrical properties of hafnium and high purity zirconium. H. K. Adenstedt. il Am Soc for Metals Trans 44:949-67 bibliog(p966-7); Discussion. 967-73 '52
Rare metals. Product Eng 24:201 S '53

Analysis

Distribution of zirconium and hafnium between cation-exchange resin and acid solutions; the column separation with nitric acid-citric acid mixture. J. T. Benedict, W. C. Schumb and C. D. Coryell. bibliog Am Chem Soc J 76:2036-40 Ap 20 '54
Separation factor; criterion for evaluation of fractional separation processes. B. Weaver. bibliog(26 ref) Anal Chem 26:474-5 Mr '54
Spectrographic determination of impurities in zirconium and hafnium. N. E. Gordon, jr. and R. M. Jacobs. bibliog Anal Chem 25:1605-8 N '53

Isotopes

Energy levels in Lu^{176} and Hf^{176}. J. R. Arnold. bibliog Phys R 93:743-5 F 15 '54

Nuclear reactions

Neutron absorption and scattering by hafnium. L. M. Bollinger and others. bibliog Phys R 92:1527-31 D 15 '53

Spectrum

Low even configurations of Hf II. M. Gehatia. Phys R 94:618-19 My 1 '54

HAFNIUM carbides
Hafnium carbide; refractory properties. Chem & Eng N 32:1128 Mr 22 '54
Industrial diamond substitutes; physical and X-ray study of hafnium carbide. P. G. Cotter and J. A. Kohn. bibliog il Am Cer Soc J 37:415-20 S 1 '54

HAFNIUM compounds
Preparation and properties of zirconium and hafnium chelates of certain β-diketones. E. M. Larsen, G. Terry and J. Leddy. bibliog Am Chem Soc J 75:5107-11 O 20 '53
Study of some binary hafnium compounds. F. W. Glaser and others. bibliog J Metals 5:Trans 1119-20 S '53

HAFNIUM oxide
Crystallographic data. S. Geller and E. Corenzwit. Anal Chem 25:1774 N '53

HAGEN, John Francis, 1893-
Man with the roving eye. R. E. Ellsworth. pors Mod Textiles Mag 35:36+ F '54

HAGERTY, James A.
Two Hagertys are honored by news vets. Ed & Pub 86:50 My 16 '53

HAGERTY, James C. 1909-
Two Hagertys are honored by news vets. Ed & Pub 86:50 My 16 '53

HAIL insurance. See Insurance, Hail

HAIR
Direct measurement of hair softening at various relative humidities. D. F. Mowery, jr. bibliog diag Textile Res J 24:711-15 Ag '54
Directional triboelectric effects of wool and hair. S. P. Hersh and D. J. Montgomery. Textile Res J 24:755-6 Ag '54
Iron content of melanin granules isolated from pigmented mammalian hairs. G. Laxer and C. S. Whewell. bibliog Chem & Ind p 127 Ja 30 '54
Polycyclic hydrocarbons in human hair wax. F. W. Hougen. Chem & Ind p 192 F 13 '54
Relaxation of stretched animal fibres; relaxation of human hair. G. C. Wood. bibliog Textile Inst J Trans 45:T462-71 Je '54
Swelling of hair and a viscose rayon monofil in aqueous solutions. W. S. Barnard and H. J. White, jr. bibliog diags Textile Res J 24:695-704 Ag '54

Dyeing and bleaching

Application of radiochemical techniques to the study of the interaction of hair fibers with aqueous solutions. P. B. Stam and H. J. White, jr. bibliog Textile Res J 24:785-91 S '54

HAIR (animal)
Permanents for pigs' hair; Blocksom & co. il Ind & Eng Chem 46:sup 13A+ Jl '54

HAIR preparations
Chemicals and curls. il Chem W 74:101-2 My 22 '54
Hit with a mist; aerosol hair lacquers. il Chem W 72:79-80 My 23 '53
Home of Wildroot shampoo. il Soap & San Chem 29:42-5+ Mr '53
Testing tresses. Ind & Eng Chem 45:sup 13A+ Je '53
See also
Shampoos

HALFTONE process. See Photoengraving

HALIDES
Binary freezing-point studies for boron bromide with inorganic halides. R. F. Adamsky and C. M. Wheeler, jr. bibliog J Phys Chem 58:225-7 Mr '54
Binding energies of gaseous diatomic hydrides and halides of group II and group III metals. J. L. Margrave. bibliog J Phys Chem 58:258-60 Mr '54
Carbon dihalides as intermediates in the basic hydrolysis of haloforms; combination of carbon dichloride with halide ions. J. Hine and A. M. Dowell, jr. bibliog Am Chem Soc J 76:2688-92 My 20 '54
Catalytic esterification by metal halides. M. E. Hill. bibliog Am Chem Soc J 76:2329-33 My 5 '54
Cyanogen halides; a comparison with the interhalogen compounds and nitrosyl halides. A. A. Woolf. diags Chem Soc J p4121-8 D '53

HALIDES—*Continued*

Cyanogen halides; the positive cyanogen ion. A. A. Woolf. diags Chem Soc J p252-65 Ja '54

Cyanogen halides; their heats of formation and free energies. G. Lord and A. A. Woolf. Chem Soc J p2546-51 Jl '54

1,1-Di-H-perfluoroalkyl halides. G. V. D. Tiers, H. A. Brown and T. S. Reid. bibliog Am Chem Soc J 75:5978-9 D 5 '53

Dipole moments, nuclear quadrupole coupling, and the bonding orbitals in group V; trihalides. P. Kisliuk. bibliog il J Chem Phys 22:86-92 Ja '54

Electrical conduction in halide-contaminated ice. E. J. Workman and others. Phys R 94: 1073 My 15 '54

Electrodeless metal-halide lamps. C. H. Corliss and others. il diag Opt Soc Am J 43: 398-400 My '53

Free radical aromatic substitution; the relative reactivities of the phenyl halides toward phenyl radical attack. R. L. Dannley and others. bibliog Am Chem Soc J 76:445-8 Ja 20 '54

Halides of niobium (columbium) and tantalum; the electrical conductivities of niobium and tantalum pentafluorides. F. Fairbrother, W. C. Frith and A. A. Woolf. Chem Soc J p 1031-3 Mr '54

Kinetics and mechanisms of nucleophilic displacements in allylic systems; reactivities of allylic halides by the SN1 mechanism of hydrolysis. C. A. Vernon. Chem Soc J p423-8 Ja '54

Low-temperature electrolytes. F. Rakowsky and A. B. Garrett. bibliog Electrochem Soc J 101:117-19 Mr '54

Mechanisms of Grignard reactions; addition to acid halides; metallic halides as Lewis acids. R. T. Morrison and M. Wishman. bibliog Am Chem Soc J 76:1059-61 F 20 '54

Metal-salt miscibility; abstract. M. A. Bredig. il Chem & Eng N 32:1450-1 Ap 12 '54

New ω-substituted anisoles; aryloxymethyl halides; their preparation and reactions. H. J. Barber and others. bibliog J Ap Chem 3:266-74 Je '53

Polymerization of styrene by hydrogen halides and stannic halides; abstract and discussion. D. C. Pepper and A. E. Somerfield. Chem & Ind p42-3 Ja 9 '54

Preparation of halides of pentaerythritol trinitrate. D. E. Elrick and others. Am Chem Soc J 76:1374-5 Mr 5 '54

Rate data for the bimolecular elimination reactions of the *t*-amyl halides; further evidence for the concerted nature of bimolecular eliminations. H. C. Brown and I. Moritani. bibliog Am Chem Soc J 76:455-7 Ja 20 '54

Reactivity of phenacyl halides. C. Eaborn. bibliog Chem & Ind p930 Jl 24 '54

Reactivity of the *O*-acylglycosyl halides. F. H. Newth and G. O. Phillips. pl Chem Soc J p2896-909 O '53

Relative reactivities of organic halides in displacement reactions; reaction of mercuric nitrate with some normal chain alkyl and aralkyl bromides. S. Oae and C. A. VanderWerf. bibliog Am Chem Soc J 75:5037-9 O 20 '53

Sodium-promoted condensation of organic halides and carbonyl compounds. C. E. Frank and W. E. Foster. bibliog Ind & Eng Chem 46:1019-21 My '54

Some chemistry of covalent compounds with a single central atom. L. B. Clapp. bibliog(41 ref) J Chem Educ 30:584-90 N '53

Studies with acetylenes; some reactions of Grignard reagents with alk-1-ynyl and alk-1-enyl halides. H. K. Black, D. H. S. Horn and B. C. L. Weedon. Chem Soc J p 1704-9 Je '54

Trans-esterification as a means of halide esterification under neutral conditions. W. M. Corbett and J. Kenner. Chem Soc J p3572-5 N '53

Vapor phase hydrolysis of the actinide halides; heat and free energy of the reaction $AmCl_3(s) + H_2O(g) - AmOCl(s) + 2HCl(g)$. C. W. Koch and B. B. Cunningham. Am Chem Soc J 76:1470-1 Mr 20 '54

See also

Alkali metal halides
Bromides
Chlorides
Fluorides
Grignard reagents
Methyl halides

Analysis

Argentometric determination of halides using the dead-stop end point. M. L. Masten and K. G. Stone. bibliog Anal Chem 26:1076-7 Je '54

Pyrohydrolysis in the determination of fluoride and other halides. J. C. Warf, W. D. Cline and R. D. Tevebaugh. bibliog diag Anal Chem 26:342-6 F '54

Quantitative estimation of amine-cadmium halide complexes. L. Levi and C. G. Farmilo. bibliog(34 ref) Anal Chem 25:909-13 Je '53

HALL effect

Ac Hall and magnetostrictive effects in photoconducting alkali halides. J. R. Macdonald and J. E. Robinson. bibliog diag Phys R 95:44-50 Jl 1 '54

Analysis of magnetoresistance and Hall coefficient in *p*-type indium-antimonide and *p*-type germanium. T. C. Harman and others. Phys R 95:699-702 Ag 1 '54

Conductivity and Hall effect in the intrinsic range of germanium. F. J. Morin and J. P. Maita. Phys R 94:1525-9 Je 15 '54

Conductivity and Hall effect of ZnO at low temperatures. S. E. Harrison. bibliog diags Phys R 93:52-62 Ja 1 '54

Electrical properties of *N*-type germanium. P. P. Debye and E. M. Conwell. bibliog diag Phys R 93:693-706 F 15 '54

Electrical resistivity and Hall coefficient of sodium tungsten bronze. W. R. Gardner and G. C. Danielson. bibliog diag Phys R 93:46-51 Ja 1 '54

Electronic Hall effect in diamond. A. G. Redfield. bibliog diags Phys R 94:526-37 My 1 '54

Electronic Hall effect in the alkali halides. A. G. Redfield. bibliog Phys R 94:537-40 My 1 '54

Electronic structure, infrared absorption, and Hall effect in tellurium. H. B. Callen. bibliog diags J Chem Phys 22:518-22 Mr '54

Graphical representation of the semiconductor Hall effect. L. P. Hunter. diags Phys R 94:1157-60 Je 1 '54

Hall coefficient in germanium. T. C. Harman and others. Phys R 94:1065-7 My 15 '54

Hall effect in AgCl at low temperature. F. C. Brown. bibliog Phys R 92:502-3 O 15 '53

Hall effect in bismuth at 1.4°K. J. M. Reynolds and others. Phys R 93:247-8 Ja 1 '54

Hall effect in ferromagnetics. C. Kooi. bibliog Phys R 95:843-4 Ag 1 '54

Interpretation of Hall effect and resistivity data in PbS and similar binary compound semiconductors. W. W. Scanlon. bibliog Phys R 92:1573-5 D 15 '53

Search for the Hall effect in a superconductor; experiment. H. W. Lewis. Phys R 92:1149-51 D 1 '53

Seebeck effect in germanium. T. H. Geballe and G. W. Hull. diag Phys R 94:1134-40 Je 1 '54

Sensitive Hall measurements on NaCl and on photoconductive PbTe. J. L. Levy. diag Phys R 92:215-18 O 15 '53

Shorting and field corrections in Hall measurements. W. F. Flanagan and others. R Sci Instr 25:593-5 Je '54

Solution of the field problem of the germanium gyrator. R. F. Wick. bibliog diags J Ap Phys 25:741-56 Je '54

Spontaneous Hall effect in ferromagnetics. J. Smit and J. Volger. Phys R 92:1576-7 D 15 '53

HALL of fame for great Americans

Gibbs drive renewed; to install bust in New York university's Hall of fame. il Chem & Eng N 32:2024 My 17 '54

HALOGEN compounds

Alkaline rearrangement of α-haloketones; effect of changing the halogen. R. B. Loftfield and L. Schaad. bibliog Am Chem Soc J 76:35-7 Ja 5 '54

Effects of halocarbons on engine performance. F. G. Rounds and J. D. Caplan. bibliog il Ind & Eng Chem 46:1677-84 Ag '54

Fluoro-olefins; synthesis and reactions of some 3 : 3 : 3-trihalogenopropenes. R. N. Haszeldine. Chem Soc J p3371-8 N '53

Halogenated *o*- and *p*-phenolic ketones. N. P. Buu-Hoï, N. D. Xuong and D. Lavit. Chem Soc J p 1034-8 Mr '54

HALOGEN compounds—*Continued*

Hydrazine; salts of dimethyl ketazine and certain hydrazones; the halogeno-antimonites and -bismuthites. W. Pugh. Chem Soc J p3445-51 N '53

Kinetics and mechanisms of aromatic halogen substitution; acid-catalysed chlorination by aqueous solutions of hypochlorous acid. P. B. D. de la Mare, A. D. Ketley and C. A. Vernon. Chem Soc J p 1290-7 Ap '54

Monomer synthesis; triazines; a novel method for the reduction of halomethyl groups in the triazine series. S. L. Shapiro and C. G. Overberger. bibliog Am Chem Soc J 76:97-100 Ja 5 '54

Reaction mechanism of halogenobenzoic acids and halogenonitrobenzenes with nucleophilic reagents. J. Grundy. bibliog Chem & Ind p23 Ja 2 '54

Studies of *N*-halogeno-compounds; the interaction of dialkylchloramines with phenols. L. O. Brown and F. G. Soper. Chem Soc J p3576-80 N '53

Studies of *N*-halogeno-compounds; the kinetics of chlorination of tertiary amines. A. J. Ellis and F. G. Soper. Chem Soc J p 1750-5 Je '54

Synthetic estrogens: halotriphenylethylene derivatives. R. S. Shelton and others. bibliog Am Chem Soc J 75:5491-5 N 20 '53

Thermodynamic functions of the halogenated methanes. E. Gelles and K. S. Pitzer. bibliog Am Chem Soc J 75:5259-67 N 5 '53

Wettability of halogenated organic solid surfaces. A. H. Ellison and W. A. Zisman. bibliog J Phys Chem 58:260-5 Mr '54

See also
Grignard reagents
Halides
Trichloroethylene

Analysis

Determination of organic halogen with sodium biphenyl reagent. L. M. Liggett. bibliog diag Anal Chem 26:748-50 Ap '54

Spectra

Absorption spectra of ketones; α-halogenoketones. R. C. Cookson. Chem Soc J p282-6 Ja '54

Near ultraviolet absorption spectra of halogenated nitrobenzenes. H. E. Ungnade. bibliog Am Chem Soc J 76:1601-3 Mr 20 '54

Near-ultra-violet absorption spectra of naphthalene and its monohalogen derivatives in solution. J. Ferguson. Chem Soc J p304-11 Ja '54

HALOGEN fluorides

Absorption cells for use with hydrogen fluoride and halogen fluoride solutions. J. J. Katz and H. H. Hyman. diags R Sci Instr 24:1066-7 N '53

Computations of entropy increments in gaseous bimolecular associations; the dimerization of carboxylic acids, and the addition of fluorine to halogen fluorides. L. Slutsky and S. H. Bauer. bibliog diags Am Chem Soc J 76:270-5 Ja 5 '54

HALOGENATION

Chemical engineering unit processes. O. R. Pierce and E. T. McBee. il Ind & Eng Chem 45:1969-75 bibliog(180 ref, p 1973-5); 46:1835-41 bibliog(160 ref, p 1839-41) S '53, S '54

Chemical studies with 11-oxygenated steroids; a one-step oxidation-halogenation of 3-hydroxysteroids. A. R. Hanze and others. bibliog Am Chem Soc J 76:3179-81 Je 20 '54

Effect of halogenation on frictional properties of plastics. R. C. Bowers and others. bibliog J Ap Phys 24:1066-7 Ag '53

Evolution of halides from halogenated plastics exposed to gamma radiation. J. Byrne and others. Ind & Eng Chem 45:2549-52 N '53

Halogenation of 2-methoxy-1-acetonaphthalide. F. Bell. Chem Soc J p472-3 Ja '54

Halogenation of β-naphthylamine and its derivatives. F. Bell. Chem Soc J p3035-41 O '53

Kinetics of aromatic halogen substitution; the intermediates involved in halogenation in acetic acid solution. P. W. Robertson. Chem Soc J p 1267-70 Ap '54

Low temperature halogenation of isobutylenes. R. T. Arnold and W. W. Lee. bibliog Am Chem Soc J 75:5396-400 N 5 '53

See also
Bromination
Chlorination
Fluorination
Iodination

HALOGENS

Position of the cyanogen radical in the halogen group. A. A. Woolf. Chem & Ind p868 Ag 15 '53

See also
Bromine
Chlorine
Fluorine
Iodine

Analysis

Automatic combustion apparatus for determination of sulfur and halogen. T. T. White and others. il diags Anal Chem 25:1664-8 N '53

Determination of halogens in complex platinates; preliminary reduction with hydrazine. W. Pugh. bibliog J Ap Chem 4:47-8 Ja '54

HALOHYDRINS

Relationship between acid-base level and the rate of alkaline hydrolysis of halohydrins in methanol-water and dioxane-water systems. W. C. Woodland, R. B. Carlin and J. C. Warner. Am Chem Soc J 75:5840-1 D 5 '53

HALOMETHANES

Photochemical reactions of methyl diazoacetate with polyhalomethanes. W. H. Urry and J. W. Wilt. bibliog Am Chem Soc J 76:2594-5 My 5 '54

HAM

How they put that quality into Danish canned ham. il Food Eng 25:127+ D '53

HAMBURG, Germany

German shipping; despite loss of the hinterland Hamburg comes back. F. Morley. Barron's 33:5-6 O 19 '53

HAMILTON, Ontario

Water supply

Control of water supply for distant and high-level areas. W. L. McFaul and J. Stodart. il diags Munic Util 92:23-6+ My '54

HAMILTON, W. C. and sons

W. C. Hamilton acquires Michigan paper co. il Paper Tr J 138:11-12 F 19 '54

HAMILTON space clock. See Clocks

HAMMER mills. See Crushing machinery

HAMMERS, Drop

Drop hammer, trapped rubber dies form aircraft parts faster; Consolidated Vultee aircraft co. T. M. Rohan. il Iron Age 173:121-3 My 6 '54

HAMMERS, Electric. See Electric hammers

HAMMERS, Steam. See Steam hammers

HAMMETT, Louis Plack, 1894-

Portrait. Chem & Eng N 32:cover Ap 12 '54

HAMMETT equation

Reëxamination of the Hammett equation. H. H. Jaffé. Chem R 53:191-261 bibliog (p254-61) O '53

Some extensions of Hammett's equation. H. H. Jaffé. Science 118:246-7 Ag 28 '53

HAMMOND, Indiana

Streets

Hammond's special parking plan speeds up street sweeping operations. il Pub Works 84:80 D '53

HAMPSHIRE paper company

Hampshire Paper dissolves after 87 years. Paper Tr J 138:9 Ja 8 '54

HAND

Barbers' disease. W. Waris. bibliog il Ind Med 22:111-13 Mr '53

Protection

Hands and arms. Nat Safety N 69:121-2+ Mr '54

Radioactive contamination; barrier creams for hand protection. G. S. Towler. Chem & Ind p387 Ap 3 '54

See also
Gloves, Safety

Wounds and injuries

Hand injuries; immediate treatment of acute open wounds. M. L. Mason. il Ind Med 22:378-92 S '53

HAND—Wounds and injuries—*Continued*

Injured hand; principles of treatment. S. Bunnell. Ind Med 22:251-4 Je '53

Prosthetic replacement of the metacarpal head. W. R. MacAusland. bibliog il Ind Med 22:400-2 S '53

HAND, Artificial

Reinforced acrylate elastomers cast from latex. P. Fram and others. bibliog(25 ref) il Ind & Eng Chem 46:1992-2000 S '54

HAND cleaners

Hand cleaners. Soap & San Chem 29:87+ Je '53

Soap and the skin. S. G. Johnsen and J. E. Kirk. bibliog il Soap & San Chem 29:46-8+ My '53

HAND dryers

Hand dryers paid off in six months; J. J. Tourek manufacturing co.; with cost data. il Factory Management 111:137 D '53

See this demonstrator? it sells hot air; electric hand dryer. T. R. Ruwitch. il Sales Management 71:106+ Ag 15 '53

HANDICAPPED

Easy does it; Consumers power co.'s kitchen demonstration van includes numerous ideas usable by the handicapped. il Elec World News ed 140:24 D 21 '53

Employment of handicapped workers in industry. K. Jansson. Int Labour R 68:135-50 Ag '53

Handicapped; employer interest rises. Iron Age 172:43 D 24 '53

Handicapped get more chances. Iron Age 172:104-5 S 17 '53

Handicapped have value. Am Bsns 24:32-4 Mr '54

Industry gets help from the handicapped. K. W. Bennett. il Iron Age 173:65-6 Ap 15 '54

Physically handicapped. Safety Maint & Prod 107:50-1 F '54

Placing the handicapped; Ford motor co. A. G. Larke. il Dun's R & Mod Ind 62:43-5 N '53

They lose money and like it; Dallas fashion center. il Sales Management 70:8+ Ap 1 '53

See also

Blind
Disabled—Rehabilitation
Heart—Diseases

HANDICRAFT

Kit hit. il Sales Management 73:40-1 S 20 '54

Pennsylvania Dutch; industries and arts. J. S. Muller. il diags Comp Air Mag 59:34-40 F '54

HANDLING, Mechanical. See Mechanical handling

HANDLING of materials. See Material handling

HANDRAILS. See Railings

HANFORD engineering works

Research and engineering progress, 1953; nucleonics. il Gen Elec R 57:12-16 Ja '54

HANGARS

Aluminum hangar; large sub-assembly units prefabricated; De Haviland co. P. Stevens. il Light Metal Age 11:10-11+ Je '53

Aluminum hangar spans 200'. il Arch Forum 98:151 My '53

Arched hangar roof, spanning 150 ft, is a four-in. shell between arch ribs. il Eng N 151:59-60 N 12 '53

Box-shaped steel trusses span 278'. il Arch Forum 100:162-3 Je '54

Cantilevers 134' long eliminate hangar columns. il Arch Forum 100:166-7 Ja '54

Circular concrete hangar roof cantilevers 46 ft. il diag Eng N 151:46-7 Jl 2 '53

Demountable precast hangar spans 130'. il diag Arch Forum 100:164-5 Je '54

Four acres of roof, but only two columns inside; hangar for Boeing airplane co. il Eng N 151:45-6 S 17 '53

Hangar's timber trusses set new span record. il diags Eng N 151:31-2 S 3 '53

Navy standardizes jet hangar designs. il Eng N 151:39-40+ N 12 '53

New alert hangar for USAF. il Aviation W 58:22 Je 15 '53

New Pittsburgh airport hangar features 278-ft three-hinge trussed arch spans. il Civil Eng 24:264 Ap '54; Eng N 152:33 Ap 8 '54

130-ft span hangar in precast concrete. O. Safir. il diag Am Concrete Inst J 25:525-32 Mr '54; Abstract. Roads & Eng Constr 92:154-6 Ap '54

Soaring wing of struts; space-frame hangar. il diags Arch Forum 101:144-9 S '54

Umbrella hangar for lightplanes. il Aviation W 59:45 Ag 31 '53

Unusual design for hangar roof; suspender frame supports cantilever. il diag Eng N 151:32+ Jl 23 '53

Lighting

Design for simplified hangar illumination. R. D. Prescott. il Illum Eng 49:151-2 Mr '54

Lighting for airplane repair; data sheet. J. Despres. il plan diag Illum Eng 48:593-4 N '53

HANLEY, William Andrew, 1886-

ASME honors engineers; honorary membership. por(p65) Mech Eng 76:64 Ja '54

HANNA, M. A., company

First shipments of Canadian iron ore to benefit M. A. Hanna next year. Barron's 33:21-2 N 9 '53

HANNAH, John Alfred, 1902-

Portrait. Bsns W p29 N 21 '53

HAPLOPAPPUS

Terpenes in the essential oil of haplopappus laricifolius, Gray. W. F. McCaughey and T. F. Buehrer. bibliog Am Chem Soc J 75:4851 O 5 '53

HAPLOPHYTON cimicidum

Insecticidal principles of haplophyton cimicidum; haplophytine. H. R. Snyder and others. bibliog Am Chem Soc J 76:2819-25 My 20 '54

HARAPPA civilization. See India—Antiquities

HARBORS

Eastern Mediterranean seaports build up their cargo handling facilities. il Eng N 152:53-4 Ap 22 '54

Method of analysis of annual variations of harbor water and earth temperatures; abstract. W. N. McDaniel and E. F. Wolf. Elec Eng 73:147 F '54

See also

Breakwaters
Docks
Izmir, Turkey—Harbor
Jetties
Ports

HARD board. See Fiber board

HARD facing

Automatic hard-facing of worn pulverizer parts pays off; Cleveland electric illuminating co. R. Ruggie. il Power Eng 58:72-3 Ap '54

Dragline tracks reworked with welding. il Roads & Sts 97:62 F '54

Effect of welding variables on hard-facing deposits. A. Zvanut and V. Peters. Welding J 33:778-82 Ag '54

Flux supplies alloy for hard surfacing manipulators. F. H. Knibbs. il Iron Age 172:98-9 O 29 '53

Gas-welding hard surfaces for precision; illustrations with text. J. Wischhusen. Am Mach 98:126-8 My 24 '54

Hard facing in ceramic industries. W. L. Lutes and H. F. Reid. il Am Cer Soc Bul 33:79-82 Mr 15 '54

Hard surfacing; coated Diesel engine valves outlast originals. il Iron Age 172:88 D 24 '53

Hardsurfacing technique; alloy content of deposited metal is supplied by agglomerated granular flux. il Steel 133:164 N 9 '54

Intricate procedures solve tough hard-facing problems. J. Wischhusen. il diag Iron Age 172:164-7 D 10 '53

Modern hard surfacing material greatly increases wearing life. il Brick & Clay Rec 125:68 Ag '54

New development in fluxes for automatic welding and hard surfacing. L. K. Stringham. il Welding J 33:132-6 F '54

New developments teamed up to make high-quality, low-cost hard surfacing deposits. L. K. Stringham. il Iron Age 174:103-5 S 2 '54

Parts costs halved by automatic welding and hardfacing. il Roads & Sts 97:71-3+ S '54

Quality hard facing. J. Wischhusen. il Materials & Methods 39:140-2 Ap '54

HARD facing—*Continued*
Rocker arms wearproofed in quantity; spray-welded Colmonoy nickel-base alloy coating. il Steel 134:138 Je 21 '54
See also
Tungsten carbide coating

HARD woods
Can mechanical barking aid in northern hardwood utilization? il Paper Tr J 138:104-5 My 14 '54
Central's new barkers used on hardwoods. Paper Tr J 138:10 Jl 2 '54
Conference on pulping of hardwoods in the Northeast, Amherst, Mass. Sept. 14. Paper Tr J 138:18+ S 24 '54
Hardwood newsprint industry promoted by Dept. of commerce. Paper Tr J 138:30 Ag 13 '54
Hardwood pulp in New England. Tappi 37:sup 100A+ Ap '54
Neutral sulphite cooking of hardwoods. R. M. Dorland and others. bibliog Pulp & Pa of Can (Convention no) 55:258-62 [F] '54; Abstract. Paper Tr J 138:24 F 5 '54
Neutral sulfite semi-chemical pulping; use of hardwoods; pictured flowsheet. Chem Eng 60:242-7 N '53
Semichemical and high-yield chemical pulping of hardwoods with sodium sulphite and sodium bisulphite. R. M. Husband. bibliog Tappi 36:529-34 D '53

HARDBOARD. See Fiber board

HARDENING
Hardening of Pd by cathodic hydrogen. T. Sugeno and M. Kowaka. J Ap Phys 25:1063-4 Ag '54
Inside look at hardening cast iron. J. Obrebski. il Steel 133:71-3 D 28 '53
Producing hardened parts; report of panel on materials and heat-treatment. S A E J 62:76-7 Ap '54
Special broaches overcome work hardening problem; International Harvester's Fort Wayne plant. E. J. Egan, jr. il Iron Age 173:94-6 Ap 29 '54
Work hardening of metals. E. H. Edwards and others. bibliog J Metals 5:Trans 1525-9 sec 2 N '53; Discussion. 6:Trans 667-8 sec 2 My '54
See also
Case hardening
Metals—Aging
Steel, Hardening of

HARDNESS
Hardness conversion tables; engineering file facts. Materials & Methods 39:135, 137 Mr '54
Isothermal temper embrittlement and the effect of hardness on transition temperature. B. C. Woodfine. bibliog J Metals 6:Trans 532-3 My '54

Testing

Correlation of end-quenched test bars and rounds in terms of hardness and cooling characteristics. E. W. Weinman and others. bibliog il Am Soc for Metals Trans 44:803-34; Discussion. 834-44 '52
Hardenability measurements on constructional steels. H. Kiessler and K. Schweyher. Engineer 197:352-3 Mr 5 '54
Hardness and microstructure of an alpha-beta titanium alloy quenched from temperatures in the range 600°-1,000° C. A. Greenwood and W. Evans. il Metallurgia 49:124-6 Mr '54
Hardness measurements with a pendulum tester; abstract. W. Koenig. Paint Oil & Chem R 117:45 F 25 '54
Influence of surface films on hardness measurements; abstract. W. Spaeth. Metal Finishing 52:76-7 F '54
Limitations of the end-quench hardenability test. A. R. Troiano and L. J. Klingler. bibliog il Am Soc for Metals Trans 44:775-85; Discussion. 785-802 '52
Method for verifying Rockwell hardness machine depth indicators. R. J. Ellis. diag J Sci Instr 31:109 Mr '54
Study of the microhardness of the major carbides in some high speed steels. P. Leckie-Ewing. il Am Soc for Metals Trans 44:348-62; Discussion. 362-6 '52
Tennant indentometer direct-reading portable hardness tester. il J Sci Instr 30:255 Jl '53
Wire hardness test; Wedge test. L. Small and G. Sevick. il diags Metal Prog 65:107-12 Ap '54
Wolpert-Gries hardness testing machine. il Blast F & Steel Pl 42:712 Je '54; Am Mach 98:186 Ag 16 '54
See also
Brinell hardness test

HARDWARE
Hardware; Modern Packaging industry survey. il Mod Packaging 28:108-14+ S '54
See also
Bolts and nuts
Building fittings
Nails
Plumbing supplies industry

HARDWARE industry and trade
See also
Tool industry

HARDWARE stores
Team play; books and hardware. il Sales Management 70:56+ Ap 15 '53

HARDWOOD. See Hard woods

HARMAN. See Methyl pyridindole

HARMINE
Synthesis of apoharmine. W. Herz and S. Tocker. Chem & Ind p603-4 My 22 '54

HARMONIC analysis
Method of approximate steady-state analysis for non-linear networks. G. R. Slemon. diags Inst E E Proc 100 pt 1:275-87 S '53
See also
Fourier's series

HARMONIC analyzers
Frequency response analyser for pneumatic process control systems. C. R. Webb and D. J. Ozanne. bibliog diags J Sci Instr 30:424-6 N '53
Single-frequency harmonic analyzer. J. B. Sherman. il diag Electronics 26:192-3 D '53

HARMONIC synthesizers
Application of the Laplace transformation and a mechanical harmonic synthesizer in the analysis of electric circuits. H. D. Schwetman and S. L. Brown. diags R Sci Instr 24:375-9 My '53

HARMONICS (electric waves)
Harmonic distortion and negative feedback. R. O. Rowlands. diags Wireless Eng 30:133-5 Je '53; Discussion. 30:232-3 S '53
Harmonic distortion due to echo signals. E. G. Hamer and R. G. Medhurst. Wireless Eng 30:276-80 N '53
Millimeter waves from harmonic generators. C. M. Johnson and others. il diags R Sci Instr 25:213-17 Mr '54
Relative merits of harmonic and intermodulation measurements in assessing distortion in audio equipment; discussion. E. W. Berth-Jones. Inst E E Proc 100 pt 3:268 S '53
Specification of imaging properties by response to a sine wave input. J. W. Coltman. bibliog diags Opt Soc Am J 44:468-71 Je '54

HARNWELL, Gaylord Probasco, 1903-
New president at University of Pennsylvania. Science 117:648-9 Je 12 '53

HARRIMAN memorial medals for safety
Harriman awards to be presented; best safety records for 1952. Ry Age News ed 135:9 S 14 '53; Ry Age 135:84-5 O 5 '53; Nat Safety N 68:35 N '53
Railroads get Harriman awards for best 1953 safety records. Ry Age 137:16-17 S 27 '54

HARRIS, Gilbert Dennison, 1864-1952
Sketch. K. V. W. Palmer. por Am Assn Pet Geologists Bul 37:2620-6 bibliog(p2624-6) N '53

HARRIS-SEYBOLD company
Merger points to typeless printing. Bsns W p 118+ D 12 '53

HART, Ernest
Not four, but one; FMC's Ernest Hart. pors Chem W 73:15-16 Ag 8 '53

HART, Schaffner and Marx, inc.
Sharp profit rebound. Barron's 33:17-18 Ag 17 '53

HARTFORD, George F.
Hartford's career is Horatio Alger story. G. A. Brandenburg. por Ed & Pub 86:22+ Ap 18 '53

HARVARD endowment fund
Report by George Putnam fund of Boston. P. A. Johnston. Barron's 34:34-5 Ja 11 '54

HARVARD university
Harvard and the fifth amendment. Science 117:647-8 Je 12 '53
Harvard, special purposes; a scientific building to teach science. il plans diag Arch Forum 98:124-7 Je '53
Nuclear chemistry at Harvard. G. Wilkinson and others. J Chem Educ 31:474-5 S '54

HARVESTING machinery

Lubrication

Better lube for corn pickers. il Nat Pet N 45:57 S 9 '53

HARZA, Leroy Francis, 1882-1953
Sketch. por Eng N 151:25 D 3 '53

HASHEMITE JORDAN kingdom
Johnston over Jordan. map Economist 169:338-9 O 31 '53

HASKELL laboratory for toxicology and industrial medicine
Laboratory changes name, expands program. Nat Safety N 68:84 N '53
More room for safety research. il Chem & Eng N 32:1510-11 Ap 12 '54

HASTELLOY F. See Nickel alloys

HATCH covers
One-horse motor powers hatch-opening gear. il Marine Eng 59:69-70 My '54

HATS
Hat bandwagon; Eisenhower Homburg gives industry shot in the arm. N. Willatt. Barron's 33:13-14 O 19 '53
Lee Hat's idea center; showroom with accent on selling. il Sales Management 71:56+ Jl 1 '53
Oh, for an idea that will stir up our dealers! Frank H. Lee co. Hat clinic. il Sales Management 72:100+ Je 15 '54

Advertising

Sales slipping in your line? try this six-point program to buck the trend; Champ hats, inc. J. W. Dragonetti. il Ptr Ink 244:64+ S 25 '53

HATS, Safety
Hard hats cushion the bumps. il Nat Safety N 69:52-3 Ja '54
Hard hats prove their value in saving lives and preventing injury. P. C. Ziemke. il Rock Prod 56:112+ O '53
Head protection. il Nat Safety N 69:112+ Mr '54
Head protection in the 20th century. il Nat Safety N 69:24-5+ My '54
Safe heads show. il Safety Maint & Prod 108:17 Ag '54
Safety helmet absorbs impact of 15-lb. angle lug. il Iron Age 172:258+ N 12 '53
Safety; three million manhours; Kansas City aircraft plant of Ford motor co. il Steel 133:124+ N 16 '53
Two hits to hats but no hurt heads. il Safety Maint & Prod 107:19 Mr '54
Volts and jolts. C. P. Shirey. il Nat Safety N 70:34-5+ Jl '54

HAUF, Harold Dana, 1905-
A.I.A. names H. D. Hauf director of public and professional relations. por Arch Rec 115:15 Ja '54

HAUKSBEE, Francis
Francis Hauksbee; first established a connection between electricity and light and lay the groundwork for new discoveries in electrostatics. D. Roller and D. H. D. Roller. Sci Am 189:64-9 Ag '53

HAULAGE
See also
Cableways
Conveying machinery
Electric trucks, Industrial
Loading and unloading
Locomotives
Mine haulage
Motor trucks
Tractors
Trucks

HAVANA, Cuba

Tunnel

Havana traffic tunnel built in the dry under Almendares river. H. C. Boschen and others. il diags Civil Eng 23:447-57 Jl '53

HAVRE, France

Harbor

Marine terminal in Le Havre. il Eng N 152:71+ Mr 18 '54

HAWAII university
Frear Hall, University of Hawaii. il plans Arch Rec 115:163-6 Ap '54
New chemical laboratory. L. N. Bilger and E. M. Bilger. il J Chem Educ 31:300-2 Je '54

HAWAIIAN ISLANDS
Is a new state a new market? survey of the Hawaiian market. D. Palmer. il map Ptr Ink 244:42-3+ Jl 24 '53
See also
Fertilizer industry—Hawaiian Islands
Roads—Hawaiian Islands

Economic conditions

Hawaii builds an economy on sugar, pineapples and Uncle Sam. il Bsns W p90-4+ N 21 '53

Industries and resources

Hawaii builds an economy on sugar, pineapples and Uncle Sam. il Bsns W p90-4+ N 21 '53

HAWAIIAN pineapple company
Billion-dollar rainbow; Hawaiian pineapple co. F. J. Taylor. il Adv Agency 47:72-3+ S '54

HAWKINS, William Waller, 1883-1953
Sketch. por Ed & Pub 86:14 F 28 '53

HAYES, Sadler, 1910-
Sketch. O. J. Jones. por East Underw 55:12 Ap 9 '54

HEAD

Protection

Head protection. il Nat Safety N 69:112+ Mr '54
See also
Hats, Safety
Helmets, Aviators'

HEADACHE
Migraine, a cause of man-hour loss in industry. M. Benzinger. bibliog Ind Med 22:259-61 Je '53

HEADLIGHTS, Automobile. See Automobiles—Lighting

HEADLINES. See Advertising copy—Headlines

HEADPHONES
Headphones for radio and tv. H. S. Renne. diags Radio & Tv N 51:116+ Ja '54
High-fidelity with crystal headphones. C. E. Cohn. diag Radio & Tv N 50:92 O '53
High performance headphone radio. I. Gottlieb. il diag Radio & Tv N 51:42+ F '54

HEALTH
Executives face special health hazards. T. A. March. Iron Age 173:73-4 Je 3 '54
Live executives are best! G. M. Saunders. bibliog A M A Archives Ind Hygiene & Occup Med 9:133-41 F '54; Same cond. Pet Refiner 32:287-8+ N '53

HEALTH and accident underwriters conference
Annual group meeting, 6th, Chicago, Feb. 9-10. East Underw 55:37-44+ F 19 '54
Annual meeting, 53d, New Orleans, May 3-6. East Underw 55:35-6+ My 7 '54; Nat Underw (Life ed) 58:25+ My 7 '54; Weekly Underw 170:1173-7 My 8 '54; Spectator 162:38+ Je '54
Committee chairmen for 1954-1955 conference activities; list. East Underw 55:26 Jl 23 '54; Weekly Underw 171:238 Jl 31 '54
New District of Columbia resident counsel to supply factual information to federal agencies. East Underw 55:31 Je 25 '54; Nat Underw 58:1+ Je 24 '54; Nat Underw (Life ed) 58:3 Je 25 '54; Weekly Underw 170:1620 Je 26 '54
Underwriting forum, 7th, Chicago, Nov. 3-4. East Underw 54:37-8 N 6; 47-8 N 13 '53; Nat Underw 57:9 N 5; 7+ N 12 '53; Nat Underw (Life ed) 57:2+ N 6; 11+ N 13 '53; Weekly Underw 169:1117, 1258-9 N 7, 21 '53

HEALTH boards. See Public health administration

HEALTH centers
Public health center for a rural area; Athens-Clarke county health center, Athens, Ga. il plan Arch Rec 115:170-1 Mr '54
See also
International ladies' garment workers' union—Union health center

HEALTH centers—*Continued*

Air conditioning

Air conditioning a laboratory-health center; Alexandria-Rapides Parish health center building. W. G. Moses. il Heat & Ven 50:66-7 N '53

HEALTH education

Servicio; ten-year evaluation of the bilateral health programs, Institute of Inter-American affairs; health education in principle and practice. il Pub Health Rep 68:1258-62 D '53

See also

Television broadcasting—Health education programs

HEALTH examinations. See Physical examinations

HEALTH insurance. See Insurance, Health

HEALTH insurance council

Annual meeting, New York. Weekly Underw 169:955 O 17 '53

HIC best area of A.&H. public relations; abstracts. J. R. Williams. East Underw 55:54 My 7 '54; Abstracts. Weekly Underw 170:1177 My 8 '54

Support for Health insurance council. Weekly Underw 169:1063 O 31 '53

HEALTH insurance plan of Greater New York. See Insurance, Health—New York (state)

HEALTH officers, Public. See Public health officers

HEARD, Maurice Earl, 1903-

They're making new yardsticks at West Point manufacturing co's. Shawmut research laboratory. pors Mod Textiles Mag 35:35+ Jl '54

HEARING

Combating the effects of noise. W. F. Scholtz. il Foundry 82:112-13+ Ap '54

Effect of different types of electrodes in electrophonic hearing. G. Flottorp. bibliog il Acoustical Soc Am J 25:236-45 Mr '53

Industrial hearing loss. Safety Maint & Prod 107:29 F '54

Industrial noise and hearing conservation programs. M. S. Fox. bibliog Ind Med 22:161-4 Ap '53

Industrial noise; hearing tests. A. Glorig. Factory Management 111:129-31 D '53

Noise and audiometric histories resulting from cotton textile operations. J. R. Cox, jr. and others. A M A Archives Ind Hygiene & Occup Med 8:36-47 Jl '53

Physical basis of hearing damage and a tentative damage risk criterion for steady-state noise. H. C. Hardy. A M A Archives Ind Hygiene & Occup Med 8:250-61 S '53; Abstract. Nat Safety N 69:37+ Ja '54

See also

Deafness
Ear
Hearing aids, Mechanical
Noise

HEARING aids, Mechanical

Assemble your own hearing aid. E. G. Louis. il diags Radio & Tv N 50:46-7+ S '53

HEARINGS, Congressional. See Government investigations

HEARST, William Randolph, 1863-1951

Hearst played hard, built well; review of The life and good times of William Randolph Hearst, by J. Tebbel. R. Ellard. Ed & Pub 86:79 Mr 21 '53

HEART

Determination of the resultant dipole of the heart from measurements on the body surface. D. Gabor and C. V. Nelson. J Ap Phys 25:413-16 Ap '54

Improved cuvette densitometer for cardiac output determination by the dye-dilution method. S. R. Gilford and others. il diags R Sci Instr 24:696-702 Ag '53

See also

Electrocardiograph

Diseases

Cardiac can work; abstract. S. C. Franco. Nat Safety N 70:53+ S '54

Cardiac glycosides of gomphocarpus fruticosus (R.Br.). T. R. Watson and S. E. Wright. bibliog Chem & Ind p 1178 S 18 '54

Cardiac in industry. Safety Maint & Prod 108:50-1 S '54

Cardiacs can work. il Safety Maint & Prod 107:57-8+ Mr '54

Coronary artery disease in industry. W. G. Garnett. Nat Safety N 69:76+ My '54

Coronary disease. Safety Maint & Prod 107:51-2 F '54

Diet and degenerative heart disease. A. Keys. Weekly Underw 170:1564 Je 19 '54

Electronic cardiac defibrillator and pacemaker. R. K. McCombs and others. il diag R Sci Instr 25:378-9 Ap '54

Employees with heart conditions; New York telephone co. M. L. Briggs. il Am Bsns 24:26-7+ Ag '54

Employment of cardiacs and their effect on employe coverages. L. S. Ylvisaker. Nat Underw 57:17+ D 10 '53; Same. Nat Underw (Life ed) 58:7 Ja 1 '54

Heart disease mortality. Safety Maint & Prod 108:42 Ag '54

Heart-in-industry. Safety Maint & Prod 107:66 Ja '54

Heredity factor in heart disease cases; Society of actuaries study. East Underw 55:6 Ap 23 '54; Same. Nat Underw (Life ed) 58:1+ Ap 23 '54; Same. Weekly Underw 170:49 sec 2 My 8 '54

Is your client a heart patient? here's a kitchen designed for her. il plan diags Am Bld 76:116-17 My '54

Our progress in heart disease; Spectator survey of Metropolitan's findings. J. J. Robinson. Spectator 162:29+ Jl '54

Prevention of cardiac disability. L. H. Bronstein and others. Ind Med 22:578-80 D '53

Trauma and cardiac complications. R. J. Lajoie. bibliog il Ind Med 22:514-19 N '53

What stress does to the heart; abstract. L. N. Katz. Nat Safety N 70:52-3 S '54

Injuries

Trauma and cardiac complications. R. J. Lajoie. bibliog il Ind Med 22:514-19 N '53

HEAT

Detrimental effect of either excessive or insufficient heat on corrugating board starch. C. R. Vander Meulen. Tappi 37:sup 177A-9A Je '54

Distribution of shear-zone heat in metal cutting. W. C. Leone. bibliog diags A S M E Trans 76:121-4; Discussion. 124-5 Ja '54

Heat source pumps liquids; Thermopump. il diag Chem Eng 60:226 D '53

Heat technology; Chemical Engineering report, June, 1953. bibliog il diags Chem Eng 60:175-238 Je '53

Thermal energy in almost normal modes. J. E. Rhodes, jr. Phys R 93:1-3 Ja 1 '54

See also

Aerodynamics—Heating effect
Boiling points
Calorimeters and calorimetry
Combustion
Entropy
Evaporation
Expansion (heat)
Flames
Heating
Insulation (heat)
Melting points
Pyrometers and pyrometry
Specific heat
Steam
Temperature
Thermochemistry
Thermodynamics
Thermoelectricity
Thermometers and thermometry
Waste heat

Physiological effect

See Temperature—Physiological effect

HEAT, Mechanical equivalent of

Thermal number measures efficiency of metal cutting. K. J. Trigger. il diags Am Mach 98:145-52 Je 7 '54

HEAT capacity. See Specific heat

HEAT conduction

Certain problem in heat conduction. H. Zatzkis. J Ap Phys 24:895-6 Jl '53

Conduction of heat into a growing vapor bubble. H. K. Forster. J Ap Phys 25:1067-8 Ag '54

Radiation-conduction correction for temperature measurements in hot gases. W. E. West, jr. and J. W. Westwater. bibliog diag Ind & Eng Chem 45:2152-6 O '53

Role of low-energy phonons in thermal conduction. C. Herring. bibliog diags Phys R 95:954-65 Ag 15 '54

Temperature gradients in reacting systems. S. W. Benson. bibliog J Chem Phys 22:46-50 Ja '54

HEAT conductivity

Apparatus for measuring thermal conductivity of liquids. H. L. Mason. bibliog diags Instruments 26:266-8 F '53

Apparatus for the measurement of the thermal conductivity of biological tissue. H. S. Hatfield. diag J Sci Instr 30:460-1 D '53

Apparatus for the measurement of the thermal conductivity of solids. J. L. Weeks and R. L. Seifert. diags R Sci Instr 24:1054-7 N '53

Density, viscosity, specific heat, thermal conductivity, and Prandtl number versus concentration and temperature; sulphite waste liquor. R. E. Hunter and others. bibliog(26 ref) Tappi 36:493-7 N '53

Improved method of measuring thermal conductivity of dense ceramics. E. Ruh. il diag Am Cer Soc J 37:224-9 My 1 '54

Mean thermal conductivity conversion chart. Glass Ind 35:279 My '54

Measurement and correlation of thermal conductivities of gases at high pressure. J. M. Lenoir, W. A. Junk and E. W. Comings. bibliog Chem Eng Prog 49:539-41; Discussion. 541-2 O '53

Rapid heat meter thermal conductivity apparatus. J. D. Verschoor and A. Wilber. bibliog il Heating-Piping 26:125-30 Jl '54; Discussion. 26:142-3 Ag '54

Rapid method for the determination of the thermal conductivity of organic liquids for use in heat-transfer calculations. S. Baxter, H. A. Vodden and S. Davies. bibliog diags J Ap Chem 3:477-80 O '53

Thermal conductivities of some organic liquids. M. F. Dick and D. W. McCready. bibliog diag A S M E Trans 76:831-9 Jl '54

Thermal conductivity. W. D. Kingery and others. bibliog il diags Am Cer Soc J 37: 67-110, 409-14 pt 2 F 1, S 1 '54

Thermal conductivity chart for gases. A. I. Johnson and C. Huang. Chem Eng 61:204-5 F '54

Thermal conductivity conversion charts; engineering file facts. Materials & Methods 40: 125 Ag '54

Thermal conductivity, electrical resistivity, and thermoelectric power of uranium. W. W. Tyler and others. bibliog il J Metals 5: Trans 1238-9 sec 2 S '53

Thermal conductivity of commercial insulations at low temperature. J. D. Verschoor. bibliog il diag Refrig Eng 62:35-7; Discussion. 37+ S '54

Thermal conductivity of copper between 0.25° K and 4.2° K. J. Nicol and T. P. Tseng. bibliog Phys R 92:1062-3 N 15 '53

Thermal conductivity of fluids. A. F. Schmidt and B. H. Spurlock, jr. bibliog(43 titles) diag A S M E Trans 76:823-30 Jl '54

Thermal conductivity of gas mixtures at high pressure; ethylene, nitrogen and ethylene carbon dioxide. W. A. Junk and E. W. Comings. bibliog diag Chem Eng Prog 49: 263-6 My '53

Thermal conductivity of gases. F. G. Keyes. bibliog(28 titles) diag A S M E Trans 76: 809-16 Jl '54

Thermal conductivity of granulated beds. H. S. Strickler; W. G. Schneider. Ind & Eng Chem 46:828 Ap '54

Thermal conductivity of liquids. J. R. Woolf and W. L. Sibbitt. bibliog diags Ind & Eng Chem 46:1947-52 S '54

Thermal conductivity of nodular iron. M. J. Sinnott. J Metals 5:Trans 1016 Ag '53

Thermal conductivity of organic vapors; the relationship between thermal conductivity and viscosity, and the significance of the Eucken factor. R. G. Vines and L. A. Bennett. bibliog diag J Chem Phys 22:360-6 Mr '54

Thermal conductivity of refractory insulating concrete. W. C. Hansen and A. F. Livovich. Am Cer Soc J 36:356-62 N 1 '53

Thermal conductivity of some industrial liquids from 0 to 100 C. H. L. Mason. bibliog diags A S M E Trans 76:817-21 Jl '54

Thermal diffusivity of metals at high temperatures. D. Rosenthal and N. E. Friedmann. bibliog J Ap Phys 25:1059-60 Ag '54

Thermal diffusivity of metals at high temperatures. P. H. Sidles and G. C. Danielson. bibliog il diags J Ap Phys 25:58-66 Ja '54

Viscosity, thermal conductivity, and Prandtl number for air, O_2, N_2, NO, H_2, CO, CO_2, H_2O, He, and A. J. Hilsenrath and Y. S. Touloukian. A S M E Trans 76:967-83 bibliog(111 titles, p981-3); Discussion. 983-5 Ag '54

See also
Heat transmission

HEAT content. See Specific heat

HEAT convection

Convection currents in porous media; variational form of the theory. F. T. Rogers, jr. bibliog J Ap Phys 24:877-80 Jl '53

Convective heat transfer for mixed, free and forced flow through tubes. E. R. G. Eckert and A. J. Diaguila. bibliog diags A S M E Trans 76:497-504 My '54

Effect of convection and moisture deposition on heat transmission thru cold storage test walls. H. C. Brown, jr. and L. E. Bish. il plan diags Refrig Eng 62:62-7; Discussion. 67+ Ja '54

Heat transfer by convection. H. E. Robison. diags Brick & Clay Rec 124:73-4+ F '54

Heat transfer to or from water by free convection. F. W. Hutchinson. Heat & Ven 51:80-1 S '54

Instance in thermal convection of Eddington's overstability. D. Fultz and others. bibliog Phys R 94:1471-2 Je 15 '54

New aspects of natural-convection heat transfer. S. Ostrach. A S M E Trans 75: 1287-90 O '53

HEAT engines

See also
Gas turbines
Internal combustion engines
Steam engines
Steam turbines

Models

Heat engine run by rubber. E. G. Cox. J Chem Educ 31:307 Je '54

HEAT exchangers

Calculation of transient temperatures in pipes and heat exchangers by numerical methods. G. M. Dusinberre. A S M E Trans 76:421-6 Ap '54

Carbon in chemical engineering; Morgan crucible co. il Chem Age (Lond) 69:129-32 Jl 18 '53

Combination heat exchangers; Pfaudler combines Hastelloy and glassed steel. il Chem & Eng N 32:2532 Je 21 '54

Fabricating special purpose copper heat exchangers. J. M. Van Nieukirken. il diags Materials & Methods 39:140-2 Mr '54

Factors in welding and brazing heat exchanger tubes. H. A. Huff and A. N. Kugler. diags Power Eng 58:94-5 Je '54

Heat exchanger costs today. F. L. Rubin. il diags Chem Eng 60:201-6 My; 177-81 Jl; 229-33 S; 196-202 O '53

Heat exchangers. B. G. A. Skrotzki and S. S. Waldron. il diags Power 98:75-106 Je '54

Heat transfer in packed beds. W. B. Argo and J. M. Smith. bibliog diags Chem Eng Prog 49:443-51 Ag '53

Hydraulic analog for studying steady-state heat exchangers. I. S. Juhasz and F. C. Hooper. bibliog il diags Ind & Eng Chem 45:1359-62 Je '53

Liquid-metal heat-transfer system for nuclear power plants. T. Trocki and D. B. Nelson. il diags Mech Eng 75:472-6 Je '53

New APV process for polarising heat exchange gaskets. il Chem Age (Lond) 70: 1298 Je 12 '54

Nomograph gives water rate of heat exchangers. B. Smith. Chem Eng 61:230+ F '54

Process kinetics; flow distribution in packed beds. C. E. Schwartz and J. M. Smith. bibliog il diag Ind & Eng Chem 45:1209-18 Je '53

Recent heat transfer equipment developments; National radiator co. R. A. Specht. il Am Gas Assn Proc 1953:819-24

Recuperators for blast furnaces. W. Trinks. Blast F & Steel Pl 41:1437-8 D '53

Simplified method for sizing gas heat exchangers. A. Devore. bibliog Chem Eng 60: 187 Jl '53

HEAT exchangers—*Continued*

Temperature distribution in internally heated walls of heat exchangers composed of noncircular flow passages. E. R. G. Eckert and G. M. Low. bibliog diags U S Nat Advisory Com for Aeronautics 1951:383-96 '52

Thermal lags in flowing systems containing heat capacitors. J. W. Rizika. diags A S M E Trans 76:411-20 Ap '54

Water with a new twist; spiral path. il Ind & Eng Chem 45:sup 11A+ Ag '53

Welding for low-temperature service. R. W. Bennett. il diags Welding J 32:1089-97 N '53

Welding procedure for welding tubes in heat exchangers. W. E. Battles. il Welding J 33:739-42 Ag '54

See also

Condensers (steam)

Cleaning

How Neches Butane solves tube-bundle cleaning problems. F. R. Jelinek. il Oil & Gas J 52:121+ O 26 '53

Design

Heat exchanger design in light of A.G.A. corrosion research. J. Corsiglia. Am Gas Assn Proc 1953:468-72

Heat technology; trends in heat exchangers. J. C. Smith. diags Chem Eng 60:232-8 Je '53

How to design for low temperatures. R. J. Sweeney. il Chem Eng 61:197-202 Jl '54

Shortcut to heat exchanger design. C. H. Gilmour. il diags Chem Eng 59:144-8 O '52; 60:226-9 Mr; 214-18 Ap; 203-7 O '53; 61:190-4 F; 209-13 Mr; 199-206 Ag '54 (reprints 75c)

Simplified design for viscous oil heat exchangers. A. Devore and J. E. Heinz. bibliog Pet Refiner 32:105-10 D '53

HEAT insulation. See Insulation (heat)

HEAT measurement. See Pyrometers and pyrometry; Temperature—Measurement; Thermometers and thermometry

HEAT of activation. See Activation, Heat of

HEAT of combustion. See Combustion, Heat of

HEAT of formation. See Thermochemistry

HEAT of fusion. See Fusion, Heat of

HEAT of mixing. See Mixing, Heat of

HEAT of neutralization. See Neutralization, Heat of

HEAT of solution. See Solution, Heat of

HEAT of vaporization. See Vaporization, Heat of

HEAT of wetting. See Wetting, Heat of

HEAT pump

American Gas and Electric will promote resistance heating also. E. A. Snyder. Elec World 140:100 D 28 '53

A.I.E.E. winter general meeting heat pump session, New York, Jan. 20; abstracts of papers. Heat & Ven 51:119-23 Mr '54

Capillary tube improves heat pump design. G. L. Biehn. il diags Heat & Ven 51:75-8 F '54

Domestic heat pump; dual-purpose installation in Bristol. G. O. McClean. il Elec R (Lond) 153:989-90 O 30 '53

Earthquake-resistant tower features floating foundation, heat-pump. il plan Eng N 151:47-8 N 19 '53

80-ton water-to-air heat pump; heating hydro-electric powerhouse. T. H. Seitz. diags Heat & Ven 51:85-7 Mr '54

Festival Hall heat pump. P. E. Montagnon and A. L. Ruckley. Engineer 197:184-5 Ja 29 '54

Field test of a water-to-air heat pump. S. L. Pappas and others. Heat & Ven 51:79-82 F '54

Heat pump bids for the mass market. il plans House & Home 4:151 S '53

Heat-pump field trials. G. L. Biehn. Mech Eng 75:578 Jl '53

Heat pump for home use. Westinghouse Eng 13:202 N '53

Heat pump passes Utah test. il Elec World News ed 140:40-1 D 7 '53

Heat pump performance in western Pennsylvania. C. L. Goodman. il Refrig Eng 62:40-2, 96-7 F '54

Heat pump takes hold in the South. O. Ely. Pub Util 52:861-2 D 3 '53

Heat pumps beat furnace costs in six new schools. il map plan Arch Forum 99:182-3 O '53

Heat pumps go to school. C. W. Millsom. il Heating-Piping 25:86-7 D '53

Heat pumps serve Florida schools. il Heat & Ven 50:99-100 D '53

Heat pumps; the new appliance boom? G. G. Carr. il diags Iron Age 172:51-2 Jl 23 '53

Monochlorodifluoroethane as a working agent in heat pumps; abstract. J. Badylkes. Refrig Eng 61:1200 N '53

New force in air conditioning. il Bsns W p 110+ Ag 29 '53

Operating experience and performance of the Festival Hall heat pump. Elec J 152:34 Ja 1 '54

17 heat pumps provide all-electric year-round comfort; Virginia shoe co. plan Factory Management 112:136-7 S '54

Shopping center installs heat pumps. il Heat & Ven 51:124 Ag '54

Sizing earth heat pumps; determining length and depth of ground pipe. E. B. Penrod. bibliog Refrig Eng 62:57-61+ Ap '54

Solar energy availability for heating in the United States; heat pump systems. A. C. Jordan and J. L. Threlkeld. bibliog maps plan diags Heating-Piping 26:122-30 F '54; Same cond. Heat & Ven 51:96-8 Ap '54; Discussion. Heating-Piping 26:176-8 Mr '54

Solenoid valves channel heat pump refrigerant. flow chart il diags Product Eng 24:144-7 S '53

Thermodynamic study of vapor compression heat pump cycles. J. L. Threlkeld. diags Refrig Eng 61:1202-6+ N '53

University of Kentucky heat pump no. 1. E. B. Penrod and others. il diags Univ of Kentucky Eng Exp Sta [Lexington] Bul 30:1-84 bibliog(p83-4) '53

Use of the heat pump for digester heating. G. S. Smith and J. A. Morris, jr. il diags Sewage & Ind Wastes 25:1369-78 D '53

Westinghouse push-button weather from heat pumps. il Steel 133:86 S 21 '53

Year's heat pump operation summed up. il Elec West 111:89 D '53

Cost of operation

Costs of operating the heat pump in the Equitable building. J. D. Kroeker and R. C. Chewning. flow diag il Heating-Piping 25:135-44 N '53; Abstract. Heat & Ven 51:95 Mr '54; Discussion. Heating-Piping 26:176 Mr '54

Heat pump cuts cost of running famed building; Portland's Equitable building. flow diag il Arch Forum 99:136-8 D '53

HEAT radiation

Absolute water flow calorimeter for the measurement of intense beams of radiant energy. A. B. Willoughby. il diag R Sci Instr 25:667-70 Jl '54

Approximate emissivity calculations for polyatomic molecules; CO_2. S. S. Penner. bibliog J Ap Phys 25:660-7 My '54

Experiments on flame radiation in an empty open-hearth furnace. W. P. Cashmore and M. W. Thring. bibliog Iron & Steel Inst J 175:177-82 O '53

Heat transfer by radiation. H. E. Robison. diags Brick & Clay Rec 124:69+ F '54

High-speed air-driven shutter for controlling exposures to a convergent beam of high-intensity thermal radiation. R. P. Day and others. il diags R Sci Instr 25:654-60 Jl '54

Instrument for the direct measurement of intense thermal radiation. R. Gardon. diags R Sci Instr 24:366-70 My '53

International flame radiation research at IJmuiden. il diags Metallurgia 49:265-70 Je '54

International flame-radiation research at Ijmuiden. G. W. V. Callenfels. il Engineering 176:555-6 O 30 '53

Radiation characteristics of metals; reference book sheet. J. Poggie. Product Eng 24:205, 207 S '53

Radiation-conduction correction for temperature measurements in hot gases. W. E. West, jr. and J. W. Westwater. bibliog diag Ind & Eng Chem 45:2152-6 O '53

HEAT radiation—*Continued*
Review of thermal-radiation constants. N. W. Snyder. bibliog A S M E Trans 76:537-9 My '54
Segmented-mirror solar furnace for high-intensity thermal radiation studies. R. Gardon. il diags R Sci Instr 25:459-63 My '54
Short history of spectroscopy; Stefan's law of total radiation. T. W. Chalmers. Engineer 196:386-7 S 25 '53
Thermal-radiation tables and applications. R. V. Dunkle. A S M E Trans 76:549-52 My '54

See also
Black body
Bolometers

HEAT resisting alloys. See Alloys, Heat resisting

HEAT resisting materials
Better properties extend uses for porcelain enamels. W. A. Barrows. il Iron Age 173:121-4 My 13 '54
Borides designed for high temperature use. P. Schwarzhopf and F. W. Glaser. il Iron Age 173:138-9 Ap 1 '54
Ceramics for aircraft propulsion systems. L. D. Richardson. Am Cer Soc Bul 33:135-7 My 15 '54
Ceramics for atom use. il Steel 133:146+ Jl 20 '53; Tool Eng 31:78 Ag '53
Cladding of molybdenum for service in air at elevated temperature. W. L. Bruckart and R. I. Jaffee. bibliog il diag Am Soc for Metals Trans 44:176-98; Discussion. 198-203 '52
Damping, elasticity, and fatigue properties of temperature-resistant materials. B. J. Lazan and L. J. Demer. bibliog il diags Am Soc T M Proc 51:611-46; Discussion. 647-8 '51
Emphasis on materials; new ceramic coating developed by National bureau of standards. Chem W 75:72 Ag 28 '54
Exposition and conference on basic materials for industry, 1st, New York, June 15-19. Chem & Eng N 31:2681-2 Je 29 '53
Flame spraying; answer to ceramic coating problem; Ryan aeronautical co. il Steel 134:106 Ap 26 '54
Heat-resistant properties of additives for bituminous materials. P. F. Critz. Pub Roads 28:41-5 Ag '54
High temperature coatings. B. L. Paris. il Tool Eng 32:145-7 Mr '54
High temperature materials for vacuum service. H. B. Michaelson. bibliog il diag Materials & Methods 38:110-15 D '53
High temperature protection of a titanium carbide cermet. J. R. Wilson. diags Am Cer Soc Bul 32:375-6 N 15 '53
High temperature strength of wrought aluminum powder products. E. Gregory and N. J. Grant. bibliog il diag J Metals 6:Trans 247-52 sec 2 F '54
Materials for high temperature service. H. R. Clauser. bibliog il Materials & Methods 39:117-32 Ap '54 (reprints 25c)
Metal-ceramic wall lengthens thermocouple life. P. B. McSherry. il diags Iron Age 172:100-1 O 29 '53
New phenolic-glass laminates for elevated temperatures. J. B. Campbell. Materials & Methods 38:87-91 N '53
New refractory hard metals. J. L. Everhart. il Materials & Methods 40:90-2 Ag '54
New silicone foam passes trial by fire. il Chem W 72:36 My 30 '53
Porcelain enamel fights corrosion. W. A. Barrows. il Power 98:111-13+ Jl '54
Research and development in the field of carbides, nitrides, silicides, and borides for aircraft propulsion. L. D. Richardson. Electrochem Soc J 101:sup222C-4C S '54
Selecting ceramic coatings for jet engine parts. W. C. Rous, jr. il Materials & Methods 38:116-19 D '53
Sintered refractory alloys. A. Carter. bibliog(27 ref) il Metallurgia 49:8-14 Ja '54; Abstract. Materials & Methods 40:165-6 Jl '54
Summary report; materials for jet and rocket engines; American rocket society semi-annual meeting. Materials & Methods 40:151-2 Ag '54
Super refractories for use in jet engines; cermets. W. L. Havekotte. il Metal Prog 64:67-70 D '53
Test titanium carbide turbine parts; Kennametal inc. il Iron Age 174:88 S 9 '54; Steel 135:103 S 27 '54
Three new silicone laminating resins for high strength, high temperature resistance, electrical insulation. il Materials & Methods 40:98-100 Jl '54
Two new high temperature coatings. A. Pechman. il Materials & Methods 39:94-6 Ap '54

See also
Alloys, Heat resisting
Concrete, Refractory
Insulation (heat)
Refractory materials
Steel, Heat resisting
Teflon

HEAT resisting steel. See Steel, Heat resisting

HEAT storage
Simple formulas to calculate checkerbrick requirements. G. H. Knobloch. Gas Age 112:66-9 O 22 '53
Space heating. il plans Elec R (Lond) 153:1045-8 N 6 '53

See also
Heat pump

HEAT transmission
Analogy among heat, mass, and momentum transfer. R. F. Kayser. Ind & Eng Chem 45:2634-6 D '53
Comparison of theoretical and experimental heat-transfer characteristics of bodies of revolution at supersonic speeds. R. Scherrer. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:1301-15 '52
Compressible laminar boundary layer with arbitrary pressure and surface temperature gradients. D. N. Morris and J. W. Smith. bibliog J Aeronautical Sci 20:805-18 D '53
Condensation of vapors of water and immiscible organic liquids. M. Tobias and A. E. Stoppel. bibliog diag Ind & Eng Chem 46:1450-5 Jl '54
Convective heat transfer for mixed, free, and forced flow through tubes. E. R. G. Eckert and A. J. Diaguila. bibliog diags A S M E Trans 76:497-504 My '54
Cooling rig engines by boiling heat transfer. O. B. Freeman. plans Pet Eng 25:B 108+ O '53
Effect of convection and moisture deposition on heat transmission thru cold storage test walls. H. C. Brown, jr. and L. E. Bish. il plan diags Refrig Eng 62:62-7; Discussion. 67+ Ja '54
Effect of dissociation in the stagnation region of a blunt-nosed body. I. E. Beckwith. J Aeronautical Sci 20:645-6 S '53
Effect of gas radiation in the boundary layer on aerodynamic heat transfer. J. W. Smith. J Aeronautical Sci 20:579-80 Ag '53
Effect of single roughness elements on the heat transfer from a 1 : 3 elliptical cylinder. R. A. Seban and others. bibliog il diag A S M E Trans 76:519-26 My '54
Effect of turbulence on heat transfer in a pile with a liquid reactant. E. N. Parker. diags J Ap Phys 24:451-2 Ap '53
Erosion by melting and evaporation. K. Berman. bibliog il diag A S M E Trans 76:397-405 Ap '54
Evaluation of drying concepts. A. J. Cirrito. bibliog diags Tappi 36:476-80 O '53
Film condensation with turbulent flow. R. A. Seban. A S M E Trans 76:299-303 F '54
Film forming corrosion inhibitors also aid heat transfer. W. A. Tanzola and J. G. Weidman. bibliog il diag Paper Ind 36:48-50+ Ap '54
Fluidized bed heat transfer. W. W. Wamsley and L. N. Johanson. bibliog(26 ref) diags Chem Eng Prog 50:347-55 Jl '54
Frontiers in heat extraction from the combustion gases of coal. E. R. Kaiser. bibliog(42 titles) diags Min Eng 6:Trans 304-13 Mr '54
Heat flow characteristics of hot water floor panels. E. L. Sartain and W. S. Harris. il plan diags Heating-Piping 26:183-91 Ja '54; Abstract. Heat & Ven 51:93 Mr '54; Discussion. Heating-Piping 26:174-5 Mr '54

HEAT transmission—*Continued*

Heat; how it is applied, contained and controlled in all of the ceramic industries. H. E. Robison. diags Cer Ind 61:58+ D '53; 62:53-4+ F; 145+ Ap '54; Same. Brick & Clay Rec 124:69+ F; 63-4+ My '54

Heat technology; advances in heat transfer. C. F. Bonilla. bibliog(38 ref) Chem Eng 60:228-32 Je '53

Heat technology; media for heat transport. J. J. Carberry. bibliog Chem Eng 60:225-8 Je '53

Heat transfer. E. R. G. Eckert. il Ind & Eng Chem 45:951-6 bibliog(p954-6); 46:932-7 bibliog(112 ref, p936-7) My '53, My '54

Heat transfer and fluid friction during flow across banks of tubes; a study of a cylindrical baffled exchanger without internal leakage. O. P. Bergelin and others. il diags A S M E Trans 76:841-9; Discussion. 849-50 Jl '54

Heat transfer and fluid friction for fully developed turbulent flow of air and supercritical water with variable fluid properties. R. G. Deissler. bibliog A S M E Trans 76:73-83; Discussion. 83-5 Ja '54

Heat-transfer and friction characteristics for gas flow normal to tube banks; use of a transient-test technique. W. M. Kays and others. bibliog diag A S M E Trans 76:387-96 Ap '54

Heat transfer at high-power densities. J. S. Hickey, jr. il diags J Ap Phys 24:1312-17 O '53

Heat transfer in a gas-fired furnace. S. J. Genna and others. bibliog diags A S M E Trans 76:527-36 My '54

Heat transfer in a transitional and turbulent boundary layer at supersonic speeds. W. B. Fallis. J Aeronautical Sci 20:646-7 S '53

Heat transfer in forced convection film boiling. L. A. Bromley, N. R. LeRoy and J. A. Robbers. bibliog diag Ind & Eng Chem 45:2639-46 D '53

Heat transfer in packed beds. W. B. Argo and J. M. Smith. bibliog diags Chem Eng Prog 49:443-51 Ag '53

Heat transfer magic; Trane research and testing laboratory. il Chem & Eng N 32:2968 Jl 26 '54

Heat transfer measurements at sodium-stainless steel interface. J. W. Moyer and W. A. Riemen. diags J Ap Phys 25:400-2 Mr '54

Heat transfer of evaporating Freon with inner-fin tubing. C. Boling and others. bibliog diags Refrig Eng 61:1338-40+ D '53; Discussion. 62:60-1 Ja; 53+ F; 42 S '54

Heat transfer; research studies for 1954; symposium abstracts. Chem Eng Prog 50:199-200 Ap '54

Heat transfer symposium; abstracts of papers. Chem Eng Prog 49:387-8 Jl '53

Heat transfer to constant-property laminar boundary-layer wedge flows with stepwise and arbitrary wall-temperature variation. S. Scesa and S. Levy. bibliog A S M E Trans 76:279-86 F '54

Heat transfer to lead-bismuth and mercury in laminar and transition pipe flow. H. A. Johnson and others. bibliog A S M E Trans 76:513-17 My '54

Heat transfer to mercury in turbulent pipe flow. H. A. Johnson and others. bibliog (31 titles) diags A S M E Trans 76:505-11 My '54

How solid deposits affect heat transfer. J. A. Taylor. diag Chem Eng 60:192-3 Ag '53

How to curb heat losses from cooling units. A. M. Frankau. il Steel 133:138+ S 21 '53

Increase heat transfer rates at less expense than cost of new installation. D. E. Pierce. diag Ind & Eng Chem 45:sup79A-80A+ Jl '53

Instrument set-up gives continuous record of heat transfer rate. L. Steber. diag Chem Eng 61:224 S '54

Kinetic heating; structural and materials problems in high-speed flight; Stress analysis group of the Institute of physics meeting, Bristol, Jan. 7-8; abstracts of papers. Engineering 177:115-16 Ja 22 '54

Liquid-liquid spray-tower operation in heat transfer. L. Garwin and B. D. Smith. bibliog flow diags il diags Chem Eng Prog 49:591-602 N '53

Liquid metal heat-transfer device for melting high-purity materials. F. H. Horn and R. L. Neubauer. il diags R Sci Instr 24:1154-5 D '53

Local boiling heat transfer to water at low Reynolds numbers and high pressures. J. A. Clark and W. M. Rohsenow. bibliog diags A S M E Trans 76:553-61; Discussion. 561-2 My '54

Local heat-transfer coefficients on surface of an elliptical cylinder, axis ratio 1 : 3, in a high-speed air stream. R. M. Drake, jr. and others. bibliog il diags A S M E Trans 75:1291-301; Discussion. 1301-2 O '53

Measurements of average heat-transfer and friction coefficients for subsonic flow of air in smooth tubes at high surface and fluid temperatures. L. V. Humble and others. bibliog diags U S Nat Advisory Com for Aeronautics 1951:343-57 '52

New aspects of natural-convection heat transfer. S. Ostrach. A S M E Trans 75:1287-90 O '53

New twist in heat transfer; flexible inserts and jackets with spiral ribs. il diag Chem Eng 60:218 Ag '53

Numerical method for porous heat sources. P. J. Schneider. diags J Ap Phys 24:271-4 Mr '53

Process kinetics; countercurrent heating and cooling of granular solids with gases. J. W. Payne, C. H. Lechthaler and R. D. Drew. diags Ind & Eng Chem 45:1233-6 Je '53

Process kinetics; heat and mass transport in a fixed catalyst bed during regeneration. J. J. van Deemter. diags Ind & Eng Chem 45:1227-33 Je '53

Process kinetics; mechanism of heat transfer in fluidized beds. C. van Heerden, A. P. P. Nobel and D. W. van Krevelen. bibliog diag Ind & Eng Chem 45:1237-42 Je '53

Production of sound castings by controlled rate of heat transfer; abstract. C. A. Parlanti. Metal Prog 65:126+ F '54

Rapid measurements of thermal diffusivity. G. E. McIntosh and others. bibliog diags A S M E Trans 76:407-10 Ap '54

Regenerator efficiency and air preheat in the open hearth. B. M. Larsen. bibliog diags J Metals 6:Trans 129-44 F '54

Simultaneous heat and mass transfer in a diffusion-controlled chemical reaction. C. N. Satterfield, H. Resnick and R. L. Wentworth. bibliog diags Chem Eng Prog 50:460-6, 504-10 S-O '54

Summary of NACA research on heat transfer and friction for air flowing through tube with large temperature difference. B. Pinkel. bibliog il diags A S M E Trans 76:305-17 F '54

Temperature distribution in internally heated walls of heat exchangers composed of noncircular flow passages. E. R. G. Eckert and G. M. Low. bibliog diags U S Nat Advisory Com for Aeronautics 1951:383-96 '52

Temperature distribution in the hearths of blast furnaces. V. Paschkis and T. Mirsepassi. il diags Iron & Steel Eng 31:53-9; Discussion. 59-66 F '54

Temperature gradients in turbulent gas streams. S. D. Cavers and others. bibliog Ind & Eng Chem 45:2139-45 O '53

Theoretical consideration of heat transfer in the gas-flow oil-shale retort. C. J. Mains and A. Matzick. bibliog 8pls U S Bur Mines Rep of Invest 4995:1-11 '53

Theory and practice of lime manufacture; how to control sources of heat loss. V. J Azbe. Rock Prod 57:83-4 S '54

Thermal conductivity of paper honeycomb cores and sound absorption of sandwich panels. D. J. Fahey and others. bibliog il diags Tappi 36:523-8 N '53

Transient-flow method for determination of thermal constants of insulating materials in bulk. J. H. Blackwell. bibliog diag J Ap Phys 25:137-44 F '54

See also

Drying
Glass—Heat transmission
Heat conduction
Heat conductivity
Heat convection
Heat exchangers
Heat radiation
Insulation (heat)
Textile fabrics—Heat transmission
Thermal analysis

HEAT transmission—*Continued*

Electric analogies

Analysis of an analogue solution applied to the heat conduction problem in a cartridge fuse; abstract. A. E. Guile and E. B. Carne. diag Elec Eng 73:224 Mr '54

Experimental determinations of the electric field and equipotential surfaces using the heat conduction analogy. M. K. Gohar. il diags J Ap Phys 25:805-7 Je '54

Intermittent heating of airfoils for ice protection, utilizing hot air. H. H. Hauger, jr. bibliog il diags A S M E Trans 76:287-98 F '54

Solution of transient heat-flow problems by analogous electrical networks. D. I. Lawson and J. H. McGuire. bibliog diags Inst Mech Eng Proc (A) 167 no 3:275-87 '53; Same cond. Engineer 196:217-19, 249-52 Ag 14-21 '53; Abstract. Elec R (Lond) 153: 151-2 Jl 17 '53; Discussion. Inst Mech Eng Proc (A) 167 no 3:288-90 '53

Hydraulic analogies

Hydraulic analog for studying steady-state heat exchangers. I. S. Juhasz and F. C. Hooper. bibliog il diags Ind & Eng Chem 45:1359-62 Je '53

Tables, calculations, etc.

Analysis of turbulent free-convection boundary layer on flat plate. E. R. G. Eckert and T. W. Jackson. bibliog diags U S Nat Advisory Com for Aeronautics 1951:255-61 '52

Approximate formula for the log mean temperature difference. H. M. Finucan. Chem & Ind p447 My 9 '53

Asymptotic solutions for the heat transfer at varying wall temperatures in a laminar boundary layer with Hartree's velocity profiles. A. N. Tifford and Sheng To Chu. bibliog J Aeronautical Sci 20:643-4 S '53

Calculation of transient temperatures in pipes and heat exchangers by numerical methods. G. M. Dusinberre. A S M E Trans 76:421-6 Ap '54

Cooling potential versus specific enthalpy; heat transfer potential between moist air and water. F. Rasori. bibliog Refrig Eng 61:1207-19+ N '53; Discussion. 62:52-3+ F; 76-7+ Je '54

Design charts for symmetric regenerators. A. M. Peiser and J. Lehner. Ind & Eng Chem 45:2166-70 O '53

Graph aids in specifying insulation. Gas Age 114:30-1 Jl 1 '54; Same. Heat & Ven 51:81-2 Ag '54

Heat transfer (cont). B. E. Lauer. diags Oil & Gas J 52:140 Jl 20; 361 Jl 27; 101 Ag 3; 132 Ag 10; 153 Ag 24; 127 S 7; 348 S 21; 146 S 28; 301 O 5; 171 O 12; 159 O 19; 153 O 26; 135 N 2 '53

Heat transfer coefficients for heating or cooling in tubes. Y. S. Tang. Chem Eng 60:174-6 D '53

Heat transfer coefficients of pseudo-plastic fluids. Ju Chin Chu, F. Brown and K. G. Burridge. bibliog(27 ref) diags Ind & Eng Chem 45:1686-96 Ag '53; Correction. 46:1016 My '54

Heat transfer to or from water by free convection. F. W. Hutchinson. Heat & Ven 51:80-1 S '54

Kinetics of coal gasification; development of heat transfer equations and method of calculation. H. R. Batchelder, R. M. Busche and W. P. Armstrong. bibliog Ind & Eng Chem 45:1868-71 S '53

Natural-circulation evaporation; two-phase heat transfer. E. L. Piret and H. S. Isbin. bibliog diag Chem Eng Prog 50:305-11 Je '54

Natural-convection heat transfer at reduced pressure. J. R. Kyte, A. J. Madden and E. L. Piret. bibliog il diags Chem Eng Prog 49:653-62 D '53

Oil burner installation practice; size that heating plant correctly, determining the heat loss of a dwelling. C. H. Burkhardt. diag Sheet Metal Worker 45:60-1+ Jl '54

Piston temperatures; method of calculation for water-cooled petrol engine units. A. I. I. Abdelfattah. bibliog diags Automobile Eng 44:335-9 Ag '54

Rapid method for the determination of the thermal conductivity of organic liquids for use in heat-transfer calculations. S. Baxter, H. A. Vodden and S. Davies. bibliog diags J Ap Chem 3:477-80 O '53

Thermal lags in flowing systems containing heat capacitors. J. W. Rizika. diags A S M E Trans 76:411-20 Ap '54

Thermal-radiation tables and applications. R. V. Dunkle. A S M E Trans 76:549-52 My '54

HEAT treatment

Cut warpage in heat treating small parts; Endicott plant of International business machines corp. il Steel 135:150 Jl 12 '54

Ductile iron; makes good on tough jobs. G. S. Farnham and B. Dixon. il Iron Age 173:135-6 Mr 18 '54

Effective heat treatment of molybdenum. T. G. Perry and others. il Metal Prog 65: 75-7 F '54

Facts about modern heat treating equipment. il diag Mill & Factory 54:586 My '54

Heat treating special trackwork. il Ry Age 136:70-1 Ap 5 '54

Heat treating temperatures in relation to the iron-carbon diagram; chart; engineering file facts. Materials & Methods 38:147 D '53

Heat treatment of high-strength titanium-base alloys; abstracts. W. M. Parris and others. Metal Prog 64:167 O '53; Tool Eng 32:142-3 Ja '54

Heat treatment of titanium generalized in terms of beta prime. L. D. Jaffe. bibliog J Metals 6:Trans 210 sec 2 F '54

Heat treatment, structure, and mechanical properties of Ti-Mn alloys. F. C. Holden and others. bibliog il J Metals 6:Trans 169-84 sec 2 F '54

High alloy castings in heat treating equipment. E. A. Schoefer. il Materials & Methods 38:194+ D '53

Hot forging and rolling of iron castings. C. R. Austin. il Foundry 82:86-9+ Jl '54

How heat treating improves modern high strength irons. C. R. Austin. il diags Iron Age 173:125-9 Je 10 '54

How to heat treat titanium. C. I. Bradford. il Steel 134:92-3 My 31 '54

How to understand heat-treatment processes. S. Storchheim. il diags Am Mach 98:125-34 Ap 26 '54

Influence of cold work and heat treatment on the engineering properties of beryllium copper wire. J. T. Richards and others. Am Soc T M Proc 51:771-91 bibliog(35 titles, p790-1) '51

Influence of heat treatment and cold working on tensile strength ranges. R. L. Stedfeld. Machine Design 26:163-73 F '54

Inspection, heat-treat, joining, finishing. il diags Am Mach 97:E-E23 Mid-N '53

Investigation of the heat treatment of commercial titanium-base alloys. L. Luini and E. Lee. bibliog il J Metals 6:Trans 581-92 sec 2 My '54

Technical progress; heat treating. il Steel 134:282-3+ Ja 4 '54

See also

Aluminum alloys, Heat treatment of
Case hardening
Electric furnaces, Heat treating
Furnaces, Heat treating
Quenching
Steel, Heat treatment of

Accounting

Cost of heat treating; supplement to 1948 edition of Metals handbook. Metal Prog 66: 128-130A Jl 15 '54

Terminology

Glossary of heat treating and testing terms; compiled by Bethlehem steel co. Iron Age 173:supF50+ F 25 '54

HEAT treatment of aluminum alloys. See Aluminum alloys, Heat treatment of

HEAT treatment shops

Designed with the best in plant services; Lindberg steel treating co. il Factory Management 112:D 18-20 pt 2 Je '54

Heat treaters going at full tilt. Steel 133:75 S 14 '53

Look at custom heat treating; Lindberg steel treating co. il plan Steel 134:100-2 My 3 '54

HEAT treatment shops—*Continued*

Accounting

Development of standard costs for heat treating. W. P. Canfield. N A C A Bul 35: 634-42 Ja '54

Equipment

Fundamentals of quenching. A. J. Jarema. il diags Steel 134:110-12 Je 7; 114-16 Je 14 '54

Gleason machine quench minimizes distortion in quenching. il Iron Age 174:151-2 Ag 12 '54

Heat treat plant boasts versatility; job shop treating plant of Metallurgical inc., Minneapolis. il Steel 134:109 Mr 22 '54

Shaker furnace simplifies heat treating of small parts; Fred Heinzelman & sons heat treating plant. W. D. Latiano. il Iron Age 174:102-3 Ag 5 '54

HEATERS

Characteristics of downward jets of heated air from a vertical discharge unit heater. L. Helander and others. il diags Heating-Piping 26:141-50; Discussion. 151-2 S '54

Drying ceramics with space heaters. G. H. Coupe. il Am Cer Soc Bul 33:277 S 15 '54

Facts about modern unit heaters. diags Mill & Factory 54:459 My '54

Metallurgical aspects of aircraft heaters; abstract. Metal Prog 64:136+ D '53

Proposed ASHVE code for testing and rating heavy duty furnaces and direct-fired unit heaters. Heating-Piping 26:143-7 Jl '54

Turn on the heat; portable space heaters. il diag Constr Methods 35:66+ N; 68+ D '53

Warming cold spots in hot mill; space heaters in Pittsburgh Steel's Allenport mill. H. A. Long. il plan Steel 133:158 N 9 '53

See also

Electric heaters
Gas heaters
Motor truck engines—Heaters
Steam heaters

Maintenance and repair

Are your unit heaters ready for winter? L. L. Moran, jr. il Power Eng 58:66-7+ Ag '54

Manufacture

Making and painting car heaters by time-saving methods. G. Murphy. il Automotive Ind 111:63+ Jl 1 '54

HEATING

Changing house; heating and air conditioning. il Am Bld 76:130-3 Ag '54

Did cars like this change heating practice? I. W. Cotton. il Heating-Piping 26:108-9 Ag '54

Early heating practice. S. Lewis. Heating-Piping 26:135 Je '54

Experience is my classroom. T. W. Reynolds. Published in monthly numbers of Heating and ventilating

Heat from atomic reactors to heat building at Hanford. flow diag Heating-Piping 25:97 D '53

Heating efficiency covered at recent ASHVE meeting. Eng N 151:115 Jl 16 '53

Heating with atomic energy; Hanford atomic products operation. R. T. Jaske. flow diag il diags Heating-Piping 26:77-80 F '54

Measurement of the efficiency of heating in buildings; abstract and discussion. A. T. Pickles. Engineering 176:422-3 O 2 '53

Oil heating and oil burner servicing. diags Dom Eng 182:48-51+ N; 86-8+ D '53; 183: 86-7+ Ja; 182-4+ F; 140-4+ Mr; 137-41+ Ap; 141-4 My; 142-6+ Je; 184:136-40+ Jl; 131-4+ Ag; 141-4+ S; 132-5 O; 140-1+ N '54 (to be cont)

Recent developments in heating, air conditioning and plumbing. N. N. Wolpert. il diag Arch Rec 113:196-201 Ap; 193-6+ My '53

What not to do; these heating and piping installations needed correcting. C. T. Baker. diags Heating-Piping 26:92-4 F '54

See also

Air conditioning
Boilers, Heating
Building—Heating aspects
Electric heating
Fuel
Furnaces, Warm air
Gas heating
Heat pump
Heaters
Heating, Warm air
Heating from central stations
Hot water heating
Insulation (heat)
Oil burners
Oil fuel
Solar heating
Steam heating
Ventilation

also subdivision Heating and ventilation under special subjects, e.g.

Airplanes
Churches
Factories
Greenhouses
Hospitals
School buildings

Baseboard heating

New developments in baseboard heating. il diags Am Bld 75:208-9 Ag '53

Warm-air baseboards. il plan diag House & Home 2:150-1 N '52

Bibliography

Abstracts and reviews. Published in monthly numbers of Heating and ventilating

Control

Field studies of floor panel control systems; abstract. A. B. Algren and others. Dom Eng 183:228+ Mr '54

Cost

See also

Heat pump—Cost of operation

Estimates

Plumbing and heating estimating. J. Williams. diag Dom Eng 183:94-5+ Ja; 110-13 F; 130-1 Mr '54

Panel system

Effect of floor coverings on panel heating systems; abstract. L. F. Schutrum and C. M. Humphreys. Dom Eng 183:224+ Mr '54

Effects of non-uniformity and furnishings on panel heating performance. L. F. Schutrum and C. M. Humphreys. Heating-Piping 26: 131-6 F '54; Abstract. Heat & Ven 51:93 Mr '54; Discussion. Heating-Piping 26:175-6 Mr '54

Effects of room size and non-uniformity of panel temperature on panel performance. L. F. Schutrum and J. D. Vouris. Heating-Piping 26:133-9; Discussion. 139-40 S '54

Field studies of floor panel control systems; abstract. A. B. Algren and others. Dom Eng 183:228+ Mr '54

Gypsum plaster in radiant heating system; with time-saver standards. diags Arch Rec 114:227+ N; 177 D '53

He carried panel heat merchandising into the streets; Robert Bruen. Dom Eng 183:219-20+ F '54

He educates to sell panel heating; Ken Gomes. il Dom Eng 184:135 S '54

How to prepare ceiling for panel heating. il Am Bld 76:282+ Ag '54

Panel heating system for a small house. il plans diags Am Bld 76:176 Jl '54

Radiant heat ideal for zoo snakes. Heat & Ven 51:73 Jl '54; Heating-Piping 26:122 Jl '54

Radiant heating with warm air; a split-system. E. D. Thatcher. plan diags Heat & Ven 51:93-7 Jl '54

See also

Electric heating—Panel system
Hot water heating—Panel system

Tables, calculations, etc.

Degree-day, a fuel estimating unit; with tabulations. C. Strock. map Heat & Ven 51:102-16 Mr '54

Figuring hot-cold ceilings. Power Eng 58: 78 Jl '54

Weather bureau issues new degree day normals; data sheet. Heating-Piping 25:133-4 N; 109-10 D '53; 26:181-2 Ja; 110 F '54

HEATING, Industrial

Dowtherm heating systems; applications by Foster Wheeler, ltd. il Chem Age (Lond) 69:169-72 Jl 25 '53

Heat; how it is applied, contained and controlled in all of the ceramic industries. bibliog il diags Cer Ind 61:53-7 S; 51-5+ O; 45-6+ N; 53-4+ D '53; 62:53-4+ F; 55-6+ Mr; 145+ Ap; 53-4+ My; 71-2+ Je; 63:83+ Jl; 53+ Ag; 54+ S; 124-5+ O '54; Same abr. Brick & Clay Rec 123:41-5 S; 51-3+ O; 51-4+ N; 45-9 D '53; 124:93-5+ Ja; 69+ F; 97-8+ Mr; 99+ Ap; 63-4+ My; 79-80 Je; 125:63-4 Jl; 67+ Ag; 76-7 S '54

HEATING, Industrial—*Continued*

Heat technology; Chemical Engineering report, June, 1953. bibliog il diags Chem Eng 60:175-238 Je '53

Heating with hot oil. R. C. Swaney. Tappi 37:sup 181A-3A Je '54

High pressure gas heaters in Carthage field. J. L. Wiggins. il diag Pet Eng 25:B 16+ Jl '53

New developments in liquid heating of plastics-processing machinery. P. L. Geiringer and F. Hasselriis. bibliog il diags Mech Eng 75:957-62+ D '53

Quartz hot rod heats corrosive liquids. il Chem & Eng N 32:2230 My 31 '54

Radiant heat for shrink fits. il Tool Eng 32:66 My '54

Tranter compact heating units cut downtime in metal finishing. il Iron Age 174: 120 Jl 15 '54

See also

Calcination
Drying
Drying apparatus
Electric heating, Industrial
Foundry practice
Furnaces, Heating
Furnaces, Recuperative and regenerative
Gas as fuel
Gas heating, Industrial
Heat treatment
Hot water heating, Industrial
Infrared rays—Industrial heating
Kilns
Metallurgy
Oil fuel
Oil heating
Open hearth process
Oxyacetylene flame
Paint—Drying
Paper drying
Steam heating, Industrial
Steel, Heat treatment of
Welding

Terminology

Dictionnaire technique anglais-français chauffage industriel. I. Dusnickis and P. Chaumelle. 143p 750fr Dunod, 92 Rue Bonaparte, Paris 6, France '54

HEATING, Warm air

Blower-filter units provide uniform heat. il Am Bld 75:301-2 Je '53

Carriage house converted to residence with warm air heating. A. Stout. il Sheet Metal Worker 45:66-7+ Ja '54

Central heating system increases; comparative growth of wet-heat and warm air central heating in United States and individual industrial states of New York, Massachusetts and Ohio, over a ten-year period. C. H. Burkhardt. Sheet Metal Worker 45:42-4+ N '53

Characteristics of downward jets of heated air from a vertical discharge unit heater. L. Helander and others. il diags Heating-Piping 26:141-50; Discussion. 151-2 S '54

Double duct heating. il plan diag Arch Forum 98:164 Ap '53

Dual-purpose framing; hollow steel box columns and beams double as warm-air heating ducts. diag Arch Forum 99:144 Ag '53

Floor plank heating ducts. il plan diag Arch Forum 97:141 D '52

Forced air units solve tough heating problems in ten-acre food assembly warehouse. il Food Eng 25:131+ D '53

Heating a drive-in restaurant. il Dom Eng 183:202+ F '54

Heating an orchid greenhouse; Vattimo florists. Dom Eng 183:212 Mr '54

Heating and cooling for comfort. R. Follansbee. diags Sheet Metal Worker 45:44-6+ Mr '54

Heating the crawl space with warm air. S. Konzo. il diags Am Bld 75:94-7+ O '53

Hollow concrete floor combines radiant and forced-air heating and cooling. il diag Arch Forum 101:210 Jl '54

How to heat a slab house with warm air; results of a three-year investigation at the University of Illinois. il plans House & Home 3:140-1 F '53

Perimeter heating for non-residential structures. il plans Dom Eng 182:134-6+ N '53

Perimeter heating good for larger buildings, too. il plan Am Bld 76:234+ F '54

Perimeter warm-air heating. S. Konzo. plan diags Am Bld 75:42-4 S '53

Radiant heating with warm air; a split-system. E. D. Thatcher. plan diags Heat & Ven 51:93-7 Jl '54

School heating combined with structure for low cost and comfort. il plans diags Arch Rec 115:210-13 F '54

School heating system. il Sheet Metal Worker 45:112 F '54

Small pipe warm-air heating systems. S. Konzo. il plans diags Am Bld 75:124-6+ N '53

Unique perimeter slot heats plant. R. A. Hoehne. il Heating-Piping 25:114-15 N '53

Warm-air baseboards. il plan diag House & Home 2:150-1 N '52

Warm air heating system for animal hospital. A. Stout. plan Sheet Metal Worker 45:47 N '53

Warm air heating's growth and application outlined. E. B. Langenberg. Heating-Piping 26:124-5 My '54

See also

Furnaces, Warm air

History

Brief history of the warm-air heating industry. il Sheet Metal Worker 45:58-9+ Ja '54

HEATING and ventilating (periodical)

Heating and ventilating completes fifty years. Heat & Ven 51:84-6 Je '54

HEATING contracts

According to law; review of legal decisions which help plumbing and heating contractors to avoid law suits (cont). Dom Eng 182:112 D '53; 183:46 Ja; 26 F; 30 Mr; 30 Ap; 26 My; 30 Je; 184:26 Jl; 30 Ag; 26 S; 32 O '54

Cites evils of bid shopping. N. E. Bueter. Dom Eng 183:263-4 Mr '54

How higher courts have ruled. L. T. Parker. Heat & Ven 51:75-7 Ja; 110-13 Ap; 97-100 My '54

Law and your profits (cont). W. H. Hillyer. Heating-Piping 25:125 N; 103 D '53; 26: 177+ Ja; 105 F; 145-6 Mr; 106-7 Ap; 145-6 My; 140 Je; 120-1 Jl; 118-19 Ag; 124 S; 128-9 O '54

HEATING equipment

Climate as a factor in the selection of fuels and heating equipment. map Consumers Res Bul 32:16-18 S '53

14 questions and answers on preparing your heating system now for winter. S. Elonka. il Power 98:122-3 Ag '54

Heating and air conditioning product review. il diag Sheet Metal Worker 45:99-104+ Ja; 81-5 F '54

Heating changes greatly in the last 25 years. K. Steiner. il Heating-Piping 26:114-16 My '54

Heating, piping, and air conditioning equipment for industry and large buildings; trade names. Heating-Piping 26:sup 123d-158d Ja '54

Heating, ventilating, and air conditioning equipment. il plans diags Am Bld 75:253+ Ap '53

Institute of cooking and heating appliance manufacturers, general stove meeting and management conference, Cincinnati. Cer Ind 62:160-1 Ja '54

Latest developments in heating systems. C. F. Craigie, jr. il Mill & Factory 54:456-8 My '54

London letter; commentary on developments in Europe. diag Heat & Ven 51:92-3 F; 97-8+ Mr; 116-17+ Ap; 116-17+ My; 108-9+ Je; 116+ Jl; 95-6 Ag; 107-8+ S '54

Make this summer count next winter! overhaul your heating system now. T. Hicks. il Power 98:122-3 Je '54

75th year marked by New Jersey manufacturer of heating, ventilating and combustion equipment. il Heat & Ven 51:132+ Ag '54

Winter's coming, check your plant heating system. E. J. Clement. il diags Mill & Factory 55:81-6 S '54

See also

Boilers, Heating
Furnaces, Warm air
Heat pump
Heaters

HEATING from central stations

District heating. A. E. Margolis. diags Engineering 176:473-5, 507-10 O 9-16 '53; Excerpt. Engineer 196:391 S 25 '53; Abstract. Elec J 151:805 S 11 '53

District heating progresses in the last 25 years. J. F. Collins, jr. Heating-Piping 26: 110-13 Je '54

HEATING from central stations—*Continued*

District heating; results of D.S.I.R. investigations. Elec R (Lond) 153:927-8 O 23 '53

Fuel conservation; some expressions of opinion on heat-electric generation. Elec J 151:977-8 S 25 '53

Fuel economy. Elec R (Lond) 153:561-2 S 11 '53

Pimlico district heating undertaking. B. Donkin and others. flow diag diag Engineer 196:850-2 D 25 '53

Public thermal-electric supply. diags Elec J 151:1295-7 O 23 '53

See also
National district
heating association

HEATING furnaces. See Furnaces, Heating

HEATING industry

American institute of wholesale plumbing and heating supply associations 2d annual meeting, New York. Dom Eng 182:132-3+ N '53

Associated plumbing and heating contractors of Florida 33d annual meeting. Dom Eng 183:200+ Je '54

Bigger output needed to keep business stable. R. W. Lawinger. Dom Eng 183:125+ My '54

Business prospects in 1954; statements of business leaders. Sheet Metal Worker 45:53-7+ Ja '54

Central supply association meeting, Chicago. Dom Eng 184:136-7+ S '54

Dealer stresses forced in furnace sales; Brandt home heating co. P. Lance. il Sheet Metal Worker 45:45-6 N '53

Departmentalization; blackboard record system increases heating firm's efficiency; Droste heating and sheet metal co. il Sheet Metal Worker 45:48-9+ Mr '54

Experience is still the best teacher in the heating, piping and air conditioning contracting business. W. M. Scott. il Heating-Piping 26:99 S '54

Factors promoting rapid growth of heating firm; Central heating co. il Sheet Metal Worker 45:78-9 Je '54

Facts about business prospects for 1954. P. B. B. Andrews. Dom Eng 183:78-81 Ja '54

Five minutes with Bergie! subjects of interest to plumbing and heating contractors. H. Bergdahl. Dom Eng 183:154+ Ja '54 [cont monthly]

Five ways to beat competition. Dom Eng 183:136-7 Je '54

Hanging cartoon contest; slogan winners are named! il Dom Eng 182:32-5+ N '53

He carried panel heat merchandising into the streets; Robert Bruen. Dom Eng 183:219-20+ F '54

He educates to sell panel heating; Ken Gomes. il Dom Eng 184:135 S '54

Home heating equipment; the hot and cold of it. Steel 135:79 S 20 '54

Ideas from the 2000 and 1 book. il Dom Eng 183:114-17+ My; 147+ Je '54

London letter; commentary on developments in Europe. Heat & Ven 51:91-2 Ja; 92-3 F; 97-8+ Mr; 116-17+ Ap; 116-17+ My; 108-9+ Je; 116+ Jl; 95-6 Ag; 107-8+ S '54

Maintaining good customer relations; Kuenz heating & sheeting metal co. G. C. Creighton. il Sheet Metal Worker 45:48-9 Ap '54

New heating ideas are coming your way; 1954 series of School of modern heating. il Dom Eng 182:140-1+ N '53

Pilot meeting sparks trade promotion plan. Dom Eng 183:132-3 Ap '54

Plumbing and heating industries bureau 34th annual meeting, Chicago, Oct. 8. Dom Eng 182:222 N '53

Plumbing and heating wholesalers of New England 64th annual meeting, Boston, Jan. 25-26. Dom Eng 183:136-7 Mr '54

Preventive service cuts emergency calls; Tezel & Cotter. P. J. Galvin. il Sheet Metal Worker 45:64-6 Jl '54

Project heating on a mass production basis; Harvard sheet metal and furnace co. S. S. Robinson. il Sheet Metal Worker 45:44-5+ F '54

Sell electronic air filters; T. H. Brehm co. W. Rudolph. il Sheet Metal Worker 45:42-3+ Ap '54

Sheet metal worker's contractor survey; heating and air conditioning. il map Sheet Metal Worker 45:73-5 Ja '54

Slayer of Sebewaing! LaRoche heating co. il Dom Eng 183:102-4+ Ja; 122-4 F '54

Stock turnover, key to profits. Dom Eng 183:245-6+ My '54

Things were different then; 25 years or so ago. I. W. Cotton. il Heating-Piping 26:111-13 My '54

Wet heat on wheels; Hans Jensen & sons combine utility truck with a mobile display. il Dom Eng 184:128-30 S '54

What are the prospects for your business? Dom Eng 183:120-3 Je '54

What industry leaders say about prospects for 1954. Dom Eng 183:82-3+ Ja '54

What the big job contractors are doing. il Dom Eng 183:126-9 Mr; 124-7+ Ap; 134-5+ My '54

Wholesale distributors association 25th annual meeting, Fort Worth. Dom Eng 183:121 Ap '54

Wholesalers seek to end unfair competition; Trade practice rules. Dom Eng 182:52-3+ N '53

Yankee trader, 1954 style; Fay's plumbing and heating. il Dom Eng 183:132-4 Mr '54

Accounting

Tax quiz for plumbing-heating contractors. Dom Eng 183:99+ F '54

Advertising

From prospect to customer in 24 hours; M.&T. furnace co. il Sheet Metal Worker 45:56-7+ My '54

Merchandising program of a successful dealer; Quiggin & son, inc. il Sheet Metal Worker 45:44-5, 73+ D '53

Directories

1954 directory; heating, piping and air conditioning equipment for industrial, commercial, institutional and public buildings; classified by products, trade names; manufacturers addresses. Heating-Piping 26:sup 1d-166d Ja '54

1954 directory; manufacturers of products and equipment used in warm air heating, air conditioning, ventilation, sheet metal work, roofing, exhaust and blower work. Sheet Metal Worker 45:sup D 1-44 Ja '54

Exhibitions

Product report from the Oil heating show. il Dom Eng 184:141+ Jl '54

Finance

Financing is the key to remodeling sales. Dom Eng 182:126-7 N '53

Remodeling

Bay City, 1953. il Dom Eng 182:138-9 N; 94-6 D '53

Bay City story goes international; Modernization sales clinic, Toronto. Dom Eng 184:130-1 Jl '54

Carriage house converted to residence with warm air heating. A. Stout. il Sheet Metal Worker 45:66-7+ Ja '54

From prospect to customer in 24 hours; M.&T. furnace co. il Sheet Metal Worker 45:56-7+ My '54

Growing families mean more remodeling jobs! Wiertz and Hughes heating co. il Dom Eng 183:128-9 Je '54

He uses a new twist; new work sells remodeling; R. A. Guinner plumbing and heating company. il Dom Eng 184:126-7+ S '54

Ike message to Congress seen as boon to remodeling. Dom Eng 183:114-16 Mr '54

Modernization clinic. Dom Eng 183:118-19 Mr '54

1940 school gets 1954 heating; remodeling case study. il Dom Eng 183:139+ My '54

Operation WHAM gets under way! il Sheet Metal Worker 45:54-5 My '54

Operation WHAM; National warm air heating and air conditioning association promotional campaign. il Dom Eng 183:130-1 My '54

Problem of John Smith! remodeling education. il Dom Eng 182:111-30 N; 97-108+ D '53

Remodeling film. il Dom Eng 183:100-1 F '54

Remodeling sales drive picks up steam! il Dom Eng 183:114-15 Ap '54

HEATING industry—Remodeling—*Continued*

Remodeling; third dimension of your market. il Dom Eng 182:95-8+ N '53

Rusk's remedy for that summer slump in heating sales. il Dom Eng 183:122-4+ My '54

Sell the gift that keeps on giving, remodeling! il Dom Eng 182:93 D '53

Way to make more money. M. O. Harum. Sheet Metal Worker 45:74+ Mr '54

Statistics

Central heating market potential grows. C. H. Burkhardt. Sheet Metal Worker 45:42-4+ N; 48-51 D; 80-2+ Ja; 50+ F; 50-2 Mr '54

Heating apparatus, 1949-1952. Survey of Cur Bsns 1953 Sup p 164-6 [supplemented in monthly numbers]

Taxation

New tax law; how it will affect plumbing and heating contractors. Dom Eng 184:116-18 S; 128-30 O '54 (to be cont)

HEATING of sewage. See Sewage tanks—Heating

HEATING pipes

Hollow members double as heat ducts in steel-frame office building. il Eng N 151:43 O 29 '53

New laminated and insulated fiber duct for warm-air heating. il Am Bld 76:238-9 F '54

HEATING, piping and air conditioning (periodical)

Many changes during 25 years in heating, piping, air conditioning. Heating-Piping 26:101-2 My '54

HEATING, piping and air conditioning contractors national association

Annual meeting, 65th, Atlantic City. Dom Eng 184:116-17+ Jl; 202-3+ Ag '54

Annual meeting, 65th, Atlantic City. Heat & Ven 51:132+ Jl '54

Annual meeting, 65th, Atlantic City; with abstracts of papers. Heating-Piping 26:94-9 Jl '54

HEATING research

Characteristics of downward jets of heated air from a vertical discharge unit heater. L. Helander and others. il diags Heating-Piping 26:141-50; Discussion. 151-2 S '54

Coleman co. and Wichita university collaborate on research residence for heating data. il Am Gas J 180:68 My '54

Effects of non-uniformity and furnishings on panel heating performance. L. F. Schutrum and C. M. Humphreys. Heating-Piping 26:131-6 F '54; Abstract. Heat & Ven 51:93 Mr '54; Discussion. Heating-Piping 26:175-6 Mr '54

Effects of room size and non-uniformity of panel temperature on panel performance. L. F. Schutrum and J. D. Vouris. Heating-Piping 26:133-9; Discussion. 139:40 S '54

Field studies of floor panel control systems. A. B. Algren and others. plans Heating-Piping 26:117-27 Ap '54

How to heat a slab house with warm air; results of a three year investigation at the University of Illinois. il plans House & Home 3:140-1 F '53

Measurement of the efficiency of heating in buildings; abstract and discussion. A. T. Pickles. Engineer 196:391-2 S 25 '53

Rapid heat meter thermal conductivity apparatus. J. D. Verschoor and A. Wilber. bibliog il Heating-Piping 26:125-30 Jl '54; Discussion. 26:142-3 Ag '54

Research facilities for heat exchange; Trane co.'s research, product development and testing program. il plans diags Arch Rec 116:144-50 Jl '54

Research in Europe stresses comfort. R. S. Dill. Heating-Piping 26:128 Ap '54

HEAVY ice. See Water—Heavy water

HEAVY media separation. See Sink and float process

HEAVY water. See Water—Heavy water.

HEBREW national kosher meat products company

Hebrew National finds dailies kosher medium. R. B. McIntyre. Ed & Pub 86:18 My 2 '53

HECOGENIN

Conversion of hecogenin acetate into 11-oxotigogenin acetate. J. W. Cornforth, J. M. Osbond and G. H. Phillipps. Chem Soc J p907-12 Mr '54

Conversion of hecogenin acetate to 11-oxotigogenin acetate; abstract. J. W. Cornforth and others. Chem & Ind p 1387 D 26 '53

Conversion of hecogenin and manogenin into derivatives of allopregnane-12,20-dione. G. P. Mueller, R. E. Stobaugh and R. S. Winniford. bibliog Am Chem Soc J 75:4888-92 O 20 '53

Experiments in the hecogenin series; 22a,5β-spirostan-3α-ol-12-one. C. Djerassi and others. bibliog Am Chem Soc J 75:4885-7 O 20 '53

Isomeric mono- and dibromohecogenin acetates. G. P. Mueller and L. L. Norton. Am Chem Soc J 76:749-51 F 5 '54

Rearrangement of the steroid C/D rings; synthesis of an 11-keto-$\Delta^{13(17a)}$-C-nor/D-homo-steroid. C. F. Hiskey, R. Hirschmann and N. L. Wendler. Am Chem Soc J 75:5135-6 O 20 '53

Ring C ketols in the hecogenin and allopregnane series. G. P. Mueller and others. bibliog Am Chem Soc J 75:4892-7 O 20 '53

Transformation of hecogenin acetate to the isomeric 11-ketone. J. W. Cornforth and J. M. Osbond. bibliog Chem & Ind p919-20 Ag 29 '53

12-oxygenated pregnane derivatives; preparation of 21-acetoxy-17α-hydroxy*allo*pregnane-3 : 12 : 20-trione from hecogenin. W. J. Adams and others. Chem Soc J p2209-13 Jl '54

HEDGING

Let speculators take the chances! why and how of hedging in futures markets. A. G. Osgood. il Bankers Mo 71:17-18+ Ja '54

HEIGHT gage. See Gages

HEIN, Franz, 1892-

Franz Hein. R. E. Oesper. por(front) J Chem Educ 30:313-14 Je '53

HELFRICH, Lester A.

Three chemists assume major roles in NPA reorganization. por(cover) Chem & Eng N 31:2985 Jl 20 '53

HELIARC welding. See Electric welding, Arc —Heliarc process

HELICAL gearing. See Gearing, Spiral

HELICOPTERS

Aeronautics in 1953. il Engineer 197:54-5 Ja 8 '54

Bell evaluates copter safety. A. McSurely. Aviation W 58:19 Je 8 '53

Big copters may replace DC-3s by '59. A. McSurely. Aviation W 59:13-14 Ag 24 '53

Carriers outline helicopter requirements. L. Moore. il Aviation W 59:99-101 N 16 '53

Case for constant-speed rotor; Doman helicopters' rotor system. diags Aviation W 59:32-3 D 28 '53

'Copter costs; abstracts of SAE annual meeting papers. S A E J 62:57+ F '54

Copter outlook; third of air traffic by '70. L. Moore. Aviation W 59:107-8 D 7 '53

Copter shuttle draws crowds. il Aviation W 59:21 S 21 '53

Domain of the helicopter. R. Hafner. il diags Engineering 177:402-4 Mr 26 '54

Economics of transmission-line maintenance and repair by helicopter; abstract. L. M. Alexander and O. K. Mangum. Elec Eng 72:1094 D '53

Expect helicopter use to expand in post-Korea days. Nat Underw 57:15, 23 S 3 '53

Helicopter flight experience with the Continental XT-51 fixed shaft turbine. R. P. Alex. Automotive Ind 111:50-1 Jl 1 '54

Helicopter passenger progress; abstract. C. M. Belinn. S A E J 62:64 Mr '54

Helicopter progress. F. N. Piasecki. Automotive Ind 110:192 Ja 15 '54

Helicopters proved practical in jungle seismic operations. il Oil & Gas J 52:137+ O 12 '53

How to use magnesium castings for long life; based on paper by R. F. Breyer. S A E J 62:100-1 Je '54

Natural gas is raw material for Plexiglas, protecting pilot of helicopter; Rohm & Haas co. il Gas Age 112:38+ D 17 '53

NYA plans expansion with new heliports. Aviation W 59:73 N 2 '53

Ontario uses helicopters to aid in forest fire fighting and protection. il Pulp & Pa of Can 55:164+ S '54

HELICOPTERS—*Continued*

Passengers by helicopter; Belgian airline, Sabena. Economist 168:50 Jl 4 '53
Piasecki; getting set for mass transportation. il Bsns W p 144-7+ S 26 '53
Piasecki H-21. il diags Aero Digest 67:22-9 D '53
Piasecki unveils giant transport copter. A. McSurely. il Aviation W 59:16-18 S 21 '53
Rockets breathe new life into autogyro. D. A. Anderton. il diags Aviation W 58:28-30 Je 22 '53
Sabena banks on helicopter's promise. G. L. Christian. il map plan Aviation W 59:65-6+ D 7 '53
Sabena starts S-55 operations. il Aviation W 59:27 Ag 10 '53
Secondary fatigue loading of helicopters; abstract. H. Tobey. S A E J 62:98 Ja '54
Service and testing observations of fatigue failures in helicopter components. R. M. Carlson and F. D. Schnebly. il S A E J 62: 28-31 S '54
SAE group studies helicopter engine-propeller attachments. S A E J 62:89+ Ap '54
SP passengers ride helicopters. Ry Age 137: 12 Jl 5 '54
Subsonic compressibility corrections for propellers and helicopter rotors. E. V. Laitone and L. Talbot. bibliog J Aeronautical Sci 20:683-90 O '53
Supercharged helicopter engine; Franklin 0-425-2 engine. il Automotive Ind 111:72+ Ag 15 '54
Test rocket-powered midget copters. il Iron Age 174:72 Jl 15 '54
To Paris by helicopter; Sabena. Economist 170:51-2 Ja 2 '54
Use of helicopters in woods operations. G. A. Rotherham. Pulp & Pa of Can 55:147+ Je '54

See also

American helicopter society
New York airways
United aircraft corporation—Sikorsky aircraft division

Blades

Contribution of higher mode resonance to bending in the teetering rotor blade. R. M. Carlson and D. R. Jacoby. J Aeronautical Sci 20:791-2 N '53
Contribution of higher mode resonance to helicopter rotor-blade bending. H. Hirsch. bibliog il J Aeronautical Sci 20:407-25 Je '53
Heat treating; martemper steel helicopter spars in 30-ft salt baths; Piasecki helicopter plant. il Iron Age 172:110 O 29 '53
Rotor milestone; Sikorsky builds 5,000th all-metal copter blade. il Aviation W 59:16-17 S 14 '53
Titanium blades increase helicopter pay loads. il Iron Age 173:172 My 20 '54

Clutches

Design and development of the hydromechanical clutch; abstract. A. Koup and M. Wachs. diags Automotive Ind 111:66-7 S 1 '54

Control

Automatic method for helicopter control. Elec Eng 73:67 Ja '54
Effects of articulated rotor dynamics on helicopter automatic control system requirements. C. W. Ellis. il Aeronautical Eng R 12:30-8 Jl '53

Design

Compact helicopter design lowers weight and increases payload; Doman helicopters. il diags Product Eng 24:176-9 N '53
Hiller HJ-1, YH-32 helicopter. H. Holm. il diags Aeronautical Eng R 12:48-53 O '53

Drawings

Piasecki H-21. Aero Digest 67:24-5 D '53

Engineering use

Helicopters and airplanes aid survey for highway on rocky St Lawrence Gulf coast. il map Roads & Eng Constr 92:111-14+ Ag '54
Okanagan cuts mountains down to size; Okanagan helicopters, ltd, of Vancouver, B.C. G. L. Christian. il Aviation W 59:81-2+ N 9 '53

Fires and fire protection

Going up! but not in flames! il Safety Maint & Prod 107:51-2 Mr '54
Noise is cut in new pulsejet engine. il diag Aviation W 59:41-2 S 28 '53
Power plants for rotary wing aircraft; abstract. A. G. Forsyth. diags Engineering 176:454 O 9 '53
Pulse-jet engines for helicopters. il Engineering 176:319 S 4 '53; Aviation W 59:42 S 28 '53

Landing

Roof heliport; new design uses cable tows, landing turntables. il plan Aviation W 59: 55 D 28 '53

Landing gear

Ground resonance of the helicopter; abstract. R. M. Howarth and C. H. Jones. Engineering 176:779 D 18 '53

Lubrication

Developing helicopter transmission lubrication systems; abstract. N. C. Taylor. diags Automotive Ind 111:68-9+ S 1 '54

Maintenance and repair

Mobile helicopter trainer. E. H. Forbes. il Aero Digest 67:80+ S '53

Manufacture

It takes three minutes to blow the plastic bubble; acrylic bubble-like noses on 47G helicopters; a picture story. Materials & Methods 39:102-3 Je '54
Standard machine tools produce helicopter components; Fenn mfg. co. H. A. Rockwell. il Mach 60:202-7 Jl '54

Military use

Army calls copter top freight vehicle. Aviation W 59:20 D 14 '53
Army copter lays phone line. il Aviation W 59:50 N 30 '53
Army orders new S-58 copters. Aviation W 59:25-6 Jl 13 '53
Details of marines' new copter. il Aviation W 59:17 S 14 '53

Specifications

1954 U.S. rotary wing aircraft; tabulations. Automotive Ind 110:251 Mr 15 '54

Transmission

Design of a two-speed helicopter transmission; abstract. P. L. Munter. il Automotive Ind 111:67-8 S 1 '54
Developing helicopter transmission lubrication systems; abstract. N. C. Taylor. diags Automotive Ind 111:68-9+ S 1 '54
Mechanical features of the tandem helicopter drive system. W. F. Plume. il diags A S M E Trans 76:791-800 Jl '54
Nitriding critical steel parts. R. Spagnola. il Materials & Methods 38:96-7 D '53

HELIOTRINIC acid. See Isovaleric acid

HELIUM

Attachment for spectrograph permits use of helium for air. il Elec Eng 73:190 F '54
Charts give water solubility of helium, hydrogen, nitrogen and oxygen. D. S. Davis. Chem Eng 61:228+ F '54
Comparative study of accommodation coefficients by the temperature jump and low-pressure methods and thermal conductivities of He, Ne, and Co_2. L. B. Thomas and R. C. Golike. bibliog diag J Chem Phys 22:300-5 F '54
Correlation energies and angular components of the wave functions of the ground states of H^-, He I, and Li II. L. C. Green and others. bibliog Phys R 93:273-9 Ja 15 '54
Diffusion coefficient, solubility and permeability for helium in glass. W. A. Rogers and others. bibliog diags J Ap Phys 25: 868-75 Jl '54
Effect of a helium atmosphere on the Beckman infrared spectrophotometer. W. R. Brode and others. Opt Soc Am J 43:969-70 N '53
Elastic scattering of protons by helium at 5.78 Mev. W. E. Kreger and others. bibliog diags Phys R 93:837-42 F 15 '54

HELIUM—*Continued*

Energy distribution function of electrons in pure helium. F. H. Reder and S. C. Brown. bibliog Phys R 95:885-9 Ag 15 '54

Helium becomes a heavyweight. il Chem W 73:77-8+ N 28 '53

Intermolecular potentials of helium and hydrogen. E. A. Mason and W. E. Rice. bibliog J Chem Phys 22:522-35 Mr '54

Microwave determination of the probability of collision of electrons in helium. L. Gould and S. C. Brown. bibliog diags Phys R 95:897-903 Ag 15 '54

Optical method for measurement of small amounts of oxygen in a helium atmosphere. J. W. Moyer and W. A. Ruggles. diag Opt Soc Am J 44:86-7 Ja '54

Relativistic correction to the ground-state energy of helium. A. M. Sessler and H. M. Foley. bibliog Phys R 92:1321-2 D 1 '53

Scattering of deuterons in helium. F. Lauritsen and others. bibliog diag Phys R 92:1501-6 D 15 '53

Scattering of 14.1-Mev neutrons in helium, hydrogen, and nitrogen. J. R. Smith. bibliog Phys R 95:730-5 Ag 1 '54

Solubility of helium in some low-vapour-pressure liquids. G. Burrows and F. H. Preece. diags J Ap Chem 3:455-8 O '53

Spin-spin interaction of electrons and the ionization energy of helium. A. M. Sessler and H. M. Foley. Phys R 92:1321 D 1 '53

Analysis

Determination of nitrogen content of noble gases. H. S. Dombrowski. bibliog diag Anal Chem 26:526-8 Mr '54

Isotopes

Effects of certain three-body nuclear interactions in H^3 and He^3. A. W. Solbrig, jr. bibliog Phys R 95:831-6 Ag 1 '54

Elastic scattering of fast neutrons by He^4. J. D. Seagrave. bibliog diag Phys R 92:1222-8 D 1 '53

Heat of mixing of He^3 and He^4 solutions. V. S. Nanda. bibliog Phys R 94:241-3 Ap 15 '54

Heat of mixing of He^3 in He^4. H. S. Sommers, jr. and others. diag Phys R 92:1345-6 D 15 '53

Nonparticipation of He^6 in the superfluidity of He^4. L. Guttman and J. R. Arnold. bibliog diags Phys R 92:547-51 N 1 '53

Production of 320-Mev deuterons by He^3 stripping. J. Ise, jr. and others. bibliog flow diag diags R Sci Instr 25:437-42 My '54

Second virial coefficients of He^3 and He^4. J. E. Kilpatrick and others. bibliog Phys R 94:1103-10 Je 1 '54

Viscosity of gaseous He^3 and He^4 between 1.3°K and 4.2°K. E. W. Becker and others. Phys R 93:244 Ja 1 '54

Nuclear reactions

Cross sections for the reactions $D(d,p)T$, $D(d,n)He^3$, $T(d,n)He^4$, and $He^3(d,p)He^4$ below 120 kev. W. R. Arnold and others. bibliog diags Phys R 93:483-97 F 1 '54

He^3+He^3 reactions. W. M. Good and others. bibliog diags Phys R 94:87-91 Ap 1 '54

Interaction between D^2 and He^3 in the neighborhood of the 18.6-Mev level of Li^{5*}. G. Freier and H. Holmgren. Phys R 93:825-6 F 15 '54

Study of the H^3+He^3 reactions. C. D. Moak. bibliog diags Phys R 92:383-8 O 15 '53

Spectrum

Pressure shift in helium λ5875. J. R. Holmes and L. Dape. Phys R 94:902-3 My 15 '54

HELIUM, Liquid

Annihilation of positrons in liquid helium. F. L. Hereford. Phys R 95:1097-8 Ag 15 '54

Atomic theory of the two-fluid model of liquid helium. R. P. Feynman. bibliog diags Phys R 94:262-77 Ap 15 '54

Attenuation of second sound above 1°K. K. R. Atkins and K. H. Hart. bibliog Phys R 92:204-5 O 1 '53

Capillarity in helium II. C. T. Lane and R. V. Dyba. diags Phys R 92:829-30 N 1 '53

Closed fountain effect in liquid helium II. C. A. Reynolds. diag Phys R 93:1118-19 Mr 1 '54

Coefficient of expansion of liquid helium. K. R. Atkins and M. H. Edwards. bibliog Phys R 93:1416 Mr 15 '54

Efficient cryostat for producing temperatures between 4° and 80°K; production of liquid hydrogen targets using liquid helium. C. A. Swenson and R. H. Stahl. bibliog flow chart diags R Sci Instr 25:608-11 Je '54

Experimental evidence for structure in the helium II film. W. C. Knudsen and J. R. Dillinger. diag Phys R 95:279-80 Jl 1 '54

Fermi-Dirac degeneracy in liquid He^3 below 1°K. W. M. Fairbank and others. bibliog Phys R 95:566-8 Jl 15 '54

Feynman's theory of liquid helium. G. V. Chester. Phys R 93:1412-13 Mr 15 '54

Film flow in liquid helium II at low level differences. G. S. Picus. bibliog diags Phys R 94:1459-67 Je 15 '54

Heat capacity and entropy of liquid He^3 from 0.42°K to 1.06°K. D. W. Osborne and others. bibliog Phys R 94:202-3 Ap 1 '54

Helium II film transport rates over machined metal surfaces. B. Smith and H. A. Boorse. Phys R 92:505-6 O 15 '53

Lambda temperatures of dilute He^3-He^4 solutions. J. C. Morrow. bibliog Phys R 92:1-3 O 1 '53

Lambda transition of liquid helium. D. ter Haar. bibliog Phys R 95:895-7 Ag 15 '54

Light scattering in liquid helium. A. W. Lawson and L. Meyer. bibliog diag Phys R 93:259-61 Ja 15 '54

Linde helium liquefier-cryostat combination suitable for operation down to 1·3° K. D. H. Parkinson. diags J Sci Instr 31:178-80 My '54

Liquid helium II; Bose-Einstein condensation and two-fluid model. P. R. Zilsel. bibliog diag Phys R 92:1106-12 D 1 '53

Liquid helium films. K. R. Atkins. bibliog Phys R 92:1571-2 D 15 '53

Liquid helium level indicator for metal storage dewars. W. T. Kitts and F. L. Harler. diag R Sci Instr 25:926-7 S '54

Measurement and the calculation of the liquid helium vapor pressure-temperature scale from 1° to 4.2° K. R. A. Erickson and L. D. Roberts. bibliog Phys R 93:957-62 Mr 1 '54

Metal-to-glass seals for sub-λ point helium apparatus. W. S. Corak and A. Wexler. diag R Sci Instr 24:994-5 O '53

Nature of higher-order phase transitions with application to liquid helium. O. K. Rice. bibliog Phys R 93:1161-8 Mr 15 '54

Nonparticipation of He^6 in the superfluidity of He^4. L. Guttman and J. R. Arnold. bibliog diags Phys R 92:547-51 N 1 '53

Second sound attenuation in liquid helium II. W. B. Hanson and J. R. Pellam. bibliog diags Phys R 95:321-7 Jl 15 '54

Second sound in He^3-He^4 mixtures below 1°K. J. C. King and H. A. Fairbank. bibliog il diags Phys R 93:21-7 Ja 1 '54

Second sound propagation below 1°K. D. de Klerk and others. bibliog il diags Phys R 93:28-37 Ja 1 '54

Simple equipment and techniques for a small cryogenics laboratory. N. S. Rasor. il diags R Sci Instr 25:311-18 Ap '54

Small-angle X-ray scattering from liquid helium I and liquid helium II. A. G. Tweet. bibliog diag Phys R 93:15-20 Ja 1 '54

Specific heat of He^3 between 1.3°K and 2.3°K. G. de Vries and J. G. Daunt. bibliog Phys R 92:1572-3 D 15 '53

Specific heat of liquid He^3. T. R. Roberts and S. G. Sydoriak. Phys R 93:1418 Mr 15 '54

Specific heat of 96 percent He^3 below 1°K. G. de Vries and J. G. Daunt. bibliog Phys R 93:631-2 F 1 '54

Storage and transfer of liquid helium. A. Wexler. bibliog diags R Sci Instr 25:442-5 My '54

Structure of liquid helium. J. Reekie and T. S. Hutchison. bibliog Phys R 92:827-8 N 1 '53

Superfluid dynamics of liquid He II. J. G. Dash. bibliog Phys R 94:1091-6 Je 1 '54

Superfluidity and dissipative processes in liquid He II. J. G. Dash. bibliog Phys R 94:825-8 My 15 '54

HELIUM, Liquid—*Continued*
Temperature dependence of the nuclear susceptibility of He^3 between 1.2°K and 4.2°K. W. M. Fairbank and others. bibliog Phys R 92:208-9 O 1 '53
Theory of liquid helium. G. V. Chester. bibliog Phys R 94:246-52 Ap 15 '54
Theory of liquid He^3-He^4 mixtures. L. Goldstein. bibliog Phys R 95:869-84 Ag 15 '54
Thermal conductivity of liquid helium below 1.0°K. H. A. Fairbank and J. Wilks. bibliog Phys R 95:277-8 Jl 1 '54
Thermoregulator for a liquid helium bath. W. S. Boyle and J. B. Brown. diag R Sci Instr 25:359-60 Ap '54
Thickness of the helium film. L. Meyer. bibliog Phys R 93:655-6 F 15 '54
Transfer tube for liquid hydrogen or helium. J. W. Stout. diag R Sci Instr 25:929-30 S '54
Two types of regulators and the precision control of helium bath temperature. H. S. Sommers, jr. diags R Sci Instr 25:793-8 Ag '54
Ultrasonic measurements in magnetically cooled helium. C. E. Chase and M. A. Herlin. Phys R 95:565-6 Jl 15 '54
Vapor-pressure curve of helium between 4.2°K and 4.8°K. R. D. Worley and others. bibliog Phys R 93:45-6 Ja 1 '54

HELMETS, Aviators'
Slotted helmet, designed and built by Douglas aircraft co. il Aeronautical Eng R 12:60 S '53

HELMUS, Weldon G.
They keep on dyeing; Weldon G. Helmus of Fair lawn finishing co. S. H. Brown. pors Mod Textiles Mag 34:35+ D '53

HELP wanted ads. See Employment systems—Advertising aids

HEMATITE
New ore treatment permits wide use of nonmagnetic taconites. F. M. Stephens, jr. and others. diag Iron Age 172:142-6 Jl 2 '53
Wustite phase in partially reduced hematite. G. Bitsianes and T. L. Joseph. il diag J Metals 6:Trans 150-3 F '54

HEMICELLULOSE
Hemicellulose A of beechwood (fagus sylvatica). G. O. Aspinall, E. L. Hirst and R. S. Mahomed. Chem Soc J p 1734-8 Je '54
Hemicellulose in the viscose rayon process; chromatographic investigation. A. Buurman. il diag Textile Res J 23:888-96 D '53
Hemicelluloses. L. E. Wise. bibliog(30 ref) Tappi 36:sup 155A-6A D '53
Hemicelluloses and arabogalactans as beater adhesives. J. O. Thompson and others. bibliog(27 ref) Tappi 36:534-41 D '53
Hemicelluloses of Scots pine (pinus sylvestris) and black spruce (picea nigra) woods. A. R. N. Gorrod and J. K. N. Jones. Chem Soc J p2522-5 Jl '54
Nature of the hemicelluloses of jute fiber. P. C. Das Gupta and P. B. Sarkar. bibliog Textile Res J 24:705-11 Ag '54
Orienting study of the effect of the neutral sulphite semichemical cook on the hemicelluloses of aspenwood. D. C. Lea. bibliog(29 ref) il Tappi 37:393-9 S '54
Two further aldobiouronic acids from hemicellulose-B of corn cob. R. L. Whistler and L. Hough. bibliog Am Chem Soc J 75:4918-19 O 20 '53

Analysis

2-*O*(4-*O* - methyl - α-D - glucopyranosyluronic acid)-D-xylose from hemicellulose-B of corn cob. R. L. Whistler, H. E. Conrad and L. Hough. bibliog Am Chem Soc J 76:1668-70 Mr 20 '54

HEMISPHERIC insurance conference
Meeting, 5th, Rio de Janeiro, Aug. 19-25. East Underw 55:1+, 38 Ag 20; 25-6 Ag 27; 1+ S 3; 23+ S 10 '54; Spectator 162:36+ O '54

HEMOGLOBIN
Composition and hydration of protein crystals in salt solutions. T. L. McMeekin, M. L. Groves and N. J. Hipp. bibliog Am Chem Soc J 76:407-13 Ja 20 '54
Denaturation of hemoglobins by alkali. F. Haurowitz, R. L. Hardin and M. Dicks. bibliog J Phys Chem 58:103-5 F '54
Effect of temperature on the reversible *p*H-dependent denaturation of horse ferrihemoglobin. E. M. Zaiser and J. Steinhardt. bibliog Am Chem Soc J 76:2866-71 Je 5 '54
Electron-transfer reactions between metallic ions, co-ordination complexes, and hæmoglobin. P. George and D. H. Irvine. Chem Soc J p587-93 F '54
Identification of a fourth abnormal human hemoglobin. H. A. Itano, W. R. Bergren and P. Sturgeon. Am Chem Soc J 76:2278 Ap 20 '54
Known abnormal human hemoglobins climb to four; abstract. H. Itano. Chem & Eng N 32:1311-12 Ap 5 '54
Significance of molecular structure to biology. L. Pauling. Can Chem Process 38:72+ Jl '54
System of nomenclature for the varieties of human hemoglobin. A. I. Chernoff and others. bibliog Science 118:116-17 Jl 24 '53

HEMOPYRROLE
Synthesis of hemopyrrole-dicarboxylic acid. S. F. MacDonald and R. J. Stedman. bibliog Am Chem Soc J 75:5448-9 N 5 '53

HENDERSON, Nevada
Rebuff in Nevada; Henderson elects French. il Chem W 72:15-16 Je 20 '53

HENRY'S law
Concentrated gas-solvent systems; applicability of Henry's law. W. B. Howard. bibliog Pet Refiner 32:97-9 D '53

HENZE, Henry Rudolf
Two southern gentlemen honored. por(cover) Chem & Eng N 31:5212+ D 14 '53

HEPARIN
Anticoagulant activity of heparin. A. B. Foster and others. bibliog Chem & Ind p899-900 Ag 22 '53

HEPTACHLOR
Excretion of heptachlor epoxide in milk of a dairy cow fed heptachlor. B. Davidow and others. Science 118:383-4 O 2 '53

HEPTALDEHYDE
Photochemical oxidation of *n*-heptaldehyde. J. R. McNesby and T. W. Davis. bibliog Am Chem Soc J 76:2148-52 Ap 20 '54

HEPTANE
Contributions to thermodynamics; the anomalous heat of vaporization of heptane. J. McQuirg. bibliog J Chem Educ 31:347-8; Discussion. W. Waring. 377 Jl '54
Desulfurization of heptane solutions using nitrogen dioxide-sulfuric acid mixtures. J. R. Meadow and R. H. Graves. bibliog Ind & Eng Chem 45:2113-17 S '53
Discontinuities in the adsorption isotherm of *n*-heptane on molybdenum disulfide. E. V. Ballou. Am Chem Soc J 76:1199-200 F 20 '54
Effects of fuel additives on the precombustion reactions of *n*-heptane. A. O. Melby. Inst Pet J 38:965-73 D '52
Material transfer in turbulent gas streams; influence of shape on evaporation of drops of *n*-heptane. N. T. Hsu, K. Sato and B. H. Sage. bibliog(40 ref) diags Ind & Eng Chem 46:870-6 My '54
Radiation-induced reaction between iodine and heptane. P. F. Forsyth and others. bibliog J Chem Phys 22:66-70 Ja '54
Ternary liquid system, benzene-heptane-diethylene glycol. G. C. Johnson and A. W. Francis. bibliog Ind & Eng Chem 46:1662-8 Ag '54

HEPTANONE
Conjugative effects of cyclopropane rings; synthesis and properties of 1-methyl-4-isopropyltricyclo[4.1.$0^{1,6}$, $0^{2,4}$]heptanon-5. R. H. Eastman. Am Chem Soc J 76:4115-17 Ag 20 '54

HEPTENE
Reaction of N-bromosuccinimide with 2-heptene. F. L. Greenwood and M. D. Kellert. bibliog Am Chem Soc J 75:4842-3 O 5 '53

HEPTENOIC acid
Addition of hydrogen bromide to *trans*-4-heptenoic acid. H. D. Zook and J. A. Knight. bibliog Am Chem Soc J 76:2302-4 My 5 '54

HERBICIDES. See Weeds—Control

HEREDITY
Experiments in acquired characteristics. C. H. Waddington. il Sci Am 189:92-4+ D '53

HERNANDION
Relationship of anthricin, hernandion and cicutin to desoxypodophyllotoxin. J. L. Hartwell and A. W. Schrecker. bibliog Am Chem Soc J 76:4034-5 Ag 5 '54

HERTY medal
Honors to a liberal arts school. Chem & Eng N 32:1998 My 17 '54

HERTZ system
Hertz acquisition brightens outlook for Omnibus corp. Barron's 33:17-18 N 2 '53

HESPERIDIN
Failure of phosphorylated hesperidin to influence fertility in rodents. N. Millman and F. Rosen. Science 118:212-13 Ag 21 '53

HESS, Wendell Frederick, 1903-1954
Sketch. Welding J 33:724 Jl '54

HETEROCYCLIC compounds
Effects of ring size on electron distribution in saturated heterocyclic compounds. H. S. Gutowsky and others. Am Chem Soc J 76:4242-3 Ag 20 '54
Fresh approach to heterocyclic chemistry; abstract and discussion. A. Albert. Chem & Ind p 1171 O 31 '53
Heterocycles containing *p*-phenylene units; substituted amines. R. C. Fuson and H. O. House. bibliog Am Chem Soc J 75:5744-6 N 20 '53
Heterocyclic ring of atisine. O. E. Edwards and T. Singh. bibliog Chem & Ind p 1258 N 21 '53
Kinetics of the reactions of chloroheterocyclic compounds with piperidine and with ethoxide ions in ethanol. N. B. Chapman and D. Q. Russell-Hill. Chem & Ind p281 Mr 6 '54
meta-Interactions and inductive effects in heterocyclic systems. D. A. Brown and M. J. S. Dewar. Chem Soc J p2406-13 Ag '53; p2151 Je '54
Pinacol rearrangement in the heterocyclic series; numerical migratory aptitudes. M. R. Kegelman and E. V. Brown. bibliog Am Chem Soc J 76:2711-13 My 20 '54
Polynuclear heterocyclic systems; synthetic applications of the Schmidt reaction. G. M. Badger and J. H. Seidler. Chem Soc J p2151 Je '54
Stereochemical course of Hofmann elimination in reduced heterocyclic amines. J. McKenna. bibliog Chem & Ind p406 Ap 3 '54
Ultra-violet absorption spectra of heterocyclic arsenic and antimony compounds. I. G. M. Campbell and R. C. Poller. Chem & Ind p 1126-7 O 17 '53

Spectra

Abnormal ultra-violet absorption in some heterocyclic systems. V. Georgian. Chem & Ind p930-1 Jl 24 '54

HETEROPOLY compounds
Extraction of heteropoly acids. C. Wadelin and M. G. Mellon. bibliog(31 ref) Anal Chem 25:1668-73 N '53
Spectrophotometric determination of arsenic and tungsten as mixed heteropoly acids. D. K. Gullstrom and M. G. Mellon. bibliog Anal Chem 25:1809-13 D '53

HEUSER, Emil, 1882-1953
Sketch. por Paper Tr J 138:11 Ja 8 '54; Same. Pulp & Pa of Can 55:150+ Ja '54; Tappi 37: sup 120A-121A F '54

HEWLETT, William R. 1913-
Sketch. por Inst Radio Eng Proc 42:2 Ja '54

HEXACHLOROBENZENE

Spectrum

Pure quadrupole spectrum of solid hexachlorobenzene and its interpretation. J. Duchesne and A. Monfils. bibliog J Chem Phys 22:562 Mr '54

HEXACHLOROBUTADIENE
Mull and solvent media for infrared use. J. S. Ard. bibliog Anal Chem 25:1743-4 N '53

HEXACHLOROCYCLOHEXANE
Mechanism of elimination reactions; kinetics and steric course of elimination from isomeric benzene hexachlorides. E. D. Hughes, C. K. Ingold and R. Pasternak. Chem Soc J p3832-9 D '53
Toxicant trials; how the housefly develops resistance to benzene hexachloride. Chem W 74:26+ Ja 2 '54
Two new isomers of benzene hexachloride. A. J. Kolka, H. D. Orloff and M. E. Griffing. bibliog Am Chem Soc J 76:3940-3 Ag 5 '54

Analysis

Determination of the gamma isomer content of benzene hexachloride by chlorine-36 isotope dilution method. J. T. Craig, P. F. Tryon and W. G. Brown. diags Anal Chem 25:1661-3 N '53

Gamma isomer

See Lindane

Physiological effect

Case of panmyelophthisis after exposure to chlorophenothane and benzene hexachloride. L. Friberg and J. Martensson. A M A Archives Ind Hygiene & Occup Med 8:166-9 Ag '53
Serious poisoning by hexachlorocyclohexane. E. Danopoulos and others. bibliog A M A Archives Ind Hygiene & Occup Med 8:582-7 D '53

HEXACHLOROCYCLOHEXENE
Partial additive chlorination of the benzene ring; pentachlorocyclohexene and hexachlorocyclohexene. A. J. Kolka, H. D. Orloff and M. E. Griffing. bibliog diags Am Chem Soc J 76:1244-9 Mr 5 '54

HEXACHLOROCYCLOPENTADIENE
Flame-resistant polyesters from hexachlorocyclopentadiene. P. Robitschek and C. T. Bean. bibliog il Ind & Eng Chem 46:1628-32 Ag '54
Olefinic surprise; research with hexachlorocyclopentadiene. Chem W 74:52 Je 12 '54
Reactions of monoölefins and hexachlorocyclopentadiene. E. K. Fields. Am Chem Soc J 76:2709-10 My 20 '54

HEXACHLOROPHENE
D.C.M.X. and G-11 in soap. J. W. Lord and E. Parker. Soap & San Chem 29:99 Je '53
Germicides for soap; review of recent papers covering the use of D.C.M.X and hexachlorophene. W. Innes. bibliog Soap & San Chem 29:42-5 S '53; Discussion. W. S. Gump and A. R. Cade. 29:91-2 N '53
Inactivating medium for hexachlorophene (G-11) types of compounds and some substituted phenolic disinfectants. A. L. Erlandson, jr. and C. A. Lawrence. Science 118:274-6 S 4 '53

HEXADECANE
Physical properties of *n*-hexadecane, *n*-decylcyclopentane, *n*-decylcyclohexane, 1-hexadecene and *n*-decylbenzene. D. L. Camin, A. F. Forziati and F. D. Rossini. bibliog J Phys Chem 58:440-2 My '54

HEXADECENE
Vapor-liquid equilibria at 200 mm. of mercury. S. H. Ward and M. Van Winkle. bibliog Ind & Eng Chem 46:338-50 F '54

HEXAFLUOROCYCLOBUTANE
Reactions of highly fluorinated organic compounds; 1H : 2H-hexafluoro*cyclo*butane and 1H-pentafluoro*cyclo*but-1-ene. M. W. Buxton and J. C. Tatlow. Chem Soc J p 1177-9 Ap '54

HEXAFLUOROETHANE
Electron diffraction investigation of the molecular structure of hexafluoroethane. J. L. Brandt and R. L. Livingston. bibliog Am Chem Soc J 76:2096-9 Ap 20 '54
Heat capacity of gaseous hexafluoroethane. J. S. Wicklund and others. J Res Nat Bur Stand 51:91-2 Ag '53

HEXAFLUOROMETHANE
Reactions of fluorocarbon radicals; hexafluoroazoxymethane. J. Jander and R. N. Haszeldine. Chem Soc J p919-22 Mr '54

HEXAFLUOROPROPENE
Addition of free radicals to unsaturated systems; the direction of radical addition to hexafluoropropene. R. N. Haszeldine. Chem Soc J p3559-64 N '53

HEXAHYDROINDAN
Perhydroindanes; *cis*-hexahydroindane-1-carboxylic acid. D. W. Mathieson. Chem Soc J p3251-7 O '53

HEXAHYDROINDANONE
Perhydroindanes; hexahydroindanones. D. W. Mathieson. Chem Soc J p3248-51 O '53

HEXAMETHYLBENZENE
Molecular compounds; picryl chloride-hexamethylbenzene in chloroform solution. S. D. Ross and others. bibliog Am Chem Soc J 76:69-74 Ja 5 '54

HEXAMETHYLENE tetramine

Continuous production of hexamethylenetetramine. F. Meissner, E. Schwiedessen and D. F. Othmer. bibliog Ind & Eng Chem 46:724-7 Ap '54

HEXAMETHYLENIMINE

Synthesis of ethyl adipamate and 2-keto-6,6-dihydroperfluorohexamethylenimine. W. H. Rauscher and H. Tucker. bibliog Am Chem Soc J 76:3599-601 Jl 5 '54

HEXANE

Holdup and residual saturation of hexane in gravity-drained soybean flake beds. B. M. Kocatas and D. Cornell. il Ind & Eng Chem 46:1219-24 Je '54

Ignition behavior of the hexanes. J. E. Johnson, J. W. Crellin and H. W. Carhart. bibliog Ind & Eng Chem 46:1512-16 Jl '54

Separation of benzene and *n*-hexane by means of ethylenediamine as solvent; molar solutropy. A. P. C. Cumming and F. Morton. bibliog J Ap Chem 3:358-66 Ag '53

See also

Cyclohexane

HEXANOL. See Hexyl alcohol

HEXANONE

Steroidal hormone relatives; the synthesis of 4-(*m*-carboxyphenyl)-3-(*p*-hydroxyphenyl)-2-hexanone. J. H. Burckhalter and others. bibliog Am Chem Soc J 76:4112-15 Ag 20 '54

HEXAPHENYLETHANE

Apparent conductivity of hexaphenylethane in sulfur dioxide solution. H. P. Leftin and N. N. Lichtin. bibliog Am Chem Soc J 76:2593-4 My 5 '54

Oxygenation reaction of hexaarylethanes; the stoichiometry of the reaction of hexaphenylethane. N. N. Lichtin and G. R. Thomas. bibliog Am Chem Soc J 76:3020-4 Je 5 '54

HEXAPHENYLETHANE, Analogs of

Analogs of hexaphenylethane; triphenylmethyltriphenylgermane, triphenylgermanecarboxylic acid and some of its derivatives. A. G. Brook and H. Gilman. Am Chem Soc J 76:77-80 Ja 5 '54

HEXATRIACONTANE

Infrared dichroism in the 13.8μ band of *n*-$C_{36}H_{74}$ single crystals and polyethylene. S. Krimm. bibliog J Chem Phys 22:567-8 Mr '54

HEXITOLS

Astatic composition; fatty acid partial esters of hexitols. Am Dyestuff Rep 43:53 Ja 18 '54

HEXOGEN

Analysis

Detection and estimation of impurities in hexogen. E. W. Malmberg, K. N. Trueblood and T. D. Waugh. bibliog diags Anal Chem 25:901-7 Je '53

HEXOKINASE

Phosphorylation of 3-methylglucose by hexokinase from rat's intestinal mucosa. T. Z. Csáky. bibliog Science 118:253-4 Ag 28 '53

HEXOSAMINE

N-acetylation of the hexosamines. S. Roseman and J. Ludowieg. bibliog Am Chem Soc J 76:301-2 Ja 5 '54

HEXOSE phosphates

Reaction between glycine and the hexose phosphates. S. Schwimmer and H. S. Olcott. bibliog Am Chem Soc J 75:4855-6 O 5 '53

HEXOSES

Methyl glycosides of D-*manno*hexodialdose. C. E. Ballou and H. O. L. Fischer. Am Chem Soc J 75:4695-8 O 5 '53

Phase equilibria in sugar solutions; ternary systems of water-hexose-inorganic salt. F. H. C. Kelly. J Ap Chem 4:407-8 Ag '54

Phase equilibria in sugar solutions; ternary systems of water-sucrose-hexose. F. H. C. Kelly. J Ap Chem 4:405-7 Ag '54

Analysis

Anthrone in the estimation of hexose sugars. R. Johanson. bibliog il Anal Chem 26:1331-3 Ag '54

New color reagent for determination of hexoses; determination of glucose in blood serum. B. Klein and M. Weissman. bibliog Anal Chem 25:771-4 My '53

HEXYL alcohol

Reaction mechanism of 1-hexanol and di-*n*-hexyl ether over alumina in a flow system. R. M. Langer and C. A. Walker. bibliog diag Ind & Eng Chem 46:1299-305 Je '54

HEXYL ether

Reaction mechanism of 1-hexanol and di-*n*-hexyl ether over alumina in a flow system. R. M. Langer and C. A. Walker. bibliog diag Ind & Eng Chem 46:1299-305 Je '54

HEXYL resorcinol

Hexylresorcinol makes a sugar cure for scratchy throats. il Chem W 73:83-4 N 28 '53

HEXYNE

Reaction of 1-hexyne and diethyl fumarate. M. J. Hogsed and R. V. Lindsey. bibliog Am Chem Soc J 75:4846-7 O 5 '53

HIDES and skins

Statistics

Hides and skins, 1949-1952. Survey of Cur Bsns 1953 Sup p 150 [supplemented in monthly numbers]

HIEBER, Walter, 1895-

Sketch. R. E. Oesper. por J Chem Educ 31:140-1 Mr '54

HIGH buildings

Frank Lloyd Wright's concrete and copper skyscraper on the prairie. il plans diag Arch Forum 98:98-105 My '53

How long can a boom last? Manhattan's skyscraper spree. il Arch Forum 99:45+ N '53

Manhattan's biggest since Empire State; Socony-Vacuum building. il Eng N 152:21 Ap 8 '54

Mile high center, Denver, Colo. il plans diag Arch Rec 115:204-5 Ap '54

Moscow's eight new Woolworth buildings. il Arch Forum 100:160-1 Mr '54

N.Y. skyscraper to be named the Socony-Vacuum building. Eng N 151:26 Jl 30 '53

Rigid-frame welded skyscrapers. il diags Arch Forum 99:138-9 Jl '53

Skyscraper enclosed fast with two-story panels. il plan diags Eng N 151:43+ Ag 13 '53

Skyscraper renaissance. Comp Air Mag 59:21 Ja '54

Unusual facade for Denver skyscraper. il Eng N 151:22 D 3 '53

Welding a tall building to take high wind loads; Ainsley building, Miami, Fla. A. Oboler. il Eng N 152:38-9 F 11 '54

HIGH frequency heating. See Electric heating, Industrial—High frequency heating

HIGH pressure plants. See Steam plants—High pressure

HIGH school students

Getting a friendly grip on your future employees; industrial managers of Evansville, Ind. produce textbook to show high-school students job opportunities in their home town. il Dun's R & Mod Ind 63:27+ F '54

Hometown jobs; Evansville employers launch stay home, young man, high school course. Bsns W p 116+ Ag 8 '53

San Francisco Bay area holds science fair to let high schoolers display scientific bents. il Chem & Eng N 32:1370 Ap 5 '54

Science camp to foster science careers; pictorial presentation. Chem & Eng N 31:3180-1 Ag 3 '53

Students shun science courses; survey by Future scientists of America foundation of National science teachers association. Chem & Eng N 32:72 Ja 4 '54

What's my line? Dow research directors give high school students their scientific line. Chem & Eng N 32:612 F 15 '54

Employment

High-school recruitment can pay off! abstract. R. M. Smith. Management R 42:592-3 O '53

High school trainees make good; Central national bank, Yonkers. C. S. King. Bankers Mo 71:24+ F '54

Recruiting mineral industry personnel. D. A Pifer. il Min Cong J 40:91-3+ Ag '54

HIGH schools

Life insurance and the changing pattern of education in today's secondary schools. R. W. Kelsey. East Underw 55:90+ pt 2 O 1 '54

HIGH schools—*Continued*

Relation of high-school preparation to college chemistry grades. E. H. Hadley and others. bibliog J Chem Educ 30:311-13 Je '53

Secondary education and its buildings; building types study. il plans Arch Rec 113:165-89 Mr '53

What business expects from high schools. E. de la Ossa. Personnel J 32:56-8 Je '53

HIGH speed photography. See Photography—High speed

HIGH speed steel. See Tool steel

HIGH voltages

Accurately controlled and variable high-voltage supply. R. F. Muraca and others. diags R Sci Instr 24:1152-4 D '53

Design economies in high voltage transmission lines. L. B. Murray and C. P. Ussery. diags Elec World 140:113-16 Ag 24 '53

D-c high-voltage testing; determining insulation values of rotating equipment. il Elec West 111:94 O '53

Higher network voltages in large buildings. D. Beeman and H. D. Kurt. bibliog il plan diags Elec World 141:80-5 Mr 8 '54

Hot subject; 440 volts is much more deadly than 2300 volts. R. L. Miller. Elec World 141:152 F 8 '54; Discussion. 141:170 Mr 8 '54

Protective practices as a criterion for high-voltage transmission design; abstract. H. L. Rorden and R. S. Gens. il Elec Eng 73:161 F '54

Safety in high-voltage testing. A. F. Rohlfs and T. Brownlee. diags Elec Eng 73:115-19 F '54

Stable source of high voltage. L. U. Hibbard and D. E. Caro. bibliog diags J Sci Instr 30:378-80 O '53

240/416-volt three-phase four-wire power and lighting supply for modern industrial plants; abstract. W. Shuler. Elec Eng 72:1110 D '53

HIGHER education. See Education, Higher

HIGHWAY accidents. See Automobile accidents

HIGHWAY administration

How to plan and pay for the safe and adequate highways we need. L. V. Murrow. Civil Eng 23:524-7 Ag '53

Planning and operating turnpikes. C. M. Noble. Am Soc C E Proc 79 [no 214]:1-11 Jl '53

See also

Highway departments

Highway research

Roads—Contracts

Roads—Finance

HIGHWAY associations

See also

Canadian good roads association

HIGHWAY departments

General overhauling of Ontario highways department recommended in consultants' report. Roads & Eng Constr 92:55+ My '54

Highlights of the Ohio Department of highways report. il Pub Works 85:101-2 Je '54

Highway department buildings, Massachusetts; unit prices. plans Eng N 151:84-5 D 3 '53

How Minnesota aids in urban widening. O. L. Kipp. il Roads & Sts 96:63-4 D '53

Protest made to Ohio highway director over method used to hire consultants. Eng N 152:22 Ap 29 '54

Reorganization of the Ontario Highways department. Roads & Eng Constr 92:33-4 Jl '54

See also

Radio telephone—Highway department use

Employees

Classroom on wheels for California state highway equipment men. il Roads & Sts 96:86 N '53

How Texas engineers swap ideas; monthly bulletin serves as an exchange of ideas, methods and experiences. il Roads & Sts 96:58+ D '53

Equipment

Aveling-Barford's new maintenance grader. il Roads & Eng Constr 92:98 Ap '54

Equipment for roadside maintenance. il Pub Works 85:74-5 Jl '54

Fresno shop crew improvises; revamped machines ease work. il Eng N 151:49-50 S 17 '53

Highway vacuum cleaner picks up roadside trash. M. McMillin. il Pub Works 85:87-8 Jl '54

How a central equipment agency can perform. H. R. Richardson. Pub Works 84:96-7 N '53

New weapon used in berm warfare. il Eng N 151:59 Jl 16 '53; Pub Works 85:98 Jl '54

Pavement marker spray paints equipment in the winter. C. K. Rush. il Pub Works 84:67 D '53

HIGHWAY engineering

Accelerating fill settlement with explosives on a Massachusetts highway. H. F. Church, jr. il Explosives Eng 31:112-15 Jl '53

Construction of the Inter-American highway. E. W. James. Am Soc C E Proc 79 [no 350]:1-14 N '53

Dallas road project 75 per cent complete. il Eng N 151:60 Ag 20 '53

Fast work planned on Ohio turnpike. il map diag Eng N 152:32-4+ F 11 '54

Hawaii builds mountain highways, feature realignment and tunnels. il Eng N 152:54-6 Mr 25 '54

Innovation in primary road program in Delaware. R. A. Haber. il diags Am Soc C E Proc 79 [no 221]:1-9 Jl '53

Interstate route and its urban connections. D. W. Ormsbee. maps diags Am Soc C E Proc 79 [no 329]:1-13 N '53

Mountain boulevard; West Virginia joins the turnpike parade. C. H. Vivian. il map Comp Air Mag 58:296-305 N '53

Mountain turnpike goes into home stretch. il map Eng N 152:30-2+ Mr 25 '54

New York state thruway; Authority pushes work on 427-mile New York-Buffalo section. B. D. Tallamy and others. il map diags Civil Eng 23:735-57 N '53

New York thruway takes form. C. H. Vivian. il maps Comp Air Mag 59:2-8 Ja '54

New York thruway's big year. il map plan diag Eng N 151:38-40 Jl 2; 51-2+ Jl 16 '53

Oregon pioneers, with Nation's longest toll-free controlled-access road. il maps Roads & Sts 97:48-52+ F '54

Relation between the automobile and the highway; abstract. K. A. Stonex. Roads & Eng Constr 92:142+ Ap '54

Soil-cement and concrete roads; abstracts of papers. Engineering 176:681-2, 724 N 27-D 4 '53

Thruway symposium; abstracts of papers. Roads & Sts 96:46+ D '53

Tough terrain conquered by builders of West Virginia turnpike. C. H. Peterson. il maps diags Civil Eng 24:74-80 F '54

See also

Bridge design

Bridges

Expressways

Highway research

Pavements

Roads

Snow removal

Streets

Bibliography

Digest of current technical literature. J. C. Black. Roads & Sts 97:56+ Ja '54 [cont monthly]

Highway and airport digest. Published in monthly numbers of Public works

Study and teaching

Highway engineering educational programs and problems. H. E. Davis and R. A. Moyer. Am Soc C E Proc 79 [no 236]:1-13 Ag '53

Highway engineers; Florida to hold three-year training program. Eng N 151:27 Jl 23 '53

Wanted, civil engineers; recruiting engineering students among high-school lads in Michigan with contractor association, college and highway department cooperation. C. J. Carroll. Roads & Sts 96:96-7+ N '53

HIGHWAY engineers

State, county road engineers get tips on how to cut costs; first national conference on local highway problems. Eng N 151:23 O 1 '53

HIGHWAY law

Expressway programs need good legal tools. D. R. Levin. il Roads & Sts 97:50-4 Je '54

Our first need; better administrative laws. L. R. Morony. Roads & Sts 97:115-16 F '54

Right of access in law and in morals; abstract. J. Hutton and C. W. Phillips. Roads & Sts 97:110 F '54

HIGHWAY officials

Western association of state highway officials annual meeting, Santa Fe, Oct. 7-9; abstracts of papers. Roads & Sts 96:56-8 N '53

Directories

City and town road officials; incorporated cities, towns and villages of Canada. Roads & Eng Constr 92:274+ Je '54

Provincial highway officials; organization charts, provincial departments of highways, Canada. Roads & Eng Constr 92:76+ Je '54

Township road officials in Ontario. Roads & Eng Constr 92:262+ Je '54

HIGHWAY officials, American association of state. See American association of state highway officials

HIGHWAY postal service. See Postal service, Highway

HIGHWAY research

Broad highway research program launched in Texas. Roads & Sts 96:62 D '53

More and broader research. T. H. MacDonald. Roads & Sts 97:73 Mr '54

See also

Roads—Testing

Roads, Experimental

HIGHWAY research board

Annual meeting, Washington; abstracts of papers. Roads & Eng Constr 92:138+ Ap; 108-11+ My '54

HIGHWAY transportation

Commercial-motor manufacturers; 9th Henry Spurrier memorial lecture. H. Spurrier. Engineering 176:821 D 25 '53

Good roads are the business of the small business men. E. D. MacPhee. Roads & Eng Constr 92:126+ My '54

Highway transportation conference, Washington. Roads & Sts 97:54-5+ Ag '54

How we have outgrown our new transportation arteries. W. L. Radford. il Mag of Wall St 93:658-60+ Mr 6 '54

Mass transportation; can we afford it? M. Nadler. Civil Eng 23:829 D '53

Safe and adequate highways are Canada's greatest need. D. C. Gaskin. Roads & Eng Constr 92:88+ Jl '54

Trends in traffic volumes, vehicle types, and weights, 1952. Pub Roads 27:235-47 D '53

Trucks; haul more finished steel. J. B. Delaney. Iron Age 172:71 Jl 16 '53

Wanted, a new lubricant. F. D. Merrill. Am Pet Inst Proc 33(1):43-6 '53

See also

Motor bus lines

Motor trucks in freight service

Railroads—Motor vehicle auxiliaries

Road traffic

Roads

Street traffic

Trailers

Cuba

Cuba establishes plan to control transport. For Comm W 50:20 O 5 '53

Great Britain

Lorries for sale. Economist 169:601-2 N 21 '53

Plans for road haulage. Economist 170:256 Ja 23 '54

HIGHWAYS. See Roads

HILDEBRAND, Joel Henry, 1881-

Hildebrand receives Gibbs award for teaching and research. por Chem & Eng N 31:4194 O 12 '53

HILLMAN, Michigan

See also

Electricity supply—Hillman, Michigan

HILLS, Ray L. 1888-

Sketch. por East Underw 55:46+ S 17 '54

HILLSIDE architecture

Hillside houses. il plans diags House & Home 4:130-41 Jl '53

Hillside restaurant gives Seattle diners a view of their city. il plan Arch Forum 98:148-9 My '53

How to hit pay dirt on a hillside. il plans diags House & Home 4:90-115 D '53

New way to build on a hillside. il plan diag Am Bld 75:236-8 O '53

Planned for outdoor living on a hillside. il plans Arch Rec 113:164-5 Ap '53

Platform house is lifted on stilts to command an otherwise invisible view. il plans diag House & Home 2:118-23 O '52

Raised basement expands hillside house; residence of William Wallace Landsberg. il plans diag Arch Rec 113:162-5 Je '53

Two hillside houses planned to take advantage of view. il plans Am Bld 75:82-3 Mr '53

HILTON-DAVIS chemical company

Dyes for Dixie. il Chem W 75:68+ Ag 21 '54

King-size lilliputian. il Chem W 74:38 Ap 24 '54

HINDE and Dauch paper company

Combination of West Virginia pulp and paper co. and the Hinde & Dauch paper co. Tappi 36:sup92A+ O '53

HINGES

Self-closing gate. J. Abig. diag Power Eng 58:93 F '54

HIPPARION. See Mammals, Fossil

HISTAMINE

Histamine in tissue mast cells. J. F. Riley. bibliog Science 118:332-3 S 18 '53; Discussion. W. E. Ehrich. 118:603 N 13 '53

HISTAMINE, Analogs of

1,2,4-Triazole analogs of histamine. C. Ainsworth and R. G. Jones. bibliog Am Chem Soc J 75:4915-18 O 20 '53

HISTOPLASMOSIS

Histoplasmin sensitivity in Mississippi; a new boundary. R. M. O'Neal. map Pub Health Rep 68:714-16 Jl '53

HISTORIC houses

Historic Monticello being air conditioned. il Heating-Piping 25:120 N '53

HLASIWETZ, Heinrich (Hermanm Christian), 1825-1875

Hlasiwetz and Barth; pioneers in the structural aspects of plant products. V. F. McConnell. bibliog por J Chem Educ 30:380-5 Ag '53

HO, Chi Minh, 1894-

Retrospect on Ho Chi Minh. Economist 168:33-4 Jl 4 '53

HOBBIES

Answer to pressure; survey of research executives' hobbies. Chem W 74:62+ My 8 '54

Have a hobby for boredom-proof retirement. W. E. Johnson. il Banking 46:52 Ag '53

Make a hobby out of your job; Douglas aircraft co., hobby shop. il Mill & Factory 54:126 Mr '54

These fads have built a billion-dollar business; painting, scrabble, pets. il Bsns W p78-80+ N 28 '53

See also

Railroads—Models

Workshops, Home

Bibliography

How-to-do-it books; a selected guide. R. E. Kingery. 2d ed rev 262p R. R. Bowker co, 62 W. 45th st, New York 19 '54 ($4.50)

HOBBING

High-speed hobbing proved practical in extensive tests. J. W. Rapp. il Tool Eng 32:77-80 Je '54

High-speed hobbing results in important savings. il Mach 60:176-83 Ap '54

HOBBING machines

See also

Gear cutting machines

HOBBS, Russell D. 1886-

Sketch. por Nat Underw 58:1+ Ap 29 '54

HOFFMAN, Maxwell L.

Sketch. por East Underw 55:3 Ja 8 '54

HOFMANN degradation

Hofmann degradation of *cis-* and *trans*-2-phenylcyclohexylamines. R. T. Arnold and P. N. Richardson. bibliog Am Chem Soc J 76:3649-51 Jl 20 '54

Hofmann degradation of tropinone methiodide. G. Büchi and others. bibliog Chem & Ind p 1063 O 3 '53

HOFMANN reaction
Stereochemical course of Hofmann elimination in reduced heterocyclic amines. J. McKenna. bibliog Chem & Ind p406 Ap 3 '54

HOGABOOM, George B. 1874-1953
Sketch. por Metal Finishing 52:118-19 F '54

HOISTING
Facts about modern hand hoists; power hoists. diags Mill & Factory 54:262-3 My '54

Safety measures

How to make sure your slings are safe. B. R. Craig. diags Iron Age 172:144-6 Jl 9 '53

Load-bearing chain. Nat Safety N 69:173 Mr '54

No mystery about chain failures. N. J. Gebert. il diags Nat Safety N 68:30-1 N '53

HOISTING machinery
Facts about modern hand hoists; power hoists. diags Mill & Factory 54:262-3 My '54
Hoists win over pits at Detroit street railways. il Bus Transportation 33:34 Ag '54
Mobile hoist. il Engineering 177:21 Ja 1 '54
Pullback device making derrickman's job easier. il plan diag World Oil 137:144+ D '53
Speeds sewer pipe, chimney flue handling; off-bearing hoist assembly. il Brick & Clay Rec 124:58 Je '54
Streamlining construction. il Steel 133:323-4 O 12 '53

See also
Cranes, derricks, etc.
Mine hoisting
Wire rope

Safety measures

Hoists and portable cranes. Nat Safety N 69:179 Mr '54

HOISTING machinery, Electric
Automatic headgear for tunnel driving. O. Dawson and A. S. Bertlin. il diags Engineer 196:552-4 O 30 '53
Give your back a rest, use power hoists. R. H. Wilcox. il diags Mill & Factory 55: 102-4 S '54

See also
Mine hoisting, Electric
Winches, Electric

HOLDING companies
Advantages of utility holding companies. J. F. Childs. Pub Util 53:240-1 F 18 '54

See also
Alleghany corporation
Banks and banking—Holding companies

Laws and regulations

Rule U-50 change asked by SEC, will amend competitive bidding on securities. Elec World News ed 140:48 D 7 '53

Securities

Bargains in break-ups; utility reorganizations still offer opportunities. O. Ely. Barron's 33:13-14 O 5 '53

HOLDING devices
Facts about modern grips and grabs. il Mill & Factory 54:280 My '54
Honeycomb fixture holds rings flat during quenching. E. Taylor. diags Am Mach 98: 146 Ag 16 '54
Special fixtures speed army tractor hull welding; Allis-Chalmers mfg. co. H. W. Lindsay. il Am Mach 97:113-17 O 26 '53

HOLDING devices (machine work)
Floating reamer-holder for knee tools. D. Moore. diag Am Mach 98:116 Ag 30 '54
Handbook of workholding devices. H. E. Linsley. il diags Am Mach 97:129-44 O 26 '53

Hinged toolholder planes parallel grooves. H. M. James. diags Am Mach 98:181 S 13 '54

Latest methods for magnetic work holding. F. Suchanek. il diags Tool Eng 33:77-8 Ag '54

Rotating toolholder shapes die openings. H. Gifford. diags Am Mach 98:126 Mr 1 '54

Tooling and portable tools; handling and holding. diags Am Mach 97:C 17-18 Mid-N '53

Versatile V-block for the diemaker holds unusual shapes. W. M. Halliday. diags Mach 60:204-6 F '54

See also
Machine tools—Fixtures

HOLIDAYS
Holiday pay for employes on furlough; Standard lime and stone co. N. C. Rockwood. Rock Prod 57:49+ S '54

See also
Bank holidays

HOLLAND, Clifford M. 1883-1924
Memorial bust is unveiled. Civil Eng 24:41 Ja '54

HOLLAND. See Netherlands

HOLLINGSHEAD, R. M., corporation
Spreading in specialties. il Chem W 73:53-4 Ag 15 '53

HOLLINGSWORTH and Whitney company
Hollingsworth & Whitney may become Scott division. il Paper Tr J 138:17 Ag 13 '54

HOLLYDAY, Guy T. O. 1892-
Former mortgage banker president, to head FHA. pors House & Home 3:37 Ap '53

HOLMES, Harry N. 1879-
Holmes of Oberlin honored. por(cover) Chem & Eng N 32:1322-3 Ap 5 '54

HOLMIUM
Slow neutron resonances in holmium, thulium, and lutetium. H. L. Foote, jr. and others. bibliog Phys R 92:656-9 N 1 '53

Nuclear reactions

Decay of Ho^{166}. A. W. Sunyar. bibliog diag Phys R 93:1345-7 Mr 15 '54
Neutron-deficient activities of holmium. T. H. Handley. Phys R 94:945-6 My 15 '54

HOLOCELLULOSE
Isolation of holocellulose from wood. B. L. Browning and L. O. Bublitz. bibliog Tappi 36:452-8 O '53

HOME appliances. See Domestic appliances

HOME builders, National association of. See National association of home builders

HOME economics
See also
Domestic appliances
Food
Heating
Laundry

Study and teaching

No eyes to see; Western Pennsylvania school for the blind; Westinghouse sells new appliances to the school at half price. il Sales Management 71:28-9 Ag 15 '53

HOME economists
How the home economist can aid in marketing chemical specialties. E. Konnak. il Soap & San Chem 30:134-5+ F '54

HOME mechanics. See Mechanics, Household

HOME ownership
Home ownership and prices show gains between 1940 and 1950. R. Y. Giles. Ptr Ink 244:29 S 18 '53
1953 survey of consumer finances; housing of consumers. T. Smith and J. Frechtling. Fed Res Bul 39:816-21 Ag '53

Finance

Construction loans for self-builders; Derby (Connecticut) savings bank. J. F. Dedman. Banking 46:101 Ag; 87-8 S '53

HOME power plants. See Electric generator sets, Domestic

HOME shows. See Household products industries—Exhibitions

HOME study. See Correspondence schools and courses

HOME workshops. See Workshops, Home

HOMES, Institutional
See also
Nursing homes

HOMOFERREIRIN
Synthesis of homoferreirin. K. G. Neill. Chem Soc J p3454-5 N '54

HOMOPROGESTERONE
Preparation of D-homoprogesterone and D-homo-11-deoxycorticosterone acetate. R. M. Dodson, P. B. Sollman and B. Riegel. bibliog Am Chem Soc J 75:5132 O 20 '53

HOMOSERINE
Enzymatic reduction of β-aspartyl phosphate to homoserine. S. Black and N. G. Wright. bibliog Am Chem Soc J 75:5766 N 20 '53

HOMOTATTIC surface (term)

Homotattic surface, a suggested new word. C. Sanford and S. Ross. J Phys Chem 58:288 Mr '54

HOMOVERATRYLAMINE

Selective demethylation of homoveratrylamine. K. E. Hamlin and F. E. Fischer. Am Chem Soc J 75:5119 O 20 '53

HONEY

Continuous honey processing; Canadian first. G. F. Townsend and M. G. Barrington. bibliog il plan Can Chem Process 37:24+ D '53

HONEYDEW

Fructomaltose, a recently discovered trisaccharide isolated from honeydew. H. E. Gray and G. Fraenkel. bibliog Science 118:304-5 S 11 '53

HONG KONG

Entry port fizzling? Chem W 74:18 My 15 '54

Hong Kong, too busy to be frightened. il Bsns W p 164-6 O 17 '53

HONING

Barnesdril honing tools. il Mach 60:226-7 D '53

HONING machines

BarnesdriL electronic honing machine. il Automobile Eng 44:170 Ap '54

Machine tool buyers' guide; grinding, honing and lapping machines. il Steel 133:120-31 sec 2 N 16 '53

Replace with modern machine tools; grinding, lapping, honing. il diags Am Mach 97:B 15-20 Mid-N '53

HONOLULU

Hotels, restaurants, etc.

SurfRider hotel. il plans Arch Forum 98:98-105 Ja '53

HONOLULU oil corporation

Output and price gains boost net. Barron's 33:23 S 21 '53

HOOKE, Robert, 1635-1702

Historical notes on the wet-processing industry; role of R. Hooke. S. M. Edelstein. Am Dyestuff Rep 43:315-16 My 10 '54

HOOKER, H. Lester

H. L. Hooker, sixty minuteman. J. J. Kilpatrick. Pub Util 53:27-34 Ja 7 '54

HOOVER commission. See United States—Executive departments

HOOVER dam. See Colorado river—Hoover Dam project

HOPE, Edward, 1886-1953

Sketch. S. G. P. Plant. Chem Soc J p3730-2 N '53

HOPPERS

Better distribution with high speed tops. H. W. Campbell and C. P. Johnson. il Steel 134:96+ F 1 '54

Don't be fooled by an irregular hopper. C. A. Lee. diags Chem Eng 61:218 My '54

Hopper for tight spots; Union metal mfg. co. il Steel 134:125 F 8 '54

Hoppers in staging area pay for themselves; Western brick co. il Brick & Clay Rec 124:58 Je '54

HOPS

Chemistry of hop constituents; the structure of cohumulone. G. A. Howard and A. R. Tatchell. Chem Soc J p2400-5 Jl '54

Spectrophotometric determination of humulone complex and lupulone in hops. G. Alderton and others. bibliog Anal Chem 26:983-92 Je '54

See also

Humulone

HORIZONS, inc.

Believers in the big man. Chem W 74:105-6 My 15 '54

HORMONES

Cornell researchers achieve first synthesis of polypeptide hormone. Chem & Eng N 31:4108 O 5 '53

Hydroaromatic steroid hormones; the androgenic activity of D-homobisnorsteroid. A. J. Birch and J. A. K. Quartey. bibliog Chem & Ind p489-90 My 16 '53

New high for hormones; first successful synthesis of a polypeptide hormone. Chem W 73:56 O 17 '53

New hormone quest; goal of probe is synthetic aldosterone. Chem W 75:46+ S 18 '54

Some problems in the manufacture of steroid hormones; abstract and discussion. C. L. Hewett. Chem & Ind p 1313-14 D 5 '53

Steroidal hormone relatives; the synthesis of 4-(*m*-carboxyphenyl)-3-(*p*-hydroxyphenyl)-2-hexanone. J. H. Burckhalter and others. bibliog Am Chem Soc J 76:4112-15 Ag 20 '54

Steroids; synthesis of steroidal hormone analogs hydroxylated at C-2. F. Sondheimer and others. bibliog Am Chem Soc J 75:4712-15 O 5 '53

Steroids; synthesis of steroidal hormone analogues hydroxylated at $C_{(6)}$. C. Amendolla, G. Rosenkranz and F. Sondheimer. Chem Soc J p 1226-33 Ap '54

Synthesis of cortical hormones *via* 5α-hydroxy-steroids. P. Bladon and others. Chem & Ind p945 S 5 '53

See also

ACTH
Adrenal glands—Hormones
Cortisone
Estradiol
Estrone
Hydroxycorticosterone
Oxytocin
Pregnenolone
Progesterone
Testosterone

Analysis

Estimation of water content of small amounts of proteinaceous material. H. Sobel. Anal Chem 25:1756 N '53

HORMONES, Plant

Effects of fertilization and growth-regulating substances (hormones) on carbohydrate and hexose-phosphate metabolism during the early stages of growth of corn kernels (fruit). E. Marrè and A. E. Murneek. bibliog Science 117:661-3 Je 12 '53

HORSEPOWER

Graphical solutions for power engineers; figuring air and water horsepower. P. J. Grogan. Power Eng 58:78-80 Ag '54

HORTICULTURE

See also

Electrohorticulture
Nurseries (horticulture)

Directories

Directory of American horticulture for 1954. A. J. Irving, ed. 96p pa $1 American horticultural council, Ithaca, New York '54

HOSE

Check list on use of industrial rubber hose. J. A. Muller. Paper Tr J 138:20 Ag 27 '54; Same. Iron & Steel Eng 31:218 S '54

Importance of rubber hose for material handling. J. A. Muller. Rubber Age 74:914 Mr '54

Metal hose licks a pump problem. il Heating-Piping 25:115 N '53

Selection, care, and handling of industrial hose. C. L. Kenny. il Min Cong J 40:61-2 My '54

See also

Fire hose

Manufacture

Use of air conditioning in the production of braided hose; Gates rubber co. Rubber Age 74:761 F '54

Testing

Investigation of elastomer steam hose for use with saturated steam at a pressure of 200 psi. S. A. Eller. il diags Rubber Age 74:899-902 Mr '54

HOSE, Plastic

Teflon on the wing; to handle synthetic oils and fuels used in jet engines. il Chem W 74:60 F 27 '54

HOSE couplings

Brazing tips for flexible hose. J. R. Summer. il Steel 133:99-100 Ag 10 '53

HOSIERY

Half-hose yarns; effect of spinning system and fiber properties. J. B. Caron. Mod Textiles Mag 34:64-5 N '53

How soap sells hosiery by the millions; unique new box-top joint promotion. il Mod Packaging 27:96-7+ D '53

Nylon in socks; abstract. Am Dyestuff Rep 43:616+ S 13 '54

HOSIERY—*Continued*

Stocking stretchers; nylon hose washing liquid claimed to boost the mileage of stockings. Chem W 72:58+ My 30 '53

Super-selling socks; window carton. il Mod Packaging 27:125 N '53

What keeps a sales force buoyant, loyal and productive? Holeproof hosiery co. D. J. Atchison. Sales Management 73:74-7 Jl 15 '54

See also

Dyes and dyeing—Hosiery

Manufacture

Five tips to reduce hosiery seconds; Shannon hosiery mills. J. H. Blore. il Textile World 104:127+ Ja '54

How to knit colored patterns on Komet hosiery machines. C. E. Martin and C. N. Lawing. il diag Textile World 104:96-7 Jl '54

How Unique knitting co. makes new kinds of argyle socks. J. H. Blore. il Textile World 104:82-3 Ag '54

Princeton hosiery mills, inc. knits Taslan with few seconds. J. H. Blore. il Textile World 104:72-3+ S '54

Savings in hosiery labor costs used for higher-quality materials; Athens hosiery mills. J. H. Blore. il Textile World 104:80-1 My '54

Woolen and worsted spun yarn in hosiery. E. W. Munz. Am Dyestuff Rep 43:266-9 Ap 26 '54; Abstract. Mod Textiles Mag 34:82 N '53

See also

Hosiery machines

HOSIERY dyeing. See Dyes and dyeing—Hosiery

HOSIERY machines

H. E. Crawford mill supply co. new argyle knitter has four-position clutch. il Textile World 104:108 Ag '54

How to get more out of your rib-wrap hosiery machines. P. A. Faucher. diag Textile World 104:82-3 My '54

How to knit colored patterns on Komet hosiery machines. C. E. Martin and C. N. Lawing. il diag Textile World 104:96-7 Jl '54

Intricate new hosiery designs possible with Intarsia machine. il Textile World 104:114 My '54

Modern equipment reduces hosiery costs; Crown hosiery mill. J. H. Blore. il Textile World 104:96-7 Ap '54

Some new approaches to knitting control. W. A. Dutton. bibliog il Textile Inst J 45: P290-9; Discussion. P299-300 Je '54

Cleaning

How Dexdale steam cleans knitting machines in 45 minutes. J. H. Blore. il Textile World 104:90-1 Ag '54

Maintenance and repair

Attention to knitting elements keeps full-fashioned machines busy. K. A. Hahn. il Textile World 104:110-11+ Jl '54

This spare-parts system saves fixers' time; Chipman La Crosse hosiery mills. J. H. Blore. il Textile World 104:124-5+ F '54

HOSIERY mills

Employees

This new method cuts looper-training time. G. H. Ladhams. il diag Textile World 104: 98-9+ Mr '54

Equipment

How Claussner hosiery co. mends and inspects 20 per cent faster. J. H. Blore. il Textile World 104:100-1+ S '54

New handling ideas speed full-fashioned production; Shannon hosiery mills. J. H. Blore. il Textile World 104:118-19+ F '54

New machine inspects 200 dozen stockings per shift. il Textile World 104:114 Ap '54

Management

How to keep full-fashioned costs low; Vanette hosiery mills. H. B. LeFeaux. il Textile World 104:78-9+ My '54

Reduce argyle costs without reducing quality; Atco mills. E. D. White. il Textile World 103:106 D '53

Power

Get cost data from these steam-plant tests; Wisteria hosiery mills. S. Boyer. il Textile World 104:96-7 Ja '54

How we licked our boiler-water problems; Wisteria hosiery mills, inc. S. Boyer. Textile World 104:97 Ag '54

Will an accumulator help this hosiery plant? answers. il diags Power 98:142-4+ Je '54

HOSIERY trade

History and prospects of the hosiery industry. Textile Inst J 45:P225-6 Je '54

Is there any way to escape the ravages of a red-hot price war? Holeproof hosiery co. D. J. Atchison. il Sales Management 73:78-80 Jl 1 '54

Statistics

Hosiery, 1949-1952. Survey of Cur Bsns 1953 Sup p 186 [supplemented in monthly numbers]

HOSPITAL liability insurance. See Insurance, Hospital liability

HOSPITALIZATION insurance. See Insurance, Hospitalization

HOSPITALS

Chicago hospital council releases survey on costs. Weekly Underw 169:330 Ag 8 '53; Same. East Underw 54:30 Ag 14 '53

Conversion of old hospital is a triumph of master planning; Greenwich hospital, Greenwich, Conn. il diag Arch Forum 100:160-1 My '54

Eisenhower asks more federal aid to build hospitals and new stress on nursing homes. Arch Forum 100:127 F '54

Expansible hospital uses two kinds of framing for two kinds of planning; Grossmont district hospital. il plans diag Arch Forum 101:109-11 Ag '54

Facility for use of radioactive isotopes in a general hospital. plans Pub Health Rep 68:449-50 Ap '53

Hospital with a capital H; Lankenau hospital at Overbrook, Pa. il Eng N 152:29 Ap 8 '54

Instituto central do cancer, Sao Paulo. il plan Arch Rec 115:202-5 F '54

Master planning in practice; Johns Hopkins hospital. il plan Arch Forum 100:126-7 My '54

New ideas in lighting and finishing; North Shore hospital, Manhasset, L.I. il plan diag Arch Forum 100:135-9 Ap '54

New thinking on hospitals. il plans diags Arch Forum 98:119-37+ My '53

$7,737 per bed hospital; a case study in cost cutting. il plans Arch Forum 97:129-31 D '52

Today's most-talked-about hospital; Kaiser foundation medical center. il plans Arch Forum 101:108-15 Jl '54

Two developments in hospital equipment and construction. il Arch Rec 115:208-9 Mr '54

Work-corridors are one of the many ingenious tricks in Kaiser's new West Coast hospitals. il plans Arch Forum 99:108-9 Jl '53

See also

Children—Hospitals
Kaiser foundation medical center
Medical centers
Tuberculosis—Hospitals and sanitoriums
United mine workers of America—Hospitals

Accounting

Characteristic problems of hospital accounting. E. L. Zieha. N A C A Bul 35:1025-32 Ap '54

Is depreciation for hospitals good accounting practice? L. Morey. J Account 96:725-6 D '53; Discussion. C. F. Coates. 97:479-80 Ap '54

Air conditioning

Air conditioning a hospital. il Dom Eng 183: 105-6 F '54

Georgia hospital air conditioned. Heat & Ven 51:87 Mr '54

Hospital air conditioning; Beckley memorial hospital, West Virginia. il diag Arch Forum 100:165 Ja '54

How to cut hospital mechanical costs. C. F. Neergaard and G. Conklin. Arch Forum 100:164-5+ Mr '54

HOSPITALS—*Continued*

Costs

Cost to hospitals for Blue cross, other patients about same, Michigan study shows. Nat Underw (Life ed) 57:9 Jl 10 '53

Hospital costs reduced. C. F. Neergaard. il Heating-Piping 25:99-101 N '53; 26:95-7 F '54

Unnecessary hospital use hit as biggest cost increase factor; Michigan. H. F. Becker. Nat Underw 58:10+ S 23 '54; Same. Nat Underw (Life ed) 58:8+ S 24 '54

Designs and plans

Hospital chain 250 miles long; hospitals for beneficiaries of United mine workers' welfare fund. il map plans diags Arch Forum 99:132-9+ Ag; 150-7 S; 132-9 N '53

Hospitals and health facilities; building types study. il plans diags Arch Rec 115:159-90 Mr '54

Parallel block hospital; Sweden's outstanding postwar idea in hospital design, as transplanted in tropical Venezuela. il plans diags Arch Forum 97:112-15 N '52

13 hospital plan details; Druid city hospital, Tuscaloosa. il plans Arch Forum 98:152-4 Mr '53

Electric equipment

Electric carriage in hospitals. R. A. Harvey. Elec J 151:716 S 4 '53

Safety precautions in electronic apparatus, with particular reference to medical applications; discussion. Elec J 151:1677-8 N 20 '53; Elec R (Lond) 153:1177 N 20 '53

Equipment

Everybody said, hospitals are a tough market to sell! Royal metal mfg. co. A. E. Siegel. il Sales Management 70:34+ My 1 '53

New technique speeds oxygen piping installation; Michael Reese hospital. A. Abrahamson. il Heating-Piping 25:102-4 N '53

Oxygen piping systems for hospitals. il diags Heat & Ven 51:75-9 S '54

Finance

Activities of hospital commission reviewed at H & A underwriters conference meeting; abstracts. C. M. Eddy. Nat Underw (Life ed) 58:28-9+ My 7 '54; East Underw 55:47 My 7 '54

Financing of hospital care report contains many recommendations. J. Andrews, jr. East Underw 55:33 Ja 22 '54

Foresees new hospital care patterns. J. Andrews, jr. East Underw 55:42 My 14 '54

Fires and fire protection

Planning fire safety for hospitals. J. Smariga. diags Arch Rec 115:192-6+ Je '54

Food service

Hospital food served a la airline. il Bsns W p 116 S 5 '53

Heating and ventilation

Hospital costs reduced. C. F. Neergaard. il Heating-Piping 25:99-101 N '53; 26:95-7 F '54

Insurance requirements

Urges hospitals to buy BI insurance. J. T. Even. East Underw 55:39 My 14 '54

Lighting

Individual units combine for versatile lighting systems; Grace New Haven community hospital. il Illum Eng 49:292-3 Je '54

Management

Hospitals need business know-how. J. J. Brennan, jr. Harvard Bsns R 32:92-100 S '54

Nurses' homes

See Nurses' homes

Operating rooms

Conductive floor tile helps prevent explosions in operating rooms. il Arch Forum 99:232+ S '53

Psychiatric wards

Psychiatric service in the general hospital. A. G. Guttersen. plans Arch Rec 114:204-12 N '53

Purchasing

Hospitals need business know-how. J. J. Brennan, jr. Harvard Bsns R 32:92-100 S '54

Statistics

Hospital beds in the United States in 1953. J. W. Cronin and others. maps Pub Health Rep 68:425-33 Ap '53

Waste

New plant for hospital sewage; trickling filter treatment plant. R. P. Johnson. flow diag il Water & Sewage Works 101:373-5 Ag '54

Canada

Canadian hospital directory. A. L. Swanson, ed. 156p pa $2.50 Canadian hospital assn, 280 Bloor st. W, Toronto 5 '53

HOSPITALS, Industrial

See also

Medical service, Industrial

HOSPITALS, Military

Hospital policies follow basic principles; private contracts and their relations to veterans' hospitalization program. R. A. Crichton and W. D. Washburn. East Underw 54:27 Jl 24 '53; Same. Life Ins Courant 58:50 S '53; Abstracts. Nat Underw 57:27 Jl 23 '53; Nat Underw (Life ed) 57:2 Jl 17 '53; Weekly Underw 169:133+ Jl 18 '53

How masonry cavity walls were built for 19 story VA hospital. il Eng N 152:40-1 F 4 '54

Nebraska suit may settle liability in A&H-VA cases. Nat Underw (Life ed) 58:33 My 7 '54

HOSPITALS, Psychiatric

Mental hospitals; building types study. D. Blain and others. il plans diags Arch Rec 114:181-212 N '53

New hospital type brings the sparkle of good architecture to the mentally ill; Philadelphia psychiatric hospital. il plans diag Arch Forum 98:118-21 Ja '53

Great Britain

Liberty and lunacy; new Royal commission on the lunacy laws. Economist 169:318-19 O 31 '53

Nursing in mental hospitals. Economist 168:378 Ag 8 '53

HOSPITALS, Veterinary

Warm air heating system for animal hospital. A. Stout. plan Sheet Metal Worker 45:47 N '53

HOT atoms. See Atoms

HOT boxes. See Cars—Bearings

HOT water heating

Central heating system increases; comparative growth of wet-heat and warm air central heating in United States and individual industrial states of New York, Massachusetts and Ohio, over a ten-year period. C. H. Burkhardt. Sheet Metal Worker 45:42-4+ N '53

Effect of high design water temperatures on seasonal fuel consumption. W. S. Harris. Heat & Ven 51:111-12 My '54

High temperature hot water. S. A. Kuli. diags Heating-Piping 26:156-9 Ja; 86-9 F '54; Discussion. 26:69 Ap '54

High temperature hot water system serves Personal Products plant 13 years. L. Smith and S. Senko. il diags Heating-Piping 26:83-6 Jl '54

High temperature water gives low-cost heat at Twenty-nine Palms. J. P. Harrington. flow diag il plans diag Power Eng 58:84-6+ Mr '54

Hot water heating serves Evanston apartments. M. D. Kelischer. il Heat & Ven 51:100 My '54

How heat and ventilate paint spray booth? Heating-Piping 26:146-7 My '54

How is heating system best balanced? apartment building forced hot-water heating system. diags Power 98:132-3 S '54

How to control unit ventilators in school buildings; hot water systems. H. W. Alyea. diags Heating-Piping 25:80-3 D '53

New developments in hot water heating. W. S. Harris. il plans diags Am Bld 75:106-7+ D '53; 76:322-4+ Ja; 142-4+ F '54

HOT water heating—*Continued*

Pipe job, it's big, it's different! Marine corps artillery training center. il Dom Eng 182:64-6+ N '53

Ryaland (Manchester) accelerator pumps for low-pressure heating systems. il Engineer 196:312 S 4 '53

Service hot water piping with gas as source of heat; detail sheet. diags Heat & Ven 51:111-12 S '54

Wet heating systems; how to select and plan them. diags Am Bld 75:106+ Jl '53

Panel system

Field studies of floor panel control systems. A. B. Algren and others. plans Heating-Piping 26:117-27 Ap '54

50 questions and answers on panel heating. R. Bruen. il diags Dom Eng 183:94-8+ F '54

Four zone floor panel system heats new school. J. F. Redding. il Heating-Piping 26:110-11 Mr '54

Heat flow characteristics of hot water floor panels. E. L. Sartain and W. S. Harris. il plan diags Heating-Piping 26:183-91 Ja '54; Abstract. Heat & Ven 51:93 Mr '54; Discussion. Heating-Piping 26:174-5 Mr '54

Heat, ventilate cathedral. A. Walton. il plan diag Heating-Piping 25:71-3 D '53

Surface and water temperatures for radiant heating systems. L. J. LaTart and others. Heat & Ven 51:101-3 F '54

HOT water heating, Industrial

High-temperature water saves industrial dollars. L. J. Murphy. il diags Mill & Factory 54:82-6 Je '54

Hot water heating system for ready-mixed concrete plants. W. J. Shore. diag Rock Prod 57:213 Ag '54

Pumps, boilers, piping join up to cut fuel costs 20 per cent; Synthane corp. H. W. Rambo. il Power 98:122-3+ F '54

Use high-temperature water now to step up efficiency, produce more power. P. Geiringer and F. Hasselriis. il diags Power 98:96-9+ Ap '54

HOT water supply

How much hot water in average home? eight-month research in Columbus, Ohio. il Gas Age 114:16+ Jl 1 '54; Same cond. Dom Eng 184:132-3 Jl '54

How much oil to heat plant water? nomograph. L. J. Murphy. Mill & Factory 53:102 N '53

Service hot water for schools. L. Blendermann. diags Heat & Ven 51:106-7 Je '54

20,000-gal. oil-fired tank supplies hot water for ready-mix concrete plant. G. J. Jonas. il Civil Eng 23:404-5 Je '53

See also
Electric water heaters
Gas water heaters

HOT water tanks

Fluctuating steam loads call for heat storage; survey of accumulator storage methods. L. Walter. diags Textile World 104:120-1+ Mr '54

Piping connections for house tanks; detail sheet. diags Heat & Ven 50:9-10 N '53

Corrosion

Why hot water storage tanks corrode. T. S. Howald. bibliog(28 ref) Gas Age 113:15-18+ Ja 28 '54

Manufacture

Inert-gas shielded welding proves cost saver on steel tanks. W. L. Wyman. il diag Steel 134:106-7 Je 7 '54

HOT weather

Heat and humidity. Nat Safety N 69:65-7 Mr '54

HOTCHKISS, George Burton, 1884-1953

Sketch. por Ptr Ink 243:68 Ap 3 '53

HOTELS

Highway hotels and restaurants; building types study. il plans diag Arch Rec 114:158-77 Jl '53

Hotel Copan, São Paulo, Brazil. il plans diags Arch Rec 114:135-42 O '53

Hotel rooms; design standards and data. H. R. Sleeper. plans Arch Forum 101:150-1 Ag '54

How Hutchinson built a hotel. E. Bush. il Heating-Piping 26:107-9 Je '54

Music inn; they come to play. il Bsns W p 108-12+ S 19 '53

New hotels; SurfRider hotel, Honolulu; El Salvador hotel, Salvador; Shelborne hotel, Miami Beach; Beverly Hilton hotel, Beverly Hills, Calif. il plans Arch Forum 98:97-117 Ja '53

New shape and structure; help Statler reduce hotel costs to $9,350. il plans diags Arch Forum 100:136-43 Je '54

Progress of the hotel industry. E. Henderson. Comm & Fin Chr 179:464 Ja 28 '54

Statler center, Los Angeles. il plans Arch Rec 113:127-36 My '53

Story of the new Dallas Statler. il plans diags Arch Rec 115:158-63 Je '54

Air conditioning

Air conditioning an operating hotel. G. Savage. il Heat & Ven 51:100-2 S '54

Choice of systems for hotel air conditioning; abstract. S. Nicholson. Heat & Ven 51:80 Jl '54

Remodeling with air conditioning. il Arch Forum 98:162 Ap '53

Cleaning

Cleaners for Puerto Rico's new Caribe Hilton hotel. il Soap & San Chem 29:46-8 Ap '53

Designs and plans

Hotel that research built; Hartford Statler. il map plans diags Arch Forum 98:138-47 Ap '53

Directories

1954 convention hotel blue book. Sales Management 72:1-152 pt 2 Ap 15 '54

Electric equipment

Angel hotel, Guildford. Elec J 151:1679-80 N 20 '53

Teleprinter installation for hotel room service. il diag Elec Com 30:171-3 S '53

Equipment and supplies

Guest-proof hotels; chemicals makers have continuing challenge and profitable outlet. il Chem W 73:38+ N 28 '53

Room service; hotel men balance their budgets with gadgets. N. Willatt. Barron's 34:15+ Ja 11 '54

Lighting

Lighting makes a garden room; Hotel Kirkwood. il Illum Eng 49:377 Ag '54

Power

Luxury with foresight; hotel equipped with emergency stand-by power. il Diesel Power 32:43 Ja '54

Statistics

Average sale per occupied room, rooms occupied, restaurant sales index, 1949-1952. Survey of Cur Bsns 1953 Sup p 118 [supplemented in monthly numbers]

HOUDRIFLOW process. See Gasoline—Manufacture

HOUDRIFORMING. See Gasoline—Manufacture

HOUDRY, Eugene J. 1892-

Man of the month. por Chem Eng 60:317-18 O '53

HOURS of business. See Banks and banking—Hours of business; Gasoline service stations—Hours of business

HOURS of labor

Salaries and hours of work in government service; an international comparison. Int Labour R 68:407-18 O-N '53

See also
Night labor
Overtime

Law

Bringing more workers under Wage-hour. Bsns W p 174-5 N 28 '53

Most jobbers under Wage-hour law. Nat Pet N 46:19-20 Ja 27 '54

State hour laws for women. U S Women's Bur Bul 250:1-114; pa 40c Supt. of doc. '53

Shift schedules

Where two shifts pay. Economist 168:595 Ag 29 '53

HOURS of labor—*Continued*

Statistics

Earnings and hours. Published in Monthly labor review
General level of hours of work; hours of work in manufacturing, by countries, 1937-Sept. 1952. Int Labour R Stat Sup 67:72-3 Mr '53 [cont quarterly]
Labor conditions; average weekly hours per worker in manufacturing and nonmanufacturing industries, 1949-1952. Survey of Cur Bsns 1953 Sup p62-7 [supplemented in monthly numbers]
Metalworking wages and hours; production workers; employment; tabulations. Steel 134:196 Ja 4 '54
Steel employment, wages, hours and payrolls, 1938-1953; tabulations. Steel 134:197 Ja 4 '54
Union wages and hours; building trades, July 1, 1953. J. F. Laciskey. U S Bur Labor Statistics Bul 1152:1-34; pa 30c Supt. of doc. '54
Union wages and hours compared; with tables and charts. Eng N 151:131 O 8 '53
Union wages and hours; local transit operating employees, July 1, 1953. A. Moros. U S Bur Labor Statistics Bul 1153:1-10; pa 15c Supt. of doc. '54
Union wages and hours; motortruck drivers and helpers, July 1, 1953. U S Bur Labor Statistics Bul 1154:1-39; pa 30c Supt. of doc. '54
Union wages and hours: printing industry, July 1, 1953. A. Moros. U S Bur Labor Statistics Bul 1155:1-40; pa 30c Supt. of doc. '54
Wages and hours in selected industries, 1952-1953; tabulations. Steel 134:198 Ja 4 '54

HOUSE decoration
How fresh decorating helps sell old houses. il plans diag House & Home 4:142-55+ O '53
See also
Color in house decoration

HOUSE decoration, Interior
Space definition within the house. il diags Arch Rec 115:164-9 My '54

HOUSE lighting
Changing house; electricity and lighting. diag Am Bld 76:134-6 Ag '54
How to plan and sell your next house; better wiring and better lighting. il House & Home 3:166-9 My '53
Light conditioned kitchen and living room. il plan diag Am Bld 75:130-1 Mr '53
My most interesting lighting job; my own home, West Vancouver. H. H. Arnold. il Elec West 111:99 S '53
People want better lighting. il House & Home 5:166-7 My '54
Televue light for a small house. il diags Am Bld 75:227 Ag '53

History

Changing house; lighting. A. Page. il Am Bld 76:137-43 Ag '54
Story of domestic lighting. T. Coulson. il Franklin Inst J 256:205-28 S '53

HOUSE of commons. See Great Britain—Parliament—House of commons

HOUSE organs
Company publication tells the world; Northern natural gas co. W. J. Quinlan. Pub Util 52:680-5 N 5 '53
How to edit and distribute a company-sponsored magazine. A. M. Andersen. il Sales Management 71:89-93 N 1 '53
Plan your company publication like a best read ad. R. Fox. il diag Ind Marketing 39:72+ F '54
Tell 'em what's new and capitalize; company news letters. il Sales Management 71:124+ Ag 15 '53
Varied story-telling methods put sell in Du Pont magazine. il Ind Marketing 39:52-3 Mr '54
See also
Employees' magazine

HOUSE organs, Internal. See Employees' magazines

HOUSE painting
How to apply masonry paint. il Am Bld 76:340-1 Ja '54
Multi-colored enamel offers wide variety of wall finishes. Am Bld 75:232-3 O '53
See also
Color in house painting

HOUSE-to-house selling. See Door-to-door selling

HOUSE trailers. See Automobile trailers

HOUSEHOLD appliances. See Domestic appliances

HOUSEHOLD employees. See Servants

HOUSEHOLD finance corporation
Debenture offerings completed. Comm & Fin Chr 178:1057 S 21 '53

HOUSEHOLD products
See also
Domestic appliances

HOUSEHOLD products industries
How the home economist can aid in marketing chemical specialties. E. Konnak. il Soap & San Chem 30:134-5+ F '54
Rack jobbers seek new wares for supers; can your line meet their specifications? A. Levis. il Sales Management 71:76-8+ O 15 '53
See also
Furniture industry and trade

Exhibitions

Home shows become big business. Eng N 151. 64+ N 12 '53

Canada

Canada shows advance in home conveniences. For Comm W 51:2 F 15 '54

HOUSEHOLDERS' protective floater insurance. See Insurance, Householders' protective floater

HOUSER, Theodore V. 1892-
For Sears; end of an era is at hand. por Bsns W p 182 N 28 '53

HOUSES
Better design or else; guest editorial. A. Brockbank. il House & Home 4:146-7 S '53
Big builder Levitt does it again; 1954 Country Clubber. il plans Am Bld 76:90-4 Mr '54
Big change in builders' houses; with views and plans. House & Home 5:92-133 Ja '54
Big market is under $10,000. il plan Am Bld 75:100-1 Je '53
Bringing construction savings to the small towns. il plan Am Bld 75:284+ O '53
Builders $16,950 house has rich relations. il plans diags House & Home 4:103-11 S '53
Can your houses pass this test? House & Home 5:154-5 Je '54
Cleveland's idea houses highlight design features for new building or modernization; with views and plans. Am Bld 76:24-5 Ag '54
Coach room; how to make a two-bedroom house grow. il plans Am Bld 75:279-80 O '53
Company surveys family needs, then builds houses to fit. il plans diags Am Bld 75:74-6 N '53
Create an outdoor living-dining room in your breezeway. il plan diags Am Bld 75:138-9 Mr '53
Design and low cost good formula for '53. il plans Am Bld 75:212-13 Je '53
Economics of trees. J. R. von Sternberg. il plan House & Home 3:130-5 Ap '53
Fastest-selling houses in the USA. il plans diags House & Home 3:119-25 Ap; 160-5 My; 124-9 Je; 4:124-9 Jl; 126-33 Ag; 154-9 S; 146-53 N '53
Four-level house adapted to zone air conditioning. il plans Am Bld 75:67 Jl '53
Frank Lloyd Wright and 1,000,000 houses a year; home of E. V. Brown, Kalamazoo. il plans diag House & Home 3:105-13 Mr '53
Giving a market house the custom look; with views and plans. Am Bld 75:62-4 S '53
Here are four profitable fields of operation for '54. il plans Am Bld 76:271-3+ Ja '54
Here's a way to clinch sales. il plan Am Bld 75:82-3 Jl '53
Here's an 8-room multi-level house. il plan diag Am Bld 75:62-3 Ag '53

HOUSES—*Continued*

House designed around a porch. il plan Am Bld 75:192 S '53

Housing research foundation suggests; excerpts from New frontiers for home builders. C. W. Smith. House & Home 2:152+ N '52

How to build a better slab house; with cost data. il plan diags House & Home 4:142-9 Jl '53

How to hit pay dirt on a hillside. il plans diags House & Home 4:90-115 D '53

How to profit from the Levitts' pioneering; Long Island builder Irving Warfield. il plan House & Home 2:92-3 D '52

If you plan to build low-cost houses on scattered lots your operation will need reorganizing. il plans Am Bld 75:108-11 N '53

Is this 1953's most influential house? NAHB's trade secrets house. il plans diags House & Home 3:99-107 Ja '53

Leaders in '53. il plans Am Bld 75:46-50+ D '53

Low-cost house for '54; with views and plan. Am Bld 75:42 O '53

Low partition effective in reverse split-level plan. il plan Am Bld 75:102-3 Ag '53

Lumber dealer spends $60,000 to promote BH&G house. il plans House & Home 6:144-51 S '54

Lumber dealer's plan helps small builders when land costs soar. il plans Am Bld 75:202-3 Ag '53

National home week throngs and sales reflect strong underlying market demand. il House & Home 4:49+ O '53

100 years of American shelter in flashback and forecast; 1879-1979. il plans diags Am Bld 76:100-48+ Ag '54

1,000 sq. ft. house. il plan diags House & Home 2:114-17 O '52

Place & co. offers $6,195 finish-it-yourself house. il plan Am Bld 76:132-4 My '54

Plan construction of research village with houses by six architect-builder teams; views and plans. Arch Rec 115:10-12 Mr '54

Plan for outdoor living. il plans diag Am Bld 75:102-8 My '53

Plank-and-beam systems for residential construction; design standards and data. H. R. Sleeper. diags House & Home 5:111-15 Je; 6:152-6 Jl '54

Portfolio of selected homes; with views and plans. Am Bld 75:75-81 Mr; 76-82 Je '53; 76:20-1+ Ja; 20-1+ F; 22-3+ Mr; 20-2+ My; 22-3+ Jl; 28-9 Ag '54

Preparing the house for summer cooling. S. Konzo. diags Am Bld 76:226-8 Mr '54

Prove you're offering the best house for the money; it clinches sales! il Am Bld 75:48-9 Ag '53

Sale of contemporary styles surprises builder; with cost data. il plan Am Bld 75:84-7 Mr '53

Scottsdale's house of features. il plan Am Bld 75:50 Ag '53

Simplified framing stressed in this modular modern; views and plans. Am Bld 75:112-13 Mr '53

Skin stress cantilevered truss opens way to new design technique. il plans diags Am Bld 75:51-4 Jl '53

Small house, super storage space. il plan Am Bld 75:62-3 My '53

Something special for the children adds appeal to these houses. il plans diags Am Bld 75:64-5 Ag '53

Stages along life's way with the American house. il Am Bld 76:101-4 Ag '54

Ten architects across country design trend houses. J. C. Smith. il Arch Rec 115:26+ Je '54

This house is a seller; with cost data. il plan Am Bld 75:100-1 Je '53

This ready-made house fits wide or narrow lot. il plan Am Bld 76:295+ Ja '54

Tomorrow's best selling house; architects, builders, lenders and suppliers, round table panel. il plans diags House & Home 3:121-57, 166-78 My '53

Two bath project houses easily sold. il plan diag Am Bld 75:209-11 Je '53

Two hillside houses planned to take advantage of view. il plans Am Bld 75:82-3 Mr '53

Two-level house with a tri-level approach. il plans diag Am Bld 75:60-1 Ag '53

What do people want in new houses? consumer-magazine editors answer. House & Home 5:174-7 My '54

What do people want? review of home selling features. il plans diags House & Home 5:123-67, 172-3 My '54

What is good appearance? il diags House & Home 6:128-42 S '54

What is good construction? il diag House & Home 6:124-7 S '54

What lenders demand in a house. House & Home 5:45+ My '54

What makes this a good house? il plans diags House & Home 3:86-91 F '53

What payments for architect's services on merchant-built houses? House & Home 3:142-3 Ap '53

What's going on in New Canaan. il House & Home 3:132-9 Ja '53

Why don't today's houses use more lumber? il diags House & Home 4:122-33 S '53

Why have all these builders switched to post-and-beam and/or plank-and-beam? il plans diags House & Home 5:98-110 Je '54

You know these ten ways to cut costs, but how many do you use? il plans diags House & Home 3:152-7 Ja '53

Young builders exchange ideas about house for 1955. Am Bld 76:248-50+ Je '54

See also

Apartment houses
Architecture, Domestic
Basementless construction
Concrete houses
Desert houses
Home ownership
House lighting
Housing
National association of home builders
Ranch houses
Steel houses
Tourist camps, hostels, etc.
Vacation houses
Week-end houses

Mechanical equipment

Air-conditioned village; NAHB's big field-testing project. il plans diags House & Home 6:128-43 Ag '54

Air conditioning a 40-year old home. L. L. Richardson. il plans Sheet Metal Worker 45:68-9+ Ja '54

Air conditioning small homes; design standards and data. H. R. Sleeper. plans diags House & Home 6:158-60 Ag '54

Built-in television; detail plate. K. R. O'Neal. il plan diags Am Bld 75:146-7 Mr '53

Changing house; heating and air conditioning. il Am Bld 76:130-3 Ag '54

Latest in multiple dwelling design; air conditioned too! il plans Am Bld 75:94-5 My '53

Life begins at 40; year 'round air conditioning in 40 year old home. il Dom Eng 182:142 N '53

Lower cost, more comfort from proper sizing of air conditioning units. Am Bld 75:226 S '53

1953 home air-conditioning line-up. il House & Home 3:142-3 F '53

Progress in air conditioning. il House & Home 2:148-9 N '52

Put summer cooling in the package. il plans Am Bld 75:82-4 My '53

Sawing and sewing machines designed as utility room appliances. il House & Home 2:124 D '52

20 builder-manufacturer teams launch NHAB air conditioning research project. il plans Am Bld 76:124-6+ Je '54

What happened last summer in air conditioning. il plans diag House & Home 2:134-40 O '52

What's new in air conditioning? il plans diags House & Home 5:106-29 Mr '54

When do window air conditioners make sense? il plan House & Home 6:152-7+ Ag '54

HOUSES, Concrete. See Concrete houses

HOUSES, Model

All-electric living in contemporary style; Wonder homes sponsored by the General electric co. il plan Am Bld 75:100-1 N '53

Building good will by X-ray methods; every construction feature exposed. il plans Am Bld 75:97-9 S '53

HOUSES, Model—*Continued*

Charge off good design to sales; builder Maston O'Neal of Miami leaves his furnished models open and lets his houses sell themselves. il plans diag House & Home 3:134-9 F '53

Conservative New Orleans acclaims air conditioned contemporary; with views and plans. Am Bld 75:78-80 S '53

Department store of homes draws crowds of Houston shoppers. il Bsns W p96-8 O 3 '53

Draw crowds to your model; plan on opening at home show time. il plan Am Bld 76:128-9 Mr '54

For Detroiters, an idea house; Builders association's home show house. il plan House & Home 3:108-9 Ap '53

Full page ad drew 2,000 visitors. il plan Am Bld 75:258 Ag '53

How novel exhibit techniques helped sell 173 three-bedroom houses in three weeks. il plan Am Bld 75:128-9 My '53

How to design and build a mock house for a home show. il plans diags Am Bld 75: 52-3 Mr '53

How to merchandise a model house. il plans House & Home 4:154-7 N '53

How to organize a parade of model homes. il Am Bld 75:100-2+ Mr '53

How to organize packaged selling. il Am Bld 76:258-60+ Je '54

How to plan and sell your next house; 22 ways to get sales from a model house. il House & Home 3:144-9 My '53

How to turn National home week lookers into buyers. il Am Bld 76:92-6 Jl '54

Is public taste getting ahead of most builders? builder Burt Duenke learns by experience that people want better houses. il plans diags House & Home 3:106-13 F '53

Jury names winners in home week contest. Am Bld 76:94-6 Ja '54

Street of model homes; Knoxville home builders' association. il Bsns W p76 S 12 '53

Testing the market with two sample houses. il plans Am Bld 75:42-3 N '53

25 ways to merchandise your houses. il House & Home 5:180-2 My '54

HOUSES, Portable

Relocatable housing gets its biggest test; glued stressed-skin houses at Georgia army post. il House & Home 3:39+ Je '53

HOUSES, Prefabricated

Air conditioned prefab tries cost-cutting utility core. il plan House & Home 4:46 O '53

Basalt introduces the precast concrete home. il diag Rock Prod 57:132-5 Ja '54

Builders turn prefabbers. House & Home 5: 152-3 F '54

Bullish prefabbers predict 20 per cent output rise this year, thanks to easy mortgage money. House & Home 5:47 My '54

California's new best seller; with cost data. il plans diags House & Home 4:93-9 Jl '53

Component construction technique; what is it? diags Am Bld 76:82-3 My '54

First prefab designed around air conditioning. il plans diag House & Home 4:117-19 Jl '53

Here are the new prefabs whose values every builder must meet. il plans diag House & Home 4:102-11 N '53

Home-building wonder; bucking an industry downturn. N. Willatt. Barron's 33:5 O 12 '53

Industry team explores potential of building components. diags Am Bld 76:76-81 Jl '54

Is public taste getting ahead of most builders? builder Burt Duenke learns by experience that people want better houses. il plans diags House & Home 3:106-13 F '53

Lumber dealer is turning prefabber. il plan House & Home 6:144-7 Ag '54

Lumber dealers display avid interest in Lu-Re-Co panel system. il Am Bld 76:82-6 Jl '54

Modular principles; prefabricators' problems. G. S. Clark. diags Am Bld 75:180-2 Ag '53

National homes, biggest prefabber, cuts prices, restyles design to boost volume. il House & Home 4:44 O '53

New prefab subfloor is laid in one hour in a house which boasts five other good ideas; with cost data. il plans House & Home 4:158-60 N '53

Prefab elements used extensively in French housing project. il Eng N 151:60+ S 3 '53

Prefab for '54 features open living. il plans Am Bld 76:307+ Ja '54

Prefabricated houses; more sales for metalworking. il Steel 134:55-6 My 25 '54

Prefabricated houses; should the builder fight 'em or join 'em? il plans House & Home 2:89-113 N '52

Prefabricated structures and structural members. il diags Am Bld 75:317+ Ap '53

Prefabrication goes regional; new Gunnison house is first one designed specially for Southwest climate. il plans diags House & Home 3:150-3 Je '53

Prefabs: will next year be it? Bsns W p70+ D 12 '53

Should every lumber dealer turn prefabricator? il plan diags House & Home 5:154-9 Mr '54

Steelcraft tries prefabs. Steel 133:68 Ag 17 '53

Still another technique; dealer fabricated wall panels, the Lu-Re-Co system. il diags Am Bld 76:88-90 My '54

Structural components arrive on job ready for use. il Am Bld 76:84-5 My '54

This prefab package includes special customer service. il plans Am Bld 75:198-200 My '53

25,000 in '54; prefabricator aims at new high sales level. il plan diag Am Bld 75:180-1 D '53

Two wall systems; modular building blocks combine speed of prefabrication with flexibility of design. il plan diags House & Home 2:111-13 D '52

HOUSES, Remodeled

Burns father and son team conducts rehabilitation experiment. il plans Am Bld 76:165-7 Mr '54

Here's how an old farmhouse got a plywood facelifting. il plans diags Am Bld 75:170-3 D '53

Magic of remodeling, inside and out. il Am Bld 75:252+ S '53

Old houses are moved and modernized for parade of homes; with cost data. il House & Home 4:144-5 N '53

Remodeling is big business. Am Bld 75:199 D '53

Remodeling, long neglected money maker. il Am Bld 76:280-1 Ja '54

Subdivision of reconditioned houses. il Am Bld 76:108-10 My '54

To give old houses better looks, better living; five prototype remodelings. il plans diags House & Home 4:114-29 O '53

See also

Housing finance—
Trade-in policies

HOUSES, Row

Mies van der Rohe row-house. il plans diags Arch Forum 97:108-9 N '52

HOUSES, Steel. See Steel houses

HOUSES, Temporary

Temporary housing; a wartime hangover creates headache for PHA, blight for cities. il House & Home 5:39+ Je '54

HOUSES, Two-family. See Architecture, Domestic—Two-family houses

HOUSING

Can the economy's five per cent dip hurt home sales much? House & Home 5:43 Ja '54

Fight against slums; cities step up rehabilitation programs. il House & Home 3:44-5 Ja '53

Housing design and family values. J. P. Dean. bibliog Land Econ 29:128-41 My '53

Low income family and the too cheap house; round table report. House & Home 2:104-13+ O '52

Over-65 have housing problems. W. Donahue. il plans Am Bld 75:58-64 N '53

Rental housing sold can be listed as capital gain. J. F. McCarthy. Am Bld 75:180-1 My '53

Residential real estate developments. Fed Res Bul 39:809-15 Ag '53

HOUSING—*Continued*

Setbacks for rehabilitation; leaders of Baltimore slum plant quit; Miami jettisons its slum clearance department. il House & Home 3:128-9 Ap '53

Slum fight is on. il Am Bld 76:289-90 Ja '54

Urban redevelopment means $500 million of work in sight. Eng N 152:76 Mr 4 '54

What kind of housing do retired folk want? a 40,000 survey offers some answers. House & Home 3:41 Ja '53

Your development program can be a profit-sharing deal. J. F. McCarthy. Am Bld 75:178 D '53

See also

Architecture, Domestic
Automobile trailers
Building
City planning
Federal housing administration
Housing projects
Rent
Slums
Veterans—Housing

Bibliography

Home builders' guide to reference material; books, pamphlets and brochures; compilation of published source material; (430 titles), prepared for the home building industry by the NAHB, with annotations. Am Bld 76:82-8+ Ap '54

Cost

Construction know-how cuts cost in this fast selling Florida project. il plan Am Bld 75:123-5 Mr '53

Cooperative techniques and effective reduction in housing costs. R. Willcox. Land Econ 29:295-301 N '53

German housing cost ratios. il Eng N 151:162 O 8 '53

Public housing costs in New York city; with charts and table. Eng N 151:147 O 8 '53

Two bath project houses easily sold. il plan diag Am Bld 75:209-11 Je '53

What does a good house cost? three approaches to the budget problem. il plans diags Arch Rec 115:164-9 Je '54

What does a prefab cost? il House & Home 2:108-11 N '52

Finance

See Housing finance

History

Stages along life's way with the American house. il Am Bld 76:101-4 Ag '54

Hygienic aspects

Better housing for cannery workers. Nat Safety N 68:76+ N '53

Negroes

See Negroes—Housing

Statistics

How US cities are growing; with tabulation, new dwelling units authorized by local building permits, 1950-1954. House & Home 5:66+ My '54

Permanent nonfarm dwelling units started, 1939-1952, monthly Dec. 1952-Dec. 1953. Fed Res Bul 40:84 Ja '54 [cont monthly]

Trade-in policies

See Housing finance—Trade-in policies

Baltimore

Role of government in influencing changes in housing in Baltimore, 1940 to 1950. M. Hoffman. bibliog Land Econ 30:125-40 My '54

Birmingham, England

Birmingham's slum scheme. Economist 169:950-1 D 26 '53

Brazil

Brazil; a new oceanside community; Pernambuco Beach development, Guarujá. il plans Arch Rec 115:188-91 Je '54

California

Need for better planning; California architects and clients round table report. House & Home 4:112-13 N '53

Canada

Canada revamps its housing laws on FHA model, but insurance will be 50 per cent cheaper. House & Home 5:39 Mr '54

Chicago

Best answer to rehabilitation is awakened community pride. il Am Bld 76:284-5 Ja '54

Chicago housing authority told that Negro tenant in Trumbull Park was ill-planned. House & Home 5:38 Je '54

Chicago opens new housing court, shakes up building department in fight against blight. House & Home 3:39 F '53

Chicago public housers develop FHA-blessed plan to mix public housing, rehabilitation. il House & Home 5:135 Ap '54

Chicago starts a pilot block rehabilitation project. il House & Home 5:39+ F '54

Chicago; wide variety of apartment sizes. il plans Arch Rec 115:176-8 Je '54

Illinois aims at slum prevention. J. F. McCarthy. Am Bld 75:186-7 Ag '53

News stories on slums jolt Chicago. il House & Home 4:37+ Jl '53

Public housers revise plans to include rehabilitation. il Arch Forum 100:35 Mr '54

Detroit

Detroit gets ahead with city rebuilding. il Am Bld 75:148-51 Ag '53

Europe

Rent policy in western Europe. H. Umrath. Int Labour R 68:211-31 S '53

Germany

German housing cost ratios. il Eng N 151:162 O 8 '53

German roof; it's cheaply built and subsidized but a great achievement. C. R. Hargrove. Barron's 33:5-6 D 28 '53

House probers criticize cost of apartments, shopping center for Americans in Germany. il Arch Forum 98:40-1 Mr '53

Great Britain

Ceiling for houses. Economist 168:842 S 26 '53

Clearing the slums. Economist 169:323 O 31 '53

Comeback in British house building; British mortgage market. M. Bodfish. Comm & Fin Chr 178:2544 D 24 '53

Counting the cost; slum property program. Economist 169:406-7 N 7 '53

Flat shibboleth. Economist 169:648-9 N 28 '53

From bricks to earth. Economist 169:12+ O 3 '53

House maintenance; cost of repairs; repairs and rents; charts. Economist 169:873 D 19 '53

London in east Anglia; London county council's joint housing schemes. map Economist 170:149-50 Ja 16 '54

Pandora's housing box; Housing repairs and rents bill. Economist 169:723-4 D 5 '53

This desirable residence. Economist 168:434-6 Ag 15 '53

Truth dawns in Ebbw Vale. Economist 169:802-3 D 12 '53

Turnips and carrots for repair; Housing repairs and rents bill. Economist 169:803 D 12 '53

Vertical or horizontal living? Economist 168:682-3 S 12 '53

Hammond, Indiana

Impact of a housing boom on city facilities. R. L. Lippman. Pub Works 85:74+ F '54

Houston, Texas

Department store of homes draws crowds of Houston shoppers. il Bsns W p96-8 O 3 '53

Israel

Hot climate problems of Israel. G. V. Parmelee. il Heating-Piping 26:173-4 Mr '54

Houses for Israel's growing population. D. Krivine. Int Labour R 67:262-91 Mr '53

Knoxville

Street of model homes; Knoxville home builders' association. il Bsns W p76+ S 12 '53

London

Living in London; statistics. Economist 169:570+ N 21 '53

HOUSING—*Continued*

Los Angeles

End L.A. housing fight, drop half planned units. Eng N 151:68-9 Ag 20 '53

Peace plan for Los Angeles housing wrangle meets mayor-council approval. Eng N 151:47-8 Jl 23 '53

New Orleans

New Orleans; rental flexibility and patios. il plans Arch Rec 115:182-3 Je '54

New York (city)

Aftermath of Shelley versus Kraemer on residential restriction by race. B. T. McGraw and G. B. Nesbitt. bibliog Land Econ 29:280-7 Ag '53

Public housing costs in New York city; with charts and table. Eng N 151:147 O 8 '53

Relocating slum families. Arch Forum 100:35-6 F '54; Same. House & Home 5:52+ Mr '54

Slum project ok'd; bitter housing battle featured in New York hearings. Eng N 152:192+ F 18 '54

New York (state)

Long Island; state-aided suburban housing. il plans Arch Rec 115:179-81 Je '54

Philadelphia

Rehabilitation, cheaper than new construction; Society of friends get more space at less cost than new construction in Philadelphia experiment. M. Roche. il plans House & Home 4:136-41 O '53

Pittsburgh

Zoning lags? Pittsburgh law blocks housing. O. W. Heselbarth. Eng N 151:45-6 Jl 9 '53

Russia

Soviet policy on urban housing and housing rent. M. F. Parkins. bibliog Land Econ 29:269-79 Ag '53

St Louis

St Louis; high rise buildings and balconies. il plans Arch Rec 115:184-7 Je '54

St Paul, Minnesota

Provide off-street parking Saint Paul tells builders. Eng N 152:48 Ap 22 '54

San Antonio, Texas

Pitfalls in urban rehabilitation; San Antonio homebuilders' fight against slums faces stern test. il House & Home 4:46 N '53

San Francisco

Wrecking crews wind up big slum job. il Eng N 152:173-4+ F 18 '54

Savannah, Georgia

Savannah segregation suit by Negro group threatens entire public housing program. House & Home 2:37 O '52

Toledo

Subdivision of reconditioned houses. il Am Bld 76:108-10 My '54

United States

Action follows fast after round table protest to Hollyday and King on valuations. House & Home 5:140-51 Mr '54

Bigger booms for house building. il Steel 134:76 Mr 8 '54

Changing market for housing. G. Burck and S. S. Parker. il House & Home 5:130-3+ Mr '54

Controversial committee sifts US housing role. House & Home 4:43-4 O '53

Despite harder selling, housing heads for 1.2 million unit year. House & Home 3:126-7 Ap '53

Eisenhower housing plans. House & Home 5:43+ F '54

Eisenhower program for better homes; proposal from homebuilding's leaders. House & Home 3:116-25 Ja '53

'53 seen as year of change for housing with war key to volume. House & Home 3:35 Ja '53

Forecasting capital formation in residential housing. M. D. Ketchum. J Bsns 27:32-40 Ja '54

Housing aid; a new lease. Bsns W p30-1 D 12 '53

Housing; major economy prop in '54. A. K. Rannells. Iron Age 173:86 F 4 '54

Housing policy report; an analysis of the findings of the President's advisory committee on government housing policies and programs plus excerpts from the official report. House & Home 5:supp 1-16 Ja '54

How US cities are meeting the challenge of rehabilitation. il House & Home 4:130-5 O '53

Leaders of attack on blight agree on recommendations to every city; round table report and recommendations. il House & Home 4:100-13 O '53

Middle-income housing; the cooperative snare? C. M. Haar. Land Econ 29:289-94 N '53

New housing bill. House & Home 5:33-5 Mr '54

New law promises a new kind of boom. House & Home 6:152-3 S '54

Overhaul for federal housing policy. Arch Forum 100:144-5 Ja '54

President backs home building aids. Eng N 152:24-5 Ja 28 '54

Public housing wins a reprieve. House & Home 4:37 N '53

Residential construction activity and financing, 1945-1953. L. F. McHugh and B. Beckler. Survey of Cur Bsns 33:15-20+ D '53

Segregation decisions jolt public and private housing. House & Home 6:126-7 Jl '54

State of homebuilding. House & Home 5:37 Je; 6:33-4 Ag '54

U.S. housing group report to the President. M. L. Colean. Banking 46:42-3+ F '54

See also

Federal housing administration

Defense workers

Defense housing cited for design. il plan Am Bld 75:232-3 Ag '53

FHA yields to year's urging, raises defense housing mortgage ceilings in dozen areas. House & Home 3:47 Ja '53

Vacancies in defense housing worry builders. il House & Home 3:45 F '53

HOUSING, Cooperative

Cooperative techniques and effective reduction in housing costs. R. Wilcox. Land Econ 29:295-301 N '53

Middle-income housing; the cooperative snare? C. M. Haar. Land Econ 29:289-94 N '53

See also

Housing projects, Cooperative

HOUSING and climate

Application of clay products in warm climates. W. G. Demarest and C. T. Grimm. Eng N 152:34 Mr 11 '54

Hot climate problems of Israel. G. V. Parmelee. il Heating-Piping 26:173-4 Mr '54

How to build cool houses for the hot and humid American summer. il plans diags House & Home 6:98-125 Jl '54

HOUSING and home finance agency

Assault on the slums. J. C. W. Schale and J. C. Perham. Barron's 33:11-12 Ag 17 '53

Eisenhower finally picks new boss for HHFA; former Representative Albert Cole. House & Home 3:140-1 Mr '53

GOP hits snags finding new HHFA chief. House & Home 3:104-5 F '53

HHFA begins to hold redevelopment funds from cities without rehabilitation plans. House & Home 5:41 F '54

Mortgage bankers, fearful HHFA power grab will imperil FHA, take plea to White House. House & Home 5:41 My '54

Threat to urban redevelopment; HHFA, New York row over coliseum, cause of the trouble. Arch Forum 100:37+ My '54

U.S. housing research program comes to an end. E. Mickel. bibliog Arch Rec 115:24+ Ap '54

HOUSING authorities

Securities

Tax-exempt housing bonds top triple A long-term yields. M. W. Karmin. Barron's 33:26 O 19 '53

HOUSING finance

Builder trades to keep sales volume up. il plans Am Bld 75:48-9 S '53

Congress gives President standby power to reduce down payments. House & Home 4:122-3 Jl '53

Conventional ten-year financing answers tight mortgage situation. il plan Am Bld 75:272-3+ S '53

Eisenhower housing plans. House & Home 5:43+ F '54

Financing the prefabricated house. il House & Home 2:105-7 N '52

Highlights of outstanding residential mortgage debt analysis. H. B. Schechter. House & Home 4:196+ O '53

Home modernizing finance answer to overcrowding. Am Bld 75:249-50 Mr '53

Housing aid; a new lease. Bsns W p30-1 D 12 '53

Housing bill hearings. House & Home 5:33-5+ Ap '54

Housing outlook. Bsns W p 190+ S 19 '53

Housing policy report; an analysis of the findings of the President's advisory committee on government housing policies and programs plus excerpts from the official report. House & Home 5:supp 1-16 Ja '54

Lenders are getting choosy. Bsns W p52+ Ag 1 '53

Misgivings on the secondary mortgage proposal. E. Stone. Spectator 162:38+ Ap '54

New law promises a new kind of boom. House & Home 6:152-3 S '54

Plan for a secondary home mortgage market. M. L. Colean. Harvard Bsns R 31:79-85 N '53

Residential construction activity and financing, 1945-1953. L. F. McHugh and B. Beckler. Survey of Cur Bsns 33:15-20+ D '53

Will government displace the mortgage bankers? W. Moir. House & Home 5:134-5 Ap '54

See also

Federal housing administration

Federal national mortgage association

Bibliography

Home builders' guide to reference material; books, pamphlets and brochures; compilation of published source material, prepared for the home building industry by the NAHB, with annotations; financing. Am Bld 76:220+ Ap '54

Trade in policies

Coming, trade-in market for homes? J. Shoenfeld. Sales Management 71:48+ S 1 '53

FHA gives house trade-ins a tryout. Bsns W p27 Ag 1 '53

How a California builder is launching a trade-in plan. Am Bld 75:156+ D '53

How trade-in selling kicked off this new development. il Am Bld 75:44-6 N '53

No income tax benefits derived from trade-ins. J. F. McCarthy. Am Bld 75:194 Jl '53

Portland builder demonstrates selective trade-in selling. il Am Bld 76:242 F '54

Trade-ins can become big business. il plans diags House & Home 4:156-9 O '53

Trade ins, cream of the crop. il Am Bld 75:154-5 O '53

Trade-ins, the key to a new market. il Am Bld 76:276-7 Ja '54

Truth about trade-ins. il plan Am Bld 75:42-7 Jl '53

HOUSING laws

Aftermath of Shelley versus Kraemer on residential restriction by race. B. T. McGraw and G. B. Nesbitt. bibliog Land Econ 29:280-7 Ag '53

New housing bill seen as spur to building and remodeling. E. C. Spratt. Dom Eng 184:118 S '54

Public works important part of Housing act of 1954. Pub Works 85:100 Ag '54

Illinois

Court upholds validity of Illinois slum prevention legislation. J. F. McCarthy. Am Bld 76:240 Je '54

HOUSING projects

Air conditioning year 'round can help land planning. il plans diags Am Bld 75:109-11 Mr '53

Architects' new frontier, the volume-built house. L. M. Yost and others. House & Home 4:91-2 Jl '53

Biggest homebuilders of 1953. il House & Home 5:40-1 Ja '54

Biggest new city in the US. il plans House & Home 2:80-91 D '52

Building a sales campaign lasting four weeks. il plans Am Bld 75:86-8 Ag '53

Construction know-how cuts cost in this fast selling Florida project. il plan Am Bld 75:123-5 Mr '53

Detroit gets ahead with city rebuilding. il Am Bld 75:148-51 Ag '53

Do tract-house suburbanites want back yard living? il House & Home 4:152-3+ S '53

Four-point program sells $40,000 houses. il plans House & Home 5:142-7 F '54

Handsome project gets ax from Connecticut VA. il plans House & Home 5:136-9 Ap '54

Here's a way to sell houses; Donnay-Reitz inc. use miniature models to help merchandise their homes. il plan Am Bld 76:140-1 Mr '54

High-rise apartments of box-frame construction; with cost data. il plans Arch Forum 100:164-7 F '54

Housing development tailored to a rough site. il map plan diags Arch Rec 114:202-8 S '53

How to merchandise your house. il House & Home 3:150-5 My '53

How to mix houses of varying heights in subdivision planning. il Am Bld 75:204-6 N '53

How to organize packaged selling. il Am Bld 76:258-60+ Je '54

How to plan and sell your next house; people buy neighborhoods. il plans House & Home 3:128-31 My '53

How trade-in selling kicked off this new development. il Am Bld 75:44-6 N '53

Land developer, builder, mortgage banker; starts with raw land, builds 150 houses a year; George Goodyear. il plan diags House & Home 4:112-16 Jl '53

Lesson for builders and architects. il plans House & Home 2:140-7 N '52

Making of towns; two decades of pioneering by Clarence S. Stein and his associates; reviewed by J. H. Callender. House & Home 2:106-7 D '52

Nate Manilow and Park Forest switch to the contemporary look. il plans House & Home 4:138-43 N '53

Prefab elements used extensively in French housing project. il Eng N 151:60+ S 3 '53

Preplanning sells houses in Colorado Springs. il plan diag House & Home 5:154-7 F '54

Project heating on a mass production basis; Harvard sheet metal and furnace co. S. S. Robinson. il Sheet Metal Worker 45:44-5+ F '54

Rising subdivision restrictions throttle builders. House & Home 5:39+ Ap '54

Shop assembly, answer to your cost problems on project work? McClenahan co. il Dom Eng 183:118-20+ My '54

These private enterprise rentals have conventional loans; with cost data. il plans diag Am Bld 75:206-7 Je '53

They won't outgrow Park Forest! il plans Am Bld 76:104-9 Mr '54

Volume building makes fast selling in Lincoln. il plans diag House & Home 4:136-9 D '53

Work pattern for mass production. il plans Am Bld 76:102-5 F '54

See also

Levittown, Pennsylvania

Suburban development

Management

What went wrong to-day? Warner-Kanter companies. M. L. Warner and J. H. Kanter. il Dun's R & Mod Ind 62:46-7+ Ag '53

HOUSING projects, Company
Company housing; Hobson's choice. il Chem W 73:16-17 S 5 '53

HOUSING projects, Cooperative
Good merchandising sells cooperatives. il plan Am Bld 76:243+ Je '54

HOUSING projects, Government
Assembly-line technique results in low-cost concrete construction at Forrestal Village. W. R. Lorman and C. K. Wiehle, jr. il diags Civil Eng 23:760-4 N '53
AEC is distracted with housing woes again, criticized for muddles at Savannah River. il House & Home 4:39+ Ag '53
From bricks to earth. Economist 169:12+ O 3 '53
House bans public housing starts. House & Home 3:37-8 My '53
Role of government in influencing changes in housing in Baltimore, 1940 to 1950. M. Hoffman. bibliog Land Econ 30:125-40 My '54
Suit attacks constitutionality of anti-red oath in public housing. House & Home 3:43 F '53

HOUSING projects, Municipal
Public housing costs in New York city; with charts and table. Eng N 151:147 O 8 '53
What changes must be made in public housing? H. S. Churchill. Arch Forum 99: 116-17+ Jl '53
Wrecking crews wind up big slum job; San Francisco. il Eng N 152:173-4+ F 18 '54

HOUSING research
Air-conditioned village; NAHB's big field-testing project. il plans diags House & Home 6:128-43 Ag '54
Campus house serves as research laboratory at Wichita university. il Am Bld 76:272-3 Je '54
How home building became an industry. L. G. Haeger. Am Bld 76:249-50+ Ag '54
Proving ground for new ideas; U.S. Gypsum's six test tube houses. il plans Am Bld 76: 229-35 Mr '54
U.S. housing research program comes to an end. E. Mickel. bibliog Arch Rec 115:24+ Ap '54
University reports on space-use studies of small house. plans Am Bld 75:80-1 My '53
See also
National association of home builders—Research institute

Bibliography

Home builders' guide to reference material; books, pamphlets and brochures; compilation of published source material, prepared for the home building industry. by the NAHB, with annotations; housing research. Am Bld 76:245-6+ Ap '54
HHFA research; a summary. Arch Rec 115: 312+ Ap '54

HOUSTON, Texas
Houston, a-boomin' for 118 years. il Am Gas J 180:27 My '54
See also
Electricity supply—Houston, Texas

Housing

See Housing—Houston, Texas

Industries

Channelside industry; flourishing growth. il map Chem W 74:20-2 Mr 27 '54

Streets

Concrete in urban expressways; abstract. W. J. Van London. Am Concrete Inst J 25: sup5-7 D '53
Houston, the new city of light. T. Martin. il Pub Works 85:81-2 Ap '54

Water supply

More water for fast growing Houston? map Eng N 152:43-4 Ap 1 '54
Plant of unusual design treats surface water for Houston. N. P. Turner. il plan diag Pub Works 85:87-91 My '54
San Jacinto water supply for Houston. F. N. Baldwin and others. il maps Am Water Works Assn J 46:425-37 My '54
Waterworks gets outdoor industrial look. il map Eng N 151:51-2+ S 10 '53

HOUSTON lighting and power company
Five public utility candidates for higher dividends; with comparative balance sheet items. Mag of Wall St 93:380 D 26 '53

HOUZE, L. J., convex glass company
Life begins at 52. il Glass Ind 35:258-9+ My '54

HOWDEN, James and company, limited
Statement by the chairman. C. W. Hume. Economist 169:283 O 24 '53

HOWREY, Edward F.
Meet FTC's new chairman. por Sales Management 70:112+ Ap 15 '53

HUBBELL, Charles H.
Hubbell and Witt Thompson Products' calendar team. F. Hamlin. pors Aero Digest 67:65-72 Jl '53

HUDSON motor car company
Auto merger? Bsns W p34 O 10 '53
Nash-Hudson talks hint pooling, not merger. Bsns W p32 N 7 '53
Nash-Kelvinator-Hudson merger. G. W. Mathis. Mag of Wall St 93:625+ F 20 '54

HUDSON river
Engineers approve deepening. Bsns W p84 S 5 '53

HUEBNER, Solomon Stephen, 1882-
Dr Huebner's commencement; with portraits. Spectator 161:22-3+ S '53
Huebner to study insurance methods in South America. East Underw 54:1+ Jl 17 '53
Huebner's idea sold millions of insurance; human life values; 1924 Los Angeles convention address. por East Underw 54:108 pt 2 S 25 '53

HUGHES, Howard Robard, 1905-
Hughes sells control of RKO theatres corp. Bsns W p76 N 14 '53

HUGHES, Richard, 1905-
Dick Hughes, new NAHB president. pors House & Home 5:130-2 F '54

HUGHES aircraft company
Disgruntled; executives of Hughes Aircraft were quitting; air force took a hand. Bsns W p61-2+ O 3 '53
Hughes aircraft co. accents the new. P. Klass. il Aviation W 58:44-6+ Je 29 '53
Hughes blowup; six top officials quit in protest of owner policies. Aviation W 59:15-16 S 28 '53
Hughes patchup. Aviation W 59:15 O 5 '53

HULCY, Dechard A.
Petroleum profile. por Pet Eng 25:A78 S '53

HUMAN engineering (term)
Facts about human engineering; an important new management technique. J. D. Vandenberg. bibliog(25 titles) Advanced Management 18:25-8 N '53
Human engineering; a new approach to driver efficiency and transport safety. R. A. McFarland. S A E J 62:41-3 Je '54
Human engineering, aid to instrument and control design. B. J. Covner. il diags Power 97:84-7 N '53
Human-engineering aspects of safety. R. A. McFarland. Mech Eng 76:407-10 My '54; Same cond. Nat Safety N 69:30-1+ Je '54
Human engineering in the chemical industry. R. T. Eckenrode and E. J. Welch. il Chem & Eng N 31:4423-6 O 26 '53

HUMIC acids
Compounding natural rubber with lignin and humic acid. F. J. Tibenham and N. S. Grace. bibliog Ind & Eng Chem 46:824-8 Ap '54

HUMIDIFICATION
Chemical engineering unit operations; absorption and humidification. M. Leva. bibliog(45 ref) Ind & Eng Chem 46:61-3 Ja '54

HUMIDIFIERS
Selling tools increase humidifier sales. A. Stout. il Sheet Metal Worker 45:46-7 Ap '54
Stress comfort, protection to sell humidifiers. Sheet Metal Worker 45:46-7+ F '54

HUMIDITY
Anomalous behaviour of ammonium chloride particles on the corrosion of steel in humid atmospheres. B. Sanyal and R. S. Preston. bibliog il Chem & Ind p995-7 S 19 '53
Direct measurement of hair softening at various relative humidities. D. F. Mowery, jr. bibliog diag Textile Res J 24:711-15 Ag '54
Effect of humidity variation on the operation of an electronic proximity switch. R. A. K. Long. bibliog diag J Sci Instr 30:422-4 N '53

HUMIDITY—*Continued*

Effect of relative humidity on Micronaire readings. F. R. Gates and E. J. Jennings. il diags Textile Res J 23:942-4 D '53

Good relative humidity to maintain in an assembly room where women are seated working with small electrical parts. N. N. Wolpert. Heat & Ven 51:134+ S '54

Here is a nomograph to solve your humidity problems easily. S. Stern. bibliog Chem Eng 61:188-9 F '54

Humidity control improves operation of business machines. W. N. Kitchen. il Heating-Piping 25:100 D '53

Humidity; its measurement and control. J. C. Hawkins. il diag Refrig Eng 62:68-71+; Discussion. 101-2 Mr '54

Humidity measurements. Can Chem Process 37:82+ D '53

Laboratory testing of effect of high humidity on containers. C. J. Zusi. Tappi 37:sup 173A-4A; Discussion. sup 174A-5A Je '54

Moisture content chart speeds humidity calculations. J. T. Hogan. Chem Eng 61:216+ My '54

Proper relative humidity in an assembly room. W. R. Yeary. Heat & Ven 51:114+ O '54

Psychrometric charts for use at altitudes above sea level. B. H. Jennings and A. Torioni. bibliog Refrig Eng 62:71-6+ Je '54

Surface conductance of glasses in a humid atmosphere; abstract. A. Y. Kuznetsov. Glass Ind 35:79-80 F '54

Variable temperature and humidity oven. J. N. Burcham. bibliog diags J Sci Instr 30:335-6 S '53

We often say, it isn't the heat it's the humidity. T. Waldron. diags Power 98:128-9 My '54

What humidity in the home? Consumers Res Bul 32:29-30 N '53

See also

Dampness in buildings

Dehumidifiers

Hygrometers

HUMULENE

Structure of humulene. P. Clarke bibliog Chem & Ind p661-2 Je 5 '54

Structure of humulene. R. W. Fawcett and J. O. Harris. Chem & Ind p405 Ap 3 '54

Synthesis of 1 : 1 : 4 : 8-tetramethyl*cyclo*undecane (humulane). F. Šorm and others. bibliog Chem & Ind p252-3 F 27 '54

HUMULONE

Analysis

Spectrophotometric determination of humulone complex and lupulone in hops. G. Alderton and others. bibliog Anal Chem 26:983-92 Je '54

HUMULONE, Analogs of

Structure of adhumulone. G. A. Howard and A. R. Tatchell. Chem & Ind p992 Ag 7 '54

HUNGARY

See also

Hydroelectric plants—Hungary

HUNGRY Horse dam. See Dams, Concrete

HUNTING

Utah's big deer hunt; everyone makes a killing. il Bsns W p 100-3+ N 7 '53

HURRICANES

Effects on structures of winds of hurricane force. H. S. Saffir. il Am Soc C E Proc 79 [no 206]:1-19 Jl '53

Eye odd characteristic of whirling hurricane. Weekly Underw 169:427 Ag 22 '53

H-hour harbinger. il Chem W 72:16 My 16 '53

Hurricane does $150,000 damage to Carolina Power & Light. Elec World 140:107 Ag 24 '53

Wind velocities during hurricanes. R. C. Gentry. Am Soc C E Proc 79 [no 218]:1-26 bibliog(p25-6) Jl '53

HUTCHINSON, Kansas

How Hutchinson built a hotel. E. Bush. il Heating-Piping 26:107-9 Je '54

HUTTERIAN brethren

Mental health of the Hutterites. J. W. Eaton and R. J. Weil. il Sci Am 189:31-7 D '53

HYALURONIC acid

Inactivation of vaccinia virus by a diffusible component from hydrolyzed hyaluronic acid. J. F. McCrea and F. Duran-Reynals. bibliog il Science 118:93-5 Jl 24 '53

Structure of hyalobiuronic acid and of hyaluronic acid from umbilical cord. B. Weissmann and K. Meyer. bibliog Am Chem Soc J 76:1753-7 Ap 5 '54

HYALURONIDASE

Effects of hyaluronidase on human gingival epithelium. S. Schultz-Haudt and others. il Science 117:653-5 Je 12 '53

Hydrolytic enzymes in hyaluronidase preparations. H. Chauncey and others. bibliog Science 118:219-20 Ag 21 '53

Testicular hyaluronidase in relation to micelle formation by inactivating agents. M. B. Mathews. bibliog Am Chem Soc J 76:2948-52 Je 5 '54

HYATT award

Hyatt award won by Bender for phenolic resin research. Chem & Eng N 31:2392 Je 8 '53

HYDANTOINS

Hydantoins from alicyclic ketones and aldehydes. E. S. Rothman and A. R. Day. bibliog Am Chem Soc J 76:111-13 Ja 5 '54

Researches on substituted 5-phenylhydantoins. H. R. Henze and A. F. Isbell. bibliog Am Chem Soc J 76:4152-6 Ag 20 '54

See also

Dichlorodimethylhydantoin

Thiohydantoin

HYDATID disease. See Echinococci

HYDE, Henry Baldwin, 1834-1899

Tribute. R. D. Murphy. por East Underw 55:3+ Jl 30 '54

HYDRAFRAC process. See Petroleum—Production methods

HYDRANTS

Assembly, operation, and maintenance of fire hydrants. diags Am Water Works Assn J 46:263-76 Mr '54

Hydrant installation and maintenance in Wisconsin. W. Hammann, jr. Am Water Works Assn J 46:277-81 Mr '54

Use of borax herbicide at hydrants. R. M. Smith. Am Water Works Assn J 46:591-2 Je '54

Freezing

Getting hydrants ready for winter; illustrated instructions. Pub Works 85:78 Ag '54

Standards

Progress in fire-hydrant standardization in Ontario. Munic Util 92:36 Je '54

HYDRASTAL

Phthalaldehydes and related compounds; phthalaldehydes derived from hydrastal and cotarnone. J. Blair and G. T. Newbold. Chem Soc J p 1836-9 Je '54

HYDRATES

Crystallographic data; lycoctonine monohydrate. R. M Douglass and W. B. Cook. il diags Anal Chem 25:836-7 My '53

Optical and crystallographic properties of D-fructose hemihydrate. F. T. Jones, F. E. Young and D. R. Black. bibliog il Anal Chem 25:649 Ap '53

Properties of hydrates; kinetic identification of compounds formed between salts and water. W. S. Castor, jr. and F. Basolo. bibliog Am Chem Soc J 75:4804-7 O 5 '53

Properties of hydrates; olation during heterogeneous dehydrations; structural formulas for some metal dichloride hydrates. W. S. Castor, jr. and F. Basolo. bibliog Am Chem Soc J 75:4807-10 O 5 '53

Studies on the lime-rich crystalline solid phases in the system lime, silica, water. G. L. Kalousek and others. bibliog Am Cer Soc J 37:7-13 Ja 1 '54

HYDRATION

Chemical engineering unit processes; hydration and hydrolysis. W. F. Hamner. Ind & Eng Chem 46:1841-5 bibliog(96 ref, p 1884-5) S '54

Prospective chemistry of cement and concrete; recent research on the hydration products of portland cement. N. C. Rockwood. Rock Prod 57:136+ Ag '54

Stability of complex ions with special reference to hydration. R. J. P. Williams. bibliog J Phys Chem 58:121-6 F '54

HYDRATION, Heat of
Heats of hydration of tricalcium silicate and β-dicalcium silicate. S. Brunauer, J. C. Hayes and W. E. Hass. bibliog J Phys Chem 58:279-85 Mr '54

HYDRATION of lime. See Lime

HYDRAULIC accumulators
Capacities and sizes of equipment in accumulator stations for heavy-press operation. A. F. Welsh. il diags Machine Design 26:266-8+ Mr '54
Hydraulic accumulators. E. M. Greer. il diags Machine Design 25:140-1 N; 248-9 D '53; 26:132-5 Ja '54
New accumulator's seal seals better, lasts longer. il Aviation W 59:88+ O 12 '53

HYDRAULIC analogies. See Heat transmission —Hydraulic analogies

HYDRAULIC brakes. See Brakes, Hydraulic

HYDRAULIC control
Analysis of the dynamics of hydraulic servomotors under inertia loads and the application to design. H. Gold and others. diags A S M E Trans 75:1383-90; Discussion. 1390-4 O '53
Contributions to hydraulic control. S. Y. Lee and J. F. Blackburn. il diags A S M E Trans 74:1005-9, 1013-16; 75:1163-80; 76:905-10 Ag '52, Ag '53, Ag '54; Discussion. 74:1009-11; 76:910-11 Ag '52, Ag '54
Design and testing of an electronic simulator for a hydraulic remote-position-control servo mechanism. F. J. U. Ritson and P. H. Hammond. diags Inst E E Proc 99 pt 2:533-48 D '52; Discussion. 99 pt 2:549-52; 100 pt 2:568-9 D '52, O '53
Dynamic operation of a force-compensated hydraulic throttling valve. J. L. Bower and F. B. Tuteur. diags A S M E Trans 75:1395-406 O '53
Experience with hydraulic remote control. W. Jacobsohn. diags Am Water Works Assn J 46:346-8 Ap '54
Hydraulic system of the golden jubilee Ford tractor; abstract. H. L. Brock. Automotive Ind 109:55+ N 1 '53
Hydraulic tracers simplify contour machining, improve accuracy in production of large, complex parts; National tapered wings. E. E. Baker. il Iron Age 174:106-8 Ag 5 '54
Hydraulic units stage comeback in modern low-rise elevators and lifts. F. A. Annett. il diags Power 98:97-9+ F '54
Lewis hydraulic lathe controls. Steel 133:114 N 16 '53
See also
Electrohydraulic control
Hydropneumatic control

HYDRAULIC conveying
Colliery sludge as power station fuel; Emile Huchet power station. R. Gibrat and F. Chenin. Engineering 177:308-9 Mr 5 '54

HYDRAULIC engineering
Engineering features of TVA. C. E. Blee. il map Am Soc C E Proc 79 [no 240]:1-12 Ag '53
Hydraulic fundamentals of closed conduit spillways. F. W. Blaisdell. il diags Am Soc C E Proc 79 [no 354]:1-14 N '53
Hydraulic problems of local interests under the central and southern Florida project. H. C. Gee. Am Soc C E Proc 79 [no 213]:1-8 Jl '53
Stabilization of soil by the silt injection method for preventing settlement of hydraulic structures and leakage from canals. G. E. Johnson. il map diags Am Soc C E Proc 79 [no 323]:1-18 N '53
Work started on $17,500,000 program for conservation of Niagara falls. il Roads & Eng Constr 92:92+ Jl '54
See also
Aqueducts
Breakwaters
Bridges—Foundations and piers
Caissons
Canals
Cofferdams
Dams
Dikes (engineering)
Drainage
Flood control
Gates, Hydraulic
Harbors
Hydraulic machinery
Hydraulic models
Hydraulics
Hydrodynamics
Hydroelectric plants
Irrigation
Jetties
Levees
Locks (hydraulic engineering)
Penstocks
Piers
Pumping
Pumping machinery
Pumping stations
Pumps
Ranney water collectors
Reservoirs
Rivers—Regulation
Shore protection
Spillways
Water flow
Water supply engineering
Waterworks
Wells

Bibliography

Bibliography of rivers and harbors and related fields in hydraulic engineering. R. S. Rowe. 407p Rivers and harbors section, Dept. of civil engineering, Princeton univ, Princeton, N. J. '53 ($10)

Study and teaching

Instruction and research in hydraulic laboratories; Fouad I university, Giza, Egypt. H. Addison. bibliog il plans diags Inst Mech Eng Proc (B) 1B no 9:401-11 '52-53; Same cond. Engineer 194:769-72 D 5 '52; Discussion. Inst Mech Eng Proc (B) 1B no 9:412-19, pl 1-4 '52-53
Portable demonstration channel used for hydraulics motion pictures. L. G. Straub. il Civil Eng 23:466-7 Jl '53

Tables, calculations, etc.

Applications of the relaxation technique in fluid mechanics. J. S. McNown and others. bibliog diags Am Soc C E Proc 79 [no 223]: 1-25 Jl '53; Discussion. bibliog 79 [no 374]: 7-16 D '53
Backwater profiles solved by Escoffier-Raytchine-Chatelain method. J. R. Stipp. Civil Eng 23:551-2 Ag '53
High velocity tests in a penstock. M. F. Burke. il diags Am Soc C E Proc 79 [no 297]:1-22 O '53
Hydraulic jump in irregular cross-sections computed by time-saving method. D. D. Howell. Civil Eng 23:766 N '53
Insurance concept balances economic factors in culvert design. R. W. Powell. diag Civil Eng 23:408 Je '53
See also
Run-off

HYDRAULIC fluids. See Hydraulic transmission

HYDRAULIC fracturing. See Petroleum—Production methods

HYDRAULIC gates. See Gates, Hydraulic

HYDRAULIC jacks
Hydraulic jack for prestressed concrete. il diag Engineer 196:462 O 9 '53; Engineering 176:606 N 6 '53

HYDRAULIC jump
Hydraulic jump in irregular cross-sections computed by time-saving method. D. D. Howell. Civil Eng 23:766 N '53

HYDRAULIC laboratories
Instruction and research in hydraulic laboratories; Fouad I university, Giza, Egypt. H. Addison. bibliog il plans diags Inst Mech Eng Proc (B) 1B no 9:401-11 '52-53; Same cond. Engineer 194:769-72 D 5 '52; Discussion. Inst Mech Eng Proc (B) 1B no 9:412-19, pl 1-4 '52-53
See also
Massachusetts institute of technology —Hydrodynamics laboratory

HYDRAULIC machinery
Austin-Western's all-hydraulic crane. H. W. Richardson. il Constr Methods 35:116+ D '53
Automatic copying lathe operates with hydraulic feeds. il diag Tool Eng 32:52-4 Ja '54
Facts about modern hydraulic and pneumatic equipment. il Mill & Factory 54:579 My '54
Hydraulic positioning and clamping; Ford motor co. in England. il diags Mach 60: 155-62 Je '54
Hydraulic Press Manufacturing complete line of hydraulic components. il Mach 60:242-3 N '53
Hydraulic surface grinders. il Tool Eng 32: 116 Ja '54
Hydrotor; a hydraulic cranking motor. il diags Diesel Power 31:62-3 D '53
Planning machine series. P. Tedeschi. il diags Machine Design 26:195-207 S '54

HYDRAULIC machinery—*Continued*
Railroad ballast cleaner goes hydraulic. il diags Product Eng 24:150-5 O '53
Vickers machine tool hydraulics forum. J. Geschelin. il Automotive Ind 110:55+ Je 15 '54
Weldall and Assembly press brake operated hydraulically. il Engineering 177:86 Ja 15 '54
See also
Airplanes—Hydraulic equipment
Hydraulic motors
Hydraulic presses
Hydraulic transmission
Pumps
Turbines
Valves, Hydraulic

Cavitation

Cavitation tests on hydrofoils in cascade. F. Numachi. bibliog il diags A S M E 75:1257-69 O '53

Design

Design of hydraulic equipment for heat dissipation. J. R. Hemeon. il diags Machine Design 25:350-2+ D '53

Protection

Hydraulic fuses, what are they, how do they work? H. Hedland. Product Eng 24:306+ S '53

HYDRAULIC models
Bed level indicator for detecting the boundary of a body of water. M. J. Wilkie and R. F. J. King. diags J Sci Instr 31:8-9 Ja '54
Density currents studied in glass-walled flume. D. R. F. Harleman. il diag Civil Eng 24:81 F '54
Opening of the Queen Elizabeth II oil dock at Eastham. il Engineer 197:136-7 Ja 22 '54
Portable demonstration channel used for hydraulics motion pictures. L. G. Straub. il Civil Eng 23:466-7 Jl '53
Research flume requires no deflection correction; Illinois state water survey's laboratory. diag Eng N 151:48 D 24 '53
Some automatic devices for use on tidal models. M. J. Wilkie. diags J Sci Instr 30:263-5 Ag '53
Some model experiments on special control valves. D. Firth and L. Young. diags Engineer 197:207-9, 257-9 F 5-12 '54
Total sediment load measured in turbulence flume. P. C. Benedict and others. bibliog il maps plans diags Am Soc C E Proc 79 [no 230]:1-48 Ag '53
Water tunnel teaches Bernoulli principle; Hydraulics laboratory of Northwestern university. W. S. Hamilton. il diag Civil Eng 23:834-5 D '53

HYDRAULIC motors
Charts simplify design of positive-displacement pumps and motors; data sheet. R. J. Auman. diags Machine Design 26:209-13 S '54
Hydraulic motor increases grinder's sizing accuracy. il diags Product Eng 24:172-5 N '53

HYDRAULIC oils. See Hydraulic transmission

HYDRAULIC presses
Air-hydraulic press has double pressure system. il diag Machine Design 26:152 Jl '54
Control valves for direct-hydraulic presses. F. H. Towler and J. M. Towler. bibliog diags Inst Mech Eng Proc (B) 1B no 9: 420-7, pl 1-2; Discussion. 427-36 '52-53; Engineer 195:141-3 Ja 23 '53
Elmes automatic hydraulic press reduces both tube ends in one operation. il Am Mach 97:191 D 7 '53
Equipment tailored for new-plant jobs; Foster Wheeler corp. plant. il Steel 134:128-9 F 1 '54; Mech Eng 76:180-2 F '54
Hill inverted hydraulic presses for stamping and extrusion operations. il Am Mach 98: 190 F 15 '54; Tool Eng 32:136 Mr '54; Machine Design 26:180 Ap '54
How to choose hydraulic presses for metal forming operations. H. D. Thweatt. il diags Am Mach 98:115-26 Mr 29 '54
Hydraulic press built for plastics molding. il Am Mach 98:171 Ag 16 '54; Mach 60:239 Jl '54
Hydraulic pressing costs cut by using special cover plate; Temco aircraft corp. il Light Metal Age 11:19+ D '53
Hydraulic problems of large forging presses; abstract. E. V. Crane and W. R. Jackson. Automotive Ind 109:54-5 N 1 '53
Making two-ton carbide pieces in a 220-ton press; General electric co.'s Carboloy department. il Am Mach 98:185 Mr 15 '54; Iron Age 173:170-2 Mr 4 '54; Steel 134:148 Mr 15 '54
Marley hydraulic power press. il Engineer 197: 75 Ja 8 '54; Engineering 177:53 Ja 8 '54
North American's present hydroforming practice. F. Koeller. il diags Mach 60:190-5 Jl '54
Powder press design keeps pace with industry needs. J. L. Bonanno and R. B. Bouman. il Iron Age 174:76-9 S 30 '54
Pressure; versatile equipment broadens work range. J. E. Hyler. il Iron Age 172: 168-71 D 3 '53
Stokes press for powder metal parts. Machine Design 26:206+ My '54
Verson Allsteel rubber pad press gets new muscles. il diags Steel 134:98-100 Mr 22 '54

Manufacture

John Shaw all-welded metal press. il Elec J 151:2108 D 25 '53

HYDRAULIC rams
Tiltman Langley test rig for electric actuators. il Engineering 176:797 D 18 '53

HYDRAULIC research
Hydraulic research in the United States, 1954. H. K. Middleton, ed. U S Nat Bur Stand Misc Pub 210:1-193; pa $1.25 Supt. of doc. '54
Instruction and research in hydraulic laboratories; Fouad I university, Giza, Egypt. H. Addison. bibliog il plans diags Inst Mech Eng Proc (B) 1B no 9:401-11 '52-53; Same cond. Engineer 194:769-72 D 5 '52; Discussion. Inst Mech Eng Proc (B) 1B no 9:412-19, pl 1-4 '52-53
See also
Massachusetts institute of technology—Hydrodynamics laboratory

HYDRAULIC research, International association of. See International association of hydraulic research

HYDRAULIC transmission
Applications of fluid couplings in electric motors, and Diesel engines. E. C. Farrer. diag Elec J 151:1873 D 4 '53
Automatic transmission in America. C. A. Chayne. plan diag Inst Mech Eng Proc (Auto div pt 1):9-15, pl 1-8 '52-53
Bare facts about hydraulic power. E. J. Clement. il diags Mill & Factory 54:82-5 Mr '54
Development of high temperature hydraulic fluids. J. C. Mosteller and J. A. King. Product Eng 24:309-10+ Je '53
Diesel-hydraulic locomotive for Tasmania. il Engineer 197:181 Ja 29 '54
Diesel hydraulic locomotives for Mauritius. il Engineer 196:673-4 N 20 '53; Engineering 176:651 N 20 '53
Dynamic characteristics of valve-controlled hydraulic servomotors. J. L. Shearer. bibliog diags A S M E Trans 76:895-903 Ag '54
Facts about modern hydraulic systems. il diag Mill & Factory 54:463 My '54
Fluid carriers for hydraulic units in earthmoving equipment; abstract. J. E. Jass. Automotive Ind 109:138+ N 1 '53
Fluid power more flexible for driving rig auxiliaries. E. McGhee. il diag Oil & Gas J 52:90+ N 23 '53
Harvey Frost hydraulic floor crane. il Engineer 197:260 F 12 '54
Herbert heavy-duty hacksawing machine. il Engineer 197:186 Ja 29 '54; diags Engineering 177:279 F 26 '54
Huge oil hydraulic pumps for tube reducers. il Mach 60:207 D '53
Hydraulic drive for dolomite machine. il Blast F & Steel Pl 42:380-1 Mr '54
Hydraulic fluid won't burn; Houghto-Safe. Steel 133:116 S 28 '53; Iron Age 172:148+ O 15 '53
Hydraulic fluids; nonflammable type fluid resists fire. il Iron Age 173:160+ Ap 1 '54
Hydraulic oil today. diags Power 98:99-101 Jl '54
Hydraulic power drives auxiliaries on Chicago Socony. il Marine Eng 58:68-9 D '53
Hydraulic system drives cooling fans. flow diag il World Oil 137:219+ S '53

HYDRAULIC transmission—*Continued*

Hydraulic system whirs into engine starting picture. il Steel 133:65 Jl 6 '53

Hydraulics offer low-cost replacement for mechanical power. H. E. Pollard. il diag Cer Ind 62:130-1+ Ap '54

National conference on industrial hydraulics, 9th, Chicago; with abstracts of papers. Automotive Ind 109:54-5+ N 1 '53

Non-flammable hydraulic fluids as applied to the steel industry; abstract. C. R. Schmitt. Iron & Steel Eng 31:141-2 S '54

Production machine tool hydraulic forum. Iron Age 174:107 Ag 19 '54

Production machine tool hydraulics forum, Detroit. Mach 60:228-9 Jl '54

Simplified control curbs arc furnace power appetites; Hydro-arc furnace control. diag Steel 135:108+ Ag 23 '54

Synchronized load control meets varying demand on hydraulic power pump. E. W. Theilig. il diag Machine Design 25:221-3 D '53

Testing of a hydraulic motor. R. H. Marvin. il Franklin Inst J 256:569-71 D '53

Tunnel-type furnace shows safety-first hydraulics; Timken roller bearing co. il Steel 134:118 Ap 26 '54

Which characteristics for hydraulic fluid? B. B. Flick. il Product Eng 24:149-53 Ag '53

See also

Airplanes—Hydraulic equipment
Hydraulic motors
Torque converters

HYDRAULIC valves. See Valves, Hydraulic

HYDRAULICS

Hydraulic behavior of storm-water inlets; flow into deflector inlets. W. Li and others. plans diags Sewage & Ind Wastes 26:836-42, 967-75 Jl-Ag '54

International hydraulics convention, Minneapolis, Sept. 1-4. Science 118:372-3 O 2 '53

Practical application of fluid hydraulics to drilling in California. G. D. Thompson. bibliog il Pet Eng 25:B92+ S '53; Same cond. Oil & Gas J 52:105+ Jl 20 '53; Discussion. Pet Eng 25:B 107+ S '53

Water works practices; hydraulics. G. E. Symons. diags Water & Sewage Works 101:305-7 Jl '54

See also

Cavitation
Floods
Flow meters
Fluids
Hydraulic engineering
Hydrodynamics
Hydrostatics
Liquids
National conference on industrial hydraulics
Nozzles
Run-off
Silt
Stream flow
Water flow
Wells

Electric analogies

Potentiometric-model study of edge-water encroachment. W. J. Mason. il diags Colorado School of Mines [Golden] Quarterly v 49 no 3:1-30 '54 (pa $1)

Study and teaching

Water tunnel teaches Bernoulli principle; Hydraulics laboratory of Northwestern university. W. S. Hamilton. il diag Civil Eng 23:834-5 D '53

Tables, calculations, etc.

How to use system-head curves. M. Mann. diags Chem Eng 60:162-4 F '53; Same. Power 97:88-90 N '53

See also

Pumping—Tables, calculations, etc.
Stream flow

HYDRAZIDES

Chemical reactions of complexes; dinuclear dihydrazide-nickel complexes. L. Sacconi. Chem Soc J p 1326-8 Ap '54

Chemical reactions of complexes; reaction of hydrazides and aromatic *o*-oxy- and *o*-aminoaldehydes and ketones with nickel acetate. L. Sacconi. bibliog Am Chem Soc J 76:3400-2 Jl 5 '54

Colorimetric estimation of isonicotinic acid hydrazide. E. L. Pratt. bibliog Anal Chem 25:814-16 My '53

Examination of the use of carbobenzyloxy-γ-L-glutamyl hydrazide in the synthesis of γ-peptides. H. Sachs and E. Brand. bibliog Am Chem Soc J 76:1815-17 Ap 5 '54

Pectic (poly-D-galacturonic) hydrazide. M. L. Wolfrom, G. N. Kowkabany and W. W. Binkley. bibliog Am Chem Soc J 76:4011-12 Ag 5 '54

Some derivatives of pyridinecarboxyhydrazides. D. D. Libman, D. L. Pain and R. Slack. Chem Soc J p 1328-9 Ap '54

HYDRAZINE

Albinism resulting from certain carbonic and thiocarbonic acid derivatives of hydrazine. C. L. Rhykerd and others. Science 118:192-3 Ag 14 '53

Chemical jack-of-all-trades. Bsns W p43-4+ D 26 '53

Determination of halogens in complex platinates; preliminary reduction with hydrazine. W. Pugh bibliog J Ap Chem 4:47-8 Ja '54

Eyeing a fiber future; hydrazine. il Chem W 74:94 F 20 '54

Formation of hydrazine from *t*-butyl-hypochlorite and ammonia. L. F. Audrieth, E. Colton and M. M. Jones. bibliog Am Chem Soc J 76:1428-31 Mr 5 '54

Formation of hydrazine in electric discharge decomposition of ammonia. J. C. Devins and M. Burton. bibliog diags Am Chem Soc J 76:2618-26 My 20 '54

Furochromones and -coumarins; action of hydrazine hydrate and hydroxylamine on khellin, khellol and visnagin. A. Schönberg and M. M. Sidky. Am Chem Soc J 75:5128-30 O 20 '53

Health and safety problems increase as commercial production and industrial applications of hydrazine increase. H. H. Schrenk. Ind & Eng Chem 46:sup93A-5A Ag '54

Hydrazine. L. P. Lessing. il diags Sci Am 189:30-3 Jl '53

Hydrazine; condensation products of aldehydes and ketones with salts of some substituted Δ^2-pyrazolines and hydrazines. M. Lamchen, W. Pugh and A. M. Stephen. Chem Soc J p2429-34 Jl '54

Hydrazine, new aid to water treatment. E. R. Woodward. il Power 97:91-3+ N '53

Hydrazine output soars upward. il Chem Eng 60:117-18 S '53

Hydrazine; salts of dimethyl ketazine and certain hydrazones; the halogeno-antimonites and -bismuthites. W. Pugh. Chem Soc J p3445-51 N '53

Hydrazine sheds its water content; patent. diag Chem Eng 61:262 S '54

Hydrazine; some halogeno-antimonites and -bismuthites of hydrazine. W. Pugh. Chem Soc J p 1385-8 My '54

Hydrazine; some salts of 3 : 5 : 5-trimethyl-Δ^2-pyrazoline and of 3 : 5 : 5-trimethyl-1-*iso*propylidene-Δ^2-pyrazolinium ion. W. Pugh and H. C. G. Vincent. Chem Soc J p2423-8 Jl '54

Hydrazine zoom; uses widen, prices tumble. il Chem W 73:77-8+ D 12 '53

Hydrazinoalkanols. G. Gever. bibliog Am Chem Soc J 76:1283-5 Mr 5 '54

Hypobromite and hypochlorite oxidation of ammonium hydroxide, hydrazine and hydroxylamine. R. F. Riley and others. bibliog Am Chem Soc J 76:3301-3 Je 20 '54

Improve your soldering with noncorrosive flux. W. S. Gale. il Iron Age 172:115-19 S 3 '53

Lanthanon complexes with hydrazine-*NN*-diacetic acid. R. C. Vickery. Chem Soc J p385-8 Ja '54

New tonnage chemical. Franklin Inst J 256:299-300 S '53

Oxidation of hydrazine in solution. J. W. Cahn and R. E. Powell. bibliog Am Chem Soc J 76:2568-72 My 5 '54

Preparation of anhydrous hydrazine from mixtures of hydrazine monohydrohalides and ammonium chloride. H. H. Sisler and others. diag Am Chem Soc J 76:3914-16 Ag 5 '54

Preparation of hydrazine from urea and *t*-butyl hypochlorite. E. Colton, M. M. Jones and L. F. Audrieth. bibliog Am Chem Soc J 76:2572-4 My 5 '54

HYDRAZINE—*Continued*

Properties, production, and uses of hydrazine. J. E. Troyan. bibliog il diags Ind & Eng Chem 45:2608-12 D '53

Raschig synthesis of hydrazine. J. W. Cahn and R. E. Powell. bibliog Am Chem Soc J 76:2565-7 My 5 '54

Reaction of hydrazine with Mannich bases. M. Stamper and B. F. Aycock. bibliog Am Chem Soc J 76:2786-8 My 20 '54

Reactions of hydrazines with γ-pyrones. C. Ainsworth and R. G. Jones. bibliog Am Chem Soc J 76:3172-4 Je 20 '54

Some uses for hydrazine. Chem Age (Lond) 70:735 Mr 27 '54

Spectrophotometric study of the homolytic dissociation of tetrafluorenylhydrazine. T. L. Chu and T. J. Weismann. bibliog Am Chem Soc J 76:3787-90 Jl 20 '54

Thermal oxidation of hydrazine vapour. W. I. H. Winning. diag Chem Soc J p926-31 Mr '54

Use of hydrazine based chemicals growing rapidly. Iron Age 172:171-3 N 19 '53

Analysis

Determination of ammonia in hydrazine. J. E. DeVries and E. S. Gantz. bibliog Anal Chem 25:973-4 Je '53

Potentiometric titration of organic derivatives of hydrazine with potassium iodate. W. R. McBride, R. A. Henry and S. Skolnik. bibliog Anal Chem 25:1042-6 Jl '53

Manufacture

Hydrazine at Lake Charles. D. P. Thornton, jr. il Pet Processing 8:1540-1 O '53

Hydrazine; manufacturing process. diag Pet Refiner 32:180-1 N '53

Hydrazine production started at Mathieson's Lake Charles plant. il Chem & Eng N 31: 2980+ Jl 20 '53

Matholin formed for hydrazine production. il Chem Eng Prog 49:sup26 Ag '53

New hydrazine plant; Mathieson chemical corp. Chem Age (Lond) 69:231 Ag 1 '53

New plant on stream; Mathieson's Lake Charles petrochemical installation. il flow sheet Oil & Gas J 52:212-13 Jl 27 '53

Sodium hypochlorite, the easy way; hydrazine plant of Matholin corp. il Chem Eng 61:128+ Mr '54

Tougher than it looks; Mathieson hydrazine plant. il Chem W 73:42+ Jl 18 '53

HYDRAZOBENZENE

Rearrangement of *N*-acetylhydrazobenzene. D. W. Davies and D. L. Hammick. Chem Soc J p475 Ja '54

Rearrangement of some *N*-substituted hydrazobenzenes. G. R. Clemo and T. B. Lee. Chem Soc J p2417-19 Jl '54

HYDRAZOIC acid

Synthesis of phenanthridines by the interaction of fluorene derivatives with hydrazoic and sulphuric acids. C. L. Arcus and M. M. Coombs. Chem & Ind p995 S 19 '53

HYDRAZONES

Acylhydrazones of *o*-oxy-and *o*-aminoaldehydes and ketones as tridentate complexing agents. L. Sacconi. Am Chem Soc J 75:5434-5 N 5 '53

Nicotinyl and isonicotinyl hydrazones of pyridoxal. P. P. T. Sah. Am Chem Soc J 76:300 Ja 5 '54

Polynitrogen systems from hydrazinocarbonic acids; diformazans. F. L. Scott, D. A. O'Sullivan and J. Reilly. bibliog Am Chem Soc J 75:5309-12 N 5 '53

Rearrangement of hydrazones and semicarbazones. D. E. Pearson, K. N. Carter and C. M. Greer. bibliog Am Chem Soc J 75: 5905-8 D 5 '53

Substituted long chain fatty acid hydrazones of 5-nitrofurfural. N. Rabjohn and M. S. Cohen. Am Chem Soc J 76:1280-2 Mr 5 '54

HYDRAZOTOLUENE

Benzidine rearrangement; kinetics of the rearrangement of *m*-hydrazotoluene. R. B. Carlin and R. C. Odioso. bibliog Am Chem Soc J 76:2345-9 My 5 '54

Benzidine rearrangement; kinetics of the rearrangement of *o*-hydrazotoluene. R. B. Carlin and R. C. Odioso. bibliog Am Chem Soc J 76:100-4 Ja 5 '54

HYDRAZYL compounds

Abstraction of hydrogen atoms from mercaptans by 2,2-diphenyl-1-picrylhydrazyl. K. E. Russell. bibliog J Phys Chem 58:437-9 My '54

HYDRIDES

Binding energies of gaseous diatomic hydrides and halides of group II and group III metals. J. L. Margrave. bibliog J Phys Chem 58:258-60 Mr '54

Force constants of hydrides. S. S. Mitra. J Chem Phys 22:564-5 Mr '54

Safe handling of metal hydrides. M. D. Banus. il diag Chem & Eng N 32:2424-7 Je 14 '54

Transfer of hydride ion. G. Baddeley and W. Pickles. Chem Soc J p3726-9 N '53

Analysis

Determination of small amounts of water-reactive hydrides in presence of inert salts containing base. M. D. Banus and J. B. Vetrano. diag Anal Chem 25:1268-9 Ag '53

HYDRINDENE. See Indan

HYDRIODIC acid

Rearrangement of 5 : 8-dihydroxychromonols by treatment with hydriodic acid. D. M. Donnelly and others. Chem & Ind p 163 F 6 '54

Rearrangement of 5 : 8-dihydroxyflavonols by treatment with hydriodic acid. D. M. Donnelly and others. bibliog Chem & Ind p567 Je 6 '53

HYDROAROMATIC compounds

Aromatization of blocked hydroaromatic systems by quinones. R. P. Linstead and others. bibliog Chem & Ind p 1174-5 S 18 '54

HYDROBROMIC acid

Addition of hydrogen bromide to ***trans***-4-heptenoic acid. H. D. Zook and J. A. Knight. bibliog Am Chem Soc J 76:2302-4 My 5 '54

Al_2Br_6-HCl-Al_2Cl_6-HBr and Al_2Br_6-Al_2Cl_6 systems and mixed halide intermediates. J. D. Corbett and N. W. Gregory. bibliog diag Am Chem Soc J 75:5238-42 N 5 '53

Complexes of hydrogen bromide-aluminum bromide with aromatic hydrocarbons. H. C. Brown and W. J. Wallace. bibliog Am Chem Soc J 75:6268-74 D 20 '53

Density of liquid hydrogen bromide. W. G. Strunk and W. H. Wingate. Am Chem Soc J 76:1025-7 F 20 '54

Dielectric properties of hydrogen halides; hydrogen bromide. N. L. Brown and R. H. Cole. bibliog diags J Chem Phys 21:1920-6 N '53

Stereochemistry of the addition of hydrogen bromide to 1,2-dimethylcyclohexene. G. S. Hammond and T. D. Nevitt. bibliog Am Chem Soc J 76:4121-3 Ag 20 '54

Spectrum

Infrared spectrum and molecular constants of DBr. F. L. Keller and A. H. Nielsen. bibliog J Chem Phys 22:294-9 F '54

Spectrum of DBr in the one-millimeter wave region. W. Gordy and C. A. Burrus. bibliog il Phys R 93:419-20 F 1 '54

HYDROCARBONS

Addition of bases to polar hydrocarbons; reversal of the Mannich reaction. D. Taber, E. I. Becker and P. E. Spoerri. bibliog Am Chem Soc J 76:776-81 F 5 '54

Adsorption of normal saturated hydrocarbons on Fuller's earth. W. T. Granquist, F. A. Mitch and C. H. Edwards. bibliog Ind & Eng Chem 46:358-62 F '54

Analysis, purification, and properties of petroleum hydrocarbons; report on API research project 6. S. S. Shaffer and F. D. Rossini. il Am Pet Inst Proc 32(1):50-73 bibliog(p66-73) '52

Atmospheric pollution by polycyclic hydrocarbons. R. L. Cooper and A. J. Lindsey. bibliog Chem & Ind p 1177-8 O 31 '53

Catalytic vapour-phase oxidation; Chemical engineering department of Yale. R. H. Bretton. Chem Age (Lond) 69:1319-22 D 26 '53

Chemical engineering unit processes; pyrolytic and catalytic decomposition of hydrocarbons. M. J. Sterba and V. Haensel. bibliog(160 ref) il Ind & Eng Chem 45:2034-41; 46:1888-94 S '53, S '54

HYDROCARBONS—*Continued*

Collision diameters of flexible hydrocarbon molecules in the vapour phase; the hydrogen effect. G. A. Cummings and A. R. Ubbelohde. diags Chem Soc J p3751-5 D '53

Correlation of physical properties with molecular structure for some dicyclic hydrocarbons having high thermal-energy release per unit volume. P. H. Wise and others. bibliog U S Nat Advisory Com for Aeronautics 1951:55-64 '52

Decade of progress in selecting data on hydrocarbons and related compounds; report on API research project 44. W. E. Kuhn and F. D. Rossini. bibliog il maps Am Pet Inst Proc 32(1):85-129 '52

Densities and optical properties of organic compounds in the liquid state; the densities of aliphatic hydrocarbons. M. L. Huggins. Am Chem Soc J 76:843-5 F 5 '54

Dicyclic hydrocarbons; synthesis and physical properties of some 1,3-diphenyl- and 1,3-dicyclohexyl-2-alkylpropane hydrocarbons. R. M. Caves, R. L. McLaughlin and P. H. Wise. bibliog Am Chem Soc J 76:522-4 Ja 20 '54

Differential trapping of hydrocarbons. W. C. Gussow. diags Oil & Gas J 52:168-9 S 7 '53

Direct production of radioactive aliphatic hydrocarbons by pile irradiation. A. G. Schrodt and W. F. Libby. Am Chem Soc J 76:3100 Je 5 '54

Effect of alcohols on hydrocarbon autoxidation. C. F. Frye, C. B. Kretschmer and R. Wiebe. bibliog Ind & Eng Chem 46:1517-20 Jl '54

Electric strengths of aliphatic hydrocarbons. R. W. Crowe and others. J Ap Phys 25:392-5 Mr '54

Electrical conductivity of hydrocarbon cracking catalyst. P. B. Weisz and others. J Chem Phys 21:2236-7 D '53

Electron transfer in alkali metal-hydrocarbon complexes. W. A. Holmes-Walker and A. R. Ubbelohde. diags Chem Soc J p720-8 F '54

Emulsified hydrocarbons used as thickeners; patent. Am Dyestuff Rep 42:707 O 12 '53

High pressure alkylation of isobutane with propylene. J. E. Knap, E. W. Comings and H. G. Drickamer. bibliog(29 ref) il diag Ind & Eng Chem 46:708-13 Ap '54

Hydrocarbon chemistry. H. S. Taylor. Ind & Eng Chem 45:1440-1 Jl '53

Hydrocarbon recovery at Tuscola. J. F. McDonald. flow diags il Pet Processing 8:1894-6 D '53

Hydrocarbons and ethers as antiknock blending agents. bibliog U S Nat Advisory Com for Aeronautics 1951:532-55 '52

Hydrocarbons from pipe-line gas. N. L. Foskett and R. C. Foster. diags Pet Refiner 32:116-17+ S '53

Inductive effect and chemical reactivity; effect of charge shifts on energetics of some basic reactions of aliphatic compounds. R. P. Smith and H. Eyring. bibliog Am Chem Soc J 75:5183-6 N 5 '53

Influence of molecular structure on the oxidation of aliphatic hydrocarbons. N. J. H. Small and A. R. Ubbelohde. bibliog(26 ref) J Ap Chem 3:193-8 My '53

Interaction of polynitro-compounds with aromatic hydrocarbons and bases; a new method for determining the association constants for certain interactions between nitro-compounds and bases in solution. R. Foster, D. L. Hammick and A. A. Wardley. Chem Soc J p3817-20 D '53

Ionization chamber measurements at 10 600 feet of the absorption of the *N* component in carbon and hydrocarbon. R. H. Rediker. diags Phys R 95:526-31 Jl 15 '54

Occurrence of mixed aromatic-naphthenic hydrocarbons in petroleum as related to structural group analysis of heavier fractions. K. van Nes and others. bibliog Inst Pet J 38:998-1002 D '52

Phase equilibria in hydrocarbon systems. L. T. Carmichael, B. H. Sage and W. N. Lacey. bibliog Ind & Eng Chem 45:2697-9 D '53

Phase equilibria in hydrocarbon systems. H. H. Reamer and others. bibliog Ind & Eng Chem 45:1805-12 Ag '53

Photochemical reactions useful in the conversion of hydrocarbons; patent. Pet Processing 8:1207 Ag '53

Physical data on hydrocarbons now available on punch cards. J. Sherman. il Pet Refiner 32:145-9 O '53

Polycyclic hydrocarbons in human hair wax. F. W. Hougen. Chem & Ind p 192 F 13 '54

Problems in hydrocarbon extraction. D. L. Katz and others. bibliog (50 titles) Oil & Gas J 52:118+ S 28; 108+ N 2 '53

Problems licked in startup of hydrocarbon-recovery unit; National petro-chemicals corp., Tuscola, Ill. J. F. McDonald. Oil & Gas J 52:64+ N 30 '53

Quinones as ion source in hydrocarbons. A. Gemant. bibliog Electrochem Soc J 100:320-7 Jl '53

Raw materials for the petroleum chemicals industry. H. K. Whalley. flow diags Chem & Ind sup S3-8 Ag 10 '53

Reaction processes leading to the spontaneous ignition of hydrocarbons. C. E. Frank and A. U. Blackham. bibliog Ind & Eng Chem 46:212-17 Ja '54

Reactions of hydrocarbons; ionic mechanisms. L. Schmerling. bibliog(50 ref) Ind & Eng Chem 45:1447-55 Jl '53

Reactions of silane with unsaturated hydrocarbons. D. G. White and E. G. Rochow. bibliog Am Chem Soc J 76:3897-902 Ag 5 '54

Reduction of oxidation-ions in hydrocarbons. A. Gemant. bibliog Electrochem Soc J 101:281-6 Je '54

Research conference on phase behavior of hydrocarbons, Ann Arbor, Mich. July 1-2. Chem & Eng N 31:2870 Jl 13 '53

Separation and utilization of C_{14} hydrocarbons. E. T. Borrows and W. L. Seddon. bibliog(69 ref) flow diags Chem & Ind sup S57-64 Ag 10 '53

Smoke points of hydrocarbons. Chem Age (Lond) 69:499-500 S 5 '53

Some photochemical reactions between quinones and hydrocarbons. R. F. Moore and W. A. Waters. Chem Soc J p3405-8 N '53

Spontaneous ignition properties of fuels and hydrocarbons. J. E. Johnson, J. W. Crellin and H. W. Carhart. bibliog Ind & Eng Chem 45:1749-53 Ag '53

Synthesis and properties of high molecular-weight hydrocarbons; report on API research project 42. R. W. Schiessler and H. Sutherland. bibliog il Am Pet Inst Proc 32(1):74-84 '52

Synthesis and reactions of branched-chain hydrocarbons; α-hydroxy-ketones with secondary and tertiary alkyl groups. W. J. Hickinbottom, A. A. Hyatt and M. B. Sparke. Chem Soc J p2529-33 Jl '54

Synthesis and reactions of branched-chain hydrocarbons; the synthesis of ketones with quaternary carbon atoms. W. J. Hickinbottom, A. A. Hyatt and M. B. Sparke. Chem Soc J p2533-6 Jl '54

Synthesis, purification, and properties of hydrocarbons of low molecular weight; report on API research project 45. C. E. Boord and W. G. Lovell. bibliog Am Pet Inst Proc 32(1):130-8 '52

Tagged hydrocarbons produced directly by pile irradiation. Chem & Eng N 32:2200 My 31 '54

Tips on sealing light hydrocarbons. R. E. Morgan. il Pet Processing 8:1340-1 S '53

Understanding the chemistry of petrochemical reactions; chlorination of paraffin and aromatic hydrocarbons. L. F. Hatch. flow diag Pet Refiner 32:207-9 S '53

Variation in smoking tendency among hydrocarbons of low molecular weight. R. L. Schalla and G. E. McDonald. bibliog diags Ind & Eng Chem 45:1497-500 Jl '53

See also

Acetylene
Benzene
Butadiene
Butane
Coal tar products
Ethane
Fischer-Tropsch process
Heptane
Hexadecene
Hexane
Isoprene
Methane
Naphthalene
Octane
Olefins
Paraffins
Petroleum
Propane
Styrene (and polymers)
Terpenes
Tetradecane
Toluene

HYDROCARBONS—*Continued*

Analysis

Analysis of the unsaturated hydrocarbons in fuel gases by infra-red spectroscopy. J. H. Towler and B. H. Holland. bibliog diag J Ap Chem 4:517-24 S '54
Analyzer determines hydrogen; Taller & Cooper. flow diag Chem & Eng N 31:5314 D 21 '53
Atomic by-product reduces test time in petroleum industry. il Elec Eng 73:102 Ja '54
Atoms answer need for speed; instrument utilizing atomic radiation source measures hydrogen in a hydrocarbon. il Chem W 73:47-8 N 14 '53
Beta rays slash H_2 test time in liquid hydrocarbons. il diags Chem Eng 61:278+ Ja '54
Cenco's H/C meter uses beta rays. il Chem & Eng N 31:4724 N 9 '53
Colorimetric determination of elemental sulfur in hydrocarbons. J. K. Bartlett and D. A. Skoog. bibliog Anal Chem 26:1008-11 Je '54
Determination of bromine in liquids by X-ray fluorescent spectroscopy. G. T. Kokotailo and G. F. Damon. bibliog diag Anal Chem 25:1185-7 Ag '53
Determining rubber hydrocarbon in rubber bearing plants. J. W. Meeks and others. bibliog Anal Chem 25:1535-8 O '53
High-boiling hydrocarbon analysis. W. L. Nelson. Oil & Gas J 52:369 Jl 27 '53
Mass spectrometer determination of volatile contaminants in water. F. W. Melpolder, C. W. Warfield and C. E. Headington. bibliog diags Anal Chem 25:1453-6 O '53
Methods for determining hydrocarbons and phenols in water. bibliog Anal Chem 25:1681-5 N '53
Methods of hydrocarbon type analysis. H. C. Rampton. bibliog Inst Pet J 39:305-27; Discussion. 327-34 Je '53
Relationship of hydrocarbons with six to nine carbon atoms. H. M. Smith and H. T. Rall. bibliog Ind & Eng Chem 45:1490-7 Jl '53
Saturated hydrocarbons of high molecular weight. S. A. Francis. bibliog Anal Chem 25:1466-70 O '53
Speedy, accurate hydrogen measurement; new instrument uses beta rays. R. B. Jacobs and L. G. Lewis. il diag Oil & Gas J 52:128-30 S 28 '53
Toggle valves and Teflon in hydrocarbon analysis. R. A. Brown and D. J. Skahan. diags Anal Chem 26:788-9 Ap '54
See also
Gasoline—Analysis

Combustion research

See Combustion research

Nomenclature

How petroleum hydrocarbons are named. M. Alexander. Oil & Gas J 52:124-5+ Ag 24 '53

Separation processes

Arosorb process primarily for the separation of aromatics from various refinery streams; Sun oil co. diag Pet Refiner 32:162-3 N '53
Chromatographic fractionation of crude petroleum oils. C. Karr, jr., W. D. Weatherford, jr. and R. G. Capell. bibliog il diags Anal Chem 26:252-6 F '54
Double solvent extraction yields aromatics. diag Chem Eng 60:342 Jl '53
Getting the aromatics out; Continental Oil's modified sulfur dioxide process. il Chem W 75:42+ Jl 17 '54
How to separate close-boiling hydrocarbons; patent. diags Chem Eng 61:250+ My '54
New extraction tower for Udex ups efficiency. diags Chem Eng 60:346+ N '53
Novel separation of gaseous hydrocarbons; patent. diag Chem Eng 61:260+ Ap '54
Prediction of liquid-liquid phase equilibria. E. N. Pennington and S. J. Marwil. bibliog Ind & Eng Chem 45:1371-7 Je '53
Problems in light olefine recovery plant design. E. O. Curtiss. bibliog diags Chem & Ind sup S18-23 Ag 10 '53
Process design of light hydrocarbon cracking units. J. R. Fair and H. F. Rase. bibliog il Chem Eng Prog 50:415-20 Ag '54
Separability of hydrocarbons by elution chromatography. H. M. Tenney and F. E. Sturgis. bibliog diag Anal Chem 26:946-53 Je '54
Separating xylenes from non-aromatics; patent. diag Chem Eng 61:258 Ag '54
Separation of benzene and *n*-hexane by means of ethylenediamine as solvent; molar solutropy. A. P. C. Cumming and F. Morton. bibliog J Ap Chem 3:358-66 Ag '53
Separation of oxygenated compounds and hydrocarbons by adsorption. J. Entel, C. H. Ruof and H. C. Howard. bibliog Anal Chem 25:616-18 Ap '53
Separation of oxygenated organic compounds by water extractive distillation. C. S. Carlson, P. V. Smith, jr. and C. E. Morrell. bibliog diags Ind & Eng Chem 46:350-5 F '54
Udex extraction for the separation of high purity aromatics from mixtures with other hydrocarbons; Universal oil products co. diag Pet Refiner 32:166-7 N '53

Spectra

Electronic spectra of cata-condensed hydrocarbons. W. Moffitt. bibliog J Chem Phys 22:320-33 F '54

HYDROCARBONS, Aromatic

Aromatic hydrocarbons; heptaphene and 2,3,8,9-dibenzopicene. E. Clar and W. Kelly. Am Chem Soc J 76:3502-4 Jl 5 '54
Aromatic hydrocarbons; triangulene derivatives. E. Clar and D. G. Stewart. Am Chem Soc J 76:3504-7 Jl 5 '54
Aromatics from petroleum. D. S. Maisel. bibliog flow diag diags Pet Processing 8:1185-92 Ag '53
Complexes of aromatic hydrocarbons with aluminum bromide. H. C. Brown and W. J. Wallace. bibliog Am Chem Soc J 75:6265-8 D 20 '53
Complexes of hydrogen bromide-aluminum bromide with aromatic hydrocarbons. H. C. Brown and W. J. Wallace. bibliog Am Chem Soc J 75:6268-74 D 20 '53
Continuous production of nitrotoluenes. F. Meissner, G. Wannschaff and D. F. Othmer. bibliog il diags Ind & Eng Chem 46:718-24 Ap '54
Coördination of polycyclic aromatic hydrocarbons with silver ion; correlation of equilibrium constants with relative carcinogenic potencies. R. E. Kofahl and H. J. Lucas. bibliog Am Chem Soc J 76:3931-5 Ag 5 '54
Cyclic adsorption refining. R. L. Humphreys. flow diags Pet Refiner 32:99-101 S '53
Friedel-Crafts alkylation reaction catalysts and complexes. H. C. Brown and others. bibliog(75 ref) Ind & Eng Chem 45:1462-9 Jl '53
Magnetic susceptibilities of some aromatic hydrocarbon anions. T. L. Chu and S. C. Yu. Am Chem Soc J 76:3367-9 Jl 5 '54
Modified SO_2 extraction; process applicable to the recovery of pure or highly concentrated aromatics from selected virgin naphthas, catalytic reformates, and heavier petroleum distillates; Stone & Webster-Badger. flow diag Pet Refiner 32:166-7 N '53
New entry in aromatic sweepstakes; Sun Oil installation at Marcus Hook, Pa. il diag Chem & Eng N 31:5174-5 D 14 '53
Peroxide-induced condensation of polychloroethylenes with aromatic hydrocarbons. L. Schmerling and J. P. West. Am Chem Soc J 75:6216-17 D 20 '53
Properties of high boiling petroleum products; nonbiological laboratory methods for predicting carcinogenicity. L. T. Eby and others. bibliog Anal Chem 25:1500-7 O '53
Pyrolysis of C_2 and C_3 hydrocarbons. R. E. Kinney and D. J. Crowley. bibliog diag Ind & Eng Chem 46:258-64 F '54
Pyrolytic behavior of unsubstituted aromatic hydrocarbons. C. R. Kinney and E. DelBel. bibliog diag Ind & Eng Chem 46:548-56 Mr '54
Recovery of aromatics with liquid sulphur dioxide. P. W. Sherwood. Chem Age (Lond) 71:363-6 Ag 21 '54
Studies on the nuclear chlorination of aromatic compounds. P. G. Harvey and others. bibliog(26 ref) J Ap Chem 4:325-30 Je '54

HYDROCARBONS, Aromatic—*Continued*

SO_2 extraction process for aromatics recovery. W. F. Wilkinson, J. R. Ghublikian and P. Obergfell. bibliog flow diags il Chem Eng Prog 49:257-62 My '53; Same. Pet Eng (Ref annual) 25:C3-6 Jl 15 '53

Vapor phase oxidation of aromatic hydrocarbons. J. M. Weiss. map Chem & Eng N 32:1820-2 My 3 '54

What about aromatics demand? L. A. Schlueter. il Oil & Gas J 52:80+ N 23 '53

See also

Anthracene
Benzene
Naphthalene
Toluene

Analysis

Alumina-adsorption analysis of petroleum aromatics in 420° to 600° F range. C. M. McKinney and R. L. Hopkins. bibliog Anal Chem 26:1460-5 S '54

Analysis of gas oil and cycle stock from catalytic cracking. E. M. Charlet, K. P. Lanneau and F. B. Johnson. bibliog diags Anal Chem 26:861-71 My '54

Determination of ring content of aromatic petroleum fractions. R. N. Hazelwood. bibliog Anal Chem 26:1073-6 Je '54

Infrared determination of total aromatics. J. Bomstein. bibliog Anal Chem 25:1770-2 N '53

Methylation as an aid in the analysis of polynuclear aromatic compounds. R. L. Cooper. bibliog Chem & Ind p516 My 23 '53

Properties of high boiling petroleum products. L. T. Eby. bibliog Anal Chem 25: 1057-60 Jl '53

Rapid determination of aromatics in petroleum fractions. E. A. Pasquinelli. bibliog diag Anal Chem 26:329-42 F '54

Spectrophotometric identification of polynuclear aromatic components in high boiling petroleum fractions. R. Schnurmann, W. F. Maddams and M. C. Barlow. bibliog Anal Chem 25:1010-13 Jl '53

Spectra

Triplet-triplet absorption spectra of some aromatic hydrocarbons and related substances. D. P. Craig and I. G. Ross. diags Chem Soc J p 1589-606 My '54

HYDROCARBOSTYRIL

Hydrocarbostyril derivative with a two-carbon *peri* bridge. R. C. Fuson and T. M. Veazey. Am Chem Soc J 76:1169-70 F 20 '54

HYDROCELLULOSE

Chromatographic separation of sugars with hydrocellulose. J. D. Geerdes and others. bibliog diag Anal Chem 26:264-6 F '54

Hydrocellulose water flow number. O. A. Battista, J. A. Howsmon and S. Coppick. bibliog il Ind & Eng Chem 45:2107-12 S '53

Preparation and properties of hydrocelluloses. M. A. Millett, W. E. Moore and J. F. Saeman. bibliog(27 ref) diag Ind & Eng Chem 46:1493-7 Jl '54

HYDROCHLORIC acid

Absorption of hydrochloric acid in wetted-wall absorbers. C. J. Dobratz and others. bibliog plan Chem Eng Prog 49:611-16 N '53

Acid cleaner inhibitors. D. F. Stauffer and others. bibliog Soap & Chem Spec 30:161+ Je '54

Action of hydrochloric acid solutions on borosilicate and soda-lime glass bottles. F. C. Raggon and F. R. Bacon. bibliog Am Cer Soc Bul 33:267-71 S 15 '54

Addition of hydrogen chloride to propenylbenzene. W. R. R. Park and G. F. Wright. Am Chem Soc J 76:3036-7 Je 5 '54

Al_2Br_6-HCl-Al_2Cl_6-HBr and Al_2Br_6-Al_2Cl_6 systems and mixed halide intermediates. J. D. Corbett and N. W. Gregory. bibliog diag Am Chem Soc J 75:5238-42 N 5 '53

Anion-exchange studies; adsorbability of a number of metals in hydrochloric acid solutions. K. A. Kraus, F. Nelson and G. W. Smith. bibliog J Phys Chem 58:11-17 Ja '54

Anion-exchange studies; ion exchange in concentrated electrolytes; gold(III) in hydrochloric acid solutions. K. A. Kraus and F. Nelson. bibliog Am Chem Soc J 76:984-7 F 20 '54

Anodic processes; anodisation at low current densities of mercury in hydrochloric acid. R. H. Cousens, D. J. G. Ives and R. W. Pittman. Chem Soc J p 3972-80 D '53

Anodic processes; ocillographic studies of processes at the mercury anode in hydrochloric acid. R. H. Cousens, D. J. G. Ives and R. W. Pittman. Chem Soc J p3980-7 D '53

Anodic processes; the passivation of mercury in hydrochloric acid. R. H. Cousens, D. J. G. Ives and R. W. Pittman. Chem Soc J p3988-90 D '53

Antimony(V) species in hydrochloric acid solution. H. M. Neumann. bibliog Am Chem Soc J 76:2611-15 My 20 '54

Capacity of polarized platinum electrodes in hydrochloric acid. W. D. Robertson. bibliog diags Electrochem Soc J 100:194-201 Ap '53

Dielectric properties of hydrogen halides; hydrogen chloride. R. W. Swenson and R. H. Cole. bibliog diag J Chem Phys 22:284-8 F '54

Extraction of hydrogen chloride from aqueous solutions. E. D. Crittenden, jr. and A. N. Hixson. bibliog flow diag Ind & Eng Chem 46:265-74 F '54

Extraction of niobium into diisopropyl ketone from hydrochloric acid solutions. H. G. Hicks and R. S. Gilbert. Anal Chem 26:1205-6 Jl '54

Fluid bed oxidation of HCl produces alkyl chlorides from waste HCl; patent. diag Chem Eng 60:392+ O '53

Grain boundary attack on aluminum in hydrochloric acid and sodium hydroxide. E. C. W. Perryman. bibliog il J Metals 5: Trans 911-17 Jl '53; Discussion. 6:Trans 661-3 sec 2 My '54

Hydrogen bomb in your plant? B. Davis. il diags Power 98:114-15 Ap '54

Kinetics and mechanism of hydrochlorination of synthetic and natural polyisoprene latex. E. Crampsey, M. Gordon and J. S. Taylor. Chem Soc J p3925-31 D '53

Latent profit in stockpile wastes at Texas City tin smelter. il Chem W 74:50-2 My 15 '54

Microstructure and the corrodibility of steel in inhibited hydrochloric acid solutions. P. H. Cardwell. bibliog il Electrochem Soc J 101:84-90 F '54

Resistance of partially acetylated cotton fabric to nitrogen dioxide and to hydrogen chloride. W. T. Schreiber and others. bibliog Textile Res J 24:819-22 S '54

Scavengers for hydrogen chloride. C. W. Lewis. Ind & Eng Chem 46:366-9 F '54

Solubility in acid as a means of determining changes in wool. H. Zahn and A. Würz. bibliog Textile Inst J 45:P88-92 Mr '54

Spectrophotometric determination of bismuth, lead, and thallium with hydrochloric acid. C. Merritt, jr., H. M. Hershenson and L. B. Rogers. bibliog Anal Chem 25:572-7 Ap '53

Surplus wood stave tank converted to efficient acid fume scrubber. J. E. Weiler. diag Chem Eng 61:252 Je '54

Two key reactions yield HCl from tin smelter waste; Tin processing corp. il diag Chem Eng 61:114-16 Je '54

Ultraviolet spectrophotometric determination of niobium in hydrochloric acid. J. H. Kanzelmeyer and H. Freund. Anal Chem 25: 1807-9 D '53

Manufacture

Anhydrous hydrogen chloride; Girdler co. diag Pet Refiner 32:172-3 N '53

CIL's muriatic plant; a chemical pioneer. il Can Chem Process 37:54+ N '53

HCl absorption; Powell Duffryn carbon tower. Chem Age (Lond) 70:942 Ap 24 '54

New job in the potash industry for veteran Hargreaves process. il diag Chem Eng 61:132+ My '54

HYDROCHLORIDES

Preparation and properties of a few ω-(N,N-dialkylamino)-alkyl-2-thienyl sulfide hydrochlorides and 2-thiophenethiol. W. H. Houff and R. D. Schuetz. bibliog Am Chem Soc J 75:6316-17 D 20 '53

HYDROCHLORINATION. See Hydrochloric acid

HYDROCORTISONE. See Hydroxycorticosterone

HYDROCYANIC acid

Variation of the *l*-type doubling constant in HCN. J. F. Westerkamp. Phys R 93:716 F 15 '54

Manufacture

Ammonia, methanol, hydrogen cyanide and urea from air and methane. L. F. Hatch. diags Pet Refiner 32:170-1+ S '53

From ammonia to hydrogen cyanide; German process refined by these developments of Freeport sulphur co. N. Updegraff. flow diag Pet Refiner 32:196-7+ S '53

Hydrogen cyanide; Girdler co. diag Pet Refiner 32:178-9 N '53

Spectrum

l-type doubling in C_2H_2 and HCN. T. A. Wiggins and others. bibliog J Chem Phys 22:547-50 Mr '54

HYDRODYNAMICS

American physical society Division of fluid dynamics meeting, State College, Pa. July 1-3. Science 118:175-6 Ag 14 '53

Applications of the relaxation technique in fluid mechanics. J. S. McNown and others. bibliog diags Am Soc C E Proc 79 [no 223]: 1-25 Jl '53; Discussion. bibliog 79 [no 374]: 7-16 D '53

Consideration of the hydrodynamic properties of proteins. H. A. Scheraga and L. Mandelkern. bibliog Am Chem Soc J 75:179-84 Ja 5 '53; Reply. C. Tanford and J. G. Buzzell. 76:3356-7 Je 20 '54

Entrapment of petroleum under hydrodynamic conditions. M. K. Hubbert. bibliog il maps diags Am Assn Pet Geologists Bul 37:1954-2026 Ag '53

Fluid dynamics and combustion research laboratory at Baden; Brown Boveri and co. il diags Engineer 196:494-5 O 16 '53; Engineering 176:609-13 N 13 '53

Generation of wind waves on a water surface. C. Eckart. bibliog diags J Ap Phys 24:1485-94 D '53

Limiting conditions for jet formation in high velocity collisions. J. M. Walsh and others. bibliog il diags J Ap Phys 24:349-59 Mr '53

Mechanism of disintegration of liquid sheets. J. L. York and others. il diags A S M E Trans 75:1279-86 O '53

Motion of small particles in skew shape suspended in a viscous liquid. C. M. Tchen. bibliog diags J Ap Phys 25:463-73 Ap '54

Small disturbances of plane Couette flow. W. Wasow. bibliog diags J Res Nat Bur Stand 51:195-202 O '53

Some hydrodynamic aspects of appendage design; abstract and discussion. P. Mandel. Marine Eng 59:72-3 F '54

Statistical hydrodynamics in porous media. A. E. Scheidegger. bibliog J Ap Phys 25: 994-1001 Ag '54

See also

Aerodynamics
Bubbles
Cavitation
Drops
Fluidization
Hydrostatics
Stokes' law
Turbulence
Viscosity
Vortex motion
Waves

HYDROELECTRIC plants

Alcoa holds U.S. lacks authority over its plants. Elec World News ed 141:63 F 1 '54

Broader view is needed by river developers. C. J. Velz. il Eng N 152:39-40 Mr 25 '54

See also

Surge tanks

Combination with steam plants

Caribou integrates steam, Diesel and hydro. M. S. Blackwell. il diags Power Eng 58:66-8+ My '54

Idaho Power to lease Utah Power & Light unit. il map Elec World 140:80-1 Jl 27 '53

Short-range economic operation of a combined thermal and hydroelectric power system; abstract. W. G. Chandler and others. Elec Eng 72:1096 D '53

TVA dambuilders turn to steam. A. J. Fox, jr. il map Eng N 152:30-4+ F 25 '54

Construction

Air transport on Labrador construction; abstract. L. A. Carey. Roads & Eng Constr 92:106-7 My '54

Alaska's Lake Eklutna hydroelectric project. B. Kederick. il Explosives Eng 31:175-9+ N '53

Alcan echoes; statistics show vital role rock drills play in huge Canadian project. A. S. Park. il Comp Air Mag 59:68-71 Mr '54

Alcan rock work nears end. il Comp Air Mag 59:41-5 F '54

Big equipment builds Chief Joseph plant. il Constr Methods 36:62-6 Je '54

Buford dam; Corps of engineers builds multipurpose structure near Atlanta, Ga. C. E. Bentzel. il maps diags Civil Eng 24:164-6 Mr '54

Canadian Aluminum the hard way. il map Chem & Eng N 32:3112-13 Ag 9 '54

Captured Canadian power feeds giant new source of aluminum; Alcan's British Columbia project. J. H. Kearney. il map diag Eng & Min J 155:78-85 Ap '54

Contractor reviews his headaches at Clark Hill powerhouse. W. A. Giddings. il map Civil Eng 24:158-60 Mr '54

Dalles dam, a $350-million giant. il map Eng N 151:29-32 O 22 '53

Eklutna project two ways tough. il map diag Elec World News ed 141:30-1 Mr 1 '54

Largest powerhouse under construction at Chief Joseph dam. L. A. Luther. il Comp Air Mag 59:254-7 S '54

Lining concrete pumped into place; Ontario hydro tunnels. J. R. Glaeser. il diags Civil Eng 23:753-7 N '53

North of Scotland hydro-electric schemes. il maps plan diags Engineer 196:482-5, 514-17 O 16-23 '53

Ontario Hydro blasts out Niagara power tunnels of 51-ft diameter. J. R. Glaeser. il map diags Civil Eng 23:676-80 O '53

Ontario Hydro construction on-schedule at Niagara. il Eng N 151:33-4+ S 10 '53

Power from the Bersimis. J. P. Smallwood. il maps Comp Air Mag 59:128-33 My '54

Seattle City Light hauls equipment over a rugged course to powerhouse; illustrations with text. Elec World News ed 140:34-5 Ag 31 '53

Single hydro project doubles Morocco's power. W. G. Bowman. il maps diag Eng N 152: 42-5 F 11 '54

Tunnel lining at an angle; Kemano penstock at 48 deg. inclination, is a special problem for hydro plant builders. il diag Eng N 152: 30-1 Ap 15 '54

Control

Automation cuts energy costs sharply at Copco's hydroelectric plant. P. G. Humphreys. il diag Elec West 111:74-7 D '53

Cost

Concrete items win dam-powerhouse job in Oregon; unit prices. Eng N 152:105 Ja 28 '54

Hydroelectric project, Turkey; unit prices. il Eng N 151:133-4 N 19 '53

Irrigation and hydro-power construction cost indexes; table and charts. Eng N 151:105 O 8 '53

Design

Complex excavation pattern cuts out underground powerhouse. W. G. Huber. il plan diags Civil Eng 23:396-401 Je '53

Recent additions and improvements to the Hales Bar hydroelectric plant. A. A. Meyer. il plans diags Am Soc C E Proc 79 [no 294]: 1-30 O '53; Discussion. 79 [no 378]:9-11 D '53

Equipment

First McNary power goes on the line. F. S. Tandy. il Elec West 112:68-70 Ja '54

Flatiron tests first U.S. pump-turbine. il map diag Power Eng 58:76-8+ S '54

High-head underground hydro plant will serve huge aluminum refinery in British Columbia. il diags Power 98:85-9+ F '54

Hoist supports aid turbine pit maintenance. W. H. Brodie. diag Elec World 140:122+ O 5 '53

Hollow-jet valves are less destructive. G. H. Heiser. il diag Elec West 111:78-9 D '53

HYDROELECTRIC plants—Equipment—*Cont.*

Hydro-electric development in Portugal. il maps plan diags Engineer 196:546-9, 578-81, 614-17, 650-4 O 30-N 20 '53

Hydro-electric developments in Portugal. il Engineering 176:660-3 N 20 '53; Elec J 151:1491-4 N 6 '53; Elec R (Lond) 153:1037-41 N 6 '53

Kemano hydro-electric development and associated Kitimat aluminium-reduction works. F. L. Lawton. diags Engineer 197:468-71 Mr 26 '54; Abstract. Elec Eng 73:124 F '54

North of Scotland hydro-electric schemes. il maps plan diags Engineer 196:482-5, 514-17 O 16-23 '53

Power for aluminium production; Nechako-Kemano-Kitimat development. il map diags Elec R (Lond) 154:539-45 Mr 26 '54

Quebec province; power to ease world aluminium demand. il Elec J 152:262-4 Ja 22 '54

Wahleach hydroelectric development. T. Ingledow and J. H. Steede. Power 98:228+ Ap '54

See also
Penstocks

Government ownership

After 20 years, a new federal power policy. Elec World 140:80-1 D 28 '53

At issue; allocating Missouri power. Elec World 141:74-5 Mr 8 '54

Battle over Niagara grows hotter. il Elec World News ed 140:6-7 Jl 6 '53

By airfari nine journalists hop to private-public power hot spots. il Elec World News ed 140:15-18 D 21 '53

Chief reaction to federal power policy is wait and see. Elec World News ed 140:6-8 Ag 31 '53

Clark Hill power decision due. Elec World News ed 140:9 S 28 '53

Colorado Basin plan urged. Pub Util 53:489 Ap 15 '54

Come, let us reason together; interpreting the diverse federal power laws. C. A. Davis. Elec World 140:134 N 16 '53

Congress clears power funds bills; power budgets for TVA, REA, Corps of engineers, and interior. Elec World News ed 140:6-7 Ag 3 '53

Current and future development of USBR power projects; tabulation. Elec West 112:85 F '54

Does TVA influence electric rates? Pub Util 53:826-7 Je 24 '54

End of the Kings River case. Pub Util 52:852-3 D 3 '53

Federal electric power. D. McKay. Comm & Fin Chr 178:726-7 Ag 27 '53

FPC gets Interior Hell's Canyon reports. Eng N 151:24 Jl 2 '53

Federal power monopoly. F. G. Aandahl. Pub Util 53:184-8 F 4 '54

Federal power policy. F. G. Aandahl. Pub Util 53:713-16 Je 10 '54

Federal power role to start decline, power policy statement affirms. Eng N 151:23 Ag 27 '53

Federal power slows in Southwest. Elec World 140:83 D 28 '53

Fight over hydropower is mixture of dams, cables, Congress. il Bsns W p 130+ O 10 '53

Government-agency hydroelectric plants; tabulation. Power 98:56 Mid-S '54

GOP backs Frying Pan project. Elec World 139:70 Je 29 '53

GOP changes the course of federal power policy. Elec World 140:102-3 Ag 24 '53

GOP implements federal-local plans. il Elec World 141:90-1 F 22 '54

GOP mapping Interior-co-op liaison; reconciling federal policy with rural power needs. Elec World 141:78 Ja 11 '54

Hoover task force assailed. Elec World News ed 140:7-8 N 23 '53

Hoover task force hearings. Pub Util 54:86-7, 215-20 Jl 22, Ag 19 '54

How will federal hydro policy affect Pacific Northwest. L. L. Wise. il map Eng N 151:33+ N 19 '53

Hydroelectric power development under federal law. J. K. Kuykendall. Pub Util 53:769-72 Je 10 '54; Abstract. Power 98:156 Jl '54

Ike answers Magnuson charges. Elec World 140:67-8 D 28 '53

Ike buttresses no starts policy. Elec World 141:134-5 Ja 25 '54

Independent survey favors federal Hell's Canyon plan. Eng N 151:21-2 Jl 23 '53

Interior not in power business. D. McKay. Elec World 140:78 O 5 '53

Jordan offers Northwest power plan. Elec World 140:80 O 5 '53

Look at the new federal power policy. E. R. de Luccia. Pub Util 53:745-55 Je 10 '54

McKay; changing a power trend. Bsns W p63-4+ S 12 '53

Marketing criteria debated; Missouri Basin consumers group at Senate hearing. Elec World 140:122 D 14 '53

Missouri power; Interior announces power marketing criteria. Elec World News ed 140:7 S 28 '53

Morse raps governors on Hells Canyon stand. Elec World News ed 140:24 D 7 '53

New look at federal power policy. C. A. Davis. Pub Util 53:135-46 F 4 '54

New policy already in practice; Interior's Hells Canyon stand. Elec World News ed 140:9 Ag 31 '53

Niagara hearings reopened. Elec World 140:81-2 Jl 27 '53

Niagara should be developed through private enterprise. H. E. Capehart. map Pub Util 53:523-32 Ap 29 '54

Northwestern utilities set for federal tie. Elec World 140:119 D 14 '53

Objectives of the proponents of public power. L. Olds. Pub Util 53:251-3 F 18 '54

Phosphates and the dam; Hell's canyon at center of country's struggle over national policy on development of natural resources. map Chem W 74:16-17 F 27 '54

Power policy bill unveiled. Pub Util 54:30-1 Jl 8 '54

Power project budget. Pub Util 53:235-6 F 18 '54

Power under the Republicans. il Chem & Eng N 32:120-1 Mr 29 '54

Preference clause; priority on the right to buy power from federal dams. Pub Util 53:434-6 Ap 1 '54

Proposal on Clark Hill; a basic change. Elec World News ed 141:6-7 Mr 1 '54

Public power and power technology. A. Lepawsky. Pub Util 54:235-50 S 2 '54

Santee-Cooper; fanning its framework over South Carolina. il maps Elec World News ed 141:16-17+ Mr 1 '54

Snake basin sites resurveyed as alternates to Hells Canyon dam. Elec World 140:165-6 S 7 '53

States exempted from two requirements of Federal power act concerning public hydro projects. Elec World 140:73 S 7 '53

Switch in power; Mr McKay lights a beacon for the administration. Barron's 34:1 Ja 11 '54

Three-dam Hell's Canyon plan is supported by former army engineers deputy chief. Eng N 151:21 Jl 30 '53; Same cond. Elec World News ed 140:7-8 Ag 3 '53

Unfinished business; hassle concerning future power development in Niagara Falls. Chem W 74:62-4 F 13 '54

Who'll boost Falls! power? Niagara three-sided controversy. Chem W 73:40-4 Ag 1 '53

Will public power unite on Niagara? il Elec World 139:60-1 Je 1 '53

See also
Bonneville power administration
Ontario—Hydroelectric power commission
Tennessee Valley authority

Heating and ventilation

80-ton water-to-air heat pump; heating hydro-electric powerhouse. T. H. Seitz. diags Heat & Ven 57:85-7 Mr '54

Ice protection

Slush plows prevent ice-blocked channel. il Elec World 140:118 D 28 '53

Maintenance and repair

Needle valve break raises havoc; Poole plant of California electric power co. il Elec West 111:114-15 S '53

Quick repairs for penstock put hydro plant back on line. il Eng N 151:42 S 17 '53

HYDROELECTRIC plants—*Continued*

Small plants

Economic factors of small-capacity hydroelectric stations. H. H. Brown and A. R. Klann. bibliog diags Elec Eng 72:1083-8 D '53

Small hydro sites can be developed economically. H. H. Gnuse, jr. il Elec World 140:80-2 S 7 '53

Storage type

Austria to have highest and largest pumped-storage hydropower projects. il diags Eng N 151:225-6+ O 8 '53

Big rubber blanket seals off hydro plant diversion tunnel. S. O. Schamberger. il diag Elec World News ed 139:36-7 Je 22 '53

Huge pumped-storage hydro plant proposed for Niagara region. map Power 98:97 Ja '54

Pumped storage; Calgary power co., ltd. Elec World News ed 140:22 S 14 '53

Bibliography

Pumped storage for hydroelectric power; a selected list of references in English. 5p Tennessee Valley authority, Technical lib, Knoxville '53

Alaska

Alaska's Lake Eklutna hydroelectric project. B. Kederick. il Explosives Eng 31:175-9+ N '53

Eklutna project two ways tough. il map diag Elec World News ed 141:30-1 Mr 1 '54

Harvey's dam opposed by Territory's Fisheries board and U.S. Wildlife service. Elec World News ed 141:60 Ja 4 '54

Australia

Australia pushes Snowy Mountains scheme as cost inquiries threaten delays. il Eng N 152:46-7 Ja 7 '54

Australia to get power from mountains. il Constr Methods 36:61 Ap '54

Austria

Austria to have highest and largest pumped-storage hydropower projects. il diags Eng N 151:225-6+ O 8 '53

British Columbia

Alcan echoes; statistics show vital role rock drills play in huge Canadian project. A. S. Park. il Comp Air Mag 59:68-71 Mr '54

Alcan rock work nears end. il Comp Air Mag 59:41-5 F '54

Captured Canadian power feeds giant new source of aluminum; Alcan's British Columbia project. J. H. Kearney. il map diag Eng & Min J 155:78-85 Ap '54

Civil-engineering features of the Kitimat project. J. S. Kendrick. il map plans diags Roads & Eng Constr 92:73-83+ Jl '54

Frobisher granted B.C. water license; $700-million Northwest project outlined. map Eng & Min J 155:143 S '54

High-head underground hydro plant will serve huge aluminum refinery in British Columbia. il diags Power 98:85-9+ F '54

Kemano hydro-electric development and associated Kitimat aluminium-reduction works. F. L. Lawton. diags Engineer 197: 468-71 Mr 26 '54; Abstract. Elec Eng 73: 124 F '54

Kitimat, Kemano, Kildala, Kenney; which is which? il map diag Power Eng 58:84-6 Je '54

Kitimat project reaches production stage. il Roads & Eng Constr 92:62+ Ag '54

Landslide destruction of power plant blamed on leaks in penstock tunnel; Whatshan power plant near Needles, B.C. Eng N 151: 60 N 12 '53

Licenses granted, work to proceed on $269,950,000 power and industrial development in Yukon area. map Roads & Eng Constr 92:92-3+ S '54

Mammoth hydro plans mapped in Yukon and British Columbia. map Eng N 152:23-4 Ap 29 '54

Materials out of the North; proposed hydroelectric development in Yukon and British Columbia. A. F. Cadenhead. map Can Chem Process 38:60+ Ja '54

Power commission is blamed in report on landslide destruction of power plant. Eng N 152:54+ Ap 15 '54

Power for aluminium production; Nechako-Kemano-Kitimat development. il map diags Elec R (Lond) 154:539-45 Mr 26 '54

Surveys planned on harnessing Yukon. map Elec World News ed 139:34 Je 22 '53

Tunnel lining at an angle; Kemano penstock at 48 deg. inclination, is a special problem for hydro plant builders. il diag Eng N 152: 30-1 Ap 15 '54

Wahleach hydroelectric development. T. Ingledow and J. H. Steede. Power 98: 228+ Ap '54

California

Big Creek-San Joaquin project and public interest; abstract. W. L. Chadwick. Power 98:154 Jl '54

Interior asks appeal dismissal; review of FPC grants for local hydro developments on King's river. Elec World 140:107 N 16 '53

PG&E project; harnessing McCloud river and Squaw Valley creek. map Elec World 141: 201-2 F 22 '54

Three-way river fight; Feather River's Middle Fork. Elec World 140:202 Ag 10 '53

Canada

Canada's water power curbed; hydro-electric and other progress during 1953. Elec J 152:264-5 Ja 22 '54

Canadian development. Elec R (Lond) 154: 120 Ja 15 '54

Canadian engineers deserve great praise for country's rapid development. R. H. Saunders. Roads & Eng Constr 92:88+ Mr '54

1954 design survey; typical hydroelectric plants in the United States and Canada; tabulation. Power 98:52-5 Mid-S '54

Colorado

GOP backs Frying Pan project. Elec World 139:70 Je 29 '53

Egypt

French get Assuan power contracts. Eng N 151:54 Ag 6 '53

Finland

Finland looks north to power. il map Elec World News ed 140:32-4 N 9 '53

France

Harnessing the Moselle; three-power project. map Elec J 151:1761-2 N 27 '53

Rural electrification of the Rhône delta. D. Anley. il map diag Elec R (Lond) 154: 284-5 F 12 '54

Georgia

Buford dam; Corps of engineers builds multi-purpose structure near Atlanta. C. E. Bentzel. il maps diags Civil Eng 24:164-6 Mr '54

Clark Hill power decision due. Elec World News ed 140:9 S 28 '53

Proposal on Clark Hill; a basic change. Elec World News ed 141:6-7 Mr 1 '54

Germany

Harnessing the Moselle; three-power project. map Elec J 151:1761-2 N 27 '53

Hungary

Hungary pushes multi-purpose dam. il Eng N 151:64 N 19 '53

Idaho

Army Engineers conducts hearing on Idaho dams. L. Jordan. Elec World News ed 140:9 D 7 '53

Cotton testifies on Idaho dams. Elec World 140:82-3 Jl 27 '53

FPC gets Snake River studies. Elec World 139:69-70 Je 29 '53

FPC reopens Hells Canyon hearing. Elec World 140:108 Jl 13 '53

Hells Canyon advocates unite. Elec World News ed 140:7-8 Jl 6 '53

Hell's Canyon debate has side issue. Eng N 152:24 F 25 '54

Hells Canyon hearings open. Elec World News ed 140:7 O 12 '53

HYDROELECTRIC plants—Idaho—*Continued*

Hells Canyon hearings recess. Elec World News ed 140:8 Ag 17 '53

Hell's Canyon issue; run-of-river plants urged as alternative to large storage reservoirs. Eng N 151:24 D 31 '53

Idaho Power argues case for three dams on the Snake; FPC staff report awaited. Elec World News ed 140:6-7 Jl 20 '53

Morse raps governors on Hells Canyon stand. Elec World News ed 140:24 D 7 '53

Palisades hydro project commences. il Elec J 152:221 Ja 15 '54

PUDs seek permits for Hells Canyon dam. Elec World News ed 140:33 S 14 '53

Run-of-river plants on Snake recommended instead of high Hells Canyon project. Elec World 140:68-9 D 28 '53

Snake basin sites resurveyed as alternates to Hells Canyon dam. Elec World 140:165-6 S 7 '53

Three-dam Hell's Canyon plan is supported by former army engineers deputy chief. Eng N 151:21 Jl 30 '53; Same cond. Elec World News ed 140:7-8 Ag 3 '53

Two dams on middle Snake proposed by Bureau of reclamation to Congress. Elec World 141:92 F 22 '54

Utility cites costs of power produced at Snake River projects. Elec World 140:94 Ag 10 '53

Utility company claims cheaper power for its Hell's Canyon three-dam plan. Eng N 151:23 Ag 6 '53

India

Construction of two concrete-lined tunnels for the Machkund hydro-electric project, South India; abstract. G. A. Gauld and R. J. Newport. Engineering 176:683 N 27 '53

India and Pakistan; hydro plentiful, rupees scarce. il map Elec World News ed 141:16-17+ F 15 '54

India's largest hydro project reset to start work on major storage dam. il Eng N 151:59 S 3 '53

Mahanadi Valley development. bibliog il maps plan diags Engineer 196:803-5, 830-2 D 18-25 '53

Japan

Hydro electric power projects boom in Japan's post-war economy plans. il Eng N 151:60-1 Ag 13 '53

Hydro power; key to Japan's economy. il map Elec World News ed 140:22-4 O 26 '53

Lebanon

Lebanese TVA will provide 114,000 kw of capacity. Elec World News ed 140:29 Jl 20 '53

Luxemburg

Harnessing the Moselle; three-power project. map Elec J 151:1761-2 N 27 '53

Mexico

Santo Tomás; sacrifice to hydro power. C. Davila. il Elec World News ed 140:30-1+ Ag 17 '53

Michigan

Face on many jobs is that of Earl Elowsky. il Elec World News ed 140:16-17 D 7 '53

Missouri

Missouri starts making power for Midwest. J. R. Carr. il map Eng N 152:25-6 Mr 18 '54

Montana

Yellowtail dam authorized Interior's solicitor rules. Elec World 141:202 F 22 '54

Morocco

Single hydro project doubles Morocco's power. W. G. Bowman. il maps diag Eng N 152:4-5 F 11 '54

New York (state)

Battle over Niagara grows hotter. il Elec World News ed 140:6-7 Jl 6 '53

Dewey testifies on Niagara. Elec World News ed 140:15 Ag 3 '53; Same. Eng N 151:23 Jl 30 '53

Huge pumped-storage hydro plant proposed for Niagara region. map Power 98:97 Ja '54

Making power from drinking water. il maps diags Elec World 139:78-81 Je 1 '53

Niagara falls; 60 years of power. C. A. Powel. diag Elec Eng 73:53-5 Ja '54

Niagara hearings reopened. Elec World 140:81-2 Jl 27 '53

Niagara should be developed through private enterprise. H. E. Capehart. map Pub Util 53:523-32 Ap 29 '54

Partnership; city and private utility dedicate joint hydro; Neversink hydroelectric plant. Eng N 152:24 Mr 11 '54

Six dams on the Raquette. il map Eng N 151:30-2 S 17 '53

Utilities rap development of Niagara by N.Y. state. Elec World 139:98 Je 15 '53

Who'll boost Falls' power? Niagara three-sided controversy. Chem W 73:40-4 Ag 1 '53

Will public power unite on Niagara? il Elec World 139:60-1 Je 1 '53

New Zealand

Major hydro development progresses on New Zealand's North island. il Eng N 151:44-5 D 24 '53

Waikato River resources. map Elec R (Lond) 154:214 Ja 29 '54

Northeastern states

Northeast hydro projects stir debate. Elec World 140:84 D 28 '53

Northwestern states

Alcoa would build hydro dams to firm up Northwest power supply. C. S. Thayer. Elec World News ed 141:59-60 F 15 '54

Calendar of new generation; U.S. Columbia River power system; tabulation. Elec West 112:95 F '54

Damming up the Northwest. il map Elec R (Lond) 154:155-6 Ja 22 '54

FPC permit requested by Puget Sound Power & Light to develop Columbia River site. F. McLaughlin. Elec World 141:158-9 Ja 11 '54

How will federal hydro policy affect Pacific Northwest. L. L. Wise. il map Eng N 151:33+ N 19 '53

Huge new co-operative construction program in Pacific Northwest. O. Ely. Pub Util 53:47-8 Ja 7 '54

Hydroelectric power in the Columbia basin. M. W. Lee. J Bsns 26:173-89 Jl '53

Jordan offers NW power plan. Elec World 140:80 O 5 '53

Northwest aluminum output expected to be kept at full capacity. Elec World 140:161 N 30 '53

Northwest seeks hydro pact. Elec World 140:72-3 S 7 '53

Proposed BPA-PGE pact. Elec World 139:123-4 Je 15 '53

Water gamble; storage at Hungry Horse dam to be tapped to aid aluminum companies. Eng N 151:24 N 26 '53; Bsns W p32 N 28 '53

Ontario

First power becomes available next month from new hydro-electric development on Niagara river. il Roads & Eng Constr 92:67-8 Mr '54

Hydro-electric development on the Canadian side of the Niagara river; abstract. R. L. Hearn. Roads & Eng Constr 92:106 My '54

Lining concrete pumped into place; Ontario hydro tunnels. J. R. Glaeser. il diags Civil Eng 23:753-7 N '53

Niagara power development uses largest hydraulic regulating gates. il Roads & Eng Constr 92:95+ S '54

Niagara power; progress of large Ontario project. il map Elec R (Lond) 153:1359-61 D 18 '53

150-mva lines link Detroit Edison with Ontario Hydro. il map Elec World News ed 141:42-3 F 15 '54

One of the tunnels for Niagara power development now carrying water. Roads & Eng Constr 92:34 Jl '54

Ontario Hydro blasts out Niagara power tunnels of 51-ft diameter. J. R. Glaeser. il map diags Civil Eng 23:676-80 O '53

Ontario Hydro construction on-schedule at Niagara. il Eng N 151:33-4+ S 10 '53

See also

Ontario—Hydroelectric power commission

HYDROELECTRIC plants—*Continued*

Oregon

Appeals court sets aside FPC's Pelton license. Elec World News ed 141:9 Mr 1 '54

Critic of Clearwater projects answered. P. B. McKee. Elec World News ed 141:52 Ja 18 '54

Eugene plans river projects. il Elec World News ed 141:15 Ja 18 '54

First McNary power goes on the line. F. S. Tandy. il Elec West 112:68-70 Ja '54

Pakistan

India and Pakistan; hydro plentiful, rupees scarce. il map Elec World News ed 141:16-17+ F 15 '54

Pennsylvania

Movements in the structural concrete at Conowingo hydro plant. S. Moyer and V. Hansen. Am Soc C E Proc 79 [no 308]: 1-7 O '53; Discussion. il diags 79 [no378]:13-20 D '53

Portugal

Hydro-electric development in Portugal. il maps plan diags Engineer 196:546-9, 578-81, 614-17, 650-4 O 30-N 20 '53

Hydro-electric developments in Portugal. il Engineering 176:660-3 N 20 '53; Elec J 151: 1491-4 N 6 '53; Elec R (Lond) 153:1037-41 N 6 '53

Puerto Rico

Puerto Rico's water supply project. A. S. Keshen. il map Explosives Eng 31:118-21+ Jl '53

Quebec (province)

Power from the Bersimis. J. P. Smallwood. il maps Comp Air Mag 59:128-33 My '54

Powerhouses of unusual design; abstract. R. E. Heartz. Roads & Eng Constr 92:107+ My '54

Quebec province; power to ease world aluminium demand. il Elec J 152:262-4 Ja 22 '54

Rocky Mountain region

Electric power availability in Rocky Mountain states. A. B. Martin. bibliog maps Ind & Eng Chem 45:2467-74 N '53

Scotland

Conon Valley hydro-electric scheme. il map Engineering 177:90-1 Ja 15 '54

North of Scotland hydro-electric board's annual report for 1953. Elec J 152:769 Mr 5 '54; Abstract. Engineering 177:294 Mr 5 '54

North of Scotland hydro-electric schemes. il maps plan diags Engineer 196:482-5, 514-17 O 16-23 '53

Scottish water power. Elec R (Lond) 154:429-30 Mr 5 '54

Southeastern states

Private power gains in Southeast. Elec World 140:85 D 28 '53

Southwestern states

Federal power slows in Southwest. Elec World 140:83 D 28 '53

Switzerland

World's tallest dam rises in Switzerland. W. G. Bowman. il maps plan diag Eng N 151:32+ D 3 '53

Tennessee

Recent additions and improvements to the Hales Bar hydroelectric plant. A. A. Meyer. il plans diags Am Soc C E Proc 79 [no 294]: 1-30 O '53; Discussion. 79 [no 378]:9-11 D '53

Turkey

Job in Turkey; U.S. firm in low bidding group on hydro project. Eng N 151:27 Jl 9 '53

Uganda

Owen falls; the Nile hydro-electric scheme; illustrations with text. Elec R (Lond) 154: 80-1 Ja 8 '54

United States

1954 design survey; typical hydroelectric plants in the United States and Canada; tabulation. Power 98:52-5 Mid-S '54

Power partnership goal spelled out; American power conference gets federal officials' views. Eng N 152:25 Ap 1 '54

Power resources; East north central states. F. D. Campbell and A. S. Griswold. Ind & Eng Chem 46:494-6 Mr '54

Virginia

FPC fixes Roanoke pool level. Elec World 139: 99 Je 15 '53

Washington (state)

Cowlitz Dam licenses valid, high court rules. Elec West 111:132 N '53

Largest powerhouse under construction at Chief Joseph dam. L. A. Luther. il Comp Air Mag 59:254-7 S '54

New study planned on Tacoma project. D. Eastvold. Elec West 111:132 D '53

Not too tough for microwave; circuit between the Gorge and Diablo power plants. R. A. Benson. il map diag Elec West 112:65-7 Ja '54

Operating agency formed by three Washington cities and three PUD's to carry out power plans. Elec World News ed 140:24 N 23 '53

Western states

Current and future development of USBR power projects; tabulation. Elec West 112:85 F '54

Utility interests signify willingness for partnership with federal agencies. Eng N 151:26 D 17 '53

Yugoslavia

Yugoslavia to export power. Elec World News ed 140:34 S 14 '53

Yukon

Licenses granted, work to proceed on $269,950,000 power and industrial development in Yukon area. map Roads & Eng Constr 92:92-3+ S '54

Mammoth hydro plans mapped in Yukon and British Columbia. map Eng N 152:23-4 Ap 29 '54

Yukon power; pilot plant and smelter on Taku river. Elec World News ed 140:15 Ag 17 '53

HYDROELECTRIC power

See also

- Hydroelectric plants
- Ontario—Hydroelectric power commission
- St Lawrence waterway and power project

HYDROELECTRIC power commission. See Ontario—Hydroelectric power commission

HYDROFLUORIC acid

Absorption cells for use with hydrogen fluoride and halogen fluoride solutions. J. J. Katz and H. H. Hyman. diags R Sci Instr 24: 1066-7 N '53

Determination of fluoride. L. Singer and W. D. Armstrong. bibliog diags Anal Chem 26:904-6 My '54

Hydrogen fluoride solvent system; apparatus for polarographic studies. J. W. Sargent, A. F. Clifford and W. R. Lemmon. diags Anal Chem 25:1727-9 N '53

Liquid-vapor equilibrium in the system uranium hexafluoride-hydrogen fluoride. R. L. Jarry and others. bibliog diag J Phys Chem 57:905-9 D '53

Simultaneous electrodeposition of copper and lead from nitric acid-hydrofluoric acid-beryllium nitrate solution. C. Goldberg. bibliog Anal Chem 25:1405 S '53

Spectral absorption of solutions of iodine in liquid hydrogen fluoride. L. I. Katzin and J. J. Katz. bibliog Am Chem Soc J 75: 6057-8 D 5 '53

Structure of di-(methylcyclohexyl)-benzenes from the cycloalkylation of 4-methylcyclohexene with benzene in the presence of hydrogen fluoride. V. N. Ipatieff, J. E. Germain and H. Pines. Am Chem Soc J 75:6056-7 D 5 '53

Universal reagent for cleaning glassware; hydrofluoric acid. R. H. A. Crawley. Chem & Ind p 1205-6 N 7 '53

Analysis

Determination of traces of hydrogen fluoride in inert gases. D. L. Manning and J. C. White. Anal Chem 25:1648-50 N '53

HYDROFLUOROETHYLENE

Thermal degradation of tetrafluoroethylene and hydrofluoroethylene polymers in a vacuum. S. L. Madorsky and others. bibliog diag J Res Nat Bur Stand 51:327-33 D 53

HYDROFOILS

Appraisal of hydrofoil supported craft; abstract and discussion. T. M. Buermann. Marine Eng 59:49-50 Ja '54

Cavitation tests on hydrofoils in cascade. F. Numachi. bibliog il diags A S M E Trans 75:1257-69 O '53

Hydrofoil boats. il Product Eng 24:204-5 Ag '53

Limiting pressure on hydrofoils at small submergence depths. E. V. Laitone. diag J Ap Phys 25:623-6 My '54

HYDROFORMING process. See Gasoline—Manufacture

HYDROGEN

Absorption of tritium beta particles in hydrogen and other gases. L. M. Dorfman. bibliog diag Phys R 95:393-6 Jl 15 '54

Abstraction of hydrogen atoms from mercaptans by 2,2-diphenyl-1-picrylhydrazyl. K. E. Russell. bibliog J Phys Chem 58:437-9 My '54

Active hydrogen in aldehydes. J. A. King. Am Chem Soc J 76:3597-8 Jl 5 '54

Adsorption and the magnetic ortho-para conversion of hydrogen on diamagnetic solids. Y. L. Sandler. bibliog J Phys Chem 58:54-61 Ja '54

Angular distribution of charge-exchange scattering of 40-Mev π^- mesons by hydrogen. J. Tinlot and A. Roberts. diags Phys R 95:137-46 Jl 1 '54

Aromatic electrophilic substitution by hydrogen; the mechanism of the acid-catalyzed decarboxylation of aromatic acids. W. M. Schubert, J. Donohue and J. D. Gardner. bibliog Am Chem Soc J 76:9-14 Ja 5 '54

Aromatic electrophilic substitution by hydrogen; the mechanism of the acid-catalyzed decarboxylation of aromatic aldehydes. W. M. Schubert and R. E. Zahler. bibliog Am Chem Soc J 76:1-9 Ja 5 '54

Charts give water solubility of helium, hydrogen, nitrogen and oxygen. D. S. Davis. Chem Eng 61:228+ F '54

Combustion facts; hydrogen burned in air. P. Swain. Power 98:152 Je '54

Compressibility chart for hydrogen and inert gases. F. D. Maslan and T. M. Littmann. bibliog Ind & Eng Chem 45:1566-8 Jl '53

Constitution and mechanical properties of titanium-hydrogen alloys. G. A. Lenning and others. bibliog il J Metals 6:Trans 367-76 Mr '54

Determination of magnesium oxide by hydrogen flame spectrophotometry. P. Close, W. E. Smith and M. T. Watson, jr. Anal Chem 25:1022-5 Jl '53

Determination of potassium in glass with the hydrogen flame photometer and the Beckman model DU spectrophotometer. P. Close and M. T. Watson, jr. bibliog Am Cer Soc J 37:235-8 My 1 '54

Dissociation of H_2^+ by electron impact. E. H. Kerner. bibliog Phys R 92:1441-7 D 15 '53

Effect of active hydrogen on the breakdown of oil-masterbatched polymers. W. K. Taft and others. Rubber Age 75:838-40 S '54

Effect of inelastic collisions on the slowing-down length of neutrons in a hydrogenous mixture. H. C. Volkin. bibliog J Ap Phys 25:83-6 Ja '54

Elastic scattering of 118-Mev negative pions by hydrogen. J. Orear. bibliog diag Phys R 92:156-60 O 1 '53

Exchange of hydrogen between ammonium salts and alcohols. L. Kaplan and K. E. Wilzbach. Am Chem Soc J 76:2593 My 5 '54

Exchange reaction of hydrogen and tritium. L. M. Dorfman and H. C. Mattraw. bibliog J Phys Chem 57:723-5 O '53

Faraday effect of some molecules chelated or associated by hydrogen bonding. C. E. Waring and R. L. Custer. bibliog Am Chem Soc J 76:2058-60 Ap 20 '54

Formation of powder and its dependence on crystal face during the catalytic reaction of hydrogen and oxygen on a single crystal of copper. J. B. Wagner, jr. and A. T. Gwathmey. bibliog 2pls Am Chem Soc J 76:390-1 Ja 20 '54

Fractionating converter for producing *para*-hydrogen. W. F. Giauque. diag R Sci Instr 25:886-7 S '54

High purity hydrogen from liquefied petroleum gas. Chem Age (Lond) 71:372 Ag 21 '54

Homogeneous catalytic hydrogenation; the effect of catalyst environment on the activation of molecular hydrogen. L. W. Wright and S. Weller. Am Chem Soc J 76:3345-6 Je 20 '54

Hydrogen-deuterium exchange on copper, silver, gold and alloy surfaces. R. J. Mikovsky, M. Boudart and H. S. Taylor. bibliog diag Am Chem Soc J 76:3814-19 Jl 20 '54

Hydrogen-deuterium exchange reaction on zinc oxide catalysts. E. Molinari and G. Parravano. bibliog Am Chem Soc J 75:5233-7 N 5 '53

Hydrogen welding's big troublemaker. H. Thielsch. Steel 135:84-5 S 27; 108+ O 4 '54

Increased sensitivity of leak detection with hydrogen. G. A. Alers and others. R Sci Instr 24:399-400 My '53

Influence of foreign atoms on the surface rearrangement produced by the catalytic reaction of hydrogen and oxygen on a single crystal of copper. R. E. Cunningham and A. T. Gwathmey. Am Chem Soc J 76:391-3 Ja 20 '54

Influence of hydrogen and carbon monoxide partial pressures on the rate of the hydroformylation reaction. G. Natta and others. Am Chem Soc J 76:4049-50 Ag 5 '54

Infrared emission of the hydrogen-fluorine (H_2-F_2)flame. W. S. Benedict and others. bibliog Opt Soc Am J 43:1106-13 N '53

Interaction cross section of hydrogen and heavier elements for 450-Mev negative and 340-Mev positive pions. S. J. Lindenbaum and L. C. L. Yuan. diag Phys R 92:1578-9 D 15 '53

Intermolecular potentials of helium and hydrogen. E. A. Mason and W. E. Rice. bibliog J Chem Phys 22:522-35 Mr '54

Intramolecular hydrogen bridges and physiological activity. M. Davies. bibliog Chem & Ind p614-15 Je 20 '53

Ion exchange column performance; hydrogen cycle rates in nonaqueous solvents. T. Vermeulen and E. H. Huffman. Ind & Eng Chem 45:1658-64 Ag '53

Kinetics of carbon gasification by steam; mechanism of interaction of low temperature char and steam-hydrogen mixtures at 1600°F. G. E. Goring and others. bibliog Ind & Eng Chem 45:2586-91 N '53

Kinetics of the exchange of hydrogen between phosphine and water; a kinetic estimate of the acid and base strengths of phosphine. R. E. Weston, jr. and J. Bigeleisen. bibliog Am Chem Soc J 76:3074-8 Je 5 '54

Kinetics of the heterogeneous parahydrogen conversion. Y. L. Sandler. bibliog J Chem Phys 21:2243-4 D '53

Kinetics of the reaction of hydrogen with zirconium. J. Belle and others. bibliog il diag Electrochem Soc J 101:211-14 My '54

Large NaI scintillation counter study of the neutron capture gamma rays from hydrogen. B. Hamermesh and R. J. Culp. Phys R 92:211 O 1 '53

Magnetic properties of the hydrogen molecules. E. Ishiguro and S. Koide. Phys R 94:350-7 Ap 15 '54

Mechanism of exchange of hydrogen between nitrogen and oxygen atoms. C. G. Swain and others. Am Chem Soc J 76:4243 Ag 20 '54

Mechanism of the reaction of hydrogen with zirconium. E. A. Gulbransen and K. F. Andrew. bibliog Electrochem Soc J 101:348-53 Jl '54

Mechanisms of removal of hydrogen from palladium-hydrogen by oxidation. F. A. Lewis and A. R. Ubbelohde. diags Chem Soc J p 1710-16 Je '54

Melting curves of deuterium and hydrogen. P. F. Chester and J. S. Dugdale. bibliog Phys R 95:278-9 Jl 1 '54

Natural tritium content of atmospheric hydrogen. A. V. Grosse and others. bibliog Phys R 93:250-1 Ja 1 '54

HYDROGEN—*Continued*

Neighboring carbon and hydrogen; 1,3-interactions and homoallylic resonance. M. Simonetta and S. Winstein. bibliog Am Chem Soc J 76:18-21 Ja 5 '54

One-dimensional wave equation for hydrogen bonds. C. E. Nordman and W. N. Lipscomb. J Chem Phys 21:2077-8 N '53

Photoproduction of charged pi mesons from hydrogen and deuterium. T. L. Jenkins and others. diag Phys R 95:179-84 Jl 1 '54

Photoproduction of π^+ mesons from hydrogen and carbon. G. S. Janes and W. L. Kraushaar. diag Phys R 93:900-1 F 15 '54

Photoproduction of π^+ mesons from hydrogen near threshold. G. Bernardini and E. L. Goldwasser. diags Phys R 94:729 My 1 '54

Radio waves from interstellar hydrogen; astronomers use phenomenon to locate hydrogen clouds and to detect their motion. H. I. Ewen. il Sci Am 189:42-6 D '53

Reaction of hydrogen and oxygen on submerged platinum electrode catalysts; effect of stirring, temperature and electric polarization. M. J. Joncich and N. Hackerman. bibliog J Phys Chem 57:674-8 O '53

Reduction of δ-lactones by catalytic hydrogen. E. B. Reid and J. R. Siegel. Am Chem Soc J 76:938-9 F 5 '54

Scattering of 45-Mev positive pions by hydrogen. J. Orear and others. bibliog diag Phys R 93:1367-77 Mr 15 '54

Scattering of 14.1-Mev neutrons in helium, hydrogen, and nitrogen. J. R. Smith. bibliog Phys R 95:730-5 Ag 1 '54

Scattering of negative pions by hydrogen. E. Fermi and others. Phys R 92:161-3 O 1 '53

Scattering of 187-Mev negative pions by hydrogen. M. Glicksman. Phys R 95:1045-7 Ag 15 '54

Scattering of 65-Mev pions in hydrogen. D. Bodansky and others. bibliog diags Phys R 93:1367-77 Mr 15 '54

Scattering of 217-Mev negative pions by hydrogen. M. Glicksman. diags Phys R 94:1335-44 Je 1 '54

Study by infra-red spectroscopy of hydrogen bonding in cellulose. H. J. Marrinan and J. Mann. bibliog(28 ref) J Ap Chem 4:204-11 Ap '54

Theory of intermolecular potential and second virial coefficient of hydrogen at low temperature. M. Mizushima and others. bibliog J Chem Phys 21:2107-14 D '53

Thermal neutron capture cross sections of hydrogen, boron, and silver. F. R. Scott and others. diag Phys R 95:582-4 Jl 15 '54

Total cross section for positive pions in hydrogen. S. L. Leonard and D. H. Stork. bibliog diags Phys R 93:568-74 F 1 '54

Total cross sections of 135-Mev to 250-Mev negative pions in hydrogen. J. Ashkin and others. Phys R 93:1129-30 Mr 1 '54

Wetting of fluorinated solids by hydrogen-bonding liquids. A. H. Ellison, H. W. Fox and W. A. Zisman. bibliog J Phys Chem 57:622-7 O '53

Yields of hydrogen and hydrogen peroxide in the irradiation of oxygen saturated water with cobalt gamma-rays. J. A. Ghormley and C. J. Hochanadel. Am Chem Soc J 76:3351-2 Je 20 '54

See also

Hydrogenation

Metals—Hydrogen content

Steel—Hydrogen effect

Analysis

Analyzer determines hydrogen; Taller & Cooper. flow diag Chem & Eng N 31:5314 D 21 '53

Beta rays slash H_2 test time in liquid hydrocarbons. il diags Chem Eng 61:278+ Ja '54

Cenco's H/C meter uses beta rays. il Chem & Eng N 31:4724 N 9 '53

Convenient technique for micro Zerewitinoff determinations. H. C. Brown and O. Hafliger. bibliog diags Anal Chem 26:757-9 Ap '54

Determination of heavy water with the hot wire gage. R. G. Haldeman. bibliog diags Anal Chem 25:787-90 My '53

Determination of hydrogen in wrought aluminum alloys. C. B. Griffith and M. W. Mallett. bibliog diags Anal Chem 25:1085-7 Jl '53

Determination of low concentrations of oxygen in hydrogen. M. M. Wright. bibliog(40 ref) diags Anal Chem 26:1001-8 Je '54

Develop improved method of testing steel for hydrogen. Iron Age 173:154+ My 13 '54; Blast F & Steel Pl 42:680 Je '54; Materials & Methods 40:220+ Jl '54

Gasometric method for determination of hydrogen in carbon. W. G. Guldner and A. L. Beach. diag Anal Chem 26:1199-202 Jl '54

Hydrogen determination and liquid analysis with a beta-particle absorption apparatus. V. N. Smith and J. W. Otvos. il diags Anal Chem 26:359-66 F '54

Hydrogen measurement techniques need emphasis to meet demands for accuracy, speed, and reliability. B. W. Thomas. il Ind & Eng Chem 46:sup79A-80A+ S '54

Measurement of low concentrations of hydrogen in nitrogen; Pirani gauge which incorporates a heated palladium window. A. H. Turnbull and M. F. A. Harrison. diags J Sci Instr 30:266-8 Ag '53

Rapid interferometric analysis of germane-hydrogen mixtures. M. Green and P. H. Robinson. diag Anal Chem 25:1913-14 D '53

Replacement of lead peroxide in carbon, hydrogen microdetermination. C. K. Cross and G. F. Wright. bibliog diags Anal Chem 26:886-90 My '54

Sealed-tube combustion for determination of carbon, hydrogen, and nitrogen. W. Kirsten. diags Anal Chem 26:1097 Je '54

Speedy, accurate hydrogen measurement; new instrument uses beta rays. R. B. Jacobs and L. G. Lewis. il diag Oil & Gas J 52:128-30 S 28 '53

Volumetric determination of carbon and hydrogen in organic microcombustion analysis. A. Johansson. bibliog diag Anal Chem 26:1183-5 Jl '54

Atomic hydrogen

Application of the Rayleigh-Schrödinger perturbation theory to the hydrogen atom. E. P. Wigner. Phys R 94:77-8 Ap 1 '54

Atomic hydrogen hyperfine structure in irradiated acids. R. Livingston and others. Phys R 94:725 My 1 '54

Generalized variational equations for the scattering of electrons by hydrogen atoms. M. M. Gordon and J. G. Jones. bibliog Phys R 92:1428-33 D 15 '53

Variational calculation of the elastic scattering of electrons by hydrogen atoms. H. Boyet and S. Borowitz. bibliog Phys R 93:1225-7 Mr 15 '54

Industrial applications

Don't burn your excess hydrogen. H. Heinemann. bibliog(47 ref) Pet Processing 8:1036-40 Jl '53

Hydrogen-protected Nichrome brazing. P. C. Ziemke. diag Ind & Eng Chem 46:sup107A+ Ag '54

Non-salient-pole synchronous generators; mechanical problems; hydrogen cooling. W. J. Carfrae. diags Elec J 152:110-12 Ja 8 '54

Isotopes

Nomograms used in analysis of data in the reaction $Li^6(n.\alpha)H^3$. M. L. Boas. R Sci Instr 24:356-9 My '53

See also

Deuterium

Tritium

Manufacture

Hydrogen from butane for Lever bros. flow sheet. il Can Chem Process 38:90+ Mr '54

Hydrogen; Girdler co. flow diag Pet Refiner 32:176-7 N '53

Pulverized-coal-fired gasifier for production of carbon monoxide and hydrogen. P. R. Grossman and R. W. Curtis. flow diag diags A S M E Trans 76:689-95 My '54

Nuclear reactions

Production of neutral mesons by 340-Mev protons on hydrogen. J. W. Mather and E. A. Martinelli. bibliog il diags Phys R 92:780-9 N 1 '53

HYDROGEN—*Continued*

Spectrum

Hyperfine structure of hydrogen. R. Arnowitt. bibliog Phys R 92:1002-9 N 15 '53

Improved hydrogen discharge lamp. V. A. Campanile and V. Lantz. il diag Anal Chem 26:1394-5 Ag '54

Improved hydrogen discharge lamp for use in refractometry. R. W. King and A. E. Hirschler. diags Anal Chem 26:1397-8 Ag '54

Self-reversal of the H_α hydrogen line in the high pressure spark discharge. H. Fischer. bibliog il Opt Soc Am J 43:394-7 My '53

Variations of hydrogen rotational magnetic moments with rotational quantum number and with isotopic mass. R. G. Barnes and others. Phys R 94:893-902 My 15 '54

Zeeman effect in the molecular spectra of hydrogen. G. H. Dieke and others. bibliog il diags Phys R 92:81-7 O 1 '53

HYDROGEN, Liquid

Bubble tracks in a hydrogen-filled Glaser chamber. J. G. Wood. il Phys R 94:731 My 1 '54

Compressibility of liquid normal hydrogen from the boiling point to the critical point at pressures up to 100 atmospheres. H. L. Johnston, W. E. Keller and A. S. Friedman. bibliog diag Am Chem Soc J 76:1482-6 Mr 20 '54

Condensed gas calorimetry; the heat capacity of liquid parahydrogen from the boiling point to the critical point. A. L. Smith, N. C. Hallett and H. L. Johnston. bibliog Am Chem Soc J 76:1486-8 Mr 20 '54

Efficient cryostat for producing temperatures between 4° and 80°K; production of liquid hydrogen targets using liquid helium. C. A. Swenson and R. H. Stahl. bibliog flow chart diags R Sci Instr 25:608-11 Je '54

Government erects $3,500,000 low temperature laboratory; NBS-AEC cryogenic engineering laboratory. flow diag il Refrig Eng 61:1082-4 O '53; Same. Comp Air Mag 58:340-2 D '53

Kinetics analysis of flow catalysis of ortho to para-hydrogen. J. D. Rogers. Ind & Eng Chem 45:1574-6 Jl '53

Now, cryogen hydrogen; new laboratory at Boulder, Colo. il Chem Eng 60:134+ N '53

Operation of a Glaser bubble chamber with liquid hydrogen. R. H. Hildebrand and D. E. Nagle. diag Phys R 92:517-18 O 15 '53

Quantum effects in compressed liquid hydrogen. S. D. Hamann. bibliog Am Chem Soc J 76:4244 Ag 20 '54

Regular production of 85 percent para liquid hydrogen. E. R. Grilly. R Sci Instr 24:899-900 O '53

Transfer tube for liquid hydrogen or helium. J. W. Stout. diag R Sci Instr 25:929-30 S '54

HYDROGEN, Solid

Compression to 10,000 atmos of solid hydrogen and deuterium at 4.2°K. J. W. Stewart and C. A. Swenson. Phys R 94:1069-70 My 15 '54

HYDROGEN apparatus

Safety measures

Hydrogen manifolds and lines made safe. diag Safety Maint & Prod 107:54 My '54

HYDROGEN as fuel

Combustion of hydrogen as related to knock. W. F. Anzilotti and others. bibliog diags Ind & Eng Chem 46:1314-18 Je '54

Flame-stability studies with mixed fuels. P. F. Kurz. bibliog plan diags Ind & Eng Chem 45:2072-8 S '53

HYDROGEN bomb

Bomb-blast table and charts. P. W. Swain. Power 98:80-3 Ag '54

Bomb to end bombs? Economist 168:547-8 Ag 29 '53

H-bomb and its detection. Metal Prog 65:102-3 Je '54

Hydrogen bomb can take out modern cities. L. L. Strauss. Chem & Eng N 32:1482 Ap 12 '54

H-bomb compels new look at blast design; design for fringe areas. Eng N 152:21-2 Ap 15 '54

H-bomb; defense isn't futile, but more important; editorial. diag Eng N 152:120 Ap 15 '54

Hydrogen bomb story unfolds at Oppenheimer hearings. il Chem & Eng N 32:2592+ Je 28 '54

Reacting to Russia's H-blast. Bsns W p25 Ag 29 '53

Soviet H-bomb stirs air power debate. R. Hotz. Aviation W 59:13-14 S 7 '53

U.S. to build more hydrogen bombs. il Chem & Eng N 32:1573-4 Ap 19 '54

What the hydrogen bomb means to city and industrial planning. Arch Forum 100:39-40 Je '54

What the H-bomb means to industry and you. Factory Management 112:112A-112D My '54

Protective measures

H-bomb defense; get out, dig, or die; abstract. E. E. Robinson. Chem & Eng N 32:2207 My 31 '54

H-bomb; defense in dispersion. il maps Iron Age 173:99-100 Ap 8 '54

Mobilized for megatons. Chem W 74:17 Ap 17 '54

Radiological effect

Radioactivity and the hydrogen bomb. K. Buckthought. Can Chem Process 38:78+ Ap '54

Testing

American H-bomb tests. L. L. Strauss. il Metal Prog 65:96-7 My '54

HYDROGEN bromide. See Hydrobromic acid

HYDROGEN chloride. See Hydrochloric acid

HYDROGEN compounds

Crystal structure and thermodynamic studies on the zirconium-hydrogen alloys. E. A. Gulbransen and K. F. Andrew. bibliog Electrochem Soc J 101:474-80 S '54

HYDROGEN cyanide. See Hydrocyanic acid

HYDROGEN electrodes. See Electrodes

HYDROGEN fluoride. See Hydrofluoric acid

HYDROGEN halides

Dipole moment variations in the hydrogen halide molecules. I. C. Hisatsune, G. A. Crosby and D. F. Eggers, jr. bibliog Am Chem Soc J 76:3088-9 Je 5 '54

Reaction of propylene oxide with hydrogen halides. C. A. Stewart and C. A. VanderWerf. bibliog Am Chem Soc J 76:1259-64 Mr 5 '54

See also

Hydrobromic acid

Hydrochloric acid

Hydrofluoric acid

HYDROGEN ion concentration

Automatic pH control replaces manual operation for acid waste treatment; Exchange lemon products co. P. L. Shugart. diag Pub Works 85:67 Jl '54

Brönsted theory applied to acid-base balance and respiration. A. W. Devor. J Chem Educ 31:425-8 Ag '54

Detection of anionic complexes by *p*H measurements; polymeric borates. J. O. Edwards. bibliog Am Chem Soc J 75:6151-4 D 20 '53

Detection of anionic complexes by *p*H measurements; some evidence for peroxyborates. J. O. Edwards. Am Chem Soc J 75:6154-5 D 20 '53

Effect of the *p*H of xanthate solutions on the contact angle between a bubble of air and an iron disulfide surface not of minimum rugosity. P. F. Whelan. bibliog il J Phys Chem 58:375-9 Ap '54

γ-ray-induced oxidation of aqueous formic acid-oxygen solutions; effect of *p*H. E. J. Hart. bibliog Am Chem Soc J 76:4198-201 Ag 20 '54

High-yield sulfite pulping; direct measurement of pH at elevated temperature and pressure. O. V. Ingruber. bibliog diags Pulp & Pa of Can 55:124-31 S '54; Abstract. Paper Ind 36:490 Ag '54

pH adjustment for determination of ammonia nitrogen. C. N. Sawyer. Anal Chem 25:816-17 My '53

pH and titration control. Soap & San Chem 29:87+ S '53

Hydrogen ion concentration of human fetal blood in utero at term. I. H. Kaiser. Science 118:29-30 Jl 3 '53

HYDROGEN ion concentration—*Continued*

Hydrogen ion concentration of weak monobasic acids and their salts. B. Park. J Chem Educ 30:257-60 My '53

pH of solutions of potassium tetroxalate from 0° to 60° C. V. E. Bower and others. bibliog J Res Nat Bur Stand 51:189-94 O '53

pH value of molding sands; its effect on casting quality. V. E. Zang and G. J. Grott. il diag Foundry 82:116-19+ Je '54

Illumination; *p*H effects in solutions of complex cyanides. A. G. MacDiarmid and N. F. Hall. bibliog Am Chem Soc J 75:5204-7 N 5 '53

Industrial pH control; developments in electrodes. il Chem Age (Lond) 68:598 Ap 18 '53

Influence of *pH* on antigen-antibody equilibria. S. J. Singer. Am Chem Soc J 76:4052-3 Ag 5 '54

Influence of pH on the electrochemical behavior of metals and their corrosion resistance; abstract. A. Y. Shatalov. Metal Prog 65:174+ Ap '54

Instability of diethyldithiocarbamic acid at low pH. A. E. Martin. Anal Chem 25:1260-1 Ag '53

Log table for pH problems. F. E. Condon. J Chem Educ 31:323 Je '54

Measurement of pH in soils and water. Am Gas J Hdbk 179:140-1 O 1 '53

Measurement of the effect of dilution upon pH. R. G. Bates. bibliog Anal Chem 26:871-4 My '54

Micro glass electrode for continuous recording of brain *p*H in situ. R. R. Sonnenschein and others. diags R Sci Instr 24:702-4 Ag '53

Oxidation-reduction potential and pH changes in manometric vessels. K. Wight and D. Burk. bibliog il diag Anal Chem 26:481-4 Mr '54

Properties of actomyosin before and after treatment with ion-exchange resins; influence of pH and ionic strength on molecular shape of a structural muscle protein. M. L. R. Harkness and A. Wassermann. pl diag Chem Soc J p 1344-56 My '54

Pye and co. pH meter and millivoltmeter. diag J Sci Instr 30:391 O '53

Relation of pH and oxidation potential to sedimentary iron mineral formation. N. K. Huber and R. M. Garrels. bibliog diags Econ Geol 48:337-57 Ag '53

Some aspects of absorptiometric analysis; abstract. T. B. Smith. bibliog Chem Age (Lond) 68:847-52 Je 6 '53

Some mechanisms for the interpretation of the effects of *p*H and buffer salts on a simple enzymatic reaction. R. A. Alberty. bibliog Am Chem Soc J 76:2494-8 My 5 '54

Studies of the enzyme fumarase; the dependence of the kinetic constants at 25° upon the concentration and *p*H of phosphate buffers. R. A. Alberty and others. bibliog Am Chem Soc J 76:2485-93 My 5 '54

Surface properties of silica gels; importance of pH in preparation from sodium silicate and sulphuric acid. K. S. W. Sing and J. D. Madeley. bibliog J Ap Chem 3:549-56 D '53

Temperature control in glass electrode pH measurements. S. Lewin. bibliog diags Chem & Ind p 1193-7 N 7 '53

Transient response of the glass electrode to *p*H step variations. A. Distèche and M. Dubuisson. bibliog il diags R Sci Instr 25:869-75 S '54

Use of apparent dissociation constants in qualitative organic analysis. T. V. Parke and W. W. Davis. Anal Chem 26:642-5 Ap '54

Use of hydrolysable esters in the control of dyebaths. R. J. Hannay and W. H. Major. diag Soc Dyers & Col J 69:195-201 Je '53

See also
Buffer solutions

HYDROGEN overvoltage. See Overvoltage

HYDROGEN peroxide

Application of fluorescent agents in hydrogen peroxide bleaching of knit goods. J. F. Whalen. Am Dyestuff Rep 42:597 Ag 31 '53

Decomposition of aqueous hydrogen peroxide over chromic oxide catalysts. S. E. Voltz and S. W. Weller. Am Chem Soc J 76:1586-7 Mr 20 '54

Decomposition of hydrogen peroxide by ceric salts; the action of ceric sulphate. S. Baer and G. Stein. Chem Soc J p3176-9 O '53

Electrophilic displacement reactions; kinetics of the reaction between hydrogen peroxide and benzeneboronic acid. H. G. Kuivila. bibliog Am Chem Soc J 76:870-4 F 5 '54

Free radical-initiated $O^{16}O^{18}$-H_2O^{16} exchange reaction in aqueous solution. E. J. Hart, S. Gordon and D. A. Hutchison. bibliog Am Chem Soc J 75:6165-9 D 20 '53

Function of organic material in the photochemical formation of hydrogen peroxide at zinc oxide surfaces. C. B. Vail, J. P. Holmquist and L. White, jr. bibliog Am Chem Soc J 76:624-5 Ja 20 '54

High density groundwood bleaching with hydrogen peroxide. P. U. Bretschger. Tappi 37:sup 171A-2A My '54

H.M. submarine Explorer; hydrogen-peroxide propelling machinery. il Engineering 177:360 Mr 19 '54

Hydrogen peroxide. C. N. Satterfield. map Chem & Eng N 32:2726-30 Jl 5 '54

Hydrogen peroxide; abstract. F. R. Morehouse. Pulp & Pa of Can 54:120 D '53

Hydrogen-peroxide bleaching of textile materials. H. G. Smolens. Am Dyestuff Rep 42:408-10 Je 22 '53

Kinetics and mechanism of the oxidation of *p,p'*-dichlorobenzyl sulfide by hydrogen peroxide. C. G. Overberger and R. W. Cummins. bibliog Am Chem Soc J 75:4783-7 O 5 '53

Kinetics of the pre-steady state system of catalase with hydrogen peroxide. R. F. Beers, jr. J Phys Chem 58:197-200 Mr '54

Organic peroxides; the mechanism of the reaction of alkyl methanesulfonates with hydrogen peroxide. H. R. Williams and H. S. Mosher. bibliog Am Chem Soc J 76:3495-6 Jl 5 '54

Oxidation of lanost-8-enyl acetate with hydrogen peroxide. S. A. Knight and others. bibliog Chem & Ind p822 Ag 1 '53

Partial oxidation of propane. C. N. Satterfield and others. bibliog(40 ref) diag Ind & Eng Chem 46:1001-10 My '54

Peroxide bleaching of protein fibers; abstract. F. Jordinson. Am Dyestuff Rep 43:598 Ag 30 '54

Polarography and standard potential of the oxygen-hydrogen peroxide couple. D. M. H. Kern. bibliog Am Chem Soc J 76:4208-14 Ag 20 '54

Rate of oxidation by hydrogen sulfide by hydrogen peroxide. C. N. Satterfield, R. C. Reid and D. R. Briggs. Am Chem Soc J 76:3922-3 Ag 5 '54

Reaction of aldehyde and hydrogen peroxide in aqueous solution. C. N. Satterfield and L. C. Case. Ind & Eng Chem 46:998-1001 My '54

Self-heating of hydrogen peroxide storage vessels. E. S. Shanley. bibliog Ind & Eng Chem 45:1520-4 Jl '53

Simultaneous heat and mass transfer in a diffusion-controlled chemical reaction. C. N. Satterfield, H. Resnick and R. L. Wentworth. bibliog diags Chem Eng Prog 50:460-6, 504-10 S-O '54

Stability of pure hydrogen peroxide. E. M. Roth, jr. and E. S. Shanley. bibliog il Ind & Eng Chem 45:2343-9 O '53

Study of the mechanism of the photochemical synthesis of hydrogen peroxide at zinc oxide surfaces. J. G. Calvert and others. bibliog Am Chem Soc J 76:2575-8 My '54

Viscosity of vapor mixtures of hydrogen peroxide and water. C. N. Satterfield, R. L. Wentworth and S. T. Demetriades. bibliog diags Am Chem Soc J 76:2633-7 My 20 '54

Yields of hydrogen and hydrogen peroxide in the irradiation of oxygen saturated water with cobalt gamma-rays. J. A. Ghormley and C. J. Hochanadel. Am Chem Soc J 76:3351-2 Je 20 '54

Analysis

Accuracy of determination of hydrogen peroxide by cerate oxidimetry. E. C. Hurdis and H. Romeyn, jr. bibliog diag Anal Chem 26:320-5 F '54

HYDROGEN peroxide—Analysis—*Continued*

Hydrogen peroxide determination in the presence of chromate. J. Rynasiewicz. bibliog Anal Chem 26:355-8 F '54

Separation of hydrogen peroxide from organic hydroperoxides. W. M. MacNevin and P. F. Urone. Anal Chem 25:1760-1 N '53

Manufacture

Current hydrogen peroxide; Buffalo Electro Chemical; pictured flowsheet. Chem Eng 61:304-7 Ag '54

Cutting off the current; multimillion-dollar race for nonelectrolytic production of hydrogen peroxide. Chem W 73:80+ Ag 15 '53

Spectrum

Microwave spectrum of hydrogen peroxide. J. T. Massey and D. R. Bianco. bibliog diags J Chem Phys 22:442-8 Mr '54

HYDROGEN sulfide

Action of hydrogen sulphide on certain aromatic amines in the presence of formaldehyde. D. Collins and J. Graymore. Chem Soc J p4089-90 D '53

Addition of hydrogen sulphide to alkenes. W. C. van Zijll Langhout and H. I. Waterman. bibliog J Ap Chem 4:285-8 Je '54

Automatic equipment for precipitation with H_2S. S. B. Garcia. diag J Chem Educ 31: 73 F '54

Flame-stability studies with mixed fuels. P. F. Kurz. bibliog plan diags Ind & Eng Chem 45:2072-8 S '53

Heats of formation and entropies of HS^- and $S^=$; potential of sulfide-sulfur couple. J. W. Kury and others. bibliog Electrochem Soc J 100:468-70 O '53

How you can combat hydrogen sulfide hazards. G. Austin. il World Oil 137:190+ N '53

Hydrogen sulfide detector; Type SU. Chem Eng 61:272 My '54

Influence of hydrogen sulfide on flame speed of propane-air mixtures. P. F. Kurz. bibliog diags Ind & Eng Chem 45:2361-6 O '53

New catalyst removes H_2S from gas or air stream. Chem & Eng N 32:2040 My 17 '54

One-to-two millimeter wave spectroscopy; H_2S. C. A. Burrus, jr. and W. Gordy. bibliog il Phys R 92:274-7 O 15 '53

Phase equilibria in hydrocarbon systems. H. H. Reamer and others. bibliog Ind & Eng Chem 45:1805-12 Ag '53

Rate of oxidation of hydrogen sulfide by hydrogen peroxide. C. N. Satterfield, R. C. Reid and D. R. Briggs. Am Chem Soc J 76:3922-3 Ag 5 '54

Reaction between hydrogen sulphide and chlorine over alumina catalyst. M. H. Khundkar and M. Rakiboddowla. bibliog Chem & Ind p 128-9 Ja 30 '54

Selective absorption of hydrogen sulfide from synthesis gas. H. W. Wainwright and others. bibliog il Ind & Eng Chem 45:1378-84 Je '53

Sulfur from hydrogen sulfide. B. W. Gamson and R. H. Elkins. bibliog diags Chem Eng Prog 49:203-15 Ap '53

See also
Water purification—
Hydrogen sulfide
removal

Analysis

Methods for determining hydrogen sulfide in gases. F. C. Riesenfeld and H. K. Orbach. bibliog(41 ref) Pet Eng 25:C32+ Je '53

Portrait of a poison gas; instrument based on hydrogen sulfide staining of special film. diag Ind & Eng Chem 46:sup 11A+ Ag '54

HYDROGENASES

Mechanism of action of the enzyme hydrogenase. A. I. Krasna and D. Rittenberg. bibliog Am Chem Soc J 76:3015-20 Je 5 '54

Role of molybdenum and flavin in hydrogenase. A. L. Shug and others. Am Chem Soc J 76:3355-6 Je 20 '54

HYDROGENATION

Asymmetric synthesis effected by hydrogenation. C. L. Arcus and D. G. Smyth. Chem & Ind p404-5 Ap 3 '54

Catalytic hydrogenation of 3,4-benzpyrene. W. Lijinsky and L. Zechmeister. bibliog Am Chem Soc J 75:5495-7 N 20 '53

Catalytic hydrogenation of 3α-hydroxy-Δ^5-steroids and derivatives. J. R. Lewis and C. W. Shoppee. bibliog Chem & Ind p897 Ag 22 '53

Chemical engineering unit processes; hydrogenation and hydrogenolysis. K. Atwood. il Ind & Eng Chem 45:1976-98 bibliog(470 ref, p 1993-8) S '53

Chemical engineering unit processes; hydrogenation and hydrogenolysis. W. M. Keely. diag Ind & Eng Chem 46:1846-61 bibliog (320 ref, p 1857-61) S '54

Cobalt, iron and some of their alloys as catalysts for the hydrogenation of carbon dioxide. R. A. Stowe and W. W. Russell. bibliog Am Chem Soc J 76:319-23 Ja 20 '54

Determination of total nitrogen in petroleum distillates by catalytic hydrogenation. C. Wankat and J. G. Gatsis. bibliog Anal Chem 25:1631-3 N '53

Hydrogenated synthetic elastomers. R. V. Jones, C. W. Moberly and W. B. Reynolds. bibliog flow diag il Ind & Eng Chem 45: 1117-22 My '53

Hydrogenation of 4-hydroxybiphenylcarboxylic acids. W. G. Dauben and M. Tanabe. bibliog Am Chem Soc J 75:4969-73 O 20 '53

Hydrogenation of olefins over metals. J. N. Wilson and others. bibliog diag Ind & Eng Chem 45:1480-7 Jl '53

Kinetics of propylene and ethylene hydrogenation. M. V. Sussman and C. Potter. bibliog(27 ref) flow diag diag Ind & Eng Chem 46:457-65 Mr '54

Marchon products ltd.; opening of high pressure hydrogenation plant. Chem & Ind p775 Jl 3 '54

p-Menthane-2 : 3-diols; catalytic hydrogenation of diosphenol and reduction by sodium and ethanol. A. K. Macbeth and W. G. P. Robertson. Chem Soc J p3512-17 N '53

New high-pressure hydrogenation plant, Marchon products, ltd.; with speeches by F. Schon and H. Tizard. il Chem Age (Lond) 71:25-8 Jl 3 '54

Quaker produces furfuryl alcohol by low pressure hydrogenation. il Chem & Eng N 31:4298+ O 19 '53

Removing acetylene from gas streams by selective hydrogenation. H. W. Fleming and others. bibliog Pet Refiner 32:138-9+ S '53

Rhenium sulfides as liquid-phase hydrogenation catalysts; a comparison with molybdenum sulfide and cobalt polysulfide. H. S. Broadbent, L. H. Slaugh and N. L. Jarvis. bibliog Am Chem Soc J 76:1519-23 Mr 20 '54

Simplified apparatus for quantitative hydrogenation. R. L. Parrette. bibliog diags Anal Chem 26:237-9 Ja '54

Synthesis of *cis-* and *trans*-octadecenes; selective catalytic hydrogenation of acetylenes. B. B. Elsner and P. F. M. Paul. Chem Soc J p3156-60 O '53

Vapor-phase catalytic hydrogenation of olefins. H. E. Hoelscher and others. Chem R 54:575-92 bibliog(p581-3) Ag '54

See also
Fischer-Tropsch
process

HYDROGENATION of coal. See Coal liquefaction

HYDROGENOLYSIS

Catalytic debenzylation; the influence of α-substitution on the ease of hydrogenolysis. R. Baltzly and P. B. Russell. bibliog Am Chem Soc J 75:5598-602 N 20 '53

Catalytic hydrogenolysis of proteins and related model compounds. H. A. Lillevik and W. M. Sandstrom. bibliog Am Chem Soc J 76:292-4 Ja 5 '54

Chemical engineering unit processes; hydrogenation and hydrogenolysis. K. Atwood. il Ind & Eng Chem 45:1976-98 bibliog(470 ref, p 1993-8) S '53

Chemical engineering unit processes; hydrogenation and hydrogenolysis. W. M. Keely. diag Ind & Eng Chem 46:1846-61 bibliog(320 ref, p 1857-61) S '54

Studies in the terpene series; hydroisomerization and hydrogenolysis of cyclohexene, methylcyclohexene and *p*-menthene in the presence of hydrogenation catalysts. H. Pines and others. bibliog Am Chem Soc J 76:2740-2 My 20 '54

HYDROGRAPHIC surveying

Configuration of the Aleutian ridge; Rat islands, Semisopochnoi I to west of Buldir I. W. Gibson and H. Nichols. bibliog il map diags Geol Soc Bul 64:1173-87, pl 1-2 O '53

See also

Sounding

HYDROL. See Molasses

HYDROLYSIS

Abnormal hydrolysis of methyl 2-methylthiopropionate and methyl 2-ethylthiopropionate. F. Challenger and H. D. Hollingworth. bibliog Chem & Ind p463-4 Ap 17 '54

Acid and alkaline hydrolysis of gelatin. R. J. Croome. bibliog J Ap Chem 3:280-6 Je '53

Acid-catalyzed hydrolysis of methylal; influence of strong acids and correlation with Hammett acidity function. D. McIntyre and F. A. Long. bibliog Am Chem Soc J 76:3240-2 Je 20 '54

Acid-catalyzed hydrolysis of methylal; kinetic and equilibrium salt effects and correlation with H_0. F. A. Long and D. McIntyre. bibliog Am Chem Soc J 76:3243-7 Je 20 '54

Analytical total acid hydrolysis of dextrans. R. J. Dimler and others. bibliog(28 ref) Anal Chem 26:1142-6 Jl '54

Application of high frequency oscillators. D. G. Flom and P. J. Elving. bibliog il diags Anal Chem 25:541-9 Ap '53

Carbon dihalides as intermediates in the basic hydrolysis of haloforms; combination of carbon dichloride with halide ions. J. Hine and A. M. Dowell, jr. bibliog Am Chem Soc J 76:2688-92 My 20 '54

Chemical engineering unit processes; hydration and hydrolysis. W. F. Hamner. Ind & Eng Chem 46:1841-5 bibliog(96 ref p 1884-5) S '54

Cyclic intermediates in substitution reactions; the alkaline hydrolysis of tetramethylene chlorohydrin. H. W. Heine and W. Siegfried. Am Chem Soc J 76:489-90 Ja 20 '54

Cyclic intermediates in substitution reactions; the hydrolysis of trimethylene- and tetramethylene chlorohydrins. H. W. Heine and others. Am Chem Soc J 75:4778-9 O 5 '53

Dithiols; the alkaline hydrolysis of acetylated non-vicinal hydroxy-thiols. J. S. Harding and L. N. Owen. Chem Soc J p 1536-45 My '54

Dithiols; the alkaline hydrolysis of acetylated vicinal hydroxy-thiols. J. S. Harding and L. N. Owen. Chem Soc J p 1528-36 My '54

Effect of acid and heat on dextrose and dextrose polymers. W. R. Fetzer and others. bibliog(46 ref) Ind & Eng Chem 45:1075-83 My '53

Enzymatic hydrolysis studies on certain flavonoid glycosides. C. W. Nystrom, B. L. William and S. H. Wender. Am Chem Soc J 76:1950-1 Ap 5 '54

Experiments with 5 : 6-dihydro-4-hydroxy-6-phenyl-2-pyrone; the basic hydrolysis of an α-bromo- and an αα-dibromo-β-keto-δ-lactone. E. B. Reid and J. R. Siegel. Chem Soc J p525-30 F '54

Hydrolysis of picolinamide and isonicotinamide in concentrated hydrochloric acid solutions. H. H. G. Jellinek and J. R. Urwin. bibliog J Phys Chem 57:900-2 D '53

Hydrolysis of polysaccharides by a cation exchange resin and identification of monosaccharide components by paper chromatography. R. E. Glegg and D. Eidinger. bibliog il Anal Chem 26:1365-7 Ag '54

Hydrolysis of some alkyl lactates; alkaline hydrolysis. K. H. Vogel and J. C. Warner. bibliog Am Chem Soc J 75:6072-4 D 5 '53

Hydrolysis of some alkyl lactates; ethyl O-acetyllactate and O-acetyllactic acid. A. A. Colon and others. bibliog Am Chem Soc J 75:6075-9 D 5 '53

Hydrolysis of some alkyl lactates; neutral and acid hydrolysis. A. A. Colon, K. H. Vogel and J. C. Warner. bibliog Am Chem Soc J 75:6074-5 D 5 '53

Hydrolysis of starch as indicated by congo red. B. Carroll and J. W. Van Dyk. bibliog Am Chem Soc J 76:2506-10 My 5 '54

Hydrolytic behavior of metal ions; hydrolysis of thorium(IV). K. A. Kraus and R. W. Holmberg. bibliog J Phys Chem 58:325-30 Ap '54

Isomerism of the oximes; the alkaline hydrolysis of acetophenone oxime acetates. O. L. Brady and J. Miller. Chem Soc J p4076-82 D '53

Kinetic study of the formation and hydrolysis of *tert.*-butyl hypochlorite. M. Anbar and I. Dostrovsky. Chem Soc J p 1094-104 Mr '54

Kinetic study of the hydrolysis of pyrophosphates. D. O. Campbell and M. L. Kilpatrick. bibliog Am Chem Soc J 76:893-901 F 5 '54

Mechanism of hydrolysis at carbonyl carbon. C. A. Bunton and others. bibliog Chem & Ind p 1154-5 S 18 '54

Mechanism of the alkaline hydrolysis of ribonucleic acid. D. Lipkin, P. T. Talbert and M. Cohn. bibliog Am Chem Soc J 76:2871-2 Je 5 '54

Mercuric chloride and starch hydrolysis. Chem Age (Lond) 71:477-8 S 4 '54

Oxidative hydrolysis of 4-α-cyanobenzyl*meso*-benzanthrone. N. Campbell and A. A. Woodham. Chem Soc J p3429-32 N '53

Oxygen exchange during the acidic and basic hydrolyses of amides and the enzymatic hydrolysis of esters. M. L. Bender, R. D. Ginger and K. C. Kemp. Am Chem Soc J 76:3350-1 Je 20 '54

Physicochemical studies of the simpler polypeptides; the acid- and base-catalyzed hydrolysis of di-, tri-, tetra-, penta- and hexaglycine. E. F. Hammel, jr. and S. Glasstone. bibliog Am Chem Soc J 76:3741-5 Jl 20 '54

Production of clinical-type dextran; partial hydrolytic depolymerization and fractionation of the dextran from leuconostoc mesenteroides strain NRRL B-512. I. A. Wolff and others. bibliog(29 ref) diag Ind & Eng Chem 46:370-7 F '54

Pyrohydrolysis in the determination of fluoride and other halides. J. C. Warf, W. D. Cline and R. D. Tevebaugh. bibliog diag Anal Chem 26:342-6 F '54

Relationship between acid-base level and the rate of alkaline hydrolysis of halohydrins in methanol-water and dioxane-water systems. W. C. Woodland, R. B. Carlin and J. C. Warner. Am Chem Soc J 75:5840-1 D 5 '53

Specific effects in acid catalysis by ion exchange resins; hydrolysis of esters in water solution. S. A. Bernhard and L. P. Hammett. bibliog Am Chem Soc J 75:5834-5 D 5 '53

Steroidal sapogenins; hydrolysis of 5α,22a-spirostane glycosides by plant enzymes. M. M. Krider and M. E. Wall. bibliog Am Chem Soc J 76:2938-40 Je 5 '54

Studies in the hydrolysis and alcoholysis of some organic nitrites. A. D. Allen. Chem Soc J p 1968-74 Je '54

Use of hydrolysable esters in the control of dyebaths. R. J. Hannay and W. H. Major. diag Soc Dyers & Col J 69:195-201 Je '53

Vapor phase hydrolysis of the actinide halides; heat and free energy of the reaction $AmCl_3(s) + H_2O(g) = AmOCl(s) + 2HCl(g)$. C. W. Koch and B. B. Cunningham. Am Chem Soc J 76:1470-1 Mr 20 '54

Vapor phase hydrolysis of the rare earth halides; heat and free energy of the reactions $PrCl_3(s) + H_2O(g) = PrOCl(s) + 2HCl(g)$ and $NdCl_3(s) + H_2O(g) = NdOCl(s) + 2HCl(g)$. C. W. Koch and B. B. Cunningham. Am Chem Soc J 76:1471-4 Mr 20 '54

HYDROLYSIS, Heat of

Heat of hydrolysis of inorganic pyrophosphate. N. S. Ging and J. M. Sturtevant. bibliog Am Chem Soc J 76:2087-91 Ap 20 '54

HYDROMECHANICS

Hydromechanics research programme of the Bureau of ships, U.S. navy; summary and discussion. F. H. Todd. Engineering 176:584-5 N 6 '53; Same abr. Engineer 196:455-6 O 9 '53

HYDROMETALLURGY

Accurate flow-integrating device for hydrometallurgical studies. J. C. Ingles and J. L. Horwood. diags R Sci Instr 24:542 Jl '53

Hydrometallurgical process yields pure metal powders from sulphides; Sherritt Gordon mines, ltd. flow sheet il J Metals 5:775-9 Je '53

HYDROMETALLURGY—*Continued*

Ion exchange finds wider use in concentration and recovery of metals from dilute solutions. A. B. Mindler and C. F. Paulson. bibliog flow sheets il diag J Metals 5:980-5 Ag '53

HYDROMETERS

Alcoholometer scale beyond 100 per cent for hydrometers. R. Gilmont. Anal Chem 25: 1001-2 Je '53

Hydrometer method for measuring emulsion stability. H. L. Sanders and others. Soap & Chem Spec 30:99+ My '54

Improved density recorder operates over wide range; Densitrol. B. W. Thomas. Ind & Eng Chem 46:sup86A+ Je '54

HYDROPEROXIDES

Development of the activated hydroperoxide-dextrose formula for hot rubber. R. F. McCann and others. bibliog India Rubber World 129:209-12+ N '53

Organic peroxides; secondary alkyl hydroperoxides. H. R. Williams and H. S. Mosher. bibliog Am Chem Soc J 76:2987-90 Je 5 '54

Peroxides; *n*-alkyl hydroperoxides. H. R. Williams and H. S. Mosher. bibliog Am Chem Soc J 76:2984-7 Je 5 '54

Reaction of peroxides and hydroperoxides with lithium aluminum hydride. G. A. Russell. bibliog Am Chem Soc J 75:5011-13 O 20 '53

Thermal decomposition of methyl linoleate hydroperoxide. L. Williamson. bibliog J Ap Chem 3:301-7 Jl '53

Analysis

Determination of hydroperoxides in petroleum products. D. C. Walker and H. S. Conway. bibliog diag Anal Chem 25:923-5 Je '53

Separation of hydrogen peroxide from organic hydroperoxides. W. M. MacNevin and P. F. Urone. Anal Chem 25:1760-1 N '53

HYDROPHEN. See Resinous products—Finishing materials

HYDROPHOBIA. See Rabies

HYDROPNEUMATIC control

Air-hydraulic actuator saves installation space. O. Sarri. diag Am Mach 97:166 D 7 '53

Air-hydraulic press has double pressure system. il diag Machine Design 26:152 Jl '54

Control system for motor-driven blast-furnace turbo-blowers; Rotherham works of the Park gate iron and steel co. il diag Engineer 196:590-1 N 6 '53; Engineering 176: 761-2 D 11 '53

HYDROPONICS. See Plants—Soilless culture

HYDROQUINONE

Analysis

Coulometric titration of *p*-methylaminophenol sulfate and hydroquinone by cerium(IV). N. H. Furman and R. N. Adams. bibliog Anal Chem 25:1564-5 O '53

HYDROSOLS. See Colloids

HYDROSTATICS

Effect of hydrostatic pressure on the superconducting transition of tin. M. Garber and D. E. Mapother. Phys R 94:1065 My 15 '54

Hydrostatic controller; new contents controller and indicator by K.D.G. instruments. il Chem Age (Lond) 68:959 Je 27 '53

Hydrostatic lubrication; a way to break the law of friction. T. L. Corey and E. M. Kipp. diags Steel 135:118-19 Ag 16 '54

HYDROTROPIC substances

Hydrotropic extraction of certain organic compounds containing oxygen. E. C. Lumb and P. A. Winsor. bibliog il Ind & Eng Chem 45:1086-93 My '53

HYDROXAMIC acids

Novel rearrangement of hydroxamic acids using sulfonyl chlorides. C. D. Hurd and L. Bauer. bibliog Am Chem Soc J 76: 2791-2 My 20 '54

HYDROXIDES

Adsorption of dyes, amino acids, proteins, and metal hydroxides on quartz. J. C. Dale and E. J. King. bibliog A M A Archives Ind Hygiene & Occup Med 7:484-9 Je '53

HYDROXYACETONAPHTHONE

Halogenation of chelated aryl alkyl ketones; bromination of 2-acetylnaphthol and several of its derivatives. F. C. Chang and Y. Yang. bibliog Am Chem Soc J 76:464-6 Ja 20 '54

HYDROXY acids

Action of N-bromosuccinimide and aliphatic α-hydroxy acids. M. Z. Barakat and M. F. A. El-Wahab. bibliog Am Chem Soc J 75:5731 N 20 '53

Direct chemical interrelation of the configuration of terpenes and hydroxy acids. D. S. Noyce and D. B. Denney. bibliog Am Chem Soc J 76:768-71 F 5 '54

Fatty acids; the nature of the oxygenated acid present in vernonia anthelemintica (Willd.) seed oil. F. D. Gunstone. Chem Soc J p 1611-16 My '54

New hydroxy acid from the oil of ximenia caffra Sond. S. P. Ligthelm. bibliog Chem & Ind p249-50 F 27 '54

Wool wax; the synthesis and stereochemistry of the straight-chain α-hyrdoxy-acids. D. H. S. Horn and Y. Y. Pretorius. Chem Soc J p 1460-4 My '54

Analysis

Wool wax; the constitution of the α-hydroxy-acids derived therefrom. D. H. S. Horn and others. Chem Soc J p 177-80 Ja '54

HYDROXYAMINOBUTANE

Resolution of glutamic acid with 1-hydroxy-2-aminobutane. F. H. Radke, R. B. Fearing and S. W. Fox. bibliog Am Chem Soc J 76:2801-3 My 20 '54

HYDROXYANTHRANILIC acid

Intermediates in the synthesis of carboxyl-C^{14}-labeled 3-hydroxyanthranilic acid. L. S. Ciereszko and L. V. Hankes. bibliog Am Chem Soc J 76:2500-1 My 5 '54

HYDROXYBENZALDEHYDE

Triphenylmethane derivatives from condensations of phenols with hydroxybenzaldehydes. J. E. Driver and J. B. Sousa. Chem Soc J p985-9 Mr '54

HYDROXYBENZAMIDE. See Salicylamide

HYDROXYBENZOIC acid

Trifluoromethyl derivatives of hydroxybenzoic acids and related compounds. M. Hauptschein, E. A. Nodiff and A. J. Saggiomo. bibliog Am Chem Soc J 76:1051-4 F 20 '54

HYDROXYCHOLESTEROL

Analysis

Estimation of 7-dehydrocholesterol, 7-hydroxycholesterol, and bile acids in serum. A. E. Sobel, M. Goldberg and S. R. Slater. bibliog diag Anal Chem 25:629-35 Ap '53

HYDROXYCINNOLINE

Cinnolines; some 3-aryl-4-hydroxycinnolines. D. W. Ockenden and K. Schofield. Chem Soc J p3706-7 N '53

HYDROXYCODEINE

10-Hydroxycodeine. H. Rapoport and G. W. Stevenson. bibliog Am Chem Soc J 76: 1796-9 Ap 5 '54

HYDROXY compounds

Catalytic hydrogenation of 3α-hydroxy-Δ^5-steroids and derivatives. J. R. Lewis and C. W. Shoppee. bibliog Chem & Ind p897 Ag 22 '53

Cryoscopic studies; concentrated solutions of hydroxy compounds. H. K. Ross. bibliog diag Ind & Eng Chem 46:601-10 Mr '54

Studies in the steroid group; oxidation of 5α-hydroxy- and 5α-acetoxy-$\Delta^{7:9}$-steroids. P. Bladon and others. Chem Soc J p2916-21 O '53

Synthesis of aromatic phosponic acids and their derivatives; some amino and hydroxy substituted acids. V. L. Bell, jr. and G. M. Kosolapoff. bibliog Am Chem Soc J 75: 4901-3 O 20 '53

HYDROXYCORTICOSTERONE

Chemical studies with 11-oxygenated steroids; 17α-hydroxycorticosterone. R. H. Levin and others. bibliog Am Chem Soc J 76:546-52 Ja '54

$\Delta^{9,(11)}$-Dehydro cortical steroids; synthesis of $\Delta^{9(11)}$-anhydro-17-hydroxycorticosterone acetate. R. P. Graber, A. C. Haven, jr. and N. L. Wendler. bibliog Am Chem Soc J 75: 4722-4 O 5 '53

HYDROXYCORTICOSTERONE—*Continued*

$\Delta^{5,7}$-Steroids; steroidal cyclic ketals; transformation products of Reichstein's substances S. R. Antonucci, S. Bernstein and R. H. Lenhard. bibliog Am Chem Soc J 76:2956-9 Je 5 '54

9α-Fluoro derivatives of cortisone and hydrocortisone. J. Fried and E. F. Sabo. Am Chem Soc J 76:1455-6 Mr 5 '54

Hydrocortisone therapy in ganglia. W. F. Becker. bibliog Ind Med 22:555-7 D '53

Influence of epi-F, a stereoisomer of compound F, on the glycogenic property of compound F (17-hydroxycorticosterone). A. Segaloff and B. N. Horwitt. bibliog Science 118:220-1 Ag 21 '53

Interconversion of adrenal cortical side chains; the transformation of cortisone and hydrocortisone to corticosterone. D. Taub and others. bibliog Am Chem Soc J 76:4094-7 Ag 20 '54

Microbiological transformations of steroids; preparation of 17α-hydroxycorticosterone. F. R. Hanson and others. bibliog Am Chem Soc J 75:5369-70 N 5 '53

New method offered potentially cheap supply of hydrocortisone. Chem & Eng N 32:480+ F 8 '54

11-Oxygenated steroids; the acylation of 11β-hydroxy steroids; the synthesis of compound F 11-acetate and related compounds. E. P. Oliveto and others. bibliog Am Chem Soc J 75:5486-9 N 20 '53

Stable chloroform adduct of 11-epi-17α-hydroxycorticosterone. H. Cords. bibliog Am Chem Soc J 75:5416 N 5 '53

Analysis

Sulfuric acid; induced fluorescence of corticosteroids. M. L. Sweat. bibliog Anal Chem 26:773-6 Ap '54

HYDROXYCOUMARIN

Reaction of Grignard reagents with 4-hydroxy- and 4-ethoxycoumarin. S. Wawzonek, R. C. Nagler and L. J. Carlson. bibliog Am Chem Soc J 76:1080-2 F 20 '54

Studies on 4-hydroxycoumarins; synthesis of some 3-thio-4-hydroxycoumarins from 3-bromo-4-hydroxycoumarin. H. R. Eisenhauer and K. P. Link. bibliog Am Chem Soc J 76:1647-9 Mr 20 '54

Studies on 4-hydroxycoumarins; the metabolism of 4-hydroxycoumarin in the dog. S. Roseman and others. bibliog Am Chem Soc J 76:1650-2 Mr 20 '54

HYDROXYDEHYDROCORTICOSTERONE. See Cortisone

HYDROXYETHYLNAPHTHALENE

2:6-Bis-2′-hydroxyethylnaphthalene. M. Meadow and W. M. Whaley. Chem Soc J p 1161-2 Mr '54

HYDROXYHEPTENONE

Synthesis and prototropic rearrangement of 4-hydroxyhept-5-en-3-one. E. A. Braude and C. J. Timmons. Chem Soc J p3144-8 O '53

HYDROXYLYSINE

Optical isomers of hydroxylysine and allohydroxylysine. W. S. Fones. bibliog Am Chem Soc J 75:4865-6 O 5 '53

HYDROXYMETHYL compounds

Preparation and condensation of polymethylol compounds. C. A. Burkhard, J. V. Schmitz and R. E. Burnett. bibliog Am Chem Soc J 75:5957-8 D 5 '53

HYDROXYMETHYL furfural

Analysis

Determination of 5-(hydroxymethyl)-2-furaldehyde and related compounds. J. H. Turner and others. bibliog Anal Chem 26:898-901 My '54

HYDROXYMETHYL pentanone

Ternary liquid-liquid equilibria. L. F. Crooke, jr. and M. Van Winkle. bibliog Ind & Eng Chem 46:1474-7 Jl '54

HYDROXYNAPHTHOIC acid

Cyclization studies in the syntheses of monomethoxy-1-phenyl-4-hydroxy-2-naphthoic acids. L. H. Klemm and T. Largman. bibliog Am Chem Soc J 76:1688-91 Mr 20 '54

HYDROXYPHENYLARSONIC acid

Reactions of *p*-arsanilic acid and 4-hydroxyphenylarsonic acid with brominated fatty acids. R. L. McGeachin and M. Greenwald. Am Chem Soc J 75:5430-1 N 5 '53

HYDROXYPHENYL compounds

Synthesis and fungistatic activity of some 3-hydroxybiphenyl derivatives. C. K. Bradsher, F. C. Brown and H. K. Porter. bibliog Am Chem Soc J 76:2357-62 My 5 '54

HYDROXYPHENYLPYRUVIC acid

p-Hydroxyphenylpyruvic acid function in neurospora crassa. A. G. DeBusk and R. P. Wagner. Am Chem Soc J 75:5131 O 20 '53

HYDROXYPROLINE

New syntheses of hydroxyproline. R. Gaudry and C. Godin. bibliog Am Chem Soc J 76:139-43 Ja 5 '54

HYDROXYPROPIOPHENONE

Pfitzinger reaction of *p*-hydroxypropiophenone and similar phenolic ketones. N. P. Buu-Hoï and J. F. Miquel. Chem Soc J p3768-9 D '53

HYDROXYPYRIDINE

Hydroxypyridine and hydroxyquinoline phosphates as anti-cholinesterases. K. J. M. Andrews and others. Chem Soc J p 1638-40 My '54

HYDROXYPYRROLE

Preparation and structure of some derivatives of 3-hydroxypyrrole. J. Davoll. Chem Soc J p3802-11 D '53

HYDROXYQUINOLINE

Hydroxypyridine and hydroxyquinoline phosphates as anti-cholinesterases. K. J. M. Andrews and others. Chem Soc J p 1638-40 My '54

Study of the Camps synthesis of 4-hydroxy-3-quinolinecarboxylic acid. J. Bornstein, W. J. Reid and D. J. Torres. bibliog Am Chem Soc J 76:2760-2 My 20 '54

HYDROXYQUINOLINE, Analogs of

Analogues of 8-hydroxyquinoline having additional cyclic nitrogen atoms; further preparations, and some physico-chemical properties. A. Albert and A. Hampton. Chem Soc J p505-13 F '54

HYDROXYSTEARIC acid

Synthetic lubricants from hydroxystearic acids. H. M. Teeter and others. bibliog Ind & Eng Chem 45:1777-9 Ag '53

HYDROXYSTEROIDS. See Steroids

HYDROXYSTREPTOMYCIN

Stability of hydroxystreptomycin. I. R. Hooper and M. A. Kaplan. bibliog Am Chem Soc J 75:6055 D 5 '53

HYDROXYTESTOSTERONE

Biosynthesis and characterization of 11-β-hydroxytestosterone. L. R. Axelrod and G. Arroyave. bibliog Am Chem Soc J 75:5729-31 N 20 '53

HYDROXYTETRAHYDROABIETIC acid

Structure of the lactone of hydroxytetrahydroabietic acid. L. A. Subluskey and T. F. Sanderson. bibliog Am Chem Soc J 76:3512-15 Jl 5 '54

HYDROXYTRYPTAMINE

Hydroxytryptamines; bufotenine, 6-hydroxybufotenine, and serotonin. J. Harley-Mason and A. H. Jackson. Chem Soc J p 1165-71 Ap '54

HYDROXYL group

Action of some free radicals on naphthalene. E. Boyland and P. Sims. Chem Soc J p2966-72 O '53

Assignment of the O-H deformation frequency. J. R. Quinan and S. E. Wiberley. bibliog J Chem Phys 21:1896-7 O '53

Effects of temperature gradients, self-absorption, and line shape on apparent rotational temperatures of OH. B. H. Elliott and S. S. Penner. J Chem Phys 22:101-5 Ja '54

Infrared spectra and structure of LiOH, $LiOH \cdot H_2O$ and the deuterium species; remark on fundamental frequency of OH^-. L. H. Jones. bibliog J Chem Phys 22:217-19 F '54

Mechanism of hydrolysis of acid chlorides; the effect of solvent and hydroxyl ions on the rate of solvolysis of substituted benzoyl chlorides. D. A. Brown and R. F. Hudson. Chem Soc J p3352-60 N '53

11-Oxygenated steroids; the elimination of the 11 α-hydroxyl group via the tosylate. H. L. Herzog, C. C. Payne and E. B. Hershberg. Am Chem Soc J 76:930-1 F 5 '54

Selective hydroxyl reactivity in methyl α-D-glucopyranoside. M. L. Wolfrom and M. A. El-Taraboulsi. bibliog Am Chem Soc J 75:5350-2 N 5 '53

HYDROXYL group—*Continued*

Analysis

Determination of phenolic hydroxyl content of lignin preparations by ultraviolet spectrophotometry. O. Goldschmid. bibliog Anal Chem 26:1421-3 S '54
Determination of total and primary hydroxyl in cellulose esters by ultraviolet absorption methods. C. J. Malm and others. bibliog Anal Chem 26:188-90 Ja '54
Examination of methods for detecting OH. T. M. Sanders, jr. and others. diag J Chem Phys 22:245-6 F '54
Semimicrodetermination of hydroxyl group in long chain alcohols. R. T. Blickenstaff, J. R. Schaeffer and G. G. Kathman. Anal Chem 26:746-8 Ap '54
Ultraviolet absorption spectra as a measure of phenolic hydroxyl group content in polyphenolic tanninlike materials. L. F. Maranville and O. Goldschmid. bibliog Anal Chem 26:1423-7 S '54

HYDROXYLAMINE

Amination of anthraquinone with hydroxylamine in sulphuric acid. A. C. Robson and S. Coffey. Chem Soc J p2372-4 Jl '54
Autoxidation of aliphatic hydroxylamines. D. H. Johnson and others. bibliog Chem & Ind p 1032-3 S 26 '53
Evidence for the presence of hydroxylamine as an intermediate in the decomposition of chloramine by hydroxide. R. E. McCoy. Am Chem Soc J 76:1447-8 Mr 5 '54
Furochromones and -coumarins; action of hydrazine hydrate and hydroxylamine on khellin, khellol and visnagin. A. Schönberg and M. M. Sidky. Am Chem Soc J 75:5128-30 O 20 '53
Homolytic reaction involving beta-reaction. H. Brown and J. Grundy. Chem & Ind p460 Ap 17 '54
Hypobromite and hypochlorite oxidation of ammonium hydroxide, hydrazine and hydroxylamine. R. F. Riley and others. bibliog Am Chem Soc J 76:3301-3 Je 20 '54
Inhibitory action of hydroxylamine on biological oxidations. I. Raw. Science 118:159-60 Ag 7 '53
New reaction between aliphatic hydroxylamines and aromatic diazonium compounds. M. A. T. Rogers. Chem & Ind p 1033 S 26 '53
Reaction between hydroxylamine and sodium sulphite in solution in dilute acid. D. S. Brackman and W. C. E. Higginson. Chem Soc J p3896-8 D '53
Vibrational spectra and structure of solid hydroxylamine and deutero-hydroxylamine. R. E. Nightingale and E. L. Wagner. bibliog J Chem Phys 22:203-8 F '54

HYDROXYLATION

Direct hydroxylation of aromatic compounds. W. Bradley. bibliog Chem & Ind p631-3 My 29 '54
Evidence for hydroxylation as a major effect in the persulphate oxidation of organic compounds. R. G. R. Bacon and R. W. Bott. bibliog Chem & Ind p 1285-6 N 28 '53
Hydroxylation; new unit process. il diag Chem Eng 60:118+ Ag '53
Microbiological transformations of steroids; 17α-hydroxylation. P. D. Meister and others. bibliog Am Chem Soc J 76:4050-1 Ag 5 '54
Nitration and hydroxylation of phenetole, phenyl *n*-propyl ether, and acetophenone by pernitrous acid. R. B. Heslop and P. L. Robinson. Chem Soc J p 1271-3 Ap '54
Peroxytrifluoroacetic acid; the hydroxylation of olefins. W. D. Emmons, A. S. Pagano and J. P. Freeman. bibliog Am Chem Soc J 76:3472-4 Jl 5 '54

HYGIENE

Better health for executives. B. B. Reeve. Pet Refiner 33:253 Ja; 246+ F; 274 Ap; 203 Ag '54
Helping executives survive; Peoria adult physical fitness program. M. French. il Am Bsns 24:24-6+ Je '54
How's your health? il Factory Management 112:68-74 Jl '54
If you're over 40 don't be a week-end athlete! Factory Management 112:114-15 Ag '54
On the road to a crack-up? Sales Management 71:28-9 S 15 '53
R.I.P.; the overworked executive; abstract. J. Kirk. Management R 43:143-4 Mr '54
Save your health for your peak earning years. il Chem Eng 69:246+ Jl '53
Untie those knots; it's easy to relax. D. A. Laird. Am Bsns 24:26+ My '54
What your wife hopes you know about hypertension. C. Bird. Sales Management 72:92+ Ja 15 '54

See also

Air pollution
Children—Care and hygiene
Diet
Disinfection and disinfectants
Fatigue
Food
Nutrition
Physical examinations
Public health
Sanitation
Sickness
Soap—Physiological effect
Temperature—Physiological effect
Ventilation
Water pollution
Water purification
Water supply

Study and teaching

National health council starts career project aimed at secondary schools under sponsorship of Equitable society. A. W. Dent. East Underw 55:32 Jl 9 '54

HYGIENE, Industrial

Are colds costing you money? W. Schweisheimer. Am Bsns 23:16-17 D '53
Are you always tired? W. Schweisheimer. Am Bsns 24:20-1+ F '54
Are your workers worth their salt? il Safety Maint & Prod 108:51-2 Jl '54
Birmingham plan; the Industrial health council of Birmingham, Ala. J. K. Williams. il Ind Med 22:237-40 Je '53
Concealed hazard and health of industrial workers. Chem Age (Lond) 71:277-80 Ag 7 '54
Concepts of engineering biotechnology in occupational health. A. F. Meyer, jr. bibliog diags Am Soc C E Proc 79 [no 352]:1-23 N '53
Employe health and mental attitude. A. M. Wilson; W. A. Eggert. East Underw 55:37 Ap 30 '54
Employee health audit by questionnaire. R. A. Hicks and N. B. Walker. Ind Med 22:211-14 My '53
Fatigue; measuring and reducing it. L. Brouha. bibliog Advanced Management 19:9-19 Ja '54; Same. Ind Med 22:547-54 D '53; Abstract. Nat Safety N 69:40-1+ F; 166 Mr '54
Health for employees is industry's opportunity; forum. Nat Safety N 69:72+ My '54
Heat and humidity. Nat Safety N 69:65-7 Mr '54
Industrial health; abstracts of current literature on industrial hygiene, medicine, and nursing. F. A. Van Atta. Published in monthly numbers of National safety news
Industrial health conference, Chicago; with abstracts of papers. Heat & Ven 51:140+ Je '54
Industrial hygiene. il Ind Med 22:452-4 O '53
Industrial hygiene comes of age in the last 25 years. H. T. Walworth. Heating-Piping 25:126-8 My '54
Industrial hygiene engineering. T. C. Angus. bibliog Engineer 196:801-2 D 18 '53
Industrial hygiene; how it can assist the industrial physician. W. G. Fredrick. Ind Med 22:172-4 Ap '53
Industrial noise and hearing conservation programs. M. S. Fox. bibliog Ind Med 22:161-4 Ap '53
Industrial workers; from a report to the President by the Commission on the health needs of the Nation. Ind Med 22:207-10 My '53
Instrumentation for industrial hygiene; symposium. R. H. Müller. Anal Chem 26:sup 37A-9A Je '54
Insurance and industrial health; insurance companies. Ind Med 22:504-5 O '53
Motivating employees for industrial health. H. K. Abrams. A M A Archives Ind Hygiene & Occup Med 8:246-9 S '53
National safety congress discusses industrial hygiene problems. Safety Maint & Prod 106:35+ D '53
Organic mercurials can be safely produced. A. F. G. Cadenhead. Can Chem Process 38:62 Ap '54

HYGIENE, Industrial—*Continued*

Physical medicine and rehabilitation as related to industrial health. F. H. Krusen. bibliog A M A Archives Ind Hygiene & Occup Med 8:61-9 Jl '53

Plant design for health protection; Mutual chemical co. of America. T. Hatch. il Chem & Eng N 32:2994-7 Jl 26 '54; Abstract. Nat Safety N 70:116-18 S '54

Public health is their responsibility; Haskell laboratory for toxicology and industrial medicine. il Nat Safety N 70:24-5+ Jl '54

Records prove business executives good risks. H. E. Ungerleider. Weekly Underw 169:1455 D 12 '53; Same. East Underw 54:44 D 11 '53; Same cond. Nat Underw (Life ed) 57:23 D 11 '53

Small plant's dilemma; health-safety service at moderate cost; Bureau of industrial health, Cincinnati health department. J. P. Hughes. il Nat Safety N 70:22-5+ S '54

What's the exposure? maintaining healthful working conditions. il Nat Safety N 69:4-5 Mr '54

See also

Absenteeism (labor)
Air purification
Beryllium poisoning
Diseases, Industrial
Dust
Dust removal
Eye—Examination
Factories—Cleanliness
Factory sanitation
Fatigue
Industrial hygiene foundation
Lavatories
Lead poisoning
Lunches, Employees'
Lunchrooms and cafeterias, Employees'
Lungs—Dust diseases
Medical service, Industrial
Miners—Diseases and hygiene
Noise
Nurses and nursing, Industrial
Physical examinations
Poisons, Industrial
Safety devices and measures
Skin—Diseases
Temperature—Physiological effect
United States—Public health service—Division of occupational health

Latin America

Industrial hygiene in Latin America. J. J. Bloomfield. A M A Archives Ind Hygiene & Occup Med 8:25-35 Jl '53

HYGIENE, Rural

Environmental health in a rural economy. M. D. Hollis. bibliog Pub Health Rep 68:1107-14 N '53

Looking back to look ahead in rural health. F. S. Crockett. Pub Health Rep 68:480-5 My '53

National conference on rural health, 8th, Roanoke, Feb. 27-28; abstracts of papers. Pub Health Rep 68:485-96 My '53

HYGROMETERS

Carbon film used for relative humidity tests. Chem & Eng N 32:2697 Jl 5 '54

Construction of fiber hygrometers. N. J. Abbott. Textile Res J 24:59 Ja '54

Electric hygrometer of small dimensions. W. A. Brastad and L. F. Borchardt. il diags R Sci Instr 24:1143-4 D '53

Instrument for the measurement of water vapor in natural gases. W. M. Deaton. il Am Gas Assn Proc 1953:1062-6; Same. Pet Eng 25:D27+ S '53

New moisture-sensitive element for relative humidity. J. W. Case. il Instruments & Automation 27:1076-7 Jl '54

Performance of thermistor hygrometers under tropical conditions. G. W. Smith. il J Sci Instr 30:414-18 N '53

Simple apparatus for the calibration of hygrometers. C. L. Cutting and A. C. Jason. diag J Sci Instr 30:338-9 S '53

Simplified moisture equilibrium apparatus. A. S. Levine and I. S. Fagerson. diag Tappi 37:299 Jl '54

HYGROSCOPICITY

Effect of temperature on the electrical resistance and voltage departures (errors) of glass electrodes, and upon the hygroscopicity of glass. D. Hubbard. bibliog diag J Res Nat Bur Stand 50:337-42 Je '53

Identification of individual hygroscopic particles in the atmosphere by a phase-transition method. S. Twomey. bibliog il diag J Ap Phys 24:1099-102 S '53

HYPERCONJUGATION. See Conjugation (chemistry)

HYPERFORMING process. See Gasoline—Manufacture

HYPERON. See Particles, Elementary

HYPERSORBERS

Hypersorption; Union oil company of California. diag Pet Refiner 32:132-3 N '53

HYPERTENSION. See Blood pressure

HYPOBROMITES

Addition of some acyl hypobromites to allyl bromide. W. G. H. Edwards and R. Hodges. Chem Soc J p761-2 F '54

Decomposition of hypobromite and bromite solutions. P. Engel, A. Oplatka and B. Perlmutter-Hayman. bibliog Am Chem Soc J 76:2010-15 Ap 5 '54

HYPOBROMOUS acid

Kinetics and mechanism of aromatic halogenation by hypohalous acids; bromination of aromatic ethers by hypobromous acid. S. J. Branch and B. Jones. Chem Soc J p2317-24 Jl '54

HYPOCHLORITES

Fundamental principles of handling chlorine. V. W. Langworthy. il Water & Sewage Works 100:454-6 N '53

HYPOCHLOROUS acid

Kinetics and mechanisms of aromatic halogen substitution; acid-catalysed chlorination by aqueous solutions of hypochlorous acid. P. B. D. de la Mare, A. D. Ketley and C. A. Vernon. Chem Soc J p 1290-7 Ap '54

Kinetics of chlorohydrin formation; the reaction between hypochlorous acid and crotonic acid in buffered solutions at 25° and 35°. D. A. Craw. Chem Soc J p2510-14 Jl '54

Kinetics of chlorohydrin formation; the reaction between hypochlorous acid and tiglic acid at constant *pH*. D. A. Craw. Chem Soc J p2515-19 Jl '54

HYPODERMIC needles

Glass needles and latex. C. P. Martin and S. D. Mohiuddin. Science 118:364 S 25 '53

Improved needle thermocouple for subcutaneous and intramuscular temperature measurements in animals and man. J. Krog. diags R Sci Instr 25:799-800 Ag '54

Production of water spray of uniform drop size by a battery of hypodermic needles. D. J. Rasbash. diags J Sci Instr 30:189-92 Je '53

HYPOFLUORITES

Pentafluoropropionyl hypofluorite. A. Menefee and G. H. Cady. Am Chem Soc J 76:2020-1 Ap 5 '54

HYPOHALITES

Spectra

Ultra-violet absorption spectra of some organic hypohalites. M. Anbar and I. Dostrovsky. Chem Soc J p 1105-8 Mr '54

HYPOPHOSPHOROUS acid

Analysis

Iodometric determination of hypophosphorous and phosphorous acids. R. T. Jones and E. H. Swift. bibliog Anal Chem 25:1272-4 Ag '53

HYPOTENSION. See Blood pressure

HYSTERESIS

Ferromagnetic spinels with rectangular hysteresis loops. I. J. Hegyi. bibliog J Ap Phys 25:176-8 F '54

Improved form of hysteresis loop plotter for magnetic materials. A. D. Booth. diags J Sci Instr 30:384-5 O '53

Influence of magnetic amplifier circuitry upon the operating hysteresis loops; abstract. H. W. Lord. diag Elec Eng 72:981 N '53

Time effects in the hysteresis loop of polycrystalline barium titanate. M. McQuarrie. bibliog diags J Ap Phys 24:1334-5 O '53

HYSTERESIS (mechanics)

Damping, elasticity, and fatigue properties of temperature-resistant materials. B. J. Lazan and L. J. Demer. bibliog il diags Am Soc T M Proc 51:611-46; Discussion. 647-8 '51

Damping, fatigue, and dynamic stress-strain properties of mild steel. B. J. Lazan and T. Wu. bibliog il diags Am Soc T M Proc 51:649-78; Discussion. 678-81 '51

I

I.G. Farbenindustrie. See Interessen gemeinschaft farbenindustrie

ICE

Analysis of first-order glow curves. L. I. Grossweiner. J Ap Phys 24:1306-7 O '53; Correction. 25:136 Ja '54

Electrical conduction in halide-contaminated ice. E. J. Workman and others. Phys R 94:1073 My 15 '54

Existence of beta ice. C. Berger and C. M. Saffer, jr. Science 118:521-2 O 30 '53

Librational heat capacity of ice and of heavy ice. R. W. Blue. bibliog J Chem Phys 22: 280-3 F '54

Paramagnetic resonance in irradiated ice. B. Smaller and others. Phys R 94:202 Ap 1 '54

Polar versus nonpolar ice. R. E. Rundle. J Chem Phys 22:344-5 F '54

Residual entropy of the polar structure of ice. W. N. Lipscomb. diag J Chem Phys 22: 344 F '54

Rotating thin ice target. G. R. Bishop and others. diag J Sci Instr 31:64-6 F '54

Surface migration of water molecules in ice. E. J. Murphy. J Chem Phys 21:1831-5 O '53

See also

Airplanes—Ice protection
Electric lines—Ice problem
Glacial geology
Hydroelectric plants —Ice protection
Roads—Ice control

Bacteriology

Sanitary quality of crushed and cubed ice as dispensed to the consumer. V. D. Foltz. bibliog Pub Health Rep 68:949-54 O '53

Heavy ice

See Water—Heavy water

Manufacture

See also

Ice machines
Refrigeration and refrigerating machinery

ICE cream

Vanilla-like synthetic cuts ice cream flavor cost; Vanitrope. W. S. Arbuckle and others. Food Eng 26:84-5+ F '54

Manufacture

Ice-cream manufacture. il Engineer 196:501-3 O 16 '53; Engineering 176:502-4 O 16 '53

Single-product benefits in multi-product plant; simultaneous ice cream and milk processing; Southern Dairies. A. V. Gemmill. flow plan il diag Food Eng 26:52-5+ Mr '54

Transportation

Sub-zero holding room on wheels; ice cream transport trailers. il Food Eng 26:90-1 Ap '54

ICE cream factories

Columns bear on floor insulation; Luick ice plant. il diag Eng N 151:43 Jl 9 '53

New freeze-room construction; Luick ice cream co. W. E. Sprinkman. il Food Eng 25:86 D '53

Electric equipment

Rediffusion at ice cream store; Acton factory of T. Wall and sons, ltd. Elec J 151:1862 D 4 '53

Equipment

Ice-cream manufacture. il Engineer 196:501-3 O 16 '53; Engineering 176:502-4 O 16 '53

Ice-cream-sandwich success; Swift & co. il Mod Packaging 27:112-13+ N '53

ICE cream mixes

Pasteurization

No-hold pasteurization makes progress. F. W. Barber. Food Eng 25:62-3 N '53

ICE machines

New flat yard provides quick handling for perishables; Union Pacific. il plan Ry Age 137:43-5+ S 27 '54

Tube-ice to tube chemicals. il diag Chem Eng 60:126-7 S '53

ICE plants

See also

Cold storage warehouses

Equipment

See also

Ice machines

ICELAND

Industries and resources

Opportunities abroad. C. O. Brown. Ind & Eng Chem 45:sup25A-6A O '53

ICTEROGENIN

Triterpenoids; the constitution of icterogenin, a physiologically active triterpenoid. D. H. R. Barton and P. de Mayo. Chem Soc J p887-900 Mr '54

IDAHO

See also

Hydroelectric plants —Idaho
Irrigation—Idaho
Mines and mineral resources—Idaho

IDAHO power company

Five attractive stocks off the beaten track. Mag of Wall St 93:735 Mr 20 '54

IDEAS in business

How to sell ideas to management. M. L. Powers. World Oil 137:99-100 O '53

See also

Advertising copy
Suggestion systems

IDENTIFICATION

Research in human identification. T. D. Stewart. Science 118:sup3 Ag 28 '53

IDENTIFICATION badges. See Employees, Identification of

IDITOL

Benzylidene-L-iditols. J. Sicé. bibliog Am Chem Soc J 76:1661-2 Mr 20 '54

IGEPON

Natural for tallow; Antara chemicals division's new Igepon TE-42. il Chem W 74: 70+ Ja 9 '54

IGNEOUS rocks. See Rocks, Igneous

IGNITION

Application of ideal gas theory to the gaseous expansion from an electric spark. R. B. Edmonson and others. bibliog il diags J Ap Phys 25:1008-13 Ag '54

Burning time and ignition temperature apparatus for metal powders. H. C. Andersen and L. H. Belz. diags R Sci Instr 24:1004 O '53

Emulsified ammonium nitrate as an ignition accelerator. I. Cornet and A. Boodberg. bibliog Ind & Eng Chem 45:1033-5 My '53

Ignition behavior of the hexanes. J. E. Johnson, J. W. Crellin and H. W. Carhart. bibliog Ind & Eng Chem 46:1512-16 Jl '54

Mechanism of ignition of firedamp by explosives. R. L. Grant and C. M. Mason. bibliog 6pls U S Bur Mines Rep of Invest 5049:1-8 '54

Relation between inflammables and ignition sources in aircraft environments. W. E. Scull. diags U S Nat Advisory Com for Aeronautics 1951:305-42 bibliog(145 titles, p336-9) '52

Theory of ignition considered as a thermal reaction. B. L. Hicks. bibliog J Chem Phys 22:414-29 Mr '54

See also

Airplane engines—Ignition devices
Detonation
Diesel engines—Ignition
Flame propagation
Gas burners—Ignition devices
Inflammable mixtures

IGNITION, Electric. See Electric ignition

IGNITION, Spontaneous. See Spontaneous combustion

IGNITRON

Balancing ignitrons in frequency converter three-phase spot welder; cathode-ray oscilloscope. G. C. Woodmancy. diags Welding J 33:236-8 Mr '54

New Haven's ignitron multiple-unit cars near completion. E. W. Ames and others. il diag Ry Loco & Cars 128:76-80 Mr '54; Same cond. Ry Age 136:66-8 Mr 15 '54

Recent developments in ignitrons. G. M. Zins. il diags Electronics 26:135-7 D '53

ILLINOIS

See also

Architecture, Domestic—Illinois

Coal mines and mining—Illinois

Petroleum industry and trade—Illinois

Politics and government

Bibliography

State and local government in Illinois. S. K. Gove, ed. 53p pa $1 Univ. of Illinois, Institute of government and public affairs, Urbana '53

ILLINOIS Bell telephone company

Stock offering. Comm & Fin Chr 178:949 S 14 '53

ILLINOIS central railroad

Bonds offered. Comm & Fin Chr 178:2573 D 28 '53

Railroad securities. Comm & Fin Chr 178:1563, 1257, 2176 O 1, 22, D 3 '53

ILLINOIS power company

Bond offering. Comm & Fin Chr 178:2198 D 7 '53

ILLINOIS terminal railroad

Purchase offer accepted by Illinois Terminal board. Ry Age 137:8 Ag 23 '54

ILLINOIS university

Benjamin M. Frankel memorial building. il plan Arch Rec 113:143-4 Je '53

ILLUMINATING engineering society

Coming year in I.E.S. progress. D. M. Jones. Illum Eng 49:415-16+ S '54

Committees, 1953-1954; official representatives. Illum Eng 48:sup22A+ D '53

Engineering societies of America. il Gen Elec R 57:39-41 Jl '54

General secretary reports. C. C. Keller. Illum Eng 48:651-65 D '53

National technical conference, New York, Sept. 14-17. Elec World News ed 140:35+ S 28 '53

National technical conference, New York, Sept. 14-17. Illum Eng 48:sup5A-9A+ N '53

President's address. A. H. Marwaring. Illum Eng 49:413-14+ S '54

ILMENITE

Characteristics of titaniferous concentrates. L. E. Lynd and others. bibliog il Min Eng 6:Trans817-24 Ag '54

IMAGE orthicon. See Television cameras

IMHOFF tanks

Sewage works practices; Imhoff tank operation. D. E. Bloodgood. il diag Water & Sewage Works 101:55-9 F '54

IMIDAZOLE

Association of imidazole with the ions of zinc and cupric copper. J. T. Edsall and others. bibliog Am Chem Soc J 76:3054-61 Je 5 '54

Mechanism of the coupling of diazonium salts with heterocyclic compounds; glyoxaline. R. D. Brown and others. Chem Soc J p3937-9 D '53

Meso-ionic compounds derived from pyridino(1′ : 2′-1 : 2)glyoxaline. N. W. Bristow and others. Chem Soc J p616-29 F '54

New synthesis of imidazoles. G. Shaw. Chem & Ind p546 My 8 '54

Preparation of some imidazole derivatives of 1,4-naphthoquinone. J. R. E. Hoover and A. R. Day. bibliog Am Chem Soc J 76:4148-52 Ag 20 '54

Syntheses of some 2-thiocyanoimidazoles. R. E. Koeppe and J. L. Wood. bibliog Am Chem Soc J 75:4655-7 O 5 '53

IMIDAZOLIDINE

Chemistry of the 2-imidazolines and imidazolidines. R. J. Ferm and J. L. Riebsomer. Chem R 54:593-613 bibliog(p609-13) Ag '54

Hydration of 2-nitriminoimidazolidine. M. W. Kirkwood and G. F. Wright. bibliog Am Chem Soc J 76:1836-9 Ap 5 '54

IMIDAZOLINE

Amidines derived from ethylenediamine; imidazolines. A. J. Hill and J. V. Johnston. bibliog Am Chem Soc J 76:922-3 F 5 '54

Chemistry of the 2-imidazolines and imidazolidines. R. J. Ferm and J. L. Riebsomer. Chem R 54:593-613 bibliog(p609-13) Ag '54

IMIDAZOLONE

Preparation of 2-disubstituted amino-5,5-diphenyl-4(5H)-imidazolones. C. K. Cain and S. K. Naegle. bibliog Am Chem Soc J 76:3214-15 Je 20 '54

IMIDES

Carbodiimides; a novel synthesis of adenosine di- and triphosphate and P^1,P^2-diadenosine-5′-pyrophosphate. H. G. Khorana. bibliog Am Chem Soc J 76:3517-22 Jl 5 '54

Carbodiimides; the reaction of dicyclohexylcarbodiimide with yeast adenylic acid; a new method for the preparation of monoesters of ribonucleoside 2′- and 3′-phosphates. C. A. Dekker and H. G. Khorana. bibliog Am Chem Soc J 76:3522-7 Jl 5 '54

Chemistry of carbodiimides. H. G. Khorana. Chem R 53:145-66 bibliog(p 164-6) O '53

Imides from asparagine and glutamine. E. Sondheimer and R. W. Holley. bibliog Am Chem Soc J 76:2467-70 My 5 '54

Properties and reactions of free alkyl radicals in solution; reactions with quinone imides, nitric oxide, and nitroso-compounds. B. A. Gingras and W. A. Waters. Chem Soc J p 1920-4 Je '54

Quinone imides; addition of dienes to substituted *p*-quinonedibenzenesulfonimides. R. Adams and R. W. P. Short. bibliog Am Chem Soc J 76:2408-10 My 5 '54

Quinone imides; addition of primary and secondary aromatic amines. R. Adams, B. H. Braun and S. H. Pomerantz. Am Chem Soc J 75:4642-4 O 5 '53

Quinone imides; *o*-quinonedibenzimides. R. Adams and J. W. Way. bibliog Am Chem Soc J 76:2763-9 My 20 '54

Quinone imides; orientation of adducts from 2-benzenesulfonyl-*p*-quinonedibenzenesulfonimide. R. Adams, T. E. Young and R. W. P. Short. bibliog Am Chem Soc J 76:1114-18 F 20 '54

Quinone imides; orientation of groups in adducts of quinone diimides with different N-substituents. R. Adams and R. S. Colgrove. Am Chem Soc J 76:3584-7 Jl 5 '54

What is an imide? A. M. Patterson. Chem & Eng N 32:2714 Jl 5 '54

IMINES

Heterocyclic imines and amines; derivatives of *iso*indoline and *iso*indolenine. P. F. Clark, J. A. Elvidge and R. P. Linstead. Chem Soc J p3593-601 N '53

Ketimines; *o*-tolyl alkyl ketimines. P. L. Pickard and S. H. Jenkins, jr. bibliog Am Chem Soc J 75:5899-901 D 5 '53

See also

Ethylenimine

IMINODIETHANOL

N-phosphorylated derivatives of diethanolamine. O. M. Friedman, D. L. Klass and A. M. Seligman. bibliog Am Chem Soc J 76:916-17 F 5 '54

IMMIGRATION and emigration

Canada

Population magnet; Canada's boom is bringing a flood of immigrants. J. Montagnes. Barron's 33:19-20 S 14 '53

China

European refugees in China. Economist 168:579-80 Ag 29 '53

Israel

Migration from Israel. Economist 169:900 D 19 '53

Netherlands

Emigration from the Netherlands. R. J. P. van Glinstra Bleeker and F. H. van der Maden. Int Labour R 67:453-74 My '53

United States

Recommendations on immigration policy. Mo Labor R 76:45-7 Ja '53

IMMUNITY

Chemical modifications of the specific polysaccharide of type III pneumococcus and their immunological effects. H. Markowitz and M. Heidelberger. bibliog Am Chem Soc J 76:1313-16 Mr 5 '54

Immunochemical studies on blood groups; the action of enzyme from snail (busycon) liver on blood group A and O(H) substances (hog). C. Howe and E. A. Kabat. bibliog Am Chem Soc J 75:5542-7 N 20 '53

New blood protein may be linked to natural immunity; properdin. L. Pillemer. Chem & Eng N 32:3502 S 6 '54

IMPACT

Arbitration bar Izod impact test for cast iron. J. T. Eash and A. P. Gagnebin. il diags Am Soc T M Proc 51:1061-8; Discussion. 1068-71 '51

Impact transition temperatures of some pearlite-free mild steels as affected by heat treatments in the alpha range. A. Josefsson. bibliog il J Metals 6:Trans 652-9 sec 2 My '54

Safe load impacts. H. E. Walker. il Glass Ind 35:186-91+ Ap '54

Use of the ballistic pendulum for impact testing of tirecord. W. J. Lyons and I. B. Prettyman. bibliog diags Textile Res J 23: 917-25 D '53

IMPACTORS

Design of a new five-stage cascade impactor. J. D. Wilcox. il A M A Archives Ind Hygiene & Occup Med 7:376-82 My '53

IMPEDANCE

Audio amplifier matches voice-coil impedance. K. Onder. bibliog diags Electronics 27:176-9 F '54; Discussion. W. E. Blumberg. 27: 382+; Reply. 384 Je '54

Computation of impedance and efficiency of transmission line with high standing-wave ratio. W. W. Macalpine. diags Elec Com 30:238-46 S '53

Graph simplifies calculations for 5-kv circuit impedance; engineering reference sheet. F. E. Reeves. Elec World 140:164 Ag 24 '53

Graphic analysis of nonlinear circuits using impedance concepts. J. S. Thomsen. diags J Ap Phys 24:1379-82 N '53

Helix impedance measurements using an electron beam. D. A. Watkins and A. E. Siegman. bibliog il diags J Ap Phys 24: 917-22 Jl '53

Impedance of a top-loaded antenna of arbitrary length over a circular grounded screen. J. R. Wait and W. J. Surtees. bibliog J Ap Phys 25:553-5 My '54

Maximum impedance transformations in band-pass filters; abstract. T. J. O'Donnell and E. M. Williams. diags Elec Eng 72: 1105 D '53

Measurement of high source impedances. Engineering 177:376 Mr 19 '54

Measuring impedance of high-frequency resistors. C. L. Wellard. il diags Electronics 26:176-9 O '53

Mutual impedance of rhombic antennas spaced in tandem. J. G. Chaney. J Ap Phys 24:751-5 Je '53

Simplification for mutual impedance of certain antennas. J. G. Chaney. J Ap Phys 24:747-50 Je '53

Tester for measuring small-signal impedances of transistors. D. H. Toth. diags R Sci Instr 25:96-8 Ja '54

Theorem on the impedance-transforming properties of reactive networks. L. Storch. bibliog diags J Ap Phys 24:833-8 Jl '53

Transmission-line impedance measurements; method of three readings. H. Sutcliffe. diags Wireless Eng 30:180-1 Jl '53

IMPERIAL chemical industries, ltd.

Annual report. Chem Age (Lond) 68:781-3 My 23 '53

Annual report, 1953. Chem & Ind p622, 774 My 29, Jl 3 '54

Division of interests; Du Pont and I.C.I. plans approved. Chem Age (Lond) 70:734 Mr 27 '54

Empire abuilding. Chem W 74:24 Mr 20 '54

Healthy record. Chem W 74:20 Je 12 '54

I.C.I. and nationalisation; commentary on Labour party's proposals. Chem Age (Lond) 70:507-10 F 27 '54

I.C.I. had a good year; 1953 directors' report. Chem Age (Lond) 70:1149-50 My 22 '54

ICI shifts research emphasis. Chem & Eng N 32:2390 Je 14 '54

Statement by the chairman. J. Rogers. Economist 167:941-2 Je 27 '53; Same cond. Chem Age (Lond) 68:1000 Je 27 '53

IMPERIAL oil, limited

Three Canadian leaders. R. Colston. Mag of Wall St 93:440-1 Ja 9 '54

IMPORTS

Annual review of developments in chemical and chemical process industries; import-export gap narrows. L. N. Markwood. Chem & Eng N 32:17-19 Ja 4 '54

Documents for IC-DV procedure. For Comm W 51:2+ Ja 4 '54

Front rank exposure; chemical companies face higher-than-average risk of being injured by increases in imports. Chem W 74: 11-12 Ja 9 '54

Further study asked on glassware regarding effect of imports. For Comm W 50:22 N 30 '53

Import score; tabulations. Chem W 74:78+ Ap 24 '54

Imports at United States ports. Published in weekly numbers of Oil, paint and drug reporter

Return of IC-DV certificates. For Comm W 51:2 Ja 11 '54

Summary of foreign control regulations applying to imports from the United States; revised as of Oct. 15; tabulation. For Comm W 50:10-12 N 2 '53

Tung oil imports quota system object of new Ellender measure. Oil Paint & Drug Rep 165:3+ Ap 5 '54

See also

Free trade and protection

Petroleum industry and trade—United States—Imports problem

Statistics

Foreign trade; value of imports by geographic regions and by leading countries, by economic classes and by principal commodities, 1949-1952. Survey of Cur Bsns 1953 Sup p 109-12 [supplemented in monthly numbers]

IMPREG. See Wood, Laminated

IMPROVED products. See Products, Improved

INCENDIARY bombs. See Bombs, Incendiary

INCENTIVE wages. See Wage payment plans

INCENTIVES in industry

Are clerical incentives worth while? abstract. G. Fergason. Management R 42:150-1 Mr '53

Can all operations be placed on incentive? W. C. Cooling. il diags Mill & Factory 54: 98-101 Mr '54

Charting incentives for job shops. D. C. Latella. il Steel 133:118-19 N 23 '53

Classless compensation; how to distribute earnings increased through efficient use of modern equipment; suggestions of Wladimir Woytinsky. Chem W 73:15 O 10 '53

For incentives; slashed red tape. Chem W 72:23-4 Ap 25 '53

Grinding; incentives up accuracy; Timken roller bearing co. T. M. Rohan. il Iron Age 174:71 S 23 '54

How to keep your incentive system in line. S. W. Wuchina. Mill & Factory 55:104-7 Jl '54

Incentive management. J. F. Lincoln. Chem Eng 60:290-2 O '53

Is your incentive system up to date? J. Perry. Factory Management 112:218+ Ag '54

Maintenance incentive; scheme of I.C.I. fertiliser factory. Chem Age (Lond) 69:867-8 O 24 '53

Maintenance incentives are practical, but. W. C. Cooling. Factory Management 112: 127-31 F '54

Morale; all things to all men; how do morale and incentive practices shape up for chemical process industries researchers? il Chem W 73:54-6 O 17 '53

Nine incentive plans in a two hundred man plant; Cincinnati industries, inc. F. R. Larrabee. Advanced Management 18:9-11 D '53

Non-financial incentives; a management motivation analysis. E. J. Benge. Advanced Management 19:18-20 Je '54

Perspectives on work motivation. E. Ginzberg. Personnel 31:43-9 Jl '54

Scientific personnel; how to stimulate productivity and creativeness; abstract. F. F. Bradshaw. Oil Paint & Drug Rep 164:67 N 16 '53

There are real incentives in federal work. J. C. Worthy. Advanced Management 18:24-6 Je '53

Time for incentive plan for building labor? R. Scheuch. Eng N 151:27-8 S 17 '53

INCENTIVES in industry—*Continued*

We cut production time 27 per cent; Jones & Lamson machine co. R. S. Jones. Am Mach 98:118-21 My 24 '54

When incentives cover engineers, productivity goes up; East Dayton tool & die co. il Steel 133:80-1 N 16 '53

When individual incentive replaces group bonus, output per worker zooms; Seabrook farms co. I. C. Miller. il Food Eng 26:27-30+ Ja '54

See also
Employees' contests
Wage payment plans

INCINERATORS

See also
Refuse incinerators

INCOME

Economic status of older people. J. R. Stark. J Bsns 27:119-30 Ap '54

Middle-income groups show steady post-war gain in individual earnings. R. Y. Giles. Ptr Ink 243:36 My 22 '53

See also
Consumption (economics)
Dividends
Farm income
Profit
Salaries
Wages

Accounting

Accounting and tax concepts of income. R. A. Doherty. N A C A Bul 34:839-52 Mr '53

Cost; is it a binding principle or just a means to an end? S. J. Broad. J Account 97:582-6 My '54

Emphasis on reporting, not calculation, could settle income statement controversy. R. K. Mautz. J Account 96:212-16 Ag '53

How to build an income forecast. R. J. Halloran. N A C A Bul 34:886-93 Mr '53

Income reporting and price re-determination. E. A. Williams. N A C A Bul 35:1278-83 Je '54

Premature revenue recognition. W. A. Paton. J Account 96:432-7 O '53

Return on investment; guide to management decisions. R. B. Read. N A C A Bul 35:1231-44 Je '54

Stock dividends and concepts of income. G. O. May. J Account 96:427-31 O '53

Ten questions the accountant should ask himself when giving an opinion on supplementary income information. D. L. Raun. J Account 96:223-4 Ag '53

Statistics

Appraisal of the 1950 census income data. H. P. Miller. Am Stat Assn J 48:28-43 Mr '53

Changes in the functional distribution of income. J. Burkhead. bibliog Am Stat Assn J 48:192-219 Je '53

Data for measuring the effectiveness of public income-maintenance programs. J. Fisher. bibliog Am Stat Assn J 48:15-27 Mr '53

Gross national product, national income and personal income, annual totals for selected years 1929-1952 and seasonally adjusted annual rates by quarters for 1952 and 1953. Fed Res Bul 40:92-3 Ja '54 [cont monthly]

Income good in southern cities. C. R. Walker. Manuf Rec 123:30-1 Ag; 27-8 S '54

National income and product in 1953; with tables. Survey of Cur Bsns 34:5-14 F '54

National income, 1949-1952. Survey of Cur Bsns 1953 Sup p6 [supplemented in monthly numbers]

National income trends; corporate profits; second quarter. Survey of Cur Bsns 33:3-5 O '53

National income trends; third quarter. Survey of Cur Bsns 34:3-4+ Ja '54

1953 survey of consumer finances; net worth of consumers, early 1953. I. Schweiger. Fed Res Bul 39:940-7 S '53

Personal income, 1949-1952. Survey of Cur Bsns Sup p8 [supplemented in monthly numbers]

Review of national income and product in the third quarter; with tables. Survey of Cur Bsns 33:2-6 N '53

Sales Management survey of buying power, May 10, 1953; population estimates, effective buying income, retail sales, farm market data, etc. Sales Management 70:1-724 My 10 '53

Sales Management survey of buying power, May 10, 1954; population estimates, effective buying income, retail sales, farm market data, etc. Sales Management 72:1-812 My 10 '54

Sources of income data. L. Carson. Dun's R & Mod Ind 62:78 O '53

SRDS' estimates of local consumer incomes. J. H. White. J Marketing 18:146-54 O '53

Who gets what income and where? with tabulations. J. M. Gould. Sales Management 71:65-6+ N 10 '53

Great Britain

Where real resources go. Economist 168:647-50 S 5 '53

Southern states

Income good in southern cities. C. R. Walker. Manuf Rec 123:30-1 Ag; 27-8 S '54

United States

Appraisal of the 1950 census income data. H. P. Miller. Am Stat Assn J 48:28-43 Mr '53

Changes in distribution of income, 1913-48. G. H. Moore. Mo Labor R 76:50-2 Ja '53

Expenditures in 1953; personal income. Fed Res Bul 39:1143-4 N '53

Incomes; key to commodities. Bsns W p 172-3 S 26 '53

Relationship of life insurance to redistribution of income. W. M. Anderson. East Underw 54:28 pt 2 S 25 '53

Soaring personal income; which groups have benefited most in post-Korea boom. W. T. Wilson. Mag of Wall St 92:540-2 Ag 8 '53

INCOME tax

Depreciation reform; what industry wants. Steel 133:35 Jl 27 '53

Forms to accompany tax returns. J Account 97:362-4 Mr '54

Income tax on settlement option. F. L. Morton. Spectator 162:50-3 Ja '54

Industrial South's stake in Revenue revision. M. Smith. Manuf Rec 123:36-7 Ap '54

No income tax benefits derived from trade-ins. J. F. McCarthy. Am Bld 75:194 Jl '53

Oil production illustrates place of income tax as a cost. D. R. Boggs. N A C A Bul 35:1321-3 Je '54

See also
Corporations—Taxation
Excess profits tax

Accounting

Accelerated amortization and regulatory policy. E. Neuner, jr. bibliog Land Econ 29:248-62 Ag '53

Accountant's position in the field of taxation. M. E. Richardson. J Account 98:166-72 Ag '54

Accounting and tax concepts of income. R. A. Doherty. N A C A Bul 34:839-52 Mr '53

Accounting procedures and methods under the new Revenue code. W. L. Schaffer. J Account 98:320-7 S '54

Advantages of payroll procedure which deducts income tax and FICA withholdings simultaneously by using a prepared table. R. E. Novak. J Account 96:491-2+ O '53

Appeal to accountants for aid in tax administration. B. F. White. J Account 98:197-200 Ag '54

California court rules against CPA in tax fee suit on grounds of unauthorized practice of law. J Account 98:219-30 Ag '54

Changed value of dollar should be recognized in computing allowable depreciation deduction for income taxes. Elec World News ed 140:44-5 Ag 31 '53

Complication in taxing partnerships caused by coexistence of entity and aggregate concepts. R. T. Warner. J Account 96:703-10 D '53

Divergences between rules of tax accounting and generally accepted accounting principles. bibliog J Account 97:93-100+ Ja '54

Don't forget Uncle Sam in your contest prizes. P. Salisbury and J. Shoenfeld. Sales Management 72:58+ F 1 '54

How far do the courts go in upholding accounting principles for determining income. S. I. Simon. bibliog((151 ref) J Account 96:683-94 D '53

INCOME tax—Accounting—*Continued*

How the new code will affect the individual taxpayer. D. Zack. J Account 98:294-303 S '54
How to avoid grief at your tax examination. M. Block. Adv Agency 47:77-8 F; 76+ Mr; 86+ Ap '54
How will you fare on March 15? Am Bsns 24:30+ F '54; Same. Management R 43:55-6, 72 Ja '54
In oil and farming, income can frequently be realized as capital gain. V. Tilly. J Account 97:217-19 F '54
Income tax is a cost in paying out oil properties. E. B. Day. N A C A Bul 34:1646-50 Ag '53
Inequities in taxing finance reserves of small installment sales dealers. E. R. Daniell. J Account 97:201-4 F '54
Influence of accounting concepts in federal taxation. N. A. Sugarman. Am Gas Assn Proc 1953:255-9
Installment method of accounting as applied to retail credit jewelry stores. D. H. Sanders. J Account 96:89-92 Jl '53
Method of accounting for emergency facilities may be a major factor in income determination. P. K. Webster. J Account 95:580-7 My '53
New tax law; how it will affect plumbing and heating contractors. Dom Eng 184:116-18 S; 128-30 O; 113+ N '54
Optional taxation as partnerships for closely held corporations. W. M. Bury. J Account 97:339-41 Mr '54
Present policy of the Internal Revenue service on depreciation allowances. H. E. Smith. N A C A Bul 35:789-90 F '54
Proper use of Section 107 lessens tax burden on lump-sum income. C. B. Bayly, jr. J Account 96:582-7 N '53
Question and answer session from New York university's 12th Institute on federal taxation. J Account 97:85-9 Ja '54
Shall price level changes be removed from computations of capital gain or loss? C. W. Cloe. J Account 96:484+ O '53
Tax consequences of inadequate equity capital; the thin corporation problem. O. Kramer. J Account 96:449-51 O '53
Tax planning involves the cost accountant. E. C. Meisky. N A C A Bul 34:853-60 Mr '53
Tax provision for uncollected profit on installment accounts receivable. J Account 96:346-8 S '53
Tax quiz for plumbing-heating contractors. Dom Eng 183:99+ F '54
Taxes and depreciation policy. R. C. Staebner. Am Gas Assn Mo 35:27-8 N '53
Text of Bureau release on new depreciation policy. T. C. Andrews. J Account 96:101-2 Jl '53
What tax treatment should be given to income resulting from cancellation of leases? J. Peltz. J Account 97:205-13 F '54
What the new federal tax law means. Factory Management 112:106-7 S '54
Year-around income tax planning for road building contractors. H. W. Wolkstein. Roads & Sts 97:55-6+ S '54

See also
Depreciation
Income tax—Deductions

Capital gains tax

All-round benefits of a lowered capital gains tax. C. Stolle. Comm & Fin Chr 178:540 Ag 13 '53
Arizona dealers urge lower capital gains tax; with text of the resolution. H. E. Dahlberg. Comm & Fin Chr 178:1849 N 12 '53
Capital gain. Rough Notes 96:60+ O '53
Capital-gains aspects of oil and gas transactions. J. F. Y. Stambaugh. J Account 97:312-15 Mr '54
Capital gains tax, an inequitable tax. E. T. McCormick. Comm & Fin Chr 178:638 Ag 20 '53
Capital gains tax hard on real investors. E. T. Boles. Comm & Fin Chr 178:441+ Ag 6 '53
Determining basis, gain or loss; capital gains and losses. G. Mayer. J Account 98:309-19 S '54
NSTA urges end of capital gains tax and double dividend taxation; text of resolution. Comm & Fin Chr 178:14 sec 2 O 8 '53
Practical workings of the capital gains tax. R. C. Ingalls. Comm & Fin Chr 178:447 Ag 6 '53
Rental housing sold can be listed as capital gain. J. F. McCarthy. Am Bld 75:180-1 My '53
Sale of rental housing units; ordinary income or capital gain? D. Reifer. bibliog J Account 97:449-59; 98:90-1 Ap, Jl '54
To have and to hold. B. N. Chanler. Barron's 33:3+ O 12 '53

Collection

Administrative provisions for returns and payments. J. F. Pitt. J Account 98:378-83 S '54

Deductions

Business expenses and deductions for corporations and individuals. C. N. Whitehead. J Account 98:303-9 S '54
Casualty deductions. C. W. Tye. Rough Notes 96:48+ Jl '53
Deductibility of life insurance premiums. F. L. Morton. Spectator 161:61-3 O '53
Deduction of bad debts. C. W. Tye. Rough Notes 97:62-4 Jl '54
Doing it the Texas way; oil and cattle, two investments with built-in tax protection. il Bsns W p77-80 D 5 '53
Employee death benefits and new provision of the federal income tax law. F. L. Morton. Spectator 161:35-7 Jl '53
Escape from the $600 tax trap. D. Rogers. Trusts & Estates 93:12 Ja '54
How to avoid grief at your tax examination; entertainment expenses. M. Block. Adv Agency 47:86+ Ap '54
How to avoid grief at your tax examination; travel expenses. M. Block. Adv Agency 47:76+ Mr '54
How to increase the charitable deduction by gifts other than cash. J. K. Lasser. J Account 95:701-5 Je '53
Income tax; court holds that finance charge may be deducted as interest. Banking 46:92+ F '54
Internal Revenue clarifies policy on business deductions. Concrete 62:8-9 Jl '54
Medical practitioners' deductions for dues to professional organizations. J. Account 96:733-4 D '53
New tax law gives salesmen better break on travel expenses. J. Schoenfeld. Sales Management 73:98+ Ag 15 '54
Special deduction from income for tax purposes allowed by Swedish plan to alleviate depressions. J. P. Shelton and G. Ohlin. J Account 95:739+ Je '53
Your entertainment deductible? J. Shoenfeld. Sales Management 72:110+ Ja 15 '54

See also
Pensions, Industrial—Tax problems

Law

Revenue code of 1954; changes in the tax law. C. W. Tye. Rough Notes 97:76 S '54

Burma

Foreign firms affected by new Burmese tax law. For Comm W 51:13 F 15 '54

Canada

How the U.S.-Canada tax convention agreement works in Canadian taxation of nonresidents. G. A. Sharp. J Account 95:606-7 My '53

Colombia

Colombia makes more income tax changes. For Comm W 50:10 N 9 '53
Colombian income taxes modified; special tax on high incomes out. For Comm W 50:8 O 19 '53

Mexico

Mexico enacts new income tax law. For Comm W 51:13 F 15 '54

Pakistan

Pakistan extends tax exemption on visitors. For Comm W 51:20 Ja 18 '54

INCOME tax—*Continued*

Sweden

Special deduction from income for tax purposes allowed by Swedish plan to alleviate depressions. J. P. Shelton and G. Ohlin. J Account 95:739+ Je '53

United States

Analysis of 17 new amendments to IRC made by Technical changes act of 1953. B. Harrow. J Account 96:438-43 O '53
Averaging income to end tax inequities. J. S. Seidman. Banking 46:126+ F '54
Changes under pending Revenue bill. E. M. Thore. East Underw 55:5 Mr 12 '54
Crumbs from the table. Barron's 33:5 N 2 '53
Income tax savings and life insurance. J. A. Appleman. Spectator 162:66-7 Ap '54
Individual income tax rates, 1953 and 1954; table. Banking 46:39 Ja '54
Insurance and the new tax law; Internal revenue code of 1954. F. Morton. Spectator 162:26-7+ S '54
Internal revenue code of 1954 from the viewpoint of the life underwriter. M. M. Gorman. East Underw 55:38+ pt 2 O 1 '54
Investment income tax extension for year '53 approved. East Underw 54:1+ Jl 24 '53
MCA seeks changes in income tax setup. Oil Paint & Drug Rep 164:5+ D 7 '53
NAIA asks revision in income tax laws for reporting commissions. East Underw 54:14 D 25 '53; Same. Weekly Underw 169:1537+ D 26 '53; Excerpt. Nat Underw 57:2 D 24 '53
NAIB bulletins members on changes of interest to them in new revenue code. Nat Underw 58:13+ S 2 '54
New federal tax rulings. Nat Underw (Life ed) 57:11 O 2 '53
New Internal Revenue service rules for taxpayers' rulings. D. C. Alexander. J Account 97:321-8 Mr '54
New U.S. tax laws; here's how they affect metalworking. Am Mach 98:194-7 S 13 '54
No more loophole; Gary Cooper tax law. Bsns W p78 Ag 1 '53
Progressive taxation; case against it is coming out of wraps. J. Chamberlain. Barron's 33:5-6+ D 21 '53
Proposed federal code tax changes. East Underw 55:8 Mr 26 '54
Push for the pendulum; tax writers changing research climate. Chem W 74:51 Ja 23 '54
Reviews federal income tax developments. M. Johnson. Nat Underw 57:22 O 22 '53
Ridiculous situation needs a new look ahead; urges reformed income tax program. G. S. Benson. Weekly Underw 171:33 Jl 3 '54
Sales service and the new tax law. S. J. Foosaner. Weekly Underw 171:811-13, 892+ O 2-9 '54
Tax exemption on income earned abroad. J. J. Schwartz. Eng N 151:360-1 O 8 '53
Tax savings under Sections 113, 126 and 162; report of ABA committee on state and federal taxation. bibliog Trusts & Estates 92:731-40 O '53
Taxation, incentives, and financial capacity. J. K. Butters. Comm & Fin Chr 179:155+ Ja 14 '54
Way we treat foreigners engaged in business with or in the United States. F. M. Joseph. J Account 95:598-9 My '53
Why U.S. cut the interest rate. Bsns W p43-4+ O 3 '53
Will you pass your March 15 exam? questions and answers. Life Ins Courant 59:33-4, 45 F '54; Same. Banking 46:71+ Ja '54
Year-end tax pointers. V. R. Wolder. Comm & Fin Chr 178:2272-3 D 10 '53

See also
Excess profits tax

Decisions

Federal court points out how Treasury department erred in defining terms of five per cent depletion allowance. Brick & Clay Rec 125:41+ Ag '54
Fifth circuit holds accountants must produce client's tax records, though state law grants privilege. J Account 96:238-42 Ag '53
Taxability of gain from endowment insurance; F. E. Card and W. S. Adams v. Commissioner. F. L. Morton. Spectator (Endorsement no) 161:75-8 D '53
US court hears key sec. 608 tax case; Glen Oaks tenants lose on rent rebates. House & Home 6:36 Jl '54

INCONEL. See Nickel alloys

INCUBATORS, Electric
Care of premature infants; electrically heated equipment. il Elec R (Lond) 153:1428-9 D 25 '53

INDAN
Conformations of hydrindanes and the relative stabilities of the *cis*- and *trans*-configurations at the C/D ring juncture in steroids. A. S. Dreiding. bibliog Chem & Ind p992-4 Ag 7 '54
Dimethoxyindanyl and -indenyl derivatives. E. C. Horning and G. N. Walker. Am Chem Soc J 76:1700-2 Mr 20 '54
Perhydroindanes; some 1-substituted hexahydroindanes. L. E. Coles and others. Chem Soc J p2617-22 Jl '54
Some adsorption colors and their significance for thermochromic and tautomeric effects; experiments with 1,3-diketohydrindene derivatives and with 1,4-quinonedibenzenesulfonimides. A. Schönberg, A. Mustafa and W. Asker. bibliog Am Chem Soc J 75:4645-7 O 5 '53
Synthesis of indane-1-carboxylic acids. W. H. Linnell, D. W. Mathieson and D. T. Modi. Chem Soc J p3257-61 O '53

INDANONE
Thiocarbonyls; studies in the indanone and tetralone series. E. Campaigne and R. D. Moss. bibliog Am Chem Soc J 76:1269-71 Mr 5 '54

INDANTHRENE
Chemistry of indanthrone; *NN'*-dihydro-1 : 2-7 : 8-diphthaloylphenazine. W. Bradley, R. F. Maisey and C. R. Thitchener. Chem Soc J p272-3 Ja '54
Progress with indanthrenes. S. H. Brown. Mod Textiles Mag 34:59+ D '53

INDANTHRONE. See Indanthrene

INDAZOLE
Synthesis of DL-α-amino-β-(6-methyl-3-indazolyl)-propionic acid. H. R. Snyder and J. K. Williams. Am Chem Soc J 76:1298-301 Mr 5 '54

INDENE
Bis-indenyl derivatives of iron and cobalt. P. L. Pauson and G. Wilkinson. bibliog Am Chem Soc J 76:2024-6 Ap 5 '54
Dimethoxyindanyl and -indenyl derivatives. E. C. Horning and G. N. Walker. Am Chem Soc J 76:1700-2 Mr 20 '54

INDEPENDENT insurers, National association of. See National association of independent insurers

INDEPENDENT natural gas association of America
Annual meeting, Houston, Sept. 28-29. Gas Age 112:22-3 N 5 '53
How INGAA publicizes gas industry. W. E. Wilson. Am Gas J 181:15+ S '54
I.N.G.A.A. stresses public information program. C. P. Rather. Gas Age 113:49+ Ja 14 '54
Workshop conference, 2d, New Orleans, March 29. Gas Age 113:32-3 My 6 '54

INDEX numbers (economics)
AISI adopts steel production index. Materials & Methods 39:230+ F '54
American Machinist index of metalworking production. Published in bi-weekly numbers of American machinist
Appraisal of the BLS consumer price index. O. E. Vaughan. J Marketing 18:138-45 O '53
Business indexes. Steel 134:195 Ja 4 '54
Calculation and use of price index numbers for LIFO inventories. N. Dalrymple. N A C A Bul 35:89-91 S '53
Cost index. Factory Management 112:113-28 Ja '54 [cont monthly]
Cost index developed by California division of highways proves its value. R. H. Wilson. Civil Eng 24:82-4 F '54
Costs; process and construction; indexes useful. J. C. Lawrence. Ind & Eng Chem 46: sup65A-6A+ Ag '54

INDEX numbers (economics)—*Continued*

Federal Reserve adopts new industrial production index. Chem & Eng N 32:59-60 Ja 4 '54

Federal reserve board's output index overhauled. Oil Paint & Drug Rep 164:3+ D 21 '53

How they read the mid-1954 indexes; average of personal forecasts ventured by 107 executives in industry and commerce. Credit & Fin Management 56:11-12 Ja '54

Index of economic diversification. C. Rapkin. Land Econ 30:281-3 Ag '54

Index puts realism into construction outlook. Eng N 152:67-8+ F 18 '54

New FRB production index. Nat City Bank p4-6 Ja '54

New index on ingot production started. Blast F & Steel Pl 42:sup60 Ap '54

1953 revision of the monthly index of industrial production; with tables and charts. Fed Res Bul 39:1239-328 D '53

Retouching the portrait; Federal reserve board index of industrial production. Bsns W p27 D 19 '53

Revised consumer price index; excerpts from papers, American statistical association meeting, 1952. Mo Labor R 76:161-75 F '53

See also
Stocks—Price indexes and averages

INDEXING

Indexing is becoming mechanized; Chemical abstracts hopes to double its speed by mechanical devices. C. L. Bernier. Chem & Eng N 31:4910 N 23 '53

Indexing system; Unitern coordinate indexing. Mech Eng 76:36-7 Ja '54

Solving the indexing problem; punched cards provide answer. il Chem Age (Lond) 68:965-6 Je 27 '53

Studies in coordinate indexing. M. Taube and others. 110p Documentation inc, 2521 Connecticut av, N.W, Washington 8 '53

Subject indexing of aerodynamic data. Engineer 196:602 N 6 '53

Systematic subject indexing. B. C. Vickery. bibliog J Doc 9:48-57 Mr '53

INDEXING (machine work)

Collet type fixture indexed by means of template. W. M. Halliday. diags Mach 60:212-13 Je '54

Gears broached in two steps; while four are being cut, other four are in load-unload positions. il Steel 133:109 N 23 '53

Human factors in machine indexing. D. G. Malcolm and G. L. Marshall. il Machine Design 25:143-5 N '53

Indexing fixtures solve valve production problems. il Steel 135:104-5 S 27 '54

Precision indexing with magnetic ratchet. il diags Machine Design 26:118 Je '54

Setup slugs are patterns for tool setting on repeat multi-spindle automatic jobs; Robertshaw-Fulton controls co. il Steel 134:144 Mr 1 '54

Special machine locates and drills rivet holes; Boeing airplane co. il Automotive Ind 109:53 N 1 '53

Standard turret unit for multiple indexing applications. il diags Product Eng 24:184-5 N '53

INDIA

Family planning in India. Economist 168:503 Ag 22 '53

Ford foundation provides more aid for rural India. For Comm W 50:5 Ag 10 '53

See also
Chemical industries—India
Electrochemical industries—India
Geology—India
Hydroelectric plants—India
Irrigation—India
Kashmir
Medical service, Industrial—India
Petroleum industry and trade—India
Railroads—India
Soils—India

Antiquities

Forgotten empire of antiquity. S. Piggott. il maps Sci Am 189:42-8 N '53

Commercial policy

India now licenses some dollar goods under soft-currency quotas. For Comm W 51:8 F 22 '54

Economic conditions

Economic conditions abroad. For Comm W 51:3 Ja 11 '54

Nehru's ambition for political leadership ignores India's needs. V. L. Horoth. map Mag of Wall St 93:75-6+ O 17 '53

Economic policy

Development planning. bibliog Int Labour R 68:186-99 Ag '53

Economic relations

Germany

India signs agreements for new steel plant. For Comm W 51:10 F 1 '54

United States

Indian railways to get new engines and cars. For Comm W 51:18 Ja 18 '54

U.S. funds to assist Indian steel purchase. For Comm W 51:11 F 1 '54

U.S., India sign 16 operational accords. For Comm W 50:5 O 5 '53

Foreign relations

America, India and Pakistan; question of United States bases in Pakistan. Economist 169:569-70, 668-9 N 21-28 '53

As India sees Panmunjom. Economist 169:473-4 N 14 '53

India and Africa. Economist 170:175 Ja 16 '54

India and Sheikh Abdullah. Economist 168:639-40 S 5 '53

Mr Dulles and Mr Nehru; Pakistani-American agreement; Middle Eastern affairs. Economist 170:73-4 Ja 9 '54

Mr Nehru goes to Karachi. Economist 168:394 Ag 8 '53

Nehru's ambition for political leadership ignores India's needs. V. L. Horoth. map Mag of Wall St 93:75-6+ O 17 '53

Industries and resources

India to develop small industries, handicrafts. For Comm W 50:8 N 30 '53

National chemical laboratory

India turns to science. E. McBain. il Chem & Eng N 32:604-9 F 15 '54

National research development corporation

India sets up new development group. For Comm W 51:7 F 22 '54

Politics and government

Linguistic states in India. map Economist 169:34+ O 3 '53

Yearbooks

India, 1953. 423p $4.50 Grove press, 795 Broadway, New York 3 '54

INDIANA

See also
Architecture, Domestic—Indiana
Petroleum industry and trade—Indiana
Public health—Indiana
Roads—Indiana

INDIANA and Michigan electric company

Bonds offered. Comm & Fin Chr 178:1274 O 5 '53

INDIANA steel products company

When the proxy fight is finished. Am Bsns 24:20+ S '54

INDIANAPOLIS

See also
Chemical industries—Indianapolis

Water supply

Fluoridation at Indianapolis. R. J. Becker. Am Water Works Assn J 46:575-7 Je '54

INDIANS (of India). See East Indians

INDIANS of North America

Antiquities

Amateur scientist; the archaeology of New York city. A. G. Ingalls. il Sci Am 189:94-6 Jl '53

INDIANS of South America

See also
United nations and specialised agencies joint field mission on indigenous populations

INDICATORS, Liquid level. See Liquid level indicators

INDICATORS and test papers

Developments in the use of primary standards and indicators. A. J. Nutten. bibliog(33 ref) Chem Age (Lond) 70:123-9 Ja 9 '54

Fluorescence titration. J. De Ment. bibliog (33 ref) J Chem Educ 30:145-7 Mr '53

Siloxene as a chemiluminescent indicator in chromate titration for determination of lead. F. Kenny and R. B. Kurtz. Anal Chem 25:1550-1 O '53

Stable, sensitive linear starch indicator solution for iodimetry. J. L. Lambert. bibliog Anal Chem 25:984-5 Je '53

See also

Dyes as indicators

INDIGENOUS populations, United nations and specialised agencies joint field mission on. See United nations and specialised agencies joint field mission on indigenous populations

INDIGISOL printing. See Textile printing—Patents

INDIGO

Relation between the absorption spectra and the chemical constitution of dyes; *cis-trans* isomerism and hydrogen bonding in indigo dyes. W. R. Brode, E. G. Pearson and G. M. Wyman. bibliog Am Chem Soc J 76:1034-6 F 20 '54

INDIGOSOLS

Indigosol dyeings on animal fibers; urea in acid solutions; patent. Am Dyestuff Rep 42:394 Je 22 '53

INDIUM

Atomic heat of indium below 20°K. J. R. Clement and E. H. Quinnell. bibliog diag Phys R 92:258-67 O 15 '53

Diffusionless phase change in the indium-thallium system. M. W. Burkart and T. A. Read. bibliog il diags J Metals 5:Trans 1516-24 sec 2 N '53

Recrystallization of germanium from indium solution. J. I. Pankove. il diags RCA R 15:75-85 Mr '54

Stability of the lower oxidation states of indium in aqueous solution. L. G. Hepler, Z. Z. Hugus, jr. and W. M. Latimer. bibliog diag Am Chem Soc J 75:5652-4 N 20 '53

Technique of soldering to thin metal films. R. B. Belser. bibliog il R Sci Instr 25:180-3 F '54

Analysis

Acetylacetone as an analytical extraction agent. J. F. Steinbach and H. Freiser. bibliog Anal Chem 26:375-9 F '54

Activation analysis using low level neutron sources. W. W. Meinke and R. E. Anderson. bibliog il Anal Chem 25:778-83 My '53

Determination of indium in aluminum bronze alloys by flame photometry. V. W. Meloche and others. Anal Chem 26:1387-8 Ag '54

Isotopes

Inelastic scattering of neutrons by In^{115} and Au^{197}. A. A. Ebel and C. Goodman. Phys R 93:197-8 Ja 1 '54

Short-lived isomeric states of Ag^{110} and In^{116}. F. I. Boley. Phys R 94:1078-9 My 15 '54

Nuclear reactions

Cross sections for production of In^{115m} and Au^{197m} by inelastic scattering of neutrons. H. C. Martin and others. bibliog Phys R 93:199-204 Ja 1 '54

Photoprotons from In, Ce, and Bi. M. E. Toms and W. E. Stephens. bibliog Phys R 92:362-6 O 15 '53

Spectrum

Hyperfine structure of In^{115}; evidence of a nuclear octupole moment. P. Kusch and T. G. Eck. Phys R 94:1799 Je 15 '54

INDIUM alloys

Gallium-indium system. W. J. Svirbely and S. M. Selis. bibliog J Phys Chem 58:33-5 Ja '54

Indium-antimony system. T. S. Liu and E. A. Peretti. il Am Soc for Metals Trans 44:539-45; Discussion. 545-8 '52

INDIUM antimonide

Analysis of magnetoresistance and Hall coefficient in *p*-type indium-antimonide and *p*-type germanium. T. C. Harman and others. Phys R 95:699-702 Ag 1 '54

Anomalous optical absorption limit in InSb. E. Burstein. diag Phys R 93:632-3 F 1 '54

Photoconductivity and photoelectromagnetic effects in InSb. S. W. Kurnick and others. Phys R 94:1791 Je 15 '54

Photovoltaic effect in InAs. R. M. Talley and D. P. Enright. Phys R 95:1092-4 Ag 15 '54

Radiation effects in indium antimonide. J. W. Cleland and J. H. Crawford, jr. Phys R 93:894-5 F 15 '54

INDIUM compounds

Complexing of indium(III) by fluoride ions in aqueous solution; free energies, heats and entropies. L. G. Hepler, J. W. Kury and Z. Z. Hugus, jr. bibliog J Phys Chem 58:26-8 Ja '54

Relationships among the absorption spectra of the 5,7-dihalo-8-quinolinol chelates of gallium(III) and indium(III). T. Moeller, F. L. Pundsack and A. J. Cohen. bibliog Am Chem Soc J 76:2615-18 My 20 '54

INDIUM halides

Indium halide complexes studied by ion-exchange methods. J. A. Schufle and H. M. Eiland. bibliog Am Chem Soc J 76:960-2 F 20 '54

INDIUM oxide

Electron micrographic studies in the system $BeO-In_2O_3$. C. R. Adams and W. O. Milligan. il J Phys Chem 58:219-22 Mr '54

Phases present and phase equilibrium in the system $In_2O_3-H_2O$. R. Roy and M. W. Shafer. bibliog J Phys Chem 58:372-5 Ap '54

Sorption-desorption studies in the system $BeO-In_2O_3$. W. O. Milligan and C. R. Adams. bibliog J Phys Chem 57:885-9 D '53

X-ray diffraction studies in the system $BeO-In_2O_3$. L. M. Watt and W. O. Milligan. bibliog J Phys Chem 57:883-5 D '53

INDIUM selenides

Photoconductivity of indium selenide. D. E. Bode and H. Levinstein. il Opt Soc Am J 43:1209-10 D '53

INDIUM sulfides

Thermodynamics of the $In-In_2S_3$ system. A. J. Thompson, M. F. Stubbs and J. A. Schufle. Am Chem Soc J 76:341-3 Ja 20 '54

INDO-CHINA, French

After Korea; what about Indo-China? il Bsns W p74-5 Ag 1 '53

Another truce without peace? Economist 169:801 D 12 '53

Eighth year in Indo-China. Economist 170:29-30 Ja 2 '54

Indo-China and the French union. Economist 169:328 O 31 '53

New stage in Indo-China. Economist 168:839 S 26 '53

Paris on the Red river. Economist 169:399-400 N 7 '53

Peace talks on Indo-China? Economist 169:10 O 3 '53

Puzzle in Indo-China. Economist 168:244 Jl 25 '53

Scare on the Mekong. map Economist 170:11 Ja 2 '54

Economic conditions

Economic conditions abroad (cont). For Comm W 50:7+ S 7 '53

Good crop helps to stabilize rice prices in Vietnam; shortage eased in Cambodia; other economic conditions. For Comm W 50:2 D 21 '53

Politics and government

Retrospect on Ho Chi Minh. Economist 168:33-4 Jl 4 '53

INDOLE

Constitution of conessine; degradation of some reduced quinoline and indole bases. B. Bailey, R. D. Haworth and J. McKenna. Chem Soc J p967-76 Mr '54

Derivatives of 1 : 3 : 4 : 5-tetrahydro-5-oxobenz(*cd*)indole. F. G. Mann and A. J. Tetlow. Chem & Ind p823 Ag 1 '53

Fischer indole synthesis. P. A. Roussel. bibliog(26 ref) J Chem Educ 30:122-5 Mr '53

Indoles derived from aromatic amines and 2-hydroxy-ketones; the synthesis of 7-acetyl-2 : 3 : 4′ : 5′-tetraphenylpyrrolo(2′ : 3′-4 : 5)-indole. N. A. Jones and M. L. Tomlinson. Chem Soc J p4114-16 D '53

INDOLE—*Continued*

Indoles; synthetical applications of the oxidative fission of the $C_{(2)}$-$C_{(3)}$ bond in indoles. D. W. Ockenden and K. Schofield. Chem Soc J p3440-3 N '53

Methylation of indoles. K. T. Potts and J. E. Saxton. Chem Soc J p2641-3 Jl '54

Nitroethylation of indole; a new synthesis of tryptamine. W. E. Noland and P. J. Hartman. bibliog Am Chem Soc J 76:3227-8 Je 20 '54

Organic fluoro-compounds; some indole derivatives. W. B. Whalley. Chem Soc J p 1651-3 My '54

Serotonin analogs; the synthesis of 5-dimethylaminoindoles. E. Shaw. bibliog Am Chem Soc J 76:1384-7 Mr 5 '54

Study of the Mannich base-indole condensation. H. R. Snyder, C. Y. Meyers and D. B. Kellom. bibliog Am Chem Soc J 75:4672-5 O 5 '53

Syntheses in the indole series. G. R. Clemo and J. C. Seaton. Chem Soc J p2582-4 Jl '54

INDOLEACETIC acid

Changes induced by indoleacetic acid in nucleic acid contents and growth of tobacco pith tissue. J. Silberger, jr. and F. Skoog. bibliog Science 118:443-4 O 16 '53

Preparation of some substituted 2-methyl-3-indoleacetic acids. F. J. Stevens and D. H. Higginbotham. bibliog Am Chem Soc J 76:2206-7 Ap 20 '54

Analysis

Detection of 3-indoleacetic acid in cauliflower heads; chromatographic behavior of some indole compounds. L. E. Weller, S. H. Wittwer and H. M. Sell. bibliog Am Chem Soc J 76:629-30 Ja 20 '54

INDOLEACETONITRILE

Isolation of a new plant-growth hormone, 3-indolylacetonitrile. H. B. Henbest, E. R. H. Jones and G. F. Smith. Chem Soc J p3796-801 D '53

INDONESIA

See also

Petroleum industry and trade—Indonesia
Political parties—Indonesia
Public health—Indonesia
Railroads—Indonesia

Commerce

Indonesia faces serious trade problems. For Comm W 51:4-5+ F 22 '54

Rubber for China? Bsns W p 172-3 N 14 '53

Commercial policy

Indonesia establishes export incentive plan. For Comm W 50:8 N 2 '53

Economic conditions

Economic conditions abroad (cont). For Comm W 50:6 Ag 17; 5+ D 14 '53

Economic setback for Indonesia. Economist 169:258 O 24 '53

Foreign relations

Indonesia sets rules for foreign agencies. For Comm W 50:10 Ag 31 '53

Politics and government

Indonesian political roundabouts. Economist 168:518-19 Ag 22 '53

Indonesia's step to the left. Economist 168:444 Ag 15 '53

INDUCTANCE coils

Negative inductance cuts magnetic-amplifier lag. G. M. Ettinger. il diags Electronics 27:162-3 Ja '54

INDUCTION hardening. See Case hardening—Electric hardening

INDUCTION motors. See Electric motors, Induction

INDUSTRIAL accounting. See Factories—Accounting

INDUSTRIAL advertisers association, National. See National industrial advertisers association

INDUSTRIAL advertising. See Advertising, Industrial

INDUSTRIAL and engineering chemistry (periodical)

Editors appoint advisors; sketches. Chem & Eng N 32:169-70 Ja 11 '54

INDUSTRIAL arbitration. See Arbitration, Industrial

INDUSTRIAL bridges. See Bridges, Industrial

INDUSTRIAL Brownhoist corporation

Crucial round looms in clash of Industrial Brownhoist groups over attempt to merge with Pennsylvania Coal & Coke. Bsns W p56+ O 3 '53

INDUSTRIAL brushes. See Brushes, Industrial

INDUSTRIAL buildings

Factors affecting industrial building design. il map Arch Rec 116:151-5 Jl '54

Five components dictate planning and design when you build for sales and service. il plan diags Am Bld 76:226+ My '54

For Heinz in Pittsburgh, a new variety of industrial architecture. il plans diags Arch Forum 100:116-23 Ja '54

Here's a way to get the new look with wood and glass; facade for the specialty sales building of Louis Best, lumber dealer. il plan diags Am Bld 75:219-21 Je '53

Industrial buildings; building types study. il plans diags Arch Rec 114:148-72 Ag '53

Industrial prefabs catching on. il Iron Age 172:47 O 29 '53

No interior supports in 1½-acre building; R. G. LeTourneau, inc. Eng N 151:26 D 17 '53

Old school becomes home of a new business, for $6,000; Gale Hall engineering, inc. il plan Arch Forum 100:164-5 My '54

Roadside USA; the Nation's longest slum begins to get architecture when an industrialist remodels his wayside supply houses; Republic supply co. il plan Arch Forum 100:122-5 Ap '54

Three small buildings for suburban businesses. il plans Arch Forum 98:156-61 Je '53

See also

Chemical plants
Factories
Foundries
Machine shops
Metallurgical plants
Office buildings, Industrial
Petroleum refineries
Printing offices
Warehouses

INDUSTRIAL chemistry. See Chemistry, Technical

INDUSTRIAL clinics. See Clinics, Industrial

INDUSTRIAL cooling. See Cooling, Industrial

INDUSTRIAL cooperation

See also

Business management
Employment systems, Cooperative
Trade associations

INDUSTRIAL counseling. See Employees' counselors

INDUSTRIAL dermatitis. See Skin—Diseases

INDUSTRIAL design. See Design

INDUSTRIAL development corporations. See Industrial foundations

INDUSTRIAL districts

Atlanta boasts new industrial district. Manuf Rec 123:27 Mr '54

Columbia industrial district. Manuf Rec 123:31 Je '54

Industrial district planned for Jacksonville port. il Manuf Rec 122:31 D '53

Planned industrial district; forum. il plans diags Arch Forum 100:102-15 Ap '54

INDUSTRIAL education

Home study helps worker up ladder. R. M. Lorz. Iron Age 173:75-6 Je 10 '54

See also

Apprentices
Employees, Training of
Engineering education
Foremen—Training
Foundry educational foundation
Paper making—Study and teaching
Supervisory workers—Training
Technical education
Textile education
Trade schools
Trade unions—Educational work
Vocational education

Cooperative plan

Industry goes to college for conferences on problems. il Steel 134:68 Je 7 '54

INDUSTRIAL efficiency. See Efficiency, Industrial

INDUSTRIAL engineering

Communications; the responsibility of management and the management engineer. A. W. Rathe. J Eng Educ 43:524-7 My '53

Competitive use of engineering talent. J. H. Gepfert. Tool Eng 33:151-3 Ag '54

Cost reduction through industrial engineering. R. C. Cooper. Advanced Management 19:7-10 Ag '54

Current status of engineering supervision. F. R. Benedict. Mech Eng 75:698-700 S '53

Developing strong product lines. P. R. Marvin. il Machine Design 26:116-22 My '54

Dynamic behavior of linear production systems. D. P. Campbell. flow diags Mech Eng 75:279-83 Ap '53; Discussion. R. Oldenburger. 75:831 O '53

Effective utilisation of material. F. Nixon. il diags Engineer 197:400-1, 435-8 Mr 12-19 '54; Same cond. Engineering 177:305-7 Mr 5 '54

Engineering and production team; abstract. E. N. Cole and E. H. Kelly. il Steel 134: 61-2 Ap 12 '54

Engineering in industry. Chem Age (Lond) 71:517-18 S 11 '54

Gearing your engineering for today's needs. R. G. Nightingale. Machine Design 26:310+ Je '54

Human engineering in the chemical industry. R. T. Eckenrode and E. J. Welch. il Chem & Eng N 31:4423-6 O 26 '53

Impact of development and research on production and design. L. H. Leedham. Engineering 177:263-4 F 26 '54

Importance of research to industrial engineering. H. F. Smiddy. Advanced Management 19:23-6 Je '54

Industrial design and engineering design. P. Muller-Munk. il Machine Design 26:148-51 S '54

Industrial engineering; report of industrial engineering team, which visited the United States in 1953. Chem & Ind p 1137 S 11 '54

Intangible factors in engineering management. C. A. Butler, jr. Mech Eng 75:706-8 S '53

Management, other career opportunities in industrial engineering, present and future. L. D. Catlin. Advanced Management 18:24-6 O '53

Materials selection; teamwork is the trend. D. Riley and others. diags Steel 134:98-9 My 17 '54

Process evaluation pays long-term dividends; Stratos division, Fairchild engine and airplane corp. W. M. Stocker, jr. il Am Mach 98:133-40 Je 21 '54

Professional management, fad or philosophy? K. O. W. Sandberg. Advanced Management 18:30 Ap '53

Society for advancement of management industrial engineering conference, 8th, New York, April 16-17. Advanced Management 18:24-6 My '53

Some applications of general and statistical mathematics in industrial engineering. W. G. Ireson. J Eng Educ 43:528-33 My '53

See also

Engineering departments

Industrial management

Motion study

Operations research

Time study

Study and teaching

Mathematics foundation for industrial engineering. H. P. Emerson. J Eng Educ 43: 472-5 Ap '53

INDUSTRIAL engineers

Accountant and engineer; working partners. A. E. Carlson. diags N A C A Bul 34:1633-41 Ag '53

Engineer's role in the foundry. W. S. Williams. Foundry 82:98-9+ Ja '54

Professional engineer in industry. E. B. Ilyus. Rock Prod 56:210+ O '53

See also

Engineering departments

INDUSTRIAL expansion

Approaches to to-morrow; Worcester pressed steel co. C. C. Higgins. il Dun's R & Mod Ind 62:1+ O '53

Auto empire decentralizes and reorganizes; Ford motor co. map Bsns W p 130-4 O 17 '53

Building up industrial muscle. Bsns W p 103-4+ O 10 '53

Business investment programs for early 1954. Survey of Cur Bsns 33:3-4 D '53

Capital goods demand in late 1953. Survey of Cur Bsns 33:3-5 S '53

Capital spending reaches peak, plant capacity increasing; annual review. Chem Eng 61:182-3 Mr '54

Cat with nine lives; U.S. industrial expansion. Bsns W p30 S 12 '53

Chemical buildup plan cause of excess. N. E. Hathaway. Oil Paint & Drug Rep 165:4+ My 24 '54

Chemical industry growth continues; data prepared by Commerce department's chemical and rubber division. Chem & Eng N 31:5198-9 D 14 '53

Coming, another wave of steel expansion. Steel 135:111-12 S 20 '54

Companies whose sound planning made them stronger. W. Gates. Mag of Wall St 92:599-601+ Ag 22 '53

Dynamics of economic expansion. J. S. Sinclair. East Underw 55:15+ pt 2 O 1 '54

Expansion by construction; Western chemical co. il Chem W 73:61-2+ O 24 '53

Expansion goals; 120 down, 68 to go. Steel 133:87 D 7 '53

Expansion, modernization; muscle for competitive strength. il Steel 133:30 D 28 '53

Forecasting expenditures for plant and equipment. G. V. Cox. J Bsns 27:22-31 Ja '54

Formaldehyde, glycerin, nitrogen among eight goals reopened by US. Oil Paint & Drug Rep 165:3+ F 15 '54

GM puts billion in prosperity pot; abstracts. H. H. Curtice. Iron Age 173:58 Ja 28 '54; Steel 134:51 Ja 25 '54

How far along is industrial development of the South? F. L. Allen. Iron Age 172:198-9 N 12 '53

Industry builds at record in 1953. Iron Age 172:106 S 17 '53

Industry; expansion pace slows. A. K. Rannells. Iron Age 172:219 O 8 '53

Investment in production equipment, 1929-52; with tables. R. C. Wasson. Survey of Cur Bsns 33:11-20 N '53

Liberalization of depreciation rates. Nat City Bank p 16-17 F '54

Longer look; manufacturers have boosted 1954 spending plans for plant and equipment. Eng N 152:87 Ap 22 '54

Measuring the productivity of capital. J. Dean. Harvard Bsns R 32:120-30 Ja '54

New look in expansion; U.S. companies turning expansion effort to overseas projects. Chem W 74:16-17 My 15 '54

1954 capital spending to stay high, McGraw-Hill spot survey finds. Eng N 151:92 N 12 '53

ODM revises expansion goals. Chem & Eng N 31:5290+; 32:821-2 D 21 '53, Mr 1 '54

Outlook for capital expenditures in 1954. R. P. Ulin. Comm & Fin Chr 178:2150 D 3 '53

Plant expansion analysis; income return. Trusts & Estates 92:697-8 O '53

Reserves to spare; U.S. formaldehyde lineup. Chem W 73:26 N 7 '53

Tax benefits spur plant expansion. Aviation W 59:21-2 N 2 '53

Way out ahead; ammonia-producing capacity. Chem W 73:20+ O 10 '53

We modernize, or else! seventh annual McGraw-Hill survey. Chem Eng 61:339-47 My '54

What are profits used for? Management R 43:52-3 Ja '54

Where real resources go. Economist 168:647-50 S 5 '53

See also

Business management—Expansion problems

Statistics

Capital spending in 1954; second best year; preliminary survey of spending plans by the McGraw-Hill Dept. of economics. Bsns W p27-9 N 7 '53

Plant and equipment expenditures, 1949-1952. Survey of Cur Bsns 1953 Sup p9 [supplemented in monthly numbers]

INDUSTRIAL films. See Moving pictures in industry

INDUSTRIAL foundations
Depressed areas; there need be none if men take action for themselves. J. Chamberlain. Barron's 34:3+ Ja 11 '54
Risk capital idea spreads. Burroughs Clearing House 38:15 O '53

INDUSTRIAL furnace manufacturers association
Annual meeting, Philadelphia, Jan. 25-26. Steel 134:51 F 1 '54

INDUSTRIAL guns. See Guns, Industrial

INDUSTRIAL health. See Hygiene, Industrial

INDUSTRIAL heating. See Electric heating, Industrial; Gas heating, Industrial; Heating, Industrial; Hot water heating, Industrial; Infrared rays—Industrial heating; Steam heating, Industrial

INDUSTRIAL hydraulics, National conference on. See National conference on industrial hydraulics

INDUSTRIAL hygiene. See Hygiene, Industrial

INDUSTRIAL hygiene foundation
Annual meeting, 18th. Safety Maint & Prod 106:40 D '53
Annual meeting, 18th, Pittsburgh. Chem & Eng N 31:5231 D 14 '53
Annual meeting, 18th, Pittsburgh, Nov. 18-19. Heat & Ven 51:120+ Ja '54
Industrial hygiene foundation. il Ind Med 22:477-84 O '53

INDUSTRIAL insurance. See Insurance, Industrial

INDUSTRIAL libraries. See Technical libraries

INDUSTRIAL lighting. See Lighting, Industrial

INDUSTRIAL locomotives. See Locomotives, Industrial

INDUSTRIAL management
All-level cost control for the management team. R. G. Lochiel. N A C A Bul 34:1158-69 My '53
Automatic control; today's industrial revolution; abstract. J. Diebold. Management R 43:559-61 S '54
Communications; the responsibility of management and the management engineer. A. W. Rathe. J Eng Educ 43:524-7 My '53
Consultive supervision from chairman to foreman; General Foods. C. W. Cook. Advanced Management 18:21-2 D '53
Control and freedom in a decentralized company. R. Villers. Harvard Bsns R 32:89-96 Mr '54
Empathy; management's greatest need. R. N. McMurry. Advanced Management 18:6-11+ Jl '53
Engineer in management. H. Bainbridge. Elec J 152:599-600 F 19 '54
GE tailors a plant project for simpler managing. il Bsns W p 120-2+ N 7 '53
Good management men delegate authority. J. H. Gorsuch. Advanced Management 19:5-8 S '54
How a manufacturing company reorganized its management setup; International harvester co. C. E. Jarchow. Advanced Management 19:14-17 Je '54
How management council works for better labor relations. R. Newcomb and M. Sammons. il Ind Marketing 39:64-5 F '54
How we stand in management development; American management association survey. Factory Management 112:99-102 Ag '54
Industry heads report on best relationships with sales, ad managers. Ind Marketing 39:142-4 Ag '54
Intangible factors in engineering management. C. A. Butler, jr. Mech Eng 75:706-8 S '53
Is industry autocratic? A. Brown. Advanced Management 18:22-3 My '53
Leadership pattern in the plant. C. Argyris. Harvard Bsns R 32:63-75 Ja '54
Management and American living standards; a look ahead; abstract. D. K. David. Management R 43:568-9 S '54
Management market means billions more business. L. M. Hughes. Sales Management 72:36-7+ Mr 15 '54
Management's divided front cries for mutual understanding. D. A. Crawford. Personnel J 32:94-6 Jl-Ag '53
Milwaukee chapter gives You be the boss contest; story of a successful chapter activity. F. U. Vass and others. Advanced Management 19:20-3 F; 12-15 Mr '54
Must management change to prepare for automation? M. L. Hurni. Advanced Management 19:25-8 My '54
No easy path from research and development to production. F. W. Godsey, jr. il Aviation W 59:28-30+ D 21 '53
Our living standards can go up. P. D. Foote. Advanced Management 18:5-11 My '53
Planning to meet competition today and in ten years. C. A. Jurgensen. Advanced Management 19:8-11 Jl '54
Practical methods of increasing productivity in manufacturing industries. Int Labour R 67:317-39 Ap '53
Productivity; an economic and social challenge to American industrial leadership. L. Teplow. Advanced Management 19:17-19 F '54
Role of company standards in industrial administration. D. Reck. Advanced Management 19:19-23 Ap '54
Scientific management applied to the field of human relations. J. T. Diebold. Advanced Management 18:27-9 D '53
Social research faces industry. F. Massarik and P. Brown. Personnel 30:454-62 My '54
Stiff competition prompts use of outside consultants. S. Fish. Manuf Rec 123:34-5 F '54
There are lots of flaws in U.S. management development. L. Urwick. Factory Management 112:250+ Ag '54
Tomorrow's management. il Bsns W p 158+ Ag 15 '53 (reprints 20c)
Top management's role in industrial research; abstracts. W. F. Rockwell, jr. Management R 42:498-9 S '53; Tool Eng 31:136-7 O '53
Training an old firm in new business tactics; Townsend co. il Bsns W p 122-5 O 17 '53
Voice of business; digests of executives' speeches. Dun's R & Mod Ind 63:10+ Ja '54 [cont monthly]

See also

Business management
Coal mines and mining—Management
Controllers
Efficiency, Industrial
Employees' representation in management
Employment management
Employment systems
Engineering departments
Factory management
Foremen
Foundry management
Hygiene, Industrial
Industrial engineering
Industrial relations
Inspection
Insurance, Business
Inventories
Job analysis
Machine tools
Machinery, Replacement of
Mine management
Office management
Operations research
Organization in industry
Planning
Public relations
Purchasing
Railroads—Management
Standardization
Suggestion systems
Time study
Wage payment plans

Study and teaching

Education and training for management in the iron and steel industry. Engineering 177:196 F 12 '54
Experiment in conference teaching. H. L. Manning. J Eng Educ 43:448-50 Ap '53
Management development; new procedure. W. H. Klippert and H. H. Clay. Personnel J 32:99-104 Jl-Ag '53
Training for management; abstract. C. Renold. Engineer 196:363 S 18 '53
Work study training courses; Work study school established by the West of England employers' assn. Engineering 177:388 Mr 26 '54

INDUSTRIAL market
How to find, influence, sell people who buy original equipment market. E. E. Wachsmuth. Sales Management 73:68+ S 1 '54
How to reduce selling costs without scuttling your sales program. Steel 135:65-7 Ag 16 '54
Industrial distributors ripe for robot selling? L. H. Brendel. Sales Management 70:42+ Je 1 '53
Management market means billions more business. L. M. Hughes. Sales Management 72:36-7+ Mr 15 '54

INDUSTRIAL market—*Continued*

New automation field; how big, what's next. F. Borden. il diag Ind Marketing 39:54-6 Je '54

Wanted, more creative selling for products sold to industry. A. E. Turner. Sales Management 71:46-50 Ag 15; 40-2+ S 1; 40-3 S 15; 96+ O 1; 121-5 O 15 '53

See also

Advertising, Industrial

Equipment industries

INDUSTRIAL medical association

District counselors. Ind Med 22:541-3 N '53

Industrial medical association. il plan Ind Med 22:432-9 O '53

See also

American foundation of occupational health

INDUSTRIAL medical service. See Medical service, Industrial

INDUSTRIAL medicine. See Medical service, Industrial

INDUSTRIAL medicine, American congress of. See American congress of industrial medicine

INDUSTRIAL mobilization

Case for mobilization preparedness. M. Anshen. il Dun's R & Mod Ind 62:39-41+ Ag; 64-5+ S '53

Kyes K.O.'s input-output studies. Bsns W p26 Ag 29 '53

Mobilization base. Steel 133:63 Jl 13 '53

Mobilization; Flemming states policy. A. K. Rannells. Iron Age 172:82 Jl 16 '53

Mobilization; ODM maps war needs, just in case. il map Steel 134:55-6 Ap 26 '54

Mobilization pattern; industry will know its job in advance. E. C. Kreutzberg. Steel 134:46 Mr 22 '54

Mobilization; the base grows. Steel 133:93 O 12 '53

New mobilization board set up; Defense facilities maintenance board. Chem & Eng N 32:3619 S 13 '54

Partial mobilization achieved; some labor, materials scarce; report of Joint congressional committee on defense production. Chem & Eng N 32:146+ Ja 11 '54

Pattern set for mobilization base. Steel 135:35 Ag 30 '54

Plant mobilization pattern is set. Oil Paint & Drug Rep 166:3+ Ag 30 '54

Preserving privately owned defense facilities, the tough job of a new government agency. Bsns W p 108-9 N 14 '53

Setting up standby facilities. il Bsns W p43-4+ Ag 22 '53

Slowing down the defense buildup. Bsns W p29-30 S 5 '53

Soviet industrial planning for mobilization. il map plans diags Automotive Ind 111:56-63+ Ag 15; 56-63+ S 15 '54

See also

Contracts, Government

Stockpiling

INDUSTRIAL motor trucks. See Motor trucks, Industrial

INDUSTRIAL museums

How to make a company museum pay off. J. K. Blake. il Dun's R & Mod Ind 62:54-7+ D '53

INDUSTRIAL nurses. See Nurses and nursing, Industrial

INDUSTRIAL office buildings. See Office buildings, Industrial

INDUSTRIAL pensions. See Pensions, Industrial

INDUSTRIAL photography. See Photography—Industrial applications

INDUSTRIAL plants. See Factories

INDUSTRIAL poisons. See Poisons, Industrial

INDUSTRIAL psychiatry. See Psychiatry, Industrial

INDUSTRIAL psychology. See Psychology, Industrial

INDUSTRIAL relations

A.M.A. personnel conference, Chicago; abstracts of papers. Food Eng 26:68-9+ Ap '54

Are human relations plans like the emperor's clothes? R. Stevens. Advanced Management 19:14-16 S '54

Better production; the aim of management's responsibility to the employee. W. F. Winders. Advanced Management 19:19-21 Mr '54

Building a human-relations test for supervisors. W. Osterberg and J. Chase. Personnel 30:261-5 Ja '54

Burroughs' personnel ideas add up to efficiency. F. G. Armstrong. Steel 133:82-3 O 26 '53

Can we achieve industrial peace? abstract. W. H. Wheeler, jr. Management R 42:643-4 N '53

Changing concept of industrial relations. R. C. Wellford. Advanced Management 18:26-8 Je '53

Creating the organizational atmosphere for improved communication. H. D. Kolb. Personnel 30:482-7 My '54

Developments in industrial relations. Published in Monthly labor review

Dilemma of the industrial relations director. D. E. McFarland. Harvard Bsns R 32:123-32 Jl '54

Do stockholders care about employe relations? R. Newcomb and M. Sammons. il Ind Marketing 39:134+ Ap '54

Empathy; management's greatest need. R. N. McMurry. Advanced Management 18:6-11+ Jl '53

Employer relations. il Dun's R & Mod Ind 63:147-8+ Ja '54 [cont monthly]

Evaluating human relations training for supervisors. W. Osterberg and T. Lindbom. Advanced Management 18:26-8 S '53

Federal and state jurisdiction in labor relations. Mo Labor R 76:47-50 Ja '53

Foreman and middle management. Advanced Management 18:14-17 Je '53

Getting the foreman's slant on labor relations; abstract. Management R 43:224-5 Ap '54

Got a good idea in human relations? chances are, Milt had it first; M. M. Olander. Ind Marketing 39:134 Ja '54

How management council works for better labor relations. R. Newcomb and M. Sammons. il Ind Marketing 39:64-5 F '54

How to be an outstanding failure in industrial relations? abstract. L. J. Whetsell. Management R 42:444-5 Ag '53

Human behavior in industry. W. W. Finlay, A. Q. Sartain and W. M. Tate. 247p $4 McGraw-Hill book co, 330 W. 42d st, New York 36 '54

Human relations; changeover from conception of factory as group of machines to social unit. R. Hutchings. Chem & Ind p 1080-2 S 4 '54

Human relations program; Citizens & southern national bank, Atlanta. Banking 46:45+ F '54

Human relationship between employer and employee. J. W. McCutcheon. Soap & Chem Spec 30:119+ My '54

Individuals and a team will make it work; Work simplification program. H. R. Nissley. Advanced Management 18:7-8 D '53

Industrial management and human relations. G. W. E. Nicholson. Tappi 37:sup32A+ Jl '54; Same abr. Paper Ind 36:491-2 Ag '54

Industrial relations as a modern challenge to managements capacity for salesmanship. W. L. McGrath. Advanced Management 19:5-8 F '54

Industrial relations in Great Britain; a survey of post-war developments. H. S. Kirkaldy. Int Labour R 68:468-92 D '53

Industrial relations meeting, Harrison Hot Springs, B.C. Sept. 22-24. Pulp & Pa of Can 54:109 N '53

Industrial relations research at universities; progress report, 1952-53. Personnel 30:150-64, 231-46 S-N '53

Industrial relations research at universities; progress report, 1953-54. Personnel 31:164-79 S '54 (to be cont)

Industrial relations round-table. W. T. Simmons, ed. Published in American gas association monthly

Job for management; better labor relations. Steel 133:101-8 S 7 '53

Keep it simple, keep it moving, measure results, how to sell an idea; Francis J. Burtt. Ind Marketing 39:118 Jl '54

INDUSTRIAL relations—*Continued*

Keep your labor relations program where it belongs, in the shop. L. F. Johnson. Advanced Management 18:12 Jl '53

Labor; annual review. Chem Eng 61:188 Mr '54

Labor-management relations in the Illinois state service. R. C. McFadden. 58p pa $1 Institute of labor and industrial relations, cooperating with the Institute of government and public affairs, Univ. of Illinois, Urbana '54

Labor relations; where are we headed? abstract. S. H. Slichter. Management R 42:639-41 N '53

Labor tries on long pants. Steel 135:49-50 S 6 '54

Laborgrams; latest trends on labor and employe relations. L. Stessin. Published in monthly numbers of Mill and factory

Make the best of it; Diamond Alkali's labor relations. il Chem W 73:21-2 O 31 '53

Management methods of improving human relations; report of the 10th International management congress. E. G. Planty, ed. Personnel 30:507-16 My '54

Measuring the gap between today's management men and labor. W. M. Patton. Advanced Management 18:10-12 Ag '53

Men, machines and management. A. E. H. Paper Tr J 138:60+ Je 25 '54; Same. Pulp & Pa of Can 55:87-9+ Ag '54

Mid-century miracle. B. F. Fairless. Franklin Inst J 256:109-18 Ag '53

More in common than in conflict; case study in human relations in industry; abstracts of papers. Paper Tr J 137:49-52+ D 11 '53

Needed, cooperation between industrial relations and cost accounting. J. W. Pryor. Personnel 30:487-90 My '54

New era in labor-management relations. A. N. Wecksler. il Mill & Factory 54:77-80 Mr '54

1955, a critical year in labor relations. H. S. Kaltenborn. Comm & Fin Chr 178:2642-3 D 31 '53

Perception demonstrations in human relations training. F. D. Barrett. il Personnel 31:128-33 S '54

Right or wrong in labor relations. Mill & Factory 55:106-8 Ag; 127-9 S '54

Ripples on a placid sea; chemical industry's labor relations. Chem W 73:15 S 5 '53

Scientific management applied to the field of human relations. J. T. Diebold. Advanced Management 18:27-9 D '53

Significant developments in practical labor relations. P. A. King. Published in monthly numbers of Factory management and maintenance

Survey of a growing problem; foreman-management relations. E. B. Lindsay. Advanced Management 19:25-8 S '54

Tips to good human relations for factory executives. C. W. Boyce. Published in monthly numbers of Factory management and maintenance

University research in industrial relations. J. D. Brown. Mo Labor R 76:136-8 F '53

What employees want from their work. R. Saltonstall. Harvard Bsns R 31:72-8 N '53

Workingman looks at the boss. E. Hoffer. Management R 43:284-5 My '54

You can have good labor-management relations. Mill & Factory 54:135-6 Mr '54

See also

Arbitration, Industrial
Atomic energy labor relations panel
Collective bargaining
Employees
Employees—Opinion polls
Employees' benefit plans
Employees' representation in management
Employment management
Labor and laboring classes
Labor disputes
Medical service, Industrial
Mountain states employers council
National labor relations board
Open and closed shop
Profit sharing
Psychology, Industrial
Safety devices and measures
Strikes
Suggestion systems
Trade unions
Unemployment
Wage payment plans

Bibliography

Current reading list for sales executives and salesmen; personnel and industrial relations. Sales Management 72:118+ Ap 15 '54

Selected annotated references on human relations in industry. R. Nelson and G. Herman, comps. 7 l Industrial relations center, Univ. of Minnesota, Minneapolis 14 '53

Study and teaching

At Cornell, labor relations is a profession. il Bsns W p 176-8 S 19 '53

Cornell teaches a new science in labor-management relations. R. Newcomb and M. Sammons. il Ind Marketing 39:82+ Je '54

INDUSTRIAL research

Dollars and science. M. L. Kastens. Chem & Eng N 32:302-4 Ja 25 '54

Executive's responsibility. W. F. Rockwell, jr. Midwest Eng 6:7-9+ S '53; Abstracts. Management R 42:498-9 S '53; Tool Eng 31:136-7 O '53

Good prognosis. H. S. Turner. Chem W 74:74 Je 5 '54

How a research team combines forces; Melpar, inc. il Bsns W p 110-14+ O 24 '53

How a smaller company can get research. Bsns W p 104-6 Ag 1 '53

How to plan research that will help improve your product and your copy. P. Reichert. Ptr Ink 243:39-41 My 22 '53

Importance of research to industrial engineering. H. F. Smiddy. Advanced Management 19:23-6 Je '54

Industrial research; a few do most. Steel 133:72 N 16 '53

Industrial research; independent research institute aims to solve the basic technical problems. Manuf Rec 122:59+ N '53

Industry goes to college for answers in research. il Steel 134:68-9 Mr 15 '54

Industry-sponsored basic research could avert government control; discussion at the annual meeting of the American society for engineering education, Gainesville. Chem & Eng N 31:2975 Jl 20 '53

Insuring your progress through research. il diag Product Eng 24:171-202 Je '53

Investment in research; Britain and the United States. Economist 168:191-3 Jl 18 '53

Joining hands for facts; cooperative research projects first ever sponsored by CSMA. il Chem W 73:73+ Jl 11 '53

Ontario research foundation and industry. Can Chem Process 38:82-4 Ag '54

Operational research. Economist 168:465-7 Ag 15 '53

Plan for planners; operations diagnosis. Chem W 72:32+ Ap 25 '53

Push for the pendulum; tax writers changing research climate. Chem W 74:51 Ja 23 '54

Replace old equipment now? national center to study methods of acquisition and replacement. il Chem Eng 61:126 Ja '54

Research; a challenge to creative enterprise. J. R. Hoover. il Chem & Eng N 31:2850-3 Jl 13 '53

Research and Canada's natural resources. R. C. Wallace. Special Lib 44:265-7 S '53

Research facilities top the Nation; analysis by the committee of New England. Iron Age 173:127-9 Je 24 '54

Research; its goal in industry. L. R. Groves. Franklin Inst J 256:27-37 Jl '53

Research, one of the factors in the industrial success of the United States; abstract. G. Delbart. Metal Prog 66:194+ S '54

Researchers on the road; Stanford research institute's 2d annual research management tour. il Chem W 74:60+ My 22 '54

Scientist, his place in modern industry. R. K. Stratford. bibliog Chem & Ind p 1090-5 S 4 '54

Secret of research management is successful exchange of ideas; 4th annual conference on industrial research. Chem & Eng N 31:2588+ Je 22 '53

SAM exploring new areas for research. Advanced Management 18:12 My '53

Technical audit. W. C. Lothrop and others. Chem & Eng N 32:3534-6 S 6 '54

Technological insurance; a must for industry. W. W. Eaton. Management R 43:353-4 Je '54

INDUSTRIAL research—*Continued*

Three industries, chemical, aircraft, electrical, do 50 per cent of U.S. industrial research; Bureau of labor statistics report. Chem & Eng N 31:4886 N 23 '53

Trying a new approach; Union carbide and carbon corp. farming research to European research associates, S.A. of Brussels. Chem W 74:26 Ja 2 '54

Two per cent of sales dollar goes for research. Chem & Eng N 31:5080+ D 7 '53

Why not try cooperative research? P. M. Arnold. Harvard Bsns R 32:115-22 Jl '54

Why of product research. J. A. Straka. Soap & San Chem 29:42-4+ Ag '53

Work and future of research associations. G. L. Bailey. Chem Age (Lond) 71:269-70 Ag 7 '54

Work and future of research associations. S. Whitehead. Chem Age (Lond) 71:270-1 Ag 7 '54

See also

Cement research
Ceramic research
Chemical research
Coal research
Concrete research
Corrosion research
Cotton research
Dye research
Engineering research
Foundry research
Gas research
Glass research
Great Britain—Scientific and industrial research, Department of
India—National research development corporation
Information service
Laboratories
Lubrication research
Market research
Metallurgical research
Operations research
Paint research
Paper research
Petroleum research
Products, New
Railroad research
Research workers
Rubber research
Scientific research
Steel research
Textile research
Trade associations—Research work
Wood research

also Battelle memorial institute; British gelatine and glue research association; Horizons, inc.; Little, Arthur D., inc.; Southern research institute

Accounting

Helping top management keep on top of research. J. V. James. N A C A Bul 35:850-7 Mr '54

Industrial research has accounting problems. J. A. McFadden, jr. N A C A Bul 34:1327-39 Je '53

Cost

Big picture; spending for industrial research, 1951-52. Chem W 73:40-4+ D 12 '53

End of cheap research? L. B. Hitchcock. Chem & Eng N 31:5300-1 D 21 '53

Growth paced by industry and government. Iron Age 173:52-3 F 25 '54

Scientific research and development in American industry; a study of manpower and costs. H. Wood and others. U S Bur Labor Statistics Bul 1148:1-106; pa 50c Supt. of doc. '53

Finance

Controlling research costs with a budget. A. G. Lurie. N A C A Bul 34:894-901 Mr '53

Coordination of financial and research planning. T. H. Vaughn. Chem & Eng N 31:2274-8 Je 1 '53

How much should a company spend on research? H. S. Turner. Harvard Bsns R 32:101-12 My '54

Importance of timely planning. F. Eberstadt. Chem & Eng N 31:5134 D 7 '53

Research money. Bsns W p 186 D 12 '53

INDUSTRIAL roads. See Roads, Industrial

INDUSTRIAL sociology. See Sociology, Industrial

INDUSTRIAL statistics

Automotive industries 1954 statistical issue. Automotive Ind 110:71-174 Mr 15 '54

Sales Management survey of buying power, May 10, 1954; population estimates, effective buying income, retail sales, farm market data, etc. Sales Management 72:1-812 My 10 '54

These two graphs tell the 195X story fast. C. W. Boyce. Factory Management 112:68-9 Je '54

See also

Employment—Statistics
Manufactures—Statistics
Market statistics
Production—Statistics

also subdivision Statistics under names of industries, e.g. Petroleum industry and trade—Statistics

INDUSTRIAL traffic league, National. See National industrial traffic league

INDUSTRIAL trailers. See Trailers, Industrial

INDUSTRIAL trusts. See Trusts, Industrial

INDUSTRIAL unions. See Trade unions

INDUSTRIAL waste. See Trade waste

INDUSTRIES, Location of. See Factories—Location; Location in industry

INDUSTRY

How to invest in industrial stocks; symbol of a free economy. E. L. Hall. Spectator 162:22-3+ S '54

Industrialism and the American future. D. E. Lilienthal. Chem & Eng N 31:5220-5 D 14 '53

Nine reasons why 195X thinking is a must. Factory Management 112:70-1 Je '54

1954 prospects for leading industries. G. W. Mathis. Mag of Wall St 93:422-5+, 478-81+ Ja 9-23 '54

Preparing for 1954; a survey of industry's plans; abstract. Management R 42:633-4 N '53

Rapid development of new industries. S. G. Hale. East Underw 55:13+ pt 2 O 1 '54

What has been the effect of the Korean truce on industrial operations? Mill and Factory survey. Mill & Factory 53:69-70 N '53

See also

Business
Cities and towns—Industries
Color in industry
Corporations
Diversification in industry
Education and industry
Efficiency, Industrial
Engineering education—Industry co-operation
Factories
Government regulation of industry
Industrial market and other headings beginning Industrial
Labor and laboring classes
Location in industry
Manufactures
Moving pictures in industry
Music in industry
Photography in industry
Planning
Production
Production standards
Standardization
Trade associations

also names of industries, e.g. Petroleum industry and trade

Decentralization

Control and freedom in a decentralized company. R. Villers. Harvard Bsns R 32:89-96 Mr '54

H-bomb; defense in dispersion. il maps Iron Age 173:99-100 Ap 8 '54

Industrial evacuation; London county council schemes. Economist 169:569 N 21 '53

Sikorsky affair; dispersal of industry will not be easy. J. Chamberlain. Barron's 33:3+ D 14 '53

Social aspects

See Sociology, Industrial

INDUSTRY and education. See Education and industry

INDUSTRY and science. See Science and industry

INDUSTRY and state

Changes in Washington under Eisenhower administration; abstract. K. Bambach. Oil Paint & Drug Rep 166:50-1 Jl 5 '54

Domestic problems vex Washington; annual review. il Chem Eng 61:184-6 Mr '54

How valuable is service in Washington? P. G. March, 3d. Steel 134:73 Je 14 '54

Leadership needed; curbing trend toward concentration and expansion of government. E. Rickenbacker. Comm & Fin Chr 178:2384+ D 17 '53

INDUSTRY and state—*Continued*

Private enterprise holds prosperity key. B. Fairless. Chem Eng 61:353-4 Ap '54

Republican program; plug gaps in defenses and the economy. E. C. Kreutzberg. Steel 134:127-8+ Ja 4 '54

Washington climate improves in 1953. Oil Paint & Drug Rep 165:5 sec 2 F 1 '54

Welfare legislation is of chief concern; impact of federal trends on insurance industry; abstracts. E. M. Thore. Weekly Underw 171:761+ O 2 '54; Nat Underw (Life ed) 58:19+ O 8 '54

See also

Business—Reports to government
Commercial policy
Economic planning
Economic policy
Government ownership
Government regulation of industry
Industrial mobilization
Labor laws and legislation
National security industrial association
Public utilities
Railroads and state
Tariff
Taxation

Great Britain

Industrial rehabilitation units; a British experiment. W. L. Buxton. Int Labour R 67:535-48 Je '53

Jute; a test case; protection dilemma. Economist 169:603-4 N 21 '53

United States

Ambassadors' future; prime targets for comptrollers are company Washington offices. Chem W 73:34+ O 3 '53

Business man and the Constitution. A. A. Ballantine. Comm & Fin Chr 178:626 Ag 20 '53

Implementing interchange of know-how between business and government. H. F. Smiddy. Advanced Management 18:16-20 S '53

Industry conferences Commerce department aim. Oil Paint & Drug Rep 164:3+ D 28 '53

New look in Washington. L. A. Lincoln. East Underw 54:9 O 16 '53; Excerpt. Nat Underw (Life ed) 57:39 O 9 '53

Painting a new America. W. Williams. Paint Oil & Chem R 116:37-9 N 5 '53

Public law 845 and co-operation between federal government and industry. L. F. Warrick. Am Dyestuff Rep 42:652-5 S 28 '53

Trend away from efforts to give all social coverages to government; abstracts. R. L. Hogg. Nat Underw (Life ed) 57:21+ O 9 '53; East Underw 54:4 O 9 '53; Weekly Underw 169:898+ O 10 '53

Why it takes longer now for your dealings with government. J. Shoenfeld. Sales Management 71:58+ O 15 '53

INERT gas shielding. See Electric welding, Arc—Inert gas shielding

INERT gases. See Gases, Rare

INERTIA (mechanics)

Predicting minimum-inertia power gear trains; data sheet. D. P. Petersen. Machine Design 26:161-7 Je '54

Utilizing irregular gears for inertia control; shaker conveyors. W. W. Sloane. il diag Machine Design 25:193-6 D '53

INERTIA, Moments of. See Moments of inertia

INFANT welfare. See Maternal and infant welfare

INFANTILE paralysis

Advisory group approves mass polio vaccination. Chem & Eng N 32:1765 My 3 '54

Conquest of polio nearer; Parke-Davis and University of California isolate and photograph human polio virus. il Chem & Eng N 31:4767 N 16 '53

Distribution and use of gamma globulin. bibliog Pub Health Rep 68:660-5 Jl '53

Gamma globulin failed to make polio inroads. Oil Paint & Drug Rep 165:5 Mr 1 '54

Gamma globulin for polio. Sci Am 188:50+ Je '53

Gamma globulin in a poliomyelitis outbreak in Montgomery, Ala. 1953. D. G. Gill. il Pub Health Rep 68:1021-4 N '53

Gamma globulin in polio. W. M. Hammon. il Sci Am 189:25-9 Jl '53

Gamma globulin stop-gap; staff report. il Chem & Eng N 31:3060-3 Jl 27 '53

Organizing mass gamma globulin clinics in three North Carolina counties. C. M. Cameron, jr. il Pub Health Rep 68:1025-33 N '53

Plan for the allocation of gamma globulin. Pub Health Rep 68:666-8 Jl '53

Poliomyelitis distribution in the United States. R. E. Serfling and I. L. Sherman. bibliog maps Pub Health Rep 68:453-66 My '53

Progress in research on poliomyelitis. H. M. Weaver. Pub Health Rep 68:669-77 Jl '53

Simplified method for cultivation of poliomyelitis virus in tissue culture. C. P. Li and M. Schaeffer. bibliog il Science 118:107-9 Jl 24 '53

Trend of multiple cases of poliomyelitis in household units. M. Siegel and M. Greenberg. bibliog Pub Health Rep 68:996-1000 O '53

Triple triple check for safety; polio vaccine will receive three separate tests. il Chem & Eng N 32:392-3 F 1 '54

Statistics

Poliomyelitis distribution in the United States, 1952. C. C. Dauer. map Pub Health Rep 68:1033-4 N '53

INFANTS

Taste is the thing; youngsters mean booming market for medicines. il Chem W 74:52+ F 6 '54

INFANTS' clothing

Germicidal mechanization; Warren's baby garments. il Mod Packaging 27:120-1 D '53

INFANTS' food

At Gerber's quality control reigns supreme. L. E. Slater. il Food Eng 26:60-3+ Ja '54

Beech-Nut's technique is top preventive sanitation. E. A. Glenar and J. V. Ziemba. il Food Eng 26:57-9+ Ap '54

Gerber's quads; variety baby-cereal pack. il Mod Packaging 27:116-18 Ja '54

INFANTS' supplies

All about gift-pax; new idea for sampling mothers. A. B. Ecke. il Sales Management 70:73-6 Je 1 '53

Babies mean business; survey made by National family opinion, inc. il Sales Management 70:24-7+ Je 15 '53

INFECTIOUS diseases

1952 summary of foodborne, waterborne, and other disease outbreaks. C. C. Dauer. Pub Health Rep 68:696-702 Jl '53

Program for protection of research employees against pathogenic hazards. J. Black and others. il Pub Health Rep 68:989-92 O '53

Waterborne disease outbreaks reported by Public health service, 1953. Pub Works 85:132-3 Ag '54

See also

Anthrax
Encephalitis, Epidemic
Erysipeloid
Histoplasmosis
Infantile paralysis
Influenza
Plague
Tuberculosis
Viruses

INFINITE series. See Series, Infinite

INFLAMMABILITY of textiles. See Textile fabrics—Inflammability

INFLAMMABLE liquids

Extinction of liquid fires with water sprays. D. J. Rasbash and Z. W. Rogowski. Chem & Ind p693-5 Je 12 '54

Flammable liquids. il Nat Safety N 69:218+ Mr '54

How safe is your paint shop? il Mill & Factory 53:118-20 D '53

Increasing quantities of alcohols being handled in bulk. T. W. Rodes. diags Ind & Eng Chem 46:sup 109A-11A My '54

INFLAMMABLE materials

Apparatus for hot filtration, extraction, and recrystallization with volatile and flammable solvents. H. Shiba. bibliog diags Anal Chem 26:943 My '54

Fire and explosive hazards. R. Long. bibliog Chem Age (Lond) 70:567-73, 785-8 Mr 6, Ap 3 '54

Motors for hazardous locations. D. K. Adams. il diags Product Eng 24:148-51 Jl '53

See also

Magnesium—Fire hazards
Plastic materials—Fire hazards
Textile fabrics—Inflammability

INFLAMMABLE mixtures

Equilibrium temperatures and compositions behind a detonation wave. A. Weir, jr. and R. B. Morrison. bibliog Ind & Eng Chem 46:1056-60 My '54; Correction. 46:1497 Jl '54

Flammability of carbon disulfide in mixtures of air and water vapor. M. G. Zabetakis and G. W. Jones. il Ind & Eng Chem 45:2079-80 S '53

Pressurized γ-radiation monitor for use in inflammable atmospheres. J. B. Marsh and others. il diags J Sci Instr 30:302-4 S '53

Relation between inflammables and ignition sources in aircraft environments. W. E. Scull. diags U S Nat Advisory Com for Aeronautics 1951:305-42 bibliog(145 titles, p336-9) '52

Thermal explosions of diborane-oxygen mixtures. A. T. Whatley and R. N. Pease. bibliog Am Chem Soc J 76:1997-9 Ap 5 '54

See also

Explosions
Flame propagation

INFLAMMATION

Chemical constitution of inflammatory exudate in normal and hypophysectomized rats. V. W. Adamkiewicz and others. bibliog il Science 118:415-16 O 9 '53

INFLATION (finance)

Creeping inflation in Britain. P. Einzig. Comm & Fin Chr 178:2274 D 10 '53

Do our wage-fixing arrangements promote inflation? unions' influence on wages. S. H. Slichter. Comm & Fin Chr 179:158-9+ Ja 14 '54

Education in inflation. Economist 168:689-90 S 12 '53

Forced draft method of dealing with economic and financial problems; abstracts. C. M. Shanks. East Underw 55:4 F 5 '54; Nat Underw (Life ed) 58:23 F 19 '54

Future of the dollar; a symposium; abstract. Management R 42:99-100 F '53

How inflated costs have affected advertising. R. Barton. Adv Agency 46:52-5+ My '53

Ibañez disappoints Chile; Chilean economy and inflation. Economist 170:176 Ja 16 '54

Impact of inflation on public utilities; panel discussion. F. L. Griffith; W. J. Herrman; R. E. Ginna. Pub Util 54:119-36 Ag 5 '54

Inflation, deflation or confusion? M. Palyi. Comm & Fin Chr 178:1001+ S 17 '53

Inflation in Communist countries. P. Einzig. Comm & Fin Chr 178:830 S 3 '53

More inflation? no, says McGraw-Hill's Economics department. Chem Eng 60:374-5 S '53

Shrinkage of the dollar. M. G. Roebling. Comm & Fin Chr 178:916+ S 10 '53

See also

Accounting—Inflation problems

INFLUENZA

Occurrence of influenza in the United States, 1952-53. D. J. Davis and C. C. Dauer. Pub Health Rep 68:1141-6 D '53

INFORMATION

See also

Communication
Reports

INFORMATION service

Chemical Engineering reader service. Published in monthly numbers of Chemical engineering

Information for sale; Battelle plans expansion of technical information services. Chem & Eng N 32:966 Mr 8 '54

Information services; report on behalf of S.C.I. documentation committee. J. E. L. Farradane. Chem & Ind p 1170 O 31 '53; Discussion. A. A. Newman. p25-6 Ja 2 '54

Information theory and clerical systems. R. A. Fairthorne. bibliog J Doc 9:101-16 Je '53

Printers' ink 1954 advertisers' annual; data sources. Ptr Ink 245:413-16 sec 2 O 23 '53

Sources of information for the agricultural and food chemist. A. W. Marsden. bibliog Chem & Ind p 1138-41 S 11 '54

See also

Employment management—Information sharing

INFORMATION service, Employees'

Reading racks tell your story; companies find reading rack booklets are effective way to inform workers. E. C. Kellogg. il Iron Age 172:83-4 Ag 6 '53

INFORMATION service, Government

Government sources of information. Ptr Ink 245:413 sec 2 O 23 '53

New presidential order designed to limit secrecy of government information to vital data. R. G. Gibbs. Chem & Eng N 31:2748 Jl 6 '53

Washington aids to industry. il Mill & Factory 54:6-16 My '54

INFORMATION theory. See Communication, Theory of

INFRARED rays

Infrared index of refraction of tellurium crystals. P. A. Hartig and J. J. Loferski. bibliog Opt Soc Am J 44:17-18 Ja '54

Infrared photoconductivity due to neutral impurities in germanium. E. Burstein and others. bibliog diag Phys R 93:65-8 Ja 1 '54

Radiation in metals. N. W. Snyder. bibliog A S M E Trans 76:541-8 My '54

Refractive index of cesium bromide for ultraviolet, visible, and infrared wavelengths. W. S. Rodney and R. J. Spindler. bibliog il J Res Nat Bur Stand 51:123-6 S '53

Use of infrared radiation for detection of colorless substances on paper chromatograms. D. R. Kalkwarf and A. A. Frost. bibliog diags Anal Chem 26:191-5 Ja '54

See also

Glass—Infrared rays transmission
Spectrum, Infrared

Apparatus

Dual analyzer for gas streams; Liston-Becker. il Chem & Eng N 32:1720 Ap 26 '54

Fabrication of alkali halide windows. R. Ryason. Opt Soc Am J 43:928 O '53

Long path gas absorption cell. R. G. Pilston and J. U. White. il diag Opt Soc Am J 44:572-3 Jl '54

New optical glasses with good transparency in the infrared. R. Frerichs. bibliog Opt Soc Am J 43:1153-7 D '53

Readily cleaned infrared absorption cell. J. Carol and A. G. Sterling. il R Sci Instr 25:835-6 Ag '54

Simple variable thickness infrared absorption cell. B. M. Mitzner and S. Z. Lewin. diags Opt Soc Am J 44:425-6 My '54

Industrial applications

Infrared analyzers can save dollars; abstract. D. E. Berger. Ind & Eng Chem 45:sup85A My '53

Industrial heating

Bunray electric Bunsen burner; infra-red reflex burner. Metallurgia 49:197 Ap '54

Determination of black liquor solids by infrared drying. P. B. Borlew and S. J. Lancaster. bibliog Tappi 36:504-6 N '53

Electric radiant panels; flexible oven handles paint baking of automobile accessories of various sizes; A. S. Campbell co. il Steel 134:105 F 1 '54

Flexible radiant tunnel; installing shrink-fit parts in aircraft engines. il Steel 134:122 Ap 5 '54

Improved concept in infrared heating. il Mill & Factory 54:147 F '54

Infrared dries paper in seven seconds. il diag Elec World 139:113 Je 1 '53

Infrared dries sealing gum in seconds. V. H. Berwick. il Elec World 139:150+ Je 15 '53

Infrared dries tires evenly for recapping. il Elec World 140:130 Jl 27 '53

Infrared lamps cure glue rapidly. L. B. Reed. il Elec World 141:136 F 8 '54

Infrared offers economies in continuous process heating. I. J. Barber. il Iron Age 172:97-101 O 1 '53

Infrared reflex burner operates by horizontal radiation. il Chem & Eng N 32:184+ Ja 11 '54

New heavy-duty infrared generator; Edwin L. Wiegand co. Am Dyestuff Rep 43:257 Ap 12 '54

Painting; preheat cuts costs; Barrel remodeling co. il Iron Age 174:132 S 23 '54

INFRARED rays—Industrial heating—*Cont.*
Radiant heat speeds assembly of shrunk-fit parts. il Mach 61:201 S '54
Silicone mold wash drying completed in 7½ minutes; Ohio steel foundry. il Steel 133:162 S 7 '53

INFRARED spectrum. See Spectrum, Infrared

INGOTS
Sheppard continuous casting machine for copper ingots. il Engineering 176:809-10 D 25 '53

INHERITANCE tax
A.B.C. and D. of marital deduction; report of ABA committee on draftsmanship; wills and trusts. Trusts & Estates 92:746+ O '53
Administering the marital deduction. R. M. Lovell. Trusts & Estates 92:812-14+ N '53; Abstract. Burroughs Clearing House 38:21-2 Ja '54
Correcting joint property evils; five alternative ways out and their tax effects. L. G. Knecht. Trusts & Estates 93:8-11, 84-6+ Ja-F '54
Current evaluation of estate and trust taxation of interest to the CPA. C. M. Mortensen. J Account 96:206-11 Ag '53
Death taxes listed for each state; with table. C. J. Cover. Spectator (Endorsement no) 162:104-6 Ag '54
Debate on death duties. Economist 170:107-9 Ja 9 '54
Definitions; contemplation of death. E. S. MacNeill. Banking 46:59-60 S '53
Divorce property settlements; estate and gift tax consequences. C. B. Bayly, jr. Trusts & Estates 92:560-2+ Ag '53
Estate and gift taxes under the new code. W. M. Bury. J Account 98:371-6 S '54
Estate aspects of life insurance. J. A. Appleman. Spectator 162:55-7 My; 36-40 Jl '54
Extravagance of joint ownership. S. A. Monroe. Weekly Underw 170:1312 My 22 '54
Gifts, legacies and trusts. J. A. Appleman. Spectator (Endorsement no) 162:92-5 Ag; 70+ S '54
Income of estates, trusts and their beneficiaries. M. A. H. Wakely. J Account 98:366-71 S '54
Internal revenue code of 1954; estate tax. I. V. Brunstrom. East Underw 55:13 Ag 27 '54
Joint tenancy, pro and con. P. Brower. Life Ins Courant 59:48 F '54
Kinsey report on the marital deduction. E. S. MacNeill. Banking 46:56-7 O '53
Knowledge of estate, tax laws leads to big life insurance sales. S. L. Zeigen. Nat Underw (Life ed) 57:17-18 S 11 '53
Life insurance and the marital deduction. F. L. Morton. Spectator (Endorsement no) 162:87-9 Ag '54
Marital deduction; five years later. E. S. MacNeill. Banking 46:73-4 D '53
New tax law makes favorable changes; Technical changes act of 1953. Trusts & Estates 92:676-7 S '53
Premium-payment test, thing of the past; gift tax consequences, and marital deduction. F. L. Morton. Spectator 162:56+ O '54
Preparing the estate tax return. S. L. Zeigen. Trusts & Estates 92:892-5+ D '53
Speeding tax audits through well prepared returns. R. Hess. Trusts & Estates 92:967 D '53
Stock liquidation of estate. C. W. Tye. Rough Notes 96:36 S '53
Surrogate reversed in Bissell case; involved annuity contract. East Underw 55:12 Ap 30 '54; Same. Weekly Underw 170:1249 My 15 '54
Tax-free insurance reference in Time stirs speculation; federal estate and gift tax exemptions. Nat Underw (Life ed) 58:1 Ag 20 '54
Tax hint-of-the-month. E. S. MacNeill. Banking 46:74 D '53
Tax problem in estates. C. W. Tye. Rough Notes 97:84 F '54
Taxability of proceeds in beneficiary's estate; Helen L. Abdill, deceased v. V. Y. Dallman, collector. F. L. Morton. Spectator 162:46-9 Je '54
What agent can do to plan his own oft-neglected estate. J. Barker, jr. Nat Underw (Life ed) 57:1+ D 4 '53
Why plan your estate? S. Huber. Life Ins Courant 59:26-7 Je '54
Would exempt $50,000 insurance for taxes. S. J. Foosaner. East Underw 54:8 Ag 21 '53

India

Indian estate duty act imposes property tax. For Comm W 50:12 D 14 '53

INHIBITORS
Autoxidation of tin solutions; the action of inhibitors. E. H. Baker. bibliog J Ap Chem 3:323-8 Jl '53
Inhibition of unsaturated polyesters. W. E. Cass and R. E. Burnett. bibliog il Ind & Eng Chem 46:1619-24 Ag '54

INHIBITORS of corrosion. See Corrosion and anti-corrosives

INJURIES. See Accidents; Hand—Wounds and injuries; Heart—Injuries

INJURIES from electricity. See Electricity, Injuries from

INK
Background information on ink for the user of printed advertising material. Ptr Ink 245:388 sec 2 O 23 '53
Flexographic printing inks. J. W. Viner. Tappi 37:sup 131A-4A Ja '54
Measurement of viscosity in the printing ink industry; abstract. P. A. Gower. Chem & Ind p566-7 My 15 '54
Offset inks for coated papers. F. J. Dankert. Tappi 36:sup 132A-3A O '53
Peacock blue flushed color production; staff-industry collaborative report. A. S. Hester and C. H. Allen. bibliog flow sheet il diag Ind & Eng Chem 45:1610-18 Ag '53
Printing inks for corrugated containers. W. E. Montoux. Tappi 37:sup 145A-8A F '54
Rheology and the letterpress printing process. N. Casson. diags Soc Dyers & Col J 69:576-81; Discussion. 581-2 D '53
Water-dried ink. il Ind & Eng Chem 46:sup 15A-16A+ Mr '54

Drying

Loss of drying on aging; properties of hydrate lakes. D. M. Nace and W. C. Walker. bibliog Ind & Eng Chem 46:769-73 Ap '54

INK, Fluorescent
New luminescent technique; Quaker's cereal cartons. il Mod Packaging 27:114-15+ N '53

INLAND marine insurance. See Insurance, Inland marine

INLAND steel company
Inland has record first half. Blast F & Steel Pl 42:948 Ag '54
Inland Steel observes anniversary. Blast F & Steel Pl 41:1335 N '53; Iron & Steel Eng 30:168-9 N '53
Inland Steel to spend $35,000,000 in 1954 for new facilities. Blast F & Steel Pl 42:575 My '54

INLAND waterways. See Waterways

INLAND waterways corporation
Betting on Federal Barge. Bsns W p 166-7 Ag 15 '53
Commend plans for sale of Federal barge lines. R. B. Long. Weekly Underw 169:372 Ag 15 '53

INOSINE
Uridine- and inosine-triphosphates as phosphate donors for phosphohexokinase. K. H. Ling and H. A. Lardy. bibliog Am Chem Soc J 76:2842-3 My 20 '54

INOSITOL
Cyclitols; debromination of inositol dibromohydrins; synthesis of new cyclohexanetetrols. G. E. McCasland and E. C. Horswill. bibliog Am Chem Soc J 76:2373-9 My 5 '54
Structure of the di-*O*-*iso*propylidene derivatives of (—)-inositol and pinitol. S. J. Angyal, C. G. Macdonald and N. K. Matheson. Chem Soc J p3321-3 O '53

INPUT-output data
ABC of input-output. Economist 168:797-9, 870-1 S 19-26 '53
Input-output unit for analog computers. P. R. Vance and D. L. Haas. il diags Inst Radio Eng Proc 41:1483-6 O '53
Kyes K.O.'s input-output studies. Bsns W p26 Ag 29 '53
New tool for economic studies; input-output system. Chem Eng 60:130+ N '53

INQUIRIES

See also

Advertising, Industrial—Inquiries

Follow-up systems

INSANE, Hospitals for. See Hospitals, Psychiatric

INSANITY

Federal care and treatment of insane prisoners. Pub Health Rep 68:825 Ag '53

INSECT infestation. See Grain—Insect infestation

INSECT repellents

Big test of new repellent, M 1960. il Chem W 74:58 Ap 10 '54

Insect repellant, Ticks Off. il Pulp & Pa of Can 55:178+ My '54

See also

Fly sprays and repellents

INSECTICIDAL paint. See Paint, Insecticidal

INSECTICIDES

Absolute insect control; Brown & Haley co. K. M. Ingold. il Food Eng 26:57+ F '54

Aerosols; low pressure hits high volume. il Chem W 73:30-2+ Jl 18 '53

Brother for DDT; Diazinon. Chem W 74:50 My 8 '54

Bugs, weather; can they be correlated? Chem W 74:76+ Ap 10 '54

Buying chemical specialties; specifications and purchasing techniques. H. W. Hamilton. Soap & San Chem 29:163+ D '53

Canada insecticide vaporizer standard. Soap & Chem Spec 30:151+ Jl '54

Charting industries' progress; surveys covering household and industrial insecticide sales and aerosol production. Chem W 74:60+ Je 12 '54

Chemical control of animal parasites. H. E. Harbour. bibliog Chem & Ind p651-6 Jl 4 '53

Chlorendic compounds. il Chem & Eng N 32:873+ Mr 1 '54

C.S.M.A. Insecticide division meeting; abstracts of papers. Soap & San Chem 29:140d-140e, 145 Je '53

Crop protection as a health hazard. J. M. Barnes. Chem & Ind p625-7 Je 27 '53

Cyclethrin, readily synergizable pyrethrins-like insecticide; abstract. H. L. Haynes. Soap & Chem Spec 30:149 Je '54

Diethyl 2-chlorovinyl phosphate and dimethyl 1-carbomethoxy-1-propen-2-yl phosphate; two new systemic phosphorus pesticides. R. A. Corey and others. Science 118:28-9 Jl 3 '53

Insect and rodent control in local disaster planning. L. B. Read. il Pub Works 85:72+ Ap '54

Insect control fund slashes protested. J. A. Noone. Oil Paint & Drug Rep 165:3+ My 10 '54

Insect population balance and chemical control of pests. A. M. Massee and others. bibliog Chem & Ind p 1004-5, 1044-6, 1143-7, 1223-4, 1250, 1300-2, 1329-32, 1353-5 S 26-O 3, 24, N 14-21, D 5-19 '53

Insecticidal action of heterocyclic analogs of 2,2,2-trichloro-1-(*p*-chlorophenyl)-ethanol. R. C. Blinn, F. A. Gunther and R. L. Metcalf. bibliog Am Chem Soc J 76:37-9 Ja 5 '54

Insecticidal principles of haplophyton cimicidum; haplophytine. H. R. Snyder and others. bibliog Am Chem Soc J 76:2819-25 My 20 '54

Insecticide spray deposits. A. H. Yeomans and E. R. Van Leeuwen. Soap & San Chem 30:141-3 Ap '54

Insecticide survey of 1953; abstract. G. W. Fiero. Soap & Chem Spec 30:142+ Je '54

Insecticides and rodent control. S. Brierley. Factory Management 112:260+ F '54

Insecticides for canneries. R. T. Orr. Soap & San Chem 29:143-5 O '53

Insecticides for resistant flies, cacao moth, flower beetle, and other pests. Soap & Chem Spec 30:159+ S '54

Insecticides hold first place in aerosol packaging. Chem & Eng N 31:2286 Je 1 '53

Insecticides incorporated; insecticidal surface coatings. il Ind & Eng Chem 45:sup 11A+ Jl '53

Longer life for volatile insecticides. il Chem W 75:62+ Ag 14 '54

Malathion for fly control. Soap & Chem Spec 30:183 S '54

New insecticidal lacquer; National research development corp. il Chem Age (Lond) 71:373 Ag 21 '54

Organo-phosphorus insecticides. J. R. Nicholls. Chem & Ind p528 My 8 '54

Organo-phosphorus insecticides. V. B. Wigglesworth. Chem & Ind p477-8 Ap 24 '54

Organo-phosphorus insecticides; abstracts of symposium papers. V. B. Wigglesworth and others. Chem Age (Lond) 69:1009-12 N 14 '53

Organo-phosphorus insecticides; behaviour of Schradan in the plant. G. S. Hartley. bibliog Chem & Ind p529-32 My 8 '54

Pest infestation; Pest infestation laboratory, DSIR report for 1952. Chem Age (Lond) 69:121-3 Jl 18 '53

Radioactive tracers in insecticide research. P. A. Dahm. bibliog diags Soap & San Chem 29:136-7+ S; 148-9+ O; 141+ N; 167-8+ D '53

Sanitation is the way we live. L. A. King, jr. Nat Safety N 69:78+ Ja '54

Stock sprays. A. G. Grady. il Soap & San Chem 29:135-7+ Je '53

Two give a clue; diethyl 2-chlorovinyl phosphate and dimethyl 1-carbomethoxy-1-propen-2-yl phosphate. Chem W 73:45 Ag 15 '53

Urea-formaldehyde resin as a vehicle for semi-permanent insecticidal and fungicidal coatings on bookbindings and bookcases. P. Bracey and F. Barlow. bibliog J Doc 9:157-68, pl 1-2 S '53

Venezuela offers market for US-made insecticides. Oil Paint & Drug Rep 166:42 Jl 26 '54

See also

Aldrin

Allethrin

Chlorobenzyl chlorophenyl sulfide

DDT

Dieldrin

Fly sprays and repellents

Fumigants

Hexachlorocyclohexane

Lindane

Methoxychlor

Mosquitoes—Extermination

Mothproofing preparations

Nicotine

Octamethyl pyrophosphoramide

Pyrethrins

Pyrethrum

Strobane

Analysis

Determining water in insecticidal aerosols. R. A. Fulton and R. P. Gelardo. diags Soap & San Chem 29:145+ F '53

Quantitative determination of isomers of *O,O*-diethyl ethylmercaptoethyl thiophosphate; Systox. K. Gardner and D. F. Heath. bibliog Anal Chem 25:1849-53 D '53

Application

Impulse killer; pulse-jet fogger. il Chem W 72:82+ My 16 '53

Putting their chips on flakes; Fly Flakes; malathion in cornflake-size chips. il Chem W 74:52 My 8 '54

Directories

Entoma, a directory of insect and plant pest control. G. S. Langford, ed. 10th ed 417p pa $2 Entomological soc. of America; G. S. Langford, Dept. of entomology, Univ. of Maryland, College Park '54

Law

Aerosol license change. il Soap & Chem Spec 30:151 Je '54

Miller files pesticide residue bill. Soap & San Chem 29:175 Ap '53

Physiological effect

AMA blasts vaporizer use, claims. Soap & San Chem 29:163 S '53

Cholinesterase response and symptomatology from exposure to organic phosphorus insecticides. W. T. Sumerford and others. bibliog A M A Archives Ind Hygiene & Occup Med 7:383-98 My '53

Insecticides are important in world health programs, but caution is urged. H. H. Schrenk. Ind & Eng Chem 46:sup 105A-6A+ Ap '54

Organic phosphate insecticides. H. H. Utes. Ind Med 22:375-7 S '53

INSECTICIDES—Physiological effect—*Cont.*

Organo-phosphorus insecticides; the toxic action of organo-phosphorus insecticides on mammals. J. M. Barnes. Chem & Ind p478-80 Ap 24 '54

Studies on the toxicity and mechanism of action of some new insecticidal thionophosphates. K. P. DuBois and others. A M A Archives Ind Hygiene & Occup Med 8:350-8 O '53

Tale of chemical terror. Chem W 74:5 Ja 2 '54

Toxicity of malathon. L. W. Hazleton and E. G. Holland. bibliog A M A Archives Ind Hygiene & Occup Med 8:399-405 N '53

Toxicity of Strobane. H. A. Shelanski and M. V. Shelanski. Soap & San Chem 29:129+ Jl '53

Testing

Aerosol testing ground; U.S. Agriculture dept.'s Research center, Beltsville, Md. il Chem W 72:65-6+ Je 6 '53

Methoxychlor and new TOTA proposals. R. P. Holdsworth, jr. Soap & San Chem 29: 207 D '53

Organo-phosphorus insecticides; biological assay of phosphorus insecticides. J. F. Newman. bibliog Chem & Ind p617-19 My 29 '54

INSECTS

Actograph for small insects. J. H. Hammond. diags J Sci Instr 31:43-4 F '54

See also

Cockroaches
Grain—Insect infestation
Honeydew
Lice

INSECTS, Effect of light on

Reduction by reactivating light of the frequency of phenocopies induced by ultraviolet light in drosophila melanogaster. M. Perlitsh and A. Kelner. bibliog Science 118:165-6 Ag 7 '53

INSECTS, Injurious and beneficial

Dedicate new Orlando lab; new facilities for Laboratory of insects affecting man of the entomology research branch, Agricultural research, U.S. Department of agriculture. il Soap & Chem Spec 30:219 My '54

Insect population balance and chemical control of pests. A. M. Massee and others. bibliog Chem & Ind p 1004-5, 1044-6, 1143-7, 1223-4, 1250, 1300-2, 1329-32, 1353-5 S 26-O 3, 24, N 14-21, D 5-19 '53

See also

Airplanes in insect control
Ants
Cabbage root fly
Cockroaches
Insecticides
Insects as carriers of infection
Locusts
Spruce budworms
Tsetse flies

Biological control

Insect population balance and chemical control of pests; biological control. J. S. Kennedy. Chem & Ind p 1329-32 D 12 '53

Resistance to control

DDT detoxification product in American cockroaches. J. S. Butts and others. Science 117: 699 Je 19 '53

Sanitation management in housefly control. R. J. Dicke. Soap & San Chem 29:113-14+ Jl '53

Toxicant trials; how the housefly develops resistance to benzene hexachloride. Chem W 74:26+ Ja 2 '54

INSECTS as carriers of infection

See also

Mosquitoes
Tsetse flies

INSERTS (advertisements). See Advertisements—Inserts

INSERTS, Package. See Package inserts

INSOLATION

Insolation of cloudless days at the time of solstices and equinoxes. I. F. Hand. Heat & Ven 51:97-100 F '54

INSPECTION

Choose gear inspection methods to meet product needs. F. Bohle. il diags Iron Age 173:120-5 My 27 '54

Designing single-sampling inspection plans when the sample size is fixed. A. Golub. Am Stat Assn J 48:278-88 Je '53

Dimensional gaging and inspection by air gages and dial indicators. F. H. Hunter. diags Instruments 26:404-5+ Mr '53

Electronic label inspection; Eastman Kodak. M. J. Reid. il diag Mod Packaging 27:98-9+ Ja '54

Eye camera shows how to improve inspection techniques; Timken roller bearing co. il diags Factory Management 111:88-9 D '53

Inspecting lines during construction. N. F. Blundell. Gas Age 113:42+ Ap 22 '54

Inspection; Ford robots grade, sort, select parts for reworking. Iron Age 174:77 Ag 5 '54

Inspection practices and problems. R. J. Phillips. Pet Refiner 33:116-18 Ja '54

Isotope inspection controls quality of product. E. W. Bratton. il diag Tool Eng 33:78-81 Jl '54

Lower cost inspection for better quality control; report of panel on quality control. S A E J 62:48-51 Ag '54

New aids for inspection save time, improve quality; Northrop aircraft, inc. L. Moir. il diag Automotive Ind 110:66-7 Je 1 '54

1954 American Machinist production preview; layout and inspection. il Am Mach 98:217-28 Ja 18 '54

Ordnance inspection. W. M. Mateer. Instruments & Automation 27:1316-17 Ag '54

Quality control and inspection. W. L. Young. il Instruments 26:1884 D '53

Reduced inspection improves quality; Lockheed aircraft corp. G. H. Prudden. Am Mach 97:125-6 D 7 '53

Sampling plans reduce inspection time. M. H. Saltz. flow chart il Tool Eng 33:45-50 S '54

Some basics of ultrasonic inspection; abstract. E. F. Weller, jr. Materials & Methods 40:154+ Ag '54

Technical progress; inspection and testing. il Steel 134:298-9+ Ja 4 '54

Testing and inspection review and forecast. bibliog il Iron Age 173:336-7 Ja 7 '54

Time standards for inspection. W. C. Cooling and M. O'Hanlon. il Factory Management 112:126-7 Ap '54

Tool and gage inspection. M. C. Curtis. il Instruments & Automation 27:1314-16 Ag '54

Triple-inspection program guarantees quality knitwear; Roanoke mills. J. H. Blore. il Textile World 104:104-5+ Mr '54

Ultrasonic testing; a versatile new inspection method. C. H. Wick. il Mach 60:184-91 Ap '54

See also

Gages
Labor inspection
Magnetic testing
Motor vehicles—Inspection
Safety inspection

INSTALLATION insurance. See Insurance, Installation

INSTALMENT plan

Easy payment plan for stocks. Bsns W p 121-2 D 12 '53

Pay as you wear. Economist 168:764-6, 836-7 S 19-26 '53

Selling on time boosts TBA volume; Huber oil co. M. Reid. il Nat Pet N 45:71-2+ S 2 '53

Way to make more money. M. O. Harum. Sheet Metal Worker 45:74+ Mr '54

See also

Finance companies
Insurance, Deferred payment merchandize
Loans, Bank—Instalment payment

Finance

Inequities in taxing finance reserves of small installment sales dealers. E. R. Daniell. J Account 97:201-4 F '54

News for instalment credit men. Banking 46:86-7 Ja '54 [cont monthly]

Statistics

Instalment credit extended and repaid, 1940-1952; unadjusted; seasonally adjusted, monthly Oct. 1952-Nov. 1953. Fed Res Bul 40:74 Ja '54 [cont monthly]

Instalment credit held by sales finance companies; by commercial banks; by financial institutions other than commercial banks and sales finance companies; by type of credit, yearly 1939-1952, monthly Oct. 1952-Nov. 1953; furniture store statistics and ratio of collections to accounts receivable, Oct. 1952-Nov. 1953. Fed Res Bul 40:73-4 Ja '54 [cont monthly]

INSTALMENT plan—Statistics—*Continued*
Statistics on short- and intermediate-term consumer credit; consumer credit, by major parts; instalment credit, by holder; non-instalment credit, by holder, yearly 1939-1953, monthly Oct. 1952-Nov. 1953. Fed Res Bul 40:72-3 Ja '54 [cont monthly]

INSTALMENT premiums. See Insurance, Fire—Instalment premiums

INSTALMENT sales floater. See Insurance, Inland marine—Policies—Instalment sales floater

INSTANT coffee. See Coffee, Soluble

INSTITUTE of boiler and radiator manufacturers
Annual meeting, 39th, Absecon, N.J. Dom Eng 184:114 Jl; 191+ Ag '54
40-year-old I-B-R gets new lease on life. R. E. Ferry. Dom Eng 184:131 S '54

INSTITUTE of British foundrymen
Annual meeting, 51st, Glasgow. Foundry 82: 135-8, 182+ Ag-S '54
Annual meeting, 51st, Glasgow, June 22-26; with abstracts of papers. Metallurgia 50: 63-70 Ag '54
50th anniversary jubilee celebration. V. Delport. Foundry 82:180+ Je '54

INSTITUTE of ceramic engineers
Officers and committees, 1954-55. Am Cer Soc Bul 33:194-5 Je 15 '54

INSTITUTE of cooking and heating appliance manufacturers
Annual meeting, 22d, Cincinnati. Cer Ind 63: 64-5+ Jl '54

INSTITUTE of food technologists
Annual meeting, Boston, June 22. Chem & Eng N 31:2768+ Jl 6 '53
Annual meeting, Los Angeles, June 27-July 1; with abstracts of papers. Food Eng 26: 80-4+ Ag '54

INSTITUTE of fuel
Annual luncheon, London, April 23. Chem & Ind p586-7 My 16 '53; Elec R (Lond) 152: 1007-8 My 1 '53; Metallurgia 47:244-5 My '53

INSTITUTE of gas technology
Annual meeting, 12th, Chicago. Gas Age 112: 29+ D 3 '53
Industrial executives named trustees. Pet Refiner 32:222+ N '53

INSTITUTE of home office underwriters
Annual meeting, Chicago, Nov. 5-7. East Underw 54:6+ N 6 '53

INSTITUTE of inter-American affairs
Servicio; ten years of operation of the bilateral health programs. map Pub Health Rep 68:829-57, 1002-12, 1123-38, 1243-62 S-D '53

INSTITUTE of life insurance
Annual meeting, New York, Dec. 10. Weekly Underw 169:1514 D 19 '53
How to use Institute's services more effectively. D. F. Barnes. Nat Underw (Life ed) 58:3 Mr 5 '54
Life insurance institute press activities meet changes. D. B. Martin. Weekly Underw 169:1465+ D 12 '53
New vice presidents; sketches. por East Underw 55:3 Ja 1 '54
Paul F. Clark new chairman. East Underw 54:22 D 11 '53

INSTITUTE of metals
Annual autumn meeting, 45th, Southport, Lancashire, Sept. 21-24; with abstracts of papers. Engineering 176:438-9, 470, 541 O 2-9, 23 '53
Joint meeting with Société française de métallurgie, London, April 26-May 1. Metallurgia 49:245+ My '54

INSTITUTE of metals division. See American institute of mining and metallurgical engineers—Institute of Metals division

INSTITUTE of microbiology. See Rutgers university—Institute of microbiology

INSTITUTE of paper chemistry. See Lawrence college—Institute of paper chemistry

INSTITUTE of petroleum
Annual report for year ending 31 Dec. 1952. Inst Pet J 39:728-40 O '53

INSTITUTE of radio engineers
Elects officers for 1954. Electronics 27:332+ Ja '54; Tele-Tech 12:132-3 D '53
Institute committees, 1953; technical committees, May 1, 1953-April 30, 1954; Institute representatives in colleges and other bodies, 1953. Inst Radio Eng Proc 41:1542-8 O '53

INSTITUTE of scrap iron and steel
Annual meeting, 26th, Washington, Jan. 17-19. Iron Age 173:59-60 Ja 28 '54; Steel 134: 52 Ja 25 '54

INSTITUTE of the aeronautical sciences
Annual summer meeting, Los Angeles, July 15-17; report of technical sessions. Aeronautical Eng R 12:28-30 O '53
Bane and Chanute awards presented. Aeronautical Eng R 12:17 Ag '53

INSTITUTION of chemical engineers
Annual meeting, 31st, London, April 23. Chem Age (Lond) 68:663-6 My 2 '53; Chem & Ind p459-60 My 9 '53
Annual meeting, 32d, London, April 30. Chem & Ind p572-4 My 15 '54; Chem Age (Lond) 70:1041-4 My 8 '54

INSTITUTION of civil engineers
Defenceless sea defences; North Sea flooding conference, London, Dec. 16-17. Engineering 177:38-9 Ja 8 '54

INSTITUTION of electrical engineers
I.E.E. sub-centre chairmen. Elec R (Lond) 153:788, 942-3 O 9, 23 '53
Officers elected for the 1953-54 session. Elec R (Lond) 153:675-6, 730-1 S 25-O 2 '53
Section chairmen. Elec R (Lond) 153:616-17 S 18 '53

INSTITUTION of mechanical engineers
Annual report of the council for the year 1953. Engineer 197:465-6 Mr 26 '54
Brief subject and author index of papers in the Proceedings, 1937-1953. 123p Institution of mechanical engineers, 1 Birdcage walk, Westminster, S.W.1 '54
Presidents' gallery. il Engineer 197:356 Mr 5 '54

INSTITUTION of metallurgists
Presidential address. W. Barr. Metallurgia 50:31-2 Jl '54

INSTITUTION of naval architects
Autumn meeting, Sheveningen, Holland, Sept. 14-18; with abstracts of papers. Engineer 196:402-3, 422-4, 453-7 S 25-O 9 '53; Engineering 176:403-4, 425-6, 468-9, 486-7, 520-2, 584-5, 628-9 S 25-O 23, N 6-13 '53

INSTRUCTION cars. See Cars, Instruction

INSTRUCTION in use of product
Custodial training; jobber sales aid; A & J distributors. P. Lance. il Soap & Chem Spec 30:124-7 Jl '54
How to apply advertising to tough teaching job; North American Philips co. V. W. Palen. il Ptr Ink 244:44+ Jl 17 '53
School for customers; Reichhold's reinforced plastics study sessions in action. il Chem W 74:32-3 Ja 30 '54
Service schools pay off in satisfaction. il Steel 135:56 Jl 26 '54

INSTRUCTION manuals
Instruction manuals; requirements for acceptable manuals and methods of producing them at reasonable cost. J. W. Wight. il map diags Product Eng 24:141-8 Ag '53
Review of power saw manuals. Pulp & Pa of Can 55:160+ My '54

Bibliography

Maintenance information available; inventory of service and operating manuals. Constr Methods 36:67-96+ Jl '54

INSTRUCTIONS
See also
Audio-visual instruction
Safety instructions and training

INSTRUMENT departments
Instrumentation's place in the managerial organization. R. H. Berg. bibliog diags Instruments 26:1194-9 Ag '53

INSTRUMENT dials. See Dials, Instrument

INSTRUMENT panels
Human engineering, aid to instrument and control design. B. J. Covner. il diags Power 97:84-7 N '53
Sprayed plastic masking facilitates panel painting. G. Herbst. il Elec World 140:110 N 2 '53

INSTRUMENT society of America
Annual conference and exhibit, 8th, Chicago, Sept. 21-25. Science 118:477-9 O 23 '53
National conference and exhibit, 8th, Chicago, Sept. 21-25. Chem & Eng N 31:4084-5 O 5 '53

INSTRUMENTS

American chemical society 124th meeting, Chicago, Sept. 6-11; abstracts of papers on new techniques, automatic instruments, and process analyzers. Ind & Eng Chem 45:sup85A-6A+ D '53

Annual symposium on process instrumentation, 8th. Ind & Eng Chem 45:sup85A-6A+ My '53

Applications in continuous process instrumentation for mass spectrometry. B. W. Thomas. diags Ind & Eng Chem 45:sup85A-6A+ N '53

Automatic factories; symposium on instrumentation for the process industries, College Station, Tex. Jan. 27-29; abstracts of papers. Chem & Eng N 32:496+ F 8 '54

Compression testing instrument for use with pastes. P. Mason. bibliog il diag J Sci Instr 30:418-21 N '53

Development of steelworks instruments. D. W. Gillings. bibliog il diags Blast F & Steel Pl 42:434-42 Ap '54

Economic status of the nuclear-instrument industry. E. H. Wakefield. Instruments & Automation 27:278-82 F '54

Hole, slot and plane method. J. F. Darby. bibliog diags J Sci Instr 31:224 Je '54

How automatic can we get? H. F. Dever. Instruments 26:1483+ O '53

Human engineering in power plant instrumentation. J. G. Fleming. il Power 98:86-9+ Ja '54; Abstract. Machine Design 25: 264-6 N '53

Instrument gears; which pressure angle? L. D. Martin. diags Machine Design 26:129-35 F '54

Instrument industry; today and tomorrow. R. Rimbach. Instruments & Automation 27:114-18 Ja '54

Instrument makers' gage shows small-plant sales potential. Steel 133:78 Ag 17 '53

Instrument society of America regional conference, New York. Chem & Eng N 32:595 F 15 '54

Instrument society of America 2d analytical instrument clinic, Chicago, Sept. 22-24. Anal Chem 25:sup 17A-18A Ag '53

Instrument springs. M. G. Fangemann. il diag Instruments & Automation 27:780-2 My '54

Instrumentation. R. H. Müller. Published in monthly numbers of Analytical chemistry

Instrumentation; activity in developments and applications. B. W. Thomas. Published in monthly numbers of Industrial and engineering chemistry

Instrumentation for disposal of industries waste. J. G. Dobson. bibliog flow diag diags Instruments 26:1372-5+ S '53

Instrumentation for instrument production; Taylor instrument companies of Canada. il Can Chem Process 38:58 My '54

Instrumentation for pilot plants; panel discussion. C. Berg and others. flow diag il diags Ind & Eng Chem 45:1836-52 S '53

Instrumentation for rocket testing. E. Cartotto. bibliog il diags Instruments 26:585-7 Ap '53

Instrumentation in plant service areas. J. F. Conneran. diags Instruments & Automation 27:457-9 Mr '54

Instrumentation of industrial waste treatment. J. J. Baffe. diags Instruments & Automation 27:936-7 Je '54

Instrumentation of packaged gasoline plants. T. D. Tabbert. diags Instruments 26:1367-9, 1414 S '53

Instrumentation of rockets and missiles. il diag Instruments & Automation 27:606-7 Ap '54

Instrumentation problems in water and sewage treatment. C. R. Velzy. il Instruments & Automation 27:1318 Ag '54

Instrumentation review and forecast. il Iron Age 173:321 Ja 7 '54

Instruments for industry on show. il Chem Age (Lond) 70:1447-8 Je 26 '54

Instruments; hygiene's weapons; illustrations with text. Safety Maint & Prod 108:36-7 Ag '54

Instruments of the year. il diag Chem Age (Lond) 70:1449-66 Je 26 '54

Instruments spark industrial evolution. K. W. Bennett. Iron Age 172:207-8 O 8 '53

Jet-engine testing; instruments and techniques for transient testing of jet engines at the engineering laboratory, Jet engine department, General electric co. R. D. Burdett and B. F. Burdick. il Instruments & Automation 27:1294-5 Ag '54

Jewel bearings; precision components for quality equipment. R. P. Cameron, jr. il diags Product Eng 24:186-91 Ag '53

Men and meters. T. A. Mangelsdorf. Instruments 26:876-7 Je '53

Metal cleaning of fine instrument components. E. A. Hedman and A. Miller. Metal Finishing 51:66-8 D '53

Methods and instrumentation for air sampling. L. F. Dieringer and W. T. Ingram. bibliog(27 titles) il Instruments & Automation 27:1086-9 Jl '54

Modern instrumentation trends. G. G. Gallagher. il diags Instruments & Automation 27:135-9 Ja '54

Month's new instruments. Published in monthly numbers of Instruments and automation

National bureau of standards program on basic instrumentation is urgent. R. H. Müller. Anal Chem 25:sup23A-4A+ N '53

New developments in instrumentation share limelight at International petroleum exposition, Tulsa, May 14-23. Ind & Eng Chem 45:sup87A-9A Ag '53

Now lab instruments are doing production jobs. J. W. St Andre. il Factory Management 111:94-7 D '53

Nuclear reactors for industry and research; instruments for experiments. C. G. Goss. il diags Instruments & Automation 27:284-6 F '54

Offspring of the atom; nuclear instrument manufacturers. Chem W 74:58+ My 22 '54

Precision machines assure cam accuracy; Ford instrument co. W. Jellig. il Iron Age 173:140-2 Ap 15 '54

Process instrumentation; symposium. bibliog flow diags il diags Ind & Eng Chem 46: 1371-435 Jl '54

Radiation instruments come of age. Chem & Eng N 31:4958-9 N 30 '53

Radioactivity in industrial instrumentation. B. W. Thomas. diags Ind & Eng Chem 45:sup89A-90A S '53

Ride and vibration instruments; report of round table on instrumentation and evaluation of riding comfort. B. E. O'Connor. S A E J 62:27 Je '54

Rotary kiln instrumentation. W. E. Dixon, jr. il diags Ind & Eng Chem 46:1436-41 Jl '54

Scientific bell on atom sheep. Chem & Eng N 32:3036 Ag 2 '54

Soaking-pit instrumentation. L. F. Kopsa. il diags Instruments & Automation 27:130-1+ Ja '54

Soaking-pit instrumentation. F. R. Pullen. il diags Instruments 26:724-6+ My '53

Soap plant instrumentation. J. Procopi. il Soap & San Chem 29:46-7 S '53

Some instruments for quality control in petroleum refiners. G. C. Eltenton. bibliog il diags J Ap Chem 4:245-56 My '54; Abstract. Chem & Ind p 100-1 Ja 23 '54

Steel industry water instrumentation. C. F. Hauck and E. C. Eger. flow sheet Instruments 26:569-71+ Ap '53

Study on brick kiln instrumentation. diag Brick & Clay Rec 124:94-5 Je '54

Trends in instrumentation. Chem Age (Lond) 68:951-3 Je 27 '53

Usefulness of new instruments for determining air pollutants. L. C. McCabe. bibliog Ind & Eng Chem 45:sup 105A Ag '53

Weapons against air pollution. N. W. Hartz. il Safety Maint & Prod 106:44-5 N '53

See also

Aeronautic instruments
Balances
Control equipment
Dynamometers
Electric instruments
Geophysical instruments
Magnetic instruments
Measuring instruments
Medical instruments and apparatus
Meteorological instruments
Optical instruments
Radio instruments
Recording instruments
Scientific apparatus and instruments

INSTRUMENTS—*Continued*

Bibliography

Manufacturers' new literature pertaining to instrumentation. Published in monthly numbers of Instruments and automation

New books. J Sci Instr 31:150-1, 265, 347-8 Ap, Jl, S '54

Directories

1954 Instruments index. Instruments 26:43-210 pt 2 Ag '53

Exhibitions

Annual instrument exhibit, 8th, Chicago. il Food Eng 25:73-7 D '53

British instrument industries' exhibition, London, June 30-July 11. il Chem Age (Lond) 68:967-84 Je 27 '53

British instrument industries exhibition, 2d, London, June 30-July 11. Chem & Ind p632-4, 677 Je 27, Jl 11 '53

International instrument congress and exposition, 1st, Philadelphia, Sept. 13-24; list of exhibits. R Sci Instr 25:814-16 Ag '54

International instrument exposition, 1st; exhibitors and their products. Instruments & Automation 27:1172+ Ag '54

National instrument conference and exhibit, 8th. Instruments 26:1633+ N '53

Maintenance and repair

Preventive maintenance. L. Walter. Pulp & Pa of Can 54:121-4 N '53

Periodicals

Periodicals on instrumentation. il Instruments & Automation 27:773 My '54

Study and teaching

Industrial instrumentation teaching aid. C. J. Major. il diags J Chem Educ 31:262-5 My '54

University-level course in process instrumentation. G. L. Farrar. bibliog diags Instruments 26:406-10+ Mr '53

Testing

Instrument evaluation by frequency response. B. D. Stanton. diags Instruments 26:745-9 My '53

INSULATING board. See Fiber board

INSULATING bushings. See Bushings, Insulating

INSULATING materials

Chemicals channel current. Chem W 75:77-8+ S 11 '54

Glass bonded mica. J. H. Dubois. Product Eng 24:303-4+ Je '53

Improved ceramic insulating material; Hylumina. il Engineer 197:289 F 19 '54; Engineering 177:253 F 19 '54

Insulating instrument transformers, a continuing challenge. R. S. Norman. il Gen Elec R 57:42-5 Jl '54

New developments in silicones; dielectrics. T. A. Kauppi. il Machine Design 26:182-6 S '54

Toward better insulating materials; three forms of synthetic micas. T. B. Merrill, jr. il Materials & Methods 40:80-3 Ag '54

Utilization and availability of asbestos in electric insulation. O. Bowles. bibliog Electrochem Soc J 101:sup73C-5C Mr '54

See also

Barium titanate
Glass—Electric properties
Insulating oil
Mica
Paper, Insulating
Resinous products—Insulating materials
Steatite
Wollastonite

Testing

Breakdown cell for measuring the dielectric strength of solids at 100 megacycles. L. J. Frisco and J. J. Chapman. il diags R Sci Instr 25:733-7 Ag '54

Principles for temperature classification of insulating materials by functional test. K. N. Mathes. bibliog(27 titles) Elec Eng 73:243-6 Mr '54

Symposium on temperature stability of electrical insulating materials. (Special tech. pub. no. 161) 136p Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '54

INSULATING oil

Dry ice freezes oil, eases pipe-cable repair. il Elec World 141:91 Ja 11 '54

Fundamental factor controlling the unit dielectric strength of oil; abstract. W. R. Wilson. Elec Eng 72:878 O '53

Periodic sample-testing tells when, and on-the-job purification is how today's insulating oils should be maintained. J. R. McCoy. il Power 98:90-3+ F '54

Progressive oil purification saves clay and cuts costs. A. M. McCabe. il Elec World 140:158+ Ag 24 '53

Reclaimer cuts annual transformer oil cost $4,000. il Elec World 139:100+ Je 29 '53

Stability of DBPC inhibited oil in oil circuit recloser operation; abstract. K. Oura and others. Elec Eng 72:988 N '53

Stability of 2,6-di-tertiary-butyl-para-cresol inhibited transformer oil in an arc. R. N. Hazelwood and others. bibliog Electrochem Soc J 101:185-8 Ap '54

Testing

Aging tests compare transformer oil performance. L. B. Schofield and F. T. Carver. il Elec World 140:81-3 N 30 '53

Consultation service for insulating oils. il Can Chem Process 37:78-81 D '53

INSULATING paper. See Paper, Insulating

INSULATING porcelain. See Porcelain, Insulating

INSULATING tape

Testing

Detecting voids in insulating tape. R. E. Anderson. il diags Electronics 27:136-40 Ja '54

INSULATION (electric)

Chemistry makes a better motor; Westinghouse Life-Line-A. Chem & Eng 32:928 Mr 8 '54

Class H insulation usage in power plants. Elec World 139:152 Je 29 '53

Coordination of substation and transmission line insulation; symposium. Elec World 140:108-9 O 19 '53

Dielectric, physical properties improved in fiber glass tubing. Iron Age 172:152+ Ag 6 '53

Electroluminescence of insulated particles. L. Burns. bibliog(25 ref) diags Electrochem Soc J 100:572-9 D '53

Glass insulators cut replacements 50 per cent. A. G. Loudon. il Elec World 141:115-16+ F 8 '54

Insulating joints in long pipe lines; panel discussion. M. C. Miller and others. il diags Gas Age 113:34-41 Je 3 '54

Insulation coordination; problem in probabilities. C. F. Wagner. Westinghouse Eng 13:198-202 N '53; Same abr. Elec World 140:117-20 Ag 24 '53

Insulation of high-voltage electrical installations. J. S. Cliff. Engineering 176:767 D 11 '53; Abstract. Elec R (Lond) 153:1042 N 6 '53; Discussion. 153:1117-18 N 13 '53; Elec J 151:1591-2 N 13 '53

Insulator ties for copper conductors; engineering reference sheet. diags Elec World 141:210 Ja 25 '54

Method for increasing the electrical resistivity of insulators under ionizing radiation. J. H. Coleman and D. Bohm. J Ap Phys 24:497-8 Ap '53

Microbiological deterioration of rubber insulation; abstract. J. T. Blake and others. il Elec Eng 72:960 N '53

Polyethylene developed for ultrahigh-frequency insulation. A. E. Maibauer. Elec Eng 73:192 F '54

Polyethylene insulated telephone cable. A. S. Windeler. bibliog il Bell System Tech J 32:1245-56 S '53

Silicone helps solve insulation problems; Consolidated Edison's new Astoria power plant. J. G. Noest. il diags Elec World 140:112-15 N 16 '53

Silicone rubber insulation for traction motor frame coils. il Ry Loco & Cars 127:65-8 D '53

INSULATION (electric)—*Continued*

Use of silicon carbide powder as electrical and thermal insulation for very high-frequency induction furnaces. S. D. Mark, jr. diag Am Cer Soc Bul 33:43-5 F 15 '54

See also

Dielectrics
Insulating materials
Insulating oil

Standards

Electrical insulation and international standardization. E. F. Seaman. Elec Eng 73:240 Mr '54

International activities on thermal evaluation of insulating materials. L. J. Berberich. Elec Eng 73:240-3 Mr '54

Principles for temperature classification of insulating materials by functional test. K. N. Mathes. bibliog(27 titles) Elec Eng 73:243-6 Mr '54

Testing

D-c high-voltage testing; determining insulation values of rotating equipment. il Elec West 111:94 O '53

Dc instrument tests recloser insulation. R. W. Bethke. il Elec World 140:164+ D 14 '53

Electrical equipment maintenance. R. W. Inman. il diags Diesel Power 32:48-51 F '54

50-kv dc unit tests rubber goods. R. L. Mortensen. il diag Elec World 141:128-9 Ja 11 '54

Motor insulation life as measured by accelerated tests and dielectric fatigue. C. J. Herman. bibliog il diag Elec Eng 73:33-7 Ja '54

Portable insulation test set. P. Asher. il diags Elec R (Lond) 153:685-8 S 25 '53

Protective coatings for etched circuits. M. Weinberg and L. J. Martin. il Tele-Tech 12:88-9, 152+ D '53

INSULATION (heat)

Acoustical and thermal insulation combined in new roof deck. il Eng N 151:171 Ag 20 '53

Applying duct insulation. il Sheet Metal Worker 45:80 My '54

Columns bear on floor insulation; Luick ice plant. il diag Eng N 151:43 Jl 9 '53

Concave tank ends are easy insulating jobs with welded anchors. diags Welding J 33:152-3 F '54

Cut tank heating costs ten per cent with proper insulation. H. W. Baque. Cer Ind 62:77+ Mr '54; Abstract. Glass Ind 35:193 Ap '54

Eye on the target; vapor barrier, fire retardant, insulator; all three in Flamemastic. Chem W 72:36+ Je 20 '53

Facts about modern insulation. il Mill & Factory 54:378 My '54

Graph aid in specifying insulation. Pet Processing 9:99-100 Ja '54; Same abr. Gas Age 114:30-1 Jl 1 '54; Same abr. Heat & Ven 51:81-2 Ag '54

Heat technology; insulation for heat and cold. R. Thomas. il Chem Eng 60:221-3 Je '53

Hospital costs reduced by use of insulation and double glazing. C. F. Neergaard. il Heating-Piping 25:99-101 N '53

How a modern piping system was insulated; A. D. Ellis mills. H. E. McGregor. il Textile World 104:121+ Ja '54

How five plants cut costs of jacketing insulated lines. il Pet Eng 25:A72 S '53

How to pick the right pipe insulation. P. J. M. De Leij. Power 97:78-81 N '53

How to use rigid insulation in deck construction. il Am Bld 75:142+ S '53

Importance of thermal equilibrium in measurements on powdered insulators in vacuo. R. H. Bube and R. E. Shrader. bibliog diag R Sci Instr 25:921-2 S '54

Insulate for better heating results in slab-type construction. diags Dom Eng 184:120-1 Jl '54; Excerpt. Heating-Piping 26:137 Ag '54

Insulated ductwork reduces fire hazard. diag Safety Maint & Prod 106:40 N '53

Insulating the big ball; atomic submarine engine testing sphere. il Eng N 152:40-1 Mr 4 '54

Insulation; device aids in finding economical material thickness. Iron Age 173:162-4+ Ap 8 '54

Insulation is my friend. S. Lewis. Heating-Piping 26:142-3 Mr '54

Insulation specs simplified by magnesia and silica producers; abstracts M. F. Allen. Heat & Ven 51:154+ F '54; Heating-Piping 26:80 F '54

New silicone resin, foamed in place, is high temperature insulator. il Materials & Methods 38:96-7 N '53

Perlite insulating concrete. J. J. Brouk. diags Am Concrete Inst J 25:857-67 Je '54; Discussion. 26:868¹-868⁶ pt 2 D '54

Pipe insulator; American gilsonite co. il Bsns W p85-6 O 10 '53

Pipe wrapped in glass blanket. il Chem Eng 60:250 Je '53

Pressure build-up and blistering reduced with new roof insulation. il diag Eng N 151:102 Jl 9 '53

Problem of correct thermal insulation of bottom linings of aluminum furnaces. J. Wleugel and O. C. Böckman. bibliog Electrochem Soc J 101:sup 145C-50C Je '54

Radiation damage in insulators. W. Primak and others. bibliog Phys R 92:1064-5 N 15 '53

Reclaiming asbestos from discarded pipe insulation. Tappi 36:sup 102A O '53

Roofing, sheathing, siding, insulation. il diags Am Bld 75:389+ Ap '53

Saves 50 per cent of retort steam; heat loss reduced by reflective aluminum foil and dead air space. L. J. Pircon. il diags Food Eng 26:95-6+ S '54

Seal edges of two panes of glass to form new insulating window units. il diag Am Bld 76:70 My '54

Snap-around pipe insulation cuts labor costs 20 per cent. il Factory Management 111:132-3 N '53

Spray-on coating is heat shield; Pyrolock. Aviation W 59:43 S 14 '53

Stud-weld your insulation. il Power Eng 58:74-5 Mr '54

Substitute materials make good, improve product; Bard mfg. co.'s furnaces. il Iron Age 174:133-4 Ag 5 '54

Taped electrical bus runs cooler. M. Brenner. il Power 98:122 S '54

Thermally insulated package developed by New York university's College of engineering research division. il Chem & Eng N 32:3380 Ag 23 '54

Today's roof insulation is tomorrow's flooring; Peter Eckrich & sons, inc. il Food Eng 26:73 Ag '54

Underground insulator; hot pipes get triple protection. Steel 133:221 D 7 '53

Unique insulation solved peak problem; New Jersey natural gas co. lp-gas plant. il diag Gas Age 114:18-19 Jl 1 '54

Use of silicon carbide powder as electrical and thermal insulation for very high-frequency induction furnaces. S. D. Mark, jr. diag Am Cer Soc Bul 33:43-5 F 15 '54

Vermiculite concrete insulates cantilevered heating slab; Pitt-Penn terminal co. warehouse. il Civil Eng 23:610 S '53

Waterproof insulation; 85 per cent magnesia for hot piping and equipment. il Heat & Ven 51:138 My '54

Zero storage facility features reflective insulation; cold storage rooms for fruit and vegetables. il Refrig Eng 61:1192-3 N '53

See also

Building—Heating aspects
Fire brick
Glass fibers
Mineral wool
Refractory materials
Textile fabrics—Heat transmission

Specifications

How to write a complete insulation specification. M. F. Allen. il diags Heat & Ven 51:93-5 My '54

Testing

Flame tests prove 85 per cent magnesia insulation. il Iron Age 174:136+ Ag 12 '54; Same. Gas Age 114:30 S 9 '54; Same. Marine Eng 59:59-60 S '54

INSULATION (heat)—Testing—*Continued*

Thermal conductivity of commercial insulations at low temperature. J. D. Verschoor. bibliog il diag Refrig Eng 62:35-7; Discussion. 37+ S '54

Transient-flow method for determination of thermal constants of insulating materials in bulk. J. H. Blackwell. bibliog diag J Ap Phys 25:137-44 F '54

INSULIN

Crystallization and ultraviolet spectra of iodinated insulin. G. Oster and S. Malament. bibliog Am Chem Soc J 76:3441-2 Jl 5 '54

Inactivation of insulin by rat liver extracts. H. H. Tomizawa and others. Am Chem Soc J 76:3357-8 Je 20 '54

Sites of the amino-acid residues on a cyclol model of insulin. G. A. Anslow. bibliog il J Chem Phys 21:2083-4 N '53

X-ray diffraction investigation of selected types of insulin fibrils. W. L. Koltun, D. F. Waugh and R. S. Bear. bibliog pl Am Chem Soc J 76:413-17 Ja 20 '54

Analysis

Amino acid compositions of insulins isolated from beef, pork and sheep glands. E. J. Harfenist. bibliog Am Chem Soc J 75:5528-33 N 20 '53

Physical chemistry of insulin; hydrogen ion titration curve of crystalline zinc insulin; the nature of its combination with zinc. C. Tanford and J. Epstein. bibliog Am Chem Soc J 76:2170-6 Ap 20 '54

Physical chemistry of insulin; hydrogen ion titration curve of zinc-free insulin. C. Tanford and J. Epstein. bibliog Am Chem Soc J 76:2163-9 Ap 20 '54

INSURANCE

Auto racers cite value of insurance. J. H. Lamb. il Spectator (Endorsement no) 162:44-5+ Ag '54

Broadening market answer to government in business; abstracts. W. P. Worthington. East Underw 55:3 Jl 2 '54; Nat Underw (Life ed) 58:4 Jl 2 '54

Century growth in property lines. F. A. Christensen. East Underw 54:1+ D 11 '53

Denies electronic computers can do underwriting; Casualty actuarial society progress report. East Underw 55:30 Je 4 '54; Nat Underw 58:26-7 Je 3 '54

Faith and morale; abstracts. E. H. Carson. East Underw 55:38+ Je 18 '54; Nat Underw 58:9+ Je 24 '54; Weekly Underw 170:1522+ Je 19 '54

Flexibility in writing risks in Britain and the U.S.; abstracts. B. D. Cooke. East Underw 55:20 Je 4 '54; Nat Underw 58:3+ Je 3 '54; Weekly Underw 170:1361 My 29 '54

Flow chart for the insurance manager. Management R 42:411-13 Jl '53

From business, local leaders endorse property coverages and other coverages. Spectator (Endorsement no) 161:26-8+ D '53

Government activity not needed. D. Knowlton. East Underw 55:4 O 8 '54; Same. Nat Underw (Life ed) 58:38 O 8 '54; Same. Weekly Underw 171:882 O 9 '54

Impressions of U.S. insurance markets by Egyptian insurance official. Salah El-Din Mourad. East Underw 55:16 Jl 23 '54; Same abr. Weekly Underw 171:182 Jl 24 '54

Insurance, hands tied in monopoly enforced, managed by public officials withers in world competition. F. G. Reuss. Nat Underw 57:19-20+ S 10 '53

Insurance is people. E. Fitzgerald. East Underw 55:3+ My 28 '54

Lauds U.S. Chamber for grass roots work; insurance has much at stake. C. F. J. Harrington. East Underw 54:41 O 9 '53

Looking backward and forward; readjustment of insurance goals through research, logic. W. D. Winter. Nat Underw 58:19+ Je 17 '54

Many companies and agents are in a rut. E. J. Seymour. Weekly Underw 170:14+ Ja 2 '54

Merchandising awareness road to more sales. G. D. Crain, jr. Nat Underw 58:47 Ap 15 '54; Same. Nat Underw (Life ed) 58:24 Ap 9 '54

Need basic changes to cure business of effects of negativitis. A. D. Cronin. Nat Underw 58:11 Je 3 '54

1954 areas for decision; outlook described by four agent association leaders. Spectator 162:16-17+ Ja '54

1954 areas for decision; property leaders find better public acceptance. Spectator 162:20-1+ Ja '54

Philosophy of survival; roles of company, employee and producer; abstracts. N. Pilling. East Underw 55:55+ O 8 '54; Nat Underw 58:17+ S 30 '54; Weekly Underw 171:781+ O 2 '54

Pressure in all lines of insurance is for more efficient distribution at lower cost. C. J. Zimmerman. Nat Underw 57:7+ O 15 '53; Same. Nat Underw (Life ed) 57:2 O 16 '53

Too much social security. E. H. O'Connor. Comm & Fin Chr 178:1335+ O 8 '53

Union league club of Chicago insurance group meeting; abstracts of papers. Nat Underw 58:1+ F 4 '54; Nat Underw (Life ed) 58:2+ F 5 '54

See also

Atomic power—Insurance aspects
Benefit societies
Department stores—Insurance selling
Insurance companies and other headings beginning Insurance
Investment trusts—Insurance aspects
Pension trusts
Petroleum—Tideland development—Insurance aspects
Trade unions—Insurance plans
Vending machines—Insurance company use

also subdivision Insurance requirements under various subjects, e.g.

Automobile racing
Banks and banking
Ranches
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Schools
Vending machines

also American management association—Insurance division; Chamber of commerce of the United States—Insurance division; New York state bar association—Insurance section

Accounting (insureds')

How to get reproduction cost new, less depreciation. A. L. Benjamin. N A C A Bul 35:1164-73 My '54

Study of inventory insurance rates may reveal possible economies. C. E. Burton. N A C A Bul 35:786-7 F '54

What is needed to establish reproduction cost new? R. L. Berry. N A C A Bul 36:11-19 S '54

Adjustment of claims

Adjusting your small claims; program for agents to follow. W. C. Moore. Rough Notes 97:23+ F '54

Advantages, cash value of quick releases; abstracts. F. O. Lanning. Weekly Underw 171:105, 157, 208 Jl 10-24 '54; Nat Underw 58:9-10 Jl 15 '54

Broadening functions of claims men today; abstracts. E. J. Bohne. East Underw 55:3-4 S 17 '54; Nat Underw 58:4 S 16 '54; Nat Underw (Life ed) 58:24 S 24 '54; Weekly Underw 171:742 S 25 '54

Chicago adjusters hear plan to attack court backlog with mass pre-trials. W. Jacobs. Nat Underw 58:13+ S 23 '54

Claim handling called major public relations factor; Claims managers forum. Nat Underw 57:20 D 10 '53

Claims can build good will. Rough Notes 93:34 O '53

Cooperation between agents and claim departments makes for sound sales. E. I. Bostwick. Nat Underw 58:2, 21 Ja 7 '54

Court holds insurer obliged to defend insured on cross-claim; Leonardi v. Standard accident insurance company. Nat Underw 58:29 Je 24 '54; Weekly Underw 171:375 Ag 14 '54

Efficiency checklist for claim men and adjusters. A. D. McNeil. Weekly Underw 169:1576 D 26 '53

Flaws in trial by jury system. R. Murphy. East Underw 54:28+ Jl 10 '53; Abstract. Nat Underw 57:1+ Jl 9 '53

INSURANCE—Adjustment of claims—*Cont.*

How adjusters can aid in industry's answer to the more adequate award. H. B. Rollins. Weekly Underw 171:374, 423-4, 485 Ag 14-28 '54

Initial adequate claims reserving is important. W. K. Faust. Weekly Underw 169:1274 N 21 '53

Insurance night meeting, Chicago association of plaintiffs lawyers; abstracts of papers. Nat Underw 58:13+ Ap 8 '54

Keep a check on loss claims. il Rough Notes 96:32 D '53

Language in policy should be explained to insured. W. H. Scoins. Nat Underw 58:10+ S 16 '54; Same. Nat Underw (Life ed) 58:9+ S 17 '54

Loss adjusting has come a long way since avoidance of payment seemed the rule. M. M. Johnson. Weekly Underw 170:1007, 1076, 1136, 1188 Ap 17-My 8 '54

Loss adjustments as they affect the insuring public. L. B. Bogart. Weekly Underw 170:435, 496, 556, 624 F 13-Mr 6 '54; Abstracts. East Underw 55:28+ F 19 '54; Nat Underw 58:14+ F 11 '54

Mutual claims conference, Detroit. Weekly Underw 170:1255 My 15 '54

NACCAns get tips on how to be gruesome. W. H. DeParcq. Nat Underw 57:5+ S 10 '53

Nothing is more important than handling of claims in company-agent-public relations. H. D. Combs. Weekly Underw 169:839, 916, 968 O 3-17 '53; Abstracts. East Underw 54:52 O 16 '53; Nat Underw 57:9-10 O 8 '53; Rough Notes 93:36+ N '53

Patience and understanding are essential in adjuster-insurance buyer relationships. B. Horton. Weekly Underw 170:1375, 1434, 1502, 1570 My 29-Je 19 '54; Abstract. Nat Underw 58:34 Ap 15 '54

Report to Claim association. F. T. Bernhard. East Underw 54:7 S 18 '53

Situations which often prove troublesome to agents; discussion at Pennsylvania agents' panel on adjustment of losses. Nat Underw 58:9+ S 23 '54

Survey of small claims problems brings out many intriguing features. C. P. Russ, jr. Weekly Underw 169:150-1+ Jl 18 '53

Suspense and humor mark interesting loss cases reported by Chubb & son adjusters. Weekly Underw 170:744 Mr 20 '54

U.S. Supreme court requested to review four insurance decisions. East Underw 55:22 O 15 '54

Verdict; analysis of recent decisions. L. A. Burke. Spectator 162:40-1 Ja '54 [cont monthly]

Vexatious words to adjuster; limitations, nonconcurrencies and penalties. E. F. Holloran. Weekly Underw 169:772 S 26 '53

See also
Insurance adjusters
International claim association
National association of claimants' compensation attorneys
National association of independent insurance adjusters
also subdivision Adjustment of claims under special forms of insurance, e.g. Insurance, Fire—Adjustment of claims

Arbitration

Success of arbitration program; agreement designed to settle auto physical damage and plate glass subrogation between companies; abstract. R. G. McCallum. East Underw 55:32 Jl 9 '54; Nat Underw 58:18 Jl 8 '54

Advertising

How to use local newspaper advertising. Weekly Underw 170:1352 My 29 '54

Industry-wide public relations program long overdue and now needed badly. K. Ross. Nat Underw 58:27 Ap 22 '54

Preselling via promotional techniques can assist the broker. W. J. Zimmerman. Weekly Underw 171:584+ S 11 '54

Time to get sales story to public. W. M. Sheldon. Nat Underw 58:9 Je 17 '54

Ways producer can make his advertising more effective. J. O. Cole. Nat Underw 57:17 S 17 '53

See also
Insurance, Accident—Advertising
Insurance, Automobile—Advertising
Insurance, Fire—Advertising
Insurance, Health—Advertising
Insurance, Life—Advertising
Insurance agents—Advertising
Insurance companies—Advertising
also Insurance advertising conference

All-risk policies

Issues statement on principles and goals. East Underw 54:1+ Jl 31 '53; Nat Underw 57:2+ Jl 30 '53

Multiple line views of broker, buyer, company; N.Y. Insurance day forum. East Underw 54:24 S 25 '53

Special coverages for unusual risks; abstract. R. E. Piersol. Management R 42:295-6 My '53

Talk to your industrial accounts about all risk; inland marine coverage; abstracts. H. W. Mullins. il Rough Notes 97:29+ O '54; East Underw 55:42+ O 8 '54; Weekly Underw 171:889-91 O 9 '54

Writing multiple lines; Olympic of Los Angeles offering personal package policy. East Underw 54:23 D 25 '53

See also
Insurance, Fire—All-risk policies

Bibliography

Publications. Published in monthly numbers of Rough notes

Binders

House group refuses to approve government air war risk binder plan. East Underw 55:37 Ap 9 '54

Cancellation

See also
Insurance, Accident—Cancellation
Insurance, Automobile—Cancellation
Insurance, Fire—Cancellation

Catastrophe coverage

We sell our customers the catastrophe coverages first. P. Kramer. Rough Notes 96:27+ Jl '53

See also
Insurance, Fire—Catastrophe coverage

Claims

See Insurance—Adjustment of claims

Coercion in purchasing

See Insurance—Purchasing

Coinsurance

See also
Insurance, Fire—Coinsurance

Collecting of premiums

See Insurance—Premiums, Payment of

Continuous policies

See Insurance—Perpetual policies

Coverage

Insurance check-up; what is enough? interview with M. H. Levy. J. K. Blake. il Dun's R & Mod Ind 63:60-1 F '54

See also
Insurance, Automobile—Medical payments coverage

Credit aspects

See also
Insurance, Accident—Credit aspects
Insurance, Life—Credit aspects
also Consumer credit insurance association

Deductible clauses

See Insurance, Fire—Policies—Deductible clauses

INSURANCE—*Continued*

Department store selling

See Department stores—Insurance selling

Dictionaries

Insurance words and their meanings. V. L. Gallagher. 90p $1.50 Rough notes co, 1142 N. Meridian st, Indianapolis 6 '54

Economic aspects

Effect of all-out peace on investment policy. M. Kemper. East Underw 54:29 N 27 '53

Insurance outlook is good despite dreary forecasts. R. G. McKay. Rough Notes 97:25+ Ap '54

Optimistic on insurance future. J. A. Diemand. East Underw 54:18 D 18 '53

Role of insurance in a free enterprise economy. A. L. Kirkpatrick. East Underw 55:37 O 15 '54

Role of insurance in Nation; technological progress impossible without protection. E. J. Seymour. Weekly Underw 171:406 Ag 21 '54

Employees' insurance

British pension scheme for small staffs; Royal London mutual insurance society, ltd. Trusts & Estates 92:600 Ag '53

Employee insurance in distribution. Spectator 162:34-5+ Ap '54

Key corporations' new benefit plans seen putting heavy pressure on all employers. W. J. Casey and others. Nat Underw (Life ed) 58:2+ Ap 9 '54

Pension changes in new '54 revenue code analyzed. M. M. Goldstein. East Underw 55:3+ Ag 13 '54; Excerpt. Nat Underw (Life ed) 58:7 Ag 13 '54

Senate's junking of unworkable pension tests opens way to sales now. M. M. Goldstein. Nat Underw (Life ed) 58:5 Jl 23 '54

See also

Insurance, Group—Employees' insurance

Insurance, Health—Employees' insurance

Insurance, Life—Employees' insurance

Insurance, Medical expense—Employees' insurance

Pension trusts

Pensions, Industrial

Excess coverage

Market capacity problems; excess insurance and reinsurance principles as applied under present day underwriting conditions. A. L. Melling. Weekly Underw 169:745+ S 26 '53

Farmers as prospects

Change in farm economy calls for closer farm underwriting, Indiana agents told at state association session. D. C. Smith. Nat Underw 57:15+ N 19 '53

See also

Insurance, Accident—Farmers as prospects

Foreign business

Agent's opportunities overseas, sees some unhealthy trends. W. S. Youngman. Nat Underw 58:11 Je 17 '54

Fraudulent claims

See also

Insurance, Fire—Fraudulent claims

Fraudulent promotion

Rake in $750,000 through ruse of $10 Missouri ghost insurers. Nat Underw 57:11 O 29 '53

Fraudulent statements

See also

Insurance, Accident—Fraudulent statements

Insurance, Life—Fraudulent statements

Government investigation

Insurance grows stronger after probes. J. L. Train. East Underw 55:36 Je 18 '54

Government policies

Government men freely answer myriad of insurance questions at N.A.I.A. meeting. Nat Underw 57:13+ O 8 '53

Insurance in defense construction. G. E. Morrissey. East Underw 55:30+ Ja 22 '54

Navy to survey insurance costs on leased property. Nat Underw 57:6 Ag 20 '53

Washington report. M. Herndon. East Underw 54:26+ O 9 '53

Will U.S. self-insure all leased properties of the military services? P. Cunningham. Weekly Underw 169:463+ Ag 29 '53; Abstract. East Underw 54:22 Ag 28 '53

See also

Insurance, Automobile—Government policies

Insurance, Marine—Government policies

History

See also

Insurance, Aviation—History

Insurance, Life—History

Insurance, Marine—History

Inter-company claims

See Insurance—Adjustment of claims—Arbitration

International aspects

International operations are intriguing. E. A. G. Manton. Weekly Underw 170:10+ Ja 2 '54

International reinsurance conditions. W. Juul. Nat Underw 57:23-4+ D 31 '53

Pledges friendly relations to meet needs of insuring public at Hemispheric meeting, Rio de Janeiro. J. A. Diemand. East Underw 55:1+ Ag 20 '54; Excerpt. Weekly Underw 171:387 Ag 21 '54

See also

Insurance, Marine—International aspects

Insurance, Social—International aspects

Insurance companies—Foreign branches (in United States)

Insurance companies—Foreign business

Interstate aspects

Asks federal action on unlicensed insurers; Michigan. Nat Underw 58:5 O 14 '54

Unlicensed insurer premium taxes issue rages in Michigan. Nat Underw 58:58 O 7 '54

Losses

Eastern seaboard hurricane causes insurance losses estimated at $75,000,000. Weekly Underw 171:514 S 4 '54

1953 already record catastrophe year. Nat Underw 57:1 Jl 16 '53

Western Adjustment reports on 1953 operations. Nat Underw 58:4+ F 4 '54

See also

Insurance, Casualty—Losses

Insurance, Fire—Losses

Insurance, Tornado—Losses

Mail order selling

Comments on mail-order released by Senator Langer to prospective witnesses. East Underw 54:29+ D 4 '53

Connecticut court upholds mail-order insurance law; Delaware firm can be sued. East Underw 54:32 D 4 '53

Federal laws best way to regulate mail order insurance, witnesses tell Senate group. Nat Underw (Life ed) 57:4+ D 4 '53

Iowa State Traveling Men's seeks U.S. high court review; decision for unauthorized insurers law might doom mail order insurers is plea. Nat Underw 57:29 S 24 '53; Same. Nat Underw (Life ed) 57:3 S 25 '53

Langer mail order A&H inquiry is revived, FTC goes on. Nat Underw 58:1+ F 11 '54; Same. Nat Underw (Life ed) 58:2+ F 12 '54

Langer studying U.S. legislation in mail order field. Nat Underw 57:6 O 22 '53; Same. Nat Underw (Life ed) 57:8 O 23 '53

Mail order hearing adjourns with eye to full A&H probe. H. Hallam. Nat Underw (Life ed) 58:1+ Mr 5 '54; Same abr. Nat Underw 58:1+ Mr 4 '54

INSURANCE—Mail order selling—*Continued*

NAIC looks down nose on Langer mail order probe; abstracts. Nat Underw 57:2 D 3 '53; Nat Underw (Life ed) 57:2+ D 4 '53

NAIC opposes federal regulation of mail order A.&H. insurance. W. E. Allyn. East Underw 55:44 Mr 5 '54

Rake in $750,000 through ruse of $10 Missouri ghost insurers. Nat Underw 57:11 O 29 '53

Surplus line group warned of illegal solicitations; Saskatchewan government insurance office. Weekly Underw 169:1495 D 19 '53; Abstract. Nat Underw 57:25 D 10 '53

Mortgagee interest

Federal court gives decision in big anti-coercion case; Investors diversified services. Nat Underw 58:1+ Jl 8 '54

First victory scored in anti-coercion campaign; preventing lending institution from requiring borrowers to place insurance with favored agency. H. E. Uhler. Spectator 162:35+ O '54

NAIA discusses anti-trust issue; Investors diversified services. Weekly Underw 171:221+ Jl 31 '54; East Underw 55:26 Jl 16 '54

New Hampshire agents clarify mortgagee notice of cancellation of policy. Nat Underw 58:25 Je 24 '54

Multiple peril policies

See Insurance—All-risk policies

Municipal policies

Florida department troubled by low-premium deals; state; city of Miami. Nat Underw 58:9 Jl 29 '54

Minnesota stock men may test Burnquist opinion that municipalities may purchase insurance from mutual companies. Weekly Underw 170:783 Mr 27 '54; Nat Underw 58:9 Mr 11 '54

See also
Insurance, Health—Municipal policies
Insurance, Liability—Municipal policies
Insurance, Workmen's compensation—Municipal policies

Periodicals

F.C.&S. bulletins service passes quarter century. Nat Underw 58:1 Je 3 '54

See also
Rough notes (periodical)
Weekly underwriter (periodical)

Perpetual policies

Continuous policy plan analyzed; ownership of expirations keystone of American agency system. J. F. Neville. Weekly Underw 169:1213+ N 21 '53; Same cond. East Underw 54:22 N 27 '53; Abstract. Nat Underw 57:13+ N 19 '53

Producers oppose merit rating. S. W. Lebens. Weekly Underw 170:173+ Ja 16 '54; Same abr. Nat Underw 58:2 Ja 14 '54

Policies

New Hampshire attorney general rules on blanket coverage. Weekly Underw 170:404 F 13 '54

Policy holders

See also
Insurance policyholders' association

Premium financing

Agents in Texas warned against practice of altering basic policy provisions in financing or deferred payment agreements. East Underw 54:22 Ag 28 '53

Premiums, Payment of

Arkansas producers express opinions on installment and renewal premium plans; Batesville Insurance Exchange questionnaire. Weekly Underw 171:580 S 11 '54

Assureds direct billing criticized by Oregon producers; text of resolution. Weekly Underw 169:592 S 12 '53

Broker's bookkeeping; billing system. H. Fleischer. Rough Notes 97:78-9 F '54

California Agents' president answers questions on insurance credit. G. O. Johnson. Nat Underw 58:35-6 Je 24 '54

Collect, finance or cancel. W. S. Chandler. East Underw 54:20 D 25 '53; Abstract. Nat Underw 57:17 D 31 '53

Commingling law compliance in New York state. East Underw 54:72 D 11 '53

Good collection system without collection letters. C. A. Dawson. Rough Notes 96:33-4 D '53

It's no sale, until you're paid. Weekly Underw 171:88, 142 Jl 10-17 '54

Program for solving your insurance collection woes. H. W. Wheeler. Rough Notes 97:35-6+ Ap '54

Rules agent must pay liquidator all, not part, of premiums; Bohlinger vs Mayville realty co., liquidator of Preferred Accident. Nat Underw 58:21 Jl 8 '54

Use the velvet glove for agency collections. E. W. Fair. Rough Notes 97:39-40+ O '54

See also
Insurance—Premium financing

Prospects

For new prospects canvass your present customers. R. H. Leckey. Rough Notes 97:38+ Ap '54

How you can overcome some common sales objections. Rough Notes 97:27+ Ja '54

Prospecting is your key to greater agency growth. C. W. Burnham. Rough Notes 97:24-5+ F '54

See also subdivision Prospects under various insurance headings, e.g.
Insurance, Life—Prospects

Public attitude

Better business; still in third place; with table of insurance queries grouped by lines. Spectator 162:47-8 My '54

Insurance held in public regard. E. J. Seymour. Weekly Underw 170:1332+ My 29 '54

Insurance queries to Better business bureaus increase. Nat Underw 58:10 Ap 1 '54; Same cond. Nat Underw (Life ed) 58:8 Ap 2 '54

Necessity of molding public opinion in the best interests of the insurance industry; abstracts. T. A. White. East Underw 55:34+ Ap 2 '54; Nat Underw 58:1+ Ap 1 '54; Weekly Underw 170:850 Ap 3 '54

Public is still bewildered. V. H. Nyborg. Spectator 161:24-5+ S '53

Purchasing

Business insurance. Sheet Metal Worker 44:55-8 Ap; 70-2 My; 74-5 S; 45:54-6 D '53

Cites better insurance buying. E. N. Lashmet. Weekly Underw 169:221+ Jl 25 '53

Client-agent-broker relationship reviewed by insurance buyer. R. B. Gallagher. Weekly Underw 170:1610+ Je 26 '54

Close liaison and forthright communication between buyer and underwriter urged. H. T. Blood. Weekly Underw 169:1320-1 N 28 '53; Same. East Underw 54:42 N 20 '53; Same cond. Nat Underw 57:23-4 N 19 '53

Eternal vigilance price of adequate program in insurance administration. V. S. Brennan. East Underw 54:42 N 20 '53; Same. Weekly Underw 169:1316+ N 28 '53

Exposure, risks, markets, preventive measures insurance program factors. W. S. McKay. East Underw 55:25 Jl 9 '54

Federal court gives decision in big anti-coercion case; Investors diversified services. Nat Underw 58:1+ Jl 8 '54

First victory scored in anti-coercion campaign; preventing lending institution from requiring borrowers to place insurance with favored agency. H. E. Uhler. Spectator 162:35+ O '54

Florida anti-coercion law betters position of mortgagor, not agent. J. E. Larson. Nat Underw 58:31 Ap 8 '54

Four measures necessary for a complete corporate insurance program. W. S. McKay. Weekly Underw 170:1358 My 29 '54

Helping buyer build adequate insurance; symposium. W. C. Pitner and others. Credit & Fin Management 55:8-11+ O '53

Insurance and credit ride together; the stakes are business solvency. R. S. Bass. Credit & Fin Management 55:28-30 O '53

INSURANCE—Purchasing—*Continued*

Insurance buyer; a monthly department for corporate insurance managers. Weekly Underw 170:300+ Ja 30 '54 [cont monthly]

Insurance check-up; what is enough? interview with M. H. Levy. J. K. Blake. il Dun's R & Mod Ind 63:60-1 F '54

Insurance coercion issue in small loan field discussed before U.S. Senate committee. F. Sullivan. Weekly Underw 171:762 O 2 '54

Insurance; first aid to credit operation; annual credit congress, Montreal; panel discussion. Credit & Fin Management 55:8-11+ D '53

Insurance manager's job to protect company assets. E. M. Wegman. Weekly Underw 169:1224, 1323 N 21-28 '53; Same abr. East Underw 54:34 N 27 '53

Mutual agents take issue with NAIA on coercion decision. Nat Underw 58:1+ Ag 12 '54

NAIA discusses anti-trust issue; Investors diversified services. Weekly Underw 171:221+ Jl 31 '54; East Underw 55:26 Jl 16 '54; Nat Underw 58:1 Jl 29 '54

No bargains in insurance; upholds quality factor; abstracts. J. A. North. East Underw 54:1+ N 13 '53; Nat Underw 57:2+ N 19 '53; Weekly Underw 169:1153-4 N 14 '53

Part of manager's duty is prevention of loss; Daystrom, inc, Elizabeth. H. Morgenthaler. East Underw 54:30 N 27 '53; Same. Weekly Underw 169:1322 N 28 '53

Plant committees aid insurance coordination; Inland steel co. O. B. Tearney. Weekly Underw 169:1156+ N 14 '53; Excerpt. East Underw 54:77 D 11 '53

Prompt cover of new risks urged to avoid danger caused by delay; Procter & Gamble co. L. H. Wiggers. East Underw 54:39 N 13 '53; Same. Weekly Underw 169:1320 N 28 '53; Same cond. Nat Underw 57:32-3 N 19 '53

Self insurance depends on ability to assume risk of losses; company requirements. W. H. Ellsworth. East Underw 54:35 N 13 '53; Same abr. Nat Underw 57:31 N 19 '53; Same abr. Weekly Underw 169:1322-3 N 28 '53

Small business organizations as well as large require services of trained insurance advisor; provide for catastrophic losses. E. L. Clark. Weekly Underw 170:303+ Ja 30 '54; Same cond. East Underw 55:24 Ja 15 '54; Abstract. Nat Underw 58:9+ Ja 21 '54

Specific ideas for helping insurance buyer get most for his money. D. F. Giberson. Weekly Underw 170:538+ F 27 '54

What buyer should consider before use of unusual cover. T. E. Sears, jr. Nat Underw 58:23 Je 10 '54

What corporate buyer expects from agent and his companies. P. T. Mucke. Weekly Underw 171:718+ S 25 '54

Without loss prevention program self-insurance seems unjustified. C. Z. Greenley. East Underw 54:21 D 4 '53; Same. Weekly Underw 169:1319 N 28 '53

See also
Insurance departments (in business)
also subdivision Purchasing under various insurance headings, e.g. Insurance, Life—Purchasing
also National insurance buyers association

Rates

All-industry rating laws. H. R. Price, jr. Weekly Underw 169:1164+ N 14 '53

Broker-made rate becomes insurer's problem. J. R. Maloney. Nat Underw 57:2A O 1 '53

Cream the rating laws; wants close harmony between industry and state officials. R. Jamieson. Nat Underw 57:6 N 12 '53

Judgment helps set out rates. R. H. Blanchard. Spectator 161:14-15+ Ag '53

Restrospective rating makes sales. C. A. Williams, jr. Rough Notes 97:34-6+ Je '54

Shackles of statistics. C. B. Kenney. Nat Underw 57:3+ N 12 '53

Rating bureaus

Make the West a partner. J. F. Crafts. Nat Underw 58:11+ Ap 15 '54

Plan to form Pacific advisory association new rating board. East Underw 55:39 Ap 16 '54; Nat Underw 58:1 Ap 15 '54

See also
Insurance, Fire—Rating bureaus

Reinsurance

American Independent Reinsurance of Orlando formed with $3,000,000 capital. East Underw 55:31 Ap 30 '54

Business of reinsurance; review. W. J. Langler. East Underw 55:38-41 S 24 '54

Constellation insurance co. of New York formed by European interests; to write reinsurance here. East Underw 55:22 F 26 '54; Same. Weekly Underw 170:511 F 27 '54

Country wide experience, 1948-52, of the reinsurance companies. East Underw 54:12+ pt 2 Jl 3 '53

Country-wide experience, 1949-53, of the reinsurance companies; table. East Underw 55:12+ pt 2 Je 25 '54

Does regulatory red tape help drive business to Lloyd's of London? East Underw 55:31 F 12 '54

Excess reinsurance for industry. E. S. Burns. Weekly Underw 170:1050+ Ap 24 '54

French reinsurer preparing for entry to U.S.; Caisse centrale de reassurance. Nat Underw 58:8 Mr 11 '54

International reinsurance conditions. W. Juul. Nat Underw 57:23-4+ D 31 '53

Latin American pool in reinsurance field; writes U.S. Canadian risks; Marine midland trust co. named trustee. East Underw 55:20 O 1 '54; Nat Underw 58:8 O 7 '54; Weekly Underw 171:788 O 2 '54

Lloyds reinsurance hassle. L. Cartwright. Spectator 162:28-9+ Mr '54

Market capacity problems; excess insurance and reinsurance principles as applied under present day underwriting conditions. A. L. Melling. Weekly Underw 169:745+ S 26 '53

NAIC hears arguments on Lloyd's exclusion from reinsurance rules. East Underw 55:19+ Ja 29 '54; Nat Underw 58:1+ Ja 28 '54; Weekly Underw 170:278+ Ja 30 '54

New reinsurance division; Continental Casualty. R. Tuchbreiter. Weekly Underw 169:1377+ D 5 '53; Same cond. East Underw 54:1+ D 4 '53; Same cond. Nat Underw 57:1+ D 3 '53

Property catastrophes and reinsurance; Casualty actuarial society panel. Nat Underw 58:22-3+ Je 3 '54

Reinsurance abroad $153 million in 1952. East Underw 54:25 Ag 28 '53; Abstract. Weekly Underw 169:411 Ag 22 '53

Reinsurance debate; NAIC meeting, Detroit. East Underw 55:1+ Je 11 '54; Nat Underw 58:1+ Je 10 '54; Weekly Underw 170:1456 Je 12 '54

Reinsurance essential for big companies; imperative for small. J. A. Sellon. Nat Underw 58:19+ F 4 '54

Reinsurance institute aids Argentine insurance industry. E. Gruber. Weekly Underw 171:17 Jl 3 '54

Reinsurance spread for western hemisphere; insurers proposed; abstracts. W. F. Delaney. Nat Underw 58:9+ Ag 26 '54; East Underw 55:18 S 3 '54; Weekly Underw 171:437+ Ag 28 '54

Reinsurance subcommittee report sharply discussed at NAIC meeting, Detroit. Weekly Underw 170:1457 Je 12 '54

Second book on excess of loss cover, by Jaroslav Tuma; review. Nat Underw 57:17+ N 12 '53

Surprise in agents' attitude on question of foreign cover. Nat Underw 58:5 F 4 '54

Trends in reinsurance of various lines. H. Shadwell. Nat Underw 57:21 N 19 '53

U.S. insurance companies pay $152.9 million to foreign reinsurers in '52. For Comm W 50:11 Ag 24 '53; Excerpt. Weekly Underw 169:494 Ag 29 '53

Value of reinsurance discussed before New York department examiners. Weekly Underw 170:434 F 13 '54

Variety of problems currently facing reinsurance; Insurance accountants association panel discussion. Nat Underw 57:27-31 D 31 '53; 58:26-30 Ja 7 '54

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Risks

Agent and the engineer. E. R. Granniss. Rough Notes 97:27+ S '54

Self insurance

Infirmities are cited of claims that un-insurance creates tax savings. C. W. Ferguson. Nat Underw 57:15 S 3 '53

Navy to survey insurance costs on leased property. Nat Underw 57:6 Ag 20 '53

Prompt cover of new risks urged to avoid danger caused by delay; Procter & Gamble co. L. H. Wiggers. East Underw 54:39 N 13 '53; Same. Weekly Underw 169:1320 N 28 '53; Same cond. Nat Underw 57:32-3 N 19 '53

Reviews year for self-insurers association. J. J. Regan. Nat Underw 57:18 D 10 '53

Self insurance depends on ability to assume risk of losses; company requirements. W. H. Ellsworth. East Underw 54:35 N 13 '53; Same abr. Nat Underw 57:31 N 19 '53; Same abr. Weekly Underw 169:1322-3 N 28 '53

Smaller buyer looks at self-insurance. A. Lieberman. Management R 42:296-7 My '53

Tells utilities men dangers of self-insurance; outlines coverage needed. W. Meek. Nat Underw 57:6 N 5 '53

Will U.S. self-insure all leased properties of the military services? P. Cunningham. Weekly Underw 169:463+ Ag 29 '53; Abstract. East Underw 54:22 Ag 28 '53

Without loss prevention program self-insurance seems unjustified. C. Z. Greenley. East Underw 54:21 D 4 '53; Same. Weekly Underw 169:1319 N 28 '53

Social aspects

Expanding frontiers for insurance may call for assist from anthropologists. J. C. Gibson. Nat Underw 58:19+ F 18 '54

State policies

Florida department troubled by low-premium deals; state; city of Miami. Nat Underw 58:9 Jl 29 '54

Statistics

Spectator statistical issue. Spectator 161: 20-124 N '53

Study and teaching

Composite answers to CPCU examination questions. Weekly Underw 170:1073-5, 1132-4, 1313-16, 1372-4, 1567-9, 1629-31; 171:46-8, 205-7, 258-60, 420-2+, 482-4, 675-6 Ap 24-My 1, 22-29, Je 19-Jl 3, 24-31, Ag 21-28, S 18 '54

Insurance in a university curriculum; Ohio state university. J. S. Bickley. East Underw 55:188-9 pt 2 O 1 '54

New York school of insurance offering new courses, expanding in suburbs. East Underw 55:26 S 10 '54; Same. Weekly Underw 171:630 S 18 '54

Progress of fellowship plan. L. J. Ackerman. Nat Underw (Life ed) 58:13 Ja 1 '54; Same. Weekly Underw 170:131 Ja 9 '54

Syracuse high school insurance course has been very successful. W. F. Lepper. East Underw 54:76-7 D 11 '53

See also

Insurance, Accident—Agents—Training

Insurance agents—Training

Insurance, Life—Agents—Training

also subdivision Study and teaching under various insurance headings, e.g.

Insurance, Life—Study and teaching

also American institute for property and liability underwriters; Insurance society of New York

Surplus line problems

Fine New York surplus broker, could have used authorized insurers. Nat Underw 58: 29 F 18 '54

NAIC seeks light on surplus placement. Nat Underw 58:36 Mr 4 '54; Weekly Underw 170:570 Mr 6 '54

Opportunities in surplus line field. H. T. Johnson. Nat Underw 58:22 My 27 '54

Six Chicago brokers lose their surplus line licenses. Nat Underw 57:3 Ag 27 '53; Same. Nat Underw (Life ed) 57:2 Ag 28 '53

State of Washington has new surplus line rules. Weekly Underw 171:438 Ag 28 '54

Surplus line group warned of illegal solicitations; Saskatchewan government insurance office. Weekly Underw 169:1495 D 19 '53; Abstract. Nat Underw 57:25 D 10 '53

Underwriting surplus lines. E. M. MacRae. East Underw 55:5-6 Ap 30 '54; Abstract. Nat Underw (Life ed) 58:11 My 7 '54

Use of surplus line office to sell bigger risks. L. B. Menner. Rough Notes 96:18+ Jl '53

Taxation

Infirmities are cited of claims that un-insurance creates tax savings. C. W. Ferguson. Nat Underw 57:15 S 3 '53

See also

Insurance, Life—Taxation

Insurance companies—Taxation

Terminology

See also

Insurance, Accident—Terminology

Insurance, Marine—Terminology

Insuror (term)

Travel risks

See also

Insurance, Accident—Travel risks

Valuation of property

How to get reproduction cost new, less depreciation. A. L. Benjamin. N A C A Bul 35:1164-73 My '54

Valued policy statutes should be revised to comport with methods and needs of today. T. M. Galphin, jr. Weekly Underw 171: 677, 749, 815, 893, 961 S 18-O 16 '54

What management should expect from the appraiser. G. K. Bolt. Management R 42:552 S '53

See also

Insurance, Automobile—Valuation of property

Insurance, Inland marine—Valuation of property

Insurance, Fire—Valuation of property

War risk

See Insurance, War risk

Wholesale insurance

See also

Insurance, Accident—Wholesale insurance

Argentina

Reinsurance institute aids Argentine insurance industry. E. Gruber. Weekly Underw 171:17 Jl 3 '54

Arkansas

Arkansas legislators, attorneys dig into insurance studies. Nat Underw 58:13 My 13 '54

Bulgaria

You better pay your premiums in red Bulgaria. W. H. Nelson. il Spectator 162:24-5+ F '54

Chicago

See also

Chicago board of underwriters

Chile

Government insurance expanded in Chile. For Comm W 50:4 N 2 '53

Florida

Dixie's insurance capital. Bsns W p66 Ag 8 '53

Germany

Conduct of insurance industry in western Germany has many interesting angles. Weekly Underw 171:130+ Jl 17 '54

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Great Britain

British insurance; annual survey. Economist 168:217-20+ Jl 18 '53

Insurance under four queens. H. A. L. Cockerell. East Underw 54:19 Jl 3 '53

See also

Lloyd's, London

Indiana

Indianapolis men form Better business bureau insurance arm. Nat Underw 58:12 Ja 28 '54; Same. Nat Underw (Life ed) 58:16 Ja 29 '54

Mediterranean region

Insurance development in Mediterranean area. J. J. Roberts. Weekly Underw 170:132 Ja 9 '54; Excerpt. East Underw 55:27 Ja 8 '54

Mexico

Operation of insurance industry in Mexico has many interesting aspects. Weekly Underw 169:1371-3 D 5 '53

Morocco

Survey shows Morocco insurance laws follow French requirements; supervision features. Weekly Underw 170:846-7 Ap 3 '54

New York (state)

Casualty companies launch public relations program with New York agents; New York state insurance speakers bureau. Nat Underw 58:12 S 23 '54; East Underw 55:45+ S 24 '54

Details of New York insurance show huge growth since 1940, rise of mutual share. Nat Underw 58:19 F 11 '54

New York department superintendent's report to the 1953 legislature; highlights. Nat Underw 57:3+ Ag 13 '53

New York state association of insurance agents presidential annual report; abstracts. E. T. Clauss. East Underw 55:21 My 7 '54; Nat Underw 58:11 My 6 '54; Weekly Underw 170:1149+ My 8 '54

Wife is stockholder; politics seen in effort to link agency, Bohlinger. Nat Underw (Life ed) 57:5 N 6 '53; Same. Nat Underw 57:7+ N 5 '53

Ohio

New bureau classes called right step. A. M. O'Connell Nat Underw 57:10 N 12 '53

Oklahoma

Oklahoma speakers bureau inform people of state about operations of casualty and surety lines. Weeekly Underw 170:1540-1 Je 19 '54

Oregon

Hits super classification system for auto in Portland talk. R. B. Taylor. Nat Underw 57:9+ S 3 '53; Abstract. Weekly Underw 169:610+ S 12 '53

Pennsylvania

Scorecard on growth of business since 1950; Pennsylvania. A. C. Leslie. Nat Underw 58:21 O 7 '54

Switzerland

Swiss Re reports on world book. Nat Underw 57:8 Jl 2 '53

Texas

Deplores attacks on Texas Insurance. G. A. Smith. Nat Underw (Life ed) 58:2+ O 15 '54; Same abr. Nat Underw 58:1+ O 14 '54

Insurance business has big year in Texas, 1953. Nat Underw 58:5 Ja 21 '54

West Virginia

Commends credibility table; legislative aims of department. T. J. Gillooly. Nat Underw 58:2+ Ag 19 '54

Wisconsin

Wisconsin association of insurance agents annual meeting; report of state national director. J. L. Ashton. Nat Underw 57:25+ O 22 '53

INSURANCE, Accident

A.&H. bureau preparing for adoption of code of ethics and public relations program. East Underw 55:30 Jl 9 '54; Nat Underw 58:14 Jl 8 '54; Nat Underw (Life ed) 58:9 Jl 16 '54; Weekly Underw 171:90 Jl 10 '54

A&H complaints and other problems discussed at NAIC meeting, Detroit. Nat Underw 58:1+ Je 17 '54; Nat Underw (Life ed) 58:4+ Je 18 '54; East Underw 55:36+ Je 18 '54

Accident and health continues to forge ahead. E. J. Faulkner. East Underw 54:95+ D 11 '53

A.&H. discussion; Presidents section of the National fraternal congress convention, Dallas. Nat Underw (Life ed) 57:19+ S 25 '53

A.&H. field as first compulsory battleground; concerned over efforts to establish government bureaucracy; abstracts. J. E. Powell. East Underw 55:38 My 28 '54; Nat Underw 58:15+ Je 10 '54; Nat Underw (Life ed) 58:13+ Je 4 '54; Spectator 162:36-7+ Je '54; Weekly Underw 170:1416 Je 5 '54

A&H has $29 billion field for expansion. P. H. McIntyre. Nat Underw (Life ed) 58:6 O 8 '54

A&H insurance needs improvement. J. A. Appleman. Spectator 161:18-19+ N '53

A&H is an agency builder; Anast-Leonard agency. Rough Notes 97:58+ Ap '54

A&H progressing but still further improvement needed. R. H. Rydman. Nat Underw 57:4B N 19 '53; Same. Nat Underw (Life ed) 57:17 N 20 '53

A.&S. problems; abstracts. L. B. Soper. East Underw 55:48+ S 17 '54; Weekly Underw 171:659 S 18 '54

Accident insurance opportunities. C. J. Meyers. Weekly Underw 169:878+ O 10 '53; Excerpt. East Underw 54:10 O 9 '53; Abstract. Nat Underw (Life ed) 57:11 O 16 '53

Advances made by A.&H. industry; replies to criticism; abstracts. C. J. Zimmerman. East Underw 55:49 Mr 19 '54; Nat Underw 58:27 Mr 25 '54; Nat Underw (Life ed) 58:26 Mr 19 '54

All-time highs were attained in 1953; industry developments. J. F. Follmann, jr. Weekly Underw 170:78+ Ja 2 '54

Are frills a real advantage to the industry? E. R. Brock. Nat Underw (Life ed) 57:22 O 16 '53

Better Business Bureaus issue fact book to give A&H buyer understanding of cover. Nat Underw 58:14 Ja 7 '54; Same. Nat Underw (Life ed) 58:15 Ja 8 '54

Bureau of A.&H. underwriters adopts new code of practices; with text. East Underw 55:62+ O 8 '54

Bureau of accident and health underwriters educational seminar, New York, May 26-27. East Underw 55:30-5+ My 28 '54; Weekly Underw 170:1329+, 1346 My 29 '54

Bureau of accident and health underwriters educational seminar on group and health insurance, New York, Feb. 2-3. East Underw 55:38+ F 5 '54; Nat Underw 58:16 F 4 '54; Nat Underw (Life ed) 58:2+ F 5 '54

Continental casualty company expands A.&H. program. East Underw 54:27 Ag 7 '53

Continental Casualty had its best A.&H. production year in 1953; company division developments. East Underw 55:31+ Ja 29 '54

Current accident and health production problems. J. L. Ullman. East Underw 54:46 O 9 '53

Exposes fallacies in articles criticizing A.&H. industry. F. T. Curran. East Underw 55:42 S 17 '54

Fallacies in Reader's Digest article cited by Provident Life & Accident; Blake Clark article. East Underw 55:28+ Ag 6 '54; Same. Weekly Underw 171:292 Ag 7 '54

Fundamentals of A&H insurance. W. Milliman. Life Ins Courant 59:37-41 Ja '54

Goals of three joint health committee units. E. J. Faulkner. Nat Underw 58:6+ S 16 '54; Same. Nat Underw (Life ed) 58:4+ S 17 '54

H.&A. conference answers charges in Digest article. Nat Underw 57:25 S 17 '53; Same. Nat Underw (Life ed) 57:7 S 18 '53

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Health insurance is long-term social issue; abstracts. R. R. Neal. Nat Underw 58:2+ S 16 '54; Nat Underw (Life ed) 58:13 S 17 '54; Weekly Underw 171:652 S 18 '54

How to get and keep A&H business; Bureau of A&H underwriters panel on agency management problems. Nat Underw 58:5+ Je 3 '54; Nat Underw (Life ed) 58:3+ Je 4 '54; East Underw 55:33 Je 4 '54

How's your A&S I.Q.? quiz. Life Ins Courant 59:60 My '54

Income replacement plans are primary. Life Ins Courant 59:46-7 Jl '54

NAIC opposes federal regulation of mail order A.&H. insurance. W. E. Allyn. East Underw 55:44 Mr 5 '54

NAIC paves way for national study of A&H complaints. Nat Underw 58:2 O 7 '54; Same. Nat Underw (Life ed) 58:1+ O 8 '54

New code of practices and public relations program ratified by Bureau. East Underw 55:39 S 17 '54; Same. Weekly Underw 171: 645 S 18 '54

New York department issues guide on individual, blanket A&H forms and rates. Nat Underw 58:8 Ja 21 '54; Same. Nat Underw (Life ed) 58:13 Ja 22 '54

1952 analysis of commercial accident insurance. J. F. Follmann, jr. Life Ins Courant 58:38-43 Jl; 30-5 Ag '53

1953 legislative developments. J. F. McAlevey. East Underw 54:34 O 30 '53

No time for jitters; three-point action program. E. J. Faulkner. East Underw 55:40 Ap 2 '54; Same. Weekly Underw 170:778 Mr 27 '54

Pessimism real industry problem challenging the accident and health industry; abstracts. R. A. MacDonald. East Underw 55:51 My 7 '54; Weekly Underw 170:1174-5 My 8 '54

Program of action for A.&.H. industry to avoid federal encroachment. W. O. Martin, jr. East Underw 55:36+ Je 18 '54

Public regard for A.&H. has greatly increased; medical insurance. R. F. Froehlke. East Underw 54:40-1 N 20 '53

Reaction to John A. Appleman article in Reader's digest. J. M. Powell. East Underw 54:34 S 25 '53

Readers Digest article on A.&H. causes headaches. Nat Underw 57:15 Ag 27 '53; Same. Nat Underw (Life ed) 57:7 Ag 28 '53

Reader's digest cites need for insured's knowledge of A.&H. policy in article by Blake Clark. East Underw 55:34 Je 25 '54

Rebuts criticism of A.&H.; A.&H. club panel discussion. East Underw 55:36 Ap 30 '54

Selling in low income brackets. G. M. Green. Nat Underw (Life ed) 57:15 N 20 '53

Seven insurance associations organize accident and health insurance committee. Weekly Underw 170:849 Ap 3 '54; East Underw 55:35 Ap 2 '54; Nat Underw 58:2 Ap 1 '54; Nat Underw (Life ed) 58:1 Ap 2 '54

Survey of A.&H. by Chamber of commerce, individual family policies. East Underw 54:36 S 11 '53

Takes issue with article on A.&H. insurance in Reader's digest. J. F. Follmann, jr. Weekly Underw 169:562 S 5 '53

Trade association key men recognized by International association. East Underw 54: 36-7 Jl 10 '53

Trends in accident and health insurance. J. F. Follman, jr. Management R 43:57-8 Ja '54

Trends in accident and health insurance. A. Sommer. East Underw 55:50+ S 17 '54

Unusual growth of A.&H.; abstracts. D. O. Smith. East Underw 54:32 O 30 '53; Nat Underw (Life ed) 57:14 O 23 '53

Urges top management to reexamine entire A.&S. operation; abstracts. H. L. Rietz. East Underw 55:36+ My 7 '54; Nat Underw 58:1+ My 6 '54; Nat Underw (Life ed) 58: 25+ My 7 '54; Weekly Underw 170:1149+ My 8 '54

View of the business in light of current public criticism. J. R. Maloney. Nat Underw 58:11+ My 20 '54; Same. Nat Underw (Life ed) 58:5+ My 21 '54

Why overlook opportunity? L. P. Matthews. Life Ins Courant 58:53 O '53

See also

Insurance, Disability
Insurance, Liability
Insurance, Life—Disability provisions
Insurance, Workmen's compensation

also Bureau of accident and health underwriters; Health and accident underwriters conference; International association of accident and health underwriters

Accounting

Expense problems of the accident and health business. C. H. Tookey. East Underw 55: 63-4 O 8 '54

Objectives in planning accounting procedures in the processing of group accident and health premiums. J. R. Bevan. East Underw 55:39 F 19 '54

Adjustment of claims

Claims experts on A&H panel put finger on sales talk as reason for most trouble. Nat Underw (Life ed) 58:2+ Ag 27 '54

Connecticut court upholds mail-order insurance law; Delaware firm can be sued. East Underw 54:32 D 4 '53

Coordination between claim and underwriting departments. E. B. Forsythe. East Underw 54:49 N 13 '53

Modern role of the claim department in accident and health insurance; Bureau of A.&H. panel discussion. East Underw 55: 34-5 My 28 '54; Same cond. Weekly Underw 170:1346 My 29 '54

Post-claim reviews. D. B. Alport. East Underw 54:37 N 6 '53

Proper claim handling big persistency factor; abstracts. R. S. Jack. Weekly Underw 170:716+ Mr 20 '54; East Underw 55:43+ Mr 19 '54; Nat Underw 58:9 Ap 1 '54; Nat Underw (Life ed) 58:14 Mr 19 '54

Up to claimant to prove accidental death; California Supreme court. Nat Underw 58: 20 Ap 1 '54; Same. Nat Underw (Life ed) 58:7 Ap 2 '54

See also Texas accident and health claims underwriters association

Advertising

Early morning, late evening radio shows called cheapest way to A.&H. inquiries. D. Polon. Nat Underw (Life ed) 57:17 Ag 21 '53

Ethical standards statement; text of code adopted at H.&A. underwriters conference. East Underw 55:35+ My 7 '54; Nat Underw 58:5 My 13 '54; Nat Underw (Life ed) 58:25 My 7 '54; Weekly Underw 170:1173+ My 8 '54; Spectator 162:87 Je '54

FTC investigator advises concerted industry action. R. Sills. Nat Underw 58:1 My 27 '54; Same. Nat Underw (Life ed) 58:7 My 28 '54; Abstract. Weekly Underw 170: 1344 My 29 '54

Improvement noted in misleading advertising by A.&H. committee of NAIC. East Underw 54:96 D 11 '53

Langer mail order A&H inquiry is revived; FTC goes on. Nat Underw 58:1+ F 11 '54; Same. Nat Underw (Life ed) 58:2+ F 12 '54

Mail order hearing adjourns with eye to full A&H probe. H. Hallam. Nat Underw (Life ed) 58:1+ Mr 5 '54; Same abr. Nat Underw 581+ Mr 4 '54

Maloney hands world ten-day suspension on advertising charges. Nat Underw 57:4 S 10 '53; Same. Nat Underw (Life ed) 57:1+ S 11 '53

Misleading advertising hurts A.&H. public relations. G. H. Saville. East Underw 55:32 Je 4 '54

Ohio reported taking action on A&H ads. Nat Underw 58:20 My 6 '54; Same. Nat Underw (Life ed) 58:30 My 7 '54

Prudential launching big sickness and accident advertising program. East Underw 55: 36-7 S 10 '54; Same. Nat Underw 58:19 S 9 '54; Same. Nat Underw (Life ed) 58:9 S 10 '54; Same. Weekly Underw 171:586 S 11 '54

Warning to A.&H. companies on misleading advertising; District of Columbia. A. F. Jordan. East Underw 55:42 Ap 9 '54

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World to take Maloney to court on suspension issue. Nat Underw 57:6 S 17 '53; Same. Nat Underw (Life ed) 57:1+ S 18 '53

Agents

A&H hot line for local agent sales. A. H. Wohlers. Nat Underw 58:17 O 14 '54
Accident and health insurance, responsibilities and opportunities; abstracts. R. L. Ellis. Weekly Underw 171:648 S 18 '54; East Underw 55:53 S 17 '54
A.&H. offers opportunity along with responsibility. R. Waldron. East Underw 55:34+ Je 25 '54
A&S, a plus for you and your prospects. J. F. Sutor. Life Ins Courant 59:54-5 O '54
Accident and sickness completes the circle; sole proprietorship prospects. J. M. Winge. Life Ins Courant 59:52-3 S '54
All agents should sell A&H. F. S. Taft. Nat Underw (Life ed) 58:4 Ap 23 '54
Ask prospects why they buy A&H insurance. J. H. F. Carver. Rough Notes 97:76 Je '54
California state association of A.&H. underwriters formed. East Underw 55:34 Mr 12 '54
Canada H.&A. inaugurates mobile sales unit as first of proposed fleet. il East Underw 55:28 Jl 30 '54
Cincinnati association of accident and health underwriters meeting. Nat Underw 57:18 D 17 '53; Same. Nat Underw (Life ed) 57:16 D 25 '53
Cost comparisons sell A&H to the boss. Weekly Underw 170:1566 Je 19 '54
Creative salesmanship. R. A. MacDonald. il Life Ins Courant 58:33-7 Jl '53
Dangers of complacency; warns members of New Jersey accident and health association. A. T. Everett. East Underw 55:34 Ap 23 '54; Abstracts. Nat Underw 58:11 Ap 22 '54; Nat Underw (Life ed) 58:5+ Ap 23 '54
Declares enthusiasm essential to A.&H. success. L. Tracy. Weekly Underw 169:1051 O 31 '53
Duty of A.&H. agent more than mere sale. W. Schmitz. East Underw 54:32 O 30 '53
Edwards paid tribute for A.&H. record by the Metropolitan Life. East Underw 55:40 Ap 2 '54
Group and franchise panel discussion; International A.&H. association's annual meeting. East Underw 55:43 Je 18 '54
How I use direct approach. J. Simon. Weekly Underw 171:257 Jl 31 '54
How Mutual of Omaha develops group A.&H. A. W. Randall; R. Finnell. East Underw 55:42 F 19 '54
How to pave the road to A&H sales. Weekly Underw 170:1251 My 15 '54
How to write sales letters in A&H. H. R. Diers. Nat Underw 57:4A N 19 '53; Same. Nat Underw (Life ed) 57:14 N 20 '53
How we merchandise accident and health. A. S. Goldstein and L. Goldstein. Weekly Underw 171:315 Ag 7 '54
International association adopts code of ethics; with text. East Underw 55:28 O 1 '54; Same. Weekly Underw 171:854 O 9 '54
Lack of new A.&H. agent interest discussed at New York state advisory board meeting. East Underw 55:42 Je 11 '54; Same. Weekly Underw 170:1484 Je 12 '54
Market is waiting for you. G. W. Ewer. Rough Notes 96:69-70 D '53
Objection overruled; suggestions for ready answers for any and all objections. Life Ins Courant 59:57+ O '54
Penetrating oil. R. L. McMillon. East Underw 54:35 Jl 10 '53; Same. Weekly Underw 169:170-1 Jl 18 '53
Principles of successful insurance selling. N. Hill. Weekly Underw 169:33+ Jl 4 '53
Sell nests of prospects. E. L. Larson. Rough Notes 97:78+ My '54
Selling A & S to meet business needs. C. F. Bartlett. Life Ins Courant 59:28-9 Ag '54; Same. Weekly Underw 171:606 S 11 '54
Something more than just the sale. W. Schmitz. Life Ins Courant 59:50-1 F '54
Texas A.&H. association adopts code of ethics; with text. East Underw 55:36 S 10 '54; Same. Weekly Underw 171:590 S 11 '54
To sell; $14 billion of A.&H. C. Ray. Rough Notes 96:25-6+ Ag '53
Use organized approach. G. Neale. Life Ins Courant 58:55 N '53
Value of income protection. B. Robinson. East Underw 55:39 F 12 '54
Visual approach in selling health and accident insurance. Weekly Underw 171:370 Ag 14 '54
Why overlook opportunity? selling income protection coverage. L. P. Mathews. Rough Notes 97:77 S '54
Why the A.&H. field is a money making field. J. B. Lev. East Underw 55:45 Mr 5 '54
Young doctors are prospects. E. V. Haubrich. Life Ins Courant 59:54 S '54
See also
Watkins, William B.

Company relations

Field advice to underwriters to improve agent-home office relationship. J. G. Galloway. East Underw 54:37-8 N 6 '53; Abstracts. Nat Underw 57:7+ N 12 '53; Nat Underw (Life ed) 57:11+ N 13 '53

Sales conventions

A.&H. agents mark record year; annual convention, Chicago. Nat Underw 57:1+, 6B Jl 2 '53
Alabama accident and health association sales congress, Birmingham. Weekly Underw 169:1391 D 5 '53
Chicago A.&H. association meeting. Nat Underw 57:4 O 22 '53
Iowa A&H association 1st annual sales congress, Cedar Rapids. Nat Underw 58:30 Je 17 '54; Nat Underw (Life ed) 58:24 Je 11 '54; Weekly Underw 170:1482 Je 12 '54
Northwestern international A&H sales congress, Portland. Nat Underw (Life ed) 58:10 O 8 '54
Texas accident and health state-wide sales congress. Weekly Underw 169:1448 D 12 '53
Wisconsin association of A and H underwriters 1st statewide sales meeting, Milwaukee. Nat Underw 58:11 S 2 '54; Same. Nat Underw (Life ed) 58:4 S 3 '54

Training

A.&H. subcommittee wants new agent education in New York state. East Underw 55:56 My 7 '54; Same abr. Weekly Underw 170:1116+ My 1 '54
All American opens A.&H. sales schools in 14 states. D. C. Long. East Underw 55:33 Jl 2 '54

Aviation risks

Comprehensive trend in present travel accident policies; abstracts. J. M. Smith. East Underw 55:38 Ag 20 '54; Nat Underw 58:5+ Ag 19 '54
Fight for Chicago airport rights. Nat Underw 57:1 Jl 9 '53

Cancellation

A&H cancellations solution still distant in North Carolina. Nat Underw 58:10 F 4 '54
North Carolina tackles cancellation problem. Weekly Underw 169:33 Jl 4 '53
Pros and cons of the cancellation problem; abstracts. G. S. Parker. East Underw 55:31+ My 28 '54; Nat Underw 58:2 My 27 '54; Nat Underw (Life ed) 58:5 My 28 '54; Weekly Underw 170:1363 My 29 '54; Discussion. East Underw 55:32 Jl 2 '54
Query companies on cancellation practices in North Carolina. Nat Underw 57:19 Ag 20 '53; Same. Nat Underw (Life ed) 57:6 Ag 14 '53
Right of discontinuance of A.&H. insurance by the company; abstracts. J. F. Follmann, jr. East Underw 55:45-6 O 15 '54; Nat Underw 58:15 O 14 '54; Nat Underw (Life ed) 58:8 O 15 '54

Catastrophe coverage

Catastrophe coverage. R. W. Pope. Rough Notes 97:72+ Mr '54

Claim complaints

Ohio A.&H. complaints. East Underw 55:35 Ap 23 '54
Virginia decision vindicating Sterling puts curb on powers of state bureau. Nat Underw 57:21 D 17 '53; Same. Nat Underw (Life ed) 57:2 D 18 '53

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Claim forms

Uniform claim forms for A.&H. essential. F. T. Bernhard. Nat Underw 57:15 S 17 '53; Same. Nat Underw (Life ed) 57:2+ S 18 '53

Coverage

Pushing minor types of A.&H. may prove unduly expensive. E. M. MacRae. Nat Underw 57:15+ O 15 '53; Same. Nat Underw (Life ed) 57:5+ O 9 '53

Credit aspects

Abuses touch off Wyoming probe of credit life, A.&H. F. S. Taft. Nat Underw 58:16 Ap 8 '54

Credit A.&H. regulation. R. H. Rydman. East Underw 55:44 My 7 '54

Insurance commissioners postpone action on credit life A.&H. rules. East Underw 54:45 D 11 '53

NAIC report on credit life, A.&H.; adopt statement of principles on sale of credit insurance. East Underw 55:6+ Je 18 '54

NAIC subcommittee favors zone three credit insurance rules. Nat Underw 57:4 S 3 '53; Same. Nat Underw (Life ed) 57:6 S 4 '53

36-year story; insuring credit. R. D. Sheppard. Spectator 161:18-19+ Jl '53

Urge early NAIC action on guides for credit covers. Nat Underw 58:1+ Ap 29 '54; Same. Nat Underw (Life ed) 58:1+ Ap 30 '54

See also
Consumer credit insurance association

Farmers as prospects

Selling A&H to farmers. C. Songer. Life Ins Courant 59:52-4 F '54

Finance

Accident and health direct premiums, losses incurred in New York; table by companies. Nat Underw 58:40 Mr 18 '54

A.&H. earned premiums and incurred losses of 82 companies shown for 1953. East Underw 55:34-5+ F 26 '54

A&H premiums pass $2¼ billion; 1953. W. M. Montgomery. Spectator (Endorsement no) 162:30+ Ag '54

A&H premiums ranked second; with data for 1951 and 1952. Spectator 161:18 Ag '53; Same. East Underw 54:27 Jl 17 '53; Same. Weekly Underw 169:171 Jl 18 '53

A.&H. premiums set high of $2,271,787,001, 1953. East Underw 55:30+ Jl 16 '54; Same. Weekly Underw 171:117+ Jl 17 '54

A&H results in Illinois for 1953; table by companies. Nat Underw (Life ed) 58:38 My 7 '54

Bureau survey shows 16 per cent overall increase for personal A.&H. coverages; 1953. East Underw 55:27 Ag 27 '54; Same. Weekly Underw 171:471 Ag 28 '54

Expense problems and their impact on A.&H. field. F. S. Perryman. East Underw 54:47-8+ O 16 '53

Home office costs; Health and accident underwriters conference forum. E. F. O'Toole and others. East Underw 54:32-3 O 23 '53; Weekly Underw 169:1008 O 24 '53

Home office costs topic of Chicago conference; Health and accident underwriters conference; abstracts. Weekly Underw 169:1112 N 7 '53; Nat Underw (Life ed) 57:9 O 23 '53

Inland marine and accident experience in 1953; table. East Underw 55:21 Ag 13 '54

Franchise insurance

See Insurance, Accident—Wholesale insurance

Fraudulent promotion

Virginia legislative group reports on study of abuses in A.&H. field. Nat Underw 57:12 S 10 '53; Same. Nat Underw (Life ed) 57:9 S 4 '53; Abstract. East Underw 54:36 S 11 '53

Fraudulent statements

Applicants' misrepresentation annotated. T. J. Frazier. East Underw 55:33 Ag 20 '54; Same cond. Nat Underw 58:11+ Ag 19 '54; Same cond. Nat Underw (Life ed) 58:18 S 3 '54

History

Accident coverage now 90 years old. il Spectator 162:34-5 My '54

Lapses

Guard against A&H lapses. E. A. Diemand. Rough Notes 97:65 Jl '54

Lapses. T. H. Kirkpatrick. East Underw 55:40-1 Ap 2 '54; Same cond. Nat Underw (Life ed) 58:6 Ap 2 '54

Life company selling

A.&H. committee seven-region setups to foster more intensive development. Nat Underw (Life ed) Daily ed 57:27+ Ag 27 '53

A&S ideas for the life salesman. R. B. Thompson. Weekly Underw 170:1253-4 My 15 '54

A.&H. leads to life sales. L. I. Robinson and others. Life Ins Courant 58:53-4 N '53

Condensed A.&H. manual and three new policies offered by U.S. Life. East Underw 55:31 Ja 15 '54

Continental's new commercial A.&H. East Underw 54:29 Ag 14 '53

Development of Prudential program of S.&A. within the ordinary department. L. Tracy. East Underw 55:41 Ap 2 '54

Earning extra $$ through A.&H. M. Goretsky. Life Ins Courant 58:44-7 Jl '53

Five power ideas on A.&S.; five addresses delivered at regional schools of the Provident Mutual for special agents. L. T. Wade and others. Life Ins Courant 58:56-62 N '53

Fourth hazard; need to increase sale of A&S to avoid government intervention. H. S. Marmaduke. Life Ins Courant 59:42-3 Jl '54

I look at it four ways. D. MacDonald. Life Ins Courant 59:34-5 Ja '54

Insure your tomorrows. F. Forti. Life Ins Courant 59:54-5 My '54

Life, A&H cover real handmaidens. S. S. Huebner. Nat Underw 58:19 Mr 25 '54; Same. Nat Underw (Life ed) 58:13 Mr 26 '54

Life insurance agency management association spring meeting on A.&H., Chicago, March 17-18. East Underw 55:43-4, 49-50 Mr 19; 40-1 Ap 2 '54; Nat Underw 58:4+ Mr 25 '54; Nat Underw (Life ed) 58:9 Mr 26 '54

Life man looks at A.&H. T. A. Sick. Life Ins Courant 58:27-9 Ag '53

Lincoln National's experience in A.&S. field. H. L. Rietz. East Underw 55:43+ Mr 19 '54; Same abr. Nat Underw (Life ed) 58:2+ Mr 19 '54

Marketing A&H; topic of LIAMA Chicago session. Nat Underw (Life ed) 58:10+ Mr 26 '54

Merely following crowd into A.&H. can be disastrous. W. E. North. Nat Underw (Life ed) 57:11 S 25 '53

Mutual of New York experience in accident and sickness field. J. M. Wickman. East Underw 55:27-8 Jl 30 '54

New York City Life Managers hear what A.&H. sales can do for client, agent, general agent; panel discussion; abstracts. M. J. Denda and others. Nat Underw (Life ed) 57:15-16 O 2 '53; East Underw 54:56+ O 2 '53

Reluctance to sell other coverages injurious to agent. Nat Underw (Life ed) Daily ed 57:19+ Ag 26 '53

Sell the need for A&S. Life Ins Courant 59:55 F '54

State Mutual issuing sickness and accident with non-cancellable forms. East Underw 54:13 N 6 '53; Same. Weekly Underw 169:1117 N 7 '53; Same abr. Nat Underw (Life ed) 57:4 N 6 '53

Urges brokers to sell commercial A.&H. W. L. Kick. East Underw 55:42-3 Ap 9 '54

What 17 companies learned about A&H; editorial. Nat Underw (Life ed) 58:18 Ap 9 '54

Medical aspects

Medical aspects of A.&H. underwriting. E. B. Williams. Nat Underw 57:32-3 N 12 '53; Same. Nat Underw (Life ed) 57:21 N 13 '53

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Noncancellable policies

Continental Assurance puts on the market new noncancellable A.&H. series. East Underw 54:31 Jl 10 '53; Same. Weekly Underw 169:101-2 Jl 11 '53; Same cond. Nat Underw 57:6B Jl 2 '53; Same cond. Nat Underw (Life ed) 57:6 Jl 3 '53

Non-can. A.&H. creates more interest in New York. East Underw 55:40-1 Ap 2 '54

Non-cancellable accident and sickness insurance; current trends and outlook; abstracts. R. H. Morse. East Underw 55:41 Je 11 '54; Nat Underw 58:21 Je 10 '54; Nat Underw (Life ed) 58:10 Je 11 '54; Weekly Underw 170:1482 Je 12 '54

Non-cancellable accident cover of increasing interest. Weekly Underw 169:232 Jl 25 '53

Provident Life & Accident announces new step rate premium plan for non-cancellable. J. E. Powell. East Underw 55:30 Ag 13 '54

State Mutual issuing sickness and accident with non-cancellable forms. East Underw 54:13 N 6 '53; Same. Weekly Underw 169:1117 N 7 '53; Same abr. Nat Underw (Life ed) 57:4 N 6 '53

Policies

Bankers National has new president series; three broadened A.&H. plans. East Underw 55:31 Ja 15 '54

Bankers Security has supplemental A&S for insured groups. Nat Underw 58:31 S 16 '54; Same. Nat Underw (Life ed) 58:6 Ag 27 '54

Farm Bureau companies issue six new A.&H. policies. M. D. Lincoln. East Underw 55:36 Je 25 '54; Same. Weekly Underw 171:35 Jl 3 '54

Farm Bureau issues new mini-group A&H policy; package of seven coverages. East Underw 55:44-5 O 15 '54

Find no persistency difference between commercial and non-cancellable policies; LIAMA study. Weekly Underw 170:434 F 13 '54; Same. Nat Underw (Life ed) 58:2 Ap 2 '54; Same abr. Life Ins Courant 59:52 Mr '54

Fireman's Fund adopts new A.&S. program. East Underw 55:44-5 Mr 5 '54; Excerpt. Weekly Underw 170:604 Mr 6 '54

Fireman's Fund revises its A&H policies. Nat Underw 58:12 Mr 4 '54

N.Y. state insurance department releases guide for A.&H. forms and rates. East Underw 55:31+ Ja 29 '54

Proposition of the "reasonableness" of benefits: abstracts. B. Cox. East Underw 54:46+ O 16 '53; Nat Underw 57:30-1 O 15 '53; Nat Underw (Life ed) 57:11+ O 16 '53; Weekly Underw 169:1005-6 O 24 '53

Sports insurance is timely. C. S. Rollings. Rough Notes 96:36+ D '53

Union Mutual brings out new, restyled A&H plans. Nat Underw (Life ed) 58:11 F 12 '54

See also

Insurance, Accident —Aviation risks

Insurance, Accident —Noncancellable policies

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Premiums, Payment of

Two areas as keys to persistency; training and merchandising. W. H. Whorf. East Underw 55:8 Ap 2 '54

Prospects

Firemen are good prospects; group accident for volunteer fire departments. Rough Notes 97:80 F '54

Good sales talk for businessmen prospects. Rough Notes 96:78-9 N '53

I never run out of live A.&H. prospects. R. Felton. Rough Notes 96:26-7+ Ag '53

Ordinary and A.&H. production. A. Goldstein. Life Ins Courant 58:50-1 O '53

People who are insured are my best prospects. J. Koerner. Rough Notes 96:27+ Ag '53

Prospecting, an inward process. E. V. Boisaubin. East Underw 55:45 Je 18 '54

Sell the small businessman. R. W. Pope. Rough Notes 97:72+ Ja '54

Systematic cold canvass gets A.&H. sales. W. E. Morris. Rough Notes 96:82 S '53

See also

Insurance, Accident —Farmers as prospects

Public attitude

Public's idea of A&H needs change. F. R. Peregrine. Nat Underw 58:17 Mr 25 '54; Same. Nat Underw (Life ed) 58:19 Mr 19 '54

Publicity

Accident and health detractors exposed. J. F. Follmann, jr. Weekly Underw 169:1485+ D 19 '53; Abstract. East Underw 54:33 D 18 '53; Discussion. R. W. Osler. Weekly Underw 170:139 Ja 9 '54

Accident and health insurance; an opportunity in public relations; abstracts. J. F. Follmann, jr. East Underw 55:32-3 Ja 29 '54; Life Ins Courant 59:54-9 Mr; 65-9 Ap '54; Spectator 162:26-7+ F '54; Weekly Underw 170:314 Ja 30 '54

Against attacks of its critics. J. F. Follman, jr. East Underw 55:34+ Mr 12 '54

Agent's relations with his community; abstracts. E. R. Bennett. East Underw 55:42+ My 7 '54; Nat Underw (Life ed) 58:26 My 7 '54; Weekly Underw 170:1175 My 8 '54; Life Ins Courant 59:48-9+ Je '54

Attitude needed by A&H insurers; reports before the H.&A. underwriters conference annual meeting. R. A. MacDonald; J. R. Williams. Nat Underw (Life ed) 48:35 My 7 '54; East Underw 55:54 My 7 '54; Weekly Underw 170:1177 My 8 '54

Maloney denies approval of Scripps-Howard series. Nat Underw (Life ed) 58:9 Mr 19 '54

Public relations dilemma facing the A.&H. industry; panel discussion at International A.&H. association annual meeting. East Underw 55:46 Je 18 '54

Public relations plan for A&H industry. J. F. Follmann, jr. Weekly Underw 170:1252+ My 15 '54

Public relations problems; abstracts. A. H. Thiemann. East Underw 55:47 S 17 '54; Nat Underw 58:10 S 16 '54; Nat Underw (Life ed) 58:6 S 17 '54; Weekly Underw 171:667+ S 18 '54

Public's A.&H. opinion necessary to mold public relations program; abstracts. R. A. MacDonald. East Underw 55:46+ Je 18 '54; Nat Underw 58:2 Je 17 '54; Nat Underw (Life ed) 58:5 Je 18 '54; Weekly Underw 170:1550 Je 19 '54

Scripps-Howard papers carry articles on A.&H. Nat Underw 58:2 F 25 '54; Same. Nat Underw (Life ed) 58:2 F 26 '54

What about your public relations? L. J. Kavanaugh. East Underw 55:48+ S 17 '54; Abstracts. Nat Underw 58:19 S 16 '54; Nat Underw (Life ed) 58:2 S 17 '54

Rates

N.Y. state insurance department releases guide for A.&H. forms and rates. East Underw 55:31+ Ja 29 '54

Reserves

Claim reserves. East Underw 55:40+ F 19 '54

Risks

Problems involved in underwriting transferred risks; abstracts. F. W. Clark. East Underw 55:43 F 19 '54; Nat Underw 58:17 F 11 '54; Nat Underw (Life ed) 58:8 F 19 '54

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Insurance, Accident —Aviation risks

Insurance, Accident —Travel risks

Statistics

1953 A.&H. results of 70 companies show volume up 18 per cent for ten months. East Underw 54:100+ D 11 '53

Policy year faults; virtues of accident year data. D. A. Tapley. Nat Underw 57:9 N 12 '53

Substandard risks

Employers Reinsurance ready with substandard plan; abstracts. F. P. Proper. East Underw 55:29 Ja 22 '54; Nat Underw 58:13 Ja 21 '54; Nat Underw (Life ed) 58:4 Ja 22 '54; Weekly Underw 170:245+ Ja 23 '54

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Experimentation in the writing of substandard risks; abstracts. J. M. Wickman. East Underw 54:47-8 N 13 '53; Nat Underw 57:16 N 4 '53; Nat Underw (Life ed) 57:11 N 20 '53

New impaired risk procedure inaugurated by the Inter-Ocean. East Underw 55:31 S 10 '54

Substandard health and accident insurance. S. Miller. Life Ins Courant 58:46-7+ D '53; Abstracts. East Underw 54:38 N 6 '53; Nat Underw 57:32 N 12 '53; Nat Underw (Life ed) 57:20 N 13 '53

Taxation

Accident and sickness benefits affected by new tax bill of 1954. T. J. Foley. East Underw 55:34 Ag 20 '54

Terminology

Hoosier Casualty drops claim from glossary as aid to A&H relations. Nat Underw (Life ed) 57:15 D 25 '53; East Underw 55:30 Ja 15 '54

Travel risks

Broadened accident policy announced by Continental Casualty; the Travelmaster. Weekly Underw 171:298 Ag 7 '54

Comprehensive trend in present travel accident policies; abstracts. J. M. Smith. East Underw 55:38 Ag 20 '54; Nat Underw 58:5+ Ag 19 '54

Continental's new VBT form; abstracts. East Underw 54:33 D 18 '53; Weekly Underw 169:1509 D 19 '53

See also

Insurance, Accident
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Wholesale insurance

Ideas that sell association group A&H. W. E. Coyle. Weekly Underw 170:937 Ap 10 '54

Market of millions. G. Wright. Life Ins Courant 59:56 O '54

New franchise accident and health plans by National of Philadelphia. Weekly Underw 169:102 Jl 11 '53

Rules on franchise cover; Maryland department issues definition. Weekly Underw 169:590 S 12 '53

California

California charges against W. C. Stone and Hearthstone dismissed by Maloney. East Underw 55:46 S 17 '54; Same abr. Nat Underw 58:1+ S 9 '54; Same abr. Nat Underw (Life ed) 58:1+ S 10 '54; Same abr. Weekly Underw 171:653 S 18 '54

California charges against Hearthstone co. arouse W. Clement Stone's ire. East Underw 54:42 Jl 10 '53; Same. Nat Underw 57:6B Jl 2 '53; Same. Nat Underw (Life ed) 57:3+ Jl 3 '53

California problems in A.&H. field. J. R. Maloney. Nat Underw 57:2 N 5 '53; Same. Nat Underw (Life ed) 57:6+ N 6 '53

Colorado

Good public points on A&H criticisms. H. Hutson. Nat Underw 58:17+ Mr 11 '54

Illinois

Income Indemnity being formed in Rockford, Ill.; elects officers, directors. East Underw 55:46 Ap 9 '54

Louisiana

Bureau companies clarified on Louisiana A.&H. bills. East Underw 55:27-8 Jl 30 '54; Nat Underw 58:19 Jl 29 '54; Nat Underw (Life ed) 58:2+ Jl 23 '54

Four A.&H. bills become law. East Underw 55:31 Jl 16 '54

New York (state)

A.&H. study urged, older age group; abstracts. J. F. Murphy. East Underw 55:62+ O 8 '54; Nat Underw 58:15-16 O 14 '54

North Carolina

Gold reluctantly takes wraps off A.&H. plan in North Carolina. Nat Underw 58:5 Ja 14 '54; Same. Nat Underw (Life ed) 58:4+ Ja 15 '54

Ohio

Governor Lausche hears complaints; orders A&H probe in Ohio. Nat Underw (Life ed) 58:18 Mr 5 '54; Same abr. Nat Underw 58:16 Mr 4 '54

Virginia

Virginia legislative group reports on study of abuses in A.&H. field. Nat Underw 57:12 S 10 '53; Same. Nat Underw (Life ed) 57:9 S 4 '53; Abstract. East Underw 54:36 S 11 '53

INSURANCE, Accountants' liability

Accountants' liability; coverages and forms. R. T. Wood. Spectator 162:64-5 S '54

INSURANCE, Accounts receivable

Accounts receivable. C. G. Blakely, 3d. Rough Notes 96:44+ S '53

Accounts receivable policy; analysis. Rough Notes 97:67-8 Jl '54

Announce accounts receivable and valuable papers and records policy. East Underw 55:32+ Mr 12 '54; Same. Weekly Underw 170:650+ Mr 13 '54; Same abr. Nat Underw 58:3 Mr 11 '54

New accounts receivable and valuable papers forms. Rough Notes 97:100+ Ap '54

New accounts receivable form. P. W. Scheide. il Rough Notes 97:25+ My '54

Sell valuable papers and accounts receivable. D. W. Lehrmitt. Weekly Underw 170:197 Ja 16 '54

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Crop insurance. H. C. Johnson. East Underw 55:21 Ap 23 '54

FCIC expansion, interest by private company, reported. C. S. Laidlaw. Nat Underw 58:20 Ap 22 '54

Welfare ideas may dominate federal crop insurance; abstracts. M. G. Herndon. East Underw 55:29 Ap 23 '54; Nat Underw 58:51 Ap 15 '54

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Federal crop insurance corporation
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INSURANCE, Aircraft damage

$125,000 loss on private planes at Great Bend, Kan. Nat Underw 58:4 Ja 14 '54

Use and abuse of C.A.B. accident investigating reports in civil actions arising out of aircraft accidents. P. Karr. East Underw 55:30 Ag 27 '54

INSURANCE, Airport public and property damage liability

Airport insurance problems presented in CAA booklet. Nat Underw 58:27 S 30 '54

INSURANCE, Apartment house tenant. See Insurance, Tenant

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Fine arts rates, rules, forms substantially revised by I.M.I.B. Nat Underw 57:17 Jl 23 '53

Market for fine arts insurance. Weekly Underw 170:1048 Ap 24 '54

INSURANCE, Automobile

Agents in stew over plans of General to form a new company known as Selective Fire & Automobile. Nat Underw 57:2 Ag 27 '53

Aim should be irresponsible driver. J. F. McComb. Nat Underw 58:17 Ja 21 '54

Auto competition is fight for survival. J. Brodhead, jr. Nat Underw 57:5+ O 29 '53

Auto competition tough as agents, insurers puzzle how to meet it. K. Force. Nat Underw 57:35-6+ Jl 9 '53

Auto cover plan of insurance industry is result of long study by underwriters. A. B. Hargert. Weekly Underw 170:414 F 13 '54

Auto line developments; abstracts. J. H. Bandy. Weekly Underw 169:799 O 3 '53; East Underw 54:38 O 2 '53

Auto underwriting changes; principal developments. Rough Notes 97:104+ Mr '54

Automobile insurance problems. C. F. J. Harrington. East Underw 54:40 O 9 '53

Automobile picture. J. A. Neumann. Nat Underw 58:49 O 7 '54

Better selling to hold auto business urged; trend of rates downward. W. B. Rearden. East Underw 55:1+ S 24 '54

Broader auto liability policy sought by agents. R. A. Duffus. East Underw 54:66+ D 11 '53

INSURANCE, Automobile—*Continued*

Brooklyn agents endorse voluntary auto cover plan and guest statute. East Underw 54:23 D 25 '53

Bureau not to modify production allowance on auto at this time. Nat Underw 57:13 D 17 '53

Bureau or non-bureau for auto? Michigan association panel session. Nat Underw 58:2+ Mr 4 '54

Companies and agents can solve auto problem. W. Leslie. East Underw 54:43 N 13 '53

Companies back voluntary auto program in New York. Nat Underw 58:1 Ja 28 '54

Companies study problems of merging fire, casualty in automobile field. Nat Underw 57:15+ O 22 '53

Competition tightens in Northwest insurance. Bsns W p 131 S 19 '53

Compulsory auto insurance fight is on again in New York; brokers' problems. J. A. Fink. Weekly Underw 169:1046 O 31 '53

Compulsory threat especially in N.Y.; abstracts. J. A. Neumann. Nat Underw 57:25+ O 1 '53; East Underw 54:21 O 2 '53

Concern of agents over auto competition revealed in recent NAIA-NBCU conferences. W. L. Clapp. East Underw 55:3+ pt 2 Je 25 '54

Definitions revised; private passenger automobile and commercial automobile affected. Weekly Underw 171:862 O 9 '54; Nat Underw 58:14 S 2 '54

Direct billing is trespass on agency system; auto merit rating. R. L. Inglis. Nat Underw 57:4 S 10 '53

Do you know which automobile endorsement to use? with chart. W. Sammis, jr. Rough Notes 96:26-7+ D '53

Far West agents approve classification system at joint meeting, Seattle. Weekly Underw 170:1117 My 1 '54

55 million motor vehicles giant problem. J. R. Moore. Weekly Underw 170:62-4 Ja 2 '54

Fundamental issues the industry must face. R. I. Catlin. Nat Underw 58:13+ F 18 '54

Future in casualty and property insurance; automobile problems; abstracts. E. Ewing. East Underw 54:53-4 O 2 '53; Nat Underw 57:1+ O 1 '53; Weekly Underw 169:818 O 3 '53

General of Seattle has new auto competitive vehicle. Nat Underw 57:2 Ag 20 '53

Greater New York brokers' association defends new auto proposal; gives objections to compulsory. D. N. Sugarman. East Underw 55:22 Ja 15 '54

Hawkeye-Security reorganizes Erie as deviating auto insurer. Nat Underw 58:17 My 6 '54

Insurance brokers' association opposes compulsory cover. Weekly Underw 170:243 Ja 23 '54

Insured to kill; abstract. R. H. Oppenheimer. Management R 42:224-5 Ap '53

Joint legislative committee on unsatisfied judgment funds and compulsory automobile insurance hearings, New York, Feb. 19-20. East Underw 55:32 F 26 '54; Weekly Underw 170:510 F 27 '54

Legislatures consider many bills on several classes of auto insurance. B. Jones. East Underw 54:29-30 Jl 24 '53

Long and lively discussion of auto situation, possible solutions at NAIA; panel discussion. Nat Underw 57:8+ O 8 '53

Major casualty lines problems; auto insurance issues; abstracts. L. S. McKown. Weekly Underw 169:877+ O 10 '53; East Underw 54:39+ O 9 '53; Nat Underw 57:1+ O 8 '53

Many state legislatures to tackle auto liability problems in 1954. East Underw 54:30 N 27 '53

Merit in new auto proposals; to stop compulsory threats. S. Rabin and others. East Underw 54:18+ O 23 '53

Merit rating as coming auto development. J. H. Bandy. Nat Underw 57:1+ O 22 '53

Modern merchandising meets competitive demands; abstracts. R. E. Farrer. East Underw 55:1+ My 14 '54; Weekly Underw 170:1201+ My 15 '54; Nat Underw 58:5+ My 20 '54

National association of independent insurers endorses voluntary insurance plan. East Underw 55:36 Mr 12 '54

National Bureau revises manual rules for auto bodily injury and property damage liability. East Underw 55:27 Ag 6 '54; Same. Weekly Underw 171:273+ Ag 7 '54; Excerpt. Rough Notes 97:114 S '54

New changes are made in auto casualty manual. Rough Notes 96:24+ Jl '53

New voluntary automobile insurance plan. M. Abramson and A. L. Schwab. East Underw 55:29 Ja 29 '54; Same abr. Weekly Underw 170:294 Ja 30 '54

New York state's compulsory auto plan; with discussion. J. F. Murphy. Nat Underw 58:2 F 11 '54

Overcoming competition in the automobile lines. A. F. Seelig. Rough Notes 97:26-7+ O '54

Pertinent observations at mid-year on casualty and automobile insurance trends. East Underw 54:26 Jl 24 '53

Rural agent and auto insurance. B. Phelan. Spectator 161:26-7+ O '53

Settle insurance law on merit. H. S. Moser. East Underw 55:36 F 26 '54

Simplification of auto policy handling necessary as direct writer cure; abstracts. J. M. Cahill. East Underw 55:34 Je 4 '54; Nat Underw 58:26 Je 10 '54; Weekly Underw 170:1410 Je 5 '54

Speedy youngsters; study on age of drivers violating speed limit in Lincoln; with tables. Spectator (Endorsement no) 162:64-5 Ag '54

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Auto claims problems of the police property clerk in New York city. F. Leucci. East Underw 55:33 Mr 19 '54

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Liability coverage does not give child right to sue parents; Donald Levesque vs Laurent Levesque. Nat Underw 58:20 Jl 22 '54

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Revised garage risk rates announced for National Bureau companies. East Underw 55:29 Jl 2 '54

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Thorough investigation is vital in handling automobile garage liability losses. O. B. Sullivan. Weekly Underw 170:159, 211-12, 264, 324 Ja 9-30 '54

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Eye claim problem on government cars. Nat Underw 58:47 Mr 18 '54

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Auto extended medical payments ready Jan. 4 for both stock, mutual companies. East Underw 55:22 Ja 1 '54; Nat Underw 57:19 D 31 '53; Weekly Underw 170:5+ Ja 2 '54

Extended medical payments; coverage. Rough Notes 97:48-9 Ap '54

Hardware Mutuals give added protection without rate increase. Weekly Underw 170:142 Ja 9 '54

In use test applied in case involving medical payments coverage; Trachtenberg v. Home indemnity co. Weekly Underw 169:189 Jl 18 '53

Medical payment coverage; Severson vs. Milwaukee auto insurance co. L. A. Burke. Spectator 162:73-4 My '54

Medical payment provision of auto policy construed; Wolf v. American casualty co. Spectator 162:83 S '54; Weekly Underw 170:1503 Je 12 '54

Medical payments cover broadened by all insurers. Nat Underw 57:2 N 12 '53

New automobile extended medical payments insurance. W. H. Brewster. Weekly Underw 170:986 Ap 17 '54

New medical payments form. il Rough Notes 97:31 Mr '54

Oklahoma turns down plan of Allstate for excess extended medical payments. Nat Underw 58:7 Ap 29 '54

Points up need, bargain of medical payments. E. J. Gallagher. Nat Underw 58:19 My 13 '54

State Farm Mutual offers broad auto medical cover; now approved in 29 states. East Underw 54:33 N 27 '53; Nat Underw 57:2A N 26 '53

Nonownership policies

Most commercial lines need auto non-ownership cover. S. S. Pond. Rough Notes 96:19+ Ag '53

Strong argument for non-owner auto liability. Weekly Underw 170:726 Mr 20 '54

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A.&H.-gasoline sales tie-in is going over big in California. Nat Underw 57:6 Ag 6 '53

Approve six-month policy of Kemper companies. V. J. Ebaugh. Weekly Underw 169:1171 N 14 '53

Automobile liability policy; analysis; underwriting. Rough Notes 96:99-101 N '53

Court says State Farm's renewal notice extends period of coverage. Nat Underw 57:27 D 10 '53

Hidden values aid sales of automobile liability form. A. M. Battistini. Rough Notes 97:29+ Mr '54

North Carolina insurance department approves six-month policy. East Underw 55:14 Ja 1 '54; Nat Underw 57:19 D 31 '53

Offers cover-all auto package policy, illustrated; United Fire & Casualty, Cedar Rapids. Nat Underw 58:17 Jl 29 '54

Use of six month policy eliminates objections, gains advantages. Nat Underw 58:19 Mr 18 '54

Using six-month auto policy. East Underw 54:32 Jl 10 '53

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Deductible PD and BI policy does not fulfill requirements of Texas responsibility law. East Underw 54:30 Ag 21 '53

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Accident prevention for your local insurance board. W. O. Burns. il Rough Notes 97:24-5+ Mr '54

Accomplishments in traffic safety field, 1953. H. P. Jackson. Weekly Underw 170:66-9+ Ja 2 '54

Aetna Drivotrainer given strong endorsement. R. J. O'Connor. Weekly Underw 169:1050 O 31 '53

Aetna film on safe driving shows latest methods. East Underw 55:42 Ap 16 '54

Agents' traffic safety awards presented at NAIA convention. East Underw 55:38 O 15 '54; Nat Underw 58:52 O 7 '54

Auto theft bureau does fine work; how agents can help to make car stealing more difficult. E. N. Eager. East Underw 54:69 D 11 '53

California association wins top traffic safety award. T. N. Boate. East Underw 54:43 O 2 '53

C.&S. companies make state awards for driver training program. East Underw 54:38 S 4 '53

Commends insurance federation for auto inspection efforts; New York's traffic courts. J. M. Murtagh. Weekly Underw 169:1352 D 5 '53

Downward auto accident trend in New York state communities. R. A. Allen. East Underw 55:28 Jl 2 '54

Driver education is one way to cut traffic accidents. N. H. Dearborn. Rough Notes 97:32+ S '54

Driver education on secondary level needed. T. N. Boate. East Underw 55:26 O 1 '54

Effort by state officials necessary to meet bad accident situation. J. D. Dorsett. Weekly Underw 169:1175 N 14 '53

Enforce traffic law, tighten responsibility act. J. B. Donovan. Nat Underw 57:54 O 1 '53

First Aetna Drivotrainer installed at Oak Park, Illinois high school. East Underw 54:35 N 6 '53

Five-point plan to eliminate unsafe drivers; calls for inspections. R. I. Catlin. East Underw 54:111 D 11 '53; Same. Weekly Underw 169:1289+ N 28 '53; Same abr. Nat Underw 57:9-10 N 26 '53

High school driving instruction meeting real success; New York City school system. Weekly Underw 169:171 Jl 18 '53

Highway accidents can be reduced; Slow down and live campaign. T. N. Boate. Weekly Underw 171:525 S 4 '54

Highway safety; Insurance industry committee on motor vehicle accidents meeting, Elmira, N.Y., April 21-22. East Underw 55:36 Ap 23 '54; Weekly Underw 170:1041 Ap 24 '54

Highway safety plea; year's driving suspension for reckless and drunken drivers recommended; abstracts. H. P. Jackson. Weekly Underw 169:876+ O 10 '53; East Underw 54:38 O 9 '53

Highway toll, self-sabotage; business cooperation needed. J. D. Dorsett. East Underw 55:43-4 S 17 '54

Industry committee's work to be feature of CBS show. East Underw 54:32 D 18 '53; Weekly Underw 169:1501 D 19 '53

Insurance motor vehicle accident committee publishes complete traffic ordinance. East Underw 55:29 Ag 13 '54; Same abr. Weekly Underw 171:578 S 11 '54

Insurers aid city in traffic accident cut in Saratoga Springs. Nat Underw 58:20 F 18 '54

Jacksonville, Fla., has best traffic control; wins C.&S. association 1953 award. East Underw 55:40 Ap 9 '54

Look who's driving given its big premier showing; Aetna Casualty's new safety motion picture film. il Weekly Underw 170:192 Ja 16 '54

Making auto safety effective; Automobile association of New Jersey and Atlantic casualty insurance co. B. Burstein. il Spectator 162:40-1+ My '54

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Motor accident program is further expanded. T. N. Boate. East Underw 54:32 Jl 10 '53; Same. Weekly Underw 169:102 Jl 11 '53

Mutual agents to seek for survey of drivers. Weekly Underw 169:326 Ag 8 '53

NAIA annual meeting; traffic, fire safety sessions. Nat Underw 57:30+ O 1 '53; East Underw 54:22+ O 2 '53

Need for more police to handle traffic; Pennsylvania. P. H. Blaisdell. East Underw 55:44 S 17 '54; Same abr. Weekly Underw 171:866 O 9 '54

Public wants industry auto accident campaign. East Underw 55:33 Ap 23 '54

Request agents to assist safety drive in Wisconsin. W. J. Kohler, jr. Weekly Underw 169:323 Ag 8 '53

Safety coordinators' resolution honors Association of casualty and surety companies. East Underw 54:25 D 25 '53

Sixteen New York cities act to lower accidents. East Underw 54:29 Jl 31 '53

Slow down and live drive hailed by safety experts. T. N. Boate. Weekly Underw 171:34-5 Jl 3 '54; Same. East Underw 55:31 Jl 2 '54

Speed control program brings definite results; Casualty and surety association highway safety project. East Underw 54:42 N 13 '53

Sweden first foreign nation to adopt Aetna Drivotrainer method. East Underw 55:9 Ag 27 '54; Same abr. Weekly Underw 171:350 Ag 14 '54

Traffic safety study urged in New York state. W. A. Cutter. East Underw 55:34 F 12 '54

Travelers' The passing scene gives reminder of 1953 highway deaths. East Underw 55:42 Ap 16 '54

Unified attack on car accidents; industry committee program. C. A. Sitts. East Underw 55:30 O 1 '54

White House conference praises industry aid. East Underw 55:41 F 26 '54

Rates

Auto association makes changes in three more states; California, New Mexico and Wyoming. East Underw 54:1+ Ag 7 '53

Auto liability rates revised in Alaska, Puerto Rico. Nat Underw 58:14 Ja 28 '54

Auto material damage rates reduced in Washington. Nat Underw 57:4 Ag 27 '53

Auto physical damage down in Pennsylvania; $4,340,000 saving due. Nat Underw 58:13 Jl 8 '54

Auto physical damage rates are cut in New Hampshire and Maryland. East Underw 55:26 Jl 9 '54

Auto PHD rates cut in Florida, Indiana, Ohio. Nat Underw 58:8 S 9 '54

Auto physical damage rates down in Oklahoma, Nebraska. Nat Underw 57:6A Jl 2 '53

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Auto rate changes made in New Jersey. East Underw 54:28 S 11 '53; Same. Weekly Underw 169:670 S 19 '53

Auto rate changes; Nebraska and Saskatchewan. Rough Notes 97:104 Ap '54

Auto rate revisions are filed in Ohio. East Underw 54:27 O 23 '53

Auto rate revisions filed in Maryland. East Underw 54:25 N 6 '53

Auto rate revisions in Rhode Island and Vermont. East Underw 54:22 Ag 14 '53; Abstract. Nat Underw 57:7 Ag 20 '53

Auto rates lower in Florida. East Underw 54:69 D 11 '53

Auto rates shift in Kentucky and Wisconsin. Rough Notes 97:111-13 My '54

Automobile association revises California rates and rules. Weekly Underw 169:367 Ag 15 '53

Automobile physical damage rates reduced in New Jersey, Massachusetts. East Underw 55:17 Ag 27 '54

Automobile rate changes indicated in Texas. Weekly Underw 170:919 Ap 10 '54

Automobile rate revisions made in Connecticut, Delaware and District of Columbia. East Underw 54:26 Jl 31 '53; Abstract. Nat Underw 57:23 Jl 30 '53

Bureaucrats override management intuition and working guts. I. J. Maurer. Nat Underw 57:2 S 24 '53

Car insurance goes down for many. Bsns W p28 S 5 '53

Change in auto physical damage rates and rules in West Virginia. East Underw 55:36 Mr 5 '54

Compulsory auto rate cut is due in Massachusetts; recommended by companies for 1955. J. O'Connor. East Underw 55:28-9 S 3 '54

Credit for cover when automobile temporarily changes territory in New York. Nat Underw 58:13 Ap 29 '54

Denounce uniform rates in Mississippi. East Underw 55:38 Mr 12 '54; Nat Underw 58:4 Mr 4 '54

Fireman's Fund files deviation on auto rates in Washington. Nat Underw 57:2 Jl 16; 2 Jl 23 '53

Illinois NAUA square off on PHD rates. Nat Underw 58:1+ Ag 19 '54

Illinois turns thumbs down on 20 per cent auto liability rate boost. Nat Underw 58:1 Ja 28 '54

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Kentucky rate changes. East Underw 55:37 Ap 9 '54

Massachusetts auto rate proposal; attempt to have legislative session reduce liability rates. East Underw 54:54 O 2 '53

Massachusetts automobile rates revised by underwriters. Weekly Underw 169:663 S 19 '53

Massachusetts hearing on '55 rates dullest in years. East Underw 55:54 O 8 '54

Massachusetts, New Hampshire, Maine auto physical damage rate changes. East Underw 54:26 S 4 '53

NAUA rate decreases are made in Connecticut, Delaware and District of Columbia. East Underw 55:27 Je 4 '54

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NBCU classifications lower California rates. W. Leslie. East Underw 54:36 O 9 '53

New auto rate plan OK'd in more states; Kavanaugh relents. Nat Underw 57:22 S 24 '53

New auto rates approved in several states according to NAUA. Rough Notes 96:95 D '53

New auto rates in Kansas, Arkansas, and Vermont. Nat Underw 57:6 O 29 '53

New NAUA rates in Florida, Missouri, Minnesota. Nat Underw 57:10 N 19 '53

New National bureau auto classification plan widely OK'd in several states. Nat Underw 57:16 S 17 '53

New York auto physical damage rates revised to bring $6,000,000 cut. East Underw 55:30 Je 25 '54; Nat Underw 58:7 Je 24 '54

Ohio's two bureaus expected to end auto rate war. Nat Underw 57:10 N 12 '53

Quarter century of compulsory auto liability insurance in Massachusetts; ratemaking and legal aspects. R. A. Cutter. East Underw 54:29+ Ag 28 '53

Revised auto rates and rules filed in Nebraska. Weekly Underw 169:10 Jl 4 '53; Same. East Underw 54:26 Jl 3 '53

Revision of automobile rates made for District of Columbia. Weekly Underw 169:423 Ag 22 '53

Revisions in auto physical damage rates, rules made in Pennsylvania. East Underw 54:23 D 25 '53

Saskatchewan; government auto fund tries to get out of hole by selling less for more. Nat Underw 58:20 Mr 4 '54

Small town agents support rate revision to meet auto competition; abstracts. B. W. Phelan. East Underw 54:26 O 2 '53; Nat Underw 57:46 O 1 '53

State Farm appeals Louisiana rejection of 25 per cent deviation in auto rates. Nat Underw 58:26 Mr 4 '54

Texas auto rates revised. East Underw 55:40 Ap 16 '54; Nat Underw 58:51 Ap 15 '54

20 revisions made in rating bureaus' manuals on bodily injury, property damage liability. Nat Underw 58:2+ Ag 5 '54

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Washington insurance department approves reduction in auto rates. Weekly Underw 169:462 Ag 29 '53

Youngstown agents demonstrate how a city can make its own auto rates. Nat Underw 58:17+ Jl 8 '54

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Allstate denied plan for class deviations in North Carolina. Nat Underw 58:3 Mr 4 '54

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American Casualty using no-accident credit plan introduced in Pennsylvania. East Underw 55:27+ Ja 15 '54; Abstract. Nat Underw 58:4 Ja 21 '54

American policyholders to reward good drivers; Superintendent Bohlinger would reward safe drivers; New York. Weekly Underw 169:320 Ag 8 '53

Auto classes changed to set new rates; with table of new rates for Washington. J. J. Robinson. Spectator 161:32-3 O '53

Auto liability classification plans. F. P. Birchard. East Underw 54:106+ D 11 '53

Auto merit rating system set up by new law in Massachusetts. Nat Underw 57:3 Jl 9 '53

Automobile liability insurance; abstracts. W. O. Bailey. Nat Underw 57:12+ N 19 '53; East Underw 54:38 N 20 '53; Weekly Underw 169:1232 N 21 '53

Bureau OKs new auto class plan; to file at once. Nat Underw 57:1+ S 3 '53

Case against compulsory auto cover; political rate-making; abstracts. H. S. Moser. East Underw 54:22+ O 30 '53; Nat Underw 57:1+ O 29 '53

Class plan okayed for use in Georgia. Nat Underw 58:20 Ap 29 '54

Classification plan adopted for Massachusetts compulsory cover. Nat Underw 57:13 S 17 '53

Colorado official rejects Bureau plan. L. J. Kavanaugh. East Underw 54:32 S 11 '53; Same. Nat Underw 57:1 S 10 '53

Competition in the automobile insurance field. S. A. Bell. East Underw 55:34 Jl 2 '54

Compromise auto plan to break impasse. East Underw 54:28 Ag 28 '53

Court action in North Carolina on Allstate's auto deviation indicated. Nat Underw 57:3-4 D 17 '53

Credit for accident free records urged by agents; Washington association. Weekly Underw 169:1556 D 26 '53

Critics after new demerit plan in Massachusetts. R. Parker. Nat Underw 58:20 F 18 '54

Discuss ideas on auto competition with producers. Nat Underw 57:1-2 Ag 13 '53

Engelman's new approach to auto liability rating. East Underw 54:28 D 25 '53

Experience corroborates seven-classification plan. J. R. McWilliams. East Underw 55:34 My 14 '54; Same. Weekly Underw 170:1201+ My 15 '54; Abstract. Nat Underw 58:10 My 13 '54

Farm Bureau Mutual Auto reveals new rate plan. East Underw 55:35 Ja 22 '54

Fire & Casualty of Connecticut merit plan approved in Florida. Nat Underw 58:22 Ja 28 '54

Florida agents bulletins analyze new auto merit rating plan. Nat Underw 58:14 Mr 18 '54

Gold rejects NAUA formula in North Carolina. Nat Underw 58:5 My 13 '54

How you can sell the new bureau classification plan. R. Newman. Rough Notes 97:30+ Mr '54

Indianapolis papers greet new auto rates with boos. Nat Underw 58:5 Ja 7 '54

Louisiana changes from flat auto rate to three-class plan Oct. 1. J. F. McMeel. East Underw 54:38 S 11 '53

Massachusetts auto driver demerit plan implemented. Nat Underw 57:29 S 10 '53

Massachusetts to rate auto on age and use plan. East Underw 54:32 N 6 '53

Merit dividend plan for claim-free risks. C. E. Hodges. East Underw 54:25 Ag 7 '53

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More and more auto rate balls are pitched in air; non-bureau companies. Nat Underw 57:9 O 15 '53

National bureau ranks in ferment over what to do competitively in auto field. Nat Underw 57:1, 14 Jl 30 '53

New Allstate deviation for North Carolina. Nat Underw 58:26 S 30 '54

New auto classes after six months; NBCU appraisal of operation of plan. Spectator 162:38+ Mr '54

New auto plan proposed; company-agent commission arrangements. D. B. Kinnamon. Rough Notes 96:42+ O '53

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New classification plan for auto OK'd in Ohio, Nebraska, West Virginia. Nat Underw 57:4A N 19 '53

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New plan of classifying private passenger automobiles; evolved by National bureau. Rough Notes 96:99-101 O '53; East Underw 54:32 S 4 '53; Weekly Underw 169:548+ S 5 '53

New private passenger auto bodily injury and property damage rating plan approved by New Jersey; abstracts. W. Leslie. East Underw 55:24+ Ag 27 '54; Weekly Underw 171:456 Ag 28 '54

New York, New Jersey adopt seven-class auto BI-PDL. Nat Underw 58:11 Ag 26 '54

New Zurich-American merit plan explained; abstracts. N. Pilling. East Underw 54:50 O 16 '53; Nat Underw 57:3 O 8 '53; Correction. 57:4 O 15 '53

Ohio association of insurance agents meeting, Toledo; position of National bureau on auto rates. Nat Underw 57:33-7 O 15 '53

Operator basis for auto liability rejected by NAIC joint industry committee. East Underw 55:44 Je 11 '54

Oppose Allstate auto deviation in North Carolina. Nat Underw 58:6 S 2 '54

Pennsylvania, Oregon get new classification plan. Nat Underw 57:16 D 24 '53

Private passenger seven classification rating plan approved by New York dept. A. J. Bohlinger. East Underw 55:31 Ag 20 '54; Same abr. Weekly Underw 171:401 Ag 21 '54

Producers offer 14 "auto economy" ideas; company men are receptive. East Underw 54:28 O 23 '54

Producers oppose merit rating. S. W. Lebens. Weekly Underw 170:173+ Ja 16 '54; Same abr. Nat Underw 58:2 Ja 14 '54

Q.&A. on risk situation throw light on auto classification plan. Nat Underw 57:15+ O 29 '53

Risk distribution under new auto plan is studied. J. M. Muir. Nat Underw 57:14 N 26 '53

Sizeup of auto merit rating plan. R. I. Mehr. East Underw 54:29 Ag 7 '53

Status of new auto class plan in New York still uncertain. Nat Underw 57:2A-2B N 26 '53

Use new auto rate plan with real concern. N. C. Flanagin. Nat Underw 57:12 S 17 '53

Vote on refined auto class plan at National Bureau. Nat Underw 57:1 Ag 27 '53

Warning on future of auto classification plans. S. A. Bell. Nat Underw 58:5 Je 3 '54

West Virginia discussion on territories for auto BI and PDI. Nat Underw 58:29 F 18 '54

Zurich-American will develop own auto plan; abstracts. N. Pilling. Weekly Underw 169:872 O 10 '53; East Underw 54:36 O 9 '53

Zurich gratified by field response to its automobile merit plan. East Underw 55:13 pt 2 Je 25 '54

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Mr Underwriter, does your slip show? class two business. L. Cartwright. Spectator 162: 50-1 Ap '54

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Meaning of theft in automobile policy construed by California court; Hayes v. Financial indemnity co. Weekly Underw 169:292 Ag 1 '53

Thefts; outstanding problems. C. Black. East Underw 54:41 O 16 '53

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California insurer makes deal with unsatisfied judgment patent holder. Nat Underw 58:4 Ag 19 '54

File unsatisfied judgment coverage endorsement; effective in Washington state. Weekly Underw 171:301 Ag 7 '54

Insurer plan to let UJ copyright holder make the first move. Nat Underw 58:3 Jl 29 '54

Much interest in business in auto UJ cover now being written. Nat Underw 58:4+ Ag 5 '54

Unsatisfied judgment insurance offered; Motorists mutual insurance co., Columbus, Ohio. East Underw 55:32 Ap 30 '54; Nat Underw 58:5 Ap 22 '54; Spectator 162:44 Je '54

Why company won't write UJ coverage; Employers Mutual Casualty of Des Moines. J. W. Gunn. Nat Underw 58:10+ Ag 19 '54

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Auto legislation alternative schemes. P. S. Wise. Nat Underw 57:1+ N 26 '53

California company presidents propose unsatisfied judgment program. East Underw 55: 36 My 14 '54

New Jersey collects $2,230,716 towards unsatisfied judgment fund; abstracts. W. J. Dearden. East Underw 55:34 Je 4 '54; Nat Underw 58:22 My 27 '54

Unsatisfied claim and judgment fund law takes effect April 1 in New Jersey. W. A. Dearden. East Underw 55:32+ S 24 '54

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Bureau auto classification plan greeted with mixed feelings in California. Weekly Underw 169:680-1 S 19 '53

California companies committee continues study of irresponsible driver. East Underw 55:34 Jl 2 '54

Three-point program offered by California automobile insurers. Nat Underw 57:30 S 3 '53

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$85,000,000 for highway toll; lauds companies' safety measures, Canada. C. Curtis. East Underw 55:36 Je 11 '54

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Florida agents issue two more bulletins on auto problems. Nat Underw 58:2+ Ap 22 '54

NAIA leaders condemn automobile plan tried in Florida. East Underw 55:1+ Ap 23 '54

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Indiana commissioner orders stop to deliberate underwriting deviations. Weekly Underw 170:1390 Je 5 '54

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Louisiana backs State Farm plan. East Underw 55:28 S 17 '54; Nat Underw 58:4 S 9 '54; Weekly Underw 171:589+ S 11 '54

Louisiana okays auto cut by State Farm but disapproves fees. Nat Underw 58:8 Ap 22 '54

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Automobile insurance in Massachusetts. D. M. Walsh, jr. Nat Underw 58:35 Mr 4 '54

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Tight auto market; situation now critical. M. Rakofsky. East Underw 54:31-2 S 25 '53

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Asks extension of auto protection to uninsured motorist. A. C. Deisseroth. East Underw 55:26+ My 7 '54

Huddle on industry platform in N.Y. auto fight; industry sub-committee, Association of casualty and surety companies. Nat Underw 57:1 O 1 '53

New plan for coverage in New York against uninsured motorist. V. Lemmon. Weekly Underw 169:1163+ N 14 '53

New York department still favors auto compulsory and assigned case plan; highlights of Superintendent Bohlinger's report to the 1953 legislature; abstracts. Nat Underw 57: 3+ Ag 13 '53; East Underw 54:26 Ag 14 '53

N.Y. legislators, continue to eye auto capacity. Nat Underw 57:6 Jl 2 '53

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North Carolina

Auto cover leaps in North Carolina with a new financial responsibility law Jan. 1. Nat Underw 58:30 Ja 14 '54

North Carolina commissioner rejects collision policy. Weekly Underw 169:1486 D 19 '53

Six-month physical damage liability auto policy weighed by Gold of North Carolina. Nat Underw 57:3 D 24 '53

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Ohio's two bureaus expected to end auto rate war. Nat Underw 57:10 N 12 '53

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Hits super classification system for auto in Portland talk. R. B. Taylor. Nat Underw 57:9+ S 3 '53; Abstract. Weekly Underw 169:610+ S 12 '53

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Territorial definitions are changed for West Virginia. W. Leslie. East Underw 54:26 Ag 7 '53

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Aviation is changing insurance. W. H. Rodda. Weekly Underw 169:1246+ N 21 '53

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Chicago may give nod to two air policy vending plans. Nat Underw 57:13 Ag 20 '53

Compulsory liability for aircraft even more unwarranted than for motor cars. M. Abramson. Nat Underw 57:12-13 Ag 27 '53; Same cond. East Underw 54:30+ Ag 28 '53; Excerpts. Weekly Underw 169:480-1 Ag 29 '53

Expect helicopter use to expand in post-Korea days. Nat Underw 57:15, 23 S 3 '53

How to write aircraft non-ownership liability. Rough Notes 97:48+ O '54

Insurance, companion of aviation; interview with R. M. Chambers. E. M. Ackerman. Weekly Underw 169:1241+ N 21 '53

Insurance guaranteed aviation success. J. H. Doolittle. Weekly Underw 169:1242 N 21 '53

Legislation affecting liability of aeronautical operations; abstracts. R. W. Galiher. East Underw 55:30 Ag 27 '54; Nat Underw 58:13+ Ag 19 '54

Liabilities of air lines. Economist 168:590+ Ag 29 '53

Mutual of Omaha's computer brain installed in 75 large airports through Tele-Trip policy co. il East Underw 55:30 Ja 8 '54

Quarter century anniversary observed by United States aircraft insurance group. E. M. Ackerman. Weekly Underw 169:84 Jl 11 '53

Revise Warsaw convention regarding liability limit. Weekly Underw 169:942 O 17 '53

Revisions in aviation insurance law on liability should be opposed. G. W. Orr. Weekly Underw 169:543+, 606-8 S 5-12 '53; Abstract. Nat Underw 57:18-19 S 3 '53

$6,500,000 hull insurance placed on Boeing jet aircraft, all time high on one plane. il Weekly Underw 170:1590 Je 26 '54; Same. East Underw 55:26 Jl 2 '54

Wright brothers would be astounded at many factors aiding aviation growth; prepared by Associated aviation underwriters. Weekly Underw 169:1248-9 N 21 '53

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Appeals court upholds non-scheduled flight; Fidelity & casualty co.-Marion E. Lachs case. East Underw 55:31 Mr 12 '54; Nat Underw 58:37 Mr 11 '54

Care, custody and control and use construed in federal aviation case; Saltzman v. Great American indemnity co. of New York. Weekly Underw 170:160 Ja 9 '54; Nat Underw 58:5+ Jl 29 '54

Fidelity and casualty loses first round in issue on non-sked cover. Nat Underw 57:4 Jl 2 '53

Limitation of liability under Warsaw convention an issue in aviation case; American smelting & refining co. v. Philippine air lines. Weekly Underw 171:51 Jl 3 '54; Nat Underw 58:2 Jl 8 '54

Coverage

Basic aviation coverages and how you can sell them. il Rough Notes 97:32+ Ap '54

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Aviation experience presented for policy years, 1948-1952 inclusive; table by lines. East Underw 54:28 S 4 '53; Same. Nat Underw 57:18 S 10 '53

Aviation volume up about ten per cent in '53, leveling off in '54. Nat Underw 58:1 Jl 29 '54

Five-year experience of stock companies writing aviation lines summarized; table. Weekly Underw 170:46 Ja 2 '54

Stock company aviation results shown for 1949-53; table compiled by Company service corp. as statistical agent of New York insurance department. Nat Underw 58:5 S 2 '54

History

First airplane trip policy in U.S. issued by Travelers. Weekly Underw 169:1252 N 21 '53

First aviation policies issued by the Travelers. Weekly Underw 169:1550 D 26 '53

Policies

Human life liability value is number one problem of legal committee of International civil aviation organization. Weekly Underw 169:473 Ag 29 '53

See also

Insurance, Accident —Aviation risks

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Aviation makes big strides in safety. J. Lederer. Weekly Underw 169:1243+ N 21 '53

Rates

Air trip rates reduced by Continental Casualty. East Underw 55:35 F 19 '54

Risks

Jet transports may bring exposures for underwriters up to $15,000,000; abstracts. W. J. Van Hoven. East Underw 55:23+ Ag 27 '54; Nat Underw 58:9 Ag 19 '54; Weekly Underw 171:395+ Ag 21 '54

War risks

Doubt as to federal air war risk insurance program being available. East Underw 54:27 N 6 '53

House group refuses to approve government air war risk binder plan. East Underw 55:37 Ap 9 '54

INSURANCE, Bailees' customers

Bailee prospects are many. J. D. Fort. Rough Notes 96:52+ S '53

Bailees' customers insurance sales possibilities. P. W. Scheide. East Underw 54:25 O 23 '53

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Trust and commission clause penalizes bailee insured, needs revision. Nat Underw 58:3+ Jl 1 '54

INSURANCE, Beauty parlor liability. See Insurance, Malpractice liability

INSURANCE, Boiler

Boiler and machinery experience, 1953; table compiled by New York department. Nat Underw 58:15 Ag 26 '54

Boiler and machinery insurance hits peak, 1953. L. B. Brainerd. Weekly Underw 170:74-5 Ja 2 '54

Boiler and machinery insurance pays the insured for various damages; illustrations with text. Rough Notes 97:31 S '54

Boiler and machinery plan in Texas. East Underw 55:41 My 14 '54

Boiler and machinery policy. A. G. Jeter. il Rough Notes 97:28-9+ S '54

Improved boiler coverage. Rough Notes 96:99 S '53

We sell the accident prevention service first. B. R. Horwich. il Rough Notes 97:30+ S '54

INSURANCE, Builders' risk

New type substructure of cement will ease insurers' fears of taking piers. Nat Underw 57:12+ S 10 '53

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Uninsured contractor can't sue on owner's policy; U.S. court of appeals. Nat Underw 57:6 O 15 '53

INSURANCE, Burglary

Burglary protection for professionals. W. C. Leavitt. Weekly Underw 171:526 S 4 '54

How the underwriters can help brokers write more burglary business. S. Krasnoff. Weekly Underw 170:369-71 F 6 '54; Abstracts. East Underw 55:34 F 12 '54; Nat Underw 58:35 F 18 '54

Jaffe burglary forum attracts 340 brokers; value of records and destruction and accounts receivable coverages; abstracts. T. P. Whelehan. East Underw 54:39 N 20 '53; Weekly Underw 169:1216 N 21 '53

Revises bank section of burglary manual. East Underw 54:30 D 18 '53

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Coverage for a subsidiary corporation. Spectator 161:69 O '53

Coverage of robbery policy construed by New York municipal court; Thomas J. Atkins & his five sons, ltd., v. Massachusetts bonding & insurance co. Weekly Underw 170:1256 My 15 '54

Forcible entry requirement of burglary policy; New Jersey display service, inc. case. L. A. Burke. Spectator 162:65-6 O '54

Lack of force and violence makes burglary policy inapplicable; Professional metals mfg. co. v. Maryland casualty co. Weekly Underw 171:486 Ag 28 '54

Mercantile open stock burglary policy; Matusek academy of music v. National Surety. Spectator 161:42 Ag '53

Powers of general agent an issue in Ohio burglary case; Coletta v. Ohio casualty insurance co. Weekly Underw 171:894 O 9 '54

Theft of employes' money covered by policy; Ever Krisp Food Products v. New Amsterdam Casualty. L. A. Burke. Spectator 162:87-8 Mr '54

Coinsurance

How to sell open stock. Rough Notes 96:42+ Ag '53

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1953 experience on burglary and glass compiled by New York department; tables. Nat Underw 58:34 Ag 19 '54

Policies

Revised mercantile open stock and broad form money and securities policies on market. East Underw 55:36+ Je 11 '54; Same cond. Nat Underw 58:1+ Je 10 '54; Excerpts. Weekly Underw 170:1470 Je 12 '54

Preventive work

How property owners may protect themselves against burglary, theft; crime situation in New York city. H. S. Daynard. East Underw 55:30 Ap 23 '54; Same. Weekly Underw 170:1114-15 My 1 '54

INSURANCE, Business

Bidding for executives is lively, high; insurance sweetens salary. Bsns W p 120+ S 26 '53

Broker has his foot in a gold mine but doesn't know it. S. Lesser. Nat Underw (Life ed) 57:14 O 30 '53

Business cycle sells insurance. W. T. Kiefer. Life Ins Courant 58:11-12 Ag '53

Business insurance and estate planning. J. A. Appleman. Spectator 162:80-2 O '54

Business insurance; experiences as a life underwriter. W. A. Esry. Life Ins Courant 59:15-16+ Je '54

Business insurance today. C. B. Chase. Life Ins Courant 58:17+ D '53

Business insurance; untapped market in heirs apparent and close corporations; panel discussion. Nat Underw (Life ed) 58:4+ My 21 '54

Business interest in estate planning discussed at New York CLU chapter Estate planner's day. Nat Underw (Life ed) 58:3+ F 5; 4, 16-18 F 12 '54

Ease with which business life cover can be sold. E. D. Haseltine, jr. Nat Underw (Life ed) Daily ed 58:10+ S 24 '54

Estate planning for businessmen. W. G. McKenny, jr. Weekly Underw 171:538 S 4 '54

Five steps to business life solicitation. F. Gillis. Weekly Underw 171:674 S 18 '54

Funding agreements of buy and sell nature; methods of using insurance. H. S. Redeker. East Underw 54:31 D 11 '53

Good sales talk for business men prospects. Rough Notes 96:78-9 N '53

Ideas that sell key man insurance. H. P. Gravengaard. Nat Underw (Life ed) 58:20 Ag 6 '54

Indirect selling. W. F. Brooks. Weekly Underw 171:810 O 2 '54

Key-man group disability policy; coverages and forms. Spectator 161:62-3 S '53

Knowledge of profit factors called key to selling business insurance cases. Z. W. Finberg. Nat Underw (Life ed) 58:19-20 S 10 '54

Panel on business insurance held under auspices of Chicago life underwriters association. G. F. Griffin and others. East Underw 54:36-7 pt 2 S 25 '53

Plan now to keep oil jobberships alive. Nat Pet N 45:24-5+ D 2 '53

Sale of business insurance. J. P. Graham, 3d. East Underw 54:82 pt 2 S 25 '53

Selling A & S to meet business needs. C. F. Bartlett. Life Ins Courant 59:28-9 Ag '54; Same. Weekly Underw 171:606 S 11 '54

Selling sole proprietorships. P. B. Strom. Life Ins Courant 59:46-7 My '54

Simple procedure to sell substantial policies in close corporation cases. E. G. Davies. Nat Underw (Life ed) 58:10 Jl 30 '54

Some random thoughts for the business insurance close. S. Huber. Life Ins Courant 58:13-14 S '53

Some tax consequences of life insurance transfers. W. W. Wynne. Trusts & Estates 92:629-30+ S '53

Split-dollar boosters are undeterred by adverse ruling. D. B. Maduro. Nat Underw (Life ed) 57:2+ Jl 10 '53

Stock retirement plan advantages. P. Brower. Nat Underw (Life ed) 58:6 Jl 30 '54

Stresses knowledge of insurance, knowing the market. A. H. Kollenberg. Nat Underw (Life ed) Daily ed 58:13+ S 24 '54

Summary of New York CLU chapter's 6th annual Estate planner's day. East Underw 55:5+ Ja 29 '54; Life Ins Courant 59:43-5 Mr '54; Trusts & Estates 93:88-90 F '54

Tax aspects of key-man insurance; abstract. Management R 42:550-1 S '53

Tax snags, sales angles of business insurance discussed at New Orleans sales congress. Nat Underw (Life ed) 58:12 Ap 9 '54

Techniques for handling typical business insurance opportunities. E. J. Mintz. Nat Underw (Life ed) 58:6+ S 3 '54

Three major gaps in insurance coverage; abstract. R. E. Ryan. Management R 42:223-4 Ap '53

Trust company seeks out estate planning clients; Provident trust co., Philadelphia. Spectator 162:42+ My '54

Unwanted shareholder. R. W. Osler. Rough Notes 96:85-6+ O '53

Urges brokers to tap life gold mine. L. P. Brace. East Underw 55:7 Ap 2 '54

Partnership interest

Agreement in advance; liquidation of a deceased partner's interest. L. Ackerman. Rough Notes 96:32-3 Ag '53

Easy approach to partners. Life Ins Courant 58:20 Ag '53

It seemed impossible! J. Guarino. Life Ins Courant 59:44-5 My '54

One call led to $250,000 of business. P. A. Stradling. Life Ins Courant 59:22-3 My '54

Partnership arrangements. R. W. Osler. Rough Notes 96:79-80 S '53

Partnership queries relative to business insurance. H. M. McKay. East Underw 55:14 My 7 '54

Partnership tax problems. C. W. Tye. Rough Notes 97:84-5 Mr '54

Partnership tax problems; new 1954 Revenue code. C. W. Tye. Rough Notes 97:82 O '54

Pitfalls of partnerships. R. W. Osler. Rough Notes 96:56-7 Ag '53

Retiring partner payments. C. W. Tye. Rough Notes 97:64+ Ag '54

INSURANCE, Business—*Continued*

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Business and tax insurance a natural for the woman underwriter. M. F. Lewis. Nat Underw (Life ed) Daily ed 58:4+ S 23 '54

Business insurance potentials. A. W. Theiss. East Underw 54:3 S 18 '53

One-man business prospects. C. H. Lane. Rough Notes 97:66+ F '54

Selling to the sole proprietor. Life Ins Courant 59:13-14 S '54

33 new clients; selling EPP (Employe protection plan). D. Dick. Life Ins Courant 59:26 Ag '54

Value of owning business insurance to convince prospects. H. J. Tibbits. Nat Underw (Life ed) 58:8 Ja 1 '54

Tax problems

Business interest in estate planning; legal, tax, and practical difficulties. Nat Underw (Life ed) 58:3+ F 5; 4, 16-18 F 12 '54

Partnership tax problems. C. W. Tye. Rough Notes 97:84-5 Mr '54

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New tax ruling is aid in selling business covers. Nat Underw (Life ed) 58:2 Mr 12 '54

Partnership tax problems; new 1954 Revenue code. C. W. Tye. Rough Notes 97:82 O '54

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Camera dealers block form; coverages and forms. Spectator 162:52-3 Jl '54

INSURANCE, Casualty

Add casualty departments to field offices, Aetna insurance group. East Underw 55:37 Ap 2 '54; Nat Underw 58:16 F 25 '54; Weekly Underw 170:661 Mr 13 '54

Agents display interest in clarifying policies, manual changes in casualty; NAIA questionnaire results. Nat Underw 58:7+ S 2 '54

Asks Bureau to shuck rate vows and quit being fish in a barrel. A. M. O'Connell. Nat Underw 57:12 S 3 '53

Auto line developments; abstracts. J. H. Bandy. Weekly Underw 169:799 O 3 '53; East Underw 54:38 O 2 '53

Casualty questions discussed at NAIA Louisville parley. Nat Underw 58:16+ Mr 25 '54

Competition still mounts in fire, casualty fields. K. Force. Nat Underw 57:2+ Jl 16 '53

Continental Casualty helped scouts be prepared for national jamboree. East Underw 54:31 Ag 28 '53

Current insurance affairs. J. V. Herd. Nat Underw 57:16+ O 1 '53

Developments in casualty insurance; abstracts. W. C. Jainsen. East Underw 55:29+ My 28 '54; Weekly Underw 170:1354-5+ My 29 '54

Future in casualty and property insurance; automobile problems; abstracts. E. Ewing. East Underw 54:53-4 O 2 '53; Nat Underw 57:1+ O 1 '53

Future of the casualty business; NAIA panel discussion. East Underw 55:41+ O 8 '54

General's new competitive weapon; Selective auto and fire insurance co. of America; abstracts. H. K. Dent. Nat Underw 57:1+ S 24 '53; East Underw 54:58 O 2 '53

Growth of casualty should dispel defeatist attitude; address before NAIA panel; abstracts. T. O. Carlson. Nat Underw 58:13+ O 14 '54; East Underw 55:41+ O 8 '54; Weekly Underw 171:851+ O 9 '54

Home service casualty co. is organized in Dallas. East Underw 55:33 Ap 23 '54

Latest developments in casualty business; abstracts. J. M. Cahill. Weekly Underw 170:901+ Ap 10 '54; East Underw 55:38+ Ap 9 '54; Nat Underw 58:8+ Ap 8 '54

Major casualty lines problems. L. S. McKown. Weekly Underw 169:877+ O 10 '53

Many problems beset casualty business, 1953. H. G. Kemper. Weekly Underw 170:52+ Ja 2 '54

National Casualty of Detroit marks its 50th anniversary year in 1954. East Underw 55:50 F 19 '54; Weekly Underw 170:415 F 13 '54

1953 expected to show over-all profit; trends and 1954 outlook. W. L. Clapp. East Underw 54:97+ D 11 '53

Public service rendered by two insurance institutions in the fire and casualty business. M. W. Heard. Weekly Underw 170:1107+ My 1 '54; Same. East Underw 55:32 Ap 30 '54

Truckmen's insurance co. formed by garment industry in New York. East Underw 55:36 Ap 16 '54; Nat Underw 58:41 Ap 15 '54

Unrealistic rates, classes cost bureau companies leadership in workmen's compensation and auto. E. J. Seymour. Nat Underw 58:3+ My 27 '54

Why all the noise? business in good shape with limitless opportunities. T. W. Earls. Weekly Underw 171:857-8 O 9 '54; Same cond. East Underw 55:57 O 8 '54; Abstract. Nat Underw 58:55 O 7 '54

See also

Insurance, Accident
Insurance, Automobile
Insurance, Aviation
Insurance, Boiler
Insurance, Burglary
Insurance, Flood
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Insurance, Hail
Insurance, Liability
Insurance, Machinery
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also Association of casualty and surety companies; Casualty actuarial society; National bureau of casualty underwriters; Southwestern insurance information service

Accounting

Predicts return of uniform accounting-rating specter; abstracts. R. B. Taylor. Nat Underw 58:21 Ap 8 '54; East Underw 55:45 Ap 9 '54

Uniform rate desirability; analyzes expense ratios stock and specialty companies; abstracts. J. M. Cahill. East Underw 55:31+ My 21 '54; Nat Underw 58:18 My 20 '54; Weekly Underw 170:1289+ My 22 '54

Adjustment of claims

As an insurance executive sees NACCA. W. J. Hynes. Nat Underw 57:1+ S 3 '53

Conference of mutual casualty companies claim conference, Chicago. Nat Underw 58:16 My 27 '54

Cost reduction and improving operational procedures discussed by workshop. Weekly Underw 169:1072 O 31 '53

Insurers charged with blame for court calendar congestion. E. M. Otterbourg. Nat Underw 57:1 S 10 '53

1953 decisions form significant pattern. H. D. Combs. Weekly Underw 170:58-61 Ja 2 '54

Settlement of minors' tort claims; report of ABA committee on guardians and conservators. Trusts & Estates 92:728-9 O '53

Agency management

Conference of Mutual casualty companies meeting, Colorado Springs. Nat Underw 58:9+ Jl 8 '54

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Casualty lines outlook; unlimited opportunity; NAIA panel talk; abstracts. J. Gelcher. Weekly Underw 171:930-1 O 16 '54; Nat Underw 58:38+ O 7 '54; East Underw 55:47+ O 8 '54

Claim complaints

Casualty claimants; liability arising out of fault. F. D. Lewis. East Underw 54:35 S 11 '53

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Atomic power major challenge to insurance business; also Liberty Mutual president's 1953 report. S. B. Black. East Underw 55:32+ Ap 23 '54

Casualty carriers wrote record premiums in 1953; claims higher, profit obtained. Weekly Underw 170:1600+ Je 26 '54

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Casualty direct premiums and incurred losses in 1953 in New York; table by companies and by lines. Nat Underw 58:39-40 Mr 18; 5 Mr 25 '54

Casualty figures present '53 picture. G. Horan. Spectator 162:23+ Jl '54

Casualty premiums pass $8½ billion, Argus chart shows; with tables. Nat Underw 58: 3+ Je 17 '54

Country-wide underwriting results, 1948-52, of companies licensed in New York state; stock companies, non-stock companies; tables of earned premiums, losses incurred, loss ratio. East Underw 54:6-7+, 14+ pt 2 Jl 3 '53

Country-wide underwriting results, 1949-53, of companies licensed in New York state; non-stock companies; tables. East Underw 55: 14+ pt 2 Je 25 '54

Country-wide underwriting results, 1949-53, of companies licensed in New York state; stock companies; tables. East Underw 55: 6-7+ pt 2 Je 25 '54

National bureau exhibit shows 1952 profit of 0.3 per cent made by 268 companies. East Underw 54:28 Jl 3 '53; Same. Nat Underw 57:2 Jl 2 '53; Same. Weekly Underw 169:92 Jl 11 '53

National bureau reports casualty results, 1948-1952, New York state; tables. Nat Underw 57:8-9, 16, 21 Jl 9 '53

National bureau reports '53 casualty and surety results; New York state; tables. Nat Underw 58:6, 10, 12 Jl 1 '54

National bureau's exhibit for 1953 points to 5.3 per cent profit made by 286 companies in New York state; with table. East Underw 55:31 Je 25 '54

1953 aggregate experience of fire, casualty companies; table. East Underw 55:29 Je 25 '54

1953 casualty-surety results for New York state; with tables. East Underw 55:18+ pt 2 Je 25 '54

1953 favorable year for fire and casualty insurance; Best company opinion. East Underw 55:20 Ja 8; 23 Ja 15 '54

1953 New York totals by classes shown; table. Nat Underw 58:40 Mr 18; 5 Mr 25 '54

1952 casualty-surety results of all companies for New York state; tables. East Underw 54:18+ pt 2 Jl 3 '53

1952 underwriting and investment results for casualty firms; 150 stock and 25 mutual companies; table. Spectator 161:118+ N '53

Property companies rated for 1952. W. H. Doty. Spectator 161:25+ Ag '53; Same. Weekly Underw 169:271+ Ag 1 '53; Same cond. East Underw 54:24 Jl 31 '53

Show 1953 casualty direct premiums and net incurred losses for Illinois; tables. Nat Underw 58:37-9 Ap 15 '54

Underwriting and investment profits and losses of 100 stock casualty insurance companies for decade period, 1943-1952; tabulation. Spectator 162:80-1 F '54

Losses

Heavy casualty loss in chemical blast near Buffalo; Lucidol division plant of Novadel-Agene corp., at North Tonawanda. Nat Underw 57:2 O 1 '53

Texas casualty companies paid $81,436,403 losses in '52. East Underw 55:58 My 7 '54

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Time to halt detail in casualty. G. A. Smith. Nat Underw 57:7 O 29 '53

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Accident cost in '53 was $9,700,000,000. J. D. Dorsett. Weekly Underw 171:729 S 25 '54

Accident repeaters analyzed. A. H. Malo. Weekly Underw 170:300+ Ja 30 '54; Abstracts. East Underw 55:28 Ja 29 '54; Nat Underw 58:30 F 4 '54

Award of National safety council to F. W. Ecker; Metropolitan Life's safety and health activities. East Underw 54:5 N 20 '53; Same. Weekly Underw 169:1269 N 21 '53; Abstract. Nat Underw (Life ed) 57:13 N 20 '53

Enormous accident toll presents direct challenge to industrial and business leaders; abstracts. J. D. Dorsett. Weekly Underw 170:1163 My 8 '54; East Underw 55:41 My 14 '54

Help small business to keep employees safe; Mutual casualty companies' grant aids work of National safety council. Weekly Underw 171:352 Ag 14 '54

Insurance and industrial health; insurance companies. Ind Med 22:504-5 O '53

NAIA committee active in preventing accidents. Weekly Underw 171:936-7 O 16 '54

Publicity

Casualty companies launch public relations program with New York agents; New York state insurance speakers bureau. Nat Underw 58:12 S 23 '54; East Underw 55:45+ S 24 '54

Information service has stepped up 1954 program; Western insurance information service. V. Montgomery. Weekly Underw 170: 191 Ja 16 '54

Oklahoma speakers bureau inform people of state about operations of casualty and surety lines. Weekly Underw 170:1540-1 Je 19 '54

Rates

Casualty rates rose only 31 per cent in 14 years. East Underw 55:35+ Je 11 '54; Nat Underw 58:19+ Je 10 '54; Weekly Underw 170:1469+ Je 12 '54

Consumer prices up 91 per cent, casualty rates increase only 31 per cent. Nat Underw 57:1+ Jl 16 '53

Idaho law governing casualty rates. L. O'Connell. Nat Underw 57:34 N 12 '53

New procedure for rate revision announcements by National Bureau; publicity also affected. East Underw 55:27 Jl 2 '54; Nat Underw 58:1+ Jl 1 '54; Weekly Underw 171: 23 Jl 3 '54

Underwriting experience of stock companies. W. Leslie. Weekly Underw 169: 155+ Jl 18 '53

Reinsurance

General reinsurance corp. organizes new department. East Underw 55:30 Mr 12 '54; Same. Nat Underw 58:3 Mr 11 '54; Same. Weekly Underw 170:637+ Mr 13 '54

Lady luck spurns fire, now smiles on casualty. K. Force. Nat Underw 57:21-2 D 31 '53

List of professional reinsurers in U.S. Nat Underw 58:19 My 6 '54

Split casualty reinsurance, increase capacity, use brokers; abstracts. W. F. Delaney, jr. Nat Underw 58:20, 33 Ap 15 '54; East Underw 55:38+ Ap 9 '54; Discussion. Nat Underw 58:2 Ap 22 '54

Statistics

50 stock casualty leaders in written premiums, 1952 and 1953; table. Nat Underw 58:1 My 27 '54

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Study and teaching

American Institute to give diplomas to 193 new C.P.C.U.s; with list. Nat Underw 57: 1+ Ag 6 '53

Insurance society of New York to offer revised courses. Weekly Underw 169:375 Ag 15 '53

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Casualty deductions. C. W. Tye. Rough Notes 96:48+ Jl '53

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Allstate tax study brochure completed; highlights. A. E. Spottke. East Underw 54:34 O 23 '53

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Idaho official finds adequate competition. L. O'Connell. East Underw 54:27 Jl 3 '53; Same. Weekly Underw 169:28 Jl 4 '53

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New York city casualty market situation still grave; abstracts. J. C. Weghorn. East Underw 54:41+ O 2 '53; Nat Underw 57: 41 O 1 '53

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How to find prospects for chattel mortgage insurance. J. J. Schindler. Rough Notes 97: 87-8 My '54

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Compulsory insurance from the standpoint of A&H and automobile. E. H. O'Connor. Nat Underw 58:34-5 Mr 4 '54

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Contractor's equipment floater; coverage. il Rough Notes 97:30 Jl '54

Contractors need all risk protection. J. J. Hulighan. Rough Notes 97:27+ Jl '54

Every contractor a prospect. G. J. Siebers. Rough Notes 97:29+ Jl '54

Small contractor a good CEF prospect. E. D. McCoy. il Rough Notes 97:28+ Jl '54

Unlicensed equipment needs insurance too! J. E. Hunt. il Rough Notes 97:28+ O '54

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Arbitration is a trial, high New York court decides in construction contract liability case. Nat Underw 58:5 Je 10 '54

Building line mistake no liability insurer's concern; Florida Supreme court decision. Nat Underw 57:20 Jl 16 '53

Liability rates changed; announced by National bureau of casualty underwriters. Rough Notes 97:104 F '54

Payment of large damages agreed to in stump case. Weekly Underw 169:1505 D 19 '53

Revises O.L.&T. rates in ten states, District of Columbia; manufacturers and contractors also changed; National bureau of casualty underwriters. East Underw 54:39 N 20 '53; Same abr. Weekly Underw 169:1310 N 28 '53; Abstract. Nat Underw 57:4B N 19 '53

INSURANCE, Contractual liability

Custody and control exclusion may tend to diminish. J. C. Williams. Nat Underw 57:17 Ag 20 '53

Study of agreements recommended to buyers in relation to contractual liability cover. G. E. Rogers. Weekly Underw 169:748+ S 26 '53

You have a salable item in contractual liability. J. W. Fitzpatrick. Rough Notes 97:28+ F '54

INSURANCE, Cotton

Cotton war risk cover program gets started; Export-import bank program. Nat Underw 57:2 N 12 '53

Ex-im bank insures cotton exports against war risk, expropriation. For Comm W 50:24 N 23 '53

Government war cover on cotton stored abroad; Export-import bank program. East Underw 54:31 N 13 '53; Same abr. Weekly Underw 169:1159 N 14 '53

INSURANCE, Credit

Credit insurance; expansion ahead; abstract. Management R 42:176-7 Mr '53

Here's how you can sell more credit insurance. A. H. Baumgartner. Rough Notes 96:18+ N '53

Pros and cons of credit insurance; abstract. R. J. Schwartz and A. M. Schiffer. Management R 42:348-9 Je '53

Surveys of needs of major insured incomplete without credit cover. E. West. Nat Underw 58:25+ S 16 '54

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Installment sales prospects. P. C. Flagler. Rough Notes 97:73-4 F '54

Two companies make available Webster-American coverage; Iowa. Weekly Underw 169:446 Ag 22 '53

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INSURANCE, Depreciation

Depreciation cover on equipment of Chubb & son arouses interest. Nat Underw 58:6 Ja 21 '54

INSURANCE, Disability

Cash sickness bills; defeat of the 33 past bills. E. H. O'Connor. East Underw 55:36 F 12 '54

Chances of A&H forestalling government plans; disability forum discussion at NALU midyear meeting. Nat Underw (Life ed) 58:21 Mr 26 '54

Decline in DBL trend; legislative activities during 1954. J. K. Honey. East Underw 55:32 Ag 20 '54

Disability insurance and the insured; abstracts. R. H. Blanchard. East Underw 55:50 Mr 19 '54; Nat Underw 58:14 Mr 25 '54; Nat Underw (Life ed) 58:5 Mr 26 '54; Weekly Underw 170:728 Mr 20 '54; Life Ins Courant 59:46-7, 50-2 Je '54

Disability insurance has come of age. R. R. Neal. Spectator 161:20-1+ O '53

Federal disability fund unneedful. R. Murphy. East Underw 55:31+ Ap 23 '54

Lawyer proposes disability policy changes. J. A. Appleman. Spectator 162:32-3+ Ap '54

Market for group disability. W. S. Fliess. Life Ins Courant 59:60-4 Ap '54

Minimum disability regulation. R. H. Rydman. Life Ins Courant 58:49-53 D '53; Abstracts. East Underw 54:33 S 4 '53; Nat Underw 57:26 S 3 '53; Nat Underw (Life ed) 57:5 S 4 '53; Weekly Underw 169:624 S 12 '53

New booklet on disability insurance; Research council for economic security. East Underw 54:30 Jl 10 '53; Same. Weekly Underw 169:156 Jl 18 '53

Pressure for DBL lessening; legislative developments. J. K. Honey; L. J. Carey. East Underw 54:33 S 11 '53

Salary insurance for disabled executives; abstract. E. Wheeler. Management R 43:626-7 S '54

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Features of home covers reviewed at forum sponsored by Jaffe agency. Nat Underw 58:21 My 20 '54
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Perpetual insurance? it's as old as its name. J. S. Smith, jr. il Rough Notes 97:24-5+ Ja '54

Policies

Analyze your factory fire and marine risks. G. J. Malloy. Rough Notes 96:25+ N '53

Know your New York standard fire policy interest feature. J. A. Dodd. Weekly Underw 170:1608 Je 26 '54

New farm and dwelling schedules for Ohio. F. R. Middaugh. Nat Underw 57:34-5 O 15 '53

North America writing blue chip big dwelling cover. Nat Underw 58:1+ My 20 '54

Should fire policy include inherent explosion gratis? Nat Underw 58:27 S 30 '54

Three-year versus five-year policies. H. W. Sibert. Nat Underw 57:27 S 17 '53

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Deductible clauses

Arkansas commissioner rescinds approval of windstorm deductible filing. Nat Underw 57:23 Jl 23 '53; Same abr. Weekly Underw 169:262 Ag 1 '53

Arkansas department is considering deductible. Weekly Underw 169:1350 D 5 '53

Arkansas gets $50 wind deductible and aerials exclusion. Nat Underw 57:3 Jl 2 '53

Deductible; an additional facility for the fire insurance industry. P. M. Gwaltney, jr. Weekly Underw 169:794-5, 862-4+ O 3-10 '53

$50 wind deductible bows in Kansas, storm-swept state. Nat Underw 57:2+ S 24 '53

Large fire deductible is meeting need for which it was designed. F. W. Wrenn. Nat Underw 58:16 Je 10 '54

Wind deductible makes debut in Midwest via Minnesota. Nat Underw 57:1+ Jl 9 '53

Wind deductible program is now extended to Nebraska. Nat Underw 57:1 Jl 23 '53

Extended coverage endorsements

AEC deductible made optional by Ohio bureau. Nat Underw 58:1+ Ja 7 '54

AEC endorsement. Rough Notes 97:46-7 Je '54

Borderline cases of blasting damage pose problem for E.C. insurer. W. M. Whitesell, jr. Nat Underw 57:29 N 26 '53

Brief upsurge in extended coverage business is noted after Michigan-Massachusetts tornadoes. Nat Underw 57:18 Jl 2 '53

Dramatic story of insurance action results from disastrous New England storm. L. L. Temple. Weekly Underw 169:374+ Ag 15 '53; Same. East Underw 54:22 S 4 '53; Abstract. Spectator (Endorsement no) 161:29 D '53

Exclusions of the extended coverage endorsement. R. W. Swanson. Rough Notes 96:20+ Ag '53

Extended coverage underinsurance in Worcester wind loss. M. M. Rowe. Nat Underw 57:8 Ag 6 '53

Filing of AEC optional deductible expected throughout Midwest. Nat Underw 58:9+ Ja 14 '54

Hold up mandatory extended coverage deductible 30 days on protests by the agents in New Hampshire. Nat Underw 58:16 Ja 14 '54

New edition of additional extended coverage effective in New York, July 6; with text. Nat Underw 57:1+ Jl 2 '53; Same abr. East Underw 54:17 Jl 10 '53

Windstorm and extended coverage experience varies by regions; with tables. Spectator 162:108-10 Mr '54

Windstorm claims follow Coast storm; National board explains coverage under ECE. East Underw 54:30 N 13 '53; Same. Weekly Underw 169:1147 N 14 '53

Term policies

Impact of fire term rule. Rough Notes 97:44+ Je '54

Policy forms

Standard fire policy. P. H. Heineke. Nat Underw 57:3+ S 24 '53

What agents should know about the dwelling form. B. E. Wortman. il Rough Notes 96:24-5+ S '53

What the agent should know about fire insurance forms. B. E. Wortman. il Rough Notes 96:17-18+ Ag '53

Premium financing

New premium finance plan devised by A. C. Stevens. Weekly Underw 169:1157-8 N 14 '53; Same cond. East Underw 54:25 N 6 '53

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Premiums, Payment of

Time wasted in collecting is lost selling time. Weekly Underw 170:726 Mr 20 '54

Preventive work

Alarms that do not forget; American district telegraph company central station protection system. il Spectator 162:24-5+ S '54

Better fire protection for our cities. L. A. Vincent. Weekly Underw 170:1089+ My 1 '54; Same abr. East Underw 55:18 Ap 30 '54

Efforts to prevent conflagrations; National board activities to cut municipal fire hazards. J. A. Neale. East Underw 54:17+ D 25 '53

FIA tallies Livonia loss and details its final lessons. Nat Underw 57:15+ N 26 '53

Fieldman's role in fire prevention week. Rough Notes 97:18+ S '54

Fire first aid for the store; shopping centers. J. T. W. Babcock. Spectator 162:36-7+ My '54

Fire hazards of plastics cause Underwriters Laboratories some concern. D. L. Breting. Nat Underw 58:6 O 7 '54

Fire safety programs for agents outlined. J. J. O'Toole; H. A. Pierson. East Underw 54:36-7 O 2 '53

Fortune has penetrating study of Livonia fire. Nat Underw 57:9 O 29 '53

Good prevention measures best defense against A-bomb fires. H. Bond. East Underw 54:27 D 4 '53

Insurance aids Philadelphia to win Fire prevention week award. il East Underw 55:19 F 5 '54

Large industrial losses stress need for fire protection design. M. M. Braidech. East Underw 55:26 Ap 23 '54; Same cond. Nat Underw 58:35 Ap 15 '54

Michigan fire safety meeting 1st post-war industrial fire safety conference, Kellogg Center, Michigan state college. Nat Underw 58:19 Ap 8 '54

Missouri field men have fire prevention effort in high gear. Nat Underw 58:19 F 11 '54

NAIA annual meeting; traffic, fire safety sessions. Nat Underw 57:30+ O 1 '53; East Underw 54:22+ O 2 '53

National board cooperating to re-alert schools to fire dangers in New York state. East Underw 55:25 Ap 30 '54; Weekly Underw 170:1089+ My 1 '54

National board has newly-revised municipal model preventive code. East Underw 54:18 Jl 24 '53

National Board issues safeguards for metal-working industry risks. East Underw 55:26 S 3 '54; Nat Underw 58:26 Ag 5 '54

National board reviews year in fire prevention. J. J. Robinson. Spectator 161:20+ Jl '53

INSURANCE, Fire—Preventive work—*Cont.*

New York Board's effective visual program, shown in many schools, aids fire prevention in homes. W. G. Hayne. East Underw 55:24 S 17 '54

Participation in fire prevention week hits peak; National board material at record. Nat Underw 58:1+ O 7 '54

Philadelphia story in fire prevention; city earns NFPA's Grand award. il Spectator 162:30-1 Mr '54

Philadelphia story on better fire prevention. R. W. Daum, jr. il Rough Notes 97:32-3+ My '54

Precautions that do help prevent loss of life and property by fire. East Underw 55:24 S 10 '54

Prevention points at meeting in Pennsylvania. R. J. Vanderbeck. Nat Underw 58:22 Ja 14 '54

Trend toward big industrial fires and undermanned fire departments. H. W. Miller. East Underw 55:22 My 21 '54

Urges fire safety to cut industrial losses. M. M. Braidech. East Underw 54:30 N 6 '53

See also

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Fire hazards in supermarkets and insurance protection. R. T. Foote. il Credit & Fin Management 55:16-17+ O '53

Fire insurance and allied lines of physical property insurance, including consequential forms of coverage. N. H. Wentworth. Credit & Fin Management 55:9-10+ D '53

Solution of a problem in placing fire coverage. O. T. Case. N A C A Bul 36:57-61 S '54

Rates

Alabama reduces fire, extended coverage rates, adopts IRIC forms. Nat Underw 58:6 Ag 26 '54

Allstate's fire filing rejected in Indiana. Nat Underw 58:1 Ap 15 '54

Arkansas fire rates reduced, but no action on extended coverage. Nat Underw 57:12 D 17 '53

Arkansas legislators to probe fire rates. Nat Underw 58:4 F 18 '54

Average reduction of six per cent in Massachusetts fire insurance rates effective Aug. 2. East Underw 55:21 Jl 30 '54

Bureau companies, Fireman's Fund present views on West Virginia fire rates. East Underw 54:21 N 27 '53

Business girding for the competition and changes ahead; fire now has partial role. R. N. Wear. Nat Underw 58:23 F 4 '54

California dwelling rate battle breaks into the open; North America in Marin county, Calif. Nat Underw 58:1+ My 13 '54

Charleston mayor gets feisty; city not sharing in the state-wide fire insurance rate reduction. Nat Underw 57:2 Ag 27 '53

Dwelling rate cut, extension of term rule due in Massachusetts. Nat Underw 58:12 Jl 8 '54

EUA backs new form of Inter-regional conference. East Underw 55:19 Jl 23 '54

Extended coverage rate hike O.K.d in Arkansas; mandatory deductible dropped. Nat Underw 57:1 D 24 '53

Fire insurance costs on homes cut in Nebraska. Weekly Underw 169:261 Ag 1 '53

Fire insurance rates on many classes reduced in Florida. Weekly Underw 169:462 Ag 29 '53

Fire insurance rates reduced in Georgia. Weekly Underw 169:462 Ag 29 '53

Fire insurance rates revised in Pennsylvania. Weekly Underw 170:1154 My 8 '54; East Underw 55:20 My 7 '54

Fire insurance rating problems; panel discussion. R. C. Dennett and others. Am Water Works Assn J 46:818-26 Ag '54; Abstract. Water & Sewage Works 101:389-90 S '54

Fire rate hearing ordered in Utah. Nat Underw 58:16 F 25 '54

Fire rates cut for most classes in Georgia; other changes. Nat Underw 58:2 Jl 29 '54

Fire rates cut in West Virginia, reduction about $1.5 million. Nat Underw 58:5 Jl 22 '54

Fire rates reduced in New York on dwellings. East Underw 55:22 S 17 '54; Same. Weekly Underw 171:632-3 S 18 '54; Abstract. Nat Underw 58:27 S 16 '54

Fireman's Fund deviation filing in West Virginia at impasse. Nat Underw 57:1+ O 22 '53

Hearings open in Arkansas on fire company profits. Nat Underw 58:7 Jl 22 '54

Holds uniform rating not practical in New York; NYFIRO answers department. East Underw 55:23 Ap 23 '54

Hot session seen on North America independence. Nat Underw 58:1+ F 25 '54

Idaho rejects fire rate revision. Nat Underw 58:27 S 2 '54

Inadequate research held bad for Bureau carriers. E. J. Seymour. Weekly Underw 169:1087+ N 7 '53; Same. East Underw 54:24 N 6 '53

Indiana reduces fire rates. Rough Notes 96:88 S '53

Inspection bureau goes to court over deductible rejection in Oklahoma. Nat Underw 58:16 Ap 15 '54

Insurance rate-making activities. J. R. Maloney. Weekly Underw 169:786 O 3 '53

Maloney maintains hands off policy in North America rate case. Nat Underw 58:1 Mr 25 '54

Mandatory extended coverage deductible made effective in New Hampshire. Nat Underw 57:2 D 31 '53

Maryland fire rates based on all insurers; combined stock and mutual. D. E. Rollins. East Underw 54:30 N 13 '53

Maryland rules stock, mutual fire figures be used. Nat Underw 57:31 N 12 '53

Minnesota reduces fire insurance rates on homes. Weekly Underw 169:138 Jl 18 '53

Minnesota windstorm rates revised by Bureau. Weekly Underw 169:141 Jl 18 '53

New England rating bureau revises rules manual. Nat Underw 58:12 Je 3 '54

New York agents foresee chaos in competitive filing of fire rates; North America company. East Underw 55:26 Mr 5 '54

New York approves Inter-Regional and Interbureau filings. Nat Underw 58:1+ Ag 12 '54

New York dwelling fire rates cut. Rough Notes 97:112 O '54

NYFIRO and North America companies file briefs on independent rating. East Underw 55:26+ Ap 16 '54

NYFIRO brief rebuts arguments of North America. Nat Underw 58:1+ Ap 29 '54

New York fire insurance rating organization committee to consider department ruling on North America rights. East Underw 55:23 S 17 '54

NYFIRO, North America briefs are filed on issue of partial subscribership. Nat Underw 58:4+ Ap 8 '54

NYFIRO tackling Allstate, North America on legality of filings, rights to rates. Nat Underw 58:1 O 14 '54

New York hearing on North America companies' independent filings. East Underw 55:1+ Mr 5 '54

North America can file own dwelling rates in New York; abstracts. J. F. Murphy. East Underw 55:1+ S 17 '54; Nat Underw 58:1+ S 16 '54; Weekly Underw 171:627 S 18 '54

North America reduces fire rates in California. Rough Notes 97:103-4 Je '54

North America to file own dwelling rate. East Underw 54:26 D 18 '53; Nat Underw 57:1 D 10 '53

North America to write dwellings 20 per cent off in California. Nat Underw 58:19 Ap 1 '54

Plan deviations in West Virginia. East Underw 54:18 Ag 21 '53

Question of part subscribership under scrutiny; NYFIRO North America issue. Nat Underw 58:1+ Mr 4 '54

Rating issue goes to decision on limited issue; North America case. Nat Underw 58:1+ Mr 11 '54

Refiling of all fire rate deviations required before Dec. 1; Texas order. Weekly Underw 171:626 S 18 '54

Replies to latest blast at Arkansas fire rates. H. Combs. Nat Underw 58:5, 32 Ap 22 '54

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Sues in Kentucky to recover municipal taxes paid insurers. Nat Underw 58:17 F 25 '54
Suggestions in examination report for improving NYFIRO product, procedures. Nat Underw 58:2+ Ap 22 '54
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Texas extended coverage deductible rates are revised. Nat Underw 58:15 Ap 1 '54
Texas has first fire hearing in three years. Nat Underw 58:4 O 7 '54
Vast importance of New York rating decision. H. C. Johnson. East Underw 55:1+ O 15 '54
Vermont first with an EC manual; $50 deductible mandatory. Nat Underw 58:17 Ap 22 '54
Virginia deviation denied. East Underw 54:20 Ag 21 '53
Will file briefs in North America case on partial subscribership. East Underw 55:16+ Mr 12 '54
Wisconsin mercantile fire insurance rates reduced. Weekly Underw 169:1494 D 19 '53
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Rating bureaus

Character of bureaus changes and more companies weigh independence. Nat Underw 57:15+ O 8 '53
Methods of rating; praises local rate bodies. F. W. Doremus. East Underw 54:35+ O 2 '53

Records

Pacific Fire operates tabulating department at 25 per cent less cost than the average. Nat Underw 58:17 My 20 '54

Reinsurance

Catastrophe dangers controlled by adequate reinsurance; Casualty actuarial society discussion. East Underw 55:1+ Je 4 '54
Lady luck spurns fire, now smiles on casualty. K. Force. Nat Underw 57:21-2 D 31 '53
List of professional reinsurers in U.S. Nat Underw 58:19+ My 6 '54
Market capacity problems; excess insurance and reinsurance principles as applied under present day underwriting conditions. A. L. Melling. Weekly Underw 169:745+ S 26 '53
Property insurance catastrophes and reinsurance. J. A. Diemand, jr. Weekly Underw 170:1391 Je 5 '54

Renewal and extension plans

Annual extension plan ended in Minnesota. C. Sheehan. East Underw 55:25 Je 4 '54; Same. Weekly Underw 170:1390 Je 5 '54
Both renewal plans retained in North Carolina. Nat Underw 57:5 N 5 '53
Installment method, annual renewal may go out in North Carolina. Nat Underw 57:5 O 15 '53

Reporting policies

It's easy to insure goods in foreign countries. W. F. Cushman. Rough Notes 96:23+ Jl '53
New single location form. A. I. Jaffe. East Underw 54:19 Jl 24 '53; Same. Weekly Underw 169:209 Jl 25 '53

Risks

New type substructure of cement will ease insurers' fears of taking piers. Nat Underw 57:12+ S 10 '53
What you should know about special hazards. W. F. Johnson. Rough Notes 96:28+ N '53

School district policies

Agent's suit ties up St Paul school insurance award. Nat Underw 57:33 D 10 '53
Holds Arizona schools can't insure in mutuals. Nat Underw 58:11 F 4 '54

Smoke odor damage

Removing smoke odor lowers claims, process explained to New York field men. J. E. Thomas. Nat Underw 58:32 F 18 '54
Unsmoking frozen meat saves more than $14,000 on insurance claim; Airkem's smoke odor service. Weekly Underw 169:1336 N 28 '53

Taxation

Allstate tax study brochure completed; highlights. A. W. Spottke. East Underw 54:34 O 23 '53
Seven states may move to collect back premium tax. Nat Underw 58:6 Ap 29 '54

Underinsurance problem

Under-insured property owner challenge for producers in 1954. J. S. McHugh. East Underw 55:22 Ja 8 '54
Urges sufficient fire coverage. G. C. Johnson. Weekly Underw 170:449+ F 20 '54

Valuation of property

Appraisal service with supportable detail gives best results. Weekly Underw 171:126 Jl 17 '54
Appraisals that don't appraise. J. F. Boehner. Credit & Fin Management 55:18-19+ O '53
Determining the value of fixed property assets. B. Landrum. Rough Notes 97:26+ Ja '54; Abstract. Management R 43:195-6 Mr '54
Measure of damages under fire policy; New York Central Mutual Fire v. Diaks. L. A. Burke. Spectator 162:98-9 Ap '54
Valued policy laws should be revised to meet modern methods; standard fire insurance policy; abstracts. T. M. Galphin, jr. East Underw 55:18 Ag 27 '54; Weekly Underw 171:677, 749 S 18-25 '54

War risks

Maritime administration extends war risk binders for two years. East Underw 54:34 O 9 '53

Whisky risks

Big buyer objects to multilocation plan. E. C. Gassenheimer. Nat Underw 57:6 Jl 16 '53
History and experience that led to new form for distillery account. Nat Underw 57:16-17 Jl 30 '53
Maryland decision makes clear right of the business to write whisky for year only. Nat Underw 58:14 F 4 '54; Abstract. Weekly Underw 170:175 Ja 16 '54
Single rating plan for multiple location; new distilled spirits form devised. East Underw 54:20 Jl 3 '53; Weekly Underw 169:7 Jl 4 '53; Nat Underw 57:1 Jl 2 '53; Rough Notes 96:86 Ag '53

Arkansas

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Fire company profits are getting priority attention in Arkansas. Nat Underw 58:12-13 Mr 11 '54
Fire rate deviation OK'd in Arkansas, but not continuous policy. Nat Underw 58:2 Je 24 '54
Hearings open in Arkansas on fire company profits. Nat Underw 58:7 Jl 22 '54
Replies to latest blast at Arkansas fire rates. H. Combs. Nat Underw 58:5, 32 Ap 22 '54

California

Allstate approved for fire in California. Nat Underw 58:21 Jl 22 '54
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North America reduces fire rates. Rough Notes 97:103-4 Je '54
Partial bureau membership OK, Maloney says. Nat Underw 58:2 My 6 '54

Georgia

Georgia Bureau rules no automatic broad dwelling coverage. Nat Underw 58:7 Ag 12 '54

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Allstate puts its fire policies on the counter in Illinois. Nat Underw 58:1+ Ap 1 '54
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Indiana

New Indiana insurer ready to open doors. Nat Underw 58:41 Mr 18 '54

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Coinsurance adopted in N.Y., other changes; New York fire insurance rating organization. Nat Underw 57:4 Ag 20 '53

INSURANCE, Fire—New York (state)—*Cont.*

Developments in fire and inland marine rate matters. A. J. Bohlinger. East Underw 54:18 Ag 14 '53

Holds uniform rating not practical in New York; NYFIRO answers department. East Underw 55:23 Ap 23 '54

Hot session seen on North America independence. Nat Underw 58:1+ F 25 '54

New York approves Inter-Regional and Interbureau filings. Nat Underw 58:1+ Ag 12 '54

NYFIRO and North America companies file briefs on independent rating. East Underw 55:26+ Ap 16 '54

NYFIRO brief rebuts arguments of North America. Nat Underw 58:1+ Ap 29 '54

New York fire insurance rating organization committee to consider department ruling on North America rights. East Underw 55:23 S 17 '54

NYFIRO, North America briefs are filed on issue of partial subscribership. Nat Underw 58:4+ Ap 8 '54

NYFIRO tackling Allstate, North America on legality of filings, rights to rates. Nat Underw 58:1 O 14 '54

New York hearing on North America companies' independent filings. East Underw 55:1+ Mr 5 '54

North America can file own dwelling rates in New York; abstracts. J. F. Murphy. East Underw 55:1+ S 17 '54; Nat Underw 58:1+ S 16 '54; Weekly Underw 171:627 S 18 '54

Question of part subscribership under scrutiny; NYFIRO North America issue. Nat Underw 58:1+ Mr 4 '54

Rating issue goes to decision on limited issue; North America case. Nat Underw 58:1+ Mr 11 '54

Suggestions in examination report for improving NYFIRO product, procedures. Nat Underw 58:2+ Ap 22 '54

Vast importance of New York rating decision. H. C. Johnson. East Underw 55:1+ O 15 '54

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First class mail policy; analysis; underwriting. Rough Notes 97:83-4 Ja '54

INSURANCE, Fishing boat

Cover for fishing boats harder to procure. Nat Underw 58:26 Ja 28 '54

INSURANCE, Flood

Flood insurance. W. B. Langbein. bibliog Land Econ 29:323-30 N '53

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Furrier's block policy; coverages and forms. Spectator (Endorsement no) 162:102-3 Ag '54

INSURANCE, Furriers' customers

American wins mink coat issue; Bloom's, inc. vs American. Nat Underw 57:37 O 15 '53

INSURANCE, Garage owners'. See Insurance, Automobile—Garage owners' and dealers' liability policies

INSURANCE, Glass

Glass insurance vital. Rough Notes 96:64+ O '53

Glass manual revision is announced by NBCU. East Underw 54:118 D 11 '53

Inform client of coverage before glass trouble looms; residence glass breakage endorsement. B. Glazer. il Rough Notes 97:35 O '54

Miscellaneous coverages sell glass insurance. C. M. Boycott. Rough Notes 96:21+ N '53

1953 experience on burglary and glass compiled by New York department; tables. Nat Underw 58:34 Ag 19 '54

Residence glass is today's biggest insurance bargain. C. M. Boycott. Rough Notes 97:33+ Ap '54

INSURANCE, Golfers' public liability

Coverages and forms; golfer's liability. Spectator 161:42-3 Jl '53

INSURANCE, Government

New Irish insurance plan aims at promoting dollar exports. For Comm W 50:11 Jl 13 '53; Same. Weekly Underw 169:148 Jl 18 '53

INSURANCE, Grain transit

Another no to idea of explosion in flood loss to grain; Burrus mills, inc. Nat Underw 58:23 O 7 '54

Kansas City grain loss in 1951 due to flood, not explosion; federal court rules for insurers. East Underw 54:1 N 6 '53; Same. Nat Underw 57:1 N 5 '53; Same. Weekly Underw 169:1096+ N 7 '53

INSURANCE, Group

Bidding for executives is lively, high; insurance sweetens salary. Bsns W p 120+ S 26 '53

Big trend in unions for welfare plans; group insurance welfare business. M. Woll. East Underw 55:3 My 21 '54

Bohlinger to ask power to regulate union welfare funds. Nat Underw 58:6+ S 23 '54; Same. Nat Underw (Life ed) 58:2+ S 24 '54

Bureau of accident and health underwriters educational seminar on group and health insurance, New York, Feb. 2-3. East Underw 55:38+ F 5 '54; Nat Underw 58:16 F 4 '54; Nat Underw (Life ed) 58:2+ F 5 '54

Chamber of commerce to study union welfare funds. Nat Underw (Life ed) 58:10 O 15 '54

Competition indicates vitality of group insurance idea. B. K. Elliott. Weekly Underw 169:180 Jl 18 '53

Corcillo to face New York attorney general for refusal to testify. Nat Underw (Life ed) 57:13 D 25 '53

Department to continue probe of union welfare in New York state. East Underw 54:25 D 25 '53

Disability insurance fields. L. A. Orsini. East Underw 54:33-4 O 30 '53

Efficient administration of group plans. B. D. Dutcher. Weekly Underw 170:432-4 F 13 '54; Abstract. East Underw 55:39 F 19 '54

Estimate New York probe covers 500 welfare funds; 83 per cent insure. Nat Underw 57:5 N 19 '53; Same. Nat Underw (Life ed) 57:7 N 20 '53

Five years for broker for balking probe of welfare funds. Nat Underw 58:1 Ag 5 '54; Same. Nat Underw (Life ed) 58:4 Ag 6 '54

Former Dewey prober to hold union study; Sol Gelb. Nat Underw 58:22 Ja 21 '54; Same. Nat Underw (Life ed) 58:6 Ja 22 '54

Group A.&H. trends. C. M. Eddy. East Underw 54:45+ O 16 '53

Group earns commissions; medical catastrophe or major medical coverage latest addition to group coverages. E. B. Whittaker. Nat Underw (Life ed) 57:20-1 O 16 '53; Same. Nat Underw 57:18 D 10 '53

Group insurance is a shield against federal control; British Columbia compulsory plan; abstracts. G. N. Watson. East Underw 55:48+ My 7 '54; Nat Underw (Life ed) 58:30 My 7 '54; Nat Underw 58:19 My 6 '54; Weekly Underw 170:1176 My 8 '54

Group security protection covers 45 per cent of population. P. H. Peters. East Underw 54:16 Ag 28 '53

Health and accident underwriters conference 6th annual group meeting, Chicago, Feb. 9-10. East Underw 55:37-44+ F 19 '54

Insuring the profit-sharing plan; abstract. W. M. Rae. Management R 42:414-15 Jl '53

John Hancock opens new office in New York May 1; group and claim operations to be centralized. Weekly Underw 170:1062 Ap 24 '54; Same. East Underw 55:5 Ap 23 '54

Labor-management trusteed welfare funds; abstracts. M. E. Segal. East Underw 55:38 F 19 '54; Nat Underw 58:8 F 11 '54; Nat Underw (Life ed) 58:7 F 12 '54

New York dept. sets week-long hearing on welfare funds. Nat Underw 58:5 S 9 '54; Same. Nat Underw (Life ed) 58:1 S 10 '54

New York hearing reveals how union boss can get business for favorite agency; abstracts. Nat Underw 57:1+ D 17 '53; Nat Underw (Life ed) 57:1+ D 18 '53

New York is launching probe of commission and kickback practices in welfare funds Nat Underw (Life ed) 57:1 Jl 10 '53

New York ready for welfare funds investigation. Nat Underw 57:14 N 12 '53; Same. Nat Underw (Life ed) 57:10 N 13 '53

New York superintendent surveys unions welfare plans. Weekly Underw 170:226 Ja 23 '54

INSURANCE, Group—*Continued*

1953 look at the group insurance business. E. C. McDonald. East Underw 54:63+ pt 2 S 25 '53

Occidental Life reports substantial group insurance sales. H. W. Brower. Weekly Underw 169:390 Ag 15 '53

Paul Revere's ride into the field of baby group. A. S. Beebe. East Underw 55:46 F 19 '54

Plumbers' insurance deal causes stir. Nat Underw 57:10 N 19 '53

Power to examine welfare funds given to N.Y. department. East Underw 55:1+ Ap 2 '54

Promoting sales in group field; abstracts. J. E. Breslin. Weekly Underw 170:480-2, 542-4, 622 F 20-Mr 6 '54; East Underw 55:44 F 19 '54

Quick results from union welfare fund probe; New York state. C. Axman. East Underw 55:3 S 24 '54

Racketeer influence said to be rare in union group cases. Nat Underw 57:7 O 8 '53; Same. Nat Underw (Life ed) 57:7 O 9 '53

Role of group in conjunction with the purchase of mutual fund shares. C. W. Wyatt. Nat Underw (Life ed) 58:2 My 7 '54

Small group writers exchange views in Health & accident underwriters conference; panel session. East Underw 55:46-7 F 19 '54

State hearing on welfare funds of unions; New York. East Underw 55:1+ S 17 '54; Nat Underw 58:5+ S 16 '54; Nat Underw (Life ed) 58:1+ S 17 '54

Statement on expense reimbursement for group. R. S. Harris. East Underw 54:28 Jl 17 '53

Study shows many bad practices in New York welfare funds. Nat Underw 58:2, 37 Mr 25 '54; Same. Nat Underw (Life ed) 58:3 Mr 26 '54

Trade association group insurance. East Underw 55:40 F 19 '54

Unearned commissions, even in clean cases, irk responsible union officials; abstracts. Nat Underw (Life ed) 57:3+ D 25 '53; Nat Underw 57:3+ D 24 '53

Union Casualty & Life put in unfair light at hearings. Nat Underw 57:22-3 D 17 '53; Same. Nat Underw (Life ed) 57:4, 23 D 11 '53

Unions pledge support of New York department's welfare fund probe. Nat Underw 58:13 Ja 28 '54

Unions start own welfare fund inquiry. Nat Underw 58:38 F 18 '54; Same. Nat Underw (Life ed) 58:15 F 19 '54

U.S. welfare fund probe gets into insurance realm. J. C. Burridge. Nat Underw 57: 1+ N 26 '53; Same. Nat Underw (Life ed) 57:1+ N 27 '53

Warns of too wide extension of group definition. A. C. Leslie. Nat Underw 58:10 F 25 '54; Same. Nat Underw (Life ed) 58:3 F 26 '54

Warns welfare plans must be properly managed; abstracts. A. J. Bohlinger. Nat Underw 58:6 My 13 '54; Nat Underw (Life ed) 58:8+ My 14 '54; Weekly Underw 170: 1202 My 15 '54

Welfare fund investigation in New York presents plain and fancy problems. Nat Underw 57:1 Jl 23 '53; Same. Nat Underw (Life ed) 57:1 Jl 24 '53

Welfare funds under scrutiny of New York insurance department. Weekly Underw 169:1560 D 26 '53

What group coverages mean to typical city; Indianapolis. E. C. McDonald. East Underw 55:4 Ap 2 '54

See also

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Agents

Criticizes agent-broker setup in handling of association group. D. L. Dunham. Nat Underw 57:22 O 15 '53; Same. Nat Underw (Life ed) 57:11 O 9 '53

How Mutual of Omaha develops group A.&H. A. W. Randall; R. Finnell. East Underw 55:42 F 19 '54

Organizing a group insurance department; New York Life. E. C. Jones. East Underw 55:44 F 19 '54

Sales slants on group. Weekly Underw 170: 1131 My 1 '54

Seattle association interested in group activities. Weekly Underw 169:232 Jl 25 '53

Commissions

California-Western clarifies group stand. Nat Underw 57:19 Jl 30 '53; Same. Nat Underw (Life ed) 57:16 Jl 24 '53; Same. Weekly Underw 169:286 Ag 1 '53

Commission rate schedule requested by N.Y. department. East Underw 54:11 Ag 28 '53

Prudential is test pilot on New York group commission filing. Nat Underw 57:3 Jl 30 '53

Unearned commissions, even in clean cases, irk responsible union officials; abstracts. Nat Underw 57:3+ D 24 '53; Nat Underw (Life ed) 57:3+ D 25 '53

Cost

Fit your group insurance program to budget for effective coverage; how to calculate costs. R. L. Jacobus. Weekly Underw 171: 242-3+ Jl 31 '54

Employees' insurance

American management association special group benefits conference, New York, March 18-19. East Underw 55:16 Ap 2 '54; Nat Underw 58:34-5 Mr 25 '54; Management R 43:319-38 My '54

Big railroad group under negotiation with companies; hospital-surgical-medical benefits. East Underw 55:1 O 15 '54

Deny insurance costs bar aging workers. Nat Underw (Life ed) 57:16 Jl 31 '53

Development of employee benefit plans. C. A. Siegfried. Weekly Underw 170:156-8 Ja 9 '54

Development of employee benefit plans in General Motors reviewed. J. M. Gillen. Weekly Underw 171:459+ Ag 28 '54; Excerpts. East Underw 55:10 Ag 27 '54

Employee benefit plan for small businesses developed by Mutual Life; Module multiprotection. Trusts & Estates 92:559 Ag '53; Same. Weekly Underw 169:284 Ag 1 '53; Abstract. Nat Underw (Life ed) 57:7 Jl 31 '53

Employment of cardiacs and their effect on employe coverages. L. S. Ylvisaker. Nat Underw 57:17+ D 10 '53; Same. Nat Underw (Life ed) 58:7 Ja 1 '54

Equitable society pension forums; discussion highlights. East Underw 54:14 O 30 '53

Essentials of a sound retirement program. C. H. Austin. Weekly Underw 170:796-7+ Mr 27 '54

Fitting a group plan to your budget; abstracts. R. L. Jacobs. East Underw 55:46 Mr 19 '54; Management R 43:326-32 My '54

Fringe aid for small firms; Mutual Life comes up with plan to help smaller companies provide insurance and pension plans for workers. Bsns W p78-9 Ag 22 '53

Group plans for small employers. E. E. Mack, jr. Weekly Underw 169:224 Jl 25 '53

How insurance protects our employees; Ohio oil company, Findlay. G. K. Barrett. Spectator (Endorsement no) 161:30-1+ D '53

Insured-uninsured pension war getting increasingly bitter. R. B. Mitchell. Nat Underw (Life ed) 58:1+ Jl 23 '54

Insurer gets preferred claim on employe's group payments to bankrupt employer. Nat Underw 58:10+ Mr 4 '54; Same. Nat Underw (Life ed) 58:7+ F 19 '54

Insuring 20 million paychecks; current standing of accident and sickness group insurance policies. G. I. Hilliard. Spectator 161: 19+ Ag '53

Labor-management trusteed welfare plans explained. D. D. Cody. East Underw 55:16 My 14 '54

Module multiprotection; Mutual life insurance company of New York. L. W. Dawson. Burroughs Clearing House 37:6-7 S '53

Mutual's new module group benefits plan designed for smaller employe groups. East Underw 55:4 My 14 '54; Same cond. Nat Underw (Life ed) 58:7 My 14 '54

New plan links bank and Life co.; Philadelphia National and Mutual of New York; Philabank plan. East Underw 55:6 S 17 '54; Nat Underw (Life ed) 58:4+ S 17 '54; Weekly Underw 171:662 S 18 '54

INSURANCE, Group—Employees' insurance—*Continued*

Occidental lost money on metal workers group. J. P. Dandy. Nat Underw (Life ed) 58:4 O 8 '54
Ostheimer incorporates employe benefit function. Nat Underw (Life ed) 57:17 O 2 '53
Pay, service contract on big group plan for meat packing concerns. Nat Underw 57:1+ D 31 '53; Same. Nat Underw (Life ed) 58:1+ Ja 1 '54
Restraint in group coverage is urged. V. Stanford. Nat Underw (Life ed) 57:19 D 25 '53
Setting up of a group plan at Ford motor co.; abstracts. M. A. Themer. East Underw 55:46-7 Mr 19 '54; Weekly Underw 170:790+ Mr 27 '54; Management R 43:319-25 My '54
Solving the retirement problem. C. E. Prier. Life Ins Courant 58:30-1 S '53
Special plans for increasing employee benefits; abstract. G. C. Lukeman. Management R 42:105 F '53
Trusteed pension plans don't all stay trusteed; conversions to insured basis. R. B. Mitchell. Nat Underw (Life ed) 57:3 S 18 '53
United air lines sells its insurance benefits in movie. Nat Underw 58:23 My 7 '54
What's new in pensions and insurance? C. D. Root, jr. Steel 133:58-9 O 5 '53

Finance

Premiums paid for group life insurance have doubled in five years. Weekly Underw 169:182 Jl 18 '53

Policies

Farm Bureau issues new mini-group A&H policy; package of seven coverages. East Underw 55:44-5 O 15 '54

Premiums, Payment of

Decision bearing on group premium; California-Western States Life case. J. R. Glade. East Underw 55:11 Ap 2 '54

Purchasing

Fit your group insurance program to budget for effective coverage. R. L. Jacobus. Weekly Underw 171:242-3+ Jl 31 '54
Suggests buyer pay more attention to fundamentals of group insurance plans. J. H. Smith. Weekly Underw 169:1356-7 D 5 '53

Statistics

Group coverage; group insurance and group annuity coverage, continental United States business, 1950, 1951 and 1952; estimated by the Life insurance association of America; tables. Life Ins Courant 58:43 S '53
Group coverage written by all types of insurance companies, life, casualty and accident and health; Life insurance association of America's annual survey. East Underw 55:1+ Je 25 '54
Group production; group insurance and group annuity coverage, continental United States business, 1953; tables. Life Ins Courant 59:48 Ag '54
Growth of group coverages shown in tabulation covering three years; all life, A&H and casualty companies; continental United States business, 1951-1953; tables. Nat Underw (Life ed) 58:4 Jl 2 '54; Same abr. Nat Underw 58:18 Jl 1 '54

Great Britain

More staff pension schemes; 1951-1952. Economist 170:54 Ja 2 '54

INSURANCE, Group life

Commissionless federal group stirs varying responses. R. B. Mitchell. Nat Underw (Life ed) 58:1+ My 28 '54
Consider changes in group life model bill at NAIC annual meeting, Detroit. East Underw 55:10 Je 11 '54; Same. Nat Underw (Life ed) 58:3 Je 11 '54
Continuing benefits on retired workers seen as a costly practice. D. C. Buell. East Underw 55:6 My 28 '54; Same. Nat Underw (Life ed) 58:16 My 28 '54; Same. Weekly Underw 170:1362 My 29 '54
Extending group insurance to retired workers. N. E. Horelick. il Weekly Underw 169:1054 O 31 '53
Features of insured pensions. H. A. Schmidt. East Underw 55:3 Ja 15 '54
Federal group life program in effect. Weekly Underw 171:437+ Ag 28 '54
Government employes group program goes into effect Aug. 29; administered by Metropolitan Life. East Underw 55:1+ Ag 27 '54; Nat Underw (Life ed) 58:1+ Ag 27 '54
Great group growth is reported by Continental. Weekly Underw 169:635 S 12 '53
Group committee hits at companies writing life for mutual fund buyers; NALU committee report. Nat Underw (Life ed) Daily ed 58:22+ S 22 '54; Weekly Underw 171:807-8 O 2 '54
Illinois backs up National association on U.S. group; asks say for agents. C. C. Clarke. Nat Underw (Life ed) 58:2+ My 28 '54
Indiana agents ask NALU turnabout on U.S. group proposal. Nat Underw (Life ed) 58:1+ My 21 '54
May be largest single group cover in history; federal civilian workers. East Underw 55:21 Mr 26 '54; Same. Weekly Underw 170:757+ Mr 27 '54
Metropolitan adds group sales helps. Nat Underw (Life ed) 58:6 Ap 2 '54
Mutual fund competition; spread of group-insured plans. R. B. Mitchell. Nat Underw (Life ed) 58:1+ My 21 '54
Mutual fund will insure its buyers on mandatory basis; Axe securities corp. of New York city. Nat Underw (Life ed) 58:1+ My 14 '54
NALU OK's group for federal employes, opposes it in mutual fund tie-up. Nat Underw (Life ed) 58:1+ Mr 26 '54
NALU stand on group coverage in mutual fund plans critized. Nat Underw (Life ed) 58:3 Jl 30 '54
New York city association acts on mutual funds. H. K. Gutmann. East Underw 55:8 Jl 2 '54; Same cond. Weekly Underw 171:44 Jl 3 '54
New York Life regional group managers and district group supervisors meeting. East Underw 55:15 Ap 2 '54; Weekly Underw 170:872 Ap 3 '54
Not pocketbook concern; Indiana assn. of life underwriters arguments vs. federal group plan. O. Pritchard. Nat Underw (Life ed) 58:19 Je 18 '54
Opposes group term deposit investments; New York state association of life underwriters attitude. East Underw 55:10 Jl 2 '54
Rebukes companies insuring mutual funds; abstracts. H. K. Gutman. Nat Underw (Life ed) 58:9 Je 4 '54; East Underw 55:5 Je 11 '54
Result of protest, 25-case minimum out of U.S. group. E. J. Schmuck. Nat Underw (Life ed) 58:1+ Je 18 '54
Smaller group insurers favored in U.S. employe plan. Nat Underw (Life ed) 58:1+ Je 4 '54
State legislation; group term life insurance. East Underw 54:9 Ag 28 '53
Too much group term is risky for dependents. Nat Underw (Life ed) Daily ed 57:26-7 Ag 28 '53
Variety has become the spice of group life insurance. N. B. Taft. Spectator 162:32-3+ Mr '54

Adjustment of claims

Forfeiture of group insurance. L. A. Burke. Spectator 161:138-40 N '53

Policy settlement

Divorce and insurable interest; Land v. West Coast life insurance co. L. A. Burke. Spectator 162:67 O '54

Tax problems

Taxation of group life insurance. F. L. Morton. Spectator 162:59-61 Jl '54

Great Britain

More staff pension schemes; 1951-1952. Economist 170:54 Ja 2 '54

INSURANCE, Hail

Growth of hail insurance. E. V. Sharp. map Rough Notes 97:26-7 Ap '54
Hail writings may set record in 1953 despite drought. Nat Underw 57:1+ Jl 16 '53

INSURANCE, Hail—*Continued*

How to use the percentage and bushel crop-hail forms. R. E. Hawkins. Rough Notes 97:28-9+ Ap '54

You should have hail insurance on your growing crops. il Rough Notes 97:31 Ap '54

Agents

Big thing in crop-hail is to know your product P. R. Woodbury. Rough Notes 97:29+ Ap '54

How to improve your sales of crop-hail insurance. B. Dean. il Rough Notes 97:30+ Ap '54

Finance

1953 crop-hail premiums hit new high of $44 million. Nat Underw 57:1+ D 10 '53

Losses

Western underwriters association receives study of wind losses. Nat Underw 57:20 O 29 '53

Wichita hail losses now number 43,500. Nat Underw 57:28 Jl 23 '53

Reinsurance

Reinsuring hail business. G. F. Rutledge. Rough Notes 96:44+ O '53

Europe

How hail insurance on growing crops is written, losses adjusted in Europe. C. A. Dawson. Nat Underw 57:15+ D 17 '53

INSURANCE, Health

Accident and health continues to forge ahead. E. J. Faulkner. East Underw 54:95+ D 11 '53

A.&H. evolution; contrasts history of voluntary concept with results of compulsory plans. S. Hansen. East Underw 54:44 O 16 '53

Accident and health insurance today. J. F. Follmann, jr. Weekly Underw 170:681-3 Mr 13 '54

A.&H. trends. B. N. Woodson. East Underw 55:38 My 14 '54

Advances made by A.&H. industry; replies to criticism; abstracts. C. J. Zimmerman. East Underw 55:49 Mr 19 '54; Nat Underw 58:27 Mr 25 '54; Nat Underw (Life ed) 58:26 Mr 19 '54

All-time highs were attained in 1953; industry developments. J. F. Follmann, jr. Weekly Underw 170:78+ Ja 2 '54

Blue cross alternative to reinsurance program; want experimental period. E. A. Van Steenwyk and V. H. Sorg. East Underw 55:38 F 12 '54

Bureau of accident and health underwriters educational seminar, New York, May 26-27. East Underw 55:30-5+ My 28 '54; Weekly Underw 170:1329+, 1346 My 29 '54

California governor has scheme; policy would provide for deductible with private carrier and state participation. G. J. Knight. Weekly Underw 170:277+ Ja 30 '54

Cash sickness insurance measures expected in 1954. E. H. O'Connor. Weekly Underw 169:1486 D 19 '53

Challenge of voluntary health insurance. R. J. Walker. Life Ins Courant 59:60-4 Mr '54; Abstracts. Nat Underw (Life ed) 57:17 D 18 '53; Nat Underw 58:17 Ja 7 '54

Cites industry's A.&H. responsibilities. J. R. Williams. East Underw 55:37 Mr 12 '54

Committee on health insurance announces long-range program to develop methods. Weekly Underw 170:1172 My 8 '54

Continental Casualty joins medical men and union in medical examinations of longshoremen. Weekly Underw 171:237 Jl 31 '54

Continental Casualty sponsors health tests to detect chronic illness. East Underw 55:29 Jl 30 '54

Diseases prominent in routine underwriting; Bureau of A. & H. panel discussion. East Underw 55:32-3+ My 28 '54

Employe health and mental attitude. A. M. Wilson; W. A. Eggert. East Underw 55:37 Ap 30 '54

Eternal vigilance is the price of liberty; abstracts. E. H. O'Connor. Weekly Underw 169:687-8 S 19 '53; East Underw 54:44 S 18 '53

Extended maternity benefits; H.&A. conference discussion. East Underw 55:40 F 19 '54

Facts revealed in national consumer study on voluntary insurance and medical costs. East Underw 55:26-7 Jl 23 '54

Fallacies in Reader's Digest article cited by Provident Life & Accident; Blake Clark article. East Underw 55:28+ Ag 6 '54; Same. Weekly Underw 171:292 Ag 7 '54

FTC investigation to cover all types of A&H insurance. Nat Underw 57:1+ D 24 '53; Same. Nat Underw (Life ed) 57:1 D 25 '53

F.T.C. to investigate hospital insurance selling. East Underw 54:25 D 25 '53

Gaps in voluntary health insurance. C. S. Keefer. Spectator 162:49 Mr '54

Health and accident underwriters conference annual hospital-medical-group meeting, Chicago. Spectator 162:40+ Ap '54

Health insurance council reports voluntary protection at new high in 1952. East Underw 54:56-7 O 2 '53

Health insurance is long-term social issue. R. R. Neal. Nat Underw 58:2+ S 16 '54; Same. Nat Underw (Life ed) 58:13 S 17 '54

Health needs of aging Americans. E. Breckinridge. East Underw 55:41+ F 19 '54

Industry, labor are setting guide for health coverage. B. Ford. Nat Underw 58:21+ S 23 '54; Same. Nat Underw (Life ed) 58:6+ S 24 '54

Long range program mapped for study of health insurance and health care. East Underw 55:33+ My 7 '54

Medical aspects of A.&H. underwriting. E. B. Williams. East Underw 54:49 N 13 '53

Meeting today's need for individual security; financing better medical care; abstracts. E. J. Faulkner. East Underw 55:31+ Ap 30 '54; Nat Underw 58:26 My 6 '54

Morbidity experience under personal accident and health. J. C. Horan. East Underw 54:30 D 25 '53; 55:26 Ja 1; 32+ Ja 8 '54

Needs, problems of insuring the aged. G. Hirschfeld. Nat Underw 58:33 F 11 '54; Same. Nat Underw (Life ed) 58:6 F 19 '54

1954 areas for decision; economic changes, important laws outlined in A&H. Spectator 162:22-3+ Ja '54

Private voluntary health insurance; what's in a name? abstracts. J. H. Smith. East Underw 55:50+ S 24 '54; Nat Underw 58:15+ S 30 '54; Nat Underw (Life ed) 58:7+ O 1 '54

Record high level of A.&H. cover in '52 reported for U.S. Nat Underw (Life ed) 57:5 S 25 '53

Role of insurance companies in the national health picture; abstracts. E. J. Faulkner. East Underw 55:37 F 19 '54; Nat Underw 58:15 F 18 '54; Nat Underw (Life ed) 58:9 F 19 '54

Today's market for group insurance. W. S. Fliess. East Underw 55:37 F 12 '54

Trends in A.&H. agency management; Bureau of A.&H. panel discussion. East Underw 55:33 Je 4 '54

Urges top management to reexamine entire A.&S. operation; abstracts. H. L. Rietz. East Underw 55:36+ My 7 '54; Nat Underw 58:1+ My 6 '54; Nat Underw (Life ed) 58:25+ My 7 '54; Weekly Underw 170:1149+ My 8 '54

Use of personal health services and the extent and effects of insurance; Health information foundation survey. Nat Underw 58:19 Ja 28 '54; Same. Nat Underw (Life ed) 58:3+ Ja 29 '54

Voluntary insurance accepts the challenge; H.&A. conference panel discussion. East Underw 55:37+ F 19 '54

Washington interest in health insurance and social security. E. M. Thore. East Underw 54:5, 17 N 13 '53; Abstract. Nat Underw (Life ed) 57:3+ N 13 '53

Washington viewpoint on accident and health insurance; abstracts. E. M. Thore. East Underw 55:40+ My 7 '54; Nat Underw 58:4+ My 6 '54; Nat Underw (Life ed) 58:31 My 7 '54; Weekly Underw 170:1240 My 15 '54; Life Ins Courant 59:30+ Ag '54

What A&H does. J. R. Williams. Life Ins Courant 59:56-9 My '54

INSURANCE, Health—*Continued*

Wolverton group hears insurance company speakers; voluntary health protection, group, individual plans discussed; abstracts. Nat Underw 57:2+ O 15 '53; Nat Underw (Life ed) 57:1+ O 16 '53; East Underw 54:42+ O 16 '53

Wolverton queries seen invitation to federal regulation. R. B. Mitchell. Nat Underw (Life ed) 57:1+ O 23 '53

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also Bureau of accident and health underwriters; Health and accident underwriters conference; International association of accident and health underwriters

Adjustment of claims

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Texas accident and health claims underwriters association

Advertising

Improvement noted in misleading advertising by A.&H. committee of NAIC. East Underw 54:96 D 11 '53

Claim forms

Cites need of uniform claim forms. E. J. Bohne. East Underw 55:32+ Ap 23 '54

Progress on uniform claim forms. C. J. McBride. East Underw 55:32 My 21 '54

Employees' insurance

CIT's medical benefits plan includes major medical expense. East Underw 55:19 Ap 23 '54; Excerpt. Weekly Underw 170:1117 My 1 '54

Fireman's Fund health plan being expanded. Nat Underw 58:2 Mr 18 '54

High benefit cost problem solved by protecting health. E. Morss. Nat Underw 58:8 Je 10 '54

Introduce bill to provide group A&H for U.S. employes. Nat Underw 58:2+ Ag 5 '54; Same. Nat Underw (Life ed) 58:1+ Ag 6 '54

Needed; broader and higher health benefits; abstract. Management R 43:264-5 Ap '54

Overseas employes tough problem in federal A&H group. Nat Underw (Life ed) 58:4 O 15 '54

Solving the health insurance problem; one company's approach; Upjohn co.; abstract. J. C. Cristy. Management R 43:399-400 Je '54

Finance

Accident and health direct premiums, losses incurred in New York; table by companies. Nat Underw 58:40 Mr 18 '54

A.&H. earned premiums and incurred losses of 82 companies shown for 1953. East Underw 55:34-5+ F 26 '54

A&H premiums pass $2¼ billion; 1953. W. M. Montgomery. Spectator (Endorsement no) 162:30+ Ag '54

A.&H. premiums set high of $2,271,787,001, 1953. East Underw 55:30+ Jl 16 '54; Same. Weekly Underw 171:117+ Jl 17 '54

Government aid

A.&H. field as first compulsory battleground; concerned over efforts to establish government bureaucracy; abstracts. J. E. Powell. East Underw 55:38 My 28 '54; Nat Underw 58:15+ Je 10 '54; Nat Underw (Life ed) 58:13+ Je 4 '54; Spectator 162:36-7+ Je '54

A.&H. insurers ask time to study U.S. reinsurance bill; abstracts. J. H Miller and others. Nat Underw 58:1+ Ap 1 '54; Nat Underw (Life ed) 58:1+ Ap 2 '54

A.&H. leaders studying federal reinsurance plan. East Underw 55:39+ Mr 19 '54

AMA holds off on Ike reinsurance plan. Nat Underw 58:20 F 4 '54; Same. Nat Underw (Life ed) 58:13 F 12 '54

American medical association opposes reinsurance plan. Weekly Underw 170:893+ Ap 10 '54

Appeal for the Eisenhower voluntary health reinsurance proposal; abstracts. R. Perkins. East Underw 55:1+ Je 11 '54; Nat Underw 58:1+ Je 10 '54; Nat Underw (Life ed) 58:1 Je 11 '54

Bafflement is reaction to Ike's reinsurance plan. Nat Underw (Life ed) 58:1+ Ja 15 '54; Excerpt. Nat Underw 58:2 Ja 14 '54

Blue cross backs reinsurance bill; NAIC in opposition. Nat Underw 58:3 Ap 15 '54; Same. Nat Underw (Life ed) 58:28 Ap 16 '54

Chances of A&H forestalling government plans. E. M. Thore. Nat Underw (Life ed) 58:21 Mr 26 '54; Same. Nat Underw 58:12 Ap 1 '54

Deflates irresistible demand for U.S. welfare plans. A. L. Kirkpatrick. Nat Underw (Life ed) 58:16 My 21 '54

Eisenhower message sheds no light on reinsurance plan. Nat Underw 58:32 Ja 21 '54; Same abr. Nat Underw (Life ed) 58:1+ Ja 22 '54

Eisenhower suggests big insurance plan. Weekly Underw 170:225 Ja 23 '54

Federal health bill very bad socialism. P. A. Hammel. East Underw 55:39 My 14 '54

Federal health reinsurance bill gets close study. Nat Underw (Life ed) 58:1+ Mr 19 '54; Same abr. Nat Underw 58:1 Mr 18 '54

Federal insurance bills. F. B. Wilde. Weekly Underw 170:736 Mr 20 '54

Federal regulation threat still present; federal reinsurance program; abstracts. D. D. Murphy. East Underw 55:40-1 Ap 16 '54; Nat Underw 58:5 Ap 8 '54; Nat Underw (Life ed) 58:7 Ap 9 '54; Weekly Underw 170:894 Ap 10 '54

Federal reinsurance bill and the NAIC; abstracts. D. D. Murphy. East Underw 55:38-9+ Je 11 '54; Weekly Underw 170:1449+ Je 12 '54

Federal reinsurance plan. H. L. Rietz. East Underw 55:36 F 12 '54

Full accord reached on reinsurance plan. E. Stevenson, jr. Weekly Underw 170:1389+ Je 5 '54; Same abr. East Underw 55:40 Je 11 '54

Government reinsurance plan pitfalls; abstracts. V. J. Skutt. East Underw 55:35+ Mr 12 '54; Nat Underw 58:41 Mr 18 '54; Nat Underw (Life ed) 58:27 Mr 19 '54

Health bill not a sign of GOP ill will. R. R. Neal. East Underw 55:65 O 8 '54

Health reinsurance bill defeated in House vote. Weekly Underw 171:118 Jl 17 '54

Health reinsurance bill introduced. Spectator 162:28-9+ Ap '54

Industry is studying government plan. E. M. Ackerman. Weekly Underw 170:697+ Mr 20 '54

Industry viewpoint on federal reinsurance bill; abstracts. E. J. Faulkner and J. H. Miller. East Underw 55:34 Ap 2 '54; Weekly Underw 170:834+ Ap 3 '54

John Hancock backs health reinsurance. P. F. Clark. East Underw 55:14 Je 25 '54

NAIC strongly opposes federal health reinsurance bill. East Underw 55:44-5 Ap 16 '54

Opinions differ about health reinsurance plan. Weekly Underw 170:785 Mr 27 '54

Opposes passage of administration's health reinsurance bill. R. W. Osler. Nat Underw (Life ed) 58:7 Mr 26 '54

President proposes $25 million health reinsurance fund. East Underw 55:1 Ja 22 '54

President's health plan. Oil Paint & Drug Rep 165:5+ Ja 25 '54

Reinsurance bill opposed by American medical association as socialistic move. Nat Underw 58:28 Ap 8 '54; Same. Nat Underw (Life ed) 58:14 Ap 9 '54

Senate committee approves federal reinsurance act. East Underw 55:31 Jl 9 '54

Social and health insurance today; abstracts. O. C. Hobby. Weekly Underw 171:905+ O 16 '54; East Underw 55:16 O 15 '54; Nat Underw (Life ed) 58:1+ O 15 '54

U.S. health reinsurance program a delusion; abstracts. B. Lorber. Nat Underw 58:20 Ja 28 '54; Nat Underw (Life ed) 58:6 Ja 29 '54; Weekly Underw 170:304-5 Ja 30 '54

INSURANCE, Health—Government aid—*Cont.*

U.S. reinsurance will not be used or will be subsidy; abstracts. A. J. Bohlinger. Nat Underw 58:2+ Ap 15 '54; Nat Underw (Life ed) 58:1+ Ap 16 '54; East Underw 55:38-9 Ap 16 '54; Weekly Underw 170:988 Ap 17 '54

Views on health plan; proposed health reinsurance bill. H. S. Beers. East Underw 55:6 Ap 9 '54; Same cond. Weekly Underw 170:864 Ap 3 '54

Municipal policies

Ask Legislature to outlaw New York city plan. A. P. Ingegno. Weekly Underw 170:604 Mr 6 '54

Policies

Farm Bureau companies issue six new A.&H. policies. M. D. Lincoln. East Underw 55:36 Je 25 '54; Same. Weekly Underw 171:35 Jl 3 '54

Public attitude

Health insurance starts in the heart; doctor and patient attitudes toward health insurance plans. E. Dichter. Spectator 162:20-1+ S '54

Statistics

1953 A.&H. results of 70 companies show volume up 18 per cent for ten months. East Underw 54:100+ D 11 '53

California

Big rise in A&H shown in three-year California study, 1951-1953. Nat Underw 58:14 Jl 15 '54; Nat Underw (Life ed) 58:12 Jl 2 '54; Weekly Underw 171:34 Jl 3 '54

Canada

Surveys on A.&S. helpful. R. L. Foster. East Underw 55:14-15 My 28 '54

Great Britain

Masking the fog; anti-fog masks and free health service. Economist 169:570 N 21 '53

Teeth and drugs. Economist 168:770-1 S 19 '53

New York (state)

New York department report on health cover plan brings out points of interest; health insurance plan. Nat Underw 58:17 Jl 22 '54; Same. Nat Underw (Life ed) 58:9+ Ag 6 '54

INSURANCE, Honesty. See Insurance, Surety and fidelity

INSURANCE, Hospital liability

Buying insurance doesn't create liability for West Virginia charitable hospital. Nat Underw 57:9 Jl 16 '53

Charitable hospital is liable for paying patients; Wisconsin Supreme court. Nat Underw 57:14 D 10 '53

Insurers must pay back premiums on nonexistent risks; Santa Clara county hospital. Nat Underw 58:7 Jl 29 '54

Washington Supreme court finds no basis for immunity of charitable hospitals. Nat Underw 57:41 N 19 '53

INSURANCE, Hospitalization

A.&H. evolution; contrasts history of voluntary concept with results of compulsory plans. S. Hansen. East Underw 54:44 O 16 '53

Activities of hospital commission reviewed at H&A underwriters conference meeting; abstracts. C. M. Eddy. Nat Underw (Life ed) 58:28-9+ My 7 '54; East Underw 55:47 My 7 '54

All American Casualty enters hospital field. East Underw 55:27 Jl 23 '54

Bankers of Iowa offering new hospital and surgical contract for individuals and families. East Underw 55:37 S 10 '54; Weekly Underw 171:600 S 11 '54

Big market for hospital and surgical. G. H. Miller. Life Ins Courant 58:51 S '53

Big railroad group under negotiation with companies; hospital-surgical-medical benefits. East Underw 55:1 O 15 '54

Blue cross alternative to reinsurance program; want experimental period. E. A. Van Steenwyk and V. H. Sorg. East Underw 55:38 F 12 '54

Challenge of voluntary health insurance. R. J. Walker. Life Ins Courant 59:60-4 Mr '54; Abstracts. Nat Underw (Life ed) 57:17 D 18 '53; Nat Underw 58:17 Ja 7 '54

Continental Casualty offers new catastrophe plan; also five hospital policies. East Underw 55:31 Jl 9 '54; Same cond. Weekly Underw 171:91 Jl 10 '54

Cost to hospitals for Blue cross, other patients about same, Michigan study shows. Nat Underw (Life ed) 57:9 Jl 10 '53

Costs in extending group hospitalization benefits to retired employes. P. E. Britt. East Underw 55:29-30 O 1 '54

Defeat osteopathic pay plan; St Louis. Nat Underw 57:8 Jl 2 '53

Disability information requested by Commission in Virginia; ask if assureds prolong stay in hospitals. Weekly Underw 170:978 Ap 17 '54

Estimate New York probe covers 500 welfare funds; 83 per cent insure. Nat Underw 57:5 N 19 '53; Same. Nat Underw (Life ed) 57:7 N 20 '53

Family policy good bet. Rough Notes 96:87-8 O '53

Financing of hospital care report contains many recommendations. J. Andrews, jr. East Underw 55:33 Ja 22 '54

Fireman's Fund adopts new A.&S. program. East Underw 55:44-5 Mr 5 '54

Foresees new hospital care patterns. J. Andrews, jr. East Underw 55:42 My 14 '54

Frequency, duration, costs studied for prolonged illness; Research council study. G. Hirschfeld. Spectator 162:81-92 My '54

Fresh look at hospital expense insurance. J. E. Powell. East Underw 55:29 Je 4 '54

Frowns on wrong pegging of services in A&H contracts. P. E. Hopkins. Nat Underw 58:17 F 18 '54; Same. Nat Underw (Life ed) 58:12 F 19 '54

Future for hospital insurance. W. D. Washburn. East Underw 55:44 Je 18 '54

Growth of hospitalization insurance. N. Sklarewitz. East Underw 55:31 Ag 13 '54

Health and accident underwriters conference annual hospital-medical-group meeting, Chicago. Spectator 162:40+ Ap '54

Health and accident underwriters conference 4th annual hospital-medical forum, Chicago. East Underw 55:37+ F 12 '54; Nat Underw 58:1+ F 11 '54; Nat Underw (Life ed) 58:1+ F 12 '54

Hospital benefits for retired employees; abstract. Management R 43:463-4 Jl '54

Hospital care cost report avoids bias on insurance plans. Nat Underw 58:4+ Ja 21 '54; Same. Nat Underw (Life ed) 58:1+ Ja 22 '54

Hospital policies follow basic principles; private contracts and their relations to veterans' hospitalization program. R. A. Crichton and W. D. Washburn. East Underw 54:27 Jl 24 '53; Same. Life Ins Courant 58:50 S '53; Abstracts. Nat Underw 57:27 Jl 23 '53; Nat Underw (Life ed) 57:2 Jl 17 '53; Weekly Underw 169:133+ Jl 18 '53

Hospitals, insurance, physicians committee of Texas doing effective work. H. N. Cardwell. Weekly Underw 169:616-17 S 12 '53

How insurance protects our employees; Ohio oil company, Findlay. G. K. Barrett. Spectator (Endorsement no) 161:30-1+ D '53

Industry, labor are setting guide for health coverage. B. Ford. Nat Underw 58:21+ S 23 '54; Same. Nat Underw (Life ed) 58:6+ S 24 '54

Market for group disability. W. S. Fliess. Life Ins Courant 59:60-4 Ap '54

Michigan Blue cross uncompromising on extended medical benefits; discussion at NAIC meeting, Detroit. East Underw 55:39 Je 11 '54; Same. Nat Underw 58:3 Je 10 '54; Same. Nat Underw (Life ed) 58:5 Je 11 '54

Mutual Life writing family and individual hospitalization policies. Nat Underw 57:6 Ag 6 '53; Same. Nat Underw (Life ed) 57:12 Ag 7 '53

Mutual of New York enters hospital field. L. W. Dawson. East Underw 54:25 Ag 7 '53

Nebraska suit may settle liability in A&H-VA cases. Nat Underw (Life ed) 58:33 My 7 '54

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New comprehensive policy; American progressive health insurance co. East Underw 55:31 Jl 16 '54

New Jersey Blue cross plan has two new contracts. H. T. Sorg. East Underw 54:29 S 25 '53

Occidental, California broadens standard group coverage. Nat Underw (Life ed) 58: 19 Ag 20 '54

Pay, service contract on big group plan for meat packing concerns. Nat Underw 57:1+ D 31 '53; Same. Nat Underw (Life ed) 58: 1+ Ja 1 '54

Problem of providing medical care insurance for older-age people; summarizes Falk-Brewster survey. C. N. Walker. East Underw 55:41 F 19 '54

Protection against hospital, surgical and medical costs establishes record. Weekly Underw 169:824 O 3 '53

Record high level of A.&H. cover in '52 reported for U.S. by Health insurance council. Nat Underw 57:15 O 1 '53

Survey of A.&H. by Chamber of commerce; individual family policies. East Underw 54: 36 S 11 '53

Traces pattern of hospital admissions plans; Chicago and New Jersey methods. L. A. Orsini. East Underw 55:32 Ja 22 '54

Unjust treatment charged; Virginia legislator discusses protection of A.&H. policyholders. East Underw 55:37 Ap 30 '54

Unnecessary hospital use hit as biggest cost increase factor; Michigan. H. F. Becker. Nat Underw 58:10+ S 23 '54; Same. Nat Underw (Life ed) 58:8+ S 24 '54

Use of personal health services and the extent and effects of insurance; Health information foundation survey. Nat Underw 58: 19 Ja 28 '54; Same. Nat Underw (Life ed) 58:3+ Ja 29 '54

Virginia Blue cross and Blue shield halt sponsored membership. East Underw 55:45 Ap 16 '54

Voluntary health insurance curbs socialized medicine. J. H. Smith. East Underw 54:12 Ag 21 '53; Same cond. Weekly Underw 169:443 Ag 22 '53

Warns of too wide extension of group definition. A. C. Leslie. Nat Underw 58:10 F 25 '54; Same. Nat Underw (Life ed) 58:3 F 26 '54

Wolverton group hears insurance company speakers; voluntary health protection, group, individual plans discussed; abstracts. Nat Underw 57:2+ O 15 '53; Nat Underw (Life ed) 57:1+ O 16 '53; East Underw 54: 42+ O 16 '53

Wolverton queries seen invitation to federal regulation. R. B. Mitchell. Nat Underw (Life ed) 57:1+ O 23 '53

Adjustment of claims

Hunter-Coleman analysis shows Blue Shield surgical, medical claims rise. East Underw 55:36 Ap 30 '54; Same. Weekly Underw 170:1120 My 1 '54

Importance of age factor in development claim costs for hospital expense insurance. R. L. Glazier. East Underw 54:47 O 16 '53

Listing of benefits, less paper work sought by hospitals. J. R. Gersonde. Nat Underw 58:11 F 18 '54; Same. Nat Underw (Life ed) 58:22 F 19 '54

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Blue cross-Blue shield can cancel in case of dual cover, Ohio ruling. Nat Underw 57:27 O 15 '53; Same. Nat Underw (Life ed) 57:6 O 16 '53

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Coinsurance in medical care plans. S. G. Dalaney. East Underw 54:46 O 16 '53

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Bafflement is reaction to Ike's reinsurance plan. Nat Underw (Life ed) 58:1+ Ja 15 '54; Excerpt. Nat Underw 58:2 Ja 14 '54

Big job is to clarify public's thinking on what A&H can and can't do. J. E. Powell. Nat Underw 58:15+ Je 10 '54; Nat Underw (Life ed) 58:13+ Je 4 '54; Spectator 162:36-7+ Je '54

Eisenhower message sheds no light on reinsurance plan. Nat Underw 58:32 Ja 21 '54; Same abr. Nat Underw (Life ed) 58:1+ Ja 22 '54

Eisenhower suggests big insurance plan. Weekly Underw 170:225 Ja 23 '54

President proposes $25 million health reinsurance fund. East Underw 55:1 Ja 22 '54

U.S. health reinsurance program a delusion; abstracts. B. Lorber. Nat Underw 58:20 Ja 28 '54; Nat Underw (Life ed) 58:6 Ja 29 '54; Weekly Underw 170:304-5 Ja 30 '54

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To hike rates in Wisconsin for Blue cross, Blue shield. Nat Underw 58:25 Ap 1 '54; Same. Nat Underw (Life ed) 58:18 Ap 2 '54

Virginia Blue cross, Shield file new rate increase. Nat Underw 58:10 Ap 1 '54; Same. Nat Underw (Life ed) 58:7 Ap 2 '54

Washington state decision spells hospital rate increase. Nat Underw 57:4 N 12 '53

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Non-profit plans near contingent surplus goal for emergency conditions. J. B. Haley. East Underw 55:29 Je 4 '54; Same. Nat Underw 58:29 My 27 '54

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Group insurance is a shield against federal control; British Columbia compulsory plan; abstracts. G. N. Watson. East Underw 55: 48+ My 7 '54; Nat Underw (Life ed) 58:30 My 7 '54; Nat Underw 58:19 My 6 '54

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Householder's protective floater. R. J. Elliott. Weekly Underw 171:358 Ag 14 '54

INSURANCE, Industrial

Does industrial risk being priced out of the market? P. F. Clark. Nat Underw (Life ed) 58:44 O 8 '54

Great Britain

Insurance at the door; changes since the war. Economist 169:444+ N 7 '53

INSURANCE, Inland marine

Changes in the new marine definition. P. S. May. Nat Underw 58:25 Mr 25 '54

Four interpretations issued under new nationwide marine definition. East Underw 55: 48 Mr 26 '54; Abstract. Nat Underw 58:2 Mr 25 '54

Growth and success of leading insurance organizations. H. L. Wayne. East Underw 55:32 My 14 '54

Inland marine definition in relation to policyholders and smaller companies in the states. W. H. Rodda. Nat Underw 58:24 Ap 15 '54

Inland marine definition today. B. Smith, jr. Weekly Underw 169:1060-2, 1098+ O 31-N 7 '53; Abstracts. East Underw 54:1+ O 23 '53; Nat Underw 57:2+ O 22 '53

IMIB makes changes in rates, cover on several forms. Nat Underw 58:1+ Ja 21 '54

Insurance may have outgrown need for inland marine definition. C. T Burney. Nat Underw 58:2 Mr 25 '54

Marine definition interpretations cover wide range of new queries. East Underw 55:26 Jl 2 '54; Nat Underw 58:8 Jl 1 '54

Marine definition is essential today. H. L. Wayne. East Underw 54:1+ O 30 '53; Same cond. Weekly Underw 169:1041 O 31 '53; Abstract. Nat Underw 57:1 O 29 '53

Marine definition; supplemental information. Nat Underw 58:15 S 9 '54

Marine interpretations now number six; more states report on the first four. Nat Underw 58:30 Ap 29 '54

More tailor-made policies as result of new nationwide definition; abstracts. J. G. Romans. East Underw 55:24-5 Ap 2 '54; Nat Underw 58:27 Ap 1 '54; Weekly Underw 170:1053+ Ap 24 '54

Need for marine definition in agricultural states; abstracts. H. L. Wayne. Nat Underw 58:23-4 Ap 15 '54; Weekly Underw 170:968-9 Ap 17 '54

New inland marine interpretations cover wide variety of inquiries. East Underw 55: 26 Ag 13 '54

INSURANCE, Inland marine—*Continued*

New marine definition will permit new policy forms; with list of states that have adopted new definition. A. I. Jaffe. Rough Notes 97:26-7 F '54

Predicts inland marine premiums will double in next five years. S. C. Bird. East Underw 55:30 Ap 23 '54; Same. Nat Underw 58:14 Ap 22 '54; Same. Weekly Underw 170:1034 Ap 24 '54

Significant landmarks in inland marine and what is ahead for line. F. B. Tuttle. Nat Underw 57:19+ N 5 '53; Abstract. East Underw 54:31 N 6 '53

Ten more IM interpretations issued. Nat Underw 58:5 Ag 12 '54

Transportation insurance rating bureau's underwriting conference, Chicago, March 24-26. Nat Underw 58:14 Ap 8 '54

Two new interpretations of marine definition. East Underw 55:30 Ap 30 '54

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Are dentures personal property or part of human anatomy; troublesome question. Weekly Underw 169:1432+ D 12 '53; Same. East Underw 55:21 Ja 1 '54

Asks full and fair treatment for multitude of small claimants. C. P. Russ, jr. East Underw 54:24 Jl 17; 24 Jl 24 '53; Same. Nat Underw 57:31 S 17 '53

Concept of "jewelry" discussed in personal property of floater case; Automobile insurance co., of Hartford, Conn., v. Denny. Weekly Underw 169:1131 N 7 '53

Determination of processing and salt water damage to carpeting problem for experts. F. C. Johnson. Weekly Underw 170:684 Mr 13 '54

How broker may assist adjuster in handling inland marine losses, if he wants to; abstracts. H. S. Daynard. Weekly Underw 169:1404, 1472 D 5-12 '53; East Underw 54:41+ N 13 '53; Nat Underw 57:17, 21 N 12 '53

I.C.C. carrier, act of God defense; abstracts. J. M. Aherne. East Underw 55:29-30 Ag 20; 22 Ag 27 '54; Nat Underw 58:7+ Ag 19 '54

Insurer wins decision on equipment floater; Commercial Standard F.&M. vs. Beard well servicing co. Nat Underw 58:22 Ap 15 '54

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Loss adjusting under the new personal articles floater; motor truck cargo losses. R. E. Cathcart. Rough Notes 96:23+ S '53

No appeal in Minnesota case; Mutual service cooperative insurance agency. East Underw 55:30 Mr 26 '54; Same. Nat Underw 58:9 Mr 25 '54

Sight unseen case goes to client; industry irate. Nat Underw 58:32 F 18 '54

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How to sell more inland marine risks. G. Healey. East Underw 55:28 Mr 26 '54

Service, complacency and specialty writers. H. A. Colvin. Weekly Underw 170:1238 My 15 '54

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Marine definition not carved in stone. W. H. Rodda. Nat Underw 57:10 O 22 '53

Talk to your industrial accounts about all risk; inland marine coverage; abstracts. H. W. Mullins. il Rough Notes 97:29+ O '54; East Underw 55:42+ O 8 '54; Nat Underw 58:38+ O 7 '54; Weekly Underw 171:889-91 O 9 '54

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Direct inland marine premiums in 1952 totaled nearly $303,000,000; tabulation. East Underw 54:25+ Ag 21 '53; Same abr. Nat Underw 57:4 Ag 13 '53

How the company groups stand on inland marine income in 1953; tabulation. East Underw 55:41-2+ Mr 26 '54

Inland marine and accident experience in 1953; table. East Underw 55:21 Ag 13 '54

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Inland marine premiums and losses combined results by classes, 1948-1952. Nat Underw 57:15 Ag 13 '53

Inland marine premiums and losses combined results by classes, 1948-1952; table. Nat Underw 58:27 Ag 19 '54

Inland marine written premiums reached $324,370,758 last year; table. East Underw 55:27 Ag 20 '54

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Conditions of new and broadened inland marine definition are presented in full. Nat Underw 57:18-19 Jl 9 '53

Details of inland marine definition change demonstrate variety of broadenings. Nat Underw 57:8 Jl 16 '53

Floater policies for Christmas. Rough Notes 96:56+ D '53

Horse and wagon floater; floaters for sports and recreation prospects. A. H. Seffing. Rough Notes 97:68-70 Ag '54

Loss adjusting under the new personal articles floater; motor truck cargo losses. R. E. Cathcart. Rough Notes 96:23+ S '53

Marine forms improved. East Underw 55:45 Mr 26 '54

New personal articles floater is popular. Rough Notes 97:70-1 Ja '54

Pattern floater loss in Illinois may cost $2 million. Nat Underw 57:6 Jl 23 '53

Pattern floater policy; analysis; underwriting. Rough Notes 97:95-6 F '54

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Personal articles floater; policy; underwriting. il Rough Notes 96:93-4 D '53

Selling personal inland marine is state of mind business. F. Dall. Weekly Underw 170:666 Mr 13 '54

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Advantages of new equipment dealers' floater form. J. F. Lane. East Underw 54:50 O 2 '53; Same. Weekly Underw 169:811 O 3 '53

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Deplores negative approach to underwriting, sale of PPF. B. Bailey. Nat Underw 57:26-7 Jl 2 '53

Doctors and dentists are good prospects for PPF. E. Ray. Rough Notes 97:29+ My '54

How to select and sell PPF prospects. R. A. Anderson. Weekly Underw 171:864 O 9 '54

Increase your PPF volume with schedule policy selling. E. M. Owen. il Rough Notes 97: 24+ S '54

Marine interpretation no.8 on personal property floater. East Underw 55:29 My 21 '54; Nat Underw 58:32 Je 24 '54

Opposed to territorial rates for personal marine floaters. L. M. Baldwin. East Underw 55:44+ S 24 '54

Personal property floater experience by states for 1952 tabulated. Nat Underw 57:7 Ag 13 '53

Personal property floater experience by states for 1953 as computed by Inland marine insurance bureau; tables. Nat Underw 58:18 Ag 19 '54

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Proper explanation aids in the sale of PPF coverages. I. I. Roberts. Rough Notes 97: 30+ My '54

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Selling the PPF can be interesting and profitable. B. P. Harrison, jr. Rough Notes 97:27+ My '54

Selling the PPF is a matter of education. B. F. Moseley. Rough Notes 97:41+ Ag '54

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Unset diamonds held to be jewelry in recent court decision, facts of case; Denny v. insurance co. H. S. Daynard. Weekly Underw 169:1161-2 N 14 '53; Same cond. East Underw 54:35 O 9 '53

World-wide coverage with PPF. P. K. Mullen. Rough Notes 97:26-7+ My '54

Your PPF prospects should be very carefully selected. H. W. Christy. Rough Notes 97: 28-9+ My '54

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Opposed to territorial rates for personal marine floaters. L. M. Baldwin. East Underw 55:44+ S 24 '54

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Selling of jewelers block risks. G. W. Nixon. East Underw 54:19+ O 23 '53

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It pays to know about the liability of your churches. S. Price. il Rough Notes 97:68+ Mr '54

Milwaukee school board to buy liability insurance. Nat Underw 57:14 Ag 13 '53

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Insurance, Accountants' liability
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Baseball club held not liable for foul ball injury under general rule; McNiel v. Fort Worth baseball club. Weekly Underw 171: 158 Jl 17 '54

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Effect of contributory negligence an issue in U.S. Supreme court admiralty case; Pope & Talbot, inc., v. Hawn. Weekly Underw 170:385 F 6 '54

Employer held liable for physician's negligence in examining job applicant; Mrachek v. Sunshine biscuit inc. Weekly Underw 170:436 F 13 '54

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Liability insurers held for claims in Boeing plane crash; Washington Supreme court. Nat Underw 58:12+ My 20 '54

Meaning of accident in liability policy construed by U.S. court of appeals; Midland construction co. v. United States casualty co. Weekly Underw 171:962 O 16 '54

Meaning of each person in liability policy construed in Kentucky case; Underwriters for Lloyds of London et al. v. Jones. Weekly Underw 170:109 Ja 2 '54

New Orleans store cites unjust claims adding to grocery bills; Schwegmann's. East Underw 54:19 O 30 '53

Omnibus clause held applicable in case involving respondeat superior; Liberty Mutual insurance co. v. American mutual liability insurance co. Weekly Underw 169:1527 D 19 '53

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Urges more cooperation in liability suits on part of trial lawyers. F. S. Benson. East Underw 55:31 Jl 2 '54

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CPL sales talk. Rough Notes 97:49-50 Ap '54

Examples create interest for CPL among your prospects. B. Williams. Rough Notes 97:27, 109 Je '54

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How we sell the CPL policy. G. T. McNary. Rough Notes 96:36+ Ag '53

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Predicts change in liability policies. H. C. Foster. Nat Underw 58:14 Jl 1 '54

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We sell our customers the catastrophe coverages first. P. Kramer. Rough Notes 96:27+ Jl '53

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Buyers should buy, not be sold, cover of general liability. J. M. Regan, jr. Nat Underw 58:12 Je 24 '54

Responsibility of corporate insurance buyers when purchasing comprehensive liability contract; abstracts. J. M. Sweitzer. East Underw 55:37 Je 11 '54; Nat Underw 58:9 Je 10 '54; Weekly Underw 170:1462+ Je 12 '54

Reviews liability cover limits. R. L. Braddock. Weekly Underw 169:1052+ O 31 '53; Abstracts. Management R 43:127-8 F 54; Nat Underw 57:37 O 1 '53

What a credit man should know about compensation, liability and property damage insurance. E. N. Lashmet. Credit & Fin Management 55:8-9+ D '53

Rates

Bureau revises B.I. rates for O.L.&T. and M.&C. East Underw 54:26 D 25 '53; Nat Underw 57:29 D 17 '53

Comprehensive personal liability revised in New York. Weekly Underw 170:470 F 20 '54

Mutual bureau filings approved in Connecticut. East Underw 55:42 Ap 16 '54

New CPL rates effective Feb. 15 in New York. East Underw 55:35 F 19 '54

Study of rate developments. W. Leslie. East Underw 54:25+ Jl 17 '53

INSURANCE, Life

Accountant's proper course of action when he recognizes a client's life insurance needs. M. D. Bachrach. J Account 95:594-6 My '53

Average policy in Northwestern Mutual larger. E. Fitzgerald. East Underw 55:1+ Ja 8 '54

Big government on the wane! L. A. Lincoln. Comm & Fin Chr 178:1640-1 O 29 '53

Broadening coverage a feature of 1953 underwriting trend. J. C. Archibald. East Underw 54:1+ D 11 '53

INSURANCE, Life—*Continued*

Changes effected by the new social security law. R. W. Osler. Rough Notes 97:93-4+ O '54

Companies' views on House bill 9366 social security amendments, presented to Senate finance committee. A. V. Call. East Underw 55:1+ Jl 9 '54

Competitive urge, 1953 recruiting bulge boosts sales. R. B. Mitchell. Nat Underw (Life ed) 58:1+ Ap 16 '54

Confidence in 1954 sales results; some policy contract changes. F. W. Ecker. East Underw 55:3 Ap 2 '54

Constantly growing expansion of the life insurance contract to keep pace with public's needs. D. H. Harris. East Underw 54:20+ pt 2 S 25 '53

Dealing with people main executive task. H. B. Palmer. East Underw 54:5 S 25 '53; Same. Nat Underw (Life ed) 57:7 S 25 '53; Same. Weekly Underw 169:759+ S 26 '53

Encroachments on private enterprise in insurance business. L. W. Dawson. Comm & Fin Chr 178:1121 S 24 '53

Endorsement of life insurance; presidents, statesmen, businessmen, newspapermen, actors, etc. Spectator (Endorsement no) 161:22-5, 32-6+ D '53; 162:31-43+ Ag '54

Equitable ponders special-rate plans, despite its aversion; other topics discussed. Nat Underw (Life ed) 58:2 Ap 16 '54

Farm bureau life company for nine eastern states is in oven. Nat Underw 57:14 Ag 27 '53

Farmers & Traders' battle for control ends; mutualization is voted. East Underw 55:5 Jl 30 '54; Abstract. Weekly Underw 171:479 Ag '54

Farmers and Traders of Syracuse adopts mutualization plan; effective Jan. 1, 1955. East Underw 54:1 O 16 '53; Abstract. Nat Underw (Life ed) 57:4 O 16 '53

Federal powers; thousands are suffering from tax paying delusions. L. F. Lee. Weekly Underw 169:717+ S 26 '53

Gelles made New York Life actuary; other changes. East Underw 55:4 Je 25 '54

How to turn tax savings from term trusts into new life sales. R. F. Spindell. Nat Underw (Life ed) 57:2+ O 2 '53

Insurance on families too small. H. J. Johnson. East Underw 54:3 Jl 31 '53; Same. Weekly Underw 169:201+ Jl 25 '53

John Hancock splits ordinary, puts $7,500 minimum on preferred whole life; abstracts. P. F. Clark. Nat Underw (Life ed) 58:1+ Ap 30 '54; East Underw 55:1+ Ap 30 '54; Weekly Underw 170:1089+ My 1 '54

John Hancock tests out decentralization plans. Weekly Underw 170:1366 My 29 '54

Laws and decisions, 1953; abstracts. R. H. Kastner. East Underw 54:6 O 9 '53; Nat Underw (Life ed) 57:33 O 9 '53; Weekly Underw 169:1014 O 24 '53

Life insurance as high trust. L. A. Lincoln. East Underw 54:13+ S 11 '53; Same abr. Nat Underw (Life ed) 57:5+ S 11 '53; Same cond. Weekly Underw 169:694+ S 19 '53

Life insurance in the dynamic West. W. A. Sullivan. Weekly Underw 169:854+ O 10 '53

Life insurance meets changes effectively. D. B. Martin. East Underw 55:16 S 17 '54

Linking death benefit to deferred pay plan for executives. Nat Underw (Life ed) 57:6 Jl 10 '53

Lumley, Dennant & co. opens life department; represents Mutual Trust Life. East Underw 55:29 O 15 '54; Weekly Underw 171:918 O 16 '54

Major problems of NALU termed legislative. R. C. Gilmore, jr. Weekly Underw 169:1188 N 14 '53; Same abr. East Underw 54:6 N 13 '53; Abstract. Nat Underw (Life ed) 57:9 N 13 '53

Many Americans uninsured. H. L. Amber. East Underw 54:3 Jl 3 '53

Massachusetts Mutual underwriting changes. L. J. Kalmbach. East Underw 55:3 Jl 9 '54; Abstract. Nat Underw (Life ed) 58:3+ Jl 9 '54

Methods, money and morals. Nat Underw (Life ed) 57:7 Jl 10 '53

New frontiers of LAA. N. A. White. East Underw 54:11 O 16 '53

New life carrier organized in North Carolina; Allied life insurance co. Weekly Underw 169:1519 D 19 '53

1954 areas for decision; life executives discuss growth and Congress. Spectator 162:18-19+ Ja '54

1953 a lively year for life insurance news. Nat Underw (Life ed) 58:3+ Ja 1 '54

Nothing so important as to face future with reasonable sense of assurance. C. S. Littledale. Weekly Underw 169:638 S 12 '53

Observations of seven decades in the business of life insurance. F. H. Ecker. East Underw 55:24-5+ pt 2 O 1 '54

Pacific Mutual Life plan of mutualization approved; California Appellate court decision. Weekly Underw 170:1365 My 29 '54; Same. Nat Underw (Life ed) 58:2 My 21 '54

Predicts trillion in life cover. S. S. Huebner. Weekly Underw 169:657+ S 19 '53

Pressure in all lines of insurance is for more efficient distribution at lower cost. C. J. Zimmerman. Nat Underw 57:7+ O 15 '53; Same. Nat Underw (Life ed) 57:2 O 16 '53

Review of 1953. C. J. Zimmerman. Weekly Underw 170:84+ Ja 2 '54

793 legal reserve life carriers according to Life Institute survey. Weekly Underw 170:225+ Ja 23 '54; Same. Nat Underw (Life ed) 58:23 Je 11 '54

Social security committee issues scathing denunciation of OASI bill; NALU position. Nat Underw (Life ed) Daily ed 58:15+ S 22 '54

Social security menaces agent's right to live; opposes H.R. 9366; abstracts. A. C. Adams. Nat Underw (Life ed) 58:1+, Jl 2 '54; Weekly Underw 171:94 Jl 10 '54

Some group plans paternalistic; threat of regulation increases. R. R. Lounsbury. Nat Underw (Life ed) 58:33 O 8 '54; Same cond. Weekly Underw 171:874 O 9 '54

Stop centralization; check government competition. L. F. Lee. East Underw 54:6 S 18 '53; Same abr. Weekly Underw 169:686-7 S 19 '53

Substantial cases going through large agency; Connecticut General, Philadelphia. F. J. Campbell. East Underw 55:10 F 5 '54

Trend away from efforts to give all social coverages to government; abstracts. R. L. Hogg. Nat Underw (Life ed) 57:21+ O 9 '53; East Underw 54:4 O 9 '53; Weekly Underw 169:898+ O 10 '53

Warns of underwriting adjustments to changing situations. J. C. Archibald. East Underw 55:5-6 Ap 30 '54

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also American life convention; Equitable life assurance society of the United States; Life insurance agency management association; Life insurance association of America; Life insurers conference; Northeastern life insurance company of New York; Northwestern mutual life insurance company

Accounting

Uniform accounting; NAIC. Nat Underw (Life ed) 57:2 D 4 '53

Adjustment of claims

Claims, court practice; contributory disease as a defense to claims for benefits in the event of death resulting from injuries caused by accidental means. R. H. Long. East Underw 54:6 S 18 '53

Companies lose important Alabama legal action. Weekly Underw 170:730 Mr 20 '54

Company estopped from claiming forfeiture; American life insurance co. v. Hauer. L. A. Burke. Spectator 162:64-5 F '54

Experience in trying our own cases. R. H. Long. East Underw 55:7 O 8 '54; Same. Nat Underw (Life ed) 58:40 O 8 '54; Same. Weekly Underw 171:878 O 9 '54

INSURANCE, Life—Adjustment of claims —*Continued*

Insurer proves absence of contract, wins suit. Nat Underw (Life ed) 57:19 N 27 '53
Intention of insured held controlling in Texas life insurance case; Williams et al v. Williams et al. Weekly Underw 170:214 Ja 16 '54
Right to recover double indemnity premiums; Koplovitz v. New York Life. L. A. Burke. Spectator (Endorsement no) 161:88 D '53

Advertising

Advertising manager shouldn't be under agency V-P. H. V. Wade. Nat Underw (Life ed) 58:16 Ap 16 '54
Carry sales effort to the mass of people. A. H. Motley. East Underw 54:11 O 16 '53
Company's advertising program on home-security; illustrations with text. Spectator 162:36-7 Mr '54
Good merchandising and what makes it. H. D. Trueblood. East Underw 54:3 O 23 '53
How advertising pays off for us; LIAMA forum. East Underw 54:14+ N 13 '53; Weekly Underw 169:1182+ N 14 '53; Nat Underw (Life ed) 57:4+ N 13 '53
Life Institute opens broadest ad campaign; theme, In change there is opportunity. East Underw 55:17 O 8 '54; Nat Underw (Life ed) 58:2 O 8 '54; Weekly Underw 171:867 O 9 '54
LIAA exhibit winners; list. East Underw 55:3 O 1 '54; Nat Underw (Life ed) 58:5 O 8 '54; Weekly Underw 171:801+ O 2 '54
Life insurance company advertising in magazines with national circulation. East Underw 54:44-5+ pt 2 S 25 '53
Life insurance company advertising in magazines with national circulation; '54 story summarized, by company. East Underw 55:44-5+ pt 2 O 1 '54
Metropolitan, Hancock, New York Life win awards; contest of Saturday Review. East Underw 55:5 Ag 6 '54
Mutual of New York ads prove potency in making folks remember Mutual Life of New York. R. B. Mitchell. Nat Underw (Life ed) 57:5-6 Jl 31 '53
New Life Institute advertising to use 500 daily papers. H. J. Johnson. East Underw 54:1+ S 18 '53; Same. Weekly Underw 169:693+ S 19 '53
Problem, to stir the trade; Security Mutual Life of Binghamton. il Ptr Ink 244:41-2 Jl 31 '53
Relationship of advertising to life insurance sales. J. J. D. Spillan and B. F. Busch. Adv Agency 47:74-5+ S '54
Reps told how to boost insurance companies' linage. D. F. Barnes. Ed & Pub 86:15 Mr 21 '53
Sales promotion key position in insurance. W. F. Hanselman. East Underw 55:7 O 1 '54
Use agents' actual experiences in ads; abstracts. C. J. North. Nat Underw (Life ed) 57:1+ O 9 '53; East Underw 54:11 O 16 '53
Versatility needed in advertising, sales promotion and public relations. R. R. Lounsbury. Weekly Underw 171:796+ O 2 '54; Same abr. East Underw 55:4 O 1 '54
What about television? life insurance companies. C. R. Corcoran. East Underw 54:134 pt 2 S 25 '53
What happens when you brand an intangible? based on an interview with R. V. Vernet, Mutual life insurance co. of New York. C. J. Swan. il Ptr Ink 243:35-6 Je 19 '53
Winners of promotional material, advertising awards at L.A.A. convention; list. Nat Underw (Life ed) 57:10 O 16 '53

See also
Life insurance advertisers association

Agency management

Activating average agent; abstracts. B. F. Hadley. Weekly Underw 169:902+ O 10 '53; East Underw 54:5 O 9 '53; Nat Underw (Life ed) 57:31+ O 9 '53
Agency and individual both benefit from morale. J. C. Benson. Nat Underw (Life ed) Daily ed 57:10+ Ag 27 '53; Same. Life Ins Courant 59:18-20 Ja '54; Same abr. East Underw 54:9 Ag 28 '53; Same cond. Weekly Underw 169:563+ S 5 '53
Agency problems at New York Life. P. A. Norton. East Underw 55:12 F 19 '54
Agent's importance; abstracts. H. M. Cady. East Underw 54:5 O 9 '53; Nat Underw (Life ed) 57:31+ O 9 '53
Building agency prestige. J. A. Hill. Nat Underw (Life ed) Daily ed 57:18+ Ag 26 '53
C. H. Orr, E. C. DeVol partnership formed for National Life, Vermont. East Underw 55:6 F 26 '54
Consultants to wealthy individuals and corporations; John Kellam associates, New Canaan. East Underw 54:178+ pt 2 S 25 '53
Cutting down agent turnover. C. L. Lapp. Life Ins Courant 59:31 Je '54
Esprit big factor in success. W. Phelps. East Underw 55:17 F 26 '54
Experiments in agency building. L. M. Huppeler. Nat Underw (Life ed) Daily ed 57:6+ Ag 27 '53; Same. Life Ins Courant 58:30-1+ N '53; Same. Weekly Underw 169:912-15 O 10 '53; Same cond. East Underw 54:8+ Ag 28 '53
How Ohio State gives general agents a voice in planning; abstracts. F. L. Barnes. Nat Underw (Life ed) 58:13 Mr 19 '54; East Underw 55:21 Mr 19 '54
How to cut agent turnover. F. A. Schnell. Nat Underw (Life ed) 57:20 N 6 '53
Human values needed in successful operation of a brokerage agency. A. Milton. East Underw 55:14 Jl 30 '54
Improve grooming of life supervisors; abstracts. C. J. Zimmerman. Nat Underw (Life ed) 57:2+ N 13 '53; Weekly Underw 169:1180+ N 14 '53
Leading producer has ideal set-up. J. F. O'Connor. Nat Underw (Life ed) 57:13 Jl 31 '53
List considerations before opening new territories; LIAMA's agency management conference; panel discussion. Nat Underw (Life ed) 58:12 Mr 26 '54
Low middle income sales stress harmful to general agent. D. Kaufman. Nat Underw (Life ed) 57:3 N 20 '53
Metropolitan's new market research division. C. J. North. East Underw 55:4+ Ap 2 '54
Mid-West management conference, French Lick, Ind. Oct. 22-24. Nat Underw (Life ed) 57:5+ O 30 '53; East Underw 54:11 N 6 '53
Needs facing today's field management. P. F. Clark. East Underw 55:17 O 15 '54
Never underestimate the power of money as incentive to persistency. W. O. Johnson. Nat Underw (Life ed) 58:10 Mr 19 '54
New look in selling; competition and the general manager. P. F. Clark. Nat Underw (Life ed) Daily ed 58:3+ S 23 '54; Excerpt. Weekly Underw 171:693+ S 25 '54
Objectives for an agency officer. B. N. Woodson. Nat Underw (Life ed) 58:2+ Mr 19 '54
Personnel administration. H. H. Allen. Nat Underw (Life ed) 57:1+ S 25 '53; Same cond. East Underw 54:10 S 25 '53
Pressures inevitable in general agent's job. F. Vineyard. Nat Underw (Life ed) 57:17 N 20 '53
Quality business as pay-off. F. B. Maher. and C. L. Morse. East Underw 54:6 N 13 '53; Same abr. Nat Underw (Life ed) 57:6 N 13 '53
Research no substitute for judgment but avoids costly decisions based on inadequate data. S. R. Wallace, jr. Nat Underw (Life ed) 58:17 Mr 19 '54
Specific objectives guide progress at Great National Life; abstracts. C. E. Gaines. Nat Underw (Life ed) 58:11 Mr 19 '54; East Underw 55:20-1 Mr 19 '54
Success appeal of field management; abstracts. L. J. Melby. East Underw 55:43 Mr 19 '54; Nat Underw 58:30 Mr 25 '54; Nat Underw (Life ed) 58:12 Mr 19 '54
Trainer's panels, compensation forum put sparkling final touch to LIAMA annual meeting. Nat Underw (Life ed) 57:2+ N 20 '53
Urges realistic view of turnover problem. R. E. Pille. Nat Underw (Life ed) 57:23+ O 9 '53; Same. East Underw 54:4 O 9 '53
Want to multiply production? W. T. Earls. Weekly Underw 170:210+ Ja 16 '54
What Home Life means by planned estates; marketing of life insurance. W. P. Worthington. East Underw 54:4 O 2 '53

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Whole company team must become sales minded. C. M. Shanks. East Underw 54:3 S 4 '53; Same. Nat Underw (Life ed) Daily ed 57:3+ Ag 27 '53; Same cond. Weekly Underw 169:461+ Ag 29 '53

Why of agency building. R. Hull. Life Ins Courant 59:20-2 Jl '54

Agency managers

Agency officer must be on top of job. F. L. Whitbeck, jr. East Underw 55:14 Mr 19 '54; Abstract. Nat Underw (Life ed) 58:6 Mr 19 '54

Connecticut Mutual general agents annual conference, Hollywood, Fla. Weekly Underw 170:494 F 20 '54

Fidelity Mutual Life's general agency conference, Hollywood Beach, Fla. East Underw 55:3+, 6 Ap 16 '54

Home Life managers meeting, Rye, N.Y. East Underw 55:8 My 14 '54; Nat Underw (Life ed) 58:6+ My 14 '54

J. F. MacGrath, jr. heads Life managers of New York; succeeds Thomas L. O'Hara. East Underw 55:15 F 26 '54

John Hancock agency leaders meeting, Chicago, Sept. 29-Oct. 2. East Underw 54:3-4+, 23 O 16 '53; Nat Underw (Life ed) 57:1+ O 2 '53; Weekly Underw 169:853+ O 10 '53

Manager is key agency man; LIAMA's combination companies conference panel discussion. Nat Underw (Life ed) 58:1+ My 7 '54

Manhattan Life annual agency conference, French Lick, Ind. Nat Underw (Life ed) 57:15 O 9 '53

Metropolitan Life managers meeting, New York. East Underw 55:3-4+ Ap 2 '54

Michigan life agency management association meeting, Lansing. Nat Underw (Life ed) 57:9 O 9 '53

Mutual Benefit general agents and agency leaders meeting, Miami Beach, Fla. East Underw 55:3+ Ap 9 '54; Nat Underw (Life ed) 58:9 Ap 9 '54

Mutual trust life general agents' association annual meeting, New York. East Underw 54:9 O 23 '53

New York state general agents and managers meeting, Saratoga Springs. East Underw 55:3+ F 26 '54; Nat Underw (Life ed) 58: 3+ F 26 '54

Provident Mutual general agents and managers regional sales meeting, Colorado and California. East Underw 55:3+ Jl 23 '54

Prudential Ordinary agencies national managers conference, 1st, Edgewater Park, Miss. March 31-April 3. East Underw 55:1+ Ap 9 '54; Nat Underw (Life ed) 58:2+ Ap 9 '54; Weekly Underw 170:932-3 Ap 10 '54

Southwest management conference, 1st, Mineral Wells; sponsored by General agents and managers conference of Texas. Nat Underw (Life ed) 58:7 O 15 '54

State Mutual Life's annual meeting, Miami Beach, March 24-27. East Underw 55:12 Mr 26 '54

Union Casualty and Life general agency meeting, 1st, New York. East Underw 55: 18 Mr 26 '54; Nat Underw (Life ed) 58:17 Mr 26 '54; Weekly Underw 170:807 Mr 27 '54

Union Mutual Life agency managers meeting, Kezer Lake, Me., June 14. East Underw 55:19 Je 25 '54

West Coast leaders club annual meeting, British Columbia. Nat Underw (Life ed) 57:2+ O 9 '53

What makes general agency leadership? D. B. Slattery. East Underw 54:3 O 30 '53

See also

National association of life underwriters—General agents and managers conference

Training

L.I.A.M.A. Atlantic alumni association of graduates of the schools of management annual management conference, Rye, N.Y. Nat Underw (Life ed) 57:2 O 30 '53

LIAMA notes big swing toward schools for assistant managers of combination companies. Nat Underw (Life ed) 58:5+ Ap 2 '54

LIAMA report tells how companies get, train new managers. Nat Underw (Life ed) 58:6 Jl 2 '54

NALU's function in agency management education questioned. L. O. Schriver. East Underw 55:11 Ja 29 '54

State Mutual opens new training center, Pittsburgh. East Underw 55:5 Jl 9 '54; Same. Weekly Underw 171:92 Jl 10 '54

Agency system

Agency system may well be at its most crucial point; abstracts. R. C. Gilmore, jr. Nat Underw (Life ed) Daily ed 58:3+ S 22 '54; East Underw 55:9 S 24 '54

Agents

Advantages of larger clientele. H. S. Hart. East Underw 54:3-4 Jl 3 '53

Afraid to sell? B. Feinberg. Life Ins Courant 59:21-2+ O '54

Agency needs $500,000 average output. C. R. Purser. Nat Underw (Life ed) Daily ed 57: 39-40 Ag 28 '53; Same. East Underw 54:6+ Ag 28 '53

Agents active, industrious, but as organized as a squirrel in a cage. K. L. Anderson. Nat Underw (Life ed) 57:9 O 30 '53

Agents, do they correctly channel sales effort? H. Dingman. Nat Underw (Life ed) 58:2 O 15 '54

Agents make bastions of democracy strong; protection against welfare state. E. B. Hanify. East Underw 54:15 O 23 '53

Agents qualifications. D. D. Murphy. East Underw 54:10 O 16 '53

Amazing property; Mutual Benefit selling symposium. H. Dahlberg and others. Life Ins Courant 58:15-17+ D '53

As our enthusiasm goes. P. H. Russo. Life Ins Courant 59:21 Ja '54

Average agent can be activated to be success; abstracts. B. F. Hadley. East Underw 55:20 Mr 19 '54; Nat Underw (Life ed) 58:21 Mr 19 '54

Bergen-Eiber agency; winner of the Edwin A. Olson achievement trophy. East Underw 55:10 F 12 '54

Best sales targets outlined. C. J. Zimmerman. Nat Underw (Life ed) 58:20 O 15 '54

Canned sales talks. D. Robinson. Weekly Underw 171:153 Jl 17 '54

Challenge to life insurance industry; abstracts. C. M. Shanks. Weekly Underw 171:746-8 S 25 '54; Nat Underw (Life ed) Daily ed 58:8+ S 22 '54; East Underw 55:6+ S 24 '54

Characteristics of insurance man with endurance. J. F. Griffing. Nat Underw (Life ed) Daily ed 58:13+ S 23 '54

Connecticut Mutual survey shows sources of new business. Nat Underw (Life ed) 57:8 O 23 '53

Counter-attack on objections. B. Fane. Life Ins Courant 58:23-4 Jl '53

Do you know what you're doing? W. T. Larsen. il Life Ins Courant 58:16-17 Jl '53

Don't let salesmanship go soft. V. B. Coffin. Nat Underw (Life ed) 58:7 Mr 5 '54

Effective work plan. E. M. Folliard. Life Ins Courant 59:42-4 S '54

Fears that beset us. H. K. Gutmann. East Underw 54:25 N 13 '53

Five million dollar writers tell New York city association members how they do it. East Underw 54:10 N 20 '53; Nat Underw (Life ed) 57:19 N 20 '53

Five-point program for recruiting, training. G. D. McKinney. Nat Underw (Life ed) 57:19 N 6 '53

Follow money trends. K. D. Hamer. Life Ins Courant 59:24-7 Ap '54

For the man who doesn't forget. W. H. Cheadle. Life Ins Courant 58:26-7 N '53

Four hours, what a difference! selling rated policies. H. L. Michael. Life Ins Courant 59:25-6 S '54

Four motors of success. H. S. Bell. Life Ins Courant 58:16-19+ O '53; Same abr. Nat Underw (Life ed) Daily ed 57:22+ Ag 26 '53; Same cond. Weekly Underw 169:502+ Ag 29 '53

Fundamentals in their relationship to selling success. E. Russo. Nat Underw (Life ed) 58:4 Jl 30 '54

INSURANCE, Life—Agents—*Continued*

Gold book of life insurance selling. East Underw 54:11-184 pt 2 S 25 '53; 55:11-193 pt 2 O 1 '54

H. C. Rose, New York, paid for $6 million in 1953. East Underw 55:17 F 26 '54

Happy worker high producer, LIAMA job survey. Nat Underw (Life ed) 58:3+ Ag 27 '54

Higher expenses for agents' training a management test; need aggressive salesmanship revival and continuous agency building. R. Hull. East Underw 55:1+ My 7 '54; Same. Weekly Underw 170:1182 My 8 '54; Same. Nat Underw (Life ed) 58:2 My 7 '54

How he sold, then conserved one of his toughest cases. G. Taggart. Nat Underw (Life ed) 57:17-18 S 18 '53

How I established myself in life underwriting. C. W. Croley. Life Ins Courant 58:13-14+ D '53

How I tripled my sales volume. W. Kouwenhoven. Life Ins Courant 59:18-19 Ap '54

How selling formula proved out in actual experience. C. H. Killen. Nat Underw (Life ed) Daily ed 58:11+ S 23 '54

How to build wanting to bad enough attitude. W. J. Schergens. Nat Underw (Life ed) 58:19 Mr 26 '54

How to raise the average size of your applications. Weekly Underw 170:816, 876 Mr 27-Ap 3 '54

Impulse buying; selling program insurance. L. A. Arzt. Weekly Underw 170:1628 Je 26 '54

Increase income with term conversions. W. Buck. Life Ins Courant 58:12-13 Jl '53

It ain't so! how to overcome objections of prospects. R. B. Proctor. Life Ins Courant 59:45-8 S '54

It's practical to be ethical. R. J. Nicosia. Weekly Underw 171:888 O 9 '54

It's the world's best property. W. H. King. Life Ins Courant 59:12-13 Mr '54

Knowing the value of each hour is best road to positive mental attitude. R. E. Wood. Nat Underw (Life ed) 58:23 Ap 9 '54

Labor union efforts to invade the life business; and other problems. R. E. Wood. Nat Underw (Life ed) 57:7+ D 18 '53

Lawyer-agents in Milwaukee agency; J. Lowell Craig agency, Northwestern Mutual Life. East Underw 55:18 Ap 2 '54

Lawyer sells life insurance. W. Chwialkowski. Life Ins Courant 59:15-16 S '54

Life field is a natural for general lines men. H. A. Carr. Rough Notes 96:81-2 N '53

"LIP" formula keeps agent from missing any bets in his sales pitch. P. A. Quarto. Nat Underw (Life ed) 57:15 O 23 '53

Million dollar round table discussion at NALU convention. Nat Underw (Life ed) Daily ed 58:3+ S 23 '54

Million dollar round table; how to become a member. R. M. Baker. Life Ins Courant 59:23 Je '54

M.D.R.T. member; characteristics. W. T. Earls. Nat Underw (Life ed) Daily ed 57:8+ Ag 28 '53

Million dollar round table members; final list. East Underw 55:3+ My 21 '54

MDRT members should broaden their activities. D. B. Fluegelman. East Underw 54:8 Jl 3 '53; Abstract. Nat Underw (Life ed) 57:5 Jl 10 '53

MDRT qualifiers; list. Nat Underw (Life ed) 58:1+ Ja 22; 1+ Mr 5; 1+ Mr 19; 2+ Ap 23; 1+ My 14 '54

More lives does not reduce prospecting levels. R. E. Pille. East Underw 55:4 Ap 16 '54

Need for better merchandising. B. Palmer. East Underw 54:5 S 18 '53

Outlook for life insurance never so bright; abstracts. E. L. Zalinski. Nat Underw (Life ed) Daily ed 58:6+ S 24 '54; Weekly Underw 171:802-3+ O 2 '54; East Underw 55:7 S 24 '54

Personal progress record, 1954; with chart and recommended guide for completing the production chart. Life Ins Courant 59:29-32 Ja '54

Plan to interview agents on field research. S. R. Wallace, jr. East Underw 54:16 N 13 '53; Same. Weekly Underw 169:1180+ N 14 '53

Pointers based on work habits of six metropolitan millionaires. J. J. Gill. Nat Underw (Life ed) 58:38 My 7 '54

Profession attitude needed for leadership. C. H. Schaaff. East Underw 55:7 Jl 9 '54

Profits increase with life. H. J. Eaton. Rough Notes 97:51-2 My '54

Prospect card file remembers vital sales data, is a practical aid. Weekly Underw 170:619 Mr 6 '54

Prudential's two-year sales leader thrives on cold canvass, sees it as challenge; Bernard C. Lewis, Newark. Nat Underw (Life ed) 57:15 Ag 14 '53

Realistic concept of job good augury for survival of combination agent according to LIAMA study. Nat Underw (Life ed) 58:4 Je 11 '54

Sales briefs. Spectator 162:36 Ja '54 [cont monthly]

Sell lives, volume follows. J. P. Poole. Life Ins Courant 59:17+ Ap '54

Selling sense; abstracts. P. W. Bove. East Underw 55:7+ Mr 19 '54; Nat Underw (Life ed) 58:16 Mr 19 '54

Selling the professional market; with special emphasis on taxes. S. L. Zeigen. East Underw 55:17 Ap 23 '54

Seven steps to successful selling; MDRT meeting, Coronado. Nat Underw (Life ed) 58:19 Je 25 '54

Some Philadelphia agencies and their key personalities. East Underw 54:65 D 11 '53

Steps for avoiding failure. F. G. Kimball. Nat Underw (Life ed) Daily ed 58:10+ S 23 '54; Excerpt. East Underw 55:22 S 24 '54

Substitute for failure. S. W. Folk. Life Ins Courant 59:18-20 Mr '54

Survey of round table members. East Underw 54:5 Jl 3 '53

Teamwork in life selling. B. L. Stern. East Underw 55:8 Ja 15 '54

10,700 to get national quality award for 1953 business; list of ten-year winners, by company. Nat Underw (Life ed) 58:6+ Je 4 '54

Ten time-savers in the interview. D. P. Cahill. Weekly Underw 171:745 S 25 '54

This is life insurance. F. Dixon. Life Ins Courant 59:26-7+ F '54

Three Penn Mutual agents tell how they formulated methods best for them. Nat Underw (Life ed) 57:19 D 25 '53

Time to re-wind the clock; advantages offered by life insurance business. W. E. North. Life Ins Courant 58:23 O '53

To sell more give yourself. Life Ins Courant 58:21-2 O '53

Uninsurable. R. L. Theisen. Life Ins Courant 58:22 Jl '53

Use motivating stories. F. Koteles. Rough Notes 96:58-9 Jl '53

Value of salesman in Nation's economy. C. M. Shanks. Weekly Underw 170:932-3 Ap 10 '54

Volume still door to honor clubs, trend to other factors noted; LIAMA's study. Nat Underw (Life ed) 58:9 Je 25 '54

What makes them buy. L. O. Schriver. East Underw 55:5+ Mr 19 '54

Why? accomplishing sales potential. A. D. Panet. Life Ins Courant 59:44-5 Ja '54

Workable tips; panel discussion of life insurance executives at educational conference of Colonial Life. Nat Underw (Life ed) 58:8 Jl 23 '54

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also Life underwriters association of the city of New York; National association of life underwriters

Advertising

Sayers getting known as Mr Insurance, thanks to his billboard advertising. il Nat Underw (Life ed) 57:14 O 30 '53

Approach

Agent in town of 1,300 tells how he qualifies for MDRT by sticking to seven-step procedure. O. A. Granum. Nat Underw (Life ed) 58:5 Ja 8 '54

Answer those objections. R. W. Osler. Rough Notes 97:58+ Ja '54

INSURANCE, Life—Agents—Approach—*Cont.*

Answering I can't afford it. W. G. Copeland. Weekly Underw 171:674 S 18 '54

Barricaded prospect; opinions from various agents of Continental. Life Ins Courant 59:58-9 Ap '54

Commission scales are set for average agent. D. A. Kaufman. Nat Underw (Life ed) 58:5 My 7 '54

Death struck all around me. J. J. Mulder. Life Ins Courant 59:17+ Ja '54

Doing it in one trip, not in three or four. E. T. Golden. Life Ins Courant 59:16-17 Jl '54

Emotional appeal of life insurance. W. Cooper. East Underw 55:4 Mr 19 '54

Fill in the missing step in your sales presentation with the $64 question. E. T. Naff. Weekly Underw 170:1184, 1251 My 8-15 '54

Getting the interview. H. Ziegler. Life Ins Courant 59:18-20+ F '54

Hot buttons; how Mutual Benefit lifemen motivate the prospect. Life Ins Courant 59:16-17 F '54

Mechanism of seven-step simple programming. O. A. Granum. Nat Underw (Life ed) Daily ed 58:12+ S 23 '54

Meeting Arthur Godfrey competition. C. Axman. East Underw 54:3 S 18 '53

My best problem fixer. E. F. Braun; C. F. Nancarrow. Life Ins Courant 58:24-5 N '53

Original ideas in approach. D. P. Kreer. East Underw 55:10 Ap 16 '54

Social security approach for professional men. R. W. Osler. Rough Notes 96:75-8 D '53

Tie in your sales talk with terms prospects understand. Weekly Underw 170:680 Mr 13 '54

25c a day is all you pay. H. J. Tibbits. Life Ins Courant 59:24+ Jl '54

Associations

First of company contributions paid to New York state association. Nat Underw (Life ed) 57:3 D 4 '53

Funds flow in to support New York state association's work. Nat Underw (Life ed) 57:1 N 20 '53

Merits of the company-member plan in New York state; editorial. Nat Underw (Life ed) 57:14-15 S 18 '53

More details given of NALU debate on New York state industry-associate plan. Nat Underw (Life ed) 58:3+ Ap 2 '54

NALU trustees bar company memberships. F. H. Alberts. East Underw 54:3 Ag 28 '53

NALU trustees like new New York plan for aid from companies. R. B. Mitchell. Nat Underw (Life ed) 57:1+ N 13 '53

New solution possible in New York association problem. Nat Underw (Life ed) 58:1+ Ap 9 '54

New York company plan spotlights agents' NALU status. S. D. Wyman. Nat Underw (Life ed) 57:4 Ag 7 '53

New York leaders stick to their guns on company members. Nat Underw (Life ed) Daily ed 57:3+ Ag 28 '53

New York state association hits implications of ban on its plan. R. B. Mitchell. Nat Underw (Life ed) Daily ed 57:3+ Ag 27 '53

Plan would let New York insurers aid LUA as non-members. R. B. Mitchell. Nat Underw (Life ed) 57:1+ O 16 '53

Three-man committee of NALU to confer on company members; New York state association. Nat Underw (Life ed) 57:2+ S 11 '53

Closures

Art of closing. L. A. Penney. Life Ins Courant 59:16-18 O '54

Closing the sale. W. G. Dougan. Life Ins Courant 59:21-3 S '54

How skillful closing gets results. Weekly Underw 171:419 Ag 21 '54

Objections are clues to the close. Life Ins Courant 58:16-17 N '53

Tips on closing. F. Land. Life Ins Courant 59:27+ My '54

Top tactics in closing. J. H. Howe and others. Life Ins Courant 59:21-3 F '54

Commissions

Albany bills amend life expense limitations law. Weekly Underw 170:450 F 20 '54

Biggest banks shun loans on agents' renewals but smaller ones seek them. Nat Underw (Life ed) 58:7 Jl 30 '54

Commissionless federal group stirs varying responses. R. B. Mitchell. Nat Underw (Life ed) 58:1+ My 28 '54

Compensation committee report intrigues NALU delegates at New Orleans meeting. Weekly Underw 170:809 Mr 27 '54

Compensation committee seeks factual basis for Section 213 commission limits. Nat Underw (Life ed) Daily ed 57:19+ Ag 28 '53

Compensation survey; some companies paying more under Sec. 213. E. J. Moorhead. East Underw 54:3 N 20 '53

Computations show tax savings in level renewal plan. Nat Underw (Life ed) 58:8 F 12 '54

Equitable society reveals major medical, other policies, revised commission scale. Nat Underw (Life ed) 58:2 Ja 15 '54

Gains that Sec. 213 bill would bring. W. J. Cameron. Nat Underw (Life ed) 58:1+ F 26 '54

Illinois backs up National association on U.S. group; asks say for agents. C. C. Clarke. Nat Underw (Life ed) 58:2+ My 28 '54

Income of good agents increasing. W. F. Hanselman. East Underw 55:3-4 Mr 26 '54

Industry spokesmen endorse Sec. 213 changes. East Underw 55:3+ Mr 12 '54

Life expense bills favored; New York house committee reports measures. Weekly Underw 170:638 Mr 13 '54

Long range attitude on compensation. S. C. Collins. East Underw 55:6 Mr 26 '54

Minnesota Mutual Life has new agent's contract. Nat Underw (Life ed) 57:19 O 2 '53

NALU committee lauds bills easing New York expense curbs. Nat Underw (Life ed) 58:4 Mr 12 '54

New York issues rules on amended law Section 213; additional compensation paid general agents and training allowance. Weekly Underw 169:306 Ag 8 '53; Same. East Underw 54:1+ Ag 7 '53; Same cond. Nat Underw (Life ed) 57:2 Ag 7 '53

New York rules on recruit allowance, subsidy for new general agent's find favor. Nat Underw (Life ed) 57:1 Ag 14 '53

Oates decision seen as lift to allure of general agent's job; post-retirement renewals. R. B. Mitchell. Nat Underw (Life ed) 57:1+ N 20 '53

Pact to split commission ruled personal; terminates with death of one party. Nat Underw (Life ed) 58:19 Mr 12 '54

Proposed changes in Section 213 of New York expense limits. East Underw 55:9 F 26 '54; Excerpt. Weekly Underw 170:554 F 27 '54

Report on compensation committee to NALU at annual meeting. Weekly Underw 171:734-5 S 25 '54

Section 213 bills clear hearing without opposition. R. B. Mitchell. Nat Underw (Life ed) 58:1+ Mr 12 '54

Section 213 changes reviewed. A. J. Bohlinger. East Underw 55:18 Ag 20 '54

Sec. 213; New York's expense limitation; analysis of amendments of 1953. M. E. Davis. East Underw 54:8+ O 9 '53; Abstract. Nat Underw (Life ed) 57:25 O 9 '53

U.S. gives up in Oates case, ends general agent's tax plight. Nat Underw (Life ed) 58:1 Ja 29 '54

Company relations

Agency men must win friends on wide front. J. D. Brundage. Nat Underw (Life ed) 58:11 Mr 26 '54

Agency problems a vital responsibility of top management; abstracts. H. Holderness. Nat Underw (Life ed) 57:27+ O 9 '53; East Underw 54:6 O 9 '53

Bluepencils area for management; abstracts. J. L. Bennett. Nat Underw (Life ed) 57:15 N 13 '53; Weekly Underw 169:1180 N 14 '53

Correct objectives of Home Office Underwriters. W. H. Harrison. Weekly Underw 169:1192+ N 14 '53; Same cond. East Underw 54:6 N 6 '53; Abstract. Nat Underw (Life ed) 57:3 N 6 '53

Hancock signs new district agents' contract with unions. East Underw 55:3 Ag 6 '54

INSURANCE, Life—Agents—Company relations —*Continued*

How insurers solve vexatious problems; LIAMA panel. D. Bramley and others. Nat Underw (Life ed) 57:3+ N 13 '53

How Prudential builds its leaders. J. E. Rutherford. Nat Underw (Life ed) 57:4 N 13 '53

Merge field and underwriting ideas. D. P. Alport. Nat Underw 58:29 Mr 25 '54; Same. Nat Underw (Life ed) 58:15 Mr 19 '54

Minimum field control from the home office. E. Fitzgerald. East Underw 55:6 Ja 15 '54

NLRB dismisses Prudential union conflict plea. Nat Underw (Life ed) 57:3+ Jl 31 '53

Prudential, AFL agree, subject to members' OK. Nat Underw (Life ed) 58:4 Mr 5 '54

Prudential's new contract with industrial agents. East Underw 55:16 Mr 5 '54; Same. Weekly Underw 170:612 Mr 6 '54

Questions designed to bring out what agency officers do or don't do in their relations with their agency managers. W. T. Grant. Nat Underw (Life ed) 58:37+ O 8 '54

Contracts

Lifetime agency contracts. P. M. Henry. East Underw 55:7 O 8 '54; Same. Nat Underw (Life ed) 58:38 O 8 '54

Conventions

Illinois association of life underwriters, annual meeting, Peoria. Nat Underw (Life ed) 57:2+ N 6 '53

Life underwriters association of the city of New York meeting. East Underw 55:5 Je 11 '54

N.Y. department rules guest expenses void; violation of section 213. A. J. Bohlinger. East Underw 54:12 O 9 '53; Same. Nat Underw (Life ed) 57:1+ O 9 '53

New York state association of life underwriters 35th annual meeting, Rochester. East Underw 55:5 Je 11 '54; Nat Underw (Life ed) 58:3 My 28 '54; Weekly Underw 170:1424-5 Je 5 '54

Ohio association of life underwriters meeting, Cincinnati. Nat Underw (Life ed) 58:11 My 14 '54

Resort conventions for associations called overdone. Nat Underw (Life ed) 57:9 Jl 24 '53; Discussion. W. T. Grant. 57:3 Ag 7 '53

Texas association of life underwriters annual convention, Houston. Nat Underw (Life ed) 57:8 Jl 3 '53

Texas association of life underwriters 29th annual convention, Austin, June 24-26. East Underw 55:15 Jl 2 '54; Nat Underw (Life ed) 58:4 Jl 9 '54

Value of conventions. Nat Underw (Life ed) 57:10 S 25 '53

Insurance for agents

Agent's post-mortem tax problems; Connecticut CLU institute. Nat Underw (Life ed) 57:3 Ag 28 '53

Great-West raises limits of insurance for agents. East Underw 55:6 F 19 '54

Indianapolis managers told how to plan own estates. R. W. Hilgedag. Nat Underw (Life ed) 58:4 My 28 '54

Planning a general agent's estate. D. F. Hoxie. Nat Underw (Life ed) Daily ed 57: 14+ Ag 28 '53

What agent can do to plan his own oft-neglected estate. J. Barker, jr. Nat Underw (Life ed) 57:1+ D 4 '53

Legal status

Agents' status under social security defined; new Internal revenue rules. East Underw 55:10 Ag 20 '54; Weekly Underw 171:385+ Ag 21 '54; Nat Underw (Life ed) 58:1+ Ag 20 '54

Calls for stronger company license laws in Indiana. Nat Underw (Life ed) 57:5 N 20 '53

Life agents' licenses cited in Rhode Island opinion. Weekly Underw 170:1022 Ap 24 '54

Recruiting

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Sales conventions

Aetna Life leaders meet at Whiteface for first three of four Corps of regionnaire conferences. East Underw 54:1+ Jl 3 '53; Same cond. Nat Underw (Life ed) 57:2 Jl 3 '53

Aetna Life Regionnaires meeting, White Sulphur Springs. East Underw 55:3 Jl 16 '54; Weekly Underw 171:146+ Jl 17 '54

Annual sales congress of Brooklyn branch, 5th, New York. East Underw 55:6 F 5 '54

Annual sales congress, 34th, New York. East Underw 55:4-9+ Mr 19 '54

Bankers National Life's leaders meeting, New York. East Underw 55:16 My 7 '54

Bankers National Life two-day work-a-thon meeting, New York, Jan. 25-26. East Underw 55:3 Ja 29 '54; Nat Underw (Life ed) 58:7 Ja 29 '54

Berkshire Life field convention, Cape Cod. East Underw 54:3-4 Jl 3 '53

Colonial Life general agency group educational conference, Skytop Lodge, Pa. June 27-30. Weekly Underw 171:150+ Jl 17 '54; East Underw 55:4+ Jl 16 '54

Colonial Life of America 56th annual meeting, Pocono Manor, Pa. Oct. 7-9. Weekly Underw 169:1012 O 24 '53; East Underw 54:6 O 16 '53

Connecticut Mutual leaders' round table meeting, Whiteface. East Underw 54:16 S 18 '53

Connecticut Mutual Life leaders' round table meeting, White Sulphur Springs, Aug. 16-18. East Underw 55:3+ S 3 '54; Nat Underw (Life ed) 58:3+ S 3 '54

Continental assurance company Pyramid club convention, Chicago, Sept. 24-25. East Underw 54:1+ O 2 '53; Nat Underw (Life ed) 57:6 O 2 '53

Days of hard work go into planning those sparkling million dollar round table programs. Nat Underw (Life ed) 57:3+ D 11 '53

Equitable of Iowa agents and general agents conference, New Orleans. East Underw 55: 15+ Ap 30 '54; Nat Underw (Life ed) 58:6 Ap 30 '54; Weekly Underw 170:1126 My 1 '54

Fidelity Mutual leaders convention, Hollywood Beach, Fla. Weekly Underw 170:930 Ap 10 '54

Franklin Life annual meeting, Philadelphia, Feb. 13. East Underw 55:8+ F 26 '54

Franklin life insurance company New England division 1st regional convention, Boston, Aug. 27-28. East Underw 54:1+ S 4 '53

Goldstein insurance agency of Hartford 24th annual banquet, Hartford. East Underw 55:12 Ja 22 '54

Home Life field meeting, White Sulphur Springs, W. Va. East Underw 55:16 S 24 '54; Nat Underw (Life ed) 58:8+ S 24 '54

John Hancock President's club, Washington, D.C. East Underw 55:5 Mr 26 '54; Weekly Underw 170:802 Mr 27 '54

Lincoln National Life sales conference, Hollywood, Fla. Weekly Underw 170:206 Ja 16 '54

Massachusetts mutual life agents association conference, Dixville Notch, June 22-24. East Underw 54:6 Jl 24 '53

Massachusetts Mutual Life leaders club business meeting, Banff, Alberta. East Underw 55:3, 7 Jl 9 '54; Nat Underw (Life ed) 58: 5-6 Jl 16 '54; Weekly Underw 171:100 Jl 10 '54

Massachusetts Mutual Life's group insurance sales meeting, Hot Springs, Va. Weekly Underw 170:1552+ Je 19 '54

Michigan State sales caravan. East Underw 54:15 N 6 '53

Million dollar round table annual meeting, Coronado, Calif. June 15-18. East Underw 55:3, 5 Je 25 '54; Nat Underw (Life ed) 58: 1+ Je 25 '54; Weekly Underw 170:1622 Je 26 '54

Million dollar round table 26th annual meeting, White Sulphur Springs. Nat Underw (Life ed) 57:1+, 12-13 Jl 3; 1-3+, 5-6 Jl 10; 5+ Jl 17 '53; East Underw 54:6, 8+ Jl 3 '53

Minnesota Mutual regional field conference, Atlantic City. East Underw 54:3 S 18 '53

Mutual Benefit Life field meeting, Hollywood Beach, Fla. Nat Underw (Life ed) 58:7 Ap 23 '54

National Life of Vermont 1954 Leaders club educational conference, Hollywood Beach, Fla. Weekly Underw 170:926+ Ap 10 '54; East Underw 55:4 Ap 9 '54

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New England Mutual Life leaders association meeting, Hot Springs, Va. East Underw 55:20-1 Ap 16 '54; Weekly Underw 170:990 Ap 17 '54

Northwestern mutual agents association meeting, Milwaukee. East Underw 54:3 Jl 31 '53

Northwestern mutual life association of agents' annual meeting, Milwaukee. Nat Underw (Life ed) 57:1+ Jl 24 '53

Northwestern Mutual Life agents eastern regional meeting, New York. Nat Underw (Life ed) 58:1+ Ja 8 '54

Northwestern Mutual Life's annual agents meeting, Milwaukee. East Underw 55:1+ Jl 30 '54; Nat Underw (Life ed) 58:1+ Jl 30 '54

Occidental Life of California eastern and midwestern U.S. and Canadian agencies regional convention, Chicago. Nat Underw (Life ed) 57:13 O 16 '53

Penn Mutual Life eastern and western conferences. East Underw 54:9 Ap 30 '54; Weekly Underw 170:1127 My 1 '54

Penn Mutual Life's 400 club 1st meeting, Alberta, June 24-27. East Underw 54:3 Jl 17 '53; Nat Underw (Life ed) 57:4+ Jl 17 '53; Weekly Underw 169:234+ Jl 25 '53

Philadelphia Life annual sales conference, Atlantic City. East Underw 55:8 Mr 12 '54; Nat Underw (Life ed) 58:9+ Mr 5 '54; Weekly Underw 170:672 Mr 13 '54

Postal Life of New York meeting, Pocono Manor, Pa. May 14-17. East Underw 55:7+ Je 4 '54

Provident Life & Accident life producers convention meeting, Chicago. East Underw 55:17 S 10 '54

Provident Mutual regional sales meeting, Lake Placid. Nat Underw (Life ed) 58:11 O 8 '54

Provident Mutual regional sales meetings, Evergreen, Colo. Nat Underw (Life ed) 58:10-11 Jl 30 '54

State Mutual leaders meeting, Hollywood, Fla. March 29-31. East Underw 55:14 Ap 2 '54; Weekly Underw 170:873 Ap 3 '54

Tri-City congress in Texas attracts record 2,000 agents. Nat Underw (Life ed) 58:22 F 19 '54

Union Central's $500,000 club meeting, Havana. East Underw 55:3-4 Mr 26 '54; Nat Underw (Life ed) 58:21 Mr 19 '54; Weekly Underw 170:734 Mr 20 '54

U.S. Life annual agency convention, Williamsburg, Va. East Underw 54:8+ O 16 '53; Nat Underw (Life ed) 57:23 O 16 '53; Weekly Underw 169:1015+ O 24 '53

Selection

Campus recruiting; panel discussion. R. I. Mehr and R. Hedges. Nat Underw (Life ed) 58:11 Ja 29 '54

Fitting recruits to special life insurance markets. C. C. Gearhart. Nat Underw (Life ed) Daily ed 57:16+ Ag 27 '53; Same. Life Ins Courant 58:30-1+ O '53; Same cond. Weekly Underw 169:563+ S 5 '53; Excerpts. East Underw 54:6 Ag 28 '53

LIAMA reports on application blanks for hiring agents. Nat Underw (Life ed) 58:15 Ag 20 '54

Life insurance must follow other industries in recruiting from colleges. R. P. Stieglitz. Nat Underw (Life ed) Daily ed 57:6 Ag 28 '53

Links better selection and easier training. B. J. O'Donnell. Nat Underw (Life ed) Daily ed 58:14+ S 22 '54

New manpower problem in life insurance industry; LIAMA symposium. C. H. Heyl and others. Weekly Underw 169:1196-8 N 14 '53; Excerpts. East Underw 54:5+ N 13 '53; Abstract. Nat Underw (Life ed) 57:2 N 13 '53

Proper recruiting can end general agent's problems. H. M. Faser, jr. Nat Underw (Life ed) 58:21 F 19 '54

Prospective recruit should do most of talking in interview. F. L. Merritt. Nat Underw (Life ed) 58:3 Mr 26 '54

Service

How to turn no-man into yes-man. F. R. Richardson. Weekly Underw 171:204 Jl 24 '54

Lauds district agent; abstracts. B. K. Elliott. East Underw 55:5 Mr 26 '54; Nat Underw (Life ed) 58:12 Ap 2 '54

Sales service and the new tax law. S. J. Foosaner. Weekly Underw 171:735 S 25 '54

Services of a producer. H. K. Gutmann. East Underw 55:14 S 24 '54

Simple servicing jobs lead to increased sales. A. J. Schick. Nat Underw (Life ed) 57:23 Ag 7 '53

Stresses conviction, enthusiasm, service. M. Willour. Nat Underw (Life ed) Daily ed 58:4+ S 23 '54

What will make people buy from you. J. J. Serra. Life Ins Courant 59:28-30 Je '54

Taxation

Code cures unfair tax on posthumous commissions. I. V. Brunstrom. Nat Underw (Life ed) 58:1+ S 3 '54

Telephone calls

Telephone technique for interviewing prospects. A. H. Bickerstaff; A. J. Elder. Nat Underw (Life ed) 58:8 Jl 23 '54

Ten time-savers in the interview; on the telephone. D. P. Cahill. Weekly Underw 171:745 S 25 '54

Training

Better agent key in competing for consumer dollar; abstracts. E. M. McConney. Nat Underw (Life ed) 58:11 S 17 '54; Weekly Underw 171:666 S 18 '54

Business of life insurance; training plans for the general agent. J. W. Yates. Nat Underw (Life ed) Daily ed 58:6+ S 23 '54

Columbus Mutual's golden triangle career plan. B. F. Hadley. East Underw 54:3+ S 25 '53; Same. Spectator 161:30-1+ O '53; Abstract. Nat Underw (Life ed) 57:3, 11 O 30 '53

Company educational programs embrace trainer, trainee; LIAMA panel sessions. Nat Underw (Life ed) 57:9+ N 27 '53

Convincing neophyte he still needs training is tough job. H. L. Hamilton. Nat Underw (Life ed) Daily ed 58:13+ S 22 '54

Difficult first year of the agent. L. T. Smith. Nat Underw (Life ed) Daily ed 58:22+ S 22 '54

Expanding harvests. S. S. Huebner. Weekly Underw 169:503+ Ag 29 '53

First weeks on debit. T. P. Henderson, jr. Nat Underw (Life ed) Daily ed 58:23+ S 22 '54

LIAMA study of Southern Methodist university graduates shows poorer, less experienced men benefit most. Nat Underw (Life ed) 58:7+ Ag 27 '54

LUTC courses' value extolled at NALU-LUTC luncheon, New Orleans. Nat Underw (Life ed) 58:9 Ap 2 '54

Management no brief proposition. E. M. Schwemm. Nat Underw (Life ed) Daily ed 58:12+ S 22 '54

New home office group representatives of New York Life. East Underw 54:4 Jl 24 '53

Occidental Life devises clever training program. Weekly Underw 169:106 Jl 11 '53

Over-educating new man may drive him away. R. D. Rogers. Nat Underw (Life ed) 58:11 Ap 9 '54

Security Mutual's new programming service, the Compilator. East Underw 54:13 O 30 '53

Step-by-step procedure for training new man. G. J. Mucey. Nat Underw (Life ed) Daily ed 58:18+ S 22 '54

To stimulate trainee, manager himself must be stimulating. H. S. Bell. Nat Underw (Life ed) Daily ed 58:11+ S 22 '54

Training, supervision, joint field work for new agents. J. S. Flanagan. East Underw 54:156+ pt 2 S 25 '53

Views differ widely on how-or whether-to run schools for new ordinary agents. R. B. Mitchell. Nat Underw (Life ed) 57:9+ Ag 7 '53

What it takes to activate average agent. B. F. Hadley. Nat Underw (Life ed) Daily ed 58:10+ S 22 '54

Visual aids

Visual sales aids. Life Ins Courant 59:39-42 O '54

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Women agents

Business and tax insurance a natural for the woman underwriter. M. F. Lewis. Nat Underw (Life ed) Daily ed 58:4+ S 23 '54

Quickest policy sale closer in America; Moo-Kit Tsui, million dollar writer of Prudential. C. Axman. East Underw 55:10 Ja 29 '54

Women agents discuss the market which they find themselves best fitted to serve. East Underw 54:56-7+ pt 2 S 25 '53

Michigan

Michigan bill seeks written exams for life agents, changes in group rules. Nat Underw (Life ed) 58:15 F 26 '54

New York (state)

New York department set to crack down on all comminglers. Nat Underw 57:11 N 12 '53; Same. Nat Underw (Life ed) 57:8 N 13 '53

Agents' wives

Higher morale, bigger volume, when Pacific Mutual woos salesmen's wives. il Sales Management 70:68+ My 1 '53

How does your husband rate? what you can do to help him. C. A. McClarren. Spectator 162:30-1+ O '54

Partnership assurance; responsibilities of agent's wife. Mrs C. E. Edwards. Life Ins Courant 59:26-8+ Mr '54

Pay special attention to field men's wives at Life insurers conference annual meeting. East Underw 55:4 Ap 30 '54

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Applications

Cashing advance premium check doesn't put coverage in force, Texas court says; Southwestern Life vs. Evans. Nat Underw (Life ed) 58:24 Je 11 '54

Aviation risks

Bankers Life and Casualty in aviation high risk field. Weekly Underw 169:1547+ D 26 '53

Connecticut General Life changes program for civilian pilots. Weekly Underw 117:309 Ag 7 '54

Factors affecting validity of aviation exclusion riders; abstracts. J. W. Fischbach. Nat Underw (Life ed) 57:26+ O 9 '53; East Underw 54:8+ O 9 '53

Life insurance has played important role in development of aviation insurance. H. J. Johnson. Weekly Underw 169:1329+ N 28 '53

Beneficiaries

See Insurance, Life—Policy beneficiaries

Bibliography

Books. Life Ins Courant 59:27 Ja; 12 Ap '54

Life insurance and personal economics. M. P. McLean and M. E. Hunt, comps. (Business literature v. 26, no. 3) p69-70 Business library, Newark public lib, Newark, N.J. N '53

Brokers

How Perrin & son builds up brokers' good will. J. L. Ullman. East Underw 55:10 My 28 '54

Life field reopening for brokers. W. C. Smerling. Nat Underw 58:17 Ap 29 '54

Weghorn educational program to help brokers sell life insurance. J. C. Weghorn. East Underw 55:24 Ja 29 '54

Children's policies

Attractive plus features offered in new Manhattan Life juvenile policies. Weekly Underw 169:444 Ag 22 '53

Manhattan Life realigns juvenile policy portfolio. Nat Underw (Life ed) 57:10 Ag 14 '53

New juvenile policy to be issued by Guardian Life. East Underw 54:13 Ag 28 '53

Security Mutual will issue adult policies starting at age one; sub-standard at age five. East Underw 55:1 Je 4 '54

Claims

See Insurance, Life—Adjustment of claims; Insurance, Life—First year claims; Insurance, Life—Suicide death claims

Cost

Comparisons; dividend scales in effect for 1943 compared with actual histories. Life Ins Courant 58:50-3 Jl '53

Cost of income to wife; payments for income to wife; with tables. Life Ins Courant 58:54-8 S '53; 59:65-70 S '54

Current scales; tables of averages cost based on present dividend scales, for policies of ordinary life type. Life Ins Courant 59:54-62 Je '54

Current scales; 20-pay life and 20-year endowment; by companies. Life Ins Courant 58:64 N '53

Is life insurance too expensive? F. L. Morton. Spectator 162:58-9 F; 64-6 Mr; 52-4 Ap '54

Credit aspects

Abuses touch off Wyoming probe of credit life, A&H. F. S. Taft. Nat Underw 58:16 Ap 8 '54

Commissioners hear views on lending and securities tie-ins. L. Cartwright. East Underw 55:7 Je 18 '54

Credit association hails code adopted by Arizona association of small loan companies. Nat Underw (Life ed) 57:11 Ag 21 '53

Credit insurance probe; Kansas activities reviewed. F. Sullivan. Weekly Underw 171:906 O 16 '54

Credit life insurance co. organized in Hartford. Weekly Underw 171:593 S 11 '54

Credit life insurance total now in force exceeds $9 billion, 1953. East Underw 55:1 Jl 16 '54

Creditor life insurance; handful of companies write vast volume on borrowers, installment-plan buyers. R. Rosenquist. Nat Underw (Life ed) 57:5+ O 23 '53

Farm Bureau's mutual fund plan causes a stir. Nat Underw (Life ed) 58:1+ Jl 9 '54

Group committee comments in mutual fund dispute; NALU. Weekly Underw 171:807-8 O 2 '54

Insurance coercion issue in small loan field discussed before U.S. Senate committee. F. Sullivan. Weekly Underw 171:762 O 2 '54

Insurance commissioners postpone action on credit life A.&H. rules. East Underw 54:45 D 11 '53

Life companies could top mutual funds by using equity annuity. R. B. Mitchell. Nat Underw (Life ed) 58:2 Ag 20 '54; Discussion. 58:5 S 3; 5+ S 17; 9 O 15 '54

Life underwriters association of New York city directors' investment fund action opposing underwriting by companies either on group or individual policy basis. Weekly Underw 171:146+ Jl 17 '54

More insurers may start selling mutual shares. H. K. Gutmann. Nat Underw (Life ed) Daily ed 58:8 S 24 '54

Mutual fund people, life group meet; joint committee is planned to take action on individual complaints of unfair competition. R. B. Mitchell. Nat Underw (Life ed) 58:1 Jl 30 '54

Mutual funds-agents in joint committee to study common interests. East Underw 55:4 Ag 6 '54; Same. Weekly Underw 171:273+ Ag 7 '54

Mutual funds statement on insurance; editorial. Nat Underw (Life ed) 58:8 Jl 30 '54

Name 12-man joint committee of NALU and mutual funds. Nat Underw (Life ed) 58:2+ Ag 6 '54

NAIC report on credit life, A.&H.; adopt statement of principles on sale of credit insurance. East Underw 55:6+ Je 18 '54

NAIC subcommittee favors zone three credit insurance rules. Nat Underw 57:4 S 3 '53; Same. Nat Underw (Life ed) 57:6 S 4 '53

NALU and investment companies issue joint statement of principles. Nat Underw (Life ed) Daily ed 58:8 S 23 '54

NALU, investment companies adopt guiding principles. Nat Underw (Life ed) 58:1+ S 24 '54; East Underw 55:9 O 1 '54

INSURANCE, Life—Credit aspects—*Continued*

Revolutionary significance in Farm Bureau plan. H. K. Gutmann. Nat Underw (Life ed) 58:1+ Ag 27 '54

36-year story; insuring credit. R. D. Shepard. Spectator 161:18-19+ Jl '53

Urge early NAIC action on guides for credit covers. Nat Underw 58:1+ Ap 29 '54; Same. Nat Underw (Life ed) 58:1+ Ap 30 '54

Varying dollar value makes Farm Bureau plan needed hedge. M. D. Lincoln. Nat Underw (Life ed) 58:8+ Ag 20 '54

Warns credit insurance in danger of overregulation. A. J. Cade. Nat Underw 58: 18 Mr 25 '54; Same. Nat Underw (Life ed) 58:20 Mr 12 '54

See also

Consumer credit insurance association

Disability provisions

Life Managers of New York told about A.&H. insurance; panel discussion. M. J. Denda and others. East Underw 54:56+ O 2 '53

Mutual Life pivot system; opportunity to sell disability income or life insurance. W. J. A. Jones. Nat Underw (Life ed) 58:10+ Mr 26 '54

Double indemnity provisions

Right to recover double indemnity premiums; Koplovitz v. New York Life. L. A. Burke. Spectator (Endorsement no) 161:88 D '53

Economic aspects

Agents major thrift force; vast institutional savings. H. J. Johnson. East Underw 55:14 Ag 20 '54

Anti-stock ammunition; how to steer prospects away from stocks or mutual fund shares. M. P. Coyle. Nat Underw (Life ed) 57:19-20 Je 5 '53; Discussion. T. Hawkes. 57:5 Jl 24 '53

Armistice brightens outlook for sales and recruiting. R. B. Mitchell. Nat Underw (Life ed) 57:1+ Jl 31 '53

Atmosphere of life insurance. R. L. Hogg. East Underw 55:10 Jl 30 '54

Challenge to life insurance industry; abstracts. C. M. Shanks. Weekly Underw 171: 746-8 S 25 '54; Nat Underw (Life ed) Daily ed 58:8+ S 22 '54; East Underw 55:6+ S 24 '54

Change in Washington picture for life insurance business evaluated. R. L. Hogg. Nat Underw (Life ed) 57:5+ N 13 '53

Changing market in life insurance. S. MacLeod and others. East Underw 55:11+ pt 2 O 1 '54

Deprecates daily change of economic viewpoints. E. A. Roberts. East Underw 55:3+ Ap 16 '54

Dynamics of economic expansion and future of life insurance business. J. S. Sinclair. East Underw 55:15+ pt 2 O 1 '54

Economic normalizing enhances appeal of life insurance to buyers. E. Stone. Nat Underw (Life ed) 58:6 Ja 1 '54

Economist sees life agents in clover but elbowed by mutual funds, stock market. H. Krooss. Nat Underw (Life ed) 58:6 Mr 26 '54

Family a bulwark of American heritage. R. H. Wherry. East Underw 54:60+ pt 2 S 25 '53

Good year seen for life insurance. H. J. Johnson. Life Ins Courant 59:45 F '54

Great economic era ahead; abstracts. O. K. Anderson. Weekly Underw 170:833+ Ap 3 '54; Nat Underw (Life ed) 58:28 Ap 16 '54

Great future market for life insurance. C. O. Fischer. East Underw 54:12 Jl 10 '53

Great production year; outlook bright for business. C. L. Benner. East Underw 54:13-14 O 2 '53

Huebner's idea sold millions of insurance; human life values; 1924 Los Angeles convention address. East Underw 54:108 pt 2 S 25 '53

Life insurance business activity held essential. P. F. Clark. Weekly Underw 171:942 O 16 '54

Life insurance companies have been responsive to country's economic need. R. D. Murphy. East Underw 54:3-4 S 11 '53

Life insurance prepared to face future; abstracts. E. Fitzgerald. Weekly Underw 169: 1417+ D 12 '53; East Underw 54:58 D 11 '53

Life statements; a record year in 1953; summary of executives' comments. Spectator 162:30-1+ My '54

Lowest and highest income families buy most life insurance. Nat Underw (Life ed) 58:6 O 15 '54

Magnitude and swiftness of change in recent years leaves no room for complacency; abstracts. H. J. Johnson. Weekly Underw 169: 1463 D 12 '53; East Underw 54:22 D 11 '53; Nat Underw (Life ed) 57:8 D 11 '53

Many people save with insurance. Life Ins Courant 58:48 Jl '53

Major recession unlikely. H. W. Brower. Weekly Underw 169:956 O 17 '53

Money market changes appraised. S. C. Badger. East Underw 55:5 O 15 '54

More money available in 1954 to purchase life insurance. R. R. Lounsbury. Weekly Underw 170:322 Ja 30 '54; Same. Nat Underw (Life ed) 58:2+ Ja 8 '54; Excerpt. East Underw 55:11 Ja 22 '54

New middle class offers challenge to insurance. H. J. Johnson. Nat Underw (Life ed) 58:7 Jl 23 '54

Present economic situation. C. L. Benner. Life Ins Courant 58:26-9 D '53

Progressive marketing. H. B. Palmer. East Underw 55:4-5 Ap 16 '54

Ratio of insurance to national income off throughout world. Nat Underw (Life ed) 58:23 Ap 9 '54

Readjustment as aid to life sales. L. W. Dawson. Nat Underw (Life ed) 58:9 Mr 26 '54

Relationship of life insurance to redistribution of income. W. M. Anderson. East Underw 54:28 pt 2 S 25 '53

Resist proposals that violate insurance principles. R. D. Murphy. East Underw 54:7+ O 9 '53; Same. Weekly Underw 169:899 O 10 '53; Abstract. Nat Underw (Life ed) 57:22 O 9 '53

Rising lapse ratio in industrial seen as omen for ordinary in months ahead. Nat Underw (Life ed) 58:5 Je 4 '54

Scale-down of installment debt makes $3,000-$7,500 earners better prospects. E. Stone. Nat Underw (Life ed) 58:3+ Ag 13 '54; Correction. 58:8 Ag 20 '54

Shift of population to suburban areas significant for the insurance salesmen. S. G. Hale. Weekly Underw 170:926 Ap 10 '54

Skillful timing wanted in approaching honest money goal. W. R. Burgess. Nat Underw (Life ed) 57:16 O 16 '53

Sound-money program under way in Treasury. C. B. Cleary. Nat Underw (Life ed) Daily ed 57:16+ Ag 26 '53; Same abr. East Underw 54:6+ Ag 28 '53

Stabilizing funds now available to support economy. C. L. Benner. East Underw 55:1+ Ap 16 '54

Temporary retrocession following prosperity periods do not warrant pessimism. B. K. Elliott. East Underw 55:3+ F 26 '54; Same abr. Weekly Underw 170:551 F 27 '54; Same cond.. Nat Underw (Life ed) 58:7 F 26 '54

Urges cooperation with Treasury aims. O. K. Anderson. East Underw 54:18 O 16 '53

Why some clients do not buy insurance. C. C. Luhnow. East Underw 55:4 F 26 '54

Employees' insurance

Advantages of insured as opposed to uninsured pension plans; New England Mutual Life panel discussion. Weekly Underw 171:536 S 4 '54

Analysis of the self administered pension plan; abstracts. F. G. Bray and D. Marks, jr. East Underw 55:5 Je 25 '54; Nat Underw (Life ed) 58:5 Jl 2 '54

Clamp interest tax on option proceeds over first $50,000. Nat Underw (Life ed) 58:3 Ja 29 '54

Don't mix up life insurance salary savings plans with pension plans. C. D. Spencer. East Underw 54:104 pt 2 S 25 '53

Employee death benefits and new provision of the federal income tax law. F. L. Morton. Spectator 161:35-7 Jl '53

Group selling working against ordinary plans. R. R. Lounsbury. East Underw 55:5 O 8 '54

INSURANCE, Life—Employees' insurance —*Continued*

Investing profit-sharing funds in insurance. E. A. Starr. Life Ins Courant 58:30-2+ D '53

Pension plans, insured or not; MDRT panel discussion. East Underw 55:3+ Je 18 '54; Nat Underw (Life ed) 58:3+ Je 25 '54; Weekly Underw 170:1555 Je 19 '54

Profit sharing plans outstripping pension programs; panel on profit-sharing plans at Million dollar round table. Nat Underw (Life ed) 57:1+ Jl 10 '53

Profit sharing trusts, an expanding market for life insurance. D. Marks, jr. East Underw 55:82+ pt 2 O 1 '54

Regulation on $5000 tax-free benefit needs clarifying. Nat Underw (Life ed) Daily ed 57:18-19 Ag 28 '53

Selling individual policy plans. P. W. Cook. East Underw 55:5 Je 25 '54

Small firms are big market for pension, profit-sharing plans; Solomon Huber agency forum. S. Huber. Nat Underw (Life ed) 57:24 D 11 '53

Tax pitfalls in pension plans. M. M. Goldstein. Life Ins Courant 58:18-19+ S '53

Today's tax and corporate needs for life insurance. S. J. Foosaner. East Underw 55:39 F 5 '54

Ways-means plan seen as help to pension programs. Nat Underw (Life ed) 58:1 F 12 '54

Endowment policies

Maturing endowments mean sales. R. E. Bird. Life Ins Courant 59:27-8 O '54

Estate protection

Agent's post-mortem tax problems; Connecticut CLU institute. Nat Underw (Life ed) 57:3+ Ag 28 '53

Death taxes listed for each state; with table. C. J. Cover. Spectator (Endorsement no) 162:104-6 Ag '54

Estate planning for businessmen. W. G. McKenny, jr. Weekly Underw 171:538 S 4 '54

Estate planning forums proving to be successful nationwide. S. L. Zeigen. East Underw 55:5 Ja 29 '54

Estate planning; why, when and how. S. L. Zeigen. East Underw 55:20 Mr 26 '54; Abstract. Nat Underw (Life ed) 58:12 Ap 2 '54

Experiments in agency building; Estate planning and programming service. L. M. Huppeler. Nat Underw (Life ed) Daily ed 57:6+ Ag 27 '53; Same. Life Ins Courant 58:30-1+ N '53; Same. Weekly Underw 169:912-15 O 10 '53; Same cond. East Underw 54:8+ Ag 28 '53

Extravagance of joint ownership. S. A. Monroe. Weekly Underw 170:1312 My 22 '54

How big estate planning cases start. T. Davenport. Nat Underw (Life ed) Daily ed 58:4+ S 23 '54

Indianapolis managers told how to plan own estates. R. W. Hilgedag. Nat Underw (Life ed) 58:4 My 28 '54

Knowledge of estate, tax laws leads to big life insurance sales. S. L. Zeigen. Nat Underw (Life ed) 57:17-18 S 11 '53

Life insurance in estate planning. J. A. Appleman. Spectator 162:32-3+ F; 52+ Mr; 66-7 Ap; 55-7 My; 36-40 Jl; 92-5 Ag; 70+ S; 80-2 O '54

Life insurance in estate planning. J. N. Savage. Life Ins Courant 59:34-6 O '54

MDRT members get 58 questions John Marsh uses in developing estate-planning cases. Nat Underw (Life ed) 58:9 Jl 2 '54

Mutual Benefit in conference of lawyers, insurers. J. Barker, jr. Nat Underw (Life ed) 57:5 Ag 28 '53

New York CLU chapter's 6th annual Estate planner's day, Jan. 21. East Underw 55:5+ Ja 29 '54; Life Ins Courant 59:43-5 Mr '54; Trusts & Estates 93:88-90 F '54

New York CLU chapter's 6th annual Estate planner's day, Jan. 21. Nat Underw (Life ed) 58:3+ F 5; 4, 16-18 F 12 '54

Not estate planning, but common sense! S. Huber. Life Ins Courant 59:30 Jl '54

Planning a general agent's estate. D. F. Hoxie. Nat Underw (Life ed) Daily ed 57:14+ Ag 28 '53

Programming; a step in estate planning. L. Rosen. Nat Underw (Life ed) Daily ed 57:12+ Ag 28 '53

Six reasons why individuals are reluctant to discuss estate planning. E. W. Nippert. Weekly Underw 169:110 Jl 11 '53; Abstract. Nat Underw (Life ed) 57:13 Jl 31 '53

Solomon Huber plans all-day forum at New school for social research. East Underw 55:12+ Je 4 '54; Nat Underw (Life ed) 58:6 My 28 '54

Tax-free insurance reference in Time stirs speculation; federal estate and gift tax exemptions. Nat Underw (Life ed) 58:1 Ag 20 '54

Trust company seeks out estate planning clients; Provident trust co., Philadelphia. Spectator 162:42+ My '54

What agent can do to plan his own oft-neglected estate. J. Barker, jr. Nat Underw (Life ed) 57:1+ D 4 '53

Why plan your estate? S. Huber. Life Ins Courant 59:26-7 Je '54

Wisconsin tally shows wide interest in CLU institutes; estate planning. Nat Underw (Life ed) 57:3 Ag 7 '53

Would exempt $50,000 insurance for taxes. S. J. Foosaner. East Underw 54:8 Ag 21 '53

See also
Estate planning
Insurance trusts

Family income policies

Big increase seen in income payment of policy proceeds. Nat Underw (Life ed) 57:2 Ag 14 '53

Cost of income to wife; payments for income to wife; with tables. Life Ins Courant 58:54-8 S '53; 59:65-70 S '54

Families differ in amounts of life insurance owned. Weekly Underw 169:1520 D 19 '53

Insurance bolsters economy of Nation; life insurance data for first half of 1954. H. J. Johnson. Weekly Underw 171:412 Ag 21 '54

Large portion of life insurance used as income. East Underw 55:8 Ag 27 '54

Life income plans now in favor. Weekly Underw 169:357+ Ag 15 '53

Farmers as prospects

Selling insurance to farmers. W. R. Engelland. East Underw 54:122-3+ pt 2 S 25 '53

Share the harvest. G. Whipple. Life Ins Courant 59:20-1 Ap '54

You don't have to be a farm boy! B. Thurman. Life Ins Courant 59:31-2 My '54

Finance

Assets, not in-force, true measure of company status. Nat Underw (Life ed) 58:8 Je 18 '54

Average policy size; companies shown for average policy written and in force. Life Ins Courant 58:54-6 Jl '53

Blasts some company usage. W. Montgomery. East Underw 54:12 S 11 '53; Abstracts. Nat Underw (Life ed) 57:2 S 11 '53; Weekly Underw 169:628 S 12 '53

California 1953 totals for new business and in force shown; tables. Nat Underw (Life ed) 58:21 Je 11 '54

Canadian life assets reach $5.4 billion during 1953. Spectator 162:34 Jl '54

Canadian life companies report assets of $5,134 million. Spectator 161:37 Ag '53

Connecticut General group cover now exceeds $3 billion. East Underw 55:6 Je 11 '54

Connecticut Mutual financial statement. East Underw 55:15 Ja 29 '54

Early reports from company statements bear out 1953 as banner insurance year. Nat Underw (Life ed) 58:2 Ja 29; 1+ F 5; 2+ F 12; 1+ F 19; 1+ F 26; 2 Mr 5; Mr 12 '54

Early returns from financial statements of life insurance companies for 1953; table. Spectator 162:105-6 Ap; 122 My '54

Equitable society had biggest year in 1953. East Underw 55:16 F 26 '54; Same abr. Weekly Underw 170:546 F 27 '54

'53 new business, life in force shown for Illinois; table. Nat Underw (Life ed) 58:5+ Ap 23 '54

'53 new business, life in force shown for Ohio; tables. Nat Underw (Life ed) 58:7+ My 7 '54

Figures from life companies year-end statements shown; tabulation. Nat Underw (Life ed) 58:17 F 12; 19 F 19; 6 F 26; 15 Mr 5; 13 Mr 12; 16 Mr 19; 11 Mr 26 '54

INSURANCE, Life—Finance—*Continued*

How each dollar was used from total life insurance income in 1952; with table by company. P. A. Reddy. Spectator 161:29-31 N '53

Indiana '53 totals for new business and in force shown; tables. Nat Underw (Life ed) 58:7+ Ap 30 '54

Industrial life assurance; with tables. Economist 168:231 Jl 18 '53

Insurance bolsters economy of Nation; life insurance data for first half of 1954. H. J. Johnson. Weekly Underw 171:412 Ag 21 '54; Same. East Underw 55:5, 8 Ag 27 '54

Insurance booms, but earnings lag. Bsns W p58+ D 26 '53

John Hancock paid-for $1,680 million new insurance last year. East Underw 55:1+ F 12 '54; Same cond. Weekly Underw 170:397+ F 13 '54

Kansas City Life achieves mark of billion in force. East Underw 54:1+ S 11 '53

Life assurance trends. Economist 168:223+ Jl 18 '53

Life insurance companies; business of 1953 and condition, Dec. 31, 1953; table by company. Weekly Underw 170:89-94 sec 2 My 8 '54

Life insurance sales in powerful surge since end of war. Nat Underw (Life ed) 57:20 Jl 10 '53

Life protection now $304,400,000,000. H. J. Johnson. Weekly Underw 170:82+ Ja 2 '54

Massachusetts Life has biggest production year. Weekly Underw 170:422 F 13 '54

Massachusetts Mutual announces new production records. East Underw 54:5 Jl 31 '53

Massachusetts Mutual Life passes $4 billion mark. L. J. Kalmbach. Weekly Underw 170:1062 Ap 24 '54; Same abr. East Underw 55:6 Ap 23 '54

Massachusetts Mutual sets production record; annual quota buster contest. East Underw 54:6 D 18 '53; Same abr. Nat Underw (Life ed) 57:10 D 18 '53; Same abr. Weekly Underw 169:1521 D 19 '53

Metropolitan Life's new business in '53 topped $4 billion. East Underw 55:1+ F 26 '54; Weekly Underw 170:509+ F 27 '54

Minnesota Mutual stages special events heralding entry in $1 billion in force ranks. Nat Underw (Life ed) 57:3 Ag 21 '53; Same cond. East Underw 54:3 Ag 21 '53

Mutual Life of New York tops $4,825,100,000 in force, 1953. Weekly Underw 170:546 F 27 '54

Net rate earned on mean ledger assets; 1935, 1939-1952; table by company. Life Ins Courant 58:60-1 O '53

New business for past three years, 1951-1953 and insurance in force, Dec. 31, 1953; table by company. East Underw 55:14-19 Ap 9 '54

New England Mutual new business in '53 topped $441 million. East Underw 55:1+ Mr 26 '54

New rate earned on mean ledger assets, 1935-1953; table by company. Life Ins Courant 59:64-5 O '54

New York '53 sales, in-force; table by companies. Nat Underw (Life ed) 58:5 Mr 19 '54

New York Life had $1,066 million of ordinary business, 1953. East Underw 55:1+ Mr 5 '54; Weekly Underw 170:569+ Mr 6 '54

1953 Wisconsin results listed for life companies; tables. Nat Underw (Life ed) 58:11 Ap 16 '54

1953's great record of life insurance production; abstracts. B. E. Shepherd. East Underw 54:38+ D 11 '53; Nat Underw (Life ed) 57:7 D 11 '53

Occidental Life writings broke all records in '53. Weekly Underw 170:608+ Mr 6 '54

Patterns of growth for 188 life insurance companies; by size and type of insurance written; table. Spectator 161:107-10 N '53

Phoenix Mutual made substantial '53 gains. East Underw 55:19 F 19 '54

Principal assets of United States life insurance companies, 1939-1952, monthly Nov. 1952-Nov. 1953. Fed Res Bul 40:55 Ja '54 [cont monthly]

Prudential's '53 sales totaled $5,484 million; assets $10.944 million. East Underw 55:1+ Mr 12 '54; Same. Weekly Underw 170:670+ Mr 13 '54

Record rise in ownership in 1953 according to Institute of life insurance. Life Ins Courant 59:46-7 F '54

Republic National Life passes half-billion in force mark. East Underw 54:37 D 11 '53

Rhode Island new business and in force for 1953; tables. Nat Underw (Life ed) 58:37 My 7 '54

Statements show narrow margins under New York expense limitations; with tables. R. B. Mitchell. Nat Underw (Life ed) 58:4+ Ap 9 '54

Union Labor Life enjoys finest year in history. M. Woll. Weekly Underw 170:1129 My 1 '54

See also
Insurance, Life—
Investments

First-year claims

First-year death stories powerful motivators; reports of life fieldmen. Weekly Underw 170:1185-7, 1430-2, 1500-1 My 8, Je 5-12 '54

Metropolitan Life cases where insured died shortly after purchase of policies. East Underw 54:94 pt 2 S 25 '53

$124,000,000 paid on first-year deaths by life insurance companies in 1953. Weekly Underw 170:5 sec 2 My 8 '54

Fraudulent promotion

Maloney charges blue sky violations by Arizona's newest life company. Nat Underw 57:13 Ag 6 '53; Same. Nat Underw (Life ed) 57:10 Ag 7 '53

Fraudulent statements

Appeals facts in force from acceptance date; court decision in California. East Underw 55:5 Ap 2 '54

General agents

See Insurance, Life—Agency managers

Health conservation service

Contribution of life insurance to Nation's health. J. R. Beard. East Underw 54:30 pt 2 S 25 '53

National health council starts career project aimed at secondary schools under sponsorship of Equitable society. A. W. Dent. East Underw 55:32 Jl 9 '54

History

Mural depicts New England Mutual charter signing. il East Underw 55:3 Ap 9 '54

Income policies

See Insurance, Life—Family income policies; Insurance, Life—Retirement income policies

International aspects

Insurance dollars, should they be sent behind the iron curtain. D. J. Reidy. East Underw 55:6 O 8 '54; Same. Weekly Underw 171:876 O 9 '54; Same abr. Nat Underw (Life ed) 58:39 O 8 '54

Investment value

Inflation fear major factor in investment practice. G. Garbutt. Barron's 33:34-6 D 14 '53

Insurance is stable, dynamic. P. F. Clark. East Underw 55:5 Ap 2 '54

Investment aspect of life insurance. M. A. Linton. Life Ins Courant 59:39-41+ Ap '54; Same cond. Nat Underw (Life ed) 58:5+ Ja 22 '54; Same cond. Weekly Underw 170:938-40, 1005+ Ap 10-17 '54; Abstract. East Underw 55:10 Ja 15 '54

Is life insurance too expensive? life insurance as an investment. F. L. Morton. Spectator 162:64-6 Mr; 52-4 Ap '54

Life insurance as an investment. J. A. Appleman. Spectator 162:52+ Mr '54

Life insurance, as an investment medium. C. R. Pruser. Nat Underw (Life ed) 58:9+ Mr 5 '54

Life insurance as property. B. N. Woodson. East Underw 54:48-9 pt 2 S 25 '53

Life insurance use OK in profit sharing retirement plans. Nat Underw 58:20-1 Ja 14 '54; Same. Nat Underw (Life ed) 58:1+ Ja 8 '54; Excerpt. East Underw 55:3+ Ja 8 '54

INSURANCE, Life—Investment value—*Cont.*

Not only good property but life insurance is often the most important. S. Weil. East Underw 54:52+ pt 2 S 25 '53

Operations of mutual funds analyzed; weaknesses explained. V. R. Goldberg. Nat Underw (Life ed) 58:5+ Ap 16 '54

Saving is a serious job. C. S. Littledale. Nat Underw (Life ed) Daily ed 57:18+ Ag 27 '53

Why life insurance is the best investment for most people. J. H. Wood. Nat Underw (Life ed) Daily ed 57:8+ Ag 26 '53

Investments

Assets of U.S. life insurance companies; table by type of investment. Life Ins Courant 59:19 My '54

Billions of life insurance dollars work for millions of Americans. C. W. Dow. East Underw 55:16-17+ pt 2 O 1 '54

Broadening market answer to government in business. W. P. Worthington. East Underw 55:3 Jl 2 '54

Canada may launch insured mortgages. East Underw 55:5 Mr 5 '54

Canada's expanding economy offers attractive investment channels. J. W. Graham. Nat Underw (Life ed) 58:7 Ja 8 '54

Companies investing more in homes, farms than in 1952 half. East Underw 54:1+ Ag 14 '53; Same. Nat Underw (Life ed) 57:9 Ag 14 '53

Department report explains working of Equitable's railroad equipment purchase. East Underw 54:4 N 6 '53

Equitable society invests billion a year. C. W. Dow. East Underw 55:4 Jl 30 '54

Gas industry's problems from the investor viewpoint. S. F. Silloway. Pub Util 53:652-9 My 27 '54

Gross rate of interest earned on mean invested funds from 1933 to 1952; table by companies. W. M. Montgomery. Spectator 162:74-5 Ja '54

How Metropolitan aids economy of the Nation. H. C. Hagerty. East Underw 55:3+ Ap 2 '54

Inadequacy of call-price protection in security issues. V. B. Gerard. Comm & Fin Chr 178:1630 O 29 '53; Abstract. Nat Underw (Life ed) 57:7 O 16 '53

Increasing investment problems and risk. G. T. Conklin. East Underw 55:3+ O 15 '54; Excerpt. Nat Underw (Life ed) 58:1+ O 15 '54

Influence of interest rate on net cost, 1948-1952; table by company. Spectator 162:78 F '54

Insurers buck SEC on non-callable utility bonds. R. B. Mitchell. Nat Underw (Life ed) 57:1, 32 S 25 '53

Insurers investing four times as much in municipals as in '53. Nat Underw (Life ed) 58:10 S 10 '54

Interest rate last year highest in over decade. Weekly Underw 170:1070 Ap 24 '54

Investment income tax extension for year '53 approved. East Underw 54:1+ Jl 24 '53

Investment officer's role in promoting fiscal sanity. O. K. Anderson. Comm & Fin Chr 178:1434-5+ O 15 '53; Excerpt. Nat Underw (Life ed) 57:9 O 16 '53

Investment trends of 1953. G. T. Conklin. East Underw 54:56-7 D 11 '53

Life companies hold nearly one-quarter U.S. mortgage debt; period from 1946 through 1953. East Underw 55:1+ Ap 23 '54; Same. Weekly Underw 170:48+ sec 2 My 8 '54

Life companies shy at stocks. Bsns W p 134 D 5 '53

Life insurance; admitted assets, 1949-1952. Survey of Cur Bsns 1953 Sup p88 [supplemented in monthly numbers]

Life insurance association of America panel session on investment outlook. East Underw 54:1+ D 18 '53

Life valuations; table. Economist 168:224 Jl 18 '53

Long-term U.S. bond early next year a fair presumption. J. J. O'Leary. Nat Underw (Life ed) 57:3+ D 18 '53

Long view on investments. W. M. Anderson. East Underw 55:9 O 15 '54

Loss reserves for investments of life insurance companies. H. Bell. Comm & Fin Chr 178:1535+ O 22 '53; Abstracts. Nat Underw (Life ed) 57:24 O 9 '53; East Underw 54:10 O 16 '53

Mortgage activity of all United States life insurance companies, 1939-1952, monthly Nov. 1952-Nov. 1953. Fed Res Bul 40:70 Ja '54 [cont monthly]

National Life of Vermont's FHA loan experience; abstracts. D. C. Davis. East Underw 55:4 My 28 '54; Nat Underw (Life ed) 58:4 Jl 23 '54

National voluntary mortgage credit committee established and first meeting held. East Underw 55:15 Ag 20 '54

New Jersey turnpike bonds; denial of Hoffman charges. Nat Underw (Life ed) 58:7 Jl 2 '54

New York Life sees big investment outlet, prepares to make open-end mortgages. House & Home 5:86 Ap '54

1954 good year, Federal Reserve action is big imponderable. G. W. McKinley. Nat Underw (Life ed) 58:2+ F 26 '54

1953 common stock purchases continue under 1950 record. Nat Underw (Life ed) 57:7 S 11 '53; Same. Weekly Underw 169:694 S 19 '53

1953 record of life insurance investments; abstracts. J. J. O'Leary. Weekly Underw 169:1469-71, 1524-5 D 12-19 '53; Nat Underw (Life ed) 57:2, 13-14 D 11 '53; East Underw 54:20+ D 11 '53

1939-1953 changes in the pattern of life company investments; tabulation. Bsns W p58 D 26 '53

Prudential's $250,000,000 loan to Chrysler corp. C. Axman. East Underw 55:3 Mr 5 '54

Public will react against inflation. W. H. Cox. East Underw 55:3 Mr 26 '54

Strengthening fabric of free enterprise; insurance companies aid atomic energy power financing. J. W. McAfee. il East Underw 54:32 pt 2 S 25 '53

Support given Nation's economy by life insurance companies. S. F. Silloway. East Underw 54:16-17+ pt 2 S 25 '53

Today's investment problems for institutional investors. R. I. Robinson. Burroughs Clearing House 37:29-31+ Ag '53

U.S. taxes neutralize improving investments according to Institute of life insurance. Nat Underw (Life ed) 57:6 O 16 '53

Voluntary mortgage credit committee is companies' proposal. C. M. Shanks. East Underw 55:1+ Mr 19 '54

Western & Southern makes $45 offer for Cal-Western shares. Nat Underw (Life ed) 58:2+ Mr 5 '54

See also
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Real estate operations

Lapses and surrenders

Conservation and persistency. W. Milder. Life Ins Courant 59:46-8 Ja '54

Surrender payments at plateau, Institute reports. Nat Underw (Life ed) 58:15 O 15 '54

Lawyers' cooperation

Agent better versed in tax law than client's lawyer has problem in tact, human relations. M. Young. Nat Underw (Life ed) 58:10 F 19 '54

Mutual Benefit in conference of lawyers, insurers; abstracts. J. Barker, jr. Nat Underw (Life ed) 57:5 Ag 28 '53; East Underw 54:15 S 4 '53

Some lawyers fear tax-wise agent may give client bad impression. M. Stern. Nat Underw (Life ed) 58:5 Mr 5 '54

Urge paying part of cost of joint meetings with Bar. Nat Underw (Life ed) Daily ed 57:27+ Ag 28 '53

Medical aspects

Companies' abuse of medical information main gripe of doctors. R. N. Simmons and others. Nat Underw (Life ed) 57:7 N 6 '53

Records prove business executives good risks. H. E. Ungerleider. Weekly Underw 169:1455 D 12 '53; Same. East Underw 54:44 D 11 '53; Same cond. Nat Underw (Life ed) 57:23 D 11 '53

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Medical departments

Language in policy should be explained to insured; how medical departments can assist claims man. W. H. Scoins. Nat Underw 58:10+ S 16 '54; Same. Nat Underw (Life ed) 58:9+ S 17 '54

See also

Association of life insurance medical directors

Medical information bureau

Medical research

$5.5 billion given to Medical research fund by 146 companies. East Underw 54:4 O 23 '53

National fund for medical education appeals to life insurance for greater support. P. M. Fraser. Weekly Underw 171:361 Ag 14 '54; Same cond. East Underw 55:12 Ag 13 '54

Our progress in heart disease; Spectator survey of Metropolitan's findings. J. J. Robinson. Spectator 162:29+ Jl '54

Military camp selling

Army military sales rules turn company eyebrows. Nat Underw (Life ed) 57:1+ S 4 '53

Army, navy, air force rules governing sales on their installations; text. Nat Underw (Life ed) 57:1+ S 11 '53

Federal tax situation affecting life insurance; insurance on defense installations. R. L. Hogg. East Underw 54:3-4 N 20 '53

Full responsibility in selling military clarified by army. Nat Underw (Life ed) 57:1+ O 23 '53

Military sales rules run counter to regulatory theory. J. E. Day. Nat Underw (Life ed) 57:5 O 9 '53

Military solicitation situation. L. J. Grayson. East Underw 55:7 Mr 26 '54

Rules on soliciting at military posts. East Underw 54:10 S 11 '53

See also

Insurance standards convention

Mortality statistics

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Mortgage redemption policies

Father's gone but the home's still there. R. Wofford. Life Ins Courant 59:27 Jl '54

Readjustment fund for daddy. H. H. Conley, jr. Life Ins Courant 59:23 Jl '54

Mortgage redemption rider

Farmers, Des Moines, adds mortgage redemption rider. East Underw 54:14 Ag 21 '53

Plays

Stardust, little masterpiece, shows restraint, maturity. H. J. Burridge. Nat Underw (Life ed) Daily ed 57:4+ Ag 28 '53

Policies

American United Life alters rates, policies. Nat Underw (Life ed) 58:8 F 5 '54

Announce new policies; Bankers national life of Montclair. East Underw 55:5 Ja 1 '54

Bankers Life makes numerous changes. Nat Underw (Life ed) 58:10 Ja 8 '54

Contrast of proper and improper administration of insurance proceeds. D. H. Ward. East Underw 54:38 pt 2 S 25 '53

Courts overwork ambiguity to sidestep effort. V. V. R. Booth. Nat Underw (Life ed) 57:27+ O 9 '53; Same. East Underw 54:7+ O 9 '53

Equitable issues new adjustable whole life. East Underw 55:3-4 Jl 30 '54; Nat Underw (Life ed) 58:2 Jl 30 '54

Equitable major changes in forms, rates and covers. East Underw 55:1+ Ja 1 '54

Indianapolis Life issues two new policies. Weekly Underw 170:805 Mr 27 '54; Abstract. Nat Underw (Life ed) 58:6 Mr 26 '54

Many changes in new Northwestern National rate book. Nat Underw (Life ed) 58:18 Mr 19 '54

More non-medical being issued, higher amounts being bought, Equitable notes. Nat Underw (Life ed) 58:3 O 8 '54

More on Equitable society adjustable policy. Nat Underw (Life ed) 58:5+ Ag 20 '54

National Fidelity has 17 new par contracts. Nat Underw (Life ed) 58:18 Mr 12 '54

New York Life announces 21 new policies, increases interest assumption to 2½ per cent. Nat Underw (Life ed) 58:1+ Ja 15; 2+ Ja 22; 10 Ja 29 '54

New York Life makes extensive changes in its policy contracts. East Underw 55:1+ Ja 15 '54; Same. Weekly Underw 170:205 Ja 16 '54

Northeastern Life launches new policy planned for young married group. East Underw 55:12 Ag 13 '54

Oklahoma court ruling challenges commissioner's policy approval powers. Nat Underw (Life ed) 58:8 Ja 22 '54

Over-regulation of life policies. T. H. Smith. East Underw 54:16 Ag 28 '53; Same. Nat Underw (Life ed) 57:2 Ag 28 '53

Postal Life introduces attractive set of new policies. Weekly Underw 169:109 Jl 11 '53; Same cond. East Underw 54:5 Jl 24 '53

Practices and procedures on life policies for 119 companies; table by company. Spectator 161:92-3 O '53

Spurn token prepayments if you want highest persistency rate for policies. R. B. Mitchell. Nat Underw (Life ed) 57:3+ Jl 17 '53

Standard of Indiana's high minimum policy. H. V. Wade. East Underw 55:11 Ag 13 '54; Excerpts. Weekly Underw 171:532 S 4 '54; Abstract. Nat Underw (Life ed) 58:7 Ag 13 '54

Survivorship bonus contracts in Texas now under review. East Underw 55:14 Ag 6 '54

Union Mutual Life's Non-can caravan; new policies. East Underw 55:6 F 19 '54

See also

Insurance, Life—Children's policies

Insurance, Life—Disability provisions

Insurance, Life—Endowment policies

Insurance, Life—Family income policies

Insurance, Life—Mortgage redemption policies

Insurance, Life—Retirement income policies

Insurance, Life—Tontine policies

Insurance, Life—War risks

Non-forfeiture benefits

Company estopped from claiming forfeiture; American life insurance co. v. Hauer. L. A. Burke. Spectator 162:64-5 F '54

Non-forfeiture provisions for 119 life insurance companies; table. Spectator 162:76-7 Ja '54

Term policies

Buy term weakness. R. W. Osler. Rough Notes 97:49-50 Mr '54

How to convert term to ordinary. D. O. McLeran. Weekly Underw 170:1003 Ap 17 '54

Increase income with term conversions. W. Buck. Life Ins Courant 58:12-13 Jl '53

Investment aspect of life insurance. M. A. Linton. Life Ins Courant 59:39-41+ Ap '54; Same cond. Weekly Underw 170:938-40, 1005+ Ap 10-17 '54; Same cond. Nat Underw (Life ed) 58:5+ Ja 22 '54

Policy assignment

Some tax consequences of life insurance transfers. W. W. Wynne. Trusts & Estates 92:629-30+ S '53

Policy beneficiaries

Companies lose important Alabama legal action. Weekly Underw 170:730 Mr 20 '54

Insurance dollars, should they be sent behind the iron curtain. D. J. Reidy. East Underw 55:6 O 8 '54; Same. Weekly Underw 171:876 O 9 '54; Same abr. Nat Underw (Life ed) 58:39 O 8 '54

Second change of beneficiary ruled valid by Florida court. Nat Underw (Life ed) 57:5 N 27 '53

Simultaneous death of insured and beneficiary; Sherman, administrator v. Roe, administrator. L. A. Burke. Spectator 162:86-7 Mr '54

INSURANCE, Life—Policy beneficiaries—*Cont.*

Taxability of proceeds in beneficiary's estate; Helen L. Abdill, deceased v. V. Y. Dallman, collector. F. L. Morton. Spectator 162:46-9 Je '54

Verdict given on insurable interest believed unique. Nat Underw (Life ed) 58:18 Mr 19 '54

Policy dividends

Additional 1954 dividend action announced by companies; table. Nat Underw (Life ed) 58:2 Ja 15 '54

Comparisons; dividend scales in effect for 1944 compared with actual histories; with tables. Life Ins Courant 59:50-3 Jl '54

Dividend actions since issue of 1953 compend; table by company. Life Ins Courant 59:8-9 Ja '54

Dividend projections, by companies; table. Life Ins Courant 59:58 F '54

Metropolitan Life to pay higher dividends in 1954. East Underw 55:13 F 5 '54; Nat Underw (Life ed) 58:5 F 5 '54; Weekly Underw 170:382 F 6 '54

Mutual of New York increases dividends to policyholders, 1954. Weekly Underw 170:374 F 6 '54

Policyholder dividends record; total may be $850,000,000 according to Life institute. Weekly Underw 169:1145+ N 14 '53; Same. East Underw 54:8 N 20 '53

Selling in low income brackets. G. M. Green. Nat Underw (Life ed) 57:15 N 20 '53

Surrender dividends in 1949 and 1954; table. Life Ins Courant 59:71 S '54

20 year histories; dividends actually paid on life policies issued in 1933; average yearly payments; net costs; tables. Life Ins Courant 58:39-42 Ag '53; Correction. 58:63 S '53

20 year histories; dividends actually paid on life policies issued in 1934; average yearly payments; net costs; tables. Life Ins Courant 59:34-7 Ag '54

Policy holder relations

My Rx; orphan policyholders! F. D. Griffin. Life Ins Courant 59:35-6 My '54

Policy holders

Annual policyholders number. Weekly Underw 170:1-96 sec 2 My 8 '54

New York Life issues Buntin case statement. East Underw 54:48 D 11 '53

New York Life loses fight for Buntin recovery. Weekly Underw 171:96 Jl 10 '54

Policy owner bankruptcy; abstracts. J. T. Tipton. Weekly Underw 169:1456-7+ D 12 '53; East Underw 54:31 D 11 '53; Nat Underw (Life ed) 58:14-15 Ja 1 '54

Soft answer to policyholder's beef turneth away wrath and him into agent. Nat Underw (Life ed) 58:16 Ja 1 '54

Urges analysis of evidence as substitute for seven-year presumption-of-death statute. P. M. Roca. Nat Underw (Life ed) 58:3 Ag 27 '54

See also

Insurance, Life—First-year claims

Insurance, Life—Women as policy holders

Policy loans

Legal points on borrowing on life insurance. P. H. Topping. Life Ins Courant 59:42-3 My '54

Policy settlement

Agree on new plan of taxing interest in option payments. Nat Underw (Life ed) 58:1 Mr 5 '54

Income tax on settlement option. F. L. Morton. Spectator 162:50-3 Ja '54

Insurance to mistress taxed as gift by wife; Revenue ruling 48 (1953). E. T. Roehner. Trusts & Estates 93:75-6 F '54

Life insurance and the marital deduction. F. L. Morton. Spectator (Endorsement no) 162:87-9 Ag '54

Optional modes of settlement trends, 1940, 1950 and 1952; table. Spectator 162:104 Mr '54

Optional settlement upheld in Hall case; Hall v. Mutual Life. East Underw 55:18 Ap 16 '54; Same. Life Ins Courant 59:43 Je '54; Same cond. Nat Underw (Life ed) 58:6 Ap 16 '54; Same cond. Weekly Underw 170:996 Ap 17 '54

Supplementary contract to life policy held not testamentary disposition; Hall v. Mutual life insurance co. of New York. Weekly Underw 169:344 Ag 8 '53

Supplementary contracts upheld; Hall v. Mutual Life. J. Barker. East Underw 54:4 Jl 31 '55

Use of options for 80 companies; selected years, 1935-1952; with tables. Life Ins Courant 58:65-6 N '53

Unclaimed policies

Search for lost policyholder worldwide. P. Duling. Weekly Underw 170:43+ sec 2 My 8 '54

Unclaimed funds; a problem in public relations. I. V. Brunstrom. East Underw 54:46+ pt 2 S 25 '53

Premiums, Payment of

Discount rate on ordinary premiums paid in advance; Prudential. East Underw 54:17 Ag 28 '53

Family prepays cash premiums of $2,678,000; Robinson brothers' large line. East Underw 54:49 D 11 '53

Many agents unwittingly violate N.Y. commingling statute. S. L. McCarty. Nat Underw (Life ed) 57:12 D 18 '53

Mutual Benefit expense control plan. J. P. Moore. Nat Underw (Life ed) 58:11 Ap 2 '54

Premium-payment test, thing of the past; gift tax consequences, and marital deduction. F. L. Morton. Spectator 162:56+ O '54

Trend is to 2½ per cent discount on premiums paid in advance, acceptance of larger sums. Nat Underw (Life ed) 57:5 O 2 '53

Trust company plan eases premium paying, has tax advantage. F. J. Rubenstein. Nat Underw (Life ed) 57:11 D 11 '53

Preventive work

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Prospects

Agent finds good source of prospects in building trades. H. Levine. Nat Underw (Life ed) 57:17-18 Ag 21 '53

Are pension plans enough? facts about expected retirement income. H. W. Kuechle. Life Ins Courant 59:18-19 Je '54

Casualties follow too casual prospecting. M. L. Camps. East Underw 54:4 O 16 '53

Connecticut Mutual survey on trends of prospecting methods and sources. East Underw 54:10 N 6 '53

Doctors are good prospects and clients. R. Gold. Life Ins Courant 59:44-5 Jl '54

50 good reasons for calling on a policy owner. G. Nowotny. Weekly Underw 170:680 Mr 13 '54

How I get referred leads. P. N. Jepson, jr. Weekly Underw 171:45 Jl 3 '54

How I operate; Planned week system. L. Mercier. Life Ins Courant 59:10-11 Ag '54

How to keep busy in the daytime. Weekly Underw 171:101 Jl 10 '54

How to sell the young man. J. J. Geraci. Life Ins Courant 59:12-14+ F '54

It's a matter of degree. C. H. Meyer. Life Ins Courant 59:36-8 Ap '54

Man and the motorcycle. W. W. Pollington. Life Ins Courant 58:23 N '53

More dollars from doctors. J. N. Brewer. Weekly Underw 171:481 Ag 28 '54

Prospecting for ordinary. A. Goldstein. Life Ins Courant 59:12 Ja '54

Prospects are where you find them. W. B. Lever. East Underw 55:4+ Mr 19 '54

Prospects, U.S.A. Life Ins Courant 59:29 My '54

Prospects? yours for the asking! W. N. Rose. il Life Ins Courant 58:20+ Jl '53

Selling fundamentals; North California congress panel. Nat Underw (Life ed) 58:14-15 Ja 29 '54

Sole proprietorships. W. H. Meier. East Underw 54:150-1 pt 2 S 25 '53

Veterans' privileges. S. Berman. Life Ins Courant 58:44-6 N '53

Why won't they buy? V. DeGomez. Life Ins Courant 58:20-1 S '53

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Insurance, Life—Women as prospects

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Magazine survey gives reader view on life insurance; American home magazine report. Nat Underw (Life ed) 58:15 S 3 '54

Public relations

Four million listen to Institute program; dramatized documentary radio series. East Underw 54:4 Ag 7 '53

Warns of extremes in government social security; public relations; abstracts. L. W. Dawson. East Underw 54:4 S 18 '53; Nat Underw 57:33+ S 17 '53; Nat Underw (Life ed) 57:1+ S 18 '53; Weekly Underw 169:657+ S 19 '53

Publicity

Highly competitive future market seen; public relations aspect. H. J. Johnson. East Underw 55:3 S 10 '54; Same. Nat Underw (Life ed) 58:8 S 10 '54; Same abr. Weekly Underw 171:602 S 11 '54

Life insurance institute press activities meet changes. D. B. Martin. Weekly Underw 169:1465+ D 12 '53

Press not opposed to insurance stories. D. B. Martin. East Underw 54:120+ pt 2 S 25 '53

Specific techniques help managers in obtaining trade-press publicity. J. L. Lobingier, jr. Nat Underw (Life ed) 58:2+ S 3 '54

Tips for preparing new releases. D. B. Martin. Nat Underw (Life ed) Daily ed 57:19 Ag 27 '53

Purchasing

Are life insurance sales really increasing? E. Stone. Spectator 161:28-9+ S '53

Management association research men report on persistency of ordinary life cover. Weekly Underw 170:1064 Ap 24 '54

Relationship of advertising to life insurance sales. J. J. D. Spillan and B. F. Busch. Adv Agency 47:74-5+ S '54

Rates

Connecticut Mutual Life reduces single annuity premium. Weekly Underw 169:1519 D 19 '53

Equitable society reveals major medical, other policies, revised commission scale. Nat Underw (Life ed) 58:2 Ja 15 '54

MONY lowers rates on new term, other forms, ups advance discount. Nat Underw (Life ed) 58:3 Ja 15 '54; East Underw 55:7 Ja 22 '54; Weekly Underw 170:318 Ja 30 '54

Real estate operations

New York Equitable $40,000,000 investment in Chrysler-Graybar realty deal. East Underw 54:14 D 11 '53

Role of life insurance in American real estate development. O. F. McGill. il East Underw 54:18+ pt 2 S 25 '53

Reinsurance

Life reinsurance is large scale business. Weekly Underw 169:929 O 17 '53

Western & Southern takes over Pennsylvania co. East Underw 55:4 Ag 20 '54; Same. Weekly Underw 171:415 Ag 21 '54

Reserves

Some insurers near statutory surplus limit in New York. Nat Underw (Life ed) 58:4 S 10 '54

Retirement income policies

Time to slow down; visual sales aid. Life Ins Courant 59:39-42 O '54

Risks

Few jobs bar workers from life insurance as safety plans, extra-risk policies grow. Weekly Underw 170:50+ sec 2 My 8 '54

Trends in occupational underwriting. M. Pitler. East Underw 54:6+ N 6 '53

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Salary savings plan

Don't mix up life insurance salary savings plans with pension plans. C. D. Spencer. East Underw 54:104 pt 2 S 25 '53

Social aspects

Air defense situation. B. W. Chidlaw. East Underw 54:15 O 23 '53

As a judge I see life insurance a foe of juvenile delinquency. C. F. Murphy. East Underw 54:27 pt 2 S 25 '53

Impact of life insurance on the Nation and its people. H. J. Johnson. East Underw 54:11+ pt 2 S 25 '53

Importance of life insurance to individual freedom and security. C. M. Shanks and others. East Underw 55:14+ pt 2 O 1 '54

Link between freedom and security. H. J. Johnson. East Underw 55:14+ pt 2 O 1 '54

Public use of company auditoriums. East Underw 55:4 Ap 30 '54

Warns against dangerous leaders in the field of economic security. R. C. Hutchison. Nat Underw (Life ed) Daily ed 58:14-15+ S 23 '54

Welfare legislation is of chief concern; impact of federal trends on insurance industry; abstracts. E. M. Thore. Weekly Underw 171:761+ O 2 '54; Nat Underw (Life ed) 58:19+ O 8 '54

Statistics

Average policy size; with tables. Life Ins Courant 59:55-8 Jl '54

Benefit payments in the U.S.; table. Life Ins Courant 59:16 My '54

Benefit payments to policyholders reach $12.4 million daily, 1953. East Underw 55:1 F 19 '54

Climb in use of protection by American families since World war II. Weekly Underw 169:179 Jl 18 '53; Same. East Underw 54:1+ Jl 10 '53

Development of life insurance shown in Institute's book of facts. Weekly Underw 171:207 Jl 24 '54

First half death benefits by states; table. Life Ins Courant 59:68 O '54

In-force rankings of life companies, 1953; table. Nat Underw (Life ed) 58:3+ My 7 '54

Insurance in force by states, Jan. 1, 1953; table. Life Ins Courant 58:42 S '53

Life companies' rankings for 1953 shown under four classifications; tables. Nat Underw (Life ed) 58:7+ Je 4 '54

Life holdings make striking gains with 24 million new policyholders since '41. Nat Underw (Life ed) 58:2 Jl 9 '54

Life insurance; admitted assets, insurance written, payments and premium income, 1949-1952. Survey of Cur Bsns 1953 Sup p88-90 [supplemented in monthly numbers]

Life insurance benefit payments in the United States; 1952 and 1953; table by type benefit payment. Weekly Underw 170:28 sec 2 My 8 '54

Life insurance ownership estimated at $276,591,000,000 according to Institute of life insurance. Weekly Underw 169:1185 N 14 '53

Living benefit payments to policyholders in the U.S., by states; table. Life Ins Courant 59:61 F '54

Metropolitan paid more than a billion in benefits in 1953. Nat Underw (Life ed) 58:2 F 26 '54

1953 life insurance death benefits by states; table. Weekly Underw 170:30 sec 2 My 8 '54; Same. Life Ins Courant 59:9 My '54

Number of life companies has doubled in eight years. Weekly Underw 171:604 S 11 '54; Same abr. Nat Underw (Life ed) 58:24 S 10 '54

Practice and procedure; 1952 surplus business of 119 life insurance companies; table. Spectator (Endorsement no) 161:98-9 D '53

Practices and procedures on life policies for 119 companies; table by company. Spectator 161:92-3 O '53

Rank of leading life insurance companies on Jan. 1, 1954; insurance in force, new business paid for, premium income, payments to policyholders, admitted assets and surplus funds; tables. Weekly Underw 170:81-4 sec 2 My 8 '54

Rankings, as of Dec. 31, 1953; ordinary, assets, industrial, group, tables. Life Ins Courant 59:77-80 Ap '54

Record of life insurance for 1953 reviewed. B. E. Shepherd. Weekly Underw 169:1460-1 D 12 '53

INSURANCE, Life—Statistics—*Continued*

Southwest, West show greatest life gains; industry's figures analyzed. East Underw 54:13 N 20 '53

Total ordinary sales by states excluding credit insurance; June, 1953 and first six months, 1953. Life Ins Courant 58:69 O '53

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Study and teaching

CLU questions and answers. Life Ins Courant 59:33+ Mr; 50-6 Ap; 48-52+ My; 33-7 Je; 32-9 Jl; 18-23 Ag; 33-41 S; 49-52+ O; 33-9 N '54

CLU's tell why and how they got their designations. East Underw 55:28+ pt 2 O 1 '54

Composite answers to CLU examination questions. Weekly Underw 171:102-4, 154-6, 316-18, 371-3, 539-41, 607-9 Jl 10-17, Ag 7-14, S 4-11 '54

Contact between school and agent is rewarding. Nat Underw (Life ed) 58:4 Ap 30 '54

Insurance steps into basic education; Life Institute's family financial security education program. J. J. Robinson. il Spectator 162:24-5+ Ja '54

Is it profitable to promote C.L.U. studies? F. Cooper. Spectator 162:49-55 O '54

Life insurance and the changing pattern of education in today's secondary schools. R. W. Kelsey. East Underw 55:90+ pt 2 O 1 '54

Nearly 400 to receive CLU degrees at NALU convention in Boston; list. East Underw 55:3+ S 10 '54

Organization planning, analysis course to be conducted at New York university. East Underw 55:6 S 10 '54

School relations programs; Institute of life insurance. E. B. Burr. East Underw 54:4 S 25 '53

Seminars for home office educators under auspices of Life office management association institute, 1953. East Underw 54:16 D 11 '53

391 CLU aspirants fulfill academic requirements; with list by states. Nat Underw (Life ed) 57:1+ Ag 7 '53; Same. Life Ins Courant 58:39-44 O '53

397 pass all 1954 examinations for CLU degree; with list by states. Nat Underw (Life ed) 58:1+ Ag 13 '54; Excerpt (list). Life Ins Courant 59:43-6 O '54

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Substandard risks

Physically impaired show mortality gains; substandard insurance gains. East Underw 55:8 My 7 '54

Suicide death claims

Summary judgments can speed settlements under New York law, if proof cannot be impugned. E. T. Welch. Nat Underw (Life ed) 58:7+ S 24 '54; Same cond. Nat Underw 58:11+ S 16 '54

Tax problems

Agent better versed in tax law than client's lawyer has problem in tact, human relations. M. Young. Nat Underw (Life ed) 58:10 F 19 '54

Distribution of treasury stock; Tax court decision. F. L. Morton. Spectator 161:39-41 Ag '53

NALU suggestions on revenue law changes. East Underw 54:3+ Ag 14 '53

Some tax consequences of life insurance transfers. W. W. Wynne. Trusts & Estates 92:629-30+ S '53

Split-dollar boosters are undeterred by adverse ruling. D. B. Maduro. Nat Underw (Life ed) 57:2+ Jl 10 '53

Taxation

Agree on new plan of taxing interest in option payments. Nat Underw (Life ed) 58:1 Mr 5 '54

A.L.C., L.I.A. give proposals for tax revisions. Nat Underw (Life ed) 57:1+ Jl 17 '53; Same cond. East Underw 54:5+ Jl 17 '53

ALC-LIA suggest many revisions in pending tax bill. Nat Underw (Life ed) 58:4+ Ap 30 '54; Same. Weekly Underw 170:1090+ My 1 '54

Changes under pending Revenue bill. E. M. Thore. East Underw 55:5 Mr 12 '54; Abstract. Nat Underw (Life ed) 58:7 Mr 12 '54

Clamp interest tax on option proceeds over first $50,000. Nat Underw (Life ed) 58:3 Ja 29 '54

Deductibility of interest payments. F. L. Morton. Spectator 162:98-100 My '54

Deductibility of life insurance premiums. F. L. Morton. Spectator 161:61-3 O '53

Disturbed by pension trust angle in tax bill. G. S. Brown. Nat Underw (Life ed) 58:3, 18 Ap 2 '54

Effect of tax law changes on life insurance cited. Weekly Underw 171:274+ Ag 7 '54; Same. East Underw 55:1+ Ag 6 '54

Federal law committee would broaden Internal revenue code; NALU. Nat Underw (Life ed) Daily ed 58:45-7 S 24 '54

Federal tax situation affecting life insurance. R. L. Hogg. East Underw 54:3-4 N 20 '53

Federal taxation and life insurance in 1953. P. H. Walker. East Underw 54:54-5+ pt 2 S 25 '53

Finance committee changes insurance angles in tax bill in treatment of insurance. Nat Underw (Life ed) 58:1+ Je 4 '54

Important changes in taxation of life insurance under the 1954 Internal revenue code. S. J. Foosaner. Nat Underw (Life ed) Daily ed 58:11+ S 24 '54; Same. Weekly Underw 171:811-13, 892+ O 2-9 '54

Income tax on settlement option. F. L. Morton. Spectator 162:50-3 Ja '54

Income tax savings. J. A. Appleman. Spectator 162:66-7 Ap '54

Insurance and the new tax law; Internal revenue code of 1954. F. Morton. Spectator 162:26-7+ S '54

Insurers win nearly all main objectives in new tax measure. Nat Underw (Life ed) 58:1+ Ag 6 '54

Internal revenue code of 1954 from the viewpoint of the life underwriter. M. M. Gorman. East Underw 55:38+ pt 2 O 1 '54

Is life insurance too expensive? F. L. Morton. Spectator 162:58-9 F; 64-6 Mr; 52-4 Ap '54

Life & Casualty comes out against industry's income tax plan. Nat Underw (Life ed) 58:1+ Ag 13 '54

Life companies offer alternative tax methods. Nat Underw (Life ed) 58:1+ Jl 23 '54

Life companies' tax bill $369 million for '53. A. N. Guertin. Nat Underw (Life ed) 57:37 O 9 '53

Life company organizations recommend important federal tax changes. Weekly Underw 169:115-16 Jl 11 '53

Life insurance as a tax saving investment. G. B. Gordon. East Underw 54:84+ pt 2 S 25 '53

Life insurance, endowment and annuity features of the Internal revenue code of 1954. I. V. Brunstrom. East Underw 55:3+ Ag 20; 3+ Ag 27 '54

Life insurance use OK in profit sharing retirement plans. Nat Underw 58:20-1 Ja 14 '54; Same. Nat Underw (Life ed) 58:1+ Ja 8 '54; Excerpt. East Underw 55:3+ Ja 8 '54

Lucky 13 changes in tax law most useful to agent in seeking sales. S. Lesser. Nat Underw (Life ed) 58:7+ Ag 20 '54

Map strong appeal to lift ordinary ban in tax bill; pension trust provision. Nat Underw (Life ed) 58:1+ Ap 2 '54

NAIB bulletins members on changes of interest to them in new revenue code. Nat Underw 58:13+ S 2 '54

New federal tax rulings. Nat Underw (Life ed) 57:11 O 2 '53

1954 revenue code changes. S. McCarthy. East Underw 55:7 O 8 '54; Same. Nat Underw (Life ed) 58:40 O 8 '54; Same. Weekly Underw 171:882 O 9 '54

Numerous practical applications of new tax law to typical client situations. Nat Underw (Life ed) 58:6+ S 10 '54

INSURANCE, Life—Taxation—*Continued*

Omnibus tax bill contains important insurance provisions. Life Ins Courant 59:31-2 O '54

Premium-payment test, thing of the past; gift tax consequences, and marital deduction. F. L. Morton. Spectator 162:56+ O '54

Proposed federal code tax changes. East Underw 55:8 Mr 26 '54

Report removal of tax bill's ban on ordinary in pensions. Nat Underw (Life ed) 58:1 Ap 16 '54

Some effects of new Internal revenue act on life insurance and annuities. W. D. Freyburger. East Underw 55:3 Ag 13 '54

Tax bill hobbles ordinary life use in pension trusts. Nat Underw (Life ed) 58:1, 25 Mr 19 '54

Tax on surrendered policy under new revenue ruling. East Underw 55:11 Ag 6 '54

Taxability of gain from endowment insurance; F. E. Card and W. S. Adams v. Commissioner. F. L. Morton. Spectator (Endorsement no) 161:75-8 D '53

Taxability of proceeds in beneficiary's estate; Helen L. Abdill, deceased v. V. Y. Dallman, collector. F. L. Morton. Spectator 162:46-9 Je '54

$10 billion sales rise from tax bill provision. S. J. Foosaner. Nat Underw (Life ed) 58:7 Ap 23 '54

Today's tax and corporate needs for life insurance. S. J. Foosaner. East Underw 55:39 F 5 '54

Tontine policies

State law group backs outlawing of tontine policy sales; report of NALU committee. Nat Underw (Life ed) Daily ed 58:22-3 S 23 '54

Urges local blacklist of sellers of tontine policies; NALU field practices committee report. Nat Underw (Life ed) Daily ed 58: 28+ S 22 '54

Trust company cooperation

How life agents, trust men may benefit by cooperating. N. B. Maddox. Nat Underw (Life ed) Daily ed 57:16+ Ag 28 '53; Same. Life Ins Courant 58:47-51 N '53

When the whistle blows; three stages of game for underwriter-trustman collaboration. R. C. Gilmore, jr. Trusts & Estates 93:102-3 F '54; Abstract. Nat Underw (Life ed) 58:20 F 12 '54

Twisting

Group twisting charges levelled in Wisconsin. Nat Underw 58:20 Ja 21 '54; Same. Nat Underw (Life ed) 58:13 Ja 22 '54

War death claims

End of Korea war; U.S.A. casualties in excess of 139,000; war clause litigations. East Underw 54:1+ Jl 31 '53

Korean conflict called war by top Iowa court. Nat Underw (Life ed) 58:10 Ap 16 '54 Same. Weekly Underw 170:953+ Ap 17 '54

State tribunals at odds over time of war; widow asks Supreme court to settle question; Meadows vs. Western Reserve Life. Nat Underw (Life ed) 58:2 F 19 '54

Supreme court denies review of war decision; Meadows vs. Western Reserve Life. Nat Underw (Life ed) 58:21 Mr 26 '54

War clause put up to Supreme court again; Meadows vs. Western Reserve Life. East Underw 55:16 F 19 '54

Was the Korean conflict a war? Weissman vs. Metropolitan Life. L. A. Burke. Spectator 161:58 S '53

War problems

Life companies need relief from absolute liability on losses due to war. J. C. Archibald. Nat Underw (Life ed) 58:4 Ap 30 '54

War risks

Connecticut Mutual liberalizes military selection rules. Nat Underw (Life ed) 57:7 Ag 14 '53

Liberalizes military, aviation underwriting; Northwestern National changes. East Underw 55:21 Mr 26 '54

Women agents

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Women as policy holders

Northeastern has new contract for women only. East Underw 55:5 Ja 22 '54; Weekly Underw 170:261 Ja 23 '54

Women's mortality a third less than men. E. A. Rode. East Underw 55:8 My 7 '54

Women as prospects

Career women becoming more important as prospects. H. F. Millett. Nat Underw (Life ed) Daily ed 58:4+ S 23 '54

Needs of women for life insurance. E. Ullrich. East Underw 55:10 Ap 16 '54

What every life man should know about women. Weekly Underw 170:1371, 1429 My 29-Je 5 '54

Women agents should devote more of their talents to the women's market; comments by women agents. East Underw 55:40-1+ pt 2 O 1 '54

Women are people. M. H. Macaulay. Life Ins Courant 59:14+ Ja '54

Arizona

Commission limits, reciprocity among Arizona proposals. Nat Underw (Life ed) 57:9 D 11 '53

Canada

Canadian life assets reach $5.4 billion during 1953. Spectator 162:34 Jl '54

Canadian life companies report assets of $5,134 million. Spectator 161:37 Ag '53

Canadian life insurance companies; business of 1953 and condition, Dec. 31, 1953; table by company. Weekly Underw 170:94 sec 2 My 8 '54

Canadians are buying more life insurance. J. Montagnes. Barron's 33:27-8 D 14 '53

Insurance market outlook in Canada. J. T. Bryden. East Underw 55:22+ pt 2 O 1 '54

See also
Canadian life insurance officers' association

Caribbean region

New Caribbean developments. R. Rhodebeck. Weekly Underw 169:1270 N 21 '53

Great Britain

Is life assurance lagging? Economist 168:217-18 Jl 18 '53

New life assurance business in 1953. Economist 170:193 Ja 16 '54

Michigan

Prudential expanding Michigan operations. Nat Underw (Life ed) 58:18 Je 4 '54; Weekly Underw 170:1418 Je 5 '54

New England

Big gains for New England area forecast. C. M. Shanks. East Underw 55:5 O 15 '54

Insurance big New England aid. Weekly Underw 169:5+ Jl 4 '53

New York (state)

New York department hearing on Regulation 33; classification and allocation of income and expenses of life insurers. East Underw 55:9 Je 25 '54; Nat Underw (Life ed) 58: 1+ Je 25 '54

Reports on N.Y. insurance department operations. A. J. Bohlinger. East Underw 54:12 Ag 14 '53

INSURANCE, Livestock

Live stock insurance; coverages and forms. Spectator 161:50-1 O '53

Two new farm floaters; Mobile agricultural equipment and farm livestock. Rough Notes 96:72 O '53

What to say about live stock insurance. W. M. Timmons. Rough Notes 97:27+ O '54

INSURANCE, Machinery

Boiler and machinery experience, 1953; table compiled by New York department. Nat Underw 58:15 Ag 26 '54

Boiler and machinery insurance hits peak, 1953. L. B. Brainerd. Weekly Underw 170: 74-5 Ja 2 '54

INSURANCE, Machinery—*Continued*

Boiler and machinery insurance pays the insured for various damages; illustrations with text. Rough Notes 97:31 S '54

Boiler and machinery plan in Texas. East Underw 55:41 My 14 '54

Boiler and machinery policy. A. G. Jeter. il Rough Notes 97:28-9+ S '54

We sell the accident prevention service first. B. R. Horwich. il Rough Notes 97:30+ S '54

INSURANCE, Malpractice liability

Beauty parlor liability insurance; coverages and forms. Spectator 162:57-8 Ja '54

Difficult problems in field of professional liability; rates zoom. Nat Underw 58:13+ S 16 '54

How to sell malpractice insurance. Weekly Underw 170:1412 Je 5 '54

Professional liability rates up in 15 states. East Underw 55:28+ My 28 '54; Same. Weekly Underw 170:1350 My 29 '54

Selling dentists. Rough Notes 97:77 Je '54

See also

Insurance, Hospital liability

Adjustment of claims

Nature of assault and battery an issue in Louisiana malpractice case; Shehee et ux. v. Aetna casualty and surety co. Weekly Underw 171:612 S 11 '54

INSURANCE, Manufacturers' liability

Approve Mutual bureau rates; Massachusetts, New Jersey, Rhode Island. East Underw 55:39 Ap 9 '54

Hits shot gun suits against manufacturer in air accidents. G. I. Whitehead, jr. Nat Underw 57:7 Ag 27 '53

Liability rate revision approved by New York department for M.&C. and O.L.&T. insurance. East Underw 55:39 Mr 19 '54; Same cond. Weekly Underw 170:720 Mr 20 '54

Liability rates changed; announced by National bureau of casualty underwriters. Rough Notes 97:104 F '54

Liability rates revised. Rough Notes 97:111 My '54

OL&T and M&C changes. Rough Notes 97:103-4 Ap '54

OL&T, M&C tell rate changes for eight states. Nat Underw 58:14 Ja 21 '54

Revise Florida M.&C., O.L.T. rates. East Underw 55:32 Ap 30 '54

Revises O.L.&T. rates in ten states, District of Columbia; manufacturers and contractors also changed; National bureau of casualty underwriters. East Underw 54:39 N 20 '53; Same abr. Weekly Underw 169:1310 N 28 '53; Abstract. Nat Underw 57:4B N 19 '53

Adjustment of claims

Aircraft builder's liability; trend of court decisions. G. I. Whitehead. East Underw 54:29+ Ag 28 '53

F.o.b. exclusion clause construed by Ohio Federal district court; Electric furnace co. v. Fire association of Philadelphia. Weekly Underw 169:120 Jl 11 '53

INSURANCE, Manufacturers' output

Advantages of the manufacturers output policy. B. Gentry. East Underw 55:45 Mr 26 '54; Same. Weekly Underw 170:774-5 Mr 27 '54

Manufacturers' output policy. J. H. Smiley. Rough Notes 96:27 N '53

Manufacturers' output policy gives industrial firms broad coverage. C. Davis. East Underw 54:26 S 18 '53

Multiple line dispute in Washington adjusted; suit to permit writing of manufacturer's output policy. Weekly Underw 171:694 S 25 '54

INSURANCE, Marine

Accidents in loading and discharging of cargo. Weekly Underw 170:134-5 Ja 9 '54

Committee named; industry group on marine definition designated by NAIC president; abstracts. Weekly Underw 169:1034 O 31 '53; Nat Underw 57:8 O 29 '53

Developments of American marine insurance market. G. Inselman. East Underw 54:27+ Ag 28 '53

Extensive competition in ocean marine. W. A. Bonner. East Underw 54:67+ D 11 '53

Foreign trade and ocean marine insurance developments; world exchange of goods. W. A. Connors. Weekly Underw 171:640+ S 18 '54; Same cond. East Underw 55:38 S 17 '54

Growth of vigorous, dynamic American marine market. F. B. Zeller. East Underw 54:27+ N 27 '53; Same. Weekly Underw 169:1301-3+ N 28 '53

Inland marine definition today. B. Smith, jr. Weekly Underw 169:1060-2, 1098+ O 31-N 7 '53; Abstracts. East Underw 54:1+ O 23 '53; Nat Underw 57:2+ O 22 '53

Insurance men have big role in submarine move; U-505. Nat Underw 58:31 Ag 19 '54

Lack of firmness in marine underwriting. Weekly Underw 171:182 Jl 24 '54

Many interesting problems are encountered in practise of ocean marine cargo cover. P. P. Wallace. Weekly Underw 170:354-5, 408+, 462+, 522-3, 588-9, 654-5, 714-15 F 6-Mr 20 '54; Abstract. Nat Underw 58:17 Mr 11 '54

Marine definition is essential today. H. L. Wayne. East Underw 54:1+ O 30 '53; Same cond. Weekly Underw 169:1041 O 31 '53; Abstract. Nat Underw 57:1 O 29 '53

Marine insurers face outdated fleet, rising competition. K. W. Stuer. il Spectator 162:26-7+ Jl '54

More tailor-made policies as result of new nationwide definition; abstracts. J. G. Romans. East Underw 55:24-5 Ap 2 '54; Nat Underw 58:27 Ap 1 '54; Weekly Underw 170:1053+ Ap 24 '54

Nation-wide marine definition. H. C. Johnson. Weekly Underw 171:920 O 16 '54

Need for marine definition in agricultural states; abstracts. H. L. Wayne. Nat Underw 58:23-4 Ap 15 '54; Weekly Underw 170:968-9 Ap 17 '54

Ocean Marine still wrestling with major problems. Nat Underw 57:3+ Ag 13 '53

Problems and trends of marine insurance. F. B. Zeller. Weekly Underw 169:1101+ N 7 '53; Same abr. East Underw 54:31+ N 6 '53; Abstract. Nat Underw 57:13 N 5 '53

Proper method of handling country damage losses is highly controversial. Weekly Underw 171:508+ S 4 '54; Discussion. 171:848-50 O 9 '54

Report of committee on bills of lading to meeting of International Union. Weekly Underw 171:778-9 O 2 '54

Review of 1953. E. R. King. Weekly Underw 170:39+ Ja 2 '54

World wide marine insurance situation discussed by British underwriters. Weekly Underw 171:290 Ag 7 '54

See also

Board of underwriters of New York

Lloyd's, London

National cargo bureau, inc.

Adjustment of claims

Case of perils of the sea. P. P. Wallace. Weekly Underw 170:1104+ My 1 '54

Complicated Noronic disaster settlement is completed. Nat Underw 58:8 Jl 29 '54

Controversy over country damage claims on cotton shipments interests Japanese. Y. Kamei. Weekly Underw 169:544 S 5 '53

Court rules on plane salvage by S. S. Batory. Weekly Underw 171:184 Jl 24 '54

High award costs in marine. Nat Underw 57:34 D 10 '53

Marine underwriters have vital concern in unauthorized deviation of departure. Weekly Underw 170:186-7 Ja 16 '54

Noronic disaster award is $2.7 million. Nat Underw 58:21 F 4 '54

Personal contracts as affecting liability limit; British opinion. S. W. Wilde. Weekly Underw 171:286 Ag 7 '54

Railway Express official tells mariners how traffic is handled. E. W. Hull. East Underw 54:27 O 30 '53

Ship not constructive total loss if repairs are below insured value; Compania maritima astra, S.A., against P. M. Archdale. East Underw 55:27 Jl 16 '54

Warehouse to warehouse clause at issue in case being appealed to Supreme court. Nat Underw 58:15-16 Ag 12 '54

INSURANCE, Marine—*Continued*

Agents

Ocean cargo insurance, the landlubbers line. A. B. Tarbell. Rough Notes 97:56 O '54

Finance

Marine insurance. Economist 168:232 Jl 18 '53

1953 automobile and ocean marine net premiums written, losses paid; tables by companies. East Underw 55:22-3 Mr 12 '54

Ocean marine business (including war risk) by underwriting groups and agencies, 1950-1952; table. Spectator (Endorsement no) 161:94-7 D '53

Government policies

Backs use of private capital for building; ship construction. Weekly Underw 169:474 Ag 29 '53

History

New Philadelphia story, 150 years old; history of North America's claims. A. W. Fitzgerald. Weekly Underw 171:958-60+ O 16 '54

International aspects

Freedom of insurance. J. T. Byrne. Weekly Underw 171:705-6 S 25 '54; Same cond. East Underw 55:23 O 1 '54

Growing activity of American delegation in International Union affairs. Weekly Underw 171:922 O 16 '54

Mexican law changes hit rights of shippers. Weekly Underw 170:775 Mr 27 '54

Report of the study group on clean bills of lading made at San Sebastian. F. B. Zeller. Weekly Underw 169:994-5 O 24 '53

Restrictive and nationalistic legislation. J. T. Byrne. Weekly Underw 169:868-70+ O 10 '53

Restrictive marine laws danger to shipping and credit; abstracts. J. T. Byrne. East Underw 55:30 S 10 '54; Weekly Underw 171:385+ Ag 21 '54

Senate group cites discrimination against American Marine insurance. East Underw 55:31 F 19 '54

Service performed by American marine insurance market. P. Chubb. Weekly Underw 169:266-8 Ag 1 '53; Same abr. East Underw 54:25-6 Jl 31 '53

State department seeks to remove foreign insurance discrimination. T. B. Morton. East Underw 54:35 S 18 '53; Abstract. Weekly Underw 169:734 S 26 '53

See also
International union
of marine insurance

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Theft losses

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Country damage continues to be discussed by underwriters in British offices. Weekly Underw 169:86-7 Jl 11 '53

Marine insurance defined. Rough Notes 96: 108-10 S '53

Rates

Ocean marine rates are too low, bound to go up. T. M. Torrey. Nat Underw 57:10 N 5 '53

Reinsurance

Reinsurers don't pay when direct insurer leaves out clause; Eagle Star case. Nat Underw 58:6 Jl 8 '54

Terminology

Check list of sale terms that explains just when a company must provide the insurance. Rough Notes 97:18 Ap '54

Theft losses

Bad packaging continues to worry underwriters. Weekly Underw 170:845 Ap 3 '54

Report on cargo loss prevention covered developments during past year; International union of marine insurance. Weekly Underw 171:776+ O 2 '54

War risks

Frustration clause decision in Atlantic Trader case discussed by underwriters. Weekly Underw 169:1548 D 26 '53

Ready U.S. program for war risk cargo cover Nat Underw 58:12 Ja 14 '54

Sale of U.S. marine war risk insurance is slow. Weekly Underw 169:472 Ag 29 '53

Senate considers bills on vessel war risks territorial changes. Nat Underw 58:25 Ap 1 '54

Shipping industry wants war risk for full value for total losses. East Underw 55:33 Ap 2 '54

War binders extended by Maritime commission. W. H. Lane. Weekly Underw 169: 1230 N 21 '53

Great Britain

British hull and cargo marine insurance developments in 1953. East Underw 55:36+ Mr 26 '54

Famous Cunard insurance fund supported the insurance of two famous ocean liners. Weekly Underw 171:571-2 S 11 '54

Non-marine business transacted by Lloyd's of London now exceeds marine lines. Weekly Underw 171:344 Ag 14 '54

Trend of 1953 hull underwriting as seen from British standpoint. East Underw 54:30 S 4 '53

Italy

Italian marine insurance managers may expand present foreign connections. M. Foa. Weekly Underw 169:1103-4 N 7 '53

Mexico

Mexico ocean marine facilities of American international corp. F. Maccabe. East Underw 55:30 My 21 '54

New York (city)

Advantages of marine market in N.Y. T. M. Torrey. East Underw 54:25 S 25 '53

Rhode Island

Rhode Island adopts new marine definition. Weekly Underw 169:462 Ag 29 '53

INSURANCE, Medical expense

Bureau survey shows 16 per cent overall increase for personal A.&H. coverages; 1953. East Underw 55:27 Ag 27 '54; Same. Weekly Underw 171:471 Ag 28 '54

Catastrophic cover; doctors and health underwriters panel, Peoria. Weekly Underw 169: 1447 D 12 '53; Nat Underw 57:11 D 10 '53; Nat Underw (Life ed) 57:11 D 11 '53

Doctors for coinsurance in major medical plans. Nat Underw 58:20 F 4 '54

Experience in selling major medical expense insurance; Connecticut General. E. L. Nicholson. East Underw 55:44 Mr 19 '54

Federal reinsurance; effect on major medical expense experimentation; abstracts. J. H. Miller. East Underw 55:34+ Ap 2 '54; Nat Underw 58:1+ Ap 1 '54; Nat Underw (Life ed) 58:1+ Ap 2 '54; Weekly Underw 170: 857 Ap 3 '54

Fireman's Fund plan ready; medical, hospital and surgical expense program. East Underw 55:46 Mr 19 '54; Same abr. Weekly Underw 170:720 Mr 20 '54

Fundamentals of A&H insurance. W. Milliman. Life Ins Courant 59:37-41 Ja '54

Group earns commissions; medical castastrophe or major medical coverage latest addition to group coverages. E. B. Whittaker. Nat Underw (Life ed) 57:20-1 O 16 '53; Same. Nat Underw 57:18 D 10 '53

Group major medical insurance symposium. H. A. Weitzman and others. Am Gas Assn Proc 1953:59-79

Health and accident underwriters conference 4th annual hospital-medical forum, Chicago. East Underw 55:37+ F 12 '54; Nat Underw 58:1+ F 11 '54; Nat Underw (Life ed) 58:1+ F 12 '54

Individual and family major medical expense today; abstracts. M. D. Miller. East Underw 55:40-1 Je 11 '54; Nat Underw 58:14 Je 10 '54; Nat Underw (Life ed) 58:4 Je 4 '54

Major medical insurance at its best. H. A. Moreen. East Underw 55:40+ F 5 '54

Medical insurance for the injured worker; growing trend? abstract. Management R 42: 619-20 O '53

INSURANCE, Medical expense—*Continued*

New form of medical insurance. Management R 43:549-50 Ag '54

Outlook for catastrophe medical insurance. A M. Wilson. East Underw 55:37 Ja 22 '54

People; health insurance coverage; abstracts. J. H. Miller. East Underw 55:37+ F 12 '54; Nat Underw 58:10+ F 11 '54; Nat Underw (Life ed) 58:6, 10 F 12 '54

Problem of protecting Canadians against the financial impact of medical care costs. G. L. Holmes. East Underw 55:3 Je 4 '54

Problems encountered by Equitable Life during its 27 months' experience in the writing of individual major medical expense. D. G. Stock. East Underw 54:49-50 N 13 '53

Public regard for A.&H. has greatly increased; medical insurance. R. F. Froehlke. East Underw 54:40-1 N 20 '53

Reports on group major medical (catastrophe) insurance of the insurance committee and the personnel committee. bibliog Am Gas Assn Proc 1953:189-207

Sales in major medical cover; forum discussion at Equitable society meeting, New York. East Underw 55:10 Jl 30 '54

Sales slant in major medical. H. Cramer. East Underw 55:34 My 21 '54

Sound program needed for insuring against catastrophic medical expense. B. Lorber. Weekly Underw 170:304-5 Ja 30 '54

Uniform doctor fees seen as way to better A&H covers. G. H. Hipp. Nat Underw 58:21 F 18 '54; Same. Nat Underw (Life ed) 58:11 F 19 '54

Employees' insurance

Catastrophe medical experience of General Electric and Sears Roebuck. Nat Underw 57:20-1 Jl 9 '53

How medical catastrophe insurance works. Management R 42:178-9 Mr '53

Major medical wanted by low income group; Prudential employes. Nat Underw (Life ed) 57:3 Jl 24 '53

Meeting the cost of prolonged illness; abstract. Management R 43:268-9 Ap '54

Policies

Catastrophe medical policies; comparative table of essential features of catastrophe medical expense policies. Rough Notes 96:95 Ag '53

Equitable society issues new major medical expense policy. Weekly Underw 170:322 Ja 30 '54; Nat Underw 57:10 D 31 '53; Nat Underw (Life ed) 58:2 Ja 1 '54

Hartford A.&I.'s new individual policy for those ineligible for family group coverage. East Underw 55:50 F 19 '54

Occidental Life adds six new coverages to standard group policy. East Underw 55:35 Ag 20 '54

Occidental Life enters major medical field. East Underw 55:30+ Ja 15 '54; Nat Underw (Life ed) 58:1 Ja 8 '54; Weekly Underw 170:202 Ja 16 '54

INSURANCE, Mercantile open stock burglary. See Insurance, Burglary

INSURANCE, Military and naval service

Court vindicates agents' advice on Civil relief act. East Underw 55:1+ Je 18 '54

Decision may stop VA's welching on Civil relief act. Nat Underw (Life ed) 58:1 Je 25 '54

Objections to uniform service survivor benefits act. Nat Underw (Life ed) Daily ed 57:18+ Ag 28 '53

VA faces potent new point in appeal from setback in New York civil relief suit. Nat Underw (Life ed) 58:3+ Jl 23 '54

VA to appeal from New York decision on civil relief roll. R. B. Mitchell. Nat Underw (Life ed) 58:1 Jl 9 '54

Lapses and surrenders

Big lapse rate of veterans insurance, as of end of September. East Underw 54:1+ O 30 '53

INSURANCE, Money and securities

Money and securities policy; analysis. Rough Notes 97:89-90 Ag '54

INSURANCE, Mortgage

Don't overlook mortgage insurance for those who do not own homes. Weekly Underw 169:1572 D 26 '53

Florida anti-coercion law betters position of mortgagor, not agent. J. E. Larson. Nat Underw 58:31 Ap 8 '54

Let competition rule FHA rates. E. A. Camp, jr. Nat Underw (Life ed) 57:8 O 16 '53

Mortgage protection sells easy. R. W. Osler. Rough Notes 97:63-5 Je '54

See also

Insurance, Chattel mortgage

Insurance, Life—Mortgage redemption policies

INSURANCE, Mortgage interest

Mortgagee rights, responsibilities, under standard mortgagee clause. G. I. Gross. East Underw 55:24 Je 25, 20-1 Jl 2; 20-1 Jl 9 '54

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Insurance—Mortgage interest

INSURANCE, Motor boat

Outboard motor boat policy; analysis; underwriting. Rough Notes 97:95-6 My '54

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Specialization means profits in truck and bus insurance; Markel service, inc. I. S. Markel. Rough Notes 97:31+ O '54

INSURANCE, Motor truck

Houston Fire and Casualty takes interstate commerce commission fight to U.S. high court. Nat Underw 57:18 Ag 27 '53

ICC turns down higher insurance requirements for motor carriers. J. C. Cheseldine. East Underw 55:37-8 Mr 19 '54

Markel group cited in Virginia for alleged violations in covering oil truckers. Nat Underw 57:12 O 15 '53

Markel interests pay $50,000 and Virginia case is closed. Nat Underw 57:17 O 22 '53

Specialization means profits in truck and bus insurance; Markel service, inc. I. S. Markel. Rough Notes 97:31+ O '54

Adjustment of claims

Lessee-lessor arrangements in trucking field create problems for adjuster. E. E. Mann. Weekly Underw 169:643, 702 S 12-19 '53

Loading and unloading clause an issue in Minnesota federal case; Bituminous casualty corp. v. Travelers insurance co. et al. Weekly Underw 171:678 S 18 '54

Loading and unloading clause; Hardware mutual casualty co. v. St Paul Mercury indemnity co. L. A. Burke. Spectator 162:41 Ja '54

Unloading construed by Connecticut court in auto liability case; Raffel et al. v. Travelers indemnity co. Weekly Underw 171:209 Jl 24 '54; Nat Underw 58:15 Jl 29 '54

Preventive work

Safety for small truck fleets; Markel service, inc. C. Ray. il Rough Notes 96:19+ N '53

INSURANCE, Motor truck contents

Burglar alarm protection highly important in underwriting. L. Stieglitz. East Underw 55:27 Ja 29 '54; Same. Weekly Underw 170:291 Ja 30 '54

How agents can meet direct writer competition on motor cargo covers; abstracts. R. G. Shepard. Nat Underw 57:3+ O 22 '53; East Underw 54:34-5 O 16 '53

ICC turns down higher insurance requirements for motor carriers. J. C. Cheseldine. East Underw 55:37-8 Mr 19 '54

Limited liability receipts for use by motor carriers. M. D. Felson. Weekly Underw 170:521 F 27 '54; Same. East Underw 55:36 Mr 5 '54; Same. Nat Underw 58:36 F 18 '54

Loss adjusting under the new personal articles floater; motor truck cargo losses. R. E. Cathcart. Rough Notes 96:23+ S '53

Moral hazard in these changing times is vital factor in work of adjusters; motor truck cargo. R. E. Cathcart. Weekly Underw 169:561 S 5 '53

Retailers and wholesalers are our best cargo target. S. Stanley. Rough Notes 97:33+ O '54

Successful selling requires careful, thorough analysis. J. O. Hatch. il Rough Notes 97:32 O '54

INSURANCE, Motor truck contents—*Cont.*

Truck cargo business definitely out of red, 1953. J. Seide. Weekly Underw 170:42-4 Ja 2 '54

Truck cargo thefts at record high but loss ratio declines in 1953. East Underw 54:92 D 11 '53

Two cargo forms. W. L. Johnson. il Rough Notes 97:30-1+ O '54

Understanding true crime picture includes various angles in truck cargo thefts. Weekly Underw 170:1597 Je 26 '54

Adjustment of claims

$75,000 swept away; weird flash flood cargo claim reported by Chubb & son. Weekly Underw 171:320 Ag 7 '54

Preventive work

Brokers urged to help assureds curtail truck thefts. J. Seide. Weekly Underw 170:1105 My 1 '54; Same cond. East Underw 55:30 Ap 30 '54

Truck leaders urge greater recognition for protection program. C. E. Galston and H. E. Sheridan. Weekly Underw 169:149 Jl 18 '53

Truck theft prevention programs save millions of dollars yearly; Cargo protection bureau of New York. East Underw 55:21 Ja 1 '54; Nat Underw 57:13 D 31 '53

Truck theft prevention programs saving millions of dollars yearly for business firms. Weekly Underw 169:1547 D 26 '53

Underwriters urged to help curtail package losses from trucks. J. Seide. Weekly Underw 170:772 Mr 27 '54; Same. East Underw 55:37 Ap 9 '54

INSURANCE, Multiple location. See Insurance, Fire—Multiple location policies

INSURANCE, Municipal

Insurers seen reluctant to cover city liability; White Plains, N.Y. E. Michaelian. East Underw 54:31 S 4 '53

New York cities, others, have trouble getting liability coverage. Nat Underw 57:7 S 10 '53

San Antonio exchange wins placement issue after sharp tussle. Nat Underw 57:8 N 5 '53

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- Insurance—Municipal policies
- Insurance, Liability—Municipal policies

INSURANCE, Mutual

Briefs are filed in Texas Mutual assessment case. Nat Underw 58:1+ Ap 15 '54

Claim Pioneer Colorado license void since 1951, making policies non-assessable. Nat Underw 58:24 Ag 26 '54

Details of New York insurance show huge growth since 1940, rise of mutual share. Nat Underw 58:19 F 11 '54

Direct writers meet the modern mass market. S. B. Black. Spectator 161:22-3+ O '53

Directors get Mutual's assets; court holds Allyn powerless to act. Nat Underw 57:14 Ag 6 '53

Early returns from financial statements of mutual property companies for 1953; table. Spectator 162:107+ Ap; 120-1 My '54

Farmers & Traders' battle for control ends; mutualization is voted. East Underw 55:5 Jl 30 '54; Abstract. Weekly Underw 171:479 Ag 28 '54

Farmers and Traders of Syracuse adopts mutualization plan; effective Jan. 1, 1955. East Underw 54:1 O 16 '53; Abstract. Nat Underw (Life ed) 57:4 O 16 '53

Holds Arizona schools can't insure in mutuals. Nat Underw 58:11 F 4 '54

Insurance groups watch Texas case. Bsns W p 120 D 12 '53

Many $10 insurers hatch in Missouri. Nat Underw 57:18 O 1 '53

Mutual claims conference, Detroit. Weekly Underw 170:1255 My 15 '54

Non-assessability is negatived by Texas decisions; Texas Mutual of Beaumont. Nat Underw 57:1+ Jl 30 '53

Non-assessment feature may have no meaning. F. S. Pearson. Weekly Underw 169:257 Ag 1 '53

Pacific Mutual Life plan of mutualization approved; California Appellate court decision. Weekly Underw 170:1365 My 29 '54; Same. Nat Underw (Life ed) 58:2 My 21 '54

Pacific Mutual not for sale. A. V. Call. East Underw 55:6 F 26 '54; Same abr. Nat Underw (Life ed) 58:1+ F 19 '54

People working together build $158 million insurance business; Farm Bureau Mutual. L. M. Hughes. Sales Management 71:30-2+ S 1; 56-7+ S 15 '53

Sees Pacific Mutual upheld in stockholders court test. A. V. Call. East Underw 55:4 Jl 23 '54

Stockholders of Pacific Mutual Life take issue of ownership into high court. Weekly Underw 171:36 Jl 3 '54

Texas assessment decision is reversed; Texas Mutual, Ennis. East Underw 55:27 My 21 '54

Texas association of mutual fire and storm insurance companies annual meeting, Austin. Nat Underw 58:20 O 14 '54

Texas Mutual appeal on assessment. Nat Underw 58:2 F 18 '54

Texas Mutual case is going to provide a lot of insurance chatter before last shot is fired and Supreme court speaks. Nat Underw 57:1+ Ag 6 '53

Texas Mutual decision comes as climax to pave way for changes in state's laws. Nat Underw 58:1+ My 20 '54

See also

- National association of mutual insurance agents
- National association of mutual insurance companies

Rates

Pennsylvania commissioner suspends rate filing ruling. A. C. Leslie. Weekly Underw 170:174 Ja 16 '54

INSURANCE, Owners', landlords' and tenants' liability

Approve Mutual bureau rates; Massachusetts, New Jersey, Rhode Island. East Underw 55:39 Ap 9 '54

Bureau announces rate revision for Texas. East Underw 55:28 Jl 9 '54

Bureau revises rates on school O.L.&T. in the states of California, Connecticut and New York. East Underw 54:25+ Ag 7 '53; Same cond. Nat Underw 57:12 Ag 6 '53; Excerpt. Weekly Underw 169:374 Ag 15 '53

Liability rate revision approved by New York department for M.&C. and O.L.&T. insurance. East Underw 55:39 Mr 19 '54; Same cond. Weekly Underw 170:720 Mr 20 '54

Liability rates changed; announced by National bureau of casualty underwriters. Rough Notes 97:104 F '54

Liability rates revised. Rough Notes 97:111 My '54

OL&T and M&C changes. Rough Notes 97:103-4 Ap '54

Owners', landlords' and tenants' liability manual revisions. East Underw 54:30 D 18 '53

O.L.&T. outlines nine-point plan of four mutual companies. N. Lustig. East Underw 54:31-2 S 25 '53

Revise Florida M.&C., O.L.T. rates. East Underw 55:32 Ap 30 '54

Revised O.L.&T. rates effective Jan. 18. East Underw 55:30 Ja 22 '54; Abstract. Nat Underw 58:14 Ja 21 '54

Revises O.L.&T. rates in ten states, District of Columbia; manufacturers and contractors also changed; National bureau of casualty underwriters. East Underw 54:39 N 20 '53; Same abr. Weekly Underw 169:1310 N 28 '53; Abstract. Nat Underw 57:4B N 19 '53

Adjustment of claims

Does an O.L.T. policy cover an assault by your partner? L. A. Burke. Spectator 161:46-8 Jl '53

Exclusion clause held controlling in OL&T policy case; General accident fire & life assurance corp., ltd. v. LeTellier. Weekly Underw 170:625 Mr 6 '54

Use of defective osteopathic table held negligence within malpractice exclusion; Harris et ux. v. Fireman's fund indemnity co. Weekly Underw 169:51 Jl 4 '53; Abstract. Nat Underw 57:14 O 1 '53

INSURANCE, Partnership. See Insurance, Business—Partnership interest

INSURANCE, Patent

Canvass business firms for patent infringement covers. F. L. Andrews. Rough Notes 97:95-9 Ap '54

INSURANCE, Pattern floater. See Insurance, Inland marine—Policies

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Personal effects floater; analysis of policy; underwriting. Rough Notes 96:91-2 Jl '53

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INSURANCE, Physicians' and surgeons' equipment floater

Medical equipment coverage. Rough Notes 97:64 My '54

New form offers better coverage to doctors and dentists. J. F. Lane. East Underw 55:25 F 5 '54; Same. Weekly Underw 170:407 F 13 '54; Same abr. Nat Underw 58:18 F 18 '54

New sales opportunity; liberalized policy. L. M. Baldwin. Weekly Underw 170:1300 My 22 '54

Physicians' and surgeons' instruments floater; coverages and forms. Spectator 162:57-8 Ap '54

INSURANCE, Physicians' and surgeons' liability. See Insurance, Malpractice liability

INSURANCE, Products liability

Product liability risks. B. J. Daenzer. Rough Notes 96:58+ N '53

Products liability policy construed in Minnesota Supreme court case; Hauenstein et al. v. St Paul-Mercury indemnity co. Weekly Underw 171:425 Ag 21 '54

Record negligence verdict awarded in Washington. Weekly Underw 170:779 Mr 27 '54

INSURANCE, Professional liability. See Insurance, Malpractice liability

INSURANCE, Public liability. See Insurance, Liability

INSURANCE, Radio tower

New radio, television tower insurance plan. East Underw 54:22 S 11 '53

INSURANCE, Rain

Coverages and forms; rain insurance. Spectator 161:44-5 Ag '53

INSURANCE, Reciprocal

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Ohio reciprocal agent bill becomes law. Nat Underw 57:6 Jl 23 '53

INSURANCE, Refrigerating system

Refrigeration locker plants must carry insurance in Missouri. Weekly Underw 169:140 Jl 18 '53

INSURANCE, Replacement

Progress report; three years of fixture replacement insurance in southern California. Dom Eng 183:118-20 Ja '54

INSURANCE, Robbery. See Insurance, Burglary

INSURANCE, Safe deposit box

NBCU announces a new safe depository policy; combines CSDL and SDBBR. East Underw 54:93 D 11 '53

Safe deposit liability insurance premium rate cut coming. H. F. Harrington. Banking 46:96 N '53

INSURANCE, Service equipment floater

Servicing the service risks; new service equipment floater. I. E. Artes. Weekly Underw 171:192 Jl 24 '54

INSURANCE, Sickness. See Insurance, Health

INSURANCE, Social

Encroachments on private enterprise in insurance business. L. W. Dawson. Comm & Fin Chr 178:1121 S 24 '53

Social security technique and demography. F. Netter. Int Labour R 67:549-58 Je '53

See also

Insurance, Health
Insurance, State
Insurance, Unemployment

Accounting

Twelve important points for accountants to know about social security. J Account 96:606-7 N '53

Cost

Comparative analysis of the cost of social security. Int Labour R 67:292-303 Mr '53

Finance

Financial review of the operation of the French social security system in 1951. Int Labour R 67:179-90 F '53

International aspects

International balance in social security costs. P. Laroque and A. Zelenka. Int Labour R 68:331-45 O-N '53

Social security treaties may produce unusual situations. C. T. Curtis. Nat Underw (Life ed) 57:10 N 20 '53

Canada

Independence vs. security; Canada's internal threat. J. B. Weir. Comm & Fin Chr 178:2640 D 31 '53

France

Financial review of the operation of the French social security system in 1951. Int Labour R 67:179-90 F '53

Great Britain

Beveridge on the rocks? Economist 168:770 S 19 '53

Committee on the old. Economist 168:90+ Jl 11 '53

Subsistence through assistance. Economist 168:376 Ag 8 '53

Russia

Soviet social insurance. East Underw 55:21 F 19 '54

United States

Adjustable social security clause suggested by NALU committee. Nat Underw (Life ed) Daily ed 57:22 Ag 28 '53

Agents' status under social security defined; new Internal revenue rules. East Underw 55:10 Ag 20 '54; Nat Underw (Life ed) 58:1+ Ag 20 '54; Weekly Underw 171:385+ Ag 21 '54

ALC-LIA, NALU views on social security. Nat Underw (Life ed) 58:2+ Ap 16 '54

ALC-LIA oppose over-liberalizing of social security; abstracts. Nat Underw (Life ed) 57:1+ D 18 '53; East Underw 54:8 D 18 '53; Weekly Underw 169:1512 D 19 '53

A.M.A. balks at social security extension to physicians. Nat Underw (Life ed) 57:4 Ag 14 '53

Battle lines are drawn on social security shifts. Bsns W p28-9 N 28 '53

Changes effected by the new social security law. R. W. Osler. Rough Notes 97:93-4+ O '54

Companies' views on House bill 9366 social security amendments, presented to Senate finance committee. A. V. Call. East Underw 55:1+ Jl 9 '54

Curtis social security hearing develops into political wrangle. Nat Underw (Life ed) 57:21 D 4 '53

Curtis social security plan for '54 Congress. Nat Underw (Life ed) 58:9 Ja 1 '54

Data for measuring the effectiveness of public income-maintenance programs. J. Fisher. bibliog Am Stat Assn J 48:15-27 Mr '53

Development of Federal social security system. A. L. Kirkpatrick. East Underw 55:6 O 15 '54

Eisenhower favors expansion of social security to ten million more. Nat Underw (Life ed) 57:3+ Ag 7 '53

Enlarged umbrella; more in social security contributions. Chem W 74:18 Ja 30 '54

Eternal vigilance is the price of liberty. E. H. O'Connor. Weekly Underw 169:687-8 S 19 '53

Final social security version no less obnoxious to NALU leaders. C. M. Dunaway. Nat Underw (Life ed) 58:1+ Ag 27 '54

Government encroachment. A. L. Kirkpatrick. Weekly Underw 169:1002 O 24 '53

Government's role in providing economic security; abstracts. R. D. Murphy. Weekly Underw 170:1368 My 29 '54; East Underw 55:1+ My 28 '54; Nat Underw (Life ed) 58:9 My 28 '54; Comm & Fin Chr 179:2528+ Je 10 '54

How agents serve our free economy. A. L. Kirkpatrick. Spectator 161:28-9+ O '53

INSURANCE, Social—United States—*Cont.*
How will Congress amend social security? Spectator 162:36-7+ F '54
Life companies and agents oppose features of social security bill. Weekly Underw 170:1001 Ap 17 '54
New pay-as-you-go plan for social security offered; abstracts. H. E. Blagden. Nat Underw (Life ed) 57:1+ O 30 '53; East Underw 54:5 O 30 '53
Opposes social security bill; two-count objection by Health and accident underwriters conference. East Underw 55:30+ Jl 16 '54
Pension problem in the United States. Mo Labor R 76:245-8 Mr '53
Possibilities of tax boost seen in data; report of social security committee of ANPA. Ed & Pub 86:58 Ap 25 '53
President proposes amendment to Social security act to preserve insurance rights of individuals with extended total disability. Safety Maint & Prod 108:43 Ag '54
Section 106 of social security bill; points of opposition. J. P. Hanna. East Underw 55:31 Ag 13 '54
Security, social and otherwise, through private enterprise. C. M. Smith. East Underw 54:30 O 23 '53; Same cond. Nat Underw 57:8 O 22 '53
Social and health insurance today; abstracts. O. C. Hobby. Weekly Underw 171:905+ O 16 '54; Nat Underw (Life ed) 58:1+ O 15 '54
Social security aftermath of Waco tornado. Nat Underw 57:13 Jl 2 '53; Same. Nat Underw (Life ed) 57:18 Jl 3 '53
Social security approach of life insurance agent. R. W. Osler. Rough Notes 96:75-8 D '53
Social security battle shaping up. Chem & Eng N 32:56-8 Ja 4 '54
Social security bill; equal to $35,000 policy in typical situation. R. B. Mitchell. Nat Underw (Life ed) 58:1+ Je 11 '54
Social security changes. R. W. Osler. Rough Notes 97:59-60 Ag '54
Social security committee issues scathing denunciation of OASI bill; NALU position. Nat Underw (Life ed) Daily ed 58:15+ S 22 '54
Social security conference views U.S. Chamber proposals. East Underw 55:4+ Ja 22 '54
Social security for engineers hit. Chem & Eng N 32:3506 S 6 '54
Social security fraud on Nation. N. F. Moore. Nat Underw 58:11 Ja 7 '54
Social security fund is bookkeeping entry. Weekly Underw 169:1453 D 12 '53
Social security in a free society. R. A. Hohaus. East Underw 55:18+ pt 2 O 1 '54
Social security menaces agent's right to live; opposes H.R. 9366; abstracts. A. C. Adams. Nat Underw (Life ed) 58:1+ Jl 2 '54; Weekly Underw 171:94 Jl 10 '54
Social security proposals, modified Townsend plan. R. C. Gilmore, jr. Nat Underw (Life ed) 58:1+ Je 18 '54
Social security tax increase. Nat City Bank p9-11, 21-23 Ja-F '54
Some features of new Social security act. East Underw 55:4 Ag 27 '54
Special message to Congress, recommending enlarging scope of present Social security system. D. D. Eisenhower. Comm & Fin Chr 179:258+ Ja 21 '54
Start major study of social security plan; House ways and means subcommittee. East Underw 54:8 Jl 31 '53
Statement for company groups on administration's proposed social security legislation. A. V. Call. East Underw 55:3+ Ap 23 '54
Status of field forces for social security; highlights of panel discussion. East Underw 54:3 O 9 '53
Summary of the new social security amendments. Spectator 162:34+ O '54
Tax freeze? new controversy brewing over social security. Barron's 33:3 N 30 '53
Thoughts on social security. M. A. Linton. Life Ins Courant 59:24-5+ Ag '54; Excerpts. East Underw 55:3 Ap 23 '54
Too much social security. E. H. O'Connor. Comm & Fin Chr 178:1335+ O 8 '53; Excerpts. East Underw 54:30+ S 25 '53
Trend away from efforts to give all social coverages to government; abstracts. R. L. Hogg. Nat Underw (Life ed) 57:21+ O 9 '53; East Underw 54:4 O 9 '53; Weekly Underw 169:898+ O 10 '53
Vote on social security bill is hard blow to life business's hopes. Nat Underw (Life ed) 58:1+ Je 4 '54
Warns of extremes in government social security; abstracts. L. W. Dawson. Nat Underw 57:33+ S 17 '53; Nat Underw (Life ed) 57:1+ S 18 '53; Weekly Underw 169:657+ S 19 '53
Washington interest in health insurance and social security. E. M. Thore. East Underw 54:5, 17 N 13 '53; Abstract. Nat Underw (Life ed) 57:3+ N 13 '53

INSURANCE, Soldiers' and sailors'. See Insurance, Military and naval service

INSURANCE, Sporting equipment floater
Insurance for sports and recreation equipment. A. H. Seffing. Weekly Underw 170:1480 Je 12 '54

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Government encroachment. A. L. Kirkpatrick. Weekly Underw 169:1002 O 24 '53
How agents serve our free economy. A. L. Kirkpatrick. Spectator 161:28-9+ O '53
Intensify fight for individual freedom. A. L. Kirkpatrick. Weekly Underw 170:16+ Ja 2 '54
Scores social security, government A&H. R. W. Osler. Nat Underw (Life ed) 58:20 Mr 12 '54
Warns of socialistic trends; public fails to see danger. E. J. Seymour. East Underw 54:19 O 30 '53; Same. Weekly Underw 169:1033+ O 31 '53

See also
Insurance, Military and naval service
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INSURANCE, Strike
Hush-hush strike cover is noted; Seattle times. Nat Underw 57:6 S 3 '53

INSURANCE, Student
Bureau revises rates on school O.L.&T. in the states of California, Connecticut and New York. East Underw 54:25+ Ag 7 '53; Same cond. Nat Underw 57:12 Ag 6 '53; Excerpt. Weekly Underw 169:374 Ag 15 '53

INSURANCE, Surety and fidelity
Agent has plenty of opportunities for sale of honesty bonds. G. A. Connor. Nat Underw 58:19+ Je 10 '54
Bonds are booming panel; fidelity bonds. E. H. Luecke. East Underw 54:33 S 25 '53
Deductibles available for fidelity risks. East Underw 54:27 Jl 3 '53
Don't wait for customers to ask for fidelity cover. C. M. Reese. Rough Notes 96:30 Jl '53
Explain the 3-D to all your customers. N. E. Bartlett. Rough Notes 96:34+ S '53
Fidelity and Deposit puts emphasis on embezzlement controls for employers. L. A. Pratt. East Underw 54:15+ pt 2 Jl 3 '53
Fidelity-surety picture for 1953-1954. F. W. Bull. East Underw 54:94+ D 11 '53
First hand study of subdivision bond situation. J. Howard. Nat Underw 57:28-9 S 10 '53
Growth of suretyship. V. Cullen. East Underw 55:36 O 15 '54
Guarding against internal fraud; abstract. J. H. Jackson. Management R 43:198-9 Mr '54
Lloyd's excess fidelity bond scheme featured in NAIA fidelity and surety committee report; abstracts. East Underw 54:42 O 2 '53; Weekly Underw 169:816+ O 3 '53
New Florida surety co. to get started soon; Southeastern surety co., Tallahassee. East Underw 55:33 F 12 '54
1953 favorable year for surety industry. A. F. Lafrentz. Weekly Underw 170:50+ Ja 2 '54
Socialist insurer of Saskatchewan admitted to Montana; Saskatchewan Guarantee & fidelity co., ltd. Nat Underw 57:5 N 26 '53
Surety bonds require character evaluation. M. J. Schuetz. Rough Notes 96:20-1+ S '53
Suretyship principles are essential for every agent. A. C. Schreiber. Rough Notes 96:28+ D '53

INSURANCE, Surety and fidelity—*Continued*

Ten reasons why that sell dishonesty insurance. W. E. Humphreys. Weekly Underw 170:788 Mr 27 '54

Timidity in setting high amounts hurts bond sales. G. A. Connor. Nat Underw 57:17 N 19 '53

Two appointments announced by American surety co. Weekly Underw 170:1544 Je 19 '54

Which kind of dishonesty insurance do you sell? W. Wilson. Rough Notes 96:24-5+ D '53

See also
Bankers' blanket bond
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Adjustment of claims

Company paid too much, can they get it back? Phoenix indemnity co. v. Steiden stores, inc. L. A. Burke. Spectator 162:65-6 Je '54

Forgery bond; New York casualty co. v. Sazenski. F. C. Fiechter, jr. Burroughs Clearing House 38:87-8 F '54

Lie detector valuable aid in bonding field. W. T. Moree and W. L. Flynn. Weekly Underw 170:1006 Ap 17 '54

National Surety prompt payment of bank robbery claim leads to capture of alleged robber; Louisiana. East Underw 55:60 O 8 '54; Same. Weekly Underw 171:782 O 2 '54

Rights of a surety. C. W. Tye. Rough Notes 96:62-4 D '53

Rules overpayment be repaid insurer in mistake of fact case. Nat Underw 58:31 My 6 '54

Surety claim man psychology in contract work. H. W. Nichols. East Underw 55:37 My 14 '54; Same. Weekly Underw 170:1228 My 15 '54; Abstract. Nat Underw 58:8 My 13 '54

Agents

Fidelity-surety bonds cost less than in 1936; abstracts. D. Porter. East Underw 55:41+ S 17 '54; Nat Underw 58:14 S 16 '54

How to make crime pay; sell 3-D. Weekly Underw 170:1118, 1170 My 1-8 '54

No time like the present for sale of honesty insurance. M. A. Kelly. Weekly Underw 171:656 S 18 '54

Surety underwriters' association of New Jersey meeting, Newark, Dec. 3. East Underw 54:118 D 11 '53

There's no business like bond business; abstracts. J. K. Cormack. East Underw 55:40 O 8 '54; Nat Underw 58:45+ O 7 '54; Weekly Underw 171:926-7 O 16 '54

This agent clicks as contract bond specialist in Virginia, town of 43,000. N. Ferguson. East Underw 54:50 pt 2 Jl 3 '53

3-D is a business builder. J. W. Covert. il Rough Notes 97:31+ Ja '54

You too can help whip that old complex about selling 3-D. J. K. Cormack. il Rough Notes 97:30+ Ja '54

Bail bonds

Improper bail bond practices in New York state. A. J. Bohlinger. East Underw 55:31 Ap 23 '54

Contract bonds

AFIA has contract bond division. Nat Underw 58:38 Je 17 '54

Bonds are booming panel; contract bonds. J. M. Henderson. East Underw 54:30 S 25 '53

Chicago surety men oppose city choice of bonding company. Nat Underw 57:21 O 29 '53

Coercion in bond letting. W. F. Stantz. East Underw 55:23 My 7 '54

Contract bond business discussed at Surety bond producers' meeting. East Underw 55:38+ Mr 5 '54; Same. Weekly Underw 170:590+ Mr 6 '54

Contract bond business promises to hold up well indefinitely. J. M. Henderson. Nat Underw 58:22-3 Ja 7 '54

Contract bonds are easy! R. G. Hastings. Rough Notes 96:25 O '53

Impossibility of performance of construction contracts. A. R. Fredericks. Weekly Underw 169:1565-7 D 26 '53

Lincoln Tunnel tube job set at $17,260,370; 100 per cent surety bond required. East Underw 54:28 O 23 '53

New bond reviewed by court in case of subcontractor; Bill Curphy co. vs. J. S. Elliott. Nat Underw 57:12+ N 5 '53

Recent developments in the surety business. E. C. Anderson. Weekly Underw 170:817-19 Mr 27 '54

Statutory variations in rights of labor and materialmen. J. B. Tidman. East Underw 55:32-3 Ag 20 '54

Three C's of credit essential in contract bond underwriting. L. F. Ballerene. East Underw 55:36+ pt 2 Je 25 '54

$29,806,552 performance-payment bond written on Jersey City sewage plants. East Underw 55:27 Jl 9 '54

What's good for the client is good for the contractor. Eng N 152:84-6 Mr 11 '54

Why surety bonds were restored by the city of New York on municipal construction. J. J. Lucy. East Underw 54:8+ pt 2 Jl 3 '53

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Fine points of 3-D. N. E. Bartlett. Nat Underw 58:43 Mr 18 '54

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Countrywide fidelity-surety experience for 1952 compiled by N.Y. department; tables by companies. Nat Underw 57:6 O 1 '53

Country-wide underwriting results, 1948-52, of companies licensed in New York state; stock companies, non-stock companies; tables of earned premiums, losses incurred, loss ratio. East Underw 54:6-7+, 14+ pt 2 Jl 3 '53

Country-wide underwriting results, 1949-53, of companies licensed in New York state; non-stock companies; tables. East Underw 55:14+ pt 2 Je 25 '54

Country-wide underwriting resudts, 1949-53, of companies licensed in New York state; stock companies; tables. East Underw 55:6-7+ pt 2 Je 25 '54

National bureau exhibit shows 1952 profit of 0.3 per cent made by 268 companies. East Underw 54:28 Jl 3 '53; Same. Nat Underw 57:2 Jl 2 '53; Same. Weekly Underw 169:92 Jl 11 '53

National bureau reports '53 casualty and surety results; New York state; tables. Nat Underw 58:6, 10, 12 Jl 1 '54

National bureau's exhibit for 1953 points to 5.3 per cent profit made by 286 companies in New York state; with table. East Underw 55:31 Je 25 '54

1953 casualty-surety results for New York state; with tables. East Underw 55:18+ pt 2 Je 25 '54

1953 experience on fidelity and surety compiled by New York department; tables. Nat Underw 58:26 Ag 19 '54

1952 casualty-surety results of all companies for New York state; tables. East Underw 54:18+ pt 2 Jl 3 '53

Inventory shortage claims

Employee dishonesty coverage; Morrow retail stores v. Hartford. L. A. Burke. Spectator 161:59-61 S '53

Judicial bonds

Bonds are booming panel; contract bonds court and judicial bond business. A. H. Russell. East Underw 54:30+ S 25 '53; Same. Weekly Underw 169:738 S 26 '53

Court and judicial bonds are growing in volume. W. H. C. Griffith. Rough Notes 97:33+ Je '54

Court bonds are necessary for complete agency service. W. F. Curtis. Rough Notes 96:31-2+ O '53

How broker can increase his writings through court and judicial bonds. A. H. Russell. Weekly Underw 170:198-9 Ja 16 '54

How to approach a lawyer for judicial bond business. H. C. Burrell. Rough Notes 97:25+ O '54

INSURANCE, Surety and fidelity—Judicial bonds—*Continued*

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Judicial bonds offer unforeseen possibilities. R. L. Price. Rough Notes 97:39+ Jl '54

No place for high pressure in judicial bond selling. A. Beehler. Rough Notes 96:30-1+ O '53

Losses

Commercial fidelity losses point to variety of risk and bond inadequacy. Nat Underw 58:17-20 Je 3 '54

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Broad 3-D policies sell best. S. D. Mensit. Rough Notes 97:28-9 Ja '54

Deductibles are established by Surety association of America. Weekly Underw 169:29 Jl 4 '53

3-D can be tailored to fit almost any crime exposure. W. C. Cohen. Rough Notes 97: 32+ Ja '54

3-D means full protection. il Rough Notes 97:33 Ja '54

Preventive work

County audit system in Tennessee improved, surety business pleased. Nat Underw 58:23 Ja 14 '54

Four safeguards against imposter embezzlers. W. L. Flynn. Weekly Underw 169: 1007 O 24 '53

Pinkerton's value to insurance companies cited. H. W. Nugent. East Underw 54:33 S 25 '53

Scores surety companies for not reporting crime. F. S. Hogan. East Underw 55:49+ Mr 26 '54

Prospects

Fidelity bond business is everywhere. S. F. Hanna. Weekly Underw 170:788 Mr 27 '54

Public officials bonds

How to develop public official business. Weekly Underw 171:32 Jl 3 '54

Purchasing

Evils of under-insurance; common in fidelity field. E. H. Carson. East Underw 55:29 My 28 '54; Same. Weekly Underw 170:1360 My 29 '54

Three dimensions of fidelity and surety bonds; what they mean to credit men. E. H. Carson. Credit & Fin Management 55: 8+ D '53

Trusting the employees is too expensive; fidelity insurance one answer. F. C. Ayres. Credit & Fin Management 55:14-15+ O '53

Rates

New York department issues examination report on Surety association of America; rates. Nat Underw 58:1+ Jl 22 '54

Tax problems

Surety held unliable for unpaid taxes; General Casualty vs. the U.S. government. Nat Underw 57:21 Jl 23 '53

Underinsurance problem

Evils of under-insurance; common in fidelity field; abstracts. E. H. Carson. East Underw 55:29 My 28 '54; Weekly Underw 170:1360 My 29 '54; Nat Underw 58:28-9 Jl 8 '54

INSURANCE, Surgical equipment. See Insurance, Physicians' and surgeons' equipment floater

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New York taxi liability rates; NBCU changes effective Dec. 30. East Underw 55:33 Ja 15 '54

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Statute held paramount in District of Columbia taxicab case; Thompson v. Amalgamated casualty insurance co. Weekly Underw 169:1405 D 5 '53

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Commends alarm system; aided loss prevention efforts. T. L. Lynch. East Underw 54:35 S 18 '53

Householders' limited theft; analysis; underwriting. Rough Notes 97:95-6 Je '54

Seattle conference to war against pilferage organized by FBI. Weekly Underw 169:1228 N 21 '53

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Larceny by trick construed in District of Columbia theft policy case; General casualty co. of America v. Gunion. Weekly Underw 169:1337 N 28 '53

INSURANCE, Title

Open sesame of the open-end mortgage. quick, cheap title insurance. E. J. Loebbecke. House & Home 3:95 Ja '53

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Windstorm and extended coverage experience varies by regions; with tables. Spectator 162:108-10 Mr '54

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Cost of first tornado of year may run $1,300,-000. Nat Underw 58:1 Mr 18 '54

Edna losses may run $40 million, estimates vary. Nat Underw 58:1+ S 16 '54

$450,000 worth of wind hits southern California. Nat Underw 58:12 Ja 7 '54

Hurricane Carol may cost insurers $100 million. Nat Underw 58:1+ S 9 '54

Insurance industry hastens to adjust hurricane claims. East Underw 55:1+ S 10 '54

Insurance loss in Vicksburg blow may hit $10 million. Nat Underw 57:1+ D 10 '53

National board storm suggestions to policyholders; estimated losses. Weekly Underw 171:557+ S 11 '54

Storm claims in Northeast may total 100,000 but insured loss to be less than $10 million. Nat Underw 57:4B N 19 '53

Storm losses continue; number 44 catastrophe in N.Y. Nat Underw 57:1+ Jl 9 '53

Vicksburg tornado left unusual and difficult problems in its wake. R. G. Bachman. Weekly Underw 169:1526 D 19 '53

Vicksburg tornado loss estimate now $7½ million. Nat Underw 57:4 D 17 '53

Waco, Worcester, Wichita windstorm wolves of 1953. Nat Underw 57:4 Jl 2 '53

Western underwriters association receives study of wind losses. Nat Underw 57:20 O 29 '53

INSURANCE, Transportation

Legal decisions of interest to inland claims men in the transportation field. H. S. Daynard. Weekly Underw 170:1342-3, 1400-1, 1466-7, 1534-5, 1598-9; 171:20-1 My 29-Jl 3 '54

More tailor-made policies as result of new nationwide definition; abstracts. J. G. Romans. East Underw 55:24-5 Ap 2 '54; Nat Underw 58:27 Ap 1 '54; Weekly Underw 170:1053+ Ap 24 '54

Restrictive and nationalistic legislation. J. T. Byrne. Weekly Underw 169:868-70+ O 10 '53

Turn contingent shipper's objections into more sales. U. M. Lelli. Rough Notes 97: 100-2 Je '54

INSURANCE, Turkey

Now's the time to start selling turkey insurance. I. A. Kelliher. il Rough Notes 97: 29+ F '54

INSURANCE, Unemployment

Contractors will keep plugging for overhaul of jobless pay law. Eng N 151:28 D 17 '53

Jobless pay on a pension; New Jersey court says involuntarily retired workers can draw unemployment benefits, too. Bsns W p 163 D 12 '53

Modernizing unemployment insurance; abstract. Management R 43:316-17 My '54

Why labor wants more job insurance. map Bsns W p 150+ S 5 '53

Statistics

Employment security operations, 1949-1952. Survey of Cur Bsns 1953 Sup p67-8 [supplemented in monthly numbers]

INSURANCE, Unemployment—*Continued*

Great Britain

Long-term unemployed. Economist 168:87 Jl 11 '53

New Jersey

15 years of benefit payments. East Underw 55:41 F 12 '54

INSURANCE, Use and occupancy

Almost revolutionary clause in reciprocals earnings form sets no time limit on payroll. Nat Underw 58:7 Ag 5 '54

Answers questions on daily indemnity U.&O. boiler policy. Nat Underw 58:31 Mr 25 '54

Ask new business interruption loss form resulting from burglary; abstracts. J. J. Klepper. East Underw 55:30 Ag 6 '54; Nat Underw 58:6 Ag 5 '54; Weekly Underw 171:404 Ag 21 '54

Business interruption insurance offers brokers wide opportunities. E. Bochner. East Underw 54:30 N 20 '53

Business interruption insurance, protection of prospective earnings, industry life blood. N. Dekker. Weekly Underw 169:1056-7+ O 31 '53; Excerpts. East Underw 54:21 O 25 '53; Rough Notes 96:24 O '53

Business interruption insurance; various forms outlined. N. Dekker. East Underw 54:20+ N 27 '53

Business interruption is a badly neglected coverage. M. Van Gelder. Rough Notes 97:98-100 F '54

Contingent liability business interruption a necessary protection. H. F. Foster. Rough Notes 97:45-6 S '54

Earnings insurance; coverages and forms. Spectator 162:93-4 My '54; Discussion. 162:70-1 Je '54

Earnings policy offers opportunity for rebirth of salesmanship. W. H. Atkins. Nat Underw 58:31 Je 10 '54

Errors and omissions is insurance for the agent. J. C. Parrish. Rough Notes 97:24-5+ Je '54

Extends all risks idea to contingent U&O; premises next. A. M. Slawsby. Nat Underw 58:25+ S 9 '54

Fire insurance and allied lines of physical property insurance, including consequential forms of coverage. N. H. Wentworth. Credit & Fin Management 55:9-10+ D '53

Fireman's Fund now has no coinsurance U.&O. in 12 states. Nat Underw 57:3 Jl 2 '53

14 little U&O forms in Midwest, organization insurers urged to act. Nat Underw 57:1 N 12 '53

GM fire tremendous object lesson on U.&O. N. Dekker. Nat Underw 57:3+ S 24 '53

How business interruption turns time into money. D. C. White. Rough Notes 96:21-2+ S '53

How one agent sold 45 business interruption policies in 18 months. J. E. Landreth. Weekly Underw 170:922 Ap 10 '54

Long considered no coinsurance U.&O. move made on Coast; Pacific fire rating bureau. Nat Underw 57:1+ O 22 '53

New earnings coverage. W. W. Sampson. Nat Underw 58:27 My 6 '54

New earnings insurance form tailor-made for small merchant. Weekly Underw 170:666 Mr 13 '54

New gross earnings forum on Pacific coast. J. C. Weghorn. East Underw 54:28 N 20 '53

New small risk U&O form will spur sales activity. Nat Underw 57:1+ O 29 '53

No-coinsurance business interruption form is short, simple and salable. J. D. Phelan. Rough Notes 97:23-4+ Ap '54

No coinsurance U&O okeyed for use in East. Nat Underw 58:5 Ja 28 '54

Personal business interruption form in New Hampshire rules; loss of personal income form. Nat Underw 57:19 N 12 '53

Running out of prospects? try selling personal business interruption. R. L. Stuart. Rough Notes 97:90-2 Ap '54

Sales ideas on business interruption insurance; abstracts. C. E. Johnson. East Underw 55:24-5 O 15 '54; Nat Underw 58:53-4 O 7 '54

Take Bill, John, George; business interruption insurance has much to offer each of them. H. C. Klein. Credit & Fin Management 55:20-2 O '53

Urges hospitals to buy BI insurance. J. T. Even. East Underw 55:39 My 14 '54; Same. Nat Underw 58:22 My 13 '54

U&O claims reflect unhealthy picture of underinsurance. G. B. Raine. Nat Underw 58:9 Je 3 '54

Wholesalers' earnings interruption policy promulgated by Associated reciprocal exchanges. Nat Underw 58:14 My 27 '54

Accounting

Gross-earnings type of business interruption insurance. J. F. Sullivan. J Account 97:78-9 Ja '54

Adjustment of claims

Protracted and complicated U&O case at Chicago is won by the insurers. Nat Underw 57:19 D 31 '53

Three courts hold against recovery in Kansas City flood losses. Nat Underw 58:1 Mr 18 '54

INSURANCE, Valuable papers

"All risks" destruction of records policy. U. M. Lelli. Weekly Underw 169:953-4 O 17 '53; Same. East Underw 54:23+ S 11 '53; Excerpts. Management R 42:548-9 S '53

Announce accounts receivable and valuable papers and records policy. East Underw 55:32+ Mr 12 '54; Same. Weekly Underw 170:650+ Mr 13 '54; Same abr. Nat Underw 58:3+ Mr 11 '54

Banks need valuable papers coverage. Weekly Underw 170:602 Mr 6 '54

Jaffe burglary forum attracts 340 brokers; value of records and destruction and accounts receivable coverages; abstracts. T. P. Whelehan. East Underw 54:39 N 20 '53; Weekly Underw 169:1216 N 21 '53

New accounts receivable and valuable papers forms. Rough Notes 97:100+ Ap '54

New valuable papers form. W. S. Chandler. il Rough Notes 97:24-5+ My '54

Sell valuable papers and accounts receivable. D. W. Lehrmitt. Weekly Underw 170:197 Ja 16 '54

INSURANCE, War risk

Cotton war risk cover program gets started; Export-import bank program. Nat Underw 57:2 N 12 '53

Ex-im bank insures cotton exports against war risk, expropriation. For Comm W 50:24 N 23 '53

Government war cover on cotton stored abroad; Export-import bank program. East Underw 54:31 N 13 '53; Same abr. Weekly Underw 169:1159 N 14 '53

War risk available on U.S. owned cotton in foreign lands, but no demand yet from exporters. East Underw 55:31 F 26 '54

See also

Insurance, Fire—War risks

Insurance, Life—War risks

Insurance, Marine—War risks

Insurance, Military and naval service

INSURANCE, Water damage

How to sell water damage insurance. R. C LeBright. Weekly Underw 170:1004 Ap 17 '54

Adjustment of claims

Insurer wins water damage issue; Berman, inc., vs. Aetna Casualty. Nat Underw 57:17 O 1 '53

INSURANCE, Wedding present

Wedding bells mean business. E. S. Robinson. Weekly Underw 170:1238 My 15 '54

INSURANCE, Windstorm. See Insurance, Tornado

INSURANCE, Workmen's compensation

Actuarial pioneers who made insurance history. W. Leslie. East Underw 54:32-3 N 27 '53

Legislative proposals to liberalize workmen's compensation law benefits. East Underw 55:34+ F 5 '54

New York brokers to fight compensation replacement move; union agreements condemned. D. N. Sugarman. East Underw 55:33 Ja 8 '54

Rundown on workmen's compensation plans in state legislatures. Nat Underw 58:23 Mr 25 '54

INSURANCE, Workmen's compensation—*Cont.*

Speedy hospital diagnosis urged for workmen's compensation cases. M. W. Zucker. Nat Underw 58:14 Je 17 '54

State-by-state summary of trends in workmen's compensation; six states. East Underw 55:60 O 8 '54

State-by-state survey of compensation legislation for 1953; benefits raised. B. Jones. East Underw 54:28 Ag 7 '53

Worker benefits vastly more from private workmen's compensation. C. E. Woodward. Nat Underw 58:20 Ag 19 '54

Workmen's compensation administration. M. Donlon. Weekly Underw 169:1382+ D 5 '53

Workmen's compensation trends. A. F. Noll. Weekly Underw 169:1558+ D 26 '53

See also

National council on compensation insurance

Adjustment of claims

Courts say, in recent insurance cases. Pet Refiner 32:282 S; 243 O; 304 N; 210 D '53; 33:257 Ja '54; Same. World Oil 137:111 O; 90 N; 61 D '53; 138:54 Ja '54

Holds for insurers in ship sinking but only defers suits against them; Maryland Casualty et al. vs Gertrude P. Cushing et al. Nat Underw 58:10-11 Ap 22 '54

How adjusters can aid in industry's answer to the more adequate award. H. B. Rollins. Weekly Underw 171:374, 423-4, 485 Ag 14-28 '54

Hunting injury not covered by workmen's compensation in Arkansas. Nat Underw 58: 10 Mr 18 '54

Insurer's duty to defend emphasized in much-litigated New Jersey case; Danek v. Hommer. Weekly Underw 169:1577 D 26 '53

Jury deadlocked on Waco workmen's compensation payments; result of destruction of building in Waco in tornado. Nat Underw 57:20 D 17 '53

Kentucky workmen's compensation decision broadens application. Nat Underw 58:4 Mr 25 '54

Million dollar workmen's compensation decision is upheld in insured's favor. Nat Underw 58:1 Ja 7 '54

Partner held not an employe for workmen's compensation in Arkansas. Nat Underw 58: 18 F 25 '54

Serious question of amount recovered in third party-workmen's compensation action posed high court; Gulf-Tide stevedores and Texas employers insurance association vs Hugh A. Voris. Nat Underw 58:5 Jl 8 '54

Suggests answer to more adequate award. H. B. Rollins. Nat Underw 58:13 Jl 1 '54

Wide travel bulges seams of workmen's compensation coverage appellate claims cases reveal in New York. Nat Underw 58:17 Ap 1 '54

Assigned risks

New Jersey assigned risks plan for workmen's compensation. Nat Underw 58:29 S 2 '54

Texas workmen's compensation assigned risk pool plan. G. A. Smith. Nat Underw 57:47 O 1 '53

Cost

New York state ranks high in compensation costs. J. S. Keiper. East Underw 55:34 Jl 16 '54

Finance

New York compensation premiums $937, 182,952 in 1953. Weekly Underw 171:298 Ag 7 '54

New York department prepares 1952 workmen's compensation exhibit; tables. Nat Underw 57:13 Jl 30 '53

Workmen's compensation experience, 1953; country-wide earned premiums and incurred losses; tables compiled by the New York department from insurance expense exhibits. Nat Underw 58:25+ Ag 5 '54

Workmen's compensation insurance, aggregate results, country-wide and New York state, 1948-1952; tabulations. East Underw 54:28 Jl 31 '53

Industrial diseases

Industrial noise as compensation problem. H. D. Sayer. East Underw 54:29+ D 4 '53; Abstract. Nat Underw 57:13 D 10 '53

Million dollar workmen's compensation decision is upheld in insured's favor. Nat Underw 58:1 Ja 7 '54

Noise and hearing damage producing compensation claims. J. V. Grimaldi. Weekly Underw 171:14 Jl 3 '54; Same. East Underw 55:30 Jl 30 '54

Report on loss of hearing; New York state Workmen's compensation board. East Underw 54:34 D 4 '53

Study lower back injuries; cases are increasing. H. H. Kessler. East Underw 55:35 Ja 22 '54

Municipal policies

Municipalities as employers under the Workmen's compensation law; New York state; abstracts. M. Donlon. East Underw 55:33 Je 25 '54; Nat Underw 58:20 Je 24 '54

Policies

Compensation policy revised; approved by 32 states. East Underw 54:96 D 11 '53

Data on new supplemental coverage for workmen's compensation; abstracts. R. V. Alger. Weekly Underw 170:536 F 27 '54; East Underw 55:37 Mr 5 '54; Nat Underw 58:18 Mr 4 '54

Details of new workmen's compensation and employers' liability policies. L. W. Denison. Weekly Underw 171:721+ S 25 '54

National council issues simplified compensation form; first revision in 35 years. East Underw 55:31+ Ap 23 '54

New policy for workmen's compensation. R. L. Smith. Rough Notes 97:39+ Ag '54

New workmen's compensation policy now in effect. A. St Clair. Spectator 162:24-5+ O '54

New workmen's compensation policy will be effective Oct. 1. Nat Underw 58:19 Ap 22 '54

Workmen's compensation and employers' liability; analysis. Rough Notes 96:103-4 O '53

Workmen's compensation policy, due next year described. R. Kean. Nat Underw 57: 15+ N 26 '53

Preventive work

Insurance and industrial health; insurance companies. Ind Med 22:504-5 O '53

Private competition superior in injured workmen cases; loss prevention and rehabilitation. C. F. Woodward. East Underw 55:26 Ag 27 '54

Purchasing

Part of manager's duty is prevention of loss; Daystrom, inc, Elizabeth. H. Morgenthaler. East Underw 54:30 N 27 '53; Same. Weekly Underw 169:1322 N 28 '53

What a credit man should know about compensation, liability and property damage insurance. E. N. Lashmet. Credit & Fin Management 55:8-9+ D '53

Rates

Background of workmen's compensation revision in New York. Nat Underw 58:24 Je 24 '54

Base rates on compensation insurance for construction, Jan. 1, 1953; table. Eng N 151:137 O 8 '53

Compensation rate revision in Pennsylvania approved. Weekly Underw 169:742 S 26 '53

How interstate rating of compensation risks has grown. E. K. Bach. East Underw 55: 53 Mr 26 '54

Oklahoma and Florida increase workmen's compensation. Rough Notes 96:89 S '53

Oklahoma board won't budge on workmen's compensation order. Nat Underw 58:37 Mr 11 '54

Oklahoma denies workmen's compensation rate increase; says rates now too high. Nat Underw 57:6 S 3 '53

Oklahoma grants occupational diseases rate increase; 1.8 per cent filing pending. East Underw 54:28 Ag 14 '53

Oklahoma OKs council's filing; compensation rates to be 4.1 per cent lower. Nat Underw 58:4 S 16 '54

1.8 per cent New Jersey compensation rate changes. East Underw 55:40 My 14 '54; Weekly Underw 170:1236 My 15 '54

INSURANCE, Workmen's compensation—Rates —*Continued*

Pennsylvania hikes workmen's compensation. A. C. Leslie. Rough Notes 96:105 O '53

Pennsylvania rate revision approved by commissioner. A. C. Leslie. Weekly Underw 169: 156 Jl 18 '53

Replies to workmen's compensation critics; abstracts. W. Leslie, jr. East Underw 54: 27-8 S 25 '53; Nat Underw 57:4 S 17 '53

Superintendent approves compensation rate reduction of 8.3 per cent in New York state; abstracts. A. J. Bohlinger. East Underw 55:37 Je 18 '54; Weekly Underw 170:1538 Je 19 '54

Texas compensation rates announced; effective date of Dec. 1, 1953. East Underw 54:44 N 13 '53

Workmen's compensation rates on U.S.-owned explosives plants cut 35 per cent. Nat Underw 57:6 Ag 20 '53

Retrospective plan

Rules on California retrospective rating plan. W. T. Sweigert. East Underw 55:34 My 14 '54

Texas board upheld in retrospective compensation case. Nat Underw 58:25 F 11 '54

Texas Supreme court upholds optional retrospective compensation rating plans. East Underw 55:54 Mr 26 '54

Rating bureaus

Distributes memo on overtime remuneration by Compensation insurance rating board of New York. East Underw 54:30 Ag 7 '53

Risks

Compensation problems; importance of small risks. W. S. McCormick. Weekly Underw 171:924 O 16 '54

See also

Insurance, Workmen's compensation—Assigned risks

Study and teaching

Insurance society course to cover new compensation form. Weekly Underw 171:186 Jl 24 '54

Arkansas

Report says Arkansas workmen's compensation offers more for less cost. Nat Underw 58:9 Jl 29 '54

California

Another round to Maloney in battle on workmen's compensation plans. Nat Underw 58: 13 F 11 '54

Continuous workmen's compensation policy plan offered. Nat Underw 57:2 Jl 30 '53

Maloney criticises workmen's compensation expense factor calculations in denying increase. Nat Underw 57:23 S 10 '53

Move to put group workmen's compensation writing in California under doubt-free control. Nat Underw 57:11 Jl 2 '53

Workmen's compensation rate cut in California. J. R. Maloney. East Underw 54:34 S 11 '53

Georgia

Georgia agents seek to deflate claims for captive insurer. Nat Underw 57:2 Ag 27 '53

Great Britain

Industry's disabled; new Industrial diseases bill. Economist 169:650+ N 28 '53

Massachusetts

Workmen's compensation for heart deaths in Massachusetts. Nat Underw 58:11 Ja 14 '54

New Jersey

New Jersey compensation recovers from adverse loss ratio. B. Hamilton. East Underw 55:45 Je 11 '54

New York (state)

Compensation dispute declared closed; International brotherhood of electrical workers attempt to twist workmen's compensation insurance policies. D. N. Sugarman. Weekly Underw 171:583 S 11 '54

Compensation record. M. Donlon. East Underw 54:25+ Ag 7 '53

Compensation report for Governor Dewey; revised hearing procedure. A. O. Dawson. East Underw 55:38-9 Ap 9 '54

Compensation survey under way in New York state. Weekly Underw 170:657 Mr 13 '54; Same abr. East Underw 55:37 Mr 5 '54

Dewey names committee to study workmen's compensation in New York counties. East Underw 55:34 Jl 9 '54

40 years of New York compensation board. H. D. Sayer. East Underw 55:32+ F 5 '54; Nat Underw 58:18 F 4 '54; Weekly Underw 170:366 F 6 '54

Gauntlet down for private workmen's compensation coverage, New York officials warn; claims executives of insurance companies in New York meeting. Nat Underw 58:6 Ap 15 '54

International brotherhood of electrical workers charged with unfair labor practice on workmen's compensation switch. East Underw 55:32 F 5 '54; Nat Underw 58:38 F 11 '54; Weekly Underw 170:339 F 6 '54

Labor agreement in New York puts group workmen's compensation in state fund, brokers protest. Nat Underw 58:10 Ja 7 '54

Moreland act commission hearing on cost of workmen's compensation in New York. East Underw 54:24+ D 25 '53

Municipalities as employers under the Workmen's compensation law; abstracts. M. Donlon. East Underw 55:33 Je 25 '54; Nat Underw 58:20 Je 24 '54

New compensation claims procedure; abstracts. M. Donlon. East Underw 55:39 Ap 9 '54; Weekly Underw 170:921 Ap 10 '54; Nat Underw 58:12 Ap 8 '54

New compensation policy form meeting approval. H. D. Sayer. Weekly Underw 170: 531 F 27 '54

New compensation procedures; stresses referee hearings; abstracts. M. Donlon. East Underw 55:34 My 14 '54; Nat Underw 58:16 My 20 '54

New compensation rules do no injustice to claimant. M. Donlon. East Underw 55:30 Jl 30 '54

New York compulsory bill defeat; 1954 legislative achievement. M. Donlon. East Underw 55:37 Ap 2 '54

New York law allows free choice of comp insurer. Nat Underw 58:38 Ap 8 '54

N.Y. official delineates causes of high workmen's compensation rates in that state. M. Donlon. Nat Underw 57:27 Ag 6 '53

Operation of New York disability benefit law. M. Donlon. Weekly Underw 171:133 Jl 17 '54; Same. East Underw 55:28 Jl 16 '54

Seek comparative workmen's compensation data from ten states. Nat Underw 58:6 Mr 4 '54

Study shows administration expense, doubtful claims hike workmen's compensation costs in New York; Commerce and industry association of New York publication. Nat Underw 57:15 D 24 '53

Threaten company subpoena as workmen's compensation hearing, stressing costs, operation, ends in New York. Nat Underw 57:11+ D 24 '53

Two major changes in New York compensation act urged; abstracts. M. Donlon. Nat Underw 57:10 D 17 '53; Weekly Underw 169: 1501 D 19 '53

Urges companies to change attitude on workmen's compensation costs. A. O. Dawson. East Underw 55:39 Ap 16 '54

Ohio

Effort in Ohio to achieve private competition in workmen's compensation reaching climax. Nat Underw 58:9+ S 30 '54

Ohio employer has to buy service on top of premiums paid monopolistic workmen's compensation system. Nat Underw 58:13+ O 7 '54

Oklahoma

Refutes governor's charges in Oklahoma compensation battle. East Underw 54:42 S 18 '53

Workmen's compensation increase denied in Oklahoma. East Underw 54:38 S 11 '53

INSURANCE, Workmen's compensation—*Cont.*

Rhode Island

Form three-man job inquiry commission in Rhode Island under new compensation law. East Underw 55:56 My 7 '54

Texas

Texas recognizes worth of new compensation program. J. B. Saunders. East Underw 55:27 Ag 13 '54

Texas workmen's compensation plan. East Underw 54:31 Ag 28 '53

Washington (state)

Competitive Washington compensation law sought. J. L. Warme. Weekly Underw 171: 830 O 9 '54

INSURANCE actuaries

Actuarial pioneers who made insurance history. W. Leslie. East Underw 54:32-3 N 27 '53

Actuary now more than technician. S. E. Smith. East Underw 55:28+ My 28 '54

Consulting actuaries should be licensed. A. S. Hansen. Nat Underw (Life ed) 58:15 S 10 '54

Insured-uninsured pension war getting increasingly bitter; pressure from banks and consulting actuaries. R. B. Mitchell. Nat Underw (Life ed) 58:1+ Jl 23 '54

Middle Atlantic and southeastern actuarial clubs 1st regional meeting, Washington. East Underw 55:20 Ap 9 '54

Public relations offers vital role to actuaries. T. O. Carlson. East Underw 54:29+ N 27 '53; Same. Weekly Underw 169:1306 N 28 '53

Teamwork of actuary and agency. E. J. Moorhead. East Underw 55:3 My 28 '54

Would get actuaries into Society earlier. J. R. Larus. East Underw 54:6 O 30 '53

See also

Casualty actuarial society

Conference of actuaries in public practice

Marshall, Edward Wayne

Society of actuaries

Western actuarial bureau of Chicago

INSURANCE adjusters

Claim man epitomizes insurance industry. F. M. Perabo. East Underw 55:40 Mr 19 '54

Cooney president of Adjustment bureau; succeeds Conick as head. East Underw 55:18+ My 28 '54

Defends public adjusters. W. Goodman. East Underw 54:19 Jl 10 '53

Do's and don'ts for adjusters in the field of building good public relations. H. C. Abbott. Weekly Underw 169:1130 N 7 '53

Efficiency checklist for claim men and adjusters. A. D. McNeil. Weekly Underw 169: 1576 D 26 '53

General adjustment bureau establishes Georgia branch. Weekly Underw 170:842 Ap 3 '54

How adjusters can aid in industry's answer to the more adequate award. H. B. Rollins. Weekly Underw 171:374, 423-4, 485 Ag 14-28 '54

How to get the best service from your adjuster. S. W. Mackie. Rough Notes 96:17+ Jl '53

Independent adjusters who can meet competitors' service will survive. G. D. Vail, jr. Nat Underw 58:18 Ja 7 '54

Loss adjustments as they affect the insuring public. L. B. Bogart. Weekly Underw 170:435, 496, 556, 624 F 13-Mr 6 '54; Abstracts. East Underw 55:28+ F 19 '54; Nat Underw 58:14+ F 11 '54

Multi-sidedness of claims operations. E. J. Bohne. Nat Underw (Life ed) 58:6 Ap 2 '54

Need of field adjuster with settling authority. C. J. Van Horn. Nat Underw 57:15+ O 22 '53

New York association of independent insurance adjusters annual meeting, New York. East Underw 55:16 O 1 '54

No great matter to convert adjusters. J. D. C. Roane. Nat Underw 58:29 Ap 1 '54

Nothing is more important than handling of claims in company-agent-public relations. H. D. Combs. Weekly Underw 169:839, 916, 968 O 3-17 '53; Abstracts. East Underw 54: 52 O 16 '53; Nat Underw 57:9-10 O 8 '53; Rough Notes 96:36+ N '53

Patience and understanding are essential in adjuster-insurance buyer relationships. B. Horton. Weekly Underw 170:1375, 1434, 1502, 1570 My 29-Je 19 '54; Abstract. Nat Underw 58:34 Ap 15 '54

Producers and adjusters must work hand in hand to promote better public relations. E. Warshower and M. Grantham. Weekly Underw 171:261, 320 Jl 31-Ag 7 '54

Salvage company has vital adjustment role. W. M. Mortimer. Nat Underw 58:28 Je 24 '54

Suggests answer to more adequate award. H. B. Rollins. Nat Underw 58:13 Jl 1 '54

Transition to multiple line writing faces adjusters with new pattern of training. J. D. C. Roane. Weekly Underw 170:820, 880, 941 Mr 27-Ap 10 '54

See also

Insurance—Adjustment of claims

also National association of independent insurance adjusters

Training

Training of adjusters at Vale; General adjustment bureau. Weekly Underw 169:1274 N 21 '53

INSURANCE advertising conference

Annual meeting, Montauk, New York, June 13-15. East Underw 55:25+, 38-40+ Je 18 '54; Nat Underw 58:3+ Je 17 '54; Weekly Underw 170:1520+ Je 19 '54

Annual meeting, 30th, Skytop, Pa. Sept. 13-15. East Underw 54:1+, 38-41 S 18 '53; Nat Underw 57:1+ S 17 '53; Weekly Underw 169:660+ S 19 '53

Annual report of president; abstracts. I. D. Bothwell. East Underw 55:25+ Je 18 '54; Weekly Underw 170:1520+ Je 19 '54

Big strides made by ad men in 30 years. I. D. Bothwell. Weekly Underw 170:20-1+ Ja 2 '54

Forum, New York. Nat Underw 58:3+ Mr 4; 2+ Mr 11 '54; East Underw 55:25+ Mr 5 '54

IAC, its past and its prospects; abstracts. R. E. Brown, jr. East Underw 54:39+ S 18 '53; Weekly Underw 169:660+ S 19 '53

INSURANCE agents

Adjusting your small claims; program for agents to follow. W. C. Moore. Rough Notes 97:23+ F '54

Agency management section insurance seminar, Seattle, sponsored by Washington association of insurance agents and University of Washington discussions. Nat Underw 57:13-14 Ag 13 '53

Agents look for means to curtail progress of cut-rate competitors; EAC fire and allied lines panel discussion. East Underw 55:25 Ap 9 '54

Agents must not become too busy for study and service. A. E. Redding. East Underw 54:37 S 18 '53; Same. Nat Underw 57:23+ S 17 '53; Same cond. Weekly Underw 169: 1238 N 21 '53

Agent's personality, delivered, will win in present competitive situation; editorial. Nat Underw 58:22 Ag 26 '54

Agents should prepare for end of easy selling era. Rough Notes 97:41 My '54

Birth of customized selling. M. T. Jones. East Underw 55:36 My 21 '54

Buyer-broker relationship. C. H. Rice. East Underw 54:31 S 25 '53

Focus on sales realities; abstracts. C. H. Bokman. East Underw 55:31+ My 21 '54; Nat Underw 58:19 My 20 '54

Frank M. See forms agency partnership; New England Mutual office. East Underw 55:9 Ja 8 '54

Future rewards going to agent who sells. C. M. Smith. Nat Underw 58:12 Ap 22 '54

Get rid of unqualified agent, the prey of direct writers. J. L. Ashton. Nat Underw 58:15 Ap 15 '54

Good agency service and some cost cuts will beat cut-rate insurers. G. N. Duncan. East Underw 55:26 My 7 '54

Hall & Henshaw buys Baldwin & Amann, inc.; merger effective Jan. 1. East Underw 54:28 N 27 '53; Same cond. Weekly Underw 169:1309 N 28 '53

INSURANCE agents—*Continued*

Higher standards and more service needed to meet price competition. R. A. Tucker. East Underw 55:30 Mr 19 '54

How agents can help meet non-agency competition. W. S. Chandler. East Underw 55:22+ Jl 16 '54

How I think we can improve our insurance selling; how American agency system can combat specialty companies. K. Haythorne. Rough Notes 97:23+ O '54

How to get the best service from your adjuster. S. W. Mackie. Rough Notes 96:17+ Jl '53

How to increase your agency volume next year. L. E. Woodbury, jr. Rough Notes 96:30-1+ D '53

Ideas on meeting direct writing competition; abstracts. J. A. North. East Underw 55:1+ F 19 '54; Nat Underw 58:1+ F 18 '54; Weekly Underw 170:451+ F 20 '54

Insurance agent has been mayor of Collingswood, N.J., for 20 years; A. E. Armitage. il East Underw 54:26 pt 2 Jl 3 '53

Insurance agent's job; room for initiative; abstract. R. B. Gallagher. Management R 43:401-2 Je '54

Insurers involved in general agency switch defendants; damage suit filed by heirs of the late E. E. Raines, against Sam P. Raines and James M. Coates. Nat Underw 57:32 O 22 '53

Marcus Potter at 85 still sells fire and marine insurance. C. T. Hubbard. East Underw 54:15 Jl 10 '53

Miracle in service and sales; abstracts. W. W. Ellis. East Underw 55:44 O 8 '54; Nat Underw 58:36 O 7 '54; Weekly Underw 171:938 O 16 '54

NAIA administration report. W. M. Sheldon. East Underw 54:23+ O 2 '53

NAIA awards for outstanding work in property and casualty business. Nat Underw 58:29 O 7 '54; Weekly Underw 171:841 O 9 '54

New type of producer emerging. H. H. Irwin. Nat Underw 58:23 My 27 '54

Newark agency changes name to Jay, Schlesinger, Benisch & Lowy. East Underw 55:26 Ja 8 '54

No basic rules for making good salesmen. L. LaBow. Weekly Underw 169:437 Ag 22 '53

Opposition to compulsory automobile insurance; competitive forces and the agent. J. A. Navarre. Nat Underw 58:2+ Mr 4 '54

Partnership formed; S. H. Pursell, E. R. Curry; for Aetna Life, Reading. East Underw 54:7 D 25 '53

Pennsylvania association of insurance agents; report of president to annual meeting. H. S. Coe. East Underw 55:23 S 17 '54

People working together build $158 million insurance business; Farm bureau mutual insurance companies. L. M. Hughes. Sales Management 71:56-7+ S 15 '53

Producer point of view. J. F. Neville. Weekly Underw 170:833+ Ap 3 '54

Producers and adjusters must work hand in hand to promote better public relations. B. Warshower and M. Grantham. Weekly Underw 171:261, 320 Jl 31-Ag 7 '54

Russell E. Stevens & co. agency moves from Newark to Bloomfield. East Underw 55:23 F 26 '54

Sales and friendship. I. M. Maroevich. Weekly Underw 170:860 Ap 3 '54

Seaver, Peck, Welch & Walton, inc., to be formed following purchase of agency by Seaver & Peck, inc., Watertown, N.Y. East Underw 55:24 F 26 '54

Selling system used by a top insurance salesman. G. L. Sanders. Rough Notes 96:30+ Ag '53

Shed dignity mantle and do real selling. M. E. Peterson. Nat Underw 58:2+ Ap 29 '54

Status of field forces for social security; highlights of panel discussion. East Underw 54:3 O 9 '53

39 tips for better salesmanship. Weekly Underw 170:740+ Mr 20 '54

Three S's of salesmanship. W. W. Ellis. Rough Notes 96:25+ S '53

Traces 100-year history of Louisville board of insurance agents. J. W. Henning. Nat Underw 58:2 F 18 '54

Try all or none account selling for bigger profit. G. Richards. Rough Notes 97:37 Mr '54

Urges better selling, plus realistic rating, better advertising. E. J. Seymour. East Underw 55:17 S 3 '54; Same abr. Weekly Underw 171:497+ S 4 '54

Value of bulletins to keep New Jersey agents informed; casualty, automobile and allied lines. R. H. MacBean. East Underw 55:48 S 24 '54

Warns of impending struggle between agents and direct writers for fire and allied lines business. J. H. Hines. Nat Underw 57:25 D 17 '53

What the buyer expects of the insurance agent; abstract. K. A. Bong. Management R 42:298 My '53

What's your agency worth today; abstracts. J. F. Neville. Rough Notes 97:23-4+ Je '54; Nat Underw 58:15 My 27 '54; Weekly Underw 170:1271 My 22 '54; East Underw 55:25 Jl 16 '54

Why too many agents fail to have successful careers. C. P. Fitz-Patrick. Rough Notes 97:39+ S '54

Write the complete account, not just auto, or face loss of line. G. T. Warfield. Nat Underw 58:3 Mr 18 '54

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Accounting

Item count on agency work essential if policy is to be made intelligently. D. M. Wood. Nat Underw 57:13+ O 29 '53

Advertising

Ads stressing role of agent urged as competitive tool. A. M. O'Connell. Nat Underw 58:29 Ap 29 '54

Agency built with advertising; Pech agency, Chicago. Rough Notes 96:32+ S '53

Effective advertising plays down agency, plays up the prospect. D. P. Ely. Nat Underw 58:13 Ap 1 '54

Expand business by regular advertising. Rough Notes 97:69-70 O '54

Future of agency production; joint session with agents at IAC annual meeting. East Underw 55:40+ Je 18 '54

Go prospecting with a good booth at your county fair; Clinton insurance service agency, Clinton, Tenn. R. B. Johnson. il Rough Notes 97:33+ My '54

Good sign advertising is a sign of good business. E. W. Fair. il Rough Notes 97:46+ Mr '54

Hit-or-miss advertising on way out. R. E. Brown, jr. East Underw 54:16+ pt 2 Jl 3 '53

Insurance advertising conference names winners. Spectator 162:42+ Je '54; East Underw 55:39+ Je 18 '54; Weekly Underw 170:1522-3+ Je 19 '54; Nat Underw 58:13 Je 17 '54

Newspaper advertising can be profitable for agents. S. Rovner. Rough Notes 96:38+ N '53

Planned agency program; Raymond Denomme agency, Danielson, Conn. il Rough Notes 97:42 Jl '54

Producers to sponsor ad drive; Washington agents to devote commissions on state business to informing public. Weekly Underw 169:589+ S 12 '53

Profitable agency advertising; abstracts. W. J. Traynor. East Underw 55:30+ Je 11 '54; Nat Underw 58:17 Je 10 '54

Radio ads pay off. Rough Notes 96:66+ O '53

Selling services of agency system, greatest challenge. R. Hurd, jr. East Underw 54:38 S 18 '53

Signs of the times; insurance billboard advertising. il Rough Notes 97:41 My '54

Value of tv in telling agents story; New Jersey agents advertising panel discussion. East Underw 55:33 S 24 '54

What can radio do for the insurance agent? R. E. Harris. Rough Notes 96:24 Ag '53

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Winners in Best use of advertising contest of ad conference tell about their methods. J. Safley and others. East Underw 54:5+ pt 2 Jl 3 '53

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Insurance advertising conference

Agency management

Business as usual even with an ownerless agency. E. E. Lips. Rough Notes 97:23-4+ Ja '54

Careful planning of your filing speeds office work. E. W. Fair. Rough Notes 97:30+ Je '54

Challenge of good management; abstracts. W. S. Chandler. East Underw 55:20+ Ja 15 '54; Nat Underw 58:15 Ja 14 '54

Collect, finance or cancel. W. S. Chandler. East Underw 54:20 D 25 '53

Developing your agency to meet competition. R. A. Tucker. Weekly Underw 169:1255-7, 1324-6 N 21-28 '53; Same cond. Rough Notes 96:31+ D '53

Facts about purchasing insurance agency. R. Jenner. Weekly Underw 169:479 Ag 29 '53

Hartford's magazine shows agency office management figures. Nat Underw 58:17 S 16 '54; East Underw 55:34 O 15 '54

How agencies can make a higher net profit; abstracts. R. B. Lawless. Weekly Underw 170:877-8+ Ap 3 '54; Nat Underw 58:35-6 Je 17 '54

Managing general agents perform a real service; abstracts. K. E. Chapman. Rough Notes 97:38+ Je '54; Weekly Underw 170:1271+ My 22 '54; East Underw 55:24 Jl 2 '54

Multiple billing units; are unused statement copies of invoice costly? R. J. Layton. Rough Notes 96:32 Jl '53

Offers 15 ways to cut cost of agency system operation. G. O. Johnson. Nat Underw 58:21 Ap 15 '54; Same abr. Weekly Underw 170:1046 Ap 24 '54

Our two best salesmen. C. C. Wimbish. Rough Notes 96:43-4 S '53

Partnership agreement essentials, need for adequate agency reserves. W. S. Chandler. East Underw 54:19-20 Jl 17 '53; Same abr. Weekly Underw 169:8+ Jl 4 '53; Abstract. Nat Underw 57:2 Jl 2 '53

Practical advice on everyday problems of operation; Connecticut assn. midyear meeting panel on agency management. Nat Underw 58:5+ Jl 1 '54

Quality business before agency management meeting. F. B. Maher; C. L. Morse. Weekly Underw 169:1571 D 26 '53

Reduce office expenses to increase your earnings. D. Verretto. Rough Notes 97:35-6 My '54

Re-examination of methods urged. E. J. Seymour. Weekly Underw 170:1210 My 15 '54

Supervisor's job in New York city is unique. R. E. Pille. Nat Underw (Life ed) 58:7 Ja 22 '54

Teamwork of actuary and agency. E. J. Moorhead. East Underw 55:3 My 28 '54

Views on increasing operational efficiency of agencies. G. Fergason. East Underw 54:24 Jl 10 '53

Costs

Agency cost study, brought out on floor after fight, staggers N.A.I.A. convention. Nat Underw 57:25+ O 1 '53

Agency cost study figures are confirmed by survey. A. L. Schwab. East Underw 55:30 O 8 '54

Item count on agency work essential if policy is to be made intelligently. D. M. Wood. Nat Underw 57:13+ O 29 '53

Publication of cost survey figures will not harm agents. A. L. Schwab. Weekly Underw 169:855+ O 10 '53

Schwab's agency cost survey reveals only a few agencies with large profits. East Underw 54:21+ O 2 '53

What it costs to run an insurance agency in 1954; with tables. J. R. Gregory. Rough Notes 97:23-6+ Jl; 23-6+ Ag '54

Agency managers

Powers of general agent an issue in Ohio burglary case; Coletta v. Ohio casualty insurance co. Weekly Underw 171:894 O 9 '54

Agency system

Ad program backs local agents; Kemper companies. il Spectator 162:32-3+ O '54

Advantages of buyers' market; praises agency system; abstracts. E. H. Carson. East Underw 55:49+ Mr 26 '54; Nat Underw 58:6 Ap 1 '54; Weekly Underw 170:757+ Mr 27 '54

Agency companies must observe price influences. H. R. Hines. Nat Underw 58:1+ Je 17 '54

Agency system can win if it knows, and delivers, service. F. M. Cook. Nat Underw 58:11+ O 14 '54

Agency system in early stages of change. E. H. Morrison. Nat Underw 58:4+ O 14 '54

Agency system is natural, successful merchandising method. J. V. Addy. Nat Underw 58:23 My 27 '54

Agency system thriving but warns direct writers really work; abstracts. A. M. O'Connell. Nat Underw 58:3+ S 16 '54; East Underw 55:48 O 8 '54; Weekly Underw 171:774 O 2 '54

Agency system will survive despite anvil chorus of doom and price competition. C. I. Fisher. East Underw 55:8+ pt 2 Je 25 '54

Agents not overpaid for necessary work well performed. J. A. Neumann. East Underw 55:33-4 S 24 '54

American agency plan debated at National association of mutual insurance agents meeting, Miami Beach. Nat Underw 58:20 Je 10 '54

American agency system must and will survive; abstracts. J. C. Stott. Weekly Underw 170:900+ Ap 10 '54; East Underw 55:31 Ap 9 '54; Nat Underw 58:9 Ap 8 '54

Continuous policy plan analyzed; ownership of expirations keystone of American agency system. J. F. Neville. Weekly Underw 169:1213+ N 21 '53; Same cond. East Underw 54:22 N 27 '53; Abstract. Nat Underw 57:13+ N 19 '53

Direct writing danger; abstracts. E. J. Seymour. Weekly Underw 170:637+ Mr 13 '54; East Underw 55:18 Mr 12 '54; Nat Underw 58:15 Mr 11 '54

High company praise for agency system. C. K. Bokman. East Underw 54:37 O 16 '53

Hits company proposals to agents, and some actions taken by insurance companies; abstracts. J. A. Neumann. East Underw 55:27+ Ap 16 '54; Weekly Underw 170:959+ Ap 17 '54; Nat Underw 58:3+ Ap 15 '54

How and why agency system can best direct writers in insurance buyers' favor. J. F. Morrison. Nat Underw 58:32 Ap 1 '54

Kemper companies launch large space newspaper advertising campaign. N. C. Flanagin. East Underw 55:45+ S 24 '54

Mutuals start drive to preserve agency system. H. E. Uhler. Weekly Underw 169:1366 D 5 '53

New era of merchandising is here. T. A. Long. East Underw 55:10+ pt 2 Je 25 '54

Proposals to aid agents' competition may adversely affect agency system and ownership of expirations; abstracts. J. F. Neville. East Underw 55:36+ Ap 9 '54; Nat Underw 58:11 Ap 8 '54

Providing a broad insurance market for the agent. H. B. Collamore. East Underw 54:1+ Ag 14 '53; Same. Weekly Underw 169:357+ Ag 15 '53; Abstract. Nat Underw 57:1+ Ag 13 '53

Urges teamwork of companies and producers to fight competition; abstracts. B. C. Vitt. East Underw 55:20 My 21 '54; Nat Underw 58:19 My 27 '54; Weekly Underw 170:1276-7+ My 22 '54

Agents' magazines

Newsletter idea that has clicked. R. J. Thain. il East Underw 54:17+ pt 2 Jl 3 '53

Solomon Huber's external house organ; The notebook. D. J. Reap. East Underw 54:88+ pt 2 S 25 '53

Your agency can publish its own newspaper; Mittelbusher insurance agency, Davenport. R. R. Mittelbusher. il Rough Notes 96:27+ O '53

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It's the solicitors' wives who really count! E. W. Fair. Rough Notes 97:70-2+ S '54

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Best way to contact your barricaded prospects. Rough Notes 97:42 Ja '54

Sales enthusiasm will put more money in your pocket. E. Gosling. Rough Notes 96:22+ N '53

Collecting of premiums

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Commissions

Commission situation; work of producer. L. A. Loustau. Weekly Underw 169:622 S 12 '53

Costs must come down to permit agents' survival. E. F. Gallagher. East Underw 54:20+ O 23 '53

Countersignature trends menace to overhead writing principle; abstracts. F. R. Bell. East Underw 54:19 Ag 14 '53; Nat Underw 57:1+ Ag 13 '53; Discussion. D. S. Butler. 57:16 Ag 27 '53

Must file commissions on group in detail starting Sept. 1 in N.Y. Nat Underw 57:17 Ag 27 '53

NAIA asks revision in income tax laws for reporting commissions. East Underw 54:14 D 25 '53; Same. Weekly Underw 169:1537+ D 26 '53; Excerpt. Nat Underw 57:2 D 24 '53

NAIA committee proposes directives to support commission fundamentals. East Underw 54:28 O 2 '53

Practices on producer of record, return commission responsibility. East Underw 54:26 O 9 '53

Price as big issue in competition. W. L. Hays. East Underw 54:30 Jl 17 '53

Problem of commissions. W. M. Sheldon. Weekly Underw 169:785+ O 3 '53

Pros and cons of contingent commissions. P. C. Heidman. East Underw 55:33 Ap 16 '54

Publication of cost survey figures will not harm agents. A. L. Schwab. Weekly Underw 169:855+ O 10 '53

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Communist problem

Communist inquiry inserted in District of Columbia licensing program. Nat Underw 57:16 S 24 '53; Same. Nat Underw (Life ed) 57:9 S 18 '53

Company relations

Agency agreement's flexibility has made it responsive to changing needs. J. F. Neville. Nat Underw 57:17 Jl 2 '53; Excerpts. Weekly Underw 169:7+ Jl 4 '53

Agency-company cooperation; agent's viewpoint. K. W. Faunce. East Underw 55:25 Ap 9 '54

Agency termination problem and procedure. J. Neville. East Underw 54:21+ S 18 '53; Excerpts. Weekly Underw 169:668-9 S 19 '53; Abstract. Nat Underw 57:10-11 S 17 '53

Agent and the engineer. E. R. Granniss. Rough Notes 97:27+ S '54

Agents must assume duties to insured, companies. R. L. Inglis. Nat Underw 58:11 Jl 8 '54

Better service to public through closer company-agent cooperation; forum topic at New Jersey association of insurance agents midyear meeting, Asbury Park, April 1-2. East Underw 55:41 Ap 9 '54

Company-agent team can decide future; abstracts. W. M. Sheldon. East Underw 55:38+ Je 18 '54; Nat Underw 58:9 Je 17 '54; Weekly Underw 170:1517+ Je 19 '54

Continuous policy plan analyzed; ownership of expirations keystone of American agency system. J. F. Neville. Weekly Underw 169:1213+ N 21 '53; Same cond. East Underw 54:22 N 27 '53; Abstract. Nat Underw 57:13+ N 19 '53

Legal obligations of agents to companies and clients; abstracts. J. F. Neville. East Underw 55:34+ S 17 '54; Nat Underw 58:7+ S 16 '54; Weekly Underw 171:702-3 S 25 '54

Ownership of expirations, amendments to agency agreements. J. F. Neville. East Underw 54:22-3 Jl 3 '53

Proposals to aid agents' competition may adversely affect agency system and ownership of expirations; abstracts. J. F. Neville. East Underw 55:36+ Ap 9 '54; Nat Underw 58:11 Ap 8 '54

Taking managers off production is boon to New York Life. P. A. Norton. Nat Underw (Life ed) 57:2 D 25 '53

Urges conference on direct writers. A. Goldberger. Nat Underw 58:31 Je 3 '54

Who owns your business is important question. J. F. Neville. Weekly Underw 169:1099-100 N 7 '53; Same abr. East Underw 54:24 O 30 '53

Conventions

Arkansas association of insurance agents annual meeting, Hot Springs. Nat Underw 58:1+ My 27 '54

Arkansas association of insurance agents midyear meetings, Little Rock. Nat Underw 57:28 D 10 '53

Arkansas association of mutual insurance agents annual meeting, Hot Springs. Nat Underw 58:17 My 27 '54

Association of local agents of the city of New York annual meeting, New York, Jan. 26. East Underw 55:28 Ja 29 '54; Weekly Underw 170:282+ Ja 30 '54; Nat Underw 58:31 F 4 '54

California association of insurance agents annual meeting, Los Angeles. Nat Underw 57:4+ N 12 '53

California association of insurance agents directors' meeting, Palo Alto. Weekly Underw 169:142-3 Jl 18 '53

California association of insurance agents; various topics discussed during series of regional meetings. Weekly Underw 170:782 Mr 27 '54

Colorado insurors association annual convention, Colorado Springs. Nat Underw 57:1+ O 15 '53

Colorado insurors association annual meeting, Colorado Springs. Nat Underw 58:1 O 7 '54

Connecticut association of insurance agents annual meeting, Hartford. Nat Underw 57:2 O 22 '53

Connecticut association of insurance agents midyear meeting, Groton. Nat Underw 58:1+ Je 24 '54

Connecticut association of insurance agents regional meeting, Stamford. Nat Underw 58:2+ Ap 1 '54

Georgia association of insurance agents annual meeting, Savannah, May 19-21. Nat Underw 58:2 My 27 '54

Idaho association of insurance agents annual meeting, Sun Valley. Nat Underw 58:12 S 30 '54

Illinois association of insurance agents annual meeting, Peoria, Nov. 16-17. Nat Underw 57:11+ N 19 '53

Illinois association of mutual insurance agents meeting, Evanston. Nat Underw 58:16 S 2 '54

Indiana association of insurance agents annual convention, Indianapolis, Nov. 16-18. Nat Underw 57:15-16+ N 19 '53

Iowa association of insurance agents annual meeting, Des Moines, May 11-13. Nat Underw 58:2+ My 20 '54

Kansas association of insurance agents annual meeting, Wichita. Nat Underw 57:28-30+ O 29 '53

Kentucky association of insurance agents 57th annual meeting, Louisville, Nov. 15-17. Nat Underw 57:1 N 19 '53; Weekly Underw 169:1298 N 28 '53

Louisiana association of insurance agents annual meeting, Edgewater Park, Miss. Nat Underw 58:1+ My 13 '54

Maryland association of insurance agents annual meeting, Baltimore. Nat Underw 57:1+ N 12 '53

Michigan association of insurance agents annual meeting, Grand Rapids. Nat Underw 58:15+ S 23 '54

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Michigan association of insurance agents midyear meeting, Detroit. Nat Underw 58:2+ Mr 4 '54

Minneapolis association of insurance agents annual meeting, Sept. 17-18. Nat Underw 57:3+ S 24 '53

Minnesota association of insurance agents annual meeting, Duluth. Nat Underw 58: 1+ S 23 '54

Minnesota association of insurance agents 17th annual midyear meeting, St Paul, April 6-7. Weekly Underw 170:913 Ap 10 '54

Mississippi association of insurance agents annual meeting, Edgewater Park. Nat Underw 58:4 My 27 '54

Missouri association of insurance agents annual convention, Kansas City. Nat Underw 57:2+ O 29 '53

Mutual agents association of New York state 13th annual meeting, Syracuse, May 10-11. East Underw 55:31 My 21 '54; Nat Underw 58:7+ My 20 '54; Weekly Underw 170:1406 Je 5 '54

Nebraska association of insurance agents annual meeting, Omaha. Nat Underw 57:1+ N 5 '53

Nevada association of insurance agents annual meeting, Reno. Nat Underw 58:5 S 30 '54

New Hampshire association of insurance agents annual meeting, Newcastle. Nat Underw 57:23 O 1 '53

New Hampshire association of insurance agents annual meeting, Sugar Hill. Nat Underw 58:2+ S 23 '54

New Jersey association of insurance agents 60th annual meeting, Atlantic City, Sept. 24-25. East Underw 54:52-4 O 2 '53; Nat Underw 57:1+ O 1 '53

New Jersey association of insurance agents 61st annual meeting, Atlantic City, Sept. 17-18. East Underw 55:32-3+ S 24 '54; Nat Underw 58:1+ S 23 '54; Weekly Underw 171:700 S 25 '54

New Jersey association of insurance agents 61st midyear meeting, Asbury Park, April 1-2. East Underw 55:1+ Ap 2 '54; Nat Underw 58:2+ Ap 8 '54

New York state association of insurance agents regional meeting, Garden City, L.I. East Underw 54:18+ O 23; 24 O 30 '53

New York state association of insurance agents 72d annual meeting, Syracuse, May 3-5. East Underw 55:20-1+ My 7 '54; Nat Underw 58:1+ My 6; 7+ My 13 '54; Weekly Underw 170:1151 My 8 '54

North Carolina association of insurance agents annual meeting, Pinehurst, May 19-21. Nat Underw 58:8 My 27 '54

North Dakota association of insurance agents annual meeting, Fargo. Nat Underw 57:22 O 1 '53

North Dakota association of insurance agents annual meeting, Minot. Nat Underw 58:19 S 30 '54

Ohio association of insurance agents conference of young agents, Granville. Nat Underw 58:7 My 6 '54

Ohio association of mutual insurance agents annual meeting, Cleveland. Nat Underw 58:2+ Ap 29 '54

Oregon association of insurance agents annual convention. Nat Underw 57:9 S 10 '53

Oregon association of insurance agents annual meeting, Klamath Falls. Nat Underw 58:2+ S 9 '54; Weekly Underw 171:562+ S 11 '54

Oregon association of insurance agents' executive committee meeting, Portland. East Underw 55:28+ Jl 16 '54; Weekly Underw 171:66 Jl 10 '54

Pennsylvania association of insurance agents annual meeting, Philadelphia. Nat Underw 58:2+ S 16; 17+ S 23 '54

Pennsylvania association of insurance agents 64th annual convention, Bedford Springs, Sept. 13-15. East Underw 54:22 S 18 '53; Nat Underw 57:1, 37 S 17 '53

Portland association of insurance agents meeting, Portland. Weekly Underw 171: 82 Jl 10 '54

Rhode Island association of insurance agents 53d annual meeting, Providence, Oct. 19. Nat Underw 57:5 O 22 '53; Weekly Underw 169:983 O 24 '53

South Carolina association of insurance agents annual meeting, Augusta. Nat Underw 58: 13 S 30 '54

Tennessee association of insurance agents 60th annual meeting, Chattanooga. Weekly Underw 169:1170 N 14 '53; Nat Underw 57:17 O 29 '53

Texas association of insurance agents annual meeting, Fort Worth, May 14-15. Nat Underw 58:2+ My 20 '54

Texas association of insurance agents annual meetings, Dallas, Jan. 11; Houston, Jan. 12. East Underw 55:35 F 5 '54; Weekly Underw 170:371 F 6 '54

Texas association of mutual insurance agents annual meeting, San Antonio. Nat Underw 58:14 S 30 '54

Tri-State mutual agents association annual meeting, Baltimore. Nat Underw 58:3+ Mr 18 '54

Upper peninsula association of insurance agents annual meeting, Copper Harbor, Mich. Nat Underw 58:18 Je 17 '54

Utah association of insurance agents annual meeting, Salt Lake City. Nat Underw 58:2 S 16; 8 S 23 '54

Vermont association of insurance agents annual meeting, Lake Morey, Fairlee, Sept. 13-14. Nat Underw 57:14 S 24 '53

Washington association of insurance agents annual meeting, Seattle. Nat Underw 57:13 S 10 '53

West Virginia association of insurance agents annual meeting, White Sulphur Springs. Nat Underw 57:1+ Ag 13 '53

West Virginia association of insurance agents annual meeting, White Sulphur Springs. Nat Underw 58:1 Ag 19 '54

Wisconsin association of insurance agents annual convention, Milwaukee. Nat Underw 57:25+ O 22 '53

Wyoming association of insurance agents annual meeting, Sheridan. Nat Underw 58:1 Ag 26 '54

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Fieldmen relations

Agent-fieldman cooperation. G. G. Gibson, jr. Rough Notes 97:18+ Ap '54

Are you an ideal fieldman? R. L. Jennings. Rough Notes 97:18+ F '54

Different approach to life and A&H sales; Cravens, Dargan and co. J. B. Thomas. Rough Notes 97:18+ Jl '54

Looking over the fieldmen. A. C. Sinn. Rough Notes 97:18+ Mr '54

New forms and coverages. D. G. Hunt. Rough Notes 97:18+ My '54

Special agents can help. G. MacKenzie. Rough Notes 96:65 N '53

What does underwriting mean to the fieldman? W. J. McGladrey. Rough Notes 96:38 Ag '53

What I expect of my special agent. A. C. Sinn. Nat Underw 57:17 D 10 '53; Same. East Underw 54:24 D 18 '53

What services should agents expect from fieldmen? E. H. Waterhouse. Rough Notes 96:38+ Jl '53

What to do about fire losses. Rough Notes 96:20 O '53

What to tell your agent prospects. F. G. Gillingham. Rough Notes 97:18+ Je '54

What your agent expects. H. C. Phend. Rough Notes 97:18+ Ja '54

Fraudulent practice

Internal auditing and control now used to measure effective operation. W. R. Phelan. Nat Underw 57:27 N 5 '53

Texas promotion brings trouble. Nat Underw 57:14 D 24 '53

Law

Bankrupt agent sells expirations, but he can still solicit them; U.S. Court of appeals, 5th circuit. Nat Underw 57:4 Jl 16 '53

Chinese wall; non-resident brokers and agents are rebelling against countersignature legislation that is unfair or discriminatory. E. T. Delaney. East Underw 54:11+ pt 2 Jl 3 '53

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Commingling law compliance in New York state. East Underw 54:72 D 11 '53

Legal obligations of agents to companies and clients; abstracts. J. F. Neville. East Underw 55:34+ S 17 '54; Nat Underw 58:7+ S 16 '54; Weekly Underw 171:702-3 S 25 '54

Legal pitfalls of an agent. S. A. Gennet. Rough Notes 96:23-4+ O '53

Legal safeguards available to agent. D. A. Ford, jr. Nat Underw 58:7 My 27 '54

Legislation of prime interest to producers. A. B. Fair. Weekly Underw 169:802 O 3 '53

Many agents unwittingly violate N.Y. commingling statute. S. L. McCarty. Nat Underw (Life ed) 57:12 D 18 '53

N.A.I.C. unauthorized insurers law has no infirmities, U.S. Appeals court finds. Nat Underw 57:1+ Ag 27 '53

New York department set to crack down on all comminglers. Nat Underw 57:11 N 12 '53; Same. Nat Underw (Life ed) 57:8 N 13 '53

Reciprocal agents must be licensed in Ohio. East Underw 54:22 Jl 31 '53

Taft of Wyoming crystalizes rules for agent's license. Nat Underw 58:13 Ja 21 '54; Same. Nat Underw (Life ed) 58:2 Ja 22 '54

Virginia decision vindicating Sterling puts curb on powers of state bureau. Nat Underw 57:21 D 17 '53; Same. Nat Underw (Life ed) 57:2 D 18 '53

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Letters to prospects

How to write sales letters in A.&H. insurance. H. R. Diers. Nat Underw 57:4A N 19 '53; Same. Nat Underw (Life ed) 57:14 N 20 '53

Multiple line selling

Broad dwelling coverages; New York agents panel discussion on multiple line policies. East Underw 55:1+ O 1 '54; Weekly Underw 171:764+ O 2 '54

Different approach to life and A&H sales; Cravens, Dargan and co. J. B. Thomas. Rough Notes 97:18+ Jl '54

Life and general lines. M. Balsam. Rough Notes 97:45-6 Ap '54

Life makes me $5000 extra income. I. D. Keiter. Rough Notes 97:53-4 Jl '54

Pennsylvania multiple-line rulings effective next Jan. Weekly Underw 169:462 Ag 29 '53

Selling all lines will help you beat the specialists. R. L. Ellis. Rough Notes 97:52+ O '54

Offices

Agency office and swimming pool combined; Lester Bayhi agency. il Rough Notes 97:35 Ap '54

California agent gets model office with patio; Russell A. Quissenberry agency, North Hollywood. il Rough Notes 96:30-1 N '53

Dedication of new agency office draws crowd of 1,000; Klindt agency in Los Gatos, Calif. il Rough Notes 97:34 Mr '54

Five story building of Solomon Huber associates, New York. il East Underw 55:8 Jl 30 '54

This office building has improved our business. il plans diag Arch Forum 99:124-5 D '53

Wm. T. Earls agency, Cincinnati, has own building. il East Underw 55:9 Mr 12 '54; Nat Underw (Life ed) 58:8 Mr 12 '54

Public relations

Agent's relations with his community; abstracts. E. R. Bennett. East Underw 55:42+ My 7 '54; Nat Underw (Life ed) 58:26 My 7 '54; Weekly Underw 170:1175 My 8 '54; Life Ins Courant 59:48-9 Je '54

Establishment of a public relations committee, NAIA should be considered. K. Ross. East Underw 55:36+ O 8 '54

Hope to develop public relations program in every eastern state; Eastern agents conference of the NAIA aims. East Underw 54:24 O 9 '53

How-to-do-it film for agents; Home's slidefilm, Agents' community relations; illustrations with text. Spectator 162:26-7 O '54

Insurance public relations fate in hands of grass roots agents. F. C. Saal. East Underw 55:30 My 14 '54; Same. Weekly Underw 170:1208 My 15 '54

Little things insurance men say in contact with public factors in building agency. B. Stewart, jr. Weekly Underw 169:478 Ag 29 '53

Necessity of molding public opinion in the best interests of the insurance industry; abstracts. T. A. White. East Underw 55:34+ Ap 2 '54; Nat Underw 58:1+ Ap 1 '54; Weekly Underw 170:850 Ap 3 '54

Pennsylvania relations program being studied. Weekly Underw 169:1222-3 N 21 '53

Public relations of agencies. D. F. Giberson. East Underw 54:24 D 4 '53; Same. Weekly Underw 171:302 Ag 7 '54

Renewal underwriting, public relations question involved when policy is discontinued. E. R. Brock. East Underw 54:14 Jl 3 '53

Tv, radio and newspapers valuable media for selling agents' services; EAC discussion. East Underw 55:25+ Ap 9 '54

Your rating in public relations. H. G. Kenagy, comp. Weekly Underw 171:957 O 16 '54

Records

Iron out your office kinks with better record methods. il Rough Notes 97:35+ F '54

Which system is best? agency record keeping. R. B. Lawless. Rough Notes 97:37+ S '54

Rural agents

Building a good rural agency; Morris insurance agency, Sisseton, S.D. M. Morris. Rough Notes 96:29+ D '53

Combatting competition; abstracts. K. A. Young. East Underw 55:40 O 8 '54; Nat Underw 58:54 O 7 '54

Future for rural and small lines agents bright; abstracts. R. W. Carter. East Underw 55:34+ O 8 '54; Nat Underw 58:51+ O 7 '54

Rural agent and auto insurance. B. Phelan. Spectator 161:26-7+ O '53

Sales conventions

American Fire & Casualty Royal palm club 26th annual meeting, Orlando. East Underw 55:33 Jl 9 '54

Casualty and surety underwriters association of Kansas City annual sales meeting. Nat Underw 58:17 My 13 '54

Combined insurance companies salesmanagers congress, Miami Beach, Dec. 27-30. East Underw 55:31+ Ja 22 '54

Selection

Building manpower under revised Section 213. R. Hull. Weekly Underw 170:1499+ Je 12 '54

How to pick out a man to represent your company. R. C. Kern. Rough Notes 97:18+ Ag '54

Recruiting the college graduate for the insurance industry; abstracts. G. Fergason. East Underw 55:37-8 My 28 '54; Nat Underw 58:15 Mr 25 '54

Service

Buyer needs assistance of his agent or broker. E. B. Paris. Weekly Underw 169:312 Ag 8 '53

Cold production war is getting hot. W. S. Chandler. Weekly Underw 170:1329+ My 29 '54

Essential services of producer; abstracts. A. Goldberger. East Underw 55:38 S 24 '54; Nat Underw 58:20 S 23 '54

Five important steps to smoother survey selling. F. J. Flynn, jr. Rough Notes 96:20-1 N '53

Guide to better service. V. O. Schinnerer. Weekly Underw 171:716 S 25 '54

How I offer super market service; one agency taking care of all insurance. O. J. Woolliscroft. Weekly Underw 170:726 Mr 20 '54

How to make a survey easy. M. M. Beresford. Rough Notes 96:21-2+ Ag '53

How to serve your customers. M. L. Scheffreen. Rough Notes 97:23+ My '54

INSURANCE agents—Service—*Continued*

Importance of company service to potential buyers. E. A. G. Manton. East Underw 55:25+ Ag 27 '54
Industry role in public service. J. A. Nuckols. East Underw 55:43 Ap 16 '54
Making successful surveys. V. O. Schinnerer. Nat Underw 58:2+ Ap 1 '54
Our surveys add new premiums; Giberson insurance agency. D. F. Giberson. Rough Notes 96:38+ O '53
Overcome sales resistance to build agency volume. W. M. Sanger. Rough Notes 97:26+ S '54
Professional services extolled. E. R. Hurd. Weekly Underw 170:1295+ My 22 '54; Same abr. East Underw 55:33+ My 14 '54
Put your survey reports in writing. H. Shuteran. il Rough Notes 96:38+ S '53
Risk survey aids underwriting. U. M. Lelli. Weekly Underw 169:486+ Ag 29 '53; Excerpts. East Underw 54:26 Ag 28 '53; Abstract. Nat Underw 57:27 S 3 '53
Room for initiative, client relationship of the insurance agent or broker. R. B. Gallagher. East Underw 55:24+ Ap 23 '54
Selling service, not policies. E. W. Rolley. Weekly Underw 170:532+ F 27 '54
Survey method best way to handle competition. A. I. Jaffe. Weekly Underw 171:408+ Ag 21 '54
Survey-selling plan. Weekly Underw 170:788 Mr 27 '54
What policyholders expect of their insurance agent. Rough Notes 97:45 O '54

Taxation

Computations show tax savings in level renewal plan. Nat Underw (Life ed) 58:8 F 12 '54
Holding company tax and the fire insurance agency. C. W. Tye. Rough Notes 97:68+ My '54
Major tax problems of agents; abstracts. C. W. Tye. East Underw 54:30-1 O 9 '53; Nat Underw 57:30 O 1 '53
New Revenue code; term commissions. C. W. Tye. Rough Notes 97:82-3 O '54
Some provisions of proposed new tax code of significance to agents reviewed; abstracts. G. S. Hanson. Nat Underw 58:19+ My 13 '54; East Underw 55:28+ Je 25 '54
Three per cent sales tax extension held discriminatory; finance committee hearing in New York city. East Underw 55:31+ Ap 23 '54

Telephone calls

Busy? let your telephone do your footwork. J. Erbes. Rough Notes 97:34+ Jl '54
Practice telephone courtesy. L. B. Winner. Rough Notes 96:30-1 S '53
See also
Insurance, Life—Agents—Telephone calls

Training

Company schools for agents; list. Rough Notes 96:23+ Ag '53
Defines education, relates it to field man, underwriter. F. D. Eubank. Nat Underw 58:10 Je 17 '54
Fireman's Fund sponsors new home study course. Weekly Underw 170:514 F 27 '54
How-to-do-it film for agents; Home's slidefilm, Agents' community relations; illustrations with text. Spectator 162:26-7 O '54
See also
Insurance—Study and teaching
Insurance, Life—Agents—Training

Unions

Hancock signs new district agents' contract with unions. East Underw 55:3 Ag 6 '54
NLRB dismisses Prudential union conflict plea. Nat Underw (Life ed) 57:3+ Jl 31 '53
Prudential, AFL agree, subject to members' OK. Nat Underw (Life ed) 58:4 Mr 5 '54
Prudential's new contract with industrial agents. East Underw 55:16 Mr 5 '54; Same. Weekly Underw 170:612 Mr 6 '54

California

California action on expirations; say agents retain control of annual renewal policies. Nat Underw 57:7 Jl 2 '53

Canada

Big things happening in the Canadian-West. H. W. Manning. East Underw 54:100+ pt 2 S 25 '53

Florida

Agents can't meet direct writer prices except with service, intelligence. E. J. Gallagher. Nat Underw 58:9+ My 20 '54
Florida agents tackle continuous policies and direct billing in series of bulletins. Nat Underw 58:36 Ap 15 '54

Kentucky

Ceiling on agents is removed by Louisville board. Nat Underw 58:5 Ja 14 '54

New York (city)

Agents play key role in serving assureds in New York. J. C. Weghorn. East Underw 54:17 S 25 '53; Excerpt. Weekly Underw 169:722 S 26 '53; Abstracts. Nat Underw 57:13 S 24 '53; Nat Underw (Life ed) 57:2 S 25 '53
New York city agents oppose three per cent sales tax plan; Homeowners' policies market. East Underw 55:30 Ap 16 '54; Weekly Underw 170:955 Ap 17 '54

Ohio

Don't count on auto forever; other problems considered. T. M. Gray. Nat Underw 58:7 Jl 8 '54

INSURANCE and surety forum, Pacific. See Pacific insurance and surety forum

INSURANCE associations

Business examines organizations and searches for their future role; fire insurance. K. O. Force. Nat Underw 57:19+ O 1 '53
Growth and success of leading insurance organizations; inland marine field. H. L. Wayne. East Underw 55:32 My 14 '54
Indiana state accident and health association is formed. East Underw 55:35 Ap 23 '54
Seven insurance associations organize accident and health insurance committee. Weekly Underw 170:849 Ap 3 '54; East Underw 55:35 Ap 2 '54; Nat Underw 58:2 Ap 1 '54; Nat Underw (Life ed) 58:1 Ap 2 '54
Some insurance organizations do go out of business. Nat Underw 58:4 Jl 29 '54
Troubled times, changed factors lead to reassessment of roads ahead; insurance trade associations and rating bureaus. K. O. Force. Nat Underw 57:17, 32 S 24 '53
Value of local, state and national associations to agents. E. J. Seymour. Weekly Underw 171:625+ S 18 '54
See also
Buffalo board of fire underwriters
Factory insurance association
Insurance board of Cleveland
Insurance economics society of America
Insurance federation of Illinois
Insurance policyholders' association
Inter-regional insurance conference
Life insurance managers association of Los Angeles, inc.
Multiple location service office
National association of independent insurers
National association of mutual insurance companies
New Orleans insurance exchange
Pacific insurance and surety forum

INSURANCE awards

Agents' traffic safety awards presented at NAIA convention. East Underw 55:38 O 15 '54; Nat Underw 58:52 O 7 '54
Awards for outstanding performance in past year presented at International association of accident and health underwriters annual meeting. East Underw 55:42+ Je 18 '54
Hawaii, Florida, Virginia, Texas, Missouri among winners of awards of NAIA to local and state associations. East Underw 54:26 O 9 '53
Insurance advertising conference names winners. Spectator 162:42+ Je '54; East Underw 55:39+ Je 18 '54; Nat Underw 58:13 Je 17 '54; Weekly Underw 170:1522-3+ Je 19 '54
John G. Galloway wins Man of year award of Chicago A.&H. association. East Underw 55:41 Je 18 '54
LIAA exhibit winners; list. East Underw 55:3 O 1 '54; Nat Underw (Life ed) 58:5 O 8 '54; Weekly Underw 171:801+ O 2 '54

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Lister of Newark, wins Man of year award of American health insurance corp. East Underw 55:52 F 19 '54

NAIA awards for outstanding work in property and casualty business. Nat Underw 58: 29 O 7 '54; Weekly Underw 171:841 O 9 '54

Newark branch wins trophy; Indemnity insurance co. Diemand award. East Underw 55:39 Ap 9 '54; Weekly Underw 170:914 Ap 10 '54

Rabin receives annual award of Pohs institute for meritorious service. East Underw 55:24 Ap 23 '54; Weekly Underw 170:1042 Ap 24 '54

W. Earl Hall to receive 1954 Criss safety award given by Mutual of Omaha. East Underw 55:28+ O 1 '54

INSURANCE board of Cleveland

Cleveland board holds rules are in public interest, do not violate law; Justice department allegations; anti-trust suits. East Underw 54:28-9 N 6 '53

Cleveland board opposes hasty action in U.S. anti-trust suit. Nat Underw 57:4 D 17 '53

U.S. asks decree without trial in Cleveland case. Nat Underw 57:2 O 8 '53

INSURANCE brokers

Broker failed to procure coverage; Lawrence v. Francis. Spectator (Endorsement no) 162:71-2 Ag '54

Brokers get buyer's viewpoint on insurance. I. B. Seidler. East Underw 55:46 O 8 '54

Brokers' gold medal award given to Ray Murphy. Weekly Underw 169:1046 O 31 '53

Brooklyn insurance agents' association annual meeting. East Underw 55:26 Mr 19 '54

Buyer-broker relationship. C. H. Rice. East Underw 54:31 S 25 '53

Compulsory auto insurance fight is on again in New York; brokers' problems. J. A. Fink. Weekly Underw 169:1046 O 31 '53

Experience-tested sales ideas. H. N. Sloane. Nat Underw (Life ed) 57:21 O 16 '53

General insurance brokers' association 28th annual dinner, New York. East Underw 54: 22+ O 30 '53

How broker can increase his writings through court and judicial bonds. A. H. Russell. Weekly Underw 170:198-9 Ja 16 '54

How broker may assist adjuster in handling inland marine losses, if he wants to; abstracts. H. S. Daynard. Weekly Underw 169:1404, 1472 D 5-12 '53; East Underw 54: 41+ N 13 '53; Nat Underw 57:17, 21 N 12 '53

How the underwriters can help brokers write more burglary business. S. Krasnoff. Weekly Underw 170:369-71 F 6 '54; Abstracts. East Underw 55:34 F 12 '54; Nat Underw 58:35 F 18 '54

How to pick out an insurance man. M. H. Levy. Rough Notes 96:19-20+ S '53

Let insured know you're just around the corner. M. L. Scheffreen. Nat Underw 58:13 Je 10 '54

New Jersey broker held liable for failure to procure burglary coverage; Marano v. Sabbio. Weekly Underw 169:519 Ag 29 '53; Nat Underw 57:15 Ag 20 '53

Preselling via promotional techniques can assist the broker. W. J. Zimmerman. Weekly Underw 171:584+ S 11 '54

Sale I never forgot; selling the insurance companies on accepting actors' contracts as risks. M. H. Levy. Ptr Ink 243:138+ Ap 17 '53

Service is answer to direct writer competition; Brooklyn brokers association panel discussion. Nat Underw 58:12 Ja 14 '54

Standards applicable to brokers now and need to climb to higher level. G. I. Gross. Nat Underw 58:11+ F 11 '54

Tight auto market; situation now critical. M. Rakofsky. East Underw 54:31-2 S 25 '53

Two views of effect of liquidation given on premiums held by broker; Preferred Accident issue; Bohlinger vs Zanger case. Nat Underw 58:8+ Ja 28 '54; East Underw 55: 29 Ja 22 '54; Weekly Underw 170:249 Ja 23 '54

Urges brokers to tap life gold mine. L. P. Brace. East Underw 55:7 Ap 2 '54

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Insurance, Life—
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also Insurance brokers association of New York; National association of insurance brokers

Commissions

Commission issue eyed by broker leader. L. A. Loustau. Nat Underw 57:6 Ag 20 '53

Commission situation; work of producer. L. A. Loustau. Weekly Underw 169:622 S 12 '53

Debate on installment plan renewed in Massachusetts; brokers opposed. Nat Underw 57:15 N 12 '53

Exception taken by brokers to commission control. J. O. Cole. Nat Underw 57:3 D 24 '53

Practises on producer of record, return commission responsibility. East Underw 54:26 O 9 '53

Who gets the commission when insured changes brokers? T. B. Wood. Rough Notes 96:19+ Jl '53

Law

Chinese wall; non-resident brokers and agents are rebelling against countersignature legislation that is unfair or discriminatory. E. T. Delaney. East Underw 54: 11+ pt 2 Jl 3 '53

Legal responsibilities of professional insurance broker. G. I. Gross. East Underw 54:17+ S 25 '53; Same abr. Rough Notes 96:23+ N '53

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Annual luncheon, 56th, New York. East Underw 55:49+ Mr 26 '54

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INSURANCE commissioners

C. F. Gold is new North Carolina commissioner. Nat Underw 57:1 O 29 '53; Same. Nat Underw (Life ed) 57:6 O 30 '53

Cravey exonerated in maliciousness case. Nat Underw (Life ed) 58:3 My 28 '54

Dickey resigns as Oklahoma commissioner to join Admiral Fire. Nat Underw 58:1 Mr 4 '54; Nat Underw (Life ed) 58:2 Mr 5 '54; Weekly Underw 170:569+ Mr 6 '54

John McArthur and Dunne indicted for libeling Cravey, Georgia commissioner. Nat Underw 57:2 O 1 '53; Same. Nat Underw (Life ed) 57:1 O 2 '53

Legislature clears Cravey of charges of improper conduct. Nat Underw 57:2 D 10 '53; Same. Nat Underw (Life ed) 57:10 D 11 '53

Leslie indicted on mace charge over GOP primary. Nat Underw (Life ed) 58:1 O 8 '54; Same abr. Nat Underw 58:4 O 7 '54

Luke Kavanaugh to retire as Colorado commissioner Oct. 1. Nat Underw (Life ed) 58:1 S 3 '54; Same abr. Nat Underw 58:1 S 2 '54

Mark Wentz named fire insurance commissioner of Texas. Weekly Underw 170:1202 My 15 '54

Murphy resigns as South Carolina commissioner. Nat Underw 58:1 Ag 12 '54; Same. Nat Underw (Life ed) 58:1 Ag 13 '54

Newman named Deputy New York insurance superintendent. East Underw 55:24 Mr 5 '54

Ohio's great insurance superintendent; Walter A. Robinson with the department forty-four years. J. A. Lloyd. East Underw 54:4+ D 11 '53

Paul H. Brown Texas fire insurance commissioner dies. Weekly Underw 170:1090 My 1 '54

Seek to extradite MacArthur, Dunne to face Georgia charges. Nat Underw 57:2 N 12 '53; Same. Nat Underw (Life ed) 57:1+ N 6 '53

Smith elevated to Texas insurance board chairman. Weekly Underw 169:930 O 17 '53

Smith made Texas Life commissioner, Board chairman. Nat Underw (Life ed) 57:1 O 9 '53

Vorys superintendent in crucial time; Ohio. W. C. Safford. East Underw 54:4+ D 11 '53

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INSURANCE companies

America Fore group opens southwestern department in Dallas. East Underw 55:20 F 5 '54; Nat Underw 58:26 F 4 '54; Weekly Underw 170:348 F 6 '54

Better business bureaus seek aid; may withdraw effort to create liaison with insurance; abstracts. V. H. Nyborg. Weekly Underw 169:1417+ D 12 '53; Nat Underw 57:6 D 3 '53; Nat Underw (Life ed) 57:9 D 4 '53

Character of bureaus changes and more companies weigh independence. Nat Underw 57:15+ O 8 '53

Companies organized, licensed, merged, reinsured; changes in capital, name, death roll for 1953. Weekly Underw 170:102-7 Ja 2 '54

Competitive picture. H. P. Stellwagen. Nat Underw 57:1, 27 Je 25 '53; Same cond. Spectator 161:16-17+ Jl '53; Same abr. Weekly Underw 169:24-5 Jl 4 '53

Direct writers meet the modern mass market. S. B. Black. Spectator 161:22-3+ O '53

General Fire & Casualty of New York completes 15 years; 1953 biggest year. East Underw 55:29+ Ja 8 '54

Northern Assurance is celebrating 100th anniversary in United States. East Underw 55: 23 Ap 2 '54; Weekly Underw 170:844+ Ap 3 '54

Phoenix insurance co. of Hartford celebrating centennial. East Underw 55:22 My 7 '54; Same. Weekly Underw 170:1152 My 8 '54

Reserve Life takes slander case to Supreme court. Nat Underw 57:8 O 29 '53; Same. Nat Underw (Life ed) 57:6 O 30 '53

Yorkshire effects domestication of branch in the U.S. East Underw 55:1+ Ja 8 '54; Same abr. Nat Underw 58:6 Ja 7 '54; Same abr. Weekly Underw 170:123 Ja 9 '54

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Lloyd's, London

Royal-Liverpool insurance group

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Accounting

Finance and insurance industries. N A C A Bul 36:151-6 sec 3 S '54

Gloves peeled off in uniform accounting row; abstracts. Nat Underw 57:3+ N 5 '53; East Underw 54:40 N 13 '53; Nat Underw (Life ed) 57:20 O 30 '53

Hot fight loom on uniform accounting. Nat Underw 57:1 N 26 '53

Internal auditing and control now used to measure effective operation. W. R. Phelan. Nat Underw 57:27 N 5 '53

NAIC report on uniform rate making is rejected. East Underw 54:93+ D 11 '53

New uniform accounting report not likely to cause joy in industry ranks; uniform accounting and rate making relationship. Nat Underw 57:1+ N 19 '53

New York department hearing on Regulation 33; classification and allocation of income and expenses of life insurers. East Underw 55:9 Je 25 '54; Nat Underw (Life ed) 58:1+ Je 25 '54

Praises group for service to industry. A. C. Leslie. East Underw 54:30 O 30 '53

Regulation 30 amended by New York department. Nat Underw 57:6A Jl 2 '53

Revised report on uniform accounting by two NAIC subcommittees. East Underw 54:33 N 20 '53

Small company group accounting administration. J. N. Gillespie. East Underw 55:39 F 19 '54

System produces 55 per cent saving in card handling; Security life and accident co. il Am Bsns 23:12-13+ N '53

Uniform company expense measures in NAIC baliwick. J. R. Larus. Nat Underw (Life ed) 57:1+ O 30 '53

Bibliography

Insurance accounting bibliography, 1930-1953. Insurance society of New York, 107 William st, New York 38 '53

Advertising

Ad program backs local agents; Kemper companies. il Spectator 162:32-3+ O '54

Ads stressing role of agent urged as competitive tool. A. M. O'Connell. Nat Underw 58:29 Ap 29 '54

Commends IAC for fine job on advertising award contest. J. O. Cole. East Underw 54: 40-1 S 18 '53

How agents react to advertising material prepared by insurance companies. East Underw 54:38+ S 18 '53

Kemper companies launch large space newspaper advertising campaign. N. C. Flanagin. East Underw 55:45+ S 24 '54

Prudential starts tv teaching aid program; You are there. East Underw 54:11 O 2 '53

Role played by advertising in rise of Bankers Life and Casualty told in ANPA story. East Underw 55:46 O 15 '54

Tv advertising for insurance companies and agencies; pros and cons. E. F. Heffley. East Underw 54:37 N 20 '53

See also

Insurance advertising conference

Biography

Insurance industry directed by strong personalities fifty years ago. L. A. Mack. Weekly Underw 170:1214+ My 15 '54

We have with us today; some interesting personalities in life insurance. East Underw 54:6-8+ D 11 '53

Branch offices

Aetna Casualty and Surety to open new Charlotte branch to serve North and South Carolina. Weekly Underw 170:416 F 13 '54; Abstract. Nat Underw 58:22 F 11 '54

How to grow a branch. D. M. Witmeyer. Spectator 161:34+ O '53

Travelers 80 John Street branch. East Underw 55:4 Jl 2 '54

Travelers will open new branch office in Miami. Weekly Underw 170:1474 Je 12 '54

Consolidation

American Motorists and Excess insurance co. merger outlined. Nat Underw 57:2+ N 12 '53

Combined group buys First National Casualty. East Underw 54:29 Ag 14 '53

Complete merger of Excess and American motorists. East Underw 55:33 My 21 '54; Weekly Underw 170:1411 Je 5 '54

Fireman's Fund buys National surety corp. to add to facilities. East Underw 55:1+ Ja 15 '54; Nat Underw 58:1+ Ja 14 '54; Weekly Underw 170:173+ Ja 16 '54

Fireman's Fund; National Surety transaction. East Underw 55:17 Ja 22 '54

Great American backs reorganization plan. East Underw 54:20 S 18 '53

LaSalle Casualty, American Income of Chicago are merged. Nat Underw 57:4 Jl 23 '53

La Salle merges with American Income Assurance. East Underw 54:29 Jl 31 '53

Mergers, changes of control, etc., in 1953. Weekly Underw 170:102-3 Ja 2 '54

South Coast merges with American Country. East Underw 54:4 D 18 '53

United States Guarantee-Federal merger now concluded. East Underw 54:28 Jl 10 '53; Same. Nat Underw 57:33 Jl 9 '53; Same. Weekly Underw 169:83 Jl 11 '53

Costs

Appraisal of costs suggested to meet specialty competition. K. E. Chapman. Nat Underw 58:18 My 27 '54

Cost data are essential to performing effective job. J. M. Hughes. Weekly Underw 170:1066 Ap 24 '54

Costs must come down. E. F. Gallagher. East Underw 54:20+ O 23 '53

Expense problems and their impact on A.&H. field. F. S. Perryman. East Underw 54:47-8 O 16 '53

Home office costs forum H.&A. conference. East Underw 55:43 My 7 '54

Home office costs; Health and accident underwriters conference forum. E. F. O'Toole and others. East Underw 54:32-3 O 23 '53; Same. Weekly Underw 169:1008 O 24 '53

Home office costs topic of Chicago conference; Health and accident underwriters conference; abstracts. Weekly Underw 169: 1112 N 7 '53; Nat Underw (Life ed) 57:9 O 23 '53

How to know your office costs. J. M. Hughes. Life Ins Courant 59:30-2+ F '54

INSURANCE companies—Costs—*Continued*

Need to cultivate middle group; must find more economical ways of serving this market. C. J. Zimmerman. East Underw 54:4+ N 13 '53
New York state Condon committee report. East Underw 54:12 Jl 3 '53
New York uniform expense proposal a threat to industry. W. Breiby. Nat Underw (Life ed) 57:4 O 16 '53
Urges savings in operating costs; suggests re-alignment of work load between company and producer. East Underw 55:38 O 15 '54

Directors

Board of directors on tour; Insurance company of North America. Spectator 162:20-1 Jl '54

Educational work

Teacher-training program in life insurance. R. W. Kelsy. East Underw 54:20 O 16 '53
Urges school industry team. P. E. Clark. East Underw 54:29 O 23 '53

Employees

Building with a future; Boston's skyscraper, home office of the John Hancock mutual life insurance co. J. Kirk. il Spectator 161:14-15+ Jl '53
Educational refund plan of Mutual Life spurs outside study. Nat Underw (Life ed) 57:1 Ag 21 '53
Even keel for salary program of employees in life company offices. G. Wilgus. Nat Underw (Life ed) 58:8+ O 1 '54
How new employees at home office are recruited; Metropolitan Life. S. Milligan. East Underw 55:4+ Ap 2 '54
Looking for office personnel, 35 years ahead. F. L. Rowland. Spectator 161:20-1+ Ag '53
Management-training Radcliffe students in insurance offices. East Underw 54:1+ Jl 17 '53
New dining and recreation rooms of America Fore insurance group. il East Underw 55:16 Ja 8 '54
Personnel directors eye home office problems needing close attention. Nat Underw (Life ed) 58:4+ F 26 '54
Suggestion by Massachusetts Mutual employe wins $1,000 award. Nat Underw (Life ed) 57:9 D 11 '53
Three-month vacation prepares employes for retirement at Atlantic Mutual. W. Partridge. Nat Underw 58:19 F 25 '54
Why employes quit, and what can be done about it. E. F. O'Toole. Nat Underw 57:35-6 D 10 '53

Employees' pensions

John Hancock improves group, pension plans. Nat Underw (Life ed) 58:5 Ag 6 '54

Equipment and supplies

Burk, Burke, Berc, Berk, Birk, Buark, they're all B-620 to mechanical detective; Remington Rand Soundex. Nat Underw (Life ed) 57:20 D 25 '53
1500 tubes speed office work; Card-programmed calculator. il Spectator 161:24 Ag '53
Franklin Life to install million dollar brain machine next year. East Underw 54:14 S 18 '53
Kemper-Matic program of benefit to agents for six month auto policies; IBM process. East Underw 55:27 Jl 9 '54; Same. Weekly Underw 171:83+ Jl 10 '54
Klem, Defense department study Univac results. Nat Underw (Life ed) 57:24 O 23 '53
Latest office aid; photocopying. il Spectator 162:28+ Jl '54
Life companies on verge of revolution via electronics. Nat Underw (Life ed) 58:1+ S 10 '54; Same. Weekly Underw 171:609 S 11 '54
Metropolitan Life installs electronic process system; Univac. il East Underw 55:14 Ap 30 '54
Pacific Fire operates tabulating department at 25 per cent less cost than the average. Nat Underw 58:17 My 20 '54
Please be seated comfortably. S. M. Richman. il Spectator 162:29+ Ja '54
Remington Rand has calculator that solves problems, makes tape. Nat Underw (Life ed) 57:15 O 23 '53
Statistical machines; their uses and purposes. L. A. Holloway. Weekly Underw 169:1573 D 26 '53
We own 159,000 typewriters; Spectator survey of equipment in insurance company home offices. Spectator 162:30+ S '54

Examination

New York Department books of lectures to examiners; Examination of insurance companies; volumes 1-2; review. East Underw 54:4 N 20 '53; Same. Nat Underw (Life ed) 57:10 D 4 '53

Exhibits

Travelers historical exhibit at home office features company's 90th anniversary. il East Underw 55:58 My 7 '54

Failures

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Finance

Accident and health direct premiums, losses incurred, and other lines, Illinois, 1953; tables. Nat Underw 58:39 Ap 15 '54
America Fore group assets and writings reach all-time high. East Underw 55:1+ Ja 29 '54
American group has profit of $3,450,692. East Underw 55:25 F 19 '54
Atlantic companies show assets, surplus at new high records, 1953. East Underw 55:1+ Mr 19 '54
Commercial Union reports advance in fire, casualty, marine premiums; 1952. East Underw 54:22-3 Ag 7 '53
Companies report on 1953 results; tabulation. Nat Underw 58:22-3 F 25; 21-6 Mr 4; 18-30 Mr 11; 21-33 Mr 18; 38-9 Mr 25; 26 Ap 1 '54
Crum & Forster group 1953 report shows substantial gains. Nat Underw 58:3 Mr 11 '54
Early returns from financial statements of stock property companies for 1953; table. Spectator 162:110-11 Ap; 119 My '54
Fire, allied lines premiums and losses shown for companies licensed in Illinois, 1953; tables. Nat Underw 58:40-1 Ap 15 '54
Fire and accident experience and miscellaneous insurance; with tables on British insurance earnings and dividends. Economist 168:227-8+ Jl 18 '53
Fire, marine underwriting profits down slightly in 1953 from 1952. East Underw 55:22 Ap 23 '54
Fire premiums gain 3½ per cent in 1953, Argus chart shows; with tables. Nat Underw 58:3, 34 Ap 29 '54
Fireman's Fund group premiums at new high in 1953. East Underw 55:28 Mr 5 '54
Fireman's Fund premiums record, 1953. Weekly Underw 170:509+ F 27 '54
General of Seattle companies have outstanding year. Nat Underw 58:8 Mr 4 '54
Great American shows fine report for 1953. East Underw 55:22-3 F 19 '54
Home insurance co. of New York premiums and assets increased last year. East Underw 55:1 F 12 '54; Weekly Underw 170:397 F 13 '54
Illinois '53 results by lines shown, leaders listed; table. Nat Underw 58:10 Ap 15 '54
Insurance scored gains in Canada during 1953. Weekly Underw 170:819 Mr 27 '54
Leading insurance groups in total premiums, 1952 and 1953; table. Nat Underw 58:3 Ap 22 '54
Lloyd's 1952 premiums reached £213,948,000. East Underw 54:20 Ag 7 '53
London & Lancashire report on worldwide operations in 1953. East Underw 55:1+ Ap 30 '54
London Assurance companies show gains for 1953. East Underw 55:25 Ap 16 '54
London Assurance operations show increase in premiums. Weekly Underw 169:136 Jl 18 '53
London Assurance worldwide gains in premiums and assets in 1953. East Underw 55:31 Je 18 '54
London Lloyds figures on its transactions. Nat Underw 57:17 Jl 16 '53
National table of rank on 24 insurance lines, 1952. Spectator 161:129 N '53
1953 countrywide, New York, loss, expense ratios; table. Nat Underw 58:31 Je 24 '54

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1953 Illinois totals by classes are shown, 1952 and 1953; table. Nat Underw 58:39 Ap 15 '54

1952 direct premium writings in all property lines for 25 states and District of Columbia. Spectator 161:68-9 Ag '53

North America companies operating profits at new high level, 1953. East Underw 55:1+ F 26 '54

Pacific Employers offers to take over California Union. Nat Underw 58:3+ Ap 29 '54

Phoenix-Connecticut group shows increase in assets and premiums, 1953. East Underw 55:26 F 26 '54; Weekly Underw 170:518 F 27 '54

Premiums graphed by dollars to policyholders' surplus. A. Senda. Spectator 161:32+ N '53

Property statements from the 1953 annual reports. Spectator 162:32-3+ My '54

Royal exchange group reports on excellent progress made last year. East Underw 54:23 Jl 31 '53

Smith tells Texas legislative goals. Nat Underw 58:25 Ja 14 '54; Same. Nat Underw (Life ed) 58:7 Ja 15 '54

Springfield group new all-time highs reached during 1953. East Underw 55:1+ Mr 12 '54; Same. Weekly Underw 170:640 Mr 13 '54

Sun insurance office of London increased premiums in all branches in 1952. East Underw 54:19 Ag 21 '53

Swiss Reinsurance reports increase in premium volume for last year. East Underw 54:21 Ag 7 '53

Total assets and security holdings of insurance companies; biennial figures, 1942-1952. W. M. Montgomery. Spectator 161:26-8 N '53

Travelers companies assets pass $2,644 million in 1953. East Underw 55:10 Mr 5 '54; Weekly Underw 170:525+ F 27 '54

Treasury list of bond qualifiers; table, 1953 and 1954. Nat Underw 58:4 Je 10 '54

Underwriting profit of 404 companies in 1953 was 4.7 per cent; premium volume up. Weekly Underw 170:958+ Ap 17 '54

Wherewithal for higher dividends. Economist 168:225 Jl 18 '53

Yorkshire reports 1953 as year of record achievements generally. East Underw 55:24 Jl 9 '54

Foreign branches

American of Newark opens new Canadian department in Toronto. East Underw 55:21 Je 4 '54

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Phoenix of London opens new department offices. Weekly Underw 170:767+ Mr 27 '54; East Underw 55:25 Mr 26 '54; Nat Underw 58:24 Ap 1 '54

Foreign business

American foreign insurance association and overseas insurance business. L. C. Irvine. Weekly Underw 171:512 S 4 '54

American insurance now available against any insurable hazard in foreign countries. K. J. Brown. Weekly Underw 170:910-11, 970-1 Ap 10-17 '54; Abstract. Nat Underw 58:27 Ap 8 '54

American insurers have extensive overseas plant for foreign risks in fire insurance; abstracts. E. A. G. Manton. East Underw 55:25+ Mr 19 '54; Nat Underw 58:10+ Mr 25 '54

It's easy to insure goods in foreign countries. W. F. Cushman. Rough Notes 96:23+ Jl '53

Optimism prevails in the field of American international insurance. J. J. Vogel. East Underw 54:104 D 11 '53

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Cutting home office paper work; John Hancock mutual life insurance co. East Underw 54:12 O 30 '53

LIAMA reports on application blanks for hiring agents. Nat Underw (Life ed) 58:15 Ag 20 '54

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Insurance, Fire—Policy forms

Investments

Atomic energy and electric utility securities; insurance company investments. E. H. Scott. Comm & Fin Chr 179:263+ Ja 21 '54

Dominican Republic requires foreign company investments. Nat Underw 58:10 Ap 8 '54

Effect of all-out peace on investment policy. M. Kemper. East Underw 54:29 N 27 '53

Equitable's Gateway investments are O.K. A. J. Bohlinger. Nat Underw (Life ed) 57:1+ D 25 '53

Insurance companies invest in stocks of other insurers. East Underw 55:19 Ap 23 '54

Insurance investment policy; with tables of analysis of insurance investments and interest rates. Economist 168:219-20+ Jl 18 '53

Investments. E. L. Hall. Spectator 162:42-3 Ja '54 [cont monthly]

Net investment earnings in property insurance 95 stock companies, 1950-1952; table. Spectator 161:123-4 N '53

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Insurance, Life—Investments

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Legal service

Legal advice by insurance company counsel. Trusts & Estates 93:98 F '54

Management

Agency and underwriting departments' coordination. G. Brooks. East Underw 54:48 N 13 '53

Coordination between claim and underwriting departments. E. B. Forsythe. East Underw 54:49 N 13 '53

Coordination headache more acute. R. J. O'Toole. Nat Underw (Life ed) 57:2+ O 23 '53

Dealing with people main executive task. H. B. Palmer. East Underw 54:5 S 25 '53; Same. Nat Underw (Life ed) 57:7 S 25 '53; Same. Weekly Underw 169:759+ S 26 '53

Efficient administration of group plans. B. D. Dutcher. Weekly Underw 170:432-4 F 13 '54; Abstract. East Underw 55:39 F 19 '54

Executives' relationships many. E. Fitzgerald. East Underw 55:4 O 8 '54; Same. Nat Underw (Life ed) 58:36 O 8 '54; Same. Weekly Underw 171:875 O 9 '54

H&A conference, LOMA methods forum at Chicago. Nat Underw (Life ed) 58:17 O 15 '54

Management problems; electronic operations and decentralization big questions; abstracts. N. S. Baker. East Underw 55:16 O 8 '54; Nat Underw (Life ed) 58:5+ O 1 '54

Meeting the problems of decentralization; Prudential's experience. Nat Underw 57:12-13 Jl 9 '53

People working together build $158 million insurance business; Farm Bureau Mutual. L. M. Hughes. Sales Management 71:30-2+ S 1; 56-7+ S 15 '53

Plan to interview agents on field research. S. R. Wallace, jr. East Underw 54:16 N 13 '53; Same. Weekly Underw 169:1180+ N 14 '53

Policy behind the policy; Mutual Benefit Life panel discussion. Weekly Underw 170:936 Ap 10 '54

Providence Washington outlines changes in underwriting policies. R. E. Carr. East Underw 55:25 My 21 '54; Nat Underw 58:1+ My 20 '54

Prudential in major move to streamline. C. M. Shanks. Weekly Underw 171:333+ Ag 14 '54; Same. East Underw 55:10 Ag 13 '54

Questions designed to bring out what agency officers do or don't do in their relations with their agency managers. W. T. Grant. Nat Underw (Life ed) 58:37+ O 8 '54

Reduction of operation expenses important matter to accident writing companies Weekly Underw 169:277 Ag 1 '53

Streamlining of Berkshire home office. W. R. Furey. East Underw 54:3-4 Jl 3 '53

Teachers warned against industry-wide solutions in management research field; abstracts. F. Lang. Nat Underw 57:11+ D 31 '53; East Underw 55:24 Ja 1 '54; Nat Underw (Life ed) 58:2+ Ja 1 '54; Weekly Underw 170:121+ Ja 9 '54

INSURANCE companies—Management—*Cont.*

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What is the most important department in a life insurance company? W. P. Worthington. East Underw 54:10 O 23 '53

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Multiple line writing

Marine definition not carved in stone; line between marine and multiple line growing faint. W. H. Rodda. Nat Underw 57:10 O 22 '53

Multiple line problem gets down now to specific policy questions. G. V. Whitford. Nat Underw 57:9 O 22 '53

New era in the insurance industry, fire and casualty; marketing methods. H. W. Miller. Weekly Underw 170:1517+ Je 19 '54; East Underw 55:34 Je 18 '54; Nat Underw 58:23 Je 17 '54

No great matter to convert adjusters. J. D. C. Roane. Nat Underw 58:29 Ap 1 '54

Problems and progress of multiple line integration. Nat Underw 57:18-19 Ag 6 '53

Transition to multiple line writing faces adjusters with new pattern of training. J. D. C. Roane. Weekly Underw 170:820, 880, 941 Mr 27-Ap 10 '54

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Officials

Aetna Life home office promotions. East Underw 55:3+ F 19 '54

America Fore group announces various staff changes, Secretary King to retire. Weekly Underw 171:695+ S 25 '54; East Underw 55:30 S 24 '54; Nat Underw 58:7 S 23 '54

America Fore group promotions include six vice presidents. East Underw 55:1+ Je 25 '54; Nat Underw 58:3, 19 Je 24 '54; Weekly Underw 170:1585+ Je 26 '54

Black is president of Home, succeeds Harold V. Smith. Nat Underw 58:1+ Ap 8 '54; Weekly Underw 170:893+ Ap 10 '54

Brooke Claxton goes with Metropolitan Life, Canada. East Underw 55:9 Jl 9 '54; Same. Weekly Underw 171:65+ Jl 10 '54

Continental Casualty makes 13 promotions. East Underw 55:39 Mr 5 '54

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Elect W. Rankin Furey president of Berkshire; Harrison L. Amber made chairman. C. Axman. East Underw 55:3-4+ F 12 '54

Everett H. Lane elected president Boston Mutual Life. East Underw 54:1 N 27 '53; Same. Weekly Underw 169:1328 N 28 '53

Harold V. Smith's outstanding career as president of Home insurance co. East Underw 55:33 Ap 9 '54

Harris and Roach win Travelers promotions. East Underw 55:42 Mr 5 '54

Lincoln National advances several at home office. Nat Underw (Life ed) 58:8 F 26 '54

Lincoln National names Menge president. Weekly Underw 170:337 F 6 '54; East Underw 55:3 F 5 '54; Nat Underw (Life ed) 58:1 F 5 '54

Marine office of America makes executive changes. Weekly Underw 171:230-1 Jl 31 '54

Murray Lincoln is elected president of National Casualty. Nat Underw 58:1+ Mr 4 '54; Same. Nat Underw (Life ed) 58:6 Mr 5 '54; Same abr. East Underw 55:39 Mr 5 '54

New York Life changes. East Underw 54: 3-4 D 25 '53

Norton and Zalinski vice presidents of New York Life; other officials advanced. Weekly Underw 170:804-5 Mr 27 '54

Promotions at Metropolitan Life. por East Underw 55:7 Ja 1; 7 Ja 8 '54; Weekly Underw 170:148 Ja 9 '54

Public's receptivity of life insurance; cross section of a number of representative directors of life companies; sketches. C. Axman. East Underw 54:14-15+ pt 2 S 25 '53

R. E. Murphy president California-Western states; O. J. Lacy made chairman. pors East Underw 55:5 Mr 12 '54

Robert L. Hogg to be senior vice president of Equitable society. East Underw 55:1+ Ja 29 '54; Same. Weekly Underw 170:277+ Ja 30 '54; Abstract. Nat Underw (Life ed) 58:1+ Ja 29 '54

Seven officials of Travelers are appointed to newly created post of 2d vice president. Weekly Underw 170:360 F 6 '54; Same. East Underw 55:39 F 5 '54

Stockbroker fees; California ruling. Weekly Underw 170:175 Ja 16 '54

West succeeds Marshall with Provident Mutual. Weekly Underw 170:611 Mr 6 '54

Wilson vice president of all Travelers companies; four appointments made. pors East Underw 55:24 Mr 12 '54

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Black, Kenneth Eugene

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Public relations

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Advocates industry program of public relations. K. J. Bidwell. East Underw 54:1+ My 29 '53; Same. Weekly Underw 169:26 Jl 4 '53

Association of casualty and surety companies expands public relations field. East Underw 54:25+ Jl 24 '53; Same. Weekly Underw 169:215+ Jl 25 '53

Commissioners, business share public interest responsibility. H. J. Johnson. Nat Underw (Life ed) 58:19 Ja 29 '54

How insurance is publicized through a public relations trophy; London Assurance. W. Meiss. il Spectator 162:28+ Ja '54

Ideas on improving public's appraisal of insurance. A. E. Bladen. East Underw 54: 22 S 25 '53

Jack Maguire, Texas publicist for stock fire companies. C. T. Hubbard. East Underw 54:21 Jl 31 '53

Mutual of New York surveillance of letter writing; correspondence part of public relations effort. C. Cefola. East Underw 55:160 pt 2 O 1 '54

Public relations; job life insurance companies are doing. W. Buck. East Underw 54:50 D 11 '53

Public relations offices set up in Oklahoma, California. Nat Underw 57:2 Jl 23 '53

Public relations opportunities for life insurance companies. J. R. Morris. East Underw 55:3 Je 4 '54; Same. Weekly Underw 170:1488+ Je 12 '54

Public relations problems seen from viewpoint of the fieldman. H. C. Abbott. East Underw 54:24+ S 4 '53; Excerpts. Weekly Underw 169:1130 N 7 '53

Role of public relations in the life insurance business; LOMA panel. Weekly Underw 170: 492 F 20 '54

Supervisory people hold a key role in public relations. H. J. Johnson. Nat Underw (Life ed) 57:3 S 25 '53; Same. Weekly Underw 169:717 S 26 '53

Visualizes enlargement of Insurance day programs in future. J. S. Miller. East Underw 54:22 S 25 '53

Wide-spread policy cancelations result in Better business bureau campaign; Fort Wayne. J. M. Rowland. Nat Underw (Life ed) 57:16 S 4 '53

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Non-assessment feature may have no meaning. F. S. Pearson. Weekly Underw 169:257 Ag 1 '53
Ohio returns $60,000 to Bohlinger as receiver of Preferred Accident. East Underw 55:45 S 17 '54; Same. Weekly Underw 171:649 S 18 '54
Pioneer mutual compensation co. of New Mexico given demand to cease in Colorado by Luke Kavanaugh. East Underw 55:35 My 14 '54
Plan distribution to creditors of defunct Keystone. A. C. Leslie. Nat Underw 58:2 Jl 22 '54; Same. Weekly Underw 171:169+ Jl 24 '54; Same abr. East Underw 55:29 Jl 23 '54
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Group selling working against ordinary plans; regulation of life business increasing. R. R. Lounsbury. East Underw 55:5 O 8 '54
Insurance control by states must be protected. D. D. Murphy. Nat Underw 58:8 Je 10 '54; Same. Nat Underw (Life ed) 58:11 Je 11 '54
Insurance most over-regulated business in the U.S. J. B. Donovan. Nat Underw 58:1+ Ja 21 '54; Same. Nat Underw (Life ed) 58:2+ Ja 22 '54
Insurance's first decade under commerce clause covered in report to Bar association on regulation of insurance companies. Nat Underw (Life ed) 58:2+ S 10 '54; Same. Nat Underw 58:25+ S 23 '54
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U.S. Supreme court decision was blessing to public; holding insurance to be commerce. R. Harris. Weekly Underw 170:191+ Ja 16 '54
Wised-up public will rebel against over-regulation. J. B. Donovan. Nat Underw 58:6 F 18 '54
Wolverton group queries Faulkner on state control. Nat Underw 57:24 O 22 '53

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Property reports; text, charts raise this year's ratings. W. M. Alrich. Spectator 162:26-7+ Je '54

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Arizona companies, life agents reach compromise in insurance code feud. Nat Underw (Life ed) 58:9 Ja 22 '54
Bank and insurance stocks. H. E. Johnson. Published in weekly Thursday numbers of Commercial and financial chronicle
Compulsory legislation discouraging to stockholders. S. C. Davis. East Underw 55:35 F 5 '54; Same. Nat Underw 58:13 Ja 28 '54; Same. Weekly Underw 170:364+ F 6 '54
Equity corp. to add another unit to insurance group. Nat Underw 57:12 O 22 '53
Fireman's Fund to recapitalize. Weekly Underw 170:337+ F 6 '54
Great attractiveness of insurance stocks. S. C. Davis. Comm & Fin Chr 178:1119+ S 24 '53
Investment bankers buy Missouri insurance co. Weekly Underw 171:870 O 9 '54; Nat Underw (Life ed) 58:2 O 1 '54
Life company stocks kept climbing in '53; trend is still up. Nat Underw (Life ed) 58:1 Ja 15 '54
Life insurance stocks in fine position as industry forges rapidly ahead. Weekly Underw 169:700 S 19 '53
Life stocks as investments. G. W. Jennings. Life Ins Courant 58:11-12 N '53
National Union offers $6,000,000 additional stock to shareholders. East Underw 55:34 Mr 26 '54; Nat Underw 58:33 Mr 25 '54

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New England Mutual liberalizes dividend scale, 1954. O. K. Anderson. Weekly Underw 169:1128 N 7 '53

Plan to boost surplus of new Texas military insurer by $4,200,000. Nat Underw (Life ed) 57:20 O 2 '53

Stresses growth potential of life insurance stocks; Kidder, Peabody study. G. W. Jennings. Nat Underw (Life ed) 57:1+ S 18 '53

13 reasons why life stock prices will rise. H. L. McAllister. Nat Underw (Life ed) 58:4 Ap 2 '54

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Insurance companies race to get out the vote; contest on election day. East Underw 55:46 O 15 '54

Statistics

Growth of insurance traced through leading companies; with table for 72 leading property and A&H companies, 1900-1912. T. J. V. Cullen. Spectator 161:20+ N '53

Insurance by regions for 1952; with chart and tables. Spectator 161:22, 35-41+ N '53

Taxation

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Analyzes heavy taxes; life companies to pay $435 million in 1955. A. N. Guertin. East Underw 55:4 O 8 '54; Same. Nat Underw (Life ed) 58:36 O 8 '54; Same. Weekly Underw 171:874 O 9 '54

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Companies oppose tax dividend treatment in statement to Senate finance committee. East Underw 55:16 Ap 23 '54; Same. Nat Underw (Life ed) 58:3+ Ap 23 '54

Court holds companies not liable for tax on investment income; New York city. Weekly Underw 171:30 Jl 3 '54

Federal tax bill changes urged by stock companies at Senate finance committee hearing. J. R. Berry. Weekly Underw 170:954+ Ap 17 '54; Nat Underw 58:9+ Ap 15 '54

Life company representatives confer in Washington on new company tax formula. Weekly Underw 171:199 Jl 24 '54; Same abr. East Underw 55:8 Jl 23 '54

New York Supreme court holds insurance companies' investment income not subject to tax under city's tax law. East Underw 55:34 Ap 30 '54

North Carolina department rechecks insurers for taxes, more deposits. Nat Underw 58:10 My 6 '54

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Reviews federal income tax developments. M. Johnson. Nat Underw 57:22 O 22 '53

Senate committee revises new tax proposals affecting insurance companies. East Underw 55:35 Je 18 '54

State taxes collected from insurance companies; fiscal year, 1953. East Underw 54:9 S 11 '53

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Tax credit equality for insurance companies and stockholders. R. Murphy. East Underw 55:38 Ap 30 '54

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Sees Pacific Mutual upheld in stockholders court test. A. V. Call. East Underw 55:4 Jl 23 '54

Stockholders of Pacific Mutual Life take issue of ownership into high court. Weekly Underw 171:36 Jl 3 '54

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New Mexico court orders liquidation of Pioneer Mutual. Nat Underw 58:1+ My 6 '54

Pioneer Mutual case aired at Rocky Mountain territorial conference, Colorado Springs. Nat Underw 58:8 Ap 15 '54

Pioneer Mutual continues to be the hottest news in Colorado. Nat Underw 58:10+ Ap 29 '54

Plan open hearings in Colorado on Pioneer Mutual of New Mexico. Nat Underw 58:8 Ap 15 '54

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Bankers Life & Casualty wins important skirmish in conspiracy suit. Nat Underw 58:4 Ap 22 '54; Same abr. Nat Underw (Life ed) 58:2 Ap 23 '54

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Bankers Life & Casualty suit; Sammons told to bring data to Miami federal court. Nat Underw (Life ed) 58:6+ Ap 16 '54

Bankers Life & Casualty would drop Cravey as added expense in trust suit. Nat Underw 58:15 Jl 8 '54

No extradition to Georgia to be served on MacArthur. Nat Underw (Life ed) 58:2 Ja 8 '54

Great Britain

Insurance investment policy; with tables of analysis of insurance investments and interest rates. Economist 168:219-20+ Jl 18 '53

Illinois

Names Bankers Life & Casualty in $25 million suit. Nat Underw 58:36 Ap 1 '54; Same. Nat Underw (Life ed) 58:19 Ap 2 '54

Indiana

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INSURANCE companies—*Continued*

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Latin America

Latin American pool in reinsurance field; writes U.S. and Canadian risks; Marine midland trust co. named trustee. East Underw 55:20 O 1 '54; Nat Underw 58:8 O 7 '54; Weekly Underw 171:788 O 2 '54

Missouri

More details on formation of the American transportation insurance co. of Kansas City. R. E. Lawrie. East Underw 55:49 S 24 '54

New Mexico

Agents of Pioneer of New Mexico set out to rescue the company. Nat Underw 58:2 Ap 1 '54

New York (state)

Bohlinger's warning on unauthorized insurance companies. East Underw 55:34 F 12 '54; Same. Weekly Underw 170:6 Ja 2 '54

Ohio

Ohio farm bureau loses fight to keep name exclusive in North Carolina. Nat Underw 57:11 Jl 9 '53

Oregon

First multiple line company organized in Oregon; Insurance company of Oregon. Weekly Underw 171:122 Jl 17 '54

Oregon multi-line company; Insurance co. of Oregon newly formed. East Underw 55: 33 Ap 23 '54

Philippine Islands

94 insurance companies authorized to operate in Philippines; 22 American carriers. Weekly Underw 170:1036 Ap 24 '54

Salvador

Insurance firms face more trouble in El Salvador. M. Bannell. Barron's 33:17-18 D 28 '53

Switzerland

Swiss Reinsurance reports increase in premium volume for last year. East Underw 54:21 Ag 7 '53

Texas

Commissioner defends insurance in Texas. G. A. Smith. Weekly Underw 171:5+ Jl 3 '54

Company failures topic of the day throughout Texas. Nat Underw (Life ed) 58:23 My 21 '54

Hits Texas license deals involving speculation. G. A. Smith. Nat Underw 58:30 Mr 11 '54; Same. Nat Underw (Life ed) 58: 8 Mr 5 '54

Push plan to revive Lloyds of North America; Texas eyes other insurers. Nat Underw 58:2 My 6 '54

Texas companies organize; all-industry council proposed. Weekly Underw 171:499 S 4 '54

Texas companies this year nearly double 1952 figure; fiscal year ended Aug. 21. Nat Underw (Life ed) 57:4 N 27 '53

Texas' first domestic non-cancellable company formed; Southwest Indemnity & Life. East Underw 55:44-5 Ap 16 '54; Nat Underw 58:52 Ap 15 '54

Texas insurance leaders organize to meet local problems. Nat Underw 58:1+ Jl 1 '54; Nat Underw (Life ed) 58:1+ Jl 2 '54; Weekly Underw 171:6 Jl 3 '54

Texas plans stronger status for home companies; 55 launched in 1953. G. A. Smith. East Underw 55:14 Ja 15 '54; Same abr. Weekly Underw 170:174 Ja 16 '54

Virginia

Settlement reached in American Fidelity & Casualty case; company and Markel service share charges of filing faulty certificates of insurance required by Virginia law. East Underw 54:31 O 23 '53

INSURANCE company buildings

Absurd requirement of the New York law; Guardian Life against Bohlinger; editorial. Nat Underw (Life ed) 57:12 Ag 21 '53

Aetna considers decentralization if home invaded; proposed highway invading property. C. Axman. East Underw 55:1+ Ag 13 '54

Aetna Western department in new office. il Weekly Underw 169:308+ Ag 8 '53; Same. East Underw 54:17 Ag 7 '53

American Universal in new home office holds open house party, Providence. il East Underw 55:32 Je 11 '54

Argue power of N.Y. superintendent; Guardian Life vs. Bohlinger. East Underw 55:4 Mr 12 '54

Bohlinger arbitrary and capricious in site case; Guardian. Nat Underw (Life ed) 58: 1+ Mr 12 '54

Book on home office buildings; Life office management association to publish views of architect Arthur Angilly. East Underw 54:3+ Ag 14 '53

Building with a future; Boston's skyscraper, home office of the John Hancock mutual life insurance co. J. Kirk. il Spectator 161: 14-15+ Jl '53

Connecticut General votes for the country. il Arch Rec 116:24 Jl '54

Costs of operating the heat pump in the Equitable building. J. D. Kroeker and R. C. Chewning. flow diag il Heating-Piping 25: 135-44 N '53; Abstract. Heat & Ven 51:95 Mr '54; Discussion. Heating-Piping 26:176 Mr '54

Divided court upholds superintendent's stand in Guardian Life's appeal. East Underw 55: 11 My 21 '54; Same. Weekly Underw 170: 1364 My 29 '54

Employers Group Pacific Coast office. il Weekly Underw 171:291 Ag 7 '54

Fireman's Fund sells home office building to Continental; San Francisco. East Underw 55:39 S 17 '54; Same. Weekly Underw 171: 634 S 18 '54

Guardian appeals property decision before high court. East Underw 55:1+ S 3 '54; Nat Underw 58:2 S 9 '54; Nat Underw (Life ed) 58:2, 12-13 S 10 '54

Guardian loses to Bohlinger in home office site appeal. Nat Underw (Life ed) 58:1 My 21 '54

Innovations feature new Manufacturers home office in Toronto. Nat Underw (Life ed) 57:8 O 9 '53

Insurance building in Missouri. il plans Arch Rec 113:173-5 My '53

Liberty Life insurance building, Greenville, S.C. il plans Arch Rec 115:199-200 Ap '54

LIA brief blasts Bohlinger's stand on his immunity to judicial review; Guardian case appeal. Nat Underw (Life ed) 58:7+ Mr 19 '54

Life insurance association seeks role in Guardian appeal on building ban. Nat Underw (Life ed) 58:1+ Ja 8 '54

Lumbermens breaks ground for its eastern department building at Summit. il East Underw 55:28 Je 4 '54

Manufacturers Life's new home office building; Toronto. il East Underw 54:9 O 30 '53

Metropolitan to erect office structure. il Weekly Underw 169:1349+ D 5 '53; East Underw 54:9 D 4 '53

New building vs. modernization; Metropolitan Life decides it is more economical to replace office building. il Arch Forum 100: 130-1 My '54

New concept of comfort conditioning; Toronto's new Manufacturers Life building. G. L. Wiggs. il plans diags Heating-Piping 26: 143-51 Ja '54

New insurance policy; major corporation underwrites modern design for its own offices. il plan Arch Forum 98:120-1 Mr '53

North America to build processing office at Macon. Weekly Underw 171:226 Jl 31 '54

Pacific Mutual building; construction starts soon in northern California. East Underw 55:19 F 26 '54

Proposed supervisory office of Home in East Orange. il Weekly Underw 170:699 Mr 20 '54

Public use of company auditoriums. East Underw 55:4 Ap 30 '54

Radiant cooling in Toronto office building. il Heat & Ven 50:120+ N '53

Rural insurance plant; Connecticut General takes a tip from industry. il plans Arch Forum 101:104-7 S '54

INSURANCE company buildings—*Continued*
Selected risks companies hold open house at new home office in Branchville, N.J. il East Underw 55:36 My 14 '54
Seven insurance firms build in city as resulting tie-up breeds concern. il Eng N 152:43-4+ Ja 14 '54
To erect building on William street primarily for insurance company tenancy. East Underw 55:27 Ja 22 '54
Toronto's new insurance center. J. C. Smith. il East Underw 54:5+ D 11 '53
United Pacific insurance co., Los Angeles. il plan Arch Rec 113:178 My '53
Ways to keep employees happy; new Pacific Coast headquarters building of the Home insurance company of New York. K. R. MacDonald. il Am Bsns 24:30+ My '54
Woodmen accident companies to build new home office building; Lincoln, Neb. il East Underw 55:12 Ap 23 '54

INSURANCE company education directors' society
Annual meeting, Skytop Lodge. Weekly Underw 171:24 Jl 3 '54

INSURANCE company of North America
New Philadelphia story, 150 years old; history of North America's claims. A. W. Fitzgerald. Weekly Underw 171:958-60+ O 16 '54

INSURANCE conventions
Baltimore's 1st Insurance-day features talks on auto, and on multi-peril. R. I. Catlin. Nat Underw 58:13+ F 18 '54
Chicago Insurance day, April 22. East Underw 55:33-4 Ap 30 '54; Nat Underw 58:3+ Ap 29 '54
Cleveland's 1st Insurance-day hailed as robust success. B. McMackin. Nat Underw 58:2+ Mr 11 '54
Farm bureau leaders hold insurance day; annual five-day meeting, Chicago. Nat Underw (Life ed) 57:12 D 18 '53
Greater New York insurance day, 1st, New York, Sept. 22. East Underw 54:1+, 30-3 S 25 '53; Nat Underw 57:39 S 24 '53; Weekly Underw 169:719+ S 26 '53
Legend of I-Day. East Underw 55:32 F 19 '54
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N.J. insurance day features clinic on inland marine lines. East Underw 54:1+ O 16 '53
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Observations on I-days. C. H. Bokman. Nat Underw 58:35 My 6 '54
Pittsburgh 28th annual Insurance day. Nat Underw 58:5+ Mr 11; 22 Mr 25 '54
See also
Insurance, Life—Agents—Conventions
Insurance agents—Conventions

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INSURANCE departments
Examination of welfare funds OK, bank deals exempt. Nat Underw 58:15 Ap 1 '54; Same abr. Nat Underw (Life ed) 58:8 Ap 2 '54
Justin McCarthy named director in Illinois. Nat Underw 58:1 S 2 '54; Same. Nat Underw (Life ed) 58:1 S 3 '54
Ohio state insurance division; background of supervision in Ohio. W. L. Shield. East Underw 54:3+ D 11 '53

INSURANCE departments (in business)
Insurance manual found important tool for corporate buyers both large and small. J. C. Cristy. Weekly Underw 170:1614 Je 26 '54
Out of chaos, order; new corporate position, the insurance director. Chem W 73:14 S 26 '53
Plant committees aid insurance coordination; Inland steel co. O. B. Tearney. Weekly Underw 169:1156+ N 14 '53; Excerpt. East Underw 54:77 D 11 '53

INSURANCE economics society of America
Annual meeting, 12th, Chicago, Oct. 5. East Underw 55:54 O 8 '54; Nat Underw (Life ed) 58:1 O 8 '54
New officers. Weekly Underw 171:934 O 16 '54

INSURANCE ethics
Bureau of A.&H. underwriters adopts new code of practices. East Underw 55:62+ O 8 '54
E. J. Quick divests self of last of Muskegon county business. Nat Underw 57:6 N 26 '53
Ethical standards statement; text of code adopted at H.&.A. underwriters conference. East Underw 55:35+ My 7 '54; Nat Underw 58:5 My 13 '54; Nat Underw (Life ed) 58:25 My 7 '54; Weekly Underw 170:1173+ My 8 '54; Spectator 162:87 Je '54
International association adopts code of ethics; with text. East Underw 55:28 O 1 '54; Same. Weekly Underw 171:854 O 9 '54
New code of practices and public relations program ratified by Bureau. East Underw 55:39 S 17 '54; Same. Weekly Underw 171:645 S 18 '54
Texas A.&H. association adopts code of ethics; with text. East Underw 55:36 S 10 '54; Same. Weekly Underw 171:590 S 11 '54
See also
Insurance, Life—Twisting

INSURANCE federation of Illinois
Annual luncheon and election of officers, Chicago, Nov. 3. East Underw 54:33+ N 6 '53

INSURANCE federation of New York, Inc.
Annual luncheon, 39th, New York. East Underw 54:29+ D 4 '53

INSURANCE law
All-industry rating laws. H. R. Price, jr. Weekly Underw 169:1164+ N 14 '53
Cream the rating laws; wants close harmony between industry and state officials. R. Jamieson. Nat Underw 57:6 N 12 '53
Decline in DBL trend; legislative activities during 1954. J. K. Honey. East Underw 55:32 Ag 20 '54
Factors affecting validity of aviation exclusion riders; abstracts. J. W. Fischbach. Nat Underw (Life ed) 57:26+ O 9 '53; East Underw 54:8+ O 9 '53
Laws and decisions, 1953; abstracts. R. H. Kastner. East Underw 54:6 O 9 '53; Nat Underw (Life ed) 57:33 O 9 '53; Weekly Underw 169:1014 O 24 '53
Legislatures consider many bills on several classes of auto insurance. B. Jones. East Underw 54:29-30 Jl 24 '53
Many state legislatures to tackle auto liability problems in 1954. East Underw 54:30 N 27 '53
Minimum disability regulation. R. H. Rydman. Life Ins Courant 58:49-53 D '53; Abstracts. East Underw 54:33 S 4 '53; Nat Underw 57:26 S 3 '53; Nat Underw (Life ed) 57:5 S 4 '53; Weekly Underw 169:624 S 12 '53
1953 legislative developments. J. F. McAlevey. East Underw 54:34 O 30 '53
Roundup shows many states will propose insurance legislation in coming session. Nat Underw 58:25+ O 14 '54
Valued policy laws should be revised to meet modern methods; standard fire insurance policy. T. M. Galphin, jr. East Underw 55:18 Ag 27 '54
Valued policy statutes should be revised to comport with methods and needs of today. T. M. Galphin, jr. Weekly Underw 171:677, 749, 815, 893, 961 S 18-O 16 '54
Verdict; analysis of recent decisions. L. A. Burke. Spectator 162:40-1 Ja '54 [cont monthly]
Who owns your business is important question. J. F. Neville. Weekly Underw 169:1099-100 N 7 '53; Same abr. East Underw 54:24 O 30 '53
See also
Insurance, Automobile—Financial responsibility laws
Insurance agents—Law
Insurance brokers—Law
Insurance companies—Regulation
Subrogation of insurer
also American bar association—Insurance section; Association of life insurance counsel; International association of insurance counsel

Glossaries

Capsule law course for our readers affecting the insurance business. A. W. Fitzgerald. Weekly Underw 169:1277-8 N 21 '53

Alaska

Rules on policy form; Alaska commissioner orders rate law compliance. Weekly Underw 171:170 Jl 24 '54

INSURANCE law—*Continued*

Arkansas

Arkansas legislators to probe fire rates. Nat Underw 58:4 F 18 '54

Brazil

Insurance companies in Brazil supervised by federal government, basic governing law. Weekly Underw 169:370-2 Ag 15 '53

California

Broker-made rate becomes insurer's problem. J. R. Maloney. Nat Underw 57:2A O 1 '53

Stockbroker fees; California ruling. Weekly Underw 170:175 Ja 16 '54

Canada

Legislative situation in the various provinces and Ottawa. R. L. Foster. East Underw 55:3+ My 28 '54

Connecticut

Connecticut court upholds mail-order insurance law; Delaware firm can be sued. East Underw 54:32 D 4 '53

Directors get Mutual's assets; court holds Allyn powerless to act. Nat Underw 57:14 Ag 6 '53

District of Columbia

Would put retirement relief funds under D.C. insurance law. Nat Underw (Life ed) 57:7 Ag 14 '53

Florida

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NAIC unauthorized insurers law gets rousing OK. Nat Underw (Life ed) 57:1+ Ag 28 '53

Idaho

Idaho law governing casualty rates. L. O'Connell. Nat Underw 57:34 N 12 '53

Illinois

Illinois legislature adjourns; insurance fares satisfactorily. Nat Underw 57:6A Jl 2 '53

Indiana

Calls for stronger company license laws. Nat Underw (Life ed) 57:5 N 20 '53

Ireland

New Irish insurance plan aims at promoting dollar exports. For Comm W 50:11 Jl 13 '53; Same. Weekly Underw 169:148 Jl 18 '53

Kansas

One rule for stock, another for mutual is challenged in Kansas. Nat Underw 57:4 O 8 '53

Louisiana

Bureau companies clarified on Louisiana A.&H. bills. East Underw 55:27-8 Jl 30 '54; Nat Underw 58:19 Jl 29 '54; Nat Underw (Life ed) 58:2+ Jl 23 '54

Four A.&H. bills become law. East Underw 55:31 Jl 16 '54

Holds for insurers in ship sinking but only defers suits against them; Maryland Casualty et al. vs Gertrude P. Cushing et al. Nat Underw 58:10-11 Ap 22 '54

Louisiana Governor approves several insurance measures. Weekly Underw 171:170 Jl 24 '54

Michigan

Michigan insurance proposals. G. M. Williams. East Underw 55:35 F 5 '54

Radical insurance bills die off in Michigan. Nat Underw 58:31 Mr 11 '54; Same abr. East Underw 55:48 Mr 19 '54

Unlicensed insurer premium taxes issue rages in Michigan. Nat Underw 58:58 O 7 '54

Mississippi

Mississippi insurance law changes proposed in report. Weekly Underw 170:570 Mr 6 '54

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New Hampshire

Countersignature laws of New Hampshire ruled on. Weekly Underw 169:982 O 24 '53

New Hampshire attorney general rules on blanket coverage. Weekly Underw 170:404 F 13 '54

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New Jersey insurance bills approved by Governor. Weekly Underw 171:222 Jl 31 '54

Report by New Jersey association of insurance agents legislative committee. East Underw 54:53 O 2 '53

New York (state)

Albany bills amend life expense limitations law. Weekly Underw 170:450 F 20 '54

Building manpower under revised Section 213. R. Hull. Weekly Underw 170:1499+ Je 12 '54

Compensation committee report intrigues NALU delegates at New Orleans meeting. Weekly Underw 170:809 Mr 27 '54

Compensation committee seeks factual basis for Section 213 commission limits. Nat Underw (Life ed) Daily ed 57:19+ Ag 28 '53

Gains that Sec. 213 bill would bring. W. J. Cameron. Nat Underw (Life ed) 58:1+ F 26 '54

Industry spokesmen endorse Sec. 213 changes. East Underw 55:3+ Mr 12 '54

Life expense bills favored; New York house committee reports measures. Weekly Underw 170:638 Mr 13 '54

Must file commissions on group in detail starting Sept. 1 in N.Y. Nat Underw 57:17 Ag 27 '53

New York department interest continues in uniform accounting, compulsory; other topics. Nat Underw 58:6+ Ag 19 '54

New York department regulates insurance on national basis; abstracts. B. M. Anderson. East Underw 55:1+ Ag 20 '54; Weekly Underw 171:410 Ag 21 '54; Nat Underw 58:1+ Ag 19 '54; Nat Underw (Life ed) 58:9 Ag 20 '54

N.Y. department rules guest expenses void; violation of Section 213. A. J. Bohlinger. East Underw 54:12 O 9 '53; Same. Nat Underw (Life ed) 57:1+ O 9 '53

New York issues rules on amended law Section 213; additional compensation paid general agents and training allowance. Weekly Underw 169:306 Ag 8 '53; Same. East Underw 54:1+ Ag 7 '53; Same cond. Nat Underw (Life ed) 57:2 Ag 7 '53

New York state association asks veto of Variable Annuity measure. Nat Underw (Life ed) 58:15 Mr 26 '54

Proposed changes in Section 213 of New York expense limits. East Underw 55:9 F 26 '54; Excerpt. Weekly Underw 170:554 F 27 '54

Section 213 bills clear hearing without opposition. R. B. Mitchell. Nat Underw (Life ed) 58:1+ Mr 12 '54

Section 213 changes reviewed. A. J. Bohlinger. East Underw 55:18 Ag 20 '54

Sec. 213; New York's expense limitation; analysis of amendments of 1953. M. E. Davis. East Underw 54:8+ O 9 '53; Abstract. Nat Underw (Life ed) 57:25 O 9 '53

213 bills signed, Variable Annuity measure vetoed. Nat Underw (Life ed) 58:1 Ap 23 '54

North Dakota

Saskatchewan insurer is making itself felt; situation in North Dakota and Montana. Nat Underw 58:11 S 23 '54

Ohio

Warns Ohio citizens on placing coverage with Lloyds. W. A. Robinson. East Underw 55:21 Jl 23 '54

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Oklahoma

Membership fees banned in Oklahoma. Nat Underw 58:8 F 25 '54

Membership fees banned in Oklahoma; see court appeal. Nat Underw 58:1 My 6 '54

Need for recodification of state's insurance laws. D. F. Dickey. Nat Underw 57:4 O 15 '53; Same. Nat Underw (Life ed) 57:12 O 16 '53

Oregon

Oregon insurance industry group reviewing statutes; committees and their membership; list. Weekly Underw 169:1418 D 12 '53; Abstract. Nat Underw 57:3 N 26 '53

Rhode Island

Rhode Island law on workmen's compensation claims, other legislation. Nat Underw 58:24 Ap 29 '54

Texas

55 new Texas life companies start in 1953; corrective legislation needed to remedy situation. G. A. Smith. East Underw 54: 16+ D 11 '53

Insurance groups watch Texas case. Bsns W p 120 D 12 '53

Insurance issue in Texas becomes hot political question. Nat Underw 58:3 Je 10 '54

Pot boils in Texas as leaders prepare to revise insurance law. Nat Underw 58:12 My 27 '54

Program to strengthen Texas insurance laws offered by Texas legal reserve officials association. Nat Underw 58:4 S 9 '54; Same. Nat Underw (Life ed) 58:4 S 10 '54

Texas Mutual case is going to provide a lot of insurance chatter before last shot is fired and Supreme court speaks. Nat Underw 57:1+ Ag 6 '53

Texas politics involved in move to strengthen the insurance code. East Underw 55:30 Je 18 '54

29 changes in Texas insurance laws suggested. Nat Underw 58:13 Je 3 '54; Same abr. East Underw 55:16 Je 11 '54; Same abr. Weekly Underw 170:1450 Je 12 '54

Unlimited number of Lloyds attorneys-in-fact permitted under law. Weekly Underw 170:698 Mr 20 '54; Same abr. East Underw 55:31 Mr 26 '54

Virginia

Virginia upholds law of retaliatory deposits. Nat Underw 58:39 Mr 25 '54

West Virginia

Countersignature trends menace to overhead writing principle; abstracts. F. R. Bell. East Underw 54:19 Ag 14 '53; Nat Underw 57:1+ Ag 13 '53; Discussion. D. S. Butler. 57:16 Ag 27 '53

West Virginia commissioner plans new insurance laws. J. Gillooly. Weekly Underw 171:386+ Ag 21 '54

INSURANCE lawyers
See also
National association of claimants' compensation attorneys

INSURANCE managers

Close liaison and forthright communication between buyer and underwriter urged. H. T. Blood. Weekly Underw 169:1320-1 N 28 '53; Same. East Underw 54:42 N 20 '53; Same cond. Nat Underw 57:23-4 N 19 '53

Eternal vigilance price of adequate program in insurance administration. V. S. Brennan. East Underw 54:42 N 20 '53; Same. Weekly Underw 169:1316+ N 28 '53

Insurance manager's job requires wide knowledge. J. M. Cooper. Weekly Underw 170:1357+ My 29 '54

Insurance manager's job to protect company assets. E. M. Wegman. Weekly Underw 169:1224, 1323 N 21-28 '53; Same abr. East Underw 54:34 N 27 '53

Job of corporate insurance manager evaluated. H. P. Stellwagen. East Underw 55:29 My 28 '54; Same. Weekly Underw 170:1357 My 29 '54

Part of manager's duty is prevention of loss; Daystrom, inc., Elizabeth. H. Morgenthaler. East Underw 54:30 N 27 '53; Same. Weekly Underw 169:1322 N 28 '53

INSURANCE museums
See also
Lincoln national life foundation

INSURANCE policyholders' association

National policyholder federation is formed. Nat Underw 58:28 F 18 '54

INSURANCE research

Insurance research; American association of university teachers of insurance meeting, Washington. Nat Underw (Life ed) 58:1+ Ja 1 '54; Same abr. Nat Underw 57:2 D 31 '53

INSURANCE society of New York

New York insurance school has 150 professors. East Underw 55:23 F 12 '54

N.Y. insurance school makes 1953-54 schedule. East Underw 54:18 Ag 7 '53

INSURANCE standards convention

New organization to police military risks. East Underw 55:12 Ja 8 '54

Texas insurer group has plan to police sales on military installations. Nat Underw (Life ed) 58:4 Ja 8 '54

INSURANCE surveys, Agents'. See Insurance agents—Service

INSURANCE trusts

Business insurance trusts. Banking 46:58-9 Ja '54

Funded life trust of nonresident alien; Chase national bank of the city of New York; ancillary executor v. commissioner. F. L. Morton. Spectator 161:44-7 S '53

Gifts, legacies and trusts. J. A. Appleman. Spectator 162:70+ S '54

Life insurance trusts. E. S. MacNeill. Banking 46:72-3 D '53

New trust package; life insurance trust; living trust in a single instrument. N. F. Dacey. Trusts & Estates 92:624-5 S '53

Use of trusts in business insurance discussed at New York CLU conference. Nat Underw (Life ed) 58:4, 16-18 F 12 '54

INSURANCE women

Federation of New York insurance women's clubs 11th annual meeting, Auburn, April 23-25. East Underw 55:24 My 7 '54

Federation of New York insurance women's clubs 11th annual midyear meeting, Albany. East Underw 54:20 O 30 '53
See also
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INSUROR (term)

Leave insuror use to states, as mark of agent distinction. Nat Underw 58:49 O 7 '54

INTAKES

New type river intake. A. R. Todd. il diags Water & Sewage Works 101:108-9 Mr '54; Same cond. Pub Works 85:81 F '54

River intake for industrial water supply; to tap flood flows only. diag Eng N 151:45 N 19 '53

Water intake crib is lonely island. A. Holton. il Water & Sewage Works 101:264-5 Je '54

Water intake for steel company built to withstand Monongahela River floods. C. W. Granacher. il plans diag Civil Eng 23:528-9 Ag '53

Water supply for steel plants. R. Nebolsine. flow diags il map plans diags Iron & Steel Eng 31:78-88; Discussion. 88 Ap '54

White Pine's water intake. E. I. Brown and others. il diag Eng & Min J 154:84-7 N '53

INTEGRAL equations

Integral equation in the supersonic oscillating wing theory. T. Y. Li and H. J. Stewart. bibliog J Aeronautical Sci 20:724-6 O '53

Integral equations of quantized field theory. H. S. Green. bibliog Phys R 95:548-56 Jl 15 '54

Integrals and integral equations in linearized wing theory. H. Lomax and others. bibliog diags U S Nat Advisory Com for Aeronautics 1951:1267-300 '52

Solution of Heitler's integral equation by iteration method. S. N. Biswas. bibliog Phys R 94:1767-72 Je 15 '54

INTEGRALS

Integrals and integral equations in linearized wing theory. H. Lomax and others. bibliog diag U S Nat Advisory Com for Aeronautics 1951:1267-300 '52

INTEGRALS—*Continued*
Particular integrals of the Prandtl-Busemann iteration equations for the flow of a compressible fluid. C. Kaplan. U S Nat Advisory Com for Aeronautics 1951:909-14 '52
Tabulation of an integral arising in the theory of cooperative phenomena. M. Tikson. J Res Nat Bur Stand 50:177-8 Mr '53

INTEGRATORS
Auroral and night sky exposure register. A. V. Jones and H. Gush. diags R Sci Instr 25:928 S '54
General Electric integrating instruments. il Blast F & Steel Pl 42:564 My '54
High speed product integrator. I. Cederbaum. R Sci Instr 24:1072-3 N '53
High speed response in electro-mechanical integrator. il diag Product Eng 24:240 Je '53
Integrating instruments for simplified quality-control measurements; abstract. D. M. Longenecker. il Elec Eng 72:966 N '53
Ion current integrator. R. Littauer. diags R Sci Instr 25:148-52 F '54
Precision current integrator of medium sensitivity. I. A. D. Lewis and B. Collinge. diags R Sci Instr 24:1113-15 D '53
Survey of integrated data-conversion systems. F. K. Williams and M. L. Klein. diags Instruments & Automation 27:1460-2 S '54
See also
Flow integrator
Voltage integrator

INTELLECTUAL cooperation
Two barrier phenomena; progress of American physics impeded by United States visa and passport restrictions. J. H. Van Vleck. Science 118:311-13 S 18 '53

INTELLIGENCE
Age changes in mental abilities. J. E. Birren. J Bsns 27:156-63 bibliog(37 titles, p 162-3) Ap '54

INTER-AMERICAN affairs, Institute of. See Institute of Inter-American affairs

INTER-AMERICAN highway. See Pan American highway

INTER-AMERICAN press association
Directors' semi-annual meeting, Montego Bay, Jamaica, March 28-29. Ed & Pub 86:11+ Ap 4 '53
Worried journalists in the Americas. Economist 169:341 O 31 '53

INTERCHANGE of freight cars. See Freight cars—Interchange

INTERCHANGEABLE mechanism
Air tools assembled from interchangeable units. il diag Machine Design 25:224-5 D '53

INTERCOMMUNICATING systems
Communication system speeds parking. il Arch Rec 116:205 Ag '54
Cost data by intercom. F. D. Shaw. il Factory Management 112:129 Mr '54
Divers' intercommunication equipment. Engineering 176:555 O 30 '53
Flexible tv studio intercom system. R. D. Chipp and R. F. Bigwood. plan diags Tele-Tech 12:79-81+ O '53
Survey of communication equipment. il Arch Rec 116:207+ Ag '54
Talk-a-phone intercommunications system. il Blast F & Steel Pl 42:1092 S '54
Teleprinter installation for hotel room service. il diag Elec Com 30:171-3 S '53
See also
Factory communication
Radio telephone in factories

INTERCONNECTION of power systems. See Electric plants—Interconnection

INTERESSEN gemeinschaft farbenindustrie aktiengesellschaft
IG Farben decartelization complete. Chem & Eng N 31:2310-12 Je 1 '53
IG Farben successors publish first annual report. Chem & Eng N 31:4116-18 O 5 '53
Is the IG-Farben problem solved? Chem Age (Lond) 70:1147-8+ My 22 '54
Security I like best; I. G. Farbenindustrie common stock. M. E. Oppenheimer. Comm & Fin Chr 178:1522 O 22 '53

INTEREST
Bank rates on business loans; average of rates charged on short-term loans to business by banks in selected cities; annual averages, 1945-1953 and quarterly, 1953. Fed Res Bul 40:59 Ja '54 [cont monthly]
Don't be fooled by interest rates. W. H. Buell. Chem Eng 61:183-6 My '54
Forecast of interest rates in 1954; Canada and U.S. J. R. Oborne. Comm & Fin Chr 178:1739 N 5 '53
Forecasting interest rates. R. I. Robinson. J Bsns 27:87-100 Ja '54
Look for lower interest rates! R. Rodgers. Comm & Fin Chr 178:1619+ O 29 '53
Money and interest rates, 1949-1952. Survey of Cur Bsns 1953 Sup p82 [supplemented in monthly numbers]
Open market money rates in New York city, 1951-1953 average, monthly Dec. 1952-Dec. 1953 and weekly Nov. 28-Dec. 26, 1953. Fed Res Bul 40:59 Ja '54 [cont monthly]
Open market rates; Canada, United Kingdom, France, Netherlands, Sweden, Switzerland; yearly Oct. 1943-Oct. 1952, monthly Nov. 1952-Oct. 1953. Fed Res Bul 40:109 Ja '54 [cont monthly]
Outlook for interest rates. M. Nadler. Comm & Fin Chr 178:1521+ O 22 '53
Outlook for interest rates. R. L. Reierson. Comm & Fin Chr 178:1230+ O 1 '53
Outlook for interest rates and bond prices; outlook for general business. G. T. Conklin, jr. Comm & Fin Chr 178:2529+ D 24 '53
Prospects for interest rates and money market in 1954. R. L. Reierson. Comm & Fin Chr 178:2265 D 10 '53
REA interest rates to remain low. A. Nelsen. Pub Util 52:783-4 N 19 '53
Savings and interest rates. G. M. Humphrey. Comm & Fin Chr 178:437+ Ag 6 '53
Why U.S. cut the interest rate. Bsns W p43-4+ O 3 '53

INTERFACES
Characteristics of internal solitary waves. G. H. Keulegan. diag J Res Nat Bur Stand 51:133-40 S '53
Determination of interfacial area in unstable emulsions by light transmission. G. E. Langlois and others. diags R Sci Instr 25:360-3 Ap '54
Double activators in oxide cathode base alloys. A. Eisenstein and others. bibliog J Ap Phys 24:631-2 My '53
Flotation theory; molecular interactions between frothers and collectors at solid-liquid-air interfaces. J. Leja and J. H. Schulman. bibliog(30 ref) diags Min Eng 6:Trans 221-8 F '54
Heat transfer measurements at sodium-stainless steel interface. J. W. Moyer and W. A. Riemen. diags J Ap Phys 25:400-2 Mr '54
Interface extension versus upper limiting time-mean energy-release rates of constant-pressure steady-state combustion process. W. J. Wohlenberg. diags A S M E Trans 76:679-88 My '54
Interface reactions between glazes and the crystal phases in a high-talc tile body. A. C. Perricone and R. L. Stone. bibliog il Am Cer Soc J 37:33-8 F 1 '54
Interfacial resistance; gas absorption in falling liquid films. R. E. Emmert and R. L. Pigford. bibliog diags Chem Eng Prog 50:87-93 F '54
Metal-ceramic interactions; absolute measurement of metal-ceramic interfacial energy and the interfacial adsorption of silicon from iron-silicon alloys. W. D. Kingery. bibliog diags Am Cer Soc J 37:42-5 F 1 '54
Metal-ceramic interactions; metal-oxide interfacial reactions at elevated temperatures. G. Economos and W. D. Kingery. bibliog Am Cer Soc J 36:403-9 D 1 '53
Molecular interactions at the solid-liquid interface, with special reference to emulsions stabilised with solid particles. J. H. Schulman. Chem Age (Lond) 69:1327 D 26 '53
New interface detector. Oil & Gas J 52:138 O 5 '53
Paper chromatography of chloroplast pigments; sorption at a liquid-liquid interface. H. H. Strain. bibliog diags J Phys Chem 57:638-40 O '53
Radioactive tracers for making interfaces. D. E. Hull and B. A. Fries. il Pet Eng (Ref annual) 25:D 19+ Jl 15 '53
Relation between roughness of interface and adherence of porcelain enamel to steel. J. C. Richmond and others. bibliog il diag Am Cer Soc J 36:410-16 D 1 '53
Simple method for measuring interface impedance. A. van der Ziel. diag J Ap Phys 24:496 Ap '53

INTERFACES—*Continued*
- Stability of fluid flows with spherical symmetry. M. S. Plesset. bibliog J Ap Phys 25:96-8 Ja '54
- Use of calomel half cells to measure Donnan potentials. K. L. Babcock and R. Overstreet. Science 117:686-7 Je 19 '53

INTERFACIAL tension
- Interfacial activities and porphyrin contents of petroleum extracts. H. N. Dunning, J. W. Moore and M. O. Denekas. bibliog Ind & Eng Chem 45:1759-65 Ag '53

INTERFERENCE (light)
- Controllable interference-type optical filter. R. Blythe. il Opt Soc Am J 44:336-9 Ap '54
- Electronic location of interference fringes. J. Peters and G. Stroke. il diags Opt Soc Am J 43:668-72 Ag '53
- Index of refraction of germanium measured by an interference method. D. H. Rank and others. bibliog diags Opt Soc Am J 44:13-16 Ja '54
- Interference measurements in the spectrum of argon I. K. Burns and K. B. Adams. bibliog Opt Soc Am J 43:1020-4 N '53

INTERFERENCE, Radio. See Radio communication—Interference

INTERFEROMETERS
- Adjustment of Mach-Zehnder interferometer for white-light fringes. R. J. Clark and others. il Opt Soc Am J 43:408-9 My '53
- Characteristics of the series interferometer. D. Post. il diags Opt Soc Am J 44:243-9 Mr '54
- Chrono-interferometer for measuring gas density during transient flows. C. W. Curtis and others. il diags R Sci Instr 25:679-82 Jl '54
- Concerning the use of the Fabry-Perot interferometer for wave-number measurement in the infrared. J. H. Jaffe. diags Opt Soc Am J 43:1170-3 D '53
- Electron interferometry. L. Marton. bibliog diags Science 118:470-4 O 23 '53
- Electronic fringe interpolator for an optical interferometer. R. D. Huntoon and others. il diags Opt Soc Am J 44:264-9 Ap '54
- Filament surface investigation by a simple interferometric method with particular reference to nylon filaments. S. C. Simmens. il diags Textile Inst J Trans 45:T569-74 Jl '54
- Flatness testing. il Chem Age (Lond) 68:964 Je 27 '53
- Fringe spacing changes in accurate measurements of interferometer fringe shifts. B. M. Leadon and F. D. Werner. R Sci Instr 25:923-4 S '54
- In-line interferometer. J. B. Saunders. diag Opt Soc Am J 44:241-2 Mr '54
- Interference measuring; accurate within $\frac{1}{10,000,000}$ inch. G. Webber. il diags Am Mach 97:121-4 N 23 '53
- Interferometer. J. G. Malik and others. bibliog(80 ref) il diags J Chem Educ 30:437-41 S '53
- Interferometer for examining polished surfaces. R. E. Sugg. il diags Mech Eng 75:629-31 Ag '53; Discussion. 76:109-10 Ja '54
- Interferometer for the measurement of sedimentation in a centrifuge. J. W. Beams and others. bibliog diags R Sci Instr 25:295-6 Mr '54
- Interferometric study of the boundary layer on a turbine nozzle blade. C. R. Faulders. bibliog il diags A S M E Trans 76:61-6; Discussion. 67 Ja '54
- Method for crossing a Fabry-Perot etalon with a Rowland circle spectrograph. R. G. Lacount. il diag Opt Soc Am J 44:35-6 Ja '54
- Microwave Fabry-Perot interferometer. J. O. Artman. bibliog il diags R Sci Instr 24:873-4+ S '53
- Modified Michelson refractometer. P. G. Guest and W. M. Simmons. diags J Sci Instr 30:361-2 O '53
- National physical laboratory interferometer. D. C. Barnes and M. J. Puttock. il diags Engineer 196:763-6 D 11 '53; Same. Engineering 176:757-9 D 11 '53
- Optical corrosion studies. il Product Eng 24:205 Jl '53
- Parallel plate interferometer for wave number calibration of infrared spectrophotometers. H. D. Polster. Opt Soc Am J 44:503 Je '54
- Positive method for locating the zero-order fringe in interferograms produced with filtered light. H. W. Wedaa and E. W. Price. il diag J Aeronautical Sci 20:506 Jl '53
- Refinements in the preparation and theory of multilayer films. J. M. Stone. bibliog Opt Soc Am J 43:927-8 O '53
- Selection of the separation of the plates of the Fabry-Perot interferometer. J. Blaise and others. diag Opt Soc Am J 44:253-4 Mr '54
- Semi-automatic electrical manometer designed to calibrate a Mach-Zehnder interferometer system for the recording of transient pressure changes. T. F. W. Embleton. diag R Sci Instr 25:246-7 Mr '54
- Sensitive corrosion measurements with an interferometer. Franklin Inst J 256:72-3 Jl '53; Same. Glass Ind 35:82+ F '54; Same. Mech Eng 75:577-8 Jl '53; Same. Chem Eng 60:314 O '53
- Short history of spectroscopy; theory of the interferometer. T. W. Chalmers. diags Engineer 196:290-1 S 4 '53
- Slow motion adjustment for horizontal interferometer mirrors. J. W. Gates. diag J Sci Instr 30:484-5 D '53
- Spectrograph unit for use with the N.P.L. gauge interferometer. C. F. Bruce and V. R. Findlay. il diags J Sci Instr 30:297-9 S '53
- Wavelength or length measurement by reversible fringe counting. E. R. Peck and S. W. Obetz. diags Opt Soc Am J 43:505-9 Je '53

INTERFEROMETRY
- Bidirectional electronic counter for use in optical interferometry. F. H. Branin, jr. bibliog(27 ref) diags Opt Soc Am J 43:839-48 O '53
- How to use micro-interferometry as a new chemical engineering tool. R. E. Sugg. bibliog il diag Chem Eng 61:216-17 Mr '54
- Interferometric studies of supersonic flows about truncated cones. J. H. Giese and V. E. Bergdolt. bibliog il diags J Ap Phys 24:1389-96 N '53
- Interferometric wavelength measurement in the infrared by the method of exact orders; precision measurement of the index of refraction of air at 1.65μ. D. H. Rank and others. diag Opt Soc Am J 43:952-6 N '53
- Micro-reference flat for multiple beam interferometry. S. Tolansky and M. Omar. il diag J Sci Instr 30:337-8 S '53
- Multiple-beam fringes of equal chromatic order. W. F. Koehler and A. Eberstein. bibliog il diags Opt Soc Am J 43:738-49 S '53
- New method in optical interferometry. K. M. Baird. diag Opt Soc Am J 44:11-13 Ja '54
- Rapid interferometric analysis of germane-hydrogen mixtures. M. Green and P. H. Robinson. diag Anal Chem 25:1913-14 D '53
- Selection of optimal spacers in Perot-Fabry interferometry. G. V. Deverall and others. Opt Soc Am J 43:673-80 Ag '53
- Thin film interferometry as an aid in the examination of fibre topography. A. Skertchly. Textile Inst J Trans 45:T78 Ja '54
- Use of multilayer films for surface topography interferometry. J. A. Belk and others. bibliog il Opt Soc Am J 44:5-10 Ja '54
- Very accurate measurements of fringe shifts in an optical interferometer study of gas flow. E. H. Winkler. R Sci Instr 24:1067-8 N '53

INTERIOR, Department of. See United States—Interior, Department of

INTERIOR decoration
- Carnegie international center; interior design by a consultant. il plans diags Arch Rec 115:126-31 Ja '54
- Interior refurbishing; a catalogue of screening ideas for dividing space and masking dated details. il Arch Forum 100:172-3 My '54

See also

Color in house decoration
Color in office decoration
House decoration

INTERIOR walls. See Walls, Interior

INTERLINGUA. See Languages, Universal

INTERLOCKING devices

Switches and the safety interlock. A. L. Riche. il Safety Maint & Prod 106:13+ N '53

INTERLOCKING signals. See Railroads—Signals

INTERMETALLIC compounds

Neptunium-aluminum intermetallic compounds. O. J. C. Runnalls. il J Metals 5: Trans 1460-2 N '53

Semiconducting intermetallic compounds. R. G. Breckenridge. il Tele-Tech 12:86+ N '53

INTERMOLECULAR potential. See Molecules

INTERNAL combustion engines

British internal combustion engine research association. diag Engineer 196:534-5 O 23 '53

Engine metals and engine wear; supplement to 1948 edition of Metals handbook. il diags Metal Prog 66:91-6 Jl 15 '54

Engine research; British internal combustion engine research association. il diags Automobile Eng 44:115-21 Mr '54

Get acquainted with your chain-saw motor. N. T. Adair. Pulp & Pa of Can 55:157+ My '54

Gudgeon pin design. il diags Automobile Eng 44:251-5 Je '54

How small engines are being standardized for the armed forces. R. W. Beal and R. F. Dennis. il diags Automotive Ind 111: 48-51+ S 15 '54

Internal-combustion engine research. diag Engineering 176:607 N 6 '53

Villiers 1·1-h.p. four-stroke petrol engine. il Engineering 177:26 Ja 1 '54

See also

Airplane engines
Automobile engines
Cylinders (engines, etc.)
Diesel engines
Gas engines
Gas turbines
Locomotives, Diesel
Motor boat engines, Outboard
Motor bus engines
Motor cars (railroad)
Motor cycle engines
Motor truck engines

Air supply

Precooling engine combustion air. W. R. Crooks. diag Oil & Gas J 52:151 S 14; 141 S 28 '53

Cold weather operation

Now's the time to winterize! map World Oil 137:120 N '53

Combustion research

Acetylene a factor in autoignition. Pet Processing 8:1907-9 D '53

Automotive combustion at the National bureau of standards. Mech Eng 75:908-9 N '53

Combustion in engines and combustion kinetics; symposium abstracts. Chem & Eng N 32:3610+ S 13 '54

Combustion of hydrogen as related to knock. W. F. Anzilotti and others. bibliog diags Ind & Eng Chem 46:1314-18 Je '54

Effect of preflame oxidation reactions on engine knock. C. Walcutt, J. M. Mason and E. B. Rifkin. bibliog diags Ind & Eng Chem 46:1029-34 My '54

Effects of fuel additives on the precombustion reactions of *n*-heptane. A. O. Melby. Inst Pet J 38:965-73 D '52

Effects of halocarbons on engine performance. F. G. Rounds and J. D. Caplan. bibliog il Ind & Eng Chem 46:1677-84 Ag '54

Electronic gating knockmeter promotes combustion studies in full-scale engines. M. M. Adams. il diags Pet Eng 25:C40+ N '53; Excerpt. Oil & Gas J 52:95-6 Ja 4 '54

High-speed photographic studies of knocking combustion. C. D. Miller. il diags U S Nat Advisory Com for Aeronautics 1951: 455-99 bibliog(72 titles, p498-9) '52

Investigation of flame temperatures in a single-cylinder spark-ignition engine. J. H. Potter and R. B. Dillaway. bibliog il diags A S M E Trans 75:1311-21 O '53

New light on knock; recent Bureau of standards research. Oil & Gas J 52:76-7 Ag 17 '53

Preflame oxidation of hydrocarbons in a motored engine. A. J. Pahnke, P. M. Cohen and B. M. Sturgis. bibliog Ind & Eng Chem 46:1024-9 My '54

Cooling

Cooling rig engines by boiling heat transfer. O. B. Freeman. plans Pet Eng 25: B 108+ O '53

Hydraulic system drives cooling fans. flow diag il World Oil 137:219+ S '53

Vapor-phase cooling. W. L. Giezentanner. Am Pet Inst Proc 33(4):54-7 '53; Same. World Oil 137:182+ Jl '53

Deposits

Diagnosis of engine deposit problems. J. Hughes and C. R. Major. Inst Pet J 39: 513-18 Ag '53

Mechanism of combustion chamber deposit formation with leaded fuels. W. E. Newby and L. F. Dumont. bibliog diag Ind & Eng Chem 45:1336-42 Je '53

Tetraethyl radiolead studies of combustion chamber deposit formation. H. P. Landerl and B. M. Sturgis. il Ind & Eng Chem 45: 1744-8 Ag '53

Detonation

Combustion of hydrogen as related to knock. W. F. Anzilotti and others. bibliog diags Ind & Eng Chem 46:1314-18 Je '54

Effect of preflame oxidation reactions on engine knock. C. Walcutt, J. M. Mason and E. B. Rifkin. bibliog diags Ind & Eng Chem 46:1029-34 My '54

Physical nature of knock. B. N. Cole. diags Engineering 177:111-15 Ja 22 '54

Exhaust

Acoustic apparatus for determination of mixture ratio by analysis of engine exhaust gas. E. F. Weller. il diags Anal Chem 26: 488-91 Mr '54

Conditioning engine exhaust gas for injection into oil reservoirs. J. N. Breston and others. bibliog flow sheet il diag Am Pet Inst Proc 33(4):41-53 '53

Conditioning engine exhaust gases for repressuring. J. N. Breston. flow sheet il World Oil 137:224+ S '53

No indoor exhaust woes; replacing lift truck engine mufflers with Oxycat units. il Steel 133:151+ S 21 '53

Sweetens noxious exhaust gas; catalytic fume killer. il Food Eng 25:95+ D '53

You can use gasoline trucks indoors, too! il Safety Maint & Prod 106:43 N '53

Fuel

Effects of fuel additives on the precombustion reactions of *n*-heptane. A. O. Melby. Inst Pet J 38:965-73 D '52

Mechanism of combustion chamber deposit formation with leaded fuels. W. E. Newby and L. F. Dumont. bibliog diag Ind & Eng Chem 45:1336-42 Je '53

Your engine can be cured of acid indigestion. W. G. Nostrand. il diags Pet Eng 25:D 12+ D '53

Ignition devices

Ignition interference with television reception. A. H. Ball and W. Nethercot. Inst Mech Eng Proc (Auto div pt 2):19-26; Discussion. il diag 26-34 '52-53

Lubrication

Development of an inexpensive engine test for examining the bearing corrosion and detergency aspects of additive lubricating oils. C. O. R. Bell. 4pls Inst Pet J 39:638-49; Discussion. 650-75 S '53

Evaluation of engine lubricating oils. N. Kendall. 2pls diags Inst Pet J 39:26-50 Ja '53

Evaluation of h.d. oils by means of small petrol engines. G. H. J. Simmons. Inst Pet J 39:623-31; Discussion. 650-75 S '53

Many tests show qualities of engine lubricating oils. W. A. Gruse. il Pet Eng 25: C23-4+ D '53; 26:C9-10+ Ja '54

Symposium on engine testing of lubricating oils. bibliog 5pls Inst Pet J 39:501-80 Ag '53

Symposium on examination of used lubricating oils. J. B. Matthews and others. bibliog 6pls Inst Pet J 39:429-75; Discussion. 476-86 Jl '53

Testing of i.c. engine lubricating oils by the Blogro engine under spark and compression ignition conditions. R. J. S. Perry. 4pls diag Inst Pet J 39:632-7; Discussion. 650-75 S '53

INTERNAL combustion engines—*Continued*

Maintenance and repair

Engine and compressor maintenance. R. S. Ridgway. il Pet Refiner 33:110-15 Ja '54

It's cheaper to salvage cylinders; wire inserts perform an inexpensive service after thread damage. Steel 133:110 S 14 '53

What should be done to protect engines? J. A. Boatman. il World Oil 137:122+ N '53

Manufacture

Chromium plating die-cast aluminum engine cylinders. F. M. Burt. il plan Metal Finishing 51:65-9 N '53

Heat treating facilities provide versatility, rigid control; Continental motors corp. W. G. Patton. il Iron Age 172:106-8 O 29 '53

Use of shell cores in casting air-cooled engines. J. L. Schmieder. il Foundry 81: 114-17 D '53

Scavenging

Theory of sudden enlargements applied to the poppet exhaust-valve, with special reference to exhaust-pulse scavenging. B. N. Cole and B. Mills. bibliog diags Inst Mech Eng Proc (B) 1B no 8:364-77; Discussion. 377-8 '52-53

Wave action following the sudden release of air through an engine port system. F. J. Wallace and R. W. S. Mitchell. bibliog diags Inst Mech Eng Proc (B) 1B no 8:343-56; Discussion. 356-63 '52-53

Specifications

1954 automotive gasoline engines; tabulations. Automotive Ind 110:274-85 Mr 15 '54

1954 small gasoline engines; tabulations. Automotive Ind 110:294-5 Mr 15 '54

Starting

Hydraulic starter eliminates battery. il Eng N 151:146 Jl 30 '53

Hydraulic system whirs into engine starting picture. il Steel 133:65 Jl 6 '53

Tips on starting gasoline standby engines. F. E. Rotenberry. Elec World 140:174+ S 21 '53

Statistics

Internal combustion engine production, by operating data, 1951-1952; tabulations. Automotive Ind 110:292-3 Mr 15 '54

Internal combustion engine production; tabulations. Automotive Ind 110:284 Mr 15 '54

1952 engine production by hp and cu. in.; tabulations. Automotive Ind 110:285 Mr 15 '54

Superchargers

Supercharged gas engine. il diags Engineer 196:766-7 D 11 '53; Engineering 176:748-9 D 11 '53; Elec J 151:1939-40 D 11 '53

See also

Diesel engines—Superchargers

Valves

Theory of sudden enlargements applied to the poppet exhaust-valve, with special reference to exhaust-pulse scavenging. B. N. Cole and B. Mills. bibliog diags Inst Mech Eng Proc (B) 1B no 8:364-77; Discusssion. 377-8 '52-53

Valve-gear fundamentals for the large-engine designer. J. A. Newton and C. H. Allen. diags A S M E Trans 76:137-48; Discussion. 148-51 F '54

INTERNAL combustion engines, Marine

See also

Diesel engines, Marine

Motor boat engines, Outboard

Motor ships

INTERNAL conversion. See Gamma rays

INTERNAL friction. See Friction, Internal

INTERNAL revenue

See also

Corporations—Taxation

Excise tax

Income tax

Inheritance tax

INTERNAL revenue, Bureau of. See United States—Internal revenue, Bureau of

INTERNATIONAL abstracting board

International abstracting board will encompass chemistry. Chem & Eng N 32:257 Ja 18 '54

INTERNATIONAL air line pilots association. See Air line pilots association, International

INTERNATIONAL air transport association

Annual meeting, Montreal. Aviation W 59: 95-6 O 19 '53

INTERNATIONAL association for the exchange of students for technical experience

Work of the I.A.E.S.T.E. J. Newby. Int Labour R 68:65-75 Jl '53

INTERNATIONAL association of accident and health underwriters

Annual convention, Chicago, June 28-July 1. East Underw 54:33-40+ Jl 10 '53; Nat Underw (Life ed) 57:1+ Jl 3 '53

Annual meeting, Omaha, June 12-16. East Underw 55:41-7 Je 18 '54; Nat Underw 58: 2+ Je 17 '54; Nat Underw (Life ed) 58:1+ Je 18 '54; Weekly Underw 170:1606 Je 26 '54

Annual report of chairman. J. G. Galloway. East Underw 55:44+ Je 18 '54

Board of directors meeting, Chicago, Sept. 25-26. Nat Underw 58:2 S 30 '54; Same. Nat Underw (Life ed) 58:8 O 1 '54

International Association had fine years; chief achievements. J. G. Galloway. Weekly Underw 169:5+ Jl 4 '53; Same abr. East Underw 54:34+ Jl 10 '53

INTERNATIONAL association of electrical leagues

Annual meeting, 18th, San Francisco, Aug. 5-8. Elec West 111:130-2 S '53

INTERNATIONAL association of gerontology

Research committee in the organization of the International biological and medical associations and their congresses. V. Korenchevsky. Science 118:361-2 S 25 '53

INTERNATIONAL association of hydraulic research

Joint meeting with American society of civil engineers Hydraulics division, 5th, Minneapolis. Eng N 151:25 S 10 '53

INTERNATIONAL association of insurance counsel

Annual convention, 26th, Quebec, June 29-July 1. Weekly Underw 169:90 Jl 11 '53

Annual meeting, 27th, White Sulphur Springs, July 8-10. Weekly Underw 171:134+ Jl 17 '54; East Underw 55:27 Jl 9 '54

INTERNATIONAL association of machinists

Labor hits at its own apathy. Bsns W p 138 Ag 29 '53

UAW, IAW, collaborate in mapping pay demand. Bsns W p 140 Ag 29 '53

INTERNATIONAL associations

1954 international reference handbook of services, organizations and international marketing information. J. L. Angel. 273p pa $6 World trade academy press, 11 W. 42d st, New York 36 '54

INTERNATIONAL bank for reconstruction and development

Chilean pulp, paper mills get IBRD loan. For Comm W 50:2 O 5 '53

Iceland gets two IBRD loans, European funds. For Comm W 50:4+ S 28 '53

International bank and fund meetings significant. A. W. May. Comm & Fin Chr 178: 909 S 10 '53

International bank; financial condition, Sept. 1952 and March, June and Sept. 1953. Fed Res Bul 40:104 Ja '54 [cont monthly]

IBRD grants loan for Colombian highways. For Comm W 50:18 O 12 '53

IBRD grants loan for development in Italy. For Comm W 50:6 O 19 '53

IBRD grants Nicaragua highway, power loans. For Comm W 50:5 S 21 '53

IBRD loans granted to South Africa. For Comm W 50:7 S 14 '53

IBRD makes loan to Brazil for power. For Comm W 50:5 Ag 10 '53; Same abr. Elec World News ed 140:24 S 14 '53

IBRD makes new loan to Bank of Turkey. For Comm W 50:6 O 5 '53

IBRD reports gains in third-quarter income. For Comm W 50:5 N 16 '53

IBRD reserves amount to $113.7 million. For Comm W 50:4 Ag 24 '53

International finance; highlights of annual joint meetings of world bank and fund. Nat City Bank p 115-18 O '53

Japan granted loans to develop power. For Comm W 50:5 N 9 '53

Loans to aid Panama agriculture. For Comm W 50:8 O 12 '53

INTERNATIONAL bank for reconstruction and development—*Continued*

Loans to Brazil will help railroad, power. For Comm W 51:5+ Ja 11 '54

More dollars for South Africa. Economist 168:661 S 5 '53

Net $10 million in six-month period. For Comm W 51:5 F 15 '54

$100,000,000 world bank bonds marketed. Comm & Fin Chr 179:176 Ja 14 '54

Swiss bank syndicate offers IBRD bonds. For Comm W 50:5 N 23 '53

World bank and planned investment. Economist 168:718-19 S 12 '53

World bank creates market for U.S. construction goods. Eng N 151:58+ S 17 '53

World bank loans for Japan. Economist 169:272 O 24 '53

World bank reports profit gain for fiscal year ended June 30, 1953. Comm & Fin Chr 178:637 Ag 20 '53

INTERNATIONAL banks. See International bank for reconstruction and development

INTERNATIONAL barter. See Barter, International

INTERNATIONAL brotherhood of teamsters, chauffeurs, warehousemen and helpers of America

Annual wage gains ground in St Louis warehouse field. Bsns W p 167-8 D 19 '53

Big labor sets sights on oil marketing. il Nat Pet N 45:13-15 O 14 '53

Teamsters roll; bargaining rights victory at Montgomery Ward warehouse. Bsns W p 164+ O 24 '53

Teamsters set sights on stations. Nat Pet N 45:13 O 28 '53

Teamsters union and its head man. N. C. Rockwood. Rock Prod 57:39+ Jl '54

Teamsters' union is after blood; new groups being organized. N. C. Rockwood. Rock Prod 56:57+ N '53

Truck tieups in St Louis, Kansas City and New York. Bsns W p88 Ag 1 '53

INTERNATIONAL business machines corporation

How new decision limits stock dividends. W. Gates. Mag of Wall St 93:242-3+ N 28 '53

INTERNATIONAL cellucotton products company

Security I like best. T. R. Rankin. Comm & Fin Chr 178:1930+ N 19 '53

INTERNATIONAL chemical workers union

No haven for wildcatters; AFL chemical workers union begins tenth year. il Chem W 73:18+ Ag 29 '53

Outer calm, inner clamor. Chem W 75:12-13 Ag 28 '54

INTERNATIONAL civil aviation organization

ICAO fight; U.S. wants to limit goals. Aviation W 58:67-8 Je 29 '53

INTERNATIONAL claim association

Annual meeting, 44th, Bolton Landing, N.Y. Sept. 14-16. Weekly Underw 169:657+ S 19 '53

Annual meeting, 45th, Portsmouth, N.H. Sept. 13-15. East Underw 55:3-4 S 17 '54; Weekly Underw 171:743 S 25 '54

Officers; list. East Underw 55:4 S 17 '54

Review of 1953. E. J. Bohne. Weekly Underw 170:86-7+ Ja 2 '54

INTERNATIONAL commission of optics

Congress, 3d, Madrid, April 20-21. Opt Soc Am J 43:931-2 O '53

Congress, 3d, Madrid, April 20-21; minutes. Opt Soc Am J 43:1223-7 D '53

INTERNATIONAL committee for coal petrology

Meeting, 1st, Geleen, Holland, June 9-11. Science 118:315 S 18 '53

INTERNATIONAL confederation of free trade unions

International trade secretariats. M. J. Segal. Mo Labor R 76:372-80 Ap '53

INTERNATIONAL conference of parapsychological studies

Conference, 1st, Utrecht. Netherlands, July 30-August 5. Science 118:402 O 9 '53

INTERNATIONAL conference on electrodeposition and metal finishing

Conference, 4th; abstracts of papers. Metal Finishing 52:102-5 Je '54

INTERNATIONAL conferences

See also

Bermuda conference, 1953 (proposed)

Berlin, 1954

Berlin prospects. Economist 170:3-4 Ja 2 '54

High stakes in Germany. Economist 170:139-41 Ja 16 '54

Tête-à-tête on the atom. Economist 170:219 Ja 23 '54

Two thoughts for Berlin. Economist 170:219 Ja 23 '54

Washington, 1953

First item Germany. Economist 168:153-4 Jl 18 '53

INTERNATIONAL congress of industrial chemistry

Congress, 26th, Paris, June 18-29. Chem & Eng N 31:2858-60 Jl 13 '53

INTERNATIONAL congress of man-made textiles

Congress, 1st, Paris. Chem Age (Lond) 70:1303-7 Je 12 '54

INTERNATIONAL congress of pure and applied chemistry

Congress, Stockholm and Uppsala, July 29-August 7. Chem & Ind p862 Ag 15 '53

Congress, 13th, Stockholm, July 29-August 4. Chem & Eng N 31:3458-60+ Ag 24 '53

Meeting, 13th, Stockholm and Uppsala, July 29-August 7; program. Chem & Eng N 31:2701-7 Je 29 '53

INTERNATIONAL congress on glass

Congress, 3d, Venice, June 29-July 4. Am Cer Soc Bul 32:324-5, 347-8, 390-1 S 15-N 15 '53

INTERNATIONAL cooperation

Common employment market for the northern countries. B. Olsson. Int Labour R 68:364-74 O-N '53

See also

Aeronautics, Commercial—International aspects

United nations educational, scientific and cultural organization

World health organization

INTERNATIONAL dairy federation

International dairy congress, 13th, The Hague, June 22-26. Chem & Ind p740 Jl 18 '53

INTERNATIONAL drug standards, Committee on. See United States—International drug standards, Committee on

INTERNATIONAL exchanges, Literary and scientific. See Exchanges, Literary and scientific

INTERNATIONAL federation

See also

Atlantic union (proposed)

INTERNATIONAL federation of commercial travelers insurance organizations

Annual meeting, 54th, Jasper National Park, Alberta, Aug. 24-26. Weekly Underw 169:497 Ag 29 '53

Annual meeting, 55th, Swampscott. Weekly Underw 171:557+ S 11 '54

INTERNATIONAL federation of newspaper publishers and editors

Congress, 6th, Paris, May 19-22. Ed & Pub 86:38 My 30 '53

INTERNATIONAL federation of prestressing

Congress, 1st, London, Oct. 6-9. Engineering 176:490, 551 O 16, 30 '53

INTERNATIONAL finance. See Finance, International

INTERNATIONAL foundry congress

Congress, Paris, Sept. 21-26; with abstracts of papers. Foundry 81:106-9+ N; 125+ D '53

INTERNATIONAL house, New Orleans

International House marks ten years. il Manuf Rec 123:30-1 Mr '54

INTERNATIONAL labor conference

Conference, 36th, Geneva, June 4-25. Int Labour R 68:445-67 D '53

INTERNATIONAL labor organization

Effective application of international labour standards. E. A. Landy. Int Labour R 68:346-63 O-N '53

I.L.O. since the war. Int Labour R 67:109-55 F '53

ILO, threat or opportunity? G. P. Delaney. Harvard Bsns R 31:120-8 N '53

INTERNATIONAL labor organization—*Cont.*

Bibliography

Bibliography on the international labour organisation. 68p International labour office, Geneva '54

INTERNATIONAL labor standards. See Labor standards, International

INTERNATIONAL ladies' garment workers' union

Union health center

Union health center. il Ind Med 22:488-97 O '53

INTERNATIONAL longshoremen's and warehousemen's union

Leftist union loves high-grade bonds; ILWU-PMA pension fund. Bsns W p 176-8 N 21 '53

Sailors march against ILWU. il Bsns W p 162-3 D 12 '53

INTERNATIONAL longshoremen's association

Cleanup-law strike shuts down New York waterfront. il Bsns W p30-1 D 5 '53

Is the White House shifting its labor policy? il Bsns W p 164-5 O 10 '53

Setback on the waterfront. Bsns W p75 D 26 '53

Warning to racketeers; get out. Bsns W p 142 Ag 15 '53

Waterfront and maritime developments. Mo Labor R 76:293-4 Mr '53

INTERNATIONAL management congress

Can the U.S. export its methods? Bsns W p 116 N 14 '53

INTERNATIONAL materials conference

Distribution of nickel discontinued by IMC. For Comm W 50:17 Ag 31 '53

IMC tungsten-molybdenum committee votes to dissolve. For Comm W 50:15 Ag 17 '53

Manganese-cobalt-nickel committee ends activities. For Comm W 50:20 O 12 '53

INTERNATIONAL monetary fund

Bigger IMF? Economist 168:805 S 19 '53

Coming; a showdown on money. Bsns W p 166+ S 19 '53

International bank and fund meetings significant. A. W. May. Comm & Fin Chr 178:909 S 10 '53

International finance; highlights of annual joint meetings of world bank and fund. Nat City Bank p 115-18 O '53

International fund; financial condition, Oct. 1952 and April, July and Oct. 1953 net currency transactions, Nov. 1952 and Sept.-Nov. 1953. Fed Res Bul 40:104 Ja '54 [cont monthly]

IMF and convertibility. Economist 170:186 Ja 16 '54

International monetary fund envisages convertibility; 8th annual report. Comm & Fin Chr 178:1030 S 17 '53

INTERNATIONAL news service

New picture services highlighted; annual report. Ed & Pub 86:134 Ap 25 '53

INTERNATIONAL nickel company of Canada

Three Canadian leaders. R. Colston. Mag of Wall St 93:441-2 Ja 9 '54

INTERNATIONAL nuclear engineering congress

Congress, 1st, Ann Arbor, Mich.; with abstracts of papers. J Metals 6:889-90 Ag '54

INTERNATIONAL press institute

Annual meeting, London. Ed & Pub 86:52 My 23 '53

INTERNATIONAL relations

Cloak and dagger. Economist 170:149 Ja 16 '54

Demagogy at Uno. Economist 168:611-12 S 5 '53

Diplomacy's left hand. Economist 168:366-7 Ag 8 '53

Invitation to Lugano. Economist 168:617 S 5 '53

Lessons from Mr Rhee. Economist 168:3-4 Jl 4 '53

Locarno on the Oder-Neisse. map Economist 168:238-40 Jl 25 '53

Mr Eden broadcasts; talk on international affairs. Economist 170:146 Ja 16 '54

No new line. Economist 168:429-30 Ag 15 '53

Peace offensive that might work. il Bsns W p27-8 D 12 '53

Security for Russia; proposals from the West. Economist 169:79-80 O 10 '53

See also

Aeronautics, Commercial—International aspects
Bermuda conference, 1953 (proposed)
Commercial treaties and agreements
North Atlantic treaty organization
Pacific pact (proposed)
Peace
Petroleum industry and trade—International aspects
United States—Economic relations

also subdivision Foreign relations under names of countries, e.g. Great Britain—Foreign relations; Russia—Foreign relations; United States—Foreign relations

INTERNATIONAL scientific film association

Annual meeting, 7th, London, Sept. 18-27. Chem & Ind p 1005 S 26 '53

INTERNATIONAL shoe company

Wage chronology. Mo Labor R 76:402-3 Ap '53

INTERNATIONAL society of sugar cane technologists

International conference, April 13-May 2. Chem & Ind p515 My 23 '53

INTERNATIONAL standards. See Standards, International

INTERNATIONAL telephone and telegraph corporation

Annual meeting and exhibits of products, Nutley, N.J. May 27. Elec Com 30:174-85 S '53

United States patents issued, January-April, 1953. Elec Com 30:255-7 S '53

United States patents issued May-July, 1953. diag Elec Com 30:338-41 D '53

INTERNATIONAL trade secretariats

International trade secretariats. M. J. Segal. Mo Labor R 76:372-80 Ap '53

INTERNATIONAL trusteeships

When is a dependency not? Economist 169:184+ O 17 '53

INTERNATIONAL typographical union

ITU officers oppose limit to fund power. Ed & Pub 86:11 F 28 '53

ITU ordered to cease demands for closed shop. Ed & Pub 86:7+ My 16 '53

INTERNATIONAL union of leather chemists' societies

Biennial meeting, 3d, Barcelona, Sept. 13-18; with abstracts of papers. Chem Age (Lond) 69:699-701 O 3 '53

INTERNATIONAL union of marine insurance

Advanced report on meeting, Scheveningen, Holland. East Underw 55:23 S 17 '54; Nat Underw 58:22 S 23 '54; Weekly Underw 171:643 S 18 '54

Annual conference, San Sebastian, Spain. Weekly Underw 169:808-10 O 3 '53

International marine insurance group doing lots of good work. Nat Underw 57:21 Ag 27 '53

INTERNATIONAL union of mine, mill and smelter workers

Cohesion in combat; a union besieged. Chem W 74:16-17 My 1 '54

Three mine-mill locals bolt back to CIO fold. M. A. Matzkin. Min Eng 6:139 F '54

INTERNATIONAL union of pure and applied chemistry

Meeting, 17th, Stockholm. Chem & Ind p 1056-7, 1100-1, 1135-6, 1170-1 Ag 28-S 18 '54

Meeting, 17th, Stockholm and Uppsala, July 29-August 7; program. Chem & Eng N 31:2701-7 Je 29 '53

Meeting, Stockholm and Uppsala, July 29-August 7. Chem & Ind p 1276-7 N 28 '53

Meeting, Stockholm, July 29-August 4. Chem & Eng N 31:3620-3 S 7 '53

Participation in IUPAC urged. Chem & Eng N 32:1060 Mr 15 '54

INTERNATIONAL wool textile organization

International wool textile organisation and the Textile institute. Textile Inst J 45:P553-62 S '54

INTERPLANETARY flight

Military and civilian rocket research. E. Burgess. bibliog Engineer 196:581-3 N 6 '53

Propellants for rockets and space ships. J. G. Tschinkel. il Chem & Eng N 32:2582-7 Je 28 '54

Rockets for reindeer. map Economist 169:975-7 D 26 '53

INTER-REGIONAL insurance conference
New organization for fire and allied lines. Nat Underw 58:1+ F 4 '54; East Underw 55:1+ F 5 '54; Weekly Underw 170:339 F 6 '54

INTERSTATE advertising managers' association
Annual meeting, Williamsport, May 15-16. Ed & Pub 86:15 My 23 '53

INTERSTATE bakeries corporation
Security I like best. L. S. Pulliam. Comm & Fin Chr 178:2182 D 3 '53

INTERSTATE commerce
Law banning interstate shipment of flammable wearing apparel shaping up in Congress. R. G. Gibbs. Chem & Eng N 31:2658+ Je 29 '53
See also
Carriers

INTERSTATE commerce commission
Government regulation of transportation. J. S. Burchmore. Am Pet Inst Proc 32(5):22-5 '52
Impact of the work of the Hoover commission. D. I. Mackie. Pub Util 54:455-61 S 30 '54
I.C.C. fears undercut regulation; 67th annual report. Ry Age 136:76-7 F 8 '54
I.C.C. proposes licensing fees. Ry Age 136:8-9 Mr 1 '54
I.C.C. said to lack power to make piggy-back rules. Ry Age News ed 136:10 F 15 '54

Bureau of locomotive inspection

Annual report. Ry Loco & Cars 128:63-5 Mr '54; Excerpts. Ry Age 136:17 Mr 8 '54

Bureau of safety

Safety bureau reviews fiscal '53. Ry Age 136:16-17 F 8 '54

Bureau of safety and service

I.C.C. consolidates three bureaus; new Bureau of safety and service. Ry Age 136:6 Mr 29 '54

INTERSTATE commission on the Potomac River basin
Four-way boon in river plans. Chem W 73:30+ S 26 '53

INTERSTATE compacts
Gas regulation by compact? S. H. Crosby. Pub Util 53:90-8, 161-8 Ja 21-F 4 '54
Ohio River Valley water sanitation compact. E. J. Cleary. Ind & Eng Chem 45:2656 D '53

INTERSTATE cooperation
See also
Interstate compacts

INTERSTATE oil compact commission
Winter meeting, Oklahoma City, Dec. 4-5. Oil & Gas J 52:85-6 D 14 '53

INTERSTELLAR space. See Space, Interstellar

INTERVIEWERS
Interviewer-appearance stereotypes as a possible source of bias. F. R. Skelly. J Marketing 19:74-5 Jl '54

INTERVIEWING
Court decree on the cheater problem. L. Andrews. J Marketing 18:167-9 O '53
Let's take the blinders off readership research. R. E. Baxter. Adv Agency 46:70-2 D '53
Plan to account for not-at-homes by combining weighting and callbacks. W. R. Simmons. J Marketing 19:42-53 Jl '54
See also
Employment management—Interviewing
Employment systems—Interviews

INTESTINES

Diseases

Science and public health research in Alaska; enteric diseases. F. P. Pauls. Pub Health Rep 68:531-3 My '53

INULIN
Occurrence of glucose residues in inulin. G. O. Aspinall and R. G. J. Telfer. bibliog Chem & Ind p490 My 16 '53

INVAR
New method for determining linear thermal expansion of invar geodetic surveying tapes. P. Hidnert and R. K. Kirby. bibliog il diag J Res Nat Bur Stand 50:179-85 Ap '53
Thermal expansion of invar tapes tested by electrical resistance. il Civil Eng 23:568 Ag '53; Same cond. diag Elec World 140:120+ O 5 '53

INVENTIONS
Case of the missing invention; alleged Russian inventions; abstract. W. A. Jones. Management R 43:497-8 Ag '54
Government-owned inventions are available in indexed form. Chem & Eng N 31:3384+ Ag 17 '53
Inventions face big initial risk. R. M. Lorz. Iron Age 173:74-5 My 13 '54
Inventions; see them on television; DuMont telecast of Big Idea program becomes showplace. T. Metaxas. il Iron Age 172:54 Jl 23 '53
Inventors! what's the idea? needs of special interest to the metals industries are listed. Steel 135:40-1 Ag 30 '54
See also
Patent laws and legislation
Patents

INVENTIONS, Employees'
Stimulating invention by engineers. R. H. MacCutcheon. Machine Design 26:125 Ja '54

INVENTORIES
Business inventories and manufacturers' sales, 1949-1952. Survey of Cur Bsns 1953 Sup p 16, 19-21 [supplemented in monthly numbers]
Business inventories; revised estimates, 1950-53 period; with tables. Survey of Cur Bsns 34:17-23 Ja '54
How Alabama mill men control maintenance and supplies. Textile World 104:90+ Jl '54
Inventories and the business situation in 1954. S. H. Nerlove. J Bsns 27:41-50 Ja '54
Keep your inventory carrying costs down. R. C. Hartigan and B. Grad. Mill & Factory 54:79-81 Ap '54
Measuring the business outlook; new orders, inventories, backlogs. H. Wingate. Mag of Wall St 93:656-7+ Mr 6 '54
Orders-inventories ratio as used for market forecasting; E. W. Axe & company study. Comm & Fin Chr 179:94 Ja 7 '54
Production and inventory control based on sales forecasts. A. T. Montgomery. il Mill & Factory 54:92-5 F '54
Streamlined inventory control. O. G. Wechmeyer. il Mill & Factory 54:106 F '54
Those inventories; their decline won't pull down the house. R. M. Bleiberg. Barron's 34:3+ Ja 25 '54
Why inventories? raft of reasons. R. K. Arthur. N A C A Bul 35:668-9 Ja '54
See also
Stores systems

Accounting

Avenues for inventory control analysis. J. H. Kempster and W. V. Clark. N A C A Bul 35:1406-15 Jl '54
Basic facts of LIFO. R. A. Peters. N A C A Bul 35:60-71 S '53
Calculation and use of price index numbers for LIFO inventories. N. Dalrymple. N A C A Bul 35:89-91 S '53
Case against LIFO as an inventory-pricing formula. M. Moonitz. J Account 95:682-90 Je '53
Case for LIFO; it realistically states income and is applicable to any industry. H. T. McAnly. J Account 95:691-700 Je '53
Control of materials and supplies in self-service storerooms. H. G. Avery. J Account 97:712-13 Je '54
Direct costing assists inventory control. A. C. Crane. N A C A Bul 35:910-11 Mr '54
Disclosure as to observing opening inventories is not required. J Account 95:600-1 My '53
Economy in staffing physical inventory. C. W. Lent. N A C A Bul 35:255-6 O '53
Electronic speed tally reduces time needed for inventory control. il Elec Eng 72:1134 D '53
Five practical problems solved by public accounting firms; discrepancies in acquired inventories. J. B. Fyffe. J Account 97:444-5 Ap '54
How inventory costs affect your process economics. H. E. Schweyer. Chem Eng 60:188-92 O '53

INVENTORIES—Accounting—*Continued*

How to make one-day easier. W. F. Beach. N A C A Bul 35:245-54 O '53

Internal control over inventories in manufacturing concerns. H. C. McGuigan. J Account 97:335-8 Mr '54

Inventory accounting for atomic energy process materials of the AEC. E. Hall. J Account 96:62-7 Jl '53

Inventory control and valuation. N A C A Bul 36:174-9 sec 3 S '54

Inventory control through budgeted turnover. C. H. Gleason. N A C A Bul 35:535-42 D '53

Inventory control through commodity standards. M. H. Osburn. N A C A Bul 35:521-34 D '53

Keeping the wholesale inventory under control. G. L. Ross. N A C A Bul 34:1013-20 Ap '53

Lowering retail inventory shortages through training. H. A. Tanzer. N A C A Bul 35:1131-7 My '54

On-the-spot calculation of retail inventory. S. W. Torey. N A C A Bul 35:256-8 O '53

Pre-process storage control of tanner's hides. F. C. Klarman. N A C A Bul 34:1478-9 Jl '53

Reasons why the accounting profession should encourage a broader utilization of LIFO. J. V. van Pelt, 3d. J Account 96:452-9 O '53

Shift of inventory accounting. J Account 95:719 Je '53

Should inventory and commitment control be a clerical or an executive function? C. C. Brown. N A C A Bul 35:550-1 D '53

Some practical aspects of planning and executing inventory verification. J. W. Thokey. J Account 97:195-200 F '54

Special conditions justify limited inventory observation. J Account 95:716 Je '53

Tabulating equipment for better inventory control. R. D. Pash. il Factory Management 111:110-12 D '53

To control inventory; prevent, regulate, eliminate. H. N. Bedford. N A C A Bul 35:737-50 F '54

Treatment of inventories in a quasi-reorganization. J Account 98:205-6 Ag '54

What costs shall be excluded from inventory values? J. L. Kavanagh. N A C A Bul 35:258-60 O '53; Discussion. G. H. Krueck, jr. 36:407 N '54

Credit aspects

1954 inventories; problem or opportunity? L. A. Benoist. il Bankers Mo 70:5-6+ N '53

Statistics

Expenditures in 1953; increase in business inventories. Fed Res Bul 39:1141-2 N '53

INVENTORIES, Retail. See Retail trade—Stock

INVENTORS

See also

Edison, Thomas Alva

INVENTORS council, National. See National inventors council

INVERTASE

*neo*Kestose; a trisaccharide formed from sucrose by yeast invertase. D. Gross, P. H. Blanchard and D. J. Bell. Chem Soc J p 1727-30 Je '54

INVESTMENT bankers association of America

Annual meeting, 42d, Hollywood, Fla. Nov. 29-Dec. 4. Comm & Fin Chr 178:2361+, 2379-85+ D 17 '53

Annual meeting, Hollywood, Fla. Burroughs Clearing House 38:10-11 Ja '54

Progress in 1953. E. T. Boles. Comm & Fin Chr 178:2380+ D 17 '53

INVESTMENT banking

Friendlier climate could lead to more prosperity for investment bankers. P. A. Johnston. Barron's 33:9 D 14 '53

Investigation and buying in investment banking. D. N. Schoales. Comm & Fin Chr 178:816+ S 3 '53

Medina throws out case against underwriters. Comm & Fin Chr 178:1125 S 24 '53

Mutual funds and the investment banker; report of IBA investment companies committee. Comm & Fin Chr 178:2396-8 D 17 '53

Price-fixing by syndicate upheld; obiter dictum opinion. H. R. Medina. Comm & Fin Chr 178:1530 O 22 '53

See also

Investment bankers association of America

INVESTMENT casting. See Lost wax process

INVESTMENT casting institute

Spring meeting, Cleveland, May 5-6. Foundry 82:178 Je '54

INVESTMENT companies

Investment company portfolio management. J. H. Humphrey, jr. Comm & Fin Chr 178:1015+ S 17 '53

See also

Investment trusts

National association of investment companies

INVESTMENT trusts

Bank stock popularity in investment fund field. Burroughs Clearing House 38:11 Ja '54

Bomb-proof investments and the securities outlook. E. L. Smith. Comm & Fin Chr 178:1433 O 15 '53

Changing trends in investment companies. G. Garbutt. Barron's 33:27-8 N 30 '53

Chemicals moving up strongly; with table, top ten mutual funds' holdings of industrial chemical common stocks; 1949, 1951, 1953. Chem W 74:16 Je 12 '54

Funds take cautious attitude toward market. H. A. Long. Comm & Fin Chr 178:1717+ N 5 '53

Funds use cash reserves to buy utilities. H. A. Long. Comm & Fin Chr 178:437+ Ag 6 '53

Guide to investment company history. S. W. Coleman. Comm & Fin Chr 178:1254+, 1361+ O 1, 8 '53

Investment trust picture in England and here. A. W. May. Comm & Fin Chr 178:817 S 3 '53

Mutual fund for New York savings banks. J. W. Lewis. Comm & Fin Chr 178:2154-5 D 3 '53

Mutual funds. R. R. Rich. Published in weekly Thursday numbers of Commercial and financial chronicle

Mutual funds and employee stock purchase. N. Belfer. Comm & Fin Chr 178:537+ Ag 13 '53

Mutuals' redemption minimized; Mutual Fund conference report. H. A. Long. Trusts & Estates 92:852-4 N '53

Operations of mutual funds analyzed; weaknesses explained. V. R. Goldberg. Nat Underw (Life ed) 58:5+ Ap 16 '54

Past fund records reveal shift in investor attitude. G. Garbutt. Barron's 33:32-3 D 7 '53

Picking right mutual fund demands as much savvy as playing the market. J. H. Wood. Nat Underw (Life ed) 58:5+ Ag 13 '54

Slump in mutual funds. J. C. Clifford. Mag of Wall St 93:681+ Mr 6 '54

Which investment fund to buy? H. Fahrner. Comm & Fin Chr 178:13 sec 2 O 8 '53; Discussion. 178:1530, 1858-9 O 22, N 12 '53

With the investor's investor. P. A. Johnston. Barron's 34:31+ Ja 4 '54 [cont weekly]

See also

Harvard endowment fund

Investors diversified services

Finance

First setback for the open-end funds. Bsns W p 113-14 O 31 '53

Index of mutual funds. H. A. Long. Trusts & Estates 93:36-7 Ja '54 [cont monthly]

Investing company assets reach record $5 billion; with data for 1940 through 1953. P. A. Johnston. Barron's 34:26 Ja 25 '54

Investment policies for 1954; appraisal by mutual funds and investment consultants. Trusts & Estates 93:34-5+ Ja '54

Mutual fund record; quarters ended June 30, 1953, and comparisons, 1943-1953; tables. Barron's 33:23-6 Ag 3 '53; Correction. 33:19 Ag 10 '53

Mutual fund record; quarters ended Sept. 30 and comparisons, 1943-1953; tables. Barron's 33:23-6 N 2 '53

INVESTMENT trusts—*Continued*

Insurance aspects

Farm Bureau's mutual fund plan causes a stir. Nat Underw (Life ed) 58:1+ Jl 9 '54

Group committee hits at companies writing life for mutual fund buyers; NALU position. Nat Underw (Life ed) Daily ed 58:22+ S 22 '54; Weekly Underw 171:807-8 O 2 '54

Life companies could top mutual funds by using equity annuity. R. B. Mitchell. Nat Underw (Life ed) 58:2 Ag 20 '54; Discussion. 58:5 S 3; 5+ S 17; 9 O 15 '54

Life underwriters association of New York city directors' investment fund action opposing underwriting by companies either on group or individual policy basis. Weekly Underw 171:146+ Jl 17 '54

More insurers may start selling mutual shares. H. K. Gutmann. Nat Underw (Life ed) Daily ed 58:8 S 24 '54

Mutual fund competition; spread of group-insured plans. R. B. Mitchell. Nat Underw (Life ed) 58:1+ My 21 '54

Mutual fund people, life group meet; joint committee is planned to take action on individual complaints of unfair competition. R. B. Mitchell. Nat Underw (Life ed) 58:1 Jl 30 '54

Mutual fund will insure its buyers on mandatory basis; Axe securities corp. of New York city. Nat Underw (Life ed) 58:1+ My 14 '54

Mutual funds-agents in joint committee to study common interests. East Underw 55:4 Ag 6 '54; Same. Weekly Underw 171:273+ Ag 7 '54

Mutual funds statement on insurance; editorial. Nat Underw (Life ed) 58:8 Jl 30 '54

Name 12-man joint committee of NALU and mutual funds. Nat Underw (Life ed) 58:2+ Ag 6 '54

NALU and investment companies issue joint statement of principles. Nat Underw (Life ed) Daily ed 58:8 S 23 '54

NALU, investment companies adopt guiding principles. Nat Underw (Life ed) 58:1+ S 24 '54; East Underw 55:9 O 1 '54

NALU stand on group coverage in mutual fund plans criticized. Nat Underw (Life ed) 58:3 Jl 30 '54

New York city association acts on mutual funds. H. K. Gutmann. East Underw 55:8 Jl 2 '54; Same cond. Weekly Underw 171:44 Jl 3 '54

Opposes group term deposit investments; New York state association of life underwriters attitude. East Underw 55:10 Jl 2 '54

Rebukes companies insuring mutual funds; abstracts. H. K. Gutman. Nat Underw (Life ed) 58:9 Je 4 '54; East Underw 55:5 Je 11 '54

Revolutionary significance in Farm Bureau plan. H. K. Gutmann. Nat Underw (Life ed) 58:1+ Ag 27 '54

Varying dollar value makes Farm Bureau plan needed hedge. M. D. Lincoln. Nat Underw (Life ed) 58:8+ Ag 20 '54

Regulation

Job we are doing; SEC. R. H. Demmler. Comm & Fin Chr 178:1425+ O 15 '53

Securities

Logic on trust issues. Economist 168:342 Ag 1 '53

Mutual funds and the investment banker; report of IBA investment companies committee. Comm & Fin Chr 178:2396-8 D 17 '53

Role of the investment trusts. Economist 168: 467-9 Ag 15 '53; Abstract. Trusts & Estates 92:652 S '53

INVESTMENTS

Banks cooperate in stock purchase plan; Green, Ellis & Anderson, New York. Burroughs Clearing House 38:9-10 D '53

Big board sells small investors share of American business; New York stock exchange monthly investment plan. L. M. Hughes. Sales Management 72:36-8+ Je 1 '54

Computing return on investment to aid in pricing. G. W. Frank. N A C A Bul 35: 1474-5 Jl '54

Defense platoon; tactics and securities traditionally regarded as correct for individuals in a bear market. I. U. Cobleigh. Comm & Fin Chr 178:1117 S 24 '53

Difficult subject; accumulation. C. O. Brown. Ind & Eng Chem 45:sup25A-6A Je '53

Doing it the Texas way; oil and cattle, two investments with built-in tax protection. il Bsns W p77-80 D 5 '53

Employing cash reserves safely. J. D. C. Weldon. Mag of Wall St 93:77+ O 17 '53

For investment; oils or chemicals? M. Souders and P. Neidig. Chem W 72:18+ Ap 11 '53

For profit and income. Mag of Wall St 93: 446-7+ Ja 9 '54 [cont bi-weekly]

How companies diversify their investments; with tables of companies with investments in varied fields and closely related fields. Mag of Wall St 93:603-5+ F 20 '54

How to invest in industrial stocks; symbol of a free economy. E. L. Hall. Spectator 162:22-3+ S '54

Impact of high taxes on corporate investment. J. Lintner. Comm & Fin Chr 178: 2047+ N 26 '53

Income eight; eight per cent income list of seven issues. I. U. Cobleigh. Comm & Fin Chr 178:2628 D 31 '53

Income opportunities in sound bonds. J. D. C. Weldon. Mag of Wall St 93:145+ O 31 '53

Inflation fear major factor in investment practice. G. Garbutt. Barron's 33:34-6 D 14 '53

Institutional investment market. J. I. Bogen. Comm & Fin Chr 178:2043+ N 26 '53

Invest in America week, April 25-May 1. E. H. Sharp. Banking 46:124-5+ F '54

Investing for the professional man. E. Brown, jr. Comm & Fin Chr 178:1224 O 1 '53

Investment and revolution in capitalism; address to Fraternal investment association. A. A. Berle, jr. Nat Underw (Life ed) 58: 24, 29 O 8 '54

Investment headaches you can avoid. J. S. Williams. Mag of Wall St 93:22-3+ O 3 '53

Investment policy for the future. M. D. Popovic. Comm & Fin Chr 179:460 Ja 28 '54

Investments for the businessman. A. Bernhard. Comm & Fin Chr 178:1832 N 12 '53

Investments in transportation. E. L. Hall. il Spectator 162:26-7+ Mr '54

Investor looks at growth companies; abstract. W. K. Beckers. Chem Eng 60:330+ Jl '53

Investor's handbook. J. O. Kamm. 295p $4.95 World publishing co, 2231 W. 110th st, Cleveland 2 '54

Life stocks as investments. G. W. Jennings. Life Ins Courant 58:11-12 N '53

Mechanical mind; Lifetime investment program. T. F. Willmore. Review, by G. E. Shea, jr. Barron's 34:9-10 Ja 11 '54

New investment timing plan; Corning plan. H. Fahrner. Comm & Fin Chr 178:1014 S 17 '53

New York stock exchange monthly investment plan; an idea for democratic capitalism. R. C. Lawrence. Comm & Fin Chr 179:168+ Ja 14 '54

One-way street? security price trends prolonged by capital gains tax. R. W. Bridwell. Barron's 33:15-16 N 9 '53

Outlook for business and investment. H. D. Comer. Comm & Fin Chr 178:621+ Ag 20 '53

Outlook for business and securities. J. C. Bickford. Comm & Fin Chr 178:1838 N 12 '53

Pension investments. Burroughs Clearing House 38:10-11 O '53

Return on investment; guide to management decisions. R. B. Read. N A C A Bul 35: 1231-44 Je '54

Security I like best; selections of experts in the investment and advisory field. Published in weekly Thursday numbers of Commercial and financial chronicle

Sidelights on institutional investment. Trusts & Estates 93:22-4 Ja '54 [cont monthly]

Smart money; sitting and waiting. Bsns W p25-6 S 5 '53

INVESTMENTS—*Continued*

Test of security analysis. O. K. Burrell. Comm & Fin Chr 178:1720+ N 5 '53

Today's investment problems for institutional investors. R. I. Robinson. Burroughs Clearing House 37:29-31+ Ag '53

Virtues of flexible investment policy. A. J. Cortese. Trusts & Estates 92:704-6 O '53

Why pension funds should invest in real estate. G. W. Warnecke. il Trusts & Estates 92:646-50+ S '53

Yardstick for stock selection. H. Fahrner. Comm & Fin Chr 178:2269 D 10 '53

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Banks and banking—Investments
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Bibliography

Dealer-broker investment recommendations and literature. Published in weekly Thursday numbers of Commercial and financial chronicle

INVESTMENTS, Foreign

Corporate possibilities in international investment. F. Schneider. Comm & Fin Chr 178:1118 S 24 '53

General impediments to private foreign investment. J. Raisman. Comm & Fin Chr 178:1328+ O 8 '53

Investors have $15 billion abroad. A. K. Rannells. Iron Age 172:118 N 5 '53

Private investment in underdeveloped countries. J. J. McCloy. Comm & Fin Chr 178:1016 S 17 '53

Private overseas investment in underdeveloped countries. B. R. Rau. Comm & Fin Chr 178:1337 O 8 '53

Psychological factors affecting private international investment. G. Woods. Comm & Fin Chr 178:1011 S 17 '53

So you want to invest abroad; U.S. study shows the problems. E. C. Kreutzberg. Steel 134:56 Ap 12 '54

World bank's panel discussion on foreign investment. A. W. May. Comm & Fin Chr 178:1005+ S 17 '53

Germany

Germany invests overseas. Economist 168:846 S 26 '53

Great Britain

Background for Point four; samples of profitable British investments in the underdeveloped countries. J. F. Rippy. J Bsns 26:110-24 Ap '53

Britain expands capital investment in Canada. For Comm W 51:8 Ja 4 '54

Britain's Commonwealth investments. P. Einzig. Comm & Fin Chr 179:465 Ja 28 '54

British investment in Canada. Economist 168:123 Jl 11 '53

Chemical Britain comes to Canada. Can Chem Process 38:6+ My '54

Commonwealth looks ahead; conference of finance ministers, Sydney. Economist 170:45-6 Ja 2 '54

Point four background; a decade of income from British overseas investment. J. F. Rippy. J Bsns 26:231-7 O '53

Switching in Canadians. Economist 168:525-7 Ag 22 '53

United States

APPA opposes U.S. financing of foreign mills; statement presented to the Senate banking committee. Paper Tr J 138:22+ Ja 22 '54

Business-style aid for Japan. Bsns W p 169-70 N 14 '53

Call of the North heralded by proposal of Securities and exchange commission. Chem W 74:26 Mr 13 '54

Chemical investment opportunities abroad summarized by FOA. Oil Paint & Drug Rep 166:3+ Jl 5 '54

Direct foreign investments by U.S. interests increase to $16 billion, 1953. For Comm W 51:11+ Ja 25 '54

Dollars change global landscape. R. M. Stroupe. Iron Age 172:66-7 S 24 '53

Earnings on United States foreign investments amount to $2.7 billion, 1952. For Comm W 51:17+ Ja 4 '54

Forecasting net foreign investment. C. Morse. bibliog J Bsns 27:51-61 Ja '54

Foreign investments 1946-53. Chem & Eng N 32:2542 Je 21 '54

Foreign investments of the United States; census of 1950: with tables and charts. Survey of Cur Bsns Sup p 1-61 '53 (pa 50c)

Growth in private foreign investments, 1952; with tables. S. Pizer and F. Cutler. Survey of Cur Bsns 34:5-10 Ja '54

Income from United States direct foreign investment rises sharply. For Comm W 50:9 O 19 '53

Income on United States foreign investments; with tables and charts. S. Pizer and F. Cutler. Survey of Cur Bsns 33:8-14 D '53

More liberal trade policy in offing. W. S. Swingle. Comm & Fin Chr 178:1644-5 O 29 '53

No aid like self-aid; Foreign operations administration drive to encourage investment of chemical capital abroad. Chem W 75:18-19 Jl 17 '54

Our foreign aid program needs careful study. G. Humphrey. Comm & Fin Chr 178:1006 S 17 '53

Our investment abroad. H. Bratter. il Banking 46:47-9+ F; 46-9+ Mr '54

Our investment abroad. A. Maffry. Comm & Fin Chr 179:153+ Ja 14 '54

Pattern of private U.S. investments abroad. L. K. Macy. Spectator (Endorsement no) 162:28-9+ Ag '54

Recommendations by House foreign affairs subcommittee on foreign economic policy. R. G. Gibbs. Chem & Eng N 31:2944+ Jl 20 '53

Stimulating private investment abroad. M. C. Conick. bibliog Harvard Bsns R 31:104-12 N '53

U.S. direct investments in Canada increased to nearly $5 billion. For Comm W 50:4 N 9 '53

U.S. direct investments in Latin America reach $5.7 billion in '52. For Comm W 50:2+ O 26 '53

U.S. eyes are on Venezuela. il Chem W 75:24 Jl 10 '54

U.S. foreign investments valued at $15 billion on rising trend. For Comm W 50:4+ O 12 '53

U.S. interests control $12 billion investment in foreign enterprises. For Comm W 50:20 O 26 '53

U.S. investments in foreign firms; Office of business economics census. Chem & Eng N 31:4838-9 N 16 '53

U.S. investments in manufacturing plants abroad doubled in ten years. For Comm W 50:2+ N 2 '53

U.S. petroleum investments abroad show rapid gain to $4.4 billion. For Comm W 50:14 N 9 '53

What chance has foreign capital in Mexico? C. W. Wright. Eng & Min J 155:98-9 Mr '54

INVESTMENTS, Foreign (in Argentina)

Argentina; a good neighbor? Peron campaign to encourage U.S. investors. Bsns W p 124-5 Ag 29 '53

Argentina announces procedure for reinvestment of blocked profits. For Comm W 51:20 F 8 '54

Argentina courts foreign capital. Economist 168:596 Ag 29 '53

Argentina issues regulations to implement foreign investment law. For Comm W 50:13+ N 16 '53

INVESTMENTS, Foreign (in Brazil)

Brazilian pride and petroleum. Economist 169:827-8 D 12 '53

INVESTMENTS, Foreign (in Canada)

Britain expands capital investment in Canada. For Comm W 51:8 Ja 4 '54

British investment in Canada. Economist 168:123 Jl 11 '53

Canada's expanding economy offers attractive investment channels. J. W. Graham. Nat Underw (Life ed) 58:7 Ja 8 '54

INVESTMENTS, Foreign (in Canada)—*Cont.*

Capital for Canada. J. Montagnes. Barron's 33:25 Ag 31 '53

Chemical Britain comes to Canada. Can Chem Process 38:6+ My '54

Switching in Canadians. Economist 168:525-7 Ag 22 '53

They're inside chemical Canada. Can Chem Process 38:6 Ag '54

U.S.-Canadian economic relations; abstract. G. Ball. Chem & Eng N 32:1334+ Ap 5 '54

U.S. direct investments in Canada increased to nearly $5 billion. For Comm W 50:4 N 9 '53

INVESTMENTS, Foreign (in Chile)

Chile passes law to attract capital. For Comm W 50:12 D 14 '53

INVESTMENTS, Foreign (in Costa Rica)

50,000,000 bunches of bananas. H. Bratter. il Banking 46:41+ D '53

INVESTMENTS, Foreign (in Dominican Republic)

Dominican Republic requires foreign company investments. Nat Underw 58:10 Ap 8 '54

INVESTMENTS, Foreign (in Egypt)

New laws passed in Egypt aim at attracting foreign investment. For Comm W 50:14 N 16 '53

INVESTMENTS, Foreign (in Germany)

Dividends from Germany; Germany's capacity to pay. Economist 168:413 Ag 8 '53

Firm given guaranty on patent royalties. For Comm W 50:14 Ag 3 '53

Unfreezing German assets. Economist 169:272-3 O 24 '53

Validation board set up for German dollar bonds. Barron's 33:6 Ag 31 '53

West Germany relaxes transfer of earnings. For Comm W 51:16 F 22 '54

INVESTMENTS, Foreign (in Guatemala)

Guatemalan utility case sets confiscation pattern. M. Bannell. Barron's 33:20 N 16 '53

INVESTMENTS, Foreign (in Japan)

Business-style aid for Japan. Bsns W p 169-70 N 14 '53

Japanese stocks attract U.S. investor interest. P. A. Johnston. Barron's 33:19-20 Ag 24 '53

INVESTMENTS, Foreign (in Latin America)

Hemisphere currency. Bsns W p 170 S 19 '53

Our stake in Latin America. V. L. Horoth. map Mag of Wall St 93:371-2+ D 26 '53

U.S. direct investments in Latin America reach $5.7 billion in '52. For Comm W 50:2+ O 26 '53

U.S. stake in world trade. J. P. Grace, jr. Comm & Fin Chr 178:1009+ S 17 '53

INVESTMENTS, Foreign (in Mexico)

What chance has foreign capital in Mexico? C. W. Wright. Eng & Min J 155:98-9 Mr '54

INVESTMENTS, Foreign (in Near East)

Proud borrower and shy investor. Economist 169:402-4 N 7 '53

INVESTMENTS, Foreign (in Netherlands)

Lure for the Lowlands. il Chem W 73:50 Ag 22 '53

Pulling in U.S. companies. map Bsns W p 130+ D 19 '53

Pump firm receives investment guaranty. For Comm W 50:10 N 30 '53

INVESTMENTS, Foreign (in Pakistan)

Pakistan encourages foreign investment. For Comm W 50:6 Ag 17 '53

INVESTMENTS, Foreign (in Peru)

Investment of foreign capital in Peru rises in 1952. For Comm W 50:13 N 16 '53

INVESTMENTS, Foreign (in Turkey)

Turkish Prime Minister outlines policy on foreign investment; with text of statement. A. Menderes. For Comm W 50:13+ O 5 '53

INVESTMENTS, Foreign (in United States)

Foreign investments 1946-53. Chem & Eng N 32:2542 Je 21 '54

International capital transactions of the United States; net capital movement to United States since Jan. 2, 1935, by types and by countries. Fed Res Bul 40:96-101 Ja '54 [cont monthly]

INVESTORS diversified services, inc.

Federal court gives decision in big anti-coercion case. Nat Underw 58:1+ Jl 8 '54

First victory scored in anti-coercion campaign; preventing lending institution from requiring borrowers to place insurance with favored agency. H. E. Uhler. Spectator 162:35+ O '54

Mutual agents take issue with NAIA on coercion decision. Nat Underw 58:1+ Ag 12 '54

NAIA discusses anti-trust issue. Weekly Underw 171:221+ Jl 31 '54; East Underw 55:26 Jl 16 '54; Nat Underw 58:1 Jl 29 '54

INVOICES

Applying statistics to checking of vendors' invoices. R. A. Hanna. N A C A Bul 35:503-11 D '53

IODATES

Precipitation of iodates from homogeneous solution. C. R. Stine and L. Gordon. bibliog il Anal Chem 25:1519-22 O '53

IODIDES

Effect of adjacent silicon in displacement reactions; kinetics of the reaction of chloromethylsilicon compounds with iodide ion. G. D. Cooper and M. Prober. bibliog Am Chem Soc J 76:3943-5 Ag 5 '54

Exchange of iodine between organic iodides and inorganic iodine in aqueous solution. H. von der Straaten and A. H. W. Aten, jr. bibliog Am Chem Soc J 76:3798-800 Jl 20 '54

Nuclear quadrupole couplings in solid bromides and iodides. H. Robinson and others. J Chem Phys 22:511-15 Mr '54

Solvent effects in the iodide-iodine-triiodide complex equilibrium. L. I. Katzin and E. Gebert. bibliog Am Chem Soc J 76:2049-54 Ap 20 '54

Synthesis of fluorocarbon iodides without the use of liquid solvents or diluents. G. H. Crawford and J. H. Simons. diag Am Chem Soc J 75:5737-8 N 20 '53

Analysis

Amperometric titration and voltammetric determination of iodide. I. M. Kolthoff and J. Jordan. bibliog Anal Chem 25:1833-7 D '53

Automatic coulometric titration with electrolytically generated silver ion. J. J. Lingane. bibliog diags Anal Chem 26:622-6 Ap '54

Determination of iodide. K. G. Stone. bibliog Anal Chem 26:396-7 F '54

Titration of iodide with electrolytically generated silver ion. R. L. Kowalkowski, J. H. Kennedy and P. S. Farrington. bibliog Anal Chem 26:626-8 Ap '54

Spectra

Iodide impurity absorption in potassium and sodium bromides. C. J. Delbecq and others. Phys R 93:262-3 Ja 15 '54

IODINATION

Electrophilic displacement reactions; kinetics of the iodinolysis of *p*-methoxybenzeneboronic acid. H. G. Kuivila and R. M. Williams. bibliog Am Chem Soc J 76:2679-82 My 20 '54

Method of iodination. K. T. Potts. Chem Soc J p3711-12 N '53

Relative rates of iodination of *p*-alkylphenols. E. Berliner, F. Berliner and I. Nelidow. bibliog Am Chem Soc J 76:507-9 Ja 20 '54

IODINE

Absolute quantum yields for dissociation of iodine in inert solvents. F. W. Lampe and R. M. Noyes. bibliog Am Chem Soc J 76:2140-4 Ap 20 '54

Apparent and partial molal volumes of potassium iodide and of iodine in methanol at 25° from density measurements. D. A. MacInnes and M. O. Dayhoff. bibliog Am Chem Soc J 75:5219-20 N 5 '53

Catalytic activity of cysteine and related compounds in the iodine-azide reaction. D. W. Whitman and R. M. Whitney. bibliog Anal Chem 25:1523-7 O '53

Chlorine and iodine in water treatment; symposium. bibliog il Ind & Eng Chem 45:994-1015 My '53

Coulometric titration of thiosulfate with iodine. K. Rowley and E. H. Swift. bibliog Anal Chem 26:373-5 F '54

Coulometric titrations with externally generated chlorine, bromine, and iodine. J. N. Pitts, jr. and others. bibliog diag Anal Chem 26:628-31 Ap '54

Electronic structure of the amylose-iodine complex. H. Murakami. bibliog J Chem Phys 22:367-74 Mr '54

IODINE—*Continued*

Exchange of iodine atoms between iodine and methyl iodide in the temperature range 150-375°. D. Clark, O. Pritchard and A. F. Trotman-Dickenson. Chem Soc J p2633-5 Jl '54

Exchange of iodine between organic iodides and inorganic iodine in aqueous solution. H. von der Straaten and A. H. W. Aten, jr. bibliog Am Chem Soc J 76:3798-800 Jl 20 '54

Interaction of negative muons with iodine. L. Winsberg. bibliog diags Phys R 95:205-9 Jl 1 '54

Interaction of negative pions with iodine. L. Winsberg. bibliog diags Phys R 95:198-204 Jl 1 '54

Kinetics of iodine-catalyzed aromatic bromination; bromination of toluene. T. Tsuruta, K. Sasaki and J. Furukawa. bibliog Am Chem Soc J 76:994-8 F 20 '54

Kinetics of ionic polymerisations; the inhibition by pyridine and 2-iodopyridine of polymerisation of *n*-butyl vinyl ether catalysed by iodine. D. D. Eley and J. Saunders. Chem Soc J p 1672-6 Je '54

Kinetics of the exchange of iodine between diiodotyrosine and molecular iodine in aqueous solution. A. H. Zeltmann and M. Kahn. bibliog Am Chem Soc J 76:1554-6 Mr 20 '54

New flood tracers; anions of iodine and bromine used successfully. A. W. Garst and B. B. Woods. Oil & Gas J 52:60 O 26 '53

Organosilicon compounds; a molecular complex between iodine and tri*cyclo*hexyliodosilane. C. Eaborn. Chem Soc J p4154-6 D '53

Production of Joshi effect under high-frequency electric discharge in iodine vapor. N. Subrahmanyam and N. A. Ramaiah. diags J Chem Phys 21:2233 D '53

Radiation-induced reaction between iodine and heptane. P. F. Forsyth and others. bibliog J Chem Phys 22:66-70 Ja '54

Rapid exchange between iodine and stannic iodide in carbon tetrachloride at 0°. M. Kahn and A. J. Freedman. Am Chem Soc J 76:929-30 F 5 '54

Rate of recombination of iodine atoms in solution. R. Marshall and N. Davidson. bibliog J Chem Phys 21:2086 N '53

Self-diffusion coefficients of iodide, potassium and rubidium ions in aqueous solutions. R. Mills and J. W. Kennedy. bibliog Am Chem Soc J 75:5696-701 N 20 '53

Solvent effects in the iodide-iodine-triiodide complex equilibrium. L. I. Katzin and E. Gebert. bibliog Am Chem Soc J 76:2049-54 Ap 20 '54

Use of iodine adsorption as a measure of cellulose fiber crystallinity. L. E. Hessler and R. E. Power. bibliog Textile Res J 24:822-7 S '54

Analysis

Amperometric method for determining the sorption of iodine by starch. B. L. Larson, K. A. Gilles and R. Jenness. bibliog Anal Chem 25:802-4 My '53

Distillation of micro quantities of iodine; application to determination of protein-bound iodine in bovine blood serum. G. H. Ellis and G. D. Duncan. bibliog diag Anal Chem 25:1558-9 O '53

Isotopes

Effect of phenothiazine, N.F. (Green) on the uptake of I^{131} by the rat thyroid. R. V. Talmage and others. Science 118:191-2 Ag 14 '53

Nuclear spin and quadrupole moment of I^{131}. R. Livingston and others. bibliog Phys R 92:1271-2 D 1 '53

Radioisotopes in an industrial clinic. L. Price and W. H. Foege. il Ind Med 22:331-3 Ag '53

Nuclear reactions

β spectrum of I^{129} and its decay scheme. E. der Mateosian and C. S. Wu. Phys R 95:458-61 Jl 15 '54

Disintegration of Co^{55} and I^{130}. R. S. Caird and A. C. G. Mitchell. bibliog diag Phys R 94:412-19 Ap 15 '54

Disintegration of I^{126}. M. L. Perlman and J. P. Welker. bibliog diag Phys R 95:133-7 Jl 1 '54

Radiations of 53-min I^{134} and 86-sec I^{136}. M. McKeown and S. Katcoff. il Phys R 94:965-7 My 15 '54

Scintillation spectrometer determination of *L*-capture to *K*-capture ratio in Cd^{109} and I^{125}. E. der Mateosian. bibliog Phys R 92:938-40 N 15 '53

Spectrum

Effect of temperature on the absorption spectrum of iodine in the alkyl iodides. D. E. Schuler and R. H. Schuler. Am Chem Soc J 76:3092-4 Je 5 '54

Hyperfine structure of I^{127}; nuclear magnetic octupole moment. V. Jaccarino and others. Phys R 94:1798-9 Je 15 '54

Molecular compounds and their spectra; the pyridine-iodine system. C. Reid and R. S. Mulliken. bibliog Am Chem Soc J 76:3869-74 Ag 5 '54

Nuclear quadrupole resonance of iodine in molecular solids. S. Kojima and others. J Chem Phys 21:2237-8 D '53

Spectra of iodine solutions; the $^3\Pi_1$-$^1\Sigma^+$ transition of the iodine molecule in solution. J. Ham. bibliog Am Chem Soc J 76:3886-7 Ag 5 '54

Spectral absorption of solutions of iodine in liquid hydrogen fluoride. L. I. Katzin and J. J. Katz. bibliog Am Chem Soc J 75:6057-8 D 5 '53

IODINE bromide

Interaction of iodine bromide and phenol or aniline. A. G. Sharpe. Chem Soc J p3713-14 N '53

Kinetics of ionic polymerisations; the action of iodine chloride and iodine bromide on *n*-butyl vinyl ether. D. D. Eley and J. Saunders. Chem Soc J p 1668-72 Je '54

Reaction of cyclohexene with bromine, iodine monobromide and iodine monochloride. A. Gero, J. J. Kershner and R. E. Perry. Am Chem Soc J 75:5119-20 O 20 '53

IODINE chloride

Kinetics of ionic polymerisations; the action of iodine chloride and iodine bromide on *n*-butyl vinyl ether. D. D. Eley and J. Saunders. Chem Soc J p 1668-72 Je '54

Reaction of cyclohexene with bromine, iodine monobromide and iodine monochloride. A. Gero, J. J. Kershner and R. E. Perry. Am Chem Soc J 75:5119-20 O 20 '53

Reaction of *t*-butyl bromide and *t*-butyl iodide with iodine monochloride. R. M. Keefer and L. J. Andrews. bibliog Am Chem Soc J 76:253-8 Ja 5 '54

Use of iodine monochloride in the Kurt Meyer titration. A. Gero. Anal Chem 26:609 Mr '54

IODINE compounds

Effect of structure on the polarographic reduction of iodo compounds. E. L. Colichman and Shih Kung Liu. Am Chem Soc J 76:913-15 F 5 '54

α-Iodoketones; synthesis of 21-iodo-Δ^{16}-20-keto steroids by the N-iodosuccinimide-enol acetate reaction. C. Djerassi and C. T. Lenk. bibliog Am Chem Soc J 76:1722-5 Ap 5 '54

Spectra

Low-temperature absorption and phosphorescence spectra of some iodo-compounds. J. Ferguson and T. Iredale. Chem Soc J p2959-66 O '53

Pure quadrupole spectra of solid bromine and iodine compounds. K. Shimomura and others. J Chem Phys 22:350 F '54

Spectra of iodine solutions; the effects of high pressures upon iodine complexes. J. Ham. bibliog diags Am Chem Soc J 76:3881-5 Ag 5 '54

Spectra of iodine solutions; the effects of low temperatures upon iodine complexes. J. Ham. bibliog diags Am Chem Soc J 76:3875-80 Ag 5 '54

IODINOLYSIS. See Iodination

IODOACETATE

Influence of iodoacetate on the sodium and potassium content of ulva lactuca and the prevention of its influence by light. G. T. Scott and H. R. Hayward. bibliog Science 117:719-21 Je 26 '53

IODOANTIMONOUS acid

Ultraviolet spectrophotometric determination of antimony as iodoantimonous acid. A. Elkind, K. H. Gayer and D. F. Boltz. Anal Chem 25:1744-5 N '53

IODOBENZENE

Homolytic aromatic substitution; partial rate factors for the phenylation of fluorobenzene, bromobenzene, and iodobenzene. D. R. Augood and others. Chem Soc J p3412-17 N '53

IODOFORM

Examination of the iodoform and Schmidt reactions of acetone-1-C_{14} for isotope effects. G. A. Ropp and others. Am Chem Soc J 76:1710-11 Mr 20 '54

IODOHYDRINS

Configurations of 2,6-bis-(iodomethyl)-*p*-dioxanes and 2,6-*p*-dioxanedicarboxylic acids; the structure of diepiiodohydrin. R. K. Summerbell and J. R. Stephens. Am Chem Soc J 76:731-4 F 5 '54

IODOLACTONES

Assignment of the olefinic position in unsaturated acids by means of the iodolactonization reaction. E. E. van Tamelen and M. Shamma. bibliog Am Chem Soc J 76:2315-17 My 5 '54

IODOMETHANE

Spectrum

Substituted methanes; vibrational spectra of $C^{13}H_3I$. R. B. Bernstein and others. bibliog J Chem Phys 22:193-7 F '54

IODOMETRY

Barium thiosulfate monohydrate, standard for thiosulfate iodometry. W. M. MacNevin and O. H. Kriege. bibliog Anal Chem 25:767-9 My '53

Effect of cuprous iodide on the iodometric determination of iron in presence of sulfate. E. W. Hammock and E. H. Swift. Anal Chem 25:1113-14 Jl '53

Formation of bromate in the oxidation of iodide by bromine. P. W. Jensen and A. L. Crittenden. bibliog Anal Chem 26:1373-4 Ag '54

Iodometric determination of hypophosphorous and phosphorous acids. R. T. Jones and E. H. Swift. bibliog Anal Chem 25:1272-4 Ag '53

Iodometric determination of selenium in ores and flue dusts. C. W. Sill and H. E. Peterson. bibliog U S Bur Mines Rep of Invest 5047:1-9 '54

Stable, sensitive linear starch indicator solution for iodimetry. J. L. Lambert. bibliog Anal Chem 25:984-5 Je '53

IODOSOBENZENE

Analysis

Polarographic determination of iodoso- and iodoxybenzene. E. L. Colichman. bibliog Anal Chem 25:1124-5 Jl '53

IODOSOBENZOIC acid

Oxidation of L-ascorbic acid by *o*-iodosobenzoic acid. W. T. Caraway and L. Hellerman. bibliog Am Chem Soc J 75:5334-40 N 5 '53

IODOTOLUENE

Exchange reaction between substituted benzyl iodides and potassium iodide; *p*-nitrobenzyl iodide. E. L. Purlee, M. Kahn and J. L. Riebsomer. bibliog Am Chem Soc J 76:3796-8 Jl 20 '54

IODOXYBENZENE

Polarographic determination of iodoso- and iodoxybenzene. E. L. Colichman. bibliog Anal Chem 25:1124-5 Jl '53

ION exchange resins. See Resinous products—Ion exchanging

ION exchangers

Anion-exchange studies; adsorbability of a number of metals in hydrochloric acid solutions. K. A. Kraus, F. Nelson and G. W. Smith. bibliog J Phys Chem 58:11-17 Ja '54

Anion-exchange studies; bromide complexes of Co(II), Cu(II), Zn(II) and Ga(III). R. H. Herber and J. W. Irvine, jr. bibliog Am Chem Soc J 76:987-91 F 20 '54

Anion-exchange studies; ion exchange in concentrated electrolytes; gold(III) in hydrochloric acid solutions. K. A. Kraus and F. Nelson. bibliog Am Chem Soc J 76:984-7 F 20 '54

Application of computing machines to ion exchange column calculations. A. Opler. bibliog(26 ref) diag Ind & Eng Chem 45:2621-9 D '53

Bright applicant for an old job; electrodialysis. il Bsns W p 178-80+ O 24 '53

Cation exchange materials from cotton and polyvinyl phosphate. G. C. Daul, J. D. Reid and R. M. Reinhardt. bibliog Ind & Eng Chem 46:1042-5 My '54

Cation exchange properties of bentonite. W. H. Slabaugh. bibliog J Phys Chem 58:162-5 F '54

Chemical engineering unit operations; ion exchange. R. Kunin and F. McGarvey. Ind & Eng Chem 46:118-25 bibliog(730 ref, p 121-5) Ja '54

Chromic acid recovery by ion exchange. R. J. Brink. flow diag diag Sewage & Ind Wastes 26:197-202 F '54

Complex cyanide-simple cyanide exchange systems. A. G. MacDiarmid and N. F. Hall. bibliog Am Chem Soc J 76:4222-8 Ag 20 '54

Continuous countercurrent ion-exchange unit. R. H. McCormack and J. F. Howard. diag Chem Eng Prog 49:404 Ag '53

Cottons as ion-exchangers; abstract. Am Dyestuff Rep 42:768 N 9 '53

Demineralization of water by electrolytic and ion exchange processes; with cost data. L. Streicher, A. E. Bowers and R. E. Briggs. bibliog flow diag il diags Ind & Eng Chem 45:2394-401 N '53

Determination of aluminum in zirconium based on separation by ion exchange. H. Freund and F. J. Miner. bibliog diag Anal Chem 25:564-7 Ap '53

Determination of copper in mineral oils using an ion-exchange technique. H. Buchwald and L. G. Wood. bibliog Anal Chem 25:664-5 Ap '53

Economic and operating aspects of mixed-bed deionizers with hard- and soft-water supplies. J. F. McGill. Power 98:79-81 Jl '54

Effect of ionic strength on equilibrium in silver-sodium ion exchange. G. E. Wilson, A. W. Davidson and W. J. Argersinger, jr. bibliog Am Chem Soc J 76:3824-6 Jl 20 '54

Exchange reaction between chromous and chromic ions in perchloric acid solution. A. Anderson and N. A. Bonner. bibliog diag Am Chem Soc J 76:3826-30 Jl 20 '54

Free energy in cation interchange as illustrated by plant root-substrate relationships. C. E. Marshall and W. J. Upchurch. bibliog J Phys Chem 57:618-21 O '53

Free radical-initiated $O^{16}O^{18}$-H_2O^{16} exchange reaction in aqueous solution. E. J. Hart, S. Gordon and D. A. Hutchison. bibliog Am Chem Soc J 75:6165-9 D 20 '53

Hunting for bargains in the brine. diags Chem W 74:38-9 Je 12 '54

Importance of ion exchange with the solvent in kinetic studies. E. A. S. Cavell and N. B. Chapman. bibliog Chem & Ind p 1226-7 N 14 '53

Induced exchange of Cl^- and $AuCl_4^-$; evidence for Au(II). R. L. Rich and H. Taube. J Phys Chem 58:6-11 Ja '54

Ion-exchange and adsorption column kinetics with uniform partial presaturation. T. Vermeulen and N. K. Hiester. bibliog J Chem Phys 22:96-101 Ja '54

Ion exchange and its applications in the fine chemical industry. E. L. Streatfield. bibliog(51 ref) diag Chem & Ind p 1214-22 N 14 '53

Ion exchange as a separation method; column studies of the relative efficiencies of various complexing agents for the separation of lighter rare earths. S. W. Mayer and E. C. Freiling. bibliog Am Chem Soc J 75:5647-9 N 20 '53

Ion exchange as a separations method; relative elution positions of lanthanide and actinide elements with lactic acid eluant at 87°. L. Wish, E. C. Freiling and L. R. Bunney. Am Chem Soc J 76:3444-5 Jl 5 '54

Ion-exchange chromatography of the products of the non-enzymatic sugar amino acid reaction, and the occurrence of the reaction in liver extracts. A. Abrams and H. Borsook. bibliog Am Chem Soc J 75:6299-301 D 20 '53

ION exchangers—*Continued*

Ion exchange finds wider use in concentration and recovery of metals from dilute solutions. A. B. Mindler and C. F. Paulson. bibliog flow sheets il diag J Metals 5:980-5 Ag '53

Ion-exchange membranes; equations for the multi-ionic potential. M. R. J. Wyllie. bibliog J Phys Chem 58:67-73 Ja '54

Ion-exchange membranes; membrane properties in relation to bi-ionic potentials in monovalent ion systems. M. R. J. Wyllie and S. L. Kanaan. bibliog diag J Phys Chem 58:73-80 Ja '54

Ion exchange progress noted; abstract. E. Glueckauf. Chem & Eng N 32:1896+ My 10 '54

Ion exchange; review of past two years. R. Kunin and F. X. McGarvey. Anal Chem 26:104-9 bibliog(314 ref. p 107-9) Ja '54

Ion-exchange separation of trace impurities. W. A. Brooksbank and G. W. Leddicotte. bibliog J Phys Chem 57:819-23 N '53

Ion-exchange study of possible hybridized 5f bonding in the actinides. R. M. Diamond, K. Street, jr. and G. T. Seaborg. bibliog Am Chem Soc J 76:1461-9 Mr 20 '54

Metal-amine complexes in ion exchange. R. H. Stokes and H. F. Walton. bibliog Am Chem Soc J 76:3327-31 Je 20 '54

Metal supplies and powder metallurgy tomorrow. H. W. Greenwood. Metallurgia 49: 136 Mr '54

Metals in phosphating solutions; determination by ion exchange. G. Gabrielson. Metal Finishing 51:63-4+ N '53

Process kinetics; kinetics of ion exchange in the calcium cycle. P. F. Hagerty, 2d and H. Bliss. bibliog flow sheet Ind & Eng Chem 45:1253-9 Je '53

Puzzled by drop in quality of water from your ion exchanger? check for large organic ions. F. X. McGarvey and A. C. Reents. bibliog il Power 98:76-8 Jl '54

Rate of the ferrocyanide-ferricyanide exchange reaction. A. C. Wahl and C. F. Deck. bibliog Am Chem Soc J 76:4054-5 Ag 5 '54

Sea water for cation exchanger regeneration at Ventura. J. M. Montgomery. Am Water Works Assn J 46:600-7 Jl '54; Abstract. Water & Sewage Works 101:344 Ag '54; Discussion. E. Nordell. Am Water Works Assn J 46:607-8 Jl '54

Self-diffusion of anions in strong-base anion exchangers. B. A. Soldano and G. E. Boyd. bibliog Am Chem Soc J 75:6099-104 D 20 '53

Self-diffusion of cations in and through sulfonated polystyrene cation-exchange polymers. G. E. Boyd and B. A. Soldano. bibliog diag Am Chem Soc J 75:6091-9 D 20 '53

Self-diffusion of cations in hetero-ionic cation exchangers. B. A. Soldano and G. E. Boyd. bibliog Am Chem Soc J 75:6107-10 D 20 '53

Self-diffusion of water molecules and mobile anions in cation exchangers. G. E. Boyd and B. A. Soldano. bibliog Am Chem Soc J 75:6105-7 D 20 '53

Some electrochemical properties of new synthetic ion exchange membranes. A. G. Winger and others. bibliog Electrochem Soc J 100:178-84 Ap '53

Studies in the chemistry of quadrivalent germanium; ion-exchange studies of solutions of germanates. D. A. Everest and J. E. Salmon. Chem Soc J p2438-43 Jl '54

Sulphite spent liquor; ammonia recovery from ammonium sulphite spent liquor by ion exchange processes. A. E. Markham and J. L. McCarthy. bibliog diags Tappi 37: 355-63 Ag '54

Temperature distribution in an ion-exchange column. J. F. Short, P. G. Smith and G. H. Twigg. bibliog J Ap Chem 3:198-206 My '53

Theory of radioactive ion exchange. E. Pitts. J Chem Phys 22:56-65 Ja '54

Uncatalyzed exchange of Cl^- and $AuCl_4^-$. R. L. Rich and H. Taube. bibliog J Phys Chem 58:1-5 Ja '54

Use of ion-exchange methods in water analysis. C. Calmon. bibliog(26 titles) Am Water Works Assn J 46:470-8 My '54

Use of thenoyltrifluoroacetone in ion exchange separations. R. A. James and W. P. Bryan. bibliog Am Chem Soc J 76: 1982-4 Ap 5 '54

Waste purification; plater profits two ways; Pontiac motor division. A. J. D'Orazio. flow diag Steel 135:130-1 Jl 19 '54

See also

Resinous products—
  Ion exchanging

IONIC conductivity. See Electric conductivity

IONICS, inc.

Bright applicant for an old job; electrodialysis. il Bsns W p 178-80+ O 24 '53

IONIUM

Ionium by the gram; abstract. D. F. Peppard. diag Ind & Eng Chem 45:sup 13A My '53

Nuclear reactions

Alpha-gamma angular correlation in ionium (Th^{230}). G. M. Temmer and J. M. Wyckoff. bibliog diags Phys R 92:913-17 N 15 '53

IONIZATION, Electrolytic

Acid dissociation of the aquoscandium ions. M. Kilpatrick and L. Pokras. bibliog Electrochem Soc J 100:85-92 F '53; 101:39-43 Ja '54

Chemical action of ionising radiations in solution; the action of free radicals, produced by X-rays, on lactic acid in aqueous solution with particular reference to the effect of molecular oxygen. G. R. A. Johnson, G. Scholes and J. Weiss. Chem Soc J p3091-9 O '53

Chemical actions of ionising radiations in solution; the action of X-rays on some steroids in organic solvents. B. Coleby, M. Keller and J. Weiss. Chem Soc J p66-71 Ja '54

High field conductance of aqueous solutions of carbon dioxide at 25°; the true ionization constant of carbonic acid. D. Berg and A. Patterson, jr. bibliog Am Chem Soc J 75:5197-200 N 5 '53

High vacuum high speed ion pump. J. S. Foster and others. diags R Sci Instr 24: 388-90 My '53

Hydrogen bonding as a factor in the ionization of dicarboxylic acids. D. H. McDaniel and H. C. Brown. bibliog Science 118:370-2 O 2 '53

Illumination; *p*H effects in solutions of complex cyanides. A. G. MacDiarmid and N. F. Hall. bibliog Am Chem Soc J 75:5204-7 N 5 '53

Ionization constants of fluorinated acids; unsaturated acids. A. L. Henne and C. J. Fox. bibliog Am Chem Soc J 76:479-81 Ja 20 '54

Ionization constants of some new fluorine-containing acids. E. T. McBee, O. R. Pierce and D. D. Smith. bibliog Am Chem Soc J 76:3722-5 Jl 20 '54

Ionisation equilibria of metal co-ordination complexes in benzene solution. A. R. Burkin. diag Chem Soc J p71-81 Ja '54

Ionization of certain bisphenols. W. Mahler. bibliog Am Chem Soc J 76:3920-1 Ag 5 '54

Ionization potentials of substituted acetylenes by electron impact. J. L. Franklin and F. H. Field. bibliog Am Chem Soc J 76: 1994-7 Ap 5 '54

Methods of obtaining high vacuum by ionization; construction of an electronic pump. H. Schwarz. bibliog diags R Sci Instr 24:371-4 My '53; Correction. 25:924 S '54

Rates of ionization of :O-H and :N-H bonds. R. P. Bell and R. G. Pearson. Chem Soc J p3443-5 N '53

Rates of ionization of pseudo acids; catalytic behavior of alkylamines in the ionization of nitroethane. R. G. Pearson and F. V. Williams. bibliog Am Chem Soc J 76:258-60 Ja 5 '54

Redetermination of the ionization constants of nicotine. R. T. Fowler. bibliog J Ap Chem 4:449-52 Ag '54

Spectrophotometric determination of ionization constants of basic dyes. S. Woislawski. Am Chem Soc J 75:5201-3 N 5 '53

Student transference number apparatus. H. E. Hallam. diags J Chem Educ 31:306-7 Je '54

IONIZATION, Electrolytic—*Continued*

Surface ionization source using multiple filaments. M. G. Inghram and W. A. Chupka. bibliog diags R Sci Instr 24:518-20 Jl '53

Thermodynamics of ionization of amino acids; the ionization constants of γ-aminobutyric acid. E. J. King. bibliog Am Chem Soc J 76:1006-8 F 20 '54

IONIZATION, Gaseous

Alpha-particle ionization yields in a gridded chamber. L. O. Herwig and G. H. Miller. bibliog Phys R 94:1183 Je 1 '54

Automatic ionization efficiency digital recorder. J. D. Morrison. bibliog diags R Sci Instr 25:291-3 Mr '54

Contribution of solar X-rays to *E*-layer ionization. E. T. Byram and others. bibliog Phys R 92:1066-7 N 15 '53

Control of air ion density in rooms. H. H. Skilling and J. C. Beckett. bibliog diags Franklin Inst J 256:423-34 N '53

Density effect for the ionization loss at low energies. R. M. Sternheimer. Phys R 93:351 Ja 15 '54

Design and performance of a radio-frequency ion source. L. K. Goodwin. bibliog diags R Sci Instr 24:635-8 Ag '53

Determination of tritium by ion current measurement. K. E. Wilzbach, A. R. Van Dyken and L. Kaplan. bibliog(25 ref) Anal Chem 26:880-3 My '54

Direct production of molecular electron spectra using the mass spectrometer. J. D. Morrison. J Chem Phys 21:2090-1 N '53

Effects of impurities on the coloration of solids by ionizing radiations. J. H. Schulman. bibliog J Phys Chem 57:749-52 N '53

High-intensity ion source for cyclotrons. R. S. Livingston and R. J. Jones. bibliog il diags R Sci Instr 25:552-7 Je '54

High-intensity pulsed ion source. J. D. Gow and J. S. Foster, jr. bibliog diags R Sci Instr 24:606-10 Ag '53

Improved mass spectrometer ion source. O. A. Schaeffer. il diags R Sci Instr 25:660-2 Jl '54

Instrumentation and experimental procedure for studies of electron ejection by ions and ionization by electron impact. H. D. Hagstrum. bibliog il diags R Sci Instr 24:1122-42 D '53

Internal bremsstrahlung and ionization accompanying beta decay. F. Boehm and C. S. Wu. bibliog diags Phys R 93:518-23 F 1 '54

Ion current integrator. R. Littauer. diags R Sci Instr 25:148-52 F '54

Ionization energies of groups III and V elements in germanium. T. H. Geballe and F. J. Morin. Phys R 95:1085-6 Ag 15 '54

Ionization loss at relativistic velocities in nuclear emulsion. B. Stiller and M. M. Shapiro. bibliog Phys R 92:735-41 N 1 '53

Ionization of pure gases and mixtures of gases by 5-Mev alpha particles. T. E. Bortner and G. S. Hurst. bibliog diags Phys R 93:1236-41 Mr 15 '54

Ionization probability curves near threshold for Zn, Cd, and Hg. W. M. Hickam. bibliog diags Phys R 95:703-5 Ag 1 '54

Mechanism of gas phase radiation-chemical reactions. H. Essex. bibliog diag J Phys Chem 58:42-9 Ja '54

Methods of measuring the properties of ionized gases at high frequencies; null method of measuring the discharge admittance. L. Gould and S. C. Brown. diags J Ap Phys 24:1053-6 Ag '53

Microwave investigation of the ionization of hydrogen-oxygen and acetylene-oxygen flames. K. E. Shuler and J. Weber. bibliog il diags J Chem Phys 22:491-502 Mr '54

Origin of the *E* layer of the ionosphere. E. Bauer and T. Wu. bibliog Phys R 92:1101-5 D 1 '53

Preliminary results on photoelectric yields of Pt and Ta and on photoionization in O_2 and N_2 in the vacuum ultraviolet. N. Wainfan and others. bibliog diag J Ap Phys 24:1318-21 O '53

Production of unipolar air with radium isotopes. T. L. Martin, jr. diags Elec Eng 73:28-33 Ja '54

Relative ionization by cosmic-ray μ mesons in a liquid scintillator. R. Baskin and J. R. Winckler. bibliog diag Phys R 92:464-7 O 15 '53

Relative ionization yields for fission fragments in various gases. L. O. Herwig and G. H. Miller. bibliog diag Phys R 95:413-17 Jl 15 '54

Some aspects of the dissociation of benzene under electronic impact. J. L. Franklin and F. H. Field. bibliog J Chem Phys 21:2082-3 N '53

Specific ionization and energy loss of a fast charged particle. J. R. Allen. bibliog Phys R 93:353-4 Ja 15 '54

Spin-spin interaction of electrons and the ionization energy of helium. A. M. Sessler and H. M. Foley. Phys R 92:1321 D 1 '53

Steric relations between ionisation of aralkyl chlorides and dissociation of anilinium ions. G. Baddeley, J. Chadwick and H. T. Taylor. Chem Soc J p2405-9 Jl '54

Studies of ionization efficiency; the detection and interpretation of fine structure. J. D. Morrison. bibliog J Chem Phys 21:1767-72 O '53

Total ionization of α particles of Po in mixtures of gases. G. Bertolini and others. Phys R 92:1586 D 15 '53

Two ion sources for the production of multiply charged nitrogen ions. R. J. Jones and A. Zucker. diags R Sci Instr 25:562-6 Je '54

Use of proportional counters in the measurement of the specific ionization of charged particles. G. Igo and R. M. Eisberg. il diag R Sci Instr 25:450-3 My '54

IONIZATION chambers

Effect of space charge on saturation properties of ionization chambers. A. C. Lapsley. R Sci Instr 24:602-5 Ag '53

Extrapolation chamber for the measurement of beta sources. R. Loevinger. bibliog il R Sci Instr 24:907-14 O '53

Improvement in response of 4π gamma-ionization chambers. C. C. Smith and H. H. Seliger. diag R Sci Instr 24:474 Je '53

Ionization chamber measurements at 10 600 feet of the absorption of the *N* component in carbon and hydrocarbon. R. H. Rediker. diags Phys R 95:526-31 Jl 15 '54

Liquid argon ionization chambers of centimeter size. J. H. Marshall. bibliog diags R Sci Instr 25:232-7 Mr '54

Neutron-sensitive ionization chamber with electrically adjusted gamma compensation. H. S. McCreary, jr. and R. T. Bayard. il diags R Sci Instr 25:161-4 F '54

Techniques useful in evacuating and pressurizing metal chambers. H. V. Neher and A. R. Johnston. diags R Sci Instr 25:517-18 My '54

IONIZATION gages

Combined Pirani and ionization gauge circuit. G. von Dardel. diags J Sci Instr 30:114-17 Ap '53

Highly stable automatic X-ray diffraction apparatus with only one moving part. C. K. Jones. diags R Sci Instr 24:380-7 My '53

New developments in the production and measurement of ultra high vacuum. D. Alpert. bibliog(44 ref) diags J Ap Phys 24:860-76 Jl '53

Repairing ionization gauge tubes. A. J. Stinnett. R Sci Instr 24:985-6 O '53

Sorption and desorption of gas in the cold-cathode ionization gauge. J. H. Leck. bibliog diag J Sci Instr 30:271-4 Ag '53

IONONE

Synthesis of polyenes; the reaction of β-ionone with Grignard reagents. W. Oroshnik, G. Karmas and R. A. Mallory. bibliog Am Chem Soc J 76:2325-9 My 5 '54

IONOSPHERE. See Atmosphere, Upper

IONS

Adsorption of ions by carborundum. G. A. H. Elton and J. W. Mitchell. Chem Soc J p741-4 F '54

Apparatus for the measurement of ionic conductance of solid salts. P. W. M. Jacobs. bibliog diags J Sci Instr 30:204-7 Je '53

Calculation of the heats of formation of gaseous free radicals and ions. J. L. Franklin. bibliog J Chem Phys 21:2029-33 N '53

Chloryl ion, ClO_2+. A. A. Woolf. Chem & Ind p346 Mr 20 '54

Complete Bacher and Goudsmit method. S. Meshkov and C. W. Ufford. Phys R 94:75-6 Ap 1 '54

IONS—*Continued*

Conductometric standardization of solutions of common divalent metallic ions. J. L. Hall and others. bibliog Anal Chem 26:1484-6 S '54

Design and performance of a radio-frequency ion source. L. K. Goodwin. bibliog diags R Sci Instr 24:635-8 Ag '53

Detection of metallic ions by means of two new rhodanine derivatives. A. Mackie and A. L. Misra. Chem & Ind p 1112 S 4 '54

Determination of chloride ions in water by mercuric nitrate; abstract. G. Gad and M. Manthey. Am Water Works Assn J 46: sup64+ S '54

Determination of oxalate ion and calcium ion by indirect colorimetry. F. Burriel-Martí, J. Ramírez-Muñoz and E. Fernández-Caldas. bibliog Anal Chem 25:583-5 Ap '53

Electronic configuration in electrodeposition from aqueous solutions. E. H. Lyons, jr. and others. bibliog(174 ref) Electrochem Soc J 101:363-81, 410-14 Jl-Ag '54

Electronic polarizabilities of ions in crystals. J. R. Tessman and others. bibliog Phys R 92:890-5 N 15 '53

Experimental methods for studying fast ionic reactions in aqueous solutions; abstract. M. Eigen. Chem & Eng N 32:1175 My 3 '54

Flow tube uses conductivity to study fast ionic reactions; abstract. R. E. Meeker. diag Chem & Eng N 31:4444-5 O 26 '53

Instrument for the measurement of the density of aqueous ionic solutions. C. F. McCourt. diags J Sci Instr 30:241-4 Jl '53

Instrumentation and experimental procedure for studies of electron ejection by ions and ionization by electron impact. H. D. Hagstrum. bibliog il diags R Sci Instr 24:1122-42 D '53

Investigation of complex metal ions by the polarographic method. K. H. Gayer and others. J Chem Educ 30:557-61 N '53

Ion resonance control. il diag Chem & Eng N 32:1518 Ap 12 '54

Ion resonance mass spectrometer. W. A. Morgan, G. Jernakoff and K. P. Lanneau. il diags Ind & Eng Chem 46:1404-9 Jl '54

Ionic mass transfer and concentration polarization at rotating electrodes. M. Eisenberg and others. bibliog(48 ref) il diag Electrochem Soc J 101:306-20 Je '54

Ionic polymerization; ion pair chain mechanisms; the effect of different Lewis acid catalysts on the monomer reactivity ratios in copolymerization. C. G. Overberger, R. J. Ehrig and D. Tanner. bibliog Am Chem Soc J 76:772-5 F 5 '54

Mass spectrometer ion source for solid material. G. H. Palmer and K. L. Aitken. diags J Sci Instr 30:314-16 S '53

Measurement of ionic activities in solution with electrodes containing ion-exchange-resin membranes. T. R. E. Kressman. bibliog diag J Ap Chem 4:123-31 Mr '54

Metals in the atomic state in glasses. W. A. Weyl. bibliog J Phys Chem 57:753-7 N '53

Metastable negative ions. B. L. Donnally and H. E. Carr. Phys R 93:111-14 Ja 1 '54

Momentum transfer in sputtering by ion bombardment. G. K. Wehner. bibliog diags J Ap Phys 25:270-1 F '54

Nature and behaviour of ion pairs in acetolysis. S. Winstein and others. Chem & Ind p664-5 Je 5 '54

Nature of the zinc-containing ion in strongly alkaline solutions. T. P. Dirkse. bibliog Electrochem Soc J 101:328-31 Je '54

Pig ion source; Phillips ionization gauge type ion source used on a Cockcroft-Walton type accelerator. C. F. Barnett and others. diag R Sci Instr 24:394-5 My '53

Positive and negative ions in cathode-ray tubes. C. H. Bachman and others. bibliog il diags J Ap Phys 24:427-33 Ap '53

Quinones as ion source in hydrocarbons. A. Gemant. bibliog Electrochem Soc J 100:320-7 Jl '53

Reactions of hydrocarbons; ionic mechanisms. L. Schmerling. bibliog(50 ref) Ind & Eng Chem 45:1447-55 Jl '53

Recent advances in the ionic reactions of rubber; abstract. M. Gordon and J. S. Taylor. Chem & Ind p685 Jl 11 '53

Reduction of oxidation-ions in hydrocarbons. A. Gemant. bibliog Electrochem Soc J 101:281-6 Je '54

Salt effects and ion-pairs in solvolysis. S. Winstein and others. Am Chem Soc J 76:2597-8 My 5 '54

Secondary emission from nichrome V, CuBe, and AgMg alloy targets due to positive ion bombardment. M. J. Higatsberger and others. bibliog diag J Ap Phys 25:883-6 Jl '54

Some ions of high kinetic energy in mass spectra of polyatomic molecules. F. L. Mohler and others. bibliog J Chem Phys 22:394-7 Mr '54

Sputtering of alkali atoms by inert gas ions of low energy. R. C. Bradley. bibliog diags Phys R 93:719-28 F 15 '54

Stability of a complex ion; experiment in radiochemistry and ion exchange. P. Kruger and J. Schubert. bibliog J Chem Educ 30:196-8 Ap '53

Stability of complex ions with special reference to hydration. R. J. P. Williams. bibliog J Phys Chem 58:121-6 F '54

Steric relationships between ionization of aralkyl chlorides and dissociation of anilinium ions; abstract. G. Baddeley and others. Chem & Ind p216 F 20 '54

Systematic calculation of ionic equilibria. J. L. Fritz. J Chem Educ 30:442-4 S '53

Theory of the luminescence of impurity-activated ionic crystals. F. E. Williams. bibliog J Phys Chem 57:780-4 N '53

Titration of iodide with electrolytically generated silver ion. R. L. Kowalkowski, J. H. Kennedy and P. S. Farrington. bibliog Anal Chem 26:626-8 Ap '54

See also

Activity coefficients

Anions

Cations

Mobility

Ion trajectories in the omegatron. C. E. Berry. diags J Ap Phys 25:28-31 Ja '54

Measurement of the heat of activation for sodium ion diffusion in glass. R. Kamel. bibliog diag J Ap Phys 24:1308-11 O '53

Mobilities of atomic and molecular ions in the noble gases. M. A. Biondi and L. M. Chanin. bibliog diags Phys R 94:910-16 My 15 '54

Mobility of impurity ions in germanium and silicon. J. C. Severiens and C. S. Fuller. Phys R 92:1322-3 D 1 '53

Sputtering at low ion velocities. G. Wehner and G. Medicus. diag J Ap Phys 25:698-702 Je '54

Recombination

Rate of association of methyl radicals. G. B. Kistiakowsky and E. K. Roberts. bibliog J Chem Phys 21:1637-43 O '53

IONYLIDENE

Synthesis and composition of β-ionylidene-acetic ester; characterization of the isomeric components. N. L. Wendler and others. bibliog Chem & Ind p617 Je 20 '53

IOWA electric light and power company

Mergers seen spurring growth. Barron's 33:34 Ag 31 '53

Stock offered. Comm & Fin Chr 178:1372 O 12 '53

IOWA power and light company

Preferred stock offered. Comm & Fin Chr 178:2093 N 30 '53

IPATIEFF, Vladimir Nikolaevich, 1867-1952

Honors to high pressure pioneer; Northwestern dedicates new laboratory to carry on work. por Chem & Eng N 31:5064+ D 7 '53

Ipatieff gift fund formed for John Crerar library. Chem & Eng N 32:3292 Ag 16 '54

IPOMEAMARONE

Ipomeamarone and ngaione. A. J. Birch and others. bibliog Chem & Ind p902 Jl 17 '54

IPOMEANIN. See Ketones

IRAN

Barter deals offered; Iran making overtures to Cuba, Italy, and Japan to take oil in payment for sugar and various manufactured goods. Oil & Gas J 52:59 Jl 6 '53

Iran; the Shah rides the tiger. Bsns W p 120+ Ag 29 '53

See also

Petroleum industry and trade—Iran

IRAN—*Continued*

Commercial policy

Iran allows quotas to be raised. For Comm W 51:8 Ja 18 '54

Economic conditions

Iranian financial condition starts to improve as United States aid begins. For Comm W 51:2 F 22 '54

Foreign relations

Back to Persia. Economist 169:800-1 D 12 '53

See also

Petroleum industry and trade—Iran

Great Britain

Iran tries to catch up. Economist 170:100-1 Ja 9 '54

Politics and government

Dr Mossadegh sees it through. Economist 168:262-3 Jl 25 '53

Iran changes leaders. Oil & Gas J 52:92 Ag 24 '53

Mossadegh's secret. Economist 169:950 D 26 '53

Persians and foreigners. Economist 168:550-2 Ag 29 '53

Tables turned in Persia. Economist 168:497 Ag 22 '53

IRAQ

See also

Floods—Iraq

Irrigation—Iraq

Petroleum industry and trade—Iraq

Petroleum pipe lines —Iraq

Economic conditions

Economic conditions abroad. For Comm W 50:5 D 28 '53

Politics and government

New blood in Iraq. Economist 168:858 S 26 '53

IRELAND, Glen, 1895-

AIEE fellows elected. por Elec Eng 72:1130 D '53

IRELAND

See also

Electricity supply—Ireland

Lead mines and mining—Ireland

Zinc mines and mining—Ireland

Economic conditions

Economic conditions abroad (cont). For Comm W 50:5 N 30 '53

Ireland's persisting inflation. Economist 169: 479-80 N 14 '53

Irish economy. Economist 169:139-41+ O 10 '53

Politics and government

Pains of Irish protectionism. Economist 168: 83-4 Jl 11 '53

IRESINE celosioides

Terpenoids; the isolation of iresin, a new sesquiterpene lactone. C. Djerassi and others. Am Chem Soc J 76:2966-8 Je 5 '54

IRIDEAE. See Algae

IRIDIUM

Analysis

Behavior of platinum group metals toward ion exchange resins. W. M. MacNevin and W. B. Crummett. bibliog(25 ref) Anal Chem 25:1628-30 N '53

Chemical methods for separating and determining metals contained in platiniferous materials. R. Gilchrist. bibliog(25 ref) Anal Chem 25:1617-21 N '53

Concentrating and dissolving platinum metals. F. E. Beamish and W. A. E. McBryde. bibliog Anal Chem 25:1613-17 N '53

Separation of palladium from platinum, iridium, and rhodium with dimethylglyoxime. G. H. Ayres and E. W. Berg. Anal Chem 25:980-1 Je '53

Separation of rhodium(III) from iridium(IV). G. H. Ayres and C. M. Maddin. bibliog Anal Chem 26:671-4 Ap '54

Separation of the four platinum group metals palladium, rhodium, iridium and platinum. P. C. Stevenson and others. Am Chem Soc J 75:4876 O 5 '53

Nuclear reactions

Further study of the decay scheme of Ir^{192}. R. W. Pringle and others. diag Phys R 95: 115-16 Jl 1 '54

Prices

Nonferrous prices; tabulation. Steel 134:175 Ja 4 '54

IRIDIUM alloys

Structure of some iridium-osmium alloys. H. C. Vacher and others. il J Metals 6:Trans 80 Ja '54

IRIDIUM compounds

Pentammineiridium(0). G. W. Watt and P. I. Mayfield. bibliog Am Chem Soc J 75: 6178-80 D 20 '53

IRON

Absorptiometric determination of iron using cupferron. R. S. Beckwith. Chem & Ind p663 Je 5 '54

Activities of Fe, FeO, Fe_2O_3, and CaO in simple slags. H. R. Larson and J. Chipman. bibliog J Metals 6:Trans 759-62 Je '54

Analytical aspects of reactions of 2-(2-pyridyl)-benzimidazole and 2-(2-pyridyl)-imidazoline with iron(II). J. L. Walter and H. Freiser. bibliog Anal Chem 26:217-21 Ja '54

Angular distribution of neutrons scattered from aluminum, iron, and lead. W. D. Whitehead and S. C. Snowdon. bibliog diags Phys R 92:114-19 O 1 '53

Annual materials engineering review and forecast; irons and steels. T. C. DuMond. il Materials & Methods 39:114-17 Ja '54

Attenuation of gamma rays; transmission values for finite slabs of lead, iron, and the Compton scatterer. G. H. Peebles. bibliog J Ap Phys 24:1272-87 O '53

Build-up measurements on cobalt-60 gamma radiation in iron and lead. C. Garrett and G. N. Whyte. bibliog Phys R 95:889-91 Ag 15 '54

Chemical deterioration of wood in the presence of iron. E. Farber. bibliog il Ind & Eng Chem 46:1968-72 S '54

Cobalt, iron and some of their alloys as catalysts for the hydrogenation of carbon dioxide. R. A. Stowe and W. W. Russell. bibliog Am Chem Soc J 76:319-23 Ja 20 '54

Delayed yield and strain rate and temperature dependence of yield point in iron. T. Yokobori. bibliog J Ap Phys 25:593-4 My '54

Directory of materials; ferrous metals, tradenames and information; index by type of material. Machine Design 26:5-6+ sec 2 My '54

Effect of iron, manganese and chromium on the properties in sheet form of aluminum alloys containing 0.7 per cent magnesium and 1.0 per cent silicon; abstract. R. Chadwick and others. Metal Prog 66:178+ Jl 1 '54

Effect of iron on hardness, bend properties and welding of titanium sheet. W. J. Barth and A. L. Feild, jr. il Metal Prog 64:74-7 N '53

Effect of temperature on the adsorption of *n*-decane on iron. F. R. Basford, W. D. Harkins and S. B. Twiss. bibliog J Phys Chem 58:307-12 Ap '54

Electron and X-ray diffraction studies of iron Fischer-Tropsch catalysts. J. T. McCartney and others. bibliog diag J Phys Chem 57:730-6 O '53

High purity metals. D. J. Maykuth. Product Eng 24:188 N '53

Influence of pressure on the Curie temperature of iron and nickel. R. Smoluchowski. bibliog Phys R 93:392-3 F 1 '54

Ingot iron and wrought iron; physical properties, mechanical properties, fabricating properties, corrosion resistance, etc.; engineering file facts. Materials & Methods 40: 127 Ag '54

Iron contamination of storage batteries. E. Willihnganz. Electrochem Soc J 100:527-9 N '53

Iron content of melanin granules isolated from pigmented mammalian hairs. G. Laxer and C. S. Whewell. bibliog Chem & Ind p 127 Ja 30 '54

Iron passivation in nitric acid. S. Aronow. diag Electrochem Soc J 100:sup 106C Ap '53

IRON—*Continued*

Iron-2,2',2"-terpyridine system. W. W. Brandt and J. P. Wright. Am Chem Soc J 76:3082-3 Je 5 '54

Kinetics of the reaction between thallium(III) and iron(II) in aqueous perchloric acid. K. G. Ashurst and W. C. E. Higginson. Chem Soc J p3044-9 O '53

Kinetics of the reactions between iron(II) and some hydroperoxides based upon cumene and cyclohexane. R. J. Orr and H. L. Williams. bibliog J Phys Chem 57:925-31 D '53; Correction. 58:1172 D '54

Lattice parameters and Curie points of unreduced iron catalysts. R. Westrik. bibliog J Chem Phys 21:2094-5 N '53

Magnetic transformation of iron in copper matrix at low temperatures. R. E. Cech and D. Turnbull. bibliog J Metals 6:Trans 45-6 Ja '54

Materials of construction for chemical engineering; iron, mild steels, and low-alloy steels. H. L. Shaw. bibliog(85 ref) il Ind & Eng Chem 45:2205-10 O '53

Penetration of gamma radiation through iron. L. A. Beach and others. Phys R 92:355 O 15 '53

Perfect crystals of pure iron produced. C. G. Suits. Blast F & Steel Pl 42:sup 108-9 Ap '54; Same cond. il Chem & Eng N 32:1467 Ap 12 '54

Photoelectric studies of iron. A. B. Cardwell. bibliog Phys R 92:554-6 N 1 '53

Possible loss of iron during sodium carbonate fusion of silicates and rocks. H. R. Shell. Anal Chem 26:591-3 Mr '54

Potentials of iron, 18-8, and titanium in passivating solutions. H. H. Uhlig and A. Geary. bibliog(47 ref) Electrochem Soc J 101:215-24 My '54

Preparation of metallic iron of high purity. G. A. Moore. bibliog diags J Metals 5: Trans 1443-9 N '53

Properties of chemical engineering materials of construction. H. L. Shaw. Ind & Eng Chem 45:2276-9 O '53

Rapid photometric determination of cobalt in the presence of iron. J. N. Pascual, W. H. Shipman and W. Simon. bibliog Anal Chem 25:1830-2 D '53

Reaction of 5-fluoro-8-hydroxyquinoline (5-fluoro-oxine) towards ferrous and ferric iron. R. G. W. Hollingshead. Chem & Ind p 1108 S 4 '54

Reactions of certain unsaturated steroids with acid iron reagent. B. Zak and others. bibliog Anal Chem 26:776-7 Ap '54

Single crystal metal rotors. J. W. Beams. il Phys R 92:502 O 15 '53

Solubility of oxygen in alpha iron. A. U. Seybolt. bibliog il J Metals 6:Trans 641-4 sec 2 My '54

Steel and iron required for modern-day products; tabulation. Steel 134:171 Ja 4 '54

Vapor pressure of zinc in the reduction of ZnS by Cu and Fe. A. W. Bethune and L. M. Pidgeon. bibliog J Metals 5:Trans 804-7 Je '53

See also

Blast furnaces
Cast iron
Corrosion and anti-corrosives
Foundry practice
Iron, Powdered
Iron, Sponge
Iron alloys
Iron founding
Iron metallurgy
Iron ores
Pig iron
Sheet iron
Steel
Water purification—Iron removal
Wrought iron

Analysis

Aluminum and iron in Atlantic and Gulf of Mexico surface waters. L. H. Simons, P. H. Monoghan and M. S. Taggart, jr. bibliog map Anal Chem 25:989-90 Je '53

Analytical chemistry of niobium and tantalum; separation of iron and manganese from the earth acids. C. F. Hiskey and A. L. Batik. bibliog Anal Chem 25:823-5 My '53

Colorimetric determination of iron with nitroso R salt. J. A. Dean and J. H. Lady. bibliog Anal Chem 25:947-9 Je '53

Colorimetric determination of molybdenum with mercaptoacetic acid. F. Will, 3d and J. H. Yoe. bibliog Anal Chem 25:1363-6 S '53

Determination of iron in ores, slags and refractories. Metallurgia 49:106 F '54

Direct photometric determination of iron, titanium, and copper in tantalum and its oxide. J. Hastings, T. A. McClarity and E. J. Broderick. bibliog Anal Chem 26:379-81 F '54

Effect of cuprous iodide on the iodometric determination of iron in presence of sulfate. E. W. Hammock and E. H. Swift. Anal Chem 25:1113-14 Jl '53

Electrolytic deposition of iron as an analytical technique. J. O. Lay. bibliog Metallurgia 48:313-14 D '53

Improved spectrophotometric procedure for determination of serum iron. R. E. Peterson. bibliog Anal Chem 25:1337-9 S '53

Permanent spectrophotometer standard for iron determination. L. Aconsky and others. Am Water Works Assn J 46:894-8 S '54

Simultaneous titration of iron and copper with ethylenediaminetetraacetic acid. A. L. Underwood. Anal Chem 25:1910-12 D '53

Small amounts of uranium in the presence of iron. L. Silverman, L. Moudy and D. W. Hawley. bibliog Anal Chem 25:1369-73 S '53

Spectrochemical determination of magnesium, iron, silicon, and manganese in titanium metal. H. A. Heller and R. W. Lewis. bibliog diags Anal Chem 25:1038-42 Jl '53

Spectrographic analysis of foundry metal; Campbell, Wyant & Cannon foundry co. L. E. Harper. il Foundry 82:112-13 S '54

Spectrophotometric determination of iron in vanadium, chromium, manganese, nickel, and zinc. D. W. Margerum and C. V. Banks. bibliog Anal Chem 26:200-2 Ja '54

Spectrophotometric titration of uranium and iron. C. E. Bricker and P. B. Sweetser. bibliog Anal Chem 25:764-7 My '53

X-ray analysis of foundry dusts for quartz and iron in relation to silicosis and siderosis. G. L. Clark and H. C. Terford. Anal Chem 26:1416-18 S '54

Bibliography

Review of iron and steel literature for 1953. V. S. Polansky. Blast F & Steel Pl 42:537-9+, 675-8+ My-Je '54 [reprinted by Carnegie library of Pittsburgh]

Brittleness

Embrittlement of pure iron in wet and dry hydrogen. J. K. Stanley. bibliog il Am Soc for Metals Trans 44:1097-106; Discussion. 1106-16 '52

Intergranular brittleness in iron-oxygen alloys. W. P. Rees and B. E. Hopkins. 2pls Iron & Steel Inst J 172:403-9 D '52; Abstract. Metal Prog 65:178+ F '54

Deoxidation

Solubility and activity of oxygen in iron-vanadium melts; abstract. R. A. Karasev and others. Metal Prog 65:178+ Mr '54

Studies in the deoxidation of iron; deoxidation by silicon. E. L. Evans and H. A. Sloman. bibliog pl Iron & Steel Inst J 172:296-300 N '52; Abstract. Metal Prog 66:supA 182+ Jl 15 '54

Hydrogen effect

Embrittlement of pure iron in wet and dry hydrogen. J. K. Stanley. bibliog il Am Soc for Metals Trans 44:1097-106; Discussion. 1106-16 '52

Isotopes

Assay of radioiron and radiosilver in biological samples. L. Cheong, G. C. Perri and L. M. Sharpe. Anal Chem 26:242-3 Ja '54

Metallography

Calculation of martensite nucleus energy using the reaction-path model. J. C. Fisher and D. Turnbull. J Metals 5:Trans 921-2 Jl '53

Concentration gradients associated with growing pearlite. R. E. Grace. il J Metals 5:Trans 820-1 Je '53

Constitution of iron-boron alloys in the low boron range. M. E. Nicholson. bibliog il J Metals 6:Trans 185-90 sec 2 F '54

IRON—Metallography—*Continued*

Crystallographic analysis of the ductile-brittle transition in body-centered cubic single crystals. A. J. Opinsky. J Metals 5:Trans 1650-1 D '53

Diffusion and solubility of boron in iron and steel. P. E. Busby and others. bibliog il J Metals 5:Trans 1463-8 N '53

Diffusion of boron in alpha iron. P. E. Busby and C. Wells. diag J Metals 6:Trans 972 S '54

Electron optical study of oxidation of high purity iron at low oxygen pressures. E. A. Gulbransen and others. bibliog il diags J Metals 6:Trans 1027-35 sec 2 S '54

Grain growth in high purity iron. G. Wiener. bibliog il Am Soc for Metals Trans 44:1169-84; Discussion. 1184-5 '52

Graphite spherulite formation and growth. A. De Sy. bibliog il diag Foundry 81:100-3+ N '53

Inside look at hardening cast iron. J. Obrebski. il Steel 133:71-3 D 28 '53

Interrelation of mechanical properties, casting size, and microstructure of ductile cast iron. R. W. Kraft and R. A. Flinn. bibliog il Am Soc for Metals Trans 44:282-306; Discussion. 306-9 '52

Martensite nucleation in substitutional iron alloys. J. C. Fisher. bibliog J Metals 5: Trans 918-20 Jl '53; Discussion. 6:Trans 685-6 sec 2 My '54

Mechanism of reduction of iron oxides. J. O. Edström. bibliog(68 ref) 6pls diag Iron & Steel Inst J 175:289-304 N '53

Occurrence of silicon carbide in the Fe-C-Si system. J. C. Fulton and J. Chipman. il J Metals 6:Trans 356-7 Mr '54

Plastic deformation of iron between 300° and 77.2°K. D. F. Gibbons. bibliog il diags J Metals 5:Trans 1245-50 sec 2 S '53; Discussion. 6:Trans 661 sec 2 May '54

Precipitation of iron oxide from alpha Fe-O solid solutions. A. U. Seybolt. il J Metals 6:Trans 979-82 S '54

Self diffusion of iron in iron oxides and the Wagner theory of oxidation. L. Himmel and others. bibliog(43 ref) il diag J Metals 5:Trans 827-43 Je '53; Discussion. 6:Trans 670-2 sec 2 My '54

Solid state bonding in iron ore pellets. S. R. B. Cooke and R. E. Brandt. il Min Eng 6:Trans 411-15 Ap '54

Solidification, feeding characteristics of gray and nodular irons. R. P. Dunphy and others. il diags Foundry 82:108-15+ Je '54

Wustite phase in partially reduced hematite. G. Bitsianes and T. L. Joseph. il diag J Metals 6:Trans 150-3 F '54

See also

Cast iron—Graphitization

Nuclear reactions

Cross sections for the reactions $Ti^{48}(d,2n)V^{48}$; $Cr^{52}(d,2n)Mn^{52}$; and $Fe^{56}(d,2n)Co^{56}$. W. H. Burgus and others. Phys R 95:750-1 Ag 1 '54

Radiative electron capture in Fe^{55}. L. Madansky and F. Rasetti. Phys R 94:407-8 Ap 15 '54

Radiative electron capture of Fe^{55}, A^{37}, and Ni^{59}. W. S. Emmerich and others. bibliog Phys R 94:113-16 Ap 1 '54

Oxygen content

Precipitation of iron oxide from alpha Fe-O solid solutions. A. U. Seybolt. il J Metals 6:Trans 979-82 S '54

Phosphorus content

Determination of micro amounts of phosphorus in high-purity iron. O. R. Gates. bibliog Anal Chem 26:730-2 Ap '54

Protection

Corrosion inhibition in acid solution. C. V. King and E. Hillner. bibliog Electrochem Soc J 101:79-83 F '54

Inhibition of the corrosion of iron by some anodic inhibitors. M. J. Pryor and M. Cohen. bibliog diags Electrochem Soc J 100:203-15 My '53

Pretreatment techniques for dip copper coating of iron and steel; abstract. B. M. Pearson. Metal Finishing 52:91 Ag '54

Protection of iron and steel by metallic and non-metallic coatings. J. C. Hudson and J. F. Stanners. bibliog il 6pls Iron & Steel Inst J 175:381-90 D '53

Single coat enameling; titanium in enameling iron stabilizes carbon and does away with need for ground coat; Ti-namel. il Steel 133:162 O 26 '53

Spectrum

Spectroscopy of the solid state; some of the transition elements. E. M. Gyorgy and G. G. Harvey. bibliog Phys R 93:365-9 F 1 '54

Sulfur content

Desulphurization of iron; patent. M. Nord. diag Iron & Steel Eng 31:23 My '54

Determination of sulfur in iron and steel by barium chloride method after chromatographic separation of sulfuric acid. F. Nydahl. bibliog diag Anal Chem 26:580-4 Mr '54

Effect of Si, Mn, P, Al, C, Ni, and Cu on the mechanism of sulphur transfer across a slag-metal interface. K. M. Goldman and others. bibliog il diag J Metals 6:Trans 534-40 My '54

Manganese as an indicator of blast furnace slag oxidation and desulphurizing power. N. J. Grant and others. bibliog J Metals 5:Trans 1451-4 N '53

Temperature effect

Temperature stresses in iron work rolls. C. F. Peck, jr. and others. diags Iron & Steel Eng 31:45-57; Discussion. 57-8 Je '54

Testing

Study of strains between enamel and iron as related to physical properties of each. J. D. Walton, jr. bibliog diags Am Cer Soc J 37:153-60 Mr 1 '54

IRON, Molten

Chromium distribution between liquid iron and molten basic slags. N. J. Grant and others. bibliog il J Metals 6:Trans 145-9 F '54

Density of molten iron. V. H. Stott and J. H. Rendall. bibliog diag Iron & Steel Inst J 175:374-8 D '53

Distribution of manganese between slag and metal under reducing conditions. J. E. Stukel and J. Cocubinsky. diag J Metals 6:Trans 353-6 Mr '54

Effect of chromium on the thermodynamic activity of carbon in liquid iron. F. D. Richardson and W. E. Dennis. bibliog diag Iron & Steel Inst J 175:257-63 N '53

Effect of Si, Mn, P, Al, C, Ni, and Cu on the mechanism of sulphur transfer across a slag-metal interface. K. M. Goldman and others. bibliog il J Metals 6:Trans 534-40 My '54

Exchange of iron between liquid metal and iron silicate slag. G. Derge and C. E. Birchenall. bibliog J Metals 5:Trans 1648-50 D '53

Introduction of magnesium into molten iron; patent. Iron & Steel Eng 31:32 S '54

Silicon-oxygen equilibrium in liquid iron; a revision. J. Chipman and N. A. Gokcen. bibliog J Metals 5:Trans 1017-18 Ag '53

Solubility and activity of oxygen in iron-vanadium melts; abstract. R. A. Karasev and others. Metal Prog 65:178+ Mr '54

Solubility of carbon in molten iron and in iron-silicon and iron-manganese alloys. J. Chipman and others. bibliog diag Am Soc for Metals Trans 44:1215-30; Discussion. 1230-2 '52

IRON, Powdered

Develop new sources for electrolytic iron powder. R. N. Okuno and L. H. Mott. Iron Age 174:132-3 Ag 19 '54

Drawn shapes from metal powders now possible. R. Steinitz and others. il diag Materials & Methods 40:101-3 Jl '54

Experimental iron carbonyl powders. F. E. Jaumot, jr. and L. Muldawer. Franklin Inst J 256:377-8 O '53

German electrolytic iron powder. Materials & Methods 39:173 Je '54

Iron powder, average monthly prices, 1949-1953; tabulation. Iron Age 173:415 Ja 7 '54

Iron powder coatings; electrode design matches advance billing. J. Hinkel. diags Steel 135:104-5 Jl 19 '54

IRON, Powdered—*Continued*

Iron powder components; Automatic mfg. corp. il Steel 134:112 Mr 15 '54

Iron powder; new firms enter field. R. L. Hatschek. il Iron Age 172:59-60 Ag 20 '53

Iron powder; Republic enters field. Iron Age 172:74 Jl 2 '53; Steel 133:140+ Jl 13 '53; Mill & Factory 53:320 O '53; Blast F & Steel Pl 42:96-7 Ja '54

Iron powder; Republic starts work on new 25-ton-per-day plant. Iron Age 172:110 D 3 '53

Magnetization curves of powdered iron. A. D. Franklin. Franklin Inst J 256:90-2 Jl '53

Measurement of particle size of fine ferromagnetic powders. A. D. Franklin and others. bibliog(26 ref) il J Ap Phys 24:1040-5 Ag '53

Metal powder poles. Steel 134:131 Je 28 '54

New iron powder has better strength and hardness. Materials & Methods 40:152-3 Jl '54

New method of reduction for iron powders; abstract. H. Siepmann. Metal Prog 65:192+ Mr '54

Powder processes solve tough metal removal problems. R. S. Babcock. il diag Iron Age 174:105-8 Jl 22; 109-12 Ag 5; 122-4 Ag 12 '54

Powder; wary on high-density iron. K. W. Bennett. Iron Age 174:47 Jl 29 '54

Powdered iron invades electrode design. L. K. Stringham. il Iron & Steel Eng 31: 127-8 Mr '54; Same. Welding J 33:788-9 Ag '54; Same cond. Roads & Eng Constr 92: 102 Ap '54

Uniform powder flow gives better cuts in stainless. J. R. Kirwin and J. Holmstock. il Iron Age 173:156-7 Mr 4 '54

Variety of processes for iron powder parts; Pow-Met industries, inc. Am Mach 98:278 Ap 12 '54

IRON, Sponge

Properties of carbon and alloy steels made with sponge iron. J. L. Morning and W. W. Stephens. U S Bur Mines Rep of Invest 4975:1-17 '53

Sponge iron and direct-iron processes. E. P. Barrett. flow diag il diags U S Bur Mines Bul 519:1-143 bibliog(208 titles, p121-6); pa $1 Supt. of doc. '54

IRON alloys

Alloy gray iron, what does it cost? il Foundry 82:122-3+ Mr '54

Cobalt, iron and some of their alloys as catalysts for the hydrogenation of carbon dioxide. R. A. Stowe and W. W. Russell. bibliog Am Chem Soc J 76:319-23 Ja 20 '54

Constitution and properties of cobalt-iron-vanadium alloys. D. L. Martin and A. H. Geisler. bibliog il Am Soc for Metals Trans 44:461-81; Discussion. 481-3 '52

Constitution of iron-boron alloys in the low boron range. M. E. Nicholson. bibliog il J Metals 6:Trans 185-90 sec 2 F '54

Corrosion of low-alloy irons and steels in soils. Chem Eng 60:312-14 O '53

Influence of chemical composition on rupture properties at 1200° F of forged chromium-cobalt-nickel-iron base alloys in solution-treated and aged condition. E. E. Reynolds and others. bibliog il U S Nat Advisory Com for Aeronautics 1951:1385-444 '52

Intergranular brittleness in iron-oxygen alloys. W. P. Rees and B. E. Hopkins. 2pls Iron & Steel Inst J 172:403-9 D '52; Abstract. Metal Prog 65:178+ F '54

Magnetic annealing of Co-Fe alloy. A. H. Geisler and others. bibliog diags J Metals 5:Trans 813-20 Je '53

Martensite nucleation in substitutional iron alloys. J. C. Fisher. bibliog J Metals 5: Trans 918-20 Jl '53; Discussion. 6:Trans 685-6 sec 2 My '54

Mold irons and the glass mold situation. E. R. Flatter. Am Cer Soc Bul 33:101-3 Ap 15 '54; Same abr. Glass Ind 35:325-6 Je '54

Mold irons for the glass industry. N. Davis. il Glass Ind 35:19-20 Ja '54

Phase relationships in the iron-chromium-vanadium system. H. Martens and P. Duwez. bibliog Am Soc for Metals Trans 44:484-93; Discussion. 493-4 '52

See also

Meehanite

Steel

Steel alloys

Aluminum alloys

Al-Fe and new Al-Mo-Fe alloys show excellent oxidation resistance and low corrosion by some aqueous solutions. M. G. Fontana. il Ind & Eng Chem 46:sup85A-6A+ My '54

Effect of aluminum on the low temperature properties of relatively high purity ferrite. H. T. Green and R. M. Brick. bibliog J Metals 6:Trans906-13 Ag '54

Metallurgy; new iron-aluminum alloy may cut nickel, cobalt needs. Iron Age 173:85 Mr 11 '54

New miracle alloy? non-critical Thermenol can replace stainless. Am Mach 98:182 Mr 15 '54

16 percent aluminum-iron alloy cold rolled in the order-disorder temperature range. J. F. Nachman and W. J. Buehler. bibliog il diags J Ap Phys 25:307-13 Mr '54

Aluminum molybdenum alloys

Big future for non-strategic hi-temperature alloy; Thermenol. C. W. Lufcy. il Steel 135:88-9 Ag 2 '54

Analysis

Determination of tin-iron alloy coating in electro-tinplate. C. J. Thwaites and W. E. Hoare. bibliog il diag J Ap Chem 4:236-44 My '54

Carbon alloys

Effect of chromium on the thermodynamic activity of carbon in liquid iron. F. D. Richardson and W. E. Dennis. bibliog diag Iron & Steel Inst J 175:257-63 N '53

Forgeability of steels with varying amounts of manganese and sulphur. C. T. Anderson and others. J Metals 6:Trans 835-7 Jl '54

Removal of copper from iron-copper-carbon alloys. F. C. Langenberg and R. W. Lindsay. bibliog J Metals 6:Trans 967-8 S '54

Chromium alloys

Equilibrium controlling the decarburization of iron-chromium-carbon melts. W. E. Dennis and F. D. Richardson. bibliog Iron & Steel Inst J 175:264-6 N '53

Gamma loop studies in the iron-titanium, iron-chromium, and iron-titanium-chromium systems. W. P. Roe and W. P. Fishel. Am Soc for Metals Trans 44:1030-40; Discussion. diags 1040-6 '52

Sigma phase; a review. A. J. Lena. il Metal Prog 66:86-90 Jl 1 '54

Chromium nickel alloys

Casting institute study may alter alloy use. A. M. Hall. Foundry 82:255 Mr '54

Doing more with less nickel; Alloy casting institute does work on low-nickel alloys to prepare for future shortages. E. A. Schoefer. il Steel 133:134-5 Ag 3 '53

High alloy castings reduce steel plant maintenance. il Iron & Steel Eng 31:132+ Ap '54

High alloy castings resist high temperatures. il Iron & Steel Eng 30:130+ O '53; Excerpts. Steel 133:208-9 D 7 '53

Low-cost alloys offer good heat resistance. R. W. Boring. il Iron Age 173:137-41 F 18; 146-8 Mr 11 '54

New heat resistant alloy; nickel-chromium-iron alloy suitable for service to 2200 F. M. N. Ornitz and R. H. English. il Materials & Methods 39:82-5 Ja '54

Sigma phase; a review. A. J. Lena. il Metal Prog 66:86-90 Jl 1 '54

Way to save nickel. il Steel 134:122 F 15 '54

Copper alloys

Removal of copper from iron-copper-carbon alloys. F. C. Langenberg and R. W. Lindsay. bibliog J Metals 6:Trans 967-8 S '54

Manganese alloys

Solubility of carbon in molten iron and in iron-silicon and iron-manganese alloys. J. Chipman and others. bibliog diag Am Soc for Metals Trans 44:1215-30; Discussion. 1230-2 '52

Molybdenum alloys

Al-Fe and new Al-Mo-Fe alloys show excellent oxidation resistance and low corrosion by some aqueous solutions. M. G. Fontana. il Ind & Eng Chem 46:sup85A-6A+ My '54

IRON alloys—*Continued*

Nickel alloys

Corrosion of nickel cast irons in soils. I. A. Denison and M. Romanoff. il J Res Nat Bur Stand 51:313-20 D '53

Materials for special service; temperature-compensator alloys. W. S. Eberly. il diag Machine Design 26:152-6 My '54

Temperature dependence of ferromagnetic resonance line width in a nickel iron ferrite; a new loss mechanism. J. K. Galt and others. bibliog Phys R 93:1119-20 Mr 1 '54

See also

Invar

Nickel chromium alloys

New use for isoelastic alloys. Materials & Methods 39:224+ Mr '54

Nickel manganese alloys

Rate of formation of isothermal martensite in Fe-Ni-Mn alloy. R. E. Cech and J. H. Hollomon. bibliog il J Metals 5:Trans 685-9 sec 2 My '53; Discussion. 6:Trans 682-4 sec 2 My '54

Silicon alloys

Corrosion forum; high silicon irons. W. A. Luce. il Chem Eng 61:246+ Ja '54

Corrosion of high silicon iron by nitric acid as a function of temperature. M. G. Fontana. Ind & Eng Chem 45:sup91A-2A+ My '53

Metal-ceramic interactions; absolute measurement of metal-ceramic interfacial energy and the interfacial adsorption of silicon from iron-silicon alloys. W. D. Kingery. bibliog diags Am Cer Soc J 37:42-5 F 1 '54

Primary and secondary recrystallization in cold rolled bicrystals of silicon iron. C. G. Dunn. bibliog il J Metals 6:Trans 549-50 My '54

Production of oriented single-crystal silicon iron sheet. C. G. Dunn and G. C. Nonken. il diags Metal Prog 64:71-5 D '53

Solubility of carbon in molten iron and in iron-silicon and iron-manganese alloys. J. Chipman and others. bibliog diag Am Soc for Metals Trans 44:1215-30; Discussion. 1230-2 '52

Transformer steels; their choice and present state of development. C. D. Mee. il diags Elec R (Lond) 153:551-5 S 11 '53

Titanium alloys

Gamma loop studies in the iron-titanium, iron-chromium, and iron-titanium-chromium systems. W. P. Roe and W. P. Fishel. Am Soc for Metals Trans 44:1030-40; Discussion. diags 1040-6 '52

Systems titanium-chromium and titanium-iron. R. J. Van Thyne and others. bibliog il Am Soc for Metals Trans 44:974-89 '52

IRON ammonium sulfate

Determining residual chlorine in water by neutral ortho-tolidine methods; progress report. A. T. Palin. Water & Sewage Works 101:74-6 F '54

IRON and steel engineers, Association of. See Association of iron and steel engineers

IRON and steel institute

Autumn general meeting, London, Nov. 24-25; with abstracts of papers. Engineer 196:736-7, 777-9, 797-800 D 4-18 '53; Engineering 176:725, 744, 772-3 D 4-18 '53

Meeting, Amsterdam, Sept. 30-Oct. 6. Engineer 196:498-500, 522-4, 549-51 O 16-30 '53

Meeting, Amsterdam, Sept. 30-Oct. 6. Engineering 176:488-9 O 16 '53

IRON and steel research association, British. See British iron and steel research association

IRON carbonyl

Experimental iron carbonyl powders. F. E. Jaumot, jr. and L. Muldawer. Franklin Inst J 256:377-8 O '53

IRON chlorides

Diffraction of X-rays by the ferric chloride-aniline complex. E. V. Ballou and H. F. Winterkorn. Am Chem Soc J 76:3083-4 Je 5 '54

Iron(III)-phenol complex in aqueous solution. T. Moeller and R. W. Shellman. bibliog Science 118:327-8 S 18 '53

Production of tocored upon the oxidation of *dl*-α-tocopherol with ferric chloride. V. L. Frampton, W. A. Skinner, jr. and P. S. Bailey. bibliog Am Chem Soc J 76:282-4 Ja 5 '54

IRON citrate

Citrate complexes with iron(II) and iron(III). R. E. Hamm, C. M. Shull, jr. and D. M. Grant. bibliog Am Chem Soc J 76:2111-14 Ap 20 '54

Cupric and ferric citrate complexes. R. C. Warner and I. Weber. bibliog Am Chem Soc J 75:5086-94 O 20 '53

IRON compounds

Bis-indenyl derivatives of iron and cobalt. P. L. Pauson and G. Wilkinson. bibliog Am Chem Soc J 76:2024-6 Ap 5 '54

Exchange reactions and magnetic susceptibilities of complex salts; some complex salts of ferric iron. H. C. Clark, N. F. Curtis and A. L. Odell. Chem Soc J p63-6 Ja '54

Ferrocene derivatives; the direct synthesis of substituted ferrocenes. P. L. Pauson. bibliog Am Chem Soc J 76:2187-91 Ap 20 '54

Reaction between iron(II) complexes of polyethylenepolyamines and *p*-*t*-butylcumenehydroperoxide. R. J. Orr and H. L. Williams. bibliog Am Chem Soc J 76:3321-7 Je 20 '54

Route to monosubstituted ferrocene compounds. R. A. Benkeser, D. Goggin and G. Schroll. Am Chem Soc J 76:4025-6 Ag 5 '54

Steric hindrance in analytical chemistry; the interaction of ferrous salts with 2-substituted 1 : 10-phenanthrolines. H. Irving, M. J. Cabell and D. H. Mellor. Chem Soc J p3417-26 N '53

IRON fluoride

Thermal anomalies associated with the antiferromagnetic ordering of FeF$_2$, CoF$_2$, and NiF$_2$. J. W. Stout and E. Catalano. Phys R 92:1575 D 15 '53

IRON founding

Blast air moisture control improves cupola irons; Kathabar absorption-type dehumidifiers. J. L. Brooks. il diag Iron Age 173:112-13 Jl 1 '54

Can you control leakers in your gray iron castings? B. F. Darin. diags Foundry 82:214+ Mr '54

Controlling metal quality at Ford's Cleveland foundry; illustrations with text. Metal Prog 65:87-9 F '54

Electric annealing of white iron. R. W. Parsons. il Foundry 81:112-15 N '53

Foundries; may start up in Northwest. T. M. Rohan. il Iron Age 172:48 Ag 27 '53

Gray iron; American foundrymen's society annual meeting, Cleveland; abstracts of papers. Foundry 82:152+ Jl '54

Gray iron shell mold castings; International harvester company's truck engine works. K. Rose. il Materials & Methods 40:102-4 Ag '54

Gray iron shop course; American foundrymen's society annual meeting, Cleveland; abstracts of papers. Foundry 82:161+ Jl '54

How melting practice affects machinability of malleable iron. E. A. Loria. il Iron Age 174:168-70 S 16 '54

How to improve carbon pickup in foundry iron. E. Fry. Iron Age 172:140-1 Jl 16 '53

Improved coke cuts cupola operating costs. S. W. Martin and others. il Iron Age 174:97-9 Ag 5 '54

Malleable founders' society 5th annual market development conference, Pittsburgh, April 8-9. Foundry 82:173+ Je '54

Malleable foundry modernizes facilities; Marion malleable iron works. E. Bremer. il plan Foundry 82:108-11+ S '54

Malleable iron; American foundrymen's society annual meeting, Cleveland; abstracts of papers. Foundry 82:152+ Je '54

Malleable shop course; American foundrymen's society annual meeting, Cleveland; abstracts of papers. Foundry 82:166+ Jl '54

Modern production of Whiteheart malleable iron; abstract. J. Bernstein. Metallurgia 50:67 Ag '54

Modernizes ingot mold foundry; U.S. Steel gray iron foundry at Edgar Thomson works. R. M. Love. il Foundry 82:188 Je '54

New malleable iron foundry yields better economy, quality; Crane co. G. A. Kelley. flow diag il Foundry 82:170-1 F '54

IRON founding—*Continued*

Pushbutton foundry is approached in automatic molding system; malleable iron foundry of Crane co. R. H. Herrmann. il diag Foundry 81:154-6 D '53

Rollmaking art goes modern. il diags Steel 134:82+ Ja 18 '54

Shell-mold casting of automotive parts; Central foundry division, General motors corp. J. H. Smith. il Mach 60:186-95 N '53

Small foundry is rebuilt into mechanized operation; Auburn foundry inc. R. H. Herrmann. il Foundry 82:78-83+ Jl '54

Southern foundry marks 65 years of progress; Ross-Meehan foundries. W. G. Gude. il Foundry 82:90-3+ Ag '54

See also

Cast iron
Cupola furnaces
Gray iron founders' society
Malleable founders' society
Molds (for casting)
Pig iron

IRON industry and trade

Developments in the iron and steel industry during 1953. I. E. Madsen. il plans diags Iron & Steel Eng 31:120-56+ Ja '54

Pig iron and other metal products placed under general license. For Comm W 50:19 N 9 '53

Steel and iron production in 1953 establishes record. M. D. Howell. Blast F & Steel Pl 42:41-2 Ja '54

See also

Iron founding
Iron mines and mining
Iron ores
Iron works
Steel industry and trade

History

Henry William Stiegel, pioneer iron and glass maker. R. D. Billinger. bibliog il J Chem Educ 30:356-62 Jl '53

See also

Saugus iron works

Statistics

Iron and steel, 1949-1952. Survey of Cur Bsns 1953 Sup p 156-8 [supplemented in monthly numbers]

Great Britain

British iron and steel industry in 1953. il Engineer 197:27-8, pl 3, 66-8 Ja 1-8 '54

Iron & steel corporation's 2d annual report, year ended Sept. 1952. Chem Age (Lond) 68: 985-6 Je 27 '53

Iron and steel production in 1953. Engineer 197:103 Ja 15 '54

Iron and steel production in 1953. Engineering 177:101 Ja 22 '54

Ore for the furnaces. Economist 168:280 Jl 25 '53

Netherlands

Iron and steel industry of the Netherlands. A. H. I. Housz. Engineering 176:542-3 O 23 '53

Northwestern states

Foundries; may start up in Northwest. T. M. Rohan. il Iron Age 172:48 Ag 27 '53

IRON lung. See Respiratory apparatus

IRON metallurgy

Additives produce strong and reducible iron ore sinter. R. D. Burlingame and others. il J Metals 6:449-51 Ap '54

Chemical basis of the manufacture of iron and steel. D. J. O. Brandt. il diags Chem & Ind p982-7 Ag 7 '54

Chromium distribution between liquid iron and molten basic slags. N. J. Grant and others. bibliog il J Metals 6:Trans 145-9 F '54

Differential grinding in cyclone shown by screen tests. S. E. Erickson. diag Eng & Min J 155:95+ Ja '54

Distribution of manganese between slag and metal under reducing conditions. J. E. Stukel and J. Cocubinsky. diags J Metals 6:Trans 353-6 Mr '54

Effect of mineral additions and moisture control on the sintering of Sierra Leone concentrates. P. K. Gledhill and others. Iron & Steel Inst J 175:277-9 N '53

Effect of Si, Mn, P, Al, C, Ni, and Cu on the mechanism of sulphur transfer across a slag-metal interface. K. M. Goldman and others. bibliog il diag J Metals 6:Trans 534-40 My '54

Erie ready to start work on big taconite project. il Eng & Min J 155:78-9 Ja '54

Factors controlling the rate of sinter production. E. W. Voice and others. bibliog flow diag 3pls diags Iron & Steel Inst J 175:97-152 O '53

Froth flotation of iron ores; adsorption of starch products and laurylamine acetate. N. F. Schulz and S. R. B. Cooke. bibliog(29 ref) Ind & Eng Chem 45:2767-72 D '53

Humboldt mill; features of design and construction. O. W. Walvoord. il diags Min Eng 6:42-4 Ja '54

Ironmaking from high-sinter burdens. G. D. Elliot and others. bibliog Iron & Steel Inst J 175:241-7 N '53

Iron ore beneficiation. F. D. DeVaney. Eng & Min J 155:123-5 F '54

Iron ore recovered from blast furnace gas. W. A. Walton. il Iron & Steel Eng 30: 121-2 Ap '53; Same cond. Power 97:95-7+ N '53

Iron reduction in fluid beds. flow sheet Chem Eng 60:398+ S '53

Low-grade iron ores; at long last Ford finds a way to use 'em; Humboldt's concentrating process. il Am Mach 98:167 Jl 5 '54; Blast F & Steel Pl 42:842, 954 Jl-Ag '54

Low-temperature iron production; patent. Iron & Steel Eng 31:24 Ag '54

Melting iron in the reverberatory furnace. C. G. de Laval. Foundry 82:224+ Mr '54

Mineralogy of blast furnace sinter. H. M. Kraner. bibliog Min Eng 5:Trans 1114-17 N '53

Modern plant will treat Mesabi lean ores; West Hill plant of Western mining co. E. C. Herkenhoff. flow sheets il plans diags Eng & Min J 155:78-83 Mr '54

More furnaces resort to pressurized operation. il Steel 135:128+ S 20 '54

New ore treatment permits wide use of nonmagnetic taconites. F. M. Stephens, jr. and others. diag Iron Age 172:142-6 Jl 2 '53

New plant successfully floats Michigan jasper; Humboldt mining co. R. Cochran and E. Nanno. flow sheet il Eng & Min J 155: 100-4, 114 Ag '54

Nodulizing iron ores and concentrates at Extaca. R. L. Bennett and others. flow sheet il Min Eng 6:32-8 Ja '54

Oxygen performs dual function in direct reduction process. flow diag Steel 134:120 Ap 5 '54

Preparation of metallic iron of high purity. G. A. Moore. bibliog diags J Metals 5: Trans 1443-9 N '53

Pressure operation grows in European blast furnace practice. E. L. Pepper. il diag Iron Age 173:128-32 Ja 28 '54

Properties of nonmagnetic taconites affecting concentration. D. W. Scott and A. L. Wesner. bibliog il map Min Eng 6:Trans 635-41 Je '54

Quality of iron ore sinter as related to moisture and coke content. H. A. Morrissey and R. E. Powers. diag J Metals 6:447-9 Ap '54

Radiographic studies of the process of sintering iron ores. E. Cohen. bibliog 6pls Iron & Steel Inst J 175:160-6 O '53; Abstract. Metal Prog 66:156+ S '54

Rating of sinter plants for economic output. R. F. Jennings. Iron & Steel Inst J 175:248-56 N '53

Reduction-oxidation process for the treatment of taconites. F. M. Stephens, jr. and others. il diag J Metals 5:780-5 Je '53

Roasting metallic sulphides in a fluid column. H. M. Cyr and others. bibliog il diags J Metals 6:Trans900-4 Ag '54

Saleable iron ore gleaned from unmined remnants: Pacific Isle mining co. E. T. Binger. il Eng & Min J 155:89-91 Ja '54

Sinter is what you make it. E. H. Rose and D. J. Reed. il J Metals 6:740-4 Je '54

Sinter-plant assessment trials at Dagenham and at Cleveland. R. F. Jennings and others. plans diags Iron & Steel Inst J 175:267-77 N '53

Sintering operations and sinter usage. D. Joyce. il diags Blast F & Steel Pl 42:515-20+, 657-65 My-Je '54

Sintering practice at Domnarfvet, Sweden. C. Danielsson. bibliog diag Iron & Steel Inst J 175:152-4 O '53

IRON metallurgy—*Continued*

Solid phase identification in partially reduced iron ore. G. Bitsianes and T. L. Joseph. bibliog il diag J Metals 5:Trans 1641-7 D '53

Starches and starch products as depressants in amine flotation of iron ore. C. S. Chang and others. bibliog il Min Eng 5:Trans 1282-6 D '53

Substituted starches in amine flotation of iron ore. C. S. Chang. Min Eng 6:Trans 922-4 S '54

Symposium on sinter. Engineer 196:797-800 D 18 '53

Taconite beneficiation comes of age at Reserve's Babbitt plant. O. Lee. flow sheets il Min Eng 6:484-8 My '54; Same cond. J Metals 6:737-9 Je '54

Towards faster sintering of ironstone. M. A. K. Grice and W. Davies. pl diag Iron & Steel Inst J 175:155-60 O '53

Use of oxygen in the iron and steel industry in western Europe. G. Bulle. il diags Blast F & Steel Pl 42:419-23+, 531-6 Ap-My '54

See also

Blast furnaces
Cast iron
Foundry practice
Iron, Sponge
Iron alloys
Iron founding
Iron works
Pig iron
Sintering
Slag
Steel metallurgy

History

Campaign and output of the furnace at Rievaulx, in Yorkshire, in 1591-92. H. R. Schubert. Iron & Steel Inst J 175:379-80 D '53

IRON mines and mining

Colorado fuel & iron corp.; history and expansion, raw materials. A. M. Riddle and others. flow sheet il diag Min Eng 5:1084-98 N '53; J Metals 5:1308-66 O '53

New developments in iron ore, 1953. R. W. Whitney. il Min Cong J 40:82-4 F '54

Taconite; better blasting methods sought by Bureau of mines. Iron Age 172:158-9 Jl 2 '53

Test new explosive at experimental taconite mine. il Iron Age 174:62 Jl 15 '54

Alabama

Roof bolting in Alabama coal mines and iron-ore mines. H. C. Young. bibliog 18pls U S Bur Mines Information Circ 7678:1-15 '54

Austria

Austria's Erzburg; largest open-face iron working in Europe. il Eng & Min J 154:125 D '53

Labrador

Development of Quebec-Labrador iron ore deposits, transportation is major factor. W. H. Durrell. il Min Eng 6:387-90 Ap '54; Same cond. J Metals 6:452-4 Ap '54

Iron ore from Labrador. J. P. Smallwood. il map Comp Air Mag 59:186-93, 223-9 Jl-Ag '54

Labrador iron ore shipments to start next year; ten million ton production planned for 1955. R. E. Cochran. Eng & Min J 154:188 N '53

Labrador iron ore shipped to U.S. Chem & Eng N 32:3114 Ag 9 '54

Quebec-Labrador iron ore shipments to start in three weeks. il Iron Age 174:50-1 Jl 8 '54

Standard diamond-drilling and sampling practices for tonnage holes in the Labrador-Quebec iron range. R. W. Kirkland and H. B. Jackson. il diags Can Min J 75:57-62 Ap '54

Michigan

New plant successfully floats Michigan jasper; Humboldt mining co. R. Cochran and E. Nanno. flow sheet il Eng & Min J 155:100-4, 114 Ag '54

Minnesota

Erie starts big taconite project. il Steel 133:82 D 14 '53

Mining trends on the Mesabi Range. B. M. Andreas. il Min Eng 6:39-41 Ja '54

Saleable iron ore gleaned from unmined remnants; Pacific Isle mining co. E. T. Binger. il Eng & Min J 155:89-91 Ja '54

Steel industry insures its future with taconite. il diags Steel 135:76-7 S 13 '54

Taconite; payoff begins. T. M. Rohan. il Iron Age 174:78-9 S 9 '54

New Jersey

Taconite progress recalls Edison experiments at Ogden mine. il diag Min Eng 6:672-3 Jl '54

New York (state)

Stripping is big mining too; Benson mines. J. C. Pierce. il Comp Air Mag 59:161-4 Je '54

Ontario

Pre-production safety at the Marmora mine. D. F. Coleman. il Can Min J 75:58-60 S '54

Peru

Ex-im bank to assist Peruvian iron output. For Comm W 50:5 Ag 3 '53

Iron ore; from beach to furnace. T. M. Rohan. il Iron Age 172:85 Ag 13 '53

Marcona, four months from plan to production. il Eng & Min J 155:84-8 Ja '54

Quebec (province)

Development of Quebec-Labrador iron ore deposits, transportation is major factor. W. H. Durrell. il Min Eng 6:387-90 Ap '54; Same cond. J Metals 6:452-4 Ap '54

Iron ore from Labrador. J. P. Smallwood. il map Comp Air Mag 59:186-93, 223-9 Jl-Ag '54

Quebec-Labrador iron ore shipments to start in three weeks. il Iron Age 174:50-1 Jl 8 '54

Standard diamond-drilling and sampling practices for tonnage holes in the Labrador-Quebec iron range. R. W. Kirkland and H. B. Jackson. il diags Can Min J 75:57-62 Ap '54

Venezuela

Cerro Bolivar; how iron ore mountain is being moved to U.S. il Iron Age 173:91 F 4 '54

Conveyors handle 6,000 tons of ore per hour at Puerto Ordaz. L. O. Millard. il diags Civil Eng 23:821-5 D '53

High-type sanitary facilities provided in Venezuelan wilderness. C. A. Arenander and D. A. Okun. flow diags il maps diag Civil Eng 24:220-3 Ap '54

Iron ore shipments from Cerro Bolivar to begin. il diags Eng & Min J 154:92-4 D '53

Moving a mountain from Venezuela to the U.S. il map Eng N 152:52-3+ Ja 28 '54

Orinoco iron mining. Mech Eng 76:35 Ja '54

Orinoco to ship two million tons in 1954. il Min Eng 5:1188-9 D '53

Vast and varied engineering works develop Venezuelan iron-ore deposit. W. W. Wanamaker. il maps Civil Eng 23:807-11 D '53

IRON Mountain atomic storage vaults. See Vaults

IRON nitrides

Chemicals from the Fischer-Tropsch synthesis. M. D. Schlesinger and others. bibliog flow diag il Ind & Eng Chem 46:1322-6 Je '54

IRON ores

By-product iron ore from nickel ores. Chem Age (Lond) 69:698 O 3 '53

Iron ore production sets record. Blast F & Steel Pl 42:721 Je '54

May coax iron from unusable ore. Iron Age 173:72 Mr 25 '54

Nickel ore a source of iron ore. Blast F & Steel Pl 42:sup 106-7 Ap '54

No shortage of iron ore this winter. il Steel 133:72 N 9 '53

Relation of pH and oxidation potential to sedimentary iron mineral formation. N. K. Huber and R. M. Garrels. bibliog diags Econ Geol 48:337-57 Ag '53

Review and forecast. Iron Age 173:306 Ja 7 '54

Shallow exploration for iron ore with the reflection seismograph. W. B. Beatty. il map diag Explosives Eng 31:172-4+ N '53

IRON ores—*Continued*

Significance of minor elements in iron bearing raw materials for integrated steel plants. C. B. Jacobs and others. bibliog flow sheet Blast F & Steel Pl 42:666-74+ Je '54; Excerpts. Iron & Steel Eng 31:138-40 Ag '54

Solid phase identification in partially reduced iron ore. G. Bitsianes and T. L. Joseph. bibliog il diag J Metals 5:Trans 1641-7 D '53

Steel takes a broader look at iron ore. R. M. Lorz. Iron Age 173:73-4 F 18 '54

Ulvöspinel and its significance in titaniferous iron ores. P. Ramdohr. bibliog il diags Econ Geol 48:677-88 D '53

See also

Chromite
Hematite
Ilmenite
Iron metallurgy
Iron mines and mining
Magnetite
Pyrites
Pyrrhotite
Taconite

Statistics

Iron ore, 1949-1952. Survey of Cur Bsns 1953 Sup p 156-7 [supplemented in monthly numbers]

Testing

Iron ore; radioactive concentrates test use of unpellitized fines. Iron Age 173:79-80 Mr 11 '54

Operating experience with a two-foot diameter blast furnace. R. C. Buehl. il diag J Metals 6:814-16 Jl '54

Transportation

Cerro Bolivar; how iron ore mountain is being moved to U.S. il Iron Age 173:91 F 4 '54

Development of Quebec-Labrador iron ore deposits, transportation is major factor. W. H. Durrell. il Min Eng 6:387-90 Ap '54; Same cond. J Metals 6:452-4 Ap '54

Help coal and iron ore shipments stand the cold. il Min Cong J 40:54 Ja '54

Historic first shipment of Labrador iron ore opens supply line to 500-million ton deposit. il map Eng & Min J 155:124-5 Ag '54

Iron ore from Labrador. J. P. Smallwood. il map Comp Air Mag 59:223-9 Ag '54

Iron ore; see record year on Lakes. R. M. Lorz. Iron Age 172:58 S 3 '53

Iron ore shipments from Cerro Bolivar to begin. il diags Eng & Min J 154:92-4 D '53

Iron ore shippers face easy season. il Steel 135:46 Jl 26 '54

Lake carriers ready for easy season. il Steel 134:61-2 Mr 15 '54

Lakes ore shippers trim sales. R. M. Lorz. il Iron Age 173:78 Mr 25 '54

More ore, more slowups; iron ore shipments on the Great Lakes. il Bsns W p96-8 S 19 '53

No trouble in the tropics on pioneer ore line. B. K. Martin. il Ry Age 137:46 Jl 26 '54

Ore; Lakes season opens as carriers discuss seaway progress. Iron Age 173:127-8 Ap 22 '54

Ore; Lakes shipments slow to walk. R. M. Lorz. Iron Age 174:59 Jl 8 '54

Ore; Peruvian deposit pays off. T. M. Rohan. il Iron Age 173:86 My 20 '54

Ore; shippers don't stop at records. R. M. Lorz. Iron Age 172:114 N 12 '53

PRR unveils new ore-unloading terminal. il plan Ry Age 136:45-7 Mr 15 '54

Quebec-Labrador iron ore shipments to start in three weeks. il Iron Age 174:50-1 Jl 8 '54

Quebec-Labrador ore flows to U.S. il map Steel 135:58-9 Ag 9 '54

Radio expedites Venezuelan iron ore. il Steel 134:61 F 22 '54

Ungava's iron wealth officially launched. M. G. Christie. il Can Min J 75:88-90 S '54

Alaska

Concentration of Klukwan, Alaska, magnetite ore. R. R. Wells and R. L. Thorne. 3pls U S Bur Mines Rep of Invest 4984:1-15 '53

Brazil

Iron deposits of the Congonhas district, Minas Gerais, Brazil. il map Econ Geol 48:639-76 bibliog(p675-6) D '53

Canada

Iron ore; diamond drill Belcher islands to prove big ore estimates. map Iron Age 174:76 S 9 '54

Labrador

Historic first shipment of Labrador iron ore opens supply line to 500-million ton deposit. il map Eng & Min J 155:124-5 Ag '54

Ore; first Labrador shipment. J. R. Whipple. Iron Age 174:77 Ag 12 '54

Ore in '54; Quebec-Labrador ships iron ore a year ahead of schedule. il Min Eng 6:884 S '54

Quebec-Labrador ore flows to U.S. il map Steel 135:58-9 Ag 9 '54

Lake Superior region

Lake Superior ore analyses, shipments and prices for various grades; tabulations. Iron Age 173:418 Ja 7 '54

12 small iron ore companies shipped big tonnages in '53. E. S. Tillinghast. Eng & Min J 155:122 Mr '54

Liberia

Iron ore at Bomi Hill, Liberia. E. F. Fitzhugh, jr. il diag Econ Geol 48:431-6 S '53

Michigan

Relation of oxidation to the origin of soft iron ores of Michigan. V. I. Mann. il maps Econ Geol 48:251-81 bibliog(79 titles, p279-81) Je '53; Discussion. H. L. James. 48:726-8 D '53

Minnesota

Hard ore counters hard times. il Chem & Eng N 32:3342-4 Ag 23 '54

Taconite; firms really rolling. R. M. Lorz. il map Iron Age 173:72-3 Ap 15 '54

Missouri

Brown iron ore resources of Missouri. E. L. Clark and G. A. Muilenburg. map Min Eng 6:Trans 63-6 Ja '54

Ontario

Inco's iron ore; Copper Cliff plant. Economist 168:880+ S 26 '53

Iron ore to be recovered for first time from nickel ores at $16,000,000 plant at Sudbury. J. R. Gordon. Roads & Eng Constr 91:116 O '53

Peru

Ore; Peruvian deposit pays off. T. M. Rohan. il Iron Age 173:86 My 20 '54

Quebec (province)

Historic first shipment of Labrador iron ore opens supply line to 500-million ton deposit. il map Eng & Min J 155:124-5 Ag '54

Ore; first Labrador shipment. J. R. Whipple. Iron Age 174:77 Ag 12 '54

Ore in '54; Quebec-Labrador ships iron ore a year ahead of schedule. il Min Eng 6:884 S '54

Quebec-Labrador ore flows to U.S. il map Steel 135:58-9 Ag 9 '54

Sierra Leone

Effect of mineral additions and moisture control on the sintering of Sierra Leone concentrates. P. K. Gledhill and others. Iron & Steel Inst J 175:277-9 N '53

Southern states

Upgrading of southern iron ore planned. Foundry 82:245-6 My '54

Sweden

Sintering practice at Domnarfvet, Sweden. C. Danielsson. bibliog diag Iron & Steel Inst J 175:152-4 O '53

Sweden accounts for one-third of world exports of iron ore. For Comm W 50:9-10 D 14 '53

Sweden's iron ore trade. R. U. Mahaffy. Can Min J 74:66 D '53

United States

Iron ore; adequate supply won't prevent higher costs for Midwest. W. F. Boericke. Barron's 33:17 Ag 31 '53

IRON ores—*Continued*

Venezuela

Ore; first from Cerro Bolivar here; delivery to Fairless works of first Cerro Bolivar iron ore climaxes years, millions in development. G. G. Carr. il Iron Age 173:61 Ja 28 '54

Wyoming

UP reveals ore deposits. W. Reinhardt. Ry Age 136:16 F 8 '54

IRON oxides

Activation energy for the solid state reaction γ-$Fe_2O_3 \rightarrow \alpha$-$Fe_2O_3$. F. E. DeBoer and P. W. Selwood. bibliog Am Chem Soc J 76:3365-7 Jl 5 '54

Activities of Fe, FeO, Fe_2O_3, and CaO in simple slags. H. R. Larson and J. Chipman. bibliog J Metals 6:Trans 759-62 Je '54

Complexes involving tervalent iron and orthophosphoric acid; the system ferric oxide-phosphoric oxide-water at 25°. R. F. Jameson and J. E. Salmon. Chem Soc J p28-34 Ja '54

Constitution of the FeO-Fe_2O_3-SiO_2 system at slagmaking temperatures. R. Schuhmann, jr. and others. bibliog il J Metals 5:Trans 1097-104 S '53

Effect of TiO_2, Fe_2O_3, and alkali on mineralogical and physical properties of mullite-type and mullite-forming $Al_2O_3SiO_2$ mixtures. K. G. Skinner and others. diags Am Cer Soc J 36:349-56 N 1 '53

Electrical properties of α-Fe_2O_3. F. J. Morin. Phys R 93:1195-9 Mr 15 '54

Iron oxide from copperas. Chem Age (Lond) 71:286 Ag 7 '54

Iron oxide pigments for brighter auto finishes; patent. Chem Eng 61:256 My '54

Magnetic resonance in αFe_2O_3. P. W. Anderson and others. Phys R 93:717-18 F 15 '54

Mechanism of reduction of iron oxides. J. O. Edström. bibliog(68 ref) 6pls diag Iron & Steel Inst J 175:289-304 N '53

Neutron diffraction study of the anisotropy transition in α-Fe_2O_3. L. M. Corliss and others. Phys R 93:893-4 F 15 '54

New look in iron oxides; abstract. E. C. Clare. Paint Oil & Chem R 117:22 Ap 8 '54

Oxygen activity in iron oxide slags. H. Larson and J. Chipman. bibliog diags J Metals 5:Trans 1089-96 S '53

Permanent pigments from the earth and the air. P. J. Cauterman. il Can Chem Process 38:50-2+ Ja '54

Precipitation of iron oxide from alpha Fe-O solid solutions. A. U. Seybolt. il J Metals 6:Trans 979-82 S '54

Production of active solids by thermal decomposition; ferric oxide. S. J. Gregg and K. J. Hill. pl Chem Soc J p3945-51 D '53

Self-diffusion of iron in iron oxides and the Wagner theory of oxidation. L. Himmel and others. bibliog(43 ref) il diag J Metals 5:Trans 827-43 Je '53; Discussion. 6:Trans 670-2 sec 2 My '54

Up-down future for iron oxides in Canada. Can Chem Process 38:6+ Ja '54

See also

Ferrates
Hematite
Magnetite
Wüstite

IRON phosphates

Radiometric study of the iron phosphating process. S. L. Eisler and J. Doss. il Metal Finishing 52:60-3 Mr '54

IRON plating

Q's and A's on Porus-Krome and Vanderloy. il Diesel Power 32:49-52 Je '54

IRON powder. See Iron, Powdered

IRON pyrite. See Pyrite

IRON research

Chemistry in iron and steel research. Chem Age (Lond) 68:695-700 My 9 '53

Exchange of iron between liquid metal and iron silicate slag. G. Derge and C. E. Birchenall. bibliog J Metals 5:Trans 1648-50 D '53

Factors controlling the rate of sinter production. E. W. Voice and others. bibliog flow diag 3pls diags Iron & Steel Inst J 175:97-152 O '53

Looking at cast iron research; British cast iron research association open days. il Chem Age (Lond) 71:119-20 Jl 17 '54

New BISRA laboratories opened. il Chem Age (Lond) 69:1117-20 N 28 '53

Recent research in the American iron and steel industry. E. C. Bain. Metallurgia 49:241-4 My '54

Research on cast iron; report of the British cast iron research association. Engineering 176:586 N 6 '53

Sinter is what you make it. E. H. Rose and D. J. Reed. il J Metals 6:740-4 Je '54

Sinter-plant assessment trials at Dagenham and at Cleveland. R. F. Jennings and others. plans diags Iron & Steel Inst J 175:267-77 N '53

Sintering as a physical process. H. B. Wendeborn. diags Iron & Steel Inst J 175:280-8 N '53

Up-to-date concepts in theory and practice; British iron and steel research association report for 1953. Chem Age (Lond) 70:1109-10 My 15 '54

See also

British iron and steel research association

IRON sulfates

Enthalpy-concentration diagram for system ferrous sulfate-water. K. A. Kobe and E. J. Couch, jr. bibliog(37 ref) diag Ind & Eng Chem 46:377-81 F '54

Glow-discharge electrolysis; the anodic oxidation of ferrous sulphate. A. Hickling and J. K. Linacre. diag Chem Soc J p711-20 F '54

Iron oxide from copperas. Chem Age (Lond) 71:286 Ag 7 '54

Oxidation of aqueous ferrous sulfate solutions by charged particle radiations. W. R. McDonnell and E. J. Hart. bibliog Am Chem Soc J 76:2121-4 Ap 20 '54

Temperature coefficient of the radiation induced oxidation of ferrous sulfate. H. A. Schwarz. bibliog Am Chem Soc J 76:1587-8 Mr 20 '54

Yield of oxidation of ferrous sulfate in acid solution by high-energy cathode rays. J. Saldick and A. O. Allen. bibliog diag J Chem Phys 22:438-42 Mr '54

IRON sulfides

Effect of the *p*H of xanthate solutions on the contact angle between a bubble of air and an iron disulfide surface not of minimum rugosity. P. F. Whelan. bibliog il J Phys Chem 58:375-9 Ap '54

See also

Pyrite
Pyrrhotite

IRON thiocyanate

Electron transfer and other processes involved in the spontaneous bleaching of acidified aqueous solutions of ferric thiocyanate. R. H. Betts and F. S. Dainton. bibliog Am Chem Soc J 75:5721-7 N 20 '53

Nature of iron(III) thiocyanate in solution. S. Z. Lewin and R. S. Wagner. bibliog(26 ref) J Chem Educ 30:445-50 S '53

Analysis

Extraction of metal thiocyanate complexes with butyl phosphate. L. Melnick, H. Freiser and H. F. Beeghly. Anal Chem 25:856-9 Je '53

IRON workers

See also

Foundries—Employees

IRON works

Foundation design for iron and steel plants. G. S. Richardson. diag Iron & Steel Eng 31:73-6; Discussion. 76-7 Ap '54

See also

Saugus iron works

Equipment

Ironmaking plant at John Summers and sons (Shotton works). J. F. R. Jones and A. Walker. plans diags Iron & Steel Inst J 175:313-21 N '53

Power

Power; more for ore beneficiation; planned $6-million power plant near Marquette. R. M. Lorz. il Iron Age 172:40 O 1 '53

IRRADIATED plastic materials. See Plastic materials, Irradiated

IRRADIATION

Action of light on jute. W. G. Macmillan and H. P. Bhattacherjee. il Textile Inst J Trans 45:T700-2 S '54

Annealing of bombardment damage in a diamond-type lattice; theoretical. R. C. Fletcher and W. L. Brown. diags Phys R 92:585-90 N 1 '53

Annealing of bombardment damage in germanium; experimental. W. L. Brown and others. bibliog Phys R 92:591-6 N 1 '53

Direct production of radioactive aliphatic hydrocarbons by pile irradiation. A. G. Schrodt and W. F. Libby. Am Chem Soc J 76:3100 Je 5 '54

Effect of irradiation with cobalt-60 on trichina larvae. H. J. Gomberg and S. E. Gould. Science 118:75-7 Jl 17 '53

Influence of irradiation on the characteristic of a glow discharge in pure rare gases. K. W. Meissner and W. F. Miller. bibliog diags Phys R 92:896-8 N 15 '53

Irradiated plastic now available; radiation effects on polymers studied. J. W. Ryan. Materials & Methods 39:298+ My '54

Irradiation of ferrous ammonium sulfate solutions; energy absorption and ionization calculations for cobalt 60 and betatron radiation. D. V. Cormack and others. bibliog diag J Chem Phys 22:6-12 Ja '54

Long range migration of chemical activity in the solid state. M. Dole and C. D. Keeling. Am Chem Soc J 75:6082-3 D 5 '53

Nature of radiation damage in metals. J. A. Brinkman. bibliog diag J Ap Phys 25:961-70 Ag '54

Polymer production in radiolysis of benzene. W. N. Patrick and M. Burton. bibliog Am Chem Soc J 76:2626-9 My 20 '54

Polypropertied polymers; changes as result of high energy radiation. il Ind & Eng Chem 45:sup 11A+ S '53

Preservation of food with ionizing radiations; symposium abstracts and discussions. Chem & Ind p390-5 Ap 3 '54

Radiation damage effects on order-disorder in nickel manganese alloys. L. R. Aronin. bibliog J Ap Phys 25:344-9 Mr '54

Radiation effects in indium antimonide. J. W. Cleland and J. H. Crawford, jr. Phys R 93:894-5 F 15 '54

Reversal to negative Joshi effect by intense irradiation. H. J. Arnikar. bibliog Opt Soc Am J 43:804 S '53

Stored energy measurements in irradiated copper. A. W. Overhauser. bibliog diag Phys R 94:1551-7 Je 15 '54

Temperature coefficient of the radiation induced oxidation of ferrous sulfate. H. A. Schwarz. bibliog Am Chem Soc J 76:1587-8 Mr 20 '54

Thin window metal irradiation cells for high-vacuum or high-pressure experiments. F. J. Shon and others. diags R Sci Instr 24:550-1 Jl '53

X-ray measurements of radiation damage in black phosphorus. D. L. Chipman and others. J Ap Phys 24:1251 S '53

See also

Plastic materials, Irradiated

IRRATHENE 101. See Polyethylene

IRREVERSIBLE processes

Evaluation of constants in first-order consecutive irreversible reactions. E. Klein and T. F. Fagley. J Phys Chem 58:447-8 My '54

Extension of Onsager's theory of reciprocal relations. S. R. de Groot and P. Mazur. bibliog Phys R 94:218-26 Ap 15 '54

Markoff random processes and the statistical mechanics of time-dependent phenomena; irreversible processes in fluids. M. S. Green. bibliog J Chem Phys 22:398-413 Mr '54

Some applications of the thermodynamic theory of irreversible processes to physical metallurgy. E. S. Machlin. bibliog J Metals 5:Trans 437-45 Mr '53; Discussion. 6:Trans 668-70 sec 2 My '54

Thermodynamics of irreversible processes applied to corrosion. P. A. Johnson and A. L. Babb. bibliog diags Ind & Eng Chem 46:518-23 Mr '54

IRRIGATION

How irrigation improves load factor. R. M. Curry. il Gas Age 114:32-5 Ag 26 '54

Irrigation loans. il Banking 46:69-70 Ag '53

Some irrigation and drainage problems of Mediterranean and Middle East countries. M. R. Huberty. il Am Soc C E Proc 79 [no 319]:1-10 O '53

See also

Irrigation canals

Sewage irrigation

Cost

Cost of Indian irrigation projects. Engineer 197:86 Ja 15 '54

Irrigation and hydro-power construction cost indexes; table and charts. Eng N 151:105 O 8 '53

Alberta

Canadian irrigation project to irrigate 240,000 acres in Alberta. il Eng N 152:55 Ja 28 '54

California

Local water district goes it alone; California unit votes bond issue to finance its own development. Eng N 151:26 N 12 '53

Use of Colorado River water in California. R. Matthew. map Am Soc C E Proc 79 [no 347]:1-14 N '53

Colorado

See also

Colorado-Big Thompson project

Egypt

Sloping-sill sand screens exclude silt from Egyptian irrigation canals. S. Leliavsky. il diags Civil Eng 24:170-2 Mr '54

Florida

Hydraulic problems of local interests under the central and southern Florida project. H. C. Gee. Am Soc C E Proc 79[no 213]:1-8 Jl '53

Idaho

Idaho pumping grows. Elec West 111:129 S '53

Test wells in Boise Valley initiate study of Sloan irrigation scheme. Eng N 151:24 Jl 2 '53

India

Cost of Indian irrigation projects. Engineer 197:86 Ja 15 '54

Indian engineering news; Tungabhadra dam. Engineer 197:256 F 12 '54

India's TVA shows good progress. il maps Eng N 152:46+ Mr 4 '54

Irrigation in southern India; Peechi Dam project. R. D. Rajan. map Engineering 177:243 F 19 '54

Mahanadi Valley development. bibliog il maps plan diags Engineer 196:803-5, 830-2 D 18-25 '53

Iraq

Iraq to carry out record irrigation and flood control program. Eng N 151:230+ O 8 '53

Mexico

Sonora opens area to irrigation; Yaqui River valley irrigation project. M. Saint Albans. il Constr Methods 36:66-8+ My '54

Nebraska

Harlan county dam in Nebraska. il map diags Engineer 196:313-14 S 4 '53

North Dakota

Pick-Sloan plan's Missouri-Souris diversion plans to be revised. map Eng N 151:24 Jl 30 '53

Puerto Rico

Puerto Rico's water supply project. A. S. Keshen. il map Explosives Eng 31:118-21+ Jl '53

Texas

Suggested solution of Texas' water problem. maps Pub Works 84:69 N '53

United States

Accelerated settlement and development of irrigation projects. C. E. Stewart and others. bibliog Land Econ 30:248-59 Ag '54

IRRIGATION—*Continued*

Utah

Weber Basin jobs. Eng N 152:27 Ap 15 '54

Weber-Basin project; fast tunneling initiates Utah's largest reclamation job. C. Hageman. il map Comp Air Mag 59:62-7 Mr '54

Washington (state)

Columbia Basin project in transition and growth. C. F. Thomas. il map Explosives Eng 32:48-52+ Mr '54

IRRIGATION, Overhead

Man-made rain; huge sprinkler systems boost cornbelt crop yields. C. W. White. Barron's 33:15 S 21 '53

Operation rainfall; it's strictly a custom-selling job; Shur-Rane aluminum portable irrigation systems. J. Folting. il Sales Management 71:44-6+ N 1 '53

IRRIGATION canals

Columbia Basin project in transition and growth. C. F. Thomas. il map Explosives Eng 32:48-52+ Mr '54

Control of canal seepage with bentonite improved. Eng N 152:54-5 Ap 1 '54

Low-cost compacted earth lining shows low seepage losses on Friant-Kern canal. J. J. Waddell. il map diags Civil Eng 23:684-7+ O '53

Lower cost irrigation canal linings. T. V. D. Woodford. il diag Eng N 151:35-6+ N 5 '53

Sloping-sill sand screens exclude silt from Egyptian irrigation canals. S. Leliavsky. il diags Civil Eng 24:170-2 Mr '54

Sonora opens area to irrigation; Yaqui River valley irrigation project. M. Saint Albans. il Constr Methods 36:66-8+ My '54

Stabilization of soil by the silt injection method for preventing settlement of hydraulic structures and leakage from canals. G. E. Johnson. il map diags Am Soc C E Proc 79 [no 323]:1-18 N '53

IRRIGATION water

Animal parasites in sewage and irrigation water. W. L. L. Wang and S. G. Dunlop. bibliog map Sewage & Ind Wastes 26:1020-32 Ag '54

Effect of irrigation runoff on surface water supplies; panel discussion. M. B. Cunningham and others. bibliog Am Water Works Assn J 45:1159-78 N '53; Abstract. Water & Sewage Works 100:307-9 Ag '53

Integrating reclamation and disposal of waste water. A. M. Rawn and others. bibliog il Am Water Works Assn J 45:483-90 My '53; Same. Water & Sewage Works 101:R219-23 pt 2 My '54

Monolithic pipe for irrigation water. L. H. Kristof. il Eng N 151:35-6 S 24 '53

Relation of irrigation runoff to tastes and odors. J. K. G. Silvey. bibliog Am Water Works Assn J 45:1179-86 N '53

IRRITANTS

Pungents; fatty acid amides. L. M. Rice and others. bibliog Am Chem Soc J 76:3730-1 Jl 20 '54

IRVINE, Sir James Colquhoun, 1877-1952

Sketch. J. Read. Chem Soc J p476-91 Ja '54

IRVINE, Lilbourn Cave

Sketch. por East Underw 55:16+ O 1 '54; Weekly Underw 171:777 O 2 '54

Tribute. L. Cartwright. East Underw 55:21+ O 8 '54

IRVINGTON varnish and insulator company

Minnesota Mining buys Jersey insulation firm. Bsns W p67 Ag 8 '53

ISBRANDTSEN company

Isbrandtsen; turmoil's child. il Bsns W p 114-16+ O 17 '53

ISLAND creek coal company

Island Creek story. G. W. Sall. il map Min Cong J 40:29-32 My '54

ISOALLOXAZINE

Synthesis of 6-ethyl-9-(D-1′-ribityl)-isoalloxazine. H. V. Aposhian and J. P. Lambooy. bibliog Am Chem Soc J 76:1307-8 Mr 5 '54

ISOAMIDONE, Analogs of

Preparation of several analogs of amidone and isoamidone. F. F. Blicke and E. Tsao. bibliog Am Chem Soc J 76:2203-6 Ap 20 '54

ISOBARS

Simultaneous measurement of phase equilibria and integral isobaric heats of vaporization. J. A. Tallmadge and L. N. Canjar. bibliog Ind & Eng Chem 46:1279-81 Je '54

Study of the isobaric triplet Mg^{28}-Al^{28}-Si^{28}. R. K. Sheline and others. bibliog diags Phys R 94:1642-51 Je 15 '54

ISOBULBOCAPNINE

Aporphine series; developments of the Bischler-Napieralski-Pschorr synthetic method; the synthesis of (±)-*iso*bulbocapnine and (±)-actinodaphnine methyl ether. D. H. Hey and L. C. Lobo. Chem Soc J p2246-56 Jl '54

ISOBUTANE

Bromination of hydrocarbons; bromination of isobutane; bond dissociation energies from bromination kinetics. B. H. Eckstein and others. bibliog J Chem Phys 22:28-35 Ja '54

High pressure alkylation of isobutane with propylene. J. E. Knap, E. W. Comings and H. G. Drickamer. bibliog(29 ref) il diag Ind & Eng Chem 46:708-13 Ap '54

ISOBUTENE

Vapour-phase oxidation of olefins; the catalysed oxidation of di*iso*butene in the presence of selenium. D. J. Hadley and others. diags Chem Soc J p 1416-22 My '54

ISOBUTYLENE

Degradation of polyisobutylenes on shearing in solution. A. B. Bestul and H. V. Belcher. bibliog J Ap Phys 24:1011-14 Ag '53

Dynamic compliance, dynamic modulus, and equivalent Voigt and Maxwell models for polyisobutylene. H. Leaderman and R. S. Marvin. bibliog J Ap Phys 24:812-13 Je '53

Dynamic mechanical properties of polyisobutylene. E. R. Fitzgerald and others. diag J Ap Phys 24:650-5 My '53

Ferry reduction and the activation energy for viscous flow. I. L. Hopkins. bibliog diag J Ap Phys 24:1300-4 O '53

Isobutylene extraction; Standard oil development co. flow diag Pet Refiner 32:148-9 N '53

Low temperature halogenation of isobutylenes. R. T. Arnold and W. W. Lee. bibliog Am Chem Soc J 75:5396-400 N 5 '53

Oxidation products of di*iso*butylene; liquid-phase oxidation of di*iso*butylene; formation, properties, and analysis of 1 : 2-epoxy-2 : 4 : 4-trimethylpentane. E. J. Gasson and others. Chem Soc J p2161-9 Jl '54

Oxidation products of di*iso*butylene; products from ring-opening of 1 : 2-epoxy-2 : 4 : 4-trimethylpentane. A. R. Graham, A. F. Millidge and D. P. Young. Chem Soc J p2180-200 Jl '54

Oxidation products of di*iso*butylene; the isomerisation of 1 : 2-epoxy-2 : 4 :4-trimethylpentane, and some products derived from 2 : 4 : 4-trimethylpentanal. E. J. Gasson and others. Chem Soc J p2170-9 Jl '54

Relation between stress-relaxation studies and dynamic properties of polyisobutylene. E. Catsiff and A. V. Tobolsky. bibliog J Ap Phys 25:145-52 F '54

Relaxation distribution function of polyisobutylene in the transition from rubber-like to glass-like behavior. J. D. Ferry and others. bibliog(27 ref) J Ap Phys 24:911-16 Jl '53

ISOCOLCHICINE

Specific rotation of isocolchicine. R. F. Raffauf, E. E. Bumbler and G. E. Ullyot. Am Chem Soc J 76:1707-8 Mr 20 '54

ISOCYANATES

Isocyanate probers step up the pace. Chem W 75:66+ Jl 17 '54

Isocyanates and their modifying effects on other textile polymers; abstract. J. A. Somers. Am Dyestuff Rep 43:79 F 1 '54

Mechanical finishing of cotton and rayon fabrics; new use for isocyanates; abstract. Am Dyestuff Rep 43:318 My 10 '54

New life from death gas; isocyanate expansions point to lively future in phosgene-based compounds. Chem W 73:50+ Jl 4 '53

Paint industry looks seriously at isocyanates. bibliog Paint Oil & Chem R 116:28-30 D 17 '53

Preparation of polymers from diisocyanates and polyols. H. L. Heiss and others. Ind & Eng Chem 46:1498-503 Jl '54

Reaction of tolylene diisocyanate dimer with dibutylamine. J. H. Saunders and E. E. Hardy. Am Chem Soc J 75:5439-40 N 5 '53

See also

Octadecyl isocyanate

ISOCYANATES—*Continued*

Spectra

Infra-red absorptions of the *iso*cyanate group. W. H. T. Davison. Chem Soc J p3712-13 N '53

ISOFLAVONE

Correlation of chemical constitution and œstrogenic activity. J. Grundy. bibliog Chem & Ind p659-61 Je 5 '54

Isolation of an oestrogenic *iso*flavone (biochanin A) from red clover. G. S. Pope and others. bibliog Chem & Ind p 1092 O 10 '53

Isolation of 7-hydroxy-4′-methoxy*iso*flavone (formononetin) from red clover (trifolium pratense, L). E. C. Bate-Smith and T. Swain. bibliog Chem & Ind p 1127 O 17 '53

Isomerisation of *iso*flavones. W. B. Whalley. Chem Soc J p3366-71 N '53

New synthesis of *iso*flavones and of other chromones. J. E. Gowan and others. Chem & Ind p 1201 S 25 '54

Oestrogenic isoflavones in red clover and subterranean clover. G. S. Pope and H. G. Wright. bibliog Chem & Ind p 1019-20 Ag 14 '54

ISOGLUTAMINE

Synthesis of L-glutaminyl-L-asparagine, L-glutamine and L-isoglutamine from *p*-toluenesulfonyl-L-glutamic acid. J. M. Swan and V. du Vigneaud. bibliog Am Chem Soc J 76:3110-13 Je 20 '54

ISOINDOLE

Hypotensive agents; hydrogenated dialkylaminoaklyl isoindole derivatives. L. M. Rice, C. H. Grogan and E. E. Reid. bibliog Am Chem Soc J 75:4911-15 O 20 '53

ISOINDOLINE

Heterocyclic imines and amines; derivatives of *iso*indoline and *iso*indolenine. P. F. Clark, J. A. Elvidge and R. P. Linstead. Chem Soc J p3593-601 N '53

ISOLEUCINE

Degradation of the optical isomers of isoleucine and alloisoleucine to *d*- and *l*-α-methylbutyraldehyde. W. S. Fones. Am Chem Soc J 76:1377-8 Mr 5 '54

Intramolecular migration and isoleucine biosynthesis. M. Strassman and others. Am Chem Soc J 76:4241-2 Ag 20 '54

Isoleucine biosynthesis from threonine. E. A. Adelberg. Am Chem Soc J 76:4241 Ag 20 '54

ISOMALTOSE

Isomaltose and isomaltotriose from enzymic hydrolyzates of dextran. A. Jeanes and others. bibliog il Am Chem Soc J 75:5911-15 D 5 '53

ISOMALTOTRIOSE

Isomaltose and isomaltotriose from enzymic hydrolyzates of dextran. A. Jeanes and others. bibliog il Am Chem Soc J 75:5911-15 D 5 '53

ISOMERISM

Aspects of isomerism and mesomerism. R. L. Bent. bibliog J Chem Educ 30:220-8, 284-90, 328-40 My-Jl '53

C-25 isomerism of sarsasapogenin and smilagenin. I. Scheer, R. B. Kostic and E. Mosettig. Am Chem Soc J 75:4871-2 O 5 '53

Ethylenimine ketones, the stereoisomerism of 1-cyclohexyl-2-methyl-3-(*p*-phenylbenzoyl)-ethylenimine. N. H. Cromwell and R. J. Mohrbacher. bibliog Am Chem Soc J 75:6252-6 D 20 '53

Geometrical isomerism and absorption spectra of dinitrophenylhydrazones. F. Ramirez and A. F. Kirby. bibliog diag Am Chem Soc J 76:1037-44 F 20 '54

Isomerism in Pb^{206}. D. E. Alburger and M. H. L. Pryce. Phys R 92:514-15 O 15 '53

Isomerism in the Diels-Alder reaction; directive influences in addition reactions of the double bond in bicyclic adducts. H. Kwart and L. Kaplan. bibliog diags Am Chem Soc J 76:4078-81 Ag 20 '54

Isomerism in the Diels-Alder reaction; the bromination of the Diels-Alder adduct, norbornylene. H. Kwart and L. Kaplan. bibliog flow sheet Am Chem Soc J 76:4072-7 Ag 20 '54

Isomerism of the oximes; alkylcinnamaldoximes, aroylaldoximes, and the action of potassium cyanide and sodium sulphite on aldoximes and their *O*-methyl ethers. M. Benger and O. L. Brady. Chem Soc J p3612-17 N '53

Isomerism of the oximes; the alkaline hydrolysis of acetophenone oxime acetates. O. L. Brady and J. Miller. Chem Soc J p4076-82 D '53

Isomerism of the oximes; the difference in mechanism in the pyrolysis of acyl-α- and acyl-β-aldoximes. O. L. Brady and H. A. M. Sharawy. Chem Soc J p4082-8 D '53

Isomerism of the trimethylacetaldehyde-2:4-dinitrophenylhydrazones. G. H. Denny, jr. and E. B. Reid. bibliog Chem & Ind p755-6 Je 26 '54

Position isomerism in the azoxybenzenes. L. C. Behr. bibliog Am Chem Soc J 76:3672-5 Jl 20 '54

Potentialities of protein isomerism. I. Asimov. J Chem Educ 31:125-7 Mr '54

Relation between the absorption spectra and the chemical constitution of dyes; *cis-trans* isomerism and hydrogen bonding in indigo dyes. W. R. Brode, E. G. Pearson and G. M. Wyman. bibliog Am Chem Soc J 76:1034-6 F 20 '54

Stereoisomerism of cyclohexane derivatives. H. D. Orloff. diags Chem R 54:347-447 bibliog (p440-7) Je '54

Structural isomerism of sulfanilylmethylaminoguanidine. A. H. Greer and G. B. L. Smith. bibliog Am Chem Soc J 76:1141-5 F 20 '54

Vibrational energy level splitting and optical isomerism in pyramidal molecules of the type XY_3. R. E. Weston, jr. bibliog diags Am Chem Soc J 76:2645-8 My 20 '54

ISOMERIZATION

Alkali isomerized linseed oil; abstract. P. Slansky. Paint Oil & Chem R 117:46 Jl 15 '54

Base-catalyzed isomerization and tautomeric equilibria of the system 2-methyl-3-nitropropene and 2-methyl-1-nitropropene. H. Shechter and J. W. Shepherd. bibliog Am Chem Soc J 76:3617-21 Jl 20 '54

Conversion of α-glutamyl peptide derivative into the γ-isomer. D. W. Clayton and G. W. Kenner. bibliog Chem & Ind p 1205 N 7 '53

Enolization of dihydroresorcinols. E. E. Ayling and R. F. K. Meredith. bibliog Chem & Ind p989-90 Ag 7 '54

Enolization of 9-phenyl-2,3-benzofluorene-1,4-quinone. M. G. Ettlinger. bibliog Am Chem Soc J 76:2769-76 My 20 '54

Evidence for the isomerization of 2,3-dibenzoyl-2-propen-1-ol to 2,3-dibenzoylpropanal. P. S. Bailey and others. Am Chem Soc J 76:2249-51 Ap 20 '54

Isomerisation of ethyl α-2 : 3 : 4 : 5-tetrahydrobenzoylacetoacetate. D. A. A. Kidd, P. A. Robins and J. Walker. Chem Soc J p3244-7 O '53

Isomerisation of *iso*flavones. W. B. Whalley. Chem Soc J p3366-71 N '53

Isomerization of saturated hydrocarbons; the effect of experimental variables, alkyl bromides and light upon the isomerization of methylcyclopentane in the presence of aluminum bromide. H. Pines, E. Aristoff and V. N. Ipatieff. bibliog Am Chem Soc J 75:4775-8 O 5 '53

Isomerisation of unsaturated steroids in liquid sulphur dioxide. A. W. D. Hudgell, J. H. Turnbull and W. Wilson. Chem Soc J p814-16 Mr '54

Maleic-fumaric isomerization in unsaturated polyesters. S. S. Feuer and others. bibliog Ind & Eng Chem 46:1643-5 Ag '54

Nature of the germine-isogermine-pseudogermine isomerizations. S. M. Kupchan and others. Am Chem Soc J 76:1200-1 F 20 '54

Oxidation products of di*iso*butylene; the isomerisation of 1 : 2-epoxy-2 : 4 : 4-trimethylpentane, and some products derived from 2 : 4 : 4-trimethylpentanal. E. J. Gasson and others. Chem Soc J p2170-9 Jl '54

Rate of the thermal isomerization of β-pinene in the vapor phase. J. E. Hawkins and J. W. Vogh. bibliog J Phys Chem 57:902-5 D '53

Studies in the terpene series; hydroisomerization and hydrogenolysis of cyclohexene, methylcyclohexene and *p*-menthene in the presence of hydrogenation catalysts. H. Pines and others. bibliog Am Chem Soc J 76:2740-2 My 20 '54

ISOMERIZATION—*Continued*

Studies in the terpene series; isomerization accompanying the dehydrogenation of 1,1,3-trimethylcyclohexane and of 1,1,3-trimethyl-*x*-cyclohexane. H. Pines, E. F. Jenkins and V. N. Ipatieff. bibliog Am Chem Soc J 75:6226-8 D 20 '53

Studies in the terpene series; the thermal isomerization of pinane at high pressure. V. N. Ipatieff, W. D. Huntsman and H. Pines. bibliog Am Chem Soc J 75:6222-5 D 20 '53

Thermal isomerization of gum rosin. J. S. Stinson and R. V. Lawrence. bibliog Ind & Eng Chem 46:784-7 Ap '54

Vapor phase catalytic isomerization of *m*-xylene. E. R. Boedeker and W. E. Erner. Am Chem Soc J 76:3591 Jl 5 '54

ISOMERS

Chromatographic adsorption; investigation of the isomer distribution during Fischer methyl D-galactoside formation. D. F. Mowery, jr. and G. R. Ferrante. bibliog Am Chem Soc J 76:4103-6 Ag 20 '54

cis and *trans* isomers of dimethyl*cyclo*pentane. J. N. Haresnape. bibliog Chem & Ind p 1091-2 O 10 '53

Determination of the gamma isomer content of benzene hexachloride by chlorine-36 isotope dilution method. J. T. Craig, P. F. Tryon and W. G. Brown. diags Anal Chem 25:1661-3 N '53

Distribution of isomers in the mononitration of ethyl- and isopropylbenzene; further evidence for a steric effect in isomer distribution. H. C. Brown and W. H. Bonner. bibliog Am Chem Soc J 76:605-6 Ja 20 '54

Influence of solvent upon the energy difference between rotational isomers. A. Wada. bibliog diags J Chem Phys 22:198-202 F '54

Infra-red study of the *cis*- and *trans*-isomers of some C_{18} fatty acids. N. H. E. Ahlers, R. A. Brett and N. G. McTaggart. bibliog(35 ref) J Ap Chem 3:433-43 O '53

Isomeric thiophthens and their ethyl homologues; the orientation of derivatives of liquid thiophthen (thiopheno-2′ : 3′ : 2 : 3-thiophen). F. Challenger and B. Fishwick. bibliog Inst Pet J 39:220-36 Ap '53

Isomers of 4-methyl-1,1-cyclohexanedicarboxylic acid. C. C. Price, W. Chen and R. J. Convery. bibliog Am Chem Soc J 76:2301-2 My 5 '54

Isomers of octahedral complexes with non-branching ligands. R. F. Trimble, jr. diags J Chem Educ 31:176-9 Ap '54

New data on pure chlorobenzene isomers. Chem Eng 61:154+ Ap '54

Odors of optical isomers. H. Posvic. Science 118:358-9 S 25 '53

Quantitative determination of isomers of *O,O*-diethyl ethylmercaptoethyl thiophosphate; Systox. K. Gardner and D. F. Heath. bibliog Anal Chem 25:1849-53 D '53

Resolution of isopropyl nor-adrenaline into optical isomers and their pharmacological potency ratio. E. Beccari and others. bibliog Science 118:249-50 Ag 28 '53

Short-lived isomeric states of Ag^{110} and In^{116}. F. I. Boley. Phys R 94:1078-9 My 15 '54

Stereoisomeric diphenyloctatetraenes. L. Zechmeister and J. H. Pinckard. il Am Chem Soc J 76:4144-8 Ag 20 '54

Synthesis and composition of β-ionylideneacetic ester; characterization of the isomeric components. N. L. Wendler and others. bibliog Chem & Ind p617 Je 20 '53

Synthesis of the naturally derived geometrical isomer of pyrethrolone and a pyrethrin-I. L. Crombie and others. bibliog Chem & Ind p 1109-10 S 4 '54

ISOMETHADONE

Decomposition of quaternary salts; stereospecificity in the isomethadone series. N. R. Easton and V. B. Fish. Am Chem Soc J 76:2836-7 My 20 '54

ISOMORPHISM

Tabulated diffraction data for hexagonal isomorphs. L. K. Frevel and H. W. Rinn. bibliog Anal Chem 25:1697-717 N '53

ISONIAZID. See Isonicotinic acid

ISONICOTINAMIDE

Hydrolysis of picolinamide and isonicotinamide in concentrated hydrochloric acid solutions. H. H. G. Jellinek and J. R. Urwin. bibliog J Phys Chem 57:900-2 D '53

ISONICOTINIC acid

Colorimetric estimation of isonicotinic acid hydrazide. E. L. Pratt. bibliog Anal Chem 25:814-16 My '53

Condensation of glyoxal and *iso*nicotinoylhydrazine (isoniazid). V. C. Barry and P. W. D. Mitchell. Chem Soc J p3723-5 N '53

Mechanism of action of isonicotinic acid hydrazide. D. S. Goldman. bibliog Am Chem Soc J 76:2841-2 My 20 '54

Micro determination of isoniazids in blood. M. B. Jacobs. bibliog Science 118:142-3 Jl 31 '53

Pathogenicity of isoniazid-resistant variants of tubercle bacilli. G. Middlebrook and M. L. Cohn. Science 118:297-9 S 11 '53

Polarography of picolinic and isonicotinic acid and their amides. H. H. G. Jellinek and J. R. Urwin. bibliog J Phys Chem 58:168-73 F '54

ISOÖCTYL alcohol

Latest entry in petrochemical field; Gulf oil corp.'s iso-octyl alcohol. il diag Chem Eng 61:113-14 Ag '54

ISOOXAZOLINE

Reactions of 1-chloro-3-nitro-2-butene and sodium 2-propanenitronate; 3-methyl-4-(2-nitro-2-propyl)-isoxazoline oxide. H. Shechter and F. Conrad. bibliog Am Chem Soc J 76:2716-20 My 20 '54

ISOOXAZOLONE

*iso*Oxazolones; arylaminoalkyl(or aryl)-idene-*iso*oxazolones and -*iso*oxazolidones. E. Mansberg and G. Shaw. Chem Soc J p3467-70 N '53

*iso*Oxazolones; the bromination of arylaminomethylene*iso*oxazolidones; a new selective anion-precipitant. G. Shaw. Chem Soc J p3464-7 N '53

*iso*Oxazolones; the hydrogenation of 5-amino*iso*oxazoles; a new synthesis of pyrimidines. G. Shaw and G. Sugowdz. Chem Soc J p665-8 F '54

ISOPENTANE

First UK *iso*-pentane. Chem Age (Lond) 71:182 Jl 24 '54

Volumetric behavior of isopentane. R. Isaac. K. Li and L. N. Canjar. bibliog Ind & Eng Chem 46:199-201 Ja '54

ISOPHTHALIC acid

Isophthalic to the fore; abstract. E. F. Carlson. Chem & Eng N 32:3846 S 27 '54

ISOPRENE

Copolymerization of alpha, beta-unsaturated ketones. C. S. Marvel and others. bibliog Ind & Eng Chem 45:1532-8 Jl '53

Cyclic vinyl ethers as reagents for the introduction of isoprene units into organic compounds. W. E. Parham and H. E. Holmquist. bibliog Am Chem Soc J 76:1173-5 F 20 '54

Kinetics and mechanism of hydrochlorination of synthetic and natural polyisoprene latex. E. Crampsey, M. Gordon and J. S. Taylor. Chem Soc J p3925-31 D '53

Pyrolysis of styrene, acrylate, and isoprene polymers in a vacuum. S. Straus and S. L. Madorsky. bibliog J Res Nat Bur Stand 50:165-76 Mr '53

Symbolic representation of natural isoprene structures. W. Klyne. bibliog Chem & Ind p725-6 Je 19 '54

ISOPROPOXIDES

Infrared spectra of metal isopropoxides. J. V. Bell and others. bibliog Anal Chem 25:1720-4 N '53

ISOPROPYL alcohol

French plants make alcohols, solvents, detergents. V. S. Swaminathan. flow chart il Pet Eng 25:C 19+ N '53

How to get pure isopropanol; patent. diag Chem Eng 61:262 F '54

Isopropyl alcohol; Stone & Webster-Badger. flow diag Pet Refiner 32:146-7 N '53

Phenol, acetone, isopropanol; cumene process recasts trio's future. H. K. Nieuwenhuis. Chem W 72:30-9 My 2 '53

Analysis

Analysis data for the ternary system isopropyl alcohol-isopropyl ether-water. W. S. Brey, jr. bibliog(26 ref) Anal Chem 26:838-42 My '54

Determination of isopropyl alcohol in dextran and dextran solutions. G. J. Frisone. Anal Chem 26:924-5 My '54

ISOPROPYL alcohol—*Continued*

Manufacture

Montreal's new petrochemical plant. G. S. Williamson. flow chart il Pet Eng 26:C37-9 Ja '54

ISOPROPYLAMINE

New Sharples emulsifier; isopropylaminoethanols (IPAE). Soap & San Chem 30:97 Ap '54

ISOPROPYLBENZENE. See Cumene

ISOPROPYL ether

Analysis

Analysis data for the ternary system isopropyl alcohol-isopropyl ether-water. W. S. Brey, jr. bibliog(26 ref) Anal Chem 26:838-42 My '54

ISOPROPYL group

Reaction of nitric oxide with gaseous hydrocarbon free radicals; isopropyl radical. H. T. J. Chilton and B. G. Gowenlock. diag Chem Soc J p3232-6 O '53

ISOPROPYLIDENE

Reduction of 2-phenyl-4-*iso*propylidene-oxazolone-5 by means of lithium aluminium hydride. E. Baltazzi and R. Robinson. Chem & Ind p868 Ag 15 '53

Structure of the di-*O*-*iso*propylidene derivatives of (-)-inositol and pinitol. S. J. Angyal, C. G. Macdonald and N. K. Matheson. Chem Soc J p3321-3 O '53

ISOPROPYL noradrenaline. See Adrenalin

ISOPYCNICS. See Specific gravity

ISOQUINOLINE

Hypotensive methoxyisoquinolines. G. N. Walker. bibliog Am Chem Soc J 76:3999-4003 Ag 5 '54

Local anesthetics; the synthesis of local anesthetic 3,4-dihydroisoquinolines. M. B. Moore and others. bibliog Am Chem Soc J 76:3656-62 Jl 20 '54

New synthesis of polycyclic compounds containing a fused *iso*quinoline ring system. T. S. Osdene and G. M. Timmis. Chem & Ind p404 Ap 3 '54

Sulfur analogs of isoquinolines and β-carbolines; the Pomeranz-Fritsch reaction. W. Herz and Lin Tsai. bibliog Am Chem Soc J 75:5122-3 O 20 '53

Synthesis of oxygenated octa- and decahydro-*iso*quinolines. A. Marchant and A. R. Pinder. bibliog Chem & Ind p 1366-7 D 19 '53

Synthesis of possible antimalarials; synthesis of 1- and 3-*iso*quinolyl- and 2-quinolyl-2′-quinuclidylmethanol. G. R. Clemo and M. Hoggarth. Chem Soc J p95-9 Ja '54

ISOSAFROLE

Structure and configuration of the two solid dimerides of *iso*safrole. W. Baker and others. Chem Soc J p4058-60 D '53

ISOSTIPITATIC acid

Synthetic experiments in the *cyclo*heptatrienone series; syntheses of puberulic acid and *iso*stipitatic acid. R. B. Johns, A. W. Johnson and J. Murray. Chem Soc J p 198-202 Ja '54

ISOTHIOCYANATES

Modern uses of organic polyisothiocyanates. Chem Age (Lond) 69:23-4 Jl 4 '53

New method of preparation of aryl *iso*thiocyanates. J. N. Baxter and others. bibliog Chem & Ind p785 Jl 3 '54

ISOTHIOSEMICARBAZIDES. See Thioisosemicarbazides

ISOTOPES

American drug manufacturers association Research and development section meeting, Rye, N.Y.; abstracts of papers. Chem & Eng N 31:4878 N 23 '53

Application of a radioactive source for recording purposes. A. Bierman. diag R Sci Instr 24:879-80 S '53

AEC's domestic shipments of radioactive and stable isotopes now reaching 50,000 mark total. R. G. Gibbs. Chem & Eng N 31:3348 Ag 17 '53

Change of the isotopic abundance ratio within a sphere due to diffusion. J. T. Bracken and F. E. Senftle. J Ap Phys 25:267-8 F '54

Decay and growth tables for the naturally occurring radioactive series. H. W. Kirby. Anal Chem 26:1063-71 Je '54; Correction. 26:1513 S '54

Determination of triphosphate and pyrophosphate by isotope dilution. O. T. Quimby, A. J. Mabis and H. W. Lampe. bibliog Anal Chem 26:661-7 Ap '54

Diffusion and thermal diffusion of isotopic gases. E. M. Holleran. bibliog J Chem Phys 21:2184-7 D '53

Enriching stable isotopes electromagnetically. C. P. Keim. il diags J Ap Phys 24:1255-61 O '53

Facility for use of radioactive isotopes in a general hospital. plans Pub Health Rep 68:449-50 Ap '53

Geologic importance of variations in stable isotopic abundances. M. L. Jensen. bibliog(27 titles) Econ Geol 48:161-76 My '53

Gravimetric methods for zinc and its separation from certain elements; use of radioisotope in evaluation of analytical procedures. J. E. Vance and R. E. Borup. bibliog Anal Chem 25:610-15 Ap '53

Ion source; mass spectrograph used to obtain isotopes. il Iron Age 173:160-1 F 4 '54

Isotope dilution assay for total penicillins. M. Gordon, A. J. Virgona and P. Numerof. bibliog Anal Chem 26:1208-10 Jl '54

Isotope effect and thermal expansion coefficients of crystals. C. E. Nordman and W. N. Lipscomb. bibliog J Chem Phys 21:2077 N '53

Isotope effect in superconductivity. J. de Launay. bibliog Phys R 93:661-5 F 15 '54

Isotope effect on the dipole moments of diatomic molecules. A. P. Altshuller. bibliog J Chem Phys 21:2241-2 D '53

Isotope studies in photosynthesis. J. A. Bassham and others. bibliog(28 ref) il diags J Chem Educ 30:274-83 Je '53

Isotopes for polymer studies; abstract. J. C. Bevington and H. W. Melville. Chem & Eng N 32:3364 Ag 23 '54

Isotopes in medical photography. Can Chem Process 38:86 Ap '54

Isotopic exchange reactions in triethylamine-liquid sulfur dioxide solutions. R. H. Herber and T. H. Norris. bibliog Am Chem Soc J 76:3849-50 Jl 20 '54

Mass spectrometer for high precision isotope ratio determinations. R. K. Wanless and H. G. Thode. bibliog diags J Sci Instr 30:395-8 N '53

Natural occurrence of short-lived radioisotopes. I. Asimov. J Chem Educ 30:616-18 D '53

Naturally occurring radioisotopes. I. Asimov. J Chem Educ 30:398 Ag '53

Plane spectrograph offers ultra high dispersion. Chem & Eng N 31:4472+ O 26 '53

Production of radioisotopes. A. F. Rupp and F. T. Binford. il diags J Ap Phys 24:1069-81 S '53

Punched card system for radioisotopes. H. R. Lukens, jr., E. E. Anderson and L. J. Beaufait, jr. il Anal Chem 26:651-2 Ap '54

Radiochemical centre, Amersham. Chem & Ind p456 Ap 17 '54

Radioisotopes in agriculture. Can Chem Process 38:85 Jl '54

Reactor-produced radioactive isotopes. S. C. Ingraham and others. bibliog il Pub Health Rep 68:609-15 Je '53

Scope and future of isotope utilization. P. C. Aebersold and E. A. Wiggin. J Chem Educ 30:229-34 My '53

Some aspects of isotopic exchange. R. H. Herber. bibliog J Chem Educ 31:359-61 Jl '54

Teacher training in radioisotope techniques. J. H. Harley. J Chem Educ 30:399-402 Ag '53

Temperature independent factor in the relative rates of isotopic three center reactions. J. Bigeleisen and M. Wolfsberg. bibliog J Chem Phys 21:1972-4 N '53; Correction. 22:1264 Jl '54

Trade in radiation; Radiochemical centre, Amersham. il Chem Age (Lond) 70:877-80 Ap 17 '54

ISOTOPES—*Continued*

Treatment of cancer with radioisotopes. J. R. Sampey. bibliog Ind Med 22:300-1 Jl '53

See also

Deuterium

Radioactivity

also subdivision Isotopes under names of elements, e.g.

Beryllium

Carbon

Cobalt

Helium

Lead

Oxygen

Potassium

Sulfur

Uranium

Analysis

Activation analysis of several rare earth elements. W. W. Meinke and R. E. Anderson. bibliog Anal Chem 26:907-9 My '54

Analysis of radionuclide mixtures using a gamma-beta scintillation spectrometer. R. E. Connally and M. B. Leboeuf. bibliog diags Anal Chem 25:1095-100 Jl '53

Mass spectrometer ion source for solid material. G. H. Palmer and K. L. Aitken. diags J Sci Instr 30:314-16 S '53

Ratio recording in isotopic analysis. C. M. Stevens and M. G. Inghram. diags R Sci Instr 24:987-9 O '53

Simple mass spectrometer for analysis of stable tracer elements. E. H. Cooke-Yarborough and M. C. B. Russell. bibliog il diags J Sci Instr 30:474-80 D '53

Industrial applications

Application of radio-active isotopes to steel foundry radiography. L. Wilkinson. diag Engineer 197:383-7, pl 2 Mr 12 '54

Atoms; you can use radioisotopes. Iron Age 173:51 F 25 '54

Cesium radio isotope; new tool for parts inspection. J. M. Thompson and P. A. Glenn. il diags Iron Age 172:174-6 S 10 '53

Control of padding processes by radioactive isotope labelling. H. B. Hampson and E. W. Jones. diags Soc Dyers & Col J 69:620-6; Discussion. 626-8 D '53

Isotope density gauge. Can Chem Process 38:48 Je 20 '54

Isotope inspection controls quality of product. E. W. Bratton. il diag Tool Eng 33:78-81 Jl '54

Isotopes for washing check; Nuclear instrument and chemical corp. il Chem W 75:64 S 11 '54

Isotopes; industry is now main user. E. C. Kellogg. il Iron Age 172:111-12 N 5 '53

Isotopic and chromatographic techniques applied to protective coatings technology. P. Heiberger. bibliog Paint Oil & Chem R 117:14-17+ Ja 28 '54

New uses for isotopes. P. J. Stewart. il Can Chem Process 38:74+ Ja '54

Opportunity in radioisotopes. Chem & Eng N 32:296-7 Ja 25 '54

Radioactive isotopes in roller printing. W. Meitner and H. B. Hampson. Soc Dyers & Col J 69:283-4 Ag '53

Reactor inspected by isotopes. il Pet Refiner 32:126 Ag '53

Scientific bell on atom sheep. Chem & Eng N 32:3036 Ag 2 '54

Use of radioisotopes in the textile industry. C. E. Crompton. bibliog il diags Am Dyestuff Rep 42:533-9 Ag 17 '53

Utility of isotopes in metallurgy. H. C. Boynton and A. D. Kirshenbaum. diags Steel 133:130-3 N 9 '53

Tables

Production of radioisotopes. A. F. Rupp and F. T. Binford. J Ap Phys 24:1076-7 S '53

ISOVALERIC acid

Carbon dioxide fixation in heart extracts by β-hydroxyisovaleryl coenzyme A. B. K. Bachhawat, W. G. Robinson and M. J. Coon. bibliog Am Chem Soc J 76:3098-9 Je 5 '54

α,β-Dihydroxyisovaleric acid and α,β-dihydroxy-β-methylvaleric acid, precursors of valine and isoleucine. J. R. Sjolander and others. bibliog Am Chem Soc J 76:1085-7 F 20 '54

Structure of heliotrinic acid. R. Adams and B. L. Van Duuren. bibliog Am Chem Soc J 75:4636-8 O 5 '53

ISOXANTHOPTERIN

Pteridine syntheses; *iso*xanthopterin. A. Albert and H. C. S. Wood. bibliog J Ap Chem 3:521-3 N '53

ISOXAZOLINE

Spectroscopic evidence for the structure of isoxazolines and the mechanism of their formation. R. P. Barnes, G. E. Pinkney and G. M. Phillips. bibliog Am Chem Soc J 76:276-8 Ja 5 '54

ISRAEL

Hot climate problems. G. V. Parmelee. il Heating-Piping 26:173-4 Mr '54

Jerusalem; Israel government's decision to move its foreign office from Tel Aviv. Economist 168:165 Jl 18 '53

See also

Airlines—Israel

Chemical industries—Israel

Fertilizer industry—Israel

Housing—Israel

Immigration and emigration—Israel

Labor and laboring classes—Israel

Metal working industries—Israel

Petroleum industry and trade—Israel

Potash industry and trade—Israel

Tire industry and trade—Israel

Commerce

Arab league agrees on boycotts. For Comm W 51:13 Ja 11 '54

Foreign relations

In praise of umpires; Israel-Jordan incidents. Economist 169:324+ O 31 '53

On Israel's frontier; Israel-Jordan dispute. map Economist 169:226-7 O 24 '53

Industries and resources

Electroplating in Israel. M. Rubinstein. il Metal Finishing 51:58-62 N; 69-73+ D '53

Politics and government

Mr Ben Gurion's example; withdraws from politics. Economist 169:598 N 21 '53

ITACONIC acid

Itaconic acid derivatives of 4-aminophenyl (alkyl or aryl) sulfone. P. L. Paytash, M. J. Thompson and W. B. Clarke. Am Chem Soc J 76:3500-1 Jl 5 '54

ITALIAN language

Suggestions for translating German, French, and Italian chemical literature. H. Fischbach. J Chem Educ 30:388-93 Ag '53

ITALY

See also

Electric plants (central stations)—Italy

Gas, Natural—Italy

Labor laws and legislation—Italy

Land tenure—Italy

Petroleum—Italy

Petroleum industry and trade—Italy

Political parties—Italy

Sulfur industry and trade—Italy

Unemployment—Italy

Commerce

Increased trade between Italy, U.S.S.R. projected under protocol for 1953-54. For Comm W 51:12 F 22 '54

Italy looks eastwards for trade. Economist 169:597-8 N 21 '53

Defenses

Italian or Nato divisions? Economist 169:324 O 31 '53

Economic relations

United States

Italy and American aid. Economist 170:101-3 Ja 9 '54

Politics and government

Caretakers in Rome; Signor Pella, new prime minister. Economist 168:562 Ag 29 '53

De Gasperi's fall. Economist 168:371 Ag 8 '53

Italy and its allies. Economist 168:4-5 Jl 4 '53

Italy at the crossroads. V. L. Horoth. Mag of Wall St 92:607-9+ Ag 22 '53

Italy drifts towards anarchy. Economist 170:147 Ja 16 '54

No Horatius for Italy. Economist 170:242 Ja 23 '54

Paradox of Pella; Trieste. Economist 168:704+ S 12 '53

ITALY—Politics and government—*Continued*
Ten years without Mussolini. Economist 168: 267-8 Jl 25 '53
Trieste through Italian eyes. Economist 169: 257-8 O 24 '53

ITANO, Harvey A. 1920-
Kansan and Nisei win ACS awards. por(cover) Chem & Eng N 32:408-9 F 1 '54

IVES, Charles Edward, 1874-1954
Sketch. por East Underw 55:8 My 28 '54

IVES, Frederic, medal
Harrison McAllister Randall; Frederic Ives medalist for 1953. bibliog il Opt Soc Am J 44:93-6 F '54

IVES, Herbert Eugene, 1882-1953
Sketch. por Opt Soc Am J 43:1228-9 D '53

IVORY nuts
Mannans of ivory nut (phytelephas macrocarpa); the methylation of mannan A and mannan B. G. O. Aspinall and others. Chem Soc J p3184-8 O '53

IVORY soap. See Soap

IVREA, Italy
Olivetti; the name of this manufacturer spells modern design to an ever-increasing audience. il plans Arch Forum 97:116-21 N '52

IZARD, Emmette F. 1904-
Polyesters, like polyamides, are suitable for films and fibers; Schoellkopf award. por Chem & Eng N 31:2391-2 Je 8 '53

IZMIR, Turkey

Harbor

Turkey ready to certify qualifications of potential bidders on new harbor project. For Comm W 51:18 F 22 '54

J

JACK pine. See Pine

JACKETS

Rating

Men's jackets. il Consumers Res Bul 32:17-20 D '53

JACKLING, Daniel Cowan, 1869-
D. C. Jackling, taconite beneficiation, 1953. por Min Eng 6:30-1 Ja '54

JACKS
Facts about modern jacks. il Mill & Factory 54:281 My '54
Special jacks lighten adjustment load. il Steel 135:114+ Ag 23 '54
With air power on the job even large truck tires get quick change. il Comp Air Mag 59:142-3 My '54

JACKS, Hydraulic. See Hydraulic jacks

JACKSONVILLE, Florida
Dixie's insurance capital. Bsns W p66 Ag 8 '53
See also
Building—Jacksonville, Florida

Bridges

Gilmore Street bridge. P. M. Huddleston. diags Am Soc C E Proc 79 [no 209]:1-9 Jl '53
John E. Mathews bridge. M. N. Quade and R. S. M. Lee. il diags Am Soc C E Proc 79 [no 216]:1-25 Jl '53

Industries

Industrial district planned for Jacksonville port. il Manuf Rec 122:31 D '53

JACOBIANS
Application of Jacobians to statistical thermodynamics. H. Einbinder. bibliog J Chem Phys 21:2134-42 D '53

JACOBINE
Relationship between jacobine and jaconine and the structure of jaconecic acid. R. B. Bradbury. bibliog Chem & Ind p 1022-3 Ag 14 '54

JACOBY, Neil Herman, 1909-
Full crew for CEA. por Bsns W p33 D 5 '53

JACONECIC acid
Relationship between jacobine and jaconine and the structure of jaconecic acid. R. B. Bradbury. bibliog Chem & Ind p 1022-3 Ag 14 '54

JACONINE
Relationship between jacobine and jaconine and the structure of jaconecic acid. R. B. Bradbury. bibliog Chem & Ind p 1022-3 Ag 14 '54

JADEITE
Stability of jadeite. L. H. Adams. Am J Sci 251:299-308 Ap '53

JAILS. See Prisons

JALOUSIES. See Blinds, Glass

JAMAICA
See also
Mines and mineral resources—Jamaica

Commercial policy

Jamaica eases ban on U.S. pork products. For Comm W 50:12 D 7 '53

JANDER, Gerhart, 1892-
Gerhart Jander. R. E. Oesper. bibliog por(front) J Chem Educ 30:348-9 Jl '53

JAPAN
Japan after independence. K. Nomura. il U S Naval Inst Proc 79:486-90 My '53
Japan before Gatt. Economist 169:51-2 O 3 '53
See also
Agriculture—Japan
Airlines—Japan
Architecture—Japan
Architecture, Domestic—Japan
Chemical industries—Japan
Electricity supply—Japan
Hydroelectric plants—Japan
Investments, Foreign (in Japan)
Machine tool industry—Japan
Petroleum industry and trade—Japan
Steel industry and trade—Japan
Volcanoes—Japan

Armed forces

Framework for Japanese forces. Economist 169:951-2 D 26 '53
Japan's defence force. Economist 169:15-16 O 3 '53

Commerce

China trade tempts Japan again. Bsns W p 100-1 Ag 22 '53
Clamor for free trade. Chem W 75:13 Jl 17 '54
Japanese trade registers large deficit. For Comm W 50:3+ N 2 '53
Japanese trade with China. Economist 170: 5-6 Ja 2 '54
Peking's bait for Japan. Economist 169:412 N 7 '53
$60 million credit for U.S. cotton purchase now to go into operation. For Comm W 51: 20 Ja 4 '54
Too little trade, too much high life. Bsns W p 138+ D 5 '53
United States-Far East trade declines; Japan maintains leading position. For Comm W 50:3+ Ag 3 '53
Value of Japanese exports to United States increases; imports decline; first half, 1953. For Comm W 50:2 S 14 '53

Commercial policy

Japan sets six-month import quotas; dollar budget up $142 million. For Comm W 50:8 N 16 '53
Japan snubs Chinese coal. Bsns W p 132 S 5 '53
Japan widens exchange credit plan. For Comm W 50:9 S 14 '53
Japanese export drive. Economist 169:233-4 O 24 '53

Defenses

Rearming Japan. Economist 168:459-60 Ag 15 '53

Economic conditions

Economic conditions abroad (cont). For Comm W 50:6 Ag 10; 4 Ag 31; 3 O 19; 3+ N 2; 5+ N 23 '53; 51:5+ Ja 4; 4+ F 1 '54
Japan; our bastion in the Pacific. V. L. Horoth. map Mag of Wall St 93:667-9+ Mr 6 '54
Too little trade, too much high life. Bsns W p 138+ D 5 '53

JAPAN—*Continued*

Economic relations

United States

Export-import bank finances sales of U.S. cotton to Japanese market. For Comm W 50:26 N 16 '53

Foreign relations

Japan seeks a policy. Economist 169:182-3 O 17 '53

Great Britain

Britain and Japan. Economist 169:469-70 N 14 '53

United States

Bluntness fails. Economist 168:439 Ag 15 '53

Industries and resources

Land reform and industrial development in Meiji. I. I. Kramer. bibliog Land Econ 29: 314-22 N '53

New way in Japan; modern standardized packaging and package handling. il Mod Packaging 27:123-5 Je '54

Naval history

Admiral Enomoto and the imperial restoration. H. Kublin. il U S Naval Inst Proc 79: 408-19 Ap '53

JARS, Glass. See Glass jars

JASPER

New plant successfully floats Michigan jasper; Humboldt mining co. R. Cochran and E. Nanno. flow sheet il Eng & Min J 155: 100-4, 114 Ag '54

JAW

New articular facet in the upper jaw of the cyprinid fish genus pseudorasbora. L. S. Ramaswami. bibliog diag Science 118:357 S 25 '53

JEANNERET-GRIS, Charles Édouard. See Le Corbusier (Charles Édouard Jeanneret-Gris)

JEEPS. See Automobiles, Military; Motor vehicles

JELLY, jam, etc.

Bromfield puts Malabar farm into the gift-food business. L. M. Hughes. Sales Management 71:32+ O 1 '53

My most interesting lighting job; keeping jelly clean and clear. R. P. Benton. il diags Elec West 111:104 S '53

Manufacture

Batches without botches; J. M. Smucker co. F. A. Lewis. il Food Eng 26:133+ F '54

JELUTONG

Dambonitol; its isolation from dyera lowii and dyera costulata and its constitution. A. J. Comollo and A. K. Kiang. Chem Soc J p3319-21 O '53

JENDRASSIK, Georg, 1898-1954

Sketch. por Engineering 177:260-1 F 26 '54

JERSEY CITY

Water supply

Pollution control on the Jersey City watershed. R. J. Budrick. map Am Water Works Assn J 46:349-52 Ap '54

JERSEY cloth

Growing up in the jersey industry. B. Heller. Mod Textiles Mag 35:54+ My '54

Heller's wool jersey, from fiber to finished fabric. J. H. Blore. il Textile World 104: 80-3 Jl '54

Spark your sales with fancy spring-needle jerseys. J. H. Blore. il diags Textile World 104:104-5+ F '54

JERUSALEM

Jerusalem; Israel government's decision to move its foreign office from Tel Aviv. Economist 168:165 Jl 18 '53

JERVINE

Structure of jervine; degradation to nitrogen-free derivatives. J. Fried and A. Klingsberg. bibliog Am Chem Soc J 75:4929-38 O 20 '53

Structure of jervine; the sulfuric acid-catalyzed acetolysis of O,N-diacetyljervine. O. Wintersteiner and M. Moore. bibliog Am Chem Soc J 75:4938-44 O 20 '53

JESSOP steel company

Jessop Steel expanding. Steel 134:104 F 15 '54

JESUP, Georgia

Streets

Low-cost street paving program. G. M. Harrington. il Pub Works 85:91-2 Ap '54

JET engines. See Airplane engines—Jet engines; Gas turbines, Aircraft

JET freezing. See Freezing

JET fuel. See Gas turbines, Aircraft—Fuel

JET piercing. See Drilling and boring (earth and rocks)

JET propelled airplanes. See Airplanes, Jet propelled

JET propulsion

Jet research program disclosed; Project Squid. il Chem & Eng N 32:1764-5 My 3 '54

Bibliography

Bibliography of books and published reports on gas turbines, jet propulsion, and rocket power plants, Jan. 1950 through Dec. 1953. E. F. Flock and C. Halpern. U S Nat Bur Stand Circ Sup 509:1-110; pa 50c Supt. of doc. '54

JET propulsion of aircraft. See Airplanes, Jet propelled; Helicopters—Jet propulsion

JETS

Computation charts and theory for rectangular and circular jets. H. G. Elrod, jr. bibliog Heating-Piping 26:149-55 Mr '54

Effect of interaction among probes, supports, duct walls and jet boundaries on pressure measurements in ducts and jets. L. N. Krause and C. C. Gettelman. diags Instruments 26:1381-4 S '53

Jet impingement tests. P. T. Gilbert and F. L. LaQue. il Electrochem Soc J 101:448-55 S '54

Limiting conditions for jet formation in high velocity collisions. J. M. Walsh and others. bibliog il diags J Ap Phys 24:349-59 Mr '53

Optical method for the study of impinging jets in a liquid stream. G. G. Kretschmar and H. W. Wedaa. il diags Opt Soc Am J 43:526-30 Je '53

Reactions in turbulent free jets; turbulent diffusion flame. T. Baron. bibliog diag Chem Eng Prog 50:73-6 F '54

Some phenomena associated with supersonic liquid jets. B. Dunne and B. Cassen. il diags J Ap Phys 25:569-72 My '54

Spectra and diffusion in a round turbulent jet. S. Corrsin and M. S. Uberoi. bibliog(29 titles) il diags U S Nat Advisory Com for Aeronautics 1951:915-35 '52

What's ahead for jet engines and rocket motors in process units? P. B. Stewart and F. Kreith. il diags Chem Eng 60:208-11 S '53

JETTIES

Jack-type jetties protect levees along the Rio Grande in New Mexico. il Eng N 152: 42-3 Ja 21 '54

Mixed-in-place piles form jetty to control beach erosion. N. L. Liver and others. il diags Civil Eng 24:156-7 Mr '54

JETWELD. See Electric welding, Arc—Electrodes

JEWEL bearings. See Bearings, Jewel

JEWELERS' block insurance. See Insurance, Jewelers' block

JEWELRY

Synthetic crystals; abstract. R. C. Chirnside. Chem & Ind p73 Ja 16 '54

JEWELRY stores

Lighting

Lighting a jewelry and appliance store; data sheet. A. G. Caplan. il plan diags Illum Eng 49:207-8 Ap '54

JEWELRY trade

Design and research centre report; gold, silver and jewellery industries. Chem Age (Lond) 68:595-6 Ap 18 '53

Success built from a failure; Flint Mustard Seed Remembrancer. N. V. Peale. il Sales Management 71:33-4+ N 10 '53

Accounting

Installment method of accounting as applied to retail credit jewelry stores. D. H. Sanders. J Account 96:89-92 Jl '53

JEWELRY trade—*Continued*

Advertising

- When tv personality is merchanised, seasonal campaign comes to life; Anson inc. H. W. Coulthurst. il Ptr Ink 243:44-6 Je 12 '53

JEWISH-ARAB relations

- In praise of umpires; Israel-Jordan incidents. Economist 169:324+ O 31 '53
- On Israel's frontier; Israel-Jordan dispute. map Economist 169:226-7 O 24 '53

JIGS

- How to design drill jigs. H. C. Tsien. il diags Mach 60:196-9 My; 204-10 Je '54
- Interchangeable templets diversify drill jig. L. H. Austin. diags Am Mach 98:128 Mr 1 '54
- Jig holds castings in automatic grinding machine operation. R. H. Herrmann. il Foundry 82:156 Ja '54
- Jig layout block. C. Gonday. il Tool Eng 33:41 Ag '54
- Jigs and fixtures increase welding output. T. J. Wood. il Iron Age 172:138-41 D 10 '53
- Retracting jigs speed Studebaker drilling. E. Altholz. il Mach 69:215-17 N '53
- Reusable airframe jigs of cast iron or aluminum; Cessna aircraft co. il Automotive Ind 110:54+ Je 15 '54
- Self-centering drill jig. G. W. Whitley. diags Tool Eng 32:40 My '54
- Universal jig holds parts for radiography. E. R. Foor. il Foundry 82:202 Ja '54
- Universal router jig. O. Lango. diags Tool Eng 32:42 My '54
- Watch jig operating costs; reference book sheet. W. J. Kokoskin. diags Am Mach 98:173, 175 F 15 '54

JOB analysis

- Better teamwork, less friction with management job descriptions. J. A. Wichert. Sales Management 71:24-5+ N 20 '53
- Company on job evaluation; abstract. J. W. Gray, jr. Paper Tr J 137:56 D 11 '53
- Dynamics of job evaluation. R. Benjamin, jr. Management R 42:190-4 Ap '53
- Job re-synthesis; one way to achieve economy in management. R. M. Bellows and M. F. Estep. Personnel 30:113-15 S '53
- Job safety analysis at Munro mine. G. Kallunki. Can Min J 75:67-9 S '54
- Method for combining length of service and job rating in setting wage rates. H. W. Daniels and R. A. Katzell. Personnel 30:295-8 Ja '54
- New method of job evaluation; guide chart-profile method. E. N. Hay and D. Purves. Personnel 31:72-80 Jl '54
- Streamlining the rating scale for wage administration. N. B. Winstanley, jr. bibliog Personnel 30:286-94 Ja '54
- Union on job evaluation; abstract. H. Mattson. Paper Tr J 137:55-6 D 11 '53
- Worker participation in safety through job analysis. W. S. Walker and C. J. Potter. Personnel 31:141-7 S '54
- Worker values in job evaluation; impact of job evaluation on worker attitudes. L. R. Sayles. Personnel 30:266-74 Ja '54

JOB choosing. See Employment—Job choosing

JOB enlargement

- Job enlargement; an answer to specialization and boredom? Management R 43:502-3 Ag '54

JOB work

- Automatic machine control for job-lot production seen as outgrowth of GE electronic system. il Am Mach 98:182 F 15 '54
- Automatics can show profits on short runs. D. Stoneman. il Iron Age 173:173-6 Ap 22 '54
- Charting incentives for job shops. D. C. Latella. il Steel 133:118-19 N 23 '53
- Low-cost tooling boosts job-shop output; MetaMold aluminum co. il Iron Age 173:135 My 6 '54
- Materials control plan for a job shop; Specialty assembling & packing co. S. Eisenberger. Factory Management 111:99-101 O; 154+ N; 148+ D '53
- Simple system streamlines job-shop operation; Amco gage co. G. H. DeGroat. il Am Mach 98:176-7 S 13 '54

Accounting

- Job order industries. N A C A Bul 36:135-40 sec 3 S '54

JOBBER helps

- Can merchandising savvy sell aviation equipment? LearCal Hundred grand plan. N. Wood and E. Wood. il Sales Management 70:84-5 My 20 '53
- Distributors save 25 per cent of time with improved pricing list. il Ind Marketing 38:140 N '53
- Five kits within a kit push Link-Belt crane. il Ind Marketing 39:57 Je '54
- Frank admission of error followed by new campaign wins back angry jobbers; Pyrene manufacturing co. R. J. Flood. il Ptr Ink 244:42-3 Ag 21 '53
- Idea book builds Blackhawk into key line for distributors. il Ind Marketing 38:90-1+ N '53
- Top-notch distributor operation, what makes it? Congoleum-Nairn, inc. D. L. Mann. il Sales Management 71:30-4 Ag 15 '53
- What distributor salesmen want most in meetings. L. H. Brendel. Sales Management 71:89-91 Ag 1 '53

JOBBER relations

- Afraid to switch to wholesalers? Miller brothers watch strap manufacturing co. W. W. Miller. il Sales Management 71:48+ S 15 '53
- Council of jobbers advises national advertiser on promotion plans. Ptr Ink 244:75 Ag 21 '53
- Distributor rediscovered; relationships between chemical distributor, suppliers, customers. Chem W 73:68-70 N 21 '53
- Five benefits for you from a distributor advisory council. L. H. Brendel. Sales Management 72:78+ Je 1 '54
- Industry relations. R. J. Thompson. Am Pet Inst Proc 33(2):31-2 '53
- Oil men are going back to school. il Nat Pet N 46:21-3 F 17 '54
- When installed systems cost from $1,000 to $250,000; Shur-Rane formula for a successful company-distributor relationship. E. Gidlow. Sales Management 72:62+ F 1 '54

JOBBERS

- Business for yourself as a chemical jobber. G. M. Griffin. il Chem Eng 61:236+ F '54
- Industrial distributor builds business with service extras. il Ind Marketing 39:62 Je '54
- Jobber wrings sales from telephone; Carlea janitor supply co., Baltimore. P. Lance. il Soap & San Chem 30:167+ Ap '54
- Merchandising non-food items through super markets. J. D. Horn. J Marketing 18:380-6 Ap '54
- Rack jobbers. Bsns W p52 S 5 '53
- Rack jobbers seek new wares for supers; can your line meet their specifications? A. Levis. il Sales Management 71:76-8+ O 15 '53
- System speeds customer service; A. B. Frank co. E. Whitmore. il Am Bsns 24:20-1+ My '54

See also

Jobber relations

Salesmen, Jobbers'

JOHN CRERAR library

- Ipatieff gift fund formed. Chem & Eng N 32:3292 Ag 16 '54

JOHNS-MANVILLE research center

Library

- Johns-Manville research center library. R. E. Keusseff and R. C. Naul. il Special Lib 44:261-4 S '53

JOHNSON, Harry Roland, 1880-

- Sketch. H. J. Steiny. Am Assn Pet Geologists Bul 37:1830-1 Jl '53

JOHNSON, Otis Coe, 1839-1912

- O. C. Johnson and redox equations. G. W. Bennett. J Chem Educ 31:157-8 Mr '54

JOHNSON and Johnson company

- Profits, not without gauze. I. U. Cobleigh. Comm & Fin Chr 178:624 Ag 20 '53
- Sales, profits upswing continues. Barron's 33:19 N 23 '53

JOINT tenancy

- Correcting joint property evils; five alternative ways out and their tax effects. L. G. Knecht. Trusts & Estates 93:8-11, 84-6+ Ja-F '54

JOINT tenancy—*Continued*

Extravagance of joint ownership. S. A. Monroe. Weekly Underw 170:1312 My 22 '54

Joint tenancy pro and con. P. Brower. Life Ins Courant 59:48 F '54

Will compromises, joint tenancy, specific performance of fiduciary contracts, interested witnesses to wills; report of ABA committee on fiduciary law and procedure. Trusts & Estates 92:777-86 O '53

JOINTS

Consumable insert method of root pass welding. T. A. Risch and A. E. Dohna. il diags Welding J 33:670-9 Jl '54

Design of brazed joints; supplement to 1948 edition of Metals handbook. bibliog diags Metal Prog 66:115-22 Jl 15 '54

Expansion joints in concrete reservoir floors. L. A. Hosegood. diags Am Water Works Assn J 46:527-33 Je '54

High-strength bolts for structural steel joints. il diags Roads & Eng Constr 92:112-16+ My '54

High-tensile steel bolts for structural joints. il diags Engineer 197:415-17, 453-5 Mr 19-26 '54

Innovations in expansion joints. il diags Sheet Metal Worker 45:73-4 Ag '54

Joint translation by cantilever moment distribution. L. E. Grinter and C. H. Tsao. diags Am Soc C E Proc 70 [no 298]:1-9 O '53

New alloys stop corrosion in silver-brazed type 430 joints. J. J. Halbig and others. il Iron Age 172:159-63 D 10 '53

New principles for the calculation of welded joints. C. G. J. Vreedenburgh. bibliog il diags Welding J 33:743-51 Ag '54

Where to put expansion joints. H. S. Woodward. diags Arch Forum 100:161+ F '54

See also

Aluminum—Joining to steel, etc.
Brazing
Electric cables—Joints
Gaskets
Glass—Joining to metal
Glue
Packing
Pavements, Concrete—Joints
Pipe joints
Plastic materials—Joining
Rail joints
Riveted joints
Solder and soldering
Welding

Testing

Ultrasonic test for bonding flaws. G. B. Baumeister. il diags Steel 135:102-3 Ag 23 '54

JOJOBA oil

Jojoba oil, a liquid wax, and some of its applications. F. B. Wells. bibliog J Chem Educ 31:253-4 My '54

JOLIET, Illinois

Sewerage

Open-end bond plan grows with city; Joliet to expand water-sewer program. Eng N 152:42+ Mr 4 '54

Water supply

Open-end bond plan grows with city; Joliet to expand water-sewer program. Eng N 152:42+ Mr 4 '54

JONES, Duane, company

Duane Jones decision is upheld. Ptr Ink 243:10 My 15 '53

JONES, Hilton Ira

Chicago AIC honor scroll awarded to H. I. Jones. por Chem & Eng N 31:4432 O 26 '53

JONES, William Jacob, 1886-1952

Sketch. S. J. H. O. Chard and S. T. Bowden. Chem Soc J p765-6 F '54

JORDAN, Louis Arnold, 1892-

L. A. Jordan, C.B.E. Society's medallist, 1953. por Chem & Ind p699 Jl 18 '53; Chem & Eng N 31:3273 Ag 10 '53

JORDAN. See Hashemite Jordan kingdom

JOSEPHSON, Donald Victor, 1911-

ACS honors Josephson. por(cover) Chem & Eng N 32:942 Mr 8 '54

JOSHI effect

Energetics of the adsorption process responsible for the Joshi effect. S. R. Mohanty. bibliog J Chem Phys 21:1908 O '53

Production of Joshi effect under high-frequency electric discharge in iodine vapor. N. Subrahmanyam and N. A. Ramaiah. diags J Chem Phys 21:2233 D '53

Reversal to negative Joshi effect by intense irradiation. H. J. Arnikar. bibliog Opt Soc Am J 43:804 S '53

Saturation in the negative Joshi effect with respect to the light intensity as the consequence of the negative space charge responsible for the effect. S. R. Mohanty. bibliog J Phys Chem 58:178-9 F '54

JOURNAL of chemical education

Contributions of liberal-arts colleges to the Journal of chemical education, 1934-53. J. R. Sampey. J Chem Educ 31:406 Ag '54

JOURNALISM

See also

Freedom of the press
House organs
Libel and slander
Newspapers
Periodicals
Photography, Journalistic
Reporting

Study and teaching

Want a company magazine editor? see Clark, but you may stand in line. Ind Marketing 39:110 Ag '54

See also

Journalism schools

JOURNALISM awards

See also

Broun, Heywood, memorial award
Pulitzer prizes

JOURNALISM ethics

Code for journalism doubtful. H. R. Luce. Ed & Pub 86:12 F 28 '53

See also

Newspaper ethics

JOURNALISM graduates

Publisher bulletin warns editors must recruit. D. Bentel. Ed & Pub 86:48 My 9 '53

JOURNALISM schools

Accreditation dispute makes complex picture. D. Bentel. Ed & Pub 86:48 Mr 7 '53

Accreditation system upset is threatened. A. H. Kirchhofer. Ed & Pub 86:48 F 28 '53

Accrediting change is harmful; American council on education for journalism. Ed & Pub 86:124 Ap 25 '53

Accrediting effects can't be measured. D. Bentel. Ed & Pub 86:52 Mr 28 '53

American society of journalism school administrators lists standards for inspection teams. D. Bentel. Ed & Pub 86:60 Mr 14 '53

Compromise is answer to accreditation tiff. D. Bentel. Ed & Pub 86:46 My 16 '53

Growl is part of lesson in finishing school. B. Bien. Ed & Pub 86:42 My 30 '53

More glamor is answer to falling enrollments. D. Bentel. Ed & Pub 86:44 Ap 4 '53

Peace meeting called for disputing groups. D. Bentel. Ed & Pub 86:80 Ap 18 '53

Seminar programs extend to all fields. V. J. Danilov. Ed & Pub 86:20+ Ap 18 '53

Teachers have school affairs well in hand. D. D. Burchard. Ed & Pub 86:60 Mr 14 '53

Toledo blade recruits at 11 universities. D. Bentel. Ed & Pub 86:34 Mr 21 '53

Weak schools might gain accreditation. Ed & Pub 86:122 Ap 25 '53

JOURNALISM students

Dean to stop aiding checkup on j-students. Ed & Pub 86:102 Ap 25 '53

JOURNALISTIC photography. See Photography, Journalistic

JOYCE, Adrian Dwight, 1872-1954

Sketch. por Paint Oil & Chem R 117:43 S 9 '54

JUDGES

Salaries

Worth of a judge. Economist 169:475 N 14 '53

JUGOSLAVIA. See Yugoslavia

JULOLIDINE

Preparation of bis-2-cyanoethyl derivatives of aromatic primary amines, and their conversion into 1 : 6-diketojulolidines. J. T. Braunholtz and F. G. Mann. Chem Soc J p651-8 F '54

JUNCTION transistor. See Transistors

JUNIOR achievement movement
J.A. program helps build America; Blackstone Valley gas and electric co. has expanded support. il Gas Age 113:22-3 Ja 28 '54
Presenting junior chemical achievers; Cas-Chem laboratories of Bridgeport, Conn. Chem & Eng N 32:2500+ Je 21 '54
Young firm gets help from older heads; Custom products co., Junior Achievement outfit. il Bsns W p30-2 D 26 '53

JUNIOR republics
Citizens bank in a junior republic; Freeville, New York. D. Carew and J. Rosapepe. il Banking 46:60 Ja '54

JURY
Cites distinction between effect of inflation and pie in the sky jury verdicts. J. T. Blalock. Nat Underw 57:20 Ag 27 '53
Juries not fitted for deciding cases of negligence. R. Murphy. Nat Underw 57:1+ Jl 9 '53
Reprieve for juries? Economist 169:949 D 26 '53

JUSTICE, Administration of
Legal engine overhauled; report of committee appointed to inquire into the practice and procedure of the Supreme court, Great Britain. Economist 168:156-8 Jl 18 '53

JUSTICE, Department of. See United States—Justice, Department of

JUTE
Bitter constituents of the seeds of corchorus olitorius L., corchorgenin, a new cardiac-active aglycone. J. K. Chakrabarti and N. K. Sen. bibliog Am Chem Soc J 76:2390-2 My 5 '54
Constituents of the seeds of corchorus olitorius. L; isolation of β-sitosterol and corchorolic acid. G. Soliman and W. Saleh. Chem Soc J p 1506-8 My '54
Fall in jute. Economist 168:810 S 19 '53
Heavy supplies shadow jute-burlap outlook. Barron's 33:42-3 Ag 31 '53
Investigation of jute imports as potential plague source. E. W. Norris and others. Pub Health Rep 68:802-4 Ag '53
Jute; a test case; protection dilemma. Economist 169:603-4 N 21 '53
Mercerisation in acid-treated jute fibre. S. M. Mukherjee. bibliog il Textile Inst J Trans 45:T405-11 My '54
Molecular weight of α-cellulose from jute and allied long fibers. H. Chatterjee and others. bibliog(53 ref) Textile Res J 24:43-52 Ja '54
Nature of the hemicelluloses of jute fiber. P. C. Das Gupta and P. B. Sarkar. bibliog Textile Res J 24:705-11 Ag '54
Pakistan jute mills. il Elec J 152:512 F 12 '54
Rigidity of jute, ramie, and sisal. K. R. Sen and S. K. Bose. bibliog Textile Res J 24:754-5 Ag '54

Analysis

Determination of lignin in partially delignified jute. W. G. Macmillan and others. Textile Inst J Trans 45:T 108-12 F '54

Testing

Action of light on jute. W. G. Macmillan and H. P. Bhattacherjee. il Textile Inst J Trans 45:T700-2 S '54
Study of the action of alkalis on jute. W. G. Macmillan and others. bibliog Textile Inst J Trans 45:T703-15 S '54

JUUL, W. 1894-1953
Sketch. East Underw 55:24 Ja 22 '54

JUVENILE delinquency
As a judge I see life insurance a foe of juvenile delinquency. C. F. Murphy. East Underw 54:27 pt 2 S 25 '53
Health services and juvenile delinquency. M. M. Eliot. Pub Health Rep 68:572-7 Je '53
Psychiatric referrals for delinquent children. G. E. Gardner. Pub Health Rep 68:578-82 Je '53
See also
Detention homes

K

KAISER, Elmer Robert, 1909-
New ASHVE research director. por Heating-Piping 26:138 Ag '54; Same abr. Heat & Ven 51:138+ Ag '54

KAISER aluminum and chemical corporation
Expansion nears completion. Barron's 34:27-8 Ja 18 '54

KAISER foundation medical center
Kaiser hospital does things the easy way. il Bsns W p94-6 Ag 15 '53

KAISER-FRAZER corporation
C-119 hearing; McCone defends Kaiser contract as emergency. Aviation W 58:17-18 Je 8 '53
K-F under fire. Aviation W 58:15 Je 15 '53
Moving in with relatives. Bsns W p 154+ N 28 '53

KAISER motors corporation
Chase reported sold to Kaiser interests. Aviation W 59:19 Ag 10 '54
Detroit labor battles Pentagon on Kaiser. Aviation W 59:14 Jl 13 '53
GM buys Kaiser's Willow Run factory. Aviation W 59:15 N 16 '53
Joining up; Kaiser-Willys Sales division. Bsns W p32 Ag 1 '53
Kaiser, Willys tie the knot tighter. Steel 133:55 Ag 3 '53
Talbott's stand; AF refuses to reverse Kaiser cancelation. Aviation W 59:15-16 Jl 20 '53
To cut RFC debt. Comm & Fin Chr 178:1877 N 16 '53
USAF axes Kaiser aircraft role. Aviation W 58:16-17 Je 29 '53
What of the labor contract? il Bsns W p 140 Ag 29 '53
Willow Run sold. Bsns W p29 N 14 '53

KAISER steel corporation
Kaiser Steel output increased ten per cent. J. L. Ashby. Blast F & Steel Pl 42:232 F '54

KAMALA oil
Constitution of kamala oil. L. A. O'Neill and others. Chem & Ind p756-7 Je 26 '54

KAMLOLENIC acid
Structure of kamlolenic acid. R. C. Calderwood and F. D. Gunstone. Chem & Ind p436-7 My 2 '53

KANGAROO rats
Desert rat can live on dry food and no water at all; physiological mystery solved. K. Schmidt-Nielsen and B. Schmidt-Nielsen. il Sci Am 189:73-4+ Jl '53

KANIGEN process. See Nickel plating

KANSAS
See also
Architecture, Domestic—Kansas
Chemical industries—Kansas
Gas, Natural—Kansas
Petroleum industry and trade—Kansas

KANSAS CITY, Missouri
Kansas City hits at congestion. Eng N 152:48+ Ap 15 '54

Industries

Everything's up to date in Kansas City. R. A. Carpenter. il map Chem & Eng N 32:384-6 F 1 '54

KANSAS CITY power and light company
Preferred and common stocks offered. Comm & Fin Chr 179:204-5 Ja 18 '54
Stock sold; earnings, etc. Comm & Fin Chr 179:399 Ja 25 '54

KANSAS gas and electric company
Bonds sold. Comm & Fin Chr 178:1569-70 O 26 '53

KANSAS river
Kansas River basin; flood control solution is being sought. Eng N 152:27 Ja 28 '54
Planning and executing a uniform pollution abatement program for the Kansas River basin. D. F. Metzler. Am Soc C E Proc 79 [no 303]:1-5 O '53

KANSAS university
Kansas university's Science hall on Lawrence campus. il Chem & Eng N 32:1693 Ap 26 '54

KAOLIN
Use of kaolin clays as extender pigments in paint systems; abstract. W. R. Price, jr. Paint Oil & Chem R 117:33 Ap 8 '54
Whiteware raw materials from Saskatchewan. G. S. Crawford. bibliog il Am Cer Soc Bul 33:49-50 F 15 '54

KAOLINITE
Adsorption and reactions of enzymes and proteins on kaolinite. A. D. McLaren. bibliog J Phys Chem 58:129-37 F '54
Aggregation of kaolinite. S. J. Gregg and K. J. Hill. bibliog J Ap Chem 3:169-73 Ap '53
Morpholoy of kaolinite. L. A. Woodward. il Chem & Ind p 1228 N 14 '53
Permeability of kaolinite. A. S. Michaels and C. S. Lin. bibliog(37 ref) diags Ind & Eng Chem 46:1239-46 Je '54
Production of active solids by thermal decomposition; the calcination of kaolinite. S. J. Gregg and M. J. Stephens. diag Chem Soc J p3951-6 D '53

KAPLAN turbine. See Turbines

KAPPEL, Frederick Russell, 1902-
Portrait. Bsns W p 124 N 28 '53

KARL Fischer reagent. See Fischer reagent

KASHMIR
India and Sheikh Abdullah. Economist 168:639-40 S 5 '53
Kashmir coup. Economist 168:439 Ag 15 '53

KATZ, Joseph, 1888-
Sketch. por Adv Agency 47:64 Ag '54

KAWNEER company
Commercial building boom boosts profits. Barron's 33:29-30 Ag 31 '53

KAZIMIROFF, Theodore
Amateur scientist; the archaeology of New York city. A. G. Ingalls. por Sci Am 189:94-6 Jl '53

KECK, Lucile L. 1898-
SLA's new president. Special Lib 44:218 Jl-Ag '53

KEITH paper company
Keith paper co. purchased by Strathmore; modernization planned. C. M. Bryan. il Paper Ind 35:1016 D '53

KEKULÉ structure. See Molecules

KEL-F. See Chlorotrifluoroethylene

KELLIN
Furochromones and -coumarins; action of hydrazine hydrate and hydroxylamine on khellin, khellol and visnagin. A. Schönberg and M. M. Sidky. Am Chem Soc J 75:5128-30 O 20 '53
Furo-chromones and -coumarins; degradation of visnagin, khellin and related substances; experiments with chromic acid and hydrogen peroxide; and a synthesis of eugenitin. A. Schönberg, N. Badran and N. A. Starkowsky. bibliog Am Chem Soc J 75:4992-5 O 20 '53

KELLOGG, Wilbur R.
Kellogg elected CTC president. por Bus Transportation 33:54 Ja '54

KELLOL
Furochromones and -coumarins; action of hydrazine hydrate and hydroxylamine on khellin, khellol and visnagin. A. Schönberg and M. M. Sidky. Am Chem Soc J 75:5128-30 O 20 '53

KELLY, Mervin J.
Kelly named IRI medalist. por Chem & Eng N 31:4700 N 9 '53

KELVIN, William Thomson, 1st baron, 1824-1907
Dilemma of Lord Kelvin. P. I. Dee. Inst E E Proc 100 pt 1:301-5 N '53

KELVIN medal
Mackenzie, dean of Canadian scientists, given Kelvin medal. Chem & Eng N 32:614 F 15 '54

KEMPER, James Scott, 1886-
Appointment of Kemper as ambassador to Brazil brings industry honor. Weekly Underw 169:219 Jl 25 '53; Same cond. East Underw 54:34 Je 19 '53

KENDALL company
Profits, not without gauze. I. U. Cobleigh. Comm & Fin Chr 178:624 Ag 20 '53

KENNEDY, Edgar S. 1897-
Let's take it up with TRD. R. E. Ellsworth. pors Mod Textiles Mag 35:35+ Ja '54

KENTANIUM. See Titanium carbide

KENTUCKY
See also
Architecture, Domestic—Kentucky
Coal—Kentucky
Gas, Natural—Kentucky

KENTUCKY university
Distinguished professor. M. M. White. J Eng Educ 43:573-4 Je '53

KENYA
Fresh start for Kenya. Economist 169:223-4 O 24 '53
Kenya's constitutional dilemma. Economist 169:949 D 26 '53
Kenya's future. Economist 168:372 Ag 8 '53
Law and order in Kenya. Economist 169:733-4 D 5 '53
More liberalism in Kenya. Economist 169:570 N 21 '53
Settlers' plan for Kenya. Economist 168:622-3 S 5 '53
Will Mau Mau surrender? Economist 168:555 Ag 29 '53

KERATIN
Adsorption of metal ions by naturally pigmented keratin fibres. G. Laxer and C. S. Whewell. Soc Dyers & Col J 69:83-4 Mr '53
Membrane potentials for keratin and cellophane and the Meyer-Teorell theory. M. L. Wright. bibliog J Phys Chem 58:50-3 Ja '54
Reaction of modified keratins with nitroprusside. O. Ripa. bibliog(29 ref) il Textile Res J 23:776-82 N '53
Reversible twist and bending phenomena in keratin fibres. G. King and F. L. Warburton. diags Textile Inst J Trans 45:T412-18 My '54
Stress relaxation of fibrous materials; stress relaxation of wool keratin in water and in salt solutions. E. T. Kubu and others. Textile Res J 24:659-62 Jl '54
Thermal and elastic properties of α-keratin. H. B. Bull. bibliog J Phys Chem 58:101-3 F '54

KERITE company
Kerite observes its centennial. il Ry Age 136:38-9 My 3 '54

KERN county land company
Triple tonic for the Kern county land co. il Bsns W p 124-6+ O 24 '53

KEROSENE
JP-4 jet fuel. Aero Digest 67:44+ D '53; Same. Automotive Ind 110:186+ F 15 '54
Kerosene cooled transistors. J. E. Maynard and R. L. Brock. il diag Electronics 26:202+ O '53

Statistics

Kerosene, 1949-1952. Survey of Cur Bsns 1953 Sup p 172 [supplemented in monthly numbers]

KERR effect
Magnetic domains by the longitudinal Kerr effect. C. A. Fowler, jr. and E. M. Fryer. bibliog il diags Phys R 94:52-6 Ap 1 '54
Magnetic domains in cobalt by the longitudinal Kerr effect. C. A. Fowler, jr. and E. M. Fryer. il Phys R 95:564-5 Jl 15 '54

KESTOSE
*neo*Kestose; a trisaccharide formed from sucrose by yeast invertase. D. Gross, P. H. Blanchard and D. J. Bell. Chem Soc J p 1727-30 Je '54

KETALS. See Acetals

KETCHAM, Henry King, 1920-
Dennis no menace to creator. E. Knoll. por Ed & Pub 86:138 Ap 25 '53

KETCHUP. See Catsup

KETENE
Geometry of ketene. W. F. Arendale and W. H. Fletcher. bibliog J Chem Phys 21:1898 O '53
Photochemical studies; ketene and ketene-oxygen mixtures. A. N. Strachan and W. A. Noyes, jr. bibliog diag Am Chem Soc J 76:3258-64 Je 20 '54

KETIMINES. See Imines

KETOLS
Ring C ketols in the hecogenin and allopregnane series. G. P. Mueller and others. bibliog Am Chem Soc J 75:4892-7 O 20 '53

KETONES
Addition of dithiols to dibenzalketones. C. S. Marvel and H. Wexler. Am Chem Soc J 75:6318-19 D 20 '53

KETONES—*Continued*

Alkaline rearrangement of α-haloketones; effect of changing the halogen. R. B. Loftfield and L. Schaad. bibliog Am Chem Soc J 76:35-7 Ja 5 '54

Alkoxide-catalyzed autoxidative cleavage of ketones and esters. W. V. Doering and R. M. Haines. bibliog Am Chem Soc J 76:482-6 Ja 20 '54

Alkylation of cyclopropyl phenyl ketone. F. J. Piehl and W. G. Brown. bibliog Am Chem Soc J 75:5023-6 O 20 '53

Alkylation of duryl phenyl ketone with the Grignard reagent. R. C. Fuson and J. P. Freeman. Am Chem Soc J 76:911-12 F 5 '54

α,β-Unsaturated sulfides; the reaction of thiophenol with certain ketones. E. Campaigne and J. R. Leal. bibliog Am Chem Soc J 76:1272-5 Mr 5 '54

Aromatic cyclodehydration; cyclization of aldehydes, ketones and ketonitriles. C. K. Bradsher and W. J. Jackson, jr. bibliog Am Chem Soc J 76:734-8 F 5 '54

Aromatic cyclodehydration; 9,10-dialkylphenanthrenes by cyclization of ketones. C. K. Bradsher and W. J. Jackson, jr. Am Chem Soc J 76:4140-3 Ag 20 '54

Aryloxyketones. C. K. Bradsher, F. C. Brown and R. J. Grantham. bibliog Am Chem Soc J 75:6304-5 D 20 '53

Behavior of cyclopropyl ketones in the Schmidt reaction. S. C. Bunce and J. B. Cloke. bibliog Am Chem Soc J 76:2244-8 Ap 20 '54

Bromination of steroidal ketones. D. A. H. Taylor. Chem & Ind p250 F 27 '54

Chemical constitution of ipomeanine, a new ketone from the black-rotted sweet potato. T. Kubota and N. Ichikawa. Chem & Ind p902-3 Jl 17 '54

Chemical reactions of complexes; reaction of hydrazides and aromatic *o*-oxy- and *o*-aminoaldehydes and ketones with nickel acetate. L. Sacconi. bibliog Am Chem Soc J 76:3400-2 Jl 5 '54

Copolymerization of alpha, beta-unsaturated ketones. C. S. Marvel and others. bibliog Ind & Eng Chem 45:1532-8 Jl '53

Determination of aldehydes in the presence of ketones and procedure for acetals. H. Siegel and F. T. Weiss. bibliog Anal Chem 26:917-19 My '54

Dinitrophenylhydrazones of α-halo ketones. F. Ramirez and A. F. Kirby. bibliog Am Chem Soc J 75:6026-30 D 5 '53

Displacement of substituents in phenyl 2,4,6-triisopropylphenyl ketone by the action of Grignard reagents. R. C. Fuson and W. S. Friedlander. Am Chem Soc J 75:5410-11 N 5 '53

Effect of side chain on the chromatographic adsorption of some ketones on carbon. E. D. Smith and A. L. LeRosen. bibliog Anal Chem 26:928-9 My '54

Electrolytic reduction of tricyclic α-aminoketones; synthesis of medium rings containing nitrogen. N. J. Leonard, S. Swann, jr. and G. Fuller. bibliog Am Chem Soc J 76:3193-7 Je 20 '54

Ethylene imine ketones; stereochemistry and mechanisms of three-ring cleavage and closure. N. H. Cromwell and others. bibliog Am Chem Soc J 75:5384-9 N 5 '53

Ethylenimine ketones; the stereoisomerism of 1-cyclohexyl-2-methyl-3-(*p*-phenylbenzoyl)-ethylenimine. N. H. Cromwell and R. J. Mohrbacher. bibliog Am Chem Soc J 75:6252-6 D 20 '53

Extraction of niobium into diisopropyl ketone from hydrochloric acid solutions. H. G. Hicks and R. S. Gilbert. Anal Chem 26:1205-6 Jl '54

Fluorocarbon aromatic ketones. J. H. Simons, W. T. Black and R. F. Clark. bibliog Am Chem Soc J 75:5621-2 N 20 '53

Formation of ketones; the formation of some substituted *cyclo*pentanones by the Dieckmann reaction. R. I. Reed and M. B. Thornley. Chem Soc J p2148-50 Je '54

Further studies on silicon-containing carbonyl compounds; diketones, ketoesters and cyclic unsaturated ketones. L. H. Sommer and R. P. Pioch. bibliog Am Chem Soc J 76:1606-9 Mr 20 '54

Halogenated *o*- and *p*-phenolic ketones. N. P. Buu-Hoï, N. D. Xuong and D. Lavit. Chem Soc J p 1034-8 Mr '54

Hydantoins from alicyclic ketones and aldehydes. E. S. Rothman and A. R. Day. bibliog Am Chem Soc J 76:111-13 Ja 5 '54

Hydrazine; condensation products of aldehydes and ketones with salts of some substituted Δ^2-pyrazolines and hydrazines. M. Lamchen, W. Pugh and A. M. Stephen. Chem Soc J p2429-34 Jl '54

Hydroxymethylene ketones; orientation in the condensation of methyl ethyl and methyl *n*-propyl ketones with methyl formate. E. E. Royals and K. C. Brannock. bibliog Am Chem Soc J 76:1180-1 F 20 '54

Hydroxymethylene ketones; the preparation of methoxymethylene ketones. E. E. Royals and K. C. Brannock. bibliog Am Chem Soc J 76:3041-2 Je 5 '54

Improvement of boron fluoride method of acylation of ketones to form β-diketones; ring opening of 2-acyl cyclic ketones to form keto acids. R. M. Manyik and others. bibliog Am Chem Soc J 75:5030-2 O 20 '53

Indoles derived from aromatic amines and 2-hydroxy-ketones; the synthesis of 7-acetyl-2 : 3 : 4′ : 5′-tetraphenylpyrrolo (2′ : 3′-4 : 5)-indole. N. A. Jones and M. L. Tomlinson. Chem Soc J p4114-16 D '53

Influence of alkyl groups upon reaction velocities in solution; the acid-catalysed prototropy of dialkyl ketones. D. P. Evans and J. R. Young. Chem Soc J p 1314-16 Ap '54

Ketones pull a switch; new solvent and other outlets. Chem W 74:89-90 Je 5 '54

Leuckart reaction of some 1,5-diketones. F. Chubb, A. S. Hay and R. B. Sandin. bibliog Am Chem Soc J 75:6042-4 D 5 '53

Microbiological transformations of steroids; degradation of C_{21} steroids to C_{19} ketones and to testololactone. D. H. Peterson and others. bibliog Am Chem Soc J 75:5768-9 N 20 '53

Mildew-preventing activity of rhodanine derivatives; ketone derivatives. F. C. Brown, C. K. Bradsher and E. N. Lawton. bibliog Ind & Eng Chem 45:1027-30 My '53

New C_1-ketone from dehydroabietic acid. R. P. Jacobsen. Am Chem Soc J 75:4709-12 O 5 '53

New synthesis of 2-alkyl and 2-acyl ketones. G. Stork, R. Terrell and J. Szmuszkovicz. bibliog Am Chem Soc J 76:2029-30 Ap 5 '54

New synthesis of 1 : 3-diketones and the preparation of 1-keto-olefins by means of trifluoroacetic anhydride as condensing agent. A. L. Henne and J. M. Tedder. Chem Soc J p3628-30 N '53

New synthesis of hydroaromatic tricyclic ketones closely related to the resin acids. N. N. Saha and others. bibliog Chem & Ind p 1143-4 S 11 '54

Pfitzinger reaction of *p*-hydroxypropiophenone and similar phenolic ketones. N. P. Buu-Hoï and J. F. Miquel. Chem Soc J p3768-9 D '53

Preparation of aromatic aldehydes and ketones from diazonium salts. W. F. Beech. Chem Soc J p 1297-302 Ap '54

Pyrogenesis of ketones; the formation of the dipropyl ketones. W. A. O'Neill and R. I. Reed. Chem Soc J p3911-13 D '53

Reaction of diazomethane with 2-phenylazo-1,3-diketones. P. B. Russell. bibliog Am Chem Soc J 75:5316-20 N 5 '53

Reaction of *o*-phenylenediamines with carbonyl compounds; benzophenones and dibenzyl ketones. R. C. Elderfield and V. B. Meyer. bibliog Am Chem Soc J 76:1883-7 Ap 5 '54

Reaction of *o*-phenylenediamines with carbonyl compounds; the primary product from benzophenone and dibenzyl ketone. R. C. Elderfield and V. B. Meyer. bibliog Am Chem Soc J 76:1887-91 Ap 5 '54

Reactions of diketene with ketones. M. F. Carroll and A. R. Bader. bibliog Am Chem Soc J 75:5400-2 N 5 '53

Reactions of methyl radicals with acetone, diethyl ketone, and di-*tert.*-butyl peroxide. G. O. Pritchard, H. O. Pritchard and A. F. Trotman-Dickenson. Chem Soc J p 1425-8 My '54

KETONES—*Continued*

Rearrangement of α-aminoketones during Clemmensen reduction; the reduction of atom-bridged bicyclic α-aminoketones. N. J. Leonard, J. W. Curry and J. J. Sagura. bibliog Am Chem Soc J 75:6249-52 D 20 '53

Rearrangement of α-bromo-ketones. A. C. B. Smith and others. bibliog Chem & Ind p309-10 Mr 13 '54

Reduction of ketones by lithium aluminium hydride. D. Lloyd and J. Read. Chem & Ind p436 My 2 '53

Reduction of some methyl phenyl ketones, the corresponding carbinols, and 2-methyl-2-phenyl-1 : 3-dioxolans with sodium or potassium and alcohols in liquid ammonia. A. R. Pinder and H. Smith. Chem Soc J p 113-20 Ja '54

Separation of alkylated ketones. W. J. Bailey and M. Madoff. bibliog Am Chem Soc J 76:2707-8 My 20 '54

Simple method for alkylation of ketones offers good yields. Chem & Eng N 32:1670 Ap 26 '54

Solutions in sulphuric acid; cryoscopic measurements on some unsaturated aromatic ketones and aldehydes. R. J. Gillespie and J. A. Leisten. Chem Soc J p 1-7 Ja '54

Solutions in sulphuric acid; the sulphonation of some unsaturated aromatic ketones in sulphuric acid. R. J. Gillespie and J. A. Leisten. Chem Soc J p7-12 Ja '54

Study of some fluorine-containing β-diketones. J. D. Park, H. A. Brown and J. R. Lacher. bibliog Am Chem Soc J 75:4753-6 O 5 '53

Superior method for reducing phenol ethers to dihydro derivatives and unsaturated ketones. A. L. Wilds and N. A. Nelson. bibliog Am Chem Soc J 75:5360-5 N 5 '53

Synthesis and reactions of branched-chain hydrocarbons; α-hydroxy-ketones with secondary and tertiary alkyl groups. W. J. Hickinbottom, A. A. Hyatt and M. B. Sparke. Chem Soc J p2529-33 Jl '54

Synthesis and reactions of branched-chain hydrocarbons; the synthesis of ketones with quaternary carbon atoms. W. J. Hickinbottom, A. A. Hyatt and M. B. Sparke. Chem Soc J p2533-6 Jl '54

Ternary solubility data. J. H. Jones and J. F. McCants. Ind & Eng Chem 46:1956-8 S '54

Vapor phase nitration of aliphatic ethers, alcohols, ketones and carboxylic acids. H. B. Hass and D. E. Hudgin. bibliog Am Chem Soc J 76:2692-4 My 20 '54

Analysis

Infrared spectra for analysis of aldehyde and ketone 2,4-dinitrophenylhydrazones. J. H. Ross. bibliog Anal Chem 25:1288-303 S '53

Paper chromatography of aldehydes and ketones as Girard derivatives. R. B. Seligman and others. bibliog Chem & Ind p 1195 S 25 '54

Physiological effect

Toxicity and hazard of diisobutyl ketone vapors. C. P. Carpenter and others. A M A Archives Ind Hygiene & Occup Med 8: 377-81 O '53

Spectra

Absorption spectra of ketones; α-halogenoketones. R. C. Cookson. Chem Soc J p282-6 Je '54

Infrared absorption spectra of diethyl ketones and its deuterium substitution products. B. Nolin and R. N. Jones. bibliog Am Chem Soc J 75:5626-8 N 20 '53

Infrared spectroscopic study of the carbonyl stretching frequency in some groups of ketones and quinones. N. Fuson, M.-L. Josien and E. M. Shelton. bibliog Am Chem Soc J 76:2526-33 My 5 '54

KETOSTEROIDS. See Steroids

KETTLES, Electric

Domestic electrical equipment; kettles and coffee percolators. il Elec R (Lond) 154: 406-10 Mr 5 '54

KETTLES, Steam jacketed

Nomograph simplifies sizing of jacketed vessels. F. Brown and K. G. Burridge. Chem Eng 61:218-20 Mr '54

Welding; steam-tight pocket made in stainless steel kettle; Groen mfg. co. il Iron Age 173:196-7 F 25 '54

KEY WEST, Florida

Water supply

Key West aqueduct. P. Corradi and B. Lenhart. il map Am Soc C E Proc 79 [no 208]: 1-26 Jl '53

KEYS and keyways (machinery)

Cold-rolled splines save time and money. il Tool Eng 33:57 Jl '54

Cold rolling of splines; a new process for steel shafts. il diags Automotive Ind 111: 66-7 Jl 1 '54

Grob corp.'s automatic machine for cold-forming gears and splines. il Am Mach 98: 169-70 Je 21 '54

Producing a helical keyway in bore of long shaft. W. M. Halliday. diags Mach 60: 231-2 Jl '54

Roto-Flo roll forms splines and serrations. il Am Mach 98:180 Je 21 '54; Steel 134:132 Je 21 '54; Iron Age 173:110-12 Je 24 '54; Mach 60:223-5 Jl '54

Tandem drive mills keyway in large shaft. J. Emrich. diags Am Mach 98:113 Ag 30 '54

KHARTOUM, Sudan

Atmospheric attenuation. C. J. Beck and others. Opt Soc Am J 43:405-6 My '53

KHELLIN. See Kellin

KHELLOL. See Kellol

KIDNEYS

Demonstration of glycogen synthesis by rat kidney slices in vitro. J. B. Marsh and K. L. Miller. Science 118:416-17 O 9 '53

Histochemical localization of the mercurial inhibition of succinic dehydrogenase in rat kidney. K. K. Mustakallio and A. Telkkä. bibliog il Science 118:320-1 S 18 '53

Diseases

Kidney injury after chronic exposure to inorganic mercury. L. Friberg and others. bibliog A M A Archives Ind Hygiene & Occup Med 8:149-53 Ag '53

KIEWIT, Peter, 1900-

Sketch. por Explosives Eng 32:68-9 My '54

KILLING of trees. See Trees, Killing of

KILNS

Automatically controlled kilns and fuel system for lightweight aggregate plant; Carolina solite corp. W. B. Lenhart. il Rock Prod 57:83-4+ My '54

Blackhawk Clay aims for 56 per cent boost with new shuttle kiln. il Brick & Clay Rec 125:40+ Jl '54

Design new type kiln for abrasive wheels. G. B. Remmey. il diag Brick & Clay Rec 124:73-4+ Je '54; Same. Cer Ind 63:54+ Ag '54

Dynamic brakes for rotary kilns; Basic refractories, inc. W. H. Tock. il Rock Prod 57:80-1 S '54

Electric brick making; Moorebank brick works. il Elec J 151:1407-8 O 30 '53; diags Engineering 176:825 D 25 '53

Enlarges tunnel kiln to handle 3,000 brick car; Marion brick & tile co. il Brick & Clay Rec 125:44-5 Ag '54

Inserted construction in rotary kilns. B. M. Pearson. Rock Prod 56:121+ D '53

Insulating firebrick in periodic kilns. W. F. Creson and J. W. Moffat. il diags Am Cer Soc Bul 33:4-7 Ja 15 '54

Portable kiln speeds Coors Porcelain production. il Cer Ind 62:74-5+ F '54

Problem of dunting in tunnel kilns; Tri-state brick & tile co. R. H. Robinson. Brick & Clay Rec 124:42 Mr '54

Problems of drier-kiln combination operations. D. P. Frame. Am Cer Soc Bul 33: 216-17 Jl 15 '54

Rotary kiln instrumentation. W. E. Dixon, jr. il diags Ind & Eng Chem 46:1436-41 Jl '54

Rotary kiln loading. I. Warner. il diags Rock Prod 56:79-80+ N '53

Saves 75 per cent of mudding-up time with solid units. il Brick & Clay Rec 125:54 Jl '54

Simple wall blankets speed construction of scove kilns. Brick & Clay Rec 124:54 Ja '54

KILNS—*Continued*
Study on brick kiln instrumentation. diag Brick & Clay Rec 124:94-5 Je '54
Tarheels combine a Miller kiln, a lotta foresight, to step ahead; Cunningham brick co. il diags Brick & Clay Rec 125:46-8 S '54
Two kilns in series produce perlite; Perlite industries co. H. C. Persons. il Rock Prod 57:81 Jl '54
Utilize fork truck for kiln repair, maintenance. il Brick & Clay Rec 125:54 Jl '54
See also
Cement kilns
Lime kilns

Cars

Construction, lubrication sand seal of modern tunnel kiln cars analyzed. C. A. Tate. Brick & Clay Rec 124:67+ F '54; Discussion. A. Crankshaw. 124:60+ Ap '54
Hydraulics offer low-cost replacement for mechanical power. H. E. Pollard. il diag Cer Ind 62:130-1+ Ap '54
Proper engineering, design, solves kiln car bearing problems. Brick & Clay Rec 125:78 Ag '54
Study of tunnel kiln car construction. H. A. Gornall. Brick & Clay Rec 124:112+ Ap '54

Electric heating

New tunnel kiln cuts firing time from days to hours; Norton co. il diags Cer Ind 63:57+ S '54; Same. Brick & Clay Rec 125:76-7 S '54
Pottery firing, multi-passage kiln at Stoke. il diags Elec R (Lond) 153:1266-8 D 4 '53

Firing

Economic and other advantages of radiant firing tunnel kilns. E. S. Mack. Am Cer Soc Bul 33:120 Ap 15 '54
Miller kiln oil system has top engineering. plan Brick & Clay Rec 125:56 Jl '54
Recent developments in tunnel kiln firing in the heavy clay industry. E. L. Harcourt and R. J. Reed. il diags Am Cer Soc Bul 32:417-20 D 15 '53
Reduce your firing costs with proper oil supply system. diags Brick & Clay Rec 124:81-4 Je '54

KINEMATICS of machinery. See Machinery, Kinematics of

KINESCOPE. See Television receiving apparatus

KINETIC theory of gases. See Gases, Kinetic theory of

KING, George, 1889-
Sketch. por Chem & Ind p612 Je 20 '53

KINGSBURY, Bob
I'm a dry-land plumber now! pors Dom Eng 183:100-1+ Ja '54

KINLEY, Myron M.
International fireman. A. Reese. pors World Oil 137:63-7 Jl; 63-7 Ag '53

KIRK, Raymond E. 1890-
What to leave out is big problem for chem educators. por(cover) Chem & Eng N 31:4349 O 19 '53

KIRKWOOD, John G.
Laurels to Kirkwood and Cram. por (cover) Chem & Eng N 31:4900 N 23 '53

KITCHEN cabinets
Cabinet as a room separator; detail plate. K. R. O'Neal. il diags Am Bld 75:170-1 S '53
Kitchen cabinet promotion launched. Dom Eng 183:218+ Ap '54
Steel cabinet makers sell steel. Steel 134:58 Ap 26 '54

KITCHEN utensils
See also
Enameled ware
Fryers

KITCHENS
Are you working with kitchen remodeling? Am Bld 75:234 O '53
Biggest return on remodeler's dollar is in the kitchen. il plans House & Home 4:148-9 O '53
Biography of the American kitchen. il Am Bld 76:116-17 Ag '54
Boom in the making? Dom Eng 184:115 Jl '54
Breakfast bar pass-through. il plan diag Am Bld 75:127 My '53
Complete kitchens, a $40,000 accident! Benjamin E. Labov and sons. il Dom Eng 183:158-9 Ja '54
Cornell kitchen; refreshing new ideas in design. diags Am Bld 75:46-52 Je '53
Forecast kitchens of 1979. il plan diags Am Bld 76:118-21 Ag '54
Gas kitchens shine on parade; illustrations with text. Am Gas Assn Mo 36:26-7 Ja '54
Good kitchens can pass three tests; design standards and data. H. R. Sleeper. il plans House & Home 6:114-15 S '54
Good kitchens reach into dining area; design standards and data. H. R. Sleeper. il House & Home 6:116 S '54
How fancy can a kitchen get? il diags Am Bld 76:178-9 Jl '54
How to plan and sell your next house; the kitchen can sell women and women buy houses. il plan diag House & Home 3:136-9 My '53
Install a revolving door-bar to the outdoor living room. il diags Am Bld 75:184 Ag '53
Is your client a heart patient? here's a kitchen designed for her. il plan diags Am Bld 76:116-17 My '54
Kitchen of tomorrow, provides ideas for today! il Dom Eng 183:121+ F '54
Kitchen opens up. il plans diags House & Home 3:130-9 Je '53
Laclede has big cooperative merchandising display in parade of kitchens. il Am Gas J 179:42-3 D '53
Modern kitchens and perfume draw crowds at Texas state fair. il Gas Age 112:27+ N 5 '53
Planning the open kitchen. il plans Arch Rec 116:140-3 Jl '54
This kitchen gets away from the laboratory look. il Am Bld 75:228 Ag '53
To sell complete kitchens make them to order. J. P. Young. il Dom Eng 183:141 Je '54
What makes a successful kitchen dealer? W. D. Manor plumbing and heating co. il Dom Eng 183:126-9+ My '54
Women want better kitchens. il plans House & Home 5:146-8 My '54

Equipment

Kitchen equipment, home appliances and built-ins. il plans diags Am Bld 75:423-4+ Ap '53
Survey of commercial food service equipment. il Arch Rec 115:200-2 Je '54
See also
Kitchen cabinets

Lighting

Lighting a remodeled kitchen; lighting data sheet. R. J. Oetting. il plan diag Illum Eng 49:301-2 Je '54

KITIMAT, British Columbia
Industry builds Kitimat, first complete new town in North America. il maps plans Arch Forum 101:128-47 Jl; 120-7 Ag; 158-61 O '54
Kitimat planned as a model city. Munic Util 92:48 S '54; Roads & Eng Constr 92:54 S '54

KJELDAHL method. See Nitrogen—Analysis

KLARMANN, Emil G. 1900-
He made hormones legitimate; 1953 medal of Society of cosmetic chemists. por(cover) Chem & Eng N 31:5288-9 D 21 '53

KLAUTZ, John Paul
John Klautz, Dutch publisher, is moving into U.S. markets. por Bsns W p 164-5 O 3 '53

KLEIN, S., on the square
Bargain basement moves a batch of diamonds. il Bsns W p30-1 O 3 '53

KLUMB, Henry
H. Klumb finds an architecture for Puerto Rico. Arch Forum 101:122-7 Jl '54

KLYSTRON
Design and performance of a high-power pulsed klystron. M. Chodorow and others. bibliog il diags Inst Radio Eng Proc 41:1584-602 N '53
High-power klystron; patent. diags Electronics 26:240+ N '53
Millimeter waves from harmonic generators. C. M. Johnson and others. il diags R Sci Instr 25:213-17 Mr '54

KNIGHTS of Columbus
Why and how the Knights of Columbus advertise Catholic faith. J. McCarthy. il Ptr Ink 244:42+ S 4 '53

KNIT goods

Analysis of the stresses in some approximations to a simple knitted loop of monofilament yarn. A. Glaskin and G. A. V. Leaf. diags Textile Inst J Trans 44:T534-43 N '53

At Oneita's new mill, T-shirts are made on the progressive-bundling system. J. H. Blore. il plan Textile World 104:90-2+ Ja '54

Colour and design in knitwear. J. C. H. Hurd. diags Textile Inst J 45:P480-95; Discussion. P495-6 Ag '54

Dissection of warp-knit fabrics. B. Norwick. bibliog il Textile Inst J 45:P218-24 My '54

Dyeing and finishing of warp-knitted fabrics made from regenerated and synthetic fibres. J. Bromley and A. G. Cheek. il diags Soc Dyers & Col J 69:50-8 F '53

How to prevent tricot pinholes and drop stitches. T. R. Tier. diags Textile World 103:125+ D '53

Relationship of the geometry of plain knit cotton fabric to its dimensional change and elastic properties. H. M. Fletcher and S. H. Roberts. Textile Res J 24:729-37 Ag '54

Synthetics; their future in circular knit underwear. L. J. Feuer. Mod Textiles Mag 35:52+ My '54

This knit-goods bleaching range processes 140,000 lbs. weekly. B. K. Easton. il diag Textile World 104:112-14+ Je '54

See also

Bleaching—Knit goods

Hosiery

Jersey cloth

Nylon—Knit goods

Shrinkage

Heat setting synthetics. R. Evans, 2d. Am Dyestuff Rep 43:470-2 Jl 19 '54

Stability control of cotton knit goods. I. J. Smith. Am Dyestuff Rep 43:467-8 Jl 19 '54

KNITTING

Colour and design in knitwear. J. C. H. Hurd. diags Textile Inst J 45:P480-95; Discussion. P495-6 Ag '54

Dyeing of a blend of wool and Fibrolane for the hand knitting trade. R. C. Cheetham. bibliog Soc Dyers & Col J 69:76-83 Mr '53

How full-fashioned sweater parts are knitted. J. B. Lancashire. diags Textile World 104:122-3 Je '54

How to get the best results in knitting Helanca yarn. Mod Textiles Mag 35:56 Mr '54

How to loop sweater neckbands for neatness and sales appeal. J. H. Blore. il Textile World 104:106-7 Ja '54

Knitting dynel. J. MacDonald, jr. il Mod Textiles Mag 34:32 N '53

Mill reference data. diags Textile World 103:44-57 Mid-N '53

New warping techniques raise tricot efficiency and quality. J. H. Blore. Textile World 104:119+ Ja '54

Principles of knitting. J. C. H. Hurd. il diags Textile Inst J 45:P275-89 Je '54

Static problems affecting knitting. C. H. Edwards. Textile Inst J 45:P248-55; Discussion. P255-7 Je '54

Three basic methods for knitted gloves. D. Singer. il diags Mod Textiles Mag 34:54-6 N '53

Warp knitting technology, by D. F. Paling. Review, by J. B. Lancashire. Textile Inst J 44:P645-6 Ag '53; Discussion. D. F. Paling. il 44:P766-9; Reply. P769-70 N '53

See also

Hosiery—Manufacture

Knit goods

KNITTING arts exhibition

Knitting arts exhibition, 41st, Atlantic City, April 27-May 1; descriptions and personnel at exhibits. plan Am Dyestuff Rep 42:221-6 Ap 13 '53

KNITTING machines

Argyle machine knits five to six dozen boys' socks per shift. il Textile World 103:158 D '53

Carding units use sliver to make knit pile; Wildman mfg. co. il Textile World 104:133 Ja '54

Circular-knitting ideas that help quality and efficiency; Roanoke mills. il diag Textile World 104:84-5+ My '54

Here's a new knock-off for circular knitting machines. C. Turano. diags Textile World 104:158 Je '54

How Dover mills extended sample tricot designs. il Textile World 104:125 Mr '54

Magnetic latch opener aids jersey-garment knitting. J. H. Blore. il Textile World 104:92+ S '54

New Wildman knitter produces pile fabric. il Mod Textiles Mag 35:31 Ja '54

1953 review of new equipment; knitting. il Textile World 103:117-18+ N '53

Principles of knitting. J. C. H. Hurd. il diags Textile Inst J 45:P275-89 Je '54

Revolving-cylinder machines for high-speed eyelet knitting. il Textile World 104:124 My '54

Tricot stop motion improves quality and workloads. J. H. Blore. il diag Textile World 104:128-9 Je '54

See also

Hosiery machines

Maintenance and repair

Electric heat speeds hosiery production. J. W. Parris. il Elec World 141:152 F 22 '54

Regular overhaul insures quality underwear; P. H. Hanes knitting co. J. H. Blore. il Textile World 103:96-8+ D '53

Shaft repaired in half the time at half the cost; metallizing replaces brazing in repair of knitting-machine shafts. diag Welding J 33:54 Ja '54

KNITTING mills

How a small raschel plant gets high production; Milo-Hausman textile corp. J. H. Blore. il Textile World 104:120-1+ Jl '54

Machines, yarns, products change in knitting mills. J. H. Blore. Textile World 104:89-90 F '54

See also

Hosiery mills

Employees

Annual earnings of knitted-outerwear workers in 1951. P. E. Warwick. Mo Labor R 76:249-53 Mr '53

Equipment

These tricot ideas pay off in better fabric; Cooper textile mill. J. H. Blore. il Textile World 104:76-7+ My '54

Union underwear co. modernizes for high production and quality. J. H. Blore. il Textile World 104:76-7+ Ap '54

See also

Knitting machines

Management

Start your knitting quality control in the laboratory; Soowal knitting mills. J. H. Blore. il Textile World 104:66-8 Ag '54

Triple-inspection program guarantees quality knitwear; Roanoke mills. J. H. Blore. il Textile World 104:104-5+ Mr '54

KNIVES

Sharpening

Grinding long knives. il Engineering 177:151 Ja 29 '54

Hanchett knife and shear blade grinder. il Tool Eng 32:133 My '54; Am Mach 98:184 Jl 5 '54

KNIVES, Chipper

Chipper operation. V. P. Edwards. Tappi 37:300-2 Jl '54

KNIVES, Paper cutting. See Paper cutting knives

KNOEVENAGEL-DOEBNER reaction

Kinetics of the Knoevenagel-Doebner reaction. S. Patai, J. Edlitz-Pfeffermann and Z. Rozner. bibliog Am Chem Soc J 76:3446-51 Jl 5 '54

KNOTS and splices

Here's how to get the most out of rope; knots and hitches, how to tie and use them. R. C. Weaver. il diags Am Bld 75:187-90+ My '53

How to tie the weaver's knot. il Textile World 103:16-17 Mid-N '53

KNOXVILLE

See also

Housing—Knoxville

KNURLING
Bench-tool knurls piano wire. E. F. Siebold. diags Am Mach 98:139 Ag 2 '54
Centerless knurling saves parts. diag Am Mach 98:127 Mr 29 '54
Power press knurls small pieces at high rate. diags Iron Age 173:111 Ja 14 '54

KOBE, Japan
Harbor
Kobe port facilities improved by new pier. For Comm W 50:20 N 30 '53

KOEHRING company
Stock offering completed. Comm & Fin Chr 178:1987 N 23 '53

KOENIGSBERG bridges problem. See Topology

KOLBE-SCHMITT reaction
Mechanism of the Kolbe-Schmitt reaction. J. L. Hales and others. bibliog Chem & Ind p49 Ja 9 '54

KOLKER chemical corporation
Ahead for number three. Chem W 73:12 S 5 '53

KOLODNY, Joseph, 1902-
Where there's smoke, there's Kolodny. pors Bsns W p 102+ D 19 '53

KOMAROWSKY reaction
Some applications of the Komarowsky reaction. S. Dal Nogare and J. Mitchell, jr. bibliog Anal Chem 25:1376-9 S '53

KOPPERS company
Five attractive stocks off the beaten track. Mag of Wall St 93:735 Mr 20 '54

KOREA
See also
Coal—Korea
Electricity supply—Korea

Commercial policy
South Korean foreign traders listed; registrants must meet requisites. For Comm W 51:9 F 22 '54

Economic conditions
Korea; how to dig out of rubble. R. M. Stroupe. Iron Age 172:48-9 O 1 '53
Life in North Korea. Economist 168:793-4 S 19 '53

Foreign relations
Lessons from Mr Rhee. Economist 168:3-4 Jl 4 '53

United States
U.S. policy on Korea. J. F. Dulles. Comm & Fin Chr 178:929 S 10 '53

Politics and government
Single or double Korea? Economist 168:490-1 Ag 22 '53

Reconstruction
Mission to Seoul; dollars alone won't rebuild Korea. Barron's 33:1 Ag 3 '53
Rebuilding north Korea. Economist 170:172-3 Ja 16 '54
Who rebuilds Korea? Economist 168:395 Ag 8 '53

KOREAN war
Sir Winston returns; subject of the sixteen nations' declaration on Korea. Economist 168:495-6 Ag 22 '53

Aerial operations
AF's MiG kills pass 800 mark. il Aviation W 59:23-4 Jl 27 '53
How U.S. air power looked in Korea. il Bsns W p64-6+ Ag 29 '53
UN air bases in Korea open to attack. W. J. Coughlin. Aviation W 58:16-18 Je 15 '53

Casualties
End of Korea war; U.S.A. casualties in excess of 139,000; war clause litigations. East Underw 54:1+ Jl 31 '53

Economic aspects
War economies; a comparative study; Korean war and World war II. S. E. Harris. Dun's R & Mod Ind 62:177-8 S '53

Peace and mediation
Armistice brightens outlook for sales and recruiting. R. B. Mitchell. Nat Underw (Life ed) 57:1+ Jl 31 '53
As India sees Panmunjom. Economist 169:473-4 N 14 '53
Assembly and armistice; shape of a table. Economist 168:495 Ag 22 '53
End of a war. Economist 168:303-4 Ag 1 '53
House of glass; critics of Mr Lodge made poor showing. Barron's 33:1 Ag 31 '53
Korean apple-cart. Economist 168:554-5 Ag 29 '53
Labor angle; reaction to the armistice. Bsns W p87 Ag 1 '53
Negotiating at Panmunjom. Economist 168:265+, 332 Jl 25-Ag 1 '53
Palsy at Panmunjom. Economist 169:875 D 19 '53
Snail sets out in Korea. Economist 169:160-1 O 17 '53
U.S. policy on Korea. J. F. Dulles. Comm & Fin Chr 178:929 S 10 '53
What has been the effect of the Korean truce on industrial operations? Mill and Factory survey. Mill & Factory 53:69-70 N '53

Prisoners and prisons
At Marxist mercy; Chinese Communist tactics and Korean war prisoners. Economist 169:725-6 D 5 '53
Hand-washing in Korea; Indian attitude. Economist 170:218 Ja 23 '54
Indians in no man's land. Economist 169:84-5 O 10 '53
New light on "germ war". Economist 168:690 S 12 '53
Prisoners' base in Korea. Economist 169:327 O 31 '53
Prisoners' purgatory. Economist 168:556 Ag 29 '53
Still behind wire. Economist 170:11-12 Ja 2 '54
Town in no man's land. Economist 168:769 S 19 '53

Propaganda
Advertising goes to war; psychological warfare leaflets. R. F. Karolevitz. il Ptr Ink 243:72-3 Je 12 '53

KOZENY equation
Filtration resistance of compressible materials. W. L. Ingmanson. bibliog diag Chem Eng Prog 49:577-84 N '53
Role of porosity in filtration. F. M. Tiller. bibliog il Chem Eng Prog 49:467-79 S '53

KRAFT pulp. See Paper making—Sulfate process

KREBIOZEN
AMA blocks hope for quick settling of krebiozen dispute. Chem & Eng N 31:5286 D 21 '53
Million-dollar drug riddle. Chem W 72:21 My 23 '53

KREBS, Hans Adolf, 1900-
American and British biochemists share Nobel prize. por Chem & Eng N 31:4608 N 2 '53
Nobel ceremony honors chemists. por Chem & Eng N 32:162 Ja 11 '54

KRESS, John W. 1904-
Sketch. por(p85) Banking 46:84 N '53

KRESS, S. H., and company
Five specially selected stocks; with comparative balance sheet items. Mag of Wall St 93:439 Ja 9 '54

KRILIUM
Krilium soil conditioner and soil structure improvement; abstract and discussion. A. J. Lloyd. Chem & Ind p 1254-5 N 21 '53
Krilium soil conditioner; improving soil structure; abstract and discussion. A. J. Lloyd. Chem & Ind p588-9 Je 13 '53

KRUPP works
Krupp; felled giant walks again. il Bsns W p 166-8 S 26 '53

KRYPTON
Compressibility of gases; krypton in the temperature range 0 to 600 C and pressure range 10 to 80 atm. E. Whalley and W. G. Schneider. bibliog diag A S M E Trans 76:1001-4 Ag '54

Isotopes
New neutron-deficient isotope of krypton. A. A. Caretto, jr. and E. O. Wiig. Phys R 93:175-6 Ja 1 '54

Nuclear reactions
Protons from the deuteron bombardment of Kr^{84} and Kr^{86}. G. W. Wheeler and others. Phys R 92:121-3 O 1 '53

KUEHNRICH, Paul Richard

P. R. Kuehnrich, English toolsteel metallurgist. A. Torry. por Metal Prog 65:128 Je '54

KUEKES, Ed

Paul Bellamy rated cartoon as powerful. Ed & Pub 86:65 My 9 '53

KUGELER, Henry A. 1907-

Sketch. por(p85) Banking 46:83 N '53

KURTZ, George S.

Nose for safety. por Nat Safety N 69:66 Ja '54

KUWAIT

See also

Petroleum industry and trade—Kuwait

Petroleum workers—Kuwait

KYANITE

Dragnet has nothing on glass plant lab staff; reveal kyanite build-up as offender in glass plant's blue shop. P. J. Kircher. il Cer Ind 62:166+ Ap '54

KYNURENINE

Preparation of L-, D- and DL-kynurenine. J. L. Warnell and C. P. Berg. bibliog Am Chem Soc J 76:1708-9 Mr 20 '54

L

L.C.L. freight. See Freight car service—Car load

LABELING

In-plant labeling. il Mod Packaging 27:132-4 D '53

LABELING machines

Bag sealer-labeler. il Mod Packaging 27:102-3 Je '54

Quick-change labeler. il Mod Packaging 27:90-1 F '54

LABELS

Best foot forward; Allied Chemical's Solvay label face-lifting. il Chem W 73:54+ N 7 '53

Caveat labeler; advantages with careful copy control. Chem W 74:86 Je 19 '54

Considerations of shelf display. il Mod Packaging 27:87-93+ Jl '54

Does your label pull sales? abstract. Management R 42:682-3 N '53

Electronic label inspection; Eastman Kodak. M. J. Reid. il diag Mod Packaging 27:98-9+ Ja '54

More sell for less money; Rubbermaid four-color labels. il Mod Packaging 27:128-31+ Je '54

Really hot tamales; Xint's prize-winning label. il Mod Packaging 27:165 Mr '54

Sales barrier; consumers no savvy old-world wine lingo; new labels on Paul Masson bottles. il Sales Management 72:100-2 Ap 15 '54

Stencil labels are by-products; Reed candy co. il Am Bsns 23:24-5+ N '53

Symbol for beer; new Griesedieck label. il Mod Packaging 27:110-13 Jl '54

Tags, labels and tickets. R. S. MacKenzie. il Paper Tr J 137:226-9 N 13 '53

Take a look at Heinz' new labels; redesign is sparked by trend to self-service. A. Rosensweet. il Sales Management 71:30-2+ D 15 '53

32 check points for the self-service label. S. Moore. il Ptr Ink 244:42-3 Ag 28 '53

When seals and labels were brought into step; Seal and label institute. Sales Management 71:60+ O 1 '53

See also

Safety labels

Law

Labeling law in New York is effective this week. Oil Paint & Drug Rep 166:3+ Ag 23 '54

New York adopts label safeguards. Chem & Eng N 32:3379 Ag 23 '54; Chem W 75:76 Ag 21 '54; Soap & Chem Spec 30:155 S '54

Storks should label babies. Soap & San Chem 29:169 S '53

LABOR, Compulsory

Modern slavers; report compiled by a United nations committee. Economist 168:32-3 Jl 4 '53

POW's tell about red slave labor camp. map Iron Age 173:117-19 Ap 22 '54

LABOR, Department of. See United States—Labor, Department of

LABOR and laboring classes

Chronology of recent labor events. Published in Monthly labor review

See also

Absenteeism (labor)
Accidents, Industrial
Apprentices
Arbitration, Industrial
Bonus system
Building trades—Labor conditions
Chemical workers
Coal miners
Cotton mills—Employees
Disabled—Rehabilitation
Diseases, Industrial
Employees
Employees' representation in management
Employment management
Employment systems
Farm labor
Foundries—Employees
Gas companies—Employees
Government employees
Hours of labor
Housing
Hygiene, Industrial
Industrial education
Industrial management
Industrial relations
Insurance, Health
Insurance, Industrial
Insurance, Unemployment
Insurance, Workmen's compensation
International labor organization
Labor disputes
Labor laws and legislation
Labor supply
Lumber workers
Machinery in industry
Metal workers
Miners
Motor bus drivers
Occupations
Office workers
Old age pensions
Open and closed shop
Pensions, Industrial
Petroleum workers
Printers
Professional workers
Profit sharing
Railroads—Employees
Research workers
Safety devices and measures
Seamen
Servants
Standard of living
Steel workers
Strikes
Textile workers
Time study
Trade agreements
Trade unions
Unemployment
Wages
Woman—Employment
Workmen's compensation

Bibliography

Bibliography. Published in monthly numbers of International labour review

Publications of labor interest. Published in Monthly labor review

Supplemental list, publications of the Dept. of labor, Jan. 1, 1948; revised Aug. 1954. 34p U.S. Dept. of labor, Division of procurement, Washington, D.C. '54

Newspapers

See Newspapers, Trade union

Statistics

Current labor statistics. Published in Monthly labor review

Ceylon

Colombo consumers' price index adopted in Ceylon. For Comm W 50:2 Ag 31 '53

China

Economic status of the Chinese peasants after agrarian reform. S. Ong. bibliog Land Econ 29:35-43 F '53

Europe

Towards higher labour productivity in the countries of western Europe. J. Fourastié. Int Labour R 67:340-55 Ap '53

Europe, Eastern

Paying by results; red nations evolving and extending incentive plan. Eng N 152:29 Ap 15 '54

France

Structure of the employee classes in France during the last fifty years. M. Collinet. Int Labour R 67:212-35 Mr '53

See also

Metal workers—France

Order of the companions

Great Britain

British pension funds. F. B. Makin. Banking 46:86 D '53

LABOR and laboring classes—Great Britain— *Continued*

Engineering loses workers. Economist 168:657 S 5 '53
Engineering outlook; manpower situation. Engineering 177:73-5 Ja 15 '54
Industrial relations in Great Britain; a survey of post-war developments. H. S. Kirkaldy. Int Labour R 68:468-92 D '53
Labour in 1953. G. Williams. Engineer 197: 11-12, 48-9+ Ja 1-8 '54
Militant unions. Economist 169:800 D 12 '53
Wages cauldron. Economist 170:71-3 Ja 9 '54

See also
Labor laws and legislation—Great Britain

Israel

Raising productivity in Israel. H. Fish. Int Labour R 68:375-92 O-N '53

Italy

Grievances of Italian workers. Economist 169: 33 O 3 '53

New England

Labor, New England's precious resource. W. V. Packard. Iron Age 173:132-3 Je 24 '54
Transition; upgrading of employment. G. H. Ellis. Iron Age 173:196+ Je 24 '54

North Carolina

North Carolina story; labor and living. il Manuf Rec 123:81-3 Ja '54

Russia

Glimpse at the worker's paradise behind the iron curtain. J. H. Winchester. il Mill & Factory 54:77-81 Je '54
Labor productivity in the Soviet Union. I. H. Siegel. bibliog Am Stat Assn J 48:65-78 Mr '53
POW's tell about red slave labor camp. map Iron Age 173:117-19 Ap 22 '54

Southern states

Fact and fiction about southern labor. S. H. Robock and J. M. Peterson. bibliog Harvard Bsns R 32:79-88 Mr '54
What about the South's labor? Iron Age 172: 208 N 12 '53

Sweden

Domestic workers in Sweden. B. A. Johansson. Int Labour R 67:356-66 Ap '53

Switzerland

Vocational guidance in Switzerland. F. Böhny. Int Labour R 67:44-63 Ja '53

United States

American labor and the American spirit; unions, labor-management relations, and productivity. W. Bowden. U S Bur Labor Statistics Bul 1145:1-66; pa 40c Supt. of doc. '54
Future outlook for labor. J. P. Mitchell. Mill & Factory 55:75-8 Jl '54
Labor and economic policies in the President's message. Mo Labor R 76:392-3 Ap '53
Leisured masses. Bsns W p 142-3+ S 12; 144-6+ S 19 '53
1955, a critical year in labor relations. H. S. Kaltenborn. Comm & Fin Chr 178:2642-3 D 31 '53
Preview of administration's labor policies. J. P. Mitchell. Comm & Fin Chr 178: 2050+ N 26 '53
Review of American labor in 1952. J. N. Thurber. Mo Labor R 76:117-25 F '53
Shifting trends in the labor market. Bsns W p 172-3 N 28 '53
Significant developments in practical labor relations. P. A. King. Published in monthly numbers of Factory management and maintenance
Skills; not enough to meet needs. R. M. Stroupe. Iron Age 172:57 Jl 23 '53
Will American labor go conservative? abstract. O. Handlin. Management R 42:62-3 F '53

Bibliography

History of labor and unionism in the United States. R. E. McCoy and D. Gsell, comps. (Bibliographic contributions no. 2) 88 l Institute of labor and industrial relations, Univ. of Illinois, Champaign, Ill. '53

LABOR contracts

How to avoid employment contract liability. Am Gas J 181:36 S '54
Old contract systems of the Cornish mines. F. A. King. il Can Min J 75:74-6 Ap '54

LABOR cost

Benefits; fringe costs soar. E. C. Kellogg. Iron Age 174:54-5 Ag 26 '54
Big costs of little fringes. A. M. Fisher and J. F. Chapman. Harvard Bsns R 32:35-44 S '54
Employee turnover is costly. F. M. Disney. Personnel J 33:97-100 Jl-Ag '54
Form to analyze labor costs by trades. il Am Bld 76:190 F '54
Jumping the wage gap hard for many U.S. firms. Steel 134:61 Mr 1 '54
Learning curve as a production tool; forecasting labor time and cost. F. J. Andress. Harvard Bsns R 32:87-97 Ja '54
Learning curve helps figure profits, control costs. R. Wyer. N A C A Bul 35:490-502 D '53; Discussion. 36:408-9, 560-1 N-D '54
Reducing mine labor cost. T. M. Barry. Min Eng 6:606-7 Je '54
Rising labor costs are stumbling block. Steel 134:47 Ja 18 '54
Steam generating station manpower operating costs. V. F. Estcourt. Power Eng 58: 88-9 My '54
They cut labor costs $100 per day. il Dom Eng 183:126-9 Mr '54

See also
Employment management—Costs

Accounting

Company labor policy, and the accountant's part. L. C. Shaw. N A C A Bul 35:860-7 Mr '54
Costing of benefits for wage negotiations. J. G. Wayman. N A C A Bul 35:868-77 Mr '54
Obtaining reliable materials-handling costs. F. J. Wagner. N A C A Bul 35:1320-1 Je '54
Subletting labor accounting saves him money. il plans Am Bld 75:48-50 Jl '53
Surveying and reporting on the hidden cost of seniority rights. R. H. Strayer. N A C A Bul 35:1473-4 Jl '54
What's your labor cost barometer reading today? M. R. Funari. N A C A Bul 35: 3-15 S '53

See also
Time keeping

LABOR departments

Strengthening state labor departments. Mo Labor R 76:19-20 Ja '53

LABOR disputes

Arbitration and the handling of grievances. A. C. Croft. Advanced Management 18: 19-21+ Jl '53
Labor conditions; industrial disputes, 1949-1952. Survey of Cur Bsns 1953 Sup p67 [supplemented in monthly numbers]
Labor disputes; relative calm in '53. Steel 134:33 Ja 11 '54
Ohio Hoist fights back. Steel 133:88-9 S 21 '53
Time study and the N.L.R.B. L. F. Johnson. Advanced Management 18:13 Je '53

See also
Arbitration, Industrial
Strikes

LABOR inspection

Some problems of labour inspection in European countries. W. G. Symons. Int Labour R 68:47-64 Jl '53

LABOR laws and legislation

Development of labour legislation on young workers in certain industrialised countries. Int Labour R 68:542-60 D '53
New state laws. P. A. King. Factory Management 111:234 D '53
Recent decisions of interest to labor. Published in Monthly labor review

LABOR laws and legislation—*Continued*

State's rights line; it's up to high court. Eng N 152:28 Ap 15 '54

See also

Employers' liability
Hours of labor—Law
Insurance, Unemployment
Insurance, Workmen's compensation
Labor contracts
Labor inspection
Minimum wage
Trade unions—Law
Wages—Law
Workmen's compensation

History

Idea of international labour regulation; review of Antecedents of the international labour organisation, by J. W. Follows. R. W. Cox. Int Labour R 67:191-6 F '53

Africa, French equatorial

Tribal labour and social legislation in French tropical Africa. Sister Marie-André du Sacré Coeur. Int Labour R 68:493-508 D '53

Alabama

Alabama outlaws union shop. Bsns W p 148 S 5 '53

France

Labour code for French overseas territories. P. Rivière; P. Devinat. Int Labour R 68: 232-55 S '53

Germany

Expansion of co-determination in west German industry. T. Lit. Mo Labor R 76:393-5 Ap '53

Firms cautioned on recruiting abroad. For Comm W 50:15 N 30 '53

Great Britain

Development of labour legislation on young workers in the United Kingdom. Int Labour R 67:64-91 Ja '53

Italy

Labour legislation and regulations in the Italian rice fields. Int Labour R 67:376-88 Ap '53

Maternity protection in Italy. A. Paroli. Int Labour R 67:156-72 F '53

United States

Are design engineers professionals? court decisions establish their legal status in cases tried under the Fair labor standards act. A. W. Gray. bibliog Machine Design 26:112-15 Jl '54

Federal and state jurisdiction in labor relations. Mo Labor R 76:47-50 Ja '53

See also

Wages—Law

Taft-Hartley law

Changed air on T-H law. Bsns W p 160-1 D 12 '53

Controversial Taft-Hartley issue. S. K. McConnell, jr. Comm & Fin Chr 178:2256-7+ D 10 '53

Evaluating the proposed labor-law changes. A. H. Myers. Harvard Bsns R 32:124-32 My '54

How the National labor relations act affects industry. J. C. Wells. Mill & Factory 54: 17-18 My '54

Is the White House shifting its labor policy? il Bsns W p 164-5 O 10 '53

Labor legislation as it affects the engineers. J Metals 5:1080 S '53

Lesson of St Louis; citizen, not pressure group, comes first. Barron's 33:1 S 28 '53

Message recommending labor law changes. D. D. Eisenhower. Comm & Fin Chr 179: 166+ Ja 14 '54

Most building labour disputes affect interstate commerce. J. F. McCarthy. Am Bld 76:222-3 My '54

NLRB interpretations shift toward center. Steel 135:50-1 S 6 '54

NLRB reshaping Taft-Hartley. Eng N 152:29 Mr 25 '54

Recommended changes in the Taft-Hartley act. N. C. Rockwood. Rock Prod 57:61+ F '54

Revision of the Taft-Hartley act. C. R. Kuzell and D. Kitchel. Min Cong J 40:20-3 Ja '54

Supreme court sharpens Taft-Hartley issues. Bsns W p 158-60 D 19 '53

T-H act; stronger, weaker? A. G. Larke. Dun's R & Mod Ind 63:43-5+ Ja '54

Taft-Hartley and the National labor relations board. G. Farmer. Mill & Factory 55:119-22 Jl '54

T-H changes would legalize labor-contractor practices. Eng N 152:27 Ja 14 '54

Taft-Hartley's new look. Am Mach 98:126-7 Ag 30 '54

When is a union guilty of unfair labor practices? J. F. McCarthy. Am Bld 75:118+ Je '53

White House between two fires. il Bsns W p34 O 3 '53

LABOR mobility. See Labor turnover

LABOR party (Great Britain)

All goes right; Margate conference. Economist 169:9 O 3 '53

Can Labour face itself? Economist 170:141-2 Ja 16 '54

Corrosive myth; statement on foreign policy. Economist 169:1-3 O 3 '53

Labour and the by-elections. Economist 169: 799-800 D 12 '53

Labour cries for peace; internal conflict. Economist 168:684-5 S 12 '53

Labour's truce at Margate conference. Economist 169:8 O 3 '53

Margate contest; annual conference. Economist 168:838 S 26 '53

Mr Bevan's decline. Economist 169:320 O 31 '53

Morrison versus Greenwood. Economist 168: 496 Ag 22 '53

Retreat to what? Economist 169:77-8 O 10 '53

Second thoughts on education; Labour party's role. Economist 169:80-2 O 10 '53

LABOR productivity

Analysis of work decrement factors in a repetitive industrial operation. L. E. Davis and P. D. Josselyn. bibliog Advanced Management 18:5-9 Ap '53

Critical comments on productivity studies. J. Vogel. Paper Tr J 138:29 Ag 6 '54

Labor productivity in the Soviet Union. I. H. Siegel. Am Stat Assn J 48:65-78 Mr '53

Productivity in chemical plant maintenance. L. A. Darling and H. A. Bogle. Chem Eng Prog 50:161-3 Mr '54

Productivity of food marketing personnel. M. Kriesberg and R. W. Hoecker. J Marketing 18:387-92 Ap '54

Raising productivity in Israel. H. Fish. Int Labour R 68:375-92 O-N '53

Towards higher labour productivity in the countries of western Europe. J. Fourastié. Int Labour R 67:340-55 Ap '53

U.S. labor takes the prize. Bsns W p 168 N 7 '53

What does productivity measure in the pulp and paper industry? S. Melman. Paper Tr J 138:24-6+ Ag 6 '54

See also

Efficiency, Industrial

LABOR recruiting

Aids in technical recruitment; use of booklets describing the chemical industry and companies. il Chem & Eng N 32:706-7 F 22 '54

College recruitment in 1954; a survey of company plans; abstract. F. S. Endicott. Management R 43:151-2 Mr '54

How can we recruit more engineers? abstract. E. D. Seraphine. Management R 42: 312-13 Je '53

Industry goes to college to recruit new talent. Steel 134:66-7 Ap 26 '54

Manpower; tap GI talent pool. M. H. Hochstein. Iron Age 174:53 Ag 26 '54

Recruiting for food stores. C. A. Voris. Personnel J 32:293-6 Ja '54

Rights and wrongs of recruiting. Chem Eng 61:240 Ja '54

Seniors, they're out to get you; famine in technical manpower continues. il Chem & Eng N 32:124-5 Ja 11 '54

LABOR relations board, National. See National labor relations board

LABOR requirements for production

How many people for the job? W. C. Cooling and J. H. Thomas. Mill & Factory 53:116-17 N '53

Labor requirements for constructing military airfields. M. F. Carney and E. M. Gordon. Mo Labor R 76:130-5 F '53

LABOR saving devices

Labor and time savers at Paducah's atomic project; illustrations with text. Dun's R & Mod Ind 63:17-18+ Ja '54

See also

Calculating machines
Machinery, Automatic
Mechanical handling

LABOR standards

Just what is normal working pace? E. A. Cyrol and W. K. Conway. il Mill & Factory 55:112-16 S '54

Measuring clerical work. E. T. Ashman. Am Bsns 24:16-17+ S; 16-18+ O '54

LABOR standards, International

Effective application of international labour standards. E. A. Landy. Int Labour R 68: 346-63 O-N '53

LABOR supply

Jobs; skilled men easier to find. R. D. Raddant. Iron Age 172:25-6 D 31 '53

Labor and manpower; East north central states. J. S. Wilson. Ind & Eng Chem 46: 501-3 Mr '54

Manpower; abstract. S. Steele. Tool Eng 32: 181-3 Je '54

Manpower supply down, military and industrial demand high; biennial facts and figures. R. G. Gibbs. Ind & Eng Chem 46: 1139-44 Je '54

See also

Employment
Labor recruiting
Woman—Employment

Scandinavia

Common employment market for the Northern countries. B. Olsson. Int Labour R 68: 364-74 O-N '53

United States

Fact book on manpower. maps U S Bur Labor Statistics Bul 1171:1-88; pa 50c Supt. of doc. '54

See also

Military service—Labor problems

LABOR turnover

Cut labor turnover costs. Steel 134:78-9 F 15 '54

Employee turnover is costly. F. M. Disney. Personnel J 33:97-100 Jl-Ag '54

Executive turnover; growing headache. Chem W 73:20 D 5 '53

Labor turn-over in manufacturing and selected groups and industries. Published in Monthly labor review

Labor turnover in manufacturing establishments, 1949-1952. Survey of Cur Bsns 1953 Sup p68 [supplemented in monthly numbers]

Labor turn-over, 1952-1953; tabulation. Steel 134:198 Ja 4 '54

Mobility of molders and coremakers, 1940-1952; study of the work experience, training, and personal characteristics of workers in a skilled occupation. A. Bluestone and S. Swerdloff. U S Bur Labor Statistics Bul 1162:1-105; pa 60c Supt. of doc. '54

Pension plans under collective bargaining; extent and nature of vested rights in pension plans and their relationship to the problems of labor mobility. E. K. Rowe and T. H. Paine. Mo Labor R 76:237-45 Mr '53

Turnover profile of industrial research manpower. Chem W 73:44 D 5 '53

Urges realistic view of turnover problem. R. E. Pille. Nat Underw (Life ed) 57:23+ O 9 '53; Same. East Underw 54:4 O 9 '53

Why employes quit, and what can be done about it. E. F. O'Toole and R. O'Toole. Nat Underw 57:35-6 D 10 '53

LABOR unions. See Trade unions

LABORATORIES

Antitrust action against labs? Chem & Eng N 32:596+ F 15 '54

Brain is project for education, industry; Wayne university computation laboratory. D. G. Baird. il Am Bsns 24:21+ Ap '54

Expansion at The Knolls; GE plans for doubling research facilities. il Chem & Eng N 32:2468 Je 21 '54

Heat transfer magic; Trane research and testing laboratory. il Chem & Eng N 32: 2968 Jl 26 '54

Money-saving design featured in laboratory; built for the International minerals and chemical corp. il Eng N 151:41 Ag 20 '53

New aerosol laboratory; Dodge & Olcott. il Soap & Chem Spec 30:48-9+ My '54

No place for frills; Arthur D. Little, inc.'s Cambridge (Mass.) research laboratories. il Chem W 74:59-60+ Je 26 '54

Offices and laboratories for RCA; Cherry Hill project. il plans diags Arch Rec 116:166-72 Jl '54

What's new in A.A.R. research; mechanical lab now functioning. il Ry Age News ed 136:34-6 F 15 '54; Same. Ry Loco & Cars 128:66-8 Ap '54

See also

Aeronautic laboratories
Automobile laboratories
Cement laboratories
Chemical engineering laboratories
Chemical laboratories
Cryogenic laboratories
Dye laboratories
Electric laboratories
Engineering laboratories
Foundry laboratories
Medical laboratories
Metallurgical laboratories
Paint laboratories
Paper laboratories
Petroleum laboratories
Pharmaceutical laboratories
Physical laboratories
Rubber laboratories
Testing laboratories
Textile laboratories

also American gas association—Appliance testing laboratory; Great Britain—National physical laboratory, Teddington; National research council of Canada—Laboratories

Air conditioning

Heating and air conditioning for laboratories. il plans diags Heat & Ven 50:63-78 N '53

Ventilation and air conditioning for laboratories. J. E. York. il Heat & Ven 50:79-86 N '53

Design

Insuring your progress through research; policy matters in laboratory design. R. A. Wank. diag Product Eng 24:180-3 Je '53

Equipment

Handling power services in modern plant labs; General Electric measurements laboratory. G. A. Hanlon. il diags Power 98:98-101 Ja '54

Laboratories for handling radioactive materials. W. B. Harris. plan diags Heat & Ven 50:74-8 N '53

See also

Electric heaters, Laboratory

Heating and ventilation

New automotive laboratory has special ventilation features; Standard oil co. of Indiana. N. R. Olson. il plan diag Heating-Piping 26:88-91 Ap '54

Removing objectionable gases from a laboratory. S. R. Lewis. Heating-Piping 26:112-13 Ag '54

Ventilation and air conditioning for laboratories. J. E. York. il Heat & Ven 50:79-86 N '53

Walls are six ft thick at Allis-Chalmers betatron laboratory building; heating and ventilating system. J. Williams. il plan Heating-Piping 26:107-9 Mr '54

LABORATORIES, Traveling

Mobilab; test when, where you want; Fisher scientific co. introduces Mobilab. T. Metaxas. il Iron Age 172:77 Jl 2 '53

Mobile electrical testing laboratory; English electric co. il Engineer 196:772 D 11 '53; Engineering 177:88 Ja 15 '54; Elec J 151: 1942 D 11 '53

Mobile engineering radiographic unit. il Engineer 196:837-8 D 25 '53

Mobile house laboratory for valley home planning. Eng N 151:116+ Ag 20 '53

Mobile laboratory for weld testing; Pilgrim mobile units, ltd. Metallurgia 50:33 Jl '54

Mobile research laboratory for making field measurements in acoustics, vibration, and pulsative fluid flow. R. C. Baird. il plans Pet Eng 25:C29-30+ N '53

Warm air lab hits the road; study of cooling systems in 22 homes. il Dom Eng 184: 135+ Ag '54

LABORATORY accounting
Developmental costs incurred in a company laboratory. W. E. Arthur. N A C A Bul 35:1124-30 My '54

LABORATORY furnaces. See Furnaces, Laboratory

LABORATORY glassware. See Glassware, Laboratory

LABORATORY work
Evaluation of laboratory work in chemistry. C. P. Swinnerton. J Chem Educ 31:44-5 Ja '54
Evaluation of laboratory work in general chemistry. A. J. Currier. bibliog J Chem Educ 30:207-9 Ap '53

LABORATORY workers
One-man night shift saves the day; night lab assistant. il Chem W 75:52-3 Jl 31 '54
Program for protection of research employees against pathogenic hazards. J. Black and others. il Pub Health Rep 68: 989-92 O '53

LABRADOR
See also
Iron mines and mining—Labrador

LAC
Standardisation of shellac and lac products; abstract. G. W. Ferguson. Chem & Ind p539 My 30 '53

LACLEDE gas company
May seek new rate hike to offset increased fuel costs. Barron's 33:24 O 5 '53

LACQUER and lacquering
Analysis of lacquer thinners by fluorescent indicator adsorption method. W. H. Ellis and R. L. LeTourneau. Anal Chem 25:1269-70 Ag '53
Chemistry and art work together; study of lacquer on Hui-hsien pottery. L. N. Bilger and others. il J Chem Educ 30:396-7 Ag '53
Clear and pigmented lacquers. E. H. Miller. bibliog Paint Oil & Chem R 117:18-21+ My 6; 15-16+ My 20 '54
Formulation of aerosol lacquers; abstract. F. S. Palmer. Soap & San Chem 29:139 Je '53
Lacquer hot-sprayed on machine tools; Norton co. il Mach 61:184-6 S '54
New insecticidal lacquer; National research development corp. il Chem Age (Lond) 71: 373 Ag 21 '54
You can do more with hot lacquer. il diag Steel 134:126-7 Je 21 '54

Analysis

Determination of nitrogen in nitrocellulose and of nitrocellulose and combined phthalate in lacquers. W. E. Shaefer and W. W. Becker. bibliog il Anal Chem 25:1226-31 Ag '53

Testing

Cold check testing of furniture lacquers; abstract. M. F. Kooistra. Paint Oil & Chem R 117:24+ Ag 12 '54
Physical properties and performance of nitrocellulose lacquers; abstract. W. A. Caldwell and J. J. Creasy. Paint Oil & Chem R 117: 23 My 6 '54

LACTALBUMIN. See Albumin

LACTAMS
Lactam of N-(β-aminoethyl)-chelidamic acid; a pyridopiperazine ring. A. W. Schwab. bibliog Am Chem Soc J 76:1189-90 F 20 '54

LACTAROVIOLIN
Structure of lactaroviolin. P. A. Plattner and others. bibliog Chem & Ind p 1202-3 S 25 '54

LACTATES
Conductivity and solubility studies of some glycollates and lactates. W. P. Evans and C. B. Monk. Chem Soc J p550-7 F '54
Hydrolysis of some alkly lactates; alkaline hydrolysis. K. H. Vogel and J. C. Warner. bibliog Am Chem Soc J 75:6072-4 D 5 '53
Hydrolysis of some alkyl lactates; ethyl O-acetyllactate and O-acetyllactic acid. A. A. Colon and others. bibliog Am Chem Soc J 75:6075-9 D 5 '53
Hydrolysis of some alkyl lactates; neutral and acid hydrolysis. A. A. Colon, K. H. Vogel and J. C. Warner. bibliog Am Chem Soc J 75:6074-5 D 5 '53

LACTIC acid
Antispasmodics; β-diethylaminoethyl esters of β,β-diphenylglycidic, β,β-diphenyllactic and β,β-diphenylglyceric acids. F. F. Blicke and J. A. Faust. bibliog Am Chem Soc J 76:3156-9 Je 20 '54
Antispasmodics; β-diethylaminoethyl esters of substituted lactic and acrylic acids. F. F. Blicke and J. A. Faust. bibliog Am Chem Soc J 76:3159-61 Je 20 '54
Catalytic deuteration of organic compounds; the deuteration of optically active lactic acid. J. Bell, K. A. MacDonald and R. I. Reed. Chem Soc J p3459-63 N '53; Abstract. Chem & Ind p796 Jl 25 '53
Chemical action of ionising radiations in solution; the action of free radicals, produced by X-rays, on lactic acid in aqueous solution with particular reference to the effect of molecular oxygen. G. R. A. Johnson, G. Scholes and J. Weiss. Chem Soc J p3091-9 O '53
Ion exchange as a separations method; relative elution positions of lanthanide and actinide elements with lactic acid eluant at 87°. L. Wish, E. C. Freiling and L. R. Bunney. Am Chem Soc J 76:3444-5 Jl 5 '54
Lactic on a level. Chem W 74:95-7 My 22 '54

Manufacture

Chemical production of lactic and other acids from molasses. R. Montgomery and R. A. Ronca. bibliog(54 ref) Ind & Eng Chem 45: 1136-47 My '53

LACTIC acid bacteria
Bacteriophages of the lactic streptococci; abstract and discussion. L. J. Meanwell. Chem & Ind p566 Je 6 '53
Inhibition of lactic acid bacteria by ω-substituted analogs of pantothenic acid. W. Drell and M. S. Dunn. bibliog Am Chem Soc J 76:2804-8 My 20 '54

LACTOBACILLIC acid
Structure of lactobacillic acid. K. Hofmann and others. bibliog Am Chem Soc J 76: 1799-804 Ap 5 '54

LACTOBACILLUS arabinosus
Cytidine-5′ phosphate and its derivatives in lactobacillus arabinosus. J. Baddiley and A. P. Mathias. Chem & Ind p277 Mr 6 '54

LACTOBACILLUS casei
Media used for microbiological assay of riboflavin using lactobacillus casei. M. F. Clarke. bibliog Anal Chem 25:1247-52 Ag '53
Synthesis of D-riboflavin-2-C^{14} and its metabolism by lactobacillus casei. E. E. Haley and J. P. Lambooy. bibliog Am Chem Soc J 76:2926-9 Je 5 '54

LACTOGLOBULIN. See Globulins

LACTONES
Application of Hudson's lactone rule to the molecular rotations of polycyclic compounds. W. Klyne. bibliog Chem & Ind p 1198-9 S 25 '54
Derivatives of acetoacetic acid; the reaction of diketen with 1 : 2- and 1 : 3-ketols to give γ- and δ-lactones. R. N. Lacey. Chem Soc J p816-22 Mr '54
Experiments with 5 : 6-dihydro-4-hydroxy-6-phenyl-2-pyrone; the basic hydrolysis of an α-bromo- and an αα-dibromo-β-keto-δ-lactone. E. B. Reid and J. R. Siegel. Chem Soc J p525-30 F '54
Lactone ring of carpaine. H. Rapoport, H. D. Baldridge, jr. and E. J. Volcheck, jr. bibliog Am Chem Soc J 75:5290-2 N 5 '53
β-Propiolactone; β-isovalerolactone. T. L. Gresham and others. bibliog Am Chem Soc J 76:486-8 Ja 20 '54
Reaction of Grignard reagents with lactones; ethyl and methyl Grignard reagents with 2,2-diphenyl-4-butanolactones. N. R. Easton and others. bibliog Am Chem Soc J 75:4731-2 O 5 '53
Reduction of δ-lactones by catalytic hydrogen. E. B. Reid and J. R. Siegel. Am Chem Soc J 76:938-9 F 5 '54
Steroidal sapogenins; steroidal C-ring lactones. E. S. Rothman, M. E. Wall and C. R. Eddy. bibliog Am Chem Soc J 76:527-32 Ja 20 '54
Structure of the lactone of hydroxytetrahydroabietic acid. L. A. Subluskey and T. F. Sanderson. bibliog Am Chem Soc J 76:3512-15 Jl 5 '54

LACTONES—*Continued*

Synthesis of lactose-1-C^{14} and lactobionic-1-C^{14} delta lactone from 3-β-D-galactopyranosyl-α-D-arabinose. H. L. Frush and H. S. Isbell. bibliog diag J Res Nat Bur Stand 50:133-7 Mr '53

Terpenoids; dumortierigenin, a new triterpene lactone from the cactus lemaireocereus dumortieri. C. Djerassi and others. bibliog Am Chem Soc J 76:2969-73 Je 5 '54

Terpenoids; the isolation of iresin, a new sesquiterpene lactone. C. Djerassi and others. Am Chem Soc J 76:2966-8 Je 5 '54

LACTOPRENE BN. See Rubber, Artificial

LACTOSE

Reductive fission of lactose by sodium borohydride. L. Hough and others. Chem & Ind p 1064 O 3 '53

Synthesis of lactose-1-C^{14} and lactobionic-1-C^{14} delta lactone from 3-β-D-galactopyranosyl-α-D-arabinose. H. L. Frush and H. S. Isbell. bibliog diag J Res Nat Bur Stand 50:133-7 Mr '53

LACTULOSE

Degradation of carbohydrates by alkali; lactulose, maltose, and maltulose. W. M. Corbett and J. Kenner. Chem Soc J p 1789-91 Je '54

LADDERS

Laminated ladder stands severe tests. il Nat Safety N 70:76 S '54

Safety measures

Be careful with that ladder! il Consumers Res Bul 32:21-2 O '53

How to check ladders and scaffolds. W. E. Rossnagel. il diags Safety Maint & Prod 107:18-20+ Je '54

Inspection of wood ladders. L. J. Markwardt. il Nat Safety N 68:24-6+ D '53; diags Safety Maint & Prod 108:12-16+ Jl '54

Portable ladders. diags Nat Safety N 69: 21+ Mr '54

Prevent that accident. Am Bld 75:290+ Je '53

What do you find in the new ladder code? H. G. Lamb. il Safety Maint & Prod 108: 18-20 Ag '54

LAFORTUNE, Joseph A.

LaFortune, a cautious but sure administrator. por Nat Pet N 45:37 Jl 1 '53

LAFRENTZ, Ferdinand William, 1859-

Honored for 60 years of service. por East Underw 54:115 D 11 '53

Sketch. K. O. Force. por Nat Underw 57: 15+ O 29 '53

Sketch. por East Underw 55:23+ Jl 23 '54; Weekly Underw 171:185+ Jl 24 '54; Nat Underw 58:1+ Jl 22 '54

Tributes. East Underw 55:30 Jl 23 '54

LAGOONS

Sedimentation rates in Texas estuaries and lagoons. F. P. Shepard. maps Am Assn Pet Geologists Bul 37:1919-34 Ag '53

LAGOONS, Sewage. See Sewage lagoons

LA GRANGE, Illinois

Lighting

Mercury vapor lighting for a heavily traveled thoroughfare. il Pub Works 85:76+ Jl '54

LAGRANGE equations

Short method for interpolating by the Lagrange formula. D. S. Davis. Chem Eng 60:198-9 N '53

LAHEE, Frederic Henry, 1884-

F. H. Lahee, Powers memorial medalist; presentation by A. I. Levorsen; response by F. H. Lahee. por Am Assn Pet Geologists Bul 37:1821-6 Jl '53

LAKE colors

Determination of fluoride ion using a monohydroxy azo dye, thorium lake. J. L. Lambert. Anal Chem 26:558-60 Mr '54

Fast-to-light basic prints on viscose rayon. W. S. Miller. bibliog(38 ref) Soc Dyers & Col J 69:612-18; Discussion. 618-19 D '53

Loss of drying on aging; properties of hydrate lakes. D. M. Nace and W. C. Walker. bibliog Ind & Eng Chem 46:769-73 Ap '54

Production of synthetic pigments is based on exacting technology. il Can Chem Process 38:32+ Je 20 '54

Study of certain natural dyes; structure of the metallic lakes of the brazilwood and logwood colouring matters. F. M. Arshid and others. bibliog Soc Dyers & Col J 70: 402-12 S '54

LAKE Superior district power company

30 per cent load rise in next four years. Barron's 33:15-16 Ag 10 '53

LAKES

Factors involved in disposal of sewage effluents to lakes. C. N. Sawyer. bibliog diags Sewage & Ind Wastes 26:317-25; Discussion. 325-8 Mr '54

Radioactivity of rivers and lakes in parts of Garland and Hot Spring counties, Ark. R. H. Arndt and P. K. Kuroda. bibliog maps Econ Geol 48:551-67 N '53

Silt removal from a city lake. G. F. Burnley. il Pub Works 85:82 F '54

LAMB shift. See Spectrum

LAMINATED construction

Aluminum foil honeycomb structural core is shown off in new glass sandwich. il Arch Forum 100:196+ My '54

Aluminum; good insulating material simplifies erection problems. diags Iron Age 173: 53 Je 3 '54

Bending tests of thin-walled sandwich cylinders. G. Gerard. il J Aeronautical Sci 20:639-41 S '53

Criteria for designing adhesive bonded joints. W. C. Broding. il diags Product Eng 24: 144-7 O '53

Deflection of laminated beams. L. G. Clark. diags Am Soc C E Proc 79 [no 331]:1-17 N '53

Eight-family apartment building for $40,000. il Eng N 152:157+ F 18 '54

Exact solution for the buckling load of flat sandwich panels with loaded edges clamped. S. V. Nardo. bibliog diags J Aeronautical Sci 20:605-12 S '53

Gypsum and paper sandwich; low-cost partition can be molded at job site. il diags Arch Forum 98:192 F '53

How to apply aluminum insulated sandwich wall. il diags Sheet Metal Worker 45:100-1 Je '54

Marietta tries new sandwich wall on laboratory building. il Concrete 62:44 Ap '54

New prefab plasterboard partition with a hard heart of paper. il diags House & Home 3:140-3 Ja '53

Panel employs cellular glass core. il Eng N 151:66 O 22 '53

Production application of structural adhesive bonding; abstract. G. E. Holback and J. L. Burridge. Rubber Age 74:772 F '54

Redux-Metalite pays off in F7U-3. il Aviation W 59:38+ S 21 '53

Sandwich panels enclose big plant; Grumman aircraft engineering co. il Eng N 151: 25 Ag 20 '53

Sandwich sidewall prices, three types; unit prices. diag Eng N 152:58 Ja 21 '54

Sandwich wall; aluminum with glass fiber between used to cover heavy press plant. Steel 134:82 Ap 12 '54; Light Metal Age 12:17 Ap '54

Sandwich-wall construction speeds aircraft plant expansion. il Civil Eng 23:640 S '53

Sandwich wall panel. il diag Arch Forum 97: 152 N '52

Small-deflection theory for curved sandwich plates. M. Stein and J. Mayers. diag U S Nat Advisory Com for Aeronautics 1951: 129-34 '52

Structural honeycomb for sandwich construction. il Product Eng 24:216-17 Jl '53

LAMINATED metals. See Metals, Laminated

LAMINATED paper. See Paper, Laminated

LAMINATED plastics. See Plastic materials, Laminated

LAMINATED products

Laminate unlimited; bonding vinyl plastic and metal sheeting in a new process. il Chem W 73:66+ S 19 '53; Steel 133:168+ N 9 '53; Iron Age 172:129-30 O 1 '53

Navy develops structural material for modern equipment. Chem & Eng N 32:3734 S 20 '54

Plastic-metal laminate. Mech Eng 75:909-10 N '53

Response of two-material laminated cylinder to simple harmonic environment temperature change. H. H. Lowell. bibliog J Ap Phys 24:1473-8 D '53

LAMINATED products—*Continued*
Sandwich materials. K. Rose. il diags Materials & Methods 39:117-32 Mr '54 (reprints 25c)

LAMINATED wood. See Wood, Laminated

LAMME medal
Lamme award, 1953, Harry Stanley Rogers. J Eng Educ 44:48-50 S '53

LAMPBLACK
Determining suspended solids in gas; automatic lampblack sampler, indicator and recorder. R. W. Gilkinson. il diag Gas Age 114:31-4+ S 9 '54

LAMSON and Sessions company
1953 earnings will top last year's $3.17 per share. Barron's 33:31+ Ag 31 '53
Semi-annual report. Comm & Fin Chr 178:481 Ag 10 '53

LAND
See also
Agriculture
Drainage
Eminent domain
Irrigation
Land tenure
Oil lands
Real estate business
Reclamation of land
Rent

Classification

See Land utilization

Subdivision

High points in the development of land planning. M. S. Wehrly. plans Am Bld 76:232-4 Ag '54
Impact of a housing boom on city facilities. R. L. Lippman. Pub Works 85:74+ F '54
No-man's land. J. J. Carroll. il Pub Works 85:73-4 Mr '54
Paving a key element in subdivision regulation. J. L. Morrison. diag Pub Works 85:102+ S '54
Rising subdivision restrictions throttle builders. House & Home 5:39+ Ap '54
Simple method of land analysis for small subdivisions. M. S. Wehrly. plans Am Bld 75:130-3 S '53

Great Britain

State farming in practice. Economist 169:400-2 N 7 '53

LAND drainage. See Drainage

LAND grants
See also
Railroad land grants

LAND reclamation. See Reclamation of land

LAND settlement
Accelerated settlement and development of irrigation projects. C. E. Stewart and others. bibliog Land Econ 30:248-59 Ag '54

LAND tenure
Economic citizenship on the land. K. H. Parsons. bibliog Land Econ 30:21-31 F '54
Land redistribution and industrial development. V. W. Johnson and J. E. Metcalf. Land Econ 29:155-60 My '53
See also
Farm ownership

Bolivia

Land reform in Bolivia. E. Flores. bibliog Land Econ 30:112-24 My '54

Czechoslovakia

Land reform and politics in Czechoslovakia, 1945-1952. K. Hulicka. bibliog Land Econ 29:233-47 Ag '53

Italy

Agrarian reform in Italy. C. Vanzetti and F. Meissner. Land Econ 29:142-54 My '53
Critical evaluation of land reform in Italy. G. G. D'Aragona. Land Econ 30:12-20 F '54

Japan

Land reform and industrial development in Meiji Japan. I. I. Kramer. bibliog Land Econ 29:314-22 N '53

Yugoslavia

Land reform in Jugolavia since the war. Economist 168:35-6 Jl 4 '53

LAND titles
See also
Abstracts of title

LAND trusts
Trust in oil. I. U. Cobleigh. Comm & Fin Chr 178:1424 O 15 '53

LAND utilization
Administration of grazing districts. J. R. Penny and M. Clawson. bibliog Land Econ 29:23-34 F '53
Economic possibilities of the public domain. M. Clawson. Land Econ 29:187-99 Ag '53
See also
City planning
Reclamation of land
Zoning

Laws and regulations

Rural zoning in Minnesota; an appraisal. C. H. Stoltenberg. Land Econ 30:153-63 My '54

LAND values
Agricultural credit and land value trends. Banking 46:72-3 Ag '53
Effect of three wars on farm land prices; charts. Banking 46:56-7 S '53
Surfaced roads raise farm values by 52 percent. Pub Works 85:129 Ja '54
See also
Oil lands—Valuation

LANDFILLS. See Refuse disposal

LANDING gear. See Airplanes—Landing gear

LANDIS machine company
Celebrates fiftieth anniversary. Mach 60:190 Ja '54

LANDLORD and tenant
Capital from the landowner. Economist 170:84 Ja 9 '54
Rules for tenant in unusual case of Amboy explosion; Sears Roebuck & co. vs Kelsey holding co. Nat Underw 58:10 Je 3 '54

LANDSCAPE
Canons of landscape evolution. L. C. King. bibliog map diags Geol Soc Bul 64:721-51, pl 1-4 Jl '53

LANDSCAPE gardening
Land architecture for railroads. J. D. Scruggs. il plan Ry Age 136:54-6 Je 14 '54
1953 operators' forum; landscaping and care of plant grounds. Sewage & Ind Wastes 26:803-6 Je '54

LANDSLIDES
California experience in correction of landslides and slipouts. A. W. Root. plans diags Am Soc C E Proc 79 [no 235]:1-18 Ag '53
Cuts stabilized by drilling horizontal drains on Lookout Point reservoir relocation work. J. E. Newby. il Civil Eng 23:688-91 O '53
Landslide destruction of power plant blamed on leaks in penstock tunnel; Whatshan power plant near Needles, B.C. Eng N 151:60 N 12 '53
Landslide in Monmouthshire. Engineering 177:295 Mr 5 '54
Men and machines battle moving mountain; Northwestern Pacific railroad. il Constr Methods 36:158-9 Je '54
Power commission is blamed in report on landslide destruction of power plant. Eng N 152:54+ Ap 15 '54
See also
Mud flow

LANE BRYANT, inc.
Apparel chain continuing its expansion. Barron's 33:15 Ag 3 '53

LANGENBECK, Wolfgang, 1899-
Wolfgang Langenbeck. R. E. Oesper. por(front) J Chem Educ 31:94-5 F '54

LANGUAGE
Language and science. J. W. T. Spinks. J Chem Educ 31:348-51 Jl '54
See also
Speech

LANGUAGES, Universal
Comprende vos interlingua? Ind & Eng Chem 46:sup 11A+ Mr '54
Interlingua a prime vista. A. Gode. 79p $2 Storm publishers, 80 E. 11th st, New York 3 '54
New advance in international management communications; Interlingua. R. Gleason. Advanced Management 19:29 My '54

LANOLIN. See Wool fat

LANOSTADIENOL

Direct inter-relationship of lanostadienol (lanosterol) and cholesterol. D. H. R. Barton and others. Chem & Ind p605-6 My 22 '54

LANOSTENOL

Synthesis of lanostenol. R. B. Woodward and others. bibliog Am Chem Soc J 76:2852-3 My 20 '54

LANOSTENYL acetate

Oxidation of lanost-8-enyl acetate with hydrogen peroxide. S. A. Knight and others. bibliog Chem & Ind p822 Ag 1 '53

LANOSTEROL

Chemistry of the triterpenes and related compounds; the conversion of polyporenic acid A into a lanosterol derivative. T. G. Halsall and R. Hodges. Chem Soc J p2385-91 Jl '54

Triterpenoids; the transformation of lanostadienol (lanosterol) into 14-methylcholestan-3β-ol. D. H. R. Barton, D. A. J. Ives and B. R. Thomas. Chem Soc J p903-7 Mr '54

LANTHANIDES. See Rare earth metals

LANTHANUM

Magnetic susceptibility of lanthanum. O. M. Hilal and F. A. Saleh. Chem Soc J p2635 Jl '54

Modification of the distribution and excretion of radioisotopes by chelating agents. H. Hart and D. Laszlo. bibliog Science 118:24-5 Jl 3 '53

Isotopes

Half-life of lanthanum-140. H. W. Kirby and M. L. Salutsky. bibliog Phys R 93:1051-2 Mr 1 '54

Preparation of carrier-free lanthanum-140. M. L. Salutsky and H. W. Kirby. bibliog diag Anal Chem 26:1140-2 Jl '54

Radiations of lanthanum-140. C. L. Peacock and others. Phys R 94:372-3 Ap 15 '54

Spectrum

Hyperfine structure of the spectra of dysprosium, cobalt, vanadium, manganese, and lanthanum. K. Murakawa and T. Kamei. bibliog Phys R 92:325-7 O 15 '53

LANTHANUM fluoride

Gravimetric determination of fluorine as lanthanum fluoride. A. I. Popov and G. E. Knudson. bibliog Anal Chem 26:892-4 My '54

LANTHANUM oxychloride

Lanthanum oxychloride phosphors. F. E. Swindells. bibliog Electrochem Soc J 101:415-18 Ag '54

LAPLACE transformation

Application of the Laplace transformation and a mechanical harmonic synthesizer in the analysis of electric circuits. H. D. Schwetman and S. L. Brown. diags R Sci Instr 24:375-9 My '53

Epicentral displacement caused by elastic waves in an infinite slab. A. G. Mencher. bibliog diag J Ap Phys 24:1240-6 S '53; Correction. 24:1529 D '53; Discussion. A. S. Ginzbarg. 25:804; Reply. 804 Je '54

LAPLACE'S equation

Meaning of the vector Laplacian. P. Moon and D. E. Spencer. bibliog Franklin Inst J 256:551-8 D '53

LAPPING

Lapping data; reference book sheet. Am Mach 97:171 N 9 '53

LAPPING machines

Crane lapping machine. il Tool Eng 32:136 Je '54

Flexible electronic controls improve gear lapping operations; Buick motor div. W. G. Patton. il Iron Age 174:112-13 S 23 '54

Machine tool buyers' guide; grinding, honing and lapping machines. il Steel 133:120-31 sec 2 N 16 '53

Norton flat lapping machine has semi-automatic feed. il Am Mach 98:161 Ag 2 '54; Mach 60:220 Ag '54

Replace with modern machine tools; grinding, lapping, honing. il diags Am Mach 97:B 15-20 Mid-N '53

Spitfire flat lapping machine. il Tool Eng 31:140 D '53

LARCH

Western larch trees may fill need for transmission poles. F. M. Reiter. il Elec World News ed 141:54-5 Ja 18 '54

LARD

Low supplies to bolster lard prices into next year. Barron's 33:27 N 23 '53

Pinpoints cost-cutting steps in materials handling; meat packer's problem in the handling of lard. diags Food Eng 26:86-8 Ap '54

Manufacture

Makes quality lard by continuous two-system setup; Reliable packing co. J. E. Thompson. flow sheet(p 102-5) il Food Eng 26:72-3 S '54

LAROCHE, Chester J. 1892-

C. LaRoche, man with a mission. por Adv Agency 46:56+ Je '53

LA ROSA V., and sons, inc.

Newspapers dine on bulk of La Rosa ad calories. M. Wallis. Ed & Pub 86:16 My 9 '53

LARRICK, George P. 1901-

Extra entrance added; B. Mintener, assistant secretary of Dept. of health, education and welfare; G. Larrick, new FDA commissioner. por Chem W 75:26 S 11 '54

New FDA head has problems. por(cover) Chem & Eng N 32:3284 Ag 16 '54

LASERPITINE

Presence of 1 : 7 dimethyl-4-*iso*propyldecalin in the carbon skeleton of laserpitine. F. Šorm and others. bibliog Chem & Ind p965 Jl 31 '54

LASSER, Jacob Kay, 1896-1954

Sketch. Ind Marketing 39:134-5 Je '54

Tribute. J Account 97:725 Je '54

LATCHES

Flush latches; design details. diags Machine Design 25:226-9 D '53

Panel latches; design details. Machine Design 26:142 Ap '54

Self-selling hardware; night latches. il Mod Packaging 27:105 F '54

LATEX. See Rubber latex; Rubber, Artificial—Latex

LATHES

Adjustable toolblocks speed setups. A. G. Gould. diags Am Mach 98:183 S 13 '54

Attachment to engine lathe generates parabolic spinning chucks. C. Molloy. diags Am Mach 97:148 O 26 '53

Automatic copying lathe operates with hydraulic feeds. il diag Tool Eng 32:52-4 Ja '54

Automatic lathes, special fixtures speed turning operations. H. Chase. il diag Iron Age 172:125-7 S 3 '53

Automation combines standard lathes; illustrations with text. E. J. Tangerman. diags Am Mach 98:110-13 Mr 29 '54

Axelson hydraulic tracer attachment for lathe. il Mach 60:249 Jl '54

Basic tooling for spinning metals. F. L. Coenen. il diags Tool Eng 32:57-63 Mr '54

Belgian production lathes built to American standards. il Am Mach 97:188 N 23 '53

Bore heavy tubing faster on new trepanning lathe; National supply co. il Iron Age 173:129 Ap 1 '54; Steel 134:103 Ap 5 '54

Chasing tapered threads up to a square shoulder; Bucyrus-Erie co. il diag Mach 60:177 F '54

Copy turning; new Herbert Carbitracer lathe. il Automobile Eng 44:194-5 My '54

Craven brothers precision screw thread corrector lathe. il Engineer 196:489-90 O 16 '53; Engineering 176:524-5 O 23 '53

Economies of tooling and lathe selection. E. L. Murray. il diags Tool Eng 31:51-6 N '53

Electronic motor control feature of Hendey 14-in. precision lathe. il Am Mach 98:146 F 1 '54

Facts about modern lathes. il diag Mill & Factory 54:560-1 My '54

Floturn contour lathe roll-forms hollow cylinders and cones. il Am Mach 98:150-1 Mr 29 '54

Gildemeister turret lathes. il Automobile Eng 43:479-80 N '53

Heid copying lathe. il Engineer 197:76 Ja 8 '54

Hydra-feed enters automatic lathe field. il Am Mach 98:164 S 27 '54

Hydraulically operated cross-slide for a copying lathe. diag Mach 60:207-8 Ja '54

LATHES—*Continued*

Lathe drive gives constant cutting speed. diag Tool Eng 33:71 Jl '54

Lathe fixture for machining in-line bores. R. T. Stewart. diags Mach 60:213 My '54

Lathes play important part in jet engine manufacture; illustrations with text. Mach 60:202-3 Je '54

LeBlond gap lathe has sliding bed. il Am Mach 98:166 S 27 '54

Machine tool buyers' guide. il Steel 133:156-67 sec 2 N 16 '53

Metal lath membrane fireproofing; with time-saver standards. diags Arch Rec 113:201 My '53

Minganti 40-E automatic turret lathe easily set up for short-or long-run production jobs. il Am Mach 97:160 D 21 '53

Modern lathes. il Mill & Factory 55:88-94 Ag '54

Monarch Machine Tool lathes. il Tool Eng 32:121 Ja '54

More contouring methods for the small shop. C. H. Winterburn. diags Am Mach 97:158 N 23 '53

Multiple drilling in the turret lathe. C. T. Bower. diags Tool Eng 32:55-7 Ja '54

Murad capstan lathe. il Automobile Eng 43:407-8 O '53

1954 American Machinist production preview; turning. il Am Mach 98:122-7 Ja 18 '54

Phoenix lathe for large parts has 180 in. swing diam. il Iron Age 173:220 Je 24 '54

Planetary fixture mills flats in position in turret lathe. R. Wiedenholt. diag Am Mach 98:166 Mr 15 '54

Planetary gear attachment speeds lathe drilling. H. Gifford. diag Am Mach 97:164 N 9 '53

Potter & Johnston rugged automatic turret lathe designed for modern tooling. il Am Mach 98:140 Ja 4 '54; Mach 60:223 Ja '54; Tool Eng 32:135 Mr '54; Steel 134:117 Ja 25 '54

Replace with modern machine tools; turning and boring. il diag Am Mach 97:B6-12 Mid-N '53

Schauer speed lathes at work. il Mach 60:194-5 Je '54

Simple attachment relieves hobs on lathe. S. C. Chang. diags Am Mach 97:165 D 7 '53

Simple rotary shear on lathe. H. J. Gerber. diags Am Mach 98:152 Jl 5 '54

Some vibration effects on surfaces produced by turret lathes. P. T. Eisele and R. F. Griffin. il diags A S M E Trans 75:1211-17 O '53

Spinning begins on world's biggest unit. il Tool Eng 33:104 Ag '54

Tracer control lathe does contour boring and turning. il Am Mach 98:179 Je 21 '54; Mach 60:245-6 Jl '54

Turret change speeds setup; Spang-Chalfant division, National supply co. E. A. McKee. il Steel 135:146-7 Jl 12 '54

Two-way trepan. il Steel 134:124 Mr 8 '54

Unique mechanism reloads camshafts in nine seconds; Seneca Falls machine co. il diags Mach 60:224-8 Ap '54

Warner & Swasey lathes. il diag Am Mach 98:158 Ap 26 '54; Mach 60:218-19 My '54

Warner & Swasey redesigned power chuck wrench unit for new turret lathes. il Am Mach 98:184 Je 21 '54

Work-handling fixtures increase lathe production. G. M. Class. il Iron Age 173:190-3 Ap 22 '54

See also
Turning

Control

Automated lathes. R. J. Peck. flow diag il Instruments & Automation 27:1080-1 Jl '54

Copying lathes with electromagnetic tool control. il Engineering 176:778 D 18 '53

Lewis hydraulic lathe controls. Steel 133:114 N 16 '53

Solenoid stops vertical turret lathe ram feed. J. K. Gensler. il Am Mach 98:147 Jl 19 '54

Swing stop for automatic lathe. diag Mach 60:208-9 F '54

Standards

Standardization of lathe swing and tools; abstract. C. H. Stau. Tool Eng 33:159 S '54

Tailstocks

Pressure governor for handwheel of lathe tailstock. W. Morson. diags Mach 60:207-8 F '54

Simple tailstock attachment aids aluminum tube cutoff. H. Koslow. diags Am Mach 98:175 My 10 '54

Sliding dog for offset-tailstock turning. O. Saari. diags Mach 60:213 Je '54

LATHYRUS odoratus

Isolation, structure and synthesis of a lathyrus factor from L. odoratus. E. D. Schilling and F. M. Strong. bibliog Am Chem Soc J 76:2848 My 20 '54

LATIN AMERICA

Safety is spreading. W. C. Pope. il Nat Safety N 70:28-9+ Jl '54

Bibliography

Handbook of Latin American studies, 1950; prepared by the Hispanic foundation in the Library of Congress. F. Aguilera and E. Brown, eds. 332p $7.50 Univ. of Florida press, Gainesville '53

Commerce

New tack needed; West German trade with Latin America. Chem W 75:30 S 4 '54

Senate group studies Latin American trade. M. Bannell. Barron's 33:22 D 14 '53

South America has a North; British attention to the Latin American markets. Economist 170:84+ Ja 9 '54

United States import surplus with Latin America doubles; first half of 1953. For Comm W 50:15-16+ N 16 '53

Economic relations

United States

Our stake in Latin America. V. L. Horoth. map Mag of Wall St 93:371-2+ D 26 '53

Report to President on South American mission. M. S. Eisenhower. For Comm W 50:13-14 N 30 '53

LATTICE constants. See Crystallography—X ray studies

LAUNCHING

Stresses in a tanker during launching. A. J. Johnson and M. Meek. Engineering 177:238 F 19 '54

Tests of launching greases; abstracts and discussion. J. Brown and J. M. Ferguson. Engineer 196:422-3 O 2 '53; Engineering 176:468-9 O 9 '53

See also
Slipways

LAUNDER-OMETER

Use of metal tubes in the Launder-Ometer for the dynamic absorption test. G. J. Mandikos. il diags Am Dyestuff Rep 43:402-4 Je 21 '54

LAUNDRIES

Power for the Pullman laundry. il Power Eng 57:57 N '53

Reputation pays off; booming Lux for laundries. il Chem W 75:78+ Ag 28 '54

This laundry looks clean; Del Monte laundry, Pacific Grove, Calif. il plans Arch Forum 98:134-5 Ja '53

Lighting

Built-in lighting for a laundry; data sheet. M. S. Taepke. il plan diags Illum Eng 49:197-8 Ap '54

Waste

Activated sludge treatment of radioactive laundry waste. L. M. Reading and others. bibliog Sewage & Ind Wastes 25:1414-18 D '53

Clarification by flotation and re-use of laundry waste water. H. J. Wollner and others. bibliog flow diag il diags Sewage & Ind Wastes 26:509-19 Ap '54

Radioactive contaminated laundry waste and its treatment. E. F. Gloyna. bibliog il Sewage & Ind Wastes 26:777-89, 869-86 Je-Jl '54

LAUNDRIES (rooms)

Good laundries are divorced from kitchens; design standards and data. H. R. Sleeper. il plans House & Home 6:117 S '54

Women want a well-planned automatic laundry. il House & Home 5:150 My '54

LAUNDRIES, Self service

No blue Mondays; local family-wash service stores prime laundry chemicals consumer. il Chem W 75:93+ Ag 28 '54

LAUNDRY

Abrasion resistance of fabrics when test units of abrasion are combined with test units of laundering, drycleaning and light. M. O. Zook and P. B. Mack. Am Dyestuff Rep 43:61-6 F 1 '54

Definition of the term washable; abstract. A. Greyborn. Am Dyestuff Rep 42:231 Ap 13 '53

Evaluation of sea-water laundry detergents. R. Bernstein and H. Sosson. bibliog il Soap & San Chem 29:42-5+ D '53; 30:46-9+ Ja '54

Investigations to determine the effects of the washing temperature and time and the concentration of the washing agents when washing by machine. S. Köhler. bibliog diag Textile Res J 24:173-96 F '54

Laundering properties of the science fibers. G. H. Johnson. Am Dyestuff Rep 43:239-42 Ap 12 '54

Relationship of the geometry of plain knit cotton fabric to its dimensional change and elastic properties. H. M. Fletcher and S. H. Roberts. Textile Res J 24:729-37 Ag '54

Shrinkage in laundering of cotton and rayon fabrics. Am Dyestuff Rep 43:364-7 Je 7 '54

Wool research and the launderer; abstract. Am Dyestuff Rep 43:79 F 1 '54

See also

Laundries

LAUNDRY equipment, Domestic

Appliance success story in five acts; C. N. Hubbs and sons. il Dom Eng 182:84-5+ D '53

Every day is a blue one now; survey of electric appliance use by residential customers of the Boston Edison co. Elec World 140:134 N 2 '53

Gas home laundries create sales. il Am Gas Assn Mo 36:10-11+ Je '54

Ruud and utilities hold laundry shows promoting high-temperature water. il Am Gas J 180:46 Ap '54

Two-in-one, Bendix laundry appliance does double job; washes and dries clothes. il diag House & Home 3:158 Ja '53

LAUNDRY tubs

How to make enclosure for laundry tubs. diags Am Bld 76:126-7 Jl '54

LAUNDRY workers

Wage chronology; New York city laundries, 1945-53. C. W. Reed, jr. and M. R. Robbins. Mo Labor R 76:39-44 Ja '53

LAURATES

Analysis

Determination of chlorine in pentachlorophenol and pentachlorophenol laurate. E. H. Searle and E. Bell. J Ap Chem 4:430-3 Ag '54

LAURYLAMINE acetate

Froth flotation of iron ores; adsorption of starch products and laurylamine acetate. N. F. Schulz and S. R. B. Cooke. bibliog(29 ref) Ind & Eng Chem 45:2767-72 D '53

Analysis

Assay of certain organic materials by dichromate oxidation. N. F. Schulz. Anal Chem 25:1762-4 N '53

LAURYL sulfate

Clear detergent shampoos. Soap & Chem Spec 30:77+ Jl '54

Lauryl alcohol sulfates. S. Giers and D. Boido. bibliog Soap & Chem Spec 30:38-41+ Ag '54

Lauryl sulfate tryptose broth as a presumptive and confirmatory medium for coliform organisms. A. K. Bicknell and others. Am Water Works Assn J 46:481-5 My '54

LAVA

Diversion of lava flows at O Shima, Japan. A. C. Mason and H. L. Foster. maps Am J Sci 251:249-58, pl 1-2 Ap '53

Pahoehoe, aa, and block lava. G. A. Macdonald. bibliog Am J Sci 251:169-91, pl 1-5 Mr '53

LAVATORIES

Hand dryers paid off in six months; J. J. Tourek manufacturing co.; with cost data. il Factory Management 111:137 D '53

Lighting a lavatory and vanity counter; lighting data sheet. il diag Illum Eng 49:360 Jl '54

Washrooms and lockers. il Nat Safety N 69:53-4+ Mr '54

LAVOISIER, Antoine Laurent, 1743-1794

Antoine Laurent Lavoisier and the French revolution. D. Duveen. bibliog J Chem Educ 31:60-5 F '54

Lavoisier's proposals for French education. H. J. Abrahams. J Chem Educ 31:413-16 Ag '54

Medallic portraiture. D. I. Duveen and H. S. Klickstein. pors J Chem Educ 31:308-9 Je '54

LAW

See also

Advertising—Laws and regulations
Aeronautics—Laws and regulations
Banking law
Building laws and regulations
Commercial law
Corporation law
Estates (law)
Expert evidence
Food laws and legislation
Gifts (law)
Government regulation of industry
Income tax
Insecticides—Law
Insurance companies—Legal service
Insurance law
Labor laws and legislation
Liability
Libel and slander
Mechanics' liens
Mortgages
Motor bus lines—Laws and regulations
Partnership
Patent laws and legislation
Petroleum laws and regulations
Probate law
Railroad law
Sales
Securities—Law
State laws
Taxation
Trusts, Industrial—Law
Trusts and trustees
United States—Supreme court
Wages—Law
Wills
Woman—Law
Workmen's compensation

Glossaries

Capsule law course for our readers affecting the insurance business. A. W. Fitzgerald. Weekly Underw 169:1277-8 N 21 '53

Great Britain

Mischief and conspiracy; decorated pottery case. Economist 169:726-7 D 5 '53

LAWN mowers

Program for parts; packaging for power lawn-mower service parts. il Mod Packaging 27:119 F '54

LAWN sprinklers. See Sprinklers

LAWNS

How to make a good lawn. il Am Bld 75:207-10 My '53

LAWRENCE, Massachusetts

Industries

Lawrence, textile town, stays healthy. il Bsns W p72-4+ D 19 '53

LAWRENCE college

Institute of paper chemistry

Annual executives conference, Appleton, Wis. May 20-21. Paper Tr J 138:29-30 My 28 '54; Paper Ind 36:267-9 Je '54

Paper industry chiefs dedicate activities building at IPC. il Chem & Eng N 31:2502-3 Je 15 '53

LAWS, State

State hour laws for women. U S Women's Bur Bul 250:1-114; pa 40c Supt. of doc. '53

LAWYERS

Fees

Attorney's fees in probate. V. Cullinan. Trusts & Estates 93:13-14+ Ja '54

LAYOFF systems

How to handle a layoff; Geo. D. Roper corp. R. Newcomb and M. Sammons. Mill & Factory 54:75-8 Ap '54

Layoffs; nobody likes them, but. Steel 134:62-3 F 22 '54

When those layoffs come; abstract. Management R 43:228-9 Ap '54

LAYOUT. See Factories—Layout; Foundries—Layout; Locomotive shops—Layout; Machine works—Layout

LAYOUT models. See Models, Layout

LEACH industries

Coming of age for electronics. Bsns W p 174+ D 12 '53

LEACHING

Alkaline pressure leaching processes. F. A. Forward. flow diag il diag Min Cong J 40: 49-52+ My '54

Anaconda's Nevada project; new approach to copper mining. R. H. Ramsey. flow sheets il plan diags Eng & Min J 155:74-93 Ag '54

Calculation of leaching operations; equilibrium and nonequilibrium conditions. E. G. Scheibel. bibliog diag Chem Eng Prog 49: 354-8 Jl '53

Chemical engineering unit operations; leaching. R. A. Ebel. bibliog(88 ref) Ind & Eng Chem 46:126-9 Ja '54

Differential leaching of uranium, radium, and lead from pitchblende in H_2SO_4 solutions. G. Phair and H. Levine. bibliog Econ Geol 48:358-69 Ag '53

New leaching plant at Cananea; Consolidated copper co. R. C. Weed. flow diag il plan diags Eng & Min J 155:88-91 Ap '54

See also

Hydrometallurgy

LEAD

Angular distribution of neutrons scattered from aluminum, iron, and lead. W. D. Whitehead and S. C. Snowdon. bibliog diags Phys R 92:114-19 O 1 '53

Attenuation of gamma rays; transmission values for finite slabs of lead, iron, and the Compton scatterer. G. H. Peebles. bibliog J Ap Phys 24:1272-87 O '53

Build-up measurements on cobalt-60 gamma radiation in iron and lead. C. Garrett and G. N. Whyte. bibliog Phys R 95:889-91 Ag 15 '54

Cathodic lead disintegration and hydride formation. H. W. Salzberg. bibliog Electrochem Soc J 100:146-51 Ap '53; Discussion. 100:588-9 D '53

Differential leaching of uranium, radium, and lead from pitchblende in H_2SO_4 solutions. G. Phair and H. Levine. bibliog Econ Geol 48:358-69 Ag '53

Experimental study of metal extrusions at various strain rates. J. Frisch and E. G. Thomsen. bibliog il diag A S M E Trans 76:599-606 My '54

Heat transfer to lead-bismuth and mercury in laminar and transition pipe flow. H. A. Johnson and others. bibliog A S M E Trans 76:513-17 My '54

Inelastic scattering of fast neutrons in carbon and lead. B. G. Whitmore. Phys R 92: 654-5 N 1 '53

Interactions of negative pions in carbon and lead. J. O. Kessler and L. M. Lederman. bibliog il diags Phys R 94:689-702 My 1 '54

Latent heat of transition of superconducting lead. R. L. Dolecek. Phys R 94:540-3 My 1 '54

Lead. L. Sanderson. Can Min J 75:67-8 Jl '54

Materials of construction for chemical engineering; lead and lead alloys. K. H. Roll. bibliog(29 ref) il Ind & Eng Chem 45:2210-14 O '53

More stockpile buying instead of tariff hike for Pb and Zn. Chem & Eng N 32:3420+ Ag 30 '54

Mu-mesonic X-rays and the shape of the nuclear charge distribution. D. L. Hill and K. W. Ford. bibliog Phys R 94:1617-29 Je 15 '54

New isomer in lead. D. Maeder and A. H. Wapstra. Phys R 93:1433-4 Mr 15 '54

Preparation and properties of serum and plasma proteins; the interaction of human serum albumin with plumbous ions. F. R. N. Gurd and G. R. Murray, jr. bibliog Am Chem Soc J 76:187-90 Ja 5 '54

Simultaneous electrodeposition of copper and lead from nitric acid-hydrofluoric acid-beryllium nitrate solution. C. Goldberg. bibliog Anal Chem 25:1405 S '53

Theory of the polarographic diffusion current; diffusion of small amounts of lead and zinc ions in solutions of various supporting electrolytes. J. H. Wang. bibliog Am Chem Soc J 76:1528-32 Mr 20 '54

See also

Lead metallurgy

Analysis

Analytical chemistry of tin and lead. J. W. Price. Chem Age (Lond) 68:519-24, 555-8 Ap 4-11 '53

Photometric determination of antimony in lead using the rhodamine B method. C. L. Luke. Anal Chem 25:674 Ap '53

Polarographic analysis of lead driers. D. A. Skoog and R. L. Focht. Anal Chem 25: 1922-4 D '53

Polarographic study of lead in a potassium thiocyanate supporting electrolyte. J. O. Hibbits and S. S. Cooper. bibliog Anal Chem 26:1119-20 Jl '54

Precautions in the determination of lead in biological material by diphenylcarbazide. T. V. Letonoff and J. G. Reinhold. Anal Chem 25:838-9 My '53

Separation of palladium from lead and the colorimetric determination of palladium with potassium iodide. J. G. Fraser, F. E. Beamish and W. A. E. McBryde. Anal Chem 26:495-8 Mr '54

Siloxene as a chemiluminescent indicator in chromate titration for determination of lead. F. Kenny and R. B. Kurtz. Anal Chem 25:1550-1 O '53

Spectrophotometric determination of bismuth, lead, and thallium with hydrochloric acid. C. Merritt, jr, H. M. Hershenson and L. B. Rogers. bibliog Anal Chem 25:572-7 Ap '53

Use of the polarograph in the determination of lead in gasoline engine fuel, lubricants, and deposits. B. W. Swanson and P. H. Daniels. diag Inst Pet J 39:487-97 Ag '53

Voltammetric determination of lead as lead dioxide at the rotated platinum wire electrode. I. M. Kolthoff, J. Jordan and A. Heyndrickx. bibliog Anal Chem 25:884-7 Je '53

Isotopes

Concentration of uranium and lead and the isotopic composition of lead in meteoritic material. C. Patterson and others. bibliog Phys R 92:1234-5 D 1 '53

Crystal structure and nuclear directional correlation; Pb^{204}. H. Frauenfelder and others. Phys R 92:513-14 O 15 '53

Isomeric transition of Pb^{207} as an energy standard in beta spectroscopy. D. E. Alburger. bibliog Phys R 92:1257-9 D 1 '53

Isomerism in Pb^{206}. D. E. Alburger and M. H. L. Pryce. Phys R 92:514-15 O 15 '53

Lead isotope method of age determination. D. W. Allan and others. Science 118:486-8 O 23 '53

Magnetic moment of the first excited state of Pb^{204}. H. Frauenfelder and others. Phys R 93:1126-7 Mr 1 '54

Spins and parities of energy levels in Pb^{208}. L. G. Elliott and others. Phys R 93:356 Ja 15 '54

See also

Thorium B

Nuclear reactions

Directional correlation of the Pb^{204} γ—γ cascade. H. Frauenfelder and others. bibliog Phys R 92:1241-4 D 1 '53

Prices

Lead price, common grade, 1938-1953; tabulation. Iron Age 173:415 Ja 7 '54

Nonferrous prices; tabulation. Steel 134:175 Ja 4 '54

Price, wholesale, pig, desilverized (New York), 1949-1952. Survey of Cur Bsns 1953 Sup p 162 [supplemented in monthly numbers]

Testing

Fatigue test as applied to lead cable sheath. G. R. Gohn and W. C. Ellis. bibliog il Am Soc T M Proc 51:721-40; Discussion. 741-4 '51

Influence of frequency on the repeated bending life of acid lead. J. F. Eckel. bibliog il diags Am Soc T M Proc 51:745-56; Discussion. 757-60 '51

LEAD acetate

Cholesterol and companions; oxidation of Δ^5-cholestene-3-one with lead tetraacetate. L. F. Fieser and R. Stevenson. bibliog Am Chem Soc J 76:1728-33 Ap 5 '54

LEAD alloys

Better permanent mold techniques improve casting quality; Gould-national batteries, inc. H. E. Zahn. il Iron Age 174:174-5 S 16 '54

Development of a copper-silver-lead alloy for bearings. G. Llewelyn. bibliog il diag Metallurgia 48:215-20 N '53

Lead-tin alloy coating improves workability of strip steel. E. J. Roehl. il Iron Age 173:140-2 Mr 18 '54

Materials of construction for chemical engineering; lead and lead alloys. K. H. Roll. bibliog(29 ref) il Ind & Eng Chem 45:2210-14 O '53

Plating on lead alloys, pewter and Britannia. J. Haas. Metal Finishing 52:56-61 Ap '54

Resistance of refractories to molten lead-bismuth alloy. J. J. Gangler. il Am Cer Soc J 37:312-16 Jl 1 '54

Analysis

Determination of bismuth in pure bismuth-lead eutectic alloy. L. Silverman and M. Shideler. bibliog Anal Chem 26:911-14 My '54

Testing

Compression tests on lead alloys at extrusion temperatures. G. M. Bouton and G. S. Phipps. diag Am Soc T M Proc 51:761-70 '51

LEAD chromate

Mechanism of the anodic formation of lead chromate. C. Wagner. bibliog Electrochem Soc J 101:60-2 F '54

LEAD compounds

Lead salts of 2,4,6-trinitroresorcinol. R. A. Zingaro. bibliog Am Chem Soc J 76:816-19 F 5 '54

Organolead compounds. R. W. Leeper and others. Chem R 54:101-67 bibliog(p 159-67) F '54

Sensitization of X-ray emulsions by very small quantities of a lead salt. E. T. Larson, F. W. H. Mueller and H. Hoerlin. bibliog J Phys Chem 57:802-8 N '53

LEAD dioxide. See Lead oxides

LEAD dithizonate

Analysis of lead dithizonate by the method of continuous variations. S. S. Cooper and J. O. Hibbits. bibliog Am Chem Soc J 75:5084-6 O 20 '53

LEAD dust

Exide develops program to combat lead dusts and fumes. il Chem & Eng N 32:3078 Ag 2 '54

LEAD fluoride

Fluoride model systems; systems $LiF-BeF_2$ and PbF_2-BeF_2. D. M. Roy and others. bibliog Am Cer Soc J 37:300-5 Jl 1 '54

LEAD fumes

Exide develops program to combat lead dusts and fumes. il Chem & Eng N 32:3078 Ag 2 '54

LEAD hydride

Cathodic lead disintegration and hydride formation. H. W. Salzberg. bibliog Electrochem Soc J 100:146-51 Ap '53; Discussion. 100:588-9 D '53

LEAD in the body

Enhancement of lead excretion in humans by disodium calcium ethylenediamine tetraacetate. M. Rubin and others. bibliog Science 117:659-60 Je 12 '53

LEAD industry and trade

Current trends bring optimism in lead. il Steel 134:57 Ap 26 '54

Imports hit lead-zinc plants. Chem & Eng N 32:1836 My 3 '54

Lead and zinc, 1953. C. F. Schwab. il Min Cong J 40:96-8 F '54

Stockpiling; delayed by false start. R. L. Hatschek. Iron Age 173:47-8 Je 24 '54

Uncle Sam buys in; surcease in store for distressed producers in lead and zinc industries. Chem W 74:98 Je 19 '54

Why the U.S. lead-zinc industry united in appeal on tariffs. O. Herres. Eng & Min J 155:129-31 F '54

Statistics

Lead, 1949-1952. Survey of Cur Bsns 1953 Sup p 162 [supplemented in monthly numbers]

Lead, 1953. R. L. Ziegfeld. Eng & Min J 155:80-1 F '54

U.S. lead; refiners' stocks, production, shipments, mine production, consumption; tabulation. Steel 134:177 Ja 4 '54

What price lead, 1953-1975? W. P. Shea. Eng & Min J 154:77-82 D '53

LEAD lining

Lead linings; faster, better, cheaper with stud driver. il Chem Eng 61:252+ F '54

New developments in lead; lead-clad linings and lead-bonded materials. il Steel 133:341 O 12 '53

LEAD metallurgy

Desilverizing of lead bullion. T. R. A. Davey. bibliog(35 titles) flow sheets J Metals 6: Trans 838-48 Jl '54

Midvale smelter practice modified for two shift operation. H. L. Johnson and C. A. Nelson. il J Metals 6:949-51 S '54

Vacuum dezincing of desilverized lead bullion. T. R. A. Davey. bibliog J Metals 5: Trans 991-7 Ag '53

Electrometallurgy

Preparation of high purity lead. R. C. Hughes. bibliog Electrochem Soc J 101:267-70 Je '54

LEAD miners

Lead and lead poisoning in early America; lead mines and lead poisoning. C. P. McCord. Ind Med 22:534-9 N '53

LEAD mines and mining

British Columbia

Trackless mining at Canadian exploration. H. R. Rice. il diag Can Min J 74:47-50 D '53

Ireland

Ireland's lead, zinc miners await favorable market prices. G. Moorhead. il map Eng & Min J 155:86-7 Ap '54

Montana

Lead-zinc deposits of the Dunkleberg district, Granite county, Mont. C. C. Popoff. bibliog 14pls U S Bur Mines Rep of Invest 5014:1-41 '53

Washington (state)

How mechanized mining at Grandview upped output and cut costs. il Eng & Min J 155:56-9 My '54

LEAD niobate

Dielectric properties and phase transitions of $Cd_2Nb_2O_7$ and $Pb_2Nb_2O_7$. G. Shirane and R. Pepinsky. il Phys R 92:504 O 15 '53

Ferroelectric properties of lead metaniobate. G. Goodman. bibliog il diags Am Cer Soc J 36:368-72 N 1 '53

Low-temperature dielectric properties of cadmium and lead niobates. J. K. Hulm. bibliog Phys R 92:504-5 O 15 '53

LEAD nitrate

Basic salts of lead nitrate formed in aqueous media. J. L. Pauley and M. K. Testerman. bibliog Am Chem Soc J 76:4220-2 Ag 20 '54

LEAD oxides

Reaction of some metallic oxides with liquid dinitrogen tetroxide; oxides of the first and second periodic groups and lead. J. R. Ferraro and G. Gibson. bibliog Am Chem Soc J 75:5747-8 N 20 '53

Voltammetric determination of lead as lead dioxide at the rotated platinum wire electrode. I. M. Kolthoff, J. Jordan and A. Heyndrickx. bibliog Anal Chem 25:884-7 Je '53

LEAD peroxide

Replacement of lead peroxide in carbon, hydrogen microdetermination. C. K. Cross and G. F. Wright. bibliog diags Anal Chem 26:886-90 My '54

LEAD poisoning

Limits for lead in food. Chem Age (Lond) 71:417-18 Ag 28 '54

New treatment for lead poisoning. H. H. Schrenk. Ind & Eng Chem 46:sup 101A F '54

LEAD poisoning—*Continued*

Perspective on lead poisoning. E. Belknap. bibliog il Ind Med 22:584-6 D '53

Plant enemy number one; Electric storage battery co. il Nat Safety N 70:30-3+ Ag '54

Rapid determination of lead in old urine samples. M. O. Amdur. bibliog A M A Archives Ind Hygiene & Occup Med 7:277-81 Ap '53

History

Lead and lead poisoning in early America. C. P. McCord. Ind Med 22:393-9, 534-9, 573-7 S, N-D '53

LEAD selenide

Application of lead selenide photoconductive cells to infra-red spectroscopy. V. Roberts and A. S. Young. il J Sci Instr 30:199-200 Je '53

Electrical properties of single crystals and thin films of PbSe and PbTe. S. J. Silverman and H. Levinstein. bibliog diags Phys R 94:871-6 My 15 '54

Occurrence of natural *p-n* junctions in lead selenide. A. E. Goldberg and G. R. Mitchell. bibliog il J Chem Phys 22:220-2 F '54

LEAD sulfide

Bulk photoconductivity in lead sulfide. D. E. Soule and R. J. Cashman. Phys R 93:635-6 F 1 '54

Further evidence for the energy gap of lead sulfide. G. R. Mitchell and A. E. Goldberg. Phys R 93:1421 Mr 15 '54

Interpretation of Hall effect and resistivity data in PbS and similar binary compound semiconductors. W. W. Scanlon. bibliog Phys R 92:1573-5 D 15 '53

Lead sulphide cell 61SV; Mullard, ltd. Chem Age (Lond) 70:1112 My 15 '54

Relation between the speed of response and the detectivity of lead sulfide photoconductive cells. R. C. Jones. bibliog Opt Soc Am J 43:1008-13 N '53

Vapor phase crystal growth of lead sulfide crystals. F. Pizzarello. J Ap Phys 25:804-5 Je '54

LEAD telluride

Electrical properties of single crystals and thin films of PbSe and PbTe. S. J. Silverman and H. Levinstein. bibliog diags Phys R 94:871-6 My 15 '54

Preparation and properties of lead telluride. E. L. Brady. bibliog diags Electrochem Soc J 101:466-73 S '54

Sensitive Hall measurements on NaCl and on photoconductive PbTe. J. L. Levy. diag Phys R 92:215-18 O 15 '53

LEAD tetraacetate

Action of lead tetra-acetate on sugar mercaptals. E. J. Bourne and others. bibliog Chem & Ind p 106-7 Ja 23 '54

Determination of formic acid by oxidation with lead tetraacetate. A. S. Perlin. bibliog Anal Chem 26:1053-4 Je '54

Solvent influence in oxidation reactions with lead tetra-acetate. H. E. Barron and others. bibliog Chem & Ind p76-7 Ja 16 '54

LEAD titanate

Piezoelectric properties of lead zirconate-lead titanate solid-solution ceramics. B. Jaffe and others. J Ap Phys 25:809-10 Je '54

LEAD zirconate

Piezoelectric properties of lead zirconate-lead titanate solid-solution ceramics. B. Jaffe and others. J Ap Phys 25:809-10 Je '54

Threshold field and free energy for the antiferroelectric-ferroelectric phase transition in lead zirconate. A. P. deBretteville, jr. diags Phys R 94:1125-8 Je 1 '54

LEADERSHIP

Developing the qualities of leadership. G. C. Houston. il Gen Elec R 56:49-51 N '53

Effective leadership basic requirement in achieving ideals in plant management. C. E. Lyon. Ind & Eng Chem 46:sup89A-90A F '54

Followership; new step to better leadership. A. Uris. Factory Management 112:100-3 My '54

Importance of importance. E. W. Carver. Ind & Eng Chem 46:sup59A Ja '54

Leaders must speak up! T. Wolff. Personnel 30:421-33 My '54

Leadership pattern in the plant. C. Argyris. Harvard Bsns R 32:63-75 Ja '54

LEADVILLE, Colorado

Sewerage

Sewer system and treatment plant is high in the Rockies. R. Q. Boyce. il Pub Works 85:72-3 Jl '54

LEAK detectors

Cutting the tension with Aerosol OT-B to check kettle for holes. il Chem W 74:48+ Ap 17 '54

Explosive gas testing in Los Angeles. A. A. Appel. il Sewage & Ind Wastes 25:1460-2 D '53

How Public Service traces leaks in northern Illinois. il Gas Age 112:32-3 S 24 '53; Nat Safety N 69:69+ Ja '54

Increased sensitivity of leak detection with hydrogen. G. A. Alers and others. R Sci Instr 24:399-400 My '53

Indicator detects gas-filled cable leaks. W. J. Montgomery. diag Elec World 140:112 O 5 '53

Leak in school hot water pipe found with detector. Heating-Piping 26:141 Mr '54

Simple method of leak finding using a Pirani gauge. R. N. Bloomer and M. E. Haine. J Sci Instr 30:385-6 O '53

Southern union gas co. uses new device for finding and locating gas leaks. W. V. Gilpin. il diag Am Gas J 180:28-9 My '54

LEARNING, Psychology of

Emotional response to teaching techniques. N. A. Christensen. J Eng Educ 43:555-7 Je '53

How children form mathematical concepts. J. Piaget. il Sci Am 189:74-9 N '53

Teaching-learning situation. G. W. Allport. Pub Health Rep 68:875-9 S '53

LEASES

Capital conversion for higher returns; leasing of machinery, cars, trucks, etc. J. W. Rollins. il Dun's R & Mod Ind 62:60-2+ N '53

Future of lease financing under new depreciation rules. A. H. Cohen. J Account 98:189-96 Ag '54

What tax treatment should be given to income resulting from cancellation of leases? J. Peltz. J Account 97:205-13 F '54

Accounting

Shall we sell the building and lease it back? W. H. Linderman. N A C A Bul 35:50-9 S '53

LEASING of machinery. See Machinery—Leasing

LEAST squares

Basis for the criterion of least squares. E. R. Cohen. Rs Mod Phys 25:709-13 Jl '53

Least-squares adjustment of the atomic constants, 1952. J. W. M. DuMond and E. R. Cohen. bibliog(54 ref) Rs Mod Phys 25:691-708 Jl '53

Least-squares method for optical correction. S. Rosen and C. Eldert. Opt Soc Am J 44:250-2 Mr '54

Multiple group least squares' problem and the significance of the associated orthogonal polynomials. B. F. Kimball. bibliog Am Stat Assn J 48:320-35 Je '53

LEATHER, Robert S. d 1954

Sketch. por Metal Finishing 52:84-5 Mr '54

LEATHER

Materials for special service; mechanical leather. A. S. Berens. il Machine Design 26:140-3 My '54

Society of leather trades' chemists annual meeting; abstracts of papers. Chem Age (Lond) 69:597-8 S 19 '53

See also

Dyes and dyeing—
Leather

Drying

Drying; large porcelain enamel sheet dries by conduction; Proctor & Schwartz, inc. il Iron Age 173:165 F 4 '54

LEATHER, Substitutes for

Walking on chemicals; synthetic soles. Can Chem Process 37:14+ N '53

LEATHER chemists association, American. See American leather chemists association

LEATHER industry and trade

Heavy cattle slaughter depresses hide market. Barron's 33:23+ O 26 '53

LEATHER industry and trade—*Continued*

Leather; up and out. il Chem W 73:63+ Ag 22 '53

Market research for leather industry; abstract. B. Fogler. Chem & Eng N 32:2474 Je 21 '54

See also

Hides and skins

Advertising

Most important word in the adman's lexicon is quality. J. Tein. il Ptr Ink 244:28-9 Jl 24 '53

Statistics

Leather and products, 1949-1952. Survey of Cur Bsns 1953 Sup p 150-1 [supplemented in monthly numbers]

Mexico

Mexico develops new hide drying process. For Comm W 50:17 S 21 '53

LEATHER research

See also British leather manufacturers' research association

LEATHER trades' chemists, Society of. See Society of leather trades' chemists

LEAVE of absence

Pregnancies; a policy for employment and leaves of absence. H. M. Giller. Personnel 31:148-50 S '54

LEAVENING agents

If I knew you were comin'; Monsanto leavening agent school for salesmen. il Chem W 74:28+ F 13 '54

LEAVES

Chemical composition of some leaf and bast fibers. E. C. Lathrop and G. H. Nelson. bibliog Tappi 37:99-103 Mr '54

Homogeneous cell preparation from soybean leaves. D. W. Racusen and S. Aronoff. il Science 118:302-4 S 11 '53

LEBANON

See also

Hydroelectric plants
—Lebanon

Economic conditions

Economic conditions abroad (cont). For Comm W 50:6+ N 30 '53

LECITHIN

Action of lecithinase D on lecithin; the enzymatic preparation of D-1,2-dipalmitolein and D-1,2-dipalmitin. D. J. Hanahan and R. Vercamer. bibliog Am Chem Soc J 76:1804-6 Ap 5 '54

Phosphatide analogs; the synthesis of glycollecithins and bis-(glycol)-phosphatidic acids. E. Baer. bibliog Am Chem Soc J 75:5533-9 N 20 '53

LECITHINASE

Action of lecithinase D on lecithin; the enzymatic preparation of D-1,2-dipalmitolein and D-1,2-dipalmitin. D. J. Hanahan and R. Vercamer. bibliog Am Chem Soc J 76:1804-6 Ap 5 '54

LE CORBUSIER (Charles Édouard Jeanneret-Gris) 1887-

LeCorbusier completes his concrete honeycomb. il Arch Forum 100:156-9 Mr '54

What Corbu has been up to; building an entire new city in India, Chandigarh. il plans diags Arch Forum 99:142-9 S '53

LEE, Helen

Togs for Little Miss Muffet. por Sales Management 72:76+ F 15 '54

LEEDS, England

Lighting

Lighting control. il diag Elec J 152:190-2 Ja 15 '54

LEG

Protection

Leg protection. diag Nat Safety N 69:124-5 Mr '54

LEGAL profession

See also

Lawyers

LEGAL service

Practice of taxes; one attorney's point of view. C. Rembar. J Account 97:549-64 My '54

See also

Insurance companies—Legal service

Tax consultants

LEGISLATIVE reference service. See Library of congress—Legislative reference service

LEHIGH Valley railroad

Railroad securities. Comm & Fin Chr 178:1856 N 12 '53

To pay first common dividend in decades. Barron's 33:22 O 19 '53

LEHRS. See Glass furnaces

LEISURE

Leisured masses. Bsns W p 142-3+ S 12; 144-6+ S 19 '53

Those family hours and business men. M. L. Jones. Dun's R & Mod Ind 62:48-50+ N '53

See also

Retirement

LEMON juice

Lemon juice in soap. E. Benk. Soap & San Chem 30:87+ F '54

LEMON juice, Frozen

Lemon juice by the ounce; Sunkist's new frozen unit pouches. il Mod Packaging 27:142-3 Jl '54

LEMONS

Citrus goes corrugated; Ventura Pacific lemon co. il Food Eng 26:127+ Jl '54

LENGTH of life. See Longevity

LENNARD-JONES equation

Third virial coefficient of a Lennard-Jones gas by Kihara's method with tables for the 6-9 potential. L. F. Epstein and others. bibliog J Chem Phys 22:464-8 Mr '54

LENSES

Axicon; a new type of optical element. J. H. McLeod. il diags Opt Soc Am J 44:592-7 Ag '54

Basic theory of varifocal lenses with linear movement and optical compensation. F. G. Back and H. Lowen. il diags Opt Soc Am J 44:684-91 S '54

Compensation of flexure in instruments with any number of lenses. W. Brouwer. diags Opt Soc Am J 43:836-8 O '53

Computation of achromatic objectives. R. E. Stephens. diags U S Nat Bur Stand Circ 549:1-7; pa 10c Supt. of doc. '54

Effect on illuminance of a lens interposed between the source and the illuminated surface. R. E. Stephens. diag Opt Soc Am J 43:704 Ag '53

Electromagnetic field near a dielectric lens. D. C. Hogg. J Ap Phys 25:542 Ap '54

Lenses, 300 B.C. il Glass Ind 35:491+ S '54

Matrix algebra for ideal lens problems. J. H. Harrold. Opt Soc Am J 44:254 Mr '54

Microwave wide-angle scanner. J. Brown. bibliog diags Wireless Eng 30:250-5 O '53

Modified Luneberg lens. A. S. Gutman. diags J Ap Phys 25:855-9 Jl '54; Correction. 25:1553 D '54

Propagation of microwaves between a parallel pair of doubly curved conducting surfaces. K. S. Kunz. bibliog diags J Ap Phys 25:642-53 My '54

Silver chloride beam condensing lens system for micro infrared measurements. D. H. Anderson and O. E. Miller. diag Opt Soc Am J 43:777-9 S '53

Third-order methods as applied to zonal aberrations of single long focal length lenses. A. I. Mahan and H. A. Templin. bibliog il diags Opt Soc Am J 43:356-65 My '53

Toric skew ray trace. A. E. Murray. diags Opt Soc Am J 44:672-6 S '54

Testing

Apparatus for aperture-response testing of large Schmidt-type projection optical systems. D. J. Parker and others. il diags Soc Motion Picture & Tv Eng J 61:721-30 D '53

LENSES, Electron. See Electron optics

LENSES, Magnetic. See Magnetic lenses

LENSES, Photographic

Amateur scientist; fish eye camera. A. G. Ingalls. il diags Sci Am 189:110-13 D '53

Image sharpness in the central field of a system presenting third- and fifth-order spherical aberration. G. T. di Francia. bibliog diags Opt Soc Am J 43:827-35 O '53

Improved telephoto objective. H. O. Hoadley. Opt Soc Am 43:923 O '53

LENSES, Photographic—*Continued*

Lens system producing unequal magnification in two mutually perpendicular directions. D. R. Buchele and H. R. Goossens. il diags R Sci Instr 25:262-3 Mr '54

Movies; industrial film makers turn to wide screen technique; Bell & Howell's anamorphic lenses for use with 16-mm film. Iron Age 174:70 Jl 22 '54

New series of photomicrographic lenses. J. R. Benford and J. V. Butterfield. il diags Opt Soc Am J 44:598-600 Ag '54

Underwater television camera lens. Engineer 196:348 S 11 '53

Testing

New approach to the evaluation of the performance of photographic lenses. F. G. Back. bibliog diags Opt Soc Am J 43:685-9 Ag '53

Performance testing of photographic lenses. P. D. Carman and L. E. Howlett. Opt Soc Am J 44:744 S '54

Problem of evaluating a white light image. R. E. Hopkins and others. Opt Soc Am J 44:692-8 S '54

LE PLA, Margaret, 1885-1953

Sketch. A. E. Cummins. Chem Soc J p3335-6 O '53

LE TOURNEAU Semisphere. See Domes, Aluminum

LETTERS, Business. See Commercial correspondence

LETTERS of credit

Letter of credit; Caloric stove corp. v. Bank & trust co. F. C. Fiechter, jr. Burroughs Clearing House 38:75-6 N '53

LETTERS of recommendation. See Recommendation, Letters of

LETTUCE

Culls to chlorophyll; Salinas laboratories, inc. il Chem W 73:16 D 12 '53

LEUCEMIA in poultry. See Poultry—Diseases and pests

LEUCINE

In vitro incorporation of leucine into the proteins of micrococcus lysodeikticus. R. L. Lester. bibliog Am Chem Soc J 75:5448-9 N 5 '53

LEUCKART reaction

Leuckart reaction of some 1,5-diketones. F. Chubb, A. S. Hay and R. B. Sandin. bibliog Am Chem Soc J 75:6042-4 D 5 '53

LEUCOANTHOCYANIDINS

Synthesis of a crystalline leucoanthocyanidin. F. E. King and J. W. Clark-Lewis. Chem & Ind p757-8 Je 26 '54

Synthetic leucoanthocyanidins. L. Bauer and others. bibliog Chem & Ind p433-4 Ap 10 '54

LEUCOANTHOCYANINS

Occurrence of leuco-anthocyanins in perry pears. M. E. Kieser and others. Chem & Ind p 1260 N 21 '53

LEUCOCYANIDIN

Leucocyanidin. T. Swain. bibliog Chem & Ind p 1144-5 S 11 '54

LEUCOCYTES

Comparative effects of total body and tail heating on the peripheral leukocyte count of the rat. B. H. Ershoff and J. G. Gaines. bibliog Science 118:20-1 Jl 3 '53

Influence of a plasma factor on in vitro leucocyte migration. M. M. Ketchel and C. B. Favour. diag Science 118:79-80 Jl 17 '53

LEUCONOSTOC

Low molecular weight dextran as a modifier of dextran synthesis. E. J. Hehre. bibliog Am Chem Soc J 75:4866 O 5 '53

Production of clinical-type dextran; partial hydrolytic depolymerization and fractionation of the dextran from leuconostoc mesenteroides strain NRRL B-512. I. A. Wolff and others. bibliog(29 ref) diag Ind & Eng Chem 46:370-7 F '54

LEUKODERMA. See Skin—Diseases

LEVEES

Jack-type jetties protect levees, along the Rio Grande in New Mexico. il Eng N 152:42-3 Ja 21 '54

Wave-wash control on Mississippi River levees. R. Hertzberg. il diags Am Soc C E Proc 79 [no 275]:1-12 S '53

LEVEL control, Liquid. See Liquid level control

LEVEL indicators, Liquid. See Liquid level indicators

LEVER brothers company

Reputation pays off; booming Lux for laundries. il Chem W 75:78+ Ag 28 '54

LEVITTOWN, Pennsylvania

Biggest new city in the US. il plans House & Home 2:80-91 D '52

See also

Electricity supply—Levittown, Pennsylvania

Newspapers—Levittown, Pennsylvania

Sanitary affairs

Sewage and water facilities built for a city in the making. A. A. Estrada. flow diag il map plans diag Civil Eng 23:836-9 D '53

LEVULIC acid. See Levulinic acid

LEVULINIC acid

Synthesis of protoporphyrin from δ-aminolevulinic acid in a cell-free extract. D. Shemin, T. Abramsky and C. S. Russell. bibliog Am Chem Soc J 76:1204-5 F 20 '54

Synthesis of δ-succinamidolœvulic acid and related compounds. A. Neuberger and J. J. Scott. Chem Soc J p 1820-5 Je '54

LEWIS, Martin W. 1893-1954

Sketch. por East Underw 55:30 Ja 29 '54

Tribute. East Underw 55:30+ Ja 29 '54

LEWIS acids. See Acids

LIABILITY

Discharge of oil in navigable waters; case of Southport corporation v. Esso petroleum co., ltd. Elec J 151:2112 D 25 '53

Extent of utility liabilities in law of attractive nuisance. L. T. Parker. Am Gas J 180:46+ My '54

Gas explosion liabilities determined by courts. L. T. Parker. Am Gas J 180:24+ Ja '54

See also

Employers' liability

Government liability

Insurance, Liability

Municipal liability

Negligence

Personal injuries

Workmen's compensation

LIABILITY insurance. See Insurance, Liability

LIBBEY-OWENS-FORD glass company

Five selected debt-free companies; with comparative balance sheet items. Mag of Wall St 93:82 O 17 '53

LIBBY, McNeill and Libby

Another good year ahead. Barron's 34:30 Ja 4 '54

LIBEL and slander

Clarifying editorial ends McCarthy suit. Ed & Pub 86:36 Mr 21 '53

Insinuation, comment and demand for reply; judgment in favor of the United press associations reversed by the Federal court of appeals. A. W. Gray. Ed & Pub 86:44 My 23 '53

John MacArthur and Dunne indicted for libeling Cravey, Georgia commissioner. Nat Underw 57:2 O 1 '53; Same. Nat Underw (Life ed) 57:1 O 2 '53

Lait, Mortimer striking back in libel suit. Ed & Pub 86:82 Ap 25 '53

Legislature clears Cravey of charges of improper conduct. Nat Underw 57:2 D 10 '53; Same. Nat Underw (Life ed) 57:10 D 11 '53

Reserve Life takes slander case to Supreme court. Nat Underw 57:8 O 29 '53; Same. Nat Underw (Life ed) 57:6 O 30 '53

Seek to extradite MacArthur, Dunne to face Georgia charges. Nat Underw 57:2 N 12 '53; Same. Nat Underw (Life ed) 57:1+ N 6 '53

U.S. court denies plea on affidavit to police. A. W. Gray. Ed & Pub 86:56 My 16 '53

You're a Communist! shout it; don't print it. A. W. Gray. Ed & Pub 86:45 My 2 '53

LIBERAL party (Great Britain)

Liberals' reorganisation. Economist 168:767 S 19 '53

LIBERTY

How is your constitution? C. E. Manion. Am Pet Inst Proc 33(1):47-54 '53

See also

Academic freedom

Freedom of information

Freedom of the press

LIBRARIANS, Special
Chemical librarian in industry. I. M. Strieby. bibliog J Chem Educ 30:522-5 O '53
Librarians and their problems. Special Lib 44:233-5 Jl-Ag '53

LIBRARIES
See also Library buildings and other headings beginning Library
also John Crerar library

Business branches and departments

Business service in public libraries. E. H. Fenner. Special Lib 44:222-7 Jl-Ag '53
Public libraries offer help to personnel directors. E. Di Roma. Personnel J 32:181-3 O '53

Map collections

Map procurement in government agencies. E. De Wald. Special Lib 44:175-7 My-Je '53
Map procurement in the special library. E. L. Yonge. il Special Lib 44:173-4 My-Je '53

Directories

Map collections in the United States and Canada. 170p pa $3 Special lib. assn, 31 E. 10th st, New York 3 '54

British Columbia

British Columbia. A. Tufts. Special Lib 44:189-90 My-Je '53

Canada

Prairie provinces of Canada. R. Buggey. Special Lib 44:188-9 My-Je '53

England

Resources for Italian studies: possibilities for a study of fourteenth-century Florence in the works of Antonio Pucci if limited to material available in England. K. Speight. J Doc 10:65-71 Je '54

Newfoundland

Newfoundland. J. M. Reynolds. Special Lib 44:190 My-Je '53

Norway

Norway's distribution of books on family problems. T. D. Eliot. J Doc 10:19-25 Mr '54

LIBRARIES, Aeronautic. See Aeronautic libraries

LIBRARIES, Government. See Government libraries

LIBRARIES, Military. See Military libraries

LIBRARIES, Newspaper. See Newspaper libraries

LIBRARIES, Special
Map procurement in the special library. E. L. Yonge. il Special Lib 44:173-4 My-Je '53
Personnel function of a company library. J. Hennig. Personnel J 33:55-8 Je '54
Special libraries at work; panel discussion. Special Lib 44:206 My-Je '53
Vertical file classification system for a special library. L. P. Murphy. il Special Lib 44:179-81 My-Je '53
What makes us special. K. L. Kinder. Special Lib 44:274-5 S '53
See also
Advertising agencies—Libraries
Newspaper libraries
Technical libraries
also Johns-Manville research center—Library

Public relations

Major problems of special libraries; what to do about them. S. Edlund. Special Lib 44:182-3 My-Je '53

Service

Social science library for advertising. M. Grunsfeld. Special Lib 44:219-21 Jl-Ag '53

LIBRARIES and research
Library research in Canada's pulp and paper industry. Special Lib 44:191-2 My-Je '53

LIBRARIES and war
Preservation of medical literature during a period of war. I. E. Voss. bibliog Special Lib 44:276-9 S '53

LIBRARY buildings
Extrovert library puts its split-level floors on public display and under easy supervision; Philadelphia's new Mercantile library. il plans Arch Forum 101:112-15 Ag '54
Social and recreational buildings; libraries develop their social sense. il plans Arch Rec 115:158-60 Ja '54
Two new libraries for Berlin, Germany. il map plans diags Arch Rec 113:123-33 Mr '53

Lighting

Lighting the interior of the M.I.T. engineering library dome. il Illum Eng 49:117 F '54

LIBRARY costs
Library binding costs in Washington. Special Lib 44:199-200 My-Je '53

LIBRARY exchange. See Exchanges, Literary and scientific

LIBRARY of Congress

Legislative reference service

Hostile to advertising? legislative reference service can't afford bias. R. Y. Giles. Ptr Ink 243:21 My 8 '53

LIBRARY purchasing
Map procurement in government agencies. E. De Wald. Special Lib 44:175-7 My-Je '53
Map procurement in the special library. E. L. Yonge. Special Lib 44:173-4 My-Je '53

LIBRARY science
Technical services in libraries. M. F. Tauber and others. 487p $6.50 Columbia univ. press, 2960 Broadway, New York 27 '54

Bibliography

Quarterly documentation survey. Published in quarterly numbers of Journal of documentation

Periodicals

Post-war developments in periodicals of librarianship and documentation. R. Stokes. bibliog J Doc 10:72-7 Je '54

Study and teaching

Special library problems; Illinois chapter education program. S. F. Harper and E. F. Kientzle. Special Lib 44:236-42 Jl-Ag '53

Terminology

Vocabularium bibliothecarii. H. Lemaitre and A. Thompson. 296p pa $1.75 United nations educational, scientific and cultural organization; for sale by Columbia univ. press, 2960 Broadway, New York 27 '53

LIBRARY service
Information theory and clerical systems. R. A. Fairthorne. bibliog J Doc 9:101-16 Je '53

LIBYA
Libya and Britain. map Economist 168:372+ Ag 8 '53
See also
Mining law—Libya

LICE
Louse powder synergists. G. W. Eddy and others. bibliog Soap & Chem Spec 30:121-3+ Jl '54

LICORICE
Turns to advertising in search for new markets; MacAndrews & Forbes co. W. W. Walker. il Ptr Ink 243:46+ Ap 3 '53

LIE detector
Lie detector valuable aid in bonding field. W. T. Moree and W. L. Flynn. Weekly Underw 170:1006 Ap 17 '54
Lie gadgets. Sci Am 188:46+ Je '53

LIEBIG, Justus von, 1803-1873
Liebig-Pasteur controversy. H. Finegold. bibliog J Chem Educ 31:403-6 Ag '54

LIEN, Arthur Philip, 1914-
Kansan and Nisei win ACS awards. por (cover) Chem & Eng N 32:408-9 F 1 '54

LIENS
See also
Mechanics' liens

LIESEGANG rings
Liesegang phenomenon. K. H. Stern. Chem R 54:79-99 bibliog(p97-9) F '54

LIFE
See also
Conduct of life

LIFE (biology)
Genesis by lightning. Sci Am 189:42+ Jl '53

LIFE (periodical)
At Life there's hope for all-media promotion. Ed & Pub 86:26 Ap 4 '53

LIFE advertisers association. See Life insurance advertisers association

LIFE in other worlds
Is man alone in space? L. C. Eiseley. il Sci Am 189:80-2+ Jl '53

LIFE insurance. See Insurance, Life

LIFE insurance advertisers association
Annual meeting, 20th, Boston, Oct. 8-10. East Underw 54:11 O 16 '53; Nat Underw (Life ed) 57:1+ O 16 '53; Weekly Underw 169:964-5 O 17 '53
Annual meeting, 21st, Cincinnati, Sept. 27-29. East Underw 55:1, 3-5+ O 1 '54; Nat Underw (Life ed) 58:1+ O 1 '54; Weekly Underw 171:800-1+ O 2 '54
Eastern round table meeting, New York. East Underw 55:15 Ap 30 '54; Nat Underw (Life ed) 58:2 Ap 30 '54; Weekly Underw 170:1124 My 1 '54
North central round table meeting, Kansas City. Nat Underw (Life ed) 58:7+ Ap 16 '54
Report on education committee of LAA new projects. C. R. Corcoran. East Underw 54:3 O 23 '53
Review of 1953. J. R. Morris. Weekly Underw 170:90 Ja 2 '54
Southern round table meeting, Nashville. Nat Underw (Life ed) 58:2-3+ My 14 '54

LIFE insurance agency management association
Agency management (formerly small companies') conference, 16th, Chicago, March 15-17. East Underw 55:11 Mr 26 '54; Nat Underw (Life ed) 58:2+ Mr 19 '54; Weekly Underw 170:731 Mr 20 '54
Annual meeting, Chicago, Nov. 12-13. East Underw 54:1+, 4-6+ N 13 '53; Nat Underw (Life ed) 57:1+ N 13 '53; Weekly Underw 169:1180-2+, 1188, 1196-8 N 14 '53
Committee chairmen for 1954; list. East Underw 55:14 F 19 '54; Nat Underw (Life ed) 58:8 Ja 29 '54

LIFE insurance association of America
Annual meeting, 47th, New York, Dec. 8-9. East Underw 54:20+ D 11 '53; Nat Underw (Life ed) 57:1+ D 11 '53; Weekly Underw 169:1461 D 12 '53

LIFE insurance managers association of Los Angeles, inc.
Los Angeles managers association 43 years old. East Underw 55:6 Ap 2 '54

LIFE insurance medical directors, Association of. See Association of life insurance medical directors

LIFE insurers conference
Annual meeting, Boca Raton, Fla. East Underw 55:3-4+ Ap 30 '54; Nat Underw (Life ed) 58:1+ Ap 30 '54

LIFE office management association
Annual meeting, Cincinnati. Nat Underw (Life ed) 57:1+ S 25 '53; Weekly Underw 169:770 S 26 '53
Annual meeting, 31st, Washington, D.C. Sept. 27-29. Nat Underw (Life ed) 58:1+ O 1 '54; Weekly Underw 171:796+ O 2 '54
LOMA graduates tenth seminar, New York. East Underw 55:14 My 21 '54; Same. Nat Underw (Life ed) 58:9 My 21 '54
Membership reaches 264 companies. F. L. Rowland. East Underw 54:10 S 25 '53

LIFE rafts
Survival at sea. W. Wallace. Engineering 176: 458-9 O 9 '53

LIFE underwriter training council
Enrollment at all-time high. L. E. Powell. Weekly Underw 170:255 Ja 23 '54
LUTC committee members. East Underw 54: 10 N 6 '53
Life underwriter training council favors New York location of NALU headquarters. East Underw 55:3 Ag 6 '54
LUTC program; contribution to life insurance agent, agency manager and company. L. E. Powell. East Underw 55:5+ O 8 '54; Same. Nat Underw (Life ed) 58:35 O 8 '54; Same. Weekly Underw 171:875+ O 9 '54
LUTC to move with NALU. Nat Underw (Life ed) 58:1+ O 8 '54; Same abr. East Underw 55:11 O 8 '54

LIFE underwriters' association of the city of New York
Drives for new members. Weekly Underw 169:1328 N 28 '53
Financial forecasters panel. Nat Underw (Life ed) 58:4+ Ja 29 '54

Officers and board of director nominees announced for the administrative year, 1954-55. East Underw 55:3-4 My 14 '54; Weekly Underw 170:1241 My 15 '54

LIFEBOATS
Aluminium-alloy lifeboats. Engineering 176: 829 D 25 '53
Lifeboat radio contains newest safety features. Elec Eng 72:946 O '53
Portable lifeboat radio set. il Elec Com 30: 246 S '53

LIFO. See Inventories—Accounting

LIFT trucks. See Motor trucks, Industrial

LIFTING
Don't lift it alone! hazards of heavy lifting in the paper industry. W. Schweisheimer. Pulp & Pa of Can 54:212+ N '53
Lift it right; illustrated instructions. Power Eng 58:57 F '54

LIFTING magnets
Can lifting magnets be supercharged? A. M. Holcomb. Elec World 140:180 D 14 '53

LIGHT
Automatic computation of spot diagrams. O. N. Stavroudis and D. P. Feder. diags Opt Soc Am J 44:163-70 F '54
Electron microscopical studies of the latent image obtained by exposures to alpha particles, X-rays, and light. H. Hoerlin and F. A. Hamm. bibliog il J Ap Phys 24:1514-19 D '53
First-order theory of diffuse reflecting and transmitting surfaces. A. J. Hill. Soc Motion Picture & Tv Eng J 61:19-23 Jl '53
Francis Hauksbee; first established a connection between electricity and light and lay the groundwork for new discoveries in electrostatics. D. Roller and D. H. D. Roller. il diags Sci Am 189:64-9 Ag '53
Inhibition of foaming; the transmission of light by unstable foams. S. Ross, B. Barth and J. F. Terenzi. bibliog J Phys Chem 58:247-50 Mr '54
Light distribution in the image of an incoherently illuminated edge. W. Weinstein. bibliog Opt Soc Am J 44:610-15 Ag '54
Light from a spherical globe. G. R. Shuck. Opt Soc Am J 43:923 O '53
Oblique transmission factor of multilayer thin films. W. Weinstein. Opt Soc Am J 43:539 Je '53
Visible light from localized surface charges moving across a grating. S. J. Smith and E. M. Purcell. il Phys R 92:1069 N 15 '53

See also

Brightness
Chronocyclegraph
Color
Daylight
Daylight, Artificial
Diffraction
Dyes, Fastness of
Electric spark
Eye
Fluorescence
Glare
Interference (light)
Light signals
Lighting
Luminescence
Luminosity
Optics
Photochemistry
Photoelasticity
Photoelectric cells
Photoelectric effect
Photography
Photometry
Phototropy
Plants, Effect of light on
Poincaré sphere
Polarization (light)
Radiation
Radioactivity
Reflection (optics)
Refractive index
Sky
Spectrum
Ultraviolet rays
X rays

Absorption

See Absorption of rays

Physiological effect

Light, its influence on plant and animal growth. J. P. Ditchman. il Gen Elec R 57:42-6 My '54
Stray light and the human electroretinogram. R. M. Boynton. bibliog diags Opt Soc Am J 43:442-9 Je '53

Velocity

Binary stars and the velocity of light. P. Moon and D. E. Spencer. bibliog Opt Soc Am J 43:635-41 Ag '53
Precision determination of the velocity of light derived from a band spectrum method. D. H. Rank and others. bibliog Phys R 94:575-8 My 1 '54
Velocity of light redetermined by National bureau of standards. Opt Soc Am J 44:507-8 Je '54

LIGHT, Colored

Effectiveness of red light on dark adaptation. W. R. Miles. bibliog Opt Soc Am J 43:435-41 Je '53

Facilitative effect of red light on dark adaptation. S. W. Smith and F. L. Dimmick. bibliog Opt Soc Am J 43:541 Je '53

LIGHT, Polarized. See Polarization (light)

LIGHT, Scattering of

Apparatus for the determination of molecular weights by light scattering. L. Harvey and D. Cleverdon. bibliog diags J Sci Instr 31:274-9 Ag '54

Charge effects in light scattering by colloidal solutions. K. J. Mysels. bibliog J Phys Chem 58:303-7 Ap '54

Design for an absolute light-scattering photometer. L. M. Kushner. bibliog diags Opt Soc Am J 44:155-9 F '54

Determination of the diffuse transmittance of opal glass and the use of opal glass as a standard diffusor in light-scattering photometers. B. A. Brice and M. Halwer. Opt Soc Am J 44:340 Ap '54

Light scattering determination of the absolute turbidity of water. D. A. I. Goring and P. G. Napier. J Chem Phys 22:147 Ja '54

Light scattering from non-Gaussian chains. H. Benoit and P. Doty. bibliog diag J Phys Chem 57:958-63 D '53

Light scattering in liquid helium. A. W. Lawson and L. Meyer. bibliog diag Phys R 93:259-61 Ja 15 '54

Light scattering in solutions of a linear polyelectrolyte. A. Veis and D. N. Eggenberger. bibliog Am Chem Soc J 76:1560-3 Mr 20 '54

New contributions to the optics of intensely light-scattering materials; nonhomogeneous layers. P. Kubelka. bibliog diag Opt Soc Am J 44:330-5 Ap '54

Particle sizes by new instrument based on measurement of angular dependence light scattering; abstract. C. K. Sloan and others. il Chem & Eng N 32:1443 Ap 12 '54

Polyvinylacetate; a light scattering and viscosity study. A. R. Shultz. bibliog Am Chem Soc J 76:3422-30 Jl 5 '54

Quantitative evaluation of multiply scattered and diffusely reflected light in the direction of a stellar source in a Rayleigh atmosphere. D. Deirmendjian and Z. Sekera. bibliog diag Opt Soc Am J 43:1158-65 D '53

Re-evaluation of the scattering theory of glare. G. A. Fry. bibliog Illum Eng 49:98-102 F '54

Refractive index correction in light-scattering measurements. D. J. Meier. J Chem Phys 21:1892-3 O '53

Simply-constructed constant temperature light-scattering photometer and differential refractometer. S. R. Caplan. bibliog diags J Sci Instr 31:295-300 Ag '54

Theoretical light-scattering coefficients for relative refractive indexes less than unity and for totally reflecting spheres. R. H. Boll and others. bibliog Opt Soc Am J 44:18-21 Ja '54

Thermostatic chamber for the measurement of light scattering from solids at elevated temperatures. J. J. Keane and R. S. Stein. diags R Sci Instr 25:892-4 S '54

Use of unfiltered light in determining particle radius by the polarization ratio of the scattered light. M. Kerker and M. I. Hampton. bibliog diags Opt Soc Am J 43:370-2 My '53

LIGHT filters

Colorimeter for pyrotechnic smokes. I. Nimeroff and S. W. Wilson. diags Opt Soc Am J 44:299-302 Ap '54

Computation of the alteration of color temperature by blue filters. W. E. K. Middleton. Opt Soc Am J 44:499 Je '54

Controllable interference-type optical filter. R. Blythe. il Opt Soc Am J 44:336-9 Ap '54

Filter radiometry and some of its applications. R. Stair. bibliog Opt Soc Am J 43:971-4 N '53

Lacquer color filters for qualitative flame tests. J. A. Brown. J Chem Educ 30:363-4 Jl '53

Mosaic filter daylight source for aerophotographic sensitometry in the visible and infrared region. M. R. Nagel. il Opt Soc Am J 44:621-4 Ag '54

Primary color filters with interference films. H. H. Schroeder and A. F. Turner. Soc Motion Picture & Tv Eng J 61:628-33 N '53

Refinements in the preparation and theory of multilayer films. J. M. Stone. bibliog Opt Soc Am J 43:927-8 O '53

LIGHT projection

Application of floodlighting to buildings. B. S. Benson, jr. il diags Illum Eng 49:367-73 Ag '54

Dusk to dawn floodlighting; continuous excavation and construction operations. il Illum Eng 49:381-2 Ag '54

Floodlighting a contemporary building. M. G. Zervigon. il diags Illum Eng 48:562-3 N '53

Floodlighting a harness race track; data sheet. M. E. Keck. il plan Illum Eng 48:643-4 D '53

How lights help in ore movement. il Ry Age News ed 135:27 D 7 '53; Same. Ry Loco & Cars 128:65 F '54

Lighting a tv antenna tower. E. J. Whitlow. il Illum Eng 48:616 D '53

Lighting at the U.N. grounds. il Illum Eng 49:236 My '54

Night illumination for a church steeple. il Illum Eng 49:374-5 Ag '54

LIGHT signals

Conspicuity of steady and flashing light signals; variation of contrast. S. J. Gerathewohl. bibliog il Opt Soc Am J 43:567-71 Jl '53

See also

Traffic signals

LIGHTING

Comparative analysis of comfort and glare. D. E. Spencer. bibliog il diags Illum Eng 49:39-45; Discussion. 45-9 Ja '54

In the West light performs many tasks; illustrations with text. Elec West 111:106-7 S '53

Interior designer looks at lighting; abstract. C. E. Stephenson. Illum Eng 49:433-4 S '54

Light, color and design. H. Ketcham. il Dun's R & Mod Ind 62:58+ Ag '53

Lighting progress in 1952-1953. il diags Illum Eng 49:153-74 Mr '54

Lighting service bureau; summary of activities for 1953. il Elec R (Lond) 154:249-50 F 5 '54

Orientation reflex. H. L. Logan. bibliog il diags Illum Eng 49:19-28; Discussion. 28-9 Ja '54

Planned lighting. il Elec R (Lond) 154:124-5 Ja 15 '54

Quality of lighting; abstract. S. K. Guth. Illum Eng 49:419-20 S '54

Research and engineering progress, 1953; lighting. il Gen Elec R 57:49-52 Ja '54

Set an example to sell light. il Elec West 111:96-7 S '53

Some individual treatments in engineering the installation. il diag Illum Eng 49:339-44 Jl '54

Studies in interior lighting; abstract. J. M. Waldram. Elec J 152:214 Ja 15 '54

Symposium on light and vision. bibliog il diag Illum Eng 49:63-102 F '54

Wiring, lighting, fixtures, and electrically operated devices. il plans diags Am Bld 75:291+ Ap '53

See also

Brightness
Christmas lighting
Daylight
Daylight, Artificial
Electric lamps
Electric lighting
Glare
House lighting
Light projection
Lighting fixtures
Mine lighting
Office lighting
Reflectors
Stage lighting
Street lighting
Tunnel lighting
Windows

also subdivision Lighting under special subjects, e.g.

Airplane factories
Airplanes
Airports
Art galleries and museums
Bank buildings
Churches
Conference rooms
Dentists' offices
Drafting rooms
Factories
Gasoline service stations
Hangars
Machine shops
Physicians' offices
Power plants
Public buildings
Restaurants
Roads
School buildings
Steel works
Store buildings
Television studios
Textile mills

LIGHTING—*Continued*

Control

Electronic light control. H. A. Setzke. il diag Radio & Tv N 50:81+ D '53

Tables, calculations, etc.

Brightness and illumination by interreflections in enclosures; abstract. R. S. Wiseman. il Illum Eng 49:439 S '54

Comparison of measured and calculated coefficients of utilization. J. R. Jones and J. J. Neidhart. bibliog plans Illum Eng 49: 127-33; Discussion. 133-5 Mr '54

Graphical determination of room indexes. R. H. Rice. Illum Eng 49:358-9 Jl '54

Interflectance factors for additional combinations of reflectance. W. M. Potter and C. Wellner. bibliog Illum Eng 49:216-19 Ap '54

Interflectance tables from conventional photometric data. L. E. Innis. bibliog il diags Illum Eng 48:595-609 N '53; Discussion. 48: 609-10; 49:29-30 N '53, Ja '54

Measured utilization factors. W. M. Potter and A. H. Russell. bibliog il diags Illum Eng 49:137-47, 444-6 Mr, S '54; Discussion. 49:147-50 Mr '54

Use of high speed computing devices in photometric calculations. G. A. Horton. il diags Illum Eng 49:403-8 Ag '54

Use of visual performance data to specify the quantity and quality of interior illumination; abstract. H. R. Blackwell. Illum Eng 49:420-1 S '54

Terminology

Modern ideas on nomenclature. D. E. Spencer. Illum Eng 49:394-8; Discussion. 399-400 Ag '54

War measures

Civil defense illumination control plan may eliminate need for future blackouts; abstract. B. W. Beers. Illum Eng 49:423-4 S '54

LIGHTING, Architectural

Bank relighting blends into architecture. S. D. Snook and J. F. Gunther. il Elec World News ed 140:38 Jl 6 '53

Lighting a contemporary church. il diags Illum Eng 49:5-6 Ja '54

Prefabricated coffer ceilings. L. S. Harrison. il plan diag Illum Eng 48:625-8 D '53; Discussion. 49:sup21A My '54

LIGHTING, Decorative

Floodlighting draperies; lighting data sheet. M. Taepke. il Illum Eng 49:277 Je '54

Garden lighting, after sunset. il diags Illum Eng 49:190-1 Ap '54

King Orange kicks off light's jubilee. il Elec World News ed 141:16-17+ Ja 18 '54

Lighting makes a garden room; Hotel Kirkwood. il Illum Eng 49:377 Ag '54

Outdoor decorative lighting techniques; abstract. R. A. Eshelby. il Illum Eng 49:425-6 S '54

See also

Christmas lighting

LIGHTING, Industrial

Designing built-in lighting for machines. R. C. Rodgers. il diags Machine Design 26: 147-62 F '54; Excerpts. Steel 134:108-10 Ap 26 '54

Economics of mercury lighting for industrial areas; abstract. W. H. Johnson and others. Illum Eng 49:434-5 S '54

Lease a lighting installation. il Elec West 111: 108 S '53

Maintenance of industrial lighting. C. E. Egeler and R. F. VandenBoom. Illum Eng 48:631-5 D '53

Survey of industrial lighting equipment. il Arch Rec 116:180-1 Jl '54

See also

Drafting rooms—Lighting

Factories—Lighting

Mine lighting

Office lighting

Textile mills—Lighting

LIGHTING, Natural. See Daylight

LIGHTING engineering

Modified lumen method of daylighting design; abstract. J. W. Griffith and others. Illum Eng 49:440-1 S '54

Study and teaching

Training illuminating engineers. N. Corcoran. Elec R (Lond) 154:52-3 Ja 8 '54

LIGHTING engineers

Illuminating engineer's status. N. Corcoran. Elec R (Lond) 154:501 Mr 19 '54

Training illuminating engineers. N. Corcoran. Elec R (Lond) 154:52-3 Ja 8 '54

See also

Illuminating engineering society

LIGHTING fixtures

Illumination of railway sidings; lighting fittings supported on concrete gantries. il Engineering 177:56 Ja 8 '54

Lamp posts simulate tree trunks. il Sheet Metal Worker 45:62 N '53

Lighting maintenance. F. K. Sampson. Elec West 111:93-4 S '53

Safe shipper protects delicate lighting fixtures. il Mod Packaging 27:133 My '54

Survey of industrial lighting equipment. il Arch Rec 116:180-1 Jl '54

Cleaning

How to clean your lighting! J. W. Tuttle. il Safety Maint & Prod 107:24-6+ Ja '54

Lighting maintenance gets a lift! M. E. Mitchell. il Safety Maint & Prod 107:20-1+ Mr '54

Maintenance of industrial lighting. C. E. Egeler and R. F. VandenBoom. Illum Eng 48:631-5 D '53

Program your lighting maintenance. D. Phillips. il Steel 134:114-16 My 3 '54

Some techniques for maintenance. B. J. Hartmann. il Elec West 111:95 S '53

What are you getting from your lighting system, lumens or lemons? L. C. Vipond. il Mill & Factory 54:128-31 Ja '54

LIGHTING research

Luminous environment; abstract. L. C. Kalff. Illum Eng 49:417-18 S '54

To spread light everywhere; abstract. W. R. Stevens. Elec J 151:1230 O 16 '53

LIGHTNING

Lightning resistance of porcelain insulators. Franklin Inst J 256:367-8 O '53

Long spark discharges; terrestrial and cosmical leader strokes. C. E. R. Bruce. bibliog Elec R (Lond) 153:1203-7 N 27 '53

See also

Lightning protection

LIGHTNING, Artificial

Artificial lightning tests. Franklin Inst J 225:469-70 Ag '53

LIGHTNING arresters

Insulation coordination; problem in probabilities. C. F. Wagner. Westinghouse Eng 13: 198-202 N '53; Same abr. Elec World 140: 117-20 Ag 24 '53

Lightning or power faults. C. L. Goodwin. il Gas Age 113:39-41 Je 3 '54

Lightning protection in extra-high-voltage stations; influence of multiple circuits; analogue computer study. I. W. Gross and others. bibliog diags Elec Eng 72:967-72 N '53

Low-voltage surges test station. J. M. Clayton. il diag Elec World 139:74-5 Je 1 '53

Use of lightning arresters. C. S. Richard. il diag Gas Age 113:37-8 Je 3 '54

Testing

Lightning investigations at two major 115/230-kv stations; abstract. H. M. Ellis. il Elec Eng 72:892 O '53

LIGHTNING protection

Protective practices as a criterion for high-voltage transmission design. H. L. Rorden and R. S. Gens. il Elec World 141:101-4 F 22 '54

Puncture tests on porcelain distribution insulators using steep-front voltage surges. J. H. Park and H. N. Cones. il diags Elec Eng 73:45-9 Ja '54

See also

Airplanes—Lightning protection

Electric lines—Protection

Lightning arresters

LIGNIN

Aiming for extinction; West Virginia pulp and paper co. plant for production of lignin-rubber coprecipitates. Chem W 74:62+ Je 26 '54

Chemical combination of lignin in aspen; abstract. E. Aaltio and R. H. Rochier. il Paper Ind 36:508 Ag '54

LIGNIN—*Continued*

Compounding natural rubber with lignin and humic acid. F. J. Tibenham and N. S. Grace. bibliog Ind & Eng Chem 46:824-8 Ap '54

Delignification of spruce sawdust with chlorine dioxide. N. Levitin and H. Schwartz. bibliog Pulp & Pa of Can 55:92-8 Ja '54

International congress of pure and applied chemistry, 13th, Stockholm; report of papers of group 23 on lignin and pulping. Tappi 37:sup 139A-41A Ja '54

Lignin; perpetual source of chemicals. il Chem Eng 61:144+ S '54

Lignin reinforces GR-S; West Virginia pulp and paper co. Chem & Eng N 32:2719 Jl 5 '54

Lignin synthesized by oxidation of eugenol with H_2O_2. S. M. Siegel. Chem & Eng N 32:3730+ S 20 '54

Possibilities for chemicals from lignin; abstracts. P. R. Wiley. Oil Paint & Drug Rep 165:70 My 24 '54; Rubber Age 75:556 Jl '54; Rubber World 130:532 Jl '54

Problems concerning the sulphur in sulphate pumping. T. Enkvist. bibliog(28 ref) Tappi 37:350-2 Ag '54

Rate of delignification of wood powder with sulfite solutions; abstract. S. Häggroth and others. Paper Ind 35:1143 Ja '54

Recent lignin research in Sweden. B. Leopold. Pulp & Pa of Can (Convention no) 55: 184-6 [F] '54

Removal of lining and carbohydrates during bleaching of semichemical pulps. K. J. Bjorkvist and others. bibliog Pulp & Pa of Can 55:68-72 F '54

Seepage through dam checked by injecting chrome-lignin. Eng N 151:247 O 8 '53

Studies on lignin and related products; cupric oxide oxidation of lignin model substances. I. A. Pearl and D. L. Beyer. bibliog Am Chem Soc J 76:2224-6 Ap 20 '54

Study of the alkaline nitrobenzene oxidation of chlorite lignin. J. E. Jayne. bibliog Tappi 36:571-6 D '53

Study of the reaction products of lignin model compounds and sodium hydrosulphide. T. G. Zentner. bibliog Tappi 36:517-23 N '53

Sugar units in certain lignins; abstract. P. Traynard and A. M. Ayroud. Paper Ind 36:412 Jl '54

Sulphonation of wood lignin. G. A. Richter and L. H. Pancoast, jr. bibliog Tappi 37: 263-72 Je '54

Westvaco expands commercialization of its lignin products. Paper Tr J 137:16 N 6 '53

Analysis

Determination of lignin in partially delignified jute. W. G. Macmillan and others. Textile Inst J Trans 45:T 108-12 F '54

Determination of phenolic hydroxyl content of lignin preparations by ultraviolet spectrophotometry. O. Goldschmid. bibliog Anal Chem 26:1421-3 S '54

Improved methods of lignin analysis; abstract. K. Kurschner and others. Chem & Eng N 32:1225 Mr 29 '54

LIGNITE

Lignite; fuel and chemicals. il Chem Eng 61:116 Jl '54

Lignite fuels 240,000-kw Alcoa plant at Rockdale. il diag Power Eng 58:80-2+ Je '54

Lignite powers aluminum smelter; Aluminum co. of America's Rockdale works. il Iron Age 173:47 Ap 29 '54

Limelight on lignite; Alcoa to convert the lignite into solid fuel (char) and liquid (tar) which can be used as fuel or as chemical feedstock. Chem W 74:41 F 27 '54

More aluminum from Texas; Alcoa's Rockdale works. il Chem & Eng N 32:1868-9 My 10 '54

Removing lignite from sand; reclaim acceptable sand for Garrison dam. W. B. Lenhart. flow sheet. il Rock Prod 56:86-9 O '53

Technology of lignitic coals. bibliog il maps diags U S Bur Mines Information Circ 7691: 1-142; 7692:1-120 '54

LIME

Activities of Fe, FeO, Fe_2O_3, and CaO in simple slags. H. R. Larson and J. Chipman. bibliog J Metals 6:Trans 759-62 Je '54

Additional phase equilibrium data for the system $CaO-MgO-SiO_2$. R. W. Ricker and E. F. Osborn. bibliog Am Cer Soc J 37: 133-9 Mr 1 '54

Complete hydration of lime without the use of autoclaves; Lee lime co. il Rock Prod 56: 118-20 D '53

How to buy and use lime as a neutralizing agent. R. D. Hoak. il Water & Sewage Works 100:468-73 D '53; Abstract. Rock Prod 56:93+ O '53

Jetted lime sludge works on waste; Du Pont company Chambers works. il Chem Eng 61:126 Je '54

Lime, fly ash, silica and cement in autoclaved concrete products. J. K. Selden. Rock Prod 57:142-3+ My '54

Lime for the stabilization of road bases. il Roads & Eng Constr 92:96-100+ S '54

Liquidus relationships on ten per cent MgO plane of the system lime-magnesia-alumina-silica. A. T. Prince. bibliog diags Am Cer Soc J 37:402-8 S 1 '54

Method for preparation of fluorine-low calcium oxide. D. A. Weddle and R. L. Maurer. Anal Chem 26:584-5 Mr '54

National lime association panel discussion on users' requirements; abstracts of papers. C. C. Loomis and others. Rock Prod 56:90-1 N '53

Optimum composition of blast furnace slag as deduced from liquidus data for the quaternary system $CaO-MgO-Al_2O_3-SiO_2$. E. F. Osborn and others. bibliog il J Metals 6: Trans 33-45 Ja '54

Removal of lime-scale from filter drums at Wright-Hargreaves. M. Black. il Can Min J 75:64 Mr '54

S. D. Warren improves lime handling at Cumberland mills. il Paper Ind 36:365-6 Jl '54

Scientific basis for liming of digesters. C. N. Sawyer and others. bibliog diags Sewage & Ind Wastes 26:935-44 Ag '54

Studies on the concept of large activator centers in crystal phosphors. J. Ewles and N. Lee. bibliog diags Electrochem Soc J 100: 392-407 S '53

Studies on the lime-rich crystalline solid phases in the system lime, silica, water. G. L. Kalousek and others. bibliog Am Cer Soc J 37:7-13 Ja 1 '54

System $CaO-ZnO-SiO_2$. E. R. Segnit. Am Cer Soc J 37:273-7 Je 1 '54

System calcium peroxide-calcium oxide-oxygen. C. N. Satterfield and T. W. Stein. bibliog Ind & Eng Chem 46:1734-6 Ag '54

Viscosity studies of system $CaO-MgO-Al_2O_3-SiO_2$; 60 and 65 per cent SiO_2. J. S. Machin and T. B. Yee. bibliog Am Cer Soc J 37: 177-86 Ap 1 '54

Analysis

Removal of manganese prior to calcium and magnesium precipitations. B. L. Ingram and L. Bean. bibliog Anal Chem 25:1217-19 Ag '53

Separation of magnesium from calcium by ion exchange chromatography. D. N. Campbell and C. T. Kenner. Anal Chem 26:560-1 Mr '54

Uncombined calcium oxide or hydroxide in lime and silicate products. G. O. Assarsson and J. M. Bokström. bibliog Anal Chem 25: 1844-8 D '53

Manufacture

Lime burning of dolomitic and high calcium stone in rotary and vertical kilns; abstracts of panel discussion papers. H. Lange and others. Rock Prod 56:87-8 N '53

Theory and practice of lime manufacture. V. J. Azbe. il diags Rock Prod 56:100-3 F; 102-4 Mr; 138-9+ Ap; 84-7 My; 80-2+ Jl; 100-4+ S; 111-14+ D '53; 57:89-90+ Mr; 132+ Ap; 129-32 Je; 82-4 S '54

See also
Lime kilns

Testing

Soundness of building limes. F. O. Anderegg. Rock Prod 57:127 Je '54

LIME as fertilizer

Agronomists give facts to aid in selling agstone. Rock Prod 57:113-15 Ap '54

Agstone producer's approach to building a sound business; Fry coal & stone co. W. B. Lenhart. flow sheets il diag Rock Prod 57:86-90+ Ap '54

Are we doing a good job of selling liming materials? E. Jones. Rock Prod 57:125 Ap '54

Both calcium and magnesium limestone very important. O. T. Coleman. Rock Prod 57:122-3 Ap '54

Fine grinding for agstone and asphalt filler. W. B. Lenhart. flow sheet il diag Rock Prod 57:106-7+ Ap '54

Greater use of lime is paramount to maintain prosperous agriculture. S. C. Jones. Rock Prod 57:123 Ap '54

Iowa agricultural limestone association annual meeting, Des Moines, March 3-4. Rock Prod 57:148 Ap '54

Lime for grass lands. F. S. Prince. Rock Prod 57:119 Ap '54

Lime in the soil conservation plan. R. L. Cook. il Rock Prod 57:121-2 Ap '54

Lime is the best insurance against poverty. E. E. Barnes. Rock Prod 57:120 Ap '54

Lime the soil to correct its major fertility deficiencies. W. A. Albrecht. Rock Prod 57:116-17 Ap '54

Limestone and agriculture. J. S. Watson; H. Fletcher. Chem Age (Lond) 69:1079-80 N 21 '53

Liming cuts fertilizer costs. E. Truog. Rock Prod 57:118 Ap '54

Missouri limestone producers association annual meeting, 9th, Jefferson City, Dec. 6-7. Rock Prod 57:170+ Ja '54

New look for lime. W. A. Way. Rock Prod 57:124 Ap '54

Of what value are coarse particles in agstone? R. E. Simpson. Rock Prod 56:97+ D '53

Pennsylvania stone producers association Agricultural limestone division annual meeting, Harrisburg, April 2. Rock Prod 57:147, 157 Je '54

Producers' ideas about merchandising. B. Nordberg. il Rock Prod 57:108-12+ Ap '54

Properly limed soil is a natural resource. E. R. Collins. Rock Prod 57:125+ Ap '54

See also

National agricultural limestone institute

LIME juice, Frozen

Lime juice superconcentrates; new USDA method for frozen lime juice products. O. W. Bissett and others. bibliog il Food Eng 26:56-7+ Je '54

LIME kilns

Factors influencing the selection of modern rotary lime recovery kilns. W. H. Tock. Tappi 37:sup 195A-6A My '54

Latest practice in burning cement and lime in Europe. O. G. Lellep. bibliog il diags Min Eng 6:Trans 715-19 Jl '54

Lime burning of dolomitic and high calcium stone in rotary and vertical kilns; abstracts of panel discussion papers. H. Lange and others. Rock Prod 56:87-8 N '53

Lime recovery kilns in Scandinavia. J. Friis-Hansen. il Pulp & Pa of Can 55:147 S '54

More than double lime kiln capacity; M. J. Grove lime co. B. Nordberg. il Rock Prod 57:66+ Jl '54

Theory and practice of lime manufacture. V. J. Azbe. il diags Rock Prod 56:100-3 F; 102-4 Mr; 84-7 My; 80-2+ Jl; 100-4+ S; 111-14+ D '53; 57:89-90+ Mr; 132+ Ap; 129-32 Je; 82-4 S '54

LIME plants

Employees

Holiday pay for employes on furlough; Standard lime and stone co. N. C. Rockwood. Rock Prod 57:49+ S '54

Management

National lime association panel discussion on quality control; abstracts of papers. L. N. Carmouche and others. Rock Prod 56:88-9 N '53

Safety measures

National lime association safety panel discussion; abstracts of papers. L. P. Warner, jr. and others. Rock Prod 56:89-90 N '53

LIMESTONE

Activation energies for the decomposition of limestone, dolomitic limestone, and dolomite. J. H. Wernick. bibliog Min Eng 6:Trans 730-2 Jl '54

Change to rotary blasthole drilling in limestone increases footage, cuts time, saves manpower. D. T. Van Zandt. il Min Eng 6:Trans 809-11 Ag '54

Dolomitic mottling in Palliser (Devonian) limestone, Banff and Jasper national parks, Alberta. F. W. Beales. bibliog il Am Assn Pet Geologists Bul 37:2281-93 O '53

Electrical properties of limestone cores. R. L. Whiting and others. bibliog diags Oil & Gas J 52:309+ Jl 27 '53

Introduction to the study of rock building algae and algal limestones. J. H. Johnson. bibliog il diags Colorado School of Mines [Golden] Quarterly v 49 no 2:1-117 Ap '54 (pa $2.50)

Michigan Limestone's Cedarville quarry on way to production. il Min Eng 6:875 S '54

Mineralogy and petrology of some Ordovician K-bentonites and related limestones. C. E. Weaver. bibliog diags Geol Soc Bul 64:921-43, pl 1-2 Ag '53

Missouri limestone producers association annual meeting, 9th, Jefferson City, Dec. 6-7. Rock Prod 57:170+ Ja '54

Non-reef limestone reservoirs. J. E. Adams. Am Assn Pet Geologists Bul 37:2566-9 N '53

Open-pit limestone mining in Florida's Hernando county. L. B. Lovett. il Explosives Eng 31:167-71 N '53

Petrology of laminated limestones in Indiana. J. B. Patton. Roads & Sts 97:85 Ag '54

Petrology of the Salem limestone (Indiana building stone). J. B. Patton. Econ Geol 48:331 Je '53

Producing high-grade sugar stone; Weaver construction co. R. C. Giddings. il Rock Prod 57:60-1 Jl '54

Quest for record; world's biggest limestone-producing quarry; Rogers City. il Chem W 72:51-2+ Ap 18 '53

Shrinkage of high-calcium limestones during burning. J. A. Murray and others. Am Cer Soc J 37:323-8 Jl 1 '54

Solvay mines high-calcium limestone for chemical use. B. Nordberg. il Rock Prod 57:66-8+ My '54

Steam catalysis in calcinations of dolomite and limestone fines. W. H. MacIntire and T. B. Stansel. bibliog(54 ref) il Ind & Eng Chem 45:1548-55 Jl '53

Subsurface study of the Maxville limestone in the Muskingum valley. C. H. Bowen. maps diags Ohio State U [Columbus] Eng Exp Sta Bul 154:1-19 '54 (pa $1)

Trackless development of an inclined limestone deposit; Coplay cement manufacturing co. R. W. Jenkins. Min Eng 6:Trans 61-3 Ja '54

See also

Dolomite

Marble

Analysis

Determination of calcium and magnesium in limestones by the ethylenediamine tetraacetate method. J. W. Jordan and K. L. Robinson. Chem & Ind p687-8 Jl 11 '53

Separation of magnesium from calcium by ion exchange chromatography. D. N. Campbell and C. T. Kenner. Anal Chem 26:560-1 Mr '54

LINCOLN, Abraham

Museums, relics, etc.

See also

Lincoln national life foundation

LINCOLN, Nebraska

Water supply

Determining the percentage of induced infiltration in multiple-well discharge. E. B. Meier. bibliog maps diags Am Water Works Assn J 46:19-26; Discussion. A. S. Metcalf. 27-30 Ja '54

LINCOLN electric company
Group selling comes back. il Bsns W p56 N 7 '53

LINCOLN national life foundation
Insurance company builds research on Lincoln. il Spectator 162:22-3 F '54

LINCOLN tunnel. See New York (city)—Tunnels

LINDANE
Control of pests of green lumber and pulpwood with benzene hexachloride. R. C. Back and M. Sittig. il Tappi 37:sup 190A-1A My '54
Fly control on dairy farms. R. J. Dicke. Soap & Chem Spec 30:177+ My '54
Solubility of gamma benzene hexachloride. M. A. Phillips. Chem & Ind p516 My 23 '53

Analysis

Determination of gamma-benzene hexachloride. J. Rosin and G. B. Radan. bibliog Anal Chem 25:817-19 My '53
Determination of gamma isomer content of benzene hexachloride by chlorine-36 isotope dilution method. J. T. Craig, P. F. Tryon and W. G. Brown. diags Anal Chem 25:1661-3 N '53
Determination of gamma isomer in crude benzene hexachloride by a carbon-14 isotope dilution method. R. Hill and others. bibliog Chem & Ind p 162-3 F 6 '54
Polarographic determination of the gamma isomer of hexachlorocyclohexane. C. A. Streuli and W. D. Cooke. Anal Chem 26:970-2 Je '54

LINDBERGH, Charles Augustus, 1902-
C. A. Lindbergh receives Guggenheim award at IAS meeting. por Mech Eng 76:307 Mr '54
1953 Guggenheim medal awarded to C. A. Lindbergh. Aeronautical Eng R 12:35 D '53; Elec Eng 73:100 Ja '54

LINDE air products company
Linde seeks tariff protection for its star sapphires. Chem & Eng N 31:3552-3 Ag 31 '53

LINDEMANN, Frederick Alexander. See Cherwell, Frederick Alexander Lindemann, 1st baron

LINEMEN'S equipment
Detachable guide reduces rope wear. il diags Elec World 140:114 N 2 '53
Nylon safety straps win out in tests. il Elec World News ed 140:34 O 12 '53
Volts and jolts. C. P. Shirey. il Nat Safety N 70:34-5+ Jl '54

LINEN fabrics

Testing

Stability to water leaching of some textile fungicides applied to unlined flax forestry fire hose. G. R. F. Rose and C. H. Bayley. Textile Res J 24:229-34 Mr '54

LINKS and link motion
Analytical approach to the design of four-link mechanisms. F. Freudenstein. bibliog diags A S M E Trans 76:483-9; Discussion. 489-92 Ap '54
Job-shop approach to mechanism analysis. J. A. Hrones. diags Machine Design 26:183-90 F '54
Linkage design; a note on one method. A. S. Hall, jr. and D. C. Tao. diags A S M E Trans 76:633-7 My '54
Simplified approach to linkage design. P. T. Nickson. bibliog diags Machine Design 25:196-209 D '53
Spring actuated linkage analysis to increase speed. R. C. Van Sickle and T. P. Goodman. il diags Product Eng 24:152-7 Jl '53

LINOLEIC acid
Chemistry of epoxy compounds; oxidation of linoleic acid with peracetic and performic acid. D. Swern and G. B. Dickel. bibliog Am Chem Soc J 76:1957-9 Ap 5 '54
Peracid oxidation of linoleic acid. A. F. McKay, N. Levitin and R. N. Jones. bibliog Am Chem Soc J 76:2383-6 My 5 '54

LINOLEUM

Rating

Linoleums. il Consumers Res Bul 32:5-9 N '53

LINSEED oil
Alkali isomerized linseed oil; abstract. P. Slansky. Paint Oil & Chem R 117:46 Jl 15 '54
Argentina's linseed oil availability for 1954. Oil Paint & Drug Rep 165:73 Je 7 '54
Linseed oil, 1949-1952. Survey of Cur Bsns 1953 Sup p 128 [supplemented in monthly numbers]
Lots of light linseed oil; Cargill's new solvent extraction plant. il Chem & Eng N 32:1660 Ap 26 '54
Preparation of styrenated linseed oils. C. Boelhouwer and others. diag Chem & Ind p 1287-9 N 28 '53; Abstract. Paint Oil & Chem R 117:34 Ja 28 '54
Products of the heat thickening of linseed oil; abstract and discussion. J. J. Sleightholme and A. J. Seavell. Chem & Ind p73-4 Ja 16 '54

LINT
Interfiber pore-size distribution in lint cotton. E. L. Skau and others. bibliog diag Textile Res J 23:798-803 N '53

LION oil refining company
Neither fish nor fowl; split between chemicals and refining. il Chem W 73:14-15 D 26 '53

LIONEL corporation
Population trends indicate record business. Barron's 33:31-2 N 16 '54

LIPASE
Effect of culture medium on lipase and esterase activities of aspergillus niger. C. V. Ramakrishnan. bibliog Chem & Ind p250-1 F 27 '54

LIPIDES
Constituents of the lipids of tubercle bacilli. J. D. Chanley and N. Polgar. Chem Soc J p 1003-8 Mr '54
Constituents of the lipids of tubercle bacilli; mycoceranic acid. N. Polgar. Chem Soc J p 1011-12 Mr '54
Constituents of the lipids of tubercle bacilli; mycolipenic acid. N. Polgar. Chem Soc J p 1008-10 Mr '54
Recent developments in the field of lipids; abstract. J. A. Lovern. Chem & Ind p511 My 23 '53
Recent developments in the study of oxidative deterioration of lipids. C. H. Lea. bibliog(60 ref) Chem & Ind p 1303-9 D 5 '53

Analysis

Displacement analysis of lipids; model mixtures of glycerides. J. G. Hamilton and R. T. Holman. bibliog Am Chem Soc J 76:4107-9 Ag 20 '54
Displacement analysis of lipids; products of the oxidation of methyl linoleate. N. A. Khan, W. O. Lundberg and R. T. Holman. bibliog Am Chem Soc J 76:1779-84 Ap 5 '54

LIPMANN, Fritz Albert, 1899-
American and British biochemists share Nobel prize. por Chem & Eng N 31:4608 N 2 '53
Nobel ceremony honors chemists. por Chem & Eng N 32:162-3 Ja 11 '54

LIPOIC acid
Hypothetical role for 6-8 thioctic acid (lipoic acid) in vision. B. S. Strauss. Science 118:330-1 S 18 '53
Synthesis of DL-α-lipoic acid. Q. F. Soper and others. bibliog Am Chem Soc J 76:4109-12 Ag 20 '54

LIQUEFACTION of coal. See Coal liquefaction

LIQUEFIED petroleum gas
Building a summer market for bottled gas on farm. il Bsns W p52-4 Ag 15 '53
Comparative utilization of energy by household electric and liquefied petroleum gas refrigerators. E. Beveridge and E. C. McCracken. Refrig Eng 62:54-6 Ja '54
Comparison of LPG, gasoline, and Diesel fuels in city-bus operation. F. C. Burk and others. Am Pet Inst Proc 33(3):132-6 '53; Same. Pet Refiner 32:119-21 Je '53; Same cond. Diesel Power 31:50-3 N '53
Fuel; LP gas provides safe, low cost operation for in-plant trucks. il Iron Age 174:154+ S 9 '54
High purity hydrogen from liquefied petroleum gas. Chem Age (Lond) 71:372 Ag 21 '54
How an oil jobber markets LP-gas. L. Castle. il Nat Pet N 45:49-52 Jl 8 '53
How to convert from LP-gas to natural. F. Foster. plans Gas Age 113:54-6+ F 25 '54

LIQUEFIED petroleum gas—*Continued*

How to keep LP plants ready for use. D. B. Seifried. Am Gas Assn Proc 1953:734-9; Same. Gas Age 112:33-5+ Jl 16 '53

LPG buses offer low cost, clean exhaust; based on papers by J. N. Jobaris and others. il S A E J 62:17-23 Mr '54

L.P.G. fuels buses. Oil & Gas J 52:71 N 9 '53

LP gas; more products burn new fuel; transportation use boosted. K. W. Bennett. Iron Age 172:117 N 12 '53

LP-gas; plus factors for sales remain. il Steel 134:75 My 10 '54

Popularity of LP-gas as tractor fuel means rural jobbers face a decision. L. Castle. Nat Pet N 45:25 Ag 26 '53

Revise LPG standards for utilities. W. R. Fraser. Am Gas Assn Mo 36:9+ Je '54

Small LP utility operations; abstract. C. M. Swan. Am Gas J 181:20 S '54

Story of LP gas. R. J. Nemmers. il diag Comp Air Mag 58:330-6 D '53

Symposium on liquefied petroleum gases. E. S. Squire and others. Inst Pet J 39: 243-56; Discussion. 256-64 My '53

Users of LPG fuels report results at SAE National fuel and lubricants meeting, Chicago. Bus Transportation 33:96 Ja '54

Volatile phase for LPG; upcurve in production and use of increasingly important chemical raw material. Chem W 74:89-90+ Je 12 '54

See also

Butane

Propane

Safety measures

LP-gas safety. Safety Maint & Prod 107: 48 Mr '54

Statistics

LP-gas sales show first signs of slowing down. Nat Pet N 45:53-4 Ag 12 '53

1953 LP-gas sales reach all-time peak. G. R. Benz and P. W. Tucker. il Gas Age 113:54-7 Ja 14 '54; Same. Pet Eng 26:E25+ Ja '54; Same cond. Am Gas Assn Mo 36:28+ Ja '54; Same cond. Oil & Gas J 52:46-8 Ja 4 '54; Same cond. Pet Processing 9:222-3 F '54; Excerpts. Pet Refiner 33:158 Ja '54; World Oil 138:184+ F 15 '54; Abstracts. Nat Pet N 46:21+ Ja 6 '54; Steel 134:74 Ja 18 '54

Sales of LP-gas rise ten per cent in 1953; tabulation. A. T. Coumbe and I. F. Avery. Gas Age 114:41-3 S 9 '54

Third of a century of LP-gas sales, 1922-52. A. T. Coumbe and I. F. Avery. U S Bur Mines Information Circ 7684:1-17 '54

Storage

How Long Island lighting co. installed and protected its underground propane tanks. W. F. Seewagen. il diags Am Gas J 179: 14-15+ N '53

How to determine sites for underground storage. H. S. Thomas. plans diag World Oil 137:102-4+ O '53

How to protect propane storage tanks. H. E. Thomas. Gas Age 112:26-7+ D 3 '53

LP-gas goes underground for storage. C. V. Kroeger. bibliog il diags Gas Age 114:17-21+ Ag 26 '54

Underground storage. D. Ball. diags Oil & Gas J 52:316+ Jl 27 '53

Transportation

Offshore unloading of liquefied gases; patent. diag Chem Eng 61:266 Ja '54

Spray loading L.P.G.; abstract. W. J. Rodgers. Oil & Gas J 52:72 N 2 '53

LIQUEFIED petroleum gas association

Annual meeting, Chicago, May 9-12. Am Gas Assn Mo 36:35 Je '54; Dom Eng 183:208 Je '54

LIQUID air

Fractionation of liquid air. L. E. A. Clare and others. Chem Age (Lond) 68:597-8 Ap 18 '53

Optical dip-stick for liquid air. J. E. Geake. diags J Sci Instr 31:260-1 Jl '54

Manufacture

Conversion of an oxygen generator to a liquid air plant. M. L. Ghai and others. flow diag il diags Refrig Eng 62:64-7+ Ag '54

LIQUID argon. See Argon, Liquid

LIQUID chlorine. See Chlorine, Liquid

LIQUID crystals

Hindered molecular rotation in liquid crystals. R. D. Spence and others. J Chem Phys 21:1891 O '53

Mesomorphic transition points of the *p,n*-alkoxybenzoic acids; a correction. G. W. Gray and B. Jones. Chem Soc J p4179-80 D '53

Mesomorphism and chemical constitution; the effect of halogen substitution on the mesomorphism of the 4-alkoxybenzoic acids. G. W. Gray and B. Jones. Chem Soc J p2556-62 Jl '54

Mesomorphism and chemical constitution; the *n*-alkoxynaphthoic acids. G. W. Gray and B. Jones. Chem Soc J p683-6 F '54

Mesomorphism and chemical constitution; the *trans-p-n*-alkoxycinnamic acids. G. W. Gray and B. Jones. Chem Soc J p 1467-70 My '54

Rotation of the microwave polarization in liquid crystals. G. A. Mann and R. D. Spence. J Ap Phys 25:271-2 F '54

Shedding light on liquid crystals; research at University of Cincinnati. il Chem & Eng N 32:2962+ Jl 26 '54

LIQUID fuel

Experimental studies on cancerigenesis of synthetic liquid fuels and petroleum substitutes. W. C. Hueper. il A M A Archives Ind Hygiene & Occup Med 8:307-27 O '53

Interior reports on synthetic fuels. Coal Age 59:148 Je '54

Liquid fuels in America. E. Ayres. Pet Refiner 32:90-3+ Ag '53

McKay to allow fuels act to expire in 1955. Oil Paint & Drug Rep 165:3+ Ja 18 '54

Methods of atomizing liquid fuel. J. R. Joyce. 2pls diags Inst Pet J 39:57-71; Discussion. 71-81, pl 1-2 F '53

Petroleum fuels. W. G. Lovell. Ind & Eng Chem 45:1426-9 Jl '53

Petroleum supplements. L. C. Kemp, jr. and H. V. Atwell. bibliog Ind & Eng Chem 45:1436-40 Jl '53

Synthetic liquid fuel plants, going, going, gone? Chem & Eng N 32:58-9 Ja 4 '54

Synthetic liquid fuels; annual report of the Secretary of the interior for 1953. bibliog 42pls U S Bur Mines Rep of Invest 5043:1-66; 5044:1-55 '54

U.S. quits synthetics. Oil & Gas J 52:58 Ja 18 '54

Will we mine oil? committee may recommend production of liquid fuels from oil shale. B. F. Linz. il Oil & Gas J 52:106-7 D 21 '53

See also

Airplane engines—Fuel

Automobile engines—Fuel

Automotive fuel

Benzol (commercial benzene)

Coal liquefaction

Diesel engines—Fuel

Fischer-Tropsch process

Gas turbines, Aircraft—Fuel

Gasoline

Internal combustion engines—Fuel

Kerosene

Liquefied petroleum gas

Oil fuel

Manufacture

Developments in the Fischer-Tropsch process. Engineering 176:297 S 4 '53

Synthetic liquid fuel processes. H. H. Storch. bibliog Ind & Eng Chem 45:1444-7 Jl '53

LIQUID helium. See Helium, Liquid

LIQUID level control

Level measurement and control methods; take your pick from these. W. B. Jarzembski. il diags Power Eng 58:74-6 F '54

Pressure switch serves as simple level control. R. Volterra. diag Chem Eng 61:232 F '54

Trends in refinery instrumentation; liquid level measurement and control. S. D. Ross and W. W. Drake. il diags Pet Eng 25: C7-10+ Ag; C 17-18+ S '53

LIQUID level indicators

Accurate sensing of liquid levels at extreme low temperatures accomplished electrically. diags Machine Design 26:116 Je '54

Apparatus for measuring small changes in liquid level. E. Kovačič. diags J Sci Instr 31:205-6 Je '54

LIQUID level indicators—*Continued*

Bureau of mines liquid-level gage. H. C. Hamontre and others. 2pls U S Bur Mines Rep of Invest 5060:1-8 '54

Electric level indicator makes inspection automatic; San Francisco brewing co. il Elec West 111:95 O '53

Electrical probe for checking water well levels. R. V. Galloway. il diag Power Eng 58:94 F '54

Level gaged by remote control. il diag Chem Eng 60:218+ Jl '53

Level measurement and control methods; take your pick from these. W. B. Jarzembski. il diags Power Eng 58:74-6 F '54

Liquid helium level indicator for metal storage dewars. W. T. Kitts and F. L. Harler. diag R Sci Instr 25:926-7 S '54

Liquid level indicator for condensed gases at low temperatures. W. E. Williams, jr. and E. Maxwell. il diags R Sci Instr 25:111-14 F '54

Liquid level measurement and control. A. L. Landesman. diags Paper Tr J 138:18+ Ja 8 '54

Low temperature liquid level indicator. Can Chem Process 38:32 Ja '54

Trends in refinery instrumentation; liquid level measurement and control. S. D. Ross and W. W. Drake. il diags Pet Eng 25:C7-10+ Ag; C 17-18+ S '53

See also

Water level indicators

LIQUID metals. See Metals, Liquid

LIQUID meters

Positive-displacement metering of liquids. R. F. McCormick. il diags Instruments 26:1035-7+ Jl '53

LIQUID oxygen. See Oxygen, Liquid

LIQUID sodium. See Sodium, Liquid

LIQUID sugar. See Sugar, Liquid

LIQUID sulfur. See Sulfur, Liquid

LIQUIDITY (economics)

Corporate working capital and liquidity. F. W. Mueller, jr. bibliog J Bsns 26:157-72 Jl '53

LIQUIDS

Anomalous flow of liquids through capillaries and measurement of viscosity. G. F. N. Calderwood, H. W. Douglas and E. W. J. Mardles. bibliog Anal Chem 25:935-7 Je '53

Apparatus for measuring thermal conductivity of liquids. H. L. Mason. bibliog diags Instruments 26:266-8 F '53

Calculation of liquid flow coefficients. R. M. Voils, jr. Instruments 26:1731-2 N '53

Cathode effects in the dielectric breakdown of liquids. J. K. Bragg and others. bibliog diags J Ap Phys 25:382-91 Mr '54

Condensation of vapors of water and immiscible organic liquids. M. Tobias and A. E. Stoppel. bibliog diag Ind & Eng Chem 46:1450-5 Jl '54

Correlation of critical temperatures with thermal expansion coefficients of organic liquids. W. T. Smith, jr., S. Greenbaum and G. P. Rutledge. J Phys Chem 58:443-7 My '54

Correlation of ternary liquid-liquid equilibria; an explanation of solutropy. G. N. Vriens and E. C. Medcalf. bibliog Ind & Eng Chem 45:1098-104 My '53

Correlation of the solubilities of gases in low-vapour-pressure liquids by an evaporation analogy. G. Burrows and F. H. Preece. bibliog diags J Ap Chem 3:451-62 O '53

Correlations between thermodynamic properties and the structure of liquids; abstract and discussion. D. H. Everett. Chem & Ind p429-30 Ap 10 '54

Densities and optical properties of organic compounds in the liquid state; the densities of aliphatic hydrocarbons. M. L. Huggins. Am Chem Soc J 76:843-5 F 5 '54

Densities and optical properties of organic compounds in the liquid state; the densities of α-substituted normal alkanes. M. L. Huggins. Am Chem Soc J 76:845-7 F 5 '54

Densities and optical properties of organic compounds in the liquid state; the densities of esters from fatty acids and normal alcohols. M. L. Huggins. Am Chem Soc J 76:847-50 F 5 '54

Densities of some binary liquid mixtures. V. S. Griffiths. Chem Soc J p860-2 Mr '54

Electromagnetic method of measurement of density or specific gravity of liquids. K. R. Honick. diags J Sci Instr 31:1-2 Ja '54

Evaporation of liquids into their superheated vapors. Ju Chin Chu, A. M. Lane and D. Conklin. bibliog diag Ind & Eng Chem 45:1586-91 Jl '53

Flow of liquids through perforated-plate liquid extraction towers. R. J. Bussolari, S. Schiff and R. E. Treybal. bibliog diag Ind & Eng Chem 45:2413-18 N '53

Heat capacity of organic liquids. W. M. Chow and J. A. Bright, jr. bibliog(33 ref) Chem Eng Prog 49:175-80 Ap '53

Heat transfer coefficients of pseudo-plastic fluids. Ju Chin Chu, F. Brown and K. G. Burridge. bibliog(27 ref) diags Ind & Eng Chem 45:1686-96 Ag '53; Correction. 46:1016 My '54

Hydrogen determination and liquid analysis with a beta-particle absorption apparatus. V. N. Smith and J. W. Otvos. il diags Anal Chem 26:359-66 F '54

Instability of liquid surfaces and the formation of drops. J. B. Keller and I. Kolodner. J Ap Phys 25:918-21 Jl '54

Liquid mixing. C. S. Quillen. il diags Chem Eng 61:186-96 Je '54

Magnetic pumps for corrosive gases and liquids. F. D. Rosen. diags R Sci Instr 24:1061-2 N '53

Mass transfer in packed towers. J. W. Tierney, jr., L. F. Stutzman and R. L. Daileader. bibliog il Ind & Eng Chem 46:1595-601 Ag '54

Mechanism of disintegration of liquid sheets. J. L. York and others. il diags A S M E Trans 75:1279-86 O '53

New standard method for the measurement of the viscosity of oils and other liquids in C.G.S. units. Inst Pet J 39:237-9 Ap '53

Onsager's theory of the dielectric constant of polar liquids. R. O. Davies and B. K. Scaife. bibliog J Chem Phys 22:148-9 Ja '54

Prediction of liquid-liquid phase equilibria. E. N. Pennington and S. J. Marwil. bibliog Ind & Eng Chem 45:1371-7 Je '53

Process kinetics; kinetics of gas-liquid reactions. R. H. Perry and R. L. Pigford. Ind & Eng Chem 45:1247-53 Je '53

Proposed method of test for density and specific gravity of liquids to the fifth place by the Bingham pycnometer. diags Am Soc T M Proc 51:303-9 '51

Quaternary liquid systems with two immiscible liquid pairs. Y. Chang and R. W. Moulton. bibliog diags Ind & Eng Chem 45:2350-61 O '53

Rapid method for the determination of the thermal conductivity of organic liquids for use in heat-transfer calculations. S. Baxter, H. A. Vodden and S. Davies. bibliog diags J Ap Chem 3:477-80 O '53

Relation between vapor pressure and viscosity of liquids. S. S. Mitra. J Chem Phys 22:349-50 F '54; Correction. 22:1471 Ag '54

Remote measurement of density of a liquid of variable surface level. S. Kawata and A. Itami. diags R Sci Instr 24:473 Je '53

Rigidity of elasto-viscous liquids. A. A. K. Ibrahim. J Ap Phys 24:364-5 Mr '53

Separation of organic liquid mixtures by thermal diffusion. A. L. Jones and E. C. Milberger. bibliog(29 ref) diag Ind & Eng Chem 45:2689-96 D '53

Shapes of floating liquid zones between solid rods. P. H. Keck and others. diags J Ap Phys 24:1479-81 D '53

Some unsolved problems of liquids and solutions. R. L. Scott. bibliog(42 ref) J Chem Educ 30:542-9 N '53

Statistical mechanical theory of transport processes; a calculation of the coefficients of shear and bulk viscosity of liquids. R. W. Zwanzig and others. J Chem Phys 21:2050-5 N '53

Thermal conductivities of some organic liquids. M. F. Dick and D. W. McCready. bibliog diag A S M E Trans 76:831-9 Jl '54

LIQUIDS—*Continued*

Thermal conductivity of liquids. J. R. Woolf and W. L. Sibbitt. bibliog diags Ind & Eng Chem 46:1947-52 S '54

Thermal conductivity of some industrial liquids from 0 to 100 C. H. L. Mason. bibliog diags A S M E Trans 76:817-21 Jl '54

Thermal diffusion in the liquid phase. J. Jeener and G. Thomaes. bibliog J Chem Phys 22:566-7 Mr '54

Thermodynamic evaluation of binary and ternary liquid systems. K. Wohl. Chem Eng Prog 49:218-19 Ap '53

Thermoelectric method of comparing intensities of ultrasonic fields in liquids. R. B. J. Palmer. il diag J Sci Instr 30:177-9 Je '53

Torpidity of stirred phlegmatic liquids. K. C. D. Hickman. diags Ind & Eng Chem 46:45-52 Ja '54

Use of capillary tubing for flow measurement. R. F. Mahood and R. Littlefield. il diag Instruments & Automation 27:460-1 Mr '54

Use of the mercury cathode in the dielectric breakdown of liquids. A. H. Sharbaugh and others. J Ap Phys 24:814-15 Je '53

Variation of the radiation pressure method of measuring sound absorption in liquids. F. L. McNamara and R. T. Beyer. il diag Acoustical Soc Am J 25:259-62 Mr '53

Volumes of mixing of some nonpolar liquids. R. Thacker and J. S. Rowlinson. bibliog J Chem Phys 21:2242-3 D '53

See also

Atomizers
Boiling points
Brownian movements
Cavitation
Dew points
Drops
Emulsions
Equation of state
Evaporation
Films
Fluids
Helium, Liquid
Hydraulics
Hydrodynamics
Inflammable liquids
Liquid fuel
Nitrogen, Liquid
Solution (chemistry)
Solvents
Surface tension
Viscosity
Water
Wetting

LIQUOR industry

Crisis over port; fall in British trade. map Economist 169:969-70 D 26 '53

Dry forces are still trying. Bsns W p76-7 D 26 '53

Gin and tonic peps up sales. il Bsns W p 110+ Ag 15 '53

Advertising

New cartoon ad series to continue; National Distillers. il Ptr Ink 244:66 Ag 14 '53

Record $5,000,000 campaign introduces luxury packaging of popular-priced liquor; Schenley Reserve fifths in gift decanter. il Ptr Ink 244:50 S 18 '53

California

Mandatory resale price maintenance of distilled spirits in California. C. F. Stewart. J Marketing 18:370-9 Ap '54

Great Britain

Scotch galore? Economist 169:973-5 D 26 '53

Vinous Christmas; consumption in Great Britain. Economist 169:955 D 26 '53

LIQUOR problem

See also

Alcoholism

LIQUORS

Alcoholic beverages, 1949-1952. Survey of Cur Bsns 1953 Sup p 134-5 [supplemented in monthly numbers]

See also

Beer
Whisky
Wine

LITERATURE, Immoral

Obscenity, 1953; Boots booklovers library, Isle of man. Economist 168:846 S 26 '53

LITERATURE and state

Writers in Soviet Russia. Economist 170:171-2, 326 Ja 16, 30 '54

LITHIUM

Atomic weight of lithium from density and X-ray data. D. A. Hutchison. bibliog Am Chem Soc J 76:967-9 F 20 '54

Cleavage of hexaphenyldisilane by sodium and lithium. A. G. Brook and H. Gilman. bibliog Am Chem Soc J 76:278-9 Ja 5 '54

Concerning the reaction of lithium, sodium and potassium ethoxide in ethanol with 2-ethylhexyl bromide. M. S. Newman and F. J. Evans, jr. Am Chem Soc J 76:4187-8 Ag 20 '54

Correlation energies and angular components of the wave functions of the ground states of H$^-$, He I, and Li II. L. C. Green and others. bibliog Phys R 93:273-9 Ja 15 '54

Enough lithium by next year. Chem & Eng N 32:1760-1 My 3 '54

Half-wave potential of lithium. W. E. Clark. Am Chem Soc J 75:6042 D 5 '53

Lithium; northeast Brazil is potential source. W. B. Mather. bibliog il maps diags Min Eng 6:Trans 897-903 S '54

Metal-water reactions; kinetics of the reaction between lithium and water vapor. B. E. Deal and H. J. Svec. bibliog Am Chem Soc J 75:6173-5 D 20 '53

Mining and milling of lithium pegmatites at Kings mountain, North Carolina. E. R. Goter and others. Econ Geol 48:326-7 Je '53

Multi-purpose lithium grease cuts power plant maintenance; Consolidated Edison's East River plant. G. H. Link. il Power Eng 58:74-5 Ag '54

Nuclear quadrupole coupling in the Li_2 molecule. R. M. Sternheimer and H. M. Foley. bibliog Phys R 92:1460-8 D 15 '53

Production of fast lithium, beryllium, boron fragments from interactions of primary cosmic-ray nuclei. J. H. Noon and others. Phys R 92:1585-6 D 15 '53

Recovering lithium by froth flotation; Foote mineral co. W. B. Lenhart. il Rock Prod 57:120-2 Je '54

Solution of the Schrödinger equation in periodic lattices with an application to metallic lithium. W. Kohn and N. Rostoker. bibliog Phys R 94:1111-20 Je 1 '54

Two liquid phases in the lithium-ethylamine system at 0°. W. H. Howland and L. F. Epstein. Am Chem Soc J 76:292 Ja 5 '54

Analysis

Determination of lithium in a magnesium alloy by the flame photometer. E. E. Strange. bibliog Anal Chem 25:650-1 Ap '53

Determination of lithium in spodumene by flame photometry. R. J. Brumbaugh and W. E. Fanus. bibliog Anal Chem 26:463-5 Mr '54

Flame spectrophotometric analysis of glasses and ores; lithium, sodium, potassium, rubidium, and cesium. J. P. Williams and P. B. Adams. bibliog Am Cer Soc J 37:306-11 Jl 1 '54

Gravimetric determination of lithium by precipitation as trilithium phosphate. E. R. Caley and G. A. Simmons, jr. bibliog Anal Chem 25:1386-9 S '53

Isotopes

Inelastic scattering of protons by Li^7. F. Mozer and others. Phys R 93:829-30 F 15 '54

Measurement of the energy of isotropic fast neutrons with Li^6 loaded plates. J. H. Roberts and others. bibliog il R Sci Instr 24:920-4 O '53

Nomograms used in analysis of data in the reaction Li$^6(n,\alpha)$H^3. M. L. Boas. R Sci Instr 24:356-9 My '53

Sign of the quadrupole interaction of Li^6 in LiCl. P. Kusch. bibliog Phys R 92:268-70 O 15 '53

Nuclear reactions

Angular distribution and cross section of Li$^6(n,\alpha)$H^3 for neutrons of 1.1, 1.5, and 2.0 Mev. J. B. Weddell and J. H. Roberts. bibliog diag Phys R 95:117-20 Jl 1 '54

Beta-alpha correlation in the decay of Li^8. S. S. Hanna and others. Phys R 95:110-11 Jl 1 '54

Charged particles from the interaction of 14-Mev neutrons with Li^6 and Li^7. G. M. Frye, jr. bibliog diags Phys R 93:1086-93 Mr 1 '54

Gamma radiation from proton bombardment of Li^7. A. A. Kraus, jr. Phys R 93:1308-10 Mr 15 '54

Gamma rays from Li^7, F^{19}, Ne^{22}, and Na^{22} produced by alpha-particle bombardment of lithium and fluorine. N. P. Heydenburg and G. M. Temmer. il diags Phys R 94:1252-7 Je 1 '54

LITHIUM—Nuclear reactions—*Continued*

$Li^7(d,p)Li^8$ yield curve. S. Bashkin. diags Phys R 95:1012-15 Ag 15 '54

Proton-neutron coincidences in the high-energy photodisintegration of lithium. M. Q. Barton and J. H. Smith. Phys R 95:573-4 Jl 15 '54

Range distribution of alpha particles following the decays of Li^8 and B^8. F. C. Gilbert. il Phys R 93:499-500 F 1 '54

Yield and angular distribution of protons from $Li^6(d,p)Li^7$. W. E. Nickell. bibliog diags Phys R 95:426-30 Jl 15 '54

LITHIUM aluminum hydride

Acid-catalyzed reduction of spirostanols and spirostenols by lithium aluminum hydride. H. M. Doukas and T. D. Fontaine. bibliog Am Chem Soc J 75:5355-6 N 5 '53

Cleavage of β-oxypropionitriles with lithium aluminum hydride. L. M. Soffer and E. W. Parrotta. bibliog Am Chem Soc J 76:3580-3 Jl 5 '54

Cleavage of steroid epidioxides with lithium aluminium hydride. G. F. Laws. Chem Soc J p4185-6 D '53

Control of lithium-aluminum-hydride fires. Safety Maint & Prod 108:27 Jl '54

Lithium aluminum hydride reduction of Grignard-nitrile adducts to primary amines. A. Pohland and H. R. Sullivan. bibliog Am Chem Soc J 75:5898-9 D 5 '53

Lithium aluminum hydride reduction of *p*-substituted stilbene oxides. A. Feldstein and C. A. VanderWerf. bibliog Am Chem Soc J 76:1626-31 Mr 20 '54

New syntheses of thiamorpholine; the reduction of mono- and diketothiazanes by lithium aluminum hydride. A. H. Sommers and B. W. Horrom. bibliog Am Chem Soc J 76:1187-8 F 20 '54

p-Menthane-2 : 3-diols; reductions of diosphenol with aluminum *iso*propoxide and with lithium aluminium hydride. A. K. Macbeth and W. G. P. Robertson. Chem Soc J p701-4 F '54

Propargylic rearrangement; 1-bromo-heneicosyne-2 and its reaction with lithium aluminum hydride. O. R. Sammul, C. A. Hollingsworth and J. H. Wotiz. bibliog Am Chem Soc J 75:4856-7 O 5 '53

Reaction of peroxides and hydroperoxides with lithium aluminum hydride. G. A. Russell. bibliog Am Chem Soc J 75:5011-13 O 20 '53

Reduction of certain 2-phenyl-4-aryl ideneoxazolones by means of lithium aluminium hydride. E. Baltazzi and R. Robinson. Chem & Ind p541 My 30 '53

Reduction of ketones by lithium aluminium hydride. D. Lloyd and J. Read. Chem & Ind p436 My 2 '53

Reduction of 2-phenyl-4-*iso*propylidene-oxazolone-5 by means of lithium aluminium hydride. E. Baltazzi and R. Robinson. Chem & Ind p868 Ag 15 '53

Reduction of some Grignard reagent-carbon dioxide adducts to primary alcohols by lithium aluminum hydride. A. P. Mathers and M. J. Pro. Am Chem Soc J 76:1182 F 20 '54

Reduction, using lithium aluminum hydride. K. R. Hargreaves. Chem & Ind p578 My 15 '54

Reduction, using lithium aluminium hydride. E. G. Peppiatt and R. J. Wicker. bibliog Chem & Ind p932-3 Jl 24 '54

Researches on acetylenic compounds; reductions with lithium aluminium hydride. E. B. Bates, E. R. H. Jones and M. C. Whiting. Chem Soc J p 1854-60 Je '54

Triazines; the reaction of cyanuric chloride with lithium aluminum hydride. C. Grundmann and E. Beyer. bibliog Am Chem Soc J 76:1948-9 Ap 5 '54

LITHIUM aluminum silicate

See also
Spodumene

LITHIUM borohydride

Direction of ring opening in the reduction of *p*-substituted styrene oxides with lithium borohydride. R. Fuchs and C. A. VanderWerf. bibliog Am Chem Soc J 76:1631-4 Mr 20 '54

LITHIUM bromide

Dissociation constant of lithium bromide in acetone. A. R. Olson and J. Konecny. bibliog Am Chem Soc J 75:5801-2 D 5 '53

Magnesium bromide-lithium bromide-water system. J. R. Heiks and A. B. Garrett. bibliog Am Chem Soc J 76:2587-90 My 5 '54

LITHIUM carbonate

New use for an old plant; lithium carbonate production. flow sheet Chem Eng 60:144+ S '53

LITHIUM chloride

Sign of the quadrupole interaction of Li^6 in LiCl. P. Kusch. bibliog Phys R 92:268-70 O 15 '53

Suppression of cyanogen bands in the direct current graphite arc by lithium chloride. R. G. Keenan and C. E. White. bibliog il Anal Chem 25:887-92 Je '53

LITHIUM compounds

Alkenylation employing lithium alkenyls; studies on alkadienyl derivatives. E. A. Braude and E. A. Evans. Chem Soc J p607-15 F '54

Carboxylation of *cis*- and *trans*-2-butenyl-2-lithium; a stereospecific synthesis of angelic acid. A. S. Dreiding and R. J. Pratt. bibliog Am Chem Soc J 76:1902-6 Ap 5 '54

Hydrocarbon products from the reactions of methyllithium and ethylmagnesium bromide with heavy metal salts. H. Gilman, R. G. Jones and L. A. Woods. bibliog Am Chem Soc J 76:3615-17 Jl 20 '54

Preparation and reactions of perfluoroalkyllithiums. O. R. Pierce, E. T. McBee and G. F. Judd. bibliog Am Chem Soc J 76:474-8 Ja 20 '54

Reaction of bis-(cyclopentadienyl)-titanium dichloride with aryllithium compounds. L. Summers and R. H. Uloth. bibliog Am Chem Soc J 76:2278-9 Ap 20 '54

Reaction of 1-methyl-2-(*t*-butyl)-benzimidazole with organolithium compounds. R. C. Elderfield and V. B. Meyer. bibliog Am Chem Soc J 76:1891-3 Ap 5 '54

Reaction of thiacyclopropanes (olefin sulfides) and thiacyclobutanes with organolithium compounds. F. G. Bordwell, H. M. Andersen and B. M. Pitt. bibliog Am Chem Soc J 76:1082-5 F 20 '54

Reaction of trimethyl-(*p*-bromophenyl)-silane with lithium dimethylamide. H. Gilman, H. W. Melvin and J. J. Goodman. Am Chem Soc J 76:3219-20 Je 20 '54

LITHIUM fluoride

Development of a quantum-mechanical model for the lithium fluoride molecule. G. C. Benson and B. M. E. van der Hoff. bibliog diag J Chem Phys 22:469-75 Mr '54

Fluoride model systems; systems $LiF-BeF_2$ and PbF_2-BeF_2. D. M. Roy and others. bibliog Am Cer Soc J 37:300-5 Jl 1 '54

Quantum-mechanical calculation of the surface energy of crystalline lithium fluoride. B. M. E. van der Hoff and G. C. Benson. bibliog diags J Chem Phys 22:475-80 Mr '54

LITHIUM hydroxide

Infrared spectra and structure of LiOH, $LiOH \cdot H_2O$ and the deuterium species; remark on fundamental frequency of OH^-. L. H. Jones. bibliog J Chem Phys 22:217-19 F '54

Lithium grease green light. Chem W 74:55-8 My 1 '54

LITHIUM oxides

Solid solutions of lithium oxide in nickel oxide. P. J. Fensham. bibliog Am Chem Soc J 76:969-71 F 20 '54

LITHIUM phosphates

Gravimetric determination of lithium by precipitation as trilithium phosphate. E. R. Caley and G. A. Simmons, jr. bibliog Anal Chem 25:1386-9 S '53

LITHIUM silicates

Phase equilibria in the system lithium metasilicate; β-eucryptite. M. K. Murthy and F. A. Hummel. bibliog Am Cer Soc J 37:14-17 Ja 1 '54

LITHOGRAPHY

Air dampening system for lithography. Franklin Inst J 225:472 Ag '53

Coated papers and the lithographic process. J. D. Payne. Tappi 36:sup 150A-2A N '53

Improved lithographers technique of checking color separations. Paper Tr J 138:23 Ap 30 '54

LITHOGRAPHY—*Continued*

Lithography and the papermaker. R. K. Newcomb. Tappi 37:sup 159A-61A Ap '54

Lithography as applied to the vitrified china industry. A. Dragonetti. il Am Cer Soc Bul 33:103-4 Ap 15 '54

Skill is often deciding factor in quality of work. C. F. King. Inland Ptr 131:47-8 Jl '53

LITHOPONE

DuPont aromatics line sold; to stop producing lithopone. Oil Paint & Drug Rep 164:5+ O 26 '53

LITTLE, Arthur D., inc.

Employee owners; A. D. Little Employees' trust buys common stock control of company. Eng N 151:89 Jl 9 '53

Employees' trust purchases. il Chem & Eng N 31:2872-4 Jl 13 '53

LITTLE Big Horn, Battle of the, 1876

Greatest news beat site will be marked; Col. Clement Augustus Lounsberry, founder of the Bismarck tribune, dispatched account of the Custer massacre. A. E. Austin. Ed & Pub 86:30 Mr 28 '53

LITTLEWOOD, William 1898-

Sketch. por S A E J 62:25 Ja '54

LIVER

Centrifugal preparation of rat liver mitochondria free of microsomes. K. L. Jackson and others. Science 118:136-7 Jl 31 '53

Conversion of glycine to serine by human liver tissue. C. M. Grossman and others. Science 118:330 S 18 '53

Effect of progesterone on rate of phosphate release from adenosine triphosphate by rat liver homogenates. H. W. Jones, jr. and R. Wade. Science 118:103-7 Jl 24 '53

Liver function and bromosulfalein disappearance. R. L. Evans. Science 117:718-19 Je 26 '53

Phosphatase activity in rat liver in relation to cells and mitochondria. J. O. Ely and M. H. Ross. bibliog Franklin Inst J 256:473-5 N '53

Soluble nucleotides of liver and muscle. J. Sacks, L. Lutwak and P. D. Hurley. bibliog Am Chem Soc J 76:424-6 Ja 20 '54

Studies on the uricase activity of rats fed *p*-dimethylaminoazobenzene. K. Mori and K. Shimojo. bibliog Science 117:683-4 Je 19 '53

Analysis

Simplified procedure for extraction and determination of vitamin A in liver. S. R. Ames, H. A. Risley and P. L. Harris. bibliog Anal Chem 26:1378-81 Ag '54

Diseases

Hepatic tumors due to prolonged ethionine feeding. H. Popper and others. bibliog il Science 118:80-2 Jl 17 '53

LIVER extracts

Ion-exchange chromatography of the products of the non-enzymatic sugar amino acid reaction, and the occurrence of the reaction in liver extracts. A. Abrams and H. Borsook. bibliog Am Chem Soc J 75:6299-301 D 20 '53

Stimulation of serine biosynthesis in pigeon liver extracts by tetrahydrofolic acid. R. L. Kisliuk and W. Sakami. Am Chem Soc J 76:1456-7 Mr 5 '54

LIVERPOOL

Liverpool. Chem & Ind p791-2 Jl 10 '54

Industries

Imperial chemical industries ltd., General chemicals division and other industries. il Chem & Ind p812-42 Jl 10 '54

Lighting

Cold cathode street lighting. il Elec R (Lond) 153:667-8 S 25 '53

LIVERPOOL university

University of Liverpool. il Chem & Ind p793-5 Jl 10 '54

LIVESTOCK

See also

Cattle industry and trade
Meat industry and trade
Swine

Diseases and pests

Chemical control of animal parasites. H. E. Harbour. bibliog Chem & Ind p651-6 Jl 4 '53

Sealing a barnyard bond; bond between livestock pathology and nutrition; Pfizer's new experimental farm and laboratories. il Chem W 72:36+ Ap 18 '53

Stock sprays. A. G. Grady. il Soap & San Chem 29:135-7+ Je '53

Statistics

Livestock, 1949-1952. Survey of Cur Bsns 1953 Sup p 143-4 [supplemented in monthly numbers]

Great Britain

Competition in livestock; NFU producers' board for marketing of fatstock. Economist 169:648 N 28 '53

Storm over livestock. Economist 169:224-6 O 24 '53

Texas

Texas story. il Manuf Rec 122:89-90 N '53

LIVESTOCK insurance. See Insurance, Livestock

LIVESTOCK judging pavilion. See Pavilions

LIVING rooms

Good plans must have good rooms. il plans House & Home 6:112-13 S '54

How to plan and sell your next house; are people really living in your living room? il House & Home 3:132-5 My '53

Living room in this house is ten different rooms in one. il plans diag House & Home 6:134-9 Jl '54

LIVING standards. See Standard of living

LIVINGSTON, Homer J. 1903-

Sketch. por Banking 46:82 N '53

LLOYD, F. H., and company, limited

Statement by the chairman. F. N. Lloyd. Economist 168:297 Jl 25 '53

LLOYD'S, London

Lloyd's adds discovery basis to bankers bonds; no added premium charge. East Underw 55:55 O 8 '54

Lloyds reinsurance hassle. L. Cartwright. Spectator 162:28-9+ Mr '54

NAIC hears arguments on Lloyd's exclusion from reinsurance rules. East Underw 55:19+ Ja 29 '54; Nat Underw 58:1+ Ja 28 '54; Weekly Underw 170:278+ Ja 30 '54

Non-marine business transacted now exceeds marine lines. Weekly Underw 171:344 Ag 14 '54

Reinsurance debate; NAIC meeting, Detroit. East Underw 55:1+ Je 11 '54; Nat Underw 58:1+ Je 10 '54; Weekly Underw 170:1457 Je 12 '54

Unlimited number of Lloyds attorneys-in-fact permitted under law. Weekly Underw 170:698 Mr 20 '54; Same abr. East Underw 55:31 Mr 26 '54

LLOYDS bank, limited

Statement by the chairman. Lord Balfour of Burleigh. Economist 170:275-8 Ja 23 '54

LOAD (mechanics)

Analysis of the dynamics of hydraulic servomotors under inertia loads and the application to design. H. Gold and others. diags A S M E Trans 75:1383-90; Discussion. 1390-4 O '53

Behaviour of metals under tensile loads of short duration. J. Gibson. bibliog diags Inst Mech Eng Proc (B) 1B no 11:536-50, pl 1-2; Discussion. 551-5 '52-53

Collapse load factor for a rigid frame structure. M. R. Horne. bibliog diags Engineering 177:210-12 F 12 '54

Designing aluminum alloy members for combined end load and bending. H. N. Hill and others. bibliog Am Soc C E Proc 79 [no 300]:1-18 O '53

Inelastic behavior of reinforced concrete members subjected to short-time static loads. L. H. N. Lee. bibliog il diags Am Soc C E Proc 79 [no 286]:1-26 S '53

Load tests of soils in the Miami area. J. C. Jureit. diag Am Soc C E Proc 79 [no 215]:1-9 Jl '53

Machine-tool load indicators. D. C. Russ, jr. il Instruments & Automation 27:1474-5 S '54

LOAD (mechanics)—*Continued*

Pile loading tests; Morganza Floodway control structure. C. I. Mansur and J. A. Focht, jr. il diags Am Soc C E Proc 79 [no 324]:1-31 N '53

Plastic deformation in beams under distributed dynamic loads. J. A. Seiler and P. S. Symonds. bibliog diags J Ap Phys 25: 556-63 My '54

Plastic stress-strain relations under radial and non-radial combined stress loading. J. Marin and J. A. Sauer. Franklin Inst J 256:119-28 Ag '53

Preventing press failures; overload relief. A. F. Gagne, jr. il diags Tool Eng 32:62-6 My '54

Properties of preloaded steel bolts. W. C. Stewart. bibliog diags Product Eng 24:191-5 N '53

Reinforced annular plates. R. Hicks. diags Engineering 177:335-6 Mr 12 '54

Rolling-mill loadmeter. S. S. Carlisle and R. B. Sims. bibliog il diags Instruments & Automation 27:940-1 Je '54

Squat load-measuring gauge. C. W. Newberry. il diags Engineering 177:339-41 Mr 12 '54

Stiffness charts for gusseted members under axial load. J. E. Goldberg. bibliog diags Am Soc C E Proc 79 [no 179]:1-15 Mr '53; Discussion. 79 [no 333]:15-16 N '53

Strength of columns elastically restrained and eccentrically loaded. P. P. Bijlaard and others. bibliog diags Am Soc C E Proc 79 [no 292]:1-52 O '53

Synchronized load control meets varying demand on hydraulic power pump. E. W. Theilig. il diag Machine Design 25:221-3 D '53

Ultimate-load design of prestressed concrete; report of technical sessions of International federation of prestressing. Engineering 176:490 O 16 '53

See also
Airplanes—Load
Bridges—Load
Strains and stresses

LOAD line

Load-line marks and their meanings. J. H. La Dage. il Marine Eng 59:49-50 My '54

LOADING and unloading

Automatic loader for gear shavers. il Tool Eng 33:117 Ag '54

Cut conveyor belt wear by proper loading. Brick & Clay Rec 124:76 Ap '54

Loading devices speed gear-shaving production. T. S. Gates. il diags Mach 61:163-70 S '54

Package loading technique. il Am Bld 76: 86-7 My '54

Shuttle car loading onto belt conveyors in thin seams; Red jacket coal corp. C. H. Williams. il plans diags Min Cong J 40: 66-8 Ap '54

See also
Coal loading machines
Dumping appliances
Freight handling

Airplanes

Airdock would revolutionize present airline methods of loading and unloading passengers, baggage, and cargo. il Mech Eng 75:492-3 Je '53

Cars

Air helps unload bulk material from rail car. il Comp Air Mag 59:55 F '54

Bulk unloading; Parker portable car shaker. il Steel 134:131 My 3 '54

Car floors vs. lift trucks. il Ry Age News ed 135:10 O 26 '53

Clark offers Pulploader. il Ry Age 136:49 F 22 '54

Damage to packaged food and how to avoid it when shipping by rail. diags Food Eng 26:75-7+ Mr '54

End rocking tipplers for railway wagons; Strachan and Henshaw, ltd. il plans diags Engineer 196:341-4 S 11 '53

Evaluation of carloading methods and packages by split load shipments. J. G. Turk. diags Glass Ind 35:195-6+ Ap '54

Evans 6-car auto loader. il Ry Age 136:53 Mr 8 '54

Fosdalens steel scraper ramp speeds up mine car loading. il diags Eng & Min J 155:94-5 Ag '54

How to save time and labor in receiving raw materials. R. W. Spain. il Cer Ind 62:92-3 Je '54

Movable stops block sheets, coil in C&O's new gondola car. il Iron Age 173:78 My 13 '54

PRR unveils new ore-unloading terminal. plan Ry Age 136:45-7 Mr 15 '54

Procedure for unloading and storing raw materials. R. W. Spain. Cer Ind 63:73-4 Ag '54

Prompt loading and unloading will effect savings by eliminating demurrage penalties. T. W. Rodes. map Ind & Eng Chem 45:sup 114A+ Je '53

Ramp puts more cars on rails. il Iron Age 173:103 Mr 4 '54

Ramp to end-load trailers on flats. il Ry Age 136:65 Mr 22 '54

Shakes balkiness out of bulks. T. S. Abbott. il diags Food Eng 25:97-8+ N '53

Slash rail car unloading costs with railcart handling system; illustrations with text. Brick & Clay Rec 124:62-3 F '54

3-D transport; portable magnesium ramp. il Mill & Factory 54:138 F '54

See also
Car dumpers

Motor trucks

Adapt lift gate for MultiPak unloading. H. J. Schaefer. il Brick & Clay Rec 124:64-5 Je '54

Anthony develops unusual unloading system. diags Brick & Clay Rec 124:58-9 Ja '54

Automatic truck-loading of masonry units; Post Costa brick works. K. R. MacDonald. il Rock Prod 57:197+ Je '54

Boosts hauling capacity by unique loading; Drain tile co. il Brick & Clay Rec 124:55 Je '54

Case of the competent competitor; Boren brick co.; illustrations with text. Brick & Clay Rec 125:68-9 S '54

Conveyorized handling; fewer trucks move more material faster in transfer operations; Ford motor co. il Steel 133:326-7 O 12 '53; Same cond. Iron Age 172:64-5 O 22 '53

Cut loading-unloading time in half with magic muscle; A. C. Ochs brick and tile co. il Brick & Clay Rec 125:59-60 Ag '54

Design new loader-unloader at Palmetto Brick. C. P. Godfrey. il Brick & Clay Rec 125:56-7 Ag '54

Fast unloading of lorries. Engineering 177: 219 F 12 '54

Fuel distribution depot; Austin Beales and co. il Engineer 196:603 N 6 '53; Engineering 176:605 N 6 '53

Handling steel bar stock. Steel 133:227+ D 7 '53

How to unload a flatbed truck of loose brick; illustrations with text. Brick & Clay Rec 125:68-9 S '54

Loadings sped by take-em-all pallet system; Golden age beverage co. il Food Eng 25: 135 N '53

Lorry crane attachment. il Engineer 196: 674 N 20 '53

Mechanized dock ramps and how to pick them. C. W. Choromanski. il diags Food Eng 26:90-1+ Ag '54

One-man loading system; Beer distributors, inc. il Food Eng 26:125+ Jl '54

Push-button truck loading; Philadelphia & Reading's Oak Hill breaker. il Coal Age 59:68-9 Ja '54

Sawtooth piers bite into loading problems. il Safety Maint & Prod 107:67 F '54

Solves load-unload problem with inexpensive device; Port Costa brick works. il Brick & Clay Rec 124:84-5 Mr '54

Speeding up block deliveries; Fizzano bros., inc. W. B. Lenhart. il diags Rock Prod 57: 209-10 Ag '54

Stockpiling and loading equipment; Hyloveyor and a Loband loader. il Engineering 176:822 D 25 '53

LOADING and unloading—*Continued*

Ships

Fairless works ore and coal unloaders. L. Naruns. il Iron & Steel Eng 30:140+ D '53

Import ore handling, machines and practices. E. M. Hays. il diags Iron & Steel Eng 31: 84-90; Discussion. 90-4 Ag '54

New unloading tower goes into operation on Baltimore pier. il Iron & Steel Eng 31: 162+ Ja '54

Oak Creek's fair-weather slip saves money, speeds coal handling; illustrations with text. Power Eng 57:62-3 N '53

Offshore unloading of liquefied gases; patent. diag Chem Eng 61:266 Ja '54

Operation molasses. il Food Eng 26:94-5 F '54

Palletizing lowers shipping costs. H. G. Williams. il Marine Eng 59:47-8 Jl '54

Sugar thrower. il Engineer 196:751-2 D 4 '53

Unit loading and palletisation; symposium. Engineering 176:522 O 23 '53

Unloading phosphate rock by suction gear. il Chem Age (Lond) 69:872 O 24 '53

Tank barges

High-capacity barge unloading at Baton Rouge terminus. F. L. Resen. il diags Oil & Gas J 52:255-7 S 21 '53

Tank cars

Loading tank cars; spray loading technique. W. J. Rodgers. diag Pet Refiner 33:151-3 Ja '54; Same cond. Oil & Gas J 52:92-4 Ja 11 '54

Tank ships

Queen Elizabeth II dock; discharging large oil tankers. il Engineering 177:153-5 Ja 29 '54

Tank trucks

Pumps hasten delivery of oil. Blast F & Steel Pl 42:572 My '54

LOADING machines

Barber-Greene tractor windrow loader, medium size. il Constr Methods 36:138+ S '54

Machine loading at Renabie mines. P. S. Cross. diags Eng & Min J 155:75-7 Ja '54

New one-yd. Speedall loader with torque converter; Pettibone Mulliken corp. P. E. Lundquist. il Roads & Eng Constr 92:88 F '54

Power shovel and loader; RetroLoader. il Engineer 196:785 D 11 '53

Versatile loader unit for Oliver OC-3 tractor. il Pub Works 85:124 F '54

LOANS

CPA's problem when restrictive clauses in loan agreements are unclear or inconsistent. R. Baldwin. J Account 96:190-2 Ag '53; Discussion. E. R. Morris. 97:150+; Reply. 153-4 F '54

See also

Credit
Credit, Bank
Government loans and grants
Interest
Mortgages
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Veterans—Loans

LOANS, Bank

Bank advances before and after reduction in bank rate. Economist 168:806 S 19 '53

Bank credit and money in 1953. Fed Res Bul 40:119-24 F '54

Bank loan pricing. C. F. Nagel. Burroughs Clearing House 38:7-8 N '53

Bank loans start climbing. Bsns W p 128+ S 19 '53

Banker gets chummy; keeping a closer eye on how his loan customers run their businesses. Bsns W p 123-4+ N 21 '53

Banking and the securities market. A. H. Cook. Comm & Fin Chr 178:1438-9 O 15 '53

Banking will still be banking; loan policies for period of economic adjustment. E. L. Worstall. Bankers Mo 70:7-8+ D '53

Banks cooperate in stock purchase plan; Green, Ellis & Anderson, New York. Burroughs Clearing House 38:9-10 D '53

Biggest banks shun loans on agents' renewals but smaller ones seek them. Nat Underw (Life ed) 58:7 Jl 30 '54

Canadian banks to enter home mortgage loan field. J. Montagnes. Barron's 33:20 N 30 '53

Credit outlook. G. Champion. Comm & Fin Chr 179:449+ Ja 28 '54

Education on the installment plan; Rensselaer polytechnic institute of Troy collaborates with Manufacturers national bank. L. V. Shakespeare. il Bankers Mo 70:28+ Ag '53

Equipment loans; good business for banks. Eng N 152:99 Ja 28 '54

Industrial financing. Steel 133:42 Ag 24 '53

Interpretations of regulations T and U; arranging for extensions of credit to be made by a bank. Fed Res Bul 39:950-1 S '53

Is life insurance too expensive? bank loan plan. F. L. Morton. Spectator 162:52-4 Ap '54

Judging future loan volume. E. C. Zorn, jr. Banking 46:59-61 Ag '53

Let speculators take the chances! why and how of hedging in futures markets. A. G. Osgood. il Bankers Mo 71:17-18+ Ja '54

Loan management. M. J. Drake. Banking 46:50+ Ag '53

Loans must be paid; Bank of America, San Francisco. J. B. Grassens. Bankers Mo 70: 16+ Ag '53

Management important in securing loans. E. McElvaney. World Oil 137:64-5 D '53

Marketing soundness as a basis for bank loans. R. A. Rich. Comm & Fin Chr 178: 1533+ O 22 '53

New mortgage program for chartered banks; Canadian banks. J. Montagnes. il Burroughs Clearing House 38:79 F '54

New premium finance plan devised by A. C. Stevens. Weekly Underw 169:1157-8 N 14 '53; Same cond. East Underw 54:25 N 6 '53

New seasonal pattern for loans? Bsns W p68+ N 14 '53

1954 inventories; problem on opportunity? L. A. Benoist. il Bankers Mo 70:5-6+ N '53

Outlook and condition of business (semiannual credit policy commission survey), by Federal reserve districts. Banking 46: 33-7+ F '54

Risk capital idea spreads. Burroughs Clearing House 38:15 O '53

SBA and the banks. W. B. Barnes. Banking 46:57+ Ja '54

Sound shopping centers are planned! P. Hanna. il Bankers Mo 70:14+ O '53

They called it gypsy paper; banks rate experience in financing mobile homes. K. Marten. il Bankers Mo 71:36+ F '54

What are the common aims of bankers, accountants, and businessmen-borrowers? W. G. F. Price. J Account 96:474-7 O '53

What the commercial banker will ask. F. C. Windisch. N A C A Bul 34:994-1003 Ap '53

What the C.C.C. loan plan means to banking. E. Tyng. il Burroughs Clearing House 38:32-3+ N '53

See also

Agricultural credit
Banks and banking—Appliance purchase financing
Veterans—Loans

Instalment payment

Bank instalment lending being stabilized. J. Reilley. Comm & Fin Chr 178:1645 O 29 '53

Commercial banks and consumer credits. R. O. Bonnell. Comm & Fin Chr 178:123+ Ag 27 '53

Instalment credit; a policy for today. A. A. Friedrich. Banking 46:55-6+ N '53

Reexamining the risk aspects of instalment lending. W. W. McCarthy. il Burroughs Clearing House 37:34-5+ Ag '53

LOANS, Foreign

Latin America expresses anxiety over possible new loan restrictions. Eng N 151:73-4 Ag 20 '53

Protection provided for overseas loans; role of Export-import bank. E. Stone. Spectator 162:32-3+ Je '54

See also

Export-Import bank of Washington

LOANS, Small

Confirmation procedures for small loan companies. R. S. Johns. J Account 97:606-7 My '54

See also

Credit unions

LOANS, Small—*Continued*

Laws and regulations

Massachusetts premium finance law. East Underw 54:34 N 6 '53

LOBBIES (architecture)

$100,000 value for $40,000; lobby remodeling, office building, New York city. il Arch Forum 99:118 N '53

Two ways to remodel lobbies. il Arch Forum 100:142-3 My '54

LOBBYING

No letup in need for advertising lobbies. R. Y. Giles. Ptr Ink 244:21 S 11 '53

LOBSTERS

Live lobsters shipped by air in new package. il Food Eng 26:198 S '54

LOCAL anesthetics. See Anesthetics, Local

LOCAL government

Local democracy in action. Economist 170:148 Ja 16 '54

Finance

Cheaper local loans; Public works loan board rates for new loans to local authorities. Economist 169:265-6 O 24 '53

Relationship to rents; latest PWLB changes. Economist 169:266 O 24 '53

LOCATING (machine work)

Automatic position gaging. H. E. Grimes. il diags Instruments & Automation 27:1078-9 Jl '54

Automatic spacing table solves machining problem. il Mill & Factory 54:121 Ja '54

Spacing holes on bolt circles. F. E. Riley. il diags Power Eng 57:100+ D '53

Split-jaw chuck locates work positively. W. C. Betz. diags Mach 60:211-12 Je '54

LOCATION in industry

Ahead on points; U.S. rubber co. legal battle over erection of laboratory in Wayne township, N.J. Chem W 74:101-2+ Ap 24 '54

Cross-country scouting party; Socony-Vacuum Oil trying new tactic. il Chem W 75:24-5 S 11 '54

Industrial location trends in Chicago in comparison to population growth. L. G. Reeder. maps Land Econ 30:177-82 My '54

No carpetbagging here; Rayonier, inc. inaugurates its mills at Jesup, Ga. Chem W 75:22+ Jl 24 '54

Rolling center of gravity; chemical process industries roving south and west. il map Chem W 75:20-1 S 25 '54

See also

Factories—Location

Industry—Decentralization

Office buildings, Industrial—Location

Warehouses—Location

LOCKERS

Why New Haven owns parcel lockers. il Ry Age 136:38-40 Je 7 '54

LOCKHEED aircraft corporation

Companies with high earnings; with comparative balance sheet items. Mag of Wall St 93:254 N 28 '53

Connie cutbacks; military orders squeeze Lockheed civil output. R. Balentine. Aviation W 59:14-15 N 9 '53

LOCKING devices

Accurate locking for position, and retention of electronic assemblies under shock and vibration. il diags Machine Design 26:132 Mr '54

Cylinder rod end locker gains favor. diag Aviation W 59:48+ S 14 '53

Positive-locking inserts. Steel 133:311 O 12 '53

LOCKS (hydraulic engineering)

Construction difficulties overcome in completing Monongahela locks no. 2. L. L. Brink. il diags Civil Eng 24:213-16 Ap '54

New Eastham oil dock; electro-hydraulic operation of lock gates. il Elec R (Lond) 154:181-4 Ja 29 '54

Precise control for lock 27. B. Frick and S. S. Browne. il diag Westinghouse Eng 13:184-7 N '53

LOCOMOTIVE boilers

Condensing locomotives for the South African railways. il diags Engineering 177:250-1 F 19 '54

See also

Master boilermakers' association

Cleaning

Cleaning and testing steam generator coils; report of Master boiler makers' association. Ry Loco & Cars 127:66-7 N '53

LOCOMOTIVE industry

Engineering industry; the locomotive and rolling stock industries. Engineering 175:263-6; 177:170-3 F 27 '53, F 5 '54

See also

American locomotive company

Statistics

Locomotives, 1949-1952. Survey of Cur Bsns 1953 Sup p 193-4 [supplemented in monthly numbers]

LOCOMOTIVE maintenance officers' association

Annual meeting, Chicago. Diesel Power 31:57 N '53

Annual meeting, Chicago, Sept. 14-16; with committee reports. Ry Loco & Cars 127:85-91+ N '53

LOCOMOTIVE shops

Automatic ventilation features Ontario Northland shop. il Ry Loco & Cars 128:50 Ja '54

Katy converts repair and servicing facilities to Diesel work. il plans diag Ry Loco & Cars 127:45-51 D '53

Old enginehouse, after conversion to Diesel service cleaned and brightened with sprayed-on fire-retardant coating. il Ry Age 135:58-9 N 2 '53

What kind of shops for Diesel maintenance? il Ry Age 136:33-5 Je 21 '54

Workers in ancient C&O shop lay out plans for remodeling. il Bsns W p27 N 14 '53

Equipment

Diesel shop ideas on Chicago belt. il Ry Loco & Cars 128:67-8 Mr '54

Handling reversers without damage. il Ry Loco & Cars 128:64-5 F '54

Light-weight dolly for moving traction motors. il Ry Loco & Cars 128:55 Ja '54

Motor and truck mover. il Ry Loco & Cars 128:74 Ap '54

New Rock Island Diesel shop. il plan diags Ry Age 135:44-7 D 28 '53

New York Central Diesel wheel maintenance. il Ry Loco & Cars 128:70-1 Je '54

$90,000 Diesel shop for TP-MP. il diags Ry Age 135:110-11 N 16 '53

Layout

IHB converts Gibson terminal for Diesel work. il plans Ry Loco & Cars 127:97-101 N '53; Same cond. Ry Age 135:60-2 N 2 '53

Ontario Northland builds Diesel shop of latest design. il plan diag Ry Age 135:51-3 N 30 '53

Lighting

Lighting the big shop. il Ry Loco & Cars 128:69-72 S '54

LOCOMOTIVES

Atomic locomotive, a feasibility study; abstract. L. B. Borst and others. diags Ind & Eng Chem 46:sup 11A+ Ap '54

Atomic locomotive; how soon? L. B. Borst. il diag Chem & Eng N 32:816-17 Mr 1 '54

Atomic power for locomotives? il diag Ry Age 136:15 F 22 '54

British-built locomotives of 1953. il Engineer 197:33-5, pl 7 Ja 1 '54

British railways 2-10-0 heavy freight locomotive. il diag Engineer 197:165-7 Ja 29 '54; Engineering 177:158-9 Ja 29 '54

Class 25 4-8-4 locomotives for South Africa. il diag Engineer 197:275-7 F 19 '54; Engineering 177:250-1 F 19 '54

Design for an atomic locomotive. L. B. Borst. diags Ry Loco & Cars 128:51-5 My '54; Same. Ry Age 136:58-63 Je 14 '54; Abstract. il Power 98:105-6 Ap '54

French locomotive experiences. E. H. Livesay. il plan diags Engineer 197:269-72, 304-8, 338-41, 377-9, 413-14, 450-2, 484-7, 521-4, 556-8, 593-6, 704-7, 736-9, 773-5, 808-11, 844-7 F 19-Ap 23, My 14-Je 11 '54

Iron horse pulls publicity; St Louis-San Francisco railroad giving away its fifth locomotive in a year. il Bsns W p82-3 D 5 '53

LOCOMOTIVES—*Continued*

Locomotive 2300; Norfolk and Western. il Manuf Rec 123:35 Jl '54

Locomotives for the Spanish national railways. il Engineer 197:206 F 5 '54

Progress in railway mechanical engineering, 1952-1953. bibliog il plans diags Mech Eng 76:236-47, 334-42 Mr-Ap '54

Standard class 2 tank locomotives for British railways. il Engineer 196:301 S 4 '53; diags Engineering 176:348-9 S 11 '53

Years of transition. R. C. Bond. Engineer 196:410-12 S 25 '53; Abstract. Engineering 176:439-40 O 2 '53

See also
Electric locomotives
Locomotive boilers

Cleaning

See also
Locomotives, Diesel-electric—Cleaning

Efficiency

Improving the efficiency of steam locomotives. Engineering 177:274 F 26 '54

Failure

Annual report. Ry Loco & Cars 128:63-5 Mr '54; Excerpts. Ry Age 136:17 Mr 8 '54

Fuel

New coaling station for N&W. il Ry Age 135:93-5 N 16 '53

History

Great locomotive class; G.W.R. Saint class engines. R. J. Doran. il Engineer 196:631-2 N 13 '53

Standard locomotives in India 50 years ago. E. C. Poultney. il Engineering 176:801-3 D 25 '53

Maintenance and repair

See also
Locomotive shops

Performance

Improving modern locomotive performance. O. S. Nock. il Engineer 197:202-5, 236-9 F 5-12 '54

Reconstruction

See also
Locomotives, Diesel-electric—Reconstruction

Smoke problem

Investigation of the burning characteristics of pulverized cinders. J. M. Allen. diags A S M E Trans 75:1333-7 O '53

Springs

Locomotive truck spring compressors. il Ry Loco & Cars 128:68-9 Ap '54

Statistics

Motive power ordered in 1953. H. C. Wilcox and F. C. Miles. il Ry Age 136:189-94 Ja 11 '54

Valves and valve gear

Locomotive valve gears. E. C. Poultney. Engineer 196:762-3 D 11 '53; Discussion. 196:812-13 D 18 '53

Wheels

Wheel manufacturer looks at railroading. C. B. Bryant. Mech Eng 76:255-8+ Mr '54

See also
Locomotives, Diesel—Wheels

LOCOMOTIVES, Diesel

Development of permissible requirements for safe underground Diesel haulage. M. A. Elliott and R. S. James. U S Bur Mines Information Circ 7673:1-12 bibliog(31 titles, p 11-12) '53

Diesel-hydraulic locomotive for Tasmania. il Engineer 197:181 Ja 29 '54

Diesel hydraulic locomotives for Mauritius. il Engineer 196:673-4 N 20 '53; Engineering 176:651 N 20 '53

Diesels; rail victory is complete. R. D. Raddant. Iron Age 172:41-2 Jl 30 '53

Reviewing some air filtration principles for locomotives. H. E. Donovan. il Diesel Power 32:53-5 Jl '54

Ruston and Hornsby narrow-gauge Diesel locomotives. il Engineer 197:403 Mr 12 '54; Engineering 177:346 Mr 12 '54

Standardization of Diesel brake equipment; report of Air brake association. Ry Loco & Cars 127:76-7 N '53

Fuel

Economics of using low-grade Diesel fuels in GM engines. W. K. Simpson. il Ry Loco & Cars 128:60-2 S '54

Performance of Alco Diesel engines on low grade fuels. H. R. Sennstrom. il Ry Loco & Cars 128:58-60 S '54

What prospects today for lower-cost Diesel fuel? F. A. L. Holloway; J. W. Ryznar. Ry Age 137:48-52 S 6 '54

Standards

Standardizing parts on Diesel locomotives. C. K. Steins. Mech Eng 76:29-30 Ja '54

Study and teaching

Diesel instruction car shown in Reading terminal exhibit. il Ry Age News ed 135:32-3 D 7 '53; Same cond. Ry Loco & Cars 128:49 Ja '54

Testing

Performance of Alco Diesel engines on low grade fuels. H. R. Sennstrom. il Ry Loco & Cars 128:58-60 S '54

Wheels

Control wheel slip to reduce flashovers. J. R. Schoonover and H. R. Stiger. il diag Diesel Power 32:104-7+ Ap '54; Same. Ry Loco & Cars 128:71-5 My '54

Defects in Diesel wheels; report of Locomotive maintenance officers' association. il Ry Loco & Cars 127:90-1+ N '53

Inspecting Diesel wheels; report of Locomotive maintenance officers' association. il Ry Loco & Cars 127:86-7 N '53

Measurement of stresses imposed on wheels in Diesel-locomotive service. L. L. Olson. il diags A S M E Trans 76:613-16 My '54

New York Central Diesel wheel maintenance. il Ry Loco & Cars 128:70-1 Je '54

Wheels maintained exclusively by grinding. il Ry Loco & Cars 128:37-41 Ja '54; Excerpt. Ry Age News ed 135:23 D 21 '53

LOCOMOTIVES, Diesel-electric

Alco's DL-600 designed for three classes of service. il Ry Loco & Cars 128:51-4 Mr '54

Aluminum rides the rails; aluminum conductors for wiring locomotives. M. W. Bellis and N. J. Hochanadel. il Ry Loco & Cars 128:65-6 Ag '54

American Locomotive Diesel-electric locomotives; questions and answers. Ry Loco & Cars 128:78+ Ag '54

B&M orders 55 RDCs and 12 Diesels. Ry Age 137:10 Jl 5 '54

Comparative performance; rectifier-type locomotives vs. Diesels. F. D. Brown. Ry Age 136:67 Mr 8 '54

Crandic goes Diesel. il Ry Age 137:69-71 S 20 '54

Diesel-electric locomotive ground relays; abstract. G. R. McDonald. diags Elec Eng 72:877 O '53

Diesel-electric locomotives (cont). Ry Loco & Cars 127:82+ D '53; 128:66, 72 Ja; 80+ F; 70 Mr; 82 My; 86-8 Je '54

Diesel-electric locomotives for Australia. il plan diag Engineer 197:361-2 Mr 5 '54; Engineering 177:316-17 Mr 5 '54; Elec R (Lond) 154:403-5 Mr 5 '54

Diesel-electric locomotives for western Australia. il Engineering 177:50-1 Ja 8 '54

Diesel-electric locomotives in Canada; abstract. J. D. Sylvester and D. F. Haney. il Elec Eng 72:926 O '53

Diesel-electric shunting locomotives. il Engineer 197:259 F 12 '54; Engineering 177:248-9 F 19 '54

Diesel-electrics for Indonesia. J. K. Erzer and A. C. Siciliano. il diag Ry Loco & Cars 128:55-7 Ap '54

LOCOMOTIVES, Diesel-electric—*Continued*

Diesel-electrics; how to keep 'em rolling (cont). H. R. Hill and others. il diags Ry Loco & Cars 127:111-16+ N; 71-6 D '53; 128:72-7 F; 77-82 Ap '54

Diesel engines for use in Diesel-electric locomotives; tabulation. Automotive Ind 110: 273 Mr 15 '54

Diesel locomotives; mechanical and electrical fundamentals. J. Draney. 344p $4.85 American technical society, 850 E. 58th st, Chicago '54

Diesel power on the Santa Fe. il Diesel Power 31:57 D '53

Electro-motive announces ten new Diesel locomotive models. il Ry Loco & Cars 128: 33-6 Ja '54

Fairbanks-Morse Diesel-electric locomotives; questions and answers. Ry Loco & Cars 128:67-8 Jl; 80+ Ag; 88-9 S '54

From fuel rack to coupler. M. C. Swanson and D. W. McLaughlin. Ry Loco & Cars 128:70-3 Ag '54

GM announces ten new models. il Ry Age News ed 135:28-30 N 9 '53

General Motors Diesel-electric locomotives; questions and answers. Ry Loco & Cars 128:64+ Jl; 76+ Ag; 84+ S '54

High-capacity all-service Diesel. il Ry Age 136:22-4 Mr 1 '54

How cycling Diesels pays. G. T. Bevan. il Ry Age 135:109-10+ D 14 '53

Increasing locomotive air filter efficiency. F. J. Hanley and others. il diag Diesel Power 32:37-41 F '54

Instructing Diesel enginemen. J. S. Swan. Ry Loco & Cars 127:81-2 N '53

Jumper test for short, ground or continuity under load; Diesel locomotive control circuit jumpers. il Ry Loco & Cars 128:69 Ag '54

Locomotives for Australia. il diag Elec J 152: 102-4 Ja 8 '54

Madison Hill Dieselized. il Diesel Power 32:53 Je '54

Meter-gage Diesel-electrics for Brazil. E. E. Martin. il Ry Loco & Cars 128:42-3 Jl '54

Motive power ordered in 1953. H. C. Wilcox and F. C. Miles. il Ry Age 136:189-94 Ja 11 '54

Multi-purpose locomotive; DL-600 latest addition to Alco. il Diesel Power 32:38-9 Je '54

Now, Talgos on U.S. railroads. il diags Diesel Power 32:38-41 Ag '54

Output of GM Diesel increased by 250 hp. il Automotive Ind 109:51 D 15 '53

Preview of EMD's '54 line. il Diesel Power 31:42-4 D '53

Reading exhibits new equipment. il Diesel Power 31:50-1 D '53

Research and engineering progress, 1953; rail. il Gen Elec R 57:36-8 Ja '54

Steel handling; Diesel-electric switcher cuts production delays; Sharon steel corp. il Iron Age 172:138+ S 3 '53

Steelmill locomotive meets tough operating conditions. il Iron Age 172:140+ O 15 '53

These army Diesels are versatile. A. J. Broadfoot. il Ry Age News ed 135:19-20 D 7 '53

Washing and cleaning Diesel water tanks; report of Master boiler makers' association. diag Ry Loco & Cars 127:67-8 N '53

What's new in locomotive wiring. W. S. O'Kelly and W. F. Powers. il Ry Loco & Cars 128:55-7 Jl '54

Whistles for the B&O. il Diesel Power 32:60 Je '54

Cleaning

How to clean Diesel parts economically. il plan Ry Loco & Cars 128:60-2 Mr '54

Straight-line engine cleaning. il plan Ry Age 136:53-4 Ja 25 '54

When and where to use what cleaning method. il Ry Loco & Cars 128:73-6 S '54

Cost of operation

What price Diesel maintenance? H. F. Brown and R. L. Kimball. Ry Age 136:68-9 F 8 '54

Lubrication

Lubrication of Diesel engines; report of Locomotive maintenance officers' association. Ry Loco & Cars 127:87-9 N '53

Maintenance and repair

From the Diesel maintainer's note book. G. Taylor. Ry Loco & Cars 128:70-1 F; 82-3 Mr; 73-4 Ap; 80 My; 77 Je; 60-1 Jl; 77-8 S '54

Handling reversers without damage. il Ry Loco & Cars 128:64-5 F '54

How the PRR uses non-destructive testing; Magnaflux inspection. H. T. Cover. il Ry Age 135:48-9+ D 28 '53

Ideas for the Diesel repair man; illustrations with text. Ry Loco & Cars 128:72-4 Je; 50-2 Jl; 50-3 Ag '54

Katy converts repair and servicing facilities to Diesel work. il plans diag Ry Loco & Cars 127:45-51 D '53

Lehigh Valley applies premachined ring carriers. A. B. Birney. il Ry Loco & Cars 128: 46-8 Ja '54

Let's keep them up-to-date. N. W. Seip. il Ry Loco & Cars 128:75-6 Je '54

Main bearing bore alignment by telescope; Leitz alignment telescope. il Ry Loco & Cars 128:66-7 S '54

Maintaining Diesel locomotive electrical equipment. W. H. Eunson and T. L. Weybrew. Ry Loco & Cars 128:76-9 My; 81-4 Je '54

Over 6,000 cylinder heads reclaimed by welding. il Ry Loco & Cars 127:52-7+ D '53

Rewiring of Diesel locomotives. Ry Loco & Cars 127:106-7 N '53

Training Diesel personnel: report of Locomotive maintenance officers' association. Ry Loco & Cars 127:89-90 N '53

Truck disassembled in 30 minutes. il Ry Loco & Cars 127:108-9 N '53

Two men strip Diesel trucks in 30-35 minutes. il Ry Loco & Cars 128:44-6 Jl '54

What kind of shops for Diesel maintenance? il Ry Age 136:33-5 Je 21 '54

What price Diesel maintenance? H. F. Brown and R. L. Kimball. Ry Age 136:68-9 F 8 '54

What's good Diesel maintenance? il Ry Age 137:32-5 Jl 26 '54

Rating

How to rate Diesel locomotives. Ry Age 137: 54-8 Ag 9 '54

Reconstruction

Electro-Motive division's rebuilding program. il Diesel Power 32:48-9 Ja '54

Testing

Diesel-electric locomotive tests; report on performance and efficiency. Elec R (Lond) 153:490-1 S 4 '53

Performance and efficiency tests on S.R. Diesel electric locomotive. O. S. Nock. diags Engineer 196:424-7, 451-3 O 2-9 '53

LOCOMOTIVES, Electric. See Electric locomotives

LOCOMOTIVES, Fireless

Bagnall fireless locomotive for Huncoat power station. il Engineering 176:608 N 6 '53

LOCOMOTIVES, Gas turbine

Building a gas-turbine switcher. diags Ry Age 136:52 Ja 25 '54

Gas turbines and the motive-power problem. P. A. McGee. Ry Loco & Cars 128: 47-51+ F '54

North British locomotive co. design for a coal-burning gas-turbine locomotive. Engineering 177:39 Ja 8 '54

Still another new fuel studied for railroad locomotive use, propane. Pet Processing 8:971 Jl '53

LOCOMOTIVES, Gas turbine-electric

Ash separation the key to coal-burning turbine progress; abstracts. J. I. Yellott and P. R. Broadley. il diags Ry Age 136:44-7 Ap 19 '54; Power 98:94-5+ My '54

Gas-turbine operation extended; Union Pacific. il Ry Age 137:62 S 20 '54

Gas turbines and the motive-power problem; abstracts. P. A. McGee. Ry Loco & Cars 128:47-51+ F '54; S A E J 62:66-70 Ag '54

New locomotive fuel; first test runs of propane-powered turbine-electric unit. D. H. Stormont. il Oil & Gas J 52:95-6 D 14 '53

Propane locomotive, a new era in power? L. J. Grunder. il Nat Pet N 45:53-4 Jl 8 '53

Trial of no. 52. il Gen Elec R 56:44-8 N '53

LOCOMOTIVES, Gas turbine-electric—*Cont.*

Turbine locomotive shipped to N&W. il Ry Age 136:9 My 31 '54

Union Pacific gas-turbines. il Ry Age 136: 25-7+ Ap 12 '54

Where the gas turbine locomotive is heading. il Ry Loco & Cars 128:61-4 Je '54

LOCOMOTIVES, Industrial

Bagnall fireless locomotive for Huncoat power station. il Engineering 176:608 N 6 '53

Diesel-electric shunting locomotives. il Engineer 197:259 F 12 '54; Engineering 177: 248-9 F 19 '54

Ruston and Hornsby narrow-gauge Diesel locomotives. il Engineer 197:403 Mr 12 '54; Engineering 177:346 Mr 12 '54

Steel handling; Diesel-electric switcher cuts production delays; Sharon steel corp. il Iron Age 172:138+ S 3 '53

Steelmill locomotive meets tough operating conditions. il Iron Age 172:140+ O 15 '53

Utmost dependability and 96 per cent availability here; U.S. Steel's Fairless works. il Ry Age News ed 135:22 D 21 '53

See also

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LOCOMOTIVES, Mine

Development of permissible requirements for safe underground Diesel haulage. M. A. Elliott and R. S. James. U S Bur Mines Information Circ 7673:1-12 bibliog(31 titles, p 11-12) '53

Late developments in mining at Carlsbad. A. B. Chafetz and E. C. Skinner. il Min Cong J 40:72-3 Ap '54

See also

Electric locomotives, Mine

LOCOMOTIVES, Steam turbine-electric

Jawn Henry; new steam-turbine-electric unit. il diag Ry Loco & Cars 128:41-3 Ag '54; Same cond. Ry Age 137:30-1 Jl 26 '54

LOCUST bean gum

Investigation of the reasons for increase in paper strength when locust bean gum is used as a beater adhesive. H. J. Leech. bibliog Tappi 37:343-9 Ag '54

Measurement of retention of locust bean gum by analysis of sugar units. H. J. Leech. bibliog Tappi 37:290-4 Jl '54

LOCUSTS. See Grasshoppers

LOESS

Molluscan faunules in Wisconsinan loess at Cleveland, Ohio. A. B. Leonard. bibliog Am J Sci 251:369-76, pl 1 My '53

Sangamon soil and early Wisconsin loesses at Cleveland, Ohio. G. W. White. bibliog diag Am J Sci 251:362-8 My '53

LOGGING. See Lumbering

LOGGING roads. See Forest roads

LOGIC, Symbolic and mathematical

Theory of logical nets. A. W. Burks and J. B. Wright. diags Inst Radio Eng Proc 41:1357-65 O '53

LOGIC machines

First circuit for an electrical logic-machine. W. Mays. diag Science 118:281-2 S 4 '53

LOGISTICS

Logistics computer. R. S. Erickson. il diags Inst Radio Eng Proc 41:1325-32 O '53

LOGS of wells. See Petroleum—Well logging

LOGWOOD

Natural dyewoods and their application. H. R. Tisdale. Am Dyestuff Rep 43:157-9+ Mr 15 '54

Study of certain natural dyes. F. M. Arshid and others. bibliog diags Soc Dyers & Col J 70:392-412 S '54

LOLIUM. See Grasses

LOMB, Adolph, medal

Adolph Lomb medal to William M. Sinton. Opt Soc Am J 44:577 Jl '54

LONDON

Across the water; London county council plans for development along south bank of Thames. Economist 169:236 O 24 '53

LCC converted; dispersing population and industry from London. Economist 169:876 D 19 '53

Phœnix too frightful? City of London rebuilding schemes. Economist 170:216-18 Ja 23 '54

South Bank; esthetics is respectable. il plan Arch Rec 115:174-5 My '54

Architecture

London's newest building; Time & Life building. il Arch Forum 99:110-13 Ag '53

Harbor

Docks of London. W. P. Shepherd-Barron. Engineer 196:585-7 N 6 '53; Abstract. Engineering 176:637 N 13 '53

Hotels, restaurants, etc.

Battle for a hotel; H. Samuel trying to grab control of Savoy hotel co. Bsns W p 156-7 D 12 '53

Industries

Ancient and modern textile production in London and the home countries. E. Goodale. Soc Dyers & Col J 69:317-28 S '53

Lighting

Fluorescent lighting in London. il Elec R (Lond) 154:528 Mr 19 '54

Rapid transit

London fares increase. Economist 168:280 Jl 25 '53

Sanitary affairs

Fog and deaths in London, Dec. 1952. J. A. Scott. Pub Health Rep 68:474-9 My '53

Subway

Improved ventilation of London tube railways. Engineering 176:712 D 4 '53

Surrey Docks substation. il Engineer 196: 438-40 O 2 '53; Engineering 176:437-8 O 2 '53; Elec J 151:945-7 S 25 '53; Elec R (Lond) 153:725-7 O 2 '53

Wear of electric railway rolling stock. A. W. Manser. Engineering 177:145 Ja 29 '54

Water supply

London's water supply; fifty years' progress. Engineering 177:189 F 5 '54

Progress of the Metropolitan water board's new works in 1953. il Engineer 197:219-20 F 5 '54

LONDON and Manchester assurance company, limited

Statement by the chairman. Lord Grantchester. Economist 168:210-11 Jl 18 '53

LONDON and overseas freighters, limited

Statement by the chairman. B. M. Mavroleon. Economist 168:65-6 Jl 4 '53

LONDON metal exchange

Freedom returns to the metals. Economist 168:399-400 Ag 8 '53

LONDON stock exchange

Aquarium for the City's zoo; London stock exchange visitors' gallery. Economist 169: 510 N 14 '53

Bulls in the market. Economist 169:113-14+ O 10 '53

Freedom to switch; British owners of Canadian securities are free to switch into other stocks, Canadian or U.S. Bsns W p 127-8 Ag 29 '53

New financial facilities in London. P. Einzig. Comm & Fin Chr 178:1339 O 8 '53

New gallery opened to the public. Economist 169:360 O 31 '53

Second thoughts in the markets. Economist 168:871-2 S 26 '53

Tale of two markets; London and Wall Street. Economist 168:802+ S 19 '53

LONDON tin corporation, limited

Statement by the chairman. J. I. Spens. Economist 169:138+ O 10 '53

LONDON university

Queen Elizabeth college (formerly King's college of household and social sciences)

Queen Elizabeth college. A. Jackman. il Chem & Ind p550-2 Je 6 '53

LONE star gas company

Lone Star dates back to 1909. il map World Oil 138:199-202 Ja '54

LONE star steel company

Lone star steel company gives the South another source of steel; with list of contractors and equipment manufacturers. C. Longenecker. flow sheet il plans Blast F & Steel Pl 42:198-226 F '54

LONG ASHTON research station. See Agricultural experiment stations

LONG ISLAND lighting company

Bonds offered. Comm & Fin Chr 178:1878 N 16 '53

Stock offered. Comm & Fin Chr 178:1475 O 19 '53

LONG ISLAND railroad

Long Island bankruptcy ends. Ry Age 137:7-8 Ag 23 '54

LI car improvement plans contingent on fare increase. Ry Age News ed 135:40-1 N 9 '53

New plan proposed. Ry Age 136:11-12 My 31 '54

LONGEVITY

Chemistry and the life span. W. H. Sebrell, jr. Chem & Eng N 31:4670-3+ N 9 '53

Edge on age; chemical agents to retard aging process in humans. il Chem W 74:32-3 Mr 6 '54

See also

Old age

LONGIFOLENE

Chemical approach to the structure of longifolene. P. Naffa and G. Ourisson. diags Chem & Ind p917-18 Ag 29 '53

Molecular configuration of longifolene hydrochloride. R. H. Moffett and D. Rogers. diags Chem & Ind p916-17 Ag 29 '53

Molecular rotations in the series of longifolene and β-santalene. G. Ourisson. bibliog Chem & Ind p918-19 Ag 29 '53

Structure of longifolene. U. R. Nayak and S. Dev. Chem & Ind p989 Ag 7 '54

Structure of longifolene; the longifolic acids. H. H. Zeiss and M. Arakawa. bibliog Am Chem Soc J 76:1653-4 Mr 20 '54

LONGITUDE

All for the purpose of marking time. D. C. Holly. il U S Naval Inst Proc 79:302-9 Mr '53

LONGSHOREMEN

AFL plays for high stakes. il Bsns W p 172+ O 3 '53

Cleanup-law strike shuts down New York waterfront. il Bsns W p30-1 D 5 '53

No port in this storm; only brave work piers at New York. il Chem W 74:84 Ap 10 '54

Serious question of amount recovered in third party-workmen's compensation action posed high court; Gulf-Tide stevedores and Texas employers insurance association vs Hugh A. Voris. Nat Underw 58:5 Jl 8 '54

Violence flares on piers then police clamp down. il Bsns W p 176 O 17 '53

See also

International longshoremen's association

LONGSHOREMEN'S association, International. See International longshoremen's association

LONGWALL system. See Coal mines and mining—Longwall system

LOOMS

Crompton & Knowles introduces seven looms. il Textile World 104:107-8+ Ap '54

Draper unveils seven looms. il Textile World 104:110-11+ Ap '54

Good and bad tools for fixing looms. W. C. Westbrook. il Textile World 104:114-15 Jl '54

How to align X-2 loom lays for smooth-running looms. R. B. Pressley. diags Textile World 104:110-11+ Je '54

Increase loom production up to five per cent with lizards. W. C. Westbrook. il Textile World 104:108-9+ F '54

Loom let-off minimizes set marks. il Textile World 104:141 Je '54

Modern ideas in weaving machinery. F. M. Fitzgerald. Mod Textiles Mag 35:89-90 Ap '54

More-versatile looms attract weavers' attention. R. B. Pressley. Textile World 104:89 F '54

New loom air conditioned for efficient weaving operation. R. M. Anderson. diag Heating-Piping 25:101 D '53

New loom eliminates need for high humidity in weaving rooms. Heat & Ven 50:124+ N '53

1953 review of new equipment; weaving. il diags Textile World 103:114-16+ N '53

Put on beam-stand extensions to run long and short beams. A. J. Poe. diag Textile World 104:160 Je '54

Revolutionary ideas in Hunt HB-3 loom. il Mod Textiles Mag 34:31 N '53

Richard Haase & co. low-built loom is quiet running. il Textile World 103:162 N '53

Scheduled style changing keeps looms running; Hathaway mfg. co. R. B. Pressley. il Textile World 104:89+ Ap '54

Set up loom assignments for maximum profit; Ashcroft numbers. T. F. O'Connor. Textile World 103:134-5+ D '53

Stop motion on race plates helps heavy-yarn weaving. W. Wagner. diag Textile World 104:128 Ap '54

Textile recorder exhibition, Manchester. E. J. D. Poole. Textile Inst J 44:P763-5 N '53

Three new loom let-offs control all types of warps. il Textile World 104:120 My '54

What are they doing about looms for man-made fibers? il Mod Textiles Mag 35:32-3+ Ja '54

What's the minimum filling reserve on C&K all-purpose looms? E. P. Schremp. il Textile World 104:78+ S '54

See also

Shuttles

Maintenance and repair

Four ways to reduce broken picks. W. C. Westbrook. il Textile World 104:94-5+ S '54

Georgia Textile operating executives weaving discussion; keeping looms running. Textile World 103:130+ D '53

Service harness motions to keep your looms running. W. C. Westbrook. diags Textile World 104:106-7 Mr '54

Ten steps to help supervisors inspect 300 looms per hour. W. C. Westbrook. il Textile World 104:70-1+ My '54

What one mill is doing to keep looms modern. R. B. Pressley. il Textile World 104:98-9+ My '54

LORENTZ equation

Nomogram for the evaluation of blackbody radiancy and of peak and total intensities for spectral lines with Lorentz contour. R. W. Kavanagh and S. S. Penner. Opt Soc Am J 43:383-4 My '53

Radiation from isolated spectral lines with combined Doppler and Lorentz broadening. S. S. Penner and R. W. Kavanagh. bibliog Opt Soc Am J 43:385-8 My '53

LORENTZ-Kamerlingh Onnes conference on electron physics

Centenary conference, Leiden, June 22-27. Science 118:393-9 O 9 '53

LOS ANGELES

Hotels, restaurants, etc.

Statler center, Los Angeles. il plans Arch Rec 113:127-36 My '53

Industries

L.A. way; no plunge but an easygoing push. Bsns W p 118-20+ O 10 '53

Rapid transit

U.S. may get its first monorail; transportation system for Los Angeles may be approved. T. M. Rohan. Iron Age 173:93 Ap 1 '54

Sanitary affairs

Industrial waste treatment and disposal at government synthetic rubber plants. A. E. Martin and R. E. Rostenbach. il diags Ind & Eng Chem 45:2680-6 D '53

Los Angeles refiners are blamed for smog. Nat Pet N 45:27 D 9 '53

Stanford research institute puts the spotlight on LA smog. il Chem & Eng N 32:3256+ Ag 16 '54

Uproar over smog. Bsns W p 158 N 14 '53

Waste disposal. A. M. Rawn. Ind & Eng Chem 45:2677-9 D '53

Sewerage

How Los Angeles handles sewer maintenance. il Pub Works 85:119-20+ My '54

Sewage disposal plans contested. Eng N 152:26 F 25 '54

LOS ANGELES—Sewerage—*Continued*

Sewer maintenance practice. W. A. Schneider. Sewage & Ind Wastes 26:222-8 F '54; Abstract. Water & Sewage Works 101:90 F '54; Discussion. M. B. Nixon. Sewage & Ind Wastes 26:228-9 F '54

LOS ANGELES stock exchange

Weekly record. Published in weekly Monday numbers of Commercial and financial chronicle

LOST wax process

And now the white collar foundry; Precision castparts corp. D. Kearton. il Elec West 111:91 O '53

Close tolerance castings; investment castings. M. W. Riley. il Materials & Methods 40:131-4 S '54

Cut tool costs, simplify design with precision casting; Western electric co. S. Snorek. il Iron Age 173:136-9 F 11 '54

Design and dimensional control for investment castings. R. L. Wood. il Foundry 82:120-1+ S '54

Found; lost-wax profits; army ordnance producing small gun castings at Watervliet. Steel 133:133 Ag 3 '53

Foundry completes new investment casting facilities; Howard foundry co. il Foundry 82:94-7+ Ag '54

Foundry specializes in close-tolerance castings; AiResearch mfg. co. F. Warga. il Foundry 82:124-7 Ap '54

Investment casting institute spring meeting, Cleveland, May 5-6. Foundry 82:178 Je '54

Investment casting review and forecast. il Iron Age 173:322-3 Ja 7 '54

Investment casting, when and how to use it. E. Engel. il Tool Eng 32:77-80 F '54

Investment castings; their gross sales will pass the $100-million mark this year. Steel 133:75 Jl 6 '53

Investment pays off. il Steel 134:48 My 17 '54

Lost wax, teeth go nature one better. I. L. Cook. il Iron Age 173:76 Mr 18 '54

Making castings by shell mold and investment processes; abstract. R. R. Dohrman. Metal Prog 65:196+ F '54

New techniques shorten investment casting cycle; W. H. Anderson co. W. G. Patton. il Iron Age 173:115-17 Ja 28 '54

Part needs determine best casting method. D. Von Ludwig. il Iron Age 172:128-32 S 3 '53

Take a close look at investment casting. il Steel 135:104-5 Ag 23 '54

Tolerances and specifications for precision investment castings. W. O. Sweeny. il diags Mech Eng 75:456-7+ Je '53

LOTIONS

See also
Sunburn

LOTTERIES

Lure of the giveaway. il Bsns W p41-2+ S 26 '53

LOTTERIES, Government

Saving by lottery. Economist 169:686+ N 28 '53

LOUCKS, Charles E. 1895-

Veep of the Chemical corps. pors Chem & Eng N 32:2975, cover Jl 26 '54

LOUD speaking apparatus

Audio amplifier matches voice-coil impedance. K. Onder. bibliog diags Electronics 27:176-9 F '54; Discussion. W. E. Blumberg. 27:382+; Reply. 384 Je '54

Docks broadcasting installation. Elec R (Lond) 153:746 O 2 '53

Drive-in theater dub'l cone in-a-car speaker. J. R. Hoff. il diag Soc Motion Picture & Tv Eng J 60:721-3 Je '53

Electronics goes to the fair. R. Burdette. il Radio & Tv N 50:73+ S '53

Exponential horn design; nomographs and instructions. J. F. Sodaro. diags Radio & Tv N 50:71-3 N '53

Investigation of the air chamber of horn type loudspeakers. B. H. Smith. diags Acoustical Soc Am J 25:305-12 Mr '53

Long playing record society preamp control unit. J. M. Diamond. il diags Radio & Tv N 50:74-5+ O '53

Loudness control. M. H. Estkowski. diag Radio & Tv N 50:54-5 O '53

Loudspeakers and amplifiers for use with stereophonic reproduction in the theater. J. K. Hilliard. il diags Soc Motion Picture & Tv Eng J 61:380-9 pt 2 S '53

Loudspeakers and microphones for auditory perspective; reprinted from Bell system technical journal, April 1934. E. C. Wente and A. L. Thuras. bibliog il diag Soc Motion Picture & Tv Eng J 61:431-46 pt 2 S '53

New line of hi-fi speakers. H. F. Olson and J. Preston. il diags Radio & Tv N 51:69-73+ F '54

Preventing acoustic feedback. B. Wolfe. diag Tele-Tech 12:77+ D '53

Railroad yard loudspeaker systems. L. G. Sands. il Radio & Tv N 50:51-3 N '53

Transient loading of a baffled piston. J. W. Miles. Acoustical Soc Am J 25:200-3 Mr '53

Transient loading of a baffled strip. J. W. Miles. Acoustical Soc Am J 25:204-5 Mr '53

Unique amplifier features phase shift for 3D effect. A. R. Wilson. il diags Radio & Tv N 50:80-2 N '53

Why power plant sound systems? A. W. Schneider. il Power Eng 58:66-8 S '54

Cabinets

Compleat fidelity. D. V. R. Drenner. il diags Radio & Tv N 50:57+ N; 52+ D '53

DU-201 Duette. il diags Radio & Tv N 51:39 F '54

Diffusicone-8 enclosure. A. B. Cohen. il diags Radio & Tv N 51:55+ Mr '54

Fold-a-flex; all-purpose loudspeaker enclosure. O. Read. diags Radio & Tv N 50:67+ O '53

Improving the Fold-a-flex. il diags Radio & Tv N 50:68-9 N '53

Increased profits from custom building. J. B. Ledbetter. il diags Radio & Tv N 50:48-9+ N '53

Karlson speaker enclosure. J. E. Karlson. il diags Radio & Tv N 51:58-60+ Ja '54

Klipsch Rebel IV; back-loading folded corner horn. F. I. Kantor. il diags Radio & Tv N 50:48-9 O '53

Purist; a non-corner horn. E. J. Gately, jr. and T. A. Benham. il diags Radio & Tv N 50:56-7+ D '53

Super horn; folded horn enclosure. E. J. Gately, jr. and T. A. Benham. il diags Radio & Tv N 50:38-9 S '53

Ultrasonic U-25 enclosure. E. C. Reynolds. il diags Radio & Tv N 50:83+ N '53

Manufacture

Loudspeaker magnetizer at Stromberg-Carlson plant. il Electronics 26:305-7 D '53

Renting

Rent your sound system; Stromberg-Carlson version of the leased-equipment idea. Bsns W p52+ N 28 '53

LOUDNESS. See Sound

LOUGHLIN, Kenneth Clarke

Pioneering starts tomorrow. pors Mod Textiles Mag 35:35+, cover Ap '54

LOUGHREN, Arthur V. 1902-

Sketch. por Inst Radio Eng Proc 41:1698 D '53

LOUISIANA

See also
Architecture, Domestic—Louisiana
Chemical industries—Louisiana
Petroleum—Louisiana
Petroleum industry and trade—Louisiana

LOUISIANA land and exploration company

Security I like best. H. J. Low. Comm & Fin Chr 178:1618+ O 29 '53

LOUISVILLE, Kentucky

City's needs inventoried; $287-million plan results. Eng N 152:61-2 Ja 7 '54

Industries

Louisville story; four factors spark its industrial expansion. il Steel 135:63-5+ Ag 9 '54

LOUISVILLE and Nashville railroad
Five candidates for extra dividends; with comparative balance sheet items. Mag of Wall St 93:200 N 14 '53
Railroad securities. Comm & Fin Chr 178: 1135 S 24 '53

LOUNSBERRY, Clement Augustus, 1843-1926
Greatest news beat site will be marked; founder of the Bismarck tribune, dispatched account of the Custer massacre. A. E. Austin. Ed & Pub 86:30 Mr 28 '53

LOUSE powder. See Lice

LOUVERS
Pressure loss of air flowing through 45-degree wooden louvers. P. R. Cobb. bibliog il diag Heating-Piping 25:123-8 D '53; Abstract. Heat & Ven 51:94 Mr '54; Discussion. Heating-Piping 26:172-3 Mr '54
Sun-control louvers are factory-engineered for site assembly. il diags Arch Forum 99: 150+ Ag '53

LOVEJOY, Edwin W.
Mr Wireless. C. H. Bowers. Radio & Tv N 50:173 D '53

LOW temperature. See Temperature, Low

LOW temperature laboratories. See Cryogenic laboratories

LOWRY, Erwin Foster, 1891-
Dr Erwin F. Lowry awarded I.E.S. gold medal. por Illum Eng 49:sup5A My '54

LOYALTY ISLANDS
Coral reefs of the Loyalty Islands. F. R. Haeberle. maps diags Am J Sci 250:655-66 S '52; Discussion. P. Routhier. 251:470-1; Reply. 472-3 Je '53

LUBRICATING grease institute, National. See National lubricating grease institute

LUBRICATING greases
Better lube for corn pickers. il Nat Pet N 45:57 S 9 '53
Better multi-purpose grease. R. B. White. il Min Cong J 39:66 D '53
Electron microscope view of a soap. H. M. Allred. il Chem & Eng N 32:714 F 22 '54
Factors affecting performance of high temperature greases. E. L. Armstrong. bibliog diags Iron & Steel Eng 31:167-74; Discussion. 174-6 S '54
Lithium grease green light. Chem W 74:55-8 My 1 '54
Multi-purpose grease approach to lubrication. G. H. Link. il diag Product Eng 24:174-7 Jl '53
Multi-purpose lithium grease cuts power plant maintenance; Consolidated Edison's East River plant. G. H. Link. il Power Eng 58:74-5 Ag '54
One lube, applied on schedule, pays off. A. Petrone. il Constr Methods 36:138+ Jl '54
Oxidized petroleum wax forms superior grease base. J. C. Kirk and E. W. Nelson. Oil & Gas J 52:97-8 Ja 11 '54
Structure of lubricating greases and its control. J. B. Matthews. bibliog 2pls Inst Pet J 39:265-75 My '53
Super greases for supersonics; National lubricating grease institute meeting, Chicago. Chem & Eng N 31:4776 N 16 '53
Thixotropy in greases. Pet Eng 25:C42 S '53
Tips on the lubrication of anti-friction bearings. V. B. Yardley. il Mill & Factory 53:82-4 D '53

Manufacture

Modern grease plant goes on stream; British American oil company's Clarkson refinery. C. O. Rinearson and C. W. Nofsinger. il diag Pet Refiner 32:155-7 O '53
Strip heaters provide uniform temperature distribution. C. L. Stapel. il Elec World 140:138 O 5 '53

Testing

Tests of launching greases; abstracts and discussion. J. Brown and J. M. Ferguson. Engineer 196:422-3 O 2 '53; Engineering 176:468-9 O 9 '53

LUBRICATING oil industry
Better lube marketing urged. Nat Pet N 45: 20 D 2 '53
Here's what is keeping lube ratios in a skid. Nat Pet N 45:53 Je 24 '53
How a jobber built up own brand. M. Reid. il Nat Pet N 45:39-43 Ag 19 '53
Jobber scores with private-brand oil; Colorado petroleum products co. il Nat Pet N 45:43+ D 16 '53
Law and lubricating oil. D. C. O'Hara. bibliog Am Pet Inst Proc 32(2):40-3 '52
Lube parade of progress. J. E. Dyer. Am Pet Inst Proc 33(2):42-4 '53
Motor oil ratios at stations show signs of leveling off. maps Nat Pet N 46:21-4 F 3 '54
Motor oil sales have a big potential. H. Ridder. Nat Pet N 45:52-3 Je 24 '53
Motor oil sales ratios skid to record low. H. Ridder. map Nat Pet N 45:29-31+ Je 10 '53

Advertising

How Sinclair advertises its 500 products. H. D. Hadley. il Adv Agency 47:70-1+ Ag '54
Pennsylvania oil fights back; launching an aggressive magazine advertising campaign. Nat Pet N 46:20 F 3 '54

Statistics

Lubricants, 1949-1952. Survey of Cur Bsns 1953 Sup p 172 [supplemented in monthly numbers]

LUBRICATING oils
Carry-home motor oil; Sears' economical six-can carton. il Mod Packaging 27:105-7 D '53
Combustion chamber deposits as related to carbon-forming properties of motor oils. J. D. Bartleson and E. C. Hughes. bibliog il Ind & Eng Chem 45:1501-8 Jl '53
Detergency of carbon black; the stability and mechanism of settling of carbon black dispersions in organic liquids. F. H. Garner and others. bibliog Inst Pet J 39:677-87 O '53
Developing aviation fuels and lubricants. C. B. Davies. il diag Roy Aeronautical Soc J 57:700-8 N '53
Effect of fuels and lubricants on preignition. R. K. Williams and J. R. Landis. S A E J 62:48-50 Ja '54
Effect of lubricant composition on combustion chamber deposits. J. G. McNab and others. S A E J 62:52-7 Jl '54
Filters and purifiers for oil circulating systems. J. S. McKeown. il diags Paper Tr J 138:22-5 Mr 19; 26-9 Mr 26 '54; Same cond. Diesel Power 32:74-80 Ap '54
Foaming and aeration of oils in aviation powerplant. R. Tourret. bibliog(31 titles) diags Roy Aeronautical Soc J 58:53-60 Ja '54
How to prevent oil film whirl in journal bearings. R. S. Sherwood. bibliog diags Machine Design 25:163-8 D '53
Is life of your lube oil too short? C. W. Nichols, jr. Power 98:94-5 Mr '54
Kendall motor oil nominated to packaging's Hall of fame. il Mod Packaging 27:104-9, cover N '53
Lubricating oils in the twentieth century; abstract and discussion. H. Macarthur. Chem & Ind p483-4 My 16 '53
Lubrication characteristics of synthetic lubricants at high sliding velocities. R. L. Johnson and others. Machine Design 25:284+ N '53
Motor oils; life expectancy? W. G. Perriguey. il Am Pet Inst Proc 32(2):31-9 '52
New API system of service classifications. G. A. Round. Am Pet Inst Proc 32(2):44-7 '52
New twist on lubes. Chem W 72:46+ Ap 11 '53
Oil whip of flexible rotors. A. C. Hagg and P. C. Warner. bibliog il diags A S M E Trans 75:1339-44 O '53
Outboard motors and their lubrication; abstract. S A E J 62:84+ F '54
Pour point depression of lubricating oils. G. Gavlin, E. A. Swire and S. P. Jones, jr. bibliog il Ind & Eng Chem 45:2327-35 O '53
Relationship between characterization factor and viscosity index. W. L. Nelson. Oil & Gas J 52:346 N 16 '53
Significance of viscosity index. W. L. Nelson. Oil & Gas J 52:150 Jl 13 '53
Solubility of gases in lubricating oils and fuels. R. R. Baldwin and S. G. Daniel. bibliog diags Inst Pet J 39:105-24 F '53

LUBRICATING oils—*Continued*

Spontaneous ignition of lubricating oils. C. E. Frank, A. U. Blackham and D. E. Swarts. bibliog diags Ind & Eng Chem 45:1753-9 Ag '53

Steel mill lubrication problems. A. C. Keiser, jr. and others. diags Iron & Steel Eng 31:177-82; Discussion. 182-4 S '54

Synthetics help meet stiff lube needs of turboengines; report of forum on synthetic oils for aircraft gas turbines. R. I. Cross. il diags S A E J 62:32-8 Mr '54

Trends in engine lubrication; abstract. F. W. Lawrence. Automobile Eng 44:250 Je '54

Twenty-five years of crankcase oil performance. E. Bartholomew. il Am Pet Inst Proc 33(2):45-52 '53

Why auto races are key to Bardahl's promotion. J. M. Haydon. il Sales Management 70:54+ My 20 '53

Worm gearing lubrication. Automobile Eng 44:325 Ag '54

See also

Oil reclamation

Analysis

Determination of a hindered phenol in lubricating oils by infrared absorption. E. Poti and others. Anal Chem 25:1461-3 O '53

Determination of barium, calcium, and zinc in lubricating oils; use of fluorescent X-ray spectroscopy. E. N. Davis and R. A. Van Nordstrand. bibliog il diags Anal Chem 26:973-7 Je '54

Fast spectro method for trace determinations in lube oils. J. T. Rozsa and L. E. Zeeb. bibliog il Pet Processing 8:1708-12 N '53

Principles of elution chromatography as applied to separation of lubricating oil components. G. E. Irish and A. C. Karbum. bibliog Anal Chem 26:1445-51 S '54

Spectrochemical determination of copper in turbine oils. J. E. Barney, 2d. Anal Chem 26:567-8 Mr '54

Use of the polarograph in the determination of lead in gasoline engine fuel, lubricants, and deposits. B. W. Swanson and P. H. Daniels. diag Inst Pet J 39:487-97 Ag '53

Usefulness of oil analysis in the evaluation of engine lubricating oils. K. Fleming and J. Hughes. Inst Pet J 39:518-24 Ag '53

Manufacture

After-filters remove wax haze. D. P. Thornton, jr. il diag Pet Processing 8:1697-9 N '53

Application of lubricating oil additives. W. D. Thomas. Pet Eng (Ref annual) 25:C21+ Jl 15 '53; Excerpt. Oil & Gas J 52:126 Ja 11 '54

Automatic oil blending; new installation at Manchester oil refinery. il Chem Age (Lond) 70:367 F 6 '54; Chem & Ind p 153-4 F 6 '54

Factors affecting percolation yields. E. J. Reeves. Pet Eng 25:C23-4 Jl '53

Lube plant operating; new Deep Rock facility at Cushing. G. L. Farrar. flow diag il Oil & Gas J 52:214-15 Jl 27 '53

Thermofor continuous percolation. L. P. Evans and others. flow diags il diags Am Pet Inst Proc 33(3):79-89 '53; Same. Pet Refiner 32:117-22 My '53; Same cond. Oil & Gas J 52:116-18+ Je 8 '53; Discussion. Am Pet Inst Proc 33(3):89-90 '53

Three electric processes; electric lube oil treating. flow diag Pet Refiner 32:129 S '53

U.S. refineries producing lubricating oils; tabulation. Pet Eng 25:C50 Je '53

Specifications

Engine oils; S.A.E. numbers and their significance. R. H. Warring. Automobile Eng 44:235-6 Je '54

Symposium on the API motor-oil service classification after its first year of existence. il Am Pet Inst Proc 33(2):89-93 '53

Testing

Automatic tester for oil oxidation. il Pet Processing 8:1524-7 O '53

Broad look at engine-oil testing. G. H. S. Snyder and others. bibliog il diag Am Pet Inst Proc 33(3):184-201 '53

Development of an inexpensive engine test for examining the bearing corrosion and detergency aspects of additive lubricating oils. C. O. R. Bell. 4pls Inst Pet J 39:638-49; Discussion. 650-75 S '53

Electron microscope study of the performance of a detergent oil; abstract. J. B. Peri. S A E J 62:40-1 Mr '54

Evaluation of engine lubricating oils. N. Kendall. 2pls diags Inst Pet J 39:26-50 Ja '53

Evaluation of h.d. oils by means of small petrol engines. G. H. J. Simmons. Inst Pet J 39:623-31; Discussion. 650-75 S '53

Field studies on gasolines and motor oils under severe service conditions. J. G. McNab bibliog il Am Pet Inst Proc 33(3):178-83 '53

Friction and consumption characteristics of motor oils; effect of viscosity index improvers. D. Frazier, A. R. Klingel and R. C. Tupa. bibliog Ind & Eng Chem 45:2336-42 O '53

How does the makeup rate affect life span of your turbine oil? H. H. Zuidema. il Power 98:108-9 Je '54

Many tests show qualities of engine lubricating oils. W. A. Gruse. il Pet Eng 25:C23-4+ D '53; 26:C9-10+ Ja '54

Performance characteristics of MIL-O-2104 lubricants in army heavy-duty service. N. C. Penfold and N. L. Klein. bibliog Am Pet Inst Proc 33(3):202-6 '53

Proposed method of test for kinematic viscosity. bibliog Am Soc T M Proc 51:320-8 '51

Quickie extreme pressure tests of gear lubes can mislead you. diags Power 98:120-1 Ja '54

Stool pigeon; new role for lube oil. il Eng N 151:110+ Ag 13 '53

Symposium on engine testing of lubricating oils. bibliog 5pls Inst Pet J 39:501-80 Ag '53

Symposium on examination of used lubricating oils. J. B. Matthews and others. bibliog 6pls Inst Pet J 39:429-75; Discussion. 476-86 Jl '53

Testing of i.c. engine lubricating oils by the Blogro engine under spark compression ignition conditions. R. J. S. Perry. 4pls diag Inst Pet J 39:632-7; Discussion. 650-75 S '53

Use of the Petter AV1 Diesel engine for testing additive treated oils. A. Towle and P. E. B. Vaile. 16pls diags Inst Pet J 39:581-623; Discussion. 650-75 S '53

Used lube oil test every 20 minutes. il Pet Processing 8:1363-4 S '53

LUBRICATION and lubricants

Aliphatic esters. G. Cohen and others. bibliog(38 ref) Ind & Eng Chem 45:1766-75 Ag '53

Are you pinning down causes for rolling-contact bearing failures? J. Sparks. il Power 97:120-1+ D '53

Bearings, lubricants, and lubrication; a digest of 1952 literature. Mech Eng 75:801-8 bibliog(124 titles, p806-8) O '53

Coatings in cold forming dual role makes lubricant doubly important. S. Spring. il Steel 134:116-19 Mr 8 '54

Experiments in hydrodynamic lubrication using water as a lubricant. S. Abramovitz. diags J Ap Phys 24:1521-2 D '53

Facts about modern industrial lubrication. il diags Mill & Factory 54:194-5 My '54

Fluorochemical 101, a remedy for that cloudy sight glass. il Diesel Power 32:53 Ag '54

Gear lubrication; abstract. N. Blamforth. Engineering 176:632 N 13 '53

Guide to roller-chain lubrication and maintenance. diags Power 98:124-5 S '54

How colloidal graphite protects bearing surfaces. H. Warburton. Iron Age 172:135-6 Jl 9 '53

How lubrication helps your wire rope live longer. W. I. Lex. Power 98:132-3+ My '54

Hydrostatic lubrication; a way to break the law of friction. T. L. Corey and E. M. Kipp. diags Steel 135:118-19 Ag 16 '54

Lubricants for metalworking operations in the nonferrous metals industry; abstract. Metal Prog 66:144 S '54

LUBRICATION and lubricants—*Continued*
Lubrication. Nat Safety N 69:192+ Mr '54
Lubrication. R. W. Clark and others. il diags Chem Eng 61:211-28 Jl '54
Lubrication, can you simplify your system? P. D. Hobson. Steel 134:154-5 F 8 '54
Lubrication requirements of gears as seen by a gear engineer. L. J. Collins. il Power 97:102-3 D '53
Method described for evaluation of lubricants in powder metallurgy. I. Sheinhartz and others. bibliog diag J Metals 6:515-18 My '54
Mist lubrication cuts cost; Hoover co. K. Zintz. il Factory Management 112:96-9 Mr '54
Molybdenum disulfide simplifies extreme pressure lubrication problems. A. Sonntag. bibliog Iron Age 173:138-40 My 20 '54
Multi-purpose rolling compound; Rollene H. M. L. Bible. Iron & Steel Eng 30:149 D '53
New concept; the slide-sweep ratio aids selection of addendum ratio for most favorable gear-tooth lubrication. W. A. Tuplin. il diags Machine Design 26:125-31 Ag '54
Oiling made easy; Douglas aircraft co. G. C. Close. il Mill & Factory 54:126-8 Ap '54
Oilless bearings; their place in industry. C. D. Spadone. bibliog il Iron & Steel Eng 31:185-90; Discussion. 190-1 S '54
Selection of lubricants for industrial purposes. H. E. Priston. Chem & Ind p809-13 Ag 1 '53
Slippery synthetics. Ind & Eng Chem 45: sup 11A+ Je '53
Solid lubricant reduces ball bearing friction. Machine Design 26:160 Ja '54
Solid lubricants. W. E. Campbell. Machine Design 25:272+ N '53
Some lubrication problems with roller bearings and their solution; abstract. R. H. Dubois. Automobile Eng 44:332 Ag '54
Synthetic lubricants from hydroxystearic acids. H. M. Teeter and others. bibliog Ind & Eng Chem 45:1777-9 Ag '53
Technical progress; lubrication. il Steel 134: 424-5+ Ja 4 '54
Trends in lubrication. W. A. Zisman. Can Chem Process 37:88+ O; 68+ N '53
Use of lubricating greases and oils in sewage treatment plants. H. J. Miller. Sewage & Ind Wastes 26:1048-50 Ag '54
Valve lubrication; Audco lubricant number 631. Chem Age (Lond) 68:638 Ap 25 '53
Wrong lubricant causes failure of exciter coupling. il Elec World 140:154+ N 16 '53
See also
Bearings
Friction
Graphite
Lubricating greases
Lubricating oils
Lubricators
Oil reclamation
Oil seals
also subdivision Lubrication under special subjects, e.g.
Airplane engines
Automobile engines
Automobiles
Electric motors
Machine tools
Paper making machinery
Rolling mills
Wire rope

LUBRICATION and lubricants (cutting and grinding)
Central coolant system offers savings benefits; Chrysler corp. E. C. Beaudet. il Iron Age 173:127-30 F 11 '54
Central coolant system serves entire grinding department; Warner & Swasey co. il Mach 60:179-81 Je '54; Iron Age 174:160 Jl 29 '54
Classification of cutting fluids by use; reference sheet. R. G. Moyer. Tool Eng 33:83-4 Jl '54
Cool coolant; Dypral. Tool Eng 31:117 N '53
Cool the coolant for precise machining. W. Stone. il diags Iron Age 172:129-32 Jl 2 '53
Coolant has another role; application of water-base coolants can result in better cooling of the whole machine. C. R. Morgan. Steel 133:218 D 7 '53
Corrosive properties of soluble cutting oils; effect on machine tool cast irons. il Metallurgia 48:233-40 N '53
Cutting fluids; proper selection leads to better machining. J. McElgin. il Iron Age 173:177-9 Ap 22 '54
Facts about modern cutting compounds. diags Mill & Factory 54:575 My '54
Foam cooling clings; Peoria plant of Caterpillar tractor co. J. P. Mason and E. B. Weber. il diag Am Mach 98:174-6 Ap 12 '54
Grinder efficiency climbs through centralized coolant system; Warner & Swasey's new parts plant. il Tool Eng 33:76 S '54; diag Factory Management 112:101 Ja '54
Lubricants aid abrasive-belt grinding and polishing. J. Durnan. il Mach 60:173-6 F '54
Machining titanium with coolants; reference book sheet. Am Mach 98:155, 157, 159 My 24 '54
Metal-cutting agent; Metalloid WOS. Mech Eng 75:492 Je '53
Mist cooling goes to work. R. F. Thuma and others. il diag Am Mach 98:117-32 Ag 2 '54
Modern cutting fluids for automatics. D. C. Miner. il Mill & Factory 54:120-1 Je '54
New coolant cleaning tank reclarifies quench oils; Ford motor co. il Iron Age 172:148 D 17 '53
New look at cutting fluids. H. N. Leave. Am Mach 98:97-9 Mr 1 '54
Oil filtration; plant cuts costs, improves quality in grinding; Electric autolite co. Iron Age 173:181-2 Mr 4 '54
Reclaimed oil boosts thread-grinder output. C. I. Wallace. il diag Am Mach 97:126-7 D 7 '53
Soluble oil cutting fluids. R. K. Gould. Mach 60:186-9 Ag '54
Some causes of cutting-oil dermatitis; study of protective creams. G. E. Morris and C. C. Maloof. bibliog Ind Med 22:327-8 Jl '53
Squeezing dollars from scrap; Los Angeles park aircraft co. J. Joseph. il Mill & Factory 54:124-5 Ap '54
Take the curse off cutting oils. il Iron Age 172:99 S 17 '53; Steel 133:126 O 19 '53
Tool failure indicator aids research on cutting oils. il diag Pet Processing 8:1203+ Ag '53
Tooling and portable tools; cooling methods. Am Mach 97:C 19 Mid-N '53
Use of cutting oils. A. B. Myler. il Tool Eng 32:163-5 F '54
Water treatment kills coolant bacteria; Hyla process. Am Mach 98:145 Mr 29 '54

Cleaning
Barnesdril Kleenall combination filters for metal-working coolants. il Mach 60:240 N '53
Central coolant supply serviced by coarse-screen filter; Bower roller bearing co. J. W. Fauver. il Mach 60:169-71 Ag '54
For $600, clean coolant, so good-bye, dermatitis. il Factory Management 112:109 Ag '54
Translate coolant filtration into dollars; Continental motors corp. G. L. Guymon. il Steel 134:116-17 My 31 '54

Testing
Jet cooling triples feed rate on plunge and thread grinding of tool steel R_c 62-64. il diag Am Mach 98:137-8 Ja 4 '54

LUBRICATION and lubricants (metal drawing)
Coating paves way for drawing speedup. il Steel 133:82-3 D 21 '53
Components of wire drawing lubricants; abstract. L. Salz. Steel 133:116 D 21 '53

LUBRICATION research
Lubrication of ball and roller bearings at high speed. A. Fogg and J. S. Webber. pl diags Inst Pet J 39:743-64 N '53
Present problems and future trends in lubrication. W. A. Zisman. il Ind & Eng Chem 45:1406-14 bibliog(126 ref, p 1413-14) Jl '53
Solution of the Reynolds equation for slider-bearing lubrication. A. Charnes and others. bibliog diags A S M E Trans 74:867-73; 75:269-71, 507-12, 1117-21, 1125-36; 76:327-30 Jl '52, F, My, Ag '53, F '54; Discussion. 75:271-2, 512-13, 1121-3 F, My, Ag '53
Study of lubricant flow in bearings by streak photography. F. J. Kolano. il Product Eng 24:162-3 O '53
See also
National lubricating grease institute

LUBRICATORS
Automatic, centralized lubrication pumping unit. il Product Eng 24:218 Jl '53
Ball-type oilers serviced with oil can. F. E. Riley. il Power Eng 58:93 F '54

LUBRICATORS—*Continued*

Bearing lubricator provides positive control. il Am Mach 98:152 Mr 29 '54

Bearings roll at 600° F; they get periodic spray of oil and graphite on the run. il Steel 133:164-5 Ag 17 '53

Bobbers for force-feed lubricator calibration. il diag Diesel Power 32:110-11 Ap '54

Business adjustment without a squeak; centralized lubricating system manufacturers have increased shipments. Steel 134:60 Je 28 '54

Centralized lubrication cuts production costs. L. C. Rotter. il diag Food Eng 25:80-3+ N '53

Centralized lubrication elixir for machine life. R. F. Huber. il Steel 133:136-8 D 7 '53

Lubricant savings buy new system; Alan Wood steel co. il Steel 134:98 My 31 '54

Mist lubrication cuts maintenance, production costs; American chain & cable co. W. E. Drayton. il Iron Age 173:158-60 Ap 8 '54

Portable truck cuts underground lubrication costs; Mine Lubrovan. il Coal Age 58:114 N '53

Solenoid operated lubricating system. il diag Product Eng 24:212 S '53

Steel mill lubrication problems. A. C. Keiser, jr. and others. il Iron & Steel Eng 31:177-82; Discussion. 182-4 S '54

Thread inserts keep chips out of lubricating pump. il Iron Age 172:168-71 Ag 13 '53

Trolley wheel controls automatic lubricator. il diags Product Eng 24:158-60 Jl '53

LUCAS, Joseph, (industries), limited

Statement by the chairman. A. B. Waring. Economist 169:931 D 19 '53

LUCIDIN

Chemistry of the coprosma genus; a revised constitution for lucidin. L. H. Briggs and G. A. Nicholls. Chem Soc J p3068-9 O '53

LUDMAN corporation

Offering of debentures. Comm & Fin Chr 178: 2477 D 21 '53

LUGGAGE

Who is Koch of California? ask for a demonstration. il Sales Management 72:42-4+ F 15 '54

Advertising

How consumer research develops a sound, long-range selling plan; United States trunk co. E. A. Barwood. il Ptr Ink 245: 32-3 O 2 '53

LUMBER

Lumber, framing, millwork, plywood, and hardboards, framing and stairs. il diags Am Bld 75:131+ Ap '53

Why don't today's houses use more lumber? il diags House & Home 4:122-33 S '53

Transportation

Package loading technique. il Am Bld 76: 86-7 My '54

LUMBER camps

Camp construction; panel discussion. Pulp & Pa of Can 55:137-8+ Ap '54

Modern community carved from remote Ontario wilderness. il map Paper Ind 35:1295 Mr '54

Equipment

PFI's Bovill maintenance center. R. H. Forbes. il Diesel Power 32:44-5 Ja '54

Wire skidding equipment. A. Herrgen. Pulp & Pa of Can 55:147 Ap '54

Food supply

Economical lunching out. C. H. Edgerton. Pulp & Pa of Can 55:174 Je '54

Woodlands nutrition conference, St Marguerite, Que. Nov. 18-20. Pulp & Pa of Can 54:142+ D '53

Radio communication

Logging by radio. il Paper Ind 36:298 Je '54

LUMBER handling

Economical construction of safe pulpwood holding grounds. R. Kennedy. Pulp & Pa of Can 54:172; Discussion. 172+ O '53

Logging machine arch and skidding equipment. il Pulp & Pa of Can 55:156+ Ag '54

Mechanical forestry equipment. il Engineering 176:826 D 25 '53

Wire skidding comes of age. A. Koroleff. diags Pulp & Pa of Can 55:161-2+ Je '54

See also
Wood handling

LUMBER trade

Aid for small lumber mills. Bsns W p70 D 5 '53

Balance seen in timber use. Midwest Eng 6:17-18 Jl '53

Lumber dealer coordinates products and services to cut small builder's costs. il plans diag House & Home 6:128-33 Jl '54

Lumber dealer is turning prefabber. il plan House & Home 6:144-7 Ag '54

Lumber dealer spends $60,000 to promote BH&G house. il plans House & Home 6: 144-51 S '54

Lumber dealer's plan helps small builders when land costs soar. il plans Am Bld 75: 202-3 Ag '53

Should every lumber dealer turn prefabricator? il plan diags House & Home 5:154-9 Mr '54

Tree industry starts research. Midwest Eng 6:22 Jl '53

See also
Lumber yards
Wood, Laminated
also Paine lumber company, ltd.

Accounting

Better pulpwood costs for the small operator. R. H. Van Voorhis. N A C A Bul 34:1449-57 Jl '53

Advertising

If your industry hesitates on a promotional program; campaign of the West coast lumbermen's association. L. Newkirk. il Sales Management 71:76+ S 1 '53

Statistics

Lumber and manufactures, 1949-1952. Survey of Cur Bsns 1953 Sup p 152-5 [supplemented in monthly numbers]

Alaska

Sell Alaskan timber on basis of pulp mill erection. Paper Tr J 138:33 Ap 16 '54

Great Britain

Freedom for softwood. Economist 168:727-8; 169:608 S 12, N 21 '53

Timber and monopoly. Economist 169:352 O 31 '53

Northwestern states

Northwest lumber strike. House & Home 6: 126-7 Ag '54

LUMBER workers

Northwest lumber strike. House & Home 6: 126-7 Ag '54

Training woods employees. L. Kerr. Pulp & Pa of Can 55:79-81 Ap '54

LUMBER yards

Ideal layout for a lumber yard. il plan Am Bld 75:222-3 Mr '53

LUMBERING

Bringing Paul Bunyan up to date. il Bsns W p 146-9 O 10 '53

Development of mechanical logging methods between the stump and final landing for eastern Canada. G. Godwin. diags Pulp & Pa of Can 55:142-4 Je '54

How to determine when an area was logged. J. W. Kimmey. Pulp & Pa of Can 55:164 Je '54

Increased productivity by integration of forest and wood utilization. R. C. Sproull. Paper Ind 36:139-40 My '54

Northwest watersheds; forestry and logging. A. E. Thompson. il Am Water Works Assn J 46:733-9 Ag '54

Ontario's timber-salvage operation nearing completion. W. S. Gemmell. Pulp & Pa of Can 55:166+ Ag '54

Role of the small tractor in the bush. D. V. Currie. Pulp & Pa of Can 55:156+ Je '54

Today's challenge to woods operators. J. H. Merrill. Pulp & Pa of Can 55:167+ My '54

Topography, soil, and resarch. A. Bickerstaff. Pulp & Pa of Can 55:145-6 Jl '54

Wood procurement and preparation. il Paper Tr J 138:75-81 S 17 '54

LUMBERING—*Continued*

Accidents

Drowning accidents in Quebec. Pulp & Pa of Can 55:181 Je '54

Safety measures

Dearborn goes logging; Rayonier logging operations. D. Adair. il Nat Safety N 70: 24-5 Ag '54

Power saw as an accident hazard. L. G. Kerr. Pulp & Pa of Can 55:116-18 Ja '54

Safety in the woods pays dividends. Pulp & Pa of Can 54:196 O '53

Woodsmen spare their hands! K. Strobel. il Safety Maint & Prod 106:25-6 N '53

Study and teaching

Power saw training; panel discussion. R. T. Carter and others. Pulp & Pa of Can 54: 154-6+ O '53

LUMINANCE. See Luminosity

LUMINESCENCE

Alkaline earth orthophosphate phosphors. K. H. Butler. bibliog Electrochem Soc J 100: 250-5 My '53

Analysis of first-order glow curves. L. I. Grossweiner. J Ap Phys 24:1306-7 O '53; Correction. 25:136 Ja '54

Characteristics of phosphors. C. E. Weitz. il Illum Eng 49:227-35 My '54

Chemistry of phosphors. R. Ward. J Phys Chem 57:773-5 N '53

Chemistry of traps in zinc sulfide phosphors. W. Hoogenstraaten. bibliog(32 ref) Electrochem Soc J 100:356-65 Ag '53

Cold light; electroluminescence. Franklin Inst J 256:166 Ag '53

Copper-activated zinc sulfide phosphors with trivalent substituents. H. C. Froelich. Electrochem Soc J 100:496-507 N '53

Copper-activated zinc sulfide phosphors with yellow and red emission. H. C. Froelich. bibliog Electrochem Soc J 100:280-8 Je '53

Dielectric changes of electroluminescent phosphor during illumination. S. Roberts. Opt Soc Am J 43:590-2 Jl '53

Dielectric constant measurements on doubly activated phosphors. W. Low and others. bibliog Opt Soc Am J 44:88 Ja '54

Effect of alternating electric fields on the excitation of a strontium sulfide phosphor. W. Low and others. Opt Soc Am J 44:504-5 Je '54

Effect of neutron bombardment on a zinc sulfide phosphor. A. W. Smith and J. Turkevich. bibliog Phys R 94:857-65 My 15 '54

Effect of organic vapor on the secondary emission of phosphors. P. H. Dowling and J. R. Sewell. J Ap Phys 25:228-30 F '54

Electroluminescence. W. W. Piper. il diags Gen Elec R 57:46-9 Jl '54

Electroluminescence in thin films of ZnS:Mn. R. E. Halsted and L. R. Koller. bibliog Phys R 93:349-50 Ja 15 '54

Electroluminescence of insulated particles. L. Burns. bibliog(25 ref) diags Electrochem Soc J 100:572-9 D '53

Electroluminescent zinc sulfide phosphors. H. H. Homer and others. bibliog Electrochem Soc J 100:566-71 D '53

Emission and absorption in luminescent centers at low temperatures. C. C. Klick. bibliog J Phys Chem 57:776-9 N '53

Energy transfer in organic phosphors. J. B. Birks. bibliog Phys R 94:1567-73 Je 15 '54

Excitation of zinc oxide phosphors by low-energy electrons. R. E. Shrader and S. F. Kaisel. bibliog diags Opt Soc Am J 44:135-9 F '54

Experiments on electroluminescence. J. F. Waymouth and F. Bitter. bibliog il diags Phys R 95:941-9 Ag 15 '54

Flame photometric determination of sodium and potassium in zinc cadmium sulfide phosphors. S. B. Deal. Anal Chem 26:598-9 Mr '54

Importance of thermal equilibrium in measurements on powdered insulators in vacuo. R. H. Bube and R. E. Shrader. bibliog diag R Sci Instr 25:921-2 S '54

Inter- and intramolecular energy transfer processes; phosphorescence bands of some carcinogenic aromatic hydrocarbons. M. M. Moodie and C. Reid. bibliog J Chem Phys 22:252-4 F '54

Interpretation of electroluminescence effects in an excited phosphor. F. Matossi. bibliog Phys R 94:1151-6 Je 1 '54

Lanthanum oxychloride phosphors. F. E. Swindells. bibliog Electrochem Soc J 101: 415-18 Ag '54

Long-lived phosphorescent components of thallium-activated sodium iodide. C. R. Emigh and L. R. Megill. bibliog diags Phys R 93:1190-4 Mr 15 '54

Low-temperature absorption and phosphorescence spectra of some iodo-compounds. J. Ferguson and T. Iredale. Chem Soc J p2959-66 O '53

Low-temperature luminescence of cadmium sulfide. L. R. Furlong. Phys R 95:1086 Ag 15 '54; Correction. 96:1714 D 15 '54

Luminescence of beryllium oxide. C. E. Mandeville and H. O. Albrecht. Phys R 94:494 Ap 15 '54

Luminescence of the system β $Zn_3(PO_4)_2$-$Cd_3(PO_4)_2$:Mn. A. L. Smith and A. D. Power. bibliog Electrochem Soc J 101:244-7 My '54

Luminescence studies of KI-TlI. B. Smaller and E. Avery. bibliog Phys R 92:232-7 O 15 '53

Luminescent materials. R. Ward. il diags Chem & Eng N 31:4418-22, 4772-5 O 26, N 16 '53

Luminescent screen for use with very low-velocity electrons. S. F. Kaisel and C. B. Clark. Opt Soc Am J 44:134-5 F '54

Measurement of particle size distribution of phosphors. M. J. Bergin and K. H. Butler. bibliog Electrochem Soc J 101:149-54 Mr '54

Measurement of quantum efficiency of fluorescent lamp phosphors. C. W. Jerome. Electrochem Soc J 100:586-7 D '53

Mechanism of impurity poisoning in the luminescence of zinc sulfide phosphors with manganese activator. R. H. Bube and others. bibliog Phys R 92:1135-9 D 1 '53

Multiphonon transitions in the *F* center. J. J. Markham. Phys R 94:1395 Je 1 '54

Neutron scintillation counting by the $S(n,p)P^{32}$ process in ZnS(Ag) phosphors. G. R. Keepin. R Sci Instr 25:30-2 Ja '54

New manganese-activated fluoride phosphors. A. L. Smith. bibliog Electrochem Soc J 101:189-94 Ap '54

Phosphorescence of atoms and molecules of solid nitrogen at 4.2°K. H. P. Broida and J. R. Pellam. bibliog diag Phys R 95: 845-6 Ag 1 '54

Preparation of phosphor screens for color television tubes. S. Levy and A. K. Levine. il diags Electrochem Soc J 101:99-103 F '54

Preparation of plates of boric acid glass for use in the study of luminescence. F. E. E. Germann and others. bibliog diags Opt Soc Am J 44:496-8 Je '54

Pressure effects in phosphorescence. L. Reiffel. Phys R 94:856 My 15 '54

Properties of calcium silicate phosphors. J. Schulman and others. Opt Soc Am J 43: 318-19 Ap '53

Quenching of organic phosphorescence. M. Koizumi and S. Kato. J Chem Phys 21: 2088-9 N '53

Radiation from CdS crystals generated by dc electric fields. R. W. Smith. Phys R 93: 347 Ja 15 '54

Radium's got a rival; after-dark guides are safer with strontium 90. il Chem W 75:60+ Ag 14 '54

Reflectance measurements from 1140A to 1190A by a simple open air method. J. D. Purcell. bibliog diag Opt Soc Am J 43:1166-9 D '53

Role of sulfur in the luminescence and coloration of some aluminosilicates. R. D. Kirk. bibliog Electrochem Soc J 101:461-5 S '54

Scintillation counters using liquid luminescent media for absolute standardization and radioactive assay. E. H. Belcher. bibliog diags J Sci Instr 30:286-9 Ag '53

Search for *F*-center luminescence. C. C. Klick. bibliog Phys R 94:1541-5 Je 15 '54

LUMINESCENCE—*Continued*

Self-luminous halftones. F. A. Schwertz and others. il Opt Soc Am J 44:745-6 S '54

Sensitized electroluminescent response. H. C. Froelich. Opt Soc Am J 43:320 Ap '53

Sensitized luminescence of CaF_2:(Ce + Mn). R. J. Ginther. bibliog Electrochem Soc J 101:248-57 My '54

Siloxene as a chemiluminescent indicator in chromate titration for determination of lead. F. Kenny and R. B. Kurtz. Anal Chem 25:1550-1 O '53

Some properties of electron traps in a ZnS:Cu phosphor. J. L. Gillison, jr. Opt Soc Am J 44:341-2 Ap '54

Some properties of zinc sulfide activated with copper and cobalt. W. Hoogenstraaten and H. A. Klasens. bibliog Electrochem Soc J 100:366-75 Ag '53

Studies on the concept of large activator centers in crystal phosphors. J. Ewles and N. Lee. bibliog diags Electrochem Soc J 100:392-407 S '53

Surface states of cadmium sulfide. S. H. Liebson. bibliog diags Electrochem Soc J 101:359-62 Jl '54

Symmetry classification of the energy levels of some triarylmethyl free radicals and their cations. Ting Li Chu and S. I. Weissman. J Chem Phys 22:21-5 Ja '54

Theory of the luminescence of impurity-activated ionic crystals. F. E. Williams. bibliog J Phys Chem 57:780-4 N '53

Thermal decay of the luminescence of KBr. G. W. Williams and others. bibliog diags Phys R 92:1398-402 D 15 '53

Transient voltage indicator and information display panel. A. Bramley and J. E. Rosenthal. R Sci Instr 24:471-2 Je '53

Traps and trapping processes. R. H. Bube. bibliog diag J Phys Chem 57:785-90 N '53

Variations in the decay of phosphorescence with frequency of applied electric field. K. W. Olson. Phys R 92:1323 D 1 '53

See also
Fluorescence

Bibliography

Review of articles on luminescence for 1951-1952. G. R. Fonda. Electrochem Soc J 100: sup 155C-8C Je '53

LUMINESCENCE, Biological

Identification of KCF: requirement of long-chain aldehydes for bacterial extract luminescence. M. J. Cormier and B. L. Strehler. bibliog Am Chem Soc J 75:4864-5 O 5 '53

Requirement of riboflavin phosphate for bacterial luminescence. W. D. McElroy and others. bibliog Science 118:385-6 O 2 '53

LUMINOSITY

Analysis of Taylor's data on relative luminous efficiency of various colors. C. S. Bridgman. bibliog Opt Soc Am J 44:394-6 My '54

Condition of equal irradiance and the distribution of light in images formed by optical systems without artificial vignetting. F. Wachendorf. bibliog diags Opt Soc Am J 43:1205-8 D '53

Constant luminance principle in NTSC color television. W. F. Bailey. diags Inst Radio Eng Proc 42:60-6 Ja '54

Effect of different preadapting luminances on the resolution of visual detail during dark adaptation. J. L. Brown. bibliog Opt Soc Am J 44:48-55 Ja '54

Effect of duration of light adaptation on time required for detection of a target on a simulated PPI scope. J. L. Brown and others. bibliog Opt Soc Am J 43:1147-52 D '53

Effect of flash and field luminance upon human reaction time. N. R. Bartlett and S. Macleod. bibliog Opt Soc Am J 44:306-11 Ap '54

Luminosity curve as affected by the relation between rod and cone adaptation. C. S. Bridgman. bibliog Opt Soc Am J 43:733-7 S '53

Measurements of sky luminance distribution at Stockholm. R. G. Hopkinson. bibliog Opt Soc Am J 44:455-9 Je '54

Primary standard of luminous intensity at the National research council of Canada. C. L. Sanders and others. Opt Soc Am J 44:88-9 Ja '54

Reproduction of luminance detail by NTSC color television systems. D. C. Livingston. diags Inst Radio Eng Proc 42:228-34 Ja '54

Studies in the resolving power of photographic emulsions; effect of the type of pattern and the luminance ratio in the test object. F. H. Perrin and J. H. Altman. bibliog(26 ref) diags Opt Soc Am J 43: 780-90 S '53

LUNAR eclipses. See Eclipses, Lunar

LUNCHES, Employees'

Come and get it, food on wheels; Douglas Aircraft's El Segundo plant; illustrations with text. Iron Age 173:78 F 11 '54

Fast, low-cost food service; Lockheed aircraft corporation. il plan Factory Management 112:113 Ap '54

Food service. il Nat Safety N 69:60+ Mr '54

Food that satisfies; in-plant food service. A. B. Dreissiger. il Nat Safety N 70:30-1+ Jl '54

No walk, no wait for lunch as fleet of cafeteria trains serves 250 meals a minute. il Factory Management 112:133 F '54

Robot restaurants as aids to morale. C. H. Brinkmann. Advanced Management 18:15-16 D '53

LUNCHROOMS and cafeterias

Food at the bar. Economist 168:368-9 Ag 8 '53

Electric equipment

Electric cooking reduces costs; Sagan cafeteria, Hartford, Conn. E. D. P. Gross. il Elec World 141:92-3 Mr 8 '54

LUNCHROOMS and cafeterias, Employees'

Bank cafeterias. il Burroughs Clearing House 37:18-19 S '53

Beating victual vipers at their game; abstract. Management R 42:195 Ap '53

Employe cafeterias; how to plan for seating and service requirements. A. W. Dana. il plan Arch Rec 114:206-8 O '53

Farm out plant cafeterias. K. W. Bennett. il Iron Age 172:72-3 Ag 6 '53

Food service. il Nat Safety N 69:60+ Mr '54

How widespread are industrial cafeteria facilities? Mill & Factory survey. Mill & Factory 53:69-70 D '53

New dining and recreation rooms of America Fore insurance group. il East Underw 55:16 Ja 8 '54

Costs

Company cafeterias; a survey of costs; abstract. Management R 42:379-80 Jl '53

LUNG cancer. See Cancer

LUNGS

Diseases

Cancer experts speak. E. L. Wynder and W. C. Hueper. Chem & Eng N 32:3124+ Ag 9 '54

Chronic bronchopulmonary disease due to inhalation of sulfuric acid fumes. A. Goldman and W. T. Hill. il A M A Archives Ind Hygiene & Occup Med 8:205-11 S '53

Clinical pulmonary physiology; detection of early lung function changes in industrial exposure. H. L. Motley. bibliog il Ind Med 22:262-7 Je '53

Lung cancer. Safety Maint & Prod 107:64 Mr '54

Lung cancer may be related to air pollution, especially to coal and petroleum fumes. S. Binn. Heat & Ven 51:156+ Mr '54

Mucolytic and digestive action of trypsin in the preparation of sputum for cytologic study. S. M. Farber and others. bibliog il Science 117:687-90 Je 19 '53

Premature verdict? cancer case against cigarettes gains fresh impetus. Chem W 73:54+ D 26 '53

What's behind the smoke? il Chem & Eng N 32:218-19 Ja 18 '54

Dust diseases

Coal miners' pneumoconiosis; abstract. J. E. Martin, jr. Nat Safety N 70:66+ Jl '54

Current research on effects of dusts. Ind & Eng Chem 45:sup 111A-12A+ Ag '53

Dust sampler which simulates upper and lower lung deposition. W. B. Harris and M. Eisenbud. bibliog il A M A Archives Ind Hygiene & Occup Med 8:446-52 N '53

LUNGS—Dust diseases—*Continued*

Effect of modifications of the surface of quartz on its fibrogenic properties in the lungs of rats. E. J. King and others. bibliog il A M A Archives Ind Hygiene & Occup Med 7:455-77 Je '53

Measurement of dust exposure for the control of pneumoconiosis; abstract. B. M. Wright. Chem Age (Lond) 70:1259 Je 5 '54

Paper dust; its effect on the worker. W. Schweisheimer. Paper Ind 35:1126 Ja '54

Pneumoconiosis abstracts. v2 518p $17.50 Pitman pub. corp, 2 W. 45th st, New York '54

Pneumoconiosis in the tungsten-carbide tool industry. C. W. Miller and others. bibliog il A M A Archives Ind Hygiene & Occup Med 8:453-65 N '53

Practical prophylaxis for pulmonary dust disease. L. E. Hamlin. il Ind Med 22:334-6 Ag '53

See also

Silicosis

Bibliography

Pneumoconiosis abstracts; volume 1, 1926-1938. 347p $12.50 Pitman pub. corp. 2 W. 45th st. New York 19 '53

LUNN laminates, inc.

Security I like best. K. V. R. Townsend. Comm & Fin Chr 178:906+ S 10 '53

LUPENOL

Chemistry of the triterpenes and related compounds; the structure of taraxasterol, ψ-taraxasterol (heterolupeol), and lupenol-I. T. R. Ames and others. Chem Soc J p 1905-19 Je '54

LUPEOL

Chemistry of the triterpenes and related compounds; the conversion of lupeol into ψ-taraxasterol (heterolupeol) T. G. Halsall, E. R. H. Jones and R. E. H. Swayne. Chem Soc J p 1902-5 Je '54

LUPULONE

Analysis

Spectrophotometric determination of humulone complex and lupulone in hops. G. Alderton and others. bibliog Anal Chem 26:983-92 Je '54

LUPULONE, Analogs of

Natural occurrence of lupulone analogues. G. A. Howard and J. R. A. Pollock. bibliog Chem & Ind p991 Ag 7 '54

LURIUM. See Aluminum

LUSTER

Improvement of luster of cotton. L. Fourt and others. bibliog diags Textile Res J 24:61-72, 156-72, 279-91, 685-94, 779-84 Ja-Mr, Jl-Ag '54

See also

Mercerizing

LUTETIUM

Slow neutron resonances in holmium, thulium, and lutetium. H. L. Foote, jr. and others. bibliog Phys R 92:656-9 N 1 '53

Nuclear reactions

Energy levels in Lu^{176} and Hf^{176}. J. R. Arnold. bibliog Phys R 93:743-5 F 15 '54

LUTIDINE

Fractional liquid extraction of 2,6-lutidine, 3-picoline, and 4-picoline. A. E. Karr and E. G. Scheibel. bibliog flow sheet Ind & Eng Chem 46:1583-9 Ag '54

LUTON, Raymond E.

Petroleum profile. por Pet Eng 25:A88 N '53

LUX soap. See Soap

LUXEMBURG

Commercial policy

See also

Benelux union

LYCOCTONINE

Crystallographic data; lycoctonine monohydrate. R. M. Douglass and W. B. Cook. il diags Anal Chem 25:836-7 My '53

LYCORAMINE

Desethyllycoramine. W. C. Wildman and W. T. Norton. bibliog Am Chem Soc J 76:152-5 Ja 5 '54

LYCORINE

Constitution of lycorine. E. J. Forbes and others. Chem & Ind p946-7 S 5 '53

Constitution of lycorine. D. H. Hey and D. G. Turpin. Chem & Ind p221-2 F 20 '54

Constitution of lycorine. E. Wenkert. bibliog Chem & Ind p 1175-7 S 18 '54

Dehydration of lycorine. J. W. Cook and others. Chem & Ind p 1199 S 25 '54

Lycorine; a synthesis of the Hofmann base, the Emde base, *iso*lycorine and anhydrolycorine methiodide. W. I. Taylor and others. bibliog Chem & Ind p929-30 Jl 24 '54

Structure of lycorine. T. R. Govindachari and B. S. Thyagarajan. bibliog Chem & Ind p374-5 Mr 27 '54

Structure of lycorine. K. Wiesner and others. Chem & Ind p46-7 Ja 9 '54

LYMAN continuum. See Spectrum, Ultraviolet

LYMPHOMAS. See Tumors

LYNCH, Joseph

Father Lynch; he measures earth's tremors. pors Eng N 151:52-4 Ag 27 '53

LYSENKO, Trofim Denisovich, 1898-

Lysenko dethroned. Economist 168:88 Jl 11 '53

LYSERGIC acid

Biogenesis of lysergic acid. J. Harley-Mason. Chem & Ind p251 F 27 '54

Key to mental disorder in biochemical lesions from psychosis-producing drugs; abstract. E. V. Evarts. Chem & Eng N 32:2686 Jl 5 '54

Stereochemistry of lysergic acid. J. B. Stenlake. bibliog Chem & Ind p 1089-90 O 10 '53

Synthesis of the naphthalenic isomer of lysergic acid and a new route to dihydrolysergic acid. F. R. Atherton and others. Chem & Ind p 1151-2 O 24 '53

LYSINE

Loss of the α-amino group in lysine metabolism to form pipecolic acid. M. Rothstein and L. L. Miller. Am Chem Soc J 76:1459 Mr 5 '54

LYSOZYME

Application of a quantitative method of peptide analysis to the N-terminal sequence of lysozyme. D. De Fontaine and S. W. Fox. bibliog Am Chem Soc J 76:3701-3 Jl 20 '54

Hydrogen ion equilibria of lysozyme. C. Tanford and M. L. Wagner. bibliog Am Chem Soc J 76:3331-6 Je 20 '54

M

M and M wood working company

Woodworker split. Bsns W p 184 N 28 '53

MCAFEE, James Wesley, 1902-

Utility chief who knows his politics. pors Bsns W p54-6+ O 24 '53

MCANDLESS, Alva J. 1890-1954

Sketch. por East Underw 55:3-4 Ja 29 '54

Sketch. por Nat Underw (Life ed) 58:1+ Ja 29 '54

MACARONI

Macaroni hops aboard low-calorie bandwagon; promotional theme for Golden grain macaroni co. il Sales Management 72:105-6 F 15 '54

Manufacture

Teams techniques to nail down specialty-food quality; Buitoni foods corp. J. V. Ziemba. il Food Eng 26:42-3+ Ja '54

MCCABE, Warren Lee, 1899-

W. L. McCabe; Dean of Polytechnic institute of Brooklyn. por Chem Eng 60:285 N '53

MCCAHAN, David, 1897-1954

Sketch. por East Underw 55:1+ Jl 2 '54; Nat Underw (Life ed) 58:2+ Jl 2 '54

Tribute. L. J. Ackerman. East Underw 55:9 Jl 16 '54; Same abr. Nat Underw (Life ed) 58:6 Ag 6 '54

MCCARTHY, Glenn Herbert, 1907-

Wildcatter's comeback. il Bsns W p 116-18 O 31 '53

MCCARTHY, Glenn, inc.
Bolivian spindletop? Glenn McCarthy comes to Wall Street. R. M. Bleiberg. Barron's 33:3+ N 2 '53

MCCAUGHEY, William John, 1882-
McCaughey to receive Bleininger award. por Am Cer Soc Bul 33:29 Ja 15 '54

MCCLELLAN, Harold Chadick, 1897-
No substitute for action; president of National association of manufacturers. pors Chem W 75:16-18+ Ag 28 '54
Now McClellan heads NAM. por(cover) Bsns W p34 D 5 '53

MCCLURE, Harry B.
President of Carbide and Carbon. H. T. Sharp. por Chem Eng 61:396-8 Je '54

MCCONNELL, Joseph
Electric home for a hero. por Elec West 111:101 N '53

MCCOY, Whitley Peterson, 1894-
New boss conciliator. Bsns W p 123+ Jl 11 '53; Eng N 151:28 Jl 16 '53

MCCULLOCH, Hugh, 1808-1895
First comptroller lays down some rules. por Bankers Mo 70:54-5 S '53

MCDONALD, David John, 1902-
Burying the hatchet in steel. Bsns W p 160 D 5 '53
What's behind their company tour? por Bsns W p 176-7 N 14 '53

MCDONNELL aircraft corporation
McDonnell phasing in F3H, F-101 jets. il Aviation W 59:30-2 O 12 '53

MCELROY, Neil Hosler, 1904-
America's no. 1 advertiser. por(cover) Adv Agency 47:24 S '54

MCGRAW, Curtis Whittlesey, 1895-1953
Sketch. por Ptr Ink 244:25 S 18 '53

MCGRAW, Donald Cushing, 1897-
Heads McGraw-Hill. por Elec World News ed 140:7 S 28 '53; Chem Eng 60:129 N '53
Takes over reins at McGraw-Hill Publishing. por Ptr Ink 244:132 S 25 '53

MACH reflection. See Shock waves

MACH-ZEHNDER interferometer. See Interferometers

MACHINE guns
New gun developed from captured German design. il Machine Design 26:158 Jl '54

MACHINE parts
Bosses coined accurately, quickly; International business machines corp. il Iron Age 173:144 F 11 '54
Case histories of powdered metal parts. il Iron Age 174:94-5 S 30 '54
Close tolerance castings. M. W. Riley. il Materials & Methods 40:121-36 S '54 [reprints 25c]
Designing fabricated nylon parts. R. B. Zimmerli. il diag Machine Design 26:153-9 Mr '54
Designing for wear resistance with cemented carbides. F. J. Lennon, jr. il Machine Design 26:176-9 F '54
Designing magnesium impacts. T. L. Patton. il diags Machine Design 26:124-8 F '54
Designing ring sections. V. Wildman. il diags Machine Design 26:149-52 Ja '54
Don't under-rate nylon for mechanical components! J. Holt and W. Chadbourne. il diags Product Eng 24:203-11 Je '53
Ductile iron meets heavy duty service requirements. D. M. Marsh. il Iron Age 174:135-8 S 9 '54
Economic survey of seven methods of making small machine parts. S. Storchheim. il Metal Prog 65:77-80 F '54
High-density processing widens field for powdered metals. W. J. Doelker. il Iron Age 174:91-3 S 30 '54
How to make replacements in materials, parts, and materials-handling equipment. il Am Mach 97:F-F 15 Mid-N '53
Let die castings help keep costs in line. A. G. Gray. il Steel 133:106-10+ Jl 6 '53
Metal powders ease production headaches. A. G. Gray. il Steel 134:88-91 Ja 25 '54
Parts made with sintered aluminum oxide. il Materials & Methods 39:231 My '54
Powder metallurgy can lower your production costs. B. T. DuPont. il Iron Age 174:74-5 S 30 '54
Specifying accuracy of form for machine parts. A. H. Candee. diags Machine Design 26:139-41 Ap '54
Variety of processes for iron powder parts; Pow-Met industries, inc. Am Mach 98:278 Ap 12 '54
Where pearlitic malleable irons can be used to advantage. C. F. Joseph. il Materials & Methods 39:100-3 Mr '54

MACHINE pins. See Pins, Machinery

MACHINE shop management
Automatics can show profits on short runs. D. Stoneman. il Iron Age 173:173-6 Ap 22 '54
Controlling production quality by number of parts defective. M. H. Saltz. il Tool Eng 32:47-50 My '54
Corrective interview; one key to good morale. D. J. Wood. Am Mach 97:128 N 23 '53
Multiple tooling combines operations and cuts costs. F. X. Curran. il Mill & Factory 55:98-101 Ag '54
New machine loading methods break bottlenecks, cut machining costs $100,000 a year; SKF industries. Factory Management 112:136-7 Ja '54
Practical learning curves improve shop performance. C. T. Dennington. Iron Age 172:108-11 N 26 '53
Practical uses of statistical quality control. M. H. Saltz. il Tool Eng 32:49-52 F; 66-71 Mr '54
Process revision cuts manufacturing costs. W. H. Friedlander. diag Tool Eng 33:152-4 S '54
Put standard minutes to work. K. L. Kline. Am Mach 98:106-9 Mr 1 '54
Simple system streamlines job-shop operation; Amco gage co. G. H. DeGroat. il Am Mach 98:176-7 S 13 '54
So you're short of capital? G. S. Odiorne. Am Mach 97:153 N 9 '53
Tips to lower tooling costs. A. S. Hecker. il Steel 134:138-9 Ap 19 '54
Tool control for multiple-spindle machines. H. Conn. il diags Tool Eng 33:69-71 S '54
Tool engineer moves up; new voice at the management level. Steel 134:136-7 Ap 19 '54
See also
Assembling methods
Inspection
Machine shop practice
Machine tools
Machinery, Replacement of
Tool engineering
Tool rooms

MACHINE shop practice
Abstracts of foreign literature (cont). M. Kronenberg. Tool Eng 31:162-4 N; 149-51 D '53; 32:155-7 Ja; 147-9 F; 167-9 Mr; 230-2 Ap; 164-6 My; 156-8 Je; 33:137-9 Jl '54
Accurate setups cut tool changing time, speed production; Avco mfg. corp.'s Lycoming div. W. Stone. il Iron Age 173:152-5 Je 17 '54
Better setups, spray lubrication increase parts output. E. C. Beaudet. il diags Iron Age 172:140-2 Ag 6 '53
Big plant tooling in a small shop; Federal industries, inc. G. H. De Groat. il diags Am Mach 98:138-41 Je 7 '54
Constructing pressure vessels for a defense project; Rheem mfg. co.'s aircraft division. W. R. Miller. il Mach 60:156-61 Ag '54
Conventional tools machine titanium; Pontiac motor co. R. Satterlee. il diags Am Mach 98:94-7 Ag 30 '54
Cost reduction program that saved $3,800,000 in 1953; Consolidated Vultee aircraft corp. E. E. Hartzler. il Mach 60:181-3 Ja '54
Cut costs with die-shim perforators. J. G. Schlindwein. il diag Am Mach 98:123 S 27 '54
Decimal dimensioning saves time and reduces errors. G. E. Rowbotham. diags Tool Eng 30:63-4 Je '53; Same cond. Product Eng 24:279-81 Ag '53
Economies of tooling and lathe selection. E. L. Murray. il diags Tool Eng 31:51-6 N '53
Five machining problems; report of panel on machining. S A E J 62:66-8 Ap '54
Gadgets; ingenious devices and ideas to help the tool engineer. diags Published in monthly numbers of Tool engineer
How Buick builds Sapphire jet engines. C. H. Wick. il Mach 60:155-62 D '53

MACHINE shop practice—*Continued*

How to cut those metal-working blues; report of panel on production tooling and shop methods. S A E J 62:64-5 Ap '54

How to make involute die templets. D. T. Worth. diags Am Mach 97:118-19 N 9 '53

Ideas for shop and drafting-room. diags Mach 61:206-7 S '54

In shops around the country; illustrations with text (cont). Mach 60:194-5 D '53; 200-1 Ja; 194-5 F; 200-1 Mr; 200-1 My; 196-7 Je; 61:194-5 S '54

Ingenious machining of small parts; Ampro corp. il Mill & Factory 55:118-21 S '54

Innovations in a modern refrigerator plant; Hotpoint co. H. A. Stutzman. il Mach 60:153-9 F '54

Little design change saved a lot of money; making governor weights for Small motor division of Westinghouse. C. M. Modd. il diags Am Mach 98:103 F 1 '54

Low cost tooling boosts job-shop output; MetaMold aluminum co. il Iron Age 173:135 My 6 '54

Machining turbine and compressor parts for Sapphire jet engines; Oldsmobile division of General motors corp. C. H. Wick. il Mach 60:157-65 Ja '54

Mass production of anti-friction freight car axles; American car and foundry co. W. B. Chellis. il Mach 60:160-7 F '54

Methods that were used for Hydra-Matic production; Detroit transmission division, General motors corp. C. H. Wick. il diags Mach 60:167-74 D '53

New line in a jiffy, with portable presses, plug-in power; Astatic corp. H. Holmes. il diag Factory Management 112:94-5 Ja '54

Pick-a-back tooling machines forgings for giant press; Bethlehem steel co.; illustrations with text. W. M. Stocker, jr. Am Mach 98:117-21 Jl 19 '54

Plant within a plant; pint-size production line for special orders; Hydro-Aire corp. J. Joseph. il Mill & Factory 54:90-1 Mr '54

Precision chucking of thin-walled parts. K. W. Cole. il diags Tool Eng 33:37-41 S '54

Pressed sleeve eliminates hand splicing; Jones & Laughlin steel corp. il Mach 61:170 S '54

Prize-winning practical ideas. diags Am Mach 97:G-G7 Mid-N '53

Production machining of nylon rod stock. R. E. James, jr. and G. W. Swoyer. il diags Mach 60:163-6 D '53

Production methods are key to improved bolt design; illustrations and diagrams with text. M. Brenner. Am Mach 98:146-7 Jl 5 '54

Production tools for precision; Ford instrument company; illustrations with text. W. M. Stocker, jr. Am Mach 98:117-20 Je 21 '54

Proper cutting of new abrasive drum covers keeps costs down. il diags Iron Age 172:172-3+ S 17 '53

Quick-and-dirty setups; Karp metal products co.; illustrations with text. C. Emerson and J. Wright. diags Am Mach 97:137-52 D 7 '53

Railroad axles roller-bearinged at freight-car production speeds; American car & foundry co.; illustrations with text. E. J. Tangerman. Am Mach 98:130-3 Ja 4 '54

Russians harness plastic mass for actuating medium. diags Am Mach 98:126-9 Je 21 '54

Shop shots; illustrations with text (cont). Am Mach 97:162 N 9; 125 N 23 '53; 98:150-1 Mr 15; 116-17 My 24; 170-1 S 13; 126-7 S 27 '54

Small shops can use automation too. J. B. Cunningham. il diags Am Mach 98:177-84 Ap 12 '54

Technical progress; tooling and gaging. il Steel 134:344-6+ Ja 4 '54

Trends in tooling; charts. Steel 133:42-3 sec 2 N 16 '53

Turnabout tooling cuts time on banjo; illustrations with text. diags Am Mach 98:130-1 My 10 '54

Turret change speeds setup; Spang-Chalfant division, National supply co. E. A. McKee. il Steel 135:146-7 Jl 12 '54

Uhf contacts formed four times faster; illustrations with text. C. S. Selby. Am Mach 98:97-102 F 1 '54

Useful shop kinks; illustrations with text. H. R. Jackson. Mill & Factory 55:108-9 S '54

Watch jig operating costs; reference book sheet. W. J. Kokoskin. diags Am Mach 98:173, 175 F 15 '54

Zirconium; a summary of current shop practice. Am Mach 98:199-202 Ap 12 '54

See also

Airplane engines—Manufacture
Automobile engines—Manufacture
Broaching
Centering (machine work)
Chucks
Dies
Diesel engines—Manufacture
Drafting room practice
Drilling and boring (metal working, etc.)
Forging
Gages
Gear cutting
Gearing—Manufacture
Grinding
Hard facing
Hobbing
Indexing (machine work)
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Lapping
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Machine shop management
Machine tools
Machinery
Metal cutting
Metal finishing
Milling
Railroads—Shops
Riveting
Rolling (metal work)
Rolling mills
Sheet metal work
Tanks, Military—Manufacture
Tapping
Tolerance
Welding

Bibliography

Machinery's data sheet index; Feb. 1951 to Dec. 1953, inclusive. Mach 60:257 Ja '54

Study and teaching

Investment in the future; an effective training program; Balas collet manufacturing co. J. W. Greve. il Tool Eng 33:81-6 Ag '54

MACHINE shops

See also

Airlines—Shops
Airplane factories
Automobile factories
Locomotive shops
Machine shop management
Machine shop practice
Machine tools
Motor bus lines—Shops
Railroads—Shops
Tool rooms

Accounting

Cost control facts for the foreman. B. R. Powell and F. J. Mancheski. N A C A Bul 34:1170-9 My '53

Making standard costs acceptable to the shop. T. S. Dudick. N A C A Bul 36:20-30 S '54

Employees

Apprentice training. il Am Mach 97:129-52 N 9 '53

Apprentices; needed in small plants. J. R. Whipple. il Iron Age 173:49-50 Ap 29 '54

Artists sculpture mica dies; apprentice training program. J. P. Wright. il diags Am Mach 98:156-60 S 13 '54

How to handle people. Am Mach 97:154-9 N 9 '53

Training of tool and die makers. S. Swerdloff and A. Bluestone. Mo Labor R 76:254-7 Mr '53

See also

Toolmakers

Equipment

Conveyors and telephones speed schedules; Woodward governor co.; illustrations with text. W. A. Ring. diags Am Mach 98:134-6 S 13 '54

Diesel take-apart cart saves time, cuts die damage; Lyon metal products, inc. J. G. Schlindwein. il diags Am Mach 98:110-11 Mr 1 '54

Inserts used in brake forming dies cut part costs; Temco aircraft corp. il Iron Age 172:271 N 12 '53

Know-how handbook; metal working. il diags Mill & Factory 54:555-759 My '54

1954 American Machinist production preview. il Am Mach 98:121-264 Ja 18 '54

MACHINE shops—Equipment—*Continued*

Robot-run tools machine hot materials at Oak Ridge. S. E. Dismuke. il plan diag Am Mach 98:161-5 Ap 12 '54

See also
Holding devices
Machine tools
Surface plates

Fires and fire protection

Steam, and sense, control machine-tool fires; Hartford machine screw co. W. M. Stocker, jr. il Am Mach 97:154-5 N 23 '53

Lighting

Current industrial lighting practice applied; Wright-Hepp associates. J. Kerr, jr. il Illum Eng 49:243 My '54

High-bay industrial lighting; Hamilton corp.; data sheet. G. W. Wagner. il Illum Eng 48:629-30 D '53

Improved machine light makes operator's job easier. A. A. Denst. diag Am Mach 97:125 D 21 '53

Records

Simple system streamlines job-shop operation; Amco gage co. G. H. DeGroat. il Am Mach 98:176-7 S 13 '54

Safety measures

Safe set-up, handling, and storage of power press dies. L. Krantz. il Safety Maint & Prod 108:14-15+ Ag '54

See also
Presses—Safety devices

MACHINE tool distributors' association, American. See American machine tool distributors' association

MACHINE tool industry

Dip is over. H. L. Tigges. Steel 134:76 My 10 '54

Machine tool business defying gloom. E. Janeway. Comm & Fin Chr 178:1134 S 24 '53

Machine tool high spots. Published in weekly numbers of Iron age

Machine tool survey; study of trends in machining capacity, methods, tooling and machine tools. il map Steel 133:2-9+ sec 2 N 16 '53

Machine topics. R. F. Huber. Steel 134:107 My 31; 121 Je 28; 135:123 Jl 12; 107 Jl 26; 100 Ag 9; 111 Ag 23; 103 S 6 '54

Market potentials in the machine tool industry; a case study. F. E. Hummel. J Marketing 19:34-41 Jl '54

1954 production planbook for metalworking. Am Mach 97:1-70, sec A-H Mid-N '53

Now machine tools hit the road; Cincinnati lathe & tool co. il Sales Management 72:100+ Mr 15 '54

Problems are the same, only more so; industry's main headaches. S. E. Bergstrom. Iron Age 172:117 N 19 '53

Quarter-size model cracks market for an improved machine tool; Magna engineering corp. il Sales Management 70:42-5 Ap 15 '53

Tool builders seek open sesame to sales. Steel 134:47 Ja 25 '54

Tool sales; bottom falling out? Steel 133:43 Jl 20 '53

Tool sales in '54. Steel 134:73 Je 21 '54

Tools; diversifying is mixed blessing. R. M. Lorz. Iron Age 173:256 Ja 7 '54

Tools; some firm, more soft; first quarter figures. Iron Age 173:79 Je 3 '54

U.S. finishing machine tool policy. Steel 133:33 D 28 '53

U.S. tool exports dip dangerously low. Steel 134:49 Mr 22 '54

Unpredictable machine tool outlook. H. L. Tigges. Comm & Fin Chr 179:58 Ja 7 '54

What's ahead for machine tools; interview with Charles J. Stilwell. Iron Age 174:65-6 Jl 22 '54

Advertising

Four-color inserts combat New Britain's competition. F. Borden. il Ind Marketing 38:78-9 D '53

Directories

Machine tool buyers' guide. Steel 133:78-95+ sec 2 N 16 '53

Rental plan

Builders hit U.S. leases. Steel 134:59 Mr 15 '54

Equipment marketing; new lease on life with leasing? Steel 135:45 Jl 26 '54

Kearney & Trecker to lease entire line of standard machine tools under seven-year optional purchase plan. Am Mach 98:138 F 1 '54

Kearney & Trecker's controversial tool lease plan boosts sales sharply. L. Anderson. il Ind Marketing 39:52-4 My '54

Leasing may ease replacement snarl. E. J. Egan, jr. Iron Age 173:83 Ja 28 '54

Leasing pays off; Kearney & Trecker's renting plan. Steel 134:61 My 3 '54

Machine tool lease plan bows; Kearney & Trecker corp. il Ind Marketing 39:26 F '54

Machine tools can now be leased; Tool-lease program, the Kearney & Trecker corp. Mach 60:205 Mr '54; Mill & Factory 54:117-18 Ap '54; Sales Management 72:76 F 1 '54; Steel 134:49 Ja 25 '54

Most flexible finance-leasing plan. Am Mach 98:158 Ag 2 '54

New plans for idle tools; excess defense production equipment will go for civilian output only in unusual cases. Steel 133:91 O 12 '53

New tool for tool sales; few machine tool builders try leasing. Steel 134:39 Ja 18 '54

ODM bans leasing of idle US tools to non-defense industries. Am Mach 97:166 O 26 '53

Push fight on non-defense leasing. E. J. Egan, jr. Iron Age 173:103 Mr 11 '54

Renting for a new lease on business life. Steel 134:67-9 Mr 29; 67-9 Ap 5; 50-2 Ap 12 '54

Tool lease, or not tool lease? Am Mach 98:252-5 Ap 12 '54

Securities

New trend to automatic machinery; with table of manufacturers of automatic equipment. J. D. C. Weldon. il diag Mag of Wall St 93:258-60+ N 28 '53

Tools for investment. I. U. Cobleigh. Comm & Fin Chr 178:818 S 3 '53

What's ahead for machinery and machine tools? with table on leading machinery equipment and machine tools. G. W. Mathis. Mag of Wall St 92:614-17 Ag 22 '53

Statistics

Index of machine tool new orders and shipments, 1947-1954; machine tool shipments by class of products; machine tool shipments by states; metalworking machinery (except machine tools); index of machine tool new orders-for domestic use; small cutting tools for machine tools and metalworking machinery; tabulations. Automotive Ind 110:330-1 Mr 15 '54

Machine tools in use and expected purchases; with charts. il Steel 133:16-21 sec 2 N 16 '53

Seventh American Machinist inventory of metalworking production equipment. Am Mach 97:A 1-97 Mid-N '53

Shipments, new orders, domestic and foreign; tabulations. Steel 134:180-1 Ja 4 '54

Used machines

See Machine tools, Used

Europe

European builders see market growing. E. C. Beaudet. Iron Age 172:85 S 24 '53

Europe, Eastern

Standardization characterizes Communist-built machine tools. D. Scott. il Am Mach 98:158-61 F 15 '54

Germany

Tool engineer looks at Europe. W. Bader. Mach 60:210-11 My '54

Great Britain

British machine tools; business is good. Am Mach 98:156 Ag 2 '54

Engineering outlook; re-armament reduced; effect on machine-tool industry. Engineering 177:103-6 Ja 22 '54

MACHINE tool industry—Great Britain—*Cont.*

Machine tool industry in Britain achieves record output, exports. For Comm W 50:20 Ag 10 '53

India

India's machine-tool builders report declining sales as government monopoly squeezes market. il Am Mach 97:187 D 7 '53

Japan

Jap tool market bright. Steel 134:75 Mr 8 '54

Japanese machine tools. T. Mac New. Automotive Ind 111:79-80 Jl 1 '54

Netherlands

Cincinnati Milling opens Dutch plant. il Am Mach 98:203 S 13 '54

New England

Tool builders say New England's a good home. Iron Age 173:130-1 Je 24 '54

Russia

I worked in Russian machine tool plant. Iron Age 172:71-2 D 17 '53

Trade with Russia; the lid is off on 30 per cent of once-banned metalworking equipment. Am Mach 98:198-9 S 13 '54

Switzerland

Development of Swiss machine tools; abstract. F. Pohl. Tool Eng 31:149 D '53

MACHINE tools

Adapting machine tools to aircraft manufacture. W. L. Davis. il Tool Eng 32:193-5 Je '54

Aircraft tooling finds jet age a challenge; report on economics of tooling panel. K. H. Boucher. diags S A E J 62:28-32 Je '54

AIEE conference on machine tools, 6th, Cleveland; abstracts of papers. Automotive Ind 109:63+ N 15 '53

AIEE conference on machine tools, 6th, Cleveland, Oct. 14-16; with abstracts of papers. Am Mach 97:167 O 26 '53

Annual machine tool electrification forum, 18th, Buffalo, April 6-7. Mach 60:212 My '54

Automation; Colonial combination drill, broach and stamping unit developed. Iron Age 174:149-50 Ag 19 '54

Automation eyes the future. R. E. Cross. il plan Steel 134:92-4 Ja 25 '54

Automotive tooling experience with aircraft tooling and manufacturing. J. Slean. il diags S A E J 62:44-7 My '54; Abstract. Tool Eng 32:183-5 Je '54

Boeing unit fixes old tools like new. Aviation W 58:40+ Je 8 '53

Corrosive properties of soluble cutting oils; effect on machine tool cast irons. il Metallurgia 48:233-40 N '53

Don't forget general purpose tools. F. S. Blackall, jr. Iron Age 173:147 Ap 22 '54

Facts about modern light tools. il Mill & Factory 54:578 My '54

Four factors that affect tool life; report of machine tools and tooling panel. il S A E J 62:47-9 F '54

Gadgeteering increases machine output. E. Mottershead. Cer Ind 61:112 D '53

Giddings & Lewis double-housing planer and boring machine. il Mach 60:217 Ag '54

High output tooling for limited volume. D. Scott. il Automotive Ind 110:48-52+ Ap 15 '54

Machine tool buyers' guide; machine tools not elsewhere classified. il Steel 133:220-2 sec 2 N 16 '53

Machine tool electrification forum, 18th, Buffalo, April 6-7. Am Mach 98:153-4 Ap 26 '54

Machine-tool load indicators. D. C. Russ, jr. il Instruments & Automation 27:1474-5 S '54

Machine tools in use and expected purchases; with charts. il Steel 133:16-21 sec 2 N 16 '53

Multiple tooling combines operations and cuts costs. F. X. Curran. il Mill & Factory 55: 98-101 Ag '54

1954 American Machinist production preview; turning. il Am Mach 98:122-68 Ja 18 '54

Pacific Coast Goliath; combination horizontal boring, drilling and milling machine. il Steel 133:151 Jl 13 '53

Paying for machine tools; chart. Mill & Factory 54:130 F '54

Pick best machine tool for your job. L. J. Murphy. Mill & Factory 55:88 Jl '54

Production machine tool hydraulic forum. Iron Age 174:107 Ag 19 '54

Production machine tool hydraulics forum, Detroit. Mach 60:228-9 Jl '54

Replace with modern machine tools. il diags Am Mach 97:B-B23 Mid-N '53

Simplify tooling and save money. C. R. Sivits. diags Tool Eng 32:59 My '54

Smart and Brown multi-purpose machine. il Engineer 197:294 F 19 '54

Snyder special machine processes both sides of oil pan. il diags Machine Design 26: 180-1 F '54

Standard machine tools produce helicopter components; Fenn mfg. co. H. A. Rockwell. il Mach 60:202-7 Jl '54

Swing tool solves tube machining problem. C. H. Becker. il diags Tool Eng 33:47-8 Jl '54

Talented tooling; illustrations with text. diags Am Mach 97:170-1 Je 8; 124-5 N 9 '53; 98:112-13 Ag 2 '54

Technical progress; machining. il Steel 134: 326-8+ Ja 4 '54

Three-station machine. il Steel 135:116 Ag 16 '54

Tooling programs. S A E J 62:32-3 Je '54

Tools at work; illustrations with text (cont). Tool Eng 31:60-1 N; 60-1 D '53; 32:58-9 Ja; 66-7 F; 64-5 Mr; 64-5 Ap; 60-1 My; 66-8 Je; 33:72-3 Jl; 74-6 Ag; 72-3 S; 72-4 O '54

Tools; plug stockpile gaps. R. M. Stroupe. Iron Age 174:62 S 2 '54

Trends in types of machine tools. Steel 133: 40-1 sec 2 N 16 '53

Ultrasonic tools for machining hard materials. il Tool Eng 32:128 My '54

Vibrations of machine-tool structures. S. A. Tobias and W. Fishwick. diags Engineering 176:707-12 D 4 '53

Walter P. Hill double end multi-operation machines produce 6000 pieces per hour. il Am Mach 97:194 N 9 '53

Whither tooling? R. A. Wason. Tool Eng 32:47-50 Ap '54

See also

Airplane factories—Equipment
Broaching machines
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Drilling and boring machinery
Feed mechanism
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Pneumatic tools
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Control

Adapting present machine tools for automatic operation. J. Y. Kaplan. il diag Instruments & Automation 27:1479-81 S '54

Automatic control; tape recorder will memorize, repeat machine operations. Iron Age 172:111-13 O 29 '53

Automatic machine control for job-lot production seen as outgrowth of GE electronic system. il Am Mach 98:182 F 15 '54

Fine linear measurements and control of machine tools. T. Merton. Engineering 177: 263 F 26 '54

Future transistor applications in machine-tool control. R. L. Bright. diags Instruments & Automation 27:1296-8 Ag '54; Abstract. Am Mach 98:133 S 13 '54

Location of machine tool controls. D. Dyer and W. H. Compton. diags Tool Eng 32: 281-2 Ap '54

Machine-tool automation. il diag Instruments & Automation 27:1304-5 Ag '54

Machine tool control; Herbert magnetic-tape control equipment. il Automobile Eng 44: 333-4 Ag '54

Magnetic controls speed machining cycles. il diags Mach 60:169-74 My '54

MACHINE tools—Control—*Continued*

Magnetic tape programming of machine tools. L. R. Peaslee. il diags Mach 60:166-72 Ja '54

Practical considerations in the use of tracer controls; abstracts. G. L. Rogers and J. L. Dutcher. Machine Design 26:236+ Ja '54; diags Tool Eng 32:141-2 Ja '54

Robot-run tools machine hot materials at Oak Ridge. S. E. Dismuke. il plan diag Am Mach 98:161-5 Ap 12 '54

Toward the automatic factory; General electric co.'s record-playback replays production impressions. diags Steel 134:100-1 My 17 '54

Trends in machine-tool automation. R. E. Cross. il diag Instruments & Automation 27:768-70 My '54

Design

Design your own special machine tools. il Steel 134:96-7 My 24 '54

Economics of location of control devices on machine tools; abstract. D. Dyer and W. H. Compton. diags Machine Design 25:374+ D '53

Get your special machines off to a good start. C. A. Nichols. il Am Mach 98:121-6 F 15 '54

Human factors in machine indexing. D. G. Malcolm and G. L. Marshall. il Machine Design 25:143-5 N '53

Logarithmic diagrams for machine tool design; abstract. O. H. Blaum. Tool Eng 33:137-8 Jl '54

Machine tools for automation; abstract. N. L. Bean. Am Mach 98:156 S 27 '54

New trends in machine-tool design, foreign and domestic. F. S. Blackall, jr. Mech Eng 76:259-63 Mr '54; Same cond. Am Mach 97:109-11 D 21 '53

Small shops can use automation too. J. B. Cunningham. il diags Am Mach 98:177-84 Ap 12 '54

Tooling innovations speed specialized parts production; Vard, inc. D. A. Hubbard. il Iron Age 172:125-8 Ag 20 '53

Trends in machine tool features; with charts. il Steel 133:22-7 sec 2 N 16 '53

Unit engineering of multiple drilling and tapping equipment. M. H. Emrick. il Mach 60:165-8 Ag '54

Electric driving

Craven 42ft boring and turning mill. il Engineer 197:106-8 Ja 15 '54; Same. Engineering 177:48-50 Ja 8 '54

Electric drive for high-speed surface-broaching machine. J. M. Morgan, jr. and E. J. Rivoira. il diags Elec Eng 72:886-91 O '53

Electronic drives. F. E. McLane. il diag Tool Eng 32:143-5 Mr '54

For the single standard. F. S. Blackall, jr. Steel 133:57 O 19 '53

Machine tool electrification forum, 18th, Buffalo. Automotive Ind 110:62-3+ My 1 '54

Exhibitions

ASTE annual meeting and industrial exposition, Philadelphia; with abstracts of papers. Automotive Ind 110:56+ My 15 '54

American society of tool engineers industrial exposition, Philadelphia, April 26-30. Automotive Ind 110:60-4+ Ap 15 '54; Am Mach 98:217-40 Ap 12 '54

ASTE industrial exposition, Philadelphia, April 26-30; plan, list of exhibitors. il Tool Eng 32:89-136 Ap '54

Canada's International trade fair, Toronto, May 31-June 11. Am Mach 98:166-7 Je 21 '54

European machine tool exhibition, 3d, Brussels, Sept. 4-13. il diag Engineer 196:361-2, 393-4, 419-22 S 18-O 2 '53

German machine tools dominate Vienna fair. il Am Mach 98:164-5 My 24 '54

Industrial exposition, Philadelphia, April 26-30; preview of equipment. il Mach 60:206-23 Ap '54

International machine tool show, 3d, Brussels. Tool Eng 31:50 N '53

Machine tool supermart. il Bsns W p79-80 O 10 '53

Fixtures

Automatic lathes, special fixtures speed turning operations. H. Chase. il diag Iron Age 172:125-7 S 3 '53

Ball-bearing fixture rolls out copper wire. M. Barash. diags Am Mach 98:139 Ap 26 '54

Ball-bearing locks on fixture aid turning of ordnance shells. D. G. Nollé. diag Am Mach 98:152 My 24 '54

Bench lathe fixture speeds capillary tube cutoff. G. S. Norko. diags Am Mach 98:144 S 27 '54

Cut tool costs, simplify design with precision casting; Western electric co. S. Snorek. il Iron Age 173:136-9 F 11 '54

Eccentric-lock drillpress fixture speeds second operation. E. Schmidt. diags Am Mach 98:214 Ap 12 '54

Emergency fixture made from old chuck. diag Mill & Factory 54:137 Mr '54

Fixture for cropping split rings from coiled wire stock. W. M. Halliday. diags Mach 60:210-11 Ja '54

Fixture helps polish small-diameter pivots. G. Herzl. diag Am Mach 98:151 My 24 '54

Fixture sharpens milling cutters on lathe. diags Am Mach 98:137 Ag 2 '54

Flexible fixture system cuts costs of temporary tooling. E. C. Beaudet. il diags Iron Age 172:138-41 Ag 13 '53

Hydraulic positioning and clamping; Ford motor co. in England. il diags Mach 60:155-62 Je '54

Indexing fixtures solve valve production problems. il Steel 135:104-5 S 27 '54

Jig boring time cut 75 per cent with improved reaming fixtures. il Iron Age 172:136+ O 22 '53

Lathe fixture for machining in-line bores. R. T. Stewart. diags Mach 60:213 My '54

Machining and grinding fixtures. C. T. Bower. diags Tool Eng 32:47-8 F '54

New uses for trunnion fixtures on your radials. W. Huber. il Am Mach 98:112-13 Ap 26 '54

1954 American Machinist production preview; tools and accessories. il Am Mach 98:169-84 Ja 18 '54

One machine tooled up for five different housings; J. D. Adams mfg. co. F. D. Wallace. il diags Mach 60:165-8 My '54

Planetary fixture mills flats in position in turret lathe. R. Wiedenholt. diag Am Mach 98:166 Mr 15 '54

Plastics fixtures have wide use. B. Sokol. il Tool Eng 32:69-72 Ap '54

Royal Oak universal form-relieving fixture. il Mach 60:230-1 Je '54; Am Mach 98:171 Jl 19 '54

Simple attachment relieves hobs on lathe. S. C. Chang. diags Am Mach 97:165 D 7 '53

Special fixtures combine three setups; International business machines corp. il Iron Age 174:176 S 16 '54

Spring-and-V-block fixture aids drilling small shafts. M. Barash. diags Am Mach 98:175 My 10 '54

Tooling and portable tools; attachments and accessories. il Am Mach 97:C 11-16 Mid-N '53

Work-handling fixtures increase lathe production. G. M. Class. il Iron Age 173:190-3 Ap 22 '54

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Lubrication

Better design, systematic care lick most lubrication failures; abstract. O. D. Lascoe. Iron Age 172:137-9 S 24 '53

Mist lubrication cuts maintenance, production costs; American chain & cable co. W. E. Drayton. il Iron Age 173:158-60 Ap 8 '54

Maintenance and repair

Cut costs, maintain metal working tools properly. il Mill & Factory 54:605-12 My '54

Machine tool builders perform impossible salvaging jobs; Norton co. I. G. Freeman. il Mach 60:194-7 Ja '54

Making the old good as new; year-round machine tool rebuilding program at Boeing. il Steel 133:124 Ag 17 '53

New results in tool and die welding. R. Groman. il diags Welding J 33:543-8 Je '54

MACHINE tools—Maintenance and repair—*Continued*

Preventive maintenance trims production costs; Ford motor co. R. H. Eshelman. il Tool Eng 32:37-42 Je '54

Manufacture

Finish rolling improves cast iron ways. W. Iwascheff. il Tool Eng 31:57-9 D '53

Lacquer hot-sprayed on machine tools; Norton co. il Mach 61:184-6 S '54

Production without prototypes cuts new model costs; Warner & Swasey co. C. T. Blake. il Iron Age 173:136-7 My 20 '54

Self-sufficiency can mean economy in terms of time and money; Bullard co. F. X. Curran. il Mill & Factory 53:134-6 D '53

Reconstruction

Custom machine rebuilding; National mine service co. il map Coal Age 59:104-8 My '54

Money-saving machine tool rebuilding program; North American aviation, inc. J. S. McNamara. il Mill & Factory 55:94-5 Jl '54

Rebuilding GM's machines. il Bsns W p33 S 12 '53

Screw-machine converted for gun-drilling; Hartford machine screw co. W. M. Stocker, jr. il Am Mach 98:162-3 F 15 '54

Sometimes you don't need new machines, just re-educate the old ones; illustrations with text. Mill & Factory 55:100-1 S '54

Tool engineers extend usefulness of heavy press; Pastushin aviation corp. il Iron Age 173:175-6 My 6 '54; Steel 134:123-4 Je 28 '54

Renting

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Safety devices

Personal interest and guards cut accidents, boost production; Economy form corp. C. L. Morgan. il Am Mach 98:178-9 S 13 '54

Standards

Ford benefits by tool standardization. C. H. Wick. il diags Mach 60:162-9 Ap '54

Machine tools built from standard subassemblies. il Tool Eng 33:67-8 Ag '54

Standardization characterizes Communist-built machine tools. D. Scott. il Am Mach 98:158-61 F 15 '54

Storage

Blueprint storage plans; army works out lease-storage deal with Ford, Studebaker for government tools. R. D. Raddant. Iron Age 172:90 Ag 13 '53

Ford, Ordnance mothball tank tooling. R. D. Raddant. il Iron Age 173:89 My 6 '54

Mothballing machine tools at Ford. il Am Mach 98:166-7 My 24 '54

Tank plant mothballed for quick M-day conversion; illustrations with text. Steel 134:58 My 17 '54

Study and teaching

Why shop courses in college? E. W. Dunlap. Am Mach 98:100-1 Mr 1 '54

Testing

Machine-tool dynamometers; a current appraisal. N. H. Cook and others. il diags Am Mach 98:125-9 My 10 '54

MACHINE tools, Used

Rebuilt equipment. Am Mach 97:H 1 Mid-N '53

Short circuit in used machinery; H.R. 8300 grants new equipment buyers faster depreciation but excludes used machinery purchasers from the same right. il Steel 134:53 Ap 12 '54

Taxes; no help on used goods. Iron Age 174:55 Ag 5 '54

Used machine tools are big business, first published estimates show. Am Mach 98:142 F 1 '54

Used machines; second line of industrial defense? Machinery dealers national association annual convention, Philadelphia, May 12-15. Am Mach 98:170 My 24 '54

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Drilling and boring (metal working, etc.)
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Copying processes

Automatic copying lathe operates with hydraulic feeds. il diag Tool Eng 32:52-4 Ja '54

Copy turning; new Herbert Carbitracer lathe. il Automobile Eng 44:194-5 My '54

Copying lathe makes easy work of short run, intricate parts. B. D. Miller and G. Kudash. il diags Iron Age 172:120-3 Jl 23 '53

Copying lathes with electromagnetic tool control. il Engineering 176:778 D 18 '53

Duplicating method saves time. E. Diskavich. diag Mill & Factory 54:132 F '54

Heid copying lathe. il Engineer 197:76 Ja 8 '54

Hydraulically operated cross-slide for a copying lathe. diag Mach 60:207-8 Ja '54

Milling original contoured shapes with interpolating tracer control; New England machine and tool co., Airfoil electronic milling machine. F. W. Hale. il diags Tool Eng 32:46-9 Je '54

Tape-controlled machining. il Factory Management 112:142 Ap '54

True-Trace model A-3D hydraulic tracer. il Tool Eng 32:116 Mr '54

MACHINE works

Besser celebrates golden anniversary. H. C. Persons. il Rock Prod 57:119-22+ Jl '54

Good-looking, flexible, expandable for 195X needs; Cyril bath co. il Factory Management 112:B 18-19 pt 2 Je '54

How they modernized by addition; Western automatic screw machine co. il Factory Management 112:A20-6 pt 2 Je '54

Mining machinery of the Atlas Diesel co. il Engineering 176:641-3, pl 34-5 N 20 '53

Modernizing in easy, planned stages; Lodge & Shipley co. T. T. Kling. il Factory Management 112:A 12-19 pt 2 Je '54

More power for Smith. il Steel 133:90 S 7 '53

New Caterpillar plant is tailored to fit manufacturing and storage. il Factory Management 112:90-5 Je '54

Red barn + big tools = new shop; Jacobs machine works; illustrations with text. Am Mach 97:146 O 26 '53

Small firm finds a quick, economical way to diversify; Stow mfg. co. Steel 135:80-1 S 20 '54

Swedish pneumatic mining equipment. il Engineer 196:569-70 O 30 '53

Tanks; stand-by procedure keeps engine plant ready; Michoud ordnance plant. il Iron Age 174:82 S 9 '54

Electric equipment

Electrical maintenance standards hold production at high level; Bullard co. F. A. Westbrook. il Mill & Factory 54:122-4 Je '54

Gradual change from radial network electrical distribution; International harvester co. K. A. Fahse. diags Factory Management 112:C 10-13 pt 2 Je '54

Employees

Wages and related benefits in the machinery industries; postwar wage trends; survey of 20 labor markets, 1953-54. O. R. B. Hollberg and A. N. Jarrell. U S Bur Labor Statistics Bul 1160:1-60; pa 40c Supt. of doc. '54

Equipment

Accurate setups cut tool changing time, speed production; Avco mfg. corp.'s Lycoming div. W. Stone. il Iron Age 173:152-5 Je 17 '54

MACHINE works—Equipment—*Continued*

Big machines to make bigger machines; Ingersoll milling machine co. il Am Mach 98:154-5 Ap 26 '54

Central coolant system serves entire grinding department; Warner & Swasey co. il Mach 60:179-81 Je '54

Cotton picker spindles require some unusual operations; International harvester co. W. P. Gronke. il Mach 61:187-9 S '54

Curtiss-Wright automates turbo-compound engine assembly line at Wood-Ridge. il plan Am Mach 97:170-2 N 23 '53

Fabricator lowers tooling costs, improves productivity, through wide use of stud welding; Barry Wehmiller machinery co. J. W. Jones. il diag Iron Age 174:161-4 S 16 '54

Factory for turbo-jet engines; East Kilbride works. il Engineer 196:710 N 27 '53; Engineering 176:717, 720 D 4 '53

Induction forging can be versatile; Massey-Harris co. F. T. Chesnut. il plan Steel 133:112-13 S 7 '53

Making modernization dynamic; Yale & Towne mfg. co. J. W. Greve. il plan Tool Eng 32:81-8 Ap '54

Miniature machines drill and insert small pins; Warner & Swasey co. il Mach 61:190-1 S '54

Ministry of supply tank factory; Leyland, Lancashire. il Engineering 176:630-1 N 13 '53

New wrinkles for an old plant; Brown & Sharpe mfg. co. R. Sheets. il Am Mach 98:129-33 Je 7 '54

One machine tooled up for five different housings; J. D. Adams mfg. co. F. Wallace. il diags Mach 60:165-8 My '54

Production shortcuts help power tanks; Continental Motors. G. H. DeGroat. il plan Am Mach 98:122-7 Jl 19 '54

Special fixtures speed army tractor hull welding; Allis-Chalmers mfg. co. H. W. Lindsay. il Am Mach 97:113-17 O 26 '53

Tooling innovations at Perkins Diesel plant. D. Scott. il plan Automotive Ind 109:46-52 N 15 '53

Want to cut costs and improve working conditions; Kenworth motor truck corp.; illustrations with text. H. E. Jackson. Mill & Factory 54:96-7 Mr '54

Layout

Automatic tools speed up assembly of aircraft engines; Curtiss-Wright corp. il plan Mill & Factory 54:79-82 Ja '54

Making modernization dynamic; Yale & Towne mfg. co. J. W. Greve. il plan Tool Eng 32:81-8 Ap '54

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New concept of product flow cuts cycle from months to weeks; Norton co. il diags Factory Management 112:84-91 Ja '54

Old age; how to keep plants young; E. Horton & son co. G. G. Carr. il Iron Age 172:115-16 N 12 '53

Production without prototypes cuts new model costs; Warner & Swasey co. C. T. Blake. il Iron Age 173:136-7 My 20 '54

Quality control at International harvester co. il Automotive Ind 111:71+ Jl 1 '54

Self-sufficiency can mean economy in terms of time and money; Bullard co. F. X. Curran. il Mill & Factory 53:134-6 D '53

Statistical control methods as applied to cutting tools; International harvester co. W. H. Seacord and F. L. Helmel. il diag S A E J 62:55-7 My '54

We cut production time 27 per cent; Jones & Lamson machine co. R. S. Jones. Am Mach 98:118-21 My 24 '54

Safety measures

Assembly carts prevent strains, speed work; AiResearch manufacturing co. il diag Nat Safety N 69:54+ Ja '54

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Mechanisms and their classification. A. S. Hall, jr. bibliog diags Machine Design 25:174-80 D '53

Photos speed re-assembly; Morgan engineering co. il Factory Management 112:129 Ja '54

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Agricultural machinery
Assembling methods
Balancing of machinery
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Bending machines
Bolts and nuts
Bottle washing machines
Broaching machines
Calculating machines
Calenders
Casting machines
Clutches
Coal mining machinery
Conveying machinery
Couplings
Cranes, derricks, etc.
Crankshafts
Crushing machinery
Cylinders (engines, etc.)
Die casting machines
Diesel engines
Drilling and boring machinery
Dyeing machines
Electric machinery
Electric welding machines
Excavating machinery
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Floor cleaning machines
Food machinery
Foundry machinery
Friction
Gear cutting machines
Gearing
Governors (machinery)
Grinding machines
Harvesting machinery
Hoisting machinery
Hydraulic machinery
Hydraulic presses
Ice machines
Interchangeable mechanism
Internal combustion engines
Jigs
Keys and keyways (machinery)
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Lathes
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Bases

Replacing steel jig bases with concrete cuts costs 25 per cent at Boeing, Seattle. il Am Mach 97:178-9 D 7 '53

Strain gage leveling increases machine accuracy. H. Pelphrey. il diag Tool Eng 32:63-5 F '54

Control

Automatic machine control. P. L. Nies. il Tool Eng 31:144-5 D '53

Metallurgist assesses impact of new automatic control mechanisms. A. H. Allen. bibliog(38 titles) il Metal Prog 65:65-70+ Mr '54

Performance specifications are needed for electronic control. B. Cooper. diag Machine Design 26:302+ Je '54

Tighter control of downtime; continuous recorder. il Factory Management 112:93-6 Jl '54

MACHINERY—*Continued*

Design

Analytical approach to the design of four-link mechanisms. F. Freudenstein. bibliog diags A S M E Trans 76:483-9; Discussion. 489-92 Ap '54

Applying eccentric gearing. P. Grodzinski. diags Machine Design 26:147-51 Jl '54

Calculating tearout strength for cantilever beams; data sheet. B. Saelman. diags Machine Design 26:161-3 Ja '54

Cam curvature. A. R. Holowenko and A. S. Hall. diags Machine Design 25:170-7 Ag; 162-9 S; 148-56 N '53

Cam dynamics. D. G. Anderson. il diag Product Eng 24:170-6 O '53

Cast-weld construction bypasses complications. G. L. Gibson. il Steel 135:96-7 S 6 '54

Charts for stress visualization; data sheet. F. W. Kinsman. Machine Design 26:191-3 F '54

Chatterless linear motion for reciprocating rods. diags Machine Design 26:109 Jl '54

Conference on mechanisms, 1st, West Lafayette, Ind. Oct. 12-13; transactions. Machine Design 25:173-220 D '53

Creativity in design. H. A. Oldenkamp and L. Strauss. il diags Tool Eng 32:69-72 Je '54

Design of shrink fits. P. R. Paslay and R. Plunkett. diags A S M E Trans 75:1199-202 O '53

Designing built-in lighting for machines. R. C. Rodgers. il diags Machine Design 26: 147-62 F '54; Excerpts. Steel 134:108-10 Ap 26 '54

Designing with engineering materials. R. L. Stedfeld and others. bibliog il diags Machine Design 25:137-92 O; 161-70 N '53

Designing with metal bellows. J. H. Howard. il diags Machine Design 26:137-48 Ja '54

Developments in the analysis of lugs and shear pins. M. A. Melcon and F. M. Hoblit. il diags Product Eng 24:160-70 Je '53

Dimensions and tolerances for mass production. E. Buckingham. diags Mach 59:163-9 My; 172-9 Je; 180-5 Ag; 60:175-85 S; 197-203 O; 218-22 N; 180-5 D '53; 184-90 Ja; 181-90 F; 186-92 Mr; 185-91+ My; 184-90 Je; 178-83 Ag '54

Distortion can be designed out of welded structures. J. R. Stitt. il diags Steel 134: 120-2 Mr 8 '54

Effect of stress concentration on design strength; supplement to 1948 edition of Metals handbook. bibliog(39 titles) il diags Metal Prog 66:97-103 Jl 15 '54

Functions of materials in bearing operation. P. P. Love and others. diag Machine Design 26:276+ Mr '54

Instruction in creative mechanical design. G. B. Du Bois. Machine Design 26:294+ Mr '54

Job-shop approach to mechanism analysis. J. A. Hrones. diags Machine Design 26:183-90 F '54

Large weldments; how arc welding and plate forming influence design. J. B. Austin. il Machine Design 26:140-2 Je '54

Line-of-action analysis leads to optimum geometry and practical tolerances for precision gear tooth action. A. H. Ahlberg. diags Machine Design 26:121-4 Jl '54

Linkage design; a note on one method. A. S. Hall, jr. and D. C. Tao. diags A S M E Trans 76:633-7 My '54

Mechanisms for uniform-velocity reciprocating motion. P. Grodzinski. il diags Machine Design 26:141-5 F '54

Minimization of gear-train inertia. E. G. Burgess, jr. diags A S M E Trans 76:493-6 Ap '54

New applications and designs for patents. G. V. Woodling. diags Machine Design 26:322+ Ap '54

New approaches to variable-speed drives. C. E. Kraus. il diags Machine Design 25:232-46 D '53

Optimum design. R. T. Hinkle. diags Machine Design 26:165-74 Mr '54

Panel seals; design details; drawings with text. Machine Design 26:134-7 Ag '54

Planning machine series. P. Tedeschi. diags Machine Design 26:96-108 Jl; 163-74 Ag; 195-207 S '54

Practical approach to casting design. R. J. Franck. il diags Product Eng 24:192-5 Jl '53

Properties of preloaded steel bolts. W. C. Stewart. bibliog diags Product Eng 24:191-5 N '53

Rotating components for automatic control. S. Davis. bibliog il diags Product Eng 24: 129-60 N '53

Specifying accuracy of form for machine parts. A. H. Candee. diags Machine Design 26:139-41 Ap '54

Stress analysis in design. J. B. Hartman and R. E. Benner. bibliog diags Machine Design 26:135-47 Mr; 186-95 Ap; 144-50 Je; 139-46 Jl '54 (reprints $1)

Systematic mechanism design. J. Denavit and R. S. Hartenberg. diags Machine Design 26:167-75 S '54

Systematic method for analyzing and assigning practical tolerances. E. T. Fortini. bibliog diags Machine Design 26:117-24 Ag '54

See also

Fits (machinery)
Gearing—Design
Keys and keyways (machinery)
Machine tools—Design
Machinery, Kinematics of

Erection

Heavy-press erection. il Mech Eng 75:572-4 Jl '53

Exhibitions

British industries fair. il Metallurgia 49:171-88 Ap '54

Engineering, marine and welding exhibition, 19th, London, Sept. 3-17. il diags Engineer 196:supp 1-16, 322-7, 354-9, 387-90, 441-4 S 4-O 2 '53

Welsh industries fair, Cardiff, Sept. 9. il Engineering 176:412 S 25 '53

You can test a $100,000 tool at this new international show; S&S machinery co. il Ind Marketing 39:136-7 Ja '54

See also

Machine tools—Exhibitions

Failures

Concept of fatigue damage. S. M. Marco and W. L. Starkey. il diag A S M E Trans 76: 627-32 My '54

Exposing machine-tool gremlins with high-speed photography; Gilman engineering co. L. C. Tullis. il Am Mach 98:156 Je 7 '54

Tap breakage problem solved by high-speed photography. E. J. Fox. il Mach 60:192-3 Ap '54

Foundations

Assembly's firm base; jig members based on concrete; Boeing airplane co. il Steel 134: 101 Mr 15 '54

Foundation anchor device fits many sizes of pumping units. il diags World Oil 137: 204 Jl '53

Leasing

Capital conversion for higher returns; leasing of machinery, cars, trucks, etc. J. W. Rollins. il Dun's R & Mod Ind 62:60-2+ N '53

Does industry lease capital equipment; Mill & Factory survey. Mill & Factory 55:67-70 Ag '54

Equipment leasing continues growth. K. W. Bennett. Iron Age 173:68 Ap 1 '54

Leasing; a competitive vitamin? Steel 133: 45-6 O 19 '53

See also

Machine tool industry—Rental plans

Maintenance and repair

Check list for machine care; reference book sheet. F. Biechele. Am Mach 98:135 F 1 '54

How GM tooling was reborn from flame. il diags Am Mach 97:129-52 N 23 '53

Metal surgery; repairing fractured plant and machinery; Metalock process. il Chem Age (Lond) 68:747-8 My 16 '53

MACHINERY—Maintenance and repair—*Cont.*

Preventing press failures; maintenance and operation. A. F. Gagne, jr. il diags Tool Eng 32:54-8 Je '54

See also

Electric welding machines—Maintenance and repair

Mounting

Eight machines set up in 23¾ minutes. il Mill & Factory 54:132 Ja '54

Flat plate spring mounts for heavy equipment. il Machine Design 25:127 N '53

Mobility; improved mounts simplify movement of machines. il Iron Age 172:199-202 D 3 '53

Mounting cylindrical grinding wheels; reference book sheet. diags Am Mach 98:243 Ap 12 '54

On the level machine mounting. il diags Safety Maint & Prod 107:24-6 Je '54

Vibration and shock isolators; how to select and apply mountings for control of vibration, noise, shock. C. E. Crede. il diags Machine Design 26:139-58 Ag '54

See also

Machinery—Vibration

Moving

Erection tower moves stator; illustrations with text. P. M. Barnes. Power 97:98 N '53

Installing major electric equipment. A. B. Marvin. Pub Util 52:765-71 N 19 '53

Machinery moved without losing time or production; Chrysler corp. D. G. Baird. il Mill & Factory 54:129-31 Ap '54

Machinery on wheels; fast, flexible. il Chem W 73:50-1 Ag 8 '53

Mobile machinery; built-in levelers mean fast shuffle; Barry corp. il Steel 133:142 D 7 '53

Mobility; improved mounts simplify movement of machines. il Iron Age 172:199-202 D 3 '53

Name plates

See Name plates

Noise

Hush up your ejector racket; illustrations with text. J. G. Schlindwein. diags Am Mach 98:180 S 13 '54

Improvised sound locator checks special machinery. I. Epstein. diags Am Mach 98:167 F 15 '54

Manganese-copper alloys put damper on noise. J. A. Rowland and J. W. Jensen. il Steel 135:127 S 13 '54

See also

Paper making machinery—Noise

Painting

Out of the gray. N. A. Mason. il Nat Safety N 68:36-7+ N '53; Same. Safety Maint & Prod 107:33-4+ Ja '54

Patents

Noteworthy patents. diags Published in monthly numbers of Machine design

Protection

Preventing press failures. A. F. Gagne, jr. il diags Tool Eng 32:37-45 F; 54-6 Mr; 59-63 Ap; 62-6 My '54

Safety devices

Duty to fence dangerous machinery. C. F. Mayson. Engineering 176:615-16 N 13 '53

Guarding the machine. Nat Safety N 69:187-8+ Mr '54

Pneumatic press brake guard. diag Engineer 197:364 Mr 5 '54

Safety devices protect slides against overloads. W. M. Halliday. diags Mach 61:204-5 S '54

Screen protects test operator. il Nat Safety N 69:72 My '54

Switches and the safety interlock. A. L. Riche. il Safety Maint & Prod 106:13+ N '53

What you must know to guard a machine. W. E. Montgomery. il Safety Maint & Prod 108:16-18+ S; 48+ O '54; Excerpts. Machine Design 26:300+ F '54

Winder guards. J. A. Draper. il Pulp & Pa of Can 54:239-40 O '53; Same. Nat Safety N 69:36 Ja '54

See also

Presses—Safety devices

Standards

Limits and fits for cylindrical parts; proposal for an American Standard; reference book sheets. Am Mach 98:151, 153, 155 Jl 19; 143, 145, 147 Ag 2; 151, 153, 155 Ag 16; 119, 121 Ag 30 '54

See also

Machine tools—Standards

Testing

Mock-ups for vibration and shock testing. C. E. Crede. il diags Product Eng 24:186-8 Jl '53

Transportation

Air freight; machinery flies high. T. M. Rohan. il Iron Age 172:74-5 Jl 9 '53

Biggest power package; 490,000 pound turbogenerator. il Mill & Factory 54:140 Ja '54

Hauling problems; transporting rigs. A. Gibbon. il World Oil 137:181-2 S '53

King-size moving job on the West coast. il Oil & Gas J 52:148-9 S 14 '53

See also

Electric machinery—Transportation

Vibration

Cam dynamics. D. G. Anderson. il diag Product Eng 24:170-6 O '53

Check all these points to stop motor vibration. J. H. Jones. il diag Power Eng 58:78-9 Je '54

Curing the shakes; new principle of detecting vibrations in moving parts; Vibraton. Bsns W p 168+ Ag 15 '53

Device insures accuracy; Vibraton detects and measures vibrations. Steel 134:136 F 1 '54

Facts about modern vibration isolation. il diags Mill & Factory 54:572 My '54

Natural frequency of a nonlinear system subjected to a nonmassive load. C. E. Crede. diag A S M E Trans 76:117-19; Discussion. 119-20 Ja '54

Practical approach to vibration problems on drilling barges. T. B. Herndon and A. B. Reese, jr. il diags Pet Eng 25:B 118+ O '53

Seismograph places grinders. il Am Mach 98:209 Ap 12 '54

Shock or vibration isolators? J. Markowitz. il diag Product Eng 24:212-14 Je '53

Simplified analysis of complex vibration problems. O. C. Brewster. diags Product Eng 24:161-6 N '53

Some electronic instruments for marine turbine research. J. Hare and R. B. Conn. diag Engineering 177:276 F 26 '54

Some vibration effects on surfaces produced by turret lathes. P. T. Eisele and R. F. Griffin. il diags A S M E Trans 75:1211-17 O '53

Stopping big machinery shakes. il Tool Eng 32:71 Mr '54

Theory of regenerative chatter in precision-grinding operations. R. S. Hahn. bibliog diags A S M E Trans 76:593-7 My '54

Units track down frequency, size of machine vibration. il Iron Age 173:173A Ap 8 '54

Vibration and shock isolators; how to select and apply mountings for control of vibration, noise, shock. C. E. Crede. il diags Machine Design 26:139-58 Ag '54

Vibration relay for rotating equipment. il Blast F & Steel Pl 41:1348+ N '53

Vibrations of machine-tool structures. S. A. Tobias and W. Fishwick. diags Engineering 176:707-12 D 4 '53

See also

Balancing of machinery

MACHINERY, Automatic

Acme-Gridley single-spindle automatic chucking machine. il diag Mach 60:236-8 Jl '54

Acme-Gridley single-spindle chucker adapts to automation. il Am Mach 98:176-7 Je 21 '54

MACHINERY, Automatic—*Continued*

Adapting present machine tools for automatic operation. J. Y. Kaplan. il diag Instruments & Automation 27:1479-81 S '54

Advanced automation techniques; Ford motor co. il Automotive Ind 110:50-1 Je 15 '54

Automated units speed turning, gaging; Detroit automotive plants. E. J. Egan, jr. diags Iron Age 173:144-5 Mr 11 '54

Automatic factory; progress to date; abstract. Management R 43:104-5 F '54

Automatic transfer, sinews of automation. il diag Tool Eng 32:43-6 My '54

Automatic units speed aircraft engine assembly; Curtiss-Wright corp. il Iron Age 172:99-101 N 26 '53

Automatics can show profits on short runs. D. Stoneman. il Iron Age 173:173-6 Ap 22 '54

Automatics try carbide cutters. il Steel 135: 51 Jl 26 '54

Automation at Ford hinges on design, maintenance, management. G. G. Murie. il Tool Eng 32:161-3 F '54

Automation boosts Stylon output at lower cost. il Cer Ind 62:81-2 Mr '54

Automation combines standard lathes; illustrations with text. E. J. Tangerman. diags Am Mach 98:110-13 Mr 29 '54

Automation demands integral gaging. E. J. Egan, jr. Iron Age 174:95 S 23 '54

Automation eyes the future. R. E. Cross. il plan Steel 134:92-4 Ja 25 '54

Automation for the foundry; Osborn mfg. co. il Bsns W p64+ S 5 '53

Automation; how far should you go? il Steel 134:87-94 Ap 12 '54

Automation in stamping end plates for starting motors; Ford motor co. il Automotive Ind 111:48-9 S 1 '54

Automation in the foundry. W. E. Dougherty. il diag Foundry 82:140-5 My '54

Automation increases production of stampings at Oldsmobile. C. H. Wick. il diags Mach 60:202-9 N '53

Automation is in the cards; prepare for it. A. E. Puutio. N A C A Bul 35:1245-51 Je '54

Automation, more than a pushbutton. E. J. Egan, jr. il Iron Age 172:47 D 24 '53

Automation moves in on the electronic industry; Project Tinkertoy. A. N. Wecksler. il Mill & Factory 53:98-101 N '53

Automation principles applied to valve production. J. Geschelin. il Automotive Ind 111:60-2 Jl 1 '54

Automation; recent developments at Ford motor co. H. W. Perry. il Automobile Eng 44:323-5 Ag '54

Automation review and forecast. il Iron Age 173:314-16 Ja 7 '54

Automation, the new technology. J. Diebold. Harvard Bsns R 31:63-71 N '53

Automation via digital conversion. M. D. Weiss. diags Instruments & Automation 27:926-7 Je '54

Can the job shop be automated? E. J. Egan, jr. Iron Age 173:93 Ap 15 '54

Carbide tooling boosts production on automatics. il diags Mach 60:196-200 Ag '54

Carbide tooling succeeds on automatics. il diags Am Mach 98:158-60 Jl 19 '54

Carbides give automatics greater punch. il Tool Eng 33:50 Ag '54

Cleveland dial-set automatic. il Tool Eng 31: 118 N '53

Cleveland 4¼-in. high-speed single-spindle automatic. il Engineering 177:413 Mr 26 '54

Cleveland single-spindle automatics available in 2½-in. model AW. il Am Mach 97:189 N 9 '53; Mach 60:223 D '53

Colonial automatic drilling, broaching, and stamping machine. il Mach 61:210-11 S '54

Cone eight-spindle bar automatic. il Am Mach 98:165 S 27 '54

Curtiss-Wright automates turbo-compound engine assembly line at Wood-Ridge. il plan Am Mach 97:170-2 N 23 '53

Electronics plant; the longest step yet for automation; Project Tinkertoy. il Bsns W p72-4+ O 10 '53

Facts about modern machine automation. il Mill & Factory 54:600-1 My '54

For real high production; automatics tooled with carbides. T. Mac New. il diags Automotive Ind 111:79-80 Ag 1 '54

Hautau automatic nut torquing machines. il Tool Eng 31:128 N '53

How automatic engine factory works; Wright turbo compound powerplant. I. Stone. il Aviation W 59:48-9+ D 14 '53

How far will automation go? abstract. E. E. Opel. Tool Eng 33:146 Jl '54

How much automation for your plant? A. R. Gardner. il Dun's R & Mod Ind 63:62-8 F '54

How to look at automation; abstract. G. M. Muschamp. Management R 43:79-80 F '54

Machine-tool automation. il diag Instruments & Automation 27:1304-5 Ag '54

Machine tools for automation; abstract. N. L. Bean. Am Mach 98:156 S 27 '54

Machining; carbide tools boost automatic output 50 to 100 per cent. il Iron Age 174: 146 Ag 12 '54

Memory unit controls operations in automatic food plant; electro-mechanical egg candling, coating, and packaging machinery. il Food Eng 26:44-7 S '54

Metallurgist assesses impact of new automatic control mechanisms. A. H. Allen. bibliog(38 titles) il Metal Prog 65:65-70+ Mr '54

Modular assembly assures production flexibility; Project Tinkertoy. J. W. Greve. il plan Tool Eng 31:71-80 D '53

Multiple-spindle automatics now 100 per cent carbide-tooled. G. Sundell. il diags Mach 61:192-3 S '54

New automation field; how big, what's next. F. Borden. il diag Ind Marketing 39:54-6 Je '54

New trend to automatic machinery; with table of manufacturers of automatic equipment. J. D. C. Weldon. il diag Mag of Wall St 93:258-60+ N 28 '53

Piston production at Ford features automation and quality control. E. Altholz. il Mach 60:196-201 N '53

Precision Welder and Flexopress automatic stamping press. il Machine Design 26:129 Mr '54

Press automation; abstract. T. W. Bannon. il Tool Eng 33:141-2 Jl '54

Production of Chrysler corp.'s new Power-Flite automatic transmission; wide application of transfer machines. J. Geschelin. il Automotive Ind 110:64-8+ F 1 '54

Push-button line for ammunition; Rockford (Ill.) ordnance plant. il Bsns W p68-71 S 26 '53

Riveting goes film-controlled; Convair. il Factory Management 112:88-9 Ag '54

Second industrial revolution? USAF-Stanford research institute symposium on the automatic production of electronic equipment, San Francisco, April 19-20. il Am Mach 98:190-1 My 10 '54

Seek economy in standard automation. R. D. Raddant. Iron Age 173:84 Ap 1 '54

Setup slugs are patterns for tool setting on repeat multi-spindle automatic jobs; Robertshaw-Fulton controls co. il Steel 134:144 Mr 1 '54

Single purpose machines change with the job. il Steel 135:78-9 Ag 30 '54

Single-spindle automatics solve production problems; Wagner electric corp. M. H. Palm. il Tool Eng 33:37-40 Ag '54

Small shops can use automation too. J. B. Cunningham. il diags Am Mach 98:177-84 Ap 12 '54

SAE talks over automation. diag Am Mach 98:258 Ap 12 '54

Stamping; idea paces fast growth; Iron Hands of the Sahlin engineering co. R. D. Raddant. il Iron Age 174:81 S 9 '54

Talk about automation! Buick's new engine plant. D. G. Baird. il Mill & Factory 53: 96-101 D '53

Tool problems in automation; abstract. A. O. Schmidt. Tool Eng 33:147-8 Ag '54

Traub single-spindle automatic. il Automobile Eng 43:478-9 N '53

Trend toward automation in automatic weighing and bulk materials handling. I. H. Richardson. il Mech Eng 75:865-70 N '53

Trends in automation; electrolytic tinning; abstract. P. R. Gravenstreter and R. E. Layton. il Elec Eng 73:310 Ap '54

MACHINERY, Automatic—*Continued*

Trends in machine-tool automation. R. E. Cross. il diag Instruments & Automation 27:768-70 My '54

Two possibilities by 19—? robot factories and power from nuclear energy. il Elec J 152:1010-11 Mr 26 '54

Using cemented carbides on automatic machines. il diags Mill & Factory 55:104-5 Ag '54

When automatics make intricate parts; Eastman Kodak works. il diags Am Mach 97:113-16 N 9 '53

Why automation is for you. C. F. Hautau. il diags Factory Management 112:80-9 Jl; 118-25 Ag '54

Will automatic factories affect future markets? Ind Marketing 38:180-5 N '53

See also

Assembling machines

Screw machines

Bibliography

Automation. Cleveland Pub Lib Business Information Bur Bul v 24, no 4:13-16 Jl-D '53

Selected bibliography on automation. S. Furman. (In Financial div. bul. 16:3-6) Special lib. assn. Je '54

MACHINERY, Kinematics of

Job-shop approach to mechanism analysis. J. A. Hrones. diags Machine Design 26:183-90 F '54

Kinematic analysis. J. Kaplan and B. Pollick. diags Machine Design 26:153-60 Ja '54

Recognition and treatment of acceleration. A. R. Holowenko. il diags Machine Design 25:180-5 D '53

Systematic correlation of motions. J. R. Longstreet. il diags Machine Design 25:215-20 D '53

Systematic mechanism design. J. Denavit and R. S. Hartenberg. diags Machine Design 26:167-75 S '54

See also

Cams

Mechanical movements

MACHINERY, Replacement of

American management association special conference on capital equipment replacement, New York. Iron Age 173:75-6 My 13 '54; Steel 134:76 My 10 '54

Depreciation policy drag on aircraft. R. T. Hurley. Iron Age 173:75 Ap 29 '54

Equipment replacement policy and application. E. N. Martin. N A C A Bul 35:715-30 F '54

Getting the most from capital expenditures; policies and procedures. R. E. Cross. Dun's R & Mod Ind 63:40-2 Ja '54

It's time to adopt realistic depreciation rates to win the battle for modernization. B. Finney. Am Mach 98:113-20 Mr 1 '54

Leasing may ease replacement snarl. E. J. Egan, jr. Iron Age 173:83 Ja 28 '54

Let's scrap our current depreciation regulations. R. F. Waindle. Mill & Factory 53:77-80 D '53

Machine replacement program saves $125,000 yearly; Harris-Seybold co. J. O. Archer and R. W. Blosser. Factory Management 112:114+ Je '54

Machine tool replacement. il Steel 133:8-9 sec 2 N 16 '53

Metalworking takes stock; modernization is a must. Bsns W p 132-4 N 14 '53

Modernizing for competition a big job for tool engineers. R. F. Waindle. il Mach 60:156-9 Ap '54

New Englanders talk replacement; New England council's 6th industrial opportunity conference, Boston, April 22. Am Mach 98:194 My 10 '54

New tax law promises greater capital investment, expansion. C. Fuller. Ind Marketing 39:65-8 S '54

New work techniques, main factor in replacing processes; forming and forging. il diags Am Mach 97:D-D 15 Mid-N '53

Prescription for prosperity; timely replacement of capital equipment. R. E. Cross. Am Mach 98:140-1 F 1 '54

Replace old equipment now? national center to study methods of acquisition and replacement. il Chem Eng 61:126 Ja '54

Replace with modern machine tools. il diags Am Mach 97:B-B23 Mid-N '53

Standard pressed steel co. increases productivity. J. L. MacDowell. il Mach 60:151-5 Ag '54

Take the guesswork out of replacement. Am Mach 97:33-48 Mid-N '53

Tooling; 28 per cent is outdated. Iron Age 172:48-9 O 29 '53

When does it pay to replace a pump? C. E. Cromwell. il Paper Tr J 138:22-4 Je 18 '54; Same. Marine Eng 59:45-6 Jl '54; Same cond. Heating-Piping 26:131-2 Je '54

When is a machine tool too old? E. J. Egan, jr. Iron Age 174:93 Jl 22 '54

See also

Obsolescence

MACHINERY dealers national association

Annual meeting, 13th, Philadelphia. Iron Age 173:93 My 20 '54

MACHINERY in industry

Economic considerations of automation. R. Rimbach. Instruments & Automation 27:1019 Jl '54

Management and mechanisation; Association of agriculture and British institute of management conference, London. Engineer 196:466 O 9 '53

Plant level adjustments to technical change. K. G. Van Auken, jr. Mo Labor R 76:387-91 Ap '53

MACHINERY industry

Exporters need credit, not generalities. Steel 135:39 Jl 5 '54

Machinery and allied products institute annual conference, Washington, June 24-25. Am Mach 98:169 Jl 5 '54

1954 production planbook for metalworking. Am Mach 97:1-70, sec A-H Mid-N '53

Productivity sits on prices. Steel 133:51 S 28 '53

See also

Agricultural machinery industry

Machine tool industry

Machinery—Leasing

Textile machinery industry

Directories

1954 American Machinist production preview. il Am Mach 98:121-264 Ja 18 '54

Securities

What's ahead for machinery and machine tools? with table on leading machinery equipment and machine tools. G. W. Mathis. Mag of Wall St 92:614-17 Ag 22 '53

Statistics

Index of new orders for machinery announced by McGraw-Hill. Am Mach 98:178-9 Mr 15 '54 [cont monthly]

Machinery and apparatus, 1949-1952. Survey of Cur Bsns 1953 Sup p 166 [supplemented in monthly numbers]

Machinery and equipment; tabulations. Steel 134:182-5 Ja 4 '54

Great Britain

Engineering industries of Sheffield. M. A. Fiennes. Inst Mech Eng Proc (A) 167 no 3:227-30, pl 1-12 '53; Same. Engineering 176:57-9, pl 1-4 Jl 10 '53

Engineering outlook. Engineering 177:10-12, 42-4, 73-5, 103-6, 136-9, 170-3, 202-5, 234-7, 268-71, 298-301, 331-4, 362-5, 394-8 Ja 1-Mr 26 '54

Russia

What and where can Russia buy now? Am Mach 98:165-6 Ag 16 '54

MACHINERY insurance. See Insurance, Machinery

MACHINISTS

Making machinists in 30 days; Los Angeles' Pacific gage co. J. Joseph. il Mill & Factory 53:125-7 D '53

See also

Toolmakers

MACHINISTS, International association of. See International association of machinists

MACK, Laurence Alexander, 1883-

50 years with the Weekly underwriter. por Weekly Underw 170:1215+ My 15 '54

MCKAY, Douglas, 1893-
McKay; changing a power trend. por Bsns W p63-4+ S 12 '53

MACKENZIE, Chalmers Jack, 1888-
Mackenzie, dean of Canadian scientists, given Kelvin medal. por Chem & Eng N 32:614 F 15 '54
Sketch. por Can Chem Process 38:14 F '54

MACKENZIE, Max
Profile of Mackenzie of Canadian Chemical and Cellulose. por Can Chem Process 38: 14+ Ap '54

MACKIE, Irwin Cameron, 1880-
Sketch. H. J. Roast. por Metal Prog 64:78-80 N '53

MACKINAC straits
Fifty-year dream nears reality; construction bridge begins. C. H. Gronquist. il diags Civil Eng 24:229-33 Ap '54
Mackinac; bridge reasons unique. R. D. Raddant. map Iron Age 173:52 Ap 29 '54
Mackinac Straits crossing is 1953's most challenging. P. Reed. il diag Oil & Gas J 52:168-71+ S 21 '53
Pipeline spans the Straits. Bsns W p32 Ag 15 '53

MCKINLEY, Mount
On-the-spot photographs expedite survey. B. Washburn. il Civil Eng 24:102-3 F '54

MCKINNEY, Raymond Hilary, 1886-1953
Sketch. por Ed & Pub 86:10 Ap 4 '53; Ptr Ink 243:66 Ap 3 '53

MACKINTOSH, Charles Rennie, 1868-1928
C. R. Mackintosh and the modern movement. T. Howarth. Review, by V. J. Scully. Arch Rec 115:46+ Mr '54

MACKINTOSH-HEMPHILL company
Mackintosh-Hemphill marks milestone with new roll. il Steel 133:98 N 9 '53

MCLENEGAN, David W. 1900-
AIEE fellows elected. por Elec Eng 72:1130 D '53

MACLEOD, John
One of best-liked men in construction heads AGC. J. Shinn. pors Eng N 152:64-6 Mr 11 '54

MCMINN, Bryan Towne, 1896-
Sketch. Mech Eng 76:209 F '54

MCNEIL, Wilfred James, 1901-
Portrait. Bsns W p28 N 21 '53

MACROCYCLES. See Cyclic compounds

MACROMOLECULES. See Molecules

MCSURELY, Alexander, d. 1953
Sketch. por Aviation W 59:7 S 21 '53
Tributes. Aviation W 59:90 S 28; 84-5 O 5; 66 O 19 '53

MADDOX, N. Baxter
Sketch. por Banking 46:84-5 N '53

MADELUNG constant
Madelung constants and coordination. D. H. Templeton. J Chem Phys 21:2097-8 N '53

MAGAMPS. See Amplifiers

MAGAZINE racks
Prize display racks show designers and building owners how to merchandise magazines. il diags Arch Forum 97:132-3 D '52

MAGAZINES. See Periodicals

MAGMA copper company
San Manuel development will make Magma fourth largest U.S. copper mine. Barron's 34:27 Ja 4 '54

MAGNAFLUX testing. See Magnetic testing

MAGNAMYCIN. See Carbomycin

MAGNESIA
Additional phase equilibrium data for the system CaO-MgO-SiO_2. R. W. Ricker and E. F. Osborn. bibliog Am Cer Soc J 37:133-9 Mr 1 '54
Electrical conductivity of magnesium oxide single crystals. E. Yamake and K. Sawamoto. diag Phys R 95:848-50 Ag 1 '54
Energy and temperature dependence of the secondary emission of MgO. A. J. Dekker. Phys R 94:1179-82 Je 1 '54
Exchange reactions of solid oxides; dissociation of molecular oxygen at oxide surfaces; magnesium oxide and zinc oxide. E. R. S. Winter. Chem Soc J p 1522-7 My '54
Exchange reactions of solid oxides; magnesium oxide. G. Houghton and E. R. S. Winter. Chem Soc J p 1509-16 My '54
Flame tests prove 85 per cent magnesia insulation. il Iron Age 174:136+ Ag 12 '54; Same. Gas Age 114:30 S 9 '54; Same. Marine Eng 59:59-60 S '54
Liquidus relationships on ten per cent MgO plane of the system lime-magnesia-alumina-silica. A. T. Prince. bibliog diags Am Cer Soc J 37:402-8 S 1 '54
Magnesia in hydraulic cements. N. C. Rockwood. Rock Prod 57:71+ Ap '54
Optimum composition of blast furnace slag as deduced from liquidus data for the quaternary system CaO-MgO-Al_2O_3-SiO_2. E. F. Osborn and others. bibliog il diags J Metals 6:Trans 33-45 Ja '54
Phase equilibria in the system MgO-TiO_2. L. W. Coughanour and V. A. DeProsse. bibliog J Res Nat Bur Stand 51:85-8 Ag '53
Solid solution and chromium oxide loss in part of the system MgO-Al_2O_3-Cr_2O_3-SiO_2. I. Warshaw and M. L. Keith. bibliog(37 titles) Am Cer Soc J 37:161-8 Ap 1 '54
Solid-state equilibrium relations in the system MgO-Al_2O_3-SiO_2ZrO_2. P. G. Herold and W. J. Smothers. bibliog Am Cer Soc J 37:351-3 Ag 1 '54
Studies in the system magnesia-silica-water at elevated temperatures and pressures. E. T. Carlson and others. bibliog J Res Nat Bur Stand 51:179-84 O '53
Studies on formation and recrystallization of intermediate reaction products in the system magnesia-silica-water. G. L. Kalousek and D. Mui. Am Cer Soc J 37:38-41 F 1 '54
System MgO-Al_2O_3-H_2O and influence of carbonate and nitrate ions on the phase equilibria. D. M. Roy and others. bibliog diags Am J Sci 251:337-61 My '53
Thermal conductivity; analysis of variation of conductivity with temperature for Al_2O_3, BeO, and MgO. M. McQuarrie. bibliog diag Am Cer Soc J 37:91-5 pt 2 F 1 '54
Thermal conductivity; high-temperature method and results for alumina, magnesia, and beryllia from 1000° to 1800° C. M. McQuarrie. bibliog il diags Am Cer Soc J 37:84-8 pt 2 F 1 '54
Thermal conductivity; prolate spheroidal envelope method; data for Al_2O_3, BeO, MgO, ThO_2, and ZrO_2. M. Adams. bibliog il diags Am Cer Soc J 37:74-9 pt 2 F 1 '54
Viscosity studies of system CaO-MgO-Al_2O_3-SiO_2; 60 and 65 per cent SiO_2. J. S. Machin and T. B. Yee. bibliog Am Cer Soc J 37: 177-86 Ap 1 '54
Waterproof insulation; 85 per cent magnesia for hot piping and equipment. il Heat & Ven 51:138 My '54
X-ray-induced photostimulated conductivity in magnesium oxide. A. S. Eisenstein. diags Phys R 93:1017-18 Mr 1 '54

Analysis

Determination of magnesium oxide by hydrogen flame spectrophotometry. P. Close, W. E. Smith and M. T. Watson, jr. Anal Chem 25:1022-5 Jl '53
Removal of manganese prior to calcium and magnesium precipitations. B. L. Ingram and L. Bean. bibliog Anal Chem 25:1217-19 Ag '53
Separation of magnesium from calcium by ion exchange chromatography. D. N. Campbell and C. T. Kenner. Anal Chem 26:560-1 Mr '54

Spectrum

Solid-state absorption spectra of Mg and MgO. J. R. Townsend. bibliog Phys R 92: 556-60 N 1 '53
Some optical properties of MgO in the vacuum ultraviolet. P. D. Johnson. bibliog Phys R 94:845-6 My 15 '54

MAGNESITE
Electrically melted and cast magnesite-chrome refractory. T. Hand and H. W. Baque. il Am Cer Soc Bul 33:176-9 Je 15 '54

Analysis

Thermal analysis of magnesite at CO_2 pressures up to six atmospheres. R. L. Stone. bibliog Am Cer Soc J 37:46-7 F 1 '54

MAGNESITE brick
Chemically bonded magnesite brick, burned magnesite brick; prices, 1947-1953; tabulations. Iron Age 173:419 Ja 7 '54

MAGNESIUM

AMC to test all-magnesium F-80C. I. Stone. il Aviation W 59:28-30+ S 28 '53

Aluminum and magnesium reduce weight of aero jeep. il Automotive Ind 110:32-3 Ap 15 '54

Aluminum-six per cent magnesium wrought alloys for elevated-temperature service. K. Grube and L. W. Eastwood. Am Soc for Metals Trans 44:336-47 '52

Anodic formation of coatings on magnesium, zinc, and cadmium. K. Huber. bibliog il Electrochem Soc J 100:376-82 Ag '53

Anodic oxidation of magnesium metal; evidence for the existence of unipositive magnesium. R. L. Petty, A. W. Davidson and J. Kleinberg. bibliog diag Am Chem Soc J 76:363-6 Ja 20 '54

Anodic reductions; conversion of benzophenone to benzopinacol by unipositive magnesium. M. D. Rausch, W. E. McEwen and J. Kleinberg. bibliog Am Chem Soc J 76:3622-5 Jl 20 '54

Another job for ion exchange; magnesium from sea water; patent. Chem Eng 61:282 Jl '54

Both calcium and magnesium limestone very important. O. T. Coleman. Rock Prod 57:122-3 Ap '54

Creep behavior of extruded electrolytic magnesium. C. S. Roberts. bibliog il J Metals 5:Trans 1121-6 S '53; Discussion. 6:Trans 690-3 sec 2 My '54

Designing magnesium impacts. T. L. Patton. il diags Machine Design 26:124-8 F '54

Designing magnesium products; abstract. W. Z. Jarmicki. Light Metal Age 11:26-7 D '53

Dow opens world's largest magnesium rolling mill. il Iron Age 173:84-5 Je 3 '54

Dow plunges on integrated mill for magnesium. il Am Mach 98:176-7 Je 7 '54

Fuel for thought; magnesium will become a Diesel and aircraft engine fuel; abstract. J. H. Scharen. Steel 133:73 N 9 '53

High production mill rolls wide magnesium plate; Dow chemical co. W. G. Patton. il Iron Age 173:111-14 My 27 '54

How magnesium serves industry. E. J. Clement. il plan Mill & Factory 54:101-4 Ap '54

How to use magnesium castings for long life; based on paper by R. F. Breyer. S A E J 62:100-1 Je '54

Impact extrusion of magnesium. H. Chase. il diags Steel 133:114-16 O 26 '53

Introduction of magnesium into molten iron; patent. Iron & Steel Eng 31:32 S '54

Light metals processing quality control. H. Bourassa and W. Chellman. il Light Metal Age 12:12-13+ F '54

Magnesium and magnesium alloys; supplement to 1948 edition of Metals handbook. Metal Prog 66:73-9 Jl 15 '54

Magnesium becomes a structural metal. Chem Age (Lond) 68:529-32 Ap 4 '53

Magnesium for electronics and electrical applications. R. G. Gillespie. il diags Machine Design 26:258+ Je '54

Magnesium, 1953. J. D. Hanawalt. Eng & Min J 155:90 F '54

Magnesium output to hit peak at Dow plants. Steel 133:40 Jl 27 '53

Magnesium printing plates. Tappi 37:sup 106A+ Je '54

Magnesium ramp. il Welding J 33:380 Ap '54

Magnesium sheet en masse; Dow Chemical. il Chem & Eng N 32:2188-9 My 31 '54

Magnesium to the fore; Magnesium association meeting, New York. Chem & Eng N 31:4778 N 16 '53

Magnesium widens its sheet rolling limits; Dow chemical co.'s magnesium plant. V. Bell. il Steel 134:108-9 Je 7 '54

Magnesium wrought products, 1948-1953; tabulation. Steel 134:178 Ja 4 '54

Metal adhesives used in magnesium assemblies. Iron Age 172:149-51 D 17 '53

Mill for magnesium sheet. Metal Prog 66:104-5 Ag '54

Performance data; stainless steel wire screw thread inserts in magnesium applications; abstracts. P. E. Wolfe. il Metal Prog 66:184+ Jl 1 '54; Light Metal Age 11:23-4 D '53

Portable plug-in elements heat magnesium forming dies. R. W. Peters. il Iron Age 174:112-13 Ag 12 '54

Present status of magnesium and its alloys. R. G. Wilkinson. bibliog il Metallurgia 48:282-8 D '53

Pyrotechnic reaction employs magnesium and steam; Airtronic research, Bethesda, Md. il Chem & Eng N 31:4778 N 16 '53

Rate of self-diffusion in polycrystalline magnesium. P. G. Shewmon and F. N. Rhines. bibliog diags J Metals 6:Trans 1021-5 sec 2 S '54

Tentative recommended practice for codification of light metals and alloys, cast and wrought; data sheet. Foundry 82:170 Je '54

Very thin magnesium strips produced by modified hot rolling. L. V. Martikonis. il Light Metal Age 11:14-15 D '53

Wire thread inserts for magnesium applications. P. E. Wolfe. diags Tool Eng 32:273-5 Ap '54

Wright air development center evaluates magnesium. I. Stone. il Aviation W 59:34-7 D 28 '53

Analysis

Determination of calcium and magnesium in lake waters by means of a rotating silver disk electrode. V. W. Meloche and R. Shapiro. bibliog il diag Anal Chem 26:347-50 F '54

Determination of calcium and magnesium in limestones by the ethylenediamine tetraacetate method. J. W. Jordan and K. L. Robinson. Chem & Ind p687-8 Jl 11 '53

Magnesium determination in bovine blood serum. M. Okamoto and J. W. Thomas. bibliog Anal Chem 26:1072-3 Je '54

Rapid compleximetric method for the determination of magnesium in aluminium alloys. J. C. Sergeant. bibliog Metallurgia 48:261-2 N '53

Spectrochemical determination of magnesium, iron, silicon, and manganese in titanium metal. H. A. Heller and R. W. Lewis. bibliog diags Anal Chem 25:1038-42 Jl '53

Spectrophotometric titrations with ethylenediaminetetraacetic acid; determination of magnesium, calcium, zinc, cadmium, titanium, and zirconium. P. B. Sweetser and C. E. Bricker. Anal Chem 26:195-9 Ja '54

Stoichiometry of titration of metal ions with disodium salt of ethylenediaminetetraacetic acid. W. J. Blaedel and H. T. Knight. bibliog Anal Chem 26:743-6 Ap '54

Titration of calcium and magnesium in milk and milk fractions with ethylenediamine tetraacetate. R. Jenness. bibliog Anal Chem 25:966-8 Je '53

Volumetric determination of calcium and magnesium. R. L. Stephens. Chem Age (Lond) 69:495-8 S 5 '53

Finishing

Finishing systems for magnesium. H. A. Barbian. il diags Materials & Methods 39:102-5 Ja '54; Excerpts. Machine Design 26:306+ Ap '54; Abstract. Light Metal Age 11:27 D '53

Magnesium; grinding precautions. il diags Light Metal Age 12:18-19+ F '54

Surface treatment and finishing of light metals. S. Wernick and R. Pinner. Metal Finishing 52:56-9+ Mr '54

Fire hazards

Magnesium; grinding precautions. il diags Light Metal Age 12:18-19+ F '54

Isotopes

Resonant states of Mg^{24} excited by protons on sodium. P. H. Stelson and W. M. Preston. bibliog diag Phys R 95:974-81 Ag 15 '54

Study of the isobaric triplet Mg^{28}-Al^{28}-Si^{28}. R. K. Sheline and others. bibliog diags Phys R 94:1642-51 Je 15 '54

Nuclear reactions

Beta-ray spectrum of Mg^{28}. J. L. Olsen and G. D. O'Kelley. bibliog Phys R 93:1125-6 Mr 1 '54

Cross sections for formation of Na^{22} from aluminum and magnesium bombarded with protons. R. E. Batzel and G. H. Coleman. Phys R 93:280-2 Ja 15 '54

MAGNESIUM—Nuclear reactions—*Continued*

Gamma radiation from magnesium-26 under proton bombardment. L. N. Russell and others. bibliog Phys R 95:99-101 Jl 1 '54

$Mg^{24}(\gamma,3p3n)F^{18}$ reaction induced by 70-Mev bremsstrahlung. F. D. Schupp and D. S. Martin, jr. bibliog Phys R 94:80 Ap 1 '54

Resonance capture of protons by Mg^{25}. W. E. Taylor and others. bibliog Phys R 93:1056-8 Mr 1 '54

Prices

Magnesium 99.8 per cent plus, 1929-1953; tabulation. Iron Age 173:415 Ja 7 '54

Protection

Magnesium hard surfacing; HAE process application characteristics. H. Evangelides. il diag Light Metal Age 12:12-13+ Ap '54

Magnesium; impregnating process improves corrosion resistance; Magseal. il Iron Age 174:166 S 9 '54

Properties of HAE finish for magnesium. R. G. Gillespie. il Materials & Methods 38:104-[illegible] N '53

Specifications

Tolerances and specifications for aluminum and magnesium castings. W. D. Stewart. bibliog il diags Mech Eng 75:450-5 Je '53

Spectrum

Magnesium arc spectrum in the near infrared. R. A. Fisher and F. E. Eshbach. bibliog Opt Soc Am J 43:1030-2 N '53

Solid-state absorption spectra of Mg and MgO. J. R. Townsend. bibliog Phys R 92:556-60 N 1 '53

Testing

Tentative reference radiographs for inspection of aluminum and magnesium castings; data sheet. il Foundry 82:169 Je '54

Welding

Inert gases prevent oxidation, speed welding of magnesium. R. L. Nelson. il diag Iron Age 172:145-7 D 10 '53

Magnesium shell racks, a lightweight job for Heliarc welding. il Welding J 33:681 Jl '54

Welding of magnesium base alloys. L. F. Spencer. il Sheet Metal Worker 45:90-1+ My; 82-4+ Ag '54

MAGNESIUM, Powdered

Modern plant makes Mg powder; Reade mfg. co., Lakehurst, N.J. il diag Chem Eng 61:122+ Ap '54

MAGNESIUM alloys

Alloying characteristics of magnesium. J. Alico. Light Metal Age 11:16-17+ O '53

Charts for allowable compressive stresses in aluminum and magnesium alloys; reference book sheet. B. E. Gatewood. bibliog Product Eng 24:235, 237, 239 Je '53

Chemical compositions and characteristics of magnesium alloys. Steel 134:120g My 10 '54

Control of quality in melting and casting magnesium alloys for hot working; abstract. R. G. Wilkinson and S. B. Hirst. Metal Prog 64:138+ N '53

Creep behavior of magnesium-cerium alloys. C. S. Roberts. bibliog il J Metals 6:Trans 634-40 sec 2 My '54

Effect of quenching strains on the properties of an Al-Cu-Mg alloy. H. A. Unckel. bibliog Metallurgia 49:220-2 My '54

Formation of intracrystalline voids in solution-treated magnesium-aluminium alloys; abstract. E. Lardner. Metal Prog 65:182+ Mr '54

Handbook of terms commonly used in the nonferrous industries. Iron Age 173:379-82 Ja 7 '54

Investigations on organo-tin compounds; preparation of ethyltin compounds from a tin-magnesium alloy. G. J. M. van der Kerk and J. G. A. Luijten. J Ap Chem 4:307-13 Je '54

Light metals; aluminum, magnesium, titanium. il Steel 133:163+ O 12 '53

Light metals forum; industry leans heavily on light metals. W. H. Gross and others. il Steel 134:118-20 My 10 '54

Light metals handbook. G. A. Pagonis. 2v 199p;185p $8.50 D. Van Nostrand co, 250 Fourth av, New York 3 '54

Magnesium and magnesium alloys; supplement to 1948 edition of Metals handbook. Metal Prog 66:73-9 Jl 15 '54

Magnesium-cadmium alloys; heat capacities between 12 and 320°K. and the entropies at 25° of magnesium and cadmium. R. S. Craig and others. bibliog diag Am Chem Soc J 76:238-40 Ja 5 '54

Magnesium-cadmium alloys; low temperature heat capacities and a test of the third law of thermodynamics for the MgCd superlattice. C. B. Satterthwaite, R. S. Craig and W. E. Wallace. bibliog diags Am Chem Soc J 76:232-8 Ja 5 '54

Magnesium-cadmium alloys; low temperature heat capacities of $MgCd_3$ and Mg_3Cd and a test of the third law of thermodynamics for the $MgCd_3$ superlattice. L. W. Coffer and others. bibliog Am Chem Soc J 76:241-4 Ja 5 '54

Magnesium casting alloys for elevated temperatures. K. Rose. il Materials & Methods 40:87-9 Jl '54

Magnesium forming. F. L. Coenen. il diags Tool Eng 31:43-9 N; 62-8 D '53; 32:65-72 Ja; 68-71 F '54

Magnesium, key metal in rocket fabrication; illustrations with text. Light Metal Age 11:12-13 Je '53

Metal cleaning and finishing handbook; chemical treatments for magnesium alloys; table. Iron Age 174:sup F5 Jl 29 '54

Methods of processing silver-magnesium secondary emitters for electron tubes. P. Rappaport. il diags J Ap Phys 25:288-92 Mr '54

Present status of magnesium and its alloys. R. G. Wilkinson. bibliog il Metallurgia 48:282-8 D '53

Properties of sand cast Mg-Th-Zn-Zr alloys. K. E. Nelson. bibliog il J Metals 5:Trans 1493-7 sec 2 N '53

Stress-corrosion of aluminum-magnesium alloys. E. L. Jones. bibliog diag J Ap Chem 4:1-10 Ja '54

Tentative recommended practice for codification of light metals and alloys, cast and wrought; data sheet. Foundry 82:170 Je '54

Thorium improves magnesium alloys. H. G. Warrington. il Steel 133:126+ D 14 '53

Use of metal adhesives with magnesium; Metlbond; abstract. D. A. Tooley. Light Metal Age 11:26 D '53

Welding of magnesium base alloys. L. F. Spencer. il Sheet Metal Worker 45:90-1+ My; 82-4+ Ag '54

Analysis

Determination of lithium in a magnesium alloy by the flame photometer. E. E. Strange. bibliog Anal Chem 25:650-1 Ap '53

Spectrophotometric determination of selenium and tellurium in concentrated sulfuric acid. S. E. Wiberley and others. bibliog Anal Chem 25:1586-8 N '53

Testing

Creep-rupture characteristics of Al-Mg solid-solution alloys. A. W. Mullendore and N. J. Grant. bibliog il J Metals 6:Trans 973-9 S '54

Effect of composition and heat treatment on yield point phenomena in aluminum alloys. V. A. Phillips. Metal Prog 65:200+ My '54

Further progress in the development of Mg-Zr alloys to give good creep and fatigue properties between 500° and 600°F. C. J. P. Ball and others. bibliog il J Metals 5:Trans 924-31 Jl '53; Discussion. 6:Trans 694-8 sec 2 My '54

Yield-point phenomena and stretcher-strain markings in aluminum-magnesium alloys. V. A. Phillips and others. Metal Prog 66:supA 188+ Jl 15 '54

MAGNESIUM aluminate

See also

Spinels

MAGNESIUM association

Annual meeting, 9th, New York. Am Mach 97:177 N 23 '53; Automotive Ind 109:22 N 15 '53; Foundry 81:225 D '53

MAGNESIUM association—*Continued*

Annual meeting, 9th, New York; with abstracts of papers. Light Metal Age 11:22-4+ D '53

MAGNESIUM boride

Preparation and structure of magnesium boride MgB_2. M. E. Jones and R. E. Marsh. bibliog Am Chem Soc J 76:1434-6 Mr 5 '54

MAGNESIUM bromide

Condensations of epoxides with 2-thienylsodium and 2-thienylmagnesium bromide. G. Van Zyl and others. Am Chem Soc J 76:707-9 F 5 '54

Magnesium bromide-lithium bromide-water system. J. R. Heiks and A. B. Garrett. bibliog diags Am Chem Soc J 76:2587-90 My 5 '54

MAGNESIUM carbonate

See also

Dolomite

MAGNESIUM chloride

Differential diffusion coefficients of magnesium and barium chlorides in dilute aqueous solutions at 25°. H. S. Harned and F. M. Polestra. bibliog Am Chem Soc J 76:2064-5 Ap 20 '54

Equilibria between 18 and 100° in the aqueous ternary system containing Sr^{2+}, Mg^{2+} and Cl^-. G. O. Assarsson and A. Balder. diag J Phys Chem 58:416 My '54

MAGNESIUM compounds

Cyclopentadienyl compounds of manganese and magnesium. G. Wilkinson and F. A. Cotton. bibliog Chem & Ind p307-8 Mr 13 '54

High temperature heat contents of calcium and magnesium ferrites. K. R. Bonnickson. Am Chem Soc J 76:1480-2 Mr 20 '54

See also

Struvite

MAGNESIUM founding

Assembly-line methods speed output; Pacific chain and manufacturing co. A. Wintle. il Light Metal Age 11:10+ Ag '53

Close quality control aids in pouring magnesium casting; Rolle mfg. co. il Iron Age 173:150 F 11 '54

Employs close control in die casting magnesium; McCulloch motors corp. T. A. Dickinson. il Foundry 82:339+ My '54

Foundry engineers quiz the experts; answers to the most-heard questions. K. W. Bennett. il Iron Age 172:20-1 D 24 '53

Light metals; American foundrymen's society annual meeting, Cleveland; abstracts of papers. Foundry 82:140+ Je '54

Light metals; backyard core foundry solves binder problems. H. E. Bourassa. il Light Metal Age 11:8-9+ Ag '53

Magnesium casting alloys for elevated temperatures. K. Rose. il Materials & Methods 40:87-9 Jl '54

Magnesium die casting. G. F. Hodgson. il diag Foundry 82:102-5+ F '54; Excerpts. Light Metal Age 11:24+ D '53

Magnesium sand foundry produces varied castings; Hills-McCanna co. R. H. Herrmann. il Foundry 82:102-7 Mr '54

New bend test for aluminum-magnesium castings. W. Martin. il Materials & Methods 38:186+ N '53

Sand castings can be made to close tolerances; R. H. Osbrink mfg. co. L. B. Reed. il Foundry 82:92-7+ Ja '54

Tentative specifications for magnesium-base alloy sand castings; data sheet. Foundry 82:193-4 Ap '54

Vacuum impregnation; magnesium castings meet jet standards. il Steel 133:140-1 D 7 '53

MAGNESIUM hydroxide

See also

Brucite

MAGNESIUM industry and trade

Magnesium, 1953. J. S. Kirkpatrick. Min Cong J 40:126-7 F '54

Magnesium; pace slow, but steadier. K. W. Bennett. Iron Age 173:85-6 F 18 '54

Magnesium; press promotion program. R. L. Hatschek. Iron Age 172:123 N 12 '53

Magnesium; supply unlimited, growth just starting. D. T. Surprenant. Iron Age 173:M27-9 Ap 8 '54

Statistics

U.S. production of primary magnesium by months, 1942-1953; tabulation. Iron Age 173:415 Ja 7 '54

Great Britain

Private trading in magnesium. Economist 169:130 O 10 '53

MAGNESIUM metallurgy

Dow's magnesium recovery plant in operation. Chem & Eng N 32:3854+ S 27 '54

Magnesium production in the Southwest. W. J. Rave. bibliog flow sheets il Electrochem Soc J 100:sup 179C-81C Jl '53

MAGNESIUM oxide. See Magnesia

MAGNESIUM phosphate

Polyphosphates of calcium, strontium, barium and magnesium. M. Bobtelsky and S. Kertes. bibliog J Ap Chem 4:419-29 Ag '54

MAGNESIUM silicates

Developments in magnesium silicate; abstract. M. E. Stearns. Paint Oil & Chem R 117:32-3 Ap 8 '54

MAGNESOL. See Magnesium silicates

MAGNETIC amplifiers. See Amplifiers

MAGNETIC anisotropy. See Magnetic properties

MAGNETIC brakes. See Brakes, Magnetic

MAGNETIC chucks. See Chucks, Magnetic

MAGNETIC clutches. See Clutches, Magnetic

MAGNETIC control

Adjustable magnetic control for seismographs. J. J. Dowling. diag J Sci Instr 31:222 Je '54

Magnetic switching circuits. R. C. Minnick. il diags J Ap Phys 25:479-85 Ap '54

MAGNETIC field

Accurate voltage integrator for magnetic field measurement. E. W. Fuller and L. U. Hibbard. bibliog diags J Sci Instr 31:36-42 F '54

Atomic heat and critical magnetic field of superconducting cadmium. J. R. Clement. Phys R 92:1578 D 15 '53

Construction of small solenoids for the production of intense magnetic fields. W. R. Myers. J Sci Instr 30:237-8 Jl '53

Control and stabilization of the magnetic field for a mass spectrometer. N. T. van der Walt. diags R Sci Instr 24:413-16 Je '53

Current element near the edge of a conducting half-plane. R. F. Harrington. J Ap Phys 24:547-50 My '53

Effect of rapid cathode rotation and magnetic fields on crystal orientation in electrodeposited metals. Ling Yang. bibliog il diag Electrochem Soc J 101:456-60 S '54

Electron flow through small tubes with magnetic focusing. J. L. Stewart. bibliog diags J Ap Phys 24:1236-40 S '53

Focusing of an electron beam by periodic fields. A. M. Clogston and H. Heffner. bibliog diags J Ap Phys 25:436-47 Ap '54

Influence of electric and magnetic fields on angular correlations. A. Abragam and R. V. Pound. bibliog Phys R 92:943-62 N 15 '53

Link coupling for nuclear magnetic resonance. H. L. Richter, jr. and others. diag R Sci Instr 25:190 F '54

Magnetic annealing of a Co-Fe alloy. A. H. Geisler and others. bibliog diags J Metals 5:Trans 813-20 Je '53

Magnetic-field detector; patent. diags Electronics 26:220+ N '53

Magnetic gas discharge tube oscillator. J. M. Somerville. diags J Sci Instr 31:279-84 Ag '54

Measurement of inhomogeneous magnetic fields. R. F. K. Herzog and O. Tischler. R Sci Instr 24:1000-1 O '53

Measurement of two-dimensional fields. W. C. Elmore and others. bibliog il diags R Sci Instr 25:480-9 My '54

Mechanical particle, an analog computing machine. B. Rankin. il diags R Sci Instr 25:675-8 Jl '54

Motion of arc cathode spot in a magnetic field. R. M. St John and J. G. Winans. bibliog il diags Phys R 94:1097-102 Je 1 '54

New galvanomagnetic effect. C. Goldberg and R. E. Davis. Phys R 94:1121-5 Je 1 '54

MAGNETIC field—*Continued*

Radiation from a line source adjacent to a conducting half plane. J. R. Wait. J Ap Phys 24:1528-9 D '53

Relativistic dynamics of a charged particle in crossed magnetic and electric fields with application to the planar magnetron. L. Gold. J Ap Phys 25:683-90 Je '54

Spatially alternating magnetic fields for focusing low-voltage electron beams. J. R. Pierce. J Ap Phys 24:1247 S '53

See also

Betatron
Cyclotron
Electric field
Hall effect
Magnets
Sound—Recording and reproducing—Magnetic recording
Zeeman effect

MAGNETIC fluids

Eaton buys patent rights; electromagnetic clutching, braking and power transmission using magnetizable powdered metal and dry lubricant mixture. Steel 134:96 F 8 '54

MAGNETIC induction

Improved temperature uniformity of calender roll surfaces obtained by electromagnetic induction. G. Ardichvili. diags India Rubber World 129:621-2 F '54

Nuclear induction with separate regions of excitation and detection. C. Sherman. diag Phys R 93:1429-30 Mr 15 '54

MAGNETIC instruments

Combined reading and writing on a magnetic drum. J. H. McGuigan. il diags Inst Radio Eng Proc 41:1438-44 O '53

Magnetic latch opener aids jersey-garment knitting. J. H. Blore. il Textile World 104: 92+ S '54

Magnetic modulator in a-c servo corrective networks; abstract. C. Voltz. diag Electronics 26:208+ D '53

Materials for special service; temperature-compensator alloys. W. S. Eberly. il diag Machine Design 26:152-6 My '54

Nondestructive sensing of magnetic cores; abstract. D. A. Buck and W. I. Frank. diags Elec Eng 73:110 F '54

Portable magnetizer uses ac supply. il Elec World 139:136+ Je 15 '53

Steel-plate thickness meter. S. S. Carlisle and R. B. Sims. bibliog il diags Instruments 26:1880-1+ D '53

See also

Fluxmeters
Magnetic measurements
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MAGNETIC lenses

Chromatic field aberration of the magnetic electron lens in the electron microscope. N. Morito. bibliog J Ap Phys 25:986-93 Ag '54

Concentration of a cyclotron beam by strong focusing lenses. F. B. Shull and others. il R Sci Instr 25:364-7 Ap '54

Focusing of high-current electron beams. G R. Brewer. bibliog diags J Ap Phys 25: 243-51 F '54

Magnetic electron lens aberrations due to mechanical defects. G. D. Archard. bibliog diags J Sci Instr 30:352-8 O '53

MAGNETIC materials

Applications of calorimetry, with reference to magnetic steels. K. L. Morphew. bibliog Engineering 176:765 D 11 '53

Combined magnetisation of magnetic materials. J. E. Parton and W. D. Sutherland. il diags Engineering 176:697-700, 731-2 N 27-D 4 '53; Abstract. Engineer 196:471-2 O 9 '53

Complex magnetic permeability of spherical particles. J. R. Wait. Inst Radio Eng Proc 41:1664-7 N '53

Constitution and properties of cobalt-iron-vanadium alloys. D. L. Martin and A. H. Geisler. bibliog il Am Soc for Metals Trans 44:461-81; Discussion. 481-3 '52

Electrical steel; a triumph of steelmaking, heat treatment and scientific metallurgy. W. Jones. il Metal Prog 65:70-4 F '54

Evaluation of high-performance magnetic core materials. S. R. Hoh. bibliog Tele-Tech 12:86-9+ O; 92-4, 155-7 N '53

Hall effect in ferromagnetics. C. Kooi. bibliog Phys R 95:843-4 Ag 1 '54

Magnetic alloy shields for color tv tubes. R. D. Teasdale. il Tele-Tech 12:74-6+ D '53

Magnetic resonance in ferrimagnetics. R. K. Wangsness. Phys R 93:68-71 Ja 1 '54

Measurement of interlaminar resistance of varnish-insulated silicon-steel sheet for large electrical machines. E. D. Taylor. diags Inst E E Proc 98 pt 2:377-85 Je '51; Discussion. 98 pt 2:385-8; 100 pt 2:565-7 Je '51, O '53

Penetration of an electromagnetic wave into a ferromagnetic material. A. Papoulis. il diags J Ap Phys 25:169-76 F '54

Preferred direction in a magnetically hardened permanent magnet alloy. M. McCaig. J Ap Phys 24:366 Mr '53

Review of new magnetic phenomena. R. E. Alley, jr. bibliog diags Bell System Tech J 32:1155-72 S '53

Scientists study causes of energy losses. Blast F & Steel Pl 42:sup74+ Ap '54

Sintered magnetic materials. G. W. O. Howe. Wireless Eng 30:235-7 O '53

16 percent aluminum-iron alloy cold rolled in the order-disorder temperature range. J. F. Nachman and W. J. Buehler. bibliog il diags J Ap Phys 25:307-13 Mr '54

Some magnetostriction relations in materials possessing preferred domain orientations. G. T. Rado. bibliog J Ap Phys 25:102-6 Ja '54

Some new magneto-mechanical torsion experiments. A. W. Cochardt. bibliog diags J Ap Phys 25:670-3 My '54

Spontaneous Hall effect in ferromagnetics. J. Smit and J. Volger. Phys R 92:1576-7 D 15 '53

Steels for permanent magnets. J. C. Williamson. il Elec R (Lond) 153:1101-5 N 13 '53

Susceptibility tensor and the Faraday effect in ferrimagnetics. R. K. Wangsness. bibliog Phys R 95:339-45 Jl 15 '54

Theory of domain creation and coercive force in polycrystalline ferromagnetics. J. B. Goodenough. bibliog il diags Phys R 95: 917-32 Ag 15 '54

Transformer steels; their choice and present state of development. C. D. Mee. il diags Elec R (Lond) 153:551-5 S 11 '53

See also

Alnico
Iron
Iron alloys
Magnetic susceptibility
Magnets
Manganese alloys
Steel alloys

Testing

Improved form of hysteresis loop plotter for magnetic materials. A. D. Booth. diags J Sci Instr 30:384-5 O '53

Magnatest Q; an instrument for testing and sorting ferro-magnetic materials. Automobile Eng 44:215 My '54

Measurement of particle size of fine ferromagnetic powders. A. D. Franklin and others. bibliog(26 ref) il J Ap Phys 24: 1040-5 Ag '53

Null point method of coercivity determination. J. Watkins. diag J Sci Instr 31:69-70 F '54

MAGNETIC measurements

Achromatic beam translation systems for use with the linear accelerator. W. K. H. Panofsky and J. A. McIntyre. il diags R Sci Instr 25:287-90 Mr '54

Cosmotron; a review; magnet, magnetic measurements. G. K. Green and others. il diags R Sci Instr 24:743-54 S '53

Electromagnetic velometry; elimination of the effects of induced currents in explorations of the velocity distribution in axially symmetrical flow. A. Kolin and F. Reiche. diags J Ap Phys 25:409-13 Ap '54

Electronic voltage integrator. R. Madey and G. Farly. bibliog diags R Sci Instr 25: 275-9 Mr '54

Magnetic design of relays. R. L. Peek, jr. and H. N. Wagar. bibliog diags Bell System Tech J 33:23-78 Ja '54

Magnetic measurement of torque in a rotating shaft. R. A. Beth and W. W. Meeks. il diags R Sci Instr 25:603-7 Je '54

Magnetic measurements. Elec R (Lond) 154: 471-2 Mr 12 '54; Discussion. Elec J 152:955 Mr 19 '54

MAGNETIC measurements—*Continued*

Measurement of two-dimensional fields. W. C. Elmore and others. bibliog il diags R Sci Instr 25:480-9 My '54

Relay measuring equipment. H. N. Wagar. bibliog il diags Bell System Tech J 33: 3-22 Ja '54

See also

Fluxmeters
Magnetic susceptibility
Magnetic testing
Magnetometers
Permeameters
Potentiometers

MAGNETIC moment

Antiferromagnetic *H-T* boundaries and apparent molecular fields for $MnCl_2 \cdot 4H_2O$ and $MnBr_2 \cdot 4H_2O$. W. E. Henry. bibliog Phys R 94:1146-51 Je 1 '54

Experimental measurement of the gyromagnetic ratio of the free electron. W. H. Louisell and others. bibliog diags Phys R 94:7-16 Ap 1 '54

Intrinsic magnetic moment of elementary particles of spin $\frac{3}{2}$. F. J. Belinfante. bibliog Phys R 92:997-1001 N 15 '53

Magnetic moment of K^{40} in intermediate coupling. G. E. Tauber and T. Y. Wu. bibliog Phys R 94:1307-10 Je 1 '54

Magnetic moment of Os^{189}. H. R. Loeliger and L. R. Sarles. Phys R 95:291 Jl 1 '54

Magnetic moment of the first excited state of Pb^{204}. H. Frauenfelder and others. Phys R 93:1126-7 Mr 1 '54

Magnetic moments and stereochemistry of cobaltous compounds. B. N. Figgis and R. S. Nyholm. Chem Soc J p 12-15 Ja '54

Magnetic moments of Ag^{107} and Ag^{109} and the hyperfine structure anomaly. P. B. Sogo and C. D. Jeffries. Phys R 93:174-5 Ja 1 '54

Magnetic moments of neutron and proton. F. J. Belinfante. bibliog Phys R 92:994-7 N 15 '53

Nuclear magnetic moment of S^{35} by microwave spectroscopy. B. F. Burke and others. il Phys R 93:193-4 Ja 1 '54

Nuclear magnetic moments of K^{41}, Y^{87}, Ag^{107}, and Ag^{109}. E. Brun and others. Phys R 93:172-3 Ja 1 '54

Nuclear magnetic moments of Xe^{129} and Xe^{131}. E. Brun and others. Phys R 93:904 F 15 '54

Nuclear moments of technetium-99. K. G. Kessler and R. E. Trees. bibliog diag Phys R 92:303-7 O 15 '53

Nuclear spin and magnetic moment of 3.1 hr Cs^{134m}. L. S. Goodman and S. Wexler. Phys R 95:570 Jl 15 '54

Principle of nuclear induction. F. Bloch. bibliog il Science 118:425-30 O 16 '53

Regularity in magnetic moments of odd nuclei. M. F. Scharff. Phys R 95:1112-13 Ag 15 '54

Research in nuclear magnetism. E. M. Purcell. bibliog il diags Science 118:431-6 O 16 '53

Sachs exchange moment. R. H. Dalitz. Phys R 95:799-800 Ag 1 '54

Spin and magnetic moment of Ti^{47} and Ti^{49} and the magnetic moment of Ge^{73}. C. D. Jeffries. bibliog Phys R 92:1262-3 D 1 '53

Transient magnetic dipole source in a dissipative medium. J. R. Wait. bibliog J Ap Phys 24:341-3 Mr '53

Variations of hydrogen rotational magnetic moments with rotational quantum number and with isotopic mass. R. G. Barnes and others. Phys R 94:893-902 My 15 '54

MAGNETIC permeability

See also

Permeameters

MAGNETIC properties

Apparatus for nuclear magnetic resonance. H. S. Gutowsky and others. bibliog il diags R Sci Instr 24:644-52 Ag '53

Behavior of ferromagnetic domains under stress. G. Bonfiglioli and others. diag Phys R 94:316-18 Ap 15 '54

Complex magnetic permeability of spherical particles. J. R. Wait. Inst Radio Eng Proc 41:1664-7 N '53

Correlation of proton magnetic resonance chemical shifts with electronegativities of substituents. J. N. Shoolery. bibliog il J Chem Phys 21:1899-900 O '53

Detection of polymerization radicals by paramagnetic resonance. G. K. Fraenkel, J. M. Hirshon and C. Walling. Am Chem Soc J 76:3606 Jl 5 '54

Dissociation, chemical exchange, and the proton magnetic resonance in some aqueous electrolytes. H. S. Gutowsky and A. Saika. bibliog J Chem Phys 21:1688-94 O '53

Effects of diffusion on free precession in nuclear magnetic resonance experiments. H. Y. Carr and E. M. Purcell. il diags Phys R 94:630-8 My 1 '54

Electron distribution in molecules; phosphorus magnetic resonance shifts. H. S. Gutowsky and D. W. McCall. bibliog J Chem Phys 22:162-4 F '54

Energy loss in steel. il Steel 134:124 Mr 15 '54

Factors determining the permanent magnet properties of single crystals of Fe_2NiAl. E. A. Nesbitt and others. bibliog il diag J Ap Phys 25:1014-20 Ag '54

Giant nuclear dipole resonance. M. Ferentz and others. Phys R 92:836-7 N 1 '53

How cold work, heat treat change properties of 18-8 wire. S. Storchheim. Iron Age 173: 146-8 F 18 '54

How heat treatment affects properties of cold worked 18-8 wire. S. Storcheim. Iron Age 172:112-14 O 1 '53

Hyperfine structures of silver and gold by the atomic beam magnetic resonance method. G. Wessel and H. Lew. bibliog diags Phys R 92:641-6 N 1 '53

Line-narrowing by macroscopic motion. F. Bloch. Phys R 94:496-7 Ap 15 '54

Line-narrowing experiment. W. A. Anderson and J. T. Arnold. il Phys R 94:497-8 Ap 15 '54

Magnetic and electric properties of magnetite at low temperatures. B. A. Calhoun. bibliog diags Phys R 94:1577-85 Je 15 '54

Magnetic and thermal properties of chromic methylamine alum below 1°K. R. P. Hudson and C. K. McLane. bibliog diag Phys R 95:932-40 Ag 15 '54

Magnetic anisotropy of NiF_2. L. M. Matarrese and J. W. Stout. bibliog Phys R 94: 1792-3 Je 15 '54

Magnetic properties of an electronic Einstein model solid. M. F. M. Osborne and M. C. Steele. bibliog Phys R 92:1403-19 D 15 '53

Magnetic properties of the hydrogen molecules. E. Ishiguro and S. Koide. Phys R 94:350-7 Ap 15 '54

Magnetic resonance in αFe_2O_3. P. W. Anderson and others. Phys R 93:717-18 F 15 '54

Magnetic resonance in ferrimagnetics. R. K. Wangsness. Phys R 93:68-71 Ja 1 '54

Magnetic resonance phenomena in ferrites. F. Brown and D. Park. bibliog diags Phys R 93:381-4 F 1 '54

Magnetic study on high polymers; diamagnetic anisotropy of natural rubber. A. Isihara and others. bibliog diag J Chem Phys 21:1909-11 N '53

Magnetic transformation of iron in copper matrix at low temperatures. R. E. Cech and D. Turnbull. bibliog J Metals 6:Trans 45-6 Ja '54

Nuclear magnetic resonance in metals; temperature dependence of the resonance shifts. B. R. McGarvey and H. S. Gutowsky. bibliog J Chem Phys 21:2114-19 D '53

Nuclear magnetic resonance signals from a tautomeric mixture. H. S. Jarrett and others. il J Chem Phys 21:2092-3 N '53

Nuclear magnetic resonance spectroscopy. J. N. Shoolery. bibliog diag Anal Chem 26: 1400-3 S '54

Nuclear quadrupole resonance of Hg^{201}. H. G. Dehmelt and others. bibliog Phys R 93:480-2 F 1 '54

Observation of cyclotron resonance in germanium crystals. G. Dresselhaus and others. bibliog Phys R 92:827 N 1 '53

Observation of exchange interaction effects in ferromagnetics by spin wave resonance. G. T. Rado and J. R. Weertman. Phys R 94:1386 Je 1 '54

Orientation of nuclei by saturation of paramagnetic resonance. J. Korringa. Phys R 94:1388 Je 1 '54

MAGNETIC properties—*Continued*

Paramagnetic resonance absorption in graphite. J. G. Castle, jr. Phys R 92:1063 N 15 '53

Paramagnetic resonance absorption in graphite. G. R. Hennig and others. bibliog Phys R 95:1038-9 Ag 15 '54

Paramagnetic resonance absorption in solutions of K and Na in liquid NH_3. C. A. Hutchison, jr. and R. C. Pastor. bibliog J Chem Phys 21:1959-71 N '53

Paramagnetic resonance absorption of carbazyl and hydrazyl. C. Kikuchi and V. W. Cohen. bibliog il diags Phys R 93:394-9 F 1 '54

Paramagnetic resonance absorption of Mn^{++} in single crystals of $CaCO_3$. F. K. Hurd and others. bibliog Phys R 93:373-80 F 1 '54

Paramagnetic resonance hyperfine structure of the free radical $(SO_3)_2NO^{=}$. B. Smaller and E. L. Yasaitis. bibliog J Chem Phys 21:1905-6 O '53

Paramagnetic resonance hyperfine structure of V^{50} and V^{51}. C. Kikuchi and others. bibliog il diags Phys R 92:109-13 O 1 '53

Paramagnetic resonance in gases at low fields. M. A. Garstens. Phys R 93:1228-31 Mr 15 '54

Paramagnetic resonance in irradiated ice. B. Smaller and others. Phys R 94:202 Ap 1 '54

Paramagnetic resonance of copper complex salts. T. Okamura and M. Date. diag Phys R 94:314-15 Ap 15 '54

Paramagnetic resonances in irradiated glasses. E. L. Yasaitis and B. Smaller. Phys R 92:1068-9 N 15 '53

Proton magnetic resonance experiment on a single crystal of oxalic acid dihydrate, $(COOH)_2 \cdot 2H_2O$. J. Itoh and others. bibliog J Chem Phys 21:1895-6 O '53

Proton magnetic resonance in natural rubber. H. S. Gutowsky and L. H. Meyer. bibliog J Chem Phys 21:2122-6 D '53

Proton magnetic resonance of the CH_3 group; investigation of six tetrasubstituted methanes. J. G. Powles and H. S. Gutowsky. bibliog J Chem Phys 21:1695-703 O '53

Proton magnetic resonance of the CH_3 group; solid solutions of *t*-butyl chloride in carbon tetrachloride. J. G. Powles and H. S. Gutowsky. bibliog J Chem Phys 21:1704-9 O '53

Proton magnetic resonance spectrum of ammonia and the interactions involved in hydrogen bond association. R. A. Ogg, jr. bibliog J Chem Phys 22:560-1 Mr '54

Radiation damping in magnetic resonance experiments. N. Bloembergen and R. V. Pound. bibliog Phys R 95:8-12 Jl 1 '54

Relaxation effects in *para*- and ferromagnetic resonance. N. Bloembergen and S. Wang. bibliog il diag Phys R 93:72-83 Ja 1 '54

Saturation effects in paramagnetic resonance. A. H. Eschenfelder and R. T. Weidner. bibliog diag Phys R 92:869-73 N 15 '53

Some magnetic properties of Dy metal. J. F. Elliott and others. Phys R 94:1143-5 Je 1 '54

Spin-lattice relaxation and the residual width of highly exchange-narrowed paramagnetic resonances. J. P. Lloyd and G. E. Pake. Phys R 92:1576 D 15 '53

Tensor formulation of ferromagnetic resonance. J. A. Young, jr. and E. A. Uehling. bibliog Phys R 94:544-54 My 1 '54

Theory of the galvanomagnetic effects in germanium. B. Abeles and S. Meiboom Phys R 95:31-7 Jl 1 '54

Thermomagnetic properties of thin metallic films. F. J. Blatt. Phys R 95:13-15 Jl 1 '54

Transient nuclear induction signals associated with pure quadrupole interactions. M. Bloom and R. E. Norberg. il Phys R 93:638-9 F 1 '54

See also

Diamagnetism

Magnetic susceptibility

Magnetic testing

MAGNETIC recording. See Moving picture sound recording—Magnetic recording; Sound—Recording and reproducing—Magnetic recording

MAGNETIC resonance absorption. See Magnetic properties

MAGNETIC separation of ores

Rapid magnetic ore separator. il Engineer 197:474 Mr 26 '54; Engineering 177:405 Mr 26 '54

MAGNETIC separators

Alarm for separators; automatic alarm system called Magnalarm. Steel 134:161 F 8 '54

Magnetic separators reduce textile fires. R. C. Hoff. Safety Maint & Prod 108:54 S '54

New coolant cleaning tank reclarifies quench oils; Ford motor co. il Iron Age 172:148 D 17 '53

MAGNETIC storms

H. Alfvén's theory of the effect of magnetic storms on cosmic-ray intensity. W. F. G. Swann. Phys R 93:905-6 F 15 '54

Magnetic storm effect on cosmic radiation. H. Alfvén. Phys R 94:1082 My 15 '54

MAGNETIC susceptibility

Apparatus for the accurate measurement of magnetic susceptibility. R. Cini and L. Sacconi. bibliog diags J Sci Instr 31:56-9 F '54

Calculation of the diamagnetic and paramagnetic susceptibility of N_2 by the statistical method. J. V. Bonet and A. V. Bushkovitch. bibliog J Chem Phys 21:2199-201 D '53

Comparator for materials of low magnetic susceptibility. D. A. Abbott and R. Kilgour. il diags J Sci Instr 31:155-8 My '54

Cryostat for magnetic susceptibility measurements at low temperatures. A. L. Smith and H. L. Johnston. bibliog diags R Sci Instr 24:420-3 Je '53

de Haas-van Alphen effect in arsenic. T. G. Berlincourt. Phys R 92:1068 N 15 '53

de Haas-van Alphen effect in cadmium. T. G. Berlincourt. bibliog diags Phys R 94:1172-8 Je 1 '54

Effect of dissolved oxygen on diamagnetic susceptibilities. B. C. Eggleston, D. F. Evans and R. E. Richards. diags Chem Soc J p941-3 Mr '54

Effect of neutron bombardment upon the magnetic susceptibility of several pure oxides. J. D. McClelland and J. J. Donoghue. J Ap Phys 24:963 Jl '53

Effect of the surface on the magnetic properties of an electron gas. F. S. Ham. bibliog Phys R 92:1113-19 D 1 '53

Exchange reactions and magnetic susceptibilities of complex salts; some complex salts of ferric iron. H. C. Clark, N. F. Curtis and A. L. Odell. Chem Soc J p63-6 Ja '54

Further correlation between magnetoresistance variations and the de Haas-van Alphen effect. T. G. Berlincourt and J. K. Logan. Phys R 93:348-9 Ja 15 '54

Improved Rankine magnetic susceptibility balance for use in free radical determinations. J. O. Bockris and D. F. Parsons. bibliog diags J Sci Instr 30:362-3 O '53

Magnetic susceptibilities of Np^{+6}, Np^{+5}, and Np^{+4}. D. M. Gruen and C. A. Hutchison, jr. bibliog J Chem Phys 22:386-93 Mr '54

Magnetic susceptibilities of some aromatic hydrocarbon anions. T. L. Chu and S. C. Yu. Am Chem Soc J 76:3367-9 Jl 5 '54

Magnetic susceptibility as measured by Gouy's method with the specimen in a fixed position. O. M. Hilal and G. E. Fredericks. diag Chem Soc J p785-6 Mr '54

Magnetic susceptibility of carbons and polycrystalline graphites. H. T. Pinnick. bibliog Phys R 94:319-26 Ap 15 '54

Magnetic susceptibility of germanium. D. K. Stevens and J. H. Crawford, jr. Phys R 92:1065-6 N 15 '53

Magnetic susceptibility of lanthanum. O. M. Hilal and F. A. Saleh. Chem Soc J p2635 Jl '54

Magnetic susceptibility of Nd metal. J. F. Elliott and others. bibliog Phys R 94:50-1 Ap 1 '54

Magnetic susceptibility of the transition elements. C. J. Kriessman and H. B. Callen. bibliog Phys R 94:837-44 My 15 '54

Magnetics in geology; measuring magnetic susceptibility of rocks. H. Mooney. il diags Electronics 26:143-5 O '53

Paramagnetic susceptibility of conduction electrons. D. Pines. Phys R 95:1090-1 Ag 15 '54

Susceptibility tensor and the Faraday effect in ferrimagnetics. R. K. Wangsness. bibliog Phys R 95:339-45 Jl 15 '54

MAGNETIC susceptibility—*Continued*

Temperature dependence of the nuclear susceptibility of He^3 between 1.2°K and 4.2°K. W. M. Fairbank and others. bibliog Phys R 92:208-9 O 1 '53

Thermal anomalies associated with the antiferromagnetic ordering of FeF$_2$, CoF$_2$, and NiF$_2$. J. W. Stout and E. Catalano. Phys R 92:1575 D 15 '53

Thermal migration in supported copper catalysts. P. E. Jacobson and P. W. Selwood. bibliog diag Am Chem Soc J 76:2641-4 My 20 '54

MAGNETIC tape

Automatic control; tape recorder will memorize, repeat machine operations. Iron Age 172:111-13 O 29 '53

Cost reduction through electronic production control. R. G. Canning. flow diag diag Mech Eng 75:887-90 N '53

Electronic movies forge ahead; video tape development. il Electronics 27:5-6 Ja '54

Fine linear measurements and control of machine tools. T. Merton. Engineering 177:263 F 26 '54

How magnetic recording aids seismic operations. E. J. Handley. il Oil & Gas J 52:158-9 Ja 11 '54

Machine tool control; Herbert magnetic-tape control equipment. il Automobile Eng 44:333-4 Ag '54

Magnetic recording, new seismic exploration tool. M. J. Stolaroff. il diags Oil & Gas J 52:95-6+ D 28 '53

Magnetic tape programming of machine tools. L. R. Peaslee. il diags Mach 60:166-72 Ja '54

New exploration tool; recording geophysical information obtained with fm carrier system. M. J. Stolaroff. Oil & Gas J 52:79 S 28 '53

New technique for transient recording. R. C. Baird and K. W. Lamers. bibliog il diags Instruments & Automation 27:464-6 Mr '54

Pictures on tape. il Radio & Tv N 51:55 F '54

RCA demonstrates magnetic tape recording of color and black-and-white tv pictures. D. Sarnoff. il diags Elec Eng 73:97-8 Ja '54

RCA records video on magnetic tape. Bsns W p34 D 5 '53

Skin milling of light-alloy forgings; copying machine with magnetic tape control. Engineering 177:194 F 12 '54

System for recording and reproducing television signals. H. F. Olson and others. il diags RCA R 15:3-17 Mr '54

Tape-controlled machining. il Factory Management 112:142 Ap '54

Tape recorder; ten hours of flight data can be taped on 18-lb unit. il Iron Age 172:148 Jl 16 '53

Tape recorder to operate milling machine. Machine Design 25:253-4 D '53; Same abr. Mill & Factory 53:270+ D '53; Same abr. Steel 133:134 N 9 '53

Tape recorders; sales mount. J. C. Potter. Barron's 33:13+ N 30 '53

Tiny tape recorder tells how many and when. Aviation W 59:44-5 Ag 24 '53

Toward the automatic factory; General electric co.'s record-playback replays production impressions. diags Steel 134:100-1 My 17 '54

When tape moves in on tv. Bsns W p88+ D 19 '53

See also

Moving picture sound recording—Magnetic recording

Sound—Recording and reproducing—Magnetic recording

MAGNETIC testing

Acceptance standards for magnetic inspection improve quality, lower rejection rates on critical parts. S. Maszy. diags Iron Age 174:114-15 S 23 '54

Conveyors speed up quality control operation; Magnaflux corp. il Iron Age 173:197 Mr 4 '54

How magnetic particle inspection aids maintenance at Camas. D. M. Platt. il diags Paper Tr J 138:98-100 My 14 '54

How the PRR uses non-destructive testing; Magnaflux inspection. H. T. Cover. il Ry Age 135:48-9+ D 28 '53

Improved tools expedite magnetic particle and penetrant inspection; interpretive report of technical papers and panel discussion at annual meeting of the Society for nondestructive testing. A. H. Allen. il Metal Prog 65:161-4 Ja '54

Industrial evaluation of search-coil flaw detection techniques; abstract. C. H. Hastings and G. A. Darcy. Metal Prog 65:162+ My '54

Institute of physics conference, Birmingham; with abstracts of papers on non-destructive testing. Metallurgia 50:78-80 Ag '54

Magnaflux tool for maintenance inspection. il Blast F & Steel Pl 42:1095-6 S '54

Magnetic fatigue tester enables bridge designers to plan lighter, safer structures. il Roads & Eng Constr 92:58 S '54

Magnetic flaw detection. C. J. Richards. il diags Elec R (Lond) 153:742-6 O 2 '53

Method for revealing hairline cracks. W. J. Crook. il Metal Prog 65:109 Mr '54

Minchom-Sempun magnetic flaw detector. il Engineering 176:736 D 4 '53

Nondestructive testing of structures. L. J. Oye. bibliog il Welding J 33:223-33 Mr '54

Nondestructive tests check forging quality, spot equipment troubles; General drop forge corp. S. C. Totaro. il Iron Age 174:117-19 Ag 12 '54

Take magnetic inspection afield. il Constr Methods 36:190+ Jl '54

MAGNETIC units

What is the meaning of total rationalization? G. W. O. Howe. Wireless Eng 30:293-4 D '53

MAGNETISM

Adsorption and the magnetic ortho-para conversion of hydrogen on diamagnetic solids; some experiments in surface paramagnetism. Y. L. Sandler. bibliog J Phys Chem 58:54-7 Ja '54

Antiferromagnetism of manganese. L. Patrick. Phys R 93:370 F 1 '54

Domain formation and domain wall motions in ferroelectric BaTiO$_3$ single crystals. W. J. Merz. bibliog il diags Phys R 95:690-8 Ag 1 '54

Evidences of crystalline imperfections in nuclear magnetism. R. V. Pound. bibliog diag J Phys Chem 57:743-8 N '53

Ferromagnetism of certain manganese-rich alloys. E. R. Morgan. bibliog il J Metals 6:Trans 983-3 S '54

Magnetic domains by the longitudinal Kerr effect. C. A. Fowler, jr. and E. M. Fryer. bibliog il diags Phys R 94:52-6 Ap 1 '54

Magnetic evidence of monomer-dimer equilibrium of molybdenum(V) ions in hydrochloric solution. L. Sacconi and R. Cini. bibliog Am Chem Soc J 76:4239-40 Ag 20 '54

Measurement of the spin paramagnetism of conduction electrons. R. T. Schumacher and others. il Phys R 95:1089-90 Ag 15 '54

Search for antiferromagnetism in the silicides V$_3$Si, Cr$_3$Si, and Mo$_3$Si. W. C. Koehler and E. O. Wollan. Phys R 95:280-1 Jl 1 '54

Spherical model of an antiferromagnet. B. S. Gourary and R. W. Hart. bibliog diags Phys R 95:676-86 Ag 1 '54

Spin-wave theory of antiferromagnetism for simple cubic lattices. M. R. Schafroth. Phys R 92:553 N 1 '53

Use of non-orthogonal wave functions in the treatment of solids, with applications to ferromagnetism. W. J. Carr, jr. bibliog diags Phys R 92:28-35 O 1 '53

See also

Diamagnetism

Electricity

Electromagnetism

Gyromagnetic effect

Magnetic measurements and other headings beginning Magnetic

Magnetization

Magnets

MAGNETISM, Solar

Cosmic radiation in the trapped orbits of a solar magnetic dipole field. S. B. Treiman. bibliog Phys R 93:544-51 F 1 '54

Solar magnetic moment and diurnal variation in cosmic-ray intensity. J. Firor and others. bibliog Phys R 93:551-3 F 1 '54

MAGNETISM, Terrestrial

Effects of the geomagnetic field on solar cosmic rays. V. Sarabhai and R. P. Kane. bibliog diag Phys R 92:415-19 O 15 '53

Geomagnetic and albedo studies with a Čerenkov detector at 40° geomagnetic latitude. J. R. Winckler and K. Anderson. bibliog diags Phys R 93:596-605 F 1 '54

MAGNETISM, Terrestrial—*Continued*
Influence of the earth's magnetic field on the extensive air showers. G. Cocconi. Phys R 93:646-7 F 1 '54
See also
Auroras

MAGNETITE
Concentration of Klukwan, Alaska, magnetite ore. R. R. Wells and R. L. Thorne. 3pls U S Bur Mines Rep of Invest 4984: 1-15 '53
Corrected interpretation of the mechanism of growth of magnetite during oxidation. M. H. Davies and others. J Metals 5:Trans 1250 sec 2 S '53
Magnetic and electric properties of magnetite at low temperatures. B. A. Calhoun. bibliog diags Phys R 94:1577-85 Je 15 '54
Moduli and internal friction of magnetite as affected by the low-temperature transformation. M. E. Fine and N. T. Kenney. bibliog diags Phys R 94:1573-6 Je 15 '54
Solid state bonding in iron ore pellets. S. R. B. Cooke and R. E. Brandt. il Min Eng 6:Trans 411-15 Ap '54

MAGNETIZATION
Analysis of measured magnetization and pull characteristics. R. L. Peek, jr. il diags Bell System Tech J 33:79-108 Ja '54
Combined magnetisation of magnetic materials. J. E. Parton and W. D. Sutherland. il diags Engineering 176:697-700, 731-2 N 27-D 4 '53
High-speed magnetic pulsing of ferrites. R. C. LeCraw. J Ap Phys 25:678-9 My '54
Magnetization curves of powdered iron. A. D. Franklin. Franklin Inst J 256:90-2 Jl '53
Magnetization in nickel ferrite-aluminates and nickel ferrite-gallates. L. R. Maxwell and S. J. Pickart. bibliog il diags Phys R 92:1120-6 D 1 '53
Nonlinear diffusion equation applied to the magnetization of saturable reactors. S. H. Chow. J Ap Phys 25:377-81 Mr '54
Theory of domain creation and coercive force in polycrystalline ferromagnetics. J. B. Goodenough. bibliog il diags Phys R 95: 917-32 Ag 15 '54

MAGNETOCHEMISTRY
Preparation of thin tungsten fibres and their use in place of quartz. J. O. Bockris and D. F. Parsons. diag J Sci Instr 30:340 S '53

MAGNETO-HYDRODYNAMIC wave. See Wave motion, Theory of

MAGNETOMETERS
Airborne magnetometer. il Elec J 151:1831 D 4 '53
Magnetic data from sedimentary beds. J. L. Harper. maps diag Pet Eng 25:B38+ Ag '53
Magnetics in geology; measuring magnetic susceptibility of rocks. H. Mooney. il diags Electronics 26:143-5 O '53
Small sensitive magnetometer. T. M. Palmer. bibliog diags Inst E E Proc 100 pt 2:545-50 O '53

MAGNETO-OPTICS
Double focusing of charged particles by a system of two magnets with nonuniform fields. R. M. Sternheimer. bibliog diags R Sci Instr 24:573-85 Ag '53
See also
Faraday effect
Kerr effect

MAGNETORESISTANCE. See Electric resistance

MAGNETOSTRICTION
Ac Hall and magnetostrictive effects in photoconducting alkali halides. J. R. Macdonald and J. E. Robinson. bibliog diag Phys R 95:44-50 Jl 1 '54
Controllable interference-type optical filter. R. Blythe. il Opt Soc Am J 44:336-9 Ap '54
Method of measuring magnetostriction. A. W. Cochardt. bibliog diag J Ap Phys 25: 91-5 Ja '54
New magnetostrictive material. H. E. Stauss and G. Sandoz. J Ap Phys 25:267 F '54
Some magnetostriction relations in materials possessing preferred domain orientations. G. T. Rado. bibliog J Ap Phys 25:102-6 Ja '54
Ultrasonics; inaudible sound used to spot fires, trap burglars. Iron Age 172:119-20 N 26 '53
Volume magnetostriction in nickel and the Bethe-Slater interaction curve. K. Azumi and J. E. Goldman. bibliog Phys R 93:630-1 F 1 '54

MAGNETRON
Applying pulse magnetrons to radar equipment. C. V. Litton and P. W. Crapuchettes. il diag Tele-Tech 12:60-2+ S; 102-4 O '53
Broadbanding of resonant-type microwave output windows. T. S. Chen. bibliog diags RCA R 15:204-29 Je '54
How long-line effect impairs tunable radar. J. F. Hull and others. bibliog il Electronics 27:168-73 F '54
Instabilities in the smooth-anode cylindrical magnetron. L. A. Harris. bibliog diags J Ap Phys 23:562-7 My '52; Correction. 24: 1335 O '53
Magnetron power indicator. M. Nowogrodski and V. J. Stein. diag Electronics 26:210-11+ D '53
Metal-to-ceramic seals for magnetron waveguides. N. E. Pryslak. il Electronics 27: 282+ Ja '54
Noise in cw magnetrons. D. Middleton and others. bibliog diag J Ap Phys 24:1065-6 Ag '53
Prediction of traveling wave magnetron frequency characteristics; frequency pushing and voltage tuning. H. W. Welch, jr. bibliog il diags Inst Radio Eng Proc 41: 1631-53 N '53
Relativistic dynamics of a charged particle in crossed magnetic and electric fields with application to the planar magnetron. L. Gold. J Ap Phys 25:683-90 Je '54

MAGNETS
Automatic scrap gathering; no attendants required as these magnets make three-minute round trips to load cars. il Steel 133:202 D 7 '53
Ceramic magnets focus tv tubes. J. A. Verhoef. il diags Electronics 26:238+ D '53
Cold treatment increases strength, stability of magnet steels; AC spark plug div., General motors corp. W. G. Patton. il Iron Age 173:156-8 Je 17 '54
Let prospects help you uncover new product uses; industrial magnets. C. E. St Thomas. il Sales Management 72:50+ Ja 1 '54
Lift truck picks up metal debris. il Mill & Factory 53:131 N '53
Lodestones and magnets. Metal Prog 65:99-100 Ap '54
Magnets attract many new markets. R. D. Raddant. il Iron Age 172:57 O 22 '53
Metal powder poles. Steel 134:131 Je 28 '54
New type of magnet is composed of noncritical ceramic material called Indox. R. F. Smith. Elec Eng 73:102-3 Ja '54
Permanent magnet properties of cobalt-platinum alloys. D. L. Martin and A. H. Geisler. J Ap Phys 24:498 Ap '53
Releasing magnet. M. L. Deckard. diags Tool Eng 32:43 Je '54
Sales, Tom Sawyer style; small kits, suitable for experiments. il Bsns W p66 Ag 1 '53
Simple magnetizer. Franklin Inst J 256:71-2 Jl '53; Product Eng 24:231 Je '53
Steels for permanent magnets. J. C. Williamson. il Elec R (Lond) 153:1101-5 N 13 '53
See also
Electromagnets

Manufacture

Magnet production mechanized at new plant; Carboloy. il Tool Eng 31:69-70 D '53
Mechanized plant boosts Nation's magnet capacity; illustrations with text. Gen Elec R 57:42-6 Mr '54
Permanent magnet foundry; Carboloy department, General electric co. R. H. Herrmann. il plan Foundry 82:86-91+ Ja '54
Production of permanent magnets in a modern plant; Carboloy department of General electric co. il Mach 60:208-10 D '53
Scientific materials handling boosts magnet production; Carboloy department, General electric co. il Mill & Factory 54:104-5 F '54

MAGNOLIA park, inc.
Stock offered. Comm & Fin Chr 179:400 Ja 25 '54

MAGSAYSAY, Ramón, 1907-
Philippines on the road to democracy. por Bsns W p 166-8 N 21 '53

MAHOGANY
Newsprint from Philippine mahogany run successfully at Ryegate. Paper Tr J 137:17 O 23 '53

MAIL advertising. See Advertising, Mail

MAIL banking. See Banks and banking—Mail service

MAIL handling

Controlling excessive mail costs. A. E. Clark. Management R 42:269 My '53
How 18 firms handle incoming mail. Am Bsns 24:20-1 Mr '54
Improve your industrial communications. il Steel 135:48-50 Jl 26 '54
Reducing postage costs can be easy. E. W. Fair. Rough Notes 97:34+ Ag '54
Steps to improved mail handling methods; abstract. S. Feldman. Management R 42:84-5 F '53

See also

Air mail service
Railway mail service

MAIL order business

He sold one-million garlic presses; sight unseen. il Bsns W p58-9 Ag 8 '53
How Ressler beats mail-order competition. il Dom Eng 183:136-8+ My '54
Mail orders expand into new markets. P. Dobbs. il Mag of Wall St 93:87-9 O 17 '53
Stores move into mail order. il Bsns W p43-4 D 12 '53
Uses consumer mail-order ads to build distribution; Riegel textile corp. il Ptr Ink 243:47 My 15 '53

See also

Aldens, inc.
Montgomery Ward and company
Sears, Roebuck and company

Advertising

How to get better results from mail order. R. A. Baker. il Ptr Ink 244:53-4+ Jl 31 '53
Magazines; display mail-order shopping sections. R. A. Baker. Ptr Ink 245:118-19 sec 2 O 23 '53
Newspapers; display mail-order shopping sections. R. A. Baker. Ptr Ink 245:166 sec 2 O 23 '53
Why mail-order radio campaign is big success. R. A. Baker. Ptr Ink 244:36 Jl 10 '53

Statistics

Retail trade; mail-order and store sales, 1949-1952. Survey of Cur Bsns 1953 Sup p53 [supplemented in monthly numbers]

MAIL questionnaries. See Questionnaires

MAIL service, Railway. See Railway mail service

MAIL surveys. See Questionnaires

MAILING lists

List brokers; how they work, how to use them; testing; margin of error, sample size; methods of list building; sources of names; testing. M. C. Ross; W. A. Doppler. Ptr Ink 245:304-9 sec 2 O 23 '53

Directories

Bibliography

Guide to American directories for compiling mailing lists. 108p $10 B. Klein & co, 27 E. 22d st, New York 10 '54

MAINE

See also

Forests and forestry—Maine

MAINTENANCE departments

Area vs. centralized; General electric co. Evendale; abstract. J. B. Gibbons. Steel 134:135-6 F 22 '54
Cost control and budgeting; Stanley home products inc.; abstract. J. A. Openshaw. Steel 134:135 F 22 '54
Daily maintenance cost control; the foreman's tool. W. B. Carter. il Iron & Steel Eng 31:123-7 S '54
Mainsprings of maintenance cost control. C. R. Cooper. N A C A Bul 36:74-81 S '54
Maintenance incentive; scheme of I.C.I. fertiliser factory. Chem Age (Lond) 69:867-8 O 24 '53
Mill-chain maintenance; hitch your maintenance team to engineering specialists. R. B. Pressley. Textile World 103:126+ D '53
Old masters' touch salvages scrap parts; Pratt & Whitney Aircraft. il Am Mach 98:117 Jl 5 '54
Planning and scheduling your maintenance work. G. J. Martin. Food Eng 26:76-8 Ap '54
Preventive maintenance; Electro-Metallurgical co.; abstract. O. W. Graveley. Steel 134:136 F 22 '54
Preventive maintenance, pros and cons; abstract. O. W. Graveley. Tool Eng 33:148-9 Ag '54
Productive maintenance. A. D. King. Iron & Steel Eng 31:98-100 S '54

See also

Factories—Maintenance and repair

MALABAR food products corporation

Bromfield puts Malabar farm into the gift-food business. L. M. Hughes. il Sales Management 71:32+ O 1 '53

MALACHITE green

3 : 6-Disubstituted fluorenes; fluorene analogues of Michler's hydrol, malachite-green, and crystal-violet. A. Barker and C. C. Barker. Chem Soc J p 1307-9 Ap '54

MALARIA

Antimalarial 2-alkoxy-6-chloro-9-dialkylaminoalkylamino-1 : 10-diaza-anthracenes. D. M. Besley and A. A. Goldberg. Chem Soc J p2448-55 Jl '54
Benzotriazines; a new series of compounds having antimalarial activity. F. J. Wolf and others. Am Chem Soc J 76:3551-3 Jl 5 '54
Economic benefits of malaria control in the Republic of Indonesia. W. A. Ketterer. Pub Health Rep 68:1056-8 N '53
Synthesis of possible antimalarials; synthesis of 1- and 3-*iso*quinolyl- and 2-quinolyl-2-quinuclidylmethanol. G. R. Clemo and M. Hoggarth. Chem Soc J p95-9 Ja '54
Synthetic antimalarials; the structure and synthesis of the dihydrotriazine metabolite of proguanil. H. C. Carrington, A. F. Crowther and G. J. Stacey. Chem Soc J p 1017-31 Mr '54

MALATHION. See Insecticides

MALAYA

See also

Electric apparatus industry—Malaya
Electricity supply—Malaya
Finance—Malaya

Economic conditions

Economic conditions abroad (cont). For Comm W 50:6 S 14; 4 D 21 '53

Politics and government

Malaya without Templer. Economist 170:77-8 Ja 9 '54
Malaya's new nationalists. Economist 169:104-5 O 10 '53
Money for Malaya; British financial aid. Economist 168:612-14 S 5 '53

MALCOM, Robert, 1871-1953

Sketch. por Safety Maint & Prod 107:54 Ja '54

MALEANILATES

Reactions of antiserum homologous to the *p*-azomaleanilate and *p*-azofumaranilate ion groups. M. Siegel and D. Pressman. bibliog Am Chem Soc J 76:2863-6 Je 5 '54

MALEIC acid

Strength of maleic acid. M. Crawford. bibliog Chem & Ind p797 Jl 25 '53
Strengths of maleic and phthalic acids. T. Nash. bibliog Chem & Ind p591 Je 13 '53
Structure of the hydrogen maleate anion; a symmetric hydrogen bond? H. M. E. Cardwell, J. D. Dunitz and L. E. Orgel. Chem Soc J p3740-2 D '53

Analysis

Determination of free maleic and phthalic acids in their anhydrides. S. Siggia and N. A. Floramo. Anal Chem 25:797-8 My '53
Maleic and fumaric acids. P. J. Elving and I. Rosenthal. bibliog Anal Chem 26:1454-9 S '54
Polarographic analysis of mixtures of fumaric and maleic acids, and their diethyl esters. P. J. Elving, A. J. Martin and I. Rosenthal. bibliog Anal Chem 25:1082-4 Jl '53
Polarographic determination of maleate unsaturation in polyesters. E. W. Hobart. Anal Chem 26:1291-3 Ag '54

MALEIC anhydride

Addition of maleic anhydride to 9 : 10-diphenylanthracene. J. W. Cook and L. Hunter. Chem Soc J p4109-11 D '53

MALEIC anhydride—*Continued*

Maleic-fumaric isomerization in unsaturated polyesters. S. S. Feuer and others. bibliog Ind & Eng Chem 46:1643-5 Ag '54

Maleic quickening; plastic car bodies, soil conditioners, other consumer products. Chem W 72:70+ Ap 11 '53

More maleic, lower cost; solvent absorption of anhydride in dibutyl phthalate. flow sheet Chem Eng 60:114-15 D '53

p-Nitrophenylmaleic anhydride in the Diels-Alder reaction. L. E. Miller and C. J. Strickler. bibliog Am Chem Soc J 76:698-702 F 5 '54

Synthesis in the pyridazine series; the preparation of pyridazines from substituted maleic anhydrides; some properties of 4-methylpyridazine. R. H. Mizzoni and P. E. Spoerri. bibliog Am Chem Soc J 76:2201-3 Ap 20 '54

Tube-ice to tube chemicals. il diag Chem Eng 60:126-7 S '53

Manufacture

Maleic anhydride; pictured flowsheet. Chem Eng 60:238-41 Jl '53

MALEIC hydrazide. See Dihydropyridazinedione

MALEIMIDES

Synthesis of maleimide. J. A. Berson and R. Swidler. bibliog Am Chem Soc J 76:2835-6 My 20 '54

MALENKOV, Georgiĭ Maksimilianovich, 1902-

Building up Malenkov. Economist 168:558 Ag 29 '53

Malenkov looks for a line. Economist 169:316-18 O 31 '53

New face on the Soviet. por Bsns W p27-8 Ag 15 '53

MALIC acid

Analysis

Determination of fumaric, malic, and succinic acids in fermentation broths. N. Lemjakov. Anal Chem 26:1227-8 Jl '54

Determination of malic, tartaric, and citric acids in fruit by ion exchange chromatography. H. H. Schenker and W. Rieman, 3d. bibliog Anal Chem 25:1637-9 N '53

MALLEABLE founders' society

Annual meeting, Montebello, Que. June 14-15; with abstracts of papers. Foundry 82:152+ Ag '54

Meeting, Cleveland, Sept. 25. Foundry 81:163+ N '53

Meeting, Cleveland, Jan. 22. Foundry 82:218+ Mr '54

MALLEABLE iron. See Cast iron

MALLINCKRODT chemical works

St Louis blue chip. Chem W 74:15-16 Ap 3 '54

MALONIC acid

Decarboxylation of malonic acid in quinoline and related media. G. Fraenkel, R. L. Belford and P. E. Yankwich. bibliog diag Am Chem Soc J 76:15-18 Ja 5 '54

Intramolecular carbon isotope effect in the decarboxylation of normal malonic acid in quinoline solution. P. E. Yankwich and R. L. Belford. bibliog Am Chem Soc J 76:3067-70 Je 5 '54

Kinetics of the Knoevenagel-Doebner reaction. S. Patai, J. Edlitz-Pfeffermann and Z. Rozner. bibliog Am Chem Soc J 76:3446-51 Jl 5 '54

Malonic ester syntheses with organosilicon compounds; new silicon-containing malonic esters, mono- and dicarboxylic acids, barbituric acids and a disiloxanetetracarboxylic acid. L. H. Sommer and others. bibliog Am Chem Soc J 76:1609-12 Mr 20 '54

Stages in oxidations of organic compounds by potassium permanganate; oxidation of malonic acid and its analogues. A. Y. Drummond and W. A. Waters. Chem Soc J p2456-67 Jl '54

MALPRACTICE liability insurance. See Insurance, Malpractice liability

MALT

Floor malting at Grimsby; Sandars and co. il Engineer 196:658-61 N 20 '53

Floor malting mechanised; electrical apparatus meets particular needs; Sandars and co. il Elec J 151:1584-6 N 13 '53

Malting. A. S. Hester and J. H. Ladish. bibliog flow sheet il diag Ind & Eng Chem 46:1738-46 S '54

Quality of cereals and their industrial uses; malting of cereals other than barley. R. T. Potter. bibliog Chem & Ind p787-9 Jl 25 '53

MALTA

Malta's coalition. Economist 170:149 Ja 16 '54

See also

Electric plants (central stations)—Malta

Politics and government

Maltese experiment. Economist 169:804 D 12 '53

MALTOSE

Degradation of carbohydrates by alkali; lactulose, maltose, and maltulose. W. M. Corbett and J. Kenner. Chem Soc J p 1789-91 Je '54

MALTOTETRAOSE

Maltotetraose and crystalline pentadecaacetylmaltotetraitol. R. L. Whistler and J. L. Hickson. bibliog Am Chem Soc J 76:1671-3 Mr 20 '54

MALTULOSE

Degradation of carbohydrates by alkali; lactulose, maltose, and maltulose. W. M. Corbett and J. Kenner. Chem Soc J p 1789-91 Je '54

MAMMALS, Fossil

Preorbital fossa of Hipparion. P. L. Pirlot. Am J Sci 251:309-12 Ap '53

MAN

Does the greater understanding of man and nature increase the scientist's social responsibility? A. J. Carlson. Science 117:701-3 Je 26 '53

See also

Evolution

Origin and antiquity

Fossil man. L. C. Eiseley. il diags Sci Am 189:65-72 D '53

MAN, Prehistoric

Evidence of pleistocene man in Death valley, Calif. T. Clements and L. Clements. bibliog il map Geol Soc Bul 64:1189-203, pl 1-4 O '53

MANAGEMENT

Applying sound management principles to comptrollership in large organizations; United States army. R. S. McLain. Advanced Management 18:5-7 N '53

Can the U.S. export its methods? Bsns W p 116 N 14 '53

Engineer manager; training the technician for executive responsibilities. J. C. Stephens and G. C. Jacobus. bibliog Personnel 30:374-82 Mr '54

History of scientific management in the United States of America. H. P. Dutton. Advanced Management 18:9-12 O '53

Implementation of a management development program. L. A. Russ. Elec Eng 73:199-202 Mr '54

Management and the community; human factors of management. R. H. Rich. Advanced Management 18:5-6 D '53

Management responsibility; abstract. O. E. Ault. Chem & Eng N 32:2708-9 Jl 5 '54

Missing link in management. A. F. Osborn. Management R 43:9-11 Ja '54

Non-financial incentives; a management motivation analysis. E. J. Benge. Advanced Management 19:18-20 Je '54

Scientific management abroad. H. B. Maynard. Advanced Management 18:18-21 My '53

Scientific management of the distribution process. H. F. Smiddy. Advanced Management 19:20-6 Ja '54

Training for management in the large concern. E. L. K. Frost. Chem & Ind p412-14 Ap 10 '54

Training for management in the medium concern. J. Maddock. Chem & Ind p470-2 Ap 24 '54

What American management men can learn from visiting European executive groups. W. T. Seney. Advanced Management 18:13-18 N '53

MANAGEMENT—*Continued*

What every director should know. G. C. Ellis. Management R 43:2-5 Ja '54

See also

Business management
Committees (in management)
Employment management
Executives
Factory management
Foundry management
Industrial management
Machine shop management
Mine management
Office management
Retail trade—Store management

also subdivision Management under special subjects, e.g.

Airplane factories
Coal mines and mining
Newspapers
Railroads

Bibliography

Current reading list for sales executives and salesmen; general management. Sales Management 72:99-102 Ap 1 '54

In perspective; selected reviews of management literature. Personnel J 32:150-1 S '53

Survey of books for executives. Published in monthly numbers of Management review

Study and teaching

Management-training Radcliffe students in insurance offices. East Underw 54:1+ Jl 17 '53

MANAGEMENT consultants

See also

Business consultants

MANAGEMENT development associates

Catalyzing executives on the way up. Chem Eng 60:284+ S '53

MANBY, Aaron, 1776-1850

Aaron Manby and the first iron steamship. Engineering 177:229 F 19 '54

MANCHESTER, Georgia

Fighting Goliath. Bsns W p 121 S 5 '53

MANDELIC acid

Configurational relation between phenylglycine and mandelic acid. R. C. Hibbin and others. bibliog Chem & Ind p933-4 Jl 24 '54

Determination of zirconium in aluminum alloys. R. A. Papucci and others. Anal Chem 25:1758-60 N '53

Fractional separation of rare earths by precipitation with mandelic acid. B. Weaver. bibliog Anal Chem 26:476-8 Mr '54

Stereochemical studies; the relative configurations of (—)-aminophenylacetic acid (α-phenylglycine) and (—)-mandelic acid. M. B. Watson and G. W. Youngson. Chem Soc J p2145-7 Je '54

MANDRELS and arbors. See Arbors and mandrels

MANGANESE

Antiferromagnetism of manganese. L. Patrick. Phys R 93:370 F 1 '54

Coprecipitation from homogeneous solution. L. Gordon, H. Teicher and B. P. Burtt. bibliog diag Anal Chem 26:992-6 Je '54

Distribution of manganese between slag and metal under reducing conditions. J. E. Stukel and J. Cocubinsky. diags J Metals 6:Trans 353-6 Mr '54

Effect of iron, manganese and chromium on the properties in sheet form of aluminum alloys containing 0.7 per cent magnesium and 1.0 per cent silicon; abstract. R. Chadwick and others. Metal Prog 66:178+ Jl 1 '54

Effect of manganese banding on mechanical properties of heat treated steel plate in the thickness direction. H. Schwartzbart. bibliog il diag Am Soc for Metals Trans 44:845-52 '52

Electroluminescence in thin films of ZnS:Mn. R. E. Halsted and L. R. Koller. bibliog Phys R 93:349-50 Ja 15 '54

Forgeability of steels with varying amounts of manganese and sulphur. C. T. Anderson and others. J Metals 6:Trans 835-7 Jl '54

Influence of carbon and manganese on the properties of semikilled hot rolled steel. F. W. Boulger and R. H. Frazier. bibliog il diag J Metals 6:Trans 645-52 sec 2 My '54

Luminescence of the system β $Zn_3(PO_4)_2$-$Cd_3(PO_4)_2$:Mn. A. L. Smith and A. D. Power. bibliog Electrochem Soc J 101:244-7 My '54

Manganese as an indicator of blast furnace slag oxidation and desulphurizing power. N. J. Grant and others. bibliog J Metals 5: Trans 1451-4 N '53

Manganese mining and metallurgy, 1953. F. A. McGonigle. il Min Cong J 40:123-5 F '54

Manganese modification of the Fe-S-O system. D. C. Hilty and W. Crafts. bibliog il diags J Metals 6:Trans 959-67 S '54

Manganese, 1953. G. L. DeHuff, jr. Eng & Min J 155:99-100 F '54

Manganese recovery in the basic open hearth process. N. F. Dufty. bibliog Blast F & Steel Pl 42:428-30 Ap '54

Mechanism of impurity poisoning in the luminescence of zinc sulfide phosphors with manganese activator. R. H. Bube and others. bibliog Phys R 92:1135-9 D 1 '53

New manganese-activated fluoride phosphors. A. L. Smith. bibliog Electrochem Soc J 101:189-94 Ap '54

Paramagnetic resonance absorption of Mn^{++} in single crystals of $CaCO_3$. F. K. Hurd and others. bibliog Phys R 93:373-80 F 1 '54

Removal of manganese prior to calcium and magnesium precipitations. B. L. Ingram and L. Bean. bibliog Anal Chem 25:1217-19 Ag '53

Sensitized luminescence of CaF_2:(Ce+Mn). R. J. Ginther. bibliog Electrochem Soc J 101:248-57 My '54

Analysis

Analytical chemistry of niobium and tantalum; separation of iron and manganese from the earth acids. C. F. Hiskey and A. L. Batik. bibliog Anal Chem 25:823-5 My '53

Spectrochemical determination of magnesium, iron, silicon, and manganese in titanium metal. H. A. Heller and R. W. Lewis. bibliog diags Anal Chem 25:1038-42 Jl '53

Spectrographic analysis of 18-8 stainless steel for cobalt, manganese, and stabilizing elements. N. E. Gordon, jr., R. M. Jacobs and M. C. Rickel. diags Anal Chem 25: 1031-4 Jl '53

Spectrophotometric determination of iron in vanadium, chromium, manganese, nickel, and zinc. D. W. Margerum and C. V. Banks. bibliog Anal Chem 26:200-2 Ja '54

$Th(NO_3)_4$ can replace $AgNO_3$ in manganese determination. Chem & Eng N 31:2694 Je 29 '53

Isotopes

Interaction of polarized neutrons with polarized Mn^{55} nuclei. S. Bernstein and others. bibliog diags Phys R 94:1243-51 Je 1 '54

Manganese-57. B. L. Cohen and others. bibliog Phys R 94:953-4 My 15 '54

Polarization of Mn^{55} nuclei; cryogenic aspects. J. W. T. Dabbs and L. D. Roberts. bibliog Phys R 95:970-4 Ag 15 '54

Nuclear reactions

Angular correlation of the gamma rays from Mn^{56}. F. R. Metzger and W. B. Todd. bibliog diag Phys R 92:904-6 N 15 '53

Spectrum

Hyperfine structure of the spectra of dysprosium, cobalt, vanadium, manganese, and lanthanum. K. Murakawa and T. Kamei. bibliog Phys R 92:325-7 O 15 '53

Spectroscopy of the solid state; some of the transition elements. E. M. Gyorgy and G. G. Harvey. bibliog Phys R 93:365-9 F 1 '54

MANGANESE alloys

Correlation between microstructure and resistivity of transforming Ti-Mn alloys. D. J. DeLazaro and D. W. Levinson. il J Metals 6:Trans 1089-93 sec 2 S '54

Ferromagnetism of certain manganese-rich alloys. E. R. Morgan. bibliog il J Metals 6:Trans 983-8 S '54

Formation of sigma phase in the Mn-Mo system. B. F. Decker and others. J Metals 5: Trans 1476 N '53

Heat treatment, structure, and mechanical properties of Ti-Mn alloys. F. C. Holden and others. bibliog il J Metals 6:Trans 169-84 sec 2 F '54

Manganese-copper alloys put damper on noise. J. A. Rowland and J. W. Jensen. il Steel 135:127 S 13 '54

MANGANESE alloys—*Continued*

Radiation damage effects on order-disorder in nickel-manganese alloys. L. R. Aronin. bibliog J Ap Phys 25:344-9 Mr '54

Structure and mechanical properties of copper-manganese-tin alloys; abstract. J. C. Blade and J. W. Cuthbertson. Metal Prog 66:136+ Ag '54

System titanium-manganese-molybdenum. R. P. Elliott and others. bibliog J Metals 6: Trans 228-32 sec 2 F '54

Weldments in the titanium-manganese sheet alloy RC-130A. H. M. Meyer. il Welding J 33:sup417-21 Ag '54

MANGANESE bromide

Antiferromagnetic *H-T* boundaries and apparent molecular fields for $MnCl_2 \cdot 4H_2O$ and $MnBr_2 \cdot 4H_2O$. W. E. Henry. bibliog Phys R 94:1146-51 Je 1 '54

MANGANESE bronze

Manganese bronze gating problems; Davis & Furber machine co. il Foundry 82:128-9 Ap '54

MANGANESE carbonyl

Preparation and properties of manganese carbonyl. E. O. Brimm, M. A. Lynch, jr. and W. J. Sesny. bibliog Am Chem Soc J 76:3831-5 Jl 20 '54

MANGANESE chloride

Antiferromagnetic *H-T* boundaries and apparent molecular fields for $MnCl_2 \cdot 4H_2O$ and $MnBr_2 \cdot 4H_2O$. W. E. Henry. bibliog Phys R 94:1146-51 Je 1 '54

MANGANESE compounds

*Cyclo*pentadienyl compounds of manganese and magnesium. G. Wilkinson and F. A. Cotton. bibliog Chem & Ind p307-8 Mr 13 '54

MANGANESE dioxide. See Manganese oxides

MANGANESE ferrates

Ferromagnetic spinels with rectangular hysteresis loops. I. J. Hegyi. bibliog J Ap Phys 25:176-8 F '54

MANGANESE industry and trade

Statistics

Manganese, 1949-1953; tabulation. Steel 134: 179 Ja 4 '54

MANGANESE metallurgy

Advances made in battle for manganese. H. C. Miller and J. H. East, jr. il Min Cong J 39:80 O '53

Chemical treatment of low-grade manganese ores; conversion of manganese dioxide into manganese sulphate. R. Blumberg and T. D. Morgan. diags J Ap Chem 3:223-33 My '53

Recovery of manganese from low-grade ores. L. N. Allen, jr. flow diag il Chem Eng Prog 50:9-13 Ja '54

Upgrading manganese ore; Three Kids mine. S. J. McCarroll. flow sheet il Min Eng 6:Trans 289-93 Mr '54

Electrometallurgy

From low grade domestic ores; high grade manganese dioxide; Western electrochemical co. E. Schrier and R. W. Hoffmann. flow sheet(p372-5) il Chem Eng 61:152-5 Ja '54

MANGANESE mines and mining

Alabama

Investigation of Alabama manganese deposits, Calhoun, Cherokee, and Cleburne counties, Ala. C. E. Wyndham. bibliog 14pls U S Bur Mines Rep of Invest 4976: 1-38 '53

Arizona

Beneficiation of oxide manganese and manganese-silver ores from southern Arizona. R. Havens and others. U S Bur Mines Rep of Invest 5024:1-30 '54

Brazil

Work starts on Amapa manganese lode. R. L. Hatschek. Iron Age 173:87 Mr 11 '54

Georgia

Reconnaissance of the Cartersville manganese deposits, Bartow county, Ga. J. F. O'Neill and C. E. Wyndham. bibliog 15pls U S Bur Mines Rep of Invest 5017:1-65 '54

Nevada

Concentration of oxide and silicate manganese ores from the vicinity of Winnemucca, Pershing county, Nev. H. G. Iverson and D. T. Holmes. U S Bur Mines Rep of Invest 5022:1-9 '54

Concentration of oxide manganese ores from northeastern Nevada (Caviglia-Vietti, Berning, and Reed-Parker deposits). G. M. Potter and R. R. Wells. U S Bur Mines Rep of Invest 5023:1-13 '54

MANGANESE ores

Concentration of oxide and silicate manganese ores from the vicinity of Winnemucca, Pershing county, Nev. H. G. Iverson and D. T. Holmes. U S Bur Mines Rep of Invest 5022:1-9 '54

Concentration tests of manganese ores. A. L. Engel. U S Bur Mines Rep of Invest 4985:1-14 '53

MANGANESE oxides

Activities of constitutents of iron and steelmaking slags; manganous oxide. E. T. Turkdogan and J. Pearson. bibliog Iron & Steel Inst J 175:393-8 D '53

Chemical treatment of low-grade manganese ores; conversion of manganese dioxide into manganese sulphate. R. Blumberg and T. D. Morgan. diags J Ap Chem 3:223-33 My '53

Electrodes of mixed manganese dioxide and oxyhydroxide. R. S. Johnson and W. C. Vosburgh. Electrochem Soc J 100:471-2 O '53

From low grade domestic ores; high grade manganese dioxide; Western electrochemical co. E. Schrier and R. W. Hoffmann. flow sheet(p372-5) il Chem Eng 61:152-5 Ja '54

High temperature heat contents of manganese sesquioxide and vanadium monoxide. R. L. Orr. Am Chem Soc J 76:857-8 F 5 '54

Low-temperature heat capacities and entropies at 298.16°K. of manganese sesquioxide and niobium pentoxide. E. G. King. Am Chem Soc J 76:3289-91 Je 20 '54

Rate of the electron-transfer exchange reaction between manganate and permanganate ions. J. C. Sheppard and A. C. Wahl. Am Chem Soc J 75:5133-4 O 20 '53

Steroids; the oxidation of steroidal allylic alcohols with manganese dioxide; a novel synthesis of testosterone. F. Sondheimer, C. Amendolla and G. Rosenkranz. bibliog Am Chem Soc J 75:5930-2 D 5 '53

Structural properties of some synthetically prepared manganese dioxides. G. Butler and H. R. Thirsk. bibliog il Electrochem Soc J 100:297-301 Jl '53

Analysis

Spectrochemical determination of impurities in manganese dioxide. J. W. Mellichamp. Anal Chem 26:977-9 Je '54

MANGANESE poisoning

Manganese poisoning in the mines of Cuba. M. G. Avila and R. P. Ballina. il Ind Med 22:220-1 My '53

MANGANESE pyrophosphate

Stages in oxidations of organic compounds by potassium permanganate; a kinetic study of the oxidation of pinacol by manganic pyrophosphate. A. Y. Drummond and W. A. Waters. Chem Soc J p3119-23 O '53

MANGANESE selenide

Electrical characteristics of MnSe and MnTe. W. Palmer. J Ap Phys 25:125 Ja '54

MANGANESE steel

Austenitic manganese steel welding electrodes. H. S. Avery and H. J. Chapin. bibliog il diags Welding J 33:459-79 My '54

MANGANESE sulfates

Chemical treatment of low-grade manganese ores; conversion of manganese dioxide into manganese sulphate. R. Blumberg and T. D. Morgan. diags J Ap Chem 3:223-33 My '53

MANGANESE tellurides

Electrical characteristics of MnSe and MnTe. W. Palmer. J Ap Phys 25:125 Ja '54

MANHOLES

Fresh air underground. il Safety Maint & Prod 107:31+ F '54

Gas hazards in manholes. O. R. Terry and J. C. Baxter. il diags Am Gas Assn Proc 1953:655-65

How sewer manholes are checked for toxic and explosive gases. Pub Works 85:149-52 My '54

Cleaning

Two man-hours saved in cleaning each manhole. H. A. Hale and J. L. Ferris. il Elec World 141:218+ Ja 25 '54

MANHOLES, Concrete

Precast concrete manholes look good. B. L. Peter. il Elec West 111:93 N '53

MANIFOLDS

How you can save hose dollars with portable manifolds. il diags Factory Management 112:137 F '54

Mechanics of manifold flow. J. S. McNown. bibliog diags Am Soc C E Proc 79 [no 258]: 1-22 Ag '53; Correction. 79 [no 333]:20 N '53

MANILA rope. See Rope

MANIPULATORS

Easier cleaning, painting. il Steel 134:127 Ap 5 '54

Flux supplies alloy for hard surfacing manipulators. F. H. Knibbs. il Iron Age 172:98-9 O 29 '53

Gentle giant named O-Man (for overhead manipulator). il Safety Maint & Prod 107:25 My '54

Manipulating equipment, guides, guards, and strippers for rolling mills. W. Bailey. il plans diags Iron & Steel Inst J 175:198-213 O '53

Mechanical arm developed for use in radioactive areas. il Elec Eng 73:193 F '54

MANITOBA

See also

Mines and mineral resources—Manitoba

Roads—Manitoba

MANITOU formation

Dotsero and Manitou formations, White River plateau, Colorado, with special reference to Clinetop algal limestone member of Dotsero formation. N. W. Bass and S. A. Northrop. bibliog il maps diags Am Assn Pet Geologists Bul 37:889-912 My '53

MANN, Earl, 1905-

Earl Mann; can baseball survive tv? pors Bsns W p 100-2+ D 5 '53

MANNAN

Mannan in purified wood pulp and its relation to cellulose acetate properties. H. W. Steinmann and B. B. White. bibliog Tappi 37:225-32 Je '54

Mannans of ivory nut (phytelephas macrocarpa); the methylation of mannan A and mannan B. G. O. Aspinall and others. Chem Soc J p3184-8 O '53

MANNICH bases

Reaction of hydrazine with Mannich bases. M. Stamper and B. F. Aycock. bibliog Am Chem Soc J 76:2786-8 My 20 '54

Study of the Mannich base-indole condensation. H. R. Snyder, C. Y. Meyers and D. B. Kellom. bibliog Am Chem Soc J 75: 4672-5 O 5 '53

MANNICH reaction

Addition of bases to polar hydrocarbons; reversal of the Mannich reaction. D. Taber, E. I. Becker and P. E. Spoerri. bibliog Am Chem Soc J 76:776-81 F 5 '54

Introduction of Mannich groups into some aromatic phenolic compounds. J. R. Meadow and E. E. Reid. Am Chem Soc J 76: 3479-81 Jl 5 '54

Mannich reactions of pyrimidines; 2,6-dimethyl-4-hydroxypyrimidine. H. R. Snyder and H. M. Foster. bibliog Am Chem Soc J 76:118-23 Ja 5 '54

Mannich reactions of pyrimidines; 2-methylmercapto-4-methyl-6-hydroxypyrimidine and 2-thio-6-methyluracil. H. R. Snyder, H. M. Foster and G. A. Nussberger. bibliog Am Chem Soc J 76:2441-4 My 5 '54

Reactions of thiols and thioethers; an analogue of the Mannich reaction involving thiols, formaldehyde, and active methylene or methylidyne compounds. F. Poppelsdorf and S. J. Holt. Chem Soc J p 1124-30 Mr '54

MANNITOL

Organic esters of mannitol pentanitrate. D. E. Elrick, N. S. Marans and R. F. Preckel. Am Chem Soc J 76:1373-4 Mr 5 '54

MANNOGALACTAN

Mannogalactan additives in paper. R. D. McCarron. diag Pulp & Pa of Can (Convention no) 55:190+ [F] '54

MANNOSIDES

Reactions of methyl α-D-mannoside with aldehydes. J. Honeyman and J. W. W. Morgan. Chem Soc J p744-6 F '54

Structure and reactivity of anhydro-sugars; branched-chain sugars; action of diethylmagnesium on methyl 2 : 3-anhydro-4 : 6-*O*-benzylidene-α-D-mannoside. A. B. Foster and others. Chem Soc J p3308-13 O '53

MANNOSIDOSTREPTOMYCIN

Analysis

Chemical determination of mannosidostreptomycin and dihydromannosidostreptomycin. J. Levine, G. Selzer and W. W. Wright. bibliog Anal Chem 25:671-3 Ap '53

MANOGENIN

Conversion of hecogenin and manogenin into derivatives of allopregnane-12,20-dione. G. P. Mueller, R. E. Stobaugh and R. S. Winniford. bibliog Am Chem Soc J 75:4888-92 O 20 '53

MANOMETERS

Automatic micromanometer for the measurement of low air speeds. R. A. K. Long. diag J Sci Instr 30:481-2 D '53

Capacitance manometer of low thermal sensitivity. I. G. Baxter. diag J Sci Instr 30: 456-7 D '53

Compound mercury manometer. F. M. Tiller. il diag Anal Chem 26:1252-3 Jl '54

Differential capacitance manometer. I. G. Baxter. il diag J Sci Instr 30:358-60 O '53

Differential conductance manometer. J. R. Pappenheimer. bibliog il diags R Sci Instr 25:912-17 S '54

Easily constructed manometer. A. J. Castro and A. E. Blood. diag J Chem Educ 31:23 Ja '54

Electrolytic remote-indicating manometer. J. T. Stock and M. A. Fill. diags Chem Age (Lond) 69:599-602 S 19 '53

High-pressure differential manometer. F. B. Newell. il diag Instruments 26:1523+ O '53

High-resolution micromanometer. Heat & Ven 50:93 N '53

High-vacuum fractionation with falling-stream still. D. J. Trevoy and W. A. Torpey. diag Anal Chem 26:492-4 Mr '54

Improvements to a null-reading absolute manometer. D. H. Pringle and R. M. Kidd. diag R Sci Instr 24:877 S '53

Inexpensive recording differential manometer suitable for reaction kinetics measurements. G. R. Thomas and N. N. Lichtin. il diags R Sci Instr 24:661-4 Ag '53

Liquid manometers with high sensitivity and small time-lag. F. A. MacMillan. diag J Sci Instr 31:17-20 Ja '54

Method for reducing temperature effects on the pressure difference between closed volumes. H. L. Weissberg. diag R Sci Instr 24:1147 D '53

Minute differential pressures measured by a unique micromanometer. il Machine Design 26:131 Mr '54

Oil manometer for ultra-high vacuum systems. M. A. Biondi. diags R Sci Instr 24: 989-90 O '53

Precision multiple-mercury-column manometer. J. R. Roebuck and H. W. Ibser. flow diag diags R Sci Instr 25:46-51 Ja '54

Semi-automatic electrical manometer designed to calibrate a Mach-Zehnder interferometer system for the recording of transient pressure changes. T. F. W. Embleton. diag R Sci Instr 25:246-7 Mr '54

Sensitive air manometer. L. F. G. Simmons. il diag J Sci Instr 31:195-7 Je '54

Simple diaphragm micromanometer. D. B. Cook and C. J. Danby. il diags J Sci Instr 30:238-40 Jl '53

Simple micromanometer. E. Kovačič. diags J Sci Instr 30:304-5 S '53

Theory of the manometer accelerometer. D. Steen and D. Casey. diags R Sci Instr 24: 1021-8 N '53

U-tube manometer for deferred reading. L. R. Handley. il R Sci Instr 25:94 Ja '54

MANOMETERS—*Continued*

Vapor pressures of aqueous potassium chloride solutions at 25° by means of a new type of differential manometer. O. L. I. Brown and C. M. Delaney. bibliog J Phys Chem 58:255-8 Mr '54

MANPOWER. See Labor supply

MANUFACTURERS

100 largest manufacturers. Sales Management 70:88 Ap 1 '53

Directories

Directory of Texas manufacturers, 1954. 9th ed 336p pa $5 Bureau of business research, Univ. of Texas, Austin 12 '54

Insurance requirements

Analyze your factory fire and marine risks. G. J. Malloy. Rough Notes 96:25+ N '53

Brush up on factory coverage. W. G. Winkler. Rough Notes 96:24-5+ N '53

Fire coverage for the medium-sized manufacturer. T. H. Wilkinson. Rough Notes 96:26 N '53

What you should know about special hazards; insurance coverage. W. F. Johnson. Rough Notes 96:28+ N '53

See also

Insurance, Manufacturers' output

MANUFACTURERS' agents

Are you about to make these mistakes in hiring reps? M. Leffler. Sales Management 72:52+ My 1 '54

How to advertise if you're a manufacturers' agent. B. Aitchison. Ind Marketing 39:48+ Jl '54

How to build your volume with manufacturer agents. M. Leffler. Sales Management 71:73-6 S 15 '53

Ideas for reps sales meeting. Sales Management 73:86+ Jl 15 '54

Manufacturers' agents help hold the line in selling costs. Steel 135:32 Ag 30 '54

Manufacturer's representatives; can they sell your product? abstract. A. P. Smith. Management R 42:603-4 O '53

Manufacturers' reps are one key to lower sales cost. M. Leffler. Ptr Ink 243:60+ My 1 '53

Directories

1954 American Builder directory; manufacturers' local distributors. Am Bld 76:535-6+ Ap '54

MANUFACTURERS' demonstrations. See Department stores—Manufacturers' demonstrations

MANUFACTURERS' liability

Liability for aircraft equipment failure. G. I. Whitehead, jr. Mech Eng 75:503 Je '53

See also

Products liability

MANUFACTURERS' liability insurance. See Insurance, Manufacturers' liability

MANUFACTURERS' literature. See Advertising literature

MANUFACTURERS' output insurance. See Insurance, Manufacturers' output

MANUFACTURES

Counterfeiting American goods abroad. D. Wharton. il Adv Agency 46:76-7+ O '53

Dynamics of the manufacturing interval. W. V. Clark, jr. and W. E. Ritchie. Advanced Management 18:15-18 Ap; 22-4 N '53

Weighing significance of drop in new orders and shrinking backlogs. H. Nicholson. Mag of Wall St 92:650-1+ S 5 '53

See also

Brickmaking
Catalogs
Chemistry, Technical
Coke manufacture
Commerce
Cost accounting
Factories
Factory management
Gas manufacture
Glass manufacture
Industry
Inspection
Labor and laboring classes
Machine shops
Machinery
Metal work
Metals
Paper making
Patents
Production
Products, New
Standardization
Textile fabrics
Trade marks

Statistics

Big business; big buyer; with list of 100 largest manufacturers at end of 1953. Steel 135:56 Jl 19 '54

Business inventories and manufacturers' sales, 1949-1952. Survey of Cur Bsns 1953 Sup p 16-18 [supplemented in monthly numbers]

Business inventories; revised estimates, 1950-53 period; with tables. Survey of Cur Bsns 34:17-23 Ja '54

Business sales and orders; revised estimates of manufacturers' and wholesalers' sales and of manufacturers' new and unfilled orders; with tables. Survey of Cur Bsns 33:21-8 D '53

Fourteen important ratios for 36 manufacturing lines; tables. R. A. Foulke. il Dun's R & Mod Ind 62:64-6 D '53

Industry leaders want business census restored with all possible economics. Ind Marketing 39:148-52 My '54

Manufacturers' inventories and orders, 1949-1952. Survey of Cur Bsns 1953 Sup p21-2 [supplemented in monthly numbers]

Manufacturing growth, 1939-1953; tabulation. C. R. Walker. Manuf Rec 123:33 Jl '54

Georgia

Georgia story; manufacturing. il Manuf Rec 123:55-63 My '54

Great Britain

Engineering on the turn? industrial production index, 1951-1953. Economist 169:768+ D 5 '53

Southern states

Southern manufacturing scores high gains, 1939-1953. C. R. Walker. Manuf Rec 123:32-3 Jl '54

Texas

Texas story; manufacturing. il Manuf Rec 122:76-85 N '53

United States

Census of manufactures is dead, unless you tell Congress you want it. J. Shoenfeld. Sales Management 72:134+ Ap 15 '54

Manufacturing growth, 1939-1953; tabulation. C. R. Walker. Manuf Rec 123:33 Jl '54

MANUFACTURING chemists' association

Annual meeting, 81st, White Sulphur Springs, June 11-13. Oil Paint & Drug Rep 163:5+ Je 15 '53; Chem W 72:13-14 Je 20 '53; Chem & Eng N 31:2584-6 Je 22 '53

Annual meeting, 82d, White Sulphur Springs. Oil Paint & Drug Rep 165:5+ Je 7 '54

Joint meeting with Synthetic organic chemical manufacturers association, White Sulphur Springs, W.Va. Chem & Eng N 32:2370+ Je 14 '54

New home base, new lineup. il Chem W 74:20-1 Ja 23 '54

Semi-annual meeting and winter conference, New York. Chem W 73:15 D 5 '53

Semi-annual meeting, New York. Oil Paint & Drug Rep 164:7+ N 30 '53; Chem & Eng N 31:5052-3 D 7 '53

MANUFACTURING plants. See Factories

MAP collections

Directories

Map collections in the United States and Canada. 170p pa $3 Special lib. assn, 31 E. 10th st, New York 3 '54

MAP libraries

Map-maker's collection. H. Bay. il map Special Lib 44:178 My-Je '53

MAPLE

Comparison of kraft and neutral sulphite semichemical pulps from birch and maple. D. J. MacLaurin and others. Tappi 36:553-7 D '53

Recent research on sugar maples. J. W. Marvin. J Chem Educ 30:262-4 My '53

MAPLE sirup

Full-flavored maple syrup process puts idle dairy units to work. W. K. Jordan and others. il Food Eng 26:70-1+ My '54

Analysis

Modified Amdur's dipicrylaminate method. E. Bois and M. Jean. diags Anal Chem 26:727-30 Ap '54

MAPLE sugar

Recent research on sugar maples. J. W. Marvin. J Chem Educ 30:262-4 My '53

MAPPING

Mapping the unknown Everglades. J. S. Beazley. Am Soc C E Proc 79 [no 210]:1-4 Jl '53

Surveys and maps, vital to the solution of problems of mass transportation. B. E. Beavin. Am Soc C E Proc 79 [no 305]:1-6 O '53

See also

Topographical maps

MAPPING, Aerial

Aerial maps for smaller survey jobs; abstract. W. J. Apperson and T. A. Baker. Roads & Sts 97:114 F '54

Determining burned area by aerial mapping. A. M. Williams, jr. Pulp & Pa of Can 54:156+ D '53

ER-55 projector for aerial mapping. R. K. Bean. il diags Science 118:484-6 O 23 '53

New Canadian map shows trail's end; Alberta government's aerial photographic survey. B. Shiels. il map World Oil 137:331-2 O '53

See also

Surveying, Aerial

MAPS

Binding maps for easy reference. E. K. Maughan. il maps diag Am Assn Pet Geologists Bul 37:2051-4 Ag '53

Effective use of cartographic aids in economics research. J. B. Culver and A. D. Fentem. bibliog maps Land Econ 29:302-13 N '53

Map procurement in government agencies. E. De Wald. Special Lib 44:175-7 My-Je '53

Pulp and paper map, United States. Paper Ind 35:supp D '53

Saving time and money in map reproduction. P. J. Dube. Civil Eng 23:612-13 S '53

See also

Libraries—Map collections

Oil lands—Maps

Petroleum pipe lines—Maps

Topographical maps

MAPS, Weather. See Weather maps

MAQUOKETA, Iowa

Streets

How advance planning helped us get our money's worth in a 125-block paving program. O. E. Meyer. il Roads & Sts 96:85-6+ D '53

MARBLE

Influence of the wash from bronze on the weathering of marble. il Chem & Eng N 31:3194-5 Ag 3 '53

Nature and dynamic interpretation of deformation lamellae in calcite of three marbles. F. J. Turner. bibliog diags Am J Sci 251:276-98 Ap '53

MARCUS, Stanley, 1905-

Store that serves two markets; Nieman-Marcus. pors Bsns W p 134-40+, cover S 19 '53

MARGARINE. See Oleomargarine

MARGULIES, David

He sold one-million garlic presses; sight unseen. il Bsns W p58-9 Ag 8 '53

MARINE biology

See also

Algae

Plankton

MARINE boilers. See Boilers, Marine

MARINE engineering

Engineering outlook; shipbuilding and marine engineering. Engineering 177:298-301 Mr 5 '54

Marine engineering as applied to small vessels; abstract and discussion. P. G. Tomalin. Marine Eng 59:75 F '54

Metals and marine engineering; Institute of metals presidential address. S. F. Dorey. Metallurgia 49:235-40 My '54

Shipbuilding and marine engineering in 1953. il Engineer 197:13-16, pl 6, 56-9, pl 2, 89-92, 141-4 Ja 1-22 '54

See also

Boilers, Marine

Diesel engines, Marine

Gas turbines, Marine

Motor ships

Naval architecture

Propellers

Ship propulsion

Ship propulsion, Electric

Shipbuilding

Steam turbines, Marine

Steamboats

Warships

Study and teaching

New York maritime college offers degrees in engineering and transportation. J. J. O'Connor. il Marine Eng 59:64-8 Mr '54

MARINE engines

Many engine innovations featured at National boat show. T. Mac New. il diags Automotive Ind 110:54-6+ F 15 '54

See also

Boilers, Marine

Diesel engines, Marine

Gas turbines, Marine

Motor boat engines, Outboard

Motor ships

Steam turbines, Marine

MARINE fauna

Tension concept in aquatic biology. J. Verduin. Science 118:254-5 Ag 28 '53

See also

Daphnia

Plankton

MARINE gas turbines. See Gas turbines, Marine

MARINE insurance. See Insurance, Marine

MARINE insurance, International union of. See International union of marine insurance

MARINE structures

Cathodic protection and control of corrosion in the Middle East. W. C. R. Whalley. il map diag Chem & Ind p 140-7 F 6 '54

Cathodic protection of ships and marine structures. K. A. Spencer. bibliog diags Chem & Ind p702-8 Je 19 '54

How does wrought iron stand up in corrosive marine services? J. L. Wilson. bibliog il Marine Eng 59:63-6 F '54; Discussion. F. L. LaQue. 59:71+ Ap '54

Protective coatings for ships and marine installations. J. C. Hudson. bibliog il diags Chem & Ind p640-51 Je 5 '54; Abstract. Paint Oil & Chem R 117:22 Ag 12 '54

Structures in the sea; special problems in design of offshore platforms. M. B. Willey. il Pet Eng 25:B38+ N '53

See also

Breakwaters

Concrete construction, Subaqueous

Docks

Dry docks

Jetties

Paint, Anti-fouling

Piers

Piles and pile driving

Wharves, Concrete

MARINE terminals. See Terminals

MARINE workers

See also

Longshoremen

Seamen

MARION power shovel company

Marion power shovel co. now controls the Osgood co. and the General excavator co. Roads & Eng Constr 92:68 Jl '54

MARITAL deduction. See Inheritance tax

MARITIME law

Personal contracts as affecting liability limit; British opinion. S. W. Wilde. Weekly Underw 171:286 Ag 7 '54

See also

Rule of the road at sea

Salvage

MARITIME provinces, Canada

See also

Chemical industries—Maritime provinces, Canada

MARK ups. See Price policies, Retail

MARKEL, Samuel A. 1885-1954

Sketch. East Underw 55:41 F 26 '54

MARKET areas

Can advertising markets be defined or measured as geographical areas? with data for 168 standard metropolitan areas. A. S. Donnahoe. J Marketing 18:113-33 O '53

Where should you look for signals of business upturn in 283 markets? J. M. Gould. Sales Management 72:86-94 My 1 '54

See also

Shopping areas

MARKET development departments

Researching out sales; interview with L. G. Bliss, vice-president, sales, Foote mineral co. Chem W 75:39-40 S 25 '54

MARKET research

Accent on aims. R. H. Collacott. Dun's R & Mod Ind 62:209-12+ O '53

MARKET research—*Continued*

Antioxidants; marketing case study; abstract. J. E. Magoffin. Oil Paint & Drug Rep 164:61 O 26 '53

Applied research in chemical marketing; abstract. Oil Paint & Drug Rep 164:61 O 26 '53

Before you merge, put your market research department to work. W. F. Rockwell, jr. Ptr Ink 244:46+ Ag 21 '53

Big youth market; how to learn what it thinks; Rand youth poll. il Dun's R & Mod Ind 62:153-4 D '53

Count on sales research by chemical marketers. Chem W 74:55-7 Ja 9 '54

Device for simplifying tabulation. A. Kroeger. J Marketing 18:285-7 Ja '54

Factors influencing the selection of pharmaceutical products. T. Caplow and J. J. Raymond. J Marketing 19:18-23 Jl '54

Facts you will need to get a grip on your '54 sales problems. A. N. Seares. Sales Management 72:74+ Ja 15 '54

If you want lower sales costs, pin down the facts on potential! T. S. Gallagher. Sales Management 73:78+ Jl 15 '54

In picking test markets, think about a city's personality. E. M. Raynolds. Ptr Ink 244: 33-5 Ag 28; 35-7 S 4; 70+ S 11 '53

Industrial truck market; the lift's still there. Steel 133:64 Ag 10 '53

Market research. A. G. Tunstall, jr. Soap & Chem Spec 30:42-5+ S '54

Market research; Dr Freud lends a hand. J. S. Cooper. Management R 42:284 My '53

Market research for leather industry; abstract. B. Fogler. Chem & Eng N 32:2474 Je 21 '54

Market research hits peak in chemical industry. Chem W 75:84+ Ag 7 '54

Market research must lick sins or fade away; abstract. R. C. Christian. Ind Marketing 39:136-7 Je '54

Market research removes the blindfold; Peoples gas light and coke co. G. A. Morgan. map Am Gas Assn Mo 35:8-10 N '53

Market research status surveyed. Bsns W p 163 Ag 29 '53

Market study of brand name preference and product usage; 1953, 1951, 1949. Ptr Ink 245:435-9 sec 2 O 23 '53

Marketing and distribution; market research as the basis of proper planning. C. J. Harrison. Chem & Ind p918-23 Jl 24 '54

Marketing research. Steel 133:125-32 D 7 '53

Marketing research today; minority report. J. E. Jeuck. J Bsns 26:84-90 Ap '53

Marketing; what are the trends? AMA study. Iron Age 172:64-5 S 3 '53

Matched samples. A. Greenberg. J Marketing 18:241-5 Ja '54

Necessity to present consumer preferences as predictions. A. Politz and W. E. Deming. J Marketing 18:1-5 Jl '53

New AMA study shows healthy outlook for marketing research. B. Tolk. Ptr Ink 244:36 Ag 28 '53

New language for Madison avenue. Bsns W p40+ S 5 '53

Puck surveys influence of kids on purchases. Ed & Pub 86:28 Ap 25 '53

Relative building business potential in seven areas; heating, fuel and home value characteristics. C. H. Burkhardt. Sheet Metal Worker 45:48-51 D '53

Research has come of age in the marketing community. S. Dodge. Adv Agency 47:64+ My '54

Sales management needs to know more about market research. A. N. Seares. Ptr Ink 244:63-5 Ag 21 '53

Says industry flubs research. R. J. Lavidge. Ind Marketing 39:28 Mr '54

Starting from scratch. il Chem W 73:22-5 S 19 '53

Which brands sell best where? 17-market analysis reveals buyers' market trends. H. E. Green. Ptr Ink 243:46, 48-9 My 8 '53

See also

Chemical market research association

Consumer panels

Interviewing

Questionnaires

Bibliography

Current reading list for sales executives and salesmen; markets and market research. Sales Management 72:116+ Ap 15 '54

Research in marketing. D. A. Revzan, ed. Published in monthly numbers of Journal of marketing

MARKET research, Newspaper

Finds dailies right about all business being local. R. B. McIntyre. Ed & Pub 86:24 My 9 '53

So. Calif. gets first consumer analysis. Ed & Pub 86:18 My 16 '53

MARKET research, Retail

Are walkouts too high among lower Fifth avenue shoppers? T. D. Ellsworth. J Retailing 29:101-8+ Fall '53

Campus shopping patterns. D. F. Blankertz and others. J Retailing 30:71-4+ Summer '54

Customer viewpoint as a guide to store operation. G. H. Stedman. J Retailing 29:135-44+ Fall '53

Warranty card analysis to estimate retail sales. L. Gunlogson and J. Neter. J Marketing 19:24-33 Jl '54

MARKET statistics

Analysis of individual firm marketing data. R. S. Vaile. J Marketing 19:68-71 Jl '54

Appraisal of census programs for marketing uses. N. H. Borden and others. J Marketing 18:331-60 Ap '54

Are you using the right test market? W. R. Mason. il Ptr Ink 243:31-3+ Je 19 '53

Average figures average poorly as guides. E. B. Weiss. Ptr Ink 243:68 Ap 17 '53

Consumer analysis shows gain in home freezer market; tabulation. Ptr Ink 244: 71 Ag 28 '53

Future sales ratings. Sales Management 72: 66 Ja 1 '54 [cont monthly]

High business level in 1954. P. B. B. Andrews. Sales Management 72:67-8 Ja 1 '54

Market potentials in the machine tool industry; a case study. F. E. Hummel. J Marketing 19:34-41 Jl '54

1954 market data and directory number. Ind Marketing 38:5-492 Je 25 '53

Printers' ink 1954 advertisers' annual; marketing. Ptr Ink 245:435-40+ sec 2 O 23 '53

Sales Management survey of buying power, May 10, 1953; population estimates, effective buying income, retail sales, farm market data, etc. Sales Management 70:1-724 My 10 '53

These marketing aids are free! provided by the Department of commerce. G. R. Dunhill. Adv Agency 47:66+ F '54

Where to get basic data on 225 metro areas. Sales Management 72:61 Mr 1 '54

Who gets what income and where? with tabulations. J. M. Gould. Sales Management 71:65-6+ N 10 '53

See also

Consumption (economics—Statistics

Farm income

Income—Statistics

Input-output data

MARKET stores. See Super markets

MARKET surveys

Babies mean business; survey made by National family opinion, inc. il Sales Management 70:24-7+ Je 15 '53

Better liked; aerosol products; study of consumer buying and reaction. Chem W 74:21 Ja 2 '54

Ceico saturation study on appliances gives picture of sales potential. Elec World News ed 140:39 Ag 31 '53

Consumer market survey on aerosol products of E. I. duPont de Nemours & co. Oil Paint & Drug Rep 164:46 D 14 '53; Same. Soap & San Chem 30:149+ Ja '54

Convenient recording matrix for planning the tabulation schedule. D. W. Twedt. J Marketing 19:75-6 Jl '54

Estimating the market potential of a floating population. R. P. Wolff. J Marketing 19: 12-17 Jl '54

Experimental comparison between coders. J. Durbin and A. Stuart. J Marketing 19:54-66 Jl '54

Experts pick best test markets by regions and population groups. P. Salisbury. Sales Management 71:110+ N 10 '53

Finding where you stand; surveys are one way to tell. Chem W 73:77-8 O 3 '53

MARKET surveys—*Continued*

Housewives' views on suds. F. W. Brewer. Soap & San Chem 29:34-5 N '53

How consumer research develops a sound, long-range selling plan; United States trunk co. E. A. Barwood. il Ptr Ink 245:32-3 O 2 '53

Is a new state a new market? survey of the Hawaiian market. D. Palmer. il map Ptr Ink 244:42-3+ Jl 24 '53

Not statistical data, but people; tape recordings turn survey results into human reactions. Sales Management 70:62 pt 2 Ap 1 '53

Plan to account for not-at-homes by combining weighting and callbacks. W. R. Simmons. J Marketing 19:42-53 Jl '54

Prelisting adds to reliability of market surveys. W. R. Simmons. Ptr Ink 244:43-5 S 25 '53

Prelisting in market or media survey. W. R. Simmons. maps J Marketing 18:6-17 Jl '53

Prospects tell Kaiser how to double sales on its first consumer product; survey to uncover inadequacies in company's sales structure. R. G. Welch. il Sales Management 72:42-4 My 20 '54

Sales outlook for the next year. Bsns W p58-64 N 21 '53

Survey detergent buying. Soap & Chem Spec 30:48 Ag '54

T.G.A. buying habit survey. Soap & San Chem 29:51-3+ S '53

Trends create markets. Chem W 72:47-8 Je 20 '53

Want confidential purchase data? it's all in how you ask; Kaiser steel corp. B. E. Etcheverry. Sales Management 72:48+ Mr 1 '54

Which cities can support airline service? R. J. Holloway. J Marketing 18:177-8 O '53

See also

Questionnaires

MARKETING

American management association marketing conference, New York. Ind Marketing 39:64 Mr '54

Anti-freeze marketing. W. H. Adamson. Soap & Chem Spec 30:173+ Je '54

Application of operations research to marketing and related management problems. J. F. Magee. J Marketing 18:361-9 Ap '54

Are you ready for a buyers' market? Management R 42:535-6 S '53

Best markets for new product? ask prospects! Mult-A-Frame division, Ainsworth manufacturing corp. M. M. Roberts. Sales Management 72:84+ Mr 15 '54

Black & Decker pioneers a job concept; marketing manager. il Ind Marketing 38: 55-7 D '53

Boston conference on distribution. Bsns W p41-2+ O 31 '53

Broadening agency functions in marketing and merchandising. J. A. Hise, jr. Adv Agency 47:108 My '54

Building a sales force from scratch; C. H. Masland & sons. Bsns W p58-61 Ag 22 '53

Business is made, not born! abstract. L. W. Trester. Management R 43:525-6 Ag '54

Changing market in life insurance. S. MacLeod and others. East Underw 55:11+ pt 2 O 1 '54

Chemical marketing principles; abstract. R. S. Alexander. Oil Paint & Drug Rep 164: 47 O 19 '53

Clues to your changing market. V. D. Reed. Management R 42:725-6 D '53

Creative marketing strategy and new products pay off; C. A. Swanson & sons. H. E. Green. il Ptr Ink 245:33-5+ O 23 '53

Developing European mass markets. R. Bartels. il Dun's R & Mod Ind 62:59-60+ O '53

Distribution becomes problem; advantage of selling chemicals through intermediate agency. Chem & Eng N 31:4926 N 23 '53

Distribution efficiency; the consumer can help to improve it. R. C. Shook. Mod Textiles Mag 35:36+ Je '54

Distribution is the fiber producer's job, too. R. C. Shook. Mod Textiles Mag 35:36+ Jl '54

Economics of modern wool marketing. S. R. Blackley. Textile Inst J 45:P337-40 Jl '54

Has the chlorophyll wave collapsed? L. M. Hughes. il Sales Management 73:36-7+ Jl 15 '54

He was given the brush-off; Grace fabri-tool co., inc. E. C. Hanford. il Sales Management 73:48+ Jl 15 '54

How Compton organizes its marketing function. il Adv Agency 47:53-5+ Mr '54

How do we extend the marketing period of the packaged air conditioner? J. R. Hertzler. Refrig Eng 62:41-2+ Ja '54

How packaging has affected modern marketing. A. P. Bondurant. Adv Agency 46:74-5 Jl '53

Integrating the marketing team; NAM panel. Chem W 73:44+ D 19 '53

Marketing and distribution. C. J. Harrison and others. Chem & Ind p918-23, 978-81, 1028-30 Jl 24, Ag 7, 21 '54

Marketing-minded executives moving into more top management posts. C. Day. Ptr Ink 244:32+ Ag 7 '53

Marketing revolution; no end in sight. R. Clough. Management R 43:113-14 F '54

Marketing soundness as a basis for bank loans. R. A. Rich. Comm & Fin Chr 178: 1533+ O 22 '53

Merchandising non-food items through super markets. J. D. Horn. J Marketing 18:380-6 Ap '54

Mushrooming sales easier to handle because research pinpointed market; Barry corp. E. A. Johnson. Sales Management 72:82+ My 20 '54

Needed in 1954, more market research, coordination, service; Worthington corp. E. J. Schwanhausser. Ind Marketing 39: 68-9+ F '54

Needed; new science to solve distribution problems. R. C. Shook. Mod Textiles Mag 35:36+ My; 36+ Je; 36+ Jl; 36+ Ag; 94-5+ S '54

No serious business dip in 1954. P. H. Nystrom. Comm & Fin Chr 178:1840-1 N 12 '53

Now you have to sell. Steel 134:91-8 F 22 '54

Personnel in distribution. il Steel 135:91-8 Jl 19 '54

Pets mean big business. J. D. Horn. J Retailing 30:49-52+ Summer '54

Planning sales strategy for a buyers' market. Management R 42:667 N '53

Rebuilding distribution is one of management's big modern problems. J. J. Nance. Advanced Management 19:11-13 Je '54

Restyling moves Ac'cent into the big supers. M. Immerman. il Sales Management 72:42-4 Ap 15 '54

Retailers shape policy for food manufacturers; American food merchandising council. Sales Management 71:86+ Ag 1 '53

Sales and distribution. il Dun's R & Mod Ind 63:123-4+ Ja '54 [cont monthly]

Salesmen, key to Nation's business health! L. L. Colbert. Comm & Fin Chr 179:451+ Ja 28 '54

Scientific management of the distribution process. H. F. Smiddy. Advanced Management 19:20-6 Ja '54

Selling air conditioning; panel discussion. Sheet Metal Worker 45:sup73-80 Jl; sup82-96 Ag '54

Selling and the social scientist; panel discussion. J Bsns 27:41-3 pt 2 Ap '54

Some new viewpoints in marketing. E. D. McGarry. J Marketing 18:33-40 Jl '53

Ten ways to cut your risk when test-marketing. P. Hilton. Sales Management 71:108+ S 1 '53

They sell dream worlds to kids; Mattel, inc. N. Wood and E. Wood. il Sales Management 71:30-2 N 10 '53

Thor takes U.S. merchandising to Britain, builds tool sales. L. Anderson. il Ind Marketing 39:61-2 Ag '54

Two ways to distribute DDT. il diag Chem W 72:57-8+ My 16 '53

What is marketing today? H. L. Grafer. Ptr Ink 244:31-2 Jl 10 '53

MARKETING—*Continued*

What's ahead in sales of toiletries and soft goods in the grocery field. C. Sigler. Ptr Ink 245:40-1 O 23 '53

See also

Advertising
Brokers
Chain stores
Containers
Dealer helps
Dealer relations
Display of merchandize
Distribution (economics)
Exhibits
Export trade—Marketing
Farm market
Industrial market
Jobbers
Machinery—Leasing
Mail order business
Manufacturers' agents
Merchandizing
Price policies
Products, New
Retail trade
Sales management
Salesmanship
Salesmen
Salesmen, Retail
Securities—Marketing
Self service
Shopping centers
Super markets
Vending machines
Warehousing
Youth market

Accounting

Cost control for marketing operations. N A C A Bul 35:1067-95, 1349-80, 1647-75 sec 3 Ap, sec 3 Je, sec 2 Ag '54

Getting more for your distribution dollar. D. S. Moffit. N A C A Bul 35:1525-34 sec 3 Jl '54

Sales forecasting and marketing cost control. R. L. Brittain. N A C A Bul 35:300-10 N '53

Bibliography

Book reviews. R. M. Clewett, ed. Published in monthly numbers of Journal of marketing

Current reading list for sales executives and salesmen; marketing principles and practices. Sales Management 72:116 Ap 15 '54

Cost

Warning; the public believes distribution costs too much now. R. S. Butler. Sales Management 73:36-7+ Ag 15 '54

What do expense surveys signify? R. B. Miner. bibliog N A C A Bul 35:186-99 O '53

Law

Legislative and judicial developments in marketing. W. F. Brown, ed. Published in monthly numbers of Journal of marketing

New outlets

Now it's at the store, not the door; George W. Caswell co. il Sales Management 73:74+ Ag 15 '54

So you're married to one type of retail outlet? N. Merfish plumbing supply co. R. McDaniel. il Sales Management 71: 114+ S 1 '53

Sectional distribution

Branch office pay-off; Parker Pen gave Hawaii the status of a branch office. il Sales Management 73:89-92 S 1 '54

Study and teaching

Marketing men at school tackle Lily problem; Graduate school of sales management and marketing, Rutgers university. il Bsns W p 102-4+ Ag 29 '53

Super markets outlets

Are supermarkets going soft? G. B. Cross. J Retailing 30:65-6+ Summer '54

Self-service retailer speaks out on packages, coupons, national advertising. W. A. Gates. il Ptr Ink 244:35-7 Jl 31 '53

MARKETS, New

Do-it-yourself; a new billion-dollar market. Management R 43:49-50 Ja '54

Peerless meets competition in West by going national. P. Seitz. il Ind Marketing 39: 116-19 F '54

Turns to advertising in search for new markets; MacAndrews & Forbes co. W. W. Walker. il Ptr Ink 243:46+ Ap 3 '53

See also

Advertising copy—
Use appeal

MARKING machines

Part marking; face end of screw machine parts easily marked with new device. il diags Iron Age 172:199-200 S 10 '53

Power-operated marker. il Tool Eng 33:113 Ag '54

MARKOFF processes. See Probabilities

MARKOV chains. See Probabilities

MARKS of origin

Teeth for the Merchandise marks act? Economist 168:46 Jl 4 '53

MARLSTONE (term)

Marlstone; a misnomer as used in Uinta basin, Utah. M. D. Picard. Am Assn Pet Geologists Bul 37:1075-7 My '53

MARQUETTE cement manufacturing company

Marquette buys Superior, Southern States. il Concrete 62:36 Ja '54

MARROW

Effect of intravenously injected bone marrow cell suspensions on thymic regeneration in irradiated C 57 black mice. M. B. Brown and others. Science 117:693-5 Je 19 '53

MARRUBIIN

Chemistry of marrubiin. W. Cocker and others. Chem & Ind p 1227 N 14 '53

Constitution of marrubiin. D. G. Hardy and W. Rigby. Chem & Ind p 1150-1 O 24 '53

MARSH, John D.

D.C. association to oppose Marsh as N.A.L.U. president because of securities activities; statement for National council. Nat Underw (Life ed) 57:3 Ag 14 '53

NALU nominators give nod to Gilmore; Marsh steps aside. R. B. Mitchell. Nat Underw (Life ed) 57:1+ Ag 28 '53

Securities activities stir moves to deny Marsh NALU helm. Nat Underw (Life ed) 57:1+ Ag 7 '53; Discussion. J. D. Marsh. 57:1+ Ag 14 '53

MARSHALL, Edward Wayne, 1889-

Sketch. por East Underw 55:4 Mr 5 '54

MARSHALL FIELD and company

To benefit from sale of textile mills. Barron's 33:27+ N 16 '53

MARSHES

Accelerating fill settlement with explosives on a Massachusetts highway. H. F. Church, jr. il Explosives Eng 31:112-15 Jl '53

Tower footings conquer swamp. il Elec World 140:94-5 O 5 '53

Tractor goes over the top of bogs and muskeg. il Eng N 152:91-2 Ap 1 '54

Vertical sand drains for stabilization of muck-peat soils. J. C. Carpenter and E. S. Barber. bibliog il diags Am Soc C E Proc 79 [no 351]:1-17 N '53

MARTENSITE

Calculation of martensite nucleus energy using the reaction-path model. J. C. Fisher and D. Turnbull. J Metals 5:Trans 921-2 Jl '53; Discussion. 6:Trans 684-5 sec 2 My '54

Causes of the weakening of the intensity of X-ray interference of martensite; abstract. V. A. Il'ina and others. Metal Prog 66: supA 154+ Jl 15 '54

Martensite bad medicine for drilling lines. C. M. Zerr. il Oil & Gas J 52:79-80+ N 30 '53

Martensite nucleation in substitutional iron alloys. J. C. Fisher. bibliog J Metals 5:Trans 918-20 Jl '53; Discussion. 6:Trans 685-6 sec 2 My '54

Nondestructive test gives austenite, martensite percentages. S. Storchheim. il Iron Age 173:108-11 Jl 1 '54

Rate of formation of isothermal martensite in Fe-Ni-Mn alloy. R. E. Cech and J. H. Hollomon. bibliog il J Metals 5:Trans 685-9 sec 2 My '53; Discussion. 6:Trans 682-4 sec 2 My '54

Rate of propagation of martensite. R. F. Bunshah and R. F. Mehl. bibliog il diags J Metals 5:Trans 1251-8 sec 2 S '53; Discussion. 6:Trans 681-2 sec 2 My '54

Stabilization of the austenite-martensite reaction in a high chromium steel. S. C. Das Gupta and B. S. Lement. bibliog il diags J Metals 5:Trans 530-6 Ap '53; Discussion. 6:Trans 686-8 sec 2 My '54

Theory of the formation of martensite. M. S. Wechsler and others. bibliog diags J Metals 5:Trans 1503-15 sec 2 N '53; Discussion. il 6:Trans 676-81 sec 2 My '54

MARTINS bank limited

Statement by the chairman. A. H. Bibby. Economist 170:203-5 Ja 16 '54

MARWELL construction company, ltd.
B.C. bridge and dredging co. becomes one of the Marwell construction group. Roads & Eng Constr 92:68 S '54

MARYLAND
See also
Architecture, Domestic—Maryland
Roads—Maryland

MASKING for color correction. See Color printing

MASKS
Funny faces make profits, too. il Bsns W p 142 Ag 8 '53

MASON, Joseph B.
Returns to American Builder editorial staff. por Am Bld 76:182 Jl '54

MASON contractors association of America
Annual meeting, Chicago. Concrete 62:50-1 Ap '54
Annual meeting, 4th, Chicago. Eng N 152:24 F 4 '54

MASONITE
New way to use masonite. il diags Am Bld 75:208+ N '53

MASONRY
American standard building code requirements for masonry. diags U S Nat Bur Stand Misc Pub 211:1-39 bibliog(p37-9); pa 20c Supt. of doc. '54
How masonry cavity walls were built for 19 story VA hospital. il Eng N 152:40-1 F 4 '54
Masonry drilling. B. L. Chapin and R. H. Alper. il diags Power Eng 58:96-8 Je; 70-1 Jl; 70-1 Ag; 86-7 S '54
See also
Brick construction
Concrete blocks

MASS (chemistry)
AEC reveals details of critical assembly devices for determining critical masses. il Chem & Eng N 31:2880 Jl 13 '53
Coulomb radius constant from nuclear masses. A. E. S. Green. bibliog Phys R 95:1006-9 Ag 15 '54
Mass-energy relationship. J. Riseman and I. G. Young. Opt Soc Am J 43:618; Reply. H. E. Ives. 618-19 Jl '53

MASS, Standards of. See Standards of mass

MASS spectra
Mass spectrum of gallium vapor. S. Antkiw and V. H. Dibeler. bibliog J Chem Phys 21:1890-1 O '53
Mass spectrum of octaborane. I. Shapiro and B. Keilin. Am Chem Soc J 76:3864 Jl 20 '54
Reduction of ethylene platinous chloride with deuterium; the mass spectra of deuterated ethanes. J. H. Flynn and H. M. Hulbert. bibliog Am Chem Soc J 76:3396-400 Jl 15 '54
Some ions of high kinetic energy in mass spectra of polyatomic molecules. F. L. Mohler and others. J Chem Phys 22:394-7 Mr '54

MASS spectrographs
Enriching stable isotopes electromagnetically. C. P. Keim. il diags J Ap Phys 24:1255-61 O '53
Ion source; mass spectrograph used to obtain isotopes. il Iron Age 173:160-1 F 4 '54
Mass spectrograph for the analysis of solids. N. B. Hannay. bibliog il diags R Sci Instr 25:644-8 Jl '54
Mass spectrographic analysis of solids. N. B. Hannay and A. J. Ahearn. bibliog Anal Chem 26:1056-8 Je '54

MASS spectrometers
Accurately controlled and variable high-voltage supply. R. F. Muraca and others. diags R Sci Instr 24:1152-4 D '53
ASTM E-14 committee on mass spectrometry meeting, New Orleans; abstracts of papers. Chem & Eng N 32:2380 Je 14 '54
Analysis of the linear rf mass spectrometer. P. A. Redhead and C. R. Crowell. diag J Ap Phys 24:331-7 Mr '53
Applications in continuous process instrumentation for mass spectrometry. B. W. Thomas. diags Ind & Eng Chem 45:sup85A-6A+ N '53
Control and stabilization of the magnetic field for a mass spectrometer. N. T. van der Walt. diags R Sci Instr 24:413-16 Je '53
Current carrying deflector-plates for rotating a beam of charged particles. P. A. Einstein and A. G. Edwards. plan diags J Sci Instr 31:222-3 Je '54
Direct production of molecular electron spectra using the mass spectrometer. J. D. Morrison. J Chem Phys 21:2090-1 N '53
Filament assembly modification of the Nier source for mass spectrometers. G. Edwards. il diag R Sci Instr 25:931-2 S '54
Improved mass spectrometer ion source. O. A. Schaeffer. il diags R Sci Instr 25:660-2 Jl '54
Institute of petroleum conference on mass spectrometry, London, Oct. 29; abstracts of papers. Chem & Eng N 31:4986 N 30 '53
Instrumentation and experimental procedure for studies of electron ejection by ions and ionization by electron impact. H. D. Hagstrum. bibliog il diags R Sci Instr 24:1122-42 D '53
Ion resonance control. il diag Chem & Eng N 32:1518 Ap 12 '54
Ion resonance mass spectrometer. W. A. Morgan, G. Jernakoff and K. P. Lanneau. il diags Ind & Eng Chem 46:1404-9 Jl '54
Ion source construction. F. L. Reynolds. il R Sci Instr 24:992-3 O '53
Mass spectrometer for high precision isotope ratio determinations. R. K. Wanless and H. G. Thode. bibliog diags J Sci Instr 30:395-8 N '53
Mass spectrometer ion source for solid material. G. H. Palmer and K. L. Aitken. diags J Sci Instr 30:314-16 S '53
Mass spectrometer moves into production spot; mobile 21-610. il Chem Eng 60:256+ Je '53
Needle valve type of variable gas leak for mass spectrometers. E. F. Babelay and L. A. Smith. il diags R Sci Instr 24:508-10 Jl '53
Nitric oxide interference in nitrogen isotope analyses with the mass spectrometer. R. L. Ory, J. M. Prescott and C. M. Lyman. Am Chem Soc J 76:1449-50 Mr 5 '54
Process monitor mass spectrometer. J. K. Walker, A. P. Gifford and R. H. Nelson. il Ind & Eng Chem 46:1400-3 Jl '54
Pulsed mass spectrometer with time dispersion. M. M. Wolff and W. E. Stephens. il diag R Sci Instr 24:616-17 Ag '53
Ratio recording in isotopic analysis. C. M. Stevens and M. G. Inghram. diags R Sci Instr 24:987-9 O '53
Simple diaphragm micromanometer. D. B. Cook and C. J. Danby. il diags J Sci Instr 30:238-40 Jl '53

MASS spectrometric analysis
ASTM committee E-14 annual meeting, 2d, New Orleans. Ind & Eng Chem 46:sup71A-2A Ag '54
Analytical mass spectrometry utilizing relative abundance ratios. J. B. Freeman and E. J. Serfass. bibliog diags Anal Chem 26:1403-5 S '54
Automatic mass spectrometric analysis. B. F. Dudenbostel, jr. and W. Priestley, jr. bibliog il diag Anal Chem 26:1275-8 Ag '54
Mass spectral investigation of active nitrogen. D. S. Jackson and H. I. Schiff. J Chem Phys 21:2233-4 D '53
Mass spectrometer determination of volatile contaminants in water. F. W. Melpolder, C. W. Warfield and C. E. Headington. bibliog diags Anal Chem 25:1453-6 O '53
Mass spectrometer goes automatic. J. Walker and M. Hodes. il diags Pet Eng 25:C5-8 Je '53
Mass spectrometric analysis of germanium. R. E. Honig. bibliog diags Anal Chem 25:1530-5 O '53
Mass spectrometric analysis of mixtures containing nitrogen dioxide. R. A. Friedel and others. Anal Chem 25:1314-20 S '53
Mass spectrometric analyses of some six-and seven-carbon alcohols. V. A. Yarborough. diags Anal Chem 25:1914-16 D '53
Mass spectrometric determination of gas impurities separable by condensation. A. S. Newton. bibliog diags Anal Chem 25:1746-9 N '53
Mass spectrometric determination of thorium. G. R. Tilton, L. T. Aldrich and M. G. Inghram. bibliog Anal Chem 26:894-8 My '54
Mass spectrometric study of the molecular sublimation of graphite. R. E. Honig. bibliog diags J Chem Phys 22:126-31 Ja '54
Mass spectrometry. V. H. Dibeler. Anal Chem 26:58-65 bibliog(343 ref, p62-5) Ja '54

MASS spectrometric analysis—*Continued*

New technique for the mass spectrometric study of the pyrolysis products of polystyrene. P. Bradt and others. bibliog J Res Nat Bur Stand 50:201-2 Ap '53

Preparation of water samples for deuterium analysis in the mass spectrometer. F. P. Chinard and T. Enns. diags Anal Chem 25: 1413-14 S '53

Quantitative determination of nitric oxide and nitrous oxide by infrared absorption. E. L. Saier and A. Pozefsky. Anal Chem 26:1079-80 Je '54

Simple mass spectrometer for analysis of stable tracer elements. E. H. Cooke-Yarborough and M. C. B. Russell. bibliog il diags J Sci Instr 30:474-80 D '53

Studies of ionization efficiency; the detection and interpretation of fine structure. J. D. Morrison. bibliog J Chem Phys 21:1767-72 O '53

Surface ionization source using multiple filaments. M. G. Inghram and W. A. Chupka. bibliog diags R Sci Instr 24:518-20 Jl '53

Symposium on chemical analysis of inorganic solids by means of the mass spectrometer. (Special tech. pub. no. 149) 35p pa $1.25 Am. soc. for testing materials, 1916 Race st, Philadelphia 3' '53

Trace element determination by the mass spectrometer. M. G. Inghram. bibliog il J Phys Chem 57:809-13; Discussion. 814 N '53

Utility of the mass spectrometer in gas industry analyses. D. V. Kniebes and others. il diag Am Gas Assn Proc 1953:932-7

MASS transfer. See Diffusion

MASSACHUSETTS

See also

Public health—Massachusetts

Roads—Massachusetts

MASSACHUSETTS institute of technology

Engineering library

Lighting the interior of the Engineering Library dome. il Illum Eng 49:117 F '54

Hydrodynamics laboratory

Unsteady-flow water tunnel at the Massachusetts institute of technology. J. W. Daily and K. C. Deemer. bibliog il diags A S M E Trans 76:87-94; Discussion. 94-5 Ja '54

MASSEY, R. Radcliffe

Sketch. C. Axman. por East Underw 55:3-4 Ja 22 '54

MASTER boiler makers' association

Annual meeting, Chicago, Sept. 14-16; with committee reports. Ry Loco & Cars 127: 66-71 N '53

MASTICS (asphalt composition, etc.)

Coating vs. fire; mastic coatings for steel protection. il Safety Maint & Prod 107: 30+ Je '54

Coating with mastics. R. B. Seymour and R. H. Steiner. il Chem Eng 61:232+ My '54

Mastic floor laid in big warehouse. il Constr Methods 36:101-2+ Ap '54

Use of heavy cutback asphaltum mastic coatings in coke plant areas; abstract. A. H. Bagenstose, jr. Iron & Steel Eng 31:146 S '54

MASTOIDITIS

Science and public health research in Alaska. M. H. Fritz. Pub Health Rep 68:537-8 My '53

MATCH books

See also

Advertising mediums —Match books

MATCHES

British match industry reports position re monopoly. Chem & Eng N 31:4594 N 2 '53

Match industry in the UK. H. K. M. Kindersley. Chem Age (Lond) 69:651-2 S 26 '53

Match industry in the UK; monopoly against the public interest. Chem Age (Lond) 68: 785-6 My 23 '53

Monopoly in matches; BMC comment; abstract. H. K. M. Kindersley. Chem Age (Lond) 69:27 Jl 4 '53

More red matches. Economist 168:346-7 Ag 1 '53

MATERIA medica

See also

Anticonvulsants

Drugs

Medicine

Pharmaceutical research

MATERIAL control

How to set up a materials control system. J. T. Ussery. World Oil 137:128+ Ag 1 '53

Materials control and coordination on construction projects. J. D. Kelley. map plan Pet Eng 25:D38+ Je '53

Materials control can save you money. J. T. Ussery. il World Oil 137:198+ D '53

Materials control plan for a job shop; Specialty assembling & packing co. S. Eisenberger. Factory Management 111:99-101 O; 154+ N; 148+ D '53

Raw material control for a sanitary ware plant. R. R. Rowlands. Am Cer Soc Bul 33: 215 Jl 15 '54

Streamlined material conservation program; Douglas aircraft co. K. R. Benfield. il Mill & Factory 54:97-9 F '54

See also

Inventories

Stores systems

MATERIAL handling

Accessories for manual handling. Nat Safety N 69:186 Mr '54

Block plant features gravity handling; Washington brick co. R. J. Frazier. il Concrete 62:20+ Je '54

Chemical engineering unit operations; materials handling. R. L. Speaker. bibliog(48 ref) Ind & Eng Chem 46:129-32 Ja '54

Cut warpage in heat treating small parts; Endicott plant of International business machines corp. il Steel 135:150 Jl 12 '54

Denver fire clay develops hi-efficiency handling. il Brick & Clay Rec 125:63-4+ Ag '54

Drop-bottom boxes, special trays, offer savings; new system of scrap handling. il Iron Age 173:146-8 My 13 '54

Economics of handling mill supply chemicals. H. A. Stoess, jr. Tappi 37:57-61 F '54

Efficient material handling requires efficient equipment. R. W. Spain. Cer Ind 63:70+ Jl '54

Flow control for dry materials; Scrayco level control. il Chem & Eng N 32:670 F 15 '54

Handling; better bin design improves solid material flow. A. W. Jenike. il diags Iron Age 174:189-92 S 16 '54

How plant layout and material handling should and can be tied together; symposium. R. Muther. Advanced Management 18:28-30 Ag '53

How to analyze your materials handling problems. G. Nadler and J. Goldman. flow diags il Mill & Factory 55:89-93 Jl '54

Industry previews and reviews. Automotive Ind 110:158+ Ja 15 '54

Industry spends $15 billion yearly. A. K. Strong. Chem & Eng N 31:4720 N 9 '53

Keep small parts on the job; use of metal containers; Gehl bros. mfg. co. il Steel 135: 104 Ag 16 '54

Know-how handbook; materials handling. il diags Mill & Factory 54:253-366 My '54

Latest developments in materials handling. C. B. Elledge. il Mill & Factory 54:255-7 My '54

Losing track of your product? put a tag on it. il diags Mill & Factory 55:119-20 Ag '54

Material handling indication diagrams. il Metallurgia 50:76 Ag '54

Materials handling. T. W. Rodes. Published in monthly numbers of Industrial and engineering chemistry

Materials-handling research; Richardson scale company, Clifton. il diag Mech Eng 76:31-3 Ja '54

Materials-handling tricks. W. G. Hudson. il diags Chem Eng 60:244-5 Je '53

Military puts new zip in handling materials. il Bsns W p40-2+ Ag 1 '53

Modern equipment cuts costs in manufacturing bottle caps; Baltimore plant of the Crown cork and seal co. il Iron Age 173: 166+ My 6 '54

Modern handling methods. il Nat Safety N 69:167+ Mr '54

Modern material handling techniques. J. Isenhower. il Pet Refiner 33:102-5 Ja '54

MATERIAL handling—*Continued*

Move tanks to transport product; Upjohn co. single-story plant. il Chem Eng 61:240 Mr '54

New potentials of materials handling. J. R. Bright. diags Harvard Bsns R 32:79-91 Jl '54

No dust, no waste, no heavy labor; tote systems. il diag Chem Eng 60:140-2 Je '53

Oddities of glass demand effective material handling. R. W. Spain. Cer Ind 62:74-5 My '54

Omar bakery gains by massing ingredients. L. E. Slater. flow sheet(p 118-21) il Food Eng 25:60-3 D '53

Production clinic; materials handling. E. G. Thomssen. Soap & Chem Spec 30:93+ Ag; 101-3 S '54

Wet phosphate rock storage and handling. G. L. Lyle, jr. il plan Min Eng 6:798-9 Ag '54

What you should know about casters for materials handling. R. L. Miller. diags Chem Eng 60:190-200 Ag '53

When fingers turn to thumbs, try a vacuum pick-up. W. C. Cooling and E. J. Harris. il Mill & Factory 55:117-18 Jl '54

See also

Coal handling
Conveying machinery
Electric trucks, Industrial
Factory transportation
Freight handling
Loading and unloading
Lumber handling
Mechanical handling
Motor trucks, Industrial
Ore handling
Pallets
Steel handling
Storage
Tote boxes
Wood handling

Cost

Material handling overhead affects unit cost. C. W. Bendel. N A C A Bul 35:643-52 Ja '54

Safety measures

Safety in materials handling. A. Webster. Chem Age (Lond) 70:27-30 Ja 2 '54

See also

Lifting

MATERIAL handling institute

Annual meeting, New York. Steel 133:39 D 21 '53

MATERIALITY (term)

Development of criteria to guide accountant in judging materiality. S. M. Woolsey. J Account 97:167-73 F '54

MATERIALS

Annual materials engineering review and forecast. T. C. DuMond. il Materials & Methods 39:111-26 Ja '54

Basic materials conference and exposition, 2d, Chicago. Materials & Methods 40:12+ Jl '54

Basic materials conference and exposition, 2d, Chicago, May 17-20; list of committee members, sponsors, exhibitors, description of exhibits, speakers; program. Materials & Methods 39:6+ F; 119+ My '54

Basic materials exposition and conference, Chicago. Chem & Eng N 32:2203-4 My 31 '54

Basic materials exposition and conference, Chicago, May 17-20. il Iron Age 173:128-30 Je 3 '54

Basic materials exposition and conference, 2d, Chicago, May 17-20. Steel 134:56 My 24 '54

Better maintenance materials; Armco steel corp. J. B. Whitlock. il Factory Management 112:122-6 F '54

Chemical developments and engineering materials; abstract. H. L. Maxwell. Metal Prog 65:148+ My '54

Designing with engineering materials. R. L. Stedfeld and others. bibliog il diags Machine Design 25:137-92 O; 161-70 N '53

Die materials for limited production runs. J. L. Everhart. il Materials & Methods 38:92-5 N '53

Directory of materials; tradenames and information, index by type of material, materials producers, general tradename index, specifications and standards groups. il Machine Design 26:2-200 sec 2 My '54

Exposition and conference on basic materials for industry, 1st, New York, June 15-19. il Chem & Eng N 31:2681-2 Je 29 '53

How nuclear radiation affects engineering materials. D. O. Leeser. bibliog flow sheet il diags Materials & Methods 40:109-20 Ag '54 (reprints 25c)

Identification numbering system for purchased materials; Eastman Kodak co. P. J. Callan. il Steel 135:94-5 S 6 '54

Impact of solid state science on engineering materials conference, Pittsburgh. Am Cer Soc Bul 33:282-3 S 15 '54

Materials and design. il Dun's R & Mod Ind 62:95-8+ Ag '53

Materials for special service; a symposium of ideas for designers. J. R. Charlton and others. bibliog il diag Machine Design 26:126-86 My '54

Materials of construction for chemical engineering; seventh annual review. bibliog il diag Ind & Eng Chem 45:2171-282 O '53

Materials selection; teamwork is the trend. D. Riley and others. diags Steel 134:98-9 My 17 '54

Mechanical properties and tests of engineering materials. J. B. Campbell, comp. diags Materials & Methods 40:109-32 Jl '54 (reprints 25c)

Methods and materials. il Dun's R & Mod Ind 63:108-12+ Ja '54 [cont monthly]

New engineering materials. il Product Eng 24:139-45 Je '53

On parade; tools of the trade; exposition of basic materials, 1st, New York. il Chem W 73:42-5 Jl 4 '53

135 case histories; how to reduce costs through materials selection. il diags Materials & Methods 39:69-116 My '54

Productionizing new materials. H. W. Benjamin. diags Machine Design 25:314-16+ O '53; Same cond. Tool Eng 32:166-8 F '54

Protect yourself now against future materials shortages. J. Kelso. Product Eng 24:146-9 Je '53

Quality control of purchased materials. S. J. Rogers. il Steel 135:92-3 S 6 '54

Select the right materials for the job. il Steel 133:129-36+ O 12 '53

See also

Airplanes—Materials
Automobiles—Materials
Building materials
Ceramic materials
Electric industries—Materials
Insulating materials
Mechanical handling
Packaging materials
Paint materials
Paper making materials
Plastic materials
Raw materials
Refractory materials
Road materials
Silicones
Stores systems
Strategic materials
Strength of materials
Tanning materials
Textile fibers

Wear

Contact and rubbing of flat surfaces. J. F. Archard. bibliog diags J Ap Phys 24:981-8 Ag '53

Proceedings of the international symposium on abrasion and wear. Metal Prog 65:162+ Je '54

MATERIALS, Strategic. See Strategic materials

MATERIALS departments

Ten laws of a materials department. M. A. Williamson. Materials & Methods 40:77-9 Ag '54

MATERNAL and infant welfare

Maternal and child health services. L. Baumgartner. bibliog il Pub Health Rep 68:397-404 Ap '53

Maternity protection in Italy. A. Paroli. Int Labour R 67:156-72 F '53

MATHEMATICAL economics. See Economics, Mathematical

MATHEMATICAL instruments

See also

Calculating machines
Differential analyzers
Integrators

MATHEMATICAL physics

Certain transmission and reflection theorems. V. Twersky. bibliog J Ap Phys 25:859-62 Jl '54

Errors in power spectra due to finite sample. L. M. Spetner. J Ap Phys 25:653-9 My '54

Negentropy principle of information. L. Brillouin. bibliog J Ap Phys 24:1152-63 S '53

Period and amplitude of the Van Der Pol limit cycle. E. Fisher. J Ap Phys 25:273-4 Mr '54

MATHEMATICAL physics—*Continued*

Synthesis of transfer functions with poles restricted to the negative real axis. L. Weinberg. diags J Ap Phys 24:207-16 F '53; Discussion. A. D. Fialkow and I. Gerst. 24: 1525-6; Reply. bibliog 1526-7 D '53

Test for zeros in the unit circle. L. Weinberg. J Ap Phys 24:1251-2 S '53

Theory of angular correlation of nuclear radiations. L. C. Biedenharn and M. E. Rose. bibliog(81 ref) Rs Mod Phys 25:729-77 Jl '53

Transform method for linear time-varying systems. J. A. Aseltine. diags J Ap Phys 25:761-4 Je '54

Use of large scale computing in physics. J. Sheldon and L. H. Thomas. bibliog J Ap Phys 24:235-42 Mr '53

Use of restricted variational principles for the solution of differential equations. P. Rosen. J Ap Phys 25:336-8 Mr '54

See also

Aerodynamics
Approximate computation
Boundary value problems
Differential equations
Dynamics of a particle
Elasticity
Equation of state
Gases
Green's function
Hydrodynamics
Impact
Light, Scattering of
Magnetism
Optics
Sound
Spinors
Statistical mechanics
Tensors
Thermodynamics

MATHEMATICAL statistics

Analyzing straight line data. F. S. Acton. J Chem Educ 30:128-33 Mr '53

Detection of sure signals in noise. R. C. Davis. bibliog J Ap Phys 25:76-82 Ja '54

Errors in matrix inversion. P. S. Dwyer and F. V. Waugh. bibliog Am Stat Assn J 48: 289-319 Je '53

See also

Statistical methods

MATHEMATICAL symbols

Symmetry properties of the Wigner 9*j* symbol. H. A. Jahn and J. Hope. bibliog Phys R 93:318-21 Ja 15 '54

Symmetry relations of the 12*j* symbol. R. J. Ord-Smith. diag Phys R 94:1227-8 Je 1 '54

MATHEMATICS

Computers, statistics, and mathematics. A. Rose and others. Ind & Eng Chem 46:916-22 bibliog(163 ref, p920-2) My '54

General technology of computers, statistics, and mathematics. A. Rose, J. A. Schilk and R. C. Johnson. Ind & Eng Chem 45: 933-40 bibliog (227 ref, p938-40) My '53

Some applications of general and statistical mathematics in industrial engineering. W. G. Ireson. J Eng Educ 43:528-33 My '53

See also

Convergence
Differential equations
Fourier's series
Functions
Integral equations
Laplace transformation
Mathematical physics
Matrices
Mechanics
Polynomials
Probabilities
Ratio and proportion
Series
Statistical methods
Topology
Transformations (mathematics)

Study and teaching

AAAS cooperative committee on the teaching of science and mathematics. Science 118: 527-8 O 30 '53

How children form mathematical concepts. J. Piaget. il Sci Am 189:74-9 N '53

Industry promotes study of the three R's; stimulating interest in the value of studying high school math. Gen Elec R 57:52-60 My '54

Mathematical chemistry. E. S. Swinbourne and P. D. Lark. bibliog J Chem Educ 30:570-3 N '53

Mathematics foundation for industrial engineering. H. P. Emerson. J Eng Educ 43: 472-5 Ap '53

Scientists and mathematicians; shortage of graduate teachers in schools and technical colleges in England and Wales. Economist 169:795-7 D 12 '53

MATHESON company, inc.

Debentures offered. Comm & Fin Chr 178: 2307 D 14 '53

MATHIESON chemical corporation

Giants slated for merger to form Olin Mathieson chemical corp. Chem & Eng N 32: 1984 My 17 '54

Merger mechanics; you have to try them to know if they'll work. Bsns W p96-8 Ag 8 '53

More than meets the eye; merger with Olin industries. Chem W 74:20 My 22 '54

Olin-Mathieson stockholders vote to approve merger. Manuf Rec 123:53 Jl '54

MATRICES

Eigenvectors of matric polynomials. M. Mannos. J Res Nat Bur Stand 51:33-6 Jl '53

Errors in matrix inversion. P. S. Dwyer and F. V. Waugh. bibliog Am Stat Assn J 48: 289-319 Je '53

Identity for the *S* matrix for a finite time interval. J. C. Polkinghorne. Phys R 93: 228-9 Ja 1 '54

Inversion of continuant matrices. W. J. Berger and E. Saibel. Franklin Inst J 256: 249-53 S '53

Matrix algebra for ideal lens problems. J. H. Harrold. Opt Soc Am J 44:254 Mr '54

Matrix solution of equations of the Mathieu-Hill type. L. A. Pipes. bibliog(26 ref) J Ap Phys 24:902-10 Jl '53

Pairs of normal matrices with property *L*. H. Wielandt. J Res Nat Bur Stand 51:89-90 Ag '53

Propagation constant in gentle circular bends in rectangular wave guides; matrix theory. A. T. de Hoop. J Ap Phys 24:1325-7 O '53; Correction. 25:136 Ja '54

Recurrence matrix solution for the dynamic response of aircraft in gusts. J. C. Houbolt. bibliog diags U S Nat Advisory Com for Aeronautics 1951:145-75 '52

MATSON navigation company

APL and Matson had profitable year in 1953. Marine Eng 59:51 Jl '54

MATTER

What is matter? E. Schrödinger. il diags Sci Am 189:52-7 S '53

See also

Adsorption
Atoms
Chemistry
Colloids
Compressibility
Diffusion
Dynamics
Elasticity
Electrons
Gases
Ions
Molecules
Physics
Quantum theory
Radioactivity
Solids
Solution (chemistry)
Specific gravity
Viscosity
Wave mechanics

MATTEUCCI, Carlo, 1811-1868

Faraday's electrochemical laws and the determination of equivalent weights. R. G. Ehl and A. J. Ihde. bibliog por J Chem Educ 31:226-32 My '54

MATTHEWS, Armstrong Robertson, 1902-

Sketch. por Explosives Eng 31:100-1 Jl '53

MAU MAU. See Kenya

MAURITIUS

Mauritius goes labour. Economist 168:624 S 5 '53

MAXON, Glenway W.

Moles awards for 1954. por Explosives Eng 31:186 N '53

Moles will honor Steers and Maxon. por Comp Air Mag 58:349-50 D '53

MAXON, W. L., corporation

Security I like best. T. F. Bullen. Comm & Fin Chr 178:2530+ D 24 '53

MAXWELL-WAGNER dispersion. See Dielectric losses

MAXWELL'S demon. See Thermodynamics

MAXWELL'S equation

Radiation in metals. N. W. Snyder. A S M E Trans 76:545-8 My '54

MEADER, Stephen

Quaker who couldn't say thee to madmen. S. H. Margolis and M. Silverstein. il Ptr Ink 243:38-40 My 8 '53

MEANLEY, Tom

Tom Meanley, farmer, grows farming news. B. Caldwell. por Ed & Pub 86:16 Ap 4 '53

MEASUREMENT

Angular standard; National bureau of standards builds accurate polygon. Iron Age 172: 207-9 S 10 '53

Elements of water and sewage chemistry; measuring flows and computing dosages. il Pub Works 84:83-4 D '53

MEASUREMENT—*Continued*

Fundamental units and standards. F. B. Silsbee. il Instruments 26:1520-2+ O '53

See also

Calorimeters and calorimetry
Color measurement
Colorimeters and colorimetry
Electric measurements
Flow meters
Frequency meters
Gages
Gas, Natural—Measurement
Gas flow
Measuring instruments
Micrometers
Optical measurements
Petroleum—Measurement
Porosity—Measurement
Pressure measurement
Pyrometers and pyrometry
Radio measurements
Radioactivity—Measurement
Sound—Measurement
Statistical methods
Surveying
Tanks—Measurement
Temperature—Measurement
Thermometers and thermometry
Thickness measurement
Vacuum tubes—Measurement uses
Vibration—Measurement
Viscosity—Measurement
Water flow
Weights and measures

MEASUREMENTS, Magnetic. See Magnetic measurements

MEASURING instruments

Detecting and measuring radial deformations of rotary kilns; Shelltest. F. G. Rosenblad. il diag Rock Prod 57:123-5+ Ag '54

Deviations from Hooke's law within the elastic range; apparatus for measurement of very small plastic strains in steel. D. Morrison. il diags Engineering 177:141-4 Ja 29 '54

Facts about modern precision measuring tools. il diags Mill & Factory 54:592-3 My '54

Johansson automatic measurement and control instrument. il diag Engineer 197:221 F 5 '54

Johansson measuring instruments. il diag Automobile Eng 44:39-40 Ja '54

Jones & Laughlin Flex Tester and Spherometer for sheets. il Steel 133:318 O 12 '53

Linear measuring instruments and comparators; Sigma instrument company extension. Engineering 176:523-4 O 23 '53

Measurement and control. il diags Paper Tr J 138:113-25 S 17 '54

Measurement techniques for specific gravity, viscosity, mass and time. diags Can Chem Process 37:98-100+ O '53

Measuring drop sizes in sprays. E. H. Taylor and D. B. Harmon, jr. diag Ind & Eng Chem 46:1455-7 Jl '54

1954 American Machinist production preview; layout and inspection. il Am Mach 98:217-28 Ja 18 '54

See also

Comparators
Dilatometers
Gages
Micromerograph
Micrometers
Pressure gages
Profilometers
Spherometers
Thickness measurement

MEASURING instruments, Electric

Wave-height analyser. M. J. Wilkie and R. F. King. diags J Sci Instr 30:311-14 S '53

See also

Gages, Electric

MEASURING instruments, Optical

Bausch & Lomb optical bench comparator for rapid inspection. il Mach 60:225 Je '54

Color control is moving from lab to line; optical instruments. L. E. Slater. il diag Food Eng 26:70-5+ Ap '54

Diamond die profiloscope. il Metallurgia 49:281-2 Je '54

Gaging cams optically saves time and money. il diag Tool Eng 31:63-4 N '53

How optics replace costly, time-consuming inspection. J. P. Wright. il diags Am Mach 98:168-9 Ap 12 '54

Kodak contour and surface projector with large-size viewing screen. il Mach 60:219-20 Je '54

New instrument simplifies diamond die inspection; profiloscope. M. Davies. il Iron Age 173:130-2 Je 10 '54

Optical follower for use with milling machines. il Engineering 176:425 O 2 '53

Optical gaging helps control assemblies; Intertype corp. il diag Mill & Factory 54:92-4 Mr '54

Optical Gaging Products' gear analyzer. il Tool Eng 32:112 Ja '54

Optics; look through rose-tinted lenses; optical equipment industry invades production lines. K. W. Bennett. il Iron Age 172:101-2 S 10 '53

Portman optical instrument doubles as form grinder projector-comparator. il Am Mach 98:149 Mr 1 '54

Profile grinding attachment; Svenska ackumulator aktiebolaget Jungner. il Engineer 196:572 O 30 '53

See also

Interferometers
Optical flats

MEASURING tape

See also

Surveyors' tape

MEAT

Ascorbic acid betters color, flavor of meats. J. C. Bauernfeind and others. bibliog il Food Eng 26:80-2+ Je '54

Streamlined survey sharpens product control; Steinlite LOS fat tester. H. P. Furgal. il Food Eng 26:58-60 F '54

See also

Beef
Fish as food
Sausage

Prepackaging

Lesson in meats; Von's supermarket. il Mod Packaging 27:150 Jl '54

Makes chub items continuously; Kartridg-Pak machine co. il Food Eng 26:77+ S '54

Meat-packaging criteria; review of recent developments in methods and materials. J. M. Ramsbottom. il Mod Packaging 27:131-4, 186 F '54

Meat; packer has become packager. il Mod Packaging 27:98-104+ F '54

Pulling a vac protects franks. B. Rabinowitz. il Food Eng 25:133 N '53

Unit-task improvements clinch profitable processing gains; Wisconsin meat products co. J. V. Ziemba. il Food Eng 26:81-2+ S '54

Preservation

Grappling with the problems of cold sterilization. B. S. Schweigert. il Food Eng 26:70-1+ S '54

See also

Canned meat

Prices

Kosher meat prices in Minneapolis. R. J. Holloway. J Marketing 18:287-9 Ja '54

Transportation

Does the mechanically refrigerated freight car do its job? R. W. Ransom. plans diags Refrig Eng 62:51-4+ Jl '54

Map technique quickly unravels delivery-system snags; Armour and co. Food Eng 26:93+ S '54

Trailers double as route trucks; Armour and co. il Food Eng 26:129+ Jl '54

MEAT, Canned. See Canned meat

MEAT, Dried

Progress in meat dehydration; freeze-drying. H. P. Furgal. bibliog il Food Eng 26:74-6+ S '54

MEAT, Frozen

Creative marketing strategy and new products pay off; C. A. Swanson & sons. H. E. Green. il Ptr Ink 245:33-5+ O 23 '53

Progress in meat dehydration; freeze-drying. H. P. Furgal. bibliog il Food Eng 26:74-6+ S '54

MEAT industry and trade

See also

Canned meat
Meat—Prepackaging
Packing houses
Packing industry

Statistics

Meats, 1949-1952. Survey of Cur Bsns 1953 Sup p 144-5 [supplemented in monthly numbers]

Great Britain

Unrationed ration. Economist 168:11 Jl 4 '53

MEAT thermometers. See Thermometers, Cooking

MECCA, Arabia
See also
Electricity supply—Mecca, Arabia

Lighting

Electricity comes to Mecca. il Elec J 151:1571-2 N 13 '53

MECHANICAL draft
Mechanical draught cooling towers; their use in power station plant. M. E. O. Trowbridge. Elec J 151:789-92 S 11 '53

MECHANICAL drawing
See also
Drafting room practice
Engineering drawing
Projection, Axonometric

MECHANICAL engineering
ASME technical digest; substance in brief of papers presented at ASME meetings. Published in monthly numbers of Mechanical engineering
Analytical approach to the design of four-link mechanisms. F. Freudenstein. bibliog diags A S M E Trans 76:483-9; Discussion. 489-92 Ap '54
Practical training in industry for the graduate in mechanical engineering. K. R. Evans. Engineer 196:817-18 D 18 '53
See also
Aeronautic engineering
Automobile engineering
Automobiles
Balancing of machinery
Boilers
Chemical engineering
Electric engineering
Hydraulic machinery
Locomotives
Lubrication and lubricants
Machine shop practice
Machine tools
Machinery
Marine engineering
Mechanical movements
Mechanics
Motor trucks
Power transmission
Pumping
Springs (mechanism)
Standardization
Steam engines
Tolerance

Bibliography

Institution of mechanical engineers brief subject and author index of papers in the Proceedings, 1937-1953. 123p Institution of mechanical engineers, 1 Birdcage walk Westminster, S.W.1 '54
Review of books and notes on books received in the Engineering societies library. Published in monthly numbers of Mechanical engineering

Study and teaching

Graduate course; training for potential senior technical executives in industry. il Automobile Eng 44:196 My '54
Unit operations for mechanical engineers. C. A. Besio and H. A. Blum. J Eng Educ 43:469-71 Ap '53

Tables, calculations, etc.

Formulation of stability equations and derivation of new constructions with complete systems of design-formulae for variable-speed control mechanisms. M. S. Frenkel. bibliog diags Inst Mech Eng Proc (A) 167 no 3:319-30; Discussion. 331-9 '53
Maximum shear stress. A. R. Holowenko and H. G. Laughlin. diags Machine Design 26:159-61 Ag '54
Phase-plane analysis; a general method of solution for two-position process control. D. P. Eckman. bibliog diags A S M E Trans 76:109-16 Ja '54
Planning machine series. P. Tedeschi. diags Machine Design 26:96-108 Jl; 163-74 Ag; 195-207 S '54
Simplified analysis of complex vibration problems. O. C. Brewster. diags Product Eng 24:161-6 N '53

Europe

European survey; engineering progress in the British Isles and western Europe. J. F. Petree. il diag Mech Eng 76:276-7 Mr '54 [cont monthly]

MECHANICAL engineers
Craftsmanship. A. Roebuck. Engineer 196:517-19 O 23 '53; Same cond. Engineering 176:533 O 23 '53
Engineer's role in the foundry. B. C. Yearley. Foundry 82:98-9+ Ja '54
Graduate in mechanical engineering; arranging practical training in industry; abstracts of four papers at Institution of mechanical engineers meeting. Engineering 177:4-5 Ja 1 '54

MECHANICAL engineers, American society of. See American society of mechanical engineers

MECHANICAL equipment of buildings
Impact of mechanical equipment on design. il plans diags Arch Rec 115:195-209 Ap '54
See also
Air conditioning
Electric wiring
Elevators
Heating
Hot water supply
Houses—Mechanical equipment
Lighting
Plumbing

MECHANICAL fans. See Fans, Mechanical

MECHANICAL handling
Automation boosts Stylon output at lower cost. il Cer Ind 62:81-2 Mr '54
Better handling methods simplify hot metal distribution; McCulloch motors corp. il Iron Age 172:125 O 22 '53
Better handling saves navy manpower; U.S. naval supply depots. il Factory Management 112:96-9 S '54
Boxing the compounds; Tote system. il Chem W 74:82+ Ja 16 '54
Bulk handling system cuts cupola charging costs; American rock wool corp. C. B. Setterberg. il diag Iron Age 174:118-19 Jl 22 '54
CIL slices carboy handling costs. il Chem Eng 61:128+ Ja '54
Chemical engineering unit operations; materials handling. R. L. Speaker. bibliog(48 ref) Ind & Eng Chem 46:129-32 Ja '54
Code-O-Matic, the stock picker that lets two do the work of ten; Hickok. il Factory Management 112:98-100 Ja '54
Coil handling made easy; Lee Wilson engineering co. il Steel 134:102 F 1 '54
Conveyors and conveying equipment; shipments of industrial electric trucks and tractors; shipments of overhead traveling cranes and monorail systems; shipments of paper product shipping containers; industrial trucks, tractors, trailers and portable elevators; shipments of steel shipping containers; value of shipments of excavating and earthmoving equipment; tabulations. Automotive Ind 110:332 Mr 15 '54
Cutting costs of handling precast slabs. H. S. Freeman. il Concrete 62:10-11+ My '54
Decreasing costs by improved handling of materials. O. S. Carliss. il Am Water Works Assn J 46:383-5 Ap '54
Developments in foundry mechanization. R. J. Geitman. il diags Foundry 82:70-5+ Ag '54
Drums for your product? here's how to handle them. il Factory Management 112:116-17 My '54
Easy-to-handle battery carrier. il diags Ry Loco & Cars 128:75-6 Ap '54
Efficient materials handling makes for better plastics production. il Mill & Factory 53:128-9 D '53
Equipment for the small foundry; yard work and furnace charging. il diag Foundry 82:179-81 My '54
Factors in engineering your materials handling operations; panel on materials handling. S A E J 62:41-3 Ap '54
Foundry handling goes automatic; Pontiac motor division's foundry. il plan Steel 135:108 Jl 26 '54
Handling; fork truck, crane combined to ease die removal; Perfection stove co. il Iron Age 173:194-5 F 25 '54
Handling of factory cullet from machine to storage. R. W. Spain. il Cer Ind 63:71-2+ S; 97-8+ O '54
Heavy parts production overhead equipment handles everything; Colonial Iron Works. il Steel 134:160-1 Je 21 '54
How chips are handled at Port Townsend. K. M. Shold. il Paper Tr J 137:16+ N 27 '53
How to make replacements in materials, parts, and materials-handling equipment. il Am Mach 97:F-F 15 Mid-N '53
How to save time and labor in receiving raw materials. R. W. Spain. il Cer Ind 62:92-3 Je '54

MECHANICAL handling—*Continued*

Importance of rubber hose material handling. J. A. Muller. Rubber Age 74:914 Mr '54

In T&NO freighthouses more l.c.l. with no more men. il Ry Age 135:63-4 N 30 '53

Inventory of foundry equipment; materials handling; with tables. Foundry 82:155-7 My '54

It's in the bag, but fast; Lederle laboratories has mechanized weighing and bagging operations at Pearl River. il Chem Eng 60:120 S '53

Know-how handbook; materials handling. il diags Mill & Factory 54:253-366 My '54

Lift in materials handling sales. il Steel 133:31 D 28 '53

Lighter trolleys speed handling of coal, ore. H. J. King. il Iron Age 172:138-9 Ag 20 '53

Manual to mechanized saves dry-fruit handlers; Rosenberg bros. co. il Food Eng 25:83+ D '53

Manufacturing that cuts costs; Air conditioning div., General electric co. B. W. Moreland. il plan Mill & Factory 54:83-6 Ja '54

Materials handling has major role in production of PowerFlite transmissions; Chrysler corp. J. Geschelin. il Automotive Ind 109:46-50 D 15 '53

Materials handling; industrial common denominator. R. C. Sollenberger. Management R 43:376-7 Je '54

Materials handling, 1953. H. M. Palmer. Mill & Factory 54:290+ F '54

Materials handling progress. il Factory Management 112:282+ My '54

Materials handling review and forecast. Iron Age 173:317 Ja 7 '54

Mechanical handling in the petroleum industry. E. A. Reynolds and V. F. H. Samson. 4pls diags Inst Pet J 39:795-814; Discussion. 814-18 N '53

Mechanical handling raises foundry's efficiency; Howell foundry co. F. A. Westbrook. il Foundry 82:362+ My '54

Mechanization of materials handling progress in 1953. T. W. Rodes. Ind & Eng Chem 46:sup 123A-4A Ja '54

Mechanization reduces show of hands; warehouse of Erie brewing co.; illustrations with text. W. Rudolph. Mill & Factory 54:122-3 Ap '54

Mechanize your materials handling here's how to figure it, ways and dollars. Food Eng 25:133-5 D '53

Mechanised materials handling plant for a foundry; Leyland motors, ltd. il Engineer 197:223 F 5 '54; Engineering 177:217 F 12 '54

Mechanized slab handling cuts roof cost. il Constr Methods 36:56-7 Mr '54

Modern scrap yard keeps pace with market; Max Schlossberg co., Chicago. J. B. Schlossberg. il plan Iron Age 173:118-21 Ja 14 '54

New wrinkles for an old plant; Brown & Sharpe mfg. co. R. Sheets. il Am Mach 98:129-33 Je 7 '54

1954 American Machinist production preview; plant service equipment. il Am Mach 98:229-40 Ja 18 '54

Open hearth shops adopt developments in aids to labor; illustrations with text. V. W. Jones. J Metals 6:878-9 Ag '54

Outstanding showplace plant squeezes utmost from handling dollars; Armour and co. J. V. Ziemba. il Food Eng 26:49-51+ Je '54

Pace-setting two-in-one plant; Mrs Baird's bakeries, inc. J. V. Ziemba. il Food Eng 25:72-5 N '53

Palletless handling preferred; new type of gripper arms for lift trucks. il Can Chem Process 37:58 O '53

Pinpoints cost-cutting steps in materials handling; meat packer's problem in the handling of lard. diags Food Eng 26:86-8 Ap '54

Plant that's long on engineering show-cases its process; James Vernor co. J. N. Sutton and A. V. Gemmill. flow sheet(p 118-21) il Food Eng 26:61-3 Ag '54

Plating setup recycles propellers for proper balance; Hamilton standard, Division of United aircraft corp. C. B. Conwell and C. J. Stansfield. il plan Iron Age 173:133-5 My 20 '54

Productivity, are we on the right road? Lord Sempill. Engineer 196:845-6 D 25 '53; Excerpts. Elec J 151:2119 D 25 '53

Push-button ready-mixed concrete plant; Frank J. Knight co. H. C. Persons. il Rock Prod 57:144-5+ My '54

Racks that stack slashed handling time, paid off the first year; Towmotor corp. il plan Factory Management 112:94-7 My '54

Raw materials handling; Farmers' manure co. il Chem Age (Lond) 71:643-4 S 25 '54

Robot retailing. Bsns W p70 D 5 '53

Scientific materials handling boosts magnet production; Carboloy department, General electric co. il Mill & Factory 54:104-5 F '54

Shall it be a crane, a conveyor, or an industrial truck? A. T. Gaudreau. Paper Ind 36:383-5, 483-7 Jl-Ag '54

Simplicity a must for handling as plans grow from blueprint stage; Electric storage battery co. W. R. Wolfe. il Steel 133:128-9+ Jl 6 '53

Small parts handling; Ford motor co.'s two Metal stamping division plants. il Steel 133:74-5 D 28 '53

Speed makes quality for southern blackeye pea freezer. E. D. White. il Food Eng 25:125+ D '53

Stone-hearth baking; another traditional process goes automatic gradually; H. S. Levy & son. il Factory Management 111:124-5 N '53

Technical progress; handling and packaging. il Steel 134:404-5+ Ja 4 '54

Their five-year modernization is paced to coming growth; Apple growers association. C. R. Shiner. il diags Food Eng 26:94-8+ Ap '54

These walls were bulging, so Erie switched to mechanized operation. il Ry Age 137:56-7 S 20 '54

This simple system of yarn handling saves time, bother, and money; Avondale mills. il Textile World 104:108 Mr '54

Touch of steel or velvet; General electric company O-Man. il Mill & Factory 54:148 Mr '54

Traveling bucket for handling dry materials; Cleveland tramrail division. il Paper Tr J 138:32 Je 11 '54

Trend toward automation in automatic weighing and bulk materials handling. I. H. Richardson. il Mech Eng 75:865-70 N '53

Unit loading and palletisation; symposium. Engineering 176:522 O 23 '53

Well-planned and streamlined handling of products results in increased productivity; illustrations with text. Paper Ind 36:164 My '54

What's ahead for handling equipment? interview with Sheldon K. Towson. Iron Age 173:56-7 Ja 14 '54

See also

Assembling methods
Brick handling
Cableways
Car dumpers
Cargo handling
Coal handling
Coal loading machines
Conveying machinery
Cranes, derricks, etc.
Dumping appliances
Electric trucks, Industrial
Elevators
Freight handling
Fruit handling
Hoisting machinery
Loading and unloading
Lumber handling
Manipulators
Mine haulage
Monorail conveyors
Motor trucks, Industrial
Ore handling
Packaging machinery
Pipe handling
Pneumatic conveying
Positioning equipment
Steel handling
Tractors, Industrial
Trucks
Wood handling

Safety measures

For easy shipping; pallet package. H. R. Black. il Safety Maint & Prod 107:18-20+ Ja '54

Hydraulic buffers stop loaded trolleys safely. W. H. Lehr. il Iron Age 173:126-7 My 6 '54; Same. Nat Safety N 70:80+ Ag '54

Recent safety developments in materials handling; illustrations with text. Safety Maint & Prod 108:44-7 Ag '54

Why material handling equipment? R. C. Waehner. il Safety Maint & Prod 106:18-20+ D '53

Woven wire slings speed tank handling. il Safety Maint & Prod 107:23 Ja '54

MECHANICAL handling—*Continued*

Standards

Standardization's neglected field; materials handling. N. Warshaw. diags Nat Safety N 69:28-9+ Je '54

MECHANICAL models

Engines; Lilliputs teach precision; model planemaking boosts demand for precision miniature engines. R. L. Hatschek. il Iron Age 172:43-4 O 29 '53

Models; use by equipment makers drives home selling points; animated model foundry. il Iron Age 173:144-5 Je 10 '54

See also

Railroads—Models

MECHANICAL movements

Angular motion for accurate positioning or control movements is obtained with a hydraulic servomechanism designed by Professor James J. Ryan. il diags Machine Design 26:125 My '54

Applying eccentric gearing. P. Grodzinski. diags Machine Design 26:147-51 Jl '54

Chatterless linear motion for reciprocating rods. diags Machine Design 26:109 Jl '54

Gears in transmission line increase shaft oscillation. L. Kasper. diags Mach 60:208 F '54

Gyratory motion grinds polygons; Polygon universal grinding machine. il diags Product Eng 24:155 Je '53

Ingenious mechanisms. Published in monthly numbers of Machinery

Mechanisms for uniform-velocity reciprocating motion. P. Grodzinski. il diags Machine Design 26:141-5 F '54

Modified eccentric provides rest interval. L. Kasper. diags Mach 60:201-2 Ag '54

Oscillating drive-shaft actuates slide at variable speed and stroke. W. M. Halliday. diags Mach 60:206-7 Mr '54

Safety attachment designed for a reciprocating movement. L. Kasper. diags Mach 60:206-7 Ja '54

Safety devices protect slides against overloads. W. M. Halliday. diags Mach 61:204-5 S '54

Special purpose mechanisms; data based on material and sketches in AWF und VDMA Getriebeblaetter. S. Rappaport. diags Product Eng 24:196-7 N '53

Toggle action mechanism steps up rolling machine capacity. H. Dahl. diags Tool Eng 32:45 Ap '54

See also

Cams
Feed mechanism
Gearing
Links and link motion
Machinery, Kinematics of
Ratchet mechanism
Stop mechanism

MECHANICAL stokers. See Stokers, Mechanical

MECHANICS

Mechanics of manifold flow. J. S. McNown. bibliog diags Am Soc C E Proc 79 [no 258]: 1-22 Ag '53

See also

Aerodynamics
Aeronautics
Balancing of machinery
Deformation (mechanics)
Disks, Rotating
Dynamics
Elasticity
Fluids
Force and energy
Friction
Gases
Hydraulics
Hydrodynamics
Hysteresis (mechanics)
Inertia (mechanics)
Liquids
Load (mechanics)
Machinery
Mechanical engineering
Mechanical movements
Moments of inertia
Photoelasticity
Physics
Power transmission
Springs (mechanism)
Steam engines
Strains and stresses
Thermodynamics
Torsion
Vibration
Viscosity
Wave mechanics

Electric analogies

Design and testing of an electronic simulator for a hydraulic remote-position-control servo mechanism. F. J. U. Ritson and P. H. Hammond. diags Inst E E Proc 99 pt 2: 533-48 D '52; Discussion. 99 pt 2:549-52; 100 pt 2:568-9 D '52, O '53

Dynamical analogies. R. Yorke. il diags Engineering 176:763-4 D 11 '53

MECHANICS (persons)

See also

Automobile mechanics

MECHANICS, Household

Do-it-yourself; a new billion-dollar market. Management R 43:49-50 Ja '54

Four do-it-yourself trends that mean extra profits to advertisers. J. P. Taylor. il Ptr Ink 245:27-30 O 2 '53

Putting the do in do-it-yourself; Black & Decker's experiences. A. G. Decker. il Dun's R & Mod Ind 62:137-8+ D '53

Trend toward do-it-yourself workshops got a boost when 80,000 attended Chicago show. Steel 133:70-1 N 9 '53

See also

Workshops, Home

MECHANICS, Statistical. See Statistical mechanics

MECHANICS, Wave. See Wave mechanics

MECHANICS' liens

Avoid mechanics' lien loopholes. W. H. Hillyer. Heating-Piping 26:118-19 Ag '54

Contractor almost loses lien. W. H. Hillyer. Heating-Piping 26:145-6 Mr '54

Mechanics' liens are legal upstarts. W. H. Hillyer. Heating-Piping 26:124 S '54

MEDALS

API gold medal in 1953 to Otto Dewey Donnell. Am Pet Inst Proc 33(1):14-16 '53

Bernard Dyer memorial lecture and medal. il Chem & Ind p534 My 30 '53

Cereal chemistry with a camera; R. M. Sandstedt latest recipient of Thomas Burr Osborne medal. Chem & Eng N 32:2482 Je 21 '54

Crosby Field, engineer's engineer awarded ASME medal. H. T. Sharp. Chem Eng 61: 398-400 Ja '54

Dr Erwin F. Lowry awarded I.E.S. gold medal. Illum Eng 49:sup5A My '54

Dr R. K. Stratford is awarded 1954 Chemical institute medal. Can Chem Process 38:38 Je 1 '54

Edgar D. Tillyer; establishment of medal. Opt Soc Am J 44:577-9 Jl '54

Gallic unpredictability; R. K. Stratford, winner of Canadian SCI medal. Chem & Eng N 32:1034+ Mr 15 '54

He made hormones legitimate; 1953 medal of Society of cosmetic chemists to Emil G. Klarmann. Chem & Eng N 31:5288-9 D 21 '53

Kelly named IRI medalist. Chem & Eng N 31:4700 N 9 '53

Laurels to Kirkwood and Cram. Chem & Eng N 31:4900-1 N 23 '53

Lillian Gilbreth wins international award; gold medal of the International committee of scientific management. R. Gleason. Advanced Management 19:27 Ap '54

Louis Arnold Jordan, C.B.E. Society's medallist, 1953. Chem & Ind p699 Jl 18 '53; Chem & Eng N 31:3273 Ag 10 '53

Medal day proceedings at the Franklin institute. Franklin Inst J 256:523-49 D '53

Medal of the Society of dyers and colourists; list of recipients. il Soc Dyers & Col J 70: 4 Ja '54

Medallic portraiture of Antoine Laurent Lavoisier. D. I. Duveen and H. S. Klickstein. il J Chem Educ 31:308-9 Je '54

1954 gold medal of the American institute of chemists awarded to William J Sparks. Rubber World 130:376 Je '54

1954 TAPPI medal to G. W. E. Nicholson; presentation by K. O. Elderkin; response by G. W. E. Nicholson. Tappi 37:sup86A+ Mr '54; Excerpt. Paper Ind 35:1306 Mr '54

Palladium medal award to Furman. Electrochem Soc J 100:sup233C Ag '53

Remarks of acceptance on receipt of the Wallace Clark award. E. H. Schell. il Advanced Management 18:31-2 Ap '53

Salute to Mr Yeast; Nicholas Appert medal presented to Charles N. Frey. Chem & Eng N 32:2628-9 Je 28 '54

Sixth annual Iowa award to Leo P. Sherman. Chem & Eng N 31:4798-9 N 16 '53

SCI award ceremonies. Chem & Eng N 31: 4658-9 N 9 '53

Solutions that aren't elementary; Scatchard receives Theodore William Richards medal. Chem & Eng N 32:2099 My 24 '54

MEDALS—*Continued*
W. L. Fleisher to receive 1953 F. Paul Anderson award. Heating-Piping 26:205-6 Ja '54
William J. Sparks to receive 1954 gold medal of American institute of chemists. H. T. Sharp. Chem Eng 61:360-3 My '54
Worshipful company of dyers research medal; list of recipients. il Soc Dyers & Col J 70: 5-6 Ja '54
See also
Edison medal
Fritz, John, medal
Garvan medal
Gibbs, Willard, medal
Goodyear medal
Guggenheim, Daniel, medal
Harriman memorial medals for safety
Herty medal
Ives, Frederic, medal
Kelvin medal
Lomb, Adolph, medal
Messel medal
Nichols medal
Olney medal
Perkin medal
Priestley medal
Schoellkopf medal
Vermilye medal

MEDIATION and conciliation service, Federal. See United States—Federal mediation and conciliation service

MEDIATION board, National. See National mediation board

MEDICAL advertising
AMAA to attempt closer tie with publishers. Adv Agency 47:72 F '54
See also
Drug trade—Advertising

MEDICAL and pharmaceutical chemistry. See Chemistry, Medical and pharmaceutical

MEDICAL buildings
Hospital cores in doctors' offices. il plans Arch Forum 98:128-30 My '53
Same architects, same client, same problem; Mayo clinic diagnostic center. il plans diags Arch Forum 100:136-45 F '54
See also
Health centers
Physicians' offices

MEDICAL centers
Clinical center for chronic disease research admits first patients; National institutes of health, Bethesda. il plan Chem & Eng N 31:2990+ Jl 20 '53
Long-range hospital center; east Bronx hospital center. il plans diags Arch Forum 98: 162-7 Je '53
Medical center takes to air to make space for parking. il plans Arch Forum 100:124-7 Je '54
New way to make hospitals self-supporting. J. M. Neufeld. il plan diags Arch Forum 98:131-5+ My '53
Smoke control to mental hygiene; Columbus puts all its municipal health offices and clinics under one roof. il plans Arch Forum 98:126-7 My '53
This is a new kind of community medical center; Hunterdon medical center, Flemington, N.J. il plans Arch Forum 99:130-5 D '53
See also
Armed forces institute of pathology
Health centers

MEDICAL chemistry. See Chemistry, Medical and pharmaceutical

MEDICAL climatology. See Climatology, Medical

MEDICAL colleges
Medical birthday; College of general practitioners. Economist 169:575 N 21 '53
Medical school and teaching hospital; University medical school and teaching hospital, Jackson, Miss. il plans diags Arch Rec 115:176-83 Mr '54
See also
Medical education

MEDICAL education
Educating doctors. Economist 168:623-4 S 5 '53
Medical education scholarship loans in the Mississippi integrated health program. F. J. Underwood. Pub Health Rep 68:549-53 Je '53
See also
Anatomical models
Medical colleges
Medical service, Industrial—Study and teaching

MEDICAL ethics
See also
Quacks and quackery

MEDICAL examinations. See Physical examinations

MEDICAL expense insurance. See Insurance, Medical expense

MEDICAL information bureau
Scope of work of MIB. J. C. Wilberding. East Underw 54:18 N 13 '53

MEDICAL instruments and apparatus
Electronic cardiac defibrillator and pacemaker. R. K. McCombs and others. il diag R Sci Instr 25:378-9 Ap '54
Improved cuvette densitometer for cardiac output determination by the dye-dilution method. S. R. Gilford and others. il diags R Sci Instr 24:696-702 Ag '53
Medical equipment sales health thrives. il Steel 133:74 N 9 '53
See also
Electrotherapeutics—Apparatus and instruments
Oximeters
Ultrasonic waves—Medical use
also Conference on electronic instrumentation and nucleonics in medicine

MEDICAL laboratories
New approach to an old problem; operation of clinical laboratories; the Intersociety committee on laboratory services related to health to raise standards of service. A. H. Emery. Chem & Eng N 31:3302 Ag 10 '53
See also
Pharmaceutical laboratories
also Haskell laboratory for toxicology and industrial medicine

Air conditioning

Odor control allows recirculation and reduces laboratory air requirements; medical school laboratory. J. E. Leininger. Heat & Ven 50:72-3 N '53

Equipment

Clinical analysis. R. H. Müller. Anal Chem 26:sup44A+ Ap '54

MEDICAL libraries
Preservation of medical literature during a period of war. I. E. Voss. bibliog Special Lib 44:276-9 S '53

MEDICAL library association
Annual meeting, 52d, Salt Lake City, June 16-19. Science 118:315 S 18 '53

MEDICAL literature
See also
Medical service, Industrial—Periodicals

MEDICAL periodicals
See also
Medical service, Industrial—Periodicals

MEDICAL research
Chemistry and the life span. W. H. Sebrell, jr. Chem & Eng N 31:4670-3+ N 9 '53
Growth of medical research 1941-1953 and the role of Public health service research grants. K. M. Endicott and E. M. Allen. Science 118:337-43 S 25 '53
Live longer and like it! H. J. Loynd. Comm & Fin Chr 178:1013+ S 17 '53
Military medical research. M. G. Whillens. il Can Chem Process 38:82-4 Ap '54
Research at the bedside. Economist 168:378 Ag 8 '53
See also
Animal experimentation
Cancer
Insurance, Life—Medical research
Pharmaceutical research
also Childs, Jane Coffin, memorial fund for medical research

MEDICAL schools. See Medical colleges

MEDICAL service
Agenda for a critical exploration of current problems in medical care. E. M. Bluestone. Pub Health Rep 68:1225-30 D '53
Hoover commission names 15 to medical task force. Oil Paint & Drug Rep 164:3+ N 9 '53
Medicine; bolster industry coverage? R. M. Stroupe. Iron Age 173:55 Ja 14 '54
Opportunities for improving the distribution and financing of medical care; abstract. G. Bugbee. Oil Paint & Drug Rep 166:56-7+ Jl 5 '54
See also
Dental service

MEDICAL service—*Continued*

Cost

Facts revealed in national consumer study on voluntary insurance and medical costs. East Underw 55:26-7 Jl 23 '54

Health information foundation releases national data on medical services study. Oil Paint & Drug Rep 165:49 F 1 '54

Socialization

Doctors under the microscope. Economist 169: 7-8 O 3 '53

Health service resources. Economist 169:408+ N 7 '53

MEDICAL service, Industrial

American congress of industrial medicine, 2d, Rio de Janeiro, Sept. 20-29, 1952. Ind Med 22:116-21 Mr '53

Birmingham plan; the Industrial health council of Birmingham, Ala. J. K. Williams. il Ind Med 22:237-40 Je '53

Challenge of industry to the medical profession. W. H. Seymour. A M A Archives Ind Hygiene & Occup Med 8:102-8 Ag '53

Consumer of industrial health services. H. E. Haven. Ind Med 22:373-4 S '53

Contrasts. il Ind Med 22:443-5 O '53

Employee safety and health major industry planning; Du Pont. Weekly Underw 170: 792+ Mr 27 '54

Health questionnaire use in an industrial medical department. A. J. Erdmann, jr. and others. bibliog Ind Med 22:355-7 Ag '53

Importance of industrial medical departments as a management tool. D. C. Braun. Advanced Management 18:13-16 O '53

Industrial diagnostic and preventive medicine program. D. I. Lansing. Ind Med 22:156-60 Ap '53

Industrial health; abstracts of current literature on industrial hygiene, medicine, and nursing. F. A. Van Atta. Published in monthly numbers of National safety news

Industrial hygiene; how it can assist the industrial physician. W. G. Fredrick. Ind Med 22:172-4 Ap '53

Industrial medicine; a legitimate field for the general practitioner. J. F. Kilgus, jr. Ind Med 22:225-6 My '53

Industrial medicine, world wide; the Medical department, Standard oil company (New Jersey) il map Ind Med 22:455-62 O '53

Institute of industrial health and School of public health 4th annual discussional, Ann Arbor, Mich. Dec. 12-13, 1952. Ind Med 22: 222-4 My '53

Is management getting the utmost from its medical departments? M. L. Jones. il Dun's R & Mod Ind 63:50-3 F '54

Keeping rheumatic patients employable; rheumatic disorders in industry conference, New York, Feb. 4-5. Ind Med 22:302-24 Jl '53

Medical department. il plans Ind Med 22: 420-5 O '53

Medical director. il plans diags Ind Med 22: 426-31 O '53

Medical preparation for retirement. L. Wade. Ind Med 22:215-18 My '53

Medical program; blood program; abstract. T. E. Brookover. Paper Tr J 137:56 D 11 '53

Medical service. bibliog il Nat Safety N 69: 229-30+ Mr '54

Modern occupational medicine; review. A. J. Fleming and C. A. D'Alonzo, eds. Weekly Underw 171:836 O 9 '54

Physical medicine and rehabilitation as related to industrial health. F. H. Krusen. bibliog A M A Archives Ind Hygiene & Occup Med 8:61-9 Jl '53

Private practice in small industry; abstract. F. E. Rieke. Nat Safety N 69:40 F '54

Relationship between the general practitioner and the industrial physician. E. F. Lutz. A M A Archives Ind Hygiene & Occup Med 8:299-306 O '53

Role of the physician in labor relations. B. A. Lindberg. A M A Archives Ind Hygiene & Occup Med 8:97-101 Ag '53

Sixty years of medical service; General Electric's industrial clinic. il Nat Safety N 70: 32-3+ S '54

Small plant. Ind Med 22:463-5 O '53

Small plant's dilemma; health-safety service at moderate cost; Bureau of industrial health, Cincinnati health department. J. P. Hughes. il Nat Safety N 70:22-5+ S '54

Worker and his health. bibliog Ind Med 22: 134-6 Mr '53

See also

Alcoholism
Clinics, Industrial
Diseases, Industrial
Eye—Examination
First aid in illness and injury
Hygiene, Industrial
Nurses and nursing, Industrial
Physical examinations
Psychiatry, Industrial
Railroads—Medical service
Trade unions—Health service

also American academy of occupational medicine; American association of railway surgeons; American foundation of occupational health; Conference board of physicians in industrial practice; Haskell laboratory for toxicology and industrial medicine; Industrial medical association; New York university—Bellevue medical center; Territorial association of plantation physicians

History

Twenty-one years. Ind Med 22:417-19 O '53

Periodicals

Periodicals. Ind Med 22:487 O '53

Records

Medical recording of the rheumatic diseases. S. C. Franco. Ind Med 22:321-4 Jl '53

Study and teaching

Graduate education. il Ind Med 22:466-71 O '53

Graduate training in occupational medicine; report of committee on education and training, Industrial medical association. Ind Med 22:149-52 Ap '53

India

Whatever is human is medical; Tata industries, limited. H. P. Dastur. bibliog il Nat Safety N 68:18-21+ D '53

Pennsylvania

Industrial medical services in Pennsylvania. J. Shilen. Ind Med 22:219 My '53

MEDICAL service, Military. See Medicine, Military

MEDICAL service, Rural

Place of the physician in rural health activities. C. R. Henry. Pub Health Rep 68:490-2 My '53

Twenty years of followup experience in a long-range medical study. E. Rivers and others. Pub Health Rep 68:391-5 Ap '53

Village polyclinics in Middle Java. W. A. Ketterer. il Pub Health Rep 68:558-62 Je '53

MEDICAL service, Trade union

See also

International ladies' garment workers' union—Union health center

MEDICAL X ray technicians. See X ray technicians, Medical

MEDICINAL chemistry. See Chemistry, Medical and pharmaceutical

MEDICINE

American medicine in a changing society. O. C. Hobby. Pub Health Rep 68:756-9 Ag '53

See also

Antiseptics
Bacteriology
Chemistry, Medical and pharmaceutical
Chemotherapy
Diseases
Drugs
Electrotherapeutics
First aid in illness and injury
Hospitals
Hygiene, Industrial
Infectious diseases
Medical service
Medical service, Industrial
Nurses and nursing
Pharmacopeias
Physicians
Poisons
Public health
Therapeutics

Bibliography

Scientific, medical, and technical books published in the United States of America; second supplement, books published 1949-1952. R. R. Hawkins, ed. 579p $10 R. R. Bowker co, 62 W. 45th st, New York 36 '53

MEDICINE—*Continued*

Dictionaries

Macmillan medical dictionary. C. Wakeley, ed. 471p $6.95 Macmillan co., 60 5th av, New York '54

Study and teaching

Teaching-learning situation. G. W. Allport Pub Health Rep 68:875-9 S '53

See also

Medicine, Preventive—Study and teaching

MEDICINE, Dental. See Dental medicine

MEDICINE, Military

Military medical research. M. G. Whillens. il Can Chem Process 38:82-4 Ap '54

See also

Armed forces institute of pathology

MEDICINE, Preventive

Continental Casualty joins medical men and union in medical examinations of longshoremen. Weekly Underw 171:237 Jl 31 '54

Continental Casualty sponsors health tests to detect chronic illness. East Underw 55:29 Jl 30 '54

Services of preventive medicine to an observed population. S. D. Collins and F. R. Phillips. Pub Health Rep 68:1115-16 N '53

Study and teaching

New orientation in the teaching of preventive medicine. W. P. Dearing. bibliog Pub Health Rep 68:1147-55 D '53

MEDICINE, Socialized. See Medical service—Socialization

MEDICINES, Proprietary

Proprietaries problem left up to legislature in New Jersey. Oil Paint & Drug Rep 165:5+ Je 28 '54

Smoking; crutch for will power; proprietary compounds that guarantee. il Chem W 74:59-62 Ja 30 '54

MEEHANITE

Southern foundry marks 65 years of progress; Ross-Meehan foundries. W. G. Gude. il Foundry 82:90-3+ Ag '54

MEETINGS. See Business conferences; Conventions

MEISTER, Alton, 1922-

Paul-Lewis award winner charts new enzyme paths in metabolism. por(cover) Chem & Eng N 31:4110 O 5 '53

MELACACIDIN. See Flavandiol

MELAMINE

Analysis

Detection and estimation of melamine in wet-strength paper by ultraviolet spectrophotometry. R. C. Hirt, F. T. King and R. G. Schmitt. bibliog Anal Chem 26:1273-4 Ag '54

MELAMINE resins

Detection and estimation of melamine in wet-strength paper by ultraviolet spectrophotometry. R. C. Hirt, F. T. King and R. G. Schmitt. bibliog Anal Chem 26:1273-4 Ag '54

Melamine-formaldehyde molded plastics; properties, etc.; engineering file facts. Materials & Methods 38:139, 141 N '53

Phenol-, urea-, and melamine-formaldehyde plastics. P. O. Powers. bibliog(52 ref) Ind & Eng Chem 45:1063-6 My '53

Polymerization in melamine-formaldehyde molded resins. H. P. Wohnsiedler. bibliog Ind & Eng Chem 45:2307-11 O '53

MELANINS

Bilateral asymmetry of the distribution of melanin in pigmented wools and its correlation with fibre crimp. G. Laxer and others. bibliog il Textile Inst J Trans 45:T482-6 Je '54

Chemistry of the melanins; the autoxidation of 5 : 6-dihydroxyindoles. R. J. S. Beer, T. Broadhurst and A. Robertson. Chem Soc J p 1947-53 Je '54

Formation of melanin from 5 : 6-dihydroxyindole. J. M. Bruce. Chem & Ind p310-11 Mr 13 '54

Iron content of melanin granules isolated from pigmented mammalian hairs. G. Laxer and C. S. Whewell. bibliog Chem & Ind p 127 Ja 30 '54

Melanin and its precursors; synthesis of methylated 5 : 6-dihydroxyindoles, β-(4 : 5-dihydroxy-2-methylphenyl)alanine, and related amines. R. I. T. Cromartie and J. Harley-Mason. Chem Soc J p3525-8 N '53

Melanin formation. F. K. Duxbury. Chem & Ind p 1364 D 19 '53

Oxidation of 5 : 6-dihydroxyindoles and the structure of melanin. J. M. Bruce. bibliog J Ap Chem 4:469-73 S '54

Oxidative fission of catechol compounds and the structure of melanines. Z. E. Jolles. bibliog Chem & Ind p 1367-8 D 19 '53

Oxidative rupture of the benzene ring of 5 : 6-dihydroxyindole and congeners and the biogenesis of melanines. Z. E. Jolles. bibliog Chem & Ind p845-6 Ag 8 '53

Structure of natural melanins. J. L. Stoves. bibliog Chem & Ind p 158 F 6 '54; Discussion. p580 My 15 '54

Structure of tyrosine melanin. R. I. T. Cromartie and J. Harley-Mason. Chem & Ind p972-3 S 12 '53

Study of the evolution of carbon dioxide during melanin formation, including the use of 2-(3 : 4-dihydroxyphenyl)[1-^{14}C]- and 2-(3 : 4-dihydroxyphenyl)[2-^{14}C]-ethylamine. G. A. Swan and D. Wright. Chem Soc J p381-4 Ja '54

MELIBIOSE

Reaction of amino-compounds with sugars; the action of ammonia on melibiose. L. Hough, J. K. N. Jones and E. L. Richards. Chem Soc J p295-7 Ja '54

MELPAR, Inc.

How a research team combines forces. il Bsns W p 110-14+ O 24 '53

MELTING

Effect of the melting of polar ice on the length of the day. S. A. Korff. Phys R 95:296-7 Jl 1 '54

Improved fractional melting apparatus. S. V. R. Mastrangelo and J. G. Aston. diag Anal Chem 26:764-6 Ap '54

Inconel pots for alkali fusions. R. S. Young and others. Metallurgia 48:318 D '53

Possible loss of iron during sodium carbonate fusion of silicates and rocks. H. R. Shell. Anal Chem 26:591-3 Mr '54

MELTING points

Apparatus for the determination of the solidus temperatures of high-melting alloys. R. A. Oriani and T. S. Jones. il diag R Sci Instr 25:248-50 Mr '54

Cheap hot stage; air bath for melting-point determinations. C. C. Kiplinger. J Chem Educ 31:33 Ja '54

Determining the fusion points of refractory materials. Brick & Clay Rec 123:83-4 N '53

Device for measuring changes of optical transmittance with temperature. A. Furst and J. J. Shapiro. bibliog il diags Anal Chem 26:1082-5 Je '54

Melting point apparatus employing batch distillation heating. J. S. Forsyth and others. diags Chem & Ind p 1051-3 O 3 '53

Simple carbon resistor furnace for fusion point determination. C. E. A. Shanahan and F. Cooke. il diags Chem & Ind p 1050-1 O 3 '53

Thermometer calibration for determination of capillary melting points. S. C. Bunce. bibliog(26 ref) Anal Chem 25:825-6 My '53

2,4,7-Trinitrofluorenone as a reagent for microscopic fusion analysis. D. E. Laskowski, D. G. Grabar and W. C. McCrone. il diag Anal Chem 25:1400-4 S '53

Two new forms of melting point calorimeters for determining purity of liquids of condensed gases. J. T. Clarke, H. L. Johnston and W. De Sorbo. bibliog diags Anal Chem 25:1156-9 Ag '53

Useful melting-point apparatus. J. L. Walter. diag J Chem Educ 30:142 Mr '53

MEMBRANES

Ion exchange membrane purification of organic electrolytes. E. N. Lightfoot and I. J. Friedman. bibliog Ind & Eng Chem 46:1579-83 Ag '54

Ion-exchange membranes; equations for the multi-ionic potential. M. R. J. Wyllie. bibliog J Phys Chem 58:67-73 Ja '54

Ion-exchange membranes; membrane properties in relation to bi-ionic potentials in monovalent ion systems. M. R. J. Wyllie and S. L. Kanaan. bibliog diag J Phys Chem 58:73-80 Ja '54

MEMBRANES—*Continued*
Measurement of ionic activities in solution with electrodes containing ion-exchange-resin membranes. T. R. E. Kressman. bibliog diag J Ap Chem 4:123-31 Mr '54
Membrane apparatus for analogic experiments. P. J. Schneider and A. B. Cambel. bibliog il diag R Sci Instr 24:513-14 Jl '53
Membrane potentials for keratin and cellophane and the Meyer-Teorell theory. M. L. Wright. bibliog J Phys Chem 58:50-3 Ja '54
Potentiometric determination of cations and anions with permselective collodion and protamine-collodion membrane electrodes. H. P. Gregor and K. Sollner. bibliog J Phys Chem 58:409-15 My '54
Preparation of films by a mechanical method. F. Bond and M. L. Wright. diag J Sci Instr 31:70 F '54
Separation of gases by means of porous membranes. H. E. Huckins and K. Kammermeyer. bibliog(36 ref) diags Chem Eng Prog 49:180-4, 294-8 Ap, Je '53
Separation of gases by plastic membranes. D. W. Brubaker, K. Kammermeyer and J. O. Osburn. bibliog flow diag il diags Ind & Eng Chem 46:733-42 Ap '54
Some electrochemical properties of new synthetic ion exchange membranes. A. G. Winger and others. bibliog Electrochem Soc J 100:178-84 Ap '53
Use of the membrane filter in the bacteriological examination of water. E. W. Taylor, N. P. Burman and C. W. Oliver. bibliog J Ap Chem 3:233-40 My '53

MEMORIALS
See also
War memorials

MEMORY
Color memory test. R. W. Burnham and J. R. Clark. il Opt Soc Am J 44:658-9 Ag '54
Helping executives remember; more and more companies try reading and memory courses. Bsns W p 132+ Ag 22 '53
Train your memory. B. Furst. Harvard Bsns R 32:105-12 Mr '54
What is memory? R. W. Gerard. il diags Sci Am 189:118-24+ S '53

MEMORY devices. See Calculating machines

MEMPHIS, Tennessee
Blue law blast. Bsns W p 146 D 12 '53
Memphis cites efforts to muffle noise. Nat Safety N 70:52-3 Ag '54

Industries

No time for juleps; business good. il Chem & Eng N 32:914-17 Mr 8 '54

MEMPHIS international center
Trade center starves. Bsns W p 166-7 N 28 '53

MENDELSOHN, Eric, 1877-1953
Sketch; list of buildings. por Arch Rec 114:10-11 N '53
Three new synagogues show today's techniques and materials embodied in the plastic architecture of E. Mendelsohn. por Arch Forum 98:105-21 Ap '53

MENGE, Walter O.
W. O. Menge new Lincoln National president. por East Underw 55:3 F 5 '54

MEN'S furnishing goods
Case for natural fibers in men's furnishings. I. B. Wingate and R. S. Burkholder. J Retailing 30:29-32+ Spring '54
See also
Hats

Advertising

New industry promotion aimed at local action; Men's industry council. il Ptr Ink 243:43 Ap 24 '53

MEN'S stores
Open plan for menswear store. il plans Arch Rec 114:177-80 N '53

MEN'S suits
In men's suits, Haspel must be nimble. D. Markstein. il Sales Management 70:54+ Je 15 '53

MENSTRUATION
New treatment for premenstrual tension and dysmenorrhea. M. Vainder. bibliog Ind Med 22:183-5 Ap '53

MENSURATION
See also
Standards of mass

MENTAL diseases
Liberty and lunacy; new Royal commission on the lunacy laws. Economist 169:318-19 O 31 '53
Mental health of the Hutterites. J. W. Eaton and R. J. Weil. il Sci Am 189:31-7 D '53
See also
Neuroses, Traumatic
Schizophrenia

MENTAL hospitals. See Hospitals, Psychiatric

MENTAL hygiene, Industrial
Effects of stress. Safety Maint & Prod 108:51 S '54
How management can aid employee mental health. Nat Safety N 69:161+ Je '54; Same. Safety Maint & Prod 108:52+ Jl '54
Tension states related to occupational stress; use of dimethylane. G. J. Boines and S. Horoschak. Ind Med 22:228-30 My '53
See also
Psychiatry, Industrial

MENTHENE
Studies in the terpene series; hydroisomerization and hydrogenolysis of cyclohexene, methylcyclohexene and *p*-menthene in the presence of hydrogenation catalysts. H. Pines and others. bibliog Am Chem Soc J 76:2740-2 My 20 '54

MENTHONE
p-Menthane-2 : 3-diols; the reaction of mercuric acetate with (±)-menthone and (±)-*iso*menthone. P. R. Jefferies, A. K. Macbeth and B. Milligan. Chem Soc J p705-8 F '54

MENTHYL chloride
Mechanism of elimination reactions; kinetics and steric course of elimination from isomeric menthyl chlorides. E. D. Hughes, C. K. Ingold and J. B. Rose. Chem Soc J p3839-45 D '53

MENUS
Keep 'em awake with better-planned meals. B. Zugates. il Sales Management 72:57-8 pt 2 Ja 1 '54

MERCANTILE and general reinsurance company, limited
Statement by the chairman. H. K. Goschen. Economist 168:140-1 Jl 11 '53

MERCAPTALBUMIN
Dimerization of serum mercaptalbumin in presence of mercurials; kinetic and equilibrium studies with mercuric salts. H. Edelhoch and others. bibliog Am Chem Soc J 75:5058-72 O 20 '53

MERCAPTALS
Action of lead tetra-acetate on sugar mercaptals. E. J. Bourne and others. bibliog Chem & Ind p 106-7 Ja 23 '54
Twenty-six-membered cyclic dimercaptal. C. S. Marvel and others. bibliog Am Chem Soc J 76:933-4 F 5 '54

MERCAPTANS
Abstraction of hydrogen atoms from mercaptans by 2,2-diphenyl-1-picrylhydrazyl. K. E. Russell. bibliog J Phys Chem 58:437-9 My '54
Adsorption of a mercaptan on zinc minerals. A. M. Gaudin and D. L. Harris. bibliog Min Eng 6:Trans 925-8 S '54
Convert mercaptans to disulfides with oxygen, copper catalyst; patent. Pet Processing 8:1555 O '53
Determination of disulfides in the presence of thiols. T. E. Earle. bibliog Anal Chem 25:769-71 My '53
Dithiols; the alkaline hydrolysis of acetylated non-vicinal hydroxy-thiols. J. S. Harding and L. N. Owen. Chem Soc J p 1536-45 My '54
Dithiols; the alkaline hydrolysis of acetylated vicinal hydroxy-thiols. J. S. Harding and L. N. Owen. Chem Soc J p 1528-36 My '54
Improve your liquid-liquid extractions; Dualayer process. diag Chem Eng 61:144+ My '54
Mercaptans (or thiols) in polymerizations; review with recent developments. A. H. Krause. bibliog(60 ref) Rubber Age 75:217-22 My '54
Organosilicon mercaptans. G. D. Cooper. Am Chem Soc J 76:2500 My 5 '54
Polybutadiene modified by addition of thiols containing polar groups. C. S. Marvel and others. bibliog Ind & Eng Chem 45:2090-3 S '53

MERCAPTANS—*Continued*

Reactions of thiols and thioethers; an analogue of the Mannich reaction involving thiols, formaldehyde, and active methylene or methylidyne compounds. F. Poppelsdorf and S. J. Holt. Chem Soc J p 1124-30 Mr '54

Reduction of some conjugated azomethine systems by aryl thiols. H. Gilman, J. L. Towle and R. K. Ingham. Am Chem Soc J 76:2920-3 Je 5 '54

Thioesterases for acyl and aminoacyl mercaptans. H. J. Strecker, H. Sachs and H. Waelsch. bibliog Am Chem Soc J 76:3354-5 Je 20 '54

Two-layer extraction of mercaptans from petroleum products. flow diag Chem & Eng N 32:1508 Ap 12 '54

Analysis

Extraction and recovery of thiols from petroleum distillates. R. L. Hopkins and H. M. Smith. diag Anal Chem 26:206-7 Ja '54

Test for mercaptans in gasoline. G. E. Mapstone. Chem & Ind p 1113-14 S 4 '54

MERCAPTOACETATES

Formation and properties of various mercuric mercapto thioglycolates formed in reactions between mercuric mercury and thioglycolic acid. W. Stricks, I. M. Kolthoff and A. Heyndrickx. Am Chem Soc J 76:1515-19 Mr 20 '54

MERCAPTOACETIC acid

Colorimetric determination of molybdenum with mercaptoacetic acid. F. Will, 3d and J. H. Yoe. bibliog Anal Chem 25:1363-6 S '53

Polarography of thioglycolic acid. D. L. Leussing and I. M. Kolthoff. bibliog Electrochem Soc J 100:334-8 Jl '53

MERCAPTOBENZOTHIAZOLE

Mercaptobenzothiazole vulcanization using sulfur-35. I. Auerbach. bibliog Ind & Eng Chem 45:1526-32 Jl '53

MERCAPTO compounds

Antituberculosis activity of some ethylmercapto compounds. H. D. Brown and others. Am Chem Soc J 76:3860 Jl 20 '54

Derivatives of 5-*o*-mercaptophenyl-3-methyl-1-phenylpyrazole. W. J. Barry and I. L. Finar. Chem Soc J p 138-40 Ja '54

Dipole moments of some Ni(II) mercapto-ester chelates. J. J. Draney, jr. and M. Cefola. bibliog Am Chem Soc J 76:1975-7 Ap 5 '54

Disulfide dimer of human mercaptalbumin. R. Straessle. bibliog Am Chem Soc J 76:3138-42 Je 20 '54

Ethylmercapto compounds show antituberculosis activity. Chem & Eng N 32:2964 Jl 26 '54

o-Mercapto-azo-compounds; preparation and debenzylation of 2-benzylthioazobenzene. A. Burawoy and C. E. Vellins. Chem Soc J p90-5 Ja '54

o-Mercapto-azo-compounds; preparation and debenzylation of 1-(2-benzylthiophenylazo)-2-naphthol and 1-(1-benzylthio-2-naphthylazo)-2-naphthol. A. Burawoy and others. Chem Soc J p82-90 Ja '54

Preparation of ethylenethioketals. L. F. Fieser. bibliog Am Chem Soc J 76:1945-7 Ap 5 '54

Resin for the selective retention of sulfhydryl compounds. H. T. Miles, E. R. Stadtman and W. W. Kielley. Am Chem Soc J 76:4041-2 Ag 5 '54

Synthesis of 8-C^{14} and S^{35}-6-mercaptopurine. G. B. Elion and G. H. Hitchings. bibliog Am Chem Soc J 76:4027-8 Ag 5 '54

MERCAPTO group

Conjugation of methylsulfonyl and nitro groups with the mercapto group in thiophenols. F. G. Bordwell and H. M. Andersen. bibliog Am Chem Soc J 75:6019-22 D 5 '53

Disulphide bond reactivity in wool; formation of thiol radicals on exposure to light. G. H. Crawshaw and J. B. Speakman. Soc Dyers & Col J 70:81-2 F '54

Analysis

Amperometric mercurimetric titration of sulfhydryl groups in biologically important substances. I. M. Kolthoff, W. Stricks and L. Morren. bibliog Anal Chem 26:366-72 F '54

Rotating platinum electrode for amperometric titration of sulfhydryl groups; abstract. F. J. Herbert and J. R. Denson. diag Anal Chem 26:440 F '54

MERCAPTOPROPIONIC acid

Absorptiometric determination of nickel with beta-mercaptopropionic acid. J. B. Lear and M. G. Mellon. bibliog Anal Chem 25:1411-12 S '53

Preparation of β-*p*-hydroxylphenyl-α-mercaptopropionic acid and some related acids, and the action of tyrosinase on the former. D. G. Bew and G. R. Clemo. Chem Soc J p 1150-1 Mr '54

MERCAPTOPURINE

Specific cancer chemotherapy; abstract. C. P. Rhoads. Chem & Eng N 31:5280 D 21 '53

Triazolopyrimidine analog of 6-mercaptopurine. C. T. Bahner, B. Stump and M. E. Brown. bibliog Am Chem Soc J 75:6301-2 D 20 '53

MERCAPTOTHIAZOLE

Vulcanization characteristics of a series of 4-methyl-5-substituted-2-thiazolethiols and their derivatives. K. E. Creed, jr. and others. bibliog(26 ref) Ind & Eng Chem 46:808-16 Ap '54

MERCAST process. See Foundry practice—Mercast process

MERCERIZING

Better mercerizing for improved luster. L. Fourt and A. M. Sookne. bibliog diags Am Dyestuff Rep 43:304-9 My 10 '54; Abstracts. Mod Textiles Mag 34:62+ N '53; Textile World 103:143+ D '53; Discussion. Am Dyestuff Rep 43:309 My 10 '54

Mercerisation in acid-treated jute fibre. S. M. Mukherjee. bibliog il Textile Inst J Trans 45:T405-11 My '54

MERCHANDIZING

Aluminum foil for packaging; users report on its sales appeal. D. P. Reynolds. il Sales Management 72:88+ Mr 15 '54

Better selling key to broader coal markets. Coal Age 59:166-71 Mr '54

Broadening agency functions in marketing and merchandising. J. A. Hise, jr. Adv Agency 47:108 My '54

Business level can be maintained by aggressive merchandising. W. E. Hoadley, jr. Comm & Fin Chr 178:2639+ D 31 '53

Four ways to merchandise for close selling coordination. Ind Marketing 39:48-50 F '54

How to boost soap sales. B. C. Campbell. Soap & San Chem 29:42-4 Je '53

Media will merchandise if you ask 'em; G. Krueger brewing co. D. Bland. il Ptr Ink 245:54+ O 16 '53

Merchandising direct to dealers wins quick distribution for new product; Revere camera co. E. J. McGookin. il Ptr Ink 243:42-3 Je 12 '53

Seven times turn; Dow Chemical merchandising program for plastic houseware of Styron. il Chem W 74:70 Mr 20 '54

See also

Advertising
Buying habits
Catalogs
Chain stores
Coupons
Dealer helps
Delivery of goods
Department stores—Management
Display of merchandize
Exhibits
Gas industry—Merchandizing
Gasoline service stations—Automobile accessories
Jobbers
Labels
Mail order business
Marketing
Package goods
Premiums (merchandizing)
Price policies
Purchasing
Retail trade
Sales management
Sales promotion
Samples (merchandizing)
Self service
Self service stores
Showrooms
Special sales
Warehousing

MERCHANT marine

World merchant fleet increased 3,171,000 tons during 1953, Lloyd's appendix shows. Weekly Underw 170:290-1 Ja 30 '54

See also

Seamen

Great Britain

Secondhand ship values. Economist 170:52+ Ja 2 '54

United States

ABS classification of new ships shows decline. Marine Eng 59:53-4 Mr '54

MERCHANT marine—United States—*Continued*

APL breaks ice with nod from FMB; shipbuilding and ship-buying program. Marine Eng 59:68 S '54

American tramp shipping now in very bad position. J. B. Stuart. Weekly Underw 170:1038 Ap 24 '54

Bareboat chartering of Mariners weighed. C. H. McGuire. For Comm W 50:23 S 7 '53

Building 60 ships annually urged; reappraisal of maritime policies and future needs. R. B. Murray, jr. il Marine Eng 59:38-43 Je '54

Contracts signed for first sale of Mariner ships by U.S. government. For Comm W 50:24 S 7 '53

FMB administrator outlines policy. L. S. Rothschild. Marine Eng 59:38 Mr '54

Keeping the flag afloat. Bsns W p 194+ O 3 '53

Marine insurers face outdated fleet, rising competition. K. W. Stuer. il Spectator 162:26-7+ Jl '54

Merchant ship is no lady. E. B. Perry. il U S Naval Inst Proc 79:280-3 Mr '53

Optimism voiced in Maritime day talks around the Nation. il Marine Eng 59:52-4 Jl '54

Rough sailing for the fleet; status and outlook for U.S. shipping. il Spectator 162:34-5+ Mr '54

Shipbuilding production in 1953 sets peacetime record; with tabulations. il Marine Eng 59:40-57 F '54

Shipping dilemma; national security and economics collide head on. Barron's 33:13+ D 28 '53

Shipping men criticize government competition. Weekly Underw 169:1042 O 31 '53

Three Mariner vessels chartered. For Comm W 51:22 Ja 4 '54

Tramp-ship operators take exception to aid proposal to European maritime nations. F. R. Clark. Weekly Underw 169:1375 D 5 '53

Use of U.S.-owned cargo ships down. For Comm W 51:25 F 22 '54

See also
Ship subsidies
Shipping—United States

MERCHANT seamen. See Seamen

MERCHANTS

Insurance requirements

Need to guide client to place store cover. R. Fulford. Nat Underw 58:21 Je 24 '54

Small business organizations as well as large require services of trained insurance advisor; provide for catastrophic losses. E. L. Clark. Weekly Underw 170:303+ Ja 30 '54; Same cond. East Underw 55:24 Ja 15 '54; Abstract. Nat Underw 58:9+ Ja 21 '54

MERCURATION

Mercuration of monoallyl ethers of polyols. L. H. Werner and C. R. Scholz. bibliog Am Chem Soc J 76:2701-5 My 20 '54

MERCURY

Adsorption of cupric and mercuric ions by a week-base anion exchange resin. J. Andelin and N. Davidson. Am Chem Soc J 75:5413-15 N 5 '53

Anodic processes; anodisation at low current densities of mercury in hydrochloric acid. R. H. Cousens, D. J. G. Ives and R. W. Pittman. Chem Soc J p3972-80 D '53

Anodic processes; oscillographic studies of processes at the mercury anode in hydrochloric acid. R. H. Cousens, D. J. G. Ives and R. W. Pittman. Chem Soc J p3980-7 D '53

Anodic processes; the passivation of mercury in hydrochloric acid. R. H. Cousens, D. J. G. Ives and R. W. Pittman. Chem Soc J p3988-90 D '53

Application of polarized mercury pool electrodes to polarography. C. A. Streuli and W. D. Cooke. bibliog J Phys Chem 57:824-6 N '53

Balanced polar mercury contact relay. J. T. L. Brown and C. E. Pollard. il diags Bell System Tech J 32:1393-411 N '53

Heat transfer to lead-bismuth and mercury in laminar and transition pipe flow. H. A. Johnson and others. bibliog A S M E Trans 76:513-17 My '54

Heat transfer to mercury in turbulent pipe flow. H. A. Johnson and others. bibliog(31 titles) diags A S M E Trans 76:505-11 My '54

Ionization probability curves near threshold for Zn, Cd, and Hg. W. M. Hickam. bibliog diags Phys R 95:703-5 Ag 1 '54

Limiting negative pressure of mercury in pyrex glass. L. J. Briggs. J Ap Phys 24:488-90 Ap '53

Mechanism of the Hg($^3P_1$) photosensitized decomposition of ethylene. A. G. Mitchell and D. J. Le Roy. J Chem Phys 21:2075-6; Discussion. B. D. Darwent. 2076 N '53

Mercury hits $250 in record rise. Chem & Eng N 32:2062 My 17 '54

Mercury, 1953. H. M. Meyer. Eng & Min J 155:94 F '54

Mercury-photosensitized reactions of tritium with acetylene and ethylene. L. Kaplan. bibliog Am Chem Soc J 76:1448-9 Mr 5 '54

Mercury-thallium thermometers. J. Ehrenreich. bibliog(26 titles) Instruments & Automation 27:1070-2 Jl '54

Method for determining the quantum yields of reactions initiated by mercury-6($^1P_1$)-atoms. R. A. Uphaus and H. E. Gunning. J Chem Phys 21:2229 D '53

Quenching of mercury resonance radiation; the total effective cross sections of some saturated compounds. B. D. Darwent and M. K. Phibbs. J Chem Phys 22:110-13 Ja '54

Quenching of mercury resonance radiation (2537A) by nitrogen. C. G. Matland. bibliog il diags Phys R 92:637-41 N 1 '53

Reaction of cyclobutane with Hg 6($^3P_1$) atoms. D. L. Kantro and H. E. Gunning. bibliog J Chem Phys 21:1797-801 O '53

Reaction of optically excited mercury vapor with oxygen. D. H. Volman. bibliog J Chem Phys 21:2086-7 N '53

Rotary scrubber for cleaning large quantities of mercury. M. Gibson and others. diag J Sci Instr 31:345 S '54

Tungsten, mercury, chromite, nickel, 1953. W. L. Long. il Min Cong J 40:119-20 F '54

See also
Amalgams

Analysis

Alkalimetric determination of mercury and its separation from other heavy metals. M. N. Das. bibliog Anal Chem 25:1406-8 S '53

Determination of mercury in the atmosphere; submicroanalytical determination of mercuric ion in bromine and chlorine water based on its catalytic action. S. Ašperger and I. Murati. bibliog Anal Chem 26:543-5 Mr '54

Photometric mercury analysis. A. E. Ballard and others. Anal Chem 26:921-2 My '54

Ultraviolet spectrophotometric determination of mercury as mercuric thiocyanate complex. G. E. Markle and D. F. Boltz. Anal Chem 26:447-9 Mr '54

Isotopes

Nuclear quadrupole resonance of Hg^{201}. H. G. Dehmelt and others. bibliog Phys R 93:480-2 F 1 '54

Nuclear resonance fluorescence in Hg^{198} and the lifetime of the 411-kev excited state of Hg^{198}. F. R. Metzger and W. B. Todd. Phys R 95:853-4 Ag 1 '54

Nuclear spectroscopy of neutron-deficient Hg isotopes. L. P. Gillon and others. bibliog il Phys R 93:124-35 Ja 1 '54

Photochemical separation of isotopes. B. H. Billings and others. bibliog diag J Chem Phys 21:1762-6 O '53

Some regularities in the nuclear level spacings of Hg, Au, and Pt. J. W. Mihelich and A. de-Shalit. bibliog Phys R 93:135-9 Ja 1 '54

Nuclear reactions

Interaction of negative pions with mercury. N. Sugarman and A. Haber. bibliog Phys R 92:730-4 N 1 '53

Physiological effect

Histochemical localization of the mercurial inhibition of succinic dehydrogenase in rat kidney. K. K. Mustakallio and A. Telkkä. bibliog il Science 118:320-1 S 18 '53

MERCURY—*Continued*

Spectrum

Band fluorescence of mercury vapor. A. O. McCoubrey. bibliog il diags Phys R 93:1249-60 Mr 15 '54
First spectrum of mercury in the region between 1.3 and 2.0μ. C. J. Humphreys. bibliog(27 ref) Opt Soc Am J 43:1027-9 N '53
Hyperfine structure in the spectra of Sb, Sm, Hg, and Cd. K. Murakawa. bibliog Phys R 93:1232-5 Mr 15 '54

MERCURY acetate

Cyclic polyolefins; cycloheptatriene and bicyclo[4.2.0]octa-2,4-diene derivatives from cyclooctatetraene and mercuric acetate. A. C. Cope, N. A. Nelson and D. S. Smith. bibliog Am Chem Soc J 76:1100-4 F 20 '54
p-Menthane-2 : 3-diols; the reaction of mercuric acetate with (±)-menthone and (±)-*iso*menthone. P. R. Jefferies, A. K. Macbeth and B. Milligan. Chem Soc J p705-8 F '54
Rapid estimation of ethylenes with mercuric acetate. M. N. Das. Anal Chem 26:1086-7 Je '54
Use of a soluble mercurial in slime control. J. Mardon and D. Pedder. Pulp & Pa of Can 54:131-3 O '53

MERCURY bromide

Microwave spectra and structures of methyl mercury chloride and bromide. W. Gordy and J. Sheridan. bibliog J Chem Phys 22: 92-5 Ja '54
Ternary system $BaBr_2$-$HgBr_2$-H_2O at 25°, 10·4°, and 4·5°. H. J. V. Tyrrell and J. Richards. Chem Soc J p3812-15 D '53

MERCURY chlorides

Mercuric chloride and starch hydrolysis. Chem Age (Lond) 71:477-8 S 4 '54
Microwave spectra and structures of methyl mercury chloride and bromide. W. Gordy and J. Sheridan. bibliog J Chem Phys 22: 92-5 Ja '54
Toxicity of mercuric chloride, chromic sulfate, and sodium chromate in the dilution b.o.d. test. Sewage & Ind Wastes 26:536-8 Ap '54

MERCURY compounds

Compare phenyl mercurials; abstract. P. P. Hope. Soap & San Chem 29:175 D '53
Determination of diphenylmercury alone or in presence of phenylmercuric compounds. V. L. Miller and D. Polley. Anal Chem 26: 1333-5 Ag '54
Dimerization of serum mercaptalbumin in presence of mercurials; kinetic and equilibrium studies with mercuric salts. H. Edelhoch and others. bibliog Am Chem Soc J 75:5058-72 O 20 '53
Dimerization of serum mercaptalbumin in presence of mercurials; studies with a bifunctional organic mercurial. J. T. Edsall and others. bibliog Am Chem Soc J 76:3131-8 Je 20 '54
Diphenylmercury synthesis. R. T. McCutchan and K. A. Kobe. bibliog(31 ref) flow sheet Ind & Eng Chem 46:675-80 Ap '54
Farm mercurials. Chem W 74:96 Je 12 '54
Formation and properties of various mercuric mercapto thioglycolates formed in reactions between mercuric mercury and thioglycolic acid. W. Stricks, I. M. Kolthoff and A. Heyndrickx. Am Chem Soc J 76:1515-19 Mr 20 '54
Interpretation of meta orientation in the alkylation of toluene; the relative reactivity and isomer distribution in the chloromethylation and mercuration of benzene and toluene. H. C. Brown and K. L. Nelson. bibliog Am Chem Soc J 75:6292-9 D 20 '53
Mercurial diuretics. L. H. Werner and C. R. Scholz. bibliog Am Chem Soc J 76:2453-9 My 5 '54
Organic mercurials can be safely produced. A. F. G. Cadenhead. Can Chem Process 38:62 Ap '54
Oxymercuration of *trans*-1,2-diphenyl-1-propene. A. Rodgman and G. F. Wright. Am Chem Soc J 76:1382-3 Mr 5 '54
Reactions between mercuric mercury and cysteine and glutathione; apparent dissociation constants, heats and entropies of formation of various forms of mercuric mercapto-cysteine and -glutathione. W. Stricks and I. M. Kolthoff. bibliog Am Chem Soc J 75:5673-81 N 20 '53
Reactions of mercury(1) compounds with ammonia; X-ray diffraction studies. W. N. Lipscomb. bibliog diags Anal Chem 25: 737-9 My '53

MERCURY cyanide

Kinetics of exchange and disproportionation reactions in mercuric cyanide solutions. R. L. Wolfgang and R. W. Dodson. bibliog Am Chem Soc J 76:2004-10 Ap 5 '54

MERCURY dimethyl

Photolysis of mercury dimethyl in the presence of hydrocarbons. R. E. Rebbert and E. W. R. Steacie. bibliog J Chem Phys 21: 1723-6 O '53
Quantum yields during mercury dimethyl decomposition. R. A. Holroyd and W. A. Noyes, jr. bibliog Am Chem Soc J 76:1583-4 Mr 20 '54

MERCURY electrodes. See Polarographic analysis; Polarography

MERCURY industry and trade

Mercurial is the market. Chem W 75:67-8+ Jl 31 '54

MERCURY iodides

Photosensitive and phototropic products of solid state reaction between silver sulfide and mercury iodide. L. Suchow and G. R. Pond. J Phys Chem 58:240-2 Mr '54
Reaction of morphine with potassium-mercuric iodide. L. Levi and C. G. Farmilo. bibliog il Anal Chem 26:1040-5 Je '54

MERCURY nitrate

Activity coefficient ratios of nitric acid and mercurous nitrate and the standard potential of the mercury, mercurous ion electrode at 25°. O. D. Bonner and F. A. Unietis. bibliog Am Chem Soc J 75:5111-13 O 20 '53
Determination of chloride ions in water by mercuric nitrate; abstract. G. Gad and M. Manthey. Am Water Works Assn J 46: sup64+ S '54
Mercurimetric determination of chloride. J. F. Thomas. bibliog Am Water Works Assn J 46:257-62 Mr '54
Relative reactivities of organic halides in displacement reactions; reaction of mercuric nitrate with some normal chain alkyl and aralkyl bromides. S. Oae and C. A. VanderWerf. bibliog Am Chem Soc J 75:5037-9 O 20 '53

MERCURY poisoning

Kidney injury after chronic exposure to inorganic mercury. L. Friberg and others. bibliog A M A Archives Ind Hygiene & Occup Med 8:149-53 Ag '53
Mercury poisoning. H. H. Schrenk. Ind & Eng Chem 46:sup 101A F '54

MERCURY pumps. See Vacuum pumps

MERCURY sulfate

Behavior of the silver-silver sulfate and the mercury-mercurous sulfate electrodes at high temperatures. M. H. Lietzke and R. W. Stoughton. Am Chem Soc J 75:5226-7 N 5 '53

MERCURY thiocyanates

Ultraviolet spectrophotometric determination of mercury as mercuric thiocyanate complex. G. E. Markle and D. F. Boltz. Anal Chem 26:447-9 Mr '54

MERCURY vapor electric lamps. See Electric lamps, Mercury vapor

MERGERS. See Business consolidations

MERIT rating. See Employees—Rating

MEROCYANINES. See Cyanines

MERRILL center for economics

Haven for world trade thinking. il Bsns W p 100-3 Ag 8 '53

MERRITT-CHAPMAN and Scott corporation

Files plan with SEC for acquisition of Newport steel corp. Comm & Fin Chr 179:106 Ja 11 '54
Industry neophyte puts new zip in old building firm. Arch Forum 100:39-40 Ap '54

MESIDINE

Peroxidase oxidation of mesidine. G. M. K. Hughes and others. bibliog Chem & Ind p47-8 Ja 9 '54

MESITYLENE

Continuous method for synthesis of mesitylene from acetone. K. A. Kobe and L. J. Hirth. bibliog flow diag Pet Processing 9:92-3+ Ja '54
Dark reaction of bromine with mesitylene in carbon tetrachloride solution. R. M. Keefer, J. H. Blake, 3d and L. J. Andrews. bibliog Am Chem Soc J 76:3062-7 Je 5 '54

MESO compounds
Meso-ionic compounds derived from pyridino(1′ : 2′-1 : 2)glyoxaline. N. W. Bristow and others. Chem Soc J p616-29 F '54
Relation between self-condensation and substitution processes in the reactions of *meso*-benzanthrone with anions. W. Bradley and F. K. Sutcliffe. Chem Soc J p708-11 F '54

MESOMERISM
Aspects of isomerism and mesomerism. R. L. Bent. bibliog J Chem Educ 30:220-8 My '53

MESOMORPHIC state. See Liquid crystals

MESOMORPHISM. See Liquid crystals

MESONS
Analysis of 405-Mev proton and 222-Mev negative pion stars. A. D. Sprague and others. bibliog Phys R 94:994-7 My 15 '54
Angular correlation of mesons produced in inelastic meson-nucleon collisions. J. S. Kovacs. diags Phys R 93:252 Ja 1 '54
Angular distribution and yield of the process $p+d \to t+\pi^+$. W. J. Frank and others. diags Phys R 94:1716-21 Je 15 '54
Artificially produced negative heavy meson. J. Hornbostel and E. O. Salant. diag Phys R 93:902-3 F 15 '54
Atmospheric temperature effect for μ mesons observed at a depth of 846 m.w.e. N. Sherman. Phys R 93:208-11 Ja 1 '54
Attenuation cross sections of 37-Mev pions in hydrogen. C. E. Angell and J. P. Perry. Phys R 92:835 N 1 '53
Characteristics of neutral meson production in the proton bombardment of carbon nuclei. W. E. Crandall and B. J. Moyer. bibliog diags Phys R 92:749-58 N 1 '53
Charged pion production from carbon by protons. W. F. Dudziak. Phys R 95:866 Ag 1 '54
Classical equations of motion of point particles in neutral meson fields. F. R. Crownfield, jr. and P. Havas. Phys R 94:471-7 Ap 15 '54
Classical theory of particles interacting with electromagnetic and mesonic fields. P. Havas. bibliog Phys R 93:882-8 F 15 '54
Cloud chamber for the study of particles of low energy. T. C. Merkle and J. L. Need. il diag R Sci Instr 24:1051-4 N '53
Connection between pion photoproduction and scattering phase shifts. M. Ross. bibliog Phys R 94:454-60 Ap 15 '54
Covariant approximation scheme for Green's functions of coupled fields. R. Arnowitt and S. Gasiorowicz. diags Phys R 95:538-45 Jl 15 '54
Decay-electron spectrum of the μ meson. J. H. Vilain and R. W. Williams. plan Phys R 92:1586-7 D 15 '53
Decay of τ mesons of known charge. R. H. Dalitz. bibliog diags Phys R 94:1046-51 My 15 '54
Decay of the χ meson. S. Sueoka. bibliog Phys R 94:1398-9 Je 1 '54
Decay scheme of the τ meson. N. Baker and O. Bergmann. Phys R 95:174-5 Jl 1 '54
Dependence of the 33-Mev π^+ production cross section on atomic number. R. Sagane and W. Dudziak. diag Phys R 92:212 O 1 '53
Differential range spectrum of cosmic-ray mesons at sea level. P. G. Lichtenstein. Phys R 93:858-60 F 15 '54
Double star connected by a heavy meson. S. Rosendorff and others. bibliog Phys R 93:901 F 15 '54
Effect of Coulomb barrier on meson production by nucleon-nucleus collisions. T. Kinoshita. bibliog Phys R 94:1331-4 Je 1 '54
Effect of deuteron formation on multiple meson production. K. A. Brueckner and J. S. Kovacs. Phys R 94:726-7 My 1 '54
Energy spectrum of negative pions produced in beryllium by 2.3-Bev protons. L. C. L. Yuan and S. J. Lindenbaum. Phys R 93:1431-2 Mr 15 '54
Experimental study of the μ^- meson mass and the vacuum polarization in mesonic atoms. S. Koslov and others. Phys R 95:291-2 Jl 1 '54
Hard core interpretation of the reaction $p+d \to \pi^+ + t$. S. A. Bludman. Phys R 94:1722-3 Je 15 '54
High-energy meson production. N. M. Duller and W. D. Walker. bibliog il diag Phys R 93:215-26 Ja 1 '54
High-energy protons in nuclear interaction of 220-Mev π^- mesons in nuclear emulsions. G. Takeda. Phys R 93:848-50 F 15 '54
Interaction cross section of hydrogen and heavier elements for 450-Mev negative and 340-Mev positive pions. S. J. Lindenbaum and L. C. L. Yuan. diag Phys R 92:1578-9 D 15 '53
Interaction of high-energy pions with nuclei. E. D. Courant. Phys R 94:1081-2 My 15 '54
Interaction of negative muons with iodine. L. Winsberg. bibliog diags Phys R 95:205-9 Jl 1 '54
Interaction of negative pions with iodine. L. Winsberg. bibliog diags Phys R 95:198-204 Jl 1 '54
Interaction of negative pions with mercury. N. Sugarman and A. Haber. bibliog Phys R 92:730-4 N 1 '53
Interaction of pions with complex nuclei. D. H. Stork. diags Phys R 93:868-80 F 15 '54
Interactions of negative pions in carbon and lead. J. O. Kessler and L. M. Lederman. bibliog il diags Phys R 94:689-702 My 1 '54
K-meson and hyperon decays. P. H. Barrett. bibliog diags Phys R 94:1328-30 Je 1 '54
K-particle production by protons of 2.2 and 3.0 Bev. R. D. Hill and others. Phys R 94:1794 Je 15 '54
Kinematic criterion for meson production in fundamental particle collisions. R. M. Sternheimer. Phys R 93:642-3 F 1 '54
Low-energy limits and renormalization in meson theory. S. Deser and others. bibliog Phys R 94:711-23 My 1 '54
Mass difference of neutral and negative π mesons. W. Chinowsky and J. Steinberger. diags Phys R 93:586-9 F 1 '54
Mean lives of positive and negative Mu mesons. N. N. Biswas and M. S. Sinha. diag Phys R 94:1400-1 Je 1 '54
Meson production by 500-Mev negative pions. M. Blau and others. bibliog Phys R 92:516-17 O 15 '53
Meson production in high-energy nucleon-nucleon collisions. W. L. Kraushaar and L. J. Marks. Phys R 93:326-30 Ja 15 '54
Meson production in *n-p* collisions at cosmotron energies. W. B. Fowler and others. bibliog Phys R 95:1026-44 Ag 15 '54
Meson showers and high-energy interactions in light and heavy nuclei. R. W. Parsons and others. bibliog diags Phys R 95:193-7 Jl 1 '54
Method of approximation for the meson-nucleon problem when the interaction is fixed and extended. G. F. Chew. diags Phys R 94:1755-9 Je 15 '54
Mu meson as nuclear probe particle. J. A. Wheeler. Phys R 92:812-16 N 1 '53
μ-Meson decay, β radioactivity, and universal Fermi interaction L. Michel and A. Wightman. bibliog Phys R 93:354-5 Ja 15 '54
μ-Meson decay spectrum. J. H. Vilain and R. W. Williams. bibliog il diags Phys R 94:1011-17 My 15 '54
Mu-mesonic atoms and the electromagnetic radius of the nucleus. L. N. Cooper and E. M. Henley. bibliog Phys R 92:801-11 N 1 '53
Mu-mesonic X-rays and the shape of the nuclear charge distribution. D. L. Hill and K. W. Ford. bibliog Phys R 94:1617-29 Je 15 '54
Multiple production of pions in nucleon-nucleon collisions at cosmotron energies. E. Fermi. Phys R 92:452-3 O 15 '53
Multipole singularities of classical scalar and pseudoscalar meson fields. P. Havas. bibliog Phys R 93:1400-11 Mr 15 '54
Negative μ-meson capture in carbon. T. N. K. Godfrey. Phys R 92:512 O 15 '53
Negative π-μ meson decays in photographic emulsion. W. F. Fry and G. R. White. Phys R 93:1427 Mr 15 '54
Negative-to-positive ratio of photomesons from deuterium. M. Sands and others. Phys R 95:592-3 Jl 15 '54
Nonlinear meson theory of nuclear forces. F. Cap. bibliog Phys R 95:287-8 Jl 1 '54
Nonuniform nuclear charge distributions and measurements of nuclear electrical radius. K. W. Ford and D. L. Hill. bibliog Phys R 94:1630-7 Je 15 '54
Nuclear absorption of negative *K* particles. H. DeStaebler, jr. il Phys R 95:1110-11 Ag 15 '54

MESONS—*Continued*

Nuclear forces from *P*-wave mesons. E. M. Henley and M. A. Ruderman. bibliog Phys R 92:1036-44 N 15 '53

Nuclear forces in pseudoscalar meson theory. K. A. Brueckner and K. M. Watson. bibliog Phys R 92:1023-35 N 15 '53

Nuclear interaction of fast μ mesons. M. Annis and others. bibliog diags Phys R 94:1038-45 My 15 '54

Observation of a new decay mode of a heavy meson. J. Crussard and others. bibliog Phys R 93:253 Ja 1 '54

Phenomenology of the pion-nucleon *S* waves. H. P. Noyes and A. E. Woodruff. Phys R 94:1401-2 Je 1 '54

Photopion *S* wave near threshold and the pion nucleon coupling constant. G. Bernardini and E. L. Goldwasser. Phys R 95:857-8 Ag 1 '54

Photoproduction of charged pi mesons from hydrogen and deuterium. T. L. Jenkins and others. diag Phys R 95:179-84 Jl 1 '54

Photoproduction of π-meson pairs. R. D. Lawson. bibliog Phys R 92:1272-9 D 1 '53

Photoproduction of π^+ mesons from hydrogen and carbon. G. S. Janes and W. L. Kraushaar. diag Phys R 93:900-1 F 15 '54

Photoproduction of π^+ mesons from hydrogen near threshold. G. Bernardini and E. L. Goldwasser. diags Phys R 94:729 My 1 '54

π-Meson production in π-nucleon collisions at 1.5 Bev. W. D. Walker and others. Phys R 95:852-3 Ag 1 '54

π^-—*p* interactions at 1.5 Bev. J. Crussard and others. Phys R 94:736-7 My 1 '54

Pion production ratios. D. C. Peaslee. Phys R 94:1085 My 15 '54

Pions from production of baryons by protons. F. J. Belinfante. bibliog Phys R 92:145-52 O 1 '53

Positive pi-meson interactions in beryllium. F. H. Tenney and J. Tinlot. bibliog Phys R 92:974-7 N 15 '53

Positron spectrum from the decay of the μ meson. R. Sagane and others. Phys R 95:863-4 Ag 1 '54

Production of charged pions at 180° to the beam by 340-Mev protons on carbon. S. L. Leonard. bibliog diags Phys R 93:1380-6 Mr 15 '54

Production of heavy unstable particles by negative pions. W. B. Fowler and others. il Phys R 93:861-7 F 15 '54

Production of *K* mesons. U. Haber-Schaim and others. bibliog Phys R 94:184-5 Ap 1 '54

Production of neutral mesons by 340-Mev protons on hydrogen. J. W. Mather and E. A. Martinelli. bibliog il diags Phys R 92:780-9 N 1 '53

Production of positive mesons in heavy nuclei. S. Gasiorowicz. diags Phys R 93:843-5 F 15 '54

Properties of heavy unstable particles. D. Lal and others. Phys R 92:438-40 O 15 '53

Radioactive copper nuclides produced by slow negative pions and muons from zinc. A. Turkevich and Si Chang Fung. bibliog Phys R 92:521-2 O 15 '53

Recoil corrections in strong coupling meson theory. G. Wentzel. bibliog Phys R 92:173-7 O 1 '53

Relative intensities of π and μ meson X-rays of the *K* and *L* series in low *Z* elements. M. B. Stearns and others. diag Phys R 93:1123-4 Mr 1 '54

Relative ionization by cosmic-ray μ mesons in a liquid scintillator. R. Baskin and J. R. Winckler. bibliog diag Phys R 92:464-7 O 15 '53

Renormalization of meson theory with a fixed extended source. G. F. Chew. diags Phys R 94:1748-54 Je 15 '54

Rest mass energy of the negative pion. R. C. Cornelius and others. il Phys R 92:1583 D 15 '53

Semiclassical methods in meson processes. J. A. Thie. bibliog Phys R 92:1282-3 D 1 '53

Solutions of the meson-nucleon equation in the adiabatic limit. R. Arnowitt and S. Deser. Phys R 92:1061 N 15 '53

Some general relations between the photoproduction and scattering of π mesons. K. M. Watson. Phys R 95:228-36 Jl 1 '54

Strange particles and multiple meson production. G. Cocconi. Phys R 94:741-2 My 1 '54

Studies of X-rays from mu-mesonic atoms. V. L. Fitch and J. Rainwater. bibliog diags Phys R 92:789-800 N 1 '53

Summary of *K*-meson data. L. Leprince-Ringuet and B. Rossi. bibliog Phys R 92:722-3 N 1 '53

Suppression of pair coupling in nuclear forces. A. Klein. diags Phys R 95:1061-4 Ag 15 '54

Theorem on photomeson production near threshold and the suppression of pairs in pseudoscalar meson theory. N. M. Kroll and M. A. Ruderman. Phys R 93:233-8 Ja 1 '54

Total cross section for positive pions in hydrogen. S. L. Leonard and D. H. Stork. bibliog diags Phys R 93:568-74 F 1 '54

Total cross section of pions at 1.5 Bev. R. L. Cool and others. diag Phys R 93:249-50 Ja 1 '54

Total cross sections of 135-Mev to 250-Mev negative pions in hydrogen. J. Ashkin and others. Phys R 93:1129-30 Mr 1 '54

Total interaction cross section of pions with protons and deuterons at 1.0 Bev. R. L. Cool and others. Phys R 93:637-8 F 1 '54

Total π^-—*p* cross section at 840 and 470 Mev. A. M. Shapiro and others. diag Phys R 92:1073-4 N 15 '53

Two-body forces and nuclear saturation; central forces. K. A. Brueckner and others. Phys R 95:217-28 Jl 1 '54

V particles and the gamma decay of a neutral pion. T. Kinoshita. bibliog Phys R 94:1384-5 Je 1 '54

Variation of the ratio of positive to negative cosmic-ray μ mesons with momentum and altitude. H. A. Morewitz and M. H. Shamos. bibliog diags Phys R 92:134-44 O 1 '53

Velocity distribution of the pair components in π^0 decay. O. Halpern and K. Baumann. Phys R 92:1070-1 N 15 '53

Yukawa forces with added attractions. J. M. Blatt and M. H. Kalos. Phys R 92:1563-6 D 15 '53

Scattering

Angular distribution of charge-exchange scattering of 40-Mev π^- mesons by hydrogen. J. Tinlot and A. Roberts. diags Phys R 95:137-46 Jl 1 '54

Application of the intermediate coupling theory to the scattering of pseudoscalar mesons by a nucleon. G. Takeda. diag Phys R 95:1078-84 Ag 15 '54

Classical scattering of mesons. S. P. Pandya. Phys R 94:1037-8 My 15 '54

Coulomb effects in pion-proton scattering at relativistic energies. F. T. Solmitz. Phys R 94:1799-800 Je 15 '54

Covariant treatment of meson-nucleon scattering. M. M. Lévy. bibliog diags Phys R 94:460-8 Ap 15 '54

Elastic scattering of 118-Mev negative pions by hydrogen. J. Orear. bibliog diag Phys R 92:156-60 O 1 '53

Elastic scattering of pions by nucleons and pion production in nucleon-nucleon collisions. J. L. Gammel. Phys R 95:209-16 Jl 1 '54

Improved calculation of the *P*-wave pion-nucleon scattering phase shifts in the cut-off theory. G. F. Chew. Phys R 95:285-6 Jl 1 '54

Inelastic scattering of 220-Mev π^- mesons in emulsions. W. F. Fry. il Phys R 93:845-7 F 15 '54

Intermediate coupling method for meson-nucleon scattering. T. D. Lee and R. Christian. Phys R 94:1760-7 Je 15 '54

Meson-nucleon scattering. R. J. Riddell, jr. and B. D. Fried. bibliog Phys R 94:1736-48 Je 15 '54

Meson-proton scattering phase shift analysis. H. A. Bethe and F. de Hoffman. bibliog Phys R 95:1100-1 Ag 15 '54; Correction. 96:1714 D 15 '54

Numerical calculation of 3/2-3/2 pion-nucleon reaction matrix and phase shifts. F. F. Salzman and J. N. Snyder. Phys R 95:286-7 Jl 1 '54

π^+-*p* scattering near 260 Mev. W. B. Fowler and others. Phys R 92:832 N 1 '53

Radiative effects in meson-nucleon scattering. S. Deser. bibliog Phys R 93:612-15 F 1 '54

MESONS—Scattering—*Continued*

Scattering of 45-Mev positive pions by hydrogen. J. Orear and others. bibliog diag Phys R 93:575-7 F 1 '54

Scattering of mesons by complex nuclei. W. W. Wada. bibliog Phys R 92:152-5 O 1 '53

Scattering of negative pions by hydrogen. E. Fermi and others. Phys R 92:161-3 O 1 '53

Scattering of 187-Mev negative pions by hydrogen. M. Glicksman. Phys R 95:1045-7 Ag 15 '54

Scattering of 151- and 188-Mev positive pions by protons. G. Homa and others. bibliog il diags Phys R 93:554-61 F 1 '54

Scattering of 65-Mev pions in hydrogen. D. Bodansky and others. bibliog diags Phys R 93:1367-77 Mr 15 '54

Scattering of 217-Mev negative pions by hydrogen. M. Glicksman. diags Phys R 94:1335-44 Je 1 '54

Signs of the phase shifts for pion-proton scattering. S. W. Barnes and others. bibliog Phys R 92:1327-8 D 1 '53

Some possible relationships between π-meson nucleon scattering and π-meson production in nucleon-nucleon collisions. A. Aitken and others. bibliog Phys R 93:1349-55 Mr 15 '54

Strong coupling theory of meson scattering. A. N. Kaufman. bibliog Phys R 92:468-81 O 15 '53

Structure of the nucleon; pion-nucleon scattering. R. G. Sachs. bibliog Phys R 95:1065-78 Ag 15 '54

Theory of multiple Coulomb scattering from extended nuclei. L. N. Cooper and J. Rainwater. bibliog Phys R 95:1107-9 Ag 15 '54

MESQUITE gum

Improved isolation of L-arabinose from mesquite gum. F. B. Cramer. Franklin Inst J 256:93-4 Jl '53

MESSEL medal

Messel medal to atomic adviser. Chem & Eng N 32:3062 Ag 2 '54

Messel medallist, 1954, Lord Cherwell. il Chem & Ind p801 Jl 10 '54

MESSINA straits

World's longest suspension span is proposed Messina Straits bridge. D. B. Steinman. il diags Roads & Eng Constr 92:84-7+ Jl '54; Same cond. Civil Eng 23:830-3 D '53

METABOLISM

Anticholinesterases; metabolic conversion of certain organic phosphorus compounds into anticholinesterases. B. A. Kilby. bibliog Chem & Ind p524-8 My 8 '54

D-glucosamine as an antagonist of glucose in carbohydrate metabolism of yeast. G. E. Woodward and M. T. Hudson. bibliog Franklin Inst J 255:556-60 Je '53

Effects of *X*-radiation on carbohydrate metabolism. M. G. Ord and L. A. Stocken. Chem & Ind p666 Jl 4 '53

Enzymatic reduction of cortisone. G. Tomkins and K. J. Isselbacher. Am Chem Soc J 76:3100-1 Je 5 '54

Importance of glycolytic and oxidative pathways in glucose utilization by liver. J. Katz and others. Am Chem Soc J 76:2277-8 Ap 20 '54

In vitro incorporation of leucine into the proteins of micrococcus lysodeikticus. R. L. Lester. bibliog Am Chem Soc J 75:5448-9 N 5 '53

Loss of the α-amino group in lysine metabolism to form pipecolic acid. M. Rothstein and L. L. Miller. Am Chem Soc J 76:1459 Mr 5 '54

Metabolism of 8-azaguanine; abstract. H. G. Mandel. Chem & Eng N 32:228-9 Ja 18 '54

Pathways of glucose catabolism. B. Bloom and D. Stetten, jr. Am Chem Soc J 75:5446 N 5 '53

Sensitive respirometer for the measurement of rapid changes in metabolism of oxygen. C. M. Connelly and others. bibliog diags R Sci Instr 24:683-95 Ag '53

Some metabolic responses of dogs having low body temperature. S. M. Horvath and others. Science 118:100-1 Jl 24 '53

Studies in mycological chemistry; flaviolin, 2(or 3) : 5 : 7-trihydroxy-1 : 4-naphthaquinone, a metabolic product of aspergillus citricus (Wehmer) mosseray. B. D. Astill and J. C. Roberts. Chem Soc J p3302-7 O '53

Studies on 4-hydroxycoumarins; the metabolism of 4-hydroxycoumarin in the dog. S. Roseman and others. bibliog Am Chem Soc J 76:1650-2 Mr 20 '54

Synthesis of D-riboflavin-2-C^{14} and its metabolism by lactobacillus casei. E. E. Haley and J. P. Lambooy. bibliog Am Chem Soc J 76:2926-9 Je 5 '54

Toxicity of 2-ethylhexyl diphenyl phosphate; metabolic fate in man and animals. J. F. Treon and others. A M A Archives Ind Hygiene & Occup Med 8:268-80 S '53

See also

Plants—Metabolism

METACHROMASIS

Conductimetric study of the interaction of anionic mucopolysaccharides and cationic dyes. M. Schubert and A. Levine. bibliog Am Chem Soc J 75:5852-6 D 5 '53

Metachromasy of pyronine G produced by polyvinyl sulfate. M. Koizumi and N. Mataga. Am Chem Soc J 76:614-15 Ja 20 '54

METACHROME dyeing. See Dyes and dyeing—Metachrome process

METACONTRAST. See Optics, Physiological

METAL and thermit corporation

Security I like best. A. Netburn. Comm & Fin Chr 178:2038+ N 26 '53

METAL ceramics. See Cermets

METAL chlorides

Properties of hydrates; olation during heterogeneous dehydrations; structural formulas for some metal dichloride hydrates. W. S. Castor, jr. and F. Basolo. bibliog Am Chem Soc J 75:4807-10 O 5 '53

METAL cleaning

Acid cleaner inhibitors. D. F. Stauffer and others. bibliog Soap & Chem Spec 30:161+ Je '54

Airless abrasive blasting. Steel 134:134 Je 28 '54

Automatic batch processing machine. il Metal Finishing 52:91-2 Ap '54

Automatic process control; solution control. il diags Iron Age 172:286-7 O 8 '53

Bendix ultrasonic cleaner. Steel 135:143-4 S 13 '54

Blast cleaning of metal surfaces. V. F. Stine. il Metal Prog 65:104-7+ Je '54

Boeing develops scale-inhibiting treatment for titanium and stainless. Am Mach 98:112 Ag 30 '54; Iron Age 174:126-7 S 2 '54; Steel 135:106 S 27 '54

Cleaning metal with sonic waves; Detrex(R) Soniclean process. T. J. Kearney. il Steel 134:104-5 Ap 5 '54

Easier cleaning, painting. il Steel 134:127 Ap 5 '54

Emulsifiable solvent cleaning. B. J. Sherwood. flow sheet Metal Finishing 52:70-2 Mr '54

Emulsion cleaners. Metal Finishing 52:98 Mr '54

Finishes for metals; cleaning and surface preparation. R. A. Wason. il Tool Eng 31:69-78 N '53

First in the world; ultrasonic cleaning plant. Chem Age (Lond) 71:230 Jl 31 '54; Chem & Ind p948 Jl 31 '54

How operating equipment is cleaned without dismantling. M. P. Barbarin. il diags Am Gas J 180:16-17+ Je '54

Inspection, heat-treat, joining, finishing; cleaning. il Am Mach 97:E 10-12 Mid-N '53

Liquid abrasive blast machine. il Metal Finishing 52:90-1 Ap '54

Liquid blasting of dies cuts cleaning costs, increases die life; Imperial brass manufacturing co. il Iron Age 172:112 N 26 '53

Metal cleaning and finishing handbook. Iron Age 174:sup F 1-65 Jl 29 '54

Metal cleaning; factors to be considered in analyzing a cleaning job. R. W. Mitchell. Iron Age 174:sup F44-5+ Jl 29 '54

Metal cleaning of fine instrument components. E. A. Hedman and A. Miller. Metal Finishing 51:66-8 D '53

Oaklite aluminum and steel cleaner. Mach 61:211 S '54

Pangborn continuous-flow cleaning barrels. il Mach 60:210 Ag '54

Radar parts are cleaned by wet blasting; Sperry gyroscope co. il Mach 60:182-3 Je '54

Ryan's laundry saves $100,000 a year. il Am Mach 97:160-1 N 9 '53

METAL cleaning—*Continued*

Selecting metal cleaning methods. J. B. Campbell. il Materials & Methods 39:119-34 N '53 (reprints 25¢)

Selection of metal cleaning cycles. S. Spring. il Steel 133:112-14 N 9; 112-14 N 16 '53

Selection of metal cleaning methods; supplement to 1948 edition of Metals handbook. Metal Prog 66:131-4 Jl 15 '54

Simple reproducible method for determining metal cleaning efficiency; abstract. A. Miller and E. A. Hedman. Metal Prog 65: 182+ My '54

Stripping chromium, particularly hard chromium; abstract. A. Pollack. Metal Finishing 52:110-11 Je '54

Surface preparation by blast cleaning prior to electroplating. V. F. Stine. il diags Metal Finishing 52:65-71 F '54

Technical progress; cleaning and finishing. il Steel 134:374-5+ Ja 4 '54

Tilghman's Rotary-blast airless Wheelabrator. il Automobile Eng 44:294 Jl '54

Ultrasonic techniques in industrial cleaning. W. L. McCracken. il diags Tool Eng 32: 66-8 Ap '54

Ultrasonic waves clean metal. il Ry Age 135: 35 D 28 '53

Ultrasonics; cleaning unit lowers rejects on shaver parts. il Iron Age 174:152 S 9 '54

Use a suitable tank for descaling parts. Textile World 104:329-30 Ap '54

Vapor degreasing earns its keep. P. R. Hendrixson. il Steel 135:124-6 S 13 '54

Wet blasting speeds cleaning of furnace, press parts. il Iron Age 173:160+ Mr 25 '54

See also

Castings—Cleaning	Polishing materials
Degreasing	Steel—Cleaning

Terminology

Glossary of terms used in metal cleaning and finishing. Iron Age 174:sup F49-50+ Jl 29 '54

METAL cleaning, Electrolytic

Metal cleaning and finishing handbook; typical electrolytic cleaning operations; table. Iron Age 174:sup F8 Jl 29 '54

See also

Polishing, Electrolytic

METAL coating

Abrasion resistant coatings sprayed on metal surfaces; Colmonoy Sprayweld process. W. G. Patton. il Iron Age 172:172-3 D 3 '53

Compressor piston rods sprayed with stainless for longer life. il Iron Age 172:145-6 O 15 '53

Diffusion coatings; abstract. D. M. Dovey and others. Metal Prog 64:122+ D '53

Facts about modern metal spraying. il diags Mill & Factory 54:585 My '54

Gas plating stalemate. il Chem W 74:74+ Je 19 '54

How to spray chrome-base castable refractory. il Power 98:140 Mr '54

Materials for special service; sprayed metals. D. A. Watson. il Machine Design 26:166-70 My '54

Metal cleaning and finishing handbook; metallic coatings; U.S. government specifications; tables. N. E. Woldman, comp. Iron Age 174:sup F21-2 Jl 29 '54

Metal finishing; corrosion-resistant coating has advantages of stainless. Iron Age 173: 165 F 18 '54

Metallizing experience at two Iowa plants. L. F. Skorczeski; D. D. Douglas. Sewage & Ind Wastes 26:89-93 Ja '54

Metallising for industry; Dohm vacuum metallising plant. il Chem Age (Lond) 70: 1004 My 1 '54

Metallizing may be for you. H. Vanderpool. il diag Chem Eng 61:189-94 Jl '54

Metallizing unlimited in pulp and paper mills. L. W. Darlington. Pulp & Pa of Can (Convention no) 55:181-3 [F] '54

Metallizing with an aqueous platinic chloride solution. L. Silverman and K. Trego. bibliog Metal Finishing 52:69 Ap '54

Precoated metal. il Steel 134:133+ Je 14 '54

Precoated metals; new starting point for production economy in a wide range of metal combinations. il Steel 133:156-7 O 12 '53

Precoated strip has use appeal; Thomas strip division of the Pittsburgh steel co. il Steel 133:166-7 D 14 '53

Prevention of corrosion by metallizing the surface. H. Vanderpool. il diags Metal Prog 64:161-4+ N '53

Reclaiming compressors. il Steel 134:102 Ja 11 '54

Shaft repaired in half the time at half the cost; metallizing replaces brazing in repair of knitting-machine shafts. diag Welding J 33:54 Ja '54

Solution of problems in odd job vapor coating. W. L. Bond. diags Opt Soc Am J 44:429-38 Je '54

Vacuum metallizing. il Automobile Eng 44:280 Jl '54

Vacuum metallizing and plating; a comparison. I. Cross. il Metal Finishing 51:59-63+ D '53; Discussion. J. G. Seiter. 52:100-2 Mr '54

Vacuum metallizing as a production process J. G. Seiter. il diags Tool Eng 31:49-53 S '53; Abstract. Product Eng 24:274-6 O '53

Vacuum metallizing: smaller equipment may open way for wider use of method. il Iron Age 172:188-9 N 5 '53

Vacuum metallizing unit. diag Metal Finishing 52:95-6 Mr '54

Vacuum process brightens plating picture. G. A. Goetz. il Steel 133:166-7 Ag 17 '53

What Combined Locks has learned from fifteen years of metallizing. E. Lindberg. il Paper Tr J 138:84-5 My 14 '54

See also

Aluminum coating	Molybdenum coating
Electroplating	Zinc coating
Galvanizing	Zinc plating

Stripping

Metal cleaning and finishing handbook; how to strip metal overlays; tables. Iron Age 174:sup F24 Jl 29 '54

Testing

Atom in steelmaking; measures thickness of metallic coatings; Accuray reflection gage. il Steel 134:134 My 3 '54

Protection of iron and steel by metallic and non-metallic coatings. J. C. Hudson and J. F. Stanners. bibliog il 6pls Iron & Steel Inst J 175:381-90 D '53

Tests of the protective value of metallic coatings under sheltered conditions (marine atmosphere). S. G. Clarke and W. N. Bradshaw. bibliog il diag J Ap Chem 3:147-54 Ap '53

METAL compounds

Fused metal resinates from aldehyde-modified rosin. W. E. St Clair, J. C. Minor and R. V. Lawrence. bibliog Ind & Eng Chem 46:1973-6 S '54

Metal combining properties of conalbumin. R. C. Warner and I. Weber. bibliog Am Chem Soc J 75:5094-101 O 20 '53

New preparation of bis-cyclopentadienyl-metal compounds. J. M. Birmingham, D. Seyferth and G. Wilkinson. bibliog Am Chem Soc J 76:4179 Ag 20 '54

Spectra

Infrared spectra of metallic salts containing groups of the XO_2-type ion. C. Duval and J. LeComte. bibliog Opt Soc Am J 44: 261-3 Ap '54

METAL congress, National. See National metal congress

METAL corrosion. See Corrosion and anti-corrosives

METAL cutting

Air force machinability report. il diags Iron Age 173:128-31 My 6; 144-7 My 20; 122-4 Je 10; 174:112-14 Jl 22 '54

Annealing or softening improves gray iron machinability. C. O. Burgess. bibliog il Foundry 81:108-11+ D '53; 82:110-13 Ja '54

Cutting characteristics of titanium and its alloys. L. V. Colwell and W. C. Truckenmiller. bibliog il diags Mech Eng 75:461-6+ Je '53

Cutting metal tubing for capacitor housings. il Electronics 26:272+ O '53

Discontinuous chip formation. N. H. Cook and others. bibliog il diags A S M E Trans 76:153-62 F '54

METAL cutting—*Continued*

Distribution of shear-zone heat in metal cutting. W. C. Leone. bibliog diags A S M E Trans 76:121-4; Discussion. 124-5 Ja '54
Electrolytic grinding or machining of metals. O. W. Storey. bibliog Electrochem Soc J 100:sup 125C-6C My '53
Energy stored in metal chips during orthogonal cutting. M. B. Bever and others. bibliog diags J Ap Phys 24:1176-9 S '53
Formation and flow of chips controlled by chip breaker. E. K. Henriksen. diags Iron Age 173:104-6 Ap 29 '54
Friction terms in metal cutting. W. C. Leone and E. Saibel. bibliog diags A S M E Trans 76:195-7; Discussion. 197-8 F '54
Geometry of manufacturing irregular surfaces. W. H. Gres. Tool Eng 32:147-8 F '54
How does titanium machine? O. W. Boston. il Iron Age 173:100-3 Ja 21; 120-2 Ja 28; 146-9 F 4 '54
How machinable are the cast irons? E. A. Loria. il Iron Age 172:158-61 N 19 '53
How melting practice affects machinability of malleable iron. E. A. Loria. il Iron Age 174:168-70 S 16 '54
How to machine high-temperature alloys; forum of the Society of automotive engineers national aeronautic meeting. il Aviation W 59:30-3 Ag 10 '53
How to machine titanium. J. Voast. il Steel 134:96-8 My 3 '54
How to tool up for aluminum cutting. R. Wohlforth and W. Bloss. diags Steel 134:116-18 Je 28 '54
Hydraulic tracers simplify contour machining, improve accuracy in production of large, complex parts; National tapered wings. E. E. Baker. il Iron Age 174:106-8 Ag 5 '54
Improved chuck speeds machining of brass parts. D. Stoneman. il Iron Age 172:177-9 D 3 '53
In-process machining of large aluminum forgings. A. H. Petersen. il diags Metal Prog 66:81-8 Ag '54
Machinability of titanium. Mach 60:208-9 My '54
Machining aircraft parts. K. W. Stalker. Tool Eng 31:148-50 N '53
Machining behavior of titanium and its alloys. il Automotive Ind 110:58-61+ My 1 '54
Machining integrally stiffened structures. J. C. Borger. il diags Mech Eng 75:871-4 N '53; Abstract. Tool Eng 32:173-4 F '54
Machining of steel and cast iron; supplement to 1948 edition of Metals handbook. bibliog il diags Metal Prog 66:141-51 Jl 15 '54
Machining powder-metal parts. A. J. Langhammer and P. Glick. il diags Am Mach 98:101-4 Ap 26 '54
Machining review and forecast. bibliog il Iron Age 173:328-30 Ja 7 '54
Machining; 3-D cam-cutters work to ±0.0002 in. Iron Age 172:119 Ag 27 '53
Machining titanium alloys; General electric co. Mach 60:199 F '54
Machining titanium with coolants; reference book sheet. Am Mach 98:155, 157, 159 My 24 '54
Metal cutters slowly gaining on tough jet engine materials; report of panel on machining. E. J. Weller. il S A E J 62:53-6 Ja '54
New process simplifies machining of high density tungsten. R. Levi. il Iron Age 173:177-8 My 6 '54; Same. Materials & Methods 39:306 My '54
Plastic-flow problem arising in the theory of discontinuous machining. E. H. Lee. bibliog diags A S M E Trans 76:189-93; Discussion. 193-4 F '54
Practical cutting speed; it's faster than you think. R. F. Huber. il diags Steel 135:64-6 Ag 30 '54
Predicting the angle of chip flow for single-point cutting tools. L. V. Colwell. diags A S M E Trans 76:199-204 F '54
Recommendations for chip-breakers. E. K. Henriksen. diags Mach 60:204-7 My '54
Right chip breaker. E. K. Henriksen and H. J. Loberg. il diags Steel 134:98-101 Ap 26 '54
Technical progress; machining. il Steel 134:326-8+ Ja 4 '54
Thermal number measures efficiency of metal cutting. K. J. Trigger. il diags Am Mach 98:145-52 Je 7 '54
Titanium; air force machinability report. il diags Iron Age 173:128-31 My 6; 144-7 My 20; 122-4 Je 10 '54
Titanium is unorthodox when machined, here's why. M. E. Merchant and others. il diag Am Mach 98:118-21 Jl 5 '54
To machine radioactive materials. S. L. Lindbeck. il Am Mach 98:166-7 Ap 12 '54
Trends in machining methods. Steel 133:38-9 sec 2 N 16 '53

See also

Broaching
Cutting tools
Cutting tools, Carbide
Drilling and boring (metal working, etc.)
Electric cutting
Gear cutting
Lubrication and lubricants (cutting and grinding)
Machine tools
Machine work
Milling
Milling cutters
Oxyacetylene cutting
Oxygen cutting
Pipe cutting
Saws, Metal working
Screw machines
Shears (machines)
Steel cutting
Thread cutting
Threading machines
Tool steel
Trepanning

Tables, calculations, etc.

Computation of new coordinates; tabulations; reference book sheet. D. E. Sweet. diags Am Mach 97:131, 133, 135 D 21 '53
Formulas for adjacent triangles; reference book sheet. J. R. Paquin. Am Mach 98:267 Ja 18 '54
How to estimate single-point cutting forces. W. L. Kennicott. diag Am Mach 98:152 Mr 15 '54
Index tolerance chart simplifies production. A. Johnson. il diags Tool Eng 32:53-62 F '54
Nomograph aids solution of worm-thread profiles. O. Saari. diags Am Mach 98:113-16 Jl 5 '54

METAL detectors. See Metals—Detection

METAL drawing

Bar mill built to serve market; Bliss & Laughlin inc. A. G. Gray. il plan Steel 133:196-7+ D 7 '53
Coating paves way for drawing speedup. il Steel 133:82-3 D 21 '53
Deep draw titanium in one operation; Brooks & Perkins inc. R. G. Gillespie. il Steel 135:80 Ag 30 '54
Deep drawing titanium cups. C. C. Higgins. il Light Metal Age 11:10-11 D '53
Deep draws don't follow rules. J. W. Gulliksen. il diags Steel 134:140-1 Mr 1 '54
Drawing; capacity tripled for producing heat exchanger tubes at International nickel co. il Iron Age 174:188 S 16 '54; Steel 135:157 S 20 '54
Drawing stainless; how to make it fit your product. il Steel 134:134-5+ My 10 '54
Drawn shapes from metal powders now possible. R. Steinitz and others. il diag Materials & Methods 40:101-3 Jl '54
Experience accumulates on drawing titanium; Worcester pressed steel co. C. C. Higgins. il Mach 60:193-5 Ag '54
Experimental investigation into the redrawing of cylindrical shells. S. Y. Chung and H. W. Swift. bibliog diags Inst Mech Eng Proc (B) 1B no 10:437-47 '52-53; Abstract. Metal Prog 63:216+ My '53; Discussion. Inst Mech Eng Proc (B) 1B no 10:454-64 '52-53
Hard bronze draws stainless without scratches. A. Walz. il diags Am Mach 98:106-9 Ag 2 '54
How to determine characteristics of earing in aluminum. C. Johnson. il Light Metal Age 11:12-13+ D '53
Magnesium forming; deep drawing and miscellaneous methods. F. L. Coenen. il diag Tool Eng 32:68-71 F '54
New aluminum machine stock made by Harvey; deep drawing used. Light Metal Age 12:22 Ap '54
Press control speeds auto body production. A. P. DiVincenzo and C. E. Robinson. il diags Electronics 26:154-7 D '53

METAL drawing—*Continued*

Talks on draw dies (cont). S. R. Cope. diags Am Mach 97:156-9 D 7 '53; 98:100-3 Ja 4; 148-52 F 15; 134-6 Mr 15; 114-16 Ap 26; 168-71 My 10:134-7 Je 7; 126-8 Jl 5; 130-2 Jl 19; 134-6 Ag 2; 122-5 Ag 16; 109-12 Ag 30; 140-3 S 13; 120-3 S 27 '54 (to be cont)

Titanium; how to deep draw it. C. C. Higgins. il Tool Eng 32:75-6 Mr '54

Tool engineers extend usefulness of heavy press; Pastushin aviation corp. il Iron Age 173:175-6 My 6 '54; Steel 134:123-4 Je 28 '54

Trim flanges faster on shaper. il Iron Age 172:101 Ag 27 '53

Tube drawing; tungsten-titanium carbide mandrels cut drawing costs. il Iron Age 173:142-3 My 27 '54; Steel 134:118 My 31 '54

Which grain size for deep drawing brass? R. C. LeMay. il Metal Prog 66:48 S '54

Which method for deep drawing titanium; hot? cold? R. G. Gillespie; J. W. Gulliksen. il Materials & Methods 40:98-101 S '54

Zinc and phosphate coated steels can cut breakage on drawn parts. N. E. Hays. il Iron Age 172:135-7 Ag 13 '53

See also

Lubrication and lubricants (metal drawing)

Wire drawing

METAL finishing

Automatic brushing deburrs turbine disks; Westinghouse aviation gas turbine division. R. DePastina and R. E. Eyre. il Am Mach 98:124-5 Jl 5 '54

Automatic process control; solution control. il diags Iron Age 172:286-7 O 8 '53

Automatic roll float in surface finishing machine. il diags Machine Design 25:157 N '53

Barrel finishing compound; Honite brand Multi-Burnish compound. Metal Finishing 52:89-90 F '54

Chemical forms precisely; North American Aviation. il Steel 134:122+ Je 14 '54

Chemical milling; now the impossible doesn't take longer; North American Aviation's new etching process. il diag Am Mach 98:200-2 S 13 '54

Commercial aspects of European finishing. J. Wiarda and M. Rubinstein. il Metal Finishing 52:65-6 Ag '54

Controlled barrelling; Rotofinish method. il Automobile Eng 44:211-12 My '54

Deburrer beats hand method; compressor-rotor wheels for Allison jet engines. il Steel 133:94 Jl 20 '53

Deburring; modern methods, tools cut costs. J. E. Hyler. il diags Iron Age 173:140-3 Mr 11; 144-7 Mr 25 '54

Dimensional control system cuts finishing costs; Rollway bearing co. L. L. McArthur and E. H. Kinne. il Iron Age 174:121-4 Ag 19 '54

Electrostatic detearing improves dip-coating quality; process developed by Ransburg electro-coating corp. J. J. Obrzut. il Iron Age 173:153-5 F 4 '54

Etch process beats milling; Chem-Mill process. M. C. Sanz. il Chem & Eng N 32:3051 Ag 2 '54

Finishes for metals. R. A. Wason. il Tool Eng 31:69-78 N '53; 32:81-8 F '54

Finishing in the heart of industrial Europe. J. T. Wiarda and M. Rubinstein. il diag Metal Finishing 52:51-64 Ag '54

Gun barrels deburred and cleaned by liquid honing. W. G. Patton. il Iron Age 172:102-3 Ag 27 '53

Inspection, heat-treat, joining, finishing. il diags Am Mach 97:E-E23 Mid-N '53

International conference on electrodeposition and metal finishing, 4th; abstracts of papers. Metal Finishing 52:102-5 Je '54

Ion-free water makes cents in metal finishing. A. Gigliotti. il Steel 133:124 Jl 13 '53

Machining; change in tools cuts costs, improves finish; Master Machinery Builders. il Iron Age 173:152 Mr 18 '54

Materials for special service; prefinished metals. C. P. Stewart. il Machine Design 26:174-6 My '54

Mecha automatic precision machine saves costly hand work. il Iron Age 173:106+ Ap 29 '54

Metal cleaning and finishing handbook. Iron Age 174:sup F 1-65 Jl 29 '54

Metal finishing review and forecast. bibliog il Iron Age 173:240-2 Ja 7 '54

Mill metal chemically; North American aviation, inc. il Iron Age 173:81 My 13 '54

New chemical process machines accurate parts. il Machine Design 26:176+ Je '54

New metal finishing lab duplicates plant conditions; Wyandotte chemicals corp. W. G. Patton. il plan Iron Age 172:124-6 S 24 '53

New methods for finishing powder metal parts. C. C. Cohn. il Iron Age 173:125-8 Ap 1 '54

1954 American Machinist production preview; cleaning and finishing. il Am Mach 98:209-16 Ja 18 '54

Osborn gear brushing machine. il Tool Eng 31:114 N '53; Steel 133:98+ O 19 '53

Phosphate coating; extra step is shortcut to quality finishes. il Steel 133:158-9 O 26 '53

Removing metal by chemistry to produce difficult shapes for aircraft structures; North American aviation, inc. M. C. Sanz. flow chart il diags Automotive Ind 111:54-7+ S 1 '54

Selecting a brush finish. R. O. Peterson. il Materials & Methods 40:96-9 Ag '54

Shot peening and other surface working processes; supplement to 1948 edition of Metals handbook. bibliog il diags Metal Prog 66:104-8 Jl 15 '54

Slurry deburring machine adds finishing touches. il Steel 134:140 My 10 '54

Smooth out your disc grinding problems. J. K. McLaughlin. il Steel 133:92-4 N 2 '53

Surface; tests cut machining cost. R. M. Lorz. Iron Age 172:63 Ag 20 '53

Technical developments of 1953. N. Hall. Metal Finishing 52:52-61 bibliog and patent list (311 ref, p59-61) Ja '54

Technical progress; cleaning and finishing. il Steel 134:374-5+ Ja 4 '54

Unusual surface finishing technique introduced; Metablast. il Tool Eng 31:108-9 N '53

Vapor blasting; Ford aircraft engine division. Steel 134:154 My 10 '54

See also

Abrasive belts

Aluminum—Finishing

Grinding

Honing

Lacquer and lacquering

Lapping machines

Magnesium—Finishing

Phosphate coating

Pickling (metals)

Polishing

Polishing, Electrolytic

Shot blasting

Shot peening

Steel—Finishing

Tumbling barrels

Patents

Patents. Published in monthly numbers of Metal finishing

Specifications

Government finishing specifications. N. E. Promisel and D. M. Promisel. Metal Finishing 52:61-70 My; 95-101 Je; 73 Jl '54

Terminology

Glossary of terms used in metal cleaning and finishing. Iron Age 174:sup F49-50+ Jl 29 54

METAL foils

Electron straggling in thin foils. E. T. Hungerford and R. D. Birkhoff. diag Phys R 95:6-7 Jl 1 '54

Studies in low concentration chemistry; the spontaneous deposition of silver-111 on various metals. G. K. Schweitzer and D. L. Wilhelm. bibliog Am Chem Soc J 75:5432-4 N 5 '53

See also

Aluminum foil

METAL furniture. See Furniture, Metal

METAL industries, limited

Statement by the chairman. R. W. McCrone. Economist 168:736-7 S 12 '53

METAL-LUX, inc.

Miracle in Hartford. J. Chamberlain. Barron's 33:3+ N 16 '53

METAL powder association

Annual meeting, 10th, Chicago. Steel 134:60 My 3 '54

Annual meeting, 10th, Chicago; with abstracts of papers. Automotive Ind 110:84+ My 15 '54

Fall meeting, White Sulphur Springs, W.Va. Sept. 11-12. Materials & Methods 38:208+ N '53

METAL powders

Baldwin-Lima-Hamilton biggest press for powder metals. il Steel 133:102 O 19 '53

Baldwin-Lima-Hamilton compacting press provides adjustment for density, weight. il Am Mach 98:176 My 24 '54

Burning time and ignition temperature apparatus for metal powders. H. C. Andersen and L. H. Belz. diags R Sci Instr 24:1004 O '53

Case histories of powdered metal parts. il Iron Age 174:94-5 S 30 '54

Centrifugal compacting; a new method for producing metal powder parts; tungsten carbide bullet cores. R. C. Lindberg. il Materials & Methods 39:86-7 Ap '54

Chrome carbide make bid; lustrous finish and extreme hardness is attracting application interest in industry. E. W. Engle. il Steel 133:104 N 2 '54

Compressed powder in metal form has relieved many an auto production headache. F. G. Lawrence. il Steel 133:59-60 S 28 '53

Economic survey of seven methods of making small machine parts. S. Storchheim. il Metal Prog 65:79-80 F '54

Fine metallic powders for high frequency work; patent. diag Chem Eng 61:258+ Ag '54

High-density processing widens field for powdered metals. W. J. Doelker. il Iron Age 174:91-3 S 30 '54

Hot coining produces true density in powder metal parts. G. J. Comstock. il Iron Age 174:80-2 S 30 '54

How to get the best results from sintering furnaces. H. M. Webber. il Iron Age 174:83-7 S 30 '54

Impregnation of powder metallurgy parts improves corrosion resistance. W. N. Pratt. il Steel 133:122-3 Jl 13 '53

Infiltration improves properties of metal powder parts. J. L. Everhart. bibliog il Materials & Methods 39:88-90 Ap '54

Machining, joining and finishing of powder metal parts; supplement to 1948 edition of Metals handbook. bibliog diags Metal Prog 66:151-3 Jl 15 '54

Machining powder-metal parts. A. J. Langhammer and P. Glick. il diags Am Mach 98:101-4 Ap 26 '54

Materials for special service; heavy metals. D. Wackerle. il Machine Design 26:143-7 My '54

Metal powder; see no dip for '54. K. W. Bennett. Iron Age 173:79 My 6 '54

Metal powders ease production headaches. A. G. Gray. il Steel 134:88-91 Ja 25 '54

Metal supplies and powder metallurgy tomorrow. H. W. Greenwood. bibliog Metallurgia 49:135-6 Mr '54

Method described for evaluation of lubricants in powder metallurgy. I. Sheinhartz and others. bibliog diag J Metals 6:515-18 My '54

New methods for finishing powder metal parts. C. C. Cohn. il Iron Age 173:125-8 Ap 1 '54

New process gives unusual powder parts. H. J. Hamjian and F. N. Darmara. il Iron Age 172:98-100 Jl 30 '53

Particle-size analysis of metal powders. C. C. Gregg and B. Kopelman. bibliog Am Soc for Metals Trans 44:367-78; Discussion. 378-81 '52

Phase diagrams play an important role in powder metallurgy. R. Steinitz. bibliog diags J Metals 5:891-4 Jl '53

Point-4 points to powdered metal; visiting scientists survey U.S. production. il Materials & Methods 38:6+ N '53

Powder metallurgy can lower your production costs. B. T. DuPont. il Iron Age 174:74-5 S 30 '54

Powder metallurgy displaces die casting. L. B. Reed. il Elec West 111:92-4 O '53

Powder metallurgy for making little things in large quantities. R. H. Wilcox. il Mill & Factory 54:109-12 Mr '54

Powder press design keeps pace with industry needs. J. L. Bonanno and R. B. Bouman. il Iron Age 174:76-9 S 30 '54

Powdered metal electrodes cut welding costs, gain wider acceptance. A. C. Ward. il Iron Age 174:126-7 S 9 '54

Powdered metal electrodes improve welding. Mach 60:181 Je '54

Powdered metal in electrode coating speeds hand welding; Jetweld electrode. Iron Age 172:177-8 N 19 '53

Powdered metal opens a door. il Steel 133:45-6 S 28 '53

Proper plating techniques give good surface finishes. H. H. Hausner and H. B. Michaelson. bibliog il Iron Age 174:88-90 S 30 '54

Sheet metals can be made from metal powder. W. D. Jones. il Am Mach 98:142-4 Je 7 '54; Abstract. Materials & Methods 39:6 Je '54

Sintered parts; production costs cut with powder metal bearings. il Iron Age 173:164+ Mr 11 '54

Soviet progress in powder metallurgy. Materials & Methods 39:169 F '54

Soviets progress in powder metallurgy. Chem & Eng N 32:728 F 22 '54

Stokes press for powder metal parts. Machine Design 26:206+ My '54

Subsieve particle-size measurement of metal powders by air elutriation. R. E. Pollard. bibliog il diag J Res Nat Bur Stand 51:17-31 Jl '53

Trends in powder metal applications. J. Geschelin. Automotive Ind 110:152+ Je 15 '54

Wave-guide measurements in the microwave region on metal powders suspended in paraffin wax. J. M. Kelly and others. bibliog diag J Ap Phys 24:258-62 Mr '53

See also

Aluminum, Powdered
Beryllium, Powdered
Cermets
Cobalt, Powdered
Copper, Powdered
Iron, Powdered
Nickel, Powdered
Steel, Powdered
Zinc Powdered
Zirconium, Powdered

METAL protection

American society for metals educational lecture series on Surface protection against corrosion; abstracts. Ind & Eng Chem 46:sup85A-7A F '54

Better properties extend uses for porcelain enamels. W. A. Barrows. il Iron Age 173:121-4 My 13 '54

Better protection, lower packaging costs with VPI wrapping; American blower corp. E. J. Smith. il Iron Age 172:111-13 O 15 '53

Chromate conversion coatings. C. W. Ostrander. Machine Design 26:274+ Ag '54

Control your corrosion costs. L. R. Honnaker. Steel 134:110-11 Mr 22 '54

Corrosion group conversazione; Society of chemical industry. Chem & Ind p 183-4 F 13 '54

Corrosion; improved equipment helps maintain high heat transfer. Iron Age 173:174-174A+ Ap 8 '54

Corrosion in chemical plant. T. K. Ross. Chem Age (Lond) 71:655-9 S 25 '54

Corrosion of machinery in H.M. ships. L. Kenworthy. bibliog il J Ap Chem 4:97-106 Mr '54

Corrosion proofing with vapour phase inhibitors. J. P. Mosher. Can Chem Process 37:64 D '53

Corrosion protection; superior resistance of vinyl coating systems utilized; Prufcoat laboratories, inc. il Iron Age 172:188+ S 10 '53

Corrosion resistant finishes. Metal Finishing 52:121-2 Je '54

Directory of materials; finishes and coatings, tradenames and information; index by type of material. Machine Design 26:157-60+ sec 2 My '54

Finishes for metals; inorganic and protective coatings. R. A. Wason. il Tool Eng 32:81-8 F '54

Hot dip aluminizing. Automobile Eng 44:218 My '54

Improvement of the corrosion resistance of tinplate by a chemical treatment. S. C. Britton and R. M. Angles. il J Ap Chem 4:351-64 Jl '54

Inhibitor; better corrosion protection, simplified application gained. il Iron Age 174:125-6 Ag 5 '54

Metal cleaning and finishing handbook; rust preventives, U.S. government specifications. N. E. Woldman, comp. Iron Age 174:sup F 19-20 Jl 29 '54

New corrosion resistant coating protects cast iron coolers; Kolmetal coating. J. J. Obrzut. il Iron Age 172:76-7 D 24 '53

Packaged corrosion losing to VPI. W. R. Wolfe. il Steel 133:132+ O 26 '53

METAL protection—*Continued*

Plastic alloys provide low cost, corrosion-resistant finish. W. G. Patton. il Iron Age 172:159-62 S 10 '53

Plastic degreasing coat. Steel 133:165-6 S 14 '53

Plus-Gas de-rusting fluid. Engineer 197:365 Mr 5 '54; Engineering 177:311 Mr 5 '54

Preventing corrosion with saran. il Chem Eng 61:264+ Jl '54

Protection of ferrous metals against corrosion; Corrosion group of the Society of chemical industry annual exhibition. Metallurgia 49:62 F '54

Protective coatings make it easy to use; annual review. H. Burrell. Chem & Eng N 32:34-5 Ja 4 '54

Suggested method of evaluating the porosity of coatings on ferrous metals. T. W. Farrer. Chem & Ind p77-8 Ja 16 '54

Surface treatment of titanium. il diags Steel 133:130-2 N 2 '53

Tests of the protective value of metallic coatings under sheltered conditions (marine atmosphere). S. G. Clarke and W. N. Bradshaw. bibliog il diag J Ap Chem 3:147-54 Ap '53

Use of heavy cutback asphaltum mastic coatings in coke plant areas; abstract. A. H. Bagenstose, jr. Iron & Steel Eng 31:146 S '54

Versatile porcelain enamel. Steel 133:47 N 23 '53

Wear resistant coatings for ferrous metals. R. H. Bancroft. S A E J 61:48-9 N '53

See also

Aluminum—Protection
Aluminum coating
Chromium plating
Chromizing
Corrosion and anticorrosives
Electroplating
Enamel and enameling
Galvanizing
Iron—Protection
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Metal coating
Paint, Protective
Phosphate coating
Pipe coating
Pipe lines—Protection
Steel—Protection
Tungsten carbide coating
Zinc coating

Cathodic protection

Action of polar organic inhibitors in acid dissolution of metals. N. Hackerman and A. C. Makrides. bibliog(45 ref) Ind & Eng Chem 46:523-7 Mr '54

Anode-bed inspection and maintenance. M. E. Parker. Oil & Gas J 52:113 Jl 6 '53

Cathodic protection and control of corrosion in the Middle East. W. C. R. Whalley. il map diag Chem & Ind p 140-7 F 6 '54; Discussion. p687 Je 12 '54

Cathodic protection; application to ships and establishments of Royal navy. J. T. Crennell. il diags Chem & Ind p204-9 F 20 '54; Discussion. p713-20 Je 19 '54

Cathodic protection as applied to royal Canadian naval vessels in active service. K. N. Barnard. il diags Chem & Ind p 172-82 F 13 '54; Discussion. p713-20 Je 19 '54

Cathodic protection for steel mill grounding systems. J. F. Headlee. diags Iron & Steel Eng 31:113-15 Mr '54

Cathodic protection for the prevention of corrosion in equipment for the treatment of white water. F. J. LeFebvre. diags Tappi 37:sup 152-154A Mr '54

Cathodic protection for waste treatment plants. Pub Works 85:118 Mr '54

Cathodic protection in relation to engineering design. K. A. Spencer. bibliog diags Chem & Ind p2-10 Ja 2 '54; Discussion. p681-4 Je 12 '54

Cathodic protection of ships and marine structures. K. A. Spencer. bibliog diags Chem & Ind p702-8 Je 19 '54

Maintenance aspects of corrosion program at Fairless works. K. L. Johannsen. bibliog il diags Iron & Steel Eng 31:115-22 S '54

New techniques and current problems in control of underground corrosion. O. C. Mudd. plan diags Gas Age 112:46-8 D 17 '53

Ship bottoms get cathodic protection at less cost. Iron Age 173:180 Mr 4 '54

Symposium on cathodic protection. Engineer 196:700-1 N 27 '53; Same abr. Engineering 176:650 N 20 '53

See also

Pipe lines—Cathodic protection
Steel—Cathodic protection
Water pipes—Cathodic protection

METAL spinning

Basic tooling for spinning metals. F. L. Coenen. il diags Tool Eng 32:57-63 Mr '54

Low-melting alloys provide low-cost method to spin re-entrant shapes. D. Sams and J. Borodavchuk. il diags Am Mach 98:145-7 F 15 '54

Phoenix lathe for large parts has 180 in. swing diam. il Iron Age 173:220 Je 24 '54

Present-day techniques of spinning aluminum. J. R. Young. il diags Mach 60:194-201 Ap '54

Spinning begins on world's biggest unit. il Tool Eng 33:104 Ag '54

METAL spraying. See Metal coating

METAL stitching. See Sheet metal work

METAL textile corporation

Advance in sales, earnings likely this year. Barron's 33:18 Ag 17 '53

METAL trade

Metal industries return to normalcy; annual review. D. A. Roberts and J. H. Jackson. Chem & Eng N 32:43-5 Ja 4 '54

Metal items authorized for Spain by FOA. For Comm W 50:13 D 14 '53

Metal meddlers; raw material plenty leaves the planners baffled. J. C. Perham. Barron's 33:5-6 N 9 '53

Metals boom chemicals, too. Bsns W p85-6 O 31 '53

Metals; monthly analysis of the metals market. W. F. Boericke. Automotive Ind 110:79+ Ja 1 '54 [cont monthly]

Metals; review and forecast. maps Eng & Min J 155:72-102+ F '54

Randall commission recommendations stir split on foreign trade policies. M. A. Reichek. Eng & Min J 155:142+ F '54

Rise in metals buying forecast. Steel 134:55 My 3 '54

See also

Aluminum industry and trade
Copper industry and trade
Iron industry and trade
Lead industry and trade
Metal workers
Metals, Non-ferrous
Mineral industries
Scrap metal industry
Sheet metal trade
Steel industry and trade
Tin industry and trade
Tin plate
Zinc industry and trade

Securities

Titanium coming of age; investment interest. L. A. Lukens. il Mag of Wall St 93:678-80+ Mr 6 '54

Statistics

Metal supplies and prices. Survey of Cur Bsns 33:9-10+ N '53

Price and production data. Iron Age 173:405-20 Ja 7 '54

Great Britain

Materials for the electrical industry. Elec R (Lond) 154:22-4 Ja 1 '54

India

Non-ferrous metal industry symposium, Jamshedpur, India. Metallurgia 49:271-5 Je '54

Japan

Metallurgical activities in Japan. D. J. Murphy. il map Metal Prog 65:67-71 Ja '54

METAL waste

Airlift for metal chips; Hartford machine screw co. il Factory Management 112:139 Mr '54

Automatic chip processing pays dividends at Chrysler. il diag Mach 60:210-14 N '53

Big pay-off from new waste salvage system; Eaton manufacturing co. il Factory Management 112:130-1 Ja '54

Chromic acid recovery by ion exchange. R. J. Brink. flow diag diag Sewage & Ind Wastes 26:197-202 F '54

METAL waste—*Continued*

Coated flexible tubing wears longer in chip disposal system. W. G. Patton. il Iron Age 172:140-2 Ag 20 '53

New press line for air cleaners has special scrap disposal system; United specialties co. il Automotive Ind 110:38-9 Ja 15 '54

Process kinetics; kinetics of ion exchange in the calcium cycle. P. F. Hagerty, 2d and H. Bliss. bibliog flow sheet Ind & Eng Chem 45:1253-9 Je '53

Production of Chrysler corp.'s new Power-Flite automatic transmission; chip disposal system. J. Geschelin. flow diag il diags Automotive Ind 110:46-7+ My 15 '54

Removing swarf with compressed air; Norton co. il diags Comp Air Mag 59:79 Mr '54

See also

Metal working plants—Waste
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METAL work

Bosses coined accurately, quickly; International business machines corp. il Iron Age 173:144 F 11 '54

Coating halts high coining costs. il Steel 133: 102 Ag 10 '53

Hi-fi; new potential in metalworking. Steel 133:87 D 14 '53

Hot coining produces true density in powder metal parts. G. J. Comstock. il Iron Age 174:89-2 S 30 '54

How to hot work titanium. C. I. Bradford. il Steel 134:100-1 My 24 '54

Latest developments in metalworking. H. L. Tigges. il Mill & Factory 54:557-9+ My '54

New production methods and machines. W. P. Hill. il diag Tool Eng 32:175-8 Je '54

New techniques build new atom plant; illustrations with text. Am Mach 98:92-5 Ja 4 '54

Steel's 1954 forum on technical progress. il Steel 134:207-442 Ja 4 '54

Tantalum and columbium. J. W. Rose. il diags Am Mach 98:189-98 Ap 12 '54

Technical progress; forming. il Steel 134:356-7+ Ja 4 '54

Trends in production methods in metalworking plants doing machining. Steel 133: 36-7 sec 2 N 16 '53

See also

Aluminum work
Brass founding
Copperwork
Dies
Electroplating
Extrusion process
Forging
Foundry practice
Heat treatment
Machine shop practice
Machine tools
Metal cutting
Metal drawing
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Pickling (metals)
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Punching
Rolling (metal work)
Sheet metal work
Shells (metal work)
Shot peening
Solder and soldering
Stamping
Steel work
Swaging
Tin plate
Turning
Welding

Bibliography

Machinery's data sheet index; Feb. 1951 to Dec. 1953, inclusive. Mach 60:257 Ja '54

Terminology

Glossary of heat treating and testing terms; compiled by Bethlehem steel co. Iron Age 173:supF50+ F 25 '54

Handbook of terms commonly used in the nonferrous industries. Iron Age 173:343-4+ Ja 7 '54

METAL work, Architectural

See also

Sheet metal work, Architectural

METAL workers

Apprentices; assurance of skilled labor tomorrow. W. E. Dean. il Steel 134:65-7 My 3 '54

Apprentices; training 'em right; John Volkert metal stampings plant. il Am Mach 98:156 Ap 26 '54

Film beckons tool and die apprentices. il Steel 133:97 S 21 '53

Jobs; skilled men easier to find. R. D. Raddant. Iron Age 172:25-6 D 31 '53

Metalworking wages and hours; production workers; employment; tabulations. Steel 134:196 Ja 4 '54

Mutual hiring saves headaches; non-profit employer co-op formed to give the advantages of big-company employment methods at small-company cost. il Am Mach 98:121-3 F 1 '54

Overtime; more reductions coming. Steel 133: 41 N 2 '53

See also

Foundries—Employees
Steel workers

France

Training of North African metal workers in France. Int Labour R 68:76-84 Jl '53

METAL working industries

American Machinist index of metalworking production shifted to 1947-49 base for easy comparison; charts. Am Mach 98:97-8 Mr 29 '54

Annual report for 1954; survey of 20 large companies. il Steel 134:47-8 Ap 12 '54

Approaches to to-morrow; Worcester pressed steel co. C. C. Higgins. il Dun's R & Mod Ind 62:1+ O '53

Business roundup. Iron Age 173:302-5 Ja 7 '54

Buyers effect voluntary inventory control; quarterly survey. Steel 133:63-4 Jl 6 '53

Buyers' market prevails; quarterly survey. Steel 133:47-8 O 5 '53

Compass for competition. Steel 134:113-16 Ja 4 '54

Component stocks; best since '50. Steel 134: 29 Ja 11 '54

Components; more buying due by fall; quarterly survey. Steel 135:32-3 Jl 5 '54

Export markets worth fighting for. Steel 135:77 Jl 12 '54

Fit your sales to growing markets. Steel 134:66-7 Je 7 '54

Foreign trade policy coming to a head; American metalworking manufacturers are a focal point. Steel 133:79 N 16 '53

Future brightens for export trade. Steel 134: 103 Ap 19 '54

In the wake of 1953; what happened in metalworking; chronology of important events. Steel 134:467-71+ Ja 4 '54

Industry; boom eases, prosperity stays; survey of 13 industries. Iron Age 172:55-7 S 3 '53

Inventories bounce near bottom. Steel 134:57 Ap 5 '54

Inventors! what's the idea? needs of special interest to the metals industries are listed. Steel 135:40-1 Ag 30 '54

Metalmen rein in on credit. Steel 134:67-8 F 8 '54

Metals will use more chemicals. Chem Eng 61:379-81 Ja '54

Metalworking industry grows and grows. Steel 134:54 F 22 '54

Metalworking management sees second half upturn. Steel 134:55-8 Je 28 '54

Metalworking meetings for 1954. Iron Age 173:383-4+ Ja 7 '54

Metalworking's first quarter consolidated balance sheet. Steel 134:57-8 Mr 29 '54

Metalworking's future markets. A. H. Johnson and others. map diag Iron Age 173:M 1-32 Ap 8 '54

Metalworking's long view. Am Mach 98:150-1 Ag 2 '54

Metalworking's 1954 outlook; ten per cent more capital spending, three per cent less sales. Am Mach 98:150-1 Ap 26 '54

New U.S. tax laws; here's how they affect metalworking. Am Mach 98:194-7 S 13 '54

1954 decline; steeper for metalworking? National industrial conference board's economic forum. Steel 134:31-2 Ja 11 '54

1954 metalworking capacity up 12 per cent despite sliding capital expenditures. il Steel 135:69-70 S 20 '54

1954 production planbook for metalworking. Am Mach 97:1-70, sec A-H Mid-N '53

Personnel in distribution. il Steel 135:91-8 Jl 19 '54

Plateau for metal buying; quarterly survey. Steel 135:47-8 Ag 2 '54

Prefabricated houses; more sales for metalworking. il Steel 134:55-6 My 24 '54

Prescription for prosperity. R. E. Cross. il Tool Eng 32:37-41 Mr '54

METAL working industries—*Continued*
See big rise in metalworking. map Ind Marketing 39:34+ Je '54
Selling by seminar; Townsend co. maker of cold-headed products. il Steel 133:50-1 N 2 '53
Shake-up in world trade coming. il Steel 133:38-9 D 28 '53
Stampers end record sales year. K. W. Bennett. Iron Age 172:29 D 31 '53
Steel comeback now in the making. K. W. Bennett. Iron Age 174:51-3 Ag 26 '54
Steel's 1954 forum on technical progress. il Steel 134:207-442 Ja 4 '54

See also
Sheet metal trade

Directories

Directory of southern metalworking plants; by states. Iron Age 172:210-25+ N 12 '53

Finance

Earnings; a good start for 1954; first-quarter profits comparison for 50 firms. Steel 134:74 My 10 '54
First-quarter profits after taxes hit $2.8 billion. Steel 133:44 Jl 20 '53
Metalworking; strength for the economy. Steel 135:52 Ag 23 '54
Metalworking's first half profits still high. Steel 135:50 Ag 2 '54
Profits rise marks first half business. Steel 133:56 Ag 10 '53

Statistics

American Machinist index of metalworking production. Published in bi-weekly numbers of American machinist
Metalworking facts for 1954. Am Mach 97:18-32 Mid-N '53
1954 metalworking facts and figures. Steel 134:158-204 Ja 4 '54
Seventh American Machinist inventory of metalworking production equipment. Am Mach 97:A 1-97 Mid-N '53
What metalworking management expects in 1954. Steel 134:117-24 Ja 4 '54

Belgium

Belgian exports shift. Steel 134:77 F 15 '54
European industry caught in the doldrums. Steel 133:73 S 14 '53

Canada

Canada, metalworking's land of promise. il Am Mach 98:129-36 My 24 '54

Cyprus

Electroplating in Turkey and Cyprus. M. Rubinstein. il Metal Finishing 52:64-9 Ja '54

Europe

Rising labor costs are stumbling block. Steel 134:47 Ja 18 '54

France

Productivity, new markets are top European targets. il Steel 133:89 D 14 '53

Germany

European metalworking looks for price-conscious 1954. il Steel 133:49 D 21 '53
US top management team finds west Berlin metalworking long on technology, short on marketing. Am Mach 98:143 F 1 '54

Great Britain

British advances in metals, fabrication methods and applications. T. Bishop. il diags Metal Prog 65:101-4+ Ja '54
European metalworking looks for price-conscious 1954. il Steel 133:48-9 D 21 '53

Israel

Electroplating in Israel. M. Rubinstein. il Metal Finishing 51:58-62 N; 69-73+ D '53

Italy

Advanced practices in Italy. A. Oreffice. il plan diag Metal Prog 65:84-8+ Ja '54

Japan

Japan; industry on the rebound. D. M. Laflin. il Am Mach 98:172-3 Je 21 '54
Japan tooling up for industrial expansion. F. U. Hayes. Am Mach 98:136 Ja 4 '54

Kentucky

Louisville story; four factors spark its industrial expansion. il Steel 135:63-5+ Ag 9 '54

Latin America

Competition through credit terms. W. Anders. Steel 134:83 Je 21 '54

Mexico

Modern metalworking in Mexico; Ciudad Industrial (Industrial City) DM Nacional; illustrations with text. F. H. Colvin. Am Mach 98:104-5 Ag 2 '54

New England

Metalworking, backbone of New England industry. W. Raleigh. il Iron Age 173:124-6, 134-7 Je 24 '54

Russia

New Russian concept of cutting tools; true or false? F. Sachs. diags Am Mach 98:170-1 Ap 12 '54
Russians stress economies of engineering materials. Materials & Methods 39:165-6+ Ap '54
USSR induction forges. Am Mach 98:130 Ag 30 '54

Southern states

Directory of southern metalworking plants; by states. Iron Age 172:210-25+ N 12 '53
South needs hard goods plants. C. R. Walker. Manuf Rec 123:35+ Mr '54
Spot checking metalworking in the South. T. Campbell. Iron Age 172:202-3 N 12 '53

Spokane, Washington

Spokane; metals, power spur growth. T. M. Rohan. il map Iron Age 173:80-1 F 18 '54

Turkey

Electroplating in Turkey and Cyprus. M. Rubinstein. il Metal Finishing 52:64-9 Ja '54

Yugoslavia

Yugoslav metalworking, aided by democracies, at all-time peak. il Am Mach 97:186 D 7 '53

METAL working machinery
Automation; Colonial combination drill, broach and stamping unit developed. Iron Age 174:149-50 Ag 19 '54
Michigan rack shaver meets machining deadline. il Steel 134:132 Ap 5 '54
New production methods and machines. W. P. Hill. il diag Tool Eng 32:175-8 Je '54
Roto-Flo roll forms splines and serrations. il Am Mach 98:180 Je 21 '54; Steel 134:132 Je 21 '54; Iron Age 173:110-12 Je 24 '54; Mach 60:223-5 Jl '54
Snyder special machine for processing aircraft diffuser cases. il Mach 60:232 Je '54

See also
Electric welding machines
Filing machines
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Molding machines
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Punching machinery
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Sheet metal working machinery
Stretching machines
Wire forming machines

Length of service

Seventh American Machinist inventory of metalworking production equipment. Am Mach 97:A 1-97 Mid-N '53

METAL working plants
Defense tooling takes a back seat. Steel 133:65 Ag 10 '53
Die control program solves handling, storage problems; Lyon metal products, inc. V. J. Rokop. il Iron Age 173:116-19 Je 3 '54
Magnesium sheet en masse; Dow Chemical. il Chem & Eng N 32:2188-9 My 31 '54
Pilot metal plant planned; Westinghouse electric corp. W. M. Trigg. Materials & Methods 40:241-2+ S '54
Steel among the cactus; Allison steel mfg. co. of Phoenix. il Steel 134:65 Ja 18 '54
Westinghouse opens plant, Columbus, Ohio. Steel 134:86 Ap 5 '54

METAL working plants—*Continued*

Wilkes-Barre gets new industry; new $5 million Foster Wheeler plant. R. L. Hatschek. il Iron Age 172:47 N 26 '53

See also

Aluminum works
Brass works
Foundries
Heat treatment shops
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Accounting

Nonferrous metals product cost development. L. E. Zraick. N A C A Bul 34:1412-28 Jl '53

Standard cost system pinpoints excessive cost areas, lowers operating expense. W. C. Fitts. Iron Age 174:131-4 S 9 '54

Electric equipment

Induction heating; low frequencies have advantages. J. A. Logan. il Iron Age 172:69-72 D 24 '53

Wire drawing; higher speeds, greater problems. J. R. Erbe. il Steel 133:158-60+ N 16 '53

Employees

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Equipment

Automatic process control. il diags Iron Age 172:273-304 O 8 '53

Automatic process control; bright light in industry future. W. B. Olson. il Iron Age 172:306-7+ O 8 '53

Bar mill built to serve market; Bliss & Laughlin inc. A. G. Gray. il plan Steel 133:196-7+ D 7 '53

Bolt cold-heading and inspection at International Harvester. J. P. Lehning. il Mach 61:171-3 S '54

Canny bulk handling saves chip and oil wastes; Allis-Chalmers mfg. co.; illustrations with text. H. W. Lindsay and L. F. Graves. diags Am Mach 98:130-3 Mr 15 '54

Central coolant supply serviced by coarse-screen filter; Bower roller bearing co. J. W. Fauver. il Mach 60:169-71 Ag '54

Centralize atmosphere generators to improve furnace layout; Bingham Herbrand corp. W. D. Latiano. il plan Iron Age 173:115-17 My 27 '54

Circulating systems offer uniform finishes. il diags Steel 134:94-5 My 31 '54

Coil handling made easy; Lee Wilson engineering co. il Steel 134:102 F 1 '54

Compressed air system is spacesaver; American bridge division, U.S. steel corp. E. P. Meixsell. il diag Steel 133:86-7 O 19 '53

Design tooling for complete automation; AC spark plug div. of General Motors. W. G. Patton. il diags Iron Age 173:114-16 Jl 1 '54

Engineered scrap service cuts costs, raises profits; Scrap corp. of America. J. Grombacher. il Iron Age 173:166-8 Mr 4 '54

Engineering metal finish; methods, materials command equal stature. R. J. Deisenroth. il Steel 135:115-16+ Jl 19 '54

Engineers' tool factory; Edgar Allen and co. il Engineer 197:222 F 5 '54

Equipment tailored for new-plant jobs; Foster Wheeler corp. plant. il Steel 134:128-9 F 1 '54; Mech Eng 76:180-2 F '54

Finishing; greater efficiency helps beat higher production costs; Stratton & Terstegge co. il Iron Age 173:147-8 Je 10 '54

Furnace line heat treats 50,000 fasteners an hour; Standard pressed steel co. il Iron Age 172:134 S 3 '53

Handling; fork truck, crane combined to ease die removal; Perfection stove co. il Iron Age 173:194-5 F 25 '54

Handling; mechanized methods save time and storage space; General metal products co. il Iron Age 174:148-9 Ag 19 '54

Heavy parts production overhead equipment handles everything; Colonial Iron Works. il Steel 134:160-1 Je 21 '54

Induction heating generators as production tools. P. A. Hassell. il Metal Prog 66:94-6 Jl 1 '54

Insulated food container factory. il Engineer 197:244-5 F 12 '54; Engineering 177:218 F 12 '54

Keep small parts on the job; use of metal containers; Gehl bros. mfg. co. il Steel 135:104 Ag 16 '54

King-size tools for king-size jobs; Foster Wheeler corp. il Marine Eng 59:77 Ja '54

Know-how handbook; metal working. il diags Mill & Factory 54:555-759 My '54

Manufacturers' literature. Published in monthly numbers of Materials and methods

Metalworking takes stock; modernization is a must. Bsns W p 132-4 N 14 '53

Modern tools aid process flow; Foster Wheeler plant. il Mill & Factory 54:134 Ja '54

New angles for the galvanizing line; Wheeling steel corp. D. A. McArthur and others. il diag Steel 134:100-2 Ap 5; 102-4 Ap 12 '54

New $5-million pressure-vessel plant expected to cut fabrication time by 40 per cent; Foster-Wheeler corp. il Am Mach 97:182-4 D 7 '53

1954 American Machinist production preview. il Am Mach 98:121-264 Ja 18 '54

Planning pays off in higher efficiency, better working conditions; Ohio screw products inc. W. D. Latiano. il plan Iron Age 173:150-2 F 4 '54

Radiator cores; important developments in design and manufacturing equipment; J. W. Lawrence, ltd. il Automobile Eng 44:189-93 My '54

Safety features built into sulfuric acid pumping system; Wigton-Abbot corp. F. J. Hendel and H. B. Pateman. diag Iron Age 172:164-5 S 17 '53

Small parts handling; Ford motor co.'s two Metal stamping division plants. il Steel 133:74-5 D 28 '53

Stamping; idea paces fast growth; Iron Hands of the Sahlin engineering co. R. D. Raddant. il Iron Age 174:81 S 9 '54

Tranter compact heating units cut down-time in metal finishing. il Iron Age 174:120 Jl 15 '54

Trepanning cuts hole making costs. A. G. Haglund. il Iron Age 174:120-1 Ag 12 '54

Two refrigerators a minute; Westinghouse Electric appliance plant. G. H. DeGroat. il Am Mach 98:157-60 My 10 '54

Versatility, key to efficient heat treat layout; H. M. Harper co. K. G. Hookanson. il Iron Age 173:148-50 Mr 25 '54

Vest-pocket automation. F. M. Butrick, jr. diag Steel 135:98 S 6 '54

Wide choice in coiled strip leads to faster fabrication. J. E. Hyler. il Iron Age 173:118-21 Je 10 '54

See also

Machine tools
Metal working machinery

Fires and fire protection

First two minutes count the most. H. Chandler. il Steel 134:112-14+ F 8 '54

National Board issues safeguards for metal-working industry risks. East Underw 55:26 S 3 '54; Nat Underw 58:26 Ag 5 '54

What you can do to protect your plant. G. E. Stecher. Iron Age 172:36A-36D O 1 '53

Heating and ventilation

Ventilation problem; fumes given off from tank during a hot dip cleaning operation not properly handled by hood. N. N. Wolpert. diag Heat & Ven 51:124-6 Mr '54

Layout

Look at custom heat treating; Lindberg steel treating co. il plan Steel 134:100-2 My 3 '54

Management

Case of the press department super. Steel 135:53 S 27 '54

Efficiency program covers 32 projects for better output; Lyon metal products. il Iron Age 172:100-1 N 19 '53

Identification numbering system for purchased materials; Eastman Kodak co. P. J. Callan. il Steel 135:94-5 S 6 '54

Integrate your distribution. il Steel 134:113-20 Je 21 '54

Organize to prosper. M. K. Sheppard. Steel 135:78-9 Jl 12 '54

Product diversification. il Steel 135:113-20 S 13 '54

Quality control takes teamwork. H. A. Prelinger. il Steel 133:101-2 Jl 13 '53

Select the right materials for the job. il Steel 133:129-36+ O 12 '53

METAL working plants—Management—*Cont.*

Simplification, key to productivity; National federation of metal finishers 1st management seminar, Chicago. Iron Age 173:76-7 F 11 '54

Stampings; should you make them or buy them? C. C. Caditz. Iron Age 174:107-11 S 23 '54

Time study; aids in competition. K. W. Bennett. Iron Age 173:107-8 Je 17 '54

Tool engineer moves up; new voice at the management level. R. F. Huber. Steel 134:136-7 Ap 19 '54

Traffic control, key to economical movement of goods; Scovill mfg. co. S. W. Baker. il Steel 133:40-1+ Ag 31 '53

Trial technique for quality control; Roylyn inc. il Steel 134:92-4 Ja 11 '54

Safety measures

How to work 1,000,000 manhours safely; Worcester pressed steel co. C. C. Higgins. il Mill & Factory 54:122-4 Ja '54

What about your safety program? H. Chandler. il Steel 133:101-4 N 30 '53

See also

Punching machinery
—Safety devices

Waste

Conveyorized disposal; twin system sorts chip grades; McQuay-Norris mfg. co. il Steel 134:146-7 Mr 15 '54

Flow-through treatment of metal industry wastes. F. J. Hendel and V. T. Stewart. bibliog il Sewage & Ind Wastes 25:1323-30 N '53

New system cuts waste pickle liquor disposal costs; A. O. Smith-Eimco process. D. A. Dahlstrom. flow sheet il Iron Age 173:150-3 Ap 8 '54

Separation plant removes sludge from waste water; Spang-Chalfant plant of National supply co. J. E. Culleton. il diags Iron Age 173:131-3 F 11 '54

Treatment of complex metal-finishing wastes. K. S. Watson. il diag Sewage & Ind Wastes 26:182-4; Discussion. W. S. Wise. 194-6 F '54

Treatment of machine shop and foundry wastes; abstract. C. W. Hathaway and R. E. Harvie. Water & Sewage Works 101:405 S '54

Waste handling is turned to profits; Eaton mfg. co. il Steel 134:116-17 Ap 26 '54

Waste treatment for the metal-finishing industry. L. E. Lancy. diags Tool Eng 33:156-8 Ag '54

See also

Metal waste

METAL working saws. See Saws, Metal working

METALACING. See Sheet metal work

METALATION

Metalation of dialkyl sulfones. W. E. Truce and K. R. Buser. Am Chem Soc J 76:3577-9 Jl 5 '54

Metalation of diaryl sulfones; phenyl *p*-tolyl sulfone and dimesityl sulfone. W. E. Truce and O. L. Norman. bibliog Am Chem Soc J 75:6023-5 D 5 '53

Organometallic compounds of the alkali metals; metallation of alkylbenzenes by alkyl-sodium and -potassium compounds; the character of aromatic metallation reactions. D. Bryce-Smith. Chem Soc J p 1079-88 Mr '54

METALLIC films. See Films, Metallic

METALLIC soap. See Soap, Metallic

METALLIZING. See Metal coating

METALLO organic compounds. See Organometallic compounds

METALLOGRAPHIC specimens

Improved method for routine electrolytic polishing of microspecimens. R. L. Hancher. il diags Metallurgia 49:47-51 Ja '54

Measurement of approximately cylindrical particles in opaque samples. R. L. Fullman. diags J Metals 5:Trans 1267-8 sec 2 S '53

Mechanism of metallographic etching. G. L. Kehl and M. Metlay. il Electrochem Soc J 101:124-7 Mr '54

Optical goniometer for the examination of long metal single crystals. A. J. Goss. bibliog diags J Sci Instr 30:283-5 Ag '53

Production metallography. E. Wood. il Metallurgia 48:212 O '53

Mounting

Mounting thin strips for metallographic examination. A. D. Hopkins. il Metallurgia 49:105 F '54

METALLOGRAPHY

Allotropic transformations at high temperature. J. O. McCaldin and P. Duwez. bibliog diags J Metals 6:Trans 619-20 sec 2 My '54

Alloys for high temperature service (investigation of the fundamental factors promoting high-temperature strength of alloys); abstract. R. L. Beck and others. Metal Prog 66:supA 191-3 Jl 15 '54

Analysis of molten-zone refining. N. W. Lord. bibliog diag J Metals 5:Trans 1531-3 sec 2 N '53

Analysis of quantitative pole-figure data. C. G. Dunn. bibliog diags J Ap Phys 25:233-6 F '54

Basic types of diagrams of composition versus high-temperature strength in metallic systems; abstract. I. I. Kornilov. diags Metal Prog 65:184-5 F '54

Calculation of interdiffusion coefficients when volume changes occur. M. Cohen and others. bibliog J Metals 5:Trans 1534-6 sec 2 N '53

Carbide reactions in high temperature alloys. J. R. Lane and N. J. Grant. bibliog il Am Soc for Metals Trans 44:113-34; Discussion. 134-7 '52

Change in ingot shape during zone melting. W. G. Pfann. bibliog diags J Metals 5:Trans 1441-2 N '53

Chemical study of an antique art object. R. Strebinger and R. Niederhuemer. il J Chem Educ 30:291-5 Je '53

Color shows up the unknown in metallography. J. H. Powers and W. J. Loach. il Steel 133:93-6 O 19 '53

Constitution and properties of Ag-Cu-Zn brazing alloys. K. M. Weigert. bibliog il J Metals 6:Trans 233-7 sec 2 F '54

Correlation between microstructure and resistivity of transforming Ti-Mn alloys. D. J. DeLazaro and D. W. Levinson. il J Metals 6:Trans 1089-93 sec 2 S '54

Creep behavior of magnesium-cerium alloys. C. S. Roberts. bibliog il J Metals 6:Trans 634-40 sec 2 My '54

Crystallographic angles for hexagonal metals. A. Taylor and S. Leber. J Metals 6:Trans 190-2 sec 2 F '54

Cursory investigation of intermediate phases in the systems Ti-Zn, Ti-Hg, Zr-Zn, Zr-Cd, and Zr-Hg by X-ray powder diffraction methods. P. Pietrokowsky. bibliog J Metals 6:Trans 219-26 sec 2 F '54

Decay of lattice defects frozen into an alloy by quenching. A. E. Roswell and A. S. Nowick. bibliog J Metals 5:Trans 1259-66 sec 2 S '53; Discussion. 6:Trans 672-3 sec 2 My '54

Directionality affects physical properties of wrought metals. H. A. Unckel. bibliog Iron Age 172:170-3 S 10 '53

Dislocations or what makes metals so weak? W. T. Read, jr. il diags Metal Prog 65:101-6+ F '54

Effective heat treatment of molybdenum. T. G. Perry and others. il Metal Prog 65:75-7 F '54

Effects of temperature on the deformation of beta brass. C. S. Barrett. bibliog il J Metals 6:Trans 1003-8 sec 2 S '54

Formation of intracrystalline voids in solution-treated magnesium-aluminium alloys; abstract. E. Lardner. Metal Prog 65:182+ Mr '54

Formation of sigma phase in the Mn-Mo system. B. F. Decker and others. J Metals 5:Trans 1476 N '53

Heat treatment, structure, and mechanical properties of Ti-Mn alloys. F. C. Holden and others. bibliog il J Metals 6:Trans 169-84 sec 2 F '54

How stable is titanium in vital operating range? H. A. Jahnle. Iron Age 172:116-19 O 22 '53

How to understand annealing and hot working of metals. S. Storchheim. il diags Am Mach 98:161-8 S 13 '54

METALLOGRAPHY—*Continued*

How to understand heat-treatment processes. S. Storchheim. il diags Am Mach 98:125-34 Ap 26 '54

Indium-antimony system. T. S. Liu and E. A. Peretti. il Am Soc for Metals Trans 44:539-45; Discussion. 545-8 '52

Influence of oxygen, nitrogen, and carbon on the phase relationships of the Ti-Al system. R. J. Van Thyne and H. D. Kessler. bibliog il J Metals 6:Trans 193-9 sec 2 F '54

Interaction of electrons with grain boundaries. M. H. Cohen and C. S. Barrett. Phys R 95:1094-5 Ag 15 '54

Interstitial diffusion. A. G. Guy. bibliog Am Soc for Metals Trans 44:382-403; Discussion. 404-9 '52

Investigation of the systems formed by chromium, molybdenum, and nickel. D. S. Bloom and N. J. Grant. bibliog il J Metals 6:Trans 261-8 sec 2 F '54

Lattice dynamics of body-centered and face-centered cubic metallic elements. J. de Launay. bibliog J Chem Phys 21:1975-86 N '53

Mechanism for the origin of recrystallization nuclei. J. P. Nielsen. bibliog il diags J Metals 6:Trans 1084-8 sec 2 S '54

Melting and freezing. B. Chalmers. bibliog il diags J Metals 6:Trans 519-32 My '54

Metallography of highly radioactive materials. M. J. Feldman. il Metal Prog 64:97-102 N '53

Metallography; supplement to 1948 edition of Metals handbook. bibliog il diags Metal Prog 66:164-77 Jl 15 '54

Metallurgist looks at fracture. C. H. Lorig. il diags Am Soc for Metals Trans 44:30-56 bibliog(31 titles, p55-6) '52

Microscopical examination of tin bronzes in the alpha range. E. C. W. Perryman. bibliog il J Metals 5:Trans 906-10 Jl '53

Neptunium-aluminum intermetallic compounds. O. J. C. Runnalls. il J Metals 5: Trans 1460-2 N '53

New technique for preparing homogeneous alloys. P. Levesque. diags J Metals 6:Trans 772-3 Je '54

Order-disorder transformation in Cu-Au alloys near the composition CuAu. J. B. Newkirk. bibliog J Metals 5:Trans 823-6 Je '53; Discussion. il 6:Trans 673-5 sec 2 My '54

Partial titanium-chromium phase diagram and the crystal structure of $TiCr_2$. P. Duwez and J. L. Taylor. bibliog il Am Soc for Metals Trans 44:495-513; Discussion. 513-17 '52

Phase relationships in the iron-chromium-vanadium system. H. Martens and P. Duwez. bibliog Am Soc for Metals Trans 44:484-93; Discussion. 493-4 '52

Primary and secondary recrystallization in cold rolled bicrystals of silicon iron. C. G. Dunn. bibliog il J Metals 6:Trans 549-50 My '54

Recrystallization and stored energy. H. P. Leighly and others. bibliog J Metals 5: Trans 809-12 Je '53

Sigma phase in binary alloys. P. Greenfield and P. A. Beck. bibliog(28 ref) J Metals 6:Trans 253-7 sec 2 F '54; Correction. 6:Trans 758 Je '54

Silver-cadmium beta and zeta phases. L. Muldawer and others. bibliog J Metals 5:Trans 1458-9 N '53

Silver-cadmium eutectoid. G. R. Speich and D. J. Mack. bibliog il J Metals 5:Trans 549-53 Ap '53; Discussion. 6:Trans 675-6 sec 2 My '54

Solidification of aluminum-rich aluminum-copper alloys. A. B. Michael and M. B. Bever. bibliog il J Metals 6:Trans 47-56 Ja '54

Some applications of the thermodynamic theory of irreversible processes to physical metallurgy. E. S. Machlin. bibliog J Metals 5:Trans 437-45 Mr '53; Discussion. 6:Trans 668-70 sec 2 My '54

Stress-strain characteristics and slip-band formation in metal crystals; effect of crystal orientation. F. D. Rosi. bibliog(34 titles) il diags J Metals 6:Trans 1009-20 sec 2 S '54

Structure of electrodeposits. J. J. Dale. bibliog(35 ref) il Metal Finishing 52:52-6+ Jl; 67-72 Ag '54

Structure of some iridium-osmium alloys. H. C. Vacher and others. il J Metals 6:Trans 80 Ja '54

Study of the effect of carbon content on the structure and properties of sintered WC-Co alloys. J. Gurland. bibliog il J Metals 6:Trans 285-90 sec 2 F '54

Substructure of metals determines elastic behavior. N. P. Goss. il Steel 133:130 Ag 3 '53

System titanium-chromium-molybdenum. R. P. Elliot and others. bibliog J Metals 5: Trans 1544-8 sec 2 N '53

System titanium-manganese-molybdenum. R. P. Elliott and others. bibliog J Metals 6: Trans 228-32 sec 2 F '54

Systems titanium-chromium and titanium-iron. R. J. Van Thyne and others. bibliog il Am Soc for Metals Trans 44:974-89 '52

Temperature range of the martensitic transformation in the Cu-Zn system. A. L. Tichener and M. B. Bever. bibliog J Metals 6: Trans 303-4 sec 2 F '54

Titanium-silicon system. M. Hansen and others. il diags Am Soc for Metals Trans 44:518-36; Discussion. 536-8 '52

Titanium-vanadium system. H. K. Adenstedt and others. bibliog il diag Am Soc for Metals Trans 44:990-1003 '52

Torsional deformation and recovery of single crystals. S. S. Hsu and B. D. Cullity. bibliog il diags J Metals 6:Trans 305-12 sec 2 F '54

Ultra-pure metals produced by zone-melting technique. E. E. Schumacher. il diag J Metals 5:1428-9 N '53

Uranium-titanium alloy system. M. C. Udy and F. W. Boulger. il J Metals 6:Trans 207-10 sec 2 F '54

Work hardening of metals. E. H. Edwards and others. bibliog J Metals 5:Trans 1525-9 sec 2 N '53; Discussion. 6:Trans 667-8 sec 2 My '54

See also
Aluminum—Metallography
Chromium—Metallography
Copper—Metallography
Etching (metals)
Iron—Metallography
Metallographic specimens
Steel—Metallography
Titanium—Metallography

METALLURGICAL analysis

Analytical methods for titanium and titanium alloys. J. A. Corbett. bibliog Metallurgia 49:206-8 Ap '54

Application of the complexones in metallurgical analysis. E. G. Brown. bibliog Metallurgia 49:101-5, 151-5 F-Mr '54

Calculation of integrated intensities in spectrographic microanalysis. J. K. Hurwitz. bibliog diags Opt Soc Am J 44:30-4 Ja '54

Chemical methods for separating and determining metals contained in platiniferous materials. R. Gilchrist. bibliog(25 ref) Anal Chem 25:1617-21 N '53

Colorimetric determination of copper with neo-cuproine. A. R. Gahler. Anal Chem 26:577-9 Mr '54

Determination of copper in metallurgical analysis. R. J. Guest. bibliog Anal Chem 25:1484-6 O '53

Improved precision equipment for metallurgical analysis; differential transformer dilatometer. L. L. Wyman. Metal Prog 65:202+ F '54

Iodometric determination of selenium in ores and flue dusts. C. W. Sill and H. E. Peterson. bibliog U S Bur Mines Rep of Invest 5047:1-9 '54

Multi-wavelength fluorescence spectrometer. I. Adler and J. M. Axelrod. bibliog diags Opt Soc Am J 43:769-72 S '53

Quantitative radiochemical method for determination of major sources of natural radioactivity in ores and minerals. J. N. Rosholt, jr. diag Anal Chem 26:1307-11 Ag '54

Semiquantitative spectrographic method for analysis of minerals, rocks, and ores. C. L. Waring and C. S. Annell. Anal Chem 25: 1174-9 Ag '53

METALLURGICAL analysis—*Continued*

Sulfur in ores, concentrates, and other metallurgical samples. W. G. Rice-Jones. bibliog diag Anal Chem 25:1383-5 S '53

See also

Assaying

also subdivision Analysis under names of metals, e.g.

Aluminum
Aluminum alloys
Boron
Copper
Iron
Lead
Magnesium
Metals
Steel
Zinc

METALLURGICAL apparatus

See also

Classifiers
Furnaces, Metallurgical
Magnetic separators
Metallurgical plants—Equipment
Tube mills

METALLURGICAL laboratories

British iron and steel research association's new Sheffield laboratories. il Metallurgia 48:270-2 D '53; Engineer 196:694-7 N 27 '53; Engineering 176:683-5, 688 N 27 '53

GE broadens metallurgical research; will establish Research laboratory at the Knolls. C. G. Suits. Steel 133:100 S 7 '53

Jones & Laughlin experimental furnace taps 1000th heat. Blast F & Steel Pl 41:1488 D '53

Kennecott Copper's research center formally dedicated in Salt Lake City. il Eng & Min J 155:116-17 Ag '54; Min Eng 6:774-5 Ag '54

Metals research center readied; Kennecott's new research center on the campus of the University of Utah. il Chem & Eng N 32:3038+ Ag 2 '54

National Malleable opens new technical center. il Foundry 81:152 D '53

National physical laboratory extension; new metallurgical laboratory opened. il plans Metallurgia 49:257-60 My '54

New BISRA laboratories opened. il Chem Age (Lond) 69:1117-20 N 28 '53

New facilities for Aluminium laboratories, ltd. il Metallurgia 50:47-51 Jl '54

New laboratories for Murex, ltd. il Chem Age (Lond) 69:807-9 O 17 '53

Trend is concentration; U.S. steel corp. in Monroeville. il Steel 134:128-9 Je 28 '54

See also

Foundry laboratories

Equipment

Collection of laboratory dusts. B. Langston and F. M. Stephens, jr. bibliog diags Min Eng 6:Trans833-6 Ag '54

Packaged rolling mill aids research; Research laboratory of the General cable corp. il Iron & Steel Eng 31:129+ Je '54

METALLURGICAL patents

Patent reviews. M. Nord. diags Published in monthly numbers of Iron and steel engineer

METALLURGICAL plants

Cobalt at Fredericktown; National lead co.'s new refinery. G. P. Lutjen. flow sheet il Eng & Min J 154:72-6 D '53

Licenses granted, work to proceed on $269,950,000 power and industrial development in Yukon area. map Roads & Eng Constr 92:92-3+ S '54

New metals and alloys plant; Electromet's Marietta plant. il Chem Eng 60:134+ S '53

No cause for concern; difficulties encountered with the Chemico chemical metal-refining process. Chem W 73:49-50+ S 26 '53

Nossa's unique electrolytic plant extracts zinc from calamine ores. D. Straniero. flow sheet il diags Eng & Min J 155:68-72 My '54

Operations and plants of the Consolidated mining and smelting company of Canada, limited. flow diags il maps plans diags Can Min J 75:127-393 My '54

Research reaps rewards; huge alloy plant to produce simplex ferrochrome, purer Cr and Mn; Electro metallurgical co. il J Metals 5:886-7 Jl '53

See also

Aluminum works
Blast furnaces
Brass works
Iron works
Smelting works
Steel works

Electric equipment

Direct current requirements at Carteret copper refinery supplied by three units. E. M. Meyer. il J Metals 6:811-13 Jl '54

Employees

People; plant building's number one factor; Electromet used human engineering in building Marietta plant. J. B. Delaney. il Iron Age 172:67-8 Ag 20 '53

Equipment

Anaconda's Raritan expansion completed. il Steel 133:38-9 Jl 27 '53

Copper slabs weighing 3000 lb. successfully cast at Raritan works. C. D. Pearce. il J Metals 6:512-14 My '54

Density recorder and controller; Bunker Hill & Sullivan mining & concentrating co. A. F. Kroll. il diags Min Eng 6:604-5 Je '54

Developments in minerals beneficiation; annual review, 1953. D. W. Scott. il Min Eng 6:166-79 F '54

Freewheeling cost reduction; United States metals refining co. il Chem W 74:48+ Ap 10 '54

Humboldt mill; features of design and construction. O. W. Walvoord. il diags Min Eng 6:42-4 Ja '54

Milling in 1953. N. Arbiter. il Min Cong J 40:54-6 F '54

Modern plant will treat Mesabi lean ores; West Hill plant of Western mining co. E. C. Herkenhoff. flow sheets il plans diags Eng & Min J 155:78-83 Mr '54

New leaching plant at Cananea; Consolidated copper co. R. C. Weed. flow diag il plan diags Eng & Min J 155:88-91 Ap '54

Pneumatic conveying system returns dust to roasters. il Iron Age 172:114 N 26 '53

Recovery of soluble gas and aerosols from air streams. E. M. Berly, M. W. First and L. Silverman. bibliog diags Ind & Eng Chem 46:1769-77 S '54

Removal of lime-scale from filter drums at Wright-Hargreaves. M. Black. il Can Min J 75:64 Mr '54

Saleable iron ore gleaned from unmined remnants; Pacific Isle mining co. E. T. Binger. il Eng & Min J 155:89-91 Ja '54

Selecting conveyors for handling hot bulk materials. J. W. Snavely. il J Metals 5:888-90 Jl '53

Taconite beneficiation comes of age at Reserve's Babbitt plant. O. Lee. flow sheets il Min Eng 6:484-8 My '54; Same cond. J Metals 6:737-9 Je '54

Titanium metal production expanded at Henderson plant. P. J. Maddex. flow sheet il diag J Metals 6:734-6 Je '54

White Pine's water intake. E. I. Brown and others. il diag Eng & Min J 154:84-7 N '53

See also

Concentrators

Power

Anglo-Lautaro Diesel plant boasts unique features. il Min Eng 6:876 S '54

At world's largest alloys plant; flexible, reliable power supply; Electro metallurgical co. E. H. Mangan and J. M. Bandel. il diags Power 98:86-9 Mr '54

Diesel power for copper refining; Raritan copper works. J. H. Wetherell, jr. il Diesel Power 32:26-9 My '54

Natural gas in the metallurgical industries. il Can Chem Process 38:54+ Mr '54

Quality control

Principles of technical control in metallurgical manufacture; abstract. A. R. E. Singer. Metal Prog 64:130+ N '53

Spectroscopy for copper alloys; production control quantometer. A. W. Young. il Steel 134:112-13 Je 14 '54

Ten practical uses of statistical quality control in metallurgical plants. J. W. Hood. il Metal Prog 64:82-8 N '53

Waste

Latent profit in stockpile wastes at Texas City tin smelter. il Chem W 74:50-2 My 15 '54

Recovery of ultrafine mineral values; progress report. K. K. Kershner and A. A. Cochran. bibliog 2pls U S Bur Mines Rep of Invest 5076:1-7 '54

METALLURGICAL plants—Waste—*Continued*

Two key reactions yield HCl from tin smelter waste; Tin processing corp. il diag Chem Eng 61:114-16 Je '54

METALLURGICAL research

British non-ferrous metals research association activities. E. C. Mantle. bibliog(26 titles) il Metallurgia 48:183-6 O '53

Metallurgical activities in Japan. D. J. Murphy. il map Metal Prog 65:67-71 Ja '54

Metallurgy; wide research spurs interest in rare earths for steel, iron. Iron Age 172: 194-6+ N 5 '53

New Kennecott research center to coordinate work of western mine divisions; ultramodern setup at University of Utah. il Min Eng 6:774-5 Ag '54; Eng & Min J 155: 116-17 Ag '54

Research in progress; AIMME Institute of metals division fall meeting, Cleveland; abstracts of papers. J Metals 5:1081-5 S '53

System zirconium-oxygen. R. F. Domagala and D. J. McPherson. bibliog il diag J Metals 6:Trans 238:46 sec 2 F '54

What's ahead in metallurgy? R. L. Wilson. Iron Age 172:210-11 O 8 '53

See also

Corrosion research
Foundry research
Iron research
Plating research
Steel research

also British iron and steel research association

METALLURGISTS

Engineer's role in the foundry; metallurgical engineer. C. W. Briggs. Foundry 82:98-9+ Ja '54

How the metallurgist can help the designer; abstract. A. S. Jameson. S A E J 62:83 My '54

See also

Chevenard, Pierre Antoine Jean Sylvestre

METALLURGY

Analysis of molten-zone refining. N. W. Lord. bibliog J Metals 5:Trans 1531-3 sec 2 N '53

CMRA meet tabs metallic outlets. Chem W 73:73-4 O 3 '53

Developments in minerals beneficiation; annual review, 1953. D. W. Scott. il Min Eng 6:166-79 F '54

Light metallurgy. R. P. Lister. diag Metal Prog 64:89-91 N '53

Melting review and forecast. Iron Age 173: 331 Ja 7 '54

Metallurgy; review and forecast. A. W. Schlecten. Eng & Min J 155:126-8 F '54

One, two, three; process developed by Chemical construction corp. and Sherritt Gordon for chemical refining of metals. Chem W 75:46+ Ag 14 '54

Some contributions of chemistry in the winning of metals; abstract. E. L. Day. Chem & Ind p806-7 Jl 10 '54

Technical progress; materials and metallurgy. Steel 134:254-5+ Ja 4 '54

Utility of isotopes in metallurgy. H. C. Boynton and A. D. Kirshenbaum. diags Steel 133:130-3 N 9 '53

Zone melting provides ultra-pure materials. il Materials & Methods 39:7+ Ap '54

See also

Aluminum metallurgy
Assaying
Blast furnaces
Cobalt metallurgy
Copper metallurgy
Cyanide process
Electrodeposition of metals
Electrometallurgy
Flotation process
Furnaces, Metallurgical
Hydrometallurgy
Iron metallurgy
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Manganese metallurgy
Metallography
Metallurgical analysis
Metallurgical laboratories
Metallurgical plants
Metallurgical research
Metals
Open hearth process
Ore treatment
Pickling (metals)
Sintering
Slag
Smelting
Steel metallurgy
Tailings
Zinc metallurgy

Bibliography

Bibliography of selected AEC reports of interest to industry; pt. 1, Metallurgy and ceramics. 38p Industrial information branch, United States Atomic energy commission, Washington 25 '53

History

Metallurgy in the days of alchemy. C. A. Zapffe. Metal Prog 66:89-95 S '54

Study and teaching

Directory of degree programs in metallurgy; data sheet. A. Bornemann, comp. Metal Prog 65:96B Mr '54

Metallurgical education in the United States. A. Bornemann. il Metal Prog 65:97-100 Mr '54

Nature of education in metallurgical engineering. R. F. Mehl. il J Metals 6:728-33 Je '54

Post-graduate metallurgical training. Metallurgia 50:37-8 Jl '54

Textbooks

Current Russian metallurgical texts. C. A. Zapffe. il diags Metal Prog 60:78-80+ Ag '51; 63:91-5 Mr; 64:88-90 D '53; 65:125-6+ My '54

Canada

Annual review of technical advances in Canada's mineral industries. L. E. Djingheuzian. bibliog il Can Min J 75:119-20 F '54

Russia

Soviet progress in powder metallurgy. Materials & Methods 39:169 F '54

Soviets progress in powder metallurgy. Chem & Eng N 32:728 F 22 '54

METALS

Action of metals on unsaturated 1,4-dihalides and derivatives; synthesis and some properties of butatriene. W. M. Schubert, T. H. Liddicoet and W. A. Lanka. bibliog Am Chem Soc J 76:1929-32 Ap 5 '54

Action of nitric acid on metals. M. M. Tillu. J Chem Educ 30:290 Je '53

Alkali halides colored by colloidal metal. A. B. Scott, W. A. Smith and M. A. Thompson. bibliog J Phys Chem 57:757-60; Discussion. 760-1 N '53

Anion-exchange studies; adsorbability of a number of metals in hydrochloric acid solutions. K. A. Kraus, F. Nelson and G. W. Smith. bibliog J Phys Chem 58:11-17 Ja '54

Behavior of metals under dynamic loading. D. S. Clark. diag Metal Prog 64:67-73 N '53

Collective description of electron interactions; electron interaction in metals. D. Pines. bibliog Phys R 92:626-36 N 1 '53

Comparative electrical properties of some metals; engineering file facts. Materials & Methods 40:123 Ag '54

Diffusion and oxidation of solid metals. C. E. Birchenall. bibliog(193 ref) Ind & Eng Chem 45:907-11; 46:893-8 My '53, My '54

Diffusion in bimetal vapor-solid couples. R. W. Balluffi and L. L. Seigle. bibliog il diag J Ap Phys 25:607-14 My '54

Early work on the displacement of metals and metal oxides. V. N. Ipatieff. bibliog il J Chem Educ 30:110-15 Mr '53

Effect of elastic strain on the electrical resistance of metals. G. C. Kuczynski. diag Phys R 94:61-4 Ap 1 '54

Effect of pressure on the tensile properties of several metals and other materials. P. W. Bridgman. il J Ap Phys 24:560-70 My '53; Abstract. Product Eng 24:268+ Ag '53

Effect of repeated tensile prestrain on the ductility of some metals. E. C. Franz. il J Metals 6:Trans 56-7 Ja '54

Effect of screening on solute diffusion in metals. D. Lazarus. bibliog Phys R 93:973-6 Mr 1 '54

Electrochemical behaviour of metals and corrosion. M. Pourbaix. diags Chem & Ind p780-6 Jl 25 '53

Electron-transfer reactions between metallic ions, co-ordination complexes, and hæmoglobin. P. George and D. H. Irvine. Chem Soc J p587-93 F '54

Elimination reactions on 1,4-systems; use of metals to prepare 1,3-butadiene and derivatives. W. M. Schubert and W. A. Lanka. bibliog Am Chem Soc J 76:1956-7 Ap 5 '54

Exchange potential in the surface region of a free-electron metal. H. J. Juretschke. bibliog Phys R 92:1140-4 D 1 '53

First supplement to the 1948 edition of the Metals handbook of American society for metals. il diags Metal Prog 66:1-184+ Jl 15 '54

METALS—*Continued*

Friction of clean metals and oxides with special reference to titanium. E. S. Machlin and W. R. Yankee. bibliog il J Ap Phys 25:576-81 My '54

Frictional adhesion of metal to glass, quartz, and ceramic surfaces. R. B. Belser. il R Sci Instr 25:862-4 S '54

Grubstaking metals; strategic stockpiling to prop U.S. mining. Chem W 74:13 Ap 10 '54

High purity metals. D. J. Maykuth. il Product Eng 24:186-90 N '53

How nuclear radiation affects engineering materials. D. O. Leeser. bibliog flow sheet il diags Materials & Methods 40:109-20 Ag '54 (reprints 25c)

How radiation affects structural materials. C. R. Sutton and D. O. Leeser. diags Iron Age 174:128-31 Ag 9; 97-100 Ag 26 '54

Inhibition of urease by various metal ions. W. H. R. Shaw. bibliog Am Chem Soc J 76:2160-3 Ap 20 '54

Introduction to the electron theory of metals. R. A. Lefever. bibliog diags J Chem Educ 30:486-90 O '53

Investigation of complex metal ions by the polarographic method. K. H. Gayer and others. J Chem Educ 30:557-61 N '53

Materials of construction for chemical engineering; less common metals. W. R. Bekebrede and L. F. Yntema. bibliog(216 ref) il Ind & Eng Chem 45:2261-9 bibliog(216 ref, p2268-9) O '53

Mediation by metals of the binding of small molecules by proteins. I. M. Klotz and W. Loh Ming. bibliog Am Chem Soc J 76:805-14 F 5 '54

Metal selector; alloy, H, stainless and heat-resistant steels, aluminum, magnesium, copper-base alloys and titanium. Steel 134:120a-120h My 10 '54

Metals and alloys review and forecast. bibliog il diags Iron Age 173:310-13 Ja 7 '54

Metals engineering; design. O. J. Horger, ed. 405p $10 McGraw-Hill book co, 330 W. 42d st, New York 18 '53

Metals in the atomic state in glasses. W. A. Weyl. bibliog J Phys Chem 57:753-7 N '53

Metals properties. S. L. Hoyt, ed. v2 433p $11 McGraw-Hill book co, 330 W. 42d st, New York 36 '54

Metals stockpile boost ordered by Eisenhower. Oil Paint & Drug Rep 165:3+ Ap 5 '54

Nature of radiation damage in metals. J. A. Brinkman. bibliog diag J Ap Phys 25:961-70 Ag '54

New engineering materials. il Product Eng 24:139-45 Je '53

New type of metallic bonding in molecular complexes. R. E. Rundle. diag Am Chem Soc J 76:3101-2 Je 5 '54

New uses can boom metal market. R. L. Hatschek. il Iron Age 172:105-6 S 10 '53

Nuclear magnetic resonance in metals; temperature dependence of the resonance shifts. B. R. McGarvey and H. S. Gutowsky. bibliog J Chem Phys 21:2114-19 D '53

Orientation of nuclei by saturation of paramagnetic resonance. J. Korringa. Phys R 94:1388 Je 1 '54

Plane plasticity. B. B. Hundy. bibliog il diags Metallurgia 49:109-18 Mr '54

Polarization of nuclear spins in metals. T. R. Carver and C. P. Slichter. il Phys R 92:212-13 O 1 '53

Polarization of nuclei in metals. A. W. Overhauser. bibliog diags Phys R 92:411-15 O 15 '53

Radiation in metals. N. W. Snyder. bibliog A S M E Trans 76:541-8 My '54

Rare metals handbook. C. A. Hampel, ed. 657p Reinhold pub. corp, 330 W 42d st, New York 18 '54 ($12)

Reactions of *cyclo*octatetraene; selective reduction by metals and alkalis or acids. W. O. Jones. Chem Soc J p 1808-13 Je '54

Research, foundation for mineral progress. C. Williams and D. C. Minton, jr. il Min Cong J 40:22-6 Mr '54

Role of metallic cation in aldol condensation of metallo esters with acetophenone to form β-hydroxy esters; reversal to Claisen acylation or self-condensation of the ketone. C. R. Hauser and W. H. Puterbaugh. bibliog Am Chem Soc J 75:4756-9 O 5 '53

Solutions of metals in fused salts. D. Cubicciotti. bibliog J Metals 5:Trans 1106-8 S '53

Technical progress; materials and metallurgy. il Steel 134:254-5+ Ja 4 '54

Theory of plasma waves in metals. P. A. Wolff. bibliog Phys R 92:18-23 O 1 '53

Toxicity of metals in wastes to fish. H. R. Murdock. Ind & Eng Chem 45:sup99A-100A+ D '53

Ultra-pure metals produced by zone-melting technique. E. E. Schumacher. il diag J Metals 5:1428-9 N '53

See also

Alloys
Assaying
Bearing metals
Cast iron
Corrosion and anticorrosives
Creep of metals
Deformation (mechanics)
Electrodeposition of metals
Fatigue in metals
Films, Metallic
Foundry practice
Geology
Glass—Joining to metal
Heat treatment
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Metal trade
Metallography
Metallurgy
Mines and mineral resources
Ore deposits
Passivity
Pickling (metals)
Printing on metals
Rare earth metals
Scrap metal
Sheet metal
Slag
Solder and soldering
Solutions, Solid
Steel
Strength of materials
Tellurium
Thallium
Welding

Aging

Age softening of beta brass. H. Green and N. Brown. bibliog J Metals 5:Trans 1240-4 sec 2 S '53

Aging characteristics of nickel-chromium alloys hardened with titanium and aluminum. R. Nordheim and N. J. Grant. bibliog il J Metals 6:Trans 211-18 sec 2 F '54

How stable is titanium in vital operating range? H. A. Jahnle. Iron Age 172:116-19 O 22 '53

Strain aging effects. J. D. Lubahn. bibliog diags Am Soc for Metals Trans 44:643-64; Discussion. 664-6 '52

Analysis

Acetylacetone in the dual role of solvent and reagent in extraction of metal chelates. J. F. Steinbach and H. Freiser. bibliog Anal Chem 25:881-4 Je '53

ACS Division of analytical chemistry summer symposium, Troy, N.Y. June 19-20. Chem & Eng N 31:2766-7 Jl 6 '53

Emission spectroscopic determination of metals in nonmetallic samples; symposium abstracts. Anal Chem 25:997-8 Je '53

Field kit speeds metal identification. M. Brooke. il Pet Processing 8:1357-8 S '53

5-Fluoro-8-hydroxyquinoline (5-fluoro-oxine) and its sensitivity towards certain metals. R. G. W. Hollingshead. bibliog Chem & Ind p344-6 Mr 20 '54

Instrument sorts metals; Syclograph. il Am Mach 98:284 Ap 12 '54

Metals in phosphating solutions; determination by ion exchange. G. Gabrielson. Metal Finishing 51:63-4+ N '53

New alloy analyzer; use of fluorescent radiation; abstract. G. E. Noakes. Steel 133:152 Jl 13 '53

New device sorts metals accurately, quickly; thermoelectric metal comparator. E. F. Weller and E. A. Hanysz. il diags Iron Age 173:162-5 Mr 4 '54

New GM instrument unscrambles mixed metal parts. il Steel 134:59 Mr 15 '54

Newer reagents for metals. W. C. Johnson and J. T. Yardley. bibliog Chem Age (Lond) 70:1293-7, 1349-54 Je 12-19 '54

Precision determination of low concentrations of carbon in metals. L. P. Pepkowitz and W. D. Moak. bibliog diag Anal Chem 26:1022-5 Je '54

Time savers in the nonferrous foundry. C. Goldberg. Foundry 82:202+ Ap '54

See also

Metallurgical analysis

METALS—*Continued*

Bibliography

Manufacturers' literature. Published in monthly numbers of Materials and methods

Cleaning

See Metal cleaning

Corrosion

See Corrosion and anti-corrosives

Defects

Dislocations or what makes metals so weak? W. T. Read, jr. il diags Metal Prog 65:101-6+ F '54

Organic fillers seal defects in metal products. H. Thielsch. il Iron Age 172:118-21 O 15 '53

Detection

Magnetic-field detector; patent. diags Electronics 26:220+ N '53

Metal detector sales progress. Electronics 27:22+ Ja '54

Failure

Effect of stress concentration on design strength; supplement to 1948 edition of Metals handbook. bibliog(39 titles) il diags Metal Prog 66:97-103 Jl 15 '54

Metallurgist looks at fracture. C. H. Lorig. il diags Am Soc for Metals Trans 44:30-56 bibliog(31 titles, p55-6) '52

See also

Steel—Failure

Fluidity

Determination of flow stress from a tensile specimen. E. R. Marshall and M. C. Shaw. bibliog il diags Am Soc for Metals Trans 44:705-20; Discussion. 720-5 '52

Gas content

Flux annealing removes gas from aluminum-clad plates. E. J. Boyle. il Iron Age 172:145-7 Ag 13 '53

Gas evolution from gray cast iron during enameling. L. F. Porter and P. C. Rosenthal. bibliog il diags Am Soc for Metals Trans 44:310-30; Discussion. 330-5 '52

General Electric new gas analyzer will be used to track entrapped gas. Iron Age 173:145-7 Je 10 '54

Nitrogen degassing and metal-mold reaction in the production of gun metal castings; abstract. E. C. Mantle. Metal Prog 65:186+ Mr '54

Vacuum fusion method for determining minute quantities of gases in metals. W. J. McMahon and L. S. Foster. bibliog il diag J Chem Educ 30:608-13 D '53

Hydrogen content

Gas porosity in aluminum castings. C. W. Ammen. diags Foundry 82:176+ Ag '54

Hardening of Pd by cathodic hydrogen. T. Sugeno and M. Kowaka. J Ap Phys 25:1063-4 Ag '54

Mechanism of the reaction of hydrogen with zirconium. E. A. Gulbransen and K. F. Andrew. bibliog Electrochem Soc J 101:348-53 Jl '54

Marking

Identification; press forms and numbers part in one operation; Temco corp. il Iron Age 174:119 Ag 26 '54

Metal marking nearer for military items. Steel 135:55 Ag 16 '54

Polishing

See Polishing; Polishing, Electrolytic

Prices

E & M J metal prices, 1897-1953; chart and tables. Eng & Min J 155:102a-102d F '54

Scaling

Deposits in green liquor and causticizing systems. W. W. Brown. Pulp & Pa of Can 55:134-6 Jl '54

Extrusion scale checked. diag Steel 133:115 Jl 27 '53

Scaling of titanium in air. P. H. Morton and W. M. Baldwin, jr. bibliog il diags Am Soc for Metals Trans 44:1004-29 '52

Scaling of zirconium in air. C. A. Phalnikar and W. M. Baldwin, jr. bibliog il Am Soc T M Proc 51:1038-59; Discussion. 1059-60 '51

See also

Steel—Scaling

Shrinkage

See Shrinkage of metals

Temperature effect

Accelerated oxidation of metals at high temperatures. A. D. Brasunas and N. J. Grant. bibliog il diags Am Soc for Metals Trans 44:1117-46; Discussion. 1146-9 '52

Creep characteristics of phosphorized copper (0.019 per cent P) at 300, 400, and 500 F. A. I. Blank and H. L. Burghoff. Am Soc T M Proc 51:981-93; Discussion. 993-5 '51

Creep correlations of metals at elevated temperatures. O. D. Sherby and others. bibliog J Metals 6:Trans 71-80 Ja '54

Creep properties of 99·8 per cent purity aluminium at 20-80°C. and at 250 and 450°C. J. McKeown and others. il Metallurgia 50:13-15 Jl '54

Effect of aluminum on the low temperature properties of relatively high purity ferrite. H. T. Green and R. M. Brick. bibliog J Metals 6:Trans906-13 Ag '54

Effect of high heating rate on some elevated temperature tensile properties of metals. W. K. Smith and others. il diags Am Soc for Metals Trans 44:689-704 '52

Effect of temperature on aircraft structural design; abstract. E. H. LaBombard. Machine Design 25:382+ D '53

Effects of temperature on the deformation of beta brass. C. S. Barrett. bibliog il J Metals 6:Trans 1003-8 sec 2 S '54

Effects of temperature on the flow and fracture characteristics of molybdenum. J. H. Bechtold. bibliog il diag J Metals 5:Trans 1469-75 N '53

Elastic constants and coefficients of thermal expansion of piping materials proposed for the 1954 code for pressure piping; abstract. R. Michel. Heating-Piping 26:100 F '54

Elevated-temperature tensile deformation. R. W. Guard and others. J Metals 6:Trans 226-7 sec 2 F '54

Evaluation of transient temperatures and stresses. R. J. Fritz. bibliog(29 titles) diags A S M E Trans 76:913-21 Ag '54

Fatigue tests at elevated temperatures; abstract. P. H. Frith. Metal Prog 64:174+ D '53

Heat technology; metals for extreme temperatures. M. M. Hoover. bibliog Chem Eng 60:212-15 Je '53

High temperature test data and their importance in design. H. C. Cross. il Product Eng 24:182-7 O '53

How to understand annealing and hot working of metals. S. Storchheim. il diags Am Mach 98:161-8 S 13 '54

Influence of temperature and rate of strain on the properties of metals in torsion. C. E. Work and T. J. Dolan. il diags Ill U Eng Exp Sta Bul 420:1-108 bibliog(p 102-8) '53 (pa $1)

Jet metals. W. G. Hubbell. il Aeronautical Eng R 12:31-6 S '53

Load-temperature history of lattice strain in aluminum alloy. D. Rosenthal and M. Kaufman. il J Metals 6:Trans 377-80 Mr '54

Materials at low temperature. il Steel 133:247, 305 O 12 '53

Measurement of the electrical resistance of metals and alloys at high temperatures. P. Chiotti. bibliog il diags R Sci Instr 25:876-83 S '54

Mechanical properties of beryllium copper at subzero temperatures. J. T. Richards and R. M. Brick. bibliog J Metals 6:Trans 574-80 sec 2 My '54

Mechanical properties of copper at various temperatures. W. H. Munse and N. A. Weil. il Am Soc T M Proc 51:996-1019 bibliog(30 titles, p 1018-19); Discussion. 1019-22 '51

Metal-ceramic interactions; metal-oxide interfacial reactions at elevated temperatures. G. Economos and W. D. Kingery. bibliog il diag Am Cer Soc J 36:403-9 D 1 '53

METALS—Temperature effect—*Continued*

Minimum in the electrical resistance of metals at low temperatures. A. B. Bhatia. bibliog Phys R 95:914-16 Ag 15 '54

Oxidation of metals at high temperatures. W. J. Moore. bibliog(61 ref) Electrochem Soc J 100:302-13 Jl '53

Plasticity of molybdenum single crystals at high temperatures. R. Maddin and N. K. Chen. il diag J Metals 6:Trans 280-4 sec 2 F '54

Radiation characteristics of metals; reference book sheet. J. Poggie. Product Eng 24: 205, 207 S '53

Rate of oxidation of three nickel-chromium heater alloys between 500° and 900°C. E. A. Gulbransen and K. F. Andrew. bibliog Electrochem Soc J 101:163-70 Ap '54

Recording dilatometer for high temperatures. W. R. Apblett and W. S. Pellini. bibliog il diags Am Soc for Metals Trans 44:1200-14 '52

Rheotropic brittleness; general behaviors. E. J. Ripling and W. M. Baldwin, jr. bibliog diags Am Soc T M Proc 51:1023-30; Discussion. 1031-7 '51

Some low temperature properties of titanium alloy RC-130-B and stainless steel. W. W. Tyler and others. J Metals 5:Trans 1104-5 S '53

Sonic barrier; raises heat barrier on metals. A. G. Gray. il Steel 133:72-4 Ag 31 '53

Structure of Gd, Dy, and Er at low temperatures. J. R. Banister and others. bibliog Phys R 94:1140-2 Je 1 '54

Tensile properties of pure chromium at elevated temperature. H. A. Johansen and others. bibliog 4pls U S Bur Mines Rep of Invest 5058:1-8 '54

Tensile testing at high and low temperatures. K. W. Mitchell. bibliog il diags Product Eng 24:197-203 Ag '53

Thermal diffusivity of metals at high temperatures. D. Rosenthal and N. E. Friedman. bibliog J Ap Phys 25:1059-60 Ag '54

Thermal diffusivity of metals at high temperatures. P. H. Sidles and G. C. Danielson. bibliog il diags J Ap Phys 25:58-66 Ja '54

Thermal expansion of anisotropic metals. B. G. Childs. bibliog(36 ref) Rs Mod Phys 25:665-70 Jl '53

Way to save nickel. il Steel 134:122 F 15 '54

See also

Creep of metals

Iron—Temperature effect

Steel—Testing—Temperature effect

Testing

Behaviour of metals under tensile loads of short duration. J. Gibson. bibliog diags Inst Mech Eng Proc (B) 1B no 11:536-50, pl 1-2; Discussion. 551-5 '52-53

Chek, Chek and check; aerosol application tactic in dye penetrant inspection. il Chem W 72:77+ Ap 18 '53

Institute of physics conference, Birmingham; with abstracts of papers on non-destructive testing. Metallurgia 50:77-80 Ag '54

Nondestructive testing checks quality from start to finish; Ford motor co. D. C. Hart. il Steel 134:124-5 Je 21 '54

Rapid measurements of thermal diffusivity. G. E. McIntosh and others. bibliog diags A S M E Trans 76:407-10 Ap '54

Selection of method for nondestructive inspection; supplement to 1948 edition of Metals handbook. Metal Prog 66:159-63 Jl 15 '54

Sound waves uncover inner flaws; Douglas aircraft co. A. Barath. il Steel 133:120-1 D 14 '53

Technical progress; inspection and testing. il Steel 134:298-9+ Ja 4 '54

Tensile testing at high and low temperatures. K. W. Mitchell. bibliog il diags Product Eng 24:197-203 Ag '53

Testing and inspection review and forecast. bibliog il Iron Age 173:336-7 Ja 7 '54

Ultrasonic testing; a versatile new inspection method. C. H. Wick. il Mach 60:184-91 Ap '54

Ultrasonic testing improved with use of liquid coupling. J. B. Morgan. il diags Iron Age 172:131-5 Ag 6 '53

Ultrasonics in maintenance planning and product quality control. R. L. Rectenwald. il diags Iron & Steel Eng 31:77-85; Discussion. 85-7 S '54

What's new in nondestructive testing. S. A. Wenk. il diag Steel 134:78-81 Ja 18 '54

See also

Electric testing of metals

Magnetic testing

Textile uses

Neutral premetalized dyestuffs. C. Weidmann. bibliog Am Dyestuff Rep 43:167-71 Mr 15 '54

See also

Aluminum—Textile uses

Wear

Correlation between principal parameters affecting mechanical ball wear. R. T. Hukki. bibliog Min Eng 6:Trans 642-4 Je '54

Engine metals and engine wear; supplement to 1948 edition of Metals handbook. il diags Metal Prog 66:91-6 Jl 15 '54

Engine wear testing goes radioactive. il Aviation W 58:30-1 Je 8 '53

Frictional properties of titanium and its alloys. E. Rabinowicz. il diag Metal Prog 65:107-10 F '54

Looseness of wear fragments. E. Rabinowicz. il J Ap Phys 24:367 Mr '53

Mechanical aspect of seizing in metal wear. H. Czyzewski. il diags A S M E Trans 76: 381-5 Ap '54; Excerpts. Machine Design 25: 266+ N '53; Product Eng 24:304+ S '53; Tool Eng 32:262-5 Ap '54

Molybdenum coatings expand uses of metallizing. A. P. Shepard. il Iron Age 173: 105-7 Jl 1 '54

Offers new look at wear; limited mold life problem in the forming of plastic products. il Steel 135:109 Jl 26 '54

Wear and corrosion of materials in high temperature water; nuclear power plant for propulsion of a submarine. R. C. Westphal and J. Glatter. il Materials & Methods 40: 100-1 Ag '54

Wear tests on normalised steels. H. Arend. Engineer 197:353 Mr 5 '54

See also

Cylinders (engines, etc.)—Wear

X-ray inspection

Application of radio-active isotopes to steel foundry radiography. L. Wilkinson. diag Engineer 197:383-7, pl 2 Mr 12 '54

Automatic radiography with cobalt 60. J. Hile. il Materials & Methods 40:108-9 S '54

Causes of the weakening of the intensity of X-ray interference of martensite; abstract. V. A. Il'ina and others. Metal Prog 66:supA 154+ Jl 15 '54

Cesium radio isotope; new tool for parts inspection. J. M. Thompson and P. A. Glenn. il diags Iron Age 172:174-6 S 10 '53

Civilian atom; future and present. il Steel 135:56-7 Ag 9 '54

Cobalt 60; inspection uses are growing. D. E. Brewer. il Iron Age 172:80-2 D 31 '53

Compact radiographic inspection setup combines safety with good handling; Crucible steel co.'s Spaulding works. J. A. Kearney and J. P. Brennan. il diag Iron Age 174: 128-30 S 9 '54

Determination of retained austenite by X-ray methods. K. E. Beu. diag J Metals 5: Trans 1539-40 sec 2 N '53

Effects of sample surface and X-ray diffraction camera geometry on the determination of retained austenite in hardened steels. K. E. Beu and D. P. Koistinen. bibliog diag J Metals 5:Trans 1529-30 sec 2 N '53

Electron compounds of transition elements. H. J. Beattie, jr. bibliog il J Ap Phys 24: 1322-4 O '53

Inspection: low cost industrial fluoroscope developed. Iron Age 172:89 D 24 '53

Institute of physics conference, Birmingham; with abstracts of papers on non-destructive testing. Metallurgia 50:77-8 Ag '54

Newly developed X-ray device extends use of radiography. il Foundry 81:147 D '53

Powerful fluoroscope uses gamma rays. Am Mach 98:150 F 1 '54

Radiographic characteristics of high-energy X rays. A. L. Pace. il diags Foundry 82: 108-11+ F '54

METALS—X-ray inspection—*Continued*

Radiography at bargain rates; gamma-ray radiography. il Steel 133:94+ O 5 '53

Radiography; big 3¼ x 10 ft film compares old and new rifles; Allis-Chalmers mfg. co. il Iron Age 172:187-8 N 5 '53

Shell gage draws graph of fault. il Electronics 27:196 Ja '54

Soft X-ray emission bands in metals. H. Jones. Phys R 94:1072 My 15 '54

Some X-ray diffraction and electron microscope observations on temper-brittle steels. S. R. Maloof. bibliog il Am Soc for Metals Trans 44:264-74; Discussion. 274-81 '52

Tentative reference radiographs for inspection of aluminum and magnesium castings; data sheet. il Foundry 82:169 Je '54

Testing aircraft castings. T. A. Dickinson. il Foundry 82:110-11 Mr '54

What's new in nondestructive testing. S. A. Wenk. il diag Steel 134:78-81 Ja 18 '54

X-ray diffraction takes a fresh look at yield point in metals. N. P. Gross. il diag Steel 135:78-9 Jl 5 '54

X-ray does good job of inspecting irregularly shaped parts; Solar aircraft co. il Iron Age 173:80 Ap 1 '54

X-ray fluorescence cuts metal analysis time; Curtiss-Wright corp. J. R. Mihalisin. il Iron Age 174:108-10 Jl 15 '54

X-ray inspection; plastic positioner fits irregular parts. E. R. Foor. il Steel 134:116+ Mr 1 '54

X-rays pinpoint aircraft defects. il Aviation W 59:34+ O 5 '53

Year's use proves value of betatron; Allis-Chalmers mfg. co. A. N. Haig and H. B. Norris. il Steel 135:102-3 Ag 9 '54

See also
Welding—X ray inspection

METALS, Clad

See also
Molybdenum, Clad
Steel, Clad

METALS, Cold treatment of

Sub-zero treatment of metals. H. T. Gregg, jr. il Gen Elec R 57:19-21 Jl '54; Abstract. Metal Prog 66:174+ S '54

See also
Aluminum, Cold treatment of

METALS, Cold working of

Coatings in cold forming dual role makes lubricant doubly important. S. Spring. il Steel 134:116-19 Mr 8 '54

Cold forming; future looks bright; Camcar has obtained good results with several metals. K. W. Bennett. il Iron Age 174:115-16 S 16 '54

Cold rocking answers design, production problems; Tube reducing corp; Rockrite process. K. W. Donle. il diags Iron Age 172:172-5 N 5 '53

Cold roll forming; abstract. E. J. Vanderploeg. Iron & Steel Eng 31:148-9 S '54

Cold rolled texture of titanium. D. N. Williams and D. S. Eppelsheimer. bibliog diags J Metals 5:Trans 1378-82 O '53

Floturn, a new method of forming metal. il diag Mach 60:233-6 Ap '54; Steel 134:120-1 Mr 29 '54; Factory Management 112:94-5 Ap '54; Iron & Steel Eng 31:137 My '54; Iron Age 173:162+ My 20 '54; Materials & Methods 39:7+ My '54

Flow forming proves economical for symmetrical shapes. R. H. Eshelman. il diags Tool Eng 32:55-8 My '54

How to understand cold working of metals. S. Storchheim. il diags Am Mach 98:101-8 Ag 30 '54

Influence of cold work and heat treatment on the engineering properties of beryllium copper wire. J. T. Richards and others. Am Soc T M Proc 51:771-91 bibliog(35 titles, p790-1) '51

Influence of heat treatment and cold working on tensile strength ranges. R. L. Stedfeld. Machine Design 26:163-73 F '54

Roll flowing saves operations and conserves material; Floturn process. C. L. Sporck. il diags Am Mach 98:104-7 Mr 29 '54

16 percent aluminum-iron alloy cold rolled in the order-disorder temperature range. J. F. Nachman and W. J. Buehler. bibliog il diags J Ap Phys 25:307-13 Mr '54

See also
Steel, Cold working of

METALS, Creep of. See Creep of metals

METALS, Heat resisting. See Alloys, Heat resisting; Steel, Heat resisting

METALS, Laminated

Materials for special service; precious-metal laminates. W. Channing and G. H. Barney. il Machine Design 26:180-3 My '54

METALS, Liquid

Electromagnetic pumps for high temperature liquid metal. J. F. Cage, jr. il diag Machine Design 25:178-9+ Mr '53; Same. Mech Eng 75:467-71 Je '53

Heat transfer at high-power densities. J. S. Hickey, jr. il diags J Ap Phys 24:1312-17 O '53

High-temperature centrifugal pumps. H. W. Savage and W. G. Cobb. il diags Chem Eng Prog 50:445-8 S '54

Liquid-metal-cooled power reactor looks promising; studies made jointly by Pacific gas & electric co. and Bechtel corp. il plan diags Elec World 139:114-18 Je 15 '53

Liquid metal for power reactors; abstract. C. Williams and F. T. Miles. Chem & Eng N 32:2772 Jl 12 '54

Liquid metal heat-transfer device for melting high-purity materials. F. H. Horn and R. L. Neubauer. il diags R Sci Instr 24:1154-5 D '53

Liquid-metal heat-transfer system for nuclear power plants. T. Trocki and D. B. Nelson. il diags Mech Eng 75:472-6 Je '53

Mechanical pumps for high-temperature liquid metal. P. M. Clark. il diags Mech Eng 75:615-18 Ag '53

Metal-salt miscibility; abstract. M. A. Bredig. il Chem & Eng N 32:1450-1 Ap 12 '54

New tests prove materials for nuclear power plants. R. F. Koenig. flow diag il Iron Age 172:129-33 Ag 20 '53

Reactor; uranium-bismuth liquid alloy may be used as power source; Atomic energy commission's Brookhaven national laboratory. diag Iron Age 174:118 Jl 8 '54

Stability of refractories in liquid metals. E. L. Reed. bibliog il diags Am Cer Soc J 37:146-53 Mr 1 '54

Viscosity and density of liquid lead-tin and antimony-cadmium alloys. H. J. Fisher and A. Phillips. bibliog(40 titles) diags J Metals 6:Trans 1060-70 sec 2 S '54

See also
Mercury

METALS, Molten

Electrical resistivity of liquid metals and of dilute liquid metallic solutions. E. Scala and W. D. Robertson. bibliog diags J Metals 5:Trans 1141-7 sec 2 S '53

Fundamentals of metal solidification. T. H. Trevithick. Foundry 82:224+ Ag '54

Mathematical methods for zone-melting processes. H. Reiss. bibliog diag J Metals 6:Trans 1053-9 sec 2 S '54

Melting and freezing. B. Chalmers. bibliog il diags J Metals 6:Trans 519-32 My '54

Redistribution of solutes by formation and solidification of a molten zone. W. G. Pfann. bibliog il J Metals 6:Trans 294-7 sec 2 F '54

Resistance of refractories to molten lead-bismuth alloy. J. J. Gangler. il Am Cer Soc J 37:312-16 Jl 1 '54

Thermal-shocking austenitic stainless steels with molten metals. R. A. Tidball and M. M. Shrut. diags A S M E Trans 76:639-43 My '54

METALS, Non-ferrous

Annual materials engineering review and forecast; nonferrous metals. T. C. DuMond. il Materials & Methods 39:117-21 Ja '54

British non-ferrous metals research association activities. E. C. Mantle. bibliog(26 titles) il Metallurgia 48:183-6 O '53

Buyers rule nonferrous metals marketplace. R. L. Hatschek. Iron Age 173:93-4 Mr 4 '54

Directory of materials; nonferrous metals, tradenames and information; index by type of material. Machine Design 26:63-4+ sec 2 My '54

METALS, Non-ferrous—*Continued*

Electroless nickel plating on non-ferrous metals. H. J. West. Metal Finishing 52:72 Jl '54

Fluidized-bed sulfate roasting of nonferrous metals. F. M. Stephens, jr. il Chem Eng Prog 49:455-8 S '53

Hardness conversion tables; engineering file facts. Materials & Methods 39:135, 137 Mr '54

Lubricants for metalworking operations in the nonferrous metals industry; abstract. Metal Prog 66:144 S '54

Metals and marine engineering; Institute of metals presidential address. S. F. Dorey. Metallurgia 49:235-40 My '54

Non-ferrous metal industry symposium, Jamshedpur, India. Metallurgia 49:271-5 Je '54

Non-ferrous metals for the chemical engineer; abstract and discussion. N. P. Inglis. Chem & Ind p273-5 Mr 6 '54

Nonferrous; supply, prices steady. R. L. Hatschek. il Iron Age 172:98-9 S 17 '53

Small non-ferrous components spot welded; General Electric electronically-controlled spot welder. il Engineering 177:407 Mr 26 '54

Technical progress; nonferrous metals. il Steel 134:224-5+ Ja 4 '54

Time savers in the nonferrous foundry. C. Goldberg. Foundry 82:202+ Ap '54

Use of non-ferrous metals in domestic water supply; abstract and discussion. H. S. Campbell. Chem & Ind p486 Ap 24 '54

See also

Brass

Bronze

also names of non-ferrous metals, e.g. Aluminum; Copper; Lead; Magnesium; Tin; Zinc

Prices

Nonferrous prices; tabulations. Steel 134:175 Ja 4 '54

Prices; straits tin, electrolytic copper, nickel, aluminum antimony. Iron Age 173:414 Ja 7 '54

Statistics

Metal supplies and prices. Survey of Cur Bsns 33:9-10+ N '53

Nonferrous castings shipments; tabulations. Steel 134:169 Ja 4 '54

Refined lead, 1946-1953; copper production, deliveries and stocks, 1941-1953; shipments of magnesium wrought products, 1950-1953; tabulations. Automotive Ind 110:335 Mr 15 '54

Testing

Magnaflux conductivity meter speeds test on nonferrous materials. il Iron Age 172:144+ S 3 '53

METALS, Powdered. See Metal powders

METALS, Tarnishing of. See Tarnishing of metals

METAMICT state

Metamict state. W. Primak. Phys R 95:837 Ag 1 '54

METAMORPHISM

Grenville series in the northwest Adirondack mountains, N.Y.; origin and metamorphism of the major paragneiss. A. E. J. Engel and C. G. Engel. maps plan diags Geol Soc Bul 64:1049-97, pl 1-2 bibliog(p 1095-7) S '53

Metamorphic differentiates in the Blackbird mining district, Lemhi county, Idaho. W. A. Roberts. maps diags Econ Geol 48:447-56 S '53

Origin of charnockitic assemblages of east Manbhum, Bihar. S. Sen. bibliog Am J Sci 251:388-92 My '53

System $MgO—Al_2O_3—H_2O$ and influence of carbonate and nitrate ions on the phase equilibria. D. M. Roy and others. bibliog diags Am J Sci 251:337-61 My '53

METAPHORS

Phrase finder; name-word finder, metaphor finder, sophisticated synonyms. J. I. Rodale and E. J. Fluck, comps. 3v in 1 1325p $6.95 Rodale press, Emmaus, Pa. '54

METAPHOSPHATES

Organic polyphosphorus compounds; phosphorylations with aliphatic amido polyphosphates and polymetaphosphates. H. Tolkmith. bibliog Am Chem Soc J 75:5273-5 N 5 '53

METASTABILITY

Existence of a 3.7×10^{-8}-sec metastable state in Pa^{233}. D. Engelkemeir and L. B. Magnusson. Phys R 94:1395-6 Je 1 '54

Lifetime of the $^3\Sigma_u^+$ state of nitrogen. E. E. Muschlitz, jr. and L. Goodman. bibliog diag J Chem Phys 21:2213-17 D '53

Metastable states of Ge^{73}. J. P. Welker and others. bibliog Phys R 92:401-5 O 15 '53

Short-lived metastable states of W^{183}. A. W. Sunyar. Phys R 93:1122-3 Mr 1 '54

Ultraviolet photons in the decay of metastable argon atoms. L. Colli. il diags Phys R 95:892-4 Ag 15 '54

METEOR crater, Arizona

Crater mound (meteor crater), Arizona, a geologic feature. D. Hager. il maps diags Am Assn Pet Geologists Bul 37:821-57 bibliog(p855-7) Ap '53; Discussion. 37:2577-8; Reply. 2578-9 N '53

METEOR craters

Wilcox deposits in explosion craters, Stewart county, Tenn. and their relations to origin and age of Wells Creek basin structure. C. W. Wilson, jr. bibliog maps diag Geol Soc Bul 64:753-68, pl 1 Jl '53

METEORITES

Concentration of uranium and lead and the isotopic composition of lead in meteoritic material. C. Patterson and others. bibliog Phys R 92:1234-5 D 1 '53

See also

Meteor crater, Arizona

METEOROLOGICAL instruments

Air-temperature measurement on a 420-foot tower. D. A. Mazzarella and D. K. Kohl. bibliog il diags Instruments & Automation 27:1306-9 Ag '54

See also

Altimeters

Anemometers

Barometers

Bolometers

Hygrometers

Radio meteorographs

Thermometers and thermometry

METEOROLOGICAL optics

Liége conference on the optical study of the earth's atmosphere. F. E. Roach. Opt Soc Am J 43:624-5 Jl '53

METEOROLOGICAL research

Air force scientists study jet stream in atmosphere. Elec Eng 73:295 Mr '54

See also

Radio meteorographs

METEOROLOGICAL stations

ALPA protests cut in weather ships. il Aviation W 59:65 N 30 '53

Automatic radar meteorological station; Crawley station. il Engineering 176:299-300, 304 S 4 '53

Storm round the weather ships. Economist 169:359-60 O 31 '53

U.S. withdraws ICAO weather ship support. Aviation W 59:15 N 2 '53

See also

Insurance companies—Weather research and forecasting

METEOROLOGY

Meteorological factors play major role in air pollution. L. C. McCabe. il diag Ind & Eng Chem 45:sup 106A-8A Jl '53

Natural distribution of tritium. S. Kaufman and W. F. Libby. bibliog Phys R 93:1337-44 Mr 15 '54

See also

Atmospheric electricity

Atmospheric temperature

Auroras

Floods

Hurricanes

Insolation

Lightning

Radar—Meteorological use

Rain and rainfall

Rain making

Snow

Solar radiation

Weather forecasting

Winds

METEOROLOGY, Aeronautic

Directorate probes air and weather. Aviation W 59:244-5 Ag 17 '53

Storm round the weather ships. Economist 169:359-60 O 31 '53

See also

Radio meteorographs

METEORS

See also

Photography of meteors

METERS

Hagan ring balance meter signal transmitter. il Blast F & Steel Pl 42:375-6 Mr '54

Rapid heat meter thermal conductivity apparatus. J. D. Verschoor and A. Wilber. bibliog il Heating-Piping 26:125-30 Jl '54; Discussion. 26:142-3 Ag '54

See also

Dynamometers
Elastometers
Electric meters
Flow meters
Frequency meters
Gages
Gas meters
Orifice meters
Southern California meter association
Steam meters
Tachometers
Taximeters
Venturi meters
Viscosimeters
Voltmeters
Water meters

METHACRYLATES

Biaxially oriented methacrylate and polystyrene sheet. C. P. Fortner. il diags India Rubber World 129:493-5 Ja '54

Chlorination of methyl acrylate in the presence of methanol. N. D. Lee and others. bibliog J Ap Chem 3:481-6 N '53

Direct-current transients in polymethyl methacrylate and in polystyrene. P. Ehrlich. bibliog diag J Ap Phys 25:1056-8 Ag '54

Dynamic mechanical and electrical behavior of polymethyl methacrylate. D. Telfair. bibliog J Ap Phys 25:1062-3 Ag '54

How to machine acrylic plastics. O. L. Pierson. il diags Am Mach 98:113-20 F 1 '54

Maleic-fumaric isomerization in unsaturated polyesters. S. S. Feuer and others. bibliog Ind & Eng Chem 46:1643-5 Ag '54

Monomeric acrylic esters. E. H. Riddle. 221p $5 Reinhold publishing corp, 430 Park av, New York 22 '54

Orientation in reactions of dinitrogen tetroxide and methyl acrylate. H. Shechter and F. Conrad. bibliog Am Chem Soc J 75:5610-13 N 20 '53

Stocking stretchers; nylon hose washing liquid claimed to boost the mileage of stockings. Chem W 72:58+ My 30 '53

Thermal degradation of polymethyl methacrylates. S. Bywater. bibliog J Phys Chem 57:879-82 D '53

METHACRYLIC acid

cis- and *trans*-β-aroyl-α- and β-methylacrylic acids and β-aroyl-α-methylenepropionic acids. R. E. Lutz and others. bibliog Am Chem Soc J 75:5039-44 O 20 '53

Studies upon α-trifluoromethylacrylic acid, α-trifluoromethylpropionic acid, and some derived compounds. M. W. Buxton, M. Stacey and J. C. Tatlow. Chem Soc J p366-74 Ja '54

METHANE

Ammonia, methanol, hydrogen cyanide and urea from air and methane. L. F. Hatch. diags Pet Refiner 32:170-1+ S '53

Benedict equation of state. J. B. Opfell, W. G. Schlinger and B. H. Sage. bibliog Ind & Eng Chem 46:1286-91 Je '54

Decomposition of methane in an electrical discharge. H. Wiener and M. Burton. bibliog Am Chem Soc J 75:5815-23 D 5 '53

Diffusion on CO_2-CH_4 mixtures to 225 atmospheres pressure. Q. R. Jeffries and H. G. Drickamer. bibliog J Chem Phys 22: 436-7 Mr '54

Firedamp in the oven. Economist 168:800-1 S 19 '53

Fischer-Tropsch synthesis with cobalt catalysts; effect of nitrogen, carbon dioxide and methane in the synthesis gas. E. J. Gibson and C. C. Hall. bibliog J Ap Chem 4:464-8 Ag '54

Interaction of methane and water vapor in the hydrogen-oxygen reaction. A. Levy. bibliog J Chem Phys 21:2132-3 D '53

Laboratory-scale investigation of catalytic conversion of synthesis gas to methane. H. W. Wainwright and others. bibliog 3pls U S Bur Mines Rep of Invest 5046:1-10 '54

Methane from watergas. Chem Age (Lond) 69:661-2 S 26 '53

Phase equilibria in the carbon dioxide-methane system. H. G. Donnelly and D. L. Katz. bibliog il Ind & Eng Chem 46:511-17 Mr '54

Portable methane-detecting appliances approved under United States Bureau of mines standard. E. J. Gleim. 4pls U S Bur Mines Rep of Invest 5056:1-6 '54

Process kinetics; kinetics of the sulfur-methane reaction. G. W. Nabor and J. M. Smith. bibliog diag Ind & Eng Chem 45: 1272-81 Je '53

Proton magnetic resonance of the CH_3 group; investigation of six tetrasubstituted methanes. J. G. Powles and H. S. Gutowsky. bibliog J Chem Phys 21:1695-703 O '53

Pyrolysis and photolysis of acetone-d_6 in the presence of methane. J. R. McNesby and A. S. Gordon. Am Chem Soc J 76:4196-8 Ag 20 '54

Substituted methanes; vibrational spectra, potential constants, and calculated thermodynamic properties of diiodomethane. F. L. Voelz and others. bibliog Opt Soc Am J 43:1061-4 N '53

Sum rule for the vibrational frequencies of homologs. H. J. Bernstein and A. D. E. Pullin. bibliog J Chem Phys 21:2188-95 D '53

Thermodynamic functions of the halogenated methanes. E. Gelles and K. S. Pitzer. bibliog Am Chem Soc J 75:5259-67 N 5 '53

See also

Chlorofluoromethanes
Fire damp

Spectrum

Fine structure of the $2\nu_3$ band of methane. D. H. Rank and others. bibliog Opt Soc Am J 43:707-8 Ag '53

Forbidden transition ν_2 in the infrared spectrum of methane. J. S. Burgess and others. bibliog Opt Soc Am J 43:1058-60 N '53

K fine structure in the $2\nu_1$ band of CHD_3. T. A. Wiggins and others. bibliog J Chem Phys 21:1940-2 N '53

Vertical distribution of nitrous oxide and methane in the earth's atmosphere. L. Goldberg and E. A. Müller. bibliog Opt Soc Am J 43:1033-6 N '53

METHANESULFONATE

New ω-substituted anisoles. H. J. Barber and others. bibliog J Ap Chem 3:253-74 Je '53

Organic peroxides; the mechanism of the reaction of alkyl methanesulfonates with hydrogen peroxide. H. R. Williams and H. S. Mosher. bibliog Am Chem Soc J 76: 3495-6 Jl 5 '54

METHANESULFONIC anhydride

Methanesulphonic anhydride. L. N. Owen and S. P. Whitelaw. Chem Soc J p3723 N '53

METHANESULFONYL chloride

Friedel-Crafts reactions of methanesulfonyl chloride with benzene and certain substituted benzenes. W. E. Truce and C. W. Vriesen. bibliog Am Chem Soc J 75:5032-6 O 20 '53

METHANETHIOL

Methyl mercaptan; yesterday's bane, tomorrow's boon. P. W. Sherwood. Chem Age (Lond) 71:525-7 S 11 '54

New horizons for methyl mercaptan. Can Chem Process 38:58+ Ag '54

Analysis

Quantitative determination of methyl mercaptan, dimethyl disulfide, and dimethyl sulfide in a gas mixture. W. Segal and R. L. Starkey. bibliog diag Anal Chem 25: 1645-8 N '53

METHANOL

Acid-base levels in methanol-water and 1,4-dioxane-water solutions. W. C. Woodland, R. B. Carlin and J. C. Warner. bibliog Am Chem Soc J 75:5835-9 D 5 '53

Chlorination of methyl acrylate in the presence of methanol. N. D. Lee and others. bibliog J Ap Chem 3:481-6 N '53

Dilatometric study of the transition in methyl alcohol. L. A. K. Staveley and M. A. P. Hogg. diag Chem Soc J p 1013-16 Mr '54

First certificate of necessity ammonia plant goes on stream; pictorial presentation of Commercial solvents corp. plants in Sterlington, La. Chem & Eng N 31:4112-13 O 5 '53

Kinetics and products of bimolecular substitution reactions of sodium phenoxide in methanol. B. D. England. bibliog Chem & Ind p 1145-6 S 11 '54

METHANOL—*Continued*

Liquid equilibria of water-methanol-aniline-benzene system. A. W. Francis. il diags Ind & Eng Chem 46:205-7 Ja '54

Oxidation of methanol by nitric acid solutions of quadrivalent cerium. D. A. Skoog and Sister M. Budde. Anal Chem 25:822-3 My '53

Polarography of zirconium salts in methanol. E. L. Colichman and W. H. Ludewig. Anal Chem 25:1909-10 D '53

Rearrangement of *trans*-9-decalyl perbenzoate and per-*p*-nitrobenzoate in methanol and aqueous methanol. H. L. Goering and A. C. Olson. bibliog Am Chem Soc J 75:5853-9 D 5 '53

Reduction of simple olefins with sodium and methanol in liquid ammonia. H. Greenfield, R. A. Friedel and M. Orchin. bibliog Am Chem Soc J 76:1258-9 Mr 5 '54

Relationship between acid-base level and the rate of alkaline hydrolysis of halohydrins in methanol-water and dioxane-water systems. W. C. Woodland, R. B. Carlin and J. C. Warner. Am Chem Soc J 75:5840-1 D 5 '53

Terpenes; the reactions of carvone and dihydrocarvone with methanol in the presence of sulfuric acid. G. Büchi and R. E. Erickson. Am Chem Soc J 76:3493-5 Jl 5 '54

Thermodynamics of formaldehyde manufacture from methanol. E. Jones and G. G. Fowlie. bibliog J Ap Chem 3:206-13 My '53

Analysis

Determination of methanol in biological fluids by microdiffusion analysis. M. Feldstein and N. C. Klendshoj. Anal Chem 26:932-3 My '54

Ternary methanol-ethanol-acetone and three related binary solutions. H. H. Amer, R. R. Paxton and M. Van Winkle. bibliog Anal Chem 25:1204-6 Ag '53

Manufacture

Ammonia and methanol from air and methane; N.E.C. process. A. Christensen. flow diag Pet Refiner 32:186-7+ S '53

Ammonia and methanol; Nitrogen engineering corporation process. diag Pet Refiner 32:168-9 N '53

Ammonia, methanol, hydrogen cyanide and urea from air and methane. L. F. Hatch. diags Pet Refiner 32:170-1+ S '53

Methanol from air and methane; Vulcan-Inventa process. diags Pet Refiner 32:190-2+ S '53

Methanol; Vulcan copper & supply co. diags Pet Refiner 32:122-3 N '53

Spectrum

Methyl alcohol molecule and its microwave spectrum. E. V. Ivash and D. M. Dennison. bibliog diags J Chem Phys 21:1804-16 O '53

Substituted methanes; C^{13} isotopic shifts in the vibrational spectrum of methanol. R. B. Bernstein. J Chem Phys 21:1903-4 O '53

METHANOLYSIS

Methanolysis of optically active hydrogen 2,4-dimethylhexyl-4-phthalate. W. V. Doering and H. H. Zeiss. bibliog Am Chem Soc J 75:4733-8 O 5 '53

Methanolysis of some acetyl derivatives of cevine. W. J. Rosenfelder. Chem Soc J p2638-9 Jl '54

Molecular weight and methanolysis of fumagillin. C. J. Brown and J. K. Landquist. bibliog Chem & Ind p973 S 12 '53

METHAZONIC acid

Reactions of methazonic acid; further experiments with 3-amino-4-arylquinolines. D. W. Ockenden and K. Schofield. Chem Soc J p3914-19 D '53

METHEMOGLOBIN

Specific effect of formate ion on the reversible acid denaturation of horse ferrihemoglobin. E. M. Zaiser and J. Steinhardt. bibliog Am Chem Soc J 76:1788-91 Ap 5 '54

METHENYL group

Reactions of aromatic nitro compounds with active methyl, methylene, methine groups in presence of base. J. J. Carr. bibliog Anal Chem 25:1859-63 D '53

METHINES. See Methenyl group

METHIODIDES

Nucleophilic displacement reactions of hindered ketimine methiodides. R. C. Fuson, W. D. Emmons and J. P. Freeman. bibliog Am Chem Soc J 75:5321-3 N 5 '53

METHIONINE

Biosynthesis of penicillin; synthesis of methionine by a strain of penicillium chrysogenum. M. Gordon, P. Numerof and S. C. Pan. bibliog Am Chem Soc J 76:4037-8 Ag 5 '54

Methionine; origin of sunlight flavor in milk. S. Patton and D. V. Josephson. bibliog Science 118:211 Ag 21 '53

Poultry petrochemical. il Chem W 74:90-2 Mr 13 '54

Synthesis of active methionine. J. Baddiley and G. A. Jamieson. Chem & Ind p375 Mr 27 '54

Analysis

Quantitative determination of S-35-labeled compounds in complex mixtures. J. B. Melchior and A. H. Goldkamp. bibliog Anal Chem 26:233-5 Ja '54

METHIONINE, Analogs of

Isolation and identification of a naturally occurring analog of methionine. R. A. McRorie and others. bibliog Am Chem Soc J 76:115-18 Ja 5 '54

METHOXYADIPIC acid

Configuration of α-methoxyadipic acid. D. S. Noyce and J. H. Canfield. bibliog Am Chem Soc J 76:3630-2 Jl 20 '54

METHOXYBENZENEBORONIC acid

Electrophilic displacement reactions; kinetics of the iodinolysis of *p*-methoxybenzeneboronic acid. H. G. Kuivila and R. M. Williams. bibliog Am Chem Soc J 76:2679-82 My 20 '54

METHOXYCHLOR

Fly control on dairy farms. R. J. Dicke. Soap & Chem Spec 30:177+ My '54

Methoxychlor and new TOTA proposals. R. P. Holdsworth, jr. Soap & San Chem 29:207 D '53

Analysis

Determination of methoxychlor on insecticide-treated paperboard by ultraviolet spectrophotometry. E. C. Jennings, jr. and D. G. Edwards. bibliog Anal Chem 25:1179-82 Ag '53

METHOXY ethanol. See Methyl cellosolve

METHOXYETHYL oleate

Toxicity of butyl stearate, dibutyl sebacate, dibutyl phthalate, and methoxyethyl oleate. C. C. Smith. A M A Archives Ind Hygiene & Occup Med 7:310-18 Ap '53

METHOXY group

Alkyl-oxygen fission in carboxylic esters; 1-*o*-methoxyphenylethyl and α-naphthylphenylmethyl compounds; the relative effects of the introduction of *o*- and of *p*-methoxyl groups into phenylmethyl compounds. R. E. Dabby and others. Chem Soc J p3619-23 N '53

METHOXYMETHYL acetate

Acetoxymethylation of aromatic compounds. L. Summers. bibliog Am Chem Soc J 76:3481-3 Jl 5 '54

METHOXYPHENYLACETIC acid

Secondary galls and other plant growth-modifying effects induced by translocated α-methoxyphenylacetic acid. J. W. Mitchell and W. H. Preston, jr. il Science 118:518-19 O 30 '53

METHYL acetate

Effect of structure on reactivity; aminolysis of methyl acetate with some β-phenylethylamines. S. L. Jung, J. G. Miller and A. R. Day. bibliog Am Chem Soc J 75:4664-5 O 5 '53

METHYL acrylate. See Methacrylates

METHYL adenine

2-Methyladenine, an hydrolysis product of pseudovitamin B_{12d}. H. W. Dron, D. G. Calkins and J. J. Pfiffner. bibliog Am Chem Soc J 76:948-9 F 5 '54

METHYL alcohol. See Methanol

METHYLAMINE

N-ethyl(or -methyl or -phenyl)-*N*-2-halogenoethyl-1(or -2)-naphthylmethylamines; chemical reactivity and pharmacological activity. N. B. Chapman and J. W. James. Chem Soc J p2103-8 Je '54

METHYL aminophenol sulfate. See Metol

METHYL aniline
Action of Grignard reagents on *O*-, *M*- and *P*-alkoxymethylanilines. F. G. Mann and F. H. C. Stewart. Chem & Ind p373-4 Mr 27 '54

METHYL azuloate
Azulene; synthesis of methyl 1-azuloate. A. G. Anderson, jr. and J. J. Tazuma. bibliog Am Chem Soc J 75:4979-80 O 20 '53

METHYL benzene. See Toluene

METHYL benzoic acid. See Toluic acid

METHYL bromide. See Bromomethane

METHYL butane
Isomerization accompanying the alkylation of benzene with 1-chloro-3,3- and with 2-chloro-2,3-dimethylbutane. L. Schmerling and J. P. West. bibliog Am Chem Soc J 76:1917-21 Ap 5 '54

METHYL butene
Reactions between trimethylethylene and formaldehyde catalysed by stannic chloride. L. E. Addy and J. W. Baker. Chem Soc J p4111-13 D '53

METHYL butyl ketone. See Butanone

METHYL butyrate
Syntheses in the colchicine series; products from the Stobbe condensation of methyl γ-(2 : 3 : 4-trimethoxybenzoyl)butyrate with dimethyl succinate. H. J. E. Loewenthal. Chem Soc J p3962-8 D '53

METHYL cardanol

Analysis

Cashew nut shell liquid; the chromatographic separation and structural investigation of the olefinic components of methylcardanol. W. F. Symes and C. R. Dawson. bibliog Am Chem Soc J 75:4952-7 O 20 '53

METHYL cellosolve
2-(4′-Methoxyphenyl)-2-methoxyethanol. F. G. Baddar. Am Chem Soc J 76:1161-2 F 20 '54

METHYL cellulose
See also
Carboxymethylcellulose

METHYL chloride. See Chloromethane

METHYL chloroform. See Trichloroethane

METHYL chloroprene. See Chloromethyl butadiene

METHYL cholestanol
Preparation of 14-methylcholestan-3β-ol. D. H. R. Barton and others. bibliog Chem & Ind p 1180 O 31 '53
Triterpenoids; the transformation of lanostadienol (lanosterol) into 14-methylcholestan-3β-ol. D. H. R. Barton, D. A. J. Ives and B. R. Thomas. Chem Soc J p903-7 Mr '54

METHYL compounds
Some recent studies on the autoxidation of drying oils. L. A. O'Neill. Chem & Ind p384-7 Ap 3 '54
Synthesis of some methyl-substituted 2 : 3 : 6-trihydroxypyridines. D. E. Ames, R. E. Bowman and T. F. Grey. Chem Soc J p3008-15 O '53

METHYL cresotic acid
para-Claisen rearrangement; the preparation and rearrangement of the α- and γ-ethylallyl ethers of methyl *o*-cresotinate; a reinvestigation. S. J. Rhoads, R. Raulins and R. D. Reynolds. bibliog Am Chem Soc J 76:3456-63 Jl 5 '54

METHYL crotonate
New synthesis of methyl γ-chloro-β-methylcrotonate and its Reformatsky reaction. S. Akiyoshi, K. Okuno and S. Nagahama. Am Chem Soc J 76:902 F 5 '54

METHYL cyanide. See Acetonitrile

METHYL cyclohexane
Isomers of 4-methyl-1,1-cyclohexanedicarboxylic acid. C. C. Price, W. Chen and R. J. Convery. bibliog Am Chem Soc J 76:2301-2 My 5 '54

METHYL cyclohexanol
Elimination reactions of the 1,2-dimethylcyclohexyl system. T. D. Nevitt and G. S. Hammond. bibliog Am Chem Soc J 76:4124-7 Ag 20 '54

METHYL cyclohexene
Dimerisation of 1-methyl*cyclo*hexene by formic or acetic acid containing perchloric acid. G. F. Bloomfield. Chem Soc J p3329-30 O '53
Stereochemistry of the addition of hydrogen bromide to 1,2-dimethylcyclohexene. G. S. Hammond and T. D. Nevitt. bibliog Am Chem Soc J 76:4121-3 Ag 20 '54
Structure of di-(methylcyclohexyl)-benzenes from the cycloalkylation of 4-methylcyclohexene with benzene in the presence of hydrogen fluoride. V. N. Ipatieff, J. E. Germain and H. Pines. Am Chem Soc J 75:6056-7 D 5 '53
Studies in the terpene series; hydroisomerization and hydrogenolysis of cyclohexene, methylcyclohexene and *p*-menthene in the presence of hydrogenation catalysts. H. Pines and others. bibliog Am Chem Soc J 76:2740-2 My 20 '54

METHYL cyclohexenone
Structure of the adduct of 3-methyl-2-cyclohexenone and ethyl cyanoacetate; the question of meta- and para-bridged rings. P. R. Shafer, W. E. Loeb and W. S. Johnson. bibliog Am Chem Soc J 75:5963-7 D 5 '53

METHYL cyclopentane
Isomerization of saturated hydrocarbons; the effect of experimental variables, alkyl bromides and light upon the isomerization of methylcyclopentane in the presence of aluminum bromide. H. Pines, E. Aristoff and V. N. Ipatieff. bibliog Am Chem Soc J 75:4775-8 O 5 '53

METHYL cyclopropene
Structure of Feist's acid. D. Lloyd and others. diag Chem & Ind p222-3, 492 F 20, Ap 24 '54

METHYL decalol
Stereochemistry of the 10-methyl-2-decalols. A. S. Hussey, Hsiang Peng Liao and R. H. Baker. bibliog Am Chem Soc J 75:4727-30 O 5 '53

METHYL diazoacetate
Photochemical reactions of methyl diazoacetate with polyhalomethanes. W. H. Urry and J. W. Wilt. bibliog Am Chem Soc J 76:2594-5 My 5 '54

METHYL diethanolamine
Amine gas treating. flow diag Pet Refiner 32:124 S '53

METHYL eleostearate
Thermal polymerization of methyl β-elaeostearate. A. L. Clingman and others. bibliog Chem & Ind p798 Jl 25 '53

METHYL ethers
Condensations by sodium; the alkylation of anisole and of *o*-cresol methyl ether and the composition of a reacting aggregate. A. A. Morton and A. E. Brachman. bibliog Am Chem Soc J 76:2980-4 Je 5 '54
New ω-substituted anisoles; chlorination of aryl dimethyl ethers. H. E. Akerman, H. J. Barber and M. B. Green. J Ap Chem 3:416-18 S '53
Occurrence of carvacrol methyl ether in the heartwood of chamaecyparis nootkatensis (Lamb.) Spach. S. R. Duff and H. Erdtman. Chem & Ind p747-8 Jl 18 '53
Synthesis of baicalein trimethyl ether. M. Krishnamurti and T. R. Seshadri. Chem & Ind p542-3 My 8 '54

METHYL ethyl ketone. See Butanone

METHYL ethyl phenanthrene
Synthesis of 3-aza-1-methyl-7-ethyl-phenanthrene. M. F. Bartlett and K. Wiesner. Chem & Ind p542 My 8 '54

METHYL etiocholanate
Total synthesis of racemic methyl 3-keto-etiocholanate. A. L. Wilds and others. Am Chem Soc J 75:4878-9 O 5 '53

METHYL etiocholenate
Reduction of methyl 3-oxo-Δ^4-etiocholenate with sodium borohydride. W. W. Zorbach. Am Chem Soc J 75:6344-5 D 20 '53

METHYL formate
Hydroxymethylene ketones; orientation in the condensation of methyl ethyl and methyl *n*-propyl ketones with methyl formate. E. E. Royals and K. C. Brannock. bibliog Am Chem Soc J 76:1180-1 F 20 '54
Peroxide-induced additions of methyl formate to olefins. W. H. Urry and E. S. Huyser. Am Chem Soc J 75:4876-7 O 5 '53

METHYL fructose

Crystalline 1-*O*-methyl-D-fructose. S. Bayne and J. Wildy. Chem Soc J p 1147-8 Mr '54

Degradation of carbohydrates by alkali; 1-*o*-methylfructose, glucose, and fructose. J. Kenner and G. N. Richards. Chem Soc J p 1784-9 Je '54

Periodate oxidation of methylfructoses. W. E. A. Mitchell and E. Percival. Chem Soc J p 1423-5 My '54

METHYL furoate

Friedel-Crafts alkylation of methyl 2-furoate. C. D. Hurd and G. L. Oliver. bibliog Am Chem Soc J 76:50-1 Ja 5 '54

METHYL galactosamine

4,6-Di-*O*-methyl-D-galactosamine hydrochloride (2-amino-2-deoxy-4,6-di-*O*-methyl-D-galactose hydrochloride). P. J. Stoffyn and R. W. Jeanloz. bibliog Am Chem Soc J 76:563-4 Ja 20 '54

3-*O*-methyl-D-galactosamine hydrochloride (2-amino-2-deoxy-3-*O*-methyl-D-galactose hydrochloride). P. J. Stoffyn and R. W. Jeanloz. bibliog Am Chem Soc J 76:561-2 Ja 20 '54

METHYL galactoside

Chromatographic adsorption; investigation of the isomer distribution during Fischer methyl D-galactoside formation. D. F. Mowery, jr. and G. R. Ferrante. bibliog Am Chem Soc J 76:4103-6 Ag 20 '54

METHYL glucopyranoside

Selective hydroxyl reactivity in methyl α-D-glucopyranoside. M. L. Wolfrom and M. A. El-Taraboulsi. bibliog Am Chem Soc J 75:5350-2 N 5 '53

METHYL glucosamine

4,6-Di-*O*-methyl-D-glucosamine hydrochloride (2-amino-2-deoxy-4,6-di-*O*-methyl-D-glucose hydrochloride). R. W. Jeanloz. bibliog Am Chem Soc J 76:555-8 Ja 20 '54

6-*O*-methyl-D-glucosamine hydrochloride (2-amino-2-deoxy-6-*O*-methyl-D-glucose hydrochloride. R. W. Jeanloz. bibliog Am Chem Soc J 76:558-60 Ja 20 '54

METHYL glucose

Analysis

Chromatographic separation of methyl-glucoses. W. J. Whelan and K. Morgan. bibliog Chem & Ind p78 Ja 16 '54

METHYL glucoside

New process brings commercial manufacture of methyl glucoside; Corn products refining co. Chem & Eng N 31:2714 Je 29 '53

METHYL glutaconic acid

2-Pyrones; reaction of β-methylglutaconic anhydride with aldehydes. R. H. Wiley, E. L. DeYoung and N. R. Smith. Am Chem Soc J 76:1675-6 Mr 20 '54

METHYL glutamic acid

Synthesis of *dl*-α-methylglutamic acid and some derivatives. A. E. Gal, S. Avakian and G. J. Martin. Am Chem Soc J 76:4181-2 Ag 20 '54

METHYL glutaric acid

Synthesis of β-hydroxy-β-methylglutaric acid in rat liver homogenates. H. Rudney. bibliog Am Chem Soc J 76:2595-6 My 5 '54

METHYL glycose

Phosphorylation of 3-methylglucose by hexokinase from rat's intestinal mucosa. T. Z. Csáky. bibliog Science 118:253-4 Ag 28 '53

METHYL green

Mechanism of desoxyribonuclease depolymerization; effect of physical and enzymatic depolymerization on the affinity of methyl green and of desoxyribonuclease for desoxyribonucleic acid. N. B. Kurnick. bibliog diags Am Chem Soc J 76:417-24 Ja 20 '54

METHYL group

Addition of methyl radicals to benzene. M. Levy, M. Steinberg and M. Szwarc. Am Chem Soc J 76:3429-41 Jl 5 '54

Chemistry of S-B bonding; polymeric thioborines, methanethiodiborane and related substances. A. B. Burg and R. I. Wagner. Am Chem Soc J 76:3307-10 Je 20 '54

Dienone-phenol rearrangement in the benzo (c)phenanthrene series; a case of concurrent methyl and methylene migration. C. Djerassi and T. T. Grossnickle. bibliog Am Chem Soc J 76:1741-6 Ap 5 '54

Origin of the methyl group of nicotine through transmethylation. L. J. Dewey, R. U. Byerrum and C. D. Ball. bibliog Am Chem Soc J 76:3997-9 Ag 5 '54

Rate of association of methyl radicals. G. B. Kistiakowsky and E. K. Roberts. bibliog J Chem Phys 21:1637-43 O '53

Rate of combination of methyl radicals. K. U. Ingold and others. J Chem Phys 21:2239 D '53

Reactions of aromatic nitro compounds with active methyl, methylene, methine groups in presence of base. J. J. Carr. bibliog Anal Chem 25:1859-63 D '53

Reactions of methyl radicals with acetone, diethyl ketone, and di-*tert.*-butyl peroxide. G. O. Pritchard, H. O. Pritchard and A. F. Trotman-Dickenson. Chem Soc J p 1425-8 My '54

Reactivity of the methyl group in 2-methyl-3-nitronaphthalene. L. E. Miller and others. bibliog Am Chem Soc J 76:296-7 Ja 5 '54

Vapor-phase free radical addition-elimination; replacement of acetyl by methyl. J. N. Pitts, jr., R. S. Tolberg and T. W. Martin. Am Chem Soc J 76:2843-4 My 20 '54

Analysis

C-methyl determination. E. J. Eisenbraun, S. M. McElvain and B. F. Aycock. bibliog Am Chem Soc J 76:607-9 Ja 20 '54

METHYL halides

Addition compounds of gallium trichloride with methyl halides. H. C. Brown, L. P. Eddy and R. Wong. bibliog diag Am Chem Soc J 75:6275-8 D 20 '53

New ω-substituted anisoles; aryloxymethyl halides; their preparation and reactions. H. J. Barber and others. bibliog J Ap Chem 3:266-74 Je '53

METHYL heptyl acetate

Acid-catalysed racemisation of 1-methylheptyl acetate. M. P. Balfe, W. H. F. Jackman and J. Kenyon. Chem Soc J p965-7 Mr '54

METHYL indan

Preparation and properties of some methylated indans. J. Entel, C. H. Ruof and H. C. Howard. bibliog Anal Chem 25:1303-10 S '53

METHYL iodide

Exchange of iodine atoms between iodine and methyl iodide in the temperature range 150-375°. D. Clark, H. O. Pritchard and A. F. Trotman-Dickenson. Chem Soc J p2633-5 Jl '54

Moderation of hot methyl radicals in photolysis of methyl iodide. F. P. Hudson and others. J Chem Phys 21:1894 O '53

Reactions of 4-thionchromones with amino-compounds, and with methyl iodide. W. Baker, G. G. Clarke and J. B. Harborne. Chem Soc J p998-1002 Mr '54

Vaporising liquids as fire extinguishers; abstract. E. H. Coleman. Chem Age (Lond) 68:599-600 Ap 18 '53

METHYL iodocholenate

Methyl 3β-iodochol-5-enate. W. Klyne. Chem Soc J p2644 Jl '54

METHYL isobutyl ketone

Distribution of formic acid between water and methyl isobutyl ketone. H. J. Vogt and C. J. Geankoplis. Ind & Eng Chem 45:2119-20 S '53

Ternary system; furfural-methyl isobutyl ketone-water at 25° C. J. B. Conway and J. B. Philip. bibliog Ind & Eng Chem 45:1083-5 My '53

Vapor-liquid equilibria at 760-mm. pressure. L. H. Ballard and M. Van Winkle. bibliog Ind & Eng Chem 45:1803-4 Ag '53

METHYL isothiourea

Reaction of azide ion with N-methyl-N-nitroso-N-nitroguanidine and N-nitro-S-methylisothiourea. R. A. Henry and R. H. Boschan. bibliog Am Chem Soc J 76:1949-50 Ap 5 '54

METHYL levulinic acid

α-Methyl-lœvulic acid. E. A. Braude and C. J. Timmons. Chem Soc J p3313-14 O '53

METHYL linoleate

Displacement analysis of lipids; products of the oxidation of methyl linoleate. N. A. Khan, W. O. Lundberg and R. T. Holman. bibliog Am Chem Soc J 76:1779-84 Ap 5 '54

METHYL linoleate—*Continued*

Reaction of methyl linoleate and methyl linolelaidate with di-*t*-butyl peroxide. S. A. Harrison and D. H. Wheeler. bibliog Am Chem Soc J 76:2379-82 My 5 '54

Structure of methyl linoleate peroxides. H. H. Sephton and D. A. Sutton. bibliog Chem & Ind p667 Jl 4 '53

Thermal decomposition of methyl linoleate hydroperoxide. L. Williamson. bibliog J Ap Chem 3:301-7 Jl '53

Analysis

Nitrosation method of determining *d*-γ-tocopherol. B. H. Polister. bibliog Anal Chem 26:407-8 F '54

METHYL mercaptan. See Methanethiol

METHYL methacrylate. See Methacrylates

METHYL naphthalene

Alkylnaphthalenes; 1 : 6- and 1 : 7-dimethylnaphthalene. R. F. Evans and J. C. Smith. bibliog Inst Pet J 39:716-27 O '53

Nitration of 2-methylnaphthalene. J. A. Brink, jr. and R. N. Shreve. bibliog diags Ind & Eng Chem 46:694-702 Ap '54

METHYL nitrobenzoate

Reaction of methyl *p*-nitrobenzoate with phenylmagnesium bromide. D. Y. Curtin and J. C. Kauer. Am Chem Soc J 75:6041-2 D 5 '53

METHYL oleate

Separation and identification of the 9,10- and 10,9-chlorohydrins of methyl oleate. E. Jungermann and P. E. Spoerri. bibliog Am Chem Soc J 75:4704-5 O 5 '53

METHYL phenylcarbinol

Molecular rearrangements; the pinacol rearrangement of 1-hydroxy-1-cyclohexylmethylphenylcarbinol. G. G. Lyle, R. A. Covey and R. E. Lyle. bibliog Am Chem Soc J 76:2713-15 My 20 '54

METHYL phosphates

Two give a clue; diethyl 2-chlorovinyl phosphate and dimethyl 1-carbomethoxy-1-propen-2-yl phosphate. Chem W 73:45 Ag 15 '53

METHYL propanol

Distribution coefficients for 2-methyl-1-propanol-water and 1-pentanol-water systems. K. F. Gordon. bibliog Ind & Eng Chem 45:1813-15 Ag '53

METHYL propyl ketone. See Pentanone

METHYL pyridazine

Synthesis in the pyridazine series; the preparation of pyridazines from substituted maleic anhydrides; some properties of 4-methylpyridazine. R. H. Mizzoni and P. E. Spoerri. bibliog Am Chem Soc J 76:2201-3 Ap 20 '54

METHYL pyridindole

Dimethoxy substituted harman and other compounds derived from 5,6-dimethoxyindole. C. F. Huebner, H. A. Troxell and D. C. Schroeder. bibliog Am Chem Soc J 75:5887-90 D 5 '53

METHYL pyrimidine

Derivatives of 5-amino-4-methylpyrimidine. C. G. Overberger, I. C. Kogon and W. J. Einstman. bibliog Am Chem Soc J 76:1953-4 Ap 5 '54

METHYL quinoline

Some derivatives of 8-methylquinoline. W. E. Blankenstein and J. D. Capps. bibliog Am Chem Soc J 76:3211-13 Je 20 '54

METHYL selenide

Studies on biological methylation; the formation of trimethylarsine and dimethyl selenide in mould cultures from methyl sources containing ^{14}C. F. Challenger, D. B. Lisle and P. B. Dransfield. Chem Soc J p 1760-71 Je '54; Abstract. Chem & Ind p796 Jl 25 '53

METHYL siloxanes. See Siloxanes

METHYL styrene

Manufacture

Benzene is by-passed; new process for methyl and dimethylstyrenes. Chem W 73:41-2 O 24 '53

Methylstyrenes and dimethylstyrenes from diarylethanes. J. K. Dixon and K. W. Saunders. bibliog il Ind & Eng Chem 46:652-60 Ap '54

METHYL succinic acid

1 : 2-Dicarboxylic acids; positional isomerides derived from methylsuccinic acid; with a note on the rearrangement of unsymmetrical compounds of this type. J. E. H. Hancock and R. P. Linstead. Chem Soc J p3490-6 N '53

METHYL sulfide

Analysis

Quantitative determination of methyl mercaptan, dimethyl disulfide, and dimethyl sulfide in a gas mixture. W. Segal and R. L. Starkey. bibliog diag Anal Chem 25:1645-8 N '53

METHYL sulfonyl compounds

Conjugation of methylsulfonyl and nitro groups with the mercapto group in thiophenols. F. G. Bordwell and H. M. Andersen. bibliog Am Chem Soc J 75:6019-22 D 5 '53

METHYL taloside

Products from the alkaline and reductive fission of the epoxide ring of methyl 3 : 4- and 2 : 3-anhydro-6-deoxy-α-L-taloside and of their methylated derivatives. G. Charlambous and E. Percival. Chem Soc J p2443-8 Jl '54

METHYL taurine

Stepped down for quantity; GAF's new N-methyltaurine process. il Chem W 74:44-6+ Mr 6 '54

METHYL tetracarboxybenzene

Anthrasteroid rearrangement; the structural proof of 1-methyl-2,3,5,6-tetracarboxybenzene. W. R. Nes and E. Mosettig. bibliog Am Chem Soc J 76:3186-8 Je 20 '54

METHYL thiophene

Chemical thermodynamic properties of 3-methylthiophene from 0 to 1000°K. J. P. McCullough and others. bibliog Am Chem Soc J 75:5075-81 O 20 '53

METHYL urea

O-methylurea. D. J. Brown and E. Hoerger. bibliog J Ap Chem 4:283-4 My '54

METHYL valeric acid

α,β-Dihydroxyisovaleric acid and α,β-dihydroxy-β-methylvaleric acid, precursors of valine and isoleucine. J. R. Sjolander and others. bibliog Am Chem Soc J 76:1085-7 F 20 '54

METHYL vinhaticoate

Synthesis of alkylphenanthrenes relevant to the investigations on methyl vinhaticoate. F. E. King and T. J. King. Chem Soc J p 1373-7 My '54

METHYLAL

Acid-catalyzed hydrolysis of methylal; influence of strong acids and correlation with Hammett acidity function. D. McIntyre and F. A. Long. bibliog Am Chem Soc J 76:3240-2 Je 20 '54

Acid-catalyzed hydrolysis of methylal; kinetic and equilibrium salt effects and correlation with H_0. F. A. Long and D. McIntyre. bibliog Am Chem Soc J 76:3243-7 Je 20 '54

METHYLATION

Methylation as an aid in the analysis of polynuclear aromatic compounds. R. L. Cooper. bibliog Chem & Ind p516 My 23 '53

Methylation of cellulose with diazomethane, and some properties of the products. D. A. Sitch. bibliog il Textile Inst J Trans 44:T407-19 O '53

Methylation of indoles. K. T. Potts and J. E. Saxton. Chem Soc J p2641-3 Jl '54

Monomer synthesis; methylation of 2-aminopyrimidine. C. G. Overberger and I. C. Kogon. bibliog Am Chem Soc J 76:1065-8 F 20 '54

More active hormones possible; abstract. C. T. Engel. Chem & Eng N 32:2687 Jl 5 '54

Nucleotides; the methylation of uridylic acid *b*. D. M. Brown, D. I. Magrath and A. R. Todd. Chem Soc J p 1442-7 My '54

Studies on biological methylation; the formation of trimethylarsine and dimethyl selenide in mould cultures from methyl sources containing ^{14}C. F. Challenger, D. B. Lisle and P. B. Dransfield. Chem Soc J p 1760-71 Je '54; Abstract. Chem & Ind p796 Jl 25 '53

METHYLENE
Dienone-phenol rearrangement in the benzo (c)phenanthrene series; a case of concurrent methyl and methylene migration. C. Djerassi and T. T. Grossnickle. bibliog Am Chem Soc J 76:1741-6 Ap 5 '54

METHYLENE chloride
Chlorinated methanes. diag Pet Refiner 32: 124-5 N '53

METHYLENE compounds
Electrophilic reactivity of alkoxyalkylidene derivatives of heterocyclic ketomethylene compounds. E. B. Knott. diag Chem Soc J p 1482-90 My '54

Nucleophilic reactivity of alkylidene derivatives of cyclic keto-methylene compounds. E. B. Knott. Chem Soc J p 1490-501 My '54

METHYLENE diamine
Synthesis of certain N,N′-di-(*p*-carbomethoxyalkylphenyl)-polymethylenediamines. R. C. Fuson and R. Jaunin. Am Chem Soc J 76:1171-3 F 20 '54

METHYLENEDINITRAMINE
Thermal decomposition of methylenedinitramine. M. C. Tobin and others. bibliog Am Chem Soc J 76:3249-53 Je 20 '54

METHYLENE glutamic acid
Keto acids of the tulip (tulipa gesneriana) with special reference to the keto analog of γ-methyleneglutamic acid. G. H. N. Towers and F. C. Steward. Am Chem Soc J 76: 1959-61 Ap 5 '54

METHYLENE group
Reactions of aromatic nitro compounds with active methyl, methylene, methine groups in presence of base. J. J. Carr. bibliog Anal Chem 25:1859-63 D '53

METHYLENEPROPIONIC acid
cis- and *trans*-β-aroyl-α- and β-methylacrylic acids and β-aroyl-α-methylenepropionic acids. R. E. Lutz and others. bibliog Am Chem Soc J 75:5039-44 O 20 '53

METHYLENIMINE
Preparation and hydrogenation of azomethines derived from 5-aminotetrazole. R. A. Henry and W. G. Finnegan. Am Chem Soc J 76:926-8 F 5 '54

Preparation of basic alcohols and basic alkyl chlorides which contain a 1-hexa-, 1-hepta- or 1-octamethylenimino radical. F. F. Blicke and N. J. Doorenbos. bibliog Am Chem Soc J 76:2317-22 My 5 '54

Reduction of some conjugated azomethine systems by aryl thiols. H. Gilman, J. L. Towle and R. K. Ingham. Am Chem Soc J 76:2920-3 Je 5 '54

Thermal decomposition of azomethane. M. Page, H. O. Pritchard and A. F. Trotman-Dickenson. Chem Soc J p3878-81 D '53

Triad prototropic systems; the effect of substituents on the mobility of the azomethine system. F. G. Baddar and Z. Iskander. Chem Soc J p209-13 Ja '54

METHYLOL amides
Synthesis and reactions of unsaturated N-methylolamides. H. Feuer and U. E. Lynch. bibliog Am Chem Soc J 75:5027-9 O 20 '53

METHYLOL compounds
Alkaline-catalyzed reaction of formaldehyde and the methylols of phenol; a kinetic study. J. H. Freeman and C. W. Lewis. bibliog Am Chem Soc J 76:2080-7 Ap 20 '54

METHYLOL melamines
Shrinkproofing wool; acid colloidal solutions of methylated methylolmelamines; patent. Am Dyestuff Rep 43:446 Jl 5 '54

METOL
Elon; Eastman Kodak has boosted its yields; pictured flow sheet. Chem Eng 60:276-9 O '53

Analysis

Coulometric titration of *p*-methylaminophenol sulfate and hydroquinone by cerium-(IV). N. H. Furman and R. N. Adams. bibliog Anal Chem 25:1564-5 O '53

METRECHON. See Storage tubes

METRO-GOLDWYN-MAYER studios
Schary keeps ideas and people on the track. il Bsns W p78-84+ Ag 15 '53

METRONOME
Electronic metronome. L. A. Wortman. il diag Radio & Tv N 50:182 O '53

Transistor metronome. L. E. Garner, jr. il diag Radio & Tv N 51:50-1+ Ja '54

METROPOLITAN districts
Development of economic base concept. H. Hoyt. Land Econ 30:182-6 My '54

Mechanics of the urban economic base. R. B. Andrews. bibliog Land Econ 29:161-7, 263-8, 343-50; 30:52-60, 164-72, 260-9 My '53-Ag '54

Sewerage planning for metropolitan fringe areas; Fairfax county and Arlington county, Va. M. H. Klegerman. map Sewage & Ind Wastes 26:616-24 My '54; Excerpts. Water & Sewage Works 101:89 F '54; Discussion. Sewage & Ind Wastes 26:624-6 My '54

Where to get basic data on 225 metro areas. Sales Management 72:61 Mr 1 '54

See also
Shopping areas

Bibliography

Bibliography on the economic base. K. McNamara. Land Econ 30:186-91 My '54

METROPOLITAN life insurance company
Observations of seven decades in the business of life insurance. F. H. Eecker. East Underw 55:24-5+ pt 2 O 1 '54

METROPOLITAN museum of art
Museum lighting by day and night. il diags Arch Forum 100:162-3 Mr '54

Remodeling, a new version of museum expansion; New York's Metropolitan museum of art has finished the first stage of its mammoth reconstruction program. il Arch Forum 100:154-7 My '54

METROSIDERENE
Structure of metrosiderene. R. E. Corbett and W. G. Hanger. Chem Soc J p 1179-81 Ap '54

MEXICANS in the United States
Wetbacks in middle of border war. il Bsns W p62-4+ O 24 '53

MEXICO
See also
Architecture, Domestic—Mexico
Chemical industries—Mexico
Copper mines and mining—Mexico
Hydroelectric plants—Mexico
Investments, Foreign (in Mexico)
Petroleum industry and trade—Mexico
Railroads—Mexico

Commercial policy

Mexico places controls on various textiles. For Comm W 51:16+ F 8 '54

Economic conditions

Economic conditions abroad (cont). For Comm W 50:3+ Ag 10; 4 S 7; 3 O 12; 3+ N 9; 4 D 7 '53; 51:3+ Ja 18 '54

Economic policy

Mexican experiment goes on; President Ruiz Cortiñes's administration. Economist 169: 757-8 D 5 '53

MEXICO, Gulf of
Aluminum and iron in Atlantic and Gulf of Mexico surface waters. L. H. Simons, P. H. Monaghan and M. S. Taggart, jr. bibliog map Anal Chem 25:989-90 Je '53

MIAMI, Florida

Sanitary affairs

Miami tackles multi-faced pollution problem. E. S. Chase. maps Civil Eng 23:458-60 Jl '53

Sewerage

Miami's Virginia Key sewage treatment plant. J. S. Bethel, jr. flow diag map Sewage & Ind Wastes 26:241-9 Mr '54; Abstract. Water & Sewage Works 100: 480-1 D '53

Plans for Miami's sewage disposal project. C. E. Wright. map Pub Works 85:87-8 Mr '54

MIAMI BEACH, Florida
City manager quits; stands ground in controversy over causeway project. Eng N 151:47 D 17 '53

Hotels, restaurants, etc.

Shelborne hotel. il plans Arch Forum 98:112-13 Ja '53

MIAMI university
Miami university, remodeling. il plans diags Arch Forum 98:128-32 Je '53

MICA
Artists sculpture mica dies. J. P. Wright. il diags Am Mach 98:145-60 S 13 '54
Charts simplify mica grading problem. L. M. Otis. Eng & Min J 155:83 Ja '54
Developments in calcium carbonate and mica extender pigments; abstract. R. L. McCleary. Paint Oil & Chem R 117:32 Ap 8 '54
Glass bonded mica. J. H. Dubois. Product Eng 24:303-4+ Je '53
Mica dust inhalation. H. Heimann and others. A M A Archives Ind Hygiene & Occup Med 8:531-2 D '53
Mica, 1953. W. F. Dietrich. Eng & Min J 155:112+ F '54
Performance of dried and sealed capacitors. G. H. Rayner and L. H. Ford. J Sci Instr 31:3-6 Ja '54
Power factor and capacitance of mica capacitors at low frequencies. P. R. Bray. J Sci Instr 30:49-51 F '53
Silicosis in mica mining in Bihar, India. H. Heimann and others. bibliog diag A M A Archives Ind Hygiene & Occup Med 8:420-35 N '53
Strategic synthesis; two companies make bid for mica market with process for synthetic fluor-phlogopite. il diags Chem W 74:46+ My 22 '54
Synthetic mica investigations. R. A. Humphrey and others. bibliog il diags Am Cer Soc J 37:196-202, 317-22, 427-32 Ap 1, Jl 1, S 1 '54
Toward better insulating materials; three forms of synthetic micas. T. B. Merrill, jr. il Materials & Methods 40:80-3 Ag '54

MICELLES
Determination of critical micelle concentration by equilibrium dialysis. Jen Tsi Yang and J. F. Foster. bibliog J Phys Chem 57:628-33 O '53
Determination of critical micelle concentrations by a bubble pressure method. L. M. Kushner and W. D. Hubbard. J Phys Chem 57:898-9 D '53
Testicular hyaluronidase in relation to micelle formation by inactivating agents. M. B. Mathews. bibliog Am Chem Soc J 76:2948-52 Je 5 '54

MICHAEL reaction
Acrylamide as an acceptor in the Michael condensation. D. Elad and D. Ginsburg. Chem Soc J p4137-9 D '53
Michael condensations with substituted sorbic esters; methyl β-*iso*butenyl-αα'dimethoxycarbonylglutarate. E. B. Reid and H. W. Sause. Chem Soc J p516-20 F '54
Studies in the alicyclic series; 1-benzoyl-*cyclo*alkenes as acceptors in the Michael condensation. D. Ginsberg. Chem Soc J p2361-4 Jl '54

MICHAELIS-MENTEN theory
Variation of the Michaelis constant with the concentrations of the reactants in an enzyme-catalyzed system. L. L. Ingraham and B. Makower. bibliog J Phys Chem 58:266-70 Mr '54

MICHIGAN
See also
Architecture, Domestic—Michigan
Copper mines and mining—Michigan
Hydroelectric plants—Michigan
Iron mines and mining—Michigan
Petroleum industry and trade—Michigan
Steel industry and trade—Michigan
Taxation—Michigan

Industries and resources

State growth and development is analyzed in report on northern Michigan. Bsns W p97-8 Ag 29 '53

MICHIGAN association of insurance agents
Annual meeting, Mackinac Island, Sept. 14-15. Nat Underw 57:23-4 S 17 '53

MICHIGAN central railroad
Security I like best; New York Central and Hudson River railroad, Michigan Central collateral mortgage 3½ per cent 1998. A. Marx. Comm & Fin Chr 178:718 Ag 27 '53

MICHIGAN paper company
W. C. Hamilton acquires Michigan paper co. il Paper Tr J 138:11-12 F 19 '54

MICHIGAN university
Infrared spectroscopy. H. M. Randall. il Opt Soc Am J 44:97-103 F '54
University of Michigan, an answer to expansion. il map plan Arch Forum 98:118-22 Je '53

MICOINA
In vitro activity of micoina on brucellae, compared with that of terramycin. M. T. de Mello. bibliog Science 118:413-15 O 9 '53

MICROAMMETER. See Ammeters

MICROANALYSIS
Analytical chemistry of micro quantities of beryllium. T. Y. Toribara and R. E. Sherman. bibliog Anal Chem 25:1594-7 N '53
Boron in sodium metal. J. Rynasiewicz, M. P. Sleeper and J. W. Ryan. Anal Chem 26:935-6 My '54
Calculation of integrated intensities in spectrographic microanalysis. J. K. Hurwitz. bibliog diags Opt Soc Am J 44:30-4 Ja '54
Circular slide rule for microanalysts. R. E. Schachat and W. L. Savell. diags Anal Chem 25:1779-80 N '53
Colorimetric method for quantitative microdetermination of quaternary ammonium compounds. J. Fogh, P. O. H. Rasmussen and K. Skadhauge. bibliog il Anal Chem 26:392-5 F '54
Colorimetric microdetermination of boron by the curcumin-acetone solution method. L. Silverman and K. Trego. bibliog Anal Chem 25:1264-7 Ag '53
Comparison of spectrochemical and semimicromethods in analysis of petroleum ashes. G. V. Dyroff, J. Hansen and C. R. Hodgkins. bibliog(28 ref) diags Anal Chem 25:1898-905 D '53
Convenient technique for micro Zerewitinoff determinations. H. C. Brown and O. Hafliger. bibliog diags Anal Chem 26:757-9 Ap '54
Coulometric determinations of submicrogram amounts of cadmium and zinc. K. W. Gardiner and L. B. Rogers. bibliog Anal Chem 25:1393-7 S '53
Determination of calcium in biological materials. W. P. Norris and B. J. Lawrence. bibliog il diag Anal Chem 25:956-60 Je '53
Determination of mercury in the atmosphere; submicroanalytical determination of mercuric ion in bromine and chlorine water based on its catalytic action. S. Ašperger and I. Murati. bibliog Anal Chem 26:543-5 Mr '54
Determination of methanol in biological fluids by microdiffusion analysis. M. Feldstein and N. C. Klendshoj. Anal Chem 26:932-3 My '54
Determination of micro amounts of phosphorus in high-purity iron. O. R. Gates. bibliog Anal Chem 26:730-2 Ap '54
Determination of nitrogen in zirconium by micro-Kjeldahl steam distillation. J. F. Rodgers and G. J. Harter. diag Anal Chem 26:395-6 F '54
Direct microdetermination of sodium, potassium, and calcium. G. R. Kingsley and R. R. Schaffert. bibliog Anal Chem 25:1738-41 N '53
Estimation of micro quantities of pyrethroids. A. A. Schreiber and D. B. McClellan. bibliog Anal Chem 26:604-7 Mr '54
Field method for determination of traces of arsenic in soils. H. Almond. bibliog diag Anal Chem 25:1766-7 N '53
Grinders for mulling infrared micro-samples. J. S. Ard. bibliog diags Anal Chem 25:1780-2 N '53
High-frequency titration of micro quantities of chloride and sulfate. G. S. Bien. Anal Chem 26:909-11 My '54
Improved micro-Dumas method and apparatus. T. D. Parks and others. bibliog il diags Anal Chem 26:229-32 Ja '54
Infrared identification of materials in the fractional milligram range. D. H. Anderson and N. B. Woodall. il diags Anal Chem 25:1906-9 D '53
Inorganic microchemistry; review of past two years. P. W. West. Anal Chem 26:121-8 bibliog(213 ref, p 125-8) Ja '54

MICROANALYSIS—*Continued*

Isolation and purification of semimicro quantities of morphine. L. B. Achor and E. M. K. Geiling. bibliog Anal Chem 26:1061-2 Je '54

Microanalysis of organic salts by the use of cation exchange resins. C. H. Van Etten and M. B. Wiele. bibliog diag Anal Chem 25:1109-11 Jl '53

Microdetermination of chlorine and bromine in organic compounds. L. J. Lohr, T. E. Bonstein and L. J. Frauenfelder. bibliog diags Anal Chem 25:1115-17 Jl '53

Microdetermination of chloropicrin vapor in air. L. Feinsilver and F. W. Oberst. bibliog Anal Chem 25:820-1 My '53

Microdetermination of copper in biological material. D. M. Hubbard and E. C. Spettel. bibliog Anal Chem 25:1245-7 Ag '53

Microdetermination of DDT in river water and suspended solids. B. Berck. bibliog Anal Chem 25:1253-6 Ag '53

Microdetermination of *N*-1-naphthylphthalamic acid residues in plant tissues. A. E. Smith and G. M. Stone. diag Anal Chem 25:1397-9 S '53

Microdetermination of nitrogen in volatile compounds. W. J. Schenck. diag Anal Chem 26:788 Ap '54

Microdetermination of 3-(*p*-chlorophenyl)-1,1-dimethylurea in plant tissue. H. Y. Young and W. A. Gortner. Anal Chem 25:800-2 My '53

Microdetermination of polyvinylpyrrolidone in aqueous solution and in body fluids. G. R. Levy and D. Fergus. Anal Chem 25:1408-10 S '53

Micromethod for measurement of carbon-14-labeled material. J. H. Peters and H. R. Gutmann. bibliog diags Anal Chem 25:987-8 Je '53

Modified universal semi-micro Kjeldahl method for the determination of nitrogen in coal and other carbonaceous materials. A. E. Beet. J Ap Chem 4:373-9 Jl '54

New micro method for the analysis of phenols. B. T. Commins and R. L. Cooper. Chem & Ind p 1110 S 4 '54

New micro technique used for rapid analysis of drop size volumes. Chem & Eng N 32:3770 S 20 '54

New molecular addition compounds of 2,4,7-trinitrofluorenone. D. E. Laskowski and W. C. McCrone. Anal Chem 26:1497-500 S '54

Organic microchemistry; review of past two years. C. L. Ogg. Anal Chem 26:116-21 bibliog(194 ref, p 119-21) Ja '54

Point-by-point chemical analysis by X-ray spectroscopy; electronic microanalyzer. R. Castaing and A. Guinier. il diag Anal Chem 25:724-6 My '53

Rapid microcolorimetric determination of dissolved oxygen. W. F. Loomis. bibliog Anal Chem 26:402-4 F '54

Replacement of lead peroxide in carbon, hydrogen microdetermination. C. K. Cross and G. F. Wright. bibliog diags Anal Chem 26:886-90 My '54

Semimicrodetermination of acetylation equivalents of alcohols. R. E. Kepner and A. D. Webb. diags Anal Chem 26:925-7 My '54

Semimicrodetermination of hydroxyl group in long chain alcohols. R. T. Blickenstaff, J. R. Schaeffer and G. G. Kathman. Anal Chem 26:746-8 Ap '54

Semi-micro Kjeldahl method for the determination of nitrogen in coal. A. H. Edwards. bibliog diag J Ap Chem 4:330-40 Je '54

Semimicro system of qualitative and quantitative elementary analysis. E. H. Swift and C. Niemann. Anal Chem 26:538-43 Mr '54

Separation of calcium and strontium in semimicro qualitative analysis. R. B. Hahn. J Chem Educ 30:349 Jl '53

Separations with a micro mercury cathode. R. B. Hahn. diags Anal Chem 25:1749-50 N '53

Silicate analysis by a rapid semimicrochemical system. R. B. Corey and M. L. Jackson. bibliog flow sheets diags Anal Chem 25:624-8 Ap '53

Spectrophotometric micromethod for determining polyunsaturated fatty acids. S. F. Herb and R. W. Riemenschneider. bibliog Anal Chem 25:953-5 Je '53

Submicro method for the estimation of sulphur. A. S. Jones and D. S. Letham. Chem & Ind p662-3 Je 5 '54

Volumetric determination of carbon and hydrogen in organic microcombustion analysis. A. Johansson. bibliog diag Anal Chem 26:1183-5 Jl '54

See also
Trace analysis

MICROBALANCES. See Balances

MICROBIOLOGIC assay. See Biological assay

MICROBIOLOGY

Engineering and microbiological processes. F. E. Warner and others. bibliog diags Chem & Ind p 114-19 Ja 30 '54

Microbiology of different types of cheese; abstract and discussion. J. G. Davis. Chem & Ind p 1336 D 12 '53

MICROBIOLOGY, Institute of. See Rutgers university—Institute of microbiology

MICROBURET. See Burets

MICROCALORIMETER. See Calorimeters and calorimetry

MICROCAUTERS. See Electromicrocauter

MICROCHEMISTRY

Annual microchemical symposium, 9th, Brooklyn, March 19-20; abstracts of papers. Anal Chem 26:784-5 Ap '54

Distillation of micro quantities of iodine; application to determination of protein-bound iodine in bovine blood serum. G. H. Ellis and G. D. Duncan. bibliog diag Anal Chem 25:1558-9 O '53

Inorganic microchemistry; review of past two years. P. W. West. Anal Chem 26:121-8 bibliog(213 ref, p 125-8) Ja '54

Microchemical methods for the characterization of bacteria. S. T. Cowan. bibliog Chem & Ind p883-6 Ag 22 '53

Micromethod for measuring reaction rates in solution under moderate pressures. T. Rees. Anal Chem 26:226-9 Ja '54

Organic microchemistry; review of past two years. C. L. Ogg. Anal Chem 26:116-21 bibliog(194 ref, p 119-21) Ja '54

Apparatus

Construction and calibration of simple semiautomatic microburets. U. L. Upson. diags Anal Chem 25:977-9 Je '53

Highly accurate, rapid-action, micro or macro buret. J. E. Taylor. diags J Chem Educ 30:394-5 Ag '53

Improved electrophoresis apparatus for small volumes. L. G. Longsworth. bibliog il diags Anal Chem 25:1074-8 Jl '53

Micro-electrode devices for potentiometric and other electrometric titrations. J. T. Stock. bibliog diags Chem Age (Lond) 71:575-8+, 719-22 S 18, O 2 '54

1953 report on recommended specifications for microchemical apparatus. bibliog diags Anal Chem 26:1186-90 Jl '54

Phase-study apparatus for semimicro use above atmospheric pressure. W. L. Marshall and others. diags J Chem Educ 31:34-6 Ja '54

Portable semimicro ozonizer. W. A. Bonner. bibliog diag J Chem Educ 30:452-3 S '53

Pump meters micro volumes; Technicon chromatography. il Chem & Eng N 32:440 F 1 '54

Small-scale techniques in the teaching of organic chemistry. J. T. Stock and M. A. Fill. bibliog il diags J Chem Educ 30:296-301 Je '53

Small-scale units for organic identification. J. T. Stock and M. A. Fill. bibliog il diags J Chem Educ 31:144-8 Mr '54

Statistical study of the performance of an Ainsworth microchemical balance. J. T. Waber and G. E. Sturdy. bibliog il Anal Chem 26:1177-80 Jl '54

Ultrafine high-precision microburet. R. Gilmont. il diags Anal Chem 25:1135-6 Jl '53

Vest pocket laboratory. il Chem & Ind p269 Mr 6 '54; Chem Age (Lond) 70:511-12 F 27 '54

MICROCOCCUS

In vitro incorporation of leucine into the proteins of micrococcus lysodeikticus. R. L. Lester. bibliog Am Chem Soc J 75:5448-9 N 5 '53

MICRODENSITOMETERS. See Densitometers

MICROELECTRODES. See Electrodes

MICROFILM records

Bank microfilms mortgage ledger cards as customer service; the Roslyn savings bank. C. H. Nygren. Bankers Mo 70:42 N '53

Microfilming can cut record storage costs. W. G. Patton. il Iron Age 172:142-4 Jl 16 '53

Microfilming field broadens. E. T. Freel. il Pet Refiner 32:219-20+ Jl '53; Same. World Oil 138:49-50 Ja '54

Microfilming program cracks bottleneck; Simplicity pattern co. P. Eastman. il Am Bsns 24:18-19 F '54

Protection of vital corporate records. H. F. Russell. N A C A Bul 35:579-86 Ja '54

Using microfilm for current accounts. Management R 43:372-3 Je '54

MICROFILMS

Film optical sensing device processes information for input to computers; abstracts. M. L. Greenough and others. flow diag il Elec Eng 73:184-5 F '54; Electronics 27:236+ F '54

MICROMANIPULATORS

Electric micromanipulator. V. Bush and others. il diags R Sci Instr 24:487-9 Jl '53

Semi-micro manipulator for crystal mounting. A. L. Mackay. il J Sci Instr 30:140 Ap '53

MICROMANOMETERS. See Manometers

MICROMEROGRAPH

Particle parlay; Sharples Micromerograph. il Chem W 73:45-6 Jl 4 '53

Particle size distribution analyzed quickly, accurately by Micromerograph. F. S. Eadie and R. E. Payne. diags Iron Age 174:99-102 S 2 '54

Pins down powder-particle size; Micromerograph. il diags Food Eng 25:71-2+ D '53

Sharples develops instrument to speed analysis of particle size distribution. il diag Chem & Eng N 31:2806-7 Jl 6 '53

MICROMETERS

Double image micrometer for particle size analysis. J. H. McGinn. il diag R Sci Instr 25:930-1 S '54

Simple three-terminal micrometer capacitor. M. C. McGregor. diags J Sci Instr 31:190-1 My '54

Tesa micrometer with setting shown numerically. il Engineering 177:87 Ja 15 '54

Testing

How optics replace costly, time-consuming inspection. J. P. Wright. il diags Am Mach 98:168-9 Ap 12 '54

MICROORGANISMS

Acclimated microorganisms capable of oxidizing previously unaffected compounds; abstract. V. T. Stack, jr. and E. J. Mills, jr. Chem & Eng N 32:2107-8 My 24 '54

Effects of ionizing radiations on microorganisms; abstract. R. S. Hannan and others. Chem & Ind p392-3 Ap 3 '54

Equipment for cultivation of microorganisms. C.-G. Hedén and B. Malmgren. il diags Ind & Eng Chem 46:1747-51 S '54

Filtration of microorganisms from air by glass fiber media. H. M. Decker and others. il diag Heating-Piping 26:155-8 My '54

Making pollution pay; Reliance chemicals corp. microbiological cultures for treating plant wastes. Chem W 73:40 S 12 '53

Oxidation of steroids by microörganisms; side chain degradation, ring D-cleavage and dehydrogenation in ring A. J. Fried, R. W. Thoma and A. Klingsberg. bibliog Am Chem Soc J 75:5764-5 N 20 '53

Paper fiber from micro-organisms. Paper Ind 36:489 Ag '54

Putting micro-organisms to work on waste. Bsns W p54-5 S 19 '53

See also

Bacteria
Fermentation
Microscope and microscopy
Plankton
Protozoa
Viruses

MICROPHONES

Ceramic probe microphones. E. Ackerman and W. Holak. il diags R Sci Instr 25:857-61 S '54

Electro-Voice model 666. H. Souther and L. R. Burroughs. il Radio & Tv N 51:63+ Mr '54

Loudspeakers and microphones for auditory perspective; reprinted from Bell system technical journal, April 1934. E. C. Wente and A. L. Thuras. bibliog il diag Soc Motion Picture & Tv Eng J 61:431-46 pt 2 S '53

Microphone sensitivity conversion; reference sheet. L. Rosenman. Electronics 26:194 N '53

Microphones measure high-intensity sound. J. K. Hilliard. il diag Electronics 26:160-3 N '53

Novel desk-stand for microphone. A. Trauffer. il diag Radio & Tv N 50:102 S '53

Properties of carbon contacts. R. O. Grisdale. bibliog il diags J Ap Phys 24:1288-96 O '53

Single-transistor f-m transmitter can be used as wireless microphone unit in public address systems. D. E. Thomas. il diags Electronics 27:130-3 F '54

Transistor wireless mike. A. H. Hellmers. diag Radio & Tv N 50:196 O '53

MICROPHOTOGRAPHY

See also

Microfilm records
Microfilms

MICROPOTENTIOMETERS. See Potentiometers

MICRORADIOGRAPHY. See Radiography

MICRORESPIROMETERS. See Respirometers

MICROSCOPE, X ray. See X ray microscope

MICROSCOPE and microscopy

Amateur scientist; advice on the purchase of a microscope. A. G. Ingalls. il diags Sci Am 189:113-14+ D '53

Chemical microscopy. W. C. McCrone. Anal Chem 26:42-9 bibliog(412 ref, p46-9) Ja '54

Design and performance of an infrared microscope attachment. V. J. Coates and others. bibliog il diag Opt Soc Am J 43:984-9 N '53

Device for accurate location of events in nuclear emulsion. J. Orear. diags R Sci Instr 25:875-6 S '54

Fibre technology; fibre length mensuration. J. W. Wilson. il diag Pulp & Pa of Can 55:84-91 bibliog(149 ref, p89-91) Ap '54

Flying-spot microscope. J. H. Jupe. Electronics 27:228+ Ja '54

General Motors interference microscope measures small peaks and valleys. il Iron Age 174:148 S 9 '54; Steel 135:112 S 6 '54

Information theory and uncertainty principle. L. Brillouin. diags J Ap Phys 25:887-93 Jl '54

Local refractometry of cell particulars with the cylindrical lens microscope. J. Meyer-Arendt. bibliog il diag Science 118:489-90 O 23 '53

Microscope imagery as carrier communication. J. E. Rhodes, jr. bibliog il diags Opt Soc Am J 43:848-52 O '53

Microscope stage and integrating point counter for micrometric analysis of rocks. I. H. Ford. il diag J Sci Instr 31:164-5 My '54

Microscopic identification of wustite. R. G. Wells. il Anal Chem 26:715-17 Ap '54

Microscopical studies of rosin sizing; abstract. C. W. Hock. Tappi 36:sup 159A N '53

0.8 N.A. reflecting microscope for infrared absorption measurements. R. D. B. Fraser. bibliog il diags Opt Soc Am J 43:929-30 O '53

Optical and electron microscopic studies of cotton fiber structure. M. L. Rollins and V. W. Tripp. bibliog il Textile Res J 24:345-57 Ap '54

Phase contrast microscopy of beaten pulp. G. Van Nederveen and J. Isings. il Tappi 37:103-9 Mr '54

Photometry of the microscope with special reference to projection. F. E. J. Ockenden. bibliog diags J Sci Instr 31:309-13 S '54

Pressure chamber for micro-optical observations. C. Turner. diags J Sci Instr 31:9-10 Ja '54

MICROSCOPE and microscopy—*Continued*

Reflecting microscope for infra-red absorption measurements. K. P. Norris. bibliog(32 ref) il diag J Sci Instr 31:284-7 Ag '54

Reflection goniometer for the microscope. B. Rankin. il diag R Sci Instr 25:496-8 My '54

Separation and microscopic identification of gallium in the presence of aluminum. A. Wold, J. H. Baird and C. R. Hough. bibliog il Anal Chem 26:546-8 Mr '54

Simple form of flat-field microscope objective. W. S. S. Blaschke. il J Sci Instr 31:173-4 My '54

Some aspects of microscopy in cellulose research. M. L. Rollins. bibliog(50 ref) il Anal Chem 26:718-24 Ap '54

Sources of error in the measurement of rotation properties with the ore microscope. E. N. Cameron and others. bibliog diags Econ Geol 48:574-90 N '53

Symposium on light microscopy. (Special pub. no. 143) 126p pa $2.50 Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '53

2,4,7-Trinitrofluorenone as a reagent for microscopic fusion analysis. D. E. Laskowski, D. G. Grabar and W. C. McCrone. il diag Anal Chem 25:1400-4 S '53

Uses of microscopy in textile dyeing and finishing. G. G. Taylor and J. C. Brown. bibliog(57 ref) 4pls Soc Dyers & Col J 69:396-402; Discussion. 402-3 N '53

See also

Camera lucida
Electron microscope
Metallography
Microtomes
Photomicrography
X ray microscope

Light sources

Improving the illumination of opaque objects for microscopical study. W. L. Scott. Anal Chem 25:1138 Jl '53

Technique

Measurement with the flying-spot microscope and measurement of shape. J. Z. Young. diag Inst E E Proc 100 pt 1:256-8 S '53

Rapid precipitation of barium sulfate. R. B. Fischer and T. B. Rhinehammer. bibliog diags Anal Chem 25:1544-8 O '53

See also

Electron microscope —Replica technique
Microtomes
Replica technique

Ultraviolet microscope

Scientific specialties corporation color-translating ultraviolet microscope. il R Sci Instr 25:190-1 F '54

Ultraviolet microscope. E. W. Taylor. bibliog il diags Opt Soc Am J 43:299-305 Ap '53

MICROSCOPIC slides

Combined method for the rapid fixation and adhesion of ciliates and flagellates. G. Nissenbaum. Science 118:31-2 Jl 3 '53

MICROSPECTROSCOPY. See Spectroscopy

MICROSTRIP

Experimental determination of the properties of microstrip components. M. Arditi. bibliog il diags Elec Com 30:283-93 D '53

Industry gets microstrip license offer. P. Klass. il diag Aviation W 59:54-5 N 30 '53

MICRO-THERMOSTAT. See Thermostats

MICROTOMES

Expansion head for thin section cutting. A. F. Howatson and P. R. Price. il diag J Sci Instr 30:254 Jl '53

Ultramicrotome offering new approaches to microtomy. R. H. Müller. il Anal Chem 25:sup27A-8A Ap '53

MICROVISCOSIMETERS. See Viscometers

MICROWAVE communication. See Radio communication—Short wave

MICROWAVE spectrum. See Spectrum, Microwave

MID-CENTURY conference on resources for the future

Conference, Washington, Dec. 2-4. Eng & Min J 155:114 Ja '54

Land and water-use issues are debated at three-day conference on resources. Eng N 151:30 D 10 '53

Meeting, Washington. Chem Eng Prog 50: sup20A+ Ja '54

Meeting, Washington, Dec. 2-4. Oil Paint & Drug Rep 164:5+ D 7 '53

National groups examine resources at Washington conference, Dec 2-4. Chem & Eng N 31:5166-9 D 14 '53

Resources; the plot thickens. Bsns W p 126+ D 12 '53

Round-table discussion on energy, Washington, Dec. 2-4. Elec World 140:116-18 D 14 '53

U.S. resources surveyed by Mid-Century group, Washington. Min Eng 6:24-5 Ja '54

Water for the future as part of its Mid-Century conference. Chem W 73:24+ S 26 '53

MID-CONTINENT petroleum corporation

Putting more emphasis on finding oil. E. N. Morse. Barron's 33:19-20 D 21 '53

MIDDLE EAST. See Near East

MIDDLE WEST

See also

Chemical industries —Middle western states
Electrochemical industries—Middle western states

MIDLAND, Texas

Water supply

New water supply for Midland. H. N. Roberts. il diag Water & Sewage Works 101: 351-3 Ag '54

MIDLAND bank, limited

Statement by the chairman. Lord Harlech. Economist 170:285-7 Ja 23 '54

MIDWEST research institute

Midwest research institute arrives: construction starts on $1,250,000-laboratory building. C. N. Kimball. il Chem & Eng N 31:5284+ D 21 '53

MIDWEST stock exchange

Weekly record. Published in weekly Monday numbers of Commercial and financial chronicle

MIES VAN DER ROHE, Ludwig, 1886-

Mies van der Rohe's new buildings. por Arch Forum 97:93-111 N '52

MIGRAINE. See Headache

MIGRATION

Distribution and movements of the aged population. T. L. Smith. J Bsns 27:108-18 Ap '54

See also

Immigration and emigration

MIGRATION of workers

Migratory movements in underdeveloped countries in course of industrialisation. P. Wigny. Int Labour R 68:1-13 Jl '53

National conference on labor legislation, 19th, Washington, Dec. 2-3. Mo Labor R 76:21-2 Ja '53

Organised movement of seasonal farm workers; methods adopted by some national employment services. Int Labour R 67: 367-75 Ap '53

Spotlighted; wanderlust; Bureau of labor statistics study, Occupational mobility of scientists. Chem W 72:42-4 Je 6 '53

MILDEW

Mildew control; possibilities of paradichlorobenzene as an aid in preventing damage by mildew. R. S. Shumard. il Soap & San Chem 29:150-1+ Mr '53

Mildew-preventing activity and rhodanine derivatives. F. C. Brown and others. bibliog Ind & Eng Chem 45:1027-33; 46:1508-12 My '53, Jl '54

Mildewproofing of canvas products; abstract. H. M. Gadberry. Am Dyestuff Rep 43:349 My 24 '54

Review of mildewproofing treatments. E. C. Hansen and C. A. Bergman. bibliog Am Dyestuff Rep 42:466-8 Jl 20 '53

MILITARY air bases. See Air bases, Military

MILITARY air transport service. See United States—Military air transport service

MILITARY airplanes. See Airplanes, Military

MILITARY airports. See Airports, Military

MILITARY airships. See Airships, Military

MILITARY and naval service insurance. See Insurance, Military and naval service

MILITARY art and science

What is the military mind? H. E. Smith. U S Naval Inst Proc 79:508-13 My '53

See also

Aeronautics, Military
Atomic bombs
Radio communication, Military
War

MILITARY bridges

New army portable bridges; abstract. H. Milwit. Roads & Sts 97:93-4 Je '54

MILITARY buildings

Insurance in defense construction. G. E. Morrissey. East Underw 55:30+ Ja 22 '54

Military issues first of new series of unified construction standards. E. Mickel. Arch Rec 116:38+ Ag '54

New situation for the marines; Fuller's domes may shelter them. il Arch Rec 115:24+ Je '54

Pentagon seeks authorization for jobs costing $529 million. Eng N 151:24 Jl 16 '53

Precast concrete permits rapid construction of large marine training center. D. G. Hall. il Civil Eng 23:533-7 Ag '53

Prestressed concrete frames characterize U.S. army laundry in Germany. O. W. Steinhardt. il Civil Eng 23:388-9 Je '53

See also

Barracks

Heating and ventilation

Pipe job, it's big, it's different! Marine corps artillery training center. il Dom Eng 182: 64-6+ N '53

MILITARY communication. See Communication, Military; Radio communication, Military

MILITARY education

NATO defense college. M. R. G. Wingfield. U S Naval Inst Proc 79:491-3 My '53

Great Britain

Supply of technical officers for the army. F. Evans. Engineer 196:299-300 S 4 '53

MILITARY engineering

See also

Military bridges

Radio apparatus—Military use

Water supply for armies

MILITARY fabrics

Cotton and ideal military textiles. S. J. Kennedy. Textile Res J 24:572-7 Je '54

Ideal military fabric. J. F. Oesterling. il Am Dyestuff Rep 42:244-8 Ap 13 '53

See also

United States—Air force—Textile requirements

MILITARY hospitals. See Hospitals, Military

MILITARY hygiene

See also

Water supply for armies

MILITARY insurance. See Insurance, Military and naval service

MILITARY libraries

Major problems of military libraries. J. Orne. Special Lib 44:268-71 S '53

MILITARY market

Printers' ink 1954 advertisers' annual; military. Ptr Ink 245:294-7 sec 2 O 23 '53

See also

Post exchanges

MILITARY medicine. See Medicine, Military

MILITARY pensions. See Pensions, Military

MILITARY pipe lines

Citizen-soldiers learn pipelining. il Pet Eng 25:D48+ O '53

Huge line contract let; NATO signs Foster Wheeler to laying of products system to supply western European defense force. D. M. Duff. map Oil & Gas J 52:55 Jl 6 '53

MILITARY posts

See also

Fort Monmouth, New Jersey

MILITARY preparedness. See United States—Defenses

MILITARY research

Cutback in all military research and development. R. G. Gibbs. Chem & Eng N 31: 2840+ Jl 13 '53

Government research in peril? House subcommittee on military operations report. Chem & Eng N 32:3134+ Ag 9 '54

MILITARY sea transportation service. See United States—Military sea transportation service

MILITARY service

Brainpower wears a uniform. H. A. Meyerhoff. Chem & Eng N 32:1251 Mr 29 '54

Effective use of scientific manpower. J. O. Hirschfelder. Chem & Eng N 32:3510 S 6 '54

Emphasis on selectivity; American chemical society protests present administration of military training law. Chem & Eng N 32: 2634 Je 28 '54

How use reservists? A. H. Emery. Chem & Eng N 31:3774+ S 14 '53

Lottery draft plan proposed; recommendations of National security training commission. il Chem & Eng N 31:5373-4 D 28 '53

Military manpower requirements and supply, 1954-60. S. A. Pettingill and S. H. Garfinkle. flow chart U S Bur Labor Statistics Bul 1161:1-49; pa 40c Supt. of doc. '54

New reserve plan proposed by committee on manpower resources for national security. Chem & Eng N 32:236 Ja 18 '54

Pentagon reveals reserve plan; abstract. J. A. Hannah. Chem & Eng N 32:2698 Jl 5 '54

Peril to U.S. research; curtailment of educational deferments may endanger relative standing of U.S.; abstract. R. Adams. Chem & Eng N 31:4884 N 23 '53

Science and reservists. H. A. Meyerhoff. Science 118:sup3 S 18 '53

Scientific manpower units endorse Appley proposals. Oil Paint & Drug Rep 165:7+ Mr 1 '54

Services keep strings on millions. il Bsns W p 140-1 S 12 '53

Insurance aspects

Insuring military officers. Bsns W p68+ Ag 15 '53

See also

Insurance, Military and naval service

Labor problems

Principle of selection; technical manpower situation. Chem W 75:20+ Ag 14 '54

Safety measures

See also

United States—Army—Safety program

MILITARY service, Compulsory

Conscription continued; House of Commons discussion. Economist 169:559-60 N 21 '53

Synagogue and state. Economist 168:396 Ag 8 '53

See also

Selective service act, 1948

MILITARY supplies

Biggest packaging customer exhibits to its suppliers; armed forces exhibit. il Sales Management 73:85-7 pt 2 Jl 1 '54

Fibre cans for Ordnance. E. H. Borkenhagen. il Mod Packaging 27:159-62+ My; 152-5 Je '54

Flexible water-vaporproof barriers for military packaging applications. P. A. Gelber. diags Mod Packaging 27:142-3+ D '53

How the government buys; federal and military specifications. M. P. Haskin. Materials & Methods 39:90-2 F '54

Metal marking nearer for military items. Steel 135:55 Ag 16 '54

New defense facilities; list of certificates of necessity authorizing new or expanded facilities for the manufacture of automotive and aviation war goods (cont). Automotive Ind 109:212 N 15; 129-30 D 15 '53; 110:114 Ja 15; 404+ Mr 15; 94+ Ap 15; 106+ My 15; 108 Je 15; 111:124 Ag 15; 168 S 15 '54

Paper and paperboard products for military use. E. T. A. Coughlin. Paper Tr J 137: 267-72 N 13 '53

See also

United States—Armed forces—Equipment and supplies

Standards

Standardization of NATO military equipment. Bsns W p47 D 26 '53

MILITARY tanks. See Tanks, Military

MILITARY training
Ammo that barks but doesn't bite; Monarch mfg. co. turning out simulated ammunition. il Bsns W p 126-7+ N 28 '53
EMC on universal military training. Mech Eng 75:1040-1 D '53

MILITARY training camps
Precast concrete permits rapid construction of large marine training center. D. G. Hall. il Civil Eng 23:533-7 Ag '53

MILK
Dairy products, 1949-1952. Survey of Cur Bsns 1953 Sup p 136-7 [supplemented in monthly numbers]
Excretion of heptachlor epoxide in milk of a dairy cow fed heptachlor. B. Davidow and others. Science 118:383-4 O 2 '53
Methionine; origin of sunlight flavor in milk. S. Patton and D. V. Josephson. bibliog Science 118:211 Ag 21 '53
Single-product benefits in multi-product plant; simultaneous ice cream and milk processing; Southern Dairies. A. V. Gemmill. flow plan il diag Food Eng 26:52-5+ Mr '54
See also
Casein
Milk supply

Analysis

Titration of calcium and magnesium in milk and milk fractions with ethylenediamine tetraacetate. R. Jenness. bibliog Anal Chem 25:966-8 Je '53

Bacteriology

Inhibitory substances of bacterial and other origins in milk and milk products; abstract and discussion. N. J. Berridge. Chem & Ind p426-7 Ap 10 '54

Chemistry

Recent developments in dairy chemistry. F. H. Grimbleby. bibliog(88 ref) Chem Age (Lond) 70:131-9 Ja 9 '54
See also
Borden award

Pasteurization

Come-up time method of milk pasteurization. D. J. Hankinson and others. diag Pub Health Rep 68:769-70 Ag '53
No-hold pasteurization makes progress. F. W. Barber. Food Eng 25:62-3 N '53

Preservation

See also
Milk plants—Equipment

MILK, Condensed
Condensed and evaporated milk, 1949-1952. Survey of Cur Bsns 1953 Sup p 136 [supplemented in monthly numbers]
How Gail Borden became the world's milkman. R. Match. il Adv Agency 46:68-70 Ag '53

MILK, Dried
Chemical mechanisms as means of solving problems of flavor in dairy products; abstract. D. V. Josephson. Chem & Eng N 32:1311 Ap 5 '54
Presto! here's Pream. il Sales Management 73:42-4 Jl 15 '54

MILK, Powdered. See Milk, Dried

MILK bottles
Milk by the gallon jug. Bsns W p50 N 7 '53
Paper vs. glass. C. W. Hall. il Food Eng 26:101-2 Mr '54

MILK containers
Case packer for milk in fibre. il Mod Packaging 27:148-9 Mr '54
Milk-pitcher carton. il Mod Packaging 27: 98-9+ D '53
Paper vs. glass. C. W. Hall. il Food Eng 26:101-2 Mr '54
Wrap-around for liquids; A. B. Tetra Pak of Lund. il Chem W 72:32 My 9 '53

MILK delivery
Warehouse on wheels; Abbotts dairies, inc. I. C. Miller. il Food Eng 25:86-7 N '53

MILK handling
Chemical engineering methods in the food industry; storage and bulk transport of potable liquids. J. D. Usher. il diags Chem & Ind p 1031-9 Ag 21 '54

MILK houses
How to build a grade A milk house. il plan diags Am Bld 75:222-3 Ag '53

MILK plants

Electric equipment

Details make the job superior; Lucerne milk co.; illustrations with text. Elec West 111: 94-5 N '53

Equipment

Engineering the dairy plant of the future. J. H. Forslew. il plan Food Eng 26:127+ Ap '54
Plant features cold control; dairy products plant of L. S. Heath & sons. Heat & Ven 51:108 My '54

MILK powder. See Milk, Dried

MILK supply
Milk sanitation honor roll for 1951-53. Pub Health Rep 68:445-8, 1015-18 Ap, O '53

MILK trade
Milk is a business problem, too; Department of agriculture's plentiful foods program. J. Shoenfeld. il Sales Management 73:100+ S 1 '54

Great Britain

Milk marketing. Economist 169:323 O 31 '53

MILK waste. See Dairy waste

MILKING machines
Influence of accumulated soil on bacterial population of milking machines. W. L. Mallmann and others. Soap & San Chem 29:132-3+ N '53

MILKY way
Why do galaxies have a spiral form? C. H. Payne-Gaposchkin. il Sci Am 189:89-99 S '53

MILLIAMMETERS
Opposed fluid clutches drive recording milliammeter. il diags Machine Design 26:138 Jl '54
R.m.s. milliammeter of novel design for the measurement of current from zero to video frequencies. H. B. Wood. diags J Sci Instr 31:124-5 Ap '54

MILLIKAN, Robert Andrews, 1868-1953
Sketch. Elec Eng 73:181 F '54
Sketch. por Engineering 177:3 Ja 1 '54

MILLING
Cutter slices lug milling time. il Steel 133:128 D 14 '53
Face milling of steel; abstract. H. J. Burmester. Tool Eng 32:155-6 Ja '54
Indexing head to mill square ends. I. Epstein. diags Am Mach 98:118 Ja 4 '54
Milling of rail ends and its effect on productivity. C. F. Goodeve. Engineering 176: 299 S 4 '53
Milling; three spindle head cuts costs of milling slots. il Iron Age 174:132 Jl 22 '54
Production problems on supersonic planes; machining. A. Ashburn. il Am Mach 98: 130-5 Jl 5 '54
Tilted templet reproduces correct form for milling. H. K. Fronicke. diags Am Mach 98:119 Ja 4 '54
Two ways to mill curved slots; illustrations with text. H. P. Kunkleman. Am Mach 98:110-11 Ag 2 '54

Tables, calculations, etc.

Cutter diameter for straddle milling. diag Mill & Factory 54:126 Je '54

MILLING cutters
Carbides mill structural members at high speeds. H. Frommelt. il Iron Age 174:111-13 Jl 15 '54
Easily constructed flycutter. J. McCafferty. diags Am Mach 98:140 Ag 2 '54
Facts about modern milling cutters. diags Mill & Factory 54:573 My '54
Helical carbide cutters step up milling. il Steel 135:115 Ag 16 '54; Iron Age 174:116 S 30 '54
Non-rigid cutting tools offer speed and economy. il Tool Eng 33:108 Ag '54
Rotating flycutter mills spheres with single-point tool. L. Saiia. diag Am Mach 98:136 Ap 26 '54
Slab milling cutter spiral angle. Mill & Factory 54:114 F '54
Standard milling cutter forms large radius. H. George. Am Mach 98:126 F 1 '54

MILLING cutters—*Continued*

Standard milling cutters form large radii. W. Pfeiffer. diags Am Mach 97:151 O 26 '53

Sharpening

Fixture sharpens milling cutters on lathe. diags Am Mach 98:137 Ag 2 '54

Proper way to resharpen end-mills. Mach 60:226 N '53

Testing

Cutter life for face-milling cast iron. W. W. Gilbert and others. il diags A S M E Trans 76:607-12 My '54

MILLING machines

Adcock and Shipley continuous milling machine. il Automobile Eng 44:293 Jl '54

Atkins special machine tools. il Engineer 197:292 F 19 '54

Beichle universal milling machine. il Automobile Eng 44:101-2 Mr '54

Bemag boring and milling machine with co-ordinate setting. il diag Engineering 177:377 Mr 19 '54

Bemag co-ordinate boring and milling machine. il Engineer 197:424 Mr 19 '54; Automobile Eng 44:171 Ap '54

Facts about modern milling machines. diag Mill & Factory 54:562 My '54

Giddings & Lewis boring, drilling and milling machine with new under-arm. il Mach 60:230-1 N '53; Steel 133:117 O 26 '53; Am Mach 98:149 F 1 '54

Giddings & Lewis spar-skin mill machines enter plane sections in a single operation. il Am Mach 98:170-1 Je 7 '54; Iron Age 173:223-4 Je 24 '54; Automotive Ind 110:41 Je 15 '54

Gorton mills provide dual milling ability. il diag Am Mach 97:146-7 D 21 '53

Hercules number two millers have sliding column support for knee-front. il Am Mach 97:182 O 26 '53

How fast does a milling machine cut? nomograph. L. J. Murphy. Mill & Factory 53:90 N '53

Hurth LF 32 versatile mill. il Tool Eng 32:217 Ap '54

Ingersoll milling machine is important research and production tool. il Mach 60:192-5 My '54

Kurt Orban universal boring and milling machine. il Mach 60:215-16 F '54

Machine tool buyers' guide. il Steel 133:184-90 sec 2 N 16 '53

Midgley and Sutcliffe, profiling and slotting on a milling machine. il Engineering 177:121 Ja 22 '54

Mill has capacity for development work; Ingersoll milling machine co. il Tool Eng 32:124-5 My '54

Milling machines go to aircraft; North American aviation inc. il Steel 133:110 D 21 '53

Morey profile-milling machine. il Mach 60:245 Ap '54

1954 American Machinist production preview. il Am Mach 98:141-6 Ja 18 '54

Onsrud high-speed fast-feed profile-milling machine for non-ferrous metals. il diags Mach 60:216-17 D '53

Onsrud milling machine designed to handle non-ferrous parts. il Mach 60:227-8 Je '54; Am Mach 98:175 Jl 5 '54

Ram-type milling unit. il Tool Eng 33:109-10 Ag '54

Replace with modern machine tools; milling and profiling. il Am Mach 97:B 12-14 Mid-N '53

Simple contour-milling attachment. C. B. Weidner. diags Am Mach 98:149 Jl 5 '54

Snyder automatic cycle four-way machine. il Mach 60:222 F '54

Special Gray machines mill aircraft structural members. il Am Mach 97:192 D 7 '53; Mach 60:220 D '53

Sundstrand heavy-duty Rigidmil. il Mach 60:212 F '54; Am Mach 98:147 F 1 '54

Turn-milling on a standard horizontal milling machine. C. T. Bower. diags Mach 60:205-6 Ag '54

Vacuum chuck and special table increase milling machine range: Central shops at the Argonne national laboratory. R. W. Holmes. il diags Am Mach 98:210-11 Ap 12 '54

Werner horizontal heavy duty milling machine. il Automobile Eng 43:407 O '53

Control

Electronic unit mills master airfoils. il Am Mach 98:160 Ag 2 '54

Electronically equipped machine for milling original master airfoils. il Mach 60:253-4 Jl '54

Milling original contoured shapes with interpolating tracer control; New England machine and tool co., Airfoil electronic milling machine. F. W. Hale. il diags Tool Eng 32:46-9 Je '54

Optical follower for milling machines. Engineer 196:311 S 4 '53

Optical follower for use with milling machines. il Engineering 176:425 O 2 '53

Skin milling of light-alloy forgings; copying machine with magnetic tape control. Engineering 177:194 F 12 '54

Tape recorder to operate milling machine. Machine Design 25:253-4 D '53; Same abr. Mill & Factory 53:270+ D '53; Same abr. Steel 133:134 N 9 '53

Fixtures

Cam milling fixture. F. M. Butrick, jr. diags Tool Eng 32:44 Je '54

Collet type fixture indexed by means of template. W. M. Halliday. diags Mach 60:212-13 Je '54

Hand-operated radius milling fixture. W. M. Halliday. diags Mach 60:211-13 D '53

Milling fixture for flats on drills. E. Schmidt. diags Am Mach 98:114 Ag 30 '54

Quick-acting milling fixture for square bars. R. Mery. diags Mach 60:209-10 Ja '54

Spar mill profile template design. J. M. Stolz. diags Tool Eng 32:60-4 Ja '54

MILLIVOLTMETERS. See Voltmeters

MILLS, Ball. See Ball mills

MILWAUKEE

Equipment management, the Milwaukee way. H. R. Stiedemann. Pub Works 85:116+ S '54

Bridges

Bridge cost sliced by design switch. il Eng N 151:64+ Ag 20 '53

Industries

Milwaukee-Chicago-Gary industrial area. O. W. Storey. bibliog il Electrochem Soc J 100:sup211C-21C Ag '53

Sewerage

Reduction of excess sewage flows at Milwaukee. R. D. Leary. Sewage & Ind Wastes 26:34-41 Ja '54

Streets

Highly integrated methods speed snow removal in Milwaukee. W. J. Rheinfrank. Roads & Sts 96:99-101 N '53

MINE accidents

Mineral industry health and safety; annual review, 1953 S. H. Ash. Min Eng 6:195-6 F '54

Mining safety in 1953. E. C. Olsen. il Min Cong J 40:47-9 F '54

See also

Coal mines and mining—Accidents and explosions

Coal mines and mining—Safety measures

Mining engineering—Safety measures

MINE accounting

Cost system for a zinc mine. L. C. Smith. N A C A Bul 36:37-47 S '54

MINE buildings

Architecture in coal mining. il Coal Age 59:76-7 Ag '54

Relocated portal saves travel for both men and supplies; Johnstown coal & coke co. il plans Coal Age 58:96-8 D '53

MINE cars

Alpine car. il Can Min J 75:71 Ag '54

Auto cars + loaders = 20 tpm. at small mine. il Coal Age 59:101 Je '54

Changes improve shuttle cars; Amherst coal co. il Coal Age 59:75 Je '54

Dual wheels improve two-wheel-drive shuttle cars. il Coal Age 58:110 D '53

Liquid ballast for mining equipment tires. il Min Cong J 40:56-7 Mr '54

MINE cars—*Continued*
Shuttle car loading onto belt conveyors in thin seams; Red Jacket coal corp. C. H. Williams. il plans diags Min Cong J 40:66-8 Ap '54
Shuttle car made from auto parts now hauls three tons. il Coal Age 59:116 F '54
Track-laying shuttle car; abstract. J. W. Brauns. il Elec Eng 72:898 O '53
See also
Mine haulage

MINE construction
Block caving practice at the Jeffrey mine; undercutting technique. D. L. Monroe. il plans diags Min Eng 6:Trans 513-16 My '54
See also
Concrete construction in mines
Mine roofs
Mine shafts

MINE drainage
Acid-mine-drainage problems; anthracite region of Pennsylvania. S. H. Ash and others. 3pls U S Bur Mines Bul 508:1-72 bibliog(80 titles, p71-2); pa 60c Supt. of doc. '51
Bamboo pipe installed to drain acid water; Nielson & co.'s Hixbar mine. diags Eng & Min J 155:102 Ap '54
137-mile drainage tunnel. J. S. Muller. il map Comp Air Mag 59:134-6 My '54
Sealing off a heavy flow of water in a development heading. K. O'Donnell. diags Can Min J 75:63-4 Jl '54
See also
Mine pumping
Mine pumping, Electric
Mine pumps

MINE dust
Recommendations on the prevention and suppression of dust in mining, tunneling, and quarrying adopted at a meeting held under the auspices of the International labor office, Geneva, Switzerland, Dec. 1-17, 1952. bibliog(91 titles) U S Bur Mines Information Circ 7677:1-16 '54

MINE equipment
Application of closed-circuit tv to conveyor and mining operations. G. H. Wilson. il diags Min Eng 6:Trans 720-3 Jl '54
Conveyors handle 6,000 tons of ore per hour at Puerto Ordaz. L. O. Millard. il diags Civil Eng 23:821-5 D '53
Developments for increased production at Climax. J. M. Petty. il diags Min Cong J 40:24-9 Ja '54
How plastics can help mining. L. A. Roe. il Eng & Min J 154:88-9+ N '53
Hydraulic air compressors. L. E. Schulze. bibliog(90 ref) 21pls U S Bur Mines Information Circ 7683:1-38 '54
Late developments in mining at Carlsbad. A. B. Chafetz and E. C. Skinner. il Min Cong J 40:71-4+ Ap '54
Open pit mining guidebook; auxiliary equipment. il Eng & Min J 155:G 132+ My '54
Recent developments at Copper Mountain mine. L. T. Postle. il Min Cong J 40:62-4 Ap '54
Sheet plywood halves construction time for stoppings. il Coal Age 59:112 Ap '54
Survey of mining practice. A. H. Hubbell. Eng & Min J 155:113-17 F; 87-94 Mr '54
Tsumeb modernizes mine to increase ore output. F. C. Pickard. il plans diags Eng & Min J 154:90-3 N '53
Underground metal mining progress, 1953. K. Stout. il Min Cong J 40:44-6 F '54
Vast and varied engineering works develop Venezuelan iron-ore deposit. W. W. Wanamaker. il maps Civil Eng 23:807-11 D '53
White Pine mine development. R. F. Moe. il plan Min Eng 6:381-6 Ap '54
See also
Coal mines and mining—Equipment
Electricity in mining
Fans, Mine
Mine cars
Mine hoisting
Mining machinery
Rock drills

Directories

Buyers' guide for open pit mining. Eng & Min J 155:BG 1-4+ My '54

MINE explosions
See also
Coal mines and mining—Accidents and explosions

MINE fans. See Fans, Mine

MINE filling
Knob Hill sand-fill system combats heavy, blocky ground. A. R. Patterson. il Eng & Min J 154:96-9 N '53

MINE fires
Coal-mine explosions and coal- and metal-mine fires in the United States in 1950, 1951, and 1952. W. J. Fene and H. B. Humphrey. 2pls U S Bur Mines Information Circ 7661:1-13 '53
Spontaneous ignition in iron pyrites. Chem Age (Lond) 71:281-2 Ag 7 '54
See also
Coal mines and mining—Fires and fire protection

MINE foremen
Good manners; key to supervisory success. il Coal Age 58:100+ D '53
Handling personnel problems. T. H. Kemp. Coal Age 59:122+ F '54
How to enjoy recreation on company time. Coal Age 59:110+ Je '54
Integrated supervision. Coal Age 59:92+ Ag '54
Meeting the mine committee. Coal Age 59:90+ Jl '54
Pointers for the new boss. Coal Age 59:110+ My '54
Pressure and resistance. diags Coal Age 59:88+ Ja '54
Seven deadly sins in mine supervision. Coal Age 59:108+ Ap '54

MINE forests. See Forests and forestry, Mine

MINE gases
See also
Methane

MINE haulage
Alternating current slant haulage drive with dynamic braking; National coal board at Pantyffynnon colliery. il Engineer 197:186 Ja 29 '54; Engineering 177:122-3 Ja 22 '54; diag Elec R (Lond) 154:517-18 Mr 19 '54
Communications on the Climax haulage system. E. J. Eisenach. il plans Min Cong J 40:50-2+ Mr '54
Hauling coal underground; abstracts of papers, American mining congress Coal division annual meeting. Coal Age 59:107-8 Je '54; Min Cong J 40:49-50 Je '54
Methods of belt conveyor loading. R. U. Jackson and others. il Min Cong J 40:48-50 Jl '54
Modern haulage for Dosco; aluminum mine cars, Diesel mine locomotives and belt slopes. il plans diags Coal Age 59:176-81 Mr '54
New daylight mine. A. E. Flowers. il plan Coal Age 59:98-102 F '54
Open pit mining guidebook; earthmoving, bigger units call for better handling. il diags Eng & Min J 155:G34-7+ My '54
Service haulage for continuous mining. F. R. Zachar. il Min Cong J 40:58-61 Mr '54
Underground belt conveyors. J. W. Hardy. il Min Cong J 40:33-6 S '54
See also
Coal mining machinery—Conveyors
Electric locomotives, Mine
Locomotives, Mine
Mine cars
Mine tracks

MINE hoisting
Experimental investigation of torsion in stranded mining wire ropes. C. L. Layland and others. bibliog diags Inst Mech Eng Proc (B) 1B no 8:323-36; Discussion. 337-42 '52-53
Friction drive type mine hoist; Swedish electric co. ASEA. il diag Eng & Min J 155:35-6 Ap '54
Friction hoists. E. S. Little and C. M. Barrett. il diags Can Min J 75:51-8 Ja; 49-56 Mr '54
Hydraulic-powered platform for scaling high backs and walls. C. K. Rose and others. 6pls U S Bur Mines Rep of Invest 5074:1-4 '54
Installation and care of shaft hoist ropes. S. L. Lovett. diags Can Min J 75:64-8 Ag '54

MINE hoisting, Electric
Automatic a.c. winder with dynamic braking. il diag Engineer 196:535-6 O 23 '53; Engineering 176:774-5 D 18 '53; Elec J 151:1243-4 O 16 '53; Elec R (Lond) 153:929-31 O 23 '53

MINE hoisting, Electric—*Continued*

General Electric to equip largest US metal-mine hoists. Elec Eng 73:190 F '54

Late developments in mining at Carlsbad. A. B. Chafetz and E. C. Skinner. il Min Cong J 40:74+ Ap '54

Mine gear; hoists for new copper mine. Iron Age 172:202 D 3 '53

PCA's new double-drum hoist boosts production capacity by 50 per cent. il Eng & Min J 155:94-5 Jl '54

Saving by improved hoisting; conversion from steam-powered to electric hoisting at Grassy Island mine. il diags Coal Age 59:100-3 My '54

Speed control of a.c. winders. diags Engineer 196:365-7 S 18 '53; Same. Elec R (Lond) 153:587-92 S 11 '53

Successful electric braking of ac mine-hoist drives. A. H. Huelsman. diags Coal Age 59:185-9 Mr '54

Technique and development of automatic winding in mine shafts. B. L. Metcalf and G. Cuttle. plans diags Inst E E Proc 100 pt 2:591-607; Discussion. 607-18 D '53

MINE inspection

Bureau survey team suggests switch of coal mine inspection to states. Coal Age 59:138 S '54

MINE inspectors institute of America

Annual meeting, 44th, Pittsburgh, June 28-30; with abstracts of papers. Coal Age 59:128-30+ Ag '54

MINE lighting

Maintenance, power and illumination; abstracts of papers, American mining congress Coal division annual meeting. Coal Age 59:108+ Je '54

MINE locomotives. See Locomotives, Mine

MINE management

Reducing mine labor cost. T. M. Barry. Min Eng 6:606-7 Je '54

See also

Coal mines and mining—Management

Mine foremen

Mining methods

MINE, mill and smelter workers, International union of. See International union of mine, mill and smelter workers

MINE pumping

Ground water control in underground mining; Hanna coal & iron co. R. C. Mahon. map diag Min Eng 6:Trans 632-4 Je '54

MINE pumping, Electric

Reject disposal; Northern Illinois coal corp. W. A. Weimer. il plans diags Min Cong J 40:76-80 Ap '54

MINE pumps

Deep well pumps in mining. E. I. McGee. il Min Cong J 40:27-31 Mr; 44-7 Jl '54

Mine pumping plants; anthracite region of Pennsylvania. S. H. Ash and others. bibliog(39 titles) 3pls il map U S Bur Mines Bul 531:1-151; pa $1 Supt. of doc. '53

History

Cornish engine in Cornwall. W. K. V. Gale. il Engineering 176:339-43, pl 23 S 11 '53

MINE raildoads. See Mine tracks

MINE rescue work

National first-aid and mine-rescue contest, 14th, Fort Wayne, Ind. Sept. 29-Oct. 1. Min Cong J 39:110-11 N '53

MINE roofs

AIME Anthracite section meeting, Scranton, Pa. Oct. 28, views roof support. Coal Age 58:130+ D '53

Anchorage testing of mine-roof bolts; slotted-type bolts. A. J. Barry and others. bibliog 12pls U S Bur Mines Rep of Invest 5040:1-12 '54

Better roof sounding. C. Webb. diag Coal Age 59:198+ Mr '54

Concurrent roof bolting with continuous mining. il Coal Age 59:102-3 Ap '54

How to install roof bolts. E. F. Huston. il diags Coal Age 59:98-100 Je '54

How wood pins serve Mary Gail coal co. J. H. Edwards. il Coal Age 59:182-4 Mr '54

Pneumatic drilling for roof bolting; Buckeye coal co. M. Valeri and M. M. Fitzwater. il plan diag Min Cong J 40:45-8 My '54

Rock bolting in metal mines of the Northwest. L. Pollish and R. N. Breckenridge. il diags Min Eng 6:Trans 709-15 Jl '54

Roof action; American mining congress Coal division annual conference; abstracts of papers. Min Cong J 39:61-2 D '53

Roof bolt recovery. L. W. Kelly. diags Min Cong J 39:34-7 D '53

Roof bolting in Alabama coal mines and iron-ore mines. H. C. Young. bibliog 18pls U S Bur Mines Information Circ 7678:1-15 '54

Roof bolting in reclamation; abstract. W. C. Campbell. Coal Age 58:136+ D '53

Roof movement study of mechanized retreating Longwall operation, Lancashire no. 15 mine, Bakerton, Cambria county, Pa. A. J. Barry and J. J. Wojciechowski. bibliog 16pls U S Bur Mines Rep of Invest 5028:1-13 '54

Roof sewing at the Sulitjelma mine in Norway. C. C. Austin. diag Eng & Min J 154:91 S '53; Same. Coal Age 58:102 N '53

Special roof bolt applications; unique shaft sinking experiment; with cost data. R. F. Bowie. il Min Cong J 40:42-3 Ja '54

Supporting roof; abstracts of papers, American mining congress Coal division annual meeting. Coal Age 59:105-6 Je '54

Wood headers cause a decrease in roof-bolt tension. diag Coal Age 58:112-13 D '53

MINE shafts

Grouting solves water problem at Kennecott's Deep Ruth shaft. J. B. Huttl. il diags Eng & Min J 154:94-5 N '53

Relocated portal saves travel for both men and supplies; Johnstown coal & coke co. il plans Coal Age 58:96-8 D '53

San Manuel uses steel and reinforced concrete for ground support. il diags Min Eng 6:692-5 Jl '54

Some systems of signalling in mine shafts. B. Davis. diags Can Min J 75:63-5; Discussion. 65-6 S '54

Speedy shaft construction. il plan diags Coal Age 59:194-6 Mr '54

See also

Mine hoisting

Shaft sinking

MINE signals, Electric

Some systems of signalling in mine shafts. B. Davis. diags Can Min J 75:63-5; Discussion. 65-6 S '54

MINE stowage. See Mine filling

MINE sweepers

Luders yard delivers laminated-wood minesweeper. il Marine Eng 59:45 Ja '54

Non-magnetic gear beats red mines. il Iron Age 172:29 D 24 '53

RCN minesweepers built with new techniques. il Marine Eng 59:48-9 S '54

MINE taxation

Percentage depletions hiked for 27 minerals. Oil Paint & Drug Rep 165:4+ My 31 '54

Taxation panel; abstracts of papers. T. Martin and others. Min Cong J 39:73-6 N '53

MINE telephone

Dial telephones underground; Sunnyside mines. il Coal Age 58:92-3 D '53

See also

Radio telephone in mines

MINE timbering

See also

Mine roofs

MINE tracks

Expansion joint keeps kinks out of welded main track. il plans diag Coal Age 58:108 D '53

Haulage roads; American mining congress Coal division annual conference; abstracts of papers. Min Cong J 39:65 D '53

High-level trolley wire handles supply-track crossing. il Coal Age 59:118 My '54

Tractor-shovel speeds tipple-track cleanup. il Coal Age 58:113 D '53

Standards

Preliminary report on standards for heavy rail turnouts. J. E. Elkin and others. diags Min Cong J 40:52-3 Ja '54

MINE transportation

Stapleton's bathtub; Consolidation coal co. il Coal Age 59:190-1 Mr '54

MINE ventilation

Automatic analogue computor for the solution of mine ventilation networks. D. R. Scott and R. F. Hudson. il diags J Sci Instr 30:185-8 Je '53

MINE ventilation—*Continued*

Cooling plants for undeground workings. A. Houberechts. il diags Min Cong J 39:51-4+ D '53; 40:30-2 Ja '54

Emanation of radon in uranium mines and control by ventilation. E. C. Tsivoglou and H. E. Ayer. A M A Archives Ind Hygiene & Occup Med 8:125-32 Ag '53

How to improve ventilation in tunnels and shafts. diags Eng & Min J 155:110 Je '54

Mine ventilation at the International nickel co. of Canada ltd. J. G. Rutherford and V. K. Segsworth. il map diags Can Min J 75:70-8 S '54

Rapid graphic solution of air friction loss; nomograph. H. L. Hartman. Eng & Min J 155:100 Jl '54

Sink Creighton airshaft. il Min Cong J 40:143 F '54

Ventilation; American mining congress Coal division annual conference; abstracts of papers. Min Cong J 39:59-60 D '53

See also

Fans, Mine

MINE waste

Getting sulfides out of waste water; Texas Gulf's answer. il diag Chem Eng 61:132+ S '54

Utilization of waste by Canadian mines. D. P. Douglass. Munic Util 92:29+ Je '54

MINE water

Barrier pillars in the southern field; anthracite region of Pennsylvania. S. H. Ash and H. D. Kynor. bibliog il map fold maps[in pocket] U S Bur Mines Bul 526:1-44; pa $1 Supt. of doc. '53

Barrier pillars in Wyoming basin, northern field; anthracite region of Pennsylvania. S. H. Ash. bibliog(30 titles) fold maps[in pocket] U S Bur Mines Bul 538:1-251; pa $1.75 Supt. of doc. '54

Grouting solves water problem at Kennecott's Deep Ruth shaft. J. B. Huttl. il diags Eng & Min J 154:94-5 N '53

Methods and costs of sinking a shaft through a fractured, water-bearing formation at Friedensville, Pa. W. Hastings and others. 13pls U S Bur Mines Information Circ 7680:1-18 '54

Mine pumping plants; anthracite region of Pennsylvania. S. H. Ash and others. bibliog(39 titles) 3pls il map U S Bur Mines Bul 531:1-151; pa $1 Supt. of doc. '53

Surface-water seepage into anthracite mines in the western middle field; anthracite region of Pennsylvania. S. H. Ash and H. B. Link. bibliog il maps U S Bur Mines Bul 532:1-26; pa 40c Supt. of doc. '53

Surface-water seepage into anthracite mines in the Wyoming basin northern field; anthracite region of Pennsylvania. S. H. Ash and R. H. Whaite. bibliog il maps U S Bur Mines Bul 534:1-30; pa 55c Supt. of doc. '53

What acid water does to mine clothes; how one company solved an annoying problem. il Eng & Min J 155:90-1 Je '54

See also

Mine drainage
Mine pumping, Electric

MINERAL industries

Code of economic principles pertaining to exploration, development, and exploitation of mineral deposits; proposed mineral economics volume. C. W. Merrill. Min Eng 6:789-90 Ag '54

Industrial minerals, 1953. J. L. Gillson. il Min Cong J 40:67-74+ F '54

Minerals and western hemisphere defense. G. W. Malone. Min Cong J 40:23 S '54

Nonmetallic mineral production up in 1953. il Min Eng 6:190-4 F '54

Nonmetallics, 1953. map Eng & Min J 155:103-12+ F '54

U.S. mineral production sets record dollar value. Min Eng 6:142-3 F '54

See also

Aggregates
Coal trade
Feldspar
Limestone
Metal trade
Metallurgy
Mines and mineral resources
Mining industry and finance
Petroleum industry and trade
Phosphates
Quarries and quarrying
Rock products industry
Salt
Stone, Crushed
Sulfur industry and trade

Statistics

U.S. mineral production at new high; biennial facts and figures. P. W. McGann. Ind & Eng Chem 46:1109-14 Je '54

Canada

Canadian mineral production, 1953; tabulation. il Min Eng 6:473 My '54

Mineral exports up 191 per cent. R. L. Edsall. Can Min J 75:64-7 Je '54

Mineral production continues to rise. H. McLeod. il Can Min J 75:54-65 F '54

Survey of technical personnel in Canada's mineral industries. Can Min J 75:65-8 Ja '54

United States

Foreign trade must be increased. C. P. Taft. Eng & Min J 155:72+ Mr '54

Minerals output in '53 highest in history. D. McKay. Oil Paint & Drug Rep 165:5+ Ja 18 '54; Abstract. Heat & Ven 51:148+ F '54

More, not less; domestic production. A. Fletcher. Eng & Min J 155:73+ Mr '54

1953 United States mineral production greatest in history, exceeds $14 billion. Eng & Min J 155:156 F '54

MINERAL lands

Leasing of government potash lands. H. I. Smith. bibliog Min Eng 6:Trans 421-4 Ap '54

Public lands panel; abstracts of papers. H. C. Dworshak and others. Min Cong J 39:58-60+ N '53

See also

Mines and mineral resources
Oil lands

MINERAL oils. See Petroleum

MINERAL waters

Analysis

Determination of thoron in mineral waters. P. K. Kuroda and Y. Yokoyama. bibliog(27 ref) diag Anal Chem 25:832-5 My '53

MINERAL wool

Manufacture

Bulk handling system cuts cupola charging costs; American rock wool corp. C. B. Setterberg. il diag Iron Age 174:118-19 Jl 22 '54

MINERALOCORTICOIDS. See Adrenal glands—Hormones

MINERALOGICAL analysis

Analysis of mixed-layer clay mineral structures. W. F. Bradley. bibliog il diags Anal Chem 25:727-30 My '53

Laboratories that make fire assays, analyses, and tests of ores, minerals, metals, and other inorganic substances. B. R. Klahold. U S Bur Mines Information Circ 7695:1-20 '54

Polarization figures and rotation properties as applied to the identification of some cobalt nickel sulfarsenides and related minerals. R. K. Hutchinson. bibliog Econ Geol 48:492-500 S '53

Quantitative radiochemical method for determination of major sources of natural radioactivity in ores and minerals. J. N. Rosholt, jr. diag Anal Chem 26:1307-11 Ag '54

Semiquantitative spectrographic method for analysis of minerals, rocks, and ores. C. L. Waring and C. S. Annell. Anal Chem 25:1174-9 Ag '53

Use of ion exchange columns in mineral analysis for age determination. L. T. Aldrich and others. bibliog diag Am J Sci 251:377-87 My '53

See also

Clay—Analysis
Rocks—Analysis

MINERALOGICAL research

Research council of the British whiting federation. G. E. Bessey. il Chem & Ind p33-6 Ja 9 '54

MINERALOGICAL society of America

Joint meeting with Geological society of America and associated organizations, Toronto. Chem & Eng N 31:4874+ N 23 '53; Same cond. Can Chem Process 37:66 D '53

MINERALOGY

Elements of mineralogy, by F. Rutley. Review, by N. C. Rockwood. Rock Prod 57:59 Je '54

MINERALOGY—*Continued*

Sources of error in the decrepitation method of study of liquid inclusions. T. E. Stephenson. bibliog diag Econ Geol 47:743-50 N '52; Discussion. F. G. Smith and W. M. Little. 48:233-8 My '53

See also

Abrasives
Crystallography
Feldspar
Geology
Metals
Mica
Minerals
Mines and mineral resources
Ore deposits
Rocks
Talc

History

Axel Fredrik Cronstedt. V. Bartow. bibliog J Chem Educ 30:247-52 My '53

MINERALS

Dynamic minerals policy planned. Chem & Eng N 32:1574+ Ap 19 '54

Industrial minerals, 1953. J. L. Gillson. il Min Cong J 40:67-74+ F '54

Minerals policy change sought by Malone unit. Oil Paint & Drug Rep 166:5+ Jl 5 '54

Nonmetallic mineral production up in 1953. il Min Eng 6:190-4 F '54

Nonmetallics, 1953. map Eng & Min J 155:103-12+ Ja '54

Rapid estimation of mill product purity by transparency measurement. S. C. Sun and others. il diag Min Eng 6:Trans 919-22 S '54

Sources of error in the measurement of rotation properties with the ore microscope. E. N. Cameron and others. bibliog diags Econ Geol 48:574-90 N '53

Synthetic minerals. W. A. Weyl. bibliog Econ Geol 48:288-305 Je '53

See also

Aggregates
Asbestos
Chromite
Clay
Coal
Dolomite
Feldspar
Magnetite
Metals
Mica
Mineralogical analysis
Mines and mineral resources
Ore deposits
Pegmatites
Petroleum
Phosphate rock
Phosphates
Potash
Quartz
Rocks
Salt
Sand
Spinels
Sulfur
Talc
Vermiculite
Water supply—Mineral content
Zircon

Age

See Geological time

Transportation

Aluminium mineral wagon; plating in excellent condition after seven years. il Metallurgia 49:141-2 Mr '54

MINERS

Great pack-burro race at Death valley. A. A. Richie. il Eng & Min J 154:89 D '53

Mine incentive plans for greater productivity; panel discussion; abstracts of papers. H. F. Mills and others. Min Cong J 39:81-3 N '53

Old contract systems of the Cornish mines. F. A. King. il Can Min J 75:74-6 Ap '54

Reducing mine labor cost. T. M. Barry. Min Eng 6:606-7 Je '54

Superstitions and folklore of the miners. F. A. King. Can Min J 74:78-9 N '53

Value of the X-ray film of the lumbar spine in pre-employment examinations. M. A. Connell. bibliog il Can Min J 75:79-83 S '54

See also

Coal miners
Copper miners
Mine foremen
United mine workers of America

Diseases and hygiene

Industrial medicine's Hall of fame; Georgius Agricola. R. T. Legge. Ind Med 22:122-3 Mr '53

Manganese poisoning in the mines of Cuba. M. G. Avila and R. P. Ballina. il Ind Med 22:220-1 My '53

Mineral industry health and safety; annual review, 1953. S. H. Ash. Min Eng 6:195-6 F '54

Silicosis in mica mining in Bihar, India. H. Heimann and others. bibliog diag A M A Archives Ind Hygiene & Occup Med 8:420-35 N '53

MINERS' houses

Valuing houses at the pithead. Economist 168:198-9 Jl 18 '53

MINERS' lamps. See Safety lamps, Electric

MINES, Bureau of. See United States—Mines, Bureau of

MINES, Submarine

See also

Mine sweepers

MINES and mineral resources

Engineering in the next two thousand years. D. Gordon. Engineer 196:292-5 S 4 '53; Same. Engineering 176:381-3 S 18 '53; Excerpts. Elec J 151:707 S 4 '53

Exploration geology in mining, 1953. R. H. Carpenter. il Min Cong J 40:62-4 F '54

Metal mining; annual review, 1953. R. V. Pierce, ed. il diag Min Eng 6:149-65 F '54

Mining geology in 1953. G. M. Schwartz. il Min Eng 6:180-3 F '54

Utilisation and the electrical engineer; abstracts. B. L. Metcalf. Elec J 151:1393-4 O 30 '53; Elec R (Lond) 153:1009-10 O 30 '53

See also

Bauxite
Coal
Coal mines and mining
Copper mines and mining
Geochemistry
Geology
Iron mines and mining
Lead mines and mining
Lignite
Manganese mines and mining
Minerals
Mining engineering
Mining industry and finance
Mining machinery
Oil shales
Ore deposits
Ore sampling
Petroleum
Petroleum supply
Phosphates
Prospecting
Quarries and quarrying
Salt domes
Shale
Sulfur mines and mining
Uranium mines and mining
Zinc mines and mining

Africa

African smelting progress. L. A. Lyons. il map Eng & Min J 155:96-100 Ja '54

Boom in British Africa. J. F. Rippy. map J Bsns 26:190-5 Jl '53

Africa, West

Tsumeb modernizes mine to increase ore output. F. C. Pickard. il plans diags Eng & Min J 154:90-3 N '53

Alabama

Tennessee Coal & Iron raw materials; iron ore, coal, limestone, dolomite and explosives. il map Explosives Eng 32:8-28 Ja '54

Alberta

Alberta's mineral industries. il Can Min J 75:77-9 F '54

Arizona

Geophysical discovery and development of the Pima mine, Pima county, Arizona. R. E. Thurmond and others. bibliog il map diags Min Eng 6:Trans 197-202 F '54

Localization of pyrometasomatic ore deposits at Johnson camp, Arizona. A. Baker, 3d. il maps diag Min Eng 5:Trans 1272-7 D '53

Setting up a town with a built-in boom; San Manuel. il Bsns W p 136-8+ D 12 '53

Arkansas

Progress report on development of columbium in Arkansas for 1953. V. A. Nieberlein and others. bibliog(34 titles) 2pls U S Bur Mines Rep of Invest 5064:1-23 '54

Australia

Bonanza in the beach sands crossing Queensland-New South Wales border. il Chem W 75:84-5 S 18 '54

Broken Hill installing world's largest axial flow fan. il Min Eng 5:1075 N '53

MINES and mineral resources—Australia—*Cont.*

Fabulous history, promising future; Mount Morgan copper mine in Queensland. il Chem W 74:22 Ap 24 '54

Origin of alunite deposits at Pidinga, South Australia. D. King. bibliog il maps diags Econ Geol 48:689-703 D '53

Bolivia

Bolivian mines ministry registers land titles. For Comm W 50:14 Ag 3 '53

Brazil

Lithium; northeast Brazil is potential source. W. B. Mather. bibliog il maps diags Min Eng 6:Trans 897-903 S '54

British Columbia

Costs sink, efficiency rises as mine completes expansion; Canadian Exploration. J. B. Huttl. il map diags Eng & Min J 155:62-7 My '54

1953 in British Columbia mining. G. C. Cross. il Can Min J 75:68-71 F '54

Operations and plants of the Consolidated mining and smelting company of Canada, limited. flow diags il maps plans diags Can Min J 75:127-393 My '54

California

Bibliography and index of literature on uranium and thorium and radioactive occurrences in the United States. M. Cooper. Geol Soc Bul 64:1103-71 O '53

Canada

Annual review of technical advances in Canada's mineral industries. H. R. Rice; L. E. Djingheuzian. bibliog il diags Can Min J 75:112-20 F '54

Mineral production continues to rise. H. McLeod. il Can Min J 75:54-65 F '54

Striking it rich; new ore finds are adding to Canada's mineral wealth. J. Montagnes. Barron's 33:11-12 O 12 '53

Testing for copper and zinc in Canadian glacial soils. C. T. Bischoff. maps Min Eng 6:Trans 57-61 Ja '54

See also

Iron mines and mining—Labrador

Chile

Valley of the moon; reconstruction in Korea focuses on Chile, major producing country of nitrates. il Chem W 73:22+ D 19 '53

Colorado

Climax rates as largest underground operation in U.S.; Climax molybdenum co. A. H. Bunker. il Min Eng 6:265 Mr '54

Definition of a mineral belt in south central Colorado. J. W. Gabelman. bibliog(27 titles) maps Econ Geol 48:177-210 My '53

Developments for increased production at Climax. J. M. Petty. il diags Min Cong J 40:24-9 Ja '54

Occurrence of radon in nonuranium mines in Colorado. P. W. Jacoe. A M A Archives Ind Hygiene & Occup Med 8:118-24 Ag '53

Storke level operation makes Climax North America's biggest underground mine. E. J. Eisenach and E. Matsen. il plans diag Min Eng 6:273-8 Mr '54

Times have changed. Comp Air Mag 59:139 My '54

Finland

Biogeochemical investigations in Finland. V. Marmo. bibliog maps Econ Geol 48:211-24 My '53

Molybdenum bearing granite and granodiorite, Rautio, Finland. V. Marmo and L. Hyvarinen. bibliog il diags Econ Geol 48: 704-14 D '53

Florida

Open-pit limestone mining in Florida's Hernando county. L. B. Lovett. il Explosives Eng 31:167-71 N '53

Gaspé peninsula

Gaspé peninsula; its history, resources and development. A. Buisson. bibliog il map Can Min J 75:59-64 Ja '54

Georgia

Georgia story; minerals. il Manuf Rec 123: 70-2 My '54

Great Britain

British industry seeks raw materials sources. Chem & Eng N 31:4594-5 N 2 '53

Mineral resources; progress in geological survey, 1953. Chem Age (Lond) 71:30 Jl 3 '54

Idaho

Availability of raw materials in Idaho. J. Larsen and W. C. Peters. bibliog(88 ref) maps Ind & Eng Chem 45:2424-31 N '53

Bibliography and index of literature on uranium and thorium and radioactive occurrences in the United States. M. Cooper. Geol Soc Bul 64:1103-71 O '53

Geology in ore delineation and extraction; Star mine. R. E. Sorenson. il plan diags Min Cong J 40:33-8 My '54

Metamorphic differentiates in the Blackbird mining district, Lemhi county, Idaho. W. A. Roberts. maps diags Econ Geol 48:447-56 S '53

Mineralization and hydrothermal alteration in the Hercules mine, Burke, Idaho. B. Stringham and others. bibliog il diag Min Eng 5:Trans 1278-82 D '53

Monazite sands are spurring Idaho dredging operations. il Min Eng 6:267 Mr '54

New golden age dawns in Idaho's rare earths. il Min Cong J 40:32-3 Mr '54

Sinking the Crescent shaft. S. W. McDougall and E. B. Olds. il diags Min Cong J 40: 24-6+ S '54

See also

Phosphate rock—Idaho

India

Mineral research in India. bibliog(25 ref) Can Min J 75:77-8 Jl '54

Jamaica

Kaiser's Jamaican bauxite operation. A. L. Moore. il map Min Eng 6:284-6 Mr '54

Outlook for Jamaica; mining upswing. H. S. Strouth. il Min Eng 6:699-700 Jl '54

Manitoba

Lynn Lake, last spike, first ore; Sherritt Gordon's new mine enters production; illustrations with text. Eng & Min J 155: 158+ F '54

Mineral development in Manitoba in 1953. J. P. de Wet. il Can Min J 75:86-91 F '54

Missouri

Gravity surveys for residual barite deposits in Missouri. R. P. Uhley and L. Scharon. bibliog maps Min Eng 6:Trans 52-6 Ja '54

Montana

Availability of raw materials in Montana. F. Robertson and others. bibliog(30 ref) maps Ind & Eng Chem 45:2432-43 N '53

Bibliography and index of literature on uranium and thorium and radioactive occurrences in the United States. M. Cooper. Geol Soc Bul 64:1103-71 O '53

Boulder batholith, potential Montana uranium province. E. E. Thurlow and L. D. Jarrard. il map Min Eng 6:697-8 Jl '54

How one chrome producer aims at self-sufficiency; American chrome co. J. B. Huttl. flow sheet il diags Eng & Min J 155:92-5+ Je '54

New Brunswick

Leadridge on the Pabineau; birth of a mining camp. il Min Eng 5:1073 N '53

New Brunswick, record year. il map Can Min J 75:105-8 F '54

New Mexico

Availability of raw materials in New Mexico. M. F. Stubbs and R. H. Weber. bibliog maps Ind & Eng Chem 45:2443-9 N '53

New York (state)

Cabot's wollastonite product of promise. il Paint Oil & Chem R 117:17 S 9 '54

E&MJ visits the general superintendent at U.S.' largest titanium mine. J. H. Kearney and G. P. Lutjen. il Eng & Min J 154: 83-8 D '53

Proved land of plenty; new plant, modern methods bite into wollastonite deposit. il Chem W 75:36-8 S 11 '54

MINES and mineral resources—*Continued*

Newfoundland

Mineral industry of Newfoundland, 1953. C. K. Howse. il Can Min J 75:110-11 F '54

Origin of the chromite deposits of the Bay of Islands igneous complex, western Newfoundland. C. H. Smith. bibliog map diag Econ Geol 48:408-15 Ag '53

North Carolina

North Carolina story; mining industry. Manuf Rec 123:100 Ja '54

Northwest Territories, Canada

Mineral production in the N.W.T. in 1953. J. P. de Wet. il Can Min J 75:80-5 F '54

Northwestern states

Rock bolting in metal mines of the Northwest. L. Pollish and R. N. Breckenridge. il diags Min Eng 6:Trans 709-15 Jl '54

Nova Scotia

Mining industry of Nova Scotia, 1953. A. H. McKinnon. il Can Min J 75:108-10 F '54

Ohio

Subsurface study of the Maxville limestone in the Muskingum valley. C. H. Bowen. maps diags Ohio State U [Columbus] Eng Exp Sta Bul 154:1-19 '54 (pa $1)

Ontario

Mushrooming Manitouwadge district marks biggest stalking rush in Ontario's history. maps Eng & Min J 155:116-18+ Jl '54

Ontario annual review, 1953. J. C. Browning. il Can Min J 75:92-8 F '54

Preliminary account of the mineralogy of radioactive conglomerates in the Blind River region, Ontario. R. J. Traill. bibliog il map diag Can Min J 75:63-8 Ap '54

Oregon

Bibliography and index of literature on uranium and thorium and radioactive occurrences in the United States. M. Cooper. Geol Soc Bul 64:1103-71 O '53

Preliminary investigation of the Red Flats nickel deposit, Curry county, Ore. R. J. Hundhausen and others. bibliog 3pls U S Bur Mines Rep of Invest 5072:1-29 '54

Quebec (province)

Barvue mines; large unique operation. H. R. Rice. il Can Min J 74:59-62 O '53

Mechanical loading vs. slushing at United Montauban. T. C. Hewitt. il diags Can Min J 75:69-71 Ap '54

Present developments in Chibougamau. W. S. Campbell. il Can Min J 74:63-6 O '53

Quebec mineral review, 1953. J. C. Browning. il Can Min J 75:98-104 F '54

Rhodesia

Chrome mining in southern Rhodesia shows wide variety of operations. P. A. Hodges. bibliog il diags Min Eng 6:791-7 Ag '54

Saskatchewan

Mineral development in Saskatchewan in 1953. L. F. Singer. il Can Min J 75:72-6 F '54

Preliminary description of the geology and mineralogy of the Gunnar deposit, Saskatchewan. J. A. Fraser and S. C. Robertson. maps Can Min J 75:59-62 Jl '54

South Dakota

Black Hills mineral atlas, South Dakota. 3pls U S Bur Mines Information Circ 7688:1-123 bibliog(68 titles, p 120-3) '54 (to be cont)

Progress report on pegmatite investigations in South Dakota, for fiscal years, 1952-53. S. M. Runke and others. bibliog 3pls U S Bur Mines Rep of Invest 5061:1-21 '54

Sweden

Drilling practice in Swedish mining. I. Janelid. bibliog il diags Min Eng 6:Trans 613-19 Je '54

Tracing of glacial boulders as an aid to ore prospecting in Sweden. E. Grip. bibliog maps Econ Geol 48:715-25 D '53

Texas

Texas story; minerals. il Manuf Rec 122:96-7 N '53

Transvaal

Chromium from chromite. Chem Age (Lond) 71:121-3 Jl 17 '54

Turkey

Chrome ore mining in Turkey. H. F. Kromer. map Eng & Min J 155:92-5 Ap '54

Uganda

Untold riches uncovered; mineral wealth in eastern Uganda. il Chem W 74:26+ F 20 '54

United States

Defense mobilization; abstract. A. S. Flemming. Min Cong J 39:57 N '53

Government-aided mineral exploration projects. R. G. Gibbs. Chem & Eng N 31:3524 Ag 31 '53

Mineral and fuel resources; East north central states. R. J. Lund and D. D. Moore. bibliog maps Ind & Eng Chem 46:483-7 Mr '54

Minerals exploration program cut. Oil Paint & Drug Rep 164:3+ N 9 '53

Mining; U.S. output hit peak in '54. Iron Age 173:44-5 Ja 21 '54

National mineral policy; abstract. F. E. Wormser. Min Cong J 39:57-8 N '53

Prosperous mining industry will create raw materials. A. Fletcher. Comm & Fin Chr 178:1731 N 5 '53

U.S. mineral policy planned. Chem & Eng N 31:4684+ N 9 '53

See also Mid-Century conference on resources for the future

Washington (state)

Bibliography and index of literature on uranium and thorium and radioactive occurrences in the United States. M. Cooper. Geol Soc Bul 64:1103-71 O '53

Pressure grouting at Deep Creek; Goldfield consolidated mines co. A. V. Quine. il Min Eng 6:279-81 Mr '54

Western states

National western mining conference, Denver. Eng & Min J 155:120+ Mr '54

Wyoming

Availability of raw materials in Wyoming. H. G. Fisk. bibliog(80 ref) maps Ind & Eng Chem 45:2449-54 N '53

Bibliography and index of literature on uranium and thorium and radioactive occurrences in the United States. M. Cooper. Geol Soc Bul 64:1103-71 O '53

Yugoslavia

Yugoslavia, potential mineral giant. il map Min Eng 6:490-3 My '54

Yukon

Yukon mining in 1953. G. C. Cross. il Can Min J 75:66-7 F '54

MINESWEEPERS. See Mine sweepers

MINIATURE electric circuits. See Electric circuits—Miniature circuits

MINIATURE lamps. See Electric lamps—Miniature lamps

MINIMUM wage

Minimum-wage developments. Mo Labor R 76:292-3 Mr '53

Minimum wages on federal contract jobs. Bsns W p 173-4 O 17 '53

National conference on labor legislation, 19th, Washington, Dec. 2-3. Mo Labor R 76:20-1 Ja '53

No protection; government tries to collect from Walsh-Healey violators despite the statute of limitations. Bsns W p 152-3 S 5 '53

State minimum-wage laws and orders, July 1, 1942-March 1, 1953. U S Women's Bur Bul 247:1-84; pa 50c Supt. of doc. '53

MINING camps

Leadridge on the Pabineau; birth of a mining camp. il Min Eng 5:1073 N '53

MINING congress, American. See American mining congress

MINING costs

Open pit mining costs reported for Kaiser Eagle mountain mine. K. B. Powell. Eng & Min J 154:100 D '53

See also

Coal mines and mining—Cost

MINING electro-mechanical maintenance association

Annual meeting, 1st, Wilkinsburg, Pa. Oct. 10; with abstracts of papers. Coal Age 58:152+ N '53

MINING engineering

Annual review of technical advances in Canada's mineral industries. H. R. Rice. il diags Can Min J 75:112-19 F '54

Moving a mountain from Venezuela to the U.S. il map Eng N 152:52-3+ Ja 28 '54

Open pit mining guidebook; planning the pit. il plan diag Eng & Min J 155:G3-6 My '54

Status of testing strength of rocks. R. G. Wuerker. bibliog Min Eng 5:Trans 1108-13 N '53

Tennessee Coal & Iron raw materials; iron ore, coal, limestone, dolomite and explosives. il map Explosives Eng 32:8-28 Ja '54

Vast and varied engineering works develop Venezuelan iron-ore deposit. W. W. Wanamaker. il maps Civil Eng 23:807-11 D '53

See also

Blasting
Coal mines and mining
Electricity in mining
Mine construction
Mine drainage
Mine haulage
Mine hoisting
Mine management
Mine shafts
Mine ventilation
Mining machinery
Mining methods
Ore sampling
Prospecting
Quarries and quarrying
Rock drills
Shaft sinking

Power

Diesel powers plant at 15,800 ft.; Volcan mines co. il Power Eng 58:69 Ag '54

Safety measures

All-Ohio safety congress Mining section 24th meeting, Columbus, April 21; with abstracts of papers. Coal Age 59:124+ Jl '54

Conservation at Copper basin. C. Fish. il Nat Safety N 70:18-21+ S '54

Development of permissible requirements for safe underground Diesel haulage. M. A. Elliott and R. S. James. U S Bur Mines Information Circ 7673:1-12 bibliog(31 titles, p 11-12) '53

Establish new records in mining safety. Nat Safety N 70:78 S '54

Fatalities cut in Idaho metal mines. Nat Safety N 70:78-80 Jl '54

40 years of safety in Rand mines. il map Nat Safety N 69:18-19+ Ja '54

Four underground mines receive top safety awards for perfect safety records. il Explosives Eng 31:180-5 N '53

Job safety analysis at Munro mine. G. Kallunki. Can Min J 75:67-9 S '54

Lake Superior mines safety council 30th annual meeting, Duluth, May 20-21. Eng & Min J 155:120 Jl '54

Mine safety in many lands. Y. Hagerman. Nat Safety N 70:72+ S '54

Mineral industry health and safety; annual review, 1953. S. H. Ash. Min Eng 6:195-6 F '54

Miners can wear glasses. J. W. Waugh. Can Min J 75:84-5 S '54

Mining safety in 1953. E. C. Olsen. il Min Cong J 40:47-9 F '54

National safety competition of 1952; with list of winners, 1925-1952; awards of certificates of achievement. S. T. Reese. il Explosives Eng 31:71-91 My '53

National safety competition of 1953; with list of winners, 1925-1953; awards of certificates of achievement. S. T. Reese. il plan Explosives Eng 32:71-92 My '54

Pre-production safety at the Marmora mine. D. F. Coleman. il Can Min J 75:58-60 S '54

Safe storage, handling, and use of commercial explosives in metal mines, nonmetallic mines, and quarries. D. Harrington and J. H. East, jr. bibliog 12pls U S Bur Mines Information Circ 7674:1-28 '54

Safety belts and lanyards. J. C. Nelms, jr. il Can Min J 75:61-2 S '54

Selling safety to the individual. A. H. Zeilinger. il Min Cong J 40:43-5 S '54

Sentinels of safety awards. Min Cong J 40:59 Jl '54

Survey and conclusions on eye protection underground. G. G. Mabee. Can Min J 75:85-7; Discussion. A. F. Heather. 87 S '54

Viewpoint of management on accident prevention. H. L. Roscoe. Can Min J 75:57 S '54

Visual aids for the safety engineer. il Min Cong J 40:41-3 Jl '54

Study and teaching

Engineering education for the mineral industries; panel discussion. G. H. Durham and others. Min Eng 6:649 Je '54

ECPD lists accredited mineral engineering colleges. Min Eng 6:326 Mr '54

Gain in mineral engineering enrollment only half that in all engineering. W. B. Plank. Min Eng 6:496 My '54

What influences students to choose mining. J. J. Schanz, jr. Min Eng 6:800-1 Ag '54

MINING engineers

Are we using our engineers effectively? M. D. Cooper. il Min Cong J 40:27-9+ S '54

Recruiting mineral industry personnel. D. A. Pifer. il Min Cong J 40:91-3+ Ag '54

Shortage of young engineers and what to do about it; panel discussion. B. E. Grant and others. Min Cong J 40:55-9+ Ap '54

Survey of technical personnel in Canada's mineral industries. Can Min J 75:65-8 Ja '54

MINING geology

Geology and geochemistry of base metal deposits. H. D. B. Wilson. map diags Econ Geol 48:370-407 bibliog(p406-7) Ag '53

Geology in ore delineation and extraction; Star mine. R. E. Sorenson. il plan diags Min Cong J 40:33-8 My '54

Mining geology in 1953. G. M. Schwartz. il Min Eng 6:180-3 F '54

NX borehole camera; milestone in subsurface exploration. E. B. Burwell, jr. and R. H. Nesbitt. il diags Min Eng 6:Trans 805-8 Ag '54

Relationship of geology to underground mining methods. G. B. Clark. Min Eng 6:Trans 812-16 Ag '54

MINING industry and finance

Mineral project approvals in 1953; Defense minerals exploration administration. Oil Paint & Drug Rep 165:38 Mr 29 '54

Minerals list enlarged by 19 strategic items. Oil Paint & Drug Rep 165:4+ Mr 29 '54

See also

Coal mines and mining—Finance
Gold mines and mining—Securities
Mine taxation
Mines and mineral resources
Mining costs

Securities

Rankin inlet nickel mines. Can Min J 75:69 Mr '54

See also

Gold mines and mining—Securities

Canada

Total mining investment doubled in last ten years. R. L. Edsall. Can Min J 74:51-5 D '53

Mexico

What chance has foreign capital in Mexico? C. W. Wright. Eng & Min J 155:98-9 Mr '54

South Africa

Mineral production reached new record in 1953. Chem Age (Lond) 70:1249-50 Je 5 '54

Uganda

Financing planned for Uganda mine. For Comm W 51:15 Ja 11 '54

MINING law

Administration of the Federal coal mine safety act. J. Westfield and others. U S Bur Mines Information Circ 7685:1-76 '54

Electrical problems arising from federal safety regulations. M. J. Ankeny. il Min Cong J 40:95-9+ Ag '54

Federal coal mine safety act. J. J. Forbes. Min Eng 6:Trans 76-8 Ja '54

MINING law—*Continued*

NPC urges mining, mineral laws amendments. Oil Paint & Drug Rep 164:3 D 7 '53

Plateau claim stakers must heed both custom and written law. il map Eng & Min J 155:112-13 S '54

Public lands panel; abstracts of papers. H. C. Dworshak and others. Min Cong J 39:58-60+ N '53

See also

Mine taxation

Libya

New Libyan minerals law modified. For Comm W 50:10 S 28 '53

MINING machinery

Custom machine rebuilding; National mine service co. il map Coal Age 59:104-8 My '54

Mining machinery of the Atlas Diesel co. il Engineering 176:641-3, pl 34-5 N 20 '53

Revolution in control; mining with big draglines in Florida phosphate field. R. H. Ramsey. il plans diag Eng & Min J 155:72-7 Ap '54

Small tunneling machine halves crew, doubles output. H. T. Perez. il diags Constr Methods 36:150-2+ Ap '54

Trackless mining at Pend Oreille. L. M. Kinney. il map Min Cong J 39:28-9+ N '53

See also

Coal mining machinery

Rock drills

Lubrication

Better multi-purpose grease. R. B. White. il Min Cong J 39:66 D '53

Lubrication of metal mining machinery. A. F. Brewer. il diag Min Cong J 40:34-7 Je '54

Maintenance and repair

Get ready for summer operation. D. K. Heiple. il Min Cong J 40:83 Je '54

Open pit mining guidebook; maintenance and power distribution. il plans diags Eng & Min J 155:G80+ My '54

MINING methods

Block caving practice at the Jeffrey mine. H. H. Waller and others. il plans diags Min Eng 6:Trans 510-18 My '54

Changes in primary drilling at Northwest Magnesite. R. L. Fisk. il Min Cong J 39:34-6 N '53

Chrome mining in southern Rhodesia shows wide variety of operations. P. A. Hodges. bibliog il diags Min Eng 6:791-7 Ag '54

Costs sink, efficiency rises as mine completes expansion; Canadian Exploration. J. B. Huttl. il map diags Eng & Min J 155:62-7 My '54

Developments for increased production at Climax. J. M. Petty. il diags Min Cong J 40:24-9 Ja '54

How Cananea gets good fragmentation in large blasts. A. W. Ruff. il diags Eng & Min J 155:92-4+ Ja '54; Correction. 155:97 Mr '54

How mechanized mining at Grandview upped output and cut costs. il Eng & Min J 155:56-9 My '54

Longhole drilling at Holden mine; greater productivity, lower costs. J. J. Curzon. Min Eng 6:893-6 S '54

Mechanical loading vs. slushing at United Montauban. T. C. Hewitt. il diags Can Min J 75:69-71 Ap '54

Metal mining; annual review, 1953. R. V. Pierce, ed. il diag Min Eng 6:149-65 F '54

New chute draws praise at Dayrock. R. Farmin and C. E. Sparks. diags Eng & Min J 155:100-1 Je '54

Panel cut-and-fill stoping at McIntyre. H. R. Rice. il diags Can Min J 74:69-72 N '53

Potash mining methods. H. H. Bruhn and E. H. Miller. il Min Eng 6:608-12 Je '54

Relationship of geology to underground mining methods. G. B. Clark. Min Eng 6:Trans812-16 Ag '54

Rock breaking; American mining congress Western division; abstracts of papers. Min Cong J 39:76-8 N '53

San Manuel; drifting opens huge orebody for block caving. H. I. Ashby. il Min Eng 6:695-6 Jl '54

Service haulage for continuous mining. F. R Zachar. il Min Cong J 40:58-61 Mr '54

Solvay mines high-calcium limestone for chemical use. B. Nordberg. il Rock Prod 57:66-8+ My '54

Storke level operation makes Climax North America's biggest underground mine. E. J. Eisenach and E. Matsen. il plans diag Min Eng 6:273-8 Mr '54

Survey of mining practice. A. H. Hubbell. Eng & Min J 155:113-17 F; 87-94 Mr '54

Trackless development of an inclined limestone deposit; Coplay cement manufacturing co. R. W. Jenkins. Min Eng 6:Trans 61-3 Ja '54

Trackless mining at Canadian exploration. H. R. Rice. il diag Can Min J 74:47-50 D '53

Underground metal mining progress, 1953. K. Stout. il Min Cong J 40:44-6 F '54

Uranium mining demands skill. il Eng & Min J 155:100-2 S '54

White Pine mine development. R. F. Moe. il plan Min Eng 6:381-6 Ap '54

See also

Blasting

Coal mines and mining—Methods

Mine management

Mining engineering

Oil shales—Mining methods

Quarries and quarrying

Shaft sinking

Sulfur mines and mining

Stripping operations

Adapting the machine to the man; International minerals & chemicals corp. T. M. Ware. il Min Cong J 40:40-3 Ag '54

Anaconda's Nevada project; new approach to copper mining. R. H. Ramsey. flow sheets il plan diags Eng & Min J 155:74-93 Ag '54

Barvue mines; large unique operation. H. R. Rice. il Can Min J 74:59-62 O '53

Barvue zinc; mine that started big. A. S. Park. il map Comp Air Mag 59:10-14 Ja '54

Lavender Pit operation epitomizes efficiency. il Eng & Min J 155:144+ S '54

Marcona, four months from plan to production. il Eng & Min J 155:84-8 Ja '54

Mining trends on the Mesabi range. B. M. Andreas. il Min Eng 6:39-41 Ja '54

More efficient mining and modern plant double asbestos production; Ruberoid co. M. L. Briggs. il Rock Prod 57:74+ Jl '54

New look at Inspiration consolidated copper co. P. D. I. Honeyman. il Min Cong J 40:30-2+ S '54

Open-pit limestone mining in Florida's Hernando county. L. B. Lovett. il Explosives Eng 31:167-71 N '53

Open pit mining costs reported for Kaiser Eagle mountain mine. K. B. Powell. Eng & Min J 154:100 D '53

Open pit mining guidebook. il plans diags Eng & Min J 155:G 1-152 My '54

Pattie and the Apaches; Santa Rita open-pit copper mine. V. N. Conner. il Comp Air Mag 58:312-13 N '53

Recent developments at Copper Mountain mine. L. T. Postle. il Min Cong J 40:62-4 Ap '54

Silver Bell; AS&R's new Arizona copper project starts production. J. B. Huttl. flow sheet il map Eng & Min J 155:72-9 Jl '54

Stripping is big mining too; Benson mines. J. C. Pierce. il Comp Air Mag 59:161-4 Je '54

Tin mine in the Congo. A. Leenders. il map Comp Air Mag 58:306-8 N '53

Trend toward larger shovels in mining and earthmoving; panel discussion; abstracts of papers. L. F. Pett and others. Min Cong J 39:87-9 N '53

Yerington mine starts production. il Eng & Min J 155:112-13+ Ja '54

See also

Coal mines and mining—Stripping operations

MINING research

Report of research and technologic work on explosives, explosions, and flames; fiscal years 1951 and 1952. B. Lewis. bibliog(81 titles) 51 pls U S Bur Mines Rep of Invest 5006:1-66 '53

See also

United States—Mines, Bureau of

MINING schools and education
See also
Colorado school of mines

MINING towns
High-type sanitary facilities provided in Venezuelan wilderness. C. A. Arenander and D. A. Okun. flow diags il maps diag Civil Eng 24:220-3 Ap '54
Setting up a town with a built-in boom; San Manuel, Ariz. il Bsns W p 136-8+ D 12 '53

MINNEAPOLIS
Kosher meat prices. R. J. Holloway. J Marketing 18:287-9 Ja '54

MINNEAPOLIS and St Louis railway
But who controls it now? map Bsns W p64+ Ag 15 '53
Heineman group wins M&StL control. Ry Age 136:13 My 17 '54
No spectacular plans for the Minneapolis & St Louis. Ry Age 136:65-6 Je 28 '54

MINNEAPOLIS federation of Honeywell engineers
True engineers; question of union leadership settled with the cold logic of science. Bsns W p 178 N 21 '53

MINNEAPOLIS-HONEYWELL regulator company
Regulation investment. I. U. Cobleigh. Comm & Fin Chr 178:1932 N 19 '53
Top brass changes. Bsns W p66-7 D 12 '53

MINNEAPOLIS, St Paul and Sault Ste Marie railway
Railroad securities. Comm & Fin Chr 178:933 S 10 '53

MINNESOTA
See also
Architecture, Domestic—Minnesota
Iron mines and mining—Minnesota
Iron ores—Minnesota

MINNESOTA and Ontario paper company
Now a low-cost producer. Barron's 33:21 O 12 '53

MINNESOTA mining and manufacturing company
Adhesive profits. I. U. Cobleigh. Comm & Fin Chr 178:440 Ag 6 '53
Convert to contests. il Bsns W p46+ N 7 '53
Minnesota Mining buys Jersey insulation firm. Bsns W p67 Ag 8 '53
Stock sold. Comm & Fin Chr 178:759 Ag 31 '53
Strong research program key to its postwar sales growth. R. A. Bing. Barron's 33:21+ N 16 '53

MINNESOTA power and light company
Public utility securities. O. Ely. Comm & Fin Chr 178:835 S 3 '53

MINNESOTA university
New University of Minnesota campus at Duluth. il plans Arch Rec 113:123-7 Je '53
U of Minnesota safety program to stress accident prevention. Chem & Eng N 32:3790 S 20 '54

MINORS. See Children—Law

MINTENER, James Bradshaw, 1902-
Extra entrance added; B. Mintener, assistant secretary of Dept. of health, education and welfare; G. Larrick, new FDA commissioner. por Chem W 75:26 S 11 '54

MIRRORS
High-speed turbine-driven rotating mirrors. W. E. Buck. il diag R Sci Instr 25:115-19 F '54
Lighting to make the most of a mirror; illustrations with text. Illum Eng 49:16-17 Ja '54
Method for producing replica mirrors with high quality surfaces. G. Haas and W. W. Erbe. diags Opt Soc Am J 44:669-71 S '54
Optical effect of flexure in vertically mounted precision mirrors. G. Schwesinger. bibliog diags Opt Soc Am J 44:417-24 My '54
Permitted tolerance on percent correction of paraboloidal mirrors. P. R. Yoder, jr. and others. Opt Soc Am J 43:702-3 Ag '53
Reflection from a mirror surface with an absorbent coating. J. R. Wait and others. Opt Soc Am J 44:438-41 Je '54
Segmented-mirror solar furnace for high-intensity thermal radiation studies. R. Gardon. il diags R Sci Instr 25:459-63 My '54
See also
Telescope—Mirrors

MISCHMETALL. See Rare earth metals

MISCIBILITY. See Solvents

MISSILES, Guided. See Guided missiles

MISSING persons
See also
Death, Presumption of

MISSISSIPPI
Medical education scholarship loans in the Mississippi integrated health program. F. J. Underwood. Pub Health Rep 68:549-53 Je '53
See also
Petroleum—Mississippi
Public health—Mississippi

MISSISSIPPI power company
Bonds offered. Comm & Fin Chr 178:1373 O 12 '53

MISSISSIPPI river
Distribution of surface turbidity off Mississippi delta. P. C. Scruton and D. G. Moore. il diag Am Assn Pet Geologists Bul 37:1067-74 My '53
$40 million locks end large hazard near St Louis. D. J. Warren. il Nat Pet N 45:89-90 Jl 1 '53
River shift poses oil problems. F. L. Resen. il map Oil & Gas J 52:60-1 Ja 11 '54
Will the Atchafalaya capture Old Miss? il maps Eng N 152:36-8+ Ap 8 '54

Flood control projects

Navigation maintained during construction of Smithland cutoff and levee. W. H. Holland. il map diags Civil Eng 24:90-3 F '54
Wave-wash control on Mississippi River levees. R. Hertzberg. il diags Am Soc C E Proc 79 [no 275]:1-12 S '53

MISSISSIPPI valley barge line company
Revenues, profits rising rapidly. Barron's 33:31 S 14 '53

MISSOURI
See also
Geologists—Missouri

Industries and resources

First half of '54 brings 160 new and expanded plants. Manuf Rec 123:58 Ag '54
Over 82 million spent on plants in Missouri. Manuf Rec 123:52 Mr '54

MISSOURI Pacific railroad
Earnings. Comm & Fin Chr 178:760 Ag 31 '53
Equipment trust certificates offered. Comm & Fin Chr 179:106 Ja 11 '54
Railroad securities. Comm & Fin Chr 179:276 Ja 21 '54

MISSOURI river
Decision on diversion project favors dam over pumping plant. Eng N 151:21-2 N 26 '53
Putting the microscope on the drainage basin. C. E. Schwob and G. J. Hopkins. Pub Works 85:110 Jl '54

MIST cooling. See Lubrication and lubricants (cutting and grinding)

MISTS
Elements of dust and mist collection. C. E. Lapple. bibliog il Chem Eng Prog 50:283-7 Je '54
Performance of wire-mesh demisters. O. H. York. il diags Chem Eng Prog 50:421-4 Ag '54

MITCHELL, James Paul, 1900-
Labor secretary is middleground choice. G. H. Baker. por Iron Age 172:75 O 15 '53
Pragmatist for labor. por Bsns W p28-9 O 17 '53

MITCHELL, Reginald Joseph, 1895-1937
R. J. Mitchell, aircraft designer. J. Smith. pors Roy Aeronautical Soc J 58:312-28 My '54; Abstract. Engineering 177:166-7 F 5 '54

MITCHELL, Wesley Clair, 1874-1948
W. C. Mitchell, the economic scientist. A. A. Berle, jr. Am Stat Assn J 48:169-75 Je '53

MITCHELLS and Butlers, limited
Statement by the chairman. R. H. Butler. Economist 169:703 N 28 '53

MITOCHONDRIA
Centrifugal preparation of rat liver mitochondria free of microsomes. K. L. Jackson and others. Science 118:136-7 Jl 31 '53

MITOCHONDRIA—*Continued*

Oxidative phosphorylation in the cytochrome system of mitochondria. S. O. Nielsen and A. L. Lehninger. bibliog Am Chem Soc J 76:3860-1 Jl 20 '54

Phosphatase activity in rat liver in relation to cells and mitochondria. J. O. Ely and M. H. Ross. bibliog Franklin Inst J 256:473-5 N '53

MITOSIS. See Cell division (biology)

MIXED crystals. See Solutions, Solid

MIXERS

Fluid mixers being used to mix drilling mud. J. Y. Oldshue. il World Oil 137:150+ S '53

High degree of turbulence; RKM mixer. il Chem Eng 61:276+ Ag '54

Mixing equipment has kept pace with operation since 1920's. D. E. Pierce. il Ind & Eng Chem 45:sup79A-80A+ D '53

Mixing; liquids, pastes, plastics, solids, continuous mixing. C. S. Quillen. il diags Chem Eng 61:178-224 Je '54

Pump-mix mixer settler, a new liquid-liquid extractor. B. V. Coplan, J. K. Davidson and E. L. Zebroski. bibliog il diags Chem Eng Prog 50:403-8 Ag '54

Push button bituminous mixing plant has 6,000-lb batch capacity. il Eng N 151:67-8 D 31 '53

Temperature-controlled mixing apparatus for spectrophotometric studies of rates and equilibria. R. F. Beers, jr. and I. W. Sizer. diag Anal Chem 25:1137-8 Jl '53

Tlargi rubber technology laboratory puts Banbury in operation. il Rubber Age 75:712 Ag '54

Why not use draft tubes? A. P. Weber. bibliog diags Chem Eng 60:183-7 O '53

See also

Banbury mixers
Concrete mixers
Egg beaters
Paint mixers

MIXERS, Electric. See Electric mixers

MIXERS, Paint. See Paint mixers

MIXING

Chemical engineering unit operations; mixing. J. H. Rushton. bibliog(48 ref) il Ind & Eng Chem 46:133-7 Ja '54

Developments in the theory of particle mixing. P. M. C. Lacey. bibliog J Ap Chem 4:257-68 My '54

Dry mixing of solids. L. T. Work. il diags Chem Eng Prog 50:476-9 S '54

Mixing; liquids, pastes, plastics, solids, continuous mixing. C. S. Quillen. il diags Chem Eng 61:178-224 Je '54

Mixing; present theory and practice; fluids of relatively low viscosity. J. H. Rushton and J. Y. Oldshue. bibliog(62 ref) il diags Chem Eng Prog 49:161-8, 267-75 Ap-My '53

Optical method for the study of impinging jets in a liquid stream. G. G. Kretschmar and H. W. Wedaa. il diags Opt Soc Am J 43:526-30 Je '53

Simple Venturi jet adds to the efficiency of pump mixing. S. Yokell. diags Chem Eng 61:224 Ap '54

Volumes of mixing of some nonpolar liquids. R. Thacker and J. S. Rowlinson. bibliog J Chem Phys 21:2242-3 D '53

See also

Agitation
Mixers

MIXING, Heat of

Heat of mixing of He^3 and He^4 solutions. V. S. Nanda. bibliog Phys R 94:241-3 Ap 15 '54

Heat of mixing of He^3 in He^4. H. S. Sommers, jr. and others. diag Phys R 92:1345-6 D 15 '53

MIXTURES

Analysis data for the ternary system isopropyl alcohol-isopropyl ether-water. W. S. Brey, jr. bibliog(26 ref) Anal Chem 26:838-42 My '54

Applications of the free volume theory of binary mixtures. Z. W. Salsburg and J. G. Kirkwood. bibliog J Chem Phys 21:2169-77 D '53

Cocurrent liquid-gas flow in a pipe-line contactor. G. E. Alves. bibliog il diags Chem Eng Prog 50:449-56 S '54

Densities and molal volumes of molten mixtures of potassium chloride and barium chloride. J. S. Peake and M. R. Bothwell. bibliog diag Am Chem Soc J 76:2653-5 My 20 '54

Densities of some binary liquid mixtures. V. S. Griffiths. Chem Soc J p860-2 Mr '54

Determining only one compound in a mixture. E. Allen and W. Rieman, 3d. bibliog Anal Chem 25:1325-31 S '53

Diffusion of polymer mixtures. G. B. Taylor and F. T. Wall. Am Chem Soc J 75:6340-2 D 20 '53

New method for determination of activities of binary solutions of volatile liquids. R. S. Hansen and F. A. Miller. bibliog diags J Phys Chem 58:193-6 Mr '54

Nomograph solves equation for binary mixtures. J. W. Colton. Chem Eng 61:216 My '54

Quantitative determination of 1,2-glycols in mixtures. E. A. Adelberg. Anal Chem 25:1553-4 O '53

Quaternary liquid systems with two immiscible liquid pairs. Y. Chang and R. W. Moulton. bibliog diags Ind & Eng Chem 45:2350-61 O '53

Radiation chemistry of mixtures; cyclohexane and benzene-d_6 M. Burton and W. N. Patrick. bibliog J Phys Chem 58:421-3 My '54

Radiation chemistry of mixtures; propionaldehyde and benzene-d_6. W. N. Patrick and M. Burton. bibliog J Phys Chem 58:424-30 My '54

Surface tensions and their temperature coefficients of molten mixtures of potassium chloride and barium chloride. J. S. Peake and M. R. Bothwell. bibliog diags Am Chem Soc J 76:2656-9 My 20 '54

Theory of liquid He^3-He^4 mixtures. L. Goldstein. bibliog Phys R 95:869-84 Ag 15 '54

Viscosity of vapor mixtures of hydrogen peroxide and water. C. N. Satterfield, R. L. Wentworth and S. T. Demetriades. bibliog diags Am Chem Soc J 76:2633-7 My 20 '54

MOAB, Utah

Moab gets rich on 3-D scenery. il Bsns W p80-4 S 5 '53

MOBILITY, Labor. See Labor turnover

MODEL houses. See Houses, Model

MODELS

Dimensional analysis; how to use it in working with scale models. R. F. Nielsen. diags Oil & Gas J 52:92-3 S 7 '53

Recent developments in plaster model making. M. K. Young. il Am Cer Soc Bul 33:83-6 Mr 15 '54

Simple models help students to visualize Maxwell's theorem. A. Hoadley. il Civil Eng 24:31-2 Ja '54

Test models. G. Murphy. il Chem Eng 61:183-9 Ag '54

Using models in design. il Product Eng 24:177-84 S '53

Why designers go for models. il Bsns W p47 Ag 22 '53

Wind tunnels and test models are solving today's stack-design problems. R. H. Sherlock. il Power 98:83-5 Ja '54

See also

Chemical models
Hydraulic models
Structural engineering—Model testing

also subdivision Models under special subjects, e.g.

Airplane engines
Bridges, Suspension
Electric lines
Electric substations
Molecules
Petroleum refineries
Power plants
Railroads

MODELS (persons)

Don't sell sex short; models at trade shows. J. Lowry and P. Ramsdale. il Sales Management 71:13-15 pt 2 Jl 1 '53

MODELS, Anatomical. See Anatomical models

MODELS, Layout

Cheaper with miniatures. il Chem W 73:46+ Jl 11 '53

How to use templates for plant layouts. il Power 98:146 Ap '54

Inexpensive pictorial plant layout. C. L. Fanning. il Tool Eng 33:56 Jl '54

Layout models lent for plant planning. Aviation W 59:40 S 14 '53

Scale models. H. J. Bowen. il Chem Eng 61:176-82 Ag '54

Scale models; a new working tool in layout and design. D. H. Stormont. il Oil & Gas J 52:101-2 Jl 13 '53

MODELS, Layout—*Continued*

Scaled layout of Union bag & paper corp.'s Savannah plant provides plan board for engineers. il Paper Tr J 138:12 Ap 23 '54

3-D planning helps solve auto assembly line puzzles; models prove themselves in practice for General motors corp. plant layout designers; illustrations. Steel 133: 114 D 7 '53

Use of models for layout and planning. J. C. Montoro. bibliog il Iron & Steel Eng 31: 154-8; Discussion. 158-60 S '54

MODELS, Miniature

Here's a way to sell houses; Donnay-Reitz inc. use miniature models to help merchandise their homes. il plan Am Bld 76:140-1 Mr '54

Looking through a model farm. il Elec World 140:194 S 21 '53

Models educate the public by demonstrating high-line hazards. J. F. Phelan. il Elec World News ed 140:32-3 D 7 '53

Pullman-Standard tames a train; scaled-down working models. il Sales Management 72:82 Ap 1 '54

Quarter-size model cracks market for an improved machine tool; Magna engineering corp. il Sales Management 70:42-5 Ap 15 '53

MODELS, Plastic

Frozen stress phenomenon in photo-elasticity. H. Fessler. bibliog il diags Inst Mech Eng Proc (B) 1B no 12:613-19; Discussion. 619-20 '52-53

Measure clearances easily with tower models. H. D. Fischer, jr. il Elec World 139:99 Je 29 '53

Photo-elastic study of stresses in screw threads. A. F. C. Brown and V. M. Hickson. diags Inst Mech Eng Proc (B) 1B no 12:605-8; Discussion. 608-12 '52-53

Production of prototypes simplified with plastics; General electric co. il Iron Age 173:171-3 My 6 '54

Room temperature photo-elastic technique for three-dimensional problems. J. H. Lamble and S. E. A. Bayoumi. bibliog diags Inst Mech Eng Proc (B) 1B no 12:575-9, pl 1-4; Discussion. 589-604, pl 5-6 '52-53

MODELS, Wood

New pattern for patterns; Impreg. il Chem W 74:54+ Je 5 '54; Automotive Ind 111:50-1+ Jl 15 '54

MODERNISTIC architecture. See Architecture, Modernistic

MODULAR design. See Building—Standards

MOENKOPI formation

Stratigraphy and history of the moenkopi formation of triassic age. E. D. McKee. (Memoir 61) 133p, 12pls bibliog(p123-6) Geological soc. of America, 419 W. 117th st, New York 27 '54

MOHAMMEDANS in Egypt

Does Neguib see clear? dissolution of the Moslem brotherhood. Economist 170:240-1 Ja 23 '54

MOHLER, Hermann, 1900-

Hermann Mohler. R. E. Oesper. por(front) J Chem Educ 30:228 My '53

MOHLER reaction

Mechanism of the Mohler reaction for the estimation of benzoic acid. W. Davey and J. R. Gwilt. bibliog J Ap Chem 4:413-18 Ag '54

MOISSAN, Henri, 1852-1907

Moissan centenary observed in France. Chem & Eng N 31:3772 S 14 '53

MOISTURE

Automatic sediment and moisture recorder. E. B. Delgass and others. il diag Ind & Eng Chem 46:1418-22 Jl '54

Determination of adsorbed moisture on uranium and uranium oxide. J. O. Hibbits and D. Zucker. il Anal Chem 26:1093-5 Je '54

Determination of moisture in sodium bicarbonate. L. N. Gard and R. C. Butler. bibliog Anal Chem 26:1367-8 Ag '54

Effect of convection and moisture deposition on heat transmission thru cold storage test walls. H. C. Brown, jr. and L. E. Bish. il plan diags Refrig Eng 62:62-7; Discussion. 67+ Ja '54

Effect of moisture variation upon standard corrugated test procedures. W. Schoenberg. il Tappi 37:sup 196A-215A Je '54

Moisture determination in a circulating refrigerant. Heat & Ven 51:114 My '54

Nomograph speeds calculation of moisture content of samples. M. Auro. Chem Eng 61:226 Ja '54

See also

Dampness in buildings
Evaporation
Gas, Natural—Moisture content
Humidity
Hygrometers
Refrigeration and refrigerating machinery—Moisture problem
Soil moisture
Water vapor
Wool—Moisture content

MOLAL volumes. See Specific volume

MOLAR solutropy (term)

Separation of benzene and *n*-hexane by means of ethylenediamine as solvent; molar solutropy. A. P. C. Cumming and F. Morton. bibliog J Ap Chem 3:358-66 Ag '53

MOLASSES

Chemical production of lactic and other acids from molasses. R. Montgomery and R. A. Ronca. bibliog(54 ref) Ind & Eng Chem 45:1136-47 My '53

Meat market for chemicals; ammoniated molasses. il Chem W 73:70+ O 10 '53

Molasses use in alcohol production seen declining by Agriculture department. Oil Paint & Drug Rep 164:3+ N 16 '53

Operation molasses. il Food Eng 26:94-5 F '54

Radioisotopic dilution analysis for D-glucose and gentiobiose in hydrol. J. C. Sowden and A. S. Spriggs. bibliog Am Chem Soc J 76: 3539-41 Jl 5 '54

Recovery of 2,3-butanediol from fermented beet molasses mashes. J. A. Wheat. bibliog(34 ref) flow sheets il Ind & Eng Chem 45:2387-94 N '53

MOLDED products

Large plastic moldings. J. B. Campbell. il diags Materials & Methods 38:91-5 D '53

Molded pulp products. W. E. Parsons. flow chart il Paper Tr J 137:175-80 N 13 '53

Nonplastic molded pulp products; abstract. Paper Ind 36:388-9 Jl '54

Skeletons in plastic liven up trade. il Bsns W p 140-2 Ag 8 '53

Wire screw thread inserts improve molded plastic design. B. Franklin. il Materials & Methods 40:128-9 Ag '54

See also

Molds (for plastics)
Plastic materials
Resinous products

Manufacture

Little dies lick big costs in short-run plastics; Douglas engineering co. E. Douglas. il diag Am Mach 98:124-5 S 27 '54

Pellet deflashing process cuts finishing cost. il Rubber Age 75:236 My '54

Plastics; "I need a desk size ingot"; plastics molders use bigger dies, more of them. K. W. Bennett. Iron Age 172:86 D 10 '53

See also

Molding machines (for plastics)

MOLDED products, Mechanical

Don't under-rate nylon for mechanical components! J. Holt and W. Chadbourne. il diags Product Eng 24:203-11 Je '53

Flexible plastisol molds form epoxy resin parts. il Materials & Methods 40:13+ S '54

See also

Gearing, Plastic

MOLDERS. See Foundries—Employees

MOLDING

Adiabatic compression and expansion of polystyrene. H. L. Toor and S. D. Eagleton. bibliog diag J Ap Chem 3:351-4 Ag '53

Contact molding of plastic parts; abstract. C. A. McGill. il Tool Eng 32:197-8 Je '54

Energy conversions in the flow of high polymers; applications to injection moulding. H. L. Toor and S. D. Eagleton. bibliog J Ap Chem 3:354-8 Ag '54

Injection molding of elastomeric vinyls. F. A. Martin. il diags India Rubber World 129: 624-7, 777-9 F-Mr '54

New expandable polystyrene can be molded. il Materials & Methods 39:108-9 Ap '54

MOLDING—*Continued*

New plastic rolled into sheets solves bugs in vacuum-molding. il Bsns W p78+ Ag 8 '53

See also

Extrusion process (plastics)

Nylon—Molding

MOLDING machines

Automatic molding machine lowers foundry handling costs; Buick foundry. W. G. Patton. il Iron Age 174:109-11 Ag 12 '54

Equipment for the small foundry; molding. il Foundry 82:164-71 My '54

Mechanization takes over sand molding; rotary automatic molding machine at Buick motor car division. L. F. Miller. il Steel 133:116 N 9 '53

Osborn rotary automatic molds cylinder block halves. il Automotive Ind 109:81 N 1 '53

12-station molding machine. il Mech Eng 75:491-2 Je '53

Twin molding machine makes cope and drag simultaneously. il Foundry 82:257+ My '54

MOLDING machines (for plastics)

Elmes hydraulic press for reinforced plastics molding. il Mach 60:239 Jl '54; Am Mach 98:171 Ag 16 '54

Plastics injection molding machines equipped with new heating chamber. il diag Mach 60:222-3 Mr '54

Plastics machinery developments. R. W. Powell. il diag Tool Eng 32:279-80 Ap '54

Preforming and preforming presses. B. B. Belden. il Rubber World 130:370-2 Je '54

Reed-Prentice injection molding machine has six-second cycle time. il Am Mach 98:192 F 15 '54; Mach 60:220 F '54

Reed-Prentice plastic-injection-molding machine offers faster cycles, larger capacity. il Am Mach 98:159 Ap 26 '54

Stokes injection-molding machine provides automatic production. il Am Mach 98:174 Ag 16 '54

Vacuum forming of plastics gains favor. C. H. Vivian. il Comp Air Mag 59:108-11 Ap '54

Vacuum forming of thermoplastic sheets. S. S. Zimmerman. il diags India Rubber World 129:216-19 N '53

MOLDS (botany)

Inhibition of mold contamination in drosophila food using sodium orthophenylphenate. E. S. McDonough. Science 118:388 O 2 '53

Production of organic acids by molds. S. M. Martin. il Can Chem Process 37:30+ O '53

Radioactive materials in prevention of mold growth in optical instruments. S. Berk and L. Teitell. bibliog il diags Ind & Eng Chem 46:778-84 Ap '54

Sorbic acid as a mold inhibitor. D. P. Smith and J. N. Rollin. il Mod Packaging 27:139-41+ D '53

Studies on biological methylation; the formation of trimethylarsine and dimethylselenide in mould cultures from methyl sources containing ^{14}C. F. Challenger, D. B. Lisle and P. B. Dransfield. Chem Soc J p 1760-71 Je '54; Abstract. Chem & Ind p796 Jl 25 '53

See also

Aspergillus

Fungi

Mildew

MOLDS (for casting)

Back-up material for shell molds. W. O. Faxon. flow sheet diag Foundry 81:178+ N '53

Casting; cellophane covers keep dirt out of sand mold; Cooper alloy foundry co. il Iron Age 173:152 F 11 '54

Mold lubricant; Aquadag. Metal Prog 65:110 Mr '54

Plastics; low cost plastic molds good for short runs. il Iron Age 174:127+ S 2 '54; Steel 135:124 Ag 23 '54

Production of sound castings by controlled rate of heat transfer; abstract. C. A. Parlanti. Metal Prog 65:126+ F '54

Silicone mold wash drying completed in 7½ minutes; Ohio steel foundry. il Steel 133:162 S 7 '53

Sutter new machine makes shallow molds without flasks. il Foundry 82:422 My '54

See also

Cores

Steel ingots—Molds

Cement-sand molds

Metal casting methods; moulding sands and pattern production. J. B. McIntyre. il Metallurgia 48:166-7 O '53

Permanent molds

Better permanent mold techniques improve casting quality; Gould-national batteries, inc. H. E. Zahn. il Iron Age 174:174-5 S 16 '54

Close tolerance castings; permanent mold castings. M. W. Riley. il Materials & Methods 40:125-8 S '54

Permanent-mold gray-iron castings. E. C. Hoenicke. Mech Eng 75:549-50 Jl '53

Pressure-pouring steel car wheels; new process involves permanent molds machined from graphite. E. Q. Sylvester. il diags Mech Eng 76:152-8 F '54

Plaster molds

Casting metals in plaster moulds. Metallurgia 50:90 Ag '54

Close tolerance castings; plaster mold castings. M. W. Riley. il Materials & Methods 40:124-5 S '54

Foundry; plaster process facilities expanded at several plants; Aluminum co. of America. il Iron Age 173:140-2 My 27 '54

Improved plaster castings broaden foundry practice; Aluminum co. of America. il Tool Eng 33:73 Ag '54

Plaster casting; new tool for aluminum parts production. il Steel 134:102 My 24 '54

Plaster mold casting; American foundrymen's society annual meeting, Cleveland; abstracts of papers. Foundry 82:139-40 Je '54

Precision casting molds are made from master pattern; Shaw processes ltd; abstract. A. Dunlop. Foundry 82:242 S '54

MOLDS (for ceramic products)

Consistency classification of industrial plasters. C. M. Lambe and J. S. Offutt. il Am Cer Soc Bul 33:272-6 S 15 '54

MOLDS (for glass)

Cast-to-shape stainless; bright future for precision technique; Jessop steel co. il Steel 135:126 Jl 19 '54; Iron Age 174:198+ S 16 '54

Mold irons and the glass mold situation. E. R. Flatter. Am Cer Soc Bul 33:101-3 Ap 15 '54; Same abr. Glass Ind 35:325-6 Je '54

Mold irons for the glass industry. N. Davis. il Glass Ind 35:19-20 Ja '54

Molds and mold parts salvaged. il Glass Ind 35:81 F '54

MOLDS (for plastics)

Cast aluminum tooling for large reinforced plastics parts; abstracts. J. Cuming. il Automotive Ind 110:38-9 Mr 1 '54; Tool Eng 33:159 Ag '54

Flexible plastisol molds form epoxy resin parts. il Materials & Methods 40:13+ S '54

Mould for pressing plastic disks. K. H. Stark. diags J Sci Instr 30:341-2 S '53; Discussion. R. Hayes. 31:149 Ap '54

Mold with integral oven used for plastic target; Bellanca aircraft corp. il Automotive Ind 110:100+ Je 1 '54

Offers new look at wear; limited mold life problem in the forming of plastic products. il Steel 135:109 Jl 26 '54

Production of prototypes simplified with plastics; General electric co. il Iron Age 173:171-3 My 6 '54

MOLDS (for rubber)

How multiple phenolic castings are reducing latex dipping costs; Woonsocket rubber and plastic co. il Rubber Age 75:73-5 Ap '54

Product and mold designing toward lower ultimate cost. J. K. Mason. diags India Rubber World 129:206-8 N '53

MOLECULAR beams

Limitation to the precision of molecular constants determined with a diffraction grating. D. H. Rank. Opt Soc Am J 44:341 Ap '54

MOLECULAR compounds

Chemistry of intermolecular compounds. H. M. Powell. bibliog Chem Soc J p2658-63 Jl '54

Clathrate compounds. Sister M. Martinette. J Chem Educ 30:628-30 D '53

MOLECULAR compounds—*Continued*

Molecular complex formation in free radical reactions. C. E. Boozer and G. S. Hammond. Am Chem Soc J 76:3861-2 Jl 20 '54

Molecular compound formation involving the quinoxaline ring system. E. S. Lane and C. Williams. bibliog Chem & Ind p 1230-1 N 14 '53

Molecular compounds and their spectra; the pyridine-iodine system. C. Reid and R. S. Mulliken. bibliog Am Chem Soc J 76:3869-74 Ag 5 '54

Molecular compounds; picric acid-naphthalene, picric acid -*m*-dinitrobenzene and picric acid-1,3,5-trinitrobenzene in chloroform. S. D. Ross and I. Kuntz. bibliog Am Chem Soc J 76:74-6 Ja 5 '54

Molecular compounds; picryl chloride-hexamethylbenzene in chloroform solution. S. D. Ross and others. bibliog Am Chem Soc J 76:69-74 Ja 5 '54

Molecular compounds; the effect of molecular compound formation on the rates of reaction of aniline with 2,4-dinitrochlorobenzene. S. D. Ross and I. Kuntz. bibliog Am Chem Soc J 76:3000-5 Je 5 '54

Molecular compounds; the effect of substituents on the equilibrium constant for complex formation. S. D. Ross, M. Bassin and I. Kuntz. bibliog Am Chem Soc J 76:4176-9 Ag 20 '54

New molecular addition compounds of 2,4,7-trinitrofluorenone. D. E. Laskowski and W. C. McCrone. Anal Chem 26:1497-500 S '54

New type of metallic bonding in molecular complexes. R. E. Rundle. diag Am Chem Soc J 76:3101-2 Je 5 '54

Some intramolecular compounds; abstract. H. M. Powell. Chem & Ind p40-1 Ja 9 '54

MOLECULAR distillation. See Distillation

MOLECULAR dynamics

Molecular transport properties of fluids. E. F. Johnson. Ind & Eng Chem 45:902-7 bibliog (126 ref. p905-7); 46:889-93 bibliog(81 ref, p892-3) My '53, My '54

MOLECULAR orbitals

Bond orders in dibenzo[*cd,lm*]perylene. E. T. Stewart. Chem Soc J p 1643-4 My '54

Calculation of bond orders, resonance energies, and orbital energies by a simple perturbation method. M. J. S. Dewar and R. Pettit. Chem Soc J p 1617-24 My '54

Dipole moments, nuclear quadrupole coupling, and the bonding orbitals in group V; trihalides. P. Kisliuk. bibliog il J Chem Phys 22:86-92 Ja '54

Eigenfunctions of S^2 by a spin operator method. G. W. Pratt, jr. bibliog Phys R 92:278-88 O 15 '53

Electrical effect of the N-oxide group in pyridine 1-oxide. H. H. Jaffé. bibliog Am Chem Soc J 76:3527-31 Jl 5 '54

Electronic energy levels of molecular oxygen. A. Meckler. bibliog J Chem Phys 21:1750-62 O '53

F-center wave functions in alkali halides. D. L. Dexter. bibliog Phys R 93:244-5 Ja 1 '54

Fluorene analogues of triphenylmethane dyes; calculation of their light absorption by the molecular-orbital method. D. A. Brown and M. J. S. Dewar. Chem Soc J p2134-6 Je '54

Ground and excited electronic states and molecular vibrations of some polyatomic molecules. J. Duchesne and L. Burnelle. bibliog J Chem Phys 21:2005-8 N '53

Molecular-orbital theory of organic chemistry; the additivity of bond energies in unconjugated systems. M. J. S. Dewar and R. Pettit. Chem Soc J p 1625-34 My '54

Nuclear quadrupole coupling in the Li_2 molecule. R. M. Sternheimer and H. M. Foley. bibliog Phys R 92:1460-8 D 15 '53

Self-consistent orbitals for radicals. J. A. Pople and R. K. Nesbet. J Chem Phys 22:571-2 Mr '54

Studies in molecular orbital theory of valence; multiple bonds involving d-orbitals. H. H. Jaffé. bibliog diags J Phys Chem 58:185-90 F '54

Studies on localized orbitals. H. Winston. bibliog Phys R 94:328-36 Ap 15 '54

Theory of the hyperfine structure of NO molecule. M. Mizushima. bibliog diags Phys R 94:569-74 My 1 '54

Unified orbital treatment of ethylene. C. R. Mueller. bibliog J Chem Phys 22:120-2 Ja '54

Use of atomic term values in molecular wave functions. C. W. Scherr. J Chem Phys 22:149-50 Ja '54

MOLECULAR rearrangements

Alkaline rearrangement of α-haloketones; effect of changing the halogen. R. B. Loftfield and L. Schaad. bibliog Am Chem Soc J 76:35-7 Ja 5 '54

Anionotropic systems; the kinetics of the rearrangement of 3-hydroxy-3 : 5-dimethylhex-4-en-2-one; the effect of an acetyl group on anionotropic mobility. E. A. Braude and C. J. Timmons. Chem Soc J p3138-43 O '53

Anionotropic systems; the synthesis and rearrangement of 3-hydroxy-3 : 5-dimethylhex-4-en-2-one. E. A. Braude and C. J. Timmons. Chem Soc J p3131-8 O '53

Anthrasteroid rearrangement; the formation and proof of structure of anthraergostapentaene. W. R. Nes and E. Mosettig. bibliog Am Chem Soc J 76:3182-6 Je 20 '54

Anthrasteroid rearrangement; the structural proof of 1-methyl-2,3,5,6-tetracarboxybenzene. W. R. Nes and E. Mosettig. bibliog Am Chem Soc J 76:3186-8 Je 20 '54

Benzidine rearrangement; kinetics of the rearrangement of *m*-hydrazotoluene. R. B. Carlin and R. C. Odioso. bibliog Am Chem Soc J 76:2345-9 My 5 '54

Benzidine rearrangement; kinetics of the rearrangement of *o*-hydrazotoluene. R. B. Carlin and R. C. Odioso. bibliog Am Chem Soc J 76:100-4 Ja 5 '54

Catalyzed allylic rearrangement of a 1,1,1-trichloro-2-alkene to a 1,1,3-trichloro-1-alkene. D. G. Kundiger and H. N. Haney. Am Chem Soc J 76:615 Ja 20 '54

Claisen rearrangement; substituted allyl ethers in the *para* rearrangement. E. N. Marvell and others. bibliog Am Chem Soc J 76:1922-6 Ap 5 '54

Cleavage and rearrangement of ethers with bases; ethers of benzoin and ethyl mandelate. D. Y. Curtin and W. R. Proops. bibliog Am Chem Soc J 76:494-9 Ja 20 '54

Curtius rearrangement of α-bromodineopentylacetyl azide. H. D. Zook, M. Ream and E. W. Delchamps. Am Chem Soc J 75:5590-1 N 20 '53

D-homo rearrangement products of cortisone and Reichstein's substance S. V. Georgian and N. Kundu. Chem & Ind p431-2 Ap 10 '54

1 : 2-Dicarboxylic acids; positional isomerides derived from methylsuccinic acid; with a note on the rearrangement of unsymmetrical compounds of this type. J. E. H. Hancock and R. P. Linstead. Chem Soc J p3490-6 N '53

Dienone-phenol rearrangement in the benzo (c)phenanthrene series; a case of concurrent methyl and methylene migration. C. Djerassi and T. T. Grossnickle. bibliog Am Chem Soc J 76:1741-6 Ap 5 '54

Inert bicyclic vicinal dibromides; solvolysis, elimination and rearrangement studies. J. A. Berson and R. Swidler. bibliog Am Chem Soc J 76:4057-9 Ag 20 '54

Intramolecular rearrangement of isopropenyltrimethylsilane. L. H. Sommer and F. J. Evans. bibliog Am Chem Soc J 76:1186-7 F 20 '54

Kinetic study of the rearrangement of some benzoates of 9-decalyl hydroperoxide. P. D. Bartlett and J. L. Kice. bibliog Am Chem Soc J 75:5591-5 N 20 '53

Kinetics and mechanism of the pinacol rearrangement; the perchloric acid-catalyzed rearrangement of benzopinacol and of tetraphenylethylene oxide in acetic acid solution. H. J. Gebhart, jr. and K. H. Adams. bibliog Am Chem Soc J 76:3925-30 Ag 5 '54

Mechanism of the base-catalyzed rearrangement of organopolysiloxanes. D. T. Hurd, R. C. Osthoff and M. L. Corrin. bibliog Am Chem Soc J 76:249-52 Ja 5 '54

Mechanism of the *para*-Claisen rearrangement; evidence for a dienone-phenyl ether rearrangement. D. Y. Curtin and H. W. Johnson, jr. bibliog Am Chem Soc J 76:2276-7 Ap 20 '54

MOLECULAR rearrangements—*Continued*

Migration ratios in the rearrangement of 2-amino-1,1-diarylethanols. D. Y. Curtin and M. C. Crew. bibliog Am Chem Soc J 76:3719-22 Jl 20 '54

Molecular rearrangements; 4-hydroxy-1-methylisonipecotonitrile as an intermediate in the synthesis of substituted piperidines. R. E. Lyle and G. G. Lyle. bibliog Am Chem Soc J 76:3536-9 Jl 5 '54

Molecular rearrangements in organic chemistry; symposium abstracts. Chem & Eng N 32:1898-9 My 10 '54

Molecular rearrangements; the 1,2,2-triphenylethyl system. W. A. Bonner and C. J. Collins. bibliog Am Chem Soc J 75:5372-9 N 5 '53

Molecular rearrangements; the 1,1,2-triphenylethyl system. C. J. Collins and W. A. Bonner. bibliog Am Chem Soc J 75:5379-81 N 5 '53

Molecular rearrangements; the pinacol rearrangement of 1-hydroxy-1-cyclohexylmethylphenylcarbinol. G. G. Lyle, R. A. Covey and R. E. Lyle. bibliog Am Chem Soc J 76:2713-15 My 20 '54

Neighbouring groups in substitution and rearrangement; abstract. S. Winstein. Chem & Ind p562-3 My 15 '54

New intramolecular rearrangements of α-chloroalkylsilicon compounds. L. H. Sommer and others. Am Chem Soc J 76:801-3 F 5 '54

Nitrogen systems; carbamyl migrations. F. L. Scott. bibliog(37 ref) Chem & Ind p959-60 Jl 31 '54

Novel rearrangement in the synthesis of azulenes. W. Herz. Am Chem Soc J 76:3349-50 Je 20 '54

Novel rearrangement of hydroxamic acids using sulfonyl chlorides. C. D. Hurd and L. Bauer. bibliog Am Chem Soc J 76:2791-2 My 20 '54

Ortho substitution rearrangement versus β-elimination of certain quaternary ammonium ions with sodium amide; extension of the method of synthesis of vicinal alkyl aromatic derivatives. C. R. Hauser and A. J. Weinheimer. bibliog Am Chem Soc J 76:1264-7 Mr 5 '54

para-Claisen rearrangement; the preparation and rearrangement of the α- and γ-ethylallyl ethers of methyl *o*-cresotinate; a reinvestigation. S. J. Rhoads, R. Raulins and R. D. Reynolds. bibliog Am Chem Soc J 76:3456-63 Jl 5 '54

Pinacol rearrangement in the heterocyclic series; numerical migratory aptitudes. M. R. Kegelman and E. V. Brown. bibliog Am Chem Soc J 76:2711-13 My 20 '54

Pinacol rearrangement in the heterocyclic series; pyridine analogs of benzopinacol. M. R. Kegelman and E. V. Brown. bibliog Am Chem Soc J 75:4649-51 O 5 '53

Pinacol rearrangement in the heterocyclic series; thiophene and furan analogs of benzopinacol. M. R. Kegelman and E. V. Brown. bibliog Am Chem Soc J 75:5961-3 D 5 '53

Pinacol rearrangement of *cis*- and *trans*-1,2-di-*o*-tolyl- and di-*p*-tolylacenaphthenediols-1,2. R. F. Brown. bibliog Am Chem Soc J 76:1279-80 Mr 5 '54

Pinacol rearrangement of some α,β-acetylenic glycols. R. B. Davis and W. F. Erman. bibliog Am Chem Soc J 76:3477-8 Jl 5 '54

Propargylic rearrangement; 1-bromoheneicosyne-2 and its reaction with lithium aluminum hydride. O. R. Sammul, C. A. Hollingsworth and J. H. Wotiz. bibliog Am Chem Soc J 75:4856-7 O 5 '53

Purpurogallin; some further rearrangement reactions of the tropolones. P. Akroyd, R. D. Haworth and P. R. Jefferies. Chem Soc J p286-94 Ja '54

Rearrangement in the demethylation of 2'-methoxyflavones. K. M. Gallagher and others. Chem Soc J p3770-7 D '53

Rearrangement in the reaction of C^{14}-labeled *n*-propylamine (1-aminopropane-1-C^{14}) with nitrous acid. J. D. Roberts and M. Halmann. Am Chem Soc J 75:5759-60 N 20 '53

Rearrangement of acetylated and benzoylated β-glucosides catalyzed by titanium tetrachloride. R. E. Reeves and L. W. Mazzeno, jr. bibliog Am Chem Soc J 76:2219-21 Ap 20 '54

Rearrangement of 2-aminobicyclo[2.2.2.]octene-5 with nitrous acid. W. C. Wildman and D. R. Saunders. Am Chem Soc J 76:946-7 F 5 '54

Rearrangement of α-aminoketones during Clemmensen reduction; the reduction of atom-bridged bicyclic α-aminoketones. N. J. Leonard, J. W. Curry and J. J. Sagura. bibliog Am Chem Soc J 75:6249-52 D 20 '53

Rearrangement of α-bromo-ketones. A. C. B. Smith and others. bibliog Chem & Ind p309-10 Mr 13 '54

Rearrangement of α,β-epoxy ketones; chalcone oxides. H. O. House. bibliog Am Chem Soc J 76:1235-7 Mr 5 '54

Rearrangement of hydrazones and semicarbazones. D. E. Pearson, K. N. Carter and C. M. Greer. bibliog Am Chem Soc J 75:5905-8 D 5 '53

Rearrangement of N-phenylbenzimidoyl γ,γ-dimethylallyl ether. W. M. Lauer and R. G. Lockwood. bibliog Am Chem Soc J 76:3974-6 Ag 5 '54

Rearrangement of some dibromopropyl esters. W. G. H. Edwards and R. Hodges. Chem Soc J p3427-9 N '53

Rearrangement of some *N*-substituted hydrazobenzenes. G. R. Clemo and T. B. Lee. Chem Soc J p2417-19 Jl '54

Rearrangement of the steroid C/D rings. R. Hirschmann and others. bibliog Am Chem Soc J 76:4013-25 Ag 5 '54

Rearrangement of *trans*-9-decalyl perbenzoate and per-*p*-nitrobenzoate in methanol and aqueous methanol. H. L. Goering and A. C. Olson. bibliog Am Chem Soc J 75:5853-9 D 5 '53

Rearrangements in the pinane series. O. H. Wheeler. bibliog Chem & Ind p 1020-1 Ag 14 '54

Rearrangements of N-oxides; a novel synthesis of pyridyl carbinols and aldehydes. V. Boekelheide and W. J. Linn. bibliog Am Chem Soc J 76:1286-91 Mr 5 '54

Reported rearrangement of 2,4,7-tribromotropone to 3,5-dibromobenzamide. W. V. Doering and A. A. Sayigh. bibliog Am Chem Soc J 76:39-41 Ja 5 '54

Saturated electrophilic rearrangements. C. W. Shoppee. bibliog Chem & Ind p759-60 Je 26 '54

Stereochemistry of aromatic alkylations; the thermal rearrangement of alkyl aryl ethers. H. Hart and H. S. Eleuterio. bibliog Am Chem Soc J 76:519-22 Ja 20 '54

Steric control of asymmetric induction in the *ortho*-Claisen rearrangement. H. Hart. Am Chem Soc J 76:4033-4 Ag 5 '54

Strain effects in the rearrangement of natural products. O. H. Wheeler. bibliog Chem & Ind p900-1 Jl 17 '54

Studies on the chemistry of heterocyclics; investigations on the prototropic rearrangement of γ-hydroxyacetylenic esters and acids in the thiophene series. A. Vaitiekunas and F. F. Nord. bibliog Am Chem Soc J 76:2737-40 My 20 '54

Synthesis and prototropic rearrangement of 4-hydroxyhept-5-en-3-one. E. A. Braude and C. J. Timmons. Chem Soc J p3144-8 O '53

Synthesis of oxindole-3-propionic acid by ring rearrangement. H. A. Lloyd and E. C. Horning. Am Chem Soc J 76:3651-3 Jl 20 '54

Transannular reactions and transannular cyclisations; abstract. V. Prelog. bibliog Chem & Ind p570-1 My 15 '54

See also

Wagner-Meerwein rearrangement

MOLECULAR refraction. See Refraction, Molecular

MOLECULAR still. See Distillation apparatus

MOLECULAR volume

See also

Parachors

MOLECULAR weights

Apparatus for the determination of molecular weights by light scattering. L. Harvey and D. Cleverdon. bibliog diags J Sci Instr 31:274-9 Ag '54

MOLECULAR weights—*Continued*

Combustion facts; easy mol system. P. Swain. Power 98:144 Jl '54

Lattice parameters, expansion coefficients, and atomic and molecular weights; X-ray techniques for precision determination. M. E. Straumanis. bibliog(36 ref) il diags Anal Chem 25:700-4 My '53

Methods for the determination of cellulose chain-length distribution. G. Broughton. bibliog(67 ref) Tappi 37:61-5 F '54

Molecular structure of polyethylene; kinetic calculations of the effect of branching on molecular weight distribution. J. K. Beasley. bibliog Am Chem Soc J 75:6123-7 D 20 '53

Molecular structure of polyethylene; the effect of chain branching and molecular weight on physical properties. C. A. Sperati, W. A. Franta and H. W. Starkweather, jr. bibliog Am Chem Soc J 75: 6127-33 D 20 '53

Molecular weight and methanolysis of fumagillin. C. J. Brown and J. K. Landquist. bibliog Chem & Ind p973 S 12 '53

Molecular weight apparatus for use in general chemistry. D. L. Randall. diag J Chem Educ 31:297 Je '54

Molecular weight of α-cellulose from jute and allied long fibers. H. Chatterjee and others. bibliog(53 ref) Textile Res J 24: 43-52 Ja '54

Properties of irradiated polyethylene. E. J. Lawton, J. S. Balwit and A. M. Bueche. bibliog Ind & Eng Chem 46:1703-9 Ag '54

Symposium on molecular weights of cellulose. bibliog diags Ind & Eng Chem 45:2482-537 N '53 (reprints 75c)

Ultracentrifugal determination of molecular weights of small molecules by the Archibald procedure. R. A. Brown, D. Kritchevsky and M. Davies. bibliog Am Chem Soc J 76: 3342-4 Je 20 '54

Use of thermistors in precise measurement of small temperature differences; thermometric determination of molecular weights. R. H. Müller and H. J. Stolten. bibliog diags Anal Chem 25:1103-6 Jl '53

MOLECULES

Absorption line width in the infrared spectrum of the ammonia molecule. A. Adel. Opt Soc Am J 43:1053 N '53

Approximate emissivity calculations for polyatomic molecules; CO_2. S. S. Penner. bibliog J Ap Phys 25:660-7 My '54

Classification and assignments of ultraviolet spectra of conjugated organic molecules. J. R. Platt. bibliog diags Opt Soc Am J 43: 252-7 Ap '53

Electronic states of diatomic molecules; the oxygen molecule. F. G. Fumi and R. G. Parr. bibliog J Chem Phys 21:1864-8 O '53

Energy exchange in molecular collisions. B. Widom and S. H. Bauer. bibliog J Chem Phys 21:1670-85 O '53

Exchange between rotational and translational energy in gas molecules. J. C. Beckerle. bibliog J Chem Phys 21:2034-41 N '53

Influence of molecular structure on the oxidation of aliphatic hydrocarbons. N. J. H. Small and A. R. Ubbelohde. bibliog(26 ref) J Ap Chem 3:193-8 My '53

Kekulé's theory of aromaticity. A. Gero. J Chem Educ 31:201-2 Ap '54

Maxima in the potential energy-distance functions of diatomic molecules. R. F. Barrow. J Chem Phys 22:573 Mr '54

Method for obtaining streaming orientation and simultaneous determination of dielectric properties in macromolecular solutions. B. Jacobson. bibliog il diags R Sci Instr 24: 949-54 O '53

Molecular field treatment of magnetic ordering transitions. E. W. Elcock. Phys R 94: 1070-1 My 15 '54

Molecular polarisability; its anisotropy in aliphatic and aromatic structures. C. G. Le Fèvre and R. J. W. Le Fèvre. Chem Soc J p 1577-88 My '54

Molecular size limitation? X-ray diffraction work; abstract. A. L. Patterson. Chem & Eng N 32:3849 S 27 '54

Molecular structure and spectroscopy; symposium abstracts. Chem & Eng N 32:2577+ Je 28 '54

Molecular structure and the crystallinity of long-chain polymers. C. W. Bunn. bibliog J Ap Phys 25:820-5 Jl '54

Molecular structure of the sydnones. J. C. Earl. Chem & Ind p746 Jl 18 '53

New ideas in chemistry. J. Lennard-Jones. diags Chem Age (Lond) 71:519-24+, 569-72+ S 11-18 '54; Same. Chem & Ind p 1156-63 S 18 '54

Nitrogen molecule calculation. M. Wolfsberg. bibliog J Chem Phys 21:2166-9 D '53

Nuclear quadrupole coupling in polar molecules. H. M. Foley and others. bibliog Phys R 93:734-42 F 15 '54

Possible existence of a reduced potential energy function for diatomic molecules. A. A. Frost and B. Musulin. bibliog Am Chem Soc J 76:2045-8 Ap 20 '54

Pressure broadening of linear molecules. H. Feeny and others. bibliog il diags J Chem Phys 22:79-83 Ja '54

Problem on the energies of molecules. E. J. Slowinski, jr. J Chem Educ 30:579-80 N '53

Quantum mechanics of collisions between diatomic molecules. C. F. Curtiss. J Chem Phys 21:2045-50 N '53

Relation of molecular structure to detergency of some alkylbenzene sulfonates. F. N. Baumgartner. bibliog Ind & Eng Chem 46: 1349-52 Je '54

Relaxation, viscosity, and shape; abstract. C. P. Smyth. Chem & Eng N 32:1564 Ap 19 '54

Significance of molecular structure to biology. L. Pauling. Can Chem Process 38:72+ Jl '54

Solution to a problem on the energies of molecules. E. J. Slowinski, jr. J Chem Educ 31:191 Ap '54

Some applications of the separation of large molecules and colloidal particles. A. Tiselius. bibliog diags Chem Soc J p2650-7 Jl '54

Some ions of high kinetic energy in mass spectra of polyatomic molecules. F. L. Mohler and others. bibliog J Chem Phys 22: 394-7 Mr '54

Structural relations of natural products; abstract. R. Robinson. Chem & Ind p 1006 S 26 '53

Structure investigations through dielectric measurements. C. P. Smyth. Chem & Eng N 32:1208-9 Mr 29 '54

Symposium on macromolecules; International congress of pure and applied chemistry. Chem & Eng N 31:3548-50 Ag 31 '53

Theory of intermolecular potential and second virial coefficient of hydrogen at low temperature. M. Mizushima and others. bibliog J Chem Phys 21:2107-14 D '53

Vibrational energy level splitting and optical isomerism in pyramidal molecules of the type XY_3. R. E. Weston, jr. bibliog diags Am Chem Soc J 76:2645-8 My 20 '54

X-ray structure determinations. L. L. Merritt, jr. bibliog diags Anal Chem 25:718-21 My '53

See also

Atoms
Avogadro number
Chemical bonds
Isomerism
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Molecular rearrangements
Molecular weights
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Stereochemistry

Models

Magnetic model of polyelectrolyte interaction. B. E. Conway. bibliog il diag J Chem Educ 31:477-80 S '54

Molecular models for lecture demonstrations in organic chemistry. F. L. Lambert. il J Chem Educ 30:503-7 O '53

Molecular models of amino acids, peptides, and proteins. R. B. Corey and L. Pauling. il diags R Sci Instr 24:621-7 Ag '53

Rotation

Application of Hudson's lactone rule to the molecular rotations of polycyclic compounds. W. Klyne. bibliog Chem & Ind p 1198-9 S 25 '54

Centrifugal distortion in asymmetric top molecules; H_2O, D_2O, and HDO. D. W. Posener and M. W. P. Strandberg. bibliog Phys R 95:374-84 Jl 15 '54; Correction. 96:1714 D 15 '54

MOLECULES—Rotation—*Continued*

Correlation of entropies of transition and fusion. G. C. Hood. Am Chem Soc J 75:6315-16 D 20 '53

Empirical quantitative relationship between structure and molecular rotary power. T. R. Thomson. diags Am Chem Soc J 75:6070-2 D 5 '53

Hindered molecular rotation in liquid crystals. R. D. Spence and others. J Chem Phys 21:1891 O '53

Interchange of rotational and vibrational energy in collisions of diatomic molecules. E. H. Kerner. Phys R 92:899-900 N 15 '53

Internal rotation in sulfur monochloride. N. W. Luft and K. H. Todhunter. bibliog J Chem Phys 21:2225-6 D '53

Molecular rotations in the series of longifolene and β-santalene. G. Ourisson. bibliog Chem & Ind p918-19 Ag 29 '53

Molecular rotations of polycyclic compounds; diterpenoids and sesquiterpenoids. W. Klyne. Chem Soc J p3072-81 O '53

Molecular rotations of polycyclic compounds; polycyclic alcohols and their derivatives. W. Klyne and W. M. Stokes. Chem Soc J p 1979-88 Je '54

Rotation-vibration spectra of diatomic and simple polyatomic molecules with long absorbing paths; spectrum of carbon dioxide (CO_2) below 1.25μ. G. Herzberg and L. Herzberg. bibliog il Opt Soc Am J 43:1037-44 N '53

Rotational spectra of regular and deuterated phosphine and arsine in the region between 50 and 200 K. R. E. Stroup and others. bibliog Opt Soc Am J 43:1096-9 N '53

Spectrum of nitrogen dioxide in the 1.4-3.4μ region and the vibrational and rotational constants of the NO_2 molecule. G. E. Moore. bibliog Opt Soc Am J 43:1045-50 N '53

Vibration

Ground and excited electronic states and molecular vibrations of some polyatomic molecules. J. Duchesne and L. Burnelle. bibliog J Chem Phys 21:2005-8 N '53

Interchange of rotational and vibrational energy in collisions of diatomic molecules. E. H. Kerner. Phys R 92:899-900 N 15 '53

Mean amplitudes of thermal vibrations in polyatomic molecules; an approximate method for calculating mean square amplitudes. Y. Morino and others. bibliog J Chem Phys 21:1927-33 N '53

Rotation-vibration spectra of diatomic and simple polyatomic molecules with long absorbing paths; spectrum of carbon dioxide (CO_2) below 1.25μ. G. Herzberg and L. Herzberg. bibliog il Opt Soc Am J 43:1037-44 N '53

Spectrum of nitrogen dioxide in the 1.4-3.4μ region and the vibrational and rotational constants of the NO_2 molecule. G. E. Moore. bibliog Opt Soc Am J 43:1045-50 N '53

Sum rule for the vibrational frequencies of homologs. H. J. Bernstein and A. D. E. Pullin. bibliog J Chem Phys 21:2188-95 D '53

MOLLUSKS, Fossil

Molluscan faunules in Wisconsinan loess at Cleveland, Ohio. A. B. Leonard. bibliog Am J Sci 251:369-76, pl 1 My '53

MOLTEN iron. See Iron, Molten

MOLTEN metals. See Metals, Molten

MOLTEN salts. See Salts, Molten

MOLTEN steel. See Steel, Molten

MOLYBDATES

Evaluating molybdate pigments as corrosion inhibitors. D. H. Killeffer. bibliog Paint Oil & Chem R 117:24-5 Ap 8 '54

Use of molybdates for estimating amount of olefinic-type hydrocarbons in air. R. D. MacPhee. bibliog il Anal Chem 26:221-5 Ja '54

See also

Sodium molybdate

MOLYBDENUM

Adsorption studies on metals; absolute entropies of adsorbed molecules on molybdenum. J. J. Chessick, F. H. Healey and A. C. Zettlemoyer. bibliog J Phys Chem 57:912-15 D '53

Adsorption studies on metals; the sorption of water vapor on nickel, steel and molybdenum. A. C. Zettlemoyer and J. J. Chessick. bibliog J Phys Chem 58:242-5 Mr '54

Arc welded molybdenum apparatus for high temperature research. J. W. Tomlinson and others. diags J Sci Instr 31:107-8 Mr '54

Bending of molybdenum single crystals. K. T. Aust and others. bibliog il J Metals 5:Trans 1477-82 N '53

Effect of nickel and molybdenum on stabilization of the austenite-martensite transformation. D. J. Blickwede. bibliog J Metals 5:Trans 922-3 Jl '53

Effective heat treatment of molybdenum. T. G. Perry and others. il Metal Prog 65:75-7 F '54

Effects of oxygen on molybdenum. R. E. Maringer and A. D. Schwope. il J Metals 6:Trans 365-6 Mr '54

Effects of temperature on the flow and fracture characteristics of molybdenum. J. H. Bechtold. bibliog il diag J Metals 5:Trans 1469-75 N '53

Efficient Geiger counter for use with molybdenum Kα X-rays. G. K. Williamson and R. E. Smallman. diag J Sci Instr 30:486 D '53

High purity metals. D. J. Maykuth. Product Eng 24:188 N '53

Interactions of high-energy neutrons in molybdenum. E. G. Silver and R. W. Waniek. Phys R 95:586-7 Jl 15 '54

Internal friction of molybdenum during tensile deformation. R. E. Maringer. J Ap Phys 24:1525 D '53

Investigation of the systems formed by chromium, molybdenum, and nickel. D. S. Bloom and N. J. Grant. bibliog il J Metals 6:Trans 261-8 sec 2 F '54

Magnetic evidence of monomer-dimer equilibrium of molybdenum(V) ions in hydrochloric solution. L. Sacconi and R. Cini. bibliog Am Chem Soc J 76:4239-40 Ag 20 '54

Materials of construction for chemical engineering; less common metals. W. R. Bekebrede and L. F. Yntema. il Ind & Eng Chem 45:2261-9 bibliog(216 ref, p2268-9) O '53

Molybdenum bearing granite and granodiorite, Rautio, Finland. V. Marmo and L. Hyvarinen. bibliog il diags Econ Geol 48:704-14 D '53

Molybdenum-boron system. P. W. Gilles and B. D. Pollock. J Metals 5:Trans 1537-9 sec 2 N '53

Molybdenum, 1953. R. W. Geehan. Eng & Min J 155:98-9 F '54

Molybdenum output soars. Steel 133:86 Jl 13 '53

Molybdenum products, concentrates; tabulations. Steel 134:179 Ja 4 '54

Molybdenum-wound electric furnaces; calculation of winding dimensions. A. B. Ashton. Metallurgia 49:191-4 Ap '54

New North American titleholder; Climax molybdenum co. il Chem W 74:21 F 6 '54

Plasticity of molybdenum single crystals at high temperatures. R. Maddin and N. K. Chen. il diag J Metals 6:Trans 280-4 sec 2 F '54

Role of molybdenum and flavin in hydrogenase. A. L. Shug and others. Am Chem Soc J 76:3355-6 Je 20 '54

Separation of technetium from molybdenum, cobalt and silver. N. F. Hall and D. H. Johns. Am Chem Soc J 75:5787-91 D 5 '53

State of Mo(VI) in acid solutions. M. M. Jones. bibliog Am Chem Soc J 76:4233-4 Ag 20 '54

Storke level operation makes Climax North America's biggest underground mine. E. J. Eisenach and E. Matsen. il plans diag Min Eng 6:273-8 Mr '54

Analysis

Analytical chemistry of W and Mo. bibliog Chem Age (Lond) 70:267-74, 309-12 Ja 23-30 '54

Colorimetric determination of molybdenum with mercaptoacetic acid. F. Will, 3d and J. H. Yoe. bibliog Anal Chem 25:1363-6 S '53

Determination of molybdenum in plant tissue. C. M. Johnson and T. H. Arkley. Anal Chem 26:572-4 Mr '54

MOLYBDENUM—Analysis—*Continued*

Methods for analysis of titanium alloys; determination of molybdenum in molybdenum-titanium alloys by precipitation as the sulfide. G. Norwitz and M. Codell. bibliog Anal Chem 25:1438-41 O '53

Methods for analysis of titanium alloys; polarographic determination of molybdenum in titanium alloys. M. Codell, J. J. Mikula and G. Norwitz. bibliog Anal Chem 25:1441-3 O '53

Polarographic determination of molybdenum in presence of tungsten. L. Meites. Anal Chem 25:1752-3 N '53

Polarographic determination of molybdenum; tartaric acid as supporting electrolyte. E. P. Parry and M. G. Yakubik. bibliog Anal Chem 26:1294-7 Ag '54

Reduction by aluminum powder in aqueous solution titrimetric determination of molybdenum. E. R. Riegel and R. D. Schwartz. bibliog Anal Chem 26:410-11 F '54

Spectrographic analysis of 18-8 stainless steel for cobalt, manganese, and stabilizing elements. N. E. Gordon, jr., R. M. Jacobs and M. C. Rickel. diags Anal Chem 25:1031-4 Jl '53

Thiocyanate spectrophotometric determination of molybdenum and tungsten. C. E. Crouthamel and C. E. Johnson. bibliog diags Anal Chem 26:1284-91 Ag '54

Isotopes

Mo *K* and U *L* X-ray transitions from separated isotopes. G. L. Rogosa and G. Schwarz. bibliog diag Phys R 92:1434-7 D 15 '53

Nuclear reactions

Disintegration of Mo^{99}. J. Varma and C. E. Mandeville. bibliog diag Phys R 94:91-4 Ap 1 '54

Gamma-gamma directional correlation experiments with Mo^{93m}. J. J. Kraushaar. bibliog Phys R 92:318-20 O 15 '53

Welding

Some recent advances in the welding of molybdenum. W. H. Kearns and others. bibliog il diags Welding J 32:1082-8 N '53

MOLYBDENUM, Clad

Cladding of molybdenum for service in air at elevated temperature. W. L. Bruckart and R. I. Jaffee. bibliog il diag Am Soc for Metals Trans 44:176-98; Discussion. 198-203 '52

MOLYBDENUM alloys

Formation of sigma phase in the Mn-Mo system. B. F. Decker and others. J Metals 5: Trans 1476 N '53

Molybdenum-rhenium alloy. C. J. McHargue and H. W. Maynor, jr. il J Metals 5:Trans 1382 O '53

System titanium-chromium-molybdenum. R. P. Elliott and others. bibliog J Metals 5: Trans 1544-8 sec 2 N '53

System titanium-manganese-molybdenum. R. P. Elliott and others. bibliog J Metals 6: Trans 228-32 sec 2 F '54

See also

Iron alloys—Molybdenum alloys

MOLYBDENUM blue

Colorimetric determination of niobium by molybdenum blue method. G. Norwitz and M. Codell. Anal Chem 26:1230-4 Jl '54

Spectrophotometric determination of sodium hypophosphite as a molybdenum blue complex. A. P. Scanzillo. bibliog Anal Chem 26:411-12 F '54

MOLYBDENUM boride

Borides designed for high temperature use. P. Schwarzkopf and F. W. Glaser. il Iron Age 173:138-9 Ap 1 '54

MOLYBDENUM chlorides

Electrolytic preparation of molybdenum from fused salts; preparation of reduced molybdenum halides. S. Senderoff and A. Brenner. bibliog Electrochem Soc J 101: 28-30 Ja '54

MOLYBDENUM coating

Coating takes on life saving role. il Steel 133:90 S 28 '53

Molybdenum coatings expand uses of metallizing. A. P. Shepard. il Iron Age 173: 105-7 Jl 1 '54

MOLYBDENUM compounds

Cyclopentadienyl compounds of chromium, molybdenum and tungsten. G. Wilkinson. bibliog Am Chem Soc J 76:209-11 Ja 5 '54

Preparation and properties of molybdenum-germanium compounds. A. W. Searcy and R. J. Peavler. bibliog Am Chem Soc J 75: 5657-9 N 20 '53

MOLYBDENUM dioxide. See Molybdenum oxides

MOLYBDENUM disulfide

Discontinuities in the adsorption isotherm of *n*-heptane on molybdenum disulfide. E. V. Ballou. Am Chem Soc J 76:1199-200 F 20 '54

MOLYBDENUM metallurgy

Electrometallurgy

Electrolytic preparation of molybdenum from fused salts. S. Senderoff and A. Brenner. bibliog il diags Electrochem Soc J 101: 16-38 Ja '54

Molybdenum; high purity metal prepared electrolytically by NBS. il Iron Age 173:166-9 F 18 '54; Excerpts. Blast F & Steel Pl 42:352 Mr '54; Mach 60:213 Mr '54 Steel 134:146-7 Mr 1 '54; Abstract. Chem & Eng N 32:720 F 22 '54

NBS electrodeposits pure molybdenum. il diags Materials & Methods 39:236+ Mr '54

MOLYBDENUM oxides

Thermodynamic properties of molybdenum dioxide. N. A. Gokcen. bibliog diag J Metals 5:Trans 1019-20 Ag '53

MOLYBDENUM steel

Carbon molybdenum steels; physical, mechanical and fabricating properties; engineering file facts. Materials & Methods 38:143 D '53

Molybdenum stainless steels. il Chem Eng 60:302+ Je '53

MOLYBDENUM sulfides

Adsorption of benzene and water vapor by molybdenum disulfide. E. V. Ballou and S. Ross. bibliog J Phys Chem 57:653-7 O '53

Methods for analysis of titanium alloys; determination of molybdenum in molybdenum-titanium alloys by precipitation as the sulfide. G. Norwitz and M. Codell. bibliog Anal Chem 25:1438-41 O '53

Molybdenum sulfide simplifies extreme pressure lubrication problems. A. Sonntag. bibliog Iron Age 173:138-40 My 20 '54

Rhenium sulfides as liquid-phase hydrogenation catalysts; a comparison with molybdenum sulfide and cobalt polysulfide. H. S. Broadbent, L. H. Slaugh and N. L. Jarvis. bibliog Am Chem Soc J 76:1519-23 Mr 20 '54

MOLYBDENUM thiocyanate

Spectrum

Ultraviolet absorption spectrum of molybdenum thiocyanate complex. G. E. Markle and D. F. Boltz. bibliog Anal Chem 25: 1261-2 Ag '53

MOLYBDIC acids

Reaction of low molecular weight silicic acids with molybdic acid. G. B. Alexander. bibliog Am Chem Soc J 75:5655-7 N 20 '53

MOLYBDOPHOSPHORIC acid. See Phosphomolybdic acid

MOMENTS of inertia

Graphical construction for the deflection of structural members of variable moment of inertia. A. Hoadley. diags Am Soc C E Proc 79 [no 256]:1-13 Ag '53

Moment of inertia computations simplified for irregular sections. W. D. Bigler. diag Eng N 152:54-5 Ja 14 '54

MONARCH manufacturing company

Ammo that barks but doesn't bite; Monarch mfg. co. turning out simulated ammunition. il Bsns W p 126-7+ N 28 '53

MONASTERIES

Architectural jigsaw puzzle; Monastery of St Bernard of Sacramenia. J. Bondurant. il Comp Air Mag 59:216-20 Ag '54

Benedictine monastery by Marcel Breuer; St John's Abbey in Collegeville, Minn. il plans diags Arch Forum 101:148-55 Jl '54

MONAZITE

Monazite deposits of the southeastern Atlantic states. J. B. Mertie, jr. Econ Geol 48: 330 Je '53

MONAZITE—*Continued*

Monazite sands are spurring Idaho dredging operations. il Min Eng 6:267 Mr '54

Nuclear engineering materials, fuels; thorium and rare earths from monazite. A. E. Bearse and others. flow sheet il Chem Eng Prog 50:235-9 My '54

Analysis

Precipitation of iodates from homogeneous solution. C. R. Stine and L. Gordon. bibliog il Anal Chem 25:1519-22 O '53

MOND, Ludwig

Great historical moment recorded. il Chem Age (Lond) 69:119 Jl 18 '53; Engineering 176:87 Jl 17 '53; Metallurgia 48:92 Ag '53

MONEL metal

Recommended conditions for seam-welding monel sheet; data sheet. Mach 60:257 D '53

MONETARY unions

See also

European payments union

MONEY

See also

Banks and banking
Capital
Credit
Finance
Foreign exchange
Gold as money
Inflation (finance)
Investments
Prices
Silver as money

International aspects

Advice on convertibility. Economist 168:554 Ag 29 '53

British Commonwealth and sterling convertibility. P. Einzig. Comm & Fin Chr 178:1445 O 15 '53

Currency convertibility and the gold standard. F. G. Shull. Comm & Fin Chr 178:1126 S 24 '53

European payments union and convertibility. Economist 168:717-18 S 12 '53

Foreign economic policy commission says dollar problem can be solved. Comm & Fin Chr 179:458 Ja 28 '54

Foreign gold and dollar holdings growing. Nat City Bank p91-5 Ag '53

Greater trade between United States, United Kingdom, and rest of sterling area possible; Lewis W. Douglas report. Chem & Eng N 31:3600+ S 7 '53

Hemisphere currency. Bsns W p 170 S '53

International gold and dollar movement. M. A. Kriz. Commo & Fin Chr 178:1932-3+ N 19 '53

International monetary fund envisages convertibility; 8th annual report. Comm & Fin Chr 178:1030 S 17 '53

Labyrinth of 2800 clearing currencies. F. Pick. Comm & Fin Chr 178:2540-1 D 24 '53

Limited currency convertibility will not work! F. Collin. Comm & Fin Chr 178:1542 O 22 '53

Monetary standard can be maintained on a national basis. J. M. Hornor. Comm & Fin Chr 178:539+ Ag 13 '53

Pound sterling at the crossroads. V. L. Horoth. map Mag of Wall St 93:559-60+ F 6 '54

Red gold to the rescue. Economist 170:113 Ja 9 '54

Report on causes of and remedy for dollar shortage; text. L. W. Douglas. Comm & Fin Chr 178:922-3 S 10 '53

South Africa and sterling. Economist 169:261-3 O 24 '53

Sterling area's gold, dollar reserves down. For Comm W 51:5 F 1 '54

$3 billion increase in foreign gold and dollar assets. V. L. Horoth. Mag of Wall St 92:655-6+ S 5 '53

U.S. trade and sterling convertibility; comment on Douglas report. P. Einzig. Comm & Fin Chr 178:923 S 10 '53

See also

Foreign exchange

Europe

Europe's flexible money. Economist 169:533-4+ N 14 '53

Prices and money supply in western Europe. Economist 168:540 Ag 22 '53

Germany

German comeback. J. Joesten. Barron's 33:3 Ag 24 '53

Well on the road; Germany on the road to full convertibility. Chem W 74:13 Je 5 '54

Great Britain

Morality of money. Economist 169:941-2 D 26 '53

United States

American monetary policies and their impact on world. P. Cortney. Comm & Fin Chr 178:1717+ N 5 '53

Bank credit and money in 1953. Fed Res Bul 40:119-24 F '54

Economics and the engineer; prevalent monetary fallacies should be corrected. P. M. McKenna. Comm & Fin Chr 178:2149+ D 3 '53

Educational campaign to restore the dollar; responsibility of bankers. O. W. Adams. Comm & Fin Chr 178:2543+ D 24 '53

Honest money, stable price level and healthy economy. W. E. Spahr. Comm & Fin Chr 178:1929+ N 19 '53

Humphrey's honest dollar, a reprieve from evils of cheap money. R. A. Erickson. Comm & Fin Chr 178:1943+ N 19 '53

Monetary policy. W. W. Riefler. J Bsns 27:235-42 Jl '54

Money for growth; FRB plans to make sure U.S. will have money. Eng N 151:70 D 17 '53

Money for still more growth. Bsns W p29-30 D 12 '53

Relation of currency supply to economic growth. W. E. Spahr. Comm & Fin Chr 179:253+ Ja 21 '54

Shrinkage of the dollar. M. G. Roebling. Comm & Fin Chr 178:916+ S 10 '53

United States money in circulation, by denominations, 1939-1951 and monthly Nov. 1952-Nov. 1953. Fed Res Bul 40:45 Ja '54 [cont monthly]

What about the gold standard! R. T. Patterson. Comm & Fin Chr 178:621+ Ag 20 '53

MONEY and securities insurance. See Insurance, Money and securities

MONEY market

Cuts in foreign discount rates. Nat City Bank p 113-15 O '53

Government and municipal bond market. L. M. Piser. Comm & Fin Chr 178:1225+ O 1 '53

Interest rates and outlook for high grade bonds. R. F. Murray. Comm & Fin Chr 178:2037+ N 26 '53

Money market changes appraised. S. C. Badger. East Underw 55:5 O 15 '54

Money market prospects. G. W. Woodworth. Comm & Fin Chr 178:535+ Ag 13 '53

Prospects for interest rates and money market in 1954. R. L. Reierson. Comm & Fin Chr 178:2265 D 10 '53

What is needed to make low money rates work. H. Nicholson. Mag of Wall St 93:482-3+ Ja 23 '54

See also

Interest

MONEY orders

Selling customers on a new money order service; register checks; Security-First national bank of Los Angeles. L. E. Friese. il Burroughs Clearing House 38:34-5+ D '53

See also

Postal service—Money orders

MONEY raising campaigns

Charity drives, one company's approach. R. Newcomb and M. Sammons. Management R 42:580-1 O '53

Off-stage role wins plaudits when labor unions take initiative in charitable enterprises. il Chem W 74:14-15 My 8 '54

Spotting phony charity appeals; abstract. Management R 43:141-2 Mr '54

MONNET plan. See France—Industries and resources

MONOCHROMATORS

Bent crystal monochromators. C. B. Walker. R Sci Instr 25:301 Mr '54

Design of a ratio-recording spectrophotometer with double-pass monochromator. S. F. D. Orr. diag Opt Soc Am J 43:709-10 Ag '53

Double-beam double-pass infrared spectrometer. A. R. H. Cole. Opt Soc Am J 43:807-8 S '53

MONOCHROMATORS—*Continued*

Experimental performance of curved slits. W. G. Fastie. diags Opt Soc Am J 43:1174-5 D '53

Monochromatic camera for photography in the far ultraviolet. W. E. Behring and others. bibliog il diags Opt Soc Am J 44: 229-31 Mr '54

Monochromatic X-rays for single crystal diffuse scattering. B. E. Warren. bibliog diags J Ap Phys 25:814-15 Je '54

Monochromator system with constant energy output in the 0·7-7μ spectral region. D. G. Avery and P. H. Hammond. diag J Sci Instr 30:400-1 N '53

Multiple monochromators; triple monochromator and its application to near infrared, visible, and ultraviolet spectroscopy. A. Walsh and J. B. Willis. bibliog Opt Soc Am J 43:989-92 N '53

Procedure for aligning an infrared monochromator with an off-side concave mirror collimator. E. Kendrick and R. Schnurmann. diag Opt Soc Am J 44:501-2 Je '54

Slit-width effects. S. Brodersen. bibliog Opt Soc Am J 44:22-5 Ja '54

Small adjustable X-ray crystal monochromator. J. Fortey and E. Cohen. diags J Sci Instr 31:11-13 Ja '54

Water-prism ultraviolet monochromators. D. J. Fluke and R. B. Setlow. bibliog diags Opt Soc Am J 44:327-30 Ap '54

MONOMOLECULAR films. See Films

MONONGAHELA power company

Bonds offered. Comm & Fin Chr 178:2199 D 7 '53

MONONGAHELA river

Water intake for steel company built to withstand Monongahela River floods. C. W. Granacher. il plans diag Civil Eng 23:528-9 Ag '53

MONOPOLIES

Alcoa in the courts. R. M. Bleiberg. Barron's 33:3 Ag 17 '53

British match industry reports position re monopoly. Chem & Eng N 31:4594 N 2 '53

Charges Travelers would have monopoly with tv station. Nat Underw 57:2 D 24 '53; Same. Nat Underw (Life ed) 57:2 D 25 '53

GE cartel action settled. Elec World 140:216 O 19 '53

GE may appeal lamp verdict. Elec World News ed 140:43 O 12 '53

Government's complaint in the cellophane antitrust suit should be dismissed. P. Leahy. Tappi 37:sup 116A-17A F '54

Match industry in the UK. H. K. M. Kindersley. Chem Age (Lond) 69:651-2 S 26 '53

Match industry in the UK; monopoly against the public interest. Chem Age (Lond) 68: 785-6 My 23 '53

Monopoly; Ford, GM may face FTC probe of alleged unfair practices. Iron Age 173:107 Ap 8 '54

Monopoly in matches; BMC comment; abstract. H. K. M. Kindersley. Chem Age (Lond) 69:27 Jl 4 '53

More lances against monopoly. Economist 168:155-6 Jl 18 '53

Myth of monopoly. H. S. M. Burns. Am Pet Inst Proc 33(1):55-8 '53

Professor Machlup on monopoly; review of Political economy of monopoly; business, labor and government policies. S. H. Nerlove. J Bsns 26:200-8 Jl '53

Stepwise unshackling; Du Pont entirely absolved of monopoly in three of the six major cases. Chem W 73:21-2 N 7 '53

Timber and monopoly. Economist 169:352 O 31 '53

Tough antitrust policy; monopoly suit against American Smelting & Refining and St Joseph Lead. Bsns W p29 O 17 '53

Travelers under fire in television hearing. East Underw 54:28 D 25 '53

MONORAIL conveyors

Lubrication

Bearings roll at 600° F; they get periodic spray of oil and graphite on the run. il Steel 133:164-5 Ag 17 '53

Trolley wheel controls automatic lubricator. il diags Product Eng 24:158-60 Jl '53

MONORAIL transportation system. See Railroads, Suspended

MONOTONY

Monotony; silent partner of accidents; abstract. Management R 42:532 S '53

MONROE paper products company

Another struggle for control of Monroe. Paper Tr J 138:13 F 19 '54

MONSANTO Canada, limited

Monsanto Canada, limited, rapid growth from mere sales outlet to major producer. il Chem Age (Lond) 71:529-31 S 11 '54

MONSANTO chemical company

Monsanto denies any improper dealings on tax ruling. Chem & Eng N 31:3378+ Ag 17 '53

Monsanto girds for growth. Chem & Eng N 31:5302+ D 21 '53

Monsanto net worth up ninefold. Chem & Eng N 31:5016 N 30 '53

Monsanto reshuffles. Chem & Eng N 31:4964+ N 30 '53

Monsanto shifts to product-line command. Bsns W p80 D 5 '53

NAM too liberal on trade? officials' statements on free trade provoke Monsanto bolt. Bsns W p 170 N 21 '53

New division to emphasize engineering needs. Chem Eng Prog 50:sup42A Ja '54

MONSANTO chemicals, limited

Annual review for 1953. Chem Age (Lond) 70:1053 My 8 '54

Progress, 1952. E. A. O'Neal, jr. Chem Age (Lond) 68:715 My 9 '53

MONTAN wax

American montan wax; production by American Lignite. il Soap & San Chem 29:137+ F '53

Montan wax; last fifty years. Chem Age (Lond) 68:701-3 My 9 '53

MONTANA

See also

Copper mines and mining—Montana

Hydroelectric plants—Montana

Mines and mineral resources—Montana

Petroleum industry and trade—Montana

MONTANA power company

Public utility securities. O. Ely. Comm & Fin Chr 178:731 Ag 27 '53

MONTEITH, Alexander Crawford, 1902-

ASME honors engineers; honorary membership. por Mech Eng 76:64-5 Ja '54

MONTGOMERY, Robert Heister, 1872-1953

Sketch. por J Account 95:676-8 Je '53

MONTGOMERY, William, 1869-

60 years a president of Acacia Mutual; portraits. Spectator 162:30-1 F '54

MONTGOMERY Ward and company

Five attractive stocks with wide dividend coverage; with comparative balance sheet items. Mag of Wall St 93:673 Mr 6 '54

Mail orders expand into new markets. P. Dobbs. il Mag of Wall St 93:87-9 O 17 '53

What has happened to Ward's former executives? W. Norris. Am Bsns 23:10-13 D '53

MONTHLY list of Russian accessions (periodical)

Monthly list of Russian accessions. S. G. Machelson. J Chem Educ 30:418-19 Ag '53

MONTICELLO (home of Thomas Jefferson). See Historic houses

MONTMORILLONITE

Adsorption studies on clay minerals; the system montmorillonite-cesium-potassium. J. A. Faucher and H. C. Thomas. bibliog J Chem Phys 22:258-61 F '54

MONTREAL stock exchange

Weekly record. Published in weekly Monday numbers of Commercial and financial chronicle

MONTROSE, James Graham, 6th duke of, 1878-1954

Sketch. Engineering 177:131 Ja 29 '54

MOODY, Lewis Ferry, 1880-1953

Sketch. Mech Eng 75:614 Ag '53

MOON

Amateur scientist; photograph of the moon. A. G. Ingalls. il map Sci Am 188:118-20+ Je '53

See also

Eclipses, Lunar

Spectrum

Ultraviolet spectral radiant energy reflected from the moon. R. Stair and R. Johnston. bibliog diag J Res Nat Bur Stand 51:81-4 Ag '53

MOONEY viscometer. See Viscosimeters

MOORE, Williams S., inc.
Stock offering. Comm & Fin Chr 178:1275 O 5 '53

MOORE dry kiln company
Moore Kiln marks 75 years service. il Manuf Rec 123:33 Ag '54

MORABUKEA
Wood saponins; a preliminary investigation of the saponins from morabukea [mora gonggrijpii (Kleinh.) Sandwith]. R. A. Laidlaw. Chem Soc J p752-7 F '54

MORALE
Morale; all things to all men; how do morale and incentive practices shape up for chemical process industries researchers? il Chem W 73:54-6 O 17 '53
What raises a man's morale? M. S. Viteles. bibliog flow chart Personnel 30:302-13 Ja '54

MOREELL, Ben, 1892-
Moreell named to Hoover commission. por Eng N 151:21 O 22 '53

MOREHOUSE, Ward, 1898-
Ward Morehouse tells of stage and newsroom; review of Just the other day, by W. Morehouse. R. Ellard. Ed & Pub 86:59 My 2 '53

MORGAN, Arthur Ernest, 1878-
Sketch. por Civil Eng 23:622-3 S '53

MOROCCO
Aftermath in Morocco; good airbases. W. G. Bowman. il map Eng N 151:30-6+ Ag 27 '53
See also
Petroleum industry and trade—Morocco

Politics and government

Hush over North Africa. Economist 169:801-2 D 12 '53
New Sultan and fresh reforms. Economist 168:556+ Ag 29 '53
No policy for Morocco. Econmist 168:493-4 Ag 22 '53
Spanish Morocco and the sultan. Economist 170:221-2 Ja 23 '54

MORPHINE
Conformation of alkaloids. A. K. Bose. bibliog il Chem & Ind p 130-1 Ja 30 '54
Isolation and purification of semimicro quantities of morphine. L. B. Achor and E. M. K. Geiling. bibliog Anal Chem 26:1061-2 Je '54
Reaction of morphine with potassium-mercuric iodide. L. Levi and C. G. Farmilo. bibliog il Anal Chem 26:1040-5 Je '54
Stereochemical studies in the morphine series; the relative configuration at carbons thirteen and fourteen. H. Rapoport and J. B. Lavigne. bibliog diag Am Chem Soc J 75:5329-34 N 5 '53
6-Substituted Δ^6-desoxymorphines. H. D. Brown and others. bibliog Am Chem Soc J 75:6238-41 D 20 '53
Synthesis of morphine. D. Elad and D. Ginsburg. bibliog Am Chem Soc J 76:312-13 Ja 5 '54

MORPHINE, Analogs of
Open chain analogs of morphine. A. Löffler and D. Ginsburg. Am Chem Soc J 76:3731-2 Jl 20 '54

MORPHOLINE
2,2-Dialkyl-3,5-thiamorpholinediones. G. S. Skinner and J. B. Bicking. bibliog Am Chem Soc J 76:2776-80 My 20 '54
New syntheses of thiamorpholine; the reduction of mono- and diketothiazanes by lithium aluminum hydride. A. H. Sommers and B. W. Horrom. bibliog Am Chem Soc J 76:1187-8 F 20 '54
Nucleophilic displacement reactions in aromatic systems; kinetics of the reactions of chloronitropyridines and chloropyrimidines with piperidine, morpholine, pyridine, and aniline. N. B. Chapman and C. W. Rees. Chem Soc J p 1190-6 Ap '54
Nucleophilic displacement reactions in aromatic systems; kinetics of the reactions of *o*- and *p*-halogenonitrobenzenes with piperidine and with morpholine. N. B. Chapman, R. E. Parker and P. W. Soanes. Chem Soc J p 2109-14 Je '54
Reactions of long-chain amines; preparation of 4-alkylmorpholines and 4,4-dialkylmorpholinium chlorides. J. G. Erickson and J. S. Keps. Am Chem Soc J 76:3589-91 Jl 5 '54
Refractive indices of some morpholine solutions. C. M. Wheeler, jr. and C. G. Houle. bibliog Anal Chem 26:414-15 F '54
Revival of formaldehyde-treated bacteria. T. Nash and A. Hirch. bibliog J Ap Chem 4:458-63 Ag '54
1,4-Thiazans; C-alkyl thiomorpholines. B. Idson and P. E. Spoerri. bibliog Am Chem Soc J 76:2902-6 Je 5 '54

MORPHOLINIUM compounds
Reactions of long-chain amines: preparation of N,N-dialkylthiamorpholinium chlorides. J. G. Erickson. Am Chem Soc J 76:4030-1 Ag 5 '54

MORPHOLOGY
Morphology of kaolinite. L. A. Woodward. il Chem & Ind p 1228 N 14 '53

MORRIS, Philip, and company, ltd., inc.
Benson & Hedges acquisition seen long-range benefit. Barron's 34:30 Ja 11 '54
Teaming up to ride a trend; proposed merger with Benson & Hedges. il Bsns W p26 O 31 '53

MORRISON, Carl G. 1911-
Morrison heads BDSA chemicals. por(cover) Chem & Eng N 32:3363 Ag 23 '54

MORSE, Carl
Building skyscrapers. por Eng N 151:159-62 O 8 '53

MORTALITY
Mortality of retired workers. Nat Underw (Life ed) 58:5 Ja 1 '54
Physically impaired show mortality gains; substandard insurance gains. East Underw 55:8 My 7 '54
See also
Children—Mortality
Longevity

Statistics

Cities of 100,000 or more rated on deaths from diabetes, pneumonia and polio during 1951; table. Spectator 161:60 Jl '53
Diabetes mortality by state for 1950. map Pub Health Rep 68:822-3 Ag '53
Life insurance mortality experience shows 1953 germ disease deaths at record low. Weekly Underw 170:47+ sec 2 My 8 '54
Metropolitan lists factors in record low mortality rate. Nat Underw (Life ed) 58:6 Mr 5 '54
Metropolitan study shows industrial mortality at all-time low. Weekly Underw 171:475 Ag 28 '54
Mortality figures change with longer life span; with tables. Spectator 162:98-101 Mr '54
Mortality in the United States, 1900-1950. T. Gordon. Pub Health Rep 68:441-4 Ap '53
Mortality rates for leading cities; homicide, suicide, and accidents; with tables. T. J. V. Cullen. Spectator 162:34+ F '54
Mortality table; picture of a million lifetimes. E. J. Moorhead. East Underw 55:64+ pt 2 O 1 '54
Mortality tables, eighty-three cities listed with their total deaths, rates, and deaths from homicide, suicide, automobile accidents and accidents in the home. Spectator 161:74-6 Ag '53
1952 provisional data indicates decline in tuberculosis mortality. map Pub Health Rep 68:1013-14 O '53
Sex differences in the trend of mortality from certain chronic diseases. G. Kaufman and T. D. Woolsey. Pub Health Rep 68:761-8 Ag '53
Study casualties of competitive sports. Nat Safety N 70:68-9 S '54
Trends in tuberculosis mortality in continental United States. A. P. Iskrant and E. Rogot. Pub Health Rep 68:911-19 S '53
Tuberculosis mortality by state, 1950. map Pub Health Rep 68:628-9 Je '53
Women's mortality a third less than men. E. A. Rode. East Underw 55:8 My 7 '54

Great Britain

Loss of life; decline in mortality and loss of working life. Economist 170:153 Ja 16 '54

MORTAR

Cement, concrete, mortar, plaster, aggregates, and structural clay products. il diags Am Bld 75:73-4+ Ap '53

Mortar lining extends culvert life. il Eng N 152:59 Ap 22 '54

Testing

Pressure prehydration increases strength of hydraulic cement mortar specimens. T. H. Whitfield, jr. Civil Eng 23:611-12 S '53

MORTARS (ordnance)

Titanium weldment replaces steel mortar baseplate. C. Hartbower. il Mach 60:182-4 My '54

MORTGAGE bankers association of America

Annual meeting, 40th. House & Home 4:116-17 D '53

Annual meeting, 40th, Miami Beach. Burroughs Clearing House 38:14+ D '53

MORTGAGE companies

Federal court gives decision in big anti-coercion case; Investors diversified services. Nat Underw 58:1+ Jl 8 '54

First victory scored in anti-coercion campaign; preventing lending institution from requiring borrowers to place insurance with favored agency. H.E. Uhler. Spectator 162: 35+ O '54

Mutual agents take issue with NAIA on coercion decision. Nat Underw 58:1+ Ag 12 '54

NAIA discusses anti-trust issue; Investors diversified services. Weekly Underw 171: 221+ Jl 31 '54; Nat Underw 58:1 Jl 29 '54

MORTGAGE insurance. See Insurance, Mortgage

MORTGAGE interest insurance. See Insurance, Mortgage interest

MORTGAGE redemption policies. See Insurance, Life—Mortgage redemption policies

MORTGAGES

Buyers' market in homes coming; data on home building and home mortgages. G. L. Bliss. Comm & Fin Chr 178:2644 D 31 '53

Canada may launch insured mortgages. East Underw 55:5 Mr 5 '54

Canada revamps its housing laws on FHA model, but insurance will be 50 per cent cheaper. House & Home 5:39 Mr '54

Canadian banks to enter home mortgage loan field. J. Montagnes. Barron's 33:20 N 30 '53

Comeback in British house building; British mortgage market. M. Bodfish. Comm & Fin Chr 178:2544 D 24 '53

Companies investing more in homes, farms than in 1952 half. East Underw 54:1+ Ag 14 '53; Same. Nat Underw (Life ed) 57:9 Ag 14 '53

Construction loans for self-builders, Derby (Connecticut) savings bank. J. F. Dedman. Banking 46:101 Ag; 87-8 S '53

Debt; key to home building. il Bsns W p 186+ O 17 '53

Factors indicating easier mortgage money. H. Steiner. Comm & Fin Chr 178:2364 D 17 '53

FHA adds ½ per cent service fee to woo mortgage money for pint-sized Title I, section 8 loans. House & Home 3:37 Ja '53

Government-underwritten residential loans made, 1939-1952, monthly Nov. 1952-Nov. 1953. Fed Res Bul 40:71 Ja '54 [cont monthly]

Highlights of outstanding residential mortgage debt analysis. H. B. Schechter. House & Home 4:196+ O '53

Housing act limits use of mortgage discount. J. F. McCarthy. Am Bld 76:141 F '54

Ideal mortgage for the mass market; financing tool provided by section 8, Title I of the National housing act. il plans Am Bld 75:88-91 D '53

Improper accounting for discount on mortgages purchased. J Account 96:729-30 D '53

Lenders are getting choosy. Bsns W p52+ Ag 1 '53

Life companies hold nearly one-quarter U.S. mortgage debt; period from 1946 through 1953. East Underw 55:1+ Ap 23 '54; Same. Weekly Underw 170:48+ sec 2 My 8 '54

Life companies urge flexible rate on FHA mortgages. Nat Underw (Life ed) 57:1+ Ag 14 '53

Misgivings on the secondary mortgage proposal. E. Stone. Spectator 162:38+ Ap '54

Monetary policy controls mortgage situation. C. R. Diebold. Comm & Fin Chr 178:1443 O 15 '53

Monthly report on important developments in the modernization of mortgage credit. Published in monthly numbers of House and home

More money than ever for 1954 mortgages. House & Home 5:134-5 Ja '54

Mortgage activity of all United States life insurance companies; savings and loan associations; nonfarm mortgage recordings of $20,000 or less. Fed Res Bul 40:70 Ja '54 [cont monthly]

Mortgage credit plan to counter government intrusion in Senate housing bill. C. M. Shanks. Nat Underw (Life ed) 58:8 Mr 26 '54

Mortgage debt outstanding, by type of property mortgaged and type of mortgage holder; mortgage loans held by banks; 1939-1952; quarterly Dec. 1951-Sept. 1953. Fed Res Bul 40:69 Ja '54 [cont monthly]

Mortgage money begins to thaw out. House & Home 4:41-2 O '53

Mortgage patterns since the 1920's. H. Askew. Am Bld 76:206-10 Ag '54

National, Vermont makes 100 per cent home loans with full faith in FHA, VA. D. C. Davis. Nat Underw (Life ed) 58:4 Jl 23 '54

National voluntary mortgage credit committee established and first meeting held. East Underw 55:15 Ag 20 '54

New credit instrument; Trustee credit certificates. Burroughs Clearing House 37:6+ Ag '53

New housing bill. House & Home 5:33-5 Mr '54

New mortgage program for chartered banks; Canadian banks. J. Montagnes. il Burroughs Clearing House 38:79 F '54

News for mortgage credit men. Banking 46: 90-1 Ja '54 [cont monthly]

No need for shortage of home mortgage money. B. H. Hazen. Comm & Fin Chr 178: 1330 O 8 '53

Open-end mortgage system would balk repair loan frauds by dynamiters. House & Home 6:93 Ag '54

Open-end mortgage; two views. G. C. Johnson; J. R. Jones. Banking 46:42-3+ S '53

Plan for a secondary home mortgage market. M. L. Colean. Harvard Bsns R 31:79-85 N '53

Residential construction activity and financing, 1945-1953. L. F. McHugh and B. Beckler. Survey of Cur Bsns 33:15-20+ D '53

Residential real estate developments. Fed Res Bul 39:809-15 Ag '53

Return of nothing down homes. il House & Home 5:39+ My '54

Solution of mortgage problems. F. W. Jackson. Comm & Fin Chr 178:1334 O 8 '53

U.S. housing group report to the President. M. L. Colean. Banking 46:42-3+ F '54

Variations in costs of mortgage financing to veterans in Jacksonville. C. C. Osterbind and G. B. Hurff. Land Econ 30:64-71 F '54

VA and FHA reluctantly raise mortgage interest rates to 4½ per cent. House & Home 3:158-9 My '53

Voluntary mortgage credit committee is companies' proposal; abstracts. C. M. Shanks. East Underw 55:1+ Mr 19 '54; Nat Underw (Life ed) 58:8 Mr 19 '54

Will government displace the mortgage banker? W. Moir. House & Home 5:134-5 Ap '54

See also

Banks and banking—Mortgage departments

also American bankers association—Savings and mortgage division; Federal housing administration—Insured mortgage plan; Federal national mortgage association; Mortgage bankers association of America

Foreclosures

Non-farm foreclosures, adjusted index, 1949-1952. Survey of Cur Bsns 1953 Sup p39 [supplemented in monthly numbers]

MORTGAGES—*Continued*

Statistics

Real estate; F.H.A. loan data and mortgage loans of all savings and loan associations; new non-farm mortgages recorded, 1949-1952. Survey of Cur Bsns 1953 Sup p39 [supplemented in monthly numbers]

MORTUARY chapels

Lighting

Make the ceiling solve the lighting problem; better detail plate. K. R. O'Neal. il diags Am Bld 76:144-5 My '54

MOSCOW

Architecture

Moscow's eight new Woolworth buildings. il Arch Forum 100:160-1 Mr '54

MOSLEM brotherhood. See Mohammedans in Egypt

MOSQUITOES

Preliminary observation on a hatching stimulus for aedes eggs (culicidae). W. E. Beckel. Science 118:279-80 S 4 '53

Extermination

Science and public health research in Alaska; mosquito control. C. S. Wilson. Pub Health Rep 68:536-7 My '53

MOSSADEGH, Mohammed, 1880-

Dr Mossadegh sees it through. Economist 168:262-3 Jl 25 '53

Iran; the Shah rides the tiger. Bsns W p 120+ Ag 29 '53

Mossadegh's secret. Economist 169:950 D 26 '53

New press laws used to silence Mossadegh foes. Ed & Pub 86:53 Ap 4 '53

Persians and foreigners. Economist 168:550-2 Ag 29 '53

MOTCH and Merryweather machinery company

Motch & Merryweather's 50th birthday. il Am Mach 98:131-2 Ag 30 '54

MOTELS. See Tourist camps, hostels, etc.

MOTHPROOFING preparations

Dry chemical fog eliminates moth damage to wool. P. Jones. il Textile World 103:123+ D '53

Foil moth product packages. il Soap & Chem Spec 30:137 Jl '54

Mothproofing methods and tests; abstract. J. Barritt. Am Dyestuff Rep 43:21 Ja 4 '54

Mothproofing wool with DDT. A. S. Weatherburn and C. H. Bayley. bibliog il Soap & Chem Spec 30:141-4+ S '54

Plan moth control campaign. Soap & Chem Spec 30:155+ Ag '54

Shrinkproofing and combined mothproofing effects on wool. Am Dyestuff Rep 42:739 O 26 '53

MOTION

See also

Dynamics

Machinery, Kinematics of

Mechanical movements

Mechanics

Velocity

Vibration

Vortex motion

MOTION picture and television engineers, Society of. See Society of motion picture and television engineers

MOTION picture industry. See Moving picture industry

MOTION sickness. See Airsickness; Seasickness

MOTION study

Camera catches waste motion. il Dun's R & Mod Ind 63:118-19 Ja '54

Techniques in motion and time study; abstracts. W. Rodgers. Engineer 196:364 S 18 '53; Engineering 176:390; Discussion. 390-1 S 25 '53

Time study; how stopwatch and incentives are put to work; Whirlpool corp. S. Palmert. Iron Age 172:208 D 3 '53

Use of motion study in increasing productivity; abstracts. A. G. Shaw. Engineer 196: 364 S 18 '53; Engineering 176:390; Discussion. 390-1 S 25 '53

See also

Chronocyclegraph

MOTIVATION (psychology)

Motivation to be studied in fertilizer industry. Nat Safety N 70:76 Ag '54

MOTOR boat engines, Outboard

Outboard motors and their lubrication; abstract. S A E J 62:84+ F '54

Outboards; more zip expected. il Steel 133:49 S 28 '53

Specifications

1954 U.S. outboard motors; tabulation. Automotive Ind 110:296 Mr 15 '54

MOTOR boat insurance. See Insurance, Motor boat

MOTOR boats

Aluminium inspection launch. il Engineer 196: 312 S 4 '53; Engineering 176:416 S 25 '53

Faster marine maintenance with new workboat, Tower. il Marine Eng 59:69 Mr '54

High-speed passenger launch for Venezuela. il Engineer 197:243 F 12 '54; Engineering 177:182 F 5 '54

Inspection launch for the Royal Ceylon navy. il Engineering 176:301 S 4 '53

Tindor, motor yacht. il Engineer 197:59 Ja 8 '54

Triple-screw launch. il Engineer 196:677 N 20 '53; Engineering 176:680 N 27 '53

See also

Motor ships

Exhibitions

Boat builders ride rising tide; National motor boat show, New York. il Steel 134:71-2 F 8 '54

Many engine innovations featured at National boat show. T. Mac New. il diags Automotive Ind 110:54-6+ F 15 '54

MOTOR bus associations

Directories

1954 association index; U.S. and Canada. Bus Transportation 33:48-9+ Mr '54

MOTOR bus drivers

Aid to accident prevention; medical profile classification of bus operators. H. Brandaleone and G. J. Friedman. Ind Med 22: 520-4 N '53

Driver of the month program makes more friends for transit; San Francisco municipal railways. il Bus Transportation 33:31 Ap '54

Driver: when he's hired and trained what then? F. Dignam. il Bus Transportation 33: 51-8 S '54

I am a utility bus driver. H. F. Unger. Pub Util 52:837-43 D 3 '53

MOTOR bus engines

Brussels show; outstanding features of the continental chassis. il Automobile Eng 44: 55-7 F '54

Commer TS3 Diesel engine. il diags Automobile Eng 44:309-19 Ag '54

General Motors rides a bus to test the turbine's performance. F. G. Lawrence. il Steel 134:81-2 Je 14 '54

GM unveils commercial gas turbine. R. D. Raddant. Iron Age 173:94+ Je 10 '54

Guy Arab bus chassis. il Automobile Eng 44: 111-12 Mr '54

1954 bus show in print; illustrations with text. Bus Transportation 33:76-7 S '54

Pinwheels or pistons. W. A. Turunen. il diag S A E J 62:19-27 Jl '54

Revolutionary new vehicle powered by electro-gyro; Oerlikon Gyrobus. il Bus Transportation 33:52 Jl '54

St Louis Macks go Diesel to cut fuel costs in half. il Bus Transportation 33:46-7 Ja '54

Cooling

Liquid cooling. J. L. Koffman. bibliog diags Automobile Eng 44:69-74 F '54

Exhaust

Exhaust check gives Diesels clean bill of health in Los Angeles. il Bus Transportation 33:54 My '54

Fuel

Asbury switches to propane. il Bus Transportation 32:44-5 D '53

Comparison of LPG, gasoline, and Diesel fuels in city-bus operation. F. C. Burk and others. Am Pet Inst Proc 33(3):132-6 '53; Same. Pet Refiner 32:119-21 Je '53; Same cond. Diesel Power 31:50-3 N '53

MOTOR bus engines—Fuel—*Continued*

LPG buses offer low cost, clean exhaust; based on papers by J. N. Jobaris and others. il S A E J 62:17-23 Mr '54

L.P.G. fuels buses. Oil & Gas J 52:71 N 9 '53

Users of LPG fuels report results at SAE National fuel and lubricants meeting, Chicago. Bus Transportation 33:96 Ja '54

Fuel feeding

Basic three-step program for good maintenance of Diesel fuel systems. il Bus Transportation 33:40-5 Je '54

Electric fuel pumps. Bus Transportation 32:46-7 D '53

How to shop test Diesel fuel systems; Capitol transit co. il Bus Transportation 33:38 My '54

New GM fuel injector. il Bus Transportation 33:40 Ap '54

Ignition devices

Periodic inspection checks add life to your ignition system. il Bus Transportation 33:26-9 Je '54

Lubrication

Lubricating oil requirements for passenger transport and long-distance haulage with compression-ignition engines. A. T. Wilford. Inst Pet J 39:538-46 Ag '53

Repair

Get better engine performance by thorough overhaul of cylinder head. il Bus Transportation 33:38-9 Ja '54

Make engine rebuilding faster by trying these four tools; illustrations with text. Bus Transportation 33:46 -7 Ap '54

Specifications

Engine tune up specifications, 1954; tabulation. Bus Transportation 33:57-62 Je '54

1954 motor bus engine specifications; tabulation. Bus Transportation 33:70-1 F '54

Testing

How to shop test Diesel fuel systems; Capitol transit co. il Bus Transportation 33:38 My '54

Valves

Proper valve maintenance will help your valves last longer. J. A. Newton and N. Hoertz. diags Bus Transportation 32:34-6+ D '53

MOTOR bus industry and trade

Statistics

Busses; shipments from U.S. factories, 1950-1953; yearly totals, 1941-1952; tabulations. Steel 134:186 Ja 4 '54

Factory sales and their wholesale value, U.S. plants, 1900-1953; monthly motor vehicle factory sales, by years, 1948-1953; chart and tables. Automotive Ind 110:93-4 Mr 15 '54

Factory sales to domestic and foreign markets, 1943-1953; tabulations. Automotive Ind 110:94 Mr 15 '54

Production of buses drops again in 1953. E. F. Theisinger. Bus Transportation 33:30-2 F '54

Revenue motor bus factory sales, 1942-1953; motor bus factory sales by type of bus, 1946-1953; truck trailer shipments by type, 1950-1953; shipments by months, 1951-1953; tabulations. Automotive Ind 110:97 Mr 15 '54

MOTOR bus insurance. See Insurance, Motor bus

MOTOR bus lines

American transit association regional meeting, New Orleans, Jan. 13-15. Bus Transportation 33:60-1+ F '54

1953 for the bus industry, a year of great awakening. F. Dignam. Bus Transportation 33:25-8 Ja '54

We can increase our share of the expanding travel market. A. M. Hill. Bus Transportation 33:26-7 S '54

Where was intercity bus born? Texas, podner, it says here. L. G. Simon. il Bus Transportation 33:32-3 Ag '54

See also
Trolley buses
also Greyhound corporation; National trailways bus system

Accidents

Take a fresh look at your safety program; effective control center for your driver safety program. E. G. Quesnel. Bus Transportation 33:40-1 Ag '54

Advertising

Riders sell transit to each other; St Louis public service carcard campaign. il Bus Transportation 33:40-1 Mr '54

UTC promotes charters with photo post cards. il Bus Transportation 33:47 My '54

Virginia Transit goes all out to win back those lost riders. H. E. Bickel. il Bus Transportation 33:25-7 Mr '54

Automobile competition

Traffic doctor's prescription; convert the public to transit. Bus Transportation 32:75 N '53

Baggage

Rail baggage charge seen as bus gain. il Bus Transportation 32:52 D '53

Costs

Expenditures for welding and painting tools and materials; tabulation. Bus Transportation 33:32-3 Jl '54

LPG buses offer low cost, clean exhaust; based on papers by J. N. Jobaris and others. il S A E J 62:17-23 Mr '54

Maintenance cost. Bus Transportation 32:47-8 D '53

1953 ME awards. il Bus Transportation 32:25-53 N '53

What the bus industry spent in 1953; tabulation. Bus Transportation 33:37 F '54

Employees

Making better foremen. Bus Transportation 33:37 Je; 49 Jl '54

See also
Motor bus drivers

Equipment and supplies

Expenditures for welding and painting tools and materials; tabulation. Bus Transportation 33:32-3 Jl '54

1954 buyers' guide; bus parts, materials, accessories, shop equipment and tools. Bus Transportation 33:53+ Je '54

Express service

Survey shows package express is vital to intercity profits. Bus Transportation 33:33-5 S '54

Fare collection

How NFT's fare handling system protects cash and reduces costs. il Bus Transportation 33:27-9 Jl '54

Wilkes-Barre switches to new plastic zone check system. il Bus Transportation 32:37 D '53

Fares

CTS asks Cleveland transit board for $1,131,000 in fare increases. Bus Transportation 33:51 Jl '54

Frisco's shopper stirs other firms. Bus Transportation 32:71 N '53

Lower fares for higher revenue; Coast cities coaches. Bus Transportation 33:49 Ja '54

MTA trustees seek modified zone plan. Bus Transportation 32:54-5 D '53

Seattle will go to zone system in effort to avert 1954 deficit. Bus Transportation 33:56 F '54

Finance

Atlanta Transit solves its equipment financing problems. Bus Transportation 33:28-9 My '54

Dallas swaps dividends for tax relief. Bus Transportation 33:50 Ag '54

Riding's down; but revenues inch upward, 1953. Bus Transportation 33:52 My '54

Springfield gets extra revenues; gum vending machines. il Bus Transportation 33:37 Mr '54

MOTOR bus lines—Finance—*Continued*

Three committees study bus finances. Bus Transportation 33:64 Je '54

Fires and fire protection

How Wilkes-Barre protects buses with a fire resistant storage garage. il Bus Transportation 33:48 Ja '54

Free transportation

100 merchants join bus company in an everyday shopper plan. Bus Transportation 33:57 My '54

Garages

Electricity in use at new bus garage, Stockwell. il Elec J 151:1317-18 O 23 '53

Greyhound garage opens in Chicago. Bus Transportation 33:55 F '54

How Wilkes-Barre protects buses with a fire resistant storage garage. il Bus Transportation 33:48 Ja '54

New London Transport garage; extensive use of fluorescent lighting. il Elec R (Lond) 153:949-50 O 23 '53

Stockwell bus garage. il diags Engineer 196:557-9 O 30 '53; Engineering 176:703 N 27 '53

Insurance

See also

Insurance, Motor bus

Laws and regulations

How higher courts ruled on these important questions. L. T. Parker. Bus Transportation 33:34-6 My '54

Maintenance and repair

Big time maintenance methods in small operations bus shop; San Mateo-Burlingame transit. B. Goldrath. il Bus Transportation 33:25-7 Ap '54

Bluebird reduces battery costs. H. A. Grenert. il Bus Transportation 33:43 F '54

Break-in test period gives longer life to compressors. il Bus Transportation 33:34-5 Ap '54

Bus transportation celebrates twenty-five years of ME awards. il Bus Transportation 33:30-1 Ja '54

Canadian company wanted ideas and got these. W. H. Buckley. il diag Bus Transportation 33:46-7 Mr '54

Consulting department. Published in monthly numbers of Bus transportation

Howjadoits. Published in monthly numbers of Bus transportation

1953 ME awards. il Bus Transportation 32:25-53 N '53

29th annual maintenance issue. il Bus Transportation 33:25-52 Je '54

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Motor bus lines—Shops

Motor buses—Cleaning

Management

Greyhound starts reorganization with merger of Penn and Central. Bus Transportation 33:30-1 Ag '54

Public relations

Daily prize sells more transit riding; Orlando Transit. il Bus Transportation 33:45 Mr '54

Winsome Bea of the UTC sells transit to riders in Providence. D. W. Cray. il Bus Transportation 33:38-9 F '54

Radio communication

Intercity bus radio marks gains in carrier operating efficiency. T. R. Warner. Bus Transportation 33:36-9 S '54

Two-way radio is tried in sunny Los Angeles; proved in snowy Cleveland. il Bus Transportation 33:50-1 Ap '54

Safety measures

Aid to accident prevention; medical profile classification of bus operators. H. Brandaleone and G. J. Friedman. Ind Med 22:520-4 N '53

Drivers love this brand new safety method; Melvin G. Bullock. il Bus Transportation 32:29-31 D '53

Light and bell cut accidents. W. Beaurline. il Bus Transportation 33:50 F '54

Take a fresh look at your safety program. E. G. Quesnel. Bus Transportation 33:31-3 Mr; 32-3 Ap; 40-1 Ag '54

Securities

Transportation; with statistical data on three transportation groups. R. Carleson. Mag of Wall St 92:724-5+ S 19 '53

Service

Free ticket delivery ups sales. il Bus Transportation 33:46-7 My '54

New sleep-over service started. Bus Transportation 33:48 My '54

New throughway bus travel of tomorrow. S. H. Bingham. il diags Bus Transportation 33:25-7+ Ag '54

United transit company sets up courtesy station parking plan. map Bus Transportation 33:28-9 Ag '54

Shops

Disappearing bus washer saves valuable shop space. il Bus Transportation 33:48-9 Je '54

Eight shop ideas which can help keep your maintenance cost down; illustrations with text. Bus Transportation 33:30-3 My '54

Hoists win over pits at Detroit street railways. il Bus Transportation 33:34 Ag '54

How modern shop equipment helps ME winners cut maintenance cost; illustrations with text. Bus Transportation 33:34-5 Jl '54

Indianapolis get 20 per cent dividend from shop modernization program. il Bus Transportation 33:50-2 Je '54

Make engine rebuilding faster by trying these four tools; illustrations with text. Bus Transportation 33:46-7 Ap '54

Save paint shop space with portable scaffolds. il Bus Transportation 32:56, 59 N '53

Shop-built equipment repairs tire damages; Montreal transportation commission. il Bus Transportation 33:30-1 Jl '54

These three tools save time and cut down risk of injury; illustrations with text. Bus Transportation 33:50-1 My '54

Signs

School bus marker folds up and becomes safety sign. il Bus Transportation 33:45 Ap '54

Statistics

Census of common carrier bus service; tabulation. Bus Transportation 33:36 F '54

Class one motor carriers (intercity); carriers of passengers, 1949-1952. Survey of Cur Bsns 1952 Sup p 114 [supplemented in monthly numbers]

Intercity trends; 1951-1953; tabulation and charts. Bus Transportation 33:28-9 F '54

Taxation

Intercity carriers wage war on rider tax. Bus Transportation 33:54 F '54

Intercity gets travel tax reduction. Bus Transportation 33:48 Ap '54

Transit tax exemption will save the public millions. L. H. Brown. Bus Transportation 33:40-2 F '54

Terminals

Greyhound stresses convenience in tomorrow's terminal today; illustrations with text. Bus Transportation 32:54-5 N '53

Greyhound's new Chicago terminal. il plans diags Arch Rec 115:167-73 Ap '54

New million dollar terminal for Cleveland Transit buses. il Bus Transportation 33:28-30 Mr '54

Trailways opens new terminal at Atlanta. Bus Transportation 32:74 N '53

Ticket agents

Commission agents are as good as their company makes them; Central Greyhound lines. C. H. Bullen. Bus Transportation 33:28-32 S '54

Tickets

Boston's MTA promises crackdown to halt illegal student sales. Bus Transportation 33:60+ Ap '54

Free ticket delivery ups sales. il Bus Transportation 33:46-7 My '54

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Atlanta Transit solves its equipment financing problems. Bus Transportation 33:28-9 My '54

Baltimore

Baltimore Transit wants to sell to city. Bus Transportation 33:59 Ja '54

Boston

Boston's MTA promises crackdown to halt illegal student sales. Bus Transportation 33:60+ Ap '54

MTA trustees seek modified zone plan. Bus Transportation 32:54-5 D '53

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Fargo, North Dakota

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Charabanc and the law. Economist 169:470-1 N 14 '53

Los Angeles

Smog-conscious Los Angeles seeks to halt Metro switch to buses. Bus Transportation 33:57 Mr '54

Two-way radio is tried in sunny Los Angeles; proved in snowy Cleveland. il Bus Transportation 33:50 Ap '54

New York (state)

Crisis for urban transit. Pub Util 53:625-6 My 13 '54

Philadelphia

PTC promotes shop now riding. il Bus Transportation 33:48 My '54

Philly Mayor bows on fare fight, offers long-range transit plan. Bus Transportation 33:50 Mr '54

San Diego

Metropolitan Coach Lines takes over Pacific Electric operation. Bus Transportation 32:69 N '53

MOTOR bus lines, Municipal

Why we found public ownership is more costly. W. C. Hyde. Bus Transportation 32:32-3 D '53

MOTOR bus lines, School

B & W rents out school buses on a you-drive-it system. il Bus Transportation 33:44-5 Jl '54

1953 school bus census. Bus Transportation 33:33 F '54

MOTOR buses

Buses and coaches. il Automobile Eng 44:155-8 Ap '54

Great Britain introduces new lightweight bus. il Bus Transportation 33:48-9 F '54

Greyhound and GM top brass introduce the new Scenicruiser. il Bus Transportation 33:54-5 Ag '54

International motor show, Vienna. D. Scott. il Automotive Ind 110:64-6+ My 1 '54

New intercity coach is unveiled by Fitzjohn. il Bus Transportation 33:38-40 Jl '54

New 1954 deck and a half coach is introduced by C. D. Beck. il Bus Transportation 33:44 Ag '54

New throughway bus travel of tomorrow. S. H. Bingham. il diags Bus Transportation 33:25-7+ Ag '54

1954 bus show in print; illustrations with text. Bus Transportation 33:59-78+ S '54

One-man operated 'bus. Engineering 176:607 N 6 '53

See also

Advertising mediums—Motor buses

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Trolley buses

Axles

1954 axle specifications; tabulation. Bus Transportation 33:72 F '54

Bodies

Belgian bodywork; review of buses and coaches exhibited at the Brussels show. il Automobile Eng 44:75-8 F '54

Coachwork design; winning entries for the I.B.C.A.M. competition. il diags Automobile Eng 44:298-304 Jl '54

See also

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Brakes

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Chartering

Charabanc and the law. Economist 169:470-1 N 14 '53

Conestoga goes out and builds charters. Bus Transportation 32:38-9 D '53

Great Lakes Greyhound package kits convert buses into luxury charter coaches. il plan Bus Transportation 33:43-5 Ja '54

School children are our charter brokers; Southern Pennsylvania bus co. C. Foster. il Bus Transportation 33:26 Jl '54

Two charter ideas; you can catch 'em when they're young, keep 'em when they're older. il Bus Transportation 33:28-30 Ap '54

UTC promotes charters with photo post cards. il Bus Transportation 33:47 My '54

Chassis

Berliet buses have frame of unique design. W. F. Bradley. il Automotive Ind 110:32-3+ Mr 1 '54

Brussels show; outstanding features of the continental chassis. il Automobile Eng 44:45-57 F '54

Guy Arab bus chassis. il Automobile Eng 44:111-14 Mr '54

New chassis developed for school bus use; Marmon-Herrington co. il Bus Transportation 33:56 Je '54

Cleaning

Cleaner parts reduce failures. il Bus Transportation 33:41 Ap '54

Disappearing bus washer saves valuable shop space. il Bus Transportation 33:48-9 Je '54

Keeping buses clean. Bus Transportation 32:66-7+ N '53

Washing chores eased by SCL soap dispenser. il Bus Transportation 32:50 D '53

Cost of operation

Comparison of LPG, gasoline, and Diesel fuels in city-bus operation. F. C. Burk and others. Am Pet Inst Proc 33(3):132-6 '53; Same. Pet Refiner 32:119-21 Je '53; Same cond. Diesel Power 31:50-3 N '53

Design

Greyhound's new Scenicruiser. il Bus Transportation 33:45 My '54

Human engineering; a new approach to driver efficiency and transport safety. R. A. McFarland. S A E J 62:41-3 Je '54

Midland Red S.14. il diags Automobile Eng 43:553-9 D '53

Public service vehicles. il plans diag Automobile Eng 44:245-50 Je '54

Trends of public service vehicle design. A. A. M. Durrant. Engineer 197:127-8 Ja 22 '54

Equipment and supplies

1954 bus show in print; illustrations with text. Bus Transportation 33:78+ S '54

Floors

Bus floor covering problems. il Bus Transportation 33:41-3+ Jl '54

Right way to lay a bus floor and make it stick. il Bus Transportation 33:38-9 Je '54

Heating and ventilation

Oil burning heater; Key-Leather K-L 10,000 heater unit. diags Automobile Eng 44:125-6 Mr '54

Leasing

B & W rents out school buses on a you-drive-it system. il Bus Transportation 33:44-5 Jl '54

Manufacture

Construction of aluminum bus bodies. F. G. Lawrence. il Steel 133:53-4 Ag 24 '53

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Reconstruction

Remodeled 1943 bus is UTC's parlor car of the road. il Bus Transportation 32:63 N '53

Seats

1954 bus show in print; illustrations with text. Bus Transportation 33:78+ S '54

Specifications

1954 city and intercity buses; tabulations. Automotive Ind 110:166-7 Mr 15 '54

1954 motor and trolley bus front end specifications. diags Bus Transportation 33:63 Je '54

1954 motor bus component parts; general characteristics, engines, axles; specifications tabulated. Bus Transportation 33:66-72 F '54

Springs and suspension

Advanced bus suspension design. A. S. Krotz and others. il diags Automotive Ind 111:38-40+ Jl 15 '54

Motor coach suspensions. H. E. Fox and D. J. LaBelle. il diag S A E J 62:41-3; Discussion. 43-5 Jl '54

Steering gear

Air steering for buses. il diag Bus Transportation 33:44 My '54

Clayton Dewandre hydraulically assisted steering. il diag Engineer 197:351 Mr 5 '54

Steering arrangements and ball suspension possibilities for commercial vehicles; drawings with text. J. H. Booth. S A E J 62:47-9 Jl '54

Testing

Life assessment tests for commercial vehicles. J. Alden. plan diags Inst Mech Eng Proc (Auto div pt 2):72-9, pl 1-2; Discussion. 80-9 '52-53

Transmission

Air actuated transmission has automatic brake band adjustment. D. Scott. il diag Automotive Ind 110:62-3 Ap 1 '54

Torcon's new converter-transmission. diags Automotive Ind 110:55+ My 15 '54

Transmission flywheel stores energy while braking; Gvreacta transmissions ltd. D. Scott. diag Automotive Ind 111:64+ Ag 1 '54

Two pedal control for buses; pneumo-cyclic gearbox. il Bus Transportation 33:46 F '54

Zahnradfabrik Friedrichshaven-media gear box. il diags Automobile Eng 44:20-6 Ja '54

Wheels

Front end geometry. Bus Transportation 33:52-3+ F '54

Tire and wheel balance for longer tire life and easier steering; report of round table. S A E J 62:42-3 F '54

Wheel balancing program helps increase tire mileage. il Bus Transportation 33:33-6 Je '54

MOTOR camps. See Tourist camps, hostels, etc.

MOTOR cars (railroad)

B&M orders 44 RDCs and 12 Diesels. Ry Age 137:10 Jl 5 '54

Diesel M-U trains in Spain. il Ry Age 136:57 Je 14 '54

Multiple-unit Diesel train in aluminium. E. G. West. il plan diag Engineer 196:675-7 N 20 '53

Nine RDC's; thirty-eight trains; Boston & Maine. il Ry Age 135:11 N 30 '53

RDC's go places. il map Diesel Power 32:34-8 Mr '54

Diesel-electric

Diesel-electric railcars for South America. il Engineer 197:422-3 Mr 19 '54; Elec J 152:936 Mr 19 '54

How the Boston & Maine will use RDC's. il map diags Ry Age 137:28-30+ S 13 '54

Wanted; a modern Diesel-electric rail car. K. O. Anderson. il Elec Eng 73:125-7 F '54

Transmission

Commercial vehicle synchromesh gearbox and a railcar hypoid transmission. il Engineer 197:280-1 F 19 '54

MOTOR courts. See Tourist camps, hostels etc.

MOTOR cycle engines

Electrical motorcycle starter acts as motor and generator. il diag Product Eng 24:168-9 Ag '53

MOTOR cycles

Cycles on show, London. Economist 169:609-10 N 21 '53

Growing use of motorcycles seen at recent German show. il Automotive Ind 109:23 D 15 '53

Steering and stability of single-track vehicles. R. A. Wilson-Jones. diags Inst Mech Eng Proc (Auto div pt 4):191-9, pl 1-2; Discussion. 199-206; Reply. 206-13 '51-52

Manufacture

Arc welded motor-cycle frames. il Engineer 197:365 Mr 5 '54

MOTOR fuels. See Automotive fuel

MOTOR ships

A. H. Crane joins Ohio River fleet. il Marine Eng 59:70-1 Je '54

Army launches refrigerated vessel. Marine Eng 58:89 N '53

Carabobo, new ferryboat makes long voyage to Venezuela. il Marine Eng 58:76 D '53

Chicago Socony, a versatile tanker. il plans diags Marine Eng 58:60-8 D '53

Cordelia, first New Haven Diesel tug put in service. il Marine Eng 58:89-90 D '53

Diesel ferryboat Kahloke built to new Canadian safety standards. il Marine Eng 59:72-4 Ja '54

Fire horse to work horse; fireboat new efficient towboat. il Marine Eng 59:55-6 Jl '54

Greater shaft horsepower for harbor tugs. il Marine Eng 59:48 My '54

LT-class tugboats. il Marine Eng 59:63 S '54

Lucy E, power-packed towboat. il Marine Eng 59:71 S '54

Miss Liberty, new excursion boat. il Marine Eng 59:52-3 Ag '54

Modern ships for Grancolombiana. il Marine Eng 58:77-8+ D '53

Motor ships for the Clyde. G. W. Tripp. il Engineer 197:200-1 F 5 '54

MV Kpo, Farrell line's new feeder ship. il diag Marine Eng 59:49-51 Jl '54

MV Kungsholm, world's newest liner. il Marine Eng 59:42-4 Ja '54

New Haven tug Bumble-Bee goes into service. il Marine Eng 58:77 N '53

New York city gets new fire fighter. il plans Marine Eng 59:54-8 S '54

Powerful whaler has Diesel drive and variable propeller. il Marine Eng 59:57-8 Ja '54

Research ship Sarsia. Engineer 196:678 N 20 '53

San Francisco fireboat Phoenix. il plans Marine Eng 59:47-9 Ag '54

Shallow-draft tug claimed most powerful of type. il Marine Eng 59:67-8 Ja '54

Sweet ship for sugar trade. il Marine Eng 59:41+ Mr '54

See also

Ship propulsion, Electric

MOTOR transport. See Highway transportation

MOTOR truck contents insurance. See Insurance, Motor truck contents

MOTOR truck drivers

How's your "pohend"? H. Brandaleone. Safety Maint & Prod 108:62 Jl '54

Knights of the road; new program of awards. Safety Maint & Prod 108:59 Ag '54

New York truck strike; the inside story. G. T. Orick. il Eng N 151:28-9 Ag 27 '53

Safety for small truck fleets; Markel service, inc. C. Ray. il Rough Notes 96:19+ N '53

Truckers check themselves. il Bsns W p 116+ N 21 '53

Union wages and hours; motortruck drivers and helpers, July 1, 1953. U S Bur Labor Statistics Bul 1154:1-39; pa 30c Supt. of doc. '54

MOTOR truck drivers—*Continued*

What we know, don't know, and ought to know about commercial vehicle drivers. L. Brody. Safety Maint & Prod 107:49-52+ Ja; 65-6 F '54

See also

Drivers as salesmen

Motor trucks, Industrial—Drivers

also International brotherhood of teamsters, chauffeurs, warehousemen and helpers of America

Training

Driver training program in the Long Island lighting co. V. A. Howell. Am Gas Assn Proc 1953:617-19

Stop truck accidents before they occur W. A. Meddick. il Steel 133:114-15 S 7 '53

MOTOR truck driving

Congress transport safety sessions. Safety Maint & Prod 106:63-6 D '53

Tips on winter driving. J. T. Outlaw. Safety Maint & Prod 107:68 F '54

MOTOR truck engines

Brussels show; outstanding features of the Continental chassis. il Automobile Eng 44: 55-7 F '54

Continental high-output engines. il Automotive Ind 110:84+ F 15 '54

Cummins Diesel engines. il diags Automobile Eng 44:63-7 F '54

Dodge brings out V-8 truck engine of new design. il Automotive Ind 111:69+ Ag 15 '54

Drive line for high speed truck engines. W. P. Michell. S A E J 62:17-19; Discussion. 19-20 Je '54

Ford adopts overhead valves for all car and truck engines. J. Geschelin. il diag Automotive Ind 110:52-5+ Ja 1 '54

Ford 60-b.h.p. Diesel engine for commercial vehicles. il Engineering 177:376 Mr 19 '54

Get and protect the horsepower you buy. H. E. Bollwinkel. il Diesel Power 32:34-6 F '54

Leyland development of high-speed compression-ignition engines. S. Markland and J. McHugh. il S A E J 62:38-40 Ja '54

M.A.N. Diesel; direct-injection engine. il Automobile Eng 44:158 Ap '54

New White engine is designed for compression ratios to 10:1. il Automotive Ind 109:56+ D 15 '53

Perkins R6 engine. il diags Automobile Eng 43:397-404 O '53

Truck of the future; more payload, power. H. Ridder. diag Nat Pet N 45:79-81+ Jl 15 '53

Bearings

Cost of adequate bearing maintenance. L. E. Schamadan, jr. S A E J 62:39-40 Mr '54

Cooling

Liquid cooling. J. L. Koffman. bibliog diags Automobile Eng 44:69-74 F '54

Design

Motor vehicles in hot countries. C. J. D. Carruthers. diag Inst Mech Eng Proc (Auto div pt 4):149-55; Discussion. 155-7 '51-52

Detonation

Injection characteristics and Diesel knock. A. J. Davies. il diags Inst Mech Eng Proc (Auto div pt 4):214-19; Discussion. 220-3 '51-52

Exhaust

Industry hushing exhaust noise to meet regulatory demands for quiet trucks; based on papers by R. L. Hardgrove and others. il S A E J 62:17-21 Ap '54

SAE national transportation meeting, Chicago; abstracts of papers on vehicle exhaust noise. Diesel Power 32:34-9 My '54

Heaters

Engine heaters assure truck starting. R. T. Grunenwald. il Elec World 140:132 Jl 27 '53

Lubrication

Lubricating oil requirements for passenger transport and long-distance haulage with compression-ignition engines. A. T. Wilford. Inst Pet J 39:538-46 Ag '53

Stool pigeon; new role for lube oil. il Eng N 151:110+ Ag 13 '53

Manufacture

Gray iron shell mold castings; International harvester company's truck engine works. K. Rose. il Materials & Methods 40:102-4 Ag '54

International Harvester in commercial production of shell mold castings. il Foundry 82:126+ Ag '54

Planning pays off in new foundry techniques; Indianapolis motor truck div., International Harvester. K. W. Bennett. il Iron Age 174: 104-5 Ag '54

Mufflers

Industry hushing exhaust noise to meet regulatory demands for quiet trucks; based on papers by R. L. Hardgrove and others. il S A E J 62:17-21 Ap '54

Industry standards for truck muffler design established by AMA. Automotive Ind 110: 63+ Ap 1 '54

Mufflers; the pattern is changing. Nat Pet N 45:41-2 D 9 '53

Noise

Industry hushing exhaust noise to meet regulatory demands for quiet trucks; based on papers by R. L. Hardgrove and others. il S A E J 62:17-21 Ap '54

Measurement and evaluation of exhaust noise of over-the-road trucks. D. B. Callaway. il plan S A E J 62:52-4 Ap '54

SAE national transportation meeting, Chicago; abstracts of papers on vehicle exhaust noise. Diesel Power 32:34-9 My '54

MOTOR truck industry

Rough going in truck sales race. R. D. Raddant. Iron Age 173:104+ Ap 8 '54

Truck-trailer industry serves Nation's basic needs. A. W. Shearer. il map Automotive Ind 110:38-43 My 15; 56-60 Je 1 '54

Trucking industry must acknowledge hazards. J. M. Adelizzi. Weekly Underw 169: 993 O 24 '53

Trucks; manufacturers plan to offset smaller market next year. Iron Age 172:125 D 3 '53

Advertising

How White triples with a single. il Sales Management 71:104 S 1 '53

Finance

Truck makers; sales and earnings. M. J. Saada. Barron's 33:9-10 S 7 '53

Statistics

Factory sales and their wholesale value, U.S. plants, 1900-1953; monthly motor vehicle factory sales, by years, 1948-1953; chart and tables. Automotive Ind 110:93-4 Mr 15 '54

Factory sales to domestic and foreign markets, 1943-1953; tabulations. Automotive Ind 110:94 Mr 15 '54

Motor truck factory sales by gross vehicle weights, 1946-1953; chart and tabulations. Automotive Ind 110:96 Mr 15 '54

New truck registrations by makes and G.V.W., 1951-1953; tabulation. Automotive Ind 110:105 Mr 15 '54

New truck registrations by makes, by years, 1949-1953; tabulations. Automotive Ind 110: 101 Mr 15 '54

New truck registrations by months, 1949-1953; tabulations. Automotive Ind 110:102 Mr 15 '54

1953 new truck registrations by makes, by states, 1953; tabulation. Automotive Ind 110:104 Mr 15 '54

1953 new truck registrations by rank; tabulation. Automotive Ind 110:105 Mr 15 '54

Number and per cent of trucks in use, by age groups, 1950-1953; tabulations. Automotive Ind 110:111 Mr 15 '54

Regional sales of new trucks, 1950-1953; tabulations. Automotive Ind 110:104 Mr 15 '54

Trucks in use by makes, states and model year; tabulation. Automotive Ind 110:122-33 Mr 15 '54

U.S. exports of new trucks and chassis, 1952-1953; tabulations. Automotive Ind 110: 135 Mr 15 '54

MOTOR truck industry—*Continued*

Brazil

Brazil encourages establishment of new truck factories. L. M. Peppercorn. Automotive Ind 111:180+ S 15 '54

Western states

Custom truck industry passes crest. T. M. Rohan. il Iron Age 172:43 D 31 '53

MOTOR truck insurance. See Insurance, Motor truck

MOTOR truck robberies

Coffee number one target for cargo thieves. Weekly Underw 170:652 Mr 13 '54; Same abr. East Underw 55:47 Mr 26 '54

Pick-up trucks account for major share of thefts. East Underw 55:30 Ap 30 '54; Same. Weekly Underw 170:1160 My 8 '54

Rise in truck cargo thefts shown, but prevention efforts pay off. East Underw 54:23 Jl 24 '53; Nat Underw 57:16 Jl 23 '53

Theft prevention programs reduce truck cargo thefts. Weekly Underw 169:212-13 Jl 25 '53

Truck cargo theft situation, 1953. J. Seide. Weekly Underw 170:42-4 Ja 2 '54

Truck cargo thefts at record high but loss ratio declines in 1953. East Underw 54:92 D 11 '53

Truck cargo thefts estimated at new peak of $90,000,000 in 1953. East Underw 55:22 Jl 23 '54; Same. Weekly Underw 171:180 Jl 24 '54

Truck leaders urge greater recognition for protection program. C. E. Galston and H. E. Sheridan. Weekly Underw 169:149 Jl 18 '53

Truck theft prevention programs save millions of dollars yearly; Cargo protection bureau of New York. East Underw 55:21 Ja 1 '54; Nat Underw 57:13 D 31 '53

Truck theft prevention programs saving millions of dollars yearly for business firms. Weekly Underw 169:1547 D 26 '53

Truckers urged to cut theft hazard in local operations. J. Seide. Weekly Underw 169:1044 O 31 '53

Underwriters urged to help curtail package losses from trucks. J. Seide. Weekly Underw 170:772 Mr 27 '54; Same. East Underw 55:37 Ap 9 '54

MOTOR truck service stations

New truck stop station is king size. il Nat Pet N 45:48 Ag 19 '53

MOTOR truck terminals

Suspension roof; truck terminal roof has 70' span and 35' overhangs. il Arch Forum 98:156-7 Mr '53

Terminal cost control in trucking operations. M. C. Benton, jr. N A C A Bul 36:48-52 S '54

Truck terminals. il plans diags Arch Rec 114:173-82+ Ag '53

MOTOR truck trailers. See Trailers

MOTOR trucks

Basic commercial motor vehicles get simple engineering definitions. diags S A E J 62:84-5 Ja '54

Chevrolet trucks have more powerful engines. il Automotive Ind 109:51+ D 1 '53

Discover unit tailor made for palletless package transporting; pack-hauler. il Brick & Clay Rec 123:73+ N '53

Dodge heavy duty tipper. il Automobile Eng 44:208 My '54

Dodge offers two V-8 engines on new line of trucks. il Automotive Ind 109:58-9+ N 1 '53

Ford cars and trucks for '54. il Automotive Ind 110:51+ Ja 1 '54

Ford triple-economy 1954 trucks. il Constr Methods 36:156 F '54

Ford's 1954 trucks. il Eng N 152:106+ Ja 7 '54

FWD has new line of trucks for 1954. il Automotive Ind 109:60 D 1 '53

GMC trucks for 1954. il Automotive Ind 109:66+ D 1 '53

International motor show, Vienna. D. Scott. il Automotive Ind 110:64-6+ My 1 '54

New Lancia truck has two-stroke Diesel engine. il Automotive Ind 111:52-3 Jl 15 '54

SAE national transportation meeting, Chicago, Nov. 2-6. S A E J 61:58-62 D '53

Studebaker offers V8 engine in trucks for 1954. il Automotive Ind 110:72 Ap 1 '54

Style, power, comfort accented in the 1954 truck model derby. F. G. Lawrence. Steel 134:81-2 F 15 '54

Truck of the future; more payload, power. H. Ridder. diag Nat Pet N 45:79-81+ Jl 15 '53

Truckmakers see a return to more normal competitive conditions. F. G. Lawrence. il Steel 133:49-50 Jl 27 '53

See also

Advertising mediums—Motor trucks
Delivery of goods
Electric trucks
Loading and unloading—Motor trucks
Motor truck engines
Motor truck industry
Motor vehicles
Radio telephone on motor trucks
Refrigeration on cars, trucks, etc.
Tank trucks
Tractors
Trailers

Accidents

Traffic accident prevention techniques to be taught, nationwide, by State College to local motor vehicle fleet supervisors. A. E. Neyhart. Weekly Underw 169:758 S 26 '53

Accounting

Cost accounting for a local cartage company. W. J. Schroeder, jr. N A C A Bul 35:1440-56 Jl '54

Axles

New carbide reduces chipping and flaking; automatic lathes machining truck axles. il Iron Age 174:207 S 16 '54

Novel front axle for trucks has rotating wheel spindles. diag Automotive Ind 110:124 Ja 15 '54

Spread tandem axle gaining favor. H. Ridder. il Nat Pet N 45:52-3 S 16 '53

Welded design improves rear axle. il Machine Design 26:140 F '54

Bodies

Aluminum; aim at truck body market. J. B. Delaney. il Iron Age 173:99 Je 17 '54

Custom truck bodies; aluminum makes its move. R. E. S. Thompson. il Steel 135:100-1 Ag 23 '54

Expansion type truck body. J. Grindrod. il diags Automotive Ind 110:70-1 F 1 '54

Fiberglas reinforced plastic truck bodies. J. S. Lunn and H. T. Douglas. il S A E J 62:32-4 S '54

Flexibility for producing customized truck bodies; Boyertown auto body co. il Automotive Ind 110:80+ Je 15 '54

Plastic truck bodies; Seaboard transportation co. il Steel 133:126+ N 2 '53

Plastic truck body weighs 60 per cent less. il Automotive Ind 110:52-3 Je 15 '54

Tailoring a truck body that will be a rolling show room. il Bsns W p78-80+ O 17 '53

Telescopic body for lorries; Walker brothers (Wigan), ltd. il Engineer 196:315+ S 4 '53

See also

Hackney brothers body company

Cabs

Goods vehicle cabs. il Automobile Eng 44:175-6 Ap '54

International harvester company balanced tilting cab. il Automotive Ind 111:68 Ag 1 '54

Methods of overcoming inherent disadvantages of COE. F. R. Nail. il diags S A E J 62:36-40 F '54

Chassis

Brussels show; outstanding features of the Continental chassis. il Automobile Eng 44:45-57 F '54

Chassis design considerations for aerial equipment. H. P. Strother. diags Am Gas Assn Proc 1953:668-71

Dodge seven ton truck chassis. il plans diags Automobile Eng 44:29-38 Ja '54

Clutches

Magnetic clutches save engine power. T. MacNew. il diag Automotive Ind 111:64-5+ S 1 '54

Cost of operation

How long should you run a truck to get the lowest combined depreciation and maintenance cost? H. Willet, jr. S A E J 61:17-20 N '53

What price oil trucking? Oil & Gas J 52:117-18 Ja 18 '54

MOTOR trucks—*Continued*

Design

Design and development of heavy haulage vehicles. C. E. Burton. map diags Inst Mech Eng Proc (Auto div pt 4):141-8, pl 1-4 '51-52

Human engineering; a new approach to driver efficiency and transport safety. R. A. McFarland. S A E J 62:41-3 Je '54

New C-O-E design provides quick access to chassis parts. il Automotive Ind 111:64-5 Ag 15 '54

Electric equipment

How one contractor decides what truck to buy and then maintains even its electrical system. il Constr Methods 36:90-1+ Ap '54

Motor truck electrical equipment; abstract. J. H. Bolles. S A E J 62:65 Mr '54

Special cable disconnects battery quickly. il diags Nat Pet N 45:45 O 14 '53

Why alternator systems? abstracts. A. D. Gilchrist. Automotive Ind 109:64-5+ N 1 '53; S A E J 61:35-6 D '53

Equipment

Symposium on selection of aerial apparatus and related chassis. R. Balogh and others. il diags Am Gas Assn Proc 1953:671-83

Laws and regulations

West Coast truckers end park-down strike over weight limit enforcement. il Eng N 151:22 Jl 16 '53

Leasing

Capital conversion for higher returns; leasing of machinery, cars, trucks, etc. J. W. Rollins. il Dun's R & Mod Ind 62:60-2+ N '53

Hertz acquisition brightens outlook for Omnibus corp. Barron's 33:17-18 N 2 '53

How many arguments for fleet leasing? J. W. Rollins. Sales Management 72:102+ F 15 '54

Leasing of automotive and mobile equipment. R. O. Babcock. Am Gas Assn Proc 1953:427-30

Trend to fleet leasing. J. W. Rollins. Harvard Bsns R 32:108-14 Jl '54

Trip-leasing undermines rates. H. W. Cross. Ry Age 135:14 N 2 '53

Length of service

How long should you run a truck to get the lowest combined depreciation and maintenance cost? H. Willet, jr. S A E J 61:17-20 N '53

Number and per cent of trucks in use, by age groups, 1950-1953; tabulations. Automotive Ind 110:111 Mr 15 '54

Trucks in use by makes, states and model year; tabulation. Automotive Ind 110:122-33 Mr 15 '54

Maintenance and repair

Can a fleet be over maintained? abstract. D. H. Mikkelson. S A E J 62:62 S '54

Diesels and maintenance pay off; Braswell motor freight lines. il Diesel Power 32:40-3 Je '54

Equipment maintenance in small fleets; abstract. L. Morgan. S A E J 62:105-10 Je '54

How one contractor decides what trucks to buy and then maintains even its electrical system. il Constr Methods 36:90-1+ Ap '54

Motor truck maintenance. J. A. Karl. il Sheet Metal Worker 45:65-6+ N; 60-1+ D '53; 58-9+ F; 66-7+ Mr '54

Preventive maintenance cuts fleet costs. il Nat Pet N 46:22-4 Ja 27 '54

Three E's of operation and maintenance; engineering, equipment and education; abstract. E. C. Paige and H. T. Mueller. S A E J 62:41 F '54

Vehicle maintenance record questionnaire. S. G. Page. Am Gas Assn Proc 1953:630-1

Management

Principles of fleet management. T. L. Preble. Am Gas Assn Proc 1953:577-82; Same. Edison Elec Inst Bul 21:199-202 Je '53

Schools lack ABC's for aspiring fleet operators; report of round table. H. Jennings. S A E J 61:50 N '53

Manufacture

Drilling; truck axle king pin, spring seat holes drilled; Hayes steel products, ltd. il Iron Age 173:174-5 F 4 '54

Plastic dies form truck body parts. il Iron Age 173:124 Ap 22 '54

Want to cut costs and improve working conditions; Kenworth motor truck corp.; illustrations with text. H. E. Jackson. Mill & Factory 54:96-7 Mr '54

White motor co., where trucks are tailored to measure. il Steel 134:98-9 Ap 19 '54

Materials

Fruehauf introduces new aluminum trailer. il Automotive Ind 110:96+ Ap 1 '54

Plastics

Chemicals won't corrode; plastic truck and trailer bodies. il Chem W 73:62+ O 3 '53

Fiberglas reinforced plastic truck bodies. J. S. Lunn and H. T. Douglas. il S A E J 62:32-4 S '54

Latest developments in plastic trailers. il Automotive Ind 110:64-5+ Ja 1 '54

Plastic truck bodies; Seaboard transportation co. il Steel 133:126+ N 2 '53

Plastic truck body weighs 60 per cent less. il Automotive Ind 110:52-3 Je 15 '54

Seaboard and Strick start production of plastic trailers. Chem & Eng N 31:5310 D 21 '53

Painting and finishing

New spray-painting booth. il Elec J 152:60 Ja 1 '54

Propeller shafts

Michigan rack shaver meets machining deadline. il Steel 134:132 Ap 5 '54

Specifications

1954 trucks specifications; tabulations. Automotive Ind 110:159-65 Mr 15 '54

Springs and suspension

Air spring suspensions get a new lease on life. C. O. Slemmons. il S A E J 62:40+ Jl '54

Wins truck-fleet benefits with torsion-riding trailers; C. A. Swanson & sons. il diags Food Eng 25:97-8+ D '53

Starting

Air starters for Diesel engines. C. Lake. il diag Comp Air Mag 59:15-18 Ja '54

Engine primer built for heavy duty. il Nat Pet N 46:39+ F 17 '54

Steering gear

Clayton Dewandre hydraulically assisted steering. il diag Engineer 197:351 Mr 5 '54

Easier driving with power steering. T. H. Thomas. il S A E J 62:44-6 F '54

Front axle drive adds utility. il diag Constr Methods 36:142-3 Jl '54

Greater payload with power steering. S. G. Johnson. diags S A E J 62:63-5 Ja '54

Saginaw heavy-duty power steering for commercial vehicles. diag Automotive Ind 110:57 Ap 15 '54

Steering arrangements and ball suspension possibilities for commercial vehicles; drawings with text. J. H. Booth. S A E J 62:47-9 Jl '54

Taxation

Oil truckers hurt by Ohio axle tax. Nat Pet N 46:15 F 3 '54

Truck council blasts ton-mile tax. Nat Pet N 46:17 F 17 '54

Trucking taxes. Chem W 74:40+ Je 5 '54

Testing

Life assessment tests for commercial vehicles. J. Alden. plan diags Inst Mech Eng Proc (Auto div pt 2):72-9, pl 1-2; Discussion. 80-9 '52-53

Transmission

Commercial vehicle synchromesh gearbox and a railcar hypoid transmission. il Engineer 197:280-1 F 19 '54

Dodge seven ton truck chassis. il plan diags Automobile Eng 44:29-33 Ja '54

French truck has separate drive for each front wheel. il Automotive Ind 111:53 Jl 15 '54

MOTOR trucks—Transmission—*Continued*

Full torque shifting transmissions for commercial vehicles. D. T. Sicklesteel. Automotive Ind 111:53+ Jl 1 '54

Gear jammers; three hands cowboy. J. Gaussoin. S A E J 62:26-8 F '54

GMC Hydra-Matic transmission improves a heavy-duty line. il Constr Methods 36:78-9+ S '54

GMC's shiftless wonder gives truckers a hand; Twin Hydra-Matic. F. G. Lawrence. il Steel 134:61-2 My 31 '54

Leyland epicyclic gearbox without clutch pedal. il Engineer 196:672 N 20 '53; Engineering 176:694 N 27 '53

New automatic transmission for International trucks. il Automotive Ind 111:72 Jl 1 '54

Test shows automatic transmission works well on long haul trucks. H. Ridder. Nat Pet N 45:59-61 S 9 '53

Torcon's new converter-transmission. diags Automotive Ind 110:55+ My 15 '54

Torque converter for industrial and commercial vehicles; abstract. M. J. Waclawek. S A E J 62:96-7 Ja '54

Transmission flywheel stores energy while braking; Gyreacta transmissions ltd. D. Scott. diag Automotive Ind 111:64+ Ag 1 '54

Twin Hydra-Matic provides multiplicity of gear ratios. il diag Automotive Ind 110:50-1+ Ap 1; 111:128 Ag 1 '54

Transportation

Truckers take to seatrains; plans for ocean-going, truck-carrying ships. Steel 134:54-5 F 22 '54

Wheels

Tire and wheel balance for longer tire life and easier steering, report of round table. S A E J 62:2-3 F '54

See also

Tire rims

MOTOR trucks, Armored

Brink's defense line, concrete and steel. il Bsns W p30-2 Ag 15 '53

MOTOR trucks, Industrial

Are you overlooking powered platform trucks? W. A. Meddick. il Factory Management 111:142-4 N '53

Boom extends usefulness of fork-lift truck. A. P. Kemple and W. L. Davis. il Elec World 140:114 N 30 '53

Electric trucks fill gap in process line; Kraft cheese co. il Food Eng 26:51 Mr '54

Experimental fork truck; Clark X-70. il Mech Eng 75:650-1 Ag '53

Facts about modern fork truck attachments. il Mill & Factory 54:260 My '54

Facts about modern gas powered trucks. il Mill & Factory 54:258 My '54

Fork truck day embraces wide variety of tasks; illustrations with text. Iron Age 172:204-6 D 3 '53

Fork truck erects 50-ft trusses. il Constr Methods 36:73-4 Mr '54

Fork trucks on a turnpike; Veith Chemical. il Chem W 74:58-61 Ja 9 '54

Fork trucks provide the lift; W. H. & L. D. Betz. il Chem W 75:58 Jl 24 '54

Fork trucks repay cost quickly; U.S. metals refining co. il Iron Age 174:49 Jl 8 '54

Fuel; LP gas provides safe, low cost operation for in-plant trucks. il Iron Age 174:154+ S 9 '54

Gas industrial truck with electric transmission; Dynamotive. Franklin Inst J 256:70 Jl '53

He's delivering brick with a straddle truck; Masonry supply co. il Brick & Clay Rec 125:70 S '54

How to measure fork truck performance. R. S. Rice. diag Factory Management 112:84-93 Ap '54

Industrial truck makers get merger fever. Bsns W p 110-12 S 26 '53

Industrial truck market; the lift's still there. Steel 133:64 Ag 10 '53

Intra-plant handling of round billets and pipe with special automotive equipment; National tube division of Lorain works. J. D. Tyson. il plans diags Iron & Steel Eng 31:107-14; Discussion. 114-16 Je '54

Lift-truck attachment for handling rolls. il Engineering 177:414 Mr 26 '54

Lift truck picks up metal debris. il Mill & Factory 53:131 N '53

Lines point to truck progress. il Steel 133:82-3 Ag 31 '53

Moto-Bug slashes labor cost in yard operations; Oak Hill fire brick co. il Brick & Clay Rec 125:56 Jl '54

Motorized industrial truck applications. W. G. Hudson. il diags Paper Ind 35:1218-19 F '54

New materials handling method; gripper arms for lift trucks. il Pet Refiner 33:128 Ja '54

No indoor exhaust woes; replacing lift truck engine mufflers with Oxycat units. il Steel 133:151+ S 21 '53

Palletless handling preferred; new type of gripper arms for lift trucks. il Can Chem Process 37:58 O '53

PRR battery trucks set record. il Ry Age News ed 135:30 N 23 '53

Platform lift with push button control saves money in maintenance work; Fairfield manufacturing co. il Mill & Factory 55:131-2 Ag '54

Rockford Tool fork truck. il Iron & Steel Eng 30:213+ N '53

Rotating reel clamp for fork trucks. il Engineer 197:476 Mr 26 '54

Simplified drum handling up-ender device. il Steel 134:112 Mr 1 '54

Standard data double our fork truck utilization; Minnesota mining & manufacturing co. D. C. Prosser. Factory Management 112:90-3 Mr '54

Straddle car put to many uses by the SP. il Ry Loco & Cars 127:101 N '53

Straddle carriers. il Automobile Eng 44:241 Je '54

Trackless train spurts plant performance; American sugar refining co. il Food Eng 25:129 D '53

Trucks shoulder large load in small plants; illustrations with text. Steel 134:113 My 31 '54

Two trucks load 21,000 pipe per hour. il Brick & Clay Rec 124:80 Mr '54

Utilize fork truck for kiln repair, maintenance. il Brick & Clay Rec 125:54 Jl '54

Yale & Towne fork lift trucks are more compact. il Am Mach 98:144 Ag 30 '54

See also

Electric trucks, Industrial

Design

Lift trucks raise level of industrial styling. A. de Sakhnoffsky. il Iron Age 172:127-30 Jl 16 '53

Drivers

Cops of the inside road; Plymouth auto assembly plant. il Safety Maint & Prod 107:69 My '54

Manufacture

Extensions to an industrial truck factory. Engineer 197:170 Ja 29 '54

Making modernization dynamic; Yale & Towne mfg. co. J. W. Greve. il plan Tool Eng 32:81-8 Ap '54

Safety measures

Formula for fork truck balance. H. Milz. il diags Safety Maint & Prod 106:28-32 N '53; Same cond. Nat Safety N 68:32-3+ N '53

Industrial trucks and tractors. il Nat Safety N 69:171+ Mr '54

Stop truck accidents before they occur. W. A. Meddick. il Steel 133:114-15 S 7 '53

You can use gasoline trucks indoors, too! il Safety Maint & Prod 106:43 N '53

Specifications

1954 industrial trucks; tabulations. Automotive Ind 110:336-53 Mr 15 '54

MOTOR trucks, Military

Specifications

Military cargo vehicle specifications; tabulation. Automotive Ind 110:172 Mr 15 '54

MOTOR trucks and roads

Idaho test road shows some failures. Eng N 151:26 Jl 23 '53

MOTOR trucks and roads—*Continued*

Methods of collecting factual data on the Washo road test. W. N. Carey, jr. il Roads & Eng Constr 92:99-102+ Ja '54

Special instruments measure WASHO road-test data. W. N. Carey, jr. il plans diag Civil Eng 23:681-3+ O '53

MOTOR trucks in construction work

Contractors want better trucks. R. H. Lewis. il Constr Methods 36:126-7+ Jl '54

Front axle drive adds utility. il diag Constr Methods 36:142-3 Jl '54

GMC Hydra-Matic transmission improves a heavy-duty line. il Constr Methods 36:78-9+ S '54

Hauling 1,000,000 yards of fill through Chicago's streets. il Roads & Sts 97:78-80 My '54

How one contractor decides what truck to buy and then maintains even its electrical system. il Constr Methods 36:90-1+ Ap '54

MOTOR trucks in first aid work

Safety goes mobile; Higgins, inc. L. J. Baker. il Safety Maint & Prod 107:33 My '54

MOTOR trucks in freight service

California studies reveal highway transport's rise. Ry Age 135:74 N 2 '53

Chemicals take the highway. il Chem W 73: 44-6 O 31 '53

Class one motor carriers (intercity); carriers of property, 1949-1952. Survey of Cur Bsns 1953 Sup p 114 [supplemented in monthly numbers]

Commercial-motor manufacturers; 9th Henry Spurrier memorial lecture. H. Spurrier. Engineering 176:821 D 25 '53

Lorries for sale. Economist 169:601-2 N 21 '53

Rail-truck interchange of l.c.l? Ry Age 136: 17 F 22 '54

Selling back the lorries. Economist 169:197-8 O 17 '53

Shipping bulk by truck; Victor Chemical. il Chem W 74:46+ Ap 3 '54

Trucking trends. Chem W 74:86+ Ap 24 '54

Trucks; ban threatens independents. A. K. Rannells. Iron Age 172:40 Jl 30 '53

See also

Railroads—Motor vehicle auxiliaries

Railroads—Motor vehicle competition

Tank trucks

Accounting

Basis for truck-haul cost determination. I. Houghton. N A C A Bul 35:1037-8 Ap '54

Terminal cost control in trucking operations. M. C. Benton, jr. N A C A Bul 36: 48-52 S '54

Time control of truck delivery of bulk material. T. C. North. N A C A Bul 34:1471-5 Jl '53

Rates

East's all-freight rates equalized. Ry Age 137:8 S 27 '54

Five practical problems solved by public accounting firms; transportation rate problem. D. H. Sullivan. J Account 97:442-4 Ap '54

Highway motor carrier rates on chemicals. F. C. Tighe. il Chem & Eng N 31:3538-43 Ag 31 '53

MOTOR trucks in repair service

Capital expenditure management of the motor vehicle program. J. Dean. Am Gas Assn Proc 1953:536-47

Maintenance flying squad; first aid for breakdowns; Thew shovel co. B. W. Garrett. il Factory Management 112:121 Mr '54

Multipurpose truck does everything. L. Neilson. il Elec West 111:117 S '53

Service truck does double duty for Demby! il Dom Eng 183:120-2 Mr '54

Service trucks do double-duty at Benedicts. il diags Dom Eng 184:136-41+ Ag '54

Symposium on selection of aerial apparatus and related chassis. R. Balogh and others. il diags Am Gas Assn Proc 1953:671-83

Wet heat on wheels; Hans Jensen & sons combine utility truck with a mobile display. il Dom Eng 184:128-30 S '54

You've never met a service rig like Honey. G. F. Burnley. il Roads & Sts 97:47-8 Ap '54

MOTOR trucks in selling

Now Heidelberg has 22 demonstrators on the road. il Sales Management 72:44+ Ja 15 '54

See also

Exhibits, Traveling

MOTOR trucks in the petroleum industry

Design and development of heavy haulage vehicles. C. E. Burton. map diags Inst Mech Eng Proc (Auto div pt 4):141-8, pl 1-4 '51-52

MOTOR trucks on rails

For patrolling New Haven tracks, these cars ride road or rails. il map Ry Age 137:62+ Ag 9 '54

MOTOR vehicles

Communist vehicles at the Leipzig fair. D. Scott. il Automotive Ind 109:66-9+ N 1 '53

Jeep-powered equipment can do many jobs at low cost. il Constr Methods 36:83-4 F '54

Newest Japanese vehicles; illustrations with text. Automotive Ind 111:62-3 Ag 1 '54

Trafficability of soil as related to mobility of vehicles. R. C. Stewart and S. J. Weiss. il diags Am Soc C E Proc 79 [no 328]: 1-11 N '53

Train without a track developed by R. G. Le Tourneau. il Elec J 152:1037 Mr 26 '54

Unusual European vehicles; illustrations with text. Automotive Ind 111:51 Ag 1 '54

See also

Automobiles

Diesel engines, Automotive

Highway transportation

Motor buses

Motor cars (railroad)

Motor trucks

Railroads—Motor vehicle auxiliaries

Taxicabs

Tractors

Trailers

Trolley buses

Accounting

How we account for motorized equipment expense; Baton Rouge refinery, Esso standard oil co. F. A. Youngs. N A C A Bul 35: 627-33 Ja '54

Inspection

Free auto inspection; Frankie & Johnnie automotive service inc., New York. Weekly Underw 170:592 Mr 6 '54

Safety on the road; abstract. W. H. Glanville. Engineering 177:327 Mr 12 '54

Springs and suspension

Commercial ball joint possibilities; abstract. J. H. Booth. diags Automotive Ind 109:70 D 1 '53

Statistics

Estimated scrappage of motor vehicles, 1930-1953; ranking of the states according to 1953 total registrations; taxicab, motorcycle and trailer registrations, by states, 1951-1953; tabulations. Automotive Ind 110: 109 Mr 15 '54

Factory sales of special types of vehicles, 1948-1953; tabulation. Automotive Ind 110: 95 Mr 15 '54

Motor-vehicle registrations, Canada. Roads & Eng Constr 92:158 Je '54

New car and truck registrations by years, 1929-1953; tabulation. Automotive Ind 110: 105 Mr 15 '54

New motor vehicle registrations, by states, 1951-1953; tabulations. Automotive Ind 110: 102 Mr 15 '54

1953 motor vehicle factory sales; motor truck factory sales; tabulation. Automotive Ind 110:21 Ja 15 '54

Total U.S. motor vehicle registrations by regions, 1950-1953; by states, 1953-1952; tabulations. Automotive Ind 110:108 Mr 15 '54

U.S. exports of new motor vehicles, 1920-1953; tabulations. Automotive Ind 110:134 Mr 15 '54

U.S. imports of new passenger cars, 1949-1953; motorcycle imports, 1949-1953; tractor exports, 1953-1952; automotive exports, 1935-1953; tabulations. Automotive Ind 110:136 Mr 15 '54

U.S. motor vehicle registrations, 1900-1953; tabulation. Automotive Ind 110:107 Mr 15 '54

Vehicle registrations top 53 million during 1952. Nat Pet N 45:40 Je 3 '53

World registrations by continental divisions; tabulations. Automotive Ind 110:110 Mr 15 '54

MOTOR vehicles—*Continued*

Steering gear

Bendix-Westinghouse air-power steering system. il diag Automotive Ind 110:53 Ap 15 '54

Taxation

Estimate of user taxes paid by vehicles in different type and weight groups. E. M. Cope and others. map Pub Roads 28:17-26 Je '54

MOTOR vehicles, Amphibious

Free from flats; giant amphibious motor vehicle. il Mill & Factory 55:142 S '54

Immersible tractor to haul a lifeboat and carriage. il Engineer 196:572 O 30 '53

Muskeg crawler will allow summer exploration in Canada's muskeg swamps. G. Rempel. il map diags Pet Eng 25:B60+ Ag '53

Tractor for peat bog reclamation. il Engineer 197:245 F 12 '54; Engineering 177:285 F 26 '54

MOTOR vehicles, Military

Army research improves vehicles. R. D. Raddant. Iron Age 174:82+ Jl 22 '54

Army tank-truck program hits a detour. il Steel 133:49 Jl 20 '53

Defense contract awards; list of prime contracts for various types of automotive military equipment, including tanks, motorized gun carriages, trucks, warplanes, automotive components and spare parts, automotive maintenance equipment, etc. (cont). Automotive Ind 109:84+ N 15; 134+ D 15 '53; 110:118+ Ja 15; 434+ Mr 15; 102+ Ap 15; 120+ My 15; 98+ Je 15; 111:128+ Ag 15; 154+ S 15 '54

How small engines are being standardized for the armed forces. R. W. Beal and R. F. Dennis. il diags Automotive Ind 111:48-51+ S 15 '54

Jeeps could be replaced by Ford's new 1/4-ton utility truck. Iron Age 174:87 S 23 '54

See also

Tanks, Military

Lubrication

Performance characteristics of MIL-O-2104 lubricants in army heavy-duty service. N. C. Penfold and N. L. Klein. bibliog Am Pet Inst Proc 33(3):202-6 '53

Manufacture

Handling fixtures coordinate conveyors with permanent work stations; Checker cab manufacturing corp. H. Chase. il Iron Age 174:134-6 Ag 19 '54

Transfer machining of armored vehicle hulls. T. L. Hallenbeck. il Mach 60:163-7 Je '54

Testing

Magnetic recording for vehicular research. G. K. Guttwein and J. M. Leslie, jr. il diags Electronics 27:154-9 F '54

MOTORS, Electric. See Electric motors

MOUNT PALOMAR. See Palomar, Mount

MOUNTAIN fuel supply company

New natural gas source to increase earnings. Barron's 33:22 D 21 '53

Public utility securities. O. Ely. Comm & Fin Chr 178:1865 N 12 '53

Stock offered. Comm & Fin Chr 178:1058 S 21 '53

MOUNTAIN railroads

98-mile radio keeps trains moving over the Cascade mountains. il map Ry Age 135:41-3 D 28 '53

MOUNTAIN roads

Earthwork design and grading methods for the West Virginia turnpike. H. J. McKeever. il map diag Roads & Sts 96:65-80 N '53

Hawaii builds mountain highways, feature realignment and tunnels. il Eng N 152:54-6 Mr 25 '54

Mountain boulevard; West Virginia joins the turnpike parade. C. H. Vivian. il map Comp Air Mag 58:296-305 N '53

Mountain turnpike goes into home stretch. il map Eng N 152:30-2+ Mr 25 '54

MOUNTAIN states employers council

Making a bosses' union work. Bsns W p 164-6 D 12 '53

MOUNTAIN states power company

Bonds offered. Comm & Fin Chr 178:1373 O 12 '53

Modest increase in earnings. Barron's 33:30 N 16 '53

Yale plus Kalispell equals major Northwest merger. il Elec World News ed 141:30-2 F 15 '54

MOUNTING of machinery. See Machinery—Mounting

MOVABLE bridges. See Bridges, Movable

MOVIDYN. See Disinfection and disinfectants

MOVING

Employee moving allowances; a survey. H. Price. Management R 43:426-7 Jl '54

See also

Factories—Moving

MOVING boundary systems

Determination of the adjusted indicator concentration behind a moving boundary in dilute solution; the system potassium chloride-sodium chloride in water at 25°. D. R. Muir, J. R. Graham and A. R. Gordon. bibliog Am Chem Soc J 76:2157-60 Ap 20 '54

MOVING of structures

Hydrostatic tank movement saved Union oil company $55,000. R. Sneddon. il Pet Eng 25:D36 O '53

Shell moves a tank the easy way. il plan Chem Eng 60:140-1 Ag '53

Try moving heavy stuff on ball bearings; move a 1900-ton water tower 300 yards. il Power Eng 57:99 D '53

See also

Bridges—Moving

MOVING picture cameras

Ballistic research laboratories-Naval gun factory cinetheodolite. S. M. Lipton and K. R. Saffer. il diags Soc Motion Picture & Tv Eng J 61:33-44 Jl '53

Full-frame 35mm Fastax camera. J. H. Waddell. il Soc Motion Picture & Tv Eng J 61:624-7 N '53

Product design of the Brownie movie camera. M. E. Brown. il Mech Eng 76:227-30 Mr '54

70mm test vehicle recorder. C. T. Lakin. il Soc Motion Picture & Tv Eng J 60:671-4 Je '53

35mm stereo cine camera. C. E. Beachell. il Soc Motion Picture & Tv Eng J 61:634-41 N '53

Mounting

M-45 tracking camera mount. M. A. Bondelid. il Soc Motion Picture & Tv Eng J 61:175-82 Ag '53

Standards

Proposed revision, PH22.58 and PH22.59 apertures for 35mm projectors and cameras. diags Soc Motion Picture & Tv Eng J 61:557-9 O '53

MOVING picture films

Automatic film splicer. A. V. Jirouch. il diags Soc Motion Picture & Tv Eng J 61:333-7 S '53

German test film. il Soc Motion Picture & Tv Eng J 61:652-4 N '53

Improved color films for color motion-picture production. W. T. Hanson, jr. and W. I. Kisner. bibliog il diag Soc Motion Picture & Tv Eng J 61:667-701, pl 1-5 D '53

Matching densitometry to production. H. T. Raffety. il diags Soc Motion Picture & Tv Eng J 60:692-5 Je '53

Portrait of a poison gas; instrument based on hydrogen sulfide staining of special film. diag Ind & Eng Chem 46:sup 11A+ Ag '54

Processing 16mm color film with a silver sound track. J. Fritzen. Soc Motion Picture & Tv Eng J 60:690-1 Je '53

Visual examination of 16mm photographic sound tracks. O. L. Goble. il diag Soc Motion Picture & Tv Eng J 60:688-9 Je '53

Reels

Revision; PH22.11, 1953 16mm motion picture projection reels. diags Soc Motion Picture & Tv Eng J 61:338-42 S '53

3 D brings handling problem to theaters. R. L. Moore. il Nat Safety N 69:42+ Ja '54

MOVING picture films—*Continued*

Standards

Proposed American standard; dimensions for 8mm motion-picture film and dimensions for 35mm motion-picture positive raw stock. diags Soc Motion Picture & Tv Eng J 60:727-30 Je '53

Two revised American standards PH22.43, -.44—16mm sound test films. Soc Motion Picture & Tv Eng J 61:655-7 N '53

MOVING picture industry

Picture horizon. I. U. Cobleigh. Comm & Fin Chr 178:2263 D 10 '53

Schary keeps ideas and people on the track. il Bsns W p78-84+ Ag 15 '53

Turn for the bigger. il Bsns W p 146+ N 14 '53

U.S. exports of films, equipment gain in '53. For Comm W 50:17 N 23 '53

Warming up for a new take-off. il Bsns W p 108+ N 21 '53

Accounting

Picture of motion picture making and costs. J. M. Blankley. N A C A Bul 34:1387-411 Jl '53

Advertising

Less-than-colossal movie advertising. G. Moses. Adv Agency 46:74-5 My '53

Finance

Hollywood hassle. T. A. Wise. Barron's 33:9-11 N 9 '53

See also

Universal pictures company, inc.

Securities

Movies in flux. P. Dobbs. Mag of Wall St 92:722-3+ S 19 '53

Canada

Canada increases film imports from Europe. For Comm W 50:19 S 7 '53

France

New measures to aid French film industry. For Comm W 50:8 S 21 '53

Germany

Addendum to progress committee report, developments in Germany. G. R. Groves. il Soc Motion Picture & Tv Eng J 60:680-7 Je '53

Feature film output up in west Germany. For Comm W 50:19 S 7 '53

West German motion picture attendance at 558 million, 1952. For Comm W 50:17 O 5 '53

West Germany uses big share of U.S. films. For Comm W 50:16 N 23 '53

Great Britain

Agreement on the film levy. Economist 169:440 N 7 '53

British film industry; charts. Economist 169:11 O 3 '53

Confidence in film production? Economist 168:720 S 12 '53

Funds for films. Economist 169:513, 688 N 14, 28 '53

Time limit for the film levy. Economist 169:351 O 31 '53

Vision and the box-office. Economist 168:126 Jl 11 '53

Will cinemas close? Economist 168:808-9 S 19 '53

Spain

Spain signs new film agreement with U.S. For Comm W 50:10 D 14 '53

MOVING picture laboratories

Optimum screen brightness for viewing 16mm Kodachrome prints. L. A. Armbruster and W. F. Stolle. Soc Motion Picture & Tv Eng J 61:248-56 pt 2 Ag '53

Equipment

Automatic film splicer. A. V. Jirouch. il diags Soc Motion Picture & Tv Eng J 61:333-7 S '53

Conversion of 16mm single-head continuous printers for simultaneous printing of picture and sound on single-system negative. V. E. Patterson. il Soc Motion Picture & Tv Eng J 61:512-15 O '53

Nonintermittent photomagnetic sound film editor. W. R. Hicks. il Soc Motion Picture & Tv Eng J 61:324-32 S '53

Westrex film Editer. G. R. Crane and others. il diags Soc Motion Picture & Tv Eng J 61:316-23 S '53

MOVING picture machines

Apparatus for aperture-response testing of large Schmidt-type projection optical systems. D. J. Parker and others. il diags Soc Motion Picture & Tv Eng J 61:721-30 D '53

British Thomson-Houston 16 mm. film projector. il Elec J 152:1037 Mr 26 '54

Projector for 16mm optical and magnetic sound. J. A. Rodgers. il diag Soc Motion Picture & Tv Eng J 61:642-51 N '53

16mm projector for full-storage operation with an iconoscope television camera. E. C. Fritts. il diag Soc Motion Picture & Tv Eng J 61:45-51 Jl '53

Sound-projector amplifier for 16-mm motion pictures. J. A. Rodgers. il diag Electronics 26:194-5 D '53

Light sources

Improved carbon-arc light source for three-dimensional and wide-screen projection. E. Gretener. diags Soc Motion Picture & Tv Eng J 61:516-24 O '53

Performance of high-intensity carbons in the blown arc. C. E. Greider. il Soc Motion Picture & Tv Eng J 61:525-32 O '53

Recent developments in carbons for motion-picture projection. F. P. Holloway and others. bibliog Soc Motion Picture & Tv Eng J 61:223-40 pt 2 Ag '53

Manufacture

Ingenious machining of small parts; Ampro corp. il Mill & Factory 55:118-21 S '54

Standards

Proposed American standard; aperture for 35mm sound motion-picture projectors. diag Soc Motion Picture & Tv Eng J 60:731 Je '53

Proposed revision, PH22.58 and PH22.59 apertures for 35mm projectors and cameras. diags Soc Motion Picture & Tv Eng J 61:557-9 O '53

Testing

German test film. il Soc Motion Picture & Tv Eng J 61:652-4 N '53

MOVING picture photography

Addendum to progress committee report, developments in Germany. G. R. Groves. il Soc Motion Picture & Tv Eng J 60:680-7 Je '53

Mathematical and experimental foundation for stereoscopic photography. A. J. Hill. bibliog il diags Soc Motion Picture & Tv Eng J 61:461-86 O '53

High speed

Development of high-speed photography in Europe. H. Schardin. il diags Soc Motion Picture & Tv Eng J 61:273-85 S '53

Full-frame 35mm Fastax camera. J. H. Waddell. il Soc Motion Picture & Tv Eng J 61:624-7 N '53

Glow lamps for high-speed camera timing. H. M. Ferree. il diags Soc Motion Picture & Tv Eng J 61:742-8 D '53

High-speed motion picture photography applied to resistance welding. I. S. Goodman. il diags Welding J 33:548-52 Je '54

High-speed motion-picture photography of electrical arcs on a high-voltage power system. E. J. Harrington and H. C. Ramberg. il Soc Motion Picture & Tv Eng J 60:675-9 Je '53

High-speed photographic studies of knocking combustion. C. D. Miller. il diags U S Nat Advisory Com for Aeronautics 1951:455-99 bibliog(72 titles, p498-9) '52

High-speed photography in the chemical industry. W. O. S. Johnson. il diags Soc Motion Picture & Tv Eng J 61:619-23 N '53

Multiexposure flash for high-speed cameras. L. D. Findley and others. il diags Electronics 27:180-2 F '54

Photographic instrumentation of timing systems. A. M. Erickson. il diags Soc Motion Picture & Tv Eng J 61:165-72; Discussion. 172-4 Ag '53

MOVING picture photography—High speed—*Continued*

Photography; new research tool. K. W. Bennett. Iron Age 174:75-6 S 9 '54

Photography of motion. J. H. Waddell. diags Soc Motion Picture & Tv Eng J 61:24-32 Jl '53

Random picture spacing with multiple camera installations. R. I. Wilkinson and H. G. Romig. diag Soc Motion Picture & Tv Eng J 61:605-14; Discussion. 614-18 N '53

70mm test vehicle recorder. C. T. Lakin. il Soc Motion Picture & Tv Eng J 60:671-4 Je '53

Some applications of high speed motion picture photography to lamp manufacturing. I. S. Goodman. il diags Illum Eng 48:620-4 D '53

See also

Photography of projectiles

Bibliography

Bibliography on high-speed photography. Soc Motion Picture & Tv Eng J 61:749-57 D '53

Industrial applications

Cut engineering costs with high speed motion pictures; Lockheed aircraft corp. A. E. Ground. il Iron Age 172:97-100 Ag 27 '53

Movies; let camera find output flaws; time-lapse photography. K. W. Bennett. il Iron Age 172:41 O 29 '53

Photography; new research tool. K. W. Bennett. Iron Age 174:75-6 S 9 '54

See also

Moving pictures in industry

Lighting

Compact high-output engine-generator set for lighting motion-picture and tv locations. M. A. Hankins and P. Mole. il Soc Motion Picture & Tv Eng J 61:731-41 D '53

Scientific applications

See also

International scientific film association

Standards

Status of motion-picture standards. Soc Motion Picture & Tv Eng J 61:79-82 Jl '53

Study and teaching

Motion-picture sound installation at the University of California, Los Angeles. B. Eddy. il Soc Motion Picture & Tv Eng J 60:709-15 Je '53

MOVING picture projection

Effects of stray light on the quality of projected pictures at various levels of screen brightness. R. L. Estes. bibliog Soc Motion Picture & Tv Eng J 61:257-70; Discussion. 270-2 pt 2 Ag '53

Resolution in stereoscopic projection. B. G. Saunders. diags Soc Motion Picture & Tv Eng J 60:651-5 Je '53

MOVING picture projectors. See Moving picture machines

MOVING picture screens

First-order theory of diffuse reflecting and transmitting surfaces. A. J. Hill. Soc Motion Picture & Tv Eng J 61:19-23 Jl '53

Shape of screens to come. diags Economist 168:41-3 Jl 4 '53

Brightness

Objective evaluation of projection screens. E. W. D'Arcy and G. Lessman. bibliog il diags Soc Motion Picture & Tv Eng J 61:702-20 D '53

Screen brightness symposium. W. W. Lozier and others. bibliog il diags Soc Motion Picture & Tv Eng J 61:213-72 pt 2 Ag '53

Specifying and measuring the brightness of motion picture screens. F. J. Kolb, jr. diags Soc Motion Picture & Tv Eng J 61:533-56 O '53

MOVING picture sound recording

Basic principles of stereophonic sound. W. B. Snow. diags Soc Motion Picture & Tv Eng J 61:567-87 bibliog (68 titles, p585-7); Discussion. 587-9 N '53

Experiment in stereophonic sound. L. D. Grignon. diags Soc Motion Picture & Tv Eng J 61:364-77; Discussion. 377-9 pt 2 S '53

Motion-picture sound installation at the University of California, Los Angeles. B. Eddy. il Soc Motion Picture & Tv Eng J 60:709-15 Je '53

Processing 16mm color film with a silver sound track. J. Fritzen. Soc Motion Picture & Tv Eng J 60:690-1 Je '53

Projector for 16mm optical and magnetic sound. J. A. Rodgers. il diag Soc Motion Picture & Tv Eng J 61:642-51 N '53

Stereophonic recording and reproducing system. H. Fletcher. Soc Motion Picture & Tv Eng J 61:355-61; Discussion. 361-3 pt 2 S '53

Stereophonic recording and reproducing equipment. J. G. Frayne and E. W. Templin. il diags Soc Motion Picture & Tv Eng J 61:395-405; Discussion. 405-7 pt 2 S '53

Visual examination of 16mm photographic sound tracks. O. L. Goble. il diag Soc Motion Picture & Tv Eng J 60:688-9 Je '53

See also

Moving picture theaters—Sound equipment

Magnetic recording

Correction of frequency-response variations caused by magnetic-head wear. K. Singer and M. Rettinger. Soc Motion Picture & Tv Eng J 61:1-6; Discussion. 6-7 Jl '53

Four-track film for stereo sound. il diag Electronics 26:200+ O '53

Magnetic sound projection for color tv. Adv Agency 47:67 S '54

Multiple-track magnetic heads. K. Singer and M. Rettinger. il diags Soc Motion Picture & Tv Eng J 61:390-4 pt 2 S '53

Nonintermittent photomagnetic sound film editor. W. R. Hicks. il Soc Motion Picture & Tv Eng J 61:324-32 S '53

Synchronized magnetic tape recording. R. H. Ranger. diags Elec Eng 73:69-73 Ja '54

Visual monitor for magnetic tape; Magnescope. R. L. Miller. il Soc Motion Picture & Tv Eng J 61:309-12; Discussion. 313-15 S '53

MOVING picture theaters

Cinerama may require modification of theater design to accommodate its outsize screen and triple projection equipment. il plan Arch Forum 97:128-9 N '52

Social and recreational buildings; theaters fight tv with new appeals; Paramount preview theater, New York. il plan Arch Rec 115:168 Ja '54

Theater survey questionnaire. diags Soc Motion Picture & Tv Eng J 61:69-74 Jl '53

Safety measures

3 D brings handling problem to theaters. R. L. Moore. il Nat Safety N 69:42+ Ja '54

Sound equipment

Loudspeakers and amplifiers for use with stereophonic reproduction in the theater. J. K. Hilliard. il diags Soc Motion Picture & Tv Eng J 61:380-9 pt 2 S '53

New theater sound system for multipurpose use. J. E. Volkmann and others. il Soc Motion Picture & Tv Eng J 61:408-14 pt 2 S '53

MOVING picture theaters, Open air

Drive-in theater dub'l cone in-a-car speaker. J. R. Hoff. il diag Soc Motion Picture & Tv Eng J 60:721-3 Je '53

Drive-ins steal the show. il Bsns W p 114 Ag 15 '53

Improved equipment for drive-in theaters. R. H. Heacock. il Soc Motion Picture & Tv Eng J 60:716-20 Je '53

MOVING picture theaters, Ship

16mm motion-picture theater installations aboard naval vessels. P. M. Cowett. il diags Soc Motion Picture & Tv Eng J 61:8-18 Jl '53

MOVING pictures

Daniel Blum's screen world. v5 224p $4.50 Greenberg, 201 E. 57th st, New York 22 '54

Electronic movies forge ahead; video tape development. il Electronics 27:5-6 Ja '54

MOVING pictures—*Continued*

Picture quality of motion pictures as a function of screen luminance. L. D. Clark. Soc Motion Picture & Tv Eng J 61:241-7 pt 2 Ag '53

RCA demonstrates magnetic tape recording of color and black-and-white tv pictures. D. Sarnoff. il diags Elec Eng 73:97-8 Ja '54

RKO film offers tie-in promotion. H. D. Nicholson. il Am Gas Assn Mo 36:24-6 Jl-Ag '54

See also

Cinemascope
Cinerama
Television broadcasting—Moving pictures

Catalogs

Motion pictures, 1894-1912. H. L. Walls. 92p $2 Register of copyrights, Library of Congress, Washington 25 '53

Motion pictures, 1940-1949. 599p $10 Register of copyrights, Library of Congress, Washington 25 '53

Editing

Nonintermittent photomagnetic sound film editor. W. R. Hicks. il Soc Motion Picture & Tv Eng J 61:324-32 S '53

Westrex film Editer. G. R. Crane and others. il diags Soc Motion Picture & Tv Eng J 61:316-23 S '53

Rating

Ratings of motion pictures. Published in monthly numbers of Consumers' research bulletin.

MOVING pictures, Colored

Brightness modification proposals for televising color film. W. L. Brewer and others. bibliog diags Inst Radio Eng Proc 42:174-91 Ja '54

Improved color films for color motion-picture production. W. T. Hanson, jr. and W. I. Kisner. bibliog il diag Soc Motion Picture & Tv Eng J 61:667-701, pl 1-5 D '53

Matching densitometry to production. H. T. Raffety. il diags Soc Motion Picture & Tv Eng J 60:692-5 Je '53

Optimum screen brightness for viewing 16mm Kodachrome prints. L. A. Armbruster and W. F. Stolle. Soc Motion Picture & Tv Eng J 61:248-56 pt 2 Ag '53

Primary color filters with interference films. H. H. Schroeder and A. F. Turner. Soc Motion Picture & Tv Eng J 61:628-33 N '53

Processing 16mm color film with a silver sound track. J. Fritzen. Soc Motion Picture & Tv Eng J 60:690-1 Je '53

Transmission densitometer for color films. K. G. Macleish. bibliog il diags Soc Motion Picture & Tv Eng J 60:696-708 Je '53

MOVING pictures, Industrial. See Moving picture photography—Industrial applications; Moving pictures in industry

MOVING pictures, Stereoscopic

Benefits to vision through stereoscopic films. R. A. Sherman. bibliog il diags Soc Motion Picture & Tv Eng J 61:295-306; Discussion. 306-8 S '53

Brown-Forman tosses big market to distributors in 3-D sales meetings. G. G. Brown. il Sales Management 71:65-8 N 1 '53

Depth perception with special reference to motion pictures. T. R. Murroughs. Soc Motion Picture & Tv Eng J 60:656-70 Je '53

Mathematical and experimental foundation for stereoscopic photography. A. J. Hill. bibliog il diags Soc Motion Picture & Tv Eng J 61:461-86 O '53

Moab gets rich on 3-D scenery. il Bsns W p80-4 S 5 '53

Resolution in stereoscopic projection. B. G. Saunders. diags Soc Motion Picture & Tv Eng J 60:651-5 Je '53

Shape of screens to come. diags Economist 168:41-3 Jl 4 '53

35mm stereo cine camera. C. E. Beachell. il Soc Motion Picture & Tv Eng J 61:634-41 N '53

3-D comeback. Bsns W p45-6 D 12 '53

MOVING pictures in advertising

Champion says it with movies. il Bsns W p94+ Ag 1 '53

Crowds see Monsanto movie but they don't hear the name. il Ind Marketing 38:82 N '53

How Alexander Film cut errors with new system. il Am Bsns 23:14-15+ D '53

How you can cut the cost of commercial films. J. Campbell. il Ptr Ink 244:39-40 Jl 31 '53

Printers' Ink 1954 advertisers' annual; films. Ptr Ink 245:355-6+ sec 2 O 23 '53

Word to the wives; movie featuring an all-gas kitchen-laundry. il Am Gas Assn Mo 36:14-15 S '54

See also

Television advertising

MOVING pictures in education

Now you can book movies at a service station; Imperial oil, limited. Sales Management 70:129 Ap 15 '53

Portable demonstration channel used for hydraulics motion pictures. L. G. Straub. il Civil Eng 23:466-7 Jl '53

Say it with movies; aids in teaching chemistry. il Ind & Eng Chem 46:sup 15A My '54

MOVING pictures in employee training. See Moving pictures in industry

MOVING pictures in industry

Customer relations training by manual and film. B. J. McMillen. Am Gas Assn Proc 1953:248-50

Distributors like movies; manufacturers finding some form of film important part of their distributor sales training program. L. H. Brendel. Sales Management 73:74+ S 20 '54

Film beckons tool and die apprentices. il Steel 133:97 S 21 '53

Films for management. il Dun's R & Mod Ind 63:141+ Ja '54 [cont monthly]

Films for selling. il Dun's R & Mod Ind 62:62-4 Ag '53

Films in power saw training. A. M. Stewart. Pulp & Pa of Can 54:160+ O '53

Films; potent box office in industry. K. W. Bennett. il Iron Age 172:69-70 Jl 16 '53

Films that offer no pat answers. F. G. Lippert. il Elec World News ed 139:32-3 Je 22 '53

Films you can rent or buy for meetings and training sessions. Sales Management 71:52-5 S 1 '53

Good industrial movie produced on low budget. J. B. Delaney. il Iron Age 174:105-7 Jl 15 '54

How industry is using the S.A.M. performance rating films. Advanced Management 19:6 Ap '54

Industrial films. Published in monthly numbers of Factory management and maintenance

Industrial movies; tool with potential. il Steel 134:52 My 31 '54

Martin-Senour underplays commercial, wins wide audience for film. il Sales Management 71:78+ D 15 '53

Monsanto documentary film gives boy's eye view of chemistry. il Chem & Eng N 31:2982 Jl 20 '53

Movies add dimension to plant picture. R. H. Stearns. il Steel 133:158-60 S 14 '53

Movies; how firm uses training aid. il Iron Age 172:120-1 N 12 '53

Movies; industrial film makers turn to wide screen technique; Bell & Howell's anamorphic lenses for use with 16-mm film. Iron Age 174:70 Jl 22 '54

New sound film shows you how to avoid valve troubles; Crane co. Factory Management 112:126-7 My '54

Not enough time; Firestone films were program base. C. B. Ryan. il Sales Management 71:42+ pt 2 O 1 '53

Observe, explain, solicit! Socony dealers learn via loop film. E. M. Kelley. Sales Management 71:133-5 O 15 '53

Remodeling film. il Dom Eng 183:100-1 F '54

Selling tomorrow's automation to the rank-and-file; movie released by Ford motor co. il Bsns W p66-7+ O 3 '53

7,655 showings of Columbia's Dan and Gus tell public of utility operating problems. il Am Gas J 180:23+ Ap '54

Show 'em what to see; delegates see motion pictures of displays in exhibit hall as stimulus to visit exhibits. Sales Management 71:70+ pt 2 O 1 '53

MOVING pictures in industry—*Continued*

Sound-slide film explains insured benefits to employees; Daystrom, inc. Weekly Underw 169:144 Jl 18 '53

Technical reports via film. Ind & Eng Chem 46:sup59A My '54

Tool, die film recruits trainees. Iron Age 172: 216-17 O 8 '53

Try personal contact selling; Bellows co. salesmen each carry movie of how the product, Bellows' first air motor, could increase a manufacturer's production. Steel 134:51 Mr 22 '54

United air lines sells its insurance benefits in movie. Nat Underw (Life ed) 58:23 My 7 '54

Word on the rating films. V. A. Flynn. Advanced Management 18:29 Ap '53

See also

Moving picture photography—Industrial applications

MOVING pictures in safety education

Aetna film on safe driving shows latest methods. East Underw 55:42 Ap 16 '54

Film portrays big equipment accidents; safety film called The gamblers. il Constr Methods 36:74-5+ F '54

First-aid progress shown in film. il Nat Safety N 70:44 Ag '54

Hartford's fire inspection bureau featured in National Board film. East Underw 55:29 S 17 '54

Look who's driving given its big premier showing; Aetna Casualty's new safety motion picture film. il Weekly Underw 170:192 Ja 16 '54

Movies every week; excellent medium for the safety message. W. M. Oard. il Nat Safety N 69:70-1 Je '54

National committee promotes films for safety. Nat Safety N 69:80+ Je '54

Catalogs

National directory of safety films. Nat Safety N 69:sup N 1-64 Je '54

MOVING pictures on ships. See Moving picture theaters, Ship

MOVING stairways. See Escalators

MOWING machines

Cutting the cost of cutting weeds. C. E. Wright. il Pub Works 85:68 F '54

Grass mowing and blowing machine; Mowblow. il Engineer 196:316 S 4 '53

MOXLEY, Stephen Dewey, 1898-

ASME elects two Fellows. Mech Eng 75:842 O '53

MUCILAGE

Crystalline galactobiose from acid hydrolysis of okra mucilage. R. L. Whistler and H. E. Conrad. bibliog Am Chem Soc J 76:1673-4 Mr 20 '54

2-*O*-(D-galactopyranosyluronic acid)-L-rhamnose from okra mucilage. R. L. Whistler and H. E. Conrad. bibliog Am Chem Soc J 76:3544-6 Jl 5 '54

Studies on seed mucilages; the seed mucilage of plantago arenaria. E. L. Hirst, E. G. V. Percival and C. B. Wylam. Chem Soc J p 189-98 Ja '54

Analysis

Isolation of oligosaccharides from gums and mucilages. P. Andrews, D. H. Ball and J. K. N. Jones. Chem Soc J p4090-5 D '53; p 1724-6 Je '54

MUCOHALIC acids

Studies on the mucohalic acids; replacement of halogen in the pseudo ester series. H. H. Wasserman and F. M. Precopio. bibliog Am Chem Soc J 76:1242-3 Mr 5 '54

MUCOPOLYSACCHARIDES. See Polysaccharides

MUCOUS membranes

Phosphorylation of 3-methylglucose by hexokinase from rat's intestinal mucosa. T. Z. Csáky. bibliog Science 118:253-4 Ag 28 '53

MUD

See also

Petroleum—Mud fluids

MUD flow

Mudflow of 1941 at Wrightwood, southern California. R. P. Sharp and L. H. Nobles. bibliog maps diags Geol Soc Bul 64:547-60, pl 1-2 My '53

MUDROCKS. See Mudstone

MUDSTONE

Fissility of mudrocks. R. L. Ingram. bibliog diag Geol Soc Bul 64:869-78, pl 1 Ag '53

MULLITE

Effect of TiO_2, Fe_2O_3, and alkali on mineralogical and physical properties of mullite-type and mullite-forming Al_2O_3-SiO_2 mixtures. K. G. Skinner and others. diags Am Cer Soc J 36:349-56 N 1 '53

Study of the reaction rates between silica, alumina, mullite, zirconia and other oxides at various temperatures. Abd-El-Moneim Abou-El-Azm. Glass Ind 35:202-3+ Ap '54

Vancouver steel co. uses mullite roofs on electric furnaces. G. R. Heffernan. il diag J Metals 5:884-5 Jl '53

MULTILITH machine. See Duplicating machines

MULTIPLE location service office

Annual meeting, 25th, New York, Jan. 20. East Underw 55:22 Ja 29 '54; Nat Underw 58:6 Ja 28 '54

MULTIPLE peril insurance rating organization

Functions; aims for future. Weekly Underw 169:256+ Ag 1 '53

Issues statement of its philosophy, aims. Nat Underw 57:2+ Jl 30 '53

MULTIPLEX system. See Radio telephone—Multiplex system

MULTIPLIER tubes. See Photoelectric cells—Multiplier tubes

MULTIVIBRATORS

Extending multivibrator delay time. G. E. Kaufer. diags Electronics 27:232+ F '54

Interesting nonlinear effects. R. S. Mackay. il diags J Ap Phys 24:311-13 Mr '53

Multivibrator circuits. R. H. Müller. Anal Chem 26:sup33A-4A Ja '54

MUMFORD, Lewis, 1895-

Mumford gets award for Record article. pors Arch Rec 115:15 Ja '54

MUNICIPAL accounting

Costing for municipalities; field for development. R. L. Rouse. N A C A Bul 35:1014-25 Ap '54

Municipal audits and the formation of public policy. G. Y. Steiner. J Account 97:215-17 F '54

MUNICIPAL bonds

Auditor's report on municipal revenue bonds. W. F. Morgan. J Account 97:316-20 Mr '54

Municipal group protests federal competition; report on IBA municipal committee. Comm & Fin Chr 178:2388+ D 17 '53

Ports vs. tax bill; fear development will be hurt by municipal-bond provision. Eng N 152:110 Ap 29 '54

State and city department bond proposals and negotiations. Published in weekly Monday numbers of Commercial and financial chronicle

Thwarting nuisance suits on public borrowing. D. M. Wood. Comm & Fin Chr 178: 2385 D 17 '53

Voters o.k. $800-million in new bond issues. Bsns W p74 N 14 '53

See also

Municipal finance

MUNICIPAL buildings

See also

Municipal centers

MUNICIPAL centers

Alvar Aalto in the Finnish forests; puts up a civic center of brick in a small mill town north of Helsinki. il plans Arch Forum 100:148-53 Ap '54

Five civic centers in South America. il map plans diags Arch Rec 114:121-36 Ag '53

Six-in-one civic center; Brownsville, Tex. il plan Arch Forum 101:144-9 Ag '54

Sliding wall, acoustical aids feature in all-inclusive civic center. il Eng N 151:51-2+ D 3 '53

MUNICIPAL employees

Ask Legislature to outlaw New York city health insurance plan's group-practice program. A. P. Ingegno. Weekly Underw 170: 604 Mr 6 '54

Problem of public employee safety. W. R. LaDue. Am Water Works Assn J 45:1211-18 N '53; Same cond. il Pub Works 84:56-7+ N '53

See also

Police

MUNICIPAL engineering
See also
City planning
Municipal improvement
Pavements
Public works
Refuse collection
Refuse disposal
Sewage disposal
Sewerage
Snow removal
Streets
Water purification
Water supply engineering

MUNICIPAL engineers
How the city engineer can improve his city. J. P. Lawlor. Pub Works 85:128+ My '54

MUNICIPAL finance
Cities have plans, can get money for billions in improvement work. Eng N 152:141-2 Mr 18 '54
Forecasting state and local expenditures. G. W. Mitchell. J Bsns 27:17-21 Ja '54
See also
Municipal bonds
Municipal taxation
Public works—Finance
Waterworks—Finance

MUNICIPAL government
Will urban rehabilitation lead to demand for political overhaul of city governments? R. E. Merriam. House & Home 5:170+ F '54
See also
Municipal finance
Radio broadcasting—Municipal programs

Yearbooks

Municipal year book, 1954. 613p $10 International city managers' assn, 1313 E. 60th st, Chicago 37 '54

MUNICIPAL improvement
Authority plans $360-million project; Philadelphia redevelopment authority. Eng N 151:42-3 D 24 '53
Blight problems of smaller cities get more attention in new program. E. Mickel. Arch Rec 115:16+ Je '54
Can your city put its downtown railroad land to better use? il diag Arch Forum 101:138-43 Ag '54
Chicago outlines improvement program. Eng N 151:38-9 D 31 '53
Chicago unfolds big redevelopment plan. il Eng N 152:23-4 Mr 25 '54
Cities have plans, can get money for billions in improvement work. Eng N 152:141-2 Mr 18 '54
Cities not for dying; redevelopment boom. il plans diag Arch Rec 115:170-7 My '54
Improvements ok'd; St Paul launches decade of public construction. il Eng N 151:45-6 N 26 '53
See also
City planning

MUNICIPAL insurance. See Insurance—Municipal policies

MUNICIPAL liability
Municipal liability for loss or injury attributable to roads; panel discussion. F. Cowan and others. Roads & Eng Constr 92:125-6+ Mr '54
See also
Insurance, Liability—Municipal policies

MUNICIPAL officials

Directories

City and town road officials; incorporated cities, towns and villages of Canada. Roads & Eng Constr 92:274+ Je '54

MUNICIPAL ownership
See also
Electric plants, Municipal
Electric utilities—Municipal ownership
Motor bus lines, Municipal

MUNICIPAL taxation
Cities scramble for more taxes. Bsns W p64+ O 10 '53
Sues in Kentucky to recover municipal taxes paid insurers. Nat Underw 58:17 F 25 '54

MUNITION factories

Safety measures

Taxpayer gained; Blaw-Knox company, Indiana ordnance works. il Nat Safety N 68:46-7+ N '53

MUNITIONS
See also
Armaments

MUNRO, Leslie
She makes words behave. S. H. Margolis and M. Silverstein. por Ptr Ink 243:41-2 Ap 24 '53

MUNSELL color system. See Color

MUNSON, Charles Sherwood, 1888-
Charles S. Munson; Air Reduction's chairman of board. por Chem Eng 60:272 Ag '53
SCI award ceremonies. pors Chem & Eng N 31:4658-9, cover N 9 '53

MUONS. See Mesons

MURAL painting and decoration
Art as architectural decoration. A. B. Saarinen. il Arch Forum 100:132-5 Je '54
History in murals; First national bank of Winfield, Kan. M. S. Roberts. il Banking 46:80 D '53
Why the open-ended mural? West Coast sales office. il plan diags Arch Rec 114:167-71 S '53

MUREXIDE
Colorimetric determination of calcium with ammonium purpurate. M. B. Williams and J. H. Moser. Anal Chem 25:1414-17 S '53

Analysis

Gravimetric determination of murexide. J. H. Moser and M. B. Williams. Anal Chem 26:1167-8 Jl '54

MURIATIC acid. See Hydrochloric acid

MURRAY, Sir James, 1788-1871
Sir James Murray, M.D.; pioneer in making of superphosphate. W. A. L. Alford and J. W. Parkes. bibliog(29 ref) por Chem & Ind p852-5 Ag 15 '53

MUSCLE
Mechanical design of muscle-operated arm prostheses. A. C. Blaschke and C. L. Taylor. bibliog diags Franklin Inst J 256:435-58 N '53
Propagation of group A Coxsackie viruses in denervated adult mouse muscle. W. P. Rowe. Science 117:710 Je 26 '53
Soluble nucleotides of liver and muscle. J. Sacks, L. Lutwak and P. D. Hurley. bibliog Am Chem Soc J 76:424-6 Ja 20 '54

MUSCLES
Anterior choroidal artery ligation for involuntary movements. I. S. Cooper. bibliog Science 118:193 Ag 14 '53
See also
Tendons

MUSEUM exhibits
Packing cases unfold into display cases for traveling exhibit. il diags Arch Forum 100:146-9 Ja '54

MUSEUMS
Florida entrepreneur, a rugged individualist; Thomas Gaskins cypress knee workshop and museum. il Manuf Rec 123:31 S '54
See also
Industrial museums

Lighting

See also
Art galleries and museums—Lighting

MUSEUMS, Industrial. See Industrial museums

MUSHROOMS, Frozen
Frozen mushrooms for class study. H. N. Andrews, jr. Science 118:331 S 18 '53

MUSIC
Music inn; they come to play. il Bsns W p 108-12+ S 19 '53

MUSIC departments. See Schools—Music departments

MUSIC in industry
For better plant-community relations use a common interest, like music; Delco-Remy. Ptr Ink 245:62+ O 23 '53
Foremen may scratch heads over it, but music helps work. R. Newcomb and M. Sammons. il Ind Marketing 39:116+ Jl '54

MUSIC libraries and collections
Union catalogue of old music. E. B. Schnapper. J Doc 9:117-21 Je '53

MUSICAL instruments
See also
Piano
Recorder (musical instrument)

MUSICAL instruments, Electric
Simulating piano tones electronically. L. Katz. bibliog il diags Electronics 26:155-7 O '53
Theremin. R. Moog. il diags Radio & Tv N 51:37-9 Ja '54
See also
Organ, Electric

MUSTARD seed
Success built from a failure; Flint Mustard Seed Remembrancer. N. V. Peale. il Sales Management 71:33-4+ N 10 '53

MUTATION (biology)
Evidence for X-ray induced recessive lethal mutations in yeast. R. K. Mortimer and C. A. Tobias. bibliog Science 118:517-18 O 30 '53
Reconsideration of the somatic mutation theory of cancer in the light of some recent developments. J. C. Fardon. bibliog Science 117:441-5 Ap 24 '53; Discussion. bibliog 118: 196-8 Ag 14 '53
Reduction by reactivating light of the frequency of phenocopies induced by ultraviolet light in drosophila melanogaster. M. Perlitsh and A. Kelner. bibliog Science 118:165-6 Ag 7 '53
See also
Genetics

MUTTON
Branched-chain fatty acids of mutton fat; isolation of a liquid saturated C_{17} branched-chain acid. R. P. Hansen and others. bibliog Chem & Ind p516-17 My 23 '53

MUTUAL funds. See Investment trusts

MUTUAL insurance. See Insurance, Mutual

MUTUAL insurance companies, National association of. See National association of mutual insurance companies

MUTUAL loss managers conference
Meeting, Chicago. Nat Underw 57:40 S 24 '53

MYCOBACTERIUM johnei
Mycobactin; a growth factor for mycobacterium johnei; degradation, and identification of fragments. G. A. Snow. Chem Soc J p2588-96 Jl '54

MYCOBACTERIUM tuberculosis. See Tubercle bacilli

MYCOBACTIN
Mycobactin; a growth factor for mycobacterium johnei; degradation, and identification of fragments. G. A. Snow. Chem Soc J p2588-96 Jl '54

MYCOCERANIC acid
Constituents of the lipids of tubercle bacilli; mycoceranic acid. N. Polgar. Chem Soc J p 1011-12 Mr '54

MYCOLIPENIC acid
Constituents of the lipids of tubercle bacilli; mycolipenic acid. N. Polgar. Chem Soc J p 1008-10 Mr '54
Experiments on the synthesis of mycolipenic acid. A. S. Bailey, N. Polgar and R. Robinson. Chem Soc J p3031-5 O '53

MYCOSIS
Occupational hazards from fungi causing deep mycoses. S. S. Raphael and J. Schwarz. bibliog map A M A Archives Ind Hygiene & Occup Med 8:154-65 Ag '53

MYERS, Clarence J. 1897-
Sketch. C. Axman. por East Underw 54:3+ Ag 7 '53

MYLAR
Mylar nears commercial production. il Chem & Eng N 32:3718 S 20 '54
New polyester film. R. C. Krueger. il Materials & Methods 39:104-6 Mr '54
Physical properties of polyethylene terephthalate films. L. E. Amborski and D. W. Flierl. bibliog Ind & Eng Chem 45:2290-5 O '53
Polyester film. il Chem Eng 61:148+ Ag '54
Polyesters, like polyamides, are suitable for films and fibers; Schoellkopf award. Chem & Eng N 31:2391-2 Je 8 '53

MYOPIA, Night. See Eye—Accommodation and refraction

N

NATO. See North Atlantic treaty organization

NAGLER, Bruno
Rockets breathe new life into autogyro. D. A. Anderton. Aviation W 58:28-30 Je 22 '53

NAILS
Grooved nails end popping. il House & Home 6:150+ Ag '54
Guide for steel buyers. Steel 135:88-90 sec 2 Jl 12 '54
New twist nail aids application of insulating siding over fiber board or gypsum sheathing. diags Am Bld 75:236+ Mr '53

NAILS, Aluminum
Nails; aluminum hits market on head. R. L Hatschek. il Iron Age 172:79 Ag 6 '53

NAME plates
Nameplates; aluminum sheet, photographic process combined; Metalphoto. Iron Age 173:179-80 F 4 '54

NAMES
New century cyclopedia of names. C. L. Barnhart and W. D. Halsey, eds. 3v 4342p $39.50 Appleton-Century-Crofts, 35 W. 32d st, New York 1 '54
Phrase finder; name-word finder, metaphor finder, sophisticated synonyms. J. I. Rodale and E. J. Fluck, comps. 3v in 1 1325p $6.95 Rodale press, Emmaus, Pa. '54
See also
Trade names

NAMES, Geographical
Names and definitions of regions, districts, and subdistricts in Alaska. A. L. Ransome and W. H. Kerns. bibliog 16pls U S Bur Mines Information Circ 7679:1-91 '54

NAMES, Trade. See Trade names

NAMES of products. See Trade names

NAPALM
Flow of gasoline thickened by napalm. G. A. Agoston and others. Ind & Eng Chem 46: 1017-19 My '54
Symposium on incendiary gels, Army chemical center, Edgewood. Chem & Eng N 32:2690 Jl 5 '54

NAPHTHA
Naphtha as pesticide solvent; abstract. F. C. Nelson and G. W. Fiero. Chem & Eng N 32:1310 Ap 5 '54

Analysis

Infrared determination of total aromatics. J. Bomstein. bibliog Anal Chem 25:1770-2 N '53
Relationship of hydrocarbons with six to nine carbon atoms. H. M. Smith and H. T. Rall. bibliog Ind & Eng Chem 45:1491-7 Jl '53

NAPHTHALDEHYDE
Preparation of 2-naphthaldehyde. H. M. Doukas. bibliog J Chem Educ 31:12 Ja '54

NAPHTHALENE
Action of some free radicals on naphthalene. E. Boyland and P. Sims. Chem Soc J p2966-72 O '53
Alkylnaphthalenes; 1 : 6- and 1 : 7-dimethylnaphthalene. R. F. Evans and J. C. Smith. bibliog Inst Pet J 39:716-27 O '53
Amylnaphthalenes; Sharples chemicals, inc. diag Pet Refiner 32:158-9 N '53
Chlorotetranitronaphthalenes. W. E. Mathewson. Am Chem Soc J 76:294-5 Ja 5 '54
Dicyclic hydrocarbons; 1-alkylnaphthalenes and some of their tetrahydro derivatives. H. F. Hipsher and P. H. Wise. bibliog Am Chem Soc J 76:1747-8 Ap 5 '54
Electron transfer between naphthalene negative ion and naphthalene. R. L. Ward and S. I. Weissman. Am Chem Soc J 76:3612 Jl 5 '54
Geared for a gradual rise; naphthalene output. il Chem W 73:76-9 N 21 '53
Influence of naphthalene on octane ratings. G. E. Mapstone and J. S. Durham. Inst Pet J 39:276-7 My '53
Molecular compounds; picric acid-naphthalene, picric acid-*m*-dinitrobenzene and picric acid-1,3,5-trinitrobenzene in chloroform. S. D. Ross and I. Kuntz. bibliog Am Chem Soc J 76:74-6 Ja 5 '54
Naphthalene. J. E. Sayre. Chem & Eng N 32:2052-4+ My 17 '54
Optical activity in 1-phenylnaphthalene-2′-carboxylic acid and related compounds. D. M. Hall, S. Ridgwell and E. E. Turner. Chem Soc J p2498-504 Jl '54
Para and naphtha as closet fumigants. J. W. Arnold. bibliog Soap & San Chem 29:134-5+ Ag '53

NAPTHALENE—*Continued*

Preparation and freezing point of pure naphthalene. E. F. G. Herington, A. B. Densham and P. J. Malden. Chem Soc J p2643-4 Jl '54

Reactivity of the methyl group in 2-methyl-3-nitronaphthalene. L. E. Miller and others. bibliog Am Chem Soc J 76:296-7 Ja 5 '54

Ring fission of 2-cyano-1 : 2 : 3 : 4-tetrahydro-2-methyl-1-oxonaphthalene. D. B. Cowell, W. H. Linnell and D. W. Mathieson. Chem Soc J p3725-6 N '53

Studies with phenylbutadiene; a new synthesis of naphthalene. S. A. Faseeh. Chem Soc J p3708 N '53

Synthesis of 2-phenylnaphthalene. N. Campbell and D. Kidd. Chem Soc J p2154-5 Je '54

Two-step preparation of azulene from naphthalene or tetralin. W. Baker, W. K. Warburton and L. J. Breddy. Chem Soc J p4149-54 D '53

Vapor-liquid equilibria at 200 mm. of mercury. S. H. Ward and M. Van Winkle. bibliog Ind & Eng Chem 46:338-50 F '54

Vapor-liquid equilibria of naphthalene-1-octadecene system. W. L. Martin and M. Van Winkle. bibliog Ind & Eng Chem 46:1477-81 Jl '54

Vapor-liquid equilibrium of naphthalene-*n*-tetradecane system at subatmospheric pressures. S. Haynes, jr. and M. Van Winkle. bibliog Ind & Eng Chem 46:334-8 F '54

Vapor pressure of naphthalene. G. W. Sears and E. R. Hopke. Am Chem Soc J 76:2026 Ap 5 '54

Zacharie Roussin; contribution to the development of the field of azo dyes and to the recognition of the value of naphthalene. R. Brightman. bibliog(43 ref) Soc Dyers & Col J 69:115-19 Ap '53

Analysis

Detection of bismuth by dithizone in molten naphthalene. J. K. Carlton and W. C. Bradbury. Anal Chem 26:1226-7 Jl '54

Determination of naphthalene in wash oil and coke oven gas. N. J. Klein and G. W. Struthers. Anal Chem 25:1818-21 D '53

Spectrum

Near-ultra-violet absorption spectra of naphthalene and its monohalogen derivatives in solution. J. Ferguson. Chem Soc J p304-11 Ja '54

NAPHTHALENEDIOL

New preparation of intermediate a boon to steroid production; patent. diag Chem Eng 61:290 Je '54

NAPHTHANTHRONE

Polycyclic systems; 8-*meso*-α-naphthanthr-10-one and 2 : 3-8 : 9-dibenzoperylene. E. A. Braude, J. S. Fawcett and A. A. Webb. Chem Soc J p 1049-59 Mr '54

NAPHTHAQUINONE

2 : 3-Dimethyl-1 : 4-naphthaquinol bis(dihydrogen phosphate). D. H. Marrian. Chem Soc J p760 F '54

NAPHTHAZARIN

Dimroth's alleged *ortho*naphthazarin. J. Garden and R. H. Thomson. bibliog Chem & Ind p 1146-7 S 11 '54

NAPHTHENES

Catalytic dehydrogenation of naphthenes by sulfur dioxide. J. D. Danforth and M. J. Bender. Ind & Eng Chem 46:1701-3 Ag '54

Analysis

Determination of cyclohexane-type naphthenes by analytical dehydrogenation. A. T. Polishuk, C. K. Donnell and J. C. S. Wood. diag Anal Chem 26:1087-9 Je '54

NAPHTHOIC acid

Crystallographic data. W. C. McCrone. il diags Anal Chem 25:1126-7 Jl '53

Crystallographic data: 2-naphthoic acid (beta-naphthoic acid). J. Krc, jr. and R. Hinch, jr. il diags Anal Chem 26:780-2 Ap '54

Mesomorphism and chemical constitution; the *n*-alkoxynaphthoic acids. G. W. Gray and B. Jones. Chem Soc J p683-6 F '54

Preparation of 4- and 5-*n*-alkoxy-1-naphthoic and 6- and 7-*n*-alkoxy-2-naphthoic acids. G. W. Gray and B. Jones. Chem Soc J p678-83 F '54

NAPHTHOL

Condensation of 2-naphthol with acetaldehyde ammonia. W. J. Burke and R. J. Reynolds. bibliog Am Chem Soc J 76:1291-3 Mr 5 '54

o-Mercapto-azo-compounds; preparation and debenzylation of 1-(2-benzylthiophenylazo)-2-naphthol and 1-(1-benzylthio-2-naphthylazo)-2-naphthol. A. Burawoy and others. Chem Soc J p82-90 Ja '54

NAPHTHOLS

Naphthol dyeing. R. H. Nuttall. Am Dyestuff Rep 43:178-9 Mr 15 '54

Naphthol dyeings; factors which influence fastness to rubbing; abstract. A. J. Hall. Am Dyestuff Rep 42:232 Ap 13 '53

Solubility and diffusivity of 2-naphthol in water. M. P. Moyle and M. Tyner. bibliog Ind & Eng Chem 45:1794-7 Ag '53

NAPHTHOQUINONE

*iso*Naphthazarin derived from gladiolic acid. F. Weygand and others. Chem & Ind p 106 Ja 23 '54

Preparation of some imidazole derivatives of 1,4-naphthoquinone. J. R. E. Hoover and A. R. Day. bibliog Am Chem Soc J 76:4148-52 Ag 20 '54

Quinones; addition reactions of 1 : 4-naphthaquinones substituted in the 6-position. J. M. Lyons and R. H. Thomson. Chem Soc J p2910-15 O '53

Quinones; the elimination of substituents from 1 : 4-naphthaquinones. D. B. Bruce and R. H. Thomson. Chem Soc J p 1428-31 My '54

Structure of flaviolin. J. E. Davies and others. Chem & Ind p 1110-11 S 4 '54

Structures of some natural naphthoquinones. A. J. Birch and F. W. Donovan. bibliog Chem & Ind p 1047-8 Ag 21 '54

Studies in mycological chemistry; flaviolin, 2(or 3) : 5 : 7-trihydroxy-1 : 4-naphthaquinone, a metabolic product of aspergillus citricus (Wehmer) mosseray. B. D. Astill and J. C. Roberts. Chem Soc J p3302-7 O '53

Analysis

Paper chromatography of some substituted naphthoquinones. T. Sproston, jr. and E. G. Bassett. Anal Chem 26:552-3 Mr '54

NAPHTHOXYPROPIONIC acid

Preparation of 2-(2-naphthoxy)-propionic acid and 2-(6-bromo-2-naphthoxy)-propionic acid as possible chromogenic substrates for fatty acid oxidases. M. N. Green, L. J. Friedman and A. M. Seligman. bibliog Am Chem Soc J 76:48-50 Ja 5 '54

NAPHTHYLACETAMIDE

Halogenation of 2-methoxy-1-acetonaphthalide. F. Bell. Chem Soc J p472-3 Ja '54

NAPHTHYLACETIC acid

Role of chloroacetylpolyglycolic acids in the potassium bromide catalyzed conversion of chloroacetic acid and naphthalene into α-naphthylacetic acid. P. L. Southwick and others. bibliog Am Chem Soc J 76:754-7 F 5 '54

NAPHTHYLALANINE

Synthetic oxytocics; derivatives of N-2-naphthylglycine and N-2-naphthyl-β-alanine. J. E. Gearien and K. J. Liska. Am Chem Soc J 76:3554-5 Jl 5 '54

NAPHTHYLAMINE

Halogenation of β-naphthylamine and its derivatives. F. Bell. Chem Soc J p3035-41 O '53

Reaction of *o*-nitroaniline with 1-naphthylamine. J. W. Cook and L. Hunter. Chem Soc J p4183 D '53

Synthesis of 2-[8-^{14}C] naphthylamine. J. R. Catch, H. P. W. Huggill and A. R. Somerville. Chem Soc J p3028-30 O '53

NAPHTHYL carbonates

Preparation of alkyl 2-naphthyl carbonates as chromogenic substrates for esterases. K. C. Tsou and A. M. Seligman. bibliog Am Chem Soc J 76:3704-6 Jl 20 '54

NAPHTHYLGLYCINE

Synthetic oxytocics; derivatives of N-2-naphthylglycine and N-2-naphthyl-β-alanine. J. E. Gearien and K. J. Liska. Am Chem Soc J 76:3554-5 Jl 5 '54

NAPHTHYLPHTHALAMIC acid

Analysis

Microdetermination of *N*-1-naphthylphthalamic acid residues in plant tissues. A. E. Smith and G. M. Stone. diag Anal Chem 25:1397-9 S '53

NAPHTHYLENE

See also

Acenaphthylene

NAPHTHYRIDINE

Derivatives of 2-alkoxy-8-amino-1 : 5-naphthyridines. A. A. Goldberg, R. S. Theobald and W. Williamson. Chem Soc J p2357-61 Jl '54

Naphthyridines; the chemistry of 1 : 5-naphthyridine. E. P. Hart. Chem Soc J p 1879-82 Je '54

New synthesis of 2,7-naphthyridine derivatives. B. M. Iselin and K. Hoffmann. Am Chem Soc J 76:3220-2 Je 20 '54

NARCOSIS. See Anesthesia

NARCOTICS

Some physical mechanisms in narcosis. L. J. Mullins. diags Chem R 54:289-323 bibliog (p322-3) Ap '54

See also

Morphine

Opium

Law

Narcotics rules incorporate new congressional definition. Oil Paint & Drug Rep 164:3 O 26 '53

NARCOTINE

Alkaloid studies; isolation of reserpine and narcotine from rauwolfia heterophylla Roem. and Schult. C. Djerassi and others. bibliog Am Chem Soc J 75:5446-7 N 5 '53

NASH, Frank C.

Portrait. Bsns W p29 N 21 '53

NASH-KELVINATOR corporation

Auto merger? Bsns W p34 O 10 '53

Nash-Hudson talks hint pooling, not merger. Bsns W p32 N 7 '53

Nash-Kelvinator-Hudson merger. G. W. Mathis. Mag of Wall St 93:625+ F 20 '54

NASSAU

Water supply

Water supply of Nassau, Bahamas. G. C. Stubbs and A. C. Langlois. il map Am Water Works Assn J 46:220-30 Mr '54

NATIONAL academy of sciences

Academy names battery committee as Senate reopens hearings. Chem & Eng N 31:2691-2 Je 29 '53

Annual meeting, Washington. Chem & Eng N 32:1876 My 10 '54

NATIONAL accident and health insurance company of Philadelphia

Observes 50th anniversary. Weekly Underw 169:485+ Ag 29 '53; Same. East Underw 54:28+ Ag 28 '53

NATIONAL advertisers, Association of. See Association of national advertisers

NATIONAL advertising. See Advertising, National

NATIONAL aeronautic association

Annual meeting, Portland, Ore. Aviation W 59:16 O 19 '53

NATIONAL agricultural chemicals association

Annual meeting, Spring Lake, N.J. Chem W 73:58 S 26 '53

Annual meeting, 20th, Spring Lake, N.J. Sept. 9-11. Chem & Eng N 31:3873-4+ S 21 '53

Annual meeting, 21st, Spring Lake, N.J. Sept. 8-10; with abstracts of papers. Oil Paint & Drug Rep 166:5+ S 13 '54; Chem W 75:102+ S 25 '54

Spring meeting, Houston. Chem W 74:76+ Ap 17 '54

Spring meeting, Houston; abstracts of papers. Oil Paint & Drug Rep 165:5+ Mr 29 '54

NATIONAL agricultural limestone institute

Annual meeting, Chicago, Feb. 19-20. Rock Prod 57:99-101+ Ap '54

Board of directors midyear meeting, Cincinnati, June 17-18. Rock Prod 57:189+ Ag '54

NATIONAL airlines

National reports peak revenues. S. Altschul. Aviation W 59:25-6 O 5 '53

NATIONAL association of bank auditors and comptrollers

Annual meeting, 29th, New York. Credit & Fin Management 56:20 Ja '54

Annual meeting, 29th, New York; with abstracts of papers. Burroughs Clearing House 38:31-3+ D '53

NATIONAL association of building owners and managers

Annual meeting, 46th, Pittsburgh. Arch Forum 98:43+ Je '53

Annual meeting, 47th, Denver, June 28-July 1. Arch Forum 101:47+ Ag '54

NATIONAL association of casualty and surety agents

Joint meeting with National association of casualty and surety executives, White Sulphur Springs, Oct. 4-7. East Underw 54:37-41+ O 9; 43+ O 16 '53; Nat Underw 57:1+ O 8 '53

Joint meeting with National association of casualty and surety executives, White Sulphur Springs, W.Va. Oct. 3-6. East Underw 55:57 O 8; 40-1 O 15 '54; Nat Underw 58:1+ O 7 '54; Weekly Underw 171: 856-8, 860 O 9 '54

New officers. East Underw 55:58 O 8 '54

NATIONAL association of casualty and surety executives

Joint meeting with National association of casualty and surety agents, White Sulphur Springs, Oct. 4-7. East Underw 54:37-41+ O 9; 43+ O 16 '53; Nat Underw 57:1+ O 8 '53

Joint meeting with National association of casualty and surety agents, White Sulphur Springs, W.Va. Oct. 3-6. East Underw 55: 56 O 8; 40-1 O 15 '54; Nat Underw 58:1+ O 7 '54; Weekly Underw 171:856-8, 860 O 9 '54

New officers. East Underw 55:58 O 8 '54

NATIONAL association of claimants' compensation attorneys

Annual meeting, 8th, Boston. East Underw 55:31 S 10 '54; Nat Underw 58:9+ S 9 '54

NATIONAL association of corrosion engineers

Annual meeting, 10th, Kansas City; with abstracts of papers. Chem & Eng N 32: 1348+ Ap 5 '54

NATIONAL association of cost accountants

Annual meeting, 34th, Los Angeles; abstracts of papers. J Account 97:79-81 Ja '54

Annual report, 34th, for fiscal year, 1952-1953. N A C A Bul 35:411-53 sec 3 N '53

Using of N.A.C.A. publications in teaching. J. H. Kempster. N A C A Bul 34:1618-25 Ag '53

NATIONAL association of credit men

All-South credit conference, New Orleans. Credit & Fin Management 55:40 D '53

Annual meeting, 57th, Montreal. Credit & Fin Management 55:8-13+ Ag '53

NATIONAL association of domestic and farm pump manufacturers

Annual meeting, 21st, Chicago. Dom Eng 182: 162+ D '53

NATIONAL association of electrical distributors

Annual meeting, Chicago, May 24-29. Elec World News ed 139:8 Je 8 '53

Pacific zone annual fall meeting, Coronado, Calif. Oct. 12-14. Elec West 111:115-16 N '53

NATIONAL association of foremen

Foremen on the safety team; safety programs sponsored by management clubs. D. Sims. Nat Safety N 69:20-1+ Je '54

Here's practical management training by proved methods. I. C. Miller. Food Eng 26:94-6+ Ag '54

NATIONAL association of home builders

Annual meeting, 9th, Chicago, Jan. 18-22. House & Home 3:48-51 F '53

Annual meeting, 10th, Chicago. House & Home 5:37-9 F '54

Annual meeting, 10th, Chicago, Jan. 17-21. Concrete 62:42 F '54; Am Bld 76:40 Mr '54; Eng N 152:23-4 Ja 28 '54

Directors meeting, New Orleans. House & Home 4:35-6 N '53

Directory of convention exhibitors; product, exhibit booth, personnel. Am Bld 76:311-13+ Ja '54

NATIONAL association of home builders—*Continued*

Flashback and forecast. F. W. Cortright. Am Bld 76:240-1 Ag '54

NAHB leads fight on slums. il Am Bld 75: 88-92+ N '53

NAHB makes plans for 1953; directors' meeting, Seattle. House & Home 2:88-9 O '52

Research institute

Filling the gap in house research. House & Home 4:52 O '53

NATIONAL association of independent insurance adjusters

Annual meeting, 17th, Atlantic City. East Underw 55:18 Jl 9 '54; Weekly Underw 171: 50 Jl 3 '54

NATIONAL association of independent insurers

Annual meeting, St Louis, Nov. 10-11. Nat Underw 57:1+ N 12 '53; East Underw 54:42 N 13; 36-7 N 20 '53

Report on year. V. Lemmon. East Underw 54:42 N 13 '53; Nat Underw 57:26 N 19 '53

NATIONAL association of insurance agents

Administration report; abstracts. W. M. Sheldon. East Underw 54:23+ O 2 '53; Nat Underw 57:28+ O 1 '53; Weekly Underw 169:800+ O 3 '53

Annual meeting, 57th, Washington, D.C. Sept. 28-Oct. 1. East Underw 54:1+, 21-3+ O 2; 1+ O 9 '53; Nat Underw 57:25-46 O 1; 1+ O 8 '53; Weekly Underw 169:798-805, 816+ O 3 '53

Annual meeting, 58th, Chicago, Oct. 4-7. East Underw 55:1+ O 8; 23-5, 44 O 15 '54; Nat Underw 58:29-54 O 7; 1+, 6+ O 14 '54; Weekly Underw 171:838-43 O 9 '54

Committee reports focus attention on main issues and activities of agents. Nat Underw 57:43-5 O 1 '53

Committee reports; summaries. Nat Underw 58:34+ O 7 '54

Eastern agents conference, Boston, report of conference committee chairman. H. E. Munz. East Underw 55:26+ Ap 9 '54

Eastern agents conference, Washington, D.C. East Underw 54:40+ O 2 '53; Nat Underw 57:42 O 1 '53

Eastern agents 6th annual conference, Boston. East Underw 55:24-6+ Ap 9 '54; Nat Underw 58:1+ Ap 8; 17-18 Ap 15 '54; Weekly Underw 170:900-1+ Ap 10 '54

Executive committee meeting, New York, Jan. 10-12. East Underw 55:21-2 Ja 22 '54; Nat Underw 58:2+ Ja 21 '54

Executive committee meeting, New York. East Underw 55:1+ Jl 23 '54; Weekly Underw 171:169+ Jl 24 '54; Nat Underw 58:1+ Jl 22 '54

Five new N.A.I.A. committee heads appointed. Nat Underw 57:4 O 15 '53

Midwest territorial conference, Louisville, March 21-23. East Underw 55:28+ Ap 2 '54; Nat Underw 58:1+ Mr 25; 2+ Ap 1 '54

Midwest territorial conference, Washington, D.C. Nat Underw 57:38 O 1 '53; Discussion. J. L. Ashton. 57:15+ O 15 '53

NAIA president remains strongly opposed to continuous policies. W. M. Sheldon. East Underw 54:1+ S 4 '53; Same. Weekly Underw 169:539 S 5 '53

NAIA value to producing agents. E. J. Seymour. Weekly Underw 170:906 Ap 10 '54

National board of state directors and Far West territorial conference, Seattle, April 12-14. East Underw 55:1+ Ap 16; 1+ Ap 23 '54; Nat Underw 58:1+ Ap 15; 1+ Ap 22 '54; Weekly Underw 170:1021+ Ap 24 '54

Neumann NAIA president; Kenneth Ross elected vice president; committeemen named. Weekly Underw 171:840 O 9 '54

Nine presidential citations awarded to N.A.I.A. leaders. Nat Underw 57:38 O 1 '53

President's address at annual meeting; abstracts. E. J. Seymour. East Underw 55: 25+ O 8 '54; Weekly Underw 171:829+ O 9 '54

Report to NAIA state directors. M. G. Herndon. Nat Underw 58:24 O 14 '54

Resolutions approved at annual meeting. Weekly Underw 171:910 O 16 '54

Resolutions approved by convention. East Underw 54:23+ O 9 '53

Rocky Mountain territorial conference, Colorado Springs. Nat Underw 58:2+ Ap 15; 15 Ap 22 '54

Safety session highlights. Nat Underw 57:32 O 1 '53

Southern territorial conference, Washington, D.C. Nat Underw 57:28 O 1 '53

Work on NAIA committees praised. E. J. Seymour. Weekly Underw 169:1296 N 28 '53

NATIONAL association of insurance brokers

Brokers had busy year throughout 1953. O. Blase. Weekly Underw 170:30+ Ja 2 '54

Directors and officers 20th annual meeting, Chicago. East Underw 55:24 My 28 '54; Weekly Underw 170:1331-2 My 29 '54

Presidential address at annual meeting, Chicago. Weekly Underw 170:1338 My 29 '54

NATIONAL association of insurance commissioners

Accident and health committee session; highlights. Weekly Underw 171:939 O 16 '54

Annual meeting, Detroit, June 7-11. East Underw 55:1+, 38-9+ Je 11; 24+ Je 18 '54; Nat Underw 58:1+ Je 10; 1+ Je 17 '54; Nat Underw (Life ed) 58:1+ Je 11; 4+ Je 18 '54; Spectator 162:22 Jl '54; Weekly Underw 170: 1456-9 Je 12 '54

Annual meeting, San Francisco. Spectator 161:28+ Jl '53

Annual report of president. D. D. Murphy. Weekly Underw 170:1449+ Je 12 '54

Chairmen of NAIC committees; list. Nat Underw (Life ed) 58:15 O 8 '54

Committee appointed. Weekly Underw 170: 570 Mr 6 '54

Committee appointments. East Underw 54:12 D 18 '53

Committee named; industry group on marine definition designated by president. Weekly Underw 169:1034 O 31 '53

Committeemen, committee appointments, fiscal year, 1953-1954; revisions. D. D. Murphy. Weekly Underw 169:718 S 26 '53

Mid-year meeting, Miami Beach, Nov. 30-Dec. 4. Spectator 162:26-7+ Ja '54

Mid-year meeting, Miami Beach, Nov. 30-Dec. 4. Weekly Underw 169:1360-3 D 5 '53; East Underw 54:1+ D 4 '53; Nat Underw 57:1+ D 3; 1+ D 10 '53; Nat Underw (Life ed) 57:1+ D 4; 3+ D 11 '53

New committee list. Nat Underw 57:10 S 24 '53; Same. Nat Underw (Life ed) 57:2 S 25 '53

Zone 5 meeting, Omaha. Nat Underw 58:2 Ap 8 '54; Nat Underw (Life ed) 58:1 Ap 9 '54

NATIONAL association of investment companies

Funds name committee for information program. P. A. Johnston. Barron's 34:31 Ja 18 '54

NATIONAL association of life underwriters

Accomplishments on ten fronts are chronicled; president's report. D. D. Fluegelman. Nat Underw (Life ed) Daily ed 57:3+ Ag 26 '53

Agents forum at midyear meeting of NALU. Nat Underw (Life ed) 58:4 Mr 26 '54

Annual meeting, 64th, Cleveland, Aug. 24-28. Nat Underw (Life ed) Daily ed 57:3-4+ Ag 26; 3-4+ Ag 27; 3-4+ Ag 28 '53; Nat Underw (Life ed) 57:1+ S 4; 1+ S 11 '53; East Underw 54:1+, 3+ Ag 28 '53; Weekly Underw 169:504, 506-8+ Ag 29 '53

Annual meeting, 65th, Boston, Sept. 20-24. East Underw 55:5-12, 22 S 24 '54; Nat Underw (Life ed) Daily ed 58:3-4+ S 22; 3-4+ S 23; 3-4+ S 24 '54; Weekly Underw 171:732-8 S 25 '54

Answers location criticisms A. D. Crow raised. R. C. Gilmore, jr. East Underw 55:5 Jl 30 '54; Same abr. Nat Underw (Life ed) 58:2+ Jl 30 '54

Committee named to overhaul NALU by-laws. Weekly Underw 169:1449 D 12 '53; Nat Underw (Life ed) 57:8 D 11 '53

Cost looms as key issue in poll on NALU headquarters. Nat Underw (Life ed) 58:1+ Ap 23 '54

D.C. association to oppose Marsh as N.A.L.U president because of securities activities; statement for National council. Nat Underw (Life ed) 57:3 Ag 14 '53

Headquarters location; discussion at annual meeting. Weekly Underw 171:733+ S 25 '54

Life underwriter training council favors New York location of headquarters. East Underw 55:3 Ag 6 '54

NATIONAL association of life underwriters—*Continued*

LUTC location preference statement considered tardy. G. S. Brown. Nat Underw (Life ed) 58:1+ Ag 13 '54

LUTC to move with NALU. Nat Underw (Life ed) 58:1+ O 8 '54; Same abr. East Underw 55:11 O 8 '54

LUTC trustees earnestly hope NALU will keep headquarters in New York City area. Nat Underw (Life ed) 58:1+ Ag 6 '54

Memorandum gives specific data on where NALU should locate. Nat Underw (Life ed) 58:3+ Ap 30 '54

Merits of Chicago as home for NALU. Nat Underw (Life ed) 58:2+ My 21 '54

Mid-year meeting, New Orleans, March 22-26. East Underw 55:6-8 Mr 26 '54; Nat Underw (Life ed) 58:1+ Mr 26 '54

Myrick letter, Chicago brochure push merits of sites for NALU headquarters. Nat Underw (Life ed) 58:8+ Ap 9 '54

NALU board picks Chicago area for new headquarters. Nat Underw (Life ed) 58:1+ Mr 26 '54

NALU nominators give nod to Gilmore; Marsh steps aside. R. B. Mitchell. Nat Underw (Life ed) 57:1+ Ag 28 '53

NALU trustees pick Chicago as new site for headquarters. East Underw 55:1+ S 24 '54; Nat Underw (Life ed) 58:1+ S 24 '54

NALU trustees to poll associations on location choice. Nat Underw (Life ed) 58:1 Ap 2 '54

NALU's function in agency management education questioned. L. O. Schriver. East Underw 55:11 Ja 29 '54

New NALU president, Robert L. Walker. Nat Underw (Life ed) Daily ed 58:3+ S 24 '54

Opponents of location choice stymied. Nat Underw (Life ed) Daily ed 58:1, 8+ S 24 '54

Philadelphia gets in race for new home of NALU. Nat Underw (Life ed) 58:1+ My 14 '54

Pritchard heads NALU nominating committee for 1954; committee chairmen. Nat Underw (Life ed) 57:1 O 2 '53

Reject mail vote for D.C.; council OK of New York as home areas. R. B. Mitchell. Nat Underw (Life ed) Daily ed 58:3+ S 22 '54

Rejection of council's choice; opposition view. R. B. Mitchell. Nat Underw (Life ed) Daily ed 58:3+ S 23 '54

Securities activities stir moves to deny Marsh NALU helm. Nat Underw (Life ed) 57:1+ Ag 7 '53; Discussion. J. D. Marsh. 57:1+ Ag 14 '53

Seeks clarification of hints of second office, dues hike; open letter to Robert C. Gilmore, jr. A. D. Crow. Nat Underw (Life ed) 58:2+ Jl 23 '54

Statement of policy by the president. R. C. Gilmore, jr. Nat Underw (Life ed) 57:1+ O 2 '53; Same cond. Weekly Underw 169:889 O 10 '53

Texts of Gilmore letter on headquarters preference poll, committee report given. Nat Underw (Life ed) 58:4+ Ap 16 '54

Washington, D.C. makes pitch for headquarters; stresses federal angle. Nat Underw (Life ed) 58:2 Je 25 '54

Washington selected as NALU permanent home. East Underw 55:7 O 1 '54; Nat Underw (Life ed) 58:1+ O 1 '54; Weekly Underw 171:761+ O 2 '54

General agents and managers conference

All-day session during NALU midyear meeting, New Orleans. Nat Underw (Life ed) 58:2+ Mr 26 '54

GAMC committee report notes encouraging progress during '54. Nat Underw (Life ed) Daily ed 58:47-8 S 24 '54

G.A.M.C. groups report progress in all spheres. Nat Underw (Life ed) Daily ed 57:4+ Ag 28 '53

Southwest area annual meeting, Pasadena. Nat Underw (Life ed) 58:20 Je 4 '54

NATIONAL association of manufacturers

NAM too liberal on trade? officials' statements on free trade provoke Monsanto bolt. Bsns W p 170 N 21 '53

Now McClellan heads NAM. Bsns W p34 D 5 '53

NATIONAL association of mutual insurance agents

Annual meeting, Chicago, Oct. 12-14. Nat Underw 57:1+ O 15 '53

Mid-year meeting, 9th, Miami Beach. Weekly Underw 170:1042 Ap 24 '54

NATIONAL association of mutual insurance companies

Annual meeting, San Francisco. Nat Underw 57:25 O 22 '53; Weekly Underw 169:1092-3 N 7 '53

Annual meeting, 58th, New York. Nat Underw 58:2+ O 7; 7 O 14 '54; Weekly Underw 171:907 O 16 '54

NATIONAL association of plumbing contractors of the United States

Annual meeting, 72d, Washington, D.C. Dom Eng 183:138-40+ Je '54

NATIONAL association of private brand manufacturers

Private brand manufacturers organize industry group. Chem & Eng N 32:1336+ Ap 5 '54

NATIONAL association of purchasing agents

Annual meeting, Chicago. Iron Age 173:80-1 Je 3 '54

NATIONAL association of radio and television broadcasters

Songwriters try antitrust play against networks. Bsns W p 130 N 14 '53

NATIONAL association of railroad and utilities commissioners

Annual meeting, New York, Sept. 21-24; abstracts of papers. Pub Util 52:795-802 N 19 '53

NATIONAL association of real estate boards

Annual meeting, 45th, Miami Beach, Nov. 9-16. Arch Forum 97:46-7 D '52

Annual meeting, 46th, Los Angeles, Nov. 8-13. Arch Forum 99:39+ N '53; House & Home 4:49+ D '53

NAREB head answers Reader's Digest slur. D. L. Lionel. Ed & Pub 86:32 Mr 7 '53

NATIONAL association of securities dealers

SEC approves NASD's rule on transactions for employees of other member firms. Comm & Fin Chr 178:732 Ag 27 '53

NATIONAL association of sheet metal distributors

Annual meeting, 43d; abstracts of papers. Sheet Metal Worker 45:71+ N '53

Spring meeting, 44th, Pittsburgh. Steel 134:56 My 24 '54; Sheet Metal Worker 45:133 Jl '54

NATIONAL association of surety bond producers

Annual meeting, Los Angeles, Feb. 25-27. East Underw 55:32+ F 26; 38+ Mr 5 '54; Nat Underw 58:3+ Mr 4 '54; Weekly Underw 170:525-6, 590+ F 27-Mr 6 '54

NATIONAL association of tobacco distributors

Where there's smoke, there's Kolodny. Bsns W p 102+ D 19 '53

NATIONAL audio-visual association

Membership list and trade directory. 6th ed 18p pa 50c National audio-visual assn, 2540 Eastwood av, Evanston, Ill. '54

NATIONAL automobile underwriters association

Annual meeting, 24th, New York, May 19. East Underw 55:20+ My 21 '54; Nat Underw 58:10 My 20 '54; Weekly Underw 170:1278+ My 22 '54

Annual report of president. W. B. Rearden. Weekly Underw 170:1334 My 29 '54

NATIONAL biscuit company

Five sound moderate-priced stocks for income; with comparative balance sheet items. Mag of Wall St 93:495 Ja 23 '54

NATIONAL board of fire underwriters

Annual meeting, 88th, New York, May 20. East Underw 55:21-3 My 21; 19-20 My 28 '54; Nat Underw 58:1+ My 27 '54; Weekly Underw 170:1269, 1272-3+ My 22 '54

Committee reports point up trends and activities, 1953. Nat Underw 58:11+ My 27 '54; Spectator 162:30-1+ Je '54

Fire engineering plan for college graduates. East Underw 55:21 F 5 '54; Same cond. Weekly Underw 170:343 F 6 '54

1953 stands out as year of achievement. L. A. Vincent. Weekly Underw 170:9+ Ja 2 '54

Presidential address; abstracts. H. C. Conick. East Underw 55:1+ My 21 '54; Weekly Underw 170:1269+ My 22 '54

NATIONAL board of fire underwriters—*Cont.*

Public relations activities show excellent progress. W. A. Rattelman. East Underw 55:21+ My 21 '54

Reviews year in fire prevention. J. J. Robinson. Spectator 161:20+ Jl '53

Sether public relations manager; Budlong assistant. East Underw 55:25 Ap 16 '54; Weekly Underw 170:955+ Ap 17 '54

Standing committee appointments for 1954-55; list. East Underw 55:18 Je 4 '54; Weekly Underw 170:1394 Je 5 '54

NATIONAL broadcasting company

Moving up to a tough spot; new NBC president. Bsns W p62+ D 12 '53

NATIONAL bureau of casualty underwriters

Annual meeting, New York, May 12. East Underw 55:33 My 14 '54

Ask Bureau to shuck rate vows and quit being fish in a barrel. A. M. O'Connell. Nat Underw 57:12+ S 3 '53

NATIONAL bureau of standards. See United States—Standards, National bureau of

NATIONAL business aircraft association

Annual meeting, 6th, St Louis. Aviation W 59:18 N 9 '53

NATIONAL business publications

Annual meeting, Chicago. Ind Marketing 38: 34+ D '53

NATIONAL business show. See Office appliances—Exhibitions

NATIONAL cargo bureau, inc.

Annual meeting, 3d, New York, March 2. East Underw 55:29 Mr 12 '54; Weekly Underw 170:652 Mr 13 '54

NATIONAL cash register company

Foreign trade; key to world peace and prosperity; National Cash Register experiences and methods. S. C. Allyn. Comm & Fin Chr 178:2371+ D 17 '53

NATIONAL cinder concrete products association

Annual meeting, Atlantic City, Aug. 17-19; with abstracts of papers. Rock Prod 56: 206-7 O '53

NATIONAL city bank of New York

Annual report to shareholders; excerpt. Comm & Fin Chr 179:60 Ja 7 '54

NATIONAL city lines, inc.

Security I like best. S. Heller. Comm & Fin Chr 178:530 Ag 13 '53

NATIONAL clay pipe manufacturers, inc.

Fall meeting, New Orleans, Nov. 5-7; with abstracts of papers. Brick & Clay Rec 123: 52-3+ D '53

N.C.P.M.I. midwest region, southern region, Pacific Coast region. Brick & Clay Rec 124:53-4 Mr '54

NCPMI ten year program blankets the Nation. il Brick & Clay Rec 124:63-4 Mr '54

Serving the general public. D. Skylar. il Brick & Clay Rec 124:59-60 Mr '54

NATIONAL coal association

Annual meeting, 36th, Washington, Oct. 20-21. Coal Age 58:140-1+ N '53; Min Cong J 39:113 N '53

NATIONAL committee for a free Europe

Truthcasts through the iron curtain. W. H. Nelson. Banking 46:120+ F '54

NATIONAL concrete masonry association

Annual meeting, 34th, Washington, D.C. Concrete 62:8-9+ Mr '54

Annual meeting, 34th, Washington, D.C. Feb. 9-11; with abstracts of papers. Rock Prod 57:161-6+ Mr '54

NATIONAL conference on industrial hydraulics

Annual meeting, 9th, Chicago; with abstracts of papers. Automotive Ind 109:54-5+ N 1 '53

NATIONAL conference on labor legislation

Conference, 19th, Washington, Dec. 2-3. Mo Labor R 76:18-22 Ja '53

NATIONAL conference on weights and measures

Conference, 38th, Washington, May 19-22. Science 118:266 S 4 '53

NATIONAL council for community improvement

Progress through participation. J. C. Penney. il Dun's R & Mod Ind 63:135-6+ Ja '54

NATIONAL council on compensation insurance

Annual report of general manager; abstracts. H. F. Richardson. East Underw 55:30+ Mr 12 '54; Nat Underw 58:14 Mr 11 '54; Weekly Underw 170:600 Mr 6 '54

Progress report of general manager; highlights. H. F. Richardson. East Underw 55: 38 Je 11 '54

NATIONAL credit card, inc.

There are many headaches and problems in running National credit card setup. F. Breese. Nat Pet N 45:27-8 Je 10 '53

NATIONAL crushed stone association

Annual meeting, 37th, Chicago, Feb. 22-24; with abstracts of papers. Rock Prod 57: 91-7 Ap '54

Board of directors mid-year meeting, Hot Springs, Va. July 22-23. Rock Prod 57:79+ S '54

NATIONAL cylinder gas company

Recent merger to increase net. Barron's 33:15 Ag 10 '53

NATIONAL distillers products corporation

National Distillers realigning setup. Oil Paint & Drug Rep 166:5+ Ag 2 '54

NATIONAL district heating association

Annual meeting, 45th, White Sulphur Springs, W. Va., May 25-28; with abstracts of papers. Heat & Ven 51:130+ Jl '54

Annual meeting, White Sulphur Springs, W. Va.; with abstracts of papers. Heating-Piping 26:85-8 Ag '54

NATIONAL drug trade conference

Meeting, Washington, D.C. Dec. 5. Oil Paint & Drug Rep 164:5+ D 14 '53

NATIONAL editorial association

Annual meeting, 68th, New Orleans. Ed & Pub 86:10 My 2 '53

NATIONAL electrical code

Code changes. Elec World 139:262-3 Je 15 '53

1,100 cities using National electric code. J. A. Neale. East Underw 54:16 S 25 '53

Revised in new edition. Safety Maint & Prod 107:57-8 F '54

NATIONAL electrical contractors association

Annual meeting, Miami Beach, Nov. 12-20. Elec West 112:79 Ja '54

NATIONAL electrical manufacturers association

Annual meeting, 27th, Atlantic City, Nov. 9-11. Elec World News ed 140:9 N 23 '53

Protection or free trade; electrical manufacturers find foreign competition growing. Bsns W p 140+ D 19 '53

NATIONAL fertilizer association

Annual meeting, 28th, White Sulphur Springs, June 15-17. Chem & Eng N 31:2684 Je 29 '53

Annual meeting, White Sulphur Springs, W.Va. Oil Paint & Drug Rep 165:7 Je 28 '54

Fall meeting, Atlanta. Oil Paint & Drug Rep 164:5+ N 23 '53

NATIONAL fire protection association

Annual meeting, Washington; abstracts of papers. Chem & Eng N 32:2323 Je 7 '54

Annual meeting, Washington, May 17-21. East Underw 55:33 Je 11 '54

Developments in fire waste control in 1953. P. Bugbee. Weekly Underw 170:24-5 Ja 2 '54

NATIONAL formulary

National formulary. J. L. Powers. Pub Health Rep 68:513-15 My '53

NATIONAL foundry association

Annual meeting, 55th, New York, Sept. 17-18. Foundry 81:154+ N '53

NATIONAL fraternal congress of America

Annual meeting, Atlantic City, Sept. 27-30. Nat Underw (Life ed) 58:18-29 O 8 '54; Weekly Underw 171:798+ O 2 '54

Annual meeting, Dallas, Sept. 14-17. Nat Underw (Life ed) 57:18-28 S 25 '53

Presidential report. L. A. Knight. Nat Underw (Life ed) 58:19+ O 8 '54

Report of secretary-manager to annual meeting. F. F. Farrell. Weekly Underw 171:798+, 884-5 O 2-9 '54

See also

Fraternal field managers association

NATIONAL gypsum company

Security I like best. W. Witherspoon. Comm & Fin Chr 178:831 S 3 '53

NATIONAL heating wholesalers association

Annual meeting, Chicago, Dec. 8-9. Sheet Metal Worker 45:96-7 Ja '54

Spring meeting, Swampscott, Mass. May 26. Sheet Metal Worker 45:107-8 Jl '54

NATIONAL homes corporation

Home-building wonder; bucking an industry downturn. N. Willatt. Barron's 33:5 O 12 '53

NATIONAL industrial advertisers association

Annual meeting, Montreal. Ind Marketing 39:53+ Jl '54

Annual meeting, Pittsburgh. Ptr Ink 244:26-7 Jl 3 '53

NIAA to get complete overhaul! Ind Marketing 39:123-4 My '54

NATIONAL industrial conference board

Meeting, New York. Chem & Eng N 31:4098 O 5 '53

Meeting, 342d, New York. Chem W 73:80+ O 10 '53

NATIONAL industrial sand association

Semi-annual meeting, White Sulphur Springs, Oct. 21-23; with abstracts of papers. Rock Prod 56:115-17+ D '53

NATIONAL industrial traffic league

Annual meeting, 46th, New Orleans, Nov. 19-20. Ry Age 135:72-3 N 30 '53

NATIONAL inspection company

Marks 50th year. Nat Underw 57:5 D 3 '53

NATIONAL institute of ceramic engineers

Report of the committee on professional relations, 1952-53. Am Cer Soc Bul 32:398 N 15 '53

Report of the president, 1953-54. A. I. Andrews. Am Cer Soc Bul 33:220 Jl 15 '54

NATIONAL insurance buyers association

Cincinnati chapter conference. Nat Underw 57:15 S 24 '53

Expands activities, increases membership. B. E. Kelley. Weekly Underw 170:233+ Ja 23 '54

NATIONAL inventors council

U.S. needs your inventiveness in national defense problems. Chem & Eng N 32:3622+ S 13 '54

NATIONAL labor relations board

Beeson offers to cut ties with company in NLRB fight. Chem & Eng N 32:598 F 15 '54

Breaching old blockade for industry; new NLRB line-up. Chem W 74:24+ Ap 24 '54

Cuts its jurisdiction; drops two cases. Iron Age 174:89 Jl 22 '54

Decisions take effect faster. Bsns W p86-7 Ag 1 '53

Employers must give workers' names, pay to union; NLRB rules. Iron Age 174:68 Jl 15 '54

Freer speech for employers. Bsns W p 156 D 5 '53

Labor board's lighter touch; decisions in chemical labor disputes. Chem W 75:20-1 S 18 '54

Labor's fear; not Taft-Hartley, but NLRB; Seattle incident; NLRB preview? Eng N 152:28 F 4 '54

NLRB chairman voices his policy. G. Farmer. Steel 134:74 F 15 '54

NLRB completes rules revision. Pub Util 54:149 Ag 5 '54

New faces on the labor board and what they mean to industry. Factory Management 112:142-4 F '54

New look coming for NLRB. Bsns W p 146 S 5 '53

Taft-Hartley and the National labor relations board. G. Farmer. Mill & Factory 55:119-22 Jl '54

Union tug of war inside NLRB. Bsns W p 179 S 26 '53

NATIONAL lime association

Annual meeting, 52d, Hot Springs, Va. May 3-5; with abstracts of papers. Rock Prod 57:88-92+ Je '54

Operating division 9th annual meeting, Birmingham, Ala. Oct. 12-14; with abstracts of papers. Rock Prod 56:84-91+ N '53

NATIONAL lubricating grease institute

Annual meeting, Chicago. Oil & Gas J 52:70-1 N 2 '53

NATIONAL machine tool builders' association

Annual meeting, 52d, Boca Raton. Steel 133:69-70 N 16 '53

Annual meeting, 52d, Boca Raton, Fla. Automotive Ind 109:79 D 1 '53; Mach 60:204-6 D '53

Annual meeting, 52d, Boca Raton, Fla. Nov. 10-13; with abstracts of papers. Am Mach 97:174-6 N 23 '53

Spring meeting, 52d, Chicago, May 5-7. Am Mach 98:162-4 My 24 '54; Iron Age 173:103A My 13 '54; Automotive Ind 110:79-80 Je 1 '54; Mach 60:214 Je '54

NATIONAL mediation board

Annual report. Ry Age News ed 136:10 F 1 '54

NATIONAL metal congress

Congress and exposition, 35th, Cleveland; abstracts of papers. Iron Age 172:102-5 O 29 '53

Congress and exposition, 35th, Cleveland, Oct. 19-23. Am Mach 97:178-80 N 9 '53

Congress, 35th, Cleveland, Oct. 17-23; program and abstracts of papers. Steel 133:183-4+ O 12 '53

Congress, 35th, Cleveland, Oct. 17-23; technical program. Iron Age 172:322+ O 8 '53

NATIONAL metal exposition

Exhibitors at the metal show; list. Iron Age 172:366+ O 8 '53; Steel 133:207-10+ O 12 '53

Exposition, 35th, Cleveland, Oct. 17-23. Chem & Eng N 31:4530 N 2 '53

National metal exposition, Cleveland. Engineer 197:366-8 Mr 5 '54

National metal show, Cleveland, Oct. 19-23. il Automotive Ind 109:60-4+ O 15; 40-1+ N 15 '53

Short cuts for show goers. plan Steel 133:180-1 O 12 '53

NATIONAL metal trades association

Annual meeting, Cleveland. Steel 133:46 N 23 '53

Annual meeting, Cleveland, Nov. 18-19. Am Mach 97:185 D 7 '53

NATIONAL newspaper promotion association

Annual meeting, Detroit. Ed & Pub 86:10+ My 9 '53

Morrisey urges back carrier program. G. A. Brandenburg. Ed & Pub 86:42 My 23 '53

NATIONAL oil jobbers council

Annual meeting, Chicago. Nat Pet N 45:18-19 N 11 '53

Summer meeting, Laramie, Wyo. July 19-21. Nat Pet N 45:24-5 Jl 29 '53

NATIONAL paint salesmen's association

Annual convention, 16th, New York, Nov. 19-21. Paint Oil & Chem R 116:16 D 3 '53

NATIONAL paint, varnish and lacquer association

Annual meeting, 65th, Atlantic City. Paint Oil & Chem R 116:11-14 N 5 '53

Annual meeting, 65th, Atlantic City, Oct. 26-28; with abstracts of papers. Oil Paint & Drug Rep 164:69-78 N 2 '53

Conception and birth of the industrial product finishes division. W. I. Longsworth. Paint Oil & Chem R 116:28-9 N 5 '53

Report of president. J. F. Battley. Paint Oil & Chem R 116:22-4 N 5 '53; Abstract. Oil Paint & Drug Rep 164:69-71 N 2 '53

NATIONAL paper trade association

Annual meeting, 51st, New York, March 29-31. Paper Tr J 138:20-1 Ap 9 '54

NATIONAL paperboard association

Annual meeting, New York, Nov. 5-6. Paper Tr J 137:71-2+ N 13 '53

Meeting, Asheville, N.C. May 24-25. Paper Tr J 138:21-2 Je 11 '54

NATIONAL parking association

Oil men joining parking lot fight. Nat Pet N 45:53-4 Je 10 '53

NATIONAL parks and reserves

Great Britain

More national parks? Economist 169:951 D 26 '53

NATIONAL pest control association

Annual meeting, 21st, Minneapolis, Oct 19-21. Soap & San Chem 29:151+ N '53

NATIONAL press photographers' association

Annual meeting, 8th, Galveston, May 1-4. Ed & Pub 86:57-8 My 9 '53

NATIONAL production authority

Controlled materials plan

Case for mobilization preparedness. M. Anshen. il Dun's R & Mod Ind 62:64-5+ S '53

Defense materials system

DMS changes unsnarl red tape. Iron Age 173:79 Ap 1 '54

Defense materials system streamlined by BDSA. Oil Paint & Drug Rep 165:3+ Ap 5 '54

How the new defense materials system will operate. Product Eng 24:149 Je '53

NATIONAL professional association engineers, architects and scientists
Lockheed chemists and engineers vote to quit Marietta plant union. Chem & Eng N 32:316 Ja 25 '54

NATIONAL provincial bank, limited
Statement by the chairman. D. J. Robarts. Economist 170:288-90 Ja 23 '54

NATIONAL ready mixed concrete association
Annual meeting, 24th, Chicago, Feb. 15-19; with abstracts of papers. Rock Prod 57: 75-6, 168-73+ Mr '54; Concrete 62:8-10+ Ap '54
Directors' semi-annual meeting, Colorado Springs. Rock Prod 56:102+ N '53
NRMCA influence on concrete work. Concrete 62:8-10+ Je '54
Ready-mixed concrete business; planning for profits; story of the ready-mixed concrete industry. J. A. Nicholson. Rock Prod 57: 152+ My '54

NATIONAL register of scientific and technical personnel
National register of scientific and technical personnel. H. C. Kelly. Science 118:sup3 S 11 '53

NATIONAL registry of rare chemicals
Rare and registered; twelfth anniversary of industrial helpmeet. Chem W 74:52 Je 12 '54
Rare chemicals sleuths. Ind & Eng Chem 46: sup 17A-18A S '54

NATIONAL research council
Sparks heads Division of chemistry. Chem & Eng N 31:3382 Ag 17 '53

Chemical-biological coordination center

How to bypass the lab. Chem W 75:56+ Ag 7 '54

NATIONAL research council of Canada
Isotopes at NRC. Can Chem Process 37:84 N '53
Montreal road laboratories are on display. il Can Chem Process 38:90+ My '54
Record of N.R.C. Can Chem Process 38:86 Jl '54
Review, 1953. 244p pa 75c National research council, Ottawa 2 '53

Laboratories

NRC's new Building research centre. il Can Chem Process 37:103 N '53

NATIONAL research development corporation. See Great Britain—National research development corporation

NATIONAL research development corporation (India). See India—National research development corporation

NATIONAL rural electric cooperative association
Annual meeting, 12th, Miami. Elec World 141:137+ Ja 25 '54
Annual meeting, 12th, Miami. Pub Util 53: 184-8 F 4 '54

NATIONAL safe drivers association
Group pushes plan for discounts. Nat Pet N 46:15-16 F 24 '54

NATIONAL safety council
Auditor's report, 1953. Nat Safety N 69:36-7 My '54
Coal mining section meeting, Chicago, Oct. 19-21; with abstracts of papers. Coal Age 58:164-70 D '53
Congress, Chicago. Ind & Eng Chem 46: sup 117A-19A Ja '54
Congress, 41st, Chicago, Oct. 19-23. Nat Safety N 68:18-19 N '53
Congress, 41st, Chicago, Oct. 19-23; with abstracts of papers. Safety Maint & Prod 106:13-15+ D '53
Fight for life; report on the 40th year. Nat Safety N 68:97-132 N; 22-3+ D '53
Glass and ceramic section annual meeting, Chicago, Oct. 19-20; with abstracts of papers. Glass Ind 34:612-14+ N '53
Key men; brief sketches. East Underw 54: 116 D 11 '53
National safety congress and exposition, 41st, Chicago. il Chem & Eng N 31:4718 N 9 '53
Officers, directors and trustees elected at the 41st congress. Nat Safety N 68:34-5+ N '53
Pulp and paper section annual meeting, Chicago, Oct. 19-23. Paper Tr J 137:24-5 O 30 '53; Paper Ind 35:897-8+ N '53
Wide influence of National safety council. C. Axman. East Underw 54:102+ D 11 '53

NATIONAL sales executives
Annual convention, 18th, Atlantic City, June 7-10. Sales Management 71:62+ Jl 1 '53
Annual distribution congress, 19th, Chicago. Iron Age 173:86 Je 10 '54
Annual meeting, 19th, Chicago, June 2-4. Sales Management 73:46+ Jl 1 '54
Salesmen take longer view. Bsns W p50 N 28 '53

NATIONAL sand and gravel association
Annual meeting, 38th, Chicago, Feb. 15-19; with abstracts of papers. Rock Prod 57:75-86 Mr '54
Directors' semi-annual meeting, Colorado Springs. Rock Prod 56:102+ N '53

NATIONAL sanitary supply association
Annual meeting and trade show, 31st, Chicago, March 21-24; program and list of exhibitors. Soap & San Chem 30:147-51+ Mr '54
Annual meeting, 30th, Chicago, March 22-25; with abstracts of papers. Soap & San Chem 29:141-5+ Ap '53
Annual meeting, 31st, Chicago, March 21-24. Soap & San Chem 30:144-7+ Ap '54
Eastern regional meeting, 4th, New York, Nov. 18-19; with abstracts of papers. Soap & San Chem 29:199+ D '53

NATIONAL savings and loan league
National S&L league gives rival US League seven-point merger offer with strings on it. House & Home 6:39+ Jl '54

NATIONAL science foundation
Awards. Science 118:347-8 S 25 '53
Budget of $14 million proposed for National science foundation. Chem & Eng N 32: 400 F 1 '54
Cutbacks, bigger civilian role. Bsns W p64-5 Ag 22 '53
Establishment of advisory committee to consider the effects of government support to colleges on research and teaching functions. Oil Paint & Drug Rep 164:63 D 14 '53
Graduate fellowships offered. Elec Eng 72: 1040-1 N '53
National science foundation advisory committee on government-university relationships. Opt Soc Am J 44:177 F '54
National science foundation and its program. R. A. Morgen. J Eng Educ 44:243-6 D '53
New NSF grants. Chem & Eng N 32:482, 1880, 3130 F 8, My 10, Ag 9 '54
Scientific societies take part in NSF program to gather information on 100,000 scientists and engineers. Mech Eng 75:759 S '53

NATIONAL science teachers association
National meeting, 2d, April 1-3; abstracts of papers. Chem & Eng N 32:1594+ Ap 19 '54

NATIONAL security industrial association
How NSIA helps in putting industry on defense team. E. C. Kreutzberg. Steel 135: 56 Ag 23 '54
NSIA unsnarls defense knots. W. V. Packard. Iron Age 174:65-6 Ag 5 '54

NATIONAL security traders association
Annual convention, 20th, Sun Valley, Idaho, Sept. 16-19. Comm & Fin Chr 178:1-80 sec 2 O 8 '53

NATIONAL service life insurance. See Insurance, Military and naval service

NATIONAL society for the prevention of blindness
Industrial safety drive to prevent blindness. Weekly Underw 169:364 Ag 15 '53

NATIONAL society of professional engineers
Engineering societies of America. P. H. Robbins. il Gen Elec R 57:47-9 Mr '54
Meeting, Milwaukee. Chem W 75:36+ Jl 17 '54
NSPE declines bid; Engineers joint council affiliation is rejected. Eng N 151:25 D 3 '53

NATIONAL starch products, inc.
Continued gains in sales, earnings. Barron's 33:26 D 28 '53
It's not all starch. il Chem W 74:78-9 My 29 '54

NATIONAL television system committee
National television system committee. Inst Radio Eng Proc 42:15-16 Ja '54
NTSC; an exercise in technical co-ordination. D. B. Smith. Inst Radio Eng Proc 42:11-14 Ja '54

NATIONAL tool and die manufacturers' association
Annual meeting, Asbury Park, Oct. 22-25. Am Mach 97:181 N 9 '53

NATIONAL trailways bus system
National Trailways, an 18-year success story. Bus Transportation 33:40-2 S '54

NATIONAL warm air heating and air conditioning association
Annual meeting, 40th, Cleveland. Dom Eng 183:145-6+ Ja '54
Annual meeting, 40th, Cleveland, Dec. 2-3, with abstracts of papers. Sheet Metal Worker 45:92-3+ Ja '54

NATIONAL women's trade union league of America
Toward better working conditions for women; methods and policies. il U S Women's Bur Bul 252:1-71 bibliog(p70-1); pa 25c Supt. of doc. '53

NATIONALIZATION of industry. See Government ownership

NATURAL dyes. See Dyes and dyeing—Natural dyes

NATURAL gas. See Gas, Natural

NATURAL gasoline association of America
Annual meeting, 32d, Houston, April 29-May 1. Pet Eng 25:C3-4 Je '53
Annual meeting, 33d, Dallas, Tex. April 21-23. Gas Age 113:423-4 My 20 '54

NATURAL lighting. See Daylight

NATURAL resources
Canada's natural resources. M. W. Mackenzie. Pulp & Pa of Can 55:86-7 Ja '54
Economic possibilities of the public domain. M. Clawson. Land Econ 29:187-99 Ag '53
Natural resources and technological change. J. L. Fisher. bibliog Land Econ 29:57-71 F '53
Research and Canada's natural resources. R. C. Wallace. Special Lib 44:265-7 S '53
Resources for chemical industry in the United States; West north central states; symposium abstracts. Chem & Eng N 32:1314-15 Ap 5 '54
Resources for the chemical industry in the United States; East north central states. bibliog il maps diags Ind & Eng Chem 46:468-505 Mr '54 (reprints 75c)
Resources for the chemical industry in the United States; Rocky Mountain states. bibliog maps Ind & Eng Chem 45:2423-81 N '53
Resources of the Pacific Northwest. F. Merryfield. map Am Water Works Assn J 46:713-17 Ag '54
See also
Coal
Conservation of resources
Forests and forestry
Fuel
Gas, Natural
Minerals
Mines and mineral resources
Oil lands
Oil shales
Ore deposits
Peat
Petroleum
Raw materials
Reclamation of land
Soil conservation
Water supply
also Mid-Century conference on resources for the future

NATURAL resources, Conservation of. See Conservation of resources

NAUGATUCK chemical division. See United States rubber company—Naugatuck chemical division

NAUTICAL astronomy
All for the purpose of marking time. D. C. Holly. il U S Naval Inst Proc 79:302-9 Mr '53

NAVAL air stations. See Air bases, Military

NAVAL architects and marine engineers, Society of. See Society of naval architects and marine engineers

NAVAL architecture
Economic aspects of merchant ship design; abstract and discussion. H. H. Holly and J. A. Pennypacker. Marine Eng 59:76-7 F '54
Effective breadth concept in ship-structure design; abstract and discussion. H. A. Schade. Marine Eng 59:53-4 Ja '54
Experiments on single-screw merchant ship forms; abstract and discussion. F. H. Todd. Marine Eng 59:73-5 F '54
Some hydrodynamic aspects of appendage design; abstract and discussion. P. Mandel. Marine Eng 59:72-3 F '54
What does freeboard mean to you? J. H. La Dage. il Marine Eng 59:51-2 S '54
See also
Barges
Dredges
Ferryboats
Freight ships
Marine engineering
Motor ships
Power plants, Floating
Propellers
Ship propulsion
Shipbuilding
Ships
Steamboats
Tank ships
Towboats
Warships

Designs and plans

Chicago Socony, a versatile tanker. il plans diags Marine Eng 58:60-8 D '53
Richard M. Marshall; ore carrier design pays off in efficiency and economy. H. C. Downer. il plans diags Marine Eng 59:44-60 Je '54
690-foot Ernest T. Weir largest Lakes-built ore carrier. il plans diags Marine Eng 59:36-46 Ap '54
Texas company develops new class of coastwise tanker. il plans diags Marine Eng 58:62-76 N '53

NAVAL art and science
Maritime strategy. J. C. Wylie, jr. il U S Naval Inst Proc 79:sup 14, 467-77 My '53
See also
Sea power
Submarine warfare

NAVAL bases
Air and naval base locations in Spain. Eng N 151:22 D 31 '53
Largest structure to date built by lift-slab method; barracks at U.S. naval amphibious base, Norfolk. E. K. Bryant. il plan diag Civil Eng 23:606-8 S '53

NAVAL battles
See also
World war, 1939-1945—Naval operations

NAVAL education
See also
United States naval war college

NAVAL electronics laboratory. See United States—Navy—Electronics laboratory

NAVAL engineers, American society of. See American society of naval engineers

NAVAL oil reserves. See Oil reserves (United States navy)

NAVAL radio stations. See Radio stations, Naval

NAVAL research
Hydromechanics research programme of the Bureau of ships, U.S. navy; summary and discussion. F. H. Todd. Engineering 176:584-5 N 6 '53; Same abr. Engineer 196:455-6 O 9 '53

NAVAL research, Office of. See United States—Naval research, Office of

NAVAL reserve. See United States—Naval reserve

NAVAL stores
Loan program for 1954 crop is established. Oil Paint & Drug Rep 165:3 Mr 1 '54
Naval stores industries; research needs. T. A. Wastler. (Bul. 20) 63p bibliog(p61-3) Publications services, Engineering experiment station, Georgia institute of technology, Atlanta '54
Naval stores marketing outlook seen good. H. L. Meyer. Oil Paint & Drug Rep 164:77-8 N 2 '53; Same. Paint Oil & Chem R 116:24+ N 5 '53
Naval stores, 1949-1952. Survey of Cur Bsns 1953 Sup p 124 [supplemented in monthly numbers]
Pyrolysis and naval stores. A. J. Sofianopoulos. bibliog(48 ref) J Chem Educ 30:306-10 Je '53
See also
Rosin

NAVAL training stations
H-t water gives low-cost heat at Twentynine Palms. J. P. Harrington. flow diag il plans diag Power Eng 58:84-6+ Mr '54
Navy precasts 10,000-man training center. J. Joseph. il Concrete 62:42+ Ja '54

NAVAL warfare
See also
Naval art and science
Submarine warfare

NAVIES
See also
Airplane carriers
Great Britain—Navy
Naval architecture and other headings beginning Naval
Sea power
Submarine boats
United States—Navy
Warships

NAVIGATION
See also
Air navigation
Harbors
Longitude
Nautical astronomy
Pilots and pilotage
Radar aids to navigation
Radio aids to navigation
Rule of the road at sea
Shipping
Sounding
Steamboats
Waterways

NAVIGATION, Aerial. See Air navigation

NEAL, Paul Ardeen, 1901-1952
Sketch. R. R. Sayers and P. Drinker. por A M A Archives Ind Hygiene & Occup Med 7:353-5 Ap '53

NEAR EAST
See also
Investments, Foreign (in Near East)
Petroleum industry and trade—Near East

Commerce

Commodity shunting again; Lebanon. Economist 170:190+ Ja 16 '54
Germany and the Arabs. Economist 168:791-2 S 19 '53
United Kingdom tightens financial controls over Middle East trade. For Comm W 51:9 F 15 '54

Defenses

Arms and the Arabs. Economist 168:621 S 5 '53
Middle Eastern alternatives. Economist 169: 561-2 N 21 '53
Mr Dulles and Mr Nehru; Pakistani-American agreement; Middle Eastern affairs. Economist 170:73-4 Ja 9 '54

NEBULAE
Why do galaxies have a spiral form? C. H. Payne-Gaposchkin. il Sci Am 189:89-99 S '53

NEEDLE tubing. See Tubes, Steel

NEEDLES
Causes of seaming damage; needle heating. W. S. Sondheim. Textile Inst J Trans 44: 580-5 N '53

NEG'ATOR spring. See Springs (mechanism)

NEGLIGENCE
Bill on comparative negligence in New York approved. Nat Underw 58:12 F 25 '54
Federal government held liable for failure to clear former firing range; United States v. White. Weekly Underw 170:1376 My 29 '54
Juries not fitted for deciding cases of negligence. R. Murphy. Nat Underw 57:1+ Jl 9 '53
Patient's suicide costs South Carolina mental hospital $25,000; Sloan vs. Edgewood sanatorium. Nat Underw 58:26 Ap 15 '54
Record award in death of minor is upheld in Mississippi; Sandifer oil co. vs. Dew et al. Nat Underw 58:8 My 20 '54
See also
Damages
Employers' liability
Personal injuries

NEGOTIABLE instruments
Cancellation of negotiable instruments; intentional destruction of corporate bonds cancels underlying debt. J. R. Vincens. Banking 46:78-9 O '53
Holder in due course; purchaser of instalment paper should rely on the paper alone, not on extrinsic instruments. Banking 46: 84+ Ag '53
Uniform commercial code; effect upon the A.B.A. fictitious payee act; Negotiable instruments law. T. B. Paton. Banking 46: 88+ F '54
See also
Commercial paper
Postal service—Money orders

NEGRO market
Now they speak Spanish in Harlem. D. J. Sullivan. Sales Management 71:65+ O 1 '53

NEGROES
See also
Railroads—Negro passengers

Employment

Negro worker; a decade of progress; abstract. Management R 42:253-4 My '53
Why change the rules when you hire Negro salesmen? D. J. Sullivan. Sales Management 71:158+ N 10 '53

Housing

Aftermath of Shelley versus Kraemer on residential restriction by race. B. T. McGraw and G. B. Nesbitt. bibliog Land Econ 29: 280-7 Ag '53
Chicago housing authority told that Negro tenant in Trumbull Park was ill-planned. House & Home 5:38 Je '54
Getting cost down for Negro housing. il plan Am Bld 75:273-4 O '53
Non white housing, big untapped market beckons. il House & Home 3:44-5+ Ap '53
Segregation decisions jolt public and private housing. House & Home 6:126-7 Jl '54
Slum clearance depends on solving minority housing problems. A. Cole. House & Home 5:52 Mr '54

Segregation

Savannah segregation suit by Negro group threatens entire public housing program. House & Home 2:37 O '52
Segregation decisions jolt public and private housing. House & Home 6:126-7 Jl '54
Supreme court ban on segregation gives public housing a political jolt. Arch Forum 100:144-5 Je '54

NEGROES in France
Training of North African metal workers in France. Int Labour R 68:76-84 Jl '53

NEIMAN-MARCUS company
Store that serves two markets. il Bsns W p 134-40+ S 19 '53

NELSON, J. Arthur, 1876-
Honored for 60 years of service. por East Underw 54:115 D 11 '53

NELSON, Ontario

Water supply

Municipal cooperation in water supply exemplified by Burlington-Nelson. B. J. Henderson. il Munic Util 92:28-33+ Ag '54

NEMATODES
Underground fight; chemical for control of white tip, N-244. Chem W 74:80 Mr 20 '54

NEOCUPFERRON. See Nitrosonaphthylhydroxylamine

NEO-CUPROINE. See Dimethyl phenanthroline

NEODYMIUM
Magnetic susceptibility of Nd metal. J. F. Elliott and others. bibliog Phys R 94:50-1 Ap 1 '54

Analysis

Radiochemical determination of neodymium, praseodymium, and cerium in fission products. H. G. Petrow. bibliog Anal Chem 26: 1514-15 S '54
Separation of rare earths by ion exchange; quantitative data for the elution of neodymium. F. H. Spedding and J. E. Powell. bibliog Am Chem Soc J 76:2545-50 My 5 '54

Nuclear reactions

Natural alpha activity of neodymium. E. C. Waldron and others. Phys R 93:254-5 Ja 1 '54

NEOHEXANE. See Dimethyl butane

NEOMYCIN
Quick comeback. Chem W 75:59-60 Jl 3 '54

NEON
Comparative study of accommodation coefficients by the temperature jump and low-pressure methods and thermal conductivities of He, Ne, and CO_2. L. B. Thomas and R. C. Golike. bibliog diag J Chem Phys 22:300-5 F '54
Elastic scattering of alpha particles by neon. E. Goldberg and others. bibliog il diag Phys R 93:799-805 F 15 '54
See also
Electric lamps, Neon

NEON—*Continued*

Analysis

Plant control by gas analysis. A. W. Angerhofer and B. M. Dewey. il diags Instruments 26:580-3 Ap '53

Isotopes

Gamma rays from Li^7, F^{19}, Ne^{22}, and Na^{22} produced by alpha-particle bombardment of lithium and fluorine. N. P. Heydenburg and G. M. Temmer. il diags Phys R 94:1252-7 Je 1 '54

Neon-18. J. D. Gow and L. W. Alvarez. diag Phys R 94:365-7 Ap 15 '54

Nuclear reactions

Gamma rays from Ne. B. P. Foster and others. bibliog diags Phys R 93:1069-72 Mr 1 '54

NEON lamps. See Electric lamps, Neon

NEOPENTANE. See Dimethyl propane

NEOPRENE

Aging stability of neoprene latex. D. E. Andersen and R. G. Arnold. bibliog Ind & Eng Chem 45:2727-30 D '53

Coated flexible tubing wears longer in chip disposal system. W. G. Patton. il Iron Age 172:140-2 Ag 20 '53

Compounding for low cost with neoprene type WHV. J. L. Hartman and D. C. Thompson. bibliog Rubber World 130:498-501 Jl '54

Compounding neoprene for increased resistance to water. C. E. McCormack and others. Rubber Age 74:72-6+ O '53

Footwear firms offering Fellman anti-slip neoprene sole. il Rubber World 130:385 Je '54

From flat-top to industry. il Safety Maint & Prod 108:18-19 Jl '54

Neoprene consumption in 1953 15 per cent above record set in 1952. Rubber Age 74:942 Mr '54

Neoprene-treated paper's new look. il Paper Ind 36:593-4 S '54

Plastics equipment reference sheet; neoprene rubber. R. B. Seymour and R. H. Steiner. Chem Eng Prog 49:510 S '53

Ready to spread; neoprene surface coatings. Chem W 72:77 Ap 18 '53

Room-temperature compound process; extrusion process for making neoprene covering for wire. A. N. Gray. il diags Mech Eng 75:625-8 Ag '53

NEOSTIGMINE

Anticholinesterases; the *in vitro* inhibition of cholinesterases by physostigmine, neostigmine and other related (non-phosphorous) compounds. F. Hobbiger. bibliog Chem & Ind p415-18 Ap 10 '54

NEPETALACTONE

Structure of nepetalactone. J. Meinwald. Chem & Ind p488 Ap 24 '54

NEPHELOMETRIC analysis

Methods for analysis of titanium alloys; nephelometric and gravimetric determination of small amounts of calcium in titanium alloys. M. Codell, A. Cherney and G. Norwitz. bibliog(29 ref) Anal Chem 25:1434-6 O '53

NEPTUNIUM

Kinetics of reactions between neptunium ions; the neptunium(IV)-neptunium(VI) reaction in perchlorate solution. J. C. Hindman, J. C. Sullivan and D. Cohen. Am Chem Soc J 76:3278-80 Je 20 '54

Magnetic susceptibilities of Np^{+6}, Np^{+5}, and Np^{+4}. D. M. Gruen and C. A. Hutchison, jr. bibliog J Chem Phys 22:386-93 Mr '54

Isotopes

Beta decay of Np^{238}. H. Slätis and others. Phys R 93:646 F 1 '54

Isotopic exchange reactions of neptunium ions in solution; the N_p(V)-N_p(VI) exchange. D. Cohen, J. C. Sullivan and J. C. Hindman. bibliog Am Chem Soc J 76:352-4 Ja 20 '54

NEPTUNIUM compounds

Alkali carbonates of Np(V), Pu(V) and Am(V). J. P. Nigon and others. bibliog J Phys Chem 58:403-4 My '54

Neptunium-aluminum intermetallic compounds. O. J. C. Runnalls. il J Metals 5:Trans 1460-2 N '53

NEPTUNIUM oxides

Heat capacity of thorium dioxide from 10 to 305°K; the heat capacity anomalies in uranium dioxide and neptunium dioxide. D. W. Osborne and E. F. Westrum, jr. bibliog diag J Chem Phys 21:1884-7 O '53

NERVE gas. See Chemical warfare

NERVES

See also

Optic nerve

Blocking

Polyamine salts with autonomic blocking properties. R. H. Mizzoni, M. A. Hennessey and C. R. Scholz. bibliog Am Chem Soc J 76:2414-17 My 5 '54

Synthetic hypotensive agents; some powerful new autonomic ganglionic blocking agents derived from nicotine. A. P. Phillips. Am Chem Soc J 76:2211-13 Ap 20 '54

Thia- and dithia-alkanebis(quaternary ammonium) salts as neuromuscular- and ganglion-blocking agents. K. J. M. Andrews, F. Bergel and A. L. Morrison. Chem Soc J p2998-3002 O '53

NERVI, Pier Luigi

P. L. Nervi. por Arch Forum 99:140-9 N '53

NERVONIC acid. See Tetracosenoic acid

NERVOUS system

Anticholinesterases; esterase levels in the nervous system of animals during demyelination by tri-*ortho*-cresyl phosphate. R. H. S. Thompson. bibliog Chem & Ind p749-51 Je 26 '54

Anticholinesterases; inhibition of the cholinesterases of the central nervous system of experimental animals by organo-phosphorus compounds. A. N. Davison. bibliog Chem & Ind p895-6 Jl 17 '54

Staining of synaptic terminals within the central nervous system by Rio-Hortega's double impregnation silver method. G. E. Morrison, jr. and W. C. Gibson. bibliog il Science 117:656-8 Je 12 '53

See also

Reflexes

NESTLÉ company, inc.

Nestlé's global pioneering. J. D. Ratcliff. Adv Agency 47:60-1+ Ag '54

NETHERLANDS

See also

Chemical industries—Netherlands
Electricity supply—Netherlands
Floods—Netherlands
Immigration and emigration—Netherlands
Investments, Foreign (in Netherlands)
Iron industry and trade—Netherlands
Petroleum industry and trade—Netherlands
Steel industry and trade—Netherlands

Commercial policy

Netherlands eases restrictions on list of imports from dollar area. For Comm W 50:10-11 N 16 '53

See also

Benelux union

Economic conditions

Economic conditions abroad (cont). For Comm W 50:4 S 14 '53

Industries and resources

Iron and steel institute meeting, Amsterdam, Sept. 30-Oct. 7. Engineer 196:498-500, 522-4, 549-51 O 16-30 '53

Netherlands grants aid for new investments. For Comm W 50:5 N 2 '53

NETHERLANDS Guiana. See Dutch Guiana

NETS

See also

Fishing nets

NETWORK analyzers. See Electric distribution—Network analyzers

NEUROLOGY

Use of high intensity ultrasound in experimental neurology. P. D. Wall and others. Acoustical Soc Am J 25:281-5 Mr '53

NEUROSES

Neuroses and compensation; chronic psychiatric disorders following injury or stress in compensable situations. A. D. Pokorny and F. J. Moore. A M A Archives Ind Hygiene & Occup Med 8:547-63 bibliog(79 titles, p560-3) D '53

NEUROSES, Traumatic

Post-traumatic neuroses. J. D. Moriarty. bibliog Ind Med 22:337-40 Ag '53

Traumatic neuroses. Safety Maint & Prod 107:50 F '54

NEUROSPORA

Evidence for the existence of 1-amino-2-methyl-2-propanol in the phospholipids of neurospora. G. L. Ellman and H. K. Mitchell. bibliog Am Chem Soc J 76:4028-30 Ag 5 '54

p-Hydroxyphenylpyruvic acid function in neurospora crassa. A. G. DeBusk and R. P. Wagner. Am Chem Soc J 75:5131 O 20 '53

NEUTRALIZATION

How to buy and use lime as a neutralizing agent. R. D. Hoak. il Water & Sewage Works 100:468-73 D '53

Trans-annular amide-type neutralization. F. A. L. Anet and others. Chem & Ind p944-5 S 5 '53

NEUTRALIZATION, Heat of

Heats of neutralization of acid clays and cation-exchange resins. N. T. Coleman and M. E. Harward. bibliog Am Chem Soc J 75:6045-6 D 5 '53

NEUTRINOS

Detection of the free neutrino. F. Reines and C. L. Cowan, jr. Phys R 92:830-1 N 1 '53

Heat generation in the earth by solar neutrinos. A. M. Cormack. Phys R 95:580-1 Jl 15 '54

Upper limits on the neutrino mass from the tritium beta spectrum. D. R. Hamilton and others. bibliog Phys R 92:1521-5 D 15 '53

NEUTRONS

Activation analysis using low level neutron sources. W. W. Meinke and R. E. Anderson. bibliog il Anal Chem 25:778-83 My '53

Analysis for trace impurities by neutron activation. W. A. Brooksbank, G. W. Leddicotte and H. A. Mahlman. bibliog J Phys Chem 57:815-19 N '53

Angular distribution of fragments from neutron-induced fission. J. E. Brolley, jr. and W. C. Dickinson. bibliog diag Phys R 94:640-2 My 1 '54

Average neutron total cross sections in the 3- to 12-Mev region. N. Nereson and S. Darden. Phys R 94:1678-82 Je 15 '54

Boron-loaded photographic plates as detectors of slow neutrons. A. R. Baker. bibliog J Sci Instr 31:187-9 My '54

Charged particles from the interaction of 14-Mev neutrons with Li^6 and Li^7. G. M. Frye, jr. bibliog diag Phys R 93:1086-93 Mr 1 '54

Chemical consequences of the (n,γ) reaction on platinum complexes. B. C. Haldar. bibliog Am Chem Soc J 76:4229-33 Ag 20 '54

Cosmic-ray neutrons in water at an altitude of 10 600 feet. M. J. Swetnick. diag Phys R 95:793-6 Ag 1 '54

Design of cold neutron filters. P. A. Egelstaff and R. S. Pease. bibliog diags J Sci Instr 31:207-12 Je '54

Detection of 2.5-Mev neutrons with a single-crystal scintillation counter. R. E. Segel and others. diag R Sci Instr 25:140-4 F '54

Determination of photographic film exposure by neutron activation of Ag^{107}. I. B. Berlman and others. R Sci Instr 24:396-7 My '53

Determination of the energy of antimony-beryllium photoneutrons. R. Culp and B. Hamermesh. bibliog diags Phys R 93:1025-8 Mr 1 '54

Development of a neutron spectrometer for the intermediate energies; abstract and discussion. F. S. Goulding and others. Elec J 152:213-14 Ja 15 '54

Diffusion length of thermal neutrons in water. J. A. DeJuren and H. Rosenwasser. bibliog J Res Nat Bur Stand 51:203-7 O '53

Distribution of prompt-neutron emission probability for the fission fragments of U^{233}. J. S. Fraser and J. C. D. Milton. bibliog diag Phys R 93:818-24 F 15 '54

Doppler effect in the slow neutron resonance in rhodium. H. H. Landon. diags Phys R 94:1215-17 Je 1 '54

Effect of inelastic collisions on the slowing-down length of neutrons in a hydrogenous mixture. H. C. Volkin. bibliog J Ap Phys 25:83-6 Ja '54

Effect of neutron bombardment on a zinc sulfide phosphor. A. W. Smith and J. Turkevich. bibliog Phys R 94:857-65 My 15 '54

Effect of neutron bombardment upon the magnetic susceptibility of several pure oxides. J. D. McClelland and J. J. Donoghue. J Ap Phys 24:963 Jl '53

Eighty-channel velocity selector for neutrons. E. Gatti. bibliog il diags R Sci Instr 24:345-8 My '53

Energies and angular distributions of neutrons from $Be^9(d,n)B^{10}$. J. S. Pruitt and others. bibliog plan Phys R 92:1456-60 D 15 '53

Energy spectra and angular distributions of photoneutrons from heavy nuclei. G. A. Price. diag Phys R 93:1279-85 Mr 15 '54

Energy spectrum of neutrons from Po-Be. J. O. Elliot and others. bibliog diag Phys R 93:1348-9 Mr 15 '54

Europium activation studies with monochromatic neutrons. R. E. Wood. Phys R 95:453-5 Jl 15 '54

Experimental basis for neutron logging interpretation. J. T. Dewan and L. A. Allaud. diag Pet Eng 25:B49-50+ S '53

Experimental search for a stable dineutron. B. L. Cohen and T. H. Handley. bibliog Phys R 92:101-2 O 1 '53

Fast chopper time-of-flight measurement of neutron resonances. F. G. P. Seidl and others. bibliog il diags Phys R 95:476-99 Jl 15 '54

Fast neutron coincidence spectrometer. P. R. Chagnon and others. bibliog il diags R Sci Instr 24:656-60 Ag '53

Fast neutron-scintillation spectrometer. J. E. Draper. bibliog diags R Sci Instr 25:558-62 Je '54

Fine structure in the neutron yield curves from (γ,n) reactions in Li^7, C^{12}, O^{16}, and F^{19}. J. Goldemberg and L. Katz. diag Phys R 95:471-5 Jl 15 '54

Further production of transcurium nuclides by neutron irradiation. B. G. Harvey and others. Phys R 93:1129 Mr 1 '54

γ-Ray detector with low efficiency for fast neutrons. G. R. Bishop and others. diag R Sci Instr 24:395-6 My '53

High-sensitivity fast neutron survey meter. J. S. Handloser and W. A. Higinbotham. diag R Sci Instr 25:98-9 Ja '54

Interaction of polarized neutrons with polarized Mn^{55} nuclei. S. Bernstein and others. bibliog diags Phys R 94:1243-51 Je 1 '54

Interactions of high-energy neutrons in molybdenum. E. G. Silver and R. W. Waniek. Phys R 95:586-7 Jl 15 '54

Level densities in heavy nuclei of 10- to 20-Mev excitation. B. D. Beard. bibliog Phys R 94:738-9 My 1 '54

Long-lived activity in neutron-irradiated niobium. D. L. Douglas and others. bibliog Phys R 92:369-71 O 15 '53

Low voltage 14-Mev neutron source. S. G. Forbes and others. diags R Sci Instr 24:424-7 Je '53

Magnetic moments of neutron and proton. F. J. Belinfante. bibliog Phys R 92:994-7 N 15 '53

Measurement of the energy of isotropic fast neutrons with Li^6 loaded plates. J. H. Roberts and others. bibliog il R Sci Instr 24:920-4 O '53

Measurement of the neutron-proton cross section at 1.0 and 2.5 Mev. R. E. Fields and others. bibliog diag Phys R 94:389-98 Ap 15 '54

Multiple-wire proportional counter for fast neutron detection. C. R. Sun and J. R. Richardson. bibliog il diags R Sci Instr 25:691-4 Jl '54

Neutron-deficient isotopes of thallium. I. Bergström and others. bibliog diags Phys R 92:918-23 N 15 '53

Neutron interactions with matter. E. R. Gaerttner. il diags Gen Elec R 57:38-41 Mr '54

NEUTRONS—*Continued*

Neutron polarization. C. P. Stanford and others. bibliog diags Phys R 94:374-81 Ap 15 '54
Neutron production by cosmic rays. W. C. G. Ortel. bibliog diags Phys R 93:561-7 F 1 '54
Neutron spectrum from the $O^{18}(d,n)F^{19}$ reaction. R. L. Seale. bibliog Phys R 92:389-90 O 15 '53
Neutron total cross section for bismuth and uranium between 45 and 160 Mev. W. I. Linlor and B. Ragent. Phys R 92:835-6 N 1 '53
Neutron total cross sections at 20 Mev. R. B. Day and R. L. Henkel. bibliog Phys R 92:358-61 O 15 '53
Neutrons in coincidence with high-energy photoprotons. H. Myers and others. Phys R 95:576-7 Jl 15 '54
Nuclear potential well depth. R. K. Adair. Phys R 94:737-8 My 1 '54
Photoneutron cross sections in He, N, O, F, Ne, and A. G. A. Ferguson and others. diag Phys R 95:776-80 Ag 1 '54
Pickup reactions $B^{10}(n,d)Be^{9}$ for 14-Mev neutrons. F. L. Ribe and J. D. Seagrave. bibliog diags Phys R 94:934-40 My 15 '54
Precision determination of photoneutron thresholds. M. Birnbaum. bibliog diag Phys R 93:146-54 Ja 1 '54
Proportional counter spectrometer for neutrons. R. Giles. R Sci Instr 24:986-7 O '53
Proton-neutron mass difference. R. P. Feynman and G. Speisman. Phys R 94:500 Ap 15 '54
Scavenger effect in the n,γ reaction in carbon tetrachloride. W. H. Hamill and R. R. Williams, jr. bibliog J Chem Phys 22:53-6 Ja '54
Scintillation detector for fast neutrons. L. W. Seagondollar and others. R Sci Instr 25:689-91 Jl '54
Slow neutron cross section of water. M. Danzker. J Chem Phys 21:2089-90 N '53
Slow neutron resonances in cesium, palladium, and gold. H. H. Landon and V. L. Sailor. bibliog Phys R 93:1030-3 Mr 1 '54
Slow neutron resonances in europium. V. L. Sailor and others. bibliog Phys R 93:1292-6 Mr 15 '54
Slow neutron resonances in holmium, thulium, and lutetium. H. L. Foote, jr. and others. bibliog Phys R 92:656-9 N 1 '53
Slow neutron resonances in tantalum. R. L. Christensen. Phys R 92:1509-10 D 15 '53
Slow neutron velocity spectrometer studies; Re, Ta, Ru, Cr, Ga. E. Melkonian and others. Phys R 92:702-15 N 1 '53
Some pile neutron cross sections of isotopes of americium, berkelium, californium, and element 99. B. G. Harvey and others. Phys R 95:581-2 Jl 15 '54
Study of the interaction of neutrons with moderating materials. G. F. von Dardel. bibliog diags Phys R 94:1272-83 Je 1 '54
Systematics of photoneutron reactions. R. Nathans and J. Halpern. bibliog diags Phys R 92:207; 93:437-42 O 1 '53, F 1 '54
Temperature dependence of BF_3 proportional neutron counters. J. A. Lockwood and others. bibliog diag R Sci Instr 25:446-9 My '54
Thermal neutron resonance of Sm. A. W. McReynolds and E. Andersen. Phys R 93:194-6 Ja 1 '54
Total cross sections for 410-Mev neutrons. V. A. Nedzel. bibliog diags Phys R 94:174-83 Ap 1 '54
Total cross sections for high-energy neutrons. V. Culler and R. W. Waniek. diag Phys R 95:585 Jl 15 '54
Total cross sections for 169-Mev neutrons. A. E. Taylor. Phys R 92:1071 N 15 '53
Total cross sections of rare earths for fast neutrons. A. Okazaki and others. bibliog diags Phys R 93:461-3 F 1 '54
Total neutron cross section for uranium from 20 kev to 20 Mev. R. L. Henkel and others. bibliog Phys R 94:141-3 Ap 1 '54
Total neutron cross section of liquid argon. J. B. Guernsey and C. Goodman. bibliog diag Phys R 92:323-4 O 15 '53
Total neutron cross section of phosphorus. K. F. Hansen and others. bibliog Phys R 92:652-3 N 1 '53
What holds the nucleus together? H. A. Bethe. il diags Sci Am 189:58-63 S '53
See also
Nucleons

Absorption

Neutron absorption and scattering by hafnium. L. M. Bollinger and others. bibliog Phys R 92:1527-31 D 15 '53
Neutron absorption cross section of U^{235} at 2200 m/sec. H. Palevsky and others. Phys R 94:1088-9 My 15 '54
Thermal neutron absorption cross sections of boron and gold. R. S. Carter and others. bibliog Phys R 92:716-21 N 1 '53

Capture

Capture of polarized neutrons by polarized Sm^{149} nuclei. L. D. Roberts and others. bibliog diags Phys R 95:105-10 Jl 1 '54
Diffusion kinetics of atom-radical recombination in radiative neutron capture by halogens in liquid alkyl halides. J. C. Roy, R. R. Williams, jr. and W. H. Hamill. bibliog Am Chem Soc J 76:3274-8 Je 20 '54
Dipole and quadrupole transition probabilities in neutron-capture gamma radiation. B. B. Kinsey and G. A. Bartholomew. bibliog Phys R 93:1260-78 Mr 15 '54
Evaluation of the interaction effect in *n-p* capture. N. Austern. bibliog Phys R 92:670-4 N 1 '53
Neutron capture in the separated isotopes of platinum. J. M. Cork and others. bibliog diags Phys R 94:1218-21 Je 1 '54
Shell effects in highly excited nuclei. H. W. Newson and R. H. Rohrer. bibliog Phys R 94:654-8 My 1 '54
Thermal neutron capture cross section of carbon-13. G. R. Hennig. Phys R 95:92-5 Jl 1 '54
Thermal neutron capture cross sections of hydrogen, boron, and silver. F. R. Scott and others. diag Phys R 95:582-4 Jl 15 '54

Diffraction

Neutron diffraction study of tetragonal potassium dihydrogen phosphate. S. W. Peterson and others. bibliog J Chem Phys 21:2084-5 N '53
Neutron diffraction study of the anisotropy transition in α-Fe_2O_3. L. M. Corliss and others. Phys R 93:893-4 F 15 '54
Neutron diffraction study of the ferroelectric modification of potassium dihydrogen phosphate. H. A. Levy and others. bibliog Phys R 93:1120-1 Mr 1 '54
New goniometers for single-crystal neutron diffraction studies. R. Pepinsky and others. il diag R Sci Instr 25:699-703 Jl '54
Structure of liquid nitrogen, oxygen, and argon by neutron diffraction. D. G. Henshaw and others. bibliog diag Phys R 92:1229-34 D 1 '53

Scattering

Angular distribution of neutrons scattered from aluminum, iron, and lead. W. D. Whitehead and S. C. Snowdon. bibliog diags Phys R 92:114-19 O 1 '53
Angular distribution of neutrons scattered from cadmium, tin, and bismuth. S. C. Snowdon and W. D. Whitehead. bibliog Phys R 94:1267-72 Je 1 '54
Cross sections for production of In^{115m} and Au^{179m} by inelastic scattering of neutrons. H. C. Martin and others. bibliog Phys R 93:199-204 Ja 1 '54
Crystal dynamics and inelastic scattering of neutrons. G. Placzek and L. Van Hove. bibliog Phys R 93:1207-14 Mr 15 '54
Elastic scattering of fast neutrons by He^4. J. D. Seagrave. bibliog diag Phys R 92:1222-8 D 1 '53
400-Mev neutron-proton scattering. A. J. Hartzler and R. T. Siegel. bibliog diag Phys R 95:185-92 Jl 1 '54
Gamma rays excited by the inelastic scattering of neutrons in lead, bismuth, iron, nickel and chromium. M. A. Rothman and C. E. Mandeville. diag Phys R 93:796-9 F 15 '54
Gamma rays from Cu due to neutron inelastic scattering. L. A. Rayburn and others. Phys R 94:1641 Je 15 '54

NEUTRONS—Scattering—*Continued*

Gamma rays from the inelastic scattering of 14-Mev neutrons in C^{12} and O^{16}. L. C. Thompson and J. R. Risser. diag Phys R 94:941-3 My 15 '54

Incoherent neutron scattering by polycrystals. G. Placzek. Phys R 93:895-6 F 15 '54

Inelastic neutron scattering in Al, Fe Mg, and Cu. R. E. Garrett and others. diags Phys R 92:1507-8 D 15 '53

Inelastic scattering of fast neutrons in carbon and lead. B. G. Whitmore. Phys R 92:654-5 N 1 '53

Inelastic scattering of neutrons. E. A. Eliot and others. bibliog diags Phys R 94:144-51 Ap 1 '54

Inelastic scattering of neutrons by In^{115} and Au^{197}. A. A. Ebel and C. Goodman. Phys R 93:197-8 Ja 1 '54

Inelastic scattering of neutrons near threshold. B. Margolis. Phys R 93:204-7 Ja 1 '54

Inelastic scattering of protons and neutrons by deuterons. R. M. Frank and J. L. Gammel. bibliog diag Phys R 93:463-70 F 1 '54

Magnetic inelastic scattering of slow neutrons. H. Palevsky and D. J. Hughes. bibliog Phys R 92:202-3 O 1 '53

Magnetic scattering of neutrons from rare earth ions. G. T. Trammell. bibliog Phys R 92:1387-93 D 15 '53

n-γ coincidences produced by inelastic scattering of neutrons. P. Shapiro and others. bibliog diag Phys R 95:751-3 Ag 1 '54

Neutron inelastic scattering. R. M. Kiehn and C. Goodman. bibliog diags Phys R 93:177-8; 95:989-92 Ja 1, Ag 15 '54

Neutron-proton scattering at 300 Mev. J. De Pangher. Phys R 95:578-9 Jl 15 '54

Neutron-proton scattering near 180° at 93 Mev. W. Selove and others. bibliog diag Phys R 92:724-6 N 1 '53

Neutron-proton scattering with spin-orbit coupling; variational formulation and effective range theory. L. C. Biedenharn and J. M. Blatt. Phys R 93:1387-94 Mr 15 '54

Nuclear emulsion method for energy measurement of inelastically scattered neutrons. S. C. Snowdon and others. bibliog diags R Sci Instr 24:876-7 S '53

Nuclear scattering of high-energy neutrons. T. B. Taylor. Phys R 92:831-2 N 1 '53

Paramagnetic scattering of neutrons by rare earth oxides. W. C. Koehler and E. O. Wollan. bibliog Phys R 92:1380-6 D 15 '53

Polarization in high-energy *p-n-n* double scattering. P. Hillman and others. diags Phys R 95:462-3 Jl 15 '54

Polarization in *n-p* scattering at 100-200 Mev. A. Roberts and others. Phys R 95:1099-100 Ag 15 '54

Resonant effects and spin dependence in potential scattering of slow neutrons. W. Selove. bibliog Phys R 92:941-2 N 15 '53

Scattering of fast neutrons in light nuclei. C. F. Cook and T. W. Bonner. bibliog Phys R 94:651-3 My 1 '54

Scattering of 14.1-Mev neutrons in helium, hydrogen, and nitrogen. J. R. Smith. bibliog Phys R 95:730-5 Ag 1 '54

Scattering of neutrons by systems containing light nuclei. G. C. Wick. diags Phys R 94:1228-42 Je 1 '54

Scattering of 1-Mev neutrons by intermediate and heavy elements. M. Walt and H. H. Barschall. bibliog diags Phys R 93:1062-8 Mr 1 '54

Small-angle neutron-proton scattering at 400 Mev. A. J. Hartzler and others. diag Phys R 95:591-2 Jl 15 '54

Small-angle neutron-proton scattering at 90 Mev. O. Chamberlain and J. W. Easley. diags Phys R 94:208-9 Ap 1 '54

Stereoscopic reprojection apparatus for neutron scattering experiments. M. H. Alston and others. il diags J Sci Instr 31:252-4 Jl '54

Temperature variation of the magnetic inelastic scattering of slow neutrons. L. Van Hove. Phys R 93:268-9 Ja 15 '54

Underground studies

Neutron measurements at great underground depths. J. Eugster. bibliog R Sci Instr 25:5-7 Ja '54

NEVADA

See also

Copper mines and mining—Nevada

Electrochemical industries—Nevada

NEVADA natural gas pipe line company

Securities offered. Comm & Fin Chr 178:1669 N 2 '53

NEW BRUNSWICK

See also

Mines and mineral resources—New Brunswick

Oil shales—New Brunswick

Roads—New Brunswick

NEW BRUNSWICK university

University of New Brunswick forest. J. M. Gibson. Pulp & Pa of Can 54:180+ O '53

NEW CANAAN, Connecticut

Architecture

This stilt house is practical. il plans House & Home 3:118-21 F '53

What's going on in New Canaan. il House & Home 3:132-9 Ja '53

NEW employees. See Employment management—New employees

NEW ENGLAND

What are the industrial opportunities? R. M. Alt. Iron Age 173:140-1 Je 24 '54

See also

Chemical industries—New England

Finance—New England

Steel works—New England

Economic conditions

Economy; two year survey by New England committee most extensive ever. L. O. Carmichael. Iron Age 173:188+ Je 24 '54

Inventory of recent economic research collected and published by the Federal reserve bank of Boston; digest of studies of special interest to metalworking industries. Iron Age 173:148+ Je 24 '54

Industries and resources

Electronics; New England's rising potential. il Steel 133:46-7 N 23 '53

New England takes on atomic tonic. A. G. Mezerik. il Sales Management 72:80-5 Ja 15 '54

Salute to New England. il Iron Age 173:123-46+ Je 24 '54

NEW ENGLAND. association of chemistry teachers

Summer conference, 15th, Brunswick, Me. Aug. 24-28. Chem & Eng N 31:3626 S 7 '53

NEW ENGLAND gas and electric association

Public utility securities. O. Ely. Comm & Fin Chr 178:1545 O 22 '53

NEW ENGLAND gas association

Annual meeting, Boston. Am Gas J 180:14-15 Ap '54; Gas Age 113:36-7+ Ap 22 '54

Annual meeting, Boston, March 25-26. Am Gas Assn Mo 36:45 Ap '54

NEW ENGLAND water works association

Annual meeting 72d, Poland Spring, Me. Eng N 151:73 O 8 '53

Annual meeting, 72d, Poland Spring, Me. Sept. 27-30; with abstracts of papers. Water & Sewage Works 101:8-13 Ja '54

NEW GUINEA

See also

Petroleum industry and trade—New Guinea

NEW JERSEY

See also

Chemical industries—New Jersey

Roads—New Jersey

Sanitary affairs

Detectives at work; water samplers. il Chem W 75:19 Jl 24 '54

NEW JERSEY association of insurance agents

Committees; personnel to serve until fall of 1954. East Underw 54:28 N 6 '53

NEW JERSEY turnpike. See Roads—New Jersey

NEW JERSEY zinc company

New Jersey Zinc story. flow sheets il maps diags Min Eng 5:1203-54 D '53

Security I like best. J. P. Murray. Comm & Fin Chr 178:622 Ag 20 '53

NEW MEXICO

See also

Geology—New Mexico

Mines and mineral resources—New Mexico

Petroleum—New Mexico

Petroleum industry and trade—New Mexico

Volcanoes—New Mexico

Industries and resources

Availability of raw materials in New Mexico. M. F. Stubbs and R. H. Weber. bibliog maps Ind & Eng Chem 45:2443-9 N '53

NEW ORLEANS

Bridges

New plan filed for bridge. Eng N 152:26 F 11 '54

Industries

On the chemical crescent; postwar chemical expansion. il map Chem & Eng N 32:2676-9 Jl 5 '54

Seven steps to acrylonitrile; American Cyanamid's first entry into production of chemicals from natural gas. il Chem & Eng N 32:2572+ Je 28 '54

Lighting

Fluorescent mercury vapor lights. G. B. Arthur. il Pub Works 85:81-2 Ag '54

Railroads

City eliminates 144 grade crossings; five rail stations replaced by one. il Eng N 152:57-8+ Ja 28 '54

New Orleans Union passenger terminal. il maps plans Ry Age 136:21-34 Ap 26 '54

Sewerage

Steel force main provides sewerage for residential area. il Pub Works 85:79-80 Ja '54

NEW ORLEANS insurance exchange

Charges of Justice department against New Orleans insurance exchange. East Underw 55:24-5 Ja 29 '54

New Orleans board says U.S. doesn't have jurisdiction. Nat Underw 58:1 Je 17 '54

U.S. files trust action against New Orleans board. Nat Underw 58:1+ Ja 21 '54

NEW products. See Products, New

NEW ROCHELLE, New York

Sewerage

Westchester county builds new sewage works. il Pub Works 85:79-80 F '54

NEW YEAR

New Year's; no white ties. Bsns W p28-9 D 26 '53

NEW YORK (city)

See also

Electricity supply—New York (city)

Housing—New York (city)

Antiquities

See Indians of North America—Antiquities

Architecture

Coliseum plans in final version; project now includes offices as well as housing and parking. il plan diag Arch Rec 115:177 My '54

How long can a boom last? Manhattan's skyscraper spree. il Arch Forum 99:45+ N '53

New York's fabled Robert Moses draws fire on redevelopment scheme for a coliseum. il Arch Forum 97:45 D '52

Bridges

Reconstruction of the Brooklyn bridge. il diags Engineer 196:686-9 N 27 '53

Fire department

New York city's fire department. East Underw 55:19+ S 10 '54

Galleries and museums

See also

Metropolitan museum of art

Harbor

Ship activity at New York increased in 1953. Marine Eng 59:67 F '54

Tugs scramble for shrinking business. il Bsns W p88+ O 3 '53

Hotels, restaurants, etc.

Restaurant wears its new look gracefully; remodeled restaurant Mayan, N.Y. il plan diags Arch Rec 115:182-5 Ap '54

Lighting

Keeping the white in the Great White Way. il Elec World News ed 140:22-3 S 14 '53

Metropolitan district

Unified mass-transportation system. W. Reid. Am Soc C E Proc 79 [no 171]:1-8 F '53

Metropolitan museum of art

See Metropolitan museum of art

Rapid transit

New York transit authority solves one problem on maintenance but gets one on labor relations. Bus Transportation 33:55 Ja '54

Sanitary affairs

Pollution sources in New York; abstract. L. Greenburg. Chem & Eng N 32:1352 Ap 5 '54

Schools

Schools aplenty; would add $100 million worth in '54. il Eng N 151:44 Jl 9 '53

Sewerage

Sewage aeration practice. R. H. Gould. Am Soc C E Proc 79 [no 307]:1-11 O '53

Streets

Another link in Manhattan's girdle. il map Roads & Sts 96:74-5+ O '53

Elevated highway job bristles with good ideas. H. T. Perez. il diag Constr Methods 36:82-4+ Ja '54

New York plots traffic improvements. il map Eng N 152:43 F 18 '54

Subways

Passenger-belt subway system. il Mech Eng 75:493 Je '53

Tunnels

Build tunnel, piece by piece. il Iron Age 172:42 O 29 '53

Cast-iron and steel segments for third tube of Lincoln tunnel. il Mach 60:200 D '53; Foundry 82:144 F '54

Lincoln Tunnel tube job set at $17,260,370; 100 per cent surety bond required. East Underw 54:28 O 23 '53

Third Lincoln Tunnel tube construction halted by state and tennis courts. il Eng N 152:51 Mr 25 '54

Water supply

Action on Delaware; solution to tri-state water rights issue is aided by New Jersey legislation. Eng N 151:23 D 31 '53

East Delaware tunnel construction to be completed six months ahead of time. J. S. Macdonald. il map diags Civil Eng 24:28-30 Ja '54

General design of the East Delaware water supply tunnel. S. M. Dore. il maps plan diags Am Soc C E Proc 79 [no 313]:1-16 O '53

New York's quest for interstate water; abstract. K. R. Kennison. Water & Sewage Works 101:12-13 Ja '54

Rationing a treasure; suit over New York city's petition to increase intake of water from Delaware river. Chem W 74:34+ Ap 17 '54

Water settlement. Chem W 74:35 My 22 '54

Yankee stadium

See Stadiums

NEW YORK (state)

See also

Architecture, Domestic—New York (state)

Roads—New York (state)

NEW YORK airways, inc.
Copter airline plans reservations setup. il Aviation W 59:115-16+ S 14 '53

NEW YORK board of trade

Drug, chemical and allied trades section

Meeting, Pocono Summit, Pa. Chem & Eng N 31:4199 O 12 '53

NEW YORK central railroad
Battle of century unlimited. Ry Age 136:10-11 Mr 22 '54
ICC won't investigate Young; denies petition. Ry Age 136:10-11 Ap 12 '54
NYC asks I.C.C. to probe Young. Ry Age 136:9-10 Mr 8 '54
New York Central executive changes. Ry Age 136:12 Je 28 '54
Proxy battle looms as NYC rejects Young's bid. Ry Age News ed 136:11 F 15 '54
Railroad securities. Comm & Fin Chr 179:496 Ja 28 '54
Security I like best; New York Central and Hudson River railroad, Michigan Central collateral mortgage 3½ per cent 1998. A. Marx. Comm & Fin Chr 178:718 Ag 27 '53
Stake in Central; Chesapeake and Ohio making good use of it. P. J. Maggio. Barron's 33:15-16 O 5 '53
Struggle for power. R. Carleson. Mag of Wall St 93:624+ F 20 '54
Young wins control. Ry Age 136:7-8 Je 21 '54

NEW YORK, Chicago and St Louis railroad
Railroad securities. Comm & Fin Chr 178:1639 O 29 '53
Road may net $8.25 per share this year. Barron's 33:27+ D 7 '53

NEW YORK clearing house
New York clearing house story; some of the background. Bankers Mo 70:34 N '53

NEW YORK curb exchange. See American stock exchange

NEW YORK, New Haven and Hartford railroad
McGinnis heads New Haven. Ry Age 136:7-8 Ap 26 '54

NEW YORK sewage and industrial wastes association
Spring meeting, Syracuse, June 14-15; with abstracts of papers. Water & Sewage Works 101:404-7 S '54

NEW YORK state bar association

Insurance section

Annual meeting, New York, Jan. 28. East Underw 55:33 F 5 '54
Annual meeting, New York, Jan. 28. Nat Underw 58:21+ F 4; 12+ F 11 '54

NEW YORK state college of agriculture. See Cornell university—New York state college of agriculture

NEW YORK state maritime college
New York maritime college offers degrees in engineering and transportation. J. J. O'Connor. il Marine Eng 59:64-8 Mr '54

NEW YORK state school of industrial relations. See Cornell university—New York state school of industrial relations

NEW YORK state thruway. See Roads—New York (state)

NEW YORK state veterinary college. See Cornell university—New York state veterinary college

NEW YORK stock exchange
Background of organized securities markets. E. C. Gray. Comm & Fin Chr 178:1132-3 S 24 '53
Big board problems. Burroughs Clearing House 38:4+ O '53
Bond record, Friday, weekly, yearly. Published in weekly Monday numbers of Commercial and financial chronicle
German dollar bond trading resumed. Comm & Fin Chr 179:161 Ja 14 '54
Higher commission rates adopted by NYSE. Comm & Fin Chr 178:1744 N 5 '53
How new decision limits stock dividends. W. Gates. Mag of Wall St 93:242-3+ N 28 '53
Monthly range of prices for year 1953. Comm & Fin Chr 179:366-88 sec 2 Ja 21 '54
NYSE adopts new plan for sale of large blocks of stock. G. K. Funston. Comm & Fin Chr 178:827 S 3 '53
N.Y.S.E. instalment plan. Burroughs Clearing House 38:7-8 Ja '54
NYSE installment stock buying plan announced. G. K. Funston. Comm & Fin Chr 178:2173 D 3 '53
New York stock exchange issues new policy on accounting for stock dividends. J Account 95:604 My '53
NYSE monthly investment plan; an idea for democratic capitalism. R. C. Lawrence. Comm & Fin Chr 179:168+ Ja 14 '54
Odd-lot system. H. C. Smith. Comm & Fin Chr 178:1536+ O 22 '53
Pinch of poverty; it's forcing Wall Street to work, merge and diversify. R. M. Bleiberg. Barron's 33:3+ D 21 '53
Still they won't raise rates. Bsns W p52+ Ag 29 '53
Stock exchange explains its pay-as-you-go plan. J. C. Perham. Barron's 33:6 Ag 24 '53
Stock exchange; it had better stick to its time-honored job. Barron's 33:1 Ag 24 '53
Stock record; daily, weekly and yearly. Published in weekly Monday numbers of Commercial and financial chronicle
Tale of two markets; London and Wall Street. Economist 168:802+ S 19 '53

NEW YORK thruway. See Roads—New York (state)

NEW YORK university

Hall of fame

See Hall of fame for great Americans

NEW YORK university-Bellevue medical center
New York university, Institute of industrial medicine. il Ind Med 22:472-6 O '53

NEW ZEALAND
See also
Electricity supply—New Zealand
Hydroelectric plants—New Zealand

Antiquities

Yale natural radiocarbon measurements; Pyramid valley and its problems. M. Blau and others. bibliog Science 118:1-6 Jl 3 '53

Economic conditions

Economic conditions abroad (cont). For Comm W 51:4 Ja 11 '54

Sanitary affairs

Refuse composting developments. R. C. Lough. flow diags il Pub Works 85:77-8 Jl '54

NEWARK, New Jersey
Sold after 16 years; old post-office site. il Bsns W p 150+ N 28 '53

NEWARK news
Newark news honored for civic enterprises. A. S. Keshen. Ed & Pub 86:45 My 23 '53

NEWBURY, Frank Davies, 1880-
Portrait. Bsns W p29 N 21 '53

NEWCASTLE disease
Mechanism of suppression of nontransmissible pneumonia in mice induced by Newcastle disease virus. V. Groupé and others. bibliog Science 118:187-91 Ag 14 '53

NEWFOUNDLAND
Newfoundland, not just fish. il map Bsns W p 136-40+ O 17 '53
See also
Mines and mineral resources—Newfoundland
Roads—Newfoundland

NEWNES, George, limited
Statement by the chairman. F. Newnes. Economist 168:602 Ag 29 '53

NEWPORT NEWS, Virginia

Water supply

Planning distribution system improvements. H. E. Beckwith. map Am Water Works Assn J 46:329-32 Ap '54

NEWS
See also
Reporting

International aspects

See also
Newspapers—Foreign correspondents

NEWS agencies
See also
Associated press
International news service

NEWS photographers

Illinois short course; one man's experience. J. L. Collings. Ed & Pub 86:50 Mr 7 '53

Life in a radio car, bombs to bandits. J. L. Collings. Ed & Pub 86:50 My 30 '53

Memphis police told to leave photogs alone. Ed & Pub 86:8 F 28 '53

See also

Gallagher, William M.

National press photographers association

Noel, Frank

Sarno, Dick

NEWS photographs

Camera makers blasted for their indifference. J. L. Collings. Ed & Pub 86:54 My 23 '53

Flashes on flashbulbs; comments from courses. J. L. Collings. Ed & Pub 86:98 Ap 18 '53

It's a great picture, but we wouldn't use it. J. L. Collings. Ed & Pub 86:48 Ap 4 '53

Make editors want pix, lensmen told at KSU. W. Fisher. Ed & Pub 86:57 Mr 28 '53

Speedier photo service is perfected. J. Walker. Ed & Pub 86:7 Mr 28 '53

Wendlinger's suicide shot wins E&P photo contest. il Ed & Pub 86:7-8, 17-18, 67-8 Mr 21 '53

NEWSPAPER associations

See also

Advertisng—Rates

also American newspaper publishers' association; National press photographers association

NEWSPAPER awards

Ayer trophy awarded to Washington star. il Ed & Pub 86:22+ Ap 25 '53

Better paper contest winners named by NEA. Ed & Pub 86:72 Ap 25 '53

E&P promotion awards for '52 are announced. il Ed & Pub 86:7-8 My 2 '53

Seven Canadian newsman get national awards. Ed & Pub 86:84 Ap 25 '53

See also

Pulitzer prizes

NEWSPAPER carriers

Cellophane keeps newspapers dry. il Bsns W p 154 N 14 '53

Importance of young merchants recounted; newspaperboy committee report, ANPA. Ed & Pub 86:68+ Ap 25 '53

Independent contractor status met; union out. Ed & Pub 86:42 Ap 4 '53

Morrisey urges NNPA back carrier program. G. A. Brandenburg. Ed & Pub 86:42 My 23 '53

New York law puts carrier control under schools. Ed & Pub 86:12 Ap 18 '53

NEWSPAPER editors, American society of. See American society of newspaper editors

NEWSPAPER ethics

Editor calls bribery shame of journalism. N. Isaacs. Ed & Pub 86:12+ My 16 '53

Hoyt insists on fair play in staff memo. Ed & Pub 86:12 F 28 '53

Love letters refuel feud in Los Angeles; charges of news pirating and plagiarism. Ed & Pub 86:60 My 9 '53

See also

Newspapers—Advertising policies

NEWSPAPER libraries

Librarians invited to know-how parley. C. M. Lewis. il Ed & Pub 86:46 My 9 '53

NEWSPAPER offices

Marshfield daily in new building. il Ed & Pub 86:52 My 9 '53

Oregon statesman in L-shaped plant. il Ed & Pub 86:54 My 9 '53

Philadelphia bulletin building huge plant. il Ed & Pub 86:127 Ap 18 '53

Air conditioning

Largest cooling system in Philadelphia, installed in Public Ledger building. Heat & Ven 50:134 D '53

Equipment

So you are planning to install a press? Ed & Pub 86:50+ Mr 14 '53

Lighting

Lighting system blacks out gripes. Ed & Pub 86:51 My 9 '53

NEWSPAPER representatives

See also

Advertising, Soliciting of

Advertising mediums—Newspapers

Allen-Klapp company

NEWSPAPER research

Research aids Hearst newspaper's revision. Ed & Pub 86:14 Ap 4 '53

NEWSPAPER television stations. See Television stations, Newspaper.

NEWSPAPERS

Biggest achievements in past 50 years. Ed & Pub 86:20+ Ap 18 '53

E. W. Scripps formula test today suggested. C. Watson. Ed & Pub 86:11 My 30 '53

New anti-secrecy law calls for vigilance; University of Washington 6th annual daily newspaper seminar. D. Coughlin. Ed & Pub 86:46 My 23 '53

Upper midwest news executives' conference, Minneapolis, May 8-9. Ed & Pub 86:58 My 16 '53

See also

Advertising mediums—Newspapers

Audit bureau of circulations

Freedom of the press

Journalism

Newspaper offices

Reporters

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Television stations, Newspaper

Trade journals

Advertising

Detroit success story about 12-page ad. T. S. Irvin. Ed & Pub 86:92 Ap 18 '53

Terse copy, smart layout make good truck posters. G. A. Brandenburg. il Ed & Pub 86:110 Ap 18; 42 My 2 '53

Advertising managers

Admanagers given tips in Oregon group meeting. Ed & Pub 86:74 Ap 25 '53

See also

Hartford, George F.

Advertising policies

Cinncy enquirer to take auto ads at retail rate. Ed & Pub 86:24 My 30 '53

Editorial support seen making plus ad business. Ed & Pub 86:16 Mr 28 '53

Lochridge sees need for rating system. Ed & Pub 86:44 Ap 18 '53

NAEA offers Bedell's ad book to doubting Toms. G. A. Brandenburg. Ed & Pub 86:16+ My 23 '53

Newspapers, ABC urged to promote retail zones. J. W. Dragonetti. Ed & Pub 86:15+ My 16 '53

Some good will come of worry over trade ads. T. S. Irvin. Ed & Pub 86:54 Ap 4 '53

Advertising rates

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Advertising service

Ad composing panel stresses service department. Ed & Pub 86:23 Mr 14 '53

Agencymen hit shrinkage of ad copy; ANPA panel will weigh problems. Ed & Pub 86:50 My 9 '53

Bulletins give merchandising added impact. Ed & Pub 86:26 Ap 4 '53

Dailies asked to savvy ad problems of retailers. Ed & Pub 86:18+ My 23 '53

Daily tool show nets 15,000 lines of ads. Ed & Pub 86:17+ My 30 '53

Daily's Hostess House serves buyer and seller. M. Wallis. Ed & Pub 86:28 My 23 '53

Empire's talent shows show talent for linage. R. B. McIntyre. Ed & Pub 86:16 My 30 '53

50,000 lines and loads of dealer goodwill. Ed & Pub 86:18 My 30 '53

Harrington stresses good copy in training. D. L. Lionel. Ed & Pub 86:32 Mr 14 '53

Magazine-newspaper section. Ptr Ink 245: 164 sec 2 O 23 '53

Merchandising by newspapers; Pennsylvania newspaper publishers' association annual display advertising conference, Harrisburg. Ed & Pub 86:15+ F 28 '53

Merchandising helps and now list expands. Ed & Pub 86:30 My 23 '53

Newspaper ads boost Macy's new outlets. Ed & Pub 86:25 Mr 7 '53

NEWSPAPERS—Advertising service—*Cont.*

Newspaper advertising its strategy of victory; review of High adventure in advertising, by W. A. Thomson. R. Ellard. Ed & Pub 86:52 My 16 '53
Newspaper-retailer relations scored at NNPA. Ptr Ink 243:11 My 15 '53
Newspapers; display mail-order shopping sections. R. A. Baker. Ptr Ink 245:166 sec 2 O 23 '53
Newspapers furnishing split-runs. R. A. Baker. Ptr Ink 245:161-2 sec 2 O 23 '53
Newspapers offer agencies advertising and marketing services. Adv Agency 46:81+ O '53
Promotional rewards in Minnesota living. T. S. Irvin. Ed & Pub 86:88 Ap 25 '53
Reps told how to boost insurance companies' linage. D. F. Barnes. Ed & Pub 86:15 Mr 21 '53
Service standardization difficult, study finds. Ed & Pub 86:28 F 28 '53
Superb service is want ad department must. D. L. Lionel. Ed & Pub 86:30 My 2 '53
U.S. and Canadian newspapers offering rop color; tabulation. Ptr Ink 25:152+ sec 2 O 23 '53
Womens shows boost newspaper lineage; the Oregonian puts on product displays that make news. K. Bollam. il Sales Management 71:38-40 pt 2 O 1 '53

See also
Advertising mediums—Newspapers
Market research, Newspaper

Bibliography

Selected list of United States newspapers; recommended for preservation by the ALA committee on cooperative microfilm projects. 92p Library of congress, Washington 25 '53

Union lists

Russian, Ukrainian, and Belorussian newspapers, 1917-1953; a union list. P. L. Horecky, comp. 218p pa $1.45 Library of Congress reference dept, Slavic and East European division; for sale by the Card division, Library of Congress, Washington 25 '53

Charities

Atkinson fund grants near $1,500,000. Ed & Pub 86:54 Ap 4 '53
Fresh air fund sends 12,315 into country. Ed & Pub 86:40 My 2 '53

Church news

See Newspapers—Religious news

Circulation

See also
Audit bureau of circulations

Circulation departments

Views circulators as sales managers. G. M. Cowden. Ed & Pub 86:112 Ap 18 '53

Circulation systems

Bookkeeping system for advance payments. Ed & Pub 86:44 Mr 14 '53
Promotion spark plug of circulation engine. G. A. Brandenburg. Ed & Pub 86:44 My 16 '53
See tougher sledding for mail circulation; Midwest circulation managers association 38th annual convention, Kansas City, Mo. Ed & Pub 86:10+ Mr 28 '53

Color printing

See Color in newspapers

Column width

Chicago dailies adopt new look next month. G. A. Brandenburg. Ed & Pub 86:14 My 30 '53
Ohio study shows nine column savings. Ed & Pub 86:49 Mr 14 '53
Toronto Star's nine-column page increases content, cuts costs. J. Montagnes. Ed & Pub 86:49 Mr 14 '53

Columnists

See also
Delaplane, Stanton

Comic strip

Dennis no menace to creator Ketcham. E. Knoll. Ed & Pub 86:138 Ap 25 '53
King, R&T to release new utility gag strips. E. Knoll. Ed & Pub 86:69 Mr 21 '53

Coronation news

Coronation coverage set for three agencies. Ed & Pub 86:57 My 23 '53
Coronation to be crowning achievement of the press. D. Willens. Ed & Pub 86:7+ My 23 '53

Court news

Court denies press freedom involved in closed trial. Ed & Pub 86:11+ Mr 21 '53
Jelke case, pro and con. Ed & Pub 86:20+ Ap 25 '53

Crime investigation

Reporter finds red convicts in jungle. Ed & Pub 86:57 Mr 14 '53
Vice prober's deal sets off press flareup. Ed & Pub 86:8 My 9 '53

Crime news

Editors fight Maryland gag on crime news. Ed & Pub 86:60 Ap 4 '53

Crime reporting

Crime coverage is different in England. D. Willens. Ed & Pub 86:58 Ap 18 '53

Delivery

Survey shows mailroom and trucking trends. G. A. Brandenburg. Ed & Pub 86:40 Mr 28 '53

Dramatic and theater critics

Theater bans savage critic from Courant. Ed & Pub 86:56 Mr 28 '53

Editorial writers

How to promote your editorial page by air. T. S. Irvin. Ed & Pub 86:66 Mr 14 '53

Editors

City eds swap gripes, praise with public relations men; meeting of the Headline club, professional chapter of Sigma delta chi. Ed & Pub 86:57 My 16 '53
Judge he criticized gives editor jury duty. Ed & Pub 86:8 My 30 '53
Reds roll out red rug to U.S. editors. Ed & Pub 86:13 Ap 4 '53

See also
American society of newspaper editors
Meanley, Tom

Employees

Bargaining at local level restored in '52; ANPA labor relations committee 53d annual report. Ed & Pub 86:142-4 Ap 25 '53
Employe cooperation can be wooed, won. C. Rumble. Ed & Pub 86:56 Ap 18 '53
Personnel men seek closer link with supervisors; Newspaper personnel relations association 5th annual conference, St Louis, March 12-13. Ed & Pub 86:9+ Mr 21 '53
Publisher bulletin warns editors must recruit. D. Bentel. Ed & Pub 86:48 My 9 '53
Sales without newspapers. Bsns W p50+ D 12 '53
Toledo blade recruits at 11 universities. D. Bentel. Ed & Pub 86:34 Mr 21 '53

See also
Printers
Reporters

Employees' magazines

Is your house organ playing right tune? J. Pagano. Ed & Pub 86:10+ Mr 7 '53

Exhibits

Women's shows boost newspaper lineage; the Oregonian puts on product displays that make news. K. Bollam. il Sales Management 71:38-40 pt 2 O 1 '53

Extra editions

Tornado extra issued in plant 38 miles away. Ed & Pub 86:12 My 30 '53

Farm news

Tom Meanley, farmer, grows farming news. B. Caldwell. Ed & Pub 86:16 Ap 4 '53

NEWSPAPERS—*Continued*

Fashion news

Local models brighten Racine fashion issues. L. D. Colbert. Ed & Pub 86:38 Mr 21 '53

Feature writers

Graphic Easter feature; review of Easter story, by Felix R. McKnight, managing editor of the Dallas morning news. R. Ellard. Ed & Pub 86:56 Mr 28 '53

Finance

Expenses outgain revenues in E&P cross section poll. R. U. Brown. Ed & Pub 86:11+ Ap 18 '53

Foreign correspondents

Reporting in London takes more time. D. Willens. Ed & Pub 86:60 Ap 18 '53

See also

Foreign press association

Foreign news

In black and white it's red all over; press highlights of Stalin's death. Ed & Pub 86:13 Mr 14 '53

IPI finds foreign news far from complete in U.S. D. Willens. Ed & Pub 86:11 My 16 '53

Illustrations

Portraits, caricatures to dress up the news. E. Knoll. Ed & Pub 86:54 Mr 28 '53

International aspects

Reds roll out red rug to U.S. editors. Ed & Pub 86:13 Ap 4 '53

Special supplements help international public relations. Ed & Pub 86:24 Mr 14 '53

International news

See also

International press institute

Law

Courts usually liberal toward sport sheets. A. W. Gray. Ed & Pub 86:44 My 30 '53

Federal judge abides by state confidence law. Ed & Pub 86:48 My 30 '53

Government officials try to curb news criticism; text of the committee's report; ANPA. Ed & Pub 86:23+ Ap 25 '53

Judges inquire for proof of injury by unit rate; New Orleans case appeal. J. Walker. Ed & Pub 86:9-10+ Mr 14 '53

Newspapers, advertising, and the law. M. J. Simon. Adv Agency 46:85+ O '53

Pirating of news held injurious to newspaper. A. W. Gray. Ed & Pub 86:34 My 9 '53

Unit ad rate practice in New Orleans is legal; with portion of the opinion written by Justice Clark. J. Walker. Ed & Pub 86:7, 51-3, 64 My 30 '53

U.S. asks ironclad rule against combination rates. J. Walker. Ed & Pub 86:7+ Mr 7 '53

Unprinted letter case taken to higher court. Ed & Pub 86:10 My 23 '53

See also

Copyright
Libel and slander
Privacy, Right of
Privileged communications

Legislative news

Five-state legislative coverage analyzed. il Ed & Pub 86:13 Mr 7 '53

Letters to editors

Magic Valley society enrolls letter writers. T. S. Irvin. Ed & Pub 86:56 My 2 '53

Unprinted letter case taken to higher court. Ed & Pub 86:10 My 23 '53

Libraries

See Newspaper libraries

Make-up

Judges criticize crowded pages. Ed & Pub 86:52 Mr 14 '53

See also

Newspapers—Column width

Management

Reorganization of offices aids three departments; Pasadena star-news. Ed & Pub 86:28 My 9 '53

Supervisory system helps Thomson group. J. Montagnes. il Ed & Pub 86:19+ Ap 18 '53

Market research

See Market research, Newspaper

Political aspects

Eisenhower team says; ASNE report. Ed & Pub 86:18+ Ap 25 '53

One-party press debated at forum. Ed & Pub 86:57 Mr 7 '53

Press barred from town board meets. Ed & Pub 86:58 Mr 14 '53

Study of press in 1952 campaign not feasible. Ed & Pub 86:13+ Ap 18 '53

Political influence

Newspapers lead in political influence. Ed & Pub 86:14 Mr 14 '53

Reporter's digging broke Roberts story. R. J. Harris. Ed & Pub 86:13+ Ap 18 '53

Printing

No-pack mat and high-speed etching progress is noted; report of the mechanical research committee and Mechanical research department, ANPA. Ed & Pub 86:26+ Ap 25 '53

TTS code used for tracing slugs. Ed & Pub 86:54 My 9 '53

Prize contests

National spelling bee a letter-perfect event. C. Schneider. Ed & Pub 86:13 My 30 '53

Unguarded hello costs dollars in Toronto these days. R. B. McIntyre. il Ed & Pub 86:15 Mr 7 '53

Public relations

Good neighbor policy begins in home town; Rochester (N.Y.) Times-union and Democrat and chronicle. T. S. Irvin. Ed & Pub 86:48 Mr 21 '53

Newspapers' policies stated in frank talk. Ed & Pub 86:50 Ap 4 '53

Sock at newspaper's public relations is uncalled for. T. S. Irvin. Ed & Pub 86:60 F 28 '53

Radio communication

More dailies install mobile radio units. Ed & Pub 86:60 Ap 25 '53

Reader interest

ARF publishes study of daily's audience. Ed & Pub 86:18 Mr 28 '53

Media men see value in audience rating. G. A. Brandenburg. Ed & Pub 86:16 My 16 '53

Papers need audience rating data. A. Porter. Ed & Pub 86:9 My 2 '53

Religious news

Better church news coverage emphasized. Ed & Pub 86:64 My 9 '53

Newspaper-minister relationships high. L. G. Kennon. Ed & Pub 86:48 My 16 '53

Safety campaigns

Role of public information in the safety cause. W. E. Hall. S A E J 61:51-8 N '53

Safety effort reaches people in Omaha area. Ed & Pub 86:55 My 30 '53

Savings in premium costs due this year; completion of the 12th year of the safe driving campaign of the ANPA Traffic department and ICMA. Ed & Pub 86:40+ Ap 25 '53

Sales promotion

Airplane a star performer; flying sales meetings used by Minneapolis Star and tribune. Sales Management 71:52 pt 2 O 1 '53

Good promotion rests on ideas, not money. T. S. Irvin. Ed & Pub 86:38 My 23 '53

Good promotions make impressions that last. T. S. Irvin. Ed & Pub 86:62 My 16 '53

Hunt-a-gift promotion provides shopping boom. Ed & Pub 86:18 Mr 14 '53

NEWSPAPERS—Sales promotion—*Continued*

Promotion men get fence-mending tips; National newspaper promotion association convention, Detroit. Ed & Pub 86:10+ My 9 '53

Year-around promotion of press urged. Ed & Pub 86:14 My 23 '53

Saturday editions

10¢ Saturday edition gains in sales, linage. Ed & Pub 86:28 Mr 14 '53

School news

Education writers seek fuller news. R. Erwin. Ed & Pub 86:12+ My 16 '53

School relations

Educators told how to conduct press relations. F. Hechinger. Ed & Pub 86:44 Mr 7 '53

Foreign guests key high school forum; New York herald tribune. M. C. Wallis. il Ed & Pub 86:14 Mr 7 '53

Service

See also
Newspapers—Safety campaigns

Size

Is it more economical to publish a tabloid newspaper than a standard-size newspaper? answer. F. M. Flynn. Ed & Pub 86:15 Ap 4 '53

See also
Newspapers—Column width

Special supplements

Special supplements help international public relations. Ed & Pub 86:24 Mr 14 '53

Sports news

Press is deluged with ring protests. R. Erwin. Ed & Pub 86:12 My 2 '53

Writers view public service in sports page. M. B. Deutsch. Ed & Pub 86:12 My 9 '53

Statistics

Average paper in 1952 had 59 per cent ad content. Ed & Pub 86:128 Ap 18 '53

Sunday supplements

Magazine-newspaper section. Ptr Ink 245:164 sec 2 O 23 '53

Syndicate service

Do salesmen run up the cost of features? Ed & Pub 86:56 My 30 '53

Milwaukee Journal color service; syndication of color advertising. il Adv Agency 46:110+ O '53

New format announced for AP newsfeatures. Ed & Pub 86:66 My 16 '53

One-year progress report on taped text features. E. Knoll. Ed & Pub 86:62 Ap 4 '53

Six features launch Lenahan's new syndicate. E. Knoll. Ed & Pub 86:50 My 23 '53

Telegraph service

See also
Associated press

Television competition

Newspaper representatives worry too much over tv. S. H. Britt. Ed & Pub 86:15 Mr 14 '53

Tornado coverage

No cause for alarm, then came the blow. L. Hulme. Ed & Pub 86:12 My 30 '53

Tornado extra issued in plant 38 miles away. Ed & Pub 86:12 My 30 '53

War news

Beaufait gets scoop by talking with Turk. Ed & Pub 86:15 My 2 '53

Panmunjom routine; bus rides and censors. H. Handleman. Ed & Pub 86:14 My 9 '53

Press is not your enemy, Adler tells PIOs. Ed & Pub 86:46 Mr 28 '53

Weekly newspapers

Sons and grandsons publish Grit in tradition of founder Dietrick Lamade. Ptr Ink 244:104 Jl 10 '53

Weekly publishers did better in 1952. Ed & Pub 86:57 My 30 '53

Women's sections

Women's shows boost newspaper lineage; the Oregonian puts on product displays that make news. K. Bollam. il Sales Management 71:38-40 pt 2 O 1 '53

Argentina

Three U.S. news groups suspended by Peron. Ed & Pub 86:10 My 16 '53

Baltimore

Trucking fines printed as news in Baltimore. Ed & Pub 86:67 My 9 '53

Canada

U.S. and Canadian newspapers offering rop color; tabulation. Ptr Ink 245:152+ sec 2 O 23 '53

Ecuador

Press freedom battle is waged in Ecuador. B. Holbrook. Ed & Pub 86:57 My 2 '53

Public outcry stops seizure of Quito daily. B. Holbrook. Ed & Pub 86:40 Mr 7 '53

Germany

Freedom for the German press. Economist 169:18 O 3 '53

Iran

New press laws used to silence Mossadegh foes. Ed & Pub 86:53 Ap 4 '53

Japan

Japanese papers give much more than news. N. Murayama. Ed & Pub 86:48 My 23 '53

Levittown, Pennsylvania

Weeklies and dailies vie in newborn city. Ed & Pub 86:32 Mr 28 '53

New York (city)

Idle New York papers make glum subway riders. il Bsns W p34 D 12 '53

North Carolina

Budget secrecy law assailed as slap at people. Ed & Pub 86:48 Ap 18 '53

North Carolina press is enraged by fund secrecy law. Ed & Pub 86:60 Ap 4 '53

Secrecy law stands after public protest. Ed & Pub 86:47 My 2 '53

Philadelphia

Three Philadelphia papers insert city's report. Ed & Pub 86:46 My 23 '53

Puerto Rico

Puerto Rico tabloid plays sports coverage. A. S. Keshen. Ed & Pub 86:52 F 28 '53

Russia

Bombs in the Soviet press. Economist 168:638 S 5 '53

Bibliography

Russian, Ukrainian, and Belorussian newspapers, 1917-1953; a union list. P. L. Horecky, comp. 218p pa $1.45 Library of Congress reference dept, Slavic and East European division; for sale by the Card division, Library of Congress, Washington 25 '53

United States

U.S. and Canadian newspapers offering rop color; tabulation. Ptr Ink 245:152+ sec 2 O 23 '53

Vienna

Vienna editors are harassed by old law. Ed & Pub 86:44 Mr 28 '53

Virgin Islands

Virgin Island papers must rely on side-lines. A. S. Keshen. Ed & Pub 86:32 My 16 '53

NEWSPAPERS, Trade union

Keen on politics, caustic toward rivals; survey of union periodicals. Chem W 74:22-3 Mr 13 '54

Randolph hits move to fold unitypo papers. Ed & Pub 86:11 Mr 28 '53

NEWSPRINT paper

Abitibi B.C. experts join to aid N.Z. project. Pulp & Pa of Can 54:164+ D '53

Alaska's governor is newsprint booster. Ed & Pub 86:8 Mr 28 '53

NEWSPRINT paper—*Continued*

Canadian and U.S. newsprint investment opportunities beckon. H. J. King. Comm & Fin Chr 178:1434 O 15 '53

Favourable factors dominate outlook in Canadian newsprint appraisal. M. Savage. il Pulp & Pa of Can 55:82-4 Ag '54

Hardwood newsprint industry promoted by Dept. of commerce. Paper Tr J 138:30 Ag 13 '54

New labor contracts insure newsprint flow; Canadian mills. J. Montagnes. Barron's 34:55 Ja 4 '54

New newsprint process defies old snares; newsprint-from-bagasse plant. il diag Chem Eng 60:136+ Jl '53

Newsprint capacity expands in Finland, 1953. For Comm W 51:19 Ja 4 '54

Newsprint from hardwood pulp hailed by publishers. Ed & Pub 86:25+ Ap 25 '53

Newsprint from Philippine mahogany run successfully at Ryegate. Paper Tr J 137:17 O 23 '53

Newsprint supply study renewed. Ed & Pub 86:7-8 Mr 28 '53

Paper converting in the Orient; newsprint. R. W. Foote. Tappi 37:sup96A-7A Ag '54

Paper industry and the Southland mill. W. L. McHale and C. C. Porter. Paper Tr J 138:54+ Je 25 '54

Powell River's development program. G. Daoust. il Pulp & Pa of Can 54:102-6 N '53

Refining of mill wastes for newsprint. R. T. Wetmore. flow sheet il Pulp & Pa of Can (Convention no) 55:175-8 [F] '54

Southland Mill is successful factor in U.S. paper making economy. W. L. McHale and C. C. Porter. Pulp & Pa of Can 55:85-6 Ag '54

Sugar cane waste makes good reading. il Bsns W p46+ Ag 1 '53

UNESCO paper report; abstract. Tappi 37:sup 122A-4A My '54

Use of a Betameter for newsprint basis weight control. C. S. Waddell. il Pulp & Pa of Can 55:109-14 My '54

Statistics

Newsprint, Canada and United States, 1949-1952. Survey of Cur Bsns 1953 Sup p 179-80 [supplemented in monthly numbers]

Production of newsprint, 1953. J. J. Zima. Paper Tr J 138:32 Ja 29 '54

World newsprint productive capacity to reach new highs in 1954. Paper Ind 35:1097-8 Ja '54

Transportation

Ship, truck services after newsprint. R. A. Cooke. Ed & Pub 86:62+ Ap 25 '53

NEWTS

Ribonucleic acid and protein in the growing oocytes of triturus pyrrhogaster. S. Osawa and Y. Hayashi. bibliog Science 118:84-6 Jl 17 '53

NGAIONE

Ipomeamarone and ngaione. A. J. Birch and others. bibliog Chem & Ind p902 Jl 17 '54

NIAGARA falls

Work started on $17,500,000 program for conservation of Niagara falls. il Roads & Eng Constr 92:92+ Jl '54

NIAGARA FALLS, New York

Industries

Network under Niagara; chemicals by pipe. map plan Chem W 74:61-2+ Ja 23 '54

NIAGARA Mohawk power corporation

Bonds offered. Comm & Fin Chr 178:1669 N 2 '53

NIAGARA river

Power utilization

Consumers group scores GE for advertisement advocating development of Niagara power by private utilities. Elec World 141:77 Mr 8 '54

Dewey testifies on Niagara. Elec World News ed 140:15 Ag 3 '53; Same. Eng N 151:23 Jl 30 '53

Hydro-electric development on the Canadian side of the Niagara river; abstract. R. L. Hearn. Roads & Eng Constr 92:106 My '54

N.Y. drops bombshell in Niagara suit. Elec World News ed 140:6 O 26 '53

Niagara-FPC case. Elec World News ed 140:43 D 21 '53

Niagara falls; 60 years of power. C. A. Powel. diag Elec Eng 73:53-5 Ja '54

Niagara hearing to resume. Elec World News ed 141:6-7 F 15 '54

Niagara power; progress of large Ontario project. il map Elec R (Lond) 153:1359-61 D 18 '53

Niagara should be developed through private enterprise. H. E. Capehart. map Pub Util 53:523-32 Ap 29 '54

Northeast hydro projects stir debate. Elec World 140:84 D 28 '53

Ontario hydro construction on-schedule at Niagara. il Eng N 151:33-4+ S 10 '53

Three-way debate on Niagara. Elec World News ed 140:35 D 21 '53

Unfinished business; hassle concerning future power development in Niagara Falls. Chem W 74:62-4 F 13 '54

Who'll boost Falls' power? Niagara three-sided controversy. Chem W 73:40-4 Ag 1 '53

NICARAGUA

See also

Roads—Nicaragua

Economic conditions

Economic conditions abroad (cont). For Comm W 50:7 N 16 '53

Nicaraguan business activity at new high level; second quarter, 1953. For Comm W 50:2+ S 21 '53

NICHOLS, Kenneth David, 1907-

Army research chief to manage AEC. por(cover) Chem & Eng N 31:4444 O 26 '53

NICHOLS, Thomas S. 1909-

New board chairman and new president of newest, and fourth biggest, chemical company. H. T. Sharp. por Chem Eng 61:322-5 Ag '54

NICHOLS medal

Nichols medal, medal of freedom to Charles Phelps Smyth. Chem & Eng N 32:1209+ Mr 29 '54

NICHOLSON, Gunnar Walfred Enander, 1893-

1954 TAPPI medal to G. W. E. Nicholson; presentation by K. O. Elderkin; response by G. W. E. Nicholson. por Tappi 37:sup 86A+ Mr '54; Excerpt. Paper Ind 35:1306 Mr '54

NICHROME

Hydrogen-protected Nichrome brazing. P. C. Ziemke. diag Ind & Eng Chem 46:sup 107A+ Ag '54

NICKEL

Adsorption studies on metals; the sorption of water vapor on nickel, steel and molybdenum. A. C. Zettlemoyer and J. J. Chessick. bibliog J Phys Chem 58:242-5 Mr '54

Anodic oxidation of metals at very low current density; nickel. S. E. S. El Wakkad and S. H. Emara. Chem Soc J p 3504-8 N '53

Contact charging between a borosilicate glass and nickel. J. W. Peterson. bibliog diag J Ap Phys 25:501-4 Ap '54

Contact charging between nonconductors and metal. J. W. Peterson. il diags J Ap Phys 25:907-15 Jl '54

Crystal nucleation from supersaturated aqueous solution; tetraphenylarsonium perchlorate and nickel nioxime. F. R. Duke and L. M. Brown. bibliog Am Chem Soc J 76:1443-6 Mr 5 '54

Direct interaction between metal atoms in the crystals of bis-(dimethylglyoxime)-nickel(II) and -platinum(II). S. Yamada and R. Tsuchida. bibliog Am Chem Soc J 75:6351-2 D 20 '53

Effect of nickel and copper impurities on the recombination of holes and electrons in germanium. J. A. Burton and others. bibliog diags J Phys Chem 57:853-9 N '53

Effect of nickel and molybdenum on stabilization of the austenite-martensite transformation. D. J. Blickwede. bibliog J Metals 5:Trans 922-3 Jl '53

Influence of pressure on the Curie temperature of iron and nickel. R. Smoluchowski. bibliog Phys R 93:392-3 F 1 '54

NICKEL—*Continued*

Investigation of the systems formed by chromium, molybdenum, and nickel. D. S. Bloom and N. J. Grant. bibliog J Metals 6:Trans 261-8 sec 2 F '54

Kinetics of oxidation of high purity nickel. E. A. Gulbransen and K. F. Andrew. bibliog(31 ref) Electrochem Soc J 101:128-40 Mr '54

Materials of construction for chemical engineering; nickel and high-nickel alloys. H. O. Teeple. il Ind & Eng Chem 45:2215-32 bibliog(270 ref, p2230-2) O '53

Nickel, copper and some of their alloys as catalysts for ethylene hydrogenation. R. J. Best and W. W. Russell. bibliog Am Chem Soc J 76:838-42 F 5 '54

Nickel in modern industry. J. F. Thompson. Chem Age (Lond) 68:749 My 16 '53

Nickel; must decide now on auto trim. R. D. Raddant. Iron Age 173:53-4 Ja 14 '54

Properties of chemical engineering materials of construction. H. O. Teeple. Ind & Eng Chem 45:2280-1 O '53

Purification of nickel with carbonyl. R. S. Young. J Chem Educ 31:26 Ja '54

Quick with cadmium; impact of sintered-plate nickel-cadmium battery. il Chem W 74:94 Mr 20 '54

Range and charge of energetic nitrogen ions in nickel. H. L. Reynolds and others. bibliog diags Phys R 95:671-4 Ag 1 '54

Role of nickel dip in enameling of sheet steel. D. G. Moore and others. bibliog il Am Cer Soc J 37:363-9 Ag 1 '54; Abstract. Materials & Methods 40:158+ Ag '54

Solid state bonding of aluminum to nickel. S. Storchheim and others. il diag J Metals 6:Trans 269-74 sec 2 F '54

Some magnetic consequences of chemisorption on supported nickel catalysts. P. W. Selwood, T. R. Phillips and S. Adler. Am Chem Soc J 76:2281-2 Ap 20 '54

Stereochemistry and valence states of nickel R. S. Nyholm. Chem R 53:263-308 bibliog (p304-8) O '53

Steric effects and the stability of complex compounds; the chelating tendencies of C-substituted ethylenediamines with copper(II) and nickel(II) ions. F. Basolo, Yun Ti Chen and R. K. Murmann. bibliog Am Chem Soc J 76:956-9 F 20 '54

Steric effects and the stability of complex compounds; the chelating tendencies of N-alkylglycines and N-dialkylglycines with copper(II) and nickel(II) ions. F. Basolo and Yun Ti Chen. bibliog Am Chem Soc J 76:953-5 F 20 '54

Steric effects and the stability of complex compounds; the chelating tendencies of N,N′-dialkylethylenediamines with copper-(II) and nickel(II) ions. F. Basolo and R. K. Murmann. bibliog Am Chem Soc J 76:211-14 Ja 5 '54

Volume magnetostriction in nickel and the Bethe-Slater interaction curve. K. Azumi and J. E. Goldman. bibliog Phys R 93:630-1 F 1 '54

Way to save nickel. il Steel 134:122 F 15 '54

Welding of nickel and high nickel alloys. L. F. Spencer. il diags Sheet Metal Worker 45:65-6+ F; 71-2+ Mr; 70-2+ Ap '54

Analysis

Absorptiometric determination of nickel with beta-mercaptopropionic acid. J. B. Lear and M. G. Mellon. bibliog Anal Chem 25:1411-12 S '53

Determination of nickel in nickel plating solutions using disodium ethylenediamine tetra-acetate. K. E. Langford. Metal Finishing 52:71-3 S '54

Simultaneous colorimetric determination of copper, cobalt, and nickel as diethyldithiocarbamates. J. M. Chilton. bibliog Anal Chem 25:1274-5 Ag '53

Spectrophotometric determination of iron in vanadium, chromium, manganese, nickel, and zinc. D. W. Margerum and C. V. Banks. bibliog Anal Chem 26:200-2 Ja '54

Conservation

Nickel conservation program under development. Oil Paint & Drug Rep 165:3+ My 10 '54

Metallography

Recrystallization and grain growth of nickel. G. W. Wensch and H. L. Walker. bibliog Am Soc for Metals Trans 44:1186-99 '52

Nuclear reactions

Radiative electron capture of Fe^{55}, A^{37}, and Ni^{59}. W. S. Emmerich and others. bibliog Phys R 94:113-16 Ap 1 '54

Some (*d,p*) reactions in Ni and the statistical theory of nuclear reactions. W. W. Pratt. Phys R 94:1086-7 My 15 '54

Prices

Nonferrous prices; tabulation. Steel 134:175 Ja 4 '54

Protection

Ceramic coating extends use of nickel for high-temperature applications. Iron Age 172:177 N 19 '53

Raney nickel

Action of Raney nickel on 2-thiohydantoins. J. T. Edward and E. F. Martlew. bibliog Chem & Ind p 193-4 F 13 '54

Promotion of Raney nickel catalysts. R. B. Blance and D. T. Gibson. Chem Soc J p2487-9 Jl '54

Reaction of Raney nickel with organoselenium compounds. G. E. Wiseman and E. S. Gould. bibliog Am Chem Soc J 76:1706-7 Mr 20 '54

Thiohydantoins; the action of Raney nickel on some monothiohydantoins. H. C. Carrington, C. H. Vasey and W. S. Waring. Chem Soc J p3105-11 O '53

Spectrum

Intensity measurements in the arc spectrum of nickel. R. L. Heid and G. H. Dieke. bibliog diag Opt Soc Am J 44:402-10 My '54

Spectroscopy of the solid state; some of the transition elements. E. M. Gyorgy and G. G. Harvey. bibliog Phys R 93:365-9 F 1 '54

NICKEL, Powdered

Chemical smelter starts up in Alberta; production of nickel concentrates and ammonium sulfate. il Chem & Eng N 32:3495 S 6 '54

Hydrometallurgical process yields pure metal powders from sulphides; Sherritt Gordon mines, ltd. flow sheet il J Metals 5:775-9 Je '53

NICKEL acetate

Chemical reactions of complexes; reaction of hydrazides and aromatic *o*-oxy- and *o*-aminoaldehydes and ketones with nickel acetate. L. Sacconi. bibliog Am Chem Soc J 76:3400-2 Jl 5 '54

NICKEL alloys

Abrasion resistant coatings sprayed on metal surfaces; Colmonoy Sprayweld process. W. G. Patton. il Iron Age 172:172-3 D 3 '53

Aging characteristics of nickel-chromium alloys hardened with titanium and aluminum. R. Nordheim and N. J. Grant. bibliog il J Metals 6:Trans 211-18 sec 2 F '54

Chlorimet 2. W. A. Luce. il Chem Eng 61:246+ F '54

Chlorimet 3. W. A. Luce. Chem Eng 61:254+ Mr '54

Corronel B. Chem Age (Lond) 69:353 Ag 22 '53

Doing more with less nickel; Alloy casting institute does work on low-nickel alloys to prepare for future shortages. E. A. Schoefer. il Steel 133:134-5 Ag 3 '53

Domestic heating elements. H. Hodges. il Elec R (Lond) 153:607-12 S 18 '53; Discussion. 153:1115-16 N 13 '53

Enter Hastelloy F. il Chem Eng 60:318-20 Je '53

High temperature corrosion in nickel-chromium alloys. N. Spooner and others. J Metals 5:Trans 844 Je '53

Inconel pots for alkali fusions. R. S. Young and others. Metallurgia 48:318 D '53

Inconel; which welding process fits your job? K. M. Spicer. il Iron Age 172:150-2 D 10 '53

NICKEL alloys—*Continued*

Influence of chemical composition on rupture properties at 1200° F of forged chromium-cobalt-nickel-iron base alloys in solution-treated and aged condition. E. E. Reynolds and others. bibliog il U S Nat Advisory Com for Aeronautics 1951:1385-444 '52

Materials of construction for chemical engineering; nickel and high-nickel alloys. H. O. Teeple. il Ind & Eng Chem 45:2215-32 bibliog(270 ref, p2230-2) O '53

New high temperature alloy; NA22H. M. G. Fontana. il Ind & Eng Chem 45:sup95A-6A+ S '53

Nickel for electronic applications. Engineering 177:122 Ja 22 '54

Nickel in modern industry. J. F. Thompson. Chem Age (Lond) 68:749 My 16 '53

Optimum spot and seam welding conditions for Inconel X. E. F. Nippes and H. B. Fishman. bibliog il Welding J 33:sup 1-14 Ja '54

Oxide film on nickel-chromium alloys; crystal structure studies. E. A. Gulbransen and W. R. McMillan. bibliog(30 ref) il diags Ind & Eng Chem 45:1734-44 Ag '53

Properties of chemical engineering materials of construction. H. O. Teeple. Ind & Eng Chem 45:2280-1 O '53

Radiation damage effects on order-disorder in nickel-manganese alloys. L. R. Aronin. bibliog J Ap Phys 25:344-9 Mr '54

Rate of oxidation of three nickel-chromium heater alloys between 500° and 900°C. E. A. Gulbransen and K. F. Andrew. bibliog Electrochem Soc J 101:163-70 Ap '54

Welding of nickel and high nickel alloys. L. F. Spencer. il diags Sheet Metal Worker 45:65-6+ F; 71-2+ Mr; 70-2+ Ap '54

See also

Chromium nickel steel
Iron alloys—Nickel alloys
Monel metal
Nickel steel

Analysis

X-ray fluorescence cuts metal analysis time. Curtiss-Wright corp. J. R. Mihalisin. il Iron Age 174:108-10 Jl 15 '54

NICKEL ammonium hydroxide

Reaction between wool and nickelammonium hydroxide; supercontraction of wool fibres in solutions of nickelammonium hydroxide. J. W. Bell and C. S. Whewell. Soc Dyers & Col J 69:491-6 D '53

NICKEL borides

Analysis

Potentiometric determination of boron in nickel boride. H. Blumenthal and W. Fall. bibliog Anal Chem 25:1120-2 Jl '53

NICKEL carbonates

Composition of basic nickel carbonates. J. T. Carriel and W. J. Singley, jr. Am Chem Soc J 76:3839-43 Jl 20 '54

NICKEL carbonyl

Great historical moment recorded. il Chem Age (Lond) 69:119 Jl 18 '53; Engineering 176:87 Jl 17 '53; Metallurgia 48:92 Ag '53

Nickel carbonyl caused two deaths at Port Arthur refinery. Chem & Eng N 31:3016 Jl 20 '53

Purification of nickel with carbonyl. R. S. Young. J Chem Educ 31:26 Ja '54

Researches on acetylenic compounds; the reaction between nickel carbonyl and some esters of ω-acetylenic acids. E. R. H. Jones, G. H. Whitham and M. C. Whiting. Chem Soc J p 1865-8 Je '54

Physiological effect

Current studies on the toxicity of nickel carbonyl. H. H. Schrenk. Ind & Eng Chem 45:sup 113A-14A+ O '53

Nickel carbonyl poisoning. J. L. Carmichael. bibliog A M A Archives Ind Hygiene & Occup Med 8:143-8 Ag '53

Nickel poisoning; experimental study of the effects of acute and subacute exposure to nickel carbonyl. J. F. Kincaid and others. bibliog diag A M A Archives Ind Hygiene & Occup Med 8:48-60 Jl '53

NICKEL chromium steel

Isothermal transformation of austenite in a nickel-chromium-molybdenum steel. E. A. Loria. bibliog il Am Soc for Metals Trans 44:870-6 '52

NICKEL clad steel. See Steel, Nickel clad

NICKEL compounds

Bis-cyclopentadienyl compounds of nickel and cobalt. G. Wilkinson, P. L. Pauson and F. A. Cotton. bibliog Am Chem Soc J 76:1970-4 Ap 5 '54

Changes in configuration of some nickel(II) complexes. F. Basolo and W. R. Matoush. bibliog Am Chem Soc J 75:5663-6 N 20 '53

Chemical reactions of complexes; dinuclear dihydrazide-nickel complexes. L. Sacconi. Chem Soc J p 1326-8 Ap '54

Mechanism of racemization of complex ions; kinetics of the dissociation and racemization of tris-(1,10-phenanthroline)-nickel(II) and tris-(2,2′-dipyridyl)nickel(II) complexes. F. Basolo, J. C. Hayes and H. M. Neumann. bibliog Am Chem Soc J 75:5102-6 O 20 '53

Polarization figures and rotation properties as applied to the identification of some cobalt nickel sulfarsenides and related minerals. R. W. Hutchinson. bibliog Econ Geol 48:492-500 S '53

Stereochemistry and valence states of nickel. R. S. Nyholm. Chem R 53:263-308 bibliog (p304-8) O '53

NICKEL ferrates

Magnetization in nickel ferrite-aluminates and nickel ferrite-gallates. L. R. Maxwell and S. J. Pickart. bibliog il diags Phys R 92:1120-6 D 1 '53

Microwave resonance absorption in nickel ferrite-aluminate. T. R. McGuire. bibliog Phys R 93:682-6 F 15 '54

NICKEL fluorides

Magnetic anisotropy of NiF_2. L. M. Matarrese and J. W. Stout. bibliog Phys R 94:1792-3 Je 15 '54

NICKEL industry and trade

Distribution of nickel discontinued by IMC. For Comm W 50:17 Ag 31 '53

Government removes nickel controls. Materials & Methods 38:222+ N '53

Large Cuban reserves of nickel tempt U.S. industry. Chem & Eng N 32:724 F 22 '54

Nickel; decontrol shifts the pattern. il Steel 133:89 O 12 '53

Nickel; don't expect more in '54. A. K. Rannells. Iron Age 173:59 F 25 '54

Nickel expansion gets new look. A. K. Rannells. Iron Age 172:21 D 24 '53

Nickel; free market pressures build up. W. V. Packard. Iron Age 172:53-4 O 15 '53

Nickel industry in 1953. Chem Age (Lond) 70:179-80 Ja 9 '54

Nickel industry in 1953. J. F. Thompson. Automotive Ind 110:192 Ja 15 '54

Nickel; nebulous. Chem W 74:80 Ap 10 '54

Nickel, 1953. H. W. Davis. Eng & Min J 155:101 F '54

Nickel pickle continues in second quarter. Steel 134:59 Ap 5 '54

Nickel pinch still goes on, though controls are officially off. Bsns W p64+ N 14 '53

Nickel production; abstract. J. F. Thompson. Chem Age (Lond) 70:1060 My 8 '54

Nickel; slow down to take stock. R. L. Hatschek. Iron Age 172:79 Jl 2 '53

Nickel supply increase aim in new US moves. Oil Paint & Drug Rep 165:3+ F 15 '54

Switching signals again? Nicaro nickel co. obtains accelerated tax write-off for construction of facilities at Moa Bay, Cuba, and New Orleans, La. il Chem W 74:20 F 27 '54

Touch and go in nickel for civilian consumers. il Steel 133:27-8 D 28 '53

Tungsten, mercury, chromite, nickel, 1953. W. L. Long. il Min Cong J 40:119-20 F '54

Unfettered nickel. Chem W 73:62+ O 31 '53

Statistics

Annual nickel production capacity increased 24,000,000 pounds. Blast F & Steel Pl 42:433 Ap '54

Nickel industry in 1953. Engineering 177:70 Ja 15 '54

Nickel production, 1937-1953; tabulation. Steel 134:179 Ja 4 '54

NICKEL-Lume process. See Nickel plating

NICKEL metallurgy

By-product iron ore from nickel ores. Chem Age (Lond) 69:698 O 3 '53

NICKEL metallurgy—*Continued*

Metallurgical investigations of southeastern Missouri cobalt-nickel resources. H. Kenworthy and K. K. Kershner. bibliog 12pls U S Bur Mines Rep of Invest 4999:1-37 '53

Nicaro proves lateritic nickel can be produced commercially. G. P. Lutjen. flow sheet il maps Eng & Min J 155:81-9 Je '54

Nickel; expanding Canadian industry. W. R. McClelland. Can Min J 74:60-1 D '53

Nickel; Sherritt Gordon now producing at new plant. E. L. Brown. Iron Age 174:59 S 2 '54

Nickel smelting the new way; Perrin process. T. M. Rohan. Iron Age 173:77 F 25 '54

Which of three? Batelle memorial institute evaluates three processes for extracting nickel from Cuban ore. Chem W 73:59-60 N 21 '53

Electrometallurgy

Continuous electric smelting of low-grade nickel ores. H. Cremer. 7pls U S Bur Mines Rep of Invest 5021:1-36 '54

NICKEL mines and mining

Canada

Nickel; expanding Canadian industry. W. R. McClelland. il Can Min J 74:60-3 D '53

Cuba

Coming, an important new nickel producer; Moa Bay project of Nicaro nickel co. il map Eng & Min J 155:80-3 Jl '54

Nicaro proves lateritic nickel can be produced commercially. G. P. Lutjen. flow sheet il maps Eng & Min J 155:81-9 Je '54

Missouri

Metallurgical investigations of southeastern Missouri cobalt-nickel resources. H. Kenworthy and K. K. Kershner. bibliog 12pls U S Bur Mines Rep of Invest 4999:1-37 '53

Northwest Territories, Canada

Rankin Inlet nickel mines. J. C. Browning. il Can Min J 74:56-7 D '53

Ontario

Mine ventilation at the International nickel co. of Canada ltd. J. G. Rutherford and V. K. Segsworth. il map diags Can Min J 75:70-8 S '54

Sink Creighton airshaft. il Min Cong J 40: 143 F '54

NICKEL ores

Nickel ore a source of iron ore. Blast F & Steel Pl 42:sup 106-7 Ap '54

Preliminary investigation of the Red Flats nickel deposit, Curry county, Ore. R. J. Hundhausen and others. bibliog 3pls U S Bur Mines Rep of Invest 5072:1-19 '54

NICKEL oxalate dihydrate

Dissociation pressure of nickel oxalate dihydrate. J. A. Allen and D. E. Scaife. J Phys Chem 57:863-4 N '53

NICKEL oxalates

Precipitation of nickel oxalate. J. A. Allen. J Phys Chem 57:715-16 O '53

NICKEL oxides

Alkali metal-nickel oxides of the type $MNiO_2$. L. D. Dyer, B. S. Borie, jr. and G. P. Smith. bibliog diag Am Chem Soc J 76: 1499-503 Mr 20 '54

Electrical properties of NiO. F. J. Morin. Phys R 93:1199-204 Mr 15 '54

Heats of formation of nickel and cobalt oxides (NiO and CoO) of combustion calorimetry. B. J. Boyle, E. G. King and K. C. Conway. bibliog Am Chem Soc J 76:3835-7 Jl 20 '54

Solid solutions of lithium oxide in nickel oxide. P. J. Fensham. bibliog Am Chem Soc J 76:969-71 F 20 '54

Spectrum

Infrared absorption of NiO. R. W. Johnston and D. C. Cronemeyer. bibliog Phys R 93:634-5 F 1 '54

NICKEL pipes. See Pipes, Nickel

NICKEL plate railroad. See New York, Chicago and St Louis railroad

NICKEL plating

Atomic energy production requires nickel-plated pipe. E. Altholz. il Mach 60:171-2 Mr '54

Bright nickel plating; Nickel-Lume process. il Steel 133:312 O 12 '53

Determination of nickel in nickel plating solutions using disodium ethylenediamine tetra-acetate. K. E. Langford. Metal Finishing 52:71-3 S '54

Electroless nickel barrel plating. H. J. West. Metal Finishing 52:64 Mr '54

Electroless nickel plating on non-ferrous metals. H. J. West. Metal Finishing 52:72 Jl '54

Extend applications of nickel immersion plating. A. E. Durkin. il Iron Age 174:91-4 Jl 8 '54

How to nickel plate aluminum for solder joining; Ford instrument co. W. M. Stocker, jr. il Am Mach 98:154-5 Je 7 '54

Increase tool life in machining nickel plate. N. Zlatin and W. H. Prine. Iron Age 173: 118-20 Jl 1 '54

Interaction of organic compounds with the surface during the electrodeposition of nickel. C. C. Roth and H. Leidheiser, jr. Electrochem Soc J 100:553-65 D '53

Joining problem is licked by nickel plating aluminum; Ford instrument co. M. W. Riley. il Materials & Methods 40:96-7 Jl '54

Kanigen nickel plating. G. Gutzeit. il bibliog(p 146) diags Metal Prog 66:113-20 Jl 1 '54

Metal cleaning and finishing handbook; nickel immersion coating; nickel electroplating; with tables. Iron Age 174:sup F25-7 Jl 29 '54

New bright nickel; Unichrome bright nickel process. Metal Finishing 52:90-1 Ja '54

New nickel plating process announced; Kanigen. Chem Eng Prog 49:sup56+ Ap '53; Mech Eng 75:404-5 My '53

New plating process deposits nickel brighter, faster; Nickel-Lume process. C. G. Rising. il Iron Age 172:78-81 D 24 '53

New process plates nickel directly on aluminum. Iron Age 173:173 My 20 '54; Materials & Methods 40:241 S '54

Nickel-chrome plating; Luton works of Vauxhall motors, ltd. il Automobile Eng 44:150-3 Ap '54

Nickel sulfamate bath shortens plating time. Iron Age 173:218-19 Je 24 '54

Nickel sulfamate plating process. Metal Finishing 52:100-1 Ag '54

Organic process produces cheap, bright nickel coatings; Nickel-Lume process. Chem & Eng N 31:4310+ O 19 '53

Plating; develop better process; Nickel-Lume process. R. L. Hatschek. Iron Age 172:44 O 1 '53

Plating nickel on aluminum; Ford instrument co. S. Baker. il Steel 134:115-16 My 24 '54

Special property nickel plate; nickel sulphamate baths. M. B. Diggin. Steel 134:135 Je 21 '54

Tin-nickel alloy plating. Automobile Eng 44: 320-2 Ag '54

X-ray study of the effect of organic compounds on the crystal growth of nickel during electrodeposition. F. Denise and H. Leidheiser, jr. il Electrochem Soc J 100: 490-5 N '53

NICKEL steel

Partition of some alloying elements between carbide and ferrite in steels. D. A. Scott and G. S. Farnham. bibliog J Metals 5: Trans 1541-3 sec 2 N '53

Sintered nickel steels. F. Benesovsky. Metal Prog 65:200+ Ap '54

See also

Chromium nickel steel

NICKEL sulfamate

Nickel sulfamate bath shortens plating time. Iron Age 173:218-19 Je 24 '54

Special property nickel plate; nickel sulphamate baths. M. B. Diggin. Steel 134:135 Je 21 '54

NICOTINE

Alkaloid biogenesis; the non-availability of nicotinic acid-carboxyl-C^{14} and its ethyl ester for nicotine biosynthesis. R. F. Dawson, D. R. Christman and R. C. Anderson. bibliog Am Chem Soc J 75:5114-16 O 20 '53

NICOTINE—*Continued*

Degradation of nicotine by soil bacteria. E. Wada and K. Yamasaki. bibliog Am Chem Soc J 76:155-7 Ja 5 '54

Origin of the methyl group of nicotine through transmethylation. L. J. Dewey, R. U. Byerrum and C. D. Ball. bibliog Am Chem Soc J 76:3997-9 Ag 5 '54

Redetermination of the ionization constants of nicotine. R. T. Fowler. bibliog J Ap Chem 4:449-52 Ag '54

Synthetic hypotensive agents; some powerful new autonomic ganglionic blocking agents derived from nicotine. A. P. Phillips. Am Chem Soc J 76:2211-13 Ap 20 '54

Spectrum

Infrared spectra of nicotine and some of its derivatives. C. R. Eddy and A. Eisner. bibliog Anal Chem 26:1428-31 S '54

NICOTINIC acid

Alkaloid biogenesis; the non-availability of nicotinic acid-carboxyl-C^{14} and its ethyl ester for nicotine biosynthesis. R. F. Dawson, D. R. Christman and R. C. Anderson. bibliog Am Chem Soc J 75:5114-16 O 20 '53

See also

Isonicotinic acid

NIDULIN. See Ustin

NIEUWLAND, Julius Arthur, 1878-1936

Nieuwland science hall dedicated; University of Notre Dame, South Bend. por Chem & Eng N 31:4696-7 N 9 '53

NIGERIA

See also

Airlines—Nigeria

Politics and government

Federation for Nigeria. Economist 168:443 Ag 15 '53

Further outlook in Nigeria. Economist 168:34-5 Jl 4 '53

Lagos affair. map Economist 169:648 N 28 '53

Nigerian disagreements. Economist 168:496-7 Ag 22 '53

Nigerians in conference. Economist 168:371 Ag 8 '53

Triune Nigeria. map Economist 168:548-50 Ag 29 '53

Zik's comeback; Dr Azikiwe's victory. map Economist 170:104-5 Ja 9 '54

NIGHT labor

Developing better personnel policies for night-shift workers; abstract. Management R 42:74-5 F '53; Same. Nat Safety N 69:227-8 Mr '54

One-man night shift saves the day; night lab assistant. il Chem W 75:52-3 Jl 31 '54

NINETEEN hundred and fifty-three

In the wake of 1953; what happened in metalworking; chronology of important events. Steel 134:467-71+ Ja 4 '54

NINHYDRIN

Preparation of ninhydrin as a laboratory experiment. X. A. Dominguez. bibliog J Chem Educ 30:624-5 D '53

NIOBIUM

Columbium resources use spurred by Mines bureau. Oil Paint & Drug Rep 166:50 Ag 9 '54

Halides of niobium (columbium) and tantalum; the electrical conductivities of niobium and tantalum pentafluorides. F. Fairbrother, W. C. Frith and A. A. Woolf. Chem Soc J p 1031-3 Mr '54

Plasticity of columbium single crystals. R. Maddin and N. K. Chen. bibliog il diag J Metals 5:Trans 1131-6 S '53

Progress report on development of columbium in Arkansas for 1953. V. A. Nieberlein and others. bibliog(34 titles) 2pls U S Bur Mines Rep of Invest 5064:1-23 '54

Solid solubility of oxygen in columbium. A. U. Seybolt. il J Metals 6:Trans 774-6 Je '54

Some properties of columbium containing nitrogen. C. Ang and C. Wert. il diags J Metals 5:Trans 1032-6 Ag '53

Superconducting and normal heat capacities of niobium. A. Brown and others. bibliog diag Phys R 92:52-8 O 1 '53

Tantalum and columbium. J. W. Rose. il diags Am Mach 98:189-98 Ap 12 '54

Analysis

Analytical chemistry of niobium and tantalum. C. F. Hiskey and A. L. Batik. bibliog diags Anal Chem 25:823-5, 926-31 My-Je '53

Colorimetric determination of niobium by molybdenum blue method. G. Norwitz and M. Codell. Anal Chem 26:1230-4 Jl '54

Determination of small amounts of niobium and tantalum using radioisotope tracer technique. T. F. Boyd and M. Galan. flow sheets Anal Chem 25:1568-71 O '53

Determination of small amounts of niobium in pure tantalum and its oxide. J. Hastings and T. A. McClarity. bibliog Anal Chem 26:683-5 Ap '54

Extraction of niobium into diisopropyl ketone from hydrochloric acid solutions. H. G. Hicks and R. S. Gilbert. Anal Chem 26:1205-6 Jl '54

Photometric determination of columbium, tungsten, and tantalum in stainless steels. L. Ikenberry, J. L. Martin and W. J. Boyer. bibliog Anal Chem 25:1340-4 S '53

Quantitative analysis of niobium and tantalum in ores by fluorescent X-ray spectroscopy. W. J. Campbell and H. F. Carl. bibliog il Anal Chem 26:800-5 My '54

Separation of niobium and tantalum by liquid-liquid extraction. J. Y. Ellenburg, G. W. Leddicotte and F. L. Moore. bibliog Anal Chem 26:1045-7 Je '54

Separation of tantalum and niobium by liquid-liquid extraction. J. R. Werning and others. bibliog il diag Ind & Eng Chem 46:644-52 Ap '54

Separation of tantalum and niobium by solvent extraction. P. C. Stevenson and H. G. Hicks. Anal Chem 25:1517-19 O '53

Solvent extraction separations of zirconium and niobium. E. M. Scadden and N. E. Ballou. bibliog Anal Chem 25:1602-4 N '53

Spectrographic analysis of 18-8 stainless steel for cobalt, manganese, and stabilizing elements. N. E. Gordon, jr., R. M. Jacobs and M. C. Rickel. diags Anal Chem 25:1031-4 Jl '53

Ultraviolet spectrophotometric determination of niobium in hydrochloric acid. J. H. Kanzelmeyer and H. Freund. Anal Chem 25:1807-9 D '53

Isotopes

Half-life and beta decay of the long-lived niobium-94. M. A. Rollier and E. Saeland. Phys R 94:1079 My 15 '54

Internal conversion coefficients of Nb^{95}, Zn^{65}, and Sc^{46}. E. F. Sturcken and others. Phys R 93:1053-6 Mr 1 '54

New isotopes of niobium; Nb^{89} and Nb^{89m}. R. M. Diamond. Phys R 95:410-12 Jl 15 '54

Nuclear reactions

Excitation functions of proton-induced reactions of Nb^{93}. R. A. James. Phys R 93:288-90 Ja 15 '54

Long-lived activity in neutron-irradiated niobium D. L. Douglas and others. bibliog Phys R 92:369-71 O 15 '53

NIOBIUM alloys

Columbium-vanadium alloy system. H. A. Wilhelm and others. bibliog il J Metals 6:Trans915-18 Ag '54

NIOBIUM oxides

Low-temperature heat capacities and entropies at 298.16°K. of manganese sesquioxide and niobium pentoxide. E. G. King. Am Chem Soc J 76:3289-91 Je 20 '54

NISIN

Antibiotic nisin and its use in the making and processing of cheese. N. J. Berridge. bibliog Chem & Ind p 1158-61 O 31 '53

NITRAMINES

Mechanism of the homogeneous alkaline decomposition of cyclotrimethylenetrinitramine; kinetics of consecutive second- and first-order reactions; a polarographic analysis for cyclotrimethylenetrinitramine. W. H. Jones. bibliog Am Chem Soc J 76:829-35 F 5 '54

Nitramines and nitramides; nitrations of urethane, *N*-methylurethane, urea, and hexahydro-1 : 3-dinitro-1 : 3 : 5-triazine in sulphuric acid. C. Holstead, A. H. Lamberton and P. A. H. Wyatt. Chem Soc J p3341-9 N '53

NITROMINES—*Continued*

Nitramines and nitramides; some *N*-nitrations in solvents other than sulphuric acid. C. Holstead and A. H. Lamberton. Chem Soc J p3349-52 N '53

Nitramines and nitramides; the irreversible decomposition of nitroguanidine and of nitrourea by sulphuric acid. C. Holstead and A. H. Lamberton. Chem Soc J p2391-5 Jl '54

Peroxytrifluoroacetic acid; the oxidation of nitrosamines to nitramines. W. D. Emmons. bibliog Am Chem Soc J 76:3468-70 Jl 5 '54

Second order elimination of nitrous acid from secondary nitramines. W. H. Jones. bibliog Science 118:387-8 O 2 '53

Analysis

Detection and estimation of impurities in hexogen. E. W. Malmberg, K. N. Trueblood and T. D. Waugh. bibliog diags Anal Chem 25:901-7 Je '53

NITRATES

Organic nitrates. J. W. Baker and T. G. Heggs. Chem & Ind p464 Ap 17 '54

Polarography of nitrate ion. J. W. Collat and J. J. Lingane. bibliog Am Chem Soc J 76:4214-18 Ag 20 '54

Preparation of sugar nitrates. J. Honeyman and J. W. W. Morgan. Chem & Ind p 1035 S 26 '53

Some reactions of organic nitrates. G. W. H. Cheeseman. Chem & Ind p281 Mr 6 '54

System $MgO-Al_2O_3-H_2O$ and influence of carbonate and nitrate ions on the phase equilibria. D. M. Roy and others. bibliog diags Am J Sci 251:337-61 My '53

Valley of the moon; reconstruction in Korea focuses on Chile, major producing country of nitrates. il Chem W 73:22+ D 19 '53

See also

Ammonium nitrate

Calcium nitrate

Analysis

Determination of ammonium, amide, nitrite, and nitrate nitrogen in plant extracts. J. E. Varner and others. bibliog diag Anal Chem 25:1528-9 O '53

Determination of nitrate in plant materials. G. B. Jones and R. E. Underdown. bibliog Anal Chem 25:806-8 My '53

Determination of nitrate in sodium nitrite. C. L. Johnson. bibliog diag Anal Chem 25:1276-7 Ag '53

Kjeldahl method as applied to determination of nitrogen in nitrates. W. E. Dickinson. Anal Chem 26:777-9 Ap '54

Polarographic determination of nitrate. W. A. Lawrance and R. M. Briggs. Anal Chem 25:965-6 Je '53

Polarographic determination of nitrates in sanitary analysis. M. C. Rand and H. Heukelekian. bibliog Anal Chem 25:878-81 Je '53

Polarographic determination of nitrite. D. T. Chow and R. J. Robinson. bibliog Anal Chem 25:1493-6 O '53

Rapid determination of nitrates and nitrites. J. L. Nelson, L. T. Kurtz and R. H. Bray. bibliog Anal Chem 26:1081-2 Je '54

NITRATION

β-Nitration of 2-thenaldehyde. W. O. Foye, J. J. Hefferren and E. G. Feldmann. bibliog Am Chem Soc J 76:1378-9 Mr 5 '54

Chemical engineering unit processes. W. D. Crater. bibliog(46 ref) Ind & Eng Chem 45:1998-2000; 46:1861-3 S '53, S '54

Degree of polymerization and its distribution in cellulose rayons; nitration of rayon with minimum degradation. W. G. Harland. bibliog diag Textile Inst J Trans 45:T678-91 S '54

Homolytic nitration of quinoline with pernitrous acid. J. R. Laville and W. A. Waters. Chem Soc J p400-3 Ja '54

Intrinsic viscosity of nitrocellulose related to degree of nitration. C. H. Lindsley and M. B. Frank. bibliog Ind & Eng Chem 45:2491-7 N '53

Mononitration of *m*-xylene. K. A. Kobe and H. M. Brennecke. bibliog Ind & Eng Chem 46:728-32 Ap '54

Nitramines and nitramides; nitrations of urethane, *N*-methylurethane, urea, and hexahydro-1 : 3-dinitro-1 : 3 : 5-triazine in sulphuric acid. C. Holstead, A. H. Lamberton and P. A. H. Wyatt. Chem Soc J p3341-9 N '53

Nitramines and nitramides; some *N*-nitrations in solvents other than sulphuric acid. C. Holstead and A. H. Lamberton. Chem Soc J p3349-52 N '53

Nitration and fractionation of rayons. W. E. Roseveare and L. Poore. bibliog Ind & Eng Chem 45:2518-21 N '53

Nitration and hydroxylation of phenetole, phenyl *n*-propyl ether, and acetophenone by pernitrous acid. R. B. Heslop and P. L. Robinson. Chem Soc J p 1271-3 Ap '54

Nitration of 4-diphenylylbenzoate; isolation of a new mono-nitroderivative. I. G. M. Campbell and D. J. Morrill. Chem & Ind p 1229 N 14 '53

Nitration of 2-hydroxy-5,6-diphenylpyrazine and 2-hydroxy-3,6-diphenylpyrazine. G. Karmas and P. E. Spoerri. bibliog Am Chem Soc J 75:5517-19 N 20 '53

Nitration of 2-methylnaphthalene. J. A. Brink, jr. and R. N. Shreve. bibliog diags Ind & Eng Chem 46:694-702 Ap '54

Nitration of the tolyltriethylsilanes. R. A. Benkeser and H. Landesman. Am Chem Soc J 76:904-5 F 5 '54

Nitration of unsaturated steroids. C. E. Anagnostopoulos and L. F. Fieser. bibliog Am Chem Soc J 76:532-6 Ja 20 '54

Vapor phase nitration; factors affecting degradation to lower nitroparaffins. G. B. Bachman and M. Pollack. bibliog diag Ind & Eng Chem 46:713-18 Ap '54

Vapor phase nitration of aliphatic ethers, alcohols, ketones and carboxylic acids. H. B. Hass and D. E. Hudgin. bibliog Am Chem Soc J 76:2692-4 My 20 '54

NITRIC acid

Action of nitric acid on metals. M. M. Tillu. J Chem Educ 30:290 Je '53

Activated nitric acid produces 90-95 per cent pure adipic acid. Chem & Eng N 31:5068 D 7 '53

Activity coefficient ratios of nitric acid and mercurous nitrate and the standard potential of the mercury, mercurous ion electrode at 25°. O. D. Bonner and F. A. Unietis. bibliog Am Chem Soc J 75:5111-13 O 20 '53

Anodizing of zirconium and other transition metals in nitric acid. R. D. Misch and W. E. Ruther. bibliog Electrochem Soc J 100:531-7 D '53

Corrosion of Durimet 20 and Carpenter 20 by nitric acid as function of temperature. M. G. Fontana. Ind & Eng Chem 45:sup 91A-2A+ Jl '53

Corrosion of high silicon iron by nitric acid as a function of temperature. M. G. Fontana. Ind & Eng Chem 45:sup91A-2A+ My '53

Effects of acid velocity and galvanic couples on corrosion of aluminum and stainless steel in strong nitric acid. M. G. Fontana. il Ind & Eng Chem 45:sup91A-2A+ N '53

Factors affecting the testing of stainless steels in boiling concentrated nitric acid. J. E. Truman. diags J Ap Chem 4:273-83 My '54

Handling HNO_3 at temperatures above atmospheric boiling point. M. G. Fontana. Ind & Eng Chem 45:sup91A-2A+ Je '53

Iron passivation in nitric acid. S. Aronow. diag Electrochem Soc J 100:sup 106C Ap '53

Kinetics of oxidation by nitrous acid and nitric acid; oxidation of formic acid by nitrous acid. J. V. L. Longstaff and K. Singer. diag Chem Soc J p2604-10 Jl '54

Kinetics of oxidation by nitrous acid and nitric acid; oxidation of formic acid in aqueous nitric acid. J. V. L. Longstaff and K. Singer. diag Chem Soc J p2610-17 Jl '54

Larger nitric demand. Chem & Eng N 32:268 Ja 18 '54

Nitric etches a record. Chem W 75:73-7 Ag 14 '54

Optical absorbance in nitric acid-nitrogen dioxide-water system. S. Lynn, D. M. Mason and B. H. Sage. bibliog il Ind & Eng Chem 46:1953-5 S '54

NITRIC acid—*Continued*

Oxidation of methanol by nitric acid solutions of quadrivalent cerium. D. A. Skoog and Sister M. Budde. Anal Chem 25:822-3 My '53

Potassium acid saccharate by nitric acid oxidation of dextrose. G. C. Mustakes, R. L. Slotter and R. L. Zipf. bibliog flow sheet il diag Ind & Eng Chem 46:427-34 Mr '54

Products of the oxidative degradation of thiophene by nitric acid. L. S. Levitt and E. Howard, jr. bibliog Am Chem Soc J 76:1951-3 Ap 5 '54

Simultaneous electrodeposition of copper and lead from nitric acid-hydrofluoric acid-beryllium nitrate solution. C. Goldberg. bibliog Anal Chem 25:1405 S '53

Thermal decomposition of anhydrous nitric acid vapour. W. R. Ellis and R. C. Murray. bibliog J Ap Chem 3:318-22 Jl '53

Volumetric behavior of nitric acid. H. H. Reamer, W. H. Corcoran and B. H. Sage. bibliog diags Ind & Eng Chem 45:2699-704 D '53

Volumetric behavior of red and white fuming nitric acid. H. H. Reamer, D. M. Mason and B. H. Sage. bibliog diag Ind & Eng Chem 45:1094-7 My '53

Analysis

Determination of nitric acid strength by continuous conductivity measurements. M. L. Davis. Ind & Eng Chem 46:sup 119A Je '54

Manufacture

Centrifugal compression for ammonia plants; Brown Boveri isotherm compressor. J. D. Drake. Ind & Eng Chem 46:sup 115A-16A My '54

Nitric acid in Great Britain; oxidation of ammonia; staff-industry collaborative report. G. C. Inskeep and T. H. Henry. bibliog flow sheet il Ind & Eng Chem 45:1386-95 Jl '53

Nitric acid plants today. il diag Chem Eng 60:150+ N '53

NITRIC oxide. See Nitrogen oxides

NITRIDES

Thermal conductivity; conductivity of some refractory carbides and nitrides. T. Vasilos and W. D. Kingery. bibliog diags Am Cer Soc J 37:409-14 S 1 '54

NITRIDING process. See Case hardening—Nitriding process

NITRILE rubber. See Rubber, Artificial

NITRILES

Aromatic cyclodehydration; cyclization of aldehydes, ketones and ketonitriles. C. K. Bradsher and W. J. Jackson, jr. bibliog Am Chem Soc J 76:734-8 F 5 '54

Azo-bis nitriles; decomposition of azo compounds; a special case of carbon-carbon hyperconjugation in a free radical reaction. C. G. Overberger and A. Lebovits. bibliog Am Chem Soc J 76:2722-5 My 20 '54

Compounds derived from the addition of amines to 2,4-pentadienenitrile. J. M. Stewart. Am Chem Soc J 76:3228-30 Je 20 '54

Dialkoxyalkanenitriles; reaction of dialkoxyacetonitriles with dicyanodiamide. V. P. Wystrach and J. G. Erickson. bibliog Am Chem Soc J 75:6345-6 D 20 '53

Fatty acid amides; preparation of substituted amidostearic acids by addition of nitriles to oleic acid. E. T. Roe and D. Swern. bibliog Am Chem Soc J 75:5479-81 N 20 '53

2-Keto-4-(*p*-methoxyphenyl)-1-methyl-3-cyclohexenecarbonitrile and related compounds; analogs of doisynolic acid. F. C. Novello, M. E. Christy and J. M. Sprague. bibliog Am Chem Soc J 76:738-42 F 5 '54

Lithium aluminum hydride reduction of Grignard-nitrile adducts to primary amines. A. Pohland and H. R. Sullivan. bibliog Am Chem Soc J 75:5898-9 D 5 '53

Molecular rearrangements; 4-hydroxy-1-methylisonipecotonitrile as an intermediate in the synthesis of substituted piperidines. R. E. Lyle and G. G. Lyle. bibliog Am Chem Soc J 76:3536-9 Jl 5 '54

N-alkylation of nitriles in presence of silver sulphate. J. Cast and T. S. Stevens. Chem Soc J p4180-1 D '53

Polyphosphoric acid as a reagent in organic chemistry; the hydrolysis of nitriles to amides. H. R. Snyder and C. T. Elston. bibliog Am Chem Soc J 76:3039-40 Je 5 '54

Preparation of enol ethers from certain β-keto-nitriles. B. H. Chase and J. Walker. Chem Soc J p3518-25 N '53

Preparation of ethyl *o*-cyanocinnamate and *o*-carbethoxycinnamonitrile. J. W. Curry. bibliog Am Chem Soc J 75:5740-1 N 20 '53

Quaternary ammonium salts; hydrolysis of the nitrile group before decomposition of the quaternary ammonium group; preparation and decomposition of some quaternary ammonium salts. W. Tadros and A. B. Sakla. Chem Soc J p 1116-19 Mr '54

Reaction of certain nitriles with Grignard reagents. F. F. Blicke and E. Tsao. bibliog Am Chem Soc J 75:5587-90 N 20 '53

Reactions of dinitriles and their derivatives with formaldehyde. H. Feuer and S. M. Pier. bibliog Am Chem Soc J 76:105-7 Ja 5 '54

S_N mechanism in aromatic compounds; carbonyl and nitrile substituents. J. Miller. bibliog Am Chem Soc J 76:448-50 Ja 20 '54

Thermal addition of β-methylcrotononitrile to ethylene. M. J. Hogsed and R. V. Lindsey. bibliog Am Chem Soc J 76:2305-6 My 5 '54

See also

Acetonitrile

Acrylonitrile

Succinonitrile

NITRILOTRIACETIC acid

Complexones in analytical chemistry. T. S. West. bibliog(41 ref) Chem Age (Lond) 69:15-22 Jl 4 '53

NITRITES

How to protect against corrosion; new crystalline amine nitrite compound. il Power 98:140 S '54

Studies in the hydrolysis and alcoholysis of some organic nitrites. A. D. Allen. Chem Soc J p 1968-74 Je '54

Thermal decomposition of dinitrites; vicinal dinitrites. L. P. Kuhn and L. DeAngelis. bibliog Am Chem Soc J 76:328-9 Ja 20 '54

See also

Sodium nitrite

Analysis

Determination of ammonium, amide, nitrite, and nitrate nitrogen in plant extracts. J. E. Varner and others. bibliog diag Anal Chem 25:1528-9 O '53

Determinations of thiosulfate and nitrite. R. H. Pierson. bibliog Anal Chem 26:315-20 F '54

Polarographic determination of nitrite. D. T. Chow and R. J. Robinson. bibliog Anal Chem 25:1493-6 O '53

Rapid determination of nitrates and nitrites. J. L. Nelson, L. T. Kurtz and R. H. Bray. bibliog Anal Chem 26:1081-2 Je '54

Spectra

Studies in spectroscopy; ultra-violet and infra-red spectra of nitrosamines, nitrites, and related compounds. R. N. Haszeldine and J. Jander. Chem Soc J p691-5 F '54

NITRO compounds

Derivatives of sulfenic acids; studies of α-nitro sulfides. M. B. Sparke, J. L. Cameron and N. Kharasch. bibliog Am Chem Soc J 75:4907-10 O 20 '53

Factors affecting the directive influence of the nitro group in the nitro complexes of palladium(II); dichlorodiaminepalladium(II) complexes. H. B. Jonassen and others. bibliog Am Chem Soc J 75:5216-18 N 5 '53

Interaction of polynitro-compounds with aromatic hydrocarbons and bases; a new method for determining the association constants for certain interactions between nitro-compounds and bases in solution. R. Foster, D. L. Hammick and A. A. Wardley. Chem Soc J p3817-20 D '53

Perfluoroalkyl compounds of nitrogen; perfluoroalkyl-nitroso- and -nitro-compounds. J. Banus. Chem Soc J p3755-61 D '53

Preparation and reactions of some fluorine-containing nitro compounds. D. J. Cook, O. R. Pierce and E. T. McBee. bibliog Am Chem Soc J 76:83-7 Ja 5 '54

NITRO compounds—*Continued*

Preparation of nitro compounds from oximes; the synthesis of nitroalkanes. D. C. Iffland and T. F. Yen. Am Chem Soc J 76:4083-5 Ag 20 '54

Reaction of ketene divinylacetal with various nitro compounds. H. Feuer and W. H. Gardner. Am Chem Soc J 76:1375-6 Mr 5 '54

Reactions of aromatic nitro compounds with active methyl, methylene, methine groups in presence of base. J. J. Carr. bibliog Anal Chem 25:1859-63 D '53

Reactions of metallic salts of acids with halogens; synthesis of perfluoro-nitroso- and -nitro-compounds. R. N. Haszeldine and J. Jander. Chem Soc J p4172-3 D '53

See also

Nitroparaffins

Analysis

Quantitative estimation of aromatic nitro compounds. E. Wolthuis, S. Kolk and L. Schaap. bibliog Anal Chem 26:1238-40 Jl '54

NITRO group

Conjugation of methylsulfonyl and nitro groups with the mercapto group in thiophenols. F. G. Bordwell and H. M. Andersen. bibliog Am Chem Soc J 75:6019-22 D 5 '53

NITROALKANES. See Nitroparaffins

NITROAMINOGUANIDINE

Analysis

Spectrophotometric determination of nitroaminoguanidine and nitroguanidine. J. E. DeVries and E. S. Gantz. bibliog Anal Chem 25:1020-2 Jl '53

NITROANILINE

Quantitative chromatographic separation of *ortho-* and *para*-nitroanilines and their monosubstituted derivatives. J. E. Larson and S. H. Harvey. Chem & Ind p45-6 Ja 9 '54

Reaction of *o*-nitroaniline with 1-naphthylamine. J. W. Cook and L. Hunter. Chem Soc J p4183 D '53

NITROBENZALDEHYDE

Polarographic reduction of the nitrobenzaldehydes. R. A. Day, jr. and R. M. Powers. bibliog Am Chem Soc J 76:3085-7 Je 5 '54

NITROBENZENE

Kinetics of the reduction by titanous chloride of nitrobenzene and its substitution products. S. A. Newton, F. J. Stubbs and C. Hinshelwood. Chem Soc J p3384-91 N '53

Nucleophilic displacement reactions in aromatic systems; kinetics of the reactions of *o*- and *p*-halogenonitrobenzenes with piperidine and with morpholine. N. B. Chapman, R. E. Parker and P. M. Soanes. Chem Soc J p2109-14 Je '54

Peroxytrifluoroacetic acid; the oxidation of anilines to nitrobenzenes. W. D. Emmons. bibliog Am Chem Soc J 76:3470-2 Jl 5 '54

Rapid determination of aromatics in petroleum fractions. E. A. Pasquinelli. bibliog diag Anal Chem 26:329-42 F '54

Reaction mechanism of halogenobenzoic acids and halogenonitrobenzenes with nucleophilic reagents. J. Grundy. bibliog Chem & Ind p23 Ja 2 '54

Reactions of thallium; thallous ethoxide as a catalyst in the oxidation of the aromatic acyloins by nitrobenzene. L. P. McHatton and M. J. Soulal. Chem Soc J p4095-7 D '53

Study of the alkaline nitrobenzene oxidation of chlorite lignin. J. E. Jayne. bibliog Tappi 36:571-6 D '53

Spectrum

Near ultraviolet absorption spectra of halogenated nitrobenzenes. H. E. Ungnade. bibliog Am Chem Soc J 76:1601-3 Mr 20 '54

NITROBENZOATES

Reactions of aromatic nitro compounds with active methyl, methylene, methine groups in presence of base. J. J. Carr. bibliog Anal Chem 25:1859-63 D '53

Rearrangement of *trans*-9-decalyl perbenzoate and per-*p*-nitrobenzoate in methanol and aqueous methanol. H. L. Goering and A. C. Olson. bibliog Am Chem Soc J 75:5853-9 D 5 '53

NITROBENZOIC acid

Analysis

Mechanism of the Mohler reaction for the estimation of benzoic acid. W. Davey and J. R. Gwilt. bibliog J Ap Chem 4:413-18 Ag '54

NITROCELLULOSE

Degree of polymerization and its distribution in cellulose rayons; relation between the nitrogen content and the intrinsic viscosity of cellulose nitrate. W. G. Harland. bibliog Textile Inst J Trans 45:T692-5 S '54

Intrinsic viscosity of nitrocellulose related to degree of nitration. C. H. Lindsley and M. B. Frank. bibliog Ind & Eng Chem 45:2491-7 N '53

Nitration and fractionation of rayons. W. E. Roseveare and L. Poore. bibliog Ind & Eng Chem 45:2518-21 N '53

Precipitation fractionation of cellulose nitrate. R. L. Mitchell. bibliog(27 ref) Ind & Eng Chem 45:2526-31 N '53

Recent work on molecular weight of cellulose. E. H. Immergut, B. G. Ranby and H. F. Mark. bibliog diags Ind & Eng Chem 45:2483-90 N '53

Analysis

Determination of nitrogen in nitrocellulose and of nitrocellulose and combined phthalate in lacquers. W. E. Shaefer and W. W. Becker. bibliog il Anal Chem 25:1226-31 Ag '53

NITROCHLOROBENZENE. See Chloronitrobenzene

NITROETHANE

Rates of ionization of pseudo acids; catalytic behavior of alkylamines in the ionization of nitroethane. R. G. Pearson and F. V. Williams. bibliog Am Chem Soc J 76:258-60 Ja 5 '54

Vapor-liquid equilibria; binary system nitromethane-nitroethane. A. Cantoni and J. Feldman. bibliog Ind & Eng Chem 45:2580-4 N '53

NITROETHYLENE

Nitroethylation of indole; a new synthesis of tryptamine. W. E. Noland and P. J. Hartman. bibliog Am Chem Soc J 76:3227-8 Je 20 '54

NITROFURANS

See also

Furadantin

NITROFURFURAL

Substituted long chain fatty acid hydrazones of 5-nitrofurfural. N. Rabjohn and M. S. Cohen. Am Chem Soc J 76:1280-2 Mr 5 '54

NITROGEN

Absorption of sound in argon, nitrogen, and oxygen at low pressures. J. G. Parker and others. il diag Acoustical Soc Am J 25:263-9 Mr '53

Accent on Asia. Chem W 74:9 Ja 2 '54

Answer on ammonia capacity. Chem W 74:92 Mr 13 '54

Boron-nitrogen systems; boron trifluoride-diamine addition compounds. C. A. Brown, E. L. Muetterties and E. G. Rochow. bibliog Am Chem Soc J 76:2537-9 My 5 '54

Calculation of the diamagnetic and paramagnetic susceptibility of N_2 by the statistical method. J. V. Bonet and A. V. Bushkovitch. bibliog J Chem Phys 21:2199-201 D '53

Charts give water solubility of helium, hydrogen, nitrogen and oxygen. D. S. Davis. Chem Eng 61:228+ F '54

Compressibility factors of nitrogen-propane mixtures in the gas phase. G. M. Watson and others. bibliog Ind & Eng Chem 46:362-4 F '54

Effect of nitrogen and carbon dioxide atmospheres on arc welding. F. W. Sowa and others. il Welding J 32:sup619-24 D '53

Effects of oxygen and nitrogen in welding titanium alloys. J. H. Johnston. il Welding J 33:sup414-16 Ag '54

Fertilizers; steady growth, solid future. C. J. Matthew and S. E. Perkins. Chem W 75:38-40 Ag 28 '54

Fischer-Tropsch synthesis with cobalt catalysts; effect of nitrogen, carbon dioxide and methane in the synthesis gas. E. J. Gibson and C. C. Hall. bibliog J Ap Chem 4:464-8 Ag '54

NITROGEN—*Continued*

Gas adsorption by wood, pulp, and paper; low-temperature adsorption of nitrogen, butane, and carbon dioxide by sprucewood and its components. W. R. Haselton. bibliog(26 ref) diag Tappi 37:404-12 S '54

Homomolecular exchange of nitrogen in a glow discharge. W. H. Johnston and R. M. Anstett. J Chem Phys 22:146 Ja '54

Influence of oxygen and nitrogen in solution in alpha titanium on the friction coefficient of copper on titanium. W. R. Yankee and E. S. Machlin. bibliog J Metals 6:Trans 989-90 S '54

Influence of oxygen, nitrogen, and carbon on the phase relationships of the Ti-Al system. R. J. Van Thyne and H. D. Kessler. bibliog il J Metals 6:Trans 193-9 sec 2 F '54

Interpretation of ionic mobilities in nitrogen. S. Geltman. Phys R 94:1072-3 My 15 '54

Lifetime of the $^3\Sigma u^+$ state of nitrogen. E. E. Muschlitz, jr. and L. Goodman. bibliog diag J Chem Phys 21:2213-17 D '53

Mass spectral investigation of active nitrogen. D. S. Jackson and H. I. Schiff. J Chem Phys 21:2233-4 D '53

Mechanism of exchange of hydrogen between nitrogen and oxygen atoms. C. G. Swain and others. Am Chem Soc J 76:4243 Ag 20 '54

More nitrogen turns up. Chem & Eng N 32:1130 Mr 22 '54

Nitrogen industry asks US for restudy of goal. Oil Paint & Drug Rep 165:3 F 22 '54

Nitrogen molecule calculation. M. Wolfsberg. bibliog J Chem Phys 21:2166-9 D '53

Nitrogen output survey issued. Oil Paint & Drug Rep 165:3 Mr 22 '54

Nitrogen output, use rise is seen; annual survey. Oil Paint & Drug Rep 164:3+ D 14 '53

Nitrogen systems; carbamyl migrations. F. L. Scott. bibliog (37 ref) Chem & Ind p959-60 Jl 31 '54

Nitrogen systems; substituted thioureides. F. L. Scott. bibliog Chem & Ind p 158-60 F 6 '54

Nitrogen use increase slower in '54-57. Oil Paint & Drug Rep 165:7+ Je 14 '54

Phosphorescence of atoms and molecules of solid nitrogen at 4.2°K. H. P. Broida and J. R. Pellam. bibliog diag Phys R 95:845-6 Ag 1 '54

Preliminary results on photoelectric yields of Pt and Ta and on photoionization in O_2 and N_2 in the vacuum ultraviolet. N. Wainfan and others. bibliog diag J Ap Phys 24:1318-21 O '53

Quenching of mercury resonance radiation (2537A) by nitrogen. C. G. Matland. bibliog il diags Phys R 92:637-41 N 1 '53

Range and charge of energetic nitrogen ions in nickel. H. L. Reynolds and others. bibliog diags Phys R 95:671-4 Ag 1 '54

Reaction of nitrogen with, and the diffusion of nitrogen in, beta zirconium. M. W. Mallett and others. bibliog Electrochem Soc J 101:1-5 Ja '54

Reaction of nitrogen with, and the diffusion of nitrogen in, thorium. A. F. Gerds and M. W. Mallett. bibliog il Electrochem Soc J 101:175-80 Ap '54

Reaction of oxygen and nitrogen with titanium from 700° to 1050°C. L. S. Richardson and N. J. Grant. bibliog J Metals 6:Trans 69-70 Ja '54

Reactions of carbon; adsorption-desorption studies of nitrogen, argon, and carbon dioxide on carbon rods. P. L. Walker, jr. and C. C. Wright. bibliog Ind & Eng Chem 45:1715-21 Ag '53

Reactions of U^{238} with cyclotron-produced nitrogen ions. A. Ghiorso and others. Phys R 93:257 Ja 1 '54

Role of petrochemicals in fertilizers. G. Wash. Pet Refiner 32:112-13 N '53

Scattering of 14.1-Mev neutrons in helium, hydrogen, and nitrogen. J. R. Smith. bibliog Phys R 95:730-5 Ag 1 '54

Some effects of nitrogen in cast iron; abstract. J. V. Dawson and others. Metal Prog 64:168+ D '53

Some properties of columbium containing nitrogen. C. Ang and C. Wert. il diags J Metals 5:Trans 1032-6 Ag '53

Thermal conductivity of gas mixtures at high pressure; ethylene, nitrogen and ethylene, carbon dioxide. W. A. Junk and E. W. Comings. bibliog diag Chem Eng Prog 49:263-6 My '53

Titanium-rich regions of the Ti-C-N, Ti-C-O, and Ti-N-O phase diagrams. L. Stone and H. Margolin. bibliog il J Metals 5:Trans 1498-502 sec 2 N '53

Too much, too soon? ODM decision to up nitrogen capacity controversial. Chem W 74:88 F 20 '54

Two ion sources for the production of multiply charged nitrogen ions. R. J. Jones and A. Zucker. diags R Sci Instr 25:562-6 Je '54

See also

Steel—Nitrogen effect

Analysis

Colorimetric determination of nitrogen in biological materials. J. R. Polley. Anal Chem 26:1523-4 S '54

Determination of ammonium, amide, nitrite, and nitrate nitrogen in plant extracts. J. E. Varner and others. bibliog diag Anal Chem 25:1528-9 O '53

Determination of nitro nitrogen by the Kjeldahl method. R. B. Bradstreet. Anal Chem 26:235-6 Ja '54

Determination of nitrogen content of noble gases. H. S. Dombrowski. bibliog diag Anal Chem 26:526-8 Mr '54

Determination of nitrogen in nitrocellulose and of nitrocellulose and combined phthalate in lacquers. W. E. Shaefer and W. W. Becker. bibliog il Anal Chem 25:1226-31 Ag '53

Determination of nitrogen in zirconium by micro-Kjeldahl steam distillation. J. F. Rodgers and G. J. Harter. diag Anal Chem 26:395-6 F '54

Determination of total nitrogen in petroleum distillates by catalytic hydrogenation. C. Wankat and J. G. Gatsis. bibliog Anal Chem 25:1631-3 N '53

Improved micro-Dumas method and apparatus. T. D. Parks and others. bibliog il diags Anal Chem 26:229-32 Ja '54

Kjeldahl method as applied to determination of nitrogen in nitrates. W. E. Dickinson. Anal Chem 26:777-9 Ap '54

Kjeldahl method for organic nitrogen. R. B. Bradstreet. bibliog(73 ref) Anal Chem 26:185-7 Ja '54

Measurement of low concentrations of hydrogen in nitrogen; Pirani gauge which incorporates a heated palladium window. A. H. Turnbull and M. F. A. Harrison. diags J Sci Instr 30:266-8 Ag '53

Microdetermination of nitrogen in volatile compounds. W. J. Schenck. diag Anal Chem 26:788 Ap '54

Modified carbon dioxide generator for Dumas determination. B. A. Parkin and others. diag Anal Chem 25:841 My '53

Modified universal semi-micro Kjeldahl method for the determination of nitrogen in coal and other carbonaceous materials. A. E. Beet. J Ap Chem 4:373-9 Jl '54

Quantitative analysis of organic nitrogen by flame spectroscopy. M. Honma and C. L. Smith. bibliog il Anal Chem 26:458-62 Mr '54

Rapid modified procedure for determination of Kjeldahl nitrogen. C. H. Perrin. bibliog Anal Chem 25:968-71 Je '53

Sealed-tube combustion for determination of carbon, hydrogen, and nitrogen. W. Kirsten. diags Anal Chem 26:1097 Je '54

Semi-micro Kjeldahl method for the determination of nitrogen in coal. A. H. Edwards. bibliog diag J Ap Chem 4:330-40 Je '54

Strong reduction preliminary to Kjeldahl digestion in analysis of refractory compounds. S. M. Woods, D. Scheirer and E. C. Wagner. Anal Chem 25:837-8 My '53

Industrial applications

Bottled nitrogen operates remote controlled master valves on offshore platforms. J. N. Morrell. il Pet Eng 25:B68+ N '53

Generating protective atmospheres for heat treatment. il Engineering 177:311 Mr 5 '54

NITROGEN—Industrial applications—*Cont.*

Injection of atmospheric nitrogen in Elk Basin pressure maintenance still paying off. J. E. Lang. flow diag il Oil & Gas J 52:94-7 N 9 '53

Scrub with liquid nitrogen. flow sheet Chem Eng 60:133-4 Jl '53

See also

Case hardening—
Nitriding process

Isotopes

Absence of rearrangement in the conversion of benzene-*n*-diazoate into the *iso*diazoate, demonstrated by the use of isotopic nitrogen. G. A. Swan and P. Kelly. Chem Soc J p416-17 Ja '54

Acceleration of nitrogen-14 (+6) ions in a 60-inch cyclotron. G. B. Rossi and others. Phys R 93:256-7 Ja 1 '54

Energy levels in N^{14} from the scattering of protons by C^{13}. E. A. Milne. bibliog Phys R 93:762-7 F 15 '54

Inelastic scattering of protons and deuterons from B^{10} and N^{14}. C. K. Bockelman and others. bibliog Phys R 92:665-9 N 1 '53

Mixture of central, tensor, and two-particle spin-orbit interactions for N^{14} and D^2. W. J. Robinson. Phys R 93:1296-7 Mr 15 '54

Nitric oxide interference in nitrogen isotope analyses with the mass spectrometer. R. L. Ory, J. M. Prescott and C. M. Lyman. Am Chem Soc J 76:1449-50 Mr 5 '54

Preparation of $NaC^{14}N$ and $NaCN^{15}$. A. G. MacDiarmid and N. F. Hall. Am Chem Soc J 75:4850-1 O 5 '53

Manufacture

Lucky 13 get nitrogen certificates. Chem & Eng N 32:2284 Je 7 '54

Nuclear reactions

Angular distribution of deuterons from $N^{14}(p,d)N^{13}$. K. G. Standing. bibliog Phys R 94:731-2 My 1 '54

Energy levels in F^{18} from alpha-particle reactions in nitrogen. N. P. Heydenburg and G. M. Temmer. bibliog Phys R 92:89-92 O 1 '53

Gamma rays from $N^{15}(p,\alpha\gamma)C^{12}$ and $N^{15}(p,\gamma)O^{16}$. A. A. Kraus, jr. Phys R 94:975-6 My 15 '54

Neutrons from the proton bombardment of N^{14}. F. Ajzenberg and W. Franzen. bibliog diags Phys R 94:409-11 Ap 15 '54

Spectrum

Absorption coefficients of air and nitrogen for the extreme ultraviolet. J. P. Curtis. diag Phys R 94:908-10 My 15 '54

NITROGEN, Liquid

Government erects $3,500,000 low temperature laboratory; NBS-AEC cryogenic engineering laboratory. flow diag il Refrig Eng 61:1084+ O '53; Same. Comp Air Mag 58:342-3 D '53

Method for continuous flushing of an infrared spectrophotometer with dry nitrogen. O. H. Gaebler. diag Opt Soc Am J 43:705 Ag '53

Scrub with liquid nitrogen. flow sheet Chem Eng 60:133-4 Jl '53

Structure of liquid nitrogen, oxygen, and argon by neutron diffraction. D. G. Henshaw and others. bibliog diag Phys R 92:1229-34 D 1 '53

NITROGEN compounds

Analogues of 8-hydroxyquinoline having additional cyclic nitrogen atoms; further preparations, and some physico-chemical properties. A. Albert and A. Hampton. Chem Soc J p505-13 F '54

Anticholinesterases; relation between structure and activity of anticholinesterases containing quaternary-nitrogen groups. A. W. D. Avison. bibliog diags Chem & Ind p288-93 Mr 13 '54

Carcinogenic nitrogen compounds; new polysubstituted angular benzacridines and benzophenarsazines. N. P. Buu-Hoï and others. Chem Soc J p3584-7 N '53

Carcinogenic nitrogen compounds; some condensed carbazoles and their thiophen analogues. N. P. Buu-Hoï and P. Jacquignon. Chem Soc J p513-15 F '54

Edward Divers and the chemistry of nitrogen compounds. D. Reilly. bibliog(28 ref) J Chem Educ 30:234-7 My '53

Effects of nitrogenous compounds on stream conditions. N. G. Flaigg and G. W. Reid. bibliog Sewage & Ind Wastes 26:1145-54 S '54

Heterocyclic nitrogen compounds; further condensations with aldehydic acids and diamines. E. F. M. Stephenson. Chem Soc J p2354-7 Jl '54

Nitrogen bearing compounds for detergent products. J. W. McCutcheon. Soap & Chem Spec 30:121 My '54

Nitrogen-substituted - 3,4 - dihydroxypyrrolidines. A. J. Hill and M.-G. McKeon. Am Chem Soc J 76:3548-50 Jl 5 '54

Relative basicities of some organic nitrogen bases. P. Rochlin, D. B. Murphy and S. Helf. Am Chem Soc J 76:1451-3 Mr 5 '54

See also

Isoquinoline

Analysis

Analytical studies on harvested tobacco leaves. W. G. Frankenburg and others. bibliog(79 ref) flow sheet diag Anal Chem 25:1784-98 D '53

Nitrogen compounds in distillate fuels. L. F. Ward, jr., R. T. Moore and J. S. Ball. bibliog Anal Chem 25:1070-2 Jl '53

Simultaneous separation of purines, pyrimidines, amino acids, and other nitrogenous compounds. J. S. Wall. bibliog Anal Chem 25:950-3 Je '53

NITROGEN dioxide. See Nitrogen oxides

NITROGEN fixation

Fixation of atmospheric nitrogen in a gas heated furnace. W. G. Hendrickson and F. Daniels. diag Ind & Eng Chem 45:2613-15 D '53

Fixation of nitrogen. Chem Age (Lond) 71:375-6 Ag 21 '54

Fixation of nitrogen in a crossed discharge. W. S. Partridge, R. B. Parlin and B. J. Zwolinski. diag Ind & Eng Chem 46:1468-71 Jl '54

Kinetics of fixation of atmospheric nitrogen at elevated temperatures. H. Wise and D. I. Baker. bibliog J Chem Phys 21:1904-5 O '53

NITROGEN mustards

Comparative effects of total body radiation, nitrogen mustard, and triethylene melamine on the hematopoietic system of terminal cancer patients. R. K. Loeffler and others. Science 118:161-3 Ag 7 '53

Preparation of secondary amine mustards with high toxicity. O. M. Friedman and A. M. Seligman. bibliog Am Chem Soc J 76:658-61 F 5 '54

NITROGEN oxides

Addition of dinitrogen trioxide to Δ^1-aryl*cyclo*hexenes. T. R. Govindachari and others. Chem & Ind p757 Je 26 '54

Decomposition of nitrogen pentoxide in the presence of nitric oxide; effect of noble gases. D. J. Wilson and H. S. Johnston. Am Chem Soc J 75:5763 N 20 '53

Desulfurization of heptane solutions using nitrogen dioxide-sulfuric acid mixtures. J. R. Meadow and R. H. Graves. bibliog Ind & Eng Chem 45:2113-17 S '53

Explosive decomposition of triethylammonium nitrate-dinitrogen tetroxide mixtures. C. C. Addison and N. Hodge. Chem & Ind p 1315 D 5 '53

Kinetic evidence for the gas phase existence of the peroxy radicals NO_4 and NO_3. R. A. Ogg, jr. J Chem Phys 21:2079 N '53

Kinetics of the fast reaction between nitrogen dioxide and fluorine. R. L. Perrine and H. S. Johnston. bibliog diags J Chem Phys 21:2202-5 D '53

Liquid dinitrogen tetroxide solvent system; reactions with ethylammonium nitrate solutions; ethylammonium tetranitratozincate. C. C. Addison and N. Hodge. Chem Soc J p 1138-43 Mr '54

Liquid dinitrogen tetroxide solvent system; the equilibrium between alkylammonium and nitrosonium tetranitratozincates. C. C. Addison, N. Hodge and R. Thompson. Chem Soc J p 1143-5 Mr '54

NITROGEN oxides—*Continued*

Molecular addition compounds of dinitrogen tetroxide; binary systems with a series of aliphatic and alicyclic mono-, di- and tribasic ethers. J. G. Whanger and H. H. Sisler. Am Chem Soc J 75:5188-91 N 5 '53

Molecular addition compounds of dinitrogen tetroxide; cryoscopic and viscosimetric studies in the 1,4-dioxane-dinitrogen tetroxide system. H. W. Ling and H. H. Sisler. bibliog diag Am Chem Soc J 75:5191-3 N 5 '53

Nitric oxide interference in nitrogen isotope analyses with the mass spectrometer. R. L. Ory, J. M. Prescott and C. M. Lyman. Am Chem Soc J 76:1449-50 Mr 5 '54

Nitrous fume absorptiometer. D. V. Sinkinson. bibliog plan Chem & Ind p 1003-4 Ag 14 '54

Orientation in reactions of dinitrogen tetroxide and methyl acrylate. H. Shechter and F. Conrad. bibliog Am Chem Soc J 75:5610-13 N 20 '53

Origin of nitrous oxide in the atmosphere. P. Harteck and S. Dondes. bibliog Phys R 95:320 Jl 15 '54

Oxides of nitrogen; Army office of ordnance research symposium. Chem & Eng N 31:3872-3 S 21 '53

Photochemical decomposition of nitric oxide by absorption in the (0,0) and (1,0) γ bands. G. E. Moore and others. bibliog il J Chem Phys 21:2091-2 N '53

Properties and reactions of free alkyl radicals in solution; reactions with quinone imides, nitric oxide, and nitroso-compounds. B. A. Gingras and W. A. Waters. Chem Soc J p 1920-4 Je '54

Reaction of nitric oxide with free radicals. B. Gingras and W. A. Waters. Chem & Ind p615-16 Je 20 '53

Reaction of nitric oxide with gaseous hydrocarbon free radicals; isopropyl radical. H. T. J. Chilton and B. G. Gowenlock. diag Chem Soc J p3232-6 O '53

Reaction of some metallic oxides with liquid dinitrogen tetroxide; oxides of the first and second periodic groups and lead. J. R. Ferraro and G. Gibson. bibliog Am Chem Soc J 75:5747-8 N 20 '53

Replacement of lead peroxide in carbon, hydrogen microdetermination. C. K. Cross and G. F. Wright. bibliog diags Anal Chem 26:886-90 My '54

Resistance of partially acetylated cotton fabric to nitrogen dioxide and to hydrogen chloride. W. T. Schreiber and others. bibliog Textile Res J 24:819-22 S '54

Some thermodynamic properties of nitric oxide. J. B. Opfell, W. G. Schlinger and B. H. Sage. bibliog Ind & Eng Chem 46:189-94 Ja '54

Theory of the hyperfine structure of NO molecule. M. Mizushima. bibliog diags Phys R 94:569-74 My 1 '54

Viscosity of nitric oxide-nitrogen dioxide system in liquid phase. H. H. Reamer, G. N. Richter and B. H. Sage. bibliog Ind & Eng Chem 46:1471-4 Jl '54

Viscosity of nitrogen dioxide in the liquid phase. G. N. Richter, H. H. Reamer and B. H. Sage. bibliog Ind & Eng Chem 45:2117-19 S '53

Analysis

Mass spectrometric analysis of mixtures containing nitrogen dioxide. R. A. Friedel and others. Anal Chem 25:1314-20 S '53

Optical absorbance in nitric acid-nitrogen dioxide-water system. S. Lynn, D. M. Mason and B. H. Sage. bibliog il Ind & Eng Chem 46:1953-5 S '54

Quantitative determination of nitric oxide and nitrous oxide by infrared absorption. E. L. Saier and A. Pozefsky. Anal Chem 26:1079-80 Je '54

Spectra

Absorption coefficients of gases in the vacuum ultraviolet; nitrous oxide. M. Zelikoff and others. bibliog J Chem Phys 21:1643-7 O '53

Absorption coefficients of nitrogen oxide in the vacuum ultraviolet. F. F. Marmo. bibliog Opt Soc Am J 43:1186-90 D '53

Microwave resonance in nitric oxide; lambda doubling and hyperfine structure. R. Beringer and others. bibliog Phys R 94:343-9 Ap 15 '54

Microwave spectrum of $N^{14}O^{16}$. J. J. Gallagher and others. il diags Phys R 93:729-33 F 15 '54

Near infrared spectrum and the internuclear distances of nitrous oxide. A. E. Douglas and C. K. Møller. bibliog J Chem Phys 22:275-9 F '54

One-to-two millimeter wave spectroscopy; NO and DI. C. A. Burrus and W. Gordy. il Phys R 92:1437-9 D 15 '53

Spectrum of nitrogen dioxide in the 1.4-3.4μ region and the vibrational and rotational constants of the NO_2 molecule. G. E. Moore. bibliog Opt Soc Am J 43:1045-50 N '53

Vertical distribution of nitrous oxide and methane in the earth's atmosphere. L. Goldberg and E. A. Müller. bibliog Opt Soc Am J 43:1033-6 N '53

NITROGEN pentoxide. See Nitrogen oxides

NITROGLYCERIN

Manufacture

Manufacture of nitroglycerine by the Biazzi continuous process. H. J. Klassen and J. M. Humphrys. bibliog flow diags il Chem Eng Prog 49:641-6 D '53

NITROGUANIDINE

Nitramines and nitramides; the irreversible decomposition of nitroguanidine and of nitrourea by sulphuric acid. C. Holstead and A. H. Lamberton. Chem Soc J p2391-5 Jl '54

Reaction of azide ion with N-methyl-N-nitroso-N-nitroguanidine and N-nitro-S-methylisothiourea. R. A. Henry and R. H. Boschan. bibliog Am Chem Soc J 76:1949-50 Ap 5 '54

Some new 1-(nitroxyalkyl)-3-nitroguanidines and their cyclic products. L. Fishbein and J. A. Gallaghan. bibliog Am Chem Soc J 76:3217-19 Je 20 '54

Spectrophotometric studies of dissociation constants of nitroguanidines, triazoles and tetrazoles. J. E. DeVries and E. S. Gantz. bibliog Am Chem Soc J 76:1008-10 F 20 '54

Analysis

Reduction of nitroguanidine and its derivatives by titanous chloride. P. D. Sternglanz, R. C. Thompson and W. L. Savell. bibliog Anal Chem 25:1111-13 Jl '53

Spectrophotometric determination of nitroaminoguanidine and nitroguanidine. J. E. DeVries and E. S. Gantz. bibliog Anal Chem 25:1020-2 Jl '53

Spectrum

Infrared spectra of nitroguanidine and related compounds. W. D. Kumler. bibliog Am Chem Soc J 76:814-16 F 5 '54

NITROMETHANE

Formation of N,N′-dibenzoylurea from nitromethane and benzoyl chloride in pyridine solution. R. H. Terss and W. E. McEwen. bibliog Am Chem Soc J 76:580-5 Ja 20 '54

Mechanism of the reaction of nitromethane with bases. C. M. Drew, J. R. McNesby and A. S. Gordon. Am Chem Soc J 76:3098 Je 5 '54

Purification and some physical properties of nitromethane. C. J. Thompson, H. J. Coleman and R. V. Helm. Am Chem Soc J 76:3445-6 Jl 5 '54

Solubilities of sulfur hexafluoride in water and of the rare gases, sulfur hexafluoride and osmium tetroxide in nitromethane. H. L. Friedman. bibliog Am Chem Soc J 76:3294-7 Je 20 '54

Vapor-liquid equilibria; binary system nitromethane-nitroethane. A. Cantoni and J. Feldman. bibliog Ind & Eng Chem 45:2580-4 N '53

NITRONAPHTHYLAMINE

3-Nitro-2-naphthylamine. E. R. Ward and T. M. Coulson. bibliog Chem & Ind p542-3 My 30 '53

NITROÖLEFINS

Reactions of diazo compounds with nitroölefins; group migrations in the decomposition of nitropyrazolines. W. E. Parham and W. R. Hasek. bibliog Am Chem Soc J 76:799-801 F 5 '54

NITROPARAFFINS

Improved procedure for preparing primary nitroalkanes by the Victor Meyer reaction. C. W. Plummer and N. L. Drake. bibliog Am Chem Soc J 76:2720-2 My 20 '54

Preparation of nitro compounds from oximes; the synthesis of nitroalkanes. D. C. Iffland and T. F. Yen. Am Chem Soc J 76:4083-5 Ag 20 '54

Vapor phase nitration; factors affecting degradation to lower nitroparaffins. G. B. Bachman and M. Pollack. bibliog diag Ind & Eng Chem 46:713-18 Ap '54

See also
Nitropropane

NITROPHENANTHRENE

Nitration of phenanthrene; isolation of 1-nitrophenanthrene. P. M. G. Bavin and M. J. S. Dewar. Chem & Ind p543 My 30 '53

NITROPHENOL

Analysis

Rectification of nonlinear Beer's law plots. H. Goldenberg. bibliog Anal Chem 26:690-3 Ap '54

NITROPHENYLACETIC acid

Condensation of acyclic aldehydes with *p*-nitrophenylacetic acid; crotonaldehyde, methacrylaldehyde and tiglaldehyde. H. J. Gunst, M. Tobkes and E. I. Becker. Am Chem Soc J 76:3595-6 Jl 5 '54

NITROPHENYLAZOMETHANE

Role of the solvent in radical decomposition reactions; *p*-nitrophenylazotris-(*p*-anisyl)-methane. M. D. Cohen, J. E. Leffler and L. M. Barbato. Am Chem Soc J 76:4169-71 Ag 20 '54

NITROPHTHALIMIDES

4-Nitrophthalimide; di-(4-nitrophthalimido)-alkanes and bis-(4-nitrophthalimidoalkyl) ethers. J. H. Billman and R. V. Cash. Am Chem Soc J 76:1944-5 Ap 5 '54

NITROPROPANE

Autoxidation of 2-nitropropane in basic solution. G. A. Russell. bibliog Am Chem Soc J 76:1595-600 Mr 20 '54

NITROPROPENE

Base-catalyzed isomerization and tautomeric equilibria of the system 2-methyl-3-nitropropene and 2-methyl-1-nitropropene. H. Shechter and J. W. Shepherd. bibliog Am Chem Soc J 76:3617-21 Jl 20 '54

NITROPRUSSIDES

Reaction of modified keratins with nitroprusside. O. Ripa. bibliog(29 ref) il Textile Res J 23:776-82 N '53

NITROSALICYLALDEHYDE

Benzene analogs of pyridoxal; the reactions of 4-nitrosalicylaldehyde with amino acids. M. Ikawa and E. E. Snell. bibliog Am Chem Soc J 76:653-5 F 5 '54

NITROSATION

Nitrosation method of determining *d*-γ-tocopherol. B. H. Polister. bibliog Anal Chem 26:407-8 F '54

NITROSOACETAMIDE

Reactions of N-nitroso-2-acetamidobenzophenone. D. F. DeTar and C. S. Savat. Am Chem Soc J 75:5117-18 O 20 '53

NITROSOACETANILIDE

N-nitrosoacetanilide as polymerization initiator. D. F. DeTar and C. S. Savat. bibliog Am Chem Soc J 75:5116-17 O 20 '53

NITROSOAMINES

Peroxytrifluoroacetic acid; the oxidation of nitrosamines to nitramines. W. D. Emmons. Am Chem Soc J 76:3468-70 Jl 5 '54

Thermal decomposition of cyclotrimethylenetrinitrosamine. J. P. Fowler and M. C. Tobin. J Phys Chem 58:382-3 Ap '54

Spectra

Studies in spectroscopy; ultra-violet and infra-red spectra of nitrosamines, nitrites, and related compounds. R. N. Haszeldine and J. Jander. Chem Soc J p691-5 F '54

NITROSOBENZENE

Kinetic study on the condensation reaction of aniline and nitrosobenzenes. K. Ueno and S. Akiyoshi. bibliog Am Chem Soc J 76:3670-2 Jl 20 '54

NITROSO compounds

Electrodeposition of ruthenium from very dilute solutions. M. H. Lietzke and J. C. Griess, jr. Electrochem Soc J 100:434-41 O '53

New reactions involving alkaline treatment of 3-nitroso-2-oxazolidones. M. S. Newman and W. M. Edwards. bibliog Am Chem Soc J 76:1840-5 Ap 5 '54

Perfluoroalkyl compounds of nitrogen; perfluoroalkyl-nitroso- and -nitro-compounds. J. Banus. Chem Soc J p3755-61 D '53

Properties and reactions of free alkyl radicals in solution; reactions with quinone imides, nitric oxide, and nitroso-compounds. B. A. Gingras and W. A. Waters. Chem Soc J p 1920-4 Je '54

Quantitative electrodeposition of radioruthenium. J. C. Griess, jr. bibliog Electrochem Soc J 100:429-33 O '53

Reactions of metallic salts of acids with halogens; synthesis of perfluoro-nitroso- and -nitro-compounds. R. N. Haszeldine and J. Jander. Chem Soc J p4172-3 D '53

NITROSODIMETHYLANILINE

Separation of platinum and palladium and their subsequent colorimetric determination with *p*-nitrosodimethylaniline. J. H. Yoe and J. J. Kirkland. bibliog Anal Chem 26:1335-9 Ag '54

Spectrophotometric study of *p*-nitrosodimethylaniline as a sensitive colorimetric reagent for platinum. J. J. Kirkland and J. H. Yoe. bibliog Anal Chem 26:1340-4 Ag '54

NITROSO group

Addition of free radicals to unsaturated systems; free-radical addition to the nitroso-group. J. Jander and R. N. Haszeldine Chem Soc J p696-8 F '54

Reactions of the nitrosyl group; abstract. F. Seel. Chem & Eng N 31:3626+ S 7 '53

NITROSONAPHTHOL sulfonic acid

Spectrophotometric determination of cobalt with 2-nitroso-1-naphthol-4-sulfonic acid. W. M. Wise and W. W. Brandt. bibliog Anal Chem 26:693-7 Ap '54

NITROSONAPHTHYLHYDROXYLAMINE

Cupferron and neocupferron complexes of the rare earth elements. A. I. Popov and W. W. Wendlandt. bibliog Anal Chem 26:883-6 My '54

NITROSONIUM

Nitrosonium coordination complexes. C. C. Addison and others. Chem & Ind p 1338 D 12 '53

NITROSOPHENYLHYDROXYLAMINE

Absorptiometric determination of iron using cupferron. R. S. Beckwith. Chem & Ind p663 Je 5 '54

Cupferron and neocupferron complexes of the rare earth elements. A. I. Popov and W. W. Wendlandt. bibliog Anal Chem 26:883-6 My '54

New analog of cupferron. R. E. Oesper and R. E. Fulmer. bibliog Anal Chem 25:908-9 Je '53

NITROSO R salt

Colorimetric determination of iron with nitroso R salt. J. A. Dean and J. H. Lady. bibliog Anal Chem 25:947-9 Je '53

NITROSTYRENE

Action of 9-diazofluorene on ω-nitrostyrenes and its substituted derivatives. A. Mustafa and A. Harhash. bibliog Am Chem Soc J 76:1383-4 Mr 5 '54

Meerwein reaction with *p*-nitrostyrene and 2-vinylpyridine. W. J. Dale and C. M. Ise. bibliog Am Chem Soc J 76:2259-60 Ap 20 '54

NITROSYL chloride

Tracer studies in liquid nitrosyl chloride. J Lewis and R. G. Wilkins. bibliog Chem & Ind p634-5 My 29 '54

NITROSYL compounds

Decomposition of nitrosyl disulfonate ion; reaction with nitrous acid and its relation to the mechanism in acid solution. J. C. M. Li and D. M. Ritter. bibliog Am Chem Soc J 75:5823-7 D 5 '53

Decomposition of nitrosyl disulfonate ion; the reaction of sulfamate ion with nitrous acid. J. C. M. Li and D. M. Ritter. bibliog Am Chem Soc J 75:5828-30 D 5 '53

Decomposition of nitrosyl disulfonate ion; the reaction with sulfite ion. J. C. M. Li and D. M. Ritter. bibliog Am Chem Soc J 75: 5831-3 D 5 '53

NITROTOLUENE

Continuous production of nitrotoluenes. F. Meissner, G. Wannschaff and D. F. Othmer. bibliog il diags Ind & Eng Chem 46:718-24 Ap '54

NITROUREA

Nitramines and nitramides; the irreversible decomposition of nitroguanidine and of nitrourea by sulphuric acid. C. Holstead and A. H. Lamberton. Chem Soc J p2391-5 Jl '54

Nitrourea in organic synthesis. Chem Age (Lond) 69:559 S 12 '53

NITROUS acid

Decomposition of nitrosyl disulfonate ion; reaction with nitrous acid and its relation to the mechanism in acid solution. J. C. M. Li and D. M. Ritter. bibliog Am Chem Soc J 75:5823-7 D 5 '53

Decomposition of nitrosyl disulfonate ion; the reaction of sulfamate ion with nitrous acid. J. C. M. Li and D. M. Ritter. bibliog Am Chem Soc J 75:5828-30 D 5 '53

Homolytic nitration of quinoline with pernitrous acid. J. R. Laville and W. A. Waters. Chem Soc J p400-3 Ja '54

Kinetics of oxidation by nitrous acid and nitric acid; oxidation of formic acid by nitrous acid. J. V. L. Longstaff and K. Singer. diag Chem Soc J p2604-10 Jl '54

Kinetics of oxidation by nitrous acid and nitric acid; oxidation of formic acid in aqueous nitric acid. J. V. L. Longstaff and K. Singer. diag Chem Soc J p2610-17 Jl '54

Nitration and hydroxylation of phenetole, phenyl *n*-propyl ether, and acetophenone by pernitrous acid. R. B. Heslop and P. L. Robinson. Chem Soc J p 1271-3 Ap '54

Reaction of nitrous acid with γ-glutamyl peptides. H. Sachs and E. Brand. bibliog Am Chem Soc J 76:3601-3 Jl 5 '54

Rearrangement of 2-aminobicyclo[2.2.2.]octene-5 with nitrous acid. W. C. Wildman and D. R. Saunders. Am Chem Soc J 76:946-7 F 5 '54

Second order elimination of nitrous acid from secondary nitramines. W. H. Jones. bibliog Science 118:387-8 O 2 '53

NITROUS oxide. See Nitrogen oxides

NITRYL fluoride

Preparation and some reactions of nitryl fluoride. E. E. Aynsley, G. Hetherington and P. L. Robinson. Chem Soc J p 1119-24 Mr '54

NIXON, Karl B. 1905-

Pioneering in blends. R. E. Ellsworth. pors Mod Textiles Mag 35:35+ Ag '54

NOBEL prizes

American and British biochemists share Nobel prize. Chem & Eng N 31:4608 N 2 '53

Nobel ceremony honors chemists. Chem & Eng N 32:162-3 Ja 11 '54

Nobel prizes to German, Hollander. il Chem & Eng N 31:4760-1 N 16 '53

NOBLE gases. See Gases, Rare

NODULAR iron. See Cast iron

NODULIZING

Nodulizing iron ores and concentrates at Extaca. R. L. Bennett and others. flow sheet il Min Eng 6:32-8 Ja '54

NOEL, Frank

He is a very strong-willed man, that Noel. J. L. Collings. por Ed & Pub 86:48 My 2 '53

NOISE

Analog computing applied to noise studies. R. R. Bennett. bibliog diags Inst Radio Eng Proc 41:1509-13 O '53

Combating the effects of noise. W. F. Scholtz. il Foundry 82:112-13+ Ap '54; Abstract. Management R 43:522-3 Ag '54

Controlling noise and vibration. Nat Safety N 69:67-8 Mr '54

Cut down noise in paper mills. W. Schweisheimer. Pulp & Pa of Can 55:168, 172 Mr '54; Same cond. Paper Ind 36:64 Ap '54

Deafness and industrial din. Bsns W p97 D 19 '53

Design noise out of air ducts. H. B. Wayne. diags Power Eng 58:98+ Jl '54

Detection of a sine wave in Gaussian noise. E. Reich and P. Swerling. diag J Ap Phys 24:289-96 Mr '53

Does your plant make too much noise. G. L. Bonvallet. Power Eng 58:62-4 F '54

Don't pay off to industrial rackets! R. H. Wilcox. il diags Mill & Factory 54:108-11 Ap '54

Electrical noise suppression. M. B. Ewalt. il diags Machine Design 26:161-6 S '54

Errors in power spectra due to finite sample. L. M. Spetner. J Ap Phys 25:653-9 My '54

Five ways to reduce noise. E. G. Meiter. Safety Maint & Prod 107:53 Mr '54

How much noise does your plant make? H. C. Hardy. il Power Eng 58:62-4 Ap '54

How to avoid undue noise in air ducts? W. J. Burns. Power Eng 58:100 Ag '54

How to lessen the noise from the utility room. Am Bld 75:218-19 N '53

How to reduce power plant noise. W. F. Friend. il Power Eng 58:88-90 Je; 82-3+ Ag '54

Industrial noise. N. S. Symons and others. il diag Factory Management 111:113-36 D '53

Industrial noise and hearing conservation programs. M. S. Fox. bibliog Ind Med 22:161-4 Ap '53

Industrial noise as compensation problem. H. D. Sayer. East Underw 54:29+ D 4 '53

It's time to give noise a hearing. H. Chandler. il Steel 134:94-6 Mr 1 '54

Low-down on noise. E. P. MacKenzie. Nat Safety N 70:22-3+ Ag '54

Memphis cites efforts to muffle noise. Nat Safety N 70:52-3 Ag '54

Noise and audiometric histories resulting from cotton textile operations. J. R. Cox, jr. and others. A M A Archives Ind Hygiene & Occup Med 8:36-47 Jl '53

Noise and health. Safety Maint & Prod 106:48-9 N '53

Noise and hearing damage producing compensation claims. J. V. Grimaldi. Weekly Underw 171:14 Jl 3 '54; Same. East Underw 55:30 Jl 30 '54; Same. Iron Age 174:130 Jl 15 '54; Same cond. Safety Maint & Prod 108:41-2 S '54

Noise; day of reckoning dawning; guinea pig industrial deafness case victory for labor. T. Metaxas. Iron Age 172:67 O 22 '53

Noise evaluation and control. V. H. Pomper. bibliog il Safety Maint & Prod 107:60-70 Ap '54

Noise measurement and analysis. V. H. Pomper. bibliog il Safety Maint & Prod 107:54-6+ Mr '54

Noise; what it is, how to measure and control it. E. G. Meiter. il Safety Maint & Prod 107:34-6 F '54

Personal protection; abstract. H. E. Von Gierke. Nat Safety N 69:154+ Je '54

Physical basis of hearing damage and a tentative damage risk criterion for steady-state noise. H. C. Hardy. A M A Archives Ind Hygiene & Occup Med 8:250-61 S '53; Abstract. Nat Safety N 69:37+ Ja '54

Pitched for the inner ear; noise poses problem to chemical process industries. Chem W 74:38-40 F 27 '54

Problem of noise in industry. C. R. Walmer. Ind Med 22:202-6 My '53

Quantum theory of a damped electrical oscillator and noise; the radiation resistance. J. Weber. diags Phys R 94:211-15 Ap 15 '54

Reducing industrial noise. F. G. Tyzzer. Nat Safety N 69:78+ My '54

Reduction of photographic noise. C. A. Fowler, jr. and E. M. Fryer. il Opt Soc Am J 44:256 Mr '54

Research starts on industrial noise. Standardization 24:109-10 Ap '53; Excerpt. Weekly Underw 169:261 Ag 1 '53

Setting standard for noise. Bsns W p82 O 31 '53

Statistical criteria for the detection of pulsed carriers in noise. D. Middleton. bibliog J Ap Phys 24:371-91 Ap '53; Discussion. 25:128-30 Ja '54

Theory of noise in continuous media. C. Eckart. Acoustical Soc Am J 25:195-9 Mr '53

Vacuum fluctuation noise. J. Weber. diag Phys R 94:215-17 Ap 15 '54

NOISE—*Continued*

Wide-band amplitude distribution analysis of voltage sources. L. W. Orr. diags R Sci Instr 25:894-8 S '54

See also

Air conditioning equipment—Noise
Airplane engines—Noise
Airplanes—Noise
Automobiles—Noise
Diesel engines—Noise
Electric fans, Ventilating—Noise
Electric machinery—Noise
Gas turbines, Aircraft—Noise
Machinery—Noise
Paper making machinery—Noise
Phonograph—Noise reduction
Radar receiving apparatus—Noise
Radio communication—Interference
Radio communication—Interference elimination
Radio receiving apparatus—Noise
Refrigeration and refrigerating machinery—Noise
Silencers
Sound absorbent materials
Telephone—Noise
Television receiving apparatus—Noise
Transistors—Noise
Vacuum tubes—Noise

NOMA lites, inc.

Working all year just for one day; Noma Lites, maker of Christmas lighting. il Bsns W p41-4+ D 19 '53

NOMOGRAPHS

Audio nomographs; reference sheet. J. F. Sodaro. diags Electronics 26:200, 202 D '53
Chart saves time in determining size of power shaft. Pet Eng 26:C24 Ja '54
Exponential horn design; nomographs and instructions. J. F. Sodaro. diags Radio & Tv N 50:71-3 N '53
General system describing the visco-elastic properties of bitumens and its relation to routine test data. C. van der Poel. bibliog J Ap Chem 4:221-36 My '54
Graph aid in specifying insulation. Pet Processing 9:99-100 Ja '54; Same abr. Gas Age 114:30-1 Jl 1 '54; Same abr. Heat & Ven 51:81-2 Ag '54
Here is a nomograph to solve your humidity problems easily. S. Stern. bibliog Chem Eng 61:188-9 F '54
LCFX nomograph for all parameters of tuned circuits. H. M. Schlicke. Commun Eng 13:34 N '53
Magnetic drum design; reference sheet. D. G. O'Connor. Electronics 26:196 N '53
Microphone sensitivity conversion; reference sheet. L. Rosenman. Electronics 26:194 N '53
Minimum economical lot sizes; reference book sheet. T. Hicks. Am Mach 98:171 F 15 '54
Moisture content chart speeds humidity calculations. J. T. Hogan. Chem Eng 61:216+ My '54
Nomogram for the evaluation of blackbody radiancy and of peak and total intensities for spectral lines with Doppler contour. R. W. Kavanagh and others. Opt Soc Am J 43:380-2 My '53
Nomogram for the evaluation of blackbody radiancy and of peak and total intensities for spectral lines with Lorentz contour. R. W. Kavanagh and S. S. Penner. Opt Soc Am J 43:383-4 My '53
Nomogram solves parabolic empirical equations. S. Kolupaila. Civil Eng 24:247-8 Ap '54
Nomograms used in analysis of data in the reaction $Li^6(n,\alpha)H^3$. M. L. Boas. R Sci Instr 24:356-9 My '53
Nomograph aids solution of worm-thread profiles. O. Saari. diags Am Mach 98:113-16 Jl 5 '54
Nomograph cuts time for making cooling tower calculations. G. E. Mapstone. Chem Eng 60:212 O '53
Nomograph finds corrosion rate. H. R. Frisbie. Chem Eng 61:256 Je '54
Nomograph for easy batch cooling calculations. M. F. Seco. Chem Eng 60:172-3 D '53
Nomograph gives accurate estimates of enthalpies of sulfur compounds. D. S. Davis. Chem Eng 61:224+ Ap '54
Nomograph gives enthalpies of paraffin hydrocarbon gases. D. S. Davis. Chem Eng 60:201 Ag '53
Nomograph gives water content of sulfur plant gas stream. S. Schwartz. Chem Eng 60:185-6 Jl '53
Nomograph gives water rate of heat exchangers. B. Smith. Chem Eng 61:230+ F '54
Nomograph is as accurate as spinning tests; abstract. W. Buesser. Textile World 104:96 My '54
Nomograph simplifies sizing of jacketed vessels. F. Brown and K. G. Burridge. Chem Eng 61:218-20 Mr '54
Nomograph solves equation for binary mixtures. J. M. Colton. Chem Eng 61:216 My '54
Nomograph speeds calculation of moisture content of samples. M. Auro. Chem Eng 61:226 Ja '54
Nomograph speeds up orifice meter computations for gas flow. C. J. Carmichael, jr. Chem Eng 61:256 Je '54
Nomographs for rapid design of bearing plates. I. Yu. Civil Eng 24:172-3 Mr '54
Oil-well evaluation nomograph. H. K. Grant. Oil & Gas J 52:209-14 O 5 '53 (reprints 25c)
Package cushioning nomogram. J. S. Hardigg. bibliog diag Mod Packaging 27:124-30+ Ag '54
Rapid graphic solution of air friction loss; nomograph. H. L. Hartman. Eng & Min J 155:100 Jl '54
Relations between phase composition and partition coefficients for some neutral steroids. L. L. Engel and others. bibliog Anal Chem 26:639-41 Ap '54
Selection of main line meters simplified by use of charts; head losses in Venturi and orifice meters. J. C. Thoresen. diags Water & Sewage Works 101:150-7 Ap '54
Short cut to correlation index. K. A. Harper. Oil & Gas J 52:249 D 21 '53
Six-tenths factor nomograph shows costs at different capacities. A. B. Babcock, jr. Chem Eng 61:244 Jl '54
Slotting-cutter runout; chart; reference book sheet. D. E. Sweet. diag Am Mach 98:151 S 27 '54
Useful charts; air for plant heating, oil to heat plant water. Mill & Factory 54:473 My '54
Vapor pressures of phthalate esters given by nomograph. D. S. Davis. Chem Eng 61:228 Ja '54
Work sampling without formulas; alignment charts. J. M. Allderige. Factory Management 112:136-8 Mr '54

NONADECANE

Synthesis of 4,5-diamino-*n*-eicosane and of 2-methyl-3,4-diamino-*n*-nonadecane. M. Ikawa and C. Niemann. Am Chem Soc J 75:6314-15 D 20 '53

NONANE

Phase equilibria in hydrocarbon systems. L. T. Carmichael, B. H. Sage and W. N. Lacey. bibliog Ind & Eng Chem 45:2697-9 D '53
Spiro[3.5]nonane. E. R. Buchman, D. H. Deutsch and G. I. Fujimoto. bibliog Am Chem Soc J 75:6228-30 D 20 '53

NONCANCELLABLE policies. See Insurance, Accident—Noncancellable policies

NON-FERROUS founders' society

Annual membership and business meeting, 11th, Cleveland, May 9. Foundry 82:190+ Je '54

NON-FERROUS metals. See Metals, Non-ferrous

NON-FORFEITURE benefits. See Insurance, Life—Policies—Non-forfeiture benefits

NONWOVEN fabrics. See Textile fabrics—Bonded web

NOODLES

Four-faced noodles; cellophane bags printed on all sides; Golden grain macaroni co. il Mod Packaging 27:128 Ja '54

NOOTKATIN

Chemistry of the natural order cupressales; nootkatin. S. R. Duff and H. Erdtman. Chem & Ind p432-3 Ap 10 '54

NOPOL

Esters of nopol; their soap perfuming possibilities. B. T. Bush. Soap & San Chem 29:71 Jl '53

NORADRENALINE. See Arterenol

NORANDROSTENEDIONE

Facile synthesis of 19-nortestosterone and 19-norandrostenedione from estrone. A. L. Wilds and N. A. Nelson. bibliog Am Chem Soc J 75:5366-9 N 5 '53

NORBORNYLENE

Isomerism in the Diels-Alder reaction: the bromination of the Diels-Alder adduct, norbornylene. H. Kwart and L. Kaplan. bibliog flow sheet Am Chem Soc J 76:4072-7 Ag 20 '54

NORCOPROSTANEONE

3α-Chloro-B-norcoprostane-6-one. M. Gut. bibliog Am Chem Soc J 76:2261 Ap 20 '54

NORFOLK, Virginia

Streets

Our experience with soil-cement for subdivision streets. J. Bratten. il Roads & Sts 97:60-1 Je '54

NORFOLK southern railway

I.C.C. raps practices of former officers. Ry Age 136:9 Mr 1 '54

NORTESTOSTERONE

Facile synthesis of 19-nortestosterone and 19-norandrostenedione from estrone. A. L. Wilds and N. A. Nelson. bibliog Am Chem Soc J 75:5366-9 N 5 '53

NORTH AFRICA. See Africa, North

NORTH AMERICAN airlines

Fight for title. Aviation W 59:64 N 30 '53

NORTH AMERICAN aviation, inc.

It has an unchallenged lead in jet fighters. P. J. Fitzgerald and W. Richeson. Barron's 34:19+ Ja 11 '54

NORTH AMERICAN car corporation

New financing program. Comm & Fin Chr 179:107 Ja 11 '54

NORTH AMERICAN cement company

Security I like best. H. E. Greene. Comm & Fin Chr 178:1322+ O 8 '53

NORTH Atlantic treaty organization

Atlantic strategists; Standing group. Economist 170:17 Ja 2 '54

Italian or Nato divisions? Economist 169:324 O 31 '53

New look for Nato. Economist 169:865-6 D 19 '53

NATO defense college. M. R. G. Wingfield. U S Naval Inst Proc 79:491-3 My '53

Nato prepares for the annual review. Economist 169:754-5 D 5 '53

Standardization of NATO military equipment. Bsns W p47 D 26 '53

Strasbourg for Nato? Economist 168:688 S 12 '53

NORTH CAROLINA

See also

Mines and mineral resources—North Carolina

Newspapers—North Carolina

Industries and resources

North Carolina story. il maps Manuf Rec 123:55-100 Ja '54

NORTH CAROLINA state college

Contract completed for first university-owned reactor. Elec Eng 72:1041 N '53

North Carolina State research takes a look at the atom. il Bsns W p 108-10+ O 10 '53

NORTH CAROLINA university

Sewage treatment; town and gown partnership; Chapel Hill and the University of North Carolina. J. L. Morrison. il Pub Works 84:65-6 D '53

Women's college

New physical education building. il plan Arch Rec 113:144-7 Je '53

NORTH DAKOTA

See also

Petroleum—North Dakota

Petroleum industry and trade—North Dakota

NORTH sea

Defenceless sea defences; North Sea flooding conference, London, Dec. 16-17. Engineering 177:38-9 Ja 8 '54

NORTH western railway. See Chicago and north western railway

NORTH YORK, Ontario

Sewerage

Operation of small sewage treatment plants. D. P. Scott. Munic Util 91:21-2+ D '53

NORTHEASTERN life insurance company of New York

Northeastern Life, new New York company no agency forces. East Underw 54:1+ S 25 '53; Abstract. Weekly Underw 169:759+ S 26 '53

NORTHERN Illinois corporation

Preferred stock offered. Comm & Fin Chr 178:1276 O 5 '53

NORTHERN natural gas company

Debentures offered. Comm & Fin Chr 178:1879 N 16 '53

Preferred stock offered. Comm & Fin Chr 178:1162 S 28 '53

NORTHERN states power company

Five public utility candidates for higher dividends; with comparative balance sheet items. Mag of Wall St 93:381 D 26 '53

Northern States Power; continuing growth. P. Sutor. Barron's 33:13-14 Ag 10 '53

NORTHLAND oils, ltd. (Canada)

Securities offered. Comm & Fin Chr 178:951 S 14 '53

NORTHROP aircraft, inc.

Northrop net rises while sales drop. Aviation W 59:53 N 23 '53

NORTHWEST

See also

Electricity supply—Northwestern states

Electrochemical industries—Northwestern states

Industries and resources

Northwest grows up, up, up. Steel 134:77 Je 21 '54

Resources of the Pacific Northwest. F. Merryfield. map Am Water Works Assn J 46:713-17 Ag '54

NORTHWEST Orient airlines

New chief builds up fleet, services. L. Moore. il Aviation W 59:108+ D 14 '53

NORTHWEST TERRITORIES, Canada

See also

Geology—Northwest Territories, Canada

Mines and mineral resources—Northwest Territories, Canada

Nickel mines and mining—Northwest Territories, Canada

Physical geography—Northwest Territories, Canada

Water supply—Northwest Territories, Canada

NORTHWESTERN mutual life insurance company

Company plans. E. Fitzgerald. East Underw 54:3+ Jl 24 '53

NORTHWESTERN university

Evanston congregation Hillel. il plans diags Arch Rec 113:140-2 Je '53

NORTRICYCLENE. See Tricycloheptane

NORWAY

See also

Prices—Regulation—Norway

Steel industry and trade—Norway

Economic conditions

Economic conditions abroad (cont). For Comm W 50:5 Ag 3; 7+ S 21; 4+ N 30 '53

Politics and government

Norway at the polls. Economist 169:37 O 3 '53

NOTCHED bar testing

Brittle fracture; the notched slow-bend test as a criterion; abstract. J. E. de Graaf and J. H. van der Veen. Metal Prog 66:supA 139-40 Jl 15 '54

Effect of residual stress on the fatigue strength of notched specimens. D. Rosenthal and G. Sines. bibliog il diags Am Soc T M Proc 51:593-608; Discussion. 608-10 '51

Evaluation of notch-bend specimens. P. P. Puzak and W. S. Pellini. bibliog diags Welding J 33:sup 187-92 Ap '54

Fatigue strength of large, notched steel bars surface-hardened by gas heating and by induction heating. S. L. Case and others. bibliog il diags Am Soc for Metals Trans 44:667-83; Discussion. 683-8 '52

Low-temperature bend test properties of bead-on-plate welds. L. A. Harris and others. bibliog il diags Welding J 32:sup 585-99 D '53

NOTCHED bar testing—*Continued*
Notch ductility of nodular irons. G. A. Sandoz and others. il diags Foundry 82:114-19+ S '54; Same cond. Iron Age 174:100-3 Jl 8 '54
Notch toughness of four alloy steels at low temperatures. W. B. Seens and others. bibliog il Am Soc T M Proc 51:918-28; Discussion. 929-30 '51
Notch-toughness of fully hardened and tempered low-alloy steels. R. L. Rickett and J. M. Hodge. bibliog Am Soc T M Proc 51:931-44 '51
Notched-bar impact tests and behaviour under multi-axial stress. H. Bennek and others. Engineer 196:592-3 N 6 '53
Welding for low-temperature service. R. W. Bennett. il diags Welding J 32:1089-97 N '53

NOTRE DAME university

Nieuwland science hall

Nieuwland science hall dedicated. il Chem & Eng N 31:4696-7 N 9 '53

NOTTINGHAM, England
Nottingham. il Chem & Ind p693-5 Jl 18 '53

Industries

Boots pure drug co. and other industries. il Chem & Ind p707-30 Jl 18 '53

NOTTINGHAM university
Nottingham university halls. il Chem & Ind p480-1 My 16 '53
University of Nottingham. il Chem & Ind p696-8 Jl 18 '53

NOTTINGHAMSHIRE county, England
Kingdoms of oil. J. Cummings. il World Oil 137:230-1 Ag 1 '53

NOVA SCOTIA
See also
Mines and mineral resources—Nova Scotia
Roads—Nova Scotia

NOVOLAK resins. See Phenol condensation products

NOWICKI, Matthew, 1910-1950
Life, teaching and architecture. L. Mumford. por Arch Rec 115:139-49 Je; 116:128-35 Jl; 169-75 Ag '54

NOZZLES
Atomization by centrifugal pressure nozzles. R. W. Tate and W. R. Marshall, jr. bibliog(62 ref) flow diag il diags Chem Eng Prog 49:169-74, 226-34 Ap-My '53
Drop-size distributions from spray nozzles. G. M. Turner and R. W. Moulton. bibliog diags Chem Eng Prog 49:185-90 Ap '53
Insecticide spray deposits. A. H. Yeomans and E. R. Van Leeuwen. Soap & San Chem 30:141-3 Ap '54
Interferometric study of the boundary layer on a turbine nozzle blade. C. R. Faulders. bibliog il diags A S M E Trans 76:61-6; Discussion. 67 Ja '54
Liquid-film properties for centrifugal spray nozzles. M. Doumas and R. Laster. il diags Chem Eng Prog 49:518-26 O '53
Nozzle replacement from outside is safe and efficient method. W. G. McDonough. il diag J Metals 6:443-6 Ap '54
Optimum exit-nozzle performance for jet engines. R. G. Laucher and J. S. Winter. il diags Aeronautical Eng R 12:41-5 S '53

Testing

Small nozzles and low values of diameter ratio. H. S. Bean and others. bibliog diags A S M E Trans 76:863-70; Discussion. 870-1 Ag '54

NUCLEAR emulsions. See Photographic emulsions

NUCLEAR engineering congress, International. See International nuclear engineering congress

NUCLEAR induction. See Magnetic moment

NUCLEAR magnetism. See Magnetic moment

NUCLEAR physics
Application of nuclear physics to analytical chemistry. R. H. Müller. Anal Chem 26:sup 43A Ap '54
Conference on medium energy nuclear physics, 2d, Pittsburgh, June 4-6. Science 118:38-9 Jl 10 '53
Indiana conference on nuclear spectroscopy and the shell model. E. J. Konopinski. Science 118:285-8 S 11 '53
Looking into the nucleus. F. Bitter. Opt Soc Am J 43:233-6 Ap '53
Nuclear chemistry at Harvard. G. Wilkinson and others. J Chem Educ 31:474-5 S '54
Research in nuclear magnetism. E. M. Purcell. bibliog il diags Science 118:431-6 O 16 '53
Soviet nuclear physics split by Lysenko-like controversy. Chem & Eng N 32:1672 Ap 26 '54

NUCLEAR power plants. See Atomic power plants

NUCLEAR reactions
Angular correlation of three nuclear radiations. G. R. Satchler. bibliog Phys R 94:1304-6 Je 1 '54; Correction. 96:1713 D 15 '54
Angular distribution of fragments from neutron-induced fission. J. E. Brolley, jr. and W. C. Dickinson. bibliog diag Phys R 94:640-2 My 1 '54
Angular distributions from (n,p) nuclear reactions. N. Austern and others. bibliog Phys R 92:350-4 O 15 '53
Application of nuclear physics to analytical chemistry. R. H. Müller. Anal Chem 26:sup43A Ap '54
Approximate wave-mechanical description of deuteron stripping. F. L. Friedman and W. Tobocman. bibliog Phys R 92:93-100 O 1 '53
Average charge of recoil atoms from several nuclear transitions. S. Wexler. bibliog diags Phys R 93:182-7 Ja 1 '54
β-decay energy systematics. K. Way and M. Wood. bibliog Phys R 94:119-28 Ap 1 '54
Charge independence in (γ,n) and (γ,t) reactions. D. C. Peaslee and V. L. Telegdi. Phys R 92:126-7 O 1 '53
Charged particles of mass intermediate between proton and deuteron. D. T. King and others. bibliog Phys R 92:838-9 N 1 '53
Cloud-chamber investigation of nuclear interactions of cosmic rays. N. R. Whetten and others. bibliog il diag Phys R 93:1356-60 Mr 15 '54
Comparison of nuclear and gamma-ray energy scales. K. W. Jones and others. bibliog Phys R 94:947-52 My 15 '54
Cosmic-ray nuclear interactions in gases. W. W. Brown. il diag Phys R 93:528-34 F 1 '54
Coulomb excitation by means of bombardment with various particles. J. H. Bjerregaard and T. Huus. bibliog Phys R 94:204-5 Ap 1 '54
Electrodisintegration of Cu^{63}, Zn^{64}, Ag^{109}, and Ta^{181}. K. L. Brown and R. Wilson. bibliog diag Phys R 93:443-52 F 1 '54
Emission of δ- and X-rays from targets bombarded by accelerated ions. C. Zupančič and T. Huus. bibliog Phys R 94:205-6 Ap 1 '54
Emulsion studies of cosmic-ray stars produced in metal foils. I. G. Barbour. bibliog diags Phys R 93:535-43 F 1 '54
Energy spectrum of spontaneous fission fragments. E. Segrè and C. Weigand. Phys R 94:157-8 Ap 1 '54
Experimental search for a stable dineutron. B. L. Cohen and T. H. Handley. bibliog Phys R 92:101-2 O 1 '53
Experimental studies of (p,t) reactions. B. L. Cohen and T. H. Handley. bibliog Phys R 93:514-17 F 1 '54
Fine structure in the neutron yield curves from (γ, n) reactions in Li^7, C^{12}, O^{16}, and F^{19}. J. Goldemberg and L. Katz. diag Phys R 95:471-5 Jl 15 '54
First-forbidden matrix elements in β decay. R. W. King and D. C. Peaslee. bibliog diags Phys R 94:1284-92 Je 1 '54
Gamma radiation from certain nuclear reactions. R. M. Sinclair. bibliog Phys R 93:1082-6 Mr 1 '54
High-energy (γ,d) reactions. J. W. DeWire and others. Phys R 92:519-20 O 15 '53
Influence of extranuclear fields on angular correlations. F. Coester. bibliog Phys R 93:1304-8 Mr 15 '54
Intermediate coupling and nuclear reactions. A. M. Lane. bibliog Phys R 92:839 N 1 '53

NUCLEAR reactions—*Continued*

Invariant forms of the nucleon-nucleon interaction. D. Feldman. bibliog Phys R 92:824-6 N 1 '53

Kinematics of Λ° production. G. T. Reynolds and S. B. Treiman. Phys R 94:207-8 Ap 1 '54

Low-lying many-particle levels in odd mass nuclides with 21, 23, 25, or 27 protons or neutrons. R. H. Nussbaum and others. bibliog Phys R 92:207-8 O 1 '53

Mass differences for isobars capable of double-beta decay. J. T. McCarthy. Phys R 95:447-8 Jl 15 '54

Measurement of angular distributions of nuclear reaction products with an internal cyclotron beam. B. L. Cohen and R. V. Neidigh. bibliog il R Sci Instr 25:255-61 Mr '54

Mechanism of stripping reactions. J. Horowitz and A. M. L. Messiah. Phys R 92:1326-7 D 1 '53

Mu meson as nuclear probe particle. J. A. Wheeler. Phys R 92:812-16 N 1 '53

Mu-mesonic atoms and the electromagnetic radius of the nucleus. L. N. Cooper and E. M. Henley. bibliog Phys R 92:801-11 N 1 '53

Nuclear cross sections at low energies. J. L. Johnson and H. M. Jones. bibliog Phys R 93:1286-91 Mr 15 '54

Nuclear events at high energies. J. V. Lepore and R. N. Stuart. Phys R 94:1724-7 Je 15 '54

Nuclear matrix elements in beta decay. M. E. Rose and R. K. Osborn. Phys R 93:1326-36 Mr 15 '54

Nuclear reactions between heavy nuclei. W. H. Bennett. bibliog R Sci Instr 24:915-16 O '53

Pions from production of baryons by protons. F. J. Belinfante. bibliog Phys R 92:145-52 O 1 '53

Polarization from isolated resonances. A. Simon and T. A. Welton. Phys R 94:943-4 My 15 '54

Possible $0\rightarrow0$ (no) β transitions in $4n+2$ nuclei. O. Kofoed-Hansen. bibliog Phys R 92:1075-6 N 15 '53

(p,pn) and $(p,\alpha n)$ excitation functions. B. L. Cohen and others. bibliog Phys R 94:620-5 My 1 '54

Precision determination of photoneutron thresholds. M. Birnbaum. bibliog diag Phys R 93:146-54 Ja 1 '54

Punch for power; unique process may increase usable power from carbonaceous fuels. Chem W 74:19-20 Je 26 '54

Relative photofission yields of several fissionable materials. J. R. Huizenga and others. Phys R 95:1009-11 Ag 15 '54

Sequence of γ emission in triple correlations. E. J. Hellund and J. M. Jauch. bibliog Phys R 92:203 O 1 '53

Some studies of the products of the high-energy fission process. M. Lindner and R. N. Osborne. bibliog Phys R 94:1323-8 Je 1 '54

Spontaneous fission systematics. J. R. Huizenga. bibliog Phys R 94:158-60 Ap 1 '54

Statistical theory of nuclear reactions. B. L. Cohen. bibliog Phys R 92:1245-8 D 1 '53

Synthetic elements produced by nuclear reactors; abstract. R. Hurst. Chem & Ind p 1012-13 S 26 '53

Systematics of photoneutron reactions. R. Nathans and J. Halpern. bibliog Phys R 92:207 O 1 '53

Theorem concerning angular correlations. J. Weneser and D. R. Hamilton. Phys R 92:321-2 O 15 '53

Theory of angular correlation of nuclear radiations. L. C. Biedenharn and M. E. Rose. bibliog(81 ref) Rs Mod Phys 25:729-77 Jl '53

Theory of polarized particles and gamma rays in nuclear reactions. A. Simon. bibliog Phys R 92:1050-60 N 15 '53

Total cross sections for 410-Mev neutrons. V. A. Nedzel. bibliog diags Phys R 94:174-83 Ap 1 '54

Tritium monitor. T. O. Jeffries and M. E. Owen. diag J Sci Instr 30:387-8 O '53

See also

Boron—Nuclear reactions
Krypton—Nuclear reactions
Neutrons—Capture
Nitrogen—Nuclear reactions
Phosphorus—Nuclear reactions
Samarium—Nuclear reactions
Tantalum—Nuclear reactions
Vanadium—Nuclear reactions

NUCLEAR reactors

Aluminum comes of age in a nuclear world. N. F. Ritchey. il diag Iron Age 172:94-7 Jl 30 '53

Are Hanford piles unsafe? Chem & Eng N 31:5120 D 7 '53

AEC announces success of its breeder reactor. il Civil Eng 23:549 Ag '53

Atomic energy commission 14th semiannual report, first six months of 1953. Mech Eng 75:809-11 O '53

A.E.C. program for power development. Metal Prog 66:97+ Jl 1 '54

AEC releases private industry's data on nuclear power reactors. il diag Chem & Eng N 31:2294-6 Je 1 '53

AEC reveals details of critical assembly devices for determining critical masses. il Chem & Eng N 31:2880 Jl 13 '53

AEC reveals new reactor program. Chem & Eng N 32:1022 Mr 15 '54

Atomic energy developments; zero energy fast reactor. Engineering 177:265 F 26 '54

Atomic energy in 1953. diags Engineer 197:5-7 Ja 1 '54

Atomic power latch string is out. A. G. Gray. il Steel 133:98-100 N 30 '53

Atomic reactors for use in training and research. diags Heat & Ven 51:128+ Ag '54

Call nuclear reactor stride into unknown. Iron & Steel Eng 31:256-7 S '54

Canadian nuclear reactor. R. C. Golding. il diags Elec R (Lond) 154:445-7 Mr 12 '54

Ceramics for atom use. il Steel 133:146+ Jl 20 '53; Mech Eng 75:656 Ag '53; Tool Eng 31:78 Ag '53

Ceramics for nuclear power applications. L. R. McCreight. bibliog il diags Ind & Eng Chem 46:185-8 Ja '54

Chalk River power reactors. Can Min J 75:56 Mr '54

Chemical engineering aspects of nuclear power. M. Benedict. bibliog flow sheets il Ind & Eng Chem 45:2372-80 N '53

Chemical problems associated with nuclear reactors. J. M. Fletcher. diags Chem & Ind p790-3 Jl 25 '53

Chemical problems associated with the development of nuclear reactors. W. F. Kieffer. bibliog il J Chem Educ 31:488-95 S '54

Coming; mail order reactors. il Chem W 75:79 Jl 10 '54

Concept of stability for nuclear reactors. L. B. Robinson. bibliog J Ap Phys 25:516-18 Ap '54

Contract completed for first university-owned reactor. Elec Eng 72:101 N '53

Design of nuclear power plants. J. A. Lane and S. McLain. il diags Chem Eng Prog 49:287-93 Je '53

Development of nuclear power for peaceful purposes. H. D. Smyth. Civil Eng 24:224-8 Ap '54; Same abr. Gas Age 113:28-9+ Ap 8 '54; Same cond. Chem Eng Prog 50:sup35-6+ My '54

Effect of turbulence on heat transfer in a pile with a liquid reactant. E. N. Parker. diag J Ap Phys 24:451-2 Ap '53

Emphasis on materials; new ceramic coating developed by National bureau of standards. Chem W 75:72 Ag 28 '54

First atomic fast reactor. Elec R (Lond) 154:326 F 19 '54

First breeder pile; Zephyr goes into operation. Chem Age (Lond) 70:415 F 13 '54

Fluid atomic fuels on rise; abstract. C. E. Larson. Chem & Eng N 32:2370 Je 14 '54

Government to build nuclear-power reactor for peacetime use. T. E. Murray. Chem Eng Prog 49:sup40 N '53

Heat from atomic reactors to heat buildings at Hanford. flow diag Heating-Piping 25:97 D '53

Heating with atomic energy; Hanford atomic products operation. R. T. Jaske. flow diag il diags Heating-Piping 26:77-80 F '54

NUCLEAR reactors—*Continued*

Helium-cooled and graphite-moderated reactor. plans Elec World 139:68-9 Je 1 '53
How nuclear radiation affects engineering materials. D. O. Leeser. bibliog flow sheet il diags Materials & Methods 40:109-20 Ag '54 (reprints 25c)
How radiation affects structural materials. C. R. Sutton and D. O. Leeser. diags Iron Age 174:128-31 Ag 19; 97-100 Ag 26 '54
Industrial atom; General Electric offers to build dual-purpose reactor. Bsns W p32 O 24 '53
Industry access to hottest reactor; materials testing reactor of AEC. il Chem & Eng N 32:2106-7 My 24 '54
Industry teams report on A-power. plans diags Chem Eng 60:188-92 Jl; 188-92 Ag '53
International congress on nuclear engineering, Ann Arbor. Chem & Eng N 32:2772+ Jl 12 '54
International nuclear engineering congress, 1st, Ann Arbor, June 20-25; program. Chem Eng Prog 50:sup37-41+ My '54
Isotopes exchanged in the vapor phase; patent. diag Chem Eng 61:256+ S '54
Kinetics of the circulating-fuel nuclear reactor. W. K. Ergen. bibliog diags J Ap Phys 25:702-11 Je '54
Liquid-metal-cooled power reactor looks promising; studies made jointly by Pacific gas & electric co. and Bechtel corp. il plan diags Elec World 139:114-18 Je 15 '53
Materials problems in nuclear power reactors. H. H. Hausner. bibliog il Materials & Methods 40:84-6 Jl '54
Materials problems in reactor-core construction; abstract. H. A. Saller. Materials & Methods 39:172+ Mr '54
NRX reactor back in operation. Chem & Eng N 32:1778 My 3 '54
Neutron interactions with matter. E. R. Gaerttner. il diags Gen Elec R 57:38-41 Mr '54
New information on nuclear reactors. Can Chem Process 38:86-7 F '54
New metals for nuclear technology. W. A. Johnson. il Chem & Eng N 32:1882-7 My 10 '54
New part-time job for neutrons; materials testing reactor at Idaho Falls. il Chem W 74:70 Je 5 '54
New swimming pool for Oak Ridge. Chem & Eng N 32:3502 S 6 '54
North American aviation to build sodium nuclear reactor. diag Automotive Ind 111:51+ Ag 15 '54; Same cond. Chem & Eng N 32:2966 Jl 26 '54
Nuclear engineering materials; materials for nuclear reactors. S. McLain. Chem Eng Prog 50:240-4 My '54
Nuclear engineering reactors; homogeneous; homogeneous reactor experiment. S. E. Beall and C. E. Winters. flow diag il diags Chem Eng Prog 50:256-62 My '54
Nuclear newsmakers at Illinois, Massachusetts, and Harwell, England. il Chem W 74:34 Mr 6 '54
Nuclear power in the U.S.A. L. Walter. il Elec J 151:1755-6 N 27 '53
Nuclear reactor as a research instrument. D. J. Hughes. il diags Sci Am 189:23-9 Ag '53
Nuclear reactors and power production. C. Hinton. il plans diags Engineer 197:357-60, 374-7 Mr 5-12 '54; Abstracts. Engineering 177:313-15 Mr 5 '54; Elec R (Lond) 154:427-8 Mr 5 '54
Nuclear reactors for industry and research. W. Breazeale and others. il plan diags Instruments 26:1364-6, 1528-30+, 1702-4+, 1872-4+ S-D '53; [cont as] Instruments & Automation 27:119-21, 284-6, 467-9, 612-16 Ja-Ap '54
Nuclear reactors for navy, industry. Elec World News ed 141:6-7 Ja 18 '54
Offspring of the atom; nuclear instrument manufacturers. Chem W 74:58+ My 22 '54
On the market with reactors; Babcock & Wilcox two relatively low-cost research reactors. il Chem & Eng N 32:3002 Jl 26 '54
Percolating tea kettle; self-contained water boiler type built by North American aviation. il diag Chem & Eng N 32:234 Ja 18 '54; Chem W 74:52+ Ja 16 '54; Elec Eng 73:190-1 F '54; Mech Eng 76:267-8 Mr '54; Machine Design 26:206+ Ap '54
Piping, pumps and valves for high pressure water reactor systems. A. Amorosi. plan diag Heating-Piping 26:140-4 My '54
Plastics tool; hot box on rails; mobile reactor that could generate power, also serve as a source of ionization. D. Ballantine. diags Chem W 74:50-2 Je 19 '54
Power from atomic energy. C. H. Weaver. il plan diag Iron & Steel Eng 31:119+ Jl '54
Power; low cost reactors. diag Iron Age 174:124 Ag 5 '54
Private nuclear power development. A. O. Knight and others. il Elec World News ed 140:6-7 N 9 '53
Progress in jig-time; AEC's five-year program rolling. Chem W 74:50+ Ap 17 '54
Reactor cooled and moderated by heavy-water. diags Elec World 139:69-73 Je 1 '53
Reactor simulators. F. E. O'Meara. bibliog diags J Ap Phys 24:1200-2 S '53
Reactor temperature gage. Steel 134:107 Ap 12 '54; il Iron Age 173:170-1 My 6 '54
Reactor; uranium-bismuth liquid alloy may be used as power source; Atomic energy commission's Brookhaven national laboratory. diag Iron Age 174:118 Jl 8 '54
Reactors by mail-order; North American Aviation catalog. il Chem & Eng N 32:1568 Ap 19 '54
Research group using 100-w nuclear reactor. Elec World News ed 141:20 F 1 '54
Role of beryllium in the atomic energy program. R. E. Pahler. il diags Metal Prog 65:86-91 Ap '54
60,000-kw power reactor. T. E. Murray. Mech Eng 75:1004 D '53
Tables simplify comparison of nuclear power feasibility studies. J. W. Landis. Elec World News ed 140:24-5 N 9 '53
Take a look at your reactor assets; materials for potential atomic energy applications. M. C. Udy and others. il Steel 134:166-9 Mr 8 '54
Technical aspects of nuclear power. J. W. Landis. Mech Eng 76:143-5 F '54
Thermal test reactor at the Knolls atomic power laboratory. K. H. Kingdon. Mech Eng 75:575 Jl '53
Thermocouple for atomic reactors. il Materials & Methods 40:226 Jl '54
Tools in the atomic energy program; abstract. W. E. Shoupp. Chem & Eng N 32:1980 My 17 '54
Topsy and Godiva; new developments in methods of assembling critical amounts of radioactive materials by the Los Alamos scientific laboratory. il Mech Eng 75:651-3 Ag '53
Uranium tons→grams of plutonium; Windscale works. il diag Chem & Eng N 32:2288+ Je 7 '54
Waste heat from atomic reactors to be used in heating buildings at Richland, Wash. Elec Eng 73:101-2 Ja '54; flow diag Power Eng 58:88 Ap '54
Wear and corrosion of materials in high-temperature water; nuclear power plant for propulsion of a submarine. R. C. Westphal and J. Glatter. il Materials & Methods 40:100-1 Ag '54
Zirconium; practical commercial production spurred by use in atomic submarine. E. L. Lewis. il Light Metal Age 11:8-9 Je '53

See also

Atomic power plants
Oak Ridge school of reactor technology

Control

Control of a thermal neutron reactor. R. V. Moore. bibliog diags Inst E E Proc 100 pt 1:90-101 My '53; Discussion. Inst E E Proc 100 pt 1:116-20, 338-90 My, N '53
Electronic control of a nuclear reactor. J. E. Binns. il diags Electronics 26:130-1 N '53
Nuclear-reactor monitor. G. M. Muschamp. Mech Eng 75:727-8 S '53
Nuclear reactors for industry and research; reactor control. C. G. Goss. il diags Instruments & Automation 27:119-21 Ja '54

Cost

Nuclear reactors for industry and research; cost study. H. J. Gomberg. diag Instruments & Automation 27:467-9 Mr '54

NUCLEAR reactors—*Continued*

Equipment

Economic status of the nuclear-instrument industry. E. H. Wakefield. Instruments & Automation 27:278-82 F '54

Nuclear reactors for industry and research; instruments for experiments. C. G. Goss. il diags Instruments & Automation 27:284-6 F '54

Safety measures

Nuclear engineering radiation problems; decontamination of the Canadian reactor. F. W. Gilbert. il diags Chem Eng Prog 50: 267-71 My '54

Testing

Building the AEC reactor test station. il Eng N 151:45+ D 10 '53

What reactor testing involves. Eng N 151:48+ D 10 '53

Waste

Design and use of ten-kilocurie source of gamma radiation. L. E. Brownell and others. bibliog il plan diags Chem Eng Prog 49:569-76 N '53

Disposal and uses of fission products. A. M. Aiken. bibliog Can Chem Process 38:98+ My '54

Disposal of atomic energy industry wastes. A. E. Gorman. bibliog Ind & Eng Chem 45:2672-7 D '53

How Hanford evaporates fission wastes. C. E. Hirsch. il diag Chem Eng 60:184-5 N '53

Nuclear engineering radiation problems; radioactive wastes treatment, use, disposal. W. A. Rodger. bibliog Chem Eng Prog 50: 263-6 My '54; Abstract. Chem & Eng N 32:2776 Jl 12 '54

NUCLEAR research laboratories. See Atomic research laboratories

NUCLEAR shielding. See Radioactivity—Protection

NUCLEAR spin

Anisotropic relaxation of quadrupole spin echoes. E. L. Hahn and B. Herzog. il Phys R 93:639-40 F 1 '54

Conservation of isobaric spin the reaction $Be^9(p,\alpha)Li^6$. R. Malm and D. R. Inglis. bibliog diags Phys R 95:993-9 Ag 15 '54

Electron spin resonance in metals at low fields. H. S. Gutowsky and P. J. Frank. Phys R 94:1067 My 15 '54

Ground states of odd-odd nuclei. C. Schwartz. bibliog Phys R 94:95-9 Ap 1 '54

Gyromagnetic ratio in the hyperfine structure of doublet states. W. W. Clendenin. bibliog Phys R 94:1590-2 Je 15 '54

Interpretation of Bhabha's theory of particles of maximum spin 3/2. W. A. Hepner and D. R. Workman. Phys R 92:1071-2 N 15 '53

Isotopic spin and new unstable particles. M. Gell-Mann. Phys R 92:833-4 N 1 '53

Isotopic spin and odd-odd $N = Z$ nuclei. S. A. Moszkowski and D. C. Peaslee. bibliog diag Phys R 93:455-8 F 1 '54

Magnetic moment of K^{40} in intermediate coupling. G. E. Tauber and T. Y. Wu. bibliog Phys R 94:1307-10 Je 1 '54

Mathematical analysis of the Hahn spin-echo experiment. T. P. Das and A. K. Saha. diags Phys R 93:749-56 F 15 '54

Measurement of the spin paramagnetism of conduction electrons. R. T. Schumacher and others. il Phys R 95:1089-90 Ag 15 '54

Mixture of central, tensor, and two-particle spin-orbit interactions for N^{14} and D^2. W. J. Robinson. Phys R 93:1296-7 Mr 15 '54

Neutron-proton scattering with spin-orbit coupling; variational formulation and effective range theory. L. C. Biedenharn and J. M. Blatt. Phys R 93:1387-94 Mr 15 '54

Nuclear alignment at low temperatures. N. R. Steenberg. bibliog Phys R 93:678-81 F 15 '54

Nuclear spectroscopy of neutron-deficient Hg isotopes. L. P. Gillon and others. bibliog il Phys R 93:124-35 Ja 1 '54

Nuclear spin and hyperfine structure interaction of the 3.1-hr Cs^{134} isomer. V. W. Cohen and D. A. Gilbert. Phys R 95:569 Jl 15 '54

Nuclear spin and magnetic moment of 3.1 hr Cs^{134m}. L. S. Goodman and S. Wexler. Phys R 95:570 Jl 15 '54

Nuclear spin and quadrupole moment of I^{131}. R. Livingston and others. bibliog Phys R 92:1271-2 D 1 '53

Nuclear spin of Am^{243} and isotope shift in the americium spectrum. J. G. Conway and R. D. McLaughlin. Phys R 94:498 Ap 15 '54

Nuclear spin of Si^{29}. G. A. Williams and others. il Phys R 93:1428-9 Mr 15 '54

Nuclear spin quantum number of Si^{29} isotope. R. A. Ogg, jr. and J. D. Ray. J Chem Phys 22:147 Ja '54

Nuclear spin relaxation by translational diffusion. H. C. Torrey. Phys R 92:962-9 N 15 '53

Nuclear spins and band spectra of the selenium isotopes. S. P. Davis. bibliog il Phys R 93:159-62 Ja 1 '54

O^+ states of the light odd-odd nuclei. P. Stähelin. bibliog diags Phys R 92:1076-7 N 15 '53

Observation of exchange interaction effects in ferromagnetics by spin wave resonance. G. T. Rado and J. R. Weertman. bibliog Phys R 94:1386 Je 1 '54

Operators and observables in isotopic spin space. L. L. Foldy. Phys R 93:1395-400 Mr 15 '54

Polarization of nuclear spins in metals. T. R. Carver and C. P. Slichter. il Phys R 92:212-13 O 1 '53

Polarization of nuclei in metals. A. W. Overhauser. bibliog diags Phys R 92:411-15 O 15 '53

Possible relation between the pseudoscalar β coupling and the nuclear spin-orbit coupling. E. J. Konopinski. Phys R 94:492-3 Ap 15 '54

Relativistic and magnetic spin interactions in helium-like atoms. J. Sucher and H. M. Foley. bibliog Phys R 95:966-9 Ag 15 '54

Reorientation of aligned nuclei. N. R. Steenberg. bibliog Phys R 95:982-8 Ag 15 '54

Resonant effects and spin dependence in potential scattering of slow neutrons. W. Selove. bibliog Phys R 92:941-2 N 15 '53

Some regularities in the nuclear level spacings of Hg, Au, and Pt. J. W. Mihelich and A. de-Shalit. bibliog Phys R 93:135-9 Ja 1 '54

Spin and magnetic moment of Ti^{47} and Ti^{49} and the magnetic moment of Ge^{73}. C. D. Jeffries. bibliog Phys R 92:1262-3 D 1 '53

Spin of Si^{29} and mass ratios of the stable Si isotopes. R. L. White and C. H. Townes. bibliog Phys R 92:1256-7 D 1 '53

Spin relaxation in free radical solutions exhibiting hyperfine structure. J. P. Lloyd and G. E. Pake. bibliog diags Phys R 94: 579-91 My 1 '54

Spin resonance of donors in silicon. R. C. Fletcher and others. Phys R 94:1392-3 Je 1 '54

Spins of the lowest states of the K^{40}, P^{32}, and Al^{28} nuclei. H. A. Enge. Phys R 94:730-1 My 1 '54

Use of tensor operators in nuclear collision problems. L. Wolfenstein. bibliog Phys R 92:123-5 O 1 '53

NUCLEASES

Nucleotides; the action of some nucleases on simple esters of monoribonucleotides. D. M. Brown, L. A. Heppel and R. J. Hilmoe. Chem Soc p40-6 Je '54

NUCLEATION. See Condensation

NUCLEIC acids

Changes induced by indoleacetic acid in nucleic acid contents and growth of tobacco pith tissue. J. Silberger, jr. and F. Skoog. bibliog Science 118:443-4 O 16 '53

Criticism of the indiscriminate use of the Schmidt-Thannhauser method for the fractionation of nucleic acids in biological material. M. L. Drasher. bibliog Science 118:181-3 Ag 14 '53

Edge on age; chemical agents to retard aging process in humans. il Chem W 74: 32-3 Mr 6 '54

Intramolecular heterogeneity in nucleic acid biosynthesis. K. Moldave and C. Heidelberger. bibliog Am Chem Soc J 76:679-84 F 5 '54

Studies on the structure of nucleic acids; identification of the isomeric cytidylic and adenylic acids. L. F. Cavalieri. bibliog Am Chem Soc J 75:5268-70 N 5 '53

See also

Desoxypentose nucleic acid

NUCLEONICS

Nuclear engineering; chemical engineering review. bibliog flow diags il diags Chem Eng Prog 50:217-71+ My '54

Nucleonics; review of past three years. C. L. Gordon. Anal Chem 26:176-81 bibliog(152 ref, p 179-81) Ja '54

Bibliography

Nuclear notes for industry. Issued by Technical information service, Oak Ridge, Tennessee

Selected AEC reports of interest to industry. $2.25 Office of technical services, Department of commerce, Washington 25, D.C. '54

Study and teaching

Educating for atomic energy; Brooklyn Poly and IIT add nuclear courses. Chem & Eng N 32:3877 S 27 '54

NUCLEONS

Covariant approximation scheme for Green's functions of coupled fields. R. Arnowitt and S. Gasiorowicz. diags Phys R 95:538-45 Jl 15 '54

Elastic scattering of pions by nucleons and pion production in nucleon-nucleon collisions. J. L. Gammel. Phys R 95:209-16 Jl 1 '54

Energy spectra of nucleons evaporated from a compound nucleus. R. M. Eisberg. Phys R 94:739-40 My 1 '54

Method of approximation for the meson-nucleon problem when the interaction is fixed and extended. G. F. Chew. diags Phys R 94:1755-9 Je 15 '54

Nuclear forces from *P*-wave mesons. E. M. Henley and M. A. Ruderman. bibliog Phys R 92:1036-44 N 15 '53

Nuclear forces in pseudoscalar meson theory. K. A. Brueckner and K. M. Watson. bibliog Phys R 92:1023-35 N 15 '53

Nuclear stability curve. W. G. McMillan. Phys R 92:210-11 O 1 '53

Nucleon isobars in intermediate coupling. F. H. Harlow and B. A. Jacobsohn. bibliog Phys R 93:333-40 Ja 15 '54

Odd-nucleon-plus-liquid-drop-model of heavy odd nuclei. F. J. Milford. Phys R 93:1297-303 Mr 15 '54

Phenomenological many-body exchange forces. L. E. H. Trainor. bibliog Phys R 95:801-10 Ag 1 '54

Phenomenology of the pion-nucleon *S* waves. H. P. Noyes and A. E. Woodruff. Phys R 94:1401-2 Je 1 '54

Photopion *S* wave near threshold and the pion nucleon coupling constant. G. Bernardini and E. L. Goldwasser. Phys R 95:857-8 Ag 1 '54

π-Meson production in π-nucleon collisions at 1.5 Bev. W. D. Walker and others. Phys R 95:852-3 Ag 1 '54

Pions from production of baryons by protons. F. J. Belinfante. bibliog Phys R 92:145-52 O 1 '53

Polarization of elastically scattered nucleons from nuclei in the Born approximation. W. Heckrotte. bibliog Phys R 94:1797-8 Je 15 '54

Radiative effects in meson-nucleon scattering. S. Deser. bibliog Phys R 93:612-13 F 1 '54

Sachs exchange moment. R. H. Dalitz. Phys R 95:799-800 Ag 1 '54

Solutions of the meson-nucleon equation in the adiabatic limit. R. Arnowitt and S. Deser. Phys R 92:1061 N 15 '53

Some possible relationships between π-meson nucleon scattering and π-meson production in nucleon-nucleon collisions. A. Aitken and others. bibliog Phys R 93:1349-55 Mr 15 '54

Structure of the nucleon; pion-nucleon scattering. R. G. Sachs. bibliog Phys R 95:1065-78 Ag 15 '54

V dinucleons. H. Primakoff and W. Cheston. Phys R 93:908-9 F 15 '54

Yukawa forces with added attractions. J. M. Blatt and M. H. Kalos. Phys R 92:1563-6 D 15 '53

Scattering

Diffuse surface optical model for nucleon-nuclei scattering. R. D. Woods and D. S. Saxon. Phys R 95:577-8 Jl 15 '54

Effect of $^3P_2$-$^3F_2$ coupling on nucleon-nucleon scattering. R. M. Thaler and others. bibliog Phys R 93:644-5 F 1 '54

Experiments on nucleon-nucleon scattering with 312-Mev polarized protons. O. Chamberlain and others. diag Phys R 95:850-1 Ag 1 '54

Intermediate state coupling and the interpretation of high-energy nucleon-nucleon scattering. R. M. Thaler and others. bibliog Phys R 94:683-9 My 1 '54

Phase-shift analysis of high-energy nucleon-nucleon scattering. R. M. Thaler and J. Bengston. Phys R 93:643-4 F 1 '54

Phase shift analysis of high-energy nucleon-nucleon scattering experiments. R. M. Thaler and J. Bengston. Phys R 94:679-82 My 1 '54

Phase shifts for high-energy nucleon-nucleon scattering. B. D. Fried. Phys R 95:851-2 Ag 1 '54

Polarization in high-energy elastic nucleon-nucleus scattering. B. J. Malenka. bibliog Phys R 95:522-6 Jl 15 '54

Polarization of nucleons elastically scattered from nuclei. W. Heckrotte and J. V. Lepore. Phys R 95:1109-10 Ag 15 '54

Polarization of nucleons elastically scattered from nuclei. R. M. Sternheimer. Phys R 95:587-9 Jl 15 '54

NUCLEOPROTEINS

Physical-chemical studies on the interaction of surface-active agents with nucleoproteins. M. W. Renoll and Q. Van Winkle. bibliog il Am Chem Soc J 75:5440-2 N 5 '53

NUCLEOSIDES

Analysis

Method for the extraction and assay of nucleic acid fragments in tissue. G. D. Dorough and D. L. Seaton. bibliog Am Chem Soc J 76:2873-7 Je 5 '54

NUCLEOTIDES

Enzymatic syntheses of pyrimidine and purine nucleotides; formation of nucleoside diphosphates and triphosphates. I. Lieberman, A. Kornberg and E. S. Simms. bibliog Am Chem Soc J 76:3608-9 Jl 5 '54

Enzymatic syntheses of pyrimidine and purine nucleotides; formation of 5-phosphoribosylpyrophosphate. A. Kornberg, I. Lieberman and E. S. Simms. Am Chem Soc J 76:2027-8 Ap 5 '54

Enzymatic syntheses of pyrimidine and purine nucleotides; orotidine-5′-phosphate pyrophosphorylase and decarboxylase. I. Lieberman, A. Kornberg and E. S. Simms. bibliog Am Chem Soc J 76:2844-5 My 20 '54

Identification of the purine nucleotides *a* and *b* as the 2′- and 3′-phosphoribosides, respectively. J. X. Khym and W. E. Cohn. bibliog Am Chem Soc J 76:1818-23 Ap 5 '54

Nucleotides; a synthesis of flavin-adenine dinucleotide. S. M. H. Christie, G. W. Kenner and A. R. Todd. Chem Soc J p46-52 Ja '54

Nucleotides; a synthesis of uridine-5′ triphosphate (UTP). G. W. Kenner and others. Chem Soc J p2288-93 Jl '54

Nucleotides; mononucleotides derived from deoxycytidine; structure of cytidylic acids *a* and *b*. A. M. Michelson and A. R. Todd. Chem Soc J p34-40 Ja '54

Nucleotides; syntheses of P^1P^2-diadenosine-5′ and P^1P^2-diuridine-5′ pyrophosphates. S. M. H. Christie and others. Chem Soc J p2947-53 O '53

Nucleotides; the action of some nucleases on simple esters of monoribonucleotides. D. M. Brown, L. A. Heppel and R. J. Hilmoe. Chem Soc J p40-6 Ja '54

Nucleotides; the methylation of uridylic acid *b*. D. M. Brown, D. I. Magrath and A. R. Todd. Chem Soc J p 1442-7 My '54

Nucleotides; the structures of adenylic acids *a* and *b*. D. M. Brown and others. Chem Soc J p 1448-55 My '54

Soluble nucleotides of liver and muscle. J. Sacks, L. Lutwak and P. D. Hurley. bibliog Am Chem Soc J 76:424-6 Ja 20 '54

Analysis

Fluoroscope and Geiger counter for measuring ultraviolet absorption of chromatograms. T. D. Price and P. B. Hudson. bibliog(28 ref) il Anal Chem 26:1127-32 Jl '54

NUCLEOTIDES—Analysis—*Continued*
Method for the extraction and assay of nucleic acid fragments in tissues. G. D. Dorough and D. L. Seaton. bibliog Am Chem Soc J 76:2873-7 Je 5 '54

NUMBERING systems
Aluminum association announces new wrought alloy designation system. Mach 61:181, 255 S '54; Am Mach 98:187, 189 S 13 '54; Metal Prog 66:112B S '54
Aluminum association releases wrought alloy designation system. Materials & Methods 40:11 S '54
Closed versus open-end code schemes. A. W. Hubbard. J Marketing 19:71-4 Jl '54
How to develop a drawing numbering system. J. F. Foley. il diags Machine Design 26:116-20 F '54
Identification numbering system for purchased materials; Eastman Kodak co. P. J. Callan. il Steel 135:94-5 S 6 '54

NUMBERS, Theory of
Radio technology and the theory of numbers. B. van der Pol. bibliog diags Franklin Inst J 255:475-95 Je '53; Correction. 256:265 S '53

NURSERIES (horticulture)
Designed by a landscaper; nursery building. il plan Arch Forum 99:120-2 Ag '53

NURSES and nursing
Distribution of hospital nursing services. H. G. Tibbitts. bibliog maps Pub Health Rep 68:933-9 O '53
Nursing in mental hospitals. Economist 168:378 Ag 8 '53
Outlook for women as practical nurses and auxiliary workers on the nursing team. il U S Women's Bur Bul 203-5:1-62 bibliog(p59-62); pa 40c Supt. of doc. '53

NURSES and nursing, Industrial
Continuing education. Safety Maint & Prod 107:65-6 Mr '54
Industrial nurse. il Ind Med 22:448-51 O '53
Industry's nurses and collective bargaining. Ind Med 22:268-9 Je '53

NURSES and nursing, Public health
Survey of consultant nurses in health agencies. P. McIver. Pub Health Rep 68:519-26 My '53

NURSES' homes
Nurses' home attracts vital personnel; nurses' home, Massachusetts general hospital, Boston. il plans Arch Rec 115:172-3 Mr '54

NURSING homes
Fire safety guide for nursing homes. Safety Maint & Prod 107:62-4 F '54

NURSING schools
Privacy for students in psychiatric nursing; Central Oklahoma state hospital. il plans Arch Rec 115:181-5 F '54

NUT shelling machines
Electronics; unusual nutcracker explodes 1200 lb of walnuts per hour; Portland, Ore. processing plant of the Northwest nut growers. Iron Age 172:175 N 19 '53

NUTRITION
Enrichment; a public health approach to better nutrition. W. H. Sebrell, jr. Pub Health Rep 68:741-6 Ag '53
Mode of action of antibiotics in animal nutrition. M. E. Coates. bibliog Chem & Ind p 1333-5 D 12 53
Nutritional reappraisals; proteins; abstract and discussion. A. E. Bender. Chem & Ind p 1281-2 N 28 '53
Servicio; ten-year evaluation of the bilateral health programs, Institute of Inter-American affairs; disease and nutritional barriers to health. Pub Health Rep 68:1127-31 N '53
Woodlands nutrition conference, St Marguerite, Que. Nov. 18-20. Pulp & Pa of Can 54:142+ D '53

NUTRITION research
Aging population is primary challenge in nutrition research. W. H. Sebrell. Chem & Eng N 31:2290 Je 1 '53
Better health in balanced diets; annual review. C. G. King. il Chem & Eng N 32:20-2 Ja 4 '54
Biochemical gaps closing; new knowledge by Nutrition foundation. C. G. King. Chem & Eng N 31:4970+ N 30 '53
Nutrition foundation grants for research total $3.1 million. Chem & Eng N 32:1765-7 My 3 '54
Nutrition research highlights role of ingredients. C. G. King and H. L. Sipple. il Food Eng 26:99-100+ Je '54
Nutrition research; potentialities in chronic disease. W. H. Sebrell, jr. Pub Health Rep 68:737-41 Ag '53
Recent investigations on human calorie requirement. R. Passmore. bibliog Chem & Ind p556-60 My 15 '54

NUTS
See also
Walnuts

NYASALAND
Nyasaland; storm in a teacup? map Economist 169:252+ O 24 '53
See also
Federation of Rhodesia and Nyasaland

NYLON
Absorption of divalent bases on nylon fibers. F. T. Wall and P. M. Saxton. bibliog J Phys Chem 58:86-90 Ja '54
Birefringence and strain in textile filaments. H. Tipton. Textile Inst J Trans 44:T657 D '53; Correction. 45:T 166 F '54
Caprolactam projects grow. Chem & Eng N 32:3388 Ag 23 '54
Electrical potential of nylon fibers in aqueous media. F. T. Wall and P. M. Saxton. bibliog J Phys Chem 58:83-6 Ja '54
Experience with synthetic fibres in felts. Paper Tr J 138:22 Ap 30 '54
Nylon type oligamides. C. D. Cowell. Chem & Ind p577 My 15 '54
Progress in nylon. il Mod Textiles Mag 35:45-6 S '54
Raw materials for synthetic fibres. Chem Age (Lond) 69:267-9 Ag 8 '53
Stocking stretchers; nylon hose washing liquid claimed to boost the mileage of stockings. Chem W 72:58+ My 30 '53
See also
Bleaching—Nylon
Dyes and dyeing—Nylon

Analysis

Equilibration in molten polyamide mixtures. C. W. Ayers. bibliog diags J Ap Chem 4:444-9 Ag '54

Industrial applications

Akulon; nylon-type material. il Automobile Eng 44:173-4 Ap '54
Designing fabricated nylon parts. R. B. Zimmerli. il diag Machine Design 26:153-9 Mr '54
Don't under-rate nylon for mechanical components! J. Holt and W. Chadbourne. il diags Product Eng 24:203-11 Je '53
Engineering applications of nylon; Akulon. il Engineering 177:373 Mr 19 '54
Gears; nylon inserts in gear teeth reduce backlash. diags Iron Age 174:134-5 S 2 '54
Nylon drop stamp belts. Automobile Eng 44:346 Ag '54
Nylon in industry; abstract. J. W. Illingworth. Am Dyestuff Rep 42:475 Jl 20 '53
Nylon in the rubber industry. H. C. Mersereau. bibliog Can Chem Process 38:50-2 Je 20; 54+ Jl '54
Nylon safety straps win out in tests. il Elec World News ed 140:34 O 12 '53
Production machining of nylon rod stock. R. E. James, jr. and G. W. Swoyer. il diags Mach 60:163-6 D '53
Sintered nylon bearings in motors resist wear from high speed vibration. diags Mill & Factory 54:142 F '54

Knit goods

How a small raschel plant gets high production; Milo-Hausman textile corp. J. H. Blore. il Textile World 104:120-1+ Jl '54

Molding

Tooling for injection molded nylon gears. L. D. Martin. il diags Tool Eng 33:61-6 Jl '54

Patents

Nylon patents licences; action by British nylon spinners ltd. against Imperial chemical industries ltd. Chem Age (Lond) 71:133 Jl 17 '54

NYLON—*Continued*

Swelling

Influence of heat and of swelling agents on 66 nylon yarns. M. B. Forward and H. J. Palmer. bibliog(39 ref) il diags Textile Inst J Trans 45:T510-68 Jl '54

Testing

Generalized creep curves for nylon. E. Catsiff and others. bibliog diag Textile Res J 23:808-20 N '53

Influence of repeated torsional deformations on the birefringence of nylon monofilaments. A. K. van der Vegt and J. Isings. Textile Res J 24:862 S '54

NYLON cord

Better tires from modern tire cord. C. A. Litzler. diags Mod Textiles Mag 35:32-3+ F '54

Goodyear 3T prestretching process for nylon cord. il Rubber World 130:383 Je '54

New stretch; Nygen reduces dangerous stretch in tires. Chem W 74:84 F 6 '54

Tempered nylon facilities completed. il Materials & Methods 40:192 Ag '54

Triple-tempered processed nylon tire cord; Goodyear tire & rubber co. il Rubber Age 75:387-8 Je '54

NYLON fabrics

Convenience wins again, nylon sheets smash hit; Pepperell manufacturing co. B. G. Priestley. il Sales Management 72:73-4+ Mr 15 '54

Cotton mixtures

How cotton-nylon blends improve abrasion resistance. A. Descheemaeker. Textile World 104:100 My '54

Heat setting

Radiant heat treatment of nylon fabrics. Engineering 177:30 Ja 1 '54

NYLON fibers

Effect of draw ratio and temperature on electrical conduction in nylon filaments. E. P. Sharman and others. bibliog Textile Res J 23:793-8 N '53

Filament surface investigation by a simple interferometric method with particular reference to nylon filaments. S. C. Simmens. il diags Textile Inst J Trans 45:T569-74 Jl '54

Force-temperature behavior of nylon filaments at fixed extensions. G. M. Bryant. bibliog Textile Res J 23:788-92 N '53

Friction of a fibre round a cylinder and its dependence upon cylinder radius. H. G. Howell. Textile Inst J Trans 45:T575-9 Ag '54

NYLON finishing

Finishing of fabrics of type 670 dull nylon. Mod Textiles Mag 35:86 Ap '54

See also
Nylon fabrics—Heat setting

NYLON hosiery. See Hosiery

NYLON mills

Chemstrand story. il Manuf Rec 123:30-1 Je '54

NYLON throwing

How Jefferson Mills throws tricot yarns. T. B. Winston. il Textile World 104:66-8 S '54

How to throw Helanca. T. B. Winston. il Textile World 104:69 Ag '54

New throwing formulas predict effect of twist on filament yarns. D. S. Hamby and E. B. Grover. il Textile World 104:110-12+ F '54

NYLON yarn

How to get the best results in knitting Helanca yarn. Mod Textiles Mag 35:56 Mr '54

Use of nylon yarns in fish netting; abstract. E. R. Needham. Am Dyestuff Rep 43:546 Ag 16 '54

Where trouble occurs in handling filament yarns; Aldora mills. E. D. White. il Textile World 104:116-17 Jl '54

Cotton mixtures

See Cotton yarn—Nylon mixtures

Testing

Effect of rate of extension on the tensile behaviour of viscose and acetate rayons, silk and nylon. R. Meredith. bibliog diags Textile Inst J Trans 45:T30-43 Ja '54

Influence of heat and of swelling agents on 66 nylon yarns. M. V. Forward and H. J. Palmer. bibliog(39 ref) il diags Textile Inst J Trans 45:T510-68 Jl '54

NYSON oil corporation

Notes and stock offered. Comm & Fin Chr 178:951 S 14 '53

O

O.E.E.C. See Organization for European economic cooperation

O.K. bazaars (1929) limited

Statement by the chairman. M. Miller. Economist 170:135-6 Ja 9 '54

OAK

NEPCO scrub oak debarking project. Paper Tr J 138:18 Je 18 '54; Same cond. Paper Ind 36:370-1 Jl '54

Preparation of hardboard from white oak. S. L. Schwartz. bibliog il Tappi 36:445-51 O '53

Semichemical pulping of southern red oak. D. J. MacLaurin and J. R. Peckham. Tappi 36:557-60 D '53

OAK RIDGE national laboratory

It's a badge, a dosimeter, too. il diag Nat Safety N 69:26-7 F '54

Robot-run tools machine hot materials at Oak Ridge. S. E. Dismuke. il plan diag Am Mach 98:161-5 Ap 12 '54

OAK RIDGE school of reactor technology

Reactor engineering for college grads and technical staffs of industry and government. il Chem & Eng N 32:406-7 F 1 '54

OAKLAND, California

Streets

$3 million and 25 years end traffic jam at Oakland dam. il Eng N 151:42 Jl 2 '53

OARAC. See Calculating machines

OAT meal

New ulcer drug from oatmeal tested. J. H. Biel and others. Comm & Fin Chr 178:1022 S 17 '53

Quality of cereals and their industrial uses; factors affecting suitability of oats for processing. J. B. Hutchinson. bibliog Chem & Ind p578-81 Je 13 '53

OATIS, William N. 1914-

Oatis promises full story after he reviews record. R. Erwin. por Ed & Pub 86:9+ My 23 '53

OATS

Canada agrees to place limit on oats shipments to United States. For Comm W 50:6 D 21 '53

Imports of oats from all sources limited. For Comm W 51:16 Ja 11 '54

Oats, 1949-1952. Survey of Cur Bsns 1953 Sup p 139 [supplemented in monthly numbers]

Quality of cereals and their industrial uses; factors affecting suitability of oats for processing. J. B. Hutchinson. bibliog Chem & Ind p578-81 Je 13 '53

Quality of cereals and their industrial uses; malting of cereals other than barley. R. T. Potter. bibliog Chem & Ind p787-9 Jl 25 '53

OBERT, Edward Fredric, 1910-

George Westinghouse award, 1953. por(p48) J Eng Educ 44:51-2 S '53

OBERWINDER, John Ferdinand, 1888-

Sketch. por Adv Agency 46:66 Ag '53

OBESITY. See Corpulence

OBSERVATORIES

Mount Wrangell observatory. S. A. Korff. Science 118:420 O 9 '53

OBSOLESCENCE
Industrial equipment 28 per cent obsolete; survey by American society of tool engineers. Steel 133:74 O 26 '53
See also
Depreciation
Machinery, Replacement of

OCCUPATIONAL health, Division of. See United States—Public health service—Division of occupational health

OCCUPATIONS
Directory of professional opportunities. R. Shosteck. 81p pa 75c B'nai B'rith vocational service bur, 1761 R st, N.W. Washington '54
Job title quiz. H. M. Duffy. Factory Management 112:238+ Ja '54
1954 modern vocational trends handbook. J. L. Glanvelle, ed. 127 l pa $4 World trade academy press, 11 W. 42d st, New York 36 '54
See also
Ability tests
Handicapped
Job analysis
Office workers
Research workers

Bibliography

Occupational literature; an annotated bibliography. G. Forrester. 3d ed 467p H. W. Wilson co, New York '54 ($5)

OCEAN
Deposition of evaporites. P. C. Scruton. bibliog map diags Am Assn Pet Geologists Bul 37:2498-512 N '53
Food from the sea; abstract. H. F. Taylor. Chem & Eng N 32:134 Ja 11 '54
Next great frontier. il Bsns W p 180+ D 12 '53
Radioactive-waste disposal in the ocean. bibliog U S Nat Bur Stand Handbook 58:1-31; pa 20c Supt. of doc. '54
See also
Atlantic ocean
Canyons, Submarine
Hydrographic surveying
Waves

OCEAN bottom
See also
Canyons, Submarine

OCEAN temperature
Reflection of sound in the ocean from temperature changes. R. R. Carhart. J Ap Phys 24:929-34 Jl '53

OCEAN travel
See also
Steamboat lines

OCEAN waves. See Waves

OCEANOGRAPHIC institute of Nhatrang
Oceanographic institute of Nhatrang, Viet Nam. E. Y. Dawson. Science 118:sup3 Jl 3 '53

O-CEL-O, inc.
When a small company joins a giant. Bsns W p43-4 S 19 '53

O'CONNELL, Charles J.
Sketch. C. Axman. por East Underw 55:15 Je 25 '54

OCTADECENE
Vapor-liquid equilibria of naphthalene-1-octadecene system. W. L. Martin and M. Van Winkle. bibliog Ind & Eng Chem 46:1477-81 Jl '54

OCTADECYLAMINE hydrochloride
Preparation of *n*-octadecylamine hydrochloride. G. W. Wood. Chem Soc J p3327 O '53

OCTADECYL isocyanate
Use of octadecyl isocyanate on cotton to produce water repellency. C. Hamalainen and others. bibliog Am Dyestuff Rep 43:453-7 Jl 19 '54

OCTAHYDROPHENANTHROL
Structures of the 4a-methyl-1,2,3,4,4a,9,10,10a-octahydro-8-phenanthrols. W. B. Renfrow and A. Renfrow. Am Chem Soc J 76:2268-9 Ap 20 '54

OCTAMETHYL pyrophosphoramide
Biochemistry of Schradan. B. A. Kilby. bibliog(28 ref) Chem & Ind p856-61 Ag 15 '53
New route to OMPA. Chem W 73:46+ N 28 '53
Organic polyphosphorus compounds; a new synthesis principle for octamethylpyrophosphoramide (OMPA). H. Tolkmith. bibliog Am Chem Soc J 75:5276-8 N 5 '53
Organo-phosphorus insecticides; behaviour of Schradan in the plant. G. S. Hartley. bibliog Chem & Ind p529-32 My 8 '54

OCTANE
Decomposition of *n*-octane catalyzed by bromides. R. F. Marschner and B. L. Evering. bibliog Ind & Eng Chem 45:1487-90 Jl '53

OCTANE number
How to predict polyform gasoline octane. J. D. Wall. flow diag Pet Processing 8:1032-5 Jl '53
Proposed method of test for motor and research octane numbers of small samples. diags Am Soc T M Proc 51:329-37 '51
Proposed method of test for motor and research octane numbers of small samples by multi-pipet system. diags Am Soc T M Proc 51:338-42 '51

OCTANOL. See Octyl alcohol

OCTYL alcohol
Isolation of *n*-octanyl alcohol from a marine tube worm. D. R. Idler and U. F. M. Fagerlund. bibliog Am Chem Soc J 75:6312 D 20 '53
Measurement of optical rotatory dispersion; (+)-octan-2-ol. M. K. Hargreaves. pl diags Chem Soc J p2953-9 O '53

Manufacture

New process for octyl alcohols. diag Chem Eng 60:346 Ag '53

ODEON theatres, ltd.
Statement by the chairman. J. A. Rank. Economist 169:214-15 O 17 '53

ODLUM, Floyd Bostwick, 1892-
Still a bull? F. Odlum doesn't always sell at the top. Barron's 33:3 D 7 '53

ODORANTS for natural gas. See Gas, Natural—Odorizing

ODOROMETER. See Odors—Measurement

ODORS
Elimination of odors in a sulphate pulp mill. P. Ghisoni. bibliog plan diags Tappi 37:201-5 My '54
Grappling with that problem of citrus-waste odors. Food Eng 26:133+ My '54
Odor control allows recirculation and reduces laboratory air requirements; medical school laboratory. J. E. Leininger. Heat & Ven 50:72-3 N '53
Odor-pollution control; new catalyst, the Oxycat, can end coffee-plant odors and other pollution problems. il Mech Eng 75:815-16 O '53
Odor removal efficiency over 92 per cent; Ace wire mills. il Mill & Factory 53:139-40 N '53
Odors of optical isomers. H. Posvic. Science 118:358-9 S 25 '53
Problems of defining and controling undesirable odors; symposium at ASTM meeting. Ind & Eng Chem 46:sup87A-8A Ag '54
Put industrial odors to work; new catalytic device. R. H. Wilcox. flow diag il Mill & Factory 54:126-7 F '54
Rose by any other name; aromatic masking agents for industrial odors. diag Ind & Eng Chem 46:sup 17A-18A+ Ap '54
Science of smells. P. G. Lauffer. Chem & Eng N 32:2199 My 31 '54
See also
Deodorization
Gas, Natural—Odorizing
Paper—Odors
Textile fabrics—Odors
Water purification—Taste and odor removal

Measurement

Laboratory nose is a better sniffer. Chem & Eng N 32:2590 Je 28 '54
New odorometer shows good results. A. F. Cascioli and R. L. Coryell. il diag Gas Age 113:9-10+ Ja 28 '54
Odor intensity meter; abstract. R. L. Coryell. Am Gas J 181:25 Ag '54

OESTROGENS. See Estrogens

OFFICE appliances
Can European electronic machines help American offices? H. O. Brayer. flow charts il Am Bsns 24:10-13+ Je; 16-19+ Jl; 20-3+ Ag; 22-3+ S '54
Company puts routine office jobs on machines to cut costs; A.C. Nielsen co. W. Norris. il Am Bsns 24:10-12+ My '54
Electronic automaton for business; International business machines 702. il Chem & Eng N 32:2330 Je 7 '54

OFFICE appliances—*Continued*

Electronic babel is cured by U.S. Steel system; the many languages of office machines are translated on one tape. Bsns W p 128 O 10 '53

Electronic computers; a revolution in the office? abstract. R. W. Fairbanks. Management R 42:649-50 N '53

Electronic data processing. Mech Eng 76:41 Ja '54

How five-channel punched tape mechanizes office jobs. W. Norris. il Am Bsns 24:10-12+ Mr '54

IBM electronic brain designed for office work. il Machine Design 26:183 Ag '54

Let machines do more work. B. E. Wynne. il Ry Age 136:35-7 Je 7 '54

Lyons electronic office. il Elec J 152:667 F 26 '54

Mechanizing paperwork for production control; General electric co. flow chart il Factory Management 112:140-1 Ag '54

Office automation; new frontier to cut costs. il Steel 134:59 My 17 '54

Punch tape cuts red tape; Mathieson initiates integrated data processing. il Chem W 75:56+ Ag 28 '54

Tape speeds order processing; U.S. Steel uses five-channel tape. J. B. Delaney. diag Iron Age 172:39 O 1 '53

Up-to-the second inventory; Remington Rand Distribution. il Bsns W p 118+ O 3 '53

See also

Accounting—Mechanical aids
Bookkeeping machines
Dictating machines
Duplicating machines
Tabulating machines
Typewriters

Exhibitions

Comfort for speed is theme of National business show, New York, Oct. 19-24. il Credit & Fin Management 55:8-11+ N '53

National business show, New York, Oct. 18-24. il Bsns W p29 O 24 '53

Manufacture

How to simplify assembly of complicated machines; Sensimatic bookkeeping machines at Burroughs corp. il diags Am Mach 98:161-6 My 10 '54

Work cuts tool, tool forms work with ultrasonics; Remington-Rand. E. J. Tangerman. il Am Mach 98:85-8 Ag 30 '54

OFFICE buildings

Alcoa complete; Pittsburgh's 30-story aluminum waffle is America's most daring experiment in modern office building. il plan Arch Forum 99:124-31 N '53

Alcoa's aluminum building pushes new applications of the product. F. Borden. il Ind Marketing 39:44-5 F '54

Aluminum skyscraper; Alcoa building. il Mech Eng 75:906-8 N '53

Aluminium skyscraper; new office building of the Aluminum company of America. il Metallurgia 49:75-6 F '54

Boom in office building eases in some cities, spreads to new ones. il Arch Forum 100:41+ Ap '54

Building to crack a metal market; Aluminum co. of America's home-office building in Pittsburgh. il Bsns W p 138-40+ S 26 '53

Buildings in Pittsburgh's Gateway Center include unusual structural features. J. Di Stasio and M. P. Van Buren. il plan diags Civil Eng 23:600-4+ S '53

Carnegie endowment for international peace; International center, New York. il plans diags Arch Rec 115:121-31 Ja '54

Enameled steel skin; remodeled office building. il diags Arch Forum 98:156 Ja '53

Frank Lloyd Wright's concrete and copper skyscraper on the prairie. il plans diag Arch Forum 98:98-105 My '53

Hotel-recreation provided in 60-acre office city. Eng N 152:51-2 Ap 15 '54

How to combine four separate houses into one up-to-date office building. il plans Arch Forum 100:146-9 My '54

In the base of a narrow office tower an efficient headquarters for modern banking; Standard federal savings building, Los Angeles. il plans diag Arch Forum 100:152-4 Ja '54

London's newest building; Time & Life building. il Arch Forum 99:110-13 Ag '53

Modular office building; Pretoria, South Africa. il plans diag Arch Forum 98:146-9 F '53

New spurt; more cities build more office space. map Bsns W p92-3+ N 28 '53

New thinking on office buildings. il plans diags Arch Forum 99:107-23 S '53

Office buildings; building types study. il plans diags Arch Rec 115:186-209 Ap '54

Office towers in a park; Gateway Center, Pittsburgh. il plan diag Arch Forum 99:112-16 D '53

Old apartment building is undressed to frame and floors and reclothed as new office tower. il plans Arch Forum 100:122-3 My '54

Porcelain panels and lightweight curtain walls ease building load; Texas Company office building. il diags Arch Rec 115:206-7 My '54

Prestressed-concrete office building; London telecommunications region of the Post Office. Engineering 176:667 N 20 '53

Skyscraper enclosed fast with two-story panels. il plan diags Eng N 151:43+ Ag 13 '53

Skyscraper of aluminum and ceramics; Aluminum company of America. il Am Cer Soc Bul 32:389 N 15 '53

They beat the clock; enclose a 22-story office building with prefabricated aluminum panels. il Constr Methods 36:142-3 Ag '54

Three-story prestressed building is U.S.' tallest. F. W. Wilcox. il diags Eng N 151:31-2+ N 26 '53

Unusual office building going up in Colombia. il Eng N 151:57 S 17 '53

See also

Advertising agencies—Offices
Insurance company buildings
Lobbies (architecture)
Newspaper offices
Physicians' offices

Air conditioning

Air conditioning existing buildings. I. Isaacson, jr. il diag Heat & Ven 50:81-3 D '53

Aluminum structure for new air-conditioning system. flow diag il Arch Forum 99:140-1 D '53

Costs of operating the heat pump in the Equitable building. J. D. Kroeker and R. C. Chewning. flow diag il Heating-Piping 25:135-44 N '53; Abstract. Heat & Ven 51:95 Mr '54; Discussion. Heating-Piping 26:176 Mr '54

Electricity heats, cools TVA offices. il Elec World 140:134+ S 7 '53

Heat pump cuts cost of running famed building; Portland's Equitable building. flow diag il Arch Forum 99:136-8 D '53

How much does air conditioning boost office efficiency? Heating-Piping 25:130-1 N '53

How ten companies keep employees cool. P. Eastman. il Am Bsns 24:18-19 My '54

Lighting, air conditioning design coordinated; sales department offices of the Electric power board of Chattanooga. E. R. Dodson. il diag Elec World 140:132 N 2 '53

Modernizes with air conditioning; American automobile association offices. R. A. Levy. il Heating-Piping 26:90-1 F '54

New concept of comfort conditioning; Toronto's new Manufacturers Life building. G. L. Wiggs. il plans diags Heating-Piping 26:143-51 Ja '54

Packaged air conditioning frees office building space. il Eng N 151:36 O 1 '53

Prudential building sets air conditioning records. Heating-Piping 25:87 D '53

Temperatures at his finger-tips; centralized monitoring of readings throughout air conditioned building. C. L. Gier. il Heating-Piping 25:78-9 D '53

Electric equipment

480-v system makes strong bid for office buildings. D. L. Beeman and H. D. Kurt. il diags Power 98:74-7 Mr '54

480 volts gaining ground in office buildings. Power 98:123 S '54

Higher network voltages in large buildings. D. Beeman and H. D. Kurt. bibliog il plan diags Elec World 141:80-5 Mr 8 '54

OFFICE buildings—Electric equipment—*Cont.*

Space requirements for electric equipment in office buildings. G. B. Gusrae. il diag Arch Rec 114:213-18+ N '53

Equipment

Aluminum piping's applications; Alcoa building. E. T. Wanderer. il Heating-Piping 25: 116-19 N '53

Impact of mechanical equipment on design. il plans diags Arch Rec 115:195-209 Ap '54

Heating and ventilation

Heating costs reduced in two installations. D. B. Tuxhorn. il Heating-Piping 26:106-8 S '54

Hollow members double as heat ducts in steel-frame office building. il Eng N 151:43 O 29 '53

Large high velocity system ventilates new office building. J. H. Stiggleman. il Heating-Piping 26:87-9 Jl '54

OFFICE buildings, Government

More office space for the motor city; Detroit's city-county building. il diag Eng N 151: 29-31 Ag 6 '53

New Hampshire state office building soon to be constructed. il diag Arch Rec 115:142-5 Ja '54

New offices feature timesavers; Detroit city-county building. D. G. Baird. il Am Bsns 24:24+ Ja '54

State governments spill over. Eng N 152:69 Ja 14 '54

OFFICE buildings, Industrial

Bottom-lighted office; Springs cotton mills. il diag Arch Forum 97:126-7 N '52

Builder designs, constructs modern office space for $8.55 a square foot; with views and plans. diags Am Bld 75:182-3+ Mr '53

Clarke & Courts building; Harlingen, Tex. il plan diag Arch Rec 113:176-7 My '53

Cotton Belt breaks ground; St Louis Southwestern's new office building. il Ry Age 136:13-14 Mr 8 '54

Design and research building of C. A. Parsons and co. il Engineering 176:713-15 D 4 '53

Engineering research and design building; C. A. Parsons and co. il Engineer 197:397-400, pl 3-4 Mr 12 '54

Esso standard oil company, Bayway refinery office. il plans diag Arch Rec 115:208-9 Ap '54

Home of multiple management; McCormick & co. il Dun's R & Mod Ind 62:23-4+ S '53

New approach to familiar problems; Remington Rand building, Los Angeles. il plans Arch Rec 114:174-6 N '53

Office and plant modernization; Monarch cement co. T. Brown. il Rock Prod 56: 108+ O '53

Office and recreation building, Anaconda wire and cable co., Orange, Calif. il plans Arch Rec 115:207 Ap '54

Office for a plumbing and heating contractor. il plan Arch Rec 113:179 My '53

Offices and laboratories for RCA; Cherry Hill project. il plans diags Arch Rec 116:166-72 Jl '54

Precast and prestressed members form skeleton of multi-story office building; Glenn L. Martin co. engineering office. F. Kramrisch. il Civil Eng 24:22-3 Ja '54

Prior planning pays off; Atlas Powder's new headquarters. il Chem & Eng N 32:2956 Jl 26 '54

Steel wall that breathes; modernized office building for the Heppenstall co. il diags Arch Rec 113:177-8 Je '53

They put the building on stilts; A. O. Smith corp. il Factory Management 112:123 S '54

Three small offices built to order. il plans diag Arch Forum 98:138-45 My '53

Upper-floor office invites public view; Marquette co. il plans diags Arch Rec 113:150-3 Je '53

Window maker's office is showcase outside and inside. il plan diag Arch Forum 101: 132-7 Ag '54

Wing-like roof permits natural lighting; office-sales room of the Singer lumber co. of New Orleans. il plans diags Am Bld 75: 45-7 S '53

Heating and ventilation

Space heating. il plans Elec R (Lond) 153: 1045-8 N 6 '53

Location

Advertising agency goes suburban and likes it. il plan diag Arch Rec 114:160-3 D '53

Why move business to the suburbs? il Eng N 152:45+ Ap 8 '54

OFFICE buildings, State. See Office buildings, Government

OFFICE costs

Planned attack on office costs can produce large economies. S. Fish. Manuf Rec 123: 28-9 Mr '54

Ten-step allocation method of determining office costs. J. M. Hughes. J Account 97: 711-12 Je '54

OFFICE decoration, Color in. See Color in office decoration

OFFICE equipment

How Alcoa's building ups efficiency. H. O. Brayer. il Am Bsns 24:10-12+ F '54

Mechanized productivity in the office; how far ahead? R. L. Harrell. Management R 43:588-90 S '54

Modernizing for office efficiency; new office equipment and systems. il Credit & Fin Management 56:28-9 Ja '54 [cont monthly]

Modernizing your office equipment; abstract. P. C. Kell. Management R 43:296-7 My '54

Ten ways to save equipment. H. L. Wylie. Am Bsns 24:24-5 S '54

OFFICE equipment industry

See also

Burroughs corporation

Finance

Office machines; postwar sales rise may halt this year. J. C. Potter. Barron's 33:9-10 O 12 '53

Outlook for office equipments. J. D. C. Weldon. Mag of Wall St 92:564-5 Ag 8 '53

OFFICE furniture

Please be seated comfortably. S. M. Richman. il Spectator 162:29+ Ja '54

OFFICE lighting

Better lighting for cleaner job. J. L. Tugman. il Credit & Fin Management 55:22-3 N '53

Bottling plant remodeled to modern utility offices. il Illum Eng 49:121 Mr '54

Bottom-lighted office; Springs cotton mills. il diag Arch Forum 97:126-7 N '52

In relighting, practice what you preach. il Elec West 111:94-5 D '53

Integrated functional lighting of an executive office. N. Stuffer. il Illum Eng 48: 560-1 N '53

Lighting a new research and design building; Heaton works of C. A. Parsons, ltd. il Engineer 196:715 N 27 '53; Elec J 151: 1776 N 27 '53

Lighting, air conditioning design coordinated; sales department offices of the Electric power board of Chattanooga. E. R. Dodson. il diag Elec World 140:132 N 2 '53

Luminous ceiling + intensity control. il diags Arch Forum 98:153 Ja '53

New lamp replacement plan cuts building's lighting costs; Chicago's Merchandise Mart. W. Norris. il Am Bsns 24:14-15+ F '54

New technique with troffers. il Illum Eng 49:378 Ag '54

Office lighting. R. L. C. Tate. il Elec R (Lond) 153:671-4 S 25 '53

One successful way to set up a group lamp-replacement program; John Hancock mutual life insurance co. il Power 98:122-3 My '54

Sales offices serve as lighting clinic; Portland general electric co. il Elec West 112: 71 Ja '54

Ten ways to save electricity. H. L. Wylie. Am Bsns 23:20-1 D '53

Utility sets lighting example. J. F. Whitney. il plan Elec World 140:90-1 S 7 '53

See also

Conference rooms—Lighting

Dentists' offices—Lighting

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OFFICE management

Administrative audit. G. D. Wilkinson. flow charts N A C A Bul 35:16-33 S '53

OFFICE management—*Continued*

Applying scientific management to the office. E. W. Jochim. Advanced Management 19:19-22 My '54

Clerical cost reduction and control. F. R. Friedley. flow chart N A C A Bul 35:171-85 O '53

Clerical overhead can be reduced! abstract. Management R 43:166-7 Mr '54

Developing an office service group; abstract. D. M. Benjamin. Management R 43:233-4 Ap '54

Eliminating office dead wood; abstract. J. Kirk. Management R 43:234-5 Ap '54

Forgotten facts about office efficiency. R. L. Burlew. Management R 43:292-3 My '54

How Jewel Tea keeps costs down. M. French. Am Bsns 24:14-15+ S '54

How job enlargement cuts absenteeism and overtime; Detroit Edison co. D. G. Baird. il Am Bsns 24:10-12 Jl '54

How three firms do it; controlling clerical errors. il Am Bsns 24:13+ F '54

How to use work records to trim your clerical costs; abstract. Management R 43:236-7 Ap '54

Job enlargement, a key to employee satisfaction; Detroit Edison's new billing setup. il Elec World News ed 141:16-17+ Ja 4 '54

Leveling peak loads in the office; abstract. C. L. Littlefield. Management R 42:204 Ap '53

Maintaining production during office alterations. S. Covington. Management R 43:101-2 F '54

Measuring clerical work. E. T. Ashman. Am Bsns 24:16-17+ S; 16-18+ O '54

Office personnel practices, a survey. Management R 43:368-9 Je '54

Progress in office management; yesterday, today, tomorrow; abstract. F. L. Rowland. Management R 43:583-4 S '54

Raising office production; one company's approach; abstract. D. C. Josephs. Management R 42:387-8 Jl '53

Reducing office downtime with ratio-delay; abstract. R. M. Eastman. Management R 42:524-5 S '53

Reducing postage costs can be easy. E. W. Fair. Rough Notes 97:34+ Ag '54

Setting new sights on the office manager's job; abstract. W. M. Bennett. Management R 43:100-1 F '54

Ten ways to save copying. H. L. Wylie. Am Bsns 24:18-19 Mr '54

Ten ways to save electricity. H. L. Wylie. Am Bsns 23:20-1 D '53

Ten ways to save equipment. H. L. Wylie. Am Bsns 24:24-5 S '54

Ten ways to save fatigue. H. L. Wylie. Am Bsns 24:16-17 Ap '54

Ten ways to save filing time. H. L. Wylie. Am Bsns 24:22-3 Ja '54

Ten ways to save personnel. H. L. Wylie. il Am Bsns 23:20-1 N '53

Ten ways to save space. H. L. Wylie. Am Bsns 24:16-17 F '54

Ten ways to save time. H. L. Wylie. Am Bsns 24:14-15 Ag '54

Wanted; a revolution in the office; abstract. W. H. Wheeler, jr. Management R 42:712-13 D '53

Westinghouse's work simplification saves $2,500 per supervisor. W. Norris. il Am Bsns 24:10-12+ S; 12-13+ O '54

Work simplification cuts plant and office costs. H. F. Burrows. N A C A Bul 34:1155-7 My '53

Workable system for office supplies. H. A. Downs. N A C A Bul 34:1194-200 My '53

See also
Accounting
Billing
Business management
Commercial correspondence
Credit departments
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Executives
Files and filing (documents, etc.)
Forms and blanks, Business
Office workers
Orders
Railroads—Office management

OFFICE management association, Life. See Life office management association

OFFICE supplies

Picture-story packages; Mayco's new cartons are definitely self-selling. il Mod Packaging 27:84-5 Ap '54

Reducing the waste of office supplies. S. Covington. Management R 43:28-9 Ja '54

We find perpetual inventory for office supplies worthwhile. W. F. Mussenden. N A C A Bul 35:669-70 Ja '54

Workable system for office supplies. H. A. Downs. N A C A Bul 34:1194-200 My '53

OFFICE workers

Are clerical incentives worth while? abstract. G. Fergason. Management R 42:150-1 Mr '53

Educating the office worker; a survey. A. H. Gager. Management R 42:455 Ag '53

Foiling the light-fingered; abstract. C. S. Cooper. Management R 42:325-6 Je '53

How Abbott solves shortage of office job applicants. E. M. Bauby and J. Phillips. Am Bsns 23:40-1 D '53

Looking for office personnel, 35 years ahead. F. L. Rowland. Spectator 161:20-1+ Ag '53

Montgomery Ward's clerical incentive plan; abstract. R. Coleman. Management R 42:651-2 N '53

Older women as office workers. il U S Women's Bur Bul 248:1-64; pa 25c Supt. of doc. '53

Setting standards for clerical performance. J. W. Lucas and others. Management R 42:588-91 O '53

Training for clerical accuracy; abstract. C. S. Weber. Management R 42:593-4 O '53

Where white collar meets blue; abstract. A. C. Croft. Management R 42:452-3 Ag '53

White-collar gains keep pace; share in production workers' gains. Bsns W p 171 S 12 '53

White-collar pay; still going up. Management R 43:98-9 F '54

White-collar unions are different! G. Strauss. Harvard Bsns R 32:73-82 S '54

See also
Bank employees
Secretaries, Private
Typists

OFFICES

Ceiling air diffuser aid to flexible office design. il Arch Rec 115:208 My '54

Color enlivens offices; offices for Cunningham & Walsh, inc. il plans diags Arch Rec 114:173-7 O '53

Elements of office planning. R. L. Niles. il Dun's R & Mod Ind 63:54-6+ S '54

Every office a conference room; Englander co. il Am Bsns 24:14-15 Mr '54

Hard old benches get a big heave ho; Schilling's new waiting room; illustrations with text. Sales Management 72:40-1 My 20 '54

How Alcoa's building ups efficiency. H. O. Brayer. il Am Bsns 24:10-12+ F '54

Human factor in office design; abstract. J. G. Lippincott. Management R 42:322-3 Je '53

In the chaos of a scrap yard, a beautifully ordered office and vantage point; Jones iron & metal co. il plan Arch Forum 100:150-1 Ja '54

New insurance policy; major corporation underwrites modern design for its own offices. il plan Arch Forum 98:120-1 Mr '53

Office and home all in one. il plan Am Bld 75:68-9 Jl '53

Offices have sales-minded touch; American photocopy equipment co. il Am Bsns 24:18-20 Ap '54

Offices save executive time; Continental products co. il Am Bsns 23:26 D '53

Paintings for executive offices. il Bsns W p30 N 21 '53

Planning offices in advance; Universal atlas cement co. J. G. Carr. il Am Bsns 24:24+ F '54

Small building, big impact; two-story office structure. il plans Arch Forum 99:123 Ag '53

Ten ways to save space. H. L. Wylie. Am Bsns 24:16-17 F '54

These offices can handle traffic; Goss printing press co. il Am Bsns 24:20-1 Je '54

This old building was remodeled by the tenant; headquarters of the James W. Rouse co. il plans diag Arch Forum 100:138-41 My '54

OFFICES—*Continued*

Why the open-ended mural? West Coast sales office. il plan diags Arch Rec 114:167-71 S '53

See also

Advertising agencies—Offices
Architects' offices
Dentists' offices
Newspaper offices
Office lighting
Physicians' offices
Printing offices

Accidents

See Offices—Safety measures

Air conditioning

Humidity control improves operation of business machines. W. N. Kitchen. il Heating-Piping 25:100 D '53

Is air conditioning worth the investment? answers. Heating-Piping 26:119-20 Ag '54

Is investment in air conditioning sure to pay off? W. Norris. il Am Bsns 24:14-15+ Ap '54

Layout

How much space per office worker? abstract. Management R 43:293-4 My '54

Office layout. Nat Safety N 69:30+ Mr '54

Stretching your office space; abstract. Management R 42:81-2 F '53

Lighting

See Office lighting

Safety measures

Preventing office accidents; abstract. T. J. McInery. Management R 42:587-8 O '53

OFFSET printing. See Printing, Offset

OGG, Sir William, 1891-

Sir William Ogg, president-elect, Society of chemical industry. por Chem & Ind p706 Jl 18 '53

SCI honors Ogg. por(cover) Chem & Eng N 31:3273 Ag 10 '53

OHIO

See also

Architecture, Domestic—Ohio
Chemical industries—Ohio
Electric utilities—Ohio
Geology—Ohio
Paleontology—Ohio
Roads—Ohio

Industries and resources

Upper Ohio resurgence. il map Chem W 73:26+ Ag 22 '53

OHIO Edison company

Offers common shares to stockholders. Comm & Fin Chr 179:401 Ja 25 '54

OHIO hoist and manufacturing company, inc.

Ohio Hoist fights back. Steel 133:88-9 S 21 '53

OHIO river

Army engineers decry precarious state of Ohio River navigation facilities. Eng N 152:26 Ap 8 '54

Control of pollution. P. Garfield. bibliog Land Econ 30:173-6 My '54

Ohio River Valley water sanitation compact. E. J. Cleary. Ind & Eng Chem 45:2656 D '53

OHIO state university

New building for Chemical abstracts. A. H. Emery. Chem & Eng N 31:2610+ Je 22 '53

OHIO Valley electric corporation

Large bond sale arranged. Comm & Fin Chr 178:389 Ag 3 '53

OHMART cell. See Electric batteries

OHRBACH'S, inc.

Ohrbach's moves deeper into two big cities. il Bsns W p43-4+ N 14 '53

OIL, Gas. See Gas oil

OIL, Insulating. See Insulating oil

OIL, Transformer. See Insulating oil

OIL analysis

Analysis of gas oil and cycle stock from catalytic cracking. E. M. Charlet, K. P. Lanneau and F. B. Johnson. bibliog diags Anal Chem 26:861-71 My '54

Continental's tests for determination of per cent stable oil and tank vapors volume in separator oil. C. T. Ardoin and C. E. Lamb. diag Pet Eng 25:C34-5 S '53

Detection of adulteration of butter with vegetable oils by means of the tocopherol content. J. H. Mahon and R. A. Chapman. bibliog Anal Chem 26:1195-8 Jl '54

Determination of copper in mineral oils using an ion-exchange technique. H. Buchwald and L. G. Wood. bibliog Anal Chem 25:664-5 Ap '53

Determination of naphthalene in wash oil and coke oven gas. N. J. Klein and G. W. Struthers. Anal Chem 25:1818-21 D '53

Direct extraction-pycnometer method for oil content of refinery effluents. W. S. Levine, G. S. Mapes and M. J. Roddy. bibliog il diag Anal Chem 25:1840-4 D '53

Functional group analysis. R. A. Glenn and E. D. Olleman. bibliog Anal Chem 26:350-2 F '54

Petroleum oil extenders. W. L. Dunkel, F. P. Ford and J. H. McAteer. bibliog il Ind & Eng Chem 46:578-86 Mr '54

Simplified method for determination of oil in waste waters. R. E. Beaudoin. Sewage & Ind Wastes 26:568-9 Ap '54

Spectrophotometric determination of vitamins D in presence of vitamin A. D. T. Ewing and others. bibliog Anal Chem 26:1406-9 S '54

See also

Lubricating oils—Analysis
Oil fuel—Analysis
Oil shales—Analysis
Petroleum—Analysis
Pine oil—Analysis

OIL and colour chemists' association

Biennial conference, Eastbourne, June 2-6. Chem Age (Lond) 68:883-6 Je 13 '53

OIL bulk stations

Jobber builds safety, expansion room and efficiency into bulk plant. L. Castle. il Nat Pet N 45:46-8 Jl 15 '53

New bulk plant takes over. il Nat Pet N 45:78 Ag 19 '53

Oil jobber; a look at storage, truck facilities. Nat Pet N 45:28-30 Ag 12 '53

Equipment

Petrol distribution stations. Engineer 197:151 Ja 22 '54

Terminal answers needs of varied trade. il plan Nat Pet N 45:16-18 D 30 '53

Fires and fire protection

Efficinet fire protection will cut oil dollar loss. il Nat Pet N 46:36-9 F 24 '54

Management

How a jobber cut product loss 23,000 gal.; Becwar-Cedarstrom co. L. Castle. il plan Nat Pet N 45:17-20 Je 10 '53

OIL burner industry

Statistics

Oil burners, 1949-1952. Survey of Cur Bsns 1953 Sup p 164 [supplemented in monthly numbers]

OIL burners

Brockhouse automatic oil burners. il Engineer 196:783 D 11 '53; Engineering 177:61 Ja 8 '54

Choose right oil and gas burners. P. R. Unger. il diags Power Eng 57:78-80+ N '53

Hauck oil burner unit. il Iron & Steel Eng 30:204+ O '53

Heat; how it is applied, contained and controlled in all the ceramic industries. il diags Brick & Clay Rec 123:51-4+ N '53; Same. Cer Ind 61:45-6+ N '53

Jet principle blasts annealing troubles. W. K. Lombard. il diag Steel 133:80-1 Ag 24 '53

Know your oil burner auxiliaries. L. J. Murphy. il diags Mill & Factory 54:117-20 Ja '54

Length of oil and gas flames. A. L. Cude. flow diag diags Iron & Steel Inst J 175:304-12 N '53

Minimizing heating-oil instability. Oil & Gas J 52:111 Jl 6 '53

Oil burner installation practice. C. H. Burkhardt. diags Sheet Metal Worker 45:51-2+ My; 80-1+ Je; 60-1+ Jl; 70-2 Ag '54

Oil heating and oil burner servicing. diags Dom Eng 182:48-51+ N; 86-8+ D '53; 183:86-7 Ja; 182-4+ F; 140-4+ Mr; 137-41+ Ap; 141-4 My; 142-6+ Je; 184:136-40+ Jl; 131-4+ Ag; 141-4+ S; 132-5 O; 140-1+ N '54 (to be cont)

Piping for fuel oil burners; detail sheet. diags Heat & Ven 51:109-10 My; 119-20 Je '54

OIL burners—*Continued*

Proper oil atomization promotes good ceramic firing. diags Cer Ind 63:83+ Jl '54; Same abr. Brick & Clay Rec 125:63-4 Jl '54

See also

Oil burning equipment

Cleaning

Wet blasting speeds cleaning of furnace, press parts. il Iron Age 173:160+ Mr 25 '54

Control

Oil burner master heat control. R. W. Gustafson. diags Elec Eng 72:1005-8 N '53

Oil burner of high efficiency. il diag Engineering 177:84 Ja 15 '54

Maintenance and repair

Put your service business in the black. Dom Eng 183:214-15+ Mr '54

Safety devices

Safety mechanism for oil burners. il Engineering 176:634 N 13 '53

OIL burning equipment

Home air conditioning with oil. House & Home 3:168-9 Ap '53

See also

Oil water heaters

OIL chemists' society, American. See American oil chemists' society

OIL companies

Armed services petroleum purchasing agency opening door to jobbers; independent oil jobbers can expect more considerate treatment. Nat Pet N 45:18 D 9 '53

Boost in farm sales is forecast. Nat Pet N 45:15-18 D 9 '53

Deep Rock and its jobbers. Nat Pet N 45:58-9 Je 10 '53

How a jobber built up own brand. M. Reid. il Nat Pet N 45:39-43 Ag 19 '53

How about a brain-trust meeting? Standard oil of California seminars for college professors. il Sales Management 73:30-1 pt 2 Jl 1 '54

How an oil jobber markets LP-gas. L. Castle. il Nat Pet N 45:49-52 Jl 8 '53

Jobbers eligible for loans now. Nat Pet N 45:16-17 D 16 '53

Meet the Intermountain jobbers. Nat Pet N 45:18-19 O 28 '53

Northwest independents claim squeeze-out. Nat Pet N 45:13 N 25 '53

Oil faces tougher competition in 1954. Nat Pet N 46:13 Ja 6 '54

Oil jobber; a look at storage, truck facilities. Nat Pet N 45:28-30 Ag 12 '53

Oil men are going back to school. il Nat Pet N 46:21-3 F 17 '54

Plan now to keep oil jobberships alive. Nat Pet N 45:24-5+ D 2 '53

Small jobber's problems; Wiegand oil co. L. Castle. Nat Pet N 46:45 Ja 13 '54

Study traces effects of oil integration; Harvard university research report. Nat Pet N 46:19 F 24 '54

Where the jobber sells his products. Nat Pet N 45:46-7 Ag 19 '53

Who is the independent oil jobber? Nat Pet N 45:43+ Ag 26 '53

Years ahead offer the jobber the greatest opportunity he has ever had. B. M. Hynes. Nat Pet N 46:22-3 Ja 20 '54

See also

National oil jobbers council

Standard oil company (New Jersey)

Standard oil company of Indiana

Union oil company of California

Accounting

Mechanical brain solves inventory woes. il Nat Pet N 45:56+ N 4 '53

Advertising

Majors spending more to advertise products. il Nat Pet N 45:31+ Ag 12 '53

OIIC ad tells Ohio jobber's story. il Nat Pet N 45:88 Jl 1 '53

Publicity boosts profits for oil jobber. il Nat Pet N 45:38+ O 21 '53

What it costs to advertise. Nat Pet N 45:54-5 Je 10 '53

Costs

Cost control is key to bigger netback. Nat Pet N 45:56-7 Ag 12 '53

Credit problems

Budget sales to credit card holders seen as step toward change in policy. F. C. Sturtevant. Nat Pet N 45:66 Ag 5 '53

Consignee makes credit loss vanish. F. Breese. il Nat Pet N 45:49-51 Je 10 '53

Farm money tight; collecting bills holds key to oil marketers' profits in 1954. Nat Pet N 46:20-1 Ja 13 '54

Regular credit checks cut risk. Nat Pet N 45:24-5 N 11 '53

Right kind of credit terms to farmers can help cut jobbers' collection costs. L. Castle. Nat Pet N 45:43-4 Je 3 '53

There are many headaches and problems in running National credit card setup. F. Breese. Nat Pet N 45:27-8 Je 10 '53

Employees

Big labor sets sights on oil marketing. il Nat Pet N 45:13-15 O 14 '53

Cross-country scouting party; Socony-Vacuum Oil trying new tactic. il Chem W 75:24-5 S 11 '54

Employes get picture of competition. Nat Pet N 45:85 Ag 19 '53

Most jobbers under Wage-hour law. Nat Pet N 46:19-20 Ja 27 '54

Equipment

Oil marketing equipment demand good. C. Boyd, jr. Nat Pet N 45:54+ O 7 '53

Finance

Majors' profits drop in '52; expenditures up. Nat Pet N 45:40-2 Jl 1 '53

Oil companies show gains during 1953 and first quarter of 1954. Chem & Eng N 32:2160 My 24 '54

Management

Clippers didn't stop consignee. F. Breese. Nat Pet N 45:43-4 Jl 22 '53

Consignee finds profit in stove oil. F. Breese. il Nat Pet N 45:40-2 Ag 26 '53

Cosden helps itself by helping jobbers. il Nat Pet N 46:22-4 Ja 13 '54

Decentralization, key to better marketing; General petroleum corp. Nat Pet N 46:20-2+ F 24 '54

Hard-hitting ideas sell oil; Milder oil co. L. Castle. il Nat Pet N 45:50-1 Jl 1 '53

Holding gallonage in a by-pass area; Romac oil co. il Nat Pet N 45:46-7+ N 18 '53

How by-passed consignee came back. M. Reid. il Nat Pet N 45:88+ Je 17 '53

How Champlain keeps sales humming. il plan Nat Pet N 45:36-9 Jl 22 '53

How planned selling made consignee grow. F. Breese. il Nat Pet N 45:49-51 Je 24 '53

How Socony works with distributors. G. D. McDaniel. Nat Pet N 45:34-5+ O 14 '53

In fuel oil, it's survival of the fittest. il Nat Pet N 46:16-18 Ja 6 '54

Jobber puts experience to work; Leel distributing co. F. Breese. il Nat Pet N 45:41-3 Jl 29 '53

Jobber streamlines delivery network; Newell oil co. il Nat Pet N 45:26-8+ N 11 '53

Marketer offers Hawaii vacation; M. M. Huggins sales campaign. Nat Pet N 46:34 F 3 '54

Marketing position, or profits, or both? A. W. Peake. Am Pet Inst Proc 33(1):90-3 '53

Oil jobber puts profit in marketing. F. Breese. il Nat Pet N 45:55-60 Jl 8 '53

Organization planning in Creole petroleum corp. C. F. Lindsley, jr. Personnel 30:189-95 N '53

Shell's training program aims at giving dealers what they want to know. il Nat Pet N 46:30-1+ F 17 '54

Station geared to serve new town; Meenan oil co., Levittown, Pa. il Nat Pet N 45:16-19 Ag 26 '53

System for selling boosts profits; Red dot oil co. Nat Pet N 45:24+ D 9 '53

Texas jobber keeps costs lean. M. Reid. il Nat Pet N 45:44-8 Je 24 '53

Wide-angle selling cuts soft spots. F. Breese. il Nat Pet N 45:49-51 Ag 12 '53

OIL companies—*Continued*

Public relations

How and why Standard Oil puts its public relations policies in writing. D. J. Atchison. il Sales Management 71:134-8+ S 15 '53
Jobber's public relations pay off; Ballard oil & equipment co. R. E. Bjorkback. il Nat Pet N 45:44-6 Jl 29 '53

Records

Cost records help profits grow. L. Castle. il Nat Pet N 45:38-40 S 16 '53

Securities

See Petroleum industry and trade—Securities

Side line selling

Accessories can be TBA profit-makers. W. G. Gordon. Nat Pet N 45:25+ D 23 '53
Adding up lost profit can push TBA. F. C. Sturtevant. Nat Pet N 45:45 D 2 '53
Code would help meet TBA competition. F. C. Sturtevant. Nat Pet N 46:36-7 Ja 13 '54
Filters and plugs; a big market. Nat Pet N 45:28 O 28 '53
Jobber makes TBA budget plan work. E. J. Connable. Nat Pet N 45:43 D 2 '53
Jobber sets sights on more tire sales. il Nat Pet N 45:30-1 N 25 '53
Keeping TBA sales up the year around; Northwood oil co. F. C. Sturtevant. il Nat Pet N 45:21-3 O 14 '53
Marketer mobilizes for all-out TBA offensive. F. Breese. il Nat Pet N 45:74+ Jl 1 '53
Oil and TBA must work hand in hand. H. G. Meador. Nat Pet N 45:19-20 D 30 '53
Oil jobber quadruples TBA sales. il Nat Pet N 45:64-5 O 7 '53
Skelly pushes sale of tubeless tires. il Nat Pet N 45:25+ O 14 '53
Ten per cent increase; that's TBA outlook for '54. Nat Pet N 45:13-14 D 23 '53

OIL delivery
Jobber streamlines delivery network; Newell oil co. il Nat Pet N 45:26-8+ N 11 '53
Offshore oil delivery saves time and money; abstract. S. P. Johnson and E. A. Salo. diags Power Eng 57:88 D '53
Sohio ups price for costly heating oil dumps. H. Ridder. Nat Pet N 45:33-5 Je 17 '53

Costs

What price oil trucking? Oil & Gas J 52:117-18 Ja 18 '54

OIL engines. See Diesel engines; Internal combustion engines

OIL films
Attachment to permit the examination of liquid films by a Beckman model DU spectrophotometer. H. G. McAdie and R. V. V. Nicholls. il diags Opt Soc Am J 43:767-8 S '53
Hydrostatic lubrication; a way to break the law of friction. T. L. Corey and E. M. Kipp. diags Steel 135:118-19 Ag 16 '54
Oil whip of flexible rotors. A. C. Hagg and P. C. Warner. bibliog il diags A S M E Trans 75:1339-44 O '53
Solution of the Reynolds equation for slider-bearing lubrication. A. Charnes and others. bibliog diags A S M E Trans 74:867-73; 75:267-71, 507-12, 1117-21, 1125-36; 76:327-30 Jl '52, F, My, Ag '53, F '54; Discussion. 75:271-2, 512-13, 1121-3 F, My, Ag '53

OIL filters
After-filters remove wax haze. D. P. Thornton, jr. il diag Pet Processing 8:1697-9 N '53
Barnesdril Kleenall combination filters for metal-working coolants. il Mach 60:240 N '53
Filters and purifiers for oil circulating systems. J. S. McKeown. il diags Paper Tr J 138:22-5 Mr 19; 26-9 Mr 26 '54; Same cond. Diesel Power 32:74-80 Ap '54
How Fram's separator-filter works. il diag Diesel Power 32:44-5 My '54
Oil filtration; plant cuts costs, improves quality in grinding; Electric autolite co. Iron Age 173:181-2 Mr 4 '54
Select the right Diesel filter. J. P. Kovacs. il diags Power 98:118-19 Ag '54
Which is best oil-filter hookup? answers. diags Power 98:134+ Mr '54

OIL filters, Aircraft
Fram strikes pay dirt in engine oil. G. L. Christian. il diag Aviation W 58:74+ Je 22 '53

OIL filters, Automobile
Clean engines have longer lives. R. D. Raddant. il Iron Age 173:108+ My 20 '54
Filters and plugs; a big market. Nat Pet N 45:28 O 28 '53
Industrial research improves oil filters; laboratory testing and development at Kralinator, ltd. E. Beynon. il Can Chem Process 38:94+ My '54
Oil filter comes of age. W. S. James. il diags Am Pet Inst Proc 33(2):68-79 '53
Some things on which we can agree. C. M. Heinen. Am Pet Inst Proc 33(2):94-104 '53

Manufacture

Design tooling for complete automation; AC spark plug div. of General Motors. W. G. Patton. il diags Iron Age 173:114-16 Jl 1 '54

Testing

Results analyzed in second round of oil filter test contaminant trials. diag S A E J 61:96-7 D '53

OIL fires
Extinguishing oil fires by fog nozzles. il Engineering 176:671 N 20 '53
Extinguishment or control of oil fires by agitation. H. A. Ashton. Am Pet Inst Proc 33(5):76-8 '53
In-situ combustion; newest method of increasing oil recovery. C. S. Kuhn and R. L. Koch. bibliog map diags Oil & Gas J 52:92-6+ Ag 10 '53
Production by fire; Magnolia perfecting method. il Oil & Gas J 52:68-9 Ag 10 '53
See also
Oil tanks—Fire protection
Petroleum—Production methods
Petroleum industry and trade—Fires and fire protection
Petroleum pipe lines—Pumping stations—Fires and fire protection
Petroleum refineries—Fire and fire protection

OIL flow
Multiphase-flow theory and the problem of spacing oil wells. F. G. Miller. bibliog(27 titles) diags U S Bur Mines Bul 529:1-35; pa 20c Supt. of doc. '54
Pumpability of residual fuel oils. F. Gill and R. J. Russell. bibliog diags Ind & Eng Chem 46:1264-78 Je '54
Study of lubricant flow in bearings by streak photography. F. J. Kolano. il Product Eng 24:162-3 O '53; Abstract. Westinghouse Eng 13:208 N '53

OIL fuel
Additives are quality correctives. J. W. Ryznar. Ry Age 137:51-2 S 6 '54
Application of additives to fuel oil and their use in steam-generating units. J. B. McIlroy and others. bibliog il diags A S M E Trans 76:31-42; Discussion. 43-6 Ja '54
Bentonite-Diesel oil squeeze; new development for lost circulation. D. D. Dawson, jr. and W. C. Goins, jr. il World Oil 137:222+ O '53
Burning of heavy fuel oil; abstract. D. A. Monk. Chem & Ind p602 My 22 '54
Burning the heavier oils; panel discussion. Heating-Piping 26:108-9 Jl '54
Diesel-oil-volume correction factors save calculation time; data sheet. H. Holcombe. Power 98:109 My '54
Dispersants eliminate sludge; abstract. C. B. Biswell. Chem & Eng N 32:1447 Ap 12 '54
Economics of using low-grade Diesel fuels in GM engines. W. K. Simpson. il Ry Loco & Cars 128:60-2 S '54
Emulsions of seawater in admiralty fuel oil, with special reference to their demulsification. W. Kilner. diag Inst Pet J 39:51-5 Ja '53
Fuel handling and storage. J. C. McCabe. diags Power 97:94-6 D '53
Fuel-oil additives. A. J. Weber. il diag Power 98:108-9 S '54 (to be cont)
Heating-oil instability. Oil & Gas J 52:111 Jl 6; 145 Jl 20 '53
Performance of Alco Diesel engines on low grade fuels. H. R. Sennstrom. il Ry Loco & Cars 128:58-60 S '54

OIL fuel—*Continued*

Petroleum fuels. W. G. Lovell. Ind & Eng Chem 45:1426-9 Jl '53

Pour points of distillates or Diesel fuels. W. L. Nelson. Oil & Gas J 52:117 Ja 18 '54

Preliminary study of the rheological properties of residual fuel oils in relation to their composition. G. C. Ackroyd and C. M. Cawley. bibliog Inst Pet J 39:82-104, pl 1-6 F '53

Problem of fuel-oil ash deposition in open-cycle gas turbines. A. T. Bowden and others. bibliog diags Inst Mech Eng Proc (A) 167 no 3:291-300, pl 1-4 '53; Same cond. Engineer 195:639-42 My 1 '53; Discussion. il Inst Mech Eng Proc (A) 167 no 3:300-12 '53; Engineer 195:627-8, 659-60 My 1-8 '53

Properties of residual petroleum fuels. W. Sacks. bibliog(52 titles) A S M E Trans 76:375-9 Ap '54

Pumpability of residual fuel oils. F. Gill and R. J. Russell. bibliog diags Ind & Eng Chem 46:1264-78 Je '54

Reduce your firing costs with proper oil supply system. diags Brick & Clay Rec 124:81-4 Je '54

Residential heating; oil vs gas. A. L. Carroll. Am Gas Assn Mo 36:19-20+ Jl-Ag '54

Residuals look better; heavy fuels may see wider use in gas turbines. G. Weber. Oil & Gas J 52:90 D 14 '53

Solubility of gases in lubricating oils and fuels. R. R. Baldwin and S. G. Daniels. bibliog diags Inst Pet J 39:105-24 F '53

Stability of fuel oil-gas oil blends. D. G. Butlin. Inst Pet J 39:294-303 My '53

Theory and practice of lime manufacture; fuel oil and its application to the combustion system. V. J. Azbe. Rock Prod 57:129-32 Je '54

Theory and practice of lime manufacture; increasing importance of fuel oil. V. J. Azbe. il diags Rock Prod 57:132+ Ap '54

Theory and practice of lime manufacture; thermal standard of performance in fuel oil firing of vertical lime kilns. V. J. Azbe. Rock Prod 57:82-3 S '54

Use light or heavy oil for heating a school? R. I. Anderson. il Heating-Piping 26:79-81 Ap '54

See also

Airplane engines—Fuel
Automobile engines—Fuel
Automotive fuel
Boilers—Oil firing
Coal liquefaction
Diesel engines—Fuel
Gasoline
Internal combustion engines—Fuel
Liquid fuel
Locomotives, Diesel—Fuel
Oil burners
Oil burning equipment
Oil fuel industry
Oil water heaters

Analysis

Determination of trace elements in fuel oils. C. W. Key and G. D. Hoggan. diag Anal Chem 25:1673-6 N '53

Metallic elements in residual fuel oils. F. H. Garner and others. bibliog Inst Pet J 39:278-93 My '53

Nitrogen compounds in distillate fuels. L. F. Ward, jr., R. T. Moore and J. S. Ball. bibliog Anal Chem 25:1070-2 Jl '53

Manufacture

Blaw-Knox decarbonizing process. flow diag Pet Refiner 32:106-7 Jl '53

Check these operating possibilities. Pet Refiner 32:105 Jl '53

Kellogg delayed coking process. diag Pet Refiner 32:108-9 Jl '53

Lummus delayed coking process; Lummus continuous contact coking. flow diag diag Pet Refiner 32:102-4 Jl '53

Reducing fuel oil by residuum coking. J. H. Eppard and others. flow diag il diag Pet Refiner 32:98-101 Jl '53

Three electric processes; fuel oil desaponification treater. diag Pet Refiner 32:128+ S '53

Metal content

Metallic elements in residual fuel oils. F. H. Garner and others. bibliog Inst Pet J 39:278-93 My '53

Prices

Fuels available, how they are priced. F. A. L. Holloway. Ry Age 137:48-51 S 6 '54

Price indexes of gas, other fuels and electricity; tabulation. Am Gas J 181:22 Jl '54

Sohio ups price for costly heating oil dumps. H. Ridder. Nat Pet N 45:33-5 Je 17 '53

Storage

See Oil storage

OIL fuel industry

Consignee finds profit in stove oil. F. Breese. il Nat Pet N 45:40-2 Ag 26 '53

Cost control is key to bigger netback. Nat Pet N 45:56-7 Ag 12 '53

Heavy-fuel decline. Oil & Gas J 52:51-2 Ja 4 '54

High inventories put pressure on markets; month-by-month review. Oil & Gas J 52:180+ Ja 25 '54

How petroleum goes to market. J. S. Cross and R. F. King. diags Nat Pet N 45:19-20 Jl 22 '53

In fuel oil, it's survival of the fittest. il Nat Pet N 46:16-18 Ja 6 '54

Increased competition, slower growth seen ahead for U.S. heating oil market. Nat Pet N 45:21 Je 10 '53

Industry relations. R. J. Thompson. Am Pet Inst Proc 33(2):31-2 '53

Jobber sales force built from scratch. il Nat Pet N 45:29-31 S 23 '53

Oil imports with particular reference to heavy fuel oil. M. J. Rathbone. Am Pet Inst Proc 33(1):68-72 '53

Oil's aim; higher octanes, stock balance. Nat Pet N 45:62-4 D 16 '53

Program to sell heating oils. il Nat Pet N 45:30-1+ S 9 '53

Sohio ups price for costly heating oil dumps. H. Ridder. Nat Pet N 45:33-5 Je 17 '53

Solution for summer slack; fuel tank trucks to spray liquid fertilizer. il Chem W 75:52+ Jl 10 '54

Stress oil cleanliness, New York jobbers told. Nat Pet N 45:18+ O 21 '53

What it takes to sell heavy oil. C. Boyd, jr. il Nat Pet N 45:46-7+ Je 17 '53

See also

Petroleum industry and trade—United States—Imports problem

Advertising

OHI ad package makes hit. il Nat Pet N 45:87 Jl 1 '53

Statistics

Fuel oil, 1949-1952. Survey of Cur Bsns 1953 Sup p 172 [supplemented in monthly numbers]

OIL gas. See Gas, Oil

OIL heat institute of America

National indoor comfort exposition and meeting, Philadelphia, May 16-20. Sheet Metal Worker 45:107-10 Je '54

Product report from the Oil heating show. il Dom Eng 184:141+ Jl '54

OIL heaters

Oil burning heater; Key-Leather K-L 10,000 heater unit. diags Automobile Eng 44:125-6 Mr '54

OIL heating

Careful design provides efficient circulating oil heating for batch still. D. E. Pierce. diags Ind & Eng Chem 46:sup73A-4A+ S '54

Heating with hot oil. R. C. Swaney. Tappi 37:sup 181A-3A Je '54

Simplified design for viscous oil heat exchangers. A. Devore and J. E. Heinz. bibliog Pet Refiner 32:105-10 D '53

OIL industries

See also

American oil chemists' society
Essential oils
Fish oil
Linseed oil
Lubricating oil industry
Lubricating oils
Oil companies
Oil fuel industry
Oils and fats
Petroleum industry and trade
Soybean oil
Tung oil

Statistics

Fats, oils, oilseeds, and byproducts, 1949-1952. Survey of Cur Bsns 1953 Sup p 125-9 [supplemented in monthly numbers]

OIL industries—*Continued*

Africa, West

Oilseeds, oils competition expected from West Africa. Oil Paint & Drug Rep 166:59 Jl 12 '54

Canada

Chemical Canada; vegetable oils; tabulations. H. McLeod. Can Chem Process 38:16 Je 20 '54

Europe

European essential oils today. Soap & San Chem 29:47 N '53

Formosa

Formosa, source of essential oils. Chem & Eng N 32:824 Mr 1 '54

South America

Essential oils feeling changes in South America. E. Guenther. Oil Paint & Drug Rep 164:5+ D 28 '53; Same. Soap & San Chem 30:69 Ja '54

OIL industry information committee. See Petroleum industry and trade—Public relations

OIL lands

Operations on federal lands in the Rocky mountains. L. J. Putnam. Am Pet Inst Proc 33(4):20-4 '53; Same cond. Oil & Gas J 52:274+ N 16 '53; Discussion. Am Pet Inst Proc 33(4):25-6 '53

Threat to leases; Utah federal judge holds standard unit clause invalid. H. D. Ralph. Oil & Gas J 52:81-2 Ag 17 '53

Want to lease from Uncle Sam? B. F. Linz. Oil & Gas J 52:100-2+ Ag 24 '53

See also

Oil reserves (United States navy)

Petroleum laws and regulations

Maps

1953 oil map of Colombia and Venezuela. World Oil 137:supp Ag 15 '53

Western Canada oil and gas map. World Oil 137:supp D '53

Valuation

Valuation of oil and gas properties. R. W. Harrison. Pet Eng 25:A41-3 Jl '53

OIL leases. See Oil lands

OIL measurement

See also

Petroleum—Measurement

OIL pipe lines

West coast's largest submarine line laid in record time. R. Sneddon. il Pet Eng 25:D7-8 S '53

See also

Petroleum pipe lines

Petroleum products pipe lines

OIL pipes

Bending shrinks pipe installations costs. il Nat Pet N 46:40 Ja 13 '54

Know your oil burner auxiliaries. L. J. Murphy. il diags Mill & Factory 54:117-20 Ja '54

Piping for fuel oil burners; detail sheet. diags Heat & Ven 51:119-20 Je '54

Versatile piping systems for marine oil terminal. il Heating-Piping 26:97 Ap '54

See also

Petroleum pipe lines

OIL pumps

Huge oil hydraulic pumps for tube reducers. il Mach 60:207 D '53

Pumpability of residual fuel oils. F. Gill and R. J. Russell. bibliog diags Ind & Eng Chem 46:1264-78 Je '54

Pumps hasten delivery of oil. Blast F & Steel Pl 42:572 My '54

See also

Petroleum pipe lines—Pumping stations

OIL purification

Filters and purifiers for oil circulating systems. J. S. McKeown. il diags Paper Tr J 138:22-5 Mr 19; 26-9 Mr 26 '54; Same cond. Diesel Power 32:74-80 Ap '54

Is purification the Diesel operator's answer to heavy-fuel pitfalls? panel discussion. il Power 98:120-1 Jl '54

Oil for power steering tests purified and reused; Saginaw steering gear division of GMC. J. A. Hudson. il Am Mach 98:92-3 Ag 30 '54

Sharples centrifuge for heavy fuel oils. il Engineering 176:798 D 18 '53

Sharples turbine lubricating oil purifier. il Engineer 197:294 F 19 '54

Use of portable purifier unit on production machines reduces down time and maintenance costs. il Mill & Factory 54:135-6 Je '54

OIL reclamation

Canny bulk handling saves chip and oil wastes; Allis-Chalmers mfg. co.; illustrations with text. H. W. Lindsay and L. F. Graves. diags Am Mach 98:130-3 Mr 15 '54

Periodic sample-testing tells when, and on-the-job purification is how today's insulating oils should be maintained. J. R. McCoy. il Power 98:90-3+ F '54

Progressive oil purification saves clay and cuts costs. A. M. McCabe. il Elec World 140:158+ Ag 24 '53

Reclaimed oil boosts thread-grinder output. C. I. Wallace. il diag Am Mach 97:126-7 D 7 '53

Reclaimer cuts annual transformer oil cost $4,000. il Elec World 139:100+ Je 29 '53

Simplex machine to reclaim oil. Steel 134:110 Mr 1 '54

Waste handling is turned to profits; Eaton mfg. co. il Steel 134:116-17 Ap 26 '54

See also

Oil separators

OIL refineries

See also

Petroleum refineries

OIL refining

Blaw-Knox designs packaged unit for continuous fat splitting process. flow diag Chem & Eng N 31:3916+ S 21 '53

From byproduct to big product; tall oil story. il diags Chem Eng 61:132+ Je '54

New seed oil refining process; patent. diag Chem Eng 60:356+ N '53

See also

Petroleum refining

OIL reserves (United States navy)

Case for the naval petroleum reserves. M. V. Carson, jr. il diag U S Naval Inst Proc 79:266-71 Mr '53

Reserve bill ready. Oil & Gas J 52:113 Ja 25 '54

OIL sand

Determination of porosity by a Bureau of mines method; a list of porosities of oil sands. C. G. Rall and others. 5pls U S Bur Mines Rep of Invest 5025:1-24 bibliog(34 titles, p22-4) '54

See also

Bituminous sand

OIL seals

Materials for special service; mechanical leather. A. S. Berens. il Machine Design 26:140-3 My '54

Oil seals for protection of distribution systems. H. W. Parker. diags Am Gas Assn Proc 1953:411-13; Same. Gas Age 112:34-5 N 5 '53

Weston spring-loaded oil-seal. diag Engineering 177:247 F 19 '54

OIL separators

Gravity separation of oil; Sun oil co. H. F. Elkin and W. E. Soden. bibliog flow diag plans diags Sewage & Ind Wastes 26:854-61 Jl '54

How Fram's separator-filter works. il diag Diesel Power 32:44-5 My '54

White's oily-water separator. diag Engineering 177:150 Ja 29 '54

OIL shales

Full-scale shale oil plant proposed. A. C. Rubel. Nat Pet N 45:16 O 28 '53

Modified Gray-King assay of oil shale. G. E. Mapstone. Inst Pet J 39:848-50 D '53

Oil shale vast reservoir of energy. T. Ertl. il diags Min Cong J 40:74-6+ Je; 24-7 Jl '54

Portland cement from oil shale. F. Kloiber. Rock Prod 57:59+ Jl '54

Studies in shale oil. G. E. Mapstone. bibliog Inst Pet J 39:354-80 Je '53

Tapping the rocks; Union oil co.'s invitation to build a government-industry plant. Chem W 73:13-14 N 7 '53

Will we mine oil? committee may recommend production of liquid fuels from oil shale. B. F. Linz. il Oil & Gas J 52:106-7 D 21 '53

OIL shales—*Continued*

Analysis

Estimating oil yield of lean oil shale. K. E. Stanfield. il Anal Chem 25:1552-3 O '53

Distillation

Better oil from shale; new Bureau of mines continuous retorting system. diag Chem Eng 60:114 Jl '53

Chemical engineering unit processes; pyrolysis of coal and shale. C. H. Prien. il Ind & Eng Chem 45:2022-34 bibliog(334 ref, p2031-4); 46:1884-7 bibliog(46 ref, p1887-8) S '53, S '54

New ways to retort oil shale. diags Chem Eng 60:374+ Je '53

Oil from shale. R. J. Cameron and B. Guthrie. bibliog(26 titles) flow diags il diag Chem Eng Prog 50:336-41 Jl '54

Oil-shale operations in the Union of South Africa, Oct. 1947. H. M. Thorne and A. J. Kraemer. bibliog 18pls U S Bur Mines Rep of Invest 5019:1-31 '54

Oil-shale retort. Mech Eng 75:488 Je '53

Oil-shale retorting through application of fluidized-solids techniques. H. F. Wigton and B. E. Lauer. bibliog flow chart il diag Chem Eng Prog 50:134-8 Mr '54

Oil shale vast reservoir of energy; retorting and refining methods. T. Ertl. il diag Min Cong J 40:24-7 Jl '54

Pyrolysis of oil shale in gas combustion retort. M. W. Putman and R. J. Cameron. bibliog flow diag diags Ind & Eng Chem 46:689-93 Ap '54

Synthetic liquid fuels annual report of the Secretary of the interior for 1953; oil from oil shale. bibliog 22pls U S Bur Mines Rep of Invest 5044:1-55 '54

Theoretical consideration of heat transfer in the gas-flow oil-shale retort. C. J. Mains and A. Matzick. bibliog 8pls U S Bur Mines Rep of Invest 4995:1-11 '53

Thermal decomposition rates of carbonates in oil shale. E. E. Jukkola and others. bibliog diag Ind & Eng Chem 45:2711-14 D '53

Thermal solution and hydrogenation of Green River oil shale; experimental investigations. H. B. Jensen and others. bibliog(159 titles) diags U S Bur Mines Bul 533:1-42; pa 30c Supt. of doc. '53

Mining methods

Hydraulic-powered platform for scaling high backs and walls. C. K. Rose and others. 6pls U S Bur Mines Rep of Invest 5074:1-4 '54

Oil shale vast reservoir of energy; mining by underground room and pillar methods. T. Ertl. il diag Min Cong J 40:74-6+ Je '54

New Brunswick

Nashwaak has some plans; power to burn in making alumina out of oil shale. Can Chem Process 38:11-12 Ag '54

South Africa

Oil-shale operations in the Union of South Africa, Oct. 1947. H. M. Thorne and A. J. Kraemer. bibliog 18pls U S Bur Mines Rep of Invest 5019:1-31 '54

OIL storage

Esso considering this plan for underground product storage. il diag Pet Refiner 32:148 Ag '53

Oil storage study is under way. Oil Paint & Drug Rep 165:5 Je 7 '54

Old quarries for oil storage. V. B. Guthrie. il diag Pet Processing 8:1168-9 Ag '53

Pit oil storage, what it means to marketers. il Nat Pet N 45:11-12 Jl 29 '53

Quarry storage for heating oils? G. Weber. il diag Oil & Gas J 52:42-3 Jl 6 '53

Slate pits may provide seasonal oil storage. il diag Nat Pet N 45:25-6 Jl 8 '53

OIL tankers. See Tank ships

OIL tanks

Automatic horizontal and vertical welding of field erected structures. A. R. Meyer. il diags Welding J 33:651-9 Jl '54

Future development of lease tankage. K. B. Henderson. diags Am Pet Inst Proc 33(5):46-50 '53; Same abr. Oil & Gas J 52:208-9 N 16 '53

Hydrostatic tank movement saved Union oil company $55,000. R. Sneddon. il Pet Eng 25:D36 O '53

Know your oil burner auxiliaries. L. J. Murphy. il diags Mill & Factory 54:117-20 Ja '54

New storage floats; partially submerged spheroid tank designed for offshore production. diag Oil & Gas J 52:78 N 9 '53

New vent valve cuts vapor losses. il diags Pet Processing 9:62-5 Ja '54

Oil burner installation practice; oil tank installation and piping. C. H. Burkhardt. Sheet Metal Worker 45:80-1+ Je '54

Reduce your firing costs with proper oil supply system. diags Cer Ind 62:72+ Je '54

Remote tank gaging via telemetering. D. N. McMillan. il Pet Eng 25:D 19+ N '53

Shell moves a tank the easy way. il plan Chem Eng 60:140-1 Ag '53

Step-down plan saves grading costs; oil tank installations. F. J. Norton. il diag Oil & Gas J 52:248+ S 21 '53

Swivel chair tank gages. il diag Pet Eng 25:E4 Jl '53

See also

Tank ships

Cleaning

Clearing sludge in fuel-oil tanks. Engineering 177:120 Ja 22 '54

Fire protection

Design of bases of concrete firewalls. E. Wolfson. il diags Pet Eng 25:C31-2 O '53

Efficient fire protection will cut oil dollar loss. il Nat Pet N 46:36-9 F 24 '54

Extinguishment or control of oil fires by agitation. H. A. Ashton. Pet Eng (Ref annual) 25:D28-30 Jl 15 '53

Graphs save time in dike design. J. R. Wilson. diag Pet Eng 25:C34+ O '53

Painting

How painting affects storage-tank losses. W. L. Nelson. bibliog Oil & Gas J 52:130 N 2 '53

Protection

Cathodic protection of storage tanks; Chicago and North western railway. B. D. Allison. diags Diesel Power 32:30-2 F '54

New cathodic protection for crude-oil storage tanks. il Oil & Gas J 52:139 S 28 '53

Repair

How to patch underground oil storage tank? Power Eng 58:96 F; 102+ Mr '54

Roofs

Special tools cover 15-acre roof quickly. il Constr Methods 35:154+ N '53

OIL tanks, Concrete

Organic coatings adaptable to fuel storage. J. E. Cowling, I. J. Eggert and A. L. Alexander. bibliog il Ind & Eng Chem 46:1977-85 S '54

Why prestressed concrete in refinery? J. S. Bell and D. R. Deveaux. il diags Oil & Gas J 52:78+ N 30 '53; Same. bibliog Mech Eng 75:970-4+ D '53

OIL waste

Biological oxidation of oil-containing waste waters. R. J. Austin, W. F. Meehan and J. D. Stockham. bibliog diag Ind & Eng Chem 46:316-18 F '54

Discharge of oil in navigable waters; case of Southport corporation v. Esso petroleum co., ltd. Elec J 151:2112 D 25 '53

Kamel waste-oil firing unit. il Engineering 176:640 N 13 '53

Keep waste disposal within local limits; Van Straaten chemical co. E. E. McClung. diag Steel 135:80 Jl 5 '54

Oil on the sea. map Economist 168:315 Ag 1 '53

Oil pollution research. Engineer 196:556 O 30 '53

Removing oil from water by flocculation and filtration. V. J. Calise. flow diag diag Power Eng 58:86-7+ Ap '54

Soluble oil wastes treatment by pressure flotation; Chrysler corp. A. H. Beebe. bibliog flow diag il Sewage & Ind Wastes 25:1314-22 N '53

OIL water heaters

How much oil to heat plant water? nomograph. L. J. Murphy. Mill & Factory 53:102 N '53

OIL well derricks. See Derricks, Oil well

OIL well drills. See Drills, Oil well

OIL wells. See Petroleum—Well drilling

OIL workers international union

Annual meeting, Denver. Nat Pet N 45:15 O 7 '53

Backs oil union merger. Nat Pet N 46:17 Ja 20 '54

Big labor sets sights on oil marketing. il Nat Pet N 45:13-15 O 14 '53

Gift or pay? union demands Richfield Oil bargain over offer to help employees buy company stock. Bsns W p86+ D 5 '53

OWIU won't press unionizing of stations. Nat Pet N 45:15 N 25 '53

Oldest, newest, most ambitious; Oil workers international union (CIO) to start organizing chemical workers. Chem W 74:20 F 6 '54

Union blasts charges of communism. Nat Pet N 45:14 D 16 '53

OILS, Cutting. See Lubrication and lubricants (cutting and grinding)

OILS, Essential. See Essential oils

OILS, Lubricating. See Lubricating oils

OILS, Textile. See Textile oils

OILS and fats

Agricultural department looks for peak food fats supplies in 1953-1954. Oil Paint & Drug Rep 164:3+ O 26 '53

Application of impulse rendering to the animal-fat industry. I. H. Chayen and D. R. Ashworth. flow diag il J Ap Chem 3: 529-37 D '53

Blaw-Knox designs packaged unit for continuous fat splitting process. flow diag Chem & Eng N 31:3916+ S 21 '53

British report new fat extraction technique. Chem & Eng N 32:3271-2 Ag 16 '54

Carload to container quality control; Mrs Tucker's products. flow sheet(p 140-3) il Food Eng 26:64-6+ Mr '54

Chemical engineering from soaps to salads. E. A. Lawrence. bibliog diags Chem Eng Prog 49:627-34 D '53

Chemistry of polymerised oils; thermal polymerisation of some long chain unsaturated fatty esters. A. L. Clingman, D. E. A. Rivett and D. A. Sutton. Chem Soc J p 1088-90 Mr '54

Fats find vinyl outlet. Chem W 72:40+ My 2 '53

Floatability of oil and grease in waste waters. R. Pomeroy. Sewage & Ind Wastes 25:1304-13 N '53

Food and future; synthetic potentialities; synthetic fats. P. N. Williams. bibliog(44 ref) Chem & Ind p582-5 Je 13 '53

Forecast for fats. Economist 168:53 Jl 4 '53

Froth-flotation reagents for coal; distillation fractions of commercial oils and some simple phenolic compounds. P. F. Whelan. il diag J Ap Chem 3:289-301 Jl '53

In fats and oils the shift is from inedibles to edibles; annual review. Chem Eng 61: 200-2 Mr '54

Let them eat fat; anti-oxidants will prevent rancidity in fats added to animal feeds. Chem W 74:95 Ja 23 '54

Meat fat improves frozen dessert. M. E. Hull. il Food Eng 26:133+ Ag '54

New Filtrex process. Soap & San Chem 29:87 N '53

New solvent-extraction process for oilseed; filtration extraction. il Chem Eng Prog 49: sup22+ S '53

Oilseeds, oils competition expected from West Africa. Oil Paint & Drug Rep 166:59 Jl 12 '54

Oxidation of fats symposium; abstracts of papers. Chem & Ind p514-15 My 23 '53

Processed oils for paints and coatings. B. Henderson. il Can Chem Process 38:26+ My '54

Silk purses from sows' ears. L. M. Miller. Am Dyestuff Rep 42:435-40 Jl 6 '53

Spectroscopic examination of snake gourd oils. N. H. E. Ahlers and A. C. Dennison. Chem & Ind p603 My 22 '54

Streamlined assay sharpens product control; Steinlite LOS fat tester. H. P. Furgal. il Food Eng 26:58-60 F '54

Structure and electrical conductivity of hydrocarbon-based solutions of the soluble oil type; a comparable aqueous system. J. Bromilow and P. A. Winsor. bibliog J Phys Chem 57:889-95 D '53

Tropics as sources of vegetable oils and fats. H. Tempany. Chem & Ind p731-5 Jl 18 '53

See also

Acids, Fatty
Cottonseed oil
Drying oils
Emulsions
Essential oils
Fish oil
Gasoline
Insulating oil
Jojoba oil
Lard
Linseed oil
Lubricating greases
Lubricating oils
Lubrication and lubricants
Oil fuel
Oil industries
Oleomargarine
Olive oil
Palm oil
Petroleum
Soap
Soybean oil
Tall oil
Tallow
Tung oil
Viscosity
Whale oil
Wool fat

also American oil chemists society

Prices

Chemicals, oils and drugs price changes; Jan. 1, 1953 and Jan. 1, 1954 compared; table by commodity. Oil Paint & Drug Rep 165: 9-10+ sec 2 F 1 '54

Chemicals, oils and drugs price record, selected years, 1939-1953; tables. Oil Paint & Drug Rep 165:7 sec 2 F 1 '54

Oils, fats and waxes; 1953 market trends. Oil Paint & Drug Rep 165:54-5 sec 2 F 1 '54

Statistics

Fats and oils exports up seven per cent in 1953. Oil Paint & Drug Rep 166:5+ Jl 19 '54

Fats, oils world output near record. Oil Paint & Drug Rep 165:4 F 8 '54

Food fats availability at peak. Oil Paint & Drug Rep 166:4 Ag 30 '54

Oils, fats and waxes. Published in weekly numbers of Oil, paint and drug reporter

OILWELL drilling contractors, American association of. See American association of oilwell drilling contractors

OINTMENTS

Happy holidays for specialties. il Chem W 75: 74+ Ag 21 '54

Radioactive contamination; barrier creams for hand protection. G. S. Towler. Chem & Ind p387 Ap 3 '54

Some causes of cutting-oil dermatitis; study of protective creams. G. E. Morris and C. C. Maloof. bibliog Ind Med 22:327-8 Jl '53

O'KEEFE, Arthur K.

Three chemists assume major roles in NPA reorganization. por(cover) Chem & Eng N 31:2985 Jl 20 '53

OKLAHOMA

See also

Architecture, Domestic—Oklahoma
Chemical industries—Oklahoma
Geology—Oklahoma
Petroleum—Oklahoma
Petroleum industry and trade—Oklahoma
Petroleum laws and regulations—Oklahoma
Roads—Oklahoma

OKLAHOMA Mississippi river products line, inc.

Securities offered. Comm & Fin Chr 178:1988-9 N 23 '53

OKLAHOMA university

O.U. pioneered in offering petroleum engineering school. Pet Eng 25:E3 D '53

OKRA

Crystalline galactobiose from acid hydrolysis of okra mucilage. R. L. Whistler and H. E. Conrad. bibliog Am Chem Soc J 76: 1673-4 Mr 20 '54

2-*O*-(D-galactopyranosyluronic acid)-L-rhamnose from okra mucilage. R. L. Whistler and H. E. Conrad. bibliog Am Chem Soc J 76:3544-6 Jl 5 '54

OLD age

A.&H. study urged, older age group. J. F. Murphy. East Underw 55:62+ O 8 '54

Age changes in mental abilities. J. E. Birren. J Bsns 27:156-63 bibliog(37 titles, p 162-3) Ap '54

Age changes in psychomotor capacity and productivity. R. W. Kleemeier. bibliog J Bsns 27:146-55 Ap '54

Big market for hospital and surgical. G. H. Miller. Life Ins Courant 58:51 S '53

Buildings for the aged. E. Goble. Arch Rec 116:136-9 Jl '54

Can science aid the aged? Bsns W p 174+ D 19 '53

OLD age—*Continued*

Distribution and movements of the aged population. T. L. Smith. J Bsns 27:108-18 Ap '54

Health needs of aging Americans. E. Breckinridge. East Underw 55:41+ F 19 '54

Insecurity amid plenty. W. R. Jenkins. Life Ins Courant 58:44-7+ S '53

Needs, problems of insuring the aged. G. Hirschfeld. Nat Underw 58:33 F 11 '54; Same. Nat Underw (Life ed) 58:6 F 19 '54

Our older people; new markets for industry? G. B. Hurff. J Bsns 27:131-6 Ap '54

Over-65 have housing problems. W. Donahue. il plans Am Bld 75:58-64 N '53

People; health insurance coverage; abstracts. J. H. Miller. East Underw 55:37+ F 12 '54; Nat Underw 58:10+ F 11 '54; Nat Underw (Life ed) 58:6, 10 F 12 '54

Prescription for sales; new drugs for the old. Chem W 73:78-80+ O 24 '53

Problem of providing medical care insurance for older-age people; summarizes Falk-Brewster survey. C. N. Walker. East Underw 55:41 F 19 '54

Problem of the aging. L. E. Chapman. Ind Med 22:587-90 D '53

See also

Age and employment

Longevity

Retirement

OLD age homes

See also

Nursing homes

OLD age pensions

ALC and LIAA give views to Congress group on self-retirement plans legislation. Weekly Underw 169:514 Ag 29 '53

Economic status of older people. J. R. Stark. J Bsns 27:119-30 Ap '54

Leftist union loves high-grade bonds; ILWU-PMA pension fund. Bsns W p 176-8 N 21 '53

Opportunities for service under the self-pensioning bills. E. S. MacNeill. Trusts & Estates 93:92-7 F '54

Pension problem in the United States. Mo Labor R 76:245-8 Mr '53

Some unsettled issues of retirement policy. R. K. Burns. bibliog J Bsns 27:137-45 Ap '54

Tax cuts to prod individual retirement plans is step in right direction, life groups declare; Jenkins-Keogh bills. Nat Underw (Life ed) 57:2 Ag 14 '53; Same abr. East Underw 54:10 Ag 21 '53

See also

Pensions, Industrial

Railroads—Pensions

United nations—Employees' pensions

OLD Dutch cleanser. See Cleaning compositions

OLDER workers. See Age and employment

OLEANOLIC acid

Structure of methyl oleanolate iodoacetate. A. M. Abd El Rahim and C. H. Carlisle. diag Chem & Ind p279-80 Mr 6 '54

Analysis

Terpenoids; the isolation of erythrodiol, oleanolic acid and a new triterpene triol, longispinogenin, from the cactus lemaireocereus longispinus. C. Djerassi, R. M. McDonald and A. J. Lemin. bibliog Am Chem Soc J 75:5940-2 D 5 '53

OLEFINS

Addition of acetals to olefin oxides. O. C. Dermer and A. M. Durr, jr. Am Chem Soc J 76:912-13 F 5 '54

Addition of formic acid to olefinic compounds; monoölefinic compounds. H. B. Knight, R. E. Koos and D. Swern. bibliog Am Chem Soc J 75:6212-15 D 20 '53

Addition of hydrogen sulphide to alkenes. W. C. van Zijll Langhout and H. I. Waterman. bibliog J Ap Chem 4:285-8 Je '54

Alkali metal-catalyzed amination of olefins. B. W. Howk and others. bibliog Am Chem Soc J 76:1899-902 Ap 5 '54

Assignment of the olefinic position in unsaturated acids by means of the iodolactonization reaction. E. E. van Tamelen and M. Shamma. bibliog Am Chem Soc J 76:2315-17 My 5 '54

cis-Addition in the bromination of bicyclic olefins; the structure and stereochemistry of the dibromides of *exo-cis*-3,6-endoxo-Δ^4-tetrahydrophthalic anhydride and *endo-cis*-3,6-endomethylene-Δ^4-tetrahydrophthalic anhydride. J. A. Berson and R. Swidler. bibliog Am Chem Soc J 76:4060-9 Ag 20 '54

Cyclic dienes; synthesis of substituted 1,2-dimethylenecyclohexanes. W. J. Bailey, J. Rosenberg and L. J. Young. bibliog Am Chem Soc J 76:2251-4 Ap 20 '54

Direct method for predicting vapor-liquid equilibrium ratios. J. M. Lenoir and G. A. White. bibliog(47 titles) Pet Refiner 32:121-3 O '53

Evaluation of diene-type elastomers. R. W. Laundrie, M. Feldon and A. L. Rodde. bibliog Ind & Eng Chem 46:794-803 Ap '54

Fluoroölefins; 1,1-difluorobutadiene and 1-fluoro-1-chlorobutadiene. P. Tarrant, M. R. Lilyquist and J. A. Attaway. Am Chem Soc J 76:944-5 F 5 '54

Fluoro-olefins; synthesis and reactions of some 3 : 3 : 3-trihalogenopropenes. R. N. Haszeldine. Chem Soc J p3371-8 N '53

Fluoroölefins; the addition of the Grignard reagent to fluoroölefins. P. Tarrant and D. A. Warner. Am Chem Soc J 76:1624-5 Mr 20 '54

Fluoroölefins; the synthesis of 1,1-difluoro-3-methylbutadiene. P. Tarrant, J. Attaway and A. M. Lovelace. bibliog Am Chem Soc J 76:2343-5 My 5 '54

Free radical additions involving fluorine compounds; the addition of dibromodifluoromethane to hydrocarbon olefins. P. Tarrant and A. M. Lovelace. Am Chem Soc J 76:3466-8 Jl 5 '54

Hydrogenation of olefins over metals. J. N. Wilson and others. bibliog diag Ind & Eng Chem 45:1480-7 Jl '53

Mechanism of elimination reactions; the comparative unimportance of steric strain in unimolecular olefin elimination. E. D. Hughes, C. K. Ingold and V. J. Shiner, jr. Chem Soc J p3827-32 D '53

New synthesis of 1 : 3-diketones and the preparation of 1-keto-olefins by means of trifluoroacetic anhydride as condensing agent. A. L. Henne and J. M. Tedder. Chem Soc J p3628-30 N '53

Olefin-carbon monoxide-alcohol copolymers. T. L. Cairns and others. bibliog Am Chem Soc J 76:3024-8 Je 5 '54

Olefin polymerization with acid catalysts. G. E. Langlois. bibliog(31 ref) Ind & Eng Chem 45:1470-6 Jl '53

Orthobaric surface tensions and thermodynamic properties of the liquid surfaces of a series of 1-alkenes, C_6 to C_{16}, and of *n*-decylcyclopentane, *n*-decylcyclohexene and *n*-decylbenzene. J. J. Jasper and E. R. Kerr. Am Chem Soc J 76:2659-61 My 20 '54

Peroxide- and light-induced additions of alcohols to olefins. W. H. Urry and others. bibliog Am Chem Soc J 76:450-5 Ja 20 '54

Peroxide-induced additions of methyl formate to olefins. W. H. Urry and E. S. Huyser. Am Chem Soc J 75:4876-7 O 5 '53

Peroxytrifluoroacetic acid; the hydroxylation of olefins. W. D. Emmons, A. S. Pagano and J. P. Freeman. bibliog Am Chem Soc J 76:3472-4 Jl 5 '54

Petrochemical reactions; production of olefins. L. F. Hatch. flow diag diag Pet Refiner 33:155-7 Ja '54

Petrochemical reactions; the reactions of the olefins. L. F. Hatch. il Pet Refiner 32:101-4 D '53

Problems in light olefine recovery plant design. E. O. Curtiss. bibliog diags Chem & Ind sup S18-23 Ag 10 '53

β-Propiolactone; use in the diene synthesis. T. L. Gresham, J. E. Jansen and F. X. Werber. Am Chem Soc J 76:609 Ja 20 '54

Pyrolysis of sulfites; methyl alkyl sulfites; a new method for the preparation of olefins. G. Berti. bibliog Am Chem Soc J 76:1213-19 Mr 5 '54

Quinone imides; addition of dienes to substituted *p*-quinonedibenzenesulfonimides. R. Adams and R. W. P. Short. bibliog Am Chem Soc J 76:2408-10 My 5 '54

Reaction of 1,3-dienes with chloral. W. J. Dale and A. J. Sisti. bibliog Am Chem Soc J 76:81-2 Ja 5 '54

OLEFINS—*Continued*

Reaction of Grignard reagents with α,β-olefinic acids. J. H. Wotiz, J. S. Matthews and H. Greenfield. bibliog Am Chem Soc J 75:6342-3 D 20 '53

Reactions of amines and sulphur with olefins; the reaction of diethylamine and sulphur with *cyclo*hexene. C. G. Moore and R. W. Saville. Chem Soc J p2082-9 Je '54

Reactions of amines and sulphur with olefins; the reaction of diethylamine and sulphur with 1 : 5-diolefins. R. W. Glazebrook and R. W. Saville. Chem Soc J p2094-103 Je '54

Reactions of amines and sulphur with olefins; the reaction of diethylamine and sulphur with trialkylethylenes. C. G. Moore and R. W. Saville. Chem Soc J p2089-94 Je '54

Reactions of monoölefins and hexachlorocyclopentadiene. E. K. Fields. Am Chem Soc J 76:2709-10 My 20 '54

Reduction of simple olefins with sodium and methanol in liquid ammonia. H. Greenfield, R. A. Friedel and M. Orchin. bibliog Am Chem Soc J 76:1258-9 Mr 5 '54

Selective reductions of aromatic systems to monoölefins. R. A. Benkeser and others. Am Chem Soc J 76:631-2 Ja 20 '54

Sulfonation of olefins; a δ-sultone from styrene. F. G. Bordwell, F. B. Colton and M. Knell. bibliog Am Chem Soc J 76:3950-2 Ag 5 '54

Sulfonation of olefins; formation of a cyclic sulfonate-sulfate anhydride intermediate. F. G. Bordwell and M. L. Peterson. bibliog Am Chem Soc J 76:3952-6 Ag 5 '54

Sulfonation of olefins; nature and reactions of the intermediate from styrene. F. G. Bordwell, M. L. Peterson and C. S. Rondestvedt, jr. bibliog Am Chem Soc J 76:3945-50 Ag 5 '54

Sulfonation of olefins; stereochemistry of the reaction with cyclopentene and cyclohexene. F. G. Bordwell and M. L. Peterson. bibliog Am Chem Soc J 76:3957-61 Ag 5 '54

Thermal stability of various olefin-SO_2 polymers. M. A. Naylor and A. W. Anderson. bibliog Am Chem Soc J 76:3962-5 Ag 5 '54

Vapor-phase catalytic hydrogenation of olefins. H. E. Hoelscher and others. Chem R 54:575-92 bibliog(p581-3) Ag '54

Vapour-phase oxidation of olefins; the catalysed oxidation of di*iso*butene in the presence of selenium. D. J. Hadley and others. diags Chem Soc J p 1416-22 My '54

See also
Ethylene
Pentacene

Analysis

Determination of olefin group types. E. L. Saier, A. Pozefsky and N. D. Coggeshall. bibliog diags Anal Chem 26:1258-63 Ag '54

Infrared band correlations for some substituted olefins. R. E. Kitson. bibliog Anal Chem 25:1470-2 O '53

Use of molybdates for estimating amount of olefinic-type hydrocarbons in air. R. D. MacPhee. bibliog il Anal Chem 26:221-5 Ja '54

Spectra

Statistical study of some olefinic absorption bands in the infra-red region. R. L. Werner and P. D. Lark. Chem Soc J p 1152-3 Mr '54

OLEIC acid

Fatty acid amides; preparation of substituted amidostearic acids by addition of nitriles to oleic acid. E. T. Roe and D. Swern. bibliog Am Chem Soc J 75:5479-81 N 20 '53

OLEOMARGARINE

Butter support program inequities. S. F. Riepma. Oil Paint & Drug Rep 165:7+ My 17 '54

Test cell for the measurement of the conductivity of butter and margarine. diag J Sci Instr 31:29-30 Ja '54

Vitamins in margarine; food standards committee recommendation. Chem Age (Lond) 70:564 Mr 6 '54

Advertising

Margarine; what's up? E. M. Kelley. il Sales Management 72:42-4+ My 1 '54

Manufacture

Spread it, soldier! margarine at low temperatures. Ind & Eng Chem 45:sup 17A-18A+ Jl '53

Stork margarine works at Purfleet. il Chem Age (Lond) 70:1151-4 My 22 '54

OLEORESINS. See Gums and resins

OLFACTION. See Smell

OLIGAMIDES. See Amides

OLIGOPEPTIDES. See Peptides

OLIGOSACCHARIDES

Structure of the oligosaccharides produced by the enzymic breakdown of pectic acid. J. K. N. Jones and W. W. Reid. Chem Soc J p 1361-5 My '54

Synthesis of oligosaccharides by chaetomium globosum. H. W. Buston and A. Jabbar. Chem & Ind p48 Ja 9 '54

Analysis

Isolation of oligosaccharides from gums and mucilages. P. Andrews, D. H. Ball and J. K. N. Jones. Chem Soc J p4090-5 D '53; p 1724-6 Je '54

Quantitative method using paper chromatography for estimation of reducing oligosaccharides. W. H. Wadman, G. J. Thomas and A. B. Pardee. bibliog Anal Chem 26:1192-5 Jl '54

OLIN, John Merrill, 1892-

New board chairman and new president of newest, and fourth biggest, chemical company. H. T. Sharp. por Chem Eng 61:322-5 Ag '54

OLIN industries, inc.

Giants slated for merger to form Olin Mathieson chemical corp. Chem & Eng N 32:1984 My 17 '54

More than meets the eye; merger with Mathieson chemical corp. Chem W 74:20 My 22 '54

Olin-Mathieson stockholders vote to approve merger. Manuf Rec 123:53 Jl '54

Olin, one of the Nation's more diversified industrial enterprises. Tappi 37:sup 100A-1A Jl '54

OLIVE oil

Mediterranean olive oil output boost predicted. Oil Paint & Drug Rep 164:4+ D 28 '53

Olive oil from Tunisia expected at near record. Oil Paint & Drug Rep 165:51 Ja 4 '54

Spanish olive oil production now at 330,000 tons. Oil Paint & Drug Rep 165:58 Ap 12 '54

OLIVER united filters, inc.

Merger with the Dorr co. to be effected, if stockholders agree. Munic Util 92:15 S '54

OLIVETTI company

Olivetti; the name of this manufacturer in Italy spells modern design to an ever-increasing audience. il plans Arch Forum 97:116-21 N '52

OLIVINE

Incremental digestion. E. A. Gee and W. J. Huff. bibliog flow sheets il Chem Eng Prog 50:299-304 Je '54

OLNEY medal

Olney medal to be awarded to Roland E. Derby. il Am Dyestuff Rep 42:582-3 Ag 31 '53; Chem & Eng 31:3194 Ag 3 '53

Olney medal to be awarded to William Dunford Appel. il Am Dyestuff Rep 43:578-9 Ag 30 '54

Tenth Olney medal award to Roland Everett Derby; with presentation addresses by A. E. Sampson, H. W. Leitch and J. R. Bonnar; response by R. E. Derby. il Am Dyestuff Rep 43:270-7 Ap 26 '54

Warp and woof are his business; Appel, 11th recipient. Chem & Eng N 32:2800 Jl 12 '54; Same cond. Am Dyestuff Rep 43:424 Jl 5 '54

OMEGATRON

Ion trajectories in the omegatron. C. E. Berry. diags J Ap Phys 25:28-31 Ja '54

OMNIBUS corporation

Hertz acquisition brightens outlook. Barron's 33:17-18 N 2 '53

Omnibus picks up Hertz car rental business. Bsns W p 168+ S 5 '53

Reports loss. Comm & Fin Chr 178:1276 O 5 '53

ONONDAGA, Lake
Current status of the pollution problem; abstract. A. F. Dappert. Water & Sewage Works 101:404-5 S '54

ONSAGER'S theory. See Irreversible processes

ONTARIO
Ontario geological surveys. Can Min J 74:55 D '53
See also
Electrochemical industries—Ontario
Gold mines and mining—Ontario
Hydroelectric plants—Ontario
Iron mines and mining—Ontario
Mines and mineral resources—Ontario
Nickel mines and mining—Ontario
Roads—Ontario

Hydroelectric power commission

Annual report. Elec J 151:1583 N 13 '53
Ontario Hydro; progress in 1952. Elec J 151:724 S 4 '53
Supervisory development in Ontario Hydro. F. A. Galbraith. Pulp & Pa of Can 55:150+ Ap '54

ONTARIO good roads association
Annual meeting, 60th, Toronto, Feb. 23-24; with abstracts of papers. Roads & Eng Constr 92:111-20+ Mr '54

ONTARIO research council. See Research council of Ontario

ONTARIO research foundation
How a research foundation works. il Can Chem Process 38:78-80 F '54
O.R.F. and industry. Can Chem Process 38:82-4 Ag '54

ONTARIO road builders' association
Annual meeting, 27th, Toronto, Feb. 24. Roads & Eng Constr 92:121-4+ Mr '54

OÖLITES
Gypsum-oölite dunes, Great Salt Lake desert, Utah. D. J. Jones. bibliog il map diag Am Assn Pet Geologists Bul 37:2530-8 N '53

OPACIFIERS
Effects of zirconium-type opacifiers on properties of glazes. C. W. F. Jacobs and W. J. Baldwin. il Am Cer Soc J 37:258-66 Je 1 '54
Opacifying crystalline phases present in zirconium-type glazes. C. W. F. Jacobs. bibliog Am Cer Soc J 37:216-20 My 1 '54

OPAL glass. See Glass, Opal

OPALINIDAE
Technique for culturing opalina. W. C. T. Yang and J. W. Bamberger. bibliog Science 118:252-3 Ag 28 '53

OPEN air theaters. See Moving picture theaters, Open air

OPEN and closed shop
Alabama outlaws union shop. Bsns W p 148 S 5 '53
Hits union shop. F. G. Gurley. Ry Age 137:12+ S 20 '54
NTU ordered to cease demands for closed shop. Ed & Pub 86:7+ My 16 '53
Railroad row; court tests federal union shop law versus state right to work statute. Bsns W p 180 N 14 '53
States renew drive against closed shop. Eng N 152:30 Ap 29 '54
Union shop loses another round; Texas judge enjoins Santa Fe from signing union shop agreement. Ry Age News ed 136:7-8 F 15 '54

OPEN hearth furnaces
Air pollution control in steel industry. G. A. Howell. Iron & Steel Eng 30:91-4 O '53
Can the electric furnace compete with the open hearth? C. F. Ramseyer. il J Metals 5:1617-21 D '53
Comparative economics of openhearth and electric furnaces for production of low-carbon steel. S. L. Case and others. Metal Prog 65:174+ Je; 66:168+ Jl 1; 146+ Ag '54
Cost comparisons of the open hearth and electric furnace. D. D. Moore. bibliog Iron & Steel Eng 31:55-65; Discussion. 65-9 Mr '54
Differential-pressure meter for open hearths. B. O. Smith. il diags Instruments 26:1706-7 N '53
Economy realized through strain gage checks. R. P. Gibson. Iron & Steel Eng 31:88-9 S '54
Electric furnace vs. open hearth furnace in cold metal shops. L. F. Reinartz and H. C. Barnes. Blast F & Steel Pl 42:345-50+ Mr '54; Same abr. Iron & Steel Eng 31:114-19 Ja '54; Excerpts. Steel 134:96+ Ja 25 '54; Metal Prog 65:174+ My '54
Experiments on flame radiation in an empty open-hearth furnace. W. P. Cashmore and M. W. Thring. bibliog Iron & Steel Inst J 175:177-82 O '53
Fairless works. T. J. Ess. il diag Iron & Steel Eng 31:supF69-72 Je '54
Furnaces; electrics vs. openhearths; Battelle study of comparative steelmaking costs. J. B. Delaney. Iron Age 172:43 Ag 27 '53
Good checkers need not be cleaned. O. F. Gayton. Blast F & Steel Pl 42:sup 104+ Ap '54
Heating scrap in open hearth furnaces; patent. diags Iron & Steel Eng 31:23-4 Jl '54
Jones & Laughlin experimental furnace taps 1000th heat. Blast F & Steel Pl 41:1488 D '53
Lone star steel company gives the South another source of steel. C. Longenecker. il plan Blast F & Steel Pl 42:205-8 F '54
Method of measuring flame radiation and emissivity continuously in open-hearth furnaces. R. Mayorcas and D. Thomas. Iron & Steel Inst J 175:359 D '53
New open hearth furnaces at Stelco. E. T. W. Bailey. il plan Iron & Steel Eng 31:91-8 Je '54
Open-hearth-furnace bath temperature pyrometry. L. H. Veiock. il diags Instruments 26:722-3, 754 My '53
Quicker heat-up for rebuilt open hearth furnaces. il Blast F & Steel Pl 42:431-3 Ap '54
Regenerator efficiency and air preheat in the open hearth. B. M. Larsen. bibliog diags J Metals 6:Trans 129-44 F '54
Repair and maintenance of open-hearth furnaces in U.S.A. R. W. Evans and I. S. Scott-Maxwell. Iron & Steel Inst J 174:378-82 Ag '53; Same. Blast F & Steel Pl 41:1307-11 N '53; Discussion. il diags Iron & Steel Inst J 174:382-8 Ag '53
Republic's new open hearth furnaces at Cleveland. E. C. McDonald. il plan diags Iron & Steel Eng 31:99-104; Discussion. 104-6 Je '54
Significance of air temperature in open-hearth operation. J. S. Marsh. diags Instruments 26:1876-8+ D '53
Steam jets efficiently remove dust from open hearth furnace flues. J. Peterson. il diag J Metals 5:794-5 Je '53
Symposium on open hearth availability. E. E. Callinan and others. il diags Iron & Steel Eng 30:55-70 N '53

Charging

Sinter for open hearth charge. E. G. Hill. Blast F & Steel Pl 41:1434-6+ D '53
Survey provides analysis of cold metal shop melting practice. S. L. Fredericks. il J Metals 6:880-2 Ag '54

Cleaning

Cleaning of open hearth checkers and sewers during operation. R. M. Jordan. il diags Iron & Steel Eng 31:98-101 Jl '54; Excerpts. Steel 133:124 O 26 '53; Discussion. Iron & Steel Eng 31:101-2 Jl '54
Improved cleaning techniques for open hearth checkers. J. J. Enochs and R. Kincaid. il diag Iron & Steel Eng 31:79-82 Ag '54; Abstract. Steel 133:120+ O 26 '53; Discussion. Iron & Steel Eng 31:82-3 Ag '54
Open hearth slag removed economically by blasting; Lackawanna, N.Y. plant of Bethlehem steel co. J. O. Dague. il J Metals 5:881-3 Jl '53
Unique checker cleaner. il Steel 133:110 Ag 10 '53

Control

For cheaper heats, budget Btu's; automatic control systems. M. F. Hall. il Steel 133:130+ D 14 '53
Magnetic drives. il Iron & Steel Eng 30:217+ O '53

Cooling

How to curb heat losses from cooling units. A. M. Frankau. il Steel 133:138+ S 21 '53

OPEN hearth furnaces—Cooling—*Continued*

Water cooling of open-hearth furnaces; abstracts. A. M. Frankau. Engineer 196:777 D 11 '53; Engineering 176:772 D 18 '53; Discussion. Engineer 196:736-7, 777-9 D 4-11 '53; Engineering 176:772-3 D 18 '53

Design

Design features of Fairless works open hearth. H. A. Parker. il plan diags J Metals 5:976-8 Ag '53

Furnace design and brickwork. H. C. Paxson. il diags Iron & Steel Eng 30:66-70 N '53

Taboos; slag pocket build-up. il diag Steel 134:112+ Ap 26 '54

Firing

Oxygen shortens open hearth meltdowns; Armco's Ashland works. O. D. Eyre. plan diags Steel 134:116+ F 8 '54

Fuel

Fuel and its usage. E. E. Callinan. Iron & Steel Eng 30:55-9; Discussion. 59-61 N '53

Methane for openhearth fuel. D. W. Gillings. diags Metal Prog 66:91-3 Ag '54

Lining

Development of open-hearth roof refractories in Great Britain. J. Mackenzie. bibliog il Am Cer Soc Bul 32:377-84 N 15 '53

Furnace design and brickwork. H. C. Paxson. il diags Iron & Steel Eng 30:66-70 N '53

Mill users favor quality refractories. R. M. Love. il Steel 135:107+ Ag 16 '54

Monolithic linings in furnace spouts; National open hearth steel conference, Buffalo; abstracts of three papers. V. W. Jones; G. M. Burrier; J. C. MacNeill. il diag J Metals 5:877-80 Jl '53

OPEN hearth process

Bessemer and open hearth steelmaking costs compared. J. Mitchell. J Metals 6:511 My '54

Ingot yield rises as market permits greater care in scrap selection. A. K. Moore. J Metals 6:953 S '54

Manganese recovery in the basic open hearth process. N. F. Dufty. bibliog Blast F & Steel Pl 42:428-30 Ap '54

National open hearth steel committee and the blast furnace, coke oven and raw materials committee of the American institute of mining and metallurgical engineers, 37th annual conference, Chicago, April 5-7; program. Blast F & Steel Pl 42: sup20-4+ Ap '54; J Metals 6:430-1+ Ap '54

Open-hearth bath temperature measurement. F. S. Swaney. il diags Instruments 26:256-8+ F '53

Open-hearth instrumentation. R. A. Lambert. il diags Instruments 26:1370-1+; Discussion. W. H. Stewart. 1404+ S '53

Open hearth screw steels replacing Bessemer. S. Feigenbaum. J Metals 5:796 Je '53

Slag-metal relations in the acid open hearth steel furnace. G. R. Fitterer. bibliog J Metals 5:Trans 1634-40 D '53

Survey provides analysis of cold metal shop melting practice. S. L. Fredericks. il J Metals 6:880-2 Ag '54

See also

Open hearth furnaces

OPEN house. See Visitors

OPEN pit mining. See Mining methods—Stripping operations

OPERATING rooms. See Hospitals—Operating rooms

OPERATIONS research

Application of operations research to marketing and related management problems. J. F. Magee. J Marketing 18:361-9 Ap '54

Build your career in operations research. Chem Eng 61:222+ My '54

Enter, operations research. J. F. Magee. N A C A Bul 35:1252-60 Je '54

Operational analysis of traffic dynamics. L. A. Pipes. bibliog diags J Ap Phys 24:274-81 Mr '53

Operational research. Economist 168:465-7 Ag 15 '53

Operations research. Ind & Eng Chem 46:sup 59A F; sup 67A Mr '54

Operations research; a tool of management. E. J. Thomas, jr. flow diag N A C A Bul 35:477-89 D '53

Operations research; an evaluation. C. W. Churchman. Advanced Management 19:15-18 Ap '54

Operations research for control. R. L. Ackoff and J. E. Townsend. Chem & Eng N 32:2322 Je 7 '54

Operations research for railroads? abstracts of symposium papers. Ry Age 136:75-7 Mr 8 '54

Operations research means, put your problems on paper; can operations research help you? R. M. Lorz. flow chart Iron Age 173: 76-7 F 18 '54

Plan for planners; operations diagnosis. Chem W 72:32+ Ap 25 '53

Railway systems and procedures association meeting, Chicago, Nov. 4-6; with abstracts of papers on operations research. Ry Age 135:112+ N 16 '53

War techniques adapted to the study of the operational behavior of men and machines. P. M. Morse. Mech Eng 76:231-5 Mr '54

See also

Industrial research

Bibliography

Operations research (OR). Cleveland Pub Lib Business Information Bur Bul v 25, no 2:5-8 F-Ag '54 (pa 25c)

OPHTHALMOLOGY

Instruments and apparatus

Ophthalmic magnet. L. R. Blake. diags J Sci Instr 31:237-40 Jl '54

OPINION polls

Accountants scrutinize poll methods. J. H. Purdy. Am Gas Assn Mo 36:29-30+ Ap '54

Big youth market; how to learn what it thinks; Rand youth poll. il Dun's R & Mod Ind 62:153-4 D '53

Where jobs get into no man's land; secret opinion poll. J. H. Collins. Pub Util 53: 225-32 F 18 '54

You vs. the man in the street. Chem Eng 61: 244+ S '54

See also

Employees—Opinion polls

OPIUM

Science trails opium smugglers; UN finds chemical methods help. il Chem & Eng N 32:2701-2 Jl 5 '54

Analysis

Chromatographic determination of codeine in opium and other complex mixtures. G. C. McElheny, G. DeLaMater and R. D. Rands. bibliog diag Anal Chem 26:819-23 My '54

OPOSSUMS

Opossum. H. C. Reynolds. il Sci Am 188: 88-90+ Je '53

OPPENHEIMER, J. Robert, 1904-

AEC rules against Oppenheimer. Chem & Eng N 32:2780 Jl 12 '54

Hydrogen bomb story unfolds at Oppenheimer hearings. Chem & Eng N 32:2592+ Je 28 '54

Oppenheimer found loyal, clearance denied. por Chem & Eng N 32:2364-6 Je 14 '54

Oppenheimer probe begun. por Chem & Eng N 32:1684+ Ap 26 '54

OPTIC nerve

Bilateral interaction in the lateral geniculate body. P. O. Bishop and R. Davis. bibliog Science 118:241-3 Ag 28 '53

OPTICAL bleaches. See Bleaching materials

OPTICAL compensators. See Compensators, Optical

OPTICAL flats

Micro-reference flat for multiple beam interferometry. S. Tolansky and M. Omar. il diag J Sci Instr 30:337-8 S '53

OPTICAL glass. See Glass, Optical

OPTICAL illusions

Phantasmagoria or unusual observations in the atmosphere. U. Liddel. Opt Soc Am J 43:314-17 Ap '53

OPTICAL instruments

Apparatus for automatic recording of reflection spectra. J. H. Schulman and C. C. Klick. diags Opt Soc Am J 43:516-19 Je '53

Apparatus for the determination of molecular weights by light scattering. L. Harvey and D. Cleverdon. bibliog diags J Sci Instr 31:274-9 Ag '54

OPTICAL instruments—*Continued*

Apparatus used in the development of optical-diffraction methods for the solution of problems in X-ray analysis. W. Hughes and C. A. Taylor. bibliog il diags J Sci Instr 30: 105-10 Ap '53

Bidirectional electronic counter for use in optical interferometry. F. H. Branin, jr. bibliog(27 ref) diags Opt Soc Am J 43:839-48 O '53

Compensation of flexure in instruments with any number of lenses. W. Brouwer. diags Opt Soc Am J 43:836-8 O '53

Design of an optical system for the absolute measurement of turbidity. J. Kremen and J. J. Shapiro. diags Opt Soc Am J 44:500-1 Je '54

Device for measuring changes of optical transmittance with temperature. A. Furst and J. J. Shapiro. bibliog il diags Anal Chem 26:1082-5 Je '54

Double image micrometer for particle size analysis. J. H. McGinn. il diag R Sci Instr 25:930-1 S '54

FOSDIC, a film optical sensing device for input to computers. Opt Soc Am J 44:177-8 F '54

Film optical sensing device processes information for input to computers; abstracts. M. L. Greenough and others. flow diag il Elec Eng 73:184-5 F '54; Electronics 27: 236+ F '54

Film thickness measurement for grating blanks. F. A. McNally. diags Opt Soc Am J 43:540 Je '53

General contribution formula for tangential rays. E. Delano. Opt Soc Am J 42:631-3 S '52; Discussion. J. L. Rayces. 43:705-6 Ag '53

High-speed air-driven shutter for controlling exposures to a convergent beam of high-intensity thermal radiation. R. P. Day and others. il diags R Sci Instr 25:654-60 Jl '54

New optical system for simultaneous recording of refractive index and its gradient in stratified solutions. H. Svensson and R. Forsberg. bibliog il diags Opt Soc Am J 44:414-16 My '54

Optical dip-stick for liquid air. J. E. Geake. diags J Sci Instr 31:260-1 Jl '54

Optical follower for milling machines. Engineer 196:311 S 4 '53

Optical goniometer. J. K. Logan. il diag R Sci Instr 24:885-6 S '53

Optical goniometer for the examination of long metal single crystals. A. J. Goss. bibliog diags J Sci Instr 30:283-5 Ag '53

Optical system and thermopile amplifier for double-beam recording of infra-red spectra. J. L. Hales. bibliog diags J Sci Instr 30:52-7 F '53

Recent developments in applied optics. A. C. G. Menzies. bibliog(26 ref) il plan diags J Sci Instr 30:441-52 D '53

Scintillation limitations to resolving power in imaging devices. J. W. Coltman. il diag Opt Soc Am J 44:234-7 Mr '54

Simple device for reducing microphotometer traces to curves of intensity. J. D. Purcell. bibliog diags Opt Soc Am J 44:679-84 S '54

Simple method of making vacuum-tight coolable window seals for low temperature optical transmission cells. V. Roberts. bibliog diag J Sci Instr 31:251-2 Jl '54

Solid-state image intensifier. R. K. Orthuber and L. R. Ullery. bibliog il diag Opt Soc Am J 44:297-9 Ap '54

Thermal precipitator makes possible optical microscopic examination of air-borne particles. L. C. McCabe. il Ind & Eng Chem 46:sup 105A Je '54

Vignetting in visual instruments. R. C. Lane and R. S. Longhurst. il diags J Sci Instr 31:288-93 Ag '54

See also

Adaptometers
Bausch & Lomb optical company
Camera lucida
Collimators
Compensators, Optical
Densitometers
Diffraction gratings
Interferometers
Lenses
Light filters
Measuring instruments, Optical
Microscope and microscopy
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Moving picture photography—High speed
Photometers
Prisms
Projection apparatus
Refractometers
Schlieren apparatus
Spectrograph
Spectrometers
Spectrophotometers
Stereoptometers
Stroboscopic instruments
Telescope

Protection

Radioactive materials in prevention of mold growth in optical instruments. S. Berk and L. Teitell. bibliog il diags Ind & Eng Chem 46:778-84 Ap '54

OPTICAL measurements

Atmospheric attenuation at Khartoum, Sudan. C. J. Beck and others. Opt Soc Am J 43: 405-6 My '53

Computation of achromatic objectives. R. E. Stephens. diags U S Nat Bur Stand Circ 549:1-7; pa 10c Supt. of doc. '54

Fourier treatment of optical processes. O. H. Schade. Opt Soc Am J 43:704-5 Ag '53

New photoelectric method for the calibration of retardation plates. D. D. Randall. Opt Soc Am J 44:600-2 Ag '54

Optical measurement controls gas concentration; abstract. P. M. Engel and G. P. Bentley. diags Electronics 27:196+ F '54

Optical measurement of temperature. il Can Chem Process 38:66 Ja '54

Permitted tolerance on percent correction of paraboloidal mirrors. P. R. Yoder, jr. and others. Opt Soc Am J 43:702-3 Ag '53

Phase and intensity measurements for some aluminum films. K. Ishiguro and G. Kuwabara. diag Opt Soc Am J 43:365-7 My '53

Specification of imaging properties by response to a sine wave input. J. W. Coltman. bibliog diags Opt Soc Am J 44:468-71 Je '54

Tracing a normal congruence through an optical system. M. Herzberger and E. Marchand. Opt Soc Am J 44:146-54 F '54

See also

Interferometers
Optical flats

OPTICAL measuring instruments. See Measuring instruments, Optical

OPTICAL methods

Fringes of equal reflection coefficient ratio and their application to the determination of the thickness and refractive index of monomolecular films. R. E. Hartman and others. bibliog il diags Opt Soc Am J 44: 192-8 Mr '54

Lofting method saves time and materials; Ampower Lumotrace system. il diag Iron Age 172:148-9 Jl 9 '53

Measurement of particle size distribution of phosphors. M. J. Bergin and K. H. Butler. bibliog Electrochem Soc J 101:149-54 Mr '54

Optical marking-off system for plates and sections in shipbuilding. J. H. Krietemeijer. il plan Engineering 176:570-2 O 30 '53; Abstract and discussion. Engineer 196:423-4 O 2 '53

Optical marking system; Ampower Lumotrace system. il diag Mech Eng 75:816-17 O '53

Optical method for measurement of small amounts of oxygen in a helium atmosphere. J. W. Moyer and W. A. Ruggles. diag Opt Soc Am J 44:86-7 Ja '54

Optical method for the study of impinging jets in a liquid stream. G. G. Kretschmar and H. W. Wedaa. il diags Opt Soc Am J 43:526-30 Je '53

Optical techniques for fluid flow. N. F. Barnes. il diags Soc Motion Picture & Tv Eng J 61:487-511 bibliog(219 titles, p503-11) O '53

Simple optical method for measuring the statistical distribution of water surface slopes. A. H. Schooley. il diag Opt Soc Am J 44:37-40 Ja '54

See also

Interferometers

OPTICAL properties

Analysis of elliptically polarized radiation in the infrared region. G. K. T. Conn and G. K. Eaton. bibliog diags Opt Soc Am J 44:546-52 Jl '54

Densities and optical properties of organic compounds in the liquid state; the densities of aliphatic hydrocarbons. M. L. Huggins. Am Chem Soc J 76:843-5 F 5 '54

OPTICAL properties—*Continued*

Densities and optical properties of organic compounds in the liquid state; the densities of α-substituted normal alkanes. M. L. Huggins. Am Chem Soc J 76:845-7 F 5 '54

Densities and optical properties of organic compounds in the liquid state; the densities of esters from fatty acids and normal alcohols. M. L. Huggins. Am Chem Soc J 76: 847-50 F 5 '54

Experimental confirmation of the Drude free electron theory of the optical properties of metals for silver, gold, and copper in the near infrared. L. G. Schulz. bibliog diags Opt Soc Am J 44:540-5 Jl '54

Infrared absorption of thin metal films. C. Hilsum. Opt Soc Am J 44:188-91 Mr '54

Infrared optical properties of single crystals of tellurium. J. J. Loferski. bibliog diags Phys R 93:707-16 F 15 '54

Optical and crystallographic properties of D-fructose hemihydrate. F. T. Jones, F. E. Young and D. R. Black. bibliog il Anal Chem 25:649 Ap '53

Optical and crystallographic properties of sucrose hemiheptahydrate. F. T. Jones and F. E. Young. il Anal Chem 26:421 F '54

Optical constants of silver, gold, copper, and aluminum. L. G. Schulz and F. R. Tangherlini. bibliog diags Opt Soc Am J 44:357-68 My '54

Optical investigations of impurity levels in silicon. E. Burstein, E. E. Bell and J. W. Davisson. bibliog J Phys Chem 57:849-52 N '53

Optical properties of bismuth in the near infrared. L. G. Schulz. Opt Soc Am J 43: 406-7 My '53

Optical properties of evaporated aluminum films. F. C. Essig and J. R. Holmes. Opt Soc Am J 44:253 Mr '54

Optical properties of silicon monoxide in the wavelength region from 0.24 to 14.0 microns. G. Hass and C. D. Salzberg. Opt Soc Am J 44:181-7 Mr '54

Optical properties of thin films of cadmium sulfide. J. Gottesman and W. F. C. Ferguson. Opt Soc Am J 44:368-70 My '54

Optical properties of uniform particle-size latexes. T. Alfrey, jr. and others. bibliog il diags Opt Soc Am J 44:603-9 Ag '54

Polarization figures and rotation properties as applied to the identification of some cobalt nickel sulfarsenides and related minerals. R. W. Hutchinson. bibliog Econ Geol 48:492-500 S '53

Shedding light on liquid crystals; research at University of Cincinnati. il Chem & Eng N 32:2962+ Jl 26 '54

Some electrical and optical properties of synthetic single crystals of zinc sulfide. W. W. Piper. bibliog Phys R 92:23-7 O 1 '53

Some optical properties of MgO in the vacuum ultraviolet. P. D. Johnson. bibliog Phys R 94:845-6 My 15 '54

Systematic error in the measurement of optical constants. G. K. T. Conn and G. K. Eaton. bibliog diags Opt Soc Am J 44: 477-83 Je '54

Use of a rotating polarizer to measure optical constants in the infrared. G. K. T. Conn and G. K. Eaton. bibliog il diags Opt Soc Am J 44:484-91 Je '54

See also

Refractive index

OPTICAL rotation

Changes in the intrinsic viscosity and optical rotation of bovine plasma albumin associated with acid binding. Jen Tsi Yang and J. F. Foster. bibliog Am Chem Soc J 76: 1588-95 Mr 20 '54

Effect of groups in non-blocking positions on the rate of racemization of optically active diphenyls. M. Crawford and I. F. B. Smyth. bibliog Chem & Ind p346-7 Mr 20 '54

Effect of solvent on the optical rotation of some steroid α-ketols. J. K. Norymberski. Chem Soc J p762-4 F '54

Heats of dissolution and the optical rotatory dispersion of 1 : 2-diphenylethanol. M. K. Hargreaves. diags Chem Soc J p 1233-7 Ap '54

Influence of solvent upon the energy difference between rotational isomers. A. Wada. bibliog diags J Chem Phys 22:198-202 F '54

Isomers of octahedral complexes with nonbranching ligands. R. F. Trimble, jr. diags J Chem Educ 31:176-9 Ap '54

Kinetics of protein denaturation; the behavior of the optical rotation of ovalbumin in urea solutions. R. B. Simpson and W. Kauzmann. bibliog Am Chem Soc J 75:5139-52 N 5 '53

Kinetics of protein denaturation; the optical rotation of ovalbumin in solutions of guanidinium salts. J. Schellman, R. B. Simpson and W. Kauzmann. Am Chem Soc J 75: 5152-4 N 5 '53

Kinetics of protein denaturation; the optical rotations of serum albumin, β-lactoglobulin and pepsin in urea solutions. W. Kauzmann and R. B. Simpson. bibliog Am Chem Soc J 75:5154-7 N 5 '53

Measurement of optical rotatory dispersion; (+)-octan-2-ol. M. K. Hargreaves. pl diags Chem Soc J p2953-9 O '53

Methanolysis of optically active hydrogen 2,4-dimethylhexyl-4-phthalate. W. V. Doering and H. H. Zeiss. bibliog Am Chem Soc J 75:4733-8 O 5 '53

Mutarotation of *cis*-2-phenyl-4-carboxy-5-hydroxymethyl-2-oxazolines. E. E. Hamel and E. P. Painter. Am Chem Soc J 76:919-20 F 5 '54

Optical activity in 1-phenylnaphthalene-2′-carboxylic acid and related compounds. D. M. Hall, S. Ridgwell and E. E. Turner. Chem Soc J p2498-504 Jl '54

Optical resolution of 1 : 1′-dinaphthyl-5 : 5′-dicarboxylic acid. F. Bell and W. H. D. Morgan. Chem Soc J p 1716-18 Je '54

Optical rotation of human serum albumin and γ-globulin. B. Jirgensons and S. Sirotzky. bibliog Am Chem Soc J 76:1367-70 Mr 5 '54

Optical rotation of peptides; glutamic acid tripeptides. H. Sachs and E. Brand. bibliog Am Chem Soc J 76:1811-14 Ap 5 '54

Photomutarotation of (—)-2-chloro-2-nitrosocamphane. A. J. N. Hope and S. Mitchell. Chem Soc J p3483-6 N '53

Polarographic investigation of the mechanism of mutarotation of *d*-glucose. J. M. Los and K. Wiesner. bibliog Am Chem Soc J 75:6346-7 D 20 '53

Possible correlation between the configuration of optically active bases and the velocity of decarboxylation of dextro- and levo-camphocarboxylic acids in their presence. P. Pratesi, L. Arpesella and A. La Manná. bibliog Am Chem Soc J 75:5476-8 N 20 '53

Preparation of optically active 9 : 10-dihydro-3 : 4-5 : 6-dibenzphenanthrene. D. M. Hall and E. E. Turner. bibliog Chem & Ind p 1177 O 31 '53

Preparation of optically-active peptides using mixed carbonic-carboxylic acid anhydrides. J. R. Vaughan, jr. and J. A. Eichler. bibliog Am Chem Soc J 75:5556-60 N 20 '53

Some optically active dodecahydrophenanthrenes. R. M. Lukes and L. H. Sarett. Am Chem Soc J 76:1178-80 F 20 '54

Some reactions of optically active 1-phenylpent-1-en-3-ol and 1-phenylpent-2-en-1-ol. M. P. Balfe, J. Kenyon and D. Y. Waddan. Chem Soc J p 1366-72 My '54

Sources of error in the measurement of rotation properties with the ore microscope. E. N. Cameron and others. bibliog diags Econ Geol 48:574-90 N '53

Specific rotation of isocolchicine. R. F. Raffauf, E. E. Bumbier and G. E. Ullyot. Am Chem Soc J 76:1707-8 Mr 20 '54

Studies in stereochemical structure; optically active desyl chloride. R. Roger and R. Wood. Chem Soc J p811-12 Mr '54

Temperature and the optical rotatory power of solutions; 9 : 10-dihydro-3 : 4-5 : 6-dibenzophenanthrene. M. K. Hargreaves. Chem Soc J p 1781-3 Je '54

Vitamin B_{12}; resolution of DL-1-amino-2-propanol. R. L. Clark and others. bibliog Am Chem Soc J 76:3995-7 Ag 5 '54

See also

Racemization

Verdet constant

OPTICAL society of America

Annual meeting, 38th, Rochester, Oct. 15-17; summaries of papers. Opt Soc Am J 43: 811-25 S '53

Proceedings of the spring meeting, New York, March 19-21; abstracts of papers. Opt Soc Am J 43:324-37 Ap '53

OPTICAL society of America—*Continued*

Spring meeting, New York, March 25-27; abtracts of papers. Opt Soc Am J 44:345-55 Ap '54

Spring meeting, New York, March 25-27; abstracts of papers of analytical interest. Anal Chem 26:785-7 Ap '54

OPTICS

Axicon; a new type of optical element. J. H. McLeod. il diags Opt Soc Am J 44:592-7 Ag '54

Condition of equal irradiance and the distribution of light in images formed by optical systems without artificial vignetting. F. Wachendorf. bibliog diags Opt Soc Am J 43:1205-8 D '53

High speed arithmetic; the digital computer as a research tool. H. R. J. Grosch. bibliog(25 ref) Opt Soc Am J 43:306-10 Ap '53

Optical effect of flexure in vertically mounted precision mirrors. G. Schwesinger. bibliog diags Opt Soc Am J 44:417-24 My '54

Optical image evaluation; proceedings of NBS semicentennial symposium, Oct. 18-20, 1951. U S Nat Bur Stand Circ 526:1-289; $2.25 Supt. of doc. '54

Optics and communication theory. P. Elias. bibliog Opt Soc Am J 43:229-32 Ap '53

Optics and the theory of stochastic processes. N. Wiener. Opt Soc Am J 43:225-8 Ap '53

Proceedings of the spring meeting of the Optical society of America, New York, March 19-21; abstracts of papers. Opt Soc Am J 43:324-37 Ap '53

Recent developments in applied optics. A. C. G. Menzies. bibliog(26 ref) il plan diags J Sci Instr 30:441-52 D '53

Scientific work of Constantin Rudolf Straubel. M. Herzberger. bibliog(33 titles) Opt Soc Am J 44:589-92 Ag '54

See also

Absorption of rays
Beer's law
Color
Diffraction
Electro-optics
Fluorescence
Focus (optics)
Interference (light)
Ives, Frederic, medal
Lenses
Light
Light filters
Luminescence
Measuring instruments, Optical
Photochemistry
Photoelasticity
Photographic optics
Photometry
Photomicrography
Polarization (light)
Prisms
Radiation
Reflection (optics)
Refractive index
Spectrum
Television
Visibility

Bibliography

Book reviews. Opt Soc Am J 44:89-90, 257-8, 342, 426 Ja, Mr-My '54

Tables, calculations, etc.

Automatic computation of spot diagrams. O. N. Stavroudis and D. P. Feder. diags Opt Soc Am J 44:163-70 F '54

Least-squares method for optical correction. S. Rosen and C. Eldert. Opt Soc Am J 44:250-2 Mr '54

Linear recurrence equations for analyzing multilayers. H. Osterberg and N. E. Page. Opt Soc Am J 43:728-32 S '53

Ray deflection through a medium having a continuously varying refractive index. S. Wolin. bibliog Opt Soc Am J 43:373-5 My '53

Systematic error in the measurement of optical constants. G. K. T. Conn and G. K. Eaton. bibliog diags Opt Soc Am J 44:477-83 Je '54

Third-order methods as applied to zonal aberrations of single long focal length lenses. A. I. Mahan and H. A. Templin. bibliog il diags Opt Soc Am J 43:356-65 My '53

Toric skew ray trace. A. E. Murray. diags Opt Soc Am J 44:672-6 S '54

Toric wave fronts. J. J. Faris. Opt Soc Am J 43:406 My '53

OPTICS, Electron. See Electron optics

OPTICS, Geometrical

Asymptotic evaluation of the field at a caustic. I. Kay and J. B. Keller. diags J Ap Phys 25:876-83 Jl '54

Invariance of insidedness in projective transformations of the Maxwell triangle. G. Wyszecki. diags Opt Soc Am J 44:524-9 Jl '54

Pfund's method of measurement of the Brewsterian angle. K. Kinosita. bibliog Opt Soc Am J 43:924-5 O '53

Propagation of microwaves between a parallel pair of doubly curved conducting surfaces. K. S. Kunz. bibliog diags J Ap Phys 25:642-3 My '54

Toric skew ray trace. A. E. Murray. diags Opt Soc Am J 44:672-6 S '54

See also

Poincaré sphere

OPTICS, International commission of. See International commission of optics

OPTICS, Meteorological. See Meteorological optics

OPTICS, Parageometrical

Fundamental theorem of parageometrical optics. G. Toraldo di Francia. Opt Soc Am J 43:368-9 My '53

OPTICS, Photographic. See Photographic optics

OPTICS, Physiological

Absolute thresholds for moving point sources. M. A. Bouman and G. van den Brink. diag Opt Soc Am J 43:895-8 O '53

Automatic apparatus for stimulus presentation and recording in visual threshold experiments. H. R. Blackwell and others. il diags Opt Soc Am J 44:322-6 Ap '54

Benefits to vision through stereoscopic films. R. A. Sherman. bibliog il diags Soc Motion Picture & Tv Eng J 61:295-306; Discussion. 306-8 S '53

Conspicuity of steady and flashing light signals; variation of contrast. S. J. Gerathewohl. bibliog il Opt Soc Am J 43:567-71 Jl '53

Disappearance of steadily fixated visual test objects. L. A. Riggs and others. bibliog diags Opt Soc Am J 43:495-501 Je '53

Effect of flash and field luminance upon human reaction time. N. R. Bartlett and S. Macleod. bibliog Opt Soc Am J 44:306-11 Ap '54

Factors affecting differences in apparent size between opposite halves of a visual meridian. K. T. Brown. bibliog Opt Soc Am J 43:464-72 Je '53

Metacontrast. M. Alpern. bibliog(28 ref) diag Opt Soc Am J 43:648-57 Ag '53

Orientation reflex H. L. Logan. bibliog il diags Illum Eng 49:19-28; Discussion. 28-9 Ja '54

Problem of specifying the quantity and quality of illumination. H. R. Blackwell. Illum Eng 49:93-7 F '54

Re-evaluation of the scattering theory of glare. G. A. Fry. bibliog Illum Eng 49:98-102 F '54

Studies of the form of visual threshold data. H. R. Blackwell. bibliog Opt Soc Am J 43:456-63 Je '53

Study in binocular flicker. F. H. Perrin. bibliog(25 ref) il diags Opt Soc Am J 44:60-9 Ja '54

Variation of integrative actions in the retinal system; an adaptational phenomenon. G. van den Brink and M. A. Bouman. Opt Soc Am J 44:616-20 Ag '54

Vignetting in visual instruments. R. C. Lane and R. S. Longhurst. il diags J Sci Instr 31:288-93 Ag '54

Visual factors in lighting. W. S. Stiles. bibliog(29 ref) Illum Eng 49:77-91; Discussion. 91-2 F '54

See also

Color blindness
Color sense
Eye—Accommodation and refraction
Eye—Movements
Flicker fusion phenomena
Retina
Sight

OPTIONS, Stock purchase. See Stock purchase options

ORANGE, Texas

Industries

Standout in Texas; chemical expansion. il map Chem W 72:18+ My 30 '53

ORANGE juice, Frozen

Chemical engineering methods in the food industry. W. Price-Davies. bibliog Chem & Ind p747-8 Je 26 '54

Frozen juice by sherbet process; Hi-Ester retention process. il Chem & Eng N 32:3132 Ag 9 '54

No vacuum needed for freeze concentration; abstract. J. B. Redd and R. A. Nance. Chem Eng 61:142 S '54

ORANGES

Chemicals from oranges; staff-industry collaborative report. W. Q. Hull, C. W. Lindsay and W. E. Baier. bibliog flow sheet il diags Ind & Eng Chem 45:876-90 My '53

Fungistat for oranges. il Chem W 73:32 Ag 8 '53

ORBITALS, Atomic. See Atomic orbitals

ORCHARD, William John, 1888-

Bill Orchard; poet, peddler, sanitary engineer. A. J. Fox, jr. pors Eng N 151:38-9 O 1 '53

ORCHESTRA shells

Band shell under a glass tent. il diags Arch Forum 99:119 N '53

ORDER-disorder transformations

Radiation damage effects on order-disorder in nickel-manganese alloys. L. R. Aronin. bibliog J Ap Phys 25:344-9 Mr '54

16 percent aluminum-iron alloy cold rolled in the order-disorder temperature range. J. F. Nachman and W. J. Buehler. bibliog il diags J Ap Phys 25:307-13 Mr '54

Thermal gradient method for the study of crystal structure and its application to order-disorder research. J. B. Newkirk. bibliog il diags R Sci Instr 24:1116-21 D '53

ORDER of the companions

Order of the companions; revival of an ancient workers' association in France. J. Bernard. Int Labour R 68:118-34 Ag '53

ORDERS

At Central Scientific, new storeroom layout makes possible more order picking with half the work force. L. A. Seversen. plans Factory Management 111:138-9 N '53

Avery finds a fast, efficient order-handling procedure. N. Wood and E. Wood. il Sales Management 71:88+ Jl 15 '53

Cost control for marketing operations; order filling. N A C A Bul 35:1647-75 sec 2 Ag '54

Eliminate three-o'clock bottleneck; W. C. Hamilton & sons, Airtube system. il Paper Tr J 138:20 F 12 '54

How Alexander Film cut errors with new system. il Am Bsns 23:14-15+ D '53

How Jewel Tea keeps costs down. M. French. Am Bsns 24:14-15+ S '54

Measuring the business outlook; new orders, inventories, backlogs. H. Wingate. Mag of Wall St 93:656-7+ Mr 6 '54

New tab system solves problems caused by big jump in volume; White Stag manufacturing co. B. Kruse. il Am Bsns 24:16-17+ Ja '54

Office work; how to get ready for electronic data processing. Iron Age 173:102-3 Mr 4 '54

Orders-inventories ratio as used for market forecasting; E. W. Axe & company study. Comm & Fin Chr 179:94 Ja 7 '54

Paperwork cut in handling orders; Snap-on tools corp. C. S. Childress. il Am Bsns 24:30+ Je '54

Spare parts service in a hurry; Yale & Towne manufacturing co. P. J. Friederichs. il Factory Management 112:122-3 Mr '54

Steel firms adapt retailers' ideas. Steel 134:96-7 Ap 19 '54

When customers' products are made to specifications, prompt shipment on definite dates is generally among the demands; Sponge rubber products co. F. Krumneaux. il India Rubber World 129:213-14 N '53

ORDERS, Unfilled

Measuring the business outlook; new orders, inventories, backlogs. H. Wingate. Mag of Wall St 93:656-7+ Mr 6 '54

Weighing significance of drop in new orders and shrinking backlogs. H. Nicholson. Mag of Wall St 92:650-1+ S 5 '53

ORDNANCE

Weapons; slay them with quality. W. G. Patton. il Iron Age 172:61 O 22 '53

See also

Guns (ordnance)
Mortars (ordnance)

Manufacture

Push-button line for ammunition; Rockford (Ill.) ordnance plant. il Bsns W p68-71 S 26 '53

Testing

Ordnance inspection. W. M. Mateer. Instruments & Automation 27:1316-17 Ag '54

ORE analysis. See Metallurgical analysis

ORE cars

Does antifreeze destroy cars? corrosion from calcium chloride applied to coal and ore. il Ry Age News ed 136:22-3+ Ja 18 '54

95-ton ore cars for four roads. il Ry Age 135:62 N 30 '53

ORE deposits

Classification and genesis of gneisses and their associated mineral deposits. G. V. Douglas. bibliog diags Can Min J 75:73-6 Je '54

Definition of a mineral belt in south central Colorado. J. W. Gabelman. bibliog(27 titles) maps Econ Geol 48:177-210 My '53

Genetic relations between granites, porphyries, and associated copper deposits. R. H. Sales. Min Eng 6:Trans 499-505 My '54

Geology and geochemistry of base metal deposits. H. D. B. Wilson. map diags Econ Geol 48:370-407 bibliog(p406-7) Ag '53

Localization of pyrometasomatic ore deposits at Johnson camp, Arizona. A. Baker, 3d. il maps diag Min Eng 5:Trans 1272-7 D '53

Mineralization and hydrothermal alteration in the Hercules mine, Burke, Idaho. B. Stringham and others. bibliog il diag Min Eng 5:Trans 1278-82 D '53

Origin of uranium deposits. D. L. Everhart. bibliog Min Eng 6:Trans 904-7 S '54

See also

Copper ores
Fluorspar
Geology
Iron ores
Mines and mineral resources
Uranium ores
Zinc ores

ORE docks

How lights help in ore movement. il Ry Age News ed 135:27 D 7 '53; Same. Ry Loco & Cars 128:65 F '54

Import ore handling, machines and practices. E. M. Hays. il diags Iron & Steel Eng 31:84-90; Discussion. 90-4 Ag '54

Wharf built in city, floated to place; Alcan's British Columbia hydroelectric aluminum refining project. L. E. Van Houten. il diags Eng N 152:29-30+ Ja 14 '54

ORE handling

Conveyors handle 6,000 tons of ore per hour at Puerto Ordaz. L. O. Millard. il diags Civil Eng 23:821-5 D '53

Fairless works ore and coal unloaders. L. Naruns. il Iron & Steel Eng 30:140+ D '53

Import ore handling, machines and practices. E. M. Hays. il diags Iron & Steel Eng 31:84-90; Discussion. 90-4 Ag '54

Lighter trolleys speed handling of coal, ore. H. J. King. il Iron Age 172:138-9 Ag 20 '53

New unloading tower goes into operation on Baltimore pier. il Iron & Steel Eng 31:162+ Ja '54

Transfer to a trolley; Pittsburgh coke & chemical co. il Chem W 73:42-3 Ag 1 '53

See also

Ore cars
Ore docks

ORE sampling

Geology in ore delineation and extraction; Star mine. R. E. Sorenson. il plan diags Min Cong J 40:33-8 My '54

ORE ships

Convert World war II C4's to combination bulk ore-oil vessels. R. L. Gray and M. Banister. il plans Marine Eng 59:34-40 Ag '54

Richard M. Marshall; ore carrier design pays off in efficiency and economy. H. C. Downer. il plans diags Marine Eng 59:44-60 Je '54

794-ft Ore Chief completes maiden voyage. il Marine Eng 59:70 S '54

690-foot Ernest T. Weir largest Lakes-built ore carrier. il plans diags Marine Eng 59:36-46 Ap '54

ORE testing

Concentration tests of manganese ores. A. L. Engel. U S Bur Mines Rep of Invest 4985:1-14 '53

ORE testing—*Continued*

Laboratories that make fire assays, analyses, and tests of ores, minerals, metals, and other inorganic substances. B. R. Klahold. U S Bur Mines Information Circ 7695:1-20 '54

New techniques for evaluating natural corundum ores. H. F. Carl and others. il Min Eng 6:Trans 402-6 Ap '54

See also

Assaying
Ore sampling

ORE transportation

See also

Iron ores—Transportation
Mine haulage
Ore cars
Ore ships

ORE treatment

Advances in milling and metallurgy; American mining congress Western division; abstracts of papers. Min Cong J 39:97-8 N '53

Beneficiation of Florida aluminum phosphate ore. J. E. Davenport, F. Carroll and G. Tarbutton. Ind & Eng Chem 46:1608-11 Ag '54

Costs sink, efficiency rises as mine completes expansion; Canadian Exploration. J. B. Huttl. il map diags Eng & Min J 155:62-7 My '54

Float-sink method provides own medium; patent. diag Chem Eng 61:254 Ag '54

Fluidized-bed sulfate roasting of nonferrous metals. F. M. Stephens, jr. il Chem Eng Prog 49:455-8 S '53

FluoSolids roasting at the new Carlton mill. T. B. Counselman. il diag Min Cong J 40: 53-5 Mr '54

Help the blind; screen blinding cuts down on efficiency but can be remedied. J. E. Fink. il Min Cong J 40:103-5 Ag '54

How one chrome producer aims at self-sufficiency; American chrome co. J. B. Huttl. flow sheet il diags Eng & Min J 155:92-5+ Je '54

How to extract uranium from ores. W. L. Lennemann. Eng & Min J 155:104-9 S '54

How to get into milling. il Eng & Min J 155:103 S '54

Incremental digestion. E. A. Gee and W. J. Huff. bibliog flow sheets il Chem Eng Prog 50:299-304 Je '54

Metal supplies and powder metallurgy tomorrow. H. W. Greenwood. bibliog Metallurgia 49:135-6 Mr '54

Milling in 1953. N. Arbiter. il Min Cong J 40:54-6 F '54

New look at Inspiration consolidated copper co. P. D. I. Honeyman. il Min Cong J 40:30-2+ S '54

Ore dressing; review and forecast. B. S. Crocker. Eng & Min J 155:120-2+ F '54

Physical explanation of the empirical laws of comminution. D. R. Walker and M. C. Shaw. bibliog il diags Min Eng 6:Trans 313-20 Mr '54

Reagents in ore-treating emulsions controlled by weighing timed samples at regular intervals. F. A. McGonigle. il Ind & Eng Chem 46:sup 107A Jl '54

See also

Ball mills
Crushing machinery
Cyanide process
Flotation process
Hydrometallurgy
Iron metallurgy
Leaching
Magnetic separation of ores
Metallurgical plants
Metallurgy
Nodulizing
Separators
Sintering
Smelting
Tailings

OREGON

See also

Hydroelectric plants—Oregon

OREGON CITY, Oregon

Sewerage

Difficult terrain complicates sewage treatment plant design. G. B. Arthur. il Pub Works 85:70-1 Mr '54

OREGON state college

New chemical engineering building. il Chem & Eng N 32:940 Mr 8 '54

ORES

How to draw the line between ore and waste, calculate limiting grade. D. L. Masson. Eng & Min J 155:59-61 My '54

See also

Copper ores
Geology
Iron ores
Lead ores
Manganese ores
Metallurgy
Metals
Mines and mineral resources
Ore deposits
Ore sampling
Ore treatment
Zinc ores

ORGAN, Electric

Electronorgan. R. H. Dorf. il diags Radio & Tv N 50:60-4+ N; 78-80 D '53; 51:68-72+ Ja '54

ORGANIC acids. See Acids, Organic

ORGANIC chemistry. See Chemistry, Organic

ORGANIC compounds. See Chemistry, Organic

ORGANIZATION for European economic cooperation

Economic sermon for France; OEEC report. Economist 169:899 D 19 '53

Freer trade and freer currencies. R. Makins. Comm & Fin Chr 178:2056-7 N 26 '53

Freer trade in Europe discussed at OEEC meeting, Paris. Economist 169:315-16 O 31 '53

OEEC members' trade now 75.7 percent free. For Comm W 51:10 F 22 '54

Report on Europe. Economist 168:702-4 S 12 '53

ORGANIZATION in industry

Better organization; what the accountant can do. M. Smith. N A C A Bul 34:1143-50 My '53

Current trends in organization; abstract. W. B. Schaffir. Management R 43:145-7 Mr '54

Function of top management organization planning and control in a manufacturing corporation. D. C. Dougherty. Personnel 30: 275-85 Ja '54

Good production methods reduce costs; works organization. I. J. Faulkner. Chem & Ind p552-5 My 15 '54

How to coordinate subcontracting to meet production schedules. G. F. Fouch. Am Mach 98:137-44 F 15 '54

Instrumentation's place in the managerial organization. R. H. Berg. bibliog diags Instruments 26:1194-9 Ag '53

Insuring your progress through research; organizing for industrial research. E. C. Koerper. Product Eng 24:172-3 Je '53

Job re-synthesis; one way to achieve economy in management. R. M. Bellows and M. F. Estep. Personnel 30:113-15 S '53

Organization for production engineering. R. H. McCarthy. Mech Eng 75:785-8+ O '53; Same cond. Tool Eng 32:168-73 F '54

Organization planning in Creole petroleum corp. C. F. Lindsley, jr. Personnel 30:189-95 N '53

Organize to prosper. M. K. Sheppard. Steel 135:78-9 Jl 12 '54

Planning and building an organization; panel discussion. J Bsns 27:28-32 pt 2 Ap '54

Process integration at I.C.I. Wilton project. J. Grindrod. il Can Chem Process 38:34+ Ag '54

Some reflections on organization; truths, half-truths, and delusions. A. Brown. Personnel 31:31-42 Jl '54

Vertical and horizontal organisation (with particular reference to the finishing section of the textile industry). W. Crossley. Textile Inst J 45:P504-26; Discussion. P526-9 Ag '54

See also

Accounting departments
Advertising departments
Committees (in management)
Controllers
Credit departments
Employment departments
Engineering departments
Instrument departments
Maintenance departments
Materials departments
Purchasing departments
Research departments
Safety organization
Sales departments
Traffic departments, Industrial

ORGANOLEPTIC panels

Flavour assessment. H. G. Harvey. bibliog Chem & Ind p 1163-7 O 31 '53

ORGANOMETALLIC compounds

Investigations on organo-tin compounds. G. J. M. van der Kerk and J. G. A. Luijten. bibliog J Ap Chem 4:301-19 Je '54

New type of metallo-organic complex derived from dicobalt octacarbonyl and acetylenes. H. Sternberg and others. Am Chem Soc J 76:1457-8 Mr 5 '54

Organometallic and organometalloidal compounds; properties of trifluoromethyl-arsenic acids and of other fluorine-containing acids. H. J. Emeléus, R. N. Haszeldine and R. C. Paul. Chem Soc J p881-6 Mr '54

Organometallic compounds of the alkali metals; metallation of alkylbenzenes by alkyl-sodium and -potassium compounds; the character of aromatic metallation reactions. D. Bryce-Smith. Chem Soc J p 1079-88 Mr '54

Reactions of organometallic reagents with 2-hydroxymethylenecyclohexanone and its isopropyl ether. A. S. Dreiding and S. N. Nickel. bibliog Am Chem Soc J 76:3965-8 Ag 5 '54

ORGANOSILICON compounds. See Silicon compounds

ORIENTATION

Orientation reflex. H. L. Logan. bibliog il diags Illum Eng 49:19-28; Discussion. 28-9 Ja '54

ORIENTATION (architecture)

Denver engineer invents novel calculator that shows how the sun will hit a house. il House & Home 3:43 My '53

Theory of sol-air orientation. il diags Arch Forum 100:133-7 Mr '54

ORIENTATION (chemistry)

Isomeric thiophthens and their ethyl homologues; the orientation of derivatives of liquid thiophthen (thiopheno-2′ : 3′ :2 : 3-thiophen). F. Challenger and B. Fishwick. bibliog Inst Pet J 39:220-36 Ap '53

ORIENTATION (crystals). See Crystals

ORIFICE meters

Effects of pulsation on orifice metering. R. C. Baird. il Instruments & Automation 27:629-31 Ap '54

For metering gas flow, Venturi tube vs. orifice plate. D. T. McDonald. il Pet Procesing 9:66-71 Ja '54

Importance of edge sharpness on small orifice meters. G. C. Huffman and others. il diags Instruments & Automation 27:1468-9 S '54

Installation and maintenance of orifice meters. W. D. Straight. Instruments 26:1895-7 D '53

Orifice metering tests near conclusion. il Gas Age 113:50-1+ F 25 '54

Selection of main line meters simplified by use of charts; head losses in Venturi and orifice meters. J. C. Thoresen. diags Water & Sewage Works 101:150-7 Ap '54

ORIFICES

Calculation of liquid flow coefficients. R. M. Voils, jr. Instruments 26:1731-2 N '53

Gas flow through small orifices. J. O. Osburn and K. Kammermeyer. Chem Eng Prog 50:198-9 Ap '54

ORLANDO, Florida

Water supply

Water needs in a fast growing city. C. E. Wright. il Pub Works 85:89-90 Je '54

ORLON

Development and end uses of Orlon; abstract. R. W. Trapnell. Am Dyestuff Rep 43:318 My 10 '54

Dyeing and processing of synthetic fibers. R. A. Travis. Am Dyestuff Rep 42:846 D 7 '53

How Champlain handles Orlon tow. J. H. Kennedy. il Textile World 104:74-5 Ap '54

New uniform cloth resists water, acid. Nat Pet N 45:65 N 18 '53

Progress in acrylics. il Mod Textiles Mag 35:51 S '54

Study in three-fiber blends; what mixtures of rayon, Dacron, Orlon impart to a fabric. J. F. Sayre and A. J. Weldon. Mod Textiles Mag 35:32-3+ Jl '54

See also

Dyes and dyeing—
  Orlon

OROTIC acid

Biosynthesis of orotic acid from citrulline. L. H. Smith, jr. and D. Stetten, jr. bibliog Am Chem Soc J 76:3864-5 Jl 20 '54

OROTIC acid, Analogs of

6-Uracilsulfonic acid, a sulfonic acid analog of orotic acid. S. B. Greenbaum and W. L. Holmes. bibliog Am Chem Soc J 76:2899-902 Je 5 '54

ORSAT apparatus

You can analyze gas in the field; portable Orsat apparatus. M. L. Robinson. il diags World Oil 137:247-9 S '53

ORTHICON. See Television cameras

ORTHOFLOW process. See Gasoline—Manufacture

ORZAN. See Sulfite liquor

OSAZONES

Osazones of 1,2-cyclobutanedione and other alicyclic α-diketones. F. Ramirez and R. J. Bellet. bibliog Am Chem Soc J 76:491-3 Ja 20 '54

Scope and mechanism of carbohydrate osotriazole formation; the action of copper sulphate on glucose methylphenylosazone and glucose 2-N′-methyl-1-N′ :2-N′-diphenylosazone. H. El. Khadem. Chem Soc J p3452-3 N '53

OSCILLATIONS

Almost sinusoidal oscillations in nonlinear systems; transient phenomena. J. S. Schaffner. bibliog diags Ill U Eng Exp Sta Bul 421:1-39 '53 (pa 40c)

Interaction of non-linear oscillations. N. Minorsky. Franklin Inst J 256:147-65 Ag '53

Stability investigation of the nonlinear periodic oscillations. C. Hayashi. J Ap Phys 24:344-8 Mr '53

OSCILLATIONS, Electric

Electrical oscillations. A. W. Gillies. bibliog diags Wireless Eng 30:143-58 Je '53

Relaxation oscillations in voltage-regulator tubes. P. L. Edwards. il diags Inst Radio Eng Proc 41:1756-60 D '53

Sinusoidal and relaxation oscillations sustained by nonlinear reactances. R. S. Mackay. diags J Ap Phys 24:1163-7 S '53

Subharmonic oscillations in nonlinear systems. C. Hayashi. J Ap Phys 24:521-9 My '53

OSCILLATORS

Amplitude stabilized transistor oscillator; abstract. E. R. Kretzmer. diag Electronics 26:208 D '53

Amplitude variations in a frequency-modulated oscillator. W. J. Cunningham. Franklin Inst J 256:311-23 O '53

Application of high frequency oscillators. D. G. Flom and P. J. Elving. bibliog il diags Anal Chem 25:541-9 Ap '53

Backward-wave tube. H. Heffner. il diags Electronics 26:135-7 O '53

Bridge-stabilized ultrasonic oscillator. L. W. Erath. il diag Electronics 26:174-5 O '53

Carcinotron; backward wave microwave oscillator. E. C. Dench. bibliog il diags Tele-Tech 12:64-6+ N '53

C-r oscillator; patent. diag Electronics 26:252+ D '53

Crystal substitute. J. G. Donald. il diag Radio & Tv N 51:47+ Mr '54

Cyclotron oscillators and the shifting interdee ground surface. F. H. Schmidt and M. J. Jacobson. diags R Sci Instr 25:136-9 F '54

Dynamics of a disordered linear chain. F. J. Dyson. Phys R 92:1331-8 D 15 '53

Helix as a backward-wave circuit structure. D. A. Watkins and E. A. Ash. bibliog diags J Ap Phys 25:782-90 Je '54

Low-frequency oscillator. R. M. Howe and R. J. Leite. bibliog diags R Sci Instr 24:901-3 O '53

Magnetic gas discharge tube oscillator. J. M. Somerville. diags J Sci Instr 31:279-84 Ag '54

Maintenance of test oscillators. J. Dobrin. bibliog il diags Instruments & Automation 27:617-21 Ap '54

Mullard stable variable-frequency oscillator for centralised transmitter drive units. il Engineer 197:404 Mr 12 '54

New stable variable frequency oscillator. A. Wilson. il diags Radio & Tv N 50:107-9+ N '53

OSCILLATORS—*Continued*

Oscillator electrometer; abstract. T. A. Rich and J. E. Bigelow. diags Electronics 26: 224+ D '53

Quantum theory of a damped electrical oscillator and noise; the radiation resistance. J. Weber. diags Phys R 94:211-15 Ap 15 '54

Remote tuning for the high-C vfo. N. D. Larky. il diag Q S T 37:36-9 S '53

Simple heterodyne exciter for ten meters. C. Faulkner. il diags Q S T 37:21-4+ N '53

Starting currents in the backward-wave oscillator. L. R. Walker. J Ap Phys 24:854-9 Jl '53

Subminiature code practice oscillator. L. E. Garner, jr. il diags Radio & Tv N 51:40-1 F '54

Synthetic-pattern generator for the solution of certain instrumentation problems in television. R. C. Webb. bibliog il diags RCA R 15:187-203 Je '54

Transistor m.c.w. adapter. H. V. Braun. il diags Q S T 37:51 S '53

Transistor oscillator for use in multifrequency pulsing current supply. F. E. Blount. il diags Bell System Tech J 32:1313-31 N '53

Transistor oscillators. H. E. Hollmann. il diags Tele-Tech 12:82-3+ O '53

Transistorized audio oscillator; uses a selenium photo cell. L. E. Garner, jr. il diag Radio & Tv N 50:68-9 S '53

Use of a radio-frequency oscillator in student analysis. J. L. Hall and others. bibliog il diags J Chem Educ 31:54-9 F '54

Vacuum fluctuation noise. J. Weber. diag Phys R 94:215-17 Ap 15 '54

See also

Klystron
Magnetron
Multivibrators
Pulse generators

Frequency stabilization

Controlled-frequency oscillator with frequency memory. J. Van Bladel. diags J Sci Instr 30:299-301 S '53

Frequency discrimination and stabilization of square-wave modulated microwave transmissions. C. H. M. Turner. bibliog diags Inst E E Proc 100 pt 3:381-3 N '53

Frequency stabilized microwave oscillator using readily available components. M. D. Sirkis and P. D. Coleman. il diag R Sci Instr 25:401-2 Ap '54

Inductor control gives automatic frequency control of center frequency. diag Electronics 27:244+ F '54

OSCILLATORS, Crystal

General Electric quartz crystal activity test set. diag J Sci Instr 31:152 Ap '54

Improved frequency stability of oscillators with dual crystals. D. A. Venn and G. W. Arnold. diags Commun Eng 13:30-3+ S '53

Subharmonic crystal oscillators. M. O. Thompson, jr. and others. il diags R Sci Instr 25:8-12 Ja '54

OSCILLOGRAPHS

Brush electronics company oscillograph. il R Sci Instr 24:887-8 S '53

Gray wedge pulse-height analysis. W. Bernstein and others. il diags R Sci Instr 24:437-44 Je '53

Oscilloscope reduces cost of jig grinding operations; Western electric co. W. W. Rea. il diags Mach 60:201-3 D '53

Tips on magnetic oscillograph operation. C. Tirk. diags Elec World 139:99-100 Je 29 '53

Waveform tracing aid. L. E. Garner, jr. il diags Radio & Tv N 51:64-5+ F '54

OSCILLOGRAPHS, Cathode ray

Aerial radiation patterns; apparatus for cathode-ray tube display. T. T. Ling. bibliog diags Wireless Eng 30:192-5 Ag '53

Application of the cathode-ray polarography to rotating platinum electrodes. I. Shain and A. L. Crittenden. bibliog diag Anal Chem 26:281-4 F '54

Automatic 'scope monitoring of transmission and reception. il diags Q S T 37:19-23 O '53

Balancing ignitrons in frequency converter three-phase spot welder; cathode-ray oscilloscope. G. C. Woodmancy. diags Welding J 33:236-8 Mr '54

Direct reading of phase angles on an oscilloscope. C. R. Wischmeyer and P. E. Pfeiffer. diag R Sci Instr 25:41-2 Ja '54

Direct-reading standing-wave indicator. A. C. Grace and J. A. Lane. diags J Sci Instr 30: 168-9 My '53

Effect of duration of light adaptation on time required for detection of a target on a simulated PPI scope. J. L. Brown and others. bibliog Opt Soc Am J 43:1147-52 D '53

Electronic method for bubble frequency measurement. A. O. Newman and B. J. Lerner. bibliog diag Anal Chem 26:417-18 F '54

Fault locator finds one breakdown, pays for itself. W. H. Fisher. il Elec World 140:101+ N 30 '53

Key to the electronics boom; cathode-ray oscillograph. il Bsns W p56-8+ S 19 '53

Modified Miller time-base circuit. R. D. Ryan. il diags J Sci Instr 31:73-5 Mr '54

Oscillograph tests high-speed air-blast breakers. F. Kunze. diags Elec World 140:107+ N 2 '53

Oscillographic method for determining velocities of detonation in explosives. F. C. Gibson. il diags R Sci Instr 25:226-31 Mr '54

Polar cardioscope. J. W. Trank and O. H. Schmitt. il diag R Sci Instr 25:918-20 S '54

Portable high-speed cathode-ray oscillograph. S. Waring and B. Murphy. il diags J Sci Instr 30:469-71 D '53

Time-marker for electrocardiography. M. A. Bullen and L. A. Daynes. diag J Sci Instr 31:6-7 Ja '54

Ultra-high frequency beam analyzer. L. R. Bloom and H. M. VonFoerster. bibliog il diags R Sci Instr 25:649-53 Jl '54

Ultra-speed transient dynamic analyzer for mechanics and ballistics. J. C. Lindsay and A. V. Masket. bibliog il diags R Sci Instr 25:704-11 Jl '54

Use and maintenance of oscilloscopes. J. Dobrin. bibliog il diags Instruments & Automation 27:449-51 Mr '54

Use of oscilloscope for measurement of potential difference. F. T. Turner. Instruments & Automation 27:939 Je '54

Wide-band amplitude distribution analysis of voltage sources. L. W. Orr. diags R Sci Instr 25:894-8 S '54

OSCILLOSCOPES. See Oscillographs

OSGOOD company

Marion power shovel co. now controls the Osgood co. and the General excavator co. Roads & Eng Constr 92:68 Jl '54

OSMATES

Non-exchange of chlorine between chloride and hexachlorosmate(IV) ions in aqueous solution. L. L. Larson and C. S. Garner. bibliog Am Chem Soc J 76:2180-1 Ap 20 '54

OSMIUM

Analysis

Chemical methods for separating and determining metals contained in platiniferous materials. R. Gilchrist. bibliog(25 ref) Anal Chem 25:1617-21 N '53

Concentrating and dissolving platinum metals. F. E. Beamish and W. A. E. McBryde. bibliog Anal Chem 25:1613-17 N '53

Quantitative organic precipitants for osmium. L. Hoffman and others. bibliog Anal Chem 25:1091-4 Jl '53

Reactions involving colored complexes of the platinum metals. G. H. Ayres. bibliog(26 ref) Anal Chem 25:1622-7 N '53

Study of osmium and ruthenium distillations. A. D. Westland and F. E. Beamish. bibliog diags Anal Chem 26:739-41 Ap '54

Isotopes

Magnetic moment of Os^{189}. H. R. Loeliger and L. R. Sarles. Phys R 95:291 Jl 1 '54

OSMIUM alloys

Structure of some iridium-osmium alloys. H. C. Vacher and others. il J Metals 6:Trans 80 Ja '54

OSMIUM oxides

Solubilities of sulfur hexafluoride in water and of the rare gases, sulfur hexafluoride and osmium tetroxide in nitromethane. H. L. Friedman. bibliog Am Chem Soc J 76: 3294-7 Je 20 '54

OSMOSIS
Anomalous osmotic behavior of polymethacrylonitrile. N. Grassie and E. Vance. Chem Soc J p2122-5 Je '54
Electricity stiffens clay fivefold for electric plant excavation. R. Loughney. il diag Constr Methods 36:70-1+ Ag '54
Electro-osmotic examination of paint films. J. K. Wirth and W. Machu. bibliog diags Paint Oil & Chem R 117:12-14+ F 25; 26-9+ Mr 11 '54
See also
Electrophoresis
Osmotic pressure

OSMOTIC pressure
Definition of osmotic pressure. F. P. Chinard. bibliog diags J Chem Educ 31:66-9 F '54
Recent work on molecular weight of cellulose. E. H. Immergut, B. G. Ranby and H. F. Mark. bibliog diags Ind & Eng Chem 45:2483-90 N '53

OSTHEIMER and company
Ostheimer incorporates employe benefit function. Nat Underw (Life ed) 57:17 O 2 '53

OSTWALD, Wilhelm, 1853-1932
A founder of physical chemistry. G. Rabel. Chem Age (Lond) 70:177-8 Ja 9 '54
Haus Energie. R. E. Oesper. J Chem Educ 31:398 Ag '54
How I came to know Wilhelm Ostwald. E. Brauer. por J Chem Educ 30:604-5 D '53
How one becomes a chemist. W. Ostwald. J Chem Educ 30:606-8 D '53
Study in scientific genius. E. Farber. J Chem Educ 30:600-4 D '53

OTIS, Elisha Graves, 1811-1861
He reached for the sky. por Comp Air Mag 58:347 D '53

OTIS elevator company
For Otis; more electronics. Bsns W p 119-20 O 17 '53

OTTAWA
In quest of bargains. Bsns W p 157 N 14 '53

OTTER tail power company
Overcoming loss of customers to U.S. projects. Barron's 33:19-20 Ag 17 '53

OUACHITA mountains
Ouachita chert facies, southeastern Oklahoma. B. H. Harlton. il map diag Am Assn Pet Geologists Bul 37:778-96 Ap '53

OUTAGES. See Electric power—Interruptions

OUTBOARD, marine and manufacturing company
Five attractive stocks off the beaten track. Mag of Wall St 93:736 Mr 20 '54

OUTBOARD motors. See Motor boat engines, Outboard

OUTDOOR advertising. See Advertising, Outdoor

OUTDOOR boiler plants. See Boiler plants, Outdoor

OUTPUT of workers. See Labor productivity

OVALBUMIN. See Albumin

OVENS
Transformer drying oven; Brush electrical engineering co. il Elec R (Lond) 154:327 F 19 '54
You can turn roof space into production space; Remington Rand inc. il Factory Management 112:116-17 Ag '54
See also
Electric ovens

OVER-the-counter marketing. See Securities—Over-the-counter marketing

OVERHEAD expense
Backing overhead claims for cost-type contracts. R. W. Harwell. N A C A Bul 35:611-22 Ja '54
Controlling production costs. P. Carroll. Tool Eng 32:174-5 F '54
Distribution of overhead with electronic calculators. G. G. Jewett. J Account 97:698-701 Je '54
Hidden profits in overhead. H. N. Kamph. N A C A Bul 35:144-61 sec 3 S '53
How are you fixed on fixed expense. Dom Eng 183:122-3 Ap '54
Material handling overhead affects unit cost. C. W. Bendel. N A C A Bul 35:643-52 Ja '54
Overhead accounting comes full circle. L. A. Doyle. N A C A Bul 35:1575-85 Ag '54
Plumbing and heating estimating. J. Williams. Dom Eng 183:130-1 Mr '54

OVERSTABILITY (term)
Instance in thermal convection of Eddington's overstability. D. Fultz and others. bibliog Phys R 94:1471-2 Je 15 '54

OVERTIME
Are design engineers professionals? court decisions establish their legal status in cases tried under the Fair labor standards act. A. W. Gray. bibliog Machine Design 26:112-15 Jl '54
Distributes memo on overtime remuneration by Compensation insurance rating board of New York. East Underw 54:30 Ag 7 '53
How to figure overtime pay. R. D. Stevens. Marine Eng 59:62-3 Mr '54
Overtime clause may have a hook in it. Bsns W p 161 O 24 '53
Overtime; more reductions coming. Steel 133:41 N 2 '53
Overtime pay policies for executive, administrative, and professional employees. J. M. Rosow. Personnel 30:105-12 S '53; Excerpts. Chem Eng 60:270+ D '53
Overtime pay practices in 31 companies. Factory Management 111:94-5 N '53
What happens to costs when we run overtime? R. S. Makepeace. N A C A Bul 35:766-71 F '54

OVERVOLTAGE
Hydrogen overvoltage on bright platinum. S. Schuldiner. bibliog diag Electrochem Soc J 101:426-32 Ag '54

OVERVOLTAGES (electric lines)
Insulation of high-voltage electrical installations. J. S. Cliff. Engineering 176:767 D 11 '53; Abstract. Elec R (Lond) 153:1042 N 6 '53; Discussion. 153:1117-18 N 13 '53
Overvoltage during line-to-ground fault; engineering reference sheet. D. P. Inwood. Elec World 140:152 D 14 '53

OWNERS', landlords' and tenants' liability insurance. See Insurance, Owners', landlords' and tenants' liability

OXALACETATES
Mechanism of enzymatic carbon dioxide fixation into oxaloacetate. B. Vennesland, T. T. Tchen and F. A. Loewus. Am Chem Soc J 76:3358-9 Je 20 '54

OXALATES
Fractional separation of rare earths by oxalate precipitation from homogeneous solution. B. Weaver. Anal Chem 26:479-80 Mr '54
Spectrophotometric investigation of a mixed complex of copper(II) ion with oxalate ion and ethylenediamine. R. DeWitt and J. I. Watters. Am Chem Soc J 76:3810-14 Jl 20 '54

Analysis

Determination of oxalate ion and calcium ion by indirect colorimetry. F. Burriel-Martí, J. Ramírez-Muñoz and E. Fernández-Caldas. bibliog Anal Chem 25:583-5 Ap '53
Sulfuric acid concentration as a variable in the permanganate-oxalate titration. R. C. Brasted. Anal Chem 25:673-4 Ap '53

OXALIC acid
Destruction of oxalic acid by activated sludge. D. J. Nelson and others. Sewage & Ind Wastes 26:1126-9 S '54
Electrolytic etching in oxalic acid screens cast and wrought stainless steels from 240-hour nitric acid test. M. G. Fontana. il Ind & Eng Chem 45:sup95A-7A O '53
Oxalic acid by synthetic formate process; pictured flowsheet. il Chem Eng 61:340-3 Ap '54
Proton magnetic resonance experiment on a single crystal of oxalic acid dihydrate, $(COOH)_2 \cdot 2H_2O$. J. Itoh and others. bibliog J Chem Phys 21:1895-6 O '53
Results of cooperative testing program for the evaluation of the oxalic acid etching test. M. A. Streicher. Metal Prog 66:supA 176+ Jl 15 '54

OXALYL chloride
Reaction of organocadmium reagents with ethoxalyl chloride. G. W. Stacy and R. M. McCurdy. bibliog Am Chem Soc J 76:1914-16 Ap 5 '54

OXAZINE
Derivatives of acetoacetic acid; a synthesis of 1 : 3-oxazine derivatives employing diketen. R. N. Lacey. Chem Soc J p845-9 Mr '54

OXAZINE—*Continued*

Diuretics; α,α-disubstituted 2-piperidineethanols and 3,3-disubstituted octahydropyrid[1,2-c]oxazines. C. H. Tilford and M. G. Van Campen, jr. bibliog Am Chem Soc J 76:2431-41 My 5 '54

OXAZOLIDINE

Oxazolidines. E. D. Bergmann. Chem R 53:309-52 bibliog(p348-51) O '53

3-Trichloromethanesulfenyloxazolidine- and thiazolidine-2,4-diones. W. J. Croxall, C. Lo and E. Y. Shropshire. bibliog Am Chem Soc J 75:5419-21 N 5 '53

OXAZOLIDONE

New reactions involving alkaline treatment of 3-nitroso-2-oxazolidones. M. S. Newman and W. M. Edwards. bibliog Am Chem Soc J 76:1840-5 Ap 5 '54

OXAZOLINE

Mutarotation of *cis*-2-phenyl-4-carboxy-5-hydroxymethyl-2-oxazolines. E. E. Hamel and E. P. Painter. Am Chem Soc J 76:919-20 F 5 '54

Structure of the oxazoline derivatives of glucose and galactose. J. C. P. Schwarz. Chem Soc J p2644-6 Jl '54

Sulfonic acid esters as alkylating agents; formation of 2-oxazolines. R. N. Boyd and R. H. Hansen. bibliog Am Chem Soc J 75:5896-7 D 5 '53

OXIDASES

Preparation of 2-(2-naphthoxy)-propionic acid and 2-(6-bromo-2-naphthoxy)-propionic acid as possible chromogenic substrates for fatty acid oxidases. M. N. Green, L. J. Friedman and A. M. Seligman. bibliog Am Chem Soc J 76:48-50 Ja 5 '54

Reaction-inactivation of polyphenoloxidase; temperature dependence. L. L. Ingraham. bibliog diag Am Chem Soc J 76:3777-80 Jl 20 '54

Reversible inactivation of polyphenol oxidases. J. D. Ponting. Am Chem Soc J 76:662-3 F 5 '54

OXIDATION

Accelerated oxidation of metals at high temperatures. A. D. Brasunas and N. J. Grant. bibliog il diags Am Soc for Metals Trans 44:1117-46; Discussion. 1146-9 '52

Acclimated microorganisms capable of oxidizing previously unaffected compounds; abstract. V. T. Stack, jr. and E. J. Mills, jr. Chem & Eng N 32:2107-8 My 24 '54

Air-oxidation of butane; new celanese process used in Pampa plant to make acetic acid, allied products. D. P. Thornton, jr. il diag Pet Processing 8:1041-4 Jl '53

Anodic oxidation of metals at very low current density; copper. S. E. S. El Wakkad and S. H. Emara. Chem Soc J p3508-12 N '53

Anodic oxidation of metals at very low current density; nickel. S. E. S. El Wakkad and S. H. Emara. Chem Soc J p3504-8 N '53

Automatic tester for oil oxidation. il Pet Processing 8:1524-7 O '53

Catalytic oxidation of aqueous wastes. J. Oliver. diags Chem Eng Prog 50:425-7 Ag '54

Catalytic vapour-phase oxidation; Chemical engineering department of Yale. R. H. Bretton. Chem Age (Lond) 69:1319-22 D 26 '53

Cerium(IV); sulfate oxidation of phenols. W. R. Spencer and F. R. Duke. bibliog Anal Chem 26:919-20 My '54

Chemical engineering unit processes. L. F. Marek. il Ind & Eng Chem 45:2000-11 bibliog(194 ref, p2009-11); 46:1863-70 bibliog (142 ref, p 1869-70) S '53 S '54

Chemical studies with 11-oxygenated steroids; a one-step oxidation-halogenation of 3-hydroxysteroids. A. R. Hanze and others. bibliog Am Chem Soc J 76:3179-81 Je 20 '54

Chromatographic separation of acid obtained from oxidation of alpha-pinene. D. E. Baldwin, V. M. Loeblich and R. V. Lawrence. bibliog Anal Chem 26:760-2 Ap '54

Contact-process converter design. P. H. Calderbank. bibliog Chem Eng Prog 49:585-90 N '53

Deterioration of alkyd resin films. E. B. Fitzgerald. bibliog il Ind & Eng Chem 45:2545-8 N '53

Dichromate oxidation of diethylene glycol. M. J. Cardone and J. W. Compton. bibliog Anal Chem 25:1869-74 D '53

Diffusion and oxidation of solid metals. C. E. Birchenall. bibliog(193 ref) Ind & Eng Chem 45:907-11; 46:893-8 My '53, My '54

Effects of oxidation of coals on their flotation properties. S. Sun. bibliog diag Min Eng 6:Trans 396-401 Ap '54

Electron optical study of oxidation of high purity iron at low oxygen pressures. E. A. Gulbransen and others. bibliog il diags J Metals 6:Trans 1027-35 sec 2 S '54

Ethylene oxide by direct oxidation. R. Landau. il Pet Refiner 32:146-7+ S '53

Evidence for hydroxylation as a major effect in the persulphate oxidation of organic compounds. R. G. R. Bacon and R. W. Bott. bibliog Chem & Ind p 1285-6 N 28 '53

Factors influencing the oxidation of phenols, catalyzed by zinc oxide and light. M. C. Markham, M. C. Hannan and S. W. Evans. bibliog Am Chem Soc J 76:820-3 F 5 '54

Formation of bromate in the oxidation of iodide by bromine. P. W. Jensen and A. L. Crittenden. bibliog Anal Chem 26:1373-4 Ag '54

Glow-discharge electrolysis; the anodic oxidation of ferrous sulphate. A. Hickling and J. K. Linacre. diag Chem Soc J p711-20 F '54

High pressure oxidation of metals; tantalum in oxygen. R. C. Peterson and others. bibliog il diags J Metals 6:Trans 1038-44 sec 2 S '54

High pressure oxidation rate of metals; copper in oxygen. W. McKewan and W. M. Fassell, jr. bibliog il diag J Metals 5:Trans 1127-30 S '53

High-temperature oxidation characteristics of a group of oxidation resistant copper-base alloys; abstract. J. P. Dennison and A. Preece. Metal Prog 65:138+ F '54

High temperature oxidations of 2,2,4-trimethylpentane and 2,2-dimethylbutane. F. F. Rust and D. O. Collamer. bibliog Am Chem Soc J 76:1055-8 F 20 '54

Hypobromite and hypochlorite oxidation of ammonium hydroxide, hydrazine and hydroxylamine. R. F. Riley and others. bibliog Am Chem Soc J 76:3301-3 Je 20 '54

Influence of molecular structure on the oxidation of aliphatic hydrocarbons. N. J. H. Small and A. R. Ubbelohde. bibliog(26 ref) J Ap Chem 3:193-8 My '53

Influence of perchloric acid and cerous perchlorate upon the photochemical oxidation of cerous to ceric perchlorate in dilute aqueous perchloric acid. L. J. Heidt and A. F. McMillan. bibliog diag Am Chem Soc J 76:2135-9 Ap 20 '54

Kinetics of oxidation of high purity nickel. E. A. Gulbransen and K. F. Andrew. bibliog(31 ref) Electrochem Soc J 101:128-40 Mr '54

Kinetics of the high temperature oxidation of zirconium. J. Belle and M. W. Mallett. bibliog il Electrochem Soc J 101:339-42 Jl '54

Kinetics of the oxidation of phenyl sulfoxide. H. H. Szmant, H. F. Harnsberger and F. Krahe. bibliog Am Chem Soc J 76:2185-7 Ap 20 '54

Low temperature catalytic oxidation of ammonia. H. F. Johnstone, E. T. Houvouras and W. R. Schowalter. bibliog(28 ref) Ind & Eng Chem 46:702-8 Ap '54

Low-temperature oxidation of carbon. W. K. Lewis, E. R. Gilliland and R. R. Paxton. bibliog diag Ind & Eng Chem 46:1327-31 Je '54

Material balances and redox equations. G. W. Bennett. J Chem Educ 31:324-5 Je '54

Mechanism of aldehyde and primary alcohol oxidation. W. A. Mosher and D. M. Preiss. bibliog Am Chem Soc J 75:5605-7 N 20 '53

Mechanism of oxidation of α-glycols by periodic acid; ethylene glycol. G. J. Buist and C. A. Bunton. Chem Soc J p 1406-13 My '54

Mechanisms of removal of hydrogen from palladium-hydrogen by oxidation. F. A. Lewis and A. R. Ubbelohde. diags Chem Soc J p 1710-16 Je '54

OXIDATION—*Continued*

Metal-catalyzed persulphate oxidations of organic compounds. R. G. R. Bacon and others. bibliog Chem & Ind p897-8 Ag 22 '53

Oxidation and its relationship to steel making. C. F. Christopher. Blast F & Steel Pl 42:1059-65, 1178-83 S-O '54

Oxidation of carboxylic acids containing a tertiary carbon atom. J. Kenyon and M. C. R. Symons. Chem Soc J p3580-3 N '53

Oxidation of cellobiose by periodate. F. S. H. Head and G. Hughes. Chem Soc J p603-6 F '54

Oxidation of 5 : 6-dihydroxyindoles and the structure of melanin. J. M. Bruce. bibliog J Ap Chem 4:469-73 S '54

Oxidation of fats symposium; abstracts of papers. Chem & Ind p514-15 My 23 '53

Oxidation of hindered phenols; the 2,4,6-tri-*t*-butylphenoxy radical. C. D. Cook and R. C. Woodworth. bibliog Am Chem Soc J 75:6242-4 D 20 '53

Oxidation of lanost-8-enyl acetate with hydrogen peroxide. S. A. Knight and others. bibliog Chem & Ind p822 Ag 1 '53

Oxidation of liquid aldehydes by molecular oxygen. J. R. McNesby and C. A. Heller, jr. bibliog Chem R 54:325-46 Ap '54

Oxidation of metals at high temperatures. W. J. Moore. bibliog(61 ref) Electrochem Soc J 100:302-13 Jl '53

Oxidation of methanol by nitric acid solutions of quadrivalent cerium. D. A. Skoog and Sister M. Budde. Anal Chem 25:822-3 My '53

Oxidation of *N*-alkylanilines and related compounds with benzoyl peroxide. J. T. Edward. Chem Soc J p 1464-7 My '54

Oxidation of *N*-alkylarylamines; identification of *N*-alkyl groups. F. W. Neumann and C. W. Gould. bibliog(55 ref) il diags Anal Chem 25:751-9 My '53

Oxidation of phenolphthalin to phenolphthalein provides means for estimating oxidant in air. L. C. McCabe. bibliog Ind & Eng Chem 45:sup 111A-13A S '53

Oxidation of phenols in alkaline solution; doctor red. H. D. Taskis and G. E. Mapstone. Chem & Ind p 1061-3 O 3 '53

Oxidation of some aromatic amines with persulphate. E. Boyland and P. Sims. Chem Soc J p980-5 Mr '54

Oxidation of the radicals produced in acetone photolysis. R. R. Hentz. bibliog Am Chem Soc J 75:5810-14 D 5 '53

Oxidation of titanium at high temperatures in an atmosphere of pure oxygen; abstract. A. E. Jenkins. Metal Prog 66:172 S '54

Oxidation resistances of ternary mixtures of the carbides of titanium, silicon, and boron. O. E. Accountius and others. il Am Cer Soc J 37:173-7 Ap 1 '54

Oxidation studies; metal-catalysed persulphate oxidation of some simple phenols. R. G. R. Bacon, R. Grime and D. J. Munro. Chem Soc J p2275-80 Jl '54

Oxidative fission of catechol compounds and the structure of melanines. Z. E. Jolles. bibliog Chem & Ind p 1367-8 D 19 '53

Oxidizing with Textone. G. O. Smith. Am Dyestuff Rep 42:429-30+ Jl 6 '53

Oxycat nips air pollution. il diag Paint Oil & Chem R 117:17-18 Mr 25 '54

Ozone formation in photochemical oxidation of organic substances. A. J. Haagen-Smit, C. E. Bradley and M. M. Fox. bibliog Ind & Eng Chem 45:2086-9 S '53

Partial oxidation of propane. C. N. Satterfield and others. bibliog(40 ref) diag Ind & Eng Chem 46:1001-10 My '54

Peracid oxidation of linoleic acid. A. F. McKay, N. Levitin and R. N. Jones. bibliog Am Chem Soc J 76:2383-6 My 5 '54

Periodate oxidation of methylfructoses. W. E. A. Mitchell and E. Percival. Chem Soc J p 1423-5 My '54

Peroxidase oxidation of mesidine. G. M. K. Hughes and others. bibliog Chem & Ind p47-8 Ja 9 '54

Peroxytrifluoroacetic acid; the oxidation of anilines to nitrobenzenes. W. D. Emmons. bibliog Am Chem Soc J 76:3470-2 Jl 5 '54

Peroxytrifluoroacetic acid; the oxidation of nitrosamines to nitramines. W. D. Emmons. bibliog Am Chem Soc J 76:3468-70 Jl 5 '54

Photochemical oxidation of *n*-heptaldehyde. J. R. McNesby and T. W. Davis. bibliog Am Chem Soc J 76:2148-52 Ap 20 '54

Photooxidation of cellulose; abstract. J. L. Bolland. Chem & Eng N 32:2976+ Jl 26 '54

Polarographic oxidation of phenolic compounds. V. F. Gaylor, P. J. Elving and A. L. Conrad. bibliog Anal Chem 25:1078-82 Jl '53

Potassium acid saccharate by nitric acid oxidation of dextrose. G. C. Mustakas, R. L. Slotter and R. L. Zipf. bibliog flow sheet il diag Ind & Eng Chem 46:427-34 Mr '54

Process kinetics; phenol synthesis by direct oxidation of benzene. Ju Chin Chu, H. C. Ai and D. F. Othmer. bibliog(64 ref) flow diag Ind & Eng Chem 45:1266-72 Je '53

Production of phthalic anhydride by the oxidation of tar oils. J. Shelmerdine and others. bibliog J Ap Chem 3:513-21 N '53

Rate of oxidation of three nickel-chromium heater alloys between 500° and 900°C. E. A. Gulbransen and K. F. Andrew. bibliog Electrochem Soc J 101:163-70 Ap '54

Recent developments in the study of oxidative deterioration of lipids. C. H. Lea. bibliog(60 ref) Chem & Ind p 1303-9 D 5 '53

Recent research on oxidation of monoethenoid fatty acids and esters. J. H. Skellon. bibliog(29 ref) Chem & Ind p 1047-9 O 3 '53

Relation of oxidation to the origin of soft iron ores of Michigan. V. I. Mann. il maps Econ Geol 48:251-81 bibliog(79 titles, p279-81) Je '53; Discussion. H. L. James. 48:726-8 D '53

Selective oxidation of some steroid diols. R. E. Jones and F. W. Kocher. Am Chem Soc J 76:3682-3 Jl 20 '54

Self diffusion of iron in iron oxides and the Wagner theory of oxidation. L. Himmel and others. bibliog(43 ref) il diag J Metals 5:Trans 827-43 Je '53; Discussion. 6:Trans 670-2 sec 2 My '54

Solvent influence in oxidation reactions with lead tetra-acetate. H. E. Barron and others. bibliog Chem & Ind p76-7 Ja 16 '54

Stages in oxidations of organic compounds by potassium permangante; a kinetic study of the oxidation of pinacol by manganic pyrophosphate. A. Y. Drummond and W. A. Waters. Chem Soc J p3119-23 O '53

Stages in oxidations of organic compounds by potassium permanganate; oxidation of malonic acid and its analogues. A. Y. Drummond and W. A. Waters. Chem Soc J p2456-67 Jl '54

Study of the alkaline nitrobenzene oxidation of chlorite lignin. J. E. Jayne. bibliog Tappi 36:571-6 D '53

Temperature coefficient of the radiation induced oxidation of ferrous sulfate. H. A. Schwarz. bibliog Am Chem Soc J 76:1587-8 Mr 20 '54

Thermodynamics of ammonia synthesis and oxidation. R. H. Harrison and K. A. Kobe. bibliog(35 ref) Chem Eng Prog 49:349-53 Jl '53

Triterpene resinols and related acids; the oxidation of 12-oxo*iso*oleana-9(11) : 14-α dienyl acetate. J. D. Johnston and F. S. Spring. Chem Soc J p 1556-65 My '54

Use of radioactive sulphur [^{35}S] in a study of the oxidation of *cyclo*hexyl methyl sulphide with *tert.*-butyl hydroperoxide. G. Ayrey, D. Barnard and C. G. Moore. diags Chem Soc J p3179-83 O '53

Vapor phase oxidation of aromatic hydrocarbons. J. M. Weiss. map Chem & Eng N 32:1820-2 My 3 '54

Vapour-phase oxidation of olefins; the catalysed oxidation of di*iso*butene in the presence of selenium. D. J. Hadley and others. diags Chem Soc J p 1416-22 My '54

Vat dye oxidation; review of methods and reagents; abstract. Am Dyestuff Rep 43:20 Ja 4 '54

Weight loss and oxidation behavior of structural bodies during firing. R. R. Van Der Beck and J. O. Everhart. bibliog diags Am Cer Soc J 36:383-8 N 1 '53

OXIDATION—*Continued*

Yield of oxidation of ferrous sulfate in acid solution by high-energy cathode rays. J. Saldick and A. O. Allen. bibliog diag J Chem Phys 22:438-42 Mr '54

See also

Oxidizing agents

Rubber—Oxidation

Rubber, Artificial—Oxidation

Autoxidation

Alkoxide-catalyzed autoxidative cleavage of ketones and esters. W. V. Doering and R. M. Haines. bibliog Am Chem Soc J 76:482-6 Ja 20 '54

Autoxidation of aliphatic hydroxylamines. D. H. Johnson and others. bibliog Chem & Ind p 1032-3 S 26 '53

Autoxidation of tin solutions; the action of inhibitors. E. H. Baker. bibliog J Ap Chem 3:323-8 Jl '53

Effect of alcohols on hydrocarbon autoxidation. C. F. Frye, C. B. Kretschmer and R. Wiebe. bibliog Ind & Eng Chem 46:1517-20 Jl '54

Homolytic reaction involving beta-reaction. H. Brown and J. Grundy. Chem & Ind p460 Ap 17 '54

Photochemical autoxidation of *iso*propylbenzene. H. W. Melville and S. Richards. Chem Soc J p944-52 Mr '54

Some recent studies on the autoxidation of drying oils. L. A. O'Neill. Chem & Ind p384-7 Ap 3 '54; Abstract. Paint Oil & Chem R 117:24-5 Jl 29 '54

OXIDATION, Electrolytic

Cathodic reduction of anions and the anodic oxidation of cations. C. Wagner. Electrochem Soc J 101:181-4 Ap '54

Reduction of oxidation-ions in hydrocarbons. A. Gemant. bibliog Electrochem Soc J 101:281-6 Je '54

OXIDATION, Physiological

Biological oxidations. S. Ochoa. Chem & Eng N 32:138 Ja 11 '54

Inhibitory action of hydroxylamine on biological oxidations. I. Raw. bibliog Science 118:159-60 Ag 7 '53

Low temperature autoxidation of hydrocarbons; the kinetics of tetralin oxidation. A. E. Woodward and R. B. Mesrobian. bibliog Am Chem Soc J 75:6189-95 D 20 '53

Oxidation of chicken fat tissue. H. J. Phillips and I. L. Williams. Science 117:658-9 Je 12 '53

Oxidation of steroids by microörganisms; side chain degradation, ring D-cleavage and dehydrogenation in ring A. J. Fried, R. W. Thoma and A. Klingsberg. bibliog Am Chem Soc J 75:5764-5 N 20 '53

Retardation of benzaldehyde autoxidation; the effects of some quinones. J. R. Dunn and W. A. Waters. Chem Soc J p2993-8 O '53

OXIDATION ponds. See Sewage lagoons

OXIDATION potentials. See Potential, Electric

OXIDATION reduction potential. See Potential, Electric

OXIDES

Amount of oxygen on the surface of passive stainless steel. H. H. Uhlig and S. S. Lord, jr. bibliog diag Electrochem Soc J 100:216-21 My '53

Condensation reactions of picoline 1-oxides. R. Adams and S. Miyano. bibliog Am Chem Soc J 76:3168-71 Je 20 '54

Conductivity of oxide cathode coatings. T. B. Tomlinson. bibliog il diags J Ap Phys 25:720-4 Je '54

Determination of barrier layer thickness of anodic oxide coatings. M. S. Hunter and P. Fowle. diag Electrochem Soc J 101:481-5 S '54

Diffusion of barium in an oxide-coated cathode. R. S. Bever. bibliog J Ap Phys 24:1008-10 Ag '53

Early work on the displacement of metals and metal oxides. V. N. Ipatieff. bibliog il J Chem Educ 30:110-15 Mr '53

Electrical effect of the N-oxide group in pyridine 1-oxide. H. H. Jaffé. bibliog Am Chem Soc J 76:3527-31 Jl 5 '54

Exchange reactions of solid oxides; dissociation of molecular oxygen at oxide surfaces; magnesium oxide and zinc oxide. E. R. S. Winter. Chem Soc J p 1522-7 My '54

Exchange reactions of solid oxides; magnesium oxide. G. Houghton and E. R. S. Winter. Chem Soc J p 1509-16 My '54

Exchange reactions of solid oxides; zinc oxide. J. A. Barnard, E. R. S. Winter and H. V. A. Briscoe. Chem Soc J p 1517-21 My '54

Friction of clean metals and oxides with special reference to titanium. E. S. Machlin and W. R. Yankee. bibliog il J Ap Phys 25:576-81 My '54

Heats of formation of tantalum, niobium and zirconium oxides, and tantalum carbide. G. L. Humphrey. bibliog Am Chem Soc J 76:978-80 F 20 '54

Inorganic peroxides, superoxides, and peroxyhydrates; Office of ordnance research symposium. Chem & Eng N 31:4012+ S 28 '53

New structure type for metallic oxides of formula A_6BO_8. J. S. Kasper and C. L. Christ. J Chem Phys 21:1897 O '53

Oxide film on nickel-chromium alloys; crystal structure studies. E. A. Gulbransen and W. R. McMillan. bibliog(30 ref) il diags Ind & Eng Chem 45:1734-44 Ag '53

Oxides of the transition metals as catalysts. A. Clark. bibliog Ind & Eng Chem 45:1476-80 Jl '53

Perowskite-type oxides of cobalt, chromium and vanadium with some rare earth elements. A. Wold and R. Ward. Am Chem Soc J 76:1029-30 F 20 '54

Processing studies on pure oxide bodies. L. R. McCreight. bibliog Am Cer Soc J 37:378-85 Ag 1 '54

Reaction of fluorine with titanium, zirconium and the oxides of titanium(IV), zirconium(IV) and vanadium(V). H. M. Haendler and others. bibliog Am Chem Soc J 76:2177-8 Ap 20 '54

Reaction of some metallic oxides with liquid dinitrogen tetroxide; oxides of the first and second periodic groups and lead. J. R. Ferraro and G. Gibson. bibliog Am Chem Soc J 75:5747-8 N 20 '53

Recent developments in the chemistry of metal oxides; abstract. A. J. E. Welch. Chem & Ind p 1172-3 O 31 '53

Structural features of oxide coatings on aluminum. F. Keller and others. bibliog il diags Electrochem Soc J 100:411-19 S '53

Study of the reaction rates between silica and other oxides at various temperatures. Abd-El-Moneim Abon-El-Azim and H. Moore. Glass Ind 34:621+ N '53

Thermal conductivity; data for several pure oxide materials corrected to zero porosity. W. D. Kingery and others. Am Cer Soc J 37:107-10 pt 2 F 1 '54

See also

Titanium oxides

Analysis

Direct determination of oxygen in less familiar metal oxides. H. R. Hoekstra and J. J. Katz. bibliog diags Anal Chem 25:1608-12 N '53

OXIDIMETRY

Accuracy of determination of hydrogen peroxide by cerate oxidimetry. E. C. Hurdis and H. Romeyn, jr. bibliog diag Anal Chem 26:320-5 F '54

OXIDIZING agents

Chemistry of bleaching and oxidizing agents. G. Holst. Chem R 54:169-94 bibliog(p 193-4) F '54

Coulometric titration of thiosulfate with iodine. K. Rowley and E. H. Swift. bibliog Anal Chem 26:373-5 F '54

See also

Ozone

Potassium chlorate

OXIMES

Colorimetric determination of fluoride. M. L. Nichols and A. C. Condo, jr. bibliog Anal Chem 26:703-7 Ap '54

Isomerism of the oximes; alkylcinnamaldoximes, aroylaldoximes, and the action of potassium cyanide and sodium sulphite on aldoximes and their *O*-methyl ethers. M. Benger and O. L. Brady. Chem Soc J p3612-17 N '53

Isomerism of the oximes; the alkaline hydrolysis of acetophenone oxime acetates. O. L. Brady and J. Miller. Chem Soc J p4076-82 D '53

OXIMES—*Continued*

Isomerism of the oximes; the difference in mechanism in the pyrolysis of acyl-α- and acyl-β-aldoximes. O. L. Brady and H. A. M. Sharawy. Chem Soc J p4082-8 D '53

Preparation of amines by low pressure hydrogenation of oximes. D. C. Iffland and T. F. Yen. bibliog Am Chem Soc J 76:4180-1 Ag 20 '54

Preparation of nitro compounds from oximes; the synthesis of nitroalkanes. D. C. Iffland and T. F. Yen. Am Chem Soc J 76:4083-5 Ag 20 '54

OXIMETERS

Oximeter for continuous absolute estimation of oxygen saturation. W. Paul. bibliog diags J Sci Instr 30:165-8 My '53

Portable oximeter with provision for continuous recording. F. D. Stott. diags J Sci Instr 30:120-3 Ap '53

OXINDOLE

Common degradation product of oxindole alkaloids. E. Wenkert and T. L. Reid. bibliog Chem & Ind p 1390 D 26 '53

Internuclear cyclisation; naphth[3 : 2 : 1-*cd*]-oxindoles. R. A. Abramovitch and D. H. Hey. Chem Soc J p 1697-703 Je '54

Oxindole alkaloids. J. W. Cook and others. bibliog Chem & Ind p640-1 Je 27 '53

O-alkylation of 3-acyloxindoles. E. Wenkert, A. K. Bose and T. L. Reid. bibliog Am Chem Soc J 75:5514-16 N 20 '53

Studies in the indole series; oxindole-3-acetic acid. P. L. Julian and others. bibliog Am Chem Soc J 75:5305-9 N 5 '53

Studies in the indole series; oxindole-3-propionic acid. P. L. Julian and H. C. Printy. bibliog Am Chem Soc J 75:5301-5 N 5 '53

Synthesis of oxindole-3-propionic acid by ring rearrangement. H. A. Lloyd and E. C. Horning. Am Chem Soc J 76:3651-3 Jl 20 '54

OXINE. See Quinolinol

OXIRANE

Spectrum

Infrared absorption bands characteristic of the oxirane ring. W. A. Patterson. bibliog Anal Chem 26:823-35 My '54

OXO process

Carbide building oxo unit. Chem & Eng N 32:3496 S 6 '54

Latest entry in petrochemical field; Gulf oil corp.'s iso-octyl alcohol. il diag Chem Eng 61:113-14 Ag '54

OXODIHYDROBENZINDOLE

5-Oxo-1 : 5-dihydrobenz(*cd*)indole. A. Cohen and others. Chem & Ind p 1179 O 31 '53

OXONIUM compounds

Cleavage of ethers; oxonium salts. R. L. Burwell, jr. Chem R 54:618-22 Ag '54

OXOTIGOGENIN

Conversion of hecogenin acetate into 11-oxotigogenin acetate. J. W. Cornforth, J. M. Osbond and G. H. Phillipps. Chem Soc J p907-12 Mr '54

OXY anions. See Oxygen compounds

OXYACETYLENE apparatus

Rebuilding and repairing in the auto shop; oxy-acetylene blowpipe. L. B. Richmann. il Welding J 33:52-4 Ja '54

OXYACETYLENE cutting

ABC's of pipe cutting and welding. D. A. Spaulding. il Welding J 32:1100-1 N '53

British oxygen co. oxygen cutting machine. il Engineer 197:224 F 5 '54; Engineering 177:182 F 5 '54

Powder processes solve tough metal removal problems. R. S. Babcock. il diags Iron Age 174:105-8 Jl 22; 109-12 Ag 5; 122-4 Ag 12 '54

Three-dimensional flame-cutting equipment; Milwaukee shipbuilding corp. il Marine Eng 59:68 Ja '54; Abstract. Iron Age 172:147 Ag 20 '53

Uniform powder flow gives better cuts in stainless. J. R. Kirwin and J. Holmstock. il Iron Age 173:156-7 Mr 4 '54

Use of oxyacetylene in rolling mills. R. L. Deily. bibliog il diags Iron & Steel Eng 31:83-90 Mr '54

OXYACETYLENE flame

Flame hardening of gray iron castings. C. O. Burgess. bibliog(63 titles) il diags Foundry 82:114-21+ Ap '54

Flame hardening of heavy forgings; National forge & ordnance co. S. Smith. il Metal Prog 65:100-3 My '54

λ4050 group of cometary spectra in the acetylene-oxygen flame. N. H. Kiess and A. M. Bass. il J Chem Phys 22:569-70 Mr '54

Oxy-acetylene stress relieving of pressure vessels. H. Kunz. bibliog il diags Welding J 33:sup288-94 Je '54

Ryan developing spray technique for jet parts; flame-spraying. il Cer Ind 63:65 Ag '54

OXYACETYLENE welding

ABC's of pipe cutting and welding. D. A. Spaulding. il Welding J 32:1100-1 N '53

Artists with blowpipes. il Comp Air Mag 59:199 Jl '54

Diesel engine valves reclaimed by Sprayweld process. L. V. La Rou. il Welding J 33: 480-1 My '54

Low temperature welding; Wall colmonoy corp. il Steel 133:125 S 28 '53

Porcelain pipe welding process. il Materials & Methods 40:244+ S '54

Rebuilding and repairing in the farm shop. L. C. Richmann. il Welding J 33:239-41 Mr '54

Repair welding of ceramic-coated alloys. J. M. Riordan. bibliog il Welding J 32:1160-6 D '53

Welding aluminum sheet. F. C. Geibig. il diags Welding J 33:784-7 Ag '54

Welding restores drill collars. R. Sneddon. il Pet Eng 25:B 16+ Je '53

Safety measures

Facts about welding. H. F. Reinhard. il Nat Safety N 68:38-9+ N '53

OXYCELLULOSE

Absorption of chrysophenine G by cotton and by acidic oxycelluloses. M. M. Bilsbury and others. bibliog Textile Inst J Trans 45: T 1-20 Ja '54

Carbonyl oxycelluloses. W. M. Corbett and others. Chem & Ind p462 My 9 '53

Reduction of oxycelluloses by sodium borohydride. A. Meller. Chem & Ind p 1204 N 7 '53

Analysis

Estimation of free aldehyde groups in oxycelluloses. G. M. Nabar and C. V. Padmanabhan. bibliog Soc Dyers & Col J 69:295-7 Ag '53

OXYCHLORIDES

Crystal structures of rare earth oxychlorides. D. H. Templeton and C. H. Dauben. Am Chem Soc J 75:6069-70 D 5 '53

OXYGEN

Absorption of sound in argon, nitrogen, and oxygen at low pressures. J. G. Parker and others. il diag Acoustical Soc Am J 25:263-9 Mr '53

Anaerobic dispersion of potato starch. H. Baum and G. A. Gilbert. bibliog Chem & Ind p489-90 Ap 24 '54

Apparatus for automatically recording the absorption of oxygen. J. C. E. Button and A. J. Davies. il diags J Sci Instr 30:307-10 S '53

Bacteriological explanation of rate of oxygen consumption in the b.o.d. test. A. M. Buswell and others. bibliog(30 titles) diag Sewage & Ind Wastes 26:276-85 Mr '54

Basic factors of oxygen transfer in aeration systems. A. T. Ippen and C. E. Carver, jr. bibliog diag Sewage & Ind Wastes 26: 813-27; Discussion. W. E. Dobbins. 827-9 Jl '54

Charts give water solubility of helium, hydrogen, nitrogen and oxygen. D. S. Davis. Chem Eng 61:228+ F '54

Comparison of the oxygen consumed from permanganate and b.o.d. tests in the study of textile wastes. H. J. Northup. bibliog Am Dyestuff Rep 43:130-1 Mr 1 '54

Determination of the density of oxygen gas. B. A. Fiekers. bibliog J Chem Educ 31:139-40 Mr '54

Dissociation energy of oxygen. P. Brix and G. Herzberg. J Chem Phys 21:2240 D '53

Effect of dissolved oxygen on diamagnetic susceptibilities. B. C. Eggleston, D. F. Evans and R. E. Richards. diags Chem Soc J p941-3 Mr '54

OXYGEN—*Continued*

Effects of oxygen and nitrogen in welding titanium alloys. J. H. Johnston. il Weld-ing J 33:sup414-16 Ag '54

Effects of oxygen on molybdenum. R. E. Maringer and A. D. Schwope. il J Metals 6:Trans 365-6 Mr '54

Electronic energy levels of molecular oxygen. A. Meckler. bibliog J Chem Phys 21:1750-62 O '53

Electronic states of diatomic molecules; the oxygen molecule. F. G. Fumi and R. G. Parr. bibliog J Chem Phys 21:1864-8 O '53

Enzymatic removal of oxygen for polarography and related methods. R. E. Benesch and R. Benesch. bibliog Science 118:447-8 O 16 '53

Exchange reactions of solid oxides; dissociation of molecular oxygen at oxide surfaces; magnesium oxide and zinc oxide. E. R. S. Winter. Chem Soc J p 1522-7 My '54

Formation of powder and its dependence on crystal face during the catalytic reaction of hydrogen and oxygen on a single crystal of copper. J. B. Wagner, jr. and A. T. Gwathmey. bibliog 2pls Am Chem Soc J 76:390-1 Ja 20 '54

Gasification of pulverized coal with steam and oxygen at atmospheric pressure. G. R. Strimbeck and others. bibliog 31pls U S Bur Mines Rep of Invest 5030:1-37 '54

High pressure oxidation of metals; tantalum in oxygen. R. C. Peterson and others. bibliog il diags J Metals 6:Trans 1038-44 sec 2 S '54

High pressure oxidation rate of metals; copper in oxygen. W. McKewan and W. M. Fassell, jr. bibliog il diag J Metals 5:Trans 1127-30 S '53

Homomolecular exchange of oxygen. W. H. Johnston and C. J. O'Shea. J Chem Phys 21:2080 N '53

Hydrotropic extraction of certain organic compounds containing oxygen. E. C. Lumb and P. A. Winsor. bibliog il Ind & Eng Chem 45:1086-93 My '53

Influence of foreign atoms on the surface rearrangement produced by the catalytic reaction of hydrogen and oxygen on a single crystal of copper. R. E. Cunningham and A. T. Gwathmey. Am Chem Soc J 76:391-3 Ja 20 '54

Influence of oxygen and nitrogen in solution in alpha titanium on the friction coefficient of copper on titanium. W. R. Yankee and E. S. Machlin. bibliog J Metals 6:Trans 989-90 S '54

Influence of oxygen, nitrogen, and carbon on the phase relationships of the Ti-Al system. R. J. Van Thyne and H. D. Kessler. bibliog il J Metals 6:Trans 193-9 sec 2 F '54

Measurement of oxygen uptake by oxidation-reduction potential. J. P. Horton. flow sheet il Instruments & Automation 27:1312-13 Ag '54

Mechanism of exchange of hydrogen between nitrogen and oxygen atoms. C. G. Swain and others. Am Chem Soc J 76:4243 Ag 20 '54

Oxidation of liquid aldehydes by molecular oxygen. J. R. McNesby and C. A. Heller, jr. bibliog Chem R 54:325-46 Ap '54

Oxygen activity in iron oxide slags. H. Larson and J. Chipman. bibliog diags J Metals 5:Trans 1089-96 S '53

Oxygen exchange during the acidic and basic hydrolyses of amides and the enzymatic hydrolysis of esters. M. L. Bender, R. D. Ginger and K. C. Kemp. Am Chem Soc J 76:3350-1 Je 20 '54

Oxygen inhibition of the polymerization of styrene. T. L. Allen. J Ap Chem 4:289-90 Je '54

Photochemical studies; ketene and ketene-oxygen mixtures. A. N. Strachan and W. A. Noyes, jr. bibliog diag Am Chem Soc J 76:3258-64 Je 20 '54

Polarography and standard potential of the oxygen-hydrogen peroxide couple. D. M. H. Kern. bibliog Am Chem Soc J 76:4208-14 Ag 20 '54

Preliminary results on photoelectric yields of Pt and Ta and on photoionization in O_2 and N_2 in the vacuum ultraviolet. N. Wainfan and others. bibliog diag J Ap Phys 24:1318-21 O '53

Rates of substitution reactions in oxyanions. J. O. Edwards. bibliog(56 refs) J Chem Educ 31:270-5 My '54

Rationalization of the oxygen solid solubility in some transition metals. A. U. Seybolt and R. L. Fullman. bibliog J Metals 6: Trans 548-9 My '54

Reaction of chlorotrifluoroethylene with oxygen. R. L. Myers. Ind & Eng Chem 45:1783-5 Ag '53

Reaction of hydrogen and oxygen on submerged platinum electrode catalysts; effect of stirring, temperature and electric polarization. M. J. Joncich and N. Hackerman. bibliog J Phys Chem 57:674-8 O '53

Reaction of optically excited mercury vapor with oxygen. D. H. Volman. bibliog J Chem Phys 21:2086-7 N '53

Reaction of oxygen and nitrogen with titanium from 700° to 1050°C. L. S. Richardson and N. J. Grant. bibliog J Metals 6: Trans 69-70 Ja '54

Reaction of silver with aqueous solutions of cyanide and oxygen. G. A. Deitz and J. Halpern. bibliog diag J Metals 5:Trans 1109-16 S '53

Reactivity of the *O*-acylglycosyl halides; the effect of the lactol ring oxygen atom. F. H. Newth and G. O. Phillips. Chem Soc J p2900-3 O '53

Relationship of oxygen to activity of GR-S reclaiming agents. R. B. Bennett and G. E. P. Smith, jr. bibliog diag Ind & Eng Chem 46:1721-6 Ag '54

Research on activated sludge; distribution of oxygen in activated sludge floc. A. Pasveer. bibliog Sewage & Ind Wastes 26:28-33 Ja '54

Sensitive respirometer for the measurement of rapid changes in metabolism of oxygen. C. M. Connelly and others. bibliog diags R Sci Instr 24:683-95 Ag '53

Silicon-oxygen equilibrium in liquid iron; a revision. J. Chipman and N. A. Gokcen. bibliog J Metals 5:Trans 1017-18 Ag '53

Solid solubility of oxygen in columbium. A. U. Seybolt. il J Metals 6:Trans 774-6 Je '54

Solubility of oxygen in alpha iron. A. U. Seybolt. bibliog il J Metals 6:Trans 641-4 sec 2 My '54

Solubility of oxygen in water. L. M. Zoss and others. bibliog diag A S M E Trans 76:69-71 Ja '54

Surface reaction between oxygen and thorium. A. F. Gerds and M. W. Mallett. bibliog diag Electrochem Soc J 101:171-4 Ap '54

System calcium peroxide-calcium oxide-oxygen. C. N. Satterfield and T. W. Stein. bibliog Ind & Eng Chem 46:1734-6 Ag '54

System zirconium-oxygen. R. F. Domagala and D. J. McPherson. bibliog il diag J Metals 6:Trans 238-46 sec 2 F '54

Thermal explosions of diborane-oxygen mixtures. A. T. Whatley and R. N. Pease. bibliog Am Chem Soc J 76:1997-9 Ap 5 '54

Titanium-chromium-oxygen system. C. Wang and N. J. Grant. bibliog il J Metals 6:Trans 200-6 sec 2 F '54

Titanium-rich regions of the Ti-C-N, Ti-C-O, and Ti-N-O phase diagrams. L. Stone and H. Margolin. bibliog il J Metals 5:Trans 1498-502 sec 2 N '53

See also
Combustion

Analysis

Automatic recorder for continuous determination of oxygen in gases using the dropping mercury electrode. T. B. Larchar and M. Czuha, jr. bibliog diags Anal Chem 26:1351-4 Ag '54

Critical factors in determination of oxygen in titanium by the vacuum-fusion method. W. M. Albrecht and M. W. Mallett. Anal Chem 26:401-2 F '54

Detection of traces of oxygen; Deoxo indicator, made by Baker platinum, ltd. Chem Age (Lond) 69:1226 D 12 '53

Determination of low concentrations of oxygen in hydrogen. M. M. Wright. bibliog(40 ref) diags Anal Chem 26:1001-8 Je '54

Determination of oxygen in sodium. J. C. White, W. J. Ross and R. Rowan, jr. bibliog Anal Chem 26:210-13 Ja '54

OXYGEN—Analysis—*Continued*

Determination of small oxygen contents dissolved in water; abstract. J. Verbestel and others. Am Water Works Assn J 46:sup68 S '54

Direct determination of oxygen in less familiar metal oxides. H. R. Hoekstra and J. J. Katz. bibliog diags Anal Chem 25: 1608-12 N '53

Direct determination of oxygen in organic compounds. W. H. Jones. bibliog Anal Chem 25:1449-52 O '53

Direct determination of oxygen in organic substances; modified Schütze method. I. J. Oita and H. S. Conway. bibliog diags Anal Chem 26:600-2 Mr '54

Direct determination of oxygen in rubber; comparison between isotopic and Schütze-Unterzaucher methods. A. D. Kirshenbaum and A. G. Streng. bibliog Anal Chem 25: 638-40 Ap '53

Dissolved-oxygen measurement. A. T. Ippen and C. E. Carver, jr. bibliog diags Instruments & Automation 27:128-9+ Ja '54

Electrochemical method for oxygen determination in gases. M. G. Jacobson. bibliog flow diag il diags Anal Chem 25:586-91 Ap '53

Gas analysis. diags Can Chem Process 37: 108-9 O '53

Magnetic oxygen analyzer in studies of oxygen uptake. S. R. Hoover and others. bibliog il Water & Sewage Works 101:81-3 F '54

Measurement of oxygen transfer. S. R. Hoover and others. bibliog il Instruments & Automation 27:774-5 My '54

Mechanism of the peracid ketone-ester conversion; analysis of organic compounds for oxygen-18. W. V. Doering and E. Dorfman. bibliog Am Chem Soc J 75:5595-8 N 20 '53

Optical method for measurement of small amounts of oxygen in a helium atmosphere. J. W. Moyer and W. A. Ruggles. diag Opt Soc Am J 44:86-7 Ja '54

Oxygen analysis by continuous methods. R. S. Medlock. Chem Age (Lond) 70:841 Ap 10 '54

Oxygen measurement. O. K. Seffern. il diags Instruments 26:1211-13 Ag '53

Plant control by gas analysis. A. W. Angerhofer and B. M. Dewey. il diags Instruments 26:580-3 Ap '53

Polarographic determination of dissolved oxygen in dilute sulfite waste liquor. H. S. Levine and O. J. Williams. bibliog Anal Chem 26:1297-302 Ag '54

Principles and applications of oxygen recorders. O. W. Riggs. il diags Instruments 26:248-51+ F '53

Quantitative determination of dissolved oxygen in nitrite-containing water using acid-chromous reagent. H. W. Stone and P. Sigal. diags Anal Chem 26:1236-8 Jl '54

Quantitative determination of oxygen in gases. L. P. Pepkowitz and E. L. Shirley. il diag Anal Chem 25:1718-20 N '53

Rapid microcolorimetric determination of dissolved oxygen. W. F. Loomis. bibliog Anal Chem 26:402-4 F '54

Vacuum fusion analysis; oxygen in chromium. W. S. Horton and J. Brady. bibliog(30 ref) diags Anal Chem 25:1891-8 D '53

Industrial applications

American adaptations of the Austrian oxygen process; abstract and discussion. W. C. Rueckel and W. A. Vogt. Steel 134:104+ My 3 '54

Basic Bessemer process. P. Coheur and H. Kosmider. diag J Metals 6:Trans 829-35 Jl '54

Development of oxygen steelmaking. O. Cuscoleca. bibliog(37 ref) il diags J Metals 6:Trans 817-27 Jl '54

European oxygen steelmaking is of far-reaching significance. H. B. Emerick. bibliog il J Metals 6:804-6 Jl '54

How much does tonnage O_2 cost? M. Sykes. il Steel 134:102+ Mr 22 '54

Kaiser Engineers acquires U.S. rights to license oxygen steelmaking process. Iron & Steel Eng 31:151 Je '54; Same. Materials & Methods 40:194+ Ag '54

Kaiser gets oxygen rights; Brassert oxygen steelmaking process. W. C. Rueckel. Iron Age 173:81 My 27 '54

Oxygen converter steel; another step closer to U.S. debut. W. C. Rueckel and W. A. Vogt. il Steel 135:110+ Jl 19 '54

Oxygen-enriched blast steps up Bessemers; abstract. W. C. Bell. Steel 133:112 Jl 6 '53

Oxygen in steelmaking. il Metallurgia 50:10-12 Jl '54

Oxygen performs dual function in direct reduction process. flow diag Steel 134:120 Ap 5 '54

Oxygen shortens open hearth meltdowns; Armco's Ashland works. O. D. Eyre. plan diags Steel 134:116+ F 8 '54

Oxygen steelmaking yields high-quality product. H. Malzacher and R. Walzel. plan diag Iron Age 172:127-30 S 24 '53

Refining steel with pure oxygen; patent. diags Iron & Steel Eng 30:23 O '53

Steel; Austrians high on oxygen. il Iron Age 172:63 Jl 23 '53

Steel; build first U.S. oxygen units; McLouth Steel installing first oxygen process steelmaking units in U.S. R. D. Raddant. diag Iron Age 173:68-9 F 11 '54

Steel; get rid of nitrogen curse; Europe's Bessemer steel producers use oxygen to cut nitrogen content. W. V. Packard. diags Iron Age 172:75-6 Jl 2 '53

Use of oxygen in steel mills. G. O. Carter. il plans Iron & Steel Eng 31:80-6; Discussion. 86 Je '54

Use of oxygen in the iron and steel industry in western Europe. G. Bulle. diags Blast F & Steel Pl 42:419-23+, 531-6 Ap-My '54

Isotopes

Chlorine photosensitized isotope exchange between molecular oxygen species. R. A. Ogg, jr. J Chem Phys 21:2078-9 N '53

Free radical-initiated $O^{16}O^{18}$–H_2O^{16} exchange reaction in aqueous solution. E. J. Hart, S. Gordon and D. A. Hutchison. bibliog Am Chem Soc J 75:6165-9 D 20 '53

O^{18} exchange reactions between anhydrides and carboxylic acids. L. Ponticorvo and D. Rittenberg. bibliog Am Chem Soc J 76: 1705-6 Mr 20 '54

Ozone catalysis of isotope exchange between molecular oxygen species. R. A. Ogg, jr. and W. T. Sutphen. J Chem Phys 21:2078 N '53

Scattering of 9.5-Mev protons by carbon and oxygen. W. E. Burcham and others. Phys R 92:1266-7 D 1 '53

Spin-orbit coupling energy in O^{17}. R. K. Adair. bibliog Phys R 92:1491-3 D 15 '53

Sulfur bonds and the quadrupole moments of O, S, and Se isotopes. G. R. Bird and C. H. Townes. bibliog Phys R 94:1203-8 Je 1 '54

Tracer studies on the decomposition of ozone in water. O. L. Forchheimer and H. Taube. bibliog Am Chem Soc J 76:2099-103 Ap 20 '54

Manufacture

Current status of oxygen manufacture, 1953 supplement. C. C. Wright. Am Gas Assn Proc 1953:1002-5

From air to oxygen. D. S. Goalwin. flow diag Pet Refiner 32:176 S '53

How much does tonnage O_2 cost? M. Sykes. il Steel 134:102+ Mr 22 '54

Inco makes 300 tons of oxygen every day; Oxyton. il Can Chem Process 38:60 My '54

Oxygen; Air products inc. diag Pet Refiner 32:178-9 N '53

Oxygen by the ton for flash smelting process. Chem Age (Lond) 70:577 Mr 6 '54; Metallurgia 49:126 Mr '54

Oxygen; Canadian unit produces in volume for flash smelting; International nickel company of Canada. il Iron Age 173:162+ F 4 '54; Steel 134:142 Mr 1 '54

Oxygen from liquefaction and distillation of air; International nickel co. of Canada, ltd. il Engineering 177:375 Mr 19 '54

Tonnage oxygen. P. W. Sherwood. bibliog flow sheet il diags Pet Refiner 32:93-6 D '53; 33:129-32 Ja; 117-22 F '54

Nuclear reactions

Cross sections for the $O^{16}(n,p)N^{16}$ reaction from 12 to 18 Mev. H. C. Martin. Phys R 93:498-9 F 1 '54

OXYGEN—Nuclear reactions—*Continued*

Fine structure in the $C^{12}(\gamma,n)C^{11}$ and $O^{16}(\gamma,n)O^{15}$ activation curves. L. Katz and others. bibliog Phys R 95:464-71 Jl 15 '54

Interaction of 19-Mev deuterons with oxygen. R. G. Freemantle and others. bibliog Phys R 92:1268-9 D 1 '53

Lifetime measurements for the first excited states of O^{17} and B^{10} from recoil studies. J. Thirion and V. L. Telegdi. bibliog diag Phys R 92:1253-5 D 1 '53

Neutron spectrum from the $O^{18}(d,n)F^{19}$ reaction. R. L. Seale. bibliog Phys R 92:389-90 O 15 '53

O^{14} decay and the Fermi coupling constant in beta decay. J. B. Gerhart. diag Phys R 95:288-9 Jl 1 '54

Tensor forces and the β decay of C^{14} and O^{14}. B. Jancovici and I. Talmi. Phys R 95:289-91 Jl 1 '54

Spectrum

Fine structure of the $(^4S^\circ)3p\ ^3P$ term of oxygen O I. D. O. Davis and K. W. Meissner. bibliog Opt Soc Am J 43:510-11 Je '53

Microwave spectrum of O_2. M. Mizushima and R. M. Hill. Phys R 93:745-8 F 15 '54

Origin of the emission of the oxygen green line in the airglow. M. Nicolet. bibliog Phys R 93:633 F 1 '54

Theory of the microwave Zeeman effect in atomic oxygen. A. Abragam and J. H. Van Vleck. bibliog Phys R 92:1448-55 D 15 '53

Zeeman effect and line breadth studies of the microwave lines of oxygen. R. M. Hill and W. Gordy. bibliog diag Phys R 93:1019-22 Mr 1 '54

OXYGEN, Liquid

Structure of liquid nitrogen, oxygen, and argon by neutron diffraction. D. G. Henshaw and others. bibliog diag Phys R 92:1229-34 D 1 '53

Vacuum tanks simplify oxygen storage problem. W. G. Patton. il Iron Age 173:92-3 Ap 29 '54

OXYGEN apparatus

New technique speeds oxygen piping installation; Michael Reese hospital. A. Abrahamson. il Heating-Piping 25:102-4 N '53

Oxygen measurement. O. K. Seffern. il diags Instruments 26:1211-13 Ag '53

Oxygen piping systems for hospitals. il diags Heat & Ven 51:75-9 S '54

Portable oxygen generator. il Engineering 176:704 N 27 '53

Principles and applications of oxygen recorders. O. W. Riggs. il diags Instruments 26:248-51+ F '53

OXYGEN compounds

Entropy of aqueous oxy-anions. R. E. Connick and R. E. Powell. J Chem Phys 21:2206-7 D '53

Peroxygen products; abstract. J. S. Reichert. Oil Paint & Drug Rep 165:38 Mr 1 '54

Analysis

Polarographic studies of oxygen-containing compounds; acid anhydrides. C. Ricciuti and others. Anal Chem 25:933-5 Je '53

Spectra

Infrared spectra of metallic salts containing groups of the XO_3-type ion. C. Duval and J. LeComte. bibliog Opt Soc Am J 44:261-3 Ap '54

OXYGEN cutting

Electric eye guides continuous flame-cutting action; Marion power shovel co. H. B. Cary. il Iron Age 173:120-3 Je 3 '54

Facts about modern gas cutting and welding. il diags Mill & Factory 54:582 My '54

Flame cutting; equipment displayed at the Engineering and marine exhibition. il Automobile Eng 43:440-2 O '53

Flame cutting machine. il Automobile Eng 44:80-1 F '54

Oxygen cut-offs in the hot mill. R. L. Deily. il diag Steel 133:98+ O 5 '53

Power lance pierces crucibles. il Blast F & Steel Pl 42:1093 S '54

OXYGEN demand test. See Sewage—Testing

OXYGEN fluoride. See Fluorine oxides

OXYTOCIN

Cornell researchers achieve first synthesis of polypeptide hormone. Chem & Eng N 31:4108 O 5 '53

High strepogenin potency of synthetic oxytocin and of purified vasopressin. D. W. Woolley and R. B. Merrifield. bibliog Am Chem Soc J 76:316 Ja 5 '54

Hormone from a test tube. Sci Am 189:50+ D '53

How a hormone was synthesized. Can Chem Process 37:96+ N '53

New high for hormones; first successful synthesis of a polypeptide hormone. Chem W 73:56 O 17 '53

Synthesis of an octapeptide amide with the hormonal activity of oxytocin. V. du Vigneaud and others. bibliog Am Chem Soc J 75:4879-80 O 5 '53

Synthesis of oxytocin. V. du Vigneaud and others. bibliog Am Chem Soc J 76:3115-21 Je 20 '54

Synthetic oxytocics; derivatives of N-2-naphthylglycine and N-2-naphthyl-β-alanine. J. E. Gearien and K. J. Liska. Am Chem Soc J 76:3554-5 Jl 5 '54

20-year success story; first synthesis of a polypeptide hormone. V. du Vigneaud. Chem & Eng N 32:2270-1 Je 7 '54

OYSTERS

Oysters; aspects of their way of life. P. Korringa. il diags Sci Am 189:86-9+ N '53

OZONE

Decomposition of ozone on the surface of glass wool. P. Harteck and S. Dondes. J Chem Phys 21:2240-1 D '53

Heterogeneous carbon monoxide-ozone reaction on silver. D. Garvin. Am Chem Soc J 76:1581 Mr 20 '54

Oxidation of carbon monoxide in the presence of ozone. D. Garvin. bibliog Am Chem Soc J 76:1523-7 Mr 20 '54

Ozone catalysis of isotope exchange between molecular oxygen species. R. A. Ogg, jr. and W. T. Sutphen. J Chem Phys 21:2078 N '53

Ozone formation in photochemical oxidation of organic substances. A. J. Haagen-Smit, C. E. Bradley and M. M. Fox. bibliog Ind & Eng Chem 45:2086-9 S '53

Ozone used to oxidize pinene to pinic acid. Chem Eng 60:142-3 Jl '53

Sterilization with ozone; abstract and discussion. M. Ingram. Chem & Ind p301-2 Mr 13 '54

Thermal decomposition of ozone. P. Harteck and S. Dondes. J Chem Phys 21:2241 D '53

Tracer studies on the decomposition of ozone in water. O. L. Forchheimer and H. Taube. bibliog Am Chem Soc J 76:2099-103 Ap 20 '54

See also

Rubber—Ozone effect

Water purification—Ozone treatment

Analysis

Continuous oxidant recorder. F. E. Littman and R. W. Benoliel. bibliog flow diag il diags Anal Chem 25:1480-3 O '53

Manufacture

Production and use of ozone in water treatment. E. W. Lingel. bibliog il Pub Works 85:86+ Je '54

Spectrum

Absorption coefficient of ozone in the ultraviolet and visible regions. E. C. Y. Inn and Y. Tanaka. bibliog Opt Soc Am J 43:870-3 O '53

Absorption coefficients of gases in the vacuum ultraviolet; ozone. Y. Tanaka and others. bibliog J Chem Phys 21:1651-3 O '53

Filter radiometry and some of its applications. R. Stair. bibliog Opt Soc Am J 43:971-4 N '53

OZONIZERS

Portable semimicro ozonizer. W. A. Bonner. bibliog diag J Chem Educ 30:452-3 S '53

P

pH. See Hydrogen ion concentration

PVC. See Vinyl chloride

P.V.P. See Vinyl pyrrolidone

PACIFIC airmotive corporation
How a smaller company can get research. Bsns W p 104-6 Ag 1 '53

PACIFIC coast
See also
Airplane industry and trade—Pacific coast
Wages—Pacific coast

PACIFIC coast electrical association
Hawaiian conference, 4th. Elec West 111:101-5 D '53
Hawaiian conference, 4th, Honolulu. Elec World News ed 140:6-7 D 7 '53

PACIFIC coast gas association
Technical section customer service conference, Santa Barbara, April 21-22. Am Gas Assn Mo 36:34 Je '54

PACIFIC finance corporation
Further details of debenture offering. Comm & Fin Chr 178:761 Ag 31 '53

PACIFIC gas and electric company
Public utility securities. O. Ely. Comm & Fin Chr 178:1342 O 8 '53
Stock offering underwritten. Comm & Fin Chr 178:1163 S 28 '53

PACIFIC insurance and surety forum
Annual meeting, Palm Springs, Calif. Nat Underw 58:2 Ap 8 '54

PACIFIC lighting corporation
Five specially selected stocks; with comparative balance sheet items. Mag of Wall St 93:439 Ja 9 '54
Public utility securities. O. Ely. Comm & Fin Chr 178:2276 D 10 '53
Stock offered. Comm & Fin Chr 178:1989 N 23 '53

PACIFIC maritime association
Leftist union loves high-grade bonds; ILWU-PMA pension fund. Bsns W p 176-8 N 21 '53

PACIFIC ocean
See also
World war, 1939-1945—Pacific ocean

PACIFIC pact (proposed)
Security in the Pacific. map Economist 169:970-1 D 26 '53

PACIFIC power and light company
Yale plus Kalispell equals major Northwest merger. il Elec World News ed 141:30-2 F 15 '54

PACIFIC telephone and telegraph company
Debentures offered. Comm & Fin Chr 178:1059 S 21 '53

PACIFIC western airlines
New Canadian line pins future on coach. il map Aviation W 59:103-5 N 9 '53

PACK transportation
Tourist packer services in primitive areas. H. H. Caldwell and C. Visser. map Land Econ 29:351-6 N '53

PACKAGE design
Ac'cent on production. il Mod Packaging 28:128-32+ S '54
Check list for package design in the ceramic field. Cer Ind 63:60-1 Jl '54
Check-out drug store. il Mod Packaging 27:83-9 F '54
Considerations of shelf display. il Mod Packaging 27:87-93+ Jl '54
Design histories. Published in monthly numbers of Modern packaging
Do's and don'ts for packages that sell. J. K. Blake. il Dun's R & Mod Ind 62:55-8 O '53
Drugs; packaged with life-or-death exactitude. il Mod Packaging 27:92-9+ Ag '54
Eyes have it. J. Alden. il Ptr Ink 243:42-3 Ap 3 '53
Fine art for beer; Goebel brewing co. il Mod Packaging 27:100-3 N '53
Get 'em young; packaging techniques to win brand loyalties early. il Mod Packaging 27:91-7+ N '53
Good design makes sense and dollars too; applications in packaging. H. Bourner. il Cer Ind 63:60-1 Ag '54
Kellogg's Norman Rockwells; magazine-cover cartoon technique. il Mod Packaging 28:122-3 S '54
New look in Britain. il Mod Packaging 27:192-3 Mr '54
Printers' ink 1954 advertisers' annual; packaging. Ptr Ink 245:320-3+ sec 2 O 23 '53
Quaint no longer; American potash and chemical corporation's new look on packages. il Chem W 74:40 Je 5 '54
Restyling moves Ac'cent into the big supers. M. Immerman. il Sales Management 72:42-4 Ap 15 '54
Robt. Burns cigars; nominated to packaging's Hall of fame. il Mod Packaging 27:108-13, cover D '53
Self-selling hardware; night latches. il Mod Packaging 27:105 F '54
Self-service retailer speaks out on packages, coupons, national advertising. W. A. Gates. il Ptr Ink 244:35-6 Jl 31 '53
Shulton goes modern. il Mod Packaging 27:99 Ap '54
Strategy for sponges; new colorfully printed cellophane over-wraps. il Mod Packaging 27:107 My '54
Testing your new package design; abstract. R. F. Elrick. Management R 42:355-6 Je '53
Toys and games; well-designed and well-aimed packages. il Mod Packaging 27:104-9+ Je '54
See also
Candy boxes
Cigar boxes
Labels
Package goods—Gift packages

Family of products

Chase improves merchandising with better industrial packaging. il Ind Marketing 39:64-5 Ag '54
Eye catchers; Bruce's new containers. il Mod Packaging 27:101 Jl '54
Fertilizer up front; Bandini's 44 products get trademark and design. il Mod Packaging 27:132-3 N '53
General Electric's sell. il diags Mod Packaging 27:154-6+ Mr '54
Golden State line gets family identity in wholesale face-lifting. E. Gidlow. il Sales Management 70:60-1+ Je 15 '53
Kendall motor oil nominated to packaging's Hall of fame. il Mod Packaging 27:104-9, cover N '53
More sell for less money; Rubbermaid four-color labels. il Mod Packaging 27:128-31+ Je '54
New packages generate new sales power for Crown Zellerbach paper products. E. Gidlow. il Sales Management 73:106-8+ Ag 15 '54
New packages, new people; Sperry division of General mills. il Sales Management 72:49 Ja 1 '54
Picture-story packages; Mayco's new cartons are definitely self-selling. il Mod Packaging 27:84-5 Ap '54
Program for parts; packaging for power lawn-mower service parts. il Mod Packaging 27:119 F '54
Research approach to design modernization; H. P. Hood & sons. il Mod Packaging 27:122-4+ N '53
Sharper Lipton; tea and soup-mix packages get the uplift treatment. il Mod Packaging 27:126-7+ Ja '54
Take a look at Heinz' new labels; redesign is sparked by trend to self-service. A. Rosensweet. il Sales Management 71:30-2+ D 15 '53

PACKAGE dyeing. See Dyes and dyeing—Package dyeing

PACKAGE goods
Do's and don'ts for packages that sell. J. K. Blake. il Dun's R & Mod Ind 62:55-8 O '53
Good things in small packages; more companies go directly to consumer. il Chem & Eng N 32:1004-5 Mr 15 '54
How packaging has affected modern marketing. A. P. Bondurant. Adv Agency 46:74-5 Jl '53
How to increase unit sales this year. N. Keine. il Ptr Ink 243:35-7 Ap 24 '53
How to make your merchandising twins (package and display) work together. C. J. Swan. il Ptr Ink 243:48-50 My 15 '53
See also
Candy trade
Canned food
Containers
Drug packages
Food packages
Labels
Package design
Packaging
Packaging machinery
Toilet goods

PACKAGE goods—*Continued*

Color

Color and color control in converting. F. L. Wurzburg, jr. il diags Paper Tr J 137:121-8 N 13 '53

Combination packages

Charcoal grilling made easy; Reynolds Wrap grill. il Mod Packaging 27:128-30+ Jl '54

Component package; flexible plastic package for popcorn. il Mod Packaging 27:140-3+ Mr '54

Piggy-back cans. il Mod Packaging 27:182-3 Mr '54

Gift packages

Elegant candy; Johnston candy co. il Mod Packaging 27:98-100 Jl '54

Record $5,000,000 campaign introduces luxury packaging of popular-priced liquor; Schenley Reserve fifths in gift decanter. il Ptr Ink 244:50 S 18 '53

Small fortune in gift wraps; Strauss-Golman co. il Bsns W p 154-6+ S 26 '53

Tagged as a gift; Lincoln Metal Products. il Mod Packaging 27:126 F '54

These packages are always in season with quick-change gift wraps; Dayton rubber co. Koolfoam pillows. N. Keine. il Ptr Ink 244:41+ Ag 7 '53

Inserts

See Package inserts

New packages

Built like a bee-hive; cone-shaped paperboard construction provides base for winding rubber stripping. il Mod Packaging 28:118-19+ S '54

Four-faced noodles; cellophane bags printed on all sides; Golden grain macaroni co. il Mod Packaging 27:128 Ja '54

New packages generate new sales power for Crown Zellerbach paper products. E. Gidlow. il Sales Management 73:106-8+ Ag 15 '54

New packages, new sales sparkle for drab domestics; Fieldcrest mills. il Sales Management 71:80-2 Jl 15 '53

New packages put new life into C and H sugar sales story. R. I. Herndon. il Sales Management 73:90-2+ Jl 15 '54

One carton for two markets; restyled Behr-Manning packages. il Mod Packaging 27:119 Ja '54

Progress for Gillette. il Mod Packaging 27:166-8+ Mr '54

Restyling moves Ac'cent into the big supers. M. Immerman. il Sales Management 72:42-4 Ap 15 '54

Split-second selling; specialty packaging undergoing revolution. Chem W 73:69+ N 7 '53

Super-selling socks; window carton. il Mod Packaging 27:125 N '53

Why women now buy more cigars at self-service food stores. H. P. Wurman. il Sales Management 72:58+ Je 15 '54

Opening devices

New tear-tape possibilities; Lever bros. machine attachment. il diag Mod Packaging 27:85-7 Ag '54

No-zip zipper; new pouch with interlocking vinyl ridges. il Mod Packaging 27:91 Ag '54

Swing to tear-strip cases. il Mod Packaging 27:116-22+ Je '54

Protection

Canned watches; army ordnance new moistureproof, shockproof method II pack. il Mod Packaging 27:134 N '53

See also

Closures (containers)
Food packages—Protection
Packaging materials—Moisture protection

Sampler packages

Competition for coupon; liquid Lux in Metalam pouches. il Chem W 75:67 S 11 '54

Guest sampling. il Mod Packaging 27:110-13+ Ja '54

Here is creative sampling; drug sampling packaging and design. il Sales Management 73:42-3 S 1 '54

Little salesmen; streamlining Carbide's packaging department. il Chem W 74:36+ F 13 '54

Our customers taught us a marketing lesson; Southern comfort corp. il Sales Management 71:91-2 Jl 15 '53

PACKAGE inserts

Inserts outside. il Mod Packaging 27:138-9 Mr '54

PACKAGING

Accent on function; A-P Controls' packaging offers tips for industrial products. il Mod Packaging 27:112-14 Ap '54

Ac'cent on production. il Mod Packaging 28:128-32+ S '54

American management association's national packaging conference, Atlantic City; abstracts of papers. Chem & Eng N 32:1617 Ap 19 '54

Annual report; first year of packaging as industry project. il Brick & Clay Rec 124:82-3+ Ap '54

Beer and beverages; Modern Packaging industry survey. il Mod Packaging 27:100-6+ Ja '54

Consumer chemicals has been great stimulant to packaging. il Mod Packaging 27:112-19+ My '54

Contour packaging; vacuum forming gives new protection to machinists' tools. il Iron Age 172:163-4 Ag 6 '53

Guideposts to 1954. il Mod Packaging 27:85-91+ Ja '54

Hardware; Modern Packaging industry survey. il Mod Packaging 28:108-14+ S '54

Meat; packer has become packager. il Mod Packaging 27:98-104+ F '54

Objectives and accomplishments of the petroleum packaging committee; Packaging institute. A. D. Murphy. Am Pet Inst Proc 32(1):321-3 '52

Organizing for packaging. Management R 43:307-8 My '54

Packaging and its three vital functions. Cer Ind 62:61 Je '54

Packaging engineering. L. C. Barail. 407p $9.50 Reinhold pub. corp, 430 Park av, New York 22 '54

Packaging pageant. Published in monthly numbers of Modern packaging

Poor packages I have met. E. A. Malloy. Ptr Ink 243:48-9 My 29 '53

Progress at Michigan state college; packaging curriculum. Mod Packaging 27:230-1 Jl '54

Storage and packaging problems; progress by US ordnance authorities. Chem Age (Lond) 68:817-19 My 30 '53

Technical progress; handling and packaging. il Steel 134:404-5+ Ja 4 '54

Toward better packaging; buyer's view; abstract. D. Haines. Management R 42:465-6 Ag '53

West coast; 1954. il Mod Packaging 27:136-41 Jl '54

What about contract packaging. il Mod Packaging 27:71-7+ Ap '54

See also

Bag filling
Closures (containers)
Food packages
Fruit—Prepackaging
Glass containers
Meat—Prepackaging
Milk containers
Packaging machinery
Packaging materials
Packing for shipment
Paper boxes
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Sealing (packaging)
Vegetables—Prepackaging

Cost

Put it in a box, tie it with a ribbon; chemical industry spends a lot to wrap products. Chem Eng 60:322+ N '53

Watch those hidden packaging costs. R. F. Uncles and T. L. Carter. il Chem Eng 60:185-7 Ag '53

What does packaging cost? il Mod Packaging 27:125-9 Mr '54

Wrapped up in a $1.5-billion bill; chemical process industries' packaging costs. Chem W 73:50-1 Jl 25 '53

Exhibitions

AMA national packaging conference and exposition, 23d, Atlantic City, April 5-8; with abstracts of papers. Mod Packaging 27:143-52 My '54

PACKAGING—Exhibitions—*Continued*

AMA national packaging exposition, 23d, Atlantic City, April 5-8; plan, list of exhibitors, program. il Mod Packaging 27:136-7+ Mr '54

Biggest packaging customer exhibits to its suppliers; armed forces exhibit. il Sales Management 73:85-7 pt 2 Jl 1 '54

National packaging exposition, 23d, Atlantic City, April 5-8; plan and list of exhibitors. Food Eng 26:104-7 Mr '54

National packaging exposition, 23d, Atlantic City; illustrations with text. Food Eng 26: 80-6 My '54

Plastics predominant at National packaging exhibition, Atlantic City, April 5-8. il India Rubber World 130:222-3 My '54

Textile ideas from the Industrial packaging and materials handling exposition. il Textile World 104:97 Mr '54

Western packaging and materials handling exposition, San Francisco, Aug. 17-19; with list of exhibitors. Mod Packaging 27:154-5 Jl '54

Patents

U.S. patents digest. H. A. Levey, ed. Published in monthly numbers of Modern packaging

Standards

New way in Japan; modern standardized packaging and package handling. il Mod Packaging 27:123-5 Je '54

Tables, calculations, etc.

Package cushioning nomogram. J. S. Hardigg. bibliog diag Mod Packaging 27:124-30+ Ag '54

Unit packaging

Catch-cover collator. il Mod Packaging 27: 172-3 Mr '54

Lemon juice by the ounce; Sunkist's new frozen unit pouches. il Mod Packaging 27: 142-3 Jl '54

One-drop package. il Mod Packaging 27:92-4 Ja '54

One-portion packets gaining. il Food Eng 26:89-90+ Mr '54

Pie for a dime; simple tray pack with a cellophane topper sheet; Mrs Smith's pie co. il Mod Packaging 27:114-15 Jl '54

Single-portion packages. il Mod Packaging 27: 79-84+ Ag '54

Strip-packaged bearings. il Mod Packaging 27:98-9 N '53

Thrifty self-seller; mechanized strip packaging of two-piece picture hangers. il Mod Packaging 27:114-16 Ag '54

Tubed sugar service; new development in unit packaging. il Mod Packaging 27:102-3 Ap '54

Unit packaging on upswing; industrial chemical sampling and packaging film materials. il Chem W 73:53-4+ N 28 '53

PACKAGING awards

Areosol winners. Mod Packaging 27:200 Ja '54

Best detergent packages; 1954 folding box competition. il Soap & San Chem 30:42-3+ Ap '54

Designers council awards; best packages in eight categories. il Mod Packaging 27: 128-9+ N '53

Folding-box champs, winners in the 9th annual carton makers' competition. il Mod Packaging 27:104-7+ Ap '54

Folding paper box awards to soapers. il Soap & San Chem 29:55+ My '53

Industrial packaging highlights; awards. il Mod Packaging 27:126-7+ D '53

Sales-packing setups; 4th annual Set-up paper box competition. il Chem W 74:78 My 22 '54

PACKAGING institute

Annual forum, 15th, New York. Food Eng 25:193-4 N '53

Annual forum, 15th, New York, Oct. 12-14. Chem & Eng N 31:4476 O 26 '53

Annual forum, 15th, New York, Oct. 12-14; with abstracts of papers. Mod Packaging 27:135-46 N '53

PACKAGING laboratories

How Kraft's package lab works. J. V. Ziemba and L. E. Slater. il Food Eng 26:82-5+ Mr '54

PACKAGING machinery

Catch-cover collator. il Mod Packaging 27: 172-3 Mr '54

Cushion-lined lock-tabs; Weston Biscuit's new machine. il Mod Packaging 27:144-5+ Jl '54

Faster can-carrier cartoning; G. Heileman brewing co. il Mod Packaging 27:102-5+ Ag '54

Flexibles are revamping package pattern. J. V. Ziemba. il Food Eng 26:70-4+ Mr '54

High-speed packager weighs automatically. il diag Machine Design 26:138 Ag '54

Makes chub items continuously; Kartridg-Pak machine co. il Food Eng 26:77+ S '54

Mechanical handling of eggs. il Mod Packaging 28:202-3 S '54

Packaging is merchandising aid; San Francisco brewing co. U. G. Karrer. il Elec West 111:98 O '53

Pictorial review of new machinery; illustrations with text. Mod Packaging 27:186-91 Mr '54

Polyethylene-package maker; Suffolk farms packing co. il Mod Packaging 27:116-19 N '53

Thrifty self-seller; mechanized strip packaging of two-piece picture hangers. il Mod Packaging 27:114-16 Ag '54

Unit sets-up, fills, seals, checkweighs packages; Velocitron. il diag Food Eng 26:99-100 My '54

See also

Filling machines

Wrapping machines

Maintenance and repair

They're close to 100 per cent on package output efficiency; General foods corp. G. M. Woodruff. il diag Food Eng 25:64-6+ D '53

Your own men can care for those machines. E. Minneman. il diags Food Eng 26:63-5+ Je '54

PACKAGING materials

Better protection, lower packaging costs with VPI wrapping; American blower corp. E. J. Smith. il Iron Age 172:111-13 O 15 '53

Flexibles are revamping package pattern. J. V. Ziemba. il Food Eng 26:70-4+ Mr '54

Future glitters for metal foil. il Steel 133:87 S 21 '53

Guideposts to 1954. il Mod Packaging 27:85-91+ Ja '54

Machines crowded by materials at packaging exposition. il Food Eng 26:146+ My '54

Meat-packaging criteria; review of recent developments in methods and materials. J. M. Ramsbottom. il Mod Packaging 27:131-4, 186 F '54

Packaged corrosion losing to VPI. W. R. Wolfe. il Steel 133:132+ O 26 '53

Pairing solves the problem; polyethylene-cellophane films. il Chem W 73:74+ Jl 18 '53

Paper and paperboard products for military use. E. T. A. Coughlin. Paper Tr J 137: 267-72 N 13 '53

Polyethylene-coated cellophane. L. F. Swec and G. H. Sullivan. il diags Mod Packaging 27:203-8+ Mr '54

Protective packaging of frozen foods. J. G. Woodroof and W. Rabak. il Refrig Eng 62: 45-8 F '54

Ray-sterilizing food wrappers. L. L. Kempe and others. bibliog il Food Eng 25:55-6+ N '53

Silicones in packaging. D. M. Francisco. il Mod Packaging 27:149-53 N '53

Vacuum formed plastics for packaging. il Mod Packaging 27:108-13+ F '54

See also

Adhesives

Aluminum foil

Cellophane

Packing for shipment

Paper, Greaseproof

Paper, Waxed

Paper board

Parchment paper

Plastic films

Saran

Waxes

Wrapping paper

Moisture protection

Dry-packed foods. il Mod Packaging 27:86-92+ Ap '54

Flexible water-vaporproof barriers for military packaging applications. P. A. Gelber. diags Mod Packaging 27:142-3+ D '53

Kodak's universal pack; special foil wrap. il Mod Packaging 27:116-18 F '54

Water-vapor permeability of shipping containers. il Mod Packaging 27:144-5+ D '53

PACKAGING materials—Moisture protection— *Continued*

Permeability

Gas-transmission measurement; method of testing films formed into packages. B. E. Ellickson and others. il Mod Packaging 27:173-5 Jl '54

Printing

Photo stencils for screen printing. T. H. Farrell. il Mod Packaging 27:212-15+ Mr '54

Testing

Glass-reinforced paper. R. T. Seith. il Mod Packaging 28:149-52+ S '54
Kodak's universal pack; special foil wrap. il Mod Packaging 27:116-18 F '54
Moisture loss in frozen shrimp. M. Klein and others. il Mod Packaging 27:139-42+ Ja '54

PACKAGING research

Printing, packaging and allied trades research association. G. L. Riddell. il Chem & Ind p 1266-9 N 28 '53
See also
Packaging laboratories

PACKARD motor car company

Merge and diversify? proposed Studebaker-Packard corp. may diversify to make appliances as well as autos. Steel 135:53 Jl 19 '54
Studebaker, Packard integration begins to take form. Automotive Ind 111:36 Ag 1 '54
See also
Studebaker corporation

PACKING

Carbon-packing progress for sealing small turbines. K. MacDonald. il diags Power 98:122-3+ Jl '54
Clearances and dimensions for leather U-packings; data sheet. Mach 60:273 Ap '54
Clearances for leather vee packings; data sheet. diags Mach 60:253 Ag '54
Distilling with burrs; revolutionary new column packing material. il Oil & Gas J 52:68-9 N 9 '53
Effect of packing size and column diameter on mass transfer in liquid-liquid extraction. I. Leibson and R. B. Beckmann. bibliog flow diag il diag Chem Eng Prog 49:405-16 Ag '53
Effect of packing supports on mechanical operation of packed towers. M. Leva, J. M. Lucas and H. H. Frahme. diags Ind & Eng Chem 46:1225-8 Je '54
Industrial distillation development; column packing Spraypak designed at Harwell. il Chem Age (Lond) 70:1301-2 Je 12 '54; Ind & Eng Chem 46:sup 13A+ Ag '54
Is packed height a variable in flooding? W. M. Newton and others. bibliog diag Pet Refiner 32:125-8 O '53
JIC hydraulic packings; reference book sheet. diags Am Mach 97:167 N 23 '53
Limitations of synthetic rubber packings for high temperature application. E. L. Carlotta and E. M. Hobein. Rubber Age 74:85-90+ O '53; Abstract. Product Eng 24:274-7 Jl '53
Materials for special service; mechanical leather. A. S. Berens. il Machine Design 26:140-3 My '54
Recommended clearances for leather cup packings; recommended dimensions for leather cup packings; data sheet. diags Mach 60:253 F '54
Recommended clearances for leather flange packings and recommended dimensions for leather flange packings; data sheet. diags Mach 60:257 Mr '54
Recommended dimensions for leather vee packings; data sheet. diag Mach 60:277 Jl '54
Rosette; packing for diffusional operations based on high interstitial holdup. A. J. Teller. bibliog il diags Chem Eng Prog 50:65-71 F '54; Abstract. Chem & Eng N 31:3999 S 28 '53
Stedman packing design data. L. B. Bragg. bibliog Ind & Eng Chem 45:1676-7 Ag '53
Vacuum degasification in a packed column. E. L. Knoedler and C. F. Bonilla. bibliog diags Chem Eng Prog 50:125-33 Mr '54
See also
Gaskets

PACKING for shipment

Balanced packaging saves package costs and reduces losses. R. O. Spalding. diags Cer Ind 62:165+ Ap '54
Better protection, lower packaging costs with VPI wrapping; American blower corp. E. J. Smith. il Iron Age 172:111-13 O 15 '53
Big or small, he packs it to ship overseas; Jerome F. Gould corp. il Bsns W p 128-9+ S 5 '53
Case packer for milk in fibre. il Mod Packaging 27:148-9 Mr '54
Citrus goes corrugated; Ventura Pacific lemon co. il Food Eng 26:127+ Jl '54
Corrosion protection during processing, storage, and shipment; automotive application. C. O. Durbin. il S A E J 62:30-3 Ja '54
Damage to packaged food and how to avoid it when shipping by rail. diags Food Eng 26:75-7+ Mr '54
How Crane saves 25 per cent on packaging costs. il Cer Ind 62:62-3 My '54
How frozen food bundling can reduce costs. E. Minneman and J. F. Hill. il diags Food Eng 26:78-81+ Mr '54
Humidity control in packing; Birlec lectrodryers. il Chem Age (Lond) 71:641-2 S 25 '54
Impact-load factor; design of cushioning for electronic equipment. S. C. Schuler. il Mod Packaging 27:154-6+ N '53
Lighter export packing; Ditto inc. Steel 133:123+ N 9 '53
Making perishables easier to handle. il Ry Age News ed 135:13 D 7 '53
Package engineering at the Chrysler corp. C. H. Turner. Tappi 36:sup 143A-6A N '53
Packaged corrosion losing to VPI. W. R. Wolfe. il Steel 133:132+ O 26 '53
Packaging and transporting clay products; panel discussion. Brick & Clay Rec 123:58-9 D '53
Packaging costs you $57-million a year. il Cer Ind 62:137+ Ap '54
Packaging; fiberboard material simplifies, speeds up shipping; Curtiss-Wright corp. il Iron Age 172:184-5+ D 3 '53; Steel 133:112-13 D 21 '53
Packaging Sabre parts. J. Joseph. il Aero Digest 67:23-6 Ag '53
Radar packaging solved by Sperry gyroscope co. il Electronics 26:279-80+ D '53
Reinforced moistureproof paper protects materials in transit and in storage. T. W. Rodes. diags Ind & Eng Chem 46:sup 101A-2A+ Jl '54
Safe shipper protects delicate lighting fixtures. il Mod Packaging 27:133 My '54
Shipping; packing container standardization helps cut costs; Tube turns, inc. il Iron Age 173:127-8 Ja 14 '54
Smoother case loading; Simoniz co. il Mod Packaging 27:157 Mr '54
Sperry fire control units ride in style. il Steel 133:92 Ag 10 '53
See also
Containers (for shipping)
Crates
Shipment of goods

PACKING houses

Pinpoints cost-cutting steps in materials handling; meat packer's problem in the handling of lard. diags Food Eng 26:86-8 Ap '54
Today's roof insulation is tomorrow's flooring; Peter Eckrich & sons, inc. il Food Eng 26:73 Ag '54

Employees

Brass tacks on business for your employees; study courses offered in the meat field. I. C. Miller. Food Eng 26:32+ Jl '54
Pay, service contract on big group plan for meat packing concerns. Nat Underw 57:1+ D 31 '53; Same. Nat Underw (Life ed) 58:1+ Ja 1 '54
Progress toward equal pay in the meat-packing industry. U S Women's Bur Bul 251:1-16; pa 10c Supt. of doc. '53

Equipment

Dual one-floor line abolishes production tangles; Columbia packing co. J. V. Ziemba. il plan Food Eng 26:75-8+ F '54
Latest machines for packers exhibited at National independent meat packers show. il Food Eng 26:86-9 Ag '54
Losing refrigeration dollars this way? C. T. Baker. il diags Power Eng 57:66-7+ N '53

PACKING houses—Equipment—*Continued*

Makes chub items continuously; Kartridg-Pak machine co. il Food Eng 26:77+ S '54

Makes quality lard by continuous two-system setup; Reliable packing co. J. E. Thompson. flow sheet(p 102-5) il Food Eng 26:72-3 S '54

Newest units for meat packers unveiled at AMI show; illustrations with text. Food Eng 25:92-5 N '53

Outstanding showplace plant squeezes utmost from handling dollars; Armour and co. J. V. Ziemba. il Food Eng 26:49-51+ Je '54

Streamlined assay sharpens product control; Steinlite LOS fat tester. H. P. Furgal. il Food Eng 26:58-60 F '54

Their new-style processing improves old-style quality; Slotkowski sausage co. J. V. Ziemba. il Food Eng 26:87-8+ S '54

Unit-task improvements clinch profitable processing gains; Wisconsin meat products co. J. V. Ziemba. il Food Eng 26:81-2+ S '54

Lighting

Lighting a meat grading and inspection room; data sheet. il diag Illum Eng 49:103-4 F '54

Waste

Packing house waste problem. H. R. Murdock. Ind & Eng Chem 45:sup 103A-5A Je '53

Sewage effluent disposal through crop irrigation. C. D. Henry and others. bibliog plan Sewage & Ind Wastes 26:123-33; Discussion. R. A. Webster. 133-5 F '54

Treating slaughterhouse and packinghouse wastes. Pub Works 84:119 D '53

PACKING industry

Road to high profits; meat packers branching out to chemical and other by-product operations. il Chem W 74:20-2 My 1 '54

Salesmen at Armour swap jobs with bosses; Manager-for-a-month program. Sales Management 71:137-8 S 1 '53

Securities

New life in meat packers. G. L. Merton. il Mag of Wall St 93:566-8 F 6 '54

PAGE, John Chatfield, 1887-

Sketch. por Civil Eng 23:623 S '53

PAHOEHOE. See Lava

PAILS

New pail plant serves South; Vulcan steel container co., Birmingham, Ala. il Soap & San Chem 30:168-9+ Mr '54

PAIN

Method for quantifying the intensity of pain. H. K. Beecher. Science 118:322-4 S 18 '53

Pain, controlled and uncontrolled. R. A. Ravich. Science 118:144-5 Jl 31 '53

PAINE lumber company, ltd.

Century of service. Am Bld 75:258+ S '53

PAINT

Adherence of paint films. E. G. Bobalek. il Metal Prog 66:113-19 Ag '54

Air drying polysulfide rubber paint films. J. R. Panek and others. Paint Oil & Chem R 116:30+ N 19 '53

A.C.S. Division of paint, plastics, and printing ink chemistry, national meeting, New York; abstracts of papers. Chem & Eng N 32:3845-6 S 27 '54

A.C.S. Division of paint, plastics, and printing ink 124th national meeting, Chicago; abstracts of paper. Chem & Eng N 31:3863-4 S 21 '53

AZO study gives exterior formulation trends. Paint Oil & Chem R 117:12-14+ Ag 26 '54

Cactus special; Deer-O paints and chemicals, ltd., and Pioneer paint co. il Chem W 73:50+ O 31 '53

Chemistry's impact on paints; winners of 1954 PaVaC award. Chem & Eng N 32:2278+ Je 7 '54

Chicago gets run down on polyvinyl acetate exterior coatings. H. J. Zahrndt. Paint Oil & Chem R 117:18 Ap 22 '54

Colors for water paint systems; abstract. S. R. Benson. Paint Oil & Chem R 117:12-13 My 6 '54

Comparison of emulsion paint systems; abstract. A. McLean. Paint Oil & Chem R 117:26-7 Ag 12 '54

Formulation and manufacture of interior flat latex-emulsion wall paints. J. P. Davis. bibliog Paint Oil & Chem R 117:22+ Ja 14 '54

Hazards and heat; Sherwin-Williams' two new industrial coatings. Chem W 73:61 S 26 '53

House paints. bibliog Paint Oil & Chem R 117:16-18+ Je 17; 11-12+ Jl 1; 19-20+ Jl 15; 16-17+ Jl 29 '54

Latex paints. H. F. Payne. bibliog(36 ref) Paint Oil & Chem R 116:14+ O 22 '53

Latex paints panel discussion; abstract. Oil Paint & Drug Rep 164:69-70 N 9 '53

Marking paints for rubber bales. K. F. Heinisch and R. M. Wargadiwidjaja. bibliog il India Rubber World 130:63-4 Ap '54

Materials of construction for chemical engineering. F. Scofield. Ind & Eng Chem 45:2233-6 bibliog(143 ref, p2235-6) O '53

Miracle paints are here. J. C. Thompson. Safety Maint & Prod 107:46 My '54

NPVLA endorses legislation to remove government competition. Oil Paint & Drug Rep 166:3+ Jl 19 '54

New paints. J. C. Moore. Oil Paint & Drug Rep 164:75-6 N 2 '53

Paint and adhesives. diags Am Bld 75:455-63 Ap '53

Paint formulation; the art and the science; abstract. E. G. Bobalek. Can Chem Process 38:67 Je 20 '54

Paint policy of navy attacked again. Oil Paint & Drug Rep 165:3+ My 24 '54

Pittsburgh Plate Glass develops less-odor paint; Wallhide PBX. Paint Oil & Chem R 117:26A F 25 '54

Progress in the paint industry; review report. Paint Oil & Chem R 117:28-36 F 11 '54

Selecting durable paints for exterior wood. il Arch Rec 113:190-3 Mr '53

Some mechanical properties of paint films; abstracts. A. C. Elm. Paint Oil & Chem R 116:20-1 N 5 '53; Oil Paint & Drug Rep 164:74-6 N 9 '53

Three-D paint; Sherwin-Williams' Applikay and Opal-Glo. Chem W 74:56+ F 6 '54

USN paint makers bow out. il Chem W 72:70 Ap 18 '53

Water paint for autos? Reichhold chemicals, inc. Bsns W p28 S 12 '53

See also

Aluminum—Paint
Lacquer and lacquering
Pigments
Varnish and varnishing

Deodorizing

Everything but the smell; scent-free finishes coming into their own. il Chem W 74:77-8+ F 13 '54

Odorless thinners; new muscle for oil paint? il Chem Eng 61:142+ Ag '54

Drying

Electric radiant panels; flexible oven handles paint baking of automobile accessories of various sizes; A. S. Campbell co. il Steel 134:105 F 1 '54

Hot barrel dries paint; Barrel remodeling co. Steel 135:135 S 13 '54

Mechanism of drier action; proposal and panel discussion. E. R. Mueller and others. bibliog(59 ref) Ind & Eng Chem 46:562-72 Mr '54

Surface structures and the evaporation process; abstract. D. Wapler. Paint Oil & Chem R 116:20 D 31 '53

Heat reflection

Cool paint; Plasticool. Ind & Eng Chem 46:sup 13A+ Ap '54

Manufacture

Equipment for latex paint manufacture. R. W. Ashley. Paint Oil & Chem R 117:33-4 Mr 11 '54

Standards

Glossmeter design and gloss standards; abstract. Oil Paint & Drug Rep 164:79 N 2 '53

Testing

Arizona sun makes it, desert tested; Desert sunshine exposure tests. il Paint Oil & Chem R 117:41 F 11 '54

PAINT—Testing—*Continued*

Comparison of alkyd flat, latex, and other interior wall paints. Paint Oil & Chem R 116:66+ N 5 '53; Abstract. Oil Paint & Drug Rep 164:72-3 N 9 '53

Electrical measurements in the study of immersed paint coatings on metal; comparison between capacitance and gravimetric methods of estimating water-uptake. D. M. Brasher and A. H. Kingsbury. bibliog J Ap Chem 4:62-72 F '54; Abstract. Paint Oil & Chem R 117:22-3 My 6 '54

Electro-osmotic examination of paint films. J. K. Wirth and W. Machu. bibliog diags Paint Oil & Chem R 117:12-14+ F 25; 26-9+ Mr 11 '54

Fifty years of paint testing; committee D-1. (Special tech. pub. no. 147) 47p pa $1.25 Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '53

Hardness measurements with a pendulum tester; abstract. W. Koenig. Paint Oil & Chem R 117:45 F 25 '54

Improved replica technique for electron microscopy of paint films. A. S. Powell and others. il J Ap Phys 25:757-60 Je '54

Pigmentation of emulsion systems. Paint Oil & Chem R 116:57-8+ N 5 '53; Abstract. Oil Paint & Drug Rep 164:72 N 9 '53

Residual viscosity of paint systems at infinite shear velocity. W. K. Asbeck and M. Van Loo. bibliog diag Ind & Eng Chem 46:1291-6 Je '54

Sedimentation balance; abstract. W. Garmsen. Paint Oil & Chem R 117:33 Ag 26 '54

Statistical treatment of exposure test data; abstract. H. R. Touchin. Paint Oil & Chem R 117:33-4 Ja 28 '54

Statistics in the design of exposure tests; abstract. H. R. Touchin. Paint Oil & Chem R 117:25 Jl 29 '54

Use of film wedges in paint testing; abstract. W. Garmsen. Paint Oil & Chem R 117:22+ Ag 12 '54

See also

Paint, Protective—Testing

Paint laboratories

PAINT, Antifouling

Barnacle Bill, lower? copper antifouling compounds. Ind & Eng Chem 46:sup 11A+ Jl '54

PAINT, Artists'

You, too, can be an artist! Palmer's paint-by-number system. W. H. Knowlton. il Sales Management 71:126+ S 1 '53

PAINT, Fire resisting

Fire retardant paints; condensation of symposium. Chem & Eng N 31:3730-5 S 14 '53

Old enginehouse, after conversion to Diesel service, cleaned and brightened with sprayed-on fire-retardant coating. il Ry Age 135:58-9 N 2 '53

Paints for hot places; Sherwin-Williams co. Bsns W p80+ S 26 '53

Panel discussion on fire retardant paints; abstract. Oil Paint & Drug Rep 164:71+ N 9 '53

PAINT, Fungicidal

Testing

Fungicides in paints; report number 1118 of Engineering research and development laboratories, Fort Belvoir, Va.; abstract. Chem Age (Lond) 68:917-18 Je 20 '53

PAINT, Heat resisting

Aluminum keeps coat. il Steel 135:184 S 20 '54

Cactus special; Deer-O paints and chemicals, ltd., and Pioneer paint co. il Chem W 73:50+ O 31 '53

Vehicles and pigments in high heat resistant coatings. Oil Paint & Drug Rep 164:73 N 9 '53

PAINT, Insecticidal

DDT paint, spray formula. Soap & San Chem 30:99+ F '54

PAINT, Protective

Anti-corrosive paints in the pulp and paper industry. J. J. Oates. Paper Ind 36:594 S '54

Application of fluorescent indicator adsorption method to protective coatings solvents; abstract. J. D. Giannotti. Paint Oil & Chem R 117:22+ Ap 8 '54

Chemistry of wash primers. H. Rosenbloom. bibliog Ind & Eng Chem 45:2561-8 N '53

Economic factors of atmospheric corrosion vs. protection. C. C. Harvey. Am Pet Inst Proc 33(3):286-90 '53; Same. Pet Refiner 32:122-4 Je '53

Engineering metal finish; methods, materials command equal stature. R. J. Deisenroth. il Steel 135:115-16+ Jl 19 '54

Filiform corrosion. M. Van Loo and others. bibliog il diags Paint Oil & Chem R 116:20-2+ D 3 '53; Abstract. Metal Prog 66:supA 150+ Jl 15 '54

Galvanizing with a paint brush; zinc paints protect iron and steel surfaces. diag Steel 133:158 S 7 '53; Power Eng 58:87 My '54

Mechanism of the corrosion-inhibitive action of paints, with special reference to basic pigments. J. E. O. Mayne and D. van Rooyen. bibliog(27 ref) diag J Ap Chem 4:384-94 Jl '54

Modern coatings add service life. il Steel 134:102-3 Mr 15 '54

New epoxy primer has high resistance to alkalies. H. L. Farber. il Materials & Methods 39:93-5 F '54

New role for rare earths; driers and catalysts for paints and protective coatings. Chem W 72:38-9 Je 27 '53

Paint industry looks seriously at isocyanates. bibliog Paint Oil & Chem R 116:28-30 D 17 '53

Plan protective painting to reduce electrolytic corrosion. L. G. Jones. bibliog il Power Eng 57:82-3 D '53

Priming paints for light alloys; abstracts. J. G. Rigg and E. W. Skerrey. Metal Prog 64:126+ N '53; Paint Oil & Chem R 117:24 Je 3 '54; Discussion. Engineering 176:470 O 9 '53

Priming paints for light alloys; abstract. J. D. Rigg and E. W. Skerrey. Metal Prog 66:supA 193-4 Jl 15 '54

Proper coatings just as important for fiber materials as for metals. L. G. Jones. il Power Eng 58:80-1 F '54

Protection against corrosion; chemical industry exhibition. il Elec R (Lond) 154:248 F 5 '54

Protection of iron and steel by metallic and non-metallic coatings. J. C. Hudson and J. F. Stanners. bibliog il 6pls Iron & Steel Inst J 175:361-90 D '53

Ready to spread; neoprene surface coatings. Chem W 72:77 Ap 18 '53

Surface preparation of steel for painting. J. Bigos. il Metal Prog 65:123-6+ Ap '54

Twenty years' progress in corrosion resistant coatings for exterior steel surfaces. R. H. Everett. Am Gas Assn Proc 1953:751-4

Why go to thick protective coatings? R. R. Pierce. Chem Eng 61:177-81 Ap '54

Zinc-rich compounds give cathodic protection; coating using vinyl resins as binders contains 96 per cent zinc. H. L. Grebinar. il Steel 134:113-14 Mr 29 '54

See also

Paint, Anti-fouling

Paint, Fire resisting

Testing

Capacitance measurements in the study of immersed paint coatings on metals. D. M. Brasher and others. Chem Age (Lond) 69:1323-4 D 26 '53

Evaluating molybdate pigments as corrosion inhibitors. D. H. Killeffer. bibliog Paint Oil & Chem R 117:24-5 Ap 8 '54

Film thickness measurements; abstract. H. W. van der Hoeven. Paint Oil & Chem R 117:17 Jl 1 '54

Isotopic and chromatographic techniques applied to protective coatings technology. P. Heiberger. bibliog Paint Oil & Chem R 117:14-17+ Ja 28 '54

Protectometer and the evaluation of anti-corrosive primers. M. A. Danforth and others. bibliog il diags Paint Oil & Chem R 116:48-52+ N 5 '53; Summary. Oil Paint & Drug Rep 164:74 N 9 '53

PAINT, Temperature indicating

Heat measurement; paints used to indicate temperature studied. Iron Age 173:200-1 F 25 '54

Heat-sensitive paint is thermometer in color. Machine Design 26:172 Je '54

PAINT, Temperature indicating—*Continued*

Temperature indicating paints. J. E. Cowling, P. King and A. L. Alexander. bibliog Ind & Eng Chem 45:2317-20 O '53

PAINT brushes

Container extends paint brush life. J. W. Mason. il Elec World 140:110+ S 7 '53

Paint brushes of red China bristles can't be sold here. Oil Paint & Drug Rep 165:3 Mr 8 '54

Cleaning

Simplifying the cleanup. il Chem W 73:77-8 S 12 '53

PAINT factories

After five years, fume findings; joint Chicago fume control study at Illinois institute of technology. Selheimer. Paint Oil & Chem R 117:14E-14F My 20 '54

De Soto's new home, big plant for a big state. il Paint Oil & Chem R 117:18B-18D+ Mr 11 '54

Glidden company modern paint and varnish plant at Atlanta. il Paint Oil & Chem R 116:6-7 D 31 '53

Paint maker tries split-level housing; Gelvatex coatings corp. il Chem W 74:32+ Ap 3 '54

Equipment

Equipment for latex paint manufacture. R. W. Ashley. Paint Oil & Chem R 117:33-4 Mr 11 '54

Factors affecting design of equipment for vehicle manufacture. S. Yokell. Paint Oil & Chem R 117:18-18A Mr 11 '54

Fast ball mill control test and other findings. A. Barkman. il Paint Oil & Chem R 117:12-14 Je 3 '54

Improved mill design offers greater ease of operation. il Paint Oil & Chem R 117:33 Jl 1 '54

Manufacturing group tells of new equipment. Oil Paint & Drug Rep 164:77 N 9 '53

Modern milling; abstract. C. B. Hoffman. Paint Oil & Chem R 117:50A Mr 11 '54

Paint and varnish plant opens; De Soto at Garland, Tex. il Chem & Eng N 31:5182-3 D 14 '53

Rapid flow of paint production. il Mill & Factory 54:124-5 F '54

Row upon row of rolls. il diag Paint Oil & Chem R 117:31-2 Mr 25 '54

PAINT industry and trade

Are your dealers using the selling aid you provide. J. J. Crowley, jr. Paint Oil & Chem R 116:26-7 N 5 '53

Latex bumping. il Chem W 75:119 S 25 '54

No letup for latex. Chem W 74:97-8 Mr 13 '54

Paint sales barometer; maintenance expenditures barometer of paint sales in the U.S. 1939-1953; chart. Chem W 74:30 F 20 '54

Painting a new America. W. Williams. Paint Oil & Chem R 116:37-9 N 5 '53

Painting contractors carry the ball; Illinois state brotherhood of painting and decorating contractors. Paint Oil & Chem R 116:16+ N 19 '53

Public never sees our product, but we're a hit in do-it-yourself; Archer-Daniels-Midland co. industry-wide paint program. T. L. Daniels. il Sales Management 72:104+ Je 15 '54

Spreading the spectrum; Colorizer associates. il Chem W 74:80+ Je 19 '54

See also

Armstrong paint and varnish works
National paint, varnish and lacquer association
Spectro-Matic associates

Advertising

How we planned a paint company's advertising. J. H. Melum. il Adv Agency 46:82-5 N '53

Exhibitions

OCCA 5th annual technical trade exhibition. London. Chem Age (Lond) 68:549-54 Ap 11 '53

Paint industries show, Oct. 27-30. Oil Paint & Drug Rep 164:78-9 N 9 '53

Statistics

AZO study gives exterior formulation trends. Paint Oil & Chem R 117:12-14+ Ag 26 '54

Paint wholesale gains for '53. Oil Paint & Drug Rep 166:5+ Ag 30 '54; Abstract. Paint Oil & Chem R 117:33 S 9 '54

Paints, varnish, and lacquer, 1949-1952. Survey of Cur Bsns 1953 Sup p 129 [supplemented in monthly numbers]

Canada

Chemical Canada; paints, varnishes, lacquers; tabulations. H. McLeod. Can Chem Process 38:18 Je 20 '54

Paint sales rising. D. A. Whittaker. Chem & Eng N 32:1033 Mr 15 '54

Pinch in paint sales? Can Chem Process 38:18+ My '54

Supply picture for paint makers. Can Chem Process 37:6+ O '53

Southwestern states

Cactus special; Deer-O paints and chemicals, ltd., and Pioneer paint co. il Chem W 73:50+ O 31 '53

PAINT laboratories

Fast ball mill control test and other findings. A. Barkman. il Paint Oil & Chem R 117:12-14 Je 3 '54

National lead company dedicates Sayville, Long Island test station. il Paint Oil & Chem R 117:28 Jl 1 '54

Paint research station. L. A. Jordan. il Chem & Ind p584-92 My 22 '54

Strengthening the ties; laboratory at Jones-Dabney co. il Chem W 74:66+ My 22 '54

PAINT materials

Acrylics in a finish fight; paints make strongest bid for a share of billion-dollar market. il Chem W 74:42 Ja 9 '54

All-purpose color; Key-Tint. Bsns W p78 N 21 '53

Cabot's wollastonite product of promise. il Paint Oil & Chem R 117:17 S 9 '54

Developments in extender pigments; panel discussion, abstracts. Paint Oil & Chem R 117:32-3 Ap 8 '54

Dow sees big things ahead for styrene's first cousin. Paint Oil & Chem R 116:13 D 3 '53

Factors affecting design of equipment for vehicle manufacture. S. Yokell. Paint Oil & Chem R 117:18-18A Mr 11 '54

Gel vehicle; it settles spilling, sagging, settling problems; thixotropic alkyd. il Paint Oil & Chem R 117:14 My 6 '54

House paints. Paint Oil & Chem R 117:11-12+ Jl 1 '54

Improving casein as dispersing agents in latex systems; abstract. E. Scholl. Paint Oil & Chem R 117:14+ Je 3 '54

In, out, and under; polyvinyl acetate for coatings. il Chem W 73:63-4 N 14 '53

Is PVA headed for house paints? Everflex G. Paint Oil & Chem R 117:4 F 25 '54

Latex in vehicles for exterior masonry paints; abstract. C. H. Parker. il Paint Oil & Chem R 117:11-12 My 6 '54

Modified proteins for stabilizing latex paints. K. S. Ronai and S. M. Weisberg. bibliog Ind & Eng Chem 46:774-7 Ap '54

Odorless thinners; new muscle for oil paint? il Chem Eng 61:142+ Ag '54

Paint thickens; Washburn thixotropic alkyds. Chem W 74:102+ My 22 '54

Partners of paint; Nuodex products co., inc. introducing Nuosperse. Chem W 74:74+ Ja 23 '54

Processed oils for paints and coatings. B. Henderson. il Can Chem Process 38:26+ My '54

Progress in the paint industry; review report. Paint Oil & Chem R 117:28-36 F 11 '54

Reports on chemical progress in 1953; protective coatings. il Ind & Eng Chem 46: sup37A+ Ja '54

Shiny new vehicle; C-Oil. Chem W 74:72 Je 19 '54

Solvency characteristics of low odor type thinners. Paint Oil & Chem R 116:44-6 N 5 '53; Abstract. Oil Paint & Drug Rep 164:73 N 9 '53

Spontaneous combustion tendencies of paint vehicles. Oil Paint & Drug Rep 164:79-80 N 2 '53

Spred texture can be mixed with latex paints; Glidden co. Paint Oil & Chem R 117:51 Mr 11 '54

Technical service for solvents and finishes. J. Wyart and D. Hecht. Can Chem Process 37:60+ D '53

PAINT materials—*Continued*

Titanium esters and their use in paints; abstract. Winter. Paint Oil & Chem R 117:33 Ja 28 '54

Use of safflower oil in paint vehicles. J. W. Prane. Paint Oil & Chem R 117:18+ F 25 '54

Vinyltoluene, a new spoke in the vehicle wheel. W. A. Henson. Paint Oil & Chem R 116:11-13 D 31 '53

See also

Drying oils
Finishing materials
Pigments
Tall oil
Titanium oxides
Tung oil
Varnish and varnishing

Prices

Protective coatings materials; 1953 market trends. Oil Paint & Drug Rep 165:50-1 sec 2 F 1 '54

Statistics

Protective coatings materials. Published in weekly numbers of Oil, paint and drug reporter

PAINT mixers

Shop-made shaker mixes paint. il Eng N 151:32 D 24 '53

PAINT removers

Paint removers. M. A. Lesser. bibliog(37 ref) Soap & San Chem 29:133-6+ F '53

PAINT research

Dry hiding power of paints. Oil Paint & Drug Rep 164:80-1 N 2 '53

Half million on research facilities; Jones-Dabney resin producing division of Devoe & Raynolds co. il Paint Oil & Chem R 117:43 My 20 '54

Microstructure of paint films. E. G. Bobalek and others. bibliog il Ind & Eng Chem 46:572-7 Mr '54

Pacific Coast paint symposium and show, San Francisco, March 25-27; abstracts of papers. Paint Oil & Chem R 117:20-2+ Ap 8 '54

Paint research station. L. A. Jordan. il Chem & Ind p584-92 My 22 '54

Properties cohesive of baked, pigmented soybean oil films. L. L. Carrick and R. E. Trease. bibliog Paint Oil & Chem R 117:12-13+ Ap 22 '54

Radiochemistry in paint research; abstract. D. F. Rushman. Soc Dyers & Col J 69:510-11 D '53

Research in the paint industry; abstract. N. W. Hanson. Chem & Ind p 1173 O 31 '53

Some mechanical properties of paint films; abstracts. A. C. Elm. Paint Oil & Chem R 116:20-1 N 5 '53; Oil Paint & Drug Rep 164:74-6 N 9 '53

Stress-strain investigations furnish knowledge of internal structure of paint films; abstract. A. C. Elm. Chem & Eng N 31:4680 N 9 '53

See also

Paint laboratories

PAINT rollers

Paint patterns, roll your own! process called Applikay. il Paint Oil & Chem R 117:5 F 25 '54

PAINT spraying

Automotive paint processes and equipment; abstract and discussion. R. E. VanDeventer. S A E J 62:106-7 Jl '54

Chrysler's colors highlight Los Angeles plant. F. G. Lawrence. il Steel 135:61-2 Ag 2 '54

Circulating systems offer uniform finishes. il diags Steel 134:94-5 My 31 '54

Hot spray application improves finish, saves materials. L. F. Long. Iron Age 173:141-2+ Je 3 '54

Hot-spray unit for independent two-gun operation. il Engineering 177:406 Mr 26 '54

Hot spraying of German railway cars; abstract. B. Schmuecker. Paint Oil & Chem R 117:32 Ag 26 '54

Hydraulic pressure and heat combined in airless spray painting. il Iron Age 172:176-7 Ag 13 '53

Lacquer hot-sprayed on machine tools; Norton co. il Mach 61:184-6 S '54

Multi-colored enamel offers wide variety of wall finishes. Am Bld 75:232-3 O '53

New spray process for coloring rubber matting and treads. Rubber Age 74:567 Ja '54

Painting; preheat cuts costs; Barrel remodeling co. il Iron Age 174:132 S 23 '54

Pavement marker spray paints equipment in the winter. C. K. Rush. il Pub Works 84:67 D '53

Ventilation for ship construction and repair; spray painting. G. S. Reichenbach, jr. il Heat & Ven 51:63-6, cover Ja '54

You can do more with hot lacquer. il diag Steel 134:126-7 Je 21 '54

Booths

Automatic spray booth designed expressly for spray painting freight cars. il Steel 135:122-3 Jl 19 '54; Same. Ry Age 137:66 Ag 9 '54; Same. Ry Loco & Cars 128:49 Ag '54

How heat and ventilate paint spray booth? Heating-Piping 26:146-7 My '54

New spray-painting booth. il Elec J 152:60 Ja 1 '54

Safety measures

How safe is your paint shop? il Mill & Factory 53:118-20 D '53

PAINT spraying, Electrostatic

Assembled electric motors painted automatically; Ohio electric mfg. co. T. Slavik. il Mach 60:176-7 Ag '54

Electrostatic spray method primes car bodies; Studebaker corp. H. Chase. il Iron Age 172:102-3 O 1 '53

Facts about modern electrostatic spraying. il Mill & Factory 54:572 My '54

Faster painting of passenger car bodies; Studebaker corp. J. Gauss. il plan Automotive Ind 110:41+ Ap 15 '54; Abstract. Steel 134:120 My 17 '54

Finishing; greater efficiency helps beat higher production costs; Stratton & Terstegge co. il Iron Age 173:147-8 Je 10 '54

How Standard-Thompson speeds painting and saves paint. il Factory Management 112:75 Jl '54

Reciprocating atomizer increased paint uniformity. il Steel 135:99 Ag 16 '54

PAINT, varnish and lacquer association, National. See National paint, varnish and lacquer association

PAINTING

Paint patterns, roll your own! process called Applikay. il Paint Oil & Chem R 117:5 F 25 '54

These fads have built a billion-dollar business. il Bsns W p78-80+ N 28 '53

You, too, can be an artist! Palmer's paint-by-number system. W. H. Knowlton. il Sales Management 71:126+ S 1 '53

PAINTING, Factory. See Factories—Painting

PAINTING, Industrial

Electrostatic detearing improves dip-coating quality; process developed by Ransburg electro-coating corp. J. J. Obrzut. il Iron Age 173:153-5 F 4 '54

Good painting practice. J. Bigos, ed. v 1 432p $6 Steel structures painting council, 4400 Fifth av, Pittsburgh 13 '53

Painting; specifications for pretreatment of steel prepared. Iron Age 172:203 D 3 '53

See also

Automobiles—Painting and finishing
Car painting and finishing
Lacquer and lacquering
Paint, Protective
Paint spraying
Varnish and varnishing

also subdivision Painting under special subjects, e.g.

Factories
Gas holders
Oil tanks
Power plants

Estimates

How much paint do you need? L. G. Jones. il Power Eng 57:68-70 N '53

PAINTINGS

Paintings for executive offices. il Bsns W p30 N 21 '53

Conservation and restoration

Vinyl latex aids in restoration of centuries-old art masterpieces. Rubber Age 74:83 O '53

PAKISTAN

See also

Hydroelectric plants Pakistan
Investments, Foreign (in Pakistan)
Petroleum industry and trade—Pakistan

PAKISTAN—*Continued*

Commercial policy

Pakistan importers may now buy on installment. For Comm W 50:9 Ag 3 '53

Pakistan imports to stress needs of industry; U.S. list enlarged. For Comm W 51:7 Ja 18 '54

Economic conditions

Economic conditions abroad (cont). For Comm W 50:4 Ag 17 '53

Economic development in Pakistan. J. B. Cohen. bibliog map Land Econ 29:1-12 F '53

Turn of the tide in Pakistan. Economist 168:391-2 Ag 8 '53

Foreign relations

America, India and Pakistan; question of United States bases in Pakistan. Economist 169:569-70, 668-9 N 21-28 '53

American arms for Pakistan. Economist 169:952+ D 26 '53

Mr Dulles and Mr Nehru; Pakistani-American agreement; Middle Eastern affairs. Economist 170:73-4 Ja 9 '54

Mr Nehru goes to Karachi. Economist 168:394 Ag 8 '53

Politics and government

Firm hand in Pakistan. Economist 168:184-5 Jl 18 '53

Pakistan without a crown. Economist 169:425-6 N 7 '53

PALEOBOTANY

See also

Coal balls

PALEONTOLOGY

Fossil logs attract uranium hunters. il Eng & Min J 155:122 Je '54

Fossils in metamorphic rocks. A. J. Boucot. Geol Soc Bul 64:997; Reply. W. H. Bucher. 999 Ag '53

See also

Coal balls
Mammals, Fossil
Mollusks, Fossil
Paleobotany

Cenozoic

Foraminifera of late cenozoic in southern Florida. M. C. Schroeder and E. W. Bishop. bibliog Am Assn Pet Geologists Bul 37:2182-6 S '53

Ordovician

Silicified middle ordovician trilobites. H. B. Whittington and W. R. Evitt, 2d. (Memoir 59) 137p, 33pls bibliog(p97-100) Geological soc. of America, 419 W. 117th st, New York 27 '53 ($3)

Colombia

Vertebrate paleontology and continental stratigraphy in Colombia. R. A. Stirton. bibliog maps diags Geol Soc Bul 64:603-22 Je '53

Florida

Foraminifera of late cenozoic in southern Florida. M. C. Schroeder and E. W. Bishop. bibliog Am Assn Pet Geologists Bul 37:2182-6 S '53

Ohio

Molluscan faunules in Wisconsinan loess at Cleveland, Ohio. A. B. Leonard. bibliog Am J Sci 251:369-76, pl 1 My '53

Peru

Upper paleozoic of Peru. N. D. Newell and others. (Memoir 58) 276p, 44pls Geological soc. of America, 419 W. 117th st, New York 27 '53 ($4)

Utah

Carboniferous fossils from wells in Paradox basin, Utah. E. B. Heylmun. bibliog map Am Assn Pet Geologists Bul 37:2188-91 S '53

PALLADIUM

Decomposition of ammonia on ruthenium, rhodium and palladium catalysts supported on alumina. A. Amano and H. Taylor. bibliog Am Chem Soc J 76:4201-4 Ag 20 '54

Hardening of Pd by cathodic hydrogen. T. Sugeno and M. Kowaka. J Ap Phys 25:1063-4 Ag '54

Measurement of low concentrations of hydrogen in nitrogen; Pirani gauge which incorporates a heated palladium window. A. H. Turnbull and M. F. A. Harrison. diags J Sci Instr 30:266-8 Ag '53

Plating palladium; abstract. H. L. Grube. Metal Finishing 52:89-90 Ag '54

Platinum metals exhibition; Wollaston's discovery of palladium commemorated. il Metallurgia 48:196-7 O '53

Slow neutron resonances in cesium, palladium, and gold. H. H. Landon and V. L. Sailor. bibliog Phys R 93:1030-3 Mr 1 '54

Analysis

Behavior of platinum group metals toward ion exchange resins. W. M. MacNevin and W. B. Crummett. bibliog(25 ref) Anal Chem 25:1628-30 N '53

Chemical methods for separating and determining metals contained in platiniferous materials. R. Gilchrist. bibliog(25 ref) Anal Chem 25:1617-21 N '53

Fire assay for palladium. J. G. Fraser and F. E. Beamish. bibliog Anal Chem 26:1474-7 S '54

Reactions involving colored complexes of the platinum metals. G. H. Ayres. bibliog(26 ref) Anal Chem 25:1622-7 N '53

Separation of platinum and palladium and their subsequent colorimetric determination with *p*-nitrosodimethylaniline. J. H. Yoe and J. J. Kirkland. bibliog Anal Chem 26:1335-9 Ag '54

Separation of palladium from lead and the colorimetric determination of palladium with potassium iodide. J. G. Fraser, F. E. Beamish and W. A. E. McBryde. Anal Chem 26:495-8 Mr '54

Separation of palladium from platinum, iridium, and rhodium with dimethylglyoxime. G. H. Ayres and E. W. Berg. Anal Chem 25:980-1 Je '53

Separation of the four platinum group metals palladium, rhodium, iridium and platinum. P. C. Stevenson and others. Am Chem Soc J 75:4876 O 5 '53

Isotopes

Gamma-gamma angular correlation in Pd^{106}. E. D. Klema and F. K. McGowan. Phys R 92:1469-72 D 15 '53

New isotope of palladium, 1.5-minute Pd^{113}. H. G. Hicks and R. S. Gilbert. Phys R 94:371 Ap 15 '54

PALLADIUM alloys

Mechanisms of removal of hydrogen from palladium-hydrogen by oxidation. F. A. Lewis and A. R. Ubbelohde. diags Chem Soc J p 1710-16 Je '54

Ordering reaction of the Cu_4Pd alloy. A. H. Geisler and J. B. Newkirk. bibliog il diags J Metals 6:Trans 1076-82 sec 2 S '54

PALLADIUM compounds

Factors affecting the directive influence of the nitro group in the nitro complexes of palladium(II); dichlorodiaminepalladium(II) complexes. H. B. Jonassen and others. bibliog Am Chem Soc J 75:5216-18 N 5 '53

PALLETS

American Cyanamid develops materials-handling technique; Accopak pallet. il Paint Oil & Chem R 117:31 Jl 29 '54; Chem & Eng N 32:3080 Ag 2 '54; diags Cer Ind 63:51 S '54; Mod Packaging 28:120-1 S '54

Assembling the Multi-Pak for shipment or storage; illustrations with text. Brick & Clay Rec 124:53-4 My '54

Beer handling speeded; Portland (Ore.) beer distributors. J. Ferguson. il Food Eng 26:131 F '54

Conveyor and pallet loader cut handling 80 per cent; Colgate-Palmolive co. P. J. Anderson and E. L. Asher. il plan Factory Management 112:98-101 F '54

Facts about modern skids and pallets. il Mill & Factory 54:279 My '54

For easy shipping; pallet package. H. R. Black. il Safety Maint & Prod 107:18-20+ Ja '54

Hook lifts loaded pallet. il Steel 134:120 My 31 '54

How to tier the multi-pack from a flat bed truck; Hydraulic press brick co. il Brick & Clay Rec 125:60-1 Jl '54

PALLETS—*Continued*

Less aisle, more space; Lamson & Sessions co. il Steel 134:106 F 1 '54

Limited area palletized: Brainard steel division of Sharon steel corp. Steel 135:143 Jl 12 '54

Loadings sped by take-em-all pallet system; Golden age beverage co. il Food Eng 25:135 N '53

No-block pallets; Ternstedt division of the General motors corp. il Mod Packaging 27:142-4 Je '54

One-man loading system; Beer distributors, inc. il Food Eng 26:125+ Jl '54

One piece tool simplifies brick pallet strapping. il Brick & Clay Rec 124:72 Ap '54

Palletized material handling system saves more than 15 per cent masonry cost. il Constr Methods 36:90-1+ My '54

Palletizing lowers shipping costs. H. G. Williams. il Marine Eng 59:47-8 Jl '54

Paperweight heavyweight; American Cyanamid's Accopak. il Chem W 75:70 Ag 21 '54

Simple dolly and a frame pallet base speeds periodic kiln unloading. il Brick & Clay Rec 124:74 My '54

Standards

Industrial pallets; standardization is the big problem. il Steel 135:46-7 S 27 '54

PALM oil

Palm oil to be sold from government stockpile. Oil Paint & Drug Rep 166:3 S 20 '54

PALMER, H. Bruce

Sketch. C. Axman. por East Underw 54:3-4 N 27 '53

PALOMAR, Mount

Amateur scientist. A. G. Ingalls. map Sci Am 189:98-9 Jl '53

PALUDRINE

Synthetic antimalarials; the structure and synthesis of the dihydrotriazine metabolite of proguanil. H. C. Carrington, A. F. Crowther and G. J. Stacey. Chem Soc J p 1017-31 Mr '54

PAMPA, Texas

Streets

Oil stabilization for street maintenance. B. H. Cruce. il Pub Works 85:115-16 My '54

Pay-as-you-go paving project. B. H. Cruce. il Pub Works 84:71-2+ N '53

PAMPHLETS

See also

Vertical files

Bibliography

Pamphlets available. Special Lib 44:285 S '53

PANAMA canal

Waterway traffic; Panama canal, 1949-1952. Survey of Cur Bsns 1953 Sup p 118 [supplemented in monthly numbers]

PAN AMERICAN highway

Construction of the Inter-American highway. E. W. James. Am Soc C E Proc 79 [no 350]: 1-14 N '53

Inter-American highway to be passable in two years. Eng N 151:53-4 Jl 9 '53

PAN AMERICAN railway congress association

Congress, 8th, Washington and Atlantic City. Mech Eng 75:682-3 Ag '53

PAN AMERICAN union of engineering societies

Meeting, 3d, Sao Paulo, Aug. 2-6. Chem Eng Prog 50:46+ S '54

PAN AMERICAN world airways

Board to put PAA, TWA on their own. map Aviation W 59:75-7 Jl 27 '53

Latin American division

PAA division wins $11.3-million subsidy. Aviation W 59:56 Ag 31 '53

PANEL system of heating. See Electric heating—Panel system; Heating—Panel system; Hot water heating—Panel system

PANELING

Nature's structure; honeycomb panels. il Ind & Eng Chem 45:sup 15A+ S '53

PANELING, Plastic

Growing pains eased for plastic panels. Bsns W p55 S 19 '53

Rugged reinforced plastic; continuous panel; Spun-Lite. il Arch Forum 100:192 Ja '54

Translucent plastic paneling molded with woven glass fabric. il Arch Forum 99:186+ Ag '53

PANELS, Instrument. See Instrument panels

PANGBORN corporation

Marks golden anniversary. Foundry 82:208 S '54

PANMYELOPHTHISIS. See Anemia

PANTETHEINE

New synthesis of pantethine and some analogues thereof. R. E. Bowman and J. F. Cavalla. Chem Soc J p 1171-6 Ap '54

Synthesis of pantetheine and S-acetyl-pantetheine. E. Walton and others. bibliog Am Chem Soc J 76:1146-8 F 20 '54

PANTOGRAPH

Pantographs join production line. il Tool Eng 33:61-2 S '54

PANTOMIME

Phonomimicry; new exhibit technique; add recorded sound to pantomime. Sales Management 71:15-16 pt 2 O 1 '53

PANTOTHENIC acid, Analogs of

Inhibition of lactic acid bacteria by ω-substituted analogs of pantothenic acid. W. Drell and M. S. Dunn. bibliog Am Chem Soc J 76:2804-8 My 20 '54

PAPAIN

Enzymic synthesis of peptide bonds; the influence of residue type on papain-catalyzed reactions of some benzoylamino acids with some amino acid anilides. S. W. Fox, M. Winitz and C. W. Pettinga. bibliog Am Chem Soc J 75:5539-42 N 20 '53

PAPER

Adhesives for paper. R. T. Elias. Paper Tr J 137:116-20 N 13 '53

APPMSA Pacific coast division meeting, Seattle, Dec. 4-5; abstracts of papers. Paper Tr J 137:42+ D 18 '53

Bible paper; World Indo-Text. Tappi 37:sup 121A-2A My '54

Dimensional stability of bond and printing papers. J. C. Tongren. Tappi 37:sup 166A-8A Ap '54

Dimensional stability of paper. C. R. Calkins. Tappi 37:sup 163A-5A Ap '54

Improved technique for photomicrographs of pulp and paper fibres. I. Strelis and H. V. Green. bibliog il Pulp & Pa of Can 54:117-20 D '53

Printers' Ink 1954 advertisers' annual; paper. Ptr Ink 245:371-4+ sec 2 O 23 '53

Standard sizes and weights of paper. C. V. Morris. Ptr Ink 245:376-7 sec 2 O 23 '53

See also

Asbestos paper
Crepe paper
Filter paper
Newsprint paper
Paper board
Parchment paper
Tissue paper
Waste paper
Wood pulp
Wrapping paper

Analysis

Chemical analysis using infrared and ultraviolet radiation; abstract. W. C. Kenyon. Tappi 36:sup 157A-8A N '53

Detection and estimation of melamine in wet-strength paper by ultraviolet spectrophotometry. R. C. Hirt, F. T. King and R. G. Schmitt. bibliog Anal Chem 26:1273-4 Ag '54

Tests for aminoplasts in wet strength papers; abstract. G. Jayme and F. Branscheid. Paper Ind 36:412-13 Jl '54

Brightness

Optical brighteners used in the paper industry; abstract. A. E. Siegrist. Paper Ind 36:631-2 S '54

Predicting the brightness of ground-wood-sulphite pulp mixtures. D. J. MacLaurin and F. A. Aflenzer. bibliog Tappi 37:388-93 S '54

Chemistry

Bibliography

Literature of cellulose and other materials related to the pulp and paper industry; symposium. bibliog Tappi 37:sup 152A-96A S '54

Color

Some factors in the color reversion of bleached secondary fiber. H. P. Bailey and others. Tappi 37:14-18 Ja '54

See also

Dyes and dyeing—
Paper

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Dirt content

See also
Paper making—Dirt problem

Durability

See also
Paper, Laminated

Dyeing

See Dyes and dyeing—Paper

Fungus resistance

Fungus resistance of paper and paperboard; TAPPI tentative standard. Tappi 37:sup 174A-6A Ap '54

Gloss measurement

Gloss measurement and tolerance of photographic paper. B. Brenner. bibliog diag Opt Soc Am J 44:494-6 Je '54

Gloss measurement; design of gloss meters; abstract. V. G. W. Harrison. Soc Dyers & Col J 70:103 F '54

Instrumentation studies; study on gloss; goniophotometric study of high-gloss papers. W. A. Wink and others. diags Tappi 36: 163A-72A D '53

Measurement of gloss of waxed paper. P. J. Gianacakes. bibliog diags Tappi 37:400-3 S '54

Measurement

Basis weight determinations by the beta-comparator LKB 3265; abstract. K. P. Hansson. diag Paper Ind 35:920-1 N '53

Military use

Paper and paperboard products for military use. E. T. A. Coughlin. Paper Tr J 137: 267-72 N 13 '53

Moisture absorption

Problems in the evaluation of caustic absorbency of pulp sheets. R. W. Swinehart and A. T. Maasberg. il diags Tappi 37:412-16 S '54

Moisture content

How moisture content is automatically controlled by the Stickle mechanical system; Newton Falls paper mill. il Paper Tr J 138: 72-3 My 14 '54

Investigation of methods for dimensionally stabilizing paper. F. W. Lorey and C. E. Libby. bibliog(37 ref) diag Tappi 37:321-31 Ag '54

Moisture testing of paper. J. D. Line. Tappi 37:sup 177A-8A My '54

Mold resistance

See Paper—Fungus resistance

Odors

Odor control in the paper industry. L. B. Sjöström. bibliog Tappi 37:sup 156A-9A My '54

Recent developments in masking sulphate pulp mill malodors. B. K. Tremaine. bibliog Tappi 37:sup 141A-3A Ag '54

Printing properties

Chapman printing smoothness tester. S. M. Chapman and others. bibliog il diags Pulp & Pa of Can 55:88-116 Mr '54

Effect of letterpress research on paper specifications. P. J. Thoma. Tappi 37:sup 171A-3A Ap '54

Effect of multiple internal reflections on the densities of half-tone prints on paper. F. R. Clapper and J. A. C. Yule. diag Opt Soc Am J 43:600-3 Jl '53

Lithography and the papermaker. R. K. Newcomb. Tappi 37:sup 159A-61A Ap '54

Printing studies at the Swedish graphic arts research laboratory, Stockholm. I. Olsson and L. Pihl. bibliog il diags Tappi 37:42-6 Ja '54

Shortcomings in testing methods for printing papers. G. W. Jones. Tappi 37:sup 178A-9A My '54

What are the requirements of paper for offset? A. W. Beecroft. Paper Tr J 138:66+ Je 25 '54

See also
Paper board—Printing properties

Specifications

Printer's guide for paper purchasing. Tappi 36:sup 14A+ O '53

Strength

Investigation of the reasons for increase in paper strength when locust bean gum is used as a beater adhesive. H. J. Leech. bibliog Tappi 37:343-9 Ag '54

Mechanical properties of paper. G. Broughton and J. P. Wang. bibliog Tappi 37:72-9 F '54

Mill control method for wet-strength papers. A. G. Durgin and W. G. Baker. Tappi 37: sup217A-18A Je '54

Modified cationic urea resin for wet-strength papermaking. S. Sönnerskog. Tappi 37:79-80 F '54

Nonstatistical approach to improving wet-strength resin evaluations. V. J. Moser. Tappi 36:sup 160A-1A D '53

Paper strength testing; equipment and methods. H. W. Rowe. Tappi 37:sup 179A-81A My '54

Retention of wet-strength resins by various types of pulps. F. J. Newhard. Tappi 36: sup 161A-2A D '53

Strength development through stock refining as influenced by certain variables. F. E. Caskey. bibliog diags Tappi 37:156-62 Ap '54

Tensile strength of paper at different rates of elongation; abstract. O. Anderson and L. Sjöberg. Paper Ind 35:1046-7 D '53

Wet strength; fast pace; paper industry committed to wet-strength resins. il Chem W 74:46+ F 20 '54; Same. Tappi 37:sup 126A-7A My '54

Testing

Chapman printing smoothness tester. S. M. Chapman and others. bibliog il diags Pulp & Pa of Can 55:88-116 Mr '54

Defining the surface smoothness of paper with the brush surface analyser; abstract. E. J. Barber. Tappi 36:sup 158A N '53

Extending the range of the NBS stiffness tester. V. Worthington. il diag Tappi 37: 384-7 S '54

Identification of wet-strength resins in paper by a dye staining technique. R. R. House and N. T. Woodberry. Tappi 37:255-7 Je '54; Abstract. Pulp & Pa of Can 55:148 S '54

Mechanical properties of paper. G. Broughton and J. P. Wang. bibliog Tappi 37:72-9 F '54

Paper strength testing; equipment and methods. H. W. Rowe. Tappi 37:sup 179A-81A My '54

Problems in the evaluation of caustic absorbency of pulp sheets. R. W. Swinehart and A. T. Maasberg. il diags Tappi 37: 412-16 S '54

Rapid identification of wet-strength resins in paper. J. C. Barthel. Paper Tr J 138:24 S 10 '54

Testing for the paper converter. E. E. Stephenson, jr, and H. O. Wiles. il Paper Tr J 137:289-96 N 13 '53

Use of Instron tensile instrument for the study of the stress-strain properties of paper; abstract. W. Markwood. Tappi 36: sup 158A N '53

Uses

Resin soaked paper reduces board swelling. il Paper Tr J 138:12 Ap 9 '54

PAPER, Asphalt

Asphalt saturated and laminated paperboard. R. J. Suess and R. E. McVickar. diags Paper Tr J 137:262+ N 13 '53

PAPER, Chromatographic. See Chromatographic analysis

PAPER, Coated

Baryta coated photographic paper. W. A. Kirkpatrick. il Paper Tr J 137:247-50+ N 13 '53

Coated papers and the lithographic process. J. D. Payne. Tappi 36:sup 150A-2A N '53

New silicone treated papers. Paper Ind 36:57 Ap '54

TAPPI coating conference, 4th, Cincinnati, May 25-27; papers. Tappi 36:sup 130A-82A O '53

Testing

Effect of light on coated groundwood papers. W. K. Wilson and J. L. Harvey. bibliog Tappi 36:459-61 O '53

PAPER, Copying
Double troubleshooter; N, N′-di-β-naphthyl-p-phenylenediamine key to new facsimile paper. il Chem W 74:111-12 My 15 '54

PAPER, Crepe. See Crepe paper

PAPER, Filter. See Filter paper

PAPER, Glass
Electrical properties of pentachlordiphenyl impregnated glass fiber paper. T. D. Callinan. bibliog il diags Electrochem Soc J 100:141-5 Ap '53
Fiberglas as a papermaking material; abstract. T. S. Chambers. Pulp & Pa of Can 55:148 S '54
Glass-reinforced paper. R. T. Seith. il Mod Packaging 28:149-52+ S '54
Uses of inorganic synthetic fiber paper. H. F. Arledter. Tappi 37:sup 152A-7A Jl '54

PAPER, Government
Bids and awards; GPO 1st quarter, 1954 paper needs. Paper Tr J 137:48+ D 18 '53

PAPER, Greaseproof
Converting of parchment and greaseproof papers. M. Rutz. Paper Tr J 137:203 N 13 '53
Vegetable parchment packaging's pet paper. Pulp & Pa of Can 55:66 F '54

PAPER, Insulating
Desired electrical qualities of high voltage cable paper. W. A. Del Mar. Tappi 37:sup 140A-3A Je '54
Electrical papers. P. L. Staats. il diags Paper Tr J 137:280-8 N 13 '53

Testing

Microstructure of capacitor paper. D. A. McLean, H. A. Birdsall and C. J. Calbick. bibliog il Ind & Eng Chem 45:1509-15 Jl '53

PAPER, Laminated
Asphalt saturated and laminated paperboard. R. J. Suess and R. E. McVickar. diags Paper Tr J 137:262+ N 13 '53
Honeycomb core for architectural installations. E. P. Nuttall. il Paper Tr J 138:26+ My 21 '54
New paper based phenolic laminates. il Materials & Methods 39:139-40 Ja '54
Paper and wood; a new team. J. A. Hall. il Paper Ind 35:1209-12 F '54
Paper base laminates. J. E. Kussmann. diags Paper Tr J 137:254-6+ N 13 '53
Polyethylene extrusion-lamination technique. H. A. Arbit. diag Tappi 37:sup 162A-4A Jl '54
Thermal conductivity of paper honeycomb cores and sound absorption of sandwich panels. D. J. Fahey and others. bibliog il diags Tappi 36:523-8 N '53

PAPER, Light sensitive
Lensless copying with sensitized papers. F. E. Smith. J Chem Educ 31:351-3 Jl '54

PAPER, Mold resistant. See Paper—Fungus resistance

PAPER, Parchment. See Parchment paper

PAPER, Photographic. See Photographic paper

PAPER, Tissue. See Tissue paper

PAPER, Twisting
Twisted paper products. T. M. Sellers. bibliog il Paper Tr J 137:190-2+ N 13 '53

PAPER, Waterproof
Reinforced moistureproof paper protects materials in transit and in storage. T. W. Rodes. diags Ind & Eng Chem 46:sup 101A-2A+ Jl '54

PAPER, Waxed
Measurement of gloss of waxed paper. P. J. Gianacakes. bibliog diags Tappi 37:400-3 S '54
Mid-West launches new converted paper products. H. R. Alley. Paper Ind 36:51 Ap '54
Sealing strength of paraffin wax. diags Tappi 37:sup 165A-6A Mr '54
Waxed papers. R. D. Caine. diags Paper Tr J 137:197-200 N 13 '53

Manufacture

Waxed paper protection owes much to materials and methods; Appleford paper products, limited. il diags Can Chem Process 38:32+ Jl '54

Testing

Quality control for paper products starts and ends in laboratory. W. W. Wisnoski. il Can Chem Process 38:78+ Jl '54

PAPER and pulp mills
Abitibi B.C. experts join to aid N.Z. project. Pulp & Pa of Can 54:164+ D '53
Arizona's first pulp mill; Coconino pulp and paper co. R. Shirley. il Paper Tr J 138:14-15 Ja 8 '54
Arkansas paper mill expands; Crossett paper mills. il Manuf Rec 123:34 Jl '54
Ball bros. close Noblesville mill. Paper Tr J 138:11 My 28 '54
Bleach plant engineering and design. A. G. Bellos. Tappi 37:sup 146A-8A Je '54
Bowater giant. Pulp & Pa of Can 55:183-4 Jl '54
Consolidated Water Power & Paper; steady growth through 50 years. il Paper Ind 36:273-6 Je '54
Continuous pour builds concrete bleach plant. il plan Constr Methods 35:92-3+ N '53
Crown Zellerbach corp. annual report, year ended April 30. Tappi 37:sup 120A-1A S '54
Donnacona paper co. Tappi 37:sup 114A+ Je '54
ERP-reconstructed pulp mill; Frantschach natronzellstoff-und papierfabriken. il Paper Ind 35:1318-19 Mr '54
Gaspesia's new bleach plant improves pulp quality. R. J. Chambers. il Pulp & Pa of Can 54:90-5 D '53
Glatfelter company. Tappi 37:sup 126A-7A Ap '54
Highlights of Nepco's open house. il Paper Tr J 138:12 Jl 30 '54
International paper company president's report to the shareholders. Tappi 37:sup 127A-8A S '54
K-C (Munising). Tappi 37:sup 116A-18A Mr '54
New type bagasse mill in Brazil. Paper Tr J 138:9 Jl 23 '54; Pulp & Pa of Can 55:224+ S '54
Paper industry and the Southland mill. W. L. McHale and C. C. Porter. Paper Tr J 138:54+ Je 25 '54
Pioneer of molded pulp industry celebrates golden anniversary; Keyes fibre co. il Paper Ind 36:37 Ap '54
Progress in community relations project reported by APPA. il Paper Ind 36:175-6 My '54
Rayonier's new Georgia plant nears completion; operation expected soon. il Paper Ind 35:1193-4 F '54
Scaled layout of Union bag & paper corp.'s Savannah plant provides plan board for engineers. Paper Tr J 138:12 Ap 23 '54
Scott paper co. il Tappi 37:sup 134A-5A My; 112A-15A Ag '54
Scott starts production in Washington. il Chem & Eng N 32:804-5 Mr 1 '54
Sir Eric's enterprise; Bowater's Thames paper mills ltd. E. P. Nuttall. il Paper Tr J 138:32+ S 3 '54
Southland Mill is successful factor in U.S. paper making economy. W. L. McHale and C. C. Porter. Pulp & Pa of Can 55:85-6 Ag '54
Start-up problems at a new kraft pulp mill. K. Chapman. Tappi 37:sup 136A-9A Mr '54
Woodsdale paper company. E. F. Barker. Tappi 37:sup 119A-20A My '54

See also
Paper board mills
Paper making
Water supply for paper and pulp mills

Accidents

Aftermath of an accident or rehabilitation. W. A. McLellan. Pulp & Pa of Can 54:208 N '53
Fatalities in a kraft digester; abstract. K. K. Karlson. Paper Ind 36:510 Ag '54
For sixth year International division reports frequency of less than ten. il Paper Ind 35:1338+ Mr '54
Forty years progress in safety. D. C. Everest. Pulp & Pa of Can 55:206+ Ap '54; Same. Tappi 37:sup218A-20A Je '54
Four perfect scores reported by Southern safety association. il Paper Ind 36:202 My '54

PAPER and pulp mills—Accidents—*Continued*

1953 all-industry safety record shows gain; pulp, paper improve. Paper Ind 36:506-7 Ag '54

127 firms maintain perfect scores in six-month NSC report. Paper Ind 36:625-6 S '54

Three men suffocate in digester. Paper Tr J 138:10 Ap 30 '54

Accounting

Costing pulp and paper. C. Noel. Pulp & Pa of Can 55:108-10 Je '54

Costs

Economics of handling mill supply chemicals. H. A. Stoess, jr. Tappi 37:57-61 F '54

Electric equipment

Application of air circuit breakers 15,000 volts and below. J. Butler and R. W. Lindberg. bibliog il diags Pulp & Pa of Can 55: 115-26 Je '54

Electric wire and cable recommendations for the pulp and paper industry. A. O. Mortenson. Tappi 37:81-3 Mr '54

Electrical system grounding. G. P. Hobbs and R. H. Kaufmann. il diags Tappi 37:sup 116A-17A Jl '54; Abstract. Paper Tr J 137: 28 N 6 '53

Electricity distribution in the paper industry. J. L. Marshall. Pulp & Pa of Can 55:116-18 Ag '54

Electronic control in Scotland's new paper-making machine. il diag Elec J 151:1371-4 O 30 '53

How Magamps are used on the new machine drive at West Tacoma. S. J. Campbell. il diag Paper Tr J 137:30-2 D 18 '53

New electrical distribution system completes Powell River project. il plan Paper Ind 35:861-2 N '53

See also
Electric driving—
Paper and pulp
mills

Employees

Abitibi's alumni. J. N. Stephenson. il Pulp & Pa of Can 55:48-55 F '54

Abitibi's alumni; addendum. O. Brauns. Pulp & Pa of Can 55:75 Ap '54

Better operators through schooling; Crown Zellerbach paper school. Chem Eng 61: 248+ S '54

Forward looking retirement programs; West Virginia pulp and paper co. H. W. Otis. Paper Tr J 138:24+ Jl 23 '54

Getting the most from employee benefits. C. Gardner, 3d. Paper Tr J 138:24+ Je 4 '54

More in common than in conflict; case study in human relations in industry; abstracts of papers. Paper Tr J 137:49-52+ D 11 '53

Obligations of an employee to his company. E. L. Lincoln. Pulp & Pa of Can 55:108-9 S '54

Paper dust; its effect on the worker. W. Schweisheimer. Paper Ind 35:1126 Ja '54

Secretary Mitchell prohibits work by minors on paper-products machines. Paper Tr J 138:10 Ag 27 '54

Selecting, measuring, and developing men. J. B. Middelton. Tappi 37:sup 136A-8A F '54

Some practical aspects of training in paper mills. R. P. Beaudette. Tappi 37:sup 129A-31A Ja '54

Successful community-industry project. C. J. Crosby and J. P. Nolan. Advanced Management 19:12-13 S '54; Same cond. Personnel J 33:103-4 Jl-Ag '54

Technical man in the pulp and paper industry. G. H. Pringle. Tappi 37:sup 10A+ Mr '54

What an hourly worker expects of a safety program. E. Collar. Tappi 37:sup223A-4A Je '54

What it takes to be an executive in the paper industry. H. E. Whitaker. Tappi 37: sup 10A+ My '54

What your employees want! L. W. Mann. Paper Tr J 137:18+ N 6 '53

Equipment

Abitibi's new grinder room. G. C. Sisler. il Pulp & Pa of Can 55:106-7 Je '54

Alberta's first paper mill feeds roofing plant. il Pulp & Pa of Can 55:80-1 Ag '54

American-Israeli paper mills ltd. Tappi 37: sup94A+ Je '54

Anti-corrosive paints in the pulp and paper industry. J. J. Oates. Paper Ind 36:594 S '54

Application of noncorrosive materials. G. R. Lydick. Tappi 37:sup 162A-4A Mr '54

Bauer stock preparation disc refiner with pressure feed and discharge. il Paper Tr J 138:36 Mr 26 '54

Benchevators permit faster sheet inspection at Parsons paper co. il diag Paper Tr J 138: 62 My 14 '54

Better circulation in stock storage tanks; Side-Flo unit. il diags Paper Tr J 138:56-7 My 14 '54

British Columbia pulpmill operates largely by remote control. W. W. Brown and J. Macey. il Pulp & Pa of Can 55:76-81 Ja '54

Camp opens new bleach plant. Paper Tr J 137:11 D 4 '53

Cathodic protection for the prevention of corrosion in equipment for the treatment of white water. F. J. LeFebvre. diags Tappi 37:sup 152A-4A Mr '54

Check list on use of industrial rubber hose. J. A. Muller. Paper Tr J 138:20 Ag 27 '54

Coating machines. Tappi 37:sup92A-4A Ag '54

Continual recording of comparative paper caliper by air gauging; Aerosensor. A. B. Daniels. il diag Paper Tr J 138:70-1 My 14 '54

Controlled volume metering. J. Procopi. il diags Paper Ind 35:1320-2 Mr '54

Controlling side-register in reeling sheet material; Hydronic web guider. il diag Engineering 176:669 N 20 '53

Crossett adds pulp and board unit. D. G. Moon. il Paper Ind 36:376-8 Jl '54; Paper Tr J 138:10-11 My 21 '54

Crossett Paper Mills' new unit. il Tappi 37:sup96A-8A Jl '54

Deposits in green liquor and causticizing systems. W. W. Brown. Pulp & Pa of Can 55: 134-6 Jl '54

E. B. Eddy company's $18 million modernization program. D. G. Currie. il Pulp & Pa of Can 55:83-9 Jl '54

Economies and conservation with newer or higher alloys. F. A. Guba. Tappi 37:sup 148A-50A Ag '54

Effect of pipe fittings on flow of fluids. V. W. G. Wilson. il plan diags Pulp & Pa of Can (Convention no) 55:253-7 [F] '54; Excerpts. Paper Tr J 138:24 F 5 '54

Efficiency of a four-stage washer versus a three-stage washer in a kraft mill. E. A. Harper and F. C. Paul. Tappi 37:206-7 My '54

Everett Pulp & Paper completes improvements. il Paper Tr J 138:9 Mr 5 '54

Expansion of the 250-ton Harmac mill of MacMillan & Bloedel, ltd. il Tappi 36:sup 106A+ N '53

Factors influencing the selection of modern rotary lime recovery kilns. W. H. Tock. Tappi 37:sup 195A-6A My '54

Filters and purifiers for oil circulating systems. J. S. McKeown. il diags Paper Tr J 138:22-5 Mr 19; 26-9 Mr 26 '54

$575,000 improvement program underway at Flambeau. Paper Tr J 138:9 Ap 30 '54

Fort Frances mill gets new groundwood and power plants. il Pulp & Pa of Can 54:216+ O '53

Fort Frances mill of the Minnesota & Ontario paper co. Tappi 37:sup 120A S '54

40-year-old plant ready for 195X; Minnesota and Ontario paper co. il Factory Management 112:D 10-13 pt 2 Je '54

Fundamentals of automatic rate of flow control. L. Walter. il diags Paper Ind 36: 380-2 Jl '54

Gould paper co. Tappi 37:sup 129A-31A Ap '54

Handling pulpwood with a belt conveyor. F. D. Whitehead. Pulp & Pa of Can 55:132 My '54; Same abr. il Paper Ind 36:65-6 Ap '54

Harmac mill doubles bleached sulphate production. J. N. Stephenson. il Pulp & Pa of Can 54:110-18 O '53

How a 65 year old mill was modernized and made thoroughly competitive; Combined locks paper co. il Paper Tr J 138:14-18+ Jl 23 '54

PAPER and pulp mills—Equipment—*Continued*

How dissolving pulp is made at Buckeye's new mill. J. C. W. Evans. il Paper Tr J 138:14-20 Jl 30 '54

How new bleaching plant was built by Gaspesia. il Paper Tr J 137:20-3 N 20 '53

How one of the oldest pulp mills has been rebuilt and modernized; D. M. Bare paper co. J. C. W. Evans. il Paper Tr J 138:16-23 My 28 '54

How plastic piping may be used in the pulp and paper industry. B. W. Bender. Paper Tr J 138:30+ Mr 19 '54

How the beta-ray gauge works as a control instrument for extrusion laminated polyethylene coating. J. B. Sisson. il Paper Tr J 138:106+ My 14 '54

How the beta-ray scanner provides felt and wire life data at Southland. J. D. Sadtler. il Paper Tr J 138:54-5 My 14 '54

How the Modern stuff-maker improved sheet formation at Columbia River. flow diag il Paper Tr J 138:112+ My 14 '54

How to cut impeller wear. T. W. Edwards. il diag Paper Tr J 138:14-15 Ja 15 '54

How to get highest performance and wear from elevator conveyor belts. A. F. Matheis. diags Paper Tr J 138:21-2+ Jl 2 '54

How W. C. Hamilton & sons uses the Foxboro beta-ray sheet weight profiler. P. A. Cerasoli. il Paper Tr J 138:130+ My 14 '54

Industrial plant construction in Canada. F. M. Kraus. il maps plan diags Tappi 37:sup 36A+ Ap '54

Instrumentation; graphic control panels. il diags Paper Ind 36:160-3 My '54

Latest developments in use of plastic materials of construction. R. B. Seymour and M. H. Smith. il Paper Tr J 137:33-4+ D 18 '53

Latest ideas on rubber belt use in pulp mills. D. R. Scheu. il Paper Tr J 138:24+ Je 11 '54

Latest techniques in kraft pulp and board production built into National Container's Valdosta mill. il Paper Tr J 138:38-45 Ap 16 '54

Lime recovery kilns in Scandinavia. J. Friis-Hansen. il Pulp & Pa of Can 55:147 S '54

Liquid level measurement and control. A. L. Landesman. diags Paper Tr J 138:18+ Ja 8 '54

Loddby cyclone burner; new system for burning waste calcium-base sulphite liquor. T. Simmons. diags Pulp & Pa of Can 55:108-10 Ja '54

Mac helps to solve a paper mill piping problem. B. Dopp. Heating-Piping 26:102-4 Ap '54

Mando modernizes on each side of border. J. S. Turner, comp. il Pulp & Pa of Can 55: 81-2 Ja '54

Mando reviews 1953; multi-million dollar program continues. il Paper Ind 35:1103-4 Ja '54

Mead pushes the button on new soda mill. il Paper Tr J 137:20-5 O 23 '53; Same cond. Tappi 36:sup 112A-16A D '53

Mills of the Donnacona paper co. Tappi 37: sup98A-100A Jl '54

Modernization program of Alaska pine and cellulose, limited. il Pulp & Pa of Can 55:72-9+ Mr '54; Same cond. Paper Tr J 138:16-24 F 19 '54

Motorized industrial truck applications. W. G. Hudson. il diags Paper Ind 35:1218-19 F '54

New bleach plant of Camp manufacturing co. il Paper Tr J 137:20-3 D 25 '53; Same. Paper Ind 35:1112-15 Ja '54; Same. Tappi 37: sup94A+ F '54

New equipment and supplies review. il diags Paper Tr J 138:73-179 S 17 '54

New kraft pulp mill integrated into Weyerhaeuser's operations. K. F. Harris. il Paper Ind 35:1204-9 F '54

New mill of Bowaters Southern. il Paper Tr J 138:18-26+ S 3 '54; Excerpts. Chem Age (Lond) 71:469-74 S 4 '54

New Zealand forest products, ltd. il Tappi 37: sup 127A-30A My '54

New Zealand inaugurates its first integrated pulp and paper mill. J. Cardew. il Pulp & Pa of Can 55:44-8 F '54

New Zealand's first kraft mill; N.Z. forest products, ltd. il Paper Tr 138:26+ Mr 19 '54

Operating comparison of standard and valveless deckers on screened, bleachable pine kraft pulp. T. L. Gilles and M. B. Pineo. diags Tappi 37:46-8 Ja '54

Pakistan pulp mill installs liquor recovery unit of most recent design; Karnaphuli paper mills. R. Gamble. flow diag il Paper Ind 36:52-4 Ap '54

Pioneering persists at Portneuf. J. S. Turner. il Pulp & Pa of Can 54:100-1+ N '53

Powell River's development program. G. Daoust. il Pulp & Pa of Can 54:102-6 N '53

Present status of Pressafiners at Green Bay; pollution control. W. Nelson. Paper Tr J 138:136 My 14 '54

Rayonier new chemical cellulose plant. il Tappi 37:sup 118A-20A Ag '54; Same cond. Paper Ind 36:474-7 Ag '54

Rayonier's 5th plant opens at Jesup, Ga. il map Paper Tr J 138:16-20+ Jl 9 '54

Regulator in the paper mill. C. S. Beard. Tappi 37:sup 121A-2A Ag '54

Reverse roll coating experiments with hot melt resins. G. L. Booth. bibliog il diags Tappi 37:sup 157A-62A Jl '54

Riegel Carolina reports on the Bird lime mud filter. J. D. Dailey. il Paper Tr J 138: 128 My 14 '54

S. D. Warren co. expansion and modernization. Tappi 37:sup 131A-2A My '54

S. D. Warren improves lime handling at Cumberland mills. il Paper Ind 36:365-6 Jl '54

St Regis completes $5,000,000 expansion at Pensacola kraft center. il Paper Tr J 138: 12 Jl 23 '54; Paper Ind 36:463-4 Ag '54

St Regis paper co. Tappi 37:sup 132A-3A My '54

Scott installs automatic carton conveying system. il Paper Tr J 138:44 Ag 13 '54

Shall it be a crane, a conveyor, or an industrial truck? A. T. Gaudreau. il plans diags Paper Ind 36:383-5, 483-7 Jl-Ag '54

Solving control problems in the paper mill. L. Walter. il diags Paper Ind 35:888-90 N '53

Stainless steel valves and fittings in the pulp and paper industry. P. C. Shaffer. bibliog il diags Pulp & Pa of Can 55:138-46 S '54

Successful measurement and evaluation of slime at St Lawrence by the McKeown tester. J. H. Bardsley. il Paper Tr J 138: 64-5 My 14 '54

Sulphate pulp washing at Thilmany. P. H. West and others. il Tappi 37:137-42 Ap '54

TAPPI engineering conference, 8th, Montreal, Oct. 26-29; with abstracts of papers. Tappi 36:sup78+ D '53

Transformation at Red Rock. J. N. Stephenson and J. S. Turner. il Pulp & Pa of Can 55:100-5 S '54

Two new mills at East Millinocket plant. il Paper Tr J 138:16-18 Ap 9 '54

Unceasing modernization evident as editor tours 13 mills in Toronto-Niagara Falls area. J. S. Turner. il Pulp & Pa of Can 55:58-61 F '54

Union bag & paper corporation's program A completed. il Paper Ind 36:280-3 Je '54

Union Bag completes program A. il Paper Tr J 138:14-18+ My 21 '54; Excerpts. Tappi 37:sup 101A-4A Jl '54

Urgent needs of the industry. D. W. Ambridge. Tappi 36:sup 14A+ N '53; Same. Pulp & Pa of Can 54:107-8 D '53

Use of a Betameter for newsprint basis weight control. C. S. Waddell. il Pulp & Pa of Can 55:109-14 My '54

Use of centri-cleaners and vortraps on semichemical pulp. A. L. Wiley and others. diags Tappi 37:164-6 Ap '54

Use of Jackson Church press in handling pulp mill rejects. R. E. Bringman. diags Tappi 37:286-90 Jl '54

Well-planned and streamlined handling of products results in increased productivity; illustrations with text. Paper Ind 36:164 My '54

Weyerhaeuser improves whole-log utilization. il Paper Ind 36:462 Ag '54

Weyerhaeuser timber co.'s ultramodern kraft pulp mill. Tappi 36:sup 114A+ N '53

What Bauer cleaners are doing at Flambeau. L. M. Gibson. il diag Paper Tr J 138:86-9 My 14 '54

PAPER and pulp mills—Equipment—*Continued*

What Bauer cleaners are doing at Spaulding pulp & paper co. H. R. Clodfelter. il Paper Tr J 138:92-4 My 14 '54

What is new in pulp and paper control instruments? C. S. Beard. il diags Paper Tr J 138:14-16+ Jl 16 '54

What's new in the kraft mills? A. P. Schnyder. Paper Tr J 137:14-15 N 27 '53

When does it pay to replace a pump? C. E. Cromwell. il Paper Tr J 138:22-4 Je 18 '54; Same. Marine Eng 59:45-6 Jl '54

World's largest anti-pollution evaporator started by Northern. il Paper Ind 35:867-8 N '53

See also

Digesters (paper making)

Knives, Chipper

Paper making machinery

Wood grinders

Fires and fire protection

Fire protection in pulp and paper mills. R. C. Max. il Tappi 37:65-72 F '54

With Champion Paper's firefighters on the alert, fire never gets an even break. il Nat Safety N 70:22-3 Jl '54

Heating and ventilation

Air supply systems for drying and ventilation. il Paper Ind 36:159 My '54

Investigation of comfort conditions in newsprint paper machine rooms. H. W. Rogers. bibliog il Pulp & Pa of Can (Convention no) 55:224-8+ [F] '54

Report on closed hood installations at Iroquois Falls. J. C. Jordan. il diags Paper Tr J 138:14-19 Ap 30 '54

Maintenance and repair

How magnetic particle inspection aids maintenance at Camas. D. M. Platt. il diags Paper Tr J 138:98-100 My 14 '54

Maintenance of bleach plant equipment. H. H. Huseby. il Tappi 37:253-5 Je '54

Maintenance of pipe lines; internal cleaning. C. W. Ziegenbusch and M. V. Jones. Tappi 37:172-4 Ap '54

Maintenance procedures in a paper mill. I. M. Witham. il Paper Ind 35:1220-1 F '54

Metallizing unlimited in pulp and paper mills. L. W. Darlington. Pulp & Pa of Can (Convention no) 55:181-3 [F] '54

Mill on wheels builds for Kimberly-Clark; Field service organization. il Paper Tr J 137:18-19 D 25 '53

Plant maintenance. il Paper Tr J 138:145-57 S 17 '54

Plant maintenance and engineering conference Paper mill round table, Chicago, Jan. 26-27. Paper Tr J 138:24+ F 12 '54

Preventive maintenance. L. Walter. Pulp & Pa of Can 54:121-4 N '53

Some aspects of preventive maintenance as practised at Powell River. A. G. Gardner. Pulp & Pa of Can 55:113-15 Ag '54

What Combined Locks has learned from fifteen years of metallizing. E. Lindberg. il Paper Tr J 138:84-5 My 14 '54

Management

Finished stocks to be moved out of Harrisville mill. Paper Tr J 138:19 Ap 30 '54

Industrial management and human relations. G. W. E. Nicholson. Tappi 37:sup32A+ Jl '54; Same abr. Paper Ind 36:491-2 Ag '54

Management and the purchasing department; their relationship today. W. R. Beckett. Pulp & Pa of Can 55:102-4 My '54

Men, machines and management. A. E. H. Fair. Paper Tr J 138:60+ Je 25 '54; Same. Pulp & Pa of Can 55:87-9+ Ag '54

Organization building for effective utilization of manpower. G. Ostenson. Tappi 37:sup 151A-5A Ag '54

What is good public relations. K. R. Bendetsen. Paper Ind 35:1124-5 Ja '54

See also

Paper and pulp mills—Quality control

Painting

Color in the paper industry. W. Schweisheimer. Paper Ind 36:297 Je '54

Power

Applications for the combustion gas turbine in the pulp and paper industry. W. B. Wilson. il diags Pulp & Pa of Can 54:139-44 O '53

Case history of an 850 p.s.i.g. topping turbine installation. H. R. Emery and P. L. Nelson. diag Tappi 37:196-201 My '54

Constant feeding of fuel bark by the Hofft-Weverk bin unloader; Chesapeake corp. il Paper Tr J 138:78-9+ My 14 '54

Contributing facilities also expanded at the Filer plant. Paper Tr J 138:24+ Mr 5 '54

Design features of industrial power plants. F. W. Argue and J. R. Chapman. diags Pulp & Pa of Can 55:103-7 Ap '54

Feed water treatment problems at the Woodfibre, B.C. mill of Alaska pine & cellulose, ltd. W. A. Dale. Pulp & Pa of Can 54:121-2+ D '53

Kalamazoo Paper installs Diesel for standby power. il Paper Ind 35:866 N '53

New boiler at St Croix adds 2500 kw to power capacity. il Paper Ind 35:1098-9 Ja '54

Problems relating to interconnecting of large pulp and paper mills with large utility power systems; abstract. H. A. Rose and H. E. Springer. Power 98:152+ Ag '54

Two steam turbine drive machines raise production 12 to 13 per cent; Northwest paper co. il Mill & Factory 53:148 D '53

Quality control

Analysis of variance in dealing with mill data. G. Beall. Tappi 37:sup 123A-4A Ja '54

Application of statistical quality control to process operations at the Manitoba paper co. D. O. White and E. C. Metherell. Pulp & Pa of Can (Convention no) 55:219-23 [F] '54

Customer's view of quality control in specialty papermaking. D. L. Boyd. Tappi 37:sup 159A-60A Ag '54

Fundamentals of control charts. C. A. Bicking. bibliog Tappi 36:544-9 D '53

Quality efficiency rating for paper mill production. R. A. Butler and T. D. Syme. Tappi 37:sup 192A-5A My '54

Some considerations setting control chart limits; abstract. G. R. Shaw. Pulp & Pa of Can 55:138 Je '54

Some quick and easy statistical methods. J. D. Hinchen. Tappi 37:sup 182A-4A My '54

Statistical quality control for paper mills. J. Theriault. diag Tappi 37:sup 161A-3A Ap '54

Safety measures

Accident prevention. Pulp & Pa of Can 55:173-4 Mr '54

Anywhere you look! safety meets your eyes in this plant; West Virginia pulp & paper co. R. K. Meredith. il Safety Maint & Prod 107:21-2 My '54

Colour in the paper industry. W. Schweisheimer. Pulp & Pa of Can 55:160+ Ja '54

Don't lift it alone! hazards of heavy lifting in the paper industry. W. Schweisheimer. Pulp & Pa of Can 54:212+ N '53

Ecusta Paper wins Fritz safety trophy for '52. H. E. Newbury. il Paper Ind 35:886-8 N '53

Forty years progress in safety. D. C. Everest. Pulp & Pa of Can 55:206+ Ap '54; Same. Tappi 37:sup218A-20A Je '54

Fraser's Newcastle mill receives safety awards. il Pulp & Pa of Can 55:236+ S '54

Good housekeeping. L. A. Aiken. Pulp & Pa of Can 54:176+ D '53

Lock out electric switch box hazard. Pulp & Pa of Can 55:211-12 Je '54

National safety council Pulp and paper section annual meeting, Chicago, Oct. 19-23. Paper Ind 35:897-8+ N '53; Paper Tr J 137:24-5 O 30 '53

1953 NSC pulp and paper contest shows nine per cent rate reduction. Paper Ind 36:78 Ap '54

Northern branch, Ontario pulp and paper makers' safety association meeting, Kapuskasing, July 9. Pulp & Pa of Can 55:241+ S '54

Off-the-job safety program improves plant efficiency; West Virginia pulp and paper co. Chem & Eng N 31:2626 Je 22 '53

PAPER and pulp mills—Safety measures—*Continued*

Ontario pulp and paper makers safety association annual meeting, Toronto, March 23. Pulp & Pa of Can 55:204+ My '54

Recovery of wood from block pile. F. W. Johnson. Pulp & Pa of Can 55:106+ F '54

Safety evaluation and protection of digesters. H. M. Canavan and W. B. Parker. Tappi 37:115-20 Mr '54

Safety is no secret, just common sense. J. H. Findlay. Pulp & Pa of Can 55:206+ Je '54

Safety record of O-M electrical department cited at Ontario meeting. Paper Ind 36:623 S '54

Selling safety is a continuous job. D. Gidel. Pulp & Pa of Can 55:186+ Jl '54

Seven safety awards for St Regis. Paper Tr J 138:34 Je 25 '54; Paper Ind 36:408 Jl '54

What a foreman expects of a safety program. E. D. Hargis. Pulp & Pa of Can 55:164-6 Ja '54; Same. Tappi 37:sup222A-3A Je '54

What a superintendent expects of a safety program. D. O. Collins. Paper Tr J 137:24-6 N 6 '53; Same. Tappi 37:sup220A-2A Je '54

What an hourly worker expects of a safety program. E. Collar. Tappi 37:sup223A-4A Je '54

Winder guards. J. A. Draper. il Pulp & Pa of Can 54:239-40 O '53; Same. Nat Safety N 69:36 Ja '54

Waste

Biological oxidation; friend or foe? H. E. Orford and H. Heukelekian. Tappi 37:184A-6A My '54

Cathodic protection for the prevention of corrosion in equipment for the treatment of white water. F. J. LeFebvre. diags Tappi 37:sup 152A-4A Mr '54

Centrifuge analysis for suspended solids in white water. E. A. Mason and R. R. Quincy. Tappi 36:467-9 O '53; Abstract. Paper Ind 35:1123 Ja '54

Constant expansion of research key to Wisconsin pollution battle. Paper Ind 36:180+ My '54

Contributing facilities also expanded at the Filer plant. Paper Tr J 138:24+ Mr 5 '54

Deep-water disposal of pulp mill wastes into Port Gardner bay, Everett, Wash. G. T. Orlob and E. F. Eldridge. maps Sewage & Ind Wastes 26:520-30 Ap '54

Determination of black liquor solids by infrared drying. P. B. Borlew and S. J. Lancaster. bibliog Tappi 36:504-6 N '53

Effluents from paper mills; pulp washing research. Chem Age (Lond) 69:905-7 O 31 '53

$5,500,000 Nekoosa-Edwards project leads Wisconsin pollution program. Paper Ind 36:372-4 Jl '54

How to re-use white water; panel discussion. Paper Tr J 137:14-16 D 4 '53

National council for stream improvement research activities, 1953. Tappi 37:sup 106A+ Ap '54

Nation's mills continue fight against stream pollution. Paper Ind 35:1296 Mr '54

Pakistan pulp mill installs liquor recovery unit of most recent design; Karnaphuli paper mills. R. Gamble. flow diag il Paper Ind 36:52-4 Ap '54

Paper and pulp waste reduction by mill improvement; International paper co. R. M. Drummond. Sewage & Ind Wastes 26:656-60 My '54

Paper pulp wastes treatment; Orangeburg manufacturing co. W. E. Stanley and R. D. Ellis. il plans diags Sewage & Ind Wastes 26:991-1001 Ag '54

Pollution of water and air by sulphate mills. H. Bergstrom. il diag Pulp & Pa of Can 54:135-40 N '53

Present status of Pressafiners at Green Bay; pollution control. W. Nelson. Paper Tr J 138:136 My 14 '54

Pulp and paper mill industrial waste surveys. G. E. Rabeler. Tappi 37:sup 144A-6A Je '54

Recovery of ammonia by simultaneous evaporation of acid and alkaline waste liquors and re-use of it for pulping. L. C. Jenness. Tappi 37:sup 137A-9A Ag '54

Salt cake feeding in chemical recovery unit. H. A. Stoess, jr. diags Tappi 37:sup216A-17A Je '54

Start construction on W.Va.'s $2,000,000 waste treatment plant; West Virginia pulp and paper co. flow diag il Paper Tr J 138:10-11 Jl 9 '54

Sulphate recovery system adapted to sulphite; Sulfox process; abstract. A. Pollak and R. S. Aries. Pulp & Pa of Can 55:107 Ja '54

TAPPI corrugating waste survey. F. D. Long. Tappi 37:sup 188A-91A Je '54

Thilmany completes $1,175,000 smoke abatement project. il Paper Ind 35:1013 D '53

Total water in pulp mill spent liquors; Tappi suggested method T 641 sm-54. diags Tappi 37:sup 127A-9A F '54

Trickling filters treat flax wastes. W. H. Oldaker. Pub Works 85:171-2 My '54

Waste disposal problems of small New England mills. H. W. Gehm. Tappi 37:sup 124A-6A Ja '54

Waste treatment plant at the Covington, Va. plant of West Virginia pulp & paper co. il Tappi 37:sup 125A-6A S '54; Same cond. flow diag Paper Ind 36:470-1 Ag '54

Water and waste in the wood pulp industry H. R. Murdock. bibliog Sewage & Ind Wastes 26:71-80 Ja '54; Abstract. Ind & Eng Chem 45:sup 102A+ N '53; Discussion. H. W. Gehm. Sewage & Ind Wastes 26:80-2 Ja '54

White water clarification equipment. H. W. Gehm and N. J. Lardieri. Tappi 37:sup 160A-2A Ag '54

White water utilization. P. J. Schmitt. Tappi 36:sup 123A-5A O '53

Wisconsin committee reports varying success of mill waste systems. Paper Tr J 137:12 D 4 '53; 138:26 Ja 8 '54

Wisconsin stream pollution; public hearing by the state committee on water pollution. Tappi 36:sup 118A-19A D '53

See also

Lignin

Paper making—By-products

Sulfite liquor

Alaska

Cost, seven times Seward's Folly; Ketchikan's pulp plant. il map Chem & Eng N 32:2954-5 Jl 26 '54

First woodpulp mill in Alaska dedicated. Paper Tr J 138:10 Jl 23 '54

Japanese Alaska project aimed at supplying home islands' needs. J. Kobayashi. Paper Ind 36:461 Ag '54

Brazil

Paper mills for Brazil. Bsns W p 141 Ag 15 '53

Canada

Industrial plant construction in Canada. F. M. Kraus. il maps plan diags Tappi 37:sup 36A+ Ap '54

Pulp and paper magazine visits 19 western mills. il Pulp & Pa of Can 55:90-3 Ag '54

Chile

Chile to have pulp and paper mill with international aid. Chem & Eng N 31:4224+ O 12 '53

Chilean pulp, paper mills get IBRD loan. For Comm W 50:2 O 5 '53

Denmark

Denmark; United paper mills. Tappi 37:sup 104A+ S '54

India

U.S. investment and technical assistance sought to float new paper mill in India. For Comm W 50:13 Ag 10 '53

Ohio

Ohio pulp mills. Tappi 37:sup 110A-11A Mr '54

Ontario

Unceasing modernization evident as editor tours 13 mills in Toronto-Niagara Falls area. J. S. Turner. il Pulp & Pa of Can 55:58-61 F '54

Pakistan

Pakistan paper output raised to meet needs; new projects planned. For Comm W 51:27 F 22 '54

PAPER and pulp mills—*Continued*

Scandinavia

Lime recovery kilns in Scandinavia. J. Friis-Hansen. il Pulp & Pa of Can 55:147 S '54

Tennessee

Southern newsprint mill opens; Bowaters Southern Paper. il Chem & Eng N 32:3594-5 S 13 '54

Wisconsin

Wisconsin mills threaten exodus if Mead reservoir plan is rejected. Paper Ind 36:602-4 S '54

Zululand

New Zululand paper mill to produce by 1954. Pulp & Pa of Can 54:204+ N '53

PAPER associations

Who will head the various associations. Paper Tr J 138:92+ F 26 '54

See also Technical association of the pulp and paper industry

PAPER bags

Multiwall bags. G. N. Burns. il diags Paper Tr J 137:181-5 N 13 '53

Specialty bags. C. P. Spring. il Paper Tr J 137:186-9 N 13 '53

Testing

St Regis completes new bag research and development lab. il Paper Tr J 137:63-4+ N 13 '53; Paper Ind 35:1019-20 D '53; Tappi 37:sup95A-7A Ja '54

PAPER board

Determination of methoxychlor or insecticide-treated paperboard by ultra-violet spectrophotometry. E. C. Jennings, jr. and D. G. Edwards. bibliog Anal Chem 25:1179-82 Ag '53

Quality requirements in folding and setup boxboards. E. K. Mullen. Tappi 36:sup 138A-40A N '53

Smoothness of paperboard symposium. diags Tappi 37:sup 181A-211A Ap '54

Surface sizing of paper and board. J. E. Killinger. Tappi 37:sup 153A-6A Je '54

See also
Paper boxes
also British paper and board industry research association

Folding

Mill control tester for folding quality of board. G. R. Donaldson. il Paper Tr J 138:19-20 Jl 16 '54

Manufacture

Colloid chemistry applied to board-making. W. H. Birchard. Pulp & Pa of Can (Convention no) 55:244-6 [F] '54

Dimensional instability; constant variable in boxboard manufacturing. J. J. Schwinkler. Tappi 37:sup 168A-70A Ap '54

High-speed Fourdrinier board. C. A. Shoudy and J. A. Hoover. diags Paper Ind 36:288-90 Je '54

How to eliminate curling in the manufacture of paperboard. R. L. Wilson. Paper Tr J 138:24 Mr 26 '54

Printing properties

Effect of printing upon the functional properties of corrugated fiberboard boxes. A. W. Hoffman. Tappi 37:sup 149A-51A F '54

Some things we would like to know about the printability of boxboard. H. W. Verseput. Tappi 36:sup 152A-3A N '53

Specifications

Paperboard specifications. W. E. Watson. Tappi 37:sup94A-6A Ag '54

Testing

Testing for the paper converter. E. E. Stephenson, jr. and H. O. Wiles. il Paper Tr J 137:289-96 N 13 '53

PAPER board, Corrugated

Citrus goes corrugated; Ventura Pacific lemon co. il Food Eng 26:127+ Jl '54

Corrugated box forms for concrete ribbed-slab construction. H. C. Pfannkuche. il Am Concrete Inst J 25:353-6 Ja '54

Corrugated containers conference, 3d, New York, Oct. 15-16; with abstracts of papers. Tappi 36:sup84A+ N '53

Corrugated quality. G. C. Lecky. Tappi 37:sup 147A-8A Ja '54

Engineered shipper; Dictaphone corp. il Mod Packaging 27:123 Jl '54

Packages to sell must arrive safely. J. A. Walls. Mod Packaging 27:167-8 Jl '54

Papers presented at the 1953 corrugating conference, New York, Oct. 15, 1953. Tappi 37:sup 141A-54A; Discussion. sup 154A-5A F '54

Safe shipper protects delicate lighting fixtures. il Mod Packaging 27:133 My '54

Technical association of the pulp and paper industry 39th annual meeting, New York, Feb. 16-17; corrugated containers sessions papers. Tappi 37:sup 162A-215A Je '54

What we expect of a corrugated shipping case. C. O. Smith. Tappi 36:sup 166A-7A N '53

Manufacture

Fabrication of corrugated shipping containers. N. W. Garrison, jr. il diags Paper Tr J 137:137-42 N 13 '53

Heating with hot oil. R. C. Swaney. Tappi 37:sup 181A-3A Je '54

Modern condensate drainage control for corrugators. R. J. Lundrigan. diags Tappi 37:sup 175A-7A Je '54

Reinforced corrugating media in high humidity containers. H. S. Gardner and others. il Tappi 37:sup 168A-70A Je '54

Role of the steam system in corrugating. P. Harrison. Tappi 37:sup 184A-8A Je '54

Starch adhesives in sulphur treated corrugating medium. C. H. Fletcher. Tappi 37:sup 170A-1A Je '54

Thermal balance with silicate adhesives. R. L. Kreyling. Tappi 37:sup 183A-4A Je '54

Testing

Effect of moisture variation upon standard corrugated test procedures. W. Schoenberg. il Tappi 37:sup 196A-215A Je '54

Laboratory testing of effect of high humidity on containers. C. J. Zusi. Tappi 37:sup 173A-4A; Discussion. sup 174A-5A Je '54

PAPER board industry

Distribution of pulp, paper, board and products in the Nation's industrial and business economy. W. L. Neubrech and W. H. Pederson. Tappi 37:sup 14A+ F '54; Same cond. Paper Ind 35:998-1001+ D '53

1952 high sales fail to maintain profit levels, APPA survey shows. Paper Ind 35:859-60 N '53

Paperboard had an outstanding year, looking to '54 with confidence. M. W. Swaim. Paper Tr J 138:25 Ja 29 '54

Some economic aspects of paper and paper board converting industry. H. J. Perry. Paper Tr J 137:101-5 N 13 '53

TAPPI and the strawboard industry. R. G. Macdonald. Tappi 36:sup80A+ N '53

Statistics

Paper and board; production by grades, 1953, 1952, and 1951; tabulation. Tappi 37:sup 96A+ S '54

Paperboard, 1949-1952. Survey of Cur Bsns 1953 Sup p 180 [supplemented in monthly numbers]

Pulp, paper, and board in the United States, 1953. W. L. Neubrech. Tappi 37:sup70A+ My '54; Excerpts. Paper Ind 36:58-9 Ap '54

PAPER board mills

Comparison of British and American board mill operations. J. C. Alford. Pulp & Pa of Can (Convention no) 55:179-80 [F] '54; Same. Paper Tr J 138:14-15 Ap 9 '54

Fibreboard products, inc. annual report, year ended April 30. Tappi 37:sup 121A-2A S '54

New containerboard mill nears completion in Georgia; Rome kraft co. il Manuf Rec 123:37 F '54

Equipment

Board mill superintendent and process control instrumentation. G. C. Ehemann. Paper Tr J 138:32+ My 7 '54

Considerations in the design of a stock cleaning system. J. T. Loomer. Pulp & Pa of Can 54:128-30 O '53

Crossett adds pulp and board unit. D. G. Moon. il Paper Ind 36:376-8 Jl '54; Paper Tr J 138:10-11 My 21 '54

PAPER board mills—Equipment—*Continued*

Hinde & Dauch Trenton mill shows way to straw expansion. il Paper Tr J 137:30+ O 23 '53

How coal can be recovered and fly-ash removed quickly and cheaply; Clifton paperboard co. vacuum cleaning system. il diags Paper Tr J 138:22+ Jl 16 '54; Same. Tappi 37:sup 116A-18A Ag '54

Manchester builds Nation's newest cylinder mill. D. B. Otis. il Paper Tr J 138:16-19+ Ap 23 '54

Mill control tester for folding quality of board. G. R. Donaldson. il Paper Tr J 138:19-20 Jl 16 '54

Paperboard drying investigation by means of an experimental drying machine. S. F. Smith and B. W. Attwood. bibliog il diag Tappi 36:481-90 N '53

Southern Paperboard high yield expansion. il Tappi 37:sup 106A-8A Ag '54; Same abr. Paper Tr J 138:30+ Je 18 '54

Power

You can put compressed air to work at new jobs; Macon kraft co. W. H. Wheeler. il Power 98:94-6 F '54

PAPER box factories

Equipment

High degree of instrumentation featured in American Box Board expansion. il Paper Ind 36:284-7 Je '54

New National Container mill enters competitive production with a decisive advantage. il Paper Ind 36:478-82 Ag '54

Power

New steam plant makes Gair's Haverhill mill self-sufficient in power. il Paper Tr J 138:13 Ag 20 '54

PAPER boxes

Box within a box; new one-piece mailer designed for Sterling's eye glasses. il Mod Packaging 27:99 Je '54

Cardboard concrete floors. il diag Arch Forum 98:150 My '53

Carton forms used in slab construction. Paper Tr J 138:48 Jl 23 '54

Citrus fruit boxes of paperboard now offered by St Joe paper co. il Paper Tr J 137:14+ D 25 '53; Correction. 138:11 Ja 15 '54

Folding-box champs; winners in the 9th annual carton makers' competition. il Mod Packaging 27:104-7+ Ap '54

Folding cartons. W. D. Hall. il diags Paper Tr J 137:147-59 N 13 '53

For the complete photographer; Ansco's inplant box forming. il Mod Packaging 27:140-2 My '54

Paperboard in, wood out. J. Fahey. il Food Eng 26:127 My '54

Set-up box winners. il Mod Packaging 27:136-9+ Je '54

Trends in fibre boxes; 17 first-prize winners in the Fibre box association's 1954 competition. il Mod Packaging 27:136-7+ My '54

What the consumer expects of the box manufacturer. E. B. Candell. Tappi 37:sup 144A-7A Ja '54

Manufacture

Manufacture of set-up paper boxes. E. Minnard and U. K. Mejeur. il Paper Tr J 137:160+ N 13 '53

Paper box manufacturers among our industry's top customers. J. S. Turner. il Pulp & Pa of Can 55:96-100 My '54

Printing

Fine art for beer; Goebel brewing co. il Mod Packaging 27:100-3 N '53

Future printer-slotter design and developments. E. B. Seeger. Tappi 37:sup 143A-5A F '54

New luminescent technique; Quaker's cereal cartons. il Mod Packaging 27:114-15+ N '53

Printing inks for corrugated containers. W. E. Montoux. Tappi 37:sup 145A-8A F '54

Relationship of printing on corrugated boxes to advertising and sales. P. A. Fitzsimmons. Tappi 37:sup 141A-3A F '54

Scheduling, setup and make-ready, and press adjustments. S. Baughman. Tappi 37:sup 148A-9A F '54

Shall we accept it? P. F. Smith. Tappi 37:sup 152A-4A F '54

Testing

More what-to-do's when checking packaging supplies. il Food Eng 26:45-6 Je '54

PAPER chemicals

Cheaper paper answers; Midget Fourdrinier may pare service cost, speed chemical sales. il Chem W 74:66+ Mr 13 '54

Chemicals as aids to the papermaker and converter. C. A. Markee. Tappi 37:sup 181A-2A My '54

Continuous preparation and application of silica sols in the paper industry. L. L. Klinger. bibliog il diags Tappi 37:191-5 My '54

Continuous process for the manufacture of chlorine dioxide. W. H. Rapson. diags Pulp & Pa of Can 55:92-6 Ap '54

Economics of handling mill supply chemicals. H. A. Stoess, jr. Tappi 37:57-61 F '54

How important are chemicals in papermaking? R. W. Kumler and J. B. Calkin. Paper Ind 36:572-5 S '54

New paper pigment; Silene EF in paper. L. B. Taylor. il Paper Tr J 138:53-6 F 26 '54

Outlook for papermaking chemicals. M. M. Bixby. Paper Tr J 138:63-4 Ja 29 '54

Sodium aluminate non-fibrous raw material. H. B. Berg. Pulp & Pa of Can (Convention no) 55:187-9 [F] '54; Excerpts. Paper Tr J 138:29-30 F 5 '54

Some selected uses of chemicals. il diag Paper Ind 36:579-83 S '54

Tappi nonfibrous raw materials report for 1953. E. N. Poor. Tappi 37:sup 14A+ Ap '54

PAPER chromatography. See Chromatographic analysis

PAPER coating

Coating machines. Tappi 37:sup92A-4A Ag '54

Coating materials. Tappi 37:sup 124A-5A Ap '54

Neoprene-treated paper's new look. il Paper Ind 36:593-4 S '54

Reproduction paper coating. E. Jahoda. Tappi 37:sup 103A-6A F '54

S. D. Warren adds a coating unit in record time. il Paper Tr J 137:11 N 27 '53

TAPPI coating conference, 4th, Cincinnati, May 25-27; papers. Tappi 36:sup 130A-82A O '53

TAPPI coating conference, 5th, Poland Spring, Me. May 24-26; with abstracts of papers. Paper Tr J 138:30+ Je 4 '54; Tappi 37:sup72A+ Jl '54

PAPER coating, Plastic

How the beta-ray gauge works as a control instrument for extrusion laminated polyethylene coating. J. B. Sisson. il Paper Tr J 138:106+ My 14 '54

Plasticizers; their use in paper coatings resins. J. R. Darby and H. S. Bergen. il Tappi 37:sup 145A-52A Jl '54

Resin soaked paper reduces board swelling. il Paper Tr J 138:12 Ap 9 '54

Reverse roll coating experiments with hot melt resins. G. L. Booth. bibliog il diags Tappi 37:sup 157A-62A Jl '54

Specialty impregnation. R. T. Nazzaro. bibliog(31 ref) Paper Tr J 137:273-9 N 13 '53

Wrap-around for liquids; A. B. Tetra Pak of Lund. il Chem W 72:32 My 9 '53

PAPER coloring. See Dyes and dyeing—Paper

PAPER containers

Allergic reaction to materials in food containers. T. G. Randolph. Paper Tr J 138:32 F 5 '54

Milk-pitcher carton. il Mod Packaging 27:98-9+ D '53

Round nesting paper drinking cups and food containers. H. N. Calver. il Paper Tr J 137:208-11 N 13 '53

Some tangential considerations in the production of liquid-tight containers. E. Reed. Paper Tr J 137:204-7 N 13 '53

Wrap-around for liquids; A. B. Tetra Pak of Lund. il Chem W 72:32 My 9 '53

See also

Paper bags
Paper board, Corrugated
Paper boxes
Sutherland paper company

PAPER cups

Round nesting paper drinking cups and food containers. H. N. Calver. il Paper Tr J 137: 208-11 N 13 '53

PAPER cutting

Paper cutting. G. J. Mills. Tappi 37:sup 121A-4A Ap '54

PAPER cutting knives

How to get more and better production from paper knives. A. Coleman. diag Paper Tr J 138:23-4 Ja 1 '54

PAPER drying

Air supply systems for drying and ventilation. il Paper Ind 36:159 My '54

Drying converted paper products with radiant gas burners. J. L. Kusnerus and R. E. Moehlman. il Paper Ind 35:1314-17 Mr '54

Effect of water removal on sheet properties; the water evaporation phase; abstract. H. F. Rance. Paper Tr J 138:22 O 1 '54

Evaluation of drying concepts. A. J. Cirrito. bibliog diags Tappi 36:476-80 O '53

Experimental approach to the theory of paper drying. G. I. Goumeniouk. Pulp & Pa of Can 55:109-12 Ag '54

Film forming corrosion inhibitors also aid heat transfer. W. A. Tanzola and J. G. Reidman. bibliog il diag Paper Ind 36:48-50+ Ap '54

Hot pressing on paper machines. W. W. Clark. Tappi 37:sup 150A-1A Ag '54

Infrared dries paper in seven seconds. il diag Elec World 139:113 Je 1 '53

New concept for drying paper and board. J. Gillis. diag Paper Tr J 138:18-20 Mr 12 '54

New concept of paper mill drying. J. J. Gillis. Tappi 36:sup 135A-7A D '53

New paper machine drying control system. J. M. McAlear. diags Tappi 37:121-4 Mr '54; Abstract. Paper Tr J 137:29 N 6 '53

Panel discussion on drying and ventilating. Tappi 37:sup 122A-6A F '54

Paper machine condensate removal systems; panel discussion. il plans diags Pulp & Pa of Can 55:116-27 Jl '54

Paperboard drying investigation by means of an experimental drying machine. S. F. Smith and B. W. Attwood. bibliog il diag Tappi 36:481-90 N '53

Performance testing the dryer section of a paper machine. G. J. Chalmers. diags Pulp & Pa of Can (Convention no) 55:236-43, 273 [F] '54

Variation of drying rates of individual driers through the drier section. A. E. Montgomery. Tappi 37:1-13 Ja '54; Excerpts. Paper Ind 36:294-5 Je '54

PAPER dust

Paper dust; its effect on the worker. W. Schweisheimer. Paper Ind 35:1126 Ja '54

PAPER felt. See Felt, Paper

PAPER finishing

Finishing and converting. il diags Paper Tr J 138:97-112 S 17 '54

Rudiments of converting. M. J. Galbraith. diags Paper Tr J 137:106-15 N 13 '53

See also

Paper coating

PAPER industry and trade

American paper market. C. W. Boyce. Paper Ind 35:992-5 D '53

Are we operating at maximum productivity? A. W. J. Dyck. Paper Ind 36:137-8 My '54

Chemical engineer and the pulp and paper industry. L. C. Jenness. Tappi 37:sup 132A-4A F '54

Critical comments on productivity studies. J. Vogel. Paper Tr J 138:29 Ag 6 '54

Distribution of pulp, paper, board and products in the Nation's industrial and business economy. W. L. Neubrech and W. H. Pederson. Tappi 37:sup 14A+ F '54; Same cond. Paper Ind 35:998-1001+ D '53

Has the pulp and paper industry over-expanded? J. H. Vogel. Paper Tr J 137:15+ O 30 '53

How dependent on our industry are the communities of the United States? map Paper Tr J 137:21-2 N 27 '53

Industrial relations meeting, Harrison Hot Springs, B.C., Sept. 22-24. Pulp & Pa of Can 54:109 N '53

Latest look at the industry. W. L. Neubrech. Paper Tr J 137:46-8 D 11 '53

Merchandising trends in the pulp and paper industry. D. C. Everest. Paper Ind 35:996-8 D '53

1952 high sales fail to maintain profit levels, APPA survey shows. Paper Ind 35:859-60 N '53

No recession for our industry; abstract. E. W. Tinker. Paper Tr J 138:68+ F 26 '54

Open opportunities for TAPPI. G. W. E. Nicholson. Paper Tr J 138:87 F 26 '54

Outlook for the United States paper industry in 1954. L. T. Stevenson. Tappi 37:sup 22A+ Ja '54

Over-all economic survey of the pulp and paper industry. L. T. Stevenson. Paper Ind 35:1009-11 D '53

Paper, an old industry meeting today's needs. J. H. Vogel. il Trusts & Estates 92:838-42 N '53

Paper eyes cellulose supply; annual review. il Chem Eng 61:195 Mr '54

Paper-industry engineers. D. G. Moon. Mech Eng 75:567-8 Jl '53

Paper strides boldly toward new records. W. H. Chartener. Chem Eng 61:311-14 Ag '54

Papermaking as a career. Tappi 36:sup 130A N '53

Problems of an industry in transition; American paper and pulp association's open forum. Paper Ind 35:1308 Mr '54

Proper perspective on pulp and paper production. S. Ferguson. Pulp & Pa of Can 55:76-8 Ap '54

Pulp and paper map, United States. Paper Ind 35:supp D '53

Pulp and paper production on upswing; annual review. R. B. Hobbs and W. K. Wilson. Chem & Eng N 32:40-2 Ja 4 '54

Review and forecast section, 1953-1954; statements by leaders of the industry. Paper Tr J 138:23-6+ Ja 29 '54

Sell all the way through; St Regis tries it, succeeds. F. Borden. il Ind Marketing 39: 72-3+ My '54

Some economic aspects of paper and paper board converting industry. H. J. Perry. Paper Tr J 137:101-5 N 13 '53

Tasks ahead of us. G. Olmsted, jr. Tappi 37: sup22A+ Mr '54

Tv tribute to paper industry. il Paper Tr J 138:88+ F 26 '54

Today's papyrus. Tappi 36:sup 100A+ O '53

Weather conditions influence production. W. Schweisheimer. Paper Ind 36:392 Jl '54

What does productivity measure in the pulp and paper industry? S. Melman. Paper Tr J 138:24-6+ Ag 6 '54

What of the paper industry in 1979? H. Baumgarten. Paper Tr J 138:18-20 Jl 2 '54

See also

Newsprint paper

Paper and pulp mills

Paper board industry

also Champion paper and fibre company; Minnesota and Ontario paper company; Technical association of the pulp and paper industry

Finance

APPA opposes U.S. financing of foreign mills; statement presented to the Senate banking committee. Paper Tr J 138:22+ Ja 22 '54

History

Milestones; pulp and paper industry's growth. J. S. Turner and J. N. Stephenson. il Pulp & Pa of Can 54:102-10 Je; 76-91 Jl; 93-108 Ag; 109-15 S; 121-5 O '53; Same. Tappi 37: sup 18A+ My; sup 14A+ Je '54

Salesmen

Salesmen's association of the paper industry; 35th annual meeting, New York. Paper Ind 35:1313 Mr '54

Scott sales department recruits and trains future executives. Paper Ind 35:1006-9 D '53

13 suggestions for improving your paper sales. C. L. Lapp. Pulp & Pa of Can 55:98-100 Jl '54

Securities

Can pace be maintained by paper companies? J. D. C. Weldon. Mag of Wall St 93:382-4 D 26 '53

Canadian and U.S. Newsprint investment opportunities beckon. H. J. King. Comm & Fin Chr 178:1434 O 15 '53

PAPER industry and trade—*Continued*

Statistics

King pin of Canadian economy. Pulp & Pa of Can 54:96-106 D '53

1953 paper production at a new high. M. C. Dobrow. Paper Tr J 138:72+ F 26 '54

Paper and board; production by grades, 1953, 1952, and 1951; tabulation. Tappi 37:sup 96A+ S '54

Paper and board production in the United States; 1953, 1952, and 1951; tabulation. Tappi 37:sup84A Ap '54

Paper and paper products, 1949-1952. Survey of Cur Bsns 1953 Sup p 177-80 [supplemented in monthly numbers]

Pulp, paper, and board in the United States, 1953. W. L. Neubrech. Tappi 37:sup70A+ My '54; Excerpts. Paper Ind 36:58-9 Ap '54

British Columbia

British Columbia's timber policy and its relationship to the pulp and paper industry. J. T. B. Kingston. Pulp & Pa of Can 55:90-3+ Jl '54

Historic site established by British Columbia's pulp and paper industry; Queen Elizabeth arboretum. il Pulp & Pa of Can 55:107-8 S '54

Burma

Burma to develop bamboo pulp and paper industry. Chem & Eng N 32:1486 Ap 12 '54

Canada

Annual review, 1952. Pulp & Pa of Can 54:126 O '53

Annual review, 1953. J. S. Turner. Pulp & Pa of Can 55:88, 154 Ja '54

C.P.P.A. president's report for the year 1953. R. M. Fowler. Pulp & Pa of Can (Convention no) 55:137-40, 406 [F] '54; Excerpt. Paper Tr J 138:18-19 F 5 '54

Canadian pulp and paper industry, 1953. Tappi 37:sup 107A-9A Mr; sup88A+ Je '54

Favourable factors dominate outlook in Canadian newsprint appraisal. M. Savage. il Pulp & Pa of Can 55:82-4 Ag '54

King pin of Canadian economy. Pulp & Pa of Can 54:96-106 D '53

Life begins at forty. J. S. Bates. Pulp & Pa of Can (Convention no) 55:152-5 [F] '54; Abstract. Paper Tr J 138:22 F 5 '54

Long look ahead. R. M. Fowler. Pulp & Pa of Can (Convention no) 55:134-7 [F] '54

Milestones; pulp and paper industry's growth. J. S. Turner and J. N. Stephenson. il Pulp & Pa of Can 54:102-10 Je; 76-91 Jl; 93-108 Ag; 109-15 S; 121-5 O '53; Same. Tappi 37:sup 18A+ My; sup 14A+ Je '54

Pulp and paper industry moved ahead again in 1953. R. M. Fowler. il Pulp & Pa of Can 55:83-5 Ja '54; Same cond. Paper Tr J 138:52+ Ja 29 '54

Urgent needs of the industry. D. W. Ambridge. Tappi 36:sup 14A+ N '53; Same. Pulp & Pa of Can 54:107-8 D '54

China

Paper converting in the Orient; newsprint. R. W. Foote. Tappi 37:sup96A-7A Ag '54

Europe

European paper developments. K. A. Arnold. Tappi 36:sup 136A-8A N '53

Industry in western Europe. P. R. Sandwell. Pulp & Pa of Can 55:89-90 Ja '54

Far East

Pulp and paper industry in the Far East. R. A. Packard. il Tappi 37:sup38A+ Mr '54; Same. Pulp & Pa of Can 55:99-105 Je '54

Finland

Finland. Tappi 37:sup90A+ Ap '54

Germany

Germany; paper and pulp industry, 1953. Tappi 37:sup88A Ag '54

Great Britain

U.K. sets £13 million paper quota. For Comm W 50:11 D 7 '53

Italy

Italy paper industry. Tappi 37:sup 106A+ S '54

Japan

Japanese Alaska project aimed at supplying home islands' needs. J. Kobayashi. Paper Ind 36:461 Ag '54

New England

Paper and printing in New England. Tappi 37:sup97A-101A Ag '54

Pulp and paper industry in the Northeast. A. E. Jones. Tappi 37:sup 136A-7A Ag '54

Norway

Norwegian pulp and paper industry. Tappi 37:sup92A+ Ap '54

Norway pulp and paper industry. Tappi 37: sup 108A+ S '54

Norwegian pulp and paper industry shows uptrend; outlook favorable. For Comm W 51:17 Ja 25 '54

Survey of the Norwegian pulp and paper industry; abstract. O. T. Jarlby. Paper Ind 36:82 Ap '54

Southern states

Development of the pulp and paper industry in the South. A. G. Wakeman. Am Soc C E Proc 79 [no 356]:1-3 N '53

Sweden

Review of 1953 and 1954 prospects for Sweden's pulp and paper industry. Tappi 37:sup 90A+ Je '54

Sweden's lumber, pulp, and paper industries, 1953. Tappi 37:sup 117A-18A My '54

United States

How we are doing; economic review of the first eight months of 1954. W. L. Neubrech. Paper Tr J 138:18+ S 10 '54

Kraft paper industry. J. R. W. Street. Tappi 37:sup 113A-16A S '54

Let's take a long view. C. H. Greenewalt. Paper Ind 36:60-1 Ap '54

Nation's fifth industry, its marvelous expanse and unexplored domains. E. P. Nuttall. Tappi 37:sup 110A-12A Jl '54

Paper industry, 1954. L. T. Stevenson. Tappi 37:sup 14A+ Jl '54

Pulp, paper, and board in the United States, 1953; with tables. W. L. Neubrech. Tappi 37:sup70A+ My '54; Excerpts. Paper Ind 36:58-9 Ap '54

Wisconsin

Comeback for Wisconsin paper. Bsns W p 119-21 S 12 '53

How big is the industry in Wisconsin? C. H. Sage. Paper Tr J 137:23-4 D 25 '53

PAPER laboratories

Controlled atmospheric conditions standardize laboratory testing at Ohio Boxboard. D. M. Valentine. il diag Paper Ind 36:291 Je '54

How National Container planned a functional division laboratory. T. T. Collins. il Paper Tr J 138:17 S 24 '54

New push for paper; Naugatuck Chemical division. il Chem W 73:40+ D 5 '53

Paper chemicals department of American cyanamid co. development and applications laboratory. Paper Tr J 138:43-4 S 10 '54

St Regis completes new bag research and development lab. il Paper Tr J 137:63-4+ N 13 '53; Paper Ind 35:1019-20 D '53; Tappi 37:sup95A-7A Ja '54

PAPER libraries

Building a library collection for the pulp and paper curriculum at Western Michigan College of education. T. J. Niemi. Tappi 36:sup 125A-8A O '53

PAPER making

Air removal from paper machine stock. G. D. Hughson. Tappi 37:sup 162A-4A My '54

Annual technical conference sponsored by research committee of APPA and United States Forest products laboratory, Madison, Wis. May 18; with abstracts of papers. Paper Tr J 138:28+ My 28 '54; Paper Ind 36:386-8 Jl '54

Comparison of wood pulping processes. R. H. McKee. Pulp & Pa of Can 55:4-6 F '54

Dimensional stability of bond and printing papers. J. C. Tongren. Tappi 37:sup 166A-8A Ap '54

PAPER making—*Continued*

Effect of digester and liquor room operation on pulp washing. W. L. Orr. Tappi 37:162-3 Ap '54

How asbestos papers are made. il Paper Tr J 137:16-21 O 30 '53

Improving sheet formation. J. E. Ward and others. Tappi 36:sup 147A-8A D '53

Increased productivity through accurate metering of alum and wet strength resins. J. Procopi. diag Paper Ind 36:296 Je '54

Investigation of methods for dimensionally stabilizing paper. F. W. Lorey and C. E. Libby. bibliog(37 ref) diag Tappi 37:321-31 Ag '54

Mannogalactan additives in paper. R. D. McCarron. diag Pulp & Pa of Can (Convention no) 55:190+ [F] '54

Modified cationic urea resin for wet-strength papermaking. S. Sönnerskog. Tappi 37:79-80 F '54

New impetus from the mechano-chemical pulping process; straw, sugar cane bagasse, grasses and other agricultural residues. J. E. Atchison. flow sheet il diag Paper Tr J 138:22+ Ag 13 '54

New York-Canadian division, American pulp and paper mill superintendents association fall meeting, Upper Saranac Lake, N.Y. Sept. 2-4. Paper Tr J 138:26+ S 10 '54

Papermaking process as a filtration problem. P. E. Wrist. bibliog diags Pulp & Pa of Can 55:115-19 My '54

Photographic measurement of drainage rate; method for determining sheetmaking rates in cylinder machines. C. F. Payne and W. E. Guthrie. il diags Tappi 36:469-73; Discussion. 473-5 O '53

Raw materials for more paper. Tappi 37:sup 14A+ Ag; sup 14A+ S '54

Sheet formation on the Fourdrinier machine. E. R. Finger and Z. J. Majewski. bibliog il diags Tappi 37:216-24 My '54

Some effects of gases on properties of fibre suspensions. G. Gavelin. bibliog il diags Pulp & Pa of Can (Convention no) 55:191-200 [F] '54

Sveen glue. R. Tutt, jr. Pulp & Pa of Can (Convention no) 55:171-2+ [F] '54; Same cond. Tappi 36:sup 143A-4A D '53

TAPPI charts newest advances in research; abstracts of papers. Oil Paint & Drug Rep 165:5+ F 22 '54

TAPPI engineering conference, 8th, Montreal, Oct. 26-29; with abstracts of papers. Paper Tr J 137:27 N 6 '53

TAPPI Maine-New Hampshire section annual meeting, York Harbor, Me. June 18-19; with abstracts of papers. Paper Tr J 138:30+ Jl 2 '54

TAPPI Ohio section meeting, Middletown, Oct. 8; abstracts of papers. Paper Ind 35:904-6 N '53

TAPPI paper-plastics conference, Syracuse, Sept. 15-16, 1953. Tappi 37:sup 125A-72A Jl '54

Technical association of the pulp and paper industry, 39th annual meeting; abstracts of papers. Tappi 37:sup32A+ F '54

Va-Purge process in chemical pulping. J. S. Hart. il diags Tappi 37:331-5 Ag '54

X-ray diffraction as applied to papermaking problems; abstract. W. E. Fox. Tappi 36:sup 158A-9A N '53

See also

Digesters (paper making)
Felts (paper making)
Paper and pulp mills
Paper board—Manufacture
Paper chemicals
Paper coating
Paper drying
Paper finishing
Paper making machinery
Paper making materials
Paper pulp
Paper research
Paper sizing
Tissue paper
Wood pulp

also Technical association of the pulp and paper industry

Bacteria control

Relative toxicity of disinfectants available for use in the pulp and paper industry. B. F. Shema and J. H. Conkey. Tappi 36:sup20A+ N '53

Beating

Beater addition of rubber and rubber-like emulsions. E. C. Jahn and V. Stannett. Paper Tr J 138:14-16 S 24 '54

Beater additives in papermaking. P. B. Davidson. Tappi 37:18-24 Ja '54

Comparative beating investigations; abstract. Pulp & Pa of Can 55:121 Ag '54

Comparative beating studies; a cooperative enterprise; abstract. T. Ekstam. Paper Ind 36:508+ Ag '54

Copolymer of butadiene and acrylonitrile as a beater additive; abstract. K. Larsson and G. Thurne. Paper Ind 36:216 My '54

Filtration through paper. R. Ingalls and O. Axtell. Tappi 36:509-12 N '53; Abstract. Paper Ind 36:63 Ap '54

Hemicelluloses and arabogalactans as beater adhesives. J. O. Thompson and others. bibliog(27 ref) Tappi 36:534-41 D '53

Influence of heavy beating of cotton fibers on molecule length and crystallinity. C. F. Wijnman. bibliog il diags Tappi 37:96-8 Mr '54

Investigation of the reasons for increase in paper strength when locust bean gum is used as a beater adhesive. H. J. Leech. bibliog Tappi 37:343-9 Ag '54

Jokro standard laboratory beater. il Pulp & Pa of Can 55:101 Ja '54

Mill control of beating and refining. J. d'A. Clark. Tappi 37:sup 140A-1A Mr '54

Phase contrast microscopy of beaten pulp. G. Van Nederveen and J. Isings. il Tappi 37:103-9 Mr '54

Pulp evaluation; comparative study with various laboratory beaters; abstract. T. Ekstam. Paper Ind 35:1346 Mr '54

Strength development through stock refining as influenced by certain variables. F. E. Caskey. bibliog diags Tappi 37:156-62 Ap '54

Bibliography

Classification of ammonia-base pulping literature. D. E. Helleur. bibliog and patent list (146 titles) Tappi 37:sup 177A-82A Ja '54

Foreign abstracts. Published in monthly numbers of Paper industry

Progress in alkaline pulping, 1952; review of literature. J. E. Stone and S. D. Wells. Tappi 36:sup38A+ bibliog(215 ref, sup56A+) N '53

Stock preparation; pt. 2, Refining. C. J. West, comp. (Bibliographic ser. no. 182) 179p Institute of paper chemistry, Appleton, Wis. '53 (pa $5)

Bleaching

Bleach liquors; Baumé strength of soda and lime bleaches; data sheet. Pulp & Pa of Can 55:108 My '54

Bleach plant engineering and design. A. G. Bellos. Tappi 37:sup 146A-8A Je '54

Bleaching of hardwood semichemical pulps; abstracts. R. M. Kingsbury. Paper Tr J 138:38 My 28 '54; Paper Ind 36:388 Jl '54

Bleaching with peroxides and the use of peroxide in waste paper recovery. flow sheet diags Paper Ind 36:584-8+ S '54

Chlorine dioxide bleaching. W. H. Rapson. bibliog Paper Ind 36:575-8 S '54

Establishment of correlations for the three-stage bleaching of semichemical and sulphite pulps and blends employing a modified permanganate method. P. L. Leemhuis. Tappi 37:32-8 Ja '54

Gould paper co.; bleach plant operations. Tappi 37:sup 130A-1A Ap '54

How new bleaching plant was built by Gaspesia. il Paper Tr J 137:20-3 N 20 '53

Hydrogen peroxide; abstract. F. R. Morehouse. Pulp & Pa of Can 54:120 D '53

Kraft pulp bleaching. M. B. Pineo. Paper Tr J 138:14-20 Ja 22 '54

Maintenance of bleach plant equipment. H. H. Huseby. il Tappi 37:253-5 Je '54

New bleach plant of Camp manufacturing co. il Paper Tr J 137:20-3 D 25 '53; Same. Paper Ind 35:1112-15 Ja '54; Same. Tappi 37:sup94A+ F '54

New process for the bleaching of kraft pulp with sodium peroxide. W. F. Schroeder and J. R. Seferian. Tappi 37:376-84 S '54

Pennsalt offers pulp mills chlorine dioxide bleaching. Chem Eng 61:385-6 F '54

PAPER making—Bleaching—*Continued*

Peroxide bleaching of sulphate pulp. K. G. Aitken. diags Pulp & Pa of Can 55:125-30 My '54

Recent investigation on variables in zinc hydrosulphite bleaching of groundwood. E. T. Barnes. bibliog Pulp & Pa of Can 54: 145-9 O '53

Removal of lining and carbohydrates during bleaching of semichemical pulps. K. J. Bjorkvist and others. bibliog Pulp & Pa of Can 55:68-72 F '54

Ultra high density peroxide bleaching. W. J. Nolan and B. Armstrong. flow sheet Paper Ind 36:595-6 S '54

By-products

Liquor and by-products recovery. flow diag Paper Ind 36:152-3 My '54

Westvaco expands commercialization of its lignin products. Paper Tr J 137:16 N 6 '53

See also

Sulfite liquor

Tall oil

Bibliography

Utilization of sulphite waste liquor; bibliography of the literature published during 1952. H. B. Marshall and J. M. Neate. Tappi 37:sup 156A-76A Ja '54

Dirt problem

Use of centri-cleaners and vortraps on semichemical pulp. A. L. Wiley and others. diags Tappi 37:164-6 Ap '54

What Bauer cleaners are doing at Flambeau. L. M. Gibson. il diag Paper Tr J 138:86-9 My 14 '54

What Bauer cleaners are doing at Spaulding pulp & paper co. H. R. Clodfelter. il Paper Tr J 138:92-4 My 14 '54

Fillers

Natural gum products in the production of paper containing mineral fillers; Lycoid. M. L. Cushing. Tappi 36:sup 140A-1A D '53

Use of protein condensates to promote retention of fillers. M. H. Diem and L. F. Leighton, jr. Tappi 36:sup 144A-6A D '53

Use of starches as aids in the production of papers containing mineral fillers. M. L. Cushing. Pulp & Pa of Can (Convention no) 55:163-5 [F] '54

Freeness testing

Canadian standard freeness test versus a drainage time test for highly refined stock. R. J. Becker. Tappi 46:sup 158A-60A D '53; Same cond. Paper Ind 35:1322-3 Mr '54

Divided funnel freeness testers. Tappi 37:sup 141A-2A Mr '54

Patents

Patent reviews. diags Published in monthly numbers of Paper industry

United States patents on papermaking, second quarter, 1953. Tappi 36:sup 172A-80A N '53

United States patents on papermaking; third quarter, 1953. Tappi 37:sup 156A-62A F '54

United States patents on papermaking, fourth quarter, 1953. Tappi 37:sup212A-19A Ap '54

United States patents on papermaking; first quarter, 1954. W. B. Weber, comp. Tappi 37:sup 163A-70A Ag '54

Pitch problem

Method for mill evaluation of paper machine pitch troubles. E. Back. Pulp & Pa of Can 55:137-8 Je '54

Pitch in sulfite pulps; abstract. C. Gustafsson. il Paper Ind 36:314 Je '54

Some practical consideration in the pitch problem. C. N. Hagar, jr. Pulp & Pa of Can 55:105-7 Ja '54

Study of pitch troubles in sulfite pulps; abstract. C. Gustafsson and others. Paper Ind 36:629 S '54

Screening

Cram disk screen. R. A. Vogt and W. E. Spearin. il diags Paper Tr J 138:22-6+ My 7 '54; Same abr. Paper Ind 36:292-4 Je '54

First mill report of Ahlfors screen operation on deinked pulp; Newton Falls paper mill, inc. diag Paper Tr J 138:58 My 14 '54

Flat screen versus the Ahlfors screen for bleachable pine and hardwood sulphate pulp. R. Homans and M. B. Pineo. flow diag diag Tappi 37:257-62 Je '54

How to screen sulphite pulp. G. Ranhagen. il diags Paper Tr J 138:12-14+ Ja 1 '54

Performance of Cowan screens on kraft pulp at Crossett paper mills. W. S. Gardner and others. diag Tappi 37:314-16 Jl '54

Pulp refining and stock preparation. il Paper Ind 36:153-5 My '54

Screening of sulphate pulp; modern Swedish practices and developments. G. Ranhagen. flow sheet il diags Tappi 37:363-8 Ag '54

Screening with the Vibrotor. S. Fahlgren. il Pulp & Pa of Can (Convention no) 55:217-18+ [F] '54; Excerpts. Paper Tr J 138:30 F 5 '54

Selective particle separation by controlled fluid forces on a flat screen. H. F. Schenk. Tappi 37:283-6 Jl '54

Use of high intensity screens in sulphate pulp handling for coarse papers. F. C. Ratliff. flow diag Tappi 37:232-5 Je '54

Slime control

Use of a soluble mercurial in slime control. J. Mardon and D. Pedder. Pulp & Pa of Can 54:131-3 O '53

Slime problem

Current practices of slime control. W. E. Patte. Pulp & Pa of Can 55:120-4 My '54

Effect of different pulps on the biological activity of phenylmercuric acetate. B. F. Shema and J. H. Conkey. bibliog Tappi 37: 294-8 Jl '54

Introduction to slime control in the paper industry. N. Alper. bibliog Paper Tr J 138: 26+ Ag 20 '54

Successful measurement and evaluation of slime at St Lawrence by the McKeown tester. J. H. Bardsley. il Paper Tr J 138: 64-5 My 14 '54

Soda process

Mead pushes the button on new soda mill. il Paper Tr J 137:20-5 O 23 '53; Same cond. Tappi 36:sup 112A-16A D '53

Study and teaching

Better operators through schooling; Crown Zellerbach paper school. Chem Eng 61: 248+ S '54

Sulfate process

Continuous high-yield kraft pulping of Douglas-fir lumber waste. D. J. MacLaurin and J. F. Whalen. bibliog il Tappi 37:143-7 Ap '54

Deculator on a kraft paper machine. A. W. Duskin and W. B. Jenkins. diag Tappi 36:490-2 N '53

Deposits in green liquor and causticizing systems. W. W. Brown. Pulp & Pa of Can 55: 134-6 Jl '54

Elimination of odors in a sulphate pulp mill. P. Ghisoni. bibliog plan diags Tappi 37:201-5 My '54

ERP-reconstructed pulp mill; Frantschach natronzellstoff-und papierfabriken. il Paper Ind 35:1318-19 Mr '54

Faster method of analysis saves kraft chemicals at Canadian Kalamazoo vegetable parchment co. il Paper Tr J 138:74+ My 14 '54

Flat screen versus the Ahlfors screen for bleachable pine and hardwood sulphate pulp. R. Homans and M. B. Pineo. flow diag diag Tappi 37:257-62 Je '54

Harmac mill doubles bleached sulphate production. J. N. Stephenson. il Pulp & Pa of Can 54:110-18 O '53

Increasing quality and production in high yield kraft and semichemical pulps. W. J. Nolan. Paper Ind 36:148-9 My '54

Kraft paper industry. J. R. W. Street. Tappi 37:sup 113A-16A S '54

Kraft pulp bleaching. M. B. Pineo. Paper Tr J 138:14-20 Ja 22 '54

Latest techniques in kraft pulp and board production built into National Container's Valdosta mill. il Paper Tr J 138:38-45 Ap 16 '54

New kraft pulp mill integrated into Weyerhaeuser's operations. K. F. Harris. il Paper Ind 35:1204-9 F '54

PAPER making—Sulfate process—*Continued*

New mill of Bowaters Southern. il Paper Tr J 138:18-26+ S 3 '54

New Zealand forest products, ltd. il Tappi 37:sup 127A-30A My '54

New Zealand inaugurates its first integrated pulp and paper mill. J. Cardew. il Pulp & Pa of Can 55:44-8 F '54

New Zealand's first kraft mill; N.Z. forest products, ltd. il Paper Tr J 138:26+ Mr 19 '54

Operating comparison of standard and valveless deckers on screened, bleachable pine kraft pulp. T. L. Gilles and M. B. Pineo. diags Tappi 37:46-8 Ja '54

Pollution of water and air by sulphate mills. H. Bergstrom. il diag Pulp & Pa of Can 54:135-40 N '53

Problems concerning the sulphur in sulphate pulping. T. Enkvist. bibliog(28 ref) Tappi 37:350-2 Ag '54

Progress in Kamyr's continuous cooking. L. A. Lundberg. flow sheet il diag Paper Tr J 138:20-3 Mr 26 '54

Recent developments in masking sulphate pulp mill malodors. B. K. Tremaine. bibliog Tappi 37:sup 141A-3A Ag '54

St Regis completes $5,000,000 expansion at Pensacola kraft center. il Paper Tr J 138:12 Jl 23 '54; Paper Ind 36:463-4 Ag '54

Screening of sulphate pulp; modern Swedish practices and developments. G. Ranhagen. flow sheet il diags Tappi 37:363-8 Ag '54

Study of the reaction products of lignin model compounds and sodium hydrosulphide. T. G. Zentner. bibliog Tappi 36:517-23 N '53

TAPPI alkaline pulping conference, 7th, Houston, Nov. 18-20. Paper Tr J 137:23-4+ N 27 '53

TAPPI alkaline pulping conference, 7th, Houston, Tex. Nov. 18-20; with abstracts of papers. Tappi 37:sup58A+ Ja '54

Transformation at Red Rock. J. N. Stepenson and J. S. Turner. il Pulp & Pa of Can 55:100-5 S '54

Use of high intensity screens in sulphate pulp handling for coarse papers. F. C. Ratliff. flow diag Tappi 37:232-5 Je '54

Va-Purge process. L. G. Durant. Tappi 37:sup66A+ Ja '54

Weyerhaeuser timber co.'s ultramodern kraft pulp mill. Tappi 36:sup 114A+ N '53

What's new in the kraft mills? A. P. Schnyder. Paper Tr J 137:14-15 N 27 '53

Bibliography

Progress in alkaline pulping, 1952; review of literature. J. E. Stone and S. D. Wells. Tappi 36:sup38A+ bibliog(215 ref, sup 56A+) N '53

Terminology

Standard terms used in the sulphate pulping process; proposed revision. Tappi 36:sup 170A-1A N '53; Discussion. 37:sup 147A-50A S '54

Sulfite process

Ammonia-base sulfite pulping. W. Q. Hull and others. bibliog flow sheets il Ind & Eng Chem 46:1546-57 Ag '54

Conversion to the ammonium bisulphite pulping process. G. A. Crowe. diags Tappi 37:sup 154A-6A Mr '54

Establishment of correlations for the three-stage bleaching of semichemical and sulphite pulps and blends employing a modified permanganate method. P. L. Leemhuis. Tappi 37:32-8 Ja '54

Experience with liquid sulphur dioxide in acid making. R. D. Litchfield. il diag Pulp & Pa of Can (Convention no) 55:247-52 [F] '54

High-yield sulphite pulping. J. S. Hart and others. bibliog il diags Pulp & Pa of Can 55:113-31 S '54; Abstract. Paper Ind 36:490 Ag '54

How to screen sulphite pulp. G. Ranhagen. il diags Paper Tr J 138:12-14+ Ja 1 '54

Increasing quality and production in sulfite pulping. G. H. McGregor. Paper Ind 36:150-1 My '54

Neutral sulphite cooking of hardwoods. R. M. Dorland and others. bibliog Pulp & Pa of Can (Convention no) 55:258-62 [F] '54; Abstract. Paper Tr J 138:24 F 5 '54

Neutral sulfite semi-chemical pulping; use of hardwoods; pictured flowsheet. Chem Eng 60:242-7 N '53

Newest patterns in continuous pulping being set by American box board co. flow diag il Paper Tr J 138:14-18+ Mr 5 '54

Orienting study of the effect of the neutral sulphite semichemical cook on the hemicelluloses of aspenwood. D. C. Lea. bibliog(29 ref) il Tappi 37:393-9 S '54

Predicting the brightness of groundwood-sulphite pulp mixtures. D. J. MacLaurin and F. A. Aflenzer. bibliog Tappi 37:388-93 S '54

Rate of delignification of wood powder with sulfite solutions; abstract. S. Häggroth and others. Paper Ind 35:1143 Ja '54

Removal of lining and carbohydrates during bleaching of semichemical pulps. K. J. Bjorkvist and others. bibliog Pulp & Pa of Can 55:68-72 F '54

Resistance of Douglas-fir to sulphite pulping. W. H. Hoge. bibliog(38 ref) Tappi 37:369-76 S '54; Abstract. Pulp & Pa of Can 55:129 Je '54

Semichemical and high-yield chemical pulping of hardwoods with sodium sulphite and sodium bisulphite. R. M. Husband. bibliog Tappi 36:529-34 D '53

Some effects of extreme chip packing in the sulphite process. A. S. Rosenfeld. Tappi 36:sup 128A-9A O '53

Study of pitch troubles in sulfite pulps; abstract. C. Gustafsson and others. Paper Ind 36:629 S '54

Sulfite pulping. il Paper Ind 36:144-6 My '54

See also
Sulfite liquor

Tables, calculations, etc.

Brown stock washing efficiency; displacement ratio method of determination. J. K. Perkins and others. diags Tappi 37:83-9 Mr '54

Terminology

Standard terms used in the sulphate pulping process; proposed revision. Tappi 36:sup 170A-1A N '53

PAPER making machinery

American pulp and paper mill superintendents association New York-Canadian division fall meeting, Adele, Que. Pulp & Pa of Can 54:119-20 O '53

Application of vacuum tranfer to high-speed newsprint machines. C. Kelley. il Pulp & Pa of Can 54:118-20 N '53

Automatic threading system for calender stacks. il Tappi 37:sup 116A-18A S '54

Cheaper paper answers; Midget Fourdrinier may pare service cost, speed chemical sales. il Chem W 74:66+ Mr 13 '54

Considerations in the installation and operation of high and low solids coaters in a board machine. A. W. Pomper. il diags Tappi 36:sup 154A-9A O '53

Deculator on a kraft paper machine. A. W. Duskin and W. B. Jenkins. diag Tappi 36:490-2 N '53

Effect of air on drainage and sheet formation on a Fourdrinier paper machine. G. I. Goumeniouk. Pulp & Pa of Can 55:99-101 Ja '54

Evaluation of refiner-plate designs used for experimental processing of hardboard stocks. H. D. Turner. bibliog il diag Tappi 36:513-17 N '53

Experimental machine gives wet-end data; abstract. O. Brauns and R. Oskarsson. Pulp & Pa of Can 55:133 My '54

Fast paper machine gets rolling at Scott's Everett plant. H. E. Vedder. il Paper Tr J 138:48-51 F 26 '54

Firm salvages process equipment through maintenance impregnation; Stevens & Thompson paper co. il Paper Ind 36:464+ Ag '54

Foam on the paper machine, causes and cures. A. Wirpsa. Tappi 36:sup 146A-7A D '53

Fundamentals of the paper machine; symposium; with abstracts of papers. Paper Tr J 138:14+ O 1 '54

Gadget competition winners. F. Heartz; R. Therriault. il diags Pulp & Pa of Can (Convention no) 55:270-1 [F] '54

PAPER making machinery—*Continued*

High-speed Fourdrinier board. C. A. Shoudy and J. A. Hoover. diags Paper Ind 36:288-90 Je '54

How three-roll expander unit improves felt handling at John Strange paper co. il diag Paper Tr J 138:96-7 My 14 '54

John A. Manning paper co. puts in new machine at Green Island. il Paper Tr J 138:18-19 Ag 6 '54

Latest ideas in paper machine design utilized at Calhoun. il Paper Tr J 138:30-1 S 3 '54

Mechanics of stress and strain occurring in a Fourdrinier wire. J. D. Lyall. bibliog il diags Tappi 37:207-15; Discussion. 215-16 My '54

Nekoosa-Edwards no. 4 gets new look in record time. il Paper Ind 35:1293-4 Mr '54

New couch transfer equipment speeds production at Powell river co. diags Paper Ind 36:269-70 Je '54

Paper machine. il Paper Ind 36:156-8 My '54

Paper machine operation. il diags Paper Tr J 138:93-6 S 17 '54

Pioneering persists at Portneuf. J. S. Turner. il Pulp & Pa of Can 54:100-1+ N '53

Powell River's no. eight sets world speed record. Paper Ind 36:364 Jl '54

Pressure drop spots break. diag Comp Air Mag 58:350 D '53

Rebuild project completes Fort Frances machine modernization. il Paper Ind 36:363-4 Jl '54

Report on closed hood installations at Iroquois Falls. J. C. Jordan. il diags Pulp & Pa of Can (Convention no) 55:229-35 [F] '54; Excerpt. Paper Tr J 138:28 F 5 '54

Resistance of paper machine wire to hydraulic flow; abstract. J. Bergström and H. Knell. il diag Paper Ind 36:214+ My '54

Rotabelt and its operation. S. T. Orton, jr. diag Pulp & Pa of Can 55:67 F '54

S. D. Warren adds a coating unit in record time. il Paper Tr J 137:11 N 27 '53

Softer tissue sheet results from new Stockmaster refining at Bancroft. il Paper Tr J 138:120 My 14 '54

Stock flow on the cylinder machine. H. A. Norseen. Tappi 36:sup 130A-1A D '53

Turbulent diffusion in Fourdrinier machines. S. G. Mason and others. bibliog il diags Pulp & Pa of Can 55:97-108 Ag '54

Two mills report on Reslin suction box covers. il Paper Tr J 138:117 My 14 '54

Unique design features of the new paper machine; Black-Clawson Fourdrinier paper machine. il Paper Tr J 138:22+ Mr 5 '54

U.K. seeks increased sales of paper mill machinery to Canada. G. S. Don. Pulp & Pa of Can 55:110-11 Je '54

Vacuum pick-up installed at Powell River. il Pulp & Pa of Can 55:100-1 My '54

Vacuum transfer from wire to press section. R. W. Burnett. Pulp & Pa of Can 54:132-4 N '53

Variation of drying rates of individual driers through the drier section. A. E. Montgomery. Tappi 37:1-13 Ja '54; Excerpts. Paper Ind 36:294-5 Je '54

Water drainage and air-flow through suction boxes; abstract. O. Brauns and R. Oskarson. diags Paper Ind 35:1241 F '54

What Rotabelts are doing at Fitchburg paper co. il Paper Tr J 138:123-4 My 14 '54

See also

Electric driving—Paper and pulp mills
Paper drying
Paper winders
Rolls (paper machinery)
Wood grinders

Cleaning

How to cut wire cleaning down-time. R. E. Tschupp. diag Paper Tr J 138:14-15 Je 11 '54

Mechanized cleaning boosts production. R. E. Tschupp. il diags Paper Tr J 138:22-3 F 12 '54

Control

Control method developed for stock preparation system. J. H. Pearson. flow diag diags Tappi 36:sup 149A-52A D '53

Electronic control in Scotland's new papermaking machine. il diag Elec J 151:1371-4 O 30 '53

How moisture content is automatically controlled by the Stickle mechanical system; Newton Falls paper mill. il Paper Tr J 138:72-3 My 14 '54

Load meters, tension meters and torque meters for paper machines; abstract. J. C. Harper and T. A. McArn. Pulp & Pa of Can 55:129 Je '54

Sectional paper machine drive with electronic control; Guard Bridge paper co. il diags Engineer 196:565-8 O 30 '53; Engineering 176:595-7 N 6 '53; Elec R (Lond) 153:1061-6 N 6 '53

Some answers to problems in handling stock flow to forming elements. A. A. Lowe. il diags Paper Tr J 137:14-18 N 20 '53

Strain gauge measurement of press loads and felt tension at Gibraltar. il Paper Tr J 138:127-8 My 14 '54

Lubrication

Lubrication in the modern paper mill. R. B. White. il Paper Ind 35:876-9 N '53

Oil-mist lubrication of single facer improves corrugated production. C. Dressler. il Paper Tr J 138:134 My 14 '54

Report on a lubrication survey in a large paper mill. T. M. Medzwiecki. Pulp & Pa of Can (Convention no) 55:166-70 [F] '54

Noise

Cut down noise in paper mills. W. Schweisheimer. Pulp & Pa of Can 55:168, 172 Mr '54; Same cond. Paper Ind 36:64 Ap '54

Paper mill noise problems. M. N. Davis and R. H. Cáston. diags Pulp & Pa of Can (Convention no) 55:201-3+ [F] '54; Same. Paper Tr J 138:20+ Ap 2 '54

Patents

Patent reviews. diags Published in monthly numbers of Paper industry

Testing

Performance testing the dryer section of a paper machine. G. J. Chalmers. diags Pulp & Pa of Can (Convention no) 55:236-43, 273 [F] '54

PAPER making materials

Chemical composition of some leaf bast fibers. E. C. Lathrop and G. H. Nelson. bibliog Tappi 37:99-103 Mr '54

Cotton rags level off. A. Waldman. Paper Tr J 138:56+ Ja 29 '54

Industrial raw materials of plant origin; survey of the bamboos. H. H. Sineath and others. Georgia Inst of Tech Eng Exp Sta [Atlanta] Bul 18:1-230 bibliog(1034 titles, p 157-230) '53

Paper's new raw materials. Tappi 37:sup 106A Je '54

Raw materials for more paper. Tappi 37:sup 14A+ Ag; sup 14A+ S '54

Rind and pith of papyrus; analytical study. L. E. Wise and M. A. El-Taraboulsi. bibliog(35 ref) Tappi 37:25-8 Ja '54; Correction. 37:142 Ap '54

Tappi fibrous agricultural residues conference, Belleville, Ontario, Oct. 8-9. Paper Tr J 137:28-9 O 23 '53; Pulp & Pa of Can 54:131+ N '53; Paper Ind 35:1031 D '53; Tappi 37:sup70A+ Ja '54

See also

Bagasse
Bamboo
Cellulose
Cotton linters
Flax straw
Paper chemicals
Paper making—Fillers
Paper pulp
Paper sizing
Pine
Rags
Straw
Waste paper
Wood pulp
Wood waste

PAPER mills. See Paper and pulp mills

PAPER money

Canada

New paper currency planned for Canada. Pulp & Pa of Can 55:181+ Jl '54

PAPER napkins

'53 good year for napkins expect an even better '54. B. T. Hoffmaster. Paper Tr J 138:34 Ja 29 '54

PAPER patents. See Paper making—Patents

PAPER products

American Cyanamid develops materials-handling technique; Accopak pallet. il Paint Oil & Chem R 117:31 Jl 29 '54; Chem & Eng N 32:3080 Ag 2 '54; Mod Packaging 28:120-1 S '54

Diversified new paper and paperboard products widen general usage. E. P. Nuttall. Paper Tr J 138:46+ My 14 '54

Molded pulp products. W. E. Parsons. flow chart il Paper Tr J 137:175-80 N 13 '53

New and improved paper products. G. H. Chidester. Paper Ind 35:1002-5 D '53

New developments in converting paper and board. R. L. Lewis. Tappi 37:sup 139A Je '54

Nonplastic molded pulp products; abstract. Paper Ind 36:388-9 Jl '54

Paper and paperboard products for military use. E. T. A. Coughlin. Paper Tr J 137:267-72 N 13 '53

Role of printing plates in paper conversion. B. R. Preston. il diags Paper Tr J 137:130-2+ N 13 '53

Some economic aspects of paper and paper board converting industry. H. J. Perry. Paper Tr J 137:101-5 N 13 '53

Twisted paper products. T. M. Sellers. bibliog il Paper Tr J 137:190-2+ N 13 '53

See also

Paper boxes

Paper cups

Paper towels

Manufacture

Rudiments of converting. M. J. Galbraith. diags Paper Tr J 137:106-15 N 13 '53

Merchandizing

New objective is mass display of merchandise; Crown Zellerbach corp. L. W. Moore. il Ptr Ink 243:41 Je 19 '53

PAPER products plants

Employees

Nine incentive plans in a two hundred man plant; Cincinnati industries inc. F. R. Larrabee. Advanced Management 18:9-11 D '53

Equipment

Air loaded core shafts speed converting operations in Carthage mill. E. W. Zabriskie. il Paper Tr J 138:60 My 14 '54

Progress at Ruberoid is progress in paper. B. Otis. il map Paper Tr J 138:14-18 Ag 27 '54

Management

How to lower finishing room costs. R. S. Young. flow chart Paper Tr J 138:46+ Je 25 '54

PAPER pulp

Acetate pulps from cereal straws; abstract. G. Jayme and L. Scheuring. Paper Ind 35:1241-2 F '54

New impetus from the mechano-chemical pulping process; straw, sugar cane bagasse, grasses and other agricultural residues. J. E. Atchison. flow sheet il diag Paper Tr J 138:22+ Ag 13 '54

Phase contrast microscopy of beaten pulp. G. Van Nederveen and J. Isings. il Tappi 37:103-9 Mr '54

PAPER research

Annual technical conference sponsored by research committee of APPA and United States Forest products laboratory, Madison, Wis. May 18; with abstracts of papers. Paper Tr J 138:28+ My 28 '54; Paper Ind 36:386-8 Jl '54

Brown co. research; a story of battle for competitive position. il Paper Ind 36:601-2 S '54

Effect of letterpress research on paper specifications. P. J. Thoma. Tappi 37:sup 171A-3A Ap '54

Fact-finding. R. W. Hovey. Tappi 37:sup26A+ Jl '54

Gas adsorption by wood, pulp, and paper. W. R. Haselton. bibliog(26 ref) diag Tappi 37:404-12 S '54

Library research in Canada's pulp and paper industry. Special Lib 44:191-2 My-Je '53

Management of research; symposium. H. N. Stephens and others. Tappi 36:sup 12A+ D '53

Peanuts and progress. L. R. Thiesmeyer. Paper Tr J 137:29 O 23 '53

Radioisotopes in the paper industry. C. A. Sankey. Tappi 37:sup 139A-40A F '54

Research appropriations; list of committee projects. bibliog Tappi 36:sup80A+ O '53

Research as a career in today's pulp and paper industry. J. J. Eberl. Paper Tr J 137:24+ N 20 '53

Rind and pith of papyrus; analytical study. L. E. Wise and M. A. El-Taraboulsi. bibliog(35 ref) Tappi 37:25-8 Ja '54; Correction. 37:142 Ap '54

University collaboration in pulp and paper research; summary of discussion. Pulp & Pa of Can 54:136-8 O '53

University of Maine and the Pulp and paper foundation annual research days, Orono, Me. May 14-15; with abstracts of papers. Paper Tr J 138:24+ My 28 '54

See also

Paper laboratories

also British paper and board industry research association; Lawrence college—Institute of paper chemistry

PAPER rolls

Inflatable shaft for paper rolls. il Comp Air Mag 58:318 N '53

Storage of paper rolls; data sheet. diag Pulp & Pa of Can 55:114 Je '54

PAPER sizing

Beater additives in papermaking. P. B. Davidson. Tappi 37:18-24 Ja '54

Microscopical studies of rosin sizing; abstract. C. W. Hock. Tappi 36:sup 159A N '53

New techniques for enzyme converting starch. L. J. Wood, jr. and J. R. Mazeau. Tappi 36:sup 141A-3A D '53

Starch for wet end addition. J. P. Casey. Tappi 37:sup 152A-3A Je '54

Starches tailor-made for the paper industry. T. A. White. Tappi 37:sup 156A-8A Je '54

Surface chemical studies of the conditions of rosin sizing. P. Ekwall and H. H. Bruun. bibliog Tappi 37:303-6 Jl '54

Surface sizing of paper and board. J. E. Killinger. Tappi 37:sup 153A-6A Je '54

PAPER towels

Future bright for towels and sanitary paper. R. C. Mateer. Paper Tr J 138:36 Ja 29 '54

How to get the most from your wiping dollar. il Power 98:150 Je '54

PAPER waste. See Waste paper

PAPER winders

Modern B-C reel-winder solves problems at Bloomer bros. il Paper Tr J 138:116-17 My 14 '54

Paper tension regulators. G. C. Ehemann and R. C. Berger. diags Tappi 37:49-55 F '54

Winder guards. J. A. Draper. il Pulp & Pa of Can 54:239-40 O '53; Same. Nat Safety N 69:36 Ja '54

PARACHORS

Parachors of organic compounds; an interpretation and catalogue. O. R. Quayle. diags Chem R 53:439-589 bibliog(p485-6, 584-9) D '53

PARACHUTES

Plane deceleration chute. il Mech Eng 75:569-70 Jl '53

Testing

Chute facility tests unification. il Aviation W 59:411-13 Ag 17 '53

PARACYANOGEN. See Cyanogen

PARADICHLOROBENZENE. See Dichlorobenzene

PARAFFIN

Continuous wax moulders. R. Shannon. plan diags Pet Refiner 33:147-50 Ja '54; Same abr. Mech Eng 75:963-6 D '53

Phase transformations in commercial paraffin waxes. J. F. Johnson. bibliog Ind & Eng Chem 46:1046-8 My '54

Wave-guide measurements in the microwave region on metal powders suspended in paraffin wax. J. M. Kelly and others. bibliog diag J Ap Phys 24:258-62 Mr '53

See also

Petroleum—Paraffin problem

PARAFFIN—*Continued*

Testing

Sealing strength of paraffin wax. diags Tappi 37:sup 165A-6A Mr '54

PARAFFINS

Autoignition of paraffins in engine cylinders occurs in steps; abstract. W. J. Levedahl and C. R. Yokely. il Chem & Eng N 31: 2994 Jl 20 '53

Chromyl chloride oxidation of saturated hydrocarbons. C. C. Hobbs, jr. and B. Houston. bibliog Am Chem Soc J 76:1254-7 Mr 5 '54

Critical temperature and boiling point of normal paraffins. S. S. Mitra. J Chem Phys 22:156 Ja '54

Critical temperature and boiling point of normal paraffins. Y. P. Varshni. bibliog J Chem Phys 21:2235 D '53

Critical temperatures of normal paraffins. Y. P. Varshni and S. N. Srivastava. J Chem Phys 22:349 F '54

Crystal structure of the normal paraffin hydrocarbons. A. E. Smith. bibliog diags J Chem Phys 21:2229-31 D '53

Densities and optical properties of organic compounds in the liquid state; the densities of α-substituted normal alkanes. M. L. Huggins. Am Chem Soc J 76:845-7 F 5 '54

Direct method for predicting vapor-liquid equilibrium ratios. J. M. Lenoir and G. A. White. bibliog(47 titles) Pet Refiner 32:121-3 O '53

Electricity sparks hydrocarbon switch; patent. diag Chem Eng 61:256 My '54

High pressure alkylation of isobutane with propylene. J. E. Knap, E. W. Comings and H. G. Drickamer. bibliog(29 ref) il diag Ind & Eng Chem 46:708-13 Ap '54

Low-temperature thermal data for the nine normal paraffin hydrocarbons from octane to hexadecane. H. L. Finke and others. bibliog Am Chem Soc J 76:333-41 Ja 20 '54

Nomograph gives enthalpies of paraffin hydrocarbon gases. D. S. Davis. Chem Eng 60: 201 Ag '53

Orthobaric surface tensions and thermodynamic properties of the liquid surfaces of the *n*-alkanes, C_5 to C_{28}. J. J. Jasper, E. R. Kerr and F. Gregorich. Am Chem Soc J 75:5252-4 N 5 '53

Preparation and reactions of bis-diazoalkanes. C. M. Samour and J. P. Mason. bibliog Am Chem Soc J 76:441-5 Ja 20 '54

Reactions of fluorocarbon radicals; the synthesis of fluorocarbons and of fully fluorinated iodo-, bromo-, and chloro-alkanes. R. N. Haszeldine. Chem Soc J p3761-8 D '53

Relation between critical temperature and pressure of normal paraffins. Y. P. Varshni. J Chem Phys 21:1400 Ag '53; Correction. 22:150 Ja '54

Synthesis and physical properties of some C_{12} and C_{18} phenylalkane and cyclohexylalkane hydrocarbons. J. M. Lamberti and P. H. Wise. bibliog Am Chem Soc J 75: 4787-9 O 5 '53

Thermodynamic functions of paraffins. G. W. Thomson. Am Chem Soc J 76:620-2 Ja 20 '54

Three additive functions for the *n*-paraffins. S. S. Mitra and Y. P. Varshni. bibliog J Phys Chem 58:381 Ap '54

Vapor-phase catalytic hydrogenation of olefins; properties of alkane systems; table. H. E. Hoelscher and others. Chem R 54: 584-92 Ag '54

See also

Cycloparaffins
Ethane
Nitroparaffins

PARAFORMALDEHYDE

Paraform's rise to fame. il Chem Eng 61: 142+ Mr '54

PARAGEOMETRICAL optics. See Optics, Parageometrical

PARAGUAY

See also

Chemical industries—Paraguay

Economic conditions

Economic conditions abroad (cont). For Comm W 50:3 Ag 17; 5+ D 7 '53

PARALDEHYDE

Kinetics of the depolymerisation of paraldehyde in aqueous solution. R. P. Bell and A. H. Brown. Chem Soc J p774-8 Mr '54

PARALYSIS

Anticholinesterases; paralysis in man following poisoning by cholinesterase inhibitors. P. L. Bidstrup and J. A. Bonnell. bibliog Chem & Ind p674-6 Je 12 '54

PARAMAGNETISM. See Magnetism

PARAMETERS

Equations and charts for the rapid estimation of hinge-moment and effectiveness parameters for trailing-edge controls having leading and trailing edges swept ahead of the Mach lines. K. L. Goin. bibliog diags U S Nat Advisory Com for Aeronautics 1951:937-1007 '52

PARAOXON. See Diethyl nitrophenyl phosphate

PARAPSYCHOLOGICAL studies, International conference of. See International conference of parapsychological studies

PARASITES

Animal parasites in sewage and irrigation water. W. L. L. Wang and S. G. Dunlop. bibliog map Sewage & Ind Wastes 26: 1020-32 Ag '54

Chemical control of animal parasites. H. E. Harbour. bibliog Chem & Ind p651-6 Jl 4 '53

PARATHION

Physiological effect

Organic phosphate insecticides. H. H. Utes. Ind Med 22:375-7 S '53

PARATHYROID glands

Parathyroid and bone citrogenase. H. R. Perkins and T. F. Dixon. bibliog Science 118:139-40 Jl 31 '53

PARCEL post

Parcel-post steel; Ulbrich makes a big thing of little shipments. Steel 134:63 Mr 1 '54

PARCHMENT paper

Converting of parchment and greaseproof papers. M. Rutz. Paper Tr J 137:201-3 N 13 '53

Parchment process. Tappi 36:sup 102A+ O '53

PARIS

Architecture

UNESCO House; stunning 20th-century monument of richness and restraint is given Paris by the Breuer-Zehrfuss-Nervi team. il plans diags Arch Forum 97:150-7 O '52

Biography

Who's who in France, Paris 1953-1954. J. Lafitte and S. Taylor, eds. 999p Éditions Jacques Lafitte, 12, rue de L'Arcade, Paris (8e) and Central European Times pub. co, Kirchgasse 40, Zurich; American agent, Lange, Maxwell and Springer, 122 E. 55th st, New York 22 '53

PARK FOREST, Illinois

Sewerage

Planning sewage pumping and sewer maintenance to keep pace with suburban growth. P. Hirsch. il Pub Works 85:91-2 Jl '54

PARK-O-MAT. See Automobile parking

PARKE, Davis and company

Parke, Davis turning the corner as sales of chloromycetin recover. Barron's 33:23+ N 30 '53

PARKER, John G. d 1953

Sketch. por East Underw 54:10 N 13 '53

PARKING. See Automobile parking

PARKINSON, Thomas I. 1881-

Board guarantees Parkinson to leave at end of his term. R. B. Mitchell. Nat Underw (Life ed) 57:1+ N 6 '53

Commissioner Holmes, Montana, criticizes handling of triennial report on Equitable society. East Underw 54:3 D 4 '53; Same. Nat Underw (Life ed) 57:3 N 27 '53; Same. Weekly Underw 169:1290 N 28 '53; Abstract. Nat Underw 57:6 N 26 '53

Equitable society's great growth under Parkinson's administration. por East Underw 54:4 N 6 '53

Equitable's board acts on New York department triennial report; Parkinson retirement. East Underw 54:1+ N 6 '53

PARKINSON, Thomas I.—*Continued*

Parkinson drama reviewed. Spectator (Endorsement no) 161:100-3 D '53

Parkinson will retire from Equitable society. por Weekly Underw 169:1125 N 7 '53

PARKS

Areas need modernization too; park and street improvement; illustrations with text. Arch Forum 100:128-9 My '54

How it was done; the development of a small municipal park, Grosse Pointe Farms, Mich. H. F. Reves. il Pub Works 85:85-6 Jl '54

PARKS, National. See National parks and reserves

PARKWAYS

U.S. and Maryland divide a parkway job. il map Eng N 152:30+ Ja 28 '54

PARMELEE, Julius H. 1883-

Sketch. por Ry Age News ed 135:9 N 9 '53

PARSHALL flume

Equation for submerged sharp-crested weirs found applicable to six-in. Parshall flume. J. R. Villemonte and V. N. Gunji. diags Civil Eng 23:406-7 Je '53

PARSNIPS

Improvements in frost resistance of parsnip tops sprayed with chemical growth substances. W. G. Corns. Science 118:281 S 4 '53

PARSONS, Charles Lathrop, 1867-1954

Sketch. pors Chem & Eng N 32:739-42, cover F 22 '54

Sketch. Chem & Ind p400-1 Ap 3 '54

Tribute. Chem & Eng N 32:705 F 22 '54

PARTICLES

Adsorption method of measuring surface areas. R. M. Barrer, N. Mackenzie and D. MacLeod. Chem Soc J p 1736-44 My '52; p4184 D '53

Calibration of air permeability particle sizers. B. Dubrow. diags Anal Chem 25:1242-4 Ag '53

Chemical engineering unit operations; size reduction. L. T. Work. bibliog(87 ref) il Ind & Eng Chem 46:138-40 Ja '54

Control particle shape and size. F. C. Bond. il diags Chem Eng 61:195-8 Ag '54

Determination of particle size distributions by a sedimentation method. J. S. Smith and R. Gardenier, jr. bibliog diag Anal Chem 25:577-81 Ap '53

Determination of particle sizes in colloidal silica. G. B. Alexander and R. K. Iler. bibliog J Phys Chem 57:932-4 D '53

Determination of particles size distribution in GR-S latices. A. Nisonoff, W. E. Messer and L. H. Howland. bibliog Anal Chem 26:856-61 My '54

Developments in the theory of particle mixing. P. M. C. Lacey. bibliog diags J Ap Chem 4:257-68 My '54

Double image micrometer for particle size analysis. J. H. McGinn. il diag R Sci Instr 25:930-1 S '54

Effect of filler particle size on resins. R. K. Witt and E. P. Cizek. bibliog Ind & Eng Chem 46:1635-9 Ag '54

Measurement and evaluation of the rate of flotation as a function of particle size. T. M. Morris. bibliog Min Eng 4:Trans 794-8 Ag '52; Discussion. 5:Trans 1122-4 N '53

Measurement of air pollution. W. C. L. Hemeon and others. bibliog il Instruments 26:566-8+ Ap '53

Measurement of particle size distribution of phosphors. M. J. Bergin and K. H. Butler. bibliog Electrochem Soc J 101:149-54 Mr '54

Measurement of particle size of fine ferromagnetic powders. A. D. Franklin and others. bibliog(26 ref) il J Ap Phys 24:1040-5 Ag '53

Motion of small particles in skew shape suspended in a viscous liquid. C. M. Tchen. bibliog diags J Ap Phys 25:463-73 Ap '54

Novel method for measuring particle sizes of ceramic mixtures. W. W. Perkins. il Cer Ind 63:76-7 Ag '54

Particle analyzer speeds testing of powdered materials. il Iron Age 172:151 Jl 9 '53

Particle counting by television techniques. L. E. Flory and W. S. Pike. il diags RCA R 14:546-56 D '53

Particle parlay; Sharples Micromerograph. il Chem W 73:45-6 Jl 4 '53

Particle-size distribution analysis by a modification of the turbidimetric procedure of Musgrave and Harner. R. S. Lamar. bibliog diags Am Cer Soc J 37:386-90 Ag 1 '54

Particle size distribution analyzed quickly, accurately by Micromerograph. F. S. Eadie and R. E. Payne. diags Iron Age 174:99-102 S 2 '54

Particle sizes by new instrument based on measurement of angular dependence light scattering; abstract. C. K. Sloan and others. il Chem & Eng N 32:1443 Ap 12 '54

Permeability method for the measurement of surface areas of fine powders. J. A. Allen and C. J. Haigh. bibliog diag J Chem Educ 31:354-6 Jl '54

Pins down powder-particle size; Micromerograph. il diags Food Eng 25:71-2+ D '53

Roll call for particle sizes; determination of particle size distribution for powdered materials with air sedimentation. il Chem Eng 60:250+ S '53

Sharples develops instrument to speed analysis of particle size distribution; Micromerograph. il diag Chem & Eng N 31:2806-7 Jl 6 '53

Soft X-rays to be valuable in study of small particles. Chem & Eng N 32:2272 Je 7 '54

Thermal precipitator makes possible optical microscopic examination of air-borne particles. L. C. McCabe. il Ind & Eng Chem 46:sup 105A Je '54

Use of unfiltered light in determining particle radius by the polarization ratio of the scattered light. M. Kerker and M. I. Hampton. bibliog diags Opt Soc Am J 43:370-2 My '53

Viscous flow in multiparticle systems; slow viscous flow through a mass of particles; outline, written by J. Happel from a translation from the Japanese by Tetsuji Motai, of a paper by Shigeo Uchida. Ind & Eng Chem 46:1194-5 Je '54

See also

Aerosols
Brownian movements
Colloids
Dispersion
Drops
Dust
Dynamics of a particle
Electrophoresis
Flue dust
Granular materials
Micelles
Pigments
Powders
Sand
Sedimentation
Sediments

PARTICLES, Elementary

Charged particles of mass intermediate between proton and deuteron. D. T. King and others. bibliog Phys R 92:838-9 N 1 '53

Classical theory of particles interacting with electromagnetic and mesonic fields. P. Havas. bibliog Phys R 93:882-8 F 15 '54

Cloud chamber for the study of particles of low energy. T. C. Merkle and J. L. Need. il diag R Sci Instr 24:1051-4 N '53

Diffusion of decaying particles in a radial electric field. J. Keilson. J Ap Phys 24:1397-400 N '53

Electromagnetic mass and a particle model in Darling's theory of elementary particles. H. Freistadt. bibliog Phys R 92:1015-16 N 15 '53

Elementary particles and the Lamb-Retherford line shift. L. L. Foldy. Phys R 93:880-1 F 15 '54

Energy loss of charged relativistic particles and the element periods. T. Westermark. bibliog Phys R 93:400 F 1 '54

Green's function method for strongly interacting particles. M. Neuman. Phys R 92:1021-2 N 15 '53

Hypothesis concerning the relations among the new unstable particles. M. Goldhaber. bibliog Phys R 92:1279-81 D 1 '53

Intrinsic magnetic moment of elementary particles of spin 3/2. F. J. Belinfante. bibliog Phys R 92:997-1001 N 15 '53

Isotopic spin and new unstable particles. M. Gell-Mann. Phys R 92:833-4 N 1 '53

K-meson and hyperon decays. P. H. Barrett. bibliog diags Phys R 94:1328-30 Je 1 '54

Mechanical particle, an analog computing machine. B. Rankin. il diags R Sci Instr 25:675-8 Jl '54

New modification of classical electromagnetic theory. A. Schild. bibliog Phys R 92:1009-14 N 15 '53

PARTICLES, Elementary—*Continued*

New spinor theory of elementary particles. F. Cap. bibliog Phys R 93:907 F 15 '54

Physical conditions in the initial stages of the expanding universe. R. A. Alpher and others. bibliog Phys R 92:1347-61 D 15 '53

Q value of Λ^0 decay. V. A. J. van Lint and others. Phys R 95:295-6 Jl 1 '54

Theory of elementary particles in general relativity. M. M. Hatalkar. Phys R 94:1472-5 Je 15 '54

Trochoidal analyzer for charged particles. B. Crasemann. diags R Sci Instr 24:470-1 Je '53

Unraveling nuclear mysteries; discovery of what may be two nuclear particles. M. Schein. Chem & Eng N 32:3045 Ag 2 '54

See also

Alpha rays
Beta rays
Deuterons
Electrons
Mesons
Neutrons
Nucleons
Photons
Protons
Radioactivity
V-particles

PARTITION (chemistry)

Partition of electrolytes between aqueous and organic phases; the partition of the alkali reineckates and perrhenates between water and nitromethane. H. L. Friedman and G. R. Haugen. bibliog Am Chem Soc J 76:2060-3 Ap 20 '54

Partition of some alloying elements between carbide and ferrite in steels. D. A. Scott and G. S. Farnham. bibliog J Metals 5: Trans 1541-3 sec 2 N '53

Physical toxicity of chemicals; solubilities, partition coefficients and physical toxicities. J. C. McGowan. bibliog(27 ref) J Ap Chem 4:41-7 Ja '54

Relations between phase composition and partition coefficients for some neutral steroids. L. L. Engel and others. bibliog Anal Chem 26:639-41 Ap '54

PARTITIONS

Gypsum and paper sandwich; low-cost partition can be molded at job site. il diags Arch Forum 98:192 F '53

Lightweight studless partition for 24-year-old abandoned ghost. il diags Am Bld 75:50+ My '53

New prefab plasterboard partition with a hard heart of paper. il diags House & Home 3:140-3 Ja '53

Solid plaster partitions are space savers. il Am Bld 76:162+ Je '54

Tested design for a flexible sliding partition. il plans diags Am Bld 76:130 My '54

PARTNERSHIP

Does an O.L.T. policy cover an assault by your partner? L. A. Burke. Spectator 161:46-8 Jl '53

Partnership agreement essentials and adequate agency reserves. W. S. Chandler. Weekly Underw 169:8+ Jl 4 '53; Same cond. East Underw 54:19-20 Jl 17 '53; Excerpts. Nat Underw 57:2 Jl 2 '53

Pitfalls of partnerships. R. W. Osler. Rough Notes 96:56-7 Ag '53

See also

Insurance, Business—Partnership interest

Accounting

Auditing a limited partnership production in the theater. W. Barnett. J Account 97:593-8 My '54

Complication in taxing partnerships caused by coexistence of entity and aggregate concepts. R. T. Warner. J Account 96:703-10 D '53

Should personal obligation of partner be disclosed in partnership balance-sheet. J Account 97:82-4 Ja '54

Taxation

Corporate pitfalls; change from a partnership to a corporation or vice versa; tax pitfalls. C. W. Tye. Rough Notes 96:69-70 Ag '53

Death of a partner; partnership tax year termination. C. W. Tye. Rough Notes 96:50+ N '53

Income-tax treatment of partners and partnerships. E. C. Johnson. J Account 98:360-6 S '54

PASSENGER cars. See Cars

PASSENGER conveyors. See Subways—Belt conveyors (passenger)

PASSIVITY

Amount of oxygen on the surface of passive stainless steel. H. H. Uhlig and S. S. Lord, jr. bibliog diag Electrochem Soc J 100:216-21 My '53

Potentials of iron, 18-8, and titanium in passivating solutions. H. H. Uhlig and A. Geary. bibliog(47 ref) Electrochem Soc J 101:215-24 My '54

Surface reactions of steel in dilute $Cr^{51}O_4^{=}$ solutions; applications to passivity. R. A. Powers and N. Hackerman. bibliog il Electrochem Soc J 100:314-19 Jl '53; Discussion. 101:332-4 Je '54

PASTE

Compression testing instrument for use with pastes. P. Mason. bibliog il diag J Sci Instr 30:418-21 N '53

PASTE mixers. See Mixers

PASTEUR, Louis, 1822-1895

Liebig-Pasteur controversy. H. Finegold. bibliog J Chem Educ 31:403-6 Ag '54

Pasteur memorial in Pittsburgh; Fisher scientific company dedicates memorial room. por Chem & Eng N 32:1982-3 My 17 '54

PASTEURIZATION

Pasteurisation of liquid egg; abstract. N. R. Knowles. Chem & Ind p637-8 Je 27 '53

PASTEURIZATION of milk. See Milk—Pasteurization

PASTURES

See also

Grazing

PATENT insurance. See Insurance, Patent

PATENT laws and legislation

Egypt

Egyptian trade-mark, patent law modified. For Comm W 51:18 Ja 4 '54

United States

Chart of trade-mark, copyright and patent protection. C. J. Hauk, jr., comp. Ptr Ink 245:426-8 sec 2 O 23 '53

Curtailing patent rights; General electric company was ordered to dedicate to the public all existing patents on the manufacture of electric bulbs and parts. Product Eng 24:199-200 N '53

New patent law. R. Calvert. bibliog Chem & Eng N 31:4186-8 O 12 '53

New patent law; how does it affect the chemical engineer? P. L. Young. bibliog Chem Eng Prog 49:223-5 My '53

New patent laws. A. Boyajian. Elec Eng 72:861-5 O '53

Patent giveaway; court orders GE to throw open all light bulb patents to the public. Bsns W p34 O 10 '53

Patent validity and infringement laws altered in recent cases. L. T. Parker. Am Gas J 180:20+ Mr '54

Soaps under the new U.S. patent law. A. W. Gray. Soap & San Chem 29:54-5+ Ap '53

See also

United States—Patent office

PATENT medicines. See Medicines, Proprietary

PATENT office. See United States—Patent office

PATENTS

Essential features of a valid patent. A. W. Gray. bibliog Soap & San Chem 30:38-40+ F '54

How to get a patent. il Chem Eng 60:290+ Je '53

If you're planning to get a patent, here's expert's advice. C. F. Sibbe. Iron Age 173:151-2+ My 6 '54

Inventions face big initial risk. R. M. Lorz. Iron Age 173:74-5 My 13 '54

New applications and designs for patents; abstracts. G. V. Woodling. diags Machine Design 26:322+ Ap '54; Tool Eng 32:178-81 Je '54

Patent policy gets a facelifting; Defense department plans revision to defense contractor's patent right regulations. Steel 134:57 F 22 '54

Patent problems; abstract. J. T. Kelton. Chem & Eng N 32:2306 Je 7 '54

PATENTS—*Continued*

Patent, trademark or copyright? how to distinguish between the three methods of protecting ideas. G. V. Woodling. il Machine Design 26:162-4 Mr '54

Patents and the engineer. R. J. Schwarz. Midwest Eng 6:3-4+ S '53

Stimulating invention by engineers. R. H. MacCutcheon. Machine Design 26:125 Ja '54

United States patents issued to International telephone and telegraph system, January-April, 1953. Elec Com 30:255-7 S '53

See also

Chemical patents
Drugs—Patents
Electric lamps, Incandescent—Patents
Electronics—Patents
Food—Patents
Glass machinery—Patents
Glass manufacture—Patents
Insurance, Patent
Inventions
Machinery—Patents
Metal finishing—Patents
Metallurgical patents
Paper making—Patents
Patent laws and legislation
Petroleum refining—Patents
Radio apparatus—Patents
Refrigeration and refrigerating machinery—Patents
Shaving cream—Patents
Trade marks
United States—Court of customs and patent appeals
Welding—Patents

Bibliography

BDSA publishing new patent guide. Materials & Methods 40:226 S '54

International aspects

Anarchy abroad; pharmaceutical manufacturers aren't happy about world situation on patents. Chem W 73:20+ N 21 '53

Licensing

Insuring your progress through research; patent licensing policy and procedures. R. H. MacCutcheon. Product Eng 24:192-5 Je '53

Nylon patents licences; action by British nylon spinners ltd. against Imperial chemical industries ltd. Chem Age (Lond) 71:133 Jl 17 '54

PATIOS

Can patios make cities? P. L. Wiener and J. L. Sert. il plans Arch Forum 99:124-31 Ag '53

Your nicest room can be outside your house. il plans diags House & Home 6:102-23 Ag '54

PATMAN law. See Price discrimination—Patman law

PATONS and Baldwins, limited

Statement by the chairman. P. A. Wright. Economist 168:293-4 Jl 25 '53

PATTERN making

Large wood patternmaking. M. J. Kellner and G. H. Gorsuch. il Foundry 81:104-5+ N '53

Lower foundry costs start with part design. E. W. Moir. il diags Iron Age 173:128-31 Ap 15 '54

Metal casting methods; moulding sands and pattern production. J. B. McIntyre. il Metallurgia 48:165-8 O '53

Patternmaking; American foundrymen's society annual meeting, Cleveland; abstracts of papers. Foundry 82:146+ Je '54

PAUL-LEWIS laboratories award

Paul-Lewis award winner charts new enzyme paths in metabolism. Chem & Eng N 31:4110 O 5 '53

PAULI exclusion principle

Pauli principle scattering and the resistivity minimum. J. S. Koehler. diag Phys R 94:1071-2 My 15 '54

PAVEMENTS

Analysis of flexible pavements; abstract. C. McDowell. Roads & Eng Constr 92:138+ Ap '54

Brick paving challenges the jets; navy-sponsored test section of Postonway paving. H. B. Foster. il Brick & Clay Rec 125:38-9+ Jl '54

Engineering activities valuable to the crushed stone industry. A. T. Goldbeck. Rock Prod 57:92-3 Ap '54

New device automatically analyzes pavement surface characteristics. il Civil Eng 23:865 D '53

Paving a key element in subdivision regulation. J. L. Morrison. diag Pub Works 85:102+ S '54

Road surfaces as reflectors of light, from the point of view of street lighting. A. W. Christie. bibliog il diags Chem & Ind p468-75 My 16 '53

See also

Bridges—Floors
Roads
Streets

Cost

Unit prices bid by contractors. Eng N 151:199+ O 8 '53

Design

Atlanta freeway; location refined and designs made. L. H. Lyle and R. C. Tate. il maps Civil Eng 24:144-6 Mr '54

Developments in present day flexible type pavements. C. N. Conner. il diags Roads & Sts 97:102-6 Ag '54

Extra dividends of asphalt overlay pavements. J. M. Griffith. Roads & Sts 96:94-6+ O '53

Modified California bearing ratio pavement design; abstract. D. J. Olinger. Roads & Eng Constr 92:167 Ap '54

Use of statistical methods in design; abstract. D. B. Duncan. Roads & Eng Constr 92:169+ Ap '54

Heating

Big snow melting system serves earth fill ramps at Boston's new elevated highway. E. E. deCastro. il diags Heating-Piping 26:130-2 My '54

Electric heating prevents icy skids on inclined approaches to bridges in Salem, Ore. il Elec West 111:96 D '53

New highway has snow melting in ramps; Boston central artery. Heating-Piping 25:77 D '53

Plus values possible with hot water heating. W. S. Harris. il diags Am Bld 76:142-4+ F '54

Radiant heated highway. Dom Eng 183:259-60 Mr '54

Snow melting. il Dom Eng 183:204+ Mr '54

Snow melting system for a driveway. diags Heat & Ven 51:128+ Je '54

Snow melting system for a truck driveway. Heat & Ven 50:95+ N '53

See also

Pavements, Concrete—Heating

Maintenance and repair

See also

Pavements—Resurfacing

Resurfacing

Experience with high crown streets in large scale resurfacing program. A. W. Tews. il Pub Works 85:73-4 Je '54

Slipperiness

Danger, slippery when wet. C. E. Larson. il Eng N 151:45-6 O 29 '53

Subgrades

Load check station helps get more accurate spread; runway job at Pinecastle air force base. il Roads & Sts 97:73 My '54

Stresses in subgrade under a rigid pavement; abstract. G. Pickett and D. K. Y. Ai. Roads & Eng Constr 92:168-9 Ap '54

Surface treatment

Study of some variables affecting retention of aggregate by asphalt surface treatments. F. J. Benson and B. M. Gallaway. il diag Roads & Sts 97:113-18+ Ap '54

See also

Pavements—Resurfacing

Testing

Comprehensive load test research critically needed in the highway field; abstract. A. E. Johnson. S A E J 62:65 Ag '54

Study of some variables affecting retention of aggregate by asphalt surface treatments. F. J. Benson and B. M. Gallaway. il diag Roads & Sts 97:113-18+ Ap '54

PAVEMENTS, Asphalt

First hot-mix asphalt laid in Bermuda; Kindley air force base. il Roads & Sts 97:118 Je '54

Homemade hopper and rollers speed reservoir paving job. il Constr Methods 36:58-9 Ja '54

See also

Pavements, Bituminous

Pavements, Bituminous concrete

PAVEMENTS, Bituminous

Developments in present day flexible type pavements. C. N. Conner. il diags Roads & Sts 97:102-6 Ag '54

How to start an asphalt driveway business without an engineering degree. W. D. Hunt. il Roads & Sts 96:134-5 N '53

Intermediate bituminous mixes will help stretch funds; abstract. E. H. Holt. Pub Works 85:133-4 Ag '54

Low-cost street paving program. G. M. Harrington. il Pub Works 85:91-2 Ap '54

New use for foamed asphalt. G. E. Martin. il Pub Works 85:93-4 Jl '54

Novel paving method proved its worth on reservoir job. il Eng N 151:25 Ag 13 '53

Street construction in a booming Florida city. H. H. Girard. il Roads & Sts 97:114-16 Je '54

Reinforcement

Welded wire reinforcing added to airfield paving. il Eng N 151:42 D 10 '53

Wire mesh bituminous pavement tested. il Eng N 151:27 N 5 '53

Rubber mixtures

Asphalt improvement. G. L. Farrar. Oil & Gas J 52:69 Ag 10 '53

How to improve asphalt quality. W. F. Winters. il diag Pub Works 85:84-5 Ap '54

Testing

North Carolina studies behavior of bituminous pavements. C. E. Proudley. il diags Roads & Sts 96:125-6+ N '53

PAVEMENTS, Bituminous concrete

Asphalt interests challenge jet airbase paving criteria. Eng N 152:47 F 18 '54

Filler handling in bituminous mixing plants. Pub Works 85:124 S '54

Heavy flexible pavement base for big jets. il plan diags Roads & Sts 97:73-8 Ag '54

High type asphaltic concrete; Duluth's answer for rigorous climate, steep grades. A. W. Tews. il diags Roads & Sts 96:121-4 N '53

How advance planning helped us get our money's worth in a 125-block paving program. O. E. Meyer. il Roads & Sts 96:85-6+ D '53

Low cost city pavements in Detroit. H. B. Wilson. il Pub Works 85:69-70 F '54

Pitfalls and pointers in asphaltic concrete production. J. R. Martin. Roads & Sts 97:109-13+ My '54; Discussion. 97:108 Ag; 102-3 O '54

Plant and lay-down control in asphaltic concrete surface construction; symposium. Roads & Sts 97:124+ My '54

Study of some variables affecting retention of aggregate by asphalt surface treatments. F. J. Benson and B. M. Gallaway. il diag Roads & Sts 97:113-18+ Ap '54

With Jaxon on Florida airfield; illustrations with text. Roads & Sts 97:104-5 Mr '54

See also

Roads, Bituminous concrete

Reinforcement

Steel reinforces asphaltic concrete. il Pub Works 84:87 D '53

Wire fabric reinforces asphalt on pavements. il Constr Methods 36:94-5+ Ja '54

Testing

Cracking in asphalt; abstract. S. E. Roberts. Roads & Eng Constr 92:132-3 My '54

Effect of jet aircraft on airport pavements; investigations conducted by the Corps of engineers. G. McFadden. Am Soc C E Proc 79 [no 316]:1-8 O '53

Heat-resistant properties of additives for bituminous materials. P. F. Critz. Pub Roads 28:41-5 Ag '54

North Carolina studies behavior of bituminous pavements. C. E. Proudley. il diags Roads & Sts 96:125-6+ N '53

PAVEMENTS, Concrete

Air force base gets thick pavement. il Constr Methods 36:54-7 Ap '54

Airport runway extension makes a modern field. R. K. Clifford. il Pub Works 85:77-8 Ap '54

Asphalt interests challenge jet airbase paving criteria. Eng N 152:47 F 18 '54

Aviation engineers lay big runway in Korea. il Constr Methods 35:52-6 N '53

Box-bucket shovel ups paver output ten per cent. il Constr Methods 35:62-4+ D '53

Concrete finisher with full hydraulic controls; Flex-Plane. il Roads & Eng Constr 92:100 F '54; Constr Methods 36:164+ Mr '54

Concrete in urban expressways of Houston; abstract. W. J. Van London. Am Concrete Inst J 25:sup5-7 D '53

Concrete paving methods at Abilene air force base. il plan diags Roads & Sts 97:43-8 S '54

Concrete saw speeds replacement of street lighting fixtures. J. L. Quigley. Pub Works 85:146+ My '54

Concreting the world's longest runway; Edwards air force base. il Eng N 152:44-6 Mr 25 '54

Laying pedestrian crossings; pre-cast coloured concrete slabs. Engineering 177:91 Ja 15 '54

Pavement overlay modernizes airport apron. W. A. Blain. il Constr Methods 36:78-9+ Je '54

Prestressed deck proves cheapest for new Hoboken pier. T. O. Blaschke and D. A. Hopkins. il plans diags Civil Eng 24:94-7 F '54

Stresses in concrete pavements; abstract. B. F. Friberg. Roads & Eng Constr 92:138 Ap '54

Tandem saw rig cuts pavement joints. H. W. Richardson. il Constr Methods 36:116-19 Mr '54

Two bridge finishers pave Ohio turnpike's longest structure. il diags Roads & Sts 97:47-50 Ag '54

See also

Pavements, Bituminous concrete

Roads, Concrete

Sidewalks, Concrete

Heating

Heating provides built-in safety for expressway ramps. L. F. DeMarsh. il Pub Works 85:92+ Ag '54

Snow melting costs studied in sidewalk and driveway systems. il Heat & Ven 51:138+ Ap '54

Snow melting ramps; Boston's Aerial highway. il Heat & Ven 50:120 N '53

Joints

Contraction joint sawing time cut. il Eng N 152:71+ F 11 '54

Joints sawed in pouring sequence for concrete apron; Davis-Monthan air force base. il diag Roads & Sts 97:37+ Ja '54

Road joint renovation by contract being continued in Minnesota. G. A. Meskal. il diags Roads & Sts 97:40-4+ Jl '54

Maintenance and repair

Chipping machine cuts concrete removal time. il Constr Methods 35:58-9 N '53

Reinforcement

Use of steel mesh as reinforcement for concrete sidewalks and slabs on ground. M. W. Jackson. Am Concrete Inst J 25:sup 14 Mr '54; Discussion. il 25:sup30+ Je '54

Scaling

Effect of age of concrete on its resistance to scaling caused by using calcium chloride for ice removal. W. C. Hansen. bibliog il Am Concrete Inst J 25:341-51 Ja '54

Testing

Effect of jet aircraft on airforce pavements; investigations conducted by the Bureau of yards and docks. J. A. Bishop. il Am Soc C E Proc 79 [no 317]:1-8 O '53

Effect of jet aircraft on airport pavements; investigations conducted by the Corps of engineers. G. McFadden. Am Soc C E Proc 79 [no 316]:1-8 O '53

PAVEMENTS, Rubber
See also
Pavements, Bituminous—Rubber mixtures

PAVEMENTS, Soil cement
Our experience with soil-cement for subdivision streets. J. Bratten. il Roads & Sts 97:60-1 Je '54
Soil cement is versatile. il Pub Works 84:61-3+ D '53
Soil-cement roads; abstracts of three papers. Engineering 176:681-2 N 27 '53

PAVILIONS
Great livestock pavilion complete. il diags Arch Forum 100:130-4 Ap '54
Materials combined to advantage; concrete in compression, steel in tension; livestock judging pavilion, Raleigh, N.C. F. N. Severud. il plans diags Civil Eng 24:152-5 Mr '54
Parabolic cable roof; North Carolina's livestock judging pavilion. il Arch Forum 98:170-1 Je '53

PAVING machines
Big paver-finisher built by Apsco. il diag Constr Methods 36:116+ Ja '54
Box-bucket shovel ups paver output ten per cent. il Constr Methods 35:62-4+ D '53
Concrete finisher with full hydraulic controls; Flex-Plane. il Roads & Eng Constr 92:100 F '54; Constr Methods 36:164+ Mr '54
Heater-planer used in resurfacing turnpike settled areas. il Roads & Sts 97:76-7 F '54
Homemade hopper and rollers speed reservoir paving job. il Constr Methods 36:58-9 Ja '54
Junior asphalt paver fits small jobs. il Eng N 151:271+ O 8 '53
New hydraulic finisher speeds concrete paving work. il Roads & Sts 97:69 Ja '54
New rubber mounted bituminous paver. il Pub Works 85:125 F '54
Power increased on vibratory paving tube. il Eng N 151:91-2 Jl 2 '53
Rubber traction for faster action; bituminous paver-finisher. il Eng N 152:84+ Ja 14 '54
Self-propelled formless paving machine lays 24-ft concrete slab. il Constr Methods 36:82-3+ Mr '54
Two bridge finishers pave Ohio turnpike's longest structure. il diags Roads & Sts 97:47-50 Ag '54
Widener places 21,900 feet of binder strip in single day. il Roads & Sts 97:66 Ag '54

Maintenance and repair

We use winter to repair paving equipment. E. Halik. Pub Works 85:76 Ag '54

PAYMENT
See also
Checks
Collecting of accounts
Instalment plan
Payrolls
Wage payment plans

PAYROLLS
Cash in on payday. il Steel 135:30 Jl 5 '54
Handling the office payroll; a survey of company practices. Management R 43:162-3 Mr '54
Identified payroll traces a mill's value to a community; Eastman cotton mills. M. B. Andrews. il Textile World 104:135+ Mr '54

Accounting

Framework for computing full wage costs. E. W. Goode. N A C A Bul 36:53-6 S '54
Lack of observation of payroll procedures invites wage fraud. L. O. Morley. J Account 97:341-3 Mr '54
Payroll plan speeds accounting; Benson printing company of Nashville. E. W. Benson. il Inland Ptr 131:23-4 Jl '53

Statistics

Employment and payrolls. Published in Monthly labor review

Taxation

Tax freeze? new controversy brewing over social security. Barron's 33:3 N 30 '53

PEABODY, Stuart
S. Peabody heads Advertising council. por Adv Agency 47:72 Ap '54

PEACE
Unequalled peacetime prosperity possible. A. H. Johnson. Comm & Fin Chr 178:1137 S 24 '53
See also
International relations

PEACOCK blue. See Blue

PEANUT butter
Continuous enrichment of peanut butter with vitamin A. R. K. Willich and A. F. Freeman. il diags Food Eng 26:129+ Ag '54

PEANUT meal
Emphasis on the meal; peanut meal base for Ardil, a wool-like synthetic fiber. il Chem Eng 60:144+ Je '53

PEANUTS
Ammonium sulphate fractions of groundnut protein. K. O. Kelly and others. bibliog J Ap Chem 4:452-7 Ag '54
Chemical denaturation of groundnut protein and fibre formation. W. E. F. Naismith. bibliog(29 ref) J Ap Chem 4:188-94 Ap '54
Peanut props figures given by government. Oil Paint & Drug Rep 166:5 Ag 9 '54

Analysis

Structure of the glycerinositophosphatide of ground-nut. T. Malkin and A. G. Poole. Chem Soc J p3470-8 N '53

PEARL, William A. 1893-
New BPA chief. por Elec World 141:80 Ja 11 '54

PEARL essence
Pearls, oyster versus herring. Can Chem Process 38:38+ Ag '54

PEARLITE. See Steel—Metallography

PEARS
Occurrence of leuco-anthocyanins in perry pears. M. E. Kieser and others. Chem & Ind p 1260 N 21 '53

Diseases and pests

See also
Fire blight

PEAS
Effect of maleic hydrazide in auxin-induced water uptake by pea stem segments. P. Ts'o and G. P. Steinbauer. bibliog Science 118:193-4 Ag 14 '53
Enzyme acts as tenderizer; vine-ripe quality restored to peas; Mammoth springs canning co. H. E. Bode. il Food Eng 26:94+ Jl '54

PEAS, Frozen
Speed makes quality for southern blackeye pea freezer. E. D. White. il Food Eng 25:125+ D '53

PEASANTRY
Economic status of the Chinese peasants after agrarian reform. S. Ong. bibliog Land Econ 29:35-43 F '53

PEAT
Chemical vistas for Canadian peat. Can Chem Process 37:90+ N '53
Peat fired power station. il Elec R (Lond) 153:1010-12 O 30 '53
Peat for gasification; abstract. D. MacDougall. Chem & Eng N 32:3271 Ag 16 '54
Tractor for peat bog reclamation. il Engineer 197:245 F 12 '54; Engineering 177:285 F 26 '54
Utilising Scotland's peat; development of peat-burning turbines to continue. Engineering 177:304 Mr 5 '54
Wax from the bogs; possible to produce plastics from peat wax. G. C. Ackroyd. Chem & Eng N 32:3271 Ag 16 '54

PEAT bogs
History in a peat bog; floor of an ancient Danish lake yields relics of dark age tribal conflicts that are remembered today in the legends of Beowulf and King Arthur. T. G. Bibby. il map Sci Am 189:84-6+ O '53

PEAT moss
Moss compositions; abstract. W. A. P. Black. Chem & Eng N 32:3271 Ag 16 '54

PEBBLE heaters
Ethylene with pebble heater; Phillips petroleum co. flow diag Pet Refiner 32:132-3 N '53
New pebble heater design; patent. diag Chem Eng 61:258 F '54
Pebble heater improves refinery operation. M. O. Kilpatrick. flow diag il Chem & Eng N 32:1388-9 Ap 5 '54

PECHMANN dyes. See Dyes and dyeing—Chemistry

PECTIC acid

Pectic (poly-D-galacturonic) hydrazide. M. L. Wolfrom, G. N. Kowkabany and W. W. Binkley. bibliog Am Chem Soc J 76:4011-12 Ag 5 '54

Structure of the oligosaccharides produced by the enzymic breakdown of pectic acid. J. K. N. Jones and W. W. Reid. Chem Soc J p 1361-5 My '54

PECTINS

Dewaters pectin gels. R. P. Graham and A. D. Shepherd. il Food Eng 26:69+ My '54

Pectin; evidence of molecular constitution from dry grinding experiments. L. H. Lampitt and others. Chem & Ind p 1113 S 4 '54

PEELING machines

Univex home-a-peel. il Consumers Res Bul 32:12 S '53

PEENING

Effects of peening last pass of welds. W. S. Pellini and E. W. Eschbacher. il Welding J 33:sup71-6 F '54

Investigation on peening. P. L. Calamari and others. il diag Welding J 32:sup387-402 Ag '53; Discussion. L. J. Larson. 33:sup76-7; Reply. sup77-8 F '54

Peening investigations. bibliog Welding J 33:sup206-8 Ap '54

See also

Shot peening

PEG boards

How to keep track of your men and jobs; peg board modified from production control board. il Chem Eng 61:138+ S '54

PEGMATITES

Beryl deposits in the Harding pegmatites, Taos county, New Mexico. R. H. Jahns and J. W. Adams. Econ Geol 48:328-9 Je '53

Mining and milling of lithium pegmatites at Kings mountain, North Carolina. E. R. Goter and others. Econ Geol 48:326-7 Je '53

Progress report on pegmatite investigations in South Dakota, for fiscal years, 1952-53. S. M. Runke and others. bibliog 3pls U S Bur Mines Rep of Invest 5061:1-21 '54

Strategic beryllium from domestic pegmatites. B. H. Clemmons and J. S. Browning. map Min Eng 5:786-8 Ag '53; Same cond. J Metals 5:1433-4 N '53

PELARGONIC acid

Manufacture

Two of a kind, but different. Ind & Eng Chem 45:sup 13A Jl '53

PELLETS

Germanium diodes from spherical pellets. W. C. Dunlap, jr. il diags J Ap Phys 25: 448-51 Ap '54

New pelletizing process makes early debut; Arthur G. McKee & co. il Steel 135:70-1 S 20 '54

Pellet deflashing process cuts finishing cost. il Rubber Age 75:236 My '54

PELTATIN

Components of podophyllin; the structure of the peltatins. A. W. Schrecker and J. L. Hartwell. bibliog Am Chem Soc J 75:5924-7 D 5 '53

PENCILS

Substitute for drawing ink in the preparation of diagrams for photographic reproduction. E. W. Clark. Science 117:665-6 Je 12 '53

PENCILS, Mechanical

Mechanical pencil out-writes wooden in time-cost test run by Autopoint. il Credit & Fin Management 55:34 Ag '53

PENDERGAST, Martin F. 1887-

Retires from Whiting corp. por Foundry 82: 358+ My '54

PENDRED, Loughnan St Lawrence, 1870-1953

Sketch. por Engineer 196:704-5 N 27 '53; Engineering 176:693 N 27 '53

PENDULUM

Hardness measurements with a pendulum tester; abstract. W. Koenig. Paint Oil & Chem R 117:45 F 25 '54

Torsional pendulum of low thermal inertia. C. Ang and C. Wert. diag J Ap Phys 25: 1061 Ag '54

Use of the ballistic pendulum for impact testing of tirecord. W. J. Lyons and I. B. Prettyman. bibliog diags Textile Res J 23: 917-25 D '53

PENFOLD, Arthur Ramon, 1890-

A. R. Penfold recipient of the Fritzsche award. por(cover) Chem & Eng N 32:942+ Mr 8 '54

PENICILLAMINE

Synthesis of substituted penicillins and simpler structural analogs; phthalimidomalonaldehydic esters; synthesis and condensation with penicillamine. J. C. Sheehan and D. A. Johnson. Am Chem Soc J 76:158-60 Ja 5 '54

PENICILLIN

Biosynthesis of penicillin; role of phenylacetic acid. M. Gordon and others. bibliog Science 118:43 Jl 10 '53

Biosynthesis of penicillin; synthesis of methionine by a strain of penicillium chrysogenum. M. Gordon, P. Numerof and S. C. Pan. bibliog Am Chem Soc J 76:4037-8 Ag 5 '54

Lilly challenges validity of new patent for procaine penicillin. Chem & Eng N 32: 2091 My 24 '54

Mold metabolites; the constitution and synthesis of a new compound related to penicillin. R. L. Hodgson, I. R. C. Bick and D. J. Cram. bibliog Am Chem Soc J 76: 1137-40 F 20 '54

Molds mature. Chem W 72:42+ Ap 18 '53

Synthesis of substituted penicillins and simpler structural analogs; phthalimidomalonaldehydic esters; synthesis and condensation with penicillamine. J. C. Sheehan and D. A. Johnson. Am Chem Soc J 76:158-60 Ja 5 '54

Analysis

Determination of phenylacetic acid and phenylacetamides in samples from penicillin fermentations. S. C. Pan and D. Perlman. bibliog diag Anal Chem 26:1432-8 S '54

Isotope dilution assay for total penicillins. M. Gordon, A. J. Virgona and P. Numerof. bibliog Anal Chem 26:1208-10 Jl '54

Simultaneous determination of penicillin and penicilloic acid in fermentation samples by a colorimetric method. S. C. Pan. bibliog Anal Chem 26:1438-44 S '54

Manufacture

Corn water chemicals; penicillin consumes bulk of corn industry's once-waste product, steepwater concentrate. il Chem W 75: 106+ S 18 '54

Development of a typical aerobic fermentation. O. G. Wegrich and R. A. Shurter, jr. bibliog il diag Ind & Eng Chem 45:1153-60 My '53

Glaxo development at Ulverston. il Chem Age (Lond) 69:317-19 Ag 15 '53; Chem & Ind p913-14 Ag 29 '53

Occupational allergic reactions among workers in a penicillin-manufacturing plant. A. E. Roberts. A M A Archives Ind Hygiene & Occup Med 8:340-6 O '53

Problems of biochemical engineering; sterility in fermentation process. J. J. H. Hastings. Chem Age (Lond) 69:1231-2 D 12 '53

PENICILLIN G (benzylpenicillin)

Some preparative uses of benzylpenicillinic ethoxyformic anhydride. R. L. Barnden and others. Chem Soc J p3733-9 D '53

Analysis

Determination of penicillin G in penicillin O. J. L. Johnson and others. bibliog Anal Chem 25:1490-2 O '53

PENICILLIN O (allylmercaptomethylpenicillin)

New developments in antibiotics; symposium abstract. Chem & Eng N 31:4011-12 S 28 '53

New type penicillin; type O. Chem Eng 60: 333 N '53

Analysis

Determination of penicillin G in penicillin O. J. L. Johnson and others. bibliog Anal Chem 25:1490-2 O '53

PENICILLIUM

Griseofulvin; isolation of the bromo-analogue from penicillium griseofulvum and penicillium nigricans. J. MacMillan. Chem Soc J p2585-7 Jl '54

PENICILLOIC acid

Analysis

Simultaneous determination of penicillin and penicilloic acid in fermentation samples by a colorimetric method. S. C. Pan. bibliog Anal Chem 26:1438-44 S '54

PENICK and Ford, inc.

Five selected debt-free companies; with comparative balance sheet items. Mag of Wall St 93:82 O 17 '53

PENN fruit company, inc.

Preferred stock offered. Comm & Fin Chr 178:482-3 Ag 10 '53

PENNEY, J. C., company

Five selected debt-free companies; with comparative balance sheet items. Mag of Wall St 93:83 O 17 '53

PENNSYLVANIA

See also

Allegheny county, Pennsylvania
Hydroelectric plants—Pennsylvania
Medical service, Industrial—Pennsylvania
Roads—Pennsylvania

PENNSYLVANIA coal and coke corporation

Crucial round looms in clash of Industrial Brownhoist groups over attempt to merge with Pennsylvania Coal & Coke. Bsns W p56+ O 3 '53

PENNSYLVANIA Dutch. See Germans in Pennsylvania

PENNSYLVANIA grade crude oil association

Annual meeting, 30th, Pittsburgh. Nat Pet N 45:28-9 Je 24 '53

PENNSYLVANIA-READING seashore lines

Future depends on industrial development. J. A. Fisher. Ry Age News ed 135:39 N 9 '53

PENNSYLVANIA salt manufacturing company

May pay bigger year-end dividend. Barron's 33:19-20 O 26 '53

PENNSYLVANIA state college

George Westinghouse professorship established. Mech Eng 75:849-50 O '53

PENNSYLVANIA university

New president, Gaylord P. Harnwell. Science 117:648-9 Je 12 '53

PENS

See also

Fountain pens

PENSION trusts

Employees' trust purchases control of Arthur D. Little. il Chem & Eng N 31:2872-4 Jl 13 '53

Employer securities in employee trusts. C. E. Haines. Trusts & Estates 92:949-51 D '53

Equity annuities; some questions and answers. C. R. Henderson. Management R 43:615-19 S '54

Insuring the profit-sharing plan; abstract. W. M. Rae. Management R 42:414-15 Jl '53

Life insurance use OK in profit sharing retirement plans. Nat Underw 58:20-1 Ja 14 '54; Same. Nat Underw (Life ed) 58:1+ Ja 8 '54; Excerpt. East Underw 55:3+ Ja 8 '54

Pension and profit-sharing trusts; ABA committee report. Trusts & Estates 92:775-6 O '53

Retirement plan with unique features; Western geophysical company of America. W. W. Mayne. Pet Eng (Ref annual) 25:E 18+ Jl 15 '53

Trusteed pension plans don't all stay trusteed; conversions to insured basis. R. B. Mitchell. Nat Underw (Life ed) 57:3 S 18 '53

See also

Employees' trusts

Tax problems

Disturbed by pension trust angle in tax bill. G. S. Brown. Nat Underw (Life ed) 58:3, 18 Ap 2 '54

Map strong appeal to lift ordinary ban in tax bill; pension trust provision. Nat Underw (Life ed) 58:1+ Ap 2 '54

Report removal of tax bill's ban on ordinary in pensions. Nat Underw (Life ed) 58:1 Ap 16 '54

Tax bill hobbles ordinary life use in pension trusts. Nat Underw (Life ed) 58:1, 25 Mr 19 '54

Tax pitfalls in pension plans. M. M. Goldstein. Life Ins Courant 58:18-19+ S '53

PENSIONS

Wharton school Pension research council established; with list of members. East Underw 55:7 Je 11 '54

See also

Old age pensions
United nations—Employees' pensions

PENSIONS, Industrial

ABC's of pension planning. S. A. Miller. Mill & Factory 54:85-7 Ap '54

Advantages of insured as opposed to uninsured pension plans; New England Mutual Life panel discussion. Weekly Underw 171:536 S 4 '54

Analysis of the self administered pension plan; abstracts. F. G. Bray and D. Marks, jr. East Underw 55:5 Je 25 '54; Nat Underw (Life ed) 58:5 Jl 2 '54

Approved employer pension plans soar. Nat Underw (Life ed) 57:2 Ag 28 '53

Company retirement plans for salesmen; abstract. H. H. Maynard and P. McVey. Management R 43:250-2 Ap '54

Cost-of-living pension plan. G. N. Calvert. Harvard Bsns R 32:101-9 S '54

Don't mix up life insurance salary savings plans with pension plans. C. D. Spencer. East Underw 54:104 pt 2 S 25 '53

Equitable society pension forums; discussion highlights. East Underw 54:14 O 30 '53

Essentials of successful pension planning; abstracts. C. H. Austin. Management R 43:466-70, 477-80 Jl '54; East Underw 55:16 Ap 2 '54; Weekly Underw 170:796-7+ Mr 27 '54

Forward looking retirement programs; West Virginia pulp and paper co. H. W. Otis. Paper Tr J 138:24+ Jl 23 '54

Fringe aid for small firms; Mutual Life comes up with plan to help smaller companies provide insurance and pension plans for workers. Bsns W p78-9 Ag 22 '53

Fundamentals of pension and profit-sharing plans. M. M. Goldstein. East Underw 55:114+ pt 2 O 1 '54

How pension plans are administered; survey of company practices; abstract. Management R 43:265-7 Ap '54

Insured-uninsured pension war getting increasingly bitter. R. B. Mitchell. Nat Underw (Life ed) 58:1+ Jl 23 '54

Jobless pay on a pension; New Jersey court says involuntarily retired workers can draw unemployment benefits, too. Bsns W p 163 D 12 '53

Key corporations' new benefit plans seen putting heavy pressure on all employers. W. J. Casey and others. Nat Underw (Life ed) 58:2+ Ap 9 '54

Most pension plans now facing their first real tests. M. M. Goldstein. Nat Underw (Life ed) 58:4 F 19 '54

New plan links bank and life co.; Philadelphia National and Mutual of New York; Philabank plan. East Underw 55:6 S 17 '54; Nat Underw (Life ed) 58:4+ S 17 '54; Weekly Underw 171:662 S 18 '54

New trends in pension and profit-sharing plans; abstract. M. M. Goldstein. Management R 42:478-9 Ag '53

Opportunities for service under the self-pensioning bills. E. S. MacNeill. Trusts & Estates 93:92-7 F '54

Pension benefits for employes' widows. East Underw 54:7 Jl 3 '53

Pension benefits for widows not unduly expensive or troublesome. H. L. Seal and S. N. Ain. Nat Underw (Life ed) 57:10 O 30 '53

Pension plan experience; a survey; abstract. M. Puchek. Management R 42:102-3 F '53

Pension plans, insured or not; MDRT panel discussion. East Underw 55:3+ Je 18 '54; Nat Underw (Life ed) 58:3+ Je 25 '54; Weekly Underw 170:1555 Je 19 '54

Pension plans under collective bargaining. E. K. Rowe and T. H. Paine. U S Bur Labor Statistics Bul 1147:1-23; pa 20c Supt. of doc. '53; Same. Mo Labor R 76:237-45, 484-9, 714-22 Mr, My, Jl '53

Pensions a stabilizing factor if we have increased productivity. M. Nadler. Comm & Fin Chr 178:1628 O 29 '53

Pensions; House group pushes plan for self-employed workers. Iron Age 174:69 Jl 15 '54

PENSIONS, Industrial—*Continued*

Pensions; National foundry association survey. K. W. Bennett. Iron Age 174:76 Ag 19 '54

Private enterprise and adequate old age security. G. W. Hobbs. Comm & Fin Chr 178: 2542 D 24 '53

Private retirement, welfare programs discussed at New York university's annual conference on labor. Nat Underw (Life ed) 58:1+ My 14 '54; Same. Nat Underw 58:35 Je 10 '54

Record number of employer pension plans in effect; year ending June 30, 1953. Weekly Underw 169:535 S 5 '53

Righting pension wrongs; plans for management in chemical industry. Chem W 74:19 F 6 '54

Role of a consultant in pension planning. G. B. Carlson. East Underw 55:84+ pt 2 O 1 '54

Some unsettled issues of retirement policy. R. K. Burns. bibliog J Bsns 27:137-45 Ap '54

Ways-means plan seen as help to pension programs. Nat Underw (Life ed) 58:1 F 12 '54

What's new in pensions and insurance? C. D. Root, jr. Steel 133:58-9 O 5 '53

See also

Insurance companies—Employees' pensions

Railroads—Pensions

Retired autoworkers organization

Accounting

FCC amends pension accounting rules. Pub Util 54:33-4 Jl 8 '54

Cost

How much do pensions cost? R. Tilove. Management R 43:462-3 Jl '54

USW seeks higher pensions; cost to company. J. B. Delaney. Iron Age 173:97 My 20 '54

Finance

British pension funds. F. B. Makin. Banking 46:86 D '53

Features of insured pensions. H. A. Schmidt. East Underw 55:3 Ja 15 '54

Funding a pension program; methods compared. W. J. Carroll. Management R 43:471-6 Jl '54; Abstract. East Underw 55:16 Ap 2 '54

New plan for retirement stability. A. W. Viner. il Dun's R & Mod Ind 62:48-50+ S '53

Pension fund growth put at $2 billion yearly. Comm & Fin Chr 178:2271 D 10 '53

Pension investments. Burroughs Clearing House 38:10-11 O '53

Pension liabilities; a balance-sheet bugaboo? abstract. Management R 42:171-2 Mr '53

Profit-sharing retirement plan. J. G. Sidak. N A C A Bul 35:218-23 O '53

Why pension funds should invest in real estate. G. W. Warnecke. il Trusts & Estates 92:646-50+ S '53

See also

Pension trusts

Tax problems

A.L.C., L.I.A. give proposals for tax revisions. Nat Underw (Life ed) 57:1+ Jl 17 '53

Company retirement plans; their legal and tax aspects. R. B. Wiltse. Management R 43:536-43 Ag '54

NALU statement on revenue laws. East Underw 54:5 Jl 31 '53

New tax bill as it affects present, future pension plans. M. M. Goldstein. Nat Underw (Life ed) 58:9+ My 14 '54

Pension changes in new '54 revenue code analyzed. M. M. Goldstein. East Underw 55:3+ Ag 13 '54; Excerpt. Nat Underw (Life ed) 58:7 Ag 13 '54

Tax pitfalls in pension plans. M. M. Goldstein. Life Ins Courant 58:18-19+ S '53

Taxation

Senate's junking of unworkable pension tests opens way to sales now. M. M. Goldstein. Nat Underw (Life ed) 58:5 Jl 23 '54

PENSIONS, Military

Veterans' privileges. S. Berman. Life Ins Courant 58:44-6 N '53

Great Britain

Old soldiers' lot. Economist 169:876+ D 19 '53

PENSTOCKS

Fabrication and welding of steel penstocks. R. F. Scott. il diags Welding J 33:663-9 Jl '54

High velocity tests in a penstock. M. F. Burke. il diags Am Soc C E Proc 79 [no 297]:1-22 O '53

Landslide destruction of power plant blamed on leaks in penstock tunnel; Whatshan power plant near Needles, B.C. Eng N 151: 60 N 12 '53

Penstock tunnels strengthened with tin can linings. il Eng N 151:25 Jl 16 '53

Quick repairs for penstock put hydro plant back on line. il Eng N 151:42 S 17 '53

Tunnel lining at an angle; Kemano penstock at 48 deg. inclination, is a special problem for hydro plant builders. il diag Eng N 152:30-1 Ap 15 '54

PENTABORANE. See Boron hydrides

PENTABROMOACETONE

Polarographic determination of citric acid. P. J. Elving and R. E. Van Atta. bibliog Anal Chem 26:295-8 F '54

PENTACENE

Cyclic dienes; a new synthesis of pentacene. W. J. Bailey and M. Madoff. bibliog Am Chem Soc J 75:5603-4 N 20 '53

PENTACHLORDIPHENYL

Electrical properties of pentachlordiphenyl impregnated glass fiber paper. T. D. Callinan. bibliog il diags Electrochem Soc J 100:141-5 Ap '53

PENTACHLOROBENZENETHIOL

Preparation of pentachlorothiophenol and some other sulphur compounds. W. Tadros and E. Saad. Chem Soc J p 1155-6 Mr '54

PENTACHLOROCYCLOHEXENE

Partial additive chlorination of the benzene ring; pentachlorocyclohexene and hexachlorocyclohexene. A. J. Kolka, H. D. Orloff and M. E. Griffing. bibliog diags Am Chem Soc J 76:1244-9 Mr 5 '54

PENTACHLOROETHANE

Spectrum

Vibrational spectra and calculated thermodynamic properties of 1,1,1,2-tetrachloroethane and pentachloroethane. J. R. Nielsen and others. bibliog Opt Soc Am J 43:1071-9 N '53

PENTACHLOROFLUOROETHANE

Spectrum

Infrared spectra of pentachlorofluoroethane, 1,2-dichlorotetrafluoroethane, and 1-bromo-2-fluoroethane. D. Simpson and E. K. Plyler. J Res Nat Bur Stand 50:223-7 My '53

PENTACHLOROPHENOL

Solvent recovery from pentachlorophenol-treated wood. M. S. Hudson. bibliog il diag Ind & Eng Chem 45:1576-83 Jl '53

Analysis

Determination of chlorine in pentachlorophenol and pentachlorophenol laurate. E. H. Searle and E. Bell. J Ap Chem 4:430-3 Ag '54

PENTADIENE

Compounds derived from the addition of amines to 2,4-pentadienenitrile. J. M. Stewart. Am Chem Soc J 76:3228-30 Je 20 '54

PENTADIENONES

1,5-Diarylpentadienolonates. R. C. Fuson and L. R. Melby. Am Chem Soc J 75:5402-5 N 5 '53

PENTADIYNE

Properties of penta-1 : 3-diyne. E. R. H. Jones and M. C. Whiting. Chem Soc J p3317 O '53

PENTAERYTHRITOL

Optimistic over plastics; St Maurice chemicals, ltd. il Chem W 73:27-8 O 3 '53

Organic acid esters of pentaerythritol trinitrate. N. S. Marans, D. E. Elrick and R. F. Preckel. bibliog Am Chem Soc J 76: 1304-6 Mr 5 '54

Preparation of halides of pentaerythritol trinitrate. D. E. Elrick and others. Am Chem Soc J 76:1374-5 Mr 5 '54

PENTAERYTHRITOL—*Continued*

Manufacture

Looking to long-term. Chem W 73:56-7 Ag 1 '53

New Canadian plant produces formaldehyde, pentaerythritol. il Chem & Eng N 31:4096+ O 5 '53

PENTAFLUOROCYCLOBUTENE

Reactions of highly fluorinated organic compounds; 1H : 2H-hexafluoro*cyclo*butane and 1H-pentafluoro*cyclo*but-1-ene. M. W. Buxton and J. C. Tatlow. Chem Soc J p 1177-9 Ap '54

PENTANE

Approximate solubility of diborane in pentane. L. V. McCarty and J. Guyon. J Phys Chem 58:285-6 Mr '54

Benedict equation of state. J. B. Opfell, W. G. Schlinger and B. H. Sage. bibliog Ind & Eng Chem 46:1286-91 Je '54

Phase equilibria in hydrocarbon systems; volumetric and phase behavior of *n*-pentane-hydrogen sulfide system. H. H. Reamer, B. H. Sage and W. N. Lacey. bibliog Ind & Eng Chem 45:1805-9 Ag '53

PENTANONE

Vapor-liquid equilibria at 760-mm. pressure. L. H. Ballard and M. Van Winkle. bibliog Ind & Eng Chem 45:1803-4 Ag '53

PENTENYNE

Preparation and properties of *cis*- and *trans*-pent-2-en-4-yne. J. L. H. Allan and M. C. Whiting. Chem Soc J p3314-16 O '53

PENTOBARBITAL

5-Ethyl-5-(1-methyl-3-carboxypropyl)-2-barbituric acid and its thio analog; metabolites from pentobarbital and thiopental. H. B. Wood, jr. and E. C. Horning. bibliog Am Chem Soc J 75:5511-13 N 20 '53

PENTOSANS

Analysis

Determination of pentosans in highly purified wood pulps. E. D. Smith and L. N. Rogers. Anal Chem 25:931-3 Je '53

PENTOSES

Anthrone in the estimation of hexose sugars. R. Johanson. bibliog il Anal Chem 26:1331-3 Ag '54

PEOPLES gas light and coke company

Public utility securities. O. Ely. Comm & Fin Chr 179:185 Ja 14 '54

PEPSIN

Effects of sonic vibration on the proteolytic activity of pepsin. G. M. Naimark and W. A. Mosher. bibliog Acoustical Soc Am J 25:289-90 Mr '53

Kinetics of protein denaturation; the optical rotations of serum albumin, β-lactoglobulin and pepsin in urea solutions. W. Kauzmann and R. B. Simpson. bibliog Am Chem Soc J 75:5154-7 N 5 '53

PEPTIDES

Acyl chlorides of amino acids and peptides as monomers for the preparation of polymeric polypeptides. M. Frankel, Y. Liwschitz and A. Zilkha. bibliog Am Chem Soc J 76:2814-16 My 20 '54

Amino-acids and peptides; the kinetics of the self-condensation of glycylglycylglycine methyl ester. P. S. Rees, D. P. Tong and G. T. Young. Chem Soc J p662-5 F '54

Cyto-active amino-acid and peptide derivatives; substituted phenylalanines. F. Bergel and J. A. Stock. Chem Soc J p2409-17 Jl '54

Diffusion measurements, at 25°, of aqueous solutions of amino acids, peptides and sugars. L. G. Longsworth. bibliog Am Chem Soc J 75:5705-9 N 20 '53

Enzymic synthesis of peptide bonds; the influence of residue type of papain-catalyzed reactions of some benzoylamino acids with some amino acid anilides. S. W. Fox, M. Winitz and C. W. Pettinga. bibliog Am Chem Soc J 75:5539-42 N 20 '53

Examination of the use of carbobenzyloxy-γ-L-glutamyl hydrazide in the synthesis of γ-peptides. H. Sachs and E. Brand. bibliog Am Chem Soc J 76:1815-17 Ap 5 '54

Molecular models of amino acids, peptides, and proteins. R. B. Corey and L. Pauling. il diags R Sci Instr 24:621-7 Ag '53

Near infrared spectra of compounds with two peptide bonds and the configuration of a polypeptide chain. S. Mizushima and others. bibliog Am Chem Soc J 76:2479-82 My 5 '54

New method for identifying C-terminal residues in peptides. R. A. Turner and G. Schmerzler. bibliog Am Chem Soc J 76:949-50 F 5 '54

New method of stepwise degradation of peptides. D. T. Elmore and P. A. Toseland. bibliog Chem & Ind p 1227-8 N 14 '53

Optical rotation of peptides; glutamic acid tripeptides. H. Sachs and E. Brand. bibliog Am Chem Soc J 76:1811-14 Ap 5 '54

Peptide chains of tobacco mosaic virus. H. Fraenkel-Conrat and B. Singer. bibliog Am Chem Soc J 76:180-3 Ja 5 '54

Physicochemical studies of the simpler polypeptides; the acid- and base-catalyzed hydrolysis of di-, tri, tetra-, penta- and hexaglycine. E. F. Hammel, jr. and S. Glasstone. bibliog Am Chem Soc J 76:3741-5 Jl 20 '54

Preparation of arginyl peptides. D. T. Gish and F. H. Carpenter. bibliog Am Chem Soc J 75:5872-7 D 5 '53

Preparation of optically-active peptides using mixed carbonic-carboxylic acid anhydrides. J. R. Vaughan, jr. and J. A. Eichler. bibliog Am Chem Soc J 75:5556-60 N 20 '53

Reaction of nitrous acid with γ-glutamyl peptides. H. Sachs and E. Brand. bibliog Am Chem Soc J 76:3601-3 Jl 5 '54

Specific fission of peptide links by chemical means. A. R. Battersby and J. C. Robinson. bibliog Chem & Ind p45 Ja 9 '54

Studies on polypeptides; the synthesis of arginine peptides. K. Hofmann, A. Rheiner and W. D. Peckham. Am Chem Soc J 75:6083-4 D 5 '53

Syntheses of aspartyl amides and peptides through N-benzyl-*dl*-aspartic acid. Y. Liwschitz and A. Zilkha. Am Chem Soc J 76:3698-701 Jl 20 '54

Synthesis of an arginyl peptide. G. W. Anderson. Am Chem Soc J 75:6081 D 5 '53

Synthesis of L-histidyl peptides. R. W. Holley and E. Sondheimer. bibliog Am Chem Soc J 76:1326-8 Mr 5 '54

Synthesis of model, high molecular weight peptides by the mixed carbonic-carboxylic acid anhydride procedure. J. R. Vaughan, jr. and J. A. Eichler. bibliog Am Chem Soc J 76:2474-6 My 5 '54

Synthesis of peptides of L-glutamine by the carbobenzoxy azide method. E. Sondheimer and R. W. Holley. bibliog Am Chem Soc J 76:2816-18 My 20 '54

Synthesis of peptides related to gramicidin S. B. F. Erlanger, H. Sachs and E. Brand. bibliog Am Chem Soc J 76:1806-10 Ap 5 '54

Synthesis of peptides via α-benzyloximino acids. W. H. Hartung, D. N. Kramer and G. P. Hager. bibliog Am Chem Soc J 76:2261-2 Ap 20 '54

Synthesis of *p*-toluenesulfonyl-L-isoleucyl-L-glutaminyl-L-asparagine and related peptides. P. G. Katsoyannis and V. du Vigneaud. Am Chem Soc J 76:3113-15 Je 20 '54

Water solubility of some synthetic polypeptides. R. R. Becker and M. A. Stahmann. bibliog Am Chem Soc J 76:3707-9 Jl 20 '54

Analysis

Application of a quantitative method of peptide analysis to the N-terminal sequence of lysozyme. D. De Fontaine and S. W. Fox. bibliog Am Chem Soc J 76:3701-3 Jl 20 '54

Chromatographic separation and identification of some peptides in partial hydrolysates of silk fibroin. L. M. Kay and W. A. Schroeder. bibliog Am Chem Soc J 76:3564-8 Jl 5 '54

Constitution of gelatin; separation and estimation of peptides in partial hydrolysates. W. A. Schroeder and others. bibliog Am Chem Soc J 76:3556-64 Jl 5 '54

PER acids

Mechanism of the peracid ketone-ester conversion; analysis of organic compounds for oxygen-18. W. V. Doering and E. Dorfman. bibliog Am Chem Soc J 75:5595-8 N 20 '53

Peracid oxidation of linoleic acid. A. F. McKay, N. Levitin and R. N. Jones. bibliog Am Chem Soc J 76:2383-6 My 5 '54

Reaction of peracids with $\Delta^{20(21)}$-steroid enol acetates. R. B. Moffett and G. Slomp, jr. bibliog Am Chem Soc J 76:3678-82 Jl 20 '54

PER acids—*Continued*
Tracer studies on the formation and reactions of organic peracids. C. A. Bunton and others. Chem & Ind p 191-2 F 13 '54

PER diem rules. See Freight cars—Interchange

PERACETIC acid
Electron microscope examination of wool; fraction resistant to peracetic acid, ammonium hydroxide treatment. B. Manogue and R. L. Elliott. bibliog 2pls Soc Dyers & Col J 69:113-14 Ap '53
Successful bleaching of type 670 nylon; simple new method using peracetic acid. B. K. Easton. Mod Textiles Mag 35:66+ Ap '54

PERBENZOIC acid
Epoxyethers; the reaction of perbenzoic acid with vinyl ethers. C. L. Stevens and J. Tazuma. bibliog Am Chem Soc J 76:715-17 F 5 '54
Perbenzoic acid oxidation of Reichstein's L acetate. N. S. Leeds, D. K. Fukushima and T. F. Gallagher. bibliog Am Chem Soc J 76:2265-6 Ap 20 '54

PERCHLORATES
Kinetics of reactions between neptunium ions; the neptunium(IV)-neptunium(VI) reaction in perchlorate solution. J. C. Hindman, J. C. Sullivan and D. Cohen. Am Chem Soc J 76:3278-80 Je 20 '54
Kinetics of the oxidation of vanadium (II) and vanadium (III) ions by perchlorate ion. W. R. King, jr. and C. S. Garner. bibliog J Phys Chem 58:29-33 Ja '54
Kinetics of the reduction of perchlorate ion by Ti(III) in dilute solution. F. R. Duke and P. R. Quinney. Am Chem Soc J 76:3800-3 Jl 20 '54
Non-exchange of chlorine between chlorate and perchlorate ions. D. A. Lee. bibliog Am Chem Soc J 76:2590-1 My 5 '54

Analysis

Determination of chlorate and perchlorate in the presence of one another. G. P. Haight, jr. bibliog Anal Chem 25:642-3 Ap '53
Volumetric determination for perchlorates. D. C. Eagles. Chem & Ind p 1002-3 Ag 14 '54

PERCHLORETHYLENE. See Tetrachloroethylene

PERCHLORIC acid
Acidity function of perchloric acid in aqueous acetic acid. F. J. Ludwig and K. H. Adams. bibliog Am Chem Soc J 76:3853-4 Jl 20 '54
Exchange reaction between chromous and chromic ions in perchloric acid solution. A. Anderson and N. A. Bonner. bibliog diag Am Chem Soc J 76:3826-30 Jl 20 '54
High frequency titrations of organic bases in glacial acetic acid with perchloric acid. W. F. Wagner and W. B. Kauffman. bibliog diag Anal Chem 25:538-40 Ap '53
Influence of perchloric acid and cerous perchlorate upon the photochemical oxidation of cerous to ceric perchlorate in dilute aqueous perchloric acid. L. J. Heidt and A. F. McMillan. bibliog diag Am Chem Soc J 76:2135-9 Ap 20 '54
Kinetics and mechanism of the pinacol rearrangement; the perchloric acid-catalyzed rearrangement of benzopinacol and of tetraphenylethylene oxide in acetic acid solution. H. J. Gebhart, jr. and K. H. Adams. bibliog Am Chem Soc J 76:3925-30 Ag 5 '54
Kinetics of the reaction between thallium(III) and iron(II) in aqueous perchloric acid. K. G. Ashurst and W. C. E. Higginson. Chem Soc J p3044-9 O '53
Spectrophotometric investigation of the cerium (IV)-chromium (VI) complex ion equilibria in perchloric acid solution. J. Y. Tong and E. L. King. bibliog Am Chem Soc J 76:2132-5 Ap 20 '54
Use of perchloric acid in electrochemical analysis. G. Norwitz. bibliog Metallurgia 48:257-8 N '53

Manufacture

How to do the near-impossible with glass tubes; Oldbury electro-chemical's perchloric acid plant. il diag Chem Eng 60:130+ O '53

PERCHLOROETHYLENE. See Tetrachloroethylene

PERCUSSION welding. See Electric welding

PERFLUORO compounds
1,1-Di-H-perfluoroalkyl halides. G. V. D. Tiers, H. A. Brown and T. S. Reid. bibliog Am Chem Soc J 75:5978-9 D 5 '53
Improved synthesis of perfluoroaldehydes. M. Braid, H. Iserson and F. E. Lawlor. Am Chem Soc J 76:4027 Ag 5 '54
New synthesis of perfluoroaldehydes. O. R. Pierce and T. G. Kane. Am Chem Soc J 76:300-1 Ja 5 '54
Perfluorinated alkene, alkyne and cycloalkene. A. L. Henne and K. A. Latif. bibliog Am Chem Soc J 76:610-12 Ja 20 '54
Perfluoroalkyl compounds of nitrogen; perfluoroalkly-nitroso- and -nitro-compounds. J. Banus. Chem Soc J p3755-61 D '53
Perfluoroalkyl Grignard and Grignard-type reagents; heptafluoro-*n*-propylzinc iodide. R. N. Haszeldine and E. G. Walaschewski. Chem Soc J p3607-10 N '53
Perfluoroalkyl Grignard and Grignard-type reagents; trifluoromethylmagnesium iodide. R. N. Haszeldine. Chem Soc J p 1273-9 Ap '54
Preparation and reactions of perfluoroalkyllithiums. O. R. Pierce, E. T. McBee and G. F. Judd. bibliog Am Chem Soc J 76:474-8 Ja 20 '54
Properties of some perfluorinated N-bromo amides. J. D. Park, W. R. Lycan and J. R. Lacher. Am Chem Soc J 76:1388-9 Mr 5 '54
Reactions of metallic salts of acids with halogens; synthesis of perfluoro-nitroso- and -nitro-compounds. R. N. Haszeldine and J. Jander. Chem Soc J p4172-3 D '53

PERFLUOROCYCLOBUTANE
Heat capacity of gaseous perfluorocyclobutane. J. F. Masi. bibliog Am Chem Soc J 75:5082-4 O 20 '53

PERFORMIC acid
Action of performic acid on dicyclopentadiene. M. Gates and S. P. Malchick. Am Chem Soc J 76:1378 Mr 5 '54

PERFUMERY
Aerosol perfuming. R. A. Foresman and R. Pantaleoni. Soap & Chem Spec 30:139-41+ Jl '54
Infrared analysis; abstract. E. T. Theimer. Chem & Eng N 32:2199 My 31 '54
Matchabelli's display magic. il Mod Packaging 27:120-2 Jl '54
One-drop package. il Mod Packaging 27:92-4 Je '54
Perfumery in ancient Babylonia. M. Levey. bibliog J Chem Educ 31:373-5 Jl '54
Perfuming aerosols. H. Kainik. il Soap & San Chem 29:45-8 O '53
Practice and patience; essentials in training a perfumery chemist. J. Pickthall. Chem Age (Lond) 70:733 Mr 27 '54
Shulton goes modern. il Mod Packaging 27:99 Ap '54
Solubility of glass aerosol compositions. M. A. Johnsen. Soap & Chem Spec 30:168-9+ My '54
Ultra-low-pressure aerosols; Zonite products corp. il Mod Packaging 27:92-6 F '54
Westward shift in the perfume center. il Chem W 75:56-7+ Jl 31 '54
See also
Cleaning compositions—Perfuming
Odors

PERINAPHTHANE
Anomalous reduction of 7,9-diketoperinaphthane and its methyl ether. M. Goldman. bibliog Am Chem Soc J 76:4032-3 Ag 5 '54

PERINAPHTHANONE
Stobbe condensation with perinaphthanone-7 and 8-methylperinaphthanone-7. J. W. Patton and G. H. Daub. bibliog Am Chem Soc J 76:1954-5 Ap 5 '54

PERIODATES
Detection of periodate-oxidizable compounds on paper chromatograms. R. L. Metzenberg and H. K. Mitchell. Am Chem Soc J 76:4187 Ag 20 '54
Kinetics of the periodate oxidation of ethylene glycol and a series of methylated ethylene glycols. F. R. Duke and V. C. Bulgrin. Am Chem Soc J 76:3803-6 Jl 20 '54
Oxidation of carbohydrates with periodate in the Warburg respirometer. A. S. Perlin. bibliog Am Chem Soc J 76:4101-3 Ag 20 '54

PERIODATES—*Continued*

Oxidation of cellobiose by periodate. F. S. H. Head and G. Hughes. Chem Soc J p603-6 F '54

Periodate oxidation of methylfructoses. W. E. A. Mitchell and E. Percival. Chem Soc J p 1423-5 My '54

Production of formaldehyde during the oxidation of carbohydrates with periodate. J. F. O'Dee. bibliog Chem & Ind p 1338-9 D 12 '53

Properties of periodate-oxidised polysaccharides; the preparation of polymeric substances containing nitrogen from oxidised starches. V. C. Barry and P. W. D. Mitchell. Chem Soc J p3610-12 N '53

Properties of periodate-oxidised polysaccharides; the structure of some nitrogen-containing polymers. V. C. Barry and P. W. D. Mitchell. Chem Soc J p3631-5 N '53

Analysis

Determination of periodate in the presence of carbohydrates and their oxidation products. J. C. P. Schwarz. bibliog Chem & Ind p 1000 Ag 14 '54

PERIODIC acid

Mechanism of oxidation of α-glycols by periodic acid; ethylene glycol. G. J. Buist and C. A. Bunton. Chem Soc J p 1406-13 My '54

Periodic acid oxidation of diethanolamine. M. A. Smith and B. R. Willeford, jr. bibliog Am Chem Soc J 76:2502 My 5 '54

Analysis

Determination of periodic acid in highly colored solutions. M. A. Smith and B. R. Willeford, jr. bibliog Anal Chem 26:751-3 Ap '54

PERIODIC system

Diagrams relating the periodic table to geochemistry. V. P. Sokoloff. bibliog J Chem Educ 31:15-17 Ja '54

New space model of the periodic system of elements. S. Horie. il J Chem Educ 31:382 Jl '54

One more periodic table. R. T. Sanderson. J Chem Educ 31:481 S '54

Periodic table of elements. G. Chaverri R. J Chem Educ 30:632-3 D '53

Properties and the periodic table. R. N. Rhoda. J Chem Educ 30:260-1 My '53

PERIODICALS

See also

Advertising mediums—Periodicals
Chemistry—Periodicals
Employees' magazines
House organs
Medical services, Industrial—Periodicals
Newspapers
Science—Periodicals
Technical periodicals
Trade journals
Women's periodicals

Abbreviations

Periodica abbreviata and international standardization. F. L. Kent. J Doc 10:59-64 Je '54

Bibliography

Union lists

Union catalogue of the scientific and technical periodicals in the libraries of Australia; supplement, new titles 1946-1952. A. L. Kent, ed. 2d ed 111p £1 Commonwealth scientific and industrial research organization; for sale by Tait book co, 349 Collins st, Melbourne '54

Union list of serials in libraries of the United States and Canada; 2d ed, 2d Supplement Jan. 1944-Dec. 1949. M. Franck, ed. and others. 1365p H. W. Wilson co, New York '53

Union list of serials in New Zealand libraries. 667p New Zealand lib. assn, c/o National lib. service, Private bag, Wellington, New Zealand '53 (70s)

Circulation

See also

Audit bureau of circulations

Directories

Periodicals on instrumentation. il Instruments & Automation 27:773 My '54

Ulrich's periodicals directory; a classified guide to a selected list of current periodicals, foreign and domestic. E. C. Graves, ed. 7th ed 684p R. R. Bowker co, 62 W. 45th st, New York 36 '53 ($20)

Indexes

See also

Chemical abstracts (periodical)
Government publications—United States—Indexes

Reader interest

How a magazine reading-time study was conducted. A. G. Forbes. Adv Agency 46:96+ Je '53

How media research can describe different magazine audiences. H. D. Hadley. Adv Agency 46:116+ O '53

Readership surveys, who really wins? D. B. Arnold. Adv Agency 46:98 Jl '53

Validity of readership studies. G. W. N. Riddle. J Marketing 18:26-32 Jl '53; Discussion. J. W. Mason. 18:394; Reply. 394-6 Ap '54

Which recall aid will obtain reliable information? A. W. Hubbard. J Marketing 18:396-8 Ap '54

Great Britain

Models and morals; women's magazine reading. Economist 169:642-4 N 28 '53

PERIODICITY

See also

Periodic system

PERKIN, Sir William Henry, 1838-1907

Historical notes on the wet-processing industry; Sir W. Perkin. S. M. Edelstein. bibliog pors Am Dyestuff Rep 43:517-19+ Ag 16 '54

PERKIN medal

Illini chemistry chief receives Perkin medal. Chem & Eng N 32:326 Ja 25 '54

Perkin medal to educator Roger Adams. Chem Eng Prog 49:sup32 D '53

PERKIN reaction

Perkin synthesis of five- and six-membered rings. E. van Heyningen. bibliog Am Chem Soc J 76:2241-3 Ap 20 '54

PERKINS, Dwight Heald, 1867-1941

Dwight H. Perkins, father of today's new school ideas. pors Arch Forum 97:119-25 O '52

PERKINS, S. Albert, 1865-

S. A. Perkins, at 88, active as publisher. C. Watson. por Ed & Pub 86:50 My 16 '53

PERLITE

Cracking plaster and tile walls in Seattle building stir row over who is to blame; controversy over use of perlite. il Arch Forum 101:39 S '54

Expanded minerals find new jobs. il Dun's R & Mod Ind 63:117-18+ F '54

Perlite growing in use in construction and chemical industries. L. Roberts. il Rock Prod 57:136+ Je '54

Perlite insulating concrete. J. J. Brouk. diags Am Concrete Inst J 25:857-67 Je '54; Discussion. 26:868^1-868^6 pt 2 D '54

Perlite, 1953. S. W. Johnson. Eng & Min J 155:106-7 F '54

Perlite production and outlook. Rock Prod 57:82 F '54

Two kilns in series produce perlite; Perlite industries co. H. C. Persons. il Rock Prod 57:81 Jl '54

PERLITE institute

Annual meeting, 5th, Phoenix, Ariz. Rock Prod 57:120 S '54

PERMAFROST. See Soils—Freezing

PERMANENT molds. See Molds (for casting)—Permanent molds

PERMANENT wave preparations. See Hair preparations

PERMANGANATES

Comparison of the oxygen consumed from permanganate and b.o.d. tests in the study of textile wastes. H. J. Northup. bibliog Am Dyestuff Rep 43:130-1 Mr 1 '54

Analysis

Sulfuric acid concentration as a variable in the permanganate-oxalate titration. R. C. Brasted. Anal Chem 25:673-4 Ap '53

PERMANGANIC acid

Fluorides of permanganic and perrhenic acids, MnO_3F and ReO_3F. A. Engelbrecht and A. V. Grosse. bibliog Am Chem Soc J 76:2042-5 Ap 20 '54

PERMEABILITY

Air permeability of elastomers by diffusion tests. M. Czuha. il diag India Rubber World 130:207-10 My '54

Calibration of air permeability particle sizers. B. Dubrow. diags Anal Chem 25:1242-4 Ag '53

Effect of gas slip on unsteady flow of gas through porous media. J. S. Aronofsky. bibliog diag J Ap Phys 25:48-53 Ja '54

Flow of gases through plastic membranes. D. W. Brubaker and K. Kammermeyer. bibliog il diag Ind & Eng Chem 45:1148-52 My '53

Permeability method for the measurement of surface areas of fine powders. J. A. Allen and C. J. Haigh. bibliog diag J Chem Educ 31:354-6 Jl '54

Permeability of different elastomers to CO_2 using carbon-14. A. D. Kirshenbaum and others. bibliog il diags Rubber Age 74:903-8 Mr '54

Permeability of kaolinite. A. S. Michaels and C. S. Lin. bibliog(37 ref) diags Ind & Eng Chem 46:1239-46 Je '54

Permeability-porosity relationship for unconsolidated sand. R. M. Ponder and A. J. Miles. bibliog diag Mo U Sch Mines & Met Bul tech ser 84:1-23 '54

Permeability tests of lean mass concrete. H. K. Cook. bibliog il diag Am Soc T M Proc 51:1156-65 '51

Practical field application of relative permeability data. J. S. Osoba. Am Pet Inst Proc 33(4):71-4 '53; Same. Pet Eng (Ref annual) 25:B 117-18+ Jl 15 '53; Same abr. Oil & Gas J 52:326+ Jl 27 '53; Discussion. Am Pet Inst Proc 33(4):74-5 '53

Separation of gases by plastic membranes; permeation rates and extent of separation. D. W. Brubaker and K. Kammermeyer. bibliog flow diag diag Ind & Eng Chem 46:733-9 Ap '54

See also

Glass—Permeability
Packaging materials —Permeability
Plastic films—Permeability

PERMEAMETERS

Radio-frequency permeameter. P. H. Haas. bibliog diags J Res Nat Bur Stand 51:221-8 N '53

PERMITTIVITY. See Dielectric constants

PERNITROUS acid. See Nitrous acid

PEROXIDASES

Peroxidase oxidation of mesidine. G. M. K. Hughes and others. bibliog Chem & Ind p47-8 Ja 9 '54

PEROXIDES

Bleaching with peroxides and the use of peroxide in waste paper recovery. flow sheet diags Paper Ind 36:584-8+ S '54

Clews make news; peroxides as active agents. Paint Oil & Chem R 117:50A Mr 11 '54

Development studies on last stage peroxide bleaching of akaline pulps. R. L. McEwen and F. R. Sheldon. flow diags il diag Pulp & Pa of Can 55:109-15 Jl '54

Gum turpentine seen as source of peroxide; Naval stores station, Department of agriculture, Olustee, Fla. Paint Oil & Chem R 117:46 Ja 14 '54

Gum turpentine; source of organic peroxides. G. S. Fisher. Chem Eng 61:392-3 Ap '54

Inorganic peroxides, superoxides, and peroxyhydrates; symposium sponsored by the Office of ordnance research. Chem & Eng N 31:4012+ S 28 '53

Organic peroxides; alkyl-oxygen heterolysis in organic peroxides. A. G. Davies, R. V. Foster and R. Nery. Chem Soc J p2204-9 Jl '54

Organic peroxides; diacetylenic dihydroperoxides. N. A. Milas and O. L. Mageli. bibliog Am Chem Soc J 75:5970-1 D 5 '53

Organic peroxides; α-hydroperoxyethers and related peroxides. N. A. Milas, R. L. Peeler, jr. and O. L. Mageli. bibliog Am Chem Soc J 76:2322-5 My 5 '54

Organic peroxides; the mechanism of the reaction of alkyl methanesulfonates with hydrogen peroxide. H. R. Williams and H. S. Mosher. bibliog Am Chem Soc J 76:3495-6 Jl 5 '54

Organic peroxides; the preparation of alkyl hydroperoxides and dialkyl peroxides; characteristic derivatives of alkyl hydroperoxides. A. G. Davies, R. V. Foster and A. M. White. Chem Soc J p2200-4 Jl '54

Peroxide- and light-induced additions of alcohols to olefins. W. H. Urry and others. bibliog Am Chem Soc J 76:450-5 Ja 20 '54

Peroxide bleaching of groundwood at Gould paper co. R. A. Premo. Tappi 37:sup 169A-70A My '54

Peroxide bleaching of sulphate pulp. K. G. Aitken. diags Pulp & Pa of Can 55:125-30 My '54

Reaction of peroxides and hydroperoxides with lithium aluminum hydride. G. A. Russell. bibliog Am Chem Soc J 75:5011-13 O 20 '53

Reactions of organic peroxides; reactions with amines. C. W. Capp and E. G. E. Hawkins. Chem Soc J p4106-9 D '53

Reduction of tetralyl peroxide with sodium borohydride. M. Matic and D. A. Sutton. Chem & Ind p666 Jl 4 '53

Structure of methyl linoleate peroxides. H. H. Sephton and D. A. Sutton. bibliog Chem & Ind p667 Jl 4 '53

Ultra high density peroxide bleaching. W. J. Nolan and B. Armstrong. flow sheet Paper Ind 36:595-6 S '54

See also

Hydrogen peroxide

PEROXYBORATES

Detection of anionic complexes by pH measurements; some evidence for peroxyborates. J. O. Edwards. Am Chem Soc J 75:6154-5 D 20 '53

PEROXY compounds

Alkylperoxy-radicals; reactions with 2 : 4 : 6-trialkylphenols. A. F. Bickel and E. C. Kooyman. Chem Soc J p3211-18 O '53

PEROXYLAMINE disulfonate

Spectrum

Paramagnetic resonance hyperfine structure of the free radical $(SO_3)_2NO^-$. B. Smaller and E. L. Yasaitis. bibliog J Chem Phys 21:1905-6 O '53

PERPETUITIES

Reform of rule against perpetuities; ABA panel discussion. C. Looker and others. Trusts & Estates 92:768-74 O '53

PERPHTHALIC acid

Action of perphthalic acid on 5-dihydroergosteryl and ergosteryl acetates. G. H. Alt and D. H. R. Barton. Chem Soc J p 1356-61 My '54

PERRET, Auguste, 1874-1954

Portrait and illustrations of some of his work. Arch Rec 115:10-11+ My '54

PERRHENATES

Partition of electrolytes between aqueous and organic phases; the partition of the alkali reineckates and perrhenates between water and nitromethane. H. L. Friedman and G. R. Haugen. bibliog Am Chem Soc J 76:2060-3 Ap 20 '54

PERRHENIC acid

Fluorides of permanganic and perrhenic acids, MnO_3F and ReO_3F. A. Engelbrecht and A. V. Grosse. bibliog Am Chem Soc J 76:2042-5 Ap 20 '54

PERRIN process

See also

Nickel metallurgy

PERRY, John Richard, 1899-

Perry to be chief of BuDocks. por Eng N 151:21 O 22 '53

PERSIA. See Iran

PERSONAL effects insurance. See Insurance, Personal effects

PERSONAL finance. See Finance, Personal

PERSONAL injuries

Trends in personal injury suits against public utilities. H. L. Hackbert. Pub Util 54:436-42 S 30 '54

PERSONALITY

How to weed out character risk workers. R. N. McMurry. Iron Age 173:60-1 Ja 14 '54

Personalities; their impact on management action. W. J. E. Crissy. Personnel J 32:87-90 Jl-Ag '53

Why does the chemical engineer succeed or fail with people. R. S. Schultz. Chem Eng Prog 49:506-8 S '53

PERSONALITY tests

Analysis method helps management solve personnel problems; Activity vector analysis. W. B. Olson. Iron Age 172:114-17 O 15 '53

PERSONNEL administration. See Employment management

PERSPECTIVE

Simulated perspective sketching. P. F. Kranz. il diags Machine Design 26:108-13 Ag '54

PERSPIRATION

Anti-perspirants and deodorants. Consumers Res Bul 32:9-12 S '53

Investigations into fastness to perspiration. Soc Dyers & Col J 70:63-8 F '54

PERSULFATES

Evidence for hydroxylation as a major effect in the persulphate oxidation of organic compounds. R. G. R. Bacon and R. W. Bott. bibliog Chem & Ind p 1285-6 N 28 '53

Metal-catalyzed persulphate oxidations of organic compounds. R. G. R. Bacon and others. bibliog Chem & Ind p897-8 Ag 22 '53

Oxidation of some aromatic amines with persulphate. E. Boyland and P. Sims. Chem Soc J p980-5 Mr '54

Oxidation studies; metal-catalysed persulphate oxidation of some simple phenols. R. G. R. Bacon, R. Grime and D. J. Munro. Chem Soc J p2275-80 Jl '54

Persulfate oxidation of sulfoxides in buffered solution. E. Howard, jr. and L. S. Levitt. bibliog Am Chem Soc J 75:6170-3 D 20 '53

PERTURBATION theory. See Wave mechanics

PERU

See also

Chemical industries—Peru

Geology—Peru

Iron mines and mining—Peru

Petroleum industry and trade—Peru

Economic conditions

Economic conditions abroad (cont). For Comm W 50:4 N 16 '53; 51:4+ Ja 25; 4+ F 15 '54

Economic relations

United States

Ex-im bank to assist Peruvian iron output. For Comm W 50:5 Ag 3 '53

PERYLENE

Constituents of high-boiling petroleum distillates; preliminary studies. W. Carruthers and J. W. Cook. Chem Soc J p2047-52 Je '54

Analysis

Spectrophotometric identification of polynuclear aromatic components in high boiling petroleum fractions. R. Schnurmann, W. F. Maddams and M. C. Barlow. bibliog Anal Chem 25:1010-13 Jl '53

PEST control association, National. See National pest control association

PESTICIDES

Agricultural chemicals; progress in Australia; abstract. T. Conroy. Chem Age (Lond) 70:479 F 20 '54

Animal, vegetable, mineral; California spray chemical corp. Chem W 72:48+ My 2 '53

Chemical pesticides go forward; annual review. Chem Eng 61:206-7 Mr '54

Coyote controversy; 1080 poison in predator control. Chem W 73:78+ S 12 '53

Cure for tobacco blights. il Chem W 75:76 Ag 28 '54

Development of new pest control agents; abstract. H. F. Dietz. Soap & San Chem 30:182 Ap '54

Entoma, a directory of insect and plant pest control. G. S. Langford, ed. 10th ed 417p pa $2 Entomological soc. of America; G. S. Langford, Dept. of entomology, Univ. of Maryland, College Park '54

Fertilizers from oil and natural gas. Can Chem Process 38:59-60 Je 1 '54

Miller offers new pesticides bill. Oil Paint & Drug Rep 165:3+ Ja 18 '54

Naphtha as pesticide solvent; abstract. F. C. Nelson and G. W. Fiero. Chem & Eng N 32:1310 Ap 5 '54

Nicaragua's pesticides use seen doubling. Oil Paint & Drug Rep 166:3+ S 13 '54

Pack with potential; In-Sac-Iside pesticides container. il Chem W 75:82-3 Ag 28 '54

Pesticide supply below epidemic needs. H. H. Shepard. Oil Paint & Drug Rep 165:3+ My 17 '54

Pesticides carryover considerably below a year ago. Oil Paint & Drug Rep 165:3+ Mr 15 '54

Pesticides; inventory problems hamper planning; annual review. L. S. Hitchner. Chem & Eng N 32:32-4 Ja 4 '54

Pesticides 1953 production off by 15 percent. Oil Paint & Drug Rep 165:5 Je 21 '54

Pesticides outlook. Chem W 74:92+ Je 5 '54

Recent developments in pest control. J. W. Busch. Can Chem Process 38:70+ S '54

Role of petrochemicals in pesticides. L. S. Hitchner. Pet Refiner 32:117 N '53

See also

Insecticides

Rats—Extermination

Rodenticides

Law

Disinfectant regulations. W. A. Hadfield. Soap & San Chem 29:155+ O '53

Miller law fair treatment pledge; abstract. W. W. Goodrich. Oil Paint & Drug Rep 166:5+ S 13 '54

Miller pesticide measure. Oil Paint & Drug Rep 165:3+ Mr 15 '54

Poisons interpretation of USDA. Oil Paint & Drug Rep 165:7+ Ap 5 '54

State pesticide laws. C. C. McDonnell. Soap & Chem Spec 30:153+ Je '54

2,4-D and the law in Texas. Chem W 74:103 Mr 13 '54

USDA gives its views on pesticide evaluation. Oil Paint & Drug Rep 165:3+ Mr 29 '54

Physiological effect

New approaches to the health hazard evaluation of pesticides. K. Kay. A M A Archives Ind Hygiene & Occup Med 8:70-5 Jl '53

PETERS, John Findley, 1884-

J. F. Peters, 1953 Edison medalist; presented by J. F. Fairman and A. C. Monteith; response by J. F. Peters. Elec Eng 73:215-17 Mr '54

PETROCHEMICALS. See Petroleum chemicals

PETROGRAPHY. See Rocks

PETROLEUM

Interfacial activities and porphyrin contents of petroleum extracts. H. N. Dunning, J. W. Moore and M. O. Denekas. bibliog Ind & Eng Chem 45:1759-65 Ag '53

More plastics from petroleum; annual review. E. E. McSweeney and E. L. Kropa. Chem & Eng N 32:27-8 Ja 4 '54

Origin of petroleum. T. W. Nelson. bibliog(29 ref) J Chem Educ 31:399-402 Ag '54

Reaction of silver alloys with sulfur in mineral oil. R. T. Foley and others. bibliog Electrochem Soc J 100:538-42; 101:6-9 D '53-Ja '54

See also

Gas, Natural

Gasoline

Hydrocarbons

Kerosene

Liquefied petroleum gas

Liquid fuel

Oil fuel

Oil lands

Oil reserves (United States navy)

Oil sand

Oil shales

Petroleum distillation and other headings beginning Petroleum

Acidation of wells

Deep well acidizing. F. E. Rugg. il Pet Eng 25:B68-9+ Jl '53

Well stimulation at North Cowden pays; Stanolind uses sand-laden acid gel. J. E. Kastrop. il World Oil 137:264+ O '53

Analysis

Analyses of crude oils from some Oklahoma fields. C. M. McKinney and E. L. Garton. bibliog Pet Eng 25:A50-3 D '53

PETROLEUM—Analysis—*Continued*

Analyses of crude oils from some west Texas fields. E. L. Garton and C. M. McKinney. bibliog(24 titles) pl U S Bur Mines Rep of Invest 4959:1-55 '53; Excerpts (tables). Oil & Gas J 52:108-9 S 7 '53

Application of paper partition chromatography to petroleum analysis. E. Mariani. pl Inst Pet J 39:240-1 Ap '53

Chromatographic fractionation of crude petroleum oils. C. Karr, jr., W. D. Weatherford, jr. and R. G. Capell. bibliog il diags Anal Chem 26:252-6 F '54

Comparison of spectrochemical and semimicromethods in analysis of petroleum ashes. G. V. Dyroff, J. Hansen and C. R. Hodgkins. bibliog(28 ref) diags Anal Chem 25:1898-905 D '53

Constituents of high-boiling petroleum distillates; preliminary studies. W. Carruthers and J. W. Cook. Chem Soc J p2047-52 Je '54

Determination of furfural in oil in refinery operations by ultraviolet spectrophotometry. L. L. Gent, R. C. Pomatti and H. Levin. bibliog Anal Chem 26:413-14 F '54

Determination of total nitrogen in petroleum distillates by catalytic hydrogenation. C. Wankat and J. G. Gatsis. bibliog Anal Chem 25:1631-3 N '53

Differential method for accurate quantitative infrared analyses; assay for cyclohexane in petroleum concentrates. C. F. Hammer and H. R. Roe. Anal Chem 25:668-9 Ap '53

Direct determination of oxygen in organic compounds. W. H. Jones. bibliog Anal Chem 25:1449-52 O '53

Isolation and identification of biphenyls from West Edmond crude oil. N. G. Adams and D. M. Richardson. bibliog Anal Chem 25:1073-4 Jl '53

Occurrence of mixed aromatic-naphthenic hydrocarbons in petroleum as related to structural group analysis of heavier fractions. K. van Nes and others. bibliog Inst Pet J 38:998-1002 D '52

Polarographic studies of sulfur compounds in petroleum fractions. M. E. Hall. bibliog Anal Chem 25:556-61 Ap '53

Quantitative determination of the porphyrin aggregate in petroleum. S. Groennings. bibliog Anal Chem 25:938-41 Je '53

Rapid determination of aromatics in petroleum fractions. E. A. Pasquinelli. bibliog diag Anal Chem 26:329-42 F '54

Relationship of hydrocarbons with six to nine carbon atoms. H. M. Smith and H. T. Rall. bibliog Ind & Eng Chem 45:1491-7 Jl '53

Chemistry

A.C.S. Division of petroleum chemistry 124th national meeting, Chicago; abstracts of papers. Chem & Eng N 31:3981-3 S 28 '53

A.C.S. Division of petroleum chemistry 125th national meeting, Kansas City; abstracts of papers. Chem & Eng N 32:1446-8 Ap 12 '54

Hydrocarbon chemistry. H. S. Taylor. Ind & Eng Chem 45:1440-1 Jl '53

Properties of porphyrins in petroleum. H. N. Dunning, J. W. Moore and A. T. Myers. bibliog diag Ind & Eng Chem 46:2000-7 S '54

Reactions of hydrocarbons; ionic mechanisms. L. Schmerling bibliog(50 ref) Ind & Eng Chem 45:1447-55 Jl '53

Unsolved problems in the petroleum industry; C&EN staff report on symposium. il diag Chem & Eng N 31:2758-62 Jl 6 '53

What is petroleum? J. B. Hill. bibliog Ind & Eng Chem 45:1398-401 Jl '53

See also
Petroleum chemicals

Concessions

Bolivian concession. D. M. Duff. il map Oil & Gas J 52:51-2 N 30 '53

Bolivian spindletop? Glenn McCarthy comes to Wall Street. R. M. Bleiberg. Barron's 33:3+ N 2 '53

Egypt gives oil prospecting concessions to Americans. Chem & Eng N 32:2393 Je 14 '54

Putting oil income to work; Venezuela gets a daily yield of $1-million from oil concessions. Bsns W p156 D 12 '53

Conservation

Conservation means good stewardship of oil and gas reservoirs. E. O. Thompson. Am Pet Inst Proc 33(1):101-4 '53

Conservation through cooperation. J. Murray. Am Pet Inst Proc 33(1):23-6 '53

How about a deferred production agreement? H. F. Aby. Oil & Gas J 52:306+ D 21 '53

Dehydration

New wash tank design; emulsion problems in the Ventura field of California solved. A. R. Williams. il plan diags World Oil 137:203+ S; 278+ O '53

Drilling muds

See Petroleum—Mud fluids

Emulsions

Take a look at treating oil emulsions. W. E. Huffman. il World Oil 137:178+ N '53

Treatment of refinery emulsions and chemical wastes. C. Phillips, jr. flow diag Ind & Eng Chem 46:300-3 F '54

Estimates

See also
Petroleum supply

Evaporation losses

Foam cuts vapor losses; layer of tiny hollow spheres seals oil surface. Pet Processing 8:1017 Jl '53; il World Oil 137:211-13 Ag 1 '53

How painting affects storage-tank losses. W. L. Nelson. bibliog Oil & Gas J 52:130 N 2 '53

Microballoons hollow spheres of plastic, filled with inert nitrogen gas, floating on the surface of crude oil can cut evaporation losses. Can Chem Process 38:44+ Ag '54

Microballoons stop evaporation; Bakelite phenolic resin balloons reduce evaporation losses in storage tanks. il Chem & Eng N 31:5122 D 7 '53

Reduce evaporation in cone roof tanks with plastic foam. E. G. Ellerbrake and F. Veatch. diag Pet Refiner 33:137-41 Ja '54; Same. Pet Processing 8:1884-8 D '53; Same abr. Oil & Gas J 52:223-4+ N 16 '53

Tiny balloons cut evaporation; Ohio Standard reveals new foam product. G. L. Farrar. il Oil & Gas J 52:74-5 Jl 13 '53

Geology

A.A.P.G. mid-continent regional meeting, Wichita; abstracts of geological papers. Oil & Gas J 52:194-6 O 19 '53

Composition of crude oil and its relation to stratigraphy in Wyoming. J. M. Hunt. bibliog map Am Assn Pet Geologists Bul 37:1837-72 Ag '53

Continental framework and petroleum exploration in western United States. W. W. Mallory. bibliog maps Am Assn Pet Geologists Bul 37:2490-7 N '53

Coordination of seismic and geologic data in Poza Rica-Golden Lane area, Mexico. D. W. Rockwell and A. G. Rojas. bibliog maps diags Am Assn Pet Geologists Bul 37:2551-65 N '53

Differential trapping of hydrocarbons. W. C. Gussow. diags Oil & Gas J 52:168-9 S 7 '53

Entrapment of petroleum under hydrodynamic conditions. M. K. Hubbert. bibliog il maps diags Am Assn Pet Geologists Bul 37:1954-2026 Ag '53

Foraminifera, an evaluation. C. C. Church. Am Assn Pet Geologists Bul 37:1553-9 bibliog(p 1558-9) Jl '53

Fourth annual field conference, InterMountain association of petroleum geologists. M. Van Couvering. Am Assn Pet Geologists Bul 37:2571-6 N '53

Geology of Venezuela and its oil fields. E. Mencher and others. bibliog maps diags Am Assn Pet Geologists Bul 37:690-777 Ap '53

Geology of West Edison oil field, Kern county, California. H. H. Sullwold, jr. maps diags Am Assn Pet Geologists Bul 37:797-820 Ap '53

Indiana has highest output in 91 years. K. G. Boling. bibliog il map Pet Eng 25:B 10+ N '53

PETROLEUM—Geology—*Continued*

Italian oil and gas resources. F. Reeves. maps diags Am Assn Pet Geologists Bul 37:601-53 bibliog(p652-3) Ap '53

La Brea-Pariñas oil field, northwestern Peru. R. B. Travis. bibliog maps diags Am Assn Pet Geologists Bul 37:2093-118 S '53

Lower cretaceous in Alberta and Saskatchewan. il map World Oil 137:282-6+ D '53

Major companies examine oil prospects in southeastern Turkey. C. E. Tasman. il maps diag Oil & Gas J 52:88+ N 2 '53

Mechanism of displacement of oil from porous materials. M. Muskat and others. il diags Oil & Gas J 52:238+ N 16 '53

Mistakes can be costly in geologic correlations. C. A. Moore. map diags World Oil 137:109-12 Jl '53

Non-reef limestone reservoirs. J. E. Adams. Am Assn Pet Geologists Bul 37:2566-9 N '53

North Dakota; new oil state. S. H. Harris. bibliog il maps Pet Eng 25:B7-10+ Jl '53

Northern Anadarko basin shelf. R. A. Wheeler. map Pet Eng 25:B89-91 D '53

Novinger field drilling paces search for Marmaton bioherms. J. A. Kornfield. Oil & Gas J 52:198-9 O 12 '53

Oil explorations in the Oriente of Ecuador, 1938-1950. H. J. Tschopp. bibliog maps diags Am Assn Pet Geologists Bul 37:2303-47 O '53

Petroleum geology of Oklahoma. C. Millison. maps diags Pet Eng 25:B93-4+ D '53

Practical field application of relative permeability data. J. S. Osoba. Pet Eng (Ref annual) 25:B 117-18+ Jl 15 '53; Same abr. Oil & Gas J 52:326+ Jl 27 '53

Shelf principle of oil origin, migration, and accumulation. T. E. Weirich. maps diags Am Assn Pet Geologists Bul 37:2027-45 Ag '53

South Dakota; geology and stratigraphy. J. L. Brown. bibliog maps Pet Eng 25:B7-10+ S '53

Southeast Nebraska arch may offer possibilities in Cambro-Ordovician rocks. J. A. Kornfeld. maps diag Oil & Gas J 52:186-7 Ag 24 '53

Surface minerals reveal Michigan structures. B. H. Lasky. maps World Oil 137:100+ D '53

Truncation-type traps offer a new horizon. J Ryan. maps diag World Oil 137:177-9+ O '53

Velma oil field, Stephens county, Oklahoma. R. B. Rutledge. maps diags Pet Eng 25:B38+ D '53

What are the petroleum possibilities of northeast New Mexico? P. D. Helmig. map diags Oil & Gas J 52:88-91 Ja 11 '54

Why has the Raton basin been ignored? W. A. Heck. bibliog maps diag World Oil 137:180-2+ O '53

Williston basin; Mississippian reservoir characteristics and proved reserves. H. M. Cox. maps diags Am Assn Pet Geologists Bul 37:2294-302 O '53

See also

American association of petroleum geologists

Petroleum—Prospecting

Salt domes

Measurement

Electric eye accurately computes water cuts. R. F. Klassen. il Oil & Gas J 52:114-17 Ag 24 '53

Mud fluids

Aeration of drilling fluids a solution to lost circulation? R. A. Bobo and H. M. Barrett. diag World Oil 137:145-9 S '53

Bentonite-Diesel oil squeeze; new development for lost circulation. D. D. Dawson, jr. and W. C. Goins, jr. il World Oil 137:222+ O '53

Better well completions with weighted oil-base mud. diag Oil & Gas J 52:297 O 5 '53

Bulk mud saves crew time; holds waste to a minimum. P. L. McLaughlin. il World Oil 137:126-7 Ag 1 '53

Chemical treatment of drilling muds. P. E. Chaney and others. bibliog World Oil 138:107-8+ Ja; 116+ F 1 '54

Deep well mud program for west Texas. C. D. Allen, jr. il Pet Eng 25:B17-18 O '53

Domestic substitutes for quebracho in oil-well drilling fluids. W. H. Caraway. Pet Eng 25:B81-3+ N '53

Drilling mud practices; Coal county, Oklahoma. R. D. Blaicher. Pet Eng 25:B78 D '53

Drilling mud program in Williston basin. W. F. Huddleston. il Pet Eng 25:B 103-5 Je '53

Drilling muds; greasers for gushers. il Chem W 72:32+ Je 20 '53

Electric logging; mud filtrate. R. I. Martin. diags Oil & Gas J 52:129 N 2; 159 N 9 '53

Fluid mixers being used to mix drilling mud. J. Y. Oldshue. il World Oil 137:150+ S '53

Ground walnut shells used to combat lost circulation. A. Gibbon. il World Oil 138:105-6 Ja '54

How modern drilling muds affect rate of penetration in oil drilling. J. S. Bell and others. Oil & Gas J 52:124-7+ O 19 '53

How to buy drilling mud and mud engineering service. H. Dodge. Pet Eng 25:B 104+ N '53

Inhibited mud for drilling water-sensitive pay zones. G. E. Hendrickson. Pet Eng (Ref annual) 25:B 122-4 Jl 15 '53

Machine for conditioning mud. V. B. Zacher. il map Pet Eng 25:B80+ S '53

Magcobar, mud is their business; oil well drilling fluids. T. Wilson. il plan Min Eng 6:494-6 My '54

Mud control aids Nebraska discovery. P. A. Knupp and H. V. Knupp. il diag Pet Eng 25:B71+ O '53

Mud control in the fields of the Iraq petroleum and associated companies. A. W. Paxton. Inst Pet J 39:2-18; Discussion. 18-25 Ja '53

Mud problems in drilling deep wells. D. D. Dawson, jr. bibliog il map diags Pet Eng 26:B25-6+ Ja '54

New mud barge has high delivery rate. il Oil & Gas J 52:140 S 28 '53

Sodium silicate; brine drilling mud. Oil & Gas J 52:130 S 7 '53

Uses and handling of oil base mud. A. K. Brown and B. H. Burks. il Pet Eng 25:B94+ O '53

Paraffin problem

Hollow sucker rods solve paraffin problems. S. A. Gilliard. il World Oil 138:172+ Ja '54

Prices

Crude yields to pressure for higher prices. Nat Pet N 45:36-7 Je 17 '53

Factors in long-term crude contracts. W. L. Nelson. Oil & Gas J 52:150 Jl 13 '53

Market in oil. Economist 168:271-3 Jl 25 '53

Middle East prices up, why? R. E. Spann. World Oil 137:62 Ag 1 '53

New bases for Middle East crude oil. Economist 168:345 Ag 1 '53

Oil prices under fire; jobber margins rise. Nat Pet N 45:17-20 Jl 8 '53

Oil ready to refute Department of justice price charges. Nat Pet N 45:13-14 O 7 '53

Price collusion denied. B. F. Linz. il Oil & Gas J 52:71-4 Jl 20 '53

Price hike defended. Oil & Gas J 52:81-3 Jl 13 '53

Price hike stabilized; Middle East crude boost. Oil & Gas J 52:46 Ag 3 '53

Price leader attack disturbs marketers. Nat Pet N 45:29-30 Ag 19 '53

Refiner speaks mind on higher oil prices. P. G. Blazer. Nat Pet N 45:43-6 Ag 5 '53

Production estimates

How to select the best decline curve. D. E. Menzie. World Oil 137:180+ D '53

What's the payout on that secondary-recovery project? G. Hetherington. bibliog Oil & Gas J 52:130-1+ D 14 '53

Production methods

Analytical methods of testing waters to be injected into subsurface oil-productive strata. J. W. Watkins. 6pls U S Bur Mines Rep of Invest 5031:1-29 bibliog(24 titles, p27-9) '54

Artificial formation fracturing in southern Oklahoma and north-central Texas. W. L. Sallee and F. E. Rugg. map Am Assn Pet Geologists Bul 37:2539-50 N '53; Same. diag Pet Eng 26:B75-6+ F '54

Better flood recoveries seen. K. B. Barnes. diags Oil & Gas J 52:67-8 N 9 '53

PETROLEUM—Production methods—*Continued*

Brundred's Rantoul water flood recovers more than million barrels of oil. J. P. Powell. and J. L. Eakin. il map Oil & Gas J 52: 132-3+ O 26 '53

Carthage field gets triple completion. W. Bruster. diags Oil & Gas J 52:64+ Ag 3 '53

Center-to-edge line drive ups recovery. J. A. Kornfeld. il maps diags Oil & Gas J 52: 87-90 Ja 4 '54

Conditioning engine exhaust gas for injection into oil reservoirs. J. N. Breston and others. bibliog flow sheet il diag Am Pet Inst Proc 33(4):41-53 '53

Conditioning engine exhaust gases for repressuring. J. N. Breston. flow sheet il World Oil 137:224+ S '53

Displacement of petroleum from sand by detergent solutions. H. N. Dunning and others. 5pls U S Bur Mines Rep of Invest 5020:1-19 bibliog(23 titles, p 18-19) '53; Same. Pet Eng 26:B82-90 Ja '54

Displacement of petroleum from sand surfaces by solutions of polyoxyethylated detergents. H. N. Dunning, H. J. Gustafson and R. T. Johansen. bibliog il Ind & Eng Chem 46:591-6 Mr '54

Effect of injected gas upon the characteristics of oil in the West Basal Sundance reservoir, Lance Creek oil field, Niobrara county, Wyo. C. Q. Cupps and others. bibliog map diags U S Bur Mines Rep of Invest 5069:1-84 '54

Emulsion zone production. J. M. Marsh and E. L. Anders, jr. diags Pet Eng 25:B85-6+ Ag '53

Filtered ocean water used to flood wells in California's Wilmington field. D. H. Stormont. il map diags Oil & Gas J 52:68-71+ Ja 4 '54

Flooding limestones can be profitable. L. Krause. diag World Oil 138:176+ Ja '54

Fracturing sandstones of the Illinois basin. F. D. Furber and J. C. Wilson. World Oil 137:192+ Ag 1 '53

Gas turbines used for oil wells. Franklin Inst J 256:254 S '53

Giant Salem flood in full swing. R. J. Enright. il diag Oil & Gas J 52:71-3 D 7 '53

Healdton has big waterflood potential. C. H. Riggs and J. E. Way. map diag World Oil 137:190+ Jl '53

Here's a new secondary recovery method for thick crudes; in situ combustion. il World Oil 137:184 N '53

Hotfoot for unrecoverable oil. il Bsns W p78+ D 12 '53

How to do it, production hints. il Published in monthly numbers of World oil

How to estimate water requirements. R. C. Earlougher and W. A. Heath. World Oil 137:214+ S '53

How to test quality of injection water. W. F. Cerini. diags World Oil 137:189-90 Ag 1 '53

Hydraulic fracturing boon to Oklahoma's oil industry. J. B. Oakley, jr. Pet Eng 25: B73+ D '53

Hydraulic fracturing in Oklahoma. A. Stegelman, jr. Pet Eng 25:B49-50+ D '53

Hydraulic fracturing of oil and gas wells. R. C. Clark, jr. bibliog il diags Oil & Gas J 52:122-5+ S 14 '53

Hydraulic fracturing with emulsion stimulates production. M. A. Whitfield and C. H. Hutchins. il map Pet Eng 25:B 14+ S '53

Illinois floods net 11 million barrels of oil during 1952. map Oil & Gas J 52:79-81+ D 28 '53

Injection of atmospheric nitrogen in Elk Basin pressure maintenance still paying off. J. E. Lang. flow diag il Oil & Gas J 52:94-7 N 9 '53

In-situ combustion; newest method of increasing oil recovery. C. S. Kuhn and R. L. Koch. bibliog map diags Oil & Gas J 52: 92-6+ Ag 10 '53

Kewanee's Dengo; water-flood project may yield 3,000 bbl. per acre. J. P. Powell and J. L. Eakin. map Oil & Gas J 52:95-6 S 7 '53

Kuwait, where there are no dusters; producing conditions. il Oil & Gas J 52:86+ D 28 '53

Laboratory data show reservoir flow characteristics during secondary recovery from a consolidated sandstone. W. F. Cloud. il diags Oil & Gas J 52:121-3 D 7 '53

More fracturing power. K. B. Barnes. il Oil & Gas J 52:63 Ja 11 '54

New flood tracers; anions of iodine and bromine used successfully. A. W. Garst and B. B. Woods. Oil & Gas J 52:60 O 26 '53

New fracturing idea tried on Spraberry wells. J. E. Kastrop. il diags World Oil 138:153-6+ Ja '54

New injection work planned for Scurry's canyon reefs. J. A. Kornfeld. map Oil & Gas J 52:303-4+ D 21 '53

New Spraberry idea; new fracturing technique. il Oil & Gas J 52:74-5 D 7 '53

New technique in oil production; air injection in abandoned reservoirs promises excellent recoveries. R. Spearow. il Pet Eng 26:B39+ Ja '54

Oil recovery; 100 per cent? M. Muskat. diags Ind & Eng Chem 45:1401-5 Jl '53

Old methods revived. H. D. Ralph. Oil & Gas J 52:86+ Ag 24 '53

Performance of a Cypress sand flood. L. Krause. map Pet Eng 25:B86+ S '53

Permanent completions; symposium. Oil & Gas J 52:61-2 Ja 18 '54

Pressure maintenance by water injection in Steamboat Butte field. E. W. Rogers. il map Pet Eng 25:B78+ O '53

Production by fire; Magnolia perfecting method. il Oil & Gas J 52:68-9 Ag 10 '53

Production in '53 as written and pictured in Journal issues. il Oil & Gas J 52:164-5 Ja 25 '54

Recovering Spraberry's reluctant oil; Southern production co. uses large-volume, high-injection-rate hydraulic fracturing. T. P. Brooks and W. E. Life. il diags Oil & Gas J 52:66-9 D 28 '53

Residual-oil content of water-base wire-line cores as a criterion of water floodability. N. Johnston and others. bibliog Oil & Gas J 52:96-9+ Jl 13 '53

Review of techniques used in flooding limestone reservoirs in tri-state area. L. Krause. diag Pet Eng 25:B93+ Ag '53

Sand, important factor in successful fracturing. H. E. Staadt, jr. il Pet Eng 25: B 105-8 D '53

SACROC awaits signal; world's largest water flood, Kelly-Snyder field project. Oil & Gas J 52:53 Ja 18 '54

SACROC gets approval; Railroad commission approves water-gas injection program for Scurry's Canyon reef. P. Swain. map Oil & Gas J 52:102-3 Ja 25 '54

Secondary recovery in Oklahoma. A. E. Sweeney, jr. bibliog diag Pet Eng 25:B 12+ D '53

Secondary recovery in Texas. Oil & Gas J 52:105-7 N 2; 101-2+ N 23 '53

Sinclair gets patent on new oil-recovery process; in-situ combustion. Oil & Gas J 52: 111-13 Ag 24 '53

Texans take to floods. Oil & Gas J 52:109 O 12 '53

Unique filter system featured in pilot flood. R. O. Major. flow diag il World Oil 137: 272+ O '53

Water-flood center in four-county area of eastern Kansas. K. B. Barnes. map Oil & Gas J 52:77-8 Jl 13 '53

Water flood operations in Davenport field. A. H. Massad. il maps Pet Eng 25:B62+ D '53

Waterflood project nears predicted output; Cities Service Patterson block in Greenwood county, Kan. F. Beach and others. map diags Pet Eng 15:B94+ N '53

Water-flood restores youth to old west Texas lease. J. E. Kastrop. flow diag il maps World Oil 137:251-3+ O '53

Water flooding in the oil fields of Anderson, Franklin, Linn, and Miami counties, Kans. J. P. Powell and J. L. Eakin. bibliog 34pls U S Bur Mines Rep of Invest 4991:1-111 '53; Excerpt. Oil & Gas J 52:300-2+ N 16 '53

Water flooding's showpiece; Greenwood county, Kansas. E. McGhee. il map Oil & Gas J 52:65-8+ N 30 '53

Water input profiles in southeastern Illinois. R. G. Jones. diags Pet Eng 25:B60+ Je '53

Weathered-in lease problem being whipped; Canadian test of automatic operation of flowing wells and tank battery. M. R. Taylor. il diags World Oil 137:276+ D '53

PETROLEUM—Production methods—*Continued*

Wire line methods cut workover costs. J. E. Kastrop. il diags World Oil 137:165-7+ Ag 1 '53

See also

Petroleum—Acidation of wells
Petroleum—Mud fluids
Petroleum—Pumping
Petroleum—Well drilling
Petroleum—Well spacing

Prospecting

Accessibility surveys cut costs; road-building in Canadian wilderness; modern approach to major problem confronting exploration parties. P. H. Blanchet and others. il maps World Oil 137:93-4+ D '53

Bacteria call the tune in new wildcat technique. D. H. Stormont. map Oil & Gas J 52:54 Ja 18 '54

Camel trails across desert sands, caravans of heavy trucks and king-size trailers; exploration logistics in Saudi Arabia. B. Beverly and O. A. Seager. il map Oil & Gas J 52:183-6+ D 21 '53

Determination of mineral constituents of rocks by infrared spectroscopy. J. M. Hunt and D. S. Turner. bibliog Anal Chem 25:1169-74 Ag '53

Exploration in '53 as seen by Journal staffers and contributors. il Oil & Gas J 52:160-1 Ja 25 '54

Exploratory drilling in 1952. F. H. Lahee. maps Am Assn Pet Geologists Bul 37:1193-210 Je '53; Same abr. Oil & Gas J 51:138+ Mr 30 '53

Five most important factors in oil finding. D. Hager. Oil & Gas J 52:138+ Jl 6 '53

Fracking, a new exploratory tool. P. C. Ingalls. diag Oil & Gas J 52:197 O 12 '53

Gloomy outlook scored. G. B. Moody. Oil & Gas J 52:190 N 16 '53

Guides to future oil traps. F. P. Shepard and C. L. Moody. il maps diags Oil & Gas J 52:228-30+ N 16 '53

How to plan an exploration campaign. E. B. Noble. World Oil 138:84+ Ja; 90+ F 1 '54

Hunt for crude. Barron's 34:3+ Ja 18 '54

Muskeg crawler will allow summer exploration in Canada's muskeg swamps. G. Rempel. il map diags Pet Eng 25:B60+ Ag '53

New grid system drafted to speed up exploration. A. B. Irwin. il maps World Oil 137:262-3+ D '53

New use for old friend; locating oil deposits by use of microorganisms. R. J. Strawinski. Chem & Eng N 32:1020 Mr 15 '54

Oil and gas exploration in Alabama, Georgia, and Florida. R. B. Baum. bibliog maps Pet Eng (Ref annual) 25:B76-7+ Jl 15 '53

Oriented punch-core drilling in jungle of South Sumatra. il Oil & Gas J 52:74+ D 28 '53

Phillips in Alaska. il maps Pet Eng 25:B 12+ Je '53

South Dakota steps up exploration. J. P. Gries. maps diags Oil & Gas J 52:114-20 Jl 20 '53

Surface minerals reveal Michigan structures. B. H. Lasky. maps World Oil 137:100+ D '53

Takes guess out of oil prospecting; airborne scintillometer. diag Chem & Eng N 32:142 Ja 11 '54

Tight holes are poor business. Pet Eng 25:B68+ S '53

What's in the minds of oil finders? C. J. Deegan. Oil & Gas J 52:360+ Ja 25 '54

See also

Petroleum—Geology

Geophysical methods

Coordination of seismic and geologic data in Poza Rica-Golden Lane area, Mexico. D. W. Rockwell and A. G. Rojas. bibliog maps diags Am Assn Pet Geologists Bul 37:2551-65 N '53

Determining range in seismic marine exploration. il Oil & Gas J 52:126 Ag 10 '53

Exploration challenge. R. Lay. Oil & Gas J 52:54 N 23 '53

Geophysics; its problems and trends. D. T. Germain-Jones. bibliog 2pls maps Inst Pet J 39:335-45; Discussion. 345-53 Je '53

Gravity and its limitations. R. A. Weingartner. Oil & Gas J 52:113-14 S 28 '53

Helicopters proved practical in jungle seismic operations. il Oil & Gas J 52:137+ O 12 '53

How magnetic recording aids seismic operations. E. J. Handley. il Oil & Gas J 52:158-9 Ja 11 '54

Job opportunities with geophysical contractors. H. Salvatori. Pet Eng 25:B74-5 Jl '53

Let's look at gravity's discovery record. E. V. McCollum. maps Oil & Gas J 52:111-13 S 28 '53

Limitations of reflection seismograph. L. E. Nugent, jr. diags Am Assn Pet Geologists Bul 37:2513-29 N '53

Magnetic data from sedimentary beds. J. L. Harper. maps diag Pet Eng 25:B38+ Ag '53

Magnetic recording, new seismic exploration tool. M. J. Stolaroff. il diags Oil & Gas J 52:95-6+ D 28 '53

New exploration tool; recording geophysical information obtained with fm carrier system. M. J. Stolaroff. Oil & Gas J 52:79 S 28 '53

New oil-finding method tested; radio transmission curves show boundaries of accumulations. R. B. Pratt. il map diags World Oil 137:98+ N '53

New seismic computing method fast and efficient. R. B. Rice. diags World Oil 137:93-5+ Ag 1 '53

Our human assets in geophysics. C. H. Johnson. Am Assn Pet Geologists Bul 37:1560-3 Jl '53

Pros and cons of gravity. P. Lyons. Oil & Gas J 52:114-16 S 28 '53

Scintillation counter in the search for oil. R. W. Pringle and others. bibliog diags Min Eng 5:Trans 1255-61 D '53

Seismograph pays off in Kansas. R. H. Glover. map diags World Oil 137:109-10+ S '53

Shooting for oil in the Gulf of Mexico. W. Richardson. il Explosives Eng 31:135-41+ S '53

Sign marks seismic pioneer. W. T. Rintoul. il Pet Eng 25:B66 Jl '53

Usefulness of high-quality gravity surveys. S. Hammer. maps diags Oil & Gas J 52:106-7+ S 28 '53

Pumping

Artificial lift in '54: Journal sees 23,374 wells as pumpers. J. A. Kornfeld. Oil & Gas J 52:170 Ja 25 '54

Dual pumps in the Velma area. L. D. Holsapple. Pet Eng 25:B 121 D '53

Exercise of control of flowing wells and of input to gas lift installations by means of a differential flow control valve. L. R. de Verteuil. diags Inst Pet J 39:819-45 D '53

Factors affecting dual pump installations. J. A. Queen. Pet Eng 25:B80+ D '53

Foundation anchor device fits many sizes of pumping units. il diags World Oil 137:204 Jl '53

How Shell conducts gas lift in TXL, west Texas. R. F. Carlson. il map diag Oil & Gas J 52:89+ Jl 6 '53

How to solve problems in gas measurement. D. C. Penick. World Oil 137:194+ N '53

Lifting costs can be lowered through proper interpretation of dynamometer cards. J. H. Russell, jr. diags World Oil 137:175-8+ Jl '53

One pump installation produces from two pay zones. il diags Oil & Gas J 52:132-4 Jl 20 '53

Producing directionally drilled wells. H. J. Eastman. bibliog il diags Pet Eng 25:B37-8+ Jl '53

Proper gas control in pumping wells. K. N. Mills. il diags World Oil 137:188+ D '53

Selection and application of sucker rod pumps. K. N. Mills. il diags Pet Eng 25:B38-40+ S '53

Using dynamometer to calculate pumping unit peak torque loads. K. N. Mills. diags Pet Eng 25:B49-50+ O '53

PETROLEUM—*Continued*

Pumping, Electric

Economic aspects of electric oil-well beam pumping. T. L. Scott. il Elec Eng 73:131-3 F '54; Same abr. Oil & Gas J 52:92-3 Ja 18 '54

See also
Petroleum pipe lines—Pumping stations, Electric

Sampling

Continuous analysis sampling in petroleum and petrochemical processing; symposium. S. B. Spracklen and others. flow sheet diags Oil & Gas J 52:94-100 D 7 '53

Statistics

Demand will increase, but at slower pace. il Oil & Gas J 52:176-7+ D 21 '53
Free world production growing. Nat Pet N 45:16 S 30 '53
Midyear report; engineering and technological reviews; foreign production gain again outstrips U.S. D. M. Duff. Oil & Gas J 52: 239-40 Jl 27 '53
Midyear report; engineering and technological reviews; record-breaking production seen for 1953. P. C. Ingalls. Oil & Gas J 52:232-3 Jl 27 '53
Midyear report; engineering and technological reviews; total demand for 1953 will rise 4.8 per cent. J. C. Casper. Oil & Gas J 52:234-6 Jl 27 '53
Midyear report; engineering and technological reviews; total imports up; exports drop slightly. Oil & Gas J 52:242 Jl 27 '53
Production and proved remaining reserves, by fields. Oil & Gas J 52:210+ Ja 25 '54
Statistical report on world's reserves, production, refining; tabulation. Oil & Gas J 52:118-19 D 21 '53
Surplus of oil; world output. Economist 170: 121-2 Ja 9 '54
World crude oil production, by countries, by years, 1857-1952; tabulation. World Oil 137: 68+ Ag 15 '53
World crude production in 1952. World Oil 137:63-4+ Ag 15 '53
World output up five per cent, 555,000 bbl. D. M. Duff. Oil & Gas J 52:120+ D 21 '53
World supply and demand, mid-1953. R. E. Spann. World Oil 137:59-60 Ag 15 '53

Stripper wells

Stripper reserves set. Oil & Gas J 52:83 S 14 '53

Sulfur content

Evaluation of twenty qualitative tests for petroleum sulfur compounds. C. Karr, jr. bibliog(25 ref) Anal Chem 26:528-36 Mr '54
Extraction and recovery of thiols from petroleum distillates. R. L. Hopkins and H. M. Smith. diag Anal Chem 26:206-7 Ja '54
Investigation of the sulphur compounds present in middle distillate SO_2-extracts. R. Emmott. bibliog Inst Pet J 39:695-715 O '53
New source of sulphur; petroleum fraction. il Chem Age (Lond) 69:365 Ag 22 '53
Polarographic studies of sulfur compounds in petroleum fractions. M. E. Hall. bibliog Anal Chem 25:556-61 Ap '53
Preparation and properties of dialkyl di- and poly-sulphides; some disproportionation reactions. S. F. Birch and others. bibliog Inst Pet J 39:206-19 Ap '53
Sulphur compounds in petroleum. S. F. Birch. bibliog Inst Pet J 39:185-202; Discussion. 202-5 Ap '53
Sulfur content of paraffin-base crudes. W. L. Nelson. Oil & Gas J 52:118 N 23 '53
Synthesis, properties, and identification of sulfur compounds in petroleum; report on API research project 48. J. S. Ball and others. il diag Am Pet Inst Proc 32(1):139-75 '52
Thermal stability of high-sulfur crude oils. H. J. Coleman and others. bibliog diag Ind & Eng Chem 45:2706-10 D '53
Will sulfur extraction at well be first step in refining tomorrow? Pet Processing 9:11-12 Ja '54

See also
Petroleum refining—Sulfur removal

Testing

Estimation of corrosivity of crude oils. H. A. Cataldi and others. diags Am Pet Inst Proc 33(3):291-307 '53; Same. Pet Refiner 32:145-50 Jl '53; Excerpts. Oil & Gas J 52: 100+ Jl 20 '53

Tideland development

First tideland leases bring Texas big bonus. Bsns W p74 S 12 '53
Guides to future oil traps. F. P. Shepard and C. L. Moody. il maps diags Oil & Gas J 52:228-30+ N 16 '53
Gulf leases on block. il Oil & Gas J 52: 55 N 23 '53
Gulf tidelands area active. il Chem & Eng N 32:2760 Jl 12 '54
Hunt for undersea oil perks up despite hazards. il map Bsns W p 190-1+ O 17 '53
New storage floats; partially submerged spheroid tank designed for offshore production. diag Oil & Gas J 52:78 N 9 '53
Offshore petroleum installations. J. S. Toler. il Am Soc C E Proc 79 [no 289]:1-9 S '53
Operations on the tidelands. C. L. Orn. bibliog Am Pet Inst Proc 33(4):13-19 '53; Same. Oil & Gas J 52:296+ N 16 '53
Shelf drilling due. Oil & Gas J 52:79 Ag 10 '53
Shooting for oil in the Gulf of Mexico. W. Richardson. il Explosives Eng 31:135-41+ S '53
Sulphur offshore leasing rules proposed by Interior department; regulations to govern issuance of leases for development of sulphur, oil and gas and other mineral resources. Oil Paint & Drug Rep 165:3+ F 15 '54
Sulfur, oil offshore lease rules take effect. Oil Paint & Drug Rep 165:3+ My 10 '54
Tidelands law challenge forbidden by high court. Oil Paint & Drug Rep 165:3+ Mr 22 '54
Undersea offer; government offering for lease first batch of offshore sulfur and oil-and-gas properties. Chem W 75:13 S 25 '54
What are Russia's tidelands worth? map World Oil 137:77 N '53

See also
Petroleum—Well drilling, Subaqueous

Insurance aspects

Tidelands oil, big values, unknown risk, a challenge in specialty insurance. M. Schiflett. Nat Underw 58:19+ Mr 4 '54; Discussion. J. K. Sadler. 58:29 Ap 8 '54

Transportation

Cost of tanker transportation, USMC rates; tables. W. L. Nelson. Oil & Gas J 52:113-14+ S 7 '53
Effects of competition on the development of transportation. B. B. Jennings. Am Pet Inst Proc 32(5):17-21 '52
Oil by sea. Economist 168:338-9, 401-3 Ag 1-8 '53
Reappraising the Department of commerce role in transportation. R. B. Murray, jr. Am Pet Inst Proc 33(1):105-7 '53; Same. Oil & Gas J 52:282-4 N 16 '53
Shifts in petroleum transportation. J. E. Boice. Pet Eng 25:D 13+ Jl '53

See also
Petroleum pipe lines
Petroleum shipping terminals
Tank barges
Tank ships
Tank trucks

Unit operation of pools

Elk City field; model unitized operation. W. H. Burke. maps plan diags Pet Eng 25: A39-42+ D '53
Unitization, and how it works. C. H. Keplinger and J. M. Wanenmacher. il World Oil 137:198+ Jl '53
West Cement Medrano pool. J. Tarner. diag Pet Eng 25:B7-10 D '53

Water flooding

See Petroleum—Production methods

Water problem

Electric eye accurately computes water cuts. R. F. Klassen. il Oil & Gas J 53:114-17 Ag 24 '53

PETROLEUM—Water problem—*Continued*

Gravity injection pays dividends at Redwater. E. Hochhausen and I. M. Rice. il diags World Oil 137:173-5+ D '53; Same abr. Oil & Gas J 52:138-40+ O 19 '53

Potentiometric-model study of edge-water encroachment. W. J. Mason. il diags Colorado School of Mines [Golden] Quarterly v 49 no 3:1-30 '54 (pa $1)

Water damage to oil-well productivity. T. A. Bertness. Oil & Gas J 52:58-60 Ag 3 '53; Same. Pet Eng 25:B56+ S '53

Well blasting

Equipment trends in shaped-charge perforating. M. W. Russell and G. L. Gore. il Pet Eng 25:B71+ Je '53

Impactool helps load oil-well gun. il Comp Air Mag 59:48 F '54

Shooting water input wells. G. C. Roberts. il diag World Oil 138:160+ Ja '54

See also

Donaldson, W. E.

Well casing

Comparison of casing landing methods. J. W. Peret. Pet Eng 25:B101+ O '53

Factors affecting perforated completions. R. E. Bush. bibliog il Pet Eng 25:B59-63+ N '53

Triangulation method for determining collapse change points in casing design. R. L. Kastor. Oil & Gas J 52:108+ N 9 '53; Same. Pet Eng 25:B 121-3 N '53

Well cementing and plugging

Accomplishments and objectives of the API committee on standardization of oil-well cements. C. W. Dawson. Am Pet Inst Proc 33(4):76-8 '53

Casing can be cemented in permafrost area. F. L. White. il World Oil 137:119-20+ D '53

Hesitation squeeze cementing technique. C. B. Bowden. Oil & Gas J 52:111+ Jl 13 '53

Squeeze-cementing mixture. W. F. Hower and P. Montgomery. Oil & Gas J 52:136+ O 19 '53

Use of pozzolan cement in Prentice field. J. P. Schmalz. bibliog il Pet Eng 25:B88+ O '53

Well control

Exercise of control of flowering wells and of input to gas lift installations by means of a differential flow control valve. L. R. de Verteuil. diags Inst Pet J 39:819-45 D '53

International fireman, M. M. Kinley. A. Reese. il diag World Oil 137:63-7 Jl; 63-7 Ag '53

Spaghetti string in tubing affords high-pressure-well control. J. A. Kornfeld. il diag Oil & Gas J 52:118+ S 14 '53

Well drilling

Air drilling in California. K. M. Nicolson. bibliog diags Pet Eng 25:B98-100+ Ag '53; Same abr. Oil & Gas J 52:76-8+ Jl 6 '53

Application of power pumps to high pressure for jet-bit drilling. R. J. Meers. diag Oil & Gas J 52:114-15 N 2 '53

Basin has 12 percent of U.S. rigs. World Oil 137:155 O '53

Burma's hand-dug oil wells. H. E. King. il World Oil 138:225-9 Ja '54

California takes depth records; deep wells in other states. E. Adams. il Pet Eng 26:B21-4 Ja '54

Case histories covering variety of drilling conditions in different Rocky Mountain areas. il maps Oil & Gas J 52:158-72+ O 5 '53

Completion time cut by drilling progress; gains in Permian Basin area. A. W. Thompson. World Oil 137:163-4+ O '53

Contractor expands deep drilling facilities. R. Sneddon. il Pet Eng 25:B 16+ Ag '53

Deep but straight holes. bibliog Pet Eng 25:B52 Je '53

Deep drilling at Weeks Island field. W. P. Sterne. il Oil & Gas J 52:273+ O 5 '53

Depth record broken; Ohio Oil passes previous mark of 20,521 ft. D. H. Stormont. il Oil & Gas J 52:74-5 Ag 24 '53

Diamond coring and drilling solve many penetration problems in the Rockies. T. Manuel. il Oil & Gas J 52:120-1+ Ag 31 '53

Do you have a problem of directional drilling? W. H. Cook. diags World Oil 137:129-32+ Jl '53

Drilled three miles deep in Venezuela. il Pet Eng 26:B36 Ja '54

Drilling angles; directional drilling has become popular in West Coast fields. Oil & Gas J 52:98-9 O 12 '53

Drilling in '53, as reflected in representative Journal articles. il Oil & Gas J 52:162-3 Ja 25 '54

Drilling record set at Weeks Island. W. P. Sterne. il Oil & Gas J 52:113 Ja 18 '54

Drilling surface holes with air saves in cavernous formations. R. F. Carlson. il diag Oil & Gas J 52:98-9 Ag 24 '53

Effect of collar size in crooked holes. H. B. Woods. Oil & Gas J 52:153-4 N 9 '53

Engineering factors in drilling industry. J. H. Abernathy and R. W. True. bibliog Pet Eng 25:B56-8+ D '53

Exploratory and development drilling, 1953; tabulated by countries. Oil & Gas J 52:261-2+ Ja 25 '54

Exploratory drilling in 1952. F. H. Lahee. maps Am Assn Pet Geologists Bul 37:1193-210 Je '53; Same abr. Oil & Gas J 51:138+ Mr 30 '53

Faster drilling awaits upping of energy at hole bottom. J. V. Pennington. diag Oil & Gas J 52:245-6+ N 16 '53

Fifty feet per hour at Happy Springs. J. A. Kornfeld. maps Oil & Gas J 52:226-7+ O 5 '53

Five rigs drilling along Manderson anticline. J. A. Kornfeld. il map Oil & Gas J 52:135-6+ Ag 17 '53

4,000 ft. in two days and with a single bit. J. A. Kornfeld. map diags Oil & Gas J 52:89-90 S 7 '53

Hazards of drilling with natural gas. L. S. Fuller. il World Oil 138:121-2+ Ja '54

Here are factors affecting drill hole conditions. V. Horner. bibliog il World Oil 137:144+ Jl '53

Here's the equipment you'll need for that permanent-type well completion. E. McGhee. il diags Oil & Gas J 52:111-12+ D 7 '53

How modern drilling muds affect rate of penetration in oil drilling. J. S. Bell and others. Oil & Gas J 52:124-7+ O 19 '53

How to cut costs in crooked hole areas. A. Lubinski and H. B. Woods. bibliog diags World Oil 137:135-6+ Jl; 136+ Ag 1; 172+ S '53; Discussion. 137:213-14+ O '53

How to do it; drilling hints. il diag Published in monthly numbers of World oil

How world's deepest well was drilled. D. H. Stormont. il map Oil & Gas J 52:260-2+ O 5 '53

Huge discovery task to require more drilling. W. L. Baker. Am Pet Inst Proc 33(4):31-4 '53; Abstract. World Oil 137:84+ D '53

Hydraulic horsepower aids lower drilling costs in south Louisiana. W. S. Sease. il Pet Eng 26:B77-80 Ja '54

Increasing drainage of oil into well by drainhole drilling. D. H. Stormont. diags Oil & Gas J 52:105-6+ Ag 17 '53

Kansas operators making hole at record rate this year. J. C. McCaslin. maps Oil & Gas J 52:330-1+ O 5 '53

Midyear report; engineering and technological reviews; operators see still another drilling record. J. C. Casper. Oil & Gas J 52:226-7 Jl 27 '53

Midyear report; engineering and technological reviews; total completions almost duplicate 1952 figures. C. Hoot and J. C. McCaslin. Oil & Gas J 52:228-31 Jl 27 '53

Modern drilling. diags Oil & Gas J 52:127 N 2; 167 N 9 '53

Modern drilling equipment and methods. S. H. Crews. il Pet Eng 25:A38-9 O '53

New Shell rig is Ventura pace setter. D. H. Stormont. il plan diag Oil & Gas J 52:138+ O 26 '53

Ohio establishes world's new depth record in California. W. T. Rintoul. il Pet Eng 25:B55+ O '53

Oil fields in Saudi Arabia; they're overcoming drilling problems. L. C. Carson. map World Oil 137:146+ Ag 1 '53

PETROLEUM—Well drilling—*Continued*

Practical application of fluid hydraulics to drilling in California. G. D. Thompson. bibliog il Pet Eng 25:B92+ S '53; Same cond. Oil & Gas J 52:105+ Jl 20 53; Discussion. Pet Eng 25:B 107+ S '53

Pressure changes in drilling wells caused by up-and-down pipe movement. W. T. Cardwell, jr. bibliog diags Oil & Gas J 52:274+ Jl 27 '53

Producing directionally drilled wells. H. J. Eastman. bibliog il diags Pet Eng 25:B37-8+ Jl '53

Progress on permanent-type completions. E. McGhee. Oil & Gas J 52:126 O 26 '53

Recent developments in drill bits and drilling methods. H. B. Woods. bibliog il Pet Eng (Ref annual) 25:B55+ Jl 15 '53

Record U.S. drilling rates necessary. World Oil 137:74-5 S '53

Review and forecast. J. C. Casper and others. Oil & Gas J 52:124-33 Ja 25 '54

Rubber stabilizers are solving Permian problems. W. S. Bachman. il diag World Oil 137:195-8 O '53

Safety program pays off. J. T. Green. il Pet Eng 25:B38+ O '53

Second-biggest drilling year in history now programed. map Oil & Gas J 52:152-3 Ja 25 '54

Slant drilling in Peru. Oil & Gas J 52:70+ Ja 18 '54

Ten-year record of footage and number of wells completed in United States; tabulation. Oil & Gas J 52:260 Ja 25 '54

3,087 rotaries turning in late December; rigs operating in United States and western Canada. N. Williams. Oil & Gas J 52:179 Ja 25 '54

U.S. drilling record forecast in 1953. W. L. Baker and C. W. Smith. World Oil 137:102-4 Ag 15 '53

West Ardmore basin discovery. S. H. Crews. il map Pet Eng 25:B 113+ D '53

What are the problems in the Delaware basin? P. L. McLaughlin. map World Oil 137:152+ D '53

What it takes to drill those 15,000-ft. holes. W. P. Sterne. il Oil & Gas J 52:254+ O 5 '53

What's down there? R. W. Wire. Oil & Gas J 52:172-3+ N 2 '53

World completions and footage at close of 1952. A. Reese. World Oil 137:61-2 Ag 15 '53

See also

Derricks, Oil well

Drills, Oil well

Petroleum—Mud fluids

Accounting

Standard costs in drilling accounting. E. H. Sloyer. Oil & Gas J 52:99-100+ Ag 10 '53

Contracts

Banker looks at the contracting business. E. McElvaney. il World Oil 137:140-2+ N '53

Contract drilling highly competitive. W. L. Baker. World Oil 137:78-9 S '53

Contractors face mixed trends in drilling prices. Oil & Gas J 52:200-2 O 5 '53

Know your costs; don't bid blindfolded; use these new A.A.O.D.C. forms. il Oil & Gas J 52:140-2+ D 14 '53

60,000 employes, 1,146 companies in U.S.; fourth annual census of rotary drilling. Oil & Gas J 52:204 O 5 '53

What the operator wants from a drilling contractor. A. E. Chester. World Oil 137:80-2 S '53

Cost

Rising costs and lower revenue rates. C. W. Smith. World Oil 137:76-7 S '53

Well completion costs rise sharply. P. L. McLaughlin. World Oil 137:84+ S '53

See also

Petroleum—Well drilling, Subaqueous—Cost

Sampling

Avoid core barrel trouble. D. Wofford. il World Oil 137:156+ Jl '53

Early sampling needed. T. M. Kennerly. Oil & Gas J 52:60 N 23 '53

Electrical properties of limestone cores. R. L. Whiting and others. bibliog diags Oil & Gas J 52:309+ Jl 27 '53

Methods and advantages of determining gravities of crude in oil-bearing rock samples. J. O. Nigra. bibliog Pet Eng 25:B65+ Ag '53

Mud control aids Nebraska discovery. P. A. Knupp and H. V. Knupp. il diag Pet Eng 25:B71+ O '53

Oriented punch-core drilling in jungle of South Sumatra. il Oil & Gas J 52:74+ D 28 '53

Residual-oil content of water-base wire-line cores as a criterion of water floodability. N. Johnston and others. bibliog Oil & Gas J 52:96-9+ Jl 13 '53

Saturation determination of rotary cores. H. T. Kennedy and others. bibliog diag Pet Eng 26:B52+ Ja '54

Well drilling, Subaqueous

Air conditioned roughnecks of Breton Sound; Kerr-McGee's Rig 40. A. Reese. il map World Oil 137:323-6+ O '53

Gulf Coast offshore installation boasts model low-temperature separation unit. P. J. Natho. il Oil & Gas J 52:126-7 D 7 '53

Novel offshore rig drills six holes from fixed derrick. W. P. Sterne. il Oil & Gas J 52:58-9 Ja 11 '54

Six-well rig may be one answer to how to profit from offshore operations. il diags Oil & Gas J 52:79-85+ Ja 18 '54

Structures in the sea; special problems in design of offshore platforms. M. B. Willey. il Pet Eng 25:B38+ N '53

Talking drilling barges into position by using radar and radio. il diag World Oil 137:136 N '53

Use dock-barge in Gulf oil drilling. il Iron Age 173:65 Jl 1 '54

See also

Petroleum—Tideland development

Cost

What are the facts about Louisiana offshore drilling? H. Taylor. Oil & Gas J 52:237+ O 5 '53

Safety measures

Bottled nitrogen operates remote controlled master valves on offshore platforms. J. N. Morrell. il Pet Eng 25:B68+ N '53

Well logging

Calibration of gamma ray logs. A. Blanchard and J. T. Dewan. diags Pet Eng 25:B76+ Ag '53

Electric logging. R. I. Martin. diags Oil & Gas J 52:139 Je 8; 155 Je 15; 111 Je 29; 147 Jl 13; 137 Jl 20; 365 Jl 27; 131 Ag 10; 163 Ag 17; 151 Ag 24; 157 S 14; 148-9 O 26; 129 N 2; 159 N 9; 345 N 16; 103 N 30; 103 D 28 '53; 125 Ja 11; 119 Ja 18 '54

Experimental basis for neutron logging interpretation. J. T. Dewan and L. A. Allaud. diag Pet Eng 25:B49-50+ S '53

New well logging developments. L. A. Puzin. bibliog diag World Oil 137:134+ D '53; 138:124+ Ja '54

Vacuum method detects gas-bearing formations. J. E. Bliss. il diag World Oil 137:218+ O '53

Well logging with a van de Graaff. il Chem & Eng N 32:1020 Mr 15 '54

West Texas drill log. Oil & Gas J 52:145-6 Jl 13 '53

Well pressure

Establishment of the skin effect and its impediment to fluid flow into a well bore. W. Hurst. diag Pet Eng 25:B6-8+ O '53

Pressure changes in drilling wells caused by up-and-down pipe movement. W. T. Cardwell, jr. bibliog diags Oil & Gas J 52:274+ Jl 27 '53

Well sealing

Base plugs essential in sealing abandonments. F. R. Cozzens. diags Pet Eng 25:B135+ O '53

Well spacing

Development of Antelope shale halted by uneconomic spacing. D. H. Stormont. map Oil & Gas J 52:150-1 N 23 '53

Multiphase-flow theory and the problem of spacing oil wells. F. G. Miller. bibliog(27 titles) diags U S Bur Mines Bul 529:1-35; pa 20c Supt. of doc. '54

PETROLEUM—*Continued*

Well testing

Shell's push-button trap farm; gross fluid production, percentage water cut, and wet-gas output obtained automatically and recorded on individual well. D. H. Stormont. il Oil & Gas J 52:148-50 O 12 '53

Well tubing

Spaghetti string in tubing affords high-pressure-well control. J. A. Kornfeld. il diag Oil & Gas J 52:118+ S 14 '53

Alabama

Oil and gas exploration in Alabama, Georgia, and Florida. R. B. Baum. bibliog maps Pet Eng (Ref annual) 25:B76-7+ Jl 15 '53

Warrior basin prospects expand. N. Williams. map Oil & Gas J 52:129 D 28 '53

Alaska

Developments in Alaska in 1952. G. Gryc and D. J. Miller. maps Am Assn Pet Geologists Bul 37:1477-84 Je '53

Phillips in Alaska. il maps Pet Eng 22:B 12+ Je '53

Alberta

Lower cretaceous in Alberta and Saskatchewan. A. W. Farmilo. il map World Oil 137:282-6+ D '53

Arizona

Developments in Arizona, western New Mexico, and northern New Mexico in 1952. P. H. Umbach and F. C. Barnes. maps Am Assn Pet Geologists Bul 37:1376-83 Je '53

Arkansas

Developments in Arkansas and north Louisiana in 1952. S. A. Womack, jr. and H. R. Shaffer. bibliog map Am Assn Pet Geologists Bul 37:1449-59 Je '53

Australia

Australia's oil strike; Exmouth Gulf, West Australia. Economist 169:841-2 D 12 '53

Gusher Down Under. map Bsns W p 155 D 12 '53

More oil for the free world; discovery in western Australia. map Nat Pet N 45:15 D 16 '53

Oil prospects in Australia. map Economist 170:103-4 Ja 9 '54

Wildcat going down; Australian company starts drilling on first expensive test well. il Oil & Gas J 52:192-3 N 16 '53

California

Geology of West Edison oil field, Kern county, California. H. H. Sullwold, jr. maps diags Am Assn Pet Geologists Bul 37:797-820 Ap '53

16 discoveries in two years in California's Santa Clara valley. D. H. Stormont. map Oil & Gas J 52:170+ Jl 20 '53

Ventura avenue sets new high. D. H. Stormont. maps Oil & Gas J 52:417 Ja 25 '54

Whittier fault pools stage revival. D. H. Stormont. map Oil & Gas J 52:193 D 14 '53

Canada

Developments in eastern Canada in 1952. W. A. Roliff. bibliog maps Am Assn Pet Geologists Bul 37:1485-94 Je '53

Developments in western Canada in 1952. J. O. Galloway. maps Am Assn Pet Geologists Bul 37:1495-505 Je '53

Western Canada oil and gas map. World Oil 137:supp D '53

Colombia

1953 oil map of Colombia and Venezuela. World Oil 137:supp Ag 15 '53

Colorado

Black Hollow field spurs search for Lyons sand oil. J. A. Kornfeld. map diags Oil & Gas J 52:174-6 D 7 '53

Developments in Colorado, Nebraska, and Utah in 1952. R. D. Sloan and others. bibliog maps Am Assn Pet Geologists Bul 37:1250-63 Je '53

Moffat dome gets new oil reservoir. J. A. Kornfeld. map diag Oil & Gas J 52:194+ D 14 '53

Small basins merit further study. P. G. Ingalls. map Oil & Gas J 52:185 Ag 24 '53

Why has the Raton basin been ignored? W. A. Heck. bibliog maps diag World Oil 137:180-2+ O '53

Eastern states

Developments in Atlantic coastal states between New Jersey and South Carolina in 1952. H. G. Richards. Am Assn Pet Geologists Bul 37:1475-6 Je '53

Ecuador

Oil explorations in the Oriente of Ecuador, 1938-1950. H. J. Tschopp. bibliog maps diags Am Assn Pet Geologists Bul 37:2303-47 O '53

Florida

Oil and gas exploration in Alabama, Georgia, and Florida. R. B. Baum. bibliog maps Pet Eng (Ref annual) 25:B76-7+ Jl 15 '53

Formosa

Why is Taiwan drawing interest? map World Oil 137:66 D '53

Georgia

Oil and gas exploration in Alabama, Georgia, and Florida. R. B. Baum. bibliog maps Pet Eng (Ref annual) 25:B76-7+ Jl 15 '53

Greece

Oil in Greece? J. U. Tannhauser. map World Oil 138:230+ Ja '54

Idaho

Developments in Wyoming and Idaho in 1952. C. L. Walker. bibliog map Am Assn Pet Geologists Bul 37:1241-9 Je '53

Illinois

Developments in Illinois and Indiana in 1952. A. H. Bell and D. G. Sutton. map Am Assn Pet Geologists Bul 37:1301-14 Je '53

Indiana

Developments in Illinois and Indiana in 1952. A. H. Bell and D. G. Sutton. map Am Assn Pet Geologists Bul 37:1301-14 Je '53

Iran

Trucial test produces. map Oil & Gas J 52:102-3 D 21 '53

Italy

Italian oil and gas resources. F. Reeves. maps diags Am Assn Pet Geologists Bul 37:601-53 bibliog(p652-3) Ap '53

Kansas

Developments in North Mid-Continent in 1952. J. R. Berg. map Am Assn Pet Geologists Bul 37:1329-39 Je '53

Novinger field drilling paces search for Marmaton bioherms. J. A. Kornfeld. Oil & Gas J 52:198-9 O 12 '53

Oil on Anadarko shelf jumps West. P. C. Ingalls. map Oil & Gas J 52:167 S 7 '53

Seismograph pays off in Kansas. R. H. Glover. map diags World Oil 137:109-10+ S '53

Southeast Nebraska arch may offer possibilities in Cambro-Ordovician rocks. J. A. Kornfeld. maps diag Oil & Gas J 52:186-7 Ag 24 '53

Why is western Kansas neglected? P. C. Ingalls. map Oil & Gas J 52:193 O 19 '53

Wildcats revitalize Cherokee basin. P. C. Ingalls. map Oil & Gas J 52:131 Ag 3 '53

Kentucky

New finds spur oil search in Kentucky. W. D. Chawner. map Oil & Gas J 52:432-3+ N 16 '53

Oil and gas developments in Kentucky in 1952. F. H. Walker. bibliog map Am Assn Pet Geologists Bul 37:1289-97 Je '53

Louisiana

Developments in Arkansas and north Louisiana in 1952. S. A. Womack, jr. and H. R. Shaffer. bibliog map Am Assn Pet Geologists Bul 37:1449-59 Je '53

PETROLEUM—Louisiana—*Continued*

Developments in Louisiana Gulf Coast in 1952. J. G. Watson and M. L. Kerlin. bibliog map Am Assn Pet Geologists Bul 37:1443-8 Je '53

Manitoba

Petroleum in the Williston basin, including parts of Montana, North and South Dakota, and Canada, as of July 1953. K. B. Lindsey. map U S Bur Mines Rep of Invest 5055:1-70 bibliog(53 titles, p46-8) '54

Mexico

Coordination of seismic and geologic data in Poza Rica-Golden Lane area, Mexico. D. W. Rockwell and A. G. Rojas. bibliog maps diags Am Assn Pet Geologists Bul 37:2551-65 N '53

Developments in Mexico in 1952. E. J. Guzmán and F. Minau. maps Am Assn Pet Geologists Bul 37:1506-22 Je '53

Michigan

Developments in Michigan in 1952. R. J. Fugate. maps Am Assn Pet Geologists Bul 37:1315-28 Je '53

Surface minerals reveal Michigan structures. B. H. Lasky. maps World Oil 137:100+ D '53

Mid-continent region

More oil will be found near Wichitas. P. C. Ingalls. map Oil & Gas J 52:177 O 26 '53

Mississippi

New oil province indicated. P. C. Ingalls. map Oil & Gas J 52:375 S 21 '53

Warrior basin prospects expand. N. Williams. map Oil & Gas J 52:129 D 28 '53

Will the Arkansas valley yield oil? P. C. Ingalls. map Oil & Gas J 52:179 S 28 '53

Montana

Developments in Montana, North Dakota, and South Dakota in 1952. H. D. Hadley and G. W. Smith. bibliog map Am Assn Pet Geologists Bul 37:1233-40 Je '53

New look for Williston basin. P. C. Ingalls. map Oil & Gas J 52:137 Jl 6 '53

Petroleum in the Williston basin, including parts of Montana, North and South Dakota, and Canada, as of July 1953. K. B. Lindsey. map diag U S Bur Mines Rep of Invest 5055:1-70 bibliog(53 titles, p46-8) '54

Williston basin; Mississippian reservoir characteristics and proved reserves. H. M. Cox. maps diags Am Assn Pet Geologists Bul 37:2294-302 O '53

Nebraska

Developments in Colorado, Nebraska, and Utah in 1952. R. S. Sloan and others. bibliog maps Am Assn Pet Geologists Bul 37:1250-63 Je '53

Southeast Nebraska arch may offer possibilities in Cambro-Ordovician rocks. J. A. Kornfeld. maps diag Oil & Gas J 52:186-7 Ag 24 '53

New Mexico

Chaves county (Permian basin) drill log. Oil & Gas J 52:129 S 7 '53

Developments in Arizona, western New Mexico, and northern New Mexico in 1952. P. H. Umbach and F. C. Barnes. maps Am Assn Pet Geologists Bul 37:1376-83 Je '53

Developments in west Texas and southeastern New Mexico in 1952. C. D. Vertrees and others. bibliog map Am Assn Pet Geologists Bul 37:1358-75 Je '53

Jurassic oil found in gas basin. P. C. Ingalls. map Oil & Gas J 52:181 S 14 '53

Truncation-type traps offer a new horizon. J. Ryan. maps diag World Oil 137:177-9+ O '53

What are the petroleum possibilities of northeast New Mexico? P. D. Helmig. map diags Oil & Gas J 52:88-91 Ja 11 '54

What are the problems in the Delaware basin? P. L. McLaughlin. map World Oil 137:152+ D '53

Why has the Raton basin been ignored? W. A. Heck. bibliog maps diag World Oil 137:180-2+ O '53

New York (state)

Developments in New York in 1952. E. R. McAuslan. bibliog map Am Assn Pet Geologists Bul 37:1264-7 Je '53

North America

Production in Williston basin. S. H. Harris. map Pet Eng 25:B92-3+ Je '53

Williston interest is here to stay. P. C. Ingalls. map Oil & Gas J 52:171 N 2 '53

North Dakota

Developments in Montana, North Dakota, and South Dakota in 1952. H. D. Hadley and G. W. Smith. bibliog map Am Assn Pet Geologists Bul 37:1233-40 Je '53

New look for Williston basin. P. C. Ingalls. map Oil & Gas J 52:137 Jl 6 '53

North Dakota; new oil state. S. H. Harris. bibliog il maps Pet Eng 25:B7-10+ Jl '53

Petroleum in the Williston basin, including parts of Montana, North and South Dakota, and Canada, as of July 1953. K. B. Lindsey. map diag U S Bur Mines Rep of Invest 5055:1-70 bibliog(53 titles, p46-8) '54

Williston basin; Mississippian reservoir characteristics and proved reserves. H. M. Cox. maps diags Am Assn Pet Geologists Bul 37:2294-302 O '53

Ohio

Developments in Ohio in 1952. R. L. Alkire. map Am Assn Pet Geologists Bul 37:1280-4 Je '53

Oklahoma

Anadarko Basin's east flank promising. R. W. Disney. diags World Oil 138:77-8+ Ja '54

Analyses of crude oil from some Oklahoma fields. C. M. McKinney and E. L. Garton. bibliog Pet Eng 25:A50-3 D '53

Artificial formation fracturing in southern Oklahoma and north-central Texas. W. L. Sallee and F. E. Rugg. map Am Assn Pet Geologists Bul 37:2539-50 N '53; Same. diag Pet Eng 26:B75-6+ F '54

Big Simpson year. J. C. McCaslin. map Oil & Gas J 52:173 D 7 '53

Developments in Oklahoma in 1952. M. D. Maravich. map Am Assn Pet Geologists Bul 37:1340-51 Je '53

McAlester basin drill log. Oil & Gas J 52:145 S 28 '53

Northern Anadarko Basin shelf. R. A. Wheeler. map Pet Eng 25:B89-91 D '53

Oil on Anadarko shelf jumps West. P. C. Ingalls. map Oil & Gas J 52:167 S 7 '53

Oklahoma's stock climbs higher. P. C. Ingalls. map Oil & Gas J 52:193 N 9 '53

Petroleum-engineering study of Flat Rock oil field, Osage county, Okla. C. H. Riggs and others. bibliog 26pls U S Bur Mines Rep of Invest 5018:1-42 '54

Petroleum geology of Oklahoma. C. Millison. maps diags Pet Eng 25:B93-4+ D '53

Velma oil field, Stephens county, Oklahoma. R. B. Rutledge. maps diags Pet Eng 25:B38+ D '53

Wildcats revitalize Cherokee basin. P. C. Ingalls. map Oil & Gas J 52:131 Ag 3 '53

Will the Arkansas valley yield oil? P. C. Ingalls. map Oil & Gas J 52:179 S 28 '53

Peru

La Brea-Pariñas oil field, northwestern Peru. R. B. Travis. bibliog maps diags Am Assn Pet Geologists Bul 37:2093-118 S '53

Rocky Mountain region

Rockies are top future province. P. C. Ingalls. Oil & Gas J 52:163 Ag 31 '53

Sahara desert

Sahara search pushed. D. M. Duff. map Oil & Gas J 52:86 Jl 13 '53

Saskatchewan

Lease bids are clues. H. D. Ralph. map Oil & Gas J 52:87+ S 14 '53

Lower cretaceous in Alberta and Saskatchewan. A. W. Farmilo. il map World Oil 137:282-6+ D '53

Petroleum in the Williston basin, including parts of Montana, North and South Dakota, and Canada, as of July 1953. K. B. Lindsey. map U S Bur Mines Rep of Invest 5055:1-70 bibliog(53 titles, p 46-8) '54

South Dakota

Developments in Montana, North Dakota, and South Dakota in 1952. H. D. Hadley and G. W. Smith. bibliog map Am Assn Pet Geologists Bul 37:1233-40 Je '53

PETROLEUM—South Dakota—*Continued*

New oil state in next half year? P. C. Ingalls. map Oil & Gas J 52:401 Jl 27 '53

Petroleum in the Williston basin, including parts of Montana, North and South Dakota, and Canada, as of July 1953. K. B. Lindsey. map U S Bur Mines Rep of Invest 5055:1-70 bibliog(53 titles, p46-8) '54

South Dakota; geology and stratigraphy. J. L. Brown. bibliog maps Pet Eng 25:B7-10+ S '53

Southeastern states

Developments in southeastern states in 1952. L. J. Finfrock and R. B. Morton. maps Am Assn Pet Geologists Bul 37:1460-74 Je '53

Tennessee

Oil and gas developments in Tennessee in 1952. H. C. Milhous. map Am Assn Pet Geologists Bul 37:1298-300 Je '53

Texas

Analyses of crude oils from some west Texas fields. E. L. Garton and C. M. McKinney. bibliog(24 titles) pl U S Bur Mines Rep of Invest 4959:1-55 '53; Excerpts (tables). Oil & Gas J 52:108-9 S 7 '53

Andrews leads 1953 discoveries. C. Hoot. map Oil & Gas J 52:157 Ja 11 '54

Artificial formation fracturing in southern Oklahoma and north-central Texas. W. L. Sallee and F. E. Rugg. map Am Assn Pet Geologists Bul 37:2539-50 N '53; Same. diag Pet Eng 26:B75-6+ F '54

Developments in east Texas in 1952. R. W. Eaton. map Am Assn Pet Geologists Bul 37:1416-30 Je '53

Developments in north Texas in 1952. L. B. Smith, jr. map Am Assn Pet Geologists Bul 37:1384-91 Je '53

Developments in south Texas in 1952. C. C. Miller and others. map Am Assn Pet Geologists Bul 37:1405-15 Je '53

Developments in Texas Panhandle in 1952. J. H. Tarver. map Am Assn Pet Geologists Bul 37:1352-7 Je '53

Developments in upper Gulf Coast of Texas in 1952. W. F. Cooke, jr. bibliog map Am Assn Pet Geologists Bul 37:1431-42 Je '53

Developments in west-central Texas in 1952. K. Waddell. map Am Assn Pet Geologists Bul 37:1392-404 Je '53

Developments in west Texas and southeastern New Mexico in 1952. C. D. Vertrees and others. bibliog map Am Assn Pet Geologists Bul 37:1358-75 Je '53

Lower Cambrian shows new promise. C. Hoot. Oil & Gas J 52:189 Ag 17 '53

New oil horizon extends Penwell pool. J. V. Townsend, jr. il map Pet Eng 25:B 12+ Ag '53

Palo Duro basin drilling next? C. Hoot. map Oil & Gas J 52:139 N 30 '53

Petroleum-engineering study of the Ellenburger reservoir, Big Lake field, Reagan county, Tex. K. F. Anderson and others. bibliog 10pls U S Bur Mines Rep of Invest 5048:1-28 '54

Refining properties of new crudes; crude oils from the Spraberry, Texas, area. C. M. McKinney and H. M. Smith. map Pet Processing 8:1164-7 Ag '53

Truncation-type traps offer a new horizon. J. Ryan. map diag World Oil 137:177-9+ O '53

Wemac field, Andrews county discovery. M. Levin. il map Pet Eng 25:B74+ N '53

West Texas drill log. Oil & Gas J 52:145-6 Jl 13 '53

West Texas Ellenburger drill log. Oil & Gas J 52:129-30 Ag 10 '53

West Texas (Pennsylvanian) drill log. Oil & Gas J 52:99-100 Ag 3 '53

What are the problems in the Delaware basin? P. L. McLaughlin. map World Oil 137:152+ D '53

Tunisia

Oil in the olive orchard? il World Oil 137:247 Jl '53

Turkey

Major companies examine oil prospects in southeastern Turkey. C. E. Tasman. il maps diag Oil & Gas J 52:88+ N 2 '53

Utah

Carboniferous fossils from wells in Paradox basin, Utah. E. B. Heylmun. bibliog map Am Assn Pet Geologists Bul 37:2188-91 S '53

Developments in Colorado, Nebraska, and Utah in 1952. R. D. Sloan and others. bibliog maps Am Assn Pet Geologists Bul 37:1250-63 Je '53

Northeast Utah's recent discoveries. P. C. Ingalls. map Oil & Gas J 52:169 Jl 20 '53

Venezuela

Geology of Venezuela and its oil fields. E. Mencher and others. bibliog maps diags Am Assn Pet Geologists Bul 37:690-777 Ap '53

1953 oil map of Colombia and Venezuela. World Oil 137:supp Ag 15 '53

West Virginia

Oil and gas developments in West Virginia in 1952. R. C. Tucker. Am Assn Pet Geologists Bul 37:1285-8 Je '53

Western states

Continental framework and petroleum exploration in western United States. W. W. Mallory. bibliog maps Am Assn Pet Geologists Bul 37:2490-7 N '53

Developments in West Coast area in 1952. G. B. Moody. bibliog maps Am Assn Pet Geologists Bul 37:1211-32 Je '53

Wyoming

Another tilted water·table proved. P. C. Ingalls. map Oil & Gas J 52:177 Jl 13 '53

Composition of crude oil and its relation to stratigraphy in Wyoming. J. M. Hunt. bibliog map Am Assn Pet Geologists Bul 37:1837-72 Ag '53

Developments in Wyoming and Idaho in 1952. C. L. Walker. bibliog map Am Assn Pet Geologists Bul 37:1241-9 Je '53

Effect of injected gas upon the characteristics of oil in the West Basal Sundance reservoir, Lance Creek oil field, Niobrara county, Wyo. C. Q. Cupps and others. bibliog map diags U S Bur Mines Rep of Invest 5069:1-84 '54

Small basins merit further study. P. G. Ingalls. map Oil & Gas J 52:185 Ag 24 '53

Wyoming Devonian oil indicated. J. C. McCaslin. map Oil & Gas J 52:355 D 21 '53

Wyoming's Circle Ridge field. L. E. Beebe. il maps diag Oil & Gas J 52:109-10+ S 14 '53

PETROLEUM administration for defense

Petroleum administration and pipe lines. R. E. Nelson, jr. Am Pet Inst Proc 33(5):63-6 '53

PAD finishing job. Oil & Gas J 52:92 D 14 '53

Salute to PAD for a job well done. Nat Pet N 45:22-4+ O 21 '53

PETROLEUM association of America, Independent. See Independent petroleum association of America

PETROLEUM associations

Professional groups in western Canada must be given substantial credit for the rapid advance of the petroleum industry. F. K. Beach. Pet Eng 25:A55+ N '53

PETROLEUM chemicals

All directions from ethane; National Petro-Chemical. il Chem W 73:44+ S 19 '53

A.C.S. Division of petroleum chemistry 124th national meeting, Chicago; abstracts of papers. Chem & Eng N 31:3981-3 S 28 '53

Berre plant first in France to produce acetone from petroleum. il Oil & Gas J 52:111-12+ S 7 '53

Britain embarks on big chemical program. V. S. Swaminathan. il Oil & Gas J 52:130-2+ O 12 '53

BA-Shawinigan petrochemicals plant; phenol and acetone from cumene. il Chem Age (Lond) 70:513-16 F 27 '54

British petroleum chemicals industry enters new stage. Chem & Eng N 31:3295-6 Ag 10 '53

Canadian petrochemical production. il map Can Chem Process 38:46+ Mr '54

Chemicals from natural gas still an infant. R. L. Bateman and T. R. Ragland. Chem Eng 61:384-6 Je '54

PETROLEUM chemicals—*Continued*

Chemicals from petroleum; changing concepts. W. F. Mitchell. Chem Age (Lond) 69:115-17 Jl 18 '53

Continuous analysis sampling in petroleum and petrochemical processing; symposium. S. B. Spracklen and others. flow sheet diags Oil & Gas J 52:94-100 D 7 '53

Cornfields to chemicals; National petro-chemicals corp. il Chem W 73:26+ N 21 '53

Development of petroleum and petrochemical processing. B. T. Brooks. bibliog Pet Eng 26:C25-6+ Ja; C5-10+ F; C9-12+ Mr; C38-40+ My '54

Dutch petroleum chemicals industry expanding. Chem & Eng N 32:70 Ja 4 '54

Economic effect of the U.K. petroleum chemicals industry on U.K. trade. R. F. Goldstein. bibliog Chem & Ind sup S24-7 Ag 10 '53

Economic importance of the petrochemical industry; abstract. R. F. Goldstein. Chem Age (Lond) 68:925-6; Discussion. 929-30 Je 20 '53

Electrical problems in petrochemical process control. D. J. Pompeo. il diags Pet Refiner 32:127-30 Ag '53

Farm to tankfarm in east-central Illinois; National Petro-Chemicals' $50 million plant. il Chem & Eng N 31:4762-3 N 16 '53

Fertilizers from oil and natural gas. il Can Chem Process 38:56-60 Je 1 '54

French plants make alcohols, solvents, detergents. V. S. Swaminathan. flow chart il Pet Eng 25:C 19+ N '53

Giant, and still growing; program of diversification in chemicals for Phillips Petroleum. il Chem W 74:16-17 F 20 '54

Grangemouth promises to become important chemical center. Chem & Eng N 31:3665 S 7 '53

Huge petrochem plant dedicated; National Petro-Chemicals' Tuscola project. G. Weber. il diag Oil & Gas J 52:48-9 N 23 '53

Latest entry in petrochemical field; Gulf oil corp.'s iso-octyl alcohol. il diag Chem Eng 61:113-14 Ag '54

Making, not selling; Cosden petroleum corp.'s Chemical div. B. Jackson. il Chem W 75:18-19 S 11 '54

Man-size petrochemical venture; Sun oil co. at the Marcus Hook. V. B. Guthrie. flow diag il Pet Processing 9:83-5 Ja '54

Manufacture of chemicals from petroleum; abstract. J. L. Edgar. Chem & Ind p73 Ja 16 '54

Midyear report; engineering and technological reviews; complete plants feature petrochemical expansion; petrochemical-plant building projects, U.S. and Canada. Oil & Gas J 52:257-8 Jl 27 '53

Montreal's new petrochemical plant. G. S. Williamson. flow chart il Pet Eng 26:C37-9 Ja '54

Natural gas to alcohol; National petro-chemical corp.'s Tuscola, Ill. plant. il Oil & Gas J 52:60-4 N 30 '53

New petrochem trends. J. C. Reidel. il Oil & Gas J 52:66+ O 26 '53

1952 petrochemicals valued at $2.7 billion. R. L. Bateman and J. A. Field. diags Oil & Gas J 52:102-3+ O 26 '53

Petrochem shift. G. Weber. Oil & Gas J 52:81-3 S 14 '53

Petrochemical expansion slowed; abstracts. R. E. Hulse. Chem & Eng N 32:2236 My 31 '54; Oil Paint & Drug Rep 165:5+ My 24 '54

Petrochemical plant opened at Tuscola. il Chem Eng Prog 49:sup 18+ D '53

Petrochemical process handbook. flow diags diags Pet Refiner 32:97-195 N '53

Petrochemical review. Can Chem Process 38:92 S '54

Petrochemicals for clothing or fertilizer. A. L. Foster. il Pet Eng 25:C3-6 Jl '53

Petrochemicals headed for continued expansion. map Oil & Gas J 52:157 Ja 25 '54

Petrochemicals in '53 as reported in the Journal's pages. il Oil & Gas J 52:174+ Ja 25 '54

Petrochemicals in the postwar years; ACS symposium. Pet Processing 8:1537-9 O '53

Petrochemicals pre-empt organic output. H. K. Nieuwenhuis. Chem W 75:35-45 Jl 31 '54

Petrochemicals steal spotlight in 1953. A. L. Foster. il Pet Eng 25:A42+ O '53

Petroleum processing. P. F. Swanson and N. R. Adams. bibliog Ind & Eng Chem 45:1429-35 Jl '53

Petroleum sulfonate flotation of beryl. S. M. Runke. bibliog U S Bur Mines Rep of Invest 5067:1-19 '54

Petro-xylene in the aromatics spotlight; annual review. Chem Eng 61:196-7 Mr '54

Problems licked in startup of hydrocarbon-recovery unit; National petro-chemicals corp., Tuscola, Ill. J. F. McDonald. Oil & Gas J 52:64+ N 30 '53

Process integration at I.C.I. Wilton project. J. Grindrod. il Can Chem Process 38:34+ Ag '54

Raw materials for the petroleum chemicals industry. H. K. Whalley. flow diags Chem & Ind sup S3-8 Ag 10 '53

Recent developments in the British petrochemical industry; abstract. R. H. Holroyd. Chem Age (Lond) 68:926-9; Discussion. 929-30 Je 20 '53

Refiners embrace petrochemicals; annual review. R. W. Thomas and P. M. Arnold. Chem & Eng N 32:23-5 Ja 4 '54

Right on the brink; Japan's development of petrochemical industry. Chem W 73:26 N 28 '53

Role of natural gas in petrochemical manufacture. F. D. Kuenzly. Oil & Gas J 52:112+ O 26 '53

Scope and growth of the petrochemicals industry. R. L. Bateman and J. A. Field. il diags Chem & Eng N 31:4074-9 O 5 '53

Shell's new plant in France. il Pet Processing 8:1546 O '53

Small refinery, but big products list. J. C. Reidel. bibliog flow diag il diag Oil & Gas J 52:72-5+ Ja 4 '54

Special steels for the petroleum chemicals industry. E. Smith. il Chem & Ind sup S9-17 Ag 10 '53

Sun oil co.'s petro-chemical plant goes on stream at Marcus Hook, Pa. Paint Oil & Chem R 116:38 D 17 '53

Sun Oil gets petrochemicals; addition to Marcus Hook refinery. flow sheet Pet Refiner 33:99+ Ja '54

Sun's new petrochemical plant at Marcus Hook, Pa. il Chem Eng 61:142+ F '54

Synthesis of petrochemicals. A. L. Foster and others. bibliog flow charts il Pet Eng 25:C35-6 Ag; C3-5 S; C3-4 O; C3-4 N; C3-4 D '53; 26:C5-8 Ja; C21-2+ F '54

Synthetic ethyl alcohol. A. J. Johnson and C. R. Nelson. flow diags il Chem & Ind sup S28-31 Ag 10 '53

Treatment of petrochemical wastes by super-activated sludge process. E. R. Strong and R. Hatfield. bibliog flow diags il diag Ind & Eng Chem 46:308-16 F '54

28.9 billion pounds of petrochemicals; will be produced this year in form of chemical intermediates. G. Weber. il Oil & Gas J 52:56-8 O 26 '53

Understanding the chemistry of petrochemical reactions. L. F. Hatch. flow diags Pet Refiner 32:143-5 My; 105-7 Je; 110-11 Jl; 123-5 Ag; 207-9 S; 129-30 O; 101-4 D '53; 33:155-7 Ja; 141-4 F; 175-7 Mr; 157-60 Ap; 193-6 My; 155-8 Je; 154-6 Jl; 113-15 Ag; 311-14 S; 131-5 O '54

U.S. and Canadian petrochem plants. J. C. Reidel. bibliog il Oil & Gas J 52:88-100 O 26 '53

Wet gas fractions are petrochemical raw materials. flow sheets diags Can Chem Process 38:66+ Mr '54

What about aromatics demand? L. A. Schlueter. il Oil & Gas J 52:80+ N 23 '53

Where is Canada going in petrochemicals? E. F. Gibbons. map Pet Refiner 32:89-90+ Jl '53

Yields more ethylene oxide; direct oxidation of ethylene at Naphtachimie, France. il Chem Eng 61:136 F '54

Dictionaries

Do you know these words? (cont). B. H. Weil. Pet Processing 8:1728, 1901; 9:97, 242, 389, 553, 746, 914, 1081, 1227 N '53-Ag '54

PETROLEUM chemicals—*Continued*

Nomenclature

Petrochemicals acquiring uniform nomenclature. M. Alexander. bibliog Oil & Gas J 52:341+ Jl 27 '53

See also
Hydrocarbons—
Nomenclature

Physiological effect

Program for safe handling of petrochemical compounds in laboratory. C. H. Hine. Chem & Eng N 31:4248 O 12 '53

PETROLEUM coke

Blaw-Knox decarbonizing process. flow diag Pet Refiner 32:106-7 Jl '53

Coking goes continuous; Standard oil development co. il diag Chem Eng 60:126+ O '53

Fluid coking; new tool for old job. G. Weber. flow chart il Oil & Gas J 52:74-5 Ag 17 '53

Fluid coking of residua. A. Voorhies, jr. and H. Z. Martin. il diags Am Pet Inst Proc 33(3):39-46 '53; Same. Pet Refiner 32:127-30 D '53; Same abr. Oil & Gas J 52:204-7 N 16 '53; Abstract. Pet Processing 8:1880-1 D '53

Fluid-coking process; Standard Oil. flow sheet il Chem Eng Prog 49:sup 28 S '53

Fluid coking process to extend crude oil supply. il Chem & Eng N 31:3474 Ag 24 '53

Graphite electrodes. R. N. Hader, B. W. Gamson and B. L. Bailey. bibliog flow sheets il Ind & Eng Chem 46:2-11 Ja '54

Improved coking processes to slash refining costs. Chem Eng 61:116+ Ja '54

Kellogg delayed coking process. diag Pet Refiner 32:108-9 Jl '53

Lummus continuous contact coking process. V. Mekler and others. flow diag il Am Pet Inst Proc 33(3):47-54 '53; Same. Oil & Gas J 52:200-3 N 16 '53; Same. Pet Refiner 32:131-4 D '53; Abstract. Pet Processing 8:1882-3 D '53; Discussion. Am Pet Inst Proc 33(3):54-6 '53

Lummus delayed coking process; Lummus continuous contact coking. flow diag diag Pet Refiner 32:102-4 Jl '53

Mechanized dewatering for drier, cleaner petroleum coke. F. Breese. il diag Pet Processing 8:1170-2 Ag '53

New fluid coking process. flow chart il Pet Processing 8:1316-17 S '53; Pet Refiner 32:102-3 S '53

New fluid coking process boosts domestic fuel yields from residual oils. A. L. Foster. flow chart il Pet Eng 25:C38 S '53

Reducing fuel oil by residuum coking. J. H. Eppard and others. flow diag il diag Pet Refiner 32:98-101 Jl '53

PETROLEUM cooperative associations

Co-op plans to cut outside sales. Nat Pet N 46:15 Ja 6 '54

U.S. helps co-ops at jobber's expense. Nat Pet N 45:13-16 N 4 '53

PETROLEUM credit association, National. See American petroleum credit association

PETROLEUM distillation

Chemical engineering unit processes; pyrolytic and catalytic decomposition of hydrocarbons. M. J. Sterba and V. Haensel. bibliog(160 ref) il Ind & Eng Chem 45:2034-41; 46:1888-94 S '53, S '54

Chromatographic fractionation of crude petroleum oils. C. Karr, jr., W. D. Weatherford, jr. and R. G. Capell. bibliog il diags Anal Chem 26:252-6 F '54

Chromic acid used in catalysts overcomes regeneration afterburn; patent. Pet Processing 8:1913 D '53

Correlating equilibrium flash vaporization data. E. H. Ten Eyck and D. F. Othmer. bibliog Pet Refiner 32:229-32 S; 151 O '53

Dynamic mechanism of heterogeneous catalysis. M. A. Cook and A. G. Oblad. bibliog (25 ref) diag Ind & Eng Chem 45:1456-61 Jl '53

Evaluation of cracking catalysts. C. K. Viland. flow diag il Pet Processing 8:1874-9 D '53

Evershed and Vignoles electronic control of crude oil distillation. il Engineer 197:396 Mr 12 '54

Fluid-bed catalytic cracking unit. J. A. Marshall and J. W. Askins. flow diags il Ind & Eng Chem 45:1603-8 Jl '53

Fractionating answers; design of tower components outlined before annual A.I.Ch.E. meeting. Oil & Gas J 52:104-5 D 21 '53

Investigation of the sulphur compounds present in middle distillate SO_2-extracts. R. Emmott. bibliog Inst Pet J 39:695-715 O '53

Laboratory for pilot-scale distillation. J. E. Friden and T. G. Stack. bibliog il plan diags Chem Eng Prog 50:151-4 Mr '54

Latest fluid cat cracker does away with throttling slide valves. diag Chem Eng 60:114 Je '53

Molecular distillation apparatus with great separating power. W. G. Aldershoff and others. diags Inst Pet J 39:688-94 O '53

New approach to distillation; flexible tar and oil plant. diag Chem Age (Lond) 71: 637-8 S 25 '54

Operating the cat cracker. J. W. Moorman. flow diags diags Oil & Gas J 52:92+ N 2; 116+ N 9 '53; 76-7 Ja 4 '54

Present status of the art of cracking petroleum fractions. W. C. Dickerman, jr. flow diag diags Inst Pet J 39:765-88 bibliog(p786-8); Discussion. 788-94 N '53

Process kinetics; reaction rates in catalytic cracking of petroleum. F. H. Blanding. bibliog Ind & Eng Chem 45:1186-97 Je '53

Raw materials for the petroleum chemicals industry. H. K. Whalley. flow diags Chem & Ind sup S3-8 Ag 10 '53

Small scale fluid catalytic cracking unit. T. Rice, J. K. Carpenter and C. D. Ackerman. flow diag Ind & Eng Chem 46:1558-61 Ag '54

TPC, latest road to high-Btu. fuel gas; Surface combustion corp.'s new Thermofor pyrolytic cracking process. il diag Chem Eng 60:122+ N '53

Use of wire-mesh sections in asphalt entrainment control in vacuum pipe stills; symposium. diags Oil & Gas J 52:82-7+ N 2; 94+ N 23; 70-3 D 28 '53

See also
Oil shales—Distillation
Petroleum refining

Residuum

Fluid coking of residua. A. Voorhies, jr. and H. Z. Martin. il diags Am Pet Inst Proc 33(3):39-46 '53; Same. Pet Refiner 32:127-30 D '53; Same abr. Oil & Gas J 52:204-7 N 16 '53; Abstract. Pet Processing 8:1880-1 D '53

Lummus continuous contact coking process. V. Mekler and others. flow diag il Am Pet Inst Proc 33(3):47-54 '53; Same. Oil & Gas J 52:200-3 N 16 '53; Same. Pet Refiner 32: 131-4 D '53; Abstract. Pet Processing 8: 1882-3 D '53; Discussion. Am Pet Inst Proc 33(3):54-6 '53

Polyethylene from heavy resid. il Oil & Gas J 52:64 Ja 11 '54

Properties of residual petroleum fuels. W. Sacks. bibliog(52 titles) A S M E Trans 76:375-9 Ap '54

Reducing fuel oil by residuum coking. J. H. Eppard and others. flow diag il diag Pet Refiner 32:98-101 Jl '53

Tables, calculations, etc.

Properties of catalytic cycle stocks. W. L. Nelson. Oil & Gas J 52:157 D 14 '53

PETROLEUM engineering

American institute of mining and metallurgical engineers Pacific petroleum chapter meeting, Los Angeles, Oct. 1-2; abstracts of papers. Oil & Gas J 52:140 O 12 '53

A.I.M.M.E. Petroleum section fall meeting, Dallas, Oct. 18-21; abstracts of papers. Oil & Gas J 52:74+ O 26 '53

Iraq Zubair oilfield development. V. S. Swaminathan. il map Pet Eng 25:A62+ N '53

Materials control can save you money. J. T. Ussery. il World Oil 137:198+ D '53

Oil and the atom; partners or competitors? W. L. Davidson. Am Pet Inst Proc 33(1): 113-19 '53; Same. il diags Pet Eng 26:E 1+ Ja '54; Same abr. Oil & Gas J 52:263-4+ N 16 '53

Petroleum-engineering study of Flat Rock oil field, Osage county, Okla. C. H. Riggs and others. bibliog 26pls U S Bur Mines Rep of Invest 5018:1-42 '54

PETROLEUM engineering—*Continued*

Petroleum-engineering study of the Ellenburger reservoir, Big Lake field, Reagan county, Tex. K. F. Anderson and others. bibliog 10pls U S Bur Mines Rep of Invest 5048:1-28 '54

Practical field application of relative permeability data. J. S. Osoba. Am Pet Inst Proc 33(4):71-4 '53; Same. Pet Eng (Ref annual) 25:B 117-18+ Jl 15 '53; Same abr. Oil & Gas J 52:326+ Jl 27 '53. Discussion. Am Pet Inst Proc 33(4):74-5 '53

Simple drafting tool makes well spotting easier. A. Gibbon. diags World Oil 138:88+ Ja '54

25 ways to automatically gage and control oil-field producing operations. R. L. Beckwith. il diags Oil & Gas J 52:90-9 Jl 20 '53

See also

Petroleum—Production methods
Petroleum—Prospecting
Petroleum—Pumping
Petroleum—Well drilling
Petroleum distillation
Petroleum pipe lines
Petroleum refineries—Equipment
Petroleum refining
Water supply for petroleum industry

Power

Cooling rig engines by boiling heat transfer. O. B. Freeman. plans Pet Eng 25:B108+ O '53

Fluid power more flexible for driving rig auxiliaries. E. McGhee. il diag Oil & Gas J 52:90+ N 23 '53

Power transmission on modern rotary rigs. M. L. Rizzone. il diags World Oil 137:128+ N; 124+ D '53; Excerpts. Oil & Gas J 52: 128-31 O 26 '53

See also

Petroleum—Pumping, Electric
Petroleum pipe lines—Pumping stations, Electric

Safety measures

How much authority should safety directors have? A. Reese. Pet Refiner 32:187-8+ Ag '53; Same. World Oil 137:60-1 Ag 1 '53

See also

Petroleum—Well drilling, Subaqueous—Safety measures
Petroleum industry and trade—Safety measures

Study and teaching

Built-in oil well on campus; Colorado school of mines new petroleum building, Alderson Hall. il Chem & Eng N 32:3428 Ag 30 '54

Oklahoma university pioneered in offering petroleum engineering school. Pet Eng 25: E3 D '53

Tables, calculations, etc.

Dimensional analysis; how to use it in working with scale models. R. F. Nielsen. diags Oil & Gas J 52:92-3 S 7 '53

Establishment of the skin effect and its impediment to fluid flow into a well bore. W. Hurst. diag Pet Eng 25:B6-8+ O '53

Oil-well evaluation nomograph. H. K. Grant. Oil & Gas J 52:209-14 O 5 '53 (reprints 25c)

Petroleum Engineer's continuous tables. Published in monthly numbers of Petroleum engineer

Practical treatment of nonsteady-state flow problems in reservoir systems. A. T. Chatas. bibliog Pet Eng 25:B42+ My; B38+ Je; B44+ Ag '53

Subsurface problems are easier to solve. B. O. Prescott. diag World Oil 137:118+ S '53

Three ways to use punched-card equipment. P. Knaplund and others. il Oil & Gas J 52:70-1+ Jl 6 '53

PETROLEUM engineers

Engineers as supervisors and managers. F. H. Willibrand. bibliog Pet Eng (Ref annual) 25:E31-5 Jl 15 '53

How to sell ideas to management. M. L. Powers. World Oil 137:99-100 O '53

PETROLEUM equipment industries

Rigs to riches; supply firms get big slice of record oil outlays. R. H. Spencer. Barron's 34:13-14 Ja 18 '54

PETROLEUM geologists. See Geologists, Petroleum

PETROLEUM geologists, American association of. See American association of petroleum geologists

PETROLEUM industry and trade

ASPPA contracts; jobbers can get them. Nat Pet N 45:15-16 D 23 '53

Higher costs, lower margins predicted under divorcement of oil marketing. Nat Pet N 45:14 Je 24 '53

Highlights on 1953's oil discoveries. maps Oil & Gas J 52:223+ Ja 25 '54

How petroleum goes to market. J. S. Cross and R. F. King. diags Nat Pet N 45:19-20 Jl 22 '53

How smooth is the road ahead? C. C. Brown. Am Pet Inst Proc 32(2):11-15 '52

Independent petroleum association asks clarified trade policy. Oil Paint & Drug Rep 165:4+ Ja 11 '54

Industry previews and reviews. Automotive Ind 110:52 Ja 15 '54

Myth of monopoly. H. S. M. Burns. Am Pet Inst Proc 33(1):55-8 '53

Oil boom continues despite rising inventories; annual review. il Chem Eng 61:196-7 Mr '54

Oil faces tougher competition in 1954. Nat Pet N 46:13 Ja 6 '54

Oil headlines in '53 and the events that made them. il Oil & Gas J 52:195-8+ Ja 25 '54

Oil industry viewed highly competitive by more people; survey by Opinion research corporation. Oil Paint & Drug Rep 165:47 F 8 '54

Perspective of conditions in petroleum industry. J. R. Suman. Comm & Fin Chr 178:1935+ N 19 '53; Abstract. World Oil 137:62 D '53

Petroleum earmarks nearly 3¾ billion for expansion. map diags Oil & Gas J 52:150-1 Ja 25 '54

Petroleum industry and the American way of life. A. A. Stambaugh. Am Pet Inst Proc 32(1):292-8 '52

Petroleum industry pauses for appraisal. il Pet Eng 25:A37-9+ O '53

Reduction in inventories through standardization. C. S. Perkins. Am Pet Inst Proc 32(1):324-6 '52

Refiners embrace petrochemicals; annual review. R. W. Thomas and P. M. Arnold. Chem & Eng N 32:23-5 Ja 4 '54

Selling is everbody's business. H. G. Moock. Am Pet Inst Proc 32(2):48-52 '52

Shall it be individualism or nationalism? O. H. Ellis. Am Pet Inst Proc 32(2):16-19 '52

Sinews of industry. R. G. Dunlop. Am Assn Pet Geologists Bul 37:1564-71 Jl '53

Tight holes are poor business. Pet Eng 25: B68+ S '53

What's ahead in '54; industry executives forecast. World Oil 138:42-4 Ja '54

What's ahead in '54? views of oil company executives. Pet Refiner 33:97+ Ja '54

What's the picture for '54? industry experts' ideas on supply, demand, stocks, technology. Pet Processing 8:1863-5 D '53

World of oil. D. Kliewer. il World Oil 138: 234+ Ja '54

See also

American petroleum institute
Gasoline industry
Mid-Continent petroleum corporation
Oil companies
Oil fuel industry
Petroleum supply
Phillips petroleum company
Standard oil company (New Jersey)

Accidents

Are you a mugwump? accident analysis. H. E. Scates. Oil & Gas J 52:69-70+ Ag 3 '53

Headline that isn't printed. C. R. Brown. il Nat Safety N 70:18-19+ Ag '54

Accounting

Capital-gains aspects of oil and gas transactions. J. F. Y. Stambaugh. J Account 97:312-15 Mr '54

Joint venture accounting for oil production. A. B. Franzen. N A C A Bul 35:1005-13 Ap '54

Advertising

How to integrate promotion plans; Standard oil co. of California. L. F. Thomann. il Ptr Ink 244:51-2 S 18 '53

OIIC advertising. W. R. Huber. Am Pet Inst Proc 32(1):202-5 '52

PETROLEUM industry and trade—*Continued*

Equipment and supplies

Application of automatic gaging and controlling equipment to oil field production operations. R. L. Beckwith. bibliog il diags Pet Eng (Ref annual) 25:B7-10+ Jl 15 '53

Automatic control equipment for oil field installations. P. King. Pet Eng 25:B83-4 Ag '53

Get the most from your power slush pumps. C. P. Jenkins. il Oil & Gas J 52:216-17+ O 5 '53

How to select correct sling for a job. W. C. Richards. il diags World Oil 137:121-4 Ag 1 '53

How to set up a materials control system. J. T. Ussery. World Oil 137:128+ Ag 1 '53

Inhibitors at work. D. M. Stormont. Oil & Gas J 52:45 N 30 '53

Machine for conditioning mud. V. B. Zacher. il plan Pet Eng 25:B80+ S '53

Maintenance welding in the petroleum industry. D. H. Rasmussen. il diags Welding J 33:213-22 Mr '54

New developments in instrumentation share limelight at International petroleum exposition, Tulsa, May 14-23. Ind & Eng Chem 45:sup87A-9A Ag '53

New equipment. il Published in monthly numbers of World oil

Oil and gas; from their growth come new markets. il Steel 133:63-4 S 14 '53

Petroleum industry finds many uses for aluminum. F. A. Lewis. il Pet Eng 25:A47-8+ Ag '53

Portable welder for oilfield work. M. Frederick, jr. il Pet Eng 25:B55+ Je '53

Power operation of valves. H. Ledeen and A. A. Toben. il diags Pet Eng 25:A62+ O '53

Progress in standards made in the petroleum industry. C. A. Young. map diags Pet Eng (Ref annual) 25:A39-40+ Jl 15 '53

Rid production equipment of costly scale and sludge. L. C. Case and D. M. Riggin. Oil & Gas J 52:98-102+ Ag 17 '53

Surface equipment for Gulf Coast salt-water disposal. C. M. Davis. il Oil & Gas J 52:124 Jl 20 '53

See also

Derricks, Oil well
Drills, Oil well
Motor trucks in the petroleum industry
Petroleum—Well casing
Petroleum engineering—Power
Petroleum equipment industries

Finance

American economy is in healthy condition. E. Adams. Pet Eng 25:A60 O '53

Earnings of major oil companies. J. H. Myers. Comm & Fin Chr 178:443 Ag 6 '53

Financial analysis of 30 oil companies for 1952. F. G. Coqueron. Pet Eng (Ref annual) 25:E35 Jl 15 '53

Financial statistics for 1952 given in company annual reports; tabulation. Pet Eng 25:E3 Je '53

Financing of oil property acquisitions. G. W. Welsch. bibliog Comm & Fin Chr 178:2266+ D 10 '53

Gross up, net down; oil industry's financial story for '52. Oil & Gas J 52:50 Jl 6 '53

Impact of development costs on oil company earnings. J. H. Myers. Comm & Fin Chr 178:534-5 Ag 13 '53

Management important in securing loans. E. McElvaney. World Oil 137:64-5 D '53

Oil loans attractive. Oil & Gas J 52:211 Jl 27 '53

Oil to be $44 billion industry this year. L. J. Logan. World Oil 137:58-9 Ag 1 '53; Same. Pet Refiner 32:91-2 S '53

U.S. petroleum investments abroad show rapid gain to $4.4 billion. For Comm W 50:14 N 9 '53

Wrong tip; Trans mountain oil pipe line co. B. Lefferts. Barron's 33:5 N 16 '53

Fires and fire protection

Hazards of drilling with natural gas. L. S. Fuller. il World Oil 138:121-2+ Ja '54

International fireman. M. M. Kinley. A. Reese. il diag World Oil 137:63-7 Jl; 63-7 Ag '53

They fight their neighbors' fires; cooperative company formed by oil firms. A. Reese. il map Pet Refiner 32:276-81 S '53

See also

Petroleum pipe lines—Pumping stations—Fires and fire protection
Petroleum refineries—Fires and fire protection

International aspects

European oil problems have world significance; editorial. W. C. Platt. Nat Pet N 45:43-5 Jl 1 '53

High trump card; eight companies discuss proposals for splitting up purchase of Persian oil. Chem W 74:16-17 Ja 9 '54

Oil in the Middle East; and how it affects your future. J. C. Sample. il map Pet Eng 25:A44-6+ Jl '53

Oil policy improves in free world nations. C. F. Dohm. il Oil & Gas J 52:194+ D 21 '53

Petroleum precedent; U.S. going out of its way to help Iran revive oil export. Chem W 74:15 F 13 '54

World oil industry faces total control. W. C. Platt. il Nat Pet N 45:27-9 Jl 8 '53

See also

Petroleum industry and trade—Iran

Public relations

City observes Oil progress week; Reading, Pa. il Nat Pet N 45:21-2 O 28 '53

Go-Devil awards honor oil men for public relations work. Nat Pet N 46:38-9+ F 10 '54

Headline that isn't printed. C. R. Brown. il Nat Safety N 70:18-19+ Ag '54

How are your press relations? A. Reese. Pet Refiner 32:92-3+ O '53; Same. World Oil 137:58-61 D '53; Reply. C. V. Barrow. 138:60+ F 1 '54

How to win friends and help students; Aramco is finding that its poster information program is paying off. il World Oil 137:83 S '53

If it were hitched up right it could pull the load; editorial. Nat Pet N 45:36-7 O 28 '53; Discussion. 45:21 N 11; 23-4+ N 25 '53

Make the most of our message! H. S. M. Burns. Am Pet Inst Proc 32(1):206-9 '52

OIIC expanding program at local level. Nat Pet N 45:13 N 18 '53

OIIC finds the public is interested in what goes on inside oil industry. R. E. Bjorkback. Nat Pet N 45:25-6 Ag 12 '53

OIIC reports to the oil industry. E. W. Esmay. Am Pet Inst Proc 32(1):199-201 '52

Oil industry slips in eyes of public. Nat Pet N 46:17-18 F 24 '54

People, pipe lines, and public relations. R. H. Lynch. Am Pet Inst Proc 32(5):45-8 '52

Public and the oil industry. R. H. Collacott. Comm & Fin Chr 178:1430+ O 15 '53; Abstract. Nat Pet N 45:19 O 14 '53

Public relations begins at home. L. F. McCollum. Am Pet Inst Proc 33(1):97-100 '53

Service, key to good public relations. D. R. Elliott. Nat Pet N 46:48+ F 17 '54

Radio communication

Microwave costs. E. B. Dunn. Oil & Gas J 52:70 N 9 '53

Radio network speeds emergency repairs. il Pet Processing 8:1053-4+ Jl '53

Utilities ride the airwaves; industrial radio and microwave communications guarded by three industry groups. J. E. Keller and T. G. Humphreys. il Am Gas Assn Mo 36:58 Jl-Ag '54

Regulation

See also

Petroleum—Unit operation of pools

Safety measures

Evil genie of petroleum. J. C. Howard. Safety Maint & Prod 106:25-7+ D '53

How you can combat hydrogen sulfide hazards. G. Austin. il World Oil 137:190+ N '53

Is your safety record poor? try barbecues and bonuses. A. Reese. World Oil 137:170 S '53

Safety program pays off. J. T. Green. il Pet Eng 25:B38+ O '53

PETROLEUM industry and trade—Safety measures—*Continued*

Safety starts at the top. J. F. Imle. il World Oil 137:95-7 N '53
Selling safety, the goal of the AAODC. H. W. Davidson. World Oil 137:168 S '53

See also
Petroleum—Well drilling, Subaqueous—Safety measures

Securities

Background and future forecast of Canadian oil stocks. E. S. Miles. Comm & Fin Chr 178:1532 O 22 '53
California oilorama. I. U. Cobleigh. Comm & Fin Chr 178:910 S 10 '53
Can oils maintain earnings pace? with statistical data on leading oil companies. G. W. Mathis. Mag of Wall St 92:719-21+ S 19 '53
For investment; oils or chemicals? M. Souders and P. Neidig. Chem W 72:18+ Ap 11 '53
Oils; their market performance is still disappointing. E. N. Morse. Barron's 33:9+ N 16 '53
Wildcatter's comeback. il Bsns W p 116-18 O 31 '53

Statistics

Annual review and forecast. il maps diags Oil & Gas J 52:123-70+ Ja 25 '54
Midyear report; engineering and technological reviews. Oil & Gas J 52:223-40+ Jl 27 '53
Oil and gas operations in 1952; tabulations. Pet Eng 25:E2 Je '53
Oil use in the U.S. continues to climb. L. J. Logan. World Oil 137:96-7+ Ag 15 '53
Petroleum and products, 1949-1952. Survey of Cur Bsns 1953 Sup p 170-4 [supplemented in monthly numbers]
Petroleum industry expands on all fronts. E. Adams. Pet Eng 25:A37-8 D '53
Petroleum production at new peak, 1953. F. M. Porter. Gas Age 113:50-1+ Ja 14 '54
U.S. crude production at new high in first half of 1953. World Oil 137:106 Ag 15 '53
U.S. drilling record forecast in 1953. W. L. Baker and C. W. Smith. World Oil 137:102-4 Ag 15 '53
Who produces world's oil? il World Oil 137:92 Ag 15 '53
World producing wells, 1952. World Oil 137:78-9 Ag 15 '53
World-wide oil report. maps Oil & Gas J 52:121-68+ D 21 '53

Taxation

Income tax is a cost in paying out oil properties. E. B. Day. N A C A Bul 34:1646-50 Ag '53
No changes seen in depletion allowance. Nat Pet N 45:30 Ag 19 '53
Tax changes discussed. Oil & Gas J 52:80-2 Ag 24 '53

War problems

Defense line studied. B. F. Linz. Oil & Gas J 52:66 Ja 11 '54
Oil industry's post-attack plan is set. Nat Pet N 45:9 O 21 '53
Wartime needs cited; report of a National petroleum council committee to the Interior department. Oil & Gas J 52:91-2 D 14 '53

See also
Petroleum administration for defense

Africa

Petroleum developments in Africa in 1952. H. D. Hedberg. maps Am Assn Pet Geologists Bul 37:1648-84 Jl '53
World-wide oil report. Oil & Gas J 52:129-32 D 21 '53

Alabama

Appalachian basin reviving as active exploratory area. J. D. Harvel. map Oil & Gas J 52:123-4+ Jl 13 '53

Alaska

Alaska; U.S. navy halts exploration program. World Oil 137:132 Ag 15 '53
World-wide oil report. Oil & Gas J 52:167 D 21 '53

Alberta

Lease record set. Oil & Gas J 52:107 Ja 25 '54

Algeria

Algeria, 1952. map World Oil 137:218 Ag 15 '53

Arabia

Aramco operations. V. S. Swaminathan. il Pet Eng 25:A55+ S '53
Camel trails across desert sands, caravans of heavy trucks and king-size trailers; exploration logistics in Saudi Arabia. B. Beverly and O. A. Seager. il map Oil & Gas J 52:183-6+ D 21 '53
Largest British refinery building rapidly at Aden. A. E. C. Drake. il Pet Eng 25:C39-40 S '53
Oil fields in Saudi Arabia; they're overcoming drilling problems. L. C. Carson. map World Oil 137:146+ Ag 1 '53
Refinery erection starts at Aden. il Pet Refiner 32:95+ S '53
Saudi Arabia and Bahrain, 1952. il map World Oil 137:192-4+ Ag 15 '53
Saudi Arabians on strike; American oil co. oil workers. Economist 169:235-6 O 24 '53
World-wide oil report; Qatar; Saudi Arabia; south Arabian territories. Oil & Gas J 52:126-8 D 21 '53

See also
Arabian American oil company

Argentina

Argentina, 1952. World Oil 137:142 Ag 15 '53
World-wide oil report. map Oil & Gas J 52:154-5 D 21 '53

Australia

Australia determined to find oil. H. H. Raggatt. Pet Eng 25:E5 Jl '53
Expansion of Australian refining capacity. H. B. Fletcher. il Pet Eng 25:C7-10 Jl '53
Public has oil fever. il Oil & Gas J 52:60 D 28 '53
Wildcat is producer. D. M. Duff. il map Oil & Gas J 52:99-100 D 14 '53
World-wide oil report. Oil & Gas J 52:145-6 D 21 '53

Austria

Austria, 1952. World Oil 137:172 Ag 15 '53
World-wide oil report. map Oil & Gas J 52:133-4 D 21 '53

Bahrein islands

Saudi Arabia and Bahrain, 1952. il map World Oil 137:192-4+ Ag 15 '53
World-wide oil report. Oil & Gas J 52:121 D 21 '53

Belgium

World-wide oil report. Oil & Gas J 52:134 D 21 '53

Bolivia

Bolivian concession. D. M. Duff. il map Oil & Gas J 52:51-2 N 30 '53
Bolivian spindletop? Glenn McCarthy comes to Wall Street. R. M. Bleiberg. Barron's 33:3+ N 2 '53
World-wide oil report. Oil & Gas J 52:155-6 D 21 '53

Borneo

World-wide oil report. Oil & Gas J 52:152-3 D 21 '53

Borneo, British

Indonesia and British Borneo, 1952. il maps World Oil 137:203-6+ Ag 15 '53

Brazil

Brazil, 1952. World Oil 137:150 Ag 15 '53
Brazilian pride and petroleum. Economist 169:827-8 D 12 '53
Oil monopoly in Brazil. Bsns W p 168 S 26 '53
World-wide oil report. Oil & Gas J 52:156-7 D 21 '53

British Columbia

Imperial's cat cracker first in Northwest. flow sheet il Can Chem Process 37:42+ O '53

Burma

Burma's hand-dug oil wells. H. E. King. il World Oil 138:225-9 Ja '54
World-wide oil report. Oil & Gas J 52:146 D 21 '53

PETROLEUM industry and trade—*Continued*

California

Contractor expands deep drilling facilities. R. Sneddon. il Pet Eng 25:B 16+ Ag '53

Development of Antelope shale halted by uneconomic spacing. D. H. Stormont. map Oil & Gas J 52:150-1 N 23 '53

Disposal of waste water from oil fields in the coastal counties of California. R. Pomeroy. bibliog map Sewage & Ind Wastes 26:59-70 Ja '54

Huge reserve fixed; San Pedro Bay project. D. H. Stormont. maps Oil & Gas J 52:206-7 Jl 27 '53

Ohio establishes world's new depth record in California. W. T. Rintoul. il Pet Eng 25: B55+ O '53

Rig noise muffled; Beverly Hills equipment completely enveloped in a sound-proofing covering. Oil & Gas J 52:191 N 16 '53

Canada

Accessibility surveys cut costs; road-building in Canadian wilderness; modern approach to major problem confronting exploration parties. P. H. Blanchet and others. il maps World Oil 137:93-4+ D '53

Anglo-Iranian in Canada. Economist 169:204 O 17 '53

Background and future forecast of Canadian oil stocks. E. S. Miles. Comm & Fin Chr 178:1532 O 22 '53

Canada continues in the spotlight. G. M. Wilson. il maps World Oil 137:108+ Ag 15 '53

Canada's expansion has been spectacular. Oil & Gas J 52:310+ D 21 '53

Canada's oil boom still going strong. H. G. Cochrane. map Pet Eng 25:A53+ Je '53

Canadian output up 1100 per cent since 1946. map Oil & Gas J 52:220+ D 21 '53

Canadian tankers are still busy. H. C. Plummer. il World Oil 137:278-80 N '53

Chemical Canada; petroleum. H. McLeod. Can Chem Process 38:20+ Je 1 '54

Entry into oil operations in western Canada. C. S. Lee and R. O. Young. bibliog maps Inst Pet J 39:383-422; Discussion. 422-8 Jl '53

Fist of energy; petroleum. Can Chem Process 38:20+ S '54

Muskeg crawler will allow summer exploration in Canada's muskeg swamps. G. Rempel. il map diags Pet Eng 25:B60+ Ag '53

New grid system drafted to speed up exploration. A. W. Irwin. il maps World Oil 137:262-3+ D '53

New lines brighten future. P. Swain. il Oil & Gas J 52:90-2 O 12 '53

1953 a fruitful year for Canada. G. M. Wilson. il World Oil 137:253-6+ D '53

Oil industry; interview with M. S. Beringer. M. R. Hecht. Can Chem Process 38:6-7 Jl '54

Oil keeps pace with Canada. Can Chem Process 38:56+ Ja '54

Oil; West coast gets Canadian gusher: Edmonton pipeline brings oil to Pacific Northwest. T. M. Rohan. il Iron Age 172:209 O 8 '53

Professional groups in western Canada must be given substantial credit for the rapid advance of the petroleum industry. F. K. Beach. Pet Eng 25:A55+ N '53

Caribbean region

Petroleum developments in South America and Caribbean area in 1952. J. F. Mason. maps Am Assn Pet Geologists Bul 37:1586-619 Jl '53

Chile

Chile increases 1952 production by 20 percent. map World Oil 137:144 Ag 15 '53

World-wide oil report. Oil & Gas J 52:157-8 D 21 '53

Colombia

Colombia, 1952. il World Oil 137:148 Ag 15 '53

World-wide oil report. map Oil & Gas J 52:158-9 D 21 '53

Colorado

Denver-Julesburg, Rocky Mountain area's busiest basin. il map Oil & Gas J 52:95-9 Ag 31 '53

Cuba

World-wide oil report. Oil & Gas J 52:170+ D 21 '53

Ecuador

Ecuador, 1952. map World Oil 137:150+ Ag 15 '53

World-wide oil report. map Oil & Gas J 52: 159-60 D 21 '53

Egypt

Egypt gives oil prospecting concessions to Americans. Chem & Eng N 32:2393 Je 14 '54

Egypt, 1952. World Oil 137:227 Ag 15 '53

World-wide oil report. Oil & Gas J 52:130 D 21 '53

Europe

European refining prospects. Economist 168: 590 Ag 29 '53

Petroleum developments in Europe in 1952. F. E. von Estorff. maps Am Assn Pet Geologists Bul 37:1620-47 Jl '53

Refinery growth leveling off in western Europe. G. Weber. il Oil & Gas J 52:100-1 D 21 '53

What's the picture in Europe today? C. J. Dwyer. il Oil & Gas J 52:242+ D 21 '53

Europe, Eastern

World-wide oil report. Oil & Gas J 52:138-40 D 21 '53

Far East

Petroleum developments in Far East in 1952. G. F. Barnwell. map Am Assn Pet Geologists Bul 37:1700-12 Jl '53

Florida

New Florida strike. Oil & Gas J 52:107 O 12 '53

Northwestern Florida, a new oil province? E. G. Jeffreys. il map World Oil 137:99+ Ag 1 '53

France

France, 1952. il maps World Oil 137:166-7+ Ag 15 '53

France puts new taxes on petroleum products. For Comm W 50:8 S 21 '53

World-wide oil report. Oil & Gas J 52:135-6 D 21 '53

Germany

First German Houdriflow goes on stream at Lingen refinery. il Chem & Eng N 31: 3900 S 21 '53

Germany, production in 1952. il maps World Oil 137:160-2 Ag 15 '53

West German production up 25 per cent. A. M. Stahmer. il map Oil & Gas J 52:235-6+ D 21 '53

What's ahead in Germany? interview with Hary von Rautenkranz. World Oil 137:248-9 Jl '53

World-wide oil report. Oil & Gas J 52:143-5 D 21 '53

Great Britain

Another fight for control; Trinidad petroleum development co. Economist 170:117-18 Ja 9 '54

Distribution of petroleum in the U.K.; the changing pattern. T. W. Mathias. 6pls maps Inst Pet J 39:125-44; Discussion. 145-52 Mr '53

Great Britain, 1952. World Oil 137:172 Ag 15 '53

Hot competition back in British oil marketing. W. C. Platt. il Nat Pet N 45:19-22 Je 24 '53

Kingdoms of oil; Nottinghamshire county. J. Cummings. il World Oil 137:230-1 Ag 1 '53

Recent developments in the petroleum industry; abstract. A. J. Carter. Chem & Ind p 1009-10 S 26 '53

World-wide oil report. Oil & Gas J 52:142-3 D 21 '53

Gulf Coast region

Gulf tidelands area active. il Chem & Eng N 32:2760 Jl 12 '54

What it takes to drill those 15,000-ft. holes. W. P. Sterne. il Oil & Gas J 52:254+ O 5 '53

Illinois

Giant Salem flood in full swing. R. J. Enright. il diag Oil & Gas J 52:71-3 D 7 '53

Illinois floods net 11 million barrels of oil during 1952. map Oil & Gas J 52:79-81+ D 28 '53

PETROLEUM industry and trade—*Continued*

India

India, 1952. World Oil 137:200 Ag 15 '53

India to share risk; Stanvac-Indian agreement; foreign country shares exploration risks as well as production. D. M. Duff. map Oil & Gas J 52:66+ Ja 18 '54

World-wide oil report. Oil & Gas J 52:147 D 21 '53

Indiana

Indiana has highest output in 91 years. K. G. Boling. bibliog il maps Pet Eng 25:B7-10+ N '53

Indonesia

Indonesia and British Borneo, 1952. il maps World Oil 137:203-6+ Ag 15 '53

World-wide oil report. map Oil & Gas J 52:147-50 D 21 '53

Iran

Iran dispute analyzed. Oil & Gas J 52:103-4 D 21 '53

Iran settles oil dispute. Chem & Eng N 32:3639 S 13 '54

Iran tries to catch up. Economist 170:100-1 Ja 9 '54

Limits definite in Iran clearance. Nat Pet N 46:19 F 10 '54

New problems arise in Iran. R. E. Spann. World Oil 137:94-5 O '53; Same abr. Pet Refiner 32:239-40 O '53

Oil talks to resume. Oil & Gas J 52:100-1 D 14 '53

Probable Iran settlement outlined. Nat Pet N 45:22 D 23 '53

Shadow of Abadan. Economist 168:589-90 Ag 29 '53

Solution that won't upset markets sought for tangled Iranian oil woes. Nat Pet N 45:37 S 2 '53

Wanted; key to Iran deadlock. Bsns W p 169 N 21 '53

When Persian oil flows. Economist 170:48 Ja 2 '54

World-wide oil report. map Oil & Gas J 52:122-3 D 21 '53

See also
Anglo-Iranian oil company, ltd.

Iraq

Iraq, 1952. il map World Oil 137:182+ Ag 15 '53

Iraq Zubair oilfield development. V. S. Swaminathan. il map Pet Eng 25:A62+ N '53

World-wide oil report. map Oil & Gas J 52:123-4 D 21 '53

Israel

Israel, 1952. World Oil 137:228 Ag 15 '53

Israeli test drilling. il map diag Oil & Gas J 52:58-9 D 28 '53

World-wide oil report. Oil & Gas J 52:124-5 D 21 '53

Italy

Italy, 1952. World Oil 137:174 Ag 15 '53

New Italian refinery on stream; Condor refinery near Milan. il Chem & Eng N 32:727 F 22 '54

World-wide oil report. Oil & Gas J 52:136-7 D 21 '53

See also
Petroleum industry and trade—Sicily

Japan

Japan, 1952. World Oil 137:214 Ag 15 '53

World-wide oil report. Oil & Gas J 52:150-1 D 21 '53

Kansas

Brundred's Rantoul water flood recovers more than million barrels of oil. J. P. Powell and J. L. Eakin. il map Oil & Gas J 52:132-3+ O 26 '53

Kansas operators making hole at record rate this year. J. C. McCaslin. maps Oil & Gas J 52:330-1+ O 5 '53

Water-flood center in four-county area of eastern Kansas. K. B. Barnes. map Oil & Gas J 52:77-8 Jl 13 '53

Waterflood project nears predicted output; Cities Service Patterson block in Greenwood county. F. Bach and others. map diags Pet Eng 25:B94+ N '53

Water flooding in the oil fields of Anderson, Franklin, Linn, and Miami counties, Kan. J. P. Powell and J. L. Eakin. bibliog 34pls U S Bur Mines Rep of Invest 4991:1-111 '53; Excerpt. Oil & Gas J 52:300-2+ N 16 '53

Water flooding's showpiece; Greenwood county, Kansas. E. McGhee. il map Oil & Gas J 52:65-8+ N 30 '53

Kuwait

Kuwait, 1952. il World Oil 137:187-9 Ag 15 '53

Kuwait tops billion. il Oil & Gas J 52:61 N 23 '53

Kuwait, where there are no dusters; producing conditions. il Oil & Gas J 52:86+ D 28 '53

World-wide oil report. Oil & Gas J 52:125-6 D 21 '53

Louisiana

Deep drilling at Weeks Island field. W. P. Sterne. il Oil & Gas J 52:273+ O 5 '53

River shift poses oil problems. F. L. Resen. il map Oil & Gas J 52:60-1 Ja 11 '54

What are the facts about Louisiana offshore drilling? H. Taylor. Oil & Gas J 52:237+ O 5 '53

Wilcox search still brisk in Louisiana-Mississippi area. J. C. McCaslin. map Oil & Gas J 52:191+ Ag 17 '53

Mexico

Mexico; production in 1952. il maps World Oil 137:126+ Ag 15 '53

Mexico sets goal of 400 wells a year. World Oil 137:254+ Jl '53

Present development of Mexican oil industry. E. Zubryn. map Pet Eng 25:B62+ Jl '53

World-wide oil report. map Oil & Gas J 52:167-8+ D 21 '53

Michigan

Michigan basin holds development promise. L. S. Miller. maps diag Pet Eng 26:A35-40+ Ja '54

Mississippi

Appalachian basin reviving as active exploratory area. J. D. Harvel. map Oil & Gas J 52:123-4+ Jl 13 '53

Mississippi trends. J. R. Meason. Pet Eng 25:B7-8+ Je '53

New deep discovery spurs interest in south Mississippi. N. Williams. map Oil & Gas J 52:376-7 S 21 '53

Wilcox search still brisk in Louisiana-Mississippi area. J. C. McCaslin. map Oil & Gas J 52:191+ Ag 17 '53

Montana

East Poplar proved for 20 square miles. J. A. Kornfeld. il map Oil & Gas J 52:124+ S 28 '53

Morocco

French Morocco looks toward self-sufficiency. M. Moyal. il Oil & Gas J 52:92-3 D 28 '53

Morocco, 1952. map World Oil 137:222 Ag 15 '53

Near East

Aden and Abadan. Economist 170:179-80 Ja 16 '54

Big payoff; Aminoil neutral zone wildcat succeeds. il World Oil 137:229 Ag 1 '53

Cathodic protection and control of corrosion in the Middle East. W. C. R. Whalley. il map diag Chem & Ind p 140-7 F 6 '54

Clouds along the Persian Gulf. map Economist 168:189-91 Jl 18 '53

Middle East prices up, why? R. E. Spann. World Oil 137:62 Ag 1 '53

Neutral zone; discovery provides another link in chain of proved Mid-East fields. map World Oil 137:189 Ag 15 '53

New bases for Middle East crude oil. Economist 168:345 Ag 1 '53

Petroleum developments in Middle East and adjacent countries in 1952. W. E. Heater. bibliog maps Am Assn Pet Geologists Bul 37:1685-99 Jl '53

Price hike stabilized; Middle East crude boost. Oil & Gas J 52:46 Ag 3 '53

Watch the Middle East. R. E. Spann. World Oil 137:70+ N '53

See also
Petroleum industry and trade—International aspects

PETROLEUM Industry and trade—*Continued*

Nebraska

Denver-Julesburg, Rocky Mountain area's busiest basin. il map Oil & Gas J 52:95-9 Ag 31 '53

4,000 ft. in two days and with a single bit. J. A. Kornfeld. map diags Oil & Gas J 52:89-90 S 7 '53

Netherlands

Netherlands, 1952. il World Oil 137:170 Ag 15 '53

World-wide oil report. Oil & Gas J 52:137-8 D 21 '53

New Guinea

World-wide oil report. Oil & Gas J 52:152 D 21 '53

New Mexico

Basin has 12 percent of U.S. rigs. World Oil 137:155 O '53

Delaware basin may be next major oil province. F. L. Stead. il maps diags World Oil 137:142-4+ O '53

New area opened; Chaves County test. C. Hoot. map Oil & Gas J 52:84-5 Jl 13 '53

New Mexico drilling still active. K. Anderson. map World Oil 137:156+ O '53

Production is high in the Permian basin. L. J. Logan. World Oil 137:129-30 O '53

North America

Williston finds 1953 a year of steady development. J. C. McCaslin. map Oil & Gas J 52:128-9 Ja 4 '54

North Dakota

Big news in Williston. J. A. Kornfeld. il map Oil & Gas J 52:46 Jl 6 '53

Northwestern states

Major refining area takes shape; Pacific Northwest. F. Breese. il map Pet Processing 8:1313-15 S '53

New frontier for oil marketing. F. Breese. il map Nat Pet N 45:17-19 S 9 '53

Oklahoma

Developments in Coal county, Oklahoma. K. A. Gravelle. maps Pet Eng 25:B 109-10+ D '53

Drilling mud practices; Coal county, Oklahoma. R. D. Blaicher. Pet Eng 25:B78 D '53

Elk City field; model unitized operation. W. H. Burke. maps plan diags Pet Eng 25:A39-42+ D '53

Hydraulic fracturing boon to Oklahoma's oil industry. J. B. Oakley, jr. Pet Eng 25:B73+ D '53

Hydraulic fracturing in Oklahoma. A. Stegelman, jr. Pet Eng 25:B49-50+ D '53

Rotaries turn at record rate in Oklahoma. J. C. McCaslin. il map Oil & Gas J 52:184-5 S 14 '53

Secondary recovery in Oklahoma. A. E. Sweeney, jr. bibliog diag Pet Eng 25:B 12+ D '53

Water flood operations in Davenport field. A. H. Massad. il maps Pet Eng 25:B62+ D '53

West Ardmore basin discovery. S. H. Crews. il map Pet Eng 25:B 113+ D '53

West Cement Medrano pool. J. Tarner. diag Pet Eng 25:B7-10 D '53

Ontario

Living up to a name; Canada's chemical valley. il map Chem W 73:26+ Jl 11 '53

Pakistan

Pakistan, 1952. World Oil 137:200 Ag 15 '53

World-wide oil report. Oil & Gas J 52:153 D 21 '53

Peru

Nature makes it tough; eastern Peru's Montaña. J. E. Rassmuss. il map World Oil 137:272+ S '53

Peru; modern-day trail blazer. C. H. Zondag. il World Oil 137:275-7 N '53

Peru, 1952. il map World Oil 137:153-4 Ag 15 '53

Peruvian oil sought by 18 companies. J. E. Rassmuss. il maps Oil & Gas J 52:214+ D 21 '53

Slant drilling in Peru. Oil & Gas J 52:70+ Ja 18 '54

World-wide oil report. map Oil & Gas J 52:160-1 D 21 '53

Portugal

World-wide oil report. Oil & Gas J 52:138 D 21 '53

Qatar

See Petroleum industry and trade—Arabia

Rocky Mountain region

Basin at awkward age. H. D. Ralph. il Oil & Gas J 52:74-5 S 14 '53

Case histories covering variety of drilling conditions in different Rocky Mountain areas. il maps Oil & Gas J 52:158-72+ O 5 '53

Denver-Julesburg having banner year. J. C. McCaslin. maps Oil & Gas J 52:166+ Ag 10 '53

Operations on federal lands in the Rocky mountains. L. J. Putnam. Am Pet Inst Proc 33(4):20-4 '53; Same cond. Oil & Gas J 52:274+ N 16 '53; Discussion. Am Pet Inst Proc 33(4):25-6 '53

Platte pipe line company and what it can mean to the Rocky Mountain oil industry. M. K. Neptune. Am Pet Inst Proc 33(4):58-61 '53

Rocky mountains, a beckoning frontier for the American oil industry. il maps diags Oil & Gas J 52:69-100+ Ag 31 '53

Rumania

They paid the Communists' price because oil production quotas weren't met; Roumania. World Oil 137:234-5 Ag 1 '53

Russia

Malenkov talks oil; first actual figures on Soviet crude production. Oil & Gas J 52:88 Ag 17 '53

Russia and satellites, 1952 production. World Oil 137:176+ Ag 15 '53

Soviets offer oil; listing of crude as commodity for barter with western nations. D. Duff. Oil & Gas J 52:84+ Ag 10 '53

U.S.S.R. discusses petroleum plans; Baku conference. Chem & Eng N 31:5416+ D 28 '53

What are Russia's tidelands worth? map World Oil 137:77 N '53

World-wide oil report. Oil & Gas J 52:138-40 D 21 '53

Saskatchewan

Will Saskatchewan discover its own Leduc? F. H. Edmunds. il World Oil 137:270-2+ D '53

Scandinavia

World-wide oil report. Oil & Gas J 52:140-1 D 21 '53

Sicily

Oil in Sicily. il Chem Age (Lond) 71:125-6 Jl 17 '54

Sicily well tested. Oil & Gas J 52:116 Ja 25 '54

South America

Petroleum developments in South America and Caribbean area in 1952. J. F. Mason. maps Am Assn Pet Geologists Bul 37:1586-619 Jl '53

South Dakota

South Dakota steps up exploration. J. P. Gries. maps diags Oil & Gas J 52:114-20 Jl 20 '53

Spain

World-wide oil report. Oil & Gas J 52:141-2 D 21 '53

Sumatra

Operations in Sumatra. R. A. Andresen. il Pet Eng 25:A41-4 Je '53

Sumatra, a synonym for serenity. il World Oil 137:265-9 S '53

Texas

Basin has 12 percent of U.S. rigs. World Oil 137:155 O '53

Delaware basin may be next major oil province. F. L. Stead. il maps diags World Oil 137:142-4+ O '53

Doing it the Texas way; oil and cattle, two investments with built-in tax protection. il Bsns W p77-80 D 5 '53

PETROLEUM industry and trade—Texas—*Continued*

Drugstore where oil men gather; Mading's Esperson drugstore. il Bsns W p64-6+ O 31 '53

Is west Texas in a slump? P. C. Ingalls. Oil & Gas J 52:431 N 16 '53

Lease sale records tumble. W. P. Sterne. Oil & Gas J 52:76 D 7 '53

New injection work planned for Scurry's canyon reefs. J. A. Kornfeld. map Oil & Gas J 52:303-4+ D 21 '53

New Spraberry idea; new fracturing technique. il Oil & Gas J 52:74-5 D 7 '53

Production is high in the Permian basin. L. J. Logan. World Oil 137:129-30 O '53

Recovering Spraberry's reluctant oil; Southern production co. uses large-volume, high-injection-rate hydraulic fracturing. T. P. Brooks and W. E. Life. il diags Oil & Gas J 52:66-9 D 28 '53

Secondary recovery in Texas. Oil & Gas J 52:105-7 N 2; 101-2+ N 23 '53

Spraberry to resume production. R. J. Enright. il map Oil & Gas J 52:50-1 D 28 '53

Texans take to floods. Oil & Gas J 52:109 O 12 '53

Texas story; oil and gas. il Manuf Rec 122: 93-5 N '53

West Texas discoveries reach peak. J. C. Watson. map World Oil 137:131-4+ O '53

Trinidad

Trinidad, 1952. map World Oil 137:136+ Ag 15 '53

World-wide oil report. map Oil & Gas J 52: 165-6 D 21 '53

Tunisia

Tunisia, 1952. World Oil 137:218 Ag 15 '53

Turkey

World-wide oil report. Oil & Gas J 52:128-9 D 21 '53

United States

American petroleum institute 33d annual meeting, Chicago; president's address. F. M. Porter. Am Pet Inst Proc 33(1):11-13 '53

Oil and gas stand side by side. P. Kayser. diag World Oil 137:68+ Ag 1 '53

Oil in the national defense. O. L. Chapman. Am Pet Inst Proc 32(1):23-7 '52

Oil industry and our national welfare. P. C. Spencer. Am Pet Inst Proc 33(1):29-32 '53

Oil industry hears its top men; Progress week speeches. il Nat Pet N 45:22-4 O 28 '53

Outlook for oils; with tables. W. Zwimpfer. Mag of Wall St 93:490-3+ Ja 23 '54

Possible economy dip doesn't scare oil men. Nat Pet N 45:13-16 O 21 '53

President's address. F. M. Porter. Am Pet Inst Proc 32(1):15-17 '52

Anti-trust suit

Cartel case transferred to New York. Nat Pet N 45:36 Je 3 '53

Oil cartel suit beset with delay blues. il Nat Pet N 45:22-6 S 16 '53

Imports problem

Clamor for a curb on oil imports. Bsns W p106+ N 28 '53

Congressmen are girding for battle as imports bill nears full debate. Nat Pet N 45: 15-16 Jl 22 '53

Defeat of bill to limit oil imports seen as only temporary cease-fire. Nat Pet N 45: 15 Jl 29 '53

Hearings preview of oil imports fight. Nat Pet N 45:21-2 D 9 '53

Import cut opposed; military defends free flow. Oil & Gas J 52:75-6 N 9 '53

Imports a growing problem for U.S. L. J. Logan. World Oil 137:60-5+ N '53

Imports attack shifted. Oil & Gas J 52:62-3 Ja 18 '54

Imports bill killed. Oil & Gas J 52:41 Ag 3 '53

Imports labeled peril; Senate investigating committee hearing. Oil & Gas J 52:78 D 7 '53

Imports; pro and con. Oil & Gas J 52:47 N 30 '53

Imports under fire. Oil & Gas J 52:67 Ja 11 '54

Imports will top Congress oil battles. Nat Pet N 45:13-14+ D 30 '53

Interior and petroleum problems. D. McKay. Am Pet Inst Proc 33(1):37-9 '53

Is U.S. oil industry being drowned by excessive imports? C. H. Lyons; A. J. McIntosh. Pet Refiner 32:76-7+ D '53

Oil imports law to remain unchanged. World Oil 137:124 O '53

Oil imports with particular reference to heavy fuel oil. M. J. Rathbone. Am Pet Inst Proc 33(1):68-72 '53

Oil trade offers new approach on imports. Oil Paint & Drug Rep 166:5+ Jl 5 '54

Pressure building up for imports curbs. Nat Pet N 45:11-12 O 28 '53

Randall report blow to oil imports foes. Nat Pet N 46:18 F 3 '54

What to do about imports? H. D. Ralph. Oil & Gas J 52:64-6 N 2 '53

Overproduction problems

Oil men heat up; hard hit by bulging stocks, production cutbacks. Bsns W p 124+ O 31 '53

Warning signs up in West on possible oil oversupply. Nat Pet N 45:54 Ag 13 '53

Why oil is in trouble. Bsns W p32 S 19 '53

Utah

Uinta, Rockies' newest intermontane basin. il map Oil & Gas J 52:108-9+ Ag 31 '53

Venezuela

Drilled three miles deep in Venezuela. il Pet Eng 26:B36 Ja '54

Oil fight in Venezuela; new book stirs up a hornet's nest. Bsns W p 126 Ag 29 '53

Putting oil income to work; Venezuela gets a daily yield of $1-million from oil concessions. Bsns W p 156 D 12 '53

Venezuela, 1952. World Oil 137:157-8 Ag 15 '53

Venezuela reserves up. Oil & Gas J 52:78 Jl 20 '53

Wildcatting up, completions, production down in Venezuela. il Oil & Gas J 52:203-4+ D 21 '53

World-wide oil report. map Oil & Gas J 52: 161-5 D 21 '53

Western states

Will fabulous expectations for Williston Basin be realized? J. T. Roberts. il map Mag of Wall St 93:239-41+ N 28 '53

Anti-trust suit

West Coast majors deny Department of Justice charges. Nat Pet N 45:40 Je 17 '53

West Coast oil antitrust proceedings lumber past another stumbling block. F. Breese. Nat Pet N 45:42 Ag 5 '53

Wyoming

Big Horn, biggest producing basin in the Rockies. il map Oil & Gas J 52:81-5 Ag 31 '53

Five rigs drilling along Manderson anticline. J. A. Kornfeld. il map Oil & Gas J 52:135-6+ Ag 17 '53

Green river, Wyoming's most promising basin for big gas reserves. il map Oil & Gas J 52:100+ Ag 31 '53

New pays stimulate Hamilton Dome production. J. A. Kornfeld. il maps diag Oil & Gas J 52:84-7 Ja 11 '54

Powder River activity is up again. P. C. Ingalls. map Oil & Gas J 52:329 O 5 '53

Powder river, Wyoming's most active oil-producing basin. il map Oil & Gas J 52:91-4 Ag 31 '53

Pressure maintenance by water injection in Steamboat Butte field. E. W. Rogers. il map Pet Eng 25:B78+ O '53

Wind river, a geologically complex oil-producing basin. il map Oil & Gas J 52:86-90 Ag 31 '53

Wyoming completing a record year. J. C. McCaslin. maps Oil & Gas J 52:356+ D 21 '53

Yugoslavia

Yugoslavia, 1952. World Oil 137:174 Ag 15 '53

PETROLEUM institute, American. See American petroleum institute

PETROLEUM laboratories
Filter press control facilitates lab scheduling. C. J. Engle and W. E. Bergman. diag World Oil 137:151 N '53
How to pilot-plant in the lab; Linden (N.J.) laboratories of Standard oil development co. Chem W 75:66+ Ag 28 '54
Humble dedicates research center. il Chem & Eng N 32:3854 S 27 '54
Lab in a doughnut; Continental oil co. research center. Chem W 75:48 S 18 '54
New air conditioned lab has well-planned piping, ventilation; Continental oil co. il Heating-Piping 25:113 N '53

Equipment

Improved glass distillation column easier to handle, less subject to breakage. diags Oil & Gas J 52:129 D 7 '53
Laboratory for pilot-scale distillation. J. E. Friden and T. G. Stack. bibliog il plan diags Chem Eng Prog 50:151-4 Mr '54
Modified ASTM distillation for ten milliliter samples. J. S. Wiberley and R. K. Siegfriedt. bibliog il diag Pet Eng 25:C 12-14 Ag '53

PETROLEUM laws and regulations
Private capital on road to getting fair shake abroad. G. H. Barrows. il World Oil 137: 84-6+ Ag 15 '53
Threat to leases; Utah federal judge holds standard unit clause invalid. H. D. Ralph. Oil & Gas J 52:81-2 Ag 17 '53

Arkansas

It's easy to do business in Arkansas. H. D. Ralph. Oil & Gas J 52:98-9, 133-4+ S 28 '53

Bolivia

Monopoly set up; Bolivian agency controls oil imports, distribution. Oil & Gas J 52: 58-9 Jl 6 '53

Brazil

Brazil acts to set up petroleum monopoly. For Comm W 50:28 N 16 '53
Brazil turns key in closed door. D. Duff. il Oil & Gas J 52:79-80 N 9 '53

Louisiana

Here's how to conduct oil business in Louisiana. H. D. Ralph. map Oil & Gas J 52: 102-3+ S 14 '53

Oklahoma

Crude order illegal? purchasers criticize Oklahoma action halting pipe-line proration. H. D. Ralph. Oil & Gas J 52:82 O 19 '53
Proration turnabout; Oklahoma conservation department decides to modernize. H. D. Ralph. Oil & Gas J 52:52 Ja 18 '54

Turkey

New oil law ready. Oil & Gas J 52:117-18 Ja 25 '54

United States

Imports will top Congress oil battles. Nat Pet N 45:13-14+ D 30 '53
Operations on the tidelands. C. L. Orn. bibliog Am Pet Inst Proc 33(4):13-19 '53; Same. Oil & Gas J 52:296+ N 16 '53
Shelf drilling due. Oil & Gas J 52:79 Ag 10 '53
Tidelands law challenge forbidden by high court. Oil Paint & Drug Rep 165:3+ Mr 22 '54

PETROLEUM patents. See Petroleum refining—Patents

PETROLEUM pipe lines
Biggest oil pipeline laid in a hurry. il Constr Methods 36:62-4 Ag '54
Cross country plastic pipeline goes into service at Williston basin. il Chem & Eng N 31:4534 N 2 '53
Crude and products lines forecast for 1954. J. E. Boice. Pet Eng 26:D 16+ Ja '54
First cross-country plastic pipeline in service. il Chem Eng 61:120 Ja '54
From 40 miles in 1886, to 1183 miles today; Union oil company of California's pipe line network. il map World Oil 137:230+ D '53
Here's a short-cut method for sizing crude-oil pipe lines. W. L. Kennedy, jr. and C. C. Stueve. Oil & Gas J 52:183-4+ S 21 '53
How to do it; pipe line hints. il diags Published in monthly numbers of World oil
Line's luster dimmed; Trans Mountain crude now faces stiff competition from Persian Gulf. D. Duff. Oil & Gas J 52:74-5 N 2 '53
Midyear report; engineering and technological reviews; all phases of pipe lining undergoing expansion; U.S. and Canadian projects planned and under way. Oil & Gas J 52:263-5 Jl 27 '53
New all-plastic pipe line handles Montana crude. il Oil & Gas J 52:72-3 N 23 '53
New device determines batch cut point. W. A. Bruce. il diag World Oil 138:211-12+ Ja '54
Nine-mile long plastic pipe line is completed. il World Oil 138:208-9 Ja '54; Heating-Piping 26:132-3 Mr '54
North Dakota's first major crude line. il map Pet Eng 26:D 12-13 Ja '54
Oil men cool to pipe line plant; proposed Super-Inch pipe line to the East coast. Nat Pet N 45:22 O 7 '53
Oil; West coast gets Canadian gusher; Edmonton pipeline brings oil to Pacific Northwest. T. M. Rohan. il Iron Age 172:209 O 8 '53
People, pipe lines, and public relations. R. H. Lynch. Am Pet Inst Proc 32(5):45-8 '52
Petroleum administration and pipe lines. R. E. Nelson, jr. Am Pet Inst Proc 33(5): 63-6 '53
Pipe-line control valves. C. F. Woods. diags Oil & Gas J 52:155 S 14; 163 O 12; 147 O 26; 160 N 9 '53
Pipe-line transportation rates. W. L. Nelson. Oil & Gas J 52:351 S 21 '53
Pipe lines take oil and gas when found. F. H. Love. il Pet Eng 25:A48+ O '53
Pipe lining in '53 as the advances were recorded in the Journal. il Oil & Gas J 52: 168-9 Ja 25 '54
Plastics; lightweight pipe handles crude oil without corroding or clogging. il Iron Age 172:174 N 19 '53
Platte line dedicated. G. L. Farrar. il map Oil & Gas J 52:72-3 Ag 10 '53
Platte pipe line company and what it can mean to the Rocky Mountain oil industry. M. K. Neptune. Am Pet Inst Proc 33(4): 58-61 '53
Pressure is on for Big Line to East. map Nat Pet N 45:13-15 S 30 '53
Products, natural-gas projects lead in projected expansion. map Oil & Gas J 52: 158-9 Ja 25 '54
Remote control electric valve operation. H. A. Altorfer. il diags Pet Eng (Ref annual) 25:D51-3+ Jl 15 '53
Sinclair's Big Inch system in operation. F. H. Love. il map Pet Eng 25:D3-6+ Ag '53
Spiderweb of pipe lines. D. Hale. il Pet Eng 25:D3-6 D '53
Tanker threat is seen; proposed construction of Super Inch defense line would destroy flag fleet. W. C. Kinsolving. Oil & Gas J 52:410 Ja 25 '54
Trans Mountain finishes big line. il map Oil & Gas J 52:76-8 O 19 '53
Two big pulls at Mackinac straits. il map diags Eng N 151:43-4+ S 10 '53
Vast pipe line network serves the Permian basin. C. W. Smith. map World Oil 137:154 O '53

See also
Petroleum products
pipe lines

Construction

Atchafalaya is no ordinary river; Interstate makes crossing near Melville, La. J. Barnett. il Pet Eng 25:D 19-20+ Je '53
Discussion on the specification for field welding and radiographic inspection of pipe lines. R. G. Strong and J. G. Norton. Am Pet Inst Proc 32(5):42-4 '52
Extension brings Canadian crude oil to East in pipeline 1,770 miles long. C. Root. il map diag Civil Eng 24:69-73 F '54
How Creole Petroleum made a hot tap for Big-Inch crossover connection. J. M. Lewis. il Oil & Gas J 52:277+ S 21 '53
Lakehead testing. Oil & Gas J 52:188 N 16 '53
Long underwater river crossing constructed on dry land. il map Pet Eng 25:D7-8+ O '53

PETROLEUM pipe lines—Construction—*Cont.*

Numerous water crossings mark route of Cities Service Sour Lake-Rose Bluff line. H. Nelson. il Oil & Gas J 52:304-6 S 21 '53

Petroleum by-pass for the Great Lakes. il map Eng N 151:31-2+ N 12 '53

Pipe lining in '53. P. Reed and others. il map diags Oil & Gas J 52:167-80+ S 21 '53

Pulling of Mackinac Straits pipeline moves forward after slight setback. Eng N 151:22 Ag 13 '53

Recent advances in pipe-line construction. C. C. Bledsoe. Am Pet Inst Proc 33(5):56-9 '53; Same. Oil & Gas J 52:256+ N 16 '53

Straits crossing tough underwater project. S. V. Collins. il Pet Eng 25:D20+ D '53

Ten-mile, three-inch plastic pipeline laid in five days. il Eng N 151:26 N 5 '53

Trans mountain line, major Canadian link. H. H. Anderson. il map plan diags Pet Eng 25:D53-6+ N '53

Trans-mountain oil pipeline in Canada. il map Engineer 197:239-43 F 12 '54

Gathering lines

Gathering system construction cost. B. M. Laulhere, jr. Pet Eng (Ref annual) 25:D 12+ Jl 15 '53

Maps

How a pictorial index can save you time. B. G. Sauthoff. il World Oil 137:225 D '53

United States and Canadian crude-oil and products pipe-line systems. Oil & Gas J 52:supp S 21 '53

Protection

Cathodic protection; economic aspects. D. H. Lewis and O. C. Mudd. Chem & Ind p93-100 Ja 23 '54; Discussion. p685-7 Je 12 '54

Experiences in corrosion control on a products pipeline. A. R. Murdison. Can Chem Process 38:38+ Jl '54

New techniques and current problems in controlling underground corrosion. O. C. Mudd. il plan diags Am Pet Inst Proc 33(5):35-45 '53; Same. Oil & Gas J 52:99 N 30; 144 D 7; 159 D 14; 100 D 28 '53; 127 Ja 11; 285 Ja 25; 139-40 F 8 '54; Same. Gas Age 112:46-51+ D 17 '53

Pumping stations

Automatically controlled gas-Diesels. il Pet Eng 25:D24+ Ag '53

Crankshaft crisis at Center station. C. I. Huss. il diags Pet Eng 25:D3-6 Jl '53

Interstate's Finney station will serve as receiving point. E. C. Mishou. map Oil & Gas J 52:220+ S 21 '53

New pumping units increase line capacity. il Pet Eng 25:D6 Jl '53

Pipelining across the Canadian Rockies; Trans mountain pipe line. il Diesel Power 32:28-9 F '54

Remote operation of older stations. D. Hale. il Pet Eng 25:D4-6 S '53

Trifuel pipe-line engines demonstrate operating and economic advantages. L. P. Meade and C. P. Jennings. Oil & Gas J 52:112+ N 9 '53

Fires and fire protection

How Ohio Oil safeguards pumping stations. C. F. Firmin. il Oil & Gas J 52:330-1+ S 21 '53

Pumping stations, Electric

Description of an automatic unattended booster station on a products line. G. P. Jennings and M. E. Worlow. il diag Am Pet Inst Proc 33(5):67-70 '53; Same. Oil & Gas J 52:113-14+ Je 15 '53; Same. Pet Eng 25:37-9 Jl '53

Design of stations on new Rancho system. F. H. Love. il plan diag Pet Eng 25:D3-8 Je '53

Determining the correct type of thermal protection for electric motors used in the pipe line industry. B. Kleinman. il diags Pet Eng 25:D 14-18 O '53

Electricity's contribution to pipelining. M. Hyde. il Pet Eng 26:D 19+ Ja '54

Four unattended pipe-line pumping stations and how they are performing today. R. S. Cannon and T. V. Bockman. il Oil & Gas J 52:101-3 D 7 '53

How N.C.R.A. operates remote-controlled boosters. L. N. Young. il diags Oil & Gas J 52:286-7+ O 5 '53

How to build a hybrid station; converting Carrollton station from Diesel to electric operation. C. I. Huss. il diags Pet Eng 25:D4-6 N '53

How to select motors and controls for pipeline pumping stations. R. J. Osborn. il Oil & Gas J 52:111-12+ D 14 '53

Longest, largest high-pressure crude line automatically controlled. E. E. Kleir. il map diags Oil & Gas J 52:76-8+ D 28 '53

Mechanical maintenance of a new pipe line. F. W. Fidler. il map Pet Eng 25:D 10+ Je '53

Pipe line applications of electric motors. E. F. Greiwe. il Pet Eng 25:D8+ N '53

Statistics

Pipe-line records fall in '53. Oil & Gas J 52:50-2 N 23 '53

U.S. and Canadian crude-oil pipe-line projects planned and under way; tabulation. P. Reed. Oil & Gas J 52:340 S 21 '53

Terminals

Automatic trap farm starts pushbutton era. R. Sneddon. il Pet Eng 25:B43-4+ O '53

Electronic controls for products pipe-line terminals. C. H. Scruggs. diags Am Pet Inst Proc 33(5):87-9 '53; Same. Pet Eng (Ref annual) 25:D3-4 Jl 15 '53

In-line layout at multipurpose terminal. S. L. Jackson. il map diag Oil & Gas J 52:126-7+ O 12 '53

Testing

Testing of Pan-American's Genoa-Texas City line. P. Reed. il map Oil & Gas J 52:133-5 O 19 '53

Brazil

Pipe line important to Brazil's economy. L. M. Peppercorn. il Pet Eng 25:D 19+ Jl '53

Canada

Canadian pipelining; 1954 outlook. L. O. Rowland. il map Pet Eng 26:D4-7 Ja '54

Conveying petroleum products pipe-line in eastern Canada. il map Engineering 177:78-81 Ja 15 '54

Lakehead in business. R. J. Enright. il Oil & Gas J 52:53-4 D 28 '53

Pipelines; fast growing transportation system. Can Chem Process 38:18+ Ap '54

Pipelining across the Canadian Rockies; Trans mountain pipe line. il map Diesel Power 32:26-9 F '54

Trans mountain line, major Canadian link. H. H. Anderson. il map plan diags Pet Eng 25:D53-6+ N '53

Trans-mountain oil pipeline in Canada. il map Engineer 197:239-43 F 12 '54

Wrong tip; Trans mountain oil pipe line co. B. Lefferts. Barron's 33:5 N 16 '53

Iraq

Iraq Zubair oilfield development. V. S. Swaminathan. il map Pet Eng 25:A62+ N '53

Mexico

Pemex system expands. map Oil & Gas J 52:70 Ja 11 '54

Near East

Crude line from Zubair to Fao is now complete. Pet Eng 25:D54 D '53

PETROLEUM products

Boost in farm sales is forecast. Nat Pet N 45:15-18 D 9 '53

Chemical nature of oil extenders for synthetic rubbers. F. S. Rostler and R. M. White. bibliog il Ind & Eng Chem 46:610-20 Mr '54

Contact dermatitis; its relation to petroleum products. N. P. Anderson. bibliog Ind Med 22:270-3 Je '53

Do oil and rubber mix? il Chem & Eng N 32:1552-3 Ap 19 '54

How to use that new viscosity standard. R. H. Robinson. Pet Processing 8:1331 S '53

Objectives and accomplishments of the petroleum packaging committee; Packaging institute. A. D. Murphy. Am Pet Inst Proc 32(1):321-3 '52

Oil modified rubbers. Chem Age (Lond) 70:475 F 20 '54

PETROLEUM products—*Continued*

Petroleum processing. P. F. Swanson and N. R. Adams. bibliog Ind & Eng Chem 45:1429-35 Jl '53

Relief for hydrocarbon oils. Economist 169: 204-5 O 17 '53

Solvent extraction for characterising tar creosotes and petroleum derivatives. R. E. Heiks and others. Chem Age (Lond) 71:85-8 Jl 10 '54

U.S. needs will exceed eight million barrels daily. J. C. Casper. Oil & Gas J 52:139-41 Ja 25 '54

Unsolved problems in the petroleum industry; C&EN staff report on symposium. il diag Chem & Eng N 31:2758-62 Jl 6 '53

Utilization of additives based on petroleum. D. P. Dodgson. Chem & Ind sup S65-8 Ag 10 '53

See also

Butadiene
Cresol
Gasoline
Hydrocarbons
Kerosene
Liquefied petroleum gas
Lubricating greases
Lubricating oils
Naphtha
Oil fuel
Paraffin
Petroleum chemicals
Petroleum distillation
Toluene

Analysis

Automatic multi-component analyzer. diag Pet Processing 9:129 Ja '54

Determination of hydroperoxides in petroleum products. D. Walker and H. S. Conway. bibliog diag Anal Chem 25:932-5 Je '53

Direct determination of oxygen in organic compounds. W. H. Jones. bibliog Anal Chem 25:1449-52 O '53

Mass spectrometer goes automatic. J. Walker and M. Hodes. il diags Pet Eng 25: C5-8 Je '53

Methods of hydrocarbon type analysis. H. C. Rampton. bibliog Inst Pet J 39:305-27; Discussion. 327-34 Je '53

Properties of high boiling petroleum products. L. T. Eby. bibliog Anal Chem 25:1057-60 Jl '53

Properties of high boiling petroleum products; nonbiological laboratory methods for predicting carcinogenicity. L. T. Eby and others. bibliog Anal Chem 25:1500-7 O '53

Two successful analyzer samplers. B. W. Thomas and R. L. Martin. diags Pet Processing 8:1511-13 O '53

Prices

Petroleum derivatives; 1953 market trends. Oil Paint & Drug Rep 165:48 sec 2 F 1 '54

Statistics

Petroleum derivatives. Published in weekly numbers of Oil, paint and drug reporter

Petroleum products, 1949-1952. Survey of Cur Bsns 1953 Sup p 171-4 [supplemented in monthly numbers]

Storage

How to determine sites for underground storage. H. S. Thomas. plans diag World Oil 137:102-4+ O '53

Testing

Automatic sediment and moisture recorder. E. B. Delgass and others. il diag Ind & Eng Chem 46:1418-22 Jl '54

New standard method for the measurement of the viscosity of oils and other liquids in C.G.S. units. Inst Pet J 39:237-9 Ap '53

Proposed method of test for saponification number of petroleum products (paraxylenol blue color-indicator method). diag Am Soc T M Proc 51:310-15 '51

Transportation

Oil truckers hurt by Ohio axle tax. Nat Pet N 46:15 F 3 '54

Shifts in petroleum transportation. J. E. Boice. Pet Eng 25:D 13+ Jl '53

Transportation dynamics. A. A. Stambaugh. Am Pet Inst Proc 33(1):108-12 '53

See also

Petroleum products pipe lines
Tank barges

PETROLEUM products pipe lines

Buckeye system designed for easy expansion. D. R. Merriman. il map World Oil 137:246+ N '53

Conveying petroleum products pipe-line in eastern Canada. il map Engineering 177:78-81 Ja 15 '54

Crude and products lines forecast for 1954. J. E. Boice. Pet Eng 26:D 16+ Ja '54

Electronic controls for products pipe-line terminals. C. H. Scruggs. diags Am Pet Inst Proc 33(5):87-9 '53; Same. Pet Eng (Ref annual) 25:D3-4 Jl 15 '53

How N.C.R.A. operates remote-controlled boosters. L. N. Young. il diags Oil & Gas J 52:286-7+ O 5 '53

How radioactive control is applied to a products pipe line. D. E. Hull and B. A. Fries. il Oil & Gas J 52:66-8 Jl 6 '53; Same. Pet Eng (Ref annual) 25:D 19+ Jl 15 '53; Same. Am Pet Inst Proc 33(5):90-4 '53

How to size tank-farm and delivery lines at products pipe-line and marine terminals. E. A. Birge. il diag Oil & Gas J 52:178-80+ S 21 '53; Correction. 52:121 N 2 '53

Huge line contract let; NATO signs Foster Wheeler to laying of products system to supply western European defense force. D. M. Duff. map Oil & Gas J 52:55 Jl 6 '53

Kaneb line called new concept. map Nat Pet N 45:54 D 23 '53

Maintenance experience with electrical pressure gages. W. W. Holt, jr. il diag Am Pet Inst Proc 33(5):71-5 '53; Same. Pet Eng 25:D 13-14+ Ag '53; Same cond. Oil & Gas J 52:88+ Je 29 '53

Marshy line finished; Evangeline products system. F. L. Resen. il map Oil & Gas J 52: 61-2 O 26 '53

Modern design features new Kaneb and Augusta lines. F. E. Hangs. plan diags Oil & Gas J 52:228-9+ S 21 '53

Modern techniques, plus operating knowhow. C. C. Keane. il diags Oil & Gas J 52:189+ S 21 '53

National cooperative refinery association products line now automatic. L. N. Young. il Oil & Gas J 52:288+ S 21 '53

New control methods for products pipe lines. S. S. Smith. diags Am Pet Inst Proc 33(5): 79-86 '53; Excerpts. Oil & Gas J 52:302-3+ Jl 27 '53

New device determines batch cut point. W. A. Bruce. il diag World Oil 138:211-12+ Ja '54

New interface detector. Oil & Gas J 52:138 O 5 '53

New products artery; begin work on common carrier from Ark City, Kan. to Fairmont, Neb. W. P. Sterne. map Oil & Gas J 52:216-17 Jl 27 '53

New Shell products line. map Pet Refiner 33:154 Ja '54

Old oil line converted to products use. C. W. Tomford. il Pet Eng 25:D26+ Je '53

Operations simplified, costs pared, in new Evangeline products pipe line system. F. L. Resen. il diags Oil & Gas J 52:92-3+ N 9 '53

Pioneer opening set. map Oil & Gas J 52:73 Ag 10 '53

Pipe; the pressure will ease in '54. Iron Age 172:98-9 N 19 '53

Products pipe line in operation. il map Pet Eng 25:D36+ S '53

Products pipe lines headed for record year. il maps Nat Pet N 45:33-5 Je 3 '53

Products system completes important project. R. Sneddon. il Pet Eng 25:D7+ Jl '53

Propane transportation and storage on a products pipe-line system. J. W. Boyd and others. il map diag Am Pet Inst Proc 33(5):19-24 '53; Same. Oil & Gas J 52:220-2+ N 16 '53

Recent developments; products pipe lines. S. S. Smith. Am Pet Inst Proc 32(5):62-6 '52

Tetco to reconvert Little Big Inch back to petroleum products service. G. T. Naff. map Gas Age 113:43 Ap 22 '54

Unusual pressure-control methods feature steeply dropping artery; Pioneer products pipe line. G. L. Farrar. il map diag Oil & Gas J 52:101-3 Ja 4 '54

What's ahead for product lines? H. E. Fisher. Nat Pet N 45:26-7 O 28 '53

Wood River line features modern design. il diag Pet Eng 25:D74+ N '53

PETROLEUM products pipe lines—*Continued*

Maps

United States and Canadian crude-oil and products pipe-line systems. Oil & Gas J 52:supp S 21 '53

Statistics

U.S. and Canadian products pipe-line projects planned and under way; tabulation. P. Reed. Oil & Gas J 52:340 S 21 '53

PETROLEUM refineries

Aden and Abadan. Economist 170:179-80 Ja 16 '54

AIOC becomes a modern Phoenix. C. M. Jones. il Pet Eng 25:C 10+ Je '53

British American's integrated refinery makes optimum use of crude oil. il Can Chem Process 38:26+ Jl '54

Caltex plant shaping up. il Pet Refiner 32:96+ N '53

Capacity shifting; Philadelphia to displace Los Angeles as second-largest refining center. G. Weber. il map Oil & Gas J 52: 38-9 Ag 3 '53

Construction boxscore; refineries and other plants; tabulation. Published in monthly numbers of Petroleum refiner

Down East; integrated refinery; Everett, Mass., refinery of Esso Standard Oil. il Chem Eng 60:130+ D '53

Largest British refinery building rapidly at Aden. A. E. C. Drake. il Pet Eng 25:C39-40 S '53

Los Angeles refiners are blamed for smog. Nat Pet N 45:27 D 9 '53

Midyear report; engineering and technological reviews; active U.S. refinery-building projects; U.S. and Canada. Oil & Gas J 52: 245-6+ Jl 27 '53

New Italian refinery on stream; Condor refinery near Milan. il Chem & Eng N 32:727 F 22 '54

Oil refineries of 1953. il Engineer 197:50-2, pl 4 Ja 8 '54

Refinery erection starts at Aden. il Pet Refiner 32:95+ S '53

Refining capacity is climbing. D. H. Stormont. Oil & Gas J 52:72-3 N 9 '53

Royal opening for Coryton. il Chem Age (Lond) 70:1245-6 Je 5 '54

Study traces effects of oil integration; Harvard university research report. Nat Pet N 46:19 F 24 '54

What the design engineer faces in Canadian process plants. S. V. Antenbring. Pet Refiner 33:133-6 Ja '54

World's biggest refinery job; refinery of Anglo-Iranian oil co. at Aden. D. M. Duff. il Oil & Gas J 52:115 Ja 25 '54

Accounting

How we account for motorized equipment expense; Baton Rouge refinery, Esso standard oil co. F. A. Youngs. N A C A Bul 35:627-33 Ja '54

Cleaning

New ways to clean bubble-plate towers; patent. Chem Eng 61:258 Ap '54

Control equipment

Aid to process control; new all-electronic instrument system. W. T. Marchment. Oil & Gas J 52:78 S 28 '53

Analyzing process control systems. P. R. Hoyt and B. D. Stanton. bibliog diags Pet Refiner 32:115-19 O '53

Application of the three-way control valve. L. Hollander. diags Instruments & Automation 27:454-6 Mr '54

Approaching the control problem of the automatic chemical or petroleum plant. M. V. Long and E. G. Holzmann. diags A S M E Trans 75:1373-81 O '53

Continuous control of plant stream by infrared analyzer. D. E. Berger. il Instruments 26:872-3+ Je '53

Design and construction of control valves. D. E. Hostedler. il Pet Refiner 32:133-4 Ag '53

Electrically-operated process control for an Aden oil refinery. il diags Elec J 152:838-40 Mr 12 '54; Elec R (Lond) 154:549-50 Mr 26 '54

Electronic control in petroleum processing. W. T. Marchment. il diags Oil & Gas J 52:124+ N 9 '53

Evershed and Vignoles electronic control of crude oil distillation. il Engineer 197:396 Mr 12 '54

Trends in refinery instrumentation (cont). S. D. Ross and W. W. Drake. il diags Pet Eng 25:C7-10 Ag; C17-18+ S '53; 26:C 16+ Ja; C43-4+ My '54

Valves are in the control loop. E. Wolff. diags Pet Processing 8:1180-4 Ag '53

Corrosion

Carbon dioxide corrosion reduced. J. C. Albright. il Pet Eng 25:C37-8 Ag '53

Casebook of a corrosion chemist. M. Brooke. il Pet Refiner 32:131-2 Ag '53

Economic factors of atmospheric corrosion vs. protection. C. C. Harvey. Am Pet Inst Proc 33(3):286-90 '53; Same. Pet Refiner 32:122-4 Je '53

Estimation of corrosivity of crude oils. H. A. Cataldi and others. diags Am Pet Inst Proc 33(3):291-307 '53; Same. Pet Refiner 32:145-50 Jl '53; Excerpts. Oil & Gas J 52:100+ Jl 20 '53

Five common corrosion problems. Pet Processing 8:1332-5 S '53

Five steps to lower corrosion costs. V. B. Guthrie. Pet Processing 9:72-4 Ja '54

Organic inhibitor controls refinery corrosion. C. C. Hulbert and J. A. Rippetoe. il Oil & Gas J 52:120-2+ Ag 17 '53

Prevention of hydrogen attack on steel in refinery equipment. W. A. Booner and others. bibliog flow diag il diags Am Pet Inst Proc 33(3):255-71 '53; Same. Pet Processing 8:686-90, 878-83 My-Je '53; Same cond. Oil & Gas J 52:100+ Je 8 '53; Discussion. Am Pet Inst Proc 33(3):271-2 '53

Profit from your own experience; three-point program for broadening corrosion prevention. Pet Processing 8:1866-8 D '53

Use of organic inhibitor for refinery corrosion control. C. C. Hulbert and J. A. Rippetoe, jr. il Am Pet Inst Proc 33(3):273-85 '53; Same cond. Pet Refiner 32:113-18 Je '53

What does corrosion cost you? Pet Processing 8:1685-8 N '53

Costs

Alternate types of vessel construction; a cost comparison. I. E. Boberg and W. R. Fickett. diag Oil & Gas J 52:107 Ag 3; 161 Ag 17; 145 Ag 24 '53

Combination processing can cut 22 per cent off investment costs. N. R. Adams and W. J. Price. il Pet Processing 8:1505-10 O '53

Comparison of electric motors and steam turbines as drivers for fluid catalytic cracking units. H. C. Mayo. flow diags diags Pet Refiner 32:96-100 Ag '53

Costs stabilizing or declining; itemized cost indexes. W. L. Nelson. Oil & Gas J 52:99 Ja 4 '54

Definitive cost estimating. H. Bottomley. Pet Refiner 32:110-12 O '53

Economic analysis in petroleum refining. J. P. Hamilton. Pet Refiner 32:102-6+ O '53

Houdriforming economics; effect of feed-stock boiling range and reforming severity. H. D. Noll and others. Am Pet Inst Proc 33(3): 91-7 '53; Same. Pet Refiner 32:113-16 My '53; Same. Pet Eng (Ref annual) 25:C 15-16+ Jl 15 '53

How to prepare cost estimates. H. Bottomley. Pet Refiner 32:211-14 S '53

Material and labor costs are being stabilized. W. L. Nelson. Oil & Gas J 52:109 Jl 6 '53

Petroleum refinery costs and Nelson refinery construction index; tables and chart. Eng N 151:115 O 8 '53

Preparing preliminary job estimates; charts for quick plant costimating. W. W. Bond. Oil & Gas J 52:106-7+ D 14 '53

Quicker cost estimating; short-cut method of figuring cost of building refinery process unit. J. F. Gilmore, jr. Oil & Gas J 52:59-60 O 26 '53

Refinery construction costs increase slightly. W. L. Nelson. Oil & Gas J 52:295 O 5 '53

Short cut estimating of processes. J. F. Gilmore, jr. flow diag il diag Pet Refiner 32: 97-101 O '53

Take another look at economic pipe sizing. H. F. Rase. bibliog Pet Refiner 32:141-3 Ag '53

PETROLEUM refineries—Costs—*Continued*

What price complete refinery installation? W. L. Nelson. Oil & Gas J 52:117-18 N 23 '53

Directories

U.S. refineries producing lubricating oils; tabulation. Pet Eng 25:C50 Je '53

Electric equipment

Advantages for you in outdoor metal clad switchgear. E. R. Hoyle. il Pet Processing 9:55-7 Ja '54

Design and application of explosionproof equipment. R. P. Northup. il diags Am Pet Inst Proc 33(3):329-34 '53; Same. Pet Refiner 32:123-6 My '53; Discussion. Am Pet Inst Proc 33(3):335-6 '53

Electric motor controls; how to pick one for your plant. L. T. Ellis and A. L. R. Maynard. bibliog il diag Pet Processing 8:1692-6 N '53

Electrical facilities for a modern petroleum process unit. T. L. Cappel, jr. diags Pet Eng 25:C 10-12 N '53

Factors in the design of electrical distribution systems. W. A. Sibson and others. diags Pet Processing 8:1342-4 S '53

How to get what you need when you order electric motors. D. P. Thornton, jr. Pet Processing 8:1318-24 S '53

Improved electric utility service to the oil refineries. P. H. Weinberg. diags Am Pet Inst Proc 33(3):323-8 '53

Kent oil refinery. il Elec R (Lond) 154:495-500 Mr 19 '54

Maintenance of electric motors. F. H. Walker, jr. and W. J. O'Meara. diag Am Pet Inst Proc 33(3):344-50 '53; Same. Pet Refiner 32:127-31 My '53; Same. Pet Eng (Ref annual) 25:C28+ Jl 15 '53; Same cond. Oil & Gas J 52:172+ My 25 '53; Abstract. Pet Processing 8:693 My '53; Discussion. Am Pet Inst Proc 33(3):350-4 '53

Maintenance of switchgear in petroleum refineries. H. B. Wortman. il Am Pet Inst Proc 33(3):337-42 '53; Same. Oil & Gas J 52:105-6+ Je 8 '53; Discussion. Am Pet Inst Proc 33(3):342-3 '53

Modern electric distribution system for an oil refinery. V. L. Nealy. diag Elec Eng 72:1008-11 N '53

Purifying precipitator; Howe-Baker corp. Ind & Eng Chem 45:sup 17A-18A+ D '53

Refinery nears completion; Coryton, Essex. il Elec J 151:1055-6 O 2 '53

Switchgear replaced in record time; Shell Petroleum's Cardon, Venezuela refinery. il Pet Eng 26:C15 Ja '54

Three electric processes. flow diag diags Pet Refiner 32:125+ S '53

Employees

Conference method helps supervisors train themselves; Phillips petroleum co. J. E. Storment. Factory Management 112:105-6 Jl '54

Don't guess when you're selecting the best supervisors. M. Radom. Pet Processing 8: 1013-16 Jl '53

How many refinery employes, and what do they do? W. L. Nelson. Oil & Gas J 52:155-6 O 19 '53

How one company appraises management development programs; Humble oil & refining co. C. E. Reistle, jr. Min Eng 6: 802-4 Ag '54

Equipment

Alphabetical list of some of the more common refinery alloys and steels. W. L. Nelson. Oil & Gas J 52:153 S 14; 169 O 12; 164 N 9; 137 D 7 '53; 100 Ja 4 '54

Alternate types of vessel construction; a cost comparison. I. E. Boberg and W. R. Fickett. diags Am Pet Inst Proc 33(3):241-5 '53; Same. il Pet Eng 25:C21+ O '53; Same cond. Pet Processing 8:690-2 My '53; Discussion. Am Pet Inst Proc 33(3):245-52 '53

Application of infrared nondispersion analyzer. L. Hollander, G. A. Martin and C. W. Skarstrom. diag Ind & Eng Chem 46:1377-81 Jl '54

Applications of stainless steel. W. L. Nelson. Oil & Gas J 52:156 Ag 17 '53

Bay Petroleum improves quality, increases over-all yield. G. L. Farrar and J. C. Reidel. il diags Oil & Gas J 52:96-7+ S 28 '53

Bay refinery at Denver. Pet Refiner 32:124 O '53

Catformer goes on stream; first phase of Atlantic's refinery modernization. il Chem & Eng N 32:474 F 8 '54

Continuous wax moulders. R. Shannon. plan diags Pet Refiner 33:147-50 Ja '54; Same abr. Mech Eng 75:963-6 D '53

Controlled volume pumps. J. Procopi. il diags Pet Processing 9:75-8 Ja '54

Design and operation of Orthoflow units. W. J. Degnen and J. F. Skelly. il diags Pet Eng (Ref annual) 25:C7-10 Jl 15 '53

Deterioration of redwood cooling towers. R. V. Comeaux. bibliog il Am Pet Inst Proc 33(3):308-19 '53; Excerpts. Oil & Gas J 52:343+ S 21 '53; Abstract. Power 97:246+ O '53

Drum filler cuts costs to the bone. F. Breese. il Nat Pet N 45:76+ S 30 '53

Entrainment eliminators save money. S. C. Reynolds. il Pet Refiner 32:138-40 Jl '53; Same cond. Oil & Gas J 52:117-18+ Ag 10 '53

First cat cracker in New England. flow diag il Pet Processing 8:1689-91 N '53

First complete New England refinery at Everett, Mass. E. B. Brien. flow chart il Pet Eng 26:C41-2 Ja '54

First Orthoflow cat cracker in Oklahoma. R. V. McGrath. flow chart il Pet Eng 25:C5-6 D '53

Fluid-bed catalytic cracking unit. J. A. Marshall and J. W. Askins. flow diags il Ind & Eng Chem 45:1603-8 Jl '53

$40 million addition dedicated at Richfield Oil's Watson refinery. il Chem & Eng N 32: 2186 My 31 '54

Here's a new flow meter design. A. L. Jorissen and others. bibliog diags Pet Processing 8:1870-3 D '53

Houdriflow cat-cracker for Montreal refinery. diag Can Chem Process 38:42 F '54

How five plants cut costs of jacketing insulated lines. il Pet Eng 25:A72 S '53

How infrared aids the small refiner. P. T. Buchanan. Pet Processing 9:103 Ja '54

How N.C.R.A. arrested reactor grid erosion on fluid cat cracker. il diag Oil & Gas J 52:120 N 2 '53

How to design fluid catalytic hydroforming units. R. A. Harang. flow sheet diags Oil & Gas J 52:280-2+ O 5 '53; Same. Pet Refiner 32:135-8 O '53; Same. Pet Eng 25:C31-2+ D '53

How to test cement for erosion resistance. A. J. van Riemsdijk and H. W. van der Hoeven. il diags Pet Processing 8:1514-18 O '53

Huge cat cracker dedicated; Houdriflow unit at Texas City Refining's plant. il Pet Refiner 32:95-6 O '53

If you can't modernize all at once; do it in steps; Shamrock oil and gas corp. D. B. Ardern. diags Pet Processing 8:1700-4 N '53

Imperial's cat cracker first in Northwest. flow sheet Can Chem Process 37:42+ O '53

Industrial cooling towers. H. E. Degler. flow diags il map diags Pet Eng 25:C7+ D '53; 26:C30+ Mr; C53-4+ My; C34+ Jl '54

Is packed height a variable in flooding? W. M. Newton and others. bibliog diag Pet Refiner 32:125-8 O '53

Kansas refinery completely desalts its charge stock with spent caustic. flow diag il Oil & Gas J 52:123-4 Ag 10 '53

King-size moving job on the West coast. il Oil & Gas J 52:148-9 S 14 '53

Lake Charles, Louisiana, refinery enlarged. il Manuf Rec 123:37 Ag '54

Lube plant operating; new Deep Rock facility at Cushing. G. L. Farrar. flow diag il Oil & Gas J 52:214-15 Jl 27 '53

Man-size petrochemical venture; Sun oil co. at the Marcus Hook. V. B. Guthrie. flow diag il Pet Processing 9:83-5 Ja '54

Mechanical handling in the petroleum industry. E. A. Reynolds and V. F. H. Samson. 4pls diags Inst Pet J 39:795-814; Discussion. 814-18 N '53

Mechanical shaft seals. J. G. Walmsley and H. A. Ward, jr. il diags Pet Refiner 32:203-6 S '53

PETROLEUM refineries—Equipment—*Cont.*

Mechanized dewatering for drier, cleaner petroleum coke. F. Breese. il diag Pet Processing 8:1170-2 Ag '53

Mexican gasoline desulfurized. H. J. Burns and C. L. Corcuera. il Pet Eng 25:C 17-18 O '53; Same cond. Pet Refiner 32:118 Jl '53

Monolithic refractories in fluid catalytic cracking refinery units. W. B. Paul, jr. il Am Cer Soc Bul 33:108-10 Ap 15 '54

New cat cracker for Edmonton refinery. E. E. Sorensen. flow chart il Pet Eng 25:C6+ O '53

New design features of Houdriflow. R. M. Shirk and D. B. Ardern. diags Pet Refiner 32:121-5 D '53

New extraction tower for Udex ups efficiency. diags Chem Eng 60:346+ N '53

New facilities boost yield, improve quality; El Dorado refinery modernizes. J. C. Reidel. flow diag il diags Oil & Gas J 52:54-5+ Ag 3 '53

New lift method for moving solids; Hyperflow. il diags Pet Processing 8:1024-5 Jl '53

New orthoflow catalytic cracker for British American refinery at Clarkson, Ont. il Can Chem Process 38:51 Ap '54

New refinery for Canada's chemical valley; Sun oil co. flow diag il Can Chem Process 38:28+ Je 1 '54

New vent valve cuts vapor losses. il diags Pet Processing 9:62-5 Ja '54

Novel cat cracker at Sinclair's Houston refinery. il Chem & Eng N 32:574-6 F 15 '54

One-man unit fills 1000 drums per day. il Pet Processing 8:1729-30+ N '53

Operating the cat cracker. J. W. Moorman. flow diags diags Oil & Gas J 52:92+ N 2; 116+ N 9 '53; 76-7 Ja 4 '54

Oxidizing catalyst at peak performance. E. B. Brien. il Pet Eng 25:C 15-16 Ag '53

Pebble heater improves refinery operation. M. O. Kilpatrick. flow diag il Chem & Eng N 32:1388-9 Ap 5 '54

Plant analyzer samplers that work. diags Pet Processing 8:1717-20 N '53

Plastic solves scrubbing problems. D. P. Thornton, jr. flow diags il Pet Processing 8:1328-30 S '53

Propane fractionator on stream at Wellsville, N.Y. E. B. Brien. flow chart il Pet Eng 25:C 12-16 O '53

Reactor inspected by isotopes. il Pet Refiner 32:126 Ag '53

Refinery centrifugal compressor performance. H. C. Mayo. Oil & Gas J 52:125 N 2; 157 N 9 '53

Refinery manufactures special quench valve. H. M. Martin. il Pet Eng 25:C21-2 Ag '53

Refractory concrete for refinery vessel linings. J. F. Wygant and W. L. Bulkley. diags Am Cer Soc Bul 33:233-9 Ag 15 '54

Report on API investigation of graphitization in petroleum refining equipment. R. J. Fiorentino and A. M. Hall. bibliog il diags Am Pet Inst Proc 33(3):230-40 '53; Same. Pet Refiner 32:132-6 My '53; Same cond. Oil & Gas J 52:110+ Je 8 '53; Discussion. Am Pet Inst Proc 33(3):245-52 '53

Segregated graphite in steel. J. J. Kanter. Am Pet Inst Proc 33(3):225-9; Discussion. 245-52 '53

Shell's Stanlow plant boasts many firsts. flow sheet il Oil & Gas J 52:190-2 D 21 '53

Simple new system turns cat cracker waste heat to steam. il diags Chem Eng 61:114-16+ Ap '54

Small refinery, but big products list. J. C. Reidel. bibliog flow diag il diag Oil & Gas J 52:72-5+ Ja 4 '54

Sun Oil gets petrochemicals; addition to Marcus Hook refinery. flow sheet Pet Refiner 33:99+ Ja '54

Take another look at economic pipe sizing. H. F. Rase. bibliog Pet Refiner 32:141-3 Ag '53

This new cat-cracking reactor goes up near framework; refinery of Lago oil & transport co. il Oil & Gas J 52:92-3 Ag 3 '53

Tips on sealing light hydrocarbons. R. E. Morgan. il Pet Processing 8:1340-1 S '53

To help you design fractionators. R. R. White. bibliog diags Pet Processing 8:357-62, 539-43, 704-9, 892-6, 1026-31, 1174-9, 1336-9, 1533-6, 1705-7 Mr-N '53

Two successful analyzer samplers. B. W. Thomas and R. L. Martin. diags Pet Processing 8:1511-13 O '53

Use of wire-mesh sections in asphalt entrainment control in vacuum pipe stills; symposium. diags Oil & Gas J 52:82-7+ N 2; 94+ N 23 '53

What type blowers do you need? H. W. Woodhouse. diags Pet Processing 8:1325-7 S '53

When and where to use air-cooled heat exchangers. J. M. Whalen. il diag Pet Processing 8:1528-31 O '53

When can you use cast iron in the refinery? W. J. Buxton. il Oil & Gas J 52:128-30+ O 19 '53

World's largest Houdriflow cat cracker goes on stream; Texas City refining, inc. il Chem & Eng N 31:4204-5 O 12 '53

Experimental plants

Design of pilot plant reactors; panel discussion. F. D. Moss. bibliog il diags Ind & Eng Chem 45:2133-8 O '53

Instrumentation for pilot plants; panel discussion. C. Berg and others. flow diag il diags Ind & Eng Chem 45:1836-52 S '53

Laboratory for pilot-scale distillation. J. E. Friden and T. G. Stack. bibliog il plan diags Chem Eng Prog 50:151-4 Mr '54

Philosophy of pilot plants; panel discussion. C. L. Brown and others. Ind & Eng Chem 45:1619-28 Ag '53

Pilot plants in the petroleum industry; summary of panel discussion. L. J. Blatz. Ind & Eng Chem 45:2607 D '53

Small scale fluid catalytic cracking unit. T. Rice, J. K. Carpenter and C. D. Ackerman. flow diag Ind & Eng Chem 46:1558-61 Ag '54

Fires and fire protection

Fire equipment for oil refineries. A. G. Thomson. il Chem Age (Lond) 70:1254-5 Je 5 '54

Fire protection built into refineries. A. G. Thomson. il Chem Age (Lond) 70:371-3 F 6 '54

Investigate your fires to prevent recurrence! F. G. Wilson. Pet Refiner 32:232-3 O '53

Switch lamps converted to electric operation. E. B. Brien. il Pet Eng 25:C25 S '53

Flare stacks

Something new in flare stacks. T. Armstrong. il Oil & Gas J 52:118+ Jl 13 '53

Maintenance and repair

Analysis of trends in costs was helpful. O. R. Etheridge. Pet Processing 8:1058+ Jl '53

Economics of spares in refineries. J. E. Bell. Pet Eng 25:C54+ N '53

How to evaluate your maintenance. Pet Processing 8:1056+ Jl '53

How to reduce maintenance costs. Pet Processing 8:1201-2 Ag '53

In maintenance it's organization and planning that get results; Gulf oil corp.'s Port Arthur, Tex., refinery. C. E. Gunter. Oil & Gas J 52:99-100+ Ja 18 '54

Inspection of refinery vessels. E. L. Weiss. il Oil & Gas J 52:108-10+ D 14 '53

1954 maintenance issue. bibliog il Pet Refiner 33:101-27 Ja '54

Plug-type lubricated valves; their repair and reconditioning. R. H. Herring. il Oil & Gas J 52:122+ D 14 '53

Preventive maintenance of refinery compressors. J. R. Ware. Oil & Gas J 52:94+ Ja 18 '54

Radio network speeds emergency repairs. il Pet Processing 8:1053-4+ Jl '53

Streamlining maintenance operations; one company's program; abstract. Management R 42:600-1 O '53

Trailer speeds up tank maintenance. il Pet Processing 9:101 Ja '54

Management

How to control maintenance costs. R. M. Cziner. bibliog il Pet Refiner 33:106-9 Ja '54

Inspection practices and problems. R. J. Phillips. Pet Refiner 33:116-18 Ja '54

Maintenance during operation. C. B. Parrish, jr. il Pet Refiner 33:123-7 Ja '54

PETROLEUM refineries—*Continued*

Models

Oil refining in miniature; youngsters learn know-how of oil refining by use of Standard Oil of California kit. il Chem & Eng N 32:3646 S 13 '54
Scale models; a new working tool in layout and design. D. H. Stormont. il Oil & Gas J 52:101-2 Jl 13 '53
Shell Oil goes for model cat cracker. il Chem Eng 61:138+ Ap '54

Power

Comparison of electric motors and steam turbines as drivers for fluid catalytic cracking units. H. C. Mayo. flow diags diags Pet Refiner 32:96-100 Ag '53; Excerpts. Oil & Gas J 52:86-8+ S 7 '53
Pass-out generator sets at Coryton refinery. il Engineer 196:463 O 9 '53
Unhoused boiler installations are cheaper, safer; Billings refinery of Continental oil co. K. S. Andrea. il Oil & Gas J 52:66-7 Ja 4 '54

Quality control

Some instruments for quality control in petroleum refineries. G. C. Eltenton. bibliog il diags J Ap Chem 4:245-56 My '54

Safety measures

Design and application of explosionproof equipment. R. P. Northup. il diags Am Pet Inst Proc 33(3):329-34 '53; Same. Pet Refiner 32:123-6 My '53; Discussion. Am Pet Inst Proc 33(3):335-6 '53
Safe operation of oil refineries. A. G. Thomson. il Chem Age (Lond) 70:997-1001 My 1 '54

See also
Petroleum refineries
—Fires and fire
protection

Statistics

Midyear report; engineering and technological reviews; crude runs average just under 7,000,000 bbl. Oil & Gas J 52:237 Jl 27 '53
New plants, enlargements, boost refining capacity eight per cent. map Oil & Gas J 52:154-5 Ja 25 '54
Petroleum refineries, including cracking plants in the United States, Jan. 1, 1954. J. G. Kirby. U S Bur Mines Information Circ 7693:1-12 '54
Refinery runs top 7,000,000 barrels daily. Oil & Gas J 52:146-7 Ja 25 '54
Small refiners growing. Oil & Gas J 52:53 N 23 '53
World refining, 1952. World Oil 137:80 Ag 15 '53
World-wide oil report. Oil & Gas J 52:173-4 D 21 '53

Stores systems

Efficient methods to keep spare parts records. J. P. Devine. Pet Eng 25:C 16+ Je '53
Warehousing and inventory control. J. G. Robinson. il Pet Refiner 33:119-22 Ja '54

Waste

Acid sludges regenerated to make 98 per cent H_2SO_4. F. L. Resen. flow diag il Oil & Gas J 52:101-4 Ja 18 '54
Bacteria at work; refinery employs bacterial oxidation to purify wastes. Oil & Gas J 52:60 N 23 '53
Build a flare for under $5,000; use of pit instead of stack. M. R. Beychok. flow diag il Pet Processing 8:1162-3 Ag '53
Current practice in the treatment of oil wastes. K. Cashmore. Munic Util 92:32+ Je '54
Determination of hydrocarbon gases as air contaminants. E. R. Quiram, S. J. Metro and J. B. Lewis. Anal Chem 26:352-4 F '54
Determination of phenols in waste waters by ultraviolet absorption. L. J. Schmauch and H. M. Grubb. Anal Chem 26:308-11 F '54
Diatometer, inexpensive river pollution indicator. E. B. Brien. il Pet Eng 26:C35-6 Ja '54
Direct extraction-pycnometer method for oil content of refinery effluents. W. S. Levine. G. S. Mapes and M. J. Roddy. bibliog il diag Anal Chem 25:1840-4 D '53
Gravity separation of oil; Sun oil co. H. F. Elkin and W. E. Soden. bibliog flow diag plans diags Sewage & Ind Wastes 26:854-61 Jl '54
How to de-oil your refinery waste waters for economical re-use. V. J. Calise. flow sheet Power Eng 58:72-3 Je '54
Low cost, waste water cleaner. E. B. Brien. flow charts il Pet Eng 25:C25+ Je '53
Management tackles pollution. R. B. Kahle. Pet Refiner 33:249-50 Ja '54
Methods for determining hydrocarbons and phenols in water. bibliog Anal Chem 25:1681-5 N '53
Microbiological studies on the treatment of petroleum refinery phenolic wastes. W. D. Sheets and others. bibliog il Sewage & Ind Wastes 26:862-8 Jl '54
New acid from refinery sludge; Consolidated chemical industries at Baton Rouge, La. il Chem Eng 61:114-16 Ja '54
Oil refinery waste treatment; abstract. W. H. Lang. Water & Sewage Works 101:183 Ap '54
Refiners warned; taking steps to abate pollution not enough. F. L. Resen. il Oil & Gas J 52:67 Jl 20 '53
Refinery oxidizes wastes; Sun Oil at Sarnia, Ont. il Chem Eng 61:120 F '54
Session on sludges and spent clays; papers and panel discussion. Am Pet Inst Proc 33(3):357-71 '53
Waste disposal in the petroleum industry; symposium. bibliog flow diags il diags Ind & Eng Chem 46:283-333 F '54
Whip waste disposal problems. H. F. Reves. Pet Refiner 32:139-40 O '53
Will refinery wastes kill fish? H. P. Clemens and P. Summers. Pet Refiner 32:145-7 Ag '53

PETROLEUM refining

American petroleum institute Refining division midyear meeting, New York, May 11-14. Pet Eng 25:C39+ Je '53
British American's integrated refinery makes optimum use of crude oil. il Can Chem Process 38:26+ Jl '54
Catalytic reforming is versatile addition to modern refining processes. il Can Chem Process 38:42+ Jl '54
Combination processing can cut 22 per cent off investment costs. N. R. Adams and W. J. Price. il Pet Processing 8:1505-10 O '53
Coryton refinery. il Chem Age (Lond) 70:1139-41 My 22 '54
Cyclic adsorption refining. R. L. Humphreys. flow diags Pet Refiner 32:99-101 S '53
Development of petroleum and petrochemical processing. B. T. Brooks. bibliog Pet Eng 26:C25-6+ Ja; C5-10+ F; C9-12+ Mr; C38-40+ My '54
Fluid coking process to extend crude oil supply. il Chem & Eng N 31:3474 Ag 24 '53
Have you thought of catalyzing cracking with gamma radiation? Pet Processing 9:11 Ja '54
Integration of an oil refinery. A. J. Carter. Chem & Ind p 1294-9 D 5 '53
Liquid-liquid extraction in refineries. P. W. Sherwood. il Chem Age (Lond) 70:623-5 Mr 13 '54
New catalytic reforming process. J. W. Teter and others. flow diag Oil & Gas J 52:118-21+ O 12 '53; Same cond. Pet Processing 8:1519-23 O '53
Outlook for refiners is brighter. G. L. Farrar. il map Oil & Gas J 52:78-80 Ag 24 '53
Petroleum industry; application of catalysis. E. V. Murphree. diags Ind & Eng Chem 45:1442-4 Jl '53
Petroleum processing. P. F. Swanson and N. R. Adams. bibliog Ind & Eng Chem 45:1429-35 Jl '53
Petroleum refineries' rise in capacity for '53. Oil Paint & Drug Rep 166:42 Ag 9 '54
Purifying pipeline crudes for engine use. il diag Diesel Power 32:35-7 Ag '54
Refining in '53 as reported in a dozen outstanding Journal articles. il Oil & Gas J 52:172-3 Ja 25 '54

PETROLEUM refining—*Continued*

Refining is expanding in all directions. A. L. Foster. il Pet Eng 25:A47 O '53

Refining properties of new crudes; crude oils from the Spraberry, Texas, area. C. M. McKinney and H. M. Smith. map Pet Processing 8:1164-7 Ag '53

SO_2 extraction process for aromatics recovery. W. F. Wilkinson, J. R. Ghublikian and P. Obergfell. bibliog flow diags il Chem Eng Prog 49:257-62 My '53; Same. Pet Eng (Ref annual) 25:C3-6 Jl 15 '53

Unsolved problems in the petroleum industry; C&EN staff report on symposium. il diag Chem & Eng N 31:2758-62 Jl 6 '53

Visualizing gas-solid dynamics in catalytic processes. F. A. Zenz. bibliog(68 ref) flow diags diags Pet Refiner 32:123-8 Jl '53

Western petroleum refiners association regional meeting, Casper, Wyo., Sept. 24-25. Pet Eng 25:C 14+ N '53

See also

Gasoline—Manufacture

Petroleum distillation

Lubricating oils—Manufacture

By-products

Don't burn your excess hydrogen. H. Heinemann. bibliog(47 ref) Pet Processing 8:1036-40 Jl '53

See also

Petroleum coke

Patents

Processing patents. P. J. Gaylor. Published in monthly numbers of Petroleum processing

Salt removal

Kansas refinery completely desalts its charge stock with spent caustic. flow diag il Oil & Gas J 52:123-4 Ag 10 '53

Sulfur removal

Autofining process. F. W. B. Porter. flow diag il diag Am Pet Inst Proc 33(3):58-69; Discussion. 69-70 '53

Desulfurization today; with descriptive data on Autofining, Unifining, Cycloversion, Tannin Solutizer, Gray desulfurization, Unisol mercaptan extraction, Mercapsol treating, electrolytic caustic regeneration and Shell hydrodegeneration processes. V. A. Kalichevsky and E. H. Peters. flow diags diags Pet Refiner 32:82-92 D '53

Desulfurizing process has wide applications. C. M. Jones. flow chart il Pet Eng 25:C27-8 Jl '53

Globe solves pressing air-pollution problem with new-type sulfur-recovery unit. J. G. Vicek and R. A. Graff. flow diag il Oil & Gas J 52:64-5+ Jl 6 '53

Is there a relation between crude source and desulfurization. J. H. Gary and H. E. Schweyer. flow diag il diags Pet Refiner 32:225-8 S '53

Potassium hydroxide solution shown useful for sweetening distillates; patent. Pet Processing 9:105-6 Ja '54

Remove non-hydrocarbon with boron fluoride; patent. Pet Processing 8:1063-4 Jl '53

Second oil desulfurization plant in operation in Britain. Chem & Eng N 31:4220+ O 12 '53

Shell hydrodesulfurization process. H. Hoog and others. bibliog flow diag Am Pet Inst Proc 33(3):71-8 '53; Same. Pet Refiner 32:137-41 My '53; Excerpt. Oil & Gas J 52:92+ Je 8 '53

Tables, calculations, etc.

Direct method for predicting vapor-liquid equilibrium ratios. J. M. Lenoir and G. A. White. bibliog(47 titles) Pet Refiner 32:121-3 O; 115-19 D '53

How many operating variables can you control? M. G. Larian. diags Pet Refiner 32:219-23 S '53

How to compute correlation index. W. L. Nelson. Oil & Gas J 52:299 O 5 '53

Short cut to correlation index. K. A. Harper. Oil & Gas J 52:249 D 21 '53

Simplify your oil and gas calculations. L. J. Murphy. Oil & Gas J 52:151-2 D 14; 99 D 28 '53; 121 Ja 11; 115 Ja 18 '54

Try this practical form of heat and material balance. H. Bottomley. flow sheet diag Pet Refiner 33:159-61 Ja '54

Vapor recovery

New meter counts losses; Standard Oil development co. il Chem W 75:40 S 11 '54

PETROLEUM research

A.P.I. reports on its fundamental research program. il maps diags Oil & Gas J 52:227-30+ N 16 '53

Analytical research; summaries of papers. Am Pet Inst Proc 33(3):375-8 '53

Forum on fundamental research. bibliog il maps diag Am Pet Inst Proc 32(1):45-193 '52

Honors to API project 37 leadership. R. E. Wilson and J. K. Roberts. Am Pet Inst Proc 32(1):190-3 '52

Petroleum research funds available; program activated for grants-in-aid. Chem & Eng N 32:1704+ Ap 26 '54

Petroleum research; the less practical, the better. Bsns W p 186-8+ N 21 '53

Radioisotopes; a new and important tool in all phases of industry. B. F. Linz. diags Oil & Gas J 52:106+ S 14 '53

Research bows to economy; Bureau of mines carries on work to aid recovery and utilization of oil. B. F. Linz. Oil & Gas J 52:80-1 O 19 '53

25 years of API research project 6. J. B. Hill. Am Pet Inst Proc 32(1):183-9 '52

See also

Petroleum laboratories

PETROLEUM shipping terminals

Eastham oil dock. Economist 170:262 Ja 23 '54

London oil distribution terminal. il Engineer 196:347 S 11 '53

New Eastham oil dock; electro-hydraulic operation of lock gates. il Elec R (Lond) 154:181-4 Ja 29 '54

Oil terminal adds petrochemical storage; Westoil terminals co. il Nat Pet N 46:27+ F 10 '54

Opening of the Queen Elizabeth II oil dock at Eastham. il Engineer 197:135-7 Ja 22 '54

Queen Elizabeth II dock; discharging large oil tankers. il Engineering 177:153-5 Ja 29 '54

River to station; terminal moves product efficiently; Ayers oil co. expansion of its Mississippi River barge terminal. il Nat Pet N 46:20-1 F 10 '54

Equipment

Bending shrinks pipe installations costs. il Nat Pet N 46:40 Ja 13 '54

Why not bend that pipe? W. R. Schuh. il Pet Processing 9:58-9 Ja '54

Lighting

New Eastham oil dock, Manchester lighting. il Elec J 152:429 F 5 '54

PETROLEUM storage

Future development of lease tankage. K. B. Henderson. diags Am Pet Inst Proc 33(5):46-50 '53; Same abr. Oil & Gas J 52:208-9 N 16 '53

Organic coatings adaptable to fuel storage. J. E. Cowling, I. J. Eggert and A. L. Alexander. bibliog il Ind & Eng Chem 46:1977-85 S '54

Salting down crude; underwater salt domes are proposed as storage in offshore drilling operations. diag Oil & Gas J 52:84 Ag 17 '53

Underground storage. D. Ball. diags Oil & Gas J 52:316+ Jl 27 '53

Vapor recovery

Vapor dome cuts storage loss; Shell oil co., Portland, Ore. il Chem Eng 61:290 Ja '54

PETROLEUM supply

Meeting the future demand for oil. A. A. Smith. Pet Eng (Ref annual) 25:A51-2 Jl 15 '53

Over half of world's reserves now concentrated in Middle East. D. M. Duff. Oil & Gas J 52:117-19+ D 21 '53

Perspective on the world oil picture. J. R. Suman. Am Pet Inst Proc 33(1):63-7 '53

Petroleum in trouble; glut possible. Chem & Eng N 32:382-3 F 1 '54

Petroleum supplies are always limited. E. Adams. Pet Eng 25:A55+ O '53

PETROLEUM supply—*Continued*

Will fabulous expectations for Williston Basin be realized? J. T. Roberts. il map Mag of Wall St 93:239-41+ N 28 '53

World crude reserves at start of 1953. D. Kliewer. World Oil 137:76-7 Ag 15 '53

World production gains 5.1 per cent in '53. D. M. Duff. Oil & Gas J 52:144-5 Ja 25 '54

World-wide oil report. maps Oil & Gas J 52: 121-68+ D 21 '53

United States

Higher production to be needed in '54. L. J. Logan. World Oil 138:72 Ja '54

Imports 13.2 per cent of total U.S. demand. H. D. Ralph. Oil & Gas J 52:142-3 Ja 25 '54

Oil-discovery trends. P. R. Schultz. Am Assn Pet Geologists Bul 37:1572-85 Jl '53

Oil use in the U.S. continues to climb. L. J. Logan. World Oil 137:967+ Ag 15 '53

Outlook for oil in the atomic age. D. A. McGee. Oil & Gas J 52:132+ N 9 '53

Oversupply worse. H. B. Fell. Oil & Gas J 52:87 D 14 '53

Production and proved remaining reserves, by fields. Oil & Gas J 52:210+ Ja 25 '54

Production nears 6½ million barrels. J. C. McCaslin. Oil & Gas J 52:134-5 Ja 25 '54

Record U.S. drilling rates necessary. World Oil 137:74-5 S '53

There's oil in your future. P. C. Ingalls. Oil & Gas J 52:149 N 23 '53

U.S. petroleum supply can draw upon wealth of resources and resourcefulness. A. C. Rubel. il Pet Eng 25:A37-40 Ag '53

U.S. reserves show 901-million-barrel gain. Oil & Gas J 52:136-8 Ja 25 '54

See also

Oil reserves (United States navy)

PETROLEUM waste

Disposal of waste water from oil fields in the coastal counties of California. R. Pomeroy. bibliog map Sewage & Ind Wastes 26:59-70 Ja '54

Surface equipment for Gulf Coast salt-water disposal. C. M. Davis. il Oil & Gas J 52: 124 Jl 20 '53

See also

Petroleum refineries—Waste

PETROLEUM waxes

Oxidized petroleum wax forms superior grease base. J. C. Kirk and E. W. Nelson. Oil & Gas J 52:97-8 Ja 11 '54

See also

Paraffin

Waxes

PETROLEUM workers

Air conditioned roughnecks of Breton Sound; Kerr-McGee's Rig 40. A. Reese. il map World Oil 137:323-6+ O '53

Camp life is fun; east Texas district camp of Shell oil co. D. Kliewer. il World Oil 137:241-4+ Jl '53

Independent unions eye merger. Nat Pet N 46:14 Ja 6 '54

Industrial medicine, world wide; the Medical department, Standard oil company (New Jersey). il map Ind Med 22:455-62 O '53

Is your safety record poor? try barbecues and bonuses. A. Reese. World Oil 137:170 S '53

Job opportunities with geophysical contractors. H. Salvatori. Pet Eng 25:B74-5 Jl '53

Oil may face industry-wide bargaining. Nat Pet N 46:13-14 F 24 '54

OWIU backs oil union merger. Nat Pet N 46: 17 Ja 20 '54

Sowela Tech; they graduate as oilfield roustabouts. il Bsns W p88-90+ Ag 29 '53

Three unions balk at merger. Nat Pet N 46: 15 Ja 27 '54

Union threat seen in Texas. J. B. Shepperd. Nat Pet N 45:21 D 2 '53

Why they don't get hurt on old rig 25. A. Reese. il World Oil 137:66-8 N '53

See also

Oil companies—Employees

Oil workers international union

Petroleum refineries—Employees

Women in the petroleum industry

Kuwait

Point IV program, the private capital way; Kuwait oil company's education program. il World Oil 137:270-1 S '53

PETROSELINIC acid

Anodic syntheses; synthesis of tariric and petroselinic acid. B. W. Baker and others. Chem Soc J p 1804-8 Je '54

Seed oil of ammi visnaga as a source of *cis* octa-dec-6-enoic acid (petroselinic). J. H. Skellon and J. W. Spence. Chem & Ind p74 Ja 16 '54

PETS

Pets mean big business. J. D. Horn. J Retailing 30:49-52+ Summer '54

These fads have built a billion-dollar business. il Bsns W p78-80+ N 28 '53

PEWTER

Lead and lead poisoning in early America; the pewter era. C. P. McCord. Ind Med 22: 573-7 D '53

Plating on lead alloys, pewter and Britannia. J. Haas. Metal Finishing 52:56-61 Ap '54

PFANSTIEHL chemical corporation

Two under one roof; dissolution of Pfanstiehl chemical corp. il Chem W 75:16 Ag 21 '54

PFANSTIEHL laboratories, inc.

Two under one roof; dissolution of Pfanstiehl chemical corp. il Chem W 75:16 Ag 21 '54

PFIZER, Charles, and company

1953 profits estimated at $2.75 a share. Barron's 33:23+ D 23 '53

PHAEANTHINE

Action of sodium in liquid ammonia on phaeanthine, *OO'*-dimethylcurine, and *OO'*-dimethyl*iso*chondrodendrine. D. A. A. Kidd and J. Walker. Chem Soc J p669-77 F '54

PHANTASTRON (delay circuit)

Phantastron computes pulse-width ratios. L. D. Findley. diags Electronics 27:164-7 Ja '54

Universal medical timer and pulse stimulator. R. G. Roush and E. T. Urbanski. il diags Electronics 26:154-7 N '53

PHARMACEUTICAL association, American. See American pharmaceutical association

PHARMACEUTICAL laboratories

All out drive for research; Bristol-Myers' Hillside, N.J. plant. il Dun's R & Mod Ind 62:21-2+ O '53

Armour laboratories operates globulin-albumin plant. il Chem & Eng N 31:2687 Je 29 '53

Drugs derived from glands; Armour pharmaceutical center. il Chem & Eng N 31:5054 D 7 '53

High alloy castings play vital role in producing antibiotics. il Can Chem Process 38: 54+ Ag '54

Laboratory services detailed in study by American council of commercial laboratories, inc. Oil Paint & Drug Rep 165:7+ Ap 19 '54

Pharmaceutical control laboratory record system. G. M. Naimark and R. F. Prindle. il Anal Chem 26:645-7 Ap '54

Twin laboratory and manufacturing buildings for Ortho Pharmaceuticals. il plan Arch Rec 113:158-61 Je '53

Upjohn's skyscraper laboratory not an ivory tower. il Chem & Eng N 31:2978 Jl 20 '53

PHARMACEUTICAL manufacturers' association, American. See American pharmaceutical manufacturers' association

PHARMACEUTICAL research

American drug manufacturers association Research and development section meeting, Rye, N.Y.; abstracts of papers. Chem & Eng N 31:4878 N 23 '53

Bridging the ulcer gap. Chem W 73:48+ O 10 '53

Live longer and like it! H. J. Loynd. Comm & Fin Chr 178:1013+ S 17 '53

Modern pharmaceutical industry; research, blend of efforts. J. F. Bohmfalk, jr. il Chem & Eng N 31:5186-91 D 14 '53

Physical chemistry in pharmaceutical research. J. M. Vandenbelt. J Chem Educ 30:625 D '53

Synthetic banes for TB; search for new synthetic tuberculostats. Chem W 73:43+ N 21 '53

X-ray testing and research on pharmaceuticals. S. F. Kern. il Anal Chem 25:731-4 My '53

PHARMACOLOGY

Chemistry and pharmacological reactions; abstract. J. W. Trevan. Chem & Ind p37-8 Ja 9 '54

PHARMACOPEIAS

Drug trade objections to International pharmacopeia procedures. Oil Paint & Drug Rep 165:3+ Ja 11 '54

US group will review WHO's drug standards. Oil Paint & Drug Rep 165:7 Ap 19 '54

WHO says it intends no standards secrecy. Oil Paint & Drug Rep 164:5+ O 26 '53

See also

United States pharmacopeia

PHASE adjusters

Variable phase contact breaker for stroboscopic determination of waveform. V. R. Peterson. il diags J Sci Instr 30:457-8 D '53

PHASE indicators

Cathode-ray-tube protractor or synchroscope. H. Sohon. diags Elec Eng 73:220-1 Mr '54

Phase detector; patents. diag Electronics 26:254+ D '53

Phase-sequence indicator using back-to-back rectifiers. J. E. Parton. bibliog diags J Sci Instr 30:375-8 O '53

PHASE meters

Zero-intercept phase comparison meter. Y. P. Yu. il diags Electronics 26:178-80 N '53

PHASE rule and equilibrium

Abstracts of papers published in Phase-equilibria; collected research papers for 1953. Chem Eng Prog 49:560+ O '53

Additional phase equilibrium data for the system CaO-MgO-SiO_2. R. W. Ricker and E. F. Osborn. bibliog Am Cer Soc J 37:133-9 Mr 1 '54

Apparatus for rapid determination of liquid-liquid and liquid-solid equilibria involving corrosive materials. W. Davis, jr. and others. diags R Sci Instr 24:431-2 Je '53

Application of the absolute rate theory to phase changes in solids. F. W. Cagle, jr. and H. Eyring. bibliog J Phys Chem 57:942-6 D '53

$BaTiO_3$-KF phase diagram. C. Karan and B. J. Skinner. J Chem Phys 21:2225 D '53

Binary distillation. A. J. Teller. il Chem Eng 61:168-74 S '54

Binary vapor-liquid equilibria. A. Rose and others. bibliog(26 ref) Ind & Eng Chem 45:1568-72 Jl '53

Composition of vapors from boiling binary systems. D. F. Othmer, L. G. Ricciardi and M. S. Thakar. bibliog(52 ref) Ind & Eng Chem 45:1815-21 Ag '53

Concentrated gas-solvent systems; applicability of Henry's law. W. B. Howard. bibliog Pet Refiner 32:97-9 D '53

Concentration gradients in spray and packed extraction columns. T. E. Gier and J. O. Hougen. bibliog flow sheet il diags Ind & Eng Chem 45:1362-70 Je '53

Constitution of bone china; high-temperature phase equilibrium studies in the system tricalcium phosphate-alumina-silica. P. D. S. St Pierre. bibliog(25 titles) il diags Am Cer Soc J 37:243-58 Je 1 '54

Correct application of the Gibbs-Helmholtz equation to reversible galvanic cells in which the compositions of some of the phases vary with temperature. R. F. Barieau. bibliog J Chem Phys 21:1827-8 O '53

Equilibria between 18 and 100° in the aqueous ternary system containing Sr^{2+}, Mg^{2+} and Cl^-. G. O. Assarsson and A. Balder. diag J Phys Chem 58:416 My '54

Equilibria between 18 and 114° in the aqueous ternary system containing Ca^{2+}, Sr^{2+} and Cl^-. G. O. Assarsson and A. Balder. bibliog diag J Phys Chem 57:717-22 O '53

Equilibria in the aqueous systems containing Ca^{2+}, Sr^{2+}, K^+, Na^+ and Cl^- between 18 and 114°. G. O. Assarsson and A. Balder. J Phys Chem 58:253-5 Mr '54

Equilibrium controlling the decarburization of iron-chromium-carbon melts. W. Dennis and F. D. Richardson. bibliog Iron & Steel Inst J 175:264-6 N '53

Equilibrium data for silica gel and water vapor. S. S. Hubard. Ind & Eng Chem 46:356-8 F '54

Equilibrium pressure measurements above ZnS from 680° to 825°C. C. L. McCabe. bibliog J Metals 6:Trans 969-71 S '54

Equilibrium thermochemistry of solid and liquid alloys of germanium and of silicon. C. D. Thurmond and J. D. Struthers. bibliog J Phys Chem 57:827-35 N '53

Extraction of hydrogen chloride from aqueous solutions. E. D. Crittenden, jr. and A. N. Hixson. bibliog flow diag Ind & Eng Chem 46:265-74 F '54

Fluoride model systems; systems LiF-BeF_2 and PbF_2-BeF_2. D. M. Roy and others. bibliog Am Cer Soc J 37:300-5 Jl 1 '54

Hydrothermal growth of quartz crystals. A. C. Walker. bibliog il diag Ind & Eng Chem 46:1670-6 Ag '54

Isopycnics and twin density lines. A. W. Francis. bibliog Ind & Eng Chem 45:2789-92 D '53

Kinetics of phase transitions involving dimer reactions. H. L. Frisch and C. Willis. bibliog J Chem Phys 22:243-4 F '54

Liquid equilibria of water-methanol-aniline-benzene system. A. W. Francis. il diags Ind & Eng Chem 46:205-7 Ja '54

Liquid phase equilibria. J. W. Westwater and L. F. Audrieth. bibliog Ind & Eng Chem 46:1281-4 Je '54

Liquid-vapor equilibrium in the system uranium hexafluoride-hydrogen fluoride. R. L. Jarry and others. bibliog diag J Phys Chem 57:905-9 D '53

Liquidus curve of the binary system cadmium acetate-potassium acetate. A. Lehrman and D. Schweitzer. J Phys Chem 58:383-4 Ap '54

Molal volumes and compressibilities of the system $NaCl$-H_2O above the critical temperature of water. S. W. Benson and others. bibliog J Chem Phys 21:2208-12 D '53

Phase diagrams play an important role in powder metallurgy. R. Steinitz. bibliog diags J Metals 5:891-4 Jl '53

Phase equilibria in hydrocarbon systems. L. T. Carmichael, B. H. Sage and W. N. Lacey. bibliog Ind & Eng Chem 45:2697-9 D '53

Phase equilibria in hydrocarbon systems. H. H. Reamer and others. bibliog Ind & Eng Chem 45:1805-12 Ag '53

Phase equilibria in polymer-solvent systems; three-component systems. A. R. Shultz and P. J. Flory. bibliog Am Chem Soc J 75:5681-5 N 20 '53

Phase equilibria in sugar solutions. F. H. C. Kelly. bibliog J Ap Chem 4:401-13 Ag '54

Phase equilibria in the carbon dioxide-methane system. H. G. Donnelly and D. L. Katz. bibliog il Ind & Eng Chem 46:511-17 Mr '54

Phase equilibria in the condensed system bromine-bromine trifluoride. J. Fischer, R. K. Steunenberg and R. C. Vogel. bibliog Am Chem Soc J 76:1497-8 Mr 20 '54

Phase equilibria in the system lithium metasilicate; β-eucryptite. M. K. Murthy and F. A. Hummel. bibliog Am Cer Soc J 37:14-17 Ja 1 '54

Phase equilibria in the system MgO-TiO_2. L. W. Coughanour and V. A. DeProsse. bibliog J Res Nat Bur Stand 51:85-8 Ag '53

Phase-study apparatus for semimicro use above atmospheric pressure. W. L. Marshall and others. diags J Chem Educ 31:34-6 Ja '54

Phases present and phase equilibrium in the system In_2O_3-H_2O. R. Roy and M. W. Shafer. bibliog J Phys Chem 58:372-5 Ap '54

Prediction of liquid-liquid phase equilibria. E. N. Pennington and S. J. Marwil. bibliog Ind & Eng Chem 45:1371-7 Je '53

Quaternary liquid systems with two immiscible liquid pairs. Y. Chang and R. W. Moulton. bibliog diags Ind & Eng Chem 45:2350-1 O '53

Rectilinear diameter law of mole fractions for binary liquid-vapor coexistence regions near the critical locus. S. W. Benson and others. J Chem Phys 22:247-9 F '54

Relationships between kinetics and acoustic phenomena in equilibrium systems. M. Manes. bibliog diag J Chem Phys 21:1791-6 O '53

Research conference on phase behavior of hydrocarbons, Ann Arbor, Mich. July 1-2. Chem & Eng N 31:2870 Jl 13 '53

Residual equilibrium saturation of porous media. H. S. Dombrowski and L. E. Brownell. bibliog il diags Ind & Eng Chem 46:1207-19 Je '54

PHASE rule and equilibrium—*Continued*

Simultaneous measurement of phase equilibria and integral isobaric heats of vaporization. J. A. Tallmadge and L. N. Canjar. bibliog Ind & Eng Chem 46:1279-81 Je '54

Single-constant linear equation for vapor-liquid equilibria in binary systems. R. S. Norrish and G. H. Twigg. Ind & Eng Chem 46:201-4 Ja '54

Solid solutions of the alkali halides; the systems KBr-KCl-H_2O, RbBr-RbCl-H_2O^1 and RbBr-KBr H_2O^2 at 25°. G. S. Durham, E. J. Rock and J. S. Frayn. bibliog Am Chem Soc J 75:5792-4 D 5 '53

Solid-state equilibrium relations in the system MgO-$Al_2O_3SiO_2$-ZrO_2. P. G. Herold and W. J. Smothers. bibliog Am Cer Soc J 37:351-3 Ag 1 '54

Systems Ag_2O-B_2O_3; its thermodynamic properties as a slag model. G. M. Willis and F. L. Hennessy. bibliog J Metals 5:Trans 1367-73 O '53

System CaO-ZnO-SiO_2. E. R. Segnit. Am Cer Soc J 37:273-7 Je 1 '54

System H_2O-$NaPO_3$. G. W. Morey. bibliog Am Chem Soc J 75:5794-7 D 5 '53

System MgO-Al_2O_3-H_2O and influence of carbonate and nitrate ions on the phase equilibria. D. M. Roy and others. bibliog diags Am J Sci 251:337-61 My '53

System thorium nitrate-water-nitric acid at 25° and the hydrates of thorium nitrate. J. R. Ferraro, L. I. Katzin and G. Gibson. bibliog Am Chem Soc J 76:909-11 F 5 '54

Ternary liquid-liquid equilibria. L. F. Crooke, jr. and M. Van Winkle. bibliog Ind & Eng Chem 46:1474-7 Jl '54

Ternary liquid system, benzene-heptane-diethylene glycol. G. C. Johnson and A. W. Francis. bibliog Ind & Eng Chem 46:1662-8 Ag '54

Ternary system $BaBr_2$-$HgBr_2$-H_2O at 25°, 10·4°, and 4·5°. H. J. V. Tyrrell and J. Richards. Chem Soc J p3812-15 D '53

Ternary system Na_2SO_4-$Al_2(SO_4)_3$-H_2O at 0°. J. A. Skarulis, H. A. Horan and R. Maleeny. bibliog Am Chem Soc J 76:1450-1 Mr 5 '54

Ternary systems with two separate binodal curves. A. W. Francis. diags Am Chem Soc J 76:393-5 Ja 20 '54

Thermodynamic correlation of vapor-liquid equilibria. B. S. Edwards and others. bibliog Ind & Eng Chem 46:194-9 Ja '54

Thermodynamics of reversible galvanic cells in which the compositions of some of the phases vary with temperature. J. W. Stout. J Chem Phys 21:1829-30 O '53

Two liquid phases in the lithium-ethylamine system at 0°. W. H. Howland and L. F. Epstein. Am Chem Soc J 76:292 Ja 5 '54

Uranium oxide phase equilibrium systems. W. A. Lambertson and M. H. Mueller. bibliog il Am Cer Soc J 36:329-34, 365-8, 397-9 O 1-D 1 '53

Vapor-liquid equilibria at 760-mm. pressure. L. H. Ballard and M. Van Winkle. bibliog Ind & Eng Chem 45:1803-4 Ag '53

Vapor-liquid equilibria at 200 mm. of mercury. S. H. Ward and M. Van Winkle. bibliog Ind & Eng Chem 46:338-50 F '54

Vapor-liquid equilibria; binary system nitromethane-nitroethane. A. Cantoni and J. Feldman. bibliog Ind & Eng Chem 45:2580-4 N '53

Vapor-liquid equilibria of ethyl-benzene-styrene binary system. W. S. White and M. Van Winkle. bibliog Ind & Eng Chem 46:1284-5 Je '54

Vapor-liquid equilibria of naphthalene-1-octadecene system. W. L. Martin and M. Van Winkle. bibliog Ind & Eng Chem 46:1477-81 Jl '54

Vapor-liquid equilibrium; *m*- and *p*-xylenes in different solvents. Ju Chin Chu and others. bibliog(40 ref) diag Ind & Eng Chem 46:754-61 Ap '54

Vapor-liquid equilibrium of naphthalene-*n*-tetradecane system at subatmospheric pressures. S. Haynes, jr. and M. Van Winkle. bibliog Ind & Eng Chem 46:334-8 F '54

Zirconia-titania system. F. H. Brown, jr. and P. Duwez. bibliog Am Cer Soc J 37:129-32 Mr 1 '54

See also
Critical point

PHASE transitions

Continuously recording electron diffraction camera for studies of crystal structure transitions. A. Boettcher and others. il diag J Ap Phys 25:926-7 Jl '54

Identification of individual hygroscopic particles in the atmosphere by a phase-transition method. S. Twomey. bibliog il diag J Ap Phys 24:1099-102 S '53

Phase transformations in commercial paraffin waxes. J. F. Johnson. bibliog Ind & Eng Chem 46:1046-8 My '54

Study of phase transitions in sodium hydroxide. W. J. Smothers and others. bibliog diags J Ap Chem 4:268-73 My '54

PHASEOLUS. See Beans

PHELLODENDRON

Two new flavonoid glycosides from the leaves of phellodendron amurense Ruprecht. M. Hasegawa and T. Shirato. bibliog Am Chem Soc J 75:5507-11 N 20 '53

PHENANTHRENE

Aromatic cyclodehydration; 9,10-dialkylphenanthrenes by cyclization of ketones. C. K. Bradsher and W. J. Jackson, jr. Am Chem Soc J 76:4140-3 Ag 20 '54

Nitration of phenanthrene; isolation of 1-nitrophenanthrene. P. M. G. Bavin and M. J. S. Dewar. Chem & Ind p543 My 30 '53

Preliminary experiments on the synthesis of colchicine; the synthesis of 4b,5,6,7,8,8a,9,10-octahydro-2,3,4-trimethoxy-10 - ketophenanthrene and its B-ring and C-ring homologs. C. D. Gutsche and F. A. Fleming. bibliog Am Chem Soc J 76:1771-5 Ap 5 '54

Some derivatives of phenanthrene. M. Meadow and W. M. Whaley. Chem Soc J p 1162-3 Mr '54

Some optically active dodecahydrophenanthrenes. R. M. Lukes and L. H. Sarett. Am Chem Soc J 76:1178-80 F 20 '54

Structure of Inhoffen's phenolic steroids; the synthesis of 1-ethyl-2,8-dimethyl-5-methoxyphenanthrene and 1-ethyl-2,8-dimethylphenanthrene. A. S. Dreiding and A. J. Tomasewski. bibliog Am Chem Soc J 76:540-5 Ja 20 '54

Synthesis of alkylphenanthrenes relevant to the investigations on methyl vinhaticoate. F. E. King and T. J. King. Chem Soc J p 1373-7 My '54

Analysis

Determination of phenanthrene in coal-tar products. L. Blom and W. J. Vranken. bibliog diags Anal Chem 26:404-7 F '54

PHENANTHRIDINE

Improved phenanthridine syntheses with polyphosphoric acid. E. C. Taylor, jr. and N. W. Kalenda. bibliog Am Chem Soc J 76:1699-700 Mr 20 '54

Synthesis of phenanthridines by the interaction of fluorene derivatives with hydrazoic and sulphuric acids. C. L. Arcus and M. M. Coombs. Chem & Ind p995 S 19 '53

PHENANTHROLINE

Chloroform extraction of ferrous-dipyridyl and *O*-phenanthroline complexes with the aid of alkyl sulphates and sulphonates. R. Powell and C. G. Taylor. Chem & Ind p726-7 Je 19 '54

Dichloro-bis-(2,2′-dipyridyl)-iron(II) and dichloro-bis-(1,10-phenanthroline)-iron(II). F. Basolo and F. P. Dwyer. bibliog Am Chem Soc J 76:1454-5 Mr 5 '54

Mechanism of racemization of complex ions; kinetics of the dissociation and racemization of tris-(1,10-phenanthroline)-iron(II) and tris-(2,2′-dipyridyl)-iron(II) complexes. F. Basolo, J. C. Hayes and H. M. Neumann. bibliog Am Chem Soc J 76:3807-9 Jl 20 '54

Spectrophotometric determination of iron in vanadium, chromium, manganese, nickel, and zinc, 1, 10- phenanthroline rate phenomena. D. W. Margerum and C. V. Banks. bibliog Anal Chem 26:200-2 Ja '54

Steric hindrance in analytical chemistry; the interaction of ferrous salts with 2-substituted 1 : 10-phenanthrolines. H. Irving, M. J. Cabell and D. H. Mellor. Chem Soc J p3417-26 N '53

Structures of some monoquaternary salts of 5-substituted 4: 7-phenanthrolines. W. O. Sykes. Chem Soc J p3543-8 N '53

PHENANTHROLINE—*Continued*
Studies on bond type in certain cobalt complexes; the exchange reactions of cobaltous 1 : 10-phenanthroline and tripyridyl complexes. B. O. West. Chem Soc J p578-9 F '54
Synthesis of some 4,10-disubstituted-1,7-phenanthroline derivatives. A. R. Surrey and R. A. Cutler. bibliog Am Chem Soc J 76:1109-13 F 20 '54

PHENETHYLAMINE
Derivatives of α,α-dimethylphenethylamine. G. B. Bachman, H. B. Hass and G. O. Platau. bibliog Am Chem Soc J 76:3972-4 Ag 5 '54
Effect of structure on reactivity; aminolysis of methyl acetate with some β-phenylethylamines. S. L. Jung, J. G. Miller and A. R. Day. bibliog Am Chem Soc J 75:4664-5 O 5 '53

PHENETHYL chloride. See Chloroethylbenzene

PHENETOLE
Nitration and hydroxylation of phenetole, phenyl *n*-propyl ether, and acetophenone by pernitrous acid. R. B. Heslop and P. L. Robinson. Chem Soc J p 1271-3 Ap '54

PHENOCOPIES. See Mutation (biology)

PHENOL
Adaptation of bact. lactis aerogenes to resist phenol and various alkylphenols. L. S. Phillips and C. Hinshelwood. Chem Soc J p3679-83 N '53
Biological treatment of waste waters containing phenol; abstract. I. Sörensen. Sewage & Ind Wastes 26:925 Jl '54
Bugs' becloud phenol future. Chem W 73: 64-6 N 7 '53
Identification of esters of phenols. G. Carbone. J Chem Educ 30:315 Je '53
Influence of uranyl and thorium salts on the miscibility of phenol and water. S. T. Bowden and J. H. Purnell. Chem Soc J p535-8 F '54
Inhibition of phenol alkylations by ethers; kinetic evidence for phenol-ether complexes. H. Hart, F. A. Cassis and J. J. Bordeaux. bibliog Am Chem Soc J 76:1639-41 Mr 20 '54
Interaction of iodine bromide and phenol or aniline. A. G. Sharpe. Chem Soc J p3713-14 N '53
Iron(III)-phenol complex in aqueous solution. T. Moeller and R. W. Shellman. bibliog Science 118:327-8 S 18 '53
Outlook for ammonia, phenol and ethylene glycol. Chem Eng 60:363-4 Je '53
Phenol expansion continues. Chem & Eng N 32:546 F 8 '54

Manufacture

BA-Shawinigan petrochemicals plant; phenol and acetone from cumene. il Chem Age (Lond) 70:513-16 F 27 '54
Canada makes phenol, acetone from cumene. H. C. Plummer. flow diag il Pet Eng 25: C27-8+ S '53
Higher yields of phenol and benzene from coal hydrogenation through process modifications; abstract. E. E. Donath. Chem & Eng N 32:1444 Ap 12 '54
In and running; Standard's phenol plant. il Chem W 74:100+ Mr 20 '54
New phenol process opens rich chemical and petroleum field. J. R. Nixon, jr. and H. I. Enos, jr. Comm & Fin Chr 178:1026 S 17 '53
Oversubscribed, but slightly; Defense production administration's goal for phenol production. Chem W 73:29 O 17 '53
Petroleum→cumene→phenol; Standard oil of California's Richmond refinery. il Chem & Eng N 32:1114 Mr 22 '54
Phenol, acetone, isopropanol; cumene process recasts trio's future. H. K. Nieuwenhuis. Chem W 72:30-9 My 2 '53
Phenol by sulfonation; Monsanto chemical co. diag Pet Refiner 32:156-7 N '53
Phenol from cumene. diag Pet Refiner 32:154-5 N '53
Phenol from petroleum; new Canadian process. Chem Age (Lond) 68:932 Je 20 '53
Phenol goes West; Monsanto's Avon, Calif. plant. il Chem & Eng N 31:4868 N 23 '53
Phenol synthesized from cumene at new B.A.-Shawinigan plant at Montreal. flow diag il Oil & Gas J 52:136-7 S 14 '53
Process kinetics; phenol synthesis by direct oxidation of benzene. Ju Chin Chu, H. C. Ai and D. F. Othmer. bibliog(64 ref) flow diag Ind & Eng Chem 45:1266-72 Je '53
Production of phenol and acetone from oxidation of cumene starts. il Chem & Eng N 31:2298 Je 1 '53; Chem W 72:34-6+ Je 13 '53; Chem Eng 60:114 Ag '53
Synthesis of petrochemicals; phenol, acetone from cumene. A. L. Foster. il Pet Eng 25: C3-4 N '53
Synthetic phenol manufacture. F. E. Salt. bibliog(27 ref) diags Chem & Ind sup S46-9 Ag 10 '53
Synthetic phenol manufacture. P. W. Sherwood. bibliog il diag Pet Processing 8:1348-54, 1543-5, 1722-8 S-N '53
Take the bugs out of phenol production; patent. Chem Eng 61:288 Je '54

Spectrum

Infra-red absorptions and molecular structures of phenol, phenolphthalein, fluorescein, and some alkali derivatives. M. Davies and R. L. Jones. Chem Soc J p 120-5 Ja '54

PHENOL compounds
Superior method for reducing phenol ethers to dihydro derivatives and unsaturated ketones. A. L. Wilds and N. A. Nelson. bibliog Am Chem Soc J 75:5360-5 N 5 '53

PHENOL condensation products
Blends of phenolic resins with rubber. R. C. Bascom. Rubber Age 74:547-9 Ja '54; Same. India Rubber World 129:630-1 F '54
Cure of phenol-formaldehyde resin; progress determined by ultrasonic wave propagation. G. A. Sofer, A. G. H. Dietz and E. A. Hauser. bibliog il diags Ind & Eng Chem 45:2743-8 D '53
Formaldehyde condensations with phenol and its homologues; dinuclear monoalcohols. S. R. Finn, J. W. James and C. J. S. Standen. J Ap Chem 4:296-300 Je '54
Formaldehyde condensations with phenol and its homologues; trinuclear novolaks. S. R. Finn, J. W. James and C. J. S. Standen. bibliog J Ap Chem 4:497-506 S '54
Hyatt award won by Bender for phenolic resin research. Chem & Eng N 31:2392 Je 8 '53
Phenol-formaldehyde and allied resins; further syntheses of resole molecules. A. T. Carpenter and R. F. Hunter. bibliog J Ap Chem 3:486-95 N '53
Phenol-formaldehyde and allied resins; trinuclear and hexanuclear novolaks. A. C. Davis, B. T. Hayes and R. F. Hunter. bibliog J Ap Chem 3:312-17 Jl '53
Phenol-formaldehyde resin intermediates. S. R. Finn and others. Chem & Ind p 188 F 13 '54
Phenol-, urea-, and melamine-formaldehyde plastics. P. O. Powers. bibliog(52 ref) Ind & Eng Chem 45:1063-6 My '53
Phenolic foam resin. diags Can Chem Process 37:74+ O '53
Recent advances in the structure of phenoplasts. R. F. Hunter. bibliog Chem & Ind p262-5 Mr 6 '54
Some derived relations between viscosity and percentage of solvent in phenol-formaldehyde reaction mixtures. K. B. Goldblum. J Ap Chem 4:19-21 Ja '54

PHENOLPHTHALEIN
Oxidation of phenolphthalin to phenolphthalein provides means of estimating oxidant in air. L. C. McCabe. bibliog Ind & Eng Chem 45:sup 111A-13A S '53

Spectrum

Infra-red absorptions and molecular structures of phenol, phenolphthalein, fluorescein, and some alkali derivatives. M. Davies and R. L. Jones. Chem Soc J p 120-5 Ja '54

PHENOLPHTHALIN
Oxidation of phenolphthalin to phenolphthalein provides means for estimating oxidant in air. L. C. McCabe. bibliog Ind & Eng Chem 45:sup 111A-13A S '53

PHENOLS
Alkylperoxy-radicals; reactions with 2 : 4 : 6-trialkylphenols. A. F. Bickel and E. C. Kooyman. Chem Soc J p3211-18 O '53
Amylphenols; Sharples chemicals, inc. flow sheet Pet Refiner 32:158-9 N '53

PHENOLS—*Continued*

Autocatalysis in aromatic alkylations; the reaction of phenols with triphenylmethyl chloride. H. Hart and F. A. Cassis. bibliog Am Chem Soc J 76:1634-9 Mr 20 '54

Canadian experiences in dealing with phenolic wastes. A. D. McRae. flow sheet diags Munic Util 91:51-3+ N '53

Condensation of epichlorohydrin with monohydric phenols and with catechol. O. Stephenson. Chem Soc J p 1571-7 My '54

*cyclo*Octatetraene derivatives; *cyclo*octylphenols. W. O. Jones. Chem Soc J p4156-7 D '53

Cyclopentenylphenols. A. R. Bader. bibliog Am Chem Soc J 75:5967-9 D 5 '53

Design and operation of a phenol recovery plant, Bethlehem steel co. coke plant. J. C. McCord. flow diag il Sewage & Ind Wastes 26:1014-19 Ag '54

Dissociation constants of some phenols and methylol phenols. G. R. Sprengling and C. W. Lewis. bibliog Am Chem Soc J 75:5709-11 N 20 '53

Factors influencing the oxidation of phenols, catalyzed by zinc oxide and light. M. C. Markham, M. C. Hannan and S. W. Evans. bibliog Am Chem Soc J 76:820-3 F 5 '54

Froth-flotation reagents for coal; distillation fractions of commercial oils and some simple phenolic compounds. P. F. Whelan. il diag J Ap Chem 3:289-301 Jl '53

Hydrogen bonding in phenolic resin intermediates. G. R. Sprengling. bibliog Am Chem Soc J 76:1190-3 F 20 '54

Introduction of Mannich groups into some aromatic phenolic compounds. J. R. Meadow and E. E. Reid. Am Chem Soc J 76:3479-81 Jl 5 '54

Ionization of certain bisphenols. W. Mahler. bibliog Am Chem Soc J 76:3920-1 Ag 5 '54

Koppers waste water treatment unit in operation. Blast F & Steel Pl 42:806 Jl '54

Microbiological studies on the treatment of petroleum refinery phenolic wastes. W. D. Sheets and others. bibliog il Sewage & Ind Wastes 26:862-8 Jl '54

New ω-substituted anisoles; aryloxymethanesulphonates; condensation of halogenomethanesulphonates with phenols and thiophenols. H. J. Barber and others. bibliog J Ap Chem 3:253-8 Je '53

Oxidation of hindered phenols; the 2,4,6-tri-*t*-butylphenoxy radical. C. D. Cook and R. C. Woodworth. bibliog Am Chem Soc J 75:6242-4 D 20 '53

Oxidation of phenols in alkaline solution; doctor red. H. D. Taskis and G. E. Mapstone. Chem & Ind p 1061-3 O 3 '53

Oxidation studies; metal-catalysed persulphate oxidation of some simple phenols. R. G. R. Bacon, R. Grime and D. J. Munro. Chem Soc J p2275-80 Jl '54

Phenolic disinfectants. J. L. Boyle. bibliog il Soap & San Chem 29:129-31 Ag '53

Phenolic-waste problem in the U.S.A. and how it is being handled. N. S. Chamberlin and A. E. Griffin. Munic Util 91:49-50+ N '53

Preparation and bacteriostatic properties of substituted trisphenols. D. J. Beaver, R. S. Shumard and P. J. Stoffel. bibliog Am Chem Soc J 75:5579-81 N 20 '53

Preparation of metallic phenates and the use of zinc salts in trans-esterification. L. P. McHatton and M. J. Soulal. Chem & Ind p 1337 D 12 '53

Reactions of alcohols and phenols with trimethylene oxide. S. Searles and C. F. Butler. bibliog Am Chem Soc J 76:56-8 Ja 5 '54

Recovery of phenolics from waste effluents. R. G. Edmonds and G. F. Jenkins. flow diag Chem Eng Prog 50:111-15 Mr '54

Relative rates of iodination of *p*-alkylphenols. E. Berliner, F. Berliner and I. Nelidow. bibliog Am Chem Soc J 76:507-9 Ja 20 '54

Restricted coupling in a substituted phenol. R. T. McGeachin, S. M. Price and R. M. Dajani. Am Chem Soc J 75:6062-3 D 5 '53

Separation of phenols by partition chromatography. T. R. Sweeney and J. D. Bultman. diag Anal Chem 25:1358-63 S '53

Some products formed from phenolic inhibitors during the autoxidation of cumene. R. F. Moore and W. A. Waters. Chem Soc J p243-6 Ja '54

Stereochemistry of aromatic alkylations; direct nucleophilic displacement in phenols. H. Hart and H. S. Eleuterio. Am Chem Soc J 76:516-19 Ja 20 '54

Structure, stereochemistry and inclusion compounds of some phenolic derivatives; abstract. W. Baker. Chem & Ind p 1281 N 28 '53

Studies of *N*-halogeno-compounds; the interaction of dialkylchloramines with phenols. L. O. Brown and F. G. Soper. Chem Soc J p3576-80 N '53

Surface films of phenolic compounds. A. J. G. Allan and J. H. Schulman. Chem Soc J p 1238-41 Ap '54

Thermal cracking of alkyl phenols. B. W. Jones and M. B. Neuworth. Ind & Eng Chem 45:2704-5 D '53

Triphenylmethane derivatives from condensations of phenols with hydroxybenzaldehydes. J. E. Driver and J. B. Sousa. Chem Soc J p985-9 Mr '54

See also

Chlorophenol

Cresols

Analysis

Anodic voltammetry of phenols. J. F. Hedenburg and H. Freiser. bibliog Anal Chem 25:1355-8 S '53

Cerium(IV); sulfate oxidation of phenols. W. R. Spencer and F. R. Duke. bibliog Anal Chem 26:919-20 My '54

Determination of a hindered phenol in lubricating oils by infrared absorption. E. Poti and others. Anal Chem 25:1461-3 O '53

Determination of phenolic hydroxyl content of lignin preparations by ultraviolet spectrophotometry. O. Goldschmid. bibliog Anal Chem 26:1421-3 S '54

Determination of phenols in waste waters by ultraviolet absorption. L. J. Schmauch and H. M. Grubb. Anal Chem 26:308-11 F '54

Determination of volatile phenols in cigarette smoke. C. H. Rayburn, W. R. Harlan and H. R. Hanmer. Anal Chem 25:1419 S '53

Differentiation of chelating from nonchelating phenols. S. Soloway and P. Rosen. bibliog Anal Chem 25:595-8 Ap '53

Methods for determining hydrocarbons and phenols in water. bibliog Anal Chem 25:1681-5 N '53

New micro method for the analysis of phenols. B. T. Commins and R. L. Cooper. Chem & Ind p 1110 S 4 '54

Polarographic oxidation of phenolic compounds. V. F. Gaylor, P. J. Elving and A. L. Conrad. bibliog Anal Chem 25:1078-82 Jl '53

Ultraviolet absorption spectra as a measure of phenolic hydroxyl group content in polyphenolic tanninlike materials. L. F. Maranville and O. Goldschmid. bibliog Anal Chem 26:1423-7 S '54

Spectra

Use of alkali and aluminium chloride in the spectral study of phenolic plant pigments. J. B. Harborne. bibliog Chem & Ind p 1142-3 S 11 '54

PHENOPLASTS. See Phenol condensation products

PHENOTHIAZINE

Bis-ammonium salts; derivatives of fluorene, carbazole and phenothiazine. C. J. Cavallito, A. P. Gray and E. E. Spinner. bibliog Am Chem Soc J 76:1862-6 Ap 5 '54

Effect of phenothiazine, N. F. (Green) on the uptake of I^{131} by the rat thyroid. R. V. Talmage and others. Science 118:191-2 Ag 14 '53

Oxidation of 10-acyl- and 10-alkylphenothiazines. H. Gilman and R. D. Nelson. bibliog Am Chem Soc J 75:5422-5 N 5 '53

Preparation of phenothiazine derivatives as possible anthelmintics. A. Mackie and A. A. Cutler. Chem Soc J p2577-9 Jl '54

PHENOXATHIIN

3-Aminophenoxathiin. J. F. Nobis and N. W. Burske. Am Chem Soc J 76:3034-5 Je 5 '54

PHENOXYACETIC acid

Chemistry of plant-growth regulators; 2 : 4-dichloro-6-hydroxyphenoxyacetic acid and related compounds. G. W. K. Cavill and D. L. Ford. Chem Soc J p565-8 F '54

PHENOXYACETIC acid—*Continued*

Synthesis of 2-chloro-6-methylphenoxyacetic acid. J. H. Barnes and P. G. Marshall. Chem Soc J p 1159-61 Mr '54

Analysis

Determination of *o*-cresol, 4-chloro-2-methylphenol and 2-methylphenoxyacetic acid by quantitative bromination. A. Aichenegg and H. G. Haynes. bibliog J Ap Chem 4:137-40 Mr '54

PHENYLACETIC acid

Acid strengths of the phenylacetic acids. M. L. Kilpatrick and E. Fackenthal. bibliog Electrochem Soc J 100:185-93 Ap '53

Biosynthesis of penicillin; role of phenylacetic acid. M. Gordon and others. bibliog Science 118:43 Jl 10 '53

Diffusion of phenylacetic acid in water as measured by changes of surface tension. J. E. Koller and E. R. Washburn. bibliog Am Chem Soc J 76:2562-5 My 5 '54

Electrolytic reduction of benzoic, phenylacetic, and cinnamic acids and esters at a platinized-platinum cathode. S. Ono and others. bibliog diag Electrochem Soc J 101: 104-9 F '54

Friedel-Crafts reaction in the carbazole series; phenylacetyl compounds. D. A. Kinsley and S. G. P. Plant. Chem Soc J p 1341-3 My '54

Phenylsodium route to phenylacetic acid and dimethyl phenylmalonate. J. F. Nobis and L. F. Moormeier. bibliog(13 ref) diags Ind & Eng Chem 46:539-44 Mr '54

Stereochemical studies; the relative configurations of (—)-aminophenylacetic acid (α-phenylglycine) and (—)-mandelic acid. M. B. Watson and G. W. Youngson. Chem Soc J p2145-7 Je '54

Analysis

Determination of phenylacetic acid and phenylacetamides in samples from penicillin fermentations. S. C. Pan and D. Perlman. bibliog diag Anal Chem 26:1432-8 S '54

PHENYLACETYLGLUTAMINE

Phenylacetylglutamine as a constituent of normal human urine. W. H. Stein and others. bibliog Am Chem Soc J 76:2848-9 My 20 '54

PHENYLALANINE

Accumulation of phenylalanine by a phenylalanineless mutant of escherichia coli. M. Katagiri and R. Sato. Science 118:250-1 Ag 28 '53

Autocatalytic growth of a mutant due to accumulation of an unstable phenylalanine precursor. B. D. Davis. Science 118:251-2 Ag 28 '53

Cyto-active amino-acid and peptide derivatives; substituted phenylalanines. F. Bergel and J. A. Stock. Chem Soc J p2409-17 Jl '54

Poly-*p*-amino-DL-phenylalanine. M. Sela and E. Katchalski. bibliog Am Chem Soc J 76:129-33 Ja 5 '54

PHENYLARSINE

Thermochemistry of organo-arsenic compounds; phenylarsine. C. T. Mortimer and H. A. Skinner. Chem Soc J p3189-91 O '53

PHENYLBIGUANIDE

Monomer synthesis; synthesis of a vinyltriazine and a study of the reaction of phenylbiguanide with acrylate esters. C. G. Overberger and S. L. Shapiro. bibliog Am Chem Soc J 76:1061-5 F 20 '54

PHENYLBUTADIENE

Studies with phenylbutadiene; a new synthesis of naphthalene. S. A. Faseeh. Chem Soc J p3708 N '53

PHENYLBUTYRIC acid

Seven-membered ring compounds; 7-acetamidobenzosuberone and α-amino-γ-3,4,5-trimethoxyphenylbutyric acid. W. J. Horton and G. Thompson. bibliog Am Chem Soc J 76:1909-11 Ap 5 '54

PHENYL chloride. See Chlorobenzene

PHENYLCHLOROBUTANOL

Trimethylene oxides; reaction of 2-chloro-4-hexanol and 1-phenyl-3-chloro-1-butanol with alkali. N. G. Gaylord and others. bibliog Am Chem Soc J 76:59-61 Ja 5 '54

PHENYLCYCLOHEXYLAMINE

Hofmann degradation of *cis*- and *trans*-2-phenylcyclohexylamines. R. T. Arnold and P. N. Richardson. bibliog Am Chem Soc J 76:3649-51 Jl 20 '54

PHENYLCYCLOPENTENONE

Studies in the alicyclic series; synthesis and reactions of 2-phenylcyclopent-2-enone. Y. Amiel, A. Löffler and D. Ginsburg. bibliog Am Chem Soc J 76:3625-8 Jl 20 '54

PHENYL ether

Condensations by sodium; the metalation and cleavage of ethers, principally of alkyl phenyl ethers, by amylsodium and sodium. A. A. Morton and A. E. Brachman. bibliog Am Chem Soc J 76:2973-80 Je 5 '54

Diacid bases; curarising agents; derivatives of diphenyl ether. A. R. Brown and F. C. Copp. Chem Soc J p873-80 Mr '54

PHENYLETHYLAMINE. See Phenethylamine

PHENYLETHYL chloride

Racemisation of (—)-1-phenylethyl chloride by stannic chloride in carbon tetrachloride and its bearing on the cationic polymerisation of styrene. K. Heald and G. Williams. Chem Soc J p362-6 Ja '54

PHENYLFLUORENE

Formation of 9-phenylfluorene and triphenylmethane by disproportionation of triphenylmethyl. R. L. Letsinger, R. Collat and M. Magnusson. Am Chem Soc J 76:4185-6 Ag 20 '54

PHENYLFUMARIC acid

Preparation and identity of phenylmaleic acid and phenylfumaric acid. E. C. Taylor, jr. and E. J. Strojny. bibliog Am Chem Soc J 76:1872-3 Ap 5 '54

PHENYLGLYCINE

Configurational relation between phenylglycine and mandelic acid. B. C. Hibbin and others. bibliog Chem & Ind p933-4 Jl 24 '54

PHENYL group

Free radical aromatic substitution; the relative reactivities of the phenyl halides toward phenyl radical attack. R. L. Dannley and others. bibliog Am Chem Soc J 76: 445-8 Ja 20 '54

PHENYLHYDRAZINE

Fluorine-substituted phenylhydrazines. H. Suschitzky. Chem Soc J p3326-7 O '53

Reaction of esters with phenylhydrazine in the presence of phosphoric acid. T. O. Jones, R. E. Halter and W. L. Myers. bibliog Am Chem Soc J 75:6055-6 D 5 '53

PHENYLHYDRAZONE

Crystalline 2,4-dinitrophenylhydrazones of D-fructose. L. M. White and G. E. Secor. bibliog Am Chem Soc J 75:6343-4 D 20 '53

Oxidation of phenylhydrazones. B. M. Lynch and K. H. Pausacker. Chem Soc J p 1131-4, 1650 Mr, My '54

PHENYLINDANE

Some derivatives of 2-phenylindane. P. C. Jocelyn. Chem Soc J p 1640-2 My '54

PHENYLLITHIUM

Reaction of phenyl-lithium with azobenzene. P. F. Holt and B. P. Hughes. Chem Soc J p764 F '54

Reaction of phenyllithium with diphenylketene. J. A. Beel and E. Vejvoda. bibliog Am Chem Soc J 76:905-7 F 5 '54

PHENYLMAGNESIUM bromide

Reaction of methyl *p*-nitrobenzoate with phenylmagnesium bromide. D. Y. Curtin and J. C. Kauer. Am Chem Soc J 75:6041-2 D 5 '53

Reaction of phenylmagnesium bromide and diphenylmagnesium with 9,10-diphenylacridyl chloride and *p*-dimethylaminotriphenylmethyl chloride. G. M. Kosolapoff and C. S. Schoepfle. Am Chem Soc J 76: 1276-8 Mr 5 '54

PHENYLMALEIC acid

Preparation and identity of phenylmaleic acid and phenylfumaric acid. E. C. Taylor, jr. and E. J. Strojny. bibliog Am Chem Soc J 76:1872-3 Ap 5 '54

PHENYLMALONIC acid

Kinetics of the decarboxylation of phenylmalonic acid in aqueous solution. E. Gelles. bibliog Am Chem Soc J 75:6199-201 D 20 '53

Phenylsodium route to phenylacetic acid and dimethyl phenylmalonate. J. F. Nobis and L. F. Moormeier. bibliog(13 ref) diags Ind & Eng Chem 46:539-44 Mr '54

PHENYL mercuric compounds. See Mercury compounds

PHENYL mercury acetate

Effect of different pulps on the biological activity of phenylmercuric acetate. B. F. Shema and J. H. Conkey. bibliog Tappi 37:294-8 Jl '54

PHENYLNAPHTHALENE

Synthesis of a substituted phenylnaphthalene related to podophyllotoxin. W. Reeve and H. Myers. bibliog Am Chem Soc J 75:4957-8 O 20 '53

PHENYLPENTANE

(+)α-Phenethyl chloride and (—)2-phenylpentane. R. L. Burwell, jr., A. D. Shields and H. Hart. Am Chem Soc J 76:908-9 F 5 '54

PHENYLPENTENOL

Some reactions of optically active 1-phenylpent-1-en-3-ol and 1-phenylpent-2-en-1-ol. M. P. Balfe, J. Kenyon and D. Y. Waddan. Chem Soc J p 1366-72 My '54

PHENYL phenol

Analysis

Spectrophotometric determination of *o*-phenylphenol with titanium sulfate. P. H. Caulfield and R. J. Robinson. Anal Chem 25:982-3 Je '53

PHENYLPROPIOLIC acid

Michael addition products from 2,3-dimethoxyphenylpropiolic acid derivatives. G. N. Walker. Am Chem Soc J 76:309-10 Ja 5 '54

PHENYLPROPIONYL chloride

Decarbonylation of α-phenylpropionyl chloride. S. Archer and M. Jackman. Chem & Ind p784-5 Jl 3 '54

PHENYLPROPYL ether

Nitration and hydroxylation of phenetole, phenyl *n*-propyl ether, and acetophenone by pernitrous acid. R. B. Heslop and P. L. Robinson. Chem Soc J p 1271-3 Ap '54

PHENYLPYRIDINE

Catalyst evaluation for synthesis of phenylpyridine from butadiene and benzonitrile. G. J. Janz, W. J. G. McCulloch and E. F. Timpane. bibliog diag Ind & Eng Chem 45:1343-7 Je '53

PHENYLSALICYLIC acid

Colorimetric determination of fluoride. M. L. Nichols and A. C. Condo, jr. bibliog Anal Chem 26:703-7 Ap '54

PHENYLSERINE

β-Phenylserine series. E. D. Bergmann, H. Bendas and E. Krakauer. Chem Soc J p 1064-5 Mr '54

Stereochemical specificity of enzymatic cleavage of β-phenylserine. J. B. Gilbert. bibliog Am Chem Soc J 76:4183-4 Ag 20 '54

PHENYLSODIUM

Phenylsodium route to phenylacetic acid and dimethyl phenylmalonate. J. F. Nobis and L. F. Moormeier. bibliog(13 ref) diags Ind & Eng Chem 46:539-44 Mr '54

PHENYLSUCCINIC acid

Cyclisation of some substituted phenylsuccinic acids. V. Askam and W. H. Linnell. Chem Soc J p2435-8 Jl '54

PHENYLSUCCINIMIDE

Anticonvulsants; an investigation of α-(substituted phenyl)-succinimides. C. A. Miller and L. M. Long. bibliog Am Chem Soc J 75:6256-8 D 20 '53

PHENYL sulfonyl compounds

Action of Grignard reagents; action of Grignard reagents on N-(phenylsulfonyl) derivatives of 1,2-benzisothiazolone, phthalimide and naphthosultam. A. Mustafa and O. H. Hishmat. bibliog Am Chem Soc J 75:4647-9 O 5 '53

PHENYLTHIOHYDANTOIN

Phenylthiohydantoins from serine and threonine. V. M. Ingram. Chem Soc J p3717-18 N '53

PHENYLENE diamine

Double troubleshooter; N, N′-di-β-naphthyl-p-phenylenediamine key to new facsimile paper. il Chem W 74:111-12 My 15 '54

PHILADELPHIA

Authority plans $360-million project; Philadelphia redevelopment authority. Eng N 151:42-3 D 24 '53

Inside Philadelphia; a new kind of new town; Eastwick. il map plans Arch Forum 101:140-3 S '54

Penn Center gets under way. il Arch Rec 115:176 My '54

See also

Housing—Philadelphia

Architecture

Bob Dowling climbs Philadelphia's Chinese wall. il plans Arch Forum 98:148-51 Ap '53

Hospital, school, guardhouse; youth detention center, Philadelphia. il plans diags Arch Forum 98:101-6 F '53

Sanitary affairs

Man in the middle; air pollution problem; interview with Jesse Lieberman. Chem W 74:66+ F 20 '54

Water supply

Early opposition to Philadelphia's water fluoridation program. Chem W 75:21 S 18 '54

PHILADELPHIA-BALTIMORE stock exchange

Weekly record. Published in weekly Monday numbers of Commercial and financial chronicle

PHILADELPHIA electric company

Five sound moderate-priced stocks for income; with comparative balance sheet items. Mag of Wall St 93:495 Ja 23 '54

PHILADELPHIA national bank

150 years old. Trusts & Estates 92:670 S '53

PHILANTHROPY

See also

Foundations, Charitable and educational

PHILIP MORRIS and company. See Morris, Philip, and company, ltd., inc.

PHILIPPINE ISLANDS

Philippines on the road to democracy. Bsns W p 166-8 N 21 '53

Philippines under a pro-American government; economic and political conditions. V. L. Horoth. Mag of Wall St 93:315-17+ D 12 '53

See also

Rubber industry and trade—Philippine Islands

Commercial policy

Philippines allocates exchange to importers for July-December. For Comm W 50:6 Ag 31 '53

Economic conditions

Economic conditions abroad (cont). For Comm W 50:3-4 D 14 '53; 51:6+ F 22 '54

PHILLIPS petroleum company

Earnings. Comm & Fin Chr 178:571-2 Ag 17 '53

Giant, and still growing; program of diversification in chemicals. il Chem W 74:16-17 F 20 '54

PHILLIPSBURG, New Jersey

Showplace for trees; arboretum on high-school grounds. H. Morgenstern. il Comp Air Mag 59:104-7 Ap '54

PHILOSOPHY

Philosophy for the employee. J. P. Woods. Advanced Management 18:18-19 Je '53

See also

Architecture—Philosophy

PHLOGISTON

Phlogiston theory of corrosion. O. L. Willbanks. Electrochem Soc J 101:sup76C Mr '54

PHLOROGLUCINOL

Chromatographic separation of hardwood extractive components giving color reactions with phloroglucinol. R. A. Black, A. A. Rosen and S. L. Adams. bibliog Am Chem Soc J 75:5344-6 N 5 '53

PHOENIX, Arizona

See also

Electric utilities—Phoenix, Arizona

Television broadcasting—Phoenix, Arizona

Water supply

Phoenix water; city's 50-year program. il Eng N 151:60+ D 3 '53

PHONETICS
See also
Speech

PHONIC motor. See Electric motors, Synchronous

PHONOGRAPH

How many watts? an engineering approach to home music. R. H. Tanner. Radio & Tv N 50:65+ N '53

Music in every home. il Radio & Tv N 50: 71 D '53

Which phono preamp? A. M. Ferres. il diags Radio & Tv N 50:76-8 N '53

Noise reduction

How's your rumble? J. A. Mitchell. il diags Radio & Tv N 51:78-9+ Mr '54

Pickup

Counterbalanced pickup arms. M. S. Dollen. il diags Radio & Tv N 50:50+ N '53

Feedback preamp for low-impedance pickups. G. H. Grey. il diags Radio & Tv N 50: 66-7+ N '53

Measurement of the lateral mechanical impedance of phonograph pick-ups. J. G. Woodward and J. B. Halter. il diags Acoustical Soc Am J 25:302-5 Mr '53

Record changers

Let's look at changers. P. Sheneman. il diags Radio & Tv N 51:56-7+ Mr '54

PHONOGRAPH needles

Promotion and sales for everyone but you? Jensen industries. K. Jensen. il Sales Management 72:116-17 Ja 15 '54

What stylus to use, diamond or sapphire. Consumers Res Bul 32:29 O '53

PHONOGRAPH records

Certified record revue. B. Whyte. Radio & Tv N 50:58+ S; 70+ O; 70+ N; 70+ D '53; 51:64+ Ja; 56+ F; 76+ Mr '54

Columbia marks fifth lp year as record industry heads for new high. il Bsns W p50-2+ Ag 8 '53

Distortion in phonograph reproduction. H. E. Roys. bibliog il diags RCA R 14:397-412 S '53

Records from Pye. Economist 168:727 S 12 '53

Merchandizing

Self-service puts new spin on sales of records. il Bsns W p44-6+ N 28 '53

Rating

Phonograph records. W. F. Grueninger. Published in monthly numbers of Consumers' research bulletin.

PHONONS

Role of low-energy phonons in thermal conduction. C. Herring. bibliog diags Phys R 95:954-65 Ag 15 '54

PHOSGENE

Carbon-14 isotope effect in the exchange reaction between carbon monoxide and phosgene. D. R. Stranks. J Chem Phys 21:2232 D '53

Spectrum

Microwave spectrum of phosgene. G. W. Robinson. bibliog J Chem Phys 21:1741-5 O '53

PHOSPHATASES

Diffusion coefficient and molecular weight of alkaline phosphatase. J. C. Mathies and E. D. Goodman. bibliog Am Chem Soc J 75:6061-2 D 5 '53

Electrophoretic behavior of acid phosphatase in human prostatic extracts. M. A. Derow and M. M. Davison. il Science 118:247-8 Ag 28 '53

Ion exchange effect on alkaline phosphatase of serum with reference to cancer. A. Bernhard and L. Rosenbloom. bibliog Science 118:114-15 Jl 24 '53

Phosphatase activity in rat liver in relation to cells and mitochondria. J. O. Ely and M. H. Ross. bibliog Franklin Inst J 256:473-5 N '53

PHOSPHATE coating

Coating halts high coining costs. il Steel 133: 102 Ag 10 '53

Coatings in cold forming dual role makes lubricant doubly important. S. Spring. il Steel 134:116-19 Mr 8 '54

Debut at Bedford Springs; paint-bonding and rust- and wear-resistant phosphate coating; Fosbond. Chem W 73:73-4+ S 26 '53

Market new paint bond line; Pennsylvania salt mfg. co. Fosbond line. il Iron Age 172: 67 S 24 '53

Metals in phosphating solutions; determination by ion exchange. G. Gabrielson. Metal Finishing 51:63-4+ N '53

Mill coated sheets improve product quality. N. E. Hays. il Iron Age 173:133-6 Mr 25 '54

Paint bases; new measuring method will aid control of base solubility. Iron Age 172:190+ N 5 '53

Pennsalt offers new paint bond line; Fosbond products. il Steel 133:84 O 5 '53

Phosphate coating; extra step is shortcut to quality finishes. il Steel 133:158-9 O 26 '53

Phosphating of steel prior to painting; abstract and discussion. M. A. Holden. Chem & Ind p 1255-6 N 21 '53

Phosphatizing metals supplies strong bond for organic finishes; Fosbond. il Chem & Eng N 31:4242-3 O 12 '53

Protective properties of various phosphate coatings on steel; abstract and discussion. J. F. Andrew and others. Chem & Ind p 1255-6 N 21 '53

Towards better containers; work done on phosphate treatments at Battelle memorial institute. Chem Eng 61:238+ S '54

Zinc and phosphate coated steels can cut breakage on drawn parts. N. E. Hays. il Iron Age 172:135-7 Ag 13 '53

Testing

Radiometric study of the iron phosphating process. S. L. Eisler and J. Doss. il Metal Finishing 52:60-3 Mr '54

PHOSPHATE rock

By-product uranium program; economic production from low grade domestic phosphate rock. J. A. Barr, jr. il Min Cong J 40:39-40 My '54

Drying phosphate rock at rate of 200 t.p.h.; Virginia-Carolina chemical corp. C. V. O. Hughes. il diag Rock Prod 57:78-81 Je '54

Effect of ultrasonic energy on settling of solids in phosphate tailing. D. Thompson and F. C. Vilbrandt. bibliog(70 ref) il diags Ind & Eng Chem 46:1172-80 Je '54

Instrument control in phosphate processing; International minerals and chemical corp. D. Anderson. il diags Rock Prod 56:94-6 D '53

Phosphate and potash, 1953. T. M. Ware. il Min Cong J 40:50-3 F '54

Phosphate, 1953. H. F. Dengler. Eng & Min J 155:108-9+ F '54

Phosphatic slime; a potential mineral asset. P. M. Tyler and W. H. Waggaman. bibliog il Ind & Eng Chem 46:1049-56 My '54

Unloading phosphate rock by suction gear. il Chem Age (Lond) 69:872 O 24 '53

Storage

One of the world's largest material stockpiling systems; Virginia-Carolina chemical co. W. B. Lenhart. il diags Rock Prod 57: 82-5+ Je '54

Wet phosphate rock storage and handling. G. L. Lyle, jr. il plan Min Eng 6:798-9 Ag '54

Brazil

Beneficiation of a Brazilian phosphate rock. M. M. Fine and D. W. Frommer. U S Bur Mines Rep of Invest 5078:1-9 '54

Florida

More uranium from Florida. il diag Chem Eng 61:118+ Je '54

Idaho

Phosphates and the dam; Hell's canyon at center of country's struggle over national policy on development of natural resources. map Chem W 74:16-17 F 27 '54

Uruguay

Reconnaissance of superficial phosphate deposit near Minas, Uruguay. E. B. Eckel and C. Milton. bibliog il map Econ Geol 48:437-46 S '53

PHOSPHATES

Caustic cracking in steam boilers; alkaline phosphates for protection of boiler metal in cases of stress corrosion. R. Rath. il Chem & Ind p600-3 Je 20 '53

Chemical and physical properties of alkyl aryl phosphates. H. R. Gamrath, R. E. Hatton and W. E. Weesner. bibliog Ind & Eng Chem 46:208-12 Ja '54

Chemistry and pharmacology of nerve gases; abstract. B. Holmsted. Chem & Eng N 31: 4676+ N 9 '53

Condensed phosphates in the treatment of corrosive waters. D. N. Parham and C. W. Tod. bibliog Chem & Ind p628-31 Je 27 '53

Constitution of soluble phosphate glasses. A. E. R. Westman and J. Crowther. bibliog il Am Cer Soc J 37:420-7 S 1 '54

Determination of bismuth in pure bismuth-lead eutectic alloy. L. Silverman and M. Shideler. bibliog Anal Chem 26:911-14 My '54

Electrolytic transference properties of polyphosphates. F. T. Wall and R. H. Doremus. bibliog Am Chem Soc J 76:868-70 F 5 '54

Fertilizers; steady growth, solid future. C. J. Matthew and S. E. Perkins. Chem W 75: 40-1 Ag 28 '54

Interaction of calcium ions with some phosphate and citrate buffers. C. W. Davies and B. E. Hoyle. Chem Soc J p4134-6 D '53

International Minerals and Chemicals phosphates and uranium. il Chem & Eng N 32: 1556-7 Ap 19 '54

Israeli firm's record. Chem Age (Lond) 71:591 S 18 '54

New use for phosphate slag; lightweight aggregate for concrete. W. C. Scott, jr. and W. D. Sandberg. il diags Chem Eng 60:182-3 Jl '53

Noninterference of phosphate in an ethylenediamine tetraacetate method for serum calcium. A. D. Kenny and S. U. Toverud. Anal Chem 26:1059 Je '54

Organic phosphate insecticides. H. H. Utes. Ind Med 22:375-7 S '53

Organic polyphosphorus compounds; phosphorylations with aliphatic amido polyphosphates and polymetaphosphates. H. Tolkmith. bibliog Am Chem Soc J 75:5273-5 N 5 '53

Organic polyphosphorus compounds; synthesis of aliphatic amido polyphosphates. H. Tolkmith. bibliog Am Chem Soc J 75:5270-2 N 5 '53

Phosphate-bonded talc; superior block-talc substitute. J. E. Comeforo and others. il Am Cer Soc J 37:191-5 Ap 1 '54

Phosphates as syndet builders. H. Stuepel. Soap & San Chem 30:87 F '54

Polarographic characteristics of +5 vanadium in phosphate, borate and carbonate buffers. I. Filipović and others. bibliog Am Chem Soc J 76:2074-80 Ap 20 '54

Polyphosphates as polyelectrolytes; viscosity of aqueous solutions of Graham's salts. U. P. Strauss and E. H. Smith. bibliog Am Chem Soc J 75:6186-8 D 20 '53

Reactions of diphenyl phosphates of Δ^5-sterols. J. H. Turnbull and W. Wilson. Chem Soc J p2301-4 Jl '54

Recovery in European superphosphate industry. Chem & Eng N 31:3295 Ag 10 '53

Sir James Murray, M.D.; pioneer in making of superphosphate. W. A. L. Alford and J. W. Parkes. bibliog(29 ref) Chem & Ind p852-5 Ag 15 '53

Studies of the enzyme fumarase; the dependence of the kinetic constants at 25° upon the concentration and *p*H of phosphate buffers. R. A. Alberty and others. bibliog Am Chem Soc J 76:2485-93 My 5 '54

Synthetic mica investigations; low-shrinkage machinable ceramic of phosphate-bonded synthetic mica. J. E. Comeforo. Am Cer Soc J 37:427-32 S 1 '54

Volumetric determination of uranium (VI) in phosphate solutions. J. M. Schreyer and C. F. Baes, jr. Anal Chem 25:644-5 Ap '53

See also

Alkaline earth phosphates

Monazite

Analysis

Analysis of phosphate mixtures by filter paper chromatography. J. Crowther. bibliog il diag Anal Chem 26:1383-6 Ag '54

Behavior of the condensed phosphates in anion-exchange chromatography. J. Beukenkamp, W. Rieman, 3d and S. Lindenbaum. bibliog Anal Chem 26:505-12 Mr '54

Determination of phosphate by differential spectrophotometry. A. Gee and V. R. Deitz. bibliog Anal Chem 25:1320-4 S '53

Determination of triphosphate and pyrophosphate by isotope dilution. O. T. Quimby, A. J. Mabis and H. W. Lampe. bibliog Anal Chem 26:661-7 Ap '54

Flame photometric determination of phosphate. W. A. Dippel, C. E. Bricker and N. H. Furman. Anal Chem 26:553-6 Mr '54

Manufacture

Davison triple superphosphate. il Chem & Eng N 32:1978 My 17 '54

Davison triple superphosphate plant nears peak production. il Min Eng 6:671 Jl '54

New phosphate plant for Utah. il Chem Eng 61:144 Ap '54

New plant swells triple super production; Davison chemical corp. il Chem Eng 61: 132 Jl '54

New triple superphosphate plant opened by Davison chemical corp. il Chem Eng Prog 50:sup42 Je '54

Phosphatic fertilizer plants asked to by-product uranium. Chem & Eng N 31:4540 N 2 '53

Physiological effect

Studies on the toxicity and mechanism of action of some new insecticidal thionophosphates. K. P. DuBois and others. A M A Archives Ind Hygiene & Occup Med 8:350-8 O '53

PHOSPHATIDES

Evidence for the existence of 1-amino-2-methyl-2-propanol in the phospholipids of neurospora. G. L. Ellman and H. K. Mitchell. bibliog Am Chem Soc J 76:4028-30 Ag 5 '54

Phosphatide analogs; the synthesis of glycol-lecithins and bis-(glycol)-phosphatidic acids. E. Baer. bibliog Am Chem Soc J 75:5533-9 N 20 '53

Structure of the glycerinositophosphatide of ground-nut. T. Malkin and A. G. Poole. Chem Soc J p3470-8 N '53

Use of some synthetic phosphatides in antigens for the serodiagnosis of syphilis. D. B. Tonks and R. H. Allen. bibliog Science 118:55-6 Jl 10 '53

PHOSPHATIDIC acids

Instability of the phosphatidic acids. J. Olley. bibliog Chem & Ind p 1069-71 Ag 28 '54

PHOSPHINATES

Dialkylaminoalkyl phosphonates and phosphinates. B. E. Smith and A. Burger. bibliog Am Chem Soc J 75:5891-3 D 5 '53

PHOSPHINE

Kinetics of the exchange of hydrogen between phosphine and water; a kinetic estimate of the acid and base strengths of phosphine. R. E. Weston, jr. and J. Bigeleisen. bibliog Am Chem Soc J 76:3074-8 Je 5 '54

Preparation and properties of 10-phenylphenoxphosphine. F. G. Mann and I. T. Millar. Chem Soc J p3746-50 D '53

Recent chemistry of phosphine; abstract. N. L. Paddock. Chem & Ind p808-9 Jl 10 '54

Solubility of phosphine in aqueous solutions. R. E. Weston, jr. Am Chem Soc J 76:1027-8 F 20 '54

Spectrum

Fundamental absorption bands in the infrared spectrum of phosphine. V. M. McConaghie and H. H. Nielsen. bibliog J Chem Phys 21: 1836-8 O '53

One-to-two millimeter wave spectroscopy; PH_3 and PD_3. C. A. Burrus and others. Phys R 95:706-8 Ag 1 '54

PH_2D and PHD_2 rotational lines in the region between 50 and 100 K. R. E. Stroup and R. A. Oetjen. J Chem Phys 21:2092 N '53

Rotational spectra of regular and deuterated phosphine and arsine in the region between 50 and 200 K. R. E. Stroup and others. bibliog Opt Soc Am J 43:1096-9 N '53

PHOSPHOHEXOKINASE

Uridine- and inosine-triphosphates as phosphate donors for phosphohexokinase. K. H. Ling and H. A. Lardy. bibliog Am Chem Soc J 76:2842-3 My 20 '54

PHOSPHOLIPIDS. See Phosphatides

PHOSPHOMOLYBDIC acid

Extraction of heteropoly acids. C. Wadelin and M. G. Mellon. bibliog(31 ref) Anal Chem 25:1668-73 N '53

PHOSPHONATES

Aryloxymethanephosphonates; new analogues of 2:4-D. M. H. Maguire and others. Chem & Ind p668 Jl 4 '53

Dialkylaminoalkyl phosphonates and phosphinates. B. E. Smith and A. Burger. bibliog Am Chem Soc J 75:5891-3 D 5 '53

Dialkyl α-hydroxyphosphonates derived from chloral. W. F. Barthel, P. A. Giang and S. A. Hall. bibliog Am Chem Soc J 76:4186-7 Ag 20 '54

PHOSPHONIC acids

Acid dissociation constants of aromatic phosphonic acids; compounds with ortho substituents. H. H. Jaffé, L. D. Freedman and G. O. Doak. bibliog Am Chem Soc J 76:1548-52 Mr 20 '54

Allyl esters of phosphonic acids; influence of substituents on polymerization characteristics. A. D. F. Toy and R. S. Cooper. bibliog Am Chem Soc J 76:2191-5 Ap 20 '54

p-t-Butylphenylphosphonic acid. G. M. Kosolapoff. Am Chem Soc J 76:3222 Je 20 '54

Chemistry of aliphatic phosphonic acids; dielectric constants and viscosity of some higher alkylphosphonates. G. M. Kosolapoff. Am Chem Soc J 76:615-17 Ja 20 '54

Chemistry of phosphonic acids with aromatic nuclei; the isomeric tolylphosphonic acids. E. C. Ashby and G. M. Kosolapoff. Am Chem Soc J 75:4903-5 O 20 '53

Cyclisation of arylbutyric acids with polyphosphoric acid; the by-products. R. F. Evans and J. C. Smith. Chem Soc J p798-800 Mr '54

Indicator and dye properties of some aromatic phosphonic acids and their arsenic analogs. G. M. Kosolapoff and G. G. Priest. Am Chem Soc J 75:4847-9 O 5 '53

Preparation and the determination of apparent dissociation constants of some substituted aliphatic phosphonic acids. P. C. Crofts and G. M. Kosolapoff. bibliog Am Chem Soc J 75:5738-40 N 20 '53

Preparation of amides of arylphosphonic acids; diamides of primary aromatic and heterocyclic amines. G. O. Doak and L. D. Freedman. bibliog Am Chem Soc J 76:1621-3 Mr 20 '54

Synthesis of amino-substituted phosphonic acids. M. E. Chalmers and G. M. Kosolapoff. bibliog Am Chem Soc J 75:5278-80 N 5 '53

Synthesis of aromatic phosphonic acids and their derivatives; some amino and hydroxy substituted acids. V. L. Bell, jr. and G. M. Kosolapoff. bibliog Am Chem Soc J 75:4901-3 O 20 '53

Synthesis of phosphonic acids from alcohols via sulfonate esters. T. C. Myers, S. Preis and E. V. Jensen. bibliog Am Chem Soc J 76:4172-3 Ag 20 '54

PHOSPHONITRILE chloride

Spectrum

Infrared and Raman spectra of the trimer and tetramer of phosphonitridic dichloride. L. W. Daasch. bibliog diags Am Chem Soc J 76:3403-8 Jl 5 '54

PHOSPHONIUM compounds

Gravimetric determination of tetramethylphosphonium ion; use of chloroplatinic acid as precipitant. C. J. Anderson and R. A. Keeler. Anal Chem 26:213-14 Ja '54

More flame resistance for cottons; tetrakis(hydroxymethyl)phosphonium chloride (THPC); abstract. J. D. Guthrie. Chem & Eng N 32:3864 S 27 '54

Polarographic determination of quaternary phosphonium salts. E. L. Colichman. bibliog Anal Chem 26:1204-5 Jl '54

Reactions of organic derivatives of elements capable of valency-shell expansion; unsaturated quaternary phosphonium salts. E. Rothstein, R. W. Saville and P. E. Horn. Chem Soc J p3994-4004 D '53

Tetraphenylphosphonium and tetraphenylstibonium chlorides as analytical reagents. H. H. Willard and L. R. Perkins. bibliog Anal Chem 25:1634-7 N '53

PHOSPHORESCENCE. See Luminescence

PHOSPHORIBOSIDES

Identification of the purine nucleotides *a* and *b* as the 2'- and 3'-phosphoribosides, respectively. J. X. Khym and W. E. Cohn. bibliog Am Chem Soc J 76:1818-23 Ap 5 '54

PHOSPHORIC acid

Improved phenanthridine syntheses with polyphosphoric acid. E. C. Taylor, jr. and N. W. Kalenda. bibliog Am Chem Soc J 76:1699-700 Mr 20 '54

Mechanism of electropolishing of copper in phosphoric acid solutions. J. Edwards. bibliog il diags Electrochem Soc J 100:sup 189C-94C, 223C-30C Jl-Ag '53

Nitrogen-to-oxygen phosphoryl migration; preparation of *dl*-serinephosphoric and threonine-phosphoric acid. R. E. Plapinger and T. Wagner-Jauregg. bibliog Am Chem Soc J 75:5757-8 N 20 '53

Phosphonation of aromatic compounds with phosphoric anhydride. H. Z. Lecher and others. bibliog Am Chem Soc J 76:1045-51 F 20 '54

Plating on aluminum; phosphoric acid anodizing pretreatment. B. E. Bunce. flow sheet il Metal Finishing 52:70-3+ Ja '54

Polyphosphoric acid as a reagent in organic chemistry; conversion of acids to substituted amides; further observations on the Lossen reaction. H. R. Snyder and C. T. Elston. Am Chem Soc J 76:3039 Je 5 '54

Polyphosphoric acid as a reagent in organic chemistry; the hydrolysis of nitriles to amides. H. R. Snyder and C. T. Elston. bibliog Am Chem Soc J 76:3039-40 Je 5 '54

Polyphosphoric acid for acylation of alicyclic compounds. S. Dev. bibliog Chem & Ind p 1071 Ag 28 '54

Reaction of esters with phenylhydrazine in the presence of phosphoric acid. T. O. Jones, R. E. Halter and W. L. Myers. bibliog Am Chem Soc J 75:6055-6 D 5 '53

Solubility of uranium(VI) orthophosphates in phosphoric acid solutions. J. M. Schreyer and C. F. Baes, jr. bibliog Am Chem Soc J 76:354-7 Ja 20 '54

Straight to the soil; method of applying phosphoric acid directly to the soil. il Chem W 74:101 Je 19 '54

Studies on phosphorylation; selective anionic dealkylation of neutral esters of phosphoric and thiophosphoric acids. J. Lecocq and A. R. Todd. Chem Soc J p2381-4 Jl '54

1,1,1-Trichloro-2-methylpropyl-2-phosphoric acid from 1,1,1-trichloro-2-methyl-2-propanol. D. G. Kundiger and T. J. Collier. Am Chem Soc J 76:1381-2 Mr 5 '54

Analysis

Flame photometric determination of calcium in wet-process phosphoric acid. J. A. Brabson and W. D. Wilhide. bibliog Anal Chem 26:1060-1 Je '54

Manufacture

Manufacture of phosphoric acid at Barton-on-Humber. il diag Chem Age (Lond) 69:593-6 S 19 '53; Engineer 196:409-10 S 25 '53

New phosphoric acid plant uses novel rotating-tray filter; Smith-Douglass. il diags Chem Eng 61:128+ Je '54

Phosphoric acid by the wet process. P. Fleury. Chem Age (Lond) 69:1121-2 N 28 '53

Starting-up a phosphoric acid plant. S. Nordengren and R. Nordengren. Chem Age (Lond) 69:1063-7 N 21 '53

PHOSPHORIC anhydride. See Phosphorus oxides

PHOSPHOROTHIOIC acid. See Thiophosphoric acid

PHOSPHOROUS acid

Analysis

Iodometric determination of hypophosphorous and phosphorous acids. R. T. Jones and E. H. Swift. bibliog Anal Chem 25:1272-4 Ag '53

PHOSPHORS. See Luminescence

PHOSPHORUS

Electrical properties of black phosphorus. R. W. Keyes. bibliog Phys R 92:580-4 N 1 '53

Electron distribution in molecules; phosphorus magnetic resonance shifts. H. S. Gutowsky and D. W. McCall. bibliog J Chem Phys 22:162-4 F '54

Organic chemistry of phosphorus; the action of triphenyl phosphite dihalides on alcohols; two further new methods for the preparation of alkyl halides. D. G. Coe, S. R. Landauer and H. N. Rydon. Chem Soc J p2281-8 Jl '54

Preparation of solutions of phosphorus in carbon disulfide. S. Heilveil. J Chem Educ 30:305 Je '53

Total neutron cross section of phosphorus. K. F. Hansen and others. bibliog Phys R 92:652-3 N 1 '53

X-ray measurements of radiation damage in black phosphorus. D. L. Chipman and others. J Ap Phys 24:1251 S '53

Analysis

Analysis of mixtures of white phosphorus, phosphorus oxychloride, and phosphorus trichloride. R. A. Keeler, C. J. Anderson and D. Satriana. Anal Chem 26:933-4 My '54

Determination of impurities in germanium and silicon. C. L. Luke and M. E. Campbell. bibliog Anal Chem 25:1588-93 N '53

Determination of micro amounts of phosphorus in high-purity iron. O. R. Gates. bibliog Anal Chem 26:730-2 Ap '54

Extraction of heteropoly acids. C. Wadelin and M. G. Mellon. bibliog(31 ref) Anal Chem 25:1668-73 N '53

Methods for analysis of titanium alloys; determination of phosphorus in titanium alloys. M. Codell and J. J. Mikula. bibliog Anal Chem 25:1444-6 O '53

Phosphorus content of Egyptian raw cotton. A. K. Wahbi and M. S. El-Ansary. bibliog Textile Inst J Trans 45:T624-9 Ag '54

Spectrophotometric determination of arsenic, phosphorus, and silicon in the presence of each other. M. A. DeSesa and L. B. Rogers. Anal Chem 26:1381-3 Ag '54

Isotopes

Absolute beta-counting of gases containing P-32 using end-window Geiger-Müller tubes. F. D. Rosen and W. Davis, jr. bibliog diags R Sci Instr 24:349-54 My '53

Internal bremsstrahlung from P^{32}. M. Goodrich and W. B. Payne. bibliog Phys R 94:405-7 Ap 15 '54

Multicelled sample container for the rapid counting of P^{32} in blood. H. C. Lawson and others. diags R Sci Instr 25:397 Ap '54

Radioisotope P^{33}. R. T. Nichols and E. N. Jensen. bibliog Phys R 94:369-71 Ap 15 '54

Manufacture

Electric furnace as a producer of elemental phosphorus. H. A. Curtis. diags Electrochem Soc J 100:sup81C-9C Ap '53

Increasing phosphorus production; Albright & Wilson, ltd. il Chem Age (Lond) 70: 671-2 Mr 20 '54; Same cond. Chem & Eng N 32:1484 Ap 12 '54

More on rotating phosphorus furnace. M. M. Striplin, jr. and others. il Chem Eng 60: 201-4 S '53

Self-reliance pays off; Shea chemical corp. manufactures phosphorus, phosphoric acid and dicalcium phosphate. il Chem Eng 60: 116-17 O '53

Nuclear reactions

Determination of maximum beta energy in the decay of P^{33}. B. Elbek and others. bibliog Phys R 95:96-7 Jl 1 '54

Search for anomalous positively charged particles from P^{32}. G. W. McClure. diags Phys R 94:1637-40 Je 15 '54

Total disintegration energy of P^{29}. H. Roderick and C. Wong. bibliog Phys R 92:204 O 1 '53

PHOSPHORUS bromides

Spectrophotometric study of phosphorus pentabromide in various solvents. A. I. Popov and N. E. Skelly. bibliog Am Chem Soc J 76:3916-19 Ag 5 '54

PHOSPHORUS chlorides

Heats of formation of phosphorus trichloride, sulphuryl chloride, and thionyl chloride. E. Neale and L. T. D. Williams. Chem Soc J p2156-8 Je '54

Interaction of carboxylic acids with phosphorus trichloride, or butyl phosphorodichloridite, or the chloridite in the absence, and in the presence of pyridine. J. A. Cade and W. Gerrard. Chem Soc J p 2030-4 Je '54

Nonequivalence of chlorine atoms in phosphorus pentachloride. J. Downs and R. E. Johnson. J Chem Phys 22:143-4 Ja '54

PHOSPHORUS compounds

Anticholinesterases; inhibition of cholinesterase by organo-phosphorus compounds and reversal of this reaction: mechanisms involved. W. N. Aldridge. Chem & Ind p473-6 Ap 24 '54

Diethyl 2-chlorovinyl phosphate and dimethyl 1-carbomethoxy-1-propen-2-yl phosphate; two new systemic phosphorus pesticides. R. A. Corey and others. Science 118: 28-9 Jl 3 '53

Ethyl to market ICC; firm says haloalkyl phosphorus compound in gasoline cuts high compression engine preignition, plug fouling. G. Weber. Oil & Gas J 52:88-9 D 14 '53

Fireproofing of fabrics with phosphorus-resin compounds; abstract. Am Dyestuff Rep 43: 38 Ja 18 '54

Louse powder synergists. G. W. Eddy and others. bibliog Soap & Chem Spec 30:121-3+ Jl '54

New house fly insecticides. W. A. Gersdorff and others. Soap & San Chem 30:133+ F '54

Organic phosphorus compounds; reactions of methanephosphonyl dichloride with diols. A. F. McKay and others. bibliog Am Chem Soc J 76:3546-8 Jl 5 '54

Organo phosphorus chemicals available for evaluation; Monsanto Chemical. Chem & Eng N 31:4470 O 26 '53

Organo-phosphorus insecticides. J. R. Nicholls. Chem & Ind p528 My 8 '54

Organo-phosphorus insecticides. V. B. Wigglesworth. Chem & Ind p477-8 Ap 24 '54

Organo-phosphorus insecticides; abstracts of symposium papers. V. B. Wigglesworth and others. Chem Age (Lond) 69:1009-12 N 14 '53

Organo-phosphorus insecticides; biological assay of phosphorus insecticides. J. F. Newman. bibliog Chem & Ind p617-19 My 29 '54

Phosphorous compound combats fouling; gasoline additive. Chem Eng 61:389-90 F '54

Preparation of arsenic and phosphorus compounds from stable diazonium salts. L. D. Freedman and G. O. Doak. bibliog Am Chem Soc J 75:4905-6 O 20 '53

Some phosphorus-containing derivatives of 2 : 2 : 2-trichloroethanol. W. Gerrard, W. J. Green and R. J. Phillips. Chem Soc J p 1148-50 Mr '54

Physiological effect

Anticholinesterases; effects on man of DFP and other anticholinesterases. A. Wilson. bibliog Chem & Ind p651-3 Je 5 '54

Anticholinesterases; esterase levels in the nervous system of animals during demyelination by tri-*ortho*-cresyl phosphate. R. H. S. Thompson. bibliog Chem & Ind p749-51 Je 26 '54

Anticholinesterases; inhibition of the cholinesterases of the central nervous system of experimental animals by organo-phosphorus compounds. A. N. Davison. bibliog Chem & Ind p895-6 Jl 17 '54

Anticholinesterases; metabolic conversion of certain organic phosphorus compounds into anticholinesterases. B. A. Kilby. bibliog Chem & Ind p524-8 My 8 '54

PHOSPHOROUS compounds—Physiological effect—*Continued*

Anticholinesterases; paralysis in man following poisoning by cholinesterase inhibitors. P. L. Bidstrup and J. A. Bonnell. bibliog Chem & Ind p674-6 Je 12 '54

Cholinesterase response and symptomatology from exposure to organic phosphorus insecticides. W. T. Sumerford and others. bibliog A M A Archives Ind Hygiene & Occup Med 7:383-98 My '53

Organo-phosphorus insecticides; the toxic action of organo-phosphorus insecticides on mammals. J. M. Barnes. Chem & Ind p478-80 Ap 24 '54

Toxicity of organophosphorus compounds; abstract. J. K. Kodama and others. Chem & Eng N 32:1309-10 Ap 5 '54

Spectra

Infra-red spectra of some inorganic phosphorus compounds. D. E. C. Corbridge and E. J. Lowe. Chem Soc J p493-502 F '54

PHOSPHORUS in the body

P^{32} distribution in the serum proteins of the chicken. R. E. Clegg and R. E. Hein. bibliog Science 117:714-15 Je 26 '53

PHOSPHORUS oxides

Activities of constituents of iron and steelmaking slags; phosphorus pentoxide. E. T. Turkdogan and J. Pearson. bibliog Iron & Steel Inst J 175:398-401 D '53

Catalytic asphalt; staff-industry collaborative report. W. H. Shearon, jr. and A. J. Hoiberg. bibliog(27 ref) flow sheet il diags Ind & Eng Chem 45:2122-32 O '53

Complexes involving tervalent iron and orthophosphoric acid; the system ferric oxide-phosphoric oxide-water at 25°. R. F. Jameson and J. E. Salmon. Chem Soc J p28-34 Ja '54

Process for making phosphoric anhydride; Virginia-Carolina's Charleston plant. il diag Chem Eng 61:115-16 S '54

PHOSPHORUS oxychloride. See Phosphoryl chloride

PHOSPHORUS oxytrichloride. See Phosphoryl chloride

PHOSPHORUS pentoxide. See Phosphorus oxides

PHOSPHORUS trichloride

Reaction between phosphorus trichloride and salicylic acid. J. A. Cade and W. Gerrard. Chem & Ind p402 Ap 3 '54

Analysis

Analysis of mixtures of white phosphorus, phosphorus oxychloride, and phosphorus trichloride. R. A. Keeler, C. J. Anderson and D. Satriana. Anal Chem 26:933-4 My '54

PHOSPHORYL chloride

Army $POCl_3$ surplus halts industry. Chem & Eng N 32:2681 Jl 5 '54

Investigation of the molecular structure of phosphorus oxytrichloride by electron diffraction. G. R. Badgley and R. L. Livingston. bibliog Am Chem Soc J 76:261-2 Ja 5 '54

Phosphorus oxychloride and ammonia; condensed in solvents and used as flame retardants. Am Dyestuff Rep 43:445 Jl 5 '54

Phosphorus oxychloride review asked of army. Oil Paint & Drug Rep 166:3+ Jl 12 '54

Analysis

Analysis of mixtures of white phosphorus, phosphorus oxychloride, and phosphorus trichloride. R. A. Keeler, C. J. Anderson and D. Satriana. Anal Chem 26:933-4 My '54

PHOSPHORYLSERINE

O-phosphorylserine derivatives. G. Riley and others. bibliog Chem & Ind p 1181 O 31 '53

PHOSPHORYLATION

Further studies on the enzymatic phosphorylation of riboflavin. S. Englard. bibliog Am Chem Soc J 75:6048-50 D 5 '53

Glucosamine 6-phosphate. J. M. Anderson and E. Percival. bibliog Chem & Ind p 1018 Ag 14 '54

Oxidative phosphorylation in the cytochrome system of mitochondria. S. O. Nielsen and A. L. Lehninger. bibliog Am Chem Soc J 76:3860-1 Jl 20 '54

Phosphorylation of chloromycetin. H. S. Mosher, J. Reinhart and H. C. Prosser. bibliog Am Chem Soc J 75:4899-901 O 20 '53

Phosphorylation of 3-methylglucose by hexokinase from rat's intestinal mucosa. T. Z. Csáky. bibliog Science 118:253-4 Ag 28 '53

Studies on phosphorylation; selective anionic dealkylation of neutral esters of phosphoric and thiophosphoric acids. J. Lecocq and A. R. Todd. Chem Soc J p2381-4 Jl '54

PHOSPHOTUNGSTIC acid

Experimental photographic systems based on phosphotungstic acid. L. Chalkley. bibliog Opt Soc Am J 44:699-702 S '54

PHOTOCELLS. See Photoelectric cells

PHOTOCHEMISTRY

Apparatus for the photometric study of flash-initiated reactions. F. W. Trowse. diags J Sci Instr 30:126-31 Ap '53

Aromatic azo-compounds; the action of light on azoxy-compounds. G. M. Badger and R. G. Buttery. Chem Soc J p2243-5 Jl '54

Chemicals in the ultra-violet spotlight. Chem W 72:40+ My 30 '53

Chlorine photosensitized isotope exchange between molecular oxygen species. R. A. Ogg, jr. J Chem Phys 21:2078-9 N '53

Diffusion effects in the photochemistry of solid films. J. E. Wilson. bibliog diag J Chem Phys 22:334-43 F '54

Evidence for pentavalent uranium as an intermediate in the reaction in water between photoactivated uranyl ions and sucrose and closely related substances, and quantum yields for these reactions. L. J. Heidt and K. A. Moon. bibliog Am Chem Soc J 75:5803-9 D 5 '53

Factors influencing the oxidation of phenols, catalyzed by zinc oxide and light. M. C. Markham, M. C. Hannan and S. W. Evans. bibliog Am Chem Soc J 76:820-3 F 5 '54

Formation of formaldehyde in the photooxidation of acetone. M. I. Christie. bibliog Am Chem Soc J 76:1979-81 Ap 5 '54

Function of organic material in the photochemical formation of hydrogen peroxide at zinc oxide surfaces. C. B. Vail, J. P. Holmquist and L. White, jr. bibliog Am Chem Soc J 76:624-5 Ja 20 '54

Influence of perchloric acid and cerous perchlorate upon the photochemical oxidation of cerous to ceric perchlorate in dilute aqueous perchloric acid. L. J. Heidt and A. F. McMillan. bibliog diag Am Chem Soc J 76:2135-9 Ap 20 '54

Mechanism of the Hg $(^3P_1)$ photosensitized decomposition of ethylene. A. G. Mitchell and D. J. Le Roy. J Chem Phys 21:2075-6; Discussion. B. D. Darwent. 2076 N '53

Mercury-photosensitized reactions of tritium with acetylene and ethylene. L. Kaplan. bibliog Am Chem Soc J 76:1448-9 Mr 5 '54

Moderation of hot methyl radicals in photolysis of methyl iodide. F. P. Hudson and others. J Chem Phys 21:1894 O '53

Oxidation of the radicals produced in acetone photolysis. R. R. Hentz. bibliog Am Chem Soc J 75:5810-14 D 5 '53

Ozone formation in photochemical oxidation of organic substances. A. J. Haagen-Smit, C. E. Bradley and M. M. Fox. bibliog Ind & Eng Chem 45:2086-9 S '53

Peroxide- and light-induced additions of alcohols to olefins. W. H. Urry and others. bibliog Am Chem Soc J 76:450-5 Ja 20 '54

Photobleaching and photorecovery of dyes. G. Oster and N. Wotherspoon. J Chem Phys 22:157-8 Ja '54

Photochemical autoxidation of isopropylbenzene. H. W. Melville and S. Richards. Chem Soc J p944-52 Mr '54

Photochemical decomposition of nitric oxide by absorption in the (0,0) and (1,0) γ bands. G. E. Moore and others. bibliog il J Chem Phys 21:2091-2 N '53

Photochemical oxidation of *n*-heptaldehyde. J. R. McNesby and T. W. Davis. bibliog Am Chem Soc J 76:2148-52 Ap 20 '54

Photochemical reactions of methyl diazoacetate with polyhalomethanes. W. H. Urry and J. W. Wilt. bibliog Am Chem Soc J 76:2594-5 My 5 '54

Photochemical reactions useful in the conversion of hydrocarbons; patent. Pet Processing 8:1207 Ag '53

PHOTOCHEMISTRY—*Continued*

Photochemical separation of isotopes. B. H. Billings and others. bibliog diag J Chem Phys 21:1762-6 O '53

Photochemical studies; ketene and ketene-oxygen mixtures. A. N. Strachan and W. A. Noyes, jr. bibliog diag Am Chem Soc J 76:3258-64 Je 20 '54

Photochemistry of selenium; photogalvanic effects with grey selenium. R. W. Pittman. Chem Soc J p3888-93 D '53

Photochromism and reversible multiple internal transitions in some *spiro*pyrans at low temperatures. Y. Hirshberg and E. Fischer. diag Chem Soc J p297-303 Ja '54

Photodegradiation of 1-chlorocyclohexene. R. V. Lindsey, jr. and J. N. Ingraham. bibliog Am Chem Soc J 75:5613-14 N 20 '53

Photolysis and radiolysis of liquid alkyl iodides. E. L. Cochran, W. H. Hamill and R. R. Williams, jr. bibliog Am Chem Soc J 76:2145-8 Ap 20 '54

Photolysis of acetone. J. R. McNesby and A. S. Gordon. bibliog Am Chem Soc J 76:1416-18 Mr 5 '54

Photolysis of mercury dimethyl in the presence of hydrocarbons. R. E. Rebbert and E. W. R. Steacie. bibliog J Chem Phys 21:1723-6 O '53

Photoöxidation products of tryptophan. Z. Yoshida and M. Kato. bibliog Am Chem Soc J 76:311-12 Ja 5 '54

Photosensitive and phototropic products of solid state reaction between silver sulfide and mercuric iodide. L. Suchow and G. R. Pond. J Phys Chem 58:240-2 Mr '54

Primary photochemical process in bromine. G. B. Kistiakowsky and J. C. Sternberg. bibliog J Chem Phys 21:2218-23 D '53

Production of organic free radicals by light. G. Oster and H. Mark. bibliog Opt Soc Am J 43:283-9 Ap '53

Pyrolysis and photolysis of acetone-d_6 in the presence of methans. J. R. McNesby and A. S. Gordon. Am Chem Soc J 76:4196-8 Ag 20 '54

Quantum yields during mercury dimethyl decomposition. R. A. Holroyd and W. A Noyes, jr. bibliog Am Chem Soc J 76:1583-4 Mr 20 '54

Reaction of optically excited mercury vapor with oxygen. D. H. Volman. bibliog J Chem Phys 21:2086-7 N '53

Some photochemical reactions between quinones and hydrocarbons. R. F. Moore and W. A. Waters. Chem Soc J p3405-8 N '53

Study of the mechanism of the photochemical synthesis of hydrogen peroxide at zinc oxide surfaces. J. G. Calvert and others. bibliog Am Chem Soc J 76:2575-8 My 5 '54

Triplet states in solution. G. Porter and M. W. Windsor. il J Chem Phys 21:2088 N '53

Vacuum photolysis of silver bromide. G. W. Luckey. bibliog J Phys Chem 57:791-6 N '53

See also

Adsorption
Beer's law
Bleaching
Chlorophyl
Ionization, Gaseous
Photographic chemistry
Photosynthesis
Phototropy
Polymerization
Ultraviolet rays
X rays

PHOTOCHROMISM. See Photochemistry

PHOTOCOMPOSING machines

Photo-mechanical composition; new equipment and use. J. F. Weiler, comp. Ptr Ink 245:387-8 sec 2 O 23 '53

PHOTOCONDUCTIVE cells. See Photoelectric cells

PHOTOCONDUCTIVITY

Ac Hall and magnetostrictive effects in photoconducting alkali halides. J. R. Macdonald and J. E. Robinson. bibliog diag Phys R 95:44-50 Jl 1 '54

Bulk photoconductivity in the lead sulfide. D. E. Soule and R. J. Cashman. Phys R 93:635-6 F 1 '54

Correlation between photoconductance and ultraviolet spectrum of anthracene crystals. D. J. Carswell. bibliog J Chem Phys 21:1890 O '53

Energy levels and photoconductivity in electron-bombarded germanium. H. Y. Fan and others. Phys R 95:1087-8 Ag 15 '54

High-frequency resistance of photoconducting films. R. Broudy and H. Levinstein. diag Phys R 94:290-2 Ap 15 '54

Infrared photoconductivity due to neutral impurities in germanium. E. Burstein and others. bibliog diag Phys R 93:65-8 Ja 1 '54

Photoconductivity in gold-doped silicon. R. Newman. Phys R 94:1530-1 Je 15 '54

Photoconductivity in gold-germanium alloys. R. Newman. Phys R 94:278-85 Ap 15 '54

Photoconductivity of indium selenide. D. E. Bode and H. Levinstein. il Opt Soc Am J 43:1209-10 D '53

Sensitive Hall measurements on NaCl and on photoconductive PbTe. J. L. Levy. diag Phys R 92:215-18 O 15 '53

Silver bromide polycrystalline film prepared by precipitation method for photoconductive measurements. M. Tamura and S. Tutihasi. il diag Opt Soc Am J 43:407-8 My '53

Surface states of cadmium sulfide. S. H. Liebson. bibliog diags Electrochem Soc J 101:359-62 Jl '54

X-ray-induced photostimulated conductivity in magnesium oxide. A. S. Eisenstein. diags Phys R 93:1017-18 Mr 1 '54

PHOTODISINTEGRATION. See Beryllium—Nuclear reactions

PHOTODISSOCIATION. See Ionization, Electrolytic

PHOTOELASTICITY

Bending moments in fuselage frames obtained by the photoelastic method. P. P. Benham. bibliog il diags Roy Aeronautical Soc J 57:667-82 N '53

Elasto-plastic stress-optical effect in silver chloride single crystals. L. E. Goodman and J. G. Sutherland. bibliog il J Ap Phys 24:577-84 My '53

Frozen stress phenomenon in photo-elasticity. H. Fessler. bibliog il diags Inst Mech Eng Proc (B) 1B no 12:613-19; Discussion. 619-20 '52-53

Interpretation of photoelastic transmission patterns for a three-dimensional model. D. C. Drucker and W. B. Woodward. diags J Ap Phys 25:510-12 Ap '54

Leech photoelastic optical bench. il J Sci Instr 31:266 Jl '54

Multiple beam sharpening of photoelastic fringes. D. Post. il diag J Ap Phys 25:1060-1 Ag '54

Photoelastic analogy for non-homogeneous foundations. A. J. Curtis and F. E. Richert, jr. il diags Am Soc C E Proc 79 [no 211]: 1-35 Jl '53

Photoelastic constants of ammonium dihydrogen phosphate and potassium dihydrogen phosphate. R. O. Carpenter. Opt Soc Am J 44:425 My '54

Photoelastic studies of quenched cylinders and spheres. K. A. Parsons. J Ap Phys 24:469-72 Ap '53

Photo-elastic study of stresses in screw threads. A. F. C. Brown and V. M. Hickson. diags Inst Mech Eng Proc (B) 1B no 12:605-8; Discussion. 608-12 '52-53

Room temperature photo-elastic technique for three-dimensional problems. J. H. Lamble and S. E. A. Bayoumi. bibliog diags Inst Mech Eng Proc (B) 1B no 12:575-9, pl 1-4; Discussion. 589-604, pl 5-6 '52-53; Engineer 195:465-7 Mr 27 '53

Stress analysis in design. J. B. Hartman and R. E. Benner. il diags Machine Design 26:144-8 Je '54

Use of gelatin models in structural analysis. J. D. C. Crisp. bibliog il diags Inst Mech Eng Proc (B) 1B no 12:580-8; Discussion. 589-604, pl 5-6 '52-53

PHOTOELECTRIC cells

Application of lead selenide photoconductive cells to infra-red spectroscopy. V. Roberts and A. S. Young. il J Sci Instr 30:199-200 Je '53

Increased light sensitivity from standard gas phototubes. E. O. Johnson. diags R Sci Instr 25:839-40 Ag '54

PHOTOELECTRIC cells—*Continued*

Lead sulphide cell 61SV; Mullard ltd. Chem Age (Lond) 70:1112 My 15 '54

Method of describing the detectivity of photoconductive cells. R. C. Jones. bibliog diags R Sci Instr 24:1035-40 N '53

Monochromator system with constant energy output in the 0·7-7μ spectral region. D. G. Avery and P. H. Hammond. diag J Sci Instr 30:400-1 N '53

Photoconductive cell. J. E. Jacobs. il Gen Elec R 57:28-31 Jl '54

Properties of germanium phototransistors. J. N. Shive. bibliog il diags Opt Soc Am J 43:239-44 Ap '53

Control uses

Control of conveyor-borne parts; photo-electric system for converging conveyors. il Engineering 177:344 Mr 12 '54

Crucible heat control. J. H. Siau. il diag Electronics 27:149 F '54

Daytime lighting of school classrooms. R. A. Boyd and T. D. Wakefield. il plan diag Illum Eng 49:388-91 Ag '54

Electric eye guides continuous flame-cutting action; Marion power shovel co. H. B. Cary. il Iron Age 173:120-3 Je 3 '54

Electronic light control. H. A. Setzke. il diag Radio & Tv N 50:81+ D '53

Film synchronizer for aerial cameras. H. E. Meinema. il diags Electronics 26:135-7 N '53

Long-range photo-electric system; boundary protection of factories, army camps and aerodromes. Elec R (Lond) 153:1399 D 18 '53

Photo-electric control equipment for plasterboard production lines. il Engineer 197:402 Mr 12 '54

Photoelectric control for airport lighting circuits. il Aviation W 59:94 D 14 '53

Photo-electric protection of high-voltage equipment. Engineering 176:648 N 20 '53

Sensitive photorelay; abstract. diag Electronics 26:230+ D '53

Street lighting photocell control calibration cabinet. W. N. Lindblad and L. C. Edwards. il diag Illum Eng 48:509-12 O '53; Discussion. 49:14-15 Ja '54

Twin photocell circuit suitable for the control of thermostats and furnaces. G. W. Benson and G. C. Benson. bibliog diag R Sci Instr 24:1070-1 N '53

Industrial applications

Ceramic tile sorter. F. Lepri and R. Sanna. diags Electronics 26:180-1 O '53

Chapman printing smoothness tester. S. M. Chapman and others. bibliog il diags Pulp & Pa of Can 55:88-116 Mr '54

General Electric tiny photocell for industry. Steel 133:224 D 7 '53

New silicon *p-n* junction photocell for converting solar radiation into electrical power. D. M. Chapin and others. J Ap Phys 25:676-7 My '54

Soap plant observer. J. W. McCutcheon. Soap & San Chem 29:111 Ap '53

Traffic lights in craneway warn passers-by. il Nat Safety N 69:50 Ja '54; diag Safety Maint & Prod 107:37 Ja '54; Steel 134:76 Ja 11 '54

Tricot stop motion improves quality and workloads. J. H. Blore. il diag Textile World 104:128-9 Je '54

Measurement uses

Automatic photoelectric colorimeter for direct reading of Munsell coordinates. G. L. Gibson and D. A. Neubrech. bibliog il diags Opt Soc Am J 44:703-12 S '54

B.I.S.R.A. photo-electric dust concentration meter. Engineer 197:128 Ja 22 '54; Engineering 177:146 Ja 29 '54; Metallurgia 49:156 Mr '54

Continuous measurement of cloth width. B. Jiewertz. diags Textile Inst J Trans 45:T696-9 S '54

Determining suspended solids in gas; automatic lampblack sampler, indicator and recorder. R. W. Gilkinson. il diag Gas Age 114:31-4+ S 9 '54

New photoelectric method for the calibration of retardation plates. D. D. Randall. Opt Soc Am J 44:600-2 Ag '54

Photoelectric cells for the vacuum ultraviolet. H. E. Hinteregger and K. Watanabe. diag Opt Soc Am J 43:604-8 Jl '53

Photoelectric flow rate meter. W. R. S. Briggs and R. L. Werner. diag J Sci Instr 31:259 Jl '54

Photoelectric spectrophotometer for the vacuum ultra-violet region. V. J. Hammond and W. C. Price. bibliog diags J Sci Instr 31:104-6 Mr '54

Phototube measuring circuit for thermopiles. R. K. Brinton and C. T. O'Konski. diag R Sci Instr 24:1102-4 D '53

Problem of evaluating a white light image. R. E. Hopkins and others. Opt Soc Am J 44:692-8 S '54

Relation between the speed of response and the detectivity of lead sulfide photoconductive cells. R. C. Jones. bibliog Opt Soc Am J 43:1008-13 N '53

Simple daylight factor meter. J. Longmore and R. G. Hopkinson. il J Sci Instr 31:214-17 Je '54

Simple electrical method of recording small volume changes. J. G. Davies. diags J Sci Instr 30:306-7 S '53

Simple photocell amplifier attachment for galvanometers. M. W. Jervis. diag J Sci Instr 31:302 Ag '54

Simple photoelectric signaling device for use with chromatographic columns; abstract. W. L. Porter. il diag Anal Chem 26:439 F '54

Simple recording differential refractometer. G. H. F. Seiflow. diags J Sci Instr 30:407-8 N '53

Steelmaking; dust meter checks cleanliness of blast-furnace gas. Iron Age 173:147-8 F 11 '54

Submersible photoelectric absorptiometer. L. J. Scragg and others. diags J Sci Instr 31:75-7 Mr '54

Tuned galvanometer amplifier. J. R. Beattie and G. K. T. Conn. bibliog diags R Sci Instr 25:888-91 S '54

Ultra-speed transient dynamic analyzer for mechanics and ballistics. J. C. Lindsay and A. V. Masket. bibliog il diags R Sci Instr 25:704-11 Jl '54

Wide-range chromaticity measurements with photoelectric colorimeter. J. B. Chatten. il diag Inst Radio Eng Proc 42:156-60 Ja '54

See also

Absorptiometer	Photometers, Photoelectric
Densitometers	

Multiplier tubes

Colorimeter for pyrotechnic smokes. I. Nimeroff and S. W. Wilson. diags Opt Soc Am J 44:299-302 Ap '54

Constancy of photomultiplier gain. R. Wilson. bibliog diags J Sci Instr 30:472-4 D '53

Convenient assembly for Čerenkov counters using head-on type photomultiplier tubes. R. H. Hildebrand. diag R Sci Instr 24:463-4 Je '53

Current stabilized photomultiplier power supply. P. Fellgett. diags J Sci Instr 31:217-19 Je '54

Fully automatic recording densitometer for scanning paper electrophoresis patterns. D. J. R. Laurence. bibliog il diag J Sci Instr 31:137-8 Ap '54

Measurement of spark spectrum intensities in the vacuum ultraviolet with the fluorescence sensitized photomultiplier. S. E. Williams and others. bibliog diags Opt Soc Am J 44:654-8 Ag '54

Method of testing the linearity of response of photomultipliers under pulsed conditions. W. T. Link and D. Walker. diag J Sci Instr 31:110 Mr '54

Photocathode uniformity and resolution of scintillation spectrometers. T. F. Godlove and W. G. Wadey. diags R Sci Instr 25:1-4 Ja '54

Resolution and dispersion of a concave grating spectrometer using a photomultiplier detector. P. Fisher. Opt Soc Am J 44:665 Ag '54

Simple device for direct-recording spectrophotometry. R. C. Nelson and R. Jenkinson. diags Opt Soc Am J 43:1181-3 D '53

Spatial variations of the spectral response of photomultiplier cathodes. H. Edels and W. A. Gambling. J Sci Instr 31:121 Ap '54

PHOTOELECTRIC cells—Multiplier tubes—*Continued*

Use of photomultipliers in Raman spectroscopy. H. J. Marrinan. bibliog il diags Opt Soc Am J 43:1211-15 D '53

Scientific applications

Photoconverter; a new electronic chopper. R. A. MacMillan and W. G. Field. diags R Sci Instr 24:984-5 O '53

Photoelectric detection of tracks in the diffusion cloud chamber. D. C. Marshall and D. Brown. il R Sci Instr 24:881-2 S '53

Transistorized audio oscillator; uses a selenium photo cell. L. E. Garner, jr. il diag Radio & Tv N 50:68-9 S '53

Testing

Phototube tester checks anode current. M. Adelman and others. il diag Electronics 27:228+ F '54

PHOTOELECTRIC effect

Atomic structure and the photoelectric effect. C. P. Brockett. bibliog(48 ref) diags J Chem Educ 30:498-501 O '53

Independent particle model and the nuclear photoeffect. J. S. Levinger and D. C. Kent. Phys R 95:418-24 Jl 15 '54

Matrix elements for the nuclear photoeffect. L. L. Foldy. bibliog Phys R 92:178-88 O 1 '53

Photomagnetoelectric effect in germanium and silicon. H. Bulliard. bibliog diags Phys R 94:1564-6 Je 15 '54

Photovoltaic effect in InAs. R. M. Talley and D. P. Enright. Phys R 95:1092-4 Ag 15 '54

Photovoltaic effect in *p-n* junctions. R. L. Cummerow. bibliog diags Phys R 95:16-21 Jl 1 '54

Power efficiency for the photovoltaic effect in a germanium grown junction. R. P. Ruth and J. W. Moyer. Phys R 95:562-4 Jl 15 '54

Studies on the photovoltaic effect. I. Levin and others. J Chem Phys 21:1654-9 O '53

PHOTOELECTRIC photometers. See Photometers, Photoelectric

PHOTOELECTRICITY

Photoelectric studies of iron. A. B. Cardwell. bibliog Phys R 92:554-6 N 1 '53

See also

Joshi effect

Photoelectric cells

PHOTOENGRAVING

Effect of multiple internal reflections on the densities of half-tone prints on paper. F. R. Clapper and J. A. C. Yule. diag Opt Soc Am J 43:600-3 Jl '53

Printers' Ink 1954 advertisers' annual; engraving. Ptr Ink 245:396+ sec 2 O 23 '53

Self-luminous halftones. F. A. Schwertz and others. il Opt Soc Am J 44:745-6 S '54

PHOTOFLASH electric lamps. See Electric lamps, Photoflash

PHOTOGRAMMETRY. See Photographic surveying

PHOTOGRAPH albums. See Albums

PHOTOGRAPHERS' studios. See Photography—Studios and darkrooms

PHOTOGRAPHIC chemicals

Electronic label inspection; Eastman Kodak. M. J. Reid. il diag Mod Packaging 27:98-9+ Ja '54

Experimental photographic systems based on phosphotungstic acid. L. Chalkley. bibliog Opt Soc Am J 44:699-702 S '54

Matter of repetition; for facile facsimiles, chemicals. il Chem W 73:43-4 Jl 25 '53

Photo chemicals still booming. il Chem Eng 60:370+ S '53

See also

Barium sulfate

Analysis

Chromatographic separation and identification of photographic developers. J. H. Pannell and J. E. LuValle. Anal Chem 25:1566 O '53

PHOTOGRAPHIC chemistry

Anisotropic rate of photographic development of single crystals of silver chloride. H. Leidheiser, jr. and F. H. Cook. Am Chem Soc J 76:617 Ja 20 '54

Infrared identification of materials in the fractional milligram range. D. H. Anderson and N. B. Woodall. il diags Anal Chem 25:1906-9 D '53

International conference on the science and applications of photography, London, Sept. 19-25; abstracts of papers. Chem & Eng N 31:4198-9 O 12 '53

Photographic color-forming development reaction. W. A. Schmidt and others. bibliog Ind & Eng Chem 45:1726-9 Ag '53

See also

Photographic emulsions

PHOTOGRAPHIC emulsions

Alpha activity of Sm^{146} as detected with nuclear emulsions. D. C. Dunleavy and G. T. Seaborg. bibliog Phys R 92:206 O 1 '53

Anomalous event observed in photographic emulsion. J. H. Noon and others. Phys R 95:1103-4 Ag 15 '54

Boron-loaded photographic plates as detectors of slow neutrons. A. R. Baker. bibliog J Sci Instr 31:187-9 My '54

Calibration of photographic emulsions for electron diffraction investigations. L. S. Bartell and L. O. Brockway. J Ap Phys 24:656-7 My '53; Discussion. 24:1523 D '53

Characteristics of ultraviolet-sensitized photographic plates in the vacuum ultraviolet. P. Lee and G. L. Weissler. Opt Soc Am J 43:512-15 Je '53

Development of nuclear emulsions by an induction heating method. C. Lipetz and F. J. Loeffler. R Sci Instr 24:999-1000 O '53

Device for accurate location of events in nuclear emulsion. J. Orear. diags R Sci Instr 25:875-6 S '54

Effect of impurities on the optical sensitization of the photographic emulsion. W. West and B. H. Carroll. bibliog J Phys Chem 57:797-801 N '53

Effect of stray light in prism and grating spectrographs on emulsion calibration curves and its significance in spectrographic analysis. R. N. Kniseley and V. A. Fassel. bibliog Opt Soc Am J 44:390-3 My '54

Electron microscopical studies of the latent image obtained by exposures to alpha particles, X-rays, and light. H. Hoerlin and F. A. Hamm. bibliog il J Ap Phys 24:1514-19 D '53

Electron microscopy of photographic grains; specimen preparation techniques and applications. F. A. Hamm and J. J. Comer. bibliog(30 ref) il J Ap Phys 24:1495-513 D '53

Emulsion studies of cosmic-ray stars produced in metal foils. I. G. Barbour. bibliog diags Phys R 93:535-43 F 1 '54

Evacuating photographic materials for use in electron optical apparatus. J. H. Reisner. R Sci Instr 25:477-9 My '54

Heavy unstable particles in stripped emulsions. J. Crussard and others. Phys R 95:584 Jl 15 '54

High-energy protons in nuclear interaction of 220-Mev π^- mesons in nuclear emulsions. G. Takeda. Phys R 93:848-50 F 15 '54

Inelastic scattering of 220-Mev π^- mesons in emulsions. W. F. Fry. il Phys R 93:845-7 F 15 '54

Ionization loss at relativistic velocities in nuclear emulsion. B. Stiller and M. M. Shapiro. bibliog Phys R 92:735-41 N 1 '53

Ionization loss in nuclear emulsions. J. R. Fleming and J. J. Lord. bibliog Phys R 92:511-12 O 15 '53

Loading of photographic emulsions with wires. A. H. Morrish. bibliog il R Sci Instr 25:831-4 Ag '54

Long-wavelength edge of photographic sensitivity and of the electronic absorption of solids. F. Urbach. bibliog Phys R 92:1324 D 1 '53

Measurement of distortion in nuclear emulsions. M. Caulton. bibliog diags R Sci Instr 24:569-72 Ag '53

Measurement of the energy of isotropic fast neutrons with Li^6 loaded plates. J. H. Roberts and others. bibliog il R Sci Instr 24:920-4 O '53

Measurements of the effects of moisture in nuclear track emulsion. A. J. Oliver. il R Sci Instr 25:326-30 Ap '54

PHOTOGRAPHIC emulsions—*Continued*

Method of increasing photographic sensitivity by electrical discharges. K. S. Lion. il diag J Ap Phys 24:367-8 Mr '53

Negative π-μ meson decays in photographic emulsion. W. F. Fry and G. R. White. Phys R 93:1427 Mr 15 '54

Nomograms used in analysis of data in the reaction Li^6(n,α)H^3. M. L. Boas. R Sci Instr 24:356-9 My '53

Nuclear emulsion method for energy measurement of inelastically scattered neutrons. S. C. Snowdon and others. bibliog diags R Sci Instr 24:876-7 S '53

Photographic dosimetry of X- and gamma rays. M. Ehrlich. il diags U S Nat Bur Stand Handbook 57:1-28 bibliog(p28); pa 15c Supt. of doc. '54

Photographic plate with constant contrast. M. Slavin. Opt Soc Am J 44:746 S '54

Preparation of ultra-fine grain photographic emulsions. B. H. Crawford. diags J Sci Instr 31:333-5 S '54

Range and specific ionization for high-energy protons in nuclear emulsions. O. Heinz. bibliog diags Phys R 94:1728-31 Je 15 '54

Sensitization of X-ray emulsions by very small quantities of a lead salt. E. T. Larson, F. W. H. Mueller and H. Hoerlin. bibliog J Phys Chem 57:802-8 N '53

Studies in the resolving power of photographic emulsions; effect of the type of pattern and the luminance ratio in the test object. F. H. Perrin and J. H. Altman. bibliog(26 ref) diags Opt Soc Am J 43:780-90 S '53

Techniques for processing thick nuclear emulsions. B. Stiller and others. bibliog il diags R Sci Instr 25:340-8 Ap '54

Time variation of cosmic-ray heavy nuclei. V. H. Yngve. bibliog diags Phys R 92:428-35 O 15 '53

PHOTOGRAPHIC films

Camera fans can hold on to scratchy, dirty negatives; silicone oil to minimize injurious effects of scratches, dust, or oily fingerprints. Chem & Eng N 32:3734 S 20 '54

Determination of photographic film exposure by neutron activation of Ag^{107} I. B. Berlman and others. R Sci Instr 24:396-7 My '53

Multiple film methods in X-ray powder photography. R. J. Davis and others. J Sci Instr 31:305-6 Ag '54

PHOTOGRAPHIC lenses. See Lenses, Photographic

PHOTOGRAPHIC measurements

Photographic measurement of drainage rate; method for determining sheetmaking rates in cylinder machines. C. F. Payne and W. E. Guthrie. il diags Tappi 36:469-73; Discussion. 473-5 O '53

PHOTOGRAPHIC optics

Air photography. D. E. MacDonald. bibliog il diags Opt Soc Am J 43:290-8 Ap '53

Multiple internal reflections in photographic color prints. F. C. Williams and F. R. Clapper. diags Opt Soc Am J 43:595-9 Jl '53

Psychometric evaluation of the sharpness of photographic reproductions. R. N. Wolfe and F. C. Eisen. bibliog il Opt Soc Am J 43:914-22 O '53; Same. Soc Motion Picture & Tv Eng J 61:590-604 N '53

See also

Lenses, Photographic

PHOTOGRAPHIC paper

Baryta coated photographic paper. W. A. Kirkpatrick. il Paper Tr J 137:247-50+ N 13 '53

Gloss measurement and tolerance of photographic paper. B. Brenner. bibliog diag Opt Soc Am J 44:494-6 Je '54

Processing of photo-recording paper. H. F. Hieatt. il Instruments & Automation 27:132-3 Ja '54

PHOTOGRAPHIC records

Continuous daylight recorder. W. Billhartz and others. bibliog il diag Illum Eng 49:2-4 Ja '54

Hundreds of engineering man-hours saved by 3-D pix; Florida power & light co. L. Bowers. il Elec World 141:110-12 F 22 '54

Measurement of the damping of rapidly decaying transverse vibrations. P. L. Kirby. il J Sci Instr 31:303 Ag '54

Multichannel pulse-height analysis system utilizing a 35-mm film record. W. A. Hunt and others. bibliog il diags R Sci Instr 25:268-74 Mr '54

Spectrograph unit for use with the N.P.L. gauge interferometer. C. F. Bruce and V. R. Findlay. il diags J Sci Instr 30:297-9 S '53

Three D record keeping. Product Eng 24:208 Jl '53

See also

Microfilm records

PHOTOGRAPHIC reproduction and projection

Stereoscopic reprojection and radius of curvature measurements of cloud-chamber tracks. C. R. Emigh. il diags R Sci Instr 25:567-9 Je '54

Substitute for drawing ink in the preparation of diagrams for photographic reproduction. E. W. Clark. Science 117:665-6 Je 12 '53

PHOTOGRAPHIC surveying

Agitate for licensing photogrammetrists. Eng N 152:49 F 18 '54

On-the-spot photographs expedite Mount McKinley survey. B. Washburn. il Civil Eng 24:102-3 F '54

Photogrammetry in city planning. L. A. Woodward. il map Pub Works 85:114+ Je '54

See also

Mapping, Aerial

Surveying, Aerial

PHOTOGRAPHS

Psychometric evaluation of the sharpness of photographic reproductions. R. N. Wolfe and F. C. Eisen. bibliog il Opt Soc Am J 43:914-22 O '53; Same. Soc Motion Picture & Tv Eng J 61:590-604 N '53

See also

News photographs

PHOTOGRAPHS as evidence

Practical pointers as to what trial lawyer should find in investigation file. C. W. Heyl. Weekly Underw 169:240, 291, 342-3 Jl 25-Ag 8 '53

PHOTOGRAPHY

See also

Cameras

Color photography

Graininess (photography)

Microfilms

Moving picture photography

Photographic surveying

Photomicrography

Radiography

Slide films

Spectrography

Apparatus and supplies

Fabricating stainless photographic equipment. il Sheet Metal Worker 45:62-3, 117-18 Ap '54

For the complete photographer; Ansco's inplant box forming. il Mod Packaging 27:140-2 My '54

Photographic equipment for Christmas. il Consumers Res Bul 32:15-16 N '53

Transistor timer. L. E. Garner, jr. il diag Radio & Tv N 50:68-9+ O '53

See also

Densitometers

Photography—Films

Rating

New photographic equipment. il Consumers Res Bul 32:5-8 O '53

Developing and developers

Chromatographic separation and identification of photographic developers. J. H. Pannell and J. E. LuValle. Anal Chem 25:1566 O '53

See also

Metol

Exposure

Auroral and night sky exposure register. A. V. Jones and H. Gush. diags R Sci Instr 25:928 S '54

Estimation of the critical τ period in latent-image formation by intermittent exposures. R. E. Maerker. bibliog diags Opt Soc Am J 44:625-9 Ag '54

Films

Kodak's universal pack; special foil wrap. il Mod Packaging 27:116-18 F '54

See also

Moving picture films

PHOTOGRAPHY—*Continued*

High speed

Development of high-speed photography in Europe. H. Schardin. il diags Soc Motion Picture & Tv Eng J 61:273-85 S '53

Faraday shutter freezes transient. diags Electronics 27:198+ F '54

High speed photography. Automobile Eng 44:228 Je '54

High-speed photography and mechanical analysis; abstract. J. H. Waddell. Machine Design 25:282+ N '53

High-speed turbine-driven rotating mirrors. W. E. Buck. il diag R Sci Instr 25:115-19 F '54

Microsecond still camera. H. E. Edgerton and K. J. Germeshausen. il diags Soc Motion Picture & Tv Eng J 61:286-94 S '53

New power stroboscope for high-speed flash photography. W. D. Chesterman and others. bibliog il diags Inst E E Proc 98 pt 2:619-31 O '51; Discussion. 98 pt 2:632-4; 100 pt 2: 563-5 O '51, O '53

Photographic study of events in a 14-in. two-cycle gas-engine cylinder. R. L. Boyer and others. il diags A S M E Trans 76:97-106; Discussion. 106-8 Ja '54

Photographic system operates in millionths of a second; abstract. L. D. Findley and others. Elec Eng 72:1140-1 D '53

See also

Moving picture photography—High speed

Photography of projectiles

Bibliography

Bibliography on high-speed photography. Soc Motion Picture & Tv Eng J 61:749-57 D '54

Industrial applications

Camera catches safety in the act! A. B. Hoftiezer. il Safety Maint & Prod 107:13+ Je '54; Same abr. Nat Safety N 70:26-7 Jl '54

Camera catches waste motion. il Dun's R & Mod Ind 63:118-19 Ja '54

Camera for big birdies; Convair installs largest template camera. Steel 133:123-4 Jl 6 '53; il Aviation W 59:65 S 14 '53

Camera setup helps study plane flight. G. L. Christian. il diag Aviation W 58:55-6+ Je 8 '53

Exposing machine-tool gremlins with high-speed photography; Gilman engineering co. L. C. Tullis. il Am Mach 98:156 Je 7 '54

High-speed photography stops tap breakage. W. G. Hyzer. il Tool Eng 33:82 Jl '54

How fast is a power tool? il Am Bld 76: 62-6 F '54

How photogenic can industry get? il Mill & Factory 54:88-91 Je '54

New aids for inspection save time, improve quality; Northrop aircraft, inc. L. Moir. il diag Automotive Ind 110:66-7 Je 1 '54

Photographic pyrometry. J. W. Londeree, jr. bibliog il Am Cer Soc J 37:354-60 Ag 1 '54

Photography used to record results of inclining experiment. E. F. Kaufman. il Marine Eng 59:50 S '54

Photos speed re-assembly; Morgan engineering co. il Factory Management 112:129 Ja '54

Shadowgraphs replace pipe templates and drawings. J. J. O'Brien. il Power Eng 58: 93-4 S '54

Study of lubricant flow in bearings by streak photography. F. J. Kolano. il Product Eng 24:162-3 O '53

Tap breakage problem solved by high-speed photography. E. J. Fox. il Mach 60:192-3 Ap '54

Today's camera techniques save time, cut costs; Detroit Edison. il Power 98:77-81 My '54

See also

Moving picture photography—Industrial applications

Photography in industry

Latent image

Electron microscopical studies of the latent image obtained by exposures to alpha particles, X-rays, and light. H. Hoerlin and F. A. Hamm. bibliog il J Ap Phys 24: 1514-19 D '53

Estimation of the critical τ period in latent-image formation by intermittent exposures. R. E. Maerker. bibliog diags Opt Soc Am J 44:625-9 Ag '54

Lighting

Relative photographic efficiency of certain light sources. R. N. Wolfe and F. H. Milligan. bibliog Opt Soc Am J 43:791-7 S '53

See also

Electric lamps, Photoflash

Photography, Flashlight

Medical applications

Photography in body cavities. Franklin Inst J 256:398-9 O '53

Printing processes

High-pressure mercury-vapour discharge lamps for photo-printing. J. Whittemore. il Engineering 176:547-8 O 30 '53

Scientific applications

Crystal settings for upper level photography, precession method. L. V. Azaroff. diags R Sci Instr 25:928-9 S '54

Electronic shutter photographs of exploding bridge wires. W. A. Allen and others. bibliog il R Sci Instr 24:1068-9 N '53

Gray wedge pulse-height analysis. W. Bernstein and others. il diags R Sci Instr 24:437-44 Je '53

Monochromatic camera for photography in the far ultraviolet. W. E. Behring and others. bibliog il diags Opt Soc Am J 44: 229-31 Mr '54

New camera photographs microscopic particles. P. L. Magill. Elec Eng 72:945 O '53

Optical techniques for fluid flow. N. F. Barnes. il diags Soc Motion Picture & Tv Eng J 61:487-511 bibliog(219 titles, p503-11) O '53

Photographic techniques for information storage. G. W. King and others. diags Inst Radio Eng Proc 41:1421-8 O '53

Semicircular permanent magnet beta-spectrograph for photographic recording of conversion lines. H. Slätis. bibliog diags R Sci Instr 24:464-7 Je '53

Simple optical method for measuring the statistical distribution of water surface slopes. A. H. Schooley. il diag Opt Soc Am J 44:37-40 Ja '54

Some automatic devices for use on tidal models. M. J. Wilkie. diags J Sci Instr 30: 263-5 Ag '53

Space charge spread of reflected electron beams studied by a photographic method. J. T. Wallmark. il diags J Ap Phys 24:590-7 My '53

See also

Photography of projectiles

Sensitometry

Mosaic filter daylight source for aerophotographic sensitometry in the visible and infrared region. M. R. Nagel. il Opt Soc Am J 44:621-4 Ag '54

Objective method for determination of equivalent neutral densities of color film images. W. L. Brewer and others. Opt Soc Am J 44:460-4, 530-9 Je-Jl '54

Studios and darkrooms

Studio workshop for a fashion photographer. il plan diags Arch Rec 113:158-9 My '53

PHOTOGRAPHY, Aerial

Accessibility surveys cut costs; road-building in Canadian wilderness; modern approach to major problem confronting exploration parties. P. H. Blanchet and others. il maps World Oil 137:93-4+ D '53

Air photography. D. E. MacDonald. bibliog il diags Opt Soc Am J 43:290-8 Ap '53

How Alabama uses aerial photographs for highway location study. F. W. Weldy. Pub Works 85:173+ S '54

Mosaic filter daylight source for aerophotographic sensitometry in the visible and infrared region. M. R. Nagel. il Opt Soc Am J 44:621-4 Ag '54

See also

Mapping, Aerial

Surveying, Aerial

PHOTOGRAPHY, Flashlight

Flash picture of jet plane take-off taken at night from blimp above carrier. il Elec Eng 72:941 O '53

Flashes on flashbulbs; comments from courses. J. L. Collings. Ed & Pub 86:98 Ap 18 '53

Make your electronic flash more versatile. E. Q. Proctor. Radio & Tv N 50:126+ O '53

Multiexposure flash for high-speed cameras. L. D. Findley and others. il diags Electronics 27:180-2 F '54

New power stroboscope for high-speed flash photography. W. D. Chesterman and others. bibliog il diags Inst E E Proc 98 pt 2:619-31 O '51; Discussion. 98 pt 2:632-4; 100 pt 2: 563-5 O '51, O '53

See also

Electric lamps, Photoflash

PHOTOGRAPHY, High speed. See Photography—High speed

PHOTOGRAPHY, Journalistic

Fun is right approach to photography; Kent state university's short course in press photography. W. Fisher. Ed & Pub 86:58 Ap 4 '53

See also

News photographs

PHOTOGRAPHY, Night

Auroral and night sky exposure register. A. V. Jones and H. Gush. diags R Sci Instr 25:928 S '54

PHOTOGRAPHY, Stereoscopic

Hundreds of engineering man-hours saved by 3-D pix; Florida power & light co. L. Bowers. il Elec World 141:110-12 F 22 '54

Stereoscopic cameras for use with a Wilson cloud chamber. K. R. Allen and others. bibliog il R Sci Instr 24:501-4 Jl '53

Stereoscopic reprojection and radius of curvature measurements of cloud-chamber tracks. C. R. Emigh. il diags R Sci Instr 25:567-9 Je '54

Stereoscopic reprojection apparatus for neutron scattering experiments. M. H. Alston and others. il diags J Sci Instr 31:252-4 Jl '54

Three D record keeping. Product Eng 24:208 Jl '53

See also

Moving pictures, Stereoscopic

PHOTOGRAPHY, Streak

Study of lubricant flow in bearings by streak photography. F. J. Kolano. il Product Eng 24:162-3 O '53; Abstract. Westinghouse Eng 13:208 N '53

PHOTOGRAPHY, X-ray. See Radiography

PHOTOGRAPHY in industry

How to use photographs as heavy-duty sales tools; Westinghouse electric corp. W. A. Foster. il Sales Management 72:40-3 Ja 15 '54

It's the man behind the camera that counts. F. E. Riley. il Power Eng 58:81+ Ag '54

New tool for arbitrators. il Bsns W p78 D 26 '53

See also

Photographic records

Photography—Industrial applications

PHOTOGRAPHY of explosions

Image-converter camera for studies of explosive phenomena. F. C. Gibson and others. bibliog il diags R Sci Instr 25:173-6 F '54

Microsecond still camera. H. E. Edgerton and K. J. Germeshausen. il diags Soc Motion Picture & Tv Eng J 61:286-94 S '53

PHOTOGRAPHY of lighting

More tips on lighting photography. T. Knowles. bibliog il Illum Eng 49:271-6 Je '54

Photographing fluorescent lighting installations in color. W. Allphin. Illum Eng 48: 639-41; Discussion. 641-2 D '53

PHOTOGRAPHY of meteors

Meteor-camera film. il Mech Eng 76:39 Ja '54

PHOTOGRAPHY of projectiles

Ballistic research laboratories-Naval gun factory cinetheodolite. S. M. Lipton and K. R. Saffer. il diags Soc Motion Picture & Tv Eng J 61:33-44 Jl '53

M-45 tracking camera mount. M. A. Bondelid. il Soc Motion Picture & Tv Eng J 61:175-82 Ag '53

Photography of motion. J. H. Waddell. diags Soc Motion Picture & Tv Eng J 61:24-32 Jl '53

PHOTOGRAPHY of sound

Schlieren photographs of sound fields. D. S. Schwartz and A. L. Russo. il diags J Ap Phys 24:1061-2 Ag '53

PHOTOGRAPHY on metals

Nameplates; aluminum sheet, photographic process combined; Metalphoto. Iron Age 173:179-80 F 4 '54

PHOTOGRAPHY on textiles

Multicolor photographic prints produced without intermediate washing; patent. Am Dyestuff Rep 42:708 O 12 '53

Production of pictorial effects in textile printing. N. W. Yelland. bibliog 2pls diag Soc Dyers & Col J 69:538-48; Discussion. 548-9 D '53

PHOTOGRAVURE

Production of pictorial effects in textile printing. N. W. Yelland. bibliog 2pls diag Soc Dyers & Col J 69:538-48; Discussion. 548-9 D '53

PHOTOIONIZATION. See Ionization, Gaseous

PHOTOLYSIS. See Photochemistry

PHOTOMECHANICAL processes

Latest office aid, photocopying; insurance companies. il Spectator 162:28+ Jl '54

Saving time and money in map reproduction. P. J. Dube. Civil Eng 23:612-13 S '53

Short-cut copiers; Constat-Contura copying technique. Chem W 73:64+ N 14 '53

See also

Photocomposing machines

Photoengraving

Xerography

PHOTOMETERS

Determination of lithium in a magnesium alloy by the flame photometer. E. E. Strange. bibliog Anal Chem 25:650-1 Ap '53

Determination of the diffuse transmittance of opal glass and the use of opal glass as a standard diffusor in light-scattering photometers. B. A. Brice and M. Halwer. Opt Soc Am J 44:340 Ap '54

Photometer with logarithmic response. R. H. Müller. Anal Chem 25:sup30A My '53

Rectangular coordinate photometer for large-area luminaires. J. A. Losh. il Illum Eng 49:258-63; Discussion. 263-4 My '54

Registering low-level photometer. W. E. K. Middleton. il diags Opt Soc Am J 44:303-5 Ap '54

See also

Densitometers

Goniophotometers

Spectrophotometers

PHOTOMETERS, Photoelectric

Apparatus for the photometric study of flash-initiated reactions. F. W. Trowse. diags J Sci Instr 30:126-31 Ap '53

Automatic servo-operated filter photometer; abstract. J. M. Snodgrass, D. E. Carritt and W. S. Wooster. il diags Anal Chem 26: 249-50 Ja '54

Continuous daylight recorder. W. H. Billhartz and others. bibliog il diag Illum Eng 49:2-4 Ja '54

Design for an absolute light-scattering photometer. L. M. Kushner. bibliog diags Opt Soc Am J 44:155-9 F '54

Intensity measurement of small X-ray diffraction spots by projection of a positive print. D. Evans and S. Weissmann. il Opt Soc Am J 43:1183-5 D '53

New photoelectric brightness spot meter. F. F. Crandell and K. Freund. bibliog il diags Soc Motion Picture & Tv Eng J 61:215-22 pt 2 Ag '53

Omnidirectional photometer of small dimensions. R. G. Giovanelli. il diags J Sci Instr 30:326-8 S '53

Portable photometer for the testing or reflective road signs. R. G. Giovanelli. il diags J Sci Instr 31:126-9 Ap '54

Sensitive photometer using modulated light and its application in a uranium fluorimeter. C. D. Florida and C. N. Davey. diags J Sci Instr 30:409-12 N '53

Simply-constructed constant temperature light-scattering photometer and differential refractometer. S. R. Caplan. bibliog diags J Sci Instr 31:295-300 Ag '54

PHOTOMETERS, Photoelectric—*Continued*

Sinclair-Phoenix forward scattering smoke photometer. R. H. Müller. il diag Anal Chem 26:sup33A-4A Ag '54

Universal high-sensitivity photometer. G. Oster. bibliog il diags Anal Chem 25:1165-9 Ag '53

PHOTOMETERS, X ray

Integrating photometer for X-ray intensity measurements. E. Alexander and others. bibliog diags R Sci Instr 24:955-60 O '53

Measurement of X-ray intensities on integrated Weissenberg photographs. D. W. Smits and E. H. Wiebenga. il J Sci Instr 30:280-1 Ag '53

Microphotometer for microradiography. S. Bourghardt and others. bibliog il diags J Sci Instr 30:464-6 D '53

PHOTOMETRIC titration. See Volumetric analysis

PHOTOMETRY

Automatic coulometric titration with photometric detection of equivalence. E. N. Wise, P. W. Gilles and C. A. Reynolds, jr. bibliog il diag Anal Chem 25:1344-8 S '53

Crystallographic variations of field emission from tungsten. M. K. Wilkinson. bibliog il diag J Ap Phys 24:1203-9 S '53

Determination of calcium in biological material by flame photometry. P. S. Chen, jr. and T. Y. Toribara. Anal Chem 25:1642-4 N '53

Determination of calcium in plant material by the flame photometer. T. R. Williams and R. R. T. Morgan. Chem & Ind p970 S 12 '53

Determination of indium in aluminum bronze alloys by flame photometry. V. W. Meloche and others. Anal Chem 26:1387-8 Ag '54

Determination of lithium in spodumene by flame photometry. R. J. Brumbaugh and W. E. Fanus. bibliog Anal Chem 26:463-5 Mr '54

Determination of small concentrations of sodium. P. Mazzamaro and G. Tatoian. diag Anal Chem 26:1512-13 S '54

Differential photometric detection in coulometric titration. E. N. Wise, P. W. Gilles and C. A. Reynolds, jr. il diag Anal Chem 26:779-80 Ap '54

Direct microdetermination of sodium, potassium, and calcium. G. R. Kingsley and R. R. Schaffert. bibliog Anal Chem 25:1738-41 N '53

Direct photometric determination of iron, titanium, and copper in tantalum and its oxide. J. Hastings, T. A. McClarity and E. J. Broderick. bibliog Anal Chem 26:379-81 F '54

Effects of anions on calcium flame emission in flame photometry. G. L. Baker and L. H. Johnson. bibliog Anal Chem 26:465-8 Mr '54

Flame photometric determination of alkali and alkaline earth elements in cast iron. D. F. Kuemmel and H. L. Karl. Anal Chem 26:386-91 F '54

Flame photometric determination of calcium in wet-process phosphoric acid. J. A. Brabson and W. D. Wilhide. bibliog Anal Chem 26:1060-1 Je '54

Flame photometric determination of phosphate. W. A. Dippel, C. E. Bricker and N. H. Furman. Anal Chem 26:553-6 Mr '54

Flame photometric determination of rubber solids deposited on cords and fabrics. H. E. Todd and H. M. Tramutt. bibliog Anal Chem 26:1137-40 Jl '54

Flame photometric determination of sodium and potassium in zinc cadmium sulfide phosphors. S. B. Deal. Anal Chem 26:598-9 Mr '54

Improvements in flame photometric determination of sodium in portland cement. J. J. Diamond and L. Bean. bibliog Anal Chem 25:1825-30 D '53

Interflectance tables from conventional photometric data. L. E. Innis. bibliog diags Illum Eng 48:595-609 N '53; Discussion. 48:609-10; 49:29-30 N '53, Ja '54

Literature problems in analytical photometry. M. G. Mellon. bibliog(53 ref) Anal Chem 26:181-5 Ja '54

Objective evaluation of projection screens. E. W. D'Arcy and G. Lessman. bibliog il diags Soc Motion Picture & Tv Eng J 61:702-20 D '53

Photometric determination of antimony in lead using the rhodamine B method. C. L. Luke. Anal Chem 25:674 Ap '53

Photometric determination of columbium, tungsten, and tantalum in stainless steels. L. Ikenberry, J. L. Martin and W. J. Boyer. bibliog Anal Chem 25:1340-4 S '53

Photometric determination of copper in gasoline. J. K. Livingstone and N. D. Lawson. Anal Chem 25:1917-18 D '53

Photometric determination of glucose in presence of fructose. F. Stitt and others. bibliog il Anal Chem 26:1478-84 S '54

Photometric determination of the solubility of pulp in sodium hydroxide solutions. R. M. Kingsbury. Tappi 37:353-5 Ag '54

Photometric lab operates by remote control system. Elec World News ed 139:46+ Je 22 '53

Photometric laboratory for today's light sources. K. Franck and R. L. Smith. il diags Illum Eng 49:287-91 Je '54

Photometric mercury analysis. A. E. Ballard and others. Anal Chem 26:921-2 My '54

Photometric titrations. A. L. Underwood. bibliog J Chem Educ 31:394-7 Ag '54

Photometry of the microscope with special reference to projection. F. E. J. Ockenden. bibliog diags J Sci Instr 31:309-13 S '54

Potential hazard in flame photometry. F. B. Moreland. Science 118:494 O 23 '53

Rapid photometric determination of chromium in alloy steels and bronzes. M. D. Kahn and F. J. Moyer. Anal Chem 26:1371-3 Ag '54

Rapid photometric determination of cobalt in the presence of iron. J. N. Pascual, W. H. Shipman and W. Simon. bibliog Anal Chem 25:1830-2 D '53

Some interferences in flame photometry. R. D. Caton, jr. and R. W. Bremner. bibliog il diags Anal Chem 26:805-13 My '54

Use of high speed computing devices in photometric calculations. G. A. Horton. il diags Illum Eng 49:403-8 Ag '54

See also

Brightness

Colorimeters and colorimetry

Reflection (optics)

PHOTOMICROGRAPHY

Color shows up the unknown in metallography. J. H. Powers and W. J. Loach. il Steel 133:93-6 O 19 '53

Improved technique for photomicrographs of pulp and paper fibres. I. Strelis and H. V. Green. bibliog il Pulp & Pa of Can 54:117-20 D '53

Investigation of fretting by microscopic observation. D. Godfrey. bibliog il U S Nat Advisory Com for Aeronautics 1951:134-44 '52

Microstructure of capacitor paper. D. A. McLean, H. A. Birdsall and C. J. Calbick. bibliog il Ind & Eng Chem 45:1509-15 Jl '53

New series of photomicrographic lenses. J. R. Benford and J. V. Butterfield. il diags Opt Soc Am J 44:598-600 Ag '54

Portable camera photographs aerosol particle in flight; Stanford research institute. il Chem & Eng N 31:3074 Jl 27 '53

PHOTOMULTIPLIERS. See Photoelectric cells—Multiplier tubes

PHOTONEUTRONS. See Neutrons

PHOTONS

Albedo of various materials for 1-Mev photons. E. Hayward and J. Hubbell. Phys R 93:955-6 Mr 1 '54

Angle of divergence of pairs produced by photons. K. Hintermann. Phys R 93:898-9 F 15 '54

Angular distribution of photoelectrons produced by 0.4—0.8-Mev polarized photons. W. H. McMaster and F. L. Hereford. bibliog diags Phys R 95:723-6 Ag 1 '54

Attenuation of gamma rays. G. H. Peebles. bibliog J Ap Phys 24:1272-87 O '53

Determination of photon flux for energies between 150 and 300 Mev. P. D. Edwards and D. W. Kerst. bibliog diags R Sci Instr 24:490-5 Jl '53

Elastic scattering of photons. E. G. Fuller and E. Hayward. diag Phys R 94:732-3 My 1 '54

Narrow shower of pure photons at 100,000 feet. M. Schein and others. il Phys R 95:855-7 Ag 1 '54

PHOTONS—*Continued*

Nuclear elastic scattering of photons. E. Hayward and E. G. Fuller. Phys R 95:1106-7 Ag 15 '54

Photon monochromator for bremsstrahlung radiation. J. Goldemberg. diag Phys R 93:1426-7 Mr 15 '54

Photon-radiative recombination of electrons and holes in germanium. W. van Roosbroeck and F. Shockley. Phys R 94:1558-60 Je 15 '54

Photon splitting in a nuclear electrostatic field. M. Bolsterli. bibliog Phys R 94:367-8 Ap 15 '54

Quantum and noise limitations of the visual process. A. Rose. bibliog il Opt Soc Am J 43:715-16 S '53

Radio-frequency fine structure of the photon beam from the Berkeley synchrotron. R. Madey and others. diags R Sci Instr 25:537-40 Je '54

Scintillation spectrometers for measuring the total energy of X-ray photons. R. S. Foote and H. W. Koch. bibliog diags R Sci Instr 25:746-58 Ag '54

Ultraviolet photons in the decay of metastable argon atoms. L. Colli. il diags Phys R 95:892-4 Ag 15 '54

PHOTOOXIDATION. See Oxidation

PHOTOPERIODISM

Photoperiodic response of some Indian wheats. G. Misra. bibliog Science 118:445-6 O 16 '53

Roles of darkness and light in the activation of avian gonads. D. S. Farner and others. bibliog Science 118:351-2 S 25 '53

PHOTOPROTONS. See Protons

PHOTOSENSITIVE glass. See Glass, Photosensitive

PHOTOSYNTHESIS

Food and the future; efficient use of sunlight for food production. N. W. Pirie. bibliog diag Chem & Ind p442-5 My 9 '53

Isotope studies in photosynthesis. J. A. Bassham and others. bibliog(28 ref) il diags J Chem Educ 30:274-83 Je '53

Labelled photosynthesis. P. R. Gorham. Can Chem Process 37:102 O '53

Missing step in photoenergy conversion; thiotic acid disulfide believed to react directly with water in green plants; abstract. M. Calvin. Chem & Eng N 31:3550 Ag 31 '53

Path of carbon in photosynthesis; the cyclic regeneration of carbon dioxide acceptor. J. A. Bassham and others. bibliog diag Am Chem Soc J 76:1760-70 Ap 5 '54

Photopolymerisation. Chem Age (Lond) 68:604 Ap 18 '53

Photosynthesis technique for measuring polluted waters. H. R. Murdock. Ind & Eng Chem 45:sup 101A-3A My '53

Piece in the puzzle; thioctic acid. Chem W 73:74+ Jl 25 '53

Plotting the carboxylation cycle in photosynthesis of sugars and carbohydrates; abstract. M. Calvin. Chem & Eng N 32:3833-4 S 27 '54

Progress in photosynthesis. E. I. Rabinowitch. il diags Sci Am 189:80-4 N '53

PHOTOTELEGRAPHY

Muirhead phototelegraph picture receiver. il Elec J 152:592 F 19 '54

Procedure for the reproduction of images with amplification of contrast. P. D. Ladouce. il diags Opt Soc Am J 44:464-8 Je '54

PHOTOTROPISM

Photosensitive and phototropic products of solid state reaction between silver sulfide and mercuric iodide. L. Suchow and G. R. Pond. J Phys Chem 58:240-2 Mr '54

PHOTOTROPY

Phototropy of the alkaline earth titanates. W. M. MacNevin and P. R. Ogle. bibliog Am Chem Soc J 76:3846-8 Jl 20 '54

PHOTOTYPESETTING machines

Intertype to show fotosetter in action. il Ed & Pub 86:129 Ap 18 '53

Photographic typesetting moving out of experimental stages. H. W. Greeley. Ptr Ink 243:54 Ap 17 '53

Photon; photographic type-composing machine. Mech Eng 75:490-1 Je '53

PHOTOVOLTAIC effect. See Photoelectric effect

PHRENOSINIC acid. See Cerebronic acid

PHTHALALDEHYDE

Phthalaldehydes and related compounds; phthalaldehydes derived from hydrastal and cotarnone. J. Blair and G. T. Newbold. Chem Soc J p 1836-9 Je '54

Phthalaldehydes and related compounds; synthesis of deoxygladiolic acid and experiments relating to the structure of dihydrogladiolic acid. J. J. Brown and G. T. Newbold. Chem Soc J p3648-53 N '53

Phthalaldehydes and related compounds; synthesis of gladiolic acid. J. J. Brown and G. T. Newbold. Chem Soc J p 1076-8 Mr '54

Polarographic determination of amino acids. D. R. Norton and N. H. Furman. bibliog Anal Chem 26:1116-19 Jl '54

Analysis

Polarographic determination of phthalaldehyde. N. H. Furman and D. R. Norton. bibliog diag Anal Chem 26:1111-15 Jl '54

PHTHALATES

Vapor pressures of phthalate esters given by nomograph. D. S. Davis. Chem Eng 61:228 Ja '54

Analysis

Determination of nitrogen in nitrocellulose and of nitrocellulose and combined phthalate in lacquers. W. E. Shaefer and W. W. Becker. bibliog il Anal Chem 25:1226-31 Ag '53

Polarographic determination of phthalate esters in plastics. G. C. Whitnack and E. S. Gantz. bibliog Anal Chem 25:553-6 Ap '53

Physiological effect

Chronic oral toxicity of di(2-ethylhexyl) phthalate for rats, guinea pigs, and dogs. C. P. Carpenter and others. A M A Archives Ind Hygiene & Occup Med 8:219-26 S '53

PHTHALAZINE

See also

Chlorophthalazine

PHTHALIC acid

Strengths of maleic and phthalic acids. T. Nash. bibliog Chem & Ind p591 Je 13 '53

Structure and stereochemistry of bicyclic derivatives; pyrolysis of *endo-cis*-3,6-endomethylene-*exo-cis*-4,5-dibromohexahydrophthalic acid. J. A. Berson. bibliog Am Chem Soc J 76:4069-72 Ag 20 '54

Analysis

Determination of free maleic and phthalic acids in their anhydrides. S. Siggia and N. A. Floramo. Anal Chem 25:797-8 My '53

Spectrophotometric determination of phthalic acid in phthalic anhydride. M. M. Agarwal and F. Spagnolo. Anal Chem 25:1412-13 S '53

PHTHALIC anhydride

Calorimetric determination of the freezing point of phthalic anhydride. A. C. Werner and S. V. R. Mastrangelo. bibliog diags Am Chem Soc J 75:5244-7 N 5 '53

cis-Addition in the bromination of bicyclic olefins; the structure and stereochemistry of the dibromides of *exo-cis*-3,6-endoxo-Δ^4-tetrahydrophthalic anhydride and *endo-cis*-3,6-endomethylene-Δ^4-tetrahydrophthalic anhydride. J. A. Berson and R. Swidler. bibliog Am Chem Soc J 76:4060-9 Ag 20 '54

Making phthalic anhydride. R. F. Ruthruff. Pet Refiner 32:113-14 O '53

Molten phthalic anhydride as entraining agent in extractive distillation of aromatics; patent. Chem Eng 61:264 F '54

Phthalic anhydride; manufacturing process. diag Pet Refiner 32:162-3 N '53

Production of phthalic anhydride by the oxidation of tar oils. J. Shelmerdine and others. bibliog J Ap Chem 3:513-21 N '53

Still off the pace; Defense production administration goals for phthalic anhydride. Chem W 73:28 O 24 '53

Tetrachlorophthalic anhydride derivatives of some alkylbenzenes. G. F. Lewenz and K. T. Serijan. Am Chem Soc J 75:5753-5 N 20 '53

Analysis

Analysis of alkyd resins modified with vinyl chloride-acetate copolymer. M. H. Swann and G. G. Esposito. Anal Chem 26:1054-5 Je '54

PHTHALIC anhydride—Analysis—*Continued*

Spectrophotometric determination of phthalic acid in phthalic anhydride. M. M. Agarwal and F. Spagnolo. Anal Chem 25:1412-13 S '53

PHTHALIMIDE

Phthalimide made the easy way; patent. diag Chem Eng 61:286+ Je '54

Some reactions of phthalimide. R. O. Atkinson. Chem Soc J p 1329-30 Ap '54

Syntheses from phthalimido-acids; amides of glycine, DL-alanine, and L-glutamic acid with amphetamine, benzocaine, and procaine. F. E. King, J. W. Clark-Lewis and G. R. Smith. Chem Soc J p 1044-6 Mr '54

Syntheses from phthalimido-acids; further products from phthalyl-DL-aspartic anhydride, and the preparation of phthalylglycyl-DL-asparagine and DL-serine. F. E. King, J. W. Clark-Lewis and G. R. Smith. Chem Soc J p 1046-9 Mr '54

Syntheses from phthalimido-acids; *p*-glycylaminobenzoic acid and derivatives. F. E. King and others. Chem Soc J p 1039-43 Mr '54

PHTHALOCYANINES

New developments in the application of phthalocyanines in textile printing. F. Gund. Soc Dyers & Col J 69:671-81; Discussion. 681-2 D '53

PHYCOMYCES

Carotenoids in phycomyces. G. Mackinney, C. O. Chichester and P. S. Wong. Am Chem Soc J 75:5428 N 5 '53

PHYLLANTHOL

Constitutions of phyllanthol and *cyclo*artenol. D. H. R. Barton and others. bibliog Chem & Ind p220-1 F 20 '54

PHYSICAL anthropologists, American association of. See American association of physical anthropologists

PHYSICAL constants

Least-squares adjustment of the atomic constants, 1952. J. W. M. DuMond and E. R. Cohen. bibliog(54 ref) Rs Mod Phys 25:691-708 Jl '53

Low-temperature thermal data for the nine normal paraffin hydrocarbons from octane to hexadecane. H. L. Finke and others. bibliog Am Chem Soc J 76:333-41 Ja 20 '54

Physical properties of *n*-hexadecane, *n*-decylcyclopentane, *n*-decylcyclohexane, 1-hexdecene and *n*-decylbenzene. D. L. Camin, A. F. Forziati and F. D. Rossini. bibliog J Phys Chem 58:440-2 My '54

Physical properties of organosilicon compounds; thermodynamic properties of octamethylcyclotetrasiloxane. R. C. Osthoff and W. T. Grubb. bibliog Am Chem Soc J 76:399-401 Ja 20 '54

Present status of the atomic constants. J. A. Bearden and others. bibliog Phys R 93:629-30 F 1 '54

Variety of our sources of information on Avogadro's number and other constants. J. W. M. DuMond and E. R. Cohen. Phys R 94:1790 Je 15 '54

See also

Boiling points
Critical constants
Dielectric constants
Freezing points
Melting points
Osmotic pressure
Parachors
Planck's constant
Refractive index
Specific gravity
Specific heat
Specific volume
Viscosity

PHYSICAL examinations

Aid to accident prevention; medical profile classification of bus operators. H. Brandaleone and G. J. Friedman. Ind Med 22:520-4 N '53

Better health for executives; periodic physical examinations. B. B. Reeve. Pet Refiner 33:253 Ja '54

Bosses' health; 6th Industrial health conference, Houston. Bsns W p 135 O 17 '53

Employer held liable for physician's negligence in examining job applicant; Mrachek v. Sunshine biscuit, inc. Weekly Underw 170:436 F 13 '54

Fitting the foundry worker to his job; job-placement medical examination program at American brake shoe co. P. Hirsch. il Foundry 82:124-5+ S '54

How's your health? il Factory Management 112:68-74 Jl '54

Keep executives shipshape, too; Cleveland survey shows how 18 companies handle physical examination plans. Steel 135:79 S 13 '54

Live executives are best! G. M. Saunders. bibliog A M A Archives Ind Hygiene & Occup Med 9:133-41 F '54; Same cond. Pet Refiner 32:287-8+ N '53

Multi-phasic screening; newest idea in industrial preventive medicine. il Factory Management 112:110-12 S '54

Must executives die young? abstract. Management R 43:562-3 S '54

Objective appraisal of periodic health examinations. R. C. Page. bibliog Ind Med 22:510-13 N '53

Placement; not exclusion. F. P. Guidotti. Nat Safety N 68:22-3+ N '53

Preventive medicine screening program in a venereal disease clinic. G. J. Gruman. Pub Health Rep 68:633-4 Je '53

Value of the X-ray film of the lumbar spine in pre-employment examinations. M. A. Connell. bibliog il Can Min J 75:79-83 S '54

Wanted, healthier salesmen. il Sales Management 70:50+ My 1 '53

See also

Eye—Examination

PHYSICAL geography

Canons of landscape evolution. L. C. King. bibliog map diags Geol Soc Bul 64:721-51, pl 1-4 Jl '53

See also

Continents
Drainage (physical geography)
Glaciers
Volcanoes

Colorado

Stream planation near Colorado Springs, Colo. J. H. Mackin. bibliog diags Geol Soc Bul 64:705-10, pl 1; Reply. B. A. Tator. map 711-16 Je '53

Greenland

Geomorphologic observations at Thule, Greenland and Resolute Bay, Cornwallis island, N.W.T. R. L. Nichols. diag Am J Sci 251:268-75, pl 1-2 Ap '53

North Carolina

Systematic drainage changes in the Piedmont of North Carolina and Virginia. W. A. White. bibliog il maps diags Geol Soc Bul 64:561-79, pl 1-3 My '53

Northwest Territories, Canada

Geomorphologic observations at Thule, Greenland and Resolute Bay, Cornwallis Island, N.W.T. R. L. Nichols. diag Am J Sci 251:268-75, pl 1-2 Ap '53

Utah

Gypsum-oölite dunes, Great Salt Lake desert, Utah. D. J. Jones. bibliog il map diag Am Assn Pet Geologists Bul 37:2530-8 N '53

Virginia

Systematic drainage changes in the Piedmont of North Carolina and Virginia. W. A. White. bibliog il maps diags Geol Soc Bul 64:561-79, pl 1-3 My '53

PHYSICAL instruments

Instrument for measuring small forces. R. Gibson and others. diags J Sci Instr 30:159-62 My '53

See also

Balances
Chemical apparatus
Cyclotron
Electric apparatus and appliances
Electric instruments
Extensometers
Geophysical instruments
Mass spectrometers
Optical instruments
Photometers
Pressure gages
Radio instruments
Scientific apparatus and instruments
Sound—Apparatus
Stroboscopic instruments

Exhibitions

Exhibits of metallurgical interest at the Physical society exhibition. il Metallurgia 49:307-10; 50:51-2, 100-2 Je-Ag '54

Physical society's exhibition, London, 1953. E. J. Harris. il J Sci Instr 30:225-8 Jl '53

PHYSICAL instruments—Exhibitions—*Cont.*

Physical society's exhibition, London, 1954. E. H. W. Banner. diags J Sci Instr 31: 229-36 Jl '54

PHYSICAL laboratories

Cosmotron building. L. D. Stoughton. il R Sci Instr 24:854-5 S '53

See also

Electric laboratories
Great Britain—National physical laboratory, Teddington

PHYSICAL measurements

See also

Dimensional analysis
Electric measurements
Magnetic measurements
Photometry
Physical constants
Pressure gages
Pressure measurement
Radio measurements
Sound—Measurement
Temperature—Measurement
Vibration—Measurement
Viscosity—Measurement

PHYSICAL research

After six years, a study of the impact of the Physics branch program. L. M. McKenzie. bibliog Science 118:227-32 Ag 28 '53

A.E.C. awards new contracts. Chem Eng Prog 50:48 Mr '54

AEC awards unclassified physical research contracts; tabulation. Chem & Eng N 32: 310, 1766, 3259, 3416 Ja 25, My 3, Ag 16, 30 '54

See also Great Britain—National physical laboratory, Teddington

PHYSICAL society of London

Physical society. A. C. Stickland. Science 118:sup3 S 4 '53

PHYSICIANS

A.M.A. balks at social security extension to physicians. Nat Underw (Life ed) 57:4 Ag 14 '53

Comparative study of the subsequent careers of applicants for postdoctoral research fellowships in the medical sciences. L. G. Bowen. Science 118:400-1 O 9 '53

Medical director. il plan diags Ind Med 22: 426-31 O '53

Relationship between the general practitioner and the industrial physician. E. F. Lutz. A M A Archives Ind Hygiene & Occup Med 8:299-306 O '53

See also

Conference board of physicians in industrial practice
Medical advertising

Great Britain

Doctors under the microscope. Economist 169: 7-8 O 3 '53

Surplus of doctors? Economist 170:80 Ja 9 '54

PHYSICIANS, Industrial. See Medical service, Industrial

PHYSICIANS, Territorial association of plantation. See Territorial association of plantation physicians

PHYSICIANS' and surgeons' equipment floater insurance. See Insurance, Physicians' and surgeons' equipment floater

PHYSICIANS' offices

California doctor's office. il plan Arch Rec 113:184 My '53

Flexibility for possible future conversion. il plan Arch Rec 113:185 My '53

Here's a clinic for suburban medics. il plan diag Am Bld 75:110-11 Ag '53

See also

Medical buildings

Lighting

My most interesting lighting job; visual comfort for patient and dentist. R. L. Sawyier. il plan Elec West 111:101 S '53

PHYSICISTS

Employment outlook for physicists. N. Seltzer and R. W. Cain. il U S Bur Labor Statistics Bul 1144:1-24; pa 25c Supt. of doc. '53

Physicist's approach to textile technology. J. W. S. Hearle. Textile Res J 24:123-30 F '54

See also

FitzGerald, George Francis
Oppenheimer, J. Robert
Straubel, Constantin Rudolf
Tillyer, Edgar D.
Women as physicists

PHYSICS

Annual Oak Ridge summer symposium, 5th, Aug. 24-29; topics of modern physics. Science 118:479-80 O 23 '53

Annual summer symposium, 5th, Oak Ridge, Aug. 24-29. Chem & Eng N 31:3624 S 7 '53

Physics in the dyeing, printing, and finishing industries. N. W. Yelland. bibliog il 8pls diags Soc Dyers & Col J 70:333-46 Ag '54

See also

Atoms
Chemistry, Physical and theoretical
Compressibility
Cosmic rays
Cyclotron
Diffusion
Dimensional analysis
Dynamics
Elasticity
Electric conductivity
Electricity
Electrons
Evaporation
Expansion (heat)
Fluids
Fluorescence
Free energy
Friction
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Gases
Geophysics
Heat
Heat transmission
Hydraulics
Hydrodynamics
Ionization, Electrolytic
Ionization, Gaseous
Ions
Light
Liquids
Mathematical physics
Mechanics
Molecules
Neutrons
Optics
Particles
Particles, Elementary
Pauli exclusion principle
Photoelasticity
Plasticity
Pressure
Quantum theory
Radiation
Radioactivity
Reflection (optics)
Relativity (physics)
Sound
Statistical mechanics
Steam
Strains and stresses
Temperature
Thermodynamics
Thermometers and thermometry
Unified field theory
Velocity
Vibration
Viscosity
Vortex motion
Wave mechanics
Weights and measures

Bibliography

Book reviews. R Sci Instr 25:73-93 Ja '54 [cont quarterly]

Physics literature; a reference manual. R. H. Whitford. 228p $5 Scarecrow press, 3341 Prospect av, N.W., Washington 7, D.C. '54

Electric analogies

Set of principles to interconnect the solutions of physical systems. G. Kron. bibliog diags J Ap Phys 24:965-80 Ag '53

Philosophy

Optics and the theory of stochastic processes. N. Wiener. Opt Soc Am J 43:225-8 Ap '53

Study and teaching

Refresher in physics; GE's Science fellowship program. il Elec World News ed 140:16-18 Ag 31 '53

Germany

Bibliography

Physics and chemical sciences in western Germany. 123p pa 50c Card division, Library of Congress, Washington 25 '54

PHYSICS, Astronomical. See Astrophysics

PHYSIOLOGICAL apparatus

Apparatus for recording surface friction and irregularity. P. F. D. Naylor. il diags J Sci Instr 30:390 O '53

Compact flowmeters of use in the unanesthetized animal, an electronic version of Chauveau's hemodrometer. A. M. Scher and others. il diags Science 118:82-4 Jl 17 '53

Pneumatic aid for the operating room; physiological monitor. il diag Comp Air Mag 59:231-3 Ag '54

See also

Biological apparatus
Electrophysiology—Apparatus
Oximeters
Oxygen apparatus
Plethysmographs
Respiratory apparatus
Respirometers

PHYSIOLOGICAL chemistry
Intramolecular hydrogen bridges and physiological activity. M. Davies. bibliog Chem & Ind p614-15 Je 20 '53
See also
Amino acids
Bile
Biological chemistry
Blood—Analysis
Carbohydrates
Chemistry, Medical and pharmaceutical
Cholesterol
Enzymes
Hormones
Immunity
Metabolism
Nutrition
Oxidation, Physiological
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Poisons, Industrial
Proteins
Urine
Vitamins

PHYSIOLOGICAL optics. See Optics, Physiological

PHYSIOLOGICAL psychology. See Psychology, Physiological

PHYSIOLOGY
See also
Adaptation (biology)
Blood
Cells
Diet
Electrophysiology
Fatigue
Longevity
Metabolism
Nervous system
Nutrition
Old age
Radioactivity—Physiological effect
Respiration
Temperature—Physiological effect
Tissues
Weight (physiology)

PHYSOSTIGMINE
Anticholinesterases; the *in vitro* inhibition of cholinesterases by physostigmine, neostigmine and other related (non-phosphorous) compounds. F. Hobbiger. bibliog Chem & Ind p415-18 Ap 10 '54

PHYTELEPHAS macrocarpa. See Ivory nuts

PHYTOCHEMISTRY. See Botanical chemistry

PHYTOENE
Stepwise dehydrogenation of the colorless polyenes phytoene and phytofluene with N-bromosuccinimide to carotenoid pigments. L. Zechmeister and B. K. Koe. bibliog Am Chem Soc J 76:2923-6 Je 5 '54

PHYTOFLUENE
Stepwise dehydrogenation of the colorless polyenes phytoene and phytofluene with N-bromosuccinimide to carotenoid pigments. L. Zechmeister and B. K. Koe. bibliog Am Chem Soc J 76:2923-6 Je 5 '54

PHYTOSYNTHESIS. See Botanical chemistry

PIANO
Century of salesmanship helps build Steinway name. L. M. Hughes. il Sales Management 70:24-7+ My 1 '53
Simulating piano tones electronically. L. Katz. bibliog il diags Electronics 26:155-7 O '53

PIASECKI helicopter corporation
Piasecki; getting set for mass transportation. il Bsns W p 144-7+ S 26 '53

PICKETING
Pickets brave chilly weather until mercifully escorted into warm police station. il Bsns W p 180 S 26 '53

PICKLES
Quell separation in pickle relish; hydrocolloids. E. E. Anderson and others. il Food Eng 26:131+ Ap '54

PICKLING (metals)
Continuous pickling and regeneration of pickle liquor; patent. M. Nord. diags Iron & Steel Eng 31:23-4 My '54
Descaling the stainless steels. L. F. Spencer. bibliog il Metal Finishing 52:54-9 F '54
Design for longer pickling equipment life. J. F. Revilock. il diags Steel 133:84+ D 21 '53
Effect on plated coatings of metal surfaces pickled under various conditions; abstract. R. Petri. Metal Finishing 52:76 F '54
Evaluation of several sets of constants and several sources of variability. V. W. Vaurio and C. Daniel. bibliog diags Chem Eng Prog 50:81-6 F '54
Metal cleaning and finishing handbook; cleaning and pickling. Iron Age 174:sup F8-11 Jl 29 '54
New system cuts waste pickle liquor disposal costs; A. O. Smith-Eimco process. D. A. Dahlstrom. flow sheet il Iron Age 173:150-3 Ap 8 '54
Rate of pickling test for tin-plate steels and its metallurgical significance. E. L. Koehler. il diag Am Soc for Metals Trans 44:1076-90; Discussion. 1090-6 '52
Regeneration of spent pickle liquor. B. P. Martinez. 4pls U S Bur Mines Information Circ 7672:1-18 bibliog(p 17-18) '53
Safety features built into sulfuric acid pumping system; Wigton-Abbot corp. F. J. Hendel and H. B. Pateman. diag Iron Age 172:164-5 S 17 '53
Spray pickler installed; unit takes scale and discoloration off brass shells after annealing operation; Scovill mfg. co. il Steel 133:158 D 7 '53
Use of magnetic amplifiers in control circuits. R. T. Lucas. Iron & Steel Eng 31:74-5; Discussion. 76-7 Ja '54

PICKUP. See Phonograph—Pickup

PICNICS
Complex problems of picnics create new kind of specialist; Recreation associates. Dun's R & Mod Ind 63:102+ F '54
So you're going to have a company picnic. Steel 134:67 Je 28 '54

PICOLINAMIDE
Hydrolysis of picolinamide and isonicotinamide in concentrated hydrochloric acid solutions. H. H. G. Jellinek and J. R. Urwin. bibliog J Phys Chem 57:900-2 D '53

PICOLINE
Condensation reactions of picoline 1-oxides. R. Adams and S. Miyano. bibliog Am Chem Soc J 76:3168-71 Je 20 '54
Fractional liquid extraction of 2,6-lutidine, 3-picoline, and 4-picoline. A. E. Karr and E. G. Scheibel. bibliog flow sheet Ind & Eng Chem 46:1583-9 Ag '54
meta-Interactions and inductive effects in heterocyclic systems. D. A. Brown and M. J. S. Dewar. Chem Soc J p2406-13 Ag '53; p2151 Je '54
4-Nitro- and 4-amino-3-picoline. W. Herz and L. Tsai. bibliog Am Chem Soc J 76:4184-5 Ag 20 '54
Nucleophilic displacement reactions in aromatic systems; kinetics of the reactions of chloronitropyridines and chloro-2: 4-dinitrobenzene with 3- and 4-picoline. E. A. S. Cavell and N. B. Chapman. Chem Soc J p3392-7 N '53
Persistence of pyridine bases in polluted water. M. B. Ettinger, R. J. Lishka and R. C. Kroner. bibliog Ind & Eng Chem 46:791-3 Ap '54

PICOLINIC acid
Polarography of picolinic and isonicotinic acid and their amides. H. H. G. Jellinek and J. R. Urwin. bibliog J Phys Chem 58:168-73 F '54

PICRATES
Potassium ethyl 1-methoxypicrate. R. Foster and D. L. Hammick. Chem Soc J p2153 Je '54

Analysis

Titration of aromatic and aliphatic amine picrates in nonaqueous solution. J. R. Clark and S. M. Wang. bibliog Anal Chem 26:1230 Jl '54

PICRIC acid
Molecular compounds; picric acid-naphthalene, picric acid-*m*-dinitrobenzene and picric acid-1,3,5-trinitrobenzene in chloroform. S. D. Ross and I. Kuntz. bibliog Am Chem Soc J 76:74-6 Ja 5 '54
Rapid determination of aromatics in petroleum fractions. E. A. Pasquinelli. bibliog diag Anal Chem 26:329-42 F '54

PICROTOXIN
Picrotoxin and tutin; experiments with tutin. J. R. Fletcher and others. Chem Soc J p 1953-6 Je '54

PICRYL chloride
Molecular compounds; picryl chloride-hexamethylbenzene in chloroform solution. S. D. Ross and others. bibliog Am Chem Soc J 76:69-74 Ja 5 '54

PICTET-SPENGLER reaction
Competition between the Clarke-Eschweiler and Pictet-Spengler reactions. R. Baltzly. bibliog Am Chem Soc J 75:6038-9 D 5 '53

PICTURE transmission. See Phototelegraphy

PIE

Pie for a dime; simple tray pack with a cellophane topper sheet; Mrs Smith's pie co. il Mod Packaging 27:114-15 Jl '54

Production knots, unraveled; Jones' pies, inc. F. Braun. il Food Eng 26:41 Ja '54

PIECE work

Piecework plus; new type of incentive pay plan. B. E. Goetz. Factory Management 111:270+ N '53

PIERS (foundations)

See also

Bridges—Foundations and piers

PIERS, Concrete

Hoboken pier. Eng N 151:26 Jl 23 '53

Large bridge in British Columbia to have Prepakt-concrete piers. map diags Roads & Eng Constr 92:87-91+ S '54

New type substructure of cement will ease insurers' fears of taking piers. Nat Underw 57:12+ S 10 '53

Pier 57 concreted through the winter. M. D. Morris. il Am Concrete Inst J 25:281-4 D '53

Precast caissons for Kitimat wharf; abstract. W. L. Pugh. Roads & Eng Constr 92:137-9 My '54

Prestressed deck proves cheapest for new Hoboken pier. T. O. Blaschke and D. A. Hopkins. il plans diags Civil Eng 24:94-7 F '54

PIEZOELECTRIC crystals. See Crystals, Piezoelectric

PIEZOELECTRICITY

Cemented piezoelectric accelerometers. E. Jones. R Sci Instr 24:1151 D '53

Piezoelectric properties of lead zirconate-lead titanate solid-solution ceramics. B. Jaffe and others. J Ap Phys 25:809-10 Je '54

Piezoresistance effect in germanium and silicon. C. S. Smith. bibliog diags Phys R 94:42-9 Ap 1 '54

Relationship between the piezoelectric property and the fibrogenic capacity of dust. P. C. Pratt and others. bibliog il A M A Archives Ind Hygiene & Occup Med 8:109-17 Ag '53

Ring-shaped piezoelectric gauge for shock tube. R. A. Shunk and others. diag R Sci Instr 24:1069-70 N '53

See also

Oscillators, Crystal

PIG iron

Low-shaft furnaces. G. Bulle. diags Blast F & Steel Pl 41:1429-33 D '53

Prices

Average monthly quotations in 1953; tabulations. Steel 134:174 Ja 4 '54

Basic pig iron price composite, malleable price composite, number two foundry price composite; tabulations. Steel 134:173 Ja 4 '54

Composite pig iron and malleable pig iron prices; tabulations. Iron Age 173:416 Ja 7 '54

Foundry iron at Buffalo, Chicago, Granite City, Valley and Birmingham; tabulations. Iron Age 173:417 Ja 7 '54

Statistics

Canadian blast furnace production, including ferroalloys, 1930-1953; tabulation. Iron Age 173:417 Ja 7 '54

Capacity and production; 1938-1953; tabulation. Steel 134:163 Ja 4 '54

Pig iron and ferroalloys output by countries; tabulation. Steel 134:162 Ja 4 '54

Pig iron, 1949-1952. Survey of Cur Bsns 1953 Sup p 158 [supplemented in monthly numbers]

United States pig iron production, 1910-1953; tabulation. Iron Age 173:416 Ja 7 '54

PIGEON hole parking, inc.

Texas group buys control. Eng N 151:63 N 26 '53

PIGEONS

For the birds; chemical hotfoot. Chem W 73:54+ Ag 15 '53

PIGMENTS

Alphabetical list of new products developed since Nov. 1952. Am Dyestuff Rep 42:811-24 D 7 '53

Cadmium pigments; abstract. P. J. Curtis and R. B. Wright. Paint Oil & Chem R 117:46 Jl 15 '54

Classification of aluminum pigments. G. M. Babcock and F. B. Rethwisch. bibliog(26 titles) Paint Oil & Chem R 117:37-9+ Ap 8 '54

Colors for water paint systems; abstract. S. R. Benson. Paint Oil & Chem R 117:12-13 My 6 '54

Compounding of silicone rubber. W. B. Spencer, jr and others. bibliog Ind & Eng Chem 45:1297-304 Je '53

Developments in extender pigments; panel discussion abstracts. Paint Oil & Chem R 117:32-3 Ap 8 '54

Dyes; aspects of interest to cosmetic chemists. J. K. Barraclough. Chem Age (Lond) 68:567-8 Ap 11 '53

Electrophoresis of pigments in organic media; abstract. H. Brintzinger and others. Paint Oil & Chem R 117:24-5 Je 3 '54

Evaluating molybdate pigments as corrosion inhibitors. D. H. Killeffer. bibliog Paint Oil & Chem R 117:24-5 Ap 8 '54

House paints. bibliog Paint Oil & Chem R 117:16-18+ Je 17 '54

Iron oxide pigments for brighter auto finishes; patent. Chem Eng 61:256 My '54

Light fastness in relation to pigments; abstract. F. M. Smith and D. M. Stead. Paint Oil & Chem R 117:32-3 Ag 26 '54

Loss of drying on aging; properties of hydrate lakes. D. M. Nace and W. C. Walker. bibliog Ind & Eng Chem 46:769-73 Ap '54

Mechanism of the corrosion-inhibitive action of paints, with special reference to basic pigments. J. E. O. Mayne and D. van Rooyen. bibliog(27 ref) diag J Ap Chem 4:384-94 Jl '54

New look in iron oxides; abstract. E. C. Clare. Paint Oil & Chem R 117:22 Ap 8 '54

Permanent pigments from the earth and the air. P. J. Cauterman. il Can Chem Process 38:50-2+ Ja '54

Pigmentation; prime problem of flat wall finishes; abstract. W. H. Madson. Paint Oil & Chem R 117:50B Mr 11 '54

Production of synthetic pigments is based on exacting technology. il Can Chem Process 38:32+ Je 20 '54

Properties cohesive of baked, pigmented soybean oil films. L. L. Carrick and R. E. Trease. bibliog Paint Oil & Chem R 117:12-13+ Ap 22 '54

Protective action of pigments on steel. M. J. Pryor. bibliog diag Electrochem Soc J 101:141-8 Mr '54; Discussion. 101:635-7 D '54

Recent developments in chemical colors. H. A. Wakefield. Paint Oil & Chem R 117:44-5 Ap 8 '54

Titanium industry flourishes in England. Chem & Eng N 32:1028+ Mr 15 '54

See also

Carbon black
Carotene
Cyanines
Dyes and dyeing
Lead oxides
Paint
Phthalocyanines
Titanium oxides
Whiting
Zinc oxides

Manufacture

Peacock blue flushed color production; staff-industry collaborative report. A. S. Hester and C. H. Allen. bibliog flow sheet il diag Ind & Eng Chem 45:1610-18 Ag '53

PIGMENTS, Biological

Colouring matters of the aphididæ. B. R. Brown and others. Chem Soc J p 107-12, 1280-9, 2378-81 Ja, Ap, Jl '54

Colouring matters of the bark of rhamnus alaternus L. L. H. Briggs, F. E. Jacombs and G. A. Nicholls. Chem Soc J p3069-72 O '53

Cyanopsin, a new pigment of cone vision. G. Wald and others. bibliog Science 118:505-8 O 30 '53

Iron content of melanin granules isolated from pigmented mammalian hairs. G. Laxer and C. S. Whewell. bibliog Chem & Ind p 127 Ja 30 '54

See also

Carotene
Chlorophyl
Chloroplasts
Flavonoids

Spectra

Use of alkali and aluminium chloride in the spectral study of phenolic plant pigments. J. B. Harborne. bibliog Chem & Ind p 1142-3 S 11 '54

PILE fabrics
Compressibility of pile fabrics. P. Larose. bibliog Textile Res J 23:730-5 O '53
New Wildman knitter produces pile fabric. il Mod Textiles Mag 35:31 Ja '54

PILES and pile driving
Foundation design for iron and steel plants. G. S. Richardson. diag Iron & Steel Eng 31:73-6; Discussion. 76-7 Ap '54
Low ceiling makes tricky pile job. Constr Methods 36:140 F '54
Pneumatic piles support landship for army's navy. H. T. Perez. il Constr Methods 36:58-61 Je '54
Timely and low-cost repairs save deteriorating piling. il Constr Methods 36:54-5 Mr '54
See also
Concrete piling
Sheet piling

PILLSBURY mills, inc.
FTC ruling overturns substantiality doctrine. Oil Paint & Drug Rep 165:3+ Ja 4 '54

PILOT lights. See Electric lamps—Miniature lamps

PILOT plants. See Chemical plants—Experimental plants; Petroleum refineries—Experimental plants

PILOTLESS airplanes. See Airplanes, Pilotless

PILOTS and pilotage
Incidence of peptic ulcer and chronic gastritis among Swedish sea pilots; abstract. T. Dalhamm. Nat Safety N 69:37 Ja '54

PIMELIC acid
Intramolecular acylation; preparation and ring closure of some γ-aryl-γ-carboxy- and -γ-cyano-pimelic acids. D. H. Hey and K. A. Nagdy. Chem Soc J p 1204-7 Ap '54

PINACOL
Kinetics and mechanism of the pinacol rearrangement; the perchloric acid-catalyzed rearrangement of benzopinacol and of tetraphenylethylene oxide in acetic acid solution. H. J. Gebhart, jr. and K. H. Adams. bibliog Am Chem Soc J 76:3925-30 Ag 5 '54
Pinacol rearrangement of *cis*- and *trans*-1,2-di-*o*-tolyl- and di-*p*-tolylacenaphthenediols-1,2. R. F. Brown. bibliog Am Chem Soc J 76:1279-80 Mr 5 '54
Stages in oxidations of organic compounds by potassium permanganate; a kinetic study of the oxidation of pinacol by manganic pyrophosphate. A. Y. Drummond and W. A. Waters. Chem Soc J p3119-23 O '53

PINACOL rearrangement. See Molecular rearrangements

PINANE
Rearrangements in the pinane series. O. H. Wheeler. bibliog Chem & Ind p 1020-1 Ag 14 '54
Studies in the terpene series; the thermal isomerization of pinane at high pressure. V. N. Ipatieff, W. D. Huntsman and H. Pines. bibliog Am Chem Soc J 75:6222-5 D 20 '53

PINBALL machines. See Slot machines, Gambling

PINCHIN, Johnson and associates, limited
Statement by the chairman. G. R. T. Taylor. Economist 168:737-8 S 12 '53

PINE
Chlorine dioxide pulping of jack pine and black spruce chips. F. G. Hurtubise. Pulp & Pa of Can (Convention no) 55:173-4 [F] '54
Fiber structure and pulp properties; abstract. A. J. Watson and others. Paper Ind 35:920 N '53
Growth behaviour of white pine in an uncut stand in southwestern Maine. T. W. McConkey. Pulp & Pa of Can 55:144 Ja '54
Hemicelluloses of Scots pine (pinus sylvestris) and black spruce (picea nigra) woods. A. R. N. Gorrod and J. K. N. Jones. Chem Soc J p2522-5 Jl '54
Operating comparison of standard and valveless deckers on screened, bleachable pine kraft pulp. T. L. Gilles and M. B. Pineo. diags Tappi 37:46-8 Ja '54
Quercetin from fir and pine bark. E. F. Kurth. bibliog Ind & Eng Chem 45:2096-7 S '53
Rosin from Jeffrey pine stump wood. A. B. Anderson. bibliog(27 ref) Tappi 37:316-20 Jl '54
Southern pine and western pine, 1949-1952. Survey of Cur Bsns 1953 Sup p 153-4 [supplemented in monthly numbers]
Structure of an arabogalactan from Jeffrey pine (pinus jeffreyi). W. H. Wadman, A. B. Anderson and W. Z. Hassid. bibliog Am Chem Soc J 76:4097-101 Ag 20 '54

PINE oil

Analysis

Colorimetric method for determining pine oil in water. J. A. Sutton. bibliog pl U S Bur Mines Rep of Invest 4990:1-15 '53

PINEAPPLES
Better days for pineapples? E. Gidlow. il Sales Management 71:102-4+ Jl 15 '53
Billion-dollar rainbow; Hawaiian pineapple co. F. J. Taylor. il Adv Agency 47:72-3+ S '54

PINENE
Chromatographic separation of acid obtained from oxidation of alpha-pinene. D. E. Baldwin, V. M. Loeblich and R. V. Lawrence. bibliog Anal Chem 26:760-2 Ap '54
Physical and thermodynamic properties of terpenes; the vapor pressures of α-pinene and β-pinene. J. E. Hawkins and G. T. Armstrong. bibliog Am Chem Soc J 76:3756-8 Jl 20 '54
Rate of the thermal isomerization of β-pinene in the vapor phase. J. E. Hawkins and J. W. Vogh. bibliog J Phys Chem 57:902-5 D '53

PINIC acid
Crystallographic data; *dl*-pinic acid I. J. Krc, jr. il diags Anal Chem 25:1420-1 S '53
Ozone used to oxidize pinene to pinic acid. Chem Eng 60:142-3 Jl '53
Pinic acid diesters. Chem Age (Lond) 69:801-4 O 17 '53

PINITOL
Structure of the di-*O*-*iso*propylidene derivatives of (-)-inositol and pinitol. S. J. Angyal, C. G. Macdonald and N. K. Matheson. Chem Soc J p3321-3 O '53

PINKERTON'S national detective agency, inc.
Pinkerton cases, procedures. H. W. Nugent. Nat Underw 58:23 Je 10 '54
Pinkerton's value to insurance companies cited. H. W. Nugent. East Underw 54:33 S 25 '53

PINS, Machinery
Developments in the analysis of lugs and shear pins. M. A. Melcon and F. M. Hoblit. il diags Product Eng 24:160-70 Je '53
Diamond pin design; reference book sheet. W. P. Wing. diag Am Mach 98:137 Mr 29 '54
In-place-machined pivot pin saves downtime of crane. P. Cervelli. diags Am Mach 98:138 Ap 26 '54
Miniature machines drill and insert small pins; Warner & Swasey co. il Mach 61:190-1 S '54
New approach to roller assembly problem cuts costs; Wayne iron works. il Iron Age 173:138-9 My 27 '54
Split cotter pins do variety of jobs. T. H. Duffy. diags Am Mach 98:157 Je 7 '54
Studs and pins, important industrial fasteners. J. E. Hyler. il Mill & Factory 55:110-13 Jl '54

PIONEER air lines
Continental, PAL propose merger. map Aviation W 59:69 D 21 '53
PAL sets up 2-0-2 subsidy. Aviation W 59:80 O 5 '53

PIONS. See Mesons

PIPE bending
Benders speed piping job. W. R. Schuh. il Heating-Piping 25:98-9 D '53
Bending shrinks pipe installations costs. il Nat Pet N 46:40 Ja 13 '54
How to bend high-nickel alloy pipe without the need for heating. Heat & Ven 51:124+ Jl '54
Pipe bending and fabrication shop; Parsons' works. il Engineering 176:313-14 S 4 '53
Why not bend that pipe? W. R. Schuh. il Pet Processing 9:58-9 Ja '54
You can wrinkle-bend large piping in emergency. S. Elonka. il Power 98:112-13 Ja '54
See also
Tube bending

PIPE bends
Experiments on short-radius pipe-bends. N. Gross. diags Inst Mech Eng Proc (B) 1B no 10:465-79, pl 1-4; Discussion. 492-509 '52-53

PIPE bends—*Continued*

Flexibility of short-radius pipe-bends. N. Gross and H. Ford. bibliog(64 ref) il diags Inst Mech Eng Proc (B) 1B no10:480-91; Discussion. 492-509 '52-53

Pipe bends can serve a double purpose. B. Dopp. diag Heating-Piping 26:114-17 Ag '54

Shadowgraphs replace pipe templates and drawings. J. J. O'Brien. il Power Eng 58:93-4 S '54

PIPE coating

Controlling corrosion. diags Oil & Gas J 52:133 Ag 10 '53

How to combat pipe-line corrosion. Oil & Gas J 52:363 Jl 27 '53

New techniques and current problems in control of underground corrosion. O. C. Mudd. diags Gas Age 112:48-51+ D 17 '53

Protective coatings for buried pipelines. K. A. Spencer and H. B. Footner. bibliog il diags Chem & Ind p448-55 My 9 '53; Discussion. p568 Je 6 '53

Protective pipe coatings. N. P. Peifer. Am Gas J 181:20-1 Jl '54

What's new in pipe coatings? G. D. Lain. il diag Heating-Piping 26:164-5 Ja '54

Cost

Use of plastic tape versus hot enamels. N. P. Peifer. il Am Gas Assn Proc 1953:548-53; Same. Gas Age 111:41-3+ My 21 '53

PIPE couplings. See Pipe joints

PIPE coverings

Applying pipe insulation faster. il Heating-Piping 25:104 N '53

How five plants cut costs of jacketing insulated lines. il Pet Eng 25:A72 S '53

How to insulate with Styrofoam. il Power 98:144 F '54

Insulation specs simplified by magnesia and silica producers; abstracts. M. F. Allen. Heat & Ven 51:154+ F '54; Heating-Piping 26:80 F '54

Pipe wrapped in glass blanket. il Chem Eng 60:250 Je '53

Snap-around pipe insulation cuts labor costs 20 per cent. il Factory Management 111:132-3 N '53

Stopping corrosion on undersea lines. R. C. Ledford. Gas Age 114:36-7+ Ag 26 '54

PIPE cutting

ABC's of pipe cutting and welding. D. A. Spaulding. il Welding J 32:1100-1 N '53

Cutting pipe in place. O. G. Goldman. il Am Water Works Assn J 46:231-6 Mr '54

PIPE fitting

See also

Plumbing

PIPE fittings

Cast-iron pipe fittings made by National iron corp. in new plant by mechanized methods. il Munic Util 92:13-14 Je '54

Correcting a poor steamfitting job. S. R. Lewis. diags Heating-Piping 25:108 D '53

Effect of pipe fittings on flow of fluids. V. W. G. Wilson. il plan diags Pulp & Pa of Can (Convention no) 55:253-7 [F] '54; Excerpts. Paper Tr J 138:24 F 5 '54

Fittings die-cast to flexible tubing; Tractor works of the International harvester co. F. E. Beers. il Mach 60:175 Ag '54

New way to jacket fittings. diag Welding J 33:245 Mr '54

Shipping; packing container standardization helps cut costs; Tube turns, inc. il Iron Age 173:127-8 Ja 14 '54

Stainless steel valves and fittings in the pulp and paper industry. P. C. Shaffer. bibliog il diags Pulp & Pa of Can 55:138-46 S '54

See also

Pipe joints

PIPE fittings, Plastic

Molded fiberglas polyester resin makes strong fittings; Plastic corp. il Chem & Eng N 32:2002-3 My 17 '54

PIPE flanges

Flange-bolting chart for large-size pipes; data sheet. H. W. Hamm. Power 98:115 Je '54

Research on pipe flanges; abstract. A. E. Johnson and R. W. Bailey. Engineering 177:275 F 26 '54; Discussion. 177:275-6 F 26 '54; Engineer 197:278 F 19 '54

PIPE handling

How to handle and store coated and wrapped pipe. H. F. Mensch. diags Gas Age 112:74-5 O 22 '53

Intra-plant handling of round billets and pipe with special automotive equipment; National tube division of Lorian works. J. D. Tyson. il plans diags Iron & Steel Eng 31:107-14; Discussion. 114-16 Je '54

PIPE hangers

Flexibility of piping systems supported by equally spaced rigid hangers; abstract. J. E. Brock. Heating-Piping 26:100-1 F '54

PIPE joints

Better-type coupling for transite pipe. il diag Constr Methods 36:172 My '54

Carbide segregation in 1¼ Cr-½ Mo steel pipe welded joints. I. A. Rohrig and H. S. Blumberg. il Welding J 32:815-22 S '53; Discussion. A. B. Wilder. 33:312 Ap '54

Dowty self-sealing pipe coupling. il diag Engineering 177:152 Ja 29 '54; Engineer 197:224 F 5 '54

Eight uses for insulating joints. A. W. Peabody. diags Gas Age 113:25-30+ My 6 '54

Electronic-control method for the precision expanding of tubes. F. E. Dudley. bibliog il diags A S M E Trans 76:577-82; Discussion. 582-4 My '54

Experience with mechanical-joint pipe in the Washington area; panel discussion. R. L. Orndorff; J. E. Farrell. Am Water Works Assn J 46:517-20 Je '54

Giant steelmill pipe joined with novel traveling fixture. il Iron Age 172:183 S 17 '53

Insulating joints in long pipe lines; panel discussion. M. C. Miller and others. il diags Gas Age 113:34-41 Je 3 '54

Joints for water pipe; panel discussion. Munic Util 92:76+ Ap '54

Locating high-resistance joints in underground piping. M. E. Parker. Oil & Gas J 52:141 Jl 20 '53

Making hot tap connections in high pressure oil and gas pipe lines; abstract. A. J. Del Buono and others. diags Heating-Piping 25:120-1 N '53

Modern materials and methods for joining sewer pipe. R. B. Seymour. il Sewage & Ind Wastes 25:1289-96 N '53; Abstract. Water & Sewage Works 101:40-1 Ja '54

New transite pressure coupling successful in field installation. il diag Eng N 151:110+ S 17 '53

Physical properties of plasticized sulfur cements. A. C. Loewer and others. bibliog il Am Soc T M Proc 51:1234-47 '51

Pressure joint developed for clay sewer pipe. il Am Cer Soc Bul 33:122 Ap 15 '54

Process piping; Chemical Engineering report; jointing. T. R. Olive. diags Chem Eng 60:191-7 D '53

Recent developments in jointing materials for sewer pipes. D. F. Deakin. Water & Sewage Works 101:89-90 F '54

Research produces a better product; new pressure joint developed exclusively for vitrified clay pipe. il Brick & Clay Rec 124:66-7 Mr '54

Results of research on sulfur jointing compounds. R. B. Seymour and others. bibliog il Am Water Works Assn J 46:237-45; Discussion. E. F. Wagner. 245-8 Mr '54

Stoneware pipeline joining Royal Doulton Potteries. il Chem Age (Lond) 71:669 S 25 '54

Threaded joints in pipe and tube made corrosion resistant with new Teflon based sealing compounds. Materials & Methods 39:230+ Mr '54

Tube expanding and related subjects. F. F. Fisher and G. J. Brown. bibliog il diags A S M E Trans 76:563-75 My '54

Welding; cutting devices simplify jointing of pipeline sections. il Iron Age 173:150 Je 3 '54

Testing

Testing largest flexible pipe coupling. il Eng N 152:42 Ap 29 '54

PIPE laying

Backfilling by saturation and vibration; illustrations with text. Constr Methods 36:63 Ja '54

Biggest oil pipeline laid in a hurry. il Constr Methods 36:62-4 Ag '54

PIPE laying—*Continued*

Construction on the move; H. C. Price co. C. H. Vivian. il map Comp Air Mag 59:154-60 Je '54

Eight backhoes help speed construction of new El Paso line. il Gas Age 113:28-9 Ja 28 '54

40-foot cut for a sewer line. A. J. Mair. il Pub Works 85:79+ Mr '54

How Public Service is laying 257 miles of main in Newark expansion. G. E. Symons. il Gas Age 112:17-19 D 3 '53

How to lay concrete pressure pipe. H. S. Price, jr. il diags Constr Methods 36:60-2 Ja '54

Interesting techniques in pipelining. il Constr Methods 36:61 My '54

Laying services underground; Pass boring machine for minimum excavation. il Engineering 177:60 Ja 8 '54

Materials control and coordination on construction projects. J. D. Kelley. map plan Pet Eng 25:D38+ Je '53

Pipe lining in '53. P. Reed and others. il map diags Oil & Gas J 52:167-80+ S 21 '53

Trenching crew makes four or five main extensions daily. il Pub Works 85:167 My '54

Two men, one boy lay ten-mile plastic pipeline. il Constr Methods 36:58-60 Mr '54

Water mains carried under thruway. il diags Roads & Sts 97:120 Mr '54

See also

Gas, Natural—Pipe lines
Petroleum pipe lines—Construction
Petroleum products pipe lines
Pipe lines
Sewerage
Trenching machinery
Water distribution

PIPE laying, Subaqueous

Deepest crossing set; first of two lines across Straits of Mackinac; other subaqueous lines. P. Reed. il map Oil & Gas J 52:34-6 Ag 3 '53

Deepest ocean outfall for sewage diffusion. il diag Eng N 151:38-9 D 24 '53

Lakehead pipeline goes through. il Diesel Power 31:36-8 N '53

Long ocean pipeline laid in 13 hours. il Eng N 151:27 Jl 2 '53; Constr Methods 35:108-9 O '53

Mackinac Straits crossing is 1953's most challenging. P. Reed. il diag Oil & Gas J 52:168-71+ S 21 '53

Make one job of two pipeline crossings. J. Crawford. il diag Constr Methods 36:129-30+ My '54

Natural gas for New York and New England; pipeliners' nightmares are over. R. H. Dodds. il map Eng N 151:37+ Ag 13 '53

Pulling of Mackinac Straits pipeline moves forward after slight setback. Eng N 151:22 Ag 13 '53

Sammy Collins on the job. il Eng N 151:62-4 Ag 13 '53

Southern Natural completing mammoth underwater line. il Gas Age 113:12-13 Ja 28 '54

Straits crossing tough underwater project. S. V. Collins. il Pet Eng 25:D20+ D '53

Tower places ocean outfall. il diags Eng N 151:36-8 Ag 20 '53

Twin pipelines cross four-mile Straits. il diag Constr Methods 35:54-8 D '53

Two big pulls at Mackinac straits. il map diags Eng N 151:43-4+ S 10 '53

West coast's largest submarine line laid in record time. R. Sneddon. il Pet Eng 25:D7-8 S '53

When pipe lines take a water route; Southern natural gas co.'s south Louisiana project. P. H. Timothy. il map diag Oil & Gas J 52:105-8+ Ja 18 '54

See also

Pipe lines—River crossing
Pipe lines, Subaqueous

PIPE line contractors association

Annual meeting, Houston, Jan. 18-20. Oil & Gas J 52:104-5 Ja 25 '54

PIPE lines

Backfilling with snow fences. il diag World Oil 138:204+ Ja '54

Coal by pipeline. Steel 134:60-1 Ap 26 '54

Coal; pipeline plans complete; Pittsburgh consolidation coal co. R. M. Lorz. Iron Age 173:55-6 Ap 29 '54

Network under Niagara; chemicals by pipe. map plan Chem W 74:61-2+ Ja 23 '54

Piping coal; Pittsburgh consolidation coal co. Chem W 74:30+ My 1 '54

Welding; cutting devices simplify joining of pipeline sections. il Iron Age 173:150 Je 3 '54

See also

Aqueducts
Electric conduits
Gas, Natural—Pipe lines
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Petroleum pipe lines
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Bridge crossing

Bridge supports steam pipe line. M. J. Hannah. il diag Heat & Ven 50:88-90 D '53

Cathodic protection

Case history of cathodic protection for the underground distribution gas lines of the Montana power co. C. R. Davis. il maps diags Am Gas Assn Proc 1953:562-76; Same. Gas Age 111:32-4+ Je 4 '53; Same abr. Am Gas Assn Mo 35:23-5 My '53

Cathodic protection; development in Belgium. A. Weiler. diags Chem & Ind p56-63 Ja 16 '54; Discussion. p684-5 Je 12 '54

Cathodic protection; economic aspects. D. H. Lewis and O. C. Mudd. Chem & Ind p93-100 Ja 23 '54

Cathodic protection in relation to engineering design. K. A. Spencer. bibliog diags Chem & Ind p2-10 Ja 2 '54

Controlling corrosion. diags Oil & Gas J 52:155 Ag 17; 147 S 28; 165 O 12 '53

Coordination of corrosion control. H. L. Hamilton. Am Gas Assn Proc 1953:446-8

Corrosion practices for short main extensions. N. P. Peifer. diags Am Gas Assn Proc 1953:706-11

Experiences in corrosion control on a products pipeline. A. R. Murdison. Can Chem Process 38:38+ Jl '54

How to select size of rectifier cable. M. E. Parker. Oil & Gas J 52:161 O 19 '53

Locating high-resistance joints in underground piping. M. E. Parker. Oil & Gas J 52:141 Jl 20 '53

Needs, hazards and protection. M. C. Miller. il diags Gas Age 113:34-7 Je 3 '54

New anode installation cuts costs; Cincinnati gas & electric co. il Gas Age 114:14-15+ Jl 1 '54

New techniques and current problems in controlling underground corrosion. O. C. Mudd. il plan diags Am Pet Inst Proc 33(5):35-45 '53; Same. Oil & Gas J 52:99 N 30; 144 D 7; 159 D 14; 100 D 28 '53; 127 Ja 11; 285 Ja 25; 139-40 F 8 '54; Same. Gas Age 112:46-51+ D 17 '53

Operation and maintenance of rectifiers. J. C. Berringer. il Pet Eng 25:D 19-20+ Ag '53

Pipe line leaks are not inevitable. W. A. Johnson. il Pet Eng 25:D28+ Ag '53

Plan for corrosion mitigation. W. T. Burgess. Gas Age 113:58-9 F 25 '54

Stray cathodic protection currents; abstract. C. A. Erickson. Am Gas J 181:23-4 Ag '54

Watch that arc; hazard in cathodic-protection cables. M. E. Parker. diags Oil & Gas J 52:97+ S 7 '53

What you ought to know about pipe-line insulation. T. M. Ragland. diags Oil & Gas J 52:212+ S 21 '53

Where to place the reference electrode on a pipeline. L. P. Sudrabin and J. A. Lehmann. diags Am Gas J 181:16-17+ Ag '54

Cleaning

See Pipes—Cleaning

Communication systems

How radio aids east Ohio operations. il Oil & Gas J 52:141-2 Ag 24 '53

Microwave costs. E. B. Dunn. Oil & Gas J 52:70 N 9 '53

Microwave radio's longest private system. C M. Heiden. il map diags Gen Elec R 56:52-5+ N '53

Mobile radio tower aids communications. D. Hale. il Pet Eng 25:D38+ O '53

Oklahoma Natural testing new microwave-v.h.f radio system. W. R. Kubista. il diag Oil & Gas J 52:300+ S 21 '53

PIPE lines—Communication systems—*Cont.*

Teletype service expands communications on Buckeye pipe line. J. D. McCullough. Pet Eng 25:D25 S '53

Corrosion

Ultrasonic inspection for internal pipe-line corrosion. S. K. Gally. il Oil & Gas J 52:61-2 Ag 3 '53

See also

Corrosion and anticorrosives—Underground corrosion

Gas pipes—Corrosion

Pipe lines—Cathodic protection

Pipe lines—Protection

Design

Pipe-line design for non-Newtonian fluids. A. B. Metzner. bibliog il Chem Eng Prog 50:27-34 Ja '54

Detection

Electronic witch takes guesswork out of pipe finding. G. M. MacLeod. il Pub Works 85:95-6 Ap '54

Failure

Oil pipeline crossings; harm and danger to public water supply occurring by reason of breaks; panel discussion; abstract. Water & Sewage Works 101:392-3 S '54

Location

Pipe located on map instead of ground; Superior-Sarnia pipeline. maps Eng N 151:37 N 12 '53

Maintenance and repair

Airborne trouble shooters safeguard the Nation's pipe lines. C. Hoot. il Oil & Gas J 52:244-6 S 21 '53

Chop or spray the right-of-way. W. T. Bulla and C. E. Upson. il Pet Eng 25:D35-6 Je '53

Multiple fluid lines

See also

Petroleum products pipe lines

Protection

Controlling corrosion. diags Oil & Gas J 52:133 Ag 10 '53

Electrical effects on pipelines; abstract. J. P. Daratt. diags Am Gas J 181:19 Jl '54

Here's how Interstate lines pipe in place to prevent internal corrosion. M. B. Grove. diag Oil & Gas J 52:109-10 Ja 18 '54

How to combat pipe-line corrosion. Oil & Gas J 52:363 Jl 27 '53

How to insulate and support underground pipe. il Power 98:148 My '54

Solution of a pipe-line problem using an electronic calculator. E. A. Slade. flow sheet diags Am Pet Inst Proc 33(5):25-34 '53; Same abr. Oil & Gas J 52:215-19+ N 16 '53

Underground insulator; hot pipes get triple protection. Steel 133:221 D 7 '53

See also

Petroleum pipe lines—Protection

Pipe coating

Pipe lines—Cathodic protection

River crossing

Atchafalaya is no ordinary river; Interstate makes crossing near Melville, La. J. Barnett. il Pet Eng 25:D 19-20+ Je '53

Handy chart aids in solving pipe-line suspension problems and restoring flood-interrupted service. C. A. Sweningsen. diags Oil & Gas J 52:107-8+ Ag 10 '53

Long underwater river crossing constructed on dry land. il map Pet Eng 25:D7-8+ O '53

Lowering the Hudson River crossing. I. W. Dods. il Pet Eng 25:D42+ O '53

Oil pipeline crossings; harm and danger to public water supply occurring by reason of breaks; panel discussion; abstract. Water & Sewage Works 101:392-3 S '54

Planning for assured service of gas-transmission lines across rivers. D. C. Palm. il map diag Oil & Gas J 52:172-3+ S 21 '53

Sinclair crude line crosses 31 streams. J. D. McConnell. il diag Oil & Gas J 52:176-7+ S 21 '53

Special jet trencher used to lower Hudson River crossing; Transco's gas line. I. W. Dods. il diag Oil & Gas J 52:174-5+ S 21 '53

See also

Pipe lines—Bridge crossing

Pipe lines, Subaqueous

Tables, calculations, etc.

Formulas for selecting pipe-line diameter for minimum investment. G. F. Downs, jr. and G. R. Tait. bibliog Am Pet Inst Proc 33(5):51-5 '53; Same. Oil & Gas J 52:210-14+ N 16 '53

Network computations solved eight times as fast; McIlroy pipeline network analyzer. P. D. Wickersham. il World Oil 137:238+ N '53

Tapping

Hot tapping symposium. B. VerNooy and others. il diags Pet Eng 26:D37-42 Ja; D9-10+ F '54

PIPE lines, Military. See Military pipe lines

PIPE lines, Subaqueous

Offshore oil delivery saves time and money; abstract. S. P. Johnson and E. A. Salo. diags Power Eng 57:88 D '53

Pipeline spans the Straits. Bsns W p32 Ag 15 '53

Stopping corrosion on undersea lines. R. C. Ledford. Gas Age 114:36-7+ Ag 26 '54

See also

Pipe laying, Subaqueous

Maintenance and repair

Repairing a main 16 ft. under water; Ohio fuel gas co. il Gas Age 113:30-1 Ap 8 '54

PIPE lines as common carriers

Pipe-line transportation rates. W. L. Nelson. Oil & Gas J 52:351 S 21 '53

PIPE lining

Here's how Interstate lines pipe in place to prevent internal corrosion. M. B. Grove. diag Oil & Gas J 52:109-10 Ja 18 '54

Is internal coating the answer? F. E. Hangs. il Gas Age 114:32-4 Jl 29 '54

Machine cleans, coats inside of line pipe. Chem & Eng N 32:3083 Ag 2 '54

See also

Cement lined pipe

Water pipes—Lining

PIPE threads

Internal and external pipe threads cut simultaneously on lathe. C. T. Bower. diags Mach 60:203-4 F '54

Metal pipe having a rolled thread; patent. diags Iron & Steel Eng 31:15 Je '54

PIPECOLIC acid

Loss of the α-amino group in lysine metabolism to form pipecolic acid. M. Rothstein and L. L. Miller. Am Chem Soc J 76:1459 Mr 5 '54

Analysis

Bulk isolation of L(−)pipecolic acid from phaseolus vulgaris and its quantitative determination. N. Grobbelaar, R. M. Zacharius and F. C. Steward. bibliog Am Chem Soc J 76:2912-15 Je 5 '54

Detection, isolation and identification of L(−)pipecolic acid in the non-protein fraction of beans (phaseolus vulgaris). R. M. Zacharius, J. F. Thompson and F. C. Steward. bibliog Am Chem Soc J 76:2908-12 Je 5 '54

PIPECOLINIC acid

L-(—)-pipecolinic acid. G. Harris and J. R. A. Pollock. bibliog Chem & Ind p462 My 9 '53

PIPERAZINE

Derivatives of piperazine; synthesis of 1-arylpiperazines and amino alcohol derivatives. C. B. Pollard and T. H. Wicker, jr. bibliog Am Chem Soc J 76:1853-5 Ap 5 '54

1,4-Diazabicyclo[2.2.2]octanes and 1,5-diazabicyclo[3.2.2]nonanes from piperazines and homopiperazines. S. M. McElvain and L. W. Bannister. bibliog Am Chem Soc J 76:1126-37 F 20 '54

Lactam of N-(β-aminoethyl)-chelidamic acid; a pyridopiperazine ring. A. W. Schwab. bibliog Am Chem Soc J 76:1189-90 F 20 '54

Synthesis and polymerization of N-phenylethylenimine and the synthesis of N,N′-diphenylpiperazine. H. W. Heine, B. L. Kapur and C. S. Mitch. Am Chem Soc J 76:1173 F 20 '54

Synthesis of ^{14}C-labelled diethylcarbamazine, 1-diethylcarbamyl-4-methylpiperazine (hetrazan). B. H. Chase and A. M. Downes. Chem Soc J p3874-7 D '53

Synthesis of piperazines by reductive cyclization. H. S. Mosher and others. bibliog Am Chem Soc J 75:4949-51 O 20 '53

PIPERAZINE—*Continued*

Unsymmetrically N-substituted piperazines; ester derivatives as spasmolytics. W. S. Ide, E. Lorz and R. Baltzly. bibliog Am Chem Soc J 76:1122-5 F 20 '54

Unsymmetrically N-substituted piperazines; N-alkyl derivatives. R. Batzly. Am Chem Soc J 76:1164-5 F 20 '54

Unsymmetrically substituted piperazines; piperazine ureas. R. Baltzly, S. W. Blackman and W. S. Ide. bibliog Am Chem Soc J 76:1165-6 F 20 '54

PIPERIDINE

Activity coefficients of piperidine in aqueous salt solutions. F. A. Long and R. L. Bergen, jr. bibliog J Phys Chem 58:166-8 F '54

Basic ethers of some piperidine alcohols. B. Elpern. Am Chem Soc J 76:281-2 Ja 5 '54

Diuretics; α,α-disubstituted 2-piperidine-ethanols and 3,3-disubstituted octahydropyrid [1,2-c]oxazines. C. H. Tilford and M. G. Van Campen, jr. bibliog Am Chem Soc J 76:2431-41 My 5 '54

Kinetics of the reactions of chloroheterocyclic compounds with piperidine and with ethoxide ions in ethanol. N. B. Chapman and D. Q. Russell-Hill. Chem & Ind p281 Mr 6 '54

Molecular rearrangements; 4-hydroxy-1-methylisonipecotonitrile as an intermediate in the synthesis of substituted piperidines. R. E. Lyle and G. G. Lyle. bibliog Am Chem Soc J 76:3536-9 Jl 5 '54

Nucleophilic displacement reactions in aromatic systems; kinetics of the reactions of chloronitropyridines and chloropyrimidines with piperidine, morpholine, pyrdine, and aniline. N. B. Chapman and C. W. Rees. Chem Soc J p 1190-6 Ap '54

Nucleophilic displacement reactions in aromatic systems; kinetics of the reactions of *o*- and *p*-halogenonitrobenzenes with piperidine and with morpholine. N. B. Chapman, R. E. Parker and P. W. Soanes. Chem Soc J p2109-14 Je '54

Preparation of 1-methyl-4-phenyl-4-(aminomethyl)- and 1-methyl-4-phenyl-4-(methylaminomethyl)- piperidine. F. F. Blicke and E. Tsao. bibliog Am Chem Soc J 75:5417-18 N 5 '53

Reaction of 1,5-dibromopentane with *o*-substituted anilines; the synthesis of 1-arylpiperidines. A. H. Sommers and S. E. Aaland. bibliog Am Chem Soc J 75:5280-3 N 5 '53

Reaction velocity of some substituted *o*- and *p*-chloronitrobenzenes with piperidine. J. A. Brieux and V. Deulofeu. Chem Soc J p2519-22 Jl '54

Syntheses in the piperidine series; the preparation of piperidyl ethers and related compounds. K. Bowden and P. N. Green. Chem Soc J p 1795-8 Je '54

PIPERITONE

Constitution of α- and β-dipiperitone. W. I. Taylor. Chem & Ind p252 F 27 '54

Constitution of two piperitone dimers. L. H. Briggs and others. Chem Soc J p3788-96 D '53

PIPES

Cocurrent liquid-gas flow in a pipe-line contactor. G. E. Alves. bibliog il diags Chem Eng Prog 50:449-56 S '54

Discrete vortex systems in the transition range of fully developed flow in a pipe. J. R. Weske and A. H. Plantholt. il diags J Aeronautical Sci 20:717-18 O '53

Heat transfer to lead-bismuth and mercury in laminar and transition pipe flow. H. A. Johnson and others. bibliog A S M E Trans 76:513-17 My '54

Heat transfer to mercury in turbulent pipe flow. H. A. Johnson and others. bibliog(31 titles) diags A S M E Trans 76:505-11 My '54

Pipe heating; heating network sealed into PVC. il Chem Age (Lond) 71:640 S 25 '54

Thermal lags in flowing systems containing heat capacitors. J. W. Rizika. diags A S M E Trans 76:411-20 Ap '54

Turbulent flow in circular pipe. S. I. Pai. bibliog Franklin Inst J 256:337-52 O '53

Turbulent processes as observed in boundary layer and pipe. G. B. Schubauer. bibliog diag J Ap Phys 25:188-96 F '54

See also

Air pipes
Electric conduits
Gas pipes
Heating pipes
Oil pipes
Petroleum—Well casing
Petroleum pipe lines
Pipe fittings
Pipe joints
Pipe laying
Pipe lines
Piping
Piping (power plants)
Plumbing
Sewer pipes
Steam pipes
Tubes
Water pipes

Cleaning

Blow your new pipelines so they are really clean. N. T. Pef. Power 98:132-3 Ap '54

Cleaning of in-place pipes. G. Ellis. il Pet Eng 25:D32+ N '53

Maintenance of pipe lines; internal cleaning. C. W. Ziegenbusch and M. V. Jones. Tappi 37:172-4 Ap '54

See also

Gas pipes—Cleaning

Protection

How can we protect snow melting piping against corrosion? Heating-Piping 26:125 S '54

Pipe insulator; American gilsonite co. il Bsns W p85-6 O 10 '53

Stop corrosion of buried pipes with polyvinylchloride tapes. il Power 98:109-11 Ja '54

See also

Pipe coating
Pipe lines—Protection

Repair

New method of repairing piping is use of plastic patches. H. S. Dewey. il Heating-Piping 26:170-1 Ja '54

Tables, calculations, etc.

Basic power plant figuring; pipe constants used in flow equations. W. H. Engelman. Power Eng 57:102 D '53

Calculating flexibility for straight line piping elements. L. E. Partch. il diags Heating-Piping 25:74-7 D '53

Calculation of transient temperatures in pipes and heat exchangers by numerical methods. G. M. Dusinberre. A S M E Trans 76:421-6 Ap '54

Experiments on short-radius pipe-bends. N. Gross. diags Inst Mech Eng Proc (B) 1B no 10:465-79, pl 1-4; Discussion. 492-509 '52-53

Flexibility of short-radius pipe-bends. N. Gross and H. Ford. bibliog(64 ref) il diags Inst Mech Eng Proc (B) 1B no 10:480-91; Discussion. 492-509 '52-53

Wall-thickness formula for high-pressure, high-temperature piping. W. R. Burrows and others. bibliog A S M E Trans 76:427-42 Ap '54; Excerpts. Heating-Piping 25:128-31 Ja '53; Discussion. A S M E Trans 76:442 4 Ap '54

PIPES, Aluminum

Aluminum extruders eye new markets; Reynolds developing large diam oil pipe. T. M. Rohan. Iron Age 172:81 O 22 '53

Aluminum pipe; new welding machine being used to cut pipe joining cost. il Iron Age 173:81 Mr 18 '54

Aluminum pipe speeds laying of compressor air lines; West Virginia turnpike. Iron Age 172:131-2 O 15 '53

Aluminum piping's applications; Alcoa building. E. T. Wanderer. il Heating-Piping 25:116-19 N '53

New automatic welder used in laying longest aluminum pipe line. il Welding J 33:566-7 Je '54; Same cond. Steel 134:114 Ap 5 '54; Same cond. Light Metal Age 12:18 Ap '54

New 8⅝-in., 12-mile line is laid with ¼-in. wall aluminum pipe. W. C. Grant. il Gas Age 113:25-6 Ap 8 '54

Piping; built in steam line speeds movement of viscous fluids. il Iron Age 173:144 Ap 1 '54; diags Light Metal Age 12:19 Ap '54

Two boys killed playing on aluminum pipe span. Gas Age 113:46 My 6 '54

Manufacture

New mill induction welds aluminum tubing; Yoder cold forming mill. T. M. Rohan. il Iron Age 172:129-31 D 17 '53

PIPES, Cast iron

Cast iron water pipe; prices, 1936-1953; tabulation. Iron Age 173:412 Ja 7 '54

Centrifugal casting of iron pipes. diags Engineering 177:345-6 Mr 12 '54

German production of centrifugally cast pipe. il Iron Age 173:161-3 Mr 18 '54

Soil pipe; cast iron fights back. R. L. Hatschek. il Iron Age 172:62 Jl 23 '53

When will corroded pipe burst? study of corrosion of nickel cast irons in soils. il Gas Age 114:35+ S 9 '54; Excerpts. Heat & Ven 51:94 Ag '54

See also

Water pipes, Cast iron

Standards

Soil pipe; benefits from standards. G. G. Carr. Iron Age 174:117-18 S 16 '54

Soil pipe; lifting sales via higher standards. il Steel 135:84 S 13 '54

PIPES, Concrete

Dedicate new pipe plant at Evansville, Ind. il Concrete 62:34 Ag '54

Fifty years in the technical development of concrete pipe. H. F. Peckworth. il Am Concrete Inst J 25:513-21 F '54

How to lay concrete pressure pipe. H. S. Price, jr. il diags Constr Methods 36:60-2 Ja '54

Rig pours pipe in place. il Constr Methods 36:62 S '54

Southeastern concrete pipe association annual meeting, Williamsburg, Va. Concrete 62: 18+ Ja '54; Rock Prod 57:230-2 Ja '54

Western concrete pipe association meeting, Portland, Ore. Oct. 8-9. Rock Prod 57: 244+ Ja '54

Western concrete pipe association 35th annual meeting, Fresno, Calif. April 21-24. Rock Prod 57:118 Jl '54

See also

American concrete pipe association

Sewer pipes, Concrete

Water pipes, Concrete

Manufacture

American concrete pipe association 3d annual short course school of instruction, Chicago, Sept. 10-12; with abstracts of papers. Rock Prod 56:199-204 O '53

Spinning and rolling in the manufacture of concrete pipe; Valley concrete pressure pipe co. H. C. Persons. il Rock Prod 57:116-18 Jl '54

Strip concrete pipe immediately; Longhorn concrete pipe co. il plan diags Rock Prod 56:190-2 O '53

Testing

Ohio's experience with cores in testing large concrete pipe. R. R. Litehiser. il Roads & Sts 97:45-7 Mr '54

Tests of large-diameter concrete pipe; abstract. J. G. Hendrickson. Roads & Eng Constr 92:172+ Ap '54

PIPES, Copper

Corrosion of copper tube used in soil-stack installations. H. E. Babbitt and others. il plans diag Ill U Eng Exp Sta Bul 419: 1-42 '53 (pa 75c)

How one contractor reduces cost of copper plumbing installations. il Am Bld 75:74-5 Je '53

PIPES, Glass

Annealing process produces tough glass piping; Corning glass works. il Chem & Eng N 31:4472 O 26 '53

Industrial glass piping. E. B. Shand. il diags Ind & Eng Chem 46:179-82 Ja '54

PIPES, Nickel

How to bend high-nickel alloy pipe without the need for heating. Heat & Ven 51:124+ Jl '54

PIPES, Plastic

Cross country plastic pipeline goes into service at Williston basin. il Chem & Eng N 31:4534 N 2 '53

Fair game for plastics; chemical industry as customer for plastic pipes and fittings. Chem W 74:52+ Ap 3 '54

First cross-country plastic pipeline in service. il Chem Eng 61:120 Ja '54

High strength plastic solves tough corrosion problem. il Iron Age 174:132 Ag 5 '54

How plastic piping may be used in the pulp and paper industry. B. W. Bender. Paper Tr J 138:30+ Mr 19 '54; Abstract. Rubber Age 75:86 Ap '54

How to make a reliable pressure tap for polyethylene pipe. J. M. Madigan. diag Chem Eng 60:176 D '53

It hefts, it bends, it saws. il Chem W 72: 68+ Je 13 '53

Lightweight pipe. il Comp Air Mag 59:165-7 Je '54

Materials for chemical handling equipment. L. R. Honnaker and M. L. Monack. diags Am Water Works Assn J 45:473-5 My '53; Same. Water & Sewage Works 101:R 174-5 pt 2 My '54

New all-plastic pipe line handles Montana crude. il Oil & Gas J 52:72-3 N 23 '53

Nine-mile long plastic pipe line is completed. il World Oil 138:208-9 Ja '54; Heating-Piping 26:132-3 Mr '54

Open valve for plastic pipe; standardization and health requirement blocks to be removed. il Chem W 75:82 Ag 7 '54

Pipelines to market. il Chem W 74:96 My 22 '54

Piping in plastics. Can Chem Process 38:12+ Ja '54

Plastic pipe; few tools needed for quick, low-cost installation. il Iron Age 173:94 F 4 '54

Plastic pipe; free flowing sales future. il Steel 134:54 Ap 12 '54

Plastic pipe; less fanfare, more sales. R. M. Lorz. Iron Age 172:89+ N 19 '53

Plastic pipe lines well to handle corrosive waste water; American cyanamid co. E. S. Moreland. diags Heating-Piping 26:92-3 Ag '54

Plastic pipe serves new outdoor skating rink. il Heating-Piping 26:103 Jl '54

Plastic pipe; steel firms join in. J. B. Delaney. Iron Age 173:38 Ja 21 '54

Plastic; Republic takes the lead; first steel firm to begin commercial production of plastic pipe. R. M. Lorz. Iron Age 172: 73-4 Jl 2 '53

Plastics; lightweight pipe handles crude oil without corroding or clogging. il Iron Age 172:174 N 19 '53

Power company lays plastic pipe; Carolina light and power co. Materials & Methods 39:242+ Ap '54

Properties of common materials used in plastic pipe; tabulation. Iron Age 172:90 N 19 '53

Reinforced Teflon resists severe corrosive conditions. il Materials & Methods 39:145 Ap '54

Rigid polyvinylchloride pipes and ducting. V. Evans. il Chem Age (Lond) 70:557-60 Mr 6 '54

Simple tool makes lap joints in polyethylene pipe. F. Pledger and D. J. Ryan. diags Chem Eng 61:238+ Mr '54

Teflon pipe handles corrosives; Resistoflex's Fluoroflex-T. il Chem & Eng N 32:673 F 15 '54

Ten-mile, three-inch plastic pipeline laid in five days. il Eng N 151:26 N 5 '53

Two men, one boy lay ten-mile plastic pipeline. il Constr Methods 36:58-60 Mr '54

Well-timed hunch; Carlon products corp., Cleveland. il Chem W 73:17-18 Ag 1 '53

What is the future of plastic pipe in the public utilities field? M. H. Branson. il Munic Util 91:17-18+ D '53

See also

Water pipes, Plastic

PIPES, Steel

Buttweld steel pipe; prices, 1934-1953; tabulation. Iron Age 173:412 Ja 7 '54

Guide for steel buyers; standard pipe. Steel 135:80 sec 2 Jl 12 '54

Pipe; the pressure will ease in '54. Iron Age 172:98-9 N 19 '53

See also

Tubes, Steel

Water pipes, Steel

Manufacture

Atomic energy production requires nickel-plated pipe. E. Altholz. il Mach 60:166-72 Mr '54

Casing; finishing is automated. il Iron Age 172:80 Jl 16 '53

PIPES, Steel—Manufacture—*Continued*

Continuous normalizing lines speed output of pipe; Lone star steel co. Iron Age 173:218 Je 24 '54

Control for a modern electric weld pipe and casing mill; Lone star steel co. C. E. Smith. il diags Iron & Steel Eng 31:124-30; Discussion. 130-1 Ap '54

Fabricating pipe for the Super Inch gas line. G. B. Ashmead. il Mach 60:168-72 F '54

Fairless works. T. J. Ess. il Iron & Steel Eng 31:supF85-9 Je '54

Lone Star plans more output. K. W. Bennett. il Iron Age 172:78 Ag 13 '53

Modern electric weld pipe and casing mill; Lone star steel co. N. C. Rubin. il diag Iron & Steel Eng 31:120-4 Ap '54

Modernization of skelp mill at Wheeling Steel's Benwood works. S. W. Crisman. il diag Iron & Steel Eng 31:148-50 Ag '54

New burners heat skelp faster, more accurately; Sparrows Point plant of Bethlehem steel corp. diag Iron Age 173:97 Ap 29 '54

Pipe bending and fabrication shop; Parsons' works. il Engineering 176:313-14 S 4 '53

Pipe cooling arrangement for high-speed continuous mills; patent. diags Iron & Steel Eng 31:26+ Mr '54

Recent advancements in continuous butt and induction weld pipe mills. W. Rodder. il plans diags Iron & Steel Eng 31:108-15 Ag '54; Abstract. Steel 133:128+ O 26 '53; Discussion. Iron & Steel Eng 31:115-17 Ag '54

Speed regulation for tandem tube mill drives. F. H. Wickline. il diags Iron & Steel Eng 30:84-6 D '53

Turret change speeds setup; Spang-Chalfant division, National supply co. E. A. McKee. il Steel 135:146-7 Jl 12 '54

Specifications

ASTM specifications for steel piping materials. 360p Am. soc. for testing materials 1916 Race st, Philadelphia 3 '54 (pa $3.75)

Testing

Thermal-shocking austenitic stainless steels with molten metals. R. A. Tidball and M. M. Shrut. diags A S M E Trans 76:639-43 My '54

PIPES, Stoneware

Stone pipe making; Sharp Jones & co. il Elec R (Lond) 154:317-19 F 19 '54

Stoneware pipeline joining; Royal Doulton Potteries. il Chem Age (Lond) 71:609 S 25 '54

PIPES, Tobacco. See Tobacco pipes

PIPES, Vitrified clay

Acid-resisting pipe installed to handle acid disposal; Cadillac division of General motors corp. il Iron Age 173:178+ My 6 '54

Spend a day in Washington as the Washington representative of the clay pipe industry. Brick & Clay Rec 124:51-2 Mr '54

Two trucks load 21,000 pipe per hour. il Brick & Clay Rec 124:80 Mr '54

See also

Sewer pipes, Vitrified clay

PIPETS

Effective safety pipette. F. L. Rodkey. diag Science 118:488-9 O 23 '53

Modified weight pipette. M. A. Birch. diag Chem & Ind p776 Jl 3 '54

Precise speedy pipet. C. H. Whitnah. bibliog diag Anal Chem 25:1285-6 Ag '53

Proposed method of test for motor and research octane numbers of small samples by multi-pipet system. diags Am Soc T M Proc 51:338-42 '51

Remotely controlled pipetting apparatus for radioisotopes. W. E. Kisieleski and D. F. Uecker. il diag Science 118:102-3 Jl 24 '53

PIPING

Changing plant piping. C. T. Baker. diags Heating-Piping 26:92-3 Ap '54

How good piping practices pay; plant operations forum. Heating-Piping 26:113 Jl '54

How important is piping? B. Dopp. il diags Heating-Piping 25:104-6 D '53

I shouldn't have done it. S. Lewis. Heating-Piping 26:108-9 F '54

Insulated pitch piping for aluminum reduction processing. W. W. Pegram. il plan diags Heating-Piping 25:84-5 D '53

Mac helps to solve a paper mill piping problem. B. Dopp. Heating-Piping 26:102-4 Ap '54

New piping improves big process plant's operation. T. G. Thurston. diag Heating-Piping 25:126-9 N '53

New technique speeds oxygen piping installation; Michael Reese hospital. A. Abrahamson. il Heating-Piping 25:102-4 N '53

Oxygen piping systems for hospitals il diags Heat & Ven 51:75-9 S '54

Pipes through waterproofed floors and walls; detail sheet. diags Heat & Ven 51:107-8 Ag '54

Piping and plumbing. L. Blendermann. diags Heat & Ven 51:106-7 Je '54 [cont monthly]

Piping connections for house tanks; detail sheet. diags Heat & Ven 50:9-10 N '53

Piping for fuel oil burners; detail sheet. diags Heat & Ven 51:109-10 My '54

Plant design and layout. R. S. Arrandale. bibliog Cer Ind 61:64-6 N; 80 D '53

Process piping; Chemical Engineering report; components, jointing, metallic valves, nonmetallic systems, codes, standards and design. T. R. Olive. bibliog il diags Chem Eng 60:187-210 D '53

Savings through pipe size reduction. T. W. Reynolds. Heat & Ven 51:118+ Ap '54

Service hot water piping with gas as source of heat; detail sheet. Heat & Ven 51:111-12 S '54

Sizing earth heat pumps; determining length and depth of ground pipe. E. B. Penrod. bibliog Refrig Eng 62:57-61+ Ap '54

Take another look at economic pipe sizing. H. F. Rase. bibliog Pet Refiner 32:141-3 Ag '53

Unique piping system permits airplane fuel tanks to be sealed safely. L. E. Hurd and J. E. Denton. il Heating-Piping 25:93-5 N '53

Valve flow coefficient, C_v and its contribution in control valve sizing. R. A. Rockwell. diag Heat & Ven 51:76-9 Ag '54

See also

Oil pipes

Estimates

How to estimate field fabricated piping costs. T. R. Christian. il diag Heating-Piping 26:103-6 Je '54

Testing

Better way to test piping after repairs. diag Chem Eng 61:222 Ag '54

Welding

Heavy wall pipe welded direct to thin wall pipe; Gulf interstate gas co. line. il Welding J 33:577-8 Je '54

Inert-tungsten arc welding of stainless steel piping. F. J. Pilia. il diags Welding J 32:1167-74 D '53

Modern practice in the welding of pipes; background and present trends. E. Fuchs and A. J. P. Tucker. Metal Prog 64:140+ D '53

Porcelain pipe welding process. il Materials & Methods 40:244+ S '54

Roof drain piping welded. G. W. Hauck. il Heating-Piping 25:101 N '53

Training pipe welders. R. D. Berry. il Heating-Piping 25:94-6 D '53

PIPING (power plants)

American standard code for pressure piping. F. S. G. Williams. Am Gas Assn Proc 1953:664-7

Blow your new pipelines so they are really clean. N. T. Pef. Power 98:132-3 Ap '54

Calculation of the thickness of high-temperature steam pipes. J. S. Blair. Engineering 176:549-50 O 30 '53

Case of the musical pump. B. Dopp. diags Heating-Piping 26:126-9 S '54

Code for pressure piping; its development and importance reviewed. F. S. G. Williams. il Heating-Piping 26:117-19 My '54

Code for pressure piping; task force reports on piping flexibility. diags Heating-Piping 25:106-12 N; 88-91 D '53; 26:98-101 Ag '54

Condensate velocity fixes pipe size; data sheet. K. M. Holaday. Power 97:107 D '53

PIPING (power plants)—*Continued*

Creep properties of steels utilized in high-pressure and high-temperature superheater and steam pipe practice; revision of long-time creep data for a carbon steel header and a carbon-molybdenum steel pipe. R. W. Ridley. Inst Mech Eng Proc (B) 1B no 11: 511-15; Discussion. 515-16 '52-53

Design of steam piping and valves for 1100 F. F. A. Ritchings and S. Crocker. bibliog (34 titles) A S M E Trans 76:261-71 F '54; Same. Heating-Piping 25:84-8 Ag; 82-8 S '53; Discussion. A S M E Trans 76: 271-7 F '54; Same. Heating-Piping 25:84-90+ O '53

Design of steam-piping systems for large central-station applications; abstract. R. L. Jackson and L. H. Johnson. diags Power 98:152 S '54

Elastic constants and coefficients of thermal expansion of piping materials proposed for the 1954 code for pressure piping; abstract. R. Michel. Heating-Piping 26:100 F '54

Fabrication of chromium-molybdenum steel piping for 1000 to 1050 F central station service. R. W. Emerson. bibliog il Am Soc T M Proc 51:869-87; Discussion. 887-94 '51

Facts about modern pipe, fittings, hose. il Mill & Factory 54:461 My '54

Here's background of piping flexibility report. Heating-Piping 26:102-3 Ag '54

How to save cracked piping with concrete. E. E. Smith. il diags Power 97:142 D '53

Limitations of the safety loop. T. W. Reynolds. diags Heat & Ven 51:82-6 S '54

Mac and his friends review progress of power piping. B. Dopp. Heating-Piping 26:150-2 My '54

New steam tracing idea. il diags Power Eng 58:79 Ap '54

New TVA steam plant's piping design. R. E. Lyon. il Heating-Piping 26:100-4 S '54

Pipe bending and fabrication shop; Parsons' works. il Engineering 176:313-14 S 4 '53

Pipe sizing charts. W. W. Gaylord. Power Eng 58:78-9 F '54

Piping flexibility analysis; abstract. A. R. C. Markl. Heating-Piping 26:101 F '54

Piping maintenance practices surveyed. R. J. Pinske. il Heating-Piping 26:73-8 Ap '54; Abstract. Power 98:164+ Je '54

Piping, pumps and valves for high pressure water reactor systems. A. Amorosi. plan diag Heating-Piping 26:140-4 My '54

Soot blower piping problem. B. Dopp. diag Heating-Piping 26:102-4 F '54

Timken heavy wall pressure tubes. il Steel 133:329-30 O 12 '53

Wall-thickness formula for high-pressure, high-temperature piping. W. R. Burrows and others. bibliog A S M E Trans 76: 427-42 Ap '54; Excerpts. Heating-Piping 25: 128-31 Ja '53; Discussion. A S M E Trans 76:442-4 Ap '54

What not to do; these heating and piping installations needed correcting. C. T. Baker. diags Heating-Piping 26:92-4 F '54

Which piping for high pressure and temperature? C. D. Bassett. bibliog il Power Eng 58:70-1+ S; 110 O '54

Specifications

ASTM specifications for steel piping materials. 360p Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '54 (pa $3.75)

Tables, calculations, etc.

Flange-bolting chart for large-size pipes; data sheet. H. W. Hamm. Power 98:115 Je '54

Transmission of low-pressure steam for process heating. L. F. C. A. Geneve. Inst Mech Eng Proc (A) 167 no 4:394-8; Discussion. 398-401 '53

Welding

Carbide segregation in 1¼ Cr-½ Mo steel pipe welded joints. I. A. Rohrig and H. S. Blumberg. il Welding J 32:815-22 S '53; Discussion. A. B. Wilder. 33:312 Ap '54

How to cut weld inspection time. A. Gobus. il diag Pet Eng 25:C21+ Je '53; Same cond. Steel 131:72-3 O 27 '52; Excerpts. Product Eng 24:268+ F '53; Power 98:126-7 Ap '54

Inert-arc field welding of pressure piping. R. T. Pursell. il diags Welding J 33:41-6 Ja '54

Kelcaloy transition sections. il Welding J 33:481-2 My '54

Repair welding of cast iron pipe, valves and fittings. il Power 98:119-21 Je '54

PIPING (refrigerating plants)

Better refrigerant piping for parallel compressor systems. L. R. Scafe. diags Heating-Piping 26:107-9 O '54

Changing plant piping. C. T. Baker. diags Heating-Piping 26:92-3 Ap '54

Code requirements for refrigerant pipe and tubing outlined. Heating-Piping 26:125 Je '54

How to hook up refrigerant piping. L. R. Scafe. diags Heating-Piping 26:92-4 S '54

How to install duplex tubing. C. L. Bulow. diags Power Eng 58:80-1 Ap '54

How we prevent freeze-ups of our cooling coils. W. A. Stahl. Heating-Piping 25:107 D '53

Skating rink piping a problem. C. T. Baker. Heating-Piping 26:106 F '54

What causes tail-pipe water hammer? steam-jet refrigeration system. diags Power 97: 130-1 N '53

PIPTADENIA peregrina

Isolation of bufotenine from piptadenia peregrina. V. L. Stromberg. Am Chem Soc J 76:1707 Mr 20 '54

PIRANI gage. See Pressure gages

PISTON pins

Gudgeon pin design. il diags Automobile Eng 44:251-5 Je '54

PISTON rings

Hepworth & Grandage KSS oil control rings. diags Automobile Eng 44:82 F '54

Piston rings for pipeline engines. J. W. Pennington. il diags Diesel Power 32:46-8 Je '54

Unitized design of multi-piece piston rings. il Machine Design 26:131 Mr '54

Wellworthy oil control rings. diag Automobile Eng 44:186 My '54

Manufacture

Bimetallic castings achieved by bonding process. V. Delport. il Foundry 82:102-5+ S '54

Need new rings in your car? here's how Perfect circle corp. turns them out. F. G. Lawrence. il Steel 133:75-6 S 7 '53

PISTON rods

Compressor piston rods sprayed with stainless for longer life. il Iron Age 172:145-6 O 15 '53

Cylinder rod end locker gains favor. diag Aviation W 59:48+ S 14 '53

Floating piston rods. il diag Machine Design 25:124 N '53

PISTONS

Alcoa piston symposium. il diags Automotive Ind 110:54-6+ My 1; 68-9+ Je 1; 111:48-50+ Ag 1 '54

British internal combustion engine research association; bicera piston application to petrol engines. Engineer 196:534-5 O 23 '53

Engine research; British internal combustion engine research association. il diags Automobile Eng 44:116-17 Mr '54

Lehigh Valley applies premachined ring carriers. A. B. Birney. il Ry Loco & Cars 128: 46-8 Ja '54

Piston temperatures; method of calculation for water-cooled petrol engine units. A. I. I. Abdelfattah. bibliog diags Automobile Eng 44:335-9 Ag '54

Reclaiming aluminum pistons with the sigma process; Chicago and north western railroad. il Diesel Power 32:94-5 Jl '54

Use of piston-operated pipe-line valves. F. M. Partridge and G. C. Wilson. diags Oil & Gas J 52:125+ Jl 20 '53

Vibrating pistons supply air pump pressure. il diag Machine Design 25:172 D '53

Manufacture

Extrusion speeds piston output; Thompson products, inc. il Iron Age 173:88 My 20 '54

Latest machines and methods at Ford's Dearborn engine plant; full automation for piston pins. J. Geschelin. il Automotive Ind 110:48-50 Je 1 '54

PISTONS—Manufacture—*Continued*

Piston production at Ford features automation and quality control. E. Altholz. il Mach 60:196-201 N '53

Tapco hot-extrudes aluminum pistons. il Am Mach 98:172 My 10 '54

PITCH

Chemical composition of high-boiling fractions of coal tar; a steam distillate from a vertical-retort soft pitch. A. S. Harris, E. N. White and D. McNeil. bibliog J Ap Chem 3:443-51 O '53

Insulated pitch piping for aluminum reduction processing. W. W. Pegram. il plan diags Heating-Piping 25:84-5 D '53

See also

Paper making—
Pitch problem

Testing

Proposed method of test for distillation of coal tar, coal-tar pitch, and similar tars and pitches. diags Am Soc T M Proc 51:359-63 '51

PITCHBLENDE. See Uraninite

PITHECOLOBIUM

Structure of pithecolobine. K. Wiesner, D. M. MacDonald and C. Bankiewicz. Am Chem Soc J 75:6348-9 D 20 '53

PITOMETERS

Pitometer surveys of water systems. W. D. Hudson. plan Water & Sewage Works 101:203-7 My '54

PITOT tubes

See also

Pitometers

PITTSBURGH

Bridges

Pittsburgh plans new bridges and traffic interchange at Point Park. G. S. Richardson. il map plan diags Civil Eng 23:385-7 Je '53

Industries

Pittsburgh industrial area. P. Fugassi. il Electrochem Soc J 100:sup 117C-22C My '53

Sewerage

Pittsburgh plans unique project to abate stream pollution. J. F. Laboon. il diags Civil Eng 24:12-15+ Ja '54

Pittsburgh's treatment plant commended for design. J. F. Laboon. il plan Water & Sewage Works 101:236-8 My '54

Streets

Pittsburgh's snow plowing and sanding methods. J. S. Devlin. Roads & Sts 96:102 N '53

PITTSBURGH coke and chemical company

Marking a new era. il Chem W 74:24+ Mr 13 '54

PITTSBURGH consolidation coal company

Keeps a strong position in a weak industry. T. C. Pryor. Barron's 33:23-5 S 14 '53

Shaft of light on soft coal mining. I. U. Cobleigh. Comm & Fin Chr 178:532 Ag 13 '53

PITTSBURGH plate glass company

Unique study in growth. J. D. C. Weldon. Mag of Wall St 93:497+ Ja 23 '54

PITTSBURGH steel company

Completes $65-million expansion. il Iron Age 173:81 My 6 '54

PITTSBURGH stock exchange

Weekly record. Published in weekly Monday numbers of Commercial and financial chronicle

PITTSTON company

Higher operating earnings likely. Barron's 33:23-4 O 5 '53

PITUITARY body

See also

Vasopressin

PIVOTS

Fixture helps polish small-diameter pivots. G. Herzl diag Am Mach 98:151 My 24 '54

PLACENTA

Preparation and properties of human serum albumin separated from placental extracts. F. H. Gordon and others. bibliog Am Chem Soc J 75:5859-64 D 5 '53

PLAGUE

Investigation of jute imports as potential plague source. E. W. Norris and others. Pub Health Rep 68:802-4 Ag '53

PLANCK equation. See Black body

PLANCK'S constant

Determination of *h/e* by a new method. F. G. Dunnington and others. bibliog diag Phys R 94:592-8 My 1 '54

PLANETARY gearing. See Gearing, Planetary

PLANIMETERS

Home-made hatchet planimeter gives reliable results. J. T. Hogan. bibliog diag Chem Eng 61:226+ Ap '54; Discussion. J. W. Langhaar. 61:244+ Jl '54

PLANING machines

Facts about modern planers. diag Mill & Factory 54:566 My '54

Machine tool buyers' guide. il Steel 133:198-202 sec 2 N 16 '53

1954 American Machinist production preview. il Am Mach 98:131-2 Ja 18 '54

Replace with modern machine tools; planing and shaping. il Am Mach 97:B22-3 Mid-N '53

Two giants for tool up; hydraulic forging press and planer add important muscle to Lukens' fabricating shop. il Steel 133:102 Ag 3 '53

PLANKTON

Plankton priming; commercial fertilizers into jaws of fish. Chem W 74:79-80 Ja 30 '54

PLANNING

Developing strong product lines. P. R. Marvin. il Machine Design 26:116-22 My '54

Function of top management organization planning and control in a manufacturing corporation. D. C. Dougherty. Personnel 30:275-85 Ja '54

Gearing your engineering for today's needs. R. G. Nightingale. Machine Design 26:310+ Je '54

Good production methods reduce costs; production planning. E. O. Rounsefell. Chem & Ind p843-5 Jl 10 '54

Increased efficiency through production planning. D. B. Kirk. Advanced Management 18:25-8 Ap '53

Planning pays off in higher efficiency, better working conditions; Ohio screw products inc. W. D. Latiano. il plan Iron Age 173:150-2 F 4 '54

Production planning; abstract. C. W. Fabry. Tool Eng 33:161 S '54

Use of models for layout and planning. J. C. Montoro. bibliog il Iron & Steel Eng 31:154-8; Discussion. 158-60 S '54

See also

Advertising—Planning

Production and sales, Coordination of

Schedules

PLANNING boards, State. See State planning boards

PLANT cells and tissues

Abnormal and pathological growth in plants; Brookhaven national laboratory Biology department 6th annual symposium. Science 118:344 S 25 '53

Homogeneous cell preparation from soybean leaves. D. W. Racusen and S. Aronoff. il Science 118:302-4 S 11 '53

PLANT food council, American. See American plant food council

PLANT growth

Effects of air conditioning on plant growth. F. W. Went. il Heating-Piping 26:159-64 My '54

Plant growth-regulating substances; abstract. R. L. Wain. Chem & Ind p704-5 Jl 18 '53

Recent developments in the field of plant growth substances; abstract. R. L. Wain. Chem & Ind p565-6 My 15 '54

Slower pace for plants; growth regulator B-214. il Chem W 74:82 Je 19 '54

See also

Growth inhibiting substances

Plants, Effect of light on

PLANT hormones. See Hormones, Plant

PLANT lice

Aphids carried by wind currents. G. N. Wolcott. Science 118:115-16 Jl 24 '53

Colouring matters of the aphididæ. B. R. Brown and others. Chem Soc J p 107-12, 1280-9, 2378-81 Ja, Ap, Jl '54

Microorganisms or mitochondria? discussion of Supposed intracellular symbiotic microorganisms of aphids, by U. N. Lanham. J. Peklo. bibliog il Science 118:202-6 Ag 21 '53

PLANT reporters. See Employees' magazines

PLANT tours. See Visitors

PLANT viruses. See Viruses, Plant

PLANTAGO

Studies on seed mucilages; the seed mucilage of plantago arenaria. E. L. Hirst, E. G. V. Percival and C. B. Wylam. Chem Soc J p 189-98 Ja '54

PLANTAIN

Distribution of triterpenes in Rugel's plantain. R. C. Hiltibran, C. L. Wadkins and H. J. Nicholas. bibliog Am Chem Soc J 75:5125-6 O 20 '53

PLANTATION physicians, Territorial association of. See Territorial association of plantation physicians

PLANTATIONS

Economic conditions affecting social policy in plantations. R. Roux. bibliog Int Labour R 67:236-61 Mr '53

Plantation agriculture in the United States, seventeenth to twentieth centuries. P. S. Taylor. bibliog Land Econ 30:141-52 My '54

PLANTS

Plants are important in cooling a house. il Am Bld 76:186 Mr '54

See also

Botanical chemistry

Rubber plants and planting

Weeds

Boron content

Boron determination in soils and plants. W. T. Dible, E. Truog and K. C. Berger. bibliog Anal Chem 26:418-21 F '54

Increased translocation of plant-growth-modifying substances due to application of boron. J. W. Mitchell and others. bibliog il Science 118:354-5 S 25 '53

Chemical analysis

Bitter constituents of the seeds of corchorus olitorius L., corchorgenin, a new cardiac-active aglycone. J. K. Chakrabarti and N. K. Sen. bibliog Am Chem Soc J 76:2390-2 My 5 '54

Characterization of two substances isolated from an Indian shrub. H. Heymann, S. S. Bahtnagar and L. F. Fieser. Am Chem Soc J 76:3689-93 Jl 20 '54

Chemistry of the coprosma genus; a revised constitution for lucidin. L. H. Briggs and G. A. Nicholls. Chem Soc J p3068-9 O '53

Dambonitol; its isolation from dyera lowii and dyera costulata and its constitution. A. J. Comollo and A. K. Kiang. Chem Soc J p3319-21 O '53

Detection of 3-indoleacetic acid in cauliflower heads; chromatographic behavior of some indole compounds. L. E. Weller, S. H. Wittwer and H. M. Sell. bibliog Am Chem Soc J 76:629-30 Ja 20 '54

Detection of the keto acids of plants; a procedure based on their conversion to amino acids. G. H. N. Towers, J. F. Thompson and F. C. Steward. bibliog diags Am Chem Soc J 76:2392-6 My 5 '54

Determination of ammonium, amide, nitrite, and nitrate nitrogen in plant extracts. J. E. Varner and others. bibliog diag Anal Chem 25:1528-9 O '53

Determination of calcium in plant material by the flame photometer. T. R. Williams and R. R. T. Morgan. Chem & Ind p970 S 12 '53

Determination of fluoride in vegetation. R. J. Rowley, J. G. Grier and R. L. Parsons. il Anal Chem 25:1061-5 Jl '53

Determination of maleic hydrazide residues in plant and animal tissue P. R. Wood. bibliog diag Anal Chem 25:1879-83 D '53

Determination of molybdenum in plant tissue. C. M. Johnson and T. H. Arkley. Anal Chem 26:572-4 Mr '54

Determination of nitrate in plant materials. G. B. Jones and R. E. Underdown. bibliog Anal Chem 25:806-8 My '53

Determining rubber hydrocarbon in rubber-bearing plants. J. W. Meeks and others. bibliog Anal Chem 25:1535-8 O '53

Distribution of triterpenes in Rugel's plantain. R. C. Hiltibran, C. L. Wadkins and H. J. Nicholas. bibliog Am Chem Soc J 75:5125-6 O 20 '53

Evidence for the existence of 1-amino-2-methyl-2-propanol in the phospholipids of neurospora. G. L. Ellman and H. K. Mitchell. bibliog Am Chem Soc J 76:4028-30 Ag 5 '54

Flame spectrophotometric determination of sodium and potassium in viscous solutions or plant extracts. H. M. Bauserman and R. R. Cerney, jr. bibliog Anal Chem 25:1821-4 D '53

Keto acids of the tulip (tulipa gesneriana) with special reference to the keto analog of γ-methyleneglutamic acid. G. H. N. Towers and F. C. Steward. Am Chem Soc J 76:1959-61 Ap 5 '54

γ-Methyleneglutamine and γ-methyleneglutamic acid in the tulip (tulipa gesneriana). R. M. Zacharius, J. K. Pollard and F. C. Steward. Am Chem Soc J 76:1961-2 Ap 5 '54

Microdetermination of 3-(*p*-chlorophenyl)-1, 1-dimethylurea in plant tissue. H. Y. Young and W. A. Gortner. Anal Chem 25:800-2 My '53

Microdetermination of *N*-1-naphthylphthalamic acid residues in plant tissues. A. E. Smith and G. M. Stone. diag Anal Chem 25:1397-9 S '53

Organo-phosphorus insecticides; behaviour of Schradan in the plant. G. S. Hartley. bibliog Chem & Ind p529-32 My 8 '54

Rapid determination of nitrates and nitrites. J. L. Nelson. L. T. Kurtz and R. H. Bray. bibliog Anal Chem 26:1081-2 Je '54

Spectrochemical analysis of plant material using spark excitation. W. T. Mathis. bibliog Anal Chem 25:943-7 Je '53

Spectrographic analysis of minor elements extracted from plants and soils as dithizonates. W. J. Wark. Anal Chem 26:203-5 Ja '54

Studies on fructosans; short-chain fructosans from lolium perenne. V. D. Harwood, R. A. Laidlaw and R. G. J. Telfer. Chem Soc J p2364-8 Jl '54

Triterpene acids from the leaves of psidium guaijava, L. H. R. Arthur and W. H. Hui. Chem Soc J p 1403-6 My '54

See also

Cellulose—Analysis

Lignin—Analysis

Tobacco—Analysis

Copper content

Rapid method for the determination of copper in plant material. T. R. Williams and R. R. T. Morgan. Chem & Ind p461 Ap 17 '54

Two specific methods of determining copper in soil and in plant material. Kuang Lu Cheng and R. H. Bray. bibliog Anal Chem 25:655-9 Ap '53

Diseases and pests

Cacao diseases; abstract. R. V. Wadsworth. Chem & Ind p342-3 Mr 20 '54

See also

Aster yellows

Tobacco mosaic virus

Germanium content

Living plants possible source of germanium. H. Brauchli. Chem & Eng N 31:3762+ S 14 '53

Metabolism

Effects of fertilization and growth-regulating substances (hormones) on carbohydrate and hexose-phosphate metabolism during the early stages of growth of corn kernels (fruit). E. Marrè and A. E. Murneek. bibliog Science 117:661-3 Je 12 '53

Soilless culture

No plow, no hoe, just harvest; Puerto Rico hydroponic farming. il Chem W 74:77 My 29 '54

Presage of things to come? hydroponic farms in Japan. il Chem W 74:20 Je 5 '54

Trace elements

Trace element deficiencies; new soil additive ensures controlled replacement. Chem Age (Lond) 68:746 My 16 '53; Discussion. D. Montgomery. 68:816 My 30 '53

Uranium content

Botanical methods of prospecting for uranium. H. L. Cannon. il map Min Eng 6: Trans 217-20 F '54

PLANTS—*Continued*

Water absorption

Effect of maleic hydrazide on auxin-induced water uptake by pea stem segments. P. Ts'o and G. P. Steinbauer. bibliog Science 118:193-4 Ag 14 '53

Stimulation of rubidium absorption by auxins. N. Higinbotham and others. bibliog Science 118:243-5 Ag 28 '53

Water requirements

Estimating the water requirements of plants; abstract and discussion. H. L. Penman. Chem & Ind p511-12 My 23 '53

Zinc content

Polarographic determination of zinc in plant materials. O. N. Hinsvark and others. bibliog Anal Chem 26:1202-4 Jl '54

PLANTS, Effect of light on

Indoor footcandles for maintaining plants. R. L. Zahour. il Illum Eng 49:383-6 Ag '54

Light, its influence on plant and animal growth. J. P. Ditchman. il Gen Elec R 57:42-6 My '54

My most interesting lighting job; controlling flower growth with light. H. Hall. il Elec West 111:103 S '53

Nighttime lighting produces flowers for off-season market. H. Hall. il Elec World 141:134 Ja 11 '54

Photoperiodic response of some Indian wheats. G. Misra. bibliog Science 118:445-6 O 16 '53

PLANTS, Flowering of

Interaction of auxin and temperatures in floral initiation. A. C. Leopold and F. S. Guernsey. bibliog Science 118:215-17 Ag 21 '53

PLASMA. See Blood

PLASMA albumin. See Albumin

PLASMA waves. See Wave mechanics

PLASTER and plastering

Can plaster regain lost markets? two AFL unions agree to help contractors pay for promotion drive. House & Home 4:39 N '53

Gypsum plaster in radiant heating systems; with time-saver standards. diags Arch Rec 114:227+ N; 177 D '53

Solid plaster partitions are space savers. il Am Bld 76:162+ Je '54

Structo-Lite to alter "sot" building habits? United States gypsum co. Sales Management 71:94 Ag 1 '53

Testing

Study of white coat plaster by differential thermal analysis. J. A. Murray and H. C. Fischer. bibliog Am Soc T M Proc 51:1197-212 '51

PLASTER model method. See Models

PLASTER of paris

Consistency classification of industrial plasters. C. M. Lambe and J. S. Offutt. il Am Cer Soc Bul 33:272-6 S 15 '54

PLASTIC adhesive tape. See Adhesive tape, Plastic

PLASTIC boxes. See Boxes, Plastic

PLASTIC coating

Coatings protect against abrasion and corrosion; Magic-Vulc coatings. Rubber Age 74:913 Mr '54

Corrosion protection; superior resistance of vinyl coating systems utilized; Prufcoat laboratories, inc. il Iron Age 172:188+ S 10 '53

Hand in glove; plastic coating. il Safety Maint & Prod 108:23-4 S '54

How plastic spray upgrades box cars. il Ry Age 137:56-7 Jl 12 '54; Ry Loco & Cars 128:44-5 Ag '54

How to cure wrong-way applications; Gates' school for distributors' salesmen. il Chem W 74:80+ My 15 '54

Ladcote compounds for the extrusion coating of packaging materials. Rubber Age 75:386 Je '54

New tire and rim preservative for reducing blowoffs; Solarite X-222. Rubber Age 74:706 F '54

Organic coatings adaptable to fuel storage. J. E. Cowling, I. J. Eggert and A. L. Alexander. bibliog il Ind & Eng Chem 46:1977-85 S '54

Perma-Tube stops rust; vinyl coating applied in special process coats tubing inside and out, good for outdoor jobs. il Steel 133:320 O 12 '53

Plastic alloys provide low cost, corrosion-resistant finish. W. G. Patton. il Iron Age 172:159-62 S 10 '53

Plastic degreasing coat. Steel 133:165-6 S 14 '53

Polyethylene-coated glass flasks; abstract. G. A. Simmons, jr. Anal Chem 26:248 Ja '54

Sprayed plastic masking facilitates panel painting. G. Herbst. il Elec World 140:110 N 2 '53

Stripcoating for cheese; special wax and plastic lacquer. il Mod Packaging 27:95-7+ Ja '54

Synthetasine 200; interior protective coating enables hard-to-package items to be shipped in steel containers. Chem & Eng N 32:2226 My 31 '54

Two new developments in the fluorocarbon plastics. il Materials & Methods 38:102-3 D '53

Use of plastic tape versus hot enamels. N. P. Peifer. il Am Gas Assn Proc 1953:548-53; Same. Gas Age 111:41-3+ My 21 '53

Vinyl fabric forecast. Chem W 74:57 Mr 6 '54

Vital thousandth; plastic lacquer for plastics. il Chem W 73:43-4+ Ag 8 '53

See also

Paper coating, Plastic

PLASTIC containers. See Containers, Plastic

PLASTIC dies. See Dies, Plastic

PLASTIC films

Deterioration of alkyd resin films. E. B. Fitzgerald. bibliog il Ind & Eng Chem 45:2545-8 N '53

Flow of gases through plastic membranes. D. W. Brubaker and K. Kammermeyer. bibliog il diag Ind & Eng Chem 45:1148-52 My '53

Lemon juice by the ounce; Sunkist's new frozen unit pouches. il Mod Packaging 27:142-3 Jl '54

Lesson in meats; Von's supermarket. il Mod Packaging 27:150 Jl '54

Making thin films of polythene. G. C. Reid. J Sci Instr 30:210 Je '53

Mylar nears commercial production. il Chem & Eng N 32:3718 S 20 '54

Pairing solves the problem; polyethylene cellophane films. il Chem W 73:74+ Jl 18 '53

Pevalon film. Chem Age (Lond) 71:478 S 4 '54

Plastic packages for poultry parts. il Food Eng 26:172 Je '54

Polyester film, Mylar. il Chem Eng 61:148+ Ag '54

Properties of plastic film. Heat & Ven 51:120 Ag '54

Separation of gases by plastic membranes. D. W. Brubaker, K. Kammermeyer and J. O. Osburn. bibliog flow diag il diags Ind & Eng Chem 46:733-42 Ap '54

Shun the fast buck; vinyl film market. Chem W 73:72+ S 12 '53

Strip-packaged bearings. il Mod Packaging 27:98-9 N '53

Thermostatic chamber for the measurement of light scattering from solids at elevated temperatures. J. J. Keane and R. S. Stein. diags R Sci Instr 25:892-4 S '54

Vapor barrier of laminated Mylar and aluminum. J. G. Macormack. il diags Refrig Eng 62:58-60+ Jl '54

Vinyl film; how specifications are tailored to use. R. C. Hawkins. Can Chem Process 37:60+ N '53

Wrapping up new markets. il Chem W 74:71-3 My 29 '54

See also

Mylar

Permeability

Structure and moisture permeability of film-forming polymers. P. W. Morgan. bibliog(45 ref) Ind & Eng Chem 45:2296-306 O '53

Standards

Catalogers aid film crusade. Chem W 74:40 My 1 '54

Drive for quality; vinyl film produces program for recognition of standard quality. Chem W 74:44+ Ja 16 '54

PLASTIC films—Standards—*Continued*

Vinyl industry standard to assure film quality. Rubber Age 74:778 F '54

Testing

Gas-transmission measurement; method of testing films formed into packages. B. E. Ellickson and others. il Mod Packaging 27: 173-5 Jl '54

Plastic films at low temperatures. A. J. Freeman and others. il Mod Packaging 27: 147-51+ Je '54

Shock test for plastic films. J. G. McMillan. il Mod Packaging 27:119-23+ Ag '54

Significant tests for plastic films. Can Chem Process 38:111 S '54

PLASTIC flooring. See Flooring, Plastic

PLASTIC foam. See Plastic materials, Cellular

PLASTIC hose. See Hose, Plastic

PLASTIC industries

Annual plastics conference, Cleveland. Chem & Eng N 32:2478 Je 21 '54

Chemical fibers and plastics industries; abstract. J. D. Fennebresque. Oil Paint & Drug Rep 165:70 My 24 '54

Dip before climb? Chem W 74:101-2 Je 26 '54

Plastics have record year. Materials & Methods 39:224+ F '54

Plastics; headed for best year ever. K. W. Bennett. il Iron Age 173:101-2 Je 17 '54

Plastics industry in 1954 may surpass 1953 records. G. C. Miller. Rubber Age 74:765 F '54

Plastics sparked by technology; annual review. Chem Eng 61:202-4 Mr '54

Plastics volume to double in four years. J. J. O'Connell. Materials & Methods 40:198+ Ag '54

Rules laid down for plastics; statement of principles by the plastics industry. Chem & Eng N 32:1006 Mr 15 '54; Oil Paint & Drug Rep 165:4+ Mr 15 '54

See also

Plastics engineering

Society of the plastics industry

Advertising

Seven times turn; Dow Chemical merchandising program for plastic houseware of Styron. il Chem W 74:70 Mr 20 '54

Exhibitions

British plastics exhibition and convention, London, June 8-18. il Chem & Eng N 31: 2776 Jl 6 '53

British plastics exhibition and convention, 2d, London, June 8-18. Chem Age (Lond) 68:889-92 Je 13 '53

British plastics exhibition, London, June 8-18. Chem & Ind p611-12 Je 20 '53

National plastics exposition, 6th, Cleveland. il Chem W 74:102-3 Je 19 '54

Statistics

Plastics, organics production up in 1953. Oil Paint & Drug Rep 166:5+ Jl 5 '54

Synthetic plastics and resin materials, 1949-1952. Survey of Cur Bsns 1953 Sup p 130 [supplemented in monthly numbers]

Synthetic resin production, 1922-1953; tabulations. Automotive Ind 110:335 Mr 15 '54

Brazil

Brazil reports expanding rubber and vinyl industry. Rubber Age 75:251 My '54

Europe

Plastics; British need molding capacity, more product applications. Iron Age 173:146+ Ap 15 '54

France

French begin synthetic rubber production. Chem & Eng N 32:3772 S 20 '54

Plastics progress in France. Chem & Eng N 31:4446+ O 26 '53

Germany

Future of plastics in Germany; abstract. G. Matulat. Materials & Methods 40:167-8 Jl '54

German plastics production on upsurge. Chem & Eng N 31:4796-7 N 16 '53

Great Britain

New plastics plants in Britain. Chem & Eng N 31:3772 S 14 '53

Shift into high; emergence of the British plastics industry. Chem W 74:29-30 Je 26 '54

PLASTIC materials

A.C.S. Division of paint, plastics, and printing ink chemistry 125th national meeting, Kansas City; abstracts of papers. Chem & Eng N 32:1326-7 Ap 5 '54

American society of mechanical engineers Rubber and plastics division annual meeting, Nov. 30-Dec. 1; abstracts of papers. India Rubber World 129:499-501 Ja '54; Rubber Age 73:584-5 Ja '54

American society of mechanical engineers Rubber and plastics division meeting, Pittsburgh, June 22. Rubber Age 75:552 Jl '54; Rubber World 130:524 Jl '54

Aspiration by plastics; Foliator. il Chem W 74:36 My 1 '54

Contact molding of plastic parts; abstract. C. A. McGill. il Tool Eng 32:197-8 Je '54

Contour packaging; vacuum forming gives new protection to machinists' tools. il Iron Age 172:163-4 Ag 6 '53

Creep relaxation relations for styrene and acrylic plastics. J. Marin and Y. H. Pao. bibliog il diag Am Soc T M Proc 51:1277-93; Discussion. 1294-5 '51

Dutch nylon for UK; Akulon. Chem Age (Lond) 70:560 Mr 6 '54

Effect of halogenation on frictional properties of plastics. R. C. Bowers and others. bibliog J Ap Phys 24:1066-7 Ag '53

Foam cuts vapor losses; layer of tiny hollow spheres seals oil surface. Pet Processing 8:1017 Jl '53; il World Oil 137:211-13 Ag 1 '53

Heat transfer coefficients of pseudo-plastic fluids. Ju Chin Chu, F. Brown and K. G. Burridge. bibliog(27 ref) diags Ind & Eng Chem 45:1686-96 Ag '53; Correction. 46:1016 My '54

Hopeful home for plastics; beckon to home building market. il plan Chem W 75:91-2 Ag 21 '54

How plastics aid the chemical industry. S. W. Shepard. Materials & Methods 40: 168-9 S '54

How plastics can help mining. L. A. Roe. il Eng & Min J 154:88-9+ N '53

Industrial plastics; Chemical Engineering report. W. M. Bruner and P. J. Wayne. bibliog il Chem Eng 60:193-204 Jl '53

Latest developments in use of plastic materials of construction. R. B. Seymour and M. H. Smith. il Paper Tr J 137:33-4+ D 18 '53

Leather; up and out. il Chem W 73:63+ Ag 22 '53

Lower cost fluorocarbon plastic; Fluoroplast. Materials & Methods 40:132 Ag '54

Materials of construction for chemical engineering; plastics. R. B. Seymour. il Ind & Eng Chem 45:2237-41 bibliog(244 ref, p2239-41) O '53

Microballoons hollow spheres of plastic, filled with inert nitrogen gas, floating on the surface of crude oil can cut evaporation losses. Can Chem Process 38:44+ Ag '54

More plastics from petroleum; annual review. E. E. McSweeney and E. L. Kropa. Chem & Eng N 32:27-8 Ja 4 '54

New compound for re-usable rigid spray masks; CD spray mask A. il Rubber Age 75:396 Je '54

New foam cuts evaporation losses. E. G. Ellerbrake and F. Veatch. il Oil & Gas J 52:223-4+ N 16 '53

New molding plastics give higher properties, production advantages; marketed by Bakelite co. Materials & Methods 40:148 S '54

New plastic molds with ease; copolymer of rubber and polystyrene. il Chem Eng 60: 368 O '53

No fish story; protein plastics from fish. Ind & Eng Chem 45:sup 13A+ D '53

Phenol-, urea-, and melamine-formaldehyde plastics. P. O. Powers. bibliog(52 ref) Ind & Eng Chem 45:1063-6 My '53

PLASTIC materials—*Continued*

Physical and chemical properties of plastics pipe materials. W. Swisshelm and others. Am Gas Assn Proc 1953:631-43

Plastic core wire rope; Jones & Laughlin steel corp. il Steel 133:172 N 9 '53

Plastic filter. il Product Eng 24:231 Je '53

Plastic solves scrubbing problems. D. P. Thornton, jr. flow diags il Pet Processing 8:1328-30 S '53

Plastic welding fixtures cost little, assure accuracy. A. P. Challenger. il Iron Age 173:124-5 My 6 '54

Plastics builder; plastics division in major city's building code. il Ind & Eng Chem 45:sup 17A-18A+ S '53

Plastics fixtures have wide use. B. Sokol. il Tool Eng 32:69-72 Ap '54

Plastics for building. il diags House & Home 5:158-63 F '54

Plastics in the electronics industries. R. L. Mondano. J Chem Educ 31:383-6 Jl '54

Plastics in the service of the Post Office. C. E. Richards and A. A. New. Chem & Ind p678-81 Jl 11 '53

Plastics linings, coatings, cements and fabrications; abstract. V. Evans. Chem & Ind p780-1 Jl 3 '54

Plastics mixing. C. S. Quillen. il diags Chem Eng 61:204-9 Je '54

Plastics; new materials in the rubber industry; symposium; abstracts of papers. Rubber Age 75:560-1 Jl '54

Plastics predominant at National packaging exhibition, Atlantic City, April 5-8. il India Rubber World 130:222-3 My '54

Plastics today; abstract. W. T. Cruse. Mech Eng 75:903 N '53

Plastics use in building Oct. conference theme. Oil Paint & Drug Rep 166:7+ Ag 16 '54

Progress in plastics. A. Renfrew. Can Chem Process 38:56+ F '54

Reduce evaporation in cone roof tanks with plastic foam. E. G. Ellerbrake and F. Veatch. diag Pet Refiner 33:137-41 Ja '54; Same. Pet Processing 8:1884-8 D '53; Same abr. Oil & Gas J 52:223-4+ N 16 '53

Scrap in plastics. il Chem W 74:70+ Je 12 '54

Sneering at the sun; year-round skiing with plastic-chip snow. il Chem W 74:78 Mr 27 '54

Synthetic resins and plastics; list. Chem & Eng N 32:3763-7 S 20 '54

Tiny balloons cut evaporation; Ohio Standard reveals new foam product. G. L. Farrar. il Oil & Gas J 52:74-5 Jl 13 '53

To survey plastics used in housing; one-year research program at the Massachusetts institute of technology. Materials & Methods 40:234 S '54

Vacuum formed plastics for packaging. il Mod Packaging 27:108-13+ F '54

Vacuum forming of plastics gains favor. C. H. Vivian. il Comp Air Mag 59:108-11 Ap '54

Vinyl plastic for plastic reproduction of human organs in Italy. Chem & Eng N 31:3476 Ag 24 '53

See also

Airplanes—Materials—Plastics
Automobiles—Materials—Plastics
Casein
Cellulose acetate
Cellulose acetate butyrate
Cement
Clay
Color in plastic materials
Electric circuits—Plastics embedment
Extrusion process (plastics)
Gums and resins
Melamine resins
Methacrylates
Molded products
Molding
Motor trucks—Materials—Plastics
Paper, Laminated
Plastic coating
Plastic films
Plasticizers
Plastics engineering
Polyethylene
Resinous products
Rubber
Rubber, Artificial
Saran
Silicones
Styrene (and polymers)
Styron
Teflon
Tetrafluoroethylene
Trifluorochloroethylene
Vinyl chloride

Analysis

Physical methods in the analysis of plastic materials; abstract. J. Haslam. Chem Age (Lond) 70:146 Ja 9 '54

Polarographic determination of phthalate esters in plastics. G. C. Whitnack and E. S. Gantz. bibliog Anal Chem 25:553-6 Ap '53

Bibliography

Selected plastics references for the mechanical engineer, 1951-1952. A. K. Schmieder and H. G. Dikeman. Mech Eng 75:477-80 Je '53

Blowing

It takes three minutes to blow the plastic bubble; acrylic bubble-like noses on 47G helicopters; a picture story. Materials & Methods 39:102-3 Je '54

Coloring

See Color in plastic materials

Crazing

Crazing in polystyrene parts. E. E. Ziegler. Materials & Methods 39:93-7 Je '54

Crazing of plastics; cause and effect; abstract. J. A. Sauer and C. C. Hsiao. Materials and Methods 39:182+ Ap '54

Effect of biaxial orientation on the ultimate strength and crazing of linear polymers. C. C. Hsiao and J. A. Sauer. bibliog il J Ap Phys 24:957-8 Jl '53

Cutting

Fabrication and use of rigid polyvinyl chloride plastics; machining and cutting. J. L. Huscher. il diags Materials & Methods 39:125-30 Je '54

How to machine acrylic plastics. O. L. Pierson. il diags Am Mach 98:113-20 F 1 '54

Machining; carbides give longer saw life on plastics. Iron Age 173:158 Mr 11 '54

Plastics; how to machine glass reinforced plastics. il Iron Age 173:186-90+ Mr 4 '54

Rapid machining of plastic parts; International business machines corp. H. Chase. il Mach 60:202-3 Mr '54

Reinforced plastics present machining problems. R. T. Argy. Materials & Methods 39:180+ Je '54; Abstract. Automotive Ind 110:38 Mr 1 '54

Special fixtures combine three setups; International business machines corp. il Iron Age 174:176 S 16 '54

Electric properties

Electrical conductivity induced by ionizing radiation in some polymeric materials. A. J. Warner and others. J Ap Phys 25:131 Ja '54

Electrostatic properties of rubber and plastics. H. A. Endres and W. T. Van Orman. bibliog(28 ref) il India Rubber World 129:359-63 D '53

Forcing function generator employing conductive plastic; abstract. L. W. Norman. il diag Elec Eng 72:1112 D '53

Fillers

Effect of filler particle size on resins. R. K. Witt and E. P. Cizek. bibliog Ind & Eng Chem 46:1635-9 Ag '54

Finishing

Available finishing systems for reinforced plastics; abstract. B. W. Nelson. Automotive Ind 110:528+ Mr 15 '54

Fire hazards

Products of combustion of chlorinated plastics. E. H. Coleman and C. H. Thomas. bibliog diag J Ap Chem 4:379-83 Jl '54

Fire resistance

Cold deck; Lexsuco corp. fire-retardant roof. Chem W 73:80 N 28 '53

Flame resistant plastics. P. Robitschek. Can Chem Process 37:56 O '53

Glass reinforcement

Building panels precast in plastic forms. il Eng N 151:33 O 22 '53

Glass and plastics; they make a tough combination. diags Can Chem Process 38:32+ Ap '54

High strength plastic solves tough corrosion problem. il Iron Age 174:132 Ag 5 '54

Increasing use of aircraft plastic tooling; Republic aviation corp. il Automotive Ind 110:58-9 Ap 15 '54

PLASTIC materials—Glass reinforcement—*Continued*

Molded fiberglas polyester resin makes strong fittings; Plastic corp. il Chem & Eng N 32:2002-3 My 17 '54

New techniques expand uses for plastic tooling. W. G. Patton. il Iron Age 173:180-3 Ap 22 '54

Northrop molds glass-fiber parts with press dies. R. G. McIntosh. il Mach 60:218-22 Jl '54

One-piece reinforced plastic forms for assembly line production of thin-shell concrete roof sections. G. P. Duecy and J. L. Hutsell. il Am Concrete Inst J 26:89-92 S '54

Plastic car is here, will it stay? il Chem & Eng N 32:2180-3 My 31 '54

Plastics; Chevrolet solves auto body production riddles. il Iron Age 174:70-1 Jl 15 '54

Plastics; how to machine glass reinforced plastics. il Iron Age 173:186-90+ Mr 4 '54

Plastics; tail of Neptune bomber made at lower cost. il Iron Age 173:163-4 F 18 '54; Mach 60:174 Ag '54

Reinforced plastic polyester resin reinforced with fibrous glass. il Can Chem Process 37:60+ O '53

Reinforced plastics; chemical firms offer a new material to home builders. Barron's 34:15-16 Ja 4 '54

Reinforced plastics present machining problems. R. T. Argy. Materials & Methods 39:180+ Je '54; Abstract. Automotive Ind 110:38 Mr 1 '54

Resin-glass; more puff than poundage. il Chem W 73:61-2 O 31 '53

Ride to plastic markets; Molded fiber glass body co. turning out fiber glass-reinforced plastic parts for Chevrolet's Corvette. il Chem W 74:95-8 Je 19 '54

Scope widens for plastic aircraft structures. il Materials & Methods 39:7+ Mr '54

Stingers go plastic. il Chem W 74:94 Mr 13 '54

Why not invisible reinforcing in plastics? abstract. E. F. Bushman. Materials & Methods 39:170+ Ap '54

Joining

Fabrication and use of rigid polyvinyl plastics; joining methods. J. L. Huscher. il diags Materials & Methods 39:130-3 Je '54

Plastic welding with new Metrovick dielectric heating unit. il Elec J 152:217 Ja 15 '54

Welding plastic materials; dielectric heater for clothing manufacturers. il Engineering 177:118 Ja 22 '54

Joining to metal

Laminate unlimited; bonding vinyl plastic and metal sheeting in a new process. il Chem W 73:66+ S 19 '53; Steel 133:168+ N 9 '53; Iron Age 172:129-30 O 1 '53

Metal-clad laminates used in printed circuitry. N. A. Skow. il Mech Eng 75:709-11+ S '53; Same cond. Machine Design 25:284+ S '53

Plastic-metal laminate. Mech Eng 75:909-10 N '53

Simple tool makes lap joints in polyethylene pipe. F. Pledger and D. J. Ryan. diags Chem Eng 61:238+ Mr '54

Light transmission

Antiglare plastic. il Chem Eng 60:336+ N '53

Manufacture

Effect of ultrasound on thermoplastic melts. E. C. Bernhardt. bibliog il diags Ind & Eng Chem 46:742-6 Ap '54

Plastics tool; hot box on rails; mobile reactor that could generate power, also serve as a source of ionization. D. Ballantine. diags Chem W 74:50-2 Je 19 '54

Preforming

Plastic preforming. il Product Eng 24:198-9 N '53

Physiological effect

Malignant tumors resulting from embedding plastics in rodents. B. S. Oppenheimer and others. Science 118:305-6 S 11 '53

Reinforcement

Opportunity knocks in reinforced plastics. Steel 134:70-1 F 15 '54

Plastics; competition paces growth. K. W. Bennett. il Iron Age 173:79-80 F 11 '54

Reinforced plastics, a structural material for marine applications; abstract. J. E. Alfers and W. R. Graner. Marine Eng 59:35-6 Jl '54

Reinforced plastics, what are they? Can Chem Process 38:68+ F '54

Roundup of recent reinforced plastics. il Materials & Methods 39:147-8 Je; 40:141-2 Jl '54

School for customers; Reichhold's reinforced plastics study sessions in action. il Chem W 74:32-3 Ja 30 '54

Society of the plastics industry Reinforced plastics division 9th annual meeting, Chicago; with abstracts of papers. Automotive Ind 110:36-9+ Mr 1 '54

SPI Reinforced plastics division 9th annual technical and management conference, Chicago, Feb. 3-5. India Rubber World 129:784 Mr '54

Strength

Battling plastics testing; Monsanto Chemical's plastic division. il Chem & Eng N 32:3862 S 27 '54

Effect of biaxial orientation on the ultimate strength and crazing of linear polymers. C. C. Hsiao and J. A. Sauer. bibliog il J Ap Phys 24:957-8 Jl '53

Testing

Dynamic properties of plasticized polyvinyl chloride. M. G. Dilke and J. J. Millane. bibliog il diag J Ap Chem 4:507-13 S '54

Simple flexibility test. D. G. Stechert. il diag Anal Chem 25:1730-3 N '53

Symposium on plastics testing, present and future. (Special tech. pub. no. 132) 71p pa $2 Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '53

Weather tests on styrene and phenolics; abstracts. J. R. Taylor and C. H. Adams. Chem & Eng N 32:2776+ Jl 12 '54; Materials & Methods 40:162 Ag '54

PLASTIC materials, Cellular

American collo corp. formed for production of polyurethane foams. il Rubber Age 75:866 S '54

Blowing up polyester; Permafoam. il Chem W 74:68+ My 15 '54

Foam King process of producing foam plastics. Rubber Age 75:395 Je '54

Foam plastic as void filler. il Chem & Eng N 32:1472+ Ap 12 '54

How to insulate with Styrofoam. il Power 98:144 F '54

Materials for special service; foamed vinyl plastics. R. A. Calsibet. il Machine Design 26:163-5 My '54

Molding with plastic popcorn; Koppers product. il Chem & Eng N 32:1070 Mr 15 '54

New expandable polystyrene can be molded. il Materials & Methods 39:106-9 Ap '54

New glass comparator; plastic foam. A. Silverman. Glass Ind 35:374 Jl '54

New silicone foam passes trial by fire. il Chem W 72:36 My 30 '53

New silicone resin, foamed in place, is high temperature insulator. il Materials & Methods 38:96-7 N '53

Now, moldable plastic foam; Koppers. il Chem Eng 61:156+ My '54

Phenolic foam resin. diags Can Chem Process 37:74+ O '53

Plastics that expand to fill product needs. A. R. Gardner. il Dun's R & Mod Ind 62:54-9 N '53

Polyurethane race; foams away first. Chem W 75:82-4 S 4 '54

Production of expanded thermoplastics; recent patents. Chem Age (Lond) 71:481-2 S 4 '54

Puffed polystyrene debut. il Chem W 74:98+ Mr 13 '54

Role of foamed plastics in aircraft. J. M. Stevens. Automotive Ind 110:502+ Mr 15 '54

Vinyl sponge and foam; processing and applications; abstract. G. R. Sprague. Rubber Age 75:560-1 Jl '54

PLASTIC materials, Decorative

How plastic parts are decorated; abstract. A. N. Skeels. Materials & Methods 39:260+ My '54

PLASTIC materials, Expanded. See Plastic materials, Cellular

PLASTIC materials, Irradiated
Crosslinked polyethylene; Irrathene. il Chem & Eng N 32:1392 Ap 5 '54
Does atomic radiation promise a building revolution? gamma rays change the molecular structure of many materials. il diags Arch Forum 101:94-9 S '54
Electron bombardment produces new plastic, irradiated polyethylene; Irrathene 101. J. B. Campbell. il Materials & Methods 40:91-5 S '54
Even with small doses of irradiation many materials undergo dramatic change; report on British experiments. A. Charlesby. il Arch Forum 101:102-3 S '54
First to the tape; General Electric's Irrathene 101. il Chem W 74:69 Ap 3 '54
Gases liberated during the high voltage electron irradiation of polyethylene. E. J. Lawton, P. D. Zemany and J. S. Balwit. bibliog Am Chem Soc J 76:3437-9 Jl 5 '54
How polyethylene crosslinks. M. Dole and others. Chem & Eng N 32:1342 Ap 5 '54
In architecture, will atomic processes create a new plastic order? D. Haskell. il diags Arch Forum 101:100-1 S '54
Properties of irradiated polyethylene. E. J. Lawton, J. S. Balwit and A. M. Bueche. bibliog Ind & Eng Chem 46:1703-9 Ag '54

PLASTIC materials, Laminated
Applications for laminated fabric bearings. R. L. Berry. il diag Iron & Steel Eng 31:161-5; Discussion. 165-6 S '54
Color uniformity in low pressure laminates. P. Fram, T. F. Dunne and F. Leonard. bibliog Ind & Eng Chem 46:393-6 F '54
Dielectric breakdown properties of thermosetting laminates. N. A. Skow. Machine Design 26:217-19 S '54
How to apply plastic laminate with new adhesive. il Am Bld 75:240-1 Ag '53
New developments in silicones; laminates. T. A. Kauppi. il Machine Design 26:181-2 S '54
New paper based phenolic laminates. il Materials & Methods 39:139-40 Ja '54
New plastic laminate has high machinability, electrical properties; Phenolite grade Y-2401. il Materials & Methods 40:143 Jl '54
New silicone laminating resin offers increased strength, faster cure; Dow Corning corp. il Materials & Methods 39:147-8 F '54
Post-forming of thermosetting laminates. S. Bain. Machine Design 26:250+ Jl '54
Tooling with plastics. R. L. Dudley. il diags Tool Eng 33:47-9 Ag '54
See also
Vulcanized fiber

Glass reinforcement

Epoxy low-pressure laminates. il Machine Design 26:125-8 Jl '54
Finishes for glass fabrics for reinforcing polyester plastics. L. P. Biefeld and T. E. Philipps. bibliog(36 ref) il Ind & Eng Chem 45:1281-6 Je '53
Glass laminated plastics speed up tooling programs. W. G. Patton. il Iron Age 172:136-9 Ag 6 '53
How Convair tools with plastics. H. H. Rosenbaum. il Am Mach 98:121-4 Mr 15 '54
Laminated glass fiber plastic tooling cuts lead time up to 50 per cent; Goodyear aircraft corp. T. Mac New. il diag Automotive Ind 110:46-8+ Mr 1 '54
New fire-resistant polyester; Hetron. il Materials & Methods 39:98-101 F '54
New phenolic-glass laminates for elevated temperatures. J. B. Campbell. Materials & Methods 38:87-91 N '53
Polyester resin-glass fiber laminates. J. Bjorksten, L. L. Yaeger and J. E. Henning. bibliog(38 ref) Ind & Eng Chem 46:1632-5 Ag '54
Structural plastics for advanced types of aircraft. D. Rosato. Automotive Ind 110:48-51+ Ja 15 '54
Three new silicone laminating resins for high strength, high temperature resistance, electrical insulation. il Materials & Methods 40:98-100 Jl '54
Trend of complete aircraft and guided-missile structures toward reinforced plastics. W. E. Braham. il Aeronautical Eng R 12:37-40+ S '53; Abstract. Product Eng 24:266+ N '53
Why epoxy resins for laminated tooling? J. Delmonte. il Materials & Methods 40:93-5 Ag '54

Reinforcement

Low-pressure laminates. R. Wood. il diags Automobile Eng 43:541-9 D '53

PLASTIC materials, Translucent
Easily installed plastic paneling provides over-all glareless, shadowless illumination. il Mill & Factory 55:133-4 Jl '54
Schoolhouse lighting plenum. il diag Arch Forum 100:160-1 Ap '54
Translucent plastic paneling molded with woven glass fabric. il Arch Forum 99:186+ Ag '53

PLASTIC materials, Transparent
Acrylic plastic housings for radio relay stations. il Arch Rec 113:226+ Mr '53
Application of a color-difference index to highly selective transparent specimens. A. C. Webber and F. W. Billmeyer, jr. bibliog Opt Soc Am J 43:1127-36 D '53
Natural gas is raw material for Plexiglas, protecting pilot of helicopter; Rohm & Haas co. il Gas Age 112:38+ D 17 '53
Plastic ceiling provides lighting that's next best to daylight; Douglas Aircraft. il Factory Management 112:104-5 Ag '54
Plastic domes daylight big pumped-gypsum roof; Tobyhanna, Pa. il Eng N 151:47-8 D 3 '53
Plexiglas held not to be glass at Automobile claims association annual meeting, New York, April 8. East Underw 55:37 Ap 16 '54
Want to see through the top, transparent tops in Mercury's Sun Valley and Ford's Skyliner. R. D. Raddant. il Iron Age 173:94+ My 13 '54
Why not invisible reinforcing in plastics? abstract. E. F. Bushman. Materials & Methods 39:170+ Ap '54
Wrapping up new markets. il Chem W 74:71-3 My 29 '54

PLASTIC models. See Models, Plastic

PLASTIC paneling. See Paneling, Plastic

PLASTIC pipes. See Pipes, Plastic

PLASTIC replicas. See Replica technique

PLASTIC sheeting
Broad as the horizon; Seiberling rubber co.'s Seilon. il Chem W 74:66 Je 12 '54
Construction and corrosion; Bakelite's Vybak industrial rigid PVC sheet VR.215. il Chem Age (Lond) 71:665-6 S 25 '54
Forming machine on monolithic sheet production. F. Hayes and F. C. Loeber. il diag Tappi 37:sup 164A-6A Jl '54
Multi-million and more; styrene-rubber alloy. il Chem W 73:74+ Ag 15 '53
New plastic has high impact resistance; Campco S-300. Aviation W 59:39 S 14 '53
New plastic rolled into sheets solves bugs in vacuum-molding. il Bsns W p78+ Ag 8 '53
New plastic sheet; challenge to metals. il Steel 133:54 Ag 3 '53
Plastics entering sheet market. R. M. Lorz. il Iron Age 173:77-8 Mr 18 '54
Sheet plastic aids in estimating areas of irregular shapes. C. E. Ballard. Chem Eng 60:234-5 S '53
Vacuum forming of thermoplastic sheets. S. S. Zimmerman. il diags India Rubber World 129:216-19 N '53

Testing

Biaxially oriented methacrylate and polystyrene sheet. C. P. Fortner. il diags India Rubber World 129:493-5 Ja '54

PLASTIC tableware. See Tableware, Plastic

PLASTIC tanks. See Tanks, Plastic

PLASTIC tiles. See Tiles, Plastic

PLASTIC toys. See Toys, Plastic

PLASTIC tubes. See Tubes, Plastic

PLASTICITY
Foothills of the plastic range; abstract. H. W. Swift. Metal Prog 64:132+ N '53
Necking of a tension specimen in plane plastic flow. E. T. Onat and W. Prager. bibliog diags J Ap Phys 25:491-3 Ap '54
Plane plasticity. B. B. Hundy. bibliog il diags Metallurgia 49:109-18 Mr '54
Plastic bending of zinc crystals. G. P. Conrad, 2d and others. bibliog J Metals 5:Trans 1036-8 Ag '53

PLASTICITY—*Continued*

Plastic collapse of thin rings. C. Hwang. bibliog J Aeronautical Sci 20:819-26+ D '53

Plastic deformation in beams under distributed dynamic loads. J. A. Seiler and P. S. Symonds. bibliog diags J Ap Phys 25:556-63 My '54

Plastic deformation of iron between 300° and 77.2°K. D. F. Gibbons. bibliog il diags J Metals 5:Trans 1245-50 sec 2 S '53; Discussion. 6:Trans 661 sec 2 My '54

Plastic deformation of single crystals of copper. J. J. Becker and J. N. Hobstetter. bibliog il J Metals 5:Trans 1231-4 sec 2 S '53; Discussion. diags 6:Trans 665-6 sec 2 My '54

Plastic design of grillages. J. Heyman. il diags Engineering 176:804-7 D 25 '53

Plastic fatigue strength of pressure vessel steels. J. H. Gross and others. il diags Welding J 33:sup31-9 Ja '54

Plastic-flow problem arising in the theory of discontinuous machining. E. H. Lee. bibliog diags A S M E Trans 76:189-93; Discussion. 193-4 F '54

Plastic stress-strain relations for aluminum alloy 14S-T6 subjected to combined tension and torsion. J. Marin and H. A. B. Wiseman. bibliog il diag J Metals 5:Trans 1181-90 sec 2 S '53

Plastic stress-strain relations under radial and non-radial combined stress loading. J. Marin and J. A. Sauer. Franklin Inst J 256:119-28 Ag '53

Plastic theory for a trussed steel beam with a central load. R. W. Steed. Engineering 177:77-8 Ja 15 '54

Plasticity of columbium single crystals. R. Maddin and N. K. Chen. bibliog il diag J Metals 5:Trans 1131-6 S '53

Plasticity of molybdenum single crystals at high temperatures. R. Maddin and N. K. Chen. il diag J Metals 6:Trans 280-4 sec 2 F '54

Plasticity of wool; variation with type of follicle. R. W. Burley and J. B. Speakman. il Textile Res J 23:702-10 O '53

Variation of plastic properties with annealing procedure in zinc single crystals. Choh Hsien Li and others. bibliog il J Metals 5:Trans 1223-5 sec 2 S '53

Wet water in clay pugging to improve plasticity. Brick & Clay Rec 123:86 N '53

See also

Creep of materials

Deformation (mechanics)

PLASTICIZERS

Aconitic and tricarballylic acid esters as vinyl plasticizers. E. J. Roberts and others. bibliog Rubber World 130:801-4 S '54

Epoxy fatty acid ester plasticizers. F. P. Greenspan and R. J. Gall. bibliog il Ind & Eng Chem 45:2722-6 D '53

Fats find vinyl outlet. Chem W 72:40+ My 2 '53

Hydroxylation; new unit process. il diag Chem Eng 60:118+ Ag '53

Low temperature plasticizers; abstract. M. A. Pollack. Can Chem Process 38:66-7 Je 20 '54

New migration stopper; U.S. Dept. of agriculture's success in copolymerizing vinyl chloride and vinyl stearate. Chem W 74:36 Mr 6 '54

New plasticizers make better PVC; Atlas Powder's Pycal 170 and Monsanto's DIDP. Chem Eng 61:158 Ap '54

New process yields heat-stable plasticizer 1,3,5-ethylxylene; patent. diag Chem Eng 61:268+ Mr '54

Physical properties of oil-enriched rubbers. K. V. Weinstock, E. B. Storey and J. S. Sweeley. bibliog diags Ind & Eng Chem 45:1035-43 My '53

Plasticizer technology. N. S. Mount. Can Chem Process 37:58 N '53

Plasticizers from aconitic and tricarballylic acids. F. C. Magne and R. R. Mod. bibliog Ind & Eng Chem 45:1546-7 Jl '53

Plasticizers in vinyl chloride resins; migration of plasticizer. H. M. Quakenbos, jr. Ind & Eng Chem 46:1335-44 Je '54

Plasticizers in vinyl chloride resins; removal by oil, soapy water, and dry powders. M. C. Reed, H. F. Klemm and E. F. Schulz. bibliog il diag Ind & Eng Chem 46:1344-9 Je '54

Plasticizers; their use in paper coatings resins. J. R. Darby and H. S. Bergen. il Tappi 37:sup 145A-52A Jl '54

Plasticizers top '51 peak. Chem W 75:54-6 Jl 3 '54

Polymeric plasticizers; preparation and characterization of a series of terminated polyesters. J. E. Koroly and E. M. Beavers. bibliog Ind & Eng Chem 45:1060-3 My '53

Properties of low-styrene GR-S-plasticizer blends. A. F. Helin. Ind & Eng Chem 46:1730-4 Ag '54

Some sulfonamide plasticizers and waxes. D. Aelony. bibliog Ind & Eng Chem 46:587-91 Mr '54

Stretching it out; coplasticizers for high polymers. Ind & Eng Chem 46:sup 13A+ S '54

Technology of solvents and plasticizers. A. K. Doolittle. 1056p $18.50 John Wiley & sons, 440 Fourth av, New York 16 '54

Testing

Permanence of plasticizers in GR-S vulcanizates exposed to weather. R. E. Morris and A. E. Barrett. Rubber Age 75:76-8 Ap '54

PLASTICS engineering

New developments in liquid heating of plastics-processing machinery. P. L. Geiringer and F. Hasselriis. bibliog il diags Mech Eng 75:957-62+ D '53

Plastics engineering handbook of the Society of the plastics industry, inc. 2d ed 813p $15 Book div, Reinhold pub. corp, 430 Park av, New York 22 '54

Study and teaching

Plastics engineering curriculum urged. Materials & Methods 39:218+ Mr '54

PLASTICS industry, Society of the. See Society of the plastics industry

PLASTICS research

I.C.I. Plastics division new plastics laboratory. il Chem & Ind p69-70 Ja 16 '54

New research building for I.C.I. Plastics. il Chem Age (Lond) 70:217-19 Ja 16 '54

Plastics fact seekers; use of plastic replacements for strategic metals. Chem W 75:70+ Jl 17 '54

Research and I.C.I. Plastics division; speeches at inaugural luncheon of new laboratories. Chem Age (Lond) 70:263-6 Ja 23 '54

See also

Airplanes—Materials—Plastics

PLASTICS technology (periodical)

Plastics technology to make debut. Sales Management 73:104 Jl 15 '54

PLASTISOLS

Rubber-plastisol squeeze; vinyl resin toys hit a growing market. il Chem W 72:58-60 Je 27 '53

PLASTOMETERS

Instruments for measuring plasticity in the rubber industry. J. R. Scott. bibliog diags J Sci Instr 30:145-50 My '53

PLATEAU uranium mining corporation

Stock offered. Comm & Fin Chr 178:761 Ag 31 '53

PLATES

Reinforced annular plates. R. Hicks. diags Engineering 177:335-6 Mr 12 '54

Suppression of overtones of thickness-shear and flexural vibrations of crystal plates. R. D. Mindlin and H. Deresiewicz. J Ap Phys 25:25-7 Ja '54

Thickness-shear and flexural vibrations of contoured crystal plates. R. D. Mindlin and M. Forray. diags J Ap Phys 25:12-20 Ja '54

Thickness-shear vibrations of piezoelectric crystal plates with incomplete electrodes. R. D. Mindlin and H. Deresiewicz. diag J Ap Phys 25:21-4 Ja '54

See also

Steel plates

PLATING

Gas plating offers versatility. diag Steel 133:120-1+ O 19 '53

Metal cleaning and finishing handbook; plating processes. Iron Age 174:sup F21-7 Jl 29 '54

See also

Bronze plating

Chromium plating

Copper plating

Electroplating

Nickel plating

Silver plating

Zinc plating

PLATING barrels

New plating barrels; G. S. equipment co. il Metal Finishing 52:88-9 F '54

PLATING machinery

Automatic plating machine operates on novel principle. il Materials & Methods 38:154+ D '53

Hanson-Van Winkle-Munning improved tank for barrel plating. il diag Metal Finishing 52:84-5 Ja '54

Plating; portable tumbler cuts costs at aircraft factory; Temco aircraft corp. il Iron Age 173:146-8 Je 3 '54

Plating small parts. il Steel 135:112 Jl 26 '54

Tumble-plating for man-hour economy; Tempco aircraft corp. Tool Eng 33:46 Ag '54

Wagner bros. automatic plating machine operates on low pressure. il Automotive Ind 109:83 N 1 '53; Metal Finishing 51:89+ N '53

PLATING research

Plating; Detroit checks all angles; Udylite lab probes new methods, compounds. R. D. Raddant. il Iron Age 173:98 My 20 '54

PLATING shops

Corrosion-resistant materials used widely in electroplating plant. il Eng N 151:39 S 17 '53

Up-to-date job shop; Grunwald plating co. il Metal Finishing 52:74-5 S '54

Equipment

Acid-resisting pipe installed to handle acid disposal; Cadillac division of General motors corp. il Iron Age 173:178+ My 6 '54

Automatic conveyor speeds plating operation 50 per cent. il diag Factory Management 112:132-3 Ag '54

Automatic zinc plating. C. E. Fisher and D. F. Zlatnik. il plan Metal Prog 66:107-12 S '54

Custom-built plating machine brings plant to peak efficiency; Ajax mfg. corp. J. J. Obrzut. il plan Iron Age 174:120-2 S 23 '54

Expansion at Western Rust-Proof. il Metal Finishing 51:64-5 D '53

Million dollar job shop in full operation; Modern plating co. F. A. Herr. il Metal Finishing 52:65-9 Mr '54

Plastic anode cage; William Parker co. il Metal Finishing 52:126-8 Je '54

Plating conveyor recycles work, transfers it automatically. il Metal Finishing 52:116 Je '54

Semiautomatic plating pays where sizes, shapes vary; Speakman co. T. Stoddard. il diag Iron Age 173:122-4 Ja 14 '54

Lighting

Design of a chrome inspection lighting device. F. Sell and D. Preston. il Illum Eng 49:392-3 Ag '54

Management

Statistical quality control approach to the control of plating solutions. A. D. Woodell. il Metal Finishing 51:54-8 D '53

Statistical quality control for the plater. J. B. Kushner. Metal Finishing 52:64-8 S '54

PLATING tanks

Plating; claim big savings with plywood tanks for acid bath; Tacoma powdered metals co. il Iron Age 174:84 Ag 19 '54

PLATINUM

Capacity of polarized platinum electrodes in hydrochloric acid. W. D. Robertson. bibliog diags Electrochem Soc J 100:194-201 Ap '53

Chemical consequences of the (n,γ) reaction of platinum complexes. B. C. Haldar. bibliog Am Chem Soc J 76:4229-33 Ag 20 '54

Convection controlled limiting currents (convection currents); the platinum wire convection electrode. I. M. Kolthoff and J. Jordan. bibliog Am Chem Soc J 76:3843-5 Jl 20 '54

Direct interaction between metal atoms in the crystals of bis-(dimethylglyoxime)-nickel(II) and -platinum(II). S. Yamada and R. Tsuchida. bibliog Am Chem Soc J 75:6351-2 D 20 '53

Hydrogen overvoltage on bright platinum. S. Schuldiner. bibliog diag Electrochem Soc J 101:426-32 Ag '54

New reforming process uses platinum catalyst; Standard oil co. of Indiana. Chem Eng 61:132 Ja '54

Polarographic studies with gold, graphite, and platinum electrodes. S. S. Lord, jr. and L. B. Rogers. bibliog(26 ref) Anal Chem 26:284-95 F '54

Preliminary results on photoelectric yields of Pt and Ta and on photoionization in O_2 and N_2 in the vacuum ultraviolet. N. Wainfan and others. bibliog diag J Ap Phys 24:1318-21 O '53

Reaction of hydrogen and oxygen on submerged platinum electrode catalysts; effect of stirring, temperature and electric polarization. M. J. Joncich and N. Hackerman. bibliog J Phys Chem 57:674-8 O '53

Simple controller for a platinum furnace. M. B. Reynolds. diags R Sci Instr 25:838-9 Ag '54

Analysis

Behavior of platinum group metals toward ion exchange resins. W. M. MacNevin and W. B. Crummett. bibliog(25 ref) Anal Chem 25:1628-30 N '53

Chemical methods for separating and determining metals contained in platiniferous materials. R. Gilchrist. bibliog(25 ref) Anal Chem 25:1617-21 N '53

Reactions involving colored complexes of the platinum metals. G. H. Ayres. bibliog(26 ref) Anal Chem 25:1622-7 N '53

Separation of palladium from platinum, iridium, and rhodium with dimethylglyoxime. G. H. Ayres and E. W. Berg. Anal Chem 25:980-1 Je '53

Separation of platinum and palladium and their subsequent colorimetric determination with *p*-nitrosodimethylaniline. J. H. Yoe and J. J. Kirkland. bibliog Anal Chem 26:1335-9 Ag '54

Separation of the four platinum group metals; palladium, rhodium, iridium and platinum. P. C. Stevenson and others. Am Chem Soc J 75:4876 O 5 '53

Spectrophotometric study of *p*-nitrosodimethylaniline as a sensitive colorimetric reagent for platinum. J. J. Kirkland and J. H. Yoe. bibliog Anal Chem 26:1340-4 Ag '54

Isotopes

Neutron capture in the separated isotopes of platinum. J. M. Cork and others. bibliog diags Phys R 94:1218-21 Je 1 '54

Some regularities in the nuclear level spacings of Hg, Au, and Pt. J. W. Mihelich and A. de-Shalit. bibliog Phys R 93:135-9 Ja 1 '54

Prices

Nonferrous prices; tabulation. Steel 134:175 Ja 4 '54

PLATINUM alloys

Oxidizing catalyst at peak performance. E. B. Brien. il Pet Eng 25:C 15-16 Ag '53

Permanent magnet properties of cobalt-platinum alloys. D. L. Martin and A. H. Geisler. J Ap Phys 24:498 Ap '53

PLATINUM chlorides

Catalysis by Pt(III) of exchange reactions of $PtCl_4^{=}$ and $PtCl_6^{=}$. R. L. Rich and H. Taube. bibliog Am Chem Soc J 76:2608-11 My 20 '54

Metallizing with an aqueous platinic chloride solution. L. Silverman and K. Trego. bibliog Metal Finishing 52:69 Ap '54

Reduction of ethylene platinous chloride. J. H. Flynn and H. M. Hulburt. bibliog Am Chem Soc J 76:3393-6 Jl 5 '54

Reduction of ethylene platinous chloride with deuterium; the mass spectra of deuterated ethanes. J. H. Flynn and H. M. Hulburt. bibliog Am Chem Soc J 76:3396-400 Jl 5 '54

PLATINUM compounds

Evidence for the existence of an ammine of platinum(0). G. W. Watt, M. T. Walling, jr. and P. I. Mayfield. bibliog Am Chem Soc J 75:6175-7 D 20 '53

Platinum-olefin compounds. B. E. Douglas. Am Chem Soc J 75:4839-41 O 5 '53

Analysis

Determination of halogens in complex platinates; preliminary reduction with hydrazine. W. Pugh. bibliog J Ap Chem 4:47-8 Ja '54

PLATINUM metals
Chemistry of the platinum metals; lattice constants of some chloropalladates, bromopalladates, and bromoplatinates. A. G. Sharpe. Chem Soc J p4177-9 D '53
Minikin millions; display by International Nickel to dramatize rarity of platinum group. il Chem W 74:47 Ja 2 '54
Platinum-group metals. J. Cochrane. J Chem Educ 31:407-9 Ag '54
Platinum group metals as catalysts. il Chem Age (Lond) 69:747-9 O 10 '53
Platinum group metals, 1953. J. E. Bell. Eng & Min J 155:96 F '54
Platinum metals exhibition, London. il Engineer 196:530 O 23 '53
Platinum metals exhibition, London, Oct. 22-24. il Elec J 151:1376 O 30 '53
Platinum metals exhibition; Wollaston's discovery of palladium commemorated. il Metallurgia 48:196-7 O '53
See also
Iridium
Osmium
Palladium
Rhenium
Rhodium
Ruthenium

Analysis

Inorganic chromatography on cellulose; quantitative separation of rhodium, palladium, iridium, and platinum; abstract. D. B. Rees-Evans and R. A. Wells. Anal Chem 25:678-9 Ap '53
Potentiometric titration of ammines of rhodium, iridium, and platinum with solutions of potassium and potassium amide in liquid ammonia. G. W. Watt and others. Electrochem Soc J 101:235-8 My '54
Symposium on the platinum metals. bibliog Anal Chem 25:1612-30 N '53

PLATINUM oxides
Platinum oxide catalysts. C. W. Keenan, B. W. Giesemann and H. A. Smith. bibliog Am Chem Soc J 76:229-32 Ja 5 '54

PLATINUM wire. See Wire, Platinum

PLATT, Warren Cumming
To my friends of the oil industry. W. C. Platt. Nat Pet N 46:33-4 Ja 6 '54

PLAYGROUNDS
Factors in selection, installation, maintenance and safety of playground equipment. N. R. Miller. il Pub Works 85:122+ S '54
Model for a children's playground. il plan Arch Rec 115:157 Ja '54
Playgrounds have discovered design; Standard oil co. of California Rod and gun club. il plan Arch Rec 115:155-6 Ja '54

PLAYROOMS
Good playrooms double the living area. il plans House & Home 6:120 S '54

PLEATED fabrics
How do synthetic fabrics retain pleats? J. M. Roughan. Mod Textiles Mag 35:60 Jl '54

PLEISTOCENE period. See Geology, Stratigraphic—Pleistocene

PLETHYSMOGRAPHS
Simple electrical method of recording small volume changes. J. G. Davies. diags J Sci Instr 30:306-7 S '53

PLEXIGLAS. See Plastic materials, Transparent

PLIERS
Printed-circuit pliers. il diags Electronics 26:264+ D '53

PLUMBING
Effect of detergent foaming on waste lines. C. J. Hunter; C. F. Hayward. Dom Eng 183:208+ My '54
How one contractor reduces cost of copper plumbing installations. il Am Bld 75:74-5 Je '53
Piping and plumbing. L. Blendermann. diags Heat & Ven 51:106-7 Je '54 [cont monthly]
Piping for wall hung and stall urinals; detail sheet. diags Heat & Ven 51:73-4 Ja '54
Plumbing, fixtures and accessories. il plans diags Am Bld 75:299+ Ap '53
Recent developments in heating, air conditioning and plumbing. N. N. Wolpert. il diag Arch Rec 113:193-6+ My '53
Shop assembly, answer to your cost problems on project work? McClenahan co. il Dom Eng 183:118-20+ My '54
See also
Drinking water systems
Heating
Hot water supply
Lavatories
Pipes
Plumbing fixtures
Plumbing shops
Plumbing trade
Sanitary engineering
Sewerage
Solder and soldering

Estimates

Plumbing and heating estimating. J. Williams. diag Dom Eng 183:94-5+ Ja; 110-13 F; 130-1 Mr '54

History

Changing house; plumbing. W. E. Kramer. il diags Am Bld 76:144-5 Ag '54

Study and teaching

New kind of technical specialist is coming your way; plumbing engineering course. il Dom Eng 184:118-19+ Ag '54
Plumbing courses offered in vocational schools. N. N. Wolpert. Heat & Ven 50:94+ N '53

Traps

Protecting the trap seal. H. E. Goss. diags Heat & Ven 51:71-2 Ja '54

PLUMBING fixtures
New facts on plumbing fixture performance. diags Dom Eng 184:127+ Ag; 145+ S; 127+ O '54 (to be cont)

Manufacture

Semiautomatic plating pays where sizes, shapes vary; Speakman co. T. Stoddard. il diag Iron Age 173:122-4 Ja 14 '54

PLUMBING laws and regulations
According to law; review of legal decisions which help plumbing and heating contractors to avoid law suits (cont). Dom Eng 182:112 D '53; 183:46 Ja; 26 F; 30 Mr; 30 Ap; 26 My; 30 Je; 184:26 Jl; 30 Ag; 26 S; 32 O '54
Courts may invalidate monopolistic licensing. J. F. McCarthy. Am Bld 75:148 N '53
Industrial city revises its plumbing code! il Dom Eng 184:124-5+ S '54
So you want to write a code? il Dom Eng 184:123 S '54

PLUMBING shops
Complete facilities at neighborhood plumbing shop; detail plate. K. R. O'Neal. il plan diags Am Bld 75:174-5 N '53
How Ressler beats mail-order competition! il Dom Eng 183:136-8+ My '54
Modernize and mechanize; B & B plumbing co. il Dom Eng 184:118-19+ Jl '54
Opportunity knocks louder on Main street. H. L. Robertson. il Dom Eng 183:124-6 Je '54
Super market plumbing comes to Rollier bros. in Pittsburgh. il Dom Eng 183:148 Ja '54
We like repairs! Bruce Wigle plumbing & heating co. in Detroit. K. G. Wigle. il Dom Eng 183:88-92 Ja '54
Wilson bros. opens new offices. il Dom Eng 183:207-8+ F '54

Management

Cost control starts with the right record at Batemans! il Dom Eng 183:93 Ja '54
How I figure estimates, why my system works! P. Shafer. Dom Eng 183:96-8 Ja '54
Texas-style opportunity is everywhere. P. B. Gremm. il Dom Eng 184:120-2 S '54
They cut labor costs $100 per day. il Dom Eng 183:126-9 Mr '54
We turned volume into profits with a management survey, with reorganization; Monroe bros. Dom Eng 184:120-3+ Ag '54

Show windows

Water heater display pays off three ways. il Dom Eng 182:89 D '53

Showrooms

Appliance success story in five acts; C. N. Hubbs and sons. il Dom Eng 182:84-5+ D '53
Attract the feminine trade; C. H. Lacey, inc. il Dom Eng 183:159 F '54
Jack Stephan success at 35! il Dom Eng 183:114-17 F '54

PLUMBING shops—Showrooms—*Continued*

New jobs keep walking in the door; Fred L. Huber company showroom. il Dom Eng 184:124-6+ Ag '54

PLUMBING supplies industry

American institute of wholesale plumbing and heating supply associations 2d annual meeting, New York. Dom Eng 182:132-3+ N '53

Central supply association spring meeting, Chicago. Dom Eng 183:134+ Je '54

Clean-up in plumbing goods; sales five per cent higher than last year. il Steel 135:34 Ag 30 '54

Fixture sales plans speed up. il Steel 133:44 Ag 24 '53

Middle Atlantic wholesalers association spring meeting, Atlantic City. Dom Eng 183:135+ Je '54

Plumbing and heating wholesalers of New England 64th annual meeting, Boston, Jan. 25-26. Dom Eng 183:136-7 Mr '54

So you're married to one type of retail outlet? N. Merfish plumbing supply co. R. McDaniel. il Sales Management 71:114+ S 1 '53

Wholesale distributors association 25th annual meeting, Fort Worth. Dom Eng 183:121 Ap '54

Wholesalers seek to end unfair competition; trade practice rules. Dom Eng 182:52-3+ N '53

PLUMBING trade

Associated plumbing and heating contractors of Florida 33d annual meeting. Dom Eng 183:200+ Je '54

Big city volume in a small town; Cannon's inc. il Dom Eng 183:118-20 Ap '54

Boom in the making? il Dom Eng 184:112-15 Jl '54

Boost your softener sales with these ideas. il Dom Eng 183:107-9 F '54

Central supply association meeting, Chicago. Dom Eng 184:136-7+ S '54

Complete kitchens, a $40,000 accident! Benjamin E. Labov and sons. il Dom Eng 183:158-9 Ja '54

Facts about business prospects for 1954. P. B. B. Andrews. Dom Eng 183:78-81 Ja '54

Financially down doesn't mean out in southern California; Extension Agreements plan. N. Iler and H. Slane. Dom Eng 183:138-9+ Mr '54

Five minutes with Bergie! subjects of interest to plumbing and heating contractors. H. Bergdahl. Dom Eng 183:154+ Ja '54 [cont monthly]

Five ways to beat competition. Dom Eng 183:136-7 Je '54

Hanging cartoon contest; slogan winners are named! il Dom Eng 182:32-5+ N '53

He beats the price squeeze in new work! Bundas plumbing & heating co. Dom Eng 183:106-8+ Ja '54

He's learned to say no to the discount seekers. R. V. Ruppert. il Dom Eng 184:134-5+ Jl '54

Ideas from the 2000 and 1 book. il Dom Eng 183:114-17+ My; 147+ Je '54

Illinois master plumbers' association 61st annual meeting, Peoria, Jan. 25-28. Dom Eng 183:158+ Mr '54

In Freeport; they call him the faucet man; Louis Conter. il Dom Eng 183:102-4 F '54

Jack Stephan success at 35! il Dom Eng 183:114-17 F '54

Kitchen cabinet promotion launched. Dom Eng 183:218+ Ap '54

Missouri state association of master plumbers 70th annual meeting, St Louis, February 28-March 2. Dom Eng 183:213-14 Ap '54

Now Main Street faces on plumbers' back alley shops; American radiator & standard sanitary corp. better retailing plan. D. D. Couch. il Sales Management 70:38+ Ap 1 '53

Pilot meeting sparks trade promotion plan. Dom Eng 183:132-3 Ap '54

Service truck does double duty for Demby! il Dom Eng 183:120-2 Mr '54

Stock turnover, key to profits. Dom Eng 183:245-6+ My '54

There's a gold mine in your customers' basements; water heater sale in Memphis. il Dom Eng 183:84-5 Ja '54

To sell complete kitchens make them to order. J. P. Young. il Dom Eng 183:141 Je '54

What are the prospects for your business? Dom Eng 183:120-3 Je '54

What industry leaders say about prospects for 1954. Dom Eng 183:82-3+ Ja '54

What the big job contractors are doing. il Dom Eng 183:126-9 Mr; 124-7+ Ap; 134-5+ My '54

Yankee trader, 1954 style; Fay's plumbing and heating. il Dom Eng 183:132-4 Mr '54

See also

Plumbing shops

Accidents

What price accidents? 30 accident-free years is no accident; Newman plumbing and heating co. il Dom Eng 184:132-4+ S '54

Accounting

Tax quiz for plumbing-heating contractors. Dom Eng 183:99+ F '54

Advertising

Handwriting's on the wall! Village plumbing co. il Dom Eng 183:118-20 F '54

He doubled his business in three years! Lewis plumbing co. Dom Eng 183:210 Mr '54

John Smith takes a look at modernization advertising. Dom Eng 182:106-7 D '53

King's tv show sells remodeling. il Dom Eng 183:127 Je '54

Rocket man sells water heaters; contractors tie-in with Charles Coburn film. il Dom Eng 184:172 S '54

Stretch your ad dollar; Corpus Christi plumbing co. il Dom Eng 183:130-1+ Je '54

Farm market

Do it right slogan sells 500 water systems a year! Borman plumbing and heating co. il Dom Eng 184:128-9 Jl '54

Field day pulls 5,000 water system prospects. il Dom Eng 183:128-30 Ap '54

First, sell the water system, then trade up. H. F. Randolph. il Dom Eng 183:214-15 My '54

Water system sales drive to be launched in May. il Dom Eng 183:123 Mr '54

Water systems; your key to big-ticket business! Acme butane co. il Dom Eng 184:138-40 S '54

Finance

Financing is the key to remodeling sales. Dom Eng 182:126-7 N '53

How are you fixed on fixed expense. Dom Eng 183:122-3 Ap '54

Insurance requirements

Plumbers association to stop Nation-wide insurance soliciting. Nat Underw 57:13 D 10 '53

Plumbers' insurance deal causes stir. Nat Underw 57:10 N 19 '53

Plumbers national association only concern about cover. H. Matthes. Nat Underw 57:2, 28 D 3 '53

Progress report; three years of fixture replacement insurance in southern California. Dom Eng 183:118-20 Ja '54

Periodicals

New industry publication makes bow; Wholesaler bulletin, published as an industry service by Domestic engineering. il Dom Eng 183:131 Ap '54

Public relations

Is the customer always right? Dom Eng 184:128-30 Ag '54

Plumbing and heating industries bureau 34th annual meeting, Chicago, Oct. 8. Dom Eng 182:222 N '53

Remodeling

Bay City, 1953. il Dom Eng 182:138-9 N; 94-6 D '53

Bay City story goes international; Modernization sales clinic, Toronto. Dom Eng 184:130-1 Jl '54

He took a leaf from the Bay City story; E. C. Hilker, inc. Dom Eng 183:99+ Ja '54

PLUMBING trade—Remodeling—*Continued*

He uses a new twist; new work sells remodeling; R. A. Guinner plumbing and heating co. il Dom Eng 184:126-7+ S '54

Ike message to Congress seen as boon to remodeling. Dom Eng 183:114-16 Mr '54

Modernization clinic. Dom Eng 183:118-19 Mr '54

Problem of John Smith! remodeling education. il Dom Eng 182:111-30 N; 97-108+ D '53

Remodeling film. il Dom Eng 183:100-1 F '54

Remodeling sales drive picks up steam! il Dom Eng 183:114-15 Ap '54

Remodeling; third dimension of your market. il Dom Eng 182:95-8+ N '53

Sell the gift that keeps on giving, remodeling! il Dom Eng 182:93 D '53

What makes a successful kitchen dealer? W. D. Manor plumbing and heating co. Dom Eng 183:126-9+ My '54

Service

How emergency service pays out in Milwaukee; Milwaukee plumbing contractors association. Dom Eng 183:124-5+ Mr '54

Service trucks do double-duty at Benedicts. il diags Dom Eng 184:136-41+ Ag '54

Service contracts

Annual service fees; Zien plumbing and heating co. il map Dom Eng 184:112-16 Ag '54

Taxation

New tax law; how it will affect plumbing and heating contractors. Dom Eng 184:116-18 S; 128-30 O '54 (to be cont)

PLUTONIC rocks. See Rocks, Igneous

PLUTONIUM

Chemical engineering aspects of nuclear power. M. Benedict. bibliog flow sheets il Ind & Eng Chem 45:2372-80 N '53

Curium isotopes 246 and 247 from pile-irradiated plutonium. C. M. Stevens and others. Phys R 94:974 My 15 '54

Higher plutonium levels tolerated. Chem & Eng N 32:2588 Je 28 '54

Identification of californium isotopes 249, 250, 251, and 252 from pile-irradiated plutonium. H. Diamond and others. Phys R 94:1083-4 My 15 '54

Metallurgy at Los Alamos, 1943-1945. C. S. Smith. il Metal Prog 65:81-9 My '54

Properties of plutonium metal. C. S. Smith. Phys R 94:1068-9 My 15 '54

Transcurium isotopes produced in the neutron irradiation of plutonium. S. G. Thompson and others. Phys R 93:908 F 15 '54

Uranium tons→grams of plutonium; Windscale works. il diag Chem & Eng N 32:2288+ Je 7 '54

Isotopes

Alpha- and gamma-ray spectra of Pu^{238}. F. Asaro and I. Perlman. bibliog Phys R 94:381-5 Ap 15 '54

Half-lives of Pu^{240} and Pu^{239}. G. W. Farwell and others. Phys R 94:363-4 Ap 15 '54

Nuclear reactions

Elements 99 and 100 from pile-irradiated plutonium. M. H. Studier and others. Phys R 93:1428 Mr 15 '54

Energy distributions of fragments from fission of U^{235}, U^{238}, and Pu^{239} by fast neutrons. J. S. Wahl. bibliog Phys R 95:126-32 Jl 1 '54

Plutonium-244 from pile-irradiated plutonium. M. H. Studier and others. Phys R 93:1433 Mr 15 '54

$_{94}Pu^{240}$ and its spontaneous fission. O. Chamberlain and others. Phys R 94:156 Ap 1 '54

Physiological effect

Plutonium hazard less serious. Nat Safety N 69:64 My '54

Spectrum

Furnace spectrum of plutonium. J. G. Conway. il diag Opt Soc Am J 44:276-8 Ap '54

PLUTONIUM compounds

Alkali carbonates of Np(V), Pu(V) and Am(V). J. P. Nigon and others. bibliog J Phys Chem 58:403-4 My '54

Crystal structure of $KPuO_2CO_3$, $NH_4PuO_2CO_3$ and $RbAmO_2CO_3$. F. H. Ellinger and W. H. Zachariasen. diag J Phys Chem 58:405-8 My '54

PLUTONIUM fluorides

Preparation and some properties of plutonium fluorides. J. K. Dawson and others. diags Chem Soc J p558-64 F '54

PLYWOOD

Lumber, framing, millwork, plywood, and hardboards, framing and stairs. il diags Am Bld 75:131+ Ap '53

Medium board; resin-bound wood chips for use as medium-density plywood core material and structural board; pictured flowsheet. Chem Eng 60:276-9 S '53

New work on adhesives; resin-bonded plywood. Chem Age (Lond) 68:559-60 Ap 11 '53

Plating; claim big savings with plywood tanks for acid bath; Tacoma powdered metals co. il Iron Age 174:84 Ag 19 '54

Sheet plywood halves construction time for stoppings. il Coal Age 59:112 Ap '54

Softwood plywood, 1949-1952. Survey of Cur Bsns 1953 Sup p 155 [supplemented in monthly numbers]

Structural applications of plywood. F. F. Wangaard. il diags Arch Rec 133:187-92 My '53

Manufacture

Logs get a plastic lacing; Scotch clips for damaged fir logs, making them suitable for plywood veneer lathing. il Chem W 75:78 Ag 21 '54

PNEUMATIC control

Advance in pneumatic mechanisms for high-voltage power circuit breakers; abstract. R. C. Van Sickle and R. N. Yeckley. il Elec Eng 73:219 Mr '54

Air valve makes press repeats impossible. il Product Eng 24:230 Jl '53

Automatic press guard with pneumatic control. diags Engineering 177:284 F 26 '54; Engineer 197:364 Mr 5 '54

Basic principles of pneumatic operators; drawings with text. H. Milo. Product Eng 24:184-5 Ag '53

Control of chemical processes. A. J. Young. diags Instruments 26:1182-5, 1226+ Ag '53; [cont as] Instruments & Automation 27:440-8 Mr '54

Control valves for high air-mass flows. F. E. Swain. il diags Engineering 176:705-6 D 4 '53

Dynamic behavior of pneumatic devices. L. A. Gould and P. E. Smith, jr. diags Instruments 26:886-91, 1026-33 Je-Jl '53

How to increase production efficiency with air power. C. W. Ledig. il diags Cer Ind 63:62-3 S '54; Same. Brick & Clay Rec 125:56-7 S '54

Industrial instrumentation teaching aid. C. J. Major. il diags J Chem Educ 31:262-5 My '54

Mechanical schoolteacher; working model of a pneumatic control system. M. Long. il Refrig Eng 62:59+ Je '54

Negretti and Zambra air-operated temperature transmitter. diag Engineer 196:571 O 30 '53

Pneumatic controls and instrumentation for water plants. R. H. Babcock. il diags Am Water Works Assn J 46:133-43 F '54

Pneumatic pressure transmitter; Drimac. il diags Engineer 196:784 D 11 '53

Pneumatic safety circuits. H. L. Stewart. diags Product Eng 24:196-201 Jl '53; Discussion. 24:280-2+ N '53

Starting and stopping wheels of industry; air-operated clutches and brakes. R. J. Nemmers. il Comp Air Mag 59:49-52 F '54

Trends in refinery instrumentation. W. C. Longstreth. il diags Pet Eng 26:C16+ Ja '54

See also

Electropneumatic control

Hydropneumatic control

PNEUMATIC conveying

Air as a conveying medium for handling materials. T. W. Rodes. Ind & Eng Chem 45:sup 119A-20A+ O '53

Air moves the sand at Allis-Chalmers brass foundry. H. W. Olander. il diag Foundry 82:96-9+ F '54

PNEUMATIC conveying—*Continued*

Air tubes dispatch test samples; Upjohn co.'s new Kalamazoo plant. il Chem Eng 60:124 O '53

Airlift for metal chips; Hartford machine screw co. il Factory Management 112:139 Mr '54

Anywhere in the plant, special delivery by air; American thread co. il plan Factory Management 112:130-1 My '54

Blending and conveying of ceramic raw materials by fluidization. R. A. Koble and others. il diag Am Cer Soc Bul 32:367-72 N 15 '53

Chemical engineering methods in the food industry; developments in handling and storage of flour. J. F. Lockwood and C. H. Wooll. il plan diags Chem & Ind p 1128-34 S 11 '54

Communication; airtubes link production control centers; Reliance electric & engineering co. il Iron Age 173:146 F 11 '54

Concrete blown quarter mile underground. Comp Air Mag 58:318 N '53

Dial-control pneumatic tube systems; electronic relays direct carrier traffic. diags Arch Forum 99:194 Ag '53

Eliminate three-o'clock bottleneck; W. C. Hamilton & sons, Airtube system. il Paper Tr J 138:20 F 12 '54

Figuring pneumatic sawdust conveyors. H. B. Wayne. diags Power Eng 57:96-7 D '53

Foundry core sand delivered by air; Ford's Cleveland foundry. E. J. Egan, jr. il diag Iron Age 173:97-9 Ja 21 '54

Hot dust is conveyed pneumatically from precipitators to furnaces; Noranda smelter. il diags Eng & Min J 155:91 Jl '54

Pneumatic conveying system returns dust to roasters. il Iron Age 172:114 N 26 '53; Steel 133:123 N 23 '53

Pneumatic conveyor cuts paper work, speeds shipment of motors; Reliance electric & engineering co. il Iron Age 172:166-7 Ag 13 '53

Pneumatic conveyor for BEPO irradiation cans. G. Shepherd and R. West. diags J Sci Instr 30:291-2 Ag '53

Pneumatic conveyors slash time and steps; Cleveland trencher co. il Mill & Factory 54:125 Je '54

Pneumatic system handles sand ingredients; General steel castings corp. il diag Foundry 82:200 S '54; Steel 135:89 S 27 '54

Pneumatic tubes speed steel plant communications. A. M. Brown. il Iron Age 173:141-3 Mr 25 '54

Specialized applications of pneumatic conveying expanded in chemical industry. T. W. Rodes. Ind & Eng Chem 45:sup 121A-3A N '53

Tubes streamline production control; Reliance electric & engineering co. il Steel 134:117 Mr 15 '54

Why use pneumatic conveyors? W. G. Hudson. il diags Chem Eng 61:191-4 Ap '54

PNEUMATIC gages. See Gages, Pneumatic

PNEUMATIC machinery

Air-controlled rolls up mill efficiency; Saskatchewan cooperative producers, ltd. flour mill. E. S. Gilbert. il diag Food Eng 26:83+ Jl '54

Air-power makes locks quicker; Kwikset locks, inc. il Am Mach 98:106-7 Ap 26 '54

Air-powered drum lidder; Jack & Heintz co. il Mod Packaging 27:178-9 Mr '54

Air speeds control-device assembly; illustrations with text. D. S. Lisberger. Am Mach 98:126-9 Ag 16 '54

Chip separator works like grain thresher; McKenzie engineering co. diag Comp Air Mag 59:177 Je '54

Drill press power feed saves shop air. A. L. Caplan. il diag Tool Eng 33:59 Jl '54

Eight ways to make pneumatics practical; Lipe-Rollway corp. L. H. Kirk. il Am Mach 98:130-2 Je 21 '54

Facts about modern hydraulic and pneumatic equipment. il Mill & Factory 54:579 My '54

Giving motor cars the third degree. il Comp Air Mag 58:314 N '53

Heidrich-Nourse pneumatic impact press. il Mach 60:239 N '53; Same. Tool Eng 32:121 Ja '54

Niptrol pneumatic mangle gives even pressure across the nip. il diags Textile World 104:103 Ag '54

Pioneer in pneumatics; A. Schrader's son. R. J. Nemmers. il Comp Air Mag 59:72-6 Mr '54

Pneumatic aid for the operating room; physiological monitor. diag Comp Air Mag 59:231-3 Ag '54

Pneumatic machine straps packages with ease. il Comp Air Mag 59:141 My '54

Pneumatic mangle solves many dyehouse problems. C. Amidon. il Am Dyestuff Rep 43:673-4 S 27 '54

Pneumatic operation speeds finishing. il Machine Design 25:171 D '53

Pneumatic pillow replaces sand bags for dead-load testing of structural panels. E. A. Miller. il diags Civil Eng 23:840-2 D '53

Pneumatic weighing and proportioning. diags Comp Air Mag 59:175 Je '54

Remote control of double-acting pneumatic cylinders. F. W. Hicks. diags Product Eng 24:170-1 S '53

PNEUMATIC tools

Air tool makers drive for market expansion. il Steel 133:73-4 N 16 '53

Air tools assembled from interchangeable units. il diag Machine Design 25:224-5 D '53

Demonstration of pneumatic tools; Holman bros., ltd. il Engineer 197:290 F 19 '54

Get the most out of compressed air all the time; Ryan aeronautical co. il Steel 134:102+ My 31 '54

Impactool helps load oil-well gun. il Comp Air Mag 59:48 F '54

Pressing bushings with pneumatic support mandrel. H. G. Frommer. diags Mach 60:224-5 N '53

San Diego Gas & Electric has standard sets of air equipment for street crews. il Am Gas J 180:23 Ja '54

Special head converts riveter into pin driver. il Comp Air Mag 59:233 Ag '54

Two new air tools speed aircraft production. il Comp Air Mag 59:9 Ja '54

Maintenance and repair

Save $20,000 a month with air-tool sense; Ryan aeronautical co. il Am Mach 98:153-5 Mr 15 '54

Manufacture

Swedish pneumatic mining equipment. il Engineer 196:569-70 O 30 '53

Testing

Ryan Aeronautical takes the test to the air tool. il Factory Management 112:109 Mr '54

PNEUMATIC tools, Portable

Facts about modern portable air tools. il Mill & Factory 54:596 My '54

Tooling and portable tools. il diags Am Mach 97:C-C 19 Mid-N '53

PNEUMATIC transmission

Hagan ring balance meter signal transmitter. il Blast F & Steel Pl 42:375-6 Mr '54

Johansson automatic measurement and control instrument. il diag Engineer 197:221 F 5 '54

Kent pressure transmitter. diag Metallurgia 50:93-4 Ag '54

Longest, largest high-pressure crude line automatically controlled. E. E. Kleir. il map diags Oil & Gas J 52:76-8+ D 28 '53

PNEUMATICS

See also

Fans, Mechanical

PNEUMOCOCCI

Chemical constitution of the specific polysaccharide of type XVIII pneumococcus. H. Markowitz and M. Heidelberger. bibliog Am Chem Soc J 76:1317-19 Mr 5 '54

Chemical modifications of the specific polysaccharide of type III pneumococcus and their immunological effects. H. Markowitz and M. Heidelberger. bibliog Am Chem Soc J 76:1313-16 Mr 5 '54

PNEUMOCONIOSIS. See Lungs—Dust diseases

PNEUMONIA

Mechanism of suppression of nontransmissible pneumonia in mice induced by Newcastle disease virus. V. Groupé and others. bibliog Science 118:187-91 Ag 14 '53

PODBIELNIAK centrifugal extractor. See Extraction apparatus

PODOPHYLLIC acid

Synthesis of a DL-stereoisomer of podophyllic acid. W. J. Gensler, C. M. Samour and Shih Yi Wang. Am Chem Soc J 76:315-16 Ja 5 '54

PODOPHYLLIN

Components of podophyllin; the structure of the peltatins. A. W. Schrecker and J. L. Hartwell. bibliog Am Chem Soc J 75:5924-7 D 5 '53

PODOPHYLLOTOXIN

Chemotherapy of cancer; the synthesis of dihydroxytetrahydronaphthoic acids related to podophyllotoxin. K. N. Campbell, J. A. Cella and B. K. Campbell. bibliog Am Chem Soc J 75:4681-4 O 5 '53

Components of podophyllin; acid-catalyzed reactions of podophyllotoxin and its stereoisomers. A. W. Schrecker and J. L. Hartwell. bibliog Am Chem Soc J 76:752-4 F 5 '54

Components of podophyllin; podophyllotoxin haloacetates and quaternary derivatives. A. W. Schrecker, G. Y. Greenberg and J. L. Hartwell. bibliog Am Chem Soc J 76:1184-5 F 20 '54

Components of podophyllin; pyrolysis of podophyllotoxin halides. A. W. Schrecker, G. Y. Greenberg and J. L. Hartwell. bibliog Am Chem Soc J 76:1182-4 F 20 '54

Components of podophyllin; the configuration of podophyllotoxin. A. W. Schrecker and J. L. Hartwell. bibliog Am Chem Soc J 75:5916-24 D 5 '53

Isolation of podophyllotoxin glucoside. A. Stoll, J. Renz and A. V. Wartburg. bibliog Am Chem Soc J 76:3103-4 Je 5 '54

Relationship of anthricin, hernandion and cicutin to desoxypodophyllotoxin. J. L. Hartwell and A. W. Schrecker. bibliog Am Chem Soc J 76:4034-5 Ag 5 '54

Synthesis of a substituted phenylnaphthalene related to podophyllotoxin. W. Reeve and H. Myers. bibliog Am Chem Soc J 75:4957-8 O 20 '53

POINCARÉ sphere

Transmission of light through birefringent and optically active media; the Poincaré sphere. H. G. Jerrard. bibliog il diags Opt Soc Am J 44:634-40 Ag '54

POINT-of-purchase advertising institute

Annual symposium and exhibit, 7th, Chicago. Ptr Ink 243:15 Ap 10 '53

Annual symposium and exhibit, 7th, Chicago, March 31-April 2. Sales Management 70:73 Ap 15 '53

POISON gases. See Gases, Asphyxiating and poisonous

POISON ivy

Poison ivy urushiol. W. F. Symes and C. R. Dawson. bibliog Am Chem Soc J 76:2959-63 Je 5 '54

POISONS

Acute toxicity of mineral dusts. J. C. Dale and E. J. King. bibliog A M A Archives Ind Hygiene & Occup Med 7:478-83 Je '53

Crop protection as a health hazard. J. M. Barnes. Chem & Ind p625-7 Je 27 '53

NSC plan evaluates toxicity of new chemicals. Chem & Eng N 31:2719 Je 29 '53

Physical toxicity of chemicals; solubilities, partition coefficients and physical toxicities. J. C. McGowan. bibliog(27 ref) J Ap Chem 4:41-7 Ja '54

Poisons interpretation of USDA. Oil Paint & Drug Rep 165:7+ Ap 5 '54

Toxicology of disinfectants. L. C. Barail. Soap & Chem Spec 30:149-51+ Ag '54

See also

Arsenic
Arsine
Beryllium poisoning
Carbon monoxide poisoning
Carbon tetrachloride poisoning
Curare
DDT—Physiological effect
Dichlorophenoxyacetic acid
Fish poisons
Food poisoning
Gases, Asphyxiating and poisonous
Hydrocyanic acid
Insecticides
Lead poisoning
Manganese poisoning
Nickel carbonyl—Physiological effect
Pentachlorophenol
Pyrethrins
Radioactivity—Physiological effect
Trichloroethylene

Analysis

Systematic toxicological analysis by spectrophotometric methods. G. W. Roche and others. bibliog A M A Archives Ind Hygiene & Occup Med 8:507-27 D '53

POISONS, Industrial

Current studies on the toxicity of nickel carbonyl. H. H. Schrenk. Ind & Eng Chem 45:sup 113A-14A+ O '53

Health and safety problems increase as commercial production and industrial applications of hydrazine increase. H. H. Schrenk. Ind & Eng Chem 46:sup93A-5A Ag '54

See also

Aniline poisoning
Arsine
Beryllium poisoning
Carbon tetrachloride poisoning
Lead poisoning
Mercury poisoning
Nitropropane
Selenium poisoning
Sulfuric acid
Trichloroethylene
Vanadium poisoning

POISSON'S ratio

Mechanical properties in torsion and Poisson's ratio for certain stainless steel alloys. C. W. Muhlenbruch and others. diags Am Soc T M Proc 51:832-52; Discussion. 853-6 '51

Poisson's ratio. M. Feigen. J Aeronautical Sci 20:785 N '53

POLAND

See also

Chemical industries—Poland

Boundaries

Locarno on the Oder-Neisse. map Economist 168:238-40 Jl 25 '53

Economic conditions

Poland falls in line. Economist 169:480 N 14 '53

POLARITY

Polar versus nonpolar ice. R. E. Rundle. J Chem Phys 22:344-5 F '54

Residual entropy of the polar structure of ice. W. N. Lipscomb. diag J Chem Phys 22:344 F '54

POLARIZATION (electricity)

Case of charged density distribution versus semi-permanent polarization as a basis for electret behavior. W. F. G. Swann. Franklin Inst J 256:167-75 Ag '53

Corrosion inhibitors and polarographic maxima. H. C. Gatos. bibliog il Electrochem Soc J 101:433-41 S '54

Measurement of electrode polarization by the current-interrupter method. S. Barnartt. J Chem Phys 21:2090 N '53

POLARIZATION (light)

Analysis of elliptically polarized radiation in the infrared region. G. K. T. Conn and G. K. Eaton. bibliog diags Opt Soc Am J 44:546-52 Jl '54

New photoelectric method for the calibration of retardation plates. D. D. Randall. Opt Soc Am J 44:600-2 Ag '54

Polarization by transmission with particular reference to selenium films in the infrared. G. K. T. Conn and G. K. Eaton. bibliog diags Opt Soc Am J 44:553-7 Jl '54

Simple anodising process for revealing the grain structure of aluminium alloys. H. G. Cole and W. J. D. Brooks. bibliog il Metallurgia 50:97-100 Ag '54

Transmission of light through birefringent and optically active media; the Poincaré sphere. H. G. Jerrard. bibliog il diags Opt Soc Am J 44:634-40 Ag '54

Use of a rotating polarizer to measure optical constants in the infrared. G. K. T. Conn and G. K. Eaton. bibliog il diags Opt Soc Am J 44:484-91 Je '54

Use of unfiltered light in determining particle radius by the polarization ratio of the scattered light. M. Kerker and M. I. Hampton. bibliog diags Opt Soc Am J 43:370-2 My '53

See also

Kerr effect
Photoelasticity

POLARIZATION, Dielectric

Dielectric polarization and structure of polar liquids under pressure. F. E. Harris and others. bibliog diag J Chem Phys 21:1943-8 N '53

Domain clamping effect in barium titanate single crystals. M. E. Drougard and D. R. Young. diags Phys R 94:1561-4 Je 15 '54

POLARIZATION, Electrolytic

Capacity of polarized platinum electrodes in hydrochloric acid. W. D. Robertson. bibliog diags Electrochem Soc J 100:194-201 Ap '53

Effect of chloride on the deposition of copper, in the presence of arsenic, antimony, and bismuth. V. Hospadaruk and C. A. Winkler. bibliog J Metals 5:Trans 1375-7 O '53

Electrochemical polarization of titanium in aqueous solutions of sodium chloride. N. Hackerman and C. D. Hall, jr. bibliog Electrochem Soc J 101:321-7 Je '54

Electrochemical polarization of zirconium in neutral salt solutions. N. Hackerman and O. B. Cecil. bibliog Electrochem Soc J 101:419-25 Ag '54

Ionic mass transfer and concentration polarization at rotating electrodes. M. Eisenberg and others. bibliog(48 ref) il diag Electrochem Soc J 101:306-20 Je '54

Mathematical studies on galvanic corrosion; coplanar electrodes with negligible polarization. J. T. Waber. bibliog il diags Electrochem Soc J 101:271-6 Je '54

Studies on the anodic polarization of zirconium and zirconium alloys. M. Maraghini and others. bibliog Electrochem Soc J 101:400-9 Ag '54

Theory of ac space-charge polarization effects in photoconductors, semiconductors, and electrolytes. J. R. Macdonald. bibliog Phys R 92:4-17 O 1 '53

Utility of thermodynamic interpretation of polarization curves. M. Pourbaix. bibliog diag Electrochem Soc J 101:sup217C-21C S '54

POLARIZATION of particles

Electric polarization of charged particles in square potential wells. J. H. Gibbs. Phys R 94:292-4 Ap 15 '54

Electronic polarizabilities of ions in crystals. J. R. Tessman and others. bibliog Phys R 92:890-5 N 15 '53

Experimental study of the μ^- meson mass and the vacuum polarization in mesonic atoms. S. Koslov and others. Phys R 95:291-2 Jl 1 '54

Gamma radiation from reactions induced by polarized particles. J. M. Kennedy and W. T. Sharp. Phys R 95:440 Jl 15 '54

Mechanism of proton polarization in high-energy collisions. O. Chamberlain and others. Phys R 95:1105-6 Ag 15 '54

Neutron polarization. C. P. Stanford and others. bibliog diags Phys R 94:374-81 Ap 15 '54

Polarizability of the hydride ion and the dipole moments and binding energies of the alkali metal hydrides. A. P. Altshuller. bibliog J Chem Phys 21:2074-5 N '53

Polarization by *p-p* collision at 439 Mev. H. G. de Carvalho and others. Phys R 94:1796-7 Je 15 '54

Polarization in high-energy elastic nucleon-nucleus scattering. B. J. Malenka. bibliog Phys R 95:522-6 Jl 15 '54

Polarization of elastically scattered nucleons from nuclei. W. Heckrotte and J. V. Lepore. Phys R 94:500-1 Ap 15 '54

Polarization of elastically scattered nucleons from nuclei in the Born approximation. W. Heckrotte. bibliog Phys R 94:1797-8 Je 15 '54

Polarization of fast protons scattered by nuclei. G. Takeda and K. M. Watson. Phys R 94:1087-8 My 15 '54

Polarization of high-energy deuterons. O. Chamberlain and others. Phys R 95:1104-5 Ag 15 '54

Polarization of high-energy protons scattered by complex nuclei. S. Tamor. Phys R 94:1087 My 15 '54

Polarization of Mn^{55} nuclei; cryogenic aspects. J. W. T. Dabbs and L. D. Roberts. bibliog Phys R 95:970-4 Ag 15 '54

Polarization of nuclei in metals. A. W. Overhauser. bibliog diags Phys R 92:411-15 O 15 '53

Polarization of nucleons elastically scattered from nuclei. W. Heckrotte and J. V. Lepore. Phys R 95:1109-10 Ag 15 '54

Polarization of nucleons elastically scattered from nuclei. G. A. Snow and others. Phys R 94:1073-4 My 15 '54

Polarization of nucleons elastically scattered from nuclei. R. M. Sternheimer. Phys R 95:587-9 Jl 15 '54

Some physical consequences of vacuum polarization. L. L. Foldy and E. Eriksen. Phys R 95:1048-51 Ag 15 '54

Statistical mechanics and the Overhauser nuclear polarization effect. C. Kittel. Phys R 95:589-90 Jl 15 '54

Theory of polarized particles and gamma rays in nuclear reactions. A. Simon. bibliog Phys R 92:1050-60 N 15 '53

POLARIZATION of radio waves. See Radio waves—Polarization

POLARIZATION of rays

Beta-gamma polarization correlations. D. R. Hamilton and others. bibliog diags Phys R 92:1191-8 D 1 '53

Experiments with high-energy polarized protons. O. Chamberlain and others. diag Phys R 93:1430-1 Mr 15 '54

Polarization by *p-p* collision at 310 Mev. J. Marshall and others. Phys R 93:1431 Mr 15 '54

Stokes-parameter technique for the treatment of polarization in quantum mechanics. U. Fano. bibliog Phys R 93:121-3 Ja 1 '54

POLAROGRAPH

Effect of cracked cells on the shape of cathode ray polarograph traces. G. F. Reynolds and H. I. Shalgosky. Chem & Ind p787 Jl 3 '54

Measuring the resistance of polarographic cell circuits. M. R. Pesce, S. L. Knesbach and R. K. Ladisch. bibliog Anal Chem 25:979-80 Je '53

Simple recording polarograph. B. W. Mundy and N. W. Allen. il diags J Chem Educ 30:143-5 Mr '53

POLAROGRAPHIC analysis

Amperometric titration and voltammetric determination of iodide. I. M. Kolthoff and J. Jordan. bibliog Anal Chem 25:1833-7 D '53

Amperometric titration of oxidized glutathione in presence of cystine. W. Stricks and I. M. Kolthoff. bibliog Anal Chem 25:1050-7 Jl '53

Anodic polarographic wave of vanadium(IV) aged in alkaline solution. I. M. Kolthoff and P. T. Toren. Anal Chem 26:1361-2 Ag '54

Anodic voltammetry of phenols. J. F. Hedenburg and H. Freiser. bibliog Anal Chem 25:1355-8 S '53

Application of the cathode-ray polarography to rotating platinum electrodes. I. Shain and A. L. Crittenden. bibliog diag Anal Chem 26:281-4 F '54

Automatic receiver changer. E. S. Sanderson. il diag Anal Chem 26:944 My '54

Automatic recorder for continuous determination of oxygen in gases using the dropping mercury electrode. T. B. Larchar and M. Czuha, jr. bibliog diags Anal Chem 26:1351-4 Ag '54

Coulometry; related phenomena of electrolysis and current-sweep polarography. N. H. Furman. bibliog(36 ref) diags Electrochem Soc J 101:sup 19C-22C Ja '54

Dissolved-oxygen measurement. A. T. Ippen and C. E. Carver, jr. bibliog diags Instruments & Automation 27:128-9+ Ja '54

Half-wave potentials of quinoline -6- and -7- carboxylic acids and aldehydes. F. J. Pinchin and J. T. Stock. Chem & Ind p347 Mr 20 '54

Hydrogen fluoride solvent system; apparatus for polarographic studies. J. W. Sargent, A. F. Clifford and W. R. Lemmon. diags Anal Chem 25:1727-9 N '53

Maleic and fumaric acids. P. J. Elving and I. Rosenthal. bibliog Anal Chem 26:1454-9 S '54

Mercury pool polarography. C. A. Streuli and W. D. Cooke. bibliog diag Anal Chem 25:1691-6 N '53

Methods for analysis of titanium alloys; polarographic determination of molybdenum in titanium alloys. M. Codell, J. J. Mikula and G. Norwitz. bibliog Anal Chem 25:1441-3 O '53

Minimum error polarographic analysis of binary mixtures. A. Frisque, V. W. Meloche and I. Shain. Anal Chem 26:471-3 Mr '54

Organic polarography. S. Wawzonek. Anal Chem 26:65-77 bibliog(426 ref, p73-7) Ja '54

POLAROGRAPHIC analysis—*Continued*

Polarographic analysis for arsenic and antimony. G. P. Haight, jr. bibliog Anal Chem 26:593-5 Mr '54

Polarographic analysis of lead driers. D. A. Skoog and R. L. Focht. Anal Chem 25:1922-4 D '53

Polarographic analysis of mixtures of fumaric and maleic acids, and their diethyl esters. P. J. Elving, A. J. Martin and I. Rosenthal. bibliog Anal Chem 25:1082-4 Jl '53

Polarographic and amperometric mercurometric determination of disulfide groups. W. Stricks, I. M. Kolthoff and N. Tanaka. bibliog Anal Chem 26:299-303 F '54

Polarographic behavior of organic compounds at the mercury pool electrode. C. A. Streuli and W. D. Cooke. bibliog diag Anal Chem 26:963-70 Je '54

Polarographic characteristics of metallic cations in acetate media. M. A. DeSesa and others. Anal Chem 25:983-4 Je '53

Polarographic determination of alpha-ketoglutaric acid. J. K. Palmer and C. O. Jensen. bibliog Anal Chem 26:1049-50 Je '54

Polarographic determination of amino acids. D. R. Norton and N. H. Furman. bibliog Anal Chem 26:1116-19 Jl '54

Polarographic determination of ammonia. D. R. Norton and C. K. Mann. bibliog Anal Chem 26:1180-2 Jl '54

Polarographic determination of anthraquinone. R. L. Edsberg, D. Eichlin and J. J. Garis. bibliog diags Anal Chem 25:798-800 My '53

Polarographic determination of citric acid. P. J. Elving and R. E. Van Atta. bibliog Anal Chem 26:295-8 F '54

Polarographic determination of dissolved oxygen in dilute sulfite waste liquor. H. S. Levine and O. J. Williams. bibliog Anal Chem 26:1297-302 Ag '54

Polarographic determination of iodoso- and iodoxybenzene. E. L. Colichman. bibliog Anal Chem 25:1124-5 Jl '53

Polarographic determination of maleate unsaturation in polyesters. E. W. Hobart. Anal Chem 26:1291-3 Ag '54

Polarographic determination of molybdenum in presence of tungsten. L. Meites. Anal Chem 25:1752-3 N '53

Polarographic determination of molybdenum; tartaric acid as supporting electrolyte. E. P. Parry and M. G. Yakubik. bibliog Anal Chem 26:1294-7 Ag '54

Polarographic determination of nitrate. W. A. Lawrance and R. M. Briggs. Anal Chem 25:965-6 Je '53

Polarographic determination of nitrates in sanitary analysis. M. C. Rand and H. Heukelekian. bibliog Anal Chem 25:878-81 Je '53

Polarographic determination of nitrite. D. T. Chow and R. J. Robinson. bibliog Anal Chem 25:1493-6 O '53

Polarographic determination of phthalaldehyde. N. H. Furman and D. R. Norton. bibliog diag Anal Chem 26:1111-15 Jl '54

Polarographic determination of phthalate esters in plastics. G. C. Whitnack and E. S. Gantz. bibliog Anal Chem 25:553-6 Ap '53

Polarographic determination of quaternary phosphonium salts. E. L. Colichman. bibliog Anal Chem 26:1204-5 Jl '54

Polarographic determination of the gamma isomer of hexachlorocyclohexane. C. A. Streuli and W. D. Cooke. Anal Chem 26:970-2 Je '54

Polarographic determination of tungsten in rocks. L. E. Reichen. bibliog Anal Chem 26:1302-4 Ag '54

Polarographic determination of zinc in gold. S. B. Deal. Anal Chem 26:1459-60 S '54

Polarographic determination of zinc in plant materials. O. N. Hinsvark and others. bibliog Anal Chem 26:1202-4 Jl '54

Polarographic electrode assembly. R. K. Ladisch and S. L. Knesbach. bibliog diag Anal Chem 26:1251 Jl '54

Polarographic estimation of benzothiophene-1-dioxide and related compounds. P. Smith, H. G. Sprague and O. C. Elmer. Anal Chem 25:793 My '53

Polarographic investigation of some commercially available chlorophyllins. W. L. Wuggatzer and J. E. Christian. bibliog Science 118:444-5 O 16 '53

Polarographic oxidation of phenolic compounds. V. F. Gaylor, P. J. Elving and A. L. Conrad. bibliog Anal Chem 25:1078-82 Jl '53

Polarographic studies of oxygen-containing compounds; acid anhydrides. C. Ricciuti and others. Anal Chem 25:933-5 Je '53

Polarographic studies of sulfur compounds in petroleum fractions. M. E. Hall. bibliog Anal Chem 25:556-61 Ap '53

Polarographic studies with a stationary mercury-plated platinum electrode. T. L. Marple and L. B. Rogers. bibliog Anal Chem 25:1351-4 S '53

Polarographic studies with gold, graphite, and platinum electrodes. S. S. Lord, jr. and L. B. Rogers. bibliog(26 ref) Anal Chem 26:284-95 F '54

Polarographic study of lead in a potassium thiocyanate supporting electrolyte. J. O. Hibbits and S. S. Cooper. bibliog Anal Chem 26:1119-20 Jl '54

Polarography in glycerol at elevated temperatures. T. De Vries and D. B. Bruss. bibliog Electrochem Soc J 100:445-7 O '53

Polarography of certain organic polysulfides. J. H. Karchmer and M. T. Walker. bibliog Anal Chem 26:271-80 F '54

Polarography of copper in ethylenediaminetetraacetic acid solutions. R. L. Pecsok. bibliog Anal Chem 25:561-4 Ap '53

Polarography of salicylic acid. C. H. Hale and M. N. Hale. bibliog Anal Chem 26:1078-9 Je '54

Polarography of the quinoline-monocarboxylic acids and aldehydes. F. J. Pinchin and J. T. Stock. Chem & Ind p 1204 N 7 '53

Polarography of thioglycolic acid. D. L. Leussing and I. M. Kolthoff. bibliog Electrochem Soc J 100:334-8 Jl '53

Polarography of thiourea. R. L. Edsberg. Anal Chem 26:724-6 Ap '54; Correction. 26:1994 D '54

Polarography of zirconium salts in methanol. E. L. Colichman and W. H. Ludewig. Anal Chem 25:1909-10 D '53

Portable polarographic reference electrode. R. K. Ladisch and S. Knesbach. bibliog diags Anal Chem 26:941-2 My '54

Potentiometric polarography. R. N. Adams, C. N. Reilley and N. H. Furman. bibliog diags Anal Chem 25:1160-4 Ag '53

Rapid polarographic method for the analysis of tungsten-cobalt alloys. I. A. Bucklow and T. P. Hoar. Metallurgia 48:317-18 D '53

Rotated and stationary platinum wire electrodes. I. M. Kolthoff and N. Tanaka. bibliog (25 ref) Anal Chem 26:632-6 Ap '54

Separation of hydrogen peroxide from organic hydroperoxides. W. M. MacNevin and P. F. Urone. Anal Chem 25:1760-1 N '53

Shielded dropping mercury electrode for polarographic analysis of flowing solutions. W. H. Jura. bibliog diag Anal Chem 26:1121-3 Jl '54

Spectrophotometric and polarographic determinations of soluble silicate. M. A. DeSesa and L. B. Rogers. bibliog Anal Chem 26:1278-84 Ag '54

Use of the polarograph in the determination of lead in gasoline engine fuel, lubricants, and deposits. B. W. Swanson and P. H. Daniels. diag Inst Pet J 39:487-97 Ag '53

Voltammetric determination of lead as lead dioxide at the rotated platinum wire electrode. I. M. Kolthoff, J. Jordan and A. Heyndrickx. bibliog Anal Chem 25:884-7 Je '53

POLAROGRAPHY

Analysis of irreversible polarographic waves. D. M. H. Kern. Am Chem Soc J 76:4234-6 Ag 20 '54

Application of polarized mercury pool electrodes to polarography. C. A. Streuli and W. D. Cooke. bibliog J Phys Chem 57:824-6 N '53

Corrosion inhibitors and polarographic maxima. H. C. Gatos. bibliog il Electrochem Soc J 101:433-41 S '54

Derivative and differential polarography. G. F. Reynolds. bibliog Chem & Ind p971 S 12 '53

Effect of solvents and electrolytes on polarograms of carbon tetrachloride. J. J. Lothe and L. B. Rogers. bibliog Electrochem Soc J 101:258-66 My '54

POLAROGRAPHY—*Continued*

Effect of structure on the polarographic reduction of iodo compounds. E. L. Colichman and Shih Kung Liu. Am Chem Soc J 76:913-15 F 5 '54

Enzymatic removal of oxygen for polarography and related methods. R. E. Benesch and R. Benesch. bibliog Science 118:447-8 O 16 '54

Investigation of complex metal ions by the polarographic method. K. H. Gayer and others. J Chem Educ 30:557-61 N '53

Oxygen-hydrogen peroxide couple at the dropping mercury electrode. D. M. H. Kern. bibliog Am Chem Soc J 76:1455 Mr 5 '54

Polarographic behaviour of disubstituted benzenes; relation of $E_{-1/2}$'s to electron densities and activation energies for electrophilic substitution. Mrs E. Gergely and T. Iredale. Chem Soc J p3226-32 O '53

Polarographic behavior of glyoxal. P. J. Elving and C. E. Bennett. bibliog Am Chem Soc J 76:1412-15 Mr 5 '54

Polarographic characteristics of +5 vanadium in phosphate, borate and carbonate buffers. I. Filipović and others. bibliog Am Chem Soc J 76:2074-80 Ap 20 '54

Polarographic determination of relative formation constants of metal complexes of ethylenediaminetetraacetic acid. K. Bril and P. Krumholz. bibliog J Phys Chem 57:874-9 D '53

Polarographic diffusion coefficients. C. L. Rulfs. bibliog Am Chem Soc J 76:2071-4 Ap 20 '54

Polarographic oxidation potential of ascorbic acid. D. M. H. Kern. bibliog Am Chem Soc J 76:1011-15 F 20 '54

Polarographic reduction of copper ethylenediamine tetraacetate. K. Bril and P. Krumholz. bibliog J Phys Chem 58:339-44 Ap '54

Polarographic studies in non-aqueous media; formamide. H. Letaw, jr. and A. H. Gropp. bibliog J Phys Chem 57:964-5 D '53

Polarographic studies in non-aqueous media; formamide-acetamide mixtures. J. H. Hook, H. Letaw, jr. and A. H. Gropp. bibliog J Phys Chem 58:81-3 Ja '54

Polarographic study of some propylpyridonium salts. E. L. Colichman and P. A. O'Donovan. bibliog Am Chem Soc J 76:3588-9 Jl 5 '54

Polarographic study of the titanium-ethylenediaminetetraacetate complexes. R. L. Pecsok and E. F. Maverick. bibliog Am Chem Soc J 76:358-62 Ja 20 '54

Polarographic study of various diphenyl disulfides. E. L. Colichman and D. L. Love. bibliog Am Chem Soc J 75:5736-7 N 20 '53

Polarography and standard potential of the oxygen-hydrogen peroxide couple. D. M. H. Kern. bibliog Am Chem Soc J 76:4208-14 Ag 20 '54

Polarography of nitrate ion. J. W. Collat and J. J. Lingane. bibliog Am Chem Soc J 76:4214-18 Ag 20 '54

Polarography of phenyl 2-thienyl and 2,2′-dithienyl ketones. R. A. Day, jr. and W. A. Blanchard. bibliog Am Chem Soc J 76:1166-7 F 20 '54

Polarography of picolinic and isonicotinic acid and their amides. H. H. G. Jellinek and J. R. Urwin. bibliog J Phys Chem 58:168-73 F '54

Studies on the rising portion of reversible polarographic waves. K. B. Oldham, P. Kivalo and H. A. Laitinen. bibliog Am Chem Soc J 75:5712-15 N 20 '53

Theory of irreversible polarographic waves; case of two consecutive electrochemical reactions. T. Berzins and P. Delahay. bibliog Am Chem Soc J 75:5716-20 N 20 '53

Theory of the kinetics of polarographic electrode processes. R. Brdička and J. Koutecký. bibliog Am Chem Soc J 76:907-8 F 5 '54

Theory of the polarographic diffusion current; diffusion of small amount of thallium ion in aqueous potassium chloride solutions. J. H. Wang and F. M. Polestra. bibliog Am Chem Soc J 76:1584-5 Mr 20 '54

Theory of the polarographic diffusion current; diffusion of small amounts of lead and zinc ions in solutions of various supporting electrolytes. J. H. Wang. bibliog Am Chem Soc J 76:1528-32 Mr 20 '54

POLAROID corporation

Security I like best. M. Pinkus. Comm & Fin Chr 178:2069 N 26 '53

POLE construction. See Wood construction

POLE setting

Pole-hole borer; erection of transmission lines. il Engineering 177:221 F 12 '54; Elec J 152:446 F 5 '54; Elec R (Lond) 154:237 F 5 '54

POLES

See also

Electric lines—Poles and towers

POLES, Concrete

Making concrete poles in Germany. A. Kemmelmaier. il Elec World 140:92-3 D 28 '53

POLICE

See also

Radio telephone—Police uses

Great Britain

Policeman's lot. Economist 169:18 O 3 '53

POLICE associations

See also

Benefit societies

POLIOMYELITIS. See Infantile paralysis

POLISHING

Air-inflated grinders reduce polishing time 50 per cent. il Mill & Factory 53:145 D '53

Automatic setup buffs intricate aluminum castings; Black & Decker mfg. co. J. E. Taylor. il Iron Age 173:108-10 Ja 21 '54

Contact wheels influence abrasive-belt performance. D. Olton. il Am Mach 98:121-3 Je 21 '54

Felts find wide use in industry for finishing operations. il Iron Age 173:155-6+ My 6 '54

Finishers tune in on burnishing. il Aviation W 59:39 O 12 '53

Finishing; procedure converts polishing lathe to use abrasive belt. il diag Iron Age 172:204-7 N 5 '53

Getting the most for your polishing dollar? E. F. Doyle. Metal Finishing 52:69-70 S '54

Industrial stethoscope speeds burnishing, cuts scrap loss. il Iron Age 172:116 O 1 '53

Interferometer for examining polished surfaces. R. E. Sugg. il diags Mech Eng 75:629-31 Ag '53; Discussion. 76:109-10 Ja '54

Lubricants aid abrasive-belt grinding and polishing. J. Durnan. il Mach 60:173-6 F '54

Metal cleaning and finishing handbook; mechanical finishing. Iron Age 174:sup F 14-18 Jl 29 '54

Polishing phenomena in the copper sulfides. A. D. Wandke. il Econ Geol 48:225-32 My '53

Standard Forge and Axle rebuilt 50-ton press burnishes axle housings. E. D. White. diags Am Mach 98:125 Mr 1 '54

Surface finishing stainless steel. il Steel 133:82-3 Ag 24 '53

Wet blasting dies. Steel 133:122 S 28 '53

See also

Tumbling barrels

POLISHING, Electrolytic

Conditions for electrolytic polishing of metals and alloys; engineering file facts. S. H. Bush, comp. bibliog(57 ref) Materials & Methods 39:137, 139, 141 Je '54

Contribution to the theory of electropolishing. C. Wagner. bibliog diags Electrochem Soc J 101:225-8 My '54

Electropolishing of carbon steels; abstract. Metal Finishing 52:88 S '54

Improved method for routine electrolytic polishing of microspecimens. R. L. Hancher. il diags Metallurgia 49:47-51 Ja '54

Mechanism of electropolishing of copper in phosphoric acid solutions. J. Edwards. bibliog il diags Electrochem Soc J 100:sup 189C-94C, 223C-30C Jl-Ag '53

Production of fine wires by electrolytic polishing. H. R. Haines and B. W. Mott. diag J Sci Instr 30:459-60 D '53

Where and when to use electropolishing. M. W. Riley. il Materials & Methods 39:104-6 Je '54

POLISHING machines

Automatic polishing machine. F. E. Riley. il Am Mach 98:145 Je 21 '54

Belt-polishing unit mounted on single base; Stephen Bader & co. il Metal Finishing 52:128-9 Je '54

Contact grinding and polishing machine. il Metal Finishing 52:93-4 Ap '54

POLISHING machines—*Continued*

Converting polishing lathes to use coated abrasive belts. J. J. Durnan. il diags Metal Finishing 52:62-3+ Ja '54

Hammond turret polishing machine uses up to six buffing heads. il Am Mach 98:214 S 13 '54

Machine tool buyers' guide; polishing and buffing machines. il Steel 133:150-3 sec 2 N 16 '53

New machine polishes zinc diecast parts automatically. H. Chase. il Iron Age 172: 136-7 Ag 20 '53

Versatile polishing head; Murray-Way corp. il Metal Finishing 52:125-6 Je '54

POLISHING materials

Automobile polishes. W. W. Lewers. il diag Soap & San Chem 29:171+ My '53

How the home economist can aid in marketing chemical specialties. E. Konnak. il Soap & San Chem 30:134-5+ F '54

Modern metal polishes. M. A. Lesser. bibliog(26 ref) Soap & San Chem 29:157+ Mr '53

Shelf life standards for automotive chemical specialties products. W. A. Hall. Soap & San Chem 29:139-40 Ap '53

Starting with the finish; Easy glitter wax co. il Chem W 73:44+ Jl 25 '53

See also

Shoe polish
Silver polish
Waxes

POLITICAL ethics

See also

Politics, Corruption in

POLITICAL parties

German election. F. Morley. Barron's 33: 5-6 Ag 31 '53

Canada

Canada's election prospects. Economist 168: 31-2 Jl 4 '53

Canada's time to change? Economist 168: 305-6 Ag 1 '53

Canadian Tories. Economist 169:823-4, 896-7 D 12-19 '53

Will Canada vote for a change? Bsns W p41-2+ Ag 8 '53

France

Assize of French radicals. Economist 168: 859-60 S 26 '53

Behind M. Bidault; Berlin conference and French politics. Economist 170:215-16 Ja 23 '54

Germany

Adenauer and Ollenhauer. Economist 169:480-1 N 14 '53

Adenauer's triumph. F. Morley. Barron's 33:5 S 14 '53

Electioneering in Germany. Economist 168: 637-8 S 5 '53

Great Britain

See also

Conservative party (Great Britain)
Labor party (Great Britain)

Indonesia

Indonesian political roundabouts. Economist 168:518-19 Ag 22 '53

Italy

Split at the centre in Italy. Economist 170: 16-17 Ja 2 '54

Ten years without Mussolini. Economist 168: 267-8 Jl 25 '53

South Africa

Just the art of being kind; party problems. Economist 170:246 Ja 23 '54

Mr Strauss quells a mutiny. Economist 168: [illegible]690 S 12 '53

Spain

Blue-shirts in Madrid; Falange's twentieth anniversary. Economist 169:413 N 7 '53

United States

Farmers at the polls. J. C. Perham and J. C. W. Schaie. Barron's 33:5 S 21 '53

Republican opportunity; firm leadership can exploit Democratic factionalism. F. Morley. Barron's 33:3 N 9 '54

Republican split; Mr Eisenhower still has the chance to resolve it. F. Morley. Barron's 33:5 D 7 '53

See also

Campaign funds
Republican party

Yugoslavia

See also

Communist party (Yugoslavia)

POLITICAL science

See also

Administration, Public
Civil service
Commercial policy
Economic policy
Government regulation of industry
Industry and state
Municipal government
Railroads and state
Science and state
Taxation

Directories

Directory of the American political science association. G. P. Bush, ed. 3d ed 266p $6 American political science assn, 1785 Massachusetts av, N.W, Washington 6 '53

POLITICS, Corruption in

Let's clean house. J. R. Snell. J Eng Educ 43:497-503 My '53

POLITICS, Practical

See also

Business—Political aspects

POLLEN

Review of pollenosis and the role of weeds. W. C. Spain. bibliog Pub Health Rep 68: 885-9 S '53

POLONIUM

Total ionization of α particles of Po in mixtures of gases. G. Bertolini and others. Phys R 92:1586 D 15 '53

Isotopes

Alpha-emitting isomer; polonium-211. F. N. Spiess. bibilog diag Phys R 94:1292-9 Je 1 '54

Half-life determination of Po^{210} by alpha counting. M. L. Curtis. Phys R 92:1489 D 15 '53

Nuclear reactions

Angular correlation of the cascade γ rays from the decay of $_{84}Po^{214}$. F. Demichelis and R. Malvano. Phys R 93:526-7 F 1 '54

POLYAMIDES. See Amides

POLYAMINES. See Amines

POLYBUTADIENE. See Butadiene

POLYELECTROLYTES. See Electrolytes

POLYENES

Synthesis of polyenes; the reaction of β-ionone with Grignard reagents. W. Oroshnik, G. Karmas and R. A. Mallory. bibliog Am Chem Soc J 76:2325-9 My 5 '54

See also

Phytoene

POLYETHYLENE

Application of adiabatic techniques to polyethylene extrusion. E. C. Bernhardt and J. M. McKelvey. diags Rubber World 130:513-15, 655-8 Jl-Ag '54

Carbide tries plastic instrument-air tubing. E. I. Thomas. il Power Eng 58:72-3 Ag '54

Cellular polyethylene; abstract. F. W. Wurtzell. Chem & Eng N 32:1999 My 17 '54

Compartmented bags of polyethylene. il Mod Packaging 27:114-15 Je '54

Component package; flexible plastic package for popcorn. il Mod Packaging 27:140-3+ Mr '54

Crosslinked polyethylene; Irrathene. il Chem & Eng N 32:1392 Ap 5 '54

Densities of polyethylene solutions. R. Roberts and F. W. Billmeyer, jr. bibliog Am Chem Soc J 76:4238-9 Ag 20 '54

Depolymerization of polymethylene and polyethylene. L. A. Wall and others. bibliog Am Chem Soc J 76:3430-7 Jl 5 '54

Derivatives of chlorosulfonated polyethylene and their infrared spectra. M. A. Smook, E. T. Pieski and C. F. Hammer. bibliog Ind & Eng Chem 45:2731-7 D '53

Dripless wine; polyethylene collar fitted into pouring lip of conventional bottle. il Mod Packaging 27:97 F '54

POLYETHYLENE—*Continued*

Electron bombardment produces new plastic, irradiated polyethylene; Irrathene 101. J. B. Campbell. il Materials & Methods 40:91-5 S '54

Electrons create tougher polyethylene; Irrathene. Chem Eng 61:136 Je '54

Expanded polyethylene cuts weight and improves insulation. Materials & Methods 39:142 Ja '54

First to the tape; General Electric's Irrathene 101. il Chem W 74:69 Ap 3 '54

Flexible bag sizes. Mod Packaging 28:210+ S '54

Flexible materials; extrusion and molding developments; abstract. F. A. Martin. Rubber Age 75:560 Jl '54

Full color on polyethylene; Pepperell mfg. co. il Mod Packaging 27:150-3 Mr '54

Gases liberated during the high voltage electron irradiation of polyethylene. E. J. Lawton, P. D. Zemany and J. S. Balwit. bibliog Am Chem Soc J 76:3437-9 Jl 5 '54

Greater production opens new polyethylene markets. G. C. Miller. Chem Eng 61:391-3 Mr '54

How polyethylene crosslinks. M. Dole and others. Chem & Eng N 32:1342 Ap 5 '54

How to make a reliable pressure tap for polyethylene pipe. J. M. Madigan. diag Chem Eng 60:176 D '53

Infrared dichroism in the 13.8μ band of n-$C_{36}H_{74}$ single crystals and polyethylene. S. Krimm. bibliog J Chem Phys 22:567-8 Mr '54

Infrared study of the crystallization of polyethylene. F. P. Reding and A. Brown. bibliog J Ap Phys 25:848-50 Jl '54

Irradiated ethylene; abstract. J. G. Lewis and others. Chem & Eng N 32:2774 Jl 12 '54

Irradiated plastic now available; radiation effects on polymers studied. J. W. Ryan. Materials & Methods 39:298+ My '54

Irradiation of polyethylene; abstract. P. A. Goodwin. Rubber World 130:519 Jl '54

Making thin films of polythene. G. C. Reid. J Sci Instr 30:210 Je '53

Molecular structure of polyethylene; chain branching in polyethylene during polymerization. M. J. Roedel. bibliog Am Chem Soc J 75:6110-12 D 20 '53

Molecular structure of polyethylene; determination of long chain branching. F. W. Billmeyer, jr. bibliog Am Chem Soc J 75:6118-22 D 20 '53

Molecular structure of polyethylene; determination of short chain branching. W. M. D. Bryant and R. C. Voter. bibliog Am Chem Soc J 75:6113-18 D 20 '53

Molecular structure of polyethylene; kinetic calculations of the effect of branching on molecular weight distribution. J. K. Beasley. bibliog Am Chem Soc J 75:6123-7 D 20 '53

Molecular structure of polyethylene; the effect of chain branching and molecular weight on physical properties. C. A. Sperati, W. A. Franta and H. W. Starkweather, jr. bibliog Am Chem Soc J 75:6127-33 D 20 '53

New process, new outlook on polyethylene squeeze bottle and collapsible tubes; Bradley container corp. il Chem W 75:36-7 Jl 3 '54

New techniques for silver; now polyethylene bags. il Mod Packaging 27:194-6 Mr '54

New twist in submarine cables; Italcable's St Vincent-Recife transoceanic telegraph link. il Chem W 74:22 F 20 '54

Nuclear engineering materials, fuels; gamma-activation of syntheses; polymerization of ethylene. J. G. Lewis, J. J. Martin and L. C. Anderson. bibliog il Chem Eng Prog 50:249-55 My '54

Pairing solves the problem; polyethylene-cellophane films. il Chem W 73:74+ Jl 18 '53

Poly caps for Colgate tubes. il Mod Packaging 27:93 Ap '54

Polyethylene as a food film. C. J. B. Thor and M. Goldman. il Mod Packaging 27:155-8+ My '54

Polyethylene carboys. J. H. Parliman. il Mod Packaging 27:133-8 Ja '54

Polyethylene-coated cellophane. L. F. Swec and G. H. Sullivan. il diags Mod Packaging 27:203-8+ Mr '54

Polyethylene developed for ultrahigh-frequency insulation. A. E. Maibauer. Elec Eng 73:192 F '54

Polyethylene extrusion-lamination technique. H. A. Arbit. diag Tappi 37:sup 162A-4A Jl '54

Polyethylene for citrus. H. W. Hruschka and J. Kaufman. il Mod Packaging 27:135-8+ F '54

Polyethylene from heavy resid. il Oil & Gas J 52:64 Ja 11 '54

Polyethylene-insulated cable links Europe and South America. Elec Eng 73:296-7 Mr '54

Polyethylene insulated telephone cable. A. S. Windeler. bibliog il Bell System Tech J 32:1245-56 S '53

Polyethylene-package maker; Suffolk farms packing co. il Mod Packaging 27:116-19 N '53

Polythene. W. G. Oakes and H. C. Raine. bibliog Chem & Ind sup S43-5 Ag 10 '53

Polythene control laboratory. il Can Chem Process 38:96 Mr '54

Polythene-insulated 11kv power cable. il Engineer 196:784 D 11 '53

Polythene twenty-one years after its discovery; abstract. E. Hunter. Chem & Ind p805 Jl 10 '54

Positive d-c corona on polyethylene-insulated wire in air. D. S. Rodbell and others. bibliog il diags Electrochem Soc J 101:91-8 F '54

Potato goes modern; packaged in polyethylene bags. il Mod Packaging 28:142-6+ S '54

Pre-counted pills in polyethylene bags. il Mod Packaging 28:124-5 S '54

Properties of irradiated polyethylene. E. J. Lawton, J. S. Balwit and A. M. Bueche. bibliog Ind & Eng Chem 46:1703-9 Ag '54

Reaction between iron(II) complexes of polyethylenepolyamines and *p*-*t*-butylcumene hydroperoxide. R. J. Orr and H. L. Williams. bibliog Am Chem Soc J 76:3321-7 Je 20 '54

Ronson's switch-spout; molded closure of polyethylene. il Mod Packaging 27:104-6 My '54

Short chains; key to polymer control. Chem W 74:44+ F 6 '54

Thickness measurement and control in the manufacture of polyethylene cable sheath. W. T. Eppler. il diags Bell System Tech J 33:559-77 My '54

Unicellular polyethylene announced by Bakelite co. Rubber Age 74:417 D '53

What is the future of plastic pipe in the public utilities field? M. H. Branson. il Munic Util 91:17-18+ D '53

Manufacture

Polyethylene; process for continuous manufacture. diag Pet Refiner 32:184-5 N '53

Ten tons pressure in polythene plant. J. D. Wright and J. H. Shipley. il diag Pet Eng 25:C3-5 Ag '53

Spectrum

X-ray and infrared studies on the extent of crystallization of polymers. J. B. Nichols. bibliog(35 ref) il J Ap Phys 25:840-7 Jl '54

Testing

Mechanical properties of polyethylene. R. H. Carey. bibliog India Rubber World 130:215-20 My '54

Plastics in the tropics. Chem Age (Lond) 69:903-4 O 31 '53

Shock test for plastic films. J. G. McMillan. il Mod Packaging 27:119-23+ Ag '54

POLYETHYLENE terephthalate

Scientific success story of polyethylene terephthalate. E. F. Izard. il Chem & Eng N 32:3724-8 S 20 '54

See also

Dacron

Mylar

POLYGLUCOSE. See Glucose

POLYGONS

Angular standard; National bureau of standards builds accurate polygon. Iron Age 172:207-9 S 10 '53

Designing stable polygon cross-sections for pressurized structures; data sheet. B. Saelman. diags Machine Design 26:153-4 Jl '54

POLYISOBUTYLENE. See Isobutylene

POLYMER corporation

Polymer up for auction? Can Chem Process 37:12-13 N '53

POLYMERIZATION

Acid dissociation of the aquoscandium ions. M. Kilpatrick and L. Pokras. bibliog Electrochem Soc J 100:85-92 F '53; 101:39-43 Ja '54

Allyl esters of phosphonic acids; influence of substituents on polymerization characteristics. A. D. F. Toy and R. S. Cooper. bibliog Am Chem Soc J 76:2191-5 Ap 20 '54

Aqueous phase diluents in emulsion polymerization of synthetic rubber. L. H. Howland, J. A. Reynolds and R. W. Brown. bibliog Ind & Eng Chem 45:2738-42 D '53

Attempts at the electrolytic initiation of polymerization. H. Z. Friedlander and others. bibliog Electrochem Soc J 100:408-10 S '53

Catalytic cyclic polymerisation of butadiene. H. W. B. Reed. Chem Soc J p 1931-41 Je '54

Chemical engineering unit processes. H. F. Wiegandt and R. G. Thorpe. Ind & Eng Chem 46:1870-81 bibliog(468 ref, p 1876-81) S '54

Chemical Engineering unit processes. C. C. Winding and H. F. Wiegandt. Ind & Eng Chem 45:2011-22 bibliog(557 ref, p2016-22) S '53

Copolymerization characteristics and spectra of phenyl vinyl sulfide and sulfone. C. C. Price and H. Morita. bibliog Am Chem Soc J 75:4747-50 O 5 '53

Copolymerization of alpha, beta-unsaturated ketones. C. S. Marvel and others. bibliog Ind & Eng Chem 45:1532-8 Jl '53

Copolymerization reactions of cinnamic acid, its derivatives, and some related compounds. C. S. Marvel and others. bibliog(33 ref) Ind & Eng Chem 45:2311-17 O '53

1-Cyano-1,3-butadienes; copolymerization of the *cis-* and *trans*-1-cyano-1,3-butadienes with butadiene. H. R. Snyder, K. C. Murdock and C. S. Marvel. bibliog Am Chem Soc J 75:4742-6 O 5 '53

Degree of polymerization and its distribution in cellulose rayons. W. G. Harland. bibliog diag Textile Inst J Trans 45:T678-95 S '54

Detection of polymerization radicals by paramagnetic resonance. G. K. Fraenkel, J. M. Hirshon and C. Walling. Am Chem Soc J 76:3606 Jl 5 '54

Determination of the concentration of intermediaries and of rate constants in radical reactions. G. M. Burnett and H. W. Melville. diags Chem R 54:225-88 bibliog(p284-8) Ap '54

Diradicals in solution; role in polymerization. K. E. Russell and A. V. Tobolsky. bibliog Am Chem Soc J 76:395-9 Ja 20 '54

Direct determination of Melville's ø-constant in co-polymerization. S. K. Das and S. R. Palit. bibliog Chem & Ind p 129-30 Ja 30 '54

Disulphide bond reactivity in wool; formation of thiol radicals on exposure to light. G. H. Crawshaw and J. B. Speakman. Soc Dyers & Col J 70:81-2 F '54

Effect of initiation temperature on continuous emulsion polymerization. M. Feldon and R. F. McCann. bibliog Ind & Eng Chem 46:465-7 Mr '54

Equilibration in molten polyamide mixtures. C. W. Ayers. bibliog diags J Ap Chem 4:444-9 Ag '54

Fatty acid esters of 3-butene-1,2-diol; the copolymerization of erythryl dilinoleate with styrene. G. A. Weisgerber and E. Dyer. bibliog Am Chem Soc J 76:1784-7 Ap 5 '54

Formation of polymers in wool. G. W. Madaras and J. B. Speakman. bibliog Soc Dyers & Col J 70:112-16 Mr '54

Gamma-ray polymerization of acrylamide in the solid state. R. B. Mesrobian and others. bibliog J Chem Phys 22:565-6 Mr '54

Gamma rays offer new polymers; abstract. D. Ballantine. Chem & Eng N 32:812-13 Mr 1 '54

Glass considered as a polymer. J. M. Stevels. bibliog il Glass Ind 35:69-72+, 135-8+ F-Mr '54

Hydrolytic polymerization of zirconium(IV). K. A. Kraus and J. S. Johnson. bibliog Am Chem Soc J 75:5769 N 20 '53

Inorganic polymerization reactions. E. S. Scott and L. F. Audrieth. bibliog J Chem Educ 31:168-75 Ap '54

Intrinsic viscosity of nitrocellulose related to degree of nitration. C. H. Lindsley and M. B. Frank. bibliog Ind & Eng Chem 45:2491-7 N '53

Ionic polymerization; a method for measuring the relative rates of attack of a carbonium ion pair on aromatic compounds in homogeneous solution; nucleophilicity factors. C. G. Overberger and G. F. Endres. bibliog Am Chem Soc J 75:6349-50 D 20 '53

Ionic polymerization; ion pair chain mechanisms; the effect of different Lewis acid catalysts on the monomer reactivity ratios in copolymerization. C. G. Overberger, R. J. Ehrig and D. Tanner. bibliog Am Chem Soc J 76:772-5 F 5 '54

Ionic telomerization of styrene. D. D. Coffman and E. L. Jenner. bibliog Am Chem Soc J 76:2685-8 My 20 '54

Kinetics of ionic polymerisations; the action of iodine chloride and iodine bromide on *n*-butyl vinyl ether. D. D. Eley and J. Saunders. Chem Soc J p 1668-72 Je '54

Kinetics of ionic polymerisations; the copolymerisation of *iso*butyl vinyl ether and 2-chloroethyl vinyl ether. D. D. Eley and J. Saunders. Chem Soc J p 1677-80 Je '54

Kinetics of ionic polymerisations; the inhibition by pyridine and 2-iodopyridine of polymerisation of *n*-butyl vinyl ether catalysed by iodine. D. D. Eley and J. Saunders. Chem Soc J p 1672-6 Je '54

Lesson in polymer progress; courses sponsored by Polytech's graduate school of chemistry and physics. il Chem W 73:28-30 Ag 29 '53

Linear polymerization and synthetic fibers. R. W. Moncrieff. J Chem Educ 31:233-7 My '54

Mechanism of polymerization of N-carboxy-α-amino acid anhydrides. M. Sela and A. Berger. bibliog Am Chem Soc J 75:6350-1 D 20 '53

Mercaptans (or thiols) in polymerizations; review with recent developments. A. H. Krause. bibliog(60 ref) Rubber Age 75:217-22 My '54

Microstructures of polybutadienes and butadiene-styrene copolymers. J. L. Binder. Ind & Eng Chem 46:1727-30 Ag '54

Monomer synthesis; the preparation and polymerization of 4-vinylpyrimidine and 2-N,N-dimethylamino-4-vinylpyrimidine. C. G. Overberger and I. C. Kogon. bibliog Am Chem Soc J 76:1879-83 Ap 5 '54

N-nitrosoacetanilide as polymerization initiator. D. F. DeTar and C. S. Savat. bibliog Am Chem Soc J 75:5116-17 O 20 '53

Nonionic, anionic and cationic emulsifiers in GR-S polymerizations. A. F. Helin and others. bibliog Ind & Eng Chem 45:1330-6 Je '53

Nuclear engineering materials, fuels; gamma-activation of syntheses; polymerization of ethylene. J. G. Lewis, J. J. Martin and L. C. Anderson. bibliog il Chem Eng Prog 50:249-55 My '54

Olefin polymerization with acid catalysts. G. E. Langlois. bibliog(31 ref) Ind & Eng Chem 45:1470-6 Jl '53

Oxygen inhibition of the polymerization of styrene. T. L. Allen. J Ap Chem 4:289-90 Je '54

Photopolymerisation. Chem Age (Lond) 68:604 Ap 18 '53

Polymerization in melamine-formaldehyde molded resins. H. P. Wohnsiedler. bibliog Ind & Eng Chem 45:2307-11 O '53

Polymerization initiator; *p-tert*-butylcumene hydroperoxide; abstract. E. I. Williams and R. J. Orr. Chem & Eng N 32:1449-50 Ap 12 '54

Polymerization of acrylics. G. E. Ham. bibliog il Textile Res J 24:597-614 Jl '54; Correction. 24:insert Ag '54

Polymerization of *beta*-propiolactone in wool. W. G. Rose and H. P. Lundgren. bibliog Textile Res J 23:930-6 D '53

Polymerization of chlorotrifluoroethylene. J. M. Hamilton, jr. bibliog diag Ind & Eng Chem 45:1347-50 Je '53

Polymerization of GR-S at low temperatures. L. H. Howland and others. bibliog Ind & Eng Chem 45:1304-11 Je '53

POLYMERIZATION—*Continued*

Polymerization of monosilicic acid. G. B. Alexander. bibliog Am Chem Soc J 76:2094-6 Ap 20 '54

Polymerization of stilbene in boron fluoride etherate. C. C. Price and G. Berti. bibliog Am Chem Soc J 76:1219-21 Mr 5 '54

Preparation and polymerization of unsaturated quaternary ammonium compounds; propargyl derivatives. G. B. Butler and R. A. Johnson. bibliog Am Chem Soc J 76:713-14 F 5 '54

Preparation of six- and eight-membered ring dimers of butadiene. J. C. Hillyer and J. V. Smith, jr. bibliog diag Ind & Eng Chem 45:1133-6 My '53

Reaction times for polymerization of cold GR-S. B. C. Pryor, E. W. Harrington and D. Druesedow. bibliog flow sheet il diag Ind & Eng Chem 45:1311-15 Je '53

Reductive coupling and polymerization of unsaturated amides; effect of substituents. H. R. Snyder and R. E. Putnam. bibliog Am Chem Soc J 76:1893-8 Ap 5 '54

Reductive polymerization of α,β-unsaturated amides; N,N-diethylcrotonamide. H. R. Snyder and R. E. Putnam. bibliog Am Chem Soc J 76:33-5 Ja 5 '54

Research on drying oil polymerization; abstract. R. V. V. Nicholls. Paint Oil & Chem R 117:15, 50A Mr 11 '54

Short-stoppers in production of polymers. Chem Age (Lond) 70:1057-8 My 8 '54

Sodium formaldehyde sulfoxylate in GR-S polymerization. R. W. Brown and others. bibliog Ind & Eng Chem 46:1073-80 My '54

Superfast GR-S polymerization at 41° F. J. R. Miller and H. E. Diem. bibliog Ind & Eng Chem 46:1065-73 My '54

Suspension copolymerization of vinyl chloride and vinyl acetate. E. J. Emmer and S. G. Bankoff. bibliog Ind & Eng Chem 46:673-5 Ap '54

Suspension polymerization of chloro-trifluoroethylene. J. R. Elliott, R. L. Myers and G. F. Roedel. bibliog il diags Ind & Eng Chem 45:1786-90 Ag '53

Telomeric reactions of ethylene and alcohols. E. R. Gilliland and R. J. Kallal. flow diag il diag Chem Eng Prog 49:647-52 D '53

Thermal initiation of styrene polymerization. K. E. Russell and A. V. Tobolsky. bibliog Am Chem Soc J 75:5052-4 O 20 '53

Thermal polymerization of methyl β-elaeostearate. A. L. Clingman and others. bibliog Chem & Ind p798 Jl 25 '53

POLYMERS

A.C.S. Division of polymer chemistry 124th national meeting, Chicago; abstracts of papers. Chem & Eng N 31:3983+ S 28 '53

A.C.S. Division of polymer chemistry 125th national meeting, Kansas City; abstracts of papers. Chem & Eng N 32:1451-2 Ap 12 '54

Additional experimental GR-S polymers and latices announced. Rubber World 130:525 Jl '54

Block copolymers; abstract. D. H. Coffey and T. J. Meyrick. Chem & Eng N 32:2785 Jl 12 '54

Canadian high polymer forum, 5th, London, Ont. Nov. 19-20; abstracts of papers. Rubber Age 74:429-30 D '53; Chem & Ind p 11-14 Ja 2 '54

Chemistry of arsenic-boron bonding; arsine borines and arsinoborine polymers. F. G. A. Stone and A. B. Burg. bibliog Am Chem Soc J 76:386-9 Ja 20 '54

Compatibility of oils and polymers. W. K. Taft and others. bibliog Rubber Age 75:223-6 My '54

Critique of a method of treating the effect of excluded volume in polymer chains. R. J. Rubin. bibliog J Chem Phys 22:241-2 F '54

Crystallization kinetics in high polymers; bulk polymers. L. Mandelkern and others. bibliog(39 ref) J Ap Phys 25:830-9 Jl '54

Crystallization phenomena in fibre-forming polymers. L. B. Morgan. bibliog(27 ref) il diags J Ap Chem 4:160-72 Ap '54

Depolymerization reactions in vinyl polymers. N. Grassie. bibliog Chem & Ind p622-4 Je 27 '53

Diazo-initiated polymers; preparation, properties and evaluation. J. M. Willis and others. bibliog il Ind & Eng Chem 45:1316-22 Je '53

Effect of acid and heat on dextrose and dextrose polymers. W. R. Fetzer and others. bibliog(46 ref) Ind & Eng Chem 45:1075-83 My '53

Emulsion polymers for the textile industry. L. Shapiro. bibliog Am Dyestuff Rep 43:132-40 Mr 1 '54

Energy conversions in the flow of high polymers; applications to injection moulding. H. L. Toor and S. D. Eagleton. bibliog J Ap Chem 3:354-8 Ag '53

Excluded volume in polymer chains. B. H. Zimm and others. bibliog J Chem Phys 21:1716-23 O '53

Experiments of polymer solution in inhomogeneous electrical fields. P. Debye and others. J Chem Phys 22:152-3 Ja '54

Extensometer for polymeric materials. A. G. H. Dietz and F. J. McGarry. il diags R Sci Instr 25:740-5 Ag '54

Graft polymers; abstract. G. F. Bloomfield. Chem & Eng N 32:2785 Jl 12 '54

Heat capacity of chain polymeric crystals. W. H. Stockmayer and C. E. Hecht. bibliog diag J Chem Phys 21:1954-8 N '53

How to study a polymer; fifth Canadian high polymer forum. Chem & Eng N 31:5192-3 D 14 '53

Isotopes for polymer studies; abstract. J. C. Bevington and H. W. Melville. Chem & Eng N 32:3364 Ag 23 '54

Liquid polymers combined with epoxy resins. J. S. Jorczak and J. A. Belisle. India Rubber World 130:66-9 Ap '54

Mean dimensions of rubber-like polymer molecules. F. T. Wall. bibliog diags J Chem Phys 21:1914-19 N '53

Molecular structure and the crystallinity of long-chain polymers. C. W. Bunn. bibliog J Ap Phys 25:820-5 Jl '54

New boron bond. Chem W 74:50 F 6 '54

Noncyclic cis-ters. Ind & Eng Chem 46:sup 15A+ My '54

Olefin-carbon monoxide-alcohol copolymers. T. L. Cairns and others. bibliog Am Chem Soc J 76:3024-8 Je 5 '54

Phase equilibria in polymer-solvent systems; three-component systems. A. R. Shultz and P. J. Flory. bibliog Am Chem Soc J 75:5681-5 N 20 '53

Polymer breakdown in oil-extended GR-S masterbatches. W. K. Taft and others. bibliog Ind & Eng Chem 45:1043-53 My '53

Polymer production in radiolysis of benzene. W. N. Patrick and M. Burton. bibliog Am Chem Soc J 76:2626-9 My 20 '54

Polymerisation of a series of vinyl monomers in wool. N. K. Boardman and M. Lipson. bibliog Soc Dyers & Col J 69:335-8 S '53

Polypropertied polymers; changes as result of high energy radiation. il Ind & Eng Chem 45:sup 11A+ S '53

Preparation of polymers from diisocyanates and polyols. H. L. Heiss and others. Ind & Eng Chem 46:1498-503 Jl '54

Prevention of soil redeposition in textile cleaning operations by proteins and other polymeric materials. W. Fong and H. P. Lundgren. bibliog Textile Res J 23:769-75 N '53

Properties and uses of alkali-metal catalyzed polymers. D. R. Hammel and M. H. Reich. bibliog diag Rubber World 130:510-12 Jl '54

Pyridinium high polymers; abstract. W. B. Reynolds. Chem & Eng N 32:2785-6 Jl 12 '54

Pyrolysis of styrene, acrylate, and isoprene polymers in a vacuum. S. Straus and S. L. Madorsky. bibliog J Res Nat Bur Stand 50:165-76 Mr '53

Reduced equation for viscoelastic behavior of amorphous polymers in the transition region. A. V. Tobolsky and E. Catsiff. Am Chem Soc J 76:4204-8 Ag 20 '54

Relations between chemical structure and some properties of polymers; abstract and discussion. R. J. W. Reynolds. Chem & Ind p 1105 S 4 '54

Relationship of first- to second-order transition temperatures for crystalline high polymers. R. F. Boyer. bibliog(35 ref) J Ap Phys 25:825-9 Jl '54

Resin polymer emulsions; their manufacture and use. F. B. Parker. il Can Chem Process 37:30+ D '53

Second stage crosslinking. H. F. Mark. Chem & Eng N 32:3122-3 Ag 9 '54

POLYMERS—*Continued*

Segmental mobility of polymers near their glass temperature. F. Bueche. bibliog J Chem Phys 21:1850-5 O '53

Short chains; key to polymer control. Chem W 74:44+ F 6 '54

Some theorems in the theory of Brownian motion which apply to the excluded volume problem in polymer chains. R. J. Rubin. J Chem Phys 21:2073 N '53

Stabilizing oil-polymer masterbatches. W. K. Taft and others. Rubber Age 75:61-4 Ap '54

Statistical mechanics of dilute polymer solutions; evaluation of thermodynamic interaction parameters from dilute solution measurements. W. R. Krigbaum and P. J. Flory. bibliog Am Chem Soc J 75:5254-9 N 5 '53

Structure and moisture permeability of film-forming polymers. P. W. Morgan. bibliog(45 ref) Ind & Eng Chem 45:2296-306 O '53

Studies in ion exchange; study of sulphonated cashew-nut-shell liquid and bhilawan-shell liquid polymers. H. A. Shah and S. L. Bafna. bibliog J Ap Chem 3:335-6 Jl '53

Study of oil-polymer masterbatches. W. K. Taft and others. bibliog Ind & Eng Chem 46:396-412 F '54

Thermal degradation of tetrafluoroethylene and hydrofluoroethylene polymers in a vacuum. S. L. Madorsky and others. bibliog diag J Res Nat Bur Stand 51:327-33 D '53

Thermal stability of various olefin-SO_2 polymers. M. A. Naylor and A. W. Anderson. bibliog Am Chem Soc J 76:3962-5 Ag 5 '54

Transient wave analysis in a linear time-dependent material. R. D. Glauz and E. H. Lee. diags J Ap Phys 25:947-53 Ag '54

University of Minnesota polymer symposium. Chem & Eng N 31:2771-2 Jl 6 '53

Value of viscosity measurements for characterizing high polymers; abstract. C. T. Greenwood. Chem & Ind p567 My 15 '54

Vinyl type polymers. C. E. Schildknecht. il Chem & Eng N 31:4516-20 N 2 '53

Viscoelastic properties of dilute polymer solutions. P. E. Rouse, jr. and K. Sittel. bibliog J Ap Phys 24:690-6 Je '53

Viscosity of polymer solutions; abstract and discussion. C. E. H. Bawn. Chem & Ind p 1173-4 O 31 '53

Volume exclusion effect in flexible chains. H. M. James. bibliog J Chem Phys 21:1628-36 O '53

See also

Cellulose
Cellulose acetate
Gasoline
Molded products
Nylon
Plastic materials
Polyethylene
Polysaccharides
Rayon
Resinous products
Rubber—Chemistry
Rubber, Artificial
Silicones
Styrene (and polymers)
Teflon

Spectra

X-ray and infrared studies on the extent of crystallization of polymers. J. B. Nichols. bibliog(35 ref) il J Ap Phys 25:840-7 Jl '54

POLYMETHYLOL compounds. See Hydroxymethyl compounds

POLYMORPHISM

Polymorphism of cordierite. M. D. Karkhanavala and F. A. Hummel. bibliog Am Cer Soc J 36:389-92 D 1 '53

POLYNOMIALS

Eigenvectors of matric polynomials. M. Mannos. J Res Nat Bur Stand 51:33-6 Jl '53

Multiple group least squares' problem and the significance of the associated orthogonal polynomials. B. F. Kimball. Am Stat Assn J 48:320-35 Je '53

Zeros of polynomials and the degree of stability of linear systems. J. F. Koenig. bibliog diag J Ap Phys 24:476-82 Ap '53

POLYOLS. See Alcohols

POLYPORENIC acid

Chemistry of the triterpenes and related compounds; further evidence concerning the structure of polyporenic acid. A. T. G. Halsall, R. Hodges and E. R. H. Jones. Chem Soc J p3019-24 O '53

Chemistry of the triterpenes and related compounds; the conversion of polyporenic acid A into a lanosterol derivative. T. G. Halsall and R. Hodges. Chem Soc J p2385-91 Jl '54

POLYPORUS

New metabolite of polyporus tumulosus Cooke. G. F. J. Moir and B. J. Ralph. Chem & Ind p 1143 S 11 '54

POLYPROPYLENE glycols. See Propylene glycol

POLYSACCHARIDES

Chemical constitution of the specific polysaccharide of type XVIII pneumococcus. H. Markowitz and M. Heidelberger. bibliog Am Chem Soc J 76:1317-19 Mr 5 '54

Chemical modifications of the specific polysaccharide of type III pneumococcus and their immunological effects. H. Markowitz and M. Heidelberger. bibliog Am Chem Soc J 76:1313-16 Mr 5 '54

Conductimetric study of the interaction of anionic mucopolysaccharides and cationic dyes. M. Schubert and A. Levine. bibliog Am Chem Soc J 75:5842-6 D 5 '53

Hydrolysis of polysaccharides by a cation exchange resin and identification of monosaccharide components by paper chromatography. R. E. Glegg and D. Eidinger. bibliog il Anal Chem 26:1365-7 Ag '54

Immunopolysaccharides; preliminary studies of a polysaccharide from azotobacter chroococcum, containing a uronic acid. G. J. Lawson and M. Stacey. Chem Soc J p 1925-31 Je '54

Immunopolysaccharides; structure of a betacoccus arabinosaceous dextran. S. A. Barker and others. Chem Soc J p2395-9 Jl '54

Polysaccharide from the alga ulva lactuca; purification, hydrolysis, and methylation of the polysaccharide. J. W. E. Brading, M. M. T. George-Plant and D. M. Hardy. Chem Soc J p319-24 Ja '54

Properties of periodate-oxidised polysaccharides; the preparation of polymeric substances containing nitrogen from oxidised starches. V. C. Barry and P. W. D. Mitchell. Chem Soc J p3610-12 N '53

Properties of periodate-oxidised polysaccharides; the structure of some nitrogen-containing polymers. V. C. Barry and P. W. D. Mitchell. Chem Soc J p3631-5 N '53

See also

Oligosaccharides

Analysis

Chromatographic isolation of polysaccharides from mycobacterium tuberculosis. B. Siegel, G. A. Candela and R. M. Howard. bibliog Am Chem Soc J 76:1311-13 Mr 5 '54

Physicochemical study of a water-soluble polysaccharide from black spruce (picea mariana). J. O. Thompson and others. bibliog il Tappi 36:541-3 D '53

POLYSTYRENE. See Styrene (and polymers)

POLYSULFIDES. See Sulfides

POLYTETRAFLUOROETHYLENE. See Teflon; Tetrafluoroethylene

POLYTHENE. See Polyethylene

POLYTOMELLA coeca

Chemical degradation of ^{14}C-glucose and its application to ^{14}C-starch from polytomella coeca. J. C. Bevington and others. bibliog Chem & Ind p 1390-1 D 26 '53

Mode of action of the Q-enzyme of polytomella coeca. S. A. Barker, A. Bebbington and E. J. Bourne. Chem Soc J p4051-7 D '53

POLYURETHANE. See Urethans

POLYVINYL acetate. See Vinyl acetate

POLYVINYL chloride. See Vinyl chloride

POLYVINYLPYRROLIDONE. See Vinyl pyrrolidone

PONGAMOL

Chemistry of pongamol. S. Narayanaswamy, S. Rangaswami and T. R. Seshadri. Chem Soc J p 1871-3 Je '54

POPCORN

Component package; flexible plastic package for popcorn. il Mod Packaging 27:140-3+ Mr '54

Pop it in the package; E-Z pop. il Mod Packaging 27:94-6 Jl '54

POPCORN—*Continued*

Which really point the way in tests of a product? checks on bags of popcorn, observer-panel psychometrics. N. Schwartz. il Food Eng 26:64-5+ Jl '54

POPLAR

Study of the cellulose distribution in the cell wall of poplar wood; abstract. P. Traynard and A. M. Ayroud. Paper Ind 35:1142-3 Ja '54

POPULATION

Accuracy of the ratio-correlation method for estimating postcensal population. R. C. Schmitt and A. H. Crosetti. bibliog Land Econ 30:279-81 Ag '54

Application of multiple correlation to population forecasting. R. C. Schmitt. bibliog Land Econ 30:277-9 Ag '54

Effect of population trends on economic development. S. W. Anderson. For Comm W 50:10-12+ O 12 '53; Same. Comm & Fin Chr 178:1940-1 N 19 '53

Forecasting the population of small areas. J. S. Siegel. Land Econ 29:72-88 bibliog(90 titles, p84-8) F '53

New profits for you behind tomorrow's hot headlines. V. D. Reed. Sales Management 72:38+ Ja 1 '54

Population growth and living standards. C. Clark. Int Labour R 68:99-117 Ag '53

Short-cut methods of forecasting the population of census tracts. R. C. Schmitt. J Marketing 18:266-70 Ja '54

World balance? Bsns W p 171 N 21 '53

See also

Immigration and emigration

Metropolitan districts

Statistics

Confidence intervals for the number showing a certain characteristic in a population when sampling is without replacement. L. Katz. bibliog Am Stat Assn J 48:256-61 Je '53

Estimated population of the U.S. by states by regions as of July 1, 1953; distribution of persons 14 years of age and over by total income classifications. Automotive Ind 110: 325 Mr 15 '54

Estimation of the parameters of type III populations from truncated samples. D. Raj. bibliog Am Stat Assn J 48:336-49 Je '53

Latest on population from the census. Elec World 140:118 Jl 13 '53

Population surveyed by Family economics bureau. East Underw 54:6 D 25 '53

Sales Management survey of buying power, May 10, 1953; population estimates, effective buying income, retail sales, farm market data, etc. Sales Management 70:1-724 My 10 '53

Sales Management survey of buying power, May 10, 1954; population estimates, effective buying income, retail sales, farm market data, etc. Sales Management 72:1-812 My 10 '54

See also

Census

Canada

Population magnet; Canada's boom is bringing a flood of immigrants. J. Montagnes. Barron's 33:19-20 S 14 '53

United States

Distribution and movements of the aged population. T. L. Smith. J Bsns 27:108-18 Ap '54

More than two-million new customers a year. Bsns W p28-30 Ag 29 '53

1953, more households, more school children. Elec World 140:70 D 28 '53

PORCELAIN

Cleaning fluids by means of ceramic filter media; microporous porcelain. G. V. Jordan, jr. bibliog il diags Mech Eng 75:559-63+ Jl '53

PORCELAIN, Insulating

Lightning resistance of porcelain insulators. Franklin Inst J 256:367-8 O '53

Materials for special service; high-alumina ceramics. D. W. Luks. il Machine Design 26:133-6 My '54

Portable kiln speeds Coors Porcelain production. il Cer Ind 62:74-5+ F '54

Testing

Puncture tests on porcelain distribution insulators using steep-front voltage surges. J. H. Park and H. N. Cones. il diags Elec Eng 73:45-9 Ja '54

PORCELAIN enamel institute

Annual meeting, 22d, White Sulphur Springs. Cer Ind 61:56-7+ N '53

Annual shop practice forum, Columbus, Ohio; abstracts. Iron Age 172:122-4 O 22 '53

Mid year divisional conference, Chicago; with abstracts of papers. Cer Ind 62:86-8+ Je '54

PORCELAIN enameling. See Enamel and enameling

PORCHES

How to plan and sell your next house; the convertible porch. il diags House & Home 3:172-3 My '53

PORK

See also

Trichina and trichinosis

PORK products

Jamaica eases ban on U.S. pork products. For Comm W 50:12 D 7 '53

POROSITY

Adsorption of ethyl alcohol vapor on glass spheres in systems of different porosities. J. L. Shereshefsky and E. R. Russell. bibliog diag J Phys Chem 57:660-5 O '53

Effect of gas slip on unsteady flow of gas through porous media. J. S. Aronofsky. bibliog diag J Ap Phys 25:48-53 Ja '54

Laminar flow in channels with porous walls. A. S. Berman. bibliog J Ap Phys 24:1232-5 S '53

Permeability-porosity relationship for unconsolidated sand. R. M. Ponder and A. J. Miles. bibliog diag Mo U Sch Mines & Met Bul tech ser 84:1-23 '54

Porosity test for electrodeposits on zinc-base die-castings. H. K. Lutwak. bibliog Metal Finishing 52:76-8 Ap '54

Role of porosity in filtration. F. M. Tiller. bibliog il Chem Eng Prog 49:467-79 S '53

Suggested method of evaluating the porosity of coatings on ferrous metals. T. W. Farrer. Chem & Ind p77-8 Ja 16 '54

Thermal conductivity; experimental investigation of effect of porosity on thermal conductivity. J. Francl and E. D. Kingery. bibliog il Am Cer Soc J 37:99-107 pt 2 F 1 '54

See also

Permeability

Porous materials

Measurement

Determination of porosity by a Bureau of mines method; a list of porosities of oil sands. C. G. Rall and others. 5pls U S Bur Mines Rep of Invest 5025:1-24 bibliog(34 titles, p22-4) '54

Viking instruments, inc. porosity detector. R Sci Instr 24:559 Jl '53

POROUS concrete. See Concrete, Porous

POROUS materials

Chemical engineering symposium on flow of fluids through porous media; abstracts of papers. Chem & Eng N 32:134+ Ja 11 '54

Convection currents in porous media; variational form of the theory. F. T. Rogers, jr. bibliog J Ap Phys 24:877-80 Jl '53

Determination of size distribution of macropores in porous materials. S. Ergun and J. Owen. bibliog Anal Chem 25:1222-6 Ag '53

Equal pressure diffusion in porous substances. J. Hoogschagen. diag J Chem Phys 21: 2096-7 N '53

Flow of gases through consolidated porous media. D. Cornell and D. L. Katz. bibliog(25 ref) il diag Ind & Eng Chem 45: 2145-52 O '53

Flow through porous media; symposium. bibliog il diags Ind & Eng Chem 46:1163-246 Je '54 (reprints 75c)

Freezing point of water held in porous bodies at different vapor pressures. B. R. Puri, L. R. Sharma and M. L. Lakhanpal. bibliog diag J Phys Chem 58:289-92 Ap '54

Numerical method for porous heat sources. P. J. Schneider. diags J Ap Phys 24:271-4 Mr '53

Pore distribution in porous media. H. I. Meyer. J Ap Phys 24:510-12 My '53

POROUS materials—*Continued*
Process kinetics; diffusion in beds of porous solids; measurement by frequency response techniques. P. F. Deisler, jr. and R. H. Wilhelm. bibliog diags Ind & Eng Chem 45:1219-27 Je '53
Progress in permeable porous ceramics. F. Singer. bibliog il Chem Age (Lond) 70:141-6 Ja 9 '54
Residual equilibrium saturation of porous media. H. S. Dombrowski and L. E. Brownell. bibliog il diags Ind & Eng Chem 46:1207-19 Je '54
Statistical hydrodynamics in porous media. A. E. Scheidegger. bibliog J Ap Phys 25:994-1001 Ag '54
Thermal conductivity; theory of thermal conductivity of porous materials. A. L. Loeb. diag Am Cer Soc J 37:96-9 pt 2 F 1 '54
See also
Permeability

PORPHINE
New method of purifying α,β,γ,δ-tetraphenylporphine. J. H. Priesthoff and C. V. Banks. diag Am Chem Soc J 76:937-8 F 5 '54

PORPHYRINS
δ-Aminolevulinic acid, its role in the biosynthesis of porphyrins and purines. D. Shemin and C. S. Russell. bibliog Am Chem Soc J 75:4873-4 O 5 '53
Interfacial activities and porphyrin contents of petroleum extracts. H. N. Dunning, J. W. Moore and M. O. Denekas. bibliog Ind & Eng Chem 45:1759-65 Ag '53
Micro porphyrin test for blood. E. Ju-Hwa Chu and T. C. Chu. J Chem Educ 30:178-9 Ap '53
Properties of porphyrins in petroleum. H. N. Dunning, J. W. Moore and A. T. Myers. bibliog diag Ind & Eng Chem 46:2000-7 S '54

Analysis

Quantitative determination of the porphyrin aggregate in petroleum. S. Groennings. bibliog Anal Chem 25:938-41 Je '53
Simplified procedure for separating porphyrins from urine. L. M. Corwin and J. M. Orten. bibliog diag Anal Chem 26:608-9 Mr '54

PORT of New York authority
Port authority policies. D. I. Mackie. Weekly Underw 169:943 O 17 '53

PORTABLE houses. See Houses, Portable

PORTABLE tools. See Electric tools, Portable

PORTER, H. K., company, inc.
Cash and carry. Chem W 75:28 Jl 10 '54
Growth; diversification's the secret; case history of H. K. Porter co.'s rags-to-riches climb. J. B. Delaney. Iron Age 173:51 Ja 14 '54

PORTLAND, Maine
Portland cites its advantages in handling of natural rubber. Rubber Age 75:87 Ap '54

PORTLAND, Oregon

Bridges

What kind of bridge? Bsns W p 110 D 5 '53

Sewerage

Completion of two pumping plants will solve pollution problems. map Eng N 151:49-51 Ag 6 '53

Streets

Portland bans curb parking, and speeds up bus loading. il Bus Transportation 33:36-7 Ap '54

Water supply

Portland's new transmission line. B. S. Morrow. il map Am Water Works Assn J 46:864-8 S '54; Same. Water & Sewage Works 101:379-82 S '54

PORTLAND terminal company
Bonds offered. Comm & Fin Chr 179:207 Ja 18 '54

PORTLANDITE

Spectrum

Crystal structure of brucite ($MgOH_2$) and portlandite ($CaOH_2$) in relation to infrared absorption. H. E. Petch and H. D. Megaw. bibliog Opt Soc Am J 44:744-5 S '54

PORTS
Port activity. il Manuf Rec 122:41-4 S; 42-5 O; 66-9 N; 40-3 D '53; 123:48-51 Ja; 40-3 F; 38-40 Mr; 38-41 Ap; 45-8 My; 36-9 Je; 38-41 Jl; 38-41 Ag; 38-41 S '54
Ports vs. tax bill; fear development will be hurt by municipal-bond provision. Eng N 152:110 Ap 29 '54
See also
Free ports and zones
Harbors
Izmir, Turkey—Harbor

PORTUGAL
See also
Petroleum industry and trade—Portugal

Commerce

Portugal's trade. Economist 169:341-2 O 31 '53

Politics and government

See also
Elections—Portugal

PORUS-KROME process. See Chromium plating

POSITIONERS, Welding
Automatic welding fixture. A. M. Troyer and D. Lorain, jr. il diag Am Mach 98:108-9 Ap 26 '54
Bode and son positioning appliance for welding work. il Engineering 176:602 N 6 '53
Improved positioners speed weldment production. il Iron Age 173:154-5 Mr 18 '54
Jigs and fixtures increase welding output. T. J. Wood. il Iron Age 172:138-41 D 10 '53
Permanent magnets hold fan hub in position for welding. il Iron Age 174:131 Jl 22 '54
Plastic welding fixtures cost little, assure accuracy. A. P. Challenger. il Iron Age 173:124-5 My 6 '54
Simple clamping device holds channels for welding. F. Eheim. diags Am Mach 98:126 F 1 '54
Tanks ride rocking-horse weld positioner; Pfaudler co. il Steel 133:140 Ag 3 '53
Tricks in job-shop welding; illustrations with text. Mill & Factory 55:108-9 Jl '54
Universal welder reduces welding costs. il diags Am Mach 97:126-8 N 9 '53
Welding fixtures speed piston and valve reclamation. il Ry Loco & Cars 128:66 Mr '54; Welding J 33:374-5 Ap '54

POSITIONING equipment
Special jacks lighten adjustment load. il Steel 135:114+ Ag 23 '54
Valve positioners. M. Strader. diags Instruments & Automation 27:1090-1 Jl '54
Wheel positioning; machining of railroad wheel surfaces at the McKees rocks wheel & axle div. il Steel 135:120 Ag 16 '54
X-ray inspection; plastic positioner fits irregular parts. E. R. Foor. il Steel 134:116+ Mr 1 '54

POSITRONIUM
Magnetic quenching of the positronium decay. O. Halpern. Phys R 94:904-7 My 15 '54
Radiative corrections in positronium. T. Fulton and P. C. Martin. bibliog Phys R 93:903-4 F 15 '54
Two-body system in quantum electrodynamics; energy levels of positronium. T. Fulton and P. C. Martin. bibliog Phys R 95:811-22 Ag 1 '54

POSITRONS
Annihilation of positrons in condensed materials. T. A. Pond. bibliog diag Phys R 93:478-9 F 1 '54
Annihilation of positrons in flight. J. B. Gerhart and others. bibliog diags Phys R 94:917-27 My 15 '54
Annihilation of positrons in liquid helium. F. L. Hereford. Phys R 95:1097-8 Ag 15 '54
Bremsstrahlung and electron scattering cross sections in Au for 247-Mev electrons and positrons. P. C. Fisher. bibliog diags Phys R 92:420-7 O 15 '53
Canonical transformation for an electron-positron field coupled to a time-independent electromagnetic field. H. E. Moses. Phys R 89:115-22; 95:237-42 Ja 1 '53, Jl 1 '54
K-auger electrons, positrons, and conversion electrons of Zn^{65} above 5 kev. J. F. Perkins and S. K. Haynes. bibliog Phys R 92:687-93 N 1 '53

POSITRONS—*Continued*

Positron spectrum from the decay of the µ meson. R. Sagane and others. Phys R 95:863-4 Ag 1 '54

Speculations on the behavior of positrons in superconductors. M. Dresden. Phys R 93: 1413-14 Mr 15 '54

Three-photon annihilation of positrons and electrons. S. DeBenedetti and R. T. Siegel. bibliog diags Phys R 94:955-9 My 15 '54

See also

Positronium

Scattering

Electron-electron and positron-electron scattering measurements. A. Ashkin and others. bibliog diags Phys R 94:357-62 Ap 15 '54

Positron-electron differences in energy loss and multiple scattering. F. Rohrlich and B. C. Carlson. bibliog Phys R 93:38-44 Ja 1 '54

POST, Frank A.

Frank Post, 34-year National Underwriter veteran, is retiring. por Nat Underw 57:2 D 17 '53; Same. Nat Underw (Life ed) 57:2 D 18 '53

POST exchanges

Army PX's win a round. Bsns W p61-2 Ag 22 '53

POST offices

Industrialism comes to the post office; Miami post office. il plans Arch Forum 100:150-5 Mr '54

Equipment

See also

Mail handling

Lighting

Light and color engineering in post offices; abstract. T. C. Cargill, jr. and C. E. Kautt. il Illum Eng 49:437 S '54

Modernization with light. il Arch Forum 100: 176 My '54

POST offices, Traveling. See Postal service, Highway

POSTAGE stamps

Eastman memorial stamp. il Chem & Eng N 32:2286 Je 7 '54

Tie in your advertising with hobbies and you have a ready-made appeal; how 20,000,000 stamp collectors can be reached. E. A. Kehr. il Ptr Ink 245:44+ O 23 '53

POSTAL buses. See Postal service, Highway

POSTAL rates

Post office takes its case for higher postal rates to Congress. R. Y. Giles. Ptr Ink 244:27+ Jl 24 '53

Postal rates and marketing research. A. J. Morgan. J Marketing 18:166-7 O '53

Printers' ink 1954 advertisers' annual; post office regulations. Ptr Ink 245:430-1 sec 2 O 23 '53

Realistic Post Office rates, no subsidy desired. Ed & Pub 86:46+ Ap 25 '53

Time running out on proposal to increase postal rates. R. Y. Giles. Ptr Ink 244:38+ Jl 31 '53

POSTAL savings banks

Postal savings system; assets and depositors' balances, yearly, 1945-1951, monthly Oct. 1952-Nov. 1953. Fed Res Bul 40:44 Ja '54 [cont monthly]

Savings deposits, U.S. postal savings, 1949-1952. Survey of Cur Bsns 1953 Sup p82 [supplemented in monthly numbers]

POSTAL scales

Rating

Low-priced postal scales for home use. il Consumers Res Bul 32:17-18 N '53

POSTAL service

See also

Mail handling

Post offices

Railway mail service

Money orders

Postal business, money orders, domestic, 1949-1952. Survey of Cur Bsns 1953 Sup p42 [supplemented in monthly numbers]

United States

See also

Air mail service

Railway mail service

POSTAL service, Highway

Post office sees growing role for buses in hauling U.S. mail. Bus Transportation 32: 49 D '53

POSTERS

Glorifying gas in the home; series of posters by Columbia gas system. il Am Gas Assn Mo 36:12-13 Jl-Ag '54

How to win friends and help students; Aramco is finding that its poster information program is paying off. il World Oil 137:83 S '53

Outdoor posters sell household cleanser. A. S. Keshen. il Soap & San Chem 29:40-1 Jl '53

Terse copy, smart layout make good truck posters. G. A. Brandenburg. il Ed & Pub 86:110 Ap 18; 42 My 2 '53

Which ad pulled best? test of four posters in super markets. il Ptr Ink 245:30+ O 2 '53

See also

Billboards

POSTS

Portable posts protect plant lawn; sewage treatment plant, Birmingham, Mich. R. Grinnell. il Sewage & Ind Wastes 26:910-11 Jl '54

POSTURE

All in, a day's work! occupational tenseness; cartoons with text. D. Ericson and D. A. Laird. Banking 46:46-7 Ag '53

Effect of posture on the elimination of radon in the breath. E. J. Martin and J. K. W. Ferguson. bibliog Science 118:112-14 Jl 24 '53

School lighting and posture. W. Allphin. il Illum Eng 49:192-6 Ap '54; Discussion. 49: 362-6 Jl '54

POTASH

American potash & chemical corp. main plant cycle. M. L. Leonardi. flow sheet il diags Min Eng 6:Trans 203-8 F '54

Leasing of government potash lands. H. I. Smith. bibliog Min Eng 6:Trans 421-4 Ap '54

Phosphate and potash, 1953. T. M. Ware. il Min Cong J 40:50-3 F '54

Potash mining methods. H. H. Bruhn and E. H. Miller. il Min Eng 6:608-12 Je '54

Process development and practice of the Potash division of the Duval sulphur and potash co. G. E. Atwood and D. J. Bourne. bibliog flow diags il diags Min Eng 5:Trans 1099-104 N '53

Some geologic features of a potash deposit. C. L. Jones. Econ Geol 48:329 Je '53

Bibliography

List of references to literature on potash as a plant nutrient; reviewed July 1953 through September 1953. H. N. Hudgins and C. K. Smith, comps. 28p American potash institute, 1102 Sixteenth st, N.W., Washington 6 '53

POTASH industry and trade

American potash sales soar 25 per cent in 1953. Chem & Eng N 32:1526 Ap 12 '54

Britain looks into potash development. Chem & Eng N 32:3364+ Ag 23 '54

Competition among European potash producers. Chem & Eng N 32:403-4 F 1 '54

Double tally for potash. Chem W 75:101-2 S 18 '54

Fertilizers; steady growth, solid future. C. J. Matthew and S. E. Perkins. Chem W 75:41-2 Ag 28 '54

Inquiry on imports. Chem W 74:30+ My 8 '54

Potash deliveries for year exceed two million ton mark. Oil Paint & Drug Rep 166:3 S 6 '54

Potash dumping charges probed by Treasury. Oil Paint & Drug Rep 165:3 My 3 '54

Potash moves up. Chem W 73:63-4 Ag 29 '53

Potash, 1953. G. T. Harley. Eng & Min J 155:104-5 F '54

Statistics

Potash deliveries up five per cent during 1953. Oil Paint & Drug Rep 165:5 Mr 22 '54

Germany

German potash producers expand capacity. Chem & Eng N 31:3197-8 Ag 3 '53

Potash loan offer. Economist 168:475-6 Ag 15 '53

POTASH industry and trade—*Continued*

Israel

Potash exports resumed. Chem Age (Lond) 70:164 Ja 9 '54

Saskatchewan

Saskatchewan's potash. J. O. G. Sanderson. Chem Age (Lond) 70:1468 Je 26 '54

POTASSIUM

Adsorption studies on clay minerals; the system montmorillonite-cesium-potassium. J. A. Faucher and H. C. Thomas. bibliog J Chem Phys 22:258-61 F '54

Concerning the reaction of lithium, sodium and potassium ethoxide in ethanol with 2-ethylhexyl bromide. M. S. Newman and F. J. Evans, jr. Am Chem Soc J 76:4187-8 Ag 20 '54

Intense drying of gases with potassium metal. E. R. Harrison. diags J Sci Instr 30:38-9 F '53

Paramagnetic resonance absorption in solutions of K and Na in liquid NH_3. C. A. Hutchison, jr. and R. C. Pastor. bibliog J Chem Phys 21:1959-71 N '53

Potentiometric titration of ammines of rhodium, iridium, and platinum with solutions of potassium and potassium amide in liquid ammonia. G. W. Watt and others. Electrochem Soc J 101:235-8 My '54

Potentiometric titration of simple salts with potassium in liquid ammonia. G. W. Watt and others. bibliog Electrochem Soc J 101:229-34 My '54

Self-diffusion coefficients of iodide, potassium and rubidium ions in aqueous solutions. R. Mills and J. W. Kennedy. bibliog Am Chem Soc J 75:5696-701 N 20 '53

Some properties of sodium and potassium near their melting points. L. G. Carpenter. bibliog J Chem Phys 21:2244-5 D '53

Thermodynamic functions of potassium vapor. M. Griffel. J Chem Phys 21:1908 O '53

Thermoelectric properties of metal-ammonia solutions; the thermoelectric power of sodium and potassium at -33°. J. F. Dewald and G. Lepoutre. bibliog diag Am Chem Soc J 76:3369-73 Jl 5 '54

Analysis

Colorimetric determination of potassium with dipicrylamine. R. Faber and T. P. Dirkse. bibliog Anal Chem 25:808-10 My '53

Determination of potassium in glass with the hydrogen flame photometer and the Beckman model DU spectrophotometer. P. Close and M. T. Watson, jr. bibliog Am Cer Soc J 37:235-8 My 1 '54

Direct microdetermination of sodium, potassium, and calcium. G. R. Kingsley and R. R. Schaffert. bibliog Anal Chem 25: 1738-41 N '53

Flame photometric determination of sodium and postassium in zinc cadmium sulfide phosphors. S. B. Deal. Anal Chem 26:598-9 Mr '54

Flame spectrophotometric analysis of glasses and ores; lithium, sodium, potassium, rubidium, and cesium. J. P. Williams and P. B. Adams. bibliog Am Cer Soc J 37:306-11 Jl 1 '54

Flame spectrophotometric determination of sodium and potassium in viscous solutions or plant extracts. H. M. Bauserman and R. R. Cerney, jr. bibliog Anal Chem 25: 1821-4 D '53

Modified Amdur's dipicrylaminate method. E. Bois and M. Jean. diags Anal Chem 26: 727-30 Ap '54

Spectrographic determination of sodium and potassium in coal ashes. C. H. Anderson and C. D. Beatty. bibliog Anal Chem 26: 1369-71 Ag '54

Isotopes

Branching ratio of K^{40}. G. J. Wasserburg and R. J. Hayden. bibliog Phys R 93:645 F 1 '54

Magnetic moment of K^{40} in intermediate coupling. G. E. Tauber and T. Y. Wu. bibliog Phys R 94:1307-10 Je 1 '54

Nuclear magnetic moments of K^{41}, Y^{87}, Ag^{107}, and Ag^{109}. E. Brun and others. Phys R 93: 172-3 Ja 1 '54

Nuclear reactions

Disintegration of K^{43}. T. Lindqvist and A. C. G. Mitchell. diag Phys R 95:444-6 Jl 15 '54

Potassium-44. B. L. Cohen. bibliog Phys R 94:117-18 Ap 1 '54

POTASSIUM acetate

Liquidus curve of the binary system cadmium acetate-potassium acetate. A. Lehrman and D. Schweitzer. J Phys Chem 58:383-4 Ap '54

POTASSIUM alloys

Liquid-metal heat-transfer system for nuclear power plants. T. Trocki and D. B. Nelson. il diags Mech Eng 75:472-6 Je '53

See also

Sodium potassium alloys

POTASSIUM amide

Potentiometric titration of ammines of rhodium, iridium, and platinum with solutions of potassium and potassium amide in liquid ammonia. G. W. Watt and others. Electrochem Soc J 101:235-8 My '54

POTASSIUM borohydride

Analysis

Direct volumetric assay of sodium borohydride and potassium borohydride. S. W. Chaikin. Anal Chem 25:831-2 My '53

POTASSIUM bromide

Bleaching properties of *F* centers in KBr at 5° K. J. J. Markham and others. bibliog diag Phys R 92:597-603 N 1 '53

Effect of some salts on the solubility of potassium bromide in acetic acid at 30°. E. Griswold, M. M. Jones and R. K. Birdwhistell. bibliog Am Chem Soc J 75:5701-4 N 20 '53

Infrared identification of materials in the fractional milligram range. D. H. Anderson and N. B. Woodall. il diags Anal Chem 25: 1906-9 D '53

Pellet method advance in optical analysis of solids. B. W. Thomas. Ind & Eng Chem 46:sup85A-6A Je '54

Potassium bromide technique in infra-red spectroscopy. R. D. Elsey and R. N. Haszeldine. Chem & Ind p 1177-8 S 18 '54

Rate of production of color centers in KCl and KBr by X-rays at 78°K. W. H. Duerig. bibliog Phys R 94:65-70 Ap 1 '54

Specific heats of concentrated sodium and potassium bromide solutions at 25 and 30°. P. Bender and A. D. Kaiser, jr. Am Chem Soc J 76:3084-5 Je 5 '54

Thermal decay of the luminescence of KBr. G. W. Williams and others. bibliog diags Phys R 92:1398-402 D 15 '53

Spectrum

Iodide impurity absorption in potassium and sodium bromides. C. J. Delbecq and others. Phys R 93:262-3 Ja 15 '54

POTASSIUM carbonates

CO_2 absorption employing hot potassium carbonate solutions. H. E. Benson, J. H. Field and R. M. Jimeson. bibliog flow sheets il diags Chem Eng Prog 50:356-64 Jl '54

POTASSIUM chlorate

Chlorate expansion; abstract. R. Mattair. Oil Paint & Drug Rep 165:7+ Mr 1 '54

New lifts for chlorates. il Chem W 74:90+ Mr 20 '54

POTASSIUM chloride

Corrosion of aluminum in potassium chloride solutions. W. Beck and others. bibliog diags Electrochem Soc J 101:393-9 Ag '54

Densities and molal volumes of molten mixtures of potassium chloride and barium chloride. J. S. Peake and M. R. Bothwell. bibliog diag Am Chem Soc J 76:2653-5 My 20 '54

Determination of the adjusted indicator concentration behind a moving boundary in dilute solution; the system potassium chloride-sodium chloride in water at 25°. D. R. Muir, J. R. Graham and A. R. Gordon. bibliog Am Chem Soc J 76:2157-60 Ap 20 '54

Dielectric properties of colored KCl crystals. T. Suita. Phys R 94:1497 Je 15 '54

Effect of pressure on the optical absorption of the activator system in KCl:Tl. P. D. Johnson and F. E. Williams. Phys R 95: 69-70 Jl 1 '54

POTASSIUM chloride—*Continued*

Rate of production of color centers in KCl and KBr by X-rays at 78°K. W. H. Duerig. bibliog Phys R 94:65-70 Ap 1 '54

Studies of NaCl-KCl solid solutions; experimental entropies of formation and a comparison of certain thermodynamic properties with values calculated from Wasastjerna's theory. W. T. Barrett and W. E. Wallace. bibliog Am Chem Soc J 76:370-3 Ja 20 '54

Studies of NaCl-KCl solid solutions; heats of formation, lattice spacings, densities, Schottky defects and mutual solubilities. W. T. Barrett and W. E. Wallace. bibliog Am Chem Soc J 76:366-9 Ja 20 '54

Surface tensions and their temperature coefficients of molten mixtures of potassium chloride and barium chloride. J. S. Peake and M. R. Bothwell. bibliog diags Am Chem Soc J 76:2656-9 My 20 '54

Theory of the polarographic diffusion current; diffusion of small amount of thallium ion in aqueous potassium chloride solutions. J. H. Wang and F. M. Polestra. bibliog Am Chem Soc J 76:1584-5 Mr 20 '54

Vapor pressures of aqueous potassium chloride solutions at 25° by means of a new type of differential manometer. O. L. I. Brown and C. M. Delaney. bibliog J Phys Chem 58:255-8 Mr '54

X-ray coloring of 400-Mev proton-irradiated KCl. W. Leivo and R. Smoluchowski. Phys R 93:1415-16 Mr 15 '54

POTASSIUM chlorocuprate

Spectrum

Exchange coupling in $CuK_2Cl_4 \cdot 2H_2O$ by paramagnetic resonance absorption. K. Ono and others. bibliog Phys R 92:551-2 N 1 '53

POTASSIUM chromate

Solubility of potassium chromate in aqueous ethanol solutions at 25°. W. F. Linke. Am Chem Soc J 76:291-2 Ja 5 '54

POTASSIUM compounds

Identification of dicarboxylic acids in polymeric esters. R. W. Stafford, J. F. Shay and R. J. Francel. bibliog Anal Chem 26:656-61 Ap '54

Sodium and potassium salts of triorganosilanols. J. F. Hyde and others. bibliog Am Chem Soc J 75:5615-18 N 20 '53

POTASSIUM cyanide

Cation exchange process for the preparation of potassium cyanide. C. H. Lemke. diag Electrochem Soc J 101:203-7 Ap '54

Isomerism of the oximes; alkylcinnamaldoximes, aroylaldoximes, and the action of potassium cyanide and sodium sulphite on aldoximes and their *O*-methyl ethers. M. Benger and O. L. Brady. Chem Soc J p3612-17 N '53

Poison marshmallows; Kraft chemical co.'s Cya-Nodes. il Chem W 75:31-2+ Jl 3 '54

Analysis

Titration curve for argentometric determination of cyanide. J. E. Ricci. Anal Chem 25:1650-6 N '53

POTASSIUM cyanoaurate

Spectrum

Polarized infrared spectrum of $KAu(CN)_2$. L. H. Jones. J Chem Phys 21:1891-2 O '53

POTASSIUM cyanocobaltate

Mechanism of the reduction of potassium tetracyanonickelate(II) and potassium hexacyanocobaltate(III) with potassium in liquid ammonia. G. W. Watt and others. bibliog Am Chem Soc J 76:373-5 Ja 20 '54

POTASSIUM cyanonickelate

Mechanism of the reduction of potassium tetracyanonickelate(II) and potassium hexacyanocobaltate(III) with potassium in liquid ammonia. G. W. Watt and others. bibliog Am Chem Soc J 76:373-5 Ja 20 '54

POTASSIUM dihydrogen phosphate. See Potassium phosphates

POTASSIUM ethoxide

Potassium ethyl 1-methoxypicrate. R. Foster and D. L. Hammick. Chem Soc J p2153 Je '54

POTASSIUM fluoride

$BaTiO_3$-KF phase diagram. C. Karan and B. J. Skinner. J Chem Phys 21:2225 D '53

POTASSIUM gold dicyanide. See Potassium cyanoaurate

POTASSIUM hexachloromolybdate

Electrolytic preparation of molybdenum from fused salts; preparation of reduced molybdenum halides. S. Senderoff and A. Brenner. bibliog Electrochem Soc J 101:28-30 Ja '54

POTASSIUM hydrogen dibenzoate

Crystal structure of the acid salts of some monobasic acids; potassium hydrogen dibenzoate. J. M. Skinner, G. M. D. Stewart and J. S. Speakman. Chem Soc J p 180-4 Ja '54

POTASSIUM hydroxide

Caustic potash; abstract. H. Heilborn. Oil Paint & Drug Rep 165:7 Mr 1 '54

Modification of wool by the application of linear synthetic polyamides; pretreatment with ethanolic potassium hydroxide. J. Delmenico and others. bibliog Textile Res J 24:828-34 S '54

Potassium hydroxide solution shown useful for sweetening distillates; patent. Pet Processing 9:105-6 Ja '54

POTASSIUM iodate

Potentiometric titration of organic derivatives of hydrazine with potassium iodate. W. R. McBride, R. A. Henry and S. Skolnik. bibliog Anal Chem 25:1042-6 Jl '53

Standardization of sodium thiosulphate solutions by means of potassium iodate. G. T. Walker and S. C. Allen. Chem & Ind p411 Ap 25 '53; Discussion. bibliog p490-1, 568-9 Mr 16, Je 6 '53

POTASSIUM iodide

Apparent and partial molal volumes of potassium iodide and of iodine in methanol at 25° from density measurements. D. A. MacInnes and M. O. Dayhoff. bibliog Am Chem Soc J 75:5219-20 N 5 '53

Exchange reaction between substituted benzyl iodides and potassium iodide; *p*-nitrobenzyl iodide. E. L. Purlee, M. Kahn and J. L. Riebsomer. bibliog Am Chem Soc J 76:3796-8 Jl 20 '54

Limiting current on a rotating disc electrode in potassium iodide-potassium triiodide solutions. E. A. Hogge and M. B. Kraichman. bibliog diag Am Chem Soc J 76:1431-3 Mr 5 '54

Luminescence studies of KI-TlI. B. Smaller and E. Avery. bibliog Phys R 92:232-7 O 15 '53

Reaction of morphine with potassium-mercuric iodide. L. Levi and C. G. Farmilo. bibliog il Anal Chem 26:1040-5 Je '54

Separation of palladium from lead and the colorimetric determination of palladium with potassium iodide. J. G. Fraser, F. E. Beamish and W. A. E. McBryde. Anal Chem 26:495-8 Mr '54

Two men and a tub; Dow Chemical's Seal Beach two-man potassium iodide plant. il Chem W 73:77-8+ D 5 '53

POTASSIUM niobate

Phase transitions in ferroelectric $KNbO_3$. G. Shirane and others. bibliog Phys R 93:672-3 F 15 '54

POTASSIUM nitrate

Fertilizer from the sea. il diag Chem W 74:44-5 Mr 13 '54

POTASSIUM oxides

Reactions of some metal salts with alkali superoxides in liquid ammonia. D. L. Schechter and J. Kleinberg. Am Chem Soc J 76:3297-300 Je 20 '54

POTASSIUM perchlorate

Kinetics of the isothermal decomposition of potassium perchlorate. A. E. Harvey, jr. and others. Am Chem Soc J 76:3270-3 Je 20 '54

POTASSIUM periodate

Rapid determination of glycerol by the potassium periodate method. L. Hartman. bibliog J Ap Chem 3:308-11 Jl '53

POTASSIUM permanganate

Mechanism of decomposition of potassium permanganate in alkaline solution and its bearing on oxidation by this reagent. M. C. R. Symons. Chem Soc J p3956-61 D '53

Permanganate standardization with a Beckman spectrophotometer. J. E. Ransford. J Chem Educ 30:350 Jl '53

Reduction of potassium permanganate in the presence of glass. M. J. Cotter. Chem & Ind p433 Ap 10 '54

POTASSIUM permanganate—*Continued*

Stages in oxidations of organic compounds by potassium permanganate; oxidation of malonic acid and its analogues. A. Y. Drummond and W. A. Waters. Chem Soc J p2456-67 Jl '54

POTASSIUM perruthenate

Crystal structure of potassium perruthenate, $KRuO_4$. M. D. Silverman and H. A. Levy. bibliog Am Chem Soc J 76:3317-19 Je 20 '54

POTASSIUM persulfate

Formation of polymers in wool. G. W. Madaras and J. B. Speakman. bibliog Soc Dyers & Col J 70:112-16 Mr '54

POTASSIUM phosphates

Neutron diffraction study of tetragonal potassium dihydrogen phosphate. S. W. Peterson and others. bibliog J Chem Phys 21:2084-5 N '53

Neutron diffraction study of the ferroelectric modification of potassium dihydrogen phosphate. H. A. Levy and others. bibliog Phys R 93:1120-1 Mr 1 '54

Photoelastic constants of ammonium dihydrogen phosphate and potassium dihydrogen phosphate. R. O. Carpenter. Opt Soc Am J 44:425 My '54

POTASSIUM sodium tartrate

Kinetic properties of the domains in Rochelle salt. T. Mitsui and J. Furuichi. Phys R 95:558 Jl 15 '54

POTASSIUM sulfate

New job in the potash industry for veteran Hargreaves process. il diag Chem Eng 61: 132+ My '54

POTASSIUM tetroxalate

pH of solutions of potassium tetroxalate from 0° to 60° C. V. E. Bower and others. bibliog J Res Nat Bur Stand 51:189-94 O '53

POTASSIUM thiocyanate

Polarographic study of lead in a potassium thiocyanate supporting electrolyte. J. O. Hibbits and S. S. Cooper. bibliog Anal Chem 26:1119-20 Jl '54

POTATO chips

Mechanization makes potato chips better and faster. J. H. Riisness. il Elec World 140: 130 Jl 27 '53

POTATO starch

Anaerobic dispersion of potato starch. H. Baum and G. A. Gilbert. bibliog Chem & Ind p489-90 Ap 24 '54

Anaerobic fractionation of potato starch. H. A. Baum and G. A. Gilbert. bibliog Chem & Ind p490 Ap 24 '54

Potatoes as a crop and an industrial raw material. J. A. Radley. bibliog(61 ref) Chem & Ind p64-8 Ja 16 '54

Wastes from potato starch plants. T. W. Ambrose and C. O. Reiser. bibliog flow sheet Ind & Eng Chem 46:1331-4 Je '54

POTATOES

Method for the in vitro culturing of potato tubers. W. G. Barker. il Science 118:384-5 O 2 '53

Potato goes modern; packaged in polyethylene bags. il Mod Packaging 28:142-6+ S '54

Potatoes as a crop and an industrial raw material. J. A. Radley. bibliog(61 ref) Chem & Ind p64-8 Ja 16 '54

Potatoes as a crop and an industrial raw material; symposium abstracts. Chem & Ind p819; Discussion. 820-1 Ag 1 '53

Potatoes as a crop and an industrial raw material; the potato's influence in shaping society. R. N. Salaman. bibliog il Chem & Ind p907-12 Ag 29 '53

Peeling

Potato peeling spurts on continuous, company-built production line; Potato service of New York, inc. J. V. Ziemba. il Food Eng 26:92-3+ My '54

Statistics

White potatoes, 1949-1952. Survey of Cur Bsns 1953 Sup p 138 [supplemented in monthly numbers]

POTENTIAL, Electric

Analogue computing circuit for the evaluation of the ratio of two slowly-varying potentials. R. L. Gordon. bibliog diags J Sci Instr 31:166-9 My '54

Charged disk in cylindrical box. W. R. Smythe. J Ap Phys 24:773-5 Je '53

Determination of electrokinetic charge and potential by the sedimentation method; silica in some solutions containing multivalent anions. C. I. Dulin and G. A. H. Elton. Chem Soc J p 1324-5 Ap '54

Development of a high-fidelity preamplifier for use in the recording of bioelectric potentials with intracellular electrodes. S. J. Solms and others. bibliog il diags R Sci Instr 24:960-7 O '53

Effect of local action currents on the emf of the Weston standard cell. H. H. Uhlig. bibliog Electrochem Soc J 100:173-7 Ap '53

Electric system for potential control; American Instrument's Redox-O-Trol. il Chem & Eng N 32:1073 Mr 15 '54

Electrical contact potentials in Banbury mixing. R. S. Havenhill and others. bibliog il Ind & Eng Chem 45:1128-33 My '53

Electrical potential of nylon fibers in aqueous media. F. T. Wall and P. M. Saxton. bibliog J Phys Chem 58:83-6 Ja '54

Electrode potentials in molten silicates. R. Didtschenko and E. G. Rochow. bibliog diags Am Chem Soc J 76:3291-4 Je 20 '54

Electrolytic preparation of molybdenum from fused salts; studies of electrode potentials. S. Senderoff and A. Brenner. bibliog diag Electrochem Soc J 101:31-8 Ja '54; Discussion. 101:632-4 D '54

Electromotive force developed by a creeping zinc crystal. F. D. Coffin and S. L. Simon. J Ap Phys 24:1333-4 O '53

E.m.f. measurements in ten per cent solutions of acetone in water. D. Feakins and C. M. French. Chem & Ind p 1107-8 S 4 '54

Electronic controlled potential reduction or oxidation apparatus. F. Kaufman, E. Ossofsky and H. J. Cook. bibliog diags Anal Chem 26:516-19 Mr '54

Exchange potential in the surface region of a free-electron metal. H. J. Juretschke. bibliog Phys R 92:1140-4 D 1 '53

Experimental determinations of the electric field and equipotential surfaces using the heat conduction analogy. M. K. Gohar. il diags J Ap Phys 25:805-7 Je '54

Fisher adds potential control; Electro-Analyzer utilizes servomechanism. il Chem & Eng N 32:768-9 F 22 '54

Galvanic potentials in silicate melts. bibliog diags Glass Ind 35:433-6+ Ag '54

Half-wave potential of lithium. W. E. Clark. Am Chem Soc J 75:6042 D 5 '53

Heats of formation and entropies of HS^- and $S^=$; potential of sulfide-sulfur couple. J. W. Kury and others. Electrochem Soc J 100: 468-70 O '53

Inhomogeneity e.m.f.s. in thermoelectric thermometers. N. Fuschillo. bibliog diag J Sci Instr 31:133-6 Ap '54

Intermolecular potentials of helium and hydrogen. E. A. Mason and W. E. Rice. bibliog J Chem Phys 22:522-35 Mr '54

Mean excitation potentials. D. O. Caldwell and J. R. Richardson. bibliog Phys R 94:79 Ap 1 '54

Measurement of oxygen uptake by oxidation-reduction potential. J. P. Horton. flow sheet il Instruments & Automation 27:1312-13 Ag '54

Oxidation-reduction diagram. A. R. Tarsey. J Chem Educ 31:375-7 Jl '54

Oxidation-reduction potential and pH changes in manometric vessels. K. Wight and D. Burk. bibliog il diag Anal Chem 26:481-4 Mr '54

Oxidation-reduction potential; sewage treatment processes. R. Shapiro. bibliog il diag Water & Sewage Works 101:185-8 Ap '54

Potential of two current point sources in a homogeneous conducting prolate spheroid. J. R. Wait. J Ap Phys 24:496-7 Ap '53; Correction. 24:1334 O '53

Potentials of iron, 18-8, and titanium in passivating solutions. H. H. Uhlig and A. Geary. bibliog(47 ref) Electrochem Soc J 101:215-24 My '54

Potentiometric methods for following reaction rates. H. Kwart and W. C. Wilson. bibliog diags Am Chem Soc J 75:6147-51 D 20 '53

Relation between energy levels of substituent groups and electron migration effects in some monosubstituted benzenes. S. Nagakura and J. Tanaka. bibliog J Chem Phys 22:236-40 F '54

POTENTIAL, Electric—*Continued*

Relation of pH and oxidation potential to sedimentary iron mineral formation. N. K. Huber and R. M. Garrels. bibliog diags Econ Geol 48:337-57 Ag '53

Retarding potential method for measuring electrical conductivity of oxide-coated cathodes. I. L. Sparks and H. R. Philipp. bibliog diags J Ap Phys 24:453-61 Ap '53

Second viral coefficients of gases obeying a modified Buckingham (exp-six) potential. W. E. Rice and J. O. Hirschfelder. J Chem Phys 22:187-192 F '54

Sign of oxidation-reduction potentials. W. M. Latimer. Am Chem Soc J 76:1200-1 F 20 '54

Silver-silver halide electrodes; preparation, stability, reproducibility, and standard potentials in aqueous and non-aqueous media. G. J. Janz and H. Taniguchi. diags Chem R 53:397-437 bibliog(p435-7) D '53

Simplified LCAO method for the periodic potential problem. J. C. Slater and G. F. Koster. bibliog diag Phys R 94:1498-524 Je 15 '54

Standard e.m.f. of the silver-silver chloride electrode and the degenerate activity coefficient of chloride ion in the system ethanol-water. E. F. Sieckmann and E. Grunwald. bibliog Am Chem Soc J 76:3855-6 Jl 20 '54

Standard potentials of silver-silver chloride cells in some ethanol- and isopropyl alcohol-water solutions at 25°. H. S. Harned and D. S. Allen. bibliog J Phys Chem 58:191-2 F '54

Transport properties of gases obeying a modified Buckingham (exp-six) potential. E. A. Mason. bibliog J Chem Phys 22:169-86 F '54

Two-emf method for the comparison of resistances. H. J. Hoge. diags R Sci Instr 25:902-7 S '54

Use of calomel half cells to measure Donnan potentials. K. L. Babcock and R. Overstreet. Science 117:686-7 Je 19 '53; Discussion. K. J. Mysels. 118:603-4 N 13 '53

Use of oscilloscope for measurement of potential difference. F. T. Turner. Instruments & Automation 27:939 Je '54

POTENTIOMETERS

Causes and measurement of residual potentiometer noise. J. R. Altieri. il diags Instruments 26:1712-13+ N '53

Device for extending the range of a recording potentiometer. P. L. Palmer. diag J Sci Instr 31:197-9 Je '54

Electronic a.c. potentiometer. L. Tasny-Tschiassny. bibliog diags Wireless Eng 30:295-8 D '53

Fabrication of radio-frequency micropotentiometer resistance elements. L. F. Behrent. il diags J Res Nat Bur Stand 51:1-9 Jl '53

Generating nonlinear functions with linear potentiometers. H. Levenstein. diags Tele-Tech 12:76-8+ O '53

Mechanical stops for use with helical potentiometers. P. D. Lowell and others. diags R Sci Instr 25:398-9 Ap '54

Miniature, carbon-film, precision potentiometer. il Product Eng 24:252 Je '53

New potentiometers. il Aviation W 59:50+ S 21 '53

Potentiometer operated by atmospheric pressure. D. R. Grant. J Sci Instr 30:487-8 D '53

Potentiometric instrument for sulfur determination. H. Landsberg and E. E. Escher. bibliog il diags Ind & Eng Chem 46:1422-8 Jl '54

Rotating components for automatic control; linear resistance potentiometers. S. Davis. il diags Product Eng 24:132-5 N '53

Tinsley and co. high precision d.c. potentiometer. J Sci Instr 30:438 N '53

POTENTIOMETRIC titration. See Volumetric analysis

POTOMAC River basin, Interstate commission on the. See Interstate commission on the Potomac River basin

POTTERIES

Electrical equipment

Pottery firing; multi-passage kiln at Stoke. il diags Elec R (Lond) 153:1266-8 D 4 '53

Pottery power plant; Burslem works of Doulton & co. il Elec R (Lond) 154:273-5 F 12 '54

Employees

Silicosis among female workers in the pottery industries. J. T. Noe. il Ind Med 22:255-8 Je '53

Equipment

Development of a machine for turning green ware. A. J. Wahl and G. J. Croninger. il Am Cer Soc Bul 32:415-16 D 15 '53

POTTERS association, United States. See United States potters association

POTTERY

China defects; causes and cures (cont). J. A. Burns. diags Cer Ind 61:70-2 N; 82 D '53

Manufacturing defects in chinaware, porcelain enamel, glass containers; their causes and cures. Cer Ind 62:137-8+ Ja '54

101 new ideas in action; practical plant operating ideas. il Cer Ind 62:68-9+ Ap '54

Properties of feldspars and their use in whitewares. J. C. Kyonka and R. L. Cook. Ill U Eng Exp Sta Bul 422:1-34 bibliog(p33-4) '54 (pa 60c)

See also

Ceramic materials
Ceramics
Clay
Enamel and enameling
Glazes
Kilns
Potteries
Tableware
Tiles

Decoration

How to prepare gold for china decoration. A. H. Kaufmann. Cer Ind 62:174-5+ Ap '54

Lithography as applied to the vitrified china industry. A. Dragonetti. il Am Cer Soc Bul 33:103-4 Ap 15 '54

Manufacture

Drying ceramics with space heaters. G. H. Coupe. il Am Cer Soc Bul 33:277 S 15 '54

Recent examples of improved drying in the whiteware industry. J. L. Henderson, jr. il Am Cer Soc Bul 32:373-5 N 15 '53

POTTERY, Ancient

Chemistry and art work together; study of lacquer on Hui-hsien pottery. L. N. Bilger and others. il J Chem Educ 30:396-7 Ag '53

POTTERY, Chinese

Chemistry and art work together; study of lacquer on Hui-hsien pottery. L. N. Bilger and others. il J Chem Educ 30:396-7 Ag '53

POTTERY industry

Specialization and work spell high sales; 2d annual clinic for sales managers, salesmen and dealers, New Castle, Pa. il Cer Ind 62:104 Je '54

United States potters association 75th annual meeting, New York, Dec. 8. Cer Ind 62:166-7+ Ja '54

Great Britain

Mischief and conspiracy; decorated pottery case. Economist 169:726-7 D 5 '53

POTTERY research

Constitution of bone china; high-temperature phase equilibrium studies in the system tricalcium phosphate-alumina-silica. P. D. S. St Pierre. bibliog (25 titles) il diags Am Cer Soc J 37:243-58 Je 1 '54

POULTRY

Filter paper electrophoresis of avian serum proteins. R. H. Common and others. bibliog il Science 118:86-9 Jl 17 '53

P^{32} distribution in the serum proteins of the chicken. R. E. Clegg and R. E. Hein. bibliog Science 117:714-15 Je 26 '53

See also

Turkeys

Diseases and pests

Counting more chickens; role chemistry plays; work of the Poultry research station. il Chem W 73:38+ O 10 '53

Interaction of genetic and environmental influences affecting the incidence of avian leucosis. F. B. Hutt and R. K. Cole. bibliog Science 117:695-7 Je 19 '53

Feeding

Factors influencing blood clotting time in the chick. P. Griminger and others. Science 118:379-80 O 2 '53

POULTRY—Feeding—*Continued*

Mode of action of antibiotics in animal nutrition. M. E. Coates. bibliog Chem & Ind p 1333-5 D 12 '53

Poultry petrochemical. il Chem W 74:90-2 Mr 13 '54

POULTRY, Frozen

Brine immersion cooling and freezing of ready-to-cook poultry. W. B. Esselen and others. bibliog Refrig Eng 62:61-3+ Jl '54

Chicken in a bag; polyvinylidene chloride packaging. il Chem W 74:52 F 27 '54

Creative marketing strategy and new products pay off; C. A. Swanson & sons. H. E. Green. il Ptr Ink 245:33-5+ O 23 '53

Hi-vac ups output and boosts protection of food quality; frozen poultry pies. C. G. Beisel. flow sheet(p 114-17) il Food Eng 26:60-1+ Jl '54

Jet-freezing; newest quick-freeze system; Alford refrigerated warehouses. E. Simons. bibliog il diags Food Eng 25:57-61+ N '53

POULTRY as food

Plastic packages for poultry parts. il Food Eng 26:172 Je '54

POULTRY industry and trade

Full-fledged business. R. L. Holman. Barron's 33:11 N 30 '53

Statistics

Poultry, 1949-1952. Survey of Cur Bsns 1953 Sup p 145-6 [supplemented in monthly numbers]

POULTRY processing plants

Hi-vac ups output and boosts protection of food quality; frozen poultry pies. C. G. Beisel. flow sheet(p 114-17) il Food Eng 26:60-1+ Jl '54

Waste

Wastes from small poultry dressing establishments. H. W. Wolf and W. T. Woodring. Sewage & Ind Wastes 25:1429-31 D '53

POUR point

Pour point depression of lubricating oils. G. Gavlin, E. A. Swire and S. P. Jones, jr. bibliog il Ind & Eng Chem 45:2327-35 O '53

Pour points of distillates or Diesel fuels. W. L. Nelson. Oil & Gas J 52:117 Ja 18 '54

Pumpability of residual fuel oils; effect of heat treatment on fluidity. F. Gill and R. J. Russell. diags Ind & Eng Chem 46:1269-75 Je '54

POWDER metallurgy. See Metal powders

POWDERED aluminum. See Aluminum, Powdered

POWDERED iron. See Iron, Powdered

POWDERED metals. See Metal powders

POWDERED rubber. See Rubber, Powdered

POWDERED steel. See Steel, Powdered

POWDERED zirconium. See Zirconium, Powdered

POWDERS

Aerosol dusts. il Mod Packaging 28:100-1+ S '54

Electrical conductance of pressed powders, in particular of zinc oxide. J. C. M. Brentano and C. Goldberg. bibliog diag Phys R 94:56-60 Ap 1 '54

Experiments concerning infrared diffuse reflectance standards in the range 0.8 to 20.0 microns. J. T. Agnew and R. B. McQuistan. diags Opt Soc Am J 43:999-1007 N '53

Formation of powder and its dependence on crystal face during the catalytic reaction of hydrogen and oxygen on a single crystal of copper. J. B. Wagner, jr. and A. T. Gwathmey. bibliog 2pls Am Chem Soc J 76:390-1 Ja 20 '54

Particle analyzer speeds testing of powdered materials. il Iron Age 172:151 Jl 9 '53

Particle size distribution analyzed quickly, accurately by Micromerograph. F. S. Eadie and R. E. Payne. diags Iron Age 174:99-102 S 2 '54

Permeability method for the measurement of surface areas of fine powders. J. A. Allen and C. J. Haigh. bibliog diag J Chem Educ 31:354-6 Jl '54

Pines down powder-particle size; Micromerograph. il diags Food Eng 25:71-2+ D '53

See also

Crushing machinery
Metal powders
Particles

Analysis

Air-cooled electrodes for the spectrochemical analysis of powders. B. J. Stallwood. il diags Opt Soc Am J 44:171-6 F '54

Capillary specimens for X-ray diffraction powder analysis. F. W. Matthews. diags Anal Chem 26:619 Mr '54

DT analyzer; variable-pressure and controlled-atmosphere differential thermal analysis technique. Ind & Eng Chem 46:sup 17A-18A Ag '54

Quantitative analysis of powder mixtures with the Geiger-counter spectrometer. H. P. Klug. bibliog Anal Chem 25:704-8 My '53

POWDERS, Metal. See Metal powders

POWELL, Joseph Wright, 1877-1954

Sketch. por Marine Eng 59:58 Mr '54

POWELL, Sheppard Tappen, 1883-

ASME honors engineers; honorary membership. por Mech Eng 76:65-6 Ja '54

POWER, Frederick Belding, 1853-1927

F. B. Power, most distinguished American phytochemist. M. Phillips. bibliog pors J Chem Educ 31:258-61, front My '54

POWER (mechanics)

Punch for power; unique process may increase usable power from carbonaceous fuels. Chem W 74:19-20 Je 26 '54

Search for power. J. L. Kent. Manuf Rec 123:44 My '54

World energy resources; present and future; abstract. A. Parker. Chem & Ind p600 My 22 '54

See also

Airplanes—Auxiliary power
Atomic power
Chemical plants—Power
Coal mines and mining—Power
Compressed air
Dynamometers
Electric power
Electrochemical industries—Power
Horsepower
Hydroelectric power
Machinery
Mining engineering—Power
Petroleum engineering—Power
Power factor
Power plants
Power transmission
Pumping stations—Power
Servomechanisms
Ship propulsion
Solar power
Steam
Steel works—Power
Wind power

POWER cartridge

Lead linings, faster, better, cheaper with stud driver. il Chem Eng 61:252+ F '54

New powder-actuated tool fires through one-inch steel. il Eng N 152:94 Ap 1 '54

New York state sets up a new safety code for explosive powered tools. il Safety Maint & Prod 107:23-4 Ap '54

Powder-actuated tool fastens 70 per cent faster. il Factory Management 112:150 Ja '54

Powder tools winning fight for acceptance. il Eng N 151:29-31 D 3 '53

Punches rail holes in 2½ minutes; Velocity-power rail punch. il Constr Methods 36:170 Ag '54

POWER contracts

Co-op seeks to enforce pact; Central electric power cooperative in Missouri sues government to honor contract made with SPA. Elec World News ed 140:9 N 9 '53

POWER cost

Power factor, its cause and cure. V. N. Friedman. il Mill & Factory 53:92-5 D '53

TVA claims better A-plant record. il Elec World 140:70 S 7 '53

Trim cost of electrical power. H. C. Bauman. il Power 98:75-9 Ap '54

POWER export. See Electric power—International aspects

POWER factor

Automatically regulated capacitance gives you the best power factor control. E. H. Stivender. diags Power Eng 58:58-61+ F '54

Chamberlain and Hookham relay for automatic power factor correction. il diag Engineer 196:625-6 N 13 '53; Engineering 176:671 N 20 '53

POWER factor—*Continued*

Derivation of power factor. A. G. Powell. diags Elec R (Lond) 153:1129-30 N 13 '53

Don't blame idle distribution transformers for your bad power factor. R. S. Horn. Power Eng 57:67 D '53

Facts about modern power factor correction. il diags Mill & Factory 54:76-7 My '54

Power factor correction equipment. il Elec R (Lond) 154:434-5 Mr 5 '54

Power factor improvement; room air conditioners. C. E. Baugh. Refrig Eng 62:43-6+ Ag '54

Power factor, its cause and cure. V. N. Friedman. il Mill & Factory 53:92-5 D '53

Power factor measurement. R. L. Marrs. diags Elec R (Lond) 153:1213-14 N 27 '53

POWER factor, Dielectric

Capacitor with definite loss angles for checking bridge measurements at power frequency. A. W. Stannett. diag J Sci Instr 31:304 Ag '54

Performance of dried and sealed mica capacitors. G. H. Raynor and L. H. Ford. J Sci Instr 31:3-6 Ja '54

Power factor and capacitance of mica capacitors at low frequencies. P. R. Bray. J Sci Instr 30:49-51 F '53

POWER plants

ASME 74th annual meeting, New York, Nov. 29-Dec. 4; abstracts of power plant papers. Power Eng 58:85-6 Ja '54

Basic power plant figuring (cont). W. H. Engelman and H. W. Engelman. Power Eng 57:102 D '53; 58:92+ Ap; 84-5+ S '54

Does your plant make too much noise? G. L. Bonvallet. Power Eng 58:62-4 F '54

How much noise does your plant make? H. C. Hardy. il Power Eng 58:62-4 Ap '54

How to organize your new power plant (cont). D. C. Swift. Power 97:82-3 N '53; 98:90-1+ Ja; 96-7+ Mr; 106-7+ My; 98:102-3+ Jl; 92-3+ Ag '54

How to reduce power plant noise. W. F. Friend. il Power Eng 58:88-90 Je; 82-3+ Ag '54

Know-how handbook; power plant service equipment. il diags Mill & Factory 54:449-554 My '54

Latest developments in power plants. L. J. Murphy. il Mill & Factory 54:451-3 My '54

New source of power? coal reactor. O. R. Frisch. Chem & Eng N 32:3400 Ag 23 '54

1954 modern plant survey. Power 98:37-56 Mid-S '54

Pointers on the conservation of fuel, heat and energy; report of a team of British technical specialists. Power Eng 58:72-3 F '54

Power plant grasp. F. H. Browning. diags Power Eng 58:84-5 Jl; 79-80 S; 88-9 O '54

Precast panels speed construction of utility buildings. il Power Eng 58:65 Ap '54

Technical briefs; latest engineering developments for busy power men. Published in monthly numbers of Power

See also

Atomic power plants
Boiler plants
Electric plants
Factories—Electric equipment
Gas turbines
Hydroelectric plants
Steam plants

Cleaning

Still cleaning by blow and scatter? F. W. Kraus. il Power 98:128 F '54

Costs

Coal storage costs. W. H. Everett. il Power Eng 58:76-8 Ap '54

Economics of power generation by gas turbine power plants. C. J. Burke. il Blast F & Steel Pl 42:236-8, 356+ F-Mr '54

Graphical solutions for power engineers; fuel cost comparisons; chart. P. J. Grogan. Power Eng 58:66-7 Ja '54

How pump modernization pays its way on today's power and industrial jobs. E. C. Condict. il Power 98:98-9 Mr '54

Industrial power plant construction costs since World war II. T. A. Fearnside and F. C. Cheney. Blast F & Steel Pl 41:420-1+ Ap '53; Same. il Chem Eng 60:239-41 Je '53

Metering and cost control keep state power plant on cash basis. il Power Eng 58:86-7 F '54

New York power plant; unit prices. Eng N 151:127+ Jl 16 '53

Steam power plant costs drop. Eng N 151:151+ O 8 '53

Trim cost of electrical power. H. C. Bauman. il Power 98:75-9 Ap '54

Diesel engine auxiliaries

Plane builder protects against power loss; North American aviation. il Diesel Power 32:56 Jl '54

Diesel engine plants

Alco's power packages. il Diesel Power 32:39 Mr '54

Anglo-Lautaro Diesel plant boasts unique features. il Min Eng 6:876 S '54

Diesel plant for industrial power. il Elec J 152:678-80 F 26 '54

Diesel power for copper refining; Raritan copper works. J. H. Wetherell, jr. il Diesel Power 32:26-9 My '54

Diesel powers plant at 15,800 ft.; Volcan mines co. il Power Eng 58:69 Ap '54

Dual-fuel engines show economy at Lansing. il Sewage & Ind Wastes 26:800-3 Je '54

Let's take over watch in a Diesel plant. S. Elonka. il Power 98:118-19 F '54

Punching holes in the iron curtain; Diesels power three additional Voice of America transmitters. W. T. Walker. il diags Diesel Power 32:28-33 Mr '54

Steam and or Diesel for your small or medium-sized power plant. C. M. Stanley and S. K. Fosholt. il Power 98:84-7+ Jl '54

These Diesels are part of the world's largest oil-engine plant. il Power 98:79 Ja '54

Transportable power; mobile generating unit by Sterling engine co. il Diesel Power 32:82-4 Ap '54

25kVA Diesel-electric generating plant. il Engineer 197:188 Ja 29 '54

Employees

How can we set up our plant jobs? answers. Power 98:130-2 Ag '54

How can we test job applicants? answers. Power 98:138+ Ja '54

Equipment

At world's largest alloys plant; flexible, reliable power supply; Electro metallurgical co. E. H. Mangan and J. M. Bandel. il diags Power 98:86-9 Mr '54

Diesel engine directory; manufacturers of engines and plant accessories. Diesel Power 32:53-79 Ja; 61-86 Jl '54

Diesel plant for industrial power. il Elec J 152:678-80 F 26 '54

Directory for modernization; equipment, supplies and services for the modern plant; source-book of power field manufacturers. Power 98:97-102+ Mid-S '54

Heat exchangers. B. G. A. Skrotzki and S. S. Waldron. il diags Power 98:75-106 Je '54

How we engineered Ford's biggest industrial-power modernization; Rouge power plant. L. F. O'Reilly and W. J. Fadden, jr. il diags Power 98:88-92 S '54 (to be cont)

Human engineering in power plant instrumentation. J. G. Fleming. il Power 98:86-9+ Ja '54; Abstract. Machine Design 25:264-6 N '53

Metering and cost control keep state power plant on cash basis. il Power Eng 58:86-7 F '54

Modernization; profits for the taking. il diags Power 98:59-96 Mid-S '54

1954 design survey; typical industrial, institutional steam plants; tabulation. Power 98:46-50 Mid-S '54

Now you can shoot your bearings in line; Farrand alignment telescope. W. B. Warner and R. S. Brenner. il Power 98:113-17 My '54

Poor man's telemetering system. L. W. Fitzpatrick. diag Power Eng 58:90 Ja '54

Pottery power plant; Burslem works of Doulton & co. il Elec R (Lond) 154:273-5 F 12 '54

Power for Fairless works. R. C. Laney. il Blast F & Steel Pl 42:94-5+ Ja '54

Practical performance of water-conditioning gadgets. B. Q. Welder and E. P. Partridge. bibliog(106 ref) Ind & Eng Chem 46:954-60 My '54; Same. Refrig Eng 62:49-53+ Je '54

POWER plants—Equipment—*Continued*

Research and engineering progress, 1953; power. il Gen Elec R 57:22-8 Ja '54

Rotary-piston pumps; how they can do a job in your plant today. F. Annett. il diags Power 97:116-17 N '53

Showcase of new bulletins. Power 98:225-6+ Mid-S '54

Showcase of new equipment. il diags Power 98:193-222 Mid-S '54

Streamlined industrial power controls; Western electric company's Hawthorne works. C. E. Morrow and R. F. Born. il diags Power 98:90-3 Ap '54

There is a fan for every need. J. F. Tobin. il Power Eng 58:78-9 Ja '54

This modern tape recorder replaces phoneboy for log readings. L. W. Fitzpatrick. il diag Power 98:129 F '54

What's best unit for emergency power? answers. il diags Power 98:136-8 F '54

Why power plant sound systems? A. W. Schneider. il Power Eng 58:66-8 S '54

See also

Condensers (steam)

Piping (power plants)

Fires and fire protection

Know how to use the right fire extinguisher; illustrations with text. S. Elonka. Power 97:114-15 D '53

Fuel

Coal handling facilities with automatic remote control features. H. C. Schweikart. diag Power 97:156+ D '53

From old, to new; how Frigidaire cut coal-handling costs. il diag Power 98:96-9 My '54

Fuel handling and storage. J. C. McCabe. il diags Power 97:75-98 D '53

Graphical solutions for power engineers; fuel cost comparisons; chart. P. J. Grogan. Power Eng 58:66-7 Ja '54

How to increase power plant efficiency. M. Pope. Iron Age 173:138-9 Mr 18 '54

How to organize your new power plant; which fuel should you choose; gas, oil, coal or waste products? D. C. Swift. Power 98:90-1+ Ja '54

Lignite; powers aluminum smelter; Aluminum co. of America's Rockdale works. il Iron Age 173:47 Ap 29 '54

More aluminum from Texas; Alcoa's Rockdale works. il Chem & Eng N 32:1868-9 My 10 '54

These sampling devices help check coal-mill performance. C. B. Schuder. diags Power 98:94-6 Ja '54

Gas engine plants

Gas engines make cheap power. il Chem Eng 60:118 Jl '53

Gas turbine plants

American gas turbines in 1953. il diag Engineer 197:249-51 F 12 '54

Combination gas-turbine-steam plant. Power Eng 58:86 Je '54

Continental gas turbines in 1953. il diag Engineer 197:272-5 F 19 '54

Economics of power generation by gas turbine power plants. C. J. Burke. il Blast F & Steel Pl 42:236-8, 356+ F-Mr '54

Free-piston type of gas-turbine plant and applications. J. J. McMullen and R. P. Ramsey. il plans diags A S M E Trans 76:15-27; Discussion. 27-9 Ja '54

Gas-turbine maintenance cost is low. il Power 98:108 My '54

Gas turbines for the steel industry. G. H. Krapf. diags Blast F & Steel Pl 42:444-7+ Ap '54; Same. Iron & Steel Eng 31:97-100 Ap '54; Excerpt. Power 98:202+ S '54; Abstract. Iron Age 173:69 Ap 1 '54

Let's put dollar signs on the gas turbine. C. J. Burke. il diags Power Eng 58:76-8+ Mr '54

Navy puts 4,500-kw gas turbine in mobile shock-resistant plant. M. A. Mayers and others. diags Elec World 141:108-9+ F 22 '54

Operating experiences with gas-turbine plants in the steel industry. H. Pfenninger. diag Blast F & Steel Pl 42:942-4+, 1076-9 Ag-S '54

Performance of free-piston gas generators. J. J. McMullen and W. G. Payne. bibliog il diags A S M E Trans 76:1-10; Discussion. 10-13 Ja '54

Place of the gas turbine in industry. T. J. Putz. il diags Iron & Steel Eng 30:62-6; Discussion. 66-8 D '53

Lighting

What's best scheme to replace lamps? answers. il diags Power 98:134-6+ Jl '54

Maintenance and repair

Adopt this four-point monthly check of your electrical distribution system. J. Sparks. il Power 98:124-5 My '54

Are your unit heaters ready for winter? L. L. Moran, jr. il Power Eng 58:66-7+ Ag '54

Bad commutation; causes and cures. C. Boesmiller. il Power Eng 58:88-90+ Ag '54

Cut costs, maintain power plant and service equipment properly. il diag Mill & Factory 54:475-82 My '54

How to organize your new power plant; follow these tips to set up a smooth-running maintenance program. D. C. Swift. Power 98:106-7+ My '54

How to organize your new power plant; safety, reliability and economy; watchwords for a topnotch station. D. C. Swift. Power 97:82-3 N '53

How to organize your new power plant; topnotch operation depends on checking all-important details, too. D. C. Swift. Power 98:96-7+ Mr '54

Look inside your jet-flow safety valve, keep it working. S. Elonka. il Power 98:118-19 My '54

Piping maintenance practices surveyed. R. J. Pinske. il Heating-Piping 26:73-8 Ap '54

Porcelain enamel fights corrosion. W. A. Barrows. il Power 98:111-13+ Jl '54

Repair welding of cast iron pipe, valves and fittings. il Power 98:119-21 Je '54

Temporary conveyor roller speeds maintenance. F. E. Riley. il diags Power Eng 58:92 S '54

Today, you can save wrecked machinery; Metalock. H. J. Vander Eb. il Power 98:111-13 Ap '54

Vacuum is a handy tool for maintenance, cleaning; illustrations with text. S. Elonka. Power 98:114-15 Jl '54

Winterize with heating cable. J. L. Devlin and T. J. Roche. il Power Eng 58:68-9 Ag '54

Management

How can we set up our plant jobs? answers. Power 98:130-2+ Ag '54

Models

Henry Soper; his small-scale models solve big problems for power plants. il Eng N 151:48-50 N 26 '53

Painting

Color consultant makes plant harmonize. L. W. Fitzpatrick. il Power 98:136 Je '54

How much paint do you need? L. G. Jones. il Power Eng 57:68-70 N '53

Plan protective paintings to reduce electrolytic corrosion. L. G. Jones. bibliog il Power Eng 57:82-3 D '53

Proper coatings just as important for fiber materials as for metals. L. G. Jones. il Power Eng 58:80-1 F '54

Piping

See Piping (power plants)

Safety measures

How to organize your new power plant; safety, reliability and economy; watchwords for a topnotch station. D. C. Swift. Power 97:82-3 N '53

Lift it right; illustrated instructions. Power Eng 58:57 F '54

Self-closing gate. J. Abig. diag Power Eng 58:93 F '54

Simple devices for plant safety; illustrations with text. Power 97:122-3 N '53

POWER plants, Floating

Commission YFP-10, 34,500-kw mobile powerhouse. il Marine Eng 59:61-2 S '54

Liberty as floating utility ship. W. M. Rice. il diag Marine Eng 59:63+ My '54

POWER plants, Outdoor
See also
Electric plants (central stations)—Outdoor stations

POWER plants, Portable
Alco's power packages. il Diesel Power 32:39 Mr '54
Navy puts 4,500-kw gas turbines in mobile shock-resistant plant. M. A. Mayers and others. diags Elec World 141:108-9+ F 22 '54
Transportable power; mobile generating unit by Sterling engine co. il Diesel Power 32:82-4 Ap '54

POWER steering. See Automobiles—Steering gear

POWER transmission
Design of V-belt drives for mass produced machines. W. S. Worley. il diags Product Eng 24:154-60, 160A S '53
Know-how handbook; mechanical power transmission. il diags Mill & Factory 54:159-252 My '54
Latest developments in power transmission. W. A. Williams. il Mill & Factory 54:161-3 My '54
Motor and power transmission. il diags Paper Tr J 138:135-42 S 17 '54
Power transmission on modern rotary rigs. M. L. Rizzone. il diags World Oil 137:128+ N; 124+ D '53; Excerpts. Oil & Gas J 52:128-31 O 26 '53
Running into tight quarters? these smaller drives may solve space problems. il diags Power 98:132-3 Je '54
Today's friction drives are reaching for 150 hp. H. W. Hamm. il diags Power 98:124-5 F '54
Use of metallic traction in modern transmissions. L. A. Graham. Machine Design 26:244+ Ja '54
See also
Automobiles—Transmission
Bearings
Belting
Chain gear
Clutches
Couplings
Electric distribution
Electric driving
Electric transmission
Gearing
Gearmotors
Hydraulic transmission
Machinery
Pneumatic transmission
Power (mechanics)
Pulleys
Servomechanisms
Shafting
Speed variation
Torque converters

POZZOLANS. See Pozzuolana

POZZUOLANA
Pozzolanic cements from blast furnace slag. R. C. Lied and others. Rock Prod 56:130+ D '53
Producing pozzolan and lightweight aggregate; Airox co. W. B. Lenhart. il Rock Prod 56:92-3+ D '53

PRANDTL, Ludwig, 1875-1953
Sketch. J Aeronautical Sci 20:779+ N '53

PRANDTL-BUSEMANN iteration equations
Particular integrals of the Prandtl-Busemann iteration equations for the flow of a compressible fluid. C. Kaplan. U S Nat Advisory Com for Aeronautics 1951:909-14 '52

PRANDTL number
Density, viscosity, specific heat, thermal conductivity, and Prandtl number versus concentration and temperature; sulphite waste liquor. R. E. Hunter and others. bibliog(26 ref) Tappi 36:493-7 N '53
Prandtl number for dissociated air. C. F. Hansen. bibliog J Aeronautical Sci 20:789-90 N '53
Viscosity, thermal conductivity, and Prandtl number for air, O_2, N_2, NO, H_2, CO, CO_2, H_2O, He, and A. J. Hilsenrath and Y. S. Touloukian. A S M E Trans 76:967-83 bibliog(111 titles, p981-3); Discussion. 983-5 Ag '54

PRASEODYMIUM
Chelation of praseodymium by thenoyltrifluoroacetone. T. K. Keenan and J. F. Suttle. bibliog Am Chem Soc J 76:2184-5 Ap 20 '54

Analysis

Radiochemical determination of neodymium, praseodymium, and cerium in fission products. H. G. Petrow. bibliog Anal Chem 26:1514-15 S '54

Nuclear reactions

Nuclear spectra of Ce^{144} and Pr^{144}. W. S. Emmerich and others. bibliog diag Phys R 94:110-12 Ap 1 '54
Radiations of 13.9-min Ce^{146} and 24.4-min Pr^{146}. W. Bernstein and others. bibliog il Phys R 93:1073-5 Mr 1 '54

PRASEODYMIUM fluorides
Praseodymium tetrafluoride. T. P. Perros and others. bibliog J Chem Educ 30:402-3 Ag '53

PRASEODYMIUM oxides
Praseodymium oxides; phase study by dissociation pressure measurements. R. E. Ferguson, E. D. Guth and L. Eyring. bibliog diag Am Chem Soc J 76:3890-4 Ag 5 '54

PRECESSION
Crystal settings for upper level photography, precession method. L. V. Azaroff. diags R Sci Instr 25:928-9 S '54

PRECIOUS metals
Materials for special service; precious-metal laminates. W. Channing and G. H. Barney. il Machine Design 26:180-3 My '54

PRECIPITATION (chemistry)
Addition agents in analytical precipitations. R. B. Fischer and T. B. Rhinehammer. Anal Chem 26:244-6 Ja '54
Automatic equipment for precipitation with H_2S. S. B. Garcia. diag J Chem Educ 31:73 F '54
Chemical methods for separating and determining metals contained in platiniferous materials. R. Gilchrist. bibliog(25 ref) Anal Chem 25:1617-21 N '53
Coprecipitation from homogeneous solution. L. Gordon, C. C. Reimer and H. Teicher. Anal Chem 25:838 My '53
Coprecipitation from homogeneous solution. L. Gordon, H. Teicher and B. P. Burtt. bibliog diag Anal Chem 26:992-6 Je '54
Cupferron and neocupferron complexes of the rare earth elements. A. I. Popov and W. W. Wendlandt. bibliog Anal Chem 26:883-6 My '54
Distribution of strontium within barium sulfate precipitated from homogeneous solution. L. Gordon, C. C. Reimer and B. P. Burtt. bibliog(26 ref) diag Anal Chem 26:842-6 My '54
Establishing the composition of organic solvent-water mixture in analytical precipitations. R. E. Jentoft and R. J. Robinson. Anal Chem 26:1156-8 Jl '54
Fractional separation of rare earths by oxalate precipitation from homogeneous solution. B. Weaver. Anal Chem 26:479-80 Mr '54
Fractional separation of rare earths by precipitation with mandelic acid. B. Weaver. bibliog Anal Chem 26:476-8 Mr '54
Fractionation of barium-radium mixtures as chromates. M. L. Salutsky, J. G. Stites, jr. and A. W. Martin. bibliog Anal Chem 25:1677-81 N '53
Kinetics of precipitate formation; barium sulfate. R. A. Johnson and J. D. O'Rourke. bibliog Am Chem Soc J 76:2124-6 Ap 20 '54
Modification of the test for zinc by its coprecipitation with cobalt(II)-mercury(II) thiocyanate. F. E. Brown and J. S. Proctor. bibliog Anal Chem 25:1122-3 Jl '53
Precipitation fractionation of cellulose nitrate. R. L. Mitchell. bibliog(27 ref) Ind & Eng Chem 45:2526-31 N '53
Precipitation from homogeneous solution. A. H. A. Heyn and E. Schupak. bibliog il Anal Chem 26:1243-4 Jl '54
Precipitation from homogeneous solution by controlled cation release. bibliog Anal Chem 26:1246-7 Jl '54
Precipitation of barium chromate from homogeneous solution. L. Gordon and F. H. Firsching. Anal Chem 26:759-60 Ap '54
Precipitation of iodates from homogeneous solution. C. R. Stine and L. Gordon. bibliog il Anal Chem 25:1519-22 O '53
Rapid precipitation of barium sulfate. R. B. Fischer and T. B. Rhinehammer. bibliog diags Anal Chem 25:1544-8 O '53
Reaction between zinc and salicylaldoxime. S. H. Simonsen and P. Christopher. bibliog Anal Chem 26:681-3 Ap '54
Replica technique in the study of chemical precipitation processes. R. B. Fischer and J. P. Ellinger. il J Ap Phys 24:1051-3 Ag '53

PRECIPITATION (chemistry)—*Continued*

Separation of cerium from the rare earths by precipitation as iodate from homogeneous solution. H. H. Willard and S. T. Yu. il Anal Chem 25:1754-6 N '53

See also

Electric precipitation

Salting-out

PRECIPITATION, Electric. See Electric precipitation

PRECIPITATORS, Electric. See Electric precipitators

PREFABRICATED bridges. See Bridges, Prefabricated

PREFABRICATED buildings. See Buildings, Prefabricated

PREFABRICATED houses. See Houses, Prefabricated

PREFERRED risk mutual insurance company

Bottle of milk to christen new Colorado home office. Nat Underw 57:25 N 19 '53

PREGNADIENEDIOLDIONE

Steroidal cyclic ketals; $\Delta^{4,9[11]}$-pregnadiene-17α,21-diol-3,20-dione. S. Bernstein, R. Littell and J. H. Williams. Am Chem Soc J 75:4830-2 O 5 '53

PREGNANCY

Pregnancies; a policy for employment and leaves of absence. H. M. Giller. Personnel 31:148-50 S '54

PREGNANE

12-Oxygenated pregnane derivatives; (a) 21-acetoxy-12α : 17α-dihydroxypregn-4-ene-3 : 20-dione; (b) 12α : 21-diacetoxy-17α-hydroxypregn-4-ene-3 : 20-dione; (c) 3α : 12α : 21-triacetoxy-17α-hydroxypregnan-20-one; and (d) miscellaneous observations. W. J. Adams and others. Chem Soc J p 1825-36 Je '54

12-Oxygenated pregnane derivatives; ketals of *allo*pregnane-12 : 20-diones. W. J. Adams and others. Chem Soc J p2298-301 Jl '54

12-Oxygenated pregnane derivatives; preparation of 21-acetoxy-17α-hydroxy*allo*pregnane-3 : 12 : 20-trione from hecogenin. W. J. Adams and others. Chem Soc J p2209-13 Jl '54

PREGNANEDIONE

Kinetics of 20-keto reduction in 11α-acetoxypregnane-3,20-dione by sodium borohydride. E. R. Garrett and D. A. Lyttle. bibliog Am Chem Soc J 75:6051-2 D 5 '53

Studies in the synthesis of cortisone; the preparation of 3β : 17α-dihydroxy*allo*pregnane-11 : 20-dione. D. H. R. Barton and others. Chem Soc J p747-51 F '54

PREGNANEONE

Perbenzoic acid oxidation of Reichstein's L acetate. N. S. Leeds, D. K. Fukushima and T. F. Gallagher. bibliog Am Chem Soc J 76:2265-6 Ap 20 '54

PREGNENEDIONE

21-Hydroxy-16α-methoxypregn-4-ene-3 : 20-dione. G. Cooley, B. Ellis and V. Petrow. Chem Soc J p 1813-16 Je '54

12-Oxygenated pregnane derivatives; (a) 21-acetoxy-12α : 17α-dihydroxypregn-4-ene-3 : 20-dione; (b) 12α : 21-diacetoxy-17α-hydroxypregn-4-ene-3 : 20-dione (c) 3α : 12α : 21-triacetoxy-17α-hydroxypregnan-20-one; and (d) miscellaneous observations. W. J. Adams and others. Chem Soc J p 1825-36 Je '54

PREGNENETRIONE

Preparation and properties of 4-oxa-17α-hydroxy-21-acetoxy-Δ^5-pregnene-3,11,20-trione. A. H. Soloway and D. K. Fukushima. Am Chem Soc J 75:5442-3 N 5 '53

PREGNENOLONE

Conversion of cholesterol to pregnenolone in bovine adrenal homogenates. N. Saba, O. Hechter and D. Stone. bibliog Am Chem Soc J 76:3862-4 Jl 20 '54

11-Oxygenated steroids; the synthesis of 16,17-oxido-4-pregnen-11α-ol-3,20-one acetate. H. L. Herzog and others. bibliog Am Chem Soc J 75:5751-3 N 20 '53

Radiation sterilization; effect of high-energy gamma radiation from kilocurie radioactive sources on steroid hormones. W. Tarpley and others. bibliog(37 ref) il Ind & Eng Chem 46:1458-64 Jl '54

PREHISTORIC art. See Art, Prehistoric

PREMIUMS (merchandizing)

Are deals worthwhile? nine case histories. W. Mooney. Ptr Ink 245:33-6 O 30 '53

Comic book in each package helps sell five companies' wieners. il Ptr Ink 245:68 O 2 '53

Does your premium offer have a purpose? T. M. Jones. il Ptr Ink 243:89-92+ Ap 24 '53

Ekco samples its Flint brand to promote Ekco name for the line; premium offer. M. B. Cossman. Sales Management 71:60+ N 10 '53

How soap sells hosiery by the millions; unique new box-top joint promotion. il Mod Packaging 27:96-7+ D '53

Johnson wax premium deal. il Soap & Chem Spec 30:165 Ag '54

New packages, new people; Sperry division of General mills. il Sales Management 72:49 Ja 1 '54

Premiums in full bloom. Bsns W p 148 O 3 '53

Premiums to promote sales of Stanley home products, inc. L. R. Bressler. Soap & San Chem 29:42-3+ N '53

Printers' ink 1954 advertisers' annual; premiums. Ptr Ink 245:343-52+ sec 2 O 23 '53

224 premium users and their offers. Ptr Ink 243:107-10+ Ap 24 '53

What can you do to put promotional zing into a slow-moving item? Sylvania electric products, inc. A. C. Viebranz. il Sales Management 73:52-4 S 1 '54

PREPACKAGING

Germicidal mechanization; Warren's baby garments. il Mod Packaging 27:120-1 D '53

Ice-cream-sandwich success; Swift & co. il Mod Packaging 27:112-13+ N '53

Self-selection department store; package almost everything in transparent film. il Mod Packaging 27:99-103 My '54

Tagged as a gift; Lincoln Metal Products. il Mod Packaging 27:126 F '54

See also

Fruit—Prepackaging

Meat—Prepackaging

Vegetables—Prepackaging

PREPHENIC acid

Prephenic acid; abstract. B. D. Davis. Chem & Eng N 32:1313 Ap 5 '54

PRESIDENTS (United States)

Relations with Congress

Beachhead on the Hill; careful staff work marks new approach to Congress. J. C. Perham. Barron's 33:5 D 14 '53

Coalition government; President's strategy is now on trial. F. Morley. Barron's 34:9 Ja 25 '54

Give 'em hell; balance of power between president and Congress. F. Morley. Barron's 33:3 N 23 '53

PRESS

See also

Journalism

Newspapers

Periodicals

Publicity

PRESS associations

Three U.S. news groups suspended by Peron. Ed & Pub 86:10 My 16 '53

See also

Associated press

PRESS brakes. See Sheet metal working machinery

PRESS clubs

Denver club's current assets at $225,000. D. Graf. il Ed & Pub 86:46 Mr 7 '53

Go to Halifax for beauty and public service. M. Jacobson. Ed & Pub 86:46 Ap 4 '53

Guild in close alliance with Boston's club. D. E. Young. Ed & Pub 86:53 Mr 28 '53

Syracuse club shows healthy condition early. J. A. Porcello. Ed & Pub 86:30 Mr 14 '53

PRESS conferences

How not to muff a press conference in Washington, D.C. J. Shoenfeld. Sales Management 72:49+ F 15 '54

PRESS photographers association, National. See National press photographers association

PRESS relations. See Publicity

PRESS tools

Low-cost press tools for moderate production requirements; Western electric co. G. C. Matson. il diag Mach 61:196-7 S '54

Power press knurls small pieces at high rate. diags Iron Age 173:111 Ja 14 '54

PRESSED metal institute
Annual meeting, Murray Bay, Canada, Sept. 4-8. Am Mach 98:202 S 13 '54
Spring technical meeting, 5th, Cleveland. Am Mach 98:147 Mr 29 '54

PRESSED metals of America, inc.
Contract; renegotiate or bust. R. D. Raddant. Iron Age 174:67 Jl 15 '54

PRESSED steel car company, inc.
Diversification program pays off handsomely. Barron's 34:22-3 Ja 25 '54; Steel 134:71-2 F 15 '54

PRESSES
Air valve makes press repeats impossible. il Product Eng 24:230 Jl '53
Baldwin-Lima-Hamilton biggest press for powder metals. il Steel 133:102 O 19 '53
Baldwin-Lima-Hamilton compacting press provides adjustment for density, weight. il Am Mach 98:176 My 24 '54
Big press takes on new dimensions; throatless presses. il diag Steel 133:130 S 7 '53
Bliss builds new transfer feed press. il Am Mach 98:168 Ag 16 '54; Steel 135:112 Ag 23 '54; Iron Age 174:70 Ag 12 '54
Dial feeds increase press capacity. W. W. Schug. il Iron Age 173:194-7 Ap 22 '54
Drill press power feed saves shop air. A. L. Caplan. il diag Tool Eng 33:59 Jl '54
Facts about modern presses, shears and brakes. il diags Mill & Factory 54:570-1 My '54
Hautau automatic loader for presses speeds parts handling. il Am Mach 98:137 Ag 30 '54
Hautau automatic press loaders. il Tool Eng 32:135-6 F '54
Heavy presses; Cleveland crane & engineering co. il Iron & Steel Eng 30:199 N '53
Heavy presswork. il Automobile Eng 44:86 F '54
Heidrich-Nourse pneumatic impact press. il Mach 60:239 N '53; Tool Eng 32:121 Ja '54; Am Mach 98:184 Je 7 '54
Inclinable presses have many features. il Mill & Factory 54:149 Ap '54
New work techniques, main factor in replacing presses; forming and forging. il diags Am Mach 97:D-D 15 Mid-N '53
1954 American Machinist production preview; forming, forging, casting. il Am Mach 98: 185-90 Ja 18 '54
Press automation; abstract. T. W. Bannon. il Tool Eng 33:141-2 Jl '54
Pressure; versatile equipment broadens work range. J. E. Hyler. il Iron Age 172:95-8 N 26; 168-71 D 3 '53
Preventing press failures. A. F. Gagne, jr. il diags Tool Eng 32:37-45 F; 54-6 Mr; 59-63 Ap; 62-6 My; 54-8 Je '54
Rockwell 1700-ton triple-action press. il Engineer 197:151 Ja 22 '54
Simple double-acting screw press for experimental work. T. H. Hsu. diag Am Mach 97:167 N 9 '53
Standard Forge and Axle rebuilt 50-ton press burnishes axle housings. E. D. White. diags Am Mach 98:125 Mr 1 '54

See also
Baling presses
Dies
Extrusion machines
Forging machinery
Hydraulic presses
Molding machines (for plastics)
Printing presses
Punching machinery

Control

Press control speeds auto body production. A. P. DiVincenzo and C. E. Robinson. il diags Electronics 26:154-7 D '53
Press cycle accurately set for optimum production. il Tool Eng 32:52-3 Je '54
Preventing press failures; overload relief. A. F. Gagne, jr. il diags Tool Eng 32:62-6 My '54
Preventing press failures; trouble detectors. A. F. Gagne, jr. il diags Tool Eng 32: 59-63 Ap '54

Safety devices

Automatic feed press for small stampings. il Steel 135:117 Ag 23 '54
Geiger tubes guard punch press operators. il Safety Maint & Prod 107:30 Ja '54
Pneumatic safety circuits. H. L. Stewart. diags Product Eng 24:196-201 Jl '53; Discussion. 24:280-2+ N '53
What about your safety program? H. Chandler. il Steel 133:101-4 N 30 '53

See also
Punching machinery
—Safety devices

PRESSES, Forging. See Forging machinery

PRESSURE
Acoustic radiation pressure of plane compressional waves. F. E. Borgnis. bibliog diags Rs Mod Phys 25:653-64 Jl '53
Dielectric polarizaton and structure of polar liquids under pressure. F. E. Harris and others. bibliog diag J Chem Phys 21:1943-6 N '53
Effect of a two-dimensional pressure on the Curie point of barium titanate. P. W. Forsbergh, jr. bibliog diags Phys R 93:686-92 F 15 '54
Effect of hydrostatic pressure on the superconducting transition of tin and thallium. M. D. Fiske. Phys R 94:495-6 Ap 15 '54
Effect of pressure on a plant agglutinin. W. C. Boyd. bibliog Am Chem Soc J 76:4026-7 Ag 5 '54
Effect of pressure on the tensile properties of several metals and other materials. P. W. Bridgman. il J Ap Phys 24:560-70 My '53; Abstract. Product Eng 24:268+ Ag '53
Effects of very high pressures on glass. P. W. Bridgman and I. Šimon. il diag J Ap Phys 24:405-13 Ap '53
Grand Coulee model-pump investigation of transient pressures and methods for their reduction. E. Lindros. il diag A S M E Trans 76:775-81 Jl '54
Gravitational effects in PVT measurements in the critical region. W. G. Schneider and H. W. Habgood. bibliog J Chem Phys 21: 2080-2 N '53
Handy pressure-conversion chart; data sheet. S. D. Distelhorst. Power 98:101 S '54
Honors to high pressure pioneer; Northwestern dedicates new laboratory to carry on work of late Vladimir Ipatieff. il Chem & Eng N 31:5064+ D 7 '53
Investigation of pressure drop through a bubble cap plate. J. E. Cauley, jr., G. Z. Moore and M. Van Winkle. bibliog diags Chem Eng Prog 49:553-9 O '53
Local boiling heat transfer to water at low Reynolds numbers and high pressures. J. A. Clark and W. M. Rohsenow. bibliog diags A S M E Trans 76:553-61; Discussion. 561-2 My '54
Measurement of the viscosity of five gases at elevated pressures by the oscillating-disk method. J. Kestin and K. Pilarczyk. bibliog(41 titles) diags A S M E Trans 76:987-97; Discussion. 998-9 Ag '54
Method for predicting pressure drops in pneumatic components and systems. M. M. Slawsky and others. Chem Eng 60:170 S '53
Operating man accuses stop-check valves falsely. B. Dopp. diag Heating-Piping 26: 136-9 Je '54
Phase-study apparatus for semimicro use above atmospheric pressure. W. L. Marshall and others. diags J Chem Educ 31: 34-6 Ja '54
Physical nature of knock. B. N. Cole. diags Engineering 177:111-15 Ja 22 '54
Pressure dependence of the resistivity of germanium. W. Paul and H. Brooks. bibliog Phys R 94:1128-33 Je 1 '54
Pressure loss in straight round ducts. L. J. Murphy. Mill & Factory 54:98 Ap '54
Pressure-volume-temperature relationships of alcohol vapors. C. B. Kretschmer and R. Wiebe. bibliog diag Am Chem Soc J 76: 2579-83 My 5 '54
Scintillation counters for continuous analysis under high pressure. H. G. Drickamer, K. D. Timmerhaus and L. H. Tung. bibliog diags Chem Eng Prog 49:503-5 S '53
Spectra of iodine solutions; the effects of high pressures upon iodine complexes. J. Ham. bibliog diags Am Chem Soc J 76: 3881-5 Ag 5 '54
Studies in the system magnesia-silica-water at elevated temperatures and pressures. E. T. Carlson and others. bibliog J Res Nat Bur Stand 51:179-84 O '53

PRESSURE—*Continued*

Velocity of sound in water as a function of temperature and pressure. A. H. Smith and A. W. Lawson. bibliog diags J Chem Phys 22:351-9 Mr '54

See also

Blood pressure
Compressed air
Compressibility
Compressors
Earth pressure
Equation of state
Gases, Compressed
Osmotic pressure
Phase rule and equilibrium
Spectrum—Pressure effect
Vacuum
Vapor pressure
Wind pressure

PRESSURE gages

Bryce Berger plunger pressure gauge. il diag Engineering 176:670 N 20 '53

Combined Pirani and ionization gauge circuit. G. von Dardel. diags J Sci Instr 30:114-17 Ap '53

Determination of heavy water with the hot wire gage. R. G. Haldeman. bibliog diags Anal Chem 25:787-90 My '53

Maintenance experience with electrical pressure gages. W. W. Holt, jr. il diag Am Pet Inst Proc 33(5):71-5 '53; Same. Pet Eng 25:D 13-14+ Ag '53; Same cond. Oil & Gas J 52:88+ Je 29 '53

Measurement of low concentrations of hydrogen in nitrogen; Pirani gauge which incorporates a heated palladium window. A. H. Turnbull and M. F. A. Harrison. diags J Sci Instr 30:266-8 Ag '53

Measurement of pressure transients. R. T. Eckenrode and H. A. Kirshner. bibliog(112 ref) R Sci Instr 25:23-40 Ja '54

Miniature gage measures nuclear explosion pressures; Armour research foundation. il Chem & Eng N 32:2110 My 24 '54; Iron Age 173:151 Je 3 '54

Miniature pressure cells. T. Wrathall. il diags Instruments 26:736-9 My '53

Molecular gage measures pressures without detectors. il Chem & Eng N 31:4244 O 12 '53

Pressure gauge for the CM range. diag R Sci Instr 25:393-4 Ap '54

Quartz-coated wire Pirani gauge. J. H. Leck. bibliog J Sci Instr 31:226-7 Je '54

Simple method of leak finding using a Pirani gauge. R. N. Bloomer and M. E. Haine. J Sci Instr 30:385-6 O '53

Survey of gauges for measurement of low absolute gas pressures. R. B. Lawrance. bibliog il diags Chem Eng Prog 50:155-60 Mr '54

Thermistor McLeod gauge for a pressure range 1-10^{-7} mm of mercury. R. S. Bradley. diags J Sci Instr 31:129-30 Ap '54

Use of electrical resistance in high pressure calibration. P. W. Bridgman. diag R Sci Instr 24:400-1 My '53

See also

Anemometers
Manometers
Vacuum gages

PRESSURE measurement

Accurate measurement of high-range differential pressures; helical sensing element developed by Foxboro co. il Machine Design 26:114 Ag '54

Calibration of sensitive differential pressure devices. R. A. Gross. il diags R Sci Instr 25:218-20 Mr '54

Considerations entering into the selection of probes for pressure measurement in jet engines. C. C. Gettelman and L. N. Krause. bibliog diags Instruments 26:1385-8 S '53

Consolidation around pore pressure meters. G. de Josselin de Jong. diags J Ap Phys 24:922-8 Jl '53

Determining pressure drop in Freon systems F-12 and F-22. W. L. Holladay. bibliog Refrig Eng 62:55-60; Discussion. 60-1+ S '54

Differential-pressure meter for open hearths. B. O. Smith. il diags Instruments 26:1706-7 N '53

Effect of interaction among probes, supports, duct walls and jet boundaries on pressure measurements in ducts and jets. L. N. Krause and C. C. Gettelman. diags Instruments 26:1381-4 S '53

Evidence of an inherent error in measurement of total-head pressure at supersonic speeds. J. S. Murphy. Aeronautical Eng R 12:47-51 N '53

Hautau pressure testing machine. il Machine Design 26:145 F '54

Manometric method for study of solid-gas reactions at moderate temperatures. P. Souter, J. R. Willimott and T. G. Hunter. bibliog il Anal Chem 26:484-7 Mr '54

Mobile research laboratory for making field measurements in acoustics, vibration, and pulsative fluid flow. R. C. Baird. il plans Pet Eng 25:C29-30+ N '53

Multiway valve for pressure connexions. D. Firth. il J Sci Instr 31:346 S '54

New hf pressure cells tie in to oscilloscope. Aviation W 59:75 N 9 '53

Oxidation-reduction potential and pH changes in manometric vessels. K. Wight and D. Burk. bibliog il diag Anal Chem 26:481-4 Mr '54

Pressure response in supersonic wind-tunnel pressure instrumentation. A. L. Ducoffe. bibliog il diags J Ap Phys 24:1343-54 N '53

Pressure transmitter for fluids provides positive seal receiver and fluid; King engineering corp. Chem Eng 61:304 Je '54

Remote indication of pressures. il diag Chem Age (Lond) 69:753-4 O 10 '53

Rocket measurements of upper atmosphere ambient temperature and pressure in the 30- to 75-kilometer region. H. S. Sicinski and others. bibliog diags J Ap Phys 25:161-8 F '54

Tiny probe used to measure high speed air flow; AiResearch mfg. co. il Iron Age 173:126-7 Ja 14 '54

See also

Draft gages
Manometers
Petroleum—Well pressure
Pressure gages

PRESSURE regulation

Automatic control of a pressure process. N. H. Ceaglske and D. P. Eckman. bibliog diag Ind & Eng Chem 45:1879-85 S '53

Control of water pressure in suburban distribution lines. J. S. Williams. diags Am Water Works Assn J 45:1123-35; Discussion. L. S. Finch. 1135-8 N '53

Longest, largest high-pressure crude line automatically controlled. E. E. Kleir. il map diags Oil & Gas J 52:76-8+ D 28 '53

PRESSURE regulators

All-glass pressure regulator. B. W. Nippoldt and G. J. Pollman. diag Anal Chem 26:1526-7 S '54

Booster control for a coke-oven gas holder. F. Revell. diag Instruments & Automation 27:1084-5 Jl '54

Butterfly regulates compressor. diag Pet Refiner 33:171 Ja '54

Constant-pressure device for gas flow system. A. Charnley and G. L. Isles. diag Anal Chem 25:1942 D '53

Design and use of an electronic pressure controller. F. J. Digney and S. Yerazunis. diags Anal Chem 25:921-3 Je '53

Economical capacity increases for low pressure systems. L. C. Rohret. map Am Gas J 181:18-19 Ag '54

Electrohydraulic pressure control servo valve. il diag Product Eng 24:241 Je '53

Evaporative condenser head pressure control. Heat & Ven 51:93-4 Ja '54

Kent automatic bleed unit. diag Engineer 196:476 O 9 '53

New control methods for products pipe lines. S. S. Smith. diags Am Pet Inst Proc 33(5):79-86 '53; Excerpts. Oil & Gas J 52:302-3+ Jl 27 '53

Over pressure protection in gas distribution systems. L. C. Rohret. diags Am Gas Assn Proc 1953:702-6

Over-pressure protection panel. G. G. Dye and others. diags Am Gas Assn Proc 1953:409-16; Same abr. Gas Age 112:32-5 N 5 '53

Packaged district regulator developed; Lone Star gas co. il Gas Age 114:22-3 Ag 26 '54

Pressure chamber for micro-optical observations. C. Turner. diags J Sci Instr 31:9-10 Ja '54

Pressure regulation and flow control with expansible-tube valves. F. H. Wehrman. il diags Instruments 26:1543-6 O '53

Relief devices for gas distribution systems. D. G. Findlay. Am Gas Assn Proc 1953:644-7

PRESSURE regulators—*Continued*

Remote control of double-acting pneumatic cylinders. F. W. Hicks. diags Product Eng 24:170-1 S '53

Safe design to prevent overpressuring of gas distribution systems. W. P. Dick. diags Am Gas Assn Proc 1953:692-7

Simple pressure controller. D. H. James and C. S. G. Phillips. diag J Sci Instr 31:193 My '54

Static-flow characteristics of single and two-stage spring-loaded gas pressure regulators. A. S. Iberall. diags A S M E Trans 76:363-73 Ap '54

Unusual pressure-control methods feature steeply dropping artery; Pioneer products pipe line. G. L. Farrar. il map diag Oil & Gas J 52:101-3 Ja 4 '54

See also

Gas governors

PRESSURE vessels

Alternate types of vessel construction; a cost comparison. I. E. Boberg and W. R. Fickett. diags Am Pet Inst Proc 33(3):241-5 '53; Same. il Pet Eng 25:C21+ O '53; Same cond. Pet Processing 8:690-2 My '53; Discussion. Am Pet Inst Proc 33(3):245-52 '53

Behavior of carbon and low-alloy steels between -20 and +650°F. G. H. Enzian. bibliog(59 titles) Welding J 32:sup605-18 D '53

Bench-scale equipment for reactions at high pressure. A. M. Whitehouse and others. diags Chem Eng Prog 49:491-6 S '53

Biaxial fatigue properties of pressure vessel steels. C. E. Bowman and T. J. Dolan. bibliog il diags Welding J 32:sup529-37 N '53

Chart gives vessel wall and weight for estimating. R. B. Reed. Chem Eng 61:228+ Ja '54

Destruction tests and design data for welded pressure vessels; Alcoa's aluminum alloy A54S. J. B. Custer. il diags Welding J 33:sup65-70 F '54

Dimples save critical stainless steel. il Chem & Eng N 31:2812 Jl 6 '53

Good engineering practice in construction and use of pressure vessels can prevent accidents. V. R. Croswell. diags Ind & Eng Chem 45:sup 109A-11A Jl '53

High-pressure vessels subjected to static and dynamic loads. E. D. Narduzzi and G. Welter. bibliog il diags Welding J 33:sup230-8 My '54

How continuous digester holds pressure to make better chemical cellulose; Hercules powder co. il diag Chem Eng 61:116-18 My '54

Marking of compressed-gas containers; reference book sheet. F. R. Fetherstone. Am Mach 98:191 S 13 '54

Materials; aluminum has advantages for tanks and pressure vessels. E. V. Sharpnack. diags Iron Age 173:174-6 Mr 4 '54

New alloy widens future for aluminum in pressure vessels. J. B. Campbell. il Materials & Methods 39:97-101 Ap '54

New steel for pressure vessels. Metal Prog 66:82 S '54

Pressure vessel research in the universities. P. R. Cassidy. Welding J 33:sup70+ F '54

Report on API investigation of graphitization in petroleum refining equipment. R. J. Fiorentino and A. M. Hall. bibliog il diags Am Pet Inst Proc 33(3):230-40 '53; Same. Pet Refiner 32:132-6 My '53; Same cond. Oil & Gas J 52:110+ Je 8 '53; Discussion. Am Pet Inst Proc 33(3):245-52 '53

Solution of a problem; stress-relieving a large welded pressure vessel. il diags Chem Age (Lond) 71:487-9 S 4 '54

Stresses for pressure vessels and boilers up to 650°F. W. P. Kerkhof. diags Welding J 33:sup239-51 My '54

Strong aluminum alloy gets pressure vessel code approval. Welding J 33:375 Ap '54; Iron Age 173:172+ Mr 11 '54; Mach 60:202 My '54

See also

Air compressors
Autoclaves
Boilers
Caissons
Digesters (paper making)
Dust collectors
Evaporators
Gas, Natural—Storage
Kettles, Steam jacketed

Design

Design ancestry. C. O. Brown. diags Ind & Eng Chem 45:sup79A-80A+ My '53

Designing stable polygon cross-sections for pressurized structures; data sheet. B. Saelman. diags Machine Design 26:153-4 Jl '54

Fatigue as a factor in pressure vessel design. T. J. Dolan. bibliog(48 titles) il Welding J 33:sup265-75 Je '54

Safety factor in the design of seamless steel gas cylinders. S. E. Mitchell. Metallurgia 50:87-9 Ag '54

Solve for vessel thickness graphically. J. A Hunter, jr. Pet Refiner 32:112 Jl '53

Manufacture

Constructing pressure vessels for a defense project; Rheem mfg. co.'s aircraft division. W. R. Miller. il Mach 60:156-61 Ag '54

Equipment tailored for new-plant jobs; Foster Wheeler corp. plant. il Steel 134:128-9 F 1 '54; Mech Eng 76:180-2 F '54

Fabrication of a zirconium-lined reaction vessel. O. G. Paasche and A. J. Killin. il diags Welding J 33:115-18 F '54

Modern tools aid process flow; Foster Wheeler plant. il Mill & Factory 54:134 Ja '54

New $5-million pressure-vessel plant expected to cut fabrication time by 40 per cent; Foster-Wheeler corp. il Am Mach 97:182-4 D 7 '53

New Foster Wheeler plant starts limited operations. il Welding J 33:144-7 F '54

Oxy-acetylene stress relieving of pressure vessels. H. Kunz. bibliog il diags Welding J 33:sup288-94 Je '54

Welding for low-temperature service. R. W. Bennett. il diags Welding J 32:1089-97 N '53

Safety measures

Bursting disc, a modern safety device. J. M. Pirie. il Chem Age (Lond) 69:957-60 N 7 '53

Precautions in use of pressure vessels. A. Webster. il Chem Age (Lond) 70:374-8 F 6 '54

Safety disks. C. J. Holinger. bibliog il Instruments & Automation 27:452-4 Mr '54

Standards

ASME boiler and pressure vessel code and its application in the United States and Canada. E. C. Korten. il diags Tappi 37:242-9 Je '54

Proposed revisions and addenda to boiler and pressure vessel code. Mech Eng 75:748 S '53

Updating the code; use of cast iron for pressure vessels. Chem W 75:42 Jl 10 '54

Testing

New steel passes toughness test; Carilloy T-1. A. G. Gray. il Steel 135:102-3 Jl 19 '54

Plastic fatigue strength of pressure vessel steels. J. H. Gross and others. il diags Welding J 33:sup31-9 Ja '54

Researches on welded pressure vessels and pipelines; abstract. N. Gross. Metal Prog 66:156+ Jl 1 '54

Test new alloy steel for pressure vessels. Iron Age 174:120 Jl 22 '54; il Materials & Methods 40:12 S '54

Tests on tanks made from new kind of steel. Munic Util 92:44-6 Jl '54; Same. Welding J 33:795-6 Ag '54

Ultrasonic testing of pressure vessels. Chem & Ind p865 Ag 15 '53

PRESTON east dome mines

Security I like best. H. P. Newell. Comm & Fin Chr 178:530+ Ag 13 '53

PRESTRESSED concrete. See Concrete—Prestressing

PRESTRESSING, International federation of. See International federation of prestressing

PREVENTIVE medicine. See Medicine, Preventive

PRICE cutting

Our tottering retail list prices. E. Whitmore. Sales Management 72:42-3 Ap 1 '54; Discussion. 72:80+ My 1 '54

Seven possible answers. P. Salisbury. Sales Management 72:42 Ap 1 '54

What happens to margin and profit when you cut prices five per cent, ten per cent, twenty per cent? T. G. MacGowan. Sales Management 71:24-5+ O 15 '53

PRICE cutting—*Continued*

When you're in the red, will a price cut work? W. T. Seney. Sales Management 71: 94-5 N 1 '53

See also

Gasoline—Price cutting
Price fixing, Resale
Special sales

PRICE discrimination

FTC liberalizes views of price discrimination. Oil Paint & Drug Rep 165:4+ My 3 '54

FTC now backs good faith price plea, pledges less railroading of business. Nat Pet N 45: 15 Je 24 '53

Geographical pricing policies and the law. S. M. Loescher. bibliog J Bsns 27:211-24 Jl '54

Soap price discrimination charges unfounded; FTC. Oil Paint & Drug Rep 165:3 Ja 4 '54

See also

Discount, Trade

Patman law

Automatic canteen co. case and buyer's liability under the Robinson-Patman act. E. W. Barrett and others. J Marketing 18: 246-54 Ja '54

Curtain raiser; dismissal of price discrimination charges against manufacturer of household bleaches. Chem W 74:22 My 29 '54

Functional pricing and trade discounts under the Robinson-Patman act. J. I. Levy. bibliog J Bsns 27:182-6 Jl '54

Proving costs under Robinson act will be easier if new study sets clearer standards. Bsns W p 116 Ag 29 '53

PRICE-earnings ratios. See Stocks—Price-earnings ratios

PRICE fixing

Collusive behavior. J. A. Howard. bibliog J Bsns 27:196-204 Jl '54

See also

Gasoline—Price fixing

PRICE fixing, Resale

Are list prices too high? Sales Management 70:84+ Je 1 '53

Eastman fair-trade case gets set-back. Ptr Ink 245:21 O 16 '53

Enforced fair trade is best for all. E. Katz. Sales Management 73:80+ S 20 '54

Fair trade beclouded by high court ruling. Oil Paint & Drug Rep 164:3+ O 19 '53

Fair trade legislation backed by high court; constitutionality of the McGuire fair trade act upheld. Oil Paint & Drug Rep 164:3+ O 26 '53

Fair trade; the war's not over. Bsns W p43-4 N 7 '53

Fair-trade victories outnumber setbacks in first year of McGuire act. C. Day. Ptr Ink 244:36+ Jl 17 '53

FTC okays contracts between maker, seller. Oil Paint & Drug Rep 165:4+ Je 14 '54

FTC weighing stricter trade practice rules. A. A. Carretta. Oil Paint & Drug Rep 164: 5 D 14 '53

Mandatory resale price maintenance of distilled spirits in California. C. F. Stewart. J Marketing 18:370-9 Ap '54

Unsettled price-setting. Chem W 73:46 Jl 25 '53

Update; fair trade. Bsns W p54-5 N 14 '53

Varied reaction greets Supreme court's refusal to review fair-trade case. C. Day. Ptr Ink 245:37 O 30 '53

Victory for fair trade; Supreme court refuses to hear Schwegmann case. Bsns W p50 O 24 '53

What we really need is fair trade. Sales Management 73:81+ S 20 '54

PRICE policies

Are list prices too high? Sales Management 70:84+ Je 1 '53

Before you claim distribution costs are too high. R. F. Hansen. Sales Management 70: 86-7 Ap 1 '53

Geographical pricing policies and the law. S. M. Loescher. bibliog J Bsns 27:211-24 Jl '54

Holding the fort in price redetermination. M. J. Formichella. N A C A Bul 35:1639-40 Ag '54

How tire pricing got that way. Nat Pet N 45: 77+ Ag 5 '53

Income reporting and price re-determination. E. A. Williams. N A C A Bul 35:1278-83 Je '54

Kosher meat prices in Minneapolis. R. J. Holloway. J Marketing 18:287-9 Ja '54

Never untangled; fair trade presents an unravellable problem. Chem W 74:52+ My 8 '54

Price leader attack disturbs marketers. Nat Pet N 45:29-30 Ag 19 '53

Price policies and theory. E. R. Hawkins. J Marketing 18:233-40 Ja '54

Price variability of non-branded food items among food stores in Champaign-Urbana. R. D. Millican and R. J. Rogers. J Marketing 18:282-4 Ja '54

Product costs for pricing purposes. N A C A Bul 34:1669-730 sec 2 Ag '53

Soap plant observer; concept of determining price of soaps has altered in past few years. J. W. McCutcheon. Soap & San Chem 29: 103 N '53

Some observations on industrial prices. R. B. Heflebower. J Bsns 27:187-95 Jl '54

Will steel mills pay the freight? Bsns W p30-1 S 19 '53

See also

Discount, Trade
Price fixing, Resale

PRICE policies, Retail

Averaging markup by alligation. J. E. Hills and J. W. Ernest. J Retailing 29:167-70+ Winter '53-54

See also

Price cutting
Special sales

PRICES

Commodities since Korea. Economist 168:115-17 Jl 11 '53

New CPI and the need for a continued price-research program. L. M. Webb. Mo Labor R 76:172-4 F '53

Raw material prices; tabulation. Cer Ind 62: 46 Ja '54

Recent production and price developments. Fed Res Bul 40:1-8 Ja '54

See also

Advertising—Rates
Cost of living
Electric rates
Gas rates
Index numbers (economics)
Money
Price fixing
Public utilities—Rates
Railroads—Rates
Stocks—Price indexes and averages
Wages

also subdivision Prices under various subjects, e.g.

Farm produce
Stocks
Wheat

Economic aspects

Economic adjustment through change in price levels. H. Wingate. Mag of Wall St 93:548-50+ F 6 '54

See also

Inflation (finance)

Regulation

Ceiling price regulations, 178-186. Mo Labor R 76:280-2 Mr '53

Let's get cost pricing out of our laws. R. W. Austin. Harvard Bsns R 32:67-72 My '54

What to expect if we get stabilization controls again. E. C. Kreutzberg. Steel 134: 62 Je 28 '54

See also

Farm produce—Prices

Norway

Permanent price controls enmesh industry in Norway. G. E. Williamson. Barron's 33: 6 O 12 '53

Statistics

Commodity prices, 1949-1952. Survey of Cur Bsns 1953 Sup p25-31 [supplemented in monthly numbers]

Prices and cost of living. Published in Monthly labor review

See also

Index numbers (economics)

Europe

Prices and money supply in western Europe. Economist 168:540 Ag 22 '53

PRICES—*Continued*

Great Britain

Advance in commodities. Economist 169:513-14 N 14 '53

United States

Incomes; key to commodities. Bsns W p 172-3 S 26 '53

Present price level is here to stay. P. W. McCracken. Pub Util 53:81-9 Ja 21 '54

Relation of currency supply to economic growth. W. E. Spahr. Comm & Fin Chr 179:253+ Ja 21 '54

PRICES, Retail

Impact of changing prices on a department store. D. A. Corbin. J Account 97:430-40 Ap '54

Our tottering retail list prices. E. Whitmore. Sales Management 72:42-3 Ap 1 '54; Discussion. 72:80+ My 1 '54

Retail prices of food, fuel, etc. Oct. 1952. Int Labour R Stat Sup 68:1-21 Jl '53

Seven possible answers. P. Salisbury. Sales Management 72:42 Ap 1 '54

Some experimental findings about the meanings of price. H. J. Leavitt. J Bsns 27:205-10 Jl '54

See also

Price policies, Retail

PRICES, Wholesale

Statistics

Indexes of wholesale prices. Published in Monthly labor review

Price movements in principal countries, 1943-1952, monthly Nov. 1952-Nov. 1953. Fed Res Bul 40:112 Ja '54 [cont monthly]

Wholesale price indexes, 1952-1953; tabulation. Steel 134:195 Ja 4 '54

Wholesale prices, by groups of commodities, yearly 1947-1952, monthly Nov. 1952-Nov. 1953. Fed Res Bul 40:90-1 Ja '54 [cont monthly]

Wholesale prices, 1949-1952. Survey of Cur Bsns 1953 Sup p27-31 [supplemented in monthly numbers]

PRIESTLEY medal

Leading British chemist receives Priestley medal. Chem & Eng N 31:3844 S 21 '53

PRINCE EDWARD ISLAND

See also

Roads—Prince Edward Island

PRINCIPAL and income. See Trusts and trustees—Principal and income

PRINTED circuits. See Electric circuits—Printed circuits

PRINTERS

Bogus demand is legal; Taft asks ideas for ban; majority opinion. Ed & Pub 86:7+ Mr 14 '53

Union wages and hours: printing industry, July 1, 1953. A. Moros. U S Bur Labor Statistics Bul 1155:1-40; pa 30c Supt. of doc. '54

See also International typographical union

PRINTERS' ink (periodical)

Printers' ink at 65. Ptr Ink 244:48+ Jl 24 '53

PRINTING

Basic methods of printing. diags Ptr Ink 245:378+ sec 2 O 23 '53

Merger points to typeless printing. Bsns W p 118+ D 12 '53

Printing; past, present, and future; abstract. W. C. Huebner. Paper Tr J 138:56 F 26 '54

Rheology and the letterpress printing process. N. Casson. diags Soc Dyers & Col J 69:576-81; Discussion. 581-2 D '53

Rudiments of converting. M. J. Galbraith. diags Paper Tr J 137:106-10 N 13 '53

See also

Book industry and trade
Calendars
Covers (printing)
Ink
Newspapers—Printing
Newsprint paper
Packaging materials—Printing
Paper
Paper—Printing properties
Paper boxes—Printing
Photography
Photomechanical processes
Posters
Printers
Printing offices
Printing presses
Printing trade
Silk screen printing
Textile printing

History

Century of printing progress. J. J. Deviny. Midwest Eng 6:7-9+ Je '53

See also

Silk screen printing

Purchasing

How to choose a typographer. C. H. Baylis. Ptr Ink 245:50+ O 16 '53

Typography

Printers' ink 1954 advertisers' annual; typography. Ptr Ink 245:391-2+ sec 2 O 23 '53

PRINTING, Offset

Coated paper and offset lithography. A. P. Reynolds; F. H. Frost. Tappi 36:sup 130A-2A O '53

Coated paper in offset printing; panel discussion. A. C. Zettlemoyer and others. Tappi 36:sup 140A-8A O '53

New developments in offset printing. H. C. Latimer. Ptr Ink 245:385-6 sec 2 O 23 '53

Nonpaper factors and quality of offset lithography. D. W. S. Riddell. Tappi 36:sup 136A-7A O '53

Offset printing of coated papers. C. F. King. Tappi 36:sup 133A-6A O '53

Operating factors in offset printing on coated papers. R. F. Reed and G. Wheeler. Tappi 36:sup 137A-40A O '53

What are the requirements of paper for offset? A. W. Beecroft. Paper Tr J 138:66+ Je 25 '54

See also

Paper—Printing properties

PRINTING, Practical

See also

Color printing
Ink
Newspapers—Printing
Paper—Printing properties
Printing plates
Printing presses
Printing trade
Type and type founding

PRINTING, Silk screen. See Silk screen printing

PRINTING ink. See Ink

PRINTING machinery

See also

Duplicating machines
Phototypesetting machines

PRINTING offices

Air conditioning

New printing plant features year-round air conditioning; Gospel publishing house. il Arch Rec 113:218+ Ap '53

Employees

See also

Printers

Equipment

Make your standing matter files help sell. E. G. Morrell. Inland Ptr 131:28-9 Jl '53

Management

Modernize composing room to cut labor costs and improve efficiency; Niagara frontier publishing co. R. G. Dyment. il plan Inland Ptr 131:25-7 Jl '53

PRINTING on metals

Air-circulated drying oven for printed steel sheets. il Engineering 176:779-81 D 18 '53

PRINTING, packaging and allied trades research association

Printing, packaging and allied trades research association. G. L. Riddell. il Chem & Ind p 1266-9 N 28 '53

PRINTING plates

Electroforming embossing and graining plates. E. Schore. il diags Metal Finishing 52:74-6 Ja '54

Flexographic printing plates. J. Lecraw. Tappi 37:sup 135A-7A Ja '54

Four kinds of duplicate plates and their use to an advertiser. M. J. Sutter. Ptr Ink 244:94-6 S 25 '53

Magnesium printing plates. Tappi 37:sup 106A+ Je '54

Nonpaper factors and quality of offset lithography. D. W. S. Riddell. Tappi 36:sup 136A-7A O '53

Role of printing plates in paper conversion. B. R. Preston. il diags Paper Tr J 137:130-2+ N 13 '53

PRINTING presses

Flexographic printing presses. R. K. Zuckerman. Tappi 37:sup 134A-5A Ja '54

Press operation, maintenance, and control. H. Rosen. Tappi 37:sup 151A-2A F '54

So you are planning to install a press? Ed & Pub 86:50+ Mr 14 '53

Manufacture

Gear shaving insures close backlash control; Harris-Seybold co. W. Newell. il Iron Age 174:104-6 Jl 8 '54

PRINTING research

Printing, packaging and allied trades research association. G. L. Riddell. il Chem & Ind p 1266-9 N 28 '53

Time, inc. Springdale laboratories; research in printing. R. Hodgins. Tappi 37:sup 128A-30A S '54

PRINTING trade

See also
Printers

Accounting

Payroll plan speeds accounting; Benson printing company of Nashville. E. W. Benson. il Inland Ptr 131:23-4 Jl '53

Directories

Printing trades blue book; the standard directory of the printing trades, its branches and kindred crafts; Greater New York and New Jersey. 39th ed 717p $20 A. F. Lewis & co, 147 4th av, New York 3 '54

Salesmen

Ways to sell printing. O. Arbogust. Inland Ptr 130:39 F; 43 Mr; 131:39 Ap; 69 My; 50 Je; 29 Jl '53

Standards

All-industry standards are needed to cut costs, increase production. L. H. Allen. Inland Ptr 131:36 Jl '53

New England

Paper and printing in New England. Tappi 37:sup 101A-6A Ag '54

PRIORITIES and allocations, Industrial

See also National production authority—Defense materials system

PRISMS

Calibration of infrared prism spectrometers. A. R. Downie and others. bibliog Opt Soc Am J 43:941-51 N '53

Infrared measurements with a cesium iodide prism. N. Acquista and E. K. Plyler. Opt Soc Am J 43:977-9 N '53

Some improved forms of the differential-prismatic cell. H. Svensson. bibliog diags Opt Soc Am J 44:140-6 F '54

Stray light in a spectrophotometer caused by internal reflection in a 60° prism. H. D. Einhorn and A. E. Z. Cohn. diag Opt Soc Am J 44:232-3 Mr '54

Water-prism ultraviolet monochromators. D. J. Fluke and R. B. Setlow. bibliog diags Opt Soc Am J 44:327-30 Ap '54

PRISONERS

Federal care and treatment of insane prisoners. Pub Health Rep 68:825 Ag '53

PRISONERS of war

See also
Korean war—Prisoners and prisons

PRISONS

Houston's jail is watched by the all-seeing eye of tv. il Bsns W p33 N 7 '53

Soap for a penal institution; London (O.) prison farm. F. L. Anderson. Soap & San Chem 29:53-5 O '53

PRIVACY, Right of

Picture privacy rules restated in decision. A. W. Gray. Ed & Pub 86:55 Ap 4 '53

What constitutes right of privacy? M. J. Simon. Adv Agency 46:72-3+ Je; 73+ Jl '53

PRIVATE brand manufacturers, National association of. See National association of private brand manufacturers

PRIVATE garages. See Garages, Private

PRIVILEGED communications

Broader confidence bill offered by Heller. Ed & Pub 86:58 My 9 '53

Confidential disclosures to corporations; abstract. W. M. Behrens. Oil Paint & Drug Rep 165:54-5 Ja 25 '54

Federal judge abides by state confidence law. Ed & Pub 86:48 My 30 '53

PRIZE contests

Convert to contests; Minnesota mining & mfg. co. il Bsns W p46+ N 7 '53

Don't forget Uncle Sam in your contest prizes. P. Salisbury and J. Shoenfeld. Sales Management 72:58+ F 1 '54

Hanging cartoon contest; slogan winners are named! il Dom Eng 182:32-5+ N '53

How Brooklyn Union sells with Mrs America. V. O'Brien. il Gas Age 113:36-8 Mr 11 '54

Mrs America contest for 1954 will be gas industry promotion, exclusively. il Am Gas J 179:46-8 N '53

Mrs America, gas industry's top homemaker. il Am Gas Assn Mo 36:4-6+ My '54; Am Gas J 180:46-7 Je '54; Gas Age 113:22 Je 3 '54

Mrs America quota over the top. il Am Gas Assn Mo 36:27+ Jl-Ag '54

Operation Mrs America. il Am Gas Assn Mo 36:14-17+ Ja '54

Search for Mrs America in high gear in Florida. Am Gas Assn Mo 36:17-18 Mr '54

Solved; fall slump; how, baby talk; Visking corp. W. R. Hemrich. il Sales Management 72:68-70 F 1 '54

This community-relations program spreads across a whole state; Cotton improvement contest. M. B. Andrews. Textile World 104:139+ Je '54

Want customers to know about you? Southern states cooperative quiz. T. K. Wolfe. Sales Management 72:88+ F 1 '54

You're the boss; Wisconsin manufacturers giving the public a chance to solve some management problems. Bsns W p 166 Ag 29 '53

See also
Advertising—Prize contests
Employees' contests
Newspapers—Prize contests

PROBABILITIES

Aseismic design of elastic structures founded on firm ground. L. E. Goodman and others. bibliog diags Am Soc C E Proc 79 [no 349]:1-27 N '53

Connection between the Smoluchowski equation and the Kramers-Chandrasekhar equation. R. W. Davies. Phys R 93:1169-70 Mr 15 '54

Contributions to the theory of Markov chains. K. L. Chung. bibliog J Res Nat Bur Stand 50:203-8 Ap '53

Dust counting by the most probable number method. H. M. Chapman. il A M A Archives Ind Hygiene & Occup Med 8:234-45 S '53

First probability densities for receivers with square law detectors. R. C. Emerson. bibliog diag J Ap Phys 24:1168-76 S '53

Insulation coordination; problem in probabilities. C. F. Wagner. Westinghouse Eng 13:198-202 N '53; Same abr. Elec World 140:117-20 Ag 24 '53

Joint distribution of *n* successive outputs of a linear detector. W. C. Hoffman. J Ap Phys 25:1006-7 Ag '54

Markoff random processes and the statistical mechanics of time-dependent phenomena; irreversible processes in fluids. M. S. Green. bibliog J Chem Phys 22:398-413 Mr '54

Probabilities in bridge. D. F. Waugh and F. V. Waugh. bibliog Am Stat Assn J 48:79-87 Mr '53

Probabilities of certain solitaire card games. R. E. Greenwood. bibliog Am Stat Assn J 48:88-93 Mr '53

What is probability? R. Carnap. Sci Am 189:128-30+ S '53

See also
Least squares
Sampling (statistical methods)

PROBATE law

Attorney's fees in probate. V. Cullinan. Trusts & Estates 93:13-14+ Ja '54

Significant trust and probate decisions; ABA committee report. Trusts & Estates 92:741-4 O '53

PROBATE law—*Continued*

Bibliography

Trust and probate literature, 1952-53; ABA committee report. Trusts & Estates 92:793-8 O '53

PROBLEM of three bodies

Three-body scattering problems. S. Borowitz and B. Friedman. Phys R 93:251-2 Ja 1 '54

PROCTER and Gamble company

Ingenuity; sure-fire catalyst for success; P&G in foreign production. il Chem W 73:14-16 Ag 22 '53

Ivory soap's 75th anniversary. il Soap & Chem Spec 30:44-5+ Jl; 49-51 Ag '54

Men behind the success of P&G. Soap & San Chem 29:46-9+ D '53

Syndets and soaps. J. C. Clifford. Mag of Wall St 93:32-3, 44+ O 3 '53

PRODUCE trade

Slipping market spurs better selling for fresh fruits and vegetables. J. Shoenfeld. Sales Management 71:40+ N 20 '53

PRODUCT development corporation

Spans inventor-producer gap; new firm helps others diversify by finding new products. W. V. Packard. il Iron Age 174:51-2 S 30 '54

PRODUCTION

Aids to productivity; review of the valve industry. Engineering 177:198 F 12 '54

Answer to an old fallacy; goods should be produced for use, not profit. Automotive Ind 111:150+ Jl 15 '54

Are we operating at maximum productivity? A. W. J. Dyck. Paper Ind 36:137-8 My '54

Design capacities capitulate to maximum economic production rates in most chemical plants. C. F. Prutton. Ind & Eng Chem 46: sup83A-4A Ag '54

Dynamic behavior of linear production systems. D. P. Campbell. flow diags Mech Eng 75:279-83 Ap '53; Discussion. R. Oldenburger. 75:831 O '53

Dynamics of the manufacturing interval. W. V. Clark, jr. and W. E. Ritchie. Advanced Management 18:15-18 Ap; 22-4 N '53

Impact of development and research on production and design. L. H. Leedham. Engineering 177:263-4 F 26 '54

Increased efficiency through production planning. D. B. Kirk. Advanced Management 18:25-8 Ap '53

Increased productivity by integration of forest and wood utilization. R. C. Sproull. Paper Ind 36:139-40 My '54

Mass production; boon or bondage? abstract. W. A. Buck. Management R 43:279-80 My '54

Maximum production on hot strip mill; Gary sheet and tin mills. J. E. Angle. plan Blast F & Steel Pl 41:1289-94+ N '53

Organization for production engineering. R. H. McCarthy. Mech Eng 75:785-8+ O '53; Same cond. Tool Eng 32:168-73 F '54

Post-war changes in world production. V. L. Horoth. Mag of Wall St 93:487-9+ Ja 23 '54

Practical methods of increasing productivity in manufacturing industries. Int Labour R 67:317-39 Ap '53

Production and trade, 1953; with figures for 1952. Survey of Cur Bsns 34:15-17 F '54

Production engineering for the civil market; abstract. R. B. McIntyre. S A E J 62:109-10 Mr '54

Production outlook; key to business in 1954; with charts. T. L. Godey. Mag of Wall St 93:305-7+ D 12 '53

Production should supervise quality control. D. R. King. Am Mach 98:128-9 Jl 19 '54

Productivity; a big labor issue in 1954. Steel 133:71 Ag 17 '53

Productivity; an economic and social challenge to American industrial leadership. L. Teplow. Advanced Management 19:17-19 F '54

Productivity and economic progress, 1900 to 1950. Mo Labor R 76:391-2 Ap '53

Productivity and the trade unions in France. R. Richard. Int Labour R 68:279-302 S '53

Productivity, are we on the right road? Lord Sempill. Engineer 196:845-6 D 25 '53; Excerpts. Elec J 151:2119 D 25 '53

Productivity; key to wages? Twentieth century fund study. Bsns W p 146-7 Ag 15 '53

Productivity; some practical suggestions. B. White. Chem Age (Lond) 70:771-2 Ap 3 '54

Recent production and price developments. Fed Res Bul 40:1-8 Ja '54

Relationship of total profit and maximum economic production rate. C. F. Prutton. Ind & Eng Chem 46:sup91A-2A S '54

Simplification, key to productivity; National federation of metal finishers 1st management seminar, Chicago. Iron Age 173:76-7 F 11 '54

Stabilizing production and employment. il Steel 134:87-94 My 17 '54

What productivity costs. Economist 168:129-30 Jl 11 '53

What safety contributes to production; abstract. J. E. Trainer. Management R 43: 444-5 Jl '54

See also

Economics
Efficiency, Industrial
Factory management
Labor productivity
Manufactures
Orders, Unfilled
Planning

Measurement

Federal Reserve adopts new industrial production index. Chem & Eng N 32:59-60 Ja 4 '54

Federal reserve board's output index overhauled. Oil Paint & Drug Rep 164:3+ D 21 '53

Measurement of productivity in state undertakings and public services. G. Ardant. Int Labour R 67:434-52 My '53

Productivity in the chemical industry. R. F. Bruckart. bibliog Chem Eng Prog 50:173-6 Ap '54

Productivity; measurement and control. E. Clague. bibliog Chem Eng Prog 50:167-72 Ap '54; Abstract. Tool Eng 32:191-2 Je '54

Productivity measurements can be obtained and used. J. H. Kempster. N A C A Bul 35:1276-7 Je '54

Statistics

Business indexes; industrial production, construction contracts, employment and payrolls, etc.; index totals, 1919-1952, monthly June, 1952-1953. Fed Res Bul 40:75 Ja '54 [cont monthly]

Federal Reserve explains revisions in its industrial production index. Comm & Fin Chr 178:2553 D 24 '53

Gross national product, national income, and personal income, annual totals for selected years 1929-1952 and seasonally adjusted annual rates by quarters for 1952 and 1953. Fed Res Bul 40:92-3 Ja '54 [cont monthly]

Gross national product, 1949-1952. Survey of Cur Bsns 1953 Sup p7 [supplemented in monthly numbers]

Indexes of industrial production, 1949-1953; tabulations. Steel 134:195 Ja 4 '54

Indexes of industrial production, 1950-1953; chart and tabulations. Automotive Ind 110: 327 Mr 15 '54

Indications of current business activity; statistical tabulations covering production and other figures for the latest week or month available. Comm & Fin Chr 179:91 Ja 7 '54

Industrial production by industries (adjusted and unadjusted indexes), 1951-1952, monthly Nov. 1952-Nov. 1953. Fed Res Bul 40: 76-9 Ja '54 [cont monthly]

Industrial production, 1949-1952. Survey of Cur Bsns 1953 Sup p 10-15 [supplemented in monthly numbers]

National income and product in 1953; with tables. Survey of Cur Bsns 34:5-14 F '54

New FRB production index. Nat City Bank p4-6 Ja '54

1953 revision of the monthly index of industrial production; with tables and charts. Fed Res Bul 39:1239-328 D '53

Review of national income and product in the third quarter; with tables. Survey of Cur Bsns 33:2-6 N '53

See also

Input-output data

PRODUCTION and sales, Coordination of

Are these your big problems? sales and costs. A. R. Gardner. Dun's R & Mod Ind 62:48-50+ D '53

Production and inventory control based on sales forecasts. A. T. Montgomery. il Mill & Factory 54:92-5 F '54

Stock behind the sale. E. Lilly. Chem W 74:80 My 22 '54

PRODUCTION control

Buyers' market now forcing suppliers to increase inventories, cut lead time; report on production control and materials handling panel. S A E J 62:34-5 Ap '54

Communication; airtubes link production control centers; Reliance electric & engineering co. il Iron Age 173:146 F 11 '54

Cost reduction through electronic production control. R. G. Canning. flow diag diag Mech Eng 75:887-90 N '53; Abstract. Iron Age 172:146-7 Jl 16 '53

Engineering for production control; abstract. J. M. Druliner. Safety Maint & Prod 107:24 F '54

Helpful hints on production control; report of panel on production control. S A E J 62:75 S '54

How labor dollars control our production loads; National Cash Register. W. G. Flanagan. il Factory Management 112:106-8 My '54

Increasing productivity through control reports. W. Langenberg. N A C A Bul 34:982-93 Ap '53

Installation, follow-up, and utilization of information are factors in production control. W. von Pechmann. Ind & Eng Chem 45:sup97A-8A+ N '53

Look to the customer; report on panel on production control. R. S. Wetzel. il S A E J 61:37-8 D '53

Market changes draw attention to controls; abstract. G. I. Lyman. S A E J 62:106-7 Ag '54

Operations research for control. R. L. Ackoff and J. E. Townsend. Chem & Eng N 32:2322 Je 7 '54

Production control at Avondale is based on mill-order sets. T. B. Winston. il Textile World 104:98-101+ Ja '54

Production control number system is better than dates. F. M. Gilbreth. Steel 133:173-4 S 14 '53

Tubes streamline production control; Reliance electric & engineering co. il Steel 134:117 Mr 15 '54

See also

Factories—Records
Factory management
Production and sales, Coordination of
Schedules

PRODUCTION standards

Better standards for closer cost control; Federal bearings co. W. P. Canfield. il Factory Management 112:132-4 My '54

PRODUCTIVITY. See Production

PRODUCTS, Certification of

A.G.A. wins seal of approval suit. il Am Gas Assn Mo 36:13 F '54; Same abr. Gas Age 113:42 F 11 '54

PRODUCTS, Commercial. See Commercial products

PRODUCTS, Diversified

Product partnerships; new U.S. Rubber program. Bsns W p46 S 19 '53

Torrington; finding a boom in a breeze. il Bsns W p 103-4+ S 19 '53

See also

Diversification in industry

PRODUCTS, Improved

At work; Jack of all trades; keeping researcher informed through Witco's broad-gauge assignments. il Chem W 74:60-1 Mr 27 '54

Good industrial styling; key to higher sales. G. W. Walker. il Iron Age 173:141-5 F 4 '54

How to shrink your product to expand your sales. A. R. Gardner. il Dun's R & Mod Ind 63:54-9 Ja '54

Internal redesign improves bearing; new spherical roller bearing. il diags Steel 133:109 N 2 '53

135 case histories; how to reduce costs through materials selection. il diags Materials & Methods 39:69-116 My '54

Redesign pays off in higher productivity. W. G. Patton. il Iron Age 173:140-2 Ap 1 '54

Redesigned message register has fewer parts. il diags Machine Design 26:174-5 F '54

Review your products for economy. R. Cleveland. diags Product Eng 24:282+ Ag '53

Vendor capacity doubled within same frame size. il diags Product Eng 24:152-3 S '53

Why of product research. J. A. Straka. Soap & San Chem 29:42-4+ Ag '53

PRODUCTS, New

Antioxidants; marketing case study; abstract. J. E. Magoffin. Oil Paint & Drug Rep 164:61 O 26 '53

Best markets for new product? ask prospects! Mult-A-Frame division, Ainsworth manufacturing corp. M. M. Roberts. Sales Management 72:84+ Mr 15 '54

Break-even charts; they'll tell you if a product should be made. W. A. Schuette. Product Eng 24:170-1 Ag '53

Following up samples effectively by mail. W. L. Rippeteau and C. Pacifico. diag Ind & Eng Chem 45:1294-7 Je '53

From test tube to commercial plant. E. Ott. Chem & Ind p 1098-102 O 17 '53

How to break down prejudice against a new and different product; W. J. Voit rubber corp. L. F. Thomann. il Ptr Ink 244:56+ Ag 21 '53

How to coordinate executives; Bell & Howell co. Bsns W p 130+ S 12 '53

How to give your new product a real chance to succeed. E. M. Kelley. Sales Management 72:78+ Mr 1 '54

Let prospects help you uncover new product uses; industrial magnets. C. E. St Thomas. il Sales Management 72:50+ Ja 1 '54

New applications and designs for patents. G. V. Woodling. diags Machine Design 26:322+ Ap '54

New avenue to industrial development; Rand development corp. performs industry's development work on a short-term basis. Steel 134:78 Mr 8 '54

New designs for 1954 consumer goods. Bsns W p92 D 19 '53

New product development takes 50 per cent of research budget. C. W. Walton. Chem & Eng N 31:2682+ Je 29 '53

No easy path from research and development to production. F. W. Godsey, jr. il Aviation W 59:28-30+ D 21 '53

Premiums with a purpose; to introduce a new product; Colgate-Palmolive-Peet's premium offers on Peter Pan soap. il Ptr Ink 243:91 Ap 24 '53

Revolutionary new products of leading companies. L. A. Lukens. Mag of Wall St 92:543-5+ Ag 8 '53

Simple approach to cost estimating. R. Cleveland. diags Product Eng 24:178-81 Jl '53

Spans inventor-producer gap; new firm helps others diversify by finding new products. W. V. Packard. il Iron Age 174:51-2 S 30 '54

Success built from a failure; Flint Mustard Seed Remembrancer. N. V. Peale. il Sales Management 71:33-4+ N 10 '53

Ten ways to cut your risk when test-marketing. P. Hilton. Sales Management 71:108+ S 1 '53

This new product blew up; Seymour packing co. poultry-blood fish bait. D. Ward. Sales Management 72:88+ My 20 '54

We make immediate sales on 75 per cent of in-plant demonstrations; Charles Wm. Doepke manufacturing co. W. C. Portman. il Sales Management 72:52+ Ap 15 '54

When you introduce anything new, sell your own employees first; Dayton pump & manufacturing co. L. Wozar. il Ptr Ink 243:65+ Je 12 '53

Why of product research. J. A. Straka. Soap & San Chem 29:42-4+ Ag '53

See also

Diversification in industry

Advertising

Barry switches from defense to civilian selling, holds own. il Ind Marketing 39:47-8 F '54

PRODUCTS liability

Soap, detergent product liability. J. D. Conner and G. A. Burroughs. bibliog Soap & Chem Spec 30:42-5+ My; 48-50 Je '54

PROFESSIONAL education
See also
Chemical education
Engineering education
Medical education
Scientific education

PROFESSIONAL engineers, National society of. See National society of professional engineers

PROFESSIONAL ethics
See also
Accounting ethics
Newspaper ethics

PROFESSIONAL fees. See Fees

PROFESSIONAL service
Professional fees; factors affecting fee setting in the several professions. J. Backman. bibliog J Account 95:554-66 My '53

PROFESSIONAL workers
Are design engineers professionals? court decisions establish their legal status in cases tried under the Fair labor standards act. A. W. Gray. bibliog Machine Design 26: 112-15 Jl '54
Conference studies manpower scarcity. Mech Eng 75:1042 D '53
Overtime pay policies for executive, administrative, and professional employees. J. M. Rosow. Personnel 30:105-12 S '53; Excerpts. Chem Eng 60:270+ D '53
Professional man. Published in monthly numbers of Industrial and engineering chemistry
See also
Accountants
Architects
Chemists
Engineers
Librarians, Special
Nurses and nursing
Physicians
Research workers
Teachers
United States—Army—Scientific and professional personnel program

PROFESSIONS
Experiment in specialized trust promotion among professional men. W. S. McClanahan. Trusts & Estates 92:568-9 Ag '53
See also
Advertising as a profession
Engineers
Occupations

PROFIBRINOLYSIN
Electrophoretic and chromatographic studies of purified human profibrinolysin. E. B. Gerheim and others. Science 117:666 Je 12 '53

PROFILOMETERS
Bore profilometer. S. S. Carlisle and R. B. Sims. il diags Instruments 26:1882-3+ D '53

PROFIT
Construction of a product profit indicator. L. M. Farmen. N A C A Bul 35:1641-3 Ag '54
Corporate earnings and dividends in 1954. G. W. Mathis. Mag of Wall St 93:554-5+ F 6 '54
Federal budget and corporate profits in a business decline. W. R. Biggs. Comm & Fin Chr 178:1223+ O 1 '53
National income trends; corporate profits; second quarter. Survey of Cur Bsns 33:3-5 O '53
Paradox in polls on profits. E. H. Collins. Trusts & Estates 92:586+ Ag '53
Planning for profit control when volume changes. H. A. Greene. N A C A Bul 35: 291-9 N '53
Profit is not without honor. C. F. Hood. Comm & Fin Chr 178:1617+ O 29 '53
Profits and dividends, 1949-1952. Survey of Cur Bsns 1953 Sup p92-3 [supplemented in monthly numbers]
Profits before the upturn. Economist 169:191-3 O 17 '53
Profits turn the corner; with tables. Economist 170:249-51 Ja 23 '54
Return on investment; guide to management decisions. R. B. Read. N A C A Bul 35: 1231-44 Je '54
What are profits used for? Management R 43:52-3 Ja '54
What happens to margin and profit when you cut prices five per cent, ten per cent, twenty per cent? T. G. MacGowan. Sales Management 71:24-5+ O 15 '53
See also
Excess profits tax

Statistics

See Corporations—Finance—Statistics

PROFIT sharing
Collective profit-sharing. A. Vermeulen. Int Labour R 67:495-519 Je '53
Imperial chemical industries profit-sharing scheme. Chem Age (Lond) 70:1187-8 My 29 '54
Insuring the profit-sharing plan; abstract. W. M. Rae. Management R 42:414-15 Jl '53
Is profit sharing for you? case of a small dairy, Sunrise dairies. I. C. Miller. il Food Eng 26:52-4+ Je '54
Making profit-sharing work. Management R 43:620-1 S '54
New trends in pension and profit-sharing plans; abstract. M. M. Goldstein. Management R 42:478-9 Ag '53
Profit-sharing and pension plans. K. Groesbeck. Adv Agency 47:90 Mr '54
Profit sharing and stock ownership show steadily increasing acceptance. S. Fish. Manuf Rec 123:32-3 S '54
Profit sharing in action; a survey of company practices. Management R 43:458-9 Jl '54
Profit sharing in business; MDRT employe profit sharing in business panel discussion. East Underw 54:8+ Jl 3 '53
Profit sharing is sound business. S. I. Williams. Pet Eng 26:A47-8 Ja '54
Profit sharing plan answers wage demand and lay-off problems. Nat Underw (Life ed) 58:6 My 7 '54
Profit sharing plans outstripping pension programs; panel on profit-sharing plans at Million dollar round table. Nat Underw (Life ed) 57:1+ Jl 10 '53
Record number of employer pension plans in effect; year ending June 30, 1953. Weekly Underw 169:535 S 5 '53
Report on five years of profit-sharing. J. M. Naab. N A C A Bul 35:1457-63 Jl '54
What profit-sharing program does for Signode Steel. P. Hirsch. Am Bsns 24:28+ S '54
See also
Employees as stockholders

PROFIT sharing trusts. See Employees' trusts

PROGESTERONE
Conversion of ergosterol into progesterone. F. Johnson and others. Chem & Ind p 1230 N 14 '53
Effect of progesterone on rate of phosphate release from adenosine triphosphate by rat liver homogenates. H. W. Jones, jr. and R. Wade. Science 118:103-7 Jl 24 '53
Partial synthesis of 16α,21-diacetoxyprogesterone. H. Hirschmann, F. B. Hirschmann and G. L. Farrel. Am Chem Soc J 75:4862-3 O 5 '53
Preparation of progesterone-4-C^{14}. L. M. Thompson, C. H. Yates and A. D. Odell. bibliog Am Chem Soc J 76:1194-6 F 20 '54
Steroids; the conversion of ergosterol into progesterone. F. Johnson, G. T. Newbold and F. S. Spring. Chem Soc J p 1302-6 Ap '54
Synthesis of progesterone and related compounds. A. F. Daglish, J. Green and V. D. Poole. Chem Soc J p2627-33 Jl '54
See also
Homoprogesterone

PROGUANIL. See Paludrine

PROJECTILES
Effect produced by oblique impact of a cylinder on a thin target. W. A. Allen and others. il J Ap Phys 25:675-6 My '54

Manufacture

Centrifugal compacting; a new method for producing metal powder parts; tungsten carbide bullet cores. R. C. Lindberg. il Materials & Methods 39:86-7 Ap '54

PROJECTION, Axonometric
Drafting machine produces all axonometric views. il diags Product Eng 24:218-19 Ag '53

PROJECTION apparatus
Development of the ER-55 projector. K. Pestrecov. Science 118:492-3 O 23 '53
ER-55 projector for aerial mapping. R. K. Bean. il diags Science 118:484-6 O 23 '53
Hilger and Watts large field projectors and inspection enlargers. J Sci Instr 30:489 D '53

PROJECTION apparatus—*Continued*

Kodak contour and surface projector with large-size viewing screen. il Mach 60:219-20 Je '54

Lofting method saves time and materials; Ampower Lumotrace system. il diag Iron Age 172:148-9 Jl 9 '53

New projection-comparator microphotometer. J. T. Rozsa and C. G. Moon. il diag Opt Soc Am J 44:562-5 Jl '54

Optical marking system; Ampower Lumotrace system. il diag Mech Eng 75:816-17 O '53

Optical projection of the profile of an article at a given cross-section. G. F. Morton and V. E. Gough. il diags J Sci Instr 30:277-80 Ag '53

Photometry of the microscope with special reference to projection. F. E. J. Ockenden. bibliog diags J Sci Instr 31:309-13 S '54

Projector-comparator for examining spectrographic plates. J. C. North. il diags J Sci Instr 30:366-8 O '53

Stereoscopic reprojection apparatus for neutron scattering experiments. M. H. Alston and others. il diags J Sci Instr 31:252-4 Jl '54

Versatile projector for assisting in crystal structure determinations. W. R. Philips and D. McLachlan, jr. bibliog diags R Sci Instr 25:123-8 F '54

See also

Slide films—Projectors

PROJECTION welding. See Electric welding

PROMISSORY notes

See also

Commercial paper

PROMOTION of employees. See Employees—Promotion

PROOFREADING

36-point check list for that important second proof reading. R. Sadler. Ptr Ink 245:62+ O 2 '53

PROPAGANDA

Can truth squelch the big lie? E. L. Bernays. Ptr Ink 243:73-4+ Ap 17 '53

Diplomacy's left hand. Economist 168:366-7 Ag 8 '53

See also

Korean war—Propaganda

Radio broadcasting—Propaganda

PROPAGANDA, British

Kultur politik. Economist 169:479 N 14 '53

PROPANE

Application of Benedict equation of state to propane. F. T. Selleck, J. B. Opfell and B. H. Sage. bibliog Ind & Eng Chem 45:1350-4 Je '53

Asbury switches to propane. il Bus Transportation 32:44-5 D '53

Compressibility factors of nitrogen-propane mixtures in the gas phase. G. M. Watson and others. bibliog Ind & Eng Chem 46:362-4 F '54

Dicyclic hydrocarbons; synthesis and physical properties of some 1,3-diphenyl- and 1,3-dicyclohexyl-2-alkylpropane hydrocarbons. R. M. Caves, R. L. McLaughlin and P. H. Wise. bibliog Am Chem Soc J 76:522-4 Ja 20 '54

Direct oxidation of propane-butane; Celanese corporation of America. diags Pet Refiner 32:144-5 N '53

How speed affects performance of multistage centrifugal compressors. T. E. Corrigan and A. F. Johnson. il Chem Eng 61:209-10 F '54

Influence of hydrogen sulfide on flame speed of propane-air mixtures. P. F. Kurz. bibliog diags Ind & Eng Chem 45:2361-6 O '53

Kinetics of propylene and ethylene hydrogenation. M. V. Sussman and C. Potter. bibliog(27 ref) flow diag diag Ind & Eng Chem 46:457-65 Mr '54

LP in utility plant of tomorrow. J. L. Turnan. Am Gas Assn Proc 1953:1008-9; Same. il diag Am Gas J 179:16-17+ S '53

New locomotive fuel; first test runs of propane-powered turbine-electric unit. D. H. Stormont. il Oil & Gas J 52:95-6 D 14 '53

Operating the gasoline plant for high ethane and propane recovery. T. D. Tabbert. flow sheet Oil & Gas J 52:98+ S 7 '53

Partial oxidation of propane. C. N. Satterfield and others. bibliog(40 ref) diag Ind & Eng Chem 46:1001-10 My '54

Pressure limits of flame propagation of propane-air mixtures. F. E. Belles, D. M. Simon and R. C. Weast. bibliog diag Ind & Eng Chem 46:1010-13 My '54

Problems in hydrocarbon extraction. D. L. Katz and others. Oil & Gas J 52:118+ S 28 '53

Propane-air standby for industrial plants. H. E. Thomas. Am Gas Assn Proc 1953:929-31

Propane fractionator on stream at Wellsville, N.Y. E. B. Brien. flow chart il Pet Eng 25:C 12-16 O '53

Propane locomotive, a new era in power? L. J. Grunder. il Nat Pet N 45:53-4 Jl 8 '53

Propane transportation and storage on a products pipe-line system. J. W. Boyd and others. il map diag Am Pet Inst Proc 33(5):19-24 '53; Same. Oil & Gas J 52:220-2+ N 16 '53

Pyrolysis of C_2 and C_3 hydrocarbons. R. E. Kinney and D. J. Crowley. bibliog diag Ind & Eng Chem 46:258-64 F '54

Reactions of organic derivatives of elements capable of valency-shell expansion; 1 : 1 : 3 : 3-tetrakisalkylthio-propane and -propene, and their oxidation products. E. Rothstein and R. Whiteley. Chem Soc J p4012-18 D '53

Still another new fuel studied for railroad locomotive use, propane. Pet Processing 8:971 Jl '53

Stop foaming in propane system. W. C. Long. diag Pet Processing 8:1202 Ag '53

Use propane in large Diesels; abstract. G. V. Yarger. Diesel Power 32:52 My '54

Vapor phase nitration; factors affecting degradation to lower nitroparaffins. G. B. Bachman and M. Pollack. bibliog diag Ind & Eng Chem 46:713-18 Ap '54

Safety measures

How Long Island lighting co. installed and protected its underground propane tanks. W. F. Seewagen. il diags Am Gas J 179:14-15+ N '53

How to protect propane storage tanks. H. E. Thomas. Gas Age 112:26-7+ D 3 '53

Staggered and stored. il Chem W 74:48 Mr 27 '54

Testing

Continuous propane dryness tester. W. L. Covington and W. A. Allexson. diag Pet Processing 8:1360 S '53

PROPANOL. See Propyl alcohol

PROPARGYL alcohol. See Propynol

PROPELLANTS

Flame zone spectroscopy of solid propellants. R. G. Rekers and D. S. Villars. il diags R Sci Instr 25:424-9 My '54

Liquid versus solid propellants; abstract. L. C. Bonner. Chem & Eng N 32:1765 My 3 '54

Probing propellants' future; Thiokol corp. il Chem W 74:64+ Je 5 '54

Propellants for rockets and space ships. J. G. Tschinkel. il Chem & Eng N 32:2582-7 Je 28 '54

Proving ground for safety. il Nat Safety N 68:26-7+ N '53

Wave propagation in finite rods of viscoelastic material. E. H. Lee and I. Kanter. bibliog J Ap Phys 24:1115-22 S '53

See also

Nitroguanidine

Analysis

Analysis of propellants by infrared spectroscopy. F. Pristera. bibliog Anal Chem 25:844-56 Je '53

PROPELLER club of the United States

Annual meeting, 27th, Cleveland, Sept. 21-24. Marine Eng 58:54-8 N '53

PROPELLERS

King-size propeller built for 45,400-ton tanker. il Marine Eng 58:92 D '53

Let's protect that tail shaft. F. J. McCloud. il Marine Eng 58:91-2 D '53

Synthetic rubber protects the navy's propeller shafts. E. A. Bukzin. il Mech Eng 76:17-20+ Ja '54

Variable-pitch marine propellers. il diags Engineering 176:582-3 N 6 '53

PROPELLERS—*Continued*

Manufacture

Propeller manufacture; abstract and discussion. L. C. Burrill. Engineer 196:453-5 O 9 '53

Propeller manufacture, with special reference to planing of the blades and dimensional accuracy; abstract. L. C. Burrill. Engineering 176:520; Discussion. 520-2 O 23 '53

PROPELLERS, Airplane. See Airplane propellers

PROPENE

Allylic chlorides; 3-chloro-2-phenyl-1-propene. L. F. Hatch and T. L. Patton. bibliog Am Chem Soc J 76:2705-7 My 20 '54

Condensation of saturated halides with unsaturated compounds; condensation of *t*-butyl halides with propene, 1-butene and 2-butene. L. Schmerling and E. E. Meisinger. bibliog Am Chem Soc J 75:6217-22 D 20 '53

Fluoro-olefins; synthesis and reactions of some 3 : 3 : 3-trihalogenopropenes. R. N. Haszeldine. Chem Soc J p3371-8 N '53

Reactions of organic derivatives of elements capable of valency-shell expansion; 1 : 1 : 3 : 3-tetrakisalkylthio-propane and -propene, and their oxidation products. E. Rothstein and R. Whiteley. Chem Soc J p4012-18 D '53

PROPENYLBENZENE

Addition of hydrogen chloride to propenylbenzene. W. R. R. Park and G. F. Wright. Am Chem Soc J 76:3036-7 Je 5 '54

PROPERTIES and installations office. See United States—Defense, Department of—Properties and installations office

PROPERTY

See also

Joint tenancy

PROPERTY and liability underwriters, American institute for. See American institute for property and liability underwriters

PROPIOLACTONE

Polymerization of *beta*-propiolactone in wool. W. G. Rose and H. P. Lundgren. bibliog Textile Res J 23:930-6 D '53

β-Propiolactone; use in the diene synthesis. T. L. Gresham, J. E. Jansen and F. X. Werber. Am Chem Soc J 76:609 Ja 20 '54

Reaction of cotton with β-propiolactone in the presence of organic solvents. G. C. Daul and others. bibliog Textile Res J 24:738-47 Ag '54

PROPIONALDEHYDE

Radiation chemistry of mixtures; propionaldehyde and benzene-d_6. W. N. Patrick and M. Burton. bibliog J Phys Chem 58:424-30 My '54

Reduction of 3-(2-pyridyl)-propionaldehyde. F. M. Miller. bibliog Am Chem Soc J 75:4849-50 O 5 '53

Analysis

Colorimetric determination of propionaldehyde. L. R. Jones and J. R. Riddick. bibliog diag Anal Chem 26:1035-8 Je '54

PROPIONATES

Preparation of sarcosine and methyl α-methylamino-β-(3-indolyl)-propionate. F. F. Blicke and P. E. Norris. bibliog Am Chem Soc J 76:3213-14 Je 20 '54

PROPIONIC acid

Intramolecular acylation; the ring closure of some α-substituted β-1-naphthylpropionic acids. M. F. Ansell. Chem Soc J p575-7 F '54; Abstract. Chem & Ind p217-18 F 20 '54

Intramolecular acylation; the ring closure of some β-substituted β-1-naphthylpropionic acids. M. F. Ansell and A. M. Berman. Chem Soc J p 1792-5 Je '54

Preparation of some substituted 1-dibenzofuranpropionic and -butyric acids. H. Gilman and others. bibliog Am Chem Soc J 75:6310-11 D 20 '53

Stability of metal chelates; 3-hydroxypropyliminodiacetic and 2-hydroxyethyliminodipropionic acids. S. Chaberek, jr. and A. E. Martell. bibliog Am Chem Soc J 76:215-18 Ja 5 '54

Stability of metal chelates; N,N′-ethylenediaminedipropionic acid and N,N′-ethylenediaminetetraproprionic acid. R. C. Courtney, S. Chaberek, jr. and A. E. Martell. bibliog Am Chem Soc J 75:4814-18 O 5 '53

Studies in the indole series; oxindole-3-propionic acid. P. L. Julian and H. C. Printy. bibliog Am Chem Soc J 75:5301-5 N 5 '53

Synthesis of DL-α-amino-β-(6-methyl-3-indazolyl-propionic acid. H. R. Snyder and J. K. Williams. Am Chem Soc J 76:1298-301 Mr 5 '54

Synthesis of oxindole-3-propionic acid by ring rearrangement. H. A. Lloyd and E. C. Horning. Am Chem Soc J 76:3651-3 Jl 20 '54

PROPIONITRILE

Cleavage of β-oxypropionitriles with lithium aluminum hydride. L. M. Soffer and E. W. Parrotta. bibliog Am Chem Soc J 76:3580-3 Jl 5 '54

PROPIOPHENONE

Some transformations of α-acetamido-β-hydroxy-*p*-nitropropiophenone. V. Petrow, O. Stephenson and B. Sturgeon. Chem Soc J p4066-75 D '53

PROPORTIONING equipment

Control of chemical processes; proportional control. A. J. Young. diag Instruments 26:727+ My '53

Push-button control of concrete batch proportions. il Roads & Eng Constr 91:62 D '53

PROPRIETARY medicines. See Medicines, Proprietary

PROPYL alcohol

Glycerol ethers; alkaminoalkyl ethers of 1,3-bis-(aryloxy)-2-propanols and related compounds. W. F. Minor, R. R. Smith and L. C. Cheney. bibliog Am Chem Soc J 76:2993-6 Je 5 '54

Nitrate esters of 2,2-dimethylol-1-propanol monoacetate and diacetate. N. S. Marans and R. F. Preckel. Am Chem Soc J 76:3223-4 Je 20 '54

Vapor-liquid equilibria at 760-mm. pressure. L. H. Ballard and M. Van Winkle. bibliog Ind & Eng Chem 45:1803-4 Ag '53

PROPYLAMINE

Rearrangement in the reaction of C^{14}-labeled *n*-propylamine (1-aminopropane-1-C^{14}) with nitrous acid. J. D. Roberts and M. Halmann. Am Chem Soc J 75:5759-60 N 20 '53

PROPYL benzene

Bromination of the two propylbenzenes and three butylbenzenes. J. H. Lamneck, jr. bibliog Am Chem Soc J 76:1106-7 F 20 '54

PROPYL bromide

Comparative retentions of the nuclear isomers of Br^{80} in the propyl bromides. P. C. Capron and E. Crèvecoeur. J Chem Phys 21:1843-50 O '53

Solvolytic reactions of 2 : 2-dimethyl-1-phenylpropyl bromide. I. Dostrovsky and D. Samuel. Chem Soc J p658-61 F '54

PROPYL ether

Friedel-Crafts reaction with trimethylene oxide and *n*-propyl ether. S. Searles. bibliog Am Chem Soc J 76:2313-14 My 5 '54

PROPYLENE

Ethylene and propylene; Lummus co. flow diag Pet Refiner 32:130-1 N '53

High pressure alkylation of isobutane with propylene. J. E. Knap, E. W. Comings and H. G. Drickamer. bibliog(29 ref) il diag Ind & Eng Chem 46:708-13 Ap '54

How to get pure isopropanol; patent. diag Chem Eng 61:262 F '54

Kinetics of propylene and ethylene hydrogenation. M. V. Sussman and C. Potter. bibliog(27 ref) flow diag diag Ind & Eng Chem 46:457-65 Mr '54

Propylene tetramer; Universal oil products co. diag Pet Refiner 32:148-9 N '53

Pyrolysis of C_2 and C_3 hydrocarbons. R. E. Kinney and D. J. Crowley. bibliog diag Ind & Eng Chem 46:258-64 F '54

Manufacture

Problems in light olefine recovery plant design. E. O. Curtiss. bibliog diags Chem & Ind sup S18-23 Ag 10 '53

Spectrum

Infrared spectra of propylene and propylene-d_6. R. C. Lord and P. Venkateswarlu. bibliog Opt Soc Am J 43:1079-85 N '53

PROPYLENE glycol

Polypropylene glycols are growing fast. il Chem Eng 61:150+ My '54

Analysis

Determination of 1,2-propylene glycol in ethylene glycol. I. M. Baumel. bibliog Anal Chem 26:930-1 My '54

Determination of 1,2-propylene glycol in ethylene glycol mixtures. C. B. Jordan and V. O. Hatch. bibliog Anal Chem 25:636-8 Ap '53

PROPYLENE oxide

Reaction of propylene oxide with hydrogen halides. C. A. Stewart and C. A. VanderWerf. bibliog Am Chem Soc J 76:1259-64 Mr 5 '54

PROPYNOL

Preparation and polymerization of unsaturated quaternary ammonium compounds; propargyl derivatives. G. B. Butler and R. A. Johnson. bibliog Am Chem Soc J 76:713-14 F 5 '54

PROSPECT lists

How to locate new customers. C. J. Swan. il Ptr Ink 244:23-5+ Jl 3; 42+ Jl 10 '53

PROSPECTING

Biogeochemical investigations in Finland. V. Marmo. bibliog maps Econ Geol 48:211-24 My '53

Botanical methods of prospecting for uranium. H. L. Cannon. il map Min Eng 6:Trans 217-20 F '54

Developments in prospecting; American mining congress Western division; abstracts of papers. Min Cong J 39:95-7 N '53

Exploration geology in mining, 1953. R. H. Carpenter. il Min Cong J 40:62-4 F '54

Exploration of the Oaxaca coal fields in southern Mexico. L. Toron and S. Cortes-Obregon. bibliog maps diag Min Eng 6: Trans 505-9 My '54

Exploration; review and forecast. J. Boyd. Eng & Min J 155:118-19+ F '54

Fossil logs attract uranium hunters. il Eng & Min J 155:122 Je '54

Mineral policy committee recommends increased stockpiling, exploration aid. M. A. Reichek. Eng & Min J 155:100-1 Ap '54

Mining geology in 1953. G. M. Schwartz. il Min Eng 6:180-3 F '54

Tracing of glacial boulders as an aid to ore prospecting in Sweden. E. Grip. bibliog maps Econ Geol 48:715-25 D '53

Uranium; hints for the prospector and miner. P. W. Simmons. il Min Eng 6:377-80 Ap '54

Water testing in geochemical prospecting. H. V. Warren and R. E. Delavault. il Min Cong J 40:82-5+ Ap '54

Where to look for uranium. R. J. Wright. maps diags Eng & Min J 155:91-5 S '54

See also

Petroleum—Prospecting

Engineering applications

It can pay contractors to prospect for materials by air. H. G. Maas. il Roads & Sts 97:42-3 My '54

Geophysical methods

Airborne magnetometer. il Elec J 151:1831 D 4 '53

Geophysical discovery and development of the Pima mine, Pima county, Arizona. R. E. Thurmond and others. bibliog il map diags Min Eng 6:Trans 197-202 F '54

Geophysics; annual review, 1953. K. L. Cook. il map Min Eng 6:184-9 F '54

Gravity surveys for residual barite deposits in Missouri. R. P. Uhley and L. Scharon. bibliog maps Min Eng 6:Trans 52-6 Ja '54

How geophysics helps find uranium. R. S. Foote. Eng & Min J 155:96-7+ S '54

Role of gravity in an exploration program; symposium. maps diags Oil & Gas J 52: 106-7+ S 28 '53

Shallow exploration for iron ore with the reflection seismograph. W. B. Beatty. il map diag Explosives Eng 31:172-4+ N '53

See also

Petroleum—Prospecting—Geophysical methods

Bibliography

Geophysical abstracts 152, January-March, 1953 (numbers 14184-14388). M. C. Rabbitt and others. U S Geol S Bul 1002-A:1-61; pa 25c Supt. of doc. '53

Geophysical abstracts 153, April-June, 1953 (numbers 14389-14598). M. C. Rabbitt and others. U S Geol S Bul 1002-B:63-121; pa 25c Supt. of doc. '53

Geophysical abstracts 154, July-September, 1953 (numbers 14599-14804). M. C. Rabbitt and others. U S Geol S Bul 1002-C:123-78; pa 25c Supt. of doc. '53

Geophysical abstracts 155, Oct.-Dec. 1953 (numbers 14805-15026). M. C. Rabbitt and others. U S Geol S Bul 1002-D:179-284; pa 25c Supt. of doc. '54

Geophysical abstracts 156, January-March 1954. M. C. Rabbitt and others. U S Geol S Bul 1022-A:1-70; pa 25c Supt. of doc. '54

Geophysical abstracts 157, April-June 1954. M. C. Rabbitt and others. U S Geol S Bul 1022-B:71-133; pa 25c Supt. of doc. '54

Engineering applications

Rock depths along canal route determined by seismic refraction. W. E. Schubert. il diags Civil Eng 23:402-3 Je '53

PROSPECTORS

From Leadville to Fairplay, by pack burro and fortitude. il Min Eng 6:141 F '54

PROSPECTORS and developers association

Annual meeting, 22d, Toronto, March 7-10. Can Min J 75:80-1 Ap '54

PROSPERITY

Postwar prosperity, how much longer? policy to oppose recessions. A. G. Hart. Comm & Fin Chr 178:1942+ N 19 '53

Unequalled peacetime prosperity possible. A. H. Johnson. Comm & Fin Chr 178:1137 S 24 '53

PROSTATE gland

Carcinoma of the prostate gland. W. J. Baker. il Ind Med 22:341-8 Ag '53

Electrophoretic behavior of acid phosphatase in human prostatic extracts. M. A. Derow and M. M. Davison. il Science 118:247-8 Ag 28 '53

Prostatism, and its implications. M. R. Wolf. bibliog Ind Med 22:196-7 My '53

PROSTHESIS

Mechanical design of muscle-operated arm prostheses. A. C. Blaschke and C. L. Taylor. bibliog diags Franklin Inst J 256:435-58 N '53

Prosthetic replacement of the metacarpal head. W. R. MacAusland. bibliog il Ind Med 22:400-2 S '53

See also

Hand, Artificial

PROTACTINIUM

Isotopes

Existence of a 3.7×10^{-8}-sec metastable state in Pa^{233}. D. Engelkemeir and L. B. Magnusson. Phys R 94:1395-6 Je 1 '54

PROTAMINE sulfate

Treatment of mouse-passaged dengue virus (Mochizuki-strain) with protamine sulfate. S. Hotta. Science 118:255 Ag 28 '53

PROTAMINES

Potentiometric determination of cations and anions with permselective collodion and protamine-collodion membrane electrodes. H. P. Gregor and K. Sollner. bibliog J Phys Chem 58:409-15 My '54

Protamine, chylomicrons, and clot formation. W. D. Brown. bibliog Science 118:46-7 Jl 10 '53

PROTEASES

New enzyme tablets benefit both product and process. D. W. Donaldson. il Food Eng 26:58-9+ Mr '54

Radioactive measurement of proteolytic activity. G. L. Nardi. bibliog Science 118:299-300 S 11 '53

PROTEINS

Adsorption and reactions of enzymes and proteins on kaolinite. A. D. McLaren. bibliog J Phys Chem 58:129-37 F '54

Adsorption of dyes, amino acids, proteins, and metal hydroxides on quartz. J. C. Dale and E. J. King. bibliog A M A Archives Ind Hygiene & Occup Med 7:484-9 Je '53

Ammonium sulphate fractions of groundnut protein. K. O. Kelly and others. bibliog J Ap Chem 4:452-7 Ag '54

PROTEINS—*Continued*

Biological value of algal proteins. A. E. Bender and others. Chem & Ind p 1340-1 D 12 '53

Catalytic hydrogenolysis of proteins and related model compounds. H. A. Lillevik and W. M. Sandstrom. bibliog Am Chem Soc J 76:292-4 Ja 5 '54

Competitive interaction between proteins and surface active anions demonstrated by electrophoresis. J. F. Foster and Jen Tsi Yang. bibliog Am Chem Soc J 75:5743-4 N 20 '53

Consideration of the hydrodynamic properties of proteins. H. A. Scheraga and L. Mandelkern. bibliog Am Chem Soc J 75:179-84 Ja 5 '53; Reply. C. Tanford and J. G. Buzzell. 76:3356-7 Je 20 '54

Dyeing protein fibers; patent. Am Dyestuff Rep 43:163 Mr 15 '54

Dynamic equilibrium between circulating and extravascular plasma proteins. D. Gitlin and C. A. Janeway. bibliog Science 118:301-2 S 11 '53

Filter paper electrophoresis of avian serum proteins. R. H. Common and others. bibliog il Science 118:86-9 Jl 17 '53

How is a protein made? K. U. Linderstrom-Lang. diags Sci Am 189:100-2+ S '53

Isolation, separation, and characterization of beer proteins. B. L. Scallet and others. bibliog flow sheet il Ind & Eng Chem 45:1016-22 My '53

Measurements of the density, composition and related unit cell dimensions of some protein crystals. B. W. Low and F. M. Richards. bibliog Am Chem Soc J 76:2511-18 My 5 '54

Mediation by metals of the binding of small molecules by proteins. I. M. Klotz and W. Loh Ming. bibliog Am Chem Soc J 76:805-14 F 5 '54

Method for determining the solubility characteristics of components in protein mixtures. E. L. Hess and D. S. Yasnoff. Am Chem Soc J 76:931-3 F 5 '54

Microbalance for the determination of protein crystal densities. F. M. Richards. bibliog il diags R Sci Instr 24:1029-34 N '53

Microheterogeneity of proteins. J. R. Colvin and others. Chem R 54:687-711 bibliog(p707-11) Ag '54

Molecular models of amino acids, peptides, and proteins. R. B. Corey and L. Pauling. il diags R Sci Instr 24:621-7 Ag '53

New blood protein may be linked to natural immunity; properdin. L. Pillemer. Chem & Eng N 32:3502 S 6 '54

New synthetic method of protein analogs having periodic arrangement of amino acids. J. Noguchi and T. Hayakawa. bibliog Am Chem Soc J 76:2846-8 My 20 '54

Nutritional reappraisals; abstract and discussion. A. E. Bender. Chem & Ind p 1281-2 N 28 '53

P^{32} distribution in the serum proteins of the chicken. R. E. Clegg and R. E. Hein. bibliog Science 117:714-15 Je 26 '53

Potentialities of protein isomerism. I. Asimov. J Chem Educ 31:125-7 Mr '54

Preliminary observations on intraspecific variation of the levels of total protein in the sera of some decapod crustacea. C. A. Leone. bibliog Science 118:295-6 S 11 '53

Prevention of soil redeposition in textile cleaning operations by proteins and other polymeric materials. W. Fong and H. P. Lundgren. bibliog Textile Res J 23:769-75 N '53

Protein extracted from grass juice by Dutch. Oil Paint & Drug Rep 166:7 Jl 19 '54

Proteins of marine algae. C. B. Coulson. bibliog Chem & Ind p997-8 S 19 '53

Ribonucleic acid and protein in the growing oocytes of triturus pyrrhogaster. S. Osawa and Y. Hayashi. bibliog Science 118:84-6 Jl 17 '53

Role of water vapor on the stoichiometric reactions of solid proteins with polar gases. S. W. Benson and others. bibliog Am Chem Soc J 75:6040-1 D 5 '53

Selective absorption of optical antipodes by proteins. W. Bradley and R. A. Brindley. Chem & Ind p579-80 My 15 '54

Significance of molecular structure to biology. L. Pauling. Can Chem Process 38:72+ Jl '54

Technique for stepwise degradation of proteins from the amino-end. H. Fraenkel-Conrat. bibliog Am Chem Soc J 76:3606-7 Jl 5 '54

Use of protein condensates to promote retention of fillers. M. H. Diem and L. F. Leighton, jr. Tappi 36:sup 144A-6A D '53

Weak electrolyte moving boundary systems analogous to the electrophoresis of a single protein. E. B. Dismukes and R. A. Alberty. bibliog Am Chem Soc J 76:191-7 Ja 5 '54

See also

Albumin
Amino acids
Casein
Fibroin
Flavoproteins
Gelatin
Globulins
Hemoglobin
Insulin
Keratin
Peptides
Tryptophan
Zein

Analysis

Chromatography of proteins on cellulose ion-exchangers. H. A. Sober and E. A. Peterson. bibliog Am Chem Soc J 76:1711-12 Mr 20 '54

Colorimetric determination of nitrogen in biological materials. J. R. Polley. Anal Chem 26:1523-4 S '54

Comparative analysis of serum proteins by chemical and electrophoretic means. F. Lionetti and M. M. Davison. J Chem Educ 31:378-9 Jl '54

Filter paper electrophoresis. Sister M. Martinette. bibliog il J Chem Educ 31:18-19 Ja '54

Polarographic and amperometric mercurometric determination of disulfide groups. W. Stricks, I. M. Kolthoff and N. Tanaka. bibliog Anal Chem 26:299-303 F '54

Studies on the soluble proteins of the silk gland of the silkworm, Bombyx mori. E. H. Mercer. bibliog il diags Textile Res J 24:135-45 F '54

Denaturation

Chemical denaturation of groundnut protein and fibre formation. W. E. F. Naismith. bibliog(29 ref) J Ap Chem 4:188-94 Ap '54

Effect of temperature on the reversible *p*H-dependent denaturation of horse ferrihemoglobin. E. M. Zaiser and J. Steinhardt. bibliog Am Chem Soc J 76:2866-71 Je 5 '54

Kinetics of protein denaturation; the behavior of the optical rotation of ovalbumin in urea solutions. R. B. Simpson and W. Kauzmann. bibliog Am Chem Soc J 75:5139-52 N 5 '53

Kinetics of protein denaturation; the optical rotation of ovalbumin in solutions of guanidinium salts. J. Schellman, R. B. Simpson and W. Kauzmann. Am Chem Soc J 75:5152-4 N 5 '53

Kinetics of protein denaturation; the optical rotations of serum albumin, β-lactoglobulin and pepsin in urea solutions. W. Kauzmann and R. B. Simpson. bibliog Am Chem Soc J 75:5154-7 N 5 '53

Kinetics of protein denaturation; the viscosity and gelation of urea solutions of ovalbumin. H. K. Frensdorff, M. T. Watson and W. Kauzmann. bibliog diags Am Chem Soc J 75:5157-66 N 5 '53

Kinetics of protein denaturation; the viscosity of urea solutions of serum albumin. H. K. Frensdorff, M. T. Watson and W. Kauzmann. bibliog diags Am Chem Soc J 75:5167-72 N 5 '53

Specific effect of formate ion on the reversible acid denaturation of horse ferrihemoglobin. E. M. Zaiser and J. Steinhardt. bibliog Am Chem Soc J 76:1788-91 Ap 5 '54

Streaming orientation studies on denatured proteins; denaturation of ovalbumin with surface active ions. G. F. Hanna and J. F. Foster. bibliog J Phys Chem 57:614-17 O '53

Sulfhydryl-dependent aggregation accompanying the denaturation of bovine plasma albumin by urea. V. D. Hospelhorn, B. Cross and E. V. Jensen. bibliog Am Chem Soc J 76:2827-9 My 20 '54

Sulfhydryl-dependent aggregation accompanying the thermal denaturation of bovine plasma albumin. V. D. Hospelhorn and E. V. Jensen. bibliog il Am Chem Soc J 76:2830-2 My 20 '54

PROTEINS—Denaturation—*Continued*

Symposium on protein denaturation, Los Angeles, March, 1953. bibliog J Phys Chem 58:97-120 F '54

PROTOCEVINE

Schoenocaulon alkaloids; active principles of schoenocaulon officinale; cevacine and protocevine. S. M. Kupchan and others. bibliog Am Chem Soc J 75:5519-24 N 20 '53

PROTOGEN

Proposed structures for protogen-A and protogen-B. J. A. Brockman, jr. and others. bibliog Am Chem Soc J 76:1827-8 Ap 5 '54

Analysis

Isolation of protogen. E. L. Patterson and others. bibliog Am Chem Soc J 76:1823-6 Ap 5 '54

PROTON accelerator

Brookhaven cosmotron. il Elec J 151:709-10 S 4 '53

Cosmotron; a review. M. H. Blewett and others. bibliog il plans diags R Sci Instr 24:723-870 S '53

Five-b.e.v. beams from the bevatron at University of California. il plan Chem & Eng N 32:1210-11 Mr 29 '54

Generating r-f power for 3-bev accelerator. E. J. Rogers and M. Plotkin. il diags Electronics 27:160-4 F '54

Meson production in *n-p* collisions at cosmotron energies. W. B. Fowler and others. bibliog Phys R 95:1026-44 Ag 15 '54

Studies of injection phenomena in the cosmotron. M. H. Blewett and others. il diag R Sci Instr 24:861-8 S '53

PROTONS

Activities produced in gold by proton bombardment. C. H. Braden and others. bibliog diag Phys R 95:758-60 Ag 1 '54

Analysis of 405-Mev proton and 222-Mev negative pion stars. A. D. Sprague and others. bibliog Phys R 94:994-7 My 15 '54

Angular and energy distributions of photoprotons from aluminum and tantalum. M. M. Hoffman and A. G. W. Cameron. diag Phys R 92:1184-91 D 1 '53

Angular distribution and yield of the process $p+d\rightarrow t+\pi^+$. W. J. Frank and others. diags Phys R 94:1716-21 Je 15 '54

Angular distribution of protons from the reaction $B^{10}(d,p)B^{11}$. W. W. Pratt. Phys R 93:816-17 F 15 '54

Capture gamma rays from the proton bombardment of Be^9. W. F. Hornyak and T. Coor. bibliog Phys R 92:675-80 N 1 '53

Change of electrical conductivity of sodium chloride upon bombardment with high-energy protons. E. A. Pearlstein. bibliog diag Phys R 92:881-2 N 15 '53

Characteristics of neutral meson production in the proton bombardment of carbon nuclei. W. E. Crandall and B. J. Moyer. bibliog diags Phys R 92:749-58 N 1 '53

Charged pion production from carbon by protons. W. F. Dudziak. Phys R 95:866 Ag 1 '54

Correlation of proton magnetic resonance chemical shifts with electronegativities of substituents. J. N. Shoolery. bibliog il J Chem Phys 21:1899-900 O '53

Cosmic-ray protons at 3.4 kilometers. C. E. Miller and others. bibliog diag Phys R 94:167-73 Ap 1 '54

Cosmotron; a review; calculation of the protons' radial oscillations at injection. E. D. Courant and R. M. Sternheimer. R Sci Instr 24:868-9 S '53

Dissociation, chemical exchange, and the proton magnetic resonance in some aqueous electrolytes. H. S. Gutowsky and A. Saika. bibliog J Chem Phys 21:1688-94 O '53

Elastic scattering of 190-Mev deuterons by protons. O. Chamberlain and M. O. Stern. diag Phys R 94:666-76 My 1 '54

Evaluation of the interaction effect in *n-p* capture. N. Austern. bibliog Phys R 92:670-4 N 1 '53

Experiments on nucleon-nucleon scattering with 312-Mev polarized protons. O. Chamberlain and others. diag Phys R 95:850-1 Ag 1 '54

Experiments with high-energy polarized protons. O. Chamberlain and others. diag Phys R 93:1430-1 Mr 15 '54

Gamma radiation from B^{10} bombarded by protons. R. B. Day and T. Huus. Phys R 95:1003-6 Ag 15 '54

Gamma radiation from proton bombardment of Li^7. A. A. Kraus, jr. Phys R 93:1308-10 Mr 15 '54

Gamma rays from proton bombardment of B^{10}. R. W. Krone and L. W. Seagondollar. il diag Phys R 92:935-7 N 15 '53

Gamma rays from the proton bombardment of sodium. J. W. Teener and others. bibliog diag Phys R 93:1035-8 Mr 1 '54

Hard core interpretation of the reaction $p+d\rightarrow\pi^++t$. S. A. Bludman. Phys R 94:1722-3 Je 15 '54

High-energy photoproton production by 325-Mev bremsstrahlung radiation. B. T. Feld and others. bibliog diag Phys R 94:1000-10 My 15 '54

High-energy protons in nuclear interaction of 220-Mev π^- mesons in nuclear emulsions. G. Takeda. Phys R 93:848-50 F 15 '54

Interaction and production of cosmic-ray protons in carbon. J. Ballam and P. G. Lichtenstein. bibliog diags Phys R 93:851-7 F 15 '54

K-particle production by protons of 2.2 and 3.0 Bev. R. D. Hill and others. Phys R 94:1794 Je 15 '54

L-shell ionization by protons of 1.5- to 4.25-Mev energy. E. M. Bernstein and H. W. Lewis. diags Phys R 95:83-6 Jl 1 '54

Line-narrowing by macroscopic motion. F. Bloch. Phys R 94:496-7 Ap 15 '54

Line-narrowing experiment. W. A. Anderson and J. T. Arnold. il Phys R 94:497-8 Ap 15 '54

Low-energy gamma radiation from the bombardment of carbon by protons. H. H. Woodbury and others. diag Phys R 93:1311-14 Mr 15 '54; Correction. 96:1713 D 15 '54

Magnetic moments of neutron and proton. F. J. Belinfante. bibliog Phys R 92:994-7 N 15 '53

Measurement of the neutron-proton cross section at 1.0 and 2.5 Mev. R. E. Fields and others. bibliog diag Phys R 94:389-98 Ap 15 '54

Mechanism of proton polarization in high-energy collisions. O. Chamberlain and others. Phys R 95:1105-6 Ag 15 '54

Neutron-proton scattering near 180° at 93 Mev. W. Selove and others. bibliog diag Phys R 92:724-6 N 1 '53

Neutrons in coincidence with high-energy photoprotons. H. Myers and others. Phys R 95:576-7 Jl 15 '54

Nuclear reactions of copper with 2.2-Bev protons. G. Friedlander and others. Phys R 94:727-8 My 1 '54

Photoprotons from In, Ce, and Bi. M. E. Toms and W. E. Stephens. bibliog Phys R 92:362-6 O 15 '53

π^-—*p* interactions at 1.5 Bev. J. Crussard and others. Phys R 94:736-7 My 1 '54

Polarization by *p-p* collision at 310 Mev. J. Marshall and others. Phys R 93:1431 Mr 15 '54

Polarization of fast protons scattered by nuclei. G. Takeda and K. M. Watson. Phys R 94:1087-8 My 15 '54

Polarization of high-energy protons scattered by complex nuclei. S. Tamor. Phys R 94:1087 My 15 '54

Production of antiprotons in *p-p* collisions. D. Fox. Phys R 94:499 Ap 15 '54

Production of charged pions at 180° to the beam by 340-Mev protons on carbon. S. L. Leonard. bibliog diags Phys R 93:1380-6 Mr 15 '54

Production of neutral mesons by 340-Mev protons on hydrogen. J. W. Mather and E. A. Martinelli. bibliog il diags Phys R 92:780-9 N 1 '53

Production of proton pairs. R. N. Thorn. Phy R 94:501 Ap 15 '54

Production of protons from carbon by mono-energetic gamma rays. J. W. Weil and B. D. McDaniel. bibliog diags Phys R 92:391-400 O 15 '53

Proton distribution in heavy nuclei. M. H. Johnson and E. Teller. diag Phys R 93:357-8 Ja 15 '54

Proton intensities at sea level and 9000 feet. A. Z. Rosen. bibliog diag Phys R 93:211-14 Ja 1 '54

PROTONS—*Continued*

Proton magnetic resonance experiment on a single crystal of oxalic acid dihydrate, $(COOH)_2 \cdot 2H_2O$. J. Itoh and others. bibliog J Chem Phys 21:1895-6 O '53

Proton magnetic resonance in natural rubber. H. S. Gutowsky and L. H. Meyer. bibliog J Chem Phys 21:2122-6 D '53

Proton magnetic resonance of the CH_3 group; investigation of six tetrasubstituted methanes. J. G. Powles and H. S. Gutowsky. bibliog J Chem Phys 21:1695-703 O '53

Proton magnetic resonance of the CH_3 group; solid solutions of *t*-butyl chloride in carbon tetrachloride. J. G. Powles and H. S. Gutowsky. bibliog J Chem Phys 21:1704-9 O '53

Proton magnetic resonance spectrum of ammonia and the interactions involved in hydrogen bond association. R. A. Ogg, jr. J Chem Phys 22:560-1 Mr '54

Proton-neutron mass difference. R. P. Feynman and G. Speisman. Phys R 94:500 Ap 15 '54

(p,pn) and $(p,\alpha n)$ excitation functions. B. L. Cohen and others. bibliog Phys R 94:620-5 My 1 '54

Proton relaxation in water. G. Chiarotti and L. Giulotto. il Phys R 93:1241 Mr 15 '54

Protons from the deuteron bombardment of Kr^{84} and Kr^{86}. G. W. Wheeler and others. Phys R 92:121-3 O 1 '53

Range and specific ionization for high-energy protons in nuclear emulsions. O. Heinz. bibliog diags Phys R 94:1728-31 Je 15 '54

Reaction $p+p \rightarrow \pi^{+}+d$ with polarized protons. F. S. Crawford, jr. and M. L. Stevenson. Phys R 95:1112 Ag 15 '54

Reactions of cesium with 240-Mev protons. R. W. Fink and E. O. Wiig. bibliog diag Phys R 94:1357-61 Je 1 '54

Resonance capture of protons by Mg^{25}. W. E. Taylor and others. bibliog Phys R 93:1056-8 Mr 1 '54

Resonant states of Mg^{24} excited by protons on sodium. P. H. Stelson and W. M. Preston. bibliog diag Phys R 95:974-81 Ag 15 '54

Scattering of 151- and 188-Mev positive pions by protons. G. Homa and others. bibliog il diags Phys R 93:554-61 F 1 '54

Scattering of 190-Mev deuterons on protons. A. L. Bloom and O. Chamberlain. diags Phys R 94:659-65 My 1 '54

Search for V particles produced by 430-Mev protons. A. H. Rosenfeld and S. B. Treiman. bibliog diags Phys R 92:727-9 N 1 '53

Stopping cross section of gases for protons, 30-600 kev. H. K. Reynolds and others. bibliog diag Phys R 92:742-8 N 1 '53

Stopping powers of various elements for protons of energies from 400 to 1050 kev. A. B. Chilton and others. bibliog diags Phys R 93:413-18 F 1 '54

Systematics of photoproton reactions. E. V. Weinstock and J. Halpern. bibliog Phys R 94:1651-4 Je 15 '54

Theory of the (d,p) reaction. W. Tobocman. Phys R 94:1655-63 Je 15 '54

Total π^{-}—p cross section at 840 and 470 Mev. A. M. Shapiro and others. diag Phys R 92:1073-4 N 15 '53

Triad prototropic systems; the effect of substituents on the mobility of the azomethine-carboxylic acids. F. G. Baddar and Z. Iskander. Chem Soc J p203-9 Ja '54

Triad prototropic systems; the effect of substituents on the mobility of the azomethine system. F. G. Baddar and Z. Iskander. Chem Soc J p209-13 Ja '54

What holds the nucleus together? H. A. Bethe. il diags Sci Am 189:58-63 S '53

X-ray coloring of 400-Mev proton-irradiated KCl. W. Leivo and R. Smoluchowski. Phys R 93:1415-16 Mr 15 '54

Yield and angular distribution of protons from Li$^{6}(d,p)$Li^{7}. W. E. Nickell. bibliog diags Phys R 95:426-30 Jl 15 '54

Yields of low-energy protons and alphas resulting from high-energy bombardment of Ag. R. W. Deutsch. Phys R 92:515 O 15 '53

Zenith angle dependence of cosmic-ray protons. C. E. Miller and others. bibliog diags Phys R 93:590-5 F 1 '54

See also
Nucleons

Scattering

Analysis of proton-proton scattering at 9.7 Mev. H. H. Hall. Phys R 95:424-5 Jl 15 '54

Angular distributions of 22-Mev protons elastically scattered by various elements. B. L. Cohen and R. V. Neidigh. bibliog il Phys R 93:282-7 Ja 15 '54

Cosmotron; a review; revision of gas scattering theory. E. D. Courant. R Sci Instr 24:836-7 S '53

Cross sections for *p-p* scattering at 330 and 225 Mev. O. Chamberlain and others. diag Phys R 93:1424 Mr 15 '54

Differential *p-p* elastic-scattering cross section at 144, 271, and 429 Mev. J. Marshall and others. bibliog Phys R 92:834-5 N 1 '53

Double scattering of high-energy protons. C. L. Oxley and others. bibliog diags Phys R 93:806-16 F 15 '54

Elastic scattering of 18-Mev protons by Al, Fe, Ni, and Cu. I. E. Dayton. bibliog Phys R 95:754-8 Ag 1 '54

Elastic scattering of protons by alpha particles. S. Sack and others. Phys R 93:321-5 Ja 15 '54

Elastic scattering of protons by helium at 5.78 Mev. W. E. Kreger and others. bibliog diags Phys R 93:837-42 F 15 '54

Elastic scattering of protons by nuclei. D. M. Chase and F. Rohrlich. bibliog Phys R 94:81-6 Ap 1 '54

Energy levels in N^{14} from the scattering of protons by C^{13}. E. A. Milne. bibliog Phys R 93:762-7 F 15 '54

Inelastic scattering of 31-Mev protons from heavy elements. R. M. Eisberg and G. Igo. il diags Phys R 93:1039-51 Mr 1 '54

Inelastic scattering of protons and deuterons from B^{10} and N^{14}. C. K. Bockelman and others. bibliog Phys R 92:665-9 N 1 '53

Inelastic scattering of protons and neutrons by deuterons. R. M. Frank and J. L. Gammel. bibliog diag Phys R 93:463-70 F 1 '54

Inelastic scattering of protons by Li^{7}. F. Mozer and others. Phys R 93:829-30 F 15 '54

Level densities of nuclei from the inelastic scattering of 18-Mev protons. P. C. Gugelot. bibliog Phys R 93:425-33 F 1 '54

Low excited states of F^{19}; proton inelastic scattering. R. W. Peterson and others. Phys R 94:1075 My 15 '54

Phase-shift analysis of high-energy *p-p* scattering experiments. A. Garren. Phys R 92:213-14 O 1 '53

Proton-proton scattering at 9.7 Mev. B. Cork and W. Hartsough. diags Phys R 94:1300-3 Je 1 '54

Proton-proton scattering for a nucleon isobar model. F. T. Solmitz. bibliog Phys R 92:164-72 O 1 '53

Proton-proton scattering from 40 to 95 Mev. U. E. Kruse and others. diag Phys R 94:1795-6 Je 15 '54

Proton-proton scattering near the interference minimum. D. I. Cooper and others. diags Phys R 94:1209-14 Je 1 '54

Scattering of 9.5-Mev protons by carbon and oxygen. W. E. Burcham and others. Phys R 92:1266-7 D 1 '53

Scattering of 96-Mev protons from light nuclei. K. Strauch and W. F. Titus. Phys R 95:854-5 Ag 1 '54

Scattering of 314-Mev polarized protons by deuterium. J. Marshall and others. diags Phys R 95:1020-5 Ag 15 '54

Small-angle cross sections for the scattering of protons by tritons. M. E. Ennis and A. Hemmendinger. Phys R 95:772-5 Ag 1 '54

PROTOPORPHYRIN

Synthesis of protoporphyrin from δ-aminolevulinic acid in a cell-free extract. D. Shemin, T. Abransky and C. S. Russell. bibliog Am Chem Soc J 76:1204-5 F 20 '54

PROTOZOA

Combined method for the rapid fixation and adhesion of ciliates and flagellates. G. Nissenbaum. Science 118:31-2 Jl 3 '53

See also
Ameba

PROTRACTORS

Multiple dip protractor. M. M. Melendres, jr. diags Am Assn Pet Geologists Bul 37:2192-5 S '53

PROXIES

Some recent proxy fights. Am Bsns 24:10-12 Ag '54

PRUNES

Prunes for sterling. Economist 169:774 D 5 '53

Shy prune rises to repudiate its wallflower personality. R. W. Jewell. il Sales Management 71:48+ Jl 1 '53

PSEUDO acids. See Acids

PSEUDOCARPAINE

*pseudo*Carpaine, a new alkaloid from carica papaya L. T. R. Govindachari, B. R. Pai and N. S. Narasimhan. Chem Soc J p 1847-9 Je '54

PSEUDOCOCAINE

Three-dimensional structure of the cocaines; cocaine and pseudococaine. S. P. Findlay. bibliog Am Chem Soc J 76:2855-62 Je 5 '54

PSEUDOSAPOGENINS

Transformation of pseudosapogenins to steroid alkaloids. F. C. Uhle. Am Chem Soc J 76:4245-6 Ag 20 '54

Analysis

Detection of steroidal pseudosapogenins by infrared spectroscopy. A. L. Hayden, P. B. Smeltzer and I. Scheer. bibliog Anal Chem 26:550-2 Mr '54

PSEUDOTARAXASTEROL

Chemistry of the triterpenes and related compounds; the conversion of lupeol into ψ-taraxasterol (heterolupeol). T. G. Halsall, E. R. H. Jones and R. E. H. Swayne. Chem Soc J p 1902-5 Je '54

Chemistry of the triterpenes and related compounds; the structure of taraxasterol, ψ-taraxasterol (heterolupeol), and lupenol-I. T. R. Ames and others. Chem Soc J p 1905-19 Je '54

PSIDIUM guaijava

Triterpene acids from the leaves of psidium guaijava, L. H. R. Arthur and W. H. Hui. Chem Soc J p 1403-6 My '54

PSYCHIATRIC hospitals. See Hospitals, Psychiatric

PSYCHIATRY

Psychiatric referrals for delinquent children. G. E. Gardner. Pub Health Rep 68:578-82 Je '53

Psychiatric rehabilitation in the community. R. H. Williams. Pub Health Rep 68:1231-6 D '53

Psychiatric rehabilitation in the hospital. R. H. Williams. bibliog Pub Health Rep 68:1043-51 N '53

PSYCHIATRY, Industrial

Before seeing the psychiatrist. W. Schweisheimer. Am Bsns 24:25+ Ap '54

Human behavior and industry; panel discussion. J Bsns 27:38-40 pt 2 Ap '54

Industrial psychiatry; aid to human relations? A. G. Larke. Dun's R & Mod Ind 63:130-5 F '54

Industry's problem children. G. Gordon. Am Pet Inst Proc 33(3):18-22; Discussion. 22-3 '53

Resentment, an obstacle to recovery. C. Leggo. Ind Med 22:241-5 Je '53

Upkeep task; men's minds. Chem W 72:14-15 My 16 '53

See also

Neuroses, Traumatic

PSYCHOLOGISTS

Directories

American psychological association, 1953 directory. 404p pa $3 American psychological assn, 1333 Sixteenth st, N.W. Washington 6 '53

Psychology

See also

Ability tests
Advertising—Psychology
Anxiety
Learning, Psychology of
Memory
Personality
Personality tests
Reaction time

PSYCHOLOGY, Applied

Bibliography

Current reading list for sales executives and salesmen; practical psychology. Sales Management 72:120-2+ Ap 15 '54

Introductory bibliography of motivation research. 34p $3 Advertising research foundation, 11 W. 42d st, New York 36 '54

PSYCHOLOGY, Industrial

Action research in the human factor. R. M. Bellows. Advanced Management 18:20-3 Je '53

Evaluation policies and their effects upon performance; psychological interpretation. D. A. Rodgers. Personnel 30:99-105 S '53

Fear, frustration, and futility; the industrial aspect. R. T. Johnstone. A M A Archives Ind Hygiene & Occup Med 8:391-8 N '53

How to win your workers' loyalty, and keep it. W. H. Hammond. Chem Eng 61:224+ Ag '54

Learn to think straight; Executive methods group. il Chem Eng 61:242+ Mr '54

Neuroses and compensation; chronic psychiatric disorders following injury or stress in compensable situations. A. D. Pokorny and F. J. Moore. A M A Archives Ind Hygiene & Occup Med 8:547-63 bibliog(79 titles, p560-3) D '53

New science of thinking for communicating, training, problem-solving; general semantics. M. L. Jones. il Dun's R & Mod Ind 62:43-5+ D '53

Not just pulling, pulling together; Cyanamid's Kilby. Chem W 73:16-17+ Jl 4 '53

Overqualified workers. Safety Maint & Prod 108:29+ Ag '54

Production clinic; labor trouble in a smaller factory, production man's burden. E. G. Thomssen. Soap & Chem Spec 30:109 My '54

Psychological factors in industrial mediation. I. Paster. Personnel 31:115-27 S '54

Psychological needs of workers. G. W. Kenning. Safety Maint & Prod 107:35 Je '54

Psychologist views electronic equipment complexity. B. J. Covner. Elec Eng 72:857-60 O '53

Psychologists at work; American cyanamid co. Bsns W p52-4 S 19 '53

What does G.S. involve? il diags Chem Eng 61:246+ Mr '54

What raises a man's morale? M. S. Viteles. bibliog flow chart Personnel 30:302-13 Ja '54

What to do about anxiety; airlines' experiment. Bsns W p 142+ Ag 29 '53

Why people worry at work. J. S. Felton. il Factory Management 112:102-5 S '54

Worker psychology; formula that works. D. Krakauer. Factory Management 111:218+ Ag '53; Same cond. Personnel J 32:246-52 D '53

Your emotions, using them at work. Dun's R & Mod Ind 62:59-61 Ag '53

See also

Ability tests
Accidents, Industrial—Psychological aspects
Employees—Opinion polls
Employees' counselors
Personality tests
Safety devices and measures—Psychological aspects

PSYCHOLOGY, Pathological

See also

Neuroses, Traumatic

PSYCHOLOGY, Physiological

Avoidance conditioning with brief shock and no exteroceptive warning signal. M. Sidman. bibliog Science 118:157-8 Ag 7 '53

Psychometric evaluation of the sharpness of photographic reproductions. R. N. Wolfe and F. C. Eisen. bibliog il Opt Soc Am J 43:914-22 O '53; Same. Soc Motion Picture & Tv Eng J 61:590-604 N '53

See also

Color sense
Space perception

PSYCHOLOGY of learning. See Learning, Psychology of

PSYCHOMETRY. See Psychology, Physiological

PSYCHOTHERAPY

See also

Neuroses, Traumatic

PSYCHROMETRIC charts. See Humidity

PTERIDINE

Chemistry and biology of pteridines; symposium abstracts. Chem & Eng N 32:1776 My 3 '54

PTERIDINE—*Continued*

Pteridine syntheses; *iso*xanthopterin. A. Albert and H. C. S. Wood. bibliog J Ap Chem 3:521-3 N '53

Pteridines; the structure of Wieland's bisalloxazine. E. C. Taylor, jr., C. K. Cain and H. M. Loux. bibliog Am Chem Soc J 76:1874-6 Ap 5 '54

Purine studies; stability to acid and alkali; solubility; ionization; comparison with pteridines. A. Albert and D. J. Brown. Chem Soc J p2060-71 Je '54

Spectrophotometric determination of the ionization constants of pteridine, 2-aminopteridine and 4-aminopteridine. D. F. DeTar, C. K. Cain and B. S. Meeks, jr. bibliog Am Chem Soc J 75:5118-19 O 20 '53

PTEROCARPIN

Chemistry of the insoluble red woods; pterocarpin and an oxidation product of homopterocarpin. A. Robertson and W. B. Whalley. Chem Soc J p 1440-1 My '54

PTEROCARPUS

Chemistry of extractives from hardwoods; colourless constituents of pterocarpus species. F. E. King and others. Chem Soc J p3693-7 N '53

PTEROIC acid

Synthesis of pteroic and pteroylglutamic acids. D. L. Weisblat and others. bibliog Am Chem Soc J 75:5893-6 D 5 '53

PTEROIC acid, Analogs of

Oxygen analogs of pteroic acid. E. I. Fairburn and others. bibliog Am Chem Soc J 76:676-9 F 5 '54

Pteroic acid analogs containing arsenic. R. B. Angier and others. Am Chem Soc J 76:902-4 F 5 '54

PTEROYLGLUTAMIC acid. See Folic acid

PUBERULIC acid

Synthetic experiments in the *cyclo*heptatrienone series; syntheses of puberulic acid and *iso*stipitatic acid. R. B. Johns, A. W. Johnson and J. Murray. Chem Soc J p 198-202 Ja '54

PUBLIC administration. See Administration, Public

PUBLIC assistance

Data for measuring the effectiveness of public income-maintenance programs. J. Fisher. bibliog Am Stat Assn J 48:15-27 Mr '53

PUBLIC buildings

As federal spending drops; how much building do cities plan? Arch Rec 115:12+ Ja '54

Compact town hall accommodates all offices for a small community. il plans Arch Forum 99:158-9 S '53

Increased reliance on private architects could save the government money. L. Johnson. Arch Rec 115:24+ F '54

More office space for the motor city; Detroit's city-county building. il diag Eng N 151:29-31 Ag 6 '53

Smoke detection equipment guards against danger in public buildings. East Underw 55:29 Ap 30 '54

This small suburban administration building is four things to four men. il plan diags Arch Forum 99:124-9 S '53

See also

Embassy buildings
Municipal centers
Office buildings, Government
Post offices
School buildings

Finance

U.S. to purchase buildings by rent to private builder. Eng N 152:21-2 Ap 29 '54

Heating and ventilation

Festival Hall heat pump. P. E. Montagnon and A. L. Ruckley. Engineer 197:184-5 Ja 29 '54

Operating experience and performance of the Festival Hall heat pump. Elec J 152:34 Ja 1 '54

Lighting

Surrey county hall. il Elec R (Lond) 153:997-8 O 30 '53

California

More people=more buildings; California spends $50 million yearly to keep up with population increase. il Eng N 152:36-8 Ap 29 '54

United States

U.S. to purchase buildings by rent to private builder. Eng N 152:21-2 Ap 29 '54

PUBLIC health

Achievements in public health, July 1, 1951-June 30, 1952. Pub Health Rep 68:637-8 Je '53

Enrichment; a public health approach to better nutrition. W. H. Sebrell, jr. Pub Health Rep 68:741-6 Ag '53

Health, welfare and development. J. A. Logan. Am Soc C E Proc 79 [no 340]:1-7 N '53

Interest of public health in diabetes. M. J. Ford. bibliog Pub Health Rep 68:624-7 Je '53

Need for studies that correlate air pollution with the general health of the population. L. C. McCabe. bibliog Ind & Eng Chem 45:sup 105A-7A My '53

New occasions teach new duties. H. R. Leavell. Pub Health Rep 68:687-92 Jl '53

Planning a study to determine the effects of air pollution on health. A. F. W. Peart and G. H. Josie. bibliog maps A M A Archives Ind Hygiene & Occup Med 7:326-38 Ap '53

Public health aspects of civil defense. D. C. Cameron. bibliog Pub Health Rep 68:1091-8 N '53

Public health importance of water supply and waste disposal works. D. A. Okun. Am Soc C E Proc 79 [no 252]:1-23 bibliog(71 titles, p20-3) Ag '53

Public health today; the Nation's best investment. L. A. Scheele. Pub Health Rep 68:771-7 Ag '53

Unfinished business and new forces in environmental health orthodoxy. A. Wolman. Pub Health Rep 68:962-7 O '53

See also

Air pollution
Children—Care and hygiene
City planning
Dental service
Disinfection and disinfectants
Dust removal
Factory sanitation
Food supply
Health centers
Hospitals
Hygiene, Industrial
Infectious diseases
Influenza
Insurance, Health
Medical service
Medicine, Preventive
Milk supply
Mortality
Mosquitoes—Extermination
Nurses and nursing, Industrial
Nutrition
Physical examinations
Rabies
Refuse disposal
Safety devices and measurements
Sanitary engineering
Sanitation
Sewage disposal
Sickness
Smoke prevention
Tuberculosis
Ventilation
Water pollution
Water purification
Water supply
World health organization

also subdivision Sanitary affairs under names of countries, cities, etc., e.g. New York (city)—Sanitary affairs

Finance

Simplifying state accounting for federal health grants. P. E. Fox and D. I. Zwick. Pub Health Rep 68:1071-7 N '53

Statistics

Public health operating statistics. R. G. Webster. Pub Health Rep 68:467-73 My '53

Study and teaching

Effect of Public law 779 on teaching and research at public health schools. W. H. Aufranc and W. P. Shepard. Pub Health Rep 68:656-8 Jl '53

Alaska

Science and public health research in Alaska. Pub Health Rep 68:527-42 My '53

Brazil

Experiments in the control of schistosomiasis in Brazil. W. H. Wright and C. G. Dobrovolny. il map Pub Health Rep 68:1156-60 D '53

California

1952 encephalitis outbreak in California. W. L. Halverson and others. il map Pub Health Rep 68:368-77 Ap '53

PUBLIC health—*Continued*

Ethiopia

Mapping a program of public health for Ethiopia and Eritrea. H. R. O'Brien. il maps Pub Health Rep 68:976-83 O '53

Florida

Growth of local health units in Florida. W. T. Sowder; W. H. Y. Smith. map Pub Health Rep 68:1083-90 N '53

Great Britain

Conquering tuberculosis. Economist 170:15-16 Ja 2 '54

Indiana

Serology of brucellosis in rural Indiana. S. R. Damon and others. map Pub Health Rep 68:563-71 Je '53

Indonesia

Economic benefits of malaria control in the Republic of Indonesia. W. A. Ketterer. Pub Health Rep 68:1056-8 N '53

Public health in Indonesia. E. R. Jenney. il map Pub Health Rep 68:409-15 Ap '53

Technical assistance for public health in the Republic of Indonesia. E. R. Jenney. Pub Health Rep 68:707-13 Jl '53

Java

Village polyclinics in Middle Java. W. A. Ketterer. il Pub Health Rep 68:558-62 Je '53

Latin America

Servicio; ten years of operation of the bilateral health programs of the Institute of Inter-American affairs. il map Pub Health Rep 68:829-57, 1002-12, 1123-38, 1243-62 S-D '53

Massachusetts

Twenty-six years of cancer control in Massachusetts. H. L. Lombard. bibliog Pub Health Rep 68:647-55 Jl '53

Mississippi

Histoplasmin sensitivity in Mississippi; a new boundary. R. M. O'Neal. map Pub Health Rep 68:714-16 Jl '53

Time study of public health activities in Mississippi. J. A. Milne and others. Pub Health Rep 68:378-90 Ap '53

North Carolina

North Carolina story; health. il Manuf Rec 123:96 Ja '54

United States

Health needs of the United States; summary of report of President's commission. Mo Labor R 76:275-8 Mr '53

PUBLIC health administration

Case finding through multiple screening. A. B. Kurlander and B. E. Carroll. Pub Health Rep 68:1035-42 N '53

Constitutionality of delegation of legislative powers to state boards of health. Pub Health Rep 68:733 Jl '53

County health councils and public health. F. D. Yoder. Pub Health Rep 68:489-90 My '53

Evaluation of sanitation programs in a city-county health department. J. A. Salvato, jr. Pub Health Rep 68:595-9 Je '53

Servicio; ten years of operation of the bilateral health program of the Institute of Inter-American affairs. il map Pub Health Rep 68:829-57, 1002-12, 1132-8, 1243-62 S-D '53

Time study of public health activities in Mississippi. J. A. Milne and others. Pub Health Rep 68:378-80+ Ap '53

See also

Medical service—Socialization
Nursing homes
Public health departments

PUBLIC health association, American. See American public health association

PUBLIC health centers. See Health centers

PUBLIC health departments

General regulatory powers and duties of state and local health authorities. R. M. Moldenhauer and C. H. Greve. Pub Health Rep 68:434-8 Ap '53

Growth of local health units in Florida. W. T. Sowder; W. H. Y. Smith. map Pub Health Rep 68:1083-90 N '53

State laws on financing and staffing local health departments. G. H. Greve and K. J. Connor. Pub Health Rep 68:965-61 O '53

Value of good service statistics in a modern health department. E. Flook. Pub Health Rep 68:811-15 Ag '53

Accounting

Simplifying state accounting for federal health grants. P. E. Fox and D. I. Zwick. Pub Health Rep 68:1071-7 N '53

PUBLIC health education

Professional education in public health; a survey of schools of public health, 1950. H. S. Diehl. Pub Health Rep 68:890-6 S '53

Servicio; ten-year evaluation of the bilateral health programs, Institute of Inter-American affairs; programs and problems in professional education and inservice training of health personnel. Pub Health Rep 68:1243-50 D '53

PUBLIC health laboratories

Laboratory for state health department; hygienic laboratory building for West Virginia department of health. il plans Arch Rec 115:174-5 Mr '54

Los Alamos scientific laboratory of the University of California announces completion of its new Health research laboratory. Science 118:375-6 O 2 '53

Program for protection of research employees against pathogenic hazards. J. Black and others. il Pub Health Rep 68:989-92 O '53

Public health laboratory; yesterday, today, and tomorrow. A. V. Hardy. Pub Health Rep 68:968-74 O '53

See also

Taft, Robert A., Sanitary engineering center
United States—Public health service

PUBLIC health laws

See also

Air pollution—Laws and regulations
Water laws and legislation

PUBLIC health nurses and nursing. See Nurses and nursing, Public health

PUBLIC health officers

Research preferences and activities of public health service officers. S. H. Newman and M. A. Howell. bibliog Pub Health Rep 68:1183-91 D '53

PUBLIC health records

Nature and purpose of local health unit record and report systems. O. G. Johnson. Pub Health Rep 68:1078-82 N '53

Public health operating statistics. R. G. Webster. Pub Health Rep 68:467-73 My '53

Record and report systems in local health departments; symposium. Pub Health Rep 68:1199-212 D '53

PUBLIC health research

Science and public health research in Alaska. Pub Health Rep 68:527-42 My '53

PUBLIC health service. See United States—Public health service

PUBLIC health surveys

Serology of brucellosis in rural Indiana. map Pub Health Rep 68:563-71 Je '53

PUBLIC health workers

Effect of Public law 779 on teaching and research at public health schools. W. H. Aufranc and W. P. Shepard. Pub Health Rep 68:656-8 Jl '53

Health department manpower. Pub Health Rep 68:909-10 S '53

See also

Nurses and nursing, Public health
Sanitary engineers

PUBLIC housing authority

U.S. names areas for 20,000 homes. Eng N 151:22 Ag 27 '53

PUBLIC lands

Administration of grazing districts. J. R. Penny and M. Clawson. bibliog Land Econ 29:23-34 F '53

Economic possibilities of the public domain. M. Clawson. Land Econ 29:187-99 Ag '53

Operations on federal lands in the Rocky mountains. L. J. Putnam. Am Pet Inst Proc 33(4):20-4 '53; Same cond. Oil & Gas J 52:274+ N 16 '53; Discussion. Am Pet Inst Proc 33(4):25-6 '53

PUBLIC lands—*Continued*

Want to lease from Uncle Sam? B. F. Linz. Oil & Gas J 52:100-2+ Ag 24 '53

See also

Mineral lands

Oil reserves (United States navy)

PUBLIC law 779. See Selective service act, 1948

PUBLIC lighting engineers, Association of. See Association of public lighting engineers

PUBLIC officials

Bankers in government service. H. Bratter. Banking 46:34-5+ D '53

Do we need an executive reserve? Chem & Eng N 32:3738+ S 20 '54

Target; executive stockpile. Chem W 75:22 Ag 21 '54

Directories

Government officials in charge of Canadian public water supplies and sewerage systems. Munic Util 92:8 Ja '54

Officials of improvement districts and reserves in Ontario. Roads & Eng Constr 92: 260 Je '54

Salaries

Why top men duck Washington; abstract. G. W. Johnson. Management R 42:302-3 Je '53

PUBLIC officials bonds. See Insurance, Surety and fidelity—Public officials bonds

PUBLIC opinion polls

Eyes of customers are on you; poll conducted at City college in Pasadena. A. L. Howells. Banking 46:80-1 Ag '53

PUBLIC relations

Aiding the community; new philosophy for foreign operations. C. R. Wharton, jr. Harvard Bsns R 32:64-72 Mr '54

Business news editors panel on corporation publicity methods offers chance to spotlight faults. S. Fish. Weekly Underw 170: 1585+ Je 26 '54

Champion says it with movies. il Bsns W p94+ Ag 1 '53

For better plant-community relations use a common interest, like music; Delco-Remy. Ptr Ink 245:62+ O 23 '53

French lesson. R. Adleman. Ptr Ink 243:96 Ap 10 '53

Goodwill extension policy; Consolidated chemical industries, Houston, has transformed woodlands into baseball park for Little leaguers. il Chem W 74:24 Je 19 '54

He's got the Jimmy Durante touch and he knows how to sell an idea; Edward G. Logelin. Ind Marketing 39:90 Mr '54

How public relations help citizens to know Brookfield. P. Hirsch. Pub Works 85:54+ Ja '54

Is your corporation a good neighbor? C. Davidson. Gen Elec R 57:29-31 My '54

Management and the community; human factors of management. R. H. Rich. Advanced Management 18:5-6 D '53

Management's good neighbor policies; survey of company community relations programs. Management R 43:75-7 F '54

Needed, a new look for public relations. Management R 43:346-7 Je '54

Opens blast furnace and says so, with tv, radio, newspapers; M. J. Zivian. Ind Marketing 38:156 N '53

Opportunity America is graphic community relations; Jefferson mills. M. B. Andrews. Textile World 104:101 Ag '54

Peek show; employee participation in community activities; Thomas & Betts co., Elizabeth. il Dun's R & Mod Ind 62:115-16+ N '53

Profits are the breath of business, but mission is service to people, and it pays. N. L. Krause. Credit & Fin Management 55: 20-1 D '53

Progress in community relations project reported by APPA. il Paper Ind 36:175-6 My '54

Public relations aspects of consulting sanitary engineering work. M. H. Klegerman. il Am Soc C E Proc 79 [no 301]:1-11 O '53

Rockwell strengthens its public relations program with a news booklet. Ind Marketing 39:60 My '54

Serving the general public. D. Skylar. il Brick & Clay Rec 124:59-60 Mr '54

Two companies try something new in community relations. R. Newcomb and M. Sammons. Ind Marketing 39:118+ My '54

What a good public relations plan can do for a company. D. O'Brien. Am Bsns 24:13+ Ag; 26+ S '54

What do they think of your company? abstract. T. S. Watts. Management R 43: 416-17 Jl '54

What is public relations? K. R. Bendetsen. Tappi 37:sup38A+ Ja '54; Same cond. Paper Ind 35:1124-5 Ja '54

Whole town got into the act; Carboloy open house. W. L. Morris. il Sales Management 70:12-14+ pt 2 Ap 1 '53

Why industrial public relations is a means to market development and a weapon against communism. K. E. Jensen. Ptr Ink 245:48-9 O 2 '53

Winning community acceptance for your plant. T. F. Driscoll. Management R 42: 576 O '53

See also

Advertising, Educational

Commercial correspondence

Publicity

Visitors

also subdivision Public relations under special headings, e.g.

Advertising agencies

Banks and banking

Chemical industries

Drug trade

Electric utilities

Engineers

Gas companies

Insurance companies

Libraries, Special

Motor bus lines

Newspapers

Petroleum industry and trade

Plumbing trade

Public utilities

Railroads

Rapid transit

PUBLIC relations counsel

Getting the most for your dollar in public relations. D. O'Brien. Am Bsns 24:26+ S '54

PUBLIC service company of Colorado

Growth outstrips industry average. Barron's 33:15-16 Ag 3 '53

PUBLIC service company of Indiana, inc.

Bonds sold. Comm & Fin Chr 179:402+ Ja 25 '54

PUBLIC service electric and gas company

Bonds offered. Comm & Fin Chr 178:1670 N 2 '53

Stock offered. Comm & Fin Chr 178:1572 O 26 '53

PUBLIC speaking

At last I've heard Red Motley and am I disappointed! L. H. Brendel. Sales Management 72:90 Ap 1 '54

Dynamics in the business meetings. il Sales Management 72:sup 10A-12A pt 2 Ap 15 '54

Eight controls for speaking in public. J. R. Gould. J Chem Educ 31:92-4 F '54

How to get speakers. J. C. Metcalfe. Sales Management 72:70+ pt 2 Ja 1 '54

So you're going to be host to the speaker. O. Ellis. Ptr Ink 245:98 O 23 '53

Speaking in public. Coal Age 59:110+ S '54

Tips on getting your speech across. H. V. Prochnow. Am Bsns 24:10-13 Ap '54

Toastmasters club is key to good relations with public today; Kaiser Steel. L. F. Thomann. Ptr Ink 244:46 Ag 14 '53

You, too, can be teleprompted. Nat Underw 57:22 Ag 20 '53; Same. Nat Underw (Life ed) 57:8 Ag 14 '53

Bibliography

Current reading list for sales executives and salesmen; public speaking. Sales Management 72:124+ Ap 15 '54

PUBLIC utilities

See also

Airlines

Carriers

Corporation law

Corporations

Electric utilities

Gas, Natural—Pipe lines

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Motor bus lines

Motor trucks in freight service

Petroleum pipe lines

Public utility districts

Railroads

Railroads and state

Rapid transit

Telegraph

Telephone

Waterworks

Accounting

Depreciation in relation to inflation. F. W. Brooks. Pub Util 53:556-7+ Ap 29 '54

PUBLIC utilities—Accounting—*Continued*

Determination and recording of property exhaustion costs. F. L. Griffith. Pub Util 53:333-9 Mr 18 '54

FPC drafts accounting change. Elec World 140:119 Jl 13 '53

Simplified management reports. R. A. Delaney. Pub Util 53:830-2 Je 24 '54

Techniques for obtaining depreciated replacement costs. C. F. Boake. Pub Util 54:137-45 Ag 5 '54

U.S. Supreme court decisions affecting public utility depreciation. S. Davidson. J Account 96:331-5 S '53

Advertising

Sales promotion isn't all. W. G. Heren. Gas Age 113:58 Ja 14 '54

See also

Railroads—Advertising

Appliance selling

See also

Electric utilities—Appliance selling

Claims

Trends in personal injury suits against public utilities. H. L. Hackbert. Pub Util 54: 436-42 S 30 '54

Customer relations

We asked our customers to talk back; Sacramento municipal utility district. E. A. Combatalade and F. J. Rehman. Pub Util 53:99-103 Ja 21 '54

Employees

College boys are hired all year round. J. H. Collins. Pub Util 52:844-51 D 3 '53

Where jobs get into no man's land; secret opinion poll. J. H. Collins. Pub Util 53: 225-32 F 18 '54

See also

Gas companies—Employees

Railroads—Employees

Finance

Impact of inflation on public utilities; panel discussion. F. L. Griffith; W. J. Herrman; R. E. Ginna. Pub Util 54:119-36 Ag 5 '54

Operating revenue, profits and dividends, 1947-1952 and quarterly 1952-1953. Fed Res Bul 40:67 Ja '54 [cont monthly]

Public utility financing postwar. O. Ely. Pub Util 53:581-90 My 13 '54

Review of cost-of-capital return. Pub Util 54:100-4 Jl 22 '54

Some aspects of the rate-of-return problem. E. W. Clemens. Land Econ 30:32-43 F '54

Utility earnings requirements; the competitive test. E. S. Merrill. Pub Util 54:35-9 Jl 8 '54

See also

Electric utilities—Finance

Gas companies—Finance

Public utilities—Rates

Public utilities—Securities

Railroads—Finance

Insurance requirements

Tells utilities men dangers of self-insurance; outlines coverage needed. W. Meek. Nat Underw 57:6 N 5 '53

Law

See also

Gas, Natural—Laws and regulations

Holding companies—Laws and regulations

Public utilities—Regulation

Railroad law

Management

Creative technique in executive development. H. H. Jacobs. Pub Util 53:208-16 F 18 '54

Management development; public utility executive program, University of Michigan. R. L. Dixon. Am Gas Assn Proc 1953:81-4

See also

Railroads—Management

Public relations

Public relations techniques. H. Brayman. Pub Util 54:9-17 Jl 8 '54

Utility public relations comes of age. F. C. Sullivan. Pub Util 52:690-8 N 5 '53

See also

Electric utilities—Public relations

Motor bus lines—Public relations

Railroads—Public relations

Radio communication

Utilities ride the airwaves; industrial radio and microwave communications guarded by three industry groups. J. E. Keller and T. G. Humphreys. il Am Gas Assn Mo 36: 11+ Jl-Ag '54

Rates

Alleged multiple-effect of income taxation on public utility rates. R. Solo. Land Econ 29:356-8 N '53

Capital cost and fair return. J. R. Foster. Pub Util 53:267-82, 340-56, 421-33 Mr 4-Ap 1 '54

Impact of changing price levels on rate making. A. H. Dean. Pub Util 52:817-36 D 3 '53

Modern approach to rate case preparation from a management point of view. R. G. Rincliffe. Pub Util 54:443-5 S 30 '54

Modern approach to rate case preparation from a regulatory point of view. R. O. Martin. Pub Util 54:445-9 S 30 '54

Modern rate case from the public viewpoint. R. Arnebergh. Pub Util 54:450-4 S 30 '54

Need for recognizing fair value. P. Grady. Pub Util 53:357-65 Mr 18 '54

Practicalities in rate making today. J. R. Whiting. Pub Util 53:399-412 Ap 1 '54

Preparing for the utility rate case. F. X. Welch, ed. Review, by C. M. Turner. Am Gas Assn Mo 36:18+ Jl-Ag '54

Transitional loss allowance; cure for regulatory lag? G. M. Blackstock. Pub Util 53: 201-7 F 18 '54; Discussion. 53:787-98; 54:3-8 Je 24-Jl 8 '54

Utility management's rôle under inflation. R. P. Briggs. Pub Util 52:934-7 D 17 '53

See also

Electric rates

Gas, Natural—Rates

Gas rates

Railroads—Rates

Telephone—Rates

Water rates

Regulation

California utility regulation, yesterday, today, and tomorrow. F. C. Sullivan. Pub Util 53: 591-600 My 13 '54

Fairness to utility customers. J. Sharfsin. Pub Util 52:912-19 D 17 '53

Favorable regulatory climate in Florida. L. W. Petteway. Pub Util 53:440-1+ Ap 1 '54

H. Lester Hooker, sixty minuteman. J. J. Kilpatrick. Pub Util 53:27-34 Ja 7 '54

Lessons to be learned from twenty-five years of regulation. H. C. Spurr. Pub Util 53:3-14 Ja 7 '54

Public utilities as investments from the security analyst's viewpoint. M. Chandler. Land Econ 30:237-47 Ag '54; Excerpts. Pub Util 53:619-20 My 13 '54

Responsibilities of a regulatory commissioner. J. C. Hammer. Pub Util 53:154-6 F 4 '54

Roadblocks to sound utility regulation. J. Martindell. Pub Util 52:757-64 N 19 '53

See also

Airlines—Regulation

Gas, Natural—Laws and regulations

Public utilities—Rates

Public utilities commissions

Securities

Bearish view on utility stocks. O. Ely. Pub Util 54:271-2 S 2 '54

Cost-of-capital techniques employed in determining the rate of return for public utilities. L. W. Thatcher. Land Econ 30: 85-111 My '54

Effects of dilution on utility shares. J. Curtis. il Mag of Wall St 93:564-5+ F 6 '54

Inadequacy of call price protection in security issues. V. B. Gerard. Comm & Fin Chr 178:1630-1 O 29 '53; Abstract. Nat Underw (Life ed) 57:7 O 16 '53

Insurers buck SEC on non-callable utility bonds. R. B. Mitchell. Nat Underw (Life ed) 57:1, 32 S 25 '53

Potential impact of atomic energy on utility securities. E. H. Scott. Pub Util 53:372-5 Mr 18 '54

PUBLIC utilities—Securities—*Continued*

Public utilities as investments from the security analyst's viewpoint. M. Chandler. Land Econ 30:237-47 Ag '54; Excerpts. Pub Util 53:619-20 My 13 '54

Public utility securities. O. Ely. Published in weekly Thursday numbers of Commercial and financial chronicle

Review of cost-of-capital return. Pub Util 54:100-4 Jl 22 '54

Some aspects of the rate-of-return problem. E. W. Clemens. Land Econ 30:32-43 F '54

See also

Electric utilities—Securities

Railroads—Securities

Taxation

Alleged multiple-effect of income taxation on public utility rates. R. Solo. Land Econ 29:356-8 N '53

Should the consumer get full benefit of the fast tax certificate? O. Ely. Pub Util 52:751-6 N 19 '53

See also

Railroads—Taxation

War problems

Utility challenge to saboteurs; Defense facilities protection act of 1954. T. N. Sandifer. Pub Util 54:321-4 S 16 '54

California

California utility regulation, yesterday, today, and tomorrow. F. C. Sullivan. Pub Util 53:591-600 My 13 '54

Public utilities commission activities in California. F. F. Watters. Am Water Works Assn J 45:1219-24 N '53

Guatemala

Guatemalan utility case sets confiscation pattern. M. Bannell. Barron's 33:20 N 16 '53

United States

IBA public service securities committee hails new era for private utility industry. Comm & Fin Chr 178:2400+ D 17 '53

Washington outlook for public utilities, 1954. F. X. Welch. Pub Util 53:69-80 Ja 21 '54

Virginia

H. Lester Hooker, sixty minuteman. J. J. Kilpatrick. Pub Util 53:27-34 Ja 7 '54

PUBLIC utilities advertising association

Annual meeting, Boston; prizes awarded in 1954 contest. Gas Age 114:28-9 Jl 1 '54

Annual meeting, 33d, Boston, May 13-14. Am Gas Assn Mo 36:12-13+ Je '54

PUBLIC utility commissions

Activities in California. F. F. Watters. Am Water Works Assn J 45:1219-24 N '53

Masks of a public utility commissioner. L. Schwartz. Pub Util 54:177-82 Ag 19 '54

PUBLIC utility districts

Court will rule on right of PUDs to buy Puget Power & Light. E. Roehl. Elec World News ed 140:44-5 Jl 6 '53

Courts rule against WWP in condemnation cases. Elec World 141:83 Ja 11 '54

Denver citizens vote for state PUC regulation. J. E. Loiseau. Elec World News ed 140:44 Jl 6 '53

Pepco rate case remanded to PUC by District court. Elec World 141:95-6+ F 8 '54

PUDs get a shot in the arm; Washington court allows joint acquisition of private power facilities. Elec World 140:126 S 21 '53; Elec West 111:134 O '53

Tax levy unlawful PUD suit contends. Elec West 111:140 O '53

Utility would give state PUC regulatory control; Public service co. of Colorado. Elec West 111:146 N '53

We asked our customers to talk back; Sacramento municipal utility district. E. A. Combatalade and F. J. Rehman. Pub Util 53:99-103 Ja 21 '54

PUBLIC works

Equipment management, the Milwaukee way. H. R. Stiedemann. Pub Works 85:116+ S '54

Land trade gave us a new public works garage. H. G. Kuhn. plans Pub Works 85:117-18 My '54

Ohio congressman endorses government's public works program; factors which will directly affect the future of the clay pipe industry. F. T. Bow. Brick & Clay Rec 124:52-3 Ap '54

Stretching public works dollars with compressed air. il Pub Works 85:71+ F '54

U.S. construction overseas. il maps Eng N 151:28-34+ Jl 30 '53

See also

Aqueducts

Bridges

Flood control

Highway departments

Hydroelectric plants

Irrigation

Municipal improvement

Pavements

Public buildings

Refuse disposal

Roads

Sewage disposal

Sewerage

Streets

Costs

Engineering construction in Canada. Roads & Eng Constr 92:250 Je '54

Finance

Federal construction funds trimmed. Eng N 152:21-2 Ja 28 '54

Federal construction spending to be slowed, cut more in '55. Eng N 151:27 Ag 20 '53

Federal projects voted $2.1 billion. Eng N 151:21-2 Ag 6 '53

Federal spending outlook; down but still good. Eng N 151:23 Jl 2 '53

Joint congressional committee on the economic report is warned that public works pump priming wouldn't be easy. Eng N 152:44-5 F 18 '54

Low first-quarter bid prices stretch public works dollar. Eng N 152:21-2 Ap 8 '54

Plenty of public works; a bond market preview. Eng N 152:58 F 11 '54

Safety measures

If you want safety in construction, here is how to get it. il Pub Works 84:81-2+ D '53

Great Britain

Cheaper local loans; Public works loan board rates for new loans to local authorities. Economist 169:265-6 O 24 '53

Relationship to rents; latest PWLB changes. Economist 169:266 O 24 '53

Guatemala

Guatemala guaranteeing payments in U.S. dollars. M. Bannell. Barron's 33:16 Ag 31 '53

Puerto Rico

Public programs spark boom in Puerto Rico. il Eng N 151:40-1 O 22 '53

Russia

Projects without Stalin. Economist 168:845 S 26 '53

United States

Eisenhower would strengthen federal aids to construction. Eng N 152:21-2 Ja 14 '54

Federal construction funds trimmed. Eng N 152:21-2 Ja 28 '54

Federal construction plans loom larger. Eng N 152:41-2 F 18 '54

$900 million in federal work is proposed for authorization. Eng N 151:71-2 O 8 '53

1954 outlook promising; 1953 second best. map Eng N 152:21-2 Ja 7 '54

Venezuela

Public works by the hundreds. W. G. Bowman. il Eng N 152:30-2+ Ja 21 '54

Putting oil income to work; Venezuela gets a daily yield of $1-million from oil concessions. Bsns W p 156 D 12 '53

PUBLIC works association, American. See American public works association

PUBLICITY

Alcoa's aluminum building pushes new applications of the product. F. Borden. il Ind Marketing 39:44-5 F '54

Developing effective financial publicity. H. S. Hettinger. Management R 43:187-90 Mr '54

How are your press relations? A. Reese. Pet Refiner 32:92-3+ O '53; Same. World Oil 137:58-61 D '53; Reply. C. V. Barrow. 138:60+ F 1 '54

PUBLICITY—*Continued*

How industrial publicity solved three specific problems. H. F. Eaton. Adv Agency 46:62-3+ D '53

How to get more publicity out of your technical staff. B. Aitchison. il Ind Marketing 39:60+ S '54

How to get publicity in the small town press. S. G. Hopkins. Adv Agency 46:77-8 Je '53

Remember the editor, and keep him (and you) happy. H. G. Lustfield. Ind Marketing 38:132+ D '53

Right of publicity and its importance to advertisers. G. H. Weil. Ptr Ink 244:62+ Ag 28 '53

What it takes to get publicity at a trade show. A. Rose and H. A. Smith. Sales Management 73:20+ pt 2 Jl 1 '54

See also

Advertising

Insurance, Life—Publicity

Public relations

PUBLISHING

See also

Book industry and trade

House organs

Newspapers

Periodicals

PUBLISHING buildings

See also

Newspaper offices

PUCCI, Antonio, d 1388

Bibliography

Resources for Italian studies; possibilities for a study of fourteenth-century Florence in the works of Antonio Pucci if limited to material available in England. K. Speight. J Doc 10:65-71 Je '54

PUERTO RICO

See also

Agriculture—Puerto Rico

Architecture—Puerto Rico

Chemical industries—Puerto Rico

Irrigation—Puerto Rico

Newspapers—Puerto Rico

Sanitary products industry—Puerto Rico

Water supply—Puerto Rico

PUGET sound

Puget Sound span. Eng N 151:27 D 10 '53

PUGET sound power and light company

Court will rule on right of PUDs to buy Puget Power & Light. E. Roehl. Elec World News ed 140:44-5 Jl 6 '53

Hearing off; merger of Washington Water Power and Puget Sound Power & Light. Elec World 140:108 N 16 '53

Merger foes to be heard. Elec World News ed 139:44-5 Je 8 '53

Merger okayed; Washington PSC authorizes WWP to take over Puget Power & Light. Elec World News ed 140:45 O 26 '53

PUDs get a shot in the arm; Washington court allows joint acquisition of private power facilities. Elec World 140:126 S 21 '53

PUD's will fight WWP-Puget consolidation plans. Elec World 140:102 N 2 '53

Puget P&L sued. Elec World News ed 141:64 Ja 4 '54

Puget sound power & light company. C. Tatham, jr. Pub Util 53:446 Ap 1 '54

Puget Sound Power & Light-Washington Water Power merger. O. Ely. Comm & Fin Chr 178:647 Ag 20 '53

Puget to operate separately; abstracts. F. McLaughlin. Elec World News ed 140:47-8 N 23 '53; Elec West 111:122 D '53

Rate hike cited; WWP-Puget merger. Elec World News ed 140:45 Ag 3 '53

WWP-PUD battle brewing. Elec World 139:87 Je 1 '53

WWP-Puget hearings end. Elec World 140:111 Ag 24 '53

WWP-Puget hearings go on. Elec World News ed 140:48 Ag 17 '53

Washington Water Power-Puget hearings reopen. Elec World News ed 140:44 Jl 20 '53

WWP-Puget merger queried. Elec World 140:107 Jl 27 '53

PULITZER prizes

Two weeklies win Pulitzer prizes for anti-KKK war; other awards. R. Erwin. Ed & Pub 86:9+ My 9 '53

PULLEYS

Facts about modern pulleys and sheaves. il Mill & Factory 54:184 My '54

PULLMAN, inc.

Wide awake Pullman. I. U. Cobleigh. Comm & Fin Chr 178:2150-1 D 3 '53

PULLMAN companies

Revenue passenger miles, passenger revenues, 1949-1952. Survey of Cur Bsns 1953 Sup p 118 [supplemented in monthly numbers]

PULP mills. See Paper and pulp mills

PULSE counters. See Counters (electrons, ions, etc.)

PULSE generators

Design and performance of a high-power pulsed klystron. M. Chodorow and others. bibliog il diags Inst Radio Eng Proc 41:1584-602 N '53

Determination of heat capacity by pulse heating. T. E. Pochapsky. il diags R Sci Instr 25:238-42 Mr '54

400-kv peak impulse generator. A. Aked and A. S. Husbands. il diag Engineering 177:109-10 Ja 22 '54

Mullard high-power pulse modulator. il Engineer 196:772-3 D 11 '53; Engineering 177:81 Ja 15 '54

Time-base generator for control and measurement. E. Nuban. il diags Tele-Tech 12:84-5+ O '53

20-kilovolt delta-function generator. H. G. Heard. bibliog il diags R Sci Instr 25:454-8 My '54

Type 6218 beam deflection tube as a complex pulse generator. K. Enslein. diags R Sci Instr 25:355-8 Ap '54

PULSE jet engines. See Airplane engines—Jet engines

PULSE techniques (electronics)

Coincidence of pulse trains. H. D. Friedman. diags J Ap Phys 25:1001-5 Ag '54

Crossed electron beam technique for displaying short pulses. P. D. Coleman and M. D. Sirkis. il diag J Ap Phys 24:952-3 Jl '53

Detection of pulse signals in noise. D. G. Tucker and J. W. R. Griffiths. bibliog il diags Wireless Eng 30:264-73 N '53

Diffusion of pulsed currents in conductors. L. M. Vallese. J Ap Phys 25:225-8 F '54

Eighty-channel velocity selector for neutrons. E. Gatti. bibliog il diags R Sci Instr 24:345-8 My '53

Exact interpolation of band-limited functions. A. Kohlenberg. bibliog J Ap Phys 24:1432-6 D '53

Flexible single-channel pulse-amplitude analyser. F. J. M. Farley. diags J Sci Instr 31:241-5 Jl '54

Gray wedge pulse-height analysis. W. Bernstein and others. il diags R Sci Instr 24:437-44 Je '53

Gray-wedge technique for pulse-height analysis. W. A. Higinbotham. il Instruments & Automation 27:1303 Ag '54

Improved fast scaler. H. K. Schoenwetter. il diag R Sci Instr 24:515-17 Jl '53

Increasing range of Geiger tubes by pulsed operation. Electronics 26:206+ O '53

Interference of pulse trains. K. S. Miller and R. J. Schwarz. diags J Ap Phys 24:1032-6 Ag '53

Mechanical differentiating circuit for impulse analyzers and other similar purposes. H. Glättli and others. il diag R Sci Instr 25:393 Ap '54

Methods of testing the linearity of response of photomultipliers under pulsed conditions. W. T. Link and D. Walker. diag J Sci Instr 31:110 Mr '54

Multichannel pulse-height analysis system utilizing a 35-mm film record. W. A. Hunt and others. bibliog il diags R Sci Instr 25:268-74 Mr '54

Multichannel pulse-height and delay time recorder. W. C. G. Ortel. bibliog diags R Sci Instr 25:164-9 F '54

Phantastron computes pulse-width ratios. L. D. Findley. diags Electronics 27:164-7 Ja '54

Pulse-height analyzer. J. W. Thomas and others. bibliog diags R Sci Instr 24:1017-20 N '53

Pulsing electronic measuring and control apparatus; patent. diags Electronics 26:224+ N '53

Research; pulse current used to amplify tiny signals. Iron Age 174:135 Ag 12 '54

PULSE techniques (electronics)—*Continued*

Response of a pulsed Geiger tube. H. B. Rosenstock. bibliog J Ap Phys 25:275-82 Mr '54

Simple pulse-amplitude analyzer. C. F. G. Delaney. diag R Sci Instr 24:1000 O '53

Statistical criteria for the detection of pulsed carriers in noise. D. Middleton. bibliog J Ap Phys 24:371-91 Ap '53; Discussion. 25: 128-30 Ja '54

Theoretical fundamentals of pulse transmission. E. D. Sunde. bibliog diags Bell System Tech J 33:721-88, 987-1010 My-Jl '54

Transistor pulse amplifier using external regeneration. J. H. Vogelsong. diags Inst Radio Eng Proc 41:1444-50 O '53

Universal medical timer and pulse stimulator. R. G. Roush and E. T. Urbanski. il diags Electronics 26:154-7 N '53

PULSEJET engines. See Airplane engines—Jet engines

PULVERIZERS

Automatic hard-facing of worn pulverizer parts pays off; Cleveland electric illuminating co. R. Ruggie. il Power Eng 58:72-3 Ap '54

See also

Ball mills

PUMICE

Pumice building blocks. Consumers Res Bul 32:11 O '53

PUMPING

How to use system-head curves. M. Mann. diags Chem Eng 60:162-4 F '53; Same. Power 97:88-90 N '53

Safety features built into sulfuric acid pumping system; Wigton-Abbot corp. F. J. Hendel and H. B. Pateman. diag Iron Age 172:164-5 S 17 '53

See also

Petroleum—Pumping
Pumping stations
Pumps
Sewage pumping

Cost

When does it pay to replace a pump? C. E. Cromwell. il Paper Tr J 138:22-4 Je 18 '54; Same. Marine Eng 59:45-6 Jl '54; Same cond. Heating-Piping 26:131-2 Je '54

Tables, calculations, etc.

Calculating savings when new pump replaces old one; data sheet. Heating-Piping 26:133-4 Je '54

Chart for determination of pumping costs. Water & Sewage Works 101:R 176 pt 2 My '54

Charts for designing air chambers for pump discharge lines. W. E. Evans and C. C. Crawford. diags Am Soc C E Proc 79 [no 273]:1-17 S '53

Detect boiler feed pump load-drop cavitation mathematically. S. Baron. diag Power Eng 58:69-72 My; 75-7 Jl '54

How much can a pump pump? R. A. Miller. il diags Paper Tr J 138:24+ Jl 9 '54

How to figure performance curves for your liquid jet pump. H. W. Iversen. diags Power Eng 58:71-3 Ja '54

Pumpability of residual fuel oils. F. Gill and R. J. Russell. bibliog diags Ind & Eng Chem 46:1264-78 Je '54

System head curves; their calculation and use. M. Mann. diags Water & Sewage Works 101:14-19 Ja '54

Theory and formulae associated with pumping tests for the determination of formation constants; abstract. J. Ineson. Am Water Works Assn J 46:sup74 Ag '54

PUMPING machinery

Beam engines at Stoke Newington pumping station, London. il Engineer 196:491 O 16 '53; Engineering 176:501 O 16 '53

Diesel-driven pumps reduce drainage district costs. W. H. Klingner and M. B. Carroll, jr. il Pub Works 84:70 N '53

Gas-burning pump engines; Del Este water co. K. H. Beard. Am Water Works Assn J 46:675-6 Jl '54

High-speed feed pumps for superpressures; drives. I. J. Karassik. il diags Power 98: 82-4+ F; 88-9 My; 107 Je '54

How irrigation improves load factor. R. M. Curry. il Gas Age 114:32-5 Ag 26 '54

Recent solutions to pumping problems. C. J. B. Mitchell. il diags Chem Eng Prog 50: 431-5 S '54

Standby power for operation of auxiliary water works equipment. M. Williams. il diag Pub Works 85:113 My '54

Variable piston displacement in a radial-piston hydraulic pump. il Machine Design 25:159 D '53

See also

Gasoline pumps
Petroleum—Pumping
Pumping stations
Pumps
Sewage pumping

PUMPING machinery, Electric

Auxiliary electric drives required for shipboard pumps. A. M. Bruning. il diags Marine Eng 59:61-5 Jl; 56-62 Ag '54

Canned pumps industry does a job for AEC. il Steel 134:108 Je 28 '54; Chem & Eng N 32:2330 Je 7 '54

Design and development of seal-less pumps. D. P. Litzenberg and H. T. White. il diags Chem Eng Prog 50:436-44 S '54

Electric submersible pump. il Engineering 177:55 Ja 8 '54

Hermetically sealed pump-motor units will handle any fluid. E. F. Brill. il diags Product Eng 24:216-18 Je '53

Idaho pumping grows. Elec West 111:129 S '53

It's important to ground pump motors. diag Elec West 111:102 O '53

New Sigmund PumPak. il diag Elec J 152: 220 Ja 15 '54

Rural electrification of the Rhône delta. D. Anley. il map diag Elec R (Lond) 154:284-5 F 12 '54

Sigmund motor pump unit. il Engineer 197: 187 Ja 29 '54; Engineering 177:118 Ja 22 '54

Wilkinson diaphragm pumps. il Engineer 197: 423 Mr 19 '54

See also

Mine pumping, Electric
Petroleum—Pumping, Electric
Petroleum pipe lines—Pumping stations, Electric

Control

Experience with hydraulic remote control. W. Jacobsohn. diags Am Water Works Assn J 46:346-8 Ap '54

Pumping-plant control. T. Eide. il diags Instruments & Automation 27:1310-11 Ag '54

Water-distribution systems require pump control. J. S. Williams. il Instruments & Automation 27:934-5 Je '54

PUMPING stations

Architect designs a new pumping station. G. T. Hirsch. il plan Pub Works 84:68-9 D '53

Complete waterworks in a tower. il Water & Sewage Works 101:350 Ag '54

Construction of Granby pumping plant. R. J. Willson. il plan Am Soc C E Proc 79 [no 270]:1-21 S '53

Control of water supply for distant and high-level areas as exemplified by the city of Hamilton, Ont. W. L. McFaul and J. Stodart. il diags Munic Util 92:23-6+ My '54

Flood waters pumped to reinforce reservoir supplies. G. B. Arthur. il map Pub Works 85:93-4 Ag '54

Modern design features new Vallejo water project. H. L. Thackwell. il map Pub Works 85:87-92 S '54

New water supply for Midland, Tex. H. N. Roberts. il diag Water & Sewage Works 101:351-3 Ag '54

Pumps to tame Florida floods. H. W. Schull, jr. il maps Eng N 152:36-7 Ap 22 '54

Selection of pumps and design of high volume-low head pumping stations. G. F. Snodgrass. plans diags Am Soc C E Proc 79 [no 229]:1-13 Jl '53

See also

Petroleum pipe lines—Pumping stations
Sewage pumping

Design

Granby pumping plant foundations and design. W. R. Judd and W. H. Wolf. il maps plans diags Am Soc C E Proc 79 [no 269]: 1-24 S '53

Pumping stations for drainage areas designed graphically. O. J. Parsons. Civil Eng 23: 553-4 Ag '53

Electric equipment

Water-distribution systems require pump control. J. S. Williams. il Instruments & Automation 27:934-5 Je '54

PUMPING stations—*Continued*

Equipment

Pumping-plant control. T. Eide. il diags Instruments & Automation 27:1310-11 Ag '54

Power

Electricity and water supply. H. R. Lupton. il Elec J 150:1041-3; 151:40-4, 341-5, 633-6, 949-51, 1395-8 Mr 27, Jl 3, 31, Ag 28, S 25, O 30 '53

Power for the water works system. G. C. Boyer. Am Water Works Assn J 46:677-80 Jl '54

Standby power for operation of auxiliary water works equipment. M. Williams. il diag Pub Works 85:113 My '54

PUMPS

Application of helical gear pumps. G. H. Zimmer. il diags Can Chem Process 38:52+ S '54

Application of power pumps to high pressure for jet-bit drilling. R. J. Meers. diag Oil & Gas J 52:114-15 N 2 '53

Case history aluminum replaces iron in fire pumps. il Light Metal Age 12:28 F '54

Controlled volume pumps; abstracts. J. Procopi. il diags Pet Processing 9:75-8 Ja '54; Paper Ind 35:1320-2 Mr '54

Corrosion of pump parts. E. H. Huss. il diags Metal Prog 66:100-2 Ag '54

Electromagnetic pumps for high temperature liquid metal. J. F. Cage, jr. il diag Machine Design 25:178-9+ Mr '53; Same. Mech Eng 75:467-71 Je '53

Facts about modern pumps. diags Mill & Factory 54:464-5 My '54

Flexible diaphragm acts as pump piston. diag Product Eng 24:161 O '53

Get the most from your power slush pumps. C. P. Jenkins. il Oil & Gas J 52:216-17+ O 5 '53

Gilbert Gilkes and Gordon deep well pump. diag Engineer 196:773 D 11 '53

Glass solenoid pump. L. E. Leake. diags J Sci Instr 30:434 N '53

Heat source pumps liquids; Thermopump. il diag Chem Eng 60:226 D '53

Horizontal vs. vertical pumps. M. S. Mann. il diags Pet Refiner 32:111-14 D '53

How can we stop erosion of pump casing? il diags Power 97:136-8 D '53

How pump modernization pays its way on today's power and industrial jobs. E. C. Condict. il Power 98:98-9 Mr '54

How to move and meter liquid sodium. E. R. Corneil. il diag Chem Eng 60:212-13 S '53

Magnetic pumps for corrosive gases and liquids. F. D. Rosen. diags R Sci Instr 24: 1061-2 N '53

New sanitary pumps keep clean liquid clean. F. A. Annett. il diags Power 98:122-3 Ja '54

Piping, pumps and valves for high pressure water reactor systems. A. Amorosi. plan diag Heating-Piping 26:140-4 My '54

Process design and specification of pumping equipment. R. L. Jacks. flow plan il Chem Eng Prog 49:235-42 My '53; Same. Oil & Gas J 52:103 Je 29; 105 Jl 6; 143 Jl 13; 135 Jl 20; 359 Jl 27; 97 Ag 3; 127 Ag 10; 153 Ag 17; 143 Ag 24; 125 S 7 '53

Pump meters micro volumes; Technicon chromatography. il Chem & Eng N 32:440 F 1 '54

Pumps; primed for mild surge. K. W. Bennett. Iron Age 174:61-2 Ag 26 '54

Recent communications of interest from the manufacturers. il diags Chem Eng Prog 50:sup35+ S '54

Rotary-piston pumps; how they can do a job in your plant today. F. Annett. il diags Power 97:116-17 N '53

Ryaland (Manchester) accelerator pumps for low-pressure heating systems. il Engineer 196:312 S 4 '53

Select the pump for the job. C. T. Baker. Heating-Piping 26:91 Ap '54

Selection of pumps and design of high volume-low head pumping stations. G. F. Snodgrass. plans diags Am Soc C E Proc 79 [no 229]:1-13 Jl '53

Study feedwater heater drain pump systems. T. W. Edwards. diags Power Eng 58: 78-9 My; 66-7 Jl '54

Sump pump installation; detail sheet. diags Heat & Ven 51:107-8 Ap '54

Teamwork in design and installation cut snags in pump upkeep; Shell chemical manufacturing co. M. Sigmund. il diags Power 98:102-4 F '54

Tips on sealing light hydrocarbons. R. E. Morgan. il Pet Processing 8:1340-1 S '53

Valves and pumping equipment. il Paper Tr J 138:127-33 S 17 '54

Vibrating pistons supply air pump pressure. il diag Machine Design 25:172 D '53

Vibration of the Grand Coulee pump-discharge lines. J. Parmakian. bibliog il diags A S M E Trans 76:783-8 Jl '54; Abstract. Power 98:156 F '54; Discussion. A S M E Trans 76:788-90 Jl '54

Vickers hydraulic pumps; weighing 20 tons apiece, pumps are among world's largest. il Iron Age 172:190-1 N 12 '53; Excerpt. Steel 134:78 Ja 11 '54

Waterbury giant oil hydraulic pumps. il diag Mech Eng 75:1007-8 D '53

When does it pay to replace a pump? C. E. Cromwell. il Paper Tr J 138:22-4 Je 18 '54; Same. Marine Eng 59:45-6 Jl '54; Same cond. Heating-Piping 26:131-2 Je '54

Why diaphragm pumps do a many-sided industrial job. F. A. Annett. diags Power 97:124-5+ D '53

See also

Ejectors
Gasoline pumps
Heat pump
Mine pumps
Pumping machinery
Pumps, Centrifugal
Sewage pumps
Vacuum pumps

Bearings

Fluid bearings on sealed pump. il diag Chem Eng 61:288+ F '54

Control

Control of water pressure in suburban distribution lines. J. S. Williams. diags Am Water Works Assn J 45:1123-35; Discussion. L. S. Finch. 1135-8 N '53

New water supply for Midland, Tex. H. N. Roberts. il diag Water & Sewage Works 101:351-3 Ag '54

Synchronized load control meets varying demand on hydraulic power pump. E. W. Theilig. il diag Machine Design 25:221-3 D '53

Design

Ball piston pumps and motors. H. Stern and W. T. Rauch. diags Machine Design 26: 216-18+ Ja '54

Chart simplifies design of gear pumps; data sheet. R. J. Auman. Machine Design 26: 185-7 Mr '54

Charts simplify design of positive-displacement pumps and motors; data sheet. R. J. Auman. diags Machine Design 26:209-13 S '54

Controlled volume pumping of minute flows. R. T. Sheen and A. D. Fell. il Chem Eng Prog 49:299-302 Je '53

Thermal flow control in a new heat-operated pump design. il diag Machine Design 26: 133 Mr '54

Lubrication

How to keep pumps operating at top efficiency by proper lubrication. diags Munic Util 92:34+ My '54

Manufacture

Cast a giant; 19-ton pump casing. il Iron Age 172:61 S 24 '53

Casting pump cases. il Steel 133:137+ O 26 '53

New Fairbanks-Morse pump plant dedication. il Water & Sewage Works 101:308-11 Jl '54

Priming

Air ejector primes circulating water pump. H. A. Dilberger. diag Elec World 140:103-4 S 7 '53

Specifications

How to specify pumps. M. Mann. Pet Refiner 32:133-4 O '53

Testing

Grand Coulee model-pump investigation of transient pressures and methods for their reduction. E. Lindros. il diag A S M E Trans 76:775-81 Jl '54

Worthington opens giant test lab. il Power 98:158 My '54; Water & Sewage Works 101:247 My '54

PUMPS, Centrifugal

Ampco off-the-shelf centrifugal pumps. il Chem & Eng N 32:3218 Ag 9 '54

Case of the musical pump. B. Dopp. diags Heating-Piping 26:126-9 S '54

Centrifugal boiler feed pump maintenance. I. J. Karassik. il diags Power Eng 57:98-100 Je; 72-3 Jl; 86-8 Ag; 80-2 S '53; 58:88-9+ Ja; 90-1+ F '54

Centrifugal pump. Iron & Steel Eng 31:231-2 Ag '54

Centrifugal pump maintenence and troubleshooting. Water & Sewage Works 101:R52-3 pt 2 My '54

Centrifugal pump target assembly for the cyclotron bombardment of liquids. W. M. Garrison and others. il diags R Sci Instr 24:462-3 Je '53

Centrifugal pump types and trends. I. J. Karassik and R. Carter. il diags Heat & Ven 51:73-6 Je; 77-80 Jl; 91-4 Ag; 103-5 S; 95-8 O '54 (to be cont)

Centrifugal pumps. H. E. Beckwith. Water & Sewage Works 101:R47-50 pt 2 My '54

Changing centrifugal pump performance. J. A. Cable. il Water & Sewage Works 101:258-60 Je '54

Designing, constructing and maintaining centrifugal pumps. R. Carter and I. J. Karassik. diags Water & Sewage Works 101:347-50, 437-41 Ag, O '54

Experimental and theoretical investigation of two-dimensional centrifugal-pump impellers. A. J. Acosta. bibliog diags A S M E Trans 76:749-63 Jl '54

High-speed feed pumps for superpressures. I. J. Karassik. il diags Power 98:73-8 Ja; 82-4+ F; 78-80 Mr; 80-3 Ap; 88-9 My; 107 Je '54

High-temperature centrifugal pumps. H. W. Savage and W. G. Cobb. il diags Chem Eng Prog 50:445-8 S '54

How can we protect coolant-oil pumps? answers. il diags Power 98:134+ Ag; 136 S '54

How to cut impeller wear. T. W. Edwards. il diag Paper Tr J 138:14-15 Ja 15 '54

How to select general-purpose industrial pumps. L. J. Murphy. il diags Mill & Factory 55:82-5 Ag '54

Maulwurf pump answers many circulator problems in ammonia synthesis. R. A. Byorum. il Ind & Eng Chem 46:sup 119A Ap '54

Mechanical pumps for high-temperature liquid metal. P. M. Clark. il diags Mech Eng 75:615-18 Ag '53

Mechanical shaft seals. J. G. Walmsley and H. A. Ward, jr. il diags Pet Refiner 32:203-6 S '53

Off-the-shelf pumps with custom-built features. Chem Eng 61:268+ S '54

Primed for action; get rid of stuffing box put rotor in can. diags Chem W 74:64+ F 6 '54

Pump maintenance; Allis-Chalmers slidefilm. il Food Eng 26:86-9 Jl '54

Pump sealed by liquid ring; Nobox pump. il Chem Eng 61:278 Ag '54

Pumps and how they work (cont). I. J. Karassik and R. Carter. diags Paper Ind 35:891-3, 1120-2, 1215-16; 36:61-2 N '53, Ja-F, Ap '54

Pumps are the work horses in liquid handling. T. W. Rodes. il diag Ind & Eng Chem 45:sup 117A-18A+ D '53

Rivers that flow uphill; centrifugal pump design. H. J. Meeker. il diag Water & Sewage Works 101:162-9 Ap '54

Selection and maintenance of centrifugal pump seals. J. A. Cable. il diags Power Eng 57:82-3 N '53

Sigmund motor pump unit. il Engineer 197:187 Ja 29 '54; Engineering 177:118 Ja 22 '54

Watch your pump safety factors. H. F. Rase. Chem Eng 60:208-9 O '53

Design

Design and development of seal-less pumps. D. P. Litzenberg and H. T. White. il diags Chem Eng Prog 50:436-44 S '54

Protection

Cut impeller erosion easily; by-pass arrangement. T. W. Edwards. il diag Chem Eng 60:170-1 D '53

PUMPS, Feed water

Centrifugal boiler feed pump maintenance. I. J. Karassik. il diags Power Eng 57:98-100 Je; 72-3 Jl; 86-8 Ag; 80-2 S '53; 58:88-9+ Ja; 90-1+ F '54

Centrifugal boiler feed pumps under transient operating conditions. I. J. Karassik and others. Power 97:154+ D '53

Control pump from water level to improve boiler operation. J. W. James. Heating-Piping 26:179 Ja '54

Designing superpressure feed pumps. H. Gartmann. il diags Power 97:71-4 N '53

Detect boiler feed pump load-drop cavitation mathematically. S. Baron. diag Power Eng 58:69-72 My; 75-7 Jl '54

For better economy in small plants try matched-capacity feed pumps. R. F. Schaub. il diag Power 98:118-19 Ap '54

High-speed feed pumps for superpressures. I. J. Karassik. il diags Power 98:73-8 Ja; 82-4+ F; 78-80 Mr; 80-3 Ap; 88-9 My; 107 Je '54

PUMPS, Fuel

Electric fuel pumps. Bus Transportation 32:46-7 D '53

Mono-Cam injection pump. il diags Automobile Eng 44:341-4 Ag '54

Precision fuel pump control for ASTM aviation. N. F. Nichol. il Pet Eng 25:C38 D '53

Rocker arms wearproofed in quantity; spray-welded Colmonoy nickel-base alloy coating. il Steel 134:138 Je 21 '54

Testing

Versatile calibrating stand for multi-plunger and distributor-type fuel injection pumps. il Diesel Power 32:102-3 Ap '54

PUMPS, Submergible

Electric submersible pump. il Engineering 177:55 Ja 8 '54

⅛ h.p. submersible pump; Sumo pumps, ltd. il Engineer 196:495 O 16 '53

PUMPS, Turbine

Turbine pumps have their niche. A. B. Olmore. il diags Product Eng 24:172-7 Ag '53

PUMPS, Vacuum. See Vacuum pumps

PUNCHED card system

Accounting for more sales at Economics; Soilax service reports on restaurant dishwashing machines; information employed to build more detergent sales. J. D. Simpson. il Soap & San Chem 29:34-5+ Jl '53

Automatic calculation of color differences. A. Opler and others. Opt Soc Am J 43:550-1 Jl '53

Automatic infrared punched-card identification of mixtures. A. W. Baker, N. Wright and A. Opler. il Anal Chem 25:1457-60 O '53

Bemag boring and milling machine with coordinate setting. il diag Engineering 177:377 Mr 19 '54

Card translator for nationwide dialing. L. N. Hampton and J. B. Newsom. il map diags Bell System Tech J 32:1037-98 S '53

Code-O-Matic, the stock picker that lets two do the work of ten; Hickok. il Factory Management 112:98-100 Ja '54

Computing Fourier syntheses in X-ray crystal structure analysis; improved punched-card method. C. R. Hudgens and A. M. Ross. bibliog Anal Chem 25:734-6 My '53

Cost reduction through electronic production control. R. G. Canning. flow diag diag Mech Eng 75:887-90 N '53

Diagrams in punched card computing. F. Gruenberger. 108p $3.75 Univ. of Wisconsin press, 811 State st, Madison 5 '54

Eyeing a machine cure for Patent office. Chem W 75:50+ S 11 '54

Faster paper work speeds cars. il map Ry Age 135:85-7 N 16 '53

Five practical problems solved by public accounting firms; use of punched card accounting. W. A. Reardon. J Account 97:447-8 Ap '54

General Electric electronic punch press. il Steel 134:133 F 15 '54; Machine Design 26:202 Mr '54; Mach 60:165 Mr '54; Iron Age 173:53 Je 24 '54

How modern machines help as union assigns 330 crews daily. il Ry Age 135:91-2 N 16 '53

PUNCHED card system—*Continued*

How the New York Central makes rent bills. G. H. Albach. flow chart il Ry Age 136:66-8+ F 22 '54

Machine techniques in scientific documentation; symposium. Special Lib 44:196-8 My-Je '53

Mechanical accounting in the textile industry. A. W. Mattocks. Textile Inst J 44: P722-6 O '53

Mechanical brain solves inventory woes. il Nat Pet N 45:56+ N 4 '53

Mechanics of pipeline cost allocation. J. J. Franks. flow chart Am Gas J 180:18-19+ F '54

New tab machines print parts book at 9,000 lines an hour; punched-card equipment. D. G. Baird. il Am Bsns 24:26+ Mr '54

New tab system solves problems caused by big jump in volume; White Stag manufacturing co. B. Kruse. il Am Bsns 24:16-17+ Ja '54

New tools for the resurrection of knowledge; ACS committee on scientific aids to literature searching. Chem & Eng N 32:866-9+ Mr 1 '54

$130,000 new equipment helps process mass inquiries faster. F. O. Rice. il Ind Marketing 39:76+ Ja '54

Pacific Fire operates tabulating department at 25 per cent less cost than the average. Nat Underw 58:17 My 20 '54

Pharmaceutical control laboratory record system. G. M. Naimark and R. F. Prindle. il Anal Chem 26:645-7 Ap '54

Physical data on hydrocarbons now available on punch cards. J. Sherman. il Pet Refiner 32:145-9 O '53

Preparation of subject-heading lists by automatic punched-card techniques. E. Garfield. diags J Doc 10:1-10 Mr '54

Punch card data transmitted over ocean at high speed; radioed directly from one punched card to another. Iron Age 174:153 Ag 12 '54

Punch card for abstracts of bacteriological papers. R. W. Reed and K. F. Gregory. Science 118:360-1 S 25 '53

Punched card pilot plant; National research council's Chemical-biological coordination center. Ind & Eng Chem 45:sup 17A-18A Ag '53

Punched-card system for graduate research. C. H. Orr. J Chem Educ 30:140-2 Mr '53

Punched card system for radioisotopes. H. R. Lukens, jr., E. E. Anderson and L. J. Beaufait, jr. il Anal Chem 26:651-2 Ap '54

Punched card transmitter that talks over regular telephone circuits announced by International business machines corp. Steel 134:153-4 Mr 15 '54

Semi-automatic recording of wavelength data. G. K. Werner. diag Opt Soc Am J 43: 620-1 Jl '53

Solving problems with the SEMAC II. D. D. McCracken. il Gen Elec R 57:50-2 Jl '54

Solving the indexing problem; punched cards provide answer. il Chem Age (Lond) 68: 965-6 Je 27 '53

Spectroscopy from the point of view of communication theory; automatic recording of infrared spectra on punched cards. G. W. King and others. Opt Soc Am J 44:397-402 My '54

Switching system speeds tube capacitance tests; punch-card controlled switching system. R. E. Graham. il diags Electronics 26:186-8 N '53

System produces 55 per cent saving in card handling; Security life and accident co. il Am Bsns 23:12-13+ N '53

Three ways to use punched-card equipment. P. Knaplund and others. il Oil & Gas J 52:70-1+ Jl 6 '53

Use of notches in cards as a means of signalling information. D. J. Campbell. J Doc 9:224-5 D '53

See also
Documentation—
Mechanical aids

PUNCHED tape

Achieving greater productivity in accounting through integrated data processing. H. F. Van Gorder. il diags N A C A Bul 35: 1708-31 sec 3 Ag '54

Automatic machine control. P. L. Nies. il Tool Eng 31:144-5 D '53

BOP assembly plant uses electronic transcription for scheduling of parts; TelAutograph system. flow chart Automotive Ind 111:98+ S 1 '54

Electronic babel is cured by U.S. Steel system; the many languages of office machines are translated on one tape. Bsns W p 128 O 10 '53

Electronics; challenge to paper work; U.S. Steel perfects a new system. il Steel 134: 63 Mr 15 '54

How five-channel punched tape mechanizes office jobs. W. Norris. il Am Bsns 24:10-12+ Mr '54

Office work; how to get ready for electronic data processing. Iron Age 173:102-3 Mr 4 '54

Piano roll control used for motor testing. il Chem & Eng N 32:2205 My 31 '54

Punch tape cuts red tape; Mathieson initiates integrated data processing. il Chem W 75:56+ Ag 28 '54

Punched-tape system enables three people to do work of 20 people; Sunland-Tujunga telephone co. B. Kruse. il Am Bsns 24:14-15+ Jl '54

Tape speeds order processing; U.S. Steel uses five-channel tape. J. B. Delaney. diag Iron Age 172:39 O 1 '53

PUNCHES

Attachment to shaper cuts hand work on punches. H. Gifford. diags Am Mach 98: 166 F 15 '54

Combination punch and die. H. Dahl. diag Tool Eng 31:45 D '53

Combination punch and die allows for springback in U-shape. H. Dahl. diags Am Mach 97:165 N 9 '53

Die punches four notches at one time. L. Kasper. diags Mach 60:214-15 My '54

Die with cams that operate punches in opposite directions. F. Strasser. plan diags Mach 60:210-11 Mr '54

Piercing and embossing in one station of a progressive die. F. Strasser. diags Mach 60:213-14 D '53

Punch and die clearance; reference book sheet. D. R. King. diags Am Mach 98:245, 247 Ap 12 '54

Punch for thin washers. H. J. Gerber. diags Tool Eng 33:43 S '54

Punches rail holes in 2½ minutes; Velocity-power rail punch. il Constr Methods 36: 170 Ag '54

Stiffening small punches. F. Strasser. diags Tool Eng 33:43-4 S '54

Triple-acting punch and die does three jobs at once. H. Dahl. diags Am Mach 97:127 D 21 '53

Manufacture

How to produce a dieset by electrical-discharge machining. H. V. Harding and others. il Am Mach 98:140-3 Mr 15 '54

Lathe attachment for machining a spherical punch and die. R. T. Stewart. diags Mach 60:212 Ja '54

PUNCHING

Blanked parts utilize entire strip stock. F. Strasser. diags Mach 60:223-4 N '53

How to prevent distortion of pierced holes during forming. F. Strasser. diags Iron Age 172:134-5 Ag 20 '53

Pressure in tons required to shear and punch mild steel plate; data sheet. Mach 60:253 Ag '54

Russians harness plastic mass for actuating medium. diags Am Mach 98:126-9 Je 21 '54

They said this was impossible; punching a rectangular hole in ⅝-inch thick 4130 chrome-moly steel. il Steel 135:136 S 13 '54

PUNCHING machinery

Adapter for press ram saves time in changing dies. W. C. Betz. diags Mach 60:232-3 Jl '54

Automatic punch press with electronic brain developed. il Elec Eng 73:294 Mr '54

Black & Webster solenoid-operated Electropunch. il Mach 60:244 Ap '54

General Electric electronic punch press. il Steel 134:133 F 15 '54; Machine Design 26: 202 Mr '54; Mach 60:165 Mr '54; Iron Age 173:53 Je 24 '54

PUNCHING machinery—*Continued*

High-speed punch press feed mechanism. B. Spector. diags Mach 60:202-3 Ag '54

See also

Dies

Safety devices

Planned safety reduces press accidents; Brown-Lipe-Chapin division of General motors corp. C. E. Meldrum. il Iron Age 173:134-7 Ap 1 '54

PUNGENTS. See Irritants

PURCHASING

Are our purchasing concepts out of date? abstract. J. A. Hill. Management R 42: 655-6 N '53

Can you safely rely on titles to indicate purchasing influence? E. M. Stanley. Sales Management 70:62+ Ap 1 '53

Coordinated purchasing and stores. J. S. Phillips. Am Gas Assn Mo 36:13+ S '54

Description of the analytical approach to industrial purchasing. A. M. Kennedy, jr. Advanced Management 19:5-8 Mr '54

Gauging the consumer's plans; abstract. Management R 43:384-5 Je '54

How efficient is your purchasing operation? abstract. Management R 43:244-5 Ap '54

If I had known then what I know now about purchasing practices. F. G. Prince. Sales Management 73:48+ Ag 15 '54

It's often wise to check up on a company before you buy. Consumers Res Bul 32:28-30 S '53

Lower costs through purchasing; a practical company program; abstract. K. R. Geist. Management R 42:392-3 Jl '53

Purchasing for profit: a six-point program; abstract. R. F. Hornbach. Management R 43:598-9 S '54

Woolworth wants to see your wares. il Sales Management 73:44-6 Ag 1 '54

See also

Coal purchasing
Consumers
Consumption (economics)
Electric utilities—Purchasing
Instalment plan
Machinery, Replacement of
Merchandizing
Purchasing agents
Purchasing departments
Railroads—Purchasing
Warranty

Treatment of salesmen

Are you getting the most from your suppliers? Management R 42:719-20 D '53

Sale I never forgot; insistent buyer. P. Roberts. il Ptr Ink 243:50 Ap 24 '53

PURCHASING, Government

Birthmarking plan wins defense O.K. Steel 133:46 Jl 20 '53

Distributing the dollars: off-shore orders. Economist 169:356 O 31 '53

Federal specs; Navy bureau report describes and tells how to get them. Iron Age 172: 194-9 D 3 '53

Government receives over thirty bids on fertilizer for Korea. Oil Paint & Drug Rep 166:5+ S 27 '54

How the government buys. M. P. Haskin. Materials & Methods 39:90-2 F; 110-11 Mr; 110-11 Ap '54

Know your A,B,C's of government specifications. A. G. Gray. Steel 134:100-3 Ja 18 '54

Off-shore orders. Economist 169:356 O 31 '53

Tools; plug stockpile gaps. R. M. Stroupe. Iron Age 174:62 S 2 '54

U.S. catalog job to cut steel costs; will standardize, simplify and catalog specifications. Steel 134:63 Mr 29 '54

U.S. will buy at market price for its stockpile. A. Fleming. Oil Paint & Drug Rep 165: 3 Je 21 '54

Volume of government purchasing. Survey of Cur Bsns 33:9-11 S '53

See also

Contracts, Government
Paper, Government

PURCHASING, Municipal

Patience, persistence, foresight; you can't hurry a municipal purchase. J. Schoenfeld. Sales Management 72:91-2 My 20 '54

PURCHASING agents

What a purchasing agent expects from salesmen and their bosses. G. W. Aljian. Sales Management 71:24-5+ N 1 '53

See also

Entwistle, Elsie

PURCHASING agents, National association of. See National association of purchasing agents

PURCHASING departments

Management and the purchasing department; their relationship today. W. R. Beckett. Pulp & Pa of Can 55:102-4 My '54

Records

Purchase order, a vital business document. J. G. Barrett. N A C A Bul 35:1634-8 Ag '54

PURE and applied chemistry, International union of. See International union of pure and applied chemistry

PUREX corporation

Curtain raiser; dismissal of price discrimination charges against manufacturer of household bleaches. Chem W 74:22 My 29 '54

PURINES

δ-Aminolevulinic acid, its role in the biosynthesis of porphyrins and purines. D. Shemin and C. S. Russell. bibliog Am Chem Soc J 75:4873-4 O 5 '53

Enzymatic syntheses of pyrimidine and purine nucleotides; formation of nucleoside diphosphates and triphosphates. I. Lieberman, A. Kornberg and E. S. Simms. bibliog Am Chem Soc J 76:3608-9 Jl 5 '54

Enzymatic syntheses of pyrimidine and purine nucleotides; formation of 5-phosphoribosylpyrophosphate. A. Kornberg, I. Lieberman and E. S. Simms. Am Chem Soc J 76:2027-8 Ap 5 '54

Enzymatic syntheses of pyrimidine and purine nucleotides; orotidine-5′-phosphate pyrophosphorylase and decarboxylase. I. Lieberman, A. Kornberg and E. S. Simms. bibliog Am Chem Soc J 76:2844-5 My 20 '54

Identification of the purine nucleotides *a* and *b* as the 2′- and 3′-phosphoribosides, respectively. J. X. Khym and W. E. Cohn. bibliog Am Chem Soc J 76:1818-23 Ap 5 '54

Progress with purines. Chem W 72:37 Ap 25 '53

Purine studies; stability to acid and alkali; solubility; ionization; comparison with pteridines. A. Albert and D. J. Brown. Chem Soc J p2060-71 Je '54

Synthesis of 8-C^{14} and of S^{35}-6-mercaptopurine. G. B. Elion and G. H. Hitchings. bibliog Am Chem Soc J 76:4027-8 Ag 5 '54

Analysis

Method for the extraction and assay of nucleic acid fragments in tissues. G. D. Dorough and D. L. Seaton. bibliog Am Chem Soc J 76:2873-7 Je 5 '54

Simultaneous separation of purines, pyrimidines, amino acids, and other nitrogenous compounds. J. S. Wall. bibliog Anal Chem 25:950-3 Je '53

Spectrum

Purine studies; the ultra-violet absorption spectra of some mono- and poly-substituted purines. S. F. Mason. Chem Soc J p2071-81 Je '54

Spectroscopic study of the nature of the complexes of purines with aromatic compounds. J. Booth, E. Boyland and S. F. D. Orr. Chem Soc J p598-603 F '54

PURKINJE effect

Measurement of accommodation in dim light and in darkness by means of the Purkinje images. J. M. Otero. Opt Soc Am J 43: 925 O '53

PUROMYCIN. See Antibiotic substances

PURPUROGALLIN

Formation constants of some metal complexes of tropolone and its derivatives; the benzotropolones and purpurogallins. B. E. Bryant and W. C. Fernelius. Am Chem Soc J 76: 3783-4 Jl 20 '54

Purpurogallin; some further rearrangement reactions of the tropolones. P. Akroyd, R. D. Haworth and P. R. Jefferies. Chem Soc J p286-94 Je '54

PUTTY

New equipment and techniques in manufacturing and packaging putty. L. A. Prosch. Paint Oil & Chem R 116:29 N 5 '53

Round-table discussion on putty and caulking compounds; abstract. Oil Paint & Drug Rep 164:70-1 N 9 '53

See also

Silicone putty

PYCNOMETERS

Density of molten iron. V. H. Stott and J. H. Rendall. bibliog diag Iron & Steel Inst J 175:374-8 D '53

Improved method of determining densities of viscous fluids with Babcock bottles. R. S. Cass, J. B. Gregory and E. Levens. Anal Chem 25:1773 N '53

Proposed method of test for density and specific gravity of liquids to the fifth place by the Bingham pycnometer. diags Am Soc T M Proc 51:303-9 '51

PYRANOSES. See Sugars

PYRANOSIDES

Preparation of crystalline methyl 4-*O*-methyl-α-D-glucopyranoside and its triacetate. R. L. Whistler and S. J. Kazeniac. Am Chem Soc J 76:3044-5 Je 5 '54

PYRAZINAMIDES

Analysis

Determination of the pyrazinamide content of blood and urine. W. S. Allen and others. Anal Chem 25:895-7 Je '53

PYRAZOLE

Crystallographic data; 3,4,5-tricarbethoxypyrazole. J. Parsons and W. C. McCrone. il Anal Chem 26:247 Ja '54

Derivatives of 5-*o*-mercaptophenyl-3-methyl-1-phenylpyrazole. W. J. Barry and I. L. Finar. Chem Soc J p 138-40 Ja '54

Preparation and properties of some derivatives of 1-phenylpyrazole. I. L. Finar and K. E. Godfrey. Chem Soc J p2293-8 Jl '54

1 : 9-Pyrazoloanthrone; the chemistry of the two *N*-methyl derivatives of 1 : 9-pyrazoloanthrone. W. Bradley and C. S. Bruce. Chem Soc J p 1894-902 Je '54

PYRAZOLINE

Hydrazine; condensation products of aldehydes and ketones with salts of some substituted Δ^2-pyrazolines and hydrazines. M. Lamchen, W. Pugh and A. M. Stephen. Chem Soc J p2429-34 Jl '54

Hydrazine; some salts of 3 : 5 : 5-trimethyl-Δ^2-pyrazoline and of 3 : 5 : 5-trimethyl-1-*iso*propylidene-Δ^2-pyrazolinium ion. W. Pugh and H. C. G. Vincent. Chem Soc J p2423-8 Jl '54

Reaction of diazonium salts with 1-aryl-Δ^2-pyrazolines. G. F. Duffin and J. D. Kendall. Chem Soc J p408-15 Ja '54

Reactions of diazo compounds with nitroölefins; group migrations in the decomposition of nitropyrazolines. W. E. Parham and W. R. Hasek. bibliog Am Chem Soc J 76:799-801 F 5 '54

PYRAZOLONE

Reaction of 1-substituted-3-amino-5-pyrazolones with amines. B. Graham, W. Reckhow and A. Weissberger. Am Chem Soc J 76:3993-5 Ag 5 '54

PYRENE

Analysis

Spectrophotometric identification of polynuclear aromatic components in high boiling petroleum fractions. R. Schnurmann, W. F. Maddams and M. C. Barlow. bibliog Anal Chem 25:1010-13 Jl '53

PYRETHRINS

Cyclethrin, readily synergizable pyrethrins-like insecticide; abstract. H. L. Haynes. Soap & Chem Spec 30:149 Je '54

Insecticide armor; food and grain packaging papers, treated to repell and kill insects. il Chem W 73:59-60 O 17 '53

Separation of the pyrethrins by displacement chromatography. J. Ward. bibliog Chem & Ind p586-7 Je 13 '53

Synthesis of the naturally derived geometrical isomer of pyrethrolone and a pyrethrin-I. L. Crombie and others. bibliog Chem & Ind p 1109-10 S 4 '54

Analysis

Colorimetric determination of pyrethrins, allethrin, and furethrin. C. Cueto and W. E. Dale. bibliog Anal Chem 25:1367-9 S '53

Determination of pyrethrin I. V. A. Beckley and J. Hopkins. bibliog Soap & San Chem 30:141+ Ja '54

PYRETHROIDS

Analysis

Estimation of micro quantities of pyrethroids. A. A. Schreiber and D. B. McClellan. bibliog Anal Chem 26:604-7 Mr '54

PYRETHROLONE

Synthesis of the naturally derived geometrical isomer of pyrethrolone and a pyrethrin-I. L. Crombie and others. bibliog Chem & Ind p 1109-10 S 4 '54

PYRETHRUM

Pyrethrum flower toxicants. M. S. Lowman and others. Soap & Chem Spec 30:139+ Ag '54

Pyrethrum outlook. Soap & San Chem 30:173+ Mr '54

PYREX

Glass and chemistry; James A. Jobling & co. il Chem Age (Lond) 70:1467 Je 26 '54

Limiting negative pressure of mercury in pyrex glass. J. J. Briggs. J Ap Phys 24:488-90 Ap '53

Solubility determination of some elemental gases in pyrex at 1170° C. J. J. Naughton. J Ap Phys 24:499-500 Ap '53

PYRIDAZINE

Pyridazine derivatives; an improved synthesis of 3-aminopyridazine. E. A. Steck, R. P. Brundage and L. T. Fletcher. bibliog Am Chem Soc J 76:3225-6 Je 20 '54

Synthesis in the pyridazine series; the preparation of pyridazines from substituted maleic anhydrides; some properties of 4-methylpyridazine. R. H. Mizzoni and P. E. Spoerri. bibliog Am Chem Soc J 76:2201-3 Ap 20 '54

PYRIDAZINONE

Steroid homologs containing pyridazinone and related nuclei. F. L. Weisenborn, D. C. Remy and T. L. Jacobs. bibliog Am Chem Soc J 76:552-5 Ja 20 '54

PYRIDINDOLE

Bis ammonium salts; derivatives of some carboline and related heterocyclic bases. A. P. Gray, E. E. Spinner and C. J. Cavallito. bibliog Am Chem Soc J 76:2792-7 My 20 '54

Some methyl derivatives of β-carboline. J. W. Cook, R. M. Gailey and J. D. Loudon. Chem Soc J p568-9 F '54

Sulfur analogs of isoquinolines and β-carbolines; the Pomeranz-Fritsch reaction. W. Herz and Lin Tsai. bibliog Am Chem Soc J 75:5122-3 O 20 '53

PYRIDINE

Acids and bases; conductance of aluminum bromide and stannic chloride in thionyl chloride on addition of pyridine and quinoline. L. E. D. Pease, jr. and W. F. Luder. bibliog Am Chem Soc J 75:5195-7 N 5 '53

Aluminium halide complexes with pyridine, trimethylamine, and triethylamine. D. D. Eley and H. Watts. Chem Soc J p 1319-24 Ap '54

Electrical effect of the N-oxide group in pyridine 1-oxide. H. H. Jaffé. bibliog Am Chem Soc J 76:3527-31 Jl 5 '54

Formation of N,N′-dibenzoylurea from nitromethane and benzoyl chloride in pyridine solution. R. H. Terss and W. E. McEwen. bibliog Am Chem Soc J 76:580-5 Ja 20 '54

Heats of combustion of pyridine and certain of its derivatives. J. D. Cox, A. R. Challoner and A. R. Meetham. diag Chem Soc J p265-71 Ja '54

Hydrogen bond formation with pyridines and aliphatic amines. M. Tamres and others. bibliog Am Chem Soc J 76:3983-5 Ag 5 '54

Interaction of carboxylic acids with phosphorus trichloride, or butyl phosphorodichloridite, or the chloridite in the absence, and in the presence of pyridine. J. A. Cade and W. Gerrard. Chem Soc J p2030-4 Je '54

Iron-2,2′,2″-terpyridine system. W. W. Brandt and J. P. Wright. Am Chem Soc J 76:3082-3 Je 5 '54

PYRIDINE—*Continued*

Kinetics of ionic polymerisations; the inhibition by pyridine and 2-iodopyridine of polymerisation of *n*-butyl vinyl ether catalysed by iodine. D. D. Eley and J. Saunders. Chem Soc J p 1672-6 Je '54

Kinetics of the Knoevenagel-Doebner reaction. S. Patai, J. Edlitz-Pfeffermann and Z. Rozner. bibliog Am Chem Soc J 76:3446-51 Jl 5 '54

Mechanism of the O-benzoylation of ethyl benzoylacetate in pyridine. W. R. Gilkerson, W. J. Argersinger, jr. and W. E. McEwen. bibliog diags Am Chem Soc J 76:41-7 Ja 5 '54

New pyridine potential. Chem W 72:54+ Je 13 '53

Nucleophilic displacement reactions in aromatic systems; kinetics of the reactions of chloronitropyridines and chloro-2:4-dinitrobenzene with 3- and 4-picoline. E. A. S. Cavell and N. B. Chapman. Chem Soc J p3392-7 N '53

Nucleophilic displacement reactions in aromatic systems; kinetics of the reactions of chloronitropyridines and chloropyrimidines with piperidine, morpholine, pyridine, and aniline. N. B. Chapman and C. W. Rees. Chem Soc J p 1190-6 Ap '54

Persistence of pyridine bases in polluted water. M. B. Ettinger, R. J. Lishka and R. C. Kroner. bibliog Ind & Eng Chem 46:791-3 Ap '54

Pinacol rearrangement in the heterocyclic series; pyridine analogs of benzopinacol. M. R. Kegelman and E. V. Brown. bibliog Am Chem Soc J 75:4649-51 O 5 '53

Polarographic study of some propylpyridonium salts. E. L. Colichman and P. A. O'Donovan. Am Chem Soc J 76:3588-9 Jl 5 '54

Preparation and physical properties of pure pyridine and some methyl homologues. D. P. Biddiscombe and others. diag Chem Soc J p 1957-67 Je '54

Pyridine-*N*-oxide. Chem & Eng N 32:3300 Ag 16 '54

Quinone imides; reactions of 1,4-naphthoquinonedibenzenesulfonimide with pyridine and its derivatives. R. Adams and S. H. Pomerantz. bibliog Am Chem Soc J 76:702-6 F 5 '54

Reduction by a cuprous acetate-pyridine complex. W. G. H. Edwards and G. K. McIndoe. Chem & Ind p 1091 O 10 '53

Synthesis of 2 : 6-diamino-3-arylpyridines. B. H. Chase and J. Walker. Chem Soc J p3548-55 N '53

Synthesis of some methyl-substituted 2 : 3 : 6-trihydroxypyridines. D. E. Ames, R. E. Bowman and T. F. Grey. Chem Soc J p3008-15 O '53

Willgerodt reaction applied to α- and γ-alkylpyridines. H. D. Porter. bibliog Am Chem Soc J 76:127-8 Ja 5 '54

Spectrum

Microwave spectrum of pyridine. B. Bak and others. bibliog J Chem Phys 22:565 Mr '54

Microwave spectrum of pyridine. K. E. McCulloh and G. F. Pollnow. J Chem Phys 21:2082 N '53

Molecular compounds and their spectra; the pyridine-iodine system. C. Reid and R. S. Mulliken. bibliog Am Chem Soc J 76:3869-74 Ag 5 '54

PYRIDINE compounds

Influence of the 5,6-double bond on the pyridine 7-sulfates of cholesterol. D. Apotheker, J. L. Owades and A. E. Sobel. bibliog Am Chem Soc J 76:3684-6 Jl 20 '54

New route to pyridine compounds? Ind & Eng Chem 46:sup 18A S '54

Some derivatives of pyridinecarboxyhydrazides. D. D. Libman, D. L. Pain and R. Slack. Chem Soc J p 1328-9 Ap '54

Syntheses and decarboxylation of the isomeric nitropyridinecarboxylic acids. E. V. Brown. Am Chem Soc J 76:3167-8 Je 20 '54

Spectra

Ultraviolet absorption spectra of some pyridine derivatives. M. Yamin and R. M. Fuoss. Am Chem Soc J 75:4860-1 O 5 '53

PYRIDINIUM compounds

Printing indigosols; aromatic pyridinium compounds as dispersants. Am Dyestuff Rep 43:53 Ja 18 '54

PYRIDOCOLINIUM compounds. See Quinolizinium compounds

PYRIDOFUROXANE

Pyrido-2,3-furoxane. J. H. Boyer and others. bibliog Am Chem Soc J 75:5298-300 N 5 '53

PYRIDOXAL

Nicotinyl and isonicotinyl hydrazones of pyridoxal. P. P. T. Sah. Am Chem Soc J 76:300 Ja 5 '54

Reversible catalytic cleavage of hydroxyamino acids by pyridoxal and metal salts. D. E. Metzler, J. B. Longenecker and E. E. Snell. bibliog Am Chem Soc J 76:639-44 F 5 '54

Synthesis and biological activity of homologs of pyridoxal and pyridoxamine. M. Ikawa and E. E. Snell. Am Chem Soc J 76:637-8 F 5 '54

PYRIDOXAL, Analogs of

Benzene analogs of pyridoxal; the reactions of 4-nitrosalicylaldehyde with amino acids. M. Ikawa and E. E. Snell. bibliog Am Chem Soc J 76:653-5 F 5 '54

PYRIDOXAMINE

Synthesis and biological activity of homologs of pyridoxal and pyridoxamine. M. Ikawa and E. E. Snell. Am Chem Soc J 76:637-8 F 5 '54

Transamination of pyridoxamine and amino acids with glyoxylic acid. D. E. Metzler, J. Olivard and E. E. Snell. bibliog Am Chem Soc J 76:644-8 F 5 '54

PYRIDYL compounds

Analytical aspects of reactions of 2-(2-pyridyl)-benzimidazole and 2-(2-pyridyl)-imidazoline with iron(II). J. L. Walter and H. Freiser. bibliog Anal Chem 26:217-21 Ja '54

Dichloro-bis-(2,2′-dipyridyl)-iron(II) and dichloro-bis-(1,10-phenanthroline)-iron(II). F. Basolo and F. P. Dwyer. Am Chem Soc J 76:1454-5 Mr 5 '54

1,2-Di-(2-pyridyl)-ethane. P. G. Campbell and P. C. Teague. bibliog Am Chem Soc J 76:1371-2 Mr 5 '54

Mechanism of racemization of complex ions; kinetics of the dissociation and racemization of tris-(1,10-phenanthroline)-iron(II) and tris-(2,2′-dipyridyl)-iron(II) complexes. F. Basolo, J. C. Hayes and H. M. Neumann. bibliog Am Chem Soc J 76:3807-9 Jl 20 '54

New synthesis of 1-(2-pyridyl)-alkanols. O. H. Bullitt, jr. and J. T. Maynard. bibliog Am Chem Soc J 76:1370-1 Mr 5 '54

Rearrangements of N-oxides; a novel synthesis of pyridyl carbinols and aldehydes. V. Boekelheide and W. J. Linn. bibliog Am Chem Soc J 76:1286-91 Mr 5 '54

PYRIMIDINE

Azidopyrimidines. F. R. Benson, L. W. Hartzel and E. A. Otten. bibliog Am Chem Soc J 76:1858-62 Ap 5 '54

Chemistry of the dihydropyrimidines; ultraviolet spectra and alkaline decomposition. R. D. Batt and others. bibliog Am Chem Soc J 76:3663-5 Jl 20 '54

Citrulline as a precursor of pyrimidines. M. R. Heinrich, V. C. Dewey and G. W. Kidder. bibliog Am Chem Soc J 76:3102-3 Je 5 '54

Enzymatic syntheses of pyrimidine and purine nucleotides; formation of nucleoside diphosphates and triphosphates. I. Lieberman, A. Kornberg and E. S. Simms. bibliog Am Chem Soc J 76:3608-9 Jl 5 '54

Enzymatic syntheses of pyrimidine and purine nucleotides; formation of 5-phosphoribosylpyrophosphate. A. Kornberg, I. Lieberman and E. S. Simms. Am Chem Soc J 76:2027-8 Ap 5 '54

Enzymatic syntheses of pyrimidine and purine nucleotides; orotidine-5′-phosphate pyrophosphorylase and decarboxylase. I. Lieberman, A. Kornberg and E. S. Simms. bibliog Am Chem Soc J 76:2844-5 My 20 '54

Improved syntheses in the pyrimidine series; 5-amino-4-methylaminopyrimidine. D. J. Brown. bibliog J Ap Chem 4:72-5 F '54

*iso*Oxazolones; the hydrogenation of 5-amino*iso*oxazoles; a new synthesis of pyrimidines. G. Shaw and G. Sugowdz. Chem Soc J p665-8 F '54

PYRIMIDINE—*Continued*

Mannich reactions of pyrimidines; 2,6-dimethyl-4-hydroxypyrimidine. H. R. Snyder and H. M. Foster. bibliog Am Chem Soc J 76:118-23 Ja 5 '54

Mannich reactions of pyrimidines; 2-methylmercapto-4-methyl-6-hydroxypyrimidine and 2-thio-6-methyluracil. H. R. Snyder, H. M. Foster and G. A. Nussberger. bibliog Am Chem Soc J 76:2441-4 My 5 '54

Nucleophilic displacement reactions in aromatic systems; kinetics of the reactions of chloronitropyridines and chloropyrimidines with piperidine, morpholine, pyridine, and aniline. N. B. Chapman and C. W. Rees. Chem Soc J p 1190-6 Ap '54

Pyrimidine-2-carboxylic acids. A. Holland. Chem & Ind p786 Jl 3 '54

Pyrimidines; some pyrimidine analogues of 4-aminosalicylic acid. J. F. W. McOmie and I. M. White. Chem Soc J p4175-6 D '53

Some pyrimidine derivatives. J. L. Rabinowitz and S. Gurin. bibliog Am Chem Soc J 75:5758-9 N 20 '53

5-Thiol-7-hydroxyl-1 v-triazolo[d]pyrimidine. C. T. Bahner and D. E. Bilancio. bibliog Am Chem Soc J 75:6038 D 5 '53

v-Triazolo(d)pyrimidines; further studies in the 2-aryl series. L. W. Hartzel and F. R. Benson. Am Chem Soc J 76:2263-5 Ap 20 '54

Analysis

Method for the extraction and assay of nucleic acid fragments in tissues. G. D. Dorough and D. L. Seaton. bibliog Am Chem Soc J 76:2873-7 Je 5 '54

Simultaneous separation of purines, pyrimidines, amino acids, and other nitrogenous compounds. J. S. Wall. bibliog Anal Chem 25:950-3 Je '53

PYRIMIDONE

Action of alkali on bromopyridopyrimidones. R. Adams and I. J. Pachter. bibliog Am Chem Soc J 76:1845-7 Ap 5 '54

PYRITE

New application of fluidization; production of sulfur dioxide. R. B. Thompson. flow sheet il Chem Eng Prog 49:253-6 My '53

Spontaneous ignition in iron pyrites. Chem Age (Lond) 71:281-2 Ag 7 '54

PYRITES

Pyrites roasting in Nichols-Freeman roaster. L. Broman. Pulp & Pa of Can 54:151 O '53

Weathering of pyrite. G. E. Mapstone. Chem & Ind p577-8 My 15 '54

PYROGALLOL

ortho-Hydroxylation of phenols; pyrogallols. J. D. Loudon and L. A. Summers. Chem Soc J p 1134-7 Mr '54

Oxidation of di-*t*-butylpyrogallol by oxygen in alkaline solution; absorption spectra of the products. F. Stitt and others. bibliog Am Chem Soc J 76:3542-6 Jl 20 '54

Ultraviolet spectrophotometric determination of tantalum with pyrogallol. J. I. Dinnin. bibliog(29 ref) Anal Chem 25:1803-7 D '53

PYROHYDROLYSIS. See Hydrolysis

PYROLYSIS

Chemical engineering unit processes; pyrolysis of coal and shale. C. H. Prien. il Ind & Eng Chem 45:2022-34 bibliog(334 ref, p2031-4); 46:1881-8 bibliog(109 ref, p 1887-8) S '53, S '54

Components of podophyllin; pyrolysis of podophyllotoxin halides. A. W. Schrecker, G. Y. Greenberg and J. L. Hartwell. bibliog Am Chem Soc J 76:1182-4 F 20 '54

Derivatives of acetoacetic acid; the pyrolysis of acetoacetates of ethynylcarbinols. R. N. Lacey. Chem Soc J p827-32 Mr '54

Formation of black carbon. R. O. Grisdale. bibliog il diags J Ap Phys 24:1082-91 S '53

Identification of complex organic materials by infrared spectra of their pyrolysis products. D. L. Harms. bibliog(38 ref) Anal Chem 25:1140-55 Ag '53

Investigation of pyrolyses of benzyl benzoate, acetate, and formate. M. Szwarc and J. W. Taylor. J Chem Phys 21:1746-9 O '53

Isomerism of the oximes; the difference in mechanism in the pyrolysis of acyl-α- and acyl-β-aldoximes. O. L. Brady and H. A. M. Sharawy. Chem Soc J p4082-8 D '53

New technique for the mass spectrometric study of the pyrolysis products of polystyrene. P. Bradt and others. bibliog J Res Nat Bur Stand 50:201-2 Ap '53

Pyrogenesis of ketones; the formation of the dipropyl ketones. W. A. O'Neill and R. I. Reed. Chem Soc J p3911-13 D '53

Pyrolysis and naval stores. A. J. Sofianopoulos. bibliog(48 ref) J Chem Educ 30:306-10 Je '53

Pyrolysis and photolysis of acetone-d_6 in the presence of methane. J. R. McNesby and A. S. Gordon. Am Chem Soc J 76:4196-8 Ag 20 '54

Pyrolysis of C_2 and C_3 hydrocarbons. R. E. Kinney and D. J. Crowley. bibliog diag Ind & Eng Chem 46:258-64 F '54

Pyrolysis of chloroalkenes; allyl chloride. A. M. Goodall and K. E. Howlett. Chem Soc J p2596-9 Jl '54

Pyrolysis of chloroalkenes; trichloroethylene. A. M. Goodall and K. E. Howlett. Chem Soc J p2599-603 Jl '54

Pyrolysis of graphitic acid. E. Matuyama. bibliog J Phys Chem 58:215-19 Mr '54

Pyrolysis of methyl ethyl ketone cyanohydrin acetate. E. C. Chapin and R. F. Smith. bibliog Am Chem Soc J 76:4179-80 Ag 20 '54

Pyrolysis of mixtures of acetone and acetone-d^6. J. R. McNesby, T. W. Davis and A. S. Gordon. bibliog Am Chem Soc J 76:823-7 F 5 '54

Pyrolysis of oil shale in gas combustion retort. M. W. Putman and R. J. Cameron. bibliog flow diag diags Ind & Eng Chem 46:689-93 Ap '54

Pyrolysis of some complex urethanes. M. A. Fletcher, M. W. Lakin and S. G. P. Plant. Chem Soc J p3898-902 D '53

Pyrolysis of styrene, acrylate, and isoprene polymers in a vacuum. S. Straus and S. L. Madorsky. bibliog J Res Nat Bur Stand 50:165-76 Mr '53

Pyrolysis of sulfites; glycol sulfites. C. C. Price and G. Berti. bibliog Am Chem Soc J 76:1211-13 Mr 5 '54

Pyrolysis of sulfites; methyl alkyl sulfites; a new method for the preparation of olefins. G. Berti. bibliog Am Chem Soc J 76:1213-19 Mr 5 '54

Pyrolysis of sulfites; symmetrical sulfites. C. C. Price and G. Berti. bibliog Am Chem Soc J 76:1207-10 Mr 5 '54

Pyrolysis of the Windaus acid. R. B. Turner. Am Chem Soc J 76:1390 Mr 5 '54

Pyrolysis of vinyl benzoate. R. J. P. Allan and P. D. Ritchie. bibliog Chem & Ind p747 Jl 18 '53

Pyrolytic behavior of unsubstituted aromatic hydrocarbons. C. R. Kinney and E. Del-Bel. bibliog diag Ind & Eng Chem 46:548-56 Mr '54

Recent studies on pyrolysis; abstract. P. D. Ritchie. Chem & Ind p37 Ja 9 '54

Structure and stereochemistry of bicyclic derivatives; pyrolysis of *endo-cis*-3,6-endomethylene-*exo-cis*-4,5-dibromohexahydrophthalic acid. J. A. Berson. Am Chem Soc J 76:4069-72 Ag 20 '54

PYROMETERS and pyrometry

Automatic process control; heat treating. il diags Iron Age 172:280-5 O 8 '53

Crucible heat control. J. H. Siau. il diag Electronics 27:149 F '54

Fast, electro-optical, hot-gas pyrometer. G. H. Millar and others. bibliog il diags Opt Soc Am J 43:609-17 Jl '53

Linkage changes pyrometer's temperature compensation. il diag Product Eng 24:162-3 Ag '53

Open-hearth-furnace bath temperature pyrometry. L. H. Veiock. il diags Instruments 26:722-3, 754 My '53

Optical measurement of temperature. il Can Chem Process 38:66 Ja '54

Photographic pyrometry. J. W. Londeree, jr. bibliog il Am Cer Soc J 37:354-60 Ag 1 '54

Radiamatic pyrometers. Mech Eng 75:729-30 S '53

Recent advances in radiation and immersion pyrometry. E. J. Burton. bibliog il diag Instruments 26:1524-5+ O '53

Spectral emissivities of graphite and carbon. R. J. Thorn and O. C. Simpson. bibliog diag J Ap Phys 24:633-9 My '53

PYROMETERS and pyrometry—*Continued*

Surface-scanning pyrometer. R. B. Sims and J. A. Place. diags J Sci Instr 31:293-4 Ag '54

Tungsten/molybdenum thermocouple for immersion pyrometry. J. P. Simons and others. bibliog diags Iron & Steel Inst J 175:402-7 D '53

Unusual temperatures in brake drums. E. J. Martin and J. E. Wilson. il diag Automotive Ind 110:34-7+ Je 15 '54

See also
Temperature—Measurement
Thermocouples

PYRONE

Experiments with 5 : 6-dihydro-4-hydroxy-6-phenyl-2-pyrone; the basic hydrolysis of an α-bromo- and an αα-dibromo-β-keto-δ-lactone. E. B. Reid and J. R. Siegel. Chem Soc J p525-30 F '54

Pyrone series; 2 : 6-diaryl-4-pyrones. G. Soliman and I. E. El-Kholy. Chem Soc J p 1755-60 Je '54

2-Pyrones; 2-pyridones from 2-pyrones. R. H. Wiley and others. bibliog Am Chem Soc J 76:625-7 Ja 20 '54

2-Pyrones; pyridones from pyrones; the anomalous formation of 1,3-bis-ureas from ethyl isodehydroacetate and amines. R. H. Wiley, P. Beasley and L. H. Knabeschuh. bibliog Am Chem Soc J 76:311 Ja 5 '54

2-Pyrones; 2-pyrone-6-carboxylic acid and its derivatives. R. H. Wiley and A. J. Hart. Am Chem Soc J 76:1942-4 Ap 5 '54

Reactions of hydrazines with γ-pyrones. C. Ainsworth and R. G. Jones. bibliog Am Chem Soc J 76:3172-4 Je 20 '54

PYRONINE

Metachromasy of pyronine G produced by polyvinyl sulfate. M. Koizumi and N. Mataga. Am Chem Soc J 76:614-15 Ja 20 '54

PYROPHOSPHATES

Heat of hydrolysis of inorganic pyrophosphate. N. S. Ging and J. M. Sturtevant. bibliog Am Chem Soc J 76:2087-91 Ap 20 '54

Kinetic study of the hydrolysis of pyrophosphates. D. O. Campbell and M. L. Kilpatrick. bibliog Am Chem Soc J 76:893-901 F 5 '54

Spectrophotometric investigation of a mixed complex ion formed by copper (II) ion with pyrophosphate ion and ethylenediamine. J. I. Watters and E. D. Loughran. bibliog Am Chem Soc J 75:4819-23 O 5 '53

Spectrophotometric investigation of the mixed complex formed by copper ions with both ammonia and pyrophosphate ions in aqeuous solutions. J. I. Watters, J. Mason and A. Aaron. bibliog Am Chem Soc J 75:5212-15 N 5 '53

PYROPHOSPHORAMIDE

See also
Octamethyl pyrophosphoramide

PYROPHYLLITE

Some properties of pyrophyllite as a refractory raw material. W. C. Bell and others. il Brick & Clay Rec 123:62-3+ D '53

PYROTECHNICS. See Fireworks

PYRRHOTITE

Flotation characteristics of pyrrhotite with xanthates. C. S. Chang and others. bibliog il Min Eng 6:Trans 209-17 F '54

New application of fluidization; production of sulfur dioxide. R. B. Thompson. flow sheet il Chem Eng Prog 49:253-6 My '53

Sulphur dioxide from pyrrhotite; Dorrco FluoSolids system. J. T. Hegeman. diag Pulp & Pa of Can 54:123-5 D '53; Same abr. Paper Tr J 137:14-16 N 6 '53; Same abr. Paper Ind 35:1118-19 Ja '54

PYRROCOLINE

Aldehydes of the pyrrocoline series. D. O. Holland and J. H. C. Nayler. Chem & Ind p224 F 20 '54

Biogenesis of pyrrocoline alkaloids. E. Wenkert. bibliog Chem & Ind p 1088-9 O 10 '53

Studies in the pyrrocoline series. E. D. Rossiter and J. E. Saxton. Chem Soc J p3654-9 N '53

PYRROLE

2,3-Dihydro-1H-imidazo[1,5-a] pyrroles; condensation of pyrroles and formaldehyde and primary amines. W. J. Burke and G. N. Hammer. bibliog Am Chem Soc J 76:1294-6 Mr 5 '54

See also
Carbethoxypyrrole

PYRROLIDINE

Nitrogen-substituted-3,4-dihydroxypyrrolidines. A. J. Hill and M. G. McKeon. Am Chem Soc J 76:3548-50 Jl 5 '54

Pyrrolidine esters. E. Van Heyningen. bibliog Am Chem Soc J 76:3043-4 Je 5 '54

β-Pyrrolidinoethyl *p*-alkoxybenzoates. J. S. Pierce, M. J. Fletcher and S. L. Cooke, jr. Am Chem Soc J 76:1956 Ap 5 '54

Two basically substituted pyrrolidines. J. McConnel, V. Petrow and B. Sturgeon. Chem Soc J p3332-4 O '53

PYRROLIDONE

See also
Vinyl pyrrolidone

Spectrum

Ultraviolet and infrared spectral studies of polyvinylpyrrolidone. G. Oster and E. H. Immergut. bibliog Am Chem Soc J 76:1393-6 Mr 5 '54

PYRUVATES

Conversion of acetate and pyruvate to tyrosine in yeast. R. C. Thomas and others. bibliog Am Chem Soc J 75:5554-6 N 20 '53

PYRUVIC acid

Enol-lactone tautomers of β-bromobenzylidenepyruvic acids. E. D. Stecher and A. Clements. bibliog Am Chem Soc J 76:503-6 Ja 20 '54

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Q-enzyme. See Enzymes

Q ships. See European war, 1914-1918—Submarine operations

QUACKS and quackery

Quackery in the atomic age; uranium foundations and clinics are sprouting up in the West. il Bsns W p 108 Ag 29 '53

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QUAIL louse fly. See Stilbometopa impressa

QUALITY control. See Breweries—Quality control; Chemical plants—Quality control; Cotton mills—Quality control; Factory management—Quality control; Food factories—Quality control; Foundry management—Quality control; Metallurgical plants—Quality control; Paper and pulp mills—Quality control; Petroleum refineries—Quality control; Steel works—Quality control; Welding shops—Quality control

QUALITY of products

See also
Factory management—Quality control

QUANTITIES (in production)

Minimum economical lot sizes; reference book sheet. T. Hicks. Am Mach 98:171 F 15 '54

QUANTITY discount. See Discount, Trade

QUANTOMETER

Application of the ARL quantometer to production control in a steel mill. H. C. Brown. J Metals 6:Trans 349-52 Mr '54

Direct reading spectrograph for control of aluminium alloy production; International alloys, ltd. il Metallurgia 49:261-2 My '54

Modern spectrography; speed pays high cost of knowing. N. Lynn. il Steel 133:106+ N 30 '53

Quick analysis leads to better steel. il Steel 133:122+ S 7 '53

Spectroscopy for copper alloys; production control quantometer. A. W. Young. il Steel 134:112-13 Je 14 '54

QUANTUM electrodynamics

Coupled-field Green's functions. J. G. Valatin. bibliog Phys R 92:522 O 15 '53

Electrodynamic perturbation theorem, with application to nonreciprocal systems. A. G. Redfield. bibliog diags J Ap Phys 25:1021-4 Ag '54

QUANTUM electrodynamics—*Continued*

Elementary particles and the Lamb-Retherford line shift. L. L. Foldy. Phys R 93:880-1 F 15 '54

Green's functions in quantum electrodynamics. J. L. Anderson. bibliog Phys R 94:703-11 My 1 '54

Quantum electrodynamics. R. Karplus. Opt Soc Am J 43:237-9 Ap '53

Relativistic configuration space formulation of the multi-electron problem. M. Günther. diags Phys R 94:1347-57 Je 1 '54

Some applications of the mass operator in quantum electrodynamics. R. G. Newton. Phys R 94:1773-89 Je 15 '54

Some physical consequences of vacuum polarization. L. L. Foldy and E. Eriksen. Phys R 95:1048-51 Ag 15 '54

Theory of quantized fields. J. Schwinger. bibliog Phys R 82:914-27; 91:713-40; 92:1283-99; 93:615-28; 94:1362-84 Je 15 '51, Ag 1, D 1 '53, F 1, Je 1 '54

Two-body system in quantum electrodynamics; energy levels of positronium. T. Fulton and P. C. Martin. bibliog Phys R 95:811-22 Ag 1 '54

QUANTUM theory

Absolute quantum yields for dissociation of iodine in inert solvents. F. W. Lampe and R. M. Noyes. bibliog Am Chem Soc J 76:2140-4 Ap 20 '54

Coherence in spontaneous radiation processes. R. H. Dicke. bibliog Phys R 93:99-110 Ja 1 '54

Configuration space methods for the construction of potentials. A. Klein. bibliog Phys R 94:195-201 Ap 1 '54

Continuous spectrum approximation in quantum statistics. P. T. Landsberg. Phys R 94:469-71 Ap 15 '54

Density fluctuations at low temperatures. P. J. Price. bibliog Phys R 94:257-61 Ap 15 '54

Equation of state and the energy of quantum-liquids at the critical point. J. van Dranen. J Chem Phys 21:2095-6 N '53

Integral equations of quantized field theory. H. S. Green. bibliog Phys R 95:548-56 Jl 15 '54

Lattice-space quantization of a nonlinear field theory. L. I. Schiff. bibliog Phys R 92:766-79 N 1 '53

Method for determining the quantum yields of reactions initiated by mercury-6($^3P_1$)-atoms. R. A. Uphaus and H. E. Gunning. J Chem Phys 21:2229 D '53

Nonconservation of rest mass and the Dirac equation. L. Motz. Phys R 93:901-2 F 15 '54

Precision measurement at 24 500 volts of the conversion constant λv. G. L. Felt and others. bibliog diags Phys R 92:1160-75 D 1 '53

Quantization of a nonlinear field theory. H. B. Rosenstock. Phys R 93:331-3 Ja 15 '54

Quantized space-time. E. J. Hellund and K. Tanaka. bibliog Phys R 94:192-5 Ap 1 '54

Quantum. G. W. O. Howe. Wireless Eng 30:263-4 N '53

Quantum effects in compressed liquid hydrogen. S. D. Hamann. bibliog Am Chem Soc J 76:4244 Ag 20 '54

Quantum statistics of closed and open systems. P. T. Landsberg. bibliog Phys R 93:1170-1 Mr 15 '54

Quantum theory of a damped electrical oscillator and noise; the radiation resistance. J. Weber. diags Phys R 94:211-15 Ap 15 '54

Variations of hydrogen rotational magnetic moments with rotational quantum number and with isotopic mass. R. G. Barnes and others. Phys R 94:893-902 My 15 '54

See also

Pauli exclusion principle

Photoelectric effect

Relativity (physics)

Statistical mechanics

Thermodynamics

Wave mechanics

QUARLES, Donald H. 1894-

Portrait. Bsns W p28 N 21 '53

Quarles to head military research and development. por(cover) Chem & Eng N 31:3760 S 14 '53

QUARRIES and quarrying

Basalt rock co. story; quarry operations. flow sheet il Rock Prod 57:123-5 Ja '54

Michigan Limestone's Cedarville quarry on way to production. il Min Eng 6:875 S '54

Producing stone for atomic projects; Ralph Rogers & co. il Rock Prod 56:98-100 O '53

Quarrying a massive granite formation in Virginia. R. W. McCall. il Explosives Eng 31:149-51 S '53

Quarrying, mining and preparation of stone for lime burning; abstracts of panel discussion papers. L. E. Smith and others. Rock Prod 56:85-6 N '53

Quest for record; world's biggest limestone-producing quarry; Rogers City. il Chem W 72:51-2+ Ap 18 '53

Recommendations on the prevention and suppression of dust in mining, tunneling, and quarrying adopted at a meeting held under the auspices of the International labor office, Geneva, Switzerland, Dec. 1-17, 1952. bibliog(91 titles) U S Bur Mines Information Circ 7677:1-16 '54

Abandoned quarries

Esso considering this plan for underground product storage. il diag Pet Refiner 32:148 Ag '53

Old quarries for oil storage. V. B. Guthrie. il diag Pet Processing 8:1168-9 Ag '53

Quarry storage for heating oil? G. Weber. il diag Oil & Gas J 52:42-3 Jl 6 '53

Equipment

Impact crushers for both primary and secondary crushing; Bradford hills quarry, inc. W. B. Lenhart. flow sheet il Rock Prod 57:81-2 F '54

Operating results with secondary drill. W. B. Lenhart. il Rock Prod 57:96+ My '54

Safety measures

National safety competition of 1952; with list of winners, 1925-1952; awards of certificates of achievement. S. T. Reese. il Explosives Eng 31:71-91 My '53

National safety competition of 1953; with list of winners, 1925-1953; awards of certificates of achievement. S. T. Reese. il plan Explosives Eng 32:71-92 My '54

National safety council Cement and quarry section annual meeting, Chicago, Oct. 19-23; with abstracts of papers. Rock Prod 56:106+ N '53

Safety storage, handling, and use of commercial explosives in metal mines, nonmetallic mines, and quarries. D. Harrington and J. H. East, jr. bibliog 12pls U S Bur Mines Information Circ 7674:1-28 '54

QUARTZ

Anelasticity of quartz. R. K. Cook and R. G. Breckenridge. bibliog diag Phys R 92:1419-23 D 15 '53

Correlation of the mechanical properties and petrography of a series of quartz-dolerite roadstones. P. A. Sabine, J. E. Morey and F. A. Shergold. bibliog il J Ap Chem 4:131-7 Mr '54

Effect of modifications of the surface of quartz on its fibrogenic properties in the lungs of rats. E. J. King and others. bibliog il A M A Archives Ind Hygiene & Occup Med 7:455-77 Je '53

Frictional adhesion of metal to glass, quartz, and ceramic surfaces. R. B. Belser. il R Sci Instr 25:862-4 S '54

Further test of dimensional orientation of quartz grains in Bradford sand. J. C. Griffiths and M. A. Rosenfeld. bibliog diags Am J Sci 251:192-214 Mr '53; Discussion. Z. V. Jizba. 251:899-906; Reply. 906 D '53

Hydrothermal growth of quartz crystals. A. C. Walker. bibliog il diag Ind & Eng Chem 46:1670-6 Ag '54

Internal friction of quartz. G. A. Alers. J Ap Phys 24:324-31 Mr '53

Metamorphic differentiates in the Blackbird mining district, Lemhi county, Idaho. W. A. Roberts. maps diags Econ Geol 48:447-56 S '53

Physicochemical studies on dusts; electron-optical examination of finely ground silica. J. G. Gibb, P. D. Ritchie and J. W. Sharpe. bibliog 2pls J Ap Chem 3:213-18 My '53

Physicochemical studies on dusts; examination of finely ground quartz by differential thermal analysis and other physical methods. P. B. Dempster and P. D. Ritchie. bibliog(29 ref) J Ap Chem 3:182-92 Ap '53

QUARTZ—*Continued*

Quartz-coated wire Pirani gauge. J. H. Leck. bibliog J Sci Instr 31:226-7 Je '54

Quartz tuning fork. G. W. O. Howe. diags Wireless Eng 30:161-3 Jl '53

Regularity of the *F*-center maxima in fused silica and α quartz. A. J. Cohen. bibliog J Chem Phys 22:570 Mr '54

Some considerations regarding liquid inclusions as geologic thermometers. B. J. Skinner. bibliog diags Econ Geol 48:541-50 N '53

See also
Crystals, Piezoelectric
Silica

Analysis

See Silica—Analysis

QUARTZ, Fused. See Silica, Fused

QUATERNARY ammonium compounds. See Ammonium compounds

QUEBEC (province)

See also
Chemical industries—Quebec (province)
Hydroelectric plants—Quebec (province)
Iron mines and mining—Quebec (province)
Iron ores—Quebec (province)
Mines and mineral resources—Quebec (province)
Roads—Quebec (province)
Zinc mines and mining—Quebec (province)

QUEBRACHO

Domestic substitutes for quebracho in oil-well drilling fluids. W. H. Caraway. Pet Eng 25:B81-3+ N '53

QUEEN ELIZABETH college. See London university—Queen Elizabeth college (formerly King's college of household and social sciences

QUENCHING

Age softening of beta brass. H. Green and N. Brown. bibliog J Metals 5:Trans 1240-4 sec 2 S '53

Automatic brine quench unit speeds metal quenching. il Materials & Methods 39:158 Ja '54; Same cond. Am Mach 98:146 Ja 4 '54

Decay of lattice defects frozen into an alloy by quenching. A. E. Roswell and A. S. Nowick. bibliog J Metals 5:Trans 1259-66 sec 2 S '53; Discussion. 6:Trans 672-3 sec 2 My '54

Effect of quenching strains on the properties of the Al-Cu-Mg alloy. H. A. Unckel. bibliog Metallurgia 49:220-2 My '54

Free fall quench cuts solution heat treat costs; Glenn L. Martin co. il Iron Age 173:134 My 13 '54; Steel 135:124 Jl 19 '54

Gleason machine quench minimizes distortion in quenching. il Iron Age 174:151-2 Ag 12 '54

Hardness and microstructure of an alpha-beta titanium alloy quenched from temperatures in the range 600°-1,000°C. A. Greenwood and W. Evans. il Metallurgia 49:124-6 Mr '54

Honeycomb fixture holds rings flat during quenching. E. Taylor. diags Am Mach 98:146 Ag 16 '54

Investigation of the quenching characteristics of a salt bath. M. J. Sinnott and J. C. Shyne. bibliog Am Soc for Metals Trans 44:758-69; Discussion. 769-74 '52

See also
Steel, Quenching of

QUENCHING of fluorescence. See Fluorescence—Quenching

QUERCETIN

Novel acetylation of quercetin 3,3′,4′,7-tetramethyl ether (5-hydroxy-3,3′,4′,7-tetramethoxyflavone). J. H. Looker and F. C. Ernest. bibliog Am Chem Soc J 76:294 Ja 5 '54

Quercetin as colorimetric reagent for determination of zirconium. F. S. Grimaldi and C. E. White. bibliog Anal Chem 25:1886-90 D '53

Quercetin from fir and pine bark. E. F. Kurth. bibliog Ind & Eng Chem 45:2096-7 S '53

QUESTIONNAIRES

Court decree on the cheater problem. L. Andrews. J Marketing 18:167-9 O '53

Employee health audit by questionnaire. R. A. Hicks and N. B. Walker. Ind Med 22:211-14 My '53

Postal rates and marketing research. A. J. Morgan. J Marketing 18:166-7 O '53

See also
Business—Reports to government

QUICKSAND

Quicksand. G. H. Matthes. diags Sci Am 188:97-100+ Je '53

QUINAZOLINE

Quinazoline; preparations and structure of diquinazolyl ethers. H. Culbertson, C. Willits and B. E. Christensen. bibliog Am Chem Soc J 76:3533-5 Jl 5 '54

QUINOL

Furanochromones derived from quinol. G. R. Ramage and C. V. Stead. Chem Soc J p3602-6 N '53

QUINOLINE

Acids and bases; conductance of aluminum bromide and stannic chloride in thionyl chloride on addition of pyridine and quinoline. L. E. D. Pease, jr. and W. F. Luder. bibliog Am Chem Soc J 75:5195-7 N 5 '53

Constitution of conessine; degradation of some reduced quinoline and indole bases. B. Bailey, R. D. Haworth and J. McKenna. Chem Soc J p967-76 Mr '54

Decarboxylation of malonic acid in quinoline and related media. G. Fraenkel, R. L. Belford and P. E. Yankwich. bibliog diag Am Chem Soc J 76:15-18 Ja 5 '54

Derivatives of benzo[f]quinoline. F. F. Blicke and J. E. Gearien. bibliog Am Chem Soc J 76:3991-3 Ag 5 '54

Derivatives of quinoline-3-carboxylic acid. F. F. Blicke and J. E. Gearien. Am Chem Soc J 76:3587-8 Jl 5 '54

Homolytic nitration of quinoline with pernitrous acid. J. R. Laville and W. A. Waters. Chem Soc J p400-3 Ja '54

Influence of adsorption of water and quinoline on the surface conductivity of a synthetic alumina-silica catalyst. M. A. Cook, R. O. Daniels, jr. and J. H. Hamilton. bibliog diag J Phys Chem 58:358-62 Ap '54

Inhibition by quinolines and thioureas of the acid dissolution of mild steel. T. P. Hoar and R. D. Holliday. bibliog diags J Ap Chem 3:502-13 N '53

Intramolecular carbon isotope effect in the decarboxylation of normal malonic acid in quinoline solution. P. E. Yankwich and R. L. Belford. bibliog Am Chem Soc J 76:3067-70 Je 5 '54

Preparation and properties of 1:2:3:4-tetrahydro-1-methyl-4-oxoquinoline. J. A. C. Allison, J. T. Braunholtz and F. G. Mann. Chem Soc J p403-8 Ja '54

Reactions of methazonic acid; further experiments with 3-amino-4-arylquinolines. D. W. Ockenden and K. Schofield. Chem Soc J p3914-19 D '53

Some properties and reactions of quinoline-5:8-quinones. R. Long and K. Schofield. Chem Soc J p3919-24 D '53

Some quinoline-5:8-quinones. V. Petrow and B. Sturgeon. Chem Soc J p570-4 F '54

Ultraviolet absorption spectra and the dissociation constants of the monobromoquinolines. S. B. Knight, R. H. Wallick and J. Bowen. bibliog Am Chem Soc J 76:3780-3 Jl 20 '54

QUINOLINECARBOXYLIC acid

Half-wave potentials of quinoline -6- and -7-carboxylic acid and aldehydes. F. J. Pinchin and J. T. Stock. Chem & Ind p347 Mr 20 '54

QUINOLINOL

Colorimetric determination of vanadium with 8-quinolinol. N. A. Talvitie. bibliog Anal Chem 25:604-7 Ap '53

Fluorometric determination of aluminum; use of 8-quinolinol. E. Goon and others. Anal Chem 25:608-10 Ap '53

Paper chromatography of cations with substituted 8-quinolinols. Q. Fernando and J. P. Phillips. bibliog Anal Chem 25:819-20 My '53

8-Quinolinols vs. amebiasis; abstract. E. F. Elslager. Chem & Eng N 32:1321, 1323 Ap 5 '54

QUINOLINOL—*Continued*

Relationship between *p*H and extraction characteristics of acetate-buffered gallium solutions. T. Moeller and others. Chem Age (Lond) 70:889-90 Ap 17 '54

Relationships among the absorption spectra of the 5,7-dihalo-8-quinolinol chelates of gallium(III) and indium(III). T. Moeller, F. L. Pundsack and A. J. Cohen. bibliog Am Chem Soc J 76:2615-18 My 20 '54

Small amounts of uranium in the presence of iron. L. Silverman, L. Moudy and D. W. Hawley. bibliog Anal Chem 25:1369-73 S '53

Spectrum

Relationships between the absorption spectra of the 8-quinolinol chelates of the group IIIb metals and the acidic species of 8-quinolinol. T. Moeller and F. L. Pundsack. bibliog Am Chem Soc J 76:617-19 Ja 20 '54

QUINOLIZINE

New synthesis of 4a(H)-dodecahydrobenzo(c) quinolizine. L. M. Jampolsky and W. E. Solodar. Am Chem Soc J 75:5427-8 N 5 '53

QUINOLIZINIUM compounds

Synthesis of a dehydropyridocolinium salt. A. Richards and T. S. Stevens. Chem & Ind p905 Jl 17 '54

Synthesis of quinolizinium and dehydroquinolizinium derivatives. V. Boekelheide and W. G. Gall. bibliog Am Chem Soc J 76:1832-6 Ap 5 '54

QUINONE

Cyclic dienes; quinone adducts of substituted 1,2-dimethylenecyclohexanes. W. J. Bailey, J. Rosenberg and L. J. Young. Am Chem Soc J 76:3009-11 Je 5 '54

2-Methyl-*p*-benzoquinone 1-toluene-*p*-sulfonimide. F. Bell. Chem Soc J p4181 D '53

Properties and reactions of free alkyl radicals in solution; reactions with quinone imides, nitric oxide, and nitroso-compounds. B. A. Gingras and W. A. Waters. Chem Soc J p 1920-4 Je '54

Quinone imides; addition of dienes to substituted *p*-quinonedibenzenesulfonimides. R. Adams and R. W. P. Short. bibliog Am Chem Soc J 76:2408-10 My 5 '54

Quinone imides; addition of primary and secondary aromatic amines. R. Adams, B. H. Braun and S. H. Pomerantz. Am Chem Soc J 75:4642-4 O 5 '53

Quinone imides; orientation of adducts from 2-benzenesulfonyl-*p*-quinonedibenzensulfonimide. R. Adams, T. E. Young and R. W. P. Short. bibliog Am Chem Soc J 76:1114-18 F 20 '54

Quinone imides; orientation of groups in adducts of quinone diimides with different N-substituents. R. Adams and R. S. Colgrove. Am Chem Soc J 76:3584-7 Jl 5 '54

Quinone imides; *o*-quinonedibenzimides. R. Adams and J. W. Way. bibliog Am Chem Soc J 76:2763-9 My 20 '54

Structure of vaporized *p*-benzoquinone. S. M. Swingle. bibliog Am Chem Soc J 76:1409-11 Mr 5 '54

Spectrum

Dipole moments and absorption spectra of *o*-benzoquinone and its related substances. S. Nagakura and A. Kuboyama. bibliog Am Chem Soc J 76:1003-5 F 20 '54

QUINONE imines

Quinone imides; 3,3-dimethoxydiphenoquinonedibenzenesulfonimide and its reaction products. R. Adams, R. R. Holmes and J. W. Way. bibliog Am Chem Soc J 75:5901-4 D 5 '53

Quinone imides; reactions of 1,4-naphthoquinonedibenzenesulfonimide with pyridine and its derivatives. R. Adams and S. H. Pomerantz. bibliog Am Chem Soc J 76:702-6 F 5 '54

Reactions of *o*-quinone monoximes, monoimines and triketoindane-2-oxime. A. Mustafa and M. Kamel. bibliog Am Chem Soc J 76:124-7 Ja 5 '54

QUINONES

Action of diazoalkanes on *o*-quinones and other carbonyl (thiocarbonyl) compounds with special reference to the nature of the intermediate compounds. A. Schönberg and others. bibliog Am Chem Soc J 76:2273-5 Ap 20 '54

Aromatization of blocked hydroaromatic systems by quinones. R. P. Linstead and others. bibliog Chem & Ind p 1174-5 S 18 '54

Chemistry of heterocyclic quinones; the direct oxidation of 6-hydroxycarbostyrils to carbostyril-5,6-quinones. R. R. Holmes and others. bibliog Am Chem Soc J 76:2400-7 My 5 '54

Colouring matters of the aphididæ; preparation and properties of 4 : 9-dihydroxyperylene-3 : 10-quinone. A. Calderbank and others. Chem Soc J p 1285-9 Ap '54

Colouring matters of the aphididæ; some reactions of extended quinones. B. R. Brown and A. R. Todd. Chem Soc J p 1280-5 Ap '54

Diels-Alder reaction with certain *o*-quinones. J. A. Barltrop and J. A. D. Jeffreys. Chem Soc J p 154-9 Ja '54

Enolization of 9-phenyl-2,3-benzofluorene-1,4-quinone. M. G. Ettlinger. bibliog Am Chem Soc J 76:2769-76 My 20 '54

Methods of obtaining quinones from flour beetles. R. K. Ladisch and B. McQue. bibliog il Science 118:324-5 S 18 '53

Quinones; addition reactions of 1 : 4-naphthaquinones substituted in the 6-position. J. M. Lyons and R. H. Thomson. Chem Soc J p2910-15 O '53

Quinones as ion source in hydrocarbons. A. Gemant. bibliog Electrochem Soc J 100:320-7 Jl '53

Quinones; the elimination of substituents from 1 : 4-naphthaquinones. D. B. Bruce and R. H. Thomson. Chem Soc J p 1428-31 My '54

Reduction of anthraquinone and other polycyclic quinones with aluminum alkoxides (Meerwein-Pondorff reagent). S. Coffey and V. Boyd. Chem Soc J p2468-70 Jl '54

Retardation of benzaldehyde autoxidation; the effects of some quinones. J. R. Dunn and W. A. Waters. Chem Soc J p2993-8 O '53

Some alkylquinoline-5 : 8-quinones. R. Long and K. Schofield. Chem Soc J p3161-7 O '53

Some photochemical reactions between quinones and hydrocarbons. R. F. Moore and W. A. Waters. Chem Soc J p3405-8 N '53

Some properties and reactions of quinoline-5 : 8-quinones. R. Long and K. Schofield. Chem Soc J p3919-24 D '53

Some quinoline-5 : 8-quinones. V. Petrow and B. Sturgeon. Chem Soc J p570-4 F '54

Spectra

Infrared spectroscopic study of the carbonyl stretching frequency in some groups of ketones and quinones. N. Fuson, M.-L. Josien and E. M. Shelton. bibliog Am Chem Soc J 76:2526-33 My 5 '54

QUINONOID compounds

Xanthomycin A; quinonoid behavior. K. V. Rao and W. H. Peterson. Am Chem Soc J 76:1338-40 Mr 5 '54

QUINOVIC acid

Triterpenoids; the constitution of quinovic acid. D. H. R. Barton and P. de Mayo. Chem Soc J p3111-15 O '53

QUINOXALINE

Cinnolines and other heterocyclic types in relation to the chemotherapy of trypanosomiasis; synthesis of azoquinoxaline derivatives. C. M. Atkinson and others. Chem Soc J p2023-7 Je '54

Molecular compound formation involving the quinoxaline ring system. E. S. Lane and C. Williams. bibliog Chem & Ind p1230-1 N 14 '53

Quinoxaline studies; the preparation and physical properties of some 2-hydroxy-3-alkyl-quinoxalines. M. Goldweber and H. P. Schultz. bibliog Am Chem Soc J 76:287-8 Ja 5 '54

Quinoxaline-2-thiol and derivatives. F. J. Wolf, R. M. Wilson, jr. and M. Tishler. Am Chem Soc J 76:2266 Ap 20 '54

R

RKO theatres corporation

Hughes sells control of RKO theatres corp. Bsns W p76 N 14 '53

RABIES

Incidence of reactions to antirabies horse serum. T. S. Hosty and F. R. Hunter. Pub Health Rep 68:789-91 Ag '53

RACE discrimination

See also

Negroes—Employment

RACE problems

See also

Africa—Race problems

South Africa—Race problems

RACE tracks

Floodlighting a harness race track; data sheet. M. E. Keck. il plan Illum Eng 48: 643-4 D '53

RACEMIZATION

Acid-catalysed racemisation of 1-methylheptyl acetate. M. P. Balfe, W. H. F. Jackman and J. Kenyon. Chem Soc J p965-7 Mr '54

Effect of groups in non-blocking positions on the rate of racemization of optically active diphenyls. M. Crawford and I. F. B. Smyth. bibliog Chem & Ind p346-7 Mr 20 '54

Mechanism of racemization of complex ions; kinetics of the dissociation and racemization of tris-(1,10-phenanthroline)-iron(II) and tris-(2,2′-dipyridyl)-iron(II) complexes. F. Basolo, J. C. Hayes and H. M. Neumann. bibliog Am Chem Soc J 76:3807-9 Jl 20 '54

Mechanism of racemization of complex ions; kinetics of the dissociation and racemization of tris-(1,10-phenanthroline)-nickel (II) and tris-(2,2′-dipyridyl)nickel(II) complexes. F. Basolo, J. C. Hayes and H. M. Neumann. bibliog Am Chem Soc J 75:5102-6 O 20 '53

Racemisation of (—)-1-phenylethyl chloride by stannic chloride in carbon tetrachloride and its bearing on the cationic polymerisation of styrene. K. Heald and G. Williams. Chem Soc J p362-6 Ja '54

Vibrational energy level splitting and optical isomerism in pyramidal molecules of the type XY_3. R. E. Weston, jr. bibliog diags Am Chem Soc J 76:2645-8 My 20 '54

RACING

Courts usually liberal toward sport sheets. A. W. Gray. Ed & Pub 86:44 My 30 '53

See also

Airplane races

Automobile racing

RACK jobbers. See Jobbers

RACKETEERING

Racketeering in St Louis, a case history. Eng N 152:28-9 Ja 21 '54

RACKS

Facts about modern racks and bins. il diags Mill & Factory 54:283 My '54

Height used to advantage in revised storage system; Douglas aircraft co. K. R. Benfield. il Iron Age 173:145-7 Je 17 '54

Racks that stack slashed handling time, paid off the first year; Towmotor corp. il plan Factory Management 112:94-7 My '54

Storage rack keeps nuts properly assorted. W. M. Halliday. diags Mach 61:206-7 S '54

See also

Magazine racks

RADAR

Applying pulse magnetrons to radar equipment. C. V. Litton and P. W. Crapuchettes. il diag Tele-Tech 12:60-2+ S; 102-4 O '53

Delay lines for radar and computers. B. M. Cole and M. H. Murphy. il diags Tele-Tech 12:106-8+ O '53

Device for simulating the visual displays of PPI scopes. J. L. Brown and A. L. Diamond. diag Opt Soc Am J 43:1143-6 D '53

How long-line effect impairs tunable radar. J. F. Hull and others. bibliog il Electronics 27:168-73 F '54

Importance of Shoran surveying in the southern hemisphere. C. I. Aslakson. maps plan diags Am Soc C E Proc 79 [no 353]:1-14 bibliog(27 titles, p5-6) N '53

Measurements of the gas temperature of a low-pressure rf discharge. I. Reingold and K. Garoff. J Ap Phys 25:537-40 Ap '54

Neutralizing pentodes in radar i-f stages. J. C. Tellier. diags Electronics 26:184-6 O '53

Phantastron computes pulse-width ratios. L. D. Findley. diags Electronics 27:164-7 Ja '54

Radar checks motor vehicle speed. il Pub Works 84:66 N '53

Radar in re-use cans. il Mod Packaging 28: 133-5+ S '54

Radar packaging solved by Sperry gyroscope co. il Electronics 26:279-80+ D '53

Radar parts are cleaned by wet blasting; Sperry gyroscope co. il Mach 60:182-3 Je '54

Recent progress in radar duplexers, with special reference to gas-discharge tubes; Radio section informal lecture. P. O. Hawkins. Inst E E Proc 100 pt 3:314-15 S '53

Shoot line troubles with radar. J. L. Whysong and others. il diags Elec World 140: 118-21 N 16 '53

Theory of target glint or angular scintillation in radar tracking. R. H. Delano. diag Inst Radio Eng Proc 41:1778-84 D '53

See also

Radar aids to aviation

Radar aids to navigation

Antenna and scanning mechanism

Antenna lab. il diag Aviation W 59:335+ Ag 17 '53

Dual scanning antenna radar system; patent. diag Electronics 26:242 N '53

Effective number of pulses per beamwidth for a scanning radar. L. V. Blake. diags Inst Radio Eng Proc 41:770-4, 1785 Je, D '53

Fabricating tubular frames for large shipboard radar screens. il Electronics 27:258+ F '54

General theory of plane-wave scattering from finite; conducting obstacles with application to the two-antenna problems. J. E. Storer and J. Sevick. bibliog diag J Ap Phys 25:369-76 Mr '54

Modified Luneberg lens. A. S. Gutman. diags J Ap Phys 25:855-9 Jl '54; Correction. 25: 1553 D '54

Torque requirements of a radar antenna. M. Mark il Elec Eng 73:262-4 Mr '54

Tubular elements simplify fabrication and lower costs of radar screens. il Welding J 33:149-52 F '54

Meteorological use

Automatic radar meteorological station, Crawley. il Engineering 176:299-300, 304 S 4 '53; Elec J 151:651-2 Ag 28 '53

Conference on radio meteorology, Austin, Tex. Nov. 9-12; abstracts of papers. Inst Radio Eng Proc 41:1534-42 O '53

H-hour harbinger. il Chem W 72:16 My 16 '53

Quantitative measurement of rainfall by radar. A. M. Buswell and others. bibliog il maps Am Water Works Assn J 46:837-52 S '54; Abstract. Water & Sewage Works 101:388 S '54

Radar and the weather. H. Foster. il Sci Am 189:34-8 Jl '53

Military uses

AF orders Super Connie radar pickets. W. Coughlin. il Aviation W 59:17-18 Ag 24 '53

U.S. unveils defensive missile system; army Nike rocket rides radar beam to target. il Aviation W 59:13-14 D 28 '53

WADC's aircraft radiation lab; where AF perfects radar eyes. il Aviation W 59:344+ Ag 17 '53

RADAR aids to aviation

ACC on air radar. Aviation W 59:84 Jl 6 '53

CAA installs traffic radar at 25 fields. Aviation W 59:50 Ag 24 '53

New avionics gear aids airline reliability. L. Moore. il map plan Aviation W 59:53-5 Ag 31 '53

Radar altimeter gives reading of plane's height above earth. Elec Eng 73:293 Mr '54

Radar safety beacon recommended for use in common system. Elec Eng 72:948-9 O '53

RADAR aids to aviation—*Continued*

Radar speed measurer helps carrier planes land more safely. il Elec Eng 72:1039 N '53

Radar system gives location of aircraft flying within 30 to 60 miles of airport. il Elec Eng 72:942 O '53

Rome expands role of ground avionics. il Aviation W 59:274+ Ag 17 '53

Systems project office. Aviation W 59:340+ Ag 17 '53

Turntable radar set eliminates necessity of moving sets. il Elec Eng 72:1044 N '53

Use of radar to measure the true air speed of an aircraft. J. Warner and K. J. Heffernan. Roy Aeronautical Soc J 57:653-5 O '53

Volscan unsnarls airport traffic jam; USAF traffic computer lands 120 jets hourly. P. Klass. il diag Aviation W 59:38-43 D 28 '53

See also

Radar apparatus on aircraft

RADAR aids to navigation

Big ship radar available for small vessels. il Marine Eng 58:130 N '53

British courts comment on use of radar; collision between Prins Alexander and the N. O. Rogenaes. Weekly Underw 171:233 Jl 31 '54

Moderate-cost navigational radar developed for small vessels. il Elec Eng 72:1135 D '53

Recent maritime radio and radar developments. I. F. Byrnes. il RCA R 14:305-17 S '53

RADAR apparatus on aircraft

AF orders Super Connie radar pickets. W. Coughlin. il Aviation W 59:17-18 Ag 24 '53

Collision radar. E. S. Quilter. il Aero Digest 67:17-19 S '53

Transistorized radar scope display unit. R. S. Markowitz. il diags Electronics 26:182-3 O '53

United's airborne radar. R. C. Robson. Aviation W 58:104 Je 22 '53

Watchbirds; flying radar stations. il Iron Age 172:50 Ag 27 '53

See also

Airplanes—Radomes

RADAR echoes

That was no saucer, that was an echo; spurious radar targets laid to air refraction; same thing may cause flying saucer mirages. P. Klass. diags Aviation W 59:26+ Jl 20 '53

RADAR receiving apparatus

Experimental determination of signal discernibility enhancement by two raster-type crt displays. W. O. Garrett and others. il diags Opt Soc Am J 44:80-4 Ja '54

Information cells on intensity-modulated crt screens. D. Levine. Inst Radio Eng Proc 41:1766-8 D '53; Correction. 42:853 My '54

Noise

Filters for detection of small radar signals in clutter. H. Urkowitz. bibliog diags J Ap Phys 24:1024-31 Ag '53

Joint distribution of *n* successive outputs of a linear detector. W. C. Hoffman. bibliog J Ap Phys 25:1006-7 Ag '54

Low-noise traveling-wave tubes for X-band. D. A. Watkins. bibliog il diags Inst Radio Eng Proc 41:1741-6 D '53

Statistical theory of detection of a randomly modulated carrier. W. M. Stone. bibliog J Ap Phys 24:935-9 Jl '53

RADIAC instrumentation. See Radioactivity—Measurement

RADIANT heating. See Electric heating—Panel system; Heating—Panel system; Hot water heating—Panel system

RADIATION

Bremsstrahlung and electron scattering cross sections in Au for 247-Mev electrons and positrons. P. C. Fisher. bibliog diags Phys R 92:420-7 O 15 '53

Čerenkov effect at microwave frequencies. M. Danos and others. diag Phys R 92:828-9 N 1 '53

Čerenkov radiation. K. Tanaka. diag Phys R 93:459-60 F 1 '54

Čerenkov radiation from a Co^{60} source in water. J. A. Rich and others. diag Opt Soc Am J 43:750-2 S '53

Chemical action of ionising radiations in solution; the action of free radicals, produced by X-rays, on lactic acid in aqueous solution with particular reference to the effect of molecular oxygen. G. R. A. Johnson, G. Scholes and J. Weiss. Chem Soc J p3091-9 O '53

Coherence in spontaneous radiation processes. R. H. Dicke. bibliog Phys R 93:99-110 Ja 1 '54

Contributions of bremsstrahlung conversion in trident experiments. M. M. Block and D. T. King. bibliog Phys R 95:171-4 Jl 1 '54

Coulomb excitation of heavy and medium heavy nuclei by alpha particles. G. M. Temmer and N. P. Heydenburg. bibliog Phys R 93:351-3 Ja 15 '54

Creation of displacements in radiation damage. H. B. Huntington. Phys R 93:1414-15 Mr 15 '54

Degradation and range straggling of high-energy radiations. U. Fano. bibliog Phys R 92:328-49 O 15 '53

Effects of ionizing radiation on heterogeneous catalysts; zinc oxide as a catalyst for the hydrogenation of ethylene. E. H. Taylor and J. A. Wethington, jr. Am Chem Soc J 76:971-3 F 20 '54

Effects of nuclear radiations on the mechanical properties of solids. G. J. Dienes. bibliog J Ap Phys 24:666-74 Je '53; Abstract. Product Eng 24:268+ O '53

Experiments on radiation by fast electron beams. H. Motz and others. bibliog il diags J Ap Phys 24:826-33 Jl '53

Heat; how it is applied, contained and controlled in all of the ceramic industries. H. E. Robinson. diags Cer Ind 62:53-4+ F '54

High-energy, large-angle distribution of pair electrons produced by bremsstrahlung. R. C. Miller. diag Phys R 95:796-8 Ag 1 '54

High-energy photoproton production by 325-Mev bremsstrahlung radiation. B. T. Feld and others. bibliog diag Phys R 94:1000-10 My 15 '54

How nuclear radiation affects engineering materials. D. O. Leeser. bibliog flow sheet il diags Materials & Methods 40:109-20 Ag '54 (reprints 25c)

How radiation affects important materials. S. S. Jones. il diag Gen Elec R 57:6-11 Jl '54

How radiation affects structural materials. C. R. Sutton and D. O. Leeser. diags Iron Age 174:128-31 Ag 19; 97-100 Ag 26 '54

Inner bremsstrahlung in the electron capture process, Ge^{71}. B. Saraf. Phys R 95:97-8 Jl 1 '54

Inner bremsstrahlung of Cs^{131}. B. Saraf. bibliog diags Phys R 94:642-7 My 1 '54

Internal bremsstrahlung and ionization accompanying beta decay. F. Boehm and C. S. Wu. bibliog diags Phys R 93:518-23 F 1 '54

Internal bremsstrahlung from P^{32}. M. Goodrich and W. B. Payne. bibliog Phys R 94:405-7 Ap 15 '54

Investigation of the damage hazard in spectral energy. L. S. Harrison. Illum Eng 49:253-7 My '54

Oxidation of aqueous ferrous sulfate solutions by charged particle radiations. W. R. McDonell and E. J. Hart. bibliog Am Chem Soc J 76:2121-4 Ap 20 '54

Photon monochromator for bremsstrahlung radiation. J. Goldemberg. diag Phys R 93:1426-7 Mr 15 '54

Quenching of mercury resonance radiation (2537A) by nitrogen. C. G. Matland. bibliog il diags Phys R 92:637-41 N 1 '53

Radiation characteristics of semicircular, circular, and rectangular surface sources. A. I. Mahan and W. F. Malmborg. bibliog diags Opt Soc Am J 44:644-53 Ag '54

Radiation damage in insulators. W. Primak and others. bibliog Phys R 92:1064-5 N 15 '53

Radiation damage in SiO_2 structures. M. Wittels and F. A. Sherrill. Phys R 93:1117-18 Mr 1 '54

Radiation damping in magnetic resonance experiments. N. Bloembergen and R. V. Pound. bibliog Phys R 95:8-12 Jl 1 '54

Radiation future; abstract. E. J. Henley. Chem & Eng N 32:2774 Jl 12 '54

RADIATION—*Continued*

Radiation in metals. N. W. Snyder. bibliog A S M E Trans 76:541-8 My '54

Radiation-induced reaction between iodine and heptane. P. F. Forsyth and others. bibliog J Chem Phys 22:66-70 Ja '54

Reduction of an integral in the theory of bremsstrahlung. A. Nordsieck. Phys R 93:785-7 F 15 '54

Response of activated borazole to radiation. J. I. Hoover and C. F. Dohne. bibliog R Sci Instr 25:922-3 S '54

Solid angle subtended by a circular aperture at point and spread sources; formulas and some tables. A. H. Jaffey. bibliog diag R Sci Instr 25:349-54 Ap '54

Statistical factors in radiation widths of nuclear energy levels. D. J. Hughes. Phys R 94:740-1 My 1 '54

Theory of bremsstrahlung and pair production. H. A. Bethe and others. bibliog Phys R 93:768-84, 788-95 F 15 '54

Theory of angular correlation of nuclear radiations. L. C. Biedenharn and M. E. Rose. bibliog(81 ref) Rs Mod Phys 25:729-77 Jl '53

See also

Absorption of rays
Alpha rays
Beta rays
Black body
Coincidence counting
Cosmic rays
Diffraction
Gamma rays
Heat radiation
Infrared rays
Irradiation
Light
Luminescence
Quantum theory
Radioactivity
Radiochemistry
Radiography
Relativity (physics)
Scattering of particles and rays
Solar radiation
Sound
Sound waves
Spectrum
Ultraviolet rays
X rays

Measurement

Advances in detecting and measuring of radiation energy. B. W. Thomas. il Ind & Eng Chem 46:sup85A-6A+ Ap '54

Filter radiometry and some of its applications. R. Stair. bibliog Opt Soc Am J 43:971-4 N '53

Generalized off-axis distributions from disk sources of radiation. J. H. Smith and M. L. Storm. diags J Ap Phys 25:519-27 Ap '54

Industry and the atom. D. Eldred. il diags Mill & Factory 55:112-16 Ag '54

Nuclear reactors for industry and research; radiation measurement. E. H. Wakefield. il diags Instruments 26:1702-4+ N '53

Radiation instruments come of age. Chem & Eng N 31:4958-9 N 30 '53

Relation between the speed of response and the detectivity of lead sulfide photoconductive cells. R. C. Jones. bibliog Opt Soc Am J 43:1008-13 N '53

Physiological effect

Mushroom cloud misconceptions; atomic fallout. Ind & Eng Chem 45:sup 17A-18A O '53

Rays that injure eyes. A. L. Koven. il Nat Safety N 69:22-3+ F '54

Protection

It's a badge, a dosimeter, too. il diag Nat Safety N 69:26-7 F '54

Los Alamos scientific laboratory of the University of California announces completion of its new Health research laboratory. Science 118:375-6 O 2 '53

Nuclear reactors for industry and research; radiation protection. K. Z. Morgan. il Instruments 26:1872-4+ D '53

Permissible dose from external sources of ionizing radiation. U S Nat Bur Stand Handbook 59:1-79; pa 30c Supt. of doc. '54

Protection against betatron-synchrotron radiations up to 100 million electron volts. bibliog U S Nat Bur Stand Handbook 55:1-52; pa 25c Supt. of doc. '54

Where maintenance is really tough; process equipment for nuclear chemicals. il Chem Eng 61:230-3 Je '54

See also

Radioactivity—Protection

RADIATION, Solar. See Solar radiation

RADIATION protection. See Radioactivity—Protection

RADIATION research society

Annual meeting, 1st, Iowa City, June 22-24. Chem & Eng N 31:2774 Jl 6 '53

RADICALS (chemistry)

Addition of free radicals to unsaturated systems; 1 : 1-difluoroethylene. R. N. Haszeldine and B. R. Steele. Chem Soc J p923-5 Mr '54

Addition of free radicals to unsaturated systems; free-radical addition to the nitrosogroup. J. Jander and R. N. Haszeldine. Chem Soc J p696-8 F '54

Addition of free radicals to unsaturated systems; the direction of addition to 1 : -difluoroprop-1-ene, 3 : 3 : 3-trifluoro-2-trifluoromethylprop-1-ene, and 3-chloro-3 : 3-difluoro-2-trifluoromethylprop-1-ene. R. N. Haszeldine. Chem Soc J p3565-72 N '53

Addition of free radicals to unsaturated systems; the direction of free-radical addition to allene and allyl chloride. R. N. Haszeldine, K. Leedham and B. R. Steele. Chem Soc J p2040-2 Je '54

Addition of free radicals to unsaturated systems; the direction of radical-addition to alkyl- and perfluoroalkyl-acetylenes. K. Leedham and R. N. Haszeldine. Chem Soc J p 1634-8 My '54

Addition of free radicals to unsaturated systems; the direction of radical addition to hexafluoropropene. R. N. Haszeldine. Chem Soc J p3559-64 N '53

Calculation of the heats of formation of gaseous free radicals and ions. J. L. Franklin. bibliog J Chem Phys 21:2029-33 N '53

Determination of the concentration of intermediaries and of rate constants in radical reactions. G. M. Burnett and H. W. Melville. diags Chem R 54:225-88 bibliog(p284-8) Ap '54

Diradicals in solution; role in polymerization. K. E. Russell and A. V. Tobolsky. bibliog Am Chem Soc J 76:395-9 Ja 20 '54

Free radical displacement reactions. J. L. Franklin and G. R. L. Shepherd. Am Chem Soc J 76:609-10 Ja 20 '54

Free radicals. P. D. Bartlett. il Sci Am 189:74-6+ D '53

Hyperfine splittings in the paramagnetic resonances of free radicals. S. I. Weissman and others. il J Chem Phys 21:2227-8 D '53

Improved Rankine magnetic susceptibility balance for use in free radical determinations. J. O. Bockris and D. F. Parsons. bibliog diags J Sci Instr 30:362-3 O '53

Long range migration of chemical activity in the solid state. M. Dole and C. D. Keeling. Am Chem Soc J 75:6082-3 D 5 '53

Low reactivity of cyclopropane derivatives toward free radicals. G. S. Hammond and R. W. Todd. bibliog Am Chem Soc J 76:4081-3 Ag 20 '54

Paramagnetic resonance absorption of carbazyl and hydrazyl. C. Kikuchi and V. W. Cohen. bibliog il diags Phys R 93:394-9 F 1 '54

Production of organic free radicals by light. G. Oster and H. Mark. bibliog Opt Soc Am J 43:283-9 Ap '53

Reaction of nitric oxide with free radicals. B. Gingras and W. A. Waters. Chem & Ind p615-16 Je 20 '53

Role of the solvent in radical decomposition reactions; phenylazotriphenylmethane. M. G. Alder and J. E. Leffler. bibliog Am Chem Soc J 76:1425-7 Mr 5 '54

Self-consistent orbitals for radicals. J. A. Pople and R. K. Nesbet. J Chem Phys 22:571-2 Mr '54

Spin relaxation in free radical solutions exhibiting hyperfine structure. J. P. Lloyd and G. E. Pake. bibliog diags Phys R 94:579-91 My 1 '54

Symmetry classification of the energy levels of some triarylmethyl free radicals and their cations. Ting Li Chu and S. I. Weissman. J Chem Phys 22:21-5 Ja '54

RADIO advertising

Early morning, late evening radio shows called cheapest way to A.&H. inquiries. D. Polon. Nat Underw (Life ed) 57:17 Ag 21 '53

How to use radio and television most effectively. E. E. Sundquist. Adv Agency 46:56-8 S '53

RADIO advertising—*Continued*

If you don't like tv, please be patient; trend to naturalness in radio commercials. G. N. Montgomery. Adv Agency 46:24+ Je '53

New sales pitch; make it technical. Bsns W p64 N 28 '53

Premium with a purpose; to cement radio personality-listener relationship; General Foods' Franklin Baker division. il Ptr Ink 243:104 Ap 24 '53

Printers' Ink 1954 advertisers' annual; radio. Ptr Ink 245:167-8+ sec 2 O 23 '53

Radio ads pay off. Rough Notes 96:66+ O '53

Radio advertising boosts air conditioning sales. il Sheet Metal Worker 45:48-9+ N '53

Radio advertising, cost of facilities, 1949-1952. Survey of Cur Bsns 1953 Sup p40-1 [supplemented in monthly numbers]

Radio features appliance execs. Am Gas J 181:41-2 Jl '54

Radio's seven shining virtues. J. J. Karol. Adv Agency 46:81+ S '53

Reaching India by radio. Bsns W p 104+ Ag 8 '53

Renascence of radio. E. L. Deckinger. Adv Agency 47:44-6+ My '54

Stretch your ad dollar; Corpus Christi plumbing co. il Dom Eng 183:130-1+ Je '54

What can radio do for the insurance agent? R. E. Harris. Rough Notes 96:24 Ag '53

Why mail-order radio campaign is big success. R. A. Baker. Ptr Ink 244:36 Jl 10 '53

Accounting

Time is money; accounting for radio revenue. R. C. Percival. N A C A Bul 34:902-9 Mr '53

Copy

Getting better radio copy. G. N. Montgomery. Adv Agency 47:18+ F '54

Schedules

Clerical handling of network broadcast schedules. N. Fields. Adv Agency 47:62-3+ Jl '54

Statistics

Radio billings of 25 leading advertising agencies, Jan.-Dec. 1953. Adv Agency 47:14 My '54

RADIO aids to aviation

Military-civil battle rages over DME. P. Klass. Aviation W 59:40-3+ D 7 '53

NYC airports plan bi-directional instrument landing system. Aviation W 58:18 Je 8 '53

Radio aids for airport control; abstract. G. W. Stallibrass. Inst E E Proc 100 pt 3:373-4 N '53

Rome expands role of ground avionics. il Aviation W 59:274+ Ag 17 '53

See also

Direction finding apparatus
Radar aids to aviation
Radio apparatus on aircraft
Radio meteorographs

RADIO aids to navigation

Lifeboat radio contains newest safety features. Elec Eng 72:946 O '53

Raydist system for radiolocation and tracking. J. M. Benson and J. E. Swafford. bibliog il diags Elec Eng 72:983-7 N '53

Re-equipping coast radio stations. il Elec J 151:1745-6 N 6 '53

See also

Direction finding apparatus
Radar aids to navigation
Radio telephone on ships

RADIO amplifiers. See Amplifiers, Vacuum tube

RADIO antennas

Aerial radiation patterns; apparatus for cathode-ray tube display. T. T. Ling. bibliog diags Wireless Eng 30:192-5 Ag '53

Aircraft protection from thunderstorm discharges to antennas. J. M. Bryant and others. il map diags Elec Eng 72:880-4 O '53

Antenna-matching network efficiency. R. L. Tanner. diags Electronics 26:142-3 N '53

Antennas fed by horns. B. Berkowitz. diag Inst Radio Eng Proc 41:1761-5 D '53

Automatically deiced X-band beacon antenna. C. E. Thomas, jr. il diags Electronics 27:152-5 Ja '54

Band width of cavity antennas. M. H. Cohen. bibliog diags J Ap Phys 25:582-7 My '54

Coaxial antenna for ten meters. H. M. Neben. il diags Q S T 37:40-1+ N '53

Current induced in a conducting ribbon by a current filament parallel to it. E. B. Moullin. Inst E E Proc 100 pt 3:379-81 N '53

Dqw antenna for mobile qsy. J. Hare. diag Q S T 37:39+ O '53

Electromagnetic transmission characteristics of the two-dimensional lattice medium. H. S. Bennett. bibliog(61 refs) diags J Ap Phys 24:785-810 Je '53

Free space radiation impedance of rhombic antenna. J. G. Chaney. diags J Ap Phys 24:536-40 My '53

Gain antennas for 450 mc. E. F. Harris. diags Commun Eng 13:17-18+ N '53

Ham-band transmitting loops. J. J. Dougherty. Q S T 37:52 O '53

Helical-beam antenna performance. E. F. Harris. il diags Commun Eng 13:19-20+ Jl '53

Hot rod mobile antenna. A. P. Dinsmore. il diags Q S T 37:18-19 S '53

Impedance of a top-loaded antenna of arbitrary length over a circular grounded screen. J. R. Wait and W. J. Surtees. bibliog J Ap Phys 25:553-5 My '54

Improved ten-meter mobile antenna. B. E. Hargrove. diag Radio & Tv N 50:172 D '53

Let's keep it simple; adjusting the novice antenna. N. L. Rowe. diag Q S T 37:40-1 S '53

Multiband antenna coupler. G. L. Thompson. il diags Q S T 37:40-2+ Ag '53

Multi-band, constant impedance antenna. C. R. Graf. diag Radio & Tv N 50:72+ S '53

Mutual impedance of rhombic antennas spaced in tandem. J. G. Chaney. J Ap Phys 24:751-5 Je '53

New chart for the solution of transmission-line and polarization problems. G. A. Deschamps. diags Elec Com 30:247-54 S '53

Null characteristics of the rotating Adcock antenna system. J. G. Holbrook. diag J Ap Phys 24:530-2 My '53

Plain ground-plane antenna. S. E. McCallum. diags Q S T 37:36-7+ Ag '53

Polystyrene and lucite rod antennas. G. von Trentini. diag J Ap Phys 24:960-1 Jl '53

Propagation along a slotted cylinder. R. F. Harrington. bibliog diags J Ap Phys 24:1366-71 N '53

Radiation field of a conical helix. J. S. Chatterjee. bibliog diags J Ap Phys 24:550-9 My '53

Radiation fields of a horizontal dipole in a semi-infinite dissipative medium. J. R. Wait. J Ap Phys 24:958-9 Jl '53

Radiation pattern synthesis. E. A. Laport. diags RCA R 14:533-45 D '53

Radiation resistance of a small circular loop in the presence of a conducting ground. J. R. Wait. J Ap Phys 24:646-9 My '53

Remote mobile-antenna resonating. J. C. Picken, jr. and B. A. Wambsganss. il diags Q S T 37:34+ D '53

Short antennas for mobile operation. J. S. Belrose. diags Q S T 37:30-5+ S '53

Simplification for mutual impedance of certain antennas. J. G. Chaney. J Ap Phys 24:747-50 Je '53

So-o-o big! latest fashions in beams for 144 mc. il Q S T 37:26-7 D '53

Switchable multiband ground-plane antenna. F. J. Merry. diags Q S T 37:44-5 O '53

Traveling-wave slot antennas. J. N. Hines and others. bibliog diags Inst Radio Eng Proc 41:1624-31 N '53

Traveling wave slot antennas. V. H. Rumsey. diags J Ap Phys 24:1358-65 N '53

Unusual 75-meter mobile antenna. A. B. Haughton. il Q S T 38:23 Ja '54

Wide-frequency-range tuned helical antennas and circuits. A. G. Kandoian and W. Sichak. bibliog diags Elec Com 30:294-9 D '53; Correction. 31:49 Mr '54

See also

Radio masts
Television antennas

Directional antennas

Compact beam for 40 and 20 meters. J. A. Turner. il diag Q S T 38:17-18+ Ja '54

RADIO antennas—Directional antennas—*Cont.*

Excitation coefficients and beamwidths of Tschebyscheff arrays. R. J. Stegen. Inst Radio Eng Proc 41:1671-4 N '53

Experimental verification of the metal-strip delay-lens theory. S. B. Cohen. bibliog diags J Ap Phys 24:839-41 Jl '53

New approach to the design of super-directive aerial arrays. A. Bloch and others. bibliog(43 titles) diags Inst E E Proc 100 pt 3:303-14 S '53

Non-resonant sloping-V aerial. J. S. Hall. diags Wireless Eng 30:223-6 S '53

Simplified calculation for Dolph-Tchebycheff arrays. G. J. van der Maas. J Ap Phys 25:121-4 Ja '54

Standards

IRE standards on antennas and waveguides; definitions of terms, 1953. diags Inst Radio Eng Proc 41:1721-8 D '53 (reprints 75 cents)

RADIO apparatus

Fabrication of radio-frequency micropotentiometer resistance elements. L. F. Behrent. il diags J Res Nat Bur Stand 51:1-9 Jl '53

Ferrite applications at microwave frequencies. D. Caswell. diags Electronics 26:246+ O '53

Microwave absorption mats. Electronics 26:206+ N '53

Precision r.f. switch. A. M. J. Mitchell. diag J Sci Instr 31:225 Je '54

Quick-and-easy chassis; simple construction for experimenter's gear. S. M. Thomsen. il Q S T 37:44 Ag '53

See also

Amplifiers, Vacuum tube
Direction finding apparatus
Microphones
Microstrip
Oscillators
Oscillators, Crystal
Radar
Radio antennas
Radio apparatus industry
Radio circuits
Radio coils
Radio communication
Radio condensers
Radio control
Radio facsimile
Radio generators
Radio instruments
Radio meteorographs
Radio receiving apparatus
Radio transformers
Radio transmitters
Television apparatus
Vacuum tubes

Bibliography

Abstracts and references. Published in monthly numbers of Wireless engineer; reprinted in Institute of radio engineers proceedings

Exhibitions

National radio show, London, Sept. 2-12. Engineer 196:335 S 11 '53

National radio show, 20th, London. il Elec J 151:813-14 S 11 '53; Elec R (Lond) 153:485-9 S 4 '53

Leasing

Should radio equipment be leased? W. B. Williams. Commun Eng 14:20-1+ Ja '54

Manufacture

Dip brazing of microwave components. W. J. Rudolph. il diags Electronics 27:274+ F '54

Preparing cable leads. il Electronics 26:286+ O '53

Project Tinkertoy; step toward the automatic factory. A. F. Murray. il diag Tele-Tech 12:70-2+ N '53

Some tricks in making electron plumbing. C. S. Selby. il Am Mach 98:134-6 F 15 '54

Water-cooled setup for silver brazing. il Electronics 26:262+ O '53

Wire-coding methods. il Electronics 27:287-9 Ja '54

Military use

Electron tube performance in some typical military environments. D. W. Sharp. Elec Eng 73:233-8 Mr '54

See also

Radio communication, Military

Patents

Pertinent patents (cont). diags Electronics 26:216+ N; 248+ D '53; 27:236+ Ja; 246+ F '54

United States patents issued to International telephone and telegraph system, May-July, 1953. diag Elec Com 30:338-41 D '53

Power supply

Adjustable regulated voltage supply. J. J. Hoefer. diags Radio & Tv N 50:170+ O '53

See also

Radio transmitters—Power supply

Tuning

Design equations for broadbanding by stagger tuning. D. Barbiere. Electronics 26:220+ O '53

Remote tuning for the high-C vfo. N. D. Larky. il diag Q S T 37:36-9 S '53

See also

Radio receiving apparatus—Tuning

RADIO apparatus industry

Bendixplan of dealer financing goes to the banks. H. F. B. Kerr. Burroughs Clearing House 37:10-11 Ag '53

Radio-electronics-television manufacturers association reports record output year. R. C. Sprague. il Steel 133:29 D 28 '53

See also

Collins radio company

Directories

Directory of microwave equipment manufacturers. Tele-Tech 12:77+ N '53

Directory of printed-circuit product manufacturers. Tele-Tech 12:81 D '53

Statistics

Radio and television receivers; charts and tables. Steel 134:189 Ja 4 '54

Great Britain

Radio in the dark. Economist 168:658 S 5 '53

Radio's foreign market. Economist 168:658+ S 5 '53

Italy

Italy raises radio output; more than four million used. For Comm W 50:16 Ag 24 '53

Switzerland

Swiss market for radio sets and components. Elec J 151:1580 N 13 '53

RADIO apparatus on aircraft

Automatically deiced X-band beacon antenna. C. E. Thomas, jr. il diags Electronics 27:152-5 Ja '54

Aviation electronics. A. Van Dyck. Inst Radio Eng Proc 41:1572-8 N '53

Convair radio installation. D. G. Moody and W. T. Dorrance. il diags Aero Digest 67:66+ Ag '53

RADIO apparatus on ships

Recent maritime radio and radar developments. I. F. Byrnes. il RCA R 14:305-17 S '53

Seafaring kilowatt; the new look of W2ZXM/MM. il Q S T 37:31 Ag '53

See also

Radio telephone on ships

RADIO astronomy

Radio astronomy. H. H. Klinger. bibliog il diag Franklin Inst J 256:353-66 O '53

Radio astronomy conference, Washington, Jan. 4-6. Elec Eng 73:286-7 Mr '54

Radio waves from interstellar hydrogen; astronomers use phenomenon to locate hydrogen clouds and to detect their motion. H. I. Ewen. il Sci Am 189:42-6 D '53

Science for its own sake. E. Appleton. Chem & Ind p926-31 S 5 '53; Same cond. Engineering 176:315-17 S 4 '53; Excerpts. Engineer 196:310-11 S 4 '53; Elec J 151:705-6 S 4 '53

RADIO attenuators

Audio modulation system measures microwave attenuation. J. Korewick. diags Electronics 27:175-7 Ja '54

Broadband rotary waveguide attenuator. B. P. Hand. il diags Electronics 27:184-5 Ja '54

Compentrol; compact loudness attenuator. R. Wiener and N. E. Nelson. bibliog il diag Radio & Tv N 50:79+ N '53

RADIO attenuators—*Continued*

Gas-discharge tubes for control of microwave attenuation. D. H. Pringle and E. J. Whitmore. diags J Sci Instr 30:320-3 S '53

Lossy cable attenuator pads. R. W. Beatty and C. E. Huber. il R Sci Instr 24:1002-3 O '53

RADIO beacons

Automatically deiced X-band beacon antenna. C. E. Thomas, jr. il diags Electronics 27:152-5 Ja '54

Doppler-effect omnirange. P. G. Hansel. bibliog il diags Inst Radio Eng Proc 41:1750-6 D '53

Rescue beacon pinpoints crash victims. il Aviation W 59:21-2 Jl 6 '53

RADIO broadcasting

See also

Radio advertising

Radio broadcasting stations

Radio communication—Interference elimination

Television broadcasting

also American broadcasting-Paramount theaters, inc.

Educational programs

Engineers try radio recruiting. il Elec World News ed 140:16-18 O 12 '53

Health education

Four million listen to Institute program; dramatized documentary radio series. East Underw 54:4 Ag 7 '53

Multiplex system

Multiplex radio transmission. Franklin Inst J 255:581 Je '53

Perfect radio multiplex. E. H. Armstrong. Midwest Eng 6:11-12+ Je '53

Municipal programs

How public relations help citizens to know Brookfield. P. Hirsch. Pub Works 85:54+ Ja '54

Program recording

Magnetic recording for broadcasting. Engineering 176:381 S 18 '53

Programs

Radio and tv network programs. Published in monthly numbers of Advertising agency and advertising and selling

Top 25 radio shows for the last four years. Ptr Ink 245:181 sec 2 O 23 '53

Propaganda

Truthcasts through the iron curtain; Radio free Europe operation. W. H. Nelson. Banking 46:120+ F '54

Safety programs

Industry committee's work to be feature of CBS show. East Underw 54:32 D 18 '53; Weekly Underw 169:1501 D 19 '53

Safety filled the air waves. il Nat Safety N 68:31+ D '53

Great Britain

BBC goes vhf. Economist 169:273 O 24 '53

Development of broadcasting in Great Britain. H. Bishop. Engineer 196:486-7, 524-6 O 16-23 '53; Same cond. Engineering 176:543-4, 573-5 O 23-30 '53; Abstracts. Elec J 151:1223-5 O 16 '53; Elec R (Lond) 153:893-4 O 16 '53

In the opinion of this house, broadcasting hours should be drastically curtailed; Radio section debate. Inst E E Proc 100 pt 3:262 S '53

Radio and television who's who. 3d ed 516p £2 2s George Young publications, 29 Oxford st, London W. 1 '54

Technical arrangements for the sound and television broadcasts of the coronation ceremonies; abstracts. W. S. Procter and others. Engineering 176:775-6 D 18 '53; Same. Elec J 151:1933-4 D 11 '53; Same. Elec R (Lond) 153:1264 D 4 '53; Discussion. 153:1333-4 D 11 '53

See also

British broadcasting corporation

India

Reaching India by radio. Bsns W p 104+ Ag 8 '53

RADIO broadcasting stations

Economic and regulatory problems in the broadcast field. H. H. Goldin. Land Econ 30:227-33; Discussion. P. O. Steiner. 233-6 Ag '54

Five systems serve tv, radio facilities. il Heating-Piping 26:89 F '54

International short-wave; foreign stations, call letters, time schedules. K. R. Boord, comp. Published in monthly numbers of Radio and television news

Small radio station on Long Island. il plan diags Arch Rec 113:160-1 My '53

Two hilltop broadcasting stations. il plans Arch Forum 99:122-3 D '53

Equipment

Cues for broadcasters; practical ways of improving station operation and efficiency (cont). il diags Tele-Tech 12:92-3+ O; 90-1+ N; 82-3+ D '53; 13:88-9+ Ja; 80-1, 121 F; 92-3+ Mr; 96-7+ Ap '54

Expanding the tape recorder's usefulness. P. Whitney. il diags Tele-Tech 12:78-9 N '53

Remote-control system for f-m broadcasting. A. V. Tidmore. il diags Electronics 26:138-42 O '53

See also

Radio transmitters

Insurance requirements

See also

Insurance, Radio tower

War measures

Auto-alarm unit for Conelrad; automatic monitoring of key stations for air-raid alerts. E. B. Linsey. diag Q S T 37:17+ S '53

Conelrad receiver with built-in alarm. R. E. Quenstedt. il diags Electronics 27:156-7 Ja '54

Conelrad switcher for sequential mode; time-delay relay circuits. N. J. Thompson. il diags Electronics 26:158-9 D '53

Random sequence switching. A. B. Ettlinger. il diags Electronics 27:165-7 F '54

RADIO broadcasting stations, Newspaper

Radio-tv rules aid democracy. P. A. Walker. Ed & Pub 86:114 Ap 25 '53

RADIO broadcasting studios

Equipment

Audio at Armed forces information school, Fort Slocum. E. F. Coriell. bibliog il plan diags Radio & Tv N 50:58-9+ N '53

Audio equipment for binaural broadcasts. L. J. Kleinklaus. il diags Electronics 27:134-5 F '54

RADIO cabinets

See also

Television cabinets

RADIO circuits

Block diagram analysis of vacuum-tube circuits; abstract. T. M. Stout. diags Elec Eng 72:900 O '53

Circuit applications of surface-barrier transistors. J. B. Angell and F. P. Keiper, jr. il diags Inst Radio Eng Proc 41:1709-12 D '53

Circuit diagrams. diags Q S T 38:42-4 Ja '54

Directional coupling with transmission lines. W. L. Firestone. bibliog diags Tele-Tech 12:95-7+ N '53

Experimental procedures for determining the efficiency of four-terminal networks. H. F. Mathis. bibliog diags J Ap Phys 25:982-6 Ag '54

Ferrites for microwave circuits and digital computers. E. Albers-Schoenberg. bibliog diags J Ap Phys 25:152-4 F '54

Frequency response in four-terminal networks. R. L. Konigsberg. diags Electronics 27:220+ F '54

High input impedance preamplifier circuit. E. W. Hogue. il diags Electronics 26:184-5 N '53

Hybrid theory and applications. diags Commun Eng 14:22-4 Ja '54

LCFX nomograph for all parameters of tuned circuits. H. M. Schlicke. Commun Eng 13:34 N '53

Phase-selective detectors; diagrams; data sheet. C. R. Schafer. bibliog(22 titles) Electronics 27:188-90+ F '54

RADIO circuits—*Continued*

Pi matching networks. R. W. Johnson. diags Electronics 26:204+ D '53

Subminiaturization techniques for low-frequency receivers. G. Shapiro. il diags U S Nat Bur Stand Circ 545:1-64 bibliog(p60-4); pa 50c Supt. of doc. '54

Synthesis of unbalanced RLC networks. L. Weinberg. diags J Ap Phys 24:300-6 Mr '53

Theorem on the impedance-transforming properties of reactive networks. L. Storch. bibliog diags J Ap Phys 24:833-8 Jl '53

Transistor as a network element. J. T. Bangert. bibliog il diags Bell System Tech J 33:329-52 Mr '54

Transistor circuitry. R. Clay. diags Q S T 37:35-8 D '53

Transistors; theory and application; grounded emitter and collector circuits. A. Coblenz and H. L. Owens. diags Electronics 26:166-72 N '53

Transistors; theory and application; switching circuits using the transistor. A. Coblenz and H. L. Owens. bibliog diags Electronics 26:186-91 D '53

Transmission characteristics of nonsymmetrical networks. H. Klein. diags Electronics 26:226+ O '53

Unbalanced RLC networks. L. Weinberg. diags Tele-Tech 12:87-9+ N '53

Unilateral four-terminal circuits. J. S. Foley. diags Electronics 27:186-7 F '54

Wide-frequency-range tuned helical antennas and circuits. A. G. Kandoian and W. Sichak. bibliog diags Elec Com 30:294-9 D '53; Correction. 31:49 Mr '54

See also

Radio receiving apparatus

RADIO coils

Evaluation of high performance magnetic core materials. S. R. Hoh. bibliog Tele-Tech 12:86-9+ O; 92-4, 155-7 N '53

Footage-measuring coil winders. il Electronics 26:246+ N '53

RADIO communication

Advantages of FCC form 400. M. E. Floegel. Commun Eng 13:19+ N '53

Communications synchronizing systems. F. T. Turner. diags Elec Eng 72:874-6 O 3 '53

Diffusion of pulsed currents in conductors. L. M. Vallese. J Ap Phys 25:225-8 F '54

Equivalence of optimum transducers and sufficient and most efficient statistics. G. W. Preston. bibliog J Ap Phys 24:841-4 Jl '53

FCC philosophy underlying the regulation of safety and special radio services. E. L. White. Commun Eng 13:21+ Jl; 29+ S '53

FCC radio rules make ready mix eligible. Concrete 62:22 Ja '54

See also

Electric communication
Radio aids to navigation and other headings beginning Radio

also subdivision Radio communication under special headings, e.g.

Concrete plants
Electric utilities
Motor bus lines
Newspapers
Petroleum industry and trade
Railroads

Beam system

Helical-beam antenna performance. E. F. Harris. il diags Commun Eng 13:19-20+ Jl '53

Bibliography

Abstracts and references. Published in monthly numbers of Wireless engineer; reprinted in Institute of radio engineers proceedings

Cost

Microwave costs. E. B. Dunn. Oil & Gas J 52:70 N 9 '53

Emergency use

Tale of two tornadoes; twisters striking Flint, Mich., and Worcester, Mass., find amateurs on the job. G. Hart. il diag Q S T 37:45-7+ S '53

Two-way radio proves invaluable; tornado, Genesee county, Michigan. J. T. Sharpensteen. Roads & Sts 96:113-14 N '53

Interference

Color television and the amateur; tvi and itv potentialities. G. Grammer. il Q S T 37:31-4+ N '53

Current rectification and high frequency interference in inert gas welding. J. G. Murray. diags Welding J 33:561-3 Je '54

Detection of sure signals in noise. R. C. Davis. bibliog J Ap Phys 25:76-82 Ja '54

Harmonic distortion due to echo signals. E. G. Hamer and R. G. Medhurst. Wireless Eng 30:276-80 N '53

Loss and singing margins in radio and carrier channels. H. H. Smith. diag Electronics 26:238+ O '53

Physical processes in the fluorescent lamp which cause radio noise. H. L. Steele, jr. bibliog il Illum Eng 49:349-56 Jl '54

Radio interference conference, London. Elec J 151:1594 N 13 '53; Elec R (Lond) 153:1159-60 N 20 '53

Short-time frequency measurement of narrow-band random signals in the presence of wide-band noise. P. M. Schultheiss and others. diags J Ap Phys 25:1025-36 Ag '54

Two-way radio interference; will it cut your handling efficiency? Factory Management 112:138-9 Ag '54

See also

Television transmission—Interference

Interference elimination

Controlling radio influence; American Gas & Electric 330-kv line. H. P. St Clair and C. A. Imburgia. Elec World 141:69 F 8 '54

Electrical noise suppression. M. B. Ewalt. il diags Machine Design 26:161-6 S '54

Mobile field units check interference. il Tele-Tech 12:145 N '53

Radio interference; mobile units check plant compliance with FCC regulations. Iron Age 172:151 O 15 '53

Radio interference suppression. Elec R (Lond) 154:390 F 26 '54

Suppression of radio interference in fluorescent lighting installations. G. Walters. Illum Eng 49:295-300 Je '54

Wiener's theory of linear filtering. D. A. Bell. bibliog Wireless Eng 30:136-42 Je '53

Short wave

A.m. equivalent of single sideband. G. Grammer. diags Q S T 38:19-22+ Ja '54

Critical frequency variations; sunspot minimum to maximum in northern and southern hemispheres. T. W. Bennington. diags Wireless Eng 30:175-9 Jl '53

FCC dilemma; how to give industrial radio a bigger slice of the air waves. E. C. Kreutzberg. Steel 134:54 My 17 '54

International short-wave; foreign stations, call letters, time schedules. K. R. Boord, comp. Published in monthly numbers of Radio and television news

Oklahoma Natural testing new microwave-v.h.f. radio system. W. R. Kubista. il diag Oil & Gas J 52:300+ S 21 '53

Radio communications are expanding; microwave systems. J. E. Keller. Gas Age 113:27+ Mr 25 '54

Tangier radio relay system. C. G. Dietsch. il maps plan RCA R 14:557-68 D '53

See also

Radio receiving apparatus—Short wave
Radio transmitters—Short wave

Traffic control use

Lincoln Tunnel traffic control. il Radio & Tv N 50:188 O '53

Review signal system of New Jersey turnpike. P. F. Godley and others. Midwest Eng 6:16-17 Jl '53

Great Britain

Commonwealth communications. Elec J 152:509 F 12 '54

Commonwealth telecommunications. J. A. Smale. Engineer 196:539-40 O 23 '53; Abstracts. Elec J 151:1303-4 O 23 '53; Elec R (Lond) 153:932-3 O 23 '53; Engineering 176:602 N 6 '53

V.h.f./u.h.f. transmitters for experimental work. il diag Elec J 152:1031-2 Mr 26 '54

RADIO communication, Marine

See also

Radio telephone on ships

RADIO communication, Military

Automatic-tuning communication transmitter. M. C. Dettman. il Elec Com 30:271-8 D '53

Higher frequencies; USAF ground-air communications. S. B. Wright. il diags Aero Digest 67:66+ N '53

Portable microwave for allied forces in Europe. M. G. Staton. il diags Electronics 26: 130-4 D '53

RADIO condensers

Capacitor-modulated wide-range f-m system. M. Apstein and H. H. Wieder. il diags Electronics 26:190-2 O '53

Nonlinear capacitors for dielectric amplifiers. G. S. Shaw and J. L. Jenkins. il diags Electronics 26:166-7 O '53

Manufacture

Cutting metal tubing for capacitor housings. il Electronics 26:272+ O '53

RADIO conductors

Diffusion of pulsed currents in conductors. M. L. Vallese. J Ap Phys 25:225-8 F '54

See also

Radio lines

Wave guides

RADIO control

Citizens band garage door control. H. B. Smith. il diags Radio & Tv N 51:35-8+ F '54

Flash picture of jet plane take-off taken at night from blimp above carrier; radio pulse fired flashlamps. il Elec Eng 72:941 O '53

Microwaves protect new 132-kv interconnection. G. W. McKenna and F. H. Travers. il Elec World 139:76-7 Je 1 '53

Radio control for railroads. map plan Commun Eng 13:36 Jl '53

Radio control; switches, signals on Orinoco railroad will be remote controlled. maps Iron Age 172:148-50 Jl 2 '53

Radio controls this power switch. il Ry Age 136:65 Mr 15 '54

See also

Carrier current control

RADIO corporation of America

Future of R.C.A. H. L. Blackburn. Mag of Wall St 93:443+ Ja 9 '54

RADIO detectors

First probability densities for receivers with square law detectors. R. C. Emerson. bibliog diag J Ap Phys 24:1168-76 S '53

Phase-selective detectors; diagrams; data sheet. C. R. Schafer. bibliog(22 titles) Electronics 27:188-90+ F '54

Transistor bridge null detector. L. D. Carcano. diag Radio & Tv N 50:132 O '53

RADIO echoes

Automatic ionospheric height recorder; frequency range 0·65 to 25 mc/s. C. Clarke and E. D. R. Shearman. il diags Wireless Eng 30:211-22 S '53

Echo distortion in the fm transmission of frequency-division multiplex. R. G. Medhurst. Inst Radio Eng Proc 41:1520-1 O '53

Harmonic distortion due to echo signals. E. G. Hamer and R. G. Medhurst. Wireless Eng 30:276-80 N '53

Instrumentation for measuring changes in phase of ionospheric echoes. R. E. Jones. il diags R Sci Instr 24:433-6 Je '53

RADIO engineering

Synthesis of transfer functions with poles restricted to the negative real axis. L. Weinberg. diags J Ap Phys 24:207-16 F '53; Discussion. A. D. Fialkow and I. Gerst. 24:1525-6; Reply. bibliog 1526-7 D '53

See also

Direction finding apparatus

Loud speaking apparatus

Microphones

Radar

Radio apparatus and other headings beginning Radio

Sound—Recording and reproducing

Television

Vacuum tubes

Bibliography

Abstracts and references. Published in monthly numbers of Wireless engineer; reprinted in Institute of radio engineers proceedings

RCA technical papers, second quarter, 1953. RCA R 14:453-4 S '53

RCA technical papers; third quarter, 1953. RCA R 14:600-1 D '53

RCA technical papers; fourth quarter, 1953. RCA R 15:135-6 Mr '54

RCA technical papers; first quarter, 1954. RCA R 15:268-70 Je '54

Tables, calculations, etc.

Analysis of a limiter as a variable-gain device. L. R. Kahn. bibliog diags Elec Eng 72:1106-9 D '53

High-frequency performance of transistors. R. Kansas. diags Inst Radio Eng Proc 41: 1712-14 D '53

Radio technology and the theory of numbers. B. van der Pol. bibliog diags Franklin Inst J 255:475-95 Je '53

Triode transformation groups. A. W. Keen. diags Wireless Eng 30:238-43 O '53

Two new equations for the design of filters. M. Dishal. bibliog diags Elec Com 30:324-37 D '53

See also

Radio antennas

Terminology

IRE standards on antennas and waveguides; definitions of terms, 1953. diags Inst Radio Eng Proc 41:1721-8 D '53 (reprints 75 cents)

Some Russian terms and abbreviations. G. F. Schultz. Inst Radio Eng Proc 42:348 Ja '54

RADIO engineers, Institute of. See Institute of radio engineers

RADIO facsimile

High-speed facsimile developed by RCA and the Haloid co. il Electronics 26:246+ D '53

High-speed facsimile equipment developed for sending messages. Elec Eng 72:1138-9 D '53

Simple facsimile system for the amateur. W. L. Roberts. il diags Radio & Tv N 50: 45-8+ D '53

Television type facsimile transmission system; patent. diags Electronics 26:234+ N '53

Weather maps transmitted by facsimile in new system. Elec Eng 72:1042-3 N '53

See also

Facsimile transmission

RADIO filters

Adding a mechanical filter to the 75A-1. W. Andrew. il diags Q S T 38:35-6 Ja '54

Band-pass filters. F. S. Atiya. diags Wireless Eng 30:307-11 D '53

Conformal mappings for filter transfer function synthesis. G. L. Matthaei. diags Inst Radio Eng Proc 41:1658-64 N '53; Correction. 42:1319 Ag '54

Electrical noise suppression. M. B. Ewalt. il diags Machine Design 26:161-6 S '54

Filter building made easy. C. L. Hansen. diags Q S T 37:32-3 D '53

Filter using coaxial transmission line as elements. H. B. Yin and T. U. Foley. bibliog diags RCA R 15:62-74 Mr '54

Filters for detection of small radar signals in clutter. H. Urkowitz. bibliog diags J Ap Phys 24:1024-31 Ag '53

Fixtures aid production of spiral coil filters at Caribe aircraft radio corp. il Electronics 26:282+ N '53

Maximum impedance transformations in band-pass filters; abstract. T. J. O'Donnell and E. M. Williams. diags Elec Eng 72: 1105 D '53

Minimum inductor or capacitor filters. W. Saraga. bibliog(27 ref) diags Wireless Eng 30:163-75 Jl '53

Nonlinear filters. W. D. White. J Ap Phys 24:1412; Discussion. L. A. Zadeh. 1412-13 N '53

Simplified crystal i.f. filter. W. B. Cameron. diag Radio & Tv N 50:144 N '53

Speech filters for amateur receivers. H. E. French. il diag Radio & Tv N 50:74+ S '53

Termination variation in the constant-*k* filter. S. C. Dunn. bibliog diags Wireless Eng 30:227-31 S '53

Two new equations for the design of filters. M. Dishal. bibliog diags Elec Com 30:324-37 D '53

Wiener's theory of linear filtering. D. A. Bell. bibliog Wireless Eng 30:136-42 Je '53

RADIO free Europe. See National committee for a free Europe

RADIO frequency

Analysis of binary solvent mixtures of conducting solutions by a radio-frequency method. J. L. Hall and others. bibliog Anal Chem 26:835-8 My '54

Circuit for a radio-frequency spectrometer. J. Gindsberg and Y. Beers. bibliog diag R Sci Instr 24:632-4 Ag '53

Cosmotron; a review; radio-frequency system. J. P. Blewett and others. bibliog il diags R Sci Instr 24:779-805 S '53

Design and performance of a radio-frequency ion source. L. K. Goodwin. bibliog diags R Sci Instr 24:635-8 Ag '53

Electric strength of sulfur hexafluoride at radio frequencies. J. W. Gibson and C. F. Miller. bibliog il diags Electrochem Soc J 100:265-71 Je '53

Radio-frequency titration technique. L. Tarrant. bibliog Chem Age (Lond) 69:863-5 O 24 '53

Allocation

FCC dilemma; how to give industrial radio a bigger slice of the air waves. E. C. Kreutzberg. Steel 134:54 My 17 '54

Turned down; FCC denies a petition for exclusive frequencies for industrial radio use. Steel 134:73 F 15 '54

Control

Stable power supplies for microwave standards. W. P. Ernst. il diags Electronics 27:168-71 Ja '54

RADIO frequency modulation

Amplitude variations in a frequency-modulated oscillator. W. J. Cunningham. Franklin Inst J 256:311-23 O '53

Binaural broadcasts use multiplexed f-m; abstract. E. H. Armstrong and J. H. Bose. diags Electronics 27:194+ F '54

Capacitor-modulated wide-range f-m system. M. Apstein and H. H. Wieder. il diags Electronics 26:190-2 O '53

Echo distortion in the fm transmission of frequency-division multiplex. R. G. Medhurst. Inst Radio Eng Proc 41:1520-1 O '53

Frequency discrimination and stabilization of square-wave modulated microwave transmissions. C. H. M. Turner. bibliog diags Inst E E Proc 100 pt 3:381-3 N '53

Fm/fm telemetering. W. J. Mayo-Wells. il diags Tele-Tech 12:91-3+ D '53; 13:85-7+ Ja '54

Improved method of measuring dynamic elastic constants, using electrostatic drive and frequency-modulation detection. H. Pursey and E. C. Pyatt. bibliog il diags J Sci Instr 31:248-50 Jl '54

Multiplex radio transmission. Franklin Inst J 255:581 Je '53

Remote-control system for f-m broadcasting. A. V. Tidmore. il diags Electronics 26:138-42 O '53

Very high frequencies for sound radio; second report of the Television advisory committee. Engineering 177:151 Ja 29 '54; Elec J 152:281-2 Ja 22 '54

See also

Radio transmitters—Frequency modulation transmitters

RADIO generators

Frequency generating equipment for million-watt navy transmitter; abstract. D. G. Robertson. il Elec Eng 72:997 N '53

Generating r-f power for 3-bev accelerator. E. J. Rogers and M. Plotkin. il diags Electronics 27:160-4 F '54

Television sweep generators. M. S. Kiver. il diags Radio & Tv N 50:43-6+ O '53

See also

Pulse generators

RADIO industry

Directories

Tv-radio service technician associations. Radio & Tv N 51:85+ Mr '54

India

Indian radio research develops new devices. For Comm W 51:22 F 15 '54

RADIO instruments

Audio input fader. L. H. Trent. diags Radio & Tv N 50:150 N '53

Automatic ionospheric height recorder; frequency range 0·65 to 25 mc/s. C. Clarke and E. D. R. Shearman. il diags Wireless Eng 30:211-22 S '53

Building a multimeter. R. Hilliard. il diags Radio & Tv N 51:71+ Mr '54

Encapsulated test prods. R. L. Kuehn. il diags Tele-Tech 12:84-5+ D '53

Expanded-scale power line meter. J. H. Mintzer. il diag Radio & Tv N 50:122 N '53

Inexpensive applause meter. B. C. Barbee. il diag Radio & Tv N 50:67+ D '53

Little handful, 100 kc. calibrator. L. A. Chinnery. diags Radio & Tv N 50:180 N '53

Magnetron power indicator. M. Nowogrodski and V. J. Stein. diag Electronics 26:210-11+ D '53

Periodmeter. R. G. Barker and G. L. Connon. il diags Wireless Eng 30:274-5 N '53

Random sequence switching. A. B. Ettlinger. il diags Electronics 27:165-7 F '54

Salinity meter for sonar measurements. K. E. Harwell and D. W. Hood. bibliog il diags Electronics 27:172-4 Ja '54

Signal comparator for measuring small steady-state voltage changes. R. Zito, jr. il diags Electronics 26:183-5 D '53

Signal-noise meter checks tv links. R. Moffett. diags Electronics 26:164-5 O '53

Simple versatile substitution tester. F. T. C. Brewer. il diags Radio & Tv N 50:124-5 N '53

Square-wave shaper. G. E. Jones, jr. il diags Radio & Tv N 50:63+ S '53

Transdipper. C. A. West. il diags Radio & Tv N 50:60-2 O '53

Vest-pocket transistor-alpha meter. B. P. Kerfoot. diag Electronics 26:216+ D '53

See also

Direction finding apparatus

Oscillators

Radio meteorographs

Raydist

Manufacture

New dial process. Commun Eng 13:36-7 N '53

RADIO interference. See Radio communication—Interference

RADIO laboratories

NBS research in radio propagation. il Instruments & Automation 27:1472-3 S '54

RADIO laws and regulations

Advantages of FCC form 400. M. E. Floegel. Commun Eng 13:19+ N '53

FCC philosophy underlying the regulation of safety and special radio services. E. L. White. Commun Eng 13:21+ Jl; 29+ S '53

Tower rules; simplified FCC rules about antenna structures. Commun Eng 13:20-1+ N '53

See also

Radio frequency—Allocation

RADIO lines

Application of Brewster's angle to the design of coaxial-line components for microwaves. B. A. Dahlman. diags RCA R 15:238-51 Je '54

Computation of impedance and efficiency of transmission line with high standing-wave ratio. W. W. Macalpine. diags Elec Com 30:238-46 S '53; Abstract. Elec Eng 72:868 O '53

Directional coupling with transmission lines. W. L. Firestone. bibliog diags Tele-Tech 12:95-7+ N '53

Filter using coaxial transmission line as elements. H. B. Yin and T. U. Foley. bibliog diags RCA R 15:62-74 Mr '54

How long-line effect impairs tunable radar. J. F. Hull and others. bibliog il Electronics 27:168-73 F '54

Hyperbolic transmission line as a matching section. H. J. Scott. diag Inst Radio Eng Proc 41:1654-7 N '53

Loss measurements of surface wave transmission lines. E. H. Scheibe and others. bibliog il J Ap Phys 25:790-7 Je '54

Modern coaxial-cable technique in Great Britain. E. Baguley. bibliog il diags Elec Com 30:186-216 S '53

New chart for the solution of transmission-line and polarization problems. G. A. Deschamps. diags Elec Com 30:247-54 S '53

New h.f. proximity-effect formula for resistance and inductance of a pair of parallel circular conductors connected in series. A. C. Sim. bibliog diag Wireless Eng 30:204-7 Ag '53

RADIO lines—*Continued*
Pi matching networks. R. W. Johnson. diags Electronics 26:204+ D '53
Transmission-line analog of a modulated electron beam. S. Bloom and R. W. Peter. bibliog il diags RCA R 15:95-112 Mr '54
Transmission-line impedance measurements; method of three readings. H. Sutcliffe. diags Wireless Eng 30:180-1 Jl '53
See also
Television cables
Wave guides

RADIO listeners
Analyzer totals remote audience interest; patent. diag Electronics 27:198+ Ja '54
What is radio's place in people's daily lives? A. Politz. Adv Agency 46:76-7+ S '53

RADIO loud speakers
Loud speaker systems; recent trends in design; abstract. A. E. Falkus. Engineering 176:760 D 11 '53
Simplified voice control with a loudspeaker. W. N. Hunter. diag Q S T 37:18 O '53
See also
Loud speaking apparatus

RADIO masts
Radio masts for the Sahara. il Elec J 152:138 Ja 8 '54
Tests on light welded radio masts. il diags Engineer 197:75-6 Ja 8 '54; Engineering 177:57 Ja 8 '54; Elec R (Lond) 154:119-20 Ja 15 '54

RADIO measurements
Audio-modulation system measures microwave attenuation. J. Korewick. diags Electronics 27:175-7 Ja '54
Calculation of wave-interference errors on a direction-finder employing cyclical differential measurement of phase. W. C. Bain. bibliog Inst E E Proc 100 pt 3:253-61 S '53
Con-VI; permits direct reading of inductance and capacitance. R. Graham. il diags Radio & Tv N 50:84-5+ O '53
Effective radio ground-conductivity measurements in the United States. R. S. Kirby and others. maps U S Nat Bur Stand Circ 546:1-87; pa 65c Supt. of doc. '54
Instrumentation for measuring changes in phase of ionospheric echoes. R. E. Jones. il diags R Sci Instr 24:433-6 Je '53
Measurement of resonant-cavity characteristics. G. L. Hall and P. Parzen. bibliog diags Inst Radio Eng Proc 41:1769-73 D '53
Measuring resistance between tube elements. L. J. Austin. il diags Radio & Tv N 51:96+ Ja '54
Precision measurement of waveguide attenuation. J. H. Vogelman. il diags Electronics 26:196-9 D '53
Radio-frequency permeameter. P. H. Haas. bibliog diags J Res Nat Bur Stand 51:221-8 N '53
Relative merits of harmonic and intermodulation measurements in assessing distortion in audio equipment; discussion. E. W. Berth-Jones. Inst E E Proc 100 pt 3:268 S '53
Some practical measurements of the relative performances of a cyclical phase-comparison type of direction-finder and a U-Adcock instrument. H. G. Hopkins and E. N. Bramley. bibliog Inst E E Proc 100 pt 3:263-7 S '53
Transmission-line impedance measurements; method of three readings. H. Sutcliffe. diags Wireless Eng 30:180-1 Jl '53
Water load for high power uhf. R. G. Talpey. il diags Electronics 26:232+ D '53
See also
Multivibrators
Radio echoes
Radio instruments
Radio standards
Voltmeters, Vacuum tube

RADIO meteorographs
Production-testing uhf radiosonde tubes. M. M. Bell. il diags Electronics 26:254+ N '53

RADIO modulation
Analysis of a limiter as a variable-gain device. L. R. Kahn. bibliog diags Elec Eng 72:1106-9 D '53
Automatic 'scope monitoring of transmission and reception. il diags Q S T 37:19-23 O '53
Modulation per-cent indicator. E. Tschischke. diags Radio & Tv N 51:80 Ja '54
Negative feed back modulation. R. Clay. il diags Q S T 37:17-19+ Ag '53
Plug-in modulator. E. G. Taylor. il diag Radio & Tv N 50:77 D '53
Simplest modulator. I. F. Gardner. il diag Q S T 37:15-16 S '53
Small-package modulator. E. Brauner. il diag Radio & Tv N 50:103+ N '53
See also
Radio frequency modulation
Radio pulse code modulation

RADIO noise. See Radio communication—Interference; Radio communication—Interference elimination

RADIO noise, Cosmic
Radio astronomy. H. H. Klinger. bibliog il diag Franklin Inst J 256:353-66 O '53
Science for its own sake. E. Appleton. Chem & Ind p926-31 S 5 '53; Same cond. Engineering 176:315-17 S 4 '53; Excerpts. Elec J 151:705-6 S 4 '53

RADIO operators
Wireless operators of old. C. H. Bowers. Radio & Tv N 51:90-1 Mr '54

RADIO operators, Amateur
Basic tool kit for the novice. L. G. McCoy. il Q S T 38:40-1 Ja '54
Simple facsimile system for the amateur. W. L. Roberts. il diags Radio & Tv N 50:45-8+ D '53
Tale of two tornadoes; twisters striking Flint, Mich., and Worcester, Mass., find amateurs on the job. G. Hart. il diag Q S T 37:45-7+ S '53
Tvi and the novice. L. G. McCoy. il diags Q S T 37:40-3 O '53
See also
Radio stations, Amateur

RADIO pulse code modulation
Pulse code modulation coding system uses special tubes. A. G. Fitzpatrick. bibliog il diags Electronics 26:173-5 N '53

RADIO receiving apparatus
Conelrad receiver with built-in alarm. R. E. Quenstedt. il diags Electronics 27:156-7 Ja '54
Headphones for radio and tv. H. S. Renne. diags Radio & Tv N 51:116+ Ja '54
High performance headphone radio. I. Gottlieb. il diag Radio & Tv N 51:42+ F '54
Latest trends in am receivers. M. S. Kay. il diags Radio & Tv N 51:50-1+ Mr '54
Life of oxide cathodes in modern receiving valves. G. H. Metson and others. bibliog il diags Inst E E Proc 99 pt 3:69-81 Mr '52; Discussion. 99 pt 3:82-7; 100 pt 3:371-2 Mr '52, N '53
National radio exhibition, 20th, London, Sept. 2-12. il Wireless Eng 30:255-60 O '53
New communications receiver; National model NC-88. il diag Radio & Tv N 51:67+ Mr '54
Phone-plug amplifier. H. F. Starke and C. W. Martel. il diags Radio & Tv N 51:65+ Ja '54
P-n-p triode alloy junction transistor for radio-frequency amplification. C. W. Mueller and J. L. Pankove. bibliog diags RCA R 14:586-98 D '53
Subminiaturization techniques for low-frequency receivers. G. Shapiro. il diags U S Nat Bur Stand Circ 545:1-64 bibliog(p60-4); pa 50c Supt. of doc. '54
Will transistors oust receiving valves? discussion. Elec R (Lond) 154:38 Ja 1 '54
See also
Radio loud speakers
Television receiving apparatus

Installation on automobiles

Auto radio service hints. J. Darr. diags Radio & Tv N 50:148 N '53

Noise

First probability densities for receivers with square law detectors. R. C. Emerson. bibliog diag J Ap Phys 24:1168-76 S '53
Flicker noise in germanium rectifiers at very low- and audio-frequencies. D. K. Baker. diags J Ap Phys 25:922-4 Jl '54
Noise factor of conventional v.h.f. amplifiers. N. Houlding. bibliog il diags Wireless Eng 30:281-90, 299-306 N-D '53
Signal-to-noise ratios in band-pass limiters. W. B. Davenport, jr. bibliog J Ap Phys 24:720-7 Je '53

RADIO receiving apparatus—*Continued*

Rating

Small radio receivers. il Consumers Res Bul 32:11-16 D '53

Repair

Electronic shipyard for winter cash. E. Robberson. il Radio & Tv N 50:57+ O '53

See also

Radio service shops

Selectivity

Adding a mechanical filter to the 75A-1. W. Andrew. il diags Q S T 38:35-6 Ja '54

Short wave

Amateur's four-tube miniature superhet. P. Popenoe, jr. il diag Radio & Tv N 51:42-5+ F '54

Command set receiver for six and ten. C. L. Faulkner. il diags Q S T 37:22-6+ S '53

Crystal-controlled converter for 432 mc. E. P. Tilton. il diag Q S T 38:24-7+ Ja '54

Crystal-mixer design at frequencies from 20 000 to 60 000 mc/s. C. R. Ditchfield. bibliog diags Inst E E Proc 100 pt 3:365-71 N '53

460-mc. mobile equipment design. J. F. Byrne and A. A. MacDonald. il diags Commun Eng 13:26-8+ Jl '53

Getting the most out of your receiver. B. Goodman. diags Q S T 38:32-4 Ja '54

Improving small-receiver performance. B. Goodman. il diags Q S T 37:45-7 D '53

Long-range communication with single-sideband diversity units. M. G. Crosby. il diags Commun Eng 13:29-30, 39-40+ Jl '53

Low noise r.f. amplifiers for 144 and 420 mc; using new tv tubes. E. F. Tilton. il diags Q S T 37:13-16+ Ag '53

More sugar-coated single sideband; how to tune s.s.b. on any receiver. R. B. Blanchard, jr. diags Q S T 37:31-2 O '53

Novice station receiver. L. Trombly and R. A. Hathaway. il diag Radio & Tv N 50:47+ O '53

SP-600 communication receivers. J. C. Whitehead. il diag Commun Eng 13:32-3+ Jl '53

Simplified crystal i.f. filter. W. B. Cameron. diag Radio & Tv N 50:144 N '53

6BQ7A cascode ten-meter preamp. C. A. Lownsbury, jr. il diag Radio & Tv N 50:129+ N '53

Speech filters for amateur receivers. H. E. French. il diag Radio & Tv N 50:74+ S '53

Student regenerative receiver. W. C. Stoecker. il diags Radio & Tv N 50:76-7+ O '53

220-mc. station for the beginner. E. P. Tilton and M. P. Southworth. il diags Q S T 37:11-15+ O '53

Superregenerative

Superregenerative transistor receiver. J. M. Hughes. il diag Radio & Tv N 51:72-3+ Mr '54

Tuning

Radio craftsmen model C-800 tuner. W. Philbrook. il Radio & Tv N 50:107 O '53

RADIO receiving apparatus, Portable

Portable radio receivers aid crews, show savings. J. H. Gibson. il Elec World 140:120 D 28 '53

Repair

Some portable radio service hints. J. Darr. Radio & Tv N 50:176 S '53

RADIO reception

Automatic 'scope monitoring of transmission and reception. il diags Q S T 37:19-23 O '53

RADIO rectifiers

Flicker noise in germanium rectifiers at very low- and audio-frequencies. D. K. Baker. diags J Ap Phys 25:922-4 Jl '54

Long-life rectifier power supply; hermetically-sealed power capsule, containing complete ac to dc supply, can be soldered in place and forgotten. L. G. Sands. il diag Commun Eng 13:31+ Jl '53

New information on effects of arsenic trioxide and selenium gases from burned out rectifiers. H. H. Schrenk. Ind & Eng Chem 45:sup 11A-12A+ D '53

Rectifier regulation chart. R. Lee. diag Tele-Tech 12:97+ O '53

Reviving the jam-jar rectifier. E. Roberson. il diags Radio & Tv N 50:61+ D '53

Selenium diode applications. J. T. Cataldo. il diags Radio & Tv N 50:64-5+ S '53

Selenium d.c. voltage regulators. H. Braverman. diag Radio & Tv N 50:158+ O '53

RADIO relay league, America. See America radio relay league

RADIO relay systems

How microwave serves Texas-Illinois. il map Gas Age 114:38-40 Ag 26 '54

Manchester-Kirk o'Shotts television radio-relay system. G. Dawson and others. bibliog Engineer 197:252-4 F 12 '54; Discussion. Elec J 152:527-8 F 12 '54; Elec R (Lond) 154:302 F 12 '54

Microwave as applied to railroad operation in the Gulf Coast area. L. R. Thomas. map diags Elec Eng 73:63-7 Ja '54

Microwave net contracts awarded to Motorola by Gulf States Utilities and Middle South Utilities. map Elec World News ed 140:47 Ag 31 '53

Microwave radio's longest private system. C. M. Heiden. il map diags Gen Elec R 56:52-5+ N '53

150-mc. point-to-point and relay units. il diags Commun Eng 13:32-3+ N '53

170-megacycle radiation survey for Bonneville system mobile coverage. D. E. Johannson and D. R. Wilson. il map Elec Eng 73:157-60 F '54

Portable microwave for allied forces in Europe. M. G. Staton. il diags Electronics 26:130-4 D '53

Seismic relay; patent. diag Electronics 27:246+ Ja '54

Tangier radio relay system. C. G. Dietsch. il maps plan RCA R 14:557-68 D '53

Using radio links and relays. G. E. Dodrill and J. F. Atkinson. diags Commun Eng 14:15-17 Ja '54

RADIO research

Analogue computer for the solution of the radio refractive-index equation. W. E. Johnson. bibliog il diags J Res Nat Bur Stand 51:335-42 D '53

Indian radio research develops new devices. For Comm W 51:22 F 15 '54

See also

Radio laboratories

RADIO resistors

Building inexpensive decade boxes. R. Friedman. diags Radio & Tv N 50:103 S '53

Canvas-covered rubbing block brings carbon resistors to value. il diag Electronics 27:256+ F '54

Custom low value resistors. L. H. Trent. diags Radio & Tv N 50:182 N '53

Electric oven setup for deposited carbon resistors. il Electronics 26:264 D '53

Encasing resistors in Kel-F sleeves. il Electronics 26:250+ N '53

Footage-measuring coil winders. il Electronics 26:246+ N '53

Measuring impedance of high-frequency resistors. C. L. Wellard. il diags Electronics 26:176-9 O '53

Potentiometer-decade adapter; the Decapot. H. J. Gould. il diag Radio & Tv N 50:178+ N '53

Resistor coating techniques. il Electronics 26:280+ O '53

Testing

Resistor trial by test. G. B. Entrekin. il Radio & Tv N 51:68 F '54

RADIO resonators

Characteristics of an elliptical electromagnetic resonant cavity operating in the TE$_{111}$ mode. T. P. Higgins and A. W. Straiton. J Ap Phys 24:1297-9 O '53

Force on a shorted ring in a uhf field in a coaxial cavity. S. N. Kalra. J Ap Phys 24:1339-40 O '53

Measurement of resonant-cavity characteristics. G. L. Hall and P. Parzen. bibliog diags Inst Radio Eng Proc 41:1769-73 D '53

Measurements of the gas temperature of a low-pressure rf discharge. I. Reingold and K. Garoff. J Ap Phys 25:537-40 Ap '54

Measuring impedance of high-frequency resistors. C. L. Wellard. il diags Electronics 26:176-9 O '53

Resonant cavity study of semiconductors. H. T. Hsieh and others. J Ap Phys 25:302-7 Mr '54

RADIO resonators—*Continued*

Underearth quartz crystal resonators. T. A. Pendleton. diag Inst Radio Eng Proc 41:1612-14 N '53

Utilization of degenerate modes in a spherical cavity. M. R. Currie. il diags J Ap Phys 24:998-1003 Ag '53

Testing

Measurement of electromagnetic field in resonant cavities by introduction of small metallic rings. A. Gilardini. J Ap Phys 25:1064-5 Ag '54

RADIO schools and training

Audio at Armed forces information school, Fort Slocum. E. F. Coriell. bibliog il plan diags Radio & Tv N 50:58-9+ N '53

RADIO service shops

Mac's radio service shop. J. T. Frye. Published in monthly numbers of Radio and television news

RADIO signals

Detection of pulse signals in noise. D. G. Tucker and J. W. R. Griffiths. bibliog il diags Wireless Eng 30:264-73 N '53

Detection of sure signals in noise. R. C. Davis. bibliog J Ap Phys 25:76-82 Ja '54

Evaluation of polarization diversity performance. J. L. Glaser and L. P. Faber, jr. diag Inst Radio Eng Proc 41:1774-8 D '53

See also

Radio echoes

Time signals, Radio

RADIO standards

Microwave frequency standards. il Commun Eng 14:28-30 Ja '54; Abstract. Electronics 26:254+ O '53

Stable power supplies for microwave standards. W. P. Ernst. il diags Electronics 27:168-71 Ja '54

See also

Radio antennas—Standards

Television—Standards

Wave guides—Standards

RADIO stations

Construction of a mountain-top; remote base station; Central Vermont public service corp. H. V. Church. il map Commun Eng 13:22-5+ S '53

Non-entertainment broadcast stations grow at rapid rate. Iron Age 173:77 My 27 '54

See also

Radio broadcasting stations

Radio transmitters

Equipment

Minimum-cost equipment assemblies. L. R. Krahe. Commun Eng 14:18-19+ Ja '54

Re-equipping coast radio stations. il Elec J 151:1475-6 N 6 '53

RADIO stations, Airline

VHF snag; FCC rejects UAL radio network arrangement. Aviation W 59:100 O 19 '53

RADIO stations, Amateur

Break-in without relays. B. F. Brown. il diag Radio & Tv N 50:55+ S '53

Color television and the amateur; tvi and itv potentialities. G. Grammer. il Q S T 37:31-4+ N '53

Inexpensive novice station. L. Trombly and R. A. Hathaway. il diags Radio & Tv N 50:52-4 S; 47+ O '53

Is your rig r.f.-tight? O. P. Schreiber. il diags Q S T 37:29-30 Ag '53

Let's keep it simple; adjusting the novice antenna. N. L. Rowe. diag Q S T 37:40-1 S '53

220-mc. station for the beginner. E. P. Tilton and M. P. Southworth. il diags Q S T 37:11-15+ O; 35-8 N; 39-43+ D '53

RADIO stations, Naval

Navy's radio station blankets the globe. il Bsns W p68+ N 28 '53

World's most powerful radio transmitter is dedicated by the navy and RCA. il Elec Eng 73:98-9 Ja '54

World's most powerful radio transmitter; put into operation by the U.S. navy at Jim Creek Valley, Wash. il Radio & Tv N 51:112 F '54

RADIO stations, Portable

Mobile communication unit mounted in trailer. il Pub Works 85:103 Jl '54

Multiband circuit for the emergency-powered rig. J. S. Reddie. il diag Q S T 37:27-9 S '53

RADIO telegraph

Chirp-free break-in keying. B. Goodman. diags Q S T 37:28-30+ O '53

De luxe keying without relays. T. H. Puckett. diags Q S T 37:20-1 S '53

Design considerations for frequency-shift-keyed circuits. W. Lyons. RCA R 15:230-7 Je '54

F.s.k. system for the amateur teletype station. F. A. Bartlett. diags Q S T 37:23-5 Ag '53

Long-life rectifier power supply; hermetically-sealed power capsule, containing complete ac to dc supply, can be soldered in place and forgotten. L. G. Sands. il diag Commun Eng 13:31+ Jl '53

Million-watt naval communication transmitter; abstract. J. C. Walter. il Elec Eng 72:996 N '53

Operating revenues, expenses, etc., 1949-1952. Survey of Cur Bsns 1953 Sup p 119 [supplemented in monthly numbers]

Self-completing electronic key. J. D. Gallagher. il diag Radio & Tv N 51:80-1+ Mr '54

Subminiature code practice oscillator. L. E. Garner, jr. il diags Radio & Tv N 51:40-1 F '54

Transistor self-powered c.w. monitor. D. Klein and W. Slusher. il diags Q S T 38:28-9+ Ja '54

Tube-keyed grid-block keying. A. R. Williams. diag Q S T 37:16 N '53

Multiplex system

Operation of long-distance telegraph circuits. il Engineering 177:280 F 26 '54

RADIO telemetry. See Telemetering

RADIO telephone

460-mc. mobile equipment design. J. F. Byrne and A. A. MacDonald. il diags Commun Eng 13:26-8+ Jl '53

150-mc. point-to-point and relay units. il Commun Eng 13:32-3+ N '53

Simplest modulator. I. F. Gardner. il diag Q S T 37:15-16 S '53

Simplified voice control with a loudspeaker. W. N. Hunter. diag Q S T 37:18 O '53

Small-package modulator. E. Brauner. il diag Radio & Tv N 50:103+ N '53

See also

Telephone, Carrier current

Highway department use

Two-way radio proves invaluable; tornado, Genesee county, Michigan. J. T. Sharpensteen. Roads & Sts 96:113-14 N '53

Two-way radio saves time and money for maintenance officials. P. Hirsch. il Pub Works 85:89-90+ Ap '54

Multiplex system

Microwave multiplex techniques. E. J. Rudisuhle. diags Commun Eng 13:28-31+ N '53

Police uses

Los Angeles county radio system; microwave-vhf system. S. D. Sykes. il plan diags Commun Eng 13:22-5+ Jl '53

Salesmen's use

Dick Tracy? nope, salesman on radio call; Page-Ette communications service to route salesmen. il Sales Management 71:82 O 15 '53

Taxicab dispatching

Dispatching a large taxi system. J. A. Craig. il plan diag Commun Eng 13:19-21+ S '53

RADIO telephone, Portable

Citizens radio gets transceiver. il Electronics 27:8+ Ja '54

How inspectors use walkie-talkies in this Union Pacific yard. il plan diag Ry Age News ed 136:20-2 Ja 18 '54

New hand carried transmitter-receiver. S. Cutler and G. Brownstein. il diag Tele-Tech 12:72-3+ D '53

Portable lifeboat radio set. il Elec Com 30:246 S '53

RADIO telephone, Portable—*Continued*

Stewart-Warner devices for short-range or intermediate communication. il Am Mach 98:268 Ap 12 '54

RADIO telephone in factories

Communications; intercom makes crane control easier in steel plant; Fairless works. il Iron Age 173:158-9 Ap 1 '54

Communications; two-way system speeds movement of materials. il Iron Age 172:152-3 Jl 16 '53

Developments in communications. W. M. Martin. Iron & Steel Eng 31:95-8 F '54

Expanding two-way radio. Steel 133:118 N 30 '53

Industry's network; megacycles move materials. W. R. Wolfe. il Steel 134:108-11 F 8 '54

Just call for repairs. il Mill & Factory 53:95 N '53

Manufacturers request new service. il Commun Eng 14:32 Ja '54

Radio; industry asks freer use. R. M. Stroupe. il Iron Age 172:51 N 26 '53

Radio proves vital plant tool. K. W. Bennett. il Iron Age 173:120-1 Ap 22 '54

Tune in two-way radio. il Chem & Eng N 32:294-5 Ja 25 '54

RADIO telephone in mines

Communications on the Climax haulage system. E. J. Eisenach. il plans Min Cong J 40:50-2+ Mr '54

RADIO telephone on aircraft

Aircraft communication; abstract. G. W. Barnes. Elec J 152:208 Ja 15 '54

Higher frequencies; USAF ground-air communications. S. B. Wright. il diags Aero Digest 67:66+ N '53

RADIO telephone on automobiles

Compact r.f. assembly for 50- and 144-mc. mobile. C. V. Chambers. il diags Q S T 37:17-20+ N '53

Converterless 75-meter mobile reception. H. R. Shannon. diag Radio & Tv N 50:174-5 S '53

Dqw antenna for mobile qsy. J. Hare. diag Q S T 37:39+ O '53

Experimental mobile radio equipment at London airport. Engineer 196:347-8 S 11 '53

Hot-rod mobile antenna. A. P. Dinsmore. il diags Q S T 37:18-19 S '53

170-megacycle radiation survey for Bonneville system mobile coverage. D. E. Johannson and D. R. Wilson. il map Elec Eng 73:157-60 F '54

Qrz mobile. L. A. Wortman. il diag Radio & Tv N 51:46-7+ F '54

Remote mobile-antenna resonating. J. C. Picken, jr. and B. A. Wambsganss. il diags Q S T 37:34+ D '53

Remote tuning for the high-C vfo. N. D. Larky. il diag Q S T 37:36-9 S '53

Short antennas for mobile operation. J. S. Belrose. diags Q S T 37:30-5+ S '53

Unusual 75-meter mobile antenna. A. B. Haughton. il Q S T 38:23 Ja '54

Using radio links and relays. G. E. Dodrill and J. F. Atkinson. diags Commun Eng 14:15-17 Ja '54

What's wrong with mobile radio sales; use of radio by automobile clubs and garages. J. Courtney. Commun Eng 14:25+ Ja '54

RADIO telephone on motor trucks

Industry's network; megacycles move materials. W. R. Wolfe. il Steel 134:108-11 F 8 '54

Portable microwave for allied forces in Europe. M. G. Staton. il diags Electronics 26:130-4 D '53

RADIO telephone on railroads

See also

Railroads—Radio communication

RADIO telephone on ships

Electronic shipyard for winter cash. E. Robberson. il Radio & Tv N 50:57+ O '53

RADIO time signals. See Time signals, Radio

RADIO tower insurance. See Insurance, Radio tower

RADIO towers

Mobile radio tower aids communications. D. Hale. il Pet Eng 25:D38+ O '53

Tower rules; simplified FCC rules about antenna structures. Commun Eng 13:20-1+ N '53

RADIO transformers

Audio transformer design charts. T. Halabi. diags Electronics 26:193-4+ O '53

Iron powder components; Automatic mfg. corp. il Steel 134:112 Mr 15 '54

Shape factor as a criterion of skirt selectivity. J. J. Dougherty. Electronics 26:232+ O '53

Transistor power supply. L. D. Carcano. diag Radio & Tv N 50:88 O '53

Use your defective tv transformers to build a variable voltage transformer. H. A. Setzke. il diag Radio & Tv N 50:178-9 O '53

Wide band high-power radio-frequency transformer. L. U. Hibbard and others. bibliog il diags J Sci Instr 30:245-50 Jl '53

RADIO transmission

Application of information theory to data-transmission systems, and the possible use of binary coding to increase channel capacity. J. F. Coales. bibliog diag Inst E E Proc 100 pt 3:291-302 S '53

Automatic 'scope monitoring of transmission and reception. il diags Q S T 37:19-23 O '53

Experimental determination of the properties of microstrip components. M. Arditi. bibliog il diags Elec Com 30:283-93 D '53

Obstacle-gain vhf transmission. Tele-Tech 12:85+ N '53

Propagation lab; beyond-line-of-sight transmission of microwaves. Aviation W 59:326-8 Ag 17 '53

Punch card data transmitted over ocean at high speed; radioed directly from one punched card to another. Iron Age 174:153 Ag 12 '54

Relative merits of broad-band transmission by beam, cable and waveguide; discussion. Inst E E Proc 100 pt 3:374-5 N '53

See also

Radio antennas

Radio broadcasting

Radio communication—Interference

Radio lines

Radio relay systems

Radio telephone

Radio transmitters

Radio waves

Television transmission

Fading

Evaluation of polarization diversity performance. J. L. Glaser and L. P. Faber, jr. diag Inst Radio Eng Proc 41:1774-8 D '53

Statistical study of selective fading of superhigh frequency radio signals. R. L. Kaylor. il Bell System Tech J 32:1187-202 S '53

Meteorological aspects

Conference on radio meteorology, Austin, Tex. Nov. 9-12; abstracts of papers. Inst Radio Eng Proc 41:1534-42 O '53

RADIO transmitters

Design considerations for frequency-shift-keyed circuits. W. Lyons. RCA R 15:230-7 Je '54

Frequency generating equipment for million-watt navy transmitter; abstract. D. G. Robertson. il Elec Eng 72:997 N '53

Million-watt naval communication transmitter; abstract. J. C. Walter. il Elec Eng 72:996 N '53

Control

Automatic control system with provision for scanning and memory. N. H. Young. il diags Elec Eng 72:782-4 S '53; Same. Elec Com 30:279-82 D '53

Conelrad switcher for sequential mode; time-delay relay circuits. N. J. Thompson. il diags Electronics 26:158-9 D '53

Construction of a mountain-top; remote base station; Central Vermont public service corp. H. V. Church. il map Commun Eng 13:22-5+ S '53

Random sequence switching. A. B. Ettlinger. il diags Electronics 27:165-7 F '54

Remote-control system for f-m broadcasting. A. V. Tidmore. il diags Electronics 26:138-42 O '53

Frequency modulation transmitters

Frequency-modulated uhf transmitter. H. W. Gates. il diags Electronics 27:238+ F '54

Single-transistor f-m transmitter can be used as wireless microphone unit in public address systems. D. E. Thomas. il diags Electronics 27:130-3 F '54

RADIO transmitters—*Continued*

Power supply

Punching holes in the iron curtain; Diesels power three additional Voice of America transmitters. W. T. Walker. il diags Diesel Power 32:28-33 Mr '54

Short wave

Automatic-tuning communication transmitter. M. C. Dettman. il Elec Com 30:271-8 D '53
Basket chassis transmitter. J. F. Sodaro. il diags Radio & Tv N 51:42-3+ Ja '54
Compact r.f. assembly for 50- and 144-mc. mobile. C. V. Chambers. il diags Q S T 37:17-20+ N '53
Control circuit for Viking one transmitters. L. F. Caccomo. Q S T 37:47 O '53
Crystal substitute. J. G. Donald. il diag Radio & Tv N 51:47+ Mr '54
De luxe five-band mobile transmitter. R. D. Leland. il diags Q S T 37:17-21 D '53
Desk-top driver-amplifier; simple shielded unit for 7 and 14 mc. R. C. Dennison. il diags Q S T 37:24-7+ O '53
80-meter novice transmitter. D. D. Bulkley and M. F. Kirchhoff. il diags Radio & Tv N 51:52-3+ Ja '54
Eighty watts on six bands. D. H. Mix. il diag Q S T 37:20-2+ Ag '53
Foolproof two-band transmitter. W. B. Cameron. diag Radio & Tv N 50:116 D '53
Four-band miniature 'phone-c.w. rig. W. W. Deane. il diags Q S T 37:26-8 Ag '53
460-mc. mobile equipment design. J. F. Byrne and A. A. MacDonald. il diags Commun Eng 13:26-8+ Jl '53
Inexpensive novice station. L. Trombly and R. A. Hathaway. il diags Radio & Tv N 50:52-4 S '53
Negative feed back modulation. R. Clay. il diags Q S T 37:17-19+ Ag '53
Novice 80- and 40-meter one-tube rig. L. G. McCoy. il diag Q S T 37:28-30+ N '53
Operating the BC-696 in tv fringe areas. J. D. Ticen. il diags Q S T 37:22-5 D '53
Plug-in modulator. E. G. Taylor. il diag Radio & Tv N 50:77 D '53
Simple heterodyne exciter for ten meters. C. Faulkner. il diags Q S T 37:21-4+ N '53
Single side-saddle linear. C. W. Eckhardt. bibliog il diags Q S T 37:25-7 N '53
Suppressing tvi in the Meissner signal shifter. L. G. McCoy. il Q S T 37:33+ O '53
Tvi and the novice. L. G. McCoy. il diags Q S T 37:40-3 O '53
Three-control six-band 813 transmitter. C. V. Chambers. il diags Q S T 38:11-16+ Ja '54
Two-control multiband transmitting unit. H. Herring. il diag Q S T 37:28-31 D '53
220-mc. station for the beginner. E. P. Tilton and M. P. Southworth. il diags Q S T 37:35-8 N '53
V.h.f./u.h.f. transmitters for experimental work. il diag Elec J 152:1031-2 Mr 26 '54
Wide-range high-power pi-network final. A. A. Farrar. il diags Q S T 37:34-7+ O '53

RADIO waves

Applications of microwaves in scientific research. H. H. Klinger. bibliog il plan diags Franklin Inst J 256:129-46 Ag '53
Calibration of the slotted section for precision microwave measurements. A. A. Oliner. bibliog diags R Sci Instr 25:13-20 Ja '54
Coupling of modes of propagation. J. R. Pierce. bibliog diag J Ap Phys 25:179-83 F '54
Diffraction of electromagnetic waves by two parallel half-planes. B. N. Harden. bibliog diag Inst E E Proc 100 pt 3:348-50 N '53
Diffraction of plane radio waves by a parabolic cylinder; calculation of shadows behind hills. S. O. Rice. bibliog diags Bell System Tech J 33:417-504 Mr '54
Ferrites in microwave applications. J. H. Rowen. diags Bell System Tech J 32:1333-69 N '53
Investigation of the characteristics of cylindrical surface waves. H. M. Barlow and A. E. Karbowiak. bibliog diags Inst E E Proc 100 pt 3:321-8; Discussion. 341-7 N '53
Microwave wide-angle scanner. J. Brown. bibliog diags Wireless Eng 30:250-5 O '53
New oil-finding method tested; radio transmission curves show boundaries of accumulations. R. B. Pratt. il map diags World Oil 137:98+ N '53
Nomenclature for e.m. wave modes. H. M. Barlow. diags Wireless Eng 30:233-4 S '53
Propagation of microwaves between a parallel pair of doubly curved conducting surfaces. K. S. Kunz. bibliog diags J Ap Phys 25:642-53 My '54
Radio frequency energy; a potential hazard in the use and transportation of electric blasting caps. Explosives Eng 31:116-17 Jl '53
Radio waves from interstellar hydrogen; astronomers use phenomenon to locate hydrogen clouds and to detect their motion. H. I. Ewen. il Sci Am 189:42-6 D '53
Surface waves. H. M. Barlow and A. L. Cullen. bibliog diags Inst E E Proc 100 pt 3:329-41; Discussion. 341-7 N '53
Transmission of electromagnetic waves through pairs of parallel wire grids. W. E. Groves. J Ap Phys 24:845-54 Jl '53
TEM waves in cylindrical systems. P. Moon and D. E. Spencer. diags Franklin Inst J 256:325-36 O '53
Types of wave which may exist near a guiding surface. J. Brown. Inst E E Proc 100 pt 3:363-4 N '53
Use of microwaves in observing commutator and slip ring surfaces during operation. A. H. Ryan and S. D. Summers. il diags Elec Eng 73:251-5 Mr '54
Wave propagation through an inhomogeneous medium. G. A. Hufford. J Ap Phys 24:268-71 Mr '53

See also
Radio echoes
Wave guides

Physiological effect

Capacity and conductivity of body tissues at ultrahigh frequencies. H. P. Schwan and Kam Li. bibliog diags Inst Radio Eng Proc 41:1735-40 D '53
Hyperthermic and pathologic effects of electromagnetic radiation (350 mc). J. E. Boysen. bibliog diag A M A Archives Ind Hygiene & Occup Med 7:516-25 Je '53

Polarization

New chart for the solution of transmission-line and polarization problems. G. A. Deschamps. diags Elec Com 30:247-54 S '53
Rotation of the microwave polarization in liquid crystals. G. A. Mann and R. D. Spence. J Ap Phys 25:271-2 F '54

Scattering

Certain transmission and reflection theorems. V. Twersky. bibliog J Ap Phys 25:859-62 Jl '54
Electromagnetic scattering by an ellipsoid in the third approximation. A. F. Stevenson. bibliog J Ap Phys 24:1143-51 S '53
General theory of plane-wave scattering from finite, conducting obstacles with application to the two-antenna problems. J. E. Storer and J. Sevick. bibliog diag J Ap Phys 25:369-76 Mr '54
Microwave diffraction measurements in a parallel-plate region. R. V. Row. bibliog il diags J Ap Phys 24:1448-52 D '53
Solution of electromagnetic scattering problems as power series in the ratio (dimension of scatterer)/wavelength. A. F. Stevenson. J Ap Phys 24:1134-42 S '53

RADIOACTIVE isotopes. See Isotopes; Radioactive tracers

RADIOACTIVE substances

Automatic evaporation of solutions. A. L. Downing and others. diags Chem & Ind p478-9 My 16 '53
Convenient transformation of radioactive carbon dioxide into radioactive cyanide. W. R. Vaughan and D. I. McCane. bibliog Am Chem Soc J 76:2504-5 My 5 '54
Field equipment for the collection and evaluation of toxic and radioactive contaminants. W. B. Harris and others. bibliog il diags A M A Archives Ind Hygiene & Occup Med 7:490-502 Je '53
Isotopes at NRC (Canada). Can Chem Process 37:84 N '53

RADIOACTIVE substances—*Continued*

Mass assignments by isotope separation. M. C. Michel and D. H. Templeton. Phys R 93:1422-3 Mr 15 '54

Metallography of highly radioactive materials. M. J. Feldman. il Metal Prog 64:97-102 N '53

New radioactive nuclides of the rare earths. T. H. Handley and E. L. Olson. Phys R 93:524-5 F 1 '54

Preliminary account of the mineralogy of radioactive conglomerates in the Blind River region, Ontario. R. J. Traill. bibliog il map diag Can Min J 75:63-8 Ap '54

Radioactive isotope separation by nuclear recoil. H. Morinaga and D. J. Zaffarano. Phys R 93:1422 Mr 15 '54

Radioactive silicones. Chem & Eng N 32:3792+ S 20 '54

Robot-run tools machine hot materials at Oak Ridge. S. E. Dismuke. il plan diag Am Mach 98:161-5 Ap 12 '54

Technique for mixing radioactive solutions. K. W. Bagnall and G. L. Miles. diag J Sci Instr 30:172 My '53

Theory of radioactive ion exchange. E. Pitts. J Chem Phys 22:56-65 Ja '54

To machine radioactive materials. S. L. Lindbeck. il Am Mach 98:166-7 Ap 12 '54

See also

Nuclear reactors	Thorium
Polonium	Uraninite
Radium	Uranium

Analysis

Determination of radioactive gold in biological tissue. L. C. Weiss, A. W. Steers and H. M. Bollinger. bibliog Anal Chem 26:586-7 Mr '54

See also

Uranium—Analysis

Industrial applications

Civilian atom; future and present. il Steel 135:56-7 Ag 9 '54

Disposal and uses of fission products. A. M. Aiken. bibliog Can Chem Process 38:98+ My '54

Engine wear testing goes radioactive. il Aviation W 58:30-1 Je 8 '53

Industry and the atom. D. Eldred. il diags Mill & Factory 55:112-16 Ag '54

Iron ore; radioactive concentrates test use of unpellitized fines. Iron Age 173:79-80 Mr 11 '54

Practical radioactivity. diags Power Eng 58:63-5 Ag '54

Radioactive gages signal water content of snow packs as aid in runoff control. il Eng N 151:24-5 D 24 '53

Radioactive materials in prevention of mold growth in optical instruments. S. Berk and L. Teitell. bibliog il diags Ind & Eng Chem 46:778-84 Ap '54

RADIOACTIVE tracers

American drug manufacturers association Research and development section meeting, Rye, N.Y.; abstracts of papers. Chem & Eng N 31:4878 N 23 '53

Application of radioactive tracer techniques to textile research. H. J. White, jr. bibliog Soc Dyers & Col J 70:284-7; Discussion. 287 Jl '54

Application of radiochemical techniques to the study of the interaction of hair fibers with aqueous solutions. P. B. Stam and H. J. White, jr. bibliog Textile Res J 24:785-91 S '54

Application of radiometric procedures to the evaluation of surface cracking of elastomers. J. L. Kalinsky and T. A. Werkenthin. bibliog il diags Rubber Age 75:375-84+ Je '54

Atomic tracers aid cleanser research. Nat Safety N 68:94 N '53

Atoms and textiles. Textile Inst J 45:P301-2 Jl '54

Biophysical methods for the assay of the life span of red blood cells. H. C. Box and others. bibliog Science 118:72-3 Jl 17 '53

Biosynthesis of radioactive senecioic acid (β-methylcrotonic acid) in particle-free extracts of rat liver. J. L. Rabinowitz. bibliog Am Chem Soc J 76:3037-8 Je 5 '54

Calculation of amount of tracer carried with precipitates of its radioactive parent. F. W. Lima. Anal Chem 25:1924-5 D '53

Comparative cleaning of diphase and emulsion systems. L. Osipow and others. bibliog Ind & Eng Chem 45:2779-82 D '53

Conference on use of tritium in organic and biological chemistry, Lemont, Ill. Chem & Eng N 31:3184+ Ag 3 '53

Determination of small amounts of niobium and tantalum using radioisotope tracer technique. T. F. Boyd and M. Galan. flow sheets Anal Chem 25:1568-71 O '53

Diffusion of calcium ion in liquid slag. H. Towers and others. bibliog il diag J Metals 5:Trans 1455-8 N '53

Extrusion of aluminum studied by radioactive tracers. Mach 60:171 Ag '54

Fischer-Tropsch synthesis mechanism studies; the addition of radioactive alcohols to the synthesis gas. J. T. Kummer and P. H. Emmett. bibliog Am Chem Soc J 75:5177-83 N 5 '53

Fundamental approaches to the glassy state through radioactive tracers; abstract. H. H. Blau. Cer Ind 62:85 F '54

How radioactive control is applied to a products pipe line. D. E. Hull and B. A. Fries. il Oil & Gas J 52:66-8 Jl 6 '53; Same. Pet Eng (Ref annual) 25:D 19+ Jl 15 '53; Same. Am Pet Inst Proc 33(5):90-4 '53

Isotopes lead to improvement of materials. il Materials & Methods 40:11+ Jl '54

Labelled photosynthesis. P. R. Gorham. Can Chem Process 37:102 O '53

Modification of the distribution and excretion of radioisotopes by chelating agents. H. Hart and D. Laszlo. bibliog Science 118:24-5 Jl 3 '53

Offers new look at wear; limited mold life problem in the forming of plastic products. il Steel 135:109 Jl 26 '54

Oil and the atom; partners or competitors? W. L. Davidson. Am Pet Inst Proc 33(1):113-19 '53; Same. il diags Pet Eng 26:E 1+ Ja '54; Same abr. Oil & Gas J 52:263-4+ N 16 '53

Radioactive measurement of proteolytic activity. G. L. Nardi. bibliog Science 118:299-300 S 11 '53

Radioactive tracer assay for vitamin B_{12} and other cobalamins in complex mixtures. F. A. Bacher, A. E. Boley and C. E. Shonk. Anal Chem 26:1146-9 Jl '54

Radioactive tracers in insecticide research. P. A. Dahm. bibliog diags Soap & San Chem 29:136-7+ S; 148-9+ O; 141+ N; 167-8+ D '53

Radioactive tracers in the study of pitting corrosion on aluminum. P. M. Aziz. bibliog il Electrochem Soc J 101:120-3 Mr '54

Radiochemistry in paint research; abstract. D. F. Rushman. Soc Dyers & Col J 69:510-11 D '53

Radioisotope techniques in concrete research. S. J. Goldstein; F. W. Kittrell. Am Concrete Inst J 25:393-6 Ja '54; Discussion. il plan 25:889-92 Je '54

Radioisotopes; a new and important tool in all phases of industry. B. F. Linz. diags Oil & Gas J 52:106+ S 14 '53

Radioisotopes in an industrial clinic. L. Price and W. H. Foege. il Ind Med 22:331-3 Ag '53

Radioisotopes in the paper industry. C. A. Sankey. Tappi 37:sup 139A-40A F '54

Radioisotopic dilution analysis for D-glucose and gentiobiose in hydrol. J. C. Sowden and A. S. Spriggs. bibliog Am Chem Soc J 76:3539-41 Jl 5 '54

Radiotracer study of sulfate ion adsorption at the air/solution interface in solutions of surface-active agents. C. M. Judson and others. bibliog J Phys Chem 57:916-23 D '53

Some applications of radioactive tracers to glass problems, tr. by R. Brantlinger. I. Peyches. bibliog diags Glass Ind 35:309-13+ Je '54

Some uses of radioactive tracers in glass technology. S. F. Cox and K. M. Laing. bibliog Glass Ind 35:183-4+ Ap '54

Studies in low concentration chemistry; some properties of tracer yttrium, antimony and silver in solution. G. K. Schweitzer and W. M. Jackson. Am Chem Soc J 76:3348-9 Je 20 '54

Study of the propagation mode for metallic vapors in shadow-casting by vacuum evaporation of Au^{198} and Cr^{51}. L. E. Preuss. bibliog il diags J Ap Phys 24:1401-9 N '53

RADIOACTIVE tracers—*Continued*

Surface reactions of steel in dilute $Cr^{51}O^{=}_4$ solutions; applications to passivity. R. A. Powers and N. Hackerman. bibliog il Electrochem Soc J 100:314-19 Jl '53; Discussion. 101:332-4 Je '54

Tetraethyl radiolead studies of combustion chamber deposit formation. H. P. Landerl and B. M. Sturgis. il Ind & Eng Chem 45:1744-8 Ag '53

Tracer method for sulfur solubility and diffusivity in rubber. I. Auerbach and S. D. Gehman. bibliog il diags Anal Chem 26: 685-90 Ap '54

Tracer studies in liquid nitrosyl chloride. J. Lewis and R. G. Wilkins. bibliog Chem & Ind p634-5 My 29 '54

Tracer studies on the formation and reactions of organic peracids. C. A. Bunton and others. Chem & Ind p 191-2 F 13 '54

Use of radioactive-tracer technique in the wear-testing of engine lubricating oils. A. Dyson and K. R. Williams. pl Inst Pet J 39:524-30 Ag '53

Use tracers for aluminum; Aluminum co. of America research studies. il Iron Age 173: 89-90 My 20 '54; Steel 134:129 Je 28 '54; Iron & Steel Eng 31:130+ Jl '54

RADIOACTIVE waste. See Nuclear reactors—Waste; Sewage disposal—Radioactive waste disposal; Trade waste—Radioactive waste

RADIOACTIVE water. See Water purification—Radioactive water

RADIOACTIVITY

Activation analysis using low level neutron sources. W. W. Meinke and R. E. Anderson. bibliog il Anal Chem 25:778-83 My '53

Civil defense and natural disasters; A-B-C of radiation hazards. Pub Works 85:69-70 Ap '54

Comparative retentions of the nuclear isomers of Br^{80} in the propyl bromides. P. C. Capron and E. Crèvecoeur. J Chem Phys 21:1843-50 O '53

Creation of elements; abstract. I. Perlman. Chem & Eng N 32:1440-1 Ap 12 '54

Half-life determination of Po^{210} by alpha counting. M. L. Curtis. Phys R 92:1489 D 15 '53

Half-life of Am^{243}. H. Diamond and others. bibliog Phys R 92:1490-1 D 15 '53

Half-life of lanthanum-140. H. W. Kirby and M. L. Salutsky. bibliog Phys R 93: 1051-2 Mr 1 '54

Half-life of yttrium-90. A. Chetham-Strode, jr. and E. M. Kinderman. Phys R 93: 1029 Mr 1 '54

Half-lives of Pu^{240} and Pu^{239}. G. W. Farwell and others. Phys R 94:363-4 Ap 15 '54

Natural radioactivity of rhenium. A. D. Suttle, jr. and W. F. Libby. Phys R 95: 866-7 Ag 1 '54

Neon-18. J. D. Gow and L. W. Alvarez. diag Phys R 94:365-7 Ap 15 '54

Nuclear-energy study course; radioactivity signals nuclear changes. H. C. Schwenk and R. H. Shannon. il diags Power 98:93-5 S '54

Preparation and half-life of Cr^{55}. G. A. Bazorgan and others. Phys R 95:781 Ag 1 '54

Radiation from antimony 122. J. M. Cork and others. bibliog Phys R 93:1059-61 Mr 1 '54

Radioactive charging effects with a dielectric medium. P. Rappaport and E. G. Linder. bibliog diags J Ap Phys 24:1110-14 S '53

Radioactivity in industrial instrumentation. B. W. Thomas. diags Ind & Eng Chem 45: sup89A-90A S '53

Radioactivity of rivers and lakes in parts of Garland and Hot Spring counties. R. H. Arndt and P. K. Kuroda. bibliog maps Econ Geol 48:551-67 N '53

Radioactivity standards. Mill & Factory 54: 256+ Je '54

Relative contributions of various elements to the earth's radioactivity. I. Asimov. bibliog J Chem Educ 31:24-5 Ja '54

Tagged hydrocarbons produced directly by pile irradiation. Chem & Eng N 32:2200 My 31 '54

Utilization of radioactivity in the age determination of minerals. C. Asgian. bibliog Can Min J 75:57-61 Mr '54

See also

Alpha rays
Beta rays
Cloud chambers
Electrons
Gamma rays
Hydrogen bomb—Radiological effect
Ionization, Gaseous
Neutrons
Nuclear reactions
Radioactive substances
Radioactive tracers
Radiography
Radium
Samarium—Nuclear reactions
Tungsten—Nuclear reactions
Water pollution—Radioactive pollution
X rays

Measurement

Apparatus for automatically scanning two-dimensional paper chromatograms for radioactivity. W. J. Wingo. il Anal Chem 26:1527-8 S '54

Determination of calcium in biological materials. W. P. Norris and B. J. Lawrence. bibliog il diag Anal Chem 25:956-60 Je '53

Determination of photographic film exposure by neutron activation of Ag^{107}. I. B. Berlman and others. R Sci Instr 24:396-7 My '53

Gas flow counter for scanning paper chromatograms and paper ionograms. H. L. Demorest and R. Baskin. diags Anal Chem 26:1531-2 S '54

Half-life and beta decay of the long-lived niobium-94. M. A. Rollier and E. Saeland. Phys R 94:1079 My 15 '54

Half-lives of Pu^{240} and Pu^{239}. G. W. Farwell. Phys R 94:952 My 15 '54

Micromethod for measurement of carbon-14-labeled material. J. H. Peters and H. R. Gutmann. bibliog diags Anal Chem 25:987-8 Je '53

New determination of the half-life of Am^{242m}; the problem of counting short-lived activities. T. K. Keenan and others. bibliog J Chem Phys 21:1802-3 O '53

Pressurized γ-radiation monitor for use in inflammable atmospheres. J. B. Marsh and others. il diags J Sci Instr 30:302-4 S '53

Quantitative determination of S-35-labeled compounds in complex mixtures. J. B. Melchior and A. H. Goldkamp. bibliog Anal Chem 26:233-5 Ja '54

Quantitative radiochemical method for determination of major sources of natural radioactivity in ores and minerals. J. N. Rosholt, jr. diag Anal Chem 26:1307-11 Ag '54

Radiac instrumentation. D. Taylor. J Sci Instr 30:436 N '53

Refinements in radioactive standardization by 4π beta counting. W. B. Mann and H. H. Seliger. diags J Res Nat Bur Stand 50: 197-200 Ap '53

Scintillation counters using liquid luminescent media for absolute standardization and radioactive assay. E. H. Belcher. bibliog diags J Sci Instr 30:286-9 Ag '53

Small-volume dosimeter for X-rays and gamma-rays. J. H. Schulman and H. W. Etzel. bibliog diag Science 118:184-6 Ag 14 '53

Terminology

Terminology used in radioactivity measurements. H. T. Van Mell. Instruments & Automation 27:615-16 Ap '54

Physiological effect

Permissible levels of exposure to ionising radiations and radioactive materials. W. G. Marley. Chem Age (Lond) 70:1259-60 Je 5 '54

Radiation injury and the present status of therapeutics; a bibliographic review. T. J. Haley. bibliog(60 titles) Ind Med 22:569-72 D '53

Radioactive colloids; increased danger. E. R. Gabrieli. bibliog Science 118:282-3 S 4 '53; Discussion. L. A. Stirrett. 118:631 N 20 '53

Protection

Chemical process seen solution to radioactive contamination; abstract. F. D. Snell and others. Comm & Fin Chr 178:1007 S 17 '53

RADIOACTIVITY—Protection—*Continued*

Compact radiographic inspection setup combines safety with good handling; Crucible steel co.'s Spaulding works. J. A. Kearney and J. P. Brennan. il diag Iron Age 174: 128-30 S 9 '54

Controlling dust in uranium plants; abstract. H. I. Miller, jr. Chem & Eng N 32:1932+ My 10 '54

Cooling hot labs. Chem W 73:38+ Jl 4 '53

Detergency as applied to radiological decontamination. G. Segura, jr. and others. bibliog Chem & Ind p 1270-3 N 28 '53

Detergents for radiological decontamination. F. D. Snell and others. Soap & San Chem 29:42-4 O '53; Abstract. Nat Safety N 69: 222+ Mr '54

Disposal and uses of fission products. A. M. Aiken. bibliog Can Chem Process 38:98+ My '54

Emanation of radon in uranium mines and control by ventilation. E. C. Tsivoglou and H. E. Ayer. A M A Archives Ind Hygiene & Occup Med 8:125-32 Ag '53

Ionising radiations in industry; health and safety precautions. Chem Age (Lond) 69: 963-4 N 7 '53

Isotopes create new metal market; Hevimet has resistance to both gamma rays and X rays. il Iron Age 172:75-6 D 17 '53

John S. Barnes machine cleans and checks radioactive rods. il Mach 60:233 Jl '54

Laboratories for handling radioactive materials. W. B. Harris. plan diags Heat & Ven 50:74-8 N '53

Mechanical arm developed for use in radioactive areas. il Elec Eng 73:193 F '54

New extractor uses pump-mixer; processing radioactive solutions. diag Chem Eng 61: 132+ Mr '54

New radiometallurgy laboratory at the Hanford atomic operation. T. W. Gore. il plan Metal Prog 65:81-7 Je '54

Newton Victor radioactive isotope containers. il Metallurgia 49:147 Mr '54

Nuclear engineering radiation problems; decontamination of the Canadian reactor. F. W. Gilbert. il diags Chem Eng Prog 50: 267-71 My '54

Nuclear engineering radiation problems; radioactive wastes treatment, use, disposal. W. A. Rodger. bibliog Chem Eng Prog 50: 263-6 My '54

Piping, pumps and valves for high pressure water reactor systems. A. Amorosi. plan diag Heating-Piping 26:140-4 My '54

Pneumatic conveyor for BEPO irradiation cans. G. Shepherd and R. West. diags J Sci Instr 30:291-2 Ag '53

Post-atom attack cleanup methods reported. Eng N 151:90+ S 10 '53

Protection against radiations from radium, cobalt-60, and cesium-137. U S Nat Bur Stand Handbook 54:1-60; pa 25c Supt. of doc. '54

Radiation decontamination study. Safety Maint & Prod 106:41-2 N '53

Radiation monitor protects lab workers. R. H. Delgado. il diags Electronics 26:150-3 N '53

Radioactive contamination; barrier creams for hand protection. G. S. Towler. Chem & Ind p387 Ap 3 '54

Recycling of fission products in the biotic cycle. J. M. Heslep and A. W. Bellamy. J Chem Educ 30:421-4 Ag '53

Remote valve for dispensing colloidal ^{198}Au solutions. L. E. Preuss. diag J Sci Instr 31:29 Ja '54

Remotely controlled pipetting apparatus for radioisotopes. W. E. Kisieleski and D. F. Uecker. il diag Science 118:102-3 Jl 24 '53

Robot-run tools machine hot materials at Oak Ridge. S. E. Dismuke. il plan diag Am Mach 98:161-5 Ap 12 '54

Safe handling of cadavers containing radioactive isotopes. U S Nat Bur Stand Handbook 56:1-15; pa 15c Supt. of doc. '53

Sequestering agents best bet for decontaminating surfaces. Chem & Eng N 31:2602-3 Je 22 '53

Shielded hood for radioisotope chemistry; Argonne national laboratory. il Chem & Eng N 31:3216+ Ag 3 '53

Simple agitation device for highly radioactive volumetric flasks. L. E. Preuss and M. A. Edsel. il diags J Sci Instr 30:252-3 Jl '53

To machine radioactive materials. S. L. Lindbeck. il Am Mach 98:166-7 Ap 12 '54

Ventilating the atomic energy plant. T. G. Marshall. bibliog il Refrig Eng 62:39-42+ My '54

See also

Atomic bombs—Protective measures

RADIOCARBON. See Carbon—Isotopes

RADIOCARBON measurements. See Archeology

RADIOCHEMICAL analysis

Determination of traces of copper in germanium by activation analysis. G. Szekely. Anal Chem 26:1500-2 S '54

Radiochemical determination of neodymium, praseodymium, and cerium in fission products. H. G. Petrow. bibliog Anal Chem 26: 1514-15 S '54

RADIOCHEMISTRY

Atomic chemistry. Economist 169:773 D 5 '53

Quantitative radiochemical method for determination of major sources of natural radioactivity in ores and minerals. J. N. Rosholt, jr. diag Anal Chem 26:1307-11 Ag '54

Radiation chemistry; abstract. F. S. Dainton. Chem & Ind p684-5 Jl 11 '53

Radiation chemistry of mixtures; cyclohexane and benzene-d_6. M. Burton and W. N. Patrick. bibliog J Phys Chem 58: 421-3 My '54

Radiation chemistry of mixtures; propionaldehyde and benzene-d_6. W. N. Patrick and M. Burton. bibliog J Phys Chem 58:424-30 My '54

Radiochemical assay of cobalt-60. R. Ballentine and D. D. Burford. bibliog il diags Anal Chem 26:1031-5 Je '54

Radiochemistry in paint research; abstract. D. F. Rushman. Soc Dyers & Col J 69: 510-11 D '53

Self-radiolysis of C^{14}-compounds. C. D. Wagner and V. P. Guinn. Am Chem Soc J 75:4861 O 5 '53

Significance of fungus growth in analytical and radiochemical work with strontium-containing solutions. S. Z. Lewin, P. J. Lucchesi and J. E. Vance. Am Chem Soc J 75:6058 D 5 '53

Stability of a complex ion; experiment in radiochemistry and ion exchange. P. Kruger and J. Schubert. bibliog J Chem Educ 30:196-8 Ap '53

RADIOCHEMISTRY laboratories

More room for cobalt calibration; National bureau of standards Gamma ray laboratory. il Chem & Eng N 32:2376 Je 14 '54

Never too hot to handle; Britain's radiochemical center at Amersham. il Chem W 74:107 Ap 24 '54

Radiochemical centre, Amersham. Chem & Ind p456 Ap 17 '54

Radiochemical center extended at Amersham. Chem & Eng N 32:2007-8 My 17 '54

Trade in radiation; Radiochemical centre, Amersham. il Chem Age (Lond) 70:877-80 Ap 17 '54

Equipment

Isotopes, instruments go West; Tracerlab. il Chem & Eng N 32:1330-1 Ap 5 '54

RADIOCOLLOIDS. See Colloids

RADIOGRAPHY

Charts for obtaining geometrical corrections directly from anti-equi-inclination photographs. G. Kartha. R Sci Instr 24:871 S '53

Determination of the self-diffusion coefficients of gold by autoradiography. H. C. Gatos and A. D. Kurtz. diags J Metals 6:Trans 616-19 sec 2 My '54

How to cut weld inspection time. A. Gobus. il diag Pet Eng 25:C21+ Je '53; Same cond. Steel 131:72-3 O 27 '52; Excerpts. Product Eng 24:268+ F '53; Power 98:126-7 Ap '54

Improved historadiographic apparatus. J. J. Clemmons and M. H. Aprison. bibliog il diags R Sci Instr 24:444-54 Je '53

Measurement of X-ray intensities on integrated Weissenberg photographs. D. W. Smits and E. H. Wiebenga. il J Sci Instr 30:280-1 Ag '53

Mechanical transformation of Weissenberg pictures to undistorted theta lattices. il diag R Sci Instr 24:872-3 S '53

RADIOGRAPHY—*Continued*

Microphotometer for microradiography. S. Bourghardt and others. bibliog il diags J Sci Instr 30:464-6 D '53

Mobile engineering radiographic unit. il Engineer 196:837-8 D 25 '53

Newly developed X-ray device extends use of radiography. il Foundry 81:147 D '53

Radiographic characteristics of high-energy X rays. A. L. Pace. il diags Foundry 82: 108-11+ F '54

Radiographic exposure calculator. Metallurgia 48:254 N '53

Radiographic studies of segregates. A. M. Portevin. il Metal Prog 64:108+ D '53

Radiographic studies of the process of sintering iron ores. E. Cohen. bibliog 6pls Iron & Steel Inst J 175:160-6 O '53

Radiography; big 3¼ × 10 ft film compares old and new rifles; Allis-Chalmers mfg. co. il Iron Age 172:187-8 N 5 '53

Radiography now used over Canada for inspection of steel. Roads & Eng Constr 92: 100 Ag '54

Sensitization of X-ray emulsions by very small quantities of a lead salt. E. T. Larson, F. W. H. Mueller and H. Hoerlin. bibliog J Phys Chem 57:802-8 N '53

Some industrial applications of microradiography; abstract. S. Goldspiel and F. Bernstein. Metal Prog 65:184+ Ap '54

Universal jig holds parts for radiography. E. R. Foor. il Foundry 82:202 Ja '54

Xeroradiography may widen use of X-ray. Materials & Methods 39:208+ Ja '54

See also

Diagnosis, Radioscopic

Metals—X ray inspection

Welding—X ray inspection

Cost

Radiography at bargain rates; gamma-ray radiography. il Steel 133:94+ O 5 '53

RADIOISOTOPES. See Isotopes; Radioactive tracers

RADIOLYSIS. See Radiochemistry

RADIOMETERS

Dc comparison radiometer. W. Selove. bibliog diags R Sci Instr 25:120-2 F '54

Instrument for the direct measurement of intense thermal radiation. R. Gardon. diags R Sci Instr 24:366-70 My '53

New radiometer. J. T. Houghton and A. W. Brewer. bibliog diags J Sci Instr 31:184-7 My '54

Radiometer calibration for extended-source measurements. F. E. Nicodemus. diag Opt Soc Am J 43:547-9 Jl '53

Two-sphere radiometer. D. J. Sutton and P. E. McNall, jr. bibliog il diags Heating-Piping 26:157-62 Mr '54; Abstract. Heat & Ven 51:93-4 Mr '54

Wide-range thermistor radiometer for the measurement of skin temperature and environmental radiant temperature. A. M. Stoll. bibliog diags R Sci Instr 25:184-7 F '54

RADIOSCOPIC diagnosis. See Diagnosis, Radioscopic

RADIOTHERAPY

Treatment of cancer with radioisotopes. J. R. Sampey. bibliog Ind Med 22:300-1 Jl '53

RADIUM

Differential leaching of uranium, radium, and lead from pitchblende in H_2SO_4 solutions. G. Phair and H. Levine. bibliog Econ Geol 48:358-69 Ag '53

Fractionation of barium-radium mixtures as chromates. M. L. Salutsky, J. G. Stites, jr. and A. W. Martin. bibliog Anal Chem 25:1677-81 N '53

Jury finds radium capsule rupture is explosion under EC; Keleket X-ray corp. Nat Underw 57:2 D 10 '53

Production of unipolar air with radium isotopes. T. L. Martin, jr. diags Elec Eng 73:28-33 Ja '54

Radium as a tracer in sewage flow measurements. T. G. Bullen and W. F. O'Connor. plans diags Sewage & Ind Wastes 26:497-507 Ap '54

Analysis

Determination of radium in residues. C. A. Wamser and others. Anal Chem 25:827-8 My '53

Radium content of public water supplies. J. R. Hursh. bibliog diag Am Water Works Assn J 46:43-54 Ja '54

Radium determination by alpha counting. H. W. Kirby. bibliog Anal Chem 25:1238-41 Ag '53

Safety measures

Protection against radiations from radium, cobalt-60, and cesium-137. U S Nat Bur Stand Handbook 54:1-60; pa 25c Supt. of doc. '54

RADIUM compounds

Complexes of alkaline earth cations including radium with amino acids and related compounds. J. Schubert. bibliog Am Chem Soc J 76:3442-4 Jl 5 '54

RADIUM D

β spectrum of RaD. E. Huster. bibliog Phys R 92:1076 N 15 '53

Separation of radium D, E, and F by paper chromatography. E. E. Dickey. J Chem Educ 30:525 O '53

RADIUM E

Long-lived isomer of RaE (Bi^{210}). H. B. Levy and I. Perlman. bibliog diag Phys R 94:152-5 Ap 1 '54

Pseudoscalar interaction and the beta spectrum of RaE. M. E. Rose and R. K. Osborn. bibliog Phys R 93:1315-25 Mr 15 '54

Separation of radium D, E, and F by paper chromatography. E. E. Dickey. J Chem Educ 30:525 O '53

RADIUM F

Separation of radium D, E, and F by paper chromatography. E. E. Dickey. J Chem Educ 30:525 O '53

RADIUM in the body

Fluctuations of breath radon in subjects seated at rest. E. J. Martin and J. K. W. Ferguson. diag A M A Archives Ind Hygiene & Occup Med 8:574-81 D '53

RADIUM poisoning

Radon inhalation studies in rats. S. H. Cohn and others. bibliog il A M A Archives Ind Hygiene & Occup Med 7:508-15 Je '53

RADOMES. See Airplanes—Radomes

RADON

Emanation of radon in uranium mines and control by ventilation. E. C. Tsivoglou and H. E. Ayer. A M A Archives Ind Hygiene & Occup Med 8:125-32 Ag '53

Low-level radon counting system. G. L. Bate and others. bibliog diags R Sci Instr 25: 153-7 F '54

Occurrence of radon in nonuranium mines in Colorado. P. W. Jacoe. A M A Archives Ind Hygiene & Occup Med 8:118-24 Ag '53

Radon in sewage outfall studies. T. G. Bullen and W. F. O'Connor. maps plan diags Sewage & Ind Wastes 26:627-34 My '54

Radon inhalation studies in rats. S. H. Cohn and others. bibliog il A M A Archives Ind Hygiene & Occup Med 7:508-15 Je '53

Isotopes

Determination of the short-lived decay products of radon in natural waters. P. K. Kuroda and Y. Yokoyama. bibliog diag Anal Chem 26:1509-11 S '54

RADON in the body

Effect of posture on the elimination of radon in the breath. E. J. Martin and J. K. W. Ferguson. bibliog Science 118:112-14 Jl 24 '53

Fluctuations of breath radon in subjects seated at rest. E. J. Martin and J. K. W. Ferguson. diag A M A Archives Ind Hygiene & Occup Med 8:574-81 D '53

RAGS

Cotton rags level off. A. Waldman. Paper Tr J 138:56+ Ja 29 '54

Rags and shoddy. J. Hepworth. Textile Inst J 45:P62-4 F '54

RAIL joints

Testing

Electronic railroad inspector. Steel 133:221+ D 7 '53; Elec Eng 73:190 F '54

Progress reports of investigation of railroad rails and joint bars. R. E. Cramer and R. S. Jensen. il Ill U Eng Exp Sta Reprint Ser 53:1-40 '54 (pa 30c)

RAILINGS

Expanded metal for safety railings. il Sheet Metal Worker 45:49-50 Jl '54

RAILROAD and utilities commissioners, National association of. See National association of railroad and utilities commissioners
RAILROAD associations
See also Association of American railroads; Car department officer's association; Pan American railway congress association
RAILROAD board of mediation. See National mediation board
RAILROAD bridges. See Bridges, Railroad
RAILROAD construction. See Railroads—Construction
RAILROAD engineering
Progress in railway mechanical engineering, 1952-1953. bibliog il plans diags Mech Eng 76:236-47, 334-42 Mr-Ap '54
See also
Bridges, Railroad
Cars
Locomotives
Railroad research
Railroads—Construction
Railroads—Earthwork
Railroads—Maintenance and repair
Railroads—Track
Train resistance
RAILROAD engineers
Conference on selection and training of railroad management personnel, Ann Arbor, Feb. 10-11. Ry Age 136:9-11 F 22 '54
RAILROAD labor. See Railroads—Employees
RAILROAD land grants
Revested Oregon and California railroad grant lands, a problem in land management. W. C. Ballaine. bibliog map Land Econ 29:219-32 Ap '53
RAILROAD law
Discrimination against railroad employees under federal laws. F. R. Hurlbutt. Comm & Fin Chr 178:1638-9 O 29 '53
Legal problems of the railroad passenger deficit. E. Martin. Pub Util 54:429-36 S 30 '54
Railroads fared badly in Congress. Ry Age 137:6-7 Ag 30 '54
Review of railway operations in 1953; legislation affecting the railroads. J. E. Monroe. Ry Age 136:127-8 Ja 11 '54
See also
Interstate commerce commission
National mediation board
Railroads—Employees
Railroads—Rates
Railroads and state
RAILROAD management. See Railroads—Management
RAILROAD motor cars. See Motor cars (railroad)
RAILROAD public relations association
Annual meeting, 2d, New York, June 14. Ry Age 136:57-9 Je 28 '54
RAILROAD rates. See Railroads—Rates
RAILROAD research
AAR's research is paying off. Ry Age 136:9 Ap 26 '54
How railroads apply research to secure improved operations. W. M. Keller. Ry Age 135:62-3 N 2 '53
What's new in A.A.R. research. il Ry Age News ed 136:24-7+ F 15 '54
Wind tunnel for railway research. il Engineering 176:564 O 30 '53
RAILROAD shops. See Car shops; Locomotive shops; Railroads—Shops
RAILROAD stations. See Railroads—Stations
RAILROAD strikes
Rail workers vote strike. il Bsns W p 154-5 D 5 '53
RAILROAD superintendents, American association of. See American association of railroad superintendents
RAILROAD supplies industry
Bolstering business; diversify to offset dwindling orders. J. C. Potter. Barron's 33:13+ S 28 '53
Suppliers to aid railroads; newly organized committee plans campaign. Ry Age 136:9 Je 28 '54

Securities

Rail equipments in transition. R. Colston. Mag of Wall St 92:560-1+ Ag 8 '53
RAILROAD tie plates
Elastic track used in France; substitutes a rubber pad for the conventional steel tie plate. il diag Ry Age 136:72-3 F 8 '54
Rolls and rolling; tie plates. E. E. Brayshaw. diags Blast F & Steel Pl 41:1313-21 N '53
RAILROAD ties
Chemical deterioration of wood in the presence of iron. E. Farber. bibliog il Ind & Eng Chem 46:1968-72 S '54
See also
Railway tie association
RAILROAD tracks. See Mine tracks; Railroads—Track
RAILROAD yards. See Railroads—Yards
RAILROADS
Good year for railroads in 1954. J. H. Parmelee. Ry Age 136:13 Mr 22 '54
How the railroads fared in 1953. W. T. Faricy. Comm & Fin Chr 178:2645 D 31 '53
Inherent advantages of railway transportation. D. E. Pegrum. Ry Age 137:19-21 Ag 30 '54
New profits for you behind tomorrow's hot headlines; transportation by rail. F. Richter and T. Shedd, jr. Sales Management 72:29-30 Ja 1 '54
Nothing in sight to supplant trains. W. T. Faricy. Ry Age 136:10-11 F 22 '54
Panamericana and piggyback; year in pictures. A. M. Cox, jr. Ry Age 136:133-45 Ja 11 '54
Positive side of the tracks. W. White. Comm & Fin Chr 178:2383+ D 17 '53
Railroad credit boosted by more efficiency. H. Lyne, jr. Comm & Fin Chr 178:2370 D 17 '53
Railroad's inherent advantages. W. J. Rae. Ry Age 137:22-6+ Jl 5 '54
Railroads taken for granted; abstract. G. Metzman. Ry Age 137:11-12 S 6 '54
Rails in '54; falling traffic, rising wages dim the outlook. A. Jansen. Barron's 33:11+ D 14 '53
Word for the railroads. Comp Air Mag 59: 234 Ag '54
See also
Air brakes
Bridges, Railroad
Carriers
Cars
Electric railroads
Freight car service
Freight cars
Grade crossings
Lehigh Valley railroad
Locomotives
Motors cars (railroad)
Railroad engineering
Railroad research
Railroad ties
Railroads and state
Rails
Railway mail service
Rapid transit
Transportation
also Pan American railway congress association

Accidents

Railway accidents in 1952. Engineering 177:6 Ja 1 '54
See also
Grade crossing accidents
Railroads—Safety measures

Accounting

Accountant's contribution to profitability of railroad operating income. P. R. Bretey. J Account 96:344-5 S '53
Accounting service to supervisors. D. B. Woomer. Ry Age 136:70-1+ F 8 '54
How the New York Central makes rent bills. G. H. Albach. flow chart il Ry Age 136:66-8+ F 22 '54
See also
Railroads—Finance
Railroads—Records
also Association of American railroads—Accounting division

Advertising

Ads promote prestige for Western Pacific railroad. C. Watson. Ed & Pub 86:24 Ap 4 '53
Advertising; Chesapeake & Ohio campaign pays off. R. M. Lorz. il Iron Age 174:48-9 Jl 29 '54
Big railroad, and a little orange. H. Stebbins. il Ptr Ink 245:39 O 16 '53

Air brakes

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Airline competition

Railroads protest more air mail tests. Ry Age 137:9 S 20 '54
Revenue from top rail fares near air average. Ry Age 136:10 Je 28 '54
Why so much military traffic moves by air. J. H. Frederick. il Ry Age 136:50-3 Je 28 '54

RAILROADS—*Continued*

Automatic stop and train control

Swiss railway signalling and A.T.C. K. Oehler. Engineer 196:528-9 O 23 '53
Towards safer railways. Economist 168:120-1 Jl 11 '53

Ballast

See Ballast

Brakes

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Braking

Automatic slack adjuster for freight cars. il Ry Loco & Cars 128:83 My '54; Same. Ry Age 136:44 Je 14 '54
Diesel-electrics; how to keep 'em rolling; dynamic braking. B. L. Judy and A. V. Johansson. il diags Ry Loco & Cars 127: 111-16+ N '53
Disc brakes; how they work, how to maintain them. R. G. Stacy and D. Rudolph. il diag Ry Loco & Cars 128:57-60+ Je '54
How to handle present weight trains and establish good instructions for proper train handling. A. M. Malmgren. Ry Loco & Cars 127:92-4 N '53
See also
Air brakes

Bridge crossing

See Bridges, Railroad

Buildings and structures

Air rights will be leased in new $75-million project; land over Chicago Union Station trainsheds. il Ry Age News ed 135:9-10 O 26 '53
Cotton Belt breaks ground; St Louis Southwestern's new office building. il Ry Age 136:13-14 Mr 8 '54
Land architecture for railroads. J. D. Scruggs. il plan Ry Age 136:54-7 Je 14 '54
Novel uses for old box car parts. il Ry Loco & Cars 128:63 F '54
See also
Bridges, Railroad
Car shops
Freight houses
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Car departments

See also
Car department officer's association

Cars

See Cars; Dining cars; Freight cars; Ore cars

Centralized traffic control

See Railroads—Signals

Chemical needs

Method at Magnus; Dieselization means new opportunities to suppliers to rails. il Chem W 74:34+ Ja 30 '54

Claims

Court holds railroad's move to limit liability was insufficient; Beaumont vs. Pennsylvania railroad. East Underw 55:43+ Mr 26 '54
'53's freight claim bill was up. Ry Age 136:10 Ap 19 '54
I.C.C. carrier, act of God defense; abstracts. J. M. Aherne. East Underw 55:29-30 Ag 20; 22 Ag 27 '54; Nat Underw 58:7+ Ag 19 '54
Riss sues roads for $90 million. Ry Age 137:7 S 27 '54

Commuter service

Are commuters worth it? Chicago, Burlington & Quincy commutation service. il map Ry Age 136:61-4 F 8 '54
In this new car, 169 seats for commuters; double deckers. il Ry Age 136:25-6 Mr 1 '54

Competitive transportation

Review of railway operations in 1953; little improvement in the competitive situation. J. E. Monroe. Ry Age 136:130-2 Ja 11 '54
See also
Highway transportation
Railroads—Airline competition
Railroads—Motor vehicle competition

Construction

Construction holds high level in 1953. H. W. Hall. il Ry Age 136:203-4 Ja 11 '54
Iron ore from Labrador; building 362-mile railroad into remote area. J. P. Smallwood. il map Comp Air Mag 59:186-93 Jl '54
New line taps ore deposits; new railroad provides outlet for nickel and copper concentrates found at Lynn Lake, Man. il map Ry Age 136:54-6 F 22 '54
90 miles an hour across the desert; Saudi Arabian government railroad was a tough one to build. il World Oil 137:284+ N '53
Pacific Great Eastern plans further extensions. Ry Age 137:7 Ag 2 '54
Railroad 90 miles long built at record speed through wild country. G. R. Barlow. il Civil Eng 23:812-15 D '53
See also
Railroads—Earthwork
Railroads—Relocation
Railroads—Track

Costs

Broad axe; carriers are finding many new ways to cut costs. J. C. Potter. Barron's 33:17-18 D 14 '53
Handy-Whitman index, public utility construction costs. Eng N 151:103 O 8 '53
Why so many empty car miles? G. C. Randall. il Ry Age News ed 136:18-19 Ja 4 '54

Crossings

See also
Grade crossings

Damage from floods, storms, etc.

Cresting floodwaters peril Iowa rails. Ry Age 136:12+ Je 28 '54
Fast comeback from floods; Southern Pacific; illustrations with text. Ry Age 137:12 Ag 2 '54
Mexican gateways out indefinitely. Ry Age 137:12+ Jl 12 '54
SP passengers ride helicopters. Ry Age 137: 12 Jl 5 '54

Development work

Model industrial community expanding at Charlotte, N.C. il Manuf Rec 123:40-1 My '54
Put these jobs together; industrial development, real estate, taxes. il Ry Age 137:32-3 Ag 23 '54
That's a strange way to run a railroad! Illinois central railroad's agricultural story. P. R. Farlow. il Sales Management 71:28-30 O 1 '53
UP reveals ore deposits. W. Reinhardt. Ry Age 136:16 F 8 '54

Earthwork

Grouting of railway embankments. Engineer 196:551 O 30 '53; diags Engineering 176:779 D 18 '53
How short line fills in bridges. il Ry Age 137:34-5 Ag 23 '54
How the ACL uses Gradalls. il Ry Age 136: 23-5 My 10 '54
Men and machines battle moving mountain; Northwestern Pacific railroad. il Constr Methods 36:158-9 Je '54
Problem, to clean ditches in long cut; solution, off-track grading machines. il Ry Age 136:14 Mr 1 '54
Roadway restoration; how the Santa Fe does it. il Ry Age 136:47-9 Ja 25 '54

Electric equipment

Electrical highlights of 1953. A. G. Oehler. il Ry Age 136:176-7 Ja 11 '54
It's sold by trial installation; Ignitron rectifier equipment. A. Rosensweet. il Sales Management 71:32+ Jl 15 '53
Research and engineering progress, 1953; rail. il Gen Elec R 57:36-8 Ja '54
Why PRR uses aluminum paint. il Ry Age 137:30-1 Jl 5 '54
See also
Railroads—Signals

Electrification

See also
Electric locomotives

RAILROADS—Electrification—*Continued*

Brazil

First stage of the electrification of the Estrada de ferro Santos a Jundiai. R. J. B. Chatterton and D. H. Rooney. map plans diags Inst E E Proc 100 pt 1:319-31; Discussion. 332-8 N '53

France

Remote control of electrified railways. M. Lauvergeon. il diags Elec Com 30:222-37 S '53

Great Britain

Lancaster-Morecambe-Heysham conversion to 50c/s single phase. il map diags Engineer 196:467-70 O 9 '53; Engineering 176:459-60 O 9 '53; Elec R (Lond) 153:769-73 O 9 '53

Employees

Big railroad group under negotiation with companies; hospital-surgical-medical benefits. East Underw 55:1 O 15 '54

BofLE wage hearings begin. Ry Age 136:7 My 3 '54

Calendar of labor and wage events, 1953. J. S. Gallagher, jr. Ry Age 136:183 Ja 11 '54

Carriers non-op plea denied by federal court; other railway labor developments. Ry Age 136:81-2 F 8 '54

Discrimination against railroad employees under federal laws. F. R. Hurlbutt. Comm & Fin Chr 178:1638-9 O 29 '53

Emergency board begins hearings in non-op case. Ry Age 136:14 Ja 25 '54

Engineers plan new demands. Ry Age 137:9 S 6 '54

Fringe benefits for non-ops. Ry Age 136:37-8 My 24 '54

Hiring the right man; Illinois Central standardized employment procedure. il Ry Age 137:28-9+ Ag 16 '54

Lackawanna again reports to union chairmen. Ry Age 136:9-10 Ap 12 '54

Non-op case is settled. Ry Age 137:7-8 Ag 30 '54

Non-op negotiations hit snag. Ry Age News ed 135:10+ N 9 '53

Non-ops blast Benson letter. Ry Age 136:7 Mr 1 '54

Non-ops turn to N.M.B. in fringe benefits case. Ry Age News ed 135:13-14 O 26 '53

Railroad checks on its communications; Chesapeake and Ohio railway co. F. J. Householder, jr. Personnel J 32:413-15 Ap '54

Railroad row; court tests federal union shop law versus state right to work statute. Bsns W p 180 N 14 '53

Railroads have proposed major changes in the pattern of relationships between the railroads and the 15 unions. Ry Age 136:7-9 Ap 5 '54

Review of railway operations in 1953; employment down but wages advanced. J. E. Monroe. Ry Age 136:115-16 Ja 11 '54

Review of railway operations in 1953; Railroad retirement board operations. J. E. Monroe. Ry Age 136:124-5 Ja 11 '54

Switchmen settle for trainmen package. Ry Age 136:8 My 3 '54

Systematic employee relations on the CNR. W. T. Wilson. Ry Age 135:88-9+ N 16 '53; Abstract. Ry Loco & Cars 127:80-1 N '53

Union shop loses another round; Texas judge enjoins Santa Fe from signing union shop agreement. Ry Age News ed 136:7-8 F 15 '54

What railroad workers want. Bsns W p 176-8 S 26 '53

What the brotherhoods want. Ry Age News ed 135:12 O 26 '53

See also

Brotherhood of locomotive firemen and enginemen
Railroad engineers
Railroads—Medical service
Railroads—Pensions
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Training

How to train personnel for firefighting on rail property. W. S. Wicker. il Ry Age 135:98-100 N 16 '53

Instructing Diesel enginemen. J. S. Swan. Ry Loco & Cars 127:81-2 N '53

Management training on a short line; Chicago South Shore & South Bend. il Ry Age 136:65-7 F 8 '54

Tomorrow's craftsmen; how to get them. L. B. George. Ry Loco & Cars 127:72-3 N '53

Training Diesel personnel; report of Locomotive maintenance officers' association. Ry Loco & Cars 127:89-90 N '53

See also

Cars, Instruction

Equipment and supplies

Dollar volume down, but roads buy more maintenance-of-way machines, 1953. M. H. Dick. il Ry Age 136:164-5 Ja 11 '54

Handy lifting bar speeds rip track work. il diags Ry Loco & Cars 128:62-3 F '54

On the Frisco, locomotive cranes go Diesel. il Ry Age 136:18-19 Mr 29 '54

Straddle car put to many uses by the SP. il Ry Loco & Cars 127:101 N '53

What's new in engineering and maintenance. il Ry Age 136:52-61 Mr 15 '54

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Air brakes
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Railroads—Purchasing
Railroads—Rolling stock
Railroads—Shops—Equipment
Railroads—Signals
Rails
Refrigeration on cars, trucks, etc.

Equipment financing

Department report explains working of Equitable's railroad equipment purchase. East Underw 54:4 N 6 '53

Fares

Family fares cut further. Ry Age 136:13 F 8 '54

New family fare bargains receive favorable comment. Ry Age 136:8 My 17 '54

Pullman passenger spends eight times average coach fare. Ry Age 136:11 Je 28 '54

Revenue from top rail fares near air average. Ry Age 136:10 Je 28 '54

Review of railway operations in 1953; no major changes in rates and fares. J. E. Monroe. Ry Age 136:118-19 Ja 11 '54

Finance

Capital outlays over $1¼ billion, 1953. W. J. Taft. il Ry Age 136:146-8 Ja 11 '54

Expert opinion of the rail outlook; with tables. E. S. Wilson. Mag of Wall St 93:192-5+ N 14 '54

Net rose 11 per cent as gross doubled; comparison of last year's results with those of 1941. Ry Age 136:13 Mr 1 '54

New wage hikes may bar 1953 net income record. A. Jansen. Barron's 33:9+ S 28 '53

1953 a year of little activity in rail finance. G. C. Hudson. il Ry Age 136:152-7 Ja 11 '54

1953's net income was $875 million. Ry Age News ed 136:9-10 F 15 '54

Railroads have plus factors, too. W. White. Ry Age News ed 135:11-12 D 7 '53

Revenues and expenses of railways, Dec. and twelve months of calendar year 1953; tabulation. Ry Age 136:27+ Mr 1 '54

Review of railway operations in 1953; financial results showed improvement. J. E. Monroe. Ry Age 136:113-14 Ja 11 '54

Seven months' net off $218 million. Ry Age 137:10 S 6 '54

Suppliers seek to reverse declining railroad equipment expenditures. Steel 135:70 Jl 12 '54

See also

Railroads—Costs
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also names of railroads, e.g.

Atchison, Topeka and Santa Fe railway
Baltimore and Ohio railroad
Gulf, Mobile and Ohio railroad
Illinois central railroad
Long Island railroad
New York, Chicago and St Louis railroad
New York, New Haven and Hartford railroad
Southern railway
Union Pacific railroad

RAILROADS—*Continued*

Fires and fire protection

Fire-retardant coatings; tests conducted by railroads show value of treated timber. W. E. Barnard. il Nat Safety N 70:38-9+ S '54

How to train personnel for firefighting on rail property. W. S. Wicker. il Ry Age 135:98-100 N 16 '53

Old enginehouse, after conversion to Diesel service, cleaned and brightened with sprayed-on fire-retardent coating. il Ry Age 135:58-9 N 2 '53

Ready to fight fire or save life; locomotive shops of the Reading railroad. il Nat Safety N 69:156 Je '54

Flood damage

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Food service

What can vending machines do? il Ry Age 136:124 My 17 '54

Forms and blanks

Wanted; potent control data. J. W. Milliken. il Ry Age 136:166-7 Ja 11 '54

Free transportation

ICC condemns free-ride practices. Ry Age 136:7 Je 28 '54

I.C.C. told some roads violate free travel ban. Ry Age 136:15-16 Mr 8 '54

Freight

Advisory board complacency? shippers must be critical of rail services. P. M. Shoemaker. Ry Age 136:15 F 8 '54

Freight carloadings, by classes. Published in monthly numbers of Federal reserve bulletin

Freight carloadings, 1949-1952. Survey of Cur Bsns 1953 Sup p 114-16 [supplemented in monthly numbers]

How 1951 traffic paid overhead costs. Ry Age News ed 136:9 Ja 4 '54

Long freight trains. il Ry Age 135:90-1 D 14 '53

Moving freight by timetable; Baltimore & Ohio railroad. il Bsns W p72+ Ag 29 '53

1953 results from passenger and freight services; tabulation. Ry Age 136:9 Je 21 '54

Perfect shipping = good will. il Ry Age 136:15 Ap 19 '54

Railroads; class I lines haul more tons per train faster in 1953. Iron Age 173:84 Mr 18 '54

Railroads set new efficiency records, 1953. Ry Age 136:8 Mr 29 '54

What do Russian railways haul? map Ry Age 137:22-3 Ag 30 '54

Why is the railroads' share of available freight tonnage steadily decreasing, and what are they doing about it? panel discussion. A. E. Whiteside and others. Ry Age News ed 135:9-10 D 21 '53

See also

Freight car service
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Railroads—Motor vehicle auxiliaries
Railroads—Rates
Railroads—Terminals
Railroads—Yards
Refrigerator cars

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Inspection

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Law

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Lighting

Illumination of railway sidings; lighting fittings supported on concrete gantries. il Engineering 177:56 Ja 8 '54

Lighting notes; lighting equipment for railway sidings; Calverton colliery, Notts. il Elec R (Lond) 154:312 F 12 '54

Selection of fluorescent lamps. Ry Loco & Cars 128:68 Ag '54

Maintenance and repair

Dollar volume down, but roads buy more maintenance-of-way machines, 1953. M. H. Dick. il Ry Age 136:164-5 Ja 11 '54

How the Norfolk & Western uses hard chrome electroplating. T. R. Boggess. il Ry Age News ed 136:23-5 Ja 4 '54; Same. Ry Loco & Cars 128:67-9 F '54

See also

Locomotive shops
Locomotives, Diesel-electric—Maintenance and repair
Railroads—Management

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Management

Future, what Jim Symes is doing about it. Ry Age 136:63-6 Je 14 '54

How modern machines help as union assigns 330 crews daily. il Ry Age 135:90-2 N 16 '53

How the Soo runs a sales meeting. Ry Age 136:57-9 F 22 '54

New NYC organization provides new operating staff tools; reorganization of operations and maintenance department. il Ry Age 136:19-22 My 10 '54

Operations research for railroads? abstracts of symposium papers. Ry Age 136:75-7 Mr 8 '54

People are management; St Louis-San Francisco railway co. il map Ry Age 136:34-7 My 3 '54

Plans for New Haven. P. B. McGinnis. Ry Age 136:79-80 Ap 5 '54

Railroad budget; weapon of oppression, or tool of progress? J. E. Kusik. il Ry Age 137:21-3 Ag 2 '54

Railway systems and procedures association meeting, Chicago, Nov. 4-6; with abstracts of papers on operations research. Ry Age 135:112+ N 16 '53

We'll do all right. P. B. McGinnis. il Ry Age 137:63-4 Jl 12 '54

See also

Freight car service
Railroads—Employees
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Mechanical departments

See also

Association of American railroads—Mechanical division

Medical service

Pennsylvania railroad medical department. Ind Med 22:591-2 D '53

Military use

Sales tips for traffic men. J. P. Doyle. Ry Age 135:14-15 N 30 '53

Why so much military traffic moves by air. J. H. Frederick. il Ry Age 136:50-3 Je 28 '54

Models

Model behavior; Lionel corp. il Steel 134:117 Ap 5 '54

Pint-sized trains show plenty of pull. il Bsns W p 182-4+ S 12 '53

Motor vehicle auxiliaries

Let rails enter trucking! Ry Age 136:10 Mr 8 '54

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I.C.C. raps driving of truck that exploded. Ry Age News ed 136:9-10 Ja 4 '54

It's unwise to degrade the trucker. W. Brown. Ry Age 136:14 F 22 '54

Lower rates haven't helped rails. J. B. Delaney. Iron Age 174:67-8 Ag 12 '54

Railroads court metalworking traffic. il Steel 135:71-2 Jl 12 '54

RAILROADS—Motor vehicle competition—*Cont.*

Rails move to recoup steel freight. J. B. Delaney. Iron Age 173:81-2 Mr 11 '54

Rates; rail cuts don't curb trucks. J. B. Delaney. Iron Age 173:127 Ap 22 '54

Three carrier problems. E. G. Plowman. Ry Age News ed 135:12 D 7 '53

Negro passengers

New diner rules end race separation case. Ry Age 135:16 N 30 '53

Office management

Let machines do more work. B. E. Wynne. il Ry Age 136:35-7 Je 7 '54

See also
Railroads—Records

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American association of railroad superintendents

Passenger service

How can Pullman traffic be made more profitable? il Ry Age 136:114-15 My 17 '54

How can rail travel be sold? il Ry Age 136:103-4 My 17 '54

How C&O builds passenger sales. Ry Age 136:26 Mr 29 '54

How the Boston & Maine will use RDC's. il map diags Ry Age 137:28-30+ S 13 '54

JCL'S new passenger schedules based on railroad-community cooperation. il Ry Age 136:67-8 Je 14 '54

Legal problems of the railroad passenger deficit. E. Martin. Pub Util 54:429-36 S 30 '54

More ways to increase traffic. il Ry Age 136:105-6 My 17 '54

See also
Dining cars
Railroads—Commuter service
also American association of passenger traffic officers

Passenger traffic

1953 results from passenger and freight services; tabulation. Ry Age 136:9 Je 21 '54

Passenger traffic issue. il Ry Age 136:96-124+ My 17 '54

Passengers are important business; New York Central. il Ry Age 136:72-4 Ap 5 '54

Plan would cut passenger losses. W. White. Ry Age 136:8-9 My 17 '54

Railroads handled 7.23 per cent of 1952's business. Ry Age News ed 135:14 N 23 '53

What's interesting, what's new; illustrations with text. Ry Age 136:110-13 My 17 '54

Pensions

Dual benefits act to cost pension fund $385 million. Ry Age 136:8-9 Je 28 '54

Labor would liberalize pension act. Ry Age 136:13 F 22 '54

Power

See also
Locomotives

Public relations

Facts, not apologies, are the tools as B. E. Young humanizes railroading. Ind Marketing 39:172 S '54

Iron horse pulls publicity; St Louis-San Francisco railroad giving away its fifth locomotive in a year. il Bsns W p82-3 D 5 '53

Suppliers to aid railroads; newly organized committee plans campaign. Ry Age 136:9 Je 28 '54

See also
Railroad public relations association

Purchasing

Nine months' buying tops 1952. Ry Age 135:69-70 D 14 '53

Railroad purchases in 1953. F. C. Miles. il Ry Age 136:149-51 Ja 11 '54

Railroads heavy purchasers of steel. Blast F & Steel Pl 42:786 Jl '54

Railroads' 1953 purchases totaled $1.9 billion. Ry Age 136:9 Ap 19 '54

Steel; rail softness lingers; no pickup in railroad steel buying. K. W. Bennett. Iron Age 174:69 Ag 12 '54

See also
Association of American railroads—Purchases and stores division

Radio communication

Association of American railroads Communications section 30th annual meeting, San Antonio, Oct. 20-22; with abstracts of papers. Ry Age 135:53-5 N 2 '53

Communications outlook bright. R. W. McKnight. il Ry Age 136:178-82 Ja 11 '54

How four men in five years booked 50 per cent of all sales in their market; Railroad sales division, Motorola communications & electronics, inc. R. F. McCall. il Sales Management 72:64-6+ Ap 1 '54

How inspectors use walkie-talkies in this Union Pacific yard. il plan diag Ry Age News ed 136:20-2 Ja 18 '54

How radio helps the T&P. il map Ry Age News ed 136:17-18+ F 15 '54

How Santa Fe radio broadcasts flood warnings. il Ry Age 135:109 N 16 '53

Microwave as applied to railroad operation in the Gulf Coast area. L. R. Thomas. map diags Elec Eng 73:63-7 Ja '54

New Orleans Union passenger terminal; modern signals and communications for fast train handling. il Ry Age 136:33-4 Ap 26 '54

98-mile radio keeps trains moving over the Cascade mountains. il map Ry Age 135:41-3 D 28 '53

Planning a railroad radio system. W. J. Young. il Commun Eng 14:26-7+ Ja '54

Radio expedites Venezuelan iron ore. il Steel 134:61 F 22 '54

Santa Fe radio is systemwide. il map Ry Age 136:40-2 Ap 19 '54

What radio does for the Chesapeake & Ohio. il map Ry Age 137:27-9 Ag 30 '54

With new communications, yard operations streamlined; Union Pacific. il Ry Age 137:60-2 Jl 12 '54

Rates

Canadian equalization shapes up; new class-rate scale. Ry Age 136:9 Mr 15 '54

Each service should make profit. O. Clarke. Ry Age 136:11 My 17 '54

Eastern roads would end dual rates. Ry Age 137:11-12 Ag 9 '54

East's all-freight rates equalized. Ry Age 137:8 S 27 '54

Here's a new kind of pricing. E. V. Hill. Ry Age 136:75 Ap 5 '54

How the new rates look; charts show the patterns of two of the East's new competitive rate schedules. Ry Age 136:68 Je 28 '54

ICC clears way for piggybacking. Ry Age 137:10-11 Jl 19 '54

I.C.C. gets tariff simplification plea. Ry Age 135:13-14 D 14 '53

Piggyback tariff hearings open. il Ry Age 137:6-7 Ag 2 '54

Practical rate plan to reflect inherent advantages. W. K. Tate. Ry Age 137:16-20 Ag 2 '54

Railroads upheld on piggybacking by the Interstate commerce commission. Ry Age 137:7-8 Ag 16 '54

Review of railway operations in 1953; no major changes in rates and fares. J. E. Monroe. Ry Age 136:118-19 Ja 11 '54

Revised spotting rules proposed. Ry Age 137:9+ Jl 12 '54

Southern roads tailor rates. J. G. Kerr. Ry Age 136:25 Mr 29 '54

Tariff group makes more progress. Ry Age News ed 135:11-12 D 21 '53

Tariff simplification in 1953; report of railroad committee. Ry Age 136:14 F 8 '54

Tariffs are simpler. J. W. Peters. Ry Age 135:11 N 16 '53

Three roads file t-o-f-c tariffs. Ry Age 136:6 My 24 '54

See also
Railroads—Fares

RAILROADS—Rates—*Continued*

Chemicals

Comparison of railroad and motor truck rates on various packaged chemicals, in carload and truckload lots, eastern and southern territories; tabulation. F. C. Tighe. Chem & Eng N 31:3542-3 Ag 31 '53

Iron and steel

East-south freight rates in balance. il Steel 133:71 N 16 '53

Eastern steel buyers study freight rates. Steel 133:58 Jl 13 '53

Freight, growing steel sales factor; with table. J. B. Delaney. Iron Age 173:248-54 Ja 7 '54

ICC approves steel rail rate cuts. Steel 134:62-3 Mr 29 '54

Lower rates haven't helped rails. J. B. Delaney. Iron Age 174:67-8 Ag 12 '54

Railroads court metalworking traffic. il Steel 135:71-2 Jl 12 '54

Railroads fight for steel. Steel 134:39-40 Mr 22 '54

Rails move to recoup steel freight. J. B. Delaney. Iron Age 173:81-2 Mr 11 '54

Rates; rail cuts don't curb trucks. J. B. Delaney. Iron Age 173:127 Ap 22 '54

Steel; absorb $70 million freight costs. J. B. Delaney. Iron Age 174:45-6 Jl 29 '54

Steel; gun shy on freight absorption. J. B. Delaney. Iron Age 172:95 S 17 '53

Steel users gain as railroads pull for more steel traffic. Steel 134:73 My 10 '54

Toilet goods

Seek lower shampoo freight rate. Soap & San Chem 29:69 O '53

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I.C.C. approves new Boston & Providence modified reorganization plan. Ry Age 136:17 Ja 25 '54

Revamp plan can't force merger; United States Supreme court decision which set aside the commission-approved plan of reorganization for Florida East Coast. Ry Age 136:7-8 Ap 12 '54

Records

Faster paper work speeds cars. il map Ry Age 135:85-7 N 16 '53

Wanted; potent control data. J. W. Milliken. il Ry Age 136:166-7 Ja 11 '54

Why keep so many records? A. Barcan and R. A. Schiff. il Ry Age 136:29-30 My 24 '54

See also

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Relocation

Bridges built ahead of track; Rock Island's Atlantic cut-off in Iowa. J. F. Marsh. il map Ry Age 136:48-51 Mr 15 '54

CSS&SB to move from busy street to high-speed right-of-way. il map Ry Age News ed 135:12-13 N 9 '53

Cuts stabilized by drilling horizontal drains on Lookout Point reservoir relocation work. J. E. Newby. il Civil Eng 23:688-91 O '53

Line-improvement project combines curve elimination, grade reduction, flood protection; Missouri Pacific. il map diag Ry Age 137:58-9+ Jl 12 '54

Reorganization

See Railroads—Receiverships

Rolling stock

Conference on new rubber uses for railways, Munich, Sept. 1. Rubber Age 74:106 O '53

Engineering outlook; locomotives and rolling stock. Engineering 177:170-3 F 5 '54

New locomotives placed in service by class one railroads, 1948-1953; passenger car shipments, 1949-1953; freight cars ordered, 1949-1953; freight car shipments, 1952-1953; tabulations. Steel 134:187 Ja 4 '54

See also

Cars
Dining cars
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Safety measures

Appliance rules have own adapter. S. N. Mills. Ry Age News ed 136:8 F 1 '54

How the N&W magazine uses pictures to promote safety; illustrations with text. Ry Age News ed 135:26-7 O 26 '53

Is safety missing the mark? W. Brown. Ry Age 136:15 Ap 5 '54

Safety on the railways. G. R. S. Wilson. Engineering 177:326-7 Mr 12 '54

Safety's challenge lies ahead. L. L. White. Ry Age 135:17 N 2 '53

Six railroads win National safety awards. Nat Safety N 70:79 Ag '54

Twenty-one railroads win public safety awards. Nat Safety N 70:81 Ag '54

See also

Air brakes
Grade crossings
Harriman memorial medals for safety
Railroads—Fires and fire protection
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Schedules

JCL'S new passenger schedules based on railroad-community cooperation. il Ry Age 136:67-8 Je 14 '54

Securities

Dim future depresses rail stocks. Bsns W p62+ O 17 '53

Discount bonds; such rail issues may have investment appeal. C. S. Iverson. Barron's 33:17 S 28 '53

Income opportunities in sound bonds. J. D. C. Weldon. Mag of Wall St 93:145+ O 31 '53

1954 forecast for railroad and rail equipment shares. P. R. Bretey. Comm & Fin Chr 179:55+ Ja 7 '54

1953 a year of little activity in rail finance. G. C. Hudson. il Ry Age 136:152-7 Ja 11 '54

Outlook for railroad securities clouded; report of IBA railroad securities committee. Comm & Fin Chr 178:2392 D 17 '53

Outlook for railroad stocks. E. S. Wilson. Comm & Fin Chr 178:819 S 3 '53

Railroad securities. Published in weekly Thursday numbers of Commercial and financial chronicle

Rails still on downgrade. Bsns W p72-3 D 26 '53

Stake in Central; Chesapeake and Ohio making good use of it. P. J. Maggio. Barron's 33:15-16 O 5 '53

Struggle for power in New York Central. R. Carleson. Mag of Wall St 93:624+ F 20 '54

Which rails are in best, poorest position? with table of 30 railroad stocks above average, average, poor. E. S. Wilson. Mag of Wall St 93:622-3+ F 20 '54

Service

Here's a way to regain business. C. A. Church. Ry Age 135:92-5 D 14 '53

N&W holds 29th better service conference. Ry Age 136:28 Ap 12 '54

See also

Freight car service
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Shops

All-purpose electric shop; Baltimore and Ohio. il Ry Loco & Cars 128:58-64 Ja '54; Excerpt. Ry Age 135:96-9 D 14 '53

Shops and shop equipment, 1953. H. C. Wilcox. il Ry Age 136:162-3 Ja 11 '54

Welders work around the clock; batteries of industrial trucks charged at night from shop's welding sets. il diag Ry Loco & Cars 128:67-8 Ag '54

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Side tracks

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Colour-light signalling on the southern region. il Engineer 197:467 Mr 26 '54

80 per cent of meets without stopping; signaled sidings. il maps plans Ry Age 135: 55-6+ D 28 '53

How centralized traffic control moves B&O trains faster. il map Ry Age 137:46-7 S 6 '54

How Wabash speeds yard moves with interlockings and communications. il plans Ry Age 136:69-71 Mr 8 '54

In this double-track c.t.c. territory both tracks signaled both ways; Missouri Pacific. il map Ry Age News ed 136:23+ F 1 '54

New Orleans Union passenger terminal; modern signals and communications for fast train handling. il plan Ry Age 136:32-3 Ap 26 '54

Power worked points and signals. H. C. Towers. il Elec J 151:869-72 S 18 '53

Radio control; switches, signals on Orinoco railroad will be remote controlled. maps Iron Age 172:148-50 Jl 2 '53

Railway signalling. il Elec R (Lond) 153:689-90 S 25 '53

Railway signalling. J. P. Coley. il diags Elec J 152:279-81 Ja 22 '54; Abstract. Elec R (Lond) 154:192 Ja 29 '54

Signal construction above average in 1953, further growth in 1954. J. H. Dunn. il Ry Age 136:168-72 Ja 11 '54

Signal spectacle glazing. diag Engineer 196: 316 S 4 '53; il Engineering 176:349 S 11 '53

Swiss railway signalling and A.T.C. K. Oehler. Engineer 196:528-9 O 23 '53

Three-interlocking consolidation uses multiplex high speed code; Lackawanna's control system. il plans Ry Age 135:59-61 N 30 '53

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Stations

New station, better location; Milwaukee builds Tacoma depot. il plan Ry Age 136: 30-2 Je 21 '54

Old stations replaced with modern, compact buildings; Chicago & Illinois Midland. il plan Ry Age 137:42-4 S 6 '54

Railway station branch, First Westchester (New York) national bank. il Burroughs Clearing House 38:28-9 O '53

Station facilities consolidated; Atlantic coast line project, Sanford, Fla. il map Ry Age 136:38-9 My 31 '54

This station interior transformed; Northern Pacific's 1890-period structure at Spokane. il plan Ry Age News ed 135:26-7+ D 21 '53

What's happening to stations? il Ry Age 136: 107-9 My 17 '54

See also

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Lighting

Public cold cathode lighting; Fenchurch Street station. il Elec J 152:454 F 5 '54

Statistics

Freight carloadings, car surplus and shortage, and railway operations, 1949-1952. Survey of Cur Bsns 1953 Sup p 114-17 [supplemented in monthly numbers]

Review of railway operations in 1953. J. E. Monroe. Ry Age 136:110-32 Ja 11 '54

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Cars—Statistics

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also Association of American railroads—Purchases and stores division

Switching

Electronic control of interlocking. il Ry Age 137:34 S 13 '54

How Wabash speeds yard moves with interlockings and communications. il plans Ry Age 136:69-71 Mr 8 '54

Number 24 equilateral turnouts permit high-speed movements. il map Ry Age 137:21-3 Ag 16 '54

Radio control; switches, signals on Orinoco railroad will be remote controlled. maps Iron Age 172:148-50 Jl 2 '53

Radio controls this power switch. il Ry Age 136:65 Mr 15 '54

Tv keeps eye on switching. il Ry Age 136: 42-3 My 3 '54

Taxation

Fast write-offs for passenger cars; ODM extends accelerated amortization program. Ry Age 136:10-11 My 10 '54

Transport taxes unjust burden. A. R. Beatty. Ry Age 135:13-14 N 2 '53

Telegraph

Communications outlook bright. R. W. McKnight. il Ry Age 136:178-82 Ja 11 '54

Telephone

Association of American railroads Communications section 30th annual meeting, San Antonio, Oct. 20-22; with abstracts of papers. Ry Age 135:53-5 N 2 '53

Communications outlook bright. R. W. McKnight. il Ry Age 136:178-82 Ja 11 '54

New Orleans Union passenger terminal; modern signals and communications for fast train handling. il Ry Age 136:33-4 Ap 26 '54

Telephones keep blueprints out of locomotives. il Ry Loco & Cars 127:76 D '53

With new communications, yard operations streamlined; Union Pacific. il Ry Age 137: 60-2 Jl 12 '54

Terminals

City eliminates 144 grade crossings; five rail stations replaced by one. il Eng N 152:57-8+ Ja 28 '54

How Chicago & North Western raises the roof. il Ry Age 137:26-7 Ag 2 '54

New Orleans new Union passenger terminal created gas distribution problems. W. C. Grant. il Gas Age 112:39-41 D 17 '53

New Orleans Union passenger terminal. il maps plans Ry Age 136:21-34 Ap 26 '54

New Orleans Union terminal. il Manuf Rec 123:30 S '54

New York Central seeks air rights development at Grand central terminal. Ry Age 137:9 S 13 '54

PRR unveils new ore-unloading terminal. il plan Ry Age 136:45-7 Mr 15 '54

This $3¾-million terminal; Seaboard Air Line at Savannah. il Ry Age 135:54-8 N 30 '53

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Ticket offices

Drive in before you take off; Chesapeake and Ohio railway drive-in railroad ticket service; United air lines drive-in ticket office. il Dun's R & Mod Ind 62:241 O '53

Tickets

Rail tickets at drive-ins; First and merchants national bank, Richmond for Chesapeake and Ohio railroad. il Burroughs Clearing House 37:19 S '53

Track

Alternating one and two tracks in novel use on the Southern. il map diag Ry Age 136: 40-2 My 31 '54

Ballast operations expedited with large array of equipment; Norfolk & Western. il Ry Age 136:64-6 Mr 8 '54

Dual-purpose production tamper; Jackson hydro-electric track maintainer. il Ry Age 137:30-1 Ag 30 '54

Elastic track used in France; substitutes a rubber pad for the conventional steel tie plate. il diag Ry Age 136:72-3 F 8 '54

Features of New Haven rail laying. il Ry Age News ed 136:18-19 Ja 18 '54

For patrolling New Haven tracks, these cars ride road or rails. il map Ry Age 137:62+ Ag 9 '54

How the ACL uses Gradalls. il Ry Age 136: 23-5 My 10 '54

RAILROADS—Track—*Continued*

Maintenance men get a break. il Ry Age 137:36-8 Ag 23 '54

Maintenance-of-way activity on stable basis, 1953. M. H. Dick. il Ry Age 136:173-5 Ja 11 '54

New Haven refurbishes a track, brings crowd to watch the fun. il Bsns W p31 N 7 '53

Number 24 equilateral turnouts permit high-speed movements. il map Ry Age 137:21-3 Ag 16 '54

On the New York Central new m/w policies bring results. il Ry Age 136:31-4+ My 24 '54

Proposed method for the transit lining of high-speed track. N. R. Berndt. diag Am Soc C E Proc 79 [no 271]:1-22 S '53

See also

Ballast
Electric railroads—Track
Grade crossings
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Track cleaning machinery

Railroad ballast cleaner goes hydraulic. il diags Product Eng 24:150-5 O '53

Traffic

Review of railway operations in 1953; little change in traffic trends. J. E. Monroe. Ry Age 136:112-13 Ja 11 '54

See also

Freight car service
Railroads—Freight
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Train dispatching

Radio control for railroads. map plan Commun Eng 13:36 Jl '53

Routing trains by dial, 50 an hour. il Bsns W p32-4 Ag 22 '53

Train length

Long freight trains. il Ry Age 135:90-1 D 14 '53

Trains

Challenger returns. Ry Age 135:11-12 D 14 '53

First new-type Talgo; interview with J. D. Farrington. il Ry Age 136:60-1 Je 28 '54

French test train runs 151 mph. il Ry Age 136:43 My 3 '54; Same. Ry Loco & Cars 128:79 My '54

Here's a revolution in passenger train design. H. Bleibtreu. il plans diags Ry Age 136:62-4 Mr 15; 10-12+ Mr 29 '54

It costs to run freight trains faster. R. Aldag. Ry Age 136:21-2 Je 28 '54

Multiple-unit Diesel train in aluminium. E. G. West. il plan diag Engineer 196:675-7 N 20 '53

New Haven tests Talgo. P. B. McGinnis. Ry Age 137:9 Jl 5 '54

Now, Talgos on U.S. railroads. il diags Diesel Power 32:38-41 Ag '54

On Italian Railways series 300 passengers can look ahead. il Ry Age 135:96-7 N 16 '53

Record promotional program launches San Francisco Chief. il map Ry Age 136:33-4+ Je 7 '54

Restyled North Coast limited. il Ry Age News ed 135:14 N 9 '53

Talgo trains popular in Spain. R. W. Shearman. il Ry Age 135:69-72 N 30 '53

See also

Railroads—Braking
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Train resistance

Wages

Board gives BLE trainman package. Ry Age 137:11 Ag 23 '54

Calendar of labor and wage events, 1953. J. S. Gallagher, jr. Ry Age 136:183 Ja 11 '54

Conductors settle; in part. Ry Age News ed 136:7 F 15 '54

Firemen accept settlement. Ry Age News ed 136:10-11 Ja 18 '54

Trainmen get five cent increase. Ry Age 135:11-12 D 28 '53

War measures

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Water supply

Water treatment for Diesel cooling and feed-water systems; report of Master boiler makers' association. Ry Loco & Cars 127:69-71 N '53

Yards

Bad-orders go through. G. W. Burke. il Ry Age 137:24-5 Ag 16 '54; Same. Ry Loco & Cars 128:54-7 S '54

Bensenville yard today. il plan Ry Age News ed 136:19-22 F 1 '54

Can your city put its downtown railroad land to better use? il diag Arch Forum 101:138-43 Ag '54

For better train operation; how cooperation in yards pays. W. C. Baker. il Ry Age 135:47-8 N 2 '53; Excerpt. Ry Loco & Cars 127:61-2 N '53

Hamlet yard work progresses; Seaboard air line. plan Ry Age 136:14-15+ Ap 12 '54

How inspectors use walkie-talkies in this Union Pacific yard. il plan diag Ry Age News ed 136:20-2 Ja 18 '54

How Wabash speeds yard moves with interlockings and communications. il plans Ry Age 136:69-71 Mr 8 '54

Minnesota Transfer's modernization cuts yard time. F. P. Donovan, jr. il plan Ry Age 135:100-3 D 14 '53

Modern yards pay off. D. W. Brosnan. Ry Age 135:12-13 N 30 '53

More tracks for more traffic in IHB Blue Island retarder yard. il plan Ry Age 135:87-9+ D 14 '53

New flat yard provides quick handling for perishables; Union Pacific. il plan Ry Age 137:43-5+ S 27 '54

New Orleans Union passenger terminal; engine terminal and coach yard. il Ry Age 136:29 Ap 26 '54

Railroad yard loudspeaker systems. L. G. Sands. il Radio & Tv N 50:51-3 N '53

Rebuilt coach yard provides passenger-car servicing de luxe; Chicago & Western Indiana. il Ry Age 137:31-3 S 13 '54

With new communications, yard operations streamlined; Union Pacific. il Ry Age 137:60-2 Jl 12 '54

Arabia

90 miles an hour across the desert; Saudi Arabian government railroad was a tough one to build. il World Oil 137:284+ N '53

Brazil

Meter-gage Diesel-electrics for Brazil. E. E. Martin. il Ry Loco & Cars 128:42-3 Jl '54

Canada

Disappointed, Canadian roads look ahead. il Ry Age 136:196-9 Ja 11 '54

Iron ore from Labrador; building 362-mile railroad into remote area. J. P. Smallwood. il map Comp Air Mag 59:186-93 Jl '54

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Cuba

Modernization is the watchword on the Consolidated of Cuba. il Ry Age 137:39-40 Jl 26 '54

What's ahead for Cuba's roads? R. G. Lewis. il Ry Age 136:195 Ja 11 '54

France

French locomotive experiences. E. H. Livesay. il plan diags Engineer 197:269-72, 304-8, 338-41, 377-9, 413-14, 450-2, 484-7, 521-4, 556-8, 593-6, 704-7, 736-9, 773-5, 808-11, 844-7 F 19-Ap 23, My 14-Je 11 '54

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Multiple-unit Diesel train in aluminium. E. G. West. il plan diag Engineer 196:675-7 N 20 '53

Great Britain

Cost of rail peace. Economist 170:113-14 Ja 9 '54

New labels for transport; recasting of railway management. Economist 168:872-3 S 26 '53

Stand or deliver? railwaymen's wage increase. Economist 169:863-4 D 19 '53

RAILROADS—Great Britain—*Continued*

Years of transition. R. C. Bond. Engineer 196:410-12 S 25 '53; Abstract. Engineering 176:439-40 O 2 '53

See also

Railroads—Electrification—Great Britain

India

Indian railways to get new engines and cars. For Comm W 51:18 Ja 18 '54

Standard locomotives in India 50 years ago. E. C. Poultney. il Engineering 176:801-3 D 25 '53

Indonesia

Diesel-electrics for Indonesia. J. K. Erzer and A. C. Siciliano. il diag Ry Loco & Cars 128:55-7 Ap '54

Manitoba

New line taps ore deposits; new railroad provides outlet for nickel and copper concentrates found at Lynn Lake, Man. il map Ry Age 136:54-6 F 22 '54

Mexico

Mexican lines' business slumps. A. H. Lozano. il Ry Age 136:200-2 Ja 11 '54

Pakistan

Pakistan railways show improvement. For Comm W 50:21 N 23 '53

Quebec (province)

On the QNS&L they're ballasting track at 56 below. il Ry Age 136:20 Mr 29 '54

Russia

How the Russians run railroads. H. Hunter. Ry Age 137:24-6 Ag 30 '54

What do Russian railways haul? map Ry Age 137:22-3 Ag 30 '54

Spain

Diesel M-U trains in Spain. il Ry Age 136:57 Je 14 '54

Talgo trains popular in Spain. R. W. Shearman. il Ry Age 135:69-72 N 30 '53

Sweden

Earnings of Swedish railways down. For Comm W 50:19 D 14 '53

Swedish railways have more operating income. For Comm W 50:15 O 19 '53

Switzerland

Swiss railway signalling and A.T.C. K. Oehler. Engineer 196:528-9 O 23 '53

United States

Business railroad quiz. J. Drexler. Dun's R & Mod Ind 62:186-7 Ag '53

Hits union shop. F. G. Gurley. Ry Age 137:12+ S 20 '54

It's time we started to fight! W. Brown. Ry Age 136:13+ Ap 5 '54

1953 results were on 1952 pattern. W. T. Faricy. Ry Age 135:11 D 28 '53

Outlook for rails called good. R. E. Thomas; B. E. Wynne. Ry Age 136:11-12 F 8 '54

Railroads need freedom to compete. B. F. Fairless. Ry Age 137:7-8 Jl 5 '54

Review of railway operations in 1953. J. E. Monroe. Ry Age 136:110-32 Ja 11 '54

Shippers boards necessary evils. W. Brown. Ry Age 136:10 My 17 '54

Signals set; railroads reduce capital outlays. E. F. Ross. Steel 133:77-8+ D 14 '53

U.S. railroads; situation, problems, and prospects. Mech Eng 75:655-6 Ag '53

See also

Association of American railroads

Interstate commerce commission

New York central railroad

Venezuela

No trouble in the tropics on pioneer ore line. B. K. Martin. il Ry Age 137:46 Jl 26 '54

Railroad 90 miles long built at record speed through wild country. G. R. Barlow. il Civil Eng 23:812-15 D '53

RAILROADS, Industrial

Switch lamps converted to electric operation. E. B. Brien. il Pet Eng 25:C25 S '53

See also

Mine tracks

RAILROADS, Mine. See Mine track

RAILROADS, Single rail

Monorail systems are pushed in Detroit and Los Angeles. il Bus Transportation 33:57 Ap '54

RAILROADS, Suspended

U.S. may get its first monorail; transportation system for Los Angeles may be approved. T. M. Rohan. Iron Age 173:93 Ap 1 '54

Would monorail rapid transit work? engineers' report proves favorable. il Eng N 152:55-6+ Mr 18 '54

RAILROADS and state

See also

Railroads—Rates

United States

I.C.C. proposes licensing fees. Ry Age 136:8-9 Mr 1 '54

President's Cabinet committee on transport policy program hinted. P. F. Royster. Ry Age 137:11-12 S 20 '54

Review of railway operations in 1953; litigation and administrative proceedings, Interstate commerce commission. J. E. Monroe. Ry Age 136:125-6 Ja 11 '54

See also

Interstate commerce commission

RAILROADS in war

Next war will be different. P. F. Yount. Ry Age 136:11 Mr 15 '54

Railroads in A bomb drill. Ry Age 136:8-9 Je 21 '54

Bibliography

Railroads in defense and war. H. R. Richardson, comp. 262p Assn. of American railroads, Bur. of railway economics lib, Washington, D.C. '53

RAILS

Steel rail sets at Resurrection. W. R. Doyle. il diags Min Cong J 39:49-52+ O '53

Steel rails each a half-mile long travel by train, including curves. il Bsns W p32 Ag 8 '53

Failure

Progress reports of investigation of railroad rails and joint bars. R. E. Cramer and R. S. Jensen. il Ill U Eng Exp Sta Reprint Ser 53:1-40 '54 (pa 30c)

Manufacture

Heat treating special trackwork. il Ry Age 136:70-1 Ap 5 '54

Milling of rail ends and its effect on productivity. C. F. Goodeve. Engineering 176:299 S 4 '53

Review of Russian practice reveals rail steel production methods. C. A. Zapffe. J Metals 5:1627-8 D '53

Prices

Steel rails at Pittsburgh, no.1 OH, 1934-1953; tabulation. Iron Age 173:412 Ja 7 '54

RAILWAY business association

Annual meeting, 45th, Chicago, Nov. 20. Ry Age 135:15-16 N 30 '53

RAILWAY express agency

Express agency gets results in drive for more traffic. K. N. Merritt. il Ry Age 136:127 My 17 '54

I.C.C. approves new Express pact. Ry Age 135:12 N 16 '53

REA in sound state as new contract begins. il Ry Age 136:72-4 Mr 8 '54

Railway Express gets a second life. Bsns W p58+ N 7 '53

Railway Express official tells mariners how traffic is handled. E. W. Hull. East Underw 54:27 O 30 '53

Railway Express wages war with pirates at meetings. V. D. Aguila. il Sales Management 70:67-8 pt 2 Ap 1 '53

Employees

Board recommends raises for Express employees. il Ry Age 136:13-14 F 22 '54

RAILWAY fuel and traveling engineers' association

Annual meeting, Chicago, Sept 14-16; with abstracts of papers and committee reports. Ry Loco & Cars 127:78-84 N '53

RAILWAY mail service

Fighting for mail traffic. P. A. Hollar. il Ry Age 136:118-19 My 17 '54

I.C.C. gets mail pay agreement. Ry Age News ed 136:12+ Ja 18 '54

Postal shift; airlines bid to wrest first-class mail from railroads. S. Altschul. Barron's 33:9-10 Ag 17 '53

Railway mail service on the spot. J. C. Allen. Ry Age News ed 135:15-16 O 26 '53

RAILWAY systems and procedures association

Annual meeting, 3d, Chicago, April 20-22. Ry Age 136:15-16 My 3 '54

Meeting, Chicago, Nov. 4-6; with abstracts of papers on operations research. Ry Age 135:112+ N 16 '53

RAILWAY tie association

Annual meeting, Atlanta, Oct. 14-16; with abstracts of papers. Ry Age 135:49-52 N 2 '53

RAIN and rainfall

How to use the weather tables in conjunction with the 30-day forecasts of the U.S. Weather bureau. Eng N 151:57 Ag 20 '53

Hydrologic considerations in the San Jacinto project. S. W. Jens. bibliog map Am Water Works Assn J 46:438-44 My '54

Quantitative measurement of rainfall by radar. A. M. Buswell and others. bibliog il maps Am Water Works Assn J 46:837-52 S '54; Abstract. Water & Sewage Works 101:388 S '54

Weather makes trouble in two regions. Eng N 151:25 Jl 30 '53

See also

Droughts

Floods

Run-off

Statistics

Observed precipitation in 20 cities, compared with normals; precipitation range in inches. Eng N 151:41 Jl 16 '53

RAIN gages

New recording rain-gauges. J. F. Nagel. bibliog diags J Sci Instr 31:158-62 My '54

RAIN making

Cloud-seeding operations at Dallas. I. P. Krick. maps Am Water Works Assn J 45:1144-50 N '53

Pakistan experiments with rainmaking. Chem & Eng N 32:2978 Jl 26 '54

Present status of rainmaking. T. H. Evans. il Pub Works 84:53+ N '53

Progress in weather control. I. P. Krick. maps Am Water Works Assn J 46:803-17 Ag '54

Rainfall stimulation for forest fire prevention and control. C. S. Wetterer. Pulp & Pa of Can 55:166+ Je '54

RALEIGH, North Carolina

Streets

Paving a key element in subdivision regulation. J. L. Morrison. diag Pub Works 85:102+ S '54

RAM-jet engines. See Airplane engines—Jet engines

RAMAN effect

Assignments of the Raman and infrared frequencies of 1,2-dichloroethane observed in the gaseous, liquid, and solid states. I. Nakagawa and S. Mizushima. bibliog J Chem Phys 21:2195-8 D '53

Experimental study of the vibrational spectra of hexamethyldisilane and related compounds. C. C. Cerato and others. J Chem Phys 22:1-5 Ja '54

Infrared and Raman spectra of carbon suboxide. H. D. Rix. bibliog J Chem Phys 22:429-33 Mr '54

Infrared and Raman spectra of formaldehyde-d_1 vapor. D. W. Davidson and others. bibliog J Chem Phys 22:289-94 F '54

Infrared and Raman spectra of tetramethylmethane-d_{12}. E. R. Shull and others. bibliog il J Chem Phys 21:2024-9 N '53

Infrared and Raman spectra of the trimer and tetramer of phosphonitridic dichloride. L. W. Daasch. bibliog diags Am Chem Soc J 76:3403-8 Jl 5 '54

Raman apparatus for gases. H. H. Claassen and J. R. Nielsen. bibliog diags Opt Soc Am J 43:352-5 My '53

Raman spectra of chlorofluoromethanes in the gaseous state. H. H. Claassen. bibliog J Chem Phys 22:50-2 Ja '54

Raman spectroscopy. R. F. Stamm. Anal Chem 26:49-53 bibliog(195 ref, p50-3) Ja '54

Substituted methanes; vibrational spectra of $C^{13}H_3I$. R. B. Bernstein and others. bibliog J Chem Phys 22:193-7 F '54

Substituted methanes; vibrational spectra, potential constants, and calculated thermodynamic properties of diiodomethane. F. L. Voelz and others. bibliog Opt Soc Am J 43:1061-4 N '53

Twenty-fifth anniversary of the discovery of the Raman effect. S. N. Sen. Science 118:32 Jl 3 '53

Use of photomultipliers in Raman spectroscopy. H. J. Marrinan. bibliog il diags Opt Soc Am J 43:1211-15 D '53

RAMAZZINI, Bernardino, 1633-1714

Founder of occupational medicine. F. M. Triosi. Ind Med 22:403-9 S '53

RAMAZZINI society

1953 Ramazzini rendezvous, Lake Clear, New York, Sept. 18-20. Ind Med 22:583-4 D '53

RAMIE

Another shot at ramie. Bsns W p50 N 28 '53

Old textile fiber stages comeback; use of ramie increases. Materials & Methods 39:8+ Ja '54

Opportunity for ramie; abstract. Am Dyestuff Rep 43:447-8 Jl 5 '54

Rigidity of jute, ramie, and sisal. K. R. Sen and S. K. Bose. bibliog Textile Res J 24:754-5 Ag '54

RAMPS

Big snow melting system serves earth fill ramps at Boston's new elevated highway. E. E. deCastro. il Heating-Piping 26:130-2 My '54

Facts about modern loading ramps. il Mill & Factory 54:272 My '54

Fosdalens steel scraper ramp speeds up mine car loading. il diags Eng & Min J 155:94-5 Ag '54

Magnesium ramp. il Welding J 33:381 Ap '54

Magnesium trailer ramp. il Mech Eng 76:176 F '54

Mechanized dock ramps and how to pick them. C. W. Choromanski. il diags Food Eng 26:90-1+ Ag '54

Ramp-itis is no mental barrier here; three-level parking garage, Wilshire branch of May co. department store in Los Angeles. il diags Eng N 152:51-2+ Ap 29 '54

Ramps to end-load trailers on flats. il Ry Age 136:65 Mr 22 '54

3-D transport; portable magnesium ramp. il Mill & Factory 54:138 F '54

Lighting

Wall-mounted lights illuminate ramp without glare. il Pub Works 85:111 F '54

Safety measures

Stairs and ramps. il Nat Safety N 69:18 Mr '54

RAMSEY, Hobart C. 1891-

Worthington builds for a new market; sees big potential in home air conditioning. por(cover) Bsns W p 120+ N 28 '53

RANCH houses

Design for luxurious living, a home that has everything; with blueprints. il Am Bld 75:46-9 Ap '53

Designed for space economy and maximum variation to suit client; with blueprints. il Am Bld 75:38-41 Ap '53

Economical design is flexible, gives privacy on narrow lot; with blueprints. il Am Bld 75:34-7 Ap '53

Fast selling California ranch houses by Cliff May. il plans House & Home 2:90-7 O '52

Looking for a rustic effect? here it is. il plan Am Bld 75:165 Jl '53

Ranch house (no quotes); for the (once) Wild West. il plan Arch Rec 113:162-4 Mr '53

Room size keys design. il plan Am Bld 75:228+ S '53

Seven features for your idea scrapbook. il plans diags Am Bld 76:76-83 F '54

RANCHES
Kalahari cattle; Bechuanaland. map Economist 170:222+ Ja 23 '54

Insurance requirements

Got any ranches to insure? the survey method is best. H. H. Hawxhurst. Rough Notes 97:33+ Jl '54

RAND development corporation
New avenue to industrial development; performs industry's development work on a short-term basis. Steel 134:78 Mr 8 '54

RANDALL, Harrison McAllister, 1870-
Frederic Ives medalist for 1953. bibliog por Opt Soc Am J 44:93-6 F '54

RANDALL commission. See United States—Commercial policy

RANEY nickel. See Nickel—Raney nickel

RANGE finders
Design for an auto-focus range finder. H Asher. diags J Sci Instr 30:402-3 N '53

RANKIN inlet nickel mines
Rankin inlet nickel mines. Can Min J 75:69 Mr '54

RANNEY water collectors
Horizontal well taps water from Mississippi for Shell plant; Ranney well. il diag Oil & Gas J 52:119-20 N 2 '53

RANQUE-HILSCH vortex tube. See Vortex tube

RAPID construction. See Concrete construction—Rapid construction

RAPID transit
New York-New Jersey transit plan. W. Reid. Ry Age News ed 135:10-11 N 23 '53
Seven-point program for better transit. R. Budd. Bus Transportation 33:56 Jl '54
Transit can save our cities but it needs help. J. Baine; M. Wehrly. Bus Transportation 33:25-7 My '54
Transit problem; bus versus auto. O. Ely. Pub Util 54:376+ S 30 '54
Urban transit trends. Pub Util 54:384-7 S 30 '54
We have a right to make money; that's why we're in business. G. W. Anderson. Bus Transportation 33:44-5 S '54
What's happening to transit? L. Wingerter. Pub Util 54:351-6 S 30 '54

See also
Electric railroads
Motor bus lines
Railroads
Trolley buses
also subdivision Rapid transit under names of cities, e.g.
Cleveland
Los Angeles
New York (city)
also American transit association

Employees

Union scales of local-transit operating employees, 1952. A. Moros. Mo Labor R 76:395-8 Ap '53
Union wages and hours; local transit operating employees, July 1, 1953. A. Moros. U S Bur Labor Statistics Bul 1153:1-10; pa 15c Supt. of doc. '54

See also
Motor bus lines—Employees

Fares

London fares increase. Economist 168:280 Jl 25 '53

Finance

Brand new concept for transit equipment financing; report on Atlanta Transit. H. Simpson. Bus Transportation 33:32-5 Ja '54
Net income makes sharp gains despite downward riding trend. Bus Transportation 33:46-50 S '54
Transit companies show some improvement in earnings. O. Ely. Pub Util 54:379-81 S 30 '54
Urban transit control and financing trends. Pub Util 53:502-7 Ap 15 '54

Insurance requirements

Schiff, Terhune handling big excess liability policy for New York city transit authority. East Underw 55:35+ Je 11 '54; Excerpts. Weekly Underw 170:1469, 1473 Je 12 '54; Abstract. Nat Underw 58:15 Je 17 '54

Public relations

National aspects of transit's public relations. J. J. Hassett. Pub Util 54:367-72 S 30 '54
Two Public service commissioners speak out on transit's public relations. K. Potter; E. S. Loughlin. Bus Transportation 33:36-7 Ja '54

Regulation

Urban transit control and financing trends. Pub Util 53:502-7 Ap 15 '54

Statistics

Local transit lines, 1949-1952. Survey of Cur Bsns 1953 Sup p 113 [supplemented in monthly numbers]
Transit trends, 1951-1953; tabulation. Bus Transportation 33:26-7 F '54
Trends of the transit industry, 1953. O. Ely. Pub Util 54:375-6 S 30 '54

RARE chemicals, National registry of. See National registry of rare chemicals

RARE earth chlorides
Conductances, transference numbers and activity coefficients of aqueous solutions of some rare earth chlorides at 25°. F. H. Spedding and J. L. Dye. Am Chem Soc J 76:879-81 F 5 '54
Integral heats of solution of some rare earth trichlorides. F. H. Spedding and J. P. Flynn. bibliog Am Chem Soc J 76:1477-80 Mr 20 '54

RARE earth compounds
Conductances, transference numbers and activity coefficients of some rare earth perchlorates and nitrates at 25°. F. H. Spedding and S. Jaffe. Am Chem Soc J 76:884-8 F 5 '54
Crystal structures of rare earth oxychlorides. D. H. Templeton and C. H. Dauben. Am Chem Soc J 75:6069-70 D 5 '53
Lanthanon complexes with ethylenediaminetetra-acetic acid. R. C. Vickery. Chem Soc J p 1181-8 Ap '54
Lanthanon complexes with hydrazine-*NN*-diacetic acid. R. C. Vickery. Chem Soc J p385-8 Ja '54
New role for rare earths; driers and catalysts for paints and protective coatings. Chem W 72:38-9 Je 27 '53
Perowskite-type oxides of cobalt, chromium and vanadium with some rare earth elements. A. Wold and R. Ward. Am Chem Soc J 76:1029-30 F 20 '54

RARE earth fluorides
Preparation and properties of the rare earth fluorides and oxyfluorides. A. I. Popov and G. E. Knudson. bibliog Am Chem Soc J 76:3921-2 Ag 5 '54
Preparation of mischmetall by thermal reduction. C. Decroly and others. bibliog diags Electrochem Soc J 100:388-91 S '53

RARE earth halides
Vapor phase hydrolysis of the rare earth halides; heat and free energy of the reactions $PrCl_3(s) + H_2O(g) = PrOCl(s) + 2HCl(g)$ and $NdCl_3(s) + H_2O(g) = NdOCl(s) + 2HCl(g)$. C. W. Koch and B. B. Cunningham. Am Chem Soc J 76:1471-4 Mr 20 '54

RARE earth metals
Actinide-lanthanide analogy as exemplified by solvent extraction behavior. D. F. Peppard, P. R. Gray and M. M. Markus. bibliog Am Chem Soc J 75:6063-4 D 5 '53
Desulphurization with rare earths. J. A. Berger and M. G. Snellman. il Steel 134:110+ Ap 12 '54
Magnesium casting alloys for elevated temperatures. K. Rose. il Materials & Methods 40:87-9 Jl '54
Magnetic scattering of neutrons from rare earth ions. G. T. Trammell. bibliog Phys R 92:1387-93 D 15 '53
Metallurgy; wide research spurs interest in rare earths for steel, iron. Iron Age 172:194-6+ N 5 '53
New golden age dawns in Idaho's rare earths. il Min Cong J 40:32-3 Mr '54
New radioactive nuclides of the rare earths. T. H. Handley and E. L. Olson. Phys R 93:524-5 F 1 '54
Preparation of mischmetall by thermal reduction. C. Decroly and others. bibliog diags Electrochem Soc J 100:388-91 S '53
Preparation of yttrium and some heavy rare earth metals. A. H. Daane and F. H. Spedding. bibliog Electrochem Soc J 100:442-4 O '53

RARE earth metals—*Continued*

Production of rare earth metals in quantity allows testing of physical properties. F. H. Spedding and A. H. Daane. bibliog il diag J Metals 6:504-10 My '54

Rare earth additions affect surface quality of low carbon steel. J. V. Russell. bibliog il J Metals 6:438-42 Ap '54

Rare earths moving fast. W. E. Knapp and W. T. Bolkcom. Steel 134:104+ Mr 15 '54

Rare metals. Product Eng 24:201 S '53

Resistance anomalies in some rare-earth metals. R. J. Elliott. bibliog Phys R 94:564-8 My 1 '54

Surface protection by evaporation deposition of rare metals; abstract. Metal Finishing 52:88-9 S '54

Thermochemistry of the rare earths; lanthanum, praseodymium, samarium, gadolinium, erbium, ytterbium and yttrium. F. H. Spedding and J. P. Flynn. bibliog Am Chem Soc J 76:1474-7 Mr 20 '54

Total cross sections of rare earths for fast neutrons. A. Okazaki and others. bibliog diags Phys R 93:461-3 F 1 '54

US research on rare earth problems. Chem Age (Lond) 71:71-4 Jl 10 '54

See also

Cerium
Europium
Gadolinium
Holmium
Lanthanum
Neodymium
Praseodymium
Samarium
Yttrium

Analysis

Spectrographic determination of certain rare earths in stainless steels. E. W. Spitz and others. bibliog Anal Chem 26:304-7 F '54

Separation

Fractional separation of rare earths by oxalate precipitation from homogeneous solution. B. Weaver. Anal Chem 26:479-80 Mr '54

Fractional separation of rare earths by precipitation with mandelic acid. B. Weaver. bibliog Anal Chem 26:476-8 Mr '54

Fractionation of some rare earth pairs. L. Gordon and K. J. Shaver. bibliog Anal Chem 25:784-7 My '53

Ion exchange as a separation method; column studies of the relative efficiencies of various complexing agents for the separation of lighter rare earths. S. W. Mayer and E. C. Freiling. bibliog Am Chem Soc J 75:5647-9 N 20 '53

Ion exchange as a separations method; near optimum conditions for the separation of fission product rare earths with lactic acid eluant at 87°. E. D. Freiling and L. R. Bunney. Am Chem Soc J 76:1021-2 F 20 '54

Ion exchange as a separations method; relative elution positions of lanthanide and actinide elements with lactic acid eluant at 87°. L. Wish, E. C. Freiling and L. R. Bunney. Am Chem Soc J 76:3444-5 Jl 5 '54

Rare earths separation uses ion exchange method on commercial scale. il Can Chem Process 38:70+ Je 1 '54

Separation factor; criterion for evaluation of fractional separation processes. B. Weaver. bibliog(26 ref) Anal Chem 26:474-5 Mr '54

Separation of adjacent rare earths with ethylenediamine-tetraacetic acid by elution from an ion-exchange resin. F. H. Spedding, J. E. Powell and E. J. Wheelwright. bibliog Am Chem Soc J 76:612-13 Ja 20 '54

Separation of cerium from the rare earths by precipitation as iodate from homogeneous solution. H. H. Willard and S. T. Yu. il Anal Chem 25:1754-6 N '53

Separation of rare earths by ion exchange; quantitative data for the elution of neodymium. F. H. Spedding and J. E. Powell. bibliog Am Chem Soc J 76:2545-50 My 5 '54

Separation of rare earths by ion exchange; quantitative theory of the mechanism involved in elution by dilute citrate solutions. F. H. Spedding and J. E. Powell. bibliog Am Chem Soc J 76:2550-7 My 5 '54

Use of copper as the retaining ion in the elution of rare earths with ammonium ethylenediamine tetraacetate solutions. F. H. Spedding, J. E. Powell and E. J. Wheelwright. bibliog Am Chem Soc J 76:2557-60 My 5 '54

Use of thenoyltrifluoroacetone in ion exchange separations. R. A. James and W. P. Bryan. bibliog Am Chem Soc J 76:1982-4 Ap 5 '54

RARE earth sulfates

Conductances, solubilities and ionization constants of some rare earth sulfates in aqueous solutions at 25°. F. H. Spedding and S. Jaffe. bibliog Am Chem Soc J 76:882-4 F 5 '54

RARE earths

Europium determination in rare earth mixtures. D. C. Foster and H. E. Kremers. Anal Chem 25:1921-2 D '53

Nuclear engineering materials, fuels; thorium and rare earths from monazite. A. E. Bearse and others. flow sheet il Chem Eng Prog 50:235-9 My '54

Paramagnetic scattering of neutrons by rare earth oxides. W. C. Koehler and E. O. Wollan. bibliog Phys R 92:1380-6 D 15 '53

Rare earths counteract hot rolling defects in stainless steel. R. H. Henke and R. A. Lula. il J Metals 6:883-8 Ag '54

See also

Dysprosium

Analysis

Activation analysis of several rare earth elements. W. W. Meinke and R. E. Anderson. bibliog Anal Chem 26:907-9 My '54

Cupferron and neocupferron complexes of the rare earth elements. A. I. Popov and W. W. Wendlandt. bibliog Anal Chem 26:883-6 My '54

RARE gases. See Gases, Rare

RARITAN river

Comeback for sad shad; Middlesex county sewerage authority. il map Chem W 73:20-2 Ag 1 '53

Pollution research pushed; American Cyanamid teams up with neighbors to clean up Raritan river. il Chem Eng 61:122+ Ja '54

Raritan clean-up. Eng N 152:49 F 18 '54

Raritan River clean-up now assured. Eng N 151:27 Jl 16 '53

RAT-bite fever

Report of a case of rat-bite fever due to S. moniliformis. R. L. Griffith and D. W. McNaughton. Pub Health Rep 68:947-8 O '53

RATCHET mechanism

Carbide hacks costs; Kennametal carbide ratchet. il Steel 133:342 O 12 '53

Precision indexing with magnetic ratchet. il diags Machine Design 26:118 Je '54

Ratchet-tripping mechanism controls cut-off length of sheets. H. Murro. diags Mach 60:207-9 Mr '54

RATHBONE, Monroe Jackson, 1900-

New president of Standard oil co. (N.J.). por Chem Eng 61:368-70 Ap '54

RATIO and proportion

Estimating the ratio between the proportions of two classes when one is a subclass of the other. J. M. Elkin. Am Stat Assn J 48:128-30 Mr '53

RATIO delay method. See Time study—Delay allowances

RATIOMETER

Use of self-balancing pen recorders as ratiometers. R. L. Gordon. diags J Sci Instr 30:431-2 N '53

RATIONING

Great Britain

Britain carries out policy of decontrol. For Comm W 50:7 N 23 '53

Rationing score. Economist 169:10+ O 3 '53

RATIOS, Financial. See Financial ratios

RATS

Analysis of ratbites in Baltimore, 1948-52. W. Sallow. bibliog Pub Health Rep 68:1239-42 D '53

Rat-resistant construction materials. Pub Health Rep 68:824 Ag '53

Extermination

Insecticides and rodent control. S. Brierley. Factory Management 112:260+ F '54

RATS—Extermination—*Continued*

Rodent and insect control. Nat Safety N 69:62+ Mr '54

Susceptibility of rattus hawaiiensis Stone to warfarin. D. D. Bonnet and B. Gross. Science 118:44-5 Jl 10 '53

RATTLESNAKES

How a rattlesnake strikes. W. Van Riper. il Sci Am 189:100-2 O '53

RAUWOLFIA canescens

Isolation of reserpine from rauwolfia canescens Linn. M. W. Klohs and others. bibliog Am Chem Soc J 76:1381 Mr 5 '54

RAUWOLFIA heterophylla

Alkaloid studies; isolation of reserpine and narcotine from rauwolfia heterophylla Roem. and Schult. bibliog Am Chem Soc J 75:5446-7 N 5 '53

RAUWOLFIA serpentina

Ajmaline. F. A. L. Anet and others. Chem Soc J p 1242-60 Ap '54

Alkaloids of rauwolfia serpentina Benth; rescinnamine, a new hypotensive and sedative principle. M. W. Klohs, M. D. Draper and F. Keller. Am Chem Soc J 76:2843 My 20 '54

Alkaloids of rauwolfia serpentina Benth; the characterization of reserpine and its hydrolysis products. M. W. Klohs and others. Am Chem Soc J 75:4867 O 5 '53

Alkaloids of rauwolfia serpentina Benth; the isolation of naturally occurring py-tetrahydroserpentine (ajmalicine) and a contribution toward its structure. M. W. Klohs and others. bibliog Am Chem Soc J 76:1332-4 Mr 5 '54

Isolation of δ-yohimbine and a new related alkaloid from rauwolfia serpentina Benth. F. L. Weisenborn and others. bibliog Chem & Ind p375-6 Mr 27 '54

Rauwolfia alkaloids; isolation and characterization of two new alkaloids from rauwolfia serpentina Benth. N. Neuss, H. E. Boaz and J. W. Forbes. bibliog Am Chem Soc J 76:3234-6 Je 20 '54

Rauwolfia alkaloids; isolation of yohimbine from rauwolfia serpentina Benth. F. E. Bader, D. F. Dickel and E. Schlittler. Am Chem Soc J 76:1695-6 Mr 20 '54

Rauwolfia serpentina alkaloids; structure of reserpine. N. Neuss, H. E. Boaz and J. W. Forbes. bibliog Am Chem Soc J 76:2463-7 My 5 '54

Structure of reserpin. N. Neuss, H. E. Boaz and J. W. Forbes. Am Chem Soc J 75:4870-1 O 5 '53

RAUWOLSCINE

Conformation of rauwolscine, alloyohimbine and their congeners. A. Chatterjee and others. bibliog Chem & Ind p491-2 Ap 24 '54

RAVER, Paul Jerome, 1894-

Raver quitting BPA. Elec World News ed 140:9 D 21 '53

Raver to Seattle City Light? Elec World News ed 140:8 D 7 '53

RAW materials

Availability of raw materials in Idaho. J. Larsen and W. C. Peters. bibliog(88 ref) maps Ind & Eng Chem 45:2424-31 N '53

Carbohydrates raw materials; abstract. H. B. Hass. Chem & Eng N 32:3834-5 S 27 '54

Fuel, power, raw materials; tabulations. Steel 134:202-3 Ja 4 '54

Industrial raw materials of plant origin; survey of the bamboos. H. H. Sineath and others. Georgia Inst of Tech Eng Exp Sta [Atlanta] Bul 18:1-230 bibliog(1034 titles, p 157-230) '53

Materials; a curb on expansion? abstract. W. S. Paley. Management R 42:132-3 Mr '53

Metal meddlers; raw material plenty leaves the planners baffled. J. C. Perham. Barron's 33:5-6 N 9 '53

Per capita use of basic materials soars. Chem Eng 61:349-52 Mr '54

Potatoes as a crop and an industrial raw material. J. A. Radley. bibliog(61 ref) Chem & Ind p64-8 Ja 16 '54

Raw materials for organic chemicals. E. Ayres. Chem & Eng N 32:2877-80+ Jl 19 '54

Raw materials for synthetic fibres. Chem Age (Lond) 69:267-72 Ag 8 '53

See also

Cellulose
Ceramic materials
Chemicals
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Coal
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Farm produce
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Minerals
Mines and mineral resources
Oils and fats
Petroleum
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Textile fibers
Wood

International aspects

See also

International materials conference

RAYDIST

Raydist system for radiolocation and tracking. J. M. Benson and J. E. Swafford. bibliog il diags Elec Eng 72:983-7 N '53

RAYON

Birefringence and strain in textile filaments. H. Tipton. Textile Inst J Trans 44:T657 D '53; Correction. 45:T 166 F '54

Cellulose acetate as a raw material for rayon production. A. R. Urquhart. bibliog J Ap Chem 4:195-203 Ap '54

Hemicellulose in the viscose rayon process; chromatographic investigation. A. Buurman. il diag Textile Res J 23:888-96 D '53

Improved cellulose doubles strength of rayon fibers; Rayocord-X. il Chem & Eng N 31:4214 O 12 '53; Chem Eng Prog 49:sup54 O '53

New dissolving pulp; Rayocord-X. il Tappi 36:sup 104A+ N '53

Nitration and fractionation of rayons. W. E. Roseveare and L. Poore. bibliog Ind & Eng Chem 45:2518-21 N '53

Progress in rayon. il Mod Textiles Mag 35:41-2 S '54

Rayon rugs cushion chemicals. Chem W 75:77-8 Ag 7 '54

Tropical integration; Rayon corp. bagasse-to-fabric plant. il Chem W 72:22+ My 9 '53

Dyeing

See Dyes and dyeing—Rayon

Manufacture

Recovery of sulphur in the textile industry. Chem Age (Lond) 71:533-6 S 11 '54

Testing

Laboratory unit for rayon sampling. P. Cross. il Mod Textiles Mag 34:89 N '53

RAYON cords

Higher tenacity tire cords seen in new Rayonier development. il Rubber Age 74:108 O '53

Tougher tires expected with Super Cordura rayon; Du Pont. il Chem & Eng N 31:3074-5 Jl 27 '53

RAYON fabrics

Defects

How to eliminate filament-fabric shadow streaks. W. P. Crawley. il Textile World 104:84-5+ Jl '54

Shrinkage

Dimensional stability of viscose rayon. H. J. Leavitt. il Am Dyestuff Rep 43:472-4 Jl 19 '54

Shrinkage in laundering of cotton and rayon fabrics. Am Dyestuff Rep 43:364-7 Je 7 '54

Stabilizing rayon-aldehydes or ketone aldehydes plus alkali-soluble cellulose ethers; patent. Am Dyestuff Rep 42:639 S 14 '53

Stabilizing viscose fabrics. L. L. Walmsley. Am Dyestuff Rep 43:412-15 Je 21 '54

RAYON fibers

Rayon in modern blankets. R. A. Smith. il diags Mod Textiles Mag 35:32-3+ Ag '54

Relation between the orientation of filaments in a rayon tow and some characteristics of tops made from tow. G. Waggett. bibliog diags Textile Inst J Trans 45:T81-91 F '54

Swelling of hair and a viscose rayon monofil in aqueous solutions. W. S. Barnard and H. J. White, jr. bibliog diags Textile Res J 24:695-704 Ag '54

RAYON fibers—*Continued*

Blending

Coarse-denier blends; new fields for rayon? A. E. West. il Textile World 104:60-1 S '54

How to blend dope-dyed fibers. G. V. Lund. Textile World 104:87+ Ja '54

Study in three-fiber blends; what mixtures of rayon, Dacron, Orlon impart to a fabric. J. F. Sayre and A. J. Weldon. Mod Textiles Mag 35:32-3+ Jl '54

Testing

Standard method of test for fluidity of cotton, rayons and cellulose acetate in cuprammonium hydroxide solution. diags Textile Inst J 45:S 18-26 Ap '54

RAYON finishing

Chlorine-retentive properties of resin finished rayon fabrics. G. S. Wham, jr. and P. B. Mack. il Am Dyestuff Rep 42:285-96, 328-34 My 11-25 '53

Crease-resist finish; abstract. H. W. Best-Gordon. Am Dyestuff Rep 43:616 S 13 '54

Mechanical finishing of cotton and rayon fabrics; new use for isocyanates; abstract. Am Dyestuff Rep 43:318 My 10 '54

Modification of cellulose by chemical means; abstract. A. R. Wachter. Am Dyestuff Rep 43:35-6 Ja 18 '54

New ideas for crease- and shrink-resist finishing processes; abstract. B. C. M. Dorset. Am Dyestuff Rep 43:615 S 13 '54

Stabilizing viscose fabrics. L. L. Walmsley. Am Dyestuff Rep 43:412-15 Je 21 '54

Survey of the quality of crease-resist treatment on fabrics supplied to the retail trade. H. W. Best-Gordon. bibliog 2pls Soc Dyers & Col J 69:41-50 F '53

See also

Dyes and dyeing—
Rayon

RAYON industry

Europe's dollar-grab; how staple dumping is hurting the Nation's rayon manufacturers. Mod Textiles Mag 34:33+ N '53

Rayon's perennial pioneer; Wilbert James Carter. R. E. Ellsworth. Mod Textiles Mag 35:35+ Je '54

See also

Celanese corporation
of America
Rayonier, inc.

Advertising

Let's take a look at A.R.I. Mod Textiles Mag 35:96 S '54

Statistics

Rayon and acetate and manufactures, 1949-1952. Survey of Cur Bsns 1953 Sup p 188 [supplemented in monthly numbers]

France

Trends in the rayon staple spinning industry in France. P. Boutry. Textile Inst J 45:P93-107 Mr '54

Great Britain

Rayon staple price cut. Economist 168:49-50 Jl 4 '53

Rayon's peak. Economist 168:661 S 5 '53

Rayon's recovery at home. Economist 169:447 N 7 '53

Japan

Super-strength apparel rayon. R. E. Ellsworth. Mod Textiles Mag 35:31+ Je '54

RAYON mills

Employees

At American Enka, training and appraisal are a way of life. L. Zerfoss and others. Textile World 103:104-5+ D '53

Equipment

At Woodside mills, the newest way to operate a cloth room. R. B. Pressley. il Textile World 104:78-80+ Ja '54

RAYON printing

Control of padding processes by radioactive isotope labelling. H. B. Hampson and E. W. Jones. diags Soc Dyers & Col J 69:620-6; Discussion. 626-8 D '53

Fast-to-light basic prints on viscose rayon. W. S. Miller. bibliog(38 ref) Soc Dyers & Col J 69:612-18; Discussion. 618-19 D '53

Mélange or Vigoureux printing. F. Buxtorf and A. Wiazmitinow. bibliog il diag Soc Dyers & Col J 69:550-4; Discussion. 554-6 D '53

3-D printing-embossing gives unusual effects; Emboprint. G. M. Moisson. il Textile World 103:99+ D '53

RAYON research

Degree of polymerization and its distribution in cellulose rayons. W. G. Harland. bibliog diag Textile Inst J Trans 45:T678-95 S '54

Determination of microcrystallite size by the small-angle X-ray technique in rayons. A. N. J. Heyn. bibliog il Textile Res J 23:782-7 N '53

New method for differentiation of skin and core of a rayon filament. W. R. Berry. il Textile Res J 24:397-9 My '54

RAYON research association, British. See British rayon research association

RAYON spinning

Drafting forces of cotton and rayon-staple slivers. B. Cavaney and G. A. R. Foster. diags Textile Inst J Trans 45:T390-404 My '54

Rayon yarns for tufted carpets made on modified jute system; Lehigh spinning co. T. B. Winston. il Textile World 104:76-8 Je '54

Trends in the rayon staple spinning industry in France. P. Boutry. Textile Inst J 45:P93-107 Mr '54

RAYON weaving

Fast warp replacement permits frequent style changes; Toscony fabrics, inc. R. B. Pressley. il Textile World 104:116-17+ Mr '54

Tension control is critical in running 44HH Bemberg yarns; National weaving co. J. R. Fish. il Textile World 104:82-3+ Ap '54

RAYON yarn

Advantages and uses of spun-dyed rayon staple; Coloray. R. S. Greenwood. Mod Textiles Mag 34:52+ D '53

Jetspun; American Enka's solution-dyed rayon filament yarn. Mod Textiles Mag 35:72 Ja '54

Roller slip and the irregularity of cotton and rayon-staple drawframe slivers. G. Dakin and others. bibliog diags Textile Inst J Trans 44:T544-79 N '53

Techniques for using spun-dyed rayon staple; Coloray. G. V. Lund. Mod Textiles Mag 34:44-5+ D '53

Tufton, rayon's newest carpet yarn. J. W. Schappell. il diags Mod Textile Mag 34:31+ D '53

Where trouble occurs in handling filament yarns; Aldora mills. E. D. White. il Textile World 104:116-17 Jl '54

Testing

Adaptation of the Norelco high-angle spectrometer to the measurement of the X-ray diffraction of fibers. B. Irvin and F. B. Breazeale. il R Sci Instr 24:627-31 Ag '53

Effect of rate of extension on the tensile behaviour of viscose and acetate rayons, silk and nylon. R. Meredith. bibliog diags Textile Inst J Trans 45:T30-43 Ja '54

RAYONIER, inc.

Security I like best. L. Klybert. Comm & Fin Chr 178:2146+ D 3 '53

RAYS

See also

Absorption of rays
Alpha rays
Cosmic rays
Gamma rays
Infrared rays
Polarization of rays
Radiation
Ultraviolet rays
X rays

RAZOR blades

Testing

Sharpness tester for razor blade. K. Iwase. il diags Metal Prog 65:112+ Mr '54

REACTION time

Effect of flash and field luminance upon human reaction time. N. R. Bartlett and S. MacLeod. bibliog Opt Soc Am J 44:306-11 Ap '54

Human reaction time during dark adaptation. S. MacLeod and N. R. Bartlett. Opt Soc Am J 44:374-9 My '54

REACTOR technology, Oak Ridge school of. See Oak Ridge school of reactor technology

REACTORS

Application of transducers as relays to protective gear. R. K. Edgley and F. L. Hamilton. bibliog diags Inst E E Proc 99 pt 2:297-309 Ag '52; Discussion. 99 pt 2: 309-13; 100 pt 2:640 Ag '52, D '53

Nonlinear diffusion equation applied to the magnetization of saturable reactors. S. H. Chow. J Ap Phys 25:377-81 Mr '54

Some aspects of transductor design, with particular reference to discharge-lamp circuits. C. E. Williams. bibliog diag Inst E E Proc 100 pt 2:667-73 D '53

Cooling

Performance and cooling of cast-in-concrete reactors. R. V. Wheeler. diags Inst E E Proc 100 pt 2:551-60 O '53

REACTORS, Chemical

Apparatus for stirring a reaction mixture through a vapor-tight seal. J. R. Skidmore. diag Anal Chem 26:789-90 Ap '54

Continuous column reactor avoids temperature and gas evolution problems. A. M. Desai. diags Ind & Eng Chem 46:sup 111A F '54

Design of pilot plant reactors; panel discussion. F. D. Moss. bibliog il diags Ind & Eng Chem 45:2133-8 O '53

Heat transfer in packed beds. W. B. Argo and J. M. Smith. bibliog diags Chem Eng Prog 49:443-51 Ag '53

Improved vapor-phase reactor design; patent. diag Chem Eng 61:252+ Ag '54

New reactor design solves a tough problem; patent. diags Chem Eng 61:276+ Jl '54

Reactor uses magnetic clutch; Access-A-Bilt reactor. il Chem & Eng N 32:1272 Mr 29 '54

Rotary vacuum reaction chambers. J. F. Duncan and D. T. Warren. il diags J Sci Instr 30:462-4 D '53

Simultaneous heat and mass transfer in a diffusion-controlled chemical reaction; tubular reactor. C. N. Satterfield and others. bibliog(30 ref) diags Chem Eng Prog 50: 460-6 S '54

READ, Granville M.

Du Pont construction force; engineering tomorrow's world. J. P. Chamberlain. por (cover) Eng N 151:42-4+ Ag 6 '53

READING

Executive development program increases reading speed. il Am Bsns 23:22-3 D '53

Helping executives remember; more and more companies try reading and memory courses. Bsns W p 132+ Ag 22 '53

How long does reading improvement last? C. J. Mullins and H. W. Mowry. Personnel J 32:416-17 Ap '54

How oil men read. Oil & Gas J 52:65-6 Jl 20 '53

How rapidly and well do you read? H. Johnson. Cer Ind 61:106-7 N '53

Negentropy and information in telecommunications, writing, and reading. L. Brillouin. bibliog diags J Ap Phys 25:595-9 My '54

Oil executives double reading rates by modern training. H. Judson. il diag Oil & Gas J 52:306+ N 16 '53

Reading speed. Chem Eng 60:258+ Jl '53

Reading speed; how good is yours? Chem Eng 61:228+ Ag '54

What's all this better reading shouting about? S. Warren. Sales Management 71: 44-6+ Ag 1 '53

You can learn how to read with a few helpers. B. Aitchison. il Ind Marketing 38:50+ D '53

READY-mixed concrete. See Concrete mixing —Ready-mixed concrete

REAL estate boards, National association of. See National association of real estate boards

REAL estate business

Called on three men a day, made $50,000 in a year; Arthur Rubloff. Am Bsns 24:21+ S '54

Coming, trade-in market for homes? J. Shoenfeld. Sales Management 71:48+ S 1 '53

FHA gives house trade-ins a tryout. Bsns W p27 Ag 1 '53

More builders use real estate salesmen as selling gets competitive. House & Home 5:168-9 My '54

Principles of real estate. A. M. Weimer and H. Hoyt. 3d ed 618p $6.50 Ronald press co, 15 E. 26th st, New York 10 '54

Reliability of deed samples as indicators of land market activity. R. L. Tontz and others. bibliog Land Econ 30:44-51 F '54

Residential real estate developments. Fed Res Bul 39:809-15 Ag '53

Why pension funds should invest in real estate. G. W. Warnecke. il Trusts & Estates 92:646-50+ S '53

See also

Building
Housing projects
Insurance, Life—Real estates operations
Land—Subdivision
Leases
Mortgages
Rent

also Kern county land company; Webb and Knapp, inc.

Records

How to keep real estate office records. W. C. Hefti. 178p $4.95 Prentice-Hall, 70 Fifth av, New York 11 '54

Taxation

Sale of rental housing units; ordinary income or capital gain? D. Reifer. bibliog J Account 97:449-59; 98:90-1 Ap, Jl '54

Florida

How newspapers built Florida real estate bonanza. R. B. McIntyre. Ed & Pub 86:18 Ap 4 '53

REAL property

Income-producing real estate as trust investment. C. M. Turley. Comm & Fin Chr 178:1948-9 N 19 '53; Excerpts. Trusts & Estates 92:846-7 N '53

See also

Mortgages
Real estate business

Valuation

Reappraisal brings howls in Troy, N.Y. Bsns W p96 Ag 29 '53

REAMERS

Facts about modern drills and reamers. il diags Mill & Factory 54:589 My '54

Fuse head tooling built up of standard units. F. G. Gepfert. il Tool Eng 32:50-1 Je '54

REAMING

Jig boring time cut 75 per cent with improved reaming fixtures. il Iron Age 172:136+ O 22 '53

REARRANGEMENTS, Molecular. See Molecular rearrangements

RECEIVERS

See also

Insurance companies —Receiverships

RECESSION, Business. See Business depression

RECIPROCITY theorem

Reciprocity theorems in electromagnetic theory. T. H. Crowley. bibliog J Ap Phys 25: 119-20 Ja '54

RECLAIMED rubber. See Rubber—Reclaiming

RECLAMATION of land

Conservation at Copper basin. C. Fish. il Nat Safety N 70:18-21+ S '54

Ditch blasting reclaims useless Ohio farmland. W. F. Miller. il Explosives Eng 32: 53-4 Mr '54

Industrial sites created by sanitary fills. il Pub Works 85:86+ S '54

Rural electrification of the Rhône delta. D. Anley. il map diag Elec R (Lond) 154:284-5 F 12 '54

RECOMBINATION of ions. See Ions—Recombination

RECOMMENDATION, Letters of

Desirable content of letters of recommendation. R. B. Sleight and G. D. Bell. Personnel J 32:421-2 Ap '54

Letter of recommendation. R. W. Adams. Factory Management 112:228+ Ap '54

RECONSTRUCTION finance corporation

Bankers take over; plan to switch loans on RFC books. Chem W 73:27 D 19 '53

Liquidating government's $30 billion business empire. H. DuBois. Mag of Wall St 93:606-7+ F 20 '54

Loans and securities outstanding, end of month, 1949-1952. Survey of Cur Bsns 1953 Sup p87 [supplemented in monthly numbers]

RECONSTRUCTION finance corporation—*Continued*

RFC assets go on the block. Bsns W p48+ O 3 '53

RFC liquidation progresses. L. Stafford. Banking 46:50+ F '54

RECORD changers. See Phonograph—Record changers

RECORDER (musical instrument)

Recorders; a two-man industry. il Bsns W p 120-2 S 19 '53

RECORDING instruments

Application of a radioactive source for recording purposes. A. Bierman. diag R Sci Instr 24:879-80 S '53

Combined reading and writing on a magnetic drum. J. H. McGuigan. il diags Inst Radio Eng Proc 41:1438-44 O '53

Fischer & Porter smaller recorder cuts space needed in panel mounting. il diag Iron Age 172:268+ N 12 '53; Same abr. Steel 134:96 Ja 11 '54

How they stand up under pressure; Williamson-Dickie's sales applicants tested on the Interaction Chronograph. J. T. Norman. Sales Management 73:36-7+ Ag 1 '54

Instrumentation for pilot plants; panel discussion. C. Berg and others. flow diag il diags Ind & Eng Chem 45:1836-52 S '53

Librascope plotter-recorder incorporates unique pen-positioning mechanism. il diags Machine Design 26:148-9 Mr '54

Tighter control of downtime; continuous recorder. il Factory Management 112:93-6 Jl '54

See also

Oscillographs, Cathode ray

Telephone recorders

RECORDING instruments, Electric

Apparatus for automatically recording the absorption of oxygen. J. C. E. Button and A. J. Davies. il diags J Sci Instr 30:307-10 S '53

Automatic apparatus for stimulus presentation and recording in visual threshold experiments. H. R. Blackwell and others. il diags Opt Soc Am J 44:322-6 Ap '54

Automatic recorder for continuous determination of oxygen in gases using the dropping mercury electrode. T. B. Larchar and M. Czuha, jr. bibliog diags Anal Chem 26:1351-4 Ag '54

Automatic sediment and moisture recorder. E. B. Delgass and others. il diag Ind & Eng Chem 46:1418-22 Jl '54

Continuous oxidant recorder. F. E. Littman and R. W. Benoliel. bibliog flow diag il diags Anal Chem 25:1480-3 O '53

Continuous recording of concentration of organic matter in waste water. R. Kieselbach. bibliog flow diag il diags Anal Chem 26:1312-18 Ag '54

Device for extending the range of a recording potentiometer. P. L. Palmer. diag J Sci Instr 31:197-9 Je '54

Electronic-recorder pickups. J. E. Witherspoon. il diags Instruments 26:429-31 Mr '53

Evershed and Vignoles two-channel quick-response recorder. il Engineer 197:209 F 5 '54; Engineering 177:245 F 19 '54

Logarithmic chart drive. P. H. Dawson and others. diag J Sci Instr 31:97-8 Mr '54

Magnetic shield eliminates voltmeter pen vibration. R. F. Randels. il Elec World 141:124+ Mr 8 '54

Minneapolis-Honeywell recording system does job scanning larger systems. Iron Age 173:195 Mr 4 '54

New technique for transient recording. R. C. Baird and K. W. Lamers. bibliog il diags Instruments & Automation 27:464-6 Mr '54

Optical system and thermopile amplifier for double-beam recording of infra-red spectra. J. L. Hales. bibliog diag J Sci Instr 30:52-7 F '53

Oxidation-reduction potential and pH changes in manometric vessels. K. Wight and D. Burk. bibliog il diag Anal Chem 26:481-4 Mr '54

Photomechanical wave analyser for Fourier analysis of transient waveforms. J. Darbyshire and M. J. Tucker. J Sci Instr 30:212 Je '53

Portable oximeter with provision for continuous recording. F. D. Stott. diags J Sci Instr 30:120-3 Ap '53

Recording fluxmeter. R. S. Tebble. diags J Sci Instr 30:369-71 O '53

Recording microdensitometer applicable to biological problems. P. M. B. Walker. bibliog diags J Sci Instr 30:162-4 My '53

Recording signals from resistance strain gauges. D. A. Senior. il diags Engineer 197:410-13, 446-9, 482-3 Mr 19-Ap 2 '54

Recording system. il Machine Design 26:288+ Ap '54

Sara keeps watch at three TVA steam plants; sequential automatic recording annunciator. R. M. Alspaugh. il diags Power Eng 58:66-8 F '54

Sensitive floor for examining the movement of traffic. R. G. Bateson. il diags J Sci Instr 31:336-7 S '54

Simple electrical method of recording small volume changes. J. G. Davies. diags J Sci Instr 30:306-7 S '53

Simple keep-alive circuit for recording meters. E. J. Wiggins. diag R Sci Instr 24:1155-6 D '53

Simple recording differential refractometer. G. H. F. Seiflow. diags J Sci Instr 30:407-8 N '53

Two-point converter for single-point recorder. E. P. Hall and W. L. Nelson. diag Anal Chem 26:1396-7 Ag '54

Use of self-balancing pen recorders as ratiometers. R. L. Gordon. diags J Sci Instr 30:431-2 N '53

RECORDS

Inventory your paper-work problem; abstract. F. M. Knox. Management R 42:148-9 Mr '53

New science of records management. R. A. Shiff and A. Barcan. Harvard Bsns R 32:54-62 S '54

Paper work claims as many U.S. workers as agriculture. Bsns W p79-80 O 3 '53

Pharmaceutical control laboratory record system. G. M. Naimark and R. F. Prindle. il Anal Chem 26:645-7 Ap '54

Records management; the newest profession; abstract. D. Knight. Management R 42:716-17 D '53

See also

Accounting

Card system in business

Files and filing (documents, etc.)

Forms and blanks, Business

Inventories

Microfilm records

Photographic records

Punched card system

Sales records

Stores systems

also subdivision Records under special subjects, e.g.

Banks and banking

Employment departments

Factories

Railroads

RECORDS, Microfilm. See Microfilm records

RECORDS, Preservation of

Survey of integrated data-conversion systems. F. K. Williams and M. L. Klein. diags Instruments & Automation 27:1460-2 S '54

See also

Microfilm records

RECORDS, Visible

Visible control for stockholders records; Northern trust company. il Bankers Mo 70:42 N '53

Visual control of analytical test scheduling. B. G. Post and others. il Anal Chem 26:647-50 Ap '54

RECREATION

Activities reduce employe turnover; Hyster co. il Mill & Factory 54:133 Ja '54

Facts on company recreation programs; abstract. Management R 43:572-3 S '54

Georgia story. il Manuf Rec 123:87-90 My '54

Management pays as workers play. il Steel 133:55 Jl 20 '53

North Carolina story; labor and living. il Manuf Rec 123:81-3 Ja '54

Picnics, parties, plays; pleasant for personnel. Steel 135:58 Ag 2 '54

Plant floor in the morning turns into playroom at lunchtime; North American aviation, inc. il Bsns W p 120+ Ag 8 '53

Plant site is social center, morale soars; Diamond Alkali's plant, Houston, Tex. il Chem W 72:14-15 My 9 '53

Pleasure with a purpose; that's today's company picnic. il Chem W 73:23-4+ Jl 25 '53

RECREATION—*Continued*

Recreation for everyone; employee-planned and -operated program at F. E. Myers. S. R. Risser. il Factory Management 112: 130-1 Ag '54

Try imagination; don't forget diversion. J. E. Burchard. il Arch Rec 115:147-9 Ja '54

See also

Picnics

RECREATION buildings

Modern in pre-civil war setting; detached playhouse. il plan diag Arch Rec 113:152-3 My '53

Recreation center for a factory achieves country club atmosphere. il plans diags Arch Forum 98:122-8 Ap '53

School board and park board cooperate; Catherine Blaine junior high school, Seattle, Wash. recreation project. il plans diag Arch Rec 116:123-7 Jl '54

Social and recreational buildings; building types study. il plans diag Arch Rec 115: 146-68 Ja '54

RECREATION centers

New town plans integrate recreation; city plan projects for Latin America. plans Arch Rec 115:162-3 Ja '54

Patterns in a park; San Rafael, Calif. il plan diag Arch Forum 99:120-1 N '53

Recreation centers keep the kids occupied; recreation center, Highland Park, Ill. il plans Arch Rec 115:152-3 Ja '54

RECRYSTALLIZATION. See Crystallization

RECTANGLES

Radiation characteristics of semicircular, circular, and rectangular surface sources. A. I. Mahan and W. F. Malmborg. bibliog diags Opt Soc Am J 44:644-53 Ag '54

RECTIFIERS, Electric. See Electric rectifiers

RECTIFIERS, Radio. See Radio rectifiers

RECUPERATORS. See Furnaces, Recuperative and regenerative

RECURRENCE formula

On a recursion formula and some Tauberian theorems. N. G. de Bruijn and P. Erdös. bibliog J Res Nat Bur Stand 50:161-4 Mr '53

RED

Effectiveness of red light on dark adaptation. W. R. Miles. bibliog Opt Soc Am J 43: 435-41 Je '53

Oxidation of phenols in alkaline solution; doctor red. H. Taskis and G. E. Mapstone. Chem & Ind p 1061-3 O 3 '53

RED spiders

Control of red spider mite. Chem Age (Lond) 70:476 F 20 '54

Control of red spider mites; Chlorocide. il Chem & Ind p 1055 O 3 '53

Insect population balance and chemical control of pests; predators of the fruit tree red spider mite. E. Collyer. Chem & Ind p 1044-6 O 3 '53

p-Chlorobenzyl *p*-chlorophenyl sulphide; a new ovicide for control of red spider. J. E. Cranham and others. Chem & Ind p 1206-7 N 7 '53

REDUCTASES

DPNH-cytochrome reductase, a ferro-flavoprotein. H. R. Mahler and D. G. Elowe. bibliog Am Chem Soc J 75:5769-70 N 20 '53

REDUCTION, Chemical

Chemical engineering unit processes; amination by reduction. J. Werner. bibliog (59 ref) il Ind & Eng Chem 45:1912-14; 46:1800-1 S '53, S '54

Comparison of chemical and electrolytic methods of reduction. M. G. Fouad and J. F. Herringshaw. Chem Soc J p 1207-12 Ap '54

Determination of uranium by reduction with stannous chloride. A. R. Main. bibliog Anal Chem 26:1507-9 S '54

Iron reduction in fluid beds. flow sheet Chem Eng 60:398+ S '53

Mechanism of the reduction of potassium tetracyanonickelate(II) and potassium hexacyanocobaltate(III) with potassium in liquid ammonia. G. W. Watt and others. bibliog Am Chem Soc J 76:373-5 Ja 20 '54

Rearrangement of α-aminoketones during Clemmensen reduction; the reduction of atom-bridged bicyclic α-aminoketones. N. J. Leonard, J. W. Curry and J. J. Sagura. bibliog Am Chem Soc J 75:6249-52 D 20 '53

Reducing substances in dry cyder. D. W. Steuart and J. A. B. Duncan. bibliog Chem & Ind p634 My 29 '54

Reduction by a cuprous acetate-pyridine complex. W. G. H. Edwards and G. K. McIndoe. Chem & Ind p 1091 O 10 '53

Reduction by aluminum powder in aqueous solution titrimetric determination of molybdenum. E. R. Riegel and R. D. Schwartz. bibliog Anal Chem 26:410-11 F '54

Reduction of certain 2-phenyl-4-aryl ideneoxazolones by means of lithium aluminium hydride. E. Baltazzi and R. Robinson. Chem & Ind p541 My 30 '53

Reduction of nitroguanidine and its derivatives by titanous chloride. P. D. Sternglanz, R. C. Thompson and W. L. Savell. bibliog Anal Chem 25:1111-13 Jl '53

Reduction of oxycelluloses by sodium borohydride. A. Meller. Chem & Ind p 1204 N 7 '53

Reduction of 2-phenyl-4-*iso*propylidene-oxazolone-5 by means of lithium aluminium hydride. E. Baltazzi and R. Robinson. Chem & Ind p868 Ag 15 '53

Reduction of potassium permanganate in the presence of glass. M. J. Cotter. Chem & Ind p433 Ap 10 '54

Reduction of simple olefins with sodium and methanol in liquid ammonia. H. Greenfield, R. A. Friedel and M. Orchin. bibliog Am Chem Soc J 76:1258-9 Mr 5 '54

Reduction, using lithium aluminium hydride. E. G. Peppiatt and R. J. Wicker. bibliog Chem & Ind p932-3 Jl 24 '54

Reductive fission of lactose by sodium borohydride. L. Hough and others. Chem & Ind p 1064 O 3 '53

Selective aromatic reduction by means of lithium in ethylamine; abstract. R. A. Benkeser. Chem & Eng N 32:1325 Ap 5 '54

Sign of oxidation-reduction potentials. W. M. Latimer. Am Chem Soc J 76:1200-1 F 20 '54

Superior method for reducing phenol ethers to dihydro derivatives and unsaturated ketones. A. L. Wilds and N. A. Nelson. bibliog Am Chem Soc J 75:5360-5 N 5 '53

Thiourea dioxide (formamidinesulphinic acid); new reducing agent for textile printing. P. Krug. bibliog Soc Dyers & Col J 69:606-10; Discussion. 610-11 D '53

See also

Hydrogenation

REDUCTION, Electrolytic

Attempts at the electrolytic initiation of polymerization. H. Z. Friedlander and others. bibliog Electrochem Soc J 100:408-10 S '53

Cathodic reduction of anions and the anodic oxidation of cations. C. Wagner. Electrochem Soc J 101:181-4 Ap '54

Comparison of chemical and electrolytic methods of reduction. M. G. Fouad and J. F. Herringshaw. Chem Soc J p 1207-12 Ap '54

Effect of chain branching on electrochemical carbon-halogen bond fission. P. J. Elving and others. bibliog(36 ref) Electrochem Soc J 101:195-202 Ap '54

Electrolytic reduction of benzoic, phenylacetic, and cinnamic acids and esters at a platinized-platinum cathode. S. Ono and others. bibliog diag Electrochem Soc J 101: 104-9 F '54

Electrolytic reduction of tricyclic α-aminoketones; synthesis of medium rings containing nitrogen. N. J. Leonard, S. Swann, jr. and G. Fuller. bibliog Am Chem Soc J 76:3193-7 Je 20 '54

Electronic controlled potential reduction or oxidation apparatus. F. Kaufman, E. Ossofsky and H. J. Cook. bibliog diags Anal Chem 26:516-19 Mr '54

Kinetics of the reduction of perchlorate ion by Ti(III) in dilute solution. F. R. Duke and P. R. Quinney. Am Chem Soc J 76: 3800-3 Jl 20 '54

Reduction of oxidation-ions in hydrocarbons. A. Gemant. bibliog Electrochem Soc J 101: 281-6 Je '54

Reduction of vat dyes in printing pastes. W. J. Marshall and R. H. Peters. bibliog diag Soc Dyers & Col J 69:583-93; Discussion. 593-5 D '53

See also

Polarography

REDUCTONE

Some anilino-compounds related to reductone. W. Cocker and P. Schwarz. Chem & Ind p 1126 O 17 '53

Sugar-amine reductones; abstract. J. E. Hodge. il Chem & Eng N 32:1436 Ap 12 '54

REDWOOD

Acids from redwood. Chem Eng 61:158 Ap '54

Deterioration of redwood cooling towers. R. V. Comeaux. bibliog il Am Pet Inst Proc 33(3):308-19 '53; Excerpts. Oil & Gas J 52: 343+ S 21 '53; Abstract. Power 97:246+ O '53

New lease on life for cooling towers. il Chem Eng 61:120 Ap '54

Wood deterioration in cooling towers. B. L. Browning and L. O. Bublitz. bibliog il Ind & Eng Chem 45:1516-20 Jl '53

REED, Lowell Jacob, 1886-

New president for The Johns Hopkins university. Science 118:235-6 Ag 28 '53

REEFS

Petrography and petrology of Scurry reef, Scurry county, Texas. R. E. Bergenback and R. T. Terriere. il maps Am Assn Pet Geologists Bul 37:1014-29 My '53

Reefs and associated rocks. E. R. Lloyd. diags Oil & Gas J 52:268-70+ Jl 27 '53

Silurian reefs of James Bay lowland, Ontario. W. C. Gussow. diags Am Assn Pet Geologists Bul 37:2422-4 O '53

See also

Coral reefs and islands

REELS

See also

Electric cable reels

Moving picture films —Reels

REES, Mina, 1902-

Resolution adopted by the Council of the Institute of mathematical statistics. Science 118:349-50 S 25 '53

REESE, Everett D.

E. D. Reese, forward-looking banker. H. J. Boone. pors Burroughs Clearing House 37: 36-7+ S '53

Meet president Reese; new president of the American bankers association. pors Banking 46:44-6+ O '53

REEVE, William Edgar

Sketch. W. R. Hart. por East Underw 54:12 N 20 '53

REFERENCE books

See also

Bibliography

Encyclopedias

Bibliography

Business reference publications; catalogs, directories, buyers' guides, etc. Ind Marketing 38:32-6+ Je 25 '53

REFINERIES, Petroleum. See Petroleum refineries

REFLECTION (optics)

All-dielectric high-reflecting layers. O. S. Heavens. Opt Soc Am J 44:371-3 My '54

Becker value of manila rope by photoelectric reflectometry. S. B. Newman and others. bibliog diags J Res Nat Bur Stand 51:141-3 S '53

Detergent efficiency; interpretation of reflectance curves. O. C. Bacon and J. E. Smith. Am Dyestuff Rep 43:619-22 S 13 '54

Effect of multiple internal reflections on the densities of half-tone prints on paper. F. R. Clapper and J. A. C. Yule. diag Opt Soc Am J 43:600-3 Jl '53

Effect of vapor incidence on the structure of evaporated aluminum films. L. Holland. diags Opt Soc Am J 43:376-80 My '53

Experiments concerning infrared diffuse reflectance standards in the range 0.8 to 20.0 microns. J. T. Agnew and R. B. McQuistan. diags Opt Soc Am J 43:999-1007 N '53

Far infrared reflectances of TlCl, TlBr, TlI, PbS, $PbCl_2$, ZnS, and CsBr. W. M. Sinton and W. C. Davis. Opt Soc Am J 44: 503-4 Je '54

Fringes of equal reflection coefficient ratio and their application to the determination of the thickness and refractive index of monomolecular films. R. E. Hartman and others. bibliog il diags Opt Soc Am J 44: 192-8 Mr '54

Goniometric spectrometer for the measurement of diffuse reflectance and transmittance of skin in the infrared spectral region. C. Clark and others. bibliog il diags Opt Soc Am J 43:993-8 N '53

Interflectance tables from conventional photometric data. L. E. Innis. bibliog diags Illum Eng 48:595-609 N '53; Discussion. 48:609-10; 49:29-30 N '53, Ja '54

Linear recurrence equations for analyzing multilayers. H. Osterberg and N. E. Page. Opt Soc Am J 43:728-32 S '53

Luminous directional reflectance of snow. W. W. K. Middleton and A. G. Mungall. il diags Opt Soc Am J 42:572-9 Ag '52; Discussion. A. W. Christie. 43:621-2 Jl '53

Measurement of absolute spectral reflectivity from 1.0 to 15 microns. J. T. Gier and others. il diags Opt Soc Am J 44:558-62 Jl '54

Measurement of reflectivity and absorption of a transparent solid. J. C. S. Richards. J Sci Instr 31:262 Jl '54

Multiple internal reflections in photographic color prints. F. C. Williams and F. R. Clapper. diags Opt Soc Am J 43:595-9 Jl '53

New contributions to the optics of intensely light-scattering materials; nonhomogeneous layers. P. Kubelka. bibliog diag Opt Soc Am J 44:330-5 Ap '54

Reflectance measurements from 1140A to 1190A by a simple open air method. J. D. Purcell. bibliog diag Opt Soc Am J 43: 1166-9 D '53

Reflection coefficients for certain rough surfaces. V. Twersky. J Ap Phys 24:659-60 My '53

Reflection from a mirror surface with an absorbent coating. J. R. Wait and others. Opt Soc Am J 44:438-41 Je '54

Road surfaces as reflectors of light, from the point of view of street lighting. A. W. Christie. bibliog il diags Chem & Ind p468-75 My 16 '53

Short history of spectroscopy; selective reflection. T. W. Chalmers. diags Engineer 196:359-60 S 18 '53

Stray light in a spectrophotometer caused by internal reflection in a 60° prism. H. D. Einhorn and A. E. Z. Cohen. diag Opt Soc Am J 44:232-3 Mr '54

Surface studies of solids by total reflection of X-rays. L. G. Parratt. bibliog diags Phys R 95:359-69 Jl 15 '54

Use of multilayer films for surface topography interferometry. J. A. Belk and others. bibliog il Opt Soc Am J 44:5-10 Ja '54

See also

Reflectors

REFLECTION spectra. See Spectrum—Reflection spectra

REFLECTOMETERS

Becker value of manila rope by photoelectric reflectometry. S. B. Newman and others. bibliog diags J Res Nat Bur Stand 51:141-3 S '53

Measuring reflection from crt face plates. M. E. Amdursky. il diags Tele-Tech 12: 90-1 O '53

Portable photometer for the testing of reflective road signs. R. G. Giovanelli. il diags J Sci Instr 31:126-9 Ap '54

Reflectometer for the assessment of surface texture. J. Halling. il diag J Sci Instr 31: 318-20 S '54

REFLECTORS

New line board test for paraboloidal reflectors. W. Liben and B. Goldberg. il diags Opt Soc Am J 43:347-52 My '53

Reproduction of an evaporated highly reflecting film of desired reflectivity. E. V. Vernon. J Sci Instr 30:292 Ag '53

Manufacture

Play ball! aluminum brightens the night; General Electric's River works turns out floodlights; illustrations with text. Steel 134:75 Ap 12 '54

REFLECTOSCOPE

Ultrasonic testing; a versatile new inspection method. C. H. Wick. il Mach 60:184-91 Ap '54

Ultrasonic testing of a large engine crankshaft; abstract. W. A. Black. Steel 133: 115 Jl 6 '53

REFLEXES

Circulatory and autonomic factors in bulbar facilitation and inhibition of reflexes. L. M. N. Bach. bibliog il diag Science 117: 684-6 Je 19 '53

Orientation reflex. H. L. Logan. bibliog il diags Illum Eng 49:19-28; Discussion. 28-9 Ja '54

REFORMATSKY reaction

Behavior of *s*-dichloroacetone in Reformatsky condensations. A. Lasslo and G. L. Webster. bibliog Am Chem Soc J 75:5980-3 D 5 '53

New synthesis of methyl γ-chloro-β-methylcrotonate and its Reformatsky reaction. S. Akiyoshi, K. Okuno and S. Nagahama. Am Chem Soc J 76:902 F 5 '54

Reformatsky type condensation of aroyl chlorides with ethyl α-bromoisobutyrate by means of zinc to form β-keto esters. P. L. Bayless and C. R. Hauser. bibliog Am Chem Soc J 76:2306-8 My 5 '54

REFRACTION, Double

Birefringence and strain in textile filaments. H. Tipton. Textile Inst J Trans 44:T657 D '53; Correction. 45:T 166 F '54

Flow birefringence study of size and size distribution in desoxypentose nucleic acid. M. Goldstein and M. E. Reichmann. bibliog Am Chem Soc J 76:3337-42 Je 20 '54

Influence of repeated torsional deformations on the birefringence of nylon monofilaments. A. K. van der Vegt and J. Isings. Textile Res J 24:862 S '54

Molecular polarisability; the measurement of molecular Kerr constants in solution. C. G. Le Fèvre and R. J. W. Le Fèvre. diags Chem Soc J p4041-50 D '53

See also

Kerr effect

REFRACTION, Molecular

Bond refractions for tin, silicon, lead, germanium and mercury compounds. A. I. Vogel, W. T. Cresswell and J. Leicester. bibliog J Phys Chem 58:174-7 F '54

Contribution of the cyclopropyl ring to molar refraction. V. A. Slabey. Am Chem Soc J 76:3603-4 Jl 5 '54

Spectra and molecular refraction for some unsaturated sulfides, sulfoxides and sulfones. C. C. Price and R. G. Gillis. Am Chem Soc J 75:4750-3 O 5 '53

REFRACTIVE index

Absorption of millimeter waves in dielectric solids. W. L. Brooks and others. diags Opt Soc Am J 43:1191-4 D '53

Analogue computer for the solution of the radio refractive-index equation. W. E. Johnson. bibliog il diags J Res Nat Bur Stand 51:335-42 D '53

Artificial dielectrics having refractive indices less than unity; abstract. J. Brown. bibliog diags Inst E E Proc 100 pt 3:319-20 S '53

Asphalt analysis; refractive index can be a useful tool. R. N. Traxler and H. E. Schweyer. Oil & Gas J 52:167 O 12 '53

Dielectric constant and refractive index from 20 to 35° and density at 25° for the system tetrahydrofuran-water. F. E. Critchfield, J. A. Gibson, jr. and J. L. Hall. Am Chem Soc J 75:6044-5 D 5 '53

Fringes of equal reflection coefficient ratio and their application to the determination of the thickness and refractive index of monomolecular films. R. E. Hartman and others. bibliog il diags Opt Soc Am J 44:192-8 Mr '54

Index of refraction of air in the infrared. D. H. Rank and J. N. Shearer. Opt Soc Am J 44:575 Jl '54

Index of refraction of fused quartz glass for ultraviolet, visible, and infrared wavelengths. W. S. Rodney and R. J. Spindler. bibliog Opt Soc Am J 44:677-9 S '54

Index of refraction of germanium measured by an interference method. D. H. Rank and others. bibliog diags Opt Soc Am J 44:13-16 Ja '54

Infrared index of refraction of tellurium crystals. P. A. Hartig and J. J. Loferski. bibliog Opt Soc Am J 44:17-18 Ja '54

Interferometric wavelength measurement in the infrared by the method of exact orders; precision measurement of the index of refraction of air at 1.65μ. D. H. Rank and others. diag Opt Soc Am J 43:952-6 N '53

Measurement of variations in atmospheric refractive index with an airborne microwave refractometer. H. E. Bussey and G. Birnbaum. bibliog il J Res Nat Bur Stand 51: 171-8 O '53

New optical system for simultaneous recording of refractive index and its gradient in stratified solutions. H. Svensson and R. Forsberg. bibliog il diags Opt Soc Am J 44:414-16 My '54

Optical constants of silver, gold, copper, and aluminum; index of refraction *n*. L. G. Schulz and F. R. Tangherlini. bibliog diags Opt Soc Am J 44:362-8 My '54

Phase transformations in commercial paraffin waxes. J. F. Johnson. bibliog Ind & Eng Chem 46:1046-8 My '54

Quantum-mechanical definition of refractive index. S. M. Neamtan. Phys R 94:327 Ap 15 '54

Ray deflection through a medium having a continuously varying refractive index. S. Wolin. bibliog Opt Soc Am J 43:373-5 My '53

Refractive index correction in light-scattering measurements. D. J. Meier. J Chem Phys 21:1892-3 O '53

Refractive index of cesium bromide for ultraviolet, visible, and infrared wavelengths. W. S. Rodney and R. J. Spindler. bibliog il J Res Nat Bur Stand 51:123-6 S '53

Refractive indices of some morpholine solutions. C. M. Wheeler, jr. and C. G. Houle. bibliog Anal Chem 26:414-15 F '54

Refractive indices of textile fibers; abstract. W. R. Moore. Am Dyestuff Rep 43:511 Ag 2 '54

Ternary methanol-ethanol-acetone and three related binary solutions. H. H. Amer, R. R. Paxton and M. Van Winkle. bibliog Anal Chem 25:1204-6 Ag '53

Theoretical light-scattering coefficients for relative refractive indexes less than unity and for totally reflecting spheres. R. H. Boll and others. bibliog Opt Soc Am J 44: 18-21 Ja '54

Usefulness of the polarimetric method for the determination of the refractive index and of the thickness of one thin film on glass or on metal. A. Vašíček. Opt Soc Am J 44: 664-5 Ag '54

REFRACTOMETERS

Controlling instruments need further development. B. W. Thomas. diags Ind & Eng Chem 45:sup85A-6A+ Jl '53

Design and construction of a differential refractometer for measurements on coloured solutions. E. Atherton and E. Cowgill. bibliog diags Soc Dyers & Col J 70:116-20 Mr '54

Fiduciary fringes in the Jamin refractometer. P. G. Guest and W. M. Simmons. Opt Soc Am J 43:319-20 Ap '53

High temperature refractometry with an Abbe-type instrument. E. P. Black, W. T. Harvey and S. W. Ferris. bibliog il Anal Chem 26:1089-92 Je '54

Improved hydrogen discharge lamp for use in refractometry. R. W. King and A. E. Hirschler. diags Anal Chem 26:1397-8 Ag '54

Measurement of variations in atmospheric refractive index with an airborne microwave refractometer. H. E. Bussey and G. Birnbaum. bibliog il J Res Nat Bur Stand 51: 171-8 O '53

Modified Michelson refractometer. P. G. Guest and W. M. Simmons. diags J Sci Instr 30:361-2 O '53

Pneumatic refractometer. H. G. Clamann. il diags Instruments 26:740-2 My '53

Precision concentration analysis of D_2O/H_2O by means of phase contrast refractometry. E. Ingelstam and others. bibliog diags Opt Soc Am J 44:472-7 Je '54

Precision recording refractometer for chromatographic analysis. N. R. Trenner, C. W. Warren and S. L. Jones. il diags Anal Chem 25:1685-90 N '53

Recording differential refractometer. D. N. Campbell and others. bibliog diags Ind & Eng Chem 46:1409-12 Jl '54

Refractometric analysis of flowing solutions. H. Svensson. bibliog diags Anal Chem 25: 913-21 Je '53

Simple recording differential refractometer. G. H. F. Seiflow. diags J Sci Instr 30: 407-8 N '53

REFRACTOMETERS—*Continued*

Simple refractometer cell. W. G. Young and J. M. Rule. diags Anal Chem 26:1393-4 Ag '54

Simply-constructed constant temperature light-scattering photometer and differential refractometer. S. R. Caplan. bibliog diags J Sci Instr 31:295-300 Ag '54

REFRACTORIES institute

Annual meeting, Hot Springs, Va. June 17-19. Brick & Clay Rec 125:69+ Jl '54

Factory operators committee fall meeting, St Louis, Oct. 29-30. Brick & Clay Rec 123:61-2 D '53

Presidential report. F. H. Atwood Brick & Clay Rec 124:65 Ja '54

REFRACTORY concrete. See Concrete, Refractory

REFRACTORY industry

Bricks to toss into the market; refractories look for new customers. Steel 133:32 Ag 31 '53

Future of refractories. Brick & Clay Rec 124:62-4 Ja '54

Operation 1953. il Brick & Clay Rec 124:72-3 Ja '54

Refractories expect upturn. J. B. Delaney. Iron Age 174:79 Ag 19 '54

Refractories setting hot pace. R. M. Lorz. il Iron Age 172:96 S 17 '53

Reports of men of the refractories industry telling of expansion programs. Brick & Clay Rec 124:66-7+ Ja '54

Advertising

Glamorous claims of industrial campaign make news; General refractories co. J. W. Dragonetti. il Ptr Ink 243:46 Ap 24 '53

Directories

Where you can buy refractories; map. Brick & Clay Rec 124:79-82 Ja '54

REFRACTORY materials

Build successful jet engine test cell with refractory blocks; Norton refractories. D. G. Bolan. il diag Brick & Clay Rec 124:65-7 F '54

Carbon in the engineering and metallurgical industries. V. S. Kingswood. bibliog diags Metallurgia 48:221-3 N '53

Cast refractories lower heat treat furnace costs. T. E. Keegan. il Iron Age 172:113-15 O 22 '53

Current refractory practice as applied in copper smelting. W. F. Rochow and L. A. McGill. il diags J Metals 6:338-42 Mr '54

Cutting refractory costs in producing malleable iron. A. S. Johnson. diags Foundry 82:106-7+ Je '54

Development of open-hearth roof refractories in Great Britain. J. Mackenzie. bibliog il Am Cer Soc Bul 32:377-84 N 15 '53

Fixation of atmospheric nitrogen in a gas heated furnace. W. G. Hendrickson and F. Daniels. diag Ind & Eng Chem 45:2613-15 D '53

Furnaces for hot pressing. il diag Steel 133:98+ Jl 20 '53

Hafnium carbide; refractory properties. Chem & Eng N 32:1128 Mr 22 '54

Heat; how it is applied, contained and controlled in all of the ceramic industries. W. L. Fabianic. diags Cer Ind 61:54+ D '53; 62:57-8 F; 55-6+ Mr; 148+ Ap '54; Same. Brick & Clay Rec 123:45-9 D '53; 124:97-8+ Mr; 99+ Ap; 66+ My '54

Heat; how it is applied, contained and controlled in all of the ceramic industries; what is temperature? H. E. Robison. diags Cer Ind 62:53-4 My '54

Heat technology; refractories for every use. C. L. Norton, jr. Chem Eng 60:216-20 Je '53

How to select proper equipment for producing stiff mold refractories; cutters, their peculiarities and advantages. R. R. Bush. Brick & Clay Rec 124:86+ F '54

Linings for induction furnaces. H. E. White. il Metal Prog 66:99-106 S '54

Mill users favor quality refractories. R. M. Love. il Steel 135:107+ Ag 16 '54

Monolithic refractories in fluid catalytic cracking refinery units. W. B. Paul, jr. il Am Cer Soc Bul 33:108-10 Ap 15 '54

Preparation and examination of beryllium carbide. M. W. Mallett and others. bibliog il diag Electrochem Soc J 101:298-305 Je '54

Principles of refractories. T. H. Trevithick. Foundry 82:226+ Ap '54

Refractories; American foundrymen's society annual meeting, Cleveland; abstracts of papers. Foundry 82:154 Je; 134+ Jl '54; Brick & Clay Rec 124:71 Je '54

Refractories review and forecast. il Iron Age 173:309 Ja 7 '54

Refractory materials for gas combustion equipment. E. Blaha. diags Ind & Eng Chem 46:183-5 Ja '54

Refractory materials for gas-fired equipment involve variety of selection-considerations. E. Blaha. Am Gas J 180:16-17+ F '54

Refractory types and applications. H. A. Robertson. Iron & Steel Eng 31:86-9 Ja '54

Select refractories for the job they must do. S. W. Swain. Brick & Clay Rec 124:94-5+ Ja '54; Same. Cer Ind 62:57-8 My; 63:87-8+ Jl '54

Sidewall and superstructure refractories application in glass tanks. O. White. Glass Ind 35:129-30+ Mr '54

Silicon carbide refractories in gas production processes; Carborundum co. A. A. Turner. diag Am Gas Assn Proc 1953:829-31

Sources of inclusions from pouring refractories investigated. M. P. Fedock. diags J Metals 6:125-7 F '54

Thermal conductivity; conductivity of some refractory carbides and nitrides. T. Vasilos and W. D. Kingery. bibliog diags Am Cer Soc J 37:409-14 S 1 '54

Thermal conductivity conversion charts; engineering file facts. Materials & Methods 40:125 Ag '54

Trends in blast furnace linings. H. M. Kraner. bibliog diags Iron & Steel Eng 31:79-81; Discussion. 82 Jl '54

Type and design of refractories for glass melting furnaces. J. A. Johnson. Glass Ind 35:485+ S '54

Use of plastic, castable and gunning materials in soaking pits. W. D. Rees. Iron & Steel Eng 31:59-63; Discussion. il 63-7 Je '54

Use of special refractories in super-structure and feeder. R. W. Knauft. il Brick & Clay Rec 125:71-3 Jl; 69+ Ag '54; Same. Cer Ind 63:70-1+ Ag; 59+ S '54; Abstract. Glass Ind 35:220+ Ap '54

See also

Boron nitride
Concrete, Refractory
Fire brick
Fire clay
Magnesite brick
Pyrophyllite
Silica brick
Silicon carbide
Zirconium oxides

Analysis

Determination of iron in ores, slags and refractories. Metallurgia 49:106 F '54

Strong reduction preliminary to Kjeldahl digestion in analysis of refractory compounds. S. M. Woods, D. Scheirer and E. C. Wagner. Anal Chem 25:837-8 My '53

Manufacture

Control of quality as related to production. A. S. Arwine. Brick & Clay Rec 124:93+ Ap '54

Denver fire clay develops hi-efficiency handling. il Brick & Clay Rec 125:63-4+ Ag '54

Producing basic refractories; Canadian refractories, limited. il Can Chem Process 38:26 Ja '54

Testing

Determining the fusion points of refractory materials. Brick & Clay Rec 123:83-4 N '53

Electrically melted and cast magnesite-chrome refractory. T. Hand and H. W. Baque. il Am Cer Soc Bul 33:176-9 Je 15 '54

High-temperature testing techniques for brittle refractory materials. J. J. Gangler. bibliog il diags Am Cer Soc J 37:439-44 S 1 '54

National bureau of standards studies refractory castables. Iron & Steel Eng 31:135-6 Jl '54

REFRACTORY materials—Testing—*Continued*

Refractory castables; some properties, and effects of heat-treatments. R. A. Heindl and Z. A. Post. bibliog il Am Cer Soc J 37:206-16 My 1 '54

Resistance of refractories to molten lead-bismuth alloy. J. J. Gangler. il Am Cer Soc J 37:312-16 Jl 1 '54

Slagging of navy boiler refractories. W. C. Bell and others. il diags Brick & Clay Rec 124:37+ Mr '54

Stability of refractories in liquid metals. E. L. Reed. bibliog il diags Am Cer Soc J 37:146-53 Mr 1 '54

Study of refractory castables. R. A. Heindl and Z. A. Post. Blast F & Steel Pl 42:840-1 Jl '54

REFRACTORY research

Effect of TiO_2, Fe_2O_3, and alkali on mineralogical and physical properties of mullite-type and mullite-forming Al_2O_3-SiO_2 mixtures. K. G. Skinner and others. diags Am Cer Soc J 36:349-56 N 1 '53

Hafnium helps refractories. Materials & Methods 39:232+ Ap '54

Some effects of titania on refractory clays. D. R. Wilder and C. M. Dodd. bibliog Am Cer Soc J 36:400-3 D 1 '53

Thermal conductivity; prolate spheroidal envelope method; data for Al_2O_3, BeO, MgO, ThO_2, and ZrO_2. M. Adams. bibliog il diags Am Cer Soc J 37:74-9 pt 2 F 1 '54

REFRIGERANTS

Heat technology; refrigeration and refrigerants. C. L. Rescorla. il diags Chem Eng 60:200-7 Je '53

Moisture determination in a circulating refrigerant. Heat & Ven 51:114 My '54

Selection and use of the direct expansion fluid chiller. D. G. Merrill. il diags Refrig Eng 62:60-3+ Ag '54

Thermodynamic study of vapor compression heat pump cycles. J. L. Threlkeld. diags Refrig Eng 61:1202-6+ N '53

See also

Ammonia
Brine
Butane
Carbon dioxide, Solid
Chlorodifluoroethane
Chlorodifluoromethane
Chlorofluoromethanes
Chlorotrifluoromethane
Dichlorodifluoromethane
Dichlorohexafluoropropane
Ice

REFRIGERATING engineering

How will today's trends affect tomorrow's refrigerator? abstracts of papers. il Refrig Eng 62:31-4+ S '54

See also

Cold storage

Study and teaching

How to bone up for refrigeration operator's license. W. D. Turner. il Power 98:105-7 S '54

REFRIGERATING industries

New horizons. A. J. Hess. Refrig Eng 62:35-6 Ap '54

Reorganizing for an exploding market. Bsns W p 171-2+ O 31 '53

What price nationalism? R. Plank. Refrig Eng 62:31-2+ F '54

Statistics

Air conditioning, commercial refrigeration equipment; shipments, 1940-1952; tabulation. Steel 134:182 Ja 4 '54

1953 shipments of air conditioning and refrigeration equipment; tabulations. Refrig Eng 62:43-5 S '54

Great Britain

British refrigeration association annual luncheon and report. Elec R (Lond) 154:563 Mr 26 '54

British refrigeration association luncheon, London, March 19. Elec J 152:1035 Mr 26 '54

REFRIGERATING plants

New refrigerating plants of the European type; abstract. Refrig Eng 61:1333 D '53

Refrigeration plants always more problems. C. T. Baker. diags Power Eng 58:100-1 Je '54

Spanish national project for the installation of refrigerating plants; abstract. G. Pallares-Prieto. Refrig Eng 62:70 Je '54

See also

Cold storage
Cold storage warehouses
Piping (refrigerating plants)
Refrigeration and refrigerating machinery

Equipment

Efficient hookup of your cooling tower or evaporative condenser. M. Metz. diags Power 98:126-7+ Jl '54

Fish freezing plant in Bergen, Norway. G. Lorentzen. il plans diag Refrig Eng 62:41-3+ Ap '54

Power

Motors for refrigerating plants. D. H. Ruark. il Heat & Ven 51:83-8 Ap '54

REFRIGERATION and refrigerating machinery

Adaptability of air cooled condensers for large tonnage systems. O. J. Nussbaum. il diags Refrig Eng 62:43-7 Mr '54

Air conditioning and refrigeration for candy manufacturing. J. E. Salmon. il diags Heat & Ven 51:81-90 Jl '54

Brewery refrigeration plant; Ind Coope and Allsopp, ltd. il Engineering 177:58-9 Ja 8 '54

Climatic test rooms at Griffiss air force base. O. B. Wert. flow diag Refrig Eng 62:47+ Ap '54

Dry ice-brine low temperature chamber; Jack & Heintz. E. Smith. il diag Refrig Eng 62:43-5+ My '54

Freon cascade refrigerator for liquid air plant precooler. W. Ball. flow diag diag Refrig Eng 62:54-6 Ap '54

Freon-13 operates in cascade systems at minus 110 F. F. Hermann. il diags Power 98:120-1+ Ag '54

From California natural gas, liquid fractions by refrigeration. D. E. McFaddin. flow diag Pet Refiner 33:162-4 Ja '54

Heat technology; refrigeration and refrigerants. C. L. Rescorla. il diags Chem Eng 60:200-7 Je '53

High pressure Freon-12 receivers, horizontal and vertical; detail sheet. diags Heat & Ven 51:117-18 Mr '54

✓ Losing refrigeration dollars this way? C. T. Baker. il diags Power Eng 57:66-7+ N '53

Mechanically cooled cars introduce new era for low temp perishables. il Refrig Eng 61:1190-2 N '53

More tonnage for less horsepower. A. I. McFarlan. diags Refrig Eng 62:37-8+ My '54

New quick-freeze bread plant incorporates advances in refrigeration; Arnold bakers, inc. il plan Food Eng 26:41-3 S '54

Outdoor water-vapor refrigeration system; Kelly-Springfield tire co. L. B. Walker. il Comp Air Mag 58:309-11 N '53

Refrigeration internationally speaking; digests of significant articles appearing in foreign journals. R. Plank, comp. Published in monthly numbers of Refrigerating engineering

Selection and use of the direct expansion fluid chiller. D. G. Merrill. il diags Refrig Eng 62:60-3+ Ag '54

Steam vacuum refrigeration. E. Spencer. il diag Heating-Piping 26:104-7 Ag; 96-8 S '54

Study of the injection refrigeration cycle as applied to a novel type compressor. W. M. Carter. bibliog il diags Univ of Kentucky Eng Exp Sta [Lexington] Bul 29:1-127 '53

What's best hookup for refrigerating units? diags Power 97:138+ D '53

See also

Air conditioning
Carbon dioxide, Solid
Cold storage
Compressors
Cooling
Cooling equipment
Cooling of water
Freezing
Heat pump
Ice cream factories—Equipment
Ice machines
Insulation (heat)
Piping (refrigerating plants)
Refrigerants
Refrigerating engineering
Refrigeration on cars, trucks, etc.
Refrigeration on ships
Refrigerator cars
Refrigerators
Skating rinks
Temperature, Low

REFRIGERATION and refrigerating machinery —*Continued*

Exhibitions

All-industry refrigeration and air conditioning exposition, 8th, Cleveland. il Refrig Eng 61:1328-9 D '53

All-industry refrigeration and air conditioning exposition, 8th, Cleveland, Nov. 9-12. il Dom Eng 182:78-80, 173+ D '53

All-industry refrigeration and air conditioning exposition, 8th, Cleveland, Nov. 9-12; list of exhibitors and plan. Refrig Eng 61: 1184-7 N '53

ASRE Technical research exhibit program; with list of exhibitors for Washington show, Dec. 7-9. Refrig Eng 61:1196-9 N '53

Installation

How to install your refrigeration system. H. Steeneck. il Power 98:128-9+ Je '54

Lubrication

Moisture determination in refrigerant-oil solutions by the Karl Fischer method. F. T. Reed. bibliog il diags Refrig Eng 62: 65-7+ Jl '54

Maintenance and repair

Check-out your refrigerating unit when it's new. il Power 97:120-1 N '53

More ways of wasting refrigeration money. C. T. Baker. diag Power Eng 58:79 Jl '54

Refrigeration design and service. P. B. Reed. il Refrig Eng 62:44-6+ Ap '54

Refrigeration headaches cured by preventive maintenance. W. R. Laut. il Food Eng 26:66-8 My '54

Refrigeration trouble shooting. C. T. Baker. Power 98:118-19 Ja '54

Manufacture

Aircraft refrigeration units machined by precision methods; Fairchild engine & airplane corp. C. H. Wick. il Mach 60:173-9 Mr '54

Moisture problem

Corrosion in refrigeration systems can be controlled. R. G. Rydell. diag Refrig Eng 61:1330-2+ D '53

Desiccant-refrigerant moisture equilibria. A. J. Gully and others. diag Refrig Eng 62:62-5+ Ap '54

Determination of water content in Freon-12 circulating in a refrigeration system. A. W. Diniak and others. bibliog diags Refrig Eng 62:56-9+ F '54

Factory methods for dehydrating refrigeration compressors. L. W. Larsen and J. Elliot. Refrig Eng 61:1325-7+ D '53; Discussion. 62:61 Ja '54

Moisture determination in refrigerant-oil solutions by the Karl Fischer method. F. T. Reed. bibliog il diags Refrig Eng 62:65-7+ Jl '54

Vapor barrier of laminated Mylar and aluminum. J. G. Macormack. il diags Refrig Eng 62:58-60+ Jl '54

Noise

Some fundamental principles of noise control. A. C. Pietrasanta. diags Refrig Eng 62:37-40+ Ap; 56-60+ My '54

Patents

Noteworthy patents. H. L. Stults, ed. diags Published in monthly numbers of Refrigerating engineering

Safety measures

Safety heads or fusible plugs for refrigeration; reference data. L. J. Murphy. Heat & Ven 50:162a-162b D '53

Standards

Proposed American standard; refrigeration nomenclature for text and drawings. Refrig Eng 62:sup 1-28 My '54 (reprints 75¢)

Role of standards in the refrigeration industry. G. F. Hussey, jr.; J. R. Chamberlain. Refrig Eng 62:40-2+ Mr '54

Tables, calculations, etc.

Determining pressure drop in Freon systems F-12 and F-22. W. L. Holladay. bibliog Refrig Eng 62:55-60; Discussion. 60-1+ S '54

REFRIGERATION on cars, trucks, etc.

5,880-mile deep freezes chalked up by new road reefer. il map Food Eng 26:94-5+ My '54

Mobile light truck refrigeration system is simple and foolproof. diag Refrig Eng 62: 39 F '54

Refrigerating power from truck engine. il diag Food Eng 26:48+ Ja '54

Sub-zero holding room on wheels; ice cream transport trailers. il Food Eng 26:90-1 Ap '54

Warehouse on wheels; Abbotts dairies, inc. I. C. Miller. il Food Eng 25:86-7 N '53

See also

Refrigerator cars

REFRIGERATION on ships

Army launches refrigerated vessel. Marine Eng 58:89 N '53

Danish floating fish freezing plants for Soviet Russia; abstract. O. Kramhoft and E. Schott. diag Refrig Eng 62:61 My '54

Marine refrigeration from the operator's viewpoint. G. R. Aitken. il Refrig Eng 62: 51-4+ My '54

Navy's seagoing supermarket; refrigerated reefers. E. H. Honegger. il Refrig Eng 62:50-2 Ap '54

REFRIGERATOR cars

Does the mechanically refrigerated freight car do its job? R. W. Ransom. plans diags Refrig Eng 62:51-4+ Jl '54

Fitted bearings reduce hot boxes; service tests on MDT refrigerator cars. il Ry Age 137:12-13 Ag 30 '54

From an old reefer; a mechanical refrigerator. il Ry Age 136:40+ Je 7 '54

Here's how freight cars are iced at rate of one per minute. il Elec West 111:98 O '53

Mechanical refrigeration versus ice for railroad shipments. K. V. Plummer. Refrig Eng 62:49-50 Jl '54

Mechanically cooled cars introduce new era for low temp perishables. il Refrig Eng 61:1190-2 N '53

On this Sante Fe mechanical temperature control reefer, temperatures stay below zero. il Ry Age 135:93-6 S 7 '53; Ry Loco & Cars 127:102-5 N '53

This Chicago & North Western reefer has new type mechanical refrigeration. il diags Ry Loco & Cars 128:46-8 Ag '54

Why cars corrode; questions and answers. Ry Loco & Cars 128:63-5 S '54

REFRIGERATORS

Fabric covered refrigerators enhance kitchen decoration. il Am Bld 75:231 My '53

See also

Refrigeration and refrigerating machinery

Design

How will today's trends affect tomorrow's refrigerator? abstracts of papers. il Refrig Eng 62:31-4+ S '54

Testing

Comparative utilization of energy by household electric and liquefied petroleum gas refrigerators. E. Beveridge and E. C. McCracken. Refrig Eng 62:54-6 Ja '54

REFRIGERATORS, Electric

Domestic heat pump; dual-purpose installation in Bristol. G. O. McClean. il Elec R (Lond) 153:989-90 O 30 '53

Refrigeration design and service. P. B. Reed. il Refrig Eng 62:44-6+ Ap '54

Selection of hermetic motor protectors. E. W. Scott. Refrig Eng 62:50-4+ Ag '54

Manufacture

Evaporator units for refrigerators welded. il Iron Age 173:159 F 11 '54

$45 million plant now in operation; Electric appliance division of Westinghouse electric corp. il Cer Ind 62:66-9 My '54

From jets to refrigerators; Hotpoint converts its Chicago refrigerator plant to civilian production. Steel 133:44 N 2 '53

Heliarc weld economies; Linde air products co. il Steel 134:158 F 8 '54

Hermetic terminals ready for bigger role. A. Wyzenbeek. il diag Steel 134:112+ F 1 '54

REFRIGERATORS, Electric—Manufacture—*Continued*

Hotpoint's new refrigerator plant. il Steel 133:122-4 D 14 '53

Innovations in a modern refrigerator plant; Hotpoint co. H. A. Stutzman. il Mach 60:153-9 F '54

Integration of manufacturing elements promotes plant efficiency; Westinghouse Electric Appliance division. il Tool Eng 32:126 Je '54

New Hotpoint plant is panorama of future. il Cer Ind 62:64-6+ Mr '54

Porcelain enameling at Westinghouse. il Am Cer Soc Bul 33:152-3 My 15 '54

Refrigerators move faster on ten miles of conveyors; Hotpoint co. B. E. Schroeder. il Am Mach 97:124-8 O 26 '53

Two refrigerators a minute; Westinghouse Electric appliance plant. G. H. DeGroat. il Am Mach 98:157-60 My 10 '54

Rating

Two refrigerators and a combination refrigerator-freezer. Consumers Res Bul 32:21-3 S '53

REFRIGERATORS, Gas

Manufacture

Tubular parts arc welded automatically; production of gas-operated refrigerators by Servel, inc. R. Martin. il Am Mach 98:119 S 27 '54

Merchandizing

Refrigerator sales drive launched. Am Gas J 181:42+ Jl '54

Take a new look at gas refrigeration. A. D. Schrodt. Am Gas Assn Mo 36:9-10 My '54

REFUGEES

European refugees in China. Economist 168:579-80 Ag 29 '53

German refugees settle down. Economist 169:803-4 D 12 '53

Resettlement of expellees and refugees in the Federal Republic of Germany and Austria. Int Labour R 68:166-85 Ag '53

Resettlement of refugees and displaced persons in the United States. Int Labour R 67:559-76 Je '53

REFUSE, Utilization of

Cooking garbage for hog feeding. R. D. Bugher. Pub Works 84:91-2+ D '53

Disinfecting garbage in truck bodies by direct steam injection. H. A. Bevis and others. il Pub Health Rep 68:1065-70 N '53

Garbage for hogs? cook it. il diag Eng N 151:62-4+ Jl 16 '53

See also

Refuse as fertilizer

REFUSE as fertilizer

Composting of garbage and sewage sludge. E. Eweson. plan diag Am Soc C E Proc 79 [no 312]:1-8 O '53

Garbage composting tests. Eng N 151:46-7 S 24 '53

Land disposal by sprinkling or ridge-and-furrow methods practical and inexpensive. H. R. Murdock. Ind & Eng Chem 45:sup 101A-3A Ag '53

Profits in rotting; municipal wastes turned into commercial fertilizers. Chem W 74:80+ F 13 '54

Refuse composting developments in New Zealand. R. C. Lough. flow diags il Pub Works 85:77-8 Jl '54

Stabilization of municipal refuse by composting. P. H. McGauhey and H. B. Gotaas. bibliog Am Soc C E Proc 79 [no 302]:1-21 O '53

Treatment of municipal wastes by composting. H. C. Husband. il diag Munic Util 92:31-4+ Jl '54

REFUSE collection

Charging for commercial waste collection. K. H. Weiss. Pub Works 84:94+ N '53

Complaints reduced 95 per cent by municipal refuse collection. D. A. Bingham. il Pub Works 85:84-5 Je '54

Garbage collection practices and costs. Pub Works 85:144+ My '54

Modern refuse collection equipment pays off for the small community. R. J. Snelbaugh. diags Pub Works 85:105 My '54

Municipal waste collection and disposal. W. A. Devine. il Pub Works 85:100-1 S '54

Refuse collection and disposal practices for the small community. Pub Works 85:89-90+ F '54

Trash, the big headache. T. E. Goodrow. il Pub Works 84:63-4 N '53

REFUSE disposal

Chicago's economical sanitary fill. E. J. Knudsen. il Pub Works 84:58 N '53

Disposal by sanitary fill costs 77.4 cents per ton. C. E. Wright. il Pub Works 84:76 D '53

How sanitary landfill solved our refuse problem. E. R. Warnicke. il Pub Works 85:57-8+ Ja '54

Industrial sites created by sanitary fills. il Pub Works 85:86+ S '54

Is sanitary landfill right for your community? J. E. Skornicka. diags Munic Util 92:30-2+ S '54

Refuse collection and disposal practices for the small community. Pub Works 85:89-90+ F '54

Refuse disposal plant at Port Glasgow. il Engineering 177:281 F 26 '54

Refuse disposal plant at Sheffield. Engineer 196:559 O 30 '53

Refuse disposal services provided by San Diego co. Pub Works 85:130+ S '54

Refuse incineration practice in Canada; guided discussion. Munic Util 91:25-6+ D '53

Sanitary fill handles 62,258 weekly refuse pickups without nuisance. C. L. Davis. il Pub Works 85:83-4 S '54

Sanitary land-fill operations in Maryland. Pub Works 84:66 D '53

Street-cleaning and refuse disposal methods and costs in Toronto. H. D. Bradley. il Munic Util 92:17-22+ F '54

Texas demonstrations show proper landfill operating procedures. il Pub Works 85:84-6 S '54

See also

Refuse as fertilizer
Refuse incinerators
Refuse incinerators, Domestic
Sewage disposal
Sewage disposal—Sludge and refuse mixing
Trade waste

Bibliography

Sewerage and refuse digest. Published in monthly numbers of Public works

Cost

Sanitary landfill costs 63.4¢ per ton of refuse. B. R. Fuller. Pub Works 85:106 Mr '54

REFUSE disposal, Domestic

Built-in disposal takes care of cans, paper. il Am Bld 76:242-3 Ag '54

REFUSE grinders

Different grinding action in garbage dispcser. il diags Product Eng 24:161 Jl '53

Garbage men are obsolete. T. T. Woodson. il diags Gen Elec R 57:58-62 Jl '54

REFUSE grinders, Domestic

Dishwasher and disposer installation methods. R. E. Christie. diags Dom Eng 182:91-2+ D '53

Rating

Waste disposal units. il diags Consumers Res Bul 32:5-8 S '53

REFUSE incinerators

Effect of incinerator ashes on ground water reported. Eng N 151:118 Ag 20 '53

Municipal waste collection and disposal. W. A. Devine. il Pub Works 85:100-1 S '54

Refuse disposal plant at Port Glasgow. il Engineer 197:281 F 19 '54; Engineering 177:281 F 26 '54

Refuse disposal plant at Sheffield. il Engineering 176:633-4 N 13 '53

REFUSE incinerators, Domestic

Challenge of the gas incinerator. H. Zeamer. il Am Gas Assn Mo 36:18-21+ F '54

Home incinerator market largely untapped. il diag Sheet Metal Worker 45:62-3 Jl '54

Manufacturers-dealers-utility unite for Philadelphia incinerator drive. il Am Gas J 179:60+ O '53

Philadelphia gas works enlarges scope of cooperative incinerator sales campaign. il Am Gas J 180:47+ Mr '54

REGENERATIVE furnaces. See Furnaces, Recuperative and regenerative

REGINA, Saskatchewan

Water supply

35-mile pipeline. il Can Chem Process 38: 68+ Ag '54

REGIONAL planning

Controlling regional development. J. F. Base. Pub Works 85:134-5 Mr '54

LCC converted; dispersing population and industry from London. Economist 169:876 D 19 '53

REGISTRATION of securities. See Securities—Registration

REGISTRY of rare chemicals, National. See National registry of rare chemicals

REGRESSION (statistics)

Non-linear functional relationship between two variables when one variable is controlled. R. C. Geary. bibliog Am Stat Assn J 48:94-103 Mr '53

REGULATORS, Voltage. See Voltage regulators

REHABILITATION. See Disabled—Rehabilitation

REHMANNIC acid

Triterpenoids; the constitution of rehmannic acid. D. H. R. Barton and P. de Mayo. Chem Soc J p900-3 Mr '54

REINARTZ, Leo Frederick, 1888-

President, AIME 1954. por J Metals 6:162-3 F '54; Same. Min Eng 6:230-1 F '54

Sketch. por Explosives Eng 32:36-7 Mr '54

REINECKATES

Cadmium thiourea reineckate procedure. C. L. Ruifs, E. P. Przybylowicz and C. E. Skinner. bibliog Anal Chem 26:408-10 F '54

Partition of electrolytes between aqueous and organic phases; the partition of the alkali reineckates and perrhenates between water and nitromethane. H. L. Friedman and G. R. Haugen. bibliog Am Chem Soc J 76: 2060-3 Ap 20 '54

REINFORCED concrete. See Concrete, Reinforced

REINFORCING steel. See Steel, Reinforcing

REINSURANCE. See Insurance—Reinsurance

REINSURANCE association, Excess. See Excess reinsurance association

RELATIVITY (physics)

Classical equations of motion of point particles in neutral meson fields. F. R. Crownfield, jr. and P. Havas. Phys R 94:471-7 Ap 15 '54

Equations of motion of charged test particles in general relativity. D. M. Chase. bibliog Phys R 95:243-6 Jl 1 '54

General relativistic variational principle for perfect fluids. A. H. Taub. Phys R 94:1468-70 Je 15 '54

Ionization loss at relativistic velocities in nuclear emulsion. B. Stiller and M. M. Shapiro. bibliog Phys R 92:735-41 N 1 '53

Nucleon-nucleus collisions at relativistic energies. G. Cocconi. bibliog Phys R 93:1107-8 Mr 1 '54

Physical conditions in the initial stages of the expanding universe. R. A. Alpher and others. bibliog Phys R 92:1347-61 D 15 '53

Reduction of relativistic two-particle wave equations to approximate forms. Z. V. Chraplyvy. bibliog Phys R 91:388-91; 92: 1310-15 Jl 15, D 1 '53

Relativistic and magnetic spin interactions in helium-like atoms. J. Sucher and H. M. Foley. bibliog Phys R 95:966-9 Ag 15 '54

Relativistic configuration space formulation of the multi-electron problem. M. Günther. diags Phys R 94:1347-57 Je 1 '54

Relativistic correction to the Lamb shift. M. Baranger and others. bibliog diags Phys R 92:482-501 O 15 '53

Relativistic particle dynamics. B. Bakamjian and L. H. Thomas. bibliog Phys R 92:1300-10 D 1 '53

Relativistic Thomas-Fermi atom model. J. J. Gilvarry. bibliog Phys R 95:71-2 Jl 1 '54

Theory of elementary particles in general relativity. M. M. Hatalkar. Phys R 94: 1472-5 Je 15 '54

See also

Field theories (physics)

Wave mechanics

RELAXATION

How to relax. G. H. Estabrooks. Pet Eng 25:E5-6 D '53

Untie those knots; it's easy to relax. D. A. Laird. Am Bsns 24:26+ My '54

Who's excited? G. A. Pope. Foundry 82:178+ Ap '54

RELAXATION time (physics)

Conductance and relaxation time of electrons in gold blacks from transmission and reflection measurements in the far infrared. L. Harris and A. L. Loeb. bibliog Opt Soc Am J 43:1114-18 N '53

Effect of cross-section area and compression upon the relaxation in permeability for toroidal samples of ferrites. R. E. Alley, jr. and F. J. Schnettler. J Ap Phys 24:1524-5 D '53

Elastic relaxation and grain boundary diffusion in cadmium. Y. L. Yousef and R. Kamel. J Ap Phys 25:1064 Ag '54

Proton relaxation in water. G. Chiarotti and L. Giulotto. il Phys R 93:1241 Mr 15 '54

Relation between stress-relaxation studies and dynamic properties of polyisobutylene. E. Catsiff and A. V. Tobolsky. bibliog J Ap Phys 25:145-52 F '54

Relationships between kinetics and acoustic phenomena in equilibrium systems. M. Manes. bibliog diag J Chem Phys 21:1791-6 O '53

Relaxation distribution function of polyisobutylene in the transition from rubber-like to glass-like behavior. J. D. Ferry and others. bibliog(27 ref) J Ap Phys 24:911-16 Jl '53

RELAYS

Application of transducers as relays to protective gear. R. K. Edgley and F. L. Hamilton. bibliog diags Inst E E Proc 99 pt 2: 297-309 Ag '52; Discussion. 99 pt 2:309-13; 100 pt 2:640 Ag '52, D '53

Automatic percussion welding speeds contact assembly; Western electric co. A. L. Quinlan. il diags Mach 60:168-71 Je '54

Backup protection for generators; abstract. E. T. B. Gross and L. B. LeVesconte. diag Elec Eng 72:1082 D '53

Balanced polar mercury contact relay. J. T. L. Brown and C. E. Pollard. il diags Bell System Tech J 32:1393-411 N '53

Centre stable electronic relay. R. Bailey. diag J Sci Instr 30:139 Ap '53

Chamberlain and Hookham relay for automatic power factor correction. il diag Engineer 196:625-6 N 13 '53; Engineering 176:671 N 20 '53

Check your overload relays and avoid costly shutdowns. D. Pollock and D. Kiefer. Factory Management 112:118-19 My '54

Cold-cathode electronic relay. F. A. Leisey. diag Anal Chem 26:1527 S '54

Complex algebra for relay circuits. M. Raspanti. diags Elec Eng 72:992-3 N '53

Design of relays. A. C. Keller. Bell System Tech J 33:1-2 Ja '54

Developments in spot welding; G.E.C. 4 kvA. electronically controlled spot welder. il Metallurgia 49:218-19 My '54

Diesel-electric locomotive ground relays; abstract. G. R. McDonald. diags Elec Eng 72:877 O '53

Differential reactive current protection relay; abstract. R. W. Stineman. diags Elec Eng 72:1104 D '53

Discharge lamp dimming; application of gas-filled relay valves. C. E. Williams. il diags Elec R (Lond) 154:186-8 Ja 29 '54

Earth fault relays; operation on d.c. transients. T. A. Ledward. diags Elec J 151: 1215-18 O 16 '53

Economics of telephone relay applications. H. N. Wagar. Bell System Tech J 33:218-56 Ja '54

Equipment manufacturer's problem concerning relay selection. J. G. Crockett. Machine Design 26:341-2+ Ap '54

Estimation and control of the operate time of relays. R. L. Peek, jr.; M. A. Logan. diags Bell System Tech J 33:109-86 Ja '54

Fastest relay; Appalachian electric power co. il Power Eng 58:92 Jl '54

Ferranti capacitor control relay. il Engineer 197:245 F 12 '54

For microwave systems, emf unit supplies reliable power; protective relaying of transmission lines. B. W. David. diags Elec World 140:128-9 O 19 '53

RELAYS—*Continued*

High-speed balanced current protective system using biased and unbiased relays. J. Rushton. diag Elec J 151:1660-5 N 20 '53

Improved electronic relay with no mechanical moving parts. S. C. Einhorn. diag R Sci Instr 25:396-7 Ap '54

Magnetic design of relays. R. L. Peek, jr. and H. N. Wagar. bibliog diags Bell System Tech J 33:23-78 Ja '54

Minneapolis-Honeywell pneumatic relay. Iron & Steel Eng 31:301 S '54

Motor protection; overload trip relay. il Elec R (Lond) 154:215 Ja 29 '54

Moving-coil relay applied to modern high-speed protective systems. C. Ryder and others. diags Inst E E Proc 100 pt 2:261-73 Je '53; Discussion. 100 pt 2:273-6, 665-6 Je, D '53

Overload relays and circuit breakers for protecting motorized appliances and their branch circuits. G. W. Heumann. il diags Elec Eng 72:1056-60 D '53

Phase transducer uses high-speed relay. D. E. S. Isle. diags Electronics 27:234+ Ja '54

Pilot-wire relaying scheme utilizing the product differential relay. R. I. Ward and D. W. Gilman. il diags Elec Eng 73:137-42 F '54

Principles of slow release relay design. R. L. Peek, jr. diags Bell System Tech J 33:187-217 Ja '54

Protection of generators against unbalanced currents; abstract. J. E. Barkle and W. E. Glassburn. Elec Eng 72:1012 N '53

Protective and auxiliary relays. il Engineering 176:768 D 11 '53; Elec R (Lond) 153:1317 D 11 '53

Protective relay installed. il Steel 134:122 Mr 29 '54

Relay measuring equipment. H. N. Wagar. bibliog il diags Bell System Tech J 33:3-22 Ja '54

Sensitive photorelay; abstract. diag Electronics 26:230+ D '53

Simple relay detects excessive vibration in bull wheel. T. W. Dugdale. il diag Elec World 140:160 D 14 '53

Simplified unit for distance relaying. A. W. Adams and F. R. Bergseth. il diags Elec Eng 73:249-50 Mr '54

6900-volt power system fault relay analysis; Alan Wood steel co. J. A. B. Pinney. il plan diags Iron & Steel Eng 31:99-109; Discussion. 109-13 Ja '54

Switching station gets the bird, plus free relay testing. il Power Eng 58:65 S '54

Trip unit when excitation is lost. G. E. Taylor. Elec World 140:96-7 O 5 '53

Vibration relay for rotating equipment. il Blast F & Steel Pl 41:1348 N '53

Witton overload relay for motors driving high-inertia loads. il Engineer 196:822 D 18 '53

Manufacture

Insulating cold-headed iron core-bobbin. il Electronics 26:274+ O '53

Testing

Automatic testing of wired relay circuits; abstract. A. N. Hanson. il diag Elec Eng 73:128 F '54

Now you can test your motor overload relays. M. S. Coben. il diags Power Eng 58:70 Ja '54

Portable set tests overcurrent relays. E. J. Emmerling. il diag Elec World 140:100 Jl 27 '53

RELAYS, Time limit

Accurate time delay in Silic-O-Netic overload relays. il diags Machine Design 26:121 F '54

Conelrad switcher for sequential mode; time-delay relay circuits. N. J. Thompson. il diags Electronics 26:158-9 D '53

Electronic time delay relay circuit. G. H. Bateman. il diags Tele-Tech 12:94-6+ O '53

Protective time delay circuit for a thyratron relay. S. H. Cross. diag J Sci Instr 30:434-5 N '53

Relay unit for time signal receiver. J. Hers. diags J Sci Instr 31:146-7 Ap '54

RELIEF work

President authorized to use surplus farm products for emergency relief overseas. For Comm W 50:18 Ag 17 '53

REMODELED buildings. See Buildings, Remodeled

REMODELED houses. See Houses, Remodeled

REMODELING (architecture)

How fresh decorating helps sell old houses. il plans diag House & Home 4:142-55+ O '53

In remodeling, profit is a matter of fighting hidden costs. Am Bld 75:246+ S '53

Miami university, remodeling. il plans diags Arch Forum 98:128-32 Je '53

Modernization case studies. il plans diags Arch Forum 100:137-68 My '54

Modernization; economics and esthetics. il plans Arch Forum 100:120-36 My '54

Modernization techniques. il diags Arch Forum 100:169-83+ My '54

Rehabilitation, cheaper than new construction; Society of friends get more space at less cost than new construction in Philadelphia experiment. M. Roche. il plans House & Home 4:136-41 O '53

Restaurant wears its new look gracefully; remodeled restaurant Mayan, N.Y. il plan diags Arch Rec 115:182-5 Ap '54

What does remodeling offer the builder? il plans House & Home 4:160-7 O '53

See also

Buildings, Remodeled

Plumbing trade—Remodeling

Houses, Remodeled

RENEGOTIATION of contracts. See Contracts, Government—Renegotiation

RENT

Attack slum source; resolution hits renting of rooms, not apartments. Eng N 151:53-4 N 12 '53

Pandora's housing box; Housing repairs and rents bill. Economist 169:723-4 D 5 '53

Rent policy in western Europe. H. Umrath. Int Labour R 68:211-31 S '53

Turnips and carrots for repair; Housing repairs and rents bill. Economist 169:803 D 12 '53

Laws and regulations

Furnishing confusions; Preston and area rent tribunal v. the Queen. Economist 168:166 Jl 18 '53

Implications of rent control; experience in the United States. L. Grebler. bibliog Int Labour R 65:462-85 Ap '52; Same. House & Home 2:124-5+ O '52; Abstract. Arch Forum 97:176-7+ S '52

Operation rescue; amendment of the Rent restriction acts. Economist 169:406 N 7 '53

Rent control policy in Great Britain. R. A. Sabatino. Land Econ 30:61-4 F '54

Rents and subsidies. Economist 169:568-9 N 21 '53

Soviet policy on urban housing and housing rent. M. F. Parkins. bibliog Land Econ 29:269-79 Ag '53

RENTAL plans (merchandizing)

Executives predict growth of leasing, trade-in plans, but warn of pitfalls. Ind Marketing 39:124-8 F '54

Unique air conditioning rental plan scores success in New York. il Heating-Piping 26:106-7 Jl '54

RENTING of equipment

Rental equipment group; investment study of some companies active in the field. P. Dobbs. il Mag of Wall St 93:676-7+ Mr 6 '54

Renting an air compressor? here are business tips, rental rates. L. B. Schramm. Power 98:135+ Je '54

Shall we lease or buy equipment? I. W. Keller. N A C A Bul 35:34-47 S '53

See also

Construction equipment—Renting

Machine tool industry—Rental plan

REPAIR parts

Bottle your small parts; Duquesne light co. W. R. Eisenbeis. il Mill & Factory 55:123-4 Jl '54

Efficient methods to keep spare parts records. J. P. Devine. Pet Eng 25:C 16+ Je '53

Off-the-shelf parts service cuts Gradall overhaul costs. il Constr Methods 36:84+ Ag '54

REPAIR parts—*Continued*
Program for parts; packaging for power lawn-mower service parts. il Mod Packaging 27:119 F '54
Spare parts service in a hurry; Yale & Towne manufacturing co. P. J. Friederichs. il Factory Management 112:122-3 Mr '54
This spare-parts system saves fixers' time; Chipman La Crosse hosiery mills. J. H. Blore. il Textile World 104:124-5+ F '54
See also
Automobile parts
Machine parts

REPAIR ships
Floating foundries. J. E. Bolt and W. H. Baer. il Foundry 82:88-9 Ag '54

REPAIR shops
Contractor builds show place shop; Denton construction co. il Roads & Sts 97:74-8 S '54
Is your job this good? turnpike contractor shows maintenance tricks. il Constr Methods 36:63-4+ S '54
Regional shops pay Koss firm. il Roads & Sts 97:54 S '54
Repair shop combines efficiency, flexibility; Anniston ordnance depot Vehicle maintenance shop. il plans diags Arch Rec 114:156-61 O '53
Trailer shops sprout on turnpike. il Constr Methods 36:66-7 Ag '54
See also
Locomotive shops
Radio service shops

REPAIR shops, Portable
Workshops; army puts 'em on wheels. il Iron Age 172:102 S 17 '53

REPAIRING
See also
Building—Repair and reconstruction
also subdivision Repair or Maintenance and repair under various headings, e.g.
Factories
Machinery
Railroads

REPLACEMENT of machinery. See Machinery, Replacement of

REPLICA technique
Fabric surface study. R. Krammes and C. Maresh. bibliog il diag Am Dyestuff Rep 43:189-91 Mr 29 '54
Method for producing replica mirrors with high quality surfaces. G. Hass and W. W. Erbe. diags Opt Soc Am J 44:669-71 S '54
Preparation of plane diffraction grating replicas from helical rulings. G. D. Dew. il diags J Sci Instr 30:229-32 Jl '53
See also
Electron microscope—Replica technique

REPORTERS
Aggressive reporter preferred to treaty. H. Baillie. Ed & Pub 86:61 My 9 '53
See also
Ross, Stanley
Turner, Wallace

REPORTING
Design for impressionistic school of reporting. N. Noyes, jr. Ed & Pub 86:11+ My 9 '53
See also
Newspapers—Crime reporting
Privileged communication

REPORTS
Cutting communications costs between field and home office. R. R. Ewart. Am Bsns 24:32-3+ Ag '54
Increasing foreman effectiveness with management reports; abstract. D. C. Suhr. Management R 42:153-4 Mr '53
Management needs good maintenance reports; Perfection stove company. A. D. Buschmann. Factory Management 112:130-1 Ap '54
Strong case for standardization of modern business reports. S. W. Rolph. Advanced Management 19:9-11 Mr '54
Top-level sales communications; how companies get the facts to sales executives. J. K. Blade. il Dun's R & Mod Ind 63:48-51+ Ja '54
Tube registrations increased in 1953. Electronics 27:18 F '54
See also
Accountants' reports
Banks and banking—Reports
Business reports
Corporations—Reports and yearbooks

REPORTS, Engineering. See Engineering reports

REPPE, Walter, 1892-
Chemicals from small building blocks. por(cover) Chem & Eng N 32:3590 S 13 '54

REPUBLIC steel corporation
Plots new targets; to develop Mexican rutile deposits. C. M. White. Iron Age 173:80-1 My 6 '54
Republic buys Follansbee equipment. Steel 135:71 S 20 '54
Republic Steel expansion. C. M. White. Steel 133:48 O 19 '53

REPUBLICAN party
Divided GOP; can Eisenhower line up mavericks? Bsns W p32-4 D 12 '53
GOP's campaign boss starts working for '54. il Bsns W p152-6+ N 21 '53

RESACETOPHENONE. See Acetophenone

RESALE price fixing. See Price fixing, Resale

RESEARCH
Insuring your progress through research; choosing and evaluating research projects. W. H. Kliever and R. Z. Bancroft. Product Eng 24:184-7 Je '53
North Carolina story; forward march; research from nuclear reaction to nicotine. il Manuf Rec 123:67-70 Ja '54
Research, foundation for mineral progress. C. Williams and D. C. Minton, jr. il Min Cong J 40:22-6 Mr '54
Research growth holds key to prosperity. J. J. Bulloff. Chem & Eng N 32:2475 Je 21 '54
Research in America. Economist 168:55 Jl 4 '53
Research is surging in the South; interview with T. W. Martin. Iron Age 172:200-1 N 12 '53
Texas story. Manuf Rec 122:104 N '53
See also
Advertising research
Aeronautic research
Automobile research
Building research
Ceramic research
Chemical research
Coal research
Colleges and universities—Research
Concrete research
Corrosion research
Cotton research
Economic research
Electric research
Engineering research
Financial research
Food research
Foundry research
Gas research
Government research
Heating research
Highway research
Industrial research
Laboratories
Lighting research
Lubrication research
Market research
Metallurgical research
Military research
Operations research
Paint research
Paper research
Petroleum research
Pharmaceutical research
Public health research
Railroad research
Rubber research
Safety research
Scientific research
Social research
Steel research
Textile research
Wood research
Wool research
also Armour research foundation; Southern research institute

RESEARCH association of British rubber manufacturers
Research association of British rubber manufacturers. J. R. Scott. il Chem & Ind p978-81 S 19 '53

RESEARCH committees. See Scientific research

RESEARCH companies
See also
Fractionation research, inc.

RESEARCH corporation
Fundamental research from the viewpoint of the private foundation. J. W. Barker. J Eng Educ 44:28-35 S '53
Research corp. inaugurates West German grants program. Chem & Eng N 32:1765 My 3 '54

RESEARCH council of Ontario
Progress report, 1952-1953. Can Chem Process 37:70 D '53

RESEARCH departments
Management of research; symposium. H. N. Stephens and others. Tappi 36:sup 12A+ D '53
National Gypsum's new research center. C. J. Koehler. il Rock Prod 57:112-15 Je '54
See also
Research records

RESEARCH foundations

See also

Ontario research foundation

RESEARCH institutions

Case for competition; reply of nonprofit research institute director to charges that his kind of organization is in unfair competition. Chem W 74:71-2+ F 27 '54

Insuring your progress through research; role of independent research facilities. il Product Eng 24:196-9 Je '53

Principal functions of American research institutions; A.C.S. Pittsburgh section symposium. Chem & Eng N 31:4090+ O 5 '53

Sponsored research; building on a boom. Chem W 73:73-4 Jl 25 '53

Technical and technological education; rôle of research associations. Chem Age (Lond) 69:1233-4 D 12 '53; Same cond. Chem & Ind p 1332 D 12 '53

Work and future of research associations. G. L. Bailey. Chem Age (Lond) 71:269-70 Ag 7 '54

Work and future of research associations. S. Whitehead. Chem Age (Lond) 71:270-1 Ag 7 '54

See also

Basic research corporation

Midwest research institute

Weizmann institute of science

Directories

Register of research in the social sciences, in progress and in plan, no. 10, 1952-1953, with a directory of research institutions. F. Stone, ed. 213p pa $4.50 Cambridge univ. press, 32 E. 57th st, New York 22 '53

RESEARCH libraries

See also

Johns-Manville research center—Library

RESEARCH records

Are your research records sufficient? J. H. Wills. bibliog J Chem Educ 30:407-10 Ag '53

RESEARCH reports

Tracerlab dresses up reports to customers inexpensively. P. Brady. il Ind Marketing 39:65-6 Ja '54

RESEARCH workers

Answer to pressure; survey of research executives' hobbies. Chem W 74:62+ My 8 '54

B.L.S. research report studies engineers. Chem Eng Prog 49:sup30 D '53

Communications; person-to-person; Hooker electrochemical co. il Chem W 74:38-40 My 29 '54

Increase your earning power. J. O. Percival. Chem & Eng N 31:4080-2 O 5 '53

Insuring your progress through research; obtaining and keeping research personnel. C. E. Barthel, jr. Product Eng 24:174-9 Je '53

Scientific research and development in American industry; a study of manpower and costs. H. Wood and others. U S Bur Labor Statistics Bul 1148:1-106; pa 50c Supt. of doc. '53

Selecting a research man. H. A. Leedy. Chem & Eng N 31:4525-6 N 2 '53

Tests sought to help detect potential research people. Chem & Eng N 32:1346 Ap 5 '54

Turnover profile of industrial research manpower. Chem W 73:44 D 5 '53

See also

Horizons, inc.

RESERPINE

Alkaloid studies; isolation of reserpine and narcotine from rauwolfia heterphylla Roem. and Schult. C. Djerassi and others. bibliog Am Chem Soc J 75:5446-7 N 5 '53

Alkaloids of rauwolfia serpentina Benth; the characterization of reserpine and its hydrolysis products. M. W. Klohs and others. Am Chem Soc J 75:4867 O 5 '53

Crystallographic data; reserpine and reserpic alcohol hydrate. H. A. Rose. diags Anal Chem 26:1245-6 Jl '54

Isolation of reserpine from rauwolfia canescens Linn. M. W. Klohs and others. bibliog Am Chem Soc J 76:1381 Mr 5 '54

Rauwolfia serpentina alkaloids; structure of reserpine. N. Neuss, H. E. Boaz and J. W. Forbes. bibliog Am Chem Soc J 76:2463-7 My 5 '54

Structure of antihypertension alkaloid proposed by two groups. Chem & Eng N 31:4886 N 23 '53

Structure of reserpine. N. Neuss, H. E. Boaz and J. W. Forbes. Am Chem Soc J 75:4870-1 O 5 '53

RESERVES, Military. See United States—Armed forces—Reserves

RESERVOIRS

Airdrome is water supply reservoir. M. D. Morris. il Pub Works 85:85-6 Mr '54

Blithfield reservoir. il map diag Engineering 176:598-600. pl 33 N 6 '53

Control of aquatic growths in reservoirs by copper sulfate and secondary effects of such treatment. R. L. Derby and D. W. Graham. flow diag diags Am Soc C E Proc 79[no 203]:1-15 Jl '53

Control of drinking water quality in open distribution reservoirs. B. I. Burnson. Am Soc C E Proc 79 [no 232]:1-7 Ag '53

Costly reservoir silting can be slowed if vital facts of situation are known. Eng N 151:33 Ag 6 '53

11 Texas cities join in giant pipeline and dam project. B. H. Cruce. maps Pub Works 85:75-6 Ap '54

Homemade hopper and rollers speed reservoir paving job. il Constr Methods 36:58-9 Ja '54

How density currents affect water controllers, water users. Eng N 151:31-2 D 17 '53

New approaches to the control of wastes and odors in impounded waters; panel discussion; abstracts of papers. Water & Sewage Works 101:344-5 Ag '54

Novel paving method proved its worth on reservoir job. il Eng N 151:25 Ag 13 '53

Reservoir plan challenged for Kansas flood control. il map Eng N 151:53-5 Ag 20 '53

San Francisco plans for water supply in the year 2000. D. H. Barnes. il Pub Works 85:89-90 Jl '54

Treatment of large reservoirs with alum to reduce turbidity. R. L. Derby and W. K. Weight. flow diag il maps diags Am Soc C E Proc 79 [no 272]:1-15 S '53

Water works practices; operation, maintenance, management; source of supply, impounding reservoirs. G. E. Symons. il Water & Sewage Works 100:483-6 D '53

Watershed and reservoir control in the Pacific Northwest; panel discussion. G. A. Marshall and others. il map Am Water Works Assn J 46:723-50 Ag '54; Abstract. Water & Sewage Works 101:386-8 S '54

See also

Dams

Cleaning

Scrub team wins with one pass; algae deposits at Argentine reservoir, Kansas City, Kan. il Eng N 151:239 O 8 '53

RESERVOIRS, Concrete

Expansion joints in concrete reservoir floors. L. A. Hosegood. diags Am Water Works Assn J 46:527-33 Je '54

Modern design features new Vallejo water project. H. L. Thackwell. il map Pub Works 85:87-92 S '54

Old reservoir restored by gunned concrete. W. B. Johnson. il Constr Methods 36:138+ Ag '54

Rubber reservoir; leakage through cracks stopped with elastic lining. Eng N 151:57-8 Ag 27 '53

Unfinished reservoir filled with water to stress hollow arch-wall construction. il Eng N 152:61-2 Ap 29 '54

RESERVOIRS, Steel

Advantages of steel tanks as distribution reservoirs. C. K. Wells. il Am Water Works Assn J 45:569-79 Je '53; Same. Water & Sewage Works 101:R33-4+ pt 2 My '54; Excerpts. Munic Util 91:42-7 Jl '53

RESERVOIRS, Underground

Replace all divots; new reservoir top will support tee and fairway at the Omaha, Neb. field club. il diag Eng N 151:45-6 S 24 '53

RESINOLS

Triterpene resinols and related acids; the oxidation of 12-oxo*iso*oleana-9(11) : 14-dienyl acetate. J. D. Johnston and F. S. Spring. Chem Soc J p 1556-65 My '54

Triterpene resinols and related acids; the structure of oxo-*iso*-β-amyradienyl acetate. G. G. Allan, J. D. Johnston and F. S. Spring. Chem Soc J p 1546-56 My '54

RESINOUS products

Alkyd resins. D. G. McNabb. Can Chem Process 38:54+ Je 20 '54
A.C.S. Division of paint, plastics, and printing ink chemistry national meeting, New York; abstracts of papers. Chem & Eng N 32:3845-6 S 27 '54
A.C.S. Division of paint, plastics, and printing ink 124th national meeting, Chicago; abstracts of papers. Chem & Eng N 31:3863-4 S 21 '53
Another surge of chemical uses for epoxies. il Chem Eng 60:380-1 S '53
Cashing in on chlorine; Hooker electrochemical co. Chem W 73:46-7 Ag 1 '53
Cast phenolic resin; properties, etc.; tabulation; engineering file facts. Materials & Methods 39:141 F '54
Chemical and technological aspects of silicone resins; abstract and discussion. P. A. Griffin. Chem & Ind p397-8 Ap 3 '54
Deterioration of alkyd resin films. E. B. Fitzgerald. bibliog il Ind & Eng Chem 45:2545-8 N '53
Effect of filler particle size on resins. R. K. Witt and E. P. Cizak. bibliog Ind & Eng Chem 46:1635-9 Ag '54
Epoxies; new resins have many uses. Iron Age 174:62 Jl 22 '54
Epoxies on the ascent. Chem W 73:81-2 S 19 '53
Epoxy resin skyrocket. il Chem & Eng N 32:3210-11 Ag 9 '54
Epoxy resins. T. A. Walb. Tappi 37:sup 129A-34A Jl '54
Epoxy resins from bis-, tris-, and tetrakis-glycidyl ethers. E. C. Dearborn and others. bibliog(46 ref) diag Ind & Eng Chem 45:2715-21 D '53
Ethoxyline resin; Araldite 985B. Chem Age (Lond) 70:561-3 Mr 6 '54
Flame-resistant polyesters from hexachlorocyclopentadiene. P. Robitschek and C. T. Bean. bibliog il Ind & Eng Chem 46:1628-32 Ag '54
Flexible plastisol molds form epoxy resin parts. il Materials & Methods 40:13+ S '54
Hit it hard; Cycolac styrene-type resin can be used for golf club heads. il Chem & Eng N 32:1270 Mr 29 '54
How Convair tools with plastics. H. H. Rosenbaum. il Am Mach 98:121-4 Mr 15 '54
Identification of wet-strength resins in paper by a dye staining technique. R. R. House and N. T. Woodberry. Tappi 37:255-7 Je '54; Abstract. Pulp & Pa of Can 55:148 S '54
Improvements in casting impregnation. W. N. Pratt. il Foundry 82:248+ F '54
Increased productivity through accurate metering of alum and wet strength resins. J. Procopi. diag Paper Ind 36:296 Je '54
Inhibition of unsaturated polyesters. W. E. Cass and R. E. Burnett. bibliog il Ind & Eng Chem 46:1619-24 Ag '54
Liquid polymers combined with epoxy resins. J. S. Jorczak and J. A. Belisle. India Rubber World 130:66-9 Ap '54
Lockheed uses epoxy resins for various kinds of tooling. G. J. Walkey. il Mach 60:168-73 Jl '54
Mated for the better; epoxies and Thiokols. il Chem W 74:44 My 1 '54
Materials for special service; casting plastics. J. R. Charlton. il Machine Design 26:126-33 My '54
Melamine-formaldehyde molded plastics; properties, etc.; engineering file facts. Materials & Methods 38:139, 141 N '53
Modified cationic urea resin for wet-strength papermaking. S. Sönnerskog. Tappi 37:79-80 F '54
New method of repairing piping is use of plastic patches. H. S. Dewey. il Heating-Piping 26:170-1 Ja '54
New pattern for patterns; Impreg. il Chem W 74:54+ Je 5 '54; Automotive Ind 111:50-1+ Jl 15 '54
New silicone resin, foamed in place, is high temperature insulator. il Materials & Methods 38:96-7 N '53
Nonstatistical approach to improving wet-strength resin evaluations. V. J. Moser. Tappi 36:sup 160A-1A D '53
Phenol-formaldehyde and allied resins; further syntheses of resole molecules. A. T. Carpenter and R. F. Hunter. bibliog J Ap Chem 3:486-95 N '53
Phenol-formaldehyde and allied resins; trinuclear and hexanuclear novolaks. A. C. Davis, B. T. Hayes and R. F. Hunter. bibliog J Ap Chem 3:312-17 Jl '53
Phenolic molding materials; properties, etc.; tabulation; engineering file facts. Materials & Methods 39:137, 139 Ap; 225, 227 My '54
Physical properties of polyester resins. E. E. Parker and E. W. Moffett. Ind & Eng Chem 46:1615-18 Ag '54
Pixilated resins that perk up production; Celanese corporation's Marco products dept. Dun's R & Mod Ind 63:116 F '54
Plastics; low cost plastic molds good for short runs. il Iron Age 174:127+ S 2 '54; Steel 135:124 Ag 23 '54
Polyester resin volume over 25 million pounds annually. Chem & Eng N 31:4150 O 5 '53
Polyester resins; abstract. J. R. Stevenson. Chem & Ind p780 Jl 3 '54
Polyester resins, Laminac 4110, 4111 and 4147. Chem Eng 61:158+ Ap '54
Reports on chemical progress in 1953; polyester resins. il Ind & Eng Chem 46:sup 39A+ Ja '54
Resin polymer emulsions; their manufacture and use. F. B. Parker. il Can Chem Process 37:30+ D '53
Resinography. T. G. Rochow. Tappi 37:sup 125A-8A Jl '54
Retention of wet-strength resins by various types of pulps. F. J. Newhard. Tappi 36:sup 161A-2A D '53
Role of petrochemicals in plastics and resins. R. B. Seymour. Pet Refiner 32:116 N '53
Selling John Smith; Dewey and Almy chemical co. Chem W 74:65-6+ Mr 6 '54
Survey of progress in the field of unsaturated polyesters. F. R. Eirich and M. Silberberg. bibliog(33 ref) Tappi 37:sup 134A-9A Jl '54
Tall oil for resins. bibliog(73 titles) Tappi 37:sup 116A-20A Ap '54
TAPPI paper-plastics conference, Syracuse, Sept. 15-16, 1953. Tappi 37:sup 125A-72A Jl '54
Unsaturated polyester resins; symposium. bibliog il diags Ind & Eng Chem 46:1612-45 Ag '54
Viscosity changes in thermosetting resins. D. I. Marshall. bibliog Ind & Eng Chem 45:2748-52 D '53
Wet strength; fast pace; paper industry committed to wet-strength resins. il Chem W 74:46+ F 20 '54; Same. Tappi 37:sup 126A-7A My '54
Why epoxy resins for laminated tooling? J. Delmonte. il Materials & Methods 40:93-5 Ag '54

See also
Chlorotrifluoroethylene
Formvar
Melamine resins
Methacrylates
Molded products
Phenol condensation products
Plastic materials
Polyethylene
Rubber—Mixing with resins
Rubber, Artificial—Mixing with resins
Saran
Styrene (and polymers)
Teflon
Vinyl chloride
Vinyl compounds

Adhesives

Design manual on adhesives. il diags Machine Design 26:143-74 Ap '54
Glues for Canadian plywood; Reicholds phenolic resin plant in Ste Therese. il Can Chem Process 37:38+ N '53
How adhesives are used in aircraft construction. D. A. Tooley. il diags Materials & Methods 39:105-7 F '54
How adhesives solve camera assembly problems; Graflex inc. il Materials & Methods 40:84-5 Ag '54
Materials of construction for chemical engineering; cements. C. R. Payne. bibliog(66 ref) il Ind & Eng Chem 45:2185-8 O '53
New work on adhesives; resin-bonded plywood. Chem Age (Lond) 68:559-60 Ap 11 '53
Paperbound books; new synthetic resin-based hot-melt adhesives bid fair to upset bindery practices. Chem W 73:68+ Jl 18 '53

RESINOUS products—Adhesives—*Continued*

Production application of structural adhesive bonding; abstracts. G. E. Holback and J. L. Burridge. Rubber Age 74:772 F '54; S A E J 62:105 Je '54

Resinous adhesives for bookbinding. Chem Age (Lond) 69:547-8 S 12 '53

Some properties and applications of synthetic resin cements. V. Evans. bibliog Chem & Ind p504-9 My 23 '53

Structural adhesives for metal aircraft; abstract. N. A. de Bruyne. Engineering 176:424 O 2 '53

Synthetic resin cements in chemical engineering practice. F. K. Earp and others. il Chem & Ind p499-504 My 23 '53

Vinyl adhesives extend gains. Chem & Eng N 32:978 Mr 8 '54

Analysis

Acidic and alcoholic components of polyesters. R. W. Stafford and J. F. Shay. Ind & Eng Chem 46:1625-7 Ag '54

Analysis of alkyd resins modified with vinyl chloride-acetate copolymer. M. H. Swann and G. G. Esposito. Anal Chem 26:1054-5 Je '54

Determination of mole ratio of urea to formaldehyde. P. P. Grade and R. J. Dunn. bibliog diag Anal Chem 25:1211-14 Ag '53

Determination of polystyrene in styrenated alkyd and styrenated epoxy resins. M. H. Swann. Anal Chem 25:1735-7 N '53

Determination of resinous extractives in dissolving pulps; abstract. I. Jullander and B. Olsson. Paper Ind 36:413 Jl '54

Identification of dicarboxylic acids in polymeric esters. R. W. Stafford, J. F. Shay and R. J. Francel. bibliog Anal Chem 26:656-61 Ap '54

Identification of polyhydric alcohols in polymeric esters. J. F. Shay, S. Skilling and R. W. Stafford. bibliog Anal Chem 26:652-6 Ap '54

Polarographic determination of maleate unsaturation in polyesters. E. W. Hobart. Anal Chem 26:1291-3 Ag '54

Rapid determination of free formaldehyde in phenol-formaldehyde syrups. J. Haslam and W. W. Soppet. J Ap Chem 3:328-9 Jl '53

Rapid identification of wet-strength resins in paper. J. C. Barthel. Paper Tr J 138:24 S 10 '54

Simple quartz infra-red spectrometer for the determination of absorbed water in some polymers. E. R. S. Jones. diag J Sci Instr 30:132-4 Ap '53

Binding materials

Carbide tool grinding with resin bonded wheels. N. P. Robie and A. D. Stover. il Tool Eng 31:65-8 N '53

Chips to board, continuously; resinbonded fiberboard. il Chem Eng 60:130+ Ag '53

Developments with synthetic resins in the foundry. P. G. Pentz. Engineering 177:404-5 Mr 26 '54

Light metals; backyard core foundry solves binder problems. H. E. Bourassa. il Light Metal Age 11:8-9+ Ag '53

Medium board; resin-bound wood chips for use as medium-density plywood core material and structural board; pictured flowsheet. Chem Eng 60:276-9 S '53

Shell-mold casting of automotive parts; Central foundry division, General motors corp. J. H. Smith. il Mach 60:186-95 N '53

Electric properties

Direct-current transients in polymethyl methacrylate and in polystyrene. P. Ehrlich. bibliog diag J Ap Phys 25:1056-8 Ag '54

Film-type heating elements. R. E. Crump. il diag Product Eng 24:164-7 O '53

Finishing materials

Acrylic resins; abstract. V. N. Sheets. Paint Oil & Chem R 117:13 My 6 '54

Chemical properties of acrylic resin; abstract. W. C. Prentiss. Paint Oil & Chem R 117:14-15 Mr 11 '54

Chicago gets run down on polyvinyl acetate exterior coatings. H. J. Zahrndt. Paint Oil & Chem R 117:18 Ap 22 '54

Curing agents for epoxy resins. bibliog Paint Oil & Chem R 116:72-3+ N 5 '53; Abstract. Oil Paint & Drug Rep 164:71-2 N 9 '53

Engineering metal finish; methods, materials command equal stature. R. J. Deisenroth. il Steel 135:115-16+ Jl 19 '54

Epon resins for surface coatings. T. R. Hopper. Paint Oil & Chem R 117:25 Mr 25 '54

Epoxy modified rosin esters; Eplex. R. O. Austin and J. Drew. Paint Oil & Chem R 117:15-17+ Je 3 '54

Epoxy resins; abstract. H. Wittcoff. Chem & Eng N 31:4680+ N 9 '53

Epoxy resins in protective coatings. R. A. Coderre. Can Chem Process 38:86+ S '54

Epoxys for cements and coatings. R. B. Seymour and R. H. Steiner. Chem Eng 61:244+ Ap '54

Finishing, dyeing and printing of glass decorative fabrics. R. F. Caroselli. diag Am Dyestuff Rep 43:327-8 My 24 '54

Gel vehicle; it settles spilling, sagging, settling problems; thixotropic alkyd. il Paint Oil & Chem R 117:14 My 6 '54

Half million on research facilities; Jones-Dabney resin producing division of Devoe & Raynolds co. il Paint Oil & Chem R 117:43 My 20 '54

Latex paints. H. F. Payne. bibliog(36 ref) Paint Oil & Chem R 116:14+ O 22 '53

Latex resin texture surface for problem walls and ceilings; Luminal stipple texture paint. Paint Oil & Chem R 117:52 F 25 '54

New baking enamels are carried in water; Sherwin-Williams and Reichhold metal coatings. Chem Eng 60:334+ N '53

New developments in silicones; protective coatings. T. A. Kauppi. il Machine Design 26:186-7 S '54

New epoxy primer has high resistance to alkalies. H. L. Farber. il Materials & Methods 39:93-5 F '54

New flexible coatings. M. W. Renfrew. Paint Oil & Chem R 117:35 Ap 22 '54

Paint thickens; Washburn thixotropic alkyds. Chem W 74:102+ My 22 '54

Painting with fewer repeats; H. P. Hood & sons. il Food Eng 25:127+ N '53

Plastic alloys provide low cost, corrosion-resistant finish. W. G. Patton. il Iron Age 172:159-62 S 10 '53

Plastics equipment reference sheet; high styrene-butadiene copolymer coatings. R. S. Seymour and R. H. Steiner. Chem Eng Prog 49:390 Jl '53

Processed oils for paints and coatings. B. Henderson. il Can Chem Process 38:26+ My '54

Reichhold chemicals, inc. makes water-soluble resin. il Chem Eng 60:116 N '53

Reichhold unveils water-soluble resin for industrial coatings; Hydrophen. il Chem & Eng N 31:3754+ S 14 '53

Solvency characteristics of low odor type thinners. Paint Oil & Chem R 116:44-6 N 5 '53

Styrenated esters of bisphenol-epichlorohydrin condensates. R. W. Tess, R. H. Jakob and T. F. Bradley. bibliog il Ind & Eng Chem 46:385-90 F '54

Tough epoxi gets tougher; Synthetasine 200. Paint Oil & Chem R 117:38C My 20 '54

Urea-formaldehyde resin as a vehicle for semi-permanent insecticidal and fungicidal coatings on bookbindings and bookcases. P. Bracey and F. Barlow. bibliog J Doc 9:157-68, pl 1-2 S '53

Use of Epon resins in surface coatings. T. R. Hopper. Paint Oil & Chem R 117:15-18 Jl 15 '54

Vital thousandth; plastic lacquer for plastics. il Chem W 73:43-4+ Ag 8 '53

Water-carried coat; Hydrophen. Chem W 73:68+ S 19 '53

See also
Paper coating, Plastic

Insulating materials

Aycliffe plant of Bakelite, limited. il Engineering 176:715-16 D 4 '53

Dielectric breakdown properties of thermosetting laminates. N. A. Skow. Machine Design 26:217-19 S '54

New twist in submarine cables; Italcable's St Vincent-Recife transoceanic telegraph link. il Chem W 74:22 F 20 '54

RESINOUS products—Insulating materials—*Continued*

Nine plastics tested for arc resistance; abstract. T. J. Martin and R. L. Hauter. Materials & Methods 39:189 Ap '54

Positive d-c corona of polyethylene-insulated wire in air. D. S. Rodbell and others. bibliog il diags Electrochem Soc J 101:91-8 F '54

Progress in dielectrics. S. Whitehead. il Elec R (Lond) 153:1309-13 D 11 '53

Three new silicone laminating resins for high strength, high temperature resistance, electrical insulation. il Materials & Methods 40:98-100 Jl '54

Ion exchanging

Adsorption of cupric and mercuric ions by a weak-base anion exchange resin. J. Andelin and N. Davidson. Am Chem Soc J 75:5413-15 N 5 '53

Another job for ion exchange; magnesium from sea water; patent. Chem Eng 61:282 Jl '54

Behavior of an ion-exchange resin in liquid ammonia. C. W. Keenan and W. J. McDowell. Am Chem Soc J 75:6348 D 20 '53

Behavior of ion exchange resins in solvents other than water. G. W. Bodamer and R. Kunin. Ind & Eng Chem 45:2577-80 N '53

Behavior of platinum group metals toward ion exchange resins. W. M. MacNevin and W. B. Crummett. bibliog(25 ref) Anal Chem 25:1628-30 N '53

Behavior of the condensed phosphates in anion-exchange chromatography. J. Buekenkamp, W. Rieman, 3d and S. Lindenbaum. bibliog Anal Chem 26:505-12 Mr '54

Catalysis with cation-exchange resins; preparation of 1,3-dioxolanes and 1,3,6-trioxocanes, M. J. Astle, J. A. Zaslowsky and P. G. Lafyatis. bibliog Ind & Eng Chem 46:787-91 Ap '54

Chelating resins; abstract. K. W. Pepper and D. K. Hale. Chem & Eng N 32:1898 My 10 '54

Concentration effects of recycling in ion exclusion. D. W. Simpson and W. C. Bauman. Ind & Eng Chem 46:1958-62 S '54

Continuous countercurrent ion exchange with trace components. N. K. Hiester and others. bibliog il diags Chem Eng Prog 50:139-50 Mr '54

Determination of malic, tartaric, and citric acids in fruit by ion exchange chromatography. H. H. Schenker and W. Rieman, 3d. bibliog Anal Chem 25:1637-9 N '53

Determination of periodic acid in highly colored solutions. M. A. Smith and B. R. Willeford, jr. bibliog Anal Chem 26:751-3 Ap '54

Distribution of zirconium and hafnium between cation-exchange resin and acid solutions; the column separation with nitric acid-citric acid mixture. J. T. Benedict, W. C. Schumb and C. D. Coryell. bibliog Am Chem Soc J 76:2036-40 Ap 20 '54

Electrochemistry of ion-exchange resins. K. S. Spiegler. bibliog(78 ref) il diags Electrochem Soc J 100:sup303C-16C N '53

Electromigration in a cation-exchange resin; correlation of self-diffusion coefficients of ions in a cation-exchange membrane to its electrical conductance. K. S. Spiegler and C. D. Coryell. bibliog J Phys Chem 57:687-90 O '53

Equilibria between aromatic acids and weak base anion exchangers. S. Peterson and E. Gowen. bibliog Ind & Eng Chem 45:2584-6 N '53

Equilibrium studies of some monovalent ions on Dowex 50. O. D. Bonner and W. H. Payne. J Phys Chem 58:183-5 F '54

Fractionation of organic acids in sugar beets by ion exchange resins. H. S. Owens, A. E. Goodban and J. B. Stark. bibliog(27 ref) Anal Chem 25:1507-11 O '53

Get rid of fouling in ion exchangers. F. X. McGarvey and A. C. Reents. bibliog il Chem Eng 61:205-8 S '54

Heats of neutralization of acid clays and cation-exchange resins. N. T. Coleman and M. E. Harward. bibliog Am Chem Soc J 75:6045-6 D 5 '53

Hydrogen peroxide determination in the presence of chromate. J. Rynasiewicz. bibliog Anal Chem 26:355-8 F '54

Hydrolysis of polysaccharides by a cation exchange resin and identification of monosaccharide components by paper chromatography. R. E. Glegg and D. Eidinger. bibliog il Anal Chem 26:1365-7 Ag '54

Indium halide complexes studied by ion-exchange methods. J. A. Schufle and H. M. Eiland. bibliog Am Chem Soc J 76:960-2 F 20 '54

Ion exchange and its applications in the fine chemical industry. E. L. Streatfield. bibliog(51 ref) diag Chem & Ind p 1214-22 N 14 '53

Ion-exchange chromatography for high-school students. W. Rieman, 3d. bibliog diag J Chem Educ 31:212-16 Ap '54

Ion exchange column performance; hydrogen cycle rates in nonaqueous solutions. T. Vermeulen and E. H. Huffman. bibliog Ind & Eng Chem 45:1658-64 Ag '53

Ion exchange column performance; theory for irreversible and constant-pattern solid diffusion. T. Vermeulen. bibliog(28 ref) Ind & Eng Chem 45:1664-70 Ag '53

Ion exchange effect on alkaline phosphatase of serum with reference to cancer. A. Bernhard and L. Rosenbloom. bibliog Science 118:114-15 Jl 24 '53

Ion exchange membrane purification of organic electrolytes. E. N. Lightfoot and I. J. Friedman. bibliog Ind & Eng Chem 46:1579-83 Ag '54

Ion exchange of trace components in a countercurrent equilibrium stage contactor. N. K. Hiester and others. bibliog flow diag il diags Ind & Eng Chem 45:2402-12 N '53

Ion exchange process for recovery of gold from cyanide solution. F. H. Burstall and others. bibliog flow sheet Ind & Eng Chem 45:1648-58 Ag '53

Ion exchange resins as catalysts. bibliog Chem Age (Lond) 68:561-4 Ap 11 '53

Ion-exchange resins in the textile industry. H. C. Borghetty and others. il Am Dyestuff Rep 42:338-42 My 25 '53

Ion exclusion; column analysis. D. W. Simpson and R. M. Wheaton. bibliog Chem Eng Prog 50:45-9 Ja '54

Ion-free water makes cents in metal finishing. A. Gigliotti. il Steel 133:124 Jl 13 '53

Measurement of ionic activities in solution with electrodes containing ion-exchange-resin membranes. T. R. E. Kressman. bibliog diag J Ap Chem 4:123-31 Mr '54

Microanalysis of organic salts by the use of cation exchange resins. C. H. Van Etten and M. B. Wiele. bibliog diag Anal Chem 25:1109-11 Jl '53

Mixed-bed ion exchange; symposium. J. Thompson and others. bibliog diags Chem Eng Prog 49:341-8, 437-43 Jl-Ag '53

New epoxy bridge; Du Pont's epoxidation. Chem W 75:100 Ag 21 '54

Prediction of cation-exchange equilibria. J. L. Pauley. bibliog Am Chem Soc J 76:1422-5 Mr 5 '54

Properties of actomyosin before and after treatment with ion-exchange resins; influence of pH and ionic strength on molecular shape of a structural muscle protein. M. L. R. Harkness and A. Wassermann. pl diag Chem Soc J p 1344-56 My '54

Properties of ion-exchange resins in relation to their structure; anion-exchange resins derived from styrene-divinylbenzene copolymers. K. W. Pepper, H. M. Paisley and M. A. Young. Chem Soc J p4097-105 D '53

Puzzled by drop in quality of water from your ion exchanger? check for large organic ions. F. X. McGarvey and A. C. Reents. bibliog il Power 98:76-8 Jl '54

Quantitative separation of the alkaline earths by ion-exchange chromatography. M. Lerner and W. Rieman, 3d. bibliog Anal Chem 26:610-11 Mr '54

Rare earths separation uses ion exchange method on commercial scale. il Can Chem Process 38:70+ Je 1 '54

Recent developments in ion exchange. R. Kunin. il Chem & Eng N 32:3046-50 Ag 2 '54

Redox resins. Chem Age (Lond) 69:1073-4 N 21 '53

Replacement of cations of clay by ion exchange resins. D. R. Lewis. diag Ind & Eng Chem 45:1782-3 Ag '53

RESINOUS products—Ion exchanging—*Cont.*

Selectivity scale for some monovalent cations on Dowex 50. O. D. Bonner. J Phys Chem 58:318-20 Ap '54

Separation of magnesium from calcium by ion exchange chromatography. D. N. Campbell and C. T. Kenner. Anal Chem 26:560-1 Mr '54

Separation of rare earths by ion exchange; quantitative data for the elution of neodymium. F. H. Spedding and J. E. Powell. bibliog Am Chem Soc J 76:2545-50 My 5 '54

Separation of rare earths by ion exchange; quantitative theory of the mechanism involved in elution by dilute citrate solutions. F. H. Spedding and J. E. Powell. bibliog Am Chem Soc J 76:2550-7 My 5 '54

Sodium and bromide removal from solvents by nonaqueous ion exchange. F. S. Chance, jr., G. E. Boyd and H. J. Garber. bibliog diag Ind & Eng Chem 45:1671-6 Ag '53

Sodium determination with ion-exchange resin. R. Navone. Am Water Works Assn J 46:479-80 My '54

Specific effects in acid catalysis by ion exchange resins; hydrolysis of esters in water solution. S. A. Bernhard and L. P. Hammett. bibliog Am Chem Soc J 75:5834-5 D 5 '53

Specific effects in acid catalysis by ion exchange resins; some observations on the effect of polyvalent cations. S. A. Bernhard, E. Garfield and L. P. Hammett. bibliog Am Chem Soc J 76:991-2 F 20 '54

Specific effects in acid catalysis by ion exchange resins; the effect of quaternary ammonium ions on the hydrolysis of esters of related structure. P. Riesz and L. P. Hammett. Am Chem Soc J 76:992-4 F 20 '54

Studies in ion exchange; study of sulphonated cashew-nut-shell liquid and bhilawan-shell liquid polymers. H. A. Shah and S. L. Bafna. bibliog J Ap Chem 3:335-6 Jl '53

Studies on ion exchange resins; capacity and specific volumes of quaternary base anion exchange resins. H. P. Gregor, J. Belle and R. A. Marcus. bibliog Am Chem Soc J 76:1984-7 Ap 5 '54

Studies on ion exchange resins; water vapor sorption by cross-linked polystyrenesulfonic acid resins. B. R. Sundheim, M. H. Waxman and H. P. Gregor. bibliog J Phys Chem 57:974-8 D '53

Studies on ion exchange resins; water vapor sorption by polystyrenesulfonic acid. M. H. Waxman, B. R. Sundheim and H. P. Gregor. J Phys Chem 57:969-73 D '53

Sulfuric acid regeneration of high capacity cation exchanger. J. H. Kay and others. bibliog Ind & Eng Chem 46:862-6 My '54

Use of a cation exchange resin for total anion analysis of aqueous solutions containing uranyl ion. H. O. Day, jr. and others. Anal Chem 26:611-12 Mr '54

Use of copper as the retaining ion in the elution of rare earths with ammonium ethylenediamine tetraacetate solutions. F. H. Spedding, J. E. Powell and E. J. Wheelwright. bibliog Am Chem Soc J 76:2557-60 My 5 '54

Use of ion exchange columns in mineral analysis for age determination. L. T. Aldrich and others. bibliog diag Am J Sci 251:377-87 My '53

Water softening experience with polystyrene ion exchange resins; National container corp. W. S. Cummings and C. L. Smith. Tappi 37:sup 133A-4A Ag '54

Manufacture

Cure of phenol-formaldehyde resin; progress determined by ultrasonic wave propagation. G. A. Sofer, A. G. H. Dietz and E. A. Hauser. bibliog il diags Ind & Eng Chem 45:2743-8 D '53

De Soto's new home, big plant for a big state. il Paint Oil & Chem R 117:18B-18D+ Mr 11 '54

Extensions to the works of Bakelite, ltd. il Engineer 196:746 D 4 '53; Engineering 176:715-16 D 4 '53; Elec J 151:1859-60 D 4 '53; Elec R (Lond) 153:1257-60 D 4 '53; Chem Age (Lond) 69:1281-2 D 19 '53

New technique yields heat-reactive binder; patent. diag Chem Eng 61:256+ Ag '54

New wrinkle to up resin production; patent. Chem Eng 61:262+ F '54

Polyester resin; Naugatuck Chemical. diag Pet Refiner 32:186-7 N '53

Solved by syneresis; Goodyear's technique for synthetic resins. il Chem Eng 61:128+ S '54

Physiological effect

Vinyl plastics; their dermatological and chemical aspects. G. E. Morris. il A M A Archives Ind Hygiene & Occup Med 8:535-9 D '53

Plasticizers

See Plasticizers

Prices

Synthetic resins and plastics; list. Chem & Eng N 32:3763-7 S 20 '54

Temperature effect

Dielectric properties of Teflon from room temperature to 314° C and from frequencies of 10^3 to 10^5 c/s. P. Ehrlich. bibliog J Res Nat Bur Stand 51:185-8 O '53

Thermal properties of polyester resins. T. E. Bockstahler and others. Ind & Eng Chem 46:1639-43 Ag '54

Testing

Plasticizers in vinyl chloride resins; migration of plasticizer. H. M. Quackenbos, jr. Ind & Eng Chem 46:1335-44 Je '54

Plasticizers in vinyl chloride resins; removal by oil, soapy water, and dry powders. M. C. Reed, H. F. Klemm and E. F. Schulz. bibliog il diag Ind & Eng Chem 46:1344-9 Je '54

Textile uses

Acetate blends improved by combination resin finish; abstract. F. Fortess and others. Textile World 103:139 D '53

Acrylic resins in textile processing. A. C. Nuessle and B. B. Kine. bibliog Ind & Eng Chem 45:1287-93 Je '53

Analysis of resin deposit in wrinkle-proof finishing; abstract. W. Graeser. Am Dyestuff Rep 42:136 Mr 2 '53

Animalized cellulose; cationic aminotriazine-formaldhyde solutions; patent. Am Dyestuff Rep 43:345 My 24 '54

Application of resins to textiles. A. R. Smith. Soc Dyers & Col J 70:381-91 bibliog(77 ref, p390-1) S '54

Applications of plastic in textiles; abstract. A. Hill. Am Dyestuff Rep 43:34-5 Ja 18 '54

Chlorine-retentive properties of resin finished rayon fabrics. G. S. Wham, jr. and others. il Am Dyestuff Rep 42:285-96, 328-34, 360-2, 389-93, 421-4+, 555-6 My 11-Jl 20 '53

Durable finish; starch, methylolurea, thermoplastic polymers; patent. Am Dyestuff Rep 43:344 My 24 '54

Effect of conditioning on crease-recovery angle. Am Dyestuff Rep 42:268-71 Ap 27 '53

Effect of urea-formaldehyde resins on the light fastness of direct dyes. bibliog Am Dyestuff Rep 43:6-13 Ja 4 '54

Emulsion polymers for the textile industry. L. Shapiro. bibliog Am Dyestuff Rep 43:132-40 Mr 1 '54

Fastness properties of acetate dyeings after-treated with curable resins. Am Dyestuff Rep 43:50-2 Ja 18 '54

Fireproofing of fabrics with phosphorus-resin compounds; abstract. Am Dyestuff Rep 43:38 Ja 18 '54

How Northern dyeing corp. cures resins in six seconds. M. London. il Textile World 104:100 Jl '54

How resin treatments affect acetate dyes; abstract. Textile World 103:145+ N '53

Identification of textile finishes. R. Krammes and C. Maresh. bibliog il Am Dyestuff Rep 42:317-27 My 25 '53

Improvement of luster of cotton; thermosetting resins. L. Fourt and H. J. Elliott. bibliog Textile Res J 24:779-84 Ag '54

Ion-exchange resins in the textile industry. H. C. Borghetty and others. il Am Dyestuff Rep 42:338-42 My 25 '53

Modification of wool by the application of linear synthetic polyamides. D. L. C. Jackson and others. bibliog Textile Res J 24:624-9, 828-34 Jl, S '54

RESINOUS products—Textile uses—*Continued*

More flame resistance for cottons; tetrakis(hydroxymethyl)phosphonium chloride (THPC); abstract. J. D. Guthrie. Chem & Eng N 32:3864 S 27 '54

New unshrinkable finishes; superior processes for wool using synthetic resins; abstract. A. J. Hall. Am Dyestuff Rep 42: 135-6 Mr 2 '53

Polymerisation of a series of vinyl monomers in wool. N. K. Boardman and M. Lipson. bibliog Soc Dyers & Col J 69: 335-8 S '53

Prevention of odors in fabrics which have been resin-treated; abstract. L. A. Fluck and others. Am Dyestuff Rep 42:258 Ap 27 '53

Properties of exposed and unexposed polyvinyl butyral coated fabrics. M. I. Landsberg and others. bibliog Am Soc T M Proc 51:1262-76 '51

Reactions of different aminoplast resins used as finishes; abstract. Eloed and Joerder. Am Dyestuff Rep 43:396 Je 21 '54

Resin finishes producing linen-like effects; patent. Am Dyestuff Rep 42:848 D 7 '53

Resistance to microbiological deterioration of resin-treated cellulosic fabrics. T. F. Cooke. bibliog(50 ref) il Textile Res J 24:197-209 Mr '54

Survey of the quality of crease-resist treatment on fabrics supplied to the retail trade. H. W. Best-Gordon. bibliog 2pls Soc Dyers & Col J 69:41-50 F '53

Tear strength of resin-treated textiles. bibliog(33 titles) il diags Am Dyestuff Rep 43: 41-5 Ja 18 '54

THPC-resin flameproofing; abstract. W. A. Reeves. Am Dyestuff Rep 43:346 My 24 '54

Thermoplastic impregnated cloth; Celastic. M. M. Renfrew and A. J. Freeman. il Materials & Methods 40:102-3 S '54

Urea-formaldehyde and lightfastness. Mod Textiles Mag 34:68 D '53

Use of resins and plastics in textile finishing. H. H. Mosher. Am Dyestuff Rep 42: 402-6+ Je 22 '53

Water treatment

Blessed with imagination; Ward's gadget converts tap water instantly to chemically pure water. il Chem W 73:16 O 24 '53

Continuous water softener; Dorrco Hydro-Softener. diag Chem & Eng N 32:974 Mr 8 '54

Ion-free water makes cents in metal finishing. A. Gigliotti. il Steel 133:124 Jl 13 '53

Method for diffusing influent prevents windrowing shifting. il Chem & Eng N 32:2779 Jl 12 '54

Mixed-bed ion exchange; symposium. J. Thompson and others. bibliog diags Chem Eng Prog 49:341-8, 437-42 Jl-Ag '53

Purer water; Neckar Monobed exchanger. il Chem Age (Lond) 71:668 S 25 '54

Sulfuric acid regeneration of high capacity cation exchanger. J. H. Kay and others. bibliog Ind & Eng Chem 46:862-6 My '54

RESINS. See Gums and resins

RESISTANCE welding. See Electric welding

RESONANCE

Improved method of measuring dynamic elastic constants, using electrostatic drive and frequency-modulation detection. H. Pursey and E. C. Pyatt. bibliog il diags J Sci Instr 31:248-50 Jl '54

Regenerative deflection as a parametrically excited resonance phenomenon. S. E. Barden. bibliog R Sci Instr 25:587-93 Je '54

RESONANCE (chemistry)

Aspects of isomerism and mesomerism. R. L. Bent. bibliog J Chem Educ 30:225-8 My '53

Ion resonance control. il diag Chem & Eng N 32:1518 Ap 12 '54

Neighboring carbon and hydrogen; 1,3-interactions and homoallylic resonance. M. Simonetta and S. Winstein. bibliog Am Chem Soc J 76:18-21 Ja 5 '54

Nuclear magnetic resonances used in moisture determining techniques; abstract. W. L. Rollwitz and J. P. O'Meara. il Chem & Eng N 31:3852-3 S 21 '53

Paramagnetic resonance detection using dual field modulation. B. Smaller and E. L. Yasaitis. diag R Sci Instr 24:991-2 O '53

Predicting reactions of a resonance hybrid from minor canonical structures. A. Gero. J Chem Educ 31:136-8 Mr '54

Pure quadrupole spectra in solids. R. Livingston. bibliog il Science 118:61-6 Jl 17 '53

RESONANCE radiation. See Fluorescence; Radiation

RESONATORS

Reference resonator bridges gap between 5 and 50 kc. R. H. Müller. Anal Chem 25:sup 17A O '53

RESONATORS, Radio. See Radio resonators

RESORTS

Resort conventions for associations called overdone. Nat Underw (Life ed) 57:9 Jl 24 '53; Discussion. W. T. Grant. 57:3 Ag 7 '53

Sea Island snags 'em with sun, sand, and service. il map Bsns W p68-70+ O 24 '53

RESOURCES for the future, inc.

Resources for the future getting support of Ford foundation. Oil Paint & Drug Rep 165:7 Je 28 '54; Chem & Eng N 32:2684 Jl 5 '54

Resources; the plot thickens. Bsns W p 126+ D 12 '53

RESOURCES for the future, Mid-century conference on. See Mid-century conference on resources for the future

RESPIRATION

Brönsted theory applied to acid-base balance and respiration. A. W. Devor. J Chem Educ 31:425-8 Ag '54

Clinical pulmonary physiology; detection of early lung function changes in industrial exposure. H. L. Motley. bibliog il Ind Med 22:262-7 Je '53

Tension concept in aquatic biology. J. Verduin. Science 118:254-5 Ag 28 '53

RESPIRATION, Artificial

Resuscitation methods and equipment. il Nat Safety N 69:237 Mr '54

RESPIRATION of tissues. See Metabolism

RESPIRATORY apparatus

Animal respirator for use in electrically shielded rooms. K. G. Wing and O. E. Dengler. il diags R Sci Instr 24:521-2 Jl '53

Give them air! B. F. Postman. il Safety Maint & Prod 106:36-8+ D '53; Same cond. Nat Safety N 68:24-5+ N '53

How should an iron lung be air conditioned? W. E. Collins, jr. Heating-Piping 26:105 Ap '54

How to promote use of respirators; Richmond radiator co. il Foundry 82:344+ My '54

New apparatus for the partitioning of expired air of small animals. P. E. Palm and others. il diags R Sci Instr 25:576-9 Je '54

Respirators, pick the right one and take care of it! S. J. Pearce. il Safety Maint & Prod 107:60-2 Ja; 16-18+ F '54

Respiratory protection. il diags Nat Safety N 69:102-5+ Mr '54

Simple electrical method of recording small volume changes. J. G. Davies. diags J Sci Instr 30:306-7 S '53

RESPIRATORY organs

Diseases

Incidence of respiratory allergy. W. B. Blanton and others. bibliog Ind Med 22:99-102 Mr '53

See also

Influenza
Lungs—Diseases

RESPIROMETERS

Modification of the Scholander plastic semimicrorespirometer for use with larger animals. R. J. Hock. diag R Sci Instr 24:455-7 Je '53

Oxidation of carbohydrates with periodate in the Warburg respirometer. A. S. Perlin. bibliog Am Chem Soc J 76:4101-3 Ag 20 '54

Sensitive respirometer for the measurement of rapid changes in metabolism of oxygen. C. M. Connelly and others. bibliog diags R Sci Instr 24:683-95 Ag '53

Simple, automatic, continuous-recording respirometer. F. A. Brown, jr. diags R Sci Instr 25:415-17 My '54

REST periods
Do coffee breaks cut profits? il Am Bsns 24:22 My '54
Rest periods; equivalent of two weeks with pay. R. Lund. Management R 42:263 My '53

RESTAURANTS
Golf club restaurant braves sun for view; Cedarcrest restaurant, Marysville, Wash.; with views and plans. Arch Rec 114:137-9 Ag '53
Highway hotels and restaurants; building types study. il plans diag Arch Rec 114:158-77 Jl '53
Hillside restaurant gives Seattle diners a view of their city. il plan Arch Forum 98:148-9 My '53
Informality keynotes restaurant on Phoenix outskirts. il plan Arch Rec 113:144-7 Mr '53
Restaurant wears its new look gracefully; remodeled restaurant Mayan, N.Y. il plan diags Arch Rec 115:182-5 Ap '54
Show the frame and stop the traffic; restaurant in Pasadena. il plan diag Am Bld 76:120-1 F '54
Three restaurants with a stimulating architectural flavor. il plans Arch Forum 100:138-43 Mr '54
See also
Lunchrooms and cafeterias, Employees'

Equipment

Super-diners hold vast sales potential. il Am Gas J 180:42-3 Je '54
Survey of commercial food service equipment. il Arch Rec 115:200-2 Je '54

Heating and ventilation

Heating a drive-in restaurant. il Dom Eng 183:202+ F '54

Lighting

Electronic lighting at Lyons. Elec J 151:1686 N 20 '53
Good restaurant lighting isn't luck; call a lighting decorator. D. Reynolds. il Elec West 111:92-3 D '53
Indirect lighting in a modernised hotel; Great western royal hotel, Paddington. il Elec J 152:128 Ja 8 '54
Re-lighting a drive-in restaurant with tv viewing rooms. il Illum Eng 49:454 S '54

RESTRAINT of trade
Department of justice renews war on Sun station contracts. Nat Pet N 45:13-14 D 16 '53
FTC changes policy on dealer contracts. Oil Paint & Drug Rep 164:3+ D 21 '53
Ultramarine blue antitrust suit is filed by government. Oil Paint & Drug Rep 166:7 Jl 5 '54
See also
Monopolies
Price fixing
Trusts, Industrial

RESUSCITATION
See also
Respiration, Artificial

RETAIL price policies. See Price policies, Retail

RETAIL salesmen. See Salesmen, Retail

RETAIL trade
Customer versus colleague ties among retail furriers. L. Kriesberg. J Retailing 29:173-6+ Winter '53-54
Distribution efficiency retailers role. R. C. Shook. Mod Textiles Mag 35:36+ Ag '54
Impact of competition on retailing in 1954. V. Lebow. J Retailing 30:15-20+ Spring '54
Retail sales; well-mannered boom. Bsns W p25-6 S 19 '53
Retailers' excise tax and the manufacturer. E. C. Brinkman. N A C A Bul 34:861-8 Mr '53
Robot retailing. Bsns W p70 D 5 '53
Sales strategy for next year. Bsns W p25-6 N 21 '53
Sales without newspapers. Bsns W p50+ D 12 '53
Stores move into mail order. il Bsns W p43-4 D 12 '53
Trends in retail sales. Survey of Cur Bsns 33:5-9 S '53
What happened to Loeser's customers? shopping survey to determine their personal characteristics and shopping habits. T. D. Ellsworth. J Retailing 30:1-14+ Spring '54
Will the new buying pattern last? Bsns W p43-4 O 10 '53
See also
Advertising—Dealers, Appeal to
Auctions
Chain stores
Christmas business
Cooperative associations
Country stores
Dealer helps
Dealer relations
Department stores
Display of merchandize
Electric utilities—Appliance selling
Gasoline service stations
Grocery trade
Instalment plan
Klein, S., on the square
Mail order business
Marketing
Merchandizing
Ohrbach's, inc.
Plumbing shops
Price fixing, Resale
Price policies, Retail
Purchasing
Salesmanship, Retail
Salesmen, Retail
Self service
Self service stores
Shopping areas
Shopping centers
Show windows
Special sales
Store buildings
Super markets
Vending machines

Accounting

Daily cash reports to aid control in retailing. D. Gordon. N A C A Bul 35:990-1004 Ap '54
Small, independent retailers need a training program in retail accounting. J. K. Stoner. J Retailing 30:57-64+ Summer '54
Wholesale and retail merchandising. N A C A Bul 36:157-62 sec 3 S '54

Advertising

See also
Advertising, Point of sale

Bibliography

Book notes. Published in quarterly numbers of Journal of retailing

Finance

Full pocketbooks; first half of 1953. C. J. Raynor. Barron's 33:13-14 N 9 '53
See also
Allied stores corporation

Manufacturers' demonstrations

See also
Department stores—Manufacturers' demonstrations

Purchasing

See also
Retail trade—Stock

Securities

Earnings, dividend outlook for chain store stocks; with table of 1952-1953 record of 29 leading chain stores. E. H. Carter. Mag of Wall St 93:326-8+ D 12 '53

Statistics

Business inventories; revised estimates, 1950-53 period; with tables. Survey of Cur Bsns 34:17-23 Ja '54
Fourteen important ratios in twelve retail lines, 1952. R. A. Foulke. il Dun's R & Mod Ind 62:73-4 O '53
Retail profit score. Bsns W p52+ O 10 '53
Retail trade in 1953. E. D. Fraser and C. Kappelmann. J Retailing 30:53-6+ Summer '54
Retail trade, 1949-1952. Survey of Cur Bsns 1953 Sup p44-54 [supplemented in monthly numbers]
Retail trade, 1953; with figures for 1952. Survey of Cur Bsns 34:21-2 F '54
Sales Management survey of buying power, May 10, 1953; population estimates, effective buying income, retail sales, farm market data, etc. Sales Management 70:1-724 My 10 '53
Sales Management survey of buying power, May 10, 1954; population estimates, effective buying income, retail sales, farm market data, etc. Sales Management 72:1-812 My 10 '54

RETAIL trade—Statistics—*Continued*
State sales, 1952, seven major store groups. Sales Management 71:52 Ag 15 '53
See also
Department stores—
Statistics

Stock

Retail inventory policy handicaps seasonal operation. R. C. Shook. Mod Textiles Mag 35:63 Je '54

Store location

Putting Safeway in the right places. il Bsns W p90-2+ D 26 '53

Store management

Is your organization up-to-date? H. E. Krusa. J Retailing 30:75-6+ Summer '54
Manager's a key man in the variety store market. J. C. Cummings. il Sales Management 71:112+ Ag 15 '53
Multi-planning. J. Wolff. J Retailing 29:121-34 Fall '53

Study and teaching

See also
Salesman, Retail—
Training

Boston

Downtown dilemma; survey of metropolitan Boston's shopping habits. J. P. Alevizos and A. E. Beckwith. map Harvard Bsns R 32:109-19 Ja '54

Canada

Canada's gains far greater than U.S.A.'s, 1951. Sales Management 71:94-5 D 1 '53
Canadian retailing today. maps Ptr Ink 245: 491-3 sec 2 O 23 '53

Great Britain

Census of distribution, 1950; charts. Economist 168:557 Ag 29 '53
Census of retailers. Economist 168:593 Ag 29 '53
Coronation sales. Economist 168:531 Ag 22 '53
Preparing for Christmas; retail sales in September. Economist 169:606+ N 21 '53
Shops and the budget; effect on trade. Economist 169:52 O 3 '53
Too much consumption? Economist 169:194-5 O 17 '53

Japan

Japanese department stores. G. Fukami. J Marketing 18:41-9 Jl '53

New York (city)

Are walkouts too high among lower Fifth avenue shoppers? T. D. Ellsworth. J Retailing 29:101-8+ Fall '53

Seattle

Retail trends in Seattle. L. C. Wagner. J Marketing 18:50-6 Jl '53

RETAIL workers
Inside information for retailers; study of employee attitudes. E. D. Fraser. J Retailing 30:21-8+ Spring '54
Test your executive pulling power. R. K. Malcolm. J Retailing 29:159-66+ Winter '53-54
See also
Department stores—
Employees
Salesmen, Retail

RETAINING walls
See also
Bulkheads

RETAINING walls, Concrete
Practical design of thin retaining-wall footings. R. P. V. Marquardsen. diags Am Concrete Inst J 24:45-56 S '52; Discussion. 25: 56^1-56^3 pt 2 D '53

RETINA
Electrical responses of the light-adapted eye. J. C. Armington. bibliog diags Opt Soc Am J 43:450-6 Je '53
Motions of the retinal image during fixation. L. A. Riggs and others. bibliog il diags Opt Soc Am J 44:315-21 Ap '54
Rapid changes in foveal sensitivity resulting from direct and indirect adapting stimuli. R. M. Boynton and others. bibliog diags Opt Soc Am J 44:56-60 Ja '54
Spectral sensitivity of the fovea. L. M. Hurvich and D. Jameson. bibliog(92 ref) diags Opt Soc Am J 43:485-94, 552-9; 44:213-22 Je-Jl '53, Mr '54
Stray light and the human electroretinogram. R. M. Boynton. bibliog diags Opt Soc Am J 43:442-9 Je '53
Variation of integrative actions in the retinal system; an adaptational phenomenon. G. van den Brink and M. A. Bouman. Opt Soc Am J 44:616-20 Ag '54

RETIRED autoworkers organization
Pensioners union grows. Bsns W p 113-14 Ag 22 '53

RETIREMENT
American management association special group benefits conference, New York, March 18-19. East Underw 55:16 Ap 2 '54; Nat Underw 58:34-5 Mr 25 '54
Automatic vs. optional retirement; current practice and theory; abstract. Management R 43:501-2 Ag '54
Compulsory retirement, right or wrong? J. C. Cameron. Paper Tr J 138:96-7 Je 25 '54
Executives have their retirement problems too; review of Some observations on executive retirement, by H. R. Hall. H. Terrell. Personnel J 32:65-6 Je '53
Flexible retirement; one company's experience; abstract. W. R. Hanawalt. Management R 42:318-19 Je '53
Have a hobby for boredom-proof retirement. W. E. Johnson. il Banking 46:52 Ag '53
Medical preparation for retirement. L. Wade. Ind Med 22:215-18 My '53
Mortality of retired workers. Nat Underw (Life ed) 58:5 Ja 1 '54
New life for the old-timer. Management R 43:285-6 My '54
Planning ahead for retirement. L. Laird. Personnel J 33:51-4 Je '54
Preretirement plan; Standard oil co. of California. Bsns W p 163-4 Ag 29 '53
Process and problems of retirement. G. C. Hoyt. J Bsns 27:164-8 Ap '54
Retirement planning program. M. J. Mack. J Bsns 27:169-75 Ap '54
Retirement policy. C. E. Dutchess. Ind Med 22:349-51 Ag '53
Should rehirement supplement retirement? R. R. Updegraff. Dun's R & Mod Ind 62:51-3+ N '53
Should salesmen be benched at 65? J. C Aspley. Am Bsns 24:13+ S '54
Solving the retirement problem. C. E. Prier. Life Ins Courant 58:30-1 S '53
Some unsettled issues of retirement policy. R. K. Burns. bibliog J Bsns 27:137-45 Ap '54
Three-month vacation prepares employes for retirement at Atlantic Mutual. W. Partridge. Nat Underw 58:19 F 25 '54
What kind of housing do retired folk want? a $40,000 survey offers some answers. House & Home 3:41 Ja '53

RETIREMENT age. See Age and employment

RETIREMENT plans. See Age and employment; Pensions, Industrial

RETORTS
Continuous retort holds shape. diags Chem Eng 61:262+ My '54
Theoretical consideration of heat transfer in the gas-flow oil-shale retort. C. J. Mains and A. Matzick. bibliog 8pls U S Bur Mines Rep of Invest 4995:1-11 '53

REUTER, Ernst, 1889-1953
Wise man of Berlin. Economist 169:18 O 3 '53

REUTHER, Victor George, 1912-
New storm center in CIO. pors Bsns W p 166+ O 10 '53

REVENUE act of 1954
Brief introduction to the new Internal revenue code. J. S. Seidman. J Account 98:291-4 S '54
Review of the proposed new internal revenue code. B. Harrow. J Account 97:572-81, 688-97; 98:72-81, 179-84 My-Ag '54

REVENUE bonds. See Bonds, Revenue

REVERE copper and brass, inc.
Companies with high earnings; with comparative balance sheet items. Mag of Wall St 93:255 N 28 '53

REVERSE jet filters. See Air filters

REVOLVING doors. See Doors, Revolving

REWARDS, prizes, etc.

A. R. Penfold recipient of the Fritzsche award. Chem & Eng N 32:942+ Mr 8 '54

American chemical society annual awards increase to 11. Chem & Eng N 31:3842-9+ S 21 '53

A.C.S. Industrial and engineering chemistry division gives Shreve scroll of honor. Chem & Eng N 31:3976 S 28 '53

ADR award for 1954 presented to C. L. Zimmerman. Am Dyestuff Rep 43:648 S 27 '54

ADR award presented to Robert H. Blaker. Am Dyestuff Rep 42:649 S 28 '53

Babcock-Hart award to Cameron. Chem & Eng N 32:3144+ Ag 9 '54

Bane and Chanute awards presented. Aeronautical Eng R 12:17 Ag '53

California award to Davidson. Chem & Eng N 32:3774-5 S 20 '54

Canadian scientist wins Glycerine producers association award. Can Chem Process 38:82 F '54; Chem & Eng N 32:545 F 8 '54

Carbide's achievement; Chemical engineering award dinner. Chem Eng 61:150-1 Ja '54

Catalysis shapes a career. Chem & Eng N 31:5360 D 28 '53

Chemistry's impact on paints; winners of 1954 PaVac award. Chem & Eng N 32:2278+ Je 7 '54

Chicago AIC honor scroll awarded to H. I. Jones. Chem & Eng N 31:4432 O 26 '53

Coal hydrogenation brings Carbide & Carbon second award for chemical engineering achievement. il Chem Eng 60:122+ S '53

Completing the cycle; Carbide, first two-time winner of Chemical Engineering award. Chem W 73:42-3 Ag 22 '53

Conquest receives Appert award for achievements in food field. Chem & Eng N 31:2770 Jl 6 '53

Daniel C. Jackling award initially conferred on Reno H. Sales. F. Searls, jr. Min Eng 6:Trans 497-8 My '54

Eight awards given at AGA convention. Am Gas J 179:39-40 N '53; Am Gas Assn Mo 35:20-1 D '53

Electron spin pioneers honored; Goudsmit and Uhlenbeck honored by Research corp. scientific award. Chem & Eng N 32:480 F 8 '54

First Russel S. Springer award. S A E J 62:84 Jl '54

Frank S. Wartman, winner of Department of interior's distinguished service award for role in developing titanium process. H. T. Sharp. Chem Eng 61:366-8 Mr '54

Glycerine boosters; 1953 research awards of Glycerine producers' association. Chem W 74:48 F 6 '54

Harvard chemistry professor given Defense department's highest civilian award. Chem & Eng N 31:5094 D 7 '53

Honored at 126th ACS national meeting. Chem & Eng N 32:3826-7 S 27 '54

How insurance is publicized through a public relations trophy; London Assurance. W. Meiss. il Spectator 162:28+ Ja '54

Industry honors awarded to 32 oil men. Oil & Gas J 52:198-9 N 16 '53

Kansan and Nisei win ACS awards. Chem & Eng N 32:408-9 F 1 '54

Laurels to Kirkwood and Cram. Chem & Eng N 31:4900-1 N 23 '53

Midwest award, conferred by St Louis ACS on Roger Adams. Chem & Eng N 31:4884 N 23 '53

National science fair, Lafayette, Ind. Chem & Eng N 32:2625 Je 28 '54

1953 ASME regional student conference prize winners. Mech Eng 75:848-9 O '53

1953 award winners; American institute of chemical engineers. Chem Eng Prog 49:sup34+ N '53

R. M. Burns and Scott Ewing receive 1953 Whitney and Speller awards. Electrochem Soc J 100:sup 101C Ap '53

Recipients of IBF awards. Foundry 82:135 Ag '54

Recipients of medals and awards; American society of mechanical engineers. Mech Eng 76:67-72 Ja '54

Reinforcing institute award goes to Clark for work on A-305 bar. Concrete 62:33 Je '54; Same. Am Concrete Inst J 25:sup21 Je '54

Repeat performance; CE award for Carbide. Chem W 73:15 D 12 '53

Resistance welder manufacturers association prize winners. Welding J 32:1122+ N '53

Roberts of Caltech, Holmes of Oberlin honored. Chem & Eng N 32:1322-3 Ap 5 '54

Rose L. Vormelker SLA award winner. Special Lib 44:281 S '53

Steck's test tubes paid off in award by Commercial chemical development association. Chem & Eng N 32:830 Mr 1 '54

Two southern gentlemen honored. Chem & Eng N 31:5212+ D 14 '53

Wallingford receives CIEB award. Chem & Eng N 31:3544-5 Ag 31 '53

See also

Advertising awards
Bleininger award
Borden award
Broun, Heywood memorial award
Fire protection—Contests and awards
Fisher award
Franklin institute
Hyatt award
Insurance awards
Medals
Nobel prizes
Paul-Lewis laboratories award
Pulitzer prizes
Safety contests and awards

REYNOLDS, James Emerson, 1844-1920

Sketch. D. Reilly. bibliog por J Chem Educ 31:149-51 Mr '54

REYNOLDS, R. J., tobacco company

Five sound moderate-priced stocks for income; with comparative balance sheet items. Mag of Wall St 93:496 Ja 23 '54

Security I like best. A. Huber. Comm & Fin Chr 178:2626 D 31 '53

REYNOLDS, Robert O.

KMPC's Robert O. Reynolds is a former All-American football star. Ptr Ink 243:100 My 8 '53

REYNOLDS metals company

Aluminum capacity now meets demand. R. S. Reynolds, jr. Light Metal Age 12:26 Ap '54

Better balanced operations improve its competitive position. G. P. Edgar. Barron's 33:21+ S 28 '53

Five stocks with exceptionally high earnings; with comparative balance sheet items. Mag of Wall St 93:325 D 12 '53

REYNOLDS number. See Fluids

RHAMNOSE

2 : 4-Di-*O*-methyl-L-rhamnose. K. Butler and others. Chem & Ind p 107-8 Ja 23 '54

2-*O*-(D-galactopyranosyluronic acid)-L-rhamnose from okra mucilage. R. L. Whistler and H. E. Conrad. bibliog Am Chem Soc J 76:3544-6 Jl 5 '54

RHAMNUS

Colouring matters of the bark of rhamnus alaternus L. L. H. Briggs, F. E. Jacombs and G. A. Nicholls. Chem Soc J p3069-72 O '53

RHENIDES

Preparation of a solid rhenide. J. B. Bravo, E. Griswold and J. Kleinberg. bibliog diag J Phys Chem 58:18-21 Ja '54

RHENIUM

Magnetochemistry of technetium and rhenium. C. M. Nelson, G. E. Boyd and W. T. Smith, jr. bibliog diag Am Chem Soc J 76:348-52 Ja 20 '54

Natural radioactivity of rhenium. A. D. Suttle, jr. and W. F. Libby. Phys R 95:866-7 Ag 1 '54

Rhenium metal; its properties and future. L. W. Kates. il Materials & Methods 39:88-91 Mr '54

Slow neutron velocity spectrometer studies; Re, Ta, Ru, Cr, Ga. E. Melkonian and others. Phys R 92:702-15 N 1 '53

Superconductivity of pure metallic rhenium. J. K. Hukm. Phys R 94:1390-1 Je 1 '54

Thermodynamic properties of technetium and rhenium compounds; low temperature heat capacity and thermodynamics of rhenium. W. T. Smith, jr., G. D. Oliver and J. W. Cobble. Am Chem Soc J 75:5785-6 D 5 '53

Analysis

Colorimetric determination of rhenium; modified Tribalat method. J. M. Beeston and J. R. Lewis. Anal Chem 25:651-3 Ap '53

RHENIUM alloys

Molybdenum-rhenium alloy. C. J. McHargue and H. W. Maynor, jr. il J Metals 5:Trans 1382 O '53

RHENIUM compounds

Thermodynamic properties of technetium and rhenium compounds; heats of formation of rhenium heptoxide and trioxide, and a revised potential diagram for rhenium. G. E. Boyd, J. W. Cobble and W. T. Smith, jr. bibliog Am Chem Soc J 75:5783-4 D 5 '53

Thermodynamic properties of technetium and rhenium compounds; low temperature heat capacity and the thermodynamics of potassium perrhenate and the perrhenate ion. J. W. Cobble, G. D. Oliver and W. T. Smith, jr. bibliog Am Chem Soc J 75:5786-7 D 5 '53

RHENIUM sulfides

Rhenium sulfides as liquid-phase hydrogenation catalysts; a comparison with molybdenum sulfide and cobalt polysulfide. H. S. Broadbent, L. H. Slaugh and N. L. Jarvis. bibliog Am Chem Soc J 76:1519-23 Mr 20 '54

RHEOLOGY

Applications of rheology in the textile industry; abstract. R. L. Derry. Chem & Ind p511 My 1 '54

Effect of plastic flow upon color centers in alkali halide crystals. M. Ueta and W. Känzig. Phys R 94:1390 Je 1 '54

Flow properties of textile printing pastes. R. L. Derry and R. S. Higginbotham. pl Soc Dyers & Col J 69:569-73; Discussion. 573-5 D '53

Physical-chemical behavior of oil-dispersible soap solutions; sodium phenyl stearate in benzene. J. G. Honig and C. R. Singleterry. bibliog J Phys Chem 58:201-6 Mr '54

Preliminary study of the rheological properties of residual fuel oils in relation to their composition. G. C. Ackroyd and C. M. Cawley. bibliog Inst Pet J 39:82-104, pl 1-6 F '53

Rheology and the letterpress printing process. N. Casson. diags Soc Dyers & Col J 69:576-81; Discussion. 581-2 D '53

Rheology of fats; abstract and discussion. G. W. S. Blair. Chem & Ind p304-5 Mr 13 '54

Rheology of fluids. W. Roth. il Instruments 26:1710+ N '53

Rheology of lubricated polytetrafluoroethylene compositions. E. E. Lewis and C. M. Winchester. il diags Ind & Eng Chem 45:1123-7 My '53

Rheology of rubber solutions and suspensions; latex and latex compounds. L. Leaman. bibliog(56 ref) Rubber Age 75:537-44 Jl '54

Rheology opens food frontiers. L. E. Slater. il diags Food Eng 26:74-8+ My '54

See also

Plasticity

RHEUMATISM

Keeping rheumatic patients employable; rheumatic disorders in industry conference, New York, Feb. 4-5. Ind Med 22:302-24 Jl '53

See also

Gout

RHIZOPUS

Microbiological transformations of steroids; the oxygenation of androgens by rhizopus. S. H. Eppstein and others. bibliog Am Chem Soc J 76:3174-9 Je 20 '54

RHODAMINE-B

Photometric determination of antimony in lead using the rhodamine B method. C. L. Luke. Anal Chem 25:674 Ap '53

RHODANINE

5-Alkoxymethylenerhodanines and their reactions with rhodanines. C. P. Lo and W. J. Croxall. bibliog Am Chem Soc J 76:4166-9 Ag 20 '54

Detection of metallic ions by means of two new rhodanine derivatives. A. Mackie and A. L. Misra. Chem & Ind p 1112 S 4 '54

Mildew-preventing activity of rhodanine derivatives. F. C. Brown and others. bibliog Ind & Eng Chem 45:1027-33, 1508-12 My '53, Jl '54

Synthesis and fungistatic activity of some 5-(1-methyl-2-thioalkylethylidene)-rhodanines. C. K. Bradsher, F. C. Brown and R. J. Grantham. bibliog Am Chem Soc J 76:114-15 Ja 5 '54

RHODE ISLAND insurance company

California and Rhode Island sue Hopps for some $8 million damages. Nat Underw 58: 1+ Jl 8 '54

RHODES, Cecil John, 1853-1902

Cecil Rhodes centenary. J. P. de Wet. Can Min J 74:73-4 O '53

RHODESIA

See also

Copper mines and mining—Rhodesia
Electric apparatus industry—Rhodesia
Electricity supply—Rhodesia
Federation of Rhodesia and Nyasaland

Commercial policy

Southern Rhodesia eases dollar import controls. For Comm W 50:6 Ag 31 '53

Politics and government

Defiance in northern Rhodesia. Economist 169: 475-6 N 14 '53

RHODESIA and Nyasaland, Federation of. See Federation of Rhodesia and Nyasaland

RHODINOL

Process developed for low cost synthetic rhodinol. il Chem & Eng N 32:2776 Jl 12 '54

Rhodinol process details. Soap & Chem Spec 30:105+ S '54

Ultraviolet route to rhodinol. il Chem W 75: 80 Jl 10 '54

RHODIUM

Coulomb excitation of energy levels in rhodium and silver. N. P. Heydenburg and G. M. Temmer. Phys R 95:861-3 Ag 1 '54

Decomposition of ammonia on ruthenium, rhodium and palladium catalysts supported on alumina. A. Amano and H. Taylor. bibliog Am Chem Soc J 76:4201-4 Ag 20 '54

Doppler effect in the slow neutron resonance in rhodium. H. H. Landon. diags Phys R 94:1215-17 Je 1 '54

Analysis

Activation analysis using low level neutron sources. W. W. Meinke and R. E. Anderson. bibliog il Anal Chem 25:778-83 My '53

Behavior of platinum group metals toward ion exchange resins. W. M. MacNevin and W. B. Crummett. bibliog(25 ref) Anal Chem 25:1628-30 N '53

Chemical methods for separating and determining metals contained in platiniferous materials. R. Gilchrist. bibliog(25 ref) Anal Chem 25:1617-21 N '53

Concentrating and dissolving platinum metals. F. E. Beamish and W. A. E. McBryde. bibliog Anal Chem 25:1613-17 N '53

Reactions involving colored complexes of the platinum metals. G. H. Ayres. bibliog(26 ref) Anal Chem 25:1622-7 N '53

Separation of palladium from platinum, iridium, and rhodium with dimethylglyoxime. G. H. Ayres and E. W. Berg. Anal Chem 25:980-1 Je '53

Separation of rhodium(III) from iridium(IV). G. H. Ayres and C. M. Maddin. bibliog Anal Chem 26:671-4 Ap '54

Separation of the four platinum group metals palladium, rhodium, iridium and platinum. P. C. Stevenson and others. Am Chem Soc J 75:4876 O 5 '53

Nuclear reactions

Decay of Rh^{106}. B. Kahn and W. S. Lyon. diag Phys R 92:902-3 N 15 '53

Disintegration of Ca^{47}, Sc^{47}, Va^{48}, and Rh^{100}. L. Marquez. bibliog Phys R 92:1511-16 D 15 '53

Disintegration of Rh^{102}. L. Marquez. diag Phys R 95:67-8 Jl 1 '54

RHODIUM plating

Plated locknuts reduce galling in titanium bolts. R. A. Baughman. Iron Age 173: 134-5 F 11 '54

Rhodium plating; abstract. H. L. Grube. Metal Finishing 52:90-1 Ag '54

RIBOFLAVIN. See Vitamins—Vitamin B_2

RIBOFURANOSE

Preparation and properties of 3,5-di-*O*-benzoyl-1,2-*O*-(1-hydroxybenzylidine)-α-D-ribose, an orthobenzoic acid derivative of D-ribofuranose. R. K. Ness and H. G. Fletcher, jr. bibliog Am Chem Soc J 76: 1663-7 Mr 20 '54

RIBOFURANOSIDES

Analysis

Spectrophotometric determination of vicinal glycols; application to the determination of ribofuranosides. J. S. Dixon and D. Lipkin. Anal Chem 26:1092-3 Je '54

RIBONUCLEASE

Evidence for globulite molecules in ribonuclease. D. Wrinch. bibliog diags J Chem Phys 21:2099-100 N '53

RIBONUCLEIC acid

Mechanism of the alkaline hydrolysis of ribonucleic acids. D. Lipkin, P. T. Talbert and M. Cohn. bibliog Am Chem Soc J 76:2871-2 Je 5 '54

Ribonucleic acid and protein in the growing oocytes of triturus pyrrhogaster. S. Osawa and Y. Hayashi. bibliog Science 118:84-6 Jl 17 '53

RIBONUCLEOSIDES

Carbodiimides; the reaction of dicyclohexylcarbodiimide with yeast adenylic acid; a new method for the preparation of monoesters of ribonucleoside 2′- and 3′-phosphates. C. A. Dekker and H. G. Khorana. bibliog Am Chem Soc J 76:3522-7 Jl 5 '54

RIBONUCLEOTIDES

Nucleotides; the action of some nucleases on simple esters of monoribonucleotides. D. M. Brown, L. A. Heppel and R. J. Hilmoe. Chem Soc J p40-6 Ja '54

RIBOSE

Chemistry of ribose and its derivatives; the separation of anomeric methyl ribosides. G. R. Barker and D. C. C. Smith. Chem Soc J p2151-3 Je '54

New benzoyl derivatives of D-ribofuranose and aldehydo-D-ribose; the preparation of crystalline 2,3,5-tri-*O*-benzoyl-β-D-ribose from D-ribose. R. K. Ness, H. W. Diehl and H. G. Fletcher, jr. bibliog Am Chem Soc J 76:763-7 F 5 '54

Preparation and properties of 3,5-di-*O*-benzoyl-1,2-*O*-(1-hydroxybenzylidine)-α-D-ribose, an orthobenzoic acid derivative of D-ribofuranose. R. K. Ness and H. G. Fletcher, jr. bibliog Am Chem Soc J 76:1663-7 Mr 20 '54

Preparation and properties of 2,3,4-tri-*O*-benzoyl-β-D-ribose. H. G. Fletcher, jr. and R. K. Ness. Am Chem Soc J 76:760-3 F 5 '54

Preparation of D-arabinose-1-C^{14} and D-ribose-1-C^{14}. H. L. Frush and H. S. Isbell. bibliog J Res Nat Bur Stand 51:307-11 D '53

RIBOSE phosphates

Pentose phosphate and CO_2 fixation with spinach extracts. A. Weissbach, P. Z. Smyrniotis and B. L. Horecker. Am Chem Soc J 76:3611-12 Jl 5 '54

RIBOSIDES

Chemistry of ribose and its derivatives; the separation of anomeric methyl ribosides. G. R. Barker and D. C. C. Smith. Chem Soc J p2151-3 Je '54

RIBOTIDES

Enzymatic formation of 4-amino-5-imidazolecarboxamide ribotide from inosinic acid. J. G. Flaks and J. M. Buchanan. bibliog Am Chem Soc J 76:2275-6 Ap 20 '54

RIBULOSE phosphates

Enzymatic carboxylation of ribulose diphosphate. J. R. Quayle and others. Am Chem Soc J 76:3610-11 Jl 5 '54

RICE

Better rice for the world. R. R. Williams. il Food Eng 26:96+ F '54

Burma's rice surplus. Economist 168:109 Jl 11 '53

Price of Burma's rice. Economist 168:440 Ag 15 '53

Rice, 1949-1952. Survey of Cur Bsns 1953 Sup p 140 [supplemented in monthly numbers]

Rice on the wing; mechanized rice production, California. O. Carlson. Barron's 33:5 Ag 24 '53

Strong foreign demand seen for rice produced in United States. For Comm W 51:9 F 1 '54

Prices

Government support prop for rice as prices melt. Barron's 33:35-6 S 28 '53

RICE growing

Surveyors are the farmers in these rice fields. T. E. Riley. il Eng N 151:34-5 S 3 '53

RICH-ROTH laboratories

They run their business, not vice versa. Chem W 72:15-16 Ap 11 '53

RICHARDS, Fletcher D. 1892-

Story of Fletcher D. Richards, inc. por(cover) Adv Agency 47:68-9+ F '54

RICHARDSON, Harold Ward, 1900-1954

Sketch. por Nat Safety N 69:160 Je '54

Tribute. por Constr Methods 36:52-3 Je '54

RICHMOND, Indiana

Sewerage

Dual disposal of garbage and sewage. W. E. Ross. Sewage & Ind Wastes 26:140-8 F '54

RICHMOND, Virginia

See also

Airports—Richmond, Virginia

RICINOLEIC acid

Total synthesis of (±)-ricinoleic acid. L. Crombie and A. G. Jacklin. bibliog Chem & Ind p 1197 S 25 '54

RICKETTSIAE

Quantitative analysis of the factors involved in the variations in virulence of rickettsiae. W. H. Price. bibliog Science 118:49-52 Jl 10 '53

RICKOVER, Hyman G.

Nuclear reactors for navy, industry. por Elec World News ed 141:6-7 Ja 18 '54

RIDDELLINE. See Alkaloids

RIDDLE airlines

Riddle reorganizes top management. Aviation W 59:18 Ag 3 '53

RIFLES

Radiography; big 3¼ x 10 ft film compares old and new rifles; Allis-Chalmers mfg. co. il Iron Age 172:187-8 N 5 '53

RIGHT of privacy. See Privacy, Right of

RIGIDIZED sheet metal. See Sheet metal

RING closure. See Cyclic compounds

RING compounds. See Cyclic compounds

RING systems. See Cyclic compounds

RINGELMANN chart

Guilty or not? Ringelmann chart for smoke measurement. il Power 97:106 D '53

Power's microRingelmann; new aid to smoke inspectors. il Power 98:90-3 Mr '54

RINGS, Steel

Designing ring sections. V. Wildman. il diags Machine Design 26:149-52 Ja '54

RIO GRANDE

Sewage and water treatment problems caused by the flood. H. W. Weiss. Pub Works 85:145-8+ S '54

RIVER forwarders, inc.

New river movement; freight consolidating service on Mississippi. Chem W 74:42 Je 5 '54

RIVER traffic

$40 million locks end barge hazard in Mississippi river near St Louis. D. J. Warren. il Nat Pet N 45:89-90 Jl 1 '53

Freight boom on the inland waterways. il Bsns W p84-6 O 3 '53

Inland waterways record set in 1953. Marine Eng 59:40 Mr '54

Mississippi River freight carriage new record, 1953. Weekly Underw 170:1399 Je 5 '54

Ohio River traffic barges ahead. il Steel 134:47 F 1 '54

Water dilutes freight costs; operates coast to coast; Dow Chemical's effort to capitalize on economies of chemical water transport. il map Chem W 73:50-4+ Jl 18 '53

See also

River forwarders, inc.

St Lawrence waterway and power project

Waterways

RIVERS

Bed level indicator for detecting the boundary of a body of water. M. J. Wilkie and R. F. J. King. diags J Sci Instr 31:8-9 Ja '54

Broader view is needed by river developers. C. J. Velz. il Eng N 152:39-40 Mr 25 '54

Life in rivers; abstract. H. C. Gilson. Chem & Ind p458-9 My 9 '53

RIVERS—*Continued*

River-bed scour during floods. E. W. Lane and W. M. Borland. map diags Am Soc C E Proc 79 [no 254]:1-14 Ag '53

River use and control; with data on major projects. il maps Eng N 152:102-3+ F 18 '54

See also
Dams
Deltas
Floods
River traffic
Water pollution
Water supply
also names of rivers, e.g.
Mississippi river
Missouri river
Ohio river

Regulation

Moving a river to work a strip mine; John Booth, inc. il Coal Age 59:172-5 Mr '54

Navigation maintained during construction of Smithland cutoff and levee. W. H. Holland. il map diags Civil Eng 24:90-3 F '54

Will the Atchafalaya capture Old Miss? il maps Eng N 152:36-8+ Ap 8 '54

See also
Dams
Levees

Arkansas

Radioactivity of rivers and lakes in parts of Garland and Hot Spring counties, Ark. R. H. Arndt and P. K. Kuroda. bibliog maps Econ Geol 48:551-67 N '53

RIVETED joints

Testing

Behavior studies of aluminum riveted joints. A. J. Francis. il diags Light Metal Age 12:20-2+ F '54

RIVETING

Adhesive bonding vs riveting; abstract. L. Mordfin and I. E. Wilks. Materials & Methods 40:167 S '54

Electro-pneumatic riveting and projection welding machines. il diags Engineering 177:246-7 F 19 '54

Pushbutton riveting at TEMPCO. il Aero Digest 67:51-2+ S '53

Riveting goes film-controlled; Convair. il Factory Management 112:88-9 Ag '54

RIVETS

Bolt cold-heading and inspection at International Harvester. J. P. Lehning. il Mach 61:171-3 S '54

Design for riveting. R. W. Bolz. diags Machine Design 26:191-3 S '54

New blind rivet for aircraft fastening. il diags Aviation W 58:67 Je 8 '53

Rivets; cold-formed parts for reduced costs. V. L. Bradford. il diags Tool Eng 32:67-70 My '54

RIVETS, Aluminum

Aluminium-alloy headless rivets. D. A. Barlow. il diags Engineering 177:398-9 Mr 26 '54

Behavior studies of aluminum riveted joints. A. J. Francis. il diags Light Metal Age 12:20-2+ F '54

Catterson-Smith portable furnace for heating aluminium alloy rivets. il Engineer 196:537 O 23 '53

Point shapes for large aluminium rivets. D. A. Barlow and A. W. Brace. il diags Engineering 176:513-16 O 23 '53

Recent developments in the riveting of aluminium. A. W. Brace. bibliog il diags Metallurgia 49:71-5 F '54

ROAD contractors

Accounting

Year-around income tax planning for road building contractors. H. W. Wolkstein. Roads & Sts 97:55-6+ S '54

Canada

Contractors for engineered construction; directory. Roads & Eng Constr 92:106+ Je '54

ROAD making machinery

Compactor strips for extra action. il Eng N 151:114 N 12 '53

Distributing machines for road surface dressings. Engineering 177:285 F 26 '54

Four passes widen road; DoMor road widener; illustrations with text. Constr Methods 36:143-4+ Mr '54

Imports (including parts) during past three years; Canada. Roads & Eng Constr 92:104 Je '54

Light maintenance grader. il Engineering 176:668-9 N 20 '53

New grit and chemical spreader. W. Mansfield. il Roads & Sts 96:42+ O '53

Soil stabilisation; single-pass equipment for laying soil-cement road bases. il Engineering 177:54-5 Ja 8 '54

Two job-made rigs for sidecast and finish-grade work. il diag Constr Methods 36:57 S '54

See also
Excavating machinery
Paving machines
Road scrapers
Roads—Construction equipment
Roads, Concrete—Construction equipment

Exhibitions

Construction and roadbuilding show at Canadian international trade fair, Toronto. il Roads & Eng Constr 92:117-28+ Ag '54

Maintenance and repair

240 miles of equipment maintenance; Ohio turnpike. il Constr Methods 36:102-3+ Jl '54

Manufacture

One machine tooled up for five different housings; J. D. Adams mfg. co. F. D. Wallace. il diags Mach 60:165-8 My '54

ROAD materials

It can pay contractors to prospect for materials by air. H. G. Maas. il Roads & Sts 97:42-3 My '54

Profitable squeeze; sulfite liquor roadbinder. il Chem W 74:56+ My 29 '54

See also
Aggregates
Asphalt
Bituminous materials
Cement
Concrete
Gravel
Pavements
Stone, Crushed

Testing

Dynamic testing of materials; abstract. L. J. Mitchell. Roads & Eng Constr 92:109 My '54

ROAD rollers

Buffalo-Springfield Kompactor gives specified density in fewer passes. R. H. Lewis. il Constr Methods 36:91-2+ S '54

ROAD scrapers

Fast scraper work in pesky sand on Jersey parkway. il Roads & Sts 97:67 Ag '54

ROAD signs

Color on route markers aids the motorist. J. W. Chambliss. il Pub Works 85:68-9 Mr '54

Direction by color signs for Arizona. Roads & Sts 97:68-9+ S '54

Lighting and traffic control for present day highways. G. E. Martin. il Pub Works 85:91-3 Je '54

Lighting and traffic control in Rhode Island. Pub Works 85:108 Ag '54

Portable photometer for the testing of reflective road signs. R. G. Giovanelli. il diags J Sci Instr 31:126-9 Ap '54

Red reflector stop signs stop more drivers. il Pub Works 85:100 Ja '54

Reddy Kilowatt slows traffic, protects workers. il Elec World 141:116 Mr 8 '54

Special sign treatments for problem locations. H. R. Perkinson, jr. il Pub Works 85:121-3 My '54

Stop signs are being changed all over the country because you stop when you see red! il Safety Maint & Prod 107:61-2 Je '54

ROAD traffic

Construction standards designed to attract traffic; New York state thruway. J. B. McMorran. il plan diags Civil Eng 23:742-5 N '53

Roads and commercial transport; abstract. G. Charlesworth. Engineering 177:168 F 5 '54

Trends in traffic volumes, vehicle types, and weights, 1952. Pub Roads 27:235-47 D '53

See also
Bridge traffic
Motor trucks and roads
Street traffic
Traffic signals

ROAD workers

Convict labor; Virginia is asked to cut its prisoner highway force. Eng N 151:27 D 24 '53

ROADMASTERS' and maintenance of way association

Annual meeting, Chicago. Ry Age 137:58-60 S 20 '54

ROADS

Annual inventories and priorities. R. E. Jorgensen. Midwest Eng 6:3-6+ Je '53

Match more cars with better roads. H. P. Gillette. Roads & Sts 97:54-5 Ap '54

Proceedings of the thirty-ninth annual road school, Purdue university, April 6-9, 1953. B. H. Petty, comp. il maps diags Purdue Univ Eng Ext Ser 81:1-257 bibliog(p254-7) '53

Smooth sailing down improved highways on seats built for comfort; abstracts of SAE annual meeting papers. S A E J 62:62-3 F '54

Western association of state highway officials annual meeting, Santa Fe, Oct. 7-9; abstracts of papers. Roads & Sts 96:56-8 N '53

World's highway construction set peak activity in 1953. Eng N 152:198+ F 18 '54

See also

Causeways
Expressways
Forest roads
Highway administration
Highway engineering
Highway research
Highway transportation
Motor trucks and roads
Mountain roads
Pan American highway
Pavements
Road making machinery
Road materials
Snow removal
Streets

By-pass roads

By-passes; their use, effect and control; abstract. H. L. Michael. Road & Sts 97:92-3 Je '54

Construction

Atlanta freeway; construction problems are mainly concerned with public relations. B. P. McWhorter. il diags Civil Eng 24:147-9 Mr '54

Big dam outfit tackles heavy turnpike project. il Roads & Sts 97:75-82 Je '54

Constructing a stable roadbed in B.C. with inferior subgrade material. G. F. Jacobs. il map diags Roads & Eng Constr 92:92-5+ Ja '54

Earthwork design and grading methods for the West Virginia turnpike. H. J. McKeever. il map diag Roads & Sts 96:65-80 N '53

Fast scraper work in pesky sand on Jersey parkway. il Roads & Sts 97:67 Ag '54

Mountain boulevard; West Virginia joins the turnpike parade. C. H. Vivian. il map Comp Air Mag 58:296-305 N '53

New York thruway. J. C. Pierce. il Comp Air Mag 59:99-103 Ap '54

New York thruway takes form. C. H. Vivian. il maps Comp Air Mag 59:2-8 Ja '54

Rubber-tired earthmovers speed progress on Trans-Canada highway. il Roads & Eng Constr 92:132+ F '54

Skillful blasting on New York thruway shatters rock safely on edge of town; illustrations with text. Constr Methods 36:82-3 My '54

Strip mine road construction; Hanna coal co. il Min Cong J 39:32-5 O '53

240 miles of equipment maintenance; Ohio turnpike. il Constr Methods 36:102-3+ Jl '54

Construction equipment

Earthmoving equipment applications in construction. L. E. Schumacher. Roads & Sts 97:67-70 Je '54

Earthwork design and grading methods for the West Virginia turnpike. H. J. McKeever. Roads & Sts 96:72-3 N '53

Equipment distributors, Canada; listing the principles whom they represent. Roads & Eng Constr 92:316+ Je '54

Highway construction is big, and it uses big equipment; illustrations with text. Constr Methods 36:58-9 S '54

Manufacturers; their products and their distributors in Canada. Roads & Eng Constr 92:174+ Je '54

New York thruway. J. C. Pierce. il Comp Air Mag 59:99-103 Ap '54

Products index; buyer's guide; international directory of construction equipment. Roads & Eng Constr 92:390+ Je '54

Selection, use and maintenance of road construction equipment. A. E. Holt. Roads & Sts 97:52-4 Mr '54

Small delays, a big problem on highway construction jobs. F. B. Farrell. il Civil Eng 24:161-3 Mr '54

What's new in equipment and materials. Published in monthly numbers of Roads and streets

Contracts

$367,000,000 in New York thruway work under construction; list of contractors as of Sept. 11, 1953. Roads & Sts 96:49-50 O '53

Cost

Bituminous-concrete base widening job, Maryland; unit prices. diag Eng N 152:57 F 11 '54

Cost index developed by California division of highways proves its value. R. H. Wilson. Civil Eng 24:82-4 F '54

Earthmoving equipment applications in construction. L. E. Schumacher. Roads & Sts 97:67-70 Je '54

Grading, draining and surfacing, Michigan; unit prices. Eng N 151:86 S 17 '53

Highway and structures, Ohio; unit prices. Eng N 151:125 Jl 30 '53

Highway, California; unit prices. Eng N 151:74 Jl 23 '53

Highway construction, Texas; unit prices. Eng N 151:88 O 29 '53

Highway price index and average prices; tables and charts. Eng N 151:109+ O 8 '53

Nevada bids close on highway job; unit prices. Eng N 152:75 Mr 25 '54

New York thruway to cost $300 million more. Eng N 152:25 F 11 '54

Ohio turnpike; costs running close to '51 estimates. Eng N 151:23 D 31 '53

Surfacing, Michigan; unit prices. Eng N 151:50 O 22 '53

Unit prices bid by contractors. Eng N 151:199+ O 8 '53

Volume of road work projected for 1954, Canada. Roads & Eng Constr 92:250 Je '54

Water supply bids vary widely on California road job; unit prices. Eng N 152:83 Mr 11 '54

Widening highway, Kentucky; unit prices. Eng N 151:53 D 31 '53

Curves

Driver performance on horizontal curves. A. Taragin. Pub Roads 28:27-39 Je '54

Simplified method gives radius of existing curve. J. E. Oliver. Roads & Sts 97:110-11 Mr '54

Two birds with one stone (pile); gravel hill which had to come out to ease a dangerous curve. il Roads & Sts 97:79-80 Ag '54

Drainage

Less water=better roads. diags Pub Works 85:141-2 My '54

Peak discharge for highway drainage design. C. F. Izzard. maps Am Soc C E Proc 79 [no 320]:1-10 O '53

Storm-water inlet design; abstract. W. Li. Roads & Eng Constr 92:165-6 Ap '54

Economic aspects

Economics in a highway relocation. G. B. Arthur. il Pub Works 85:108-9+ My '54

Highway use determines economic feasibility; New York state thruway. E. B. Isaak. il Civil Eng 23:738-41 N '53

How to measure state interest in agricultural roads. G. A. Riedesel. il map Eng N 151:31-2 S 24 '53

Estimates

Cost estimates a needful yardstick. Roads & Sts 97:93-4 Ap '54

Federal aid

Channeling of federal highway aid into interstate systems is urged. Eng N 151:22 Jl 9 '53

Congress fulfils highway chiefs' hopes. Eng N 152:26 Ap 22 '54

ROADS—Federal aid—*Continued*

Federal aid for highways in the U.S. is authorized on greatly increased scale. S. Weeks. Roads & Eng Constr 92:58 Jl '54

Federal-aid highway act of 1954. Pub Works 85:106+ Je '54

Federal-aid highway needs, 1953; tabulation. Eng N 152:25 Ja 21 '54; Same. Mag of Wall St 93:661 Mr 6 '54

Federal highway aid continues to hold congressional support. Eng N 151:21 N 26 '53

Federal highway aid issue debated; conference sponsored by the U.S. Chamber of commerce. Eng N 151:27 D 17 '53

Interstate system gets big share of road funds. Roads & Sts 97:48-9 Mr '54

President's $50 billion road program stirs controversies. map Roads & Sts 97:51 Ag '54

What they say about new aid law. Roads & Sts 97:71 Je '54

Finance

Bankers loom strong in turnpike developments. H. Faust. Roads & Sts 97:62-3 Jl '54

Billions for roads, but not enough. Bsns W p 116+ D 5 '53

Cash to build toll roads. Bsns W p70+ O 17 '53

Continuing pressure noted for more state road funds. Roads & Sts 96:18-19 D '53

Estimate of user taxes paid by vehicles in different type and weight groups. E. M. Cope and others. map Pub Roads 28:17-26 Je '54

Financing Connecticut's town highway system. il Pub Works 84:61-2 N '53

How to plan and pay for the safe and adequate highways we need. L. V. Murrow. Civil Eng 23:524-7 Ag '53

More toll road plus signs. Roads & Sts 97: 49-50 Ja '54

National conference on highway financing, Washington, D.C. Dec. 10-11. Automotive Ind 110:66+ Ja 1 '54

Nearly $450,000,000 appropriated for rural highway construction. Roads & Eng Constr 92:101-4 My '54

New Jersey turnpike bonds; denial of Hoffman charges adds to insurance companies' lustre. Nat Underw (Life ed) 58:7 Jl 2 '54

Ohio highway program gets big boost under several new revenue measures. Eng N 151: 23 Jl 23 '53

$145.8 million available for highway construction and maintenance in Ontario this year. Roads & Eng Constr 92:71 Ap '54

State highway budgets climb 18 per cent over last year's record. Eng N 152:21 Ap 22 '54

State legislators busy on highway finance problems. Roads & Sts 97:45 Jl '54

Toll road bond issue plans involve large total. Roads & Sts 96:33-5 N '53

Toll road planners still busy. Roads & Sts 97:50 S '54

Toll roads make more headlines. map Roads & Sts 97:44+ My 54

Wall Street expects good market for 1954's huge turnpike issues. Eng N 152:129-30 Ap 8 '54

Who shall pay for the roads we need? symposium. R. W. McColough and others. Roads & Eng Constr 91:139-44+ N '53; Discussion. 92:188+ Mr '54

Foundations

Alberta highways department carries out an experiment on base enveloping with asphalt. G. R. Pinchbeck. il Roads & Eng Constr 92:99-100+ My '54

Concrete pavement nine in. thick supported by four ft. of selected material; New York state thruway. C. H. Lang. il diags Civil Eng 23:746-8 N '53

Constructing a stable roadbed in B.C. with inferior subgrade material. G. F. Jacobs. il map diags Roads & Eng Constr 92:92-5+ Ja '54

Lime for the stabilization of road bases. il Roads & Eng Constr 92:96-100+ S '54

Producing plant mixed materials for stabilized base course; Superior stone co. W. B. Lenhart. flow sheet il Rock Prod 57:74-6+ My '54

Stabilization of sandy soils with heavy, slow curing asphalt. J. R. Banning. il diags Roads & Sts 97:92-6 Jl '54

Soil-cement

Asphalt and soil-cement team for high-type air base roads. il Eng N 151:41-2 S 3 '53

Recent progress in soil-cement for road construction. D. J. MacLean. Engineer 196: 712-14 N 27 '53

Soil-cement base solves Wisconsin road problem in rebuilding state highway 54. il diag Eng N 152:38-41 Ja 14 '54

Soil-cement roads; abstracts of three papers. Engineering 176:681-2 N 27 '53

Soil stabilisation; single-pass equipment for laying soil-cement road bases. il Engineering 177:54-5 Ja 8 '54

Ice control

Road problems arising from snow and ice. A. C. Whiffin and W. I. J. Price. bibliog il diags Chem & Ind p230-7 F 27 '54

Warming up for winter; Rock road construction co. de-icing preparation. il Chem W 73:79 Jl 18 '53

Interchange

Pittsburgh plans new bridges and traffic interchange at Point Park. G. S. Richardson. il map plan diags Civil Eng 23:385-7 Je '53

Intersections

Fluorescent luminaire for intersections gives results. R. Matthews. il Pub Works 85:98 Mr '54

Traffic circle converted to a signalized intersection. il Eng N 151:34+ Ag 6 '53

Lighting

Fluorescent luminaire for intersections gives results. R. Matthews. il Pub Works 85:98 Mr '54

Instrument for the evaluation of night visibility on highways. A. E. Simmons and D. M. Finch. bibliog il diags Illum Eng 48: 517-23 O '53; Discussion. 49:305-6 Je '54

Lighting and traffic control for present day highways. G. E. Martin. il diags Pub Works 85:98-100 Je '54

Lighting and traffic control in Rhode Island. Pub Works 85:108 Ag '54

Modern road lighting. il Elec R (Lond) 153: 1435-6 D 25 '53

Public lighting in Belgium. A. Boereboom. Elec J 151:964-5 S 25 '53

See also
Street lighting

Location

Economics in a highway relocation. G. B. Arthur. il Pub Works 85:108-9+ My '54

How Alabama uses aerial photographs for highway location study. F. W. Weldy. Pub Works 85:173+ S '54

Location of highways facilitated by aerial-survey methods. W. T. Pryor. il Roads & Eng Constr 91:138+ O '53

Traffic conditions to be improved by new Trans-Canada highway route at Victoria, B.C. il map Roads & Eng Constr 92:113-14+ Ap '54

Maintenance and repair

Heavy macadam salvages old pavement. il Pub Works 84:88 D '53

How can the township road system of Ontario be improved? panel discussion. M. R. Parrish and others. Roads & Eng Constr 92:136+ Mr '54

How to make old roads fit for today's traffic. G. E. Martin. il diags Pub Works 85:67-78 Ja '54

See also
Roads—Winter maintenance

Military use

How do Canada's highways meet military requirements? D. W. Cunnington. Roads & Eng Constr 92:168+ Mr '54

Protection

California experience in correction of landslides and slipouts. A. W. Root. plans diags Am Soc C E Proc 79 [no 235]:1-18 Ag '53

Cuts stabilized by drilling horizontal drains on Lookout Point reservoir relocation work. J. E. Newby. il Civil Eng 23:688-91 O '53

ROADS—*Continued*

Relocation

See Roads—Location

Resurfacing

Asphaltic resurfacing program. Pub Works 85:133 Jl '54

Getting a good lay-down on asphalt paving work. L. A. French and others. Roads & Sts 97:107-8 Ag; 104+ S '54

Heater-planer used in resurfacing turnpike settled areas. il Roads & Sts 97:76-7 F '54

Low-cost surfacing for township and county roads. D. A. Maciver. Roads & Eng Constr 92:144+ Mr '54

Making modern highways in Pennsylvania; with cost data. E. L. Schmidt. il Pub Works 85:61-3+ F '54

Night work speeds repaving, avoids heavy traffic tieups. il Eng N 151:30-1 Jl 2 '53

Pavement rehabilitation in Oregon. R. Webber. il Pub Works 84:74-5 N '53

Rebuilt road is high, wide and handsome. il Constr Methods 36:70-1+ Ja '54

Restoring the serviceability of concrete pavements. M. W. Fisher. il Pub Works 84:70-1+ D '53

Smoother riding for the New Jersey turnpike. il Pub Works 85:72 Mr '54

Surfaced roads raise farm values by 52 percent. Pub Works 85:129 Ja '54

Typical pavement modernization. R. A. Haber. il Pub Works 85:99 Ap '54

Vibratory median delineators; abstract. R. J. Furbeck. Roads & Eng Constr 92:164-5 Ap '54

Wire mesh in Texas overlay job. il Roads & Sts 97:78-9 F '54

Roughness measurement

Six uses for a roughometer survey. D. Smith. il Pub Works 85:55-6 Ja '54

Safety measures

Barrier curb design compared. il diags Eng N 152:62 Mr 25 '54

Drivers and expressways. Safety Maint & Prod 108:62 Jl '54

Highway safety needs a plan of action. C. W. Gilchrist. Roads & Eng Constr 92:146+ Mr '54

Making highways accident-free; symposium. A. H. Rowan and others. Roads & Eng Constr 92:128-30+ Mr '54

See also

Grade crossing elimination

Shoulders

Machine for removing berm from shoulders. il Pub Works 85:98 Jl '54; Eng N 151:59 Jl 16 '53

Slipperiness

Not so slippery when wet. Safety Maint & Prod 108:59-60 Ag '54

Snow fences

See Snow fences

Specifications

Senseless and confusing variations in our state road specifications. W. C. Peterson. Roads & Sts 97:82-3+ Mr '54

Subgrades

Electrical subsurface exploration simplified. H. E. Barnes. diag Roads & Sts 97:81-4+ My '54

Freeway paving job emphasizes difference between California and eastern methods. il Roads & Sts 96:22-5+ D '53

Heavy macadam salvages old pavement. il Pub Works 84:88 D '53

Mechanical soil stabilization. L. J. Ritter, jr. bibliog il Pub Works 85:90-5 Mr '54

Seeking stabilization; U.S. Bureau of public roads and four chemical companies. Chem W 75:100-1 Ag 21 '54

Sufficiency rating

City-to-airport highway deficiencies measured modified sufficiency rating system. W. R. Macatee. Roads & Sts 96:53-4 D '53

Superhighways

Buildings no barrier to Chicago's Congress Street superhighway. V. E. Gunlock. il map Civil Eng 24:5-8 Ja '54

Oregon pioneers, with Nation's longest toll-free controlled-access road. il maps Roads & Sts 97:48-52+ F '54

$398 million Connecticut expressway found feasible, to start soon. map Roads & Sts 97:52 Ap '54

Surface treatment

Diluted emulsion surface seals for highways. Pub Works 85:128+ S '54

Surface dressings for protecting soil formations. W. A. Lewis. il Engineering 176:793-6 D 18 '53

Surfaces

Basic surfacing requirements; editorial. H. G Nevitt. Roads & Sts 97:80-1 F '54

See also

Pavements

Surveying

Aeril maps for smaller survey jobs; abstract. W. J. Apperson and T. A. Baker. Roads & Sts 97:114 F '54

Testing

Road deflection under load measured by portable device; Benkelman beam. il Eng N 151:29 O 1 '53

See also

Roads, Experimental

Tolls

Cash to build toll roads. Bsns W p70+ O 17 '53

Electronic toll collection planned for New York state thruway. Roads & Sts 96:104-5 N '53

Illinois and Wisconsin legislatures put their states in toll road parade. Eng N 151:24-5 Jl 9 '53

More toll road plus signs. Roads & Sts 97:49-50 Ja '54

Motor vehicle toll highways. C. V. ter Kuile. Comm & Fin Chr 178:730+ Ag 27 '53

Penn turnpike earned $21 million last year. Roads & Sts 96:41 D '53

Thruway toll equipment cross-checks operation. map diags Eng N 151:37-8 D 10 '53

Toll highway construction to reach peak in 1954. V. T. Boughton. il map Eng N 152:28-32+ Ja 7 '54

Toll road boom coming in Midwest. map Nat Pet N 46:14 Ja 27 '54

Toll road planners still busy. Roads & Sts 97:50 S '54

Toll roads are swinging to brand competition. il Nat Pet N 45:13-15 Ag 26 '53

Toll roads getting federal attention. Eng N 152:21-2 F 4 '54

Toll roads make more headlines. map Roads & Sts 97:44+ My '54

Toll roads to meet current traffic problems. R. M. Reindollar. Roads & Eng Constr 92:114-16 Jl '54

Widening

Four passes widen road; DoMor road widener; illustrations with text. Constr Methods 36:143-4+ Mr '54

Making modern highways in Pennsylvania; with cost data. E. L. Schmidt. il Pub Works 85:61-3+ F '54

Program to improve U.S. 20 New York. W. Robinson. il diags Roads & Sts 97:96-9 Mr '54

Rebuilt road is high, wide and handsome. il Constr Methods 36:70-1+ Ja '54

Typical pavement modernization. R. A. Haber. il Pub Works 85:99 Ap '54

Widener places 21,900 feet of binder strip in single day. il Roads & Sts 97:66 Ag '54

Winter maintenance

25 years of winter maintenance in New Hampshire. L. F. Johnson. il Pub Works 85:67-9 Ag '54

See also

Roads—Ice control

Snow removal

Alberta

Alberta is currently carrying out heaviest program yet attempted. A. Frame. Roads & Eng Constr 91:135-6 N '53

ROADS—*Continued*

Arkansas

Arkansas survey rules out toll roads. Eng N 152:25 F 11 '54

British Columbia

British Columbia meeting the needs of an expanding economy. N. M. McCallum. Roads & Eng Constr 91:136-7 N '53

Constructing a stable roadbed in B.C. with inferior subgrade material. G. F. Jacobs. il map diags Roads & Eng Constr 92:92-5+ Ja '54

California

California experience in correction of landslide and slipouts. A. W. Root. plans diags Am Soc C E Proc 79 [no 235]:1-18 Ag '53

California freeway. Eng N 152:27 Mr 25 '54

Cost index developed by California division of highways proves its value. R. H. Wilson. Civil Eng 24:82-4 F '54

Canada

Canada's road problems explained to U.S. officials. C. W. Gilchrist. Roads & Eng Constr 92:102 Mr '54

Canadian good roads association 34th annual meeting, Victoria, B.C. Oct. 14-16. Roads & Eng Constr 91:111-28+ N '53

Highways in Canada, exclusive of urban streets; by provinces. Roads & Eng Constr 92:72 Je '54

How do Canada's highways meet military requirements? D. W. Cunnington. Roads & Eng Constr 92:168+ Mr '54

Nearly $450,000,000 appropriated for rural highway construction. Roads & Eng Constr 92:101-4 My '54

Present status of the Trans-Canada highway. R. A. Low. Roads & Eng Constr 91:137-8+ N '53

Provincial highway officials; organization charts, provincial departments of highways. Roads & Eng Constr 92:76+ Je '54

Road mileages in Canada; according to type of surface, by provinces. Roads & Eng Constr 92:71 Je '54

Traffic conditions to be improved by new Trans-Canada highway route at Victoria, B.C. il map Roads & Eng Constr 92:113-14+ Ap '54

Volume of road work projected for 1954. Roads & Eng Constr 92:250 Je '54

Colombia

IBRD grants loan for Colombian highways. For Comm W 50:18 O 12 '53

Colorado

Interstate route and its urban connections. D. W. Ormsbee. maps diags Am Soc C E Proc 79 [no 329]:1-13 N '53

Connecticut

$398 million Connecticut expressway found feasible, to start soon. map Roads & Sts 97:52 Ap '54

Delaware

Innovation in primary road program in Delaware. R. A. Haber. il diags Am Soc C E Proc 79 [no 221]:1-9 Jl '53

Florida

Florida turnpike; engineers changed again on 110-mile toll project. Eng N 152:25 Ja 28 '54

Germany

Concrete durability of German autobahnen highways. O. Graf. il Rock Prod 57:108+ Mr '54

Great Britain

Roads in a rut. Economist 169:774 D 5 '53

Turn in the road; three-year programme. Economist 169:835-6 D 12 '53

Hawaiian Islands

Hawaii builds mountain highways, feature realignment and tunnels. il Eng N 152:54-6 Mr 25 '54

Hawaii highway uses old rail route. il Eng N 151:217+ O 8 '53

Indiana

Indiana toll road; 17 engineering firms assigned to 156-mile turnpike. Eng N 152:24 F 11 '54

Manitoba

Manitoba announces largest road program in province's history; expenditure $17,000,000. Roads & Eng Constr 92:70+ Mr '54

Manitoba's largest program slowed down by adverse weather. G. Collins. Roads & Eng Constr 91:134 N '53

Maryland

12-year road plan. Eng N 152:26 Ja 14 '54

U.S. and Maryland divide a parkway job. il map Eng N 152:30+ Ja 28 '54

Massachusetts

Massachusetts turnpike route selected. Eng N 151:25 Ag 13 '53

Minnesota

Cement deficiency on highway project in Minnesota stirs bitter controversy. Eng N 151:24 D 17 '53

Road joint renovation by contract being continued in Minnesota. G. A. Meskal. il diags Roads & Sts 97:40-4+ Jl '54

Nebraska

Stabilization of sandy soils with heavy, slow curing asphalt. J. R. Banning. il diags Roads & Sts 97:92-6 Jl '54

New Brunswick

New construction in New Brunswick mostly on secondary roads. R. W. Manzer. Roads & Eng Constr 91:131-2 N '53

New Hampshire

25 years of winter maintenance in New Hampshire. L. F. Johnson. il Pub Works 85:67-9 Ag '54

New Jersey

Better methods reduce costs on highway landscape work; Garden state parkway. diag Eng N 151:174+ O 8 '53

Garden state parkway to span Raritan river. il Civil Eng 23:713 O '53

Heater-planer used in resurfacing turnpike settled areas. il Roads & Sts 97:76-7 F '54

New Jersey builds its first concrete highway. C. H. Vivian. il plan diag Comp Air Mag 59:248-51 S '54

N.J. turnpike traffic gains 24 per cent in year. Roads & Sts 97:100 Ja '54; Pub Works 85:82 Ap '54

Smoother riding for the New Jersey turnpike. il Pub Works 85:72 Mr '54

New York (state)

Condemn death trap; urge complete revamping of Hutchinson River parkway. Eng N 152:67-8 Mr 18 '54

New York state thruway and water works relocations. T. M. Riddick. plan Am Water Works Assn J 46:503-10; Discussion. 510-13 Je '54

New York state thruway; Authority pushes work on 427-mile New York-Buffalo section. B. D. Tallamy and others. il map diag Civil Eng 23:735-57 N '53

New York thruway. J. C. Pierce. il Comp Air Mag 59:99-103 Ap '54

New York thruway takes form. C. H. Vivian. il maps Comp Air Mag 59:2-8 Ja '54

New York thruway to cost $300 million more. Eng N 152:25 F 11 '54

New York thruway's big year. il map plan diag Eng N 151:38-40 Jl 2; 51-2+ Jl 16 '53

Program to improve U.S. 20 New York. W. Robinson. il diags Roads & Sts 97:96-9 Mr '54

$367,000,000 in New York thruway work under construction; list of contractors as of Sept. 11, 1953. Roads & Sts 96:49-50 O '53

Thruway symposium; abstracts of papers. Roads & Sts 96:46+ D '53

Thruway toll equipment cross-checks operation. map diags Eng N 151:37-8 D 10 '53

Newfoundland

Newfoundland's problem is to reduce isolation as quickly as possible. R. M. French. Roads & Eng Constr 91:129-30 N '53

ROADS—*Continued*

Nicaragua

IBRD grants Nicaragua highway, power loans. For Comm W 50:5 S 21 '53

Nicaragua gets new loans for all-important road program. il Eng N 151:50-1 S 24 '53

Nova Scotia

Large program of paving anticipated by Nova Scotia. R. W. McColough. Roads & Eng Constr 91:131 N '53

Ohio

Another turnpike proposed in Ohio. Eng N 151:23 Ag 13 '53

Army of turnpike builders rolls across Ohio. il map Bsns W p 120-4 D 5 '53

Big dam outfit tackles heavy turnpike project. il Roads & Sts 97:75-82 Je '54

Competition on the Ohio turnpike. plan Nat Pet N 45:40 D 16 '53

Cutting into a good thing; Anthony Wayne trail. Bsns W p 134+ N 21 '53

Fast work planned on Ohio turnpike. il map diag Eng N 152:32-4+ F 11 '54

Highlights of the Ohio Department of highways report. il Pub Works 85:101-2 Je '54

High-low roadway for Ohio floods. H. R. Craig. il plan diag Roads & Sts 96:40-1 D '53

Highway tussle. Bsns W p 136+ N 21 '53

Ohio highway program gets big boost under several new revenue measures. Eng N 151: 23 Jl 23 '53

Protest made to Ohio highway director over method used to hire consultants. Eng N 152:22 Ap 29 '54

16 stations in pairs set for Ohio turnpike. map plan Nat Pet N 46:60 F 24 '54

$23 million atomic paving project being completed in double quick time. J. N. Doyle. il Roads & Sts 97:46-7 Jl '54

Oklahoma

Design details of Oklahoma's Turner turnpike. Pub Works 85:130-1 Ja '54

Ontario

Eighty miles of dual, controlled-access highway to be built in Brockville-Cornwall area of Ontario. Roads & Eng Constr 92:92 Ag '54

Heavy highway program to continue in 1954. G. H. Doucett. Roads & Eng Constr 92: 118-20+ Mr '54

Highway projects in Ontario under contract or soon awarded total $70 million. G. H. Doucett. Roads & Eng Constr 92:38 Jl '54

How can the township road system on Ontario be improved? panel discussion. M. R. Parrish and others. Roads & Eng Constr 92:136 Mr '54

New Ontario road projects. Can Min J 74:82 N '53

$145.8 million available for highway construction and maintenance in Ontario this year. Roads & Eng Constr 92:71 Ap '54

Ontario good roads association 60th annual meeting, Toronto, Feb. 23-24; with abstracts of papers. Roads & Eng Constr 92: 111-20+ Mr '54

Ontario spending $125,000,000 this year; Urban by-passes are feature. J. L. Shearer. Roads & Eng Constr 91:133-4 N '53

Reorganization of the Ontario Highways department. Roads & Eng Constr 92:33-4 Jl '54

Twenty-five level-crossing eliminations under construction or ready to proceed in Ontario. G. H. Doucett. Roads & Eng Constr 91: 49+ D '53

Oregon

Oregon pioneers, with Nation's longest toll-free controlled-access road. il maps Roads & Sts 97:48-52+ F '54

Pavement rehabilitation in Oregon. R. Webber. il Pub Works 84:74-5 N '53

Pakistan

Pakistan makes road grants to provinces. For Comm W 50:22 N 23 '53

Pennsylvania

How "grandaddy" turnpike pavement is kept in good repair. il Roads & Sts 96:37-8+ N '53

Making modern highways in Pennsylvania; with cost data. E. L. Schmidt. il Pub Works 85:61-3+ F '54

Pennsylvania plans turnpike extension. Eng N 151:23 Ag 13 '53

Penn turnpike earned $21 million last year. Roads & Sts 96:41 D '53

Rebuilt road is high, wide and handsome. il Constr Methods 36:70-1+ Ja '54

Prince Edward Island

Prince Edward Island trying to catch up with highway needs. D. MacKinnon. Roads & Eng Constr 91:130-1 N '53

Quebec (province)

Helicopters and airplanes aid survey for highway on rocky St Lawrence Gulf coast. il map Roads & Eng Constr 92:111-14+ Ag '54

Quebec is extending road facilities throughout the province. A. Branchaud. Roads & Eng Constr 91:132-3+ N '53

Saskatchewan

Scarcity of engineers hampers Saskatchewan's road work. L. T. Holmes. Roads & Eng Constr 91:134-5 N '53

Texas

Broad highway research program launched in Texas. Roads & Sts 96:62 D '53

United States

Billions for roads, but not enough. Bsns W p 116+ D 5 '53

How to plan and pay for the safe and adequate highways we need. L. V. Murrow. Civil Eng 23:524-7 Ag '53

How we have outgrown our new transportation arteries. W. L. Radford. il Mag of Wall St 93:658-60+ Mr 6 '54

National conference on highway financing, Washington, D.C. Dec. 10-11. Automotive Ind 110:66+ Ja 1 '54

$1.5 billion in toll road work initiated. maps Eng N 152:21-2 Mr 4 '54

Public pressure may spur road building. il Steel 134:40 Ja 18 '54

Toll highway construction to reach peak in 1954. V. T. Boughton. il map Eng N 152: 28-32+ Ja 7 '54

Transportation; with data on major projects. il map Eng N 152:122-4+ F 18 '54

Urges realistic ten-year road program. E. Reybold. Roads & Sts 96:34-5 D '53

Wanted, a new lubricant. F. D. Merrill. Am Pet Inst Proc 33(1):43-6 '53

Year-end look at roadbuilding. H. J. McKeever. il Roads & Sts 97:30-4+ Ja '54

Virginia

Special sign treatments for problem locations. H. R. Perkinson, jr. il Pub Works 85:121-3 My '54

Virginia toll road; traffic survey is favorable to Richmond-Petersburg route. Eng N 151: 22 Jl 30 '53

West Virginia

Bridges on West Virginia turnpike. E. K. Timby. Am Soc C E Proc 79 [no 268]:1-8 S '53

Earthwork design and grading methods for the West Virginia turnpike. H. J. McKeever. il map diag Roads & Sts 96:65-80 N '53

Esso gets turnpike stations. Nat Pet N 45: 22 S 23 '53

Fast stone production for turnpike base; West Virginia turnpike. flow diag il Roads & Sts 97:73-80 Ap '54

Industry's views on turnpike competition. il Nat Pet N 45:15-19 D 2 '53

Mountain boulevard; West Virginia joins the turnpike parade. C. H. Vivian. il map Comp Air Mag 58:296-305 N '53

Mountain turnpike goes into home stretch. il map Eng N 152:30-2+ Mr 25 '54

$133,000,000 West Virginia turnpike. il Manuf Rec 123:36 Ag '54

Tough terrain conquered by builders of West Virginia turnpike. C. H. Peterson. il maps diags Civil Eng 24:74-80 F '54

West Virginia highway commissioner strikes back. Eng N 152:28 Ap 29 '54

West Virginia turnpike nears paving stage. Roads & Sts 97:75-7 Mr '54

ROADS—*Continued*

Wisconsin

Soil-cement base solves Wisconsin road problem in rebuilding state highway 54. il diag Eng N 152:38-41 Ja 14 '54

ROADS, Asphalt

Night work speeds repaving, avoids heavy traffic tieups. il Eng 151:30-1 Jl 2 '53

See also
Pavements, Asphalt

Cost

Extremely close bidding on asphalt surfacing, Colorado; unit prices. Eng N 152:66 Ja 14 '54

ROADS, Bituminous

Bituminous test road; abstract. A. D. Morgan. Roads & Eng Constr 92:109-10 My '54

Getting a good lay-down on asphalt paving work. L. A. French and others. Roads & Sts 97:107-8 Ag; 104+ S '54

Idaho test road shows some failures. Eng N 151:26 Jl 23 '53

Soil-cement base solves Wisconsin road problem in rebuilding state highway 54. il diag Eng N 152:38-41 Ja 14 '54

Views and comments on bituminous highway construction. H. G. Nevitt. Roads & Sts 97:94 Ja '54 [cont monthly]

Wire mesh in Texas overlay job. il Roads & Sts 97:78-9 F '54

See also
Pavements, Bituminous

Cost

Plant mix bid wins Alaska road job; unit prices. Eng N 152:104 Ap 29 '54

Maintenance and repair

Expanded facilities used for improving a county road system. H. G. Luecke. il Pub Works 85:68-9+ Jl '54

Rubber mixtures

Rubber-asphalt paving in New Jersey. il Pub Works 84:85 D '53

Rubber road survey indicates acceptance. Midwest Eng 6:23 Jl '53

Standards

ASTM standards on bituminous materials for highway construction, waterproofing, and roofing (with related information). 434p Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '54

ROADS, Bituminous concrete

Asphalt and soil-cement team for high-type air base roads. il Eng N 151:41-2 S 3 '53

Pavement comparison study to start soon in Oklahoma. diag Eng N 151:84+ D 10 '53

Typical pavement modernization. R. A. Haber. il Pub Works 85:99 Ap '54

Use of bituminous concrete mixtures; abstract. W. E. Chastain. Roads & Eng Constr 92:171-2 Ap '54

See also
Pavements, Bituminous concrete

Reinforcement

Reinforcing asphaltic concrete with rolled wire fabric. Pub Works 85:134 S '54

Steel fabric reinforcing ironed out. il Eng N 152:59-61 Ap 22 '54

ROADS, Concrete

Concrete durability of German autobahnen highways. O. Graf. il Rock Prod 57:108+ Mr '54

Concrete pavement nine in. thick supported by four ft. of selected material; New York state thruway. C. H. Lang. il diags Civil Eng 23:746-8 N '53

Concrete-road construction; abstracts of three papers. Engineering 176:724 D 4 '53

New Jersey rebuilds its first concrete highway. C. H. Vivian. il plan diag Comp Air Mag 59:248-51 S '54

Pavement comparison study to start soon in Oklahoma. diag Eng N 151:84+ D 10 '53

Port Isabel-Padre Island causeway completed. il Am Concrete Inst J 25:sup 15-16 My '54

See also
Pavements, Concrete
Roads, Bituminous concrete

Construction

Army of turnpike builders rolls across Ohio. il map Bsns W p 120-4 D 5 '53

Elevated highway job bristles with good ideas. H. T. Perez. il diag Constr Methods 36:82-4+ Ja '54

Freeway paving job emphasizes difference between California and eastern methods. il Roads & Sts 96:22-5+ D '53

Self-propelled formless paving machine lays 24-ft concrete slab. il Constr Methods 36:82-3+ Mr '54

Construction equipment

New hydraulic finisher speeds concrete paving work. il Roads & Sts 97:69 Ja '54; Civil Eng 24:sup 100 F '54

Portable hydraulic finishing machine. il Eng N 151:83+ D 17 '53

Cost

Concrete and road paving, Texas; unit prices. Eng N 151:53 D 31 '53

Joints

Better joint sealing and mud-jacking methods developed in Louisiana. E. A. Landry. il diag Roads & Sts 96:102-4 O '53

Concrete joint maintenance in Ohio. il Pub Works 85:99 Mr '54

Joint sealing maintenance; abstract. C. W. McCaughey. Roads & Eng Constr 92:111 My '54

Temporary seal for concrete joints; abstract. P. L. Critchell and R. S. Millard. diag Road & Sts 97:110 F '54

Maintenance and repair

Better joint sealing and mud-jacking methods developed in Louisiana. E. A. Landry. il diag Roads & Sts 96:102-4 O '53

How "granddaddy" turnpike pavement is kept in good repair. il Roads & Sts 96:37-8+ N '53

Restoring the serviceability of concrete pavements. M. W. Fisher. il Pub Works 84:70-1+ D '53

Surface patching and slab replacement on cement concrete pavements. W. F. Winters. il Roads & Eng Constr 91:130-1+ O '53

ROADS, County

Dallas road project 75 per cent complete. il Eng N 151:60 Ag 20 '53

Expanded facilities used for improving a county road system. H. G. Luecke. il Pub Works 85:68-9+ Jl '54

Low-cost surfacing for township and county roads. D. A. MacIver. Roads & Eng Constr 92:144+ Mr '54

ROADS, Earth

Surface dressings for protecting soil formations. W. A. Lewis. il Engineering 176:793-6 D 18 '53

ROADS, Elevated

Another link in Manhattan's girdle. il map Roads & Sts 96:74-5+ O '53

Elevated highway job bristles with good ideas. H. T. Perez. il diag Constr Methods 36:82-4+ Ja '54

$11,000,000 elevated highway bypasses congested waterfront. il Civil Eng 23:565 Ag '53

High-level viaduct to solve traffic problem. il Roads & Eng Constr 92:90+ Jl '54

ROADS, Experimental

Methods of collecting factual data on the Washo road test. W. N. Carey, jr. il Roads & Eng Constr 92:99-102+ Ja '54

Special instruments measure WASHO road-test data. W. N. Carey, jr. il plans diag Civil Eng 23:681-3+ O '53

Surface dressings for protecting soil formations. W. A. Lewis. il Engineering 176:793-6 D 18 '53

Use of bituminous concrete mixtures; abstract. W. E. Chastain. Roads & Eng Constr 92:171-2 Ap '54

Washo road test to end in May. Roads & Eng Constr 92:86 Mr '54

ROADS, Gravel

Building and stabilizing an access road. G. E. Martin. il Pub Works 84:90+ N '53

Economics of crushed gravel for use on bush roads. G. E. Cross. il Pulp & Pa of Can 55:120 Mr '54

ROADS, Gravel—*Continued*

Stabilization

Salt stabilization for low cost roads. il Roads & Sts 96:48-9+ N '53

ROADS, Industrial

Corduroy roads saved 47 work days for builder. il Am Bld 75:256 S '53

How can you prevent dust on haulage roads? il diags Min Cong J 40:54-6+ My '54

How shift change traffic is expedited at atomic plant. il plan Roads & Sts 97:67-8 Ja '54

Strip mine road construction; Hanna coal co. il Min Cong J 39:32-5 O '53

ROADS, Macadam

Modern macadam pavement chosen for heavy duty expressway. F. Swineford. il Pub Works 85:69 Je '54

ROADS, Soil-cement

Soil-cement, justification for its use. I. E. Russell. Roads & Sts 96:107+ N '53

ROADS, State

How to measure state interest in agricultural roads. G. A. Riedesel. il map Eng N 151: 31-2 S 24 '53

State highway plans mapped out. Eng N 152: 24 Ja 21 '54

ROADS, Township

Financing Connecticut's town highway system. il Pub Works 84:61-2 N '53

How can the township road system of Ontario be improved? panel discussion. M. R. Parrish and others. Roads & Eng Constr 92:136+ Mr '54

Low-cost surfacing for township and county roads. D. A. Maciver. Roads & Eng Constr 92:144+ Mr '54

ROADSIDE planting

Better methods reduce costs on highway landscape work; Garden state parkway. diag Eng N 151:174+ O 8 '53

Mulch spreader combats erosion. il Eng N 151:75-6 O 15 '53

ROADSIDES

Chemical weed and brush control by contract. il Pub Works 85:67-8 Je '54

Chemicals reduce cost of highway roadside maintenance. O. A. Deakin. il Pub Works 85:105-6 S '54

Correlating roadside development with highway design. Roads & Eng Constr 92:112-14 Jl '54

Device removes excess dirt from berm. il Roads & Sts 97:84-5 Mr '54

Equipment for roadside maintenance. il Pub Works 85:74-5 Jl '54

Erosion control on highway slopes. diags Pub Works 84:67-8+ N '53

Highway vacuum cleaner picks up roadside trash. M. McMillin. il Pub Works 85:87-8 Jl '54

How the roadsides clean-up problem is handled by counties. Pub Works 85:117-18 F '54

Maleic hydrazide applied to grass areas reduces highway maintenance costs. il Eng N 151:114 Ag 20 '53

Practical pointers on care of highway trees. il Roads & Eng Constr 92:108+ S '54

ROASTING (coffee, cereals, etc.)

Continuous hot-air roaster processes cocoa beans. H. T. Ghirardelli and J. Sheffman. il diag Food Eng 26:85+ Ap '54

ROBBERY, Motor truck. See Motor truck robberies

ROBBINS and Myers, inc.

Security I like best. D. F. Laine. Comm & Fin Chr 178:2254 D 10 '53

ROBERTS, John D. 1918-

Roberts of Caltech honored. por(cover) Chem & Eng N 32:1322 Ap 5 '54

ROBERTSON, Reuben Buck, 1908-

Champion says it with movies. pors Bsns W p94+, cover Ag 1 '53

ROBINSON, Gertrude Maud, 1886-1954

Sketch. J. L. Simonsen. Chem Soc J p2667-8 Jl '54

ROBINSON, Sir Robert, 1886-

Leading British chemist receives Priestly medal. por(cover) Chem & Eng N 31:3844 S 21 '53

ROBINSON, Sir Thomas, 1863-1954

Sketch. E. R. Streat. Textile Inst J 45:P39-40 F '54

ROBINSON-PATMAN act. See Price discrimination—Patman law

ROBYN, Paul, 1853-1953

Sketch. D. F. Barrett. Weekly Underw 169: 466 Ag 29 '53

ROCHELLE salt. See Potassium sodium tartrate

ROCHESTER telephone corporation

History of Nation's largest nonsystem independent telephone company. Pub Util 53:53-6 Ja 7 '54

ROCHLEDER, Friedrich, 1819-1874

Friedrich Rochleder. M. Kohn. por(front) J Chem Educ 31:317 Je '54

ROCK drills

Air-blast drilling; Davey compressor co. il Constr Methods 36:132 S '54

Alcan echoes; statistics show vital role rock drills play in huge Canadian project. A. S. Park. il Comp Air Mag 59:68-71 Mr '54

Atlas Diesel mine wagon drill. il Engineer 196:679 N 20 '53

Carbides; drill bit life is improved with brazed carbide inserts. il Iron Age 172:209-10 D 10 '53

Change to rotary blasthole drilling in limestone increases footage, cuts time, saves manpower. D. T. Van Zandt. il Min Eng 6:Trans809-11 Ag '54

Demonstration of pneumatic tools; Holman bros., ltd. il Engineer 197:290 F 19 '54

Diamond drills' place in pit blasting. P. Adamson. bibliog il diags Eng & Min J 155:96-8 Jl '54

Diesel power vs gas and gasoline in drilling. R. R. Carver. Can Min J 75:69-71 Ag '54

Drilling developments at Butte; jumbo and push feed drill performance compared. A. E. Adami, jr. il Min Cong J 40:16-19 Jl '54

Homestake swings to light, portable equipment. C. N. Kravig. il Min Eng 6:886-8 S '54

Investigations and improvements of drill steel. diags Min Eng 6:889-93 S '54

Manufacture of tungsten carbide tipped drill steel. T. A. O'Hara. il diags Min Eng 6:Trans 294-8 Mr '54

More about oriented diamond bits cutting drilling costs. W. G. Agnew and W. H. Hampton. il Min Cong J 39:56-7 O '53

Operating results with secondary drill. W. B. Lenhart. il Rock Prod 57:96+ My '54

Progress in tungsten carbide drilling in Germany, 1932 to date. H. Jeschke. il Eng & Min J 155:92-3+ Jl '54

Sinker drill-pneumatic leg use substantiates proponents. il Min Eng 6:888-9 S '54

Stress concentration problems in hollow drill steel. W. H. McCormick and H. J. Benecki. il Min Eng 6:282-3 Mr '54

Swedish pneumatic mining equipment. il Engineer 196:569-70 O 30 '53

Tungsten carbide holds its lead. A. H. Hubbell. Eng & Min J 155:113-17 F '54

See also

Drilling and boring (earth and rocks)

Testing

Hollow drill steels; scaling rate at various times and temperatures. W. W. Durand. il Min Cong J 40:44-6 Ja '54

Recent drilling trends at Calumet & Hecla. C. A. Campbell and R. W. Van Evera. il map diag Min Cong J 40:26-8+ My '54

ROCK dust

See also

Coal mines and mining—Rock dusting

ROCK products

See also

Aggregates

Stone, Crushed

ROCK products industry

Progress in technical developments as observed in field travel. W. B. Lenhart. il Rock Prod 57:150-6+ Ja '54

Rock products industries will have another year of near capacity operation. B. Nordberg. il Rock Prod 57:92-103 Ja '54

See also

Basalt rock company

Advertising

Basalt rock co. story; advertising-sales promotion. il Rock Prod 57:126-8 Ja '54

ROCK products industry—*Continued*

Florida

Florida's booming rock products industry. W. B. Lenhart. il Rock Prod 57:110+ Je '54

ROCK products plants

Agstone producer's approach to building a sound business; Fry coal & stone co. W. B. Lenhart. flow sheets il diag Rock Prod 57:86-90+ Ap '54

Dedicate million dollar stone plant; New York trap rock corp.'s unique floating exhibit, the Riverama. L. Amacher. il Rock Prod 57:84-5 Jl '54

From portable to stationary operation; Ray Cook construction co. R. C. Giddings. il Rock Prod 57:102+ F '54

See also

Quarries and quarrying

Sand and gravel plants

Directories

Commercial producers of sand, gravel and crushed stone, Canada. Roads & Eng Constr 92:162+ Je '54

Employees

Management rights to fire; unions can be sued under anti-trust laws. N. C. Rockwood. Rock Prod 57:55+ My '54

Union conflict involving special skilled labor. N. C. Rockwood. Rock Prod 57:61+ Je '54

Equipment

Automatically controlled kilns and fuel system for lightweight aggregate plant; Carolina solite corp. W. B. Lenhart. il Rock Prod 57:83-4+ My '54

Basalt rock co. producing surface-coated lightweight aggregate. W. B. Lenhart. il Rock Prod 57:143-6+ Ja '54

Fine grinding for agstone and asphalt filler. W. B. Lenhart. flow sheet il diag Rock Prod 57:106-7+ Ap '54

Increase crushing capacity to 800 t.p.h.; Eureka stone co. W. B. Lenhart. il plan Rock Prod 57:126-7+ Ag '54

Installation and maintenance of vibrating screens. W. S. Shira and M. P. Hahn. il diags Rock Prod 56:81-3+ N '53

Making a stone plant dust-free; Eastern rock products co. W. B. Lenhart. il diag Rock Prod 56:102-3+ D '53

Open largest bituminous mix plant in New England; New Haven trap rock co. il Rock Prod 57:96-7 Je '54

Portables supplement stationary plants; General crushed stone co. il Rock Prod 56:122-3 D '53

Producing plant mixed materials for stabilized base course; Superior stone co. W. B. Lenhart. flow sheet il Rock Prod 57:74-6+ My '54

Producing pulverized dolomite products; James river hydrate and supply co. B. Nordberg. il Rock Prod 57:88+ My '54

Progress in technical developments as observed in field travel. W. B. Lenhart. il Rock Prod 57:150-6+ Ja '54

Quarrying, mining and preparation of stone for lime burning; abstracts of panel discussion papers. L. E. Smith and others. Rock Prod 56:85-6 N '53

Reversible, self-unloading barges haul stone to plant; Ideal crushed stone co. il Rock Prod 57:104-5+ Je '54

Rock products directory of manufacturers' equipment, 1954. Rock Prod 57:269-98 Ja '54

Stone ladders cut breakage. il Constr Methods 36:155-6 S '54

Safety measures

How we meet our crushed rock hazards; New York trap rock corp. C. F. Stetser. il Safety Maint & Prod 107:14-16+ My '54

Millions spent for cleanliness; elimination of hazard to health J-M's goal in diatomite mining and processing. il Chem Eng 60:148+ O '53

ROCK salt. See Salt

ROCK wool. See Mineral wool

ROCKET engines

Rocket motors for windtunnels? diag Aviation W 59:54 S 14 '53

Summary report; materials for jet and rocket engines; American rocket society semiannual meeting. Materials & Methods 40:151-2 Ag '54

Test rocket-powered midget 'copters. il Iron Age 174:72 Jl 15 '54

What's ahead for jet engines and rocket motors in process units? P. B. Stewart and F. Kreith. il diags Chem Eng 60:208-11 S '53

Manufacture

Aspects of the design and fabrication of liquid propellant rocket engines. H. Davies. Machine Design 26:333-4+ Ap '54

Testing

AF tests rocket engines in giant stands. D. A. Anderton. il Aviation W 59:24-6 Ag 31 '53

Instrumentation for rocket testing. E. Cartotto. bibliog il diags Instruments 26:585-7 Ap '53

Instrumentation of rockets and missiles. il diag Instruments & Automation 27:606-7 Ap '54

Measurement of the conductivity of a jet flame. F. P. Adler. il diag J Ap Phys 25:903-6 Jl '54

ROCKET propulsion

Chemistry and rocket propulsion; abstract and discussion. T. P. Hughes. Chem & Ind p 1385-6 D 26 '53

Range comparison of rocket powered aircraft. R. W. Allen. il diag Aero Digest 67:30-2+ D '53

Rockets breathe new life into autogyro. D. A. Anderton. il diags Aviation W 58:28-30 Je 22 '53

Some factors pertaining to the use of air-breathing propulsion for the acceleration of high-altitude sounding rockets and other long-range ballistic missiles; abstract. J. W. Luecht. S A E J 62:45-6 Mr '54

Television monitors rocket engine flame. F. A. Friswold. il diag Electronics 26:187-9 O '53

Bibliography

Bibliography of books and published reports on gas turbines, jet propulsion, and rocket power plants. Jan. 1950 through Dec. 1953. E. F. Fiock and C. Halpern. U S Nat Bur Stand Circ Sup 509:1-110; pa 50c Supt. of doc. '54

ROCKETS

Analysis of base pressure at supersonic velocities and comparison with experiment. D. R. Chapman. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:1187-209 '52

Combat units to get new rocket and guided missile. il Iron Age 173:58 Ap 29 '54

Design trends, guided missiles. C. B. Millikan. Aeronautical Eng R 12:82-7+ D '53

Footing the bill at Woomera. Economist 168:880 S 26 '53

Guide to high-altitude rocket design. R. C. Lea. il Aviation W 59:28-31 D 28 '53

High altitude sounding rocket. M. W. Rosen and R. B. Snodgrass. il Aero Digest 67:90+ S '53

Military and civilian rocket research. E. Burgess. bibliog Engineer 196:581-3 N 6 '53

New valve controls fuel in afterburners, rockets. il diag Aviation W 59:63 Jl 27 '53

Nose rockets boost new British missile. Aviation W 59:48 S 14 '53

Propellants for rockets and space ships. J. G. Tschinkel. il Chem & Eng N 32:2582-7 Je 28 '54

Rocket-borne servo tracks the sun. D. S. Stacey and others. bibliog il diags Electronics 27:149-51 Ja '54

Rocket exploration of the upper atmosphere; report of conference, Oxford, Aug. 24-26. Engineering 176:360-1 S 18 '53

Rocket exploration of the upper atmosphere; report of Oxford conference. E. Burgess. Engineer 196:302 S 4 '53

Rocket measurements of upper atmosphere ambient temperature and pressure in the 30- to 75-kilometer region. H. S. Sicinski and others. bibliog diags J Ap Phys 25:161-8 F '54

ROCKETS—*Continued*

Rocket spectroscopy. R. Tousey. bibliog il Opt Soc Am J 43:245-51 Ap '53

Rockets, a chemical opportunity. G. E. Pendray. Chem & Eng N 32:595 F 15 '54

Rockets aid cosmic ray studies. il Aviation W 59:21 S 14 '53

Rockets behind the iron curtain. G. P. Sutton. map diags Automotive Ind 110:68-72+ Ja 1 '54

Rockets for reindeer. map Economist 169:975-7 D 26 '53

V-2 rocket in upper atmosphere research. C. F. Green. il Aero Digest 67:20-6 N '53

X-rays speed-up shell production. il Tele-Tech 12:86-7 D '53

Manufacture

How Oldsmobile cuts off and threads rocket motor tubes. R. F. Geitzel. il diags Mach 60:172-4 Ag '54

Magnesium, key metal in rocket fabrication; illustrations with text. Light Metal Age 11:12-13 Je '53

Tooling solves a problem in cold extruding rocket projectile noses. il diags Steel 134:99 My 3 '54

Testing

Missile off; on money! White Sands proving ground. il Gen Elec R 57:8-22 Mr '54

ROCKLAND light and power company

Stock offered. Comm & Fin Chr 178:1375 O 12 '53

ROCKRITE process. See Tubes—Manufacture

ROCKS

Correlation of the mechanical properties and petrography of a series of quartz-dolerite roadstones. P. A. Sabine, J. E. Morey and F. A. Shergold. bibliog il J Ap Chem 4:131-7 Mr '54

Fossils in metamorphic rocks. A. J. Boucot. Geol Soc Bul 64:997; Reply. W. H. Bucher. 999 Ag '53

Improved hydrothermal quenching apparatus. J. Van den Heurk. diags Geol Soc Bul 64:993-6, pl 1 Ag '53

Magnetics in geology; measuring magnetic susceptibility of rocks. H. Mooney. il diags Electronics 26:143-5 O '53

See also

Breccia
Charnockites
Dolomite
Drilling and boring (earth and rocks)
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Granite
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Sedimentation and deposition
Shale
Stone, Crushed

Age

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Analysis

Determination of mineral constituents of rocks by infrared spectroscopy. J. M. Hunt and D. S. Turner. bibliog Anal Chem 25:1169-74 Ag '53

Determination of traces of antimony in soils and rocks. F. N. Ward and H. W. Lakin. bibliog Anal Chem 26:1168-73 Jl '54

Field method for the determination of titanium in rocks. L. Shapiro and W. W. Brannock. Econ Geol 48:282-7 Je '53

Microscope stage and integrating point counter for micrometric analysis of rocks. I. H. Ford. il diag J Sci Instr 31:164-5 My '54

Petrochemical studies on the alkalic rocks of the Morotu district, Sakhalin. K. Yagi. maps diags Geol Soc Bul 64:769-809, pl 1-4 bibliog(p807-9) Jl '53

Polarographic determination of tungsten in rocks. L. E. Reichen. bibliog Anal Chem 26:1302-4 Ag '54

Possible loss of iron during sodium carbonate fusion of silicates and rocks. H. R. Shell. Anal Chem 26:591-3 Mr '54

Deformation

Nature and dynamic interpretation of deformation lamellae in calcite of three marbles. F. J. Turner. bibliog diags Am J Sci 251:276-98 Ap '53

Testing

Status of testing strength of rocks. R. G. Wuerker. bibliog Min Eng 5:Trans 1108-13 N '53

ROCKS, Igneous

Chlorine in igneous rocks. P. K. Kuroda and E. B. Sandell. bibliog Geol Soc Bul 64:879-96 Ag '53

Geology and geochemistry of base metal deposits. H. D. B. Wilson. map diags Econ Geol 48:370-407 bibliog(p406-7) Ag '53

Origin of the chromite deposits of the Bay of Islands igneous complex, western Newfoundland. C. H. Smith. bibliog map diag Econ Geol 48:408-15 Ag '53

Rheomorphic breccias. G. E. Goodspeed. bibliog Am J Sci 251:453-69, pl 1-6 Je '53

See also

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ROCKWELL hardness test. See Hardness—Testing

ROCKWELL spring and axle company

Equipment firms merge; consolidation of Timken-Detroit axle co. and Standard steel spring co. to form Rockwell spring & axle co. Steel 133:118+ O 12 '53

ROCKY Mountain region

See also

Water supply—Rocky Mountain region

Industries and resources

Trends of chemical industry and chemical markets. M. J. Sinnott, B. Williams and J. L. York. bibliog(32 ref) Ind & Eng Chem 45:2477-81 N '53

ROD mills. See Rolling mills

ROD mills (for crushing). See Tube mills

RODENTICIDES

Chemical control of rodents; abstract and discussion. M. D. Lawrence and E. E. Turtle. Chem & Ind p613 Je 20 '53

See also

Rats—Extermination

RODENTS

Extermination

Insect and rodent control in local disaster planning. L. B. Read. il Pub Works 85:72+ Ap '54

ROGERS, Harry Stanley, 1890-

Lamme award, 1953. por J Eng Educ 44:48-50 S '53

ROHM and Haas company

Security I like best. W. P. O'Connor, jr. Comm & Fin Chr 179:450 Ja 28 '54

ROLE playing in training. See Dramatization in training

ROLLER bearings. See Bearings, Roller

ROLLER conveyor. See Conveying machinery

ROLLERS

Adjustable rollers speed corrugation-forming. H. Dahl. diag Am Mach 98:159 Je 7 '54

Self-adjusting belt guider. S. E. Amos. diags Machine Design 25:142 N '53

ROLLING (metal work)

Automatic roll float in surface finishing machine. il diags Machine Design 25:157 N '53

Beryllium requires special rolling and forging methods. S. M. Bishop. il Am Mach 98:207-8 Ap 12 '54

Cold rolled texture of titanium. D. N. Williams and D. S. Eppelsheimer. bibliog diags J Metals 5:Trans 1378-82 O '53

Consideration of heating, rolling and annealing as factors in the control of quality cold rolled sheets. H. C. Smith. Blast F & Steel Pl 42:653-5 Je '54; Excerpts. Iron & Steel Eng 31:140-1 Ag '54

Direct rolling of carbon steel ingots to plates on three-high and four-high plate mills. R. C. McMichael. bibliog il diag Iron & Steel Eng 31:91-9; Discussion. 99-102 Mr '54

Effects of solid solution alloying on the cold-rolled texture of titanium. C. J. McHargue and others. bibliog diags J Metals 5:Trans 1199-203 sec 2 S '53

Finish rolling improves cast iron ways. W. Iwascheff. il Tool Eng 31:57-9 D '53

Hot forging and rolling of iron castings. C. R. Austin. il Foundry 82:86-9+ Jl '54

ROLLING (metal work)—*Continued*

Hot rolling of steel strip; planetary mill installed at Willenhall. il diags Metallurgia 48:247-8 N '53

Impact of technical developments in light flat rolling on the consuming industries. W. T. Hogan. Iron & Steel Eng 31:67-71; Discussion. 71-2 F '54

Inexpensive shop-made sheet metal rolling machine. B. Goldrath. diag Am Mach 98:148 Jl 19 '54

Mill speeds rolling of thin copper strip; Chase brass plant. E. C. Allen. il diag Iron Age 172:143-5 Ag 6 '53

Multiple rolling of strip; patent. diag Iron & Steel Eng 30:23 N '53

Multi-purpose rolling compound; Rollene H. M. L. Bible. Iron & Steel Eng 30:149 D '53

New kink in product design; Rigidized metals corp. il Steel 133:140-2+ N 30 '53

Pass design and rolling of automotive rim sections. H. H. Morgan. il plan diags Iron & Steel Eng 30:55-60; Discussion. 60-1 D '53

Preferred orientation of cold-rolled uranium foil. W. Seymour. bibliog diags J Metals 6:Trans 999-1003 sec 2 S '54

Rare earths counteract hot rolling defects in stainless steel. R. H. Henke and R. A. Lula. il J Metals 6:883-8 Ag '54

Recent rolling mill practices indicate trend of future investigations. N. H. Polakowski. bibliog(32 ref) il diags J Metals 6:954-8 S '54

Roll-design research as applied to rolling-mill development. B. Robinson and W. A. Lugar. bibliog diags Iron & Steel Inst J 175:183-97 O '53

Roll-forming of lightweight waveguides. G. F. Duree and others. il diags Electronics 26:286+ D '53

Rolling; firm likes tough jobs; Industrial division of American silver co. R. L. Hatschek. il Iron Age 172:35 Jl 30 '53

Rolls and rolling (cont). E. E. Brayshaw. diags Blast F & Steel Pl 41:1313-21 N '53

Super-thin metal sheets; Arnold engineering co. il Steel 133:338-9 O 12 '53

Textures of rolled and annealed iodide zirconium. J. H. Keeler and others. bibliog il diags J Metals 5:Trans 932-6 Jl '53; Discussion. 6:Trans 690-700 sec 2 My '54

Very thin magnesium strips produced by modified hot rolling. L. V. Martikonis. il Light Metal Age 11:14-15 D '53

See also
Rolling mills
Steel, Strip
Thread rolling

Tables, calculations, etc.

Evaluating rolling pressures in hot and cold strip mills. N. H. Polakowski. bibliog il diags Steel 133:96+ N 2 '53

New theory of hot rolling. G. S. Mican. bibliog diags Iron & Steel Eng 31:55-71; Discussion. il 72-9 My '54

Temperature stresses in iron work rolls. C. F. Peck, jr. and others. diags Iron & Steel Eng 31:45-57; Discussion. 57-8 Je '54

Theory of rolling with tensions. D. R. Bland and R. B. Sims. Inst Mech Eng Proc (A) 167 no 4:371-2; Discussion. 373-4 '53

ROLLING mills

Armco expands strip mill. W. W. Sebald. Steel 135:73 Jl 26 '54

AISE annual spring conference, Philadelphia, May 3-5; abstracts of technical papers. Iron & Steel Eng 31:107-13 Ap '54

Cold roll forming; tube mill developed by Yoder co. il diag Mech Eng 76:173-4 F '54

Colorado Fuel & Iron opens streamlined tube mill at Pueblo, Colo. il J Metals 5:1427 N '53

Combination mill for experimental rolling of the new metals. A. I. Nussbaum. il Metal Prog 65:121-2+ Ap '54

Developments in the iron and steel industry during 1953. I. E. Madsen. il diag Iron & Steel Eng 31:140-5 Ja '54

Diversity of products of low individual tonnages. W. J. McClung. Iron & Steel Eng 31:101-4 Ap '54

Dow opens world's largest magnesium rolling mill. il Iron Age 173:84-5 Je 3 '54

Dow plunges on integrated mill for magnesium. il Am Mach 98:176-7 Je 7 '54

Giant machine cold reduces 18-inch tubing. il diags Machine Design 26:126-9 Ja '54

Gigantic cold finishing machine nears completion. diag Tool Eng 32:107 F '54

Granite City starts roughing mill. Blast F & Steel Pl 41:1175 O '53; Iron & Steel Eng 30:140 O '53

High-speed mill forms, induction welds and sizes thin-gage nonferrous tubing. T. J. Crawford. il diag Metal Prog 65:65-9 F '54; Same cond. Light Metal Age 11:14-15+ O '53

Increases facilities for rolling stainless steel; Republic steel corp. Blast F & Steel Pl 41:1362 N '53

Kaiser Aluminum to move East with new sheet mill. il map Steel 135:33 Ag 30 '54

Kaiser's new aluminum foil mill highlights fat demand for thin material. il Steel 135:73 S 20 '54

Mechanical design and operation of a modern 46 in. high lift slabbing-blooming mill; Jones & Laughlin steel corp., Pittsburgh works. J. H. Mayer. il plan Iron & Steel Eng 30:55-9 O '53; Excerpts. Steel 132:94+ Je 29 '53; Discussion. Iron & Steel Eng 30:59-60 O '53

Mill for magnesium sheet. Metal Prog 66:104-5 Ag '54

Newport steel corp. opens hot reversing mill. il Steel 135:59 Ag 30 '54

Packaged rolling mill aids research; Research laboratory of the General cable corp. il Iron & Steel Eng 31:129+ Je '54

Pittsburgh steel co. completes $65-million expansion. il Iron Age 173:81 My 6 '54

Pittsburgh Steel pushes construction on cold rolled sheet mill at Allenport. il Iron & Steel Eng 30:165-6 N '53

Pittsburgh Steel starts hot mill. il Steel 133:38-9 Jl 27 '53

Program of progress; Pittsburgh steel co.'s new cold rolling mill at Allenport. Steel 134:119 Mr 29 '54

Rolling; compact, combination mill switches from 2 to 4-high quickly. il Iron Age 174:158+ S 9 '54

Rolling mill is tale of two cities; hot strip mill at Allenport, Pa. il diag Steel 133:120+ Ag 17 '53

Stanat three-in-one mill machine; experimental machine is solving handling problem for industrial laboratory. il Steel 135:140 Jl 12 '54

Stanley to sell mill. Steel 135:77-8 Ag 2 '54

Steel and Wire to install rod mill. Blast F & Steel Pl 41:1486 D '53

Strip; mill climaxes three-year program; Pittsburgh Steel's new hot mill. W. V. Packard. il Iron Age 172:39 Jl 30 '53

Treasury department to auction off $16 million Czech steel mill. Iron Age 173:78 Ap 1 '54

Tubing; new mill produces fast. R. M. Lorz. il Iron Age 172:53 Jl 23 '53

West Coast mill opens; Pacific steel rolling mills inc. Steel 134:84 Je 28 '54

Widens range of tapered aluminum sheet and plate; Aluminum co. of America rolling mill. il Steel 134:91 Je 7 '54

Bearings

Aluminum alloys make good bearings. D. B. Wood. il Iron Age 172:168-9 S 10 '53

Application of bronze bearing alloys. J. L. Duchene. il Iron & Steel Eng 31:92-7 My '54

Applications for laminated fabric bearings. R. L. Berry. il diag Iron & Steel Eng 31:161-5 S '54; Abstract. Steel 133:124+ O 26 '53; Discussion. Iron & Steel Eng 31:165-6 S '54

Bearing maintenance for economy; abstract. J. A. Toth. Iron & Steel Eng 31:144-5 S '54

Costs

Comparison of economics and methods for heating steel strip. C. E. Peck. Blast F & Steel Pl 42:791-9 Jl '54

Electric equipment

Better roll tolerances; mill rolls to plus or minus 0.0003-inch; three interlocked additions do the trick; Eastern brass & copper co. il Steel 133:162 D 7 '53

ROLLING mills—Electric equipment—*Cont.*

Control for a modern electric weld pipe and casing mill; Lone star steel co. C. E. Smith. il diags Iron & Steel Eng 31:124-30; Discussion. 130-1 Ap '54

Electric systems for main drives. W. E. Miller. il diags Iron & Steel Eng 31:83-94; Discussion. 94-7 Jl '54

Electrical design and operation of a modern 46-in. high lift slabbing-blooming mill; Jones and Laughlin steel corp. G. A. Kaufman and A. W. Smith. il diags Iron & Steel Eng 30:61-6; Discussion. 66-8 O '53

Electrical developments in 1953. W. E. Miller. il diags Blast F & Steel Pl 42:73-82 Ja '54

Electrical drive for a planetary rolling mill; Wednesfield works of Ductile planetary mills, ltd. il diags Engineer 197:458-9 Mr 26 '54; Elec J 152:1022 Mr 26 '54; Iron & Steel Eng 31:207-8+ S '54; Metallurgia 50: 32-3 Jl '54

Electrical drive of 14in. reversing cold strip mill; B.I.S.R.A. laboratories. il diag Engineer 196:728-30 D 4 '53; Excerpts. Elec J 151:1763-4 N 27 '53

Electrical equipment for a reversing cold strip mill. il Elec J 151:1763-4 N 27 '53

Electrical plant for the metal industries; progress in 1953. il Metallurgia 49:127-33 Mr '54

Electrical systems for hot strip mills. R. E. Marrs. il diags Iron & Steel Eng 31:99-106; Discussion. 106-8 F '54

Electrons run rolling mill. il Iron Age 172:109 S 10 '53

Equipment worth $4 million installed at hot strip mill built by Pittsburgh steel co. il Elec World 140:194 Ag 10 '53

Estimating motor room installation costs. W. Dudley. Iron & Steel Eng 31:87-90; Discussion. 90-1 My '54

Helper drives help steel processing lines. E. E. Vonada. il diags Iron & Steel Eng 31:192-6; Discussion. 196 S '54

High-speed tinplate production; Trostre works. il diag Elec R (Lond) 154:93-101 Ja 15 '54

Jones & Laughlin retires steam-driven blooming mill. il Iron & Steel Eng 30:128+ O '53

Low frequency induction coils shorten billet heating time. il Iron & Steel Eng 30:130+ N '53; Steel 133:118 D 21 '53

Many new rolling mill installations completed in 1953. A. F. Kenyon. il diag Blast F & Steel Pl 42:83-9 Ja '54

Modern automatic fuel shut-off system for soaking pits. A. L. Lancaster. il diags Iron & Steel Eng 30:69-76 D '53

Multiple station control schemes. P. H. Howland and D. W. Plumer. diags Blast F & Steel Pl 42:227-30 F '54

New combination rod mill will develop high speed. A. F. Kenyon. plan Iron & Steel Eng 31:210+ S '54

Pittsburgh Steel's new Allenport mill has unusual nerve system. il Iron Age 172:165-7 Ag 6 '53

Powering the Fairless works two-stand tin temper mill. C. H. Legler. il diags Blast F & Steel Pl 42:521-3 My '54

Reconstruction of Colorado Fuel & Iron mill increases capacity and flexibility. W. Brill and R. H. Wright. il J Metals 5:1623-4 D '53

Rolling-mill loadmeter. S. S. Carlisle and R. B. Sims. bibliog il diags Instruments & Automation 27:940-1 Je '54

Steel strip cold rolling; Port Talbot works. il Elec R (Lond) 153:981-4, 1147-54 O 30, N 20 '53

System engineering for continuous strip processing lines. J. S. Apperson. il diags Iron & Steel Eng 31:68-74; Discussion. 74-6 Je '54

Tension regulator on Kaiser temper mill. W. R. Harris and L. F. Stringer. il diags Iron & Steel Eng 31:71-8 Ag '54

Tin mill has electronic faultfinder; Kaiser steel corp., Fontana, Calif. il Elec West 111:88-90 O '53

Unusual electric drive features applied to Fairless processing lines. E. E. Vonada. diags Iron & Steel Eng 31:114-19 Ap '54

Use of magnetic amplifiers in control circuits. R. T. Lucas. Iron & Steel Eng 31: 74-5; Discussion. 76-7 Ja '54

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Pittsburgh Steel does a training job. il Steel 133:45 Jl 20 '53

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Allegheny Ludlum Brackenridge and West Leechburg plants. T. J. Ess. il fold plans Iron & Steel Eng 30:87-102 D '53

Aluminium sheet and strip production; Tube investments aluminium ltd. il Metallurgia 50:19-24 Jl '54

Automatic furnaces added; Jessop steel co. il Steel 133:164 O 26 '53

Automatic tongs position convection spacers; Weirton steel co. Steel 134:134 Je 7 '54; Iron Age 173:215-16+ Je 24 '54

Bigger slabs answer strip demands; Great Lakes steel corp. il Steel 133:92+ N 23 '53

Blooming mill built for Detroit Steel. il Iron & Steel Eng 30:140+ N '53

British streamline tin plate lines; Trostre plant, Steel company of Wales. il Steel 133: 84+ Jl 27 '53

Combination bar and rod mill; Los Angeles plant. C. C. Brandt and P. Scarola. il plan diags Iron & Steel Eng 31:72-8 Jl '54

Design and application of bronze slippers in universal couplings. J. R. Lottes. il diag Iron & Steel Eng 30:123-8 D '53

Design for longer pickling equipment life. J. F. Revilock. il diags Steel 133:84+ D 21 '53

Direct rolling of carbon steel ingots to plates on three-high and four-high plate mills. R. C. McMichael. bibliog il diag Iron & Steel Eng 31:91-9; Discussion. 99-102 Mr '54

Expansion at the steel company of Wales. T. J. Ess. il plan Iron & Steel Eng 30: 105-20 N '53

Fairless works. T. J. Ess. il Iron & Steel Eng 31:supF72-89 Je '54

Flexible bar mill equipment permits fast service, close control; Rotary electric steel co. W. G. Patton. il Iron Age 173:132-5 Ap 15 '54

Flying shears for billet, bar and rod mills. J. H. Hitchcock and E. S. Murrah. bibliog il diags Iron & Steel Eng 30:80-7; Discussion. 87-90 N '53

French company operates Y type mill. il Blast F & Steel Pl 42:656 Je '54

French steel company installs reversing cold strip mill. il Iron & Steel Eng 30:137+ D '53

High production mill rolls wide magnesium plate; Dow chemical co. W. G. Patton. il Iron Age 173:111-14 My 27 '54

High speed continuous annealing of tinplate. M. D. Stone and E. A. Randlich. bibliog il diags Iron & Steel Eng 30:69-75; Discussion. 75-8 O '53

Hot rolling of steel strip; planetary mill installed at Willenhall. il diags Metallurgia 48:247-8 N '53; Steel 133:76+ D 28 '53

Intra-plant handling of round billets and pipe with special automotive equipment; National tube division of Lorian works. J. D. Tyson. il plans diags Iron & Steel Eng 31: 107-14; Discussion. 114-16 Je '54

Japanese steel stages comeback. S. Badlam. il plan Iron & Steel Eng 31:161-2+ Ag '54

Kaiser steel corporation's Fontana plant. T. J. Ess. il plans Iron & Steel Eng 31:sup K8-K19 F '54

Lone star steel company gives the South another source of steel. C. Longenecker. il plan Blast F & Steel Pl 42:209-20 F '54

Magnesium widens its sheet rolling limits; Dow chemical co.'s magnesium plant. V. Bell. il Steel 134:108-9 Je 7 '54

Manipulating equipment, guides, guards, and strippers for rolling mills. W. Bailey. il plans diags Iron & Steel Inst J 175:198-213 O '53

Merchant bar mill now in operation; Vanadium-alloys steel company. il Blast F & Steel Pl 42:937-8 Ag '54

Mile a minute rod mill. D. L. Siegelin. il diag Blast F & Steel Pl 42:928-33 Ag '54

Mills at Fairless use new methods. G. E. Farrington. il Iron & Steel Eng 31:125-6 Je '54

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Modern electric weld pipe and casing mill; Lone star steel co. N. C. Rubin. il diag Iron & Steel Eng 31:120-4 Ap '54

Modernization of skelp mill at Wheeling Steel's Benwood works. S. W. Crisman. il diag Iron & Steel Eng 31:148-50 Ag '54

Motorized tongs simplify coil handling; Jones & Laughlin steel corp. il Steel 134:102+ Mr 1 '54

New Colorado Fuel & Iron seamless tube mill; illustrations with text. Iron & Steel Eng 31:90-1 Ja '54

New mill helps boost rod output; Jones & Laughlin steel corp. J. Delaney. il plan Iron Age 172:109-11 Ag 27 '53

New mill induction welds aluminum tubing; Yoder cold forming mill. T. M. Rohan. il Iron Age 172:129-31 D 17 '53

New mill turns out bigger copper-clad sandwiches; Superior steel corp. il Steel 133: 110+ Jl 13 '53

New slabbing mill speeds steel production cycle; Great Lakes steel corp. W. G. Patton. il Iron Age 173:151-5 Mr 4 '54

New soaking pit facilities at Steel division of Ford motor co. B. D. Barns and H. E. Raaflaub. il Iron & Steel Eng 31:109-12; Discussion. 112-14 My '54

Newport Steel completes reversing hot mill. il Iron & Steel Eng 31:215 S '54

No waiting in this long line; continuous annealing line, Lukens steel co. plan Steel 133:124-5 Ag 3 '53

Oxygen cut-offs in the hot mill. R. L. Deily. il diag Steel 133:98+ O 5 '53

Pittsburgh steel company produces cold rolled sheets; illustrations with text. Blast F & Steel Pl 42:808-9 Jl '54

Pittsburgh Steel complete cold mill facilities. il Iron & Steel Eng 31:141-2 My '54

Planetary hot rolling mill; Ductile planetary mills, ltd. il diags Engineer 196:526-7 O 23 '53; Engineering 176:545-6 O 30 '53

Portable base brightens annealers' future. il Steel 134:127-8 Mr 8 '54

Preloading controls tube reducing forces. il diags Product Eng 24:148-51 S '53

Recent advancements in continuous butt and induction weld pipe mills. W. Rodder. il plans diags Iron & Steel Eng 31:108-15; Discussion. 115-17 Ag '54

Rod mill combines high speed top quality; Jones & Laughlin steel corp.'s Aliquippa works. flow diag il Steel 133:90+ Jl 20 '53

Roll gages. il Iron & Steel Eng 30:199-200+ N '53

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Seamless tube mill at Pueblo now in production. il Blast F & Steel Pl 41:1298-300 N '53; Iron & Steel Eng 30:165-6+ O '53; Steel 133:97-9 O 12 '53

Shepcote-Lane plant of Firth-Vickers stainless steels, ltd. il plan Engineering 176:332-3, 362-5, pl 24-6 S 11-18 '53

Short-cycle normalizing coordinates tube mill production; Lone star steel co. J. Kniveton. il diag Iron Age 173:136-8 My 6 '54

Soaking-pit instrumentation. F. R. Pullen. il diags Instruments 26:724-6+ My '53

Steel; more tubes for more oil; Colorado fuel & iron corp. W. V. Packard. il Iron Age 172:215 O 8 '53

Step down pour walls coil pit. il Steel 133: 104 Jl 13 '53

Super-thin strip; rolling it is only half the job; Wallingford steel co. il Steel 133: 132-3 N 16 '53

Thin gauge steel rolled on Y-mill in France; Societe Etilam, of Jeumont, France. il Blast F & Steel Pl 42:336-8 Mr '54

Titanium carbide, new elixir of life for rod mill guides. S. A. Oviatt and P. H. Gribbin. il diags Steel 134:128-30 F 15 '54

Titanium carbide rod mill guides give improved rod production. il Iron & Steel Eng 31:121-2 Mr '54; Excerpts. Tool Eng 32:127 Je '54

Trends in recent cold mill installations. R. E. Noble. il plans diags Iron & Steel Eng 31:105-16 Jl '54

Two-high/four-high combination mill aids rolling research. A. I. Nussbaum. il Iron & Steel Eng 31:199+ S '54

Use of oxyacetylene in rolling mills. R. L. Deily. bibliog il diags Iron & Steel Eng 31:83-90 Mr '54

Vanadium-Alloys' new press in Canadian plant. il Steel 135:82 Ag 9 '54

Weirton expands tin mill. Steel 135:57 Ag 30 '54; Iron & Steel Eng 31:245 S '54

Wire flattening; a lower-cost narrow strip producer. A. I. Nussbaum. il diags Steel 135:104+ S 6 '54

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Warming cold spots in hot mill; space heaters in Pittsburgh Steel's Allenport mill. H. A. Long. il plan Steel 133:158 N 9 '53

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Lubricant savings buy new system; Alan Wood steel co. il Steel 134:98 My 31 '54

Steel mill lubrication problems. A. C. Keiser, jr. and others. diags Iron & Steel Eng 31: 177-82; Discussion. 182-4 S '54

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Rebuilding bearings saves time, cuts costs; Jones & Laughlin steel corp. il Iron Age 173:117 Jl 1 '54

Thread inserts simplify hot mill maintenance problems; Niles rolling mill division of Sharon steel corp. il Iron & Steel Eng 31: 144+ Ap '54

Use of plastic, castable and gunning materials in soaking pits. W. D. Rees. Iron & Steel Eng 31:59-63; Discussion. il 63-7 Je '54

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Maximum production on hot strip mill; Gary sheet and tin mills. J. E. Angle. plan Blast F & Steel Pl 41:1289-94+ N '53

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Blooming mill engine retired after years of service. il Blast F & Steel Pl 41:1312 N '53

Power system expands with steel making capacity at Detroit Steel. L. DeFiore and M. N. Hickok. il maps plans diags Blast F & Steel Pl 42:767-77, inserts Jl '54

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Rolls form and bend stainless molding; Turnstedt division, Detroit. il Steel 133:94 S 28 '53

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Care and maintenance of rubber-covered rolls. E. L. Lockman. Tappi 36:sup 152A-3A D '53

Rubber covered rolls on paper machines. R. M. Leighton. il diag Paper Tr J 137:18-21+ D 4 '53

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Application and use of self-centering rolls. E. T. Lorig. diags Iron & Steel Eng 31: 59-73 Ja '54

Economical roll reclamation; Inland steel co. J. Goldstein. il diags Iron & Steel Eng 31: 112-14 S '54

Mill gains new flexibility; ink and paint mill model offers choice of floating or fixed center-roll operation. J. M. Lehmann. il Chem Eng 60:244 O '53

Rebuilding steel mill rolls. R. Hall. il Iron & Steel Eng 31:109-12 S '54

Roll-design research as applied to rolling-mill development. B. Robinson and W. A. Lugar. bibliog diags Iron & Steel Inst J 175: 183-97 O '53

Roll gages. il Iron & Steel Eng 30:199-200+ N '53

Roll makers bear down on quality; expecting a ten per cent decline this year. il Steel 134:42 Ja 18 '54

Rolls and rolling (cont). E. E. Brayshaw. diags Blast F & Steel Pl 41:1313-21 N '53

Rolls cut mill maintenance; carbide rolls. Steel 135:82 Ag 30 '54

Temperature stresses in iron work rolls. C. F. Peck, jr. and others. diags Iron & Steel Eng 31:45-57; Discussion. 57-8 Je '54

Use in mill rolls a success story for tungsten carbide. Iron Age 174:140 Ag 12 '54

ROLLS (rolling mills)—*Continued*

Manufacture

Mackintosh-Hemphill marks milestone with new roll. il Steel 133:98 N 9 '53

Roll gets a shave; United States steel corp.'s Fairless works. il Steel 135:151 S 20 '54

Roll maker modernizes foundries; Blaw-Knox co. R. M. Love. il Foundry 82:246+ Mr '54

Rollmaking art goes modern. il diags Steel 134:82+ Ja 18 '54

Rolls production; Rolls division of Blaw-Knox co. il Iron & Steel Eng 30:214+ O '53

Rotaflame burners heat rectangular furnace. W. Trinks. il Steel 135:132+ S 13 '54

ROLLS (rubber machinery)

Improved temperature uniformity of calender roll surfaces obtained by electromagnetic induction. G. Ardichvili. diags India Rubber World 129:621-2 F '54

ROLLS (textile machinery)

Getting the most from your cots. A. C. Littlejohn. Textile World 104:79 S '54

Manufacture

Heat treating; better spinning frame rolls made by induction hardening; Saco-Lowell shops. il Iron Age 172:114-15+ N 26 '53

ROMAN Catholic church

Advertising

Why and how the Knights of Columbus advertise Catholic faith. J. McCarthy. il Ptr Ink 244:42+ S 4 '53

ROME

Architecture

Modernization as the Romans do it. E. Clark. il Arch Forum 100:132-3 My '54

ROME, Georgia

Industries

Rome, Ga., takes new industry in its stride. il maps Bsns W p 102-6+ S 12 '53

RONEO, limited

Statement by the chairman. G. S. Maginness. Economist 169:373-4 O 31 '53

ROOF bolts. See Mine roofs

ROOFING

Better business bureau warns that roofing rackets raise premiums. Nat Underw 58:19 F 18 '54

Installing roofing under adverse conditions. P. M. Clepper. il Sheet Metal Worker 45:92-4 My '54

New developments in roofing. il diags Arch Rec 114:211+ S '53

Ornamental shingle with gap and leak sealing cleat. E. E. Zideck. diags Sheet Metal Worker 45:72 F '54

Progress at Ruberoid is progress in paper. B. Otis. il map Paper Tr J 138:14-18 Ag 27 '54

Roofing resists 5,000 degree heat of thermite bomb. il Am Bld 75:187 D '53

Roofing, sheathing, siding, insulation. il diags Am Bld 75:389+ Ap '53

Runaway roofing seams and integral cleating. E. E. Zideck. diags Sheet Metal Worker 45:65 Mr '54

Some recent developments in roofing materials. il diags Arch Rec 115:176-7 Ja '54

Standards

ASTM standards on bituminous materials for highway construction, waterproofing, and roofing (with related information). 434p Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '54

ROOFING, Asphalt

Asphalt for roofing materials. W. L. Nelson. Oil & Gas J 52:135 Ag 31; 135 S 7 '53

ROOFING, Copper

New copper roofs for U.S. naval academy. L. E. Gichner. il Sheet Metal Worker 45:84-5+ My; 92-4 Je '54

Repairing a copper cathedral roof. R. R. Caton. il Sheet Metal Worker 45:60-2+ F '54

ROOFING, Terne plate

Constructing a standing ridge seam of terne metal. il Sheet Metal Worker 45:86 Ap '54

How to install an anchored tee drip edge strip. diags Sheet Metal Worker 45:131-2 Je '54

Recommended construction on terne metal valleys. il Sheet Metal Worker 45:119-20 My '54

Sheetmetal; valley construction important to good terne metal roofs; Follansbee steel corp. il Iron Age 172:184-5 N 5 '53

ROOFS

Acoustical and thermal insulation combined in new roof deck. il Eng N 151:171 Ag 20 '53

Arches support flat roof of armory. il diag Eng N 151:43 D 3 '53

Better built-up roofs. T. S. Rogers. il diags Arch Forum 99:148-9+ Ag '53

Cold deck; Lexsuco corp. fire-retardant roof. Chem W 73:80 N 28 '53

How Chicago & North Western raises the roof. il Ry Age 137:26-7 Ag 2 '54

How to roof a terrace with translucent panels. il diags Am Bld 75:162 D '53

How to use rigid insulation in deck construction. il Am Bld 75:142+ S '53

How to use roof framing table. diags Am Bld 75:150+ N '53

Is your roof leaking dollars? House & Home 3:196 My '53

Modular principles ease complex problems; how to frame a gambrel roof. G. S. Clark. diags Am Bld 75:190-2 Je '53

Prefab stressed-roof structure; modular oak-ply lattice telescopes for shipping. il Arch Forum 99:144, 176 Jl '53

Pressure build-up and blistering reduced with new roof insulation. il diag Eng N 151:102 Jl 9 '53

Roof finishes; design standards and data. H. R. Sleeper. Arch Forum 100:169-71 Ap; 169-71 Je '54; Excerpts. House & Home 5:160-2 Mr '54

Roof heliport; new design uses cable tows, landing turntables. il plan Aviation W 59:55 D 28 '53

Roof structure in tension; parabolic pavilion in Raleigh, N.C. I. V. Voshinin. il Arch Forum 97:162 O '52

Rudolph and the roof. il plans diags House & Home 3:140-5 Je '53

Survey discloses trend to lighter roof tints. Am Bld 76:326-7 Ag '54

Suspension roof; truck terminal roof has 70′ span and 35′ overhangs. il Arch Forum 98:156-7 Mr '53

Water vapor can damage built-up roofs. C. E. Lund. il diags Arch Rec 114:178-82+ Jl; 209-10+ S '53

Wing-like roof permits natural lighting; office-sales room of the Singer lumber co. of New Orleans. il plans diags Am Bld 75:45-7 S '53

Wood roof trusses can result in savings. il diags Am Bld 75:42-5 Ag '53

See also

Factories—Roofs
Flashing
Skylights
Trusses

ROOFS, Aluminum

Aluminum roofing. il Light Metal Age 12:30 Ap '54

Aluminum roofing made thinner. il Eng N 152:162+ F 18 '54

Corrugated aluminium roofing sheet. il diag Engineer 197:474-5 Mr 26 '54

From roll to roofing in minutes. il Eng N 151:74 Jl 23 '53

Industrial roofing. Light Metal Age 12:37 F '54

Lightweight aluminum roofing materials developed; Aluminum co. of America. Iron Age 173:158 F 11 '54

New aluminum wrinkle; corrugated roll roofing. il Steel 135:54 S 6 '54

Roofing by machine. Bsns W p50 Ag 1 '53

Umbrella building in aluminum, in concrete. il diags Arch Forum 98:150-2 Ja '53

Unusual application of aluminum flame brazing. F. J. M. Smith. Metal Prog 65:156+ Je '54

ROOFS, Concrete

Arched hangar roof, spanning 150 ft, is a four-in. shell between arch ribs. il Eng N 151:59-60 N 12 '53

Circular concrete hangar roof cantilevers 46 ft. il diag Eng N 151:46-7 Jl 2 '53

Concrete tank roof failure probed. il Eng N 151:25 O 15 '53

Machinery is moved into mill; then thin-shell barrel roof completed; textile mill in Newcastle, Australia. il Eng N 151:62+ O 29 '53

ROOFS, Concrete—*Continued*
94-ft concrete roof beams set record for prestressed members cast in place. il Eng N 151:29 N 19 '53
Prestressed waffle lift-slabs. il plan diag Arch Forum 98:168-9 Je '53
Umbrella building in aluminum, in concrete. il diags Arch Forum 98:150-2 Ja '53
Unusual roof on only four supports; U.S. Naval postgraduate school, Monterey, Calif. il diags Eng N 152:39-41 Ap 22 '54

ROOFS, Steel
Lamella steel vault spans 224′, yet is only 2′ thick; Municipal auditorium at Corpus Christi. il diags Arch Forum 100:166-7 Mr '54
Parabolic cable roof; North Carolina's livestock judging pavilion. il Arch Forum 98:170-1 Je '53
Place steel roof deck fast; fieldhouse under construction for the University of Connecticut. il Constr Methods 36:56-7 Ja '54

ROOFS, Tank. See Oil tanks—Roofs

ROOMS
Effects of room size and non-uniformity of panel temperature on panel performance. L. F. Schutrum and J. D. Vouris. Heating-Piping 26:133-9; Discussion. 139-40 S '54
Hotel rooms; design standards and data. H. R. Sleeper. plans Arch Forum 101:150-1 Ag '54
See also
Bathrooms
Bedrooms
Kitchens
Laundries (rooms)

ROOMS, Conference. See Conference rooms

ROOSEVELT field, inc.
New real estate projects spur income. Barron's 33:29-30 S 14 '53

ROOTS
Free energy in cation interchange as illustrated by plant root-substrate relationships. C. E. Marshall and W. J. Upchurch. bibliog J Phys Chem 57:618-21 O '53
Use of borax herbicide at hydrants. R. M. Smith. Am Water Works Assn J 46:591-2 Je '54

ROOTS of equations. See Equations, Roots of

ROPE
Becker value of manila rope by photoelectric reflectometry. S. B. Newman and others. bibliog diags J Res Nat Bur Stand 51:141-3 S '53
Facts about modern fibre and wire rope. il Mill & Factory 54:278 My '54
Fiber rope. Nat Safety N 69:174+ Mr '54
Handy Coils up sales, open new rope outlets. Sales Management 71:84 N 20 '53
How tugs use rope in harbor towing. H. R. Landwehr. il Marine Eng 59:59-60 Jl '54
Manila or non-manila. H. S. Lewis. il U S Naval Inst Proc 79:504-7 My '53
See also
Wire rope

ROSE hips
Vitamin C content of wild rose hips. Sister M. Clare and Sister M. J. Markham. J Chem Educ 30:580-1 N '53

ROSEOTHRICIN. See Antibiotic substances

ROSIN
Analysis of rosin; proposed revision of Tappi official standard. Tappi 37:sup 148A-50A My '54
Ester gum by esterification of rosin with glycerol. J. D. Hind, T. T. Kanno and C. S. Miner, jr. bibliog diag Ind & Eng Chem 46:441-52 Mr '54
Fused metal resinates from aldehyde-modified rosin. W. E. St Clair, J. C. Minor and R. V. Lawrence. bibliog Ind & Eng Chem 46:1973-6 S '54
Not rosy for rosin. Chem W 73:61-2+ Ag 8 '53
Rosin acid-rubber masterbatches. J. F. Svetlik and R. S. Hanmer. bibliog Ind & Eng Chem 45:2752-8 D '53
Rosin from Jeffrey pine stump wood. A. B. Anderson. bibliog(27 ref) Tappi 37:316-20 Jl '54
Surface chemical studies of the conditions of rosin sizing. P. Ekwall and H. H. Bruun. bibliog Tappi 37:303-6 Jl '54
Thermal isomerization of gum rosin. J. S. Stinson and R. V. Lawrence. bibliog Ind & Eng Chem 46:784-7 Ap '54

ROSS, Stanley
Reporter finds red convicts in jungle. por Ed & Pub 86:57 Mr 14 '53

ROTABELT. See Paper making machinery

ROTAMETERS
Prediction of gas-flow performance of rotameters. J. O. Hougen. Instruments 26:1716+ N '53

ROTATING disks. See Disks, Rotating

ROTATION, Optical. See Optical rotation

ROTATION of molecules. See Molecules—Rotation

ROTH, Charles F. 1886-1954
Sketch. por Heating-Piping 26:155 Ag '54

ROTOGRAVURE
Picture packs; transparent film packaging. il Mod Packaging 28:95-9+ S '54
What you should know about gravure. G. B. Dearnley. Ptr Ink 244:31 Jl 3 '53

ROTORS
Effects of articulated rotor dynamics on helicoptor automatic control system requirements. C. W. Ellis. il Aeronautical Eng R 123:30-8 Jl '53
Gyroscopic effect of rotors on the whirling of shafts. J. Mann and B. B. Clements. bibliog diags Engineer 197:308-11 F 26 '54
Oil whip of flexible rotors. A. C. Hagg and P. C. Warner. bibliog il diags A S M E Trans 75:1339-44 O '53
Simplified low-speed rotor techniques for corrosion testing. F. Wormwell. bibliog diag J Ap Chem 3:164-9 Ap '53
Whirling of a light shaft carrying two eccentrically loaded discs. E. B. Cole. il diag Engineer 197:382-3, pl 1 Mr 12 '54

ROTORS (electric machinery)
Balancing machine for alternator rotors. il Engineering 176:523 O 23 '53
Design and development of seal-less pumps. D. P. Litzenberg and H. T. White. il diags Chem Eng Prog 50:436-44 S '54
High-frequency brazing of small rotors. P. H. Brace and E. B. Fitzgerald. il Westinghouse Eng 13:206-7 N '53
Part speed efficiencies of wound rotor motors. G. L. Oscarson. il Pub Works 85:96-7 Mr '54

ROTPROOFING of cotton. See Cotton fabrics—Protection

ROTPROOFING of textiles
Chemical finishing techniques; resistance to gas fading, static, pilling, flameproofing and rotproofing. A. C. Nuessle. Textile World 104:194+ Je '54
See also
Textile fabrics—Protection

ROUELLE, Guillaume François, 1703-1770
Lectures of G. F. Rouelle. P. Lemay and R. E. Oesper. bibliog por J Chem Educ 31:338-43 Jl '54

ROUGH notes (periodical)
Rough notes story; 75 years of insurance publishing; highlights. F. Rhodes, jr. Rough Notes 96:17-18+ N '53

ROUGH notes company, inc.
Seventy five busy years. Rough Notes 96:34a-34h N '53

ROUGHING mills. See Rolling mills

ROUGHNESS measurement. See Roads—Roughness measurement

ROUNDHOUSES
IHB converts Gibson terminal for Diesel work. il plans Ry Loco & Cars 127:97-101 N '53; Same cond. Ry Age 135:60-2 N 2 '53

ROUSSIN, Zacharie, 1827-1894
Zacharie Roussin; contribution to the development of the field of azo dyes and to the recognition of the value of naphthalene. R. Brightman. bibliog(43 ref) Soc Dyers & Col J 69:115-19 Ap '53

ROW houses. See Houses, Row

ROWZEE, Edwin Ralph, 1908-
CIC mixes oil with rubber. por(cover) Chem & Eng N 32:2709-10 Jl 5 '54

ROYAL aeronautical society
Wright brothers and the Royal aeronautical society; survey and tribute. J. L. Pritchard. il diags Roy Aeronautical Soc J 57:742-818 D '53

ROYAL architectural institute of Canada
Annual meeting, 47th, Montreal, May 11-14. Arch Rec 116:26+ Jl '54

ROYAL bank of Canada
Statement by the president. J. Muir. Economist 170:206 Ja 16 '54

ROYAL fine arts commission. See Great Britain—Royal fine arts commission

ROYAL institute of British architects

Library

Rules for subject headings, periodicals subject index. A. Thompson. J Doc 9:169-74 S '53

ROYAL institute of chemistry
Anniversary meetings, Cambridge, April 8-10. Chem & Ind p486-7 Ap 24 '54; Chem Age (Lond) 70:935-6 Ap 24 '54
Annual general meeting, 75th, London, April 24. Chem & Ind p461 My 9 '53

ROYAL-LIVERPOOL insurance group
Royal-Liverpool insurance group's integration. East Underw 55:19-20 Ja 22 '54

ROYAL society for the prevention of accidents
National industrial safety conference, Scarborough, May 14-16; with abstracts of papers. Chem Age (Lond) 70:1251-3 Je 5 '54; Chem & Ind p752 Je 26 '54

ROYAL society of arts
Bi-centenary. il Elec J 152:939-40 Mr 19 '54
Bi-centenary. A. C. Hartley. il Engineer 197: 430-2 Mr 19 '54
Royal society of arts bi-centenary. A. G. Thomson. il Elec R (Lond) 154:502-4 Mr 19 '54
Royal society of arts; its notable contribution to the chemical industry. Chem Age (Lond) 70:673-5 Mr 20 '54
Royal society of arts, 1754-1954. il Chem & Ind p318-20 Mr 20 '54; Same cond. Can Chem Process 38:83-4 Jl '54

ROYAL society of London
Conversazione, London, May 20. Chem & Ind p623 My 29 '54
Conversazione, May 20. Chem Age (Lond) 70:1193-4 My 29 '54

ROYAL technical college, Glasgow
Royal technical college; report for session, 1952-3. Chem Age (Lond) 70:679 Mr 20 '54

ROYALCALL, inc.
Securities offered. Comm & Fin Chr 178: 761-2 Ag 31 '53

RUBBER
American society of mechanical engineers Rubber and plastics division annual meeting, Nov. 30-Dec. 1; abstracts of papers. India Rubber World 129:499-501 Ja '54; Rubber Age 74:584-5 Ja '54
American society of mechanical engineers Rubber and plastics division meeting, Pittsburgh, June 22. Rubber Age 75:552 Jl '54; Rubber World 130:524 Jl '54
American Vicose reveals development of new rubber; Filastic. Rubber Age 75:411 Je '54
Beater addition of rubber and rubber-like emulsions. E. C. Jahn and V. Stannett. Paper Tr J 138:14-16 S 24 '54
Depolymerized rubber; 100 per cent rubber in flowable form. H. Pande. bibliog(35 titles) il India Rubber World 130:211-13 My '54
Engineering developments of rubber, July, 1952-June, 1953. B. J. Clinebell. Rubber Age 74:568-73 bibliog(114 titles, p572-3) Ja '54
Ferry reduction and the activation energy for viscous flow. I. L. Hopkins. bibliog diag J Ap Phys 24:1300-4 O '53
International rubber study group meeting, London. Rubber Age 74:255-7 N '53
Magnetic study on high polymers; diamagnetic anisotropy of natural rubber. A. Isihara and others. bibliog diag J Chem Phys 21:1909-11 N '53
Marking paints for rubber bales. K. F. Heinisch and R. M. Wargadiwidjaja. bibliog il India Rubber World 130:63-4 Ap '54
Mean dimensions of rubber-like polymer molecules. F. T. Wall. bibliog diags J Chem Phys 21:1914-19 N '53
Microbiological deterioration of rubber insulation; abstract. J. T. Blake and others. il Elec Eng 72:960 N '53
Natural rubber, GR-S vs. corrosion. J. P. McNamee. il Chem Eng 61:234+ Ag '54
New concept of purchasing natural rubber. J. Le Bras. Rubber Age 75:100-1 Ap '54
Portland cites its advantages in handling of natural rubber. Rubber Age 75:87 Ap '54
Proton magnetic resonance in natural rubber. H. S. Gutowsky and L. H. Meyer. bibliog J Chem Phys 21:2122-6 D '53
Rubber quality and packing conference, Singapore, April 22-24. Rubber Age 75:418-19 Je '54; Rubber World 130:378-9 Je '54
Rubber-Stichting holds symposium on rubber technology progress, Delft, Netherlands, Oct. 7-8; with abstracts of papers. Rubber Age 74:258-9 N '53
Rubber technology conference, 3d, London, June 22-25; with abstracts of papers. Rubber Age 75:521-36 Jl '54; Rubber World 130:668-78 Ag '54

See also
Rubber industry and trade
Rubber plants and planting
Tires, Automobile
Tires, Rubber
Vulcanization

Aging

Comparison of methods of accelerated aging of latex foam rubber. T. H. Rogers and H. H. Heineman. bibliog il Rubber World 130:502-6 Jl '54
Oxygen absorption versus conventional aging of commercial vulcanizates. L. R. Pollack. bibliog diag India Rubber World 130:53-7 Ap '54

Analysis

Determination of yellow color in raw rubber latex films and crepes. G. A. Kidder. Anal Chem 26:311-15 F '54
Determining rubber hydrocarbon in rubber-bearing plants. J. W. Meeks and others. bibliog Anal Chem 25:1535-8 O '53
Direct determination of oxygen in rubber; comparison between isotopic and Schütze-Unterzaucher methods. A. D. Kirshenbaum and A. G. Streng. bibliog Anal Chem 25: 638-40 Ap '53
Estimation of rubber in asphalt. G. Salomon, E. Pezarro-Van Brussel and A. C. van der Schee. bibliog Anal Chem 26:1325-8 Ag '54

Bibliography

Rubber bibliography. Published in monthly numbers of India rubber world

Chemistry

A.C.S. Division of rubber chemistry national meeting, New York; abstracts of papers. Chem & Eng N 32:3850-1 S 27 '54
American chemical society Rubber division meeting, 65th, Louisville, April 14-16. Rubber Age 75:242+ My '54
American chemical society Rubber division 65th meeting, Louisville; abstracts of papers. Chem & Eng N 32:1676-7 Ap 26 '54
A.C.S. Rubber division 65th meeting, Louisville, April 14-16. India Rubber World 130: 224-5 My '54
A.C.S. Rubber division 65th meeting, Louisville, April 14-16; abstracts of papers. Rubber Age 74:909-13 Mr '54; India Rubber World 130:71-4 Ap '54
A.C.S. Rubber division, 66th meeting, New York, Sept. 15-17; with abstracts of papers. Rubber Age 75:695-702 Ag '54; Rubber World 130:660-4+ Ag '54
Chemical institute of Canada Rubber chemistry division 9th annual meeting, Toronto, June 23; with abstracts of papers. India Rubber World 130:226-7 My '54; [cont as] Rubber World 130:678-9 Ag '54; Rubber Age 75:397-8, 559 Je-Jl '54
German chemical association Plastics and rubber section meeting, Hamburg, Sept. 15, 1953. Rubber Age 74:940 Mr '54
Oil modified rubbers. Chem Age (Lond) 70: 475 F 20 '54
Recent advances in the ionic reactions of rubber; abstract. M. Gordon and J. S. Taylor. Chem & Ind p685 Jl 11 '53
U.S. rubber co. Naugatuck chemical division observing fiftieth anniversary. il Rubber Age 75:564-5 Jl '54

See also
Isoprene
Rubber—Chlorination
Rubber—Reclaiming

Chlorination

Introduction to the mechanism of the hydrochlorination of rubber. M. Gordon and J. S. Taylor. bibliog diag J Ap Chem 3:537-45 D '53

RUBBER—*Continued*

Color

Active carbons as anti-stain agents for reclaimed rubber. J. J. Keilen and W. K. Dougherty. diags India Rubber World 129:199-205 N '53

Curing

See Vulcanization

Cutting

See Rubber cutting

Drying

Swelling and drying of fuel O-rings. R. A. Clark and R. M. Kell. bibliog diag Rubber Age 75:831-7 S '54

Electric properties

Conductive and anti-static rubbers; new British standard. Elec R (Lond) 153:1422 D 25 '53

Conductive rubber. Mech Eng 75:571-2 Jl '53

Electrical conductivity of rubber-carbon black vulcanizates. B. B. S. T. Boonstra and E. M. Dannenberg. bibliog Ind & Eng Chem 46:218-27 Ja '54

Electrical resistivities of carbon black loaded rubber compounds. M. L. Studebaker. bibliog India Rubber World 129:485-8 Ja '54

Electrostatic properties of rubber and plastics. H. A. Endres and W. T. Van Orman. bibliog(28 ref) il India Rubber World 129:359-63 D '53

Joining to metal

New APV process for polarising heat exchange gaskets. il Chem Age (Lond) 70:1298 Je 12 '54

Manufacture

Compounding and processing problems; panel discussion. Rubber World 130:374-5 Je '54

Compounding natural rubber with lignin and humic acid. F. J. Tibenham and N. S. Grace. bibliog Ind & Eng Chem 46:824-8 Ap '54

Important steps in closed-cell rubber manufacture. Rubber Age 75:837 S '54

See also

Carbon black

Rubber—Chlorination

Rubber—Reclaiming

Rubber, Artificial—Manufacture

Rubber chemicals

Rubber goods—Manufacture

Vulcanization

Mixing with resins

Blends of phenolic resins with rubber. R. C. Bascom. Rubber Age 74:547-9 Ja '54; Same. India Rubber World 129:630-1 F '54

Multi-million and more; styrene-rubber alloy. il Chem W 73:74+ Ag 15 '53

New plastic sheet; challenge to metals. il Steel 133:54 Ag 3 '53

New, unvulcanized composition of resin and rubber having high impact. R. J. McCutcheon and H. S. Sell. bibliog il Rubber World 130:362-5 Je '54

Plastic alloy; styrene-rubber combination has unusual properties. il Iron Age 172:160+ Ag 13 '53

Rigid vinyls and rubber-resin blends; processing and applications; abstract. G. S. Laaff. Rubber Age 75:561 Jl '54

Rubber-like resin aids compounders; Solarite resin #11. Chem Eng 61:148+ F '54

Symposium on resin-rubber blends. India Rubber World 129:497-9, 629-31, 785-6 Ja-Mr '54; Same. Rubber Age 74:547-54; Discussion. 555-9 Ja '54

Moisture content

Effect of moisture on rate of cure of natural rubber. R. H. Taylor and others. bibliog diag India Rubber World 129:751-5 Mr '54

Oxidation

Effect of temperature upon rate of oxidation of rubber. J. R. Shelton, F. J. Wherley and W. L. Cox. bibliog Ind & Eng Chem 45:2080-6 S '53

Oxidation and antioxidant action in rubber vulcanizates. J. R. Shelton and W. L. Cox. bibliog Ind & Eng Chem 46:816-23 Ap '54

Oxidation of unvulcanized rubber. F. Lyon, K. A. Burgess and C. W. Sweitzer. bibliog Ind & Eng Chem 46:596-600 Mr '54

Oxygen absorption versus conventional aging of commercial vulcanizates. L. R. Pollack. bibliog diag India Rubber World 130:53-7 Ap '54

Reclaiming

Active carbons as anti-stain agents for reclaimed rubber. J. J. Keilen and W. K. Dougherty. diags India Rubber World 129:199-205 N '53

Laboratory methods of dynamic testing of compounds containing reclaimed rubber. J. M. Ball and R. L. Randall. il Rubber World 130:795-800 S '54

Method for the continuous processing of reclaimed rubber. flow diag Rubber Age 75:548 Jl '54

Use powdered rubber and save; U.S. Rubber reclaiming co. il Chem Eng 60:332-3 N '53

See also

Rubber, Artificial—Reclaiming

Reinforcement

Effect of various surface treatments on the reinforcement and rate of cure of silica loaded stocks. W. R. Hausch. bibliog il diag India Rubber World 130:59-62 Ap '54

Physico-chemical and rubber reinforcing properties of super abrasion furnace black. J. F. Svetlik and others. India Rubber World 129:617-20+ F '54

Reinforced rubber stocks under the electron microscope. M. M. Chappuis and others. bibliog il Rubber World 130:507-9+ Jl '54

Standards

International organisation for standardisation committee on rubber meeting, 5th, Paris, June 15-20. Chem & Ind p794 Jl 25 '53

Quality analysis of natural rubber imports to the United States in 1953. W. J. Sears. Rubber Age 75:244-6 My '54

Strength

Load-carrying capacity of latex foam rubber. J. A. Talalay. bibliog il diags Ind & Eng Chem 46:1530-8 Jl '54

Sulfur content

See also

Vulcanization

Swelling

Swelling and drying of fuel O-rings. R. A. Clark and R. M. Kell. bibliog diag Rubber Age 75:831-7 S '54

Temperature effect

Effect of temperature upon rate of oxidation of rubber. J. R. Shelton, F. J. Wherley and W. L. Cox. bibliog Ind & Eng Chem 45:2080-6 S '53

Testing

Attachment to a dial-gauge thickness meter for measuring average thickness. R. F. Blackwell. diag J Sci Instr 31:342 S '54

Effect of moisture on rate of cure of natural rubber. R. H. Taylor and others. bibliog diag India Rubber World 129:751-5 Mr '54

Instruments for measuring plasticity in the rubber industry. J. R. Scott. bibliog diags J Sci Instr 30:145-50 My '53

Laboratory methods of dynamic testing of compounds containing reclaimed rubber. J. M. Ball and R. L. Randall. il Rubber World 130:795-800 S '54

Precise method for the determination of the width of a dumbbell test specimen. B. G. Labbe and H. M. Leeper. diag India Rubber World 130:58 Ap '54

Simple flexibility test. D. G. Stechert. il diag Anal Chem 25:1730-3 N '53

Studies of the Mooney viscometer at the National bureau of standards. bibliog il diag Rubber Age 74:574-5 Ja '54

See also

Rubber—Aging

Rubber laboratories

Bibliography

Abrasion testing of natural and synthetic rubbers. (Bibliog no. 17) 44 l Rubber div. lib, Univ. of Akron, Akron 4, Ohio '54

RUBBER—*Continued*

Transportation

Current problems in shipping natural rubber. M. W. Allen. il Rubber Age 74:383-94 D '53

Uses

Conference on new rubber uses for railways, Munich, Sept. 1. Rubber Age 74:106 O '53

Popularising the use of rubber; British rubber development board. Chem Age (Lond) 68:919-20 Je 20 '53

Vulcanization

See Vulcanization

RUBBER, Artificial

All synthetic plant bidders found eligible; RFC announces price rise for butyl rubber. Rubber Age 75:551 Jl '54

A.C.S. Northeastern section elastomer and plastics group symposium. Rubber Age 75:406 Je '54

Applications of butyl rubber; present and future. W. H. Peterson. il Rubber World 130:366-9+ Je '54

British to make synthetic rubber. Chem & Eng N 32:1688 Ap 26 '54; Excerpt. Chem Age (Lond) 70:726 Mr 27 '54

Butyl rubber compounds for curing bags. A. F. Sayko. il diags India Rubber World 129:348-53 D '53

Calls for expansion in synthetic rubber production. P. W. Litchfield. Rubber Age 75:88 Ap '54

Canadian high polymer forum, 5th, London, Ont. Nov. 19-20; abstracts of papers. Rubber Age 74:429-30 D '53; Chem & Ind p 11-14 Ja 2 '54

Chemigum SL; an elastomeric polyester-urethane. N. V. Seeger and others. bibliog il Ind & Eng Chem 45:2538-42 N '53

Copolymers of alpha-alkylacrylonitriles with 1,3-butadiene. C. S. Marvel and others. bibliog Ind & Eng Chem 46:804-8 Ap '54

Diazo-initiated polymers; preparation, properties and evaluation. J. M. Willis and others. bibliog il Ind & Eng Chem 45:1316-22 Je '53

Elastomers production gained slightly in 1953. Oil Paint & Drug Rep 165:4 My 10 '54

Engineering development of rubber, July, 1952-June, 1953. B. J. Clinebell. Rubber Age 74:568-73 bibliog(114 titles, p572-3) Ja '54

Experimental study of low-frequency effects on the dynamic modulus of a Buna-N rubber. A. Q. Hutton and A. W. Nolle. diag J Ap Phys 25:350-4 Mr '54

Future in the air; Poly-FBA. il Chem W 75:54+ S 11 '54

Future of rubber; Goodyear lecture. J. T. Blake. Chem & Eng N 31:4290-3 O 19 '53

Hydrogenated synthetic elastomers. R. V. Jones, C. W. Moberly and W. B. Reynolds. bibliog flow diag il Ind & Eng Chem 45:1117-22 My '53

Isocyanate rubbers; Chemigum SL; abstract. N. V. Seeger. Rubber Age 75:413 Je '54

Liquid emulsion polybutadiene as a softener for GR-S. R. W. Laundrie and B. G. Labbe. Rubber Age 75:545-8 Jl '54

M. W. Kellogg and U.S. army develop new Kel-F elastomer. Rubber Age 75:84 Ap '54

Materials for O-ring seals; their properties and selection. E. L. Carlotta. il diags Materials & Methods 38:104-7 D '53

Materials of construction for chemical engineering; elastomers. H. L. Fisher. il Ind & Eng Chem 45:2188-98 bibliog(197 ref, p2197-8) O '53

Natural rubber, GR-S vs. corrosion. J. P. McNamee. il Chem Eng 61:234+ Ag '54

New developments in silicones; rubber. T. A. Kauppi. il Machine Design 26:177-81 S '54

New process for acrylonitrile will bring substantial cost reduction. A. J. Weith. Oil & Gas J 52:78+ Ag 3 '53; Chem & Eng N 31:2763-5 Jl 6 '53

Nitrile rubber for oils and solvents. J. P. McNamee. Chem Eng 61:230+ S '54

No stampede on synthetic. map Chem W 72:15-16 Je 13 '53

Nondiscoloring stabilizers for GR-S. B. A. Hunter, R. R. Barnhart and R. L. Provost. bibliog Ind & Eng Chem 46:1524-30 Jl '54

Nonionic, anionic, and cationic emulsifiers in GR-S polymerizations. A. F. Helin and others. bibliog Ind & Eng Chem 45:1330-6 Je '53

Picking up momentum; synthetic rubber in Britain. Chem W 74:19-20 Ap 17 '54

Polyester-urethane elastomers offer unusual wear properties; ACS Division of rubber chemistry meeting, Boston. Chem & Eng N 31:2390-1 Je 8 '53

Properties of GR-S extended with rosin-type acids. L. H. Howland, J. A. Reynolds and R. L. Provost. bibliog Ind & Eng Chem 45:1053-9 My '53

Properties of lactroprene BN-12.5, a copolymer of butyl acrylate and acrylonitrile, and its vulcanizates. J. E. Hansen and W. E. Palm. bibliog Rubber Age 75:677-87 Ag '54

Properties of low-styrene GR-S plasticizer blends. A. F. Helin. Ind & Eng Chem 46:1730-4 Ag '54

Recent developments in cold rubber. L. H. Howland. Rubber Age 74:424 D '53

RFC institutes 90-day forward ordering of GR-S. India Rubber World 129:231-2 N '53

RFC reports on synthetic rubber operations for fiscal 1953. India Rubber World 129:635 F '54

Reinforced acrylate elastomers cast from latex. P. Fram and others. bibliog(25 ref) il Ind & Eng Chem 46:1992-2000 S '54

Relaxation distribution function of polyisobutylene in the transition from rubber-like to glass-like behavior. J. D. Ferry and others. bibliog(27 ref) J Ap Phys 24:911-16 Jl '53

Role of petrochemicals in synthetic rubber. C. F. Ruebensaal. Pet Refiner 32:110-11 N '53

Rubber reckoning. Chem W 74:98 My 22 '54

Rubber technology conference, 3d, London, June 22-25; with abstracts of papers. Rubber Age 75:521-36 Jl '54; Rubber World 130:668-78 Ag '54

Silicone rubber. Engineer 196:820-1 D 18 '53

Silicone rubber. Engineering 177:81 Ja 15 '54

Silicone rubber insulation for traction motor frame coils. il Ry Loco & Cars 127:65-8 D '53

Some elastomer uses in naval ships. T. A. Werkenthin. Rubber Age 75:258 My '54

Summary on Vulcollan. Rubber Age 74:269 N '53

Synthetic rubber. G. S. Whitby, ed. 1044p $18 John Wiley & sons, 440 Fourth av, New York 16 '54

Synthetic rubber protects the navy's propeller shafts. E. A. Bukzin. il Mech Eng 76:17-20+ Ja '54

Synthetic rubbers; abstract. F. A. Jones. Chem & Ind p343 Mr 20 '54

Three-man civilian commission to negotiate sale of government-owned synthetic rubber plants. R. G. Gibbs. Chem & Eng N 31:3248+ Ag 10 '53

See also

Butadiene

Neoprene

also American synthetic rubber corporation

Aging

Aging stability of neoprene latex. D. E. Andersen and R. G. Arnold. bibliog Ind & Eng Chem 45:2727-30 D '53

Long-term aging of elastomers under continuous shear load. G. L. Hall and others. bibliog il diags India Rubber World 129:611-16 F '54

Oxygen absorption versus conventional aging of commercial vulcanizates. L. R. Pollack. bibliog diag India Rubber World 130:53-7 Ap '54

Storage stability of GR-S polymers. M. H. Reich and others. Rubber World 130:789-94+ S '54

Analysis

Chemical analysis of GR-S by complete solution procedures. F. J. Linnig and others. bibliog Anal Chem 25:1511-17 O '53

Estimation of rubber in asphalt. G. Salomon, E. Pezarro-Van Brussel and A. C. van der Schee. bibliog Anal Chem 26:1325-8 Ag '54

RUBBER, Artificial—*Continued*

Chemistry

A.C.S. Division of rubber chemistry 124th national meeting, Chicago; abstracts of papers. Chem & Eng N 31:3986-7 S 28 '53

A.C.S. Division of rubber chemistry 126th national meeting, New York; abstracts of papers. Chem & Eng N 32:3850-1 S 27 '54

American chemical society Rubber division meeting, 65th, Louisville, April 14-16. Rubber Age 75:242+ My '54

American chemical society Rubber division 65th meeting, Louisville; abstracts of papers. Chem & Eng N 32:1676-7 Ap 26 '54

A.C.S. Rubber division 65th meeting, Louisville, April 14-16. India Rubber World 130:224-5 My '54

A.C.S. Rubber division 65th meeting, Louisville, April 14-16; abstracts of papers. Rubber Age 74:909-13 Mr '54; India Rubber World 130:71-4 Ap '54

A.C.S. Rubber division 66th meeting, New York, Sept. 15-17; with abstracts of papers. Rubber Age 75:695-702 Ag '54; Rubber World 130:660-4+ Ag '54

Chemical institute of Canada Rubber chemistry division 9th annual meeting, Toronto, June 23; with abstracts of papers. India Rubber World 130:226-7 My '54; [cont as] Rubber World 130:678-9 Ag '54; Rubber Age 75:397-8, 559 Je-Jl '54

Effect of active hydrogen on the breakdown of oil-masterbatched polymers. W. K. Taft and others. Rubber Age 75:838-40 S '54

Oil modified rubbers. Chem Age (Lond) 70:475 F 20 '54

Physical properties of oil-enriched rubbers. K. V. Weinstock, E. B. Storey and J. S. Sweeley. bibliog diags Ind & Eng Chem 45:1035-43 My '53

Polymer breakdown in oil-extended GR-S masterbatches. W. K. Taft and others. bibliog Ind & Eng Chem 45:1043-53 My '53

U.S. rubber co. Naugatuck chemical division observing fiftieth anniversary. il Rubber Age 75:564-5 Jl '54

Electric properties

Technical progress in communication wires and cables; abstracts of symposium papers. Rubber Age 74:768-9 F '54

Test cell for measuring the dielectric strength of elastomeric materials in air. S. I. Reynolds. bibliog il diag R Sci Instr 25:177-9 F '54

Latex

Aging stability of neoprene latex. D. E. Andersen and R. G. Arnold. bibliog Ind & Eng Chem 45:2727-30 D '53

Carboxylic Hycar latex; a new high-strength elastomer. H. P. Brown and N. G. Duke. Rubber World 130:784-8 S '54

Cleaning emulsion polymerization equipment fouled by synthetic rubber latex. J. S. Nettleton, M. J. G. Davidson and H. L. Williams. diags Ind & Eng Chem 45:1896-8 S '53

Determination of particles size distribution in GR-S latices. A. Nisonoff, W. E. Messer and L. H. Howland. bibliog Anal Chem 26:856-61 My '54

How latex is used to size denim. E. Abrams. il Textile World 103:94-5 D '53

Measuring wet gel strength of coagulant-dipped films. A. I. Medalia, H. B. Townsend and H. N. Grover. il diag Anal Chem 26:697-703 Ap '54

Nitrile rubber latices as permanent abrasion-resistant finishes for blue denim fabric. E. Abrams and N. Sherwood. il Am Dyestuff Rep 42:777-82 N 23 '53

Optical properties of uniform particle-size latexes. T. Alfrey, jr. and others. bibliog il diags Opt Soc Am J 44:603-9 Ag '54

Rheology of rubber solutions and suspensions; latex and latex compounds. L. Leaman. bibliog(56 ref) Rubber Age 75:537-44 Jl '54

Synthetic latex scrub-resistant intumescent coatings. I. J. Cummings. bibliog il Ind & Eng Chem 46:1985-91 S '54

Tensile properties of films from low temperature GR-S latex. R. W. Brown, W. E. Messer and L. H. Howland. bibliog il Ind & Eng Chem 45:1322-9 Je '53

Manufacture

Aqueous phase diluents in emulsion polymerization of synthetic rubber. L. H. Howland, J. A. Reynolds and R. W. Brown. bibliog Ind & Eng Chem 45:2738-42 D '53

Buna-S rubber; Buna-N rubber; Naugatuck Chemical. diags Pet Refiner 32:192-3 N '53

Butyl rubber; manufacture and research. R. M. Thomas. flow sheets il India Rubber World 130:203-5 My '54

Butyl rubber; Standard oil development co. diag Pet Refiner 32:194-5 N '53

Chemical nature of oil extenders for synthetic rubbers. F. S. Rostler and R. M. White. bibliog il Ind & Eng Chem 46:610-20 Mr '54

Compounding and processing problems; panel discussion. Rubber World 130:374-5 Je '54

Compounding for low cost with neoprene type WHV. J. L. Hartman and D. C. Thompson. bibliog Rubber World 130:498-501 Jl '54

Compounding of colored butyl rubber goods. R. F. Wolf. Rubber Age 75:389-95 Je '54

Compounding of silicone gums. C. W. Pfeifer and others. bibliog il India Rubber World 129:481-4+ Ja '54

Compounding of silicone rubber. W. B. Spencer, jr. and others. bibliog Ind & Eng Chem 45:1297-304 Je '53

Considering, not reneging; rubber producers desire to purchase government-owned synthetic rubber plants. il Chem W 74:26 Mr 27 '54

Developments in the GR-S field since the advent of cold rubber. L. H. Howland. bibliog(45ref) flow diag il Rubber World 130:647-54+ Ag '54

Disposal commission reports to Congress on companies bidding for synthetic plants. Rubber Age 75:401-3 Je '54

Do oil and rubber mix? il Chem & Eng N 32:1552-3 Ap 19 '54

Effect of initiation temperature on continuous emulsion polymerization. M. Feldon and R. F. McCann. bibliog Ind & Eng Chem 46:465-7 Mr '54

Eight best bets; figures show why; information on 25 government-owned synthetic rubber plants up for sale. Chem W 74:15 F 20 '54

Government rubber plant bids in. Chem & Eng N 32:2386+ Je 14 '54

GR-S production costs for various plants. India Rubber World 129:636 F '54

Lignin reinforces GR-S; West Virginia pulp and paper co. Chem & Eng N 32:2719 Jl 5 '54

Mercaptans (or thiols) in polymerizations; review with recent developments. A. H. Krause. bibliog(60 ref) Rubber Age 75:217-22 My '54

Mercaptobenzothiazole vulcanization using sulfur-35. I. Auerbach. bibliog Ind & Eng Chem 45:1526-32 Jl '53

New plant for silicone rubber; Dow Corning. il Chem Eng 60:116 Jl '53

New synthetic rubber soap specifications. Soap & San Chem 29:89 N '53; [cont as] Soap & Chem Spec 30:89+ Ag '54

1954 GR-S operations may net $43,400,000; FFC expects four per cent GR-S sales drop in October. Rubber Age 75:705-6 Ag '54

Petrochemicals pre-empt organic output. H. K. Nieuwenhuis. Chem W 75:44-5 Jl 31 '54

Polymerization of GR-S at low temperatures. L. H. Howland and others. bibliog Ind & Eng Chem 45:1304-11 Je '53

Reaction times for polymerization of cold GR-S. B. C. Pryor, E. W. Harrington and D. Druesedow. bibliog flow sheet il diag Ind & Eng Chem 45:1311-15 Je '53

Rosin acid-rubber masterbatches. J. F. Svetlik and R. S. Hanmer. bibliog Ind & Eng Chem 45:2752-8 D '53

Rubber disposal; white elephant sale? annual review. J. T. Cox, jr. Chem & Eng N 32:25-6 Ja 4 '54

Rubber plant buying interest keen. Oil Paint & Drug Rep 165:3+ Mr 22 '54

Rubber plants commission starts weeding out bidders this week. Oil Paint & Drug Rep 165:3+ Je 7 '54

Rubber plants on auction block; bidding to close May 27 for 27 government-owned facilities. Chem & Eng N 32:1216 Mr 29 '54

RUBBER, Artificial—Manufacture—*Continued*

RTA cites marketing problems involved in sale of synthetic plants. Rubber Age 75:868 S '54

Selling price of synthetic rubber plants. H. E. Haley and others. Pet Refiner 32:113-17 Jl '53

Sodium formaldehyde sulfoxylate in GR-S polymerization. R. W. Brown and others. bibliog Ind & Eng Chem 46:1073-80 My '54

Study of oil-polymer masterbatches. W. K. Taft and others. bibliog Ind & Eng Chem 46:396-412 F '54

Superfast GR-S polymerization at 41°F. J. R. Miller and H. E. Diem. bibliog Ind & Eng Chem 46:1065-73 My '54

Mixing with resins

Symposium on resin-rubber blends. India Rubber World 129:497-9, 629-31, 785-6 Ja-Mr '54; Same. Rubber Age 74:547-54; Discussion. 555-9 Ja '54

Oil effect

Evaluation of diene-type elastomers. R. W. Laundrie, M. Feldon and A. L. Rodde. bibliog Ind & Eng Chem 46:794-803 Ap '54

Oxidation

Oxidation and antioxidant action in rubber vulcanizates. J. R. Shelton and W. L. Cox. bibliog Ind & Eng Chem 46:816-23 Ap '54

Oxygen absorption versus conventional aging of commercial vulcanizates. L. R. Pollack. bibliog diag India Rubber World 130:53-7 Ap '54

Reinforcement of butyl with carbon black; specific action of surface oxygen. R. L. Zapp and A. M. Gessler. bibliog Rubber Age 74:243-51 N '53

Ozone effect

Antiozidants for GR-S rubber. R. F. Shaw and others. il Rubber World 130:636-42 Ag '54

Physiological effect

Synthetic rubbers; their chemistry and dermatological aspects. G. E. Morris. il A M A Archives Ind Hygiene & Occup Med 8:540-6 D '53

Reclaiming

Arylamine sulfide catalysts in reclaiming GR-S vulcanizates. F. J. Webb and others. bibliog(41 ref) Ind & Eng Chem 46:1711-15 Ag '54

Behavior of reclaiming agents in sulfur and nonsulfur GR-S vulcanizates. J. C. Ambelang and G. E. P. Smith, jr. bibliog Ind & Eng Chem 46:1716-21 Ag '54

Relationship of oxygen to activity of GR-S reclaiming agents. R. B. Bennett and G. E. P. Smith, jr. bibliog diag Ind & Eng Chem 46:1721-6 Ag '54

Reinforcement

Heat treat for better butyl; abstract. A. M. Gessler. Chem & Eng N 32:494 F 8 '54

High styrene reinforcement of hard rubber. H. S. Sell and R. J. McCutcheon. il Rubber Age 75:841-51 S '54

Physico-chemical and rubber reinforcing properties of super abrasion furnace black. J. F. Svetlik and others. India Rubber World 129:617-20+ F '54

Reinforcement of butyl with carbon black. A. M. Gessler and others. bibliog il Rubber Age 74:59-71, 243-51, 397-408, 561-6 O '53-Ja '54

Research

Application of radiometric procedures to the evaluation of surface cracking of elastomers. J. L. Kalinsky and T. A. Werkenthin. bibliog il diags Rubber Age 75:375-84+ Je '54

Butyl rubber; manufacture and research. R. M. Thomas. il India Rubber World 130:205-6+ My '54

Changes in elastomers due to radiation from cobalt-60. S. D. Gehman and L. M. Hobbs. bibliog Rubber World 130:643-6 Ag '54

Compatibility of oils and polymers. W. K. Taft and others. bibliog Rubber Age 75:223-6 My '54

Development of the activated hydroperoxide-dextrose formula for hot rubber. R. F. McCann and others. bibliog India Rubber World 129:209-12+ N '53

Electron microscopy of synthetic elastomer latices. R. R. Stromberg and others. bibliog il diag J Res Nat Bur Stand 50:299-309 Je '53

Extrusion factors of black rubber compounds. I. Drogin and others. bibliog(36 ref) il diags Rubber Age 74:707-60 F '54

Future military elastomer research program; effect of Government facilities disposal act of 1953. J. H. Faull, jr. Rubber World 130:358-61 Je '54

Industry sponsored rubber research program. H. J. Osterhof. il India Rubber World 130:197-202 My '54

Institution of the rubber industry rubber technology conference, 3d, London. Chem & Eng N 32:2785-6 Jl 12 '54

Mechanical investigations of elastomers in a wide range of frequencies. W. Philippoff. bibliog J Ap Phys 24:685-9 Je '53

Plan for synthetic rubber research and development. il India Rubber World 129:345-7+ D '53

Polybutadiene modified by addition of thiols containing polar groups. C. S. Marvel and others. bibliog Ind & Eng Chem 45:2090-3 S '53

Properties of lactoprene BN-12.5, a copolymer of butyl acrylate and acrylonitrile, and its vulcanizates. J. E. Hansen and W. E. Palm. bibliog Rubber Age 75:677-87 Ag '54

Rubber research; RFC continues program. Chem & Eng N 32:1668+ Ap 26 '54; India Rubber World 130:240-1 My '54

Stabilizing oil-polymer masterbatches. W. K. Taft and others. Rubber Age 75:61-4 Ap '54

Thermal properties of some butadiene-styrene copolymers. G. T. Furukawa and others. bibliog J Res Nat Bur Stand 50:357-65 Je '53

Timetable of achievement. Chem W 72:34 My 30 '53

Sulfur content

Tracer method for sulfur solubility and diffusivity in rubber. I. Auerbach and S. D. Gehman. bibliog il diags Anal Chem 26:685-90 Ap '54

Temperature effect

Effect of Arctic exposure on hardness of elastomer vulcanizates. R. E. Morris and A. E. Barrett. il India Rubber World 129:773-5 Mr '54

Effect of temperature upon rate of oxidation of rubber. J. R. Shelton, F. J. Wherley and W. L. Cox. bibliog Ind & Eng Chem 45:2080-6 S '53

Evaluation of diene-type elastomers. R. W. Laundrie, M. Feldon and A. L. Rodde. bibliog Ind & Eng Chem 46:794-803 Ap '54

Heat resistant rubber; Poly-FBA; abstract. P. J. Stedry. Can Chem Process 38:104 S '54

Limitations of synthetic rubber packings for high temperature application. E. L. Carlotta and E. M. Hobein. Rubber Age 74:85-90+ O '53; Abstract. Product Eng 24:274-7 Jl '53

Permanence of plasticizers in GR-S vulcanizates exposed to weather. R. E. Morris and A. E. Barrett. Rubber Age 75:76-8 Ap '54

Specifying elastomers for low temperature service. il Materials & Methods 38:114-18 N '53

Testing

Air permeability of elastomers by diffusion tests. M. Czuha. il diag India Rubber World 130:207-10 My '54

Dynamic characteristics of silicone rubber. G. W. Painter. bibliog il diag Rubber Age 74:701-6 F '54; Excerpts. Machine Design 26:308+ My '54

Effect of Arctic exposure on hardness of elastomer vulcanizates. R. E. Morris and A. E. Barrett. il India Rubber World 129:773-5 Mr '54

Instrument for determining the relaxation and recovery of elastomers. B. G. Labbe and W. E. Phillips. diag India Rubber World 129:489-91 Ja '54

RUBBER, Artificial—Testing—*Continued*

Long-term aging of elastomers under continuous shear load. G. L. Hall and others. bibliog il diags India Rubber World 129:611-16 F '54

Mechanical properties of high Mooney elastomers. P. J. Earley and M. J. Sangor. bibliog il Rubber Age 75:65-72 Ap '54

Permanence of plasticizers in GR-S vulcanizates exposed to weather. R. E. Morris and A. E. Barrett. Rubber Age 75:76-8 Ap '54

Permeability of different elastomers to CO_2 using carbon-14. A. D. Kirshenbaum and others. bibliog il diags Rubber Age 74:903-8 Mr '54

Petroleum oil extenders. W. L. Dunkel, F. P. Ford and J. H. McAteer. bibliog il Ind & Eng Chem 46:578-86 Mr '54

Storage stability of GR-S polymers. M. H. Reich and others. Rubber World 130:789-94+ S '54

Studies of the Mooney viscometer at the National bureau of standards. bibliog il diag Rubber Age 74:574-5 Ja '54

Bibliography

Abrasion testing of natural and synthetic rubbers. (Bibliog. no. 17) 44 l Rubber div. lib, Univ. of Akron, Akron 4, Ohio '54

Textile use

Nitrile rubber latices as permanent abrasion-resistant finishes for blue denim fabric. E. Abrams and N. Sherwood. il Am Dyestuff Rep 42:777-82 N 23 '53

Tire use

Properties and uses of alkali-metal catalyzed polymers. D. R. Hammel and M. H. Reich. bibliog diag Rubber World 130:510-12 Jl '54

Tire temperature measurement at the Government tire test fleet. V. J. Horning. il diag Rubber Age 74:395-6 D '53

Use of synthetic rubber in passenger car tires. I. J. Sjothun and others. bibliog il diag Rubber Age 74:231-7 N '53

Use of synthetic rubber in truck tires. I. J. Sjothun and P. S. Greer. bibliog il Rubber Age 74:77-83 O '53

Vulcanization

See Vulcanization

RUBBER, Cellular. See Rubber, Sponge

RUBBER, Foam. See Rubber, Sponge

RUBBER, Powdered

Powdered rubber from old tires. il Bsns W p46-8 Ag 29 '53

Use powdered rubber and save; U.S. Rubber reclaiming co. il Chem Eng 60:332-8 N '53

RUBBER, Reclaimed. See Rubber—Reclaiming

RUBBER, Sponge

Cellular rubber shows versatility as an engineering material. G. R. Sprague and A. F. Sereque. il Mech Eng 76:147-51 F '54; Abstract. Materials & Methods 39:178+ F '54

Comparison of methods of accelerated aging of latex foam rubber. T. H. Rogers and H. H. Heineman. bibliog il Rubber World 130:502-6 Jl '54

Load-carrying capacity of latex foam rubber. J. A. Talalay. bibliog il diags Ind & Eng Chem 46:1530-8 Jl '54

Manufacture

Foam rubber; a buoyant industry. il Can Chem Process 38:40+ Ap '54

RUBBER balls. See Balls, Rubber

RUBBER chemicals

Aiming for extinction; West Virginia pulp and paper co. plant for production of lignin-rubber coprecipitates. Chem W 74:62+ Je 26 '54

Chemical nature of oil extenders for synthetic rubbers. F. S. Rostler and R. M. White. bibliog il Ind & Eng Chem 46:610-20 Mr '54

Compounding natural rubber with lignin and humic acid. F. J. Tibenham and N. S. Grace. bibliog Ind & Eng Chem 46:824-8 Ap '54

Development and production of chemicals for the rubber industry; abstract and discussion. J. W. Barrett. Chem & Ind p215-16 F 20 '54

Nondiscoloring stabilizers for GR-S. B. A. Hunter, R. R. Barnhart and R. L. Provost. bibliog Ind & Eng Chem 46:1524-30 Jl '54

Petroleum oil extenders. W. L. Dunkel, F. P. Ford and J. H. McAteer. bibliog il Ind & Eng Chem 46:578-86 Mr '54

Spawned of necessity; importance of chemical production to rubber manufacturers. il Chem W 74:20-3 F 13 '54

United States production and sales of rubber processing chemicals, 1953; tabulation. Rubber Age 75:409 Je '54

See also

Vulcanization—Accelerators

RUBBER coating

Airborne coatings with a stretch. Ind & Eng Chem 45:sup 13A+ S '53

How to cure wrong-way applications; Gates' school for distributors' salesmen. il Chem W 74:80+ My 15 '54

Plastics equipment reference sheet; chlorinated rubber coatings. R. B. Seymour and R. H. Steiner. Chem Eng Prog 49:452 Ag '53

Retread for old standby; Rubber magic, inc.'s Rub-R-ize. il Chem W 75:106 S 25 '54

Synthetic latex scrub-resistant intumescent coatings. I. J. Cummings. bibliog il Ind & Eng Chem 46:1985-91 S '54

RUBBER factories

Combating air pollution problems in the rubber plant. Rubber Age 74:84 O '53

Control of air pollution by the rubber industry in the United States. F. S. Mallette. Rubber Age 75:254 My '54

Selling price of synthetic rubber plants. H. E. Haley and others. Pet Refiner 32:113-17 Jl '53

Synthetic rubber plants; six-month season begins for bidding on government-owned industry. Bsns W p27 N 28 '53

See also

Rubber—Reclaiming

Tire factories

Accidents

1953 Safety council statistics and awards. India Rubber World 130:81 Ap '54; Rubber Age 75:89 Ap '54

Reports on avoidable accidents in rubber plants. Rubber Age 75:78 Ap '54

Costs

GR-S production costs for various plants. India Rubber World 129:636 F '54

Employees

URWA strikes at Goodyear plants on wage issue. Rubber World 130:682-3 Ag '54

Equipment

Automatic proportioning cuts mixing costs by 58 per cent at Harris Products plant. il Rubber Age 75:385-6 Je '54

Cleaning emulsion polymerization equipment fouled by synthetic rubber latex. J. S. Nettleton, M. J. G. Davidson and H. L. Williams. diags Ind & Eng Chem 45:1896-8 S '53

Electronic instrument controls adhesives in bonding operation; Tektors. il Rubber Age 75:388 Je '54

Hewitt Rubber's new vulcanizing department. E. M. Weller. il Rubber Age 74:252-3 N '53

When customers' products are made to specifications, prompt shipment on definite dates is generally among the demands; Sponge rubber products co. F. Krumneaux. il India Rubber World 129:213-14 N '53

Power

Goodyear modernizes Akron power plant. W. E. Pickard. flow diag Power Eng 58:64-5 Jl '54

Safety measures

National safety council Rubber section meeting, Chicago, Oct. 20-21. India Rubber World 129:632 F '54; Rubber Age 74:766 F '54

RUBBER factories—*Continued*

Waste

Industrial waste treatment and disposal at government synthetic rubber plants, Los Angeles county. A. E. Martin and R. E. Rostenbach. il diags Ind & Eng Chem 45: 2680-6 D '53

RUBBER footwear. See Shoes, Rubber, plastic, etc.

RUBBER goods

Discoloration in polymers; recent applications of non-staining antioxidants. Chem Age (Lond) 68:704 My 9 '53

Industrial rubber; the sales pinch is on. il Steel 134:83 My 10 '54

More sell for less money; Rubbermaid four-color labels. il Mod Packaging 27:128-31+ Je '54

New spray process for coloring rubber matting and treads. Rubber Age 74:567 Ja '54

See also

Hose
Molds (for rubber)
Rubber lining
Shoes, Rubber, plastic, etc.
Tires, Rubber

Manufacture

Automatic proportioning cuts mixing costs by 58 per cent at Harris Products plant. il Rubber Age 75:385-6 Je '54

Compounding of colored butyl rubber goods. R. F. Wolf. Rubber Age 75:389-95 Je '54

Extrusion factors of black rubber compounds. I. Drogin and others. bibliog(36 ref) il diags Rubber Age 74:707-60 F '54

Holofol process for tubular articles. India Rubber World 130:213 My '54

How multiple phenolic castings are reducing latex dipping costs; Woonsocket rubber and plastic co. il Rubber Age 75:73-5 Ap '54

Modern vulcanization processes. H. A. Freeman. il India Rubber World 129:354-7 D '53

Progress in the manufacture of molded-rubber products. J. H. Gerstenmaier and F. J. Fetter. il Mech Eng 75:877-82 N '53

Room-temperature compound process; extrusion process for making neoprene covering for wire. A. N. Gray. il diags Mech Eng 75:625-8 Ag '53

RUBBER goods, Mechanical

Elastic track used in France; substitutes a rubber pad for the conventional steel tie plate. il diag Ry Age 136:72-3 F 8 '54

Joining of thin-walled parts by rubbing-clamping. F. R. Simpson. diags Tool Eng 32:71-4 My '54

Joint SAE-ASTM committee on automotive rubber meeting, 65th, Detroit, Sept. 15. Rubber Age 74:770 F '54

Limitations of synthetic rubber packings for high temperature application. E. L. Carlotta and E. M. Hobein. Rubber Age 74: 85-90+ O '53

Materials for O-ring seals; their properties and selection. E. L. Carlotta. il diags Materials & Methods 38:104-7 D '53

Rubber covered rolls on paper machines. R. M. Leighton. il diag Paper Tr J 137:18-21+ D 4 '53

Rubber stabilizers are solving Permian problems. W. S. Bachman. il diag World Oil 137:195-8 O '53

Rubber suspension for railway bogies. diags Engineer 196:624 N 13 '53; Engineering 176:830 D 25 '53

Swelling and drying of fuel O-rings. R. A. Clark and R. M. Kell. bibliog diag Rubber Age 75:831-7 S '54

RUBBER hose. See Hose

RUBBER industry and trade

Aid for natural rubber? Economist 169:685-6 N 28 '53

Another good year predicted for the industry; year-end statements by leaders of the industry. Rubber Age 74:577-80 Ja '54

Antitrust suit against rubber firms ended. Oil Paint & Drug Rep 165:4 Je 7 '54

Baird Rubber marks 50 years' service to rubber industry. Rubber Age 74:419 D '53

Bleak prospect for rubber. Economist 169: 121-2 O 10 '53

Changing views on rubber; United States and Great Britain. Economist 169:913 D 19 '53

Crude rubber oversupply gradually being overcome. Barron's 33:35-6 D 7 '53

Expansion of the rubber and rubber products industry as related to the government industrial expansion program. S. E. Overley. Rubber Age 74:588 Ja '54

Future of rubber. J. T. Blake. India Rubber World 129:222-5 N '53; Same cond. Chem & Eng N 31:4290-3 O 19 '53

Industry previews and reviews. Automotive Ind 110:52-3 Ja 15 '54

International rubber study group meeting, 11th, Ceylon. Rubber Age 75:404-5 Je '54

No buffer for rubber. Economist 169:443-4 N 7 '53

Nylon in the rubber industry. H. C. Mersereau. bibliog Can Chem Process 38:50-2 Je 20; 54+ Jl '54

Quality analysis of natural rubber imports to the United States in 1953. W. J. Sears. Rubber Age 75:244-6 My '54

Report of 1952 French productivity mission. India Rubber World 129:652 F '54

Rotation program revised. E. F. Mansure. Rubber Age 75:238-9 My '54

Rubber disposal; white elephant sale? annual review. J. T. Cox, jr. Chem & Eng N 32:25-6 Ja 4 '54

Rubber drubbing? government's views revealed at Industry advisory committee meeting. Chem W 74:68-9 Ja 9 '54

Rubber use at 3,350,000 tons by 1962; abstract. H. C. Bugbee. Rubber World 130: 375 Je '54

Signs of improvement seen for natural rubber. Barron's 33:19-20 Ag 3 '53

Slightly reduced consumption foreseen by RMA for this year. Rubber Age 74:583 Ja '54; Same cond. India Rubber World 129:507 Ja '54

Tin and rubber in travail. Economist 168:475 Ag 15 '53

World consumption; abstract. H. F. Palmer. Rubber Age 75:243 My '54

World output of natural rubber down 42,500 tons from 1952. For Comm W 50:25 D 21 '53

World output of natural rubber drops 67,500 tons from 1952. For Comm W 51:13 Ja 18 '54

World output of natural rubber on downtrend; use on uptrend. For Comm W 50:27 N 16 '53

See also

American synthetic rubber corporation
Firestone tire and rubber company
Goodyear tire and rubber company
Tire industry and trade
United States rubber company

Securities

Are rubbers at peak? G. L. Merton. Mag of Wall St 92:670-1+ S 5 '53

Statistics

Akron rubber company sales in 1953 above $3,000,000,000. Rubber Age 75:255 My '54

Production, consumption and stocks of synthetic rubber and consumption of natural, synthetic and reclaimed rubber, 1942-1953; chart and tabulations. Automotive Ind 110: 333 Mr 15 '54

Rubber and products, 1949-1952. Survey of Cur Bsns 1953 Sup p 181-2 [supplemented in monthly numbers]

World output of natural rubber down in 1953; consumption up. For Comm W 51:22 F 15 '54

Terminology

Glossary of terms used in the mechanical rubber goods industry. India Rubber World 129:756-72+ Mr '54; Same. Rubber Age 74:915-35 Mr '54

Brazil

Brazil reports expanding rubber and vinyl industry. Rubber Age 75:251 My '54

Brazilian industry reports acute raw rubber shortage. Rubber Age 75:555 Jl '54

Canada

See also

Dominion rubber company, limited
Polymer corporation

RUBBER industry and trade—*Continued*

Central America

Curtailment of government's South and Central America rubber program threatened. A. J. Kraft. India Rubber World 129: 795-6 Mr '54

France

French begin synthetic rubber production. Chem & Eng N 32:3772 S 20 '54

Great Britain

Britain eases curbs on rubber to reds. Rubber Age 75:238 My '54

British to make synthetic rubber. Chem & Eng N 32:1688 Ap 26 '54; Excerpt. Chem Age (Lond) 70:726 Mr 27 '54

Picking up momentum; synthetic rubber in Britain. Chem W 74:19-20 Ap 17 '54

See also

Dunlop rubber company

Indo-China, French

New concept of purchasing natural rubber. J. LeBras. Rubber Age 75:100-1 Ap '54

Peru

Peru raises duties on rubber goods. For Comm W 50:9 Ag 17 '53

Philippine Islands

Boomerang? Chem W 74:15-16 My 29 '54

South America

Curtailment of government's South and Central America rubber program threatened. A. J. Kraft. India Rubber World 129:795-6 Mr '54

RUBBER laboratories

Equipment

Small masticator for rubber plasticization. W. F. Watson and D. Wilson. il diags J Sci Instr 31:98-9 Mr '54

Tiargi rubber technology laboratory puts Banbury in operation. il Rubber Age 75: 712 Ag '54

RUBBER latex

Ammonia-resistant bacteria associated with latex deterioration. C. E. Rhines and J. McGavack. Rubber Age 75:852-4 S '54

Determination of yellow color in raw rubber latex films and crepes. G. A. Kidder. Anal Chem 26:311-15 F '54

Electrophoretic mobility study of fresh hevea latex. W. W. Bowler. bibliog Ind & Eng Chem 45:1790-4 Ag '53

Glass needles and latex. C. P. Martin and S. D. Mohiuddin. Science 118:364 S 25 '53

Latex in vehicles for exterior masonry paints; abstract. C. H. Parker. il Paint Oil & Chem R 117:11-12 My 6 '54

Measuring wet gel strength of coagulant-dipped films. A. I. Medalia, H. B. Townsend and H. N. Grover. il diag Anal Chem 26:697-703 Ap '54

Rheology of rubber solutions and suspensions; latex and latex compounds. L. Leaman. bibliog(56 ref) Rubber Age 75:537-44 Jl '54

See also

Rubber, Artificial—Latex

Testing

Mechanical stability test for rubber latices. S. H. Maron and I. N. Ulevitch. bibliog diags Anal Chem 25:1087-91 Jl '53

Observing the end point in tests of latex mechanical stability. A. C. Meyer. il Anal Chem 25:1348-51 S '53

RUBBER lining

Better tank construction methods increase lining life. M. Glover. il diags Iron Age 172: 178-82 N 5 '53

Materials for chemical handling equipment. L. R. Honnaker and M. L. Monack. diags Am Water Works Assn J 45:469-72 My '53; Same. Water & Sewage Works 101:R 173-4 pt 2 My '54

Rubber reservoir; leakage through cracks stopped with elastic lining. Eng N 151:57-8 Ag 27 '53

Starving corrosion to death. il Safety Maint & Prod 108:11 Jl '54; Same abr. Rubber Age 75:226 My '54

RUBBER machinery

See also

Rolls (rubber machinery)

Rubber laboratories—Equipment

RUBBER manufacturers' association

Annual meeting, New York, Nov. 17; with abstracts of papers. India Rubber World 129:374-5 D '53; Rubber Age 74:421-2 D '53

RUBBER plants and planting

Determining rubber hydrocarbon in rubber-bearing plants. J. W. Meeks and others. bibliog Anal Chem 25:1535-8 O '53

RUBBER reclaiming. See Rubber—Reclaiming; Rubber, Artificial—Reclaiming

RUBBER research

Blake wins Goodyear medal for outstanding rubber research. Chem & Eng N 31: 2886 Jl 13 '53

BRPRA reports on technological advances made during 1952. Rubber Age 74:436-8 D '53

Effect of various surface treatments on the reinforcement and rate of cure of silica loaded stocks. W. R. Hausch. bibliog il diag India Rubber World 130:59-62 Ap '54

Electrical contact potentials in Banbury mixing. R. S. Havenhill and others. bibliog il Ind & Eng Chem 45:1128-33 My '53

Extrusion factors of black rubber compounds. I. Drogin and others. bibliog(36 ref) il diags Rubber Age 74:707-60 F '54

Future outlook for Latin American rubber research program better. Rubber World 130:680-1 Ag '54

Mechanical investigations of elastomers in a wide range of frequencies. W. Philippoff. bibliog J Ap Phys 24:685-9 Je '53

Only one year more on Latin rubber research program. A. J. Kraft. Rubber World 130: 529-30 Jl '54

Research association of British rubber manufacturers. J. R. Scott. il Chem & Ind p978-81 S 19 '53

Second-order transitions of rubbers at high pressures. C. E. Weir. bibliog J Res Nat Bur Stand 50:311-19 Je '53

Technical problems in rubber now confronting the armed services. Rubber Age 75:862 S '54

Technical publications of BRPRA; abstracts. Rubber Age 75:714 Ag '54

Temperature dependence of compression of natural rubber-sulfur vulcanizates of high sulfur content. C. E. Weir. J Res Nat Bur Stand 50:153-60 Mr '53

Thermodynamics of the rubber-sulfur system at high pressures. C. E. Weir. J Res Nat Bur Stand 50:321-7 Je '53

See also

Rubber, Artificial—Research

Rubber laboratories

RUBBER technology

Study and teaching

National college of rubber technology. Chem & Ind p 1224 N 14 '53

RUBBER waste

See also

Rubber—Reclaiming

RUBBERIZED fabrics

See also

Tire fabrics

RUBIDIUM

Self-diffusion coefficients of iodide, potassium and rubidium ions in aqueous solutions. R. Mills and J. W. Kennedy. bibliog Am Chem Soc J 75:5696-701 N 20 '53

Stimulation of rubidium absorption by auxins. N. Higinbotham and others. bibliog Scence 118:243-5 Ag 28 '53

Analysis

Flame spectrophotometric analysis of glasses and ores; lithium, sodium, potassium, rubidium, and cesium. J. P. Williams and P. B. Adams. bibliog Am Cer Soc J 37: 306-11 Jl 1 '54

Isotopes

1.25-minute Rb^{82m} daughter of 27-day Sr^{82}. L. M. Litz and others. Phys R 92:288-90 O 15 '53

Nuclear reactions

Third forbidden beta spectrum of rubidium-87. M. H. MacGregor and M. L. Wiedenbeck. bibliog Phys R 94:138-40 Ap 1 '54

RUBIDIUM aluminum silicates

Hydrothermal chemistry of silicates; rubidium and cæsium aluminosilicates. R. M. Barrer and N. McCallum. 2pls Chem Soc J p4029-35 D '53

RUBIES, Artificial

Commercial synthesis of star sapphires and star rubies. C. Frondel. il Min Eng 6: Trans 78-80 Ja '54

RUBLOFF, Arthur, 1902-

Called on three men a day, made $50,000 in a year. por Am Bsns 24:21+ S '54

RUBREMETINE

Reduction products of the rubremetinium cation. R. F. Teitz and W. E. McEwen. bibliog Am Chem Soc J 75:4945-9 O 20 '53

RUBY glass. See Glass, Colored

RUDGAL, Harold T. d 1954

Sketch. por Water & Sewage Works 101:235 My '54

RUGS

Rayon rugs cushion chemicals. Chem W 75: 77-8 Ag 7 '54

See also

Carpets
Saran

Cleaning

Rug cleaning machine increases production over 200 per cent. C. T. Ballard. il Elec World 140:148 Ag 10 '53

Rugs that stay cleaner; chemical treatment. il Chem W 73:48-50 O 31 '53

Manufacture

Backsizing carpets and rugs. O. B. Hager. Am Dyestuff Rep 43:172-3+ Mr 15 '54

RULE of the road at sea

International rules of the road, 1948. R. S. Wentworth. il U S Naval Inst Proc 79: 382-7 Ap '53

RULING machines

Amateur scientist; new method of ruling diffraction gratings. A. G. Ingalls. il Sci Am 189:117-18+ O '53

RUM

Pilot plant for rum research. il Chem Eng 60:124+ Ag '53

RUMANIA

See also

Communism—Rumania

Economic policy

Change of plan in Rumania. Economist 168: 709-10 S 12 '53

Disillusionment in Rumania. Economist 170: 105 Ja 9 '54

RUMORS

Rumor factories work overtime even if production lines don't. F. G. Lawrence. Steel 134:55-6 Mr 22 '54

RUN-OFF

Effect of irrigation runoff on surface water supplies; panel discussion. M. B. Cunningham and others. bibliog Am Water Works Assn J 45:1159-78 N '53

Hot cobalt and telemetering system help engineers predict runoff from the Sierra Nevadas. il Elec World News ed 141:30-2 F 1 '54

Modified rational formula for storm water runoff. C. J. Ordon. Water & Sewage Works 101:275-7 Je '54

Radioactive gages signal water content of snow packs as aid in runoff control. il Eng N 151:24-5 D 24 '53

Relation of irrigation runoff to tastes and odors. J. K. G. Silvey. bibliog Am Water Works Assn J 45:1179-86 N '53

Use of indices in estimating peak rates of runoff. W. D. Potter. maps Pub Roads 28:1-8 Ap '54

RUNWAYS, Airport. See Airports—Runways

RUPTURE disk. See Pressure vessels—Safety measures

RURAL dental service. See Dental service, Rural

RURAL electrification administration

Co-op marks site of first REA pole. il Elec World News ed 140:16-17 Ag 17 '53

Co-ops upheld on use of funds. Elec World 139:66 Je 29 '53

Defends REA loan program and policies. A. Nelsen. Pub Util 53:567-8 Ap 29 '54

Generation and transmission loan policy. A. Nelsen. Pub Util 52:867-8 D 3 '53

More funds for REA. Pub Util 53:815-16 Je 24 '54

New approach by REA to end squabble between Kentucky co-ops and power companies. A. Nelsen. Elec World News ed 140: 9 Ag 17 '53

No REA changes without consulting Congress. Elec World 139:98 Je 15 '53

Policy switch short-circuits power deal. map Bsns W p 186+ S 19 '53

REA advisors; new committee. Elec World News ed 141:8 Ja 4 '54

REA clarifies telephone loan policies. Pub Util 52:723-4 N 5 '53

REA completes changes in electric program. Elec World News ed 140:8 S 28 '53

REA interest rates to remain low. A. Nelsen. Pub Util 52:783-4 N 19 '53

REA OK's loan for Michigan cooperative. Elec World News ed 141:9 Ja 18 '54

REA reports progress on EAS contracts. Pub Util 52:923-4 D 17 '53

REA systems, 1953. Elec World 141:188 Ja 25 '54

Status of western REA-financed systems; tabulation. Elec West 112:90-1 F '54

RURAL health. See Hygiene, Rural

RURAL medical service. See Medical service, Rural

RURAL sanitation. See Sanitation, Rural

RURAL sewage disposal. See Sewage disposal, Rural

RURAL sociology. See Sociology, Rural

RUSSIA

God's secret army in Russia revealed; Joseph Johnston's series in the New York daily mirror. Ed & Pub 86.13 My 9 '53

Moth holes in iron curtain; Communist gold lures smugglers of war materials. il Chem W 74:24-5 Mr 6 '54

Security for Russia; proposals from the West. Economist 169:79-80 O 10 '53

See also

Aeronautics, Military—Russia
Airlines—Russia
Airplanes, Military—Russia
Chemical industries—Russia
Coal mines and mining—Russia
Engineering education—Russia
Labor and laboring classes—Russia
Machine tool industry—Russia
Metal working industries—Russia
Petroleum industry and trade—Russia
Scientific literature—Russia
Scientific workers—Russia
Television apparatus industry—Russia

Army

Bulganin's conscripts. Economist 168:687-8 S 12 '53

Commerce

Danube carries strategics to reds. map Iron Age 173:95-6 My 20 '54

No curb needed, Russia can't pay. Chem W 74:34+ Je 5 '54

Reasons for the red gold. Economist 169:767-8 D 5 '53

Russia; how it scuttles our trading ban. Iron Age 172:55-6 Ag 20 '53

To please the Russian consumer. Bsns W p68-9 D 26 '53

Trade; why Europe looks to the East. il Iron Age 172:56-7 Ag 20 '53

Trading with the ruble area. V. L. Horoth. map Mag of Wall St 93:611-13+ F 20 '54

What and where can Russia buy now? Am Mach 98:165-6 Ag 16 '54

Italy

Increased trade between Italy, U.S.S.R. projected under protocol for 1953-54. For Comm W 51:12 F 22 '54

Italy looks eastwards for trade. Economist 169:597-8 N 21 '53

United States

Export policy toward Soviet bloc is unchanged. S. Weeks. For Comm W 51:22 Ja 25 '54

Commercial policy

Peron's deal with Moscow. Economist 168:93 Jl 11 '53

RUSSIA—Commercial policy—*Continued*

Soviet import policy. Economist 169:649 N 28 '53

Economic conditions

Claims of Russian strength ignore some hard facts. Barron's 33:1 N 30 '53

Mr Malenkov and the housewives. Economist 169:753-4 D 5 '53

Economic policy

Malenkov's gamble. Economist 168:432-4 Ag 15 '53

Mikoyan; at your service. Economist 169:321 O 31 '53

Retreat is the only way out. Bsns W p31-2 S 26 '53

Soviet economy after Stalin. Economist 168:573-4, 707-8, 788+; 169:105+ Ag 29, S 12-19, O 10 '53

Economic relations

Rouble diplomacy? Economist 168:834-5 S 26 '53

Windfall of roubles. Economist 168:249 Jl 25 '53

China

Malenkov aid for China. Economist 168:620 S 5 '53

Europe

Behind the curtain. Economist 168:81-2 Jl 11 '53

Finland

Soviet has death grip on Finland. Iron Age 174:120 S 16 '54

Germany

Opening the door; German-Soviet trade increasing. Chem W 74:24 Mr 27 '54

Foreign relations

Berlin prospects. Economist 170:3-4 Ja 2 '54

Choice for Europe. Economist 169:791-2 D 12 '53

Good news from the Danube. Economist 170:86 Ja 9 '54

Molotov stalls; foreign ministers' Berlin meeting. Economist 169:948 D 26 '53

Molotov's second thoughts after the Soviet note. Economist 169:567 N 21 '53

Moscow; ready to talk? Bsns W p34 D 26 '53

Moscow will not talk; Soviet reply to West's invitation to Lugano. Economist 169:405-6 N 7 '53

No new line. Economist 168:429-30 Ag 15 '53

Out-manœuvred; comment on latest Soviet note. Economist 169:721-2 D 5 '53

Soviet note of Nov. 5th; summary of main points and argument. Economist 169:502 N 14 '53

Voice of Molotov. Economist 168:365 Ag 8 '53

Weapon of secrecy; disarmament issue. Economist 169:568 N 21 '53

Will East and West bury the hatchet? Bsns W p27-8 O 3 '53

Austria

Lessons from Vienna. Economist 168:370 Ag 8 '53

Soviet flirtation with Austria. Economist 168:457-8 Ag 15 '53

China

Basis of Sino-Soviet accord. J. D. Hittle. il U S Naval Inst Proc 79:372-81 Ap '53

China through Soviet eyes. Economist 170:101 Ja 9 '54

Germany

Decade after Stalingrad. Economist 169:321-2 O 31 '53

Leg-up for east Germany. Economist 168:561 Ag 29 '53

Molotov's dud. Economist 168:500+ Ag 22 '53

Turkey

Guardians of the Straits. map Economist 168:307-8 Ag 1 '53

United States

Atomic diplomacy and Eisenhower atomic energy proposal. Economist 170:79 Ja 9 '54

Reacting to Russia's H-blast. Bsns W p25 Ag 29 '53

Reply to Eisenhower; Molotov's response to atomic energy control proposal. Economist 169:947 D 26 '53

Industries and resources

Russia; technology welds red orbit. il Iron Age 172:49-50 N 26 '53

Soviet industrial planning for mobilization. il map plans diags Automotive Ind 111:56-63+ Ag 15; 56-63+ S 15 '54

Politics and government

Building up Malenkov. Economist 168:558 Ag 29 '53

Burying Beria in Georgia. Economist 168:864 S 26 '53

Double trouble for Moscow. Bsns W p28 D 19 '53

End of Beria; return of the vigilantes. Economist 170:16 Ja 2 '54

Fall of Beria. Economist 168:182-3 Jl 18 '53

Malenkov looks for a line. Economist 169:316-18 O 31 '53

Malenkov's dangerous ally. Economist 168:246+ Jl 25 '53

Moscow misses a date; anniversary of the 19th All-union congress of the Communist party. Economist 169:85 O 10 '53

New face on the Soviet. Bsns W p27-8 Ag 15 '53

Purges in the Soviet republics. Economist 168:263-4 Jl 25 '53

Red peril on the wane! G. Kennan. Comm & Fin Chr 178:627+ Ag 20 '53

Rise of Nikita Khrushchev. Economist 168:768 S 19 '53

RUSSIAN authors. See Authors, Russian

RUSSIAN language

Electrical units in Russian. G. F. Schultz. Inst Radio Eng Proc 42:349 Ja '54

Some Russian terms and abbreviations. G. F. Schultz. Inst Radio Eng Proc 42:348 Ja '54

RUSSIAN literature

Monthly list of Russian accessions. S. G. Machelson. J Chem Educ 30:418-19 Ag '53

RUST. See Corrosion and anti-corrosives

RUTGERS university

Institute of microbiology

Microbiology in colonial garb. il Chem & Eng N 32:2125 My 24 '54

Monument to microcosm. Chem W 74:68, 70 Je 19 '54

RUTHENIUM

Decomposition of ammonia on ruthenium, rhodium and palladium catalysts supported on alumina. A. Amano and H. Taylor. bibliog Am Chem Soc J 76:4201-4 Ag 20 '54

Electrodeposition of ruthenium from very dilute solutions. M. H. Lietzke and J. C. Griess, jr. Electrochem Soc J 100:434-41 O '53

Slow neutron velocity spectrometer studies; Re, Ta, Ru, Cr, Ga. E. Melkonian and others. Phys R 92:702-15 N 1 '53

Analysis

Chemical methods for separating and determining metals contained in platiniferous materials. R. Gilchrist. bibliog(25 ref) Anal Chem 25:1617-21 N '53

Concentrating and dissolving platinum metals. F. E. Beamish and W. A. E. McBryde. bibliog Anal Chem 25:1613-17 N '53

Study of osmium and ruthenium distillations. A. D. Westland and F. E. Beamish. bibliog diags Anal Chem 26:739-41 Ap '54

Isotopes

Quantitative electrodeposition of radioruthenium. J. C. Griess, jr. bibliog Electrochem Soc J 100:429-33 O '53

Ruthenium isotope abundances. L. Friedman and A. P. Irsa. bibliog Am Chem Soc J 75:5741-3 N 20 '53

Nuclear reactions

Fission yields of Ru^{103} and Ru^{106}. W. H. Hardwick. bibliog Phys R 92:1072-3 N 15 '53

RUTHENIUM fluorides

Complex fluorides of quadri- and quinquevalent ruthenium. M. A. Hepworth, R. D. Peacock and P. L. Robinson. Chem Soc J p 1197-201 Ap '54

RUTHENIUM nitrates
Ruthenium nitroso-trinitrate. F. S. Martin. Chem & Ind p824 Ag 1 '53

RUTHENIUM oxides
Distribution of ruthenium tetroxide between carbon tetrachloride and aqueous alkali, acid, and neutral salt solutions. F. S. Martin. diags Chem Soc J p2564-70 Jl '54
Polarographic studies of ruthenium in oxidation states IV, VI, VII and VIII. M. D. Silverman and H. A. Levy. bibliog Am Chem Soc J 76:3319-21 Je 20 '54

RUTHENIUM sulfate
Isolation of a sulphate of ruthenium. M. A. Hepworth and P. L. Robinson. Chem Soc J p3330-2 O '53

RUTILE
Bonanza in the beach sands crossing Queensland-New South Wales border. il Chem W 75:84-5 S 18 '54
Plots new targets; Republic Steel firm to develop Mexican rutile deposits. C. M. White. Iron Age 173:80-1 My 6 '54
Smart advertising identifies an unknown processor and its products, Orefraction, inc. Sales Management 71:52 O 15 '53

RUTLAND, Vermont

Sewerage

Cement blocks used for sewer relocation project. F. L. Rice. diags Pub Works 85:84 Jl '54

RYAN, William Francis, 1889-
ASME honors engineers; honorary membership. por(p65) Mech Eng 76:66 Ja '54

RYE
Quality of cereals and their industrial uses; malting of cereals other than barley. R. T. Potter. bibliog Chem & Ind p787-9 Jl 25 '53
Quality of cereals and their industrial uses; rye for breadmaking. E. Möinichen. il Chem & Ind p496-9 My 23 '53
Rye, 1949-1952. Survey of Cur Bsns 1953 Sup p 140 [supplemented in monthly numbers]

RYE germ
Isolation of campesterol and Δ^7-stigmastenol from rye germ oil. H. A. Schuette and W. E. Link. Am Chem Soc J 76:4192 Ag 20 '54

S

SAAR (territory)
Tangle of the Saar. Economist 169:730 D 5 '53

Foreign relations

France's case on the Saar. Economist 169:755-6 D 5 '53

SABENA Belgian airlines
Passengers by helicopter. Economist 168:50 Jl 4 '53

SABOTAGE
Utility challenge to saboteurs; Defense facilities protection act of 1954. T. N. Sandifer. Pub Util 54:321-4 S 16 '54

SACCHARIC acid
Potassium acid saccharate by nitric acid oxidation of dextrose. G. C. Mustakas, R. L. Slotter and R. L. Zipf. bibliog flow sheet il diag Ind & Eng Chem 46:427-34 Mr '54

SACCHARIDES
Synthesis of β-linked glucosaccharides by aspergillus niger (strain 152). S. A. Barker and others. bibliog Chem & Ind p 1287 N 28 '53
See also
Oligosaccharides

Analysis

Acid reversion products from D-glucose. A. Thompson and others. bibliog Am Chem Soc J 76:1309-11 Mr 5 '54
Hydrolysis of polysaccharides by a cation exchange resin and identification of monosaccharide components by paper chromatography. R. E. Glegg and D. Eidinger. bibliog il Anal Chem 26:1365-7 Ag '54
Quantitative analysis of mixtures of mono- and di-saccharides. W. M. Corbett. bibliog Chem & Ind p 1285 N 28 '53

SACCHARIN
Improved procedure for the preparation of alkyl halide derivatives of saccharin. H. L. Rice and G. R. Pettit. bibliog Am Chem Soc J 76:302-3 Ja 5 '54
No byproducts in new saccharin process; Maumee chemical co. il Chem Eng 61:128+ Jl '54
Stepping-stones to saccharin. Chem Eng 61:150+ Jl '54
Tempest in a pop bottle; renewed struggle for sweetener sales. Chem W 73:73-4 Ag 15 '53

SACCHAROMYCES. See Yeasts

SACHS exchange moment. See Magnetic moment

SACRAMENTO, California
Sacramento, a model for small city redevelopment. il map plans diags Arch Forum 100:152-9 Je '54

Sewerage

Economics of Sacramento's sewage treatment plant. G. B. Arthur. il Pub Works 85:51-3+ Ja '54

Streets

Appraisal of one-way street system. D. J. Faustmann. plan Am Soc C E Proc 79 [no 234]:1-6 Ag '53

SACRAMENTO mountains, New Mexico
Upper Ordovician and Silurian stratigraphy of Sacramento mountains, Otero county, New Mexico. L. C. Pray. bibliog il maps diags Am Assn Pet Geologists Bul 37:1894-918 Ag '53

SACRAMENTO river
None but the pure for Sacramento and its river. il Chem W 75:23 S 11 '54

SAFE deposit box insurance. See Insurance, Safe deposit box

SAFE deposits
Five pitfalls of safe deposit management. P. M. Becker. Banking 46:45-6+ D '53

Law

Safe deposit procedures. J. A. McBain. Banking 45:61 F; 57 Mr; 47 Ap; 60 My; 111 Je; 46:50 Ag '53

SAFES
Point-of-use protection pays; savings ledger desk-safes at Farmers and merchants national bank of Los Angeles. W. J. Cassin. il Bankers Mo 70:40-1 D '53
Safes; reports safemaking ahead of '53; Hermann safe co. il Iron Age 173:75 Ap 1 '54

SAFETY advertising
Safety makes good public relations; Avco mfg. corp. Safety Maint & Prod 108:38 Ag '54

SAFETY associations
See also
Royal society for the prevention of accidents

SAFETY at sea
Coast guard inspects ocean liners for safety. il Marine Eng 58:86-7 D '53
International convention standards now in effect; position of United States coast guard. Weekly Underw 169:1374 D 5 '53
National safety council Marine section meeting, New York, April 5-8. Marine Eng 59:51-2 My '54
Safety in ships. J. P. Thomson. Engineering 177:356-7 Mr 19 '54
See also
Radio aids to navigation
Ships—Fires and fire protection

SAFETY awards. See Safety contests and awards

SAFETY belts
Safety belts and harness. il Nat Safety N 69:150+ Mr '54
Safety belts and lanyards. J. C. Nelms, jr. il Can Min J 75:61-2 S '54
Safety belts for drivers! il Safety Maint & Prod 107:69 My '54

SAFETY campaigns
Does safety boomerang? A. A. McLean. Safety Maint & Prod 108:26-7 Ag '54
Dress up your safety message. E. M. Applegit. Nat Safety N 68:34+ D '53
Hey lady! that's your life you're risking! police safety car. il Safety Maint & Prod 107:75-6 Ap '54

SAFETY campaigns—*Continued*

It's not long way to safety; Hitachi shipbuilding & engineering co. ltd. H. Kuwabara. il diag Nat Safety N 69:34-5+ Ja '54

Lifesavers committee making real strides; Highway lifesavers committee of Oregon citizens, inc. M. Dana. Weekly Underw 169: 758 S 26 '53

Nose for safety; George S. Kurtz. il Nat Safety N 69:66 Ja '54

Walk on the green slogan as aid to national safety program. Paint Oil & Chem R 117:23 S 9 '54

See also

Newspapers—Safety campaigns

SAFETY cartoons

Crucible cartoons teach safety. il Iron Age 173:75 F 11 '54

SAFETY charts. See Safety literature

SAFETY clothing. See Clothing, Protective

SAFETY codes

Better housing for cannery workers. Nat Safety N 68:76+ N '53

Current status of the work of subcommittee eight of ASA B31 on safety code for gas transmission and distribution facilities. F. A. Hough. Am Gas Assn Proc 1953:697-702

Fire prevention code. Safety Maint & Prod 107:46 Mr '54

Following established safety rules. M. M. Braidech. Am Gas Assn Proc 1953:954-7

Legal codes affecting car air conditioning need to be modernized. J. Geschelin. Automotive Ind 109:67+ O 1 '53; Same. Refrig Eng 61:1201+ N '53

Living with the Wisconsin code. A. J. Demse. Gas Age 113:41-4+ My 6 '54

New York state sets up a new safety code for explosive powered tools. il Safety Maint & Prod 107:23-4 Ap '54

That unpleasant third E; enforcement. L. R. Nuhfer. Nat Safety N 70:28-9+ S '54

What do you find in the new ladder code? H. G. Lamb. il Safety Maint & Prod 108: 18-20 Ag '54

SAFETY committees

Conference committee plan for safety; Worcester County safety council. N. P. Ingalls. Safety Maint & Prod 106:28-9 D '53

Management's plant-safety drive zeros lost-time accidents; General foods corp. A. J. Deile. il Food Eng 26:69-71+ Jl '54

Program for both large and small plants. W. W. Carson, jr. il Nat Safety N 69:46+ My '54

Safety is no secret, just common sense. J. H. Findlay. Pulp & Pa of Can 55:206+ Je '54

Self insurance system improves safety record; Ryan aeronautical co. M. M. Clancy. Iron Age 173:104-5 Je 24 '54

SAFETY conferences

Planning wide-awake meetings. il Nat Safety N 69:72+ Je '54

President's conference on occupational safety, Washington, D.C. May 4-6. Nat Safety N 69:22-3+ Je '54

Safety speaks two languages. Nat Safety N 69:79 Je '54

SAFETY congresses

Greater Chicago safety council 31st annual conference and exposition, May 13-14. Safety Maint & Prod 108:17+ Jl '54

New York safety council 24th annual safety convention and exposition. Safety Maint & Prod 107:29-30+ My '54

President's safety conference outlines nine-point program to reduce annual injuries. R. G. Gibbs. Chem & Eng N 31:4504+ N 2 '53

See also

National safety council

SAFETY contests and awards

Air safety awards for 39 U.S. air lines. Nat Safety N 70:78 Ag '54

Associated general contractors safety awards to Pennsylvania contractors. Roads & Sts 97:120 Je '54

Associations win awards, too. A. M. Baltzer. Nat Safety N 68:28-9+ N '53

Biennial National first-aid and mine-rescue contest, Fort Wayne, Ind. Sept. 29-Oct. 1. il Coal Age 58:138 N '53

Can a safety contest save worker's eye, or his hand, or his foot? G. J. Neumann. il Safety Maint & Prod 108:11-12+ S '54; Abstract. Iron Age 173:67-8 Jl 1 '54

Celanese corporation sets new marks in industrial safety. Weekly Underw 170:404 F 13 '54

Copper and brass association holds first contest. Nat Safety N 70:68 Ag '54

Ecusta Paper wins Fritz safety trophy for '52. H. E. Newbury. il Paper Ind 35:886-8 N '53

Edward J. Emond voted 1953 Dow award. Nat Safety N 70:80-2 Jl '54

Family day for safety; Consolidated mining and smelting company of Canada. il Nat Safety N 69:152 Je '54

Fischer again wins NRMCA safety contest. Concrete 62:32 Ja '54

Five-star contest; United air lines. il Nat Safety N 68:54+ N '53

For distinguished service; National safety council awards for outstanding records. Published in monthly numbers of National safety news

Four underground mines receive top safety awards for perfect safety records. il Explosives Eng 31:180-5 N '53

Fraser's Newcastle mill receives safety awards. il Pulp & Pa of Can 55:236+ S '54

Getting the wives in on safety; Gisholt machine co. R. J. George. Factory Management 112:114-15 My '54

Hunter Tunnel miners awarded Sentinels of safety trophy. Explosives Eng 31:146-7 S '53

National constructors association awards for outstanding safety records in 1953. Safety Maint & Prod 107:66-8 Je '54

National first-aid and mine-rescue contest, 14th, Fort Wayne, Ind. Sept. 29-Oct. 1. Min Cong J 39:110-11 N '53

National safety competition of 1952; with list of winners, 1925-1952; awards of certificates of achievement. S. T. Reese. il Explosives Eng 31:71-91 My '53

National safety competition of 1953; with list of winners, 1925-1953; awards of certificates of achievement. S. T. Reese. il plan Explosives Eng 32:71-92 My '54

N.S.G.A. safety competition. Rock Prod 56: 144+ O '53

1953 NSC pulp and paper contest shows nine per cent rate reduction. Paper Ind 36:78 Ap '54

1953 Safety council statistics and awards. India Rubber World 130:81 Ap '54; Rubber Age 75:89 Ap '54

Record's good, but they're not resting; A. O. Smith corp. il Nat Safety N 70:82 S '54

Safety leaders of 1953; winners in National safety council's industrial contests. il Nat Safety N 69:36-7+ Ap '54

Safety's allies, the children; A. B. Dick co. contest. il Nat Safety N 70:50 S '54

Sentinels of Safety awards. Min Cong J 40: 59 Jl '54

Seven safety awards for St Regis. Paper Tr J 138:34 Je 25 '54; Paper Ind 36:408 Jl '54

Six railroads win National safety awards. Nat Safety N 70:79 Ag '54

Twenty-one railroads win public safety awards. Nat Safety N 70:81 Ag '54

W. Earl Hall to receive 1954 Criss safety award given by Mutual of Omaha. East Underw 55:28+ O 1 '54

Winner is safety! Eagle & Phenix division, Fairforest co. F. K. Van Horn. Safety Maint & Prod 107:24-6 Mr '54

See also

Fire protection—Contests and awards

Harriman memorial medals for safety

SAFETY councils

Forty years of safer living is Rochester council's anniversary theme. R. Elliott and J. W. Germond. il Nat Safety N 69:26-7 Je '54

Pioneer local council; Lehigh Valley safety council. H. A. Seward. il Nat Safety N 69: 22-3+ My '54

See also

National safety council

SAFETY devices and measures

Anhydrous ammonia; hazards and precautions; data sheet. bibliog(31 titles) flow charts il diag Nat Safety N 69:34-5+ F '54

Automation and dust control; coal-processing plant of Penn-Rillton co. il Nat Safety N 70:34-5+ S '54

Benzene; hazards and precautions; data sheet. M. M. Luckens. Safety Maint & Prod 107:63-4 My '54

Camera catches safety in the act! A. B. Hoftiezer. il Safety Maint & Prod 107:13+ Je '54

Card index to 7000 materials, the key to Westinghouse safety. il Chem & Eng N 31:4136+ O 5 '53

Checking dust control systems. W. G. Hazard. il Safety Maint & Prod 108:44-6 S '54

Controlled conditions, room to grow; W. A. Sheaffer pen company of Canada. il Nat Safety N 70:34-5+ Ag '54

Cops of the inside road; Plymouth auto assembly plant. il Safety Maint & Prod 107:69 My '54

Foremen on the safety team; safety programs sponsored by management clubs of the National association of foremen. D. Sims. Nat Safety N 69:20-1+ Je '54

From parking lot to plant, safely. il Mill & Factory 54:96 F '54

Guard essential services against power failure. il Safety Maint & Prod 107:59 F '54

Hand and power tools. bibliog il Nat Safety N 69:190+ Mr '54

Ideas stop accidents. H. Johnson. il Safety Maint & Prod 108:11-13 Ag '54

Instruments; hygiene's weapons; illustrations with text. Safety Maint & Prod 108:36-7 Ag '54

Is your plant safe? D. J. Wood. il Mill & Factory 54:104-6 Mr '54

Is your safety program out of date? Management R 42:463-4 Ag '53

Let the belt carry the static. F. H. Rumble. il Safety Maint & Prod 107:13-14 Ja '54

Let's have more sales effort at the job level. J. M. Roche. Nat Safety N 69:28-9+ My '54

Machines can call for help. E. Church. il Nat Safety N 69:38-9 Je '54

Make your vacation safe. Pulp & Pa of Can 55:213 Je '54

Mr Public Official; what can you do about safety? H. D. Jones. Pub Works 85:134+ Jl '54

National safety news; eighteenth annual safety equipment issue. bibliog il plans diags Nat Safety N 69:1-252 Mr '54

Plant enemy number one; Electric storage battery co. il Nat Safety N 70:30-3+ Ag '54

Plant safety begins with top management; abstracts. E. F. du Pont. Weekly Underw 170:1100 My 1 '54; Management R 43:300-1 My '54

Problem of public employee safety. W. R. LaDue. Am Water Works Assn J 45:1211-18 N '53; Same cond. il Pub Works 84:56-7+ N '53

Proving ground for safety. il Nat Safety N 68:26-7+ N '53

Safeguarding employees at Westinghouse. il Comp Air Mag 59:80 Mr '54

Safety increases profits. J. D. Dorsett. Safety Maint & Prod 107:53-4 Je '54

Safety is planned, it doesn't just happen; Westinghouse television-radio division. il Mill & Factory 53:96-7 N '53

Safety notebook. il Chem Age (Lond) 71: 283-5, 489-91, 732 Ag 7, S 4, O 2 '54

Small businesses and associations. A. M. Baltzer and R. D. Currie. Published in monthly numbers of National safety news

Some thoughts on safety. L. F. Johnson. Advanced Management 19:33 Ja '54

Ten commandments of safety for supervisors. C. P. Boyle. Management R 42: 721 D '53

Thirsty granules; absorbents get rid of many hazards under foot. W. A. Jaffee. il Nat Safety N 68:42+ D '53; Safety Maint & Prod 108:19-20+ S '54

Trouble with safety? its free. C. T. Chappel. Nat Safety N 69:39+ Ap '54

Were they better in the good old days? J. A. Quesal. il Safety Maint & Prod 107:11-13+ My '54

What is industry doing about safety? Mill & Factory survey of the month. Mill & Factory 54:69-70 Je '54

What makes a plant safe? abstract. W. K. Ousley. Automotive Ind 110:532 Mr 15 '54

What price accidents; 30 accident-free years is no accident; Newman plumbing and heating co. il Dom Eng 184:132-4+ S '54

Worker participation in safety through job analysis. W. S. Walker and C. J. Potter. Personnel 31:141-7 S '54

Working women. Nat Safety N 69:73+ Mr '54

You can depend on wire rope. il Nat Safety N 70:30-1+ S '54

See also

Automobile driving
Clothing, Protective
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Eye—Protection
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Street lighting—Safety aspects
Traffic signals

also subdivision Safety measures under special subjects, e.g.

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Paper and pulp mills
Petroleum industry and trade
Petroleum refineries
Pressure vessels
Quarries and quarrying
Railroads
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Shipyards
Textile mills

Bibliography

Safety library. R. Parks, comp. Published in monthly numbers of National safety news

Psychological aspects

When safety teachers disagree; human motivation and behavior. N. Mozley. Nat Safety N 70:40+ Ag 54

See also

Accidents, Industrial—Psychological aspects

SAFETY education

Fellowship awards made for safety education; New York university's center for safety education. Weekly Underw 169:429 Ag 22 '53

Go fly a kite, but be careful; students are being inculcated with essentials of safety through a program instituted by Sacramento municipal utility district. D. H. Bohanon. il Elec World News ed 139:18 Je 8 '53

Traffic accident prevention techniques to be taught, nationwide, by State College to local motor vehicle fleet supervisors. A. E. Neyhart. Weekly Underw 169:758 S 26 '53

See also

Moving pictures in safety education
National safety council
Safety instructions and training

SAFETY engineering

First aid training important factor in attaining good safety record. V. R. Croswell. Ind & Eng Chem 46:sup95A-6A+ Jl '54

Human-engineering aspects of safety. R. A. McFarland. Mech Eng 76:407-10 My '54; Same cond. Nat Safety N 69:30-1+ Je '54

SAFETY engineering—*Continued*
Human relations is good safety approach. Safety Maint & Prod 106:24 D '53
Plan safety for better morale, higher production; Buick motor division of General motors corp. W. G. Patton. il Iron Age 172: 87-91 Jl 30 '53
Planning the safe plant. il plans Nat Safety N 69:9-10+ Mr '54
Walk through the plant. Safety Maint & Prod 106:23-4 D '53
What safety contributes to production. J. E. Trainer. Safety Maint & Prod 107:19+ Ap '54; Abstract. Management R 43:444-5 Jl '54
See also
Building—Safety aspects
Chemical plants—Safety measures
Coal mines and mining—Safety measures
Mining engineering—Safety measures
Petroleum engineering—Safety measures
Safety inspection

SAFETY engineers
How much authority should safety directors have? A. Reese. Pet Refiner 32:187-8+ Ag '53; Same. World Oil 137:60-1 Ag 1 '53
Safety engineer's occupational disease; its cause and cure. E. W. Martin. Safety Maint & Prod 107:22-3 Mr '54
Selling safety is their job. Chem W 75:42+ Ag 7 '54
Supervision; key to safety; work of C. M. Olson. il Chem W 73:38-40+ N 14 '53

SAFETY equipment
Anywhere you look! safety meets your eyes in this plant; West Virginia pulp & paper co. R. K. Meredith. il Safety Maint & Prod 107:21-2 My '54
Employee is a customer. il Nat Safety N 69: 3+ Mr '54
Facts about modern safety equipment. il Mill & Factory 54:468-9 My '54
If you want employees to use protective equipment, keep it clean! il Safety Maint & Prod 107:36-7 Je '54
Investment in protection; Chance Vought aircraft inc. il Nat Safety N 69:36-7 Je '54
National safety news; eighteenth annual safety equipment issue. bibliog il plans diags Nat Safety N 69:1-252 Mr '54
Safe and sanitary; safety equipment cleaned, repaired. il Nat Safety N 70:44 S '54
See also
Clothing, Protective
Fire extinguishers
Gloves, Safety
Respiratory apparatus

SAFETY exhibits
Exhibits feature power-line and elevator safety; National bureau of standards. il Nat Safety N 69:104 F '54
41st National safety congress safety exposition, Chicago, Oct. 19-23; with list of exhibitors. il Nat Safety N 68:38-9+ D '53

SAFETY glass. See Glass, Safety

SAFETY glasses. See Goggles

SAFETY gloves. See Gloves, Safety

SAFETY hats. See Hats, Safety

SAFETY in the home
Drive promoted to build added safety into homes. L. L. Frank. Am Bld 75:214-17 Jl '53
Home safety, a family project. W. E. Remmers. il Nat Safety N 70:18-19+ Jl '54
See also
Accidents in the home

SAFETY inspection
Camera catches safety in the act! A. B. Hoftiezer. il Safety Maint & Prod 107:13+ Je '54; Same abr. Nat Safety N 70:26-7 Jl '54
Card index to 7000 materials, the key to Westinghouse safety. il Chem & Eng N 31: 4136+ O 5 '53
Inspect those chains! H. F. Reid, jr. il diag Nat Safety N 69:32-3+ My '54
So you like checklists, too? P. W. Beedle. il Nat Safety N 69:34-5+ My '54
Using electronics in plant operations. W. A. Black. il Nat Safety N 69:24-5+ Ja '54

SAFETY instructions and training
Drivers love this brand new safety method; Melvin G. Bullock. il Bus Transportation 32:29-31 D '53
Effective safety manual for American Gas & Electric system. A. M. Perry. il Elec World News ed 140:16-18 N 23 '53
Learning how to make a million lifts a year; crane operators. H. F. Sherman. il Mill & Factory 54:107-9 Ja '54
Off to a good start; visual demonstrations. J. P. Mondi. Nat Safety N 69:38-9 Ap '54
100 per cent training; big lift for safety. il Coal Age 58:66-71 D '53
Operating manuals. V. R. Croswell. Ind & Eng Chem 45:sup 116A-18A N '53
Projected magic. G. F. Griffin. il Nat Safety N 69:68-9+ Je '54
Safety works, if you work at it! H. A. Forsberg. il Foundry 82:80-3+ Ag '54
Selling safety to the individual. A. H. Zeilinger. il Min Cong J 40:43-5 S '54
Students should have advantages of safety instruction and supervision in college laboratories and pilot plant. V. R. Croswell. Ind & Eng Chem 45:sup 114A-16A S '53
Training in safety. il Nat Safety N 69:245-6+ Mr '54
Visual aids demonstrate tag-out rule. il Nat Safety N 70:70 S '54
Visual aids for the safety engineer. il Min Cong J 40:41-3 Jl '54
See also
First aid in illness and injury
National safety council
Safety posters

Bibliography

Occupational safety services; catalog. il Nat Safety N 69:N 1-N51 Mr '54

SAFETY labels
Warning labels; ABCM system for hazardous chemicals. Chem Age (Lond) 69:603-4 S 19 '53; Chem & Ind p987 S 19 '53

SAFETY lamps
Atlas Diesel compressed air operated mining lamp. il Engineer 196:604-5 N 6 '53

SAFETY lamps, Electric
Flameproof handlamp. il Chem Age (Lond) 69:504 S 5 '53
Planned lamp handling; Dusquesne Light's Warwick mines. il Coal Age 58:96-7 N '53

SAFETY laws and regulations
Illinois surveys safety act. Nat Safety N 70:87-8 S '54

SAFETY literature
New safety charts available; handling, storing and shipping of hazardous chemicals at a glance. il Chem Eng 60:146 O '53

Bibliography

Occupational safety services; catalog. il Nat Safety N 69:N 1-N51 Mr '54

SAFETY manuals. See Safety instructions and training

SAFETY movement
Essays in the philosophy of safety. N. Mozley. Nat Safety N 69:28-9+ F; 26-7+ Ap '54
Fight for life; report on the 40th year of the National safety council. Nat Safety N 68: 97-132 N '53
Green Cross news. T. A. Burke, comp. Published in monthly numbers of National safety news
Public employees; overlooked quotients in safety. H. D. Jones. Pub Works 85:141-2 Mr '54
Role of public information in the safety cause. W. E. Hall. S A E J 61:51-8 N '53
Safety is spreading through Latin America. W. C. Pope. il Nat Safety N 70:28-9+ Jl '54
Traffic safety program must have support at local municipal level. H. F. Janes. Roads & Eng Constr 92:135+ Mr '54
Will to safety is the key to reduction of traffic hazards. W. A. Bryce. Roads & Eng Constr 92:130+ Mr '54

SAFETY organization
Accidents controlled by good safety program. Constr Methods 36:156 Je '54
Conservation at Copper basin. C. Fish. il Nat Safety N 70:18-21+ S '54
Different look at safety. E. F. du Pont. Nat Safety N 69:18-19+ Je '54; Same. Advanced Management 19:5-7 Jl '54; Same cond. Safety Maint & Prod 108:9-10+ Jl '54
How to make safety a habit and so win a jackpot of benefits; Los Angeles brewing co. il Food Eng 26:70-3 Ag '54

SAFETY organization—*Continued*

Injury that wasn't a handicap; Solar aircraft co. il Nat Safety N 68:32-3+ D '53

Organizing an industrial safety program. G. L. Garbell and R. H. Albisser. bibliog il Chem & Eng N 31:2270-3, 2380-2 Je 1-8 '53

Part of the management team; Hiram Walker safety department. Nat Safety N 69:30-1+ Ap '54

Prevent accidents! monthly safety program uses this three-point approach; Charles Pfizer & co. A. P. Osti. il Power 98:86-9 Ap '54

Safety starts at the top. J. F. Imle. il World Oil 137:95-7 N '53

Safety's greatest enemy. J. L. McCaffrey. Nat Safety N 69:18-19+ Ap '54

Take a fresh look at your safety program. E. G. Quesnel. Bus Transportation 33:31-3 Mr '54

Ten-point municipal safety program; abstract. D. P. Webster. Safety Maint & Prod 108:26 Ag '54

They're chalking up safe man-hours by the millions; Crosse & Blackwell co. A. B. Ott. il Food Eng 25:84-5+ N '53

We've learned from our failures; management's role in accident prevention. H. H. Hillman. Nat Safety N 69:18-19+ My '54

Who is morally responsible? P. F. Power. Nat Safety N 68:58+ N '53

See also

Safety committees

SAFETY posters

Safety posters. Published in monthly numbers of National safety news

SAFETY razors

Advertising

Premium with a purpose; to get more counter display; Eversharp, inc. il Ptr Ink 243:95 Ap 24 '53

SAFETY research

More room for safety research; dedication of the new Haskell laboratory for toxicology and industrial medicine. il Chem & Eng N 32:1510-11 Ap 12 '54

Pointers on how to avoid accidents can be ferreted from reports of investigators. V. R. Croswell. Ind & Eng Chem 46:sup 103A-5A My '54

SAFETY shoes. See Shoes, Safety

SAFETY signs

Outdoor safety signs attract attention. il Safety Maint & Prod 107:29 Mr '54

Safety signs. il Nat Safety N 69:247+ Mr '54

School bus marker folds up and becomes safety sign. il Bus Transportation 33:45 Ap '54

SAFETY standards

Adopt uniform safety rules; PCEA. il Elec West 111:116 S '53

Role of standards in the refrigeration industry. G. F. Hussey jr.; J. R. Chamberlain. Refrig Eng 62:41-2+ Mr '54

See also

Safety codes

SAFETY valves

Get a tight safety valve! H. J. Bellarts. il Power 98:117 Ap '54

Look inside your jet-flow safety valve, keep it working. S. Elonka. il Power 98:118-19 My '54

Safety heads or fusible plugs for refrigeration; reference data. L. J. Murphy. Heat & Ven 50:162a-162b D '53

What caused water level irregularities? diag Power Eng 58:92+ Ja '54

SAFEWAY stores, inc.

Putting Safeway in the right places. il Bsns W p90-2+ D 26 '53

Safeway tries drugs. Bsns W p72+ D 5 '53

SAFFLOWER seed oil

Use of safflower oil in paint vehicles. J. W. Prane. Paint Oil & Chem R 117:18+ F 25 '54

SAILING vessels

See also

Yachts and yachting

SAILORS. See Seamen

SAINT ANNE'S oil production company

Stock offered. Comm & Fin Chr 179:440 Ja 25 '54

ST AUGUSTINE

Water supply

Getting fresh water. G. B. Arthur. il Pub Works 85:79-80 Jl '54

ST JOSEPH lead company

Tough antitrust policy; monopoly suit against American Smelting & Refining and St Joseph Lead. Bsns W p29 O 17 '53

ST LAWRENCE waterway and power project

Agreement reached on St Lawrence Seaway. Roads & Eng Constr 92:61+ Ag '54

Development of the St Lawrence waterway; abstract. J. F. Grandy. Elec J 151:1947-8 D 11 '53

FPC draws up permit. il Eng N 151:22 Jl 23 '53

FPC rejects petitions on St Lawrence license. Elec World News ed 140:7 S 14 '53

Ocean comes to Toledo, long-delayed seaway getting under way. map Chem W 74:74+ My 22 '54

Plans for St Lawrence move ahead. Elec World 140:106 N 16 '53

Power pursuit; project cleared by U.S. Court of appeals. Chem W 74:23 F 13 '54

President signs seaway bill. Ry Age 136:14-15 My 17 '54

Project opposed. Elec World 140:105 Ag 24 '53

Review of railway operations in 1953; St Lawrence waterway project. J. E. Monroe. Ry Age 136:128-30 Ja 11 '54

St Lawrence arguments heard. Elec World News ed 139:7-8 Je 22 '53

St Lawrence hearings start. Elec World 139:100 Je 15 '53

St Lawrence seaway and power scheme reaches tender-calling stage. Roads & Eng Constr 92:410 Je '54

St Lawrence seaway; how it will affect Lakes and coastal ports. il map diag Marine Eng 59:42-6+ Ag '54

St Lawrence waterway; abstract. J. F. Grandy. Elec R (Lond) 153:1362 D 18 '53

Seaway approved. map diag Comp Air Mag 59:172-4 Je '54

Seaway; industry watching, waiting. map Iron Age 173:69-71 My 27 '54

Seaway; new channel for business. W. M. Rooney. il map Steel 134:65-7 My 24; 58-9+ My 31; 74-5 Je 7 '54

Seaway passes Congress. Chem & Eng N 32:2004 My 17 '54

Seaway power; FPC grants license to Power authority of the state of New York. Elec World News ed 140:15 Jl 20 '53

Seaway; start building this summer. map diag Iron Age 173:79 My 13 '54

What the seaway means to steel; interview with Ernest T. Weir. Iron Age 173:72 My 27 '54

ST LOUIS

Bond vote clears the way for St Louis plaza and housing. Eng N 151:50+ N 12 '53

Gateway to the West. R. G. Kerlin. Chem Eng Prog 49:sup 17-18+ N '53

New look at civil defense. P. G. Steinbicker. il Pub Works 85:107-9+ S '54

See also

Building—St Louis

Streets

St Louis waited 25 years. il map Bsns W p 194-6 N 14 '53

ST PAUL

Improvement ok'd; St Paul launches decade of public construction. il Eng N 151:45-6 N 26 '53

ST PETERSBURG, Florida

Sanitary affairs

Trash, the big headache. T. E. Goodrow. il Pub Works 84:63-4 N '53

Streets

Street construction in a booming Florida city. H. H. Girard. il Roads & Sts 97:114-16 Je '54

SALACIA prinoides

Characterization of two substances isolated from an Indian shrub. H. Heymann, S. S. Bhatnagar and L. F. Fieser. Am Chem Soc J 76:3689-93 Jl 20 '54

SALARIES
About salaries, more or less. Water & Sewage Works 101:196 Ap '54
Budgeting merit increases. G. I. Cuthbert. Personnel J 32:328-33 F '54
Even keel for salary program of employees in life company offices. G. Wilgus. Nat Underw (Life ed) 58:8+ O 1 '54
How much do agency people earn? W. A. Lowen. Adv Agency 47:64-5+ Ap '54
How much to pay account executives. K. Groesbeck. Adv Agency 47:122+ My '54
On a salary basis. L. F. Johnson. Advanced Management 18:33 Ap '53
Pay plan for management. R. O. Ferguson and others. Factory Management 112:142-4 Mr '54
Salary expense control. J. W. Miller. Banking 46:64+ D '53
White-collar gains keep pace; share in production workers' gains. Bsns W p 171 S 12 '53
White-collar pay; still going up. Management R 43:98-9 F '54
Your people's pay; how much should you tell them about it? Personnel J 33:127-30 S '54
See also
Chemists—Salaries
Civil engineers—Salaries
Engineers—Salaries
Executives—Salaries
Government employees—Salaries
Judges—Salaries
Salesmen—Salaries and commissions
Wages

Regulation

Legacies of the salary freeze. A. Patton. Personnel J 32:133-9 S '53

SALAZAR, Antonio de Oliveira, 1889-
Portrait. Bsns W p 168 N 14 '53

SALBAING, Pierre A. 1914-
Design for independence. pors Chem W 75:44+ Jl 3 '54

SALEM-BROSIUS, inc.
Reverse split of stock is put up to shareholders. Bsns W p 146 N 28 '53

SALES, Reno H.
Daniel C. Jackling award initially conferred. F. Searls, jr. por Min Eng 6:Trans 497-8 My '54

SALES
Can sales contracts be standardized? R. L. Fraser. il Dun's R & Mod Ind 62:67-9+ O '53
See also
Auctions
Instalment plan
Warranty

SALES agents. See Manufacturers' agents

SALES campaigns
AGA's Performance-economy-profit campaign underway next month. Am Gas J 181:49 Ag '54
Benson's butter headache cues flour promotion; International milling co. il Sales Management 71:58+ D 1 '53
Congoleum-Nairn hangs a campaign on U-Do-It theme. il Sales Management 70:102+ Ap 15 '53
48 cars in 48 hours; ballyhoo whoops up sales. il Bsns W p32-3 O 10 '53
Frank admission of error followed by new campaign wins back angry jobbers; Pyrene manufacturing co. R. J. Flood. il Ptr Ink 244:42-3 Ag 21 '53
How Reliance overcame All motors are alike. E. E. Helm. il Sales Management 70:108+ Je 15 '53
How selling pulled us from brink of a 44 per cent drop in sales; Pioneer engineering works, inc. W. A. Rundquist. Sales Management 73:94+ S 1 '54
Look what gigantic competition did for a spunky second-placer! Lucas Valley dairy. Sales Management 72:110+ Je 15 '54
My husband is a salesman for Tip-Top bread; campaign of salesmen's wives. Sales Management 71:84-5 Jl 1 '53
Public never sees our product, but we're a hit in do-it-yourself; Archer-Daniels-Midland co. industry-wide paint program. T. L. Daniels. il Sales Management 72:104+ Je 15 '54
Sales strategy for next year. Bsns W p25-6 N 21 '53
Switcheroo; Acme tests a heavier brew. M. Meyerfeld. il Sales Management 70:96-7 My 20 '53
Turkey men find potential in off-season promotions. E. Gidlow. Sales Management 70:81-2 Ap 1 '53
Zonolite expands the market with do-it-yourself ideas. il Sales Management 71:89-90+ S 15 '53

SALES conferences
Capsule conferences to up-grade salesmen; RCA Victor television division. il Sales Management 73:36+ pt 2 Jl 1 '54
Dynamics in the business meetings. il Sales Management 72:sup 10A-12A pt 2 Ap 15 '54
Films you can rent or buy for meetings and training sessions. Sales Management 71:52-5 S 1 '53
For a successful sales conference pay close attention to detail. J. O. Glenn. Sales Management 71:113-14+ O 1 '53
40 suitcases pack this complete stage; six men can set it up in three hours; portable setting for the Sealtest sales meetings. il Ptr Ink 243:44-5 Ap 24 '53
Sales executives sharpen their wits; Devoe & Raynolds co. il Chem W 75:72-4 S 18 '54
Slide film gets sales aid off to good start; Remington Rand inc. Ptr Ink 243:38 My 29 '53
Visuals clinic; new audio-visual techniques and products to aid convention and meeting planners. il Sales Management 70:39-41 pt 2 Ap 1 '53
What good are exhibitless exhibits? Triple industrial supply convention conference booth program. Sales Management 73:42 pt 2 Jl 1 '54
You lead 'em to a meeting but do you make 'em think? Westinghouse electric supply co. seminars. il Sales Management 73:58-60 pt 2 Jl 1 '54

Entertainment

Films and live talent combined for impact. E. O'Brien. il Sales Management 72:78-81 pt 2 Ja 1 '54
Home office talent stars at musical sales meeting; Panther oil & grease mfg. co. J. James. il Ptr Ink 244:38-40 Jl 10 '53
Panther sells salesmen with song. J. James. il Sales Management 70:28+ pt 2 Ap 1 '53
Penny-wise sales skit. il Sales Management 71:76-8 N 20 '53
This will stop a depression? B. G. Priestley. il Sales Management 72:44+ pt 2 Ja 1 '54

SALES contests
All-employe contest adds 4,200 milk buyers; Rieck Dairy. J. E. Alexander. Sales Management 71:84+ S 1 '53
As sales builders, sports contests leave me cold. J. B. Connors. Ptr Ink 245:44 O 9 '53
Building salesmen through better sales contests. Management R 43:603-5 S '54
Buyers, sellers happy about more ads; summer sales contest. Westinghouse broadcasting co. Sales Management 73:58 Ag 1 '54
Cost; ½ of one per cent of sales prizes; three round-the-world trips; Hallicrafters co. Sales Management 72.121-2 Je 15 '54
Fresh twist on incentives; salesmen compete for holidays; Lucas Valley dairy. Sales Management 73:112+ S 20 '54
Give me a special contest theme any time. R. S. Larkin. Ptr Ink 245:45-6 O 9 '53
Good inquiries and sales contest lead to million-dollar sales increase; West disinfecting co. N. Keine. il Ptr Ink 243:44-6 Je 5 '53
Higher morale, bigger volume, when Pacific Mutual woos salesmen's wives. il Sales Management 70:68+ My 1 '53
Honor awards for top sales performance sharpen incentive, lift morale. Sales Management 71:122+ S 15 '53
How effective are sales contests? abstract. A. Haring and R. H. Myers. Management R 42:398-9 Jl '53
How two companies stage Matchless sales contest. il Gas Age 113:36-7 F 25 '54
My husband is a salesman for Tip-Top bread; campaign of salesmen's wives. Sales Management 71:84-5 Jl 1 '53

SALES contests—*Continued*

RCA's sales engineers set records in space war contest. R. Letwin. Sales Management 71:98+ S 1 '53

Sales contests pay off for F. W. Hoffman & co. P. Lance. il Soap & San Chem 29:116-17+ Jl '54

Salesmen at Armour swap jobs with bosses; Manager-for-a-month program. Sales Management 71:137-8 S 1 '53

Special incentives for salesmen. A. Haring and R. H. Myers. J Marketing 18:155-9 O '53

Todd shot for 40 per cent increase, contest zoomed it to 167 per cent. il Sales Management 71:118+ Ag 15 '53

Twelve rules pay off in Binswanger contest. J. Nadler. Sales Management 71:62 D 1 '53

Want salesmen to get more dealer displays, try a contest; California wine industry's point-of-purchase contest. il Sales Management 73:118+ Ag 15 '54

SALES contests, Dealers'

Ampro sales leap 33 per cent when everybody fights for prizes. H. Marx. il Sales Management 71:30-2+ Jl 1 '53

Coffee sales leap 134 per cent in IGA fiesta drive. il Sales Management 71:84-5 Jl 15 '53

Fedders-Quigan top dealers fly to their reward. il Bsns W p54-7 N 21 '53

How a dealer contest increased sales by 280 per cent. N. Keine. il Ptr Ink 243:52-4+ My 15 '53

Old and new salespeople took to GE's contest. B. Cloud. il Sales Management 71:147+ N 10 '53

SALES contests, Jobbers'

How a contest opened new dealers for Portable Electric. G. W. Weatherby. il Sales Management 71:102+ S 15 '53

SALES contracts. See Sales

SALES conventions

Airplane a star performer; flying sales meetings used by Minneapolis Star and tribune. Sales Management 71:52 pt 2 O 1 '53

Audio-visuals clinic; techniques and products to aid convention and meeting planners. il diag Sales Management 71:55-6 pt 2 O 1 '53

Bang, bang meeting without rehearsals; Helene Curtis industries. A. I. Caplin. Sales Management 71:60+ pt 2 O '53

Baseball takes over at sales meeting; Anheuser-Busch, inc. il Ptr Ink 243:126 Je 26 '53

Baseball theme for ad-sales story. Sales Management 72:77 pt 2 Ja 1 '54

Camera's eye view of Butler's smash-hit sales convention. il Sales Management 72:40-1 Mr 15 '54

Care and feeding of sales meetings. J. Barclay. Sales Management 71:65-8 pt 2 Jl 1 '53

Conventions go regional to aid small businessman. W. W. Marsh. Sales Management 72:34+ pt 2 Ja 1 '54

Don't put on a show for salesmen unless you make it worthwhile; Doeskin products, inc. A. Hirschhorn. il Ptr Ink 245:64+ O 30 '53

Even a price book can be glamorized; Binswanger & co. J. Nadler. il Sales Management 71:44+ pt 2 Jl 1 '53

Even giant trailers can get into the act; Freuhauf trailer co. N. A. Rowe. il Sales Management 73:44+ pt 2 Jl 1 '54

Farm theme conditions salesmen to cooperate; Dravo corp. Sales Management 71:41 pt 2 O 1 '53

Hatful of ideas to spark your distributor meetings. L. H. Brendel. Sales Management 71:150-3 O 15 '53

How a theme is born. il Sales Management 72:65-6 pt 2 Ja 1 '54

How can a meeting help handle field complaints? R. Beckhard. Sales Management 72:22+ pt 2 Ja 1 '54

How do we give salesmen technical information they can use back home? R. Beckhard. Sales Management 71:18+ pt 2 O 1 '53

How do your meetings sound? sound-effects. T. J. Valentino. il Sales Management 71:47-8 pt 2 Jl 1 '53

How the Soo runs a sales meeting. Ry Age 136:57-9 F 22 '54

How to conduct problem-solving clinics at your national sales meeting. R. Beckhard. Sales Management 72:sup 16A+ pt 2 Ap 15 '54

How to hold a big time sales meeting on a small time budget. J. K. Blake. il Dun's R & Mod Ind 62:63-5 N '53

How to influence wives and win hubbies' interest; Schering corp.'s sales meeting. il Sales Management 70:15-16 pt 2 Ap 1 '53

How to put punch into a sales meeting. G. J. Newhams. Sales Management 73:80+ pt 2 Jl 1 '54

How to rate reactions during a meeting. R. Beckhard. Sales Management 70:42+ pt 2 Ap 1 '53

Ideas for reps sales meeting. Sales Management 73:86+ Jl 15 '54

I'm glad you asked that question; Ansul chemical co. Sales Management 70:65-6 pt 2 Ap 1 '53

Invite competitors to address your men? Sales Management 72:16-17 pt 2 Ja 1 '54

Let George do it; allowing salesmen to participate in a sales-meeting. J. B. Connors. Sales Management 71:73-4 pt 2 Jl 1 '53

Mr Bentz is worry-free; his meetings run like clockwork. Sales Management 71:34+ pt 2 O 1 '53

Mr Meeting Planner, meet yourself. D. M. King. Sales Management 71:25-8 pt 2 Jl 1 '53

Monday morning myth. R. Steffen. Sales Management 71:13-14 pt 2 O 1 '53

New techniques and new equipment developed to increase impacts of panoramic filmstrip. il diag Sales Management 72:sup27A-8A pt 2 Ap 15 '54

Philco does it like nobody did. il Sales Management 71:10-12+ pt 2 Jl 1 '53

Railway Express wages war with pirates at meetings. V. D. Aguila. il Sales Management 70:67-8 pt 2 Ap 1 '53

Sales meetings. Published quarterly as part 2 of Sales management, beginning Jan. 1, 1954

Salesmen put heat on management with fire-alarm sales meeting; Lukens steel co. il Sales Management 73:17-18 pt 2 Jl 1 '54

So you have to plan a convention. J. H. Harrington. Sales Management 72:sup20A+ pt 2 Ap 15 '54

Specialization and work spell high sales; 2d annual clinic for sales managers, salesmen and dealers, New Castle, Pa. il Cer Ind 62:104 Je '54

SCPI traveling sales clinic team receiving top attention. Brick & Clay Rec 124:37+ Mr '54

This is the year to take sales meetings to dealers! Seiberling Rubber. Sales Management 72:97-8 Je 1 '54

Visuals rev up incentive; Scandinavian airline systems annual sales meeting. il Sales Management 73:92-3 Ag 15 '54

Want a congressman to speak at your meeting? Sales Management 71:56+ pt 2 Jl 1 '53

What conventioneers want at a meeting. B. Lewis. Sales Management 71:75-8 pt 2 O 1 '53

What distributor salesmen want most in meetings. L. H. Brendel. Sales Management 71:89-91 Ag 1 '53

What you should do about wives at conventions. L. J. Trent. Sales Management 73:88+ pt 2 Jl 1 '54

What's doing with visuals. F. Niles. il Sales Management 71:69-72 pt 2 Jl 1 '53

When it has to be good or else; Kawneer co. F. J. Smith. il Sales Management 71:16-19 pt 2 Jl 1 '53

Why wives attend ac'cent sales meeting. il Sales Management 71:30-2 N 1 '53

Moving pictures

Not enough time; Firestone films were program base. C. B. Ryan. il Sales Management 71:42+ pt 2 O 1 '53

Television conventions

Buys straight tv time for dealer sales meeting. Sales Management 72:76 pt 2 Ja 1 '54

Closed-circuit tv; money-saver for sales meetings? abstract. S. Pierce. Management R 43:534 Ag '54

SALES conventions—Television conventions—*Continued*

Closed-circuit tv sparks sales meeting. C. J. Harris. Ptr Ink 243:37 Ap 3 '53

What they've learned about televising coast-to-coast sales meetings; Ford motor co. R. Letwin. il Sales Management 73:14-15+ pt 2 Jl 1 '54

What's new in closed-circuit tv? R. Letwin. Sales Management 72:112+ F 15 '54

SALES costs

Advertising and catalogs reduce sales costs for industrial sellers. Sales Management 71:112 Jl 15 '53

Cost control for marketing operations; order getting. N A C A Bul 35:1349-80 sec 3 Je '54

How to reduce selling costs without scuttling your sales program. Steel 135:65-7 Ag 16 '54

Watch selling costs. Steel 134:96-7 F 22 '54

See also

Salesmen—Expenses

Accounting

Before you cut out unprofitable items. W. T. Seney. Sales Management 71:31 O 1 '53

Effective sales management needs strong accounting support. G. R. Ames. J Account 96:726-7 D '53

Performance yardsticks for sales management. J. G. Royer. N A C A Bul 35:311-20 N '53

What happens to profit when we shift outlets? W. T. Seney. Sales Management 71:96+ O 15 '53

When you're in the red, will a price cut work? W. T. Seney. Sales Management 71:94-5 N 1 '53

SALES departments

Elementary course for sales; outings to customers' plants. il Chem W 73:57-8 Jl 11 '53

Marketing and distribution; selling organization of sales departments. W. R. Bowden. Chem & Ind p978-81 Ag 7 '54

What's the score? Admiral's chart room keeps the brass up to date. il Sales Management 71:28-9 O 15 '53

Records

See also

Sales records

SALES estimates

Case in systematic sales forecasting. C. E. Manteuffel. N A C A Bul 35:819-28 Mr '54

Sales forecasting and marketing cost control. R. L. Brittain. N A C A Bul 35:300-10 N '53

Sales forecasting by correlation techniques. R. Ferber. J Marketing 18:219-32 Ja '54

Sales forecasting formula. Steel 134:61 My 3 '54

Streamlining the sales forecast; at Dow Chemical salesmen just sell! how SKF organizes its sales forecasting program. Dun's R & Mod Ind 62:42-5 Ag '53

When you and your dealers underestimate sales potential; Johnson & Johnson probes for the true potential. H. M. Poole, jr. Sales Management 72:94 My 20 '54

Where should you look for signals of business upturn in 283 markets? J. M. Gould. Sales Management 72:86-94 My 1 '54

SALES forecasting. See Sales estimates

SALES letters

How to put warmth and friendliness into your letters. R. E. Smallwood. Sales Management 70:42-5 Ja 15; 98-101 Mr 15; 140-3 Ap 15; 112-14 Je 15 '53

Seasonal coordination is pay-off for industrial advertiser; M. B. Skinner co. K. G. Merrill. il Ptr Ink 243:42-3 Je 5 '53

These sales letters kept gross sales up, customers happy. N. Keine. il Ptr Ink 243:34-5 My 22 '53

See also

Follow-up systems

SALES literature. See Advertising literature

SALES management

At Standard Pressed Steel, salesmen's turnover; zero. G. A. Gade. Sales Management 71:96+ D 1 '53

Bad boys of sales management. J. Robinson. Sales Management 71:80+ N 20 '53

Beating the clock with Masland; an A-to-Z sales setup in 11 months. A. R. Hahn. il Sales Management 72:42-4+ Je 1 '54

Before the sales chief blames his men. C. T. Hoffman. Sales Management 71:118+ S 15 '53

Can sales management solve its human problems? abstract. S. J. Robinson. Management R 43:176-8 Mr '54

Can weather bureau forecasts help solve your sales problems? J. Shoenfeld. map Sales Management 71:38+ Ag 1 '53

Crack division manager confesses his management sins. R. N. McMurry. Sales Management 72:84+ F 15 '54

Department store of industry strengthens management for sales; Blaw-Knox co. Sales Management 72:42-3 Mr 15 '54

Doesn't Minneapolis-Moline know farmers aren't buying now? F. N. Langham. il Sales Management 72:46-8 My 20 '54

800 models and many markets; what kind of a sales setup? Bostitch, inc. K. E. Joy. il Sales Management 70:30-2+ Ap 15 '53

How adept are you in spotting five traits in young potential managers? J. O. Vance. Sales Management 72:72+ F 1 '54

How and why Standard Oil puts its public relations policies in writing. D. J. Atchison. il Sales Management 71:134-8+ S 15 '53

How fast could you recover if you were burned out? C&D batteries, inc. R. Letwin. il Sales Management 72:80+ F 15 '54

How many ways to use recording devices? il Sales Management 71:81-4 N 1 '53

How to factuate increased sales and profits. A. N. Seares. Sales Management 72:40-1 Ap 1 '54

How to increase unit sales this year. N. Keine. il Ptr Ink 243:35-7 Ap 24 '53

How to reduce selling costs without scuttling your sales program. Steel 135:65-7 Ag 16 '54

How to save your salesmen's time; abstract. Management R 43:115-16 F '54

How to think and act like an executive. C. D. Williamson. Sales Management 71:24-5+ Ag 15 '53

If you would sell, serve! so says 84-year-old Mary Shepherd, Avon Products' glamor girl sales city manager in Ft Worth. M. K. Pirie. Sales Management 73:36-7+ Jl 1 '54

In men's suits, Haspel must be nimble. D. Markstein. il Sales Management 70:54+ Je 15 '53

Industry needs better sales engineering, better products. R. P. Powers. Ind Marketing 39:134-7 My '54

Instinctively, are you a good leader? J. H. McQuaig. Sales Management 71:65 D 1 '53

Listen to what we say to salesmen! E. Whitmore. Sales Management 73:40-1 Jl 1 '54

Management by committee; how it works at Compo. C. W. O'Conor. Sales Management 71:24-5+ O 1 '53

Managers who direct and develop always have executive manpower; American airlines. R. Fitzpatrick. Sales Management 72:36-7+ My 20 '54

Marketing and distribution. J. P. Halpin. Chem & Ind p 1028-30 Ag 21 '54

Needed in 1954, more market research, coordination, service; Worthington corp. E. J. Schwanhausser. Ind Marketing 39:68-9+ F '54

New Ford sets out to regain sales lead. L. M. Hughes. il Sales Management 70:24-6+ My 20; 30-4+ Je 1 '53

Now you have to sell. Steel 134:91-8 F 22 '54

Performance yardsticks for sales management. J. G. Royer. N A C A Bul 35:311-20 N '53

Presentation is a must! best way to get a focus on a sales organization. P. J. Kelly. Sales Management 73:57 Ag 1 '54

Researching out sales; interview with L. G. Bliss, vice-president, sales, Foote mineral co. Chem W 75:39-40 S 25 '54

Sales and distribution. il Dun's R & Mod Ind 63:123-4+ Ja '54 [cont monthly]

Sales contests pay off for F. W. Hoffman & co. P. Lance. il Soap & San Chem 29:116-17+ Jl '53

Sales manager's reliance on the sales budget. W. E. Herrmann. N A C A Bul 35:1586-95 Ag '54

SALES management—*Continued*

Sales supervision; the forgotten function? C. L. Lapp. Management R 42:334-8 Je '53

Salesmen aren't working when reports don't smoke! F. P. Connolly. Sales Management 73:92 S 1 '54

Salesmen lift their feet off desk; American management assn.'s marketing conference, New York. Iron Age 173:92-3 F 4 '54

Selling. C. W. LaBlanc. Soap & Chem Spec 30:215-16 My '54

Slot machine coffee; now it's an $8,000,000 business; Rudd-Melikian, inc. A. B. Ecke. il Sales Management 71:24-7+ Jl 15 '53

Slow mail and poor service make disgruntled salesmen. J. Katz. Sales Management 71:96-7 S 1 '53

Streamlined sales strategy sends those heavenly carpets soaring; James Lees & sons co. L. M. Hughes. il Sales Management 71:44-8+ D 15 '53

Ten common weaknesses in sales supervision. C. L. Lapp. Sales Management 71:36+ S 1 '53

That team spirit, how do you build it? American bakeries co. Sales Management 72:133 Ap 15 '54

13 ways to discover if your firm is healthy. Sales Management 73:73 Jl 15 '54

This five-way manpower program cut salesmen's turnover 50 per cent; Standard register co. R. Zinn. il Sales Management 73:36-7+ S 20 '54

Top-level sales communications; how companies get the facts to sales executives. J. K. Blake. il Dun's R & Mod Ind 63:48-51+ Ja '54

Top management helps sales gird to beat the buyer's market. L. M. Hughes. Sales Management 72:36-8+ F 1 '54

Top-notch distributor operation, what makes it? Congoleum-Nairn, inc. D. L. Mann. il Sales Management 71:30-4 Ag 15 '53

Two-word sales presentation for 1953. W. J. Tobin. Ptr Ink 243:37-8 Je 5 '53

Use of accounting information for increasing sales. S. D. Flinn. N A C A Bul 35:731-6 F '54

Wanted, more creative selling for products sold to industry; better selling begins with top management. A. E. Turner. Sales Management 71:46-50 Ag 15 '53

What keeps a sales force buoyant, loyal and productive? Holeproof hosiery co. D. J. Atchison. Sales Management 73:74-7 Jl 15 '54

Where are the sales trouble areas? Sales Management 71:33 N 1 '53

Why nine out of ten distributors stick and succeed for paymaster. V. J. Walters. Sales Management 71:110-12 O 1 '53

Would they make you president? B. Davis. Sales Management 71:24-5 N 10 '53

Your men are listening, but can they hear you? W. E. Brunauer. Sales Management 71:30-2+ Ag 1 '53

See also

Advertising
Advertising and salesmen
Dealer helps
Display of merchandize
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Marketing
Printing trade—Salesmen
Prospect lists
Sales contests and other headings beginning Sales
Salesmanship
Salesmen

Bibliography

Current reading list for sales executives and salesmen; sales management. Sales Management 72:128+ Ap 15 '54

Letters to salesmen

Mailings build jobber's sales; Navy brand products. A. S. Keshen. il Soap & San Chem 30:135+ Ja '54

Sales meeting at home; Schenley distributors, inc. Sales Management 73:68 pt 2 Jl 1 '54

Study and teaching

First sales school for executives; three-week course at Rutgers. il Dun's R & Mod Ind 62:149-50+ O '53

Marketing men at school tackle Lily problem; Graduate school of sales management and marketing, Rutgers university. il Bsns W p 102-4+ Ag 29 '53

SALES management (periodical)

Five-minute flashback over SM's first 35 years. P. Salisbury. Sales Management 71:102-6 O 15 '53

SALES managers

Are you really a sales executive? B. Davis. Sales Management 72:36-7 My 1 '54

Better teamwork, less friction with management job descriptions. J. A. Wichert. Sales Management 71:24-5+ N 20 '53

Building sales through supervision. F. Whiting. Ptr Ink 244:31-2 Jl 24 '53

Functions of the sales promotion manager in a resident buying office. D. Resnick. J Retailing 30:67-8+ Summer '54

How to pick sales managers. F. Whiting. Ptr Ink 244:39-41 Jl 17 '53

Industry heads report on best relationships with sales, ad managers. Ind Marketing 39:142-4 Ag '54

Marketing-minded executives moving into more top management posts. C. Day. Ptr Ink 244:32+ Ag 7 '53

1960 sales executive. W. J. E. Crissy and others. Sales Management 72:42-3 Mr 1 '54

On the road to a crack-up? Sales Management 71:28-9 S 15 '53

Product and materials decisions now part of sales manager's job. Sales Management 71:74+ Ag 1 '53

Profile, chemical sales boss. Chem W 75:72-5 Jl 31 '54

Profile of the typical sales executive. P. Salisbury. Sales Management 71:40-2+ D 1 '53

Sales champion, unrivaled, unchallenged; Richard Hallum Grant. L. M. Hughes. Sales Management 71:30-4+ O 15 '53

Sales executive's job grows bigger, but he isn't paid proportionately. L. M. Hughes. Sales Management 72:52-4+ Ja 15 '54

Sales promotion executives to form national organization. Sales Management 73:42-4 S 20 '54

Why did you get fired? B. Davis. Sales Management 73:84+ Ag 15 '54

Why so many wives worry about executive paunch. C. Bird. Sales Management 72:36-9+ Mr 1 '54

Salaries

Earnings of sales executives; 1953 vs. 1950. P. Salisbury and J. Shoenfeld. Sales Management 73:44+ S 1 '54

Report to sales executives; your earnings increased seven per cent last year. Sales Management 71:74 Jl 15 '53

Sales executive's job grows bigger, but he isn't paid proportionately. L. M. Hughes. Sales Management 72:52-4+ Ja 15 '54

Training

First school for marketing men attracts 114 sales executives. Sales Management 71:54 O 1 '53

SALES manuals

How Devoe & Raynolds explain professional salesmanship to retail salespeople. Sales Management 71:76-7+ O 1 '53

How to prepare a sales manual. C. L. Lapp. Management R 43:608-10 S '54

How to put sell into service manuals. L. J. Wiegand. il diags Ptr Ink 244:34-5 Ag 7 '53

Must the new salesmen go through our trials and errors? sales strategy manual. R. E. Taylor. Sales Management 71:56+ N 10 '53

SALES policies

Afraid to switch to wholesalers? Miller brothers watch strap manufacturing co. W. W. Miller. il Sales Management 71:48+ S 15 '53

Beating the clock with Masland; an A-to-Z sales setup in 11 months; sales policy. A. R. Hahn. il Sales Management 72:46+ Je 1 '54

Distributor's sales policies offer cues for manufacturers; Squier, Schilling & Skiff, inc. L. H. Brendel. Sales Management 71:88+ N 20 '53

How to manage a run-a-way product; Lewal industries, inc. P. L. Patterson. il Sales Management 70:24-5+ Ap 15 '53

See this demonstrator? it sells hot air; electric hand dryer. T. R. Ruwitch. il Sales Management 71:106+ Ag 15 '53

SALES policies—*Continued*

Self-quiz for men with '54 doubts. W. B. Weale. Sales Management 72:77 My 1 '54

See also

Credit
Customer relations
Dealer helps
Dealer relations
Discount, Cash
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Exhibits
Gas industry—Merchandizing
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Combination selling

How soap sells hosiery by the millions; unique new box-top joint promotion. il Mod Packaging 27:96-7+ D '53

Related item promotion pays off for IHC and Drott. il Sales Management 71:58+ N 1 '53

Free trial

It's sold by trial installation; Ignitron rectifier equipment. A. Rosensweet. il Sales Management 71:32+ Jl 15 '53

SALES policies, Retail

See also

Self service

SALES promotion

Answers for people who dispute economic benefits of selling. T. R. Martin. Sales Management 71:70+ O 1 '53

Are deals worthwhile? nine case histories. W. Mooney. Ptr Ink 245:33-6 O 30 '53

Better days for pineapples? E. Gidlow. il Sales Management 71:102-4+ Jl 15 '53

Bottle that could start a battle; Schenley industries, decanter-type bottle. il Bsns W p34 S 12 '53

Bromfield puts Malabar farm into the gift-food business. L. M. Hughes. il Sales Management 71:32+ O 1 '53

Bulging hipline; it gave Tillie a $6,000,000 idea; Tasti-Diet, inc. E. Gidlow. il Sales Management 72:98+ Ja 15 '54

But Joe, they simply won't eat fish! Star-Kist brand for tuna. J. H. Collins. il Sales Management 71:105-6+ S 15 '53

Cabot's ranch house hues, California idea born in Boston. il Sales Management 71:112+ S 15 '53

Chemistry in the grocery; Dow Chemical will tee off a drive for Saran-Wrap, its household food packaging material. il Chem W 73:81-2+ N 14 '53

Chemistry in the home; softening hard water's language. Chem W 74:34 F 13 '54

Coal's fate could be yours. R. Letwin. Sales Management 73:52-4 Jl 1 '54

Crawford sidesteps price scrimmage; adds style to garage doors. D. C. Crawford. il Sales Management 73:40-2 Ag 1 '54

Crescent finds how to sell battery cables; color does it. F. Borden. il Ind Marketing 39:58-60 Je '54

Don't sell the glass, sell the use. il Sales Management 72:93-4+ Je 15 '54

Dravo pushes family identity to open up new markets. il Ind Marketing 39:58-9 Ap '54

Eight manufacturers team up in big store party promotions. il Sales Management 71:30-2 D 1 '53

Engineers come, look, learn; Townsend co. sales seminars. il Sales Management 72:108 F 15 '54

Everybody said, hospitals are a tough market to sell! Royal metal mfg. co. A. E. Siegel. il Sales Management 70:34+ My 1 '53

Factory pickup plan finds buyers for Coast automen. Sales Management 71:128-9 Ag 15 '53

Flannel-board kit tells story of DuPont fibers. il Sales Management 71:75-6 pt 2 Jl 1 '53

Flying saucers may be an out-of-this-world idea; Dun & Bradstreet set a new sales record for State pocket edition. W. A. Vierow. Sales Management 70:60-1 My 20 '53

Frozen dinners catch on; Quaker state foods corp. il Sales Management 72:58+ Ja 1 '54

Gas drive pays off because field men helped to plan it; Pan-Am southern corp. il Sales Management 71:110-11 Jl 15 '53

G-E adds on Operation choo-choo. J. F. McBride. il Sales Management 71:28-9 Jl 15 '53

Giveaway fight. Bsns W p52 N 28 '53

Hard-hitting promotion is used to lick uhf tv's circulation problem. H. W. Greeley. Ptr Ink 244:42 S 25 '53

How an entire industry lifted itself by its bootstraps. J. C. Cumming. il Sales Management 71:110+ O 15 '53

How and why Sanforized pioneered the market for fitted sheets. il Sales Management 71:68-70+ Ag 1 '53

How consumer research develops a sound, long-range selling plan; United States trunk co. E. A. Barwood. il Ptr Ink 245:32-3 O 2 '53

How Metalacing's inventor bridged the gap with marketing. E. L. Crockatt. Sales Management 71:105-9 O 1 '53

How to find off-season sales; Gruen watch co. il Sales Management 72:54+ F 1 '54

How to give your new product a real chance to succeed. E. M. Kelley. Sales Management 72:78+ Mr 1 '54

How to integrate promotion plans; Standard oil co. of California. L. F. Thomann. il Ptr Ink 244:51-2 S 18 '53

How to introduce a new product; case history of Quinac, Canada Dry's new quinine water. R. J. Flood. il Ptr Ink 243:27-9 My 29 '53

How to saturate a market; Dannon milk products. J. E. Metzger, jr. il Sales Management 70:80-2 My 20 '53

How to use photographs as heavy-duty sales tools; Westinghouse electric corp. W. A. Foster. il Sales Management 72:40-3 Ja 15 '54

How USS is expanding the market for structural steel on the farm. F. J. Reynolds. il Sales Management 71:40-2 Jl 15 '53

If your industry hesitates on a promotional program; campaign of the West coast lumbermen's association. L. Newkirk. il Sales Management 71:76+ S 1 '53

Institutional market; jack pot for Kraft foods. R. S. Lochridge. il Sales Management 73:105-8+ S 20 '54

Is there any way to escape the ravages of a red-hot price war? Holeproof hosiery co. D. J. Atchison. il Sales Management 73:78-80 Jl 1 '54

It's one promotion after another; Cincinnati gas and electric co. E. W. Hodgetts. il Sales Management 71:48-9+ O 1 '53

Kit hit. il Sales Management 73:40-1 S 20 '54

Let prospects help you uncover new product uses; industrial magnets. C. E. St Thomas. il Sales Management 72:50+ Ja 1 '54

Lure of the giveaway. il Bsns W p41-2+ S 26 '53

Macaroni hops aboard low-calorie bandwagon; promotional theme for Golden grain macaroni co. il Sales Management 72:105-6 F 15 '54

Manufacturer's newsletter to trade gives sales ideas, lauds retail ads; Tabak of California. Ptr Ink 245:60 O 16 '53

Margarine; what's up? E. M. Kelley. il Sales Management 72:42-4+ My 1 '54

Merchandising in a modern manner boosts brick sales; Washington brick & lime co. il Brick & Clay Rec 124:40-1+ My '54

Merchandising of the merchandising gets retailers out making calls; James Lees and sons. M. Beuick. il Ptr Ink 244:39-41 Ag 14 '53

Milk is a business problem, too; Department of agriculture's plentiful foods program. J. Shoenfeld. il Sales Management 73:100+ S 1 '54

More turkey on menus; co-op promotion does it. il Sales Management 71:74+ D 15 '53

Muddled, misused, misunderstood that's sales promotion! W. R. Kelly. Sales Management 72:36+ Ja 15 '54

New direct mail idea, sponsored weather forecasts. Sales Management 71:36-7 Jl 15 '53

New packages put new life into C and H sugar sales story. R. I. Herndon. il Sales Management 73:90-2+ Jl 15 '54

Oh, for an idea that will stir up our dealers! Frank H. Lee co. Hat clinic. il Sales Management 72:100+ Je 15 '54

SALES promotion—*Continued*

$1,000 if you can make it drip; Roma's dripless bottle. E. Gidlow. il Sales Management 72:76+ Ap 1 '54

Pacific Gas & Electric spotlights lamps; too many folks in the dark. il Sales Management 72:58+ Ap 1 '54

Packard's successful marketing comeback. H. E. Green. il Ptr Ink 243:35-7+ Je 12 '53

Paint makers cash in when Reynolds promotes liquid aluminum. D. P. Reynolds. il Sales Management 70:120+ Ap 15 '53

Peerless meets competition in West by going national. P. Seitz. il Ind Marketing 39:116-19 F '54

Planning a fan merchandising program. il Sheet Metal Worker 45:86-7+ Je '54

Presto! here's Pream. il Sales Management 73:42-4 Jl 15 '54

Promotion and sales for everyone but you? Jensen industries. K. Jensen. il Sales Management 72:116-17 Ja 15 '54

Promotion program really sold 'em in Ashtabula. Brick & Clay Rec 125:64 S '54

Proof-of-difference program pays off for Kent cigarette. L. M. Hughes. il Sales Management 71:24-7+ D 1 '53

Prospects tell Kaiser how to double sales on its first consumer product; survey to uncover inadequacies in company's sales structure. R. G. Welch. il Sales Management 72:42-4 My 20 '54

Prove and promote persistence wins market for industrial product; Featherlite corp. M. K. Pirie. il Sales Management 72:56+ F 15 '54

Queen Elizabeth's coronation sparks royal salads; Cling peach advisory board. S. E. Plumb. il Sales Management 70:94-8 Je 15 '53

Record promotional program launches San Francisco Chief. il map Ry Age 136:33-4+ Je 7 '54

Sales promotion ideas. Published in monthly numbers of Industrial marketing

Sales slipping in your line? try this six-point program to buck the trend; Champ hats, inc. J. W. Dragonetti. il Ptr Ink 244:64+ S 25 '53

Sales, Tom Sawyer style; small kits, suitable for experiments. il Bsns W p66 Ag 1 '53

Schenley reveals decanter secrets. R. Letwin. il Sales Management 71:44-6+ N 20 '53

Sell all the way through; St Regis tries it, succeeds. F. Borden. il Ind Marketing 39:72-3+ My '54

Selling fire chemicals at school; Ansul Chemical's northwoods plant. il Chem W 73:30-1 Jl 4 '53

Shades of grandma's parlor! the family album is back! General products. il Sales Management 72:80+ Mr 15 '54

She's baking a cake for everyone; Kay Stanley cake mix set. D. J. Atchison. il Sales Management 70:38+ Je 15 '53

Shy prune rises to repudiate its wallflower personality. R. W. Jewell. il Sales Management 71:48+ Jl 1 '53

Solved; fall slump; how, baby talk; Visking corp. W. R. Hemrich. il Sales Management 72:68-70 F 1 '54

Story of a Christmas promotion; Early Times and Old Forester whiskies. B. Ryan. il Adv Agency 46:56-8+ D '53

Structo-Lite to alter "sot" building habits? United States gypsum co. Sales Management 71:94 Ag 1 '53

These promotions pull farm families into city dealerships. il Sales Management 72:100+ F 1 '54

35 points to consider in planning your 1953 Christmas promotions. N. Keine. Ptr Ink 244:33-4 Jl 10 '53

This machine helped open 25 markets; Dr Pepper cup vendor. M. K. Pirie. il Sales Management 73:36-8 S 1 '54

This new product blew up; Seymour packing co. poultry-blood fish bait. D. Ward. Sales Management 72:88+ My 20 '54

This table was born in a hospital room. F. Bell. il Sales Management 71:56+ Ag 15 '53

Three-step plan puts this regional brand into fight for national leadership; Caloric stove co. J. W. Dragonetti. Ptr Ink 245:35-7 O 16 '53

Too little buyer appetite? or too little creative sales effort? Homer Laughlin china co. D. J. Atchison. il Sales Management 70:89-92 Je 15 '53

What can you do to put promotional zing into a slow-moving item? Sylvania electric products, inc. A. C. Viebranz. il Sales Management 73:52-4 S 1 '54

What made these prospects buy? Southern states cooperative's one-week spring sale. T. K. Wolfe. Sales Management 72:78+ Je 15 '53

What's chicken without cranberry sauce? E. Stillman. il Sales Management 71:26-9 N 10 '53

When Rockwell said, here's Deltashop. il Sales Management 70:94+ Je 1 '53

When the dealer failed to ask for the order. T. K. Wolfe. Sales Management 70:36 Je 15 '53

Why auto races are key to Bardahl's promotion. J. M. Haydon. il Sales Management 70:54+ My 20 '53

Why distributors now spend more time with Trumbull. W. B. Dixey. il Sales Management 70:30-2+ Je 15 '53

Why sales and advertising face challenge to hold peak of U.S. boom. J. Hirsch. Ptr Ink 244:35-7+ Ag 21 '53

Why sausage is now featured on so many employe cafeteria menus; Transparent package co. promotion built around sausage service manual. S. Oppenheimer. il Sales Management 71:86+ O 15 '53

Why top brass should step out and sell. C. D. Clawson. il Ptr Ink 243:41-2 Je 26 '53

Wouldn't you like to have a new product with this acceptance? Pellon. E. M. Kelley. Sales Management 72:76+ My 20 '54

You, too, can be an artist! Palmer's paint-by-number system. W. H. Knowlton. il Sales Management 71:126+ S 1 '53

See also

Coupons
Dealer helps
Exhibits
Exhibits, Traveling
Fashion shows
Glass fabrics
Instruction in use of product
Merchandizing
Premiums (merchandizing)
Publicity

Entertainment

Bakelite impresses the press with guns, balloons and planes. il Sales Management 71:10-12 pt 2 O 1 '53

Brown-Forman tosses big market to distributors in 3-D sales meetings. G. G. Brown. il Sales Management 71:65-8 N 1 '53

Consolidated Edison makes a play for adequate wiring. il Elec World 140:76-7 N 30 '53

Philco does it like nobody did. il Sales Management 71:10-12+ pt 2 Jl 1 '53

Sales pitch for the home team; Dewey and Almy chemical co. intradivisional shows. il Chem W 74:82-4 My 8 '54

Streamlined magic; Quaker oats co. promotes furfural with explanation-through-magic shows. il Chem W 73:14-15 O 31 '53

Thor tells 'em what they want to hear; stage presentation for distributors. il Sales Management 70:91 My 20 '53

What's this business about industrial show business? C. R. Bingham. il Sales Management 70:69-72 pt 2 Ap 1 '53

When it has to be good or else; Kawneer co. F. J. Smith. il Sales Management 71:16-19 pt 2 Jl 1 '53

SALES quotas

Beating the clock with Masland; an A-to-Z sales setup in 11 months; sound sales quota. A. R. Hahn. map Sales Management 72:56+ Je 1 '54

How failure to meet quota curbs company growth. Sales Management 70:104-5 Je 1 '53

SALES quotas, Jobbers'

How to set quotas, raise goals for manufacturers' reps; Dayton pump & manufacturing co. G. J. Carney. Sales Management 72:44 Ap 1 '54

SALES records

Dilts reduces sales costs with simple card system. R. J. Jacobs. il Sales Management 72:96+ F 1 '54

SALES records—*Continued*
It costs Dayton Pump only $200; sales control system. G. J. Carney. Sales Management 72:90+ F 15 '54
Mechanical aid for sales brain; Pennsalt's battery of tabulators. il Chem W 74:52-4 My 29 '54
Sales control system permits check by territory, product. R. V. Bennett. il Ind Marketing 39:73 Ap '54
What's the score? Admiral's chart room keeps the brass up to date. il Sales Management 71:28-9 O 15 '53

SALES statistics
See also
Retail trade—Statistic

SALES tax
Burma drops sales tax for most domestic goods. For Comm W 50:12 Ag 10 '53
Canada's experience with the manufacturers' sales tax. J. F. Due. J Bsns 27:243-53 Jl '54
CIO's new look at sales taxes. Bsns W p 156 O 31 '53
How agencies should handle sales taxes. M. Block. Adv Agency 46:60-1+ Je '53
Lucky dip in purchase tax; cost of the concessions. Economist 170:116-17 Ja 9 '54
No national sales tax. M. S. Eccles. Credit & Fin Management 55:25 D '53
Three per cent sales tax extension held discriminatory; finance committee hearing in New York city. East Underw 55:31+ Ap 23 '54
U.S. sales tax raises its head. Bsns W p 103-4+ N 14 '53

SALES territories
Divide territories by map or by type of account? Sales Management 72:86 Mr 15 '54
How to determine sales territory potentials. N. R. Ladabouche. Sales Management 73:84-5 S 1 '54

SALESMANSHIP
Are you losing the user? turn customer satisfaction into extra sales. R. M. Price. Ptr Ink 244:56-8+ S 25 '53
Ben Franklin, super salesman. H. S. Daniels. Life Ins Courant 59:18-19 Jl '54
Century of salesmanship helps build Steinway name. L. M. Hughes. il Sales Management 70:24-7+ My 1 '53
Components of selling. E. Corekin. Management R 43:448-9 Jl '54
Disappointment vs. discouragement. J. M. Wilson. Sales Management 72:39 F 1 '54
Dravo's nine points for selling today. Sales Management 71:85 N 1 '53
Films for selling. il Dun's R & Mod Ind 62:62-4 Ag '53
14 points for the new business man. W. J. Tobin. Ptr Ink 243:42+ My 22 '53
Freedom and the salesman. W. H. Wheeler, jr. il Life Ins Courant 58:14-15 Jl '53
Good old-fashioned selling, what is it? symposium. Sales Management 71:24-6+ D 15 '53; 72:41-4 Ja 1; 86+ Ja 15 '54 (reprints 25c)
Good selling has three legs. D. Laird. Life Ins Courant 59:32 Ap '54
He sells Christmas trees in July; Alvin H. Berg. D. J. Atchison. il Sales Management 71:26-7 N 20 '53
How does a top salesman get there? W. J. Tobin. Ptr Ink 244:43-4 Jl 31 '53
How four men in five years booked 50 per cent of all sales in their market; Railroad sales division, Motorola communications & electronics, inc. R. F. McCall. il Sales Management 72:64-6+ Ap 1 '54
How much should an agency know about selling? J. M. Hickerson. Adv Agency 46:56-8 Ag '53
How to cure the Baron Munchausen salesman; six rules for minimizing exaggeritis in modern selling. P. H. Whiting. Ptr Ink 244:52+ S 11 '53
How to find, influence, sell people who buy Original equipment market. E. E. Wachsmuth. Sales Management 73:68+ S 1 '54
Ideas which have paid off for me on 100,000 dealer sales calls. W. C. Dorr. Sales Management 72:75-6 My 1 '54
If I had known then what I know now about purchasing practices. F. G. Prince. Sales Management 73:48+ Ag 15 '54
Industrial pipeline selling; how to reach tough customers. E. Rosenblat. Ind Marketing 39:53-5 Ap '54
It could happen to you. E. Whitmore. Sales Management 73:112+ Ag 15 '54
Key to more sales; cooperation. Chem W 75:44-5 Jl 10 '54
Knock on every door; cold canvas selling; Monroe calculating machine co. N. V. Backster. Life Ins Courant 59:18-19 S '54
Let's sell selling! R. C. Bennett, jr. Sales Management 72:96+ Mr 15 '54
Merchandising has to be put behind selling; abstract. F. Lovejoy. Soap & San Chem 30:155+ Ap '54
New objective is mass display of merchandise; Crown Zellerbach corp. L. W. Moore. il Ptr Ink 243:41 Je 19 '53
No easy road. M. Bennett. Life Ins Courant 59:33 My '54
Oldest of the arts. A. W. Brown. Life Ins Courant 59:13+ Ja '54
One call won't tell all. J. Trytten. Life Ins Courant 59:15+ F '54
Operation rainfall; it's strictly a custom-selling job; Shur-Rane aluminum portable irrigation systems. J. Folting. il Sales Management 71:44-6 N 1 '53
Patience, persistence, foresight; you can't hurry a municipal purchase. J. Shoenfeld. Sales Management 72:91-2 My 20 '54
Presentation is a must! best way to get a focus on a sales organization. P. J. Kelly. Sales Management 73:57 Ag 1 '54
Sale I never forgot. J. W. Young. Ptr Ink 243:106+ Je 26 '53
Sale I never forgot; calculated risks win out. L. A. Weiss. Ptr Ink 245:69 O 30 '53
Sale I never forgot; compared sales figures. J. L. Pratt. il Ptr Ink 243:46 Ap 10 '53
Sale I never forgot; don't be fooled by appearances; use them. A. E. Summerfield. Ptr Ink 243:56+ My 8 '53
Sale I never forgot; find who profits most. C. F. Wyant. Ptr Ink 244:51 Jl 3 '53
Sale I never forgot; he overbought my product and saved himself and company. G. Frankel. il Ptr Ink 244:108+ S 25 '53
Sale I never forgot; I admitted ignorance and won. S. W. Antoville. Ptr Ink 245:80 O 16 '53
Sale I never forgot; it pays to be frank. C. C. Higgins. Ptr Ink 244:70 Jl 10 '53
Sale I never forgot; mother knew best. P. D. Arnold. Ptr Ink 243:74 Je 19 '53
Sale I never forgot; personality lost and won. H. J. Muessen. il Ptr Ink 244:134 S 18 '53
Sale I never forgot; slump, bah! he'd forgotten fundamentals. W. C. Stone. Ptr Ink 244:62 Jl 17 '53
Sale I never forgot; tell 'em what you have, not what the competitor hasn't. D. McKay. Ptr Ink 243:58+ My 29 '53
Sale I never forgot; the boss bought when the boys were sold. H. D. Triantafillu. Ptr Ink 244:60 Jl 24 '53
Sale I never forgot; the sign said, no peddlers. C. E. Becker. Ptr Ink 244:51 Ag 7 '53
Sale I never forgot; the threat of lost sales. L. Bertisch. il Ptr Ink 243:71 Je 12 '53
Sale I never forgot; the waiter helped. E. Whitehead. Ptr Ink 244:46 Jl 31 '53
Sale I never forgot; wrong market, no sale; right market, success. W. Sternberg. Ptr Ink 243:74+ Je 5 '53
Sales engineer and his problems. B. Lester. Published in monthly numbers of Machinery
Salesman who took his phone apart! E. Graham, jr. Adv Agency 46:72 Jl '53
Salesman's complete ideas handbook. E. Raux. 227p $4.95 Prentice-Hall, 70 Fifth av, New York 11 '54
Saturday sales calls bring orchids for wives; Rand co. Sales Management 71:85 N 20 '53
Self-training. C. L. Lapp. Life Ins Courant 58:18-19 N '53
Sell for tomorrow. H. Hertz. Ptr Ink 245:110 O 16 '53
Selling by seminar; Townsend co. maker of cold-headed products. il Steel 133:50-1 N 2 '53
Sincerity, basis of salesman's technique. G. M. Loeb. Comm & Fin Chr 178:1851 N 12 '53

SALESMANSHIP—*Continued*

Ten commandments of selling. J. M. Wilson. Sales Management 72:39 Je 1 '54

13 suggestions for improving your paper sales. C. L. Lapp. Pulp & Pa of Can 55:98-100 Jl '54

39 tips to better salesmanship. C. B. Larrabee. Ptr Ink 243:43-4+ My 1 '53 (reprints 20c)

31 ways to close a sale. W. J. Tobin. Ptr Ink 245:50+ O 23 '53

Wanted, more creative selling for products sold to industry. A. E. Turner. Sales Management 71:46-50 Ag 15; 40-2+ S 1; 40-3 S 15; 96+ O 1; 121-5 O 15 '53

Well, what is creative selling? A. A. Hood. Sales Management 72:39 F 15 '54

What makes America great? M. Thorpe. Life Ins Courant 58:18-19 D '53; Abstract. Management R 43:44-5 Ja '54

What your dealers should know about farm machinery trade-ins. E. A. Hunger. il Sales Management 72:65-9 Mr 1 '54

Which weaknesses hurt your men calling on purchasing agents? J. E. Bex. Sales Management 72:103-4 Ap 15 '54

Why does one man get the order where all others fail? D. G. Donovan. Sales Management 72:90+ Je 1 '54

Why is the buying motive so seldom used by industrial salesmen? W. C. Wright. Sales Management 72:57-8+ Mr 15 '54

Why sales are lost. F. M. Cryan. Comm & Fin Chr 178:8+ sec 2 O 8 '53

Winning pitch. F. Donshea. Ptr Ink 243:102 My 1 '53

See also

Advertising
Advertising, Soliciting of
Advertising and salesmen
Auctions
Door-to-door selling
Insurance, Life—Agents
Insurance agents
Mail order business
Premiums (merchandizing)
Prospect lists
Sales letters
Sales management
Salesmen
Salesmen, Retail
Salesmen's portfolios

Approach

How to find and sell the man when you call on blue-chip giants. E. B. Mapel. Sales Management 71:24-6+ S 1 '53

How to uncover extra live leads. L. C. Johnston. Sales Management 72:76 Je 15 '54

Sale I never forgot; he wouldn't take no. H. L. Laube. Ptr Ink 245:67 O 23 '53

Sale I never forgot; I was listening. E. Crosby. Ptr Ink 244:76-8 Ag 21 '53

Sale I never forgot; I wrote my own order. W. W. Sebald. Ptr Ink 244:62 S 4 '53

Wanted, more creative selling for products sold to industry; finding the men who can influence the sale. A. E. Turner. Sales Management 71:40-3 S 15 '53

Bibliography

Current reading list for sales executives and salesmen. Sales Management 72:105-14 Mr 15; 92-102 Ap 1; 116-32 Ap 15 '54

Closures

Sale I never forgot; cheaper by the carload. H. Piker. Ptr Ink 243:76 My 1 '53

Demonstrations

Cooking sessions for men; Maier's bakery. il Sales Management 70:63 pt 2 Ap 1 '53

Homelite takes a fancy to fairs. P. J. Halperin. il Sales Management 71:48-50 pt 2 O 1 '53

How to sell meetings to dealers. R. Weston. il Sales Management 73:24-5 pt 2 Jl 1 '54

Now Heidelberg has 22 demonstrators on the road. il Sales Management 72:44+ Ja 15 '54

Now machine tools hit the road; Cincinnati lathe & tool co. il Sales Management 72:100+ Mr 15 '54

Price higher than competition? then prove value by demonstration; Pacific coast foil co. C. G. Bennett. il Sales Management 71:32-3+ N 20 '53

Proto men carry merchandisers to dealer's front door. A. L. Platky. il Sales Management 73:78 S 20 '54

Quarter-size model cracks market for an improved machine tool; Magna engineering corp. il Sales Management 70:42-5 Ap 15 '53

Sale I never forgot; the demonstration won out. D. Bogen. Ptr Ink 243:102 My 15 '53

See this demonstrator? it sells hot air; electric hand dryer. T. R. Ruwitch. il Sales Management 71:106+ Ag 15 '53

Show your product! K. G. Merrill. Ptr Ink 245:96 O 30 '53

Tests before thousands; Standard pressed steel co. stages show-down tests at expositions. il Sales Management 73:70-1 pt 2 Jl 1 '54

Tools for selling; demonstrate! il Sales Management 72:94+ Je 1 '54

Traffic-building idea woos, sells club women on Thor appliances. il Sales Management 71:28-9 D 15 '53

Twelve benefits Automatic found in tv at a trade show. il Sales Management 71:76-8 Jl 15 '53

We make immediate sales on 75 per cent of in-plant demonstrations; Charles Wm. Doepke manufacturing co. W. C. Portman. il Sales Management 72:52+ Ap 15 '54

What makes a good tv demonstration. C. Filsinger. Elec West 111:113-14 N; 83-4 D '53

When the prospect says, I just don't believe it! point-by-point demonstration; Scurich Kushionized containers. S. Scurich, jr. il Sales Management 71:24-5+ Jl 1 '53

Where Ford Tractor trains the trainers. il Sales Management 73:40-4 Ag 15 '54

Who says door-to-door selling is on the way out? H. Lemmons. il Sales Management 71:78-83 Ag 1 '53

Why auto races are key to Bardahl's promotion. J. M. Haydon. il Sales Management 70:54+ My 20 '53

See also

Department stores—Manufacturers' demonstrations

Group selling

Engineers come, look, learn; Townsend co. sales seminars. Sales Management 72:108 F 15 '54

Group selling comes back. il Bsns W p56 N 7 '53

Sale I never forgot; it called for top level selling. R. C. Switzer. Ptr Ink 245:86-7 O 9 '53

Number of calls

It pays to go back. R. A. Baker. Ptr Ink 243:53 My 29 '53

Sale I never forgot; it took 15 years. D. H. Cogan. Ptr Ink 243:74 My 22 '53

Sale I never forgot; it was in the bag. L. Schwartz. Ptr Ink 244:72 Ag 28 '53

Price problem

It's no time for buck fever when the buyer says, how much? W. C. Dorr. Sales Management 71:65-7 Jl 1 '53

Sale I never forgot; price isn't everything. B. Goldman. Ptr Ink 244:105 S 11 '53

Sale I never forgot; stymied by price but holed out. D. Lewis. Ptr Ink 244:78 Ag 14 '53

Samples

How a sales aid idea gets going; miniature shoe samples and color transparencies. il Sales Management 73:68-9 Ag 1 '54

Service

Cost survey sells sanitary supplies; Galer & Hults, inc. P. Lance. il Soap & San Chem 30:129-32+ F '54

Memo to distributor salesmen; is service a necessary evil? H. J. Mitchell. Sales Management 71:50+ N 10 '53

Monsanto helps plastics customers get the feel of color. P. L. Patterson. Sales Management 71:76-8+ N 1 '53

Sale I never forgot; a song for the order. H. B. Williams, jr. Ptr Ink 245:69 O 2 '53

What a purchasing agent expects from salesmen and their bosses. G. W. Aljian. Sales Management 71:24-5+ N 1 '53

Who gets in the sell-through club? Sales Management 71:142+ S 15 '53

SALESMANSHIP—*Continued*

Study and teaching

Handbook of sales training, by the National society of sales training executives. 2d ed rev 402p bibliog(p377-81) Prentice-Hall, 70 Fifth av, New York 11 '54 ($5.65)

Telephone calls

How do you know you can't sell your products by phone? B. Morgan. Sales Management 72:121-4 F 15 '54

Jobber wrings sales from telephone; Carlea janitor supply co., Baltimore. P. Lance. il Soap & San Chem 30:167+ Ap '54

Now they don't talk so long; telephone and telegraph voucher. Sales Management 71:79 N 20 '53

Sold by phone and mail; $7 million worth of steel; Rolled steel products division. S. Waldman. il Sales Management 71:60+ N 20 '53

Telephone is your most effective sales weapon. R. E. Lovett. Ptr Ink 243:50-1+ Je 12 '53

Tire Mart's offer, call us collect. R. Benjamin, jr. il Sales Management 70:42+ My 1 '53

See also

Insurance, Life—
  Agents—Telephone
  calls

Visual aids

50 presentations, quick as a wink; Rohm & Haas inexpensive kit of 35mm slides. il Sales Management 72:98+ F 15 '54

How a sales aid idea gets going; miniature shoe samples and color transparencies. il Sales Management 73:68-9 Ag 1 '54

Martin-Senour underplays commercial, wins wide audience for film. il Sales Management 71:78+ D 15 '53

Pictures clinch the sale for Alemite. il Sales Management 71:28-9 Jl 1 '53

Prize photos of product in use put service, sell in external. il Ind Marketing 39:80 My '54

Ten reasons for using sound slide films. C. J. Hauk, jr. il Ptr Ink 244:46-7 S 25 '53

They're sight selling with stereo. il Sales Management 71:66-8+ S 1 '53

Top-level sales communications; how companies get the facts to sales executives. J. K. Blake. il Dun's R & Mod Ind 63:48-51+ Ja '54

Try personal contact selling; Bellows co. salesmen each carry movie of how the product, Bellows' first air motor, could increase a manufacturer's production. Steel 134:51 Mr 22 '54

Versatile visuals pump up seven sales curves. S. Edlund. il Sales Management 72:66-9 My 1 '54

Visual aids get first aid. Sales Management 72:62-4 Ja 1 '54

Visual approach in selling health and accident insurance. Weekly Underw 171:370 Ag 14 '54

Visual language helps sell half of G-E's volume. R. L. Fegley. il Sales Management 71:24-5+ S 15 '53

See also

Insurance, Life—
  Agents—Visual
  aids

SALESMANSHIP, Retail

Adventures in shopping; Southern states cooperative. Sales Management 71:116-17 O 15 '53

Salespeople; an undeveloped sales potential. T. D. Ellsworth and E. D. Fraser. J Retailing 29:149-56+ Winter '53-54

Slipping market spurs better selling for fresh fruits and vegetables. J. Shoenfeld. Sales Management 71:40+ N 20 '53

Demonstrations

Eight manufacturers team up in big store party promotions. il Sales Management 71:30-2 D 1 '53

12 rules for staging profitable store demonstrations. E. Gidlow. il Sales Management 71:30-2+ S 15 '53

Who is Koch of California? ask for a demonstration. il Sales Management 72:42-4+ F 15 '54

SALESMEN

Am I really working hard? F. P. Connolly. Sales Management 72:138+ Ap 15 '54

At last I've heard Red Motley and am I disappointed! L. H. Brendel. Sales Management 72:90 Ap 1 '54

Broadening the horizon. W. B. Given, jr. il Dun's R & Mod Ind 62:1+ S '53

Can inside men become good outside salesmen? J. Elshout. Sales Management 70:119 Je 15 '53

Coleman hired 60 men in 1948; why have 28 succeeded, 32 failed? B. Barnabas. Sales Management 72:74+ Je 1 '54

Company retirement plans for salesmen; abstract. H. H. Maynard and P. McVey. Management R 43:250-2 Ap '54

Door-to-door salespeople; who they are; how they work. N. Brucks. Sales Management 71:72+ Jl 1 '53

Drummer's great day of glory. G. Carson. il Sales Management 72:105+ Ap 15 '54

He's a big league salesman. W. J. Maytham. Sales Management 73:56 Jl 1 '54

How adept are you in spotting five traits in young potential managers? J. O. Vance. Sales Management 72:72+ F 1 '54

How to get a salesman to tell the real reason he quit your job. J. S. Arnold. Sales Management 71:34+ N 1 '53

How to plan and sell your next house; what's wrong with salesmen? House & Home 3:156-7 My '53

How to play a customer's game of golf. V. Richards. Sales Management 72:38-9 Ap 15 '54

Let George do it; allowing salesmen to participate in a sales-meeting. J. B. Connors. Sales Management 71:73-4 pt 2 Jl 1 '53

More builders use real estate salesmen as selling gets competitive. House & Home 5:168-9 My '54

More effective sales results through personal development. W. E. Callahan. Weekly Underw 170:1072, 1131 Ap 24-My 1 '54

More men, better men, they cut costs ten per cent for Bostitch. K. E. Joy. Sales Management 71:56+ S 1 '53

Motivation of salesmen gets spotlight in new book; review of Salesmen's compensation, by H. R. Tosdal and W. Carson, jr. A. N. Seares. Ptr Ink 243:62-3 Ap 10 '53

118 questions for salesmen. J. W. Reed. Ptr Ink 245:34-6 O 2 '53

Sale is the product of many sales; eight personality factors that make sales impression. W. J. Tobin. Ptr Ink 244:50-2+ S 4 '53

Salesmen abuse visiting privileges? S. Winer. Sales Management 72:73 My 20 '54

Salesmen lift their feet off desk; American management assn.'s marketing conference, New York. Iron Age 173:92-3 F 4 '54

Self-quiz for salesmen. Steel 134:98 F 22 '54

Should salesmen be benched at 65? J. C. Aspley. Am Bsns 24:13+ S '54

Ten commandments for salesmen. J. W. Thompson. Sales Management 70:27 Ap 1 '53

25 traits of successful salesmen. B. F. Bills. Sales Management 71:126+ O 15 '53

26 traits of the good salesman. Sales Management 72:44+ Mr 1 '54

Wanted; healthier salesmen. il Sales Management 70:50+ My 1 '53

Wanted; more salesmen with imagination; Reynolds metals co. C. S. Steinmetz. Sales Management 71:118-20 O 15 '53

What makes a good salesman? W. J. Tobin. Rough Notes 97:33+ Ag '54

What makes a good space salesman? N. Kelne. Ptr Ink 244:23-6 Jl 24 '53

What's the effect of self-service on salesmen? Ptr Ink 243:59+ My 15 '53

Which weaknesses hurt your men calling on purchasing agents? J. E. Bex. Sales Management 72:103-4 Ap 15 '54

Why change the rules when you hire Negro salesmen? D. J. Sullivan. Sales Management 71:158+ N 10 '53

Why do star salesmen rate high on 20 points? D. H. Barnow. Sales Management 71:81 D 15 '53

See also

Advertising and salesmen

Chemical industries—Salesmen

Door-to-door selling

Drivers as salesmen

Insurance, Life—Agents

SALESMEN—See also—*Continued*

Insurance agents
Paper industry and trade—Salesmen
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Radio telephone—Salesmen's use
Sales management
Salesmanship

Expenses

Cost of keeping salesmen in the field rises 21-25 per cent since 1950; tabulation. A. R. Hahn. il Sales Management 70:30-4+ My 20 '53

Expense-account aristocrats. Management R 42:340-1 Je '53

New tax law gives salesmen better break on travel expenses. J. Shoenfeld. Sales Management 73:98+ Ag 15 '54

Your entertainment deductible? J. Shoenfeld. Sales Management 72:110+ Ja 15 '54

See also
Automobiles, Salesmen's—Costs

Rating

How do your industrial salesmen rate on these seven points? Sales Management 71: 64 Jl 15 '53

How to rate a salesman. Chem W 75:52+ S 4 '54

Sales situation rating chart. Sales Management 70:77 My 20 '53

Salaries and commissions

Are salesmen overpaid? W. H. Conant. Am Bsns 24:13+ My '54

Beating the clock with Masland; an A-to-Z sales setup in 11 months; pay plan. A. R. Hahn. Sales Management 72:60-2 Je 1 '54

Chemical salesman, how should he be paid? L. Avery. Chem W 72:28+ Ap 11 '53

Compensating field sales supervisors; abstract. Management R 42:163-4 Mr '53

Compensating the sales force. Management R 42:92-3 F '53

Daily incentive plan fattens pay for unionized driver-salesmen; San Francisco brewing corp. H. E. Picard. Sales Management 71: 34+ D 1 '53

Four rules for designing a workable incentive pay plan. J. O. Vance. Sales Management 73:65-6+ Jl 1 '54

Harvester gives dealers practical pay plans for salesmen. J. H. Coats. Sales Management 70:65-6+ Je 1 '53

How six companies head off split commission scuffles. Sales Management 70:45-50+ Je 15 '53

I stand four-square on straight commission pay plans. H. J. Dow. Sales Management 70:102+ Je 15 '53

Methods employed in the compensation of sand and gravel salesmen; abstract. R. F. Porter. Rock Prod 57:81 Mr '54

New wrinkle in compensation; self-determined salary; Michael-Leonard co. Sales Management 71:36-8+ Jl 1 '53

Sanitary supply costs. Soap & Chem Spec 30:149+ S '54

Trends in salesmen's compensation; abstract. Management R 42:663-4 N '53

Victor abandons straight commission for salary plus incentive pay. Sales Management 71:56+ N 20 '53

What kind of pay plan for men selling $12,000 to $200,000 units? Harris-Seybold co. E. C. Lucey. Sales Management 72:84+ Je 15 '54

Selection

Are your hiring costs too high? J. S. Nirenberg. Sales Management 71:66-9 D 1 '53

Hiring salesmen. R. F. Huntley. Soap & San Chem 30:41-3+ F '54

How they stand up under pressure; Williamson-Dickie's sales applicants tested on the Interaction Chronograph. J. T. Norman. Sales Management 73:36-7+ Ag 1 '54

How to put more pull into help wanted ads. W. H. Megary. Sales Management 71:87-8 N 1 '53

How to select and train young salesmen; Jones & Laughlin steel corp. A. Rosensweet. Ptr Ink 244:47-8 Ag 14 '53

How we pick better salesmen. E. B. Osborn. Soap & San Chem 30:46-7+ Mr '54

Looking for salesmen? then you need a career booklet. il Sales Management 70:28-9 Je 1 '53

Pennsalt's ten-point program for reducing salesmen's turnover. R. Letwin. Sales Management 72:54+ Ap 1 '54

Sales recruitment and training today; a survey. Management R 43:45-6 Ja '54

Test of the aptitude test; chemical manufacturers sidle away from aptitude tests for selecting salesmen. Chem W 74:42-4 Ja 23 '54

Service

See Salesmanship—Service

Training

Beating the clock with Masland; an A-to-Z sales setup in 11 months; 40 qualified men to hire, to train, to equip. A. R. Hahn. il Sales Management 72:52+ Je 1 '54

Capsule conferences to up-grade salesmen; RCA Victor television division. il Sales Management 73:36+ pt 2 Jl 1 '54

Cartoonist solves a training toughie. il Sales Management 71:28-9 N 1 '53

Cross-country classroom; Falstaff brewing corporation. il Sales Management 70:58+ Ap 1 '53

Dealer school on wheels; Armstrong cork co.'s mobile auditorium. il Chem W 75:46 Jl 24 '54

Easterners sell western living; space salesmen get a first-hand view of their market; Sunset magazine. il Sales Management 72: 106+ Ja 15 '54

Films you can rent or buy for meetings and training sessions. Sales Management 71: 52-5 S 1 '53

Four ways to fire your salesmen with productive enthusiasm. P. H. Whiting. Ptr Ink 245:62+ O 16 '53

How Bowie cut salesmen's turnover from 39.2 per cent in 1946 to 7.77 per cent now. R. Ellsworth. il Sales Management 70:24-5, 106 Je 1 '53

How Sun Oil grooms salesmen for tomorrow's management. F. R. Markley. il Sales Management 70:78-84 My 1 '53

How to select and train young salesmen; Jones & Laughlin steel corp. A. Rosensweet. Ptr Ink 244:47-8 Ag 14 '53

If I knew you were comin'; Monsanto leavening agent school for salesmen. il Chem W 74:28+ F 13 '54

It's hands in the dough for Hotpoint's commercial sales force; commercial workshop. il Sales Management 70:30-2+ Ap 1 '53

National sanitary supply association sales training panel; abstracts of papers. P. G. Kaye and others. Soap & San Chem 29: 147+ Ap '53

Observe, explain, solicit! Socony dealers learn via loop film. E. M. Kelley. Sales Management 71:133-5 O 15 '53

Our salesmen learn faster when they say it on tape; Conco chemical co. L. E. Crain. il Sales Management 71:128+ S 15 '53

Role-playing; a realistic technique for sales training; Carborundum co. C. H. Demmin. il Sales Management 71:52-4 Jl 15 '53

Role playing is ideal for training. G. R. Stahl. Sales Management 71:40+ N 10 '53

Role playing pays off for Ethyl. R. R. Faller. Sales Management 71:41 N 10 '53

Sales schooling; National Gypsum running school of its own. il Chem W 73:84+ N 14 '53

Sales training. J. L. McEwen. Life Ins Courant 58:25-6 O '53

School for customers; Reichhold's reinforced plastics study sessions in action. il Chem W 74:32-3 Ja 30 '54

Scott sales department recruits and trains future executives. Paper Ind 35:1006-9 D '53

Sell your salesmen on product by use of pictures and sound. B. Aitchison. Ind Marketing 39:24+ My '54

Seminar on selling; Salesmen's association of the American chemical industry sales clinic. il Chem W 73:77 O 10 '53

Shows 'em how to demonstrate. il Elec West 111:111-12 N '53

Staff grows in Brooklyn; blitz sales methods, crazy promotion devices mark Pfizer's rise in antibiotic sales. il Chem W 74:36-8+ F 6 '54

SALESMEN—Training—*Continued*

Stromberg-Carlson dissects a sale; tv camera allows 60 pairs of eyes to watch a sale. Sales Management 71:29-30 pt 2 O 1 '53

36 rules for training salesmen. P. H. Whiting. Ptr Ink 244:37 Ag 28 '53

20 steps in coaching the salesman on the job. E. B. Mapel. Ptr Ink 244:53-4 S 18 '53

Veterans train cubs, and everybody lifts his batting average; Minnesota mining & manufacturing co. sales training course. J. S. Crockett. il Sales Management 70:80-2 Je 1 '53

What's all this better reading shouting about? S. Warren. Sales Management 71:44-6+ Ag 1 '53

Whodunit tells how to do it; G-E puts four mystery programs on records and slidefilms. Sales Management 71:66+ pt 2 O 1 '53

Your best sales tool. R. Hodges. Life Ins Courant 59:12+ Ag '54

See also

Sales managers—Training

Sales manuals

Salesmanship—Study and teaching

SALESMEN, Jobbers'

I'm tired of hearing about friendly dealers. W. H. Long. Ptr Ink 244:66+ Jl 17 '53

Industrial distributors ripe for robot selling? L. H. Brendel. Sales Management 70:42+ Je 1 '53

Mailings build jobber's sales; Navy brand products. A. S. Keshen. il Soap & San Chem 30:135+ Ja '54

Who gets in the Sell-through club? Sales Management 71:110-12 O 1 '53

Why distributors now spend more time with Trumbull. W. B. Dixey. il Sales Management 70:30-2+ Je 15 '53

Why nine out of ten distributors stick and succeed for paymaster. V. J. Walters. Sales Management 71:110-12 O 1 '53

Training

Distributors like movies; manufacturers finding some form of film important part of their distributor sales training program. L. H. Brendel. Sales Management 73:74+ S 20 '54

How to cure wrong-way applications; Gates' school for distributors' salesmen. il Chem W 74:80+ My 15 '54

Motorola girds distributors' men for hotter tv sales rivalry. il Sales Management 70:132+ Ap 15 '53

Noble experiment; five weeks of meetings; Ad. Auriema. R. F. Minnich. Sales Management 70:50+ pt 2 Ap 1 '53

Train distributors by mail quizzes? L. H. Brendel. il Sales Management 73:52+ Ag 1 '54

What distributors want in manufacturers' factory schools. L. H. Brendel. Sales Management 72:70+ Mr 1 '54

Where Ford Tractor trains the trainers. il Sales Management 73:40-4 Ag 15 '54

SALESMEN, Retail

Training

Building effective sales training programs in retail stores. D. Moreines. J Retailing 29:177-82+ Winter '53-54

400 adopt Wool Bureau retail training course. il Sales Management 71:72-4 D 1 '53

How Devoe & Raynolds explain professional salesmanship to retail salespeople. Sales Management 71:76-7+ O 1 '53

Is store training a horse and buggy operation? A. Saum. J Retailing 29:115-20 Fall '53

It's still the best way to sell. il Elec West 111:122-3 O '53

Keen sales sense gives new vitality to a homely utility product; J. Marie Martin co. B. Morden and V. Littell. il Sales Management 71:40-2 D 15 '53

San Diego store training cuts customer complaints. E. Chavannes. il Am Bsns 24:28+ Je '54

Sheaffer fires dealer enthusiasm with three-day training clinics. R. H. Whidden. il Sales Management 70:76+ Ap 1 '53

Slipping market spurs better selling for fresh fruits and vegetables. J. Shoenfeld. Sales Management 71:40+ N 20 '53

Who is Koch of California? ask for a demonstration. il Sales Management 72:42-4+ F 15 '54

SALESMEN and advertising. See Advertising and salesmen

SALESMEN and credit

Credit as right arm of sales, not as millstone, is responsibility of treasurer. E. F. Neubecker. Credit & Fin Management 55:17-18 N '53

Develop marginal risk; what top management expects from credit management; symposium. Credit & Fin Management 56:8-11+ F '54

SALESMEN in fiction

Alexander Botts, why I made him a salesman; as told to Philip Salisbury. W. H. Upson. Sales Management 70:24-6 Ap 1 '53

SALESMEN'S association of the American chemical industry

Chemical sales clinic, 2d, New York, Oct. 19-20; with abstracts of papers. Oil Paint & Drug Rep 164:7+ O 26 '53

Sales clinic, New York, Oct. 19-20. Chem & Eng N 31:4524-5 N 2 '53

SAACI installs 1954 officers. Oil Paint & Drug Rep 165:7 Ja 25 '54

SALESMEN'S equipment

Here's help for the salesman whose slide rule starts talking back; engineering data sheets. H. M. Kinne. Ptr Ink 245:38 O 30 '53

How new service is sales-packaged; du Pont spring drain-out plan. C. A. Weslager. il Ptr Ink 244:69-70 Ag 14 '53

Preventing waste of promotion material. Management R 43:528-9 Ag '54

Tools for selling. il Published in first issue of each month of Sales management

12 best sales tool ideas of 1953. Sales Management 72:52 F 1 '54

SALESMEN'S manuals. See Sales manuals

SALESMEN'S portfolios

This pocket-sized salesman's case is a passport to sales; Mido watch co. N. Keine. il Ptr Ink 245:56+ O 9 '53

Why a simple sales portfolio works best. J. L. Grant. il Ptr Ink 243:52 My 29 '53

SALESMEN'S reports

Accounting for more sales at Economics; Soilax service reports on restaurant dishwashing machines; information employed to build more detergent sales. J. D. Simpson. il Soap & San Chem 29:34-5+ Jl '53

SALESMEN'S wives

Cellucotton makes news with manual for salesmen's wives. Sales Management 73:50-1 Jl 1 '54

How to influence wives and win hubbies' interest; Schering corp.'s sales meeting. il Sales Management 70:15-16 pt 2 Ap 1 '53

My husband is a salesman for Tip-Top bread; campaign of salesmen's wives. Sales Management 71:84-5 Jl 1 '53

This company's session for salesmen's wives tells them the facts of business; Lehigh navigation coal co. Ptr Ink 245:39 O 9 '53

What you should do about wives at conventions. L. J. Trent. Sales Management 73:88+ pt 2 Jl 1 '54

Why wives attend Ac'cent sales meeting. il Sales Management 71:30-2 N 1 '53

SALESWOMEN

How to find, hire, train, keep the all-women direct sales force. W. G. Damroth. il Sales Management 72:70+ My 1 '54

If you would sell, serve! so says 84-year-old Mary Shepherd, Avon Products' glamor girl city sales manager in Ft Worth. M. K. Pirie. Sales Management 73:36-7+ Jl 1 '54

SALICYLALDEHYDE

4-Aminosalicylaldehyde. A. A. Goldberg and H. A. Walker. Chem Soc J p2540-3 Jl '54

SALICYLALDOXIME

Reaction between zinc and salicylaldoxime. S. H. Simonsen and P. Christopher. bibliog Anal Chem 26:681-3 Ap '54

Thermolysis of zinc monosalicylaldoxime. J. Rynasiewicz and J. F. Flagg. Anal Chem 26:1506 S '54

SALICYLAMIDE

Crystallographic data; salicylamide (o-hydroxybenzamide). W. C. McCrone and R. J. Hinch, jr. il diags Anal Chem 25:1277-8 Ag '53

SALICYLANILIDE
New bactericide for soap; Anobial. Soap & San Chem 30:95 Ap '54

SALICYLATES
Crystal structures of the acid salts of some monobasic acids; ammonium hydrogen disalicylate hydrate. T. C. Downie and J. C. Speakman. Chem Soc J p787-93 Mr '54

SALICYLIC acid
Reaction between phosphorus trichloride and salicylic acid. J. A. Cade and W. Gerrard. Chem & Ind p402 Ap 3 '54

Analysis

Polarography of salicylic acid. C. H. Hale and M. N. Hale. bibliog Anal Chem 26:1078-9 Je '54

SALICYLIDES
Eight- and higher-membered ring compounds; alkyl derivatives of di-, tri-, and tetra-salicylides. W. Baker and others. Chem Soc J p2042-6 Je '54

SALIVA
See also
Sputum

SALMINE
Electrochemical study of salmine salts. C. W. Davies and G. H. Nancollas. Chem Soc J p 1112-16 Mr '54

SALMONELLA
Effect of malonate on salmonella typhimurium infection in mice. L. J. Berry and R. B. Mitchell. bibliog Science 118:140-1 Jl 31 '53

SALT
Apparatus for preparing sodium chloride crystals having large specific surface. D. M. Young and J. A. Morrison. diags J Sci Instr 31:90-2 Mr '54
Change of electrical conductivity of sodium chloride upon bombardment with high-energy protons. E. A. Pearlstein. bibliog diag Phys R 92:881-2 N 15 '53
Determination of the adjusted indicator concentration behind a moving boundary in dilute solution; the system potassium chloride-sodium chloride in water at 25°. D. R. Muir, J. R. Graham and A. R. Gordon. bibliog Am Chem Soc J 76:2157-60 Ap 20 '54
Electrical conductivity of supercritical solutions of sodium chloride and water. J. K. Fogo and others. bibliog J Chem Phys 22:212-16 F '54
Electrochemical polarization of titanium in aqueous solutions of sodium chloride. N. Hackerman and C. D. Hall, jr. bibliog Electrochem Soc J 101:321-7 Je '54
Electrochemical polarization of zirconium in neutral salt solutions. N. Hackerman and O. B. Cecil. bibliog Electrochem Soc J 101:419-25 Ag '54
Epitaxial deposits of metals evaporated on salt substrates. O. G. Engel. bibliog(40 titles) il diags J Res Nat Bur Stand 50:249-61 My '53
Internal friction of rock salt single crystals. D. R. Frankl. bibliog Phys R 92:573-9 N 1 '53
Molal volumes and compressibilities of the system $NaCl-H_2O$ above the critical temperature of water. S. W. Benson and others. bibliog J Chem Phys 21:2208-12 D '53
Saline dilution method of liquid flow measurements. J. H. Mappus, jr. il Tappi 37:sup 188A-9A My '54
Saline foundation; underpinning to chemical process industries. il Chem W 75:56 Jl 3 '54
Salt around us. il Ind & Eng Chem 45:sup 15A+ Je '53
Salt stabilization for low cost roads. il Roads & Sts 96:48-9+ N '53
Securing rocksalt windows to sealed-off vacuum tubes. R. Frank and R. L. Stow. diags R Sci Instr 25:514-15 My '54
Sensitive Hall measurements on NaCl and on photoconductive PbTe. J. L. Levy. diag Phys R 92:215-18 O 15 '53
Studies of NaCl-KCl solid solutions; experimental entropies of formation and a comparison of certain thermodynamic properties with values calculated from Wasastjerna's theory. W. T. Barrett and W. E. Wallace. bibliog Am Chem Soc J 76:370-3 Ja 20 '54
Studies of NaCl-KCl solid solutions; heats of formation, lattice spacings, densities, Schottky defects and mutual solubilities. W. T. Barrett and W. E. Wallace. bibliog Am Chem Soc J 76:366-9 Ja 20 '54
Tailored salts provide many plus-values. R. A. Simpson. il Food Eng 26:78-9+ Je '54
Triassic diapiric salt structures, southwestern Aquitaine basin, France. J. Dupouy-Camet. bibliog maps diags Am Assn Pet Geologists Bul 37:2348-88 O '53
Two dimensional phase transition of ethane on sodium chloride. H. Clark and S. Ross. bibliog Am Chem Soc J 75:6081-2 D 5 '53
Use of salt in clay core aids winter dam building. J. B. Mays. il diag Eng N 151:41 Ag 6 '53
See also
Brine

Analysis

Precise electronic titration instrument. K. E. Harwell. bibliog diags Anal Chem 26:616-19 Mr '54

Drying

Fluidized crystal dryer pays off; Carey salt co. C. W. Jobes. il diag Chem Eng 61:166-8 Ja '54

Manufacture

American potash & chemical corp. main plant cycle. M. L. Leonardi. flow sheet il diags Min Eng 6:Trans 203-8 F '54

Spectrum

Production of *F' M* and *R* centers in NaCl at room temperature. R. T. Platt, jr. and J. J. Markham. bibliog Phys R 92:40-4 O 1 '53

Therapeutic use

Are your workers worth their salt? il Safety Maint & Prod 108:51-2 Jl '54

SALT cake. See Sodium sulfates

SALT domes
Salt structure of Jefferson Island salt dome, Iberia and Vermilion parishes, Louisiana. R. Balk. bibliog il maps diags Am Assn Pet Geologists Bul 37:2455-74 N '53
Salting down crude; underwater salt domes are proposed as storage in offshore drilling operations. diag Oil & Gas J 52:84 Ag 17 '53
Triassic diapiric salt structures, southwestern Aquitaine basin, France. J. Dupouy-Camet. bibliog maps diags Am Assn Pet Geologists Bul 37:2348-88 O '53

SALT industry and trade

Advertising

She never grows old; Morton's little girl with the big umbrella. il Sales Management 71:76+ D 1 '53

SALT mines and mining
See also
Salt domes

SALT water. See Sea water; Water supply—Salt water

SALTING-out
Interference of inorganic salts in the chromatography on paper of amino alcohols, diamines, and diamino acids. D. M. Waldron-Edward. Chem & Ind p 104-6 Ja 23 '54

SALTS
Acetylation reactivity of cellulose containing salts. C. J. Malm and others. Ind & Eng Chem 46:557-61 Mr '54
Acid-catalyzed hydrolysis of methylal; kinetic and equilibrium salt effects and correlation with H_0. F. A. Long and D. McIntyre. bibliog Am Chem Soc J 76:3243-7 Je 20 '54
Apparatus for the measurement of ionic conductance of solid salts. P. W. M. Jacobs. bibliog diags J Sci Instr 30:204-7 Je '53
Crystal structure of the acid salts of some monobasic acids; potassium hydrogen dibenzoate. J. M. Skinner, G. M. D. Stewart and J. C. Speakman. Chem Soc J p 180-4 Ja '54
Deposition of evaporites. P. C. Scruton. bibliog map diags Am Assn Pet Geologists Bul 37:2498-512 N '53
Determination of small amounts of water-reactive hydrides in presence of inert salts containing base. M. D. Banus and J. B. Vetrano. diag Anal Chem 25:1268-9 Ag '53

SALTS—*Continued*

Effect of some salts on the solubility of potassium bromide in acetic acid at 30°. E. Griswold, M. M. Jones and R. K. Birdwhistell. bibliog Am Chem Soc J 75:5701-4 N 20 '53

Hydrogen ion concentration of weak monobasic acids and their salts. B. Park. J Chem Educ 30:257-60 My '53

Phase equilibria in sugar solutions; ternary systems of water-hexose-inorganic salt. F. H. C. Kelly. J Ap Chem 4:407-8 Ag '54

Phase equilibria in sugar solutions; ternary systems of water-sucrose-inorganic salts. F. H. C. Kelly. bibliog J Ap Chem 4:401-4 Ag '54

Properties of hydrates; kinetic identification of compounds formed between salts and water. W. S. Castor, jr. and F. Basolo. bibliog Am Chem Soc J 75:4804-7 O 5 '53

Reactions of some metal salts with alkali superoxides in liquid ammonia. D. L. Schechter and J. Kleinberg. Am Chem Soc J 76:3297-300 Je 20 '54

Salt effects on the indicator acidity function, H_0. M. A. Paul. Am Chem Soc J 76:3236-9 Je 20 '54

Solutions of metals in fused salts. D. Cubicciotti. bibliog J Metals 5:Trans 1106-8 S '53

Analysis

Microanalysis of organic salts by the use of cation exchange resins. C. H. Van Etten and M. B. Wiele. bibliog diag Anal Chem 25:1109-11 Jl '53

Potentiometric titration of simple salts with potassium in liquid ammonia. G. W. Watt and others. bibliog Electrochem Soc J 101:229-34 My '54

SALTS, Complex

Application of the complexones in metallurgical analysis. E. G. Brown. bibliog Metallurgia 49:101-5, 151-5 F-Mr '54

Complexing of indium(III) by fluoride ions in aqueous solution; free energies, heats and entropies. L. G. Hepler, J. W. Kury and Z. Z. Hugus, jr. bibliog J Phys Chem 58:26-8 Ja '54

Cupferron and neocupferron complexes of the rare earth elements. A. I. Popov and W. W. Wendlandt. bibliog Anal Chem 26:883-6 My '54

Cupric and ferric citrate complexes. R. C. Warner and I. Weber. bibliog Am Chem Soc J 75:5086-94 O 20 '53

Exchange reactions and magnetic susceptibilities of complex salts; some complex salts of ferric iron. H. C. Clark, N. F. Curtis and A. L. Odell. Chem Soc J p63-6 Ja '54

Isomers of octahedral complexes with nonbranching ligands. R. F. Trimble, jr. diags J Chem Educ 31:176-9 Ap '54

Polarographic determination of relative formation constants of metal complexes of ethylenediaminetetraacetic acid. K. Bril and P. Krumholz. bibliog J Phys Chem 57:874-9 D '53

Stability of transition-metal complexes. H. Irving and R. J. P. Williams. Chem Soc J p3192-210 O '53

Synthesis of the tris-(dimethylglyoximo)-coboltate(III). A. Nakahara and R. Tsuchida. bibliog Am Chem Soc J 76:3103 Je 5 '54

SALTS, Fused

Cation exchange process for the preparation of potassium cyanide. C. H. Lemke. diag Electrochem Soc J 101:203-7 Ap '54

Electrolytic preparation of molybdenum from fused salts. S. Senderoff and A. Brenner. bibliog il diags Electrochem Soc J 101:16-38 Ja '54

Extractive metallurgy of zirconium by the electrolysis of fused salts. M. A. Steinberg and others. bibliog il diags Electrochem Soc J 101:63-78 F '54

Recrystallization of barium sulfate from fused salts. M. Gallant, G. J. Schmitt and J. Steigman. bibliog Anal Chem 26:846-9 My '54

Transport numbers in pure fused salts. F. R. Duke and R. Laity. Am Chem Soc J 76:4046-7 Ag 5 '54

SALTS, Molten

Corrosion of heating electrodes in molten chloride baths. H. R. Copson. il Electrochem Soc J 100:257-64 Je '53; Discussion. 100:593 D '53

High-temperature centrifugal pumps. H. W. Savage and W. G. Cobb. il diags Chem Eng Prog 50:445-8 S '54

Investigation of the quenching characteristics of a salt bath. M. J. Sinnott and J. C. Shyne. bibliog Am Soc for Metals Trans 44:758-69; Discussion. 769-74 '52

Just spin them in salt; selective hardening in a salt bath needs only a simple motorized fixture, is fast, and minimizes gear distortion. C. G. Lee. il Am Mach 98:132-3 My 10 '54

Line of salt baths heat tests 90-mm. gun recoil mechanism. G. F. Hyde. il plan Metal Prog 65:104-8 My '54

Salt bath heat treating; old process with new ideas. il Steel 135:68-71 Ag 30 '54

Salt baths, versatile performers on the heat treating team. L. B. Rosseau. il Steel 134:108-11 F 15 '54

Simple test measures quenching power of salt baths. R. F. Harvey. bibliog il diags Iron Age 173:154-7 Ap 8 '54

SALVADOR

See also
Electricity supply—
Salvador

Economic conditions

Economic conditions abroad (cont). For Comm W 50:3+ S 21; 3+ D 21 '53

Hotels, restaurants, etc.

El Salvador hotel. il plans Arch Forum 98:106-11 Ja '53

SALVAGE

Conducting salvage operations where Titanic sank. Weekly Underw 169:317 Ag 8 '53

Court rules on plane salvage by S. S. Batory. Weekly Underw 171:184 Jl 24 '54

Describe circumstances of Flying Enterprise salvage. P. K. Webster. Weekly Underw 169:677 S 19 '53

Modern salvage vessel may have patient wait before it is brought into action. Weekly Underw 169:678-9 S 19 '53

Naval salvage of the Comet. Engineering 177:392 Mr 26 '54

Salving the Empress of Canada. il Engineering 177:359-60 Mr 19 '54

Tug sunk at Pusan is raised by cranes. il Marine Eng 59:53 S '54

SALVAGE (fires)

How GM tooling was reborn from flame. il diags Am Mach 97:129-52 N 23 '53

Tools rise from the ashes. il Mill & Factory 53:110-11 N '53

SALVAGE (waste, etc.)

Big pay-off from new waste salvage system; Eaton manufacturing co. il Factory Management 112:130-1 Ja '54

Dispersed air reclaims solids. diag Chem Eng 61:134 F '54

Double duty for parts; Dow's B. H. Smith. il Chem W 73:44-6+ Ag 22 '53

Savings through salvage; abstract. E. S. Connor. Management R 43:443-4 Jl '54

Scrap; system doubles value, saves oil, ends handling program; Hartford machine screw co. il Iron Age 172:45 O 1 '53

Sound salvage program can lower your costs. P. A. Jochum. il Mach 60:175-8 Je '54

See also
Scrap metal

SAMARIUM

Crystal structure of samarium metal and of samarium monoxide. F. H. Ellinger and W. H. Zachariasen. Am Chem Soc J 75:5650-2 N 20 '53

Preparation of samarium metal. E. I. Onstott. bibliog Am Chem Soc J 75:5128 O 20 '53

Thermal neutron resonance of Sm. A. W. McReynolds and E. Andersen. Phys R 93:195-6 Ja 1 '54

Nuclear reactions

Alpha activity of Sm^{146} as detected with nuclear emulsions. D. C. Dunlavey and G. T. Seaborg. bibliog Phys R 92:206 O 1 '53

SAMARIUM—Nuclear reactions—*Continued*

Capture of polarized neutrons by polarized Sm^{149} nuclei. L. D. Roberts and others. bibliog diags Phys R 95:105-10 Jl 1 '54

Radioactivity of Sm^{153} and Eu^{155}. M. R. Lee and R. Katz. bibliog Phys R 93:155-9 Ja 1 '54

Spectrum

Hyperfine structure in the spectra of Sb, Sm, Hg, and Cd. K. Murakawa. bibliog Phys R 93:1232-5 Mr 15 '54

SAMARIUM oxide

Crystal structure of samarium metal and of samarium monoxide. F. H. Ellinger and W. H. Zachariasen. Am Chem Soc J 75:5650-2 N 20 '53

SAMISH, Arthur H.

Samish loses. Bsns W p27 D 19 '53

SAMPEY, John R.

Honors to a liberal arts school. por(cover) Chem & Eng N 32:1998 My 17 '54

SAMPLES (merchandizing)

All about gift-pax; new idea for sampling mothers. A. B. Ecke. il Sales Management 70:73-6 Je 1 '53

Following up samples effectively by mail. W. L. Rippeteau and C. Pacifico. diag Ind & Eng Chem 45:1294-7 Je '53

Here is creative sampling; drug sampling, packaging and design. il Sales Management 73:42-3 S 1 '54

Production clinic; merchandise sampling. E. G. Thomssen. Soap & Chem Spec 30:81+ Jl '54

See also

Coupons
Package goods—Sampler packages
Salesmanship—Samples

SAMPLING

Continuous analysis sampling in petroleum and petrochemical processing; symposium. S. B. Spracklen and others. flow sheet diags Oil & Gas J 52:94-100 D 7 '53

Liquid-metal sampling apparatus. diag Engineering 176:735 D 4 '53

Metal sampling; device takes metallurgical samples from liquid metal. Iron Age 172:209-10 N 5 '53

Method for obtaining glass samples from a continuous glass tank. E. L. Woodall, jr. Glass Ind 35:365-6+ Jl '54; Abstract. Cer Ind 62:78 My '54

Plant analyzer samplers that work. diags Pet Processing 8:1717-20 N '53

Preparation of miniature tensile test specimens. R. J. M. Payne. diags Metallurgia 48:315 D '53

Pulsating sampler for liquid stream averts plugging by solids. G. E. Schumann. diag Chem Eng 61:226 F '54

Sampling and testing ready mix concrete. F. F. Bartel. Concrete 62:40-3 Je '54

Sampling at high speed. Bsns W p82+ Ag 8 '53

Sampling gun for spectrographic pin samples. H. H. Grossman, C. B. Pratt and W. S. Myers. diag Anal Chem 25:1939 D '53

Trouble in your sampling systems? S. B. Spracklen. Pet Processing 8:1899-901 D '53

See also

Gas, Natural—Sampling
Gas sampling
Ore sampling
Petroleum—Well drilling—Sampling

SAMPLING (statistical methods)

Acceptance sampling plan protects both supplier and user. R. R. Jones. Textile World 104:94-5+ Ag '54

Application of probability sampling to retail store customer analysis. H. L. Jenkins. J Marketing 18:399-401 Ap '54

Approximating the mode from weighted sample values. H. L. Jones. bibliog Am Stat Assn J 48:113-27 Mr '53

Confidence intervals for the number showing a certain characteristic in a population when sampling is without replacement. L. Katz. bibliog Am Stat Assn J 48:256-61 Je '53

Demonstrating efficiency of sampling techniques. il Electronics 27:294+ F '54

Designing single-sampling inspection plans when the sample size is fixed. A. Golub. Am Stat Assn J 48:278-88 Je '53

Estimation of the parameters of type III populations from truncated samples. D. Raj. bibliog Am Stat Assn J 48:336-49 Je '53

Making one measurement do the work of two. W. J. Youden and W. S. Connor. bibliog Chem Eng Prog 49:549-52 O '53

Matched samples. A. Greenberg. J Marketing 18:241-5 Ja '54

New technique for the accountant. J. R. Evans. N A C A Bul 35:512 D '53

Prelisting in market or media surveys. W. R. Simmons. maps J Marketing 18:6-17 Jl '53

Quality control through statistical methods; ready made sampling plans. N. L. Enrick. flow chart Mod Textiles Mag 35:42-3+ My '54

Quality control through statistical methods; sampling economically and effectively. N. L. Enrick. diag Mod Textiles Mag 35:44+ Ap '54

Reliability of deed samples as indicators of land market activity. R. L. Tontz and others. bibliog Land Econ 30:44-51 F '54

Sampling plans reduce inspection time. M. H. Saltz. flow chart il Tool Eng 33:45-50 S '54

Simple tool to assist the auditor in statistical interpretation of test checks. H. F. Stettler. J Account 97:49-57 Ja '54

Statistical quality control; introduction of a form of sampling inspection. L. Griffiths. bibliog Automobile Eng 43:453-8 N '53

Statistical sampling applied to aging of accounts receivable. R. M. Trueblood and R. M. Cyert. J Account 97:293-8 Mr '54

Statistical techniques need deeper study before they can be useful in auditing. R. W. Johnson. J Account 96:336-40 S '53

Up-and-down method with small samples. K. A. Brownlee and others. bibliog Am Stat Assn J 48:262-77 Je '53

See also

Probabilities
Work sampling

SAND

Blending crushed sand with natural sand. Concrete 61:20 N '53; Same abr. Rock Prod 57:106 F '54

Characteristics of titaniferous concentrates. L. E. Lynd and others. bibliog il Min Eng 6:Trans817-24 Ag '54

Consolidated sand foundations. il diag Arch Forum 100:168 Mr '54

Control of sand in water systems. J. R. Rossum. bibliog il diag Am Water Works Assn J 46:123-32 F '54; Same. Water & Sewage Works 101:114-19 Mr '54

Footing in loose sand supports 250 tons; Franki foundations. il Constr Methods 36:95+ Ap '54

Foundations for a paper mill; sand needn't be treacherous; compaction by vibration. A. Mystkowski. il Eng N 151:35-6 Jl 2 '53

Further test of dimensional orientation of quartz grains in Bradford sand. J. C. Griffiths and M. A. Rosenfeld. bibliog diags Am J Sci 251:192-214 Mr '53; Discussion. Z. V. Jizba. 251:899-906; Reply. 906 D '53

Local sand makes good in Kansas City area. il Ind & Eng Chem 46:sup 15A+ Ap '54

Permeability-porosity relationship for unconsolidated sand. R. M. Ponder and A. J. Miles. bibliog diag Mo U Sch Mines & Met Bul tech ser 84:1-23 '54

Problem of fine sand recovery at Folsom dam. W. B. Lenhart. il Rock Prod 57:70-3 My '54

Production of fines by crushing and grinding; abstract. R. S. Barneyback. Rock Prod 57:88 Mr '54

Retention of fines in sand; abstracts of two papers. M. C. Evans; R. H. Klossner. flow diag Rock Prod 57:87 Mr '54

Sand compaction by vibroflotation. E. D'Appolonia and others. il plan diags Am Soc C E Proc 79[no 200]:1-23 Jl '53

Sand, important factor in successful fracturing. H. E. Staadt, jr. il Pet Eng 25:B 105-8 D '53

Vertical sand drains for stabilization of muck-peat soils. J. C. Carpenter and E. S. Barber. bibliog il diags Am Soc C E Proc 79 [no 351]:1-17 N '53

See also

Aggregates
Bituminous sand
Oil sand
Quicksand

SAND—*Continued*

Stone sand

Blending crushed sand with natural sand. Concrete 61:20 N '53; Same abr. Rock Prod 57:106 F '54

Processing sand from coral rock; Deerfield rock corp. W. B. Lenhart. il Rock Prod 57:101-2+ Je '54

Producing high-grade silica from sandstone; Marion silica co., inc. B. Nordberg. il Rock Prod 57:126-7+ Ap '54

Rod mill brings sand production into balance; Dixie sand and gravel corp. B. Nordberg. il Rock Prod 56:101-4+ O '53

Testing

Crushing tests of sand. Am Soc T M Proc 51:349-58 '51

SAND, Bituminous. See Bituminous sand

SAND, Foundry

Air moves the sand at Allis-Chalmers brass foundry. H. W. Olander. il diag Foundry 82:96-9+ F '54

Automatic control of sand moisture; Neenah foundry co. E. F. Ross. il diag Foundry 81:120-3+ N '53

Canadian foundry completes modernization program. il Foundry 82:146+ S '54

Core and molding sand; American foundrymen's society annual meeting, Cleveland; abstracts of papers. Foundry 82:147-8+ Jl '54

Equipment for the small foundry; sand conditioning. il Foundry 82:176-8 My '54

Foundry core sand delivered by air; Ford's Cleveland foundry. E. J. Egan, jr. il diag Iron Age 173:97-9 Ja 21 '54

pH value of molding sands; its effect on casting quality. V. E. Zang and G. J. Grott. il diag Foundry 82:116-19+ Je '54

Metal casting methods; moulding sands and pattern production. J. B. McIntyre. il Metallurgia 48:165-8 O '53

Molding sand preparation, past and present. A. A. Wickland. Foundry 82:242+ My '54

Preparation of synthetic sand. il Foundry 82:202+ S '54

Sand preparation; with tables. Foundry 82:150-1 My '54

Sand shop course; American foundrymen's society annual meeting, Cleveland; abstracts of papers. Foundry 82:164-6 Jl '54

Reclamation

Low-cost unit reclaims foundry sand; American foundry & machine co. D. Rosenblatt and B. Thompson. il diag Iron Age 172:122-3 S 24 '53

SAND, Oil. See Oil sand

SAND and gravel association, National. See National sand and gravel association

SAND and gravel plants

Applying the principle of percentage depletion; abstract. J. W. Murphy. Rock Prod 57:80 Mr '54

Basalt rock co. story; sand and gravel operations. il Rock Prod 57:125-6 Ja '54

Sand and gravel industry produces largest tonnage of minerals. J. R. Thoenen. Rock Prod 57:104+ My '54

Directories

Commercial producers of sand, gravel and crushed stone, Canada. Roads & Eng Constr 92:162+ Je '54

Employees

Methods employed in the compensation of sand and gravel salesmen; abstract. R. F. Porter. Rock Prod 57:81 Mr '54

Teamsters' union is after blood; new groups being organized. N. C. Rockwood. Rock Prod 56:57+ N '53

Equipment

Blend five sizes to make either concrete or masons sand; Hamlin sand & gravel co. W. B. Lenhart. flow sheet il Rock Prod 57:76-8 S '54

Convert to barge transportation with the opening of new sand and gravel plant; J. L. Shiely co. W. B. Lenhart. flow sheet il plan Rock Prod 57:62-7+ S '54

One man per shift operates 265 t.p.h. sand and gravel plant; Southern Michigan materials, inc. il Rock Prod 57:86-7+ Je '54

Problem of fine sand recovery at Folsom dam. W. B. Lenhart. il Rock Prod 57:70-3 My '54

Processing aggregates for Denver's dam no.22. W. B. Lenhart. flow sheet il Rock Prod 56:94-7 O '53

Processing sand from coral rock; Deerfield rock corp. W. B. Lenhart. il Rock Prod 57:101-2+ Je '54

Produce many sizes to meet heavy construction requirements; Ramapo sand & gravel co. W. B. Lenhart. flow sheet il Rock Prod 57:84-5 F '54

Recover specification sand and gravel from clayey deposit; Becker county sand & gravel co. W. B. Lenhart. flow sheets il diag Rock Prod 57:62-5+ Jl '54

Recovering high value by-products; Stewart & Nuss, inc. W. B. Lenhart. il diag Rock Prod 56:92+ N '53

Removing lignite from sand; reclaim acceptable sand for Garrison dam. W. B. Lenhart. flow sheet il Rock Prod 56:86-9 O '53

Scrubber supplements classifiers; Mason-Dixon sand & gravel co. W. B. Lenhart. flow sheet il diag Rock Prod 57:84-5 Ag '54

Small plant meets tough specifications for New York thruway; MacKenzie sand and gravel co. W. B. Lenhart. flow sheet il Rock Prod 57:126+ F '54

Speeding production of railway ballast for C.P.R. in Manitoba; Cowan construction, ltd. F. C. Cowan. il Roads & Eng Constr 91:119-20+ O '53

Unusual sand recovery system in packaged plant; Windsor building supplies co. W. B. Lenhart. il plan diag Rock Prod 56:108-10 D '53

Safety measures

N.S.G.A. safety competition. Rock Prod 56:144+ O '53

SAND handling

Convert to barge transportation with the opening of new sand and gravel plant; J. L. Shiely co. W. B. Lenhart. flow sheet il plan Rock Prod 57:62-7+ S '54

See also
Sand and gravel plants

SAN DIEGO, California

Public works on tv. R. Gallagher. il Pub Works 84:64 D '53

Sewerage

Ocean outfall studies. F. J. Kersnar and D. H. Caldwell. maps diags Sewage & Ind Wastes 25:1336-43 N '53

Water supply

San Diego doubles aqueduct capacity. il Eng N 151:35-6 Jl 23 '53

SAN DIEGO gas and electric company

Asking for labor criticism. Bsns W p 167 N 7 '53

SANDSTEDT, Rudolph Marion, 1896-

Cereal chemistry with a camera; latest recipient of Thomas Burr Osborne medal. pors Chem & Eng N 32:2482 Je 21 '54

SANDSTONE

Cave sandstones in Cotter dolomite, northeastern Oklahoma. C. E. Gore, jr. Am Assn Pet Geologists Bul 37:2186-8 S '53

Laboratory data show reservoir flow characteristics during secondary recovery from a consolidated sandstone. W. F. Cloud. il diags Oil & Gas J 52:121-3 D 7 '53

Producing high-grade silica from sandstone; Marion silica co., inc. B. Nordberg. il Rock Prod 57:126-7+ Ap '54

Source direction of Ferron sandstone in Utah. P. J. Katich, jr. bibliog maps Am Assn Pet Geologists Bul 37:858-61 Ap '53

SANDWICH construction. See Laminated construction

SAN FRANCISCO

Building foundations in San Francisco. C. H. Lee. map plans Am Soc C E Proc 79 [no 325]:1-32 N '53

Friendly case to test agency's right to the use of eminent domain. Eng N 151:70+ Jl 16 '53

SAN FRANCISCO—*Continued*

Water supply

San Francisco plans for water supply in the year 2000. D. H. Barnes. il Pub Works 85:89-90 Jl '54

SAN FRANCISCO bay

Salt water barriers. B. L. Nishkian. maps Am Soc C E Proc 79 [no 259]:1-11 Ag '53

Sewage disposal project cleans up San Francisco bay. R. C. Kennedy. il maps diag Civil Eng 23:390-3 Je '53

SAN FRANCISCO Bay bridges

Design of Richmond-San Rafael bridge. N. C. Raab. il map diag Roads & Sts 97:42-5 Mr '54

Hollow precast concrete units of great size from bridge substructure; Richmond-San Rafael bridge crossing north part of San Francisco bay. B. C. Gerwick, jr. il diags Civil Eng 24:235-9 Ap '54

Pilot guniting contract, marks beginning of repair program for trestle. il Roads & Sts 96:66+ D '53

San Francisco Bay plans finally move. map Eng N 151:25-6 Jl 2 '53

Unbuilt planes block Bay bridge. Eng N 151:24 Ag 27 '53

Use aluminum falsework. T. M. Rohan. il Iron Age 173:104-5 Je 17 '54

SAN FRANCISCO state college

Pacific southwest association of chemistry teachers Northern section spring meeting, San Francisco. J Chem Educ 30:582-3 N '53

SAN FRANCISCO stock exchange

Weekly record. Published in weekly Monday numbers of Commercial and financial chronicle

SANITARY chemicals

Baird & McGuire, inc. of Holbrook. Soap & San Chem 29:132-3 Ag '53

New Mellocraft Toledo plant. E. G. Thomssen. il Soap & San Chem 29:50-1+ Je '53

Production clinic; insufficient attention given to control of air contamination. E. G. Thomssen. Soap & San Chem 29:93+ S '53

See also

Disinfection and disinfectants

SANITARY chemistry

A.C.S. Division of water, sewage, and sanitation chemistry 124th national meeting, Chicago; abstracts of papers. Chem & Eng N 31:3988 S 28 '53

SANITARY districts

Metropolitan water district of southern California. R. B. Diemer. Am Water Works Assn J 46:793-5 Ag '54

Sewage aeration practice in the sanitary district of Chicago. N. E. Anderson. Am Soc C E Proc 79 [no 310]:1-12 O '53

Washington suburban sanitary district. H. B. Shaw. Am Water Works Assn J 46:799-802 Ag '54

SANITARY engineering

Concepts of engineering biotechnology in occupational health. A. F. Meyer, jr. bibliog diags Am Soc C E Proc 79 [no 352]:1-23 N '53

Current research in sanitary engineering at the University of Florida. D. B. Smith. bibliog il Am Soc C E Proc 79 [no 207]:1-34 Jl '53

Economic aspects of sanitary engineering and sanitation. T. D. Furman. Am Soc C E Proc 79 [no 279]:1-7 S '53

Future developments in sanitary engineering. H. B. Gotaas. Am Soc C E Proc 79 [no 337]:1-9 N '53

Health, welfare and development. J. A. Logan. Am Soc C E Proc 79 [no 340]:1-7 N '53

Industrial hygiene engineering. T. C. Angus. bibliog Engineer 196:801-2 D 18 '53

Need to break with tradition. R. L. Derby. Am Soc C E Proc 79 [no 339]:1-6 N '53

Public relations aspects of consulting sanitary engineering work. M. H. Klegerman. il Am Soc C E Proc 79 [no 301]:1-11 O '53

Report on sanitary engineering research; Public health service Environmental health center. Pub Works 85:154-6 My '54

What's the outlook for sanitary engineers? C. W. Klassen. Am Soc C E Proc 79 [no 341]:1-13 N '53

See also

Air conditioning
Drainage
Dust removal
Factory sanitation
Filters and filtration
Heating
Mosquitoes—Extermination
Plumbing
Refuse disposal
Sanitation
Sewage disposal
Sewerage
Snow removal
Trade waste
Ventilation
Water pollution
Water purification
Water supply engineering

History

Evolution of public health engineering; abstract. F. E. Bruce and G. M. McNaughton. Engineering 177:232 F 19 '54

Study and teaching

Recipients of the master's degree in sanitary engineering. W. A. Lyon and A. P. Miller. Pub Health Rep 68:717-28 Jl '53

SANITARY engineering, American society of. See American society of sanitary engineering

SANITARY engineering laboratories

Public health service dedicates Sanitary engineering research center. il Pub Works 85:139 Ap '54

Reorganization of the Lawrence, Massachusetts experimentation station; abstract. C. I. Sterling, jr. Water & Sewage Works 101:12 Ja '54

See also Taft, Robert A., sanitary engineering center

SANITARY engineers

Joint committee proposes ASCE and EJC certify engineers. Eng N 151:25 Ag 6 '53

Societies recommend certification. Midwest Eng 6:24 S '53

Directories

Federation of sewage and industrial wastes associations; annual year book and directory, 1954. Sewage & Ind Wastes 26:349-444 Mr '54

SANITARY laws. See Air pollution—Laws and regulations; Water laws and legislation

SANITARY products industry

Are sanitary supply prices too low? Soap & San Chem 29:127-9 N '53

Baird & McGuire, inc. of Holbrook. Soap & San Chem 29:132-3 Ag '53

Buffalo Kay chemical co. E. Weller. il Soap & San Chem 29:166-7+ Mr '53

Catalog one of Dixie's best salesmen. P. Lance. il Soap & San Chem 29:48-50 S '53

Cost survey sells sanitary supplies; Galer & Hults, inc. P. Lance. il Soap & San Chem 30:129-32+ F '54

Custodial training; jobber sales aid; A & J distributors. P. Lance. il Soap & Chem Spec 30:124-7 Jl '54

Day in the life of sanitary supply firm's head; Joseph Lassen of American chemical manufacturing co. D. Markstein. il Soap & San Chem 29:130-1+ N '53

Demonstrations pay off for Sterling. P. Lance. Soap & San Chem 29:146-7+ O '53

Formula floor products, inc. il Soap & Chem Spec 30:46-8+ S '54

40 years of sanitary supplies; Vestal, inc. il Soap & San Chem 29:131-5+ S '53

From tires to sanitary supplies; Diamond chemical and supply co. P. Lance. il Soap & San Chem 29:138-41+ F '53

Jobber sells satisfaction; Bond sanitary products co. P. Lance. il Soap & Chem Spec 30:136-8+ Ag '54

Jobber wrings sales from telephone; Carlea janitor supply co., Baltimore. P. Lance. il Soap & San Chem 30:167+ Ap '54

Leg work boosts jobber's sales; Camden bag and paper co. P. Lance. il Soap & San Chem 30:152-3+ Mr '54

Mailings build jobber's sales; Navy brand products. A. S. Keshen. il Soap & San Chem 30:135+ Ja '54

Merchandising has to be put behind selling; abstract. F. Lovejoy. Soap & San Chem 30:155+ Ap '54

SANITARY products industry—*Continued*

National sanitary supply association sales training panel; abstracts of papers. P. G. Kaye and others. Soap & San Chem 29: 147+ Ap '53

Point-of-sale displays. il Soap & San Chem 29:36-7 N '53

Premiums to promote sales of Stanley home products, inc. L. R. Bressler. Soap & San Chem 29:42-3+ N '53

Relationship between production and other departments in sanitary chemicals business. E. G. Thomssen. Soap & San Chem 30:101-2 Mr '54

Riddiford bros., Chicago. H. H. Slawson. il Soap & San Chem 29:49-51+ My '53

Sales contests pay off for F. W. Hoffman & co. P. Lance. il Soap & San Chem 29:116-17+ Jl '53

Sanitary supply costs. Soap & Chem Spec 30: 149+ S '54

Sanitary supply prices have failed to keep pace with a growing industry. Soap & San Chem 30:163+ Mr '54

Selig sells with service. il Soap & San Chem 29:153-5 D '53

Zep; one of Atlanta's big three. F. G. Satterfield. il Soap & San Chem 29:38-41+ N '53

Accounting

Accounting for more sales at Economics; Soilax service reports on restaurant dishwashing machines; information employed to build more detergent sales. J. D. Simpson. il Soap & San Chem 29:34-5+ Jl '53

Exhibitions

N.S.S.A. exhibitor list. il Soap & San Chem 29:167+ Ap '53

Sanitary supply showroom on wheels. il Soap & San Chem 29:148-9 Mr '53

What's new at NSSA show. Soap & San Chem 30:157+ Ap '54

Puerto Rico

Jobbing south of the Border. A. S. Keshen. il Soap & San Chem 29:52-3+ Ag '53

SANITARY supply association, National. See National sanitary supply association

SANITARY ware

Manufacture

Ball clay control for sanitary slip. R. F. Ewing. Am Cer Soc Bul 33:180 Je 15 '54

Raw material control for a sanitary ware plant. R. R. Rowlands. Am Cer Soc Bul 33:215 Jl 15 '54

SANITATION

Administration; the key to effective application. V. W. Bacon. Am Soc C E Proc 79 [no 338]:1-6 N '53

Economic aspects of sanitary engineering and sanitation. T. D. Furman. Am Soc C E Proc 79 [no 279]:1-7 S '53

Evaluation of sanitation programs in a city-county health department. J. A. Salvato, jr. Pub Health Rep 68:595-9 Je '53

High rate activated sludge treatment and its relation to stream sanitation. K. Wuhrmann. il plan Sewage & Ind Wastes 26:1-27 bibliog(38 titles, p26-7) Ja '54

Public, professional, industrial allies in sanitation. M. D. Hollis. Pub Health Rep 68: 805-10 Ag '53

Sanitation problems in a suburban area; Jackson county, Mo. J. K. Smith. Pub Health Rep 68:1161-6 D '53

Unfinished business and new forces in environmental health orthodoxy. A. Wolman. Pub Health Rep 68:962-7 O '53

Water supply and sanitation; with data on major projects. il Eng N 152:140-2+ F 18 '54

See also

Air conditioning
Air pollution
Air purification
Breweries—Sanitation
Disinfection and disinfectants
Dust removal
Factory sanitation
Food factories—Sanitation
Hygiene, Industrial
Milk supply
Plumbing
Public health
Refuse disposal
Sanitary engineering
Sewage disposal
Sewerage
Smoke prevention
Trade waste
Ventilation
Water purification
Water supply

Latin America

Servicio; ten-year evaluation of the bilateral health programs, Institute of Inter-American affairs; development of environmental health programs. Pub Health Rep 68:1251-7 D '53

SANITATION, Factory. See Factory sanitation

SANITATION, Rural

Environmental health in a rural economy. M. D. Hollis. bibliog Pub Health Rep 68: 1107-14 N '53

Sanitation management in housefly control. R. J. Dicke. Soap & San Chem 29:113-14+ Jl '53

See also

Sewage disposal, Rural
Water supply, Rural

SAN JACINTO river

Hydrologic considerations in the San Jacinto project. S. W. Jens. bibliog map Am Water Works Assn J 46:438-44 My '54

San Jacinto water supply for Houston. F. N. Baldwin and others. il maps Am Water Works Assn J 46:425-37 My '54

SAN JOSE water works

Preferred stock sold. Comm & Fin Chr 178: 1821 N 9 '53

SAN MANUEL, Arizona

Setting up a town with a built-in boom. il Bsns W p 136-8+ D 12 '53

SANTA BARBARA college. See California university

SANTA FE railway. See Atchison Topeka and Santa Fe railway

SANTALACEAE

Presence of an acetylenic acid in the seed fat of plants of the santalaceæ family. H. H. Hatt and A. Z. Szumer. bibliog Chem & Ind p962-3 Jl 31 '54

SANTALBIC acid. See Ximenynic acid

SANTALENE

Molecular rotations in the series of longifolene and β-santalene. G. Ourisson. bibliog Chem & Ind p918-19 Ag 29 '53

SANTONIN

Experiments on the synthesis of santonin; preparation and bromination-dehydrobromination of ethyl α-(2 : 3 : 4 : 5 : 6 : 7 : 8 : 10-octahydro-1 : 10-dimethyl-2-oxo-7-naphthyl) propionate. F. D. Gunstone and A. P. Tulloch. bibliog(27 ref) J Ap Chem 4:291-6 Je '54

Stereochemistry of santonin. W. Cocker and T. B. H. McMurry. bibliog Chem & Ind p 1199-201 S 25 '54

Synthesis in the santonin series. F. J. McQuillin. bibliog Chem & Ind p311-12 Mr 13 '54

Synthesis in the santonin series; the use of β-substituted vinyl ketones. P. R. Hills and F. J. McQuillin. Chem Soc J p4060-5 D '53

SANTRY, Joseph Vincent, 1884-

Stepping up steam power. pors Bsns W p 136+, cover N 14 '53

SAPOGENINS

Anasapogenins; a new type of steroid sapogenin. D. H. W. Dickson and others. bibliog Chem & Ind p692-3 Je 12 '54

C-25 isomerism of sarsasapogenin and smilagenin. I. Scheer, R. B. Kostic and E. Mosettig. Am Chem Soc J 75:4871-2 O 5 '53

Configuration at C-25 in natural spirostan sapogenins. V. H. T. James. bibliog Chem & Ind p 1388 D 26 '53

Configuration of 11, 12-oxygenated sapogenins. N. L. Wendler and others. Chem & Ind p543 My 8 '54

Different configurations of the side chain in spirostan sapogenins. R. K. Callow and V. H. T. James. bibliog Chem & Ind p691-2 Je 12 '54

Introduction of the 11-oxo- and the 11α-hydroxy-group into ring C unsubstituted steroids; the epoxides of $\Delta^{7:9(11)}$-5α-hydroxysapogenins. C. Djerassi and others. Chem Soc J p2346-51 Jl '54

Stereochemistry of steroidal sapogenins. J. B. Ziegler, W. E. Rosen and A. C. Shabica. bibliog Am Chem Soc J 76:3865-6 Jl 20 '54

Stereochemistry of the steroid sapogenins. D. A. H. Taylor. Chem & Ind p 1066-8 Ag 28 '54

SAPOGENINS—*Continued*

Steroidal sapogenins; aromatization experiments in the diosgenin series. F. Sondheimer and others. bibliog Am Chem Soc J 76:2230-3 Ap 20 '54

Steroidal sapogenins; configuration of spiroketal side chain at carbon 22. M. E. Wall and S. Serota. bibliog Am Chem Soc J 76:2850-2 My 20 '54

Steroidal sapogenins; hydrolysis of 5α-22a-spirostane glycosides by fungal saponases. M. M. Krider, T. C. Cordon and M. E. Wall. Am Chem Soc J 76:3515-17 Jl 5 '54

Steroidal sapogenins; hydrolysis of 5α,22a-spirostane glycosides by plant enzymes. M. M. Krider and M. E. Wall. bibliog Am Chem Soc J 76:2938-40 Je 5 '54

Steroidal sapogenins; qualitative color test for pseudosapogenins. E. S. Rothman, M. E. Wall and H. G. Cooper. Am Chem Soc J 75:6325-6 D 20 '53

Steroidal sapogenins; stereochemistry of sapogenins and cholesterol at carbon 20. M. E. Wall, C. R. Eddy and S. Serota. bibliog Am Chem Soc J 76:2849-50 My 20 '54

Steroidal sapogenins; steroidal C-ring lactones. E. S. Rothman, M. E. Wall and C. R. Eddy. bibliog Am Chem Soc J 76:527-32 Ja 20 '54

Steroids; steroidal sapogenins; the dehydration of 11α-hydroxy steroids. G. Rosenkranz, O. Mancera and F. Sondheimer. bibliog Am Chem Soc J 76:2227-30 Ap 20 '54

See also
Hecogenin

Analysis

Use of sulfuric acid in the detection and estimation of steroidal sapogenins. H. A. Walens, A. Turner, jr. and M. E. Wall. Anal Chem 26:325-9 F '54

SAPONASES

Steroidal sapogenins; hydrolysis of 5α-22a-spirostane glycosides by fungal saponases. M. M. Krider, T. C. Cordon and M. E. Wall. Am Chem Soc J 76:3515-17 Jl 5 '54

SAPONIFICATION

Rate of saponification of some alkyl *m*- and *p*-dialkylaminobenzoates. C. C. Price and W. J. Belanger. bibliog Am Chem Soc J 76:2682-4 My 20 '54

Steric effects; alkaline saponification of methyl 4-x-2,6-dimethylbenzoates. H. L. Goering, T. Rubin and M. S. Newman. bibliog Am Chem Soc J 76:787-91 F 5 '54

SAPONIFICATION number

Proposed method of test for saponification number of petroleum products (para-xylenol blue color-indicator method). diag Am Soc T M Proc 51:310-15 '51

SAPONINS

Alfalfa saponin. E. D. Walter and others. bibliog Am Chem Soc J 76:2271-3 Ap 20 '54

Wood saponins; a preliminary investigation of the saponins from morabukea [mora gonggrijpii (Kleinh.) Sandwith]. R. A. Laidlaw. Chem Soc J p752-7 F '54

SAPOTA achras

Constitution of sapote gum; components of the methyl ether derivative. E. V. White. Am Chem Soc J 75:4692-4 O 5 '53

SAPOTE. See Sapota achras

SAPPHIRES, Artificial

Commercial synthesis of star sapphires and star rubies. C. Frondel. il Min Eng 6:Trans 78-80 Ja '54

Linde seeks tariff protection for its star sapphires. Chem & Eng N 31:3552-3 Ag 31 '53

Spherical star sapphires are on the market. il Chem & Eng N 32:3359 Ag 23 '54

Synthetic sapphire parts resist wear, heat and corrosion. il Materials & Methods 39:112-13 Je '54

SARAN

Chemistry in the grocery; Dow Chemical will tee off a drive for Saran-Wrap, its household food packaging material. il Chem W 73:81-2+ N 14 '53

Extrusion and properties of saran monofilaments. J. Jack and R. A. Horsley. bibliog il diags J Ap Chem 4:178-88 Ap '54; Abstract. Chem & Eng N 32:1470-1 Ap 12 '54

New Canadian plant for saran fibre at Richmond, Quebec. Can Chem Process 38:6 Ja '54

Preventing corrosion with saran. il Chem Eng 61:264+ Jl '54

Saran-coated cellophane. il Mod Packaging 27:80-3+ Ap '54

Saran film today. F. C. Dulmage, jr. bibliog flow sheet il diags Mod Packaging 27:117-21 Ap '54

SARCOSINE

Preparation of sarcosine and methyl α-methylamino-β-(3-indolyl)-propionate. F. F. Blicke and P. E. Norris. bibliog Am Chem Soc J 76:3213-14 Je 20 '54

SARNIA, Ontario

Setting up an air-pollution survey; group research project. B. C. Newbury. map Munic Util 92:26-7+ Je '54

Industries

Living up to a name; Canada's chemical valley. il map Chem W 73:26+ Jl 11 '53

SARNO, Dick

Sarno nominates Stalin as most unphotogenic. J. L. Collings. Ed & Pub 86:36 Mr 14 '53

SARPAGINE

Constitution of sarpagine. A. F. Thomas. Chem & Ind p488-9 Ap 24 '54

SASKATCHEWAN

See also
Mines and mineral resources—Saskatchewan
Petroleum—Saskatchewan
Petroleum industry and trade—Saskatchewan
Roads—Saskatchewan

SATELLITE states. See Europe, Eastern

SATELLITES, Artificial. See Rockets

SAUDI ARABIA. See Arabia

SAUGUS iron works

Iron; rebuild colonial plant. il diag Iron Age 174:68-9 S 23 '54

Saugus, America's first ironworks (1646-1683) restoration is shrine to all metalworking. il Steel 135:85 S 13 '54

Saugus iron works; our industrial heritage returns to life. il Am Mach 98:159 S 27 '54

Saugus iron works restoration. W. R. McClelland. il Can Min J 75:68-70 Je '54

SAUSAGE

Makes chub items continuously; Kartridg-Pak machine co. il Food Eng 26:77+ S '54

Pulling a vac protects franks. B. Rabinowitz. il Food Eng 25:133 N '53

Their new-style processing improves old-style quality; Slotkowski sausage co. J. V. Ziemba. il Food Eng 26:87-8+ S '54

Unit-task improvements clinch profitable processing gains; Wisconsin meat products co. J. V. Ziemba. il Food Eng 26:81-2+ S '54

Why sausage is now featured on so many employe cafeteria menus; Transparent package co. promotion built around sausage service manual. S. Oppenheimer. il Sales Management 71:86+ O 15 '53

SAVANNAH

Water supply

Water shortage. Bsns W p 121 S 5 '53

SAVING

Agents major thrift force; vast institutional savings. H. J. Johnson. East Underw 55:14 Ag 20 '54

Employee savings and thrift plans come of age; abstract. Management R 42:343-4 Je '53

Employee thrift plans pay off for management; abstract. M. Griswold. Management R 42:670-1 N '53

Guaranteed annual wage; small company's answer; Employees' saving and profit sharing fund of Resistoflex corp. R. T. Dale. Personnel 30:299-301 Ja '54

How significant are reported changes in liquid savings? H. P. King. Comm & Fin Chr 178:1742-3 N 5 '53

How to stimulate saving. Economist 168:687 S 12 '53

New light on savings; two surveys. Economist 169:842+ D 12 '53

News on savings. Banking 46:87 Ja '54 [cont monthly]

Saving is a serious job. C. S. Littledale. Nat Underw (Life ed) Daily ed 57:18+ Ag 27 '53

SAVING—*Continued*
Savings and interest rates. G. M. Humphrey. Comm & Fin Chr 178:437+ Ag 6 '53
Savings habit survey; Washington Heights federal savings and loan association, New York. Burroughs Clearing House 38:24 Ja '54
Savings increased, 1953. Life Ins Courant 59:31 Jl '54
Savings turn the corner? Economist 170:118 Ja 9 '54
See also
Investments
Savings banks
Savings deposits
School savings

SAVINGS and loan associations. See Building and loan associations

SAVINGS and loan associations, Federal. See Federal savings and loan associations

SAVINGS and loan league, United States. See United States savings and loan league

SAVINGS bank insurance forum of New York
Pay plans throw out of kilter mortgagee's plan of handling insurance; forum meeting at New York. Nat Underw 57:19 D 17 '53

SAVINGS banks
News on savings. Banking 46:87 Ja '54 [cont monthly]
See also
American bankers association—Savings and mortgage division
Postal savings banks
School savings
School savings banks

Advertising

See Bank advertising

Investments

Great attractiveness of insurance stocks. S. C. Davis. Comm & Fin Chr 178:1119+ S 24 '53
Mutual fund for New York savings banks. J. W. Lewis. Comm & Fin Chr 178:2154-5 D 3 '53
Stock investments from the savings bank standpoint. A. C. Middlebrook. Comm & Fin Chr 178:2155+ D 3 '53

SAVINGS certificates. See Banks and banking—Savings certificates

SAVINGS deposits
Assignment of bank account. Banking 46:109 N '53
Savings deposits; New York state savings banks and U.S. postal savings, 1949-1952. Survey of Cur Bsns 1953 Sup p82 [supplemented in monthly numbers]
See also
Postal savings banks
School savings

SAWDUST
Delignification of spruce sawdust with chlorine dioxide. N. Levitin and H. Schwartz. bibliog Pulp & Pa of Can 55:92-8 Ja '54
Figuring pneumatic sawdust conveyors. H. B. Wayne. diags Power Eng 57:96-7 D '53
Strength properties of chlorine dioxide pulps from sawdust. N. Levitin and H. Schwartz. bibliog Pulp & Pa of Can 55:128-31 Jl '54

SAWHILL tubular products inc.
Sawhill merges firms. Steel 134:61 Ja 11 '54

SAWMILL waste. See Wood waste

SAWMILLS
Better yield through dimensional control in small-sawmill operation. J. S. Bethel. A S M E Trans 76:623-6 My '54

Electric equipment

Electric heat prevents pond freezing. W. H. Clark. diag Elec West 111:100 O '53
Electric log carriage drive; data sheet. R. W. Racine. il diag Elec West 111:97-8 D '53
Hog makes mill refuse salable. M. S. Prestwood. il Elec West 111:101 O '53
Remote control electric Selsyn setter for log carriage; data sheet. il Elec West 112:73 Ja '54

Employees

Wages in West Coast sawmills, Feb. 1952. J. L. Dana. Mo Labor R 76:272-5 Mr '53

SAWMILLS, Portable
Mobile sawmill. il Engineering 176:776-7 D 18 '53

SAWS
Concrete saw speeds replacement of street lighting fixtures. J. L. Quigley. Pub Works 85:146+ My '54
Design of the Orsia saw blade. E. Nylin. Pulp & Pa of Can 55:138-9 Ja '54
Homelite takes a fancy to fairs. P. J. Halperin. il Sales Management 71:48-50 pt 2 O 1 '53
How to handle your hacksaw; illustrated instructions. S. V. Worth. Power 97:136 N '53
How to machine acrylic plastics; sawing techniques. O. L. Pierson. diags Am Mach 98:114-17 F 1 '54
Power saw as an accident hazard. L. G. Kerr. Pulp & Pa of Can 55:116-18 Ja '54
Power saw training; panel discussion. R. T. Carter and others. Pulp & Pa of Can 54:154-6+ O '53
Power saws; models and specifications; straight and bow blade saws. Pulp & Pa of Can 55:154-5 My '54
Proper use of the power saw as a cutting tool; panel discussion. T. K. Stephens and others. Pulp & Pa of Can 55:136-8+ My '54
Review of power saw manuals. Pulp & Pa of Can 55:160+ My '54
Sawing and sewing machines designed as utility room appliances. il House & Home 2:124 D '52
Study of power saw fires. D. D. Robinson. Pulp & Pa of Can 55:129-30+ Ja '54
Tandem saw rig cuts pavement joints. H. W. Richardson. il Constr Methods 36:116-19 Mr '54
Wright makes single-blade reciprocating saw. il Constr Methods 36:110 Ag '54

SAWS, Chain
Get acquainted with your chain-saw motor. N. T. Adair. Pulp & Pa of Can 55:157+ My '54

SAWS, Electric
Getting the most out of the portable electric saw. il Am Bld 76:116+ Jl '54

Safety measures

Prevent that accident. Am Bld 75:243-4 Ag '53

SAWS, Metal working
Ball bushing support ups saw blade life; Thompson industries inc. il Steel 135:115 S 6 '54
Cutting aluminum; Fletcher aviation corp. il Steel 134:121 My 24 '54
DoAll band machines use new HSS band. il Am Mach 98:188-9 F 15 '54; Mach 60:227-8 Mr '54
Evaluation of bandsaw performance. L. V. Colwell and R. E. McKee. il A S M E Trans 76:951-9; Discussion. 959-60 Ag '54
Facts about modern metal cutting saws. il Mill & Factory 54:568 My '54
Friction sawing cuts off high costs. H. J. Chamberland. il Iron Age 173:152-4 F 18 '54
Herbert heavy-duty hacksawing machine. il Engineer 197:186 Ja 29 '54; diags Engineering 177:279 F 26 '54
Jet engine blades trimmed by friction sawing. il Automotive Ind 110:31 Mr 1 '54
Kennedy portable power saw. il Engineering 177:376 Mr 19 '54
La-Roy diamond portable hacksaw provides return lift. il Am Mach 98:278 Ap 12 '54
Machine tool buyers' guide; cutting, sawing and filing machines. il Steel 133:204-6 sec 2 N 16 '53
Motch & Merryweather circular sawing machine cuts 43-in.-diameter stock. il Am Mach 98:174 Jl 5 '54
Motch & Merryweather high-speed plate saw raises stock hydraulically. il Am Mach 98:189 Mr 15 '54; Mach 60:225 Mr '54
Peerless metal sawing machine with two-speed cutting. il Am Mach 98:280 Ap 12 '54
Recent advancements in continuous butt and induction weld pipe mills. W. Rodder. il plans diags Iron & Steel Eng 31:108-15; Discussion. 115-17 Ag '54
Redesign improves vertical hack saw. il diags Machine Design 25:160 N '53
Spiral saw bands lower die costs. il Mach 60:209 Mr '54
York-Gillespie two-cut hot saw. il Steel 135:144 Jl 12 '54

SAWYER, Raymond, 1909-
CAB names Sawyer executive director. Aviation W 58:95 Je 22 '53

SCAFFOLDING
Leapfrog to relight Hiller; special scaffolding in sections. il Elec West 112:74 Ja '54

SCAFFOLDING—*Continued*

Safety measures

Follow rules for safe scaffolds. Constr Methods 36:129 Ag '54

How to check ladders and scaffolds. W. E. Rossnagel. il diags Safety Maint & Prod 107:18-20+ Je '54

Modifications of traveling scaffolds to follow Golden Gate Bridge accident. il diag Eng N 151:23 N 26 '53

Prevent that accident. Am Bld 75:290+ Je '53

Scaffolds and staging. bibliog il diag Nat Safety N 69:22-3 Mr '54

SCAFFOLDING, Portable

Adaptable staging units built from standard aluminum-alloy parts. il Engineering 176: 448 O 2 '53

Cut costs here with modern scaffolding, rolling towers. il diag Iron Age 172:159-60 Ag 6 '53

Makes roof work safer; portable rolling scaffold. il Nat Safety N 68:88 N '53; Same. Mill & Factory 55:127 Jl '54

Mobile scaffold saves man-hours of rigging. il Constr Methods 36:61 F '54

New portable scaffolding solves bank maintenance problems; Baker-Roos safety platform. il Bankers Mo 76:46 N '53

Save paint shop space with portable scaffolds. il Bus Transportation 32:56, 59 N '53

SCAFFOLDING, Steel

Efficiency up, costs down; sectional, mobile maintenance stands. il Safety Maint & Prod 106:19+ N '53

Modern concrete shoring; using quickly assembled steel scaffolding. A. C. Borgman. il Constr Methods 36:86-8 S '54

SCALES

Automation in weighing and bulk handling. I. H. Richardson. diags Tool Eng 32:147-9 Mr '54

Concrete mixing and placing; scale adjustments and weighing tolerances. T. B. Appel, jr. il diags Constr Methods 36:98+ Ja '54

Concrete mixing and placing; weighbeam and dial scales. T. B. Appel, jr. il diags Constr Methods 35:95+ D '53

Determining weight electronically. V. C. Kennedy. il diags Mech Eng 76:159-65 F '54

Facts about modern scales. il Mill & Factory 54:271 My '54

Handle and weigh loads in one step; crane scales. A. C. Ruge. il Safety Maint & Prod 108:23+ Jl '54

How an inner tube can serve as a scale for weighing in field. D. H. Gieskieng. diag Chem Eng 61:230 Ja '54; Discussion. 61:230 Ap '54

Plants gain weight with electronic scales. H. Chandler. il diags Steel 133:110-13 Ag 17 '53

See also

Balances

Postal scales

SCALING of metals. See Metals—Scaling

SCANDINAVIA

See also

Agriculture—Scandinavia

Chemical research—Scandinavia

Labor supply—Scandinavia

Petroleum industry and trade—Scandinavia

Foreign relations

Scandinavian insularity. map Economist 169: 82-4 O 10 '53

SCANDIUM

Analysis

Qualitative test for scandium employing 2,5-dihydroxy-1,4-benzoquinone. L. Pokras and M. Kilpatrick. bibliog Anal Chem 25:1270-2 Ag '53

Isotopes

Internal conversion coefficients of Nb^{95}, Zn^{65}, and Sc^{46}. E. F. Sturcken and others. Phys R 93:1053-6 Mr 1 '54

Nuclear reactions

Disintegration of Ca^{47}, Sc^{47}, Va^{46}, and Rh^{100}. L. Marquez. bibliog Phys R 92:1511-16 D 15 '53

Energy levels of Ti^{46} from the decay of Sc^{46} and V^{46}. H. Casson and others. Phys R 92:1517-21 D 15 '53

Second-forbidden beta spectra of Co^{60} and Sc^{46}. G. L. Keister and F. H. Schmidt. bibliog Phys R 93:140-5 Ja 1 '54

SCANDIUM perchlorate

Acid dissociation of the aquoscandium ions. M. Kilpatrick and L. Pokras. bibliog Electrochem Soc J 100:85-92 F '53; 101:39-43 Ja '54

SCATCHARD, George, 1892-

Solutions that aren't elementary; Scatchard receives Theodore William Richards medal. por(cover) Chem & Eng N 32:2099 My 24 '54

SCATTERING of light. See Light, Scattering of

SCATTERING of particles and rays

Alpha-alpha scattering from 12.88 to 21.62 Mev. F. E. Steigert and M. B. Sampson. bibliog diag Phys R 92:660-4 N 1 '53

Application of variational methods to intermediate and high-energy scattering. E. Gerjuoy and D. S. Saxon. bibliog Phys R 94:478-91 Ap 15 '54

Compton scattering. W. B. Cheston. bibliog Phys R 95:247-8 Jl 1 '54

Correlations in space and time and Born approximation scattering in systems of interacting particles. L. Van Hove. bibliog Phys R 95:249-62 Jl 1 '54

Density fluctuations at low temperatures. P. J. Price. bibliog Phys R 94:257-61 Ap 15 '54

Device for determining relative stopping powers for natural alpha particles. R. H. Ellis, jr. il diags R Sci Instr 25:336-40 Ap '54

Elastic scattering of alpha particles by neon. E. Goldberg and others. bibliog il diag Phys R 93:799-805 F 15 '54

Elastic scattering of intermediate-energy alpha particles by gold. G. W. Farwell and H. E. Wegner. Phys R 93:356-7 Ja 15 '54

Elastic scattering of particles by atomic nuclei. N. C. Francis and K. M. Watson. bibliog Phys R 92:291-303 O 15 '53

Estimating differential scattering cross sections in gases. T. Ahrens. J Ap Phys 25: 505-6 Ap '54

Evaluation of particle loss due to multiple scattering in foils. W. C. Dickinson and D. C. Dodder. bibliog diag R Sci Instr 24: 428-31 Je '53

Formulation of the Kohn-Hulthén variational principle in terms of the scattering operator formalism. H. E. Moses. bibliog Phys R 92:817-21 N 1 '53

Inelastic collision and the Molière theory of multiple scattering. U. Fano. bibliog Phys R 93:117-20 Ja 1 '54

Influence of chemical state on stopping of fast charged particles. T. Westermark. bibliog Phys R 93:835-6 F 15 '54

Ingoing waves in final state of scattering problems. G. Breit and H. A. Bethe. diags Phys R 93:888-90 F 15 '54

Interference of Rayleigh and nuclear Thomson scattering. A. M. Cormack. Phys R 94: 1397-8 Je 1 '54

New computation of the Mie scattering functions for spherical particles. B. Goldberg. Opt Soc Am J 43:1221-2 D '53

Nuclear elastic scattering of photons. E. Hayward and E. G. Fuller. Phys R 95: 1106-7 Ag 15 '54

Point source kernel for diffusion with small-angle scattering. W. E. Drummond and C. S. Gardner. diag Phys R 94:1491-6 Je 15 '54

Problem of multiple scattering. E. P. Wigner. bibliog Phys R 94:17-25 Ap 1 '54

Scattering of electromagnetic waves by turbulent atmospheric fluctuations. F. Villars and V. F. Weisskopf. bibliog diags Phys R 94:232-40 Ap 15 '54

Scattering of many-particle systems. S. Tamor. Phys R 93:227-8 Ja 1 '54

Schwinger's variational principles for scattering. G. F. Chew. Phys R 93:341-3 Ja 15 '54

Stopping power of organic foils for 6 Mev alphas. J. Phelps and others. bibliog diag Phys R 95:441-4 Jl 15 '54

SCATTERING of particles and rays—*Cont.*

Stopping powers of various elements for protons of energies from 400 to 1050 kev. A. B. Chilton and others. bibliog diags Phys R 93:413-18 F 1 '54

Three-body scattering problems. S. Borowitz and B. Friedman. Phys R 93:251-2 Ja 1 '54

Time-dependent variational principle. S. Altschuler and J. F. Carlson. Phys R 95:546-8 Jl 15 '54

Two-body scattering at low energy. B. Roth. bibliog Phys R 92:1250-2 D 1 '53

Wavelength of scattered radiation. A. Bramley. Phys R 93:246 Ja 1 '54

See also

Deuterons—Scattering

Electrons—Reflection, Scattering, etc.

Gamma rays—Scattering

Neutrons—Scattering

Protons—Scattering

Radio waves—Scattering

X rays—Scattering

SCHAEFER, H. J. 1898-

He designed the Multi-Pak. por Brick & Clay Rec 124:68 Je '54

SCHARY, Dore, 1905-

Schary keeps ideas and people on the track. pors Bsns W p78-84+ Ag 15 '53

SCHEDULES

BOP assembly plant uses electronic transcription for scheduling of parts; TelAutograph system. flow chart Automotive Ind 111:98+ S 1 '54

How to coordinate subcontracting to meet production schedules. G. E. Fouch. Am Mach 98:137-44 F 15 '54

How to keep track of your men and jobs; peg board modified from production control board. il Chem Eng 61:138+ S '54

Planning and scheduling your maintenance work. G. J. Martin. Food Eng 26:76-8 Ap '54

Scheduling of glass factory batch materials. R. W. Spain. Cer Ind 62:162-3+ Ap '54

Taking the slack out of maintenance scheduling. J. W. Sawyer. il Mill & Factory 54:86-9 F '54

Visual control of analytical test scheduling. B. G. Post and others. il Anal Chem 26:647-50 Ap '54

See also

Advertising—Schedules

Production control

Railroads—Schedules

SCHEELITE

Beneficiation of ferberite-scheelite ore from Germania consolidated mines, inc., Stevens county, Wash. P. H. Floyd and W. A. Stickney. pl U S Bur Mines Rep of Invest 5039:1-6 '54

SCHEFFER, Frans Eppo Cornelis, 1883-

F. E. C. Scheffer. por(front) J Chem Educ 31:210-11 Ap '54

SCHENLEY industries, inc.

Ban made a boom; Kansas alcoholic beverage control board ban on sales of Schenley products for a 30-day period. Bsns W p48+ N 21 '53

SCHIFF bases

Analysis

Determination of Schiff bases by titration in nonaqueous solutions. S. K. Freeman. bibliog Anal Chem 25:1750-1 N '53

SCHISTOSOMIASIS

Experiments in the control of schistosomiasis in Brazil. W. H. Wright and C. G. Dobrovolny. il map Pub Health Rep 68:1156-60 D '53

SCHIZOPHRENIA

Key to mental disorder in biochemical lesions from psychosis-producing drugs; abstract. E. V. Evarts. Chem & Eng N 32:2686 Jl 5 '54

Serotonin role in mental disorders; abstract. D. W. Woolley and E. Shaw. Chem & Eng N 32:1876 My 10 '54

Stress and the toxicity of schizophrenic serum. R. Fischer. Science 118:409-10 O 9 '53

SCHLIEREN apparatus

Application of ideal gas theory to the gaseous expansion from an electric spark. R. B. Edmonson and others. bibliog il diags J Ap Phys 25:1008-13 Ag '54

Schlieren photographs of sound fields. D. S. Schwartz and A. L. Russo. il diags J Ap Phys 24:1061-2 Ag '53

Use of the Schlieren optical system for sampling after preparative angle ultracentrifugation. S. Sorof. bibliog il Am Chem Soc J 75:5443-5 N 5 '53

SCHLUETER, L. A.

Three chemists assume major roles in NPA reorganization. por(cover) Chem & Eng N 31:2985 Jl 20 '53

SCHMIDT reaction

Behavior of cyclopropyl ketones in the Schmidt reaction. S. C. Bunce and J. B. Cloke. bibliog Am Chem Soc J 76:2244-8 Ap 20 '54

Examination of the iodoform and Schmidt reaction of acetone-1-C_{14} for isotope effects. G. A. Ropp and others. Am Chem Soc J 76:1710-11 Mr 20 '54

Mechanism of the Schmidt reaction with *o*-benzoylbenzoic acid. C. L. Arcus and M. M. Coombs. Chem Soc J p3698-700 N '53

Polynuclear heterocyclic systems; synthetic applications of the Schmidt reaction. G. M. Badger and J. H. Seidler. Chem Soc J p2329-33 Jl '54

Relative rates of migration of aryl groups in the Schmidt reaction of unsymmetrical diarylethylenes. D. R. Nielsen and W. E. McEwen. bibliog Am Chem Soc J 76:4042-4 Ag 5 '54

Schmidt reaction on *o*-substituted aryl ketones. P. A. S. Smith. bibliog Am Chem Soc J 76:431-6 Ja 20 '54

SCHOELLKOPF medal

Schoellkopf medal to Cass. Chem & Eng N 32:1695 Ap 26 '54

SCHOENOCAULON

Schoenocaulon alkaloids; active principles of schoenocaulon officinale; cevacine and protocevine. S. M. Kupchan and others. bibliog Am Chem Soc J 75:5519-24 N 20 '53

SCHOLARSHIPS and fellowships

Altruism with a purpose; chemical firms supporting scholarships and fellowships. Chem W 73:35-6 Ag 22 '53

ASTE award winners announced. E. R. Saunders. Tool Eng 33:93-4 Jl '54

Athlone fellowship scheme for the practical training in industry of Canadian engineering graduates in Great Britain. W. Abbott. Inst Mech Eng Proc (A) 167 no 3:258-61 '53; Same abr. Inst E E Proc 100 pt 1:221-4 S '53; Same. Engineer 195:561-3 Ap 17 '53; Discussion. Inst Mech Eng Proc (A) 167 no3:261-74 '53; Engineer 195:567-8, 587-8 Ap 17-24 '53

Comparative study of the subsequent careers of applicants for postdoctoral research fellowships in the medical sciences. L. G. Bowen. Science 118:400-1 O 9 '53

Fellowship awards made for safety education; New York university's center for safety education. Weekly Underw 169:429 Ag 22 '53

Graduate fellowships offered by National science foundation. Elec Eng 72:1040-1 N '53

Guggenheim fellowships totaling $1 million go to 243 Americans. Chem & Eng N 32:2101 My 24 '54

Hope chest; crackpot pot. J. G. Miller. Science 118:417-18 O 9 '53

In-company scholarships. Chem & Eng N 32:2566-7 Je 28 '54

Medical education scholarship loans in the Mississippi integrated health program. F. J. Underwood. Pub Health Rep 68:549-53 Je '53

Orton foundation announces research grants. il Am Cer Soc Bul 33:121 Ap 15 '54

Refresher in physics; GE's Science fellowship program. il Elec World News ed 140:16-18 Ag 31 '53

Robert E. Kennedy scholarship fund established by Chicago chapter, AFS. E. F. Ross. Foundry 82:252+ Mr '54

Trend between the lines; corporate support of scholarships and fellowships. Chem W 74:46 My 1 '54

Undergraduate scholarships in ceramic engineering. J. I. Mueller. Am Cer Soc Bul 33:151 My 15 '54

Utility unfolds scholarship plan; Pennsylvania power & light co. C. E. Oakes. Pub Util 53:449-50 Ap 1 '54

SCHOLARSHIPS and fellowships, Government

Eliminating the county scholar. Economist 169:955 D 26 '53

SCHOOL architecture. See School buildings—Designs and plans

SCHOOL buildings

Back to the two-room school house. il plan diags Am Bld 75:150-1 Jl '53

Builder's suggestions change school boards plans. il plans diag Am Bld 76:112-13 Je '54

Case history; classrooms without corridors. E. M. Smith. il plans diags Arch Rec 114:172-7 S '53

Charm, good school plan and community center; high school, Hamilton, Tex. il plan Arch Forum 99:120-1 D '53

Chicago builders design tract house for temporary use as school. il plans House & Home 5:41+ Je '54

Concrete frame cuts school costs; Lindley Park elementary school at Asheboro, N.C. il diags Arch Forum 101:160-1 Jl '54

Contractors submit school designs; quick construction is the result. il Eng N 151:54+ N 5 '53

Deep classrooms are arranged in pinwheel wings to produce compact school for two different sites. il plans diag Arch Forum 100:130-1 Je '54

Dwight H. Perkins, father of today's new school ideas. il plans Arch Forum 97:119-25 O '52

For better schools; seven winners. il Arch Rec 115:24 My '54

Four-room units are grouped like two-story apartments in a prize-winning school designed for easy expansion. il plans diags Arch Forum 100:128-9 Je '54

Heathcote; a pioneering school in plan and atmosphere. il plans Arch Forum 101:98-105 Jl '54

High school presents a variety of features; Rich township high school in Park Forest, Ill. il Eng N 152:44 Ja 7 '54

Modern wing with tact to harmonize; elementary school, Palisades, N.Y. il plan Arch Forum 99:118-19 D '53

New building replaces one-room schoolhouse; Park Forest, Ill. il Arch Rec 115:324+ My '54

New schools urged by the Research division, National education association of the U.S. Eng N 152:67-8 Ja 28 '54

One school uses porcelain enamel in 20 ways. il Arch Rec 115:20 F '54

Present school needs total $10 billion. Eng N 152:27 F 11 '54

Prize school provides a small office for every teacher. il diags Arch Forum 99:140-1 Ag '53

School board and park board cooperate; Catherine Blaine junior high school, Seattle, Wash. recreation project. il plans diag Arch Rec 116:123-7 Jl '54

School costs; frame construction deserves greater consideration. A. J. Harriman. Eng N 152:23 F 25 '54

Schoolhouse economy forum. Arch Forum 99:118-26+ O '53

Schoolmen hear architects on school design; 80th annual convention of the American association of school administrators, Atlantic City, Feb. 13-18. Arch Rec 115:20+ Ap '54

Schoolrooms move with population; prefabricated lightweight steel frames are trucked to the site and assembled into self-contained units. il diags Arch Rec 115:197-9 Je '54

Schools, fixture dimensions; chalkboard details; design standards and data. H. R. Sleeper. Arch Forum 100:187, 189, 191 My '54

Secondary education and its buildings; building types study. il plans Arch Rec 113:165-89 Mr '53

Service hot water for schools. L. Blendermann. diags Heat & Ven 51:106-7 Je '54

Small primary school addition uses rigid frames of wood. il plans diags Arch Rec 113:154-7 Je '53

Techniques. C. Feiss and others. il map plans diags Arch Forum 99:172-88+ O '53

This industrial school looks its part. il plan Arch Forum 101:116-19 Ag '54

See also

Classrooms

Cost

Building a school today; with cost data. il plans diags Am Bld 76:98-101 My '54

Flat plate used in low cost schools, Kentucky. il Eng N 151:56 D 24 '53

High school, Pennsylvania; unit prices. il Eng N 151:146 Ag 20 '53

How one state keeps school costs down. il Eng N 151:181-2+ O 8 '53

School costs dip in '52 in New York city; tables and charts. Eng N 151:145 O 8 '53

Structural economy; where can most savings be achieved? il plan diags Arch Forum 99:174-8 O '53

Designs and plans

Banjo-plan school; General George W. Wingate high school, Brooklyn, N.Y. il plans diag Arch Forum 97:122-5 N '52

California school addition; $6.84 per sq. ft.; Tularcitos elementary school, Upper Carmel valley. il plans diags Arch Rec 114:191-2 S '53

California school grows with its community; Greenbrae elementary school, Marin county. il plan diags Arch Rec 114:198-201 S '53

Case studies of the latest trends. il plans diags Arch Forum 99:127-61 O '53

Connecticut school rehabilitated and enlarged. il plans Arch Rec 114:187-90 S '53

Design standards and data. H. R. Sleeper. plans diags Arch Forum 99:162-5 O '53

Dignity for adolescents; Phillis Wheatley senior high school, Houston. il plans diag Arch Forum 99:132-5 Jl '53

Elementary school, Sweeny, Tex. il plans diag Arch Rec 114:135-8 Jl '53

For tight city lots, two standardized schools. il plans Arch Forum 100:146-9 F '54

Hawaiian school; addition, expansion. il plans Arch Rec 114:178-81 S '53

Manchester memorial school, Manchester, Mass. il plans diags Arch Rec 114:139-43 Jl '53

Maryland school; minimum, expandable, flexible; Hillandale elementary school. il plans diags Arch Rec 114:193-5 S '53

New elementary school for suburb of Toledo. il plans diag Arch Rec 113:154-7 My '53

New elementary school in Rio de Janeiro. il plans diag Arch Rec 114:132-4 Jl '53

New world for children. il plan diags Arch Forum 100:108-32 Mr '54

No-corridor school; Thomy Lafon elementary school, New Orleans. il plans diag Arch Forum 98:132-4+ Ap '53

Ohio school design exploits difficult site; South elementary-junior high school, Newark. il plans Arch Rec 114:196-7 S '53

Pennsylvania school; low-cost addition; Lima elementary school. il plans Arch Rec 114:182-4 S '53

School as a durable asset. il plan Arch Rec 113:190-5 Ap '53

School is built around courts to zone 13 grades. il plans diags Arch Forum 100:134-7 Ja '54

Schools; building types study with cost data. il plans diags Arch Rec 115:149-80 F; 116:141-68 Ag '54

Schools; fresh ideas and long-range criticism. il plans diags Arch Forum 97:101-33+ O '52

Should the design of today's school be domestic or institutional? E. Kump. il plans diags Arch Forum 99:166-71 O '53

Split site yields well integrated six-grade school; Double Oaks elementary school, Charlotte, N.C. il plans diags Arch Rec 115:156-62 Ap '54

Tent-shaped school; P. A. Walsh intermediate school, Morgan Hill, Calif. il plan diag Arch Forum 97:126-8 D '52

Tip-up steel frames form classroom walls; Moultrie senior high school, Moultrie, Ga. il diags Arch Rec 115:175 Ja '54

Top-lighted Oregon school built in two stages. il plans Arch Rec 114:185-6 S '53

Twin-wing school; Foster junior-senior high school, Seattle; with cost data. il plans diags Arch Forum 98:112-18 My '53

Two-in-one high school; William W. H. Henry comprehensive high school, Dover, Del. il plan diag Arch Forum 98:122-5 Ja '53

SCHOOL buildings—*Continued*

Electric equipment

School installation; Thorney Close secondary modern school at Sunderland. il Elec R (Lond) 153:1396-9 D 18 '53

Equipment

Roundup of current schoolroom furniture and equipment. il Arch Rec 115:214-15+ F '54

Fires and fire protection

Fire-safe schools. Safety Maint & Prod 108: 54+ S '54

National board cooperating to re-alert schools to fire dangers in New York state. East Underw 55:25 Ap 30 '54; Weekly Underw 170:1089+ My 1 '54

Heating and ventilation

Are school heating design conditions right? R. W. McKinley. Heating-Piping 26:105 Ap '54

Four zone floor panel system heats new school. J. F. Redding. il Heating-Piping 26:110-11 Mr '54

Heat pumps go to school. C. W. Millsom. il Heating-Piping 25:86-7 D '53

Heat pumps serve Florida schools. il Heat & Ven 50:99-100 D '53

High school heating system. il Heat & Ven 51:142+ S '54

How to control unit ventilators in school buildings. H. W. Alyea. il diags Heating-Piping 25:92-5 O; 122-4 N; 80-3 D '53; Discussion. 26:103-4 Mr; 79-80 Jl '54

New design method for school systems cuts costs; unit ventilators. L. R. Fuller. Heat & Ven 50:77-80 D '53

1940 school gets 1954 heating; remodeling case study. il Dom Eng 183:139+ My '54

School heating combined with structure for low cost and comfort. il plans diags Arch Rec 115:210-13 F '54

School heating system. il Sheet Metal Worker 45:112 F '54

Studies on natural light and ventilation in schools. W. W. Caudill. diags Arch Rec 114:164-6 D '53

Techniques. H. Wright. il map plan diags Arch Forum 99:179-83 O '53

Trouble shooting, school heating jobs! Dom Eng 183:171+ Mr '54

Use light or heavy oil for heating a school? R. I. Anderson. il Heating-Piping 26:79-81 Ap '54

What's the right heating design condition for classrooms? Heating-Piping 26:141-2 Je '54

Lighting

Bench marks for school lighting. C. E. Gibson. il Elec West 111:91-2 S '53

Daytime lighting of school classrooms. R. A. Boyd and T. D. Wakefield. il plan diag Illum Eng 49:388-91 Ag '54

Direct lighting for schools. H. L. Logan. il diags Illum Eng 48:568-71 N '53

Lighting maintenance pays in lower costs and better illumination for schools in Birmingham, Ala. il Elec World 141:128+ Mr 8 '54

School lighting and posture. W. Allphin. il Illum Eng 49:192-6 Ap '54; Discussion. 49: 362-6 Jl '54

Schoolhouse lighting plenum. il diag Arch Forum 100:160-1 Ap '54

Studies on natural light and ventilation in schools. W. W. Caudill. diags Arch Rec 114:164-6 D '53

Techniques. il plan diags Arch Forum 99: 184-7+ O '53

Toplighting for classrooms. il plans diag Arch Forum 99:228+ O '53

SCHOOL children

Epidemiological study of plantar warts among school children. W. K. Grigg and G. Wilhelm. Pub Health Rep 68:985-8 O '53

Scientific attractions for the young; schoolboy's own exhibition and lectures. il Elec J 152:121-2 Ja 8 '54

Studies on dental care services for school children. F. E. Law and others. Pub Health Rep 68:1192-8 D '53

Studies on dental care services for school children. G. E. Waterman and J. W. Knutson. Pub Health Rep 68:583-9 Je '53

SCHOOL finance

Current trends in school financing; public authority system. S. M. Ruffin. Comm & Fin Chr 178:6+ sec 2 O 8 '53

How school rentals are set under Authority financing. Eng N 151:173 O 8 '53

SCHOOL savings

40 years of school savings; Woronoco savings bank, Westfield, Mass. il Banking 46:54-5 D '53

SCHOOL savings banks

High school student-bankers win jobs; Montgomery county high school, Ramer, Ala. L. Kelly. il Banking 46:56+ Ja '54

SCHOOL shops

Light-filled shops for private school combines north windows with 480 sq. ft. skylight. il plans diags Arch Forum 98:150-1 Mr '53

School shop planning; with time saver standards. plans Arch Rec 114:191+ Jl; 187+ Ag '53

SCHOOLS

See also

Colleges and universities
Education
Engineering colleges
Trade schools

Insurance requirements

Milwaukee school board to buy liability insurance. Nat Underw 57:14 Ag 13 '53

Location

Junk the neighborhood school; New Orleans proposes a Pied Piper answer to the high cost of city schools. il plans diag Arch Forum 98:129-35+ Ap '53

Music departments

Music develops new building types; triangle building bandroom, Punahou school, Honolulu. il plan diag Arch Rec 115:161 Ja '54

Great Britain

Britain's prefab schools. il diags Arch Forum 97:129-33 O '52

School-building defended. Economist 168: 245-6 Jl 25 '53

What can be learned from Britain's new schools? A. Part. il plans Arch Forum 97:126-8+ O '52

SCHOTTKY effect

Periodic deviations in the Schottky effect. S. C. Miller, jr. and R. H. Good, jr. biblog Phys R 92:1367-72 D 15 '53

Shot and partition noise in junction transistors. A. van der Ziel. diags J Ap Phys 25:815-16 Je '54

Shot dependence of *p-n* junction phototransistor noise. A. Slocum and J. N. Shive. J Ap Phys 25:406 Mr '54

Shot noise in junction transistors. H. C. Montgomery and M. A. Clark. J Ap Phys 24:1337-8 O '53

Simpler explanation for the observed shot effect in germanium filaments. A. van der Ziel. J Ap Phys 24:1063 Ag '53

Temperature dependence of periodic deviations from the Schottky line. G. A. Haas and E. A. Coomes. Phys R 93:1421-2 Mr 15 '54

SCHRADAN. See Octamethyl pyrophosphoramide

SCHRADER'S, A., son

Pioneer in pneumatics. R. J. Nemmers. il Comp Air Mag 59:72-6 Mr '54

SCHRÖDINGER equation. See Wave mechanics

SCHUMAN plan. See Coal-steel community

SCHWARZ, Robert, 1887-

Robert Schwarz. R. E. Oesper. por(front) J Chem Educ 30:510 O '53

SCIAKY brothers

Sciaky story. Steel 135:57 Ag 2 '54

SCIENCE

Fundamental questions in science. W. Weaver. il Sci Am 189:47-51 S '53

Language and science. J. W. T. Spinks. J Chem Educ 31:348-51 Jl '54

Science and public health research in Alaska; trend of science. M. Lantis. Pub Health Rep 68:528-9 My '53

SCIENCE—*Continued*

Science for its own sake. E. Appleton. Chem & Ind p926-31 S 5 '53; Same cond. Engineering 176:315-17 S 4 '53; Excerpts. Engineer 196:310-11 S 4 '53; Elec J 151: 705-6 S 4 '53

See also

Bacteriology
Biological chemistry
Biology
Botany
Chemistry
Crystallography
Geology
Mathematics
Metallography
Microscope and microscopy
Optics
Paleontology
Physics
Scientific research
Technology
Weizmann institute of science

Bibliography

Book reviews. R Sci Instr 25:73-93 Ja '54 [cont quarterly]

Reviews. Published in monthly numbers of American journal of science

Scientific, medical, and technical books published in the United States of America; second supplement, books published 1949-1952. R. R. Hawkins, ed. 579p $10 R. R. Bowker co, 62 W. 45th st, New York 36 '53

Dictionaries

Bibliography

Bibliography of interlingual scientific and technical dictionaries. 3d ed enl xlviip, 178p pa $1.75 United nations educational, scientific and cultural organization; for sale by Columbia univ. press, 2960 Broadway, New York 27 '54

Exhibitions

National science fair, Lafayette, Ind. Chem & Eng N 32:2625 Je 28 '54

San Francisco Bay area holds science fair to let high schoolers display scientific bents. il Chem & Eng N 32:1370 Ap 5 '54

Science fair in southern Minnesota. L. A. Ford. J Chem Educ 31:152 Mr '54

History

See also

Chemistry—History

Methodology

Experiments with many factors. K. A. Brownlee. bibliog Chem Eng Prog 49:617-21 N '53

Science class investigates an advertisement. H. Kruglak. bibliog J Chem Educ 30:641-4 D '53

Periodicals

See also

Chemistry—Periodicals

Bibliography

Union catalogue of the scientific and technical periodicals in the libraries of Australia; supplement, new titles 1946-1952. A. L. Kent, ed. 2d ed 111p £1 Commonwealth scientific and industrial research organization; for sale by Tait book co, 349 Collins st, Melbourne '54

World list of scientific periodicals; second list of amendments to third edition. Chem & Ind p596-7 My 22 '54

Popularization

Children's books; annual survey of writing about science for younger readers. J. R. Newman. Sci Am 189:100-6+ D '53

Presentation of science to the public. P. R. Calder. Chem & Eng N 32:1590-3 Ap 19 '54

Scientific attractions for the young; schoolboy's own exhibition and lectures. il Elec J 152:121-2 Ja 8 '54

Social aspects

Does the greater understanding of man and nature increase the scientist's social responsibility? A. J. Carlson. Science 117: 701-3 Je 26 '53

Explorers and creators. L. A. DuBridge. Mech Eng 75:796-8 O '53

Rights and responsibilities in the search for knowledge. L. P. Hammett. Chem & Eng N 32:1462-5 Ap 12 '54

Science and human nature. E. D. Adrian. Chem & Ind p 1122-7 S 11 '54

Science and public relations. H. Curl and N. Rescher. Science 118:420-1 O 9 '53

Science, food and the people; H. E. Armstrong memorial lecture. R. T. Colgate. Chem & Ind p524-9 My 30 '53

Science, industry and society. Earl of Halsbury. Chem & Ind p416-19; Discussion. 419-20 My 2 '53

Speaking of science. L. A. Jordan. Chem & Ind p830-6 Ag 8 '53

Today's research and tomorrow's world. V. Bush. Machine Design 26:273+ Je '54

Study and teaching

AAAS cooperative committee on the teaching of science and mathematics. Science 118: 527-8 O 30 '53

Science class investigates an advertisement. H. Kruglak. bibliog J Chem Educ 30:641-4 D '53

Science teaching in the secondary schools. A. Postl. Science 117:567 My 22 '53; Discussion. V. G. Fourman. 118:329 S 18 '53

Students shun science courses; survey by Future scientists of America foundation of National science teachers association. Chem & Eng N 32:72 Ja 4 '54

See also

Science teachers
Scientific education

Russia

Lysenko dethroned. Economist 168:88 Jl 11 '53

SCIENCE and industry

Science, industry and society. Earl of Halsbury. Chem & Ind p416-19; Discussion. 419-20 My 2 '53

Scientific vp's job, to coordinate. J. D. Porsche. Chem & Eng N 32:1050 Mr 15 '54

SCIENCE and state

See also

Government research
National science foundation

Great Britain

See also

Great Britain—Scientific and industrial research, Department of

United States

Dangers confronting American science. M. Phillips. Science 116:439-43 O 24 '52; Discussion. 117:507-9; 118:449-50 My 8, O 16 '53

Funds for science; the federal government and nonprofit institutions. C. G. Gant and B. Rubinstein. map Science 117:669-76 Je 19 '53

See also

National science foundation

SCIENCE and war. See War and science

SCIENCE foundation, National. See National science foundation

SCIENCE talent search

Westinghouse 13th annual national science talent search. Chem & Eng N 32:1036 Mr 15 '54

SCIENCE teachers

Educators warn science teachers shortage is on increase. Chem & Eng N 31:5210 D 14 '53

Science shortages. Economist 168:771-2 S 19 '53

Science teachers urgently needed. Chem Age (Lond) 71:273-4+ Ag 7 '54

Science teaching. A. H. Emery. Chem & Eng N 32:2712, 2812, 2908 Jl 5-19 '54

Shortage of science teachers; report of committee set up by Federation of British industries. Chem & Ind p 1015 Ag 14 '54

Shortage of science teachers; suggestion that Loughborough college become an ancillary of British industry. M. Follick. Chem Age (Lond) 70:421-2 F 13 '54

Training

Teacher training in radioisotope techniques. J. H. Harley. J Chem Educ 30: 399-402 Ag '53

SCIENCE teachers association, National. See National science teachers association

SCIENTIFIC and industrial research, Department of. See Great Britain—Scientific and industrial research, Department of

SCIENTIFIC and technical personnel, National register of. See National register of scientific and technical personnel

SCIENTIFIC apparatus and instruments

Basic for a science of instrumentology. J. D. Trimmer. bibliog diag Science 118:461-5 O 23 '53

Basic instrumentation at the National bureau of standards. il diags Science 118:457-61 O 23 '53

Frontiers of industry. Nat City Bank p 118-19 O '53

Instrument and the spirit. B. Glass. Science 118:sup3 O 23 '53

Research and development keep scientific apparatus manufacturers busy. il Steel 134:84 Mr 8 '54

Research worker and chemicals producer depend on designer of equipment; abstract. G. R. Hazel. Chem & Eng N 32:1980 My 17 '54

See also

Aeronautic instruments
Cathode ray tubes
Chemical apparatus
Electric apparatus and appliances
Electric instruments
Electron microscope
Medical instruments and apparatus
Optical instruments
Physical instruments
Pycnometers
Radio instruments
Spectrograph
Tariff—United States—Scientific apparatus and instruments

Exhibitions

Analytical chemistry and applied spectroscopy conference, Pittsburgh; exhibit of scientific equipment. il Anal Chem 26:sup 22A+ Mr '54

British instrument industries exhibition, Olympia, June 30-July 11. il diag J Sci Instr 30:213-23 Je '53

Physical society's exhibition, London, April 13-17. il Chem Age (Lond) 68:627-8 Ap 25 '53

Physical society's exhibition, 38th, London, April 8-13. il Chem Age (Lond) 70:773-6, 933-4 Ap 3, 24 '54

Physical society's exhibition, 38th, London, April 8-13. Chem & Ind p481-3 Ap 24 '54

SCIENTIFIC apparatus makers association

Laboratory and optical section meeting, Boca Raton, Fla. Anal Chem 26:sup21A Ja '54

Meeting, White Sulphur Springs. Chem & Eng N 31:2394 Je 8 '53

SCIENTIFIC design company

Concentrating on organics. Chem W 73:36-7 D 19 '53

SCIENTIFIC education

Educational and research resources; East north central states. M. Nelles. il Ind & Eng Chem 46:503-5 Mr '54

Production of scientists. J. H. Hildebrand. Chem & Eng N 31:5084-8+ D 7 '53

Science and scientists in telecommunications. R. M. Burns. bibliog Electrochem Soc J 100:sup90C-4C Ap '53

Science as culture. F. J. Curtis. Chem & Ind p806-8 Ag 1 '53; Same abr. J Chem Educ 31:38-9 Ja '54; Abstract. Chem Age (Lond) 69:220-1 Ag 1 '53

Science camp to foster science careers; pictorial presentation. Chem & Eng N 31:3180-1 Ag 3 '53

Scientists nipped in the bud. Economist 168:89-90 Jl 11 '53

Training scientists today. G. B. Kistiakowsky. Chem Eng Prog 49:216-18 Ap '53

See also

Chemical education
John Crerar library
Technical education

Great Britain

Science teachers urgently needed. Chem Age (Lond) 71:273-4+ Ag 7 '54

Scientists and mathematicians; shortage of graduate teachers in schools and technical colleges in England and Wales. Economist 169:795-7 D 12 '53

Shortage of science teachers; conference organised by F.B.I. education committee. Elec J 152:277-8 Ja 22 '54

Shortage of science teachers; report of committee set up by Federation of British industries. Chem & Ind p 1015 Ag 14 '54

Stalemate for science teachers. Economist 170:227 Ja 23 '54

SCIENTIFIC expeditions

Zoological collecting expeditions and the salvage of animal bloods for comparative serology. A. Boyden. Science 118:57-8 Jl 10 '53

SCIENTIFIC film association, International. See International scientific film association

SCIENTIFIC information

Information gathering habits of workers in pure and applied science. S. Herner. bibliog(25 ref) Ind & Eng Chem 46:228-36 Ja '54

Scientific vp's job, to coordinate. J. D. Porsche. Chem & Eng N 32:1050 Mr 15 '54

SCIENTIFIC information, Freedom of

Do we publish too much? interview with Donald A. Quarles. Chem & Eng N 32:1215-16 Mr 29 '54

SCIENTIFIC instrument research association, British. See British scientific instrument research association

SCIENTIFIC literature

Information gathering habits of workers in pure and applied science. S. Herner. bibliog(25 ref) Ind & Eng Chem 46:228-36 Ja '54

O.E.E.C. documents exchange scheme. Chem & Ind p 1312 D 5 '53

Scientist and the library cataloger. R. J. Poulin. Science 117:538-9 My 15 '53; Discussion. 117:539; 118:390 My 15, O 2 '53

See also

Chemical literature
Science—Periodicals

Russia

Russians critical of Anglo-American methods of abstracting scientific information. il Chem & Eng N 31:2888+ Jl 13 '53

Soviet abstracts a-borning. R. Liepina. Chem & Eng N 31:4819 N 16 '53

SCIENTIFIC management. See Industrial management

SCIENTIFIC method

See also

Science—Methodology

SCIENTIFIC research

Administration of research 7th annual conference, Berkeley, Aug. 31-Sept. 5. Chem & Eng N 31:3750+ S 14 '53

Applications of microwaves in scientific research. H. H. Klinger. bibliog il plan diags Franklin Inst J 256:129-46 Ag '53

Basic research, a good investment. L. L. Strauss. Chem & Eng N 31:3455-6 Ag 24 '53

Can science aid the aged? Bsns W p 174+ D 19 '53

Dangers confronting American science. M. Phillips. Science 116:439-43 O 24 '52; Discussion. 117:507-9; 118:449-50 My 8, O 16 '53

Economic effects of scientific research conference, Washington. Chem & Eng N 32:1018-19 Mr 15 '54

Educational and research resources; East north central states. M. Nelles. il Ind & Eng Chem 46:503-5 Mr '54

Fashions in science. H. J. Morowitz. Science 118:331-2 S 18 '53

Free research versus design research. C. P. Richter. Science 118:91-3 Jl 24 '53

Importance of applied research; abstract. R. E. Wilson. Oil Paint & Drug Rep 166:54-6 Jl 5 '54

Information gathering habits of workers in pure and applied science. S. Herner. bibliog(25 ref) Ind & Eng Chem 46:228-36 Ja '54

NSF awards 100 grants totaling over $1 million. Chem & Eng N 32:482 F 8 '54

Peril to U.S. research; curtailment of educational deferments may endanger relative standing of U.S.; abstract. R. Adams. Chem & Eng N 31:4884 N 23 '53

Research and Canada's natural resources. R. C. Wallace. Special Lib 44:265-7 S '53

Research and engineering progress, 1953. il Gen Elec R 57:8-11 Ja '54

Research committee in the organization of the International biological and medical associations and their congresses. V. Korenchevsky. Science 118:361-2 S 25 '53

Research planning and research policy scientists and administrators. C. V. Kidd. Science 118:147-52 Ag 7 '53

SCIENTIFIC research—*Continued*

Rights and responsibilities in the search for knowledge. L. P. Hammett. Chem & Eng N 32:1462-5 Ap 12 '54

Seventy-five years of research in General Electric. C. G. Suits. il Science 118:451-6 O 23 '53

Today's research and tomorrow's world. V. Bush. Machine Design 26:273+ Je '54

World widening research. C. Williams. Steel 135:40-1 Jl 5 '54

See also

Aeronautic research
Atomic research
Ceramic research
Chemical research
Colleges and universities—Research
Electric research
Electron microscope
Engineering research
Government research
Industrial research
Laboratories
Medical research
Metallurgical research
Microscope and microscopy
Petroleum research
Scholarships and fellowships
Textile research

also Atlantic research corporation; Great Britain—National physical laboratory, Teddington; Great Britain—Scientific and industrial research, Department of; Guggenheim, John Simon, memorial foundation; Little, Arthur D., inc.; National research council of Canada; National science foundation; Southern research institute

Finance

Funds for science; the federal government and nonprofit institutions. C. G. Gant and B. Rubinstein. map Science 117:669-76 Je 19 '53

Needed, a new balance. Chem W 73:35-6+ Ag 8 '53

Prudent or penurious? everybody in favor of fundamental research, but nobody wants to pay. Chem W 73:11-13 Jl 4 '53

Australia

Scientific research in Australia; fourth annual report of the Commonwealth scientific and industrial research organisation. Engineering 176:679-80 N 27 '53

Canada

Research progress in Canada. C. J. Mackenzie. Chem Age (Lond) 71:79-80 Jl 10 '54

Germany

German research. Product Eng 24:207 Ag '53

SCIENTIFIC societies

Shielding scientists' toes; local technical societies council. Chem W 74:24 F 20 '54

Some thoughts on their future; abstract. E. J. Dunstan. Chem & Ind p 1200 N 7 '53

See also

Chemical research

Great Britain

See also Royal society of London

SCIENTIFIC workers

Conference studies manpower scarcity. Mech Eng 75:1042 D '53

Scientific personnel; how to stimulate productivity and creativeness; abstract. F. F. Bradshaw. Oil Paint & Drug Rep 164:67 N 16 '53

See also National register of scientific and technical personnel

Russia

U.S.S.R. shows upsurge of scientific manpower. Chem & Eng N 32:3634+ S 13 '54

SCIENTIFIC writing

Presentation of science to the public. P. R. Calder. Chem & Eng N 32:1590-3 Ap 19 '54

Writing general science articles. G. Piel. J Chem Educ 31:20-3 Ja '54

See also

Science—Periodicals
Technical writing

SCIENTISTS

Developing and using our creative abilities. C. D. Flory. Chem Eng Prog 49:676-8 D '53

Does the greater understanding of man and nature increase the scientist's social responsibility? A. J. Carlson. Science 117:701-3 Je 26 '53

Due to boomerang? scientific manpower still flowing in direction of U.S. Chem W 74:20 F 27 '54

Effective use of scientific manpower. J. O. Hirschfelder. Chem & Eng N 32:3510 S 6 '54

International relations centers for scientists and engineers announced. Mech Eng 75:759 S '53

New register of scientists begun; National science foundation's program. Chem & Eng N 32:2388 Je 14 '54

Premium scientist. R. K. Stratford. Chem & Eng N 32:1034 Mr 15 '54

Research planning and research policy scientists and administrators. C. V. Kidd. Science 118:147-52 Ag 7 '53

Science and reservists. H. A. Meyerhoff. Science 118:sup3 S 18 '53

Science and scientists in telecommunications. R. M. Burns. bibliog Electrochem Soc J 100:sup90C-4C Ap '53

Scientific societies take part in NSF program to gather information on 100,000 scientists and engineers. Mech Eng 75:759 S '53

Scientist, his place in modern industry. R. K. Stratford. bibliog Chem & Ind p 1090-5 S 4 '54

Scientists' psyches. L. S. Kubie. Sci Am 189:58+ D '53

Spotlighted; wanderlust; Bureau of labor statistics study, Occupational mobility of scientists. Chem W 72:42-4 Je 6 '53

Two barrier phenomena; progress of American physics impeded by United States visa and passport restrictions. J. H. Van Vleck. Science 118:311-13 S 18 '53

Uncommitted researchers. F. J. Hammett. Science 117:64 Ja 16 '53; Discussion. 117:697-9; 118:418-19 Je 19, O 9 '53

U.S. must avoid wasting talents of its prospective scientists. R. W. McNamee. Chem & Eng N 31:2288+ Je 1 '53

See also

Chemists
Engineers and scientists of America
National professional association engineers, architects and scientists
National register of scientific and technical personnel
Research workers
United States—Army—Scientific and professional personnel program

also names of scientists, e.g.

Arago, Dominique-François-Jean
Carver, George Washington
Hooke, Robert
Mackenzie, Chalmers Jack
Ostwald, Wilhelm
Parsons, Charles Lathrop
Winogradsky, Sergei Nikolaevitch
Wollaston, William Hyde

Public relations

Avenues of service. B. E. Schaar. Science 117:643-7 Je 12 '53

Great Britain

Who's who in British science, 1953. 291p $9 British book centre, 122 E. 55th st, New York 22 '54

SCIENTISTS' committee on loyalty and security. See Federation of American scientists—Scientists' committee on loyalty and security

SCILLITOE, Edgar L., inc.

Stock offered. Comm & Fin Chr 178:669 Ag 24 '53

SCINTILLATION. See Fluorescence

SCINTILLATION counters. See Counters (electrons, ions, etc.)

SCOTLAND

See also

Hydroelectric plants—Scotland

SCOTT paper company

Hollingsworth & Whitney may become Scott division. il Paper Tr J 138:17 Ag 13 '54

Manages to grow in bad times as well as good. E. N. Morse. Barron's 33:13-14 O 12 '53

SCOURING of textiles

Nonionic auxiliary products; abstract. R. S. Mayston. Am Dyestuff Rep 42:258-9 Ap 27 '53

See also

Wool scouring

SCOURING powders. See Cleaning compositions

SCRABBLE. See Games

SCRAP material
Finding profit in the scrap heap. Management R 42:596-7 O '53
Scrap in plastics. il Chem W 74:70+ Je 12 '54
See also
Salvage (waste, etc.)
Scrap metal

SCRAP metal
Automatic scrap gathering; no attendants required as these magnets make three-minute round trips to load cars. il Steel 133:202 D 7 '53
Canny bulk handling saves chip and oil wastes; Allis-Chalmers mfg. co.; illustrations with text. H. W. Lindsay and L. F. Graves. diags Am Mach 98:130-3 Mr 15 '54
Cut cupola charge costs with fine metal scrap; sheetmetal cans keep fine particles packed closely together. W. M. Halliday. diags Iron Age 174:106-8 Ag 26 '54
Drop-bottom boxes, special trays, offer savings; new system of scrap handling. il Iron Age 173:146-8 My 13 '54
Dynamite solves Bethlehem steel company's scrap metal inspection problem. il Explosives Eng 31:108-11 Jl '53
Engineered scrap service cuts costs, raises profits; Scrap corp. of America. J. Grombacher. il Iron Age 173:166-8 Mr 4 '54
Heating scrap in open hearth furnaces; patent. diags Iron & Steel Eng 31:23-4 Jl '54
Ingot yield rises as market permits greater care in scrap selection. A. K. Moore. J Metals 6:953 S '54
Modern scrap yard keeps pace with market; Max Schlossberg co., Chicago. J. B. Schlossberg. il plan Iron Age 173:118-21 Ja 14 '54
Scrap handling speeded with automatic shear-baler; Pontiac division of General motors corp. W. G. Patton. il Iron Age 173:143-5 Mr 18 '54
Scrap preparation; key to quality and economic control. E. W. Hunziker. il Steel 133:145+ D 7 '53
Scrap preparation program improves steel quality. E. W. Hunziker. il Iron Age 172:132-6 D 17 '53
Scrap; system doubles value, saves oil, ends handling problem; Hartford machine screw co. il Iron Age 172:45 O 1 '53
Scrap yard rebuilds crane with Diesel power; Deitch scrap yard. il Iron Age 173:128-9 Ja 14 '54
Sound salvage program can lower your costs. P. A. Jochum. il Mach 60:175-8 Je '54
Squeezing dollars from scrap; Los Angeles park aircraft co. J. Joseph. il Mill & Factory 54:124-5 Ap '54
Waste handling is turned to profits; Eaton mfg. co. il Steel 134:116-17 Ap 26 '54
Way to use titanium scrap; Martin aircraft co. il Steel 134:104 Ap 26 '54
What about weight variations in carloads of scrap? M. A. Passer and I. M. Bettman. Iron Age 172:116-19 Jl 23 '53
See also
Baling presses
Metal waste
Steel waste

Prices

Average monthly quotations in 1953; tabulations. Steel 134:174 Ja 4 '54
Iron Age scrap prices, Pittsburgh, Chicago, Philadelphia, per gross ton; tabulations. Iron Age 173:420 Ja 7 '54
Steelmaking scrap price composite; tabulation. Steel 134:173 Ja 4 '54

Testing

Incinerator scrap and no. 2 bundles related to adverse heat time. G. G. Mueller. J Metals 6:952-3 S '54

SCRAP metal baling. See Baling presses

SCRAP metal industry
Aim new blast at military; scrap operations should be turned over to industry. N. R. Regeimbal. Iron Age 174:53+ Jl 8 '54
Controls extended to vessels for scrapping. For Comm W 50:24 O 5 '53
In the past five years the industry has spent $179 million on new equipment. Iron Age 173:48A-48D Ja 14 '54
Over thirty-two million tons of purchased scrap consumed in 1953. E. C. Barringer. il Blast F & Steel Pl 42:43-4 Ja '54
Scrap; Detroit Lakes shipments dip. R. D. Raddant. il Iron Age 173:75 Je 3 '54
Scrap; Exchange plan marches on. K. W. Bennett. Iron Age 173:75-6 Jl 1 '54
Scrap; has it hit the bottom? Steel 133:87 O 12 '53
Scrap; mercantile trade on. Iron Age 174:113 S 16 '54
Scrap review and forecast. Iron Age 173:308 Ja 7 '54
Scrap; the patient's not improving. T. Metaxas. Iron Age 172:59 S 3 '53
See also
Institute of scrap iron and steel

SCRAPERS
Euclid division of General Motors to make full line of crawler tractors and expand scraper range. il Roads & Eng Constr 92:76+ S '54

SCRAPERS, Road. See Road scrapers

SCREEN printing, Silk. See Silk screen printing

SCREENING
Screening principles and applications. E. R. Wolff. bibliog il diags Ind & Eng Chem 46:1778-84 S '54
Selective screen conveyor. il Engineer 196:709 N 27 '53; Engineering 176:828 D 25 '53
See also
Coal screening
Paper making—Screening

SCREENS
Electrically heated vibrating screens in tile making; Long House tileries of Henry Hawkins, ltd. il Engineer 196:838-9 D 25 '53; Elec R (Lond) 154:51 Ja 8 '54
Help the blind; screen blinding cuts down on efficiency but can be remedied. J. E. Fink. il Min Cong J 40:103-5 Ag '54
Installation and maintenance of vibrating screens. W. S. Shira and M. P. Hahn. il diags Rock Prod 56:81-3+ N '53
Production of metal screens. G. Waller. Soc Dyers & Col J 69:557-9; Discussion. 559-60 D '53
Russell screening unit. il Metallurgia 50:94 Ag '54
Screen protects test operator. il Nat Safety N 69:72 My '54
See also
Coal screening
Paper making—Screening
Wire cloth

SCREENS, Door and window
Prospects tell Kaiser how to double sales on its first consumer product; survey to uncover inadequacies in company's sales structures. R. G. Welch. il Sales Management 72:42-4 My 20 '54

SCREW machines
How to increase automatic screw machine output; Cone automatic machine co. C. Morgan. il Iron Age 172:82-4 D 24 '53
Modified screw-machine speeds stock cutting. H. George. diag Am Mach 98:120 Ja 4 '54
Part marking; face end of screw machine parts easily marked with new device. il diags Iron Age 172:199-200 S 10 '53
Porter-McLeod double-matic screw machine. il Mach 60:242 Ap '54
Porter-McLeod double-matic screw-machine eliminates second-operation handling. il diags Am Mach 98:182-3 Je 7 '54
Screw-machine converted for gun-drilling; Hartford machine screw co. W. M. Stocker, jr. il Am Mach 98:162-3 F 15 '54
Staffa ⅜ inch single spindle screwing machine. il Automobile Eng 44:101 Mr '54
Stopping-disk insert saves setup time. M. Zmuda. diags Am Mach 98:184 S 13 '54

SCREW threads
Are your female threads stripping? use of Heli-Coil stainless-steel wire screw-thread inserts. il Am Mach 98:105 Mr 1 '54
Case history aluminum replaces iron in fire pumps. il Light Metal Age 12:28 F '54
Inserts simplify maintenance problem. Blast F & Steel Pl 42:566-7 My '54
It's cheaper to salvage cylinders; wire inserts perform an inexpensive service after thread damage. Steel 133:110 S 14 '53
Normal thread angles and bottom flats (Acme); reference book sheet. D. Sweet. diags Am Mach 98:147, 149 S 27 '54

SCREW threads—*Continued*

Photo-elastic study of stresses in screw threads. A. F. C. Brown and V. M. Hickson. diags Inst Mech Eng Proc (B) 1B no 12:605-8; Discussion. 608-12 '52-53

Positive thread locking. D. R. Baldwin. il diag Mill & Factory 54:136 Ap '54

Simplified thread repair technique cuts down on maintenance problems. il Constr Methods 36:164 Ag '54

Special type thread insert; abstracts. P. E. Wolfe. il Light Metal Age 11:23-4 D '53; Metal Prog 66:184+ Jl 1 '54

Thread inserts keep chips out of lubricating pump. il Iron Age 172:168-71 Ag 13 '53

Thread inserts simplify hot mill maintenance problems; Niles rolling mill division of Sharon steel corp. il Iron & Steel Eng 31: 144+ Ap '54

Thread replacements hit downtime costs; Heli-Coil corp's. stainless steel wire thread inserts. il Tool Eng 31:68 D '53

Wire screw thread inserts improve molded plastic design. B. Franklin. il Materials & Methods 40:128-9 Ag '54

Wire thread inserts cut scrap loss. il Iron Age 172:181 N 12 '53

See also

Thread cutting

SCREWDRIVING machines

300 per cent production gain with automatic screwdriver; illustrations with text. H. J. McCord. Am Mach 97:160 D 7 '53

Timemaker finds a timesaver; Lux clock mfg. co. il Steel 134:94 F 1 '54

SCREWS

Carbide inserts increase life of socket heads. il Mach 60:211 F '54

Changing trends in mechanical fasteners. W. C. Stewart. il Machine Design 26:220+ S '54

Power screws. G. E. Hieber. diags Machine Design 25:128-36 N '53

Manufacture

Automatic furnace line for heat treating aircraft screws; Standard pressed steel co. il Automotive Ind 109:39+ D 15 '53; Steel 133:134-5 O 5 '53; Iron Age 172:134 S 3 '53

Bolt cold-heading and inspection at International Harvester. J. P. Lehning. il Mach 61:171-3 S '54

Case for cold heading. D. H. Samuelson. il diags Steel 135:110-11 Jl 12 '54

Cold heading. F. C. Boyd. il diags Machine Design 26:187-90 My '54

Get the most out of cold heading. H. C. Weidner, jr. il diags Steel 134:74-5 Ja 11 '54

Planetary thread rolling up to 2000 blanks per minute; Waterbury Farrel machine. il Steel 134:98-9 Ap 12 '54

Putting heat-treatment on the line; Allen mfg. co. il Steel 133:90 N 23 '53

SCRIP

Remember the cigar store money? Tenino, Wash. il Bankers Mo 70:24+ N '53

SCRUB oak. See Oak

SCRUBBERS

Fumes and complaints knocked out by know-how; Du Pont's varnish plant. C. R. De Bow. il diags Chem Eng 61:124+ S '54

Recovery of soluble gas and aerosols from air streams. E. M. Berly, M. W. First and L. Silverman. bibliog diags Ind & Eng Chem 46:1769-77 S '54

Rotary scrubber for cleaning large quantities of mercury. M. Gibson and others. diag J Sci Instr 31:345 S '54

Scrubber supplements classifiers; Mason-Dixon sand & gravel co. W. B. Lenhart. flow sheet il diag Rock Prod 57:84-5 Ag 54

Surplus wood stave tank converted to efficient acid fume scrubber. J. E. Weiler. diag Chem Eng 61:252 Je '54

SCULPTURE

Artist carves saint from expanded shale. il Concrete 62:22 My '54

Hovering sculpture by Carl Milles provides an inspirational highlight for a new kind of cemetery. il plan diag Arch Forum 97:112-13 D '52

Northland's sculpture; fun, fanciful and a little challenging. il Arch Forum 100:118-19 Je '54

Sculpture in hot steel. il Steel 133:104 Ag 17 '53

SCURRY reef. See Reefs

SEA food

See also

Fish as food

SEA ISLAND, Georgia

Sea Island snags 'em with sun, sand, and service. il map Bsns W p68-70+ O 24 '53

SEA power

Sea power and the western revolution. R. E. Williams. il U S Naval Inst Proc 79:sup 14, 239-49 Mr '53

SEA urchins

Sea urchins damage steel piling. M. C. Irwin. Science 118:307 S 11 '53

SEA valleys. See Canyons, Submarine

SEA walls

See also

Breakwaters

SEA walls, Concrete

Civil engineering in 1953. il diags Engineer 197:3-4, pl 8 Ja 1 '54

East Coast sea defence works. il maps diags Engineer 196:742-6, 758-61, 794-6 D 4-18 '53

SEA water

Another job for ion exchange; magnesium from sea water; patent. Chem Eng 61:282 Jl '54

Corrosion properties of titanium in marine environments. H. B. Bomberger and others. bibliog il Electrochem Soc J 101:442-7 S '54

Emulsions of seawater in admiralty fuel oil, with special reference to their demulsification. W. Killner. diag Inst Pet J 39:51-5 Ja '53

Evaluation of sea-water laundry detergents. R. Bernstein and H. Sosson. bibliog il Soap & San Chem 29:42-5+ D '53; 30:46-9+ Ja '54

Extinction of light by filter passing matter in Chesapeake Bay waters. W. V. Burt. Science 118:386-7 O 2 '53

Fertilizer from the sea. il diag Chem W 74: 44-5 Mr 13 '54

Filtered ocean water used to flood wells in California's Wilmington field. D. H. Stormont. il map diags Oil & Gas J 52:68-71+ Ja 4 '54

Gold content of sea water. G. L. Putnam. bibliog(35 ref) il J Chem Educ 30:576-9 N '53

How does wrought iron stand up in corrosive marine services? J. L. Wilson. bibliog il Marine Eng 59:63-6 F '54; Discussion. F. L. LaQue. 59:71+ Ap '54

Intrusion of sea water in tidal sections of fresh water streams. C. P. Lindner. bibliog diags Am Soc C E Proc 79 [no 358]:1-35 N '53

Jet impingement tests. P. T. Gilbert and F. L. LaQue. il Electrochem Soc J 101:448-55 S '54

Mitigation of marine fouling by anaerobic treatment. H. T. Duplice and R. C. Alexander. il A S M E Trans 76:241-3 F '54

More corrosion data; salt water corrosion of unclad and aluminum clad 24S-T3 aluminum alloy stapled together with galvanized steel wire. il Product Eng 24:200 S '53

Salinity meter for sonar measurements. K. E. Harwell and D. W. Hood. bibliog il diags Electronics 27:172-4 Ja '54

Salt around us. il Ind & Eng Chem 45:sup 15A+ Je '53

Sea chemicals from the Maritimes? A. F. Cadenhead. Can Chem Process 38:82 My '54

Sea water for cation exchanger regeneration at Ventura. J. M. Montgomery. Am Water Works Assn J 46:600-7 Jl '54; Abstract. Water & Sewage Works 101:344 Ag '54; Discussion. E. Nordell. Am Water Works Assn J 46:607-8 Jl '54

Stopping corrosion on undersea lines. R. C. Ledford. Gas Age 114:36-7+ Ag 26 '54

Titanium and zirconium in bloom of gymnodinium brevis Davis. A. Collier. Science 118: 329 S 18 '53

See also

Concrete, Effect of sea water on

Analysis

Aluminum and iron in Atlantic and Gulf of Mexico surface waters. L. H. Simons, P. H. Monoghan and M. S. Taggart, jr. bibliog map Anal Chem 25:989-90 Je '53

SEA water—Analysis—*Continued*

Precise electronic titration instrument. K. E. Harwell. bibliog diags Anal Chem 26:616-19 Mr '54

Desalting

Can we afford to de-salt sea water? diags Power Eng 58:86-7 Ag '54

Demineralisation of salt water. Chem Age (Lond) 69:553-4 S 12 '53

Desalting sea water. Chem & Eng N 32:1666 Ap 26 '54

Desalting sea water by freezing. T. G. Thompson and K. H. Nelson. bibliog diags Refrig Eng 62:44-8+ Jl '54

Economics of the solar still. M. H. M. Arnold and L. R. Seaborne. Chem & Ind p974 S 12 '53

End ship water problem. Midwest Eng 6:20 Je '53

Fresh water from sea water by solar distillation. M. Telkes. bibliog il diag Ind & Eng Chem 45:1108-14 My '53

Giant salt-water distillation plant; Astro Point, Thule, Greenland. il Chem Eng Prog 49:sup26 My '53

Huge water distillation plant to boost Bermuda base supply. Eng N 152:62 Ap 29 '54

Hunting for bargains in the brine. diags Chem W 74:38-40+ Je 12 '54

Leaving the salt behind; Pacific Gas & Electric's steam-electric generating plant will operate on water from the sea. il Chem W 75:52+ Ag 28 '54

Maxim's tubeless evaporators. il diag Marine Eng 59:59-61 Mr '54

Mechanism and control of scale formation in sea water distillation. W. F. Langelier. bibliog flow diag Am Water Works Assn J 46:461-9 My '54

Methods for supplying drinking water at sea. Heat & Ven 50:80 D '53

New tests completed on sea water distillation. Chem Eng 61:126 Jl '54

New water conversion methods; two-way help for industry? E. C. Kreutzberg. il Steel 135:74 Jl 12 '54

Nine contracts awarded for water desalting research. Eng N 151:87-8 S 10 '53

OEEC team reports on water demineralization. Chem & Eng N 31:4024+ S 28 '53

SEA weed. See Algae

SEADRIFT, Texas

Industries

Small town, big neighbor. il Chem W 72:18-21 Je 20 '53

SEAL and label institute

When seals and labels were brought into step. Sales Management 71:60+ O 1 '53

SEALING

Aspects of the design and fabrication of liquid propellant rocket engines. H. Davies. Machine Design 26:333-4+ Ap '54

Carbon-packing progress for sealing small turbines. K. MacDonald. il diags Power 98:122-3+ Jl '54

Gas tight hydrogen retort seal made from aluminum bar. il Iron Age 174:133 S 23 '54

Glass-refractory seals. P. J. C. Kent. J Sci Instr 30:485 D '53

High-temperature centrifugal pumps. H. W. Savage and W. G. Cobb. il diags Chem Eng Prog 50:445-8 S '54

Improved methods and sealing materials salvage porous castings with 100 per cent filling. il Mill & Factory 53:146 D '53

Johns-Manville oil seal. il Blast F & Steel Pl 42:116 Ja '54

Materials; develop rubber base sealer in strip form. il Iron Age 173:156+ Mr 11 '54

Materials for O-ring seals; their properties and selection. E. L. Carlotta. il diags Materials & Methods 38:104-7 D '53

Measurement of force required to pull through a one inch diameter Wilson vacuum seal. D. McLean and M. H. Farmer. diag J Sci Instr 30:293 Ag '53

Mechanical shaft seals. J. G. Walmsley and H. A. Ward, jr. il diags Pet Refiner 32:203-6 S '53

Metal-to-glass seals for sub-λ point helium apparatus. W. S. Corak and A. Wexler. diag R Sci Instr 24:994-5 O '53

Panel seals; design details; drawings with text. Machine Design 26:134-7 Ag '54

Quick-change seal opener. W. R. Smith. diags R Sci Instr 24:886-7 S '53

Rotary vacuum seal. J. Sikorski and H. J. Woods. diag J Sci Instr 30:432 N '53

Sealing porous castings. W. N. Pratt. il Tool Eng 33:70-2 Ag '54

Selection and maintenance of centrifugal pump seals. J. A. Cable. il diags Power Eng 57:82-3 N '53

Simple method of making vacuum-tight coolable window seals for low temperature optical transmission cells. V. Roberts. bibliog diag J Sci Instr 31:251-2 Jl '54

Swelling and drying of fuel O-rings. R. A. Clark and R. M. Kell. bibliog diag Rubber Age 75:831-7 S '54

Tips on sealing light hydrocarbons. R. E. Morgan. il Pet Processing 8:1340-1 S '53

Treat your compressor seals right. diags Power 97:122 D '53

Unique piping system permits airplane fuel tanks to be sealed safely. L. E. Hurd and J. E. Denton. il Heating-Piping 25:93-5 N '53

Weston rotating shaft seals. diag Engineer 197:293-4 F 19 '54

SEALING (packaging)

Application of gummed tear tape on the semiautomatic taping machine. F. Lowery. Tappi 37:sup 162A-3A Je '54

Bag sealer-labeler. il Mod Packaging 27:102-3 Je '54

Case sealing adhesives for high humidity container storage. W. W. Sederlund. Tappi 37:sup 171A-3A Je '54

SEALING compositions

Impregnation of powder metallurgy parts improves corrosion resistance. W. N. Pratt. il Steel 133:122-3 Jl 13 '53

Improvements in casting impregnation. W. N. Pratt. il Foundry 82:248+ F '54

Magnesium; impregnating process improves corrosion resistance; Magseal. il Iron Age 174:166 S 9 '54

Micro-porosity elimination; method developed by American metaseal mfg. corp. il Steel 135:126 Ag 23 '54

New impregnation techniques. T. A. Dickinson. il Aero Digest 67:71-2+ S '53

Organic fillers seal defects in metal products. H. Thielsch. il Iron Age 172:118-21 O 15 '53

Plugging pores in castings; Metaseal plastic filler. Bsns W p76+ N 21 '53

Porosity leaks plugged. il Steel 134:131+ Je 14 '54

Resin impregnator cuts porosity rejects. il Aviation W 59:54+ N 16 '54

Salvaging process equipment; Metaseal process. Chem Eng 61:240 S '54

Sealing fluid for ground glass joints in liquid helium II. R. P. Hudson and C. K. McLane. R Sci Instr 25:190 F '54

Threaded joints in pipe and tube made corrosion resistant with new Teflon based sealing compounds. Materials & Methods 39:230+ Mr '54

Vacuum impregnation; magnesium castings meet jet standards. il Steel 133:140-1 D 7 '53

SEALING machines

Air-powered drum lidder; Jack & Heintz co. il Mod Packaging 27:178-9 Mr '54

SEALS

Recent solutions to pumping problems. C. J. B. Mitchell. il diags Chem Eng Prog 50:431-5 S '54

SEALS of approval. See Products, Certification of

SEAM welding. See Electric welding

SEAMEN

Merchant seamen in the United States, 1937-1952. E. P. Hohman. Int Labour R 67:1-43 Ja '53

Unionizing the Great Lakes. il Bsns W p 179-80 N 21 '53

SEAPLANES

Effects of wing flexibility and variable air lift upon wing bending moments during landing impacts of a small seaplane. K. F. Merten and E. B. Beck. diag U S Nat Advisory Com for Aeronautics 1951:221-7 '52

First turboprop seaplane takes to air. il Machine Design 26:192-3 My '54

SEAPLANES—*Continued*

Martin tests T-tail on P5M-2 Marlin. Aviation W 59:53 S 14 '53

Tail trim fails, XP5Y crashes. il Aviation W 59:17 Jl 27 '53

See also

Flying boats

SEARS, Roebuck and company

For Sears; end of an era is at hand. Bsns W p 182 N 28 '53

Mail orders expand into new markets. P. Dobbs. il Mag of Wall St 93:87-9 O 17 '53

Sears woos sundowners. Bsns W p55-6 D 19 '53

SEASICKNESS

Making it easy for the queasy; competition ahead in motion sickness remedies. il Chem W 74:20-1 Ja 2 '54

SEASONAL industries

See also

Winter construction

SEATON, Frederick Andrew, 1909-

Portrait. Bsns W p29 N 21 '53

SEATS

See also

Airplanes—Seats
Automobiles—Seats
Motor buses—Seats

SEATTLE

Seattle plans for the future. A. Pomeroy. Am Water Works Assn J 46:718-22 Ag '54

SEAWEED. See Algae

SEBRELL, William Henry, 1901-

Joseph Goldberger award in clinical nutrition. por Pub Health Rep 68:738 Ag '53

SECONAL sodium

Goofballs in the fisheries; sodium amytal and seconal sodium for transporting fish. il Chem W 73:36+ Ag 1 '53

SECOND sound in liquid helium. See Helium, Liquid

SECRETARIES

Duties of a gas company corporate secretary. B. H. Harper. Am Gas Assn Proc 1953:149-55

SECRETARIES, Private

Alcoa's answer to the secretarial shortage. A. R. Plante. Personnel J 33:21-3 My '54

Matching the secretary to the boss; abstract. S. H. Payer. Management R 42:146-7 Mr '53

Rules for the dictation team; abstract. P. J. Latzen. Management R 43:585-6 S '54

Secretaries; Trattner secretarial office system. Bsns W p 190+ S 12 '53

Secretary poll shows likes. Am Bsns 24:26 F '54

That secretarial shortage; abstract. E. McCormick. Management R 43:161-2 Mr '54

SECURITIES

Banking and the securities market. A. H. Cook. Comm & Fin Chr 178:1438-9 O 15 '53

For profit and income. Mag of Wall St 93:446-7+ Ja 9 '54 [cont biweekly]

Industrial stock averages at October 1929 levels. R. S. Byfield. Manuf Rec 123:28 Je '54

Listing of securities on exchanges. M. J. Keena. Comm & Fin Chr 178:1333+ O 8 '53

1954 prospects for seriously depressed industries; with table of companies in five depressed industries. J. D. C. Weldon. Mag of Wall St 93:737-9+ Mr 20 '54

Securities now in registration; prospective offerings. Published in weekly Thursday numbers of Commercial and financial chronicle

Security I like best; selection of experts in the investment and advisory field. Published in weekly Thursday numbers of Commercial and financial chronicle

Test of security analysis. O. K. Burrell. Comm & Fin Chr 178:1720+ N 5 '53

See also

Arbitrage
Banks and banking—Investments
Banks and banking—Stock
Bonds
Investments
Investments, Foreign
Loans, Foreign
Mortgages
Municipal bonds
Stockholders
Stocks
Trusts and trustees—Investments
Warrants, Stock purchase

also subdivision Securities under names of industries, e.g.

Airlines
Airplane industry and trade
Building trades
Cement industry and trade
Chemical industries
Drug trade
Electric utilities
Gas companies
Gold mines and mining
Holding companies
Insurance companies
Moving picture industry
Paper industry and trade
Petroleum industry and trade
Public utilities
Railroads
Steel industry and trade
Television apparatus industry
Tobacco industry and trade

Law

How shall we amend the SEC acts? R. H. Demmler. Comm & Fin Chr 178:2381+ D 17 '53

IBA state legislation committee on SEC and state laws impeding capital flow. Comm & Fin Chr 178:2389+ D 17 '53

Securities acts amended. O. Ely. Pub Util 54:274+ S 2 '54

Setback for arbitration pacts; Supreme court holds investors can't sign away their rights under the Securities act. Bsns W p64+ D 19 '53

Truth without turmoil; proposed revision of federal securities laws. J. F. Fennelly. Barron's 33:5-6 O 26 '53

See also

Securities and exchange commission

Marketing

Basic research for the securities industry. R. J. Saulnier. Comm & Fin Chr 178:2387+ D 17 '53

Big board sells small investors share of American business; New York stock exchange monthly investment plan. L. M. Hughes. Sales Management 72:36-8+ Je 1 '54

Distributing new corporate securities. C. L. Rollins. Comm & Fin Chr 179:62-3 Ja 7 '54

Eric the shareholder; buying equities by instalments. Economist 170:54-5 Ja 2 '54

Exchange distribution plan in operation; New York stock exchange. Comm & Fin Chr 179:162 Ja 14 '54

Improved outlook for industrial financing; report of IBA industrial securities committee. Comm & Fin Chr 178:2394-5 D 17 '53

Instruments of modern corporate financing. C. C. Glavin. Comm & Fin Chr 178:913+ S 10 '53

Investigation and buying in investment banking. D. N. Schoales. Comm & Fin Chr 178:816+ S 3 '53

N.Y.S.E. instalment plan. Burroughs Clearing House 38:7-8 Ja '54

NYSE installment stock buying plan announced. G. K. Funston. Comm & Fin Chr 178:2173 D 3 '53

New York stock exchange monthly investment plan; an idea for democratic capitalism. R. C. Lawrence. Comm & Fin Chr 179:168+ Ja 14 '54

Paying premium for mythical liquidity. H. J. King. Comm & Fin Chr 178:11-12 sec 2 O 8 '53

Role of the accountant in direct-placement financing. E. R. Morris. J Account 98:82-8 Jl '54

Securities salesman's corner. J. Dutton. Published in weekly Thursday numbers of Commercial and financial chronicle

See also National association of securities dealers

Over-the-counter marketing

Over-the-counter market. Published in weekly numbers of Barron's

Over-the-counter securities. Published in weekly Monday numbers of Commercial and financial chronicle

Over-the-counter stockholders increasing. W. H. Fulton. Comm & Fin Chr 178:1126 S 24 '53

Those penny stocks. J. C. Perham. Barron's 33:5-6 O 5 '53

SECURITIES—*Continued*

Prices

Security prices, 1946-1952, monthly Nov. 1952-Nov. 1953. Fed Res Bul 40:113 Ja '54 [cont monthly]

Private placement

See Securities—Marketing

Registration

Relief from SEC security registration sought by USITA. J. Large. Pub Util 53:303-4 Mr 4 '54

Regulation

Will Britain remove control of capital issues? P. Einzig. Comm & Fin Chr 178:2162 D 3 '53

See also
Securities—Law
Securities and exchange commission

Statistics

New security issues; noncorporate, corporate, new capital; yearly 1938-1952, monthly Nov. 1952-Nov. 1953. Fed Res Bul 40:66 Ja '54 [cont monthly]

Securities issued, by type of security, by type of issuer, etc., 1949-1952. Survey of Cur Bsns 1953 Sup p93-6 [supplemented in monthly numbers]

Taxation

See Taxation of securities

Unlisted securities

See also
Securities—Over-the-counter marketing

Valuation

Method of approach to security values. P. A. Murphy. Comm & Fin Chr 178:1526-7 O 22 '53

Canada

Favorite equities in Canadian trust accounts. Trusts & Estates 92:928 D '53

Sedate securities in the Canadian wilds. H. J. King. Comm & Fin Chr 178:2256 D 10 '53

Switching in Canadians. Economist 168:525-7 Ag 22 '53

Three Canadian leaders; International Nickel, Imperial oil, ltd., Canadian Pacific. R. Colston. Mag of Wall St 93:440-2 Ja 9 '54

France

Equity share in France. A. W. May. Comm & Fin Chr 178:533 Ag 13 '53

Stock market performance in France. A. W. May. Comm & Fin Chr 178:441 Ag 6 '53

Great Britain

British securities markets imperturbable this year. H. Wincott. Barron's 33:6 N 30 '53

Capital issues in 1953; with table. Economist 170:123-4 Ja 9 '54

Control of British firms. P. Einzig. Comm & Fin Chr 178:2375 D 17 '53

Eric the shareholder; buying equities by instalments. Economist 170:54-5 Ja 2 '54

Hé torro. Economist 169:437 N 7 '53

Investors' new year. Economist 170:47 Ja 2 '54

Spate of new issues. Economist 168:200 Jl 18 '53

Spotlight on gilts. Economist 169:508-9 N 14 '53

Who owns shares; old ladies in Throgmorton street? Economist 168:279 Jl 25 '53

Will Britain remove control of capital issues? P. Einzig. Comm & Fin Chr 178:2162 D 3 '53

Yardstick for investors; Institute of actuaries' new indices of share prices. Economist 168:715-17 S 12 '53

SECURITIES and exchange commission

Aims of newly constituted SEC. J. S. Armstrong. Comm & Fin Chr 178:725+ Ag 27 '53

Current thinking at the SEC. R. H. Demmler. Comm & Fin Chr 178:1227+ O 1 '53

Job we are doing. R. H. Demmler. Comm & Fin Chr 178:1425+ O 15 '53

SEC adopts rules regarding disclosures of stock options granted officers and employees. Comm & Fin Chr 178:1850 N 12 '53

SEC approves NASD's rule on transactions for employees of other member firms. Comm & Fin Chr 178:732 Ag 27 '53

SEC shows signs of jaundice. D. Unterberg. Comm & Fin Chr 178:1524 O 22 '53

SECURITIES dealers, National association of. See National association of securities dealers

SECURITY analysts

Cleveland companies court finance analysts. il Bsns W p80-2 O 24 '53

Investors; how to keep them coming; security analysts tour Allegheny Ludlum operations. J. B. Delaney. Iron Age 172:51 O 29 '53

Untying the purse strings; what security analysts want to know. Chem W 75:28 S 4 '54

SECURITY traders association, National. See National security traders association

SEDIMENTATION

Boundary spreading in sedimentation velocity experiments; the correction of sedimentation coefficient distributions for the dependence of sedimentation coefficient on concentration. R. L. Baldwin. bibliog Am Chem Soc J 76:402-7 Ja 20 '54

Continuous settling and thickening. E. W. Comings, C. E. Pruiss and C. De Bord. bibliog il diag Ind & Eng Chem 46:1164-72 Je '54

Determination of electrokinetic charge and potential by the sedimentation method; carborundum in aqueous solutions of some uni-univalent electrolytes. G. A. H. Elton and J. W. Mitchell. Chem Soc J p3690-3 N '53

Determination of electrokinetic charge and potential by the sedimentation method; silica in some solutions containing multivalent anions. C. I. Dulin and G. A. H. Elton. Chem Soc J p 1324-5 Ap '54

Effect of ultrasonic energy on settling of solids in phosphate tailing. D. Thompson and F. C. Vilbrandt. bibliog(70 ref) il diags Ind & Eng Chem 46:1172-80 Je '54

Interferometer for the measurement of sedimentation in a centrifuge. J. W. Beams and others. bibliog diags R Sci Instr 25:295-6 Mr '54

Use of tangent intercept to determine an average speed of sedimentation. W. P. Reid. Anal Chem 25:1562-3 O '53

Variation of the sedimentation of coefficient with time during a single velocity ultracentrifuge experiment. R. A. Alberty. bibliog Am Chem Soc J 76:3733-7 Jl 20 '54

Viscous flow in multiparticle systems; cubical assemblages of uniform spheres. J. Happel and N. Epstein. bibliog il diag Ind & Eng Chem 46:1187-94 Je '54

Viscous flow in multiparticle systems; motion of a sphere and fluid in a cylindrical tube. J. Happel and B. J. Byrne. bibliog Ind & Eng Chem 46:1181-6 Je '54

SEDIMENTATION and deposition

Colloidal-size silica in sediments. H. H. Murray and C. P. Gravenor. bibliog Science 118:25-8 Jl 3 '53

Deposition of evaporites. P. C. Scruton. bibliog map diags Am Assn Pet Geologists Bul 37:2498-512 N '53

Mississippian cyclic sedimentation, Sunwapta Pass area, Alberta, Canada. A. C. Spreng. bibliog il maps diags Am Assn Pet Geologists Bul 37:665-89 Ap '53

Pennsylvania and related sediments of upper Pecos valley, New Mexico. R. Sidwell and G. F. Warn. bibliog il maps diags Am Assn Pet Geologists Bul 37:975-1013 My '53

Rational theory of delta formation. C. C. Bates. il maps diags Am Assn Pet Geologists Bul 37:2119-62 bibliog(p2160-1) S '53

Sedimentation rates in Texas estuaries and lagoons. F. P. Shepard. maps Am Assn Pet Geologists Bul 37:1919-34 Ag '53

Significant features of graded bedding. P. H. Kuenen. bibliog diags Am Assn Pet Geologists Bul 37:1044-66 My '53

Wilcox deposits in explosion craters, Stewart county, Tenn. and their relations to origin and age of Wells Creek basin structure. C. W. Wilson, jr. bibliog maps diag Geol Soc Bul 64:753-68, pl 1 Jl '53

See also
Loess
Ore deposits
Silt

SEDIMENTATION apparatus

Determination of particle size distributions by a sedimentation method. J. S. Smith and R. Gardenier, jr. bibliog diag Anal Chem 25:577-81 Ap '53

Roll call for particle sizes; determination of particle size distribution for powdered materials with air sedimentation. il Chem Eng 60:250+ S '53

SEDIMENTS

Automatic sediment and moisture recorder. E. B. Delgass and others. il diag Ind & Eng Chem 46:1418-22 Jl '54

Total sediment load measured in turbulence flume. P. C. Benedict and others. bibliog il maps plans diags Am Soc C E Proc 79 [no 230]:1-48 Ag '53

SEEBECK effect

Seebeck effect in germanium. T. H. Geballe and G. W. Hull. diag Phys R 94:1134-40 Je 1 '54

SEED disinfection

Chemical seed treatment for Canada's major grain crops. A. W. A. Henry. Can Chem Process 38:64 Ap '54

Payoff in pretreatment. il Chem W 74:60+ Ap 10 '54

SEEDS

Bitter constituents of the seeds of corchorus olitorius L., corchorgenin, a new cardiac-active aglycone. J. K. Chakrabarti and N. K. Sen. bibliog Am Chem Soc J 76:2390-2 My 5 '54

Constituents of the seeds of corchorus olitorius, L; isolation of β-sitosterol and corchorolic acid. G. Soliman and W. Saleh. Chem Soc J p 1506-8 My '54

Galactan of strychnos nux-vomica seeds. P. Andrews, L. Hough and J. K. N. Jones. Chem Soc J p806-10 Mr '54

Resistance of grains and seeds to air flow. C. K. Shedd. Heat & Ven 51:87-8 Ja '54

Studies on seed mucilages; the seed mucilage of plantago arenaria. E. L. Hirst, E. G. V. Percival and C. B. Wylam. Chem Soc J p 189-98 Ja '54

Testing

Some applications and limitations of tetrazolium chloride. J. Parker. Science 118:77-9 Jl 17 '53

Transportation

Conveyor delivers to trackside; Eckhart seed co. il Ry Age 136:74 F 8 '54

SEEPAGE

Low-cost compacted earth lining shows low seepage losses on Friant-Kern canal. J. J. Waddell. il map diags Civil Eng 23:684-7+ O '53

SEGAS process. See Gas, Oil

SEGER, Joseph L.

Petroleum profile. por Pet Eng 25:A54 Ag '53

SEISMOGRAPHS

Adjustable magnetic control for seismographs. J. J. Dowling. diag J Sci Instr 31:222 Je '54

Amateur scientist; electronic seismograph. A. G. Ingalls. il diags Sci Am 188:114-18 Je '53

Better blasting practices through seismograph studies. il Rock Prod 57:103 Mr '54

Father Lynch; he measures earth's tremors. il Eng N 151:52-4 Ag 27 '53

Limitations of reflection seismograph. L. E. Nugent, jr. diags Am Assn Pet Geologists Bul 37:2513-29 N '53

New seismic computing method fast and efficient. R. B. Rice. diags World Oil 137:93-5+ Ag 1 '53

Seismic relay; patent. diag Electronics 27:246+ Ja '54

Seismograph pays off in Kansas. R. H. Glover. map diags World Oil 137:109-10+ S '53

Seismograph places grinders. il Am Mach 98:209 Ap 12 '54

Shallow exploration for iron ore with the reflection seismograph. W. B. Beatty. il map diags Explosives Eng 31:172-4+ N '53

SEISMOMETRY

Evaluation of gages for measuring displacement, velocity, and acceleration of seismic pulses. B. E. Blair and W. I. Duvall. il U S Bur Mines Rep of Invest 5073:1-21 '54

SELECTIVE service act, 1948

Effect of Public law 779 on teaching and research at public health schools. W. H. Aufranc and W. P. Shepard. Pub Health Rep 68:656-8 Jl '53

SELENIDES

New synthesis of 1,4-diselenane; the 1,1,4,4-diselenane tetrahalides. J. D. McCullough and N. W. Tideswell. Am Chem Soc J 76:3091-2 Je 5 '54

SELENIUM

Biological beneficiation; ability of plants to build up large concentrations of elements. Ind & Eng Chem 45:sup 15A+ Ag '53

Electrical properties of liquid selenium. H. W. Henkels and J. Maczuk. bibliog diags J Ap Phys 24:1056-60 Ag '53

Electrical properties of selenium; microcrystalline selenium metal doped. H. W. Henkels and J. Maczuk. il J Ap Phys 25:1-11 Ja '54

Fumes and gases from selenium rectifiers abused by gross overloading. P. Drinker and K. W. Nelson. diag A M A Archives Ind Hygiene & Occup Med 8:185-9 Ag '53

New source of selenium. Engineering 176:569 O 30 '53

Photochemistry of selenium; photogalvanic effects with grey selenium. R. W. Pittman. Chem Soc J p3888-93 D '53

Polarization of transmission with particular reference to selenium films in the infrared. G. K. T. Conn and G. K. Eaton. bibliog diags Opt Soc Am J 44:553-7 Jl '54

Production and uses of selenium. Chem & Ind p 1194 S 25 '54

Selenium. J. D. Sargent. 2pls U S Bur Mines Information Circ 7690:1-25 bibliog(187 titles, p 14-25) '54

Selenium diode applications. J. T. Cataldo. il diags Radio & Tv N 50:64-5+ S '53

Selenium d.c. voltage regulators. H. Braverman. diag Radio & Tv N 50:158+ O '53

Selenium, its uses and recovery; Paley report. Chem Age (Lond) 69:755-8 O 10 '53

Selenium; possible British source. Chem & Ind p 1105 O 17 '53

Selenium rectifiers; factors in their application. J. Gramels. bibliog diags Bell System Tech J 32:1469-92 N '53

Selenium supplies. A. G. Thomson. Elec R (Lond) 154:53-4 Ja 8 '54

Transistorized audio oscillator uses a selenium photo cell. L. E. Garner, jr. il diag Radio & Tv N 50:68-9 S '53

Vapour-phase oxidation of olefins; the catalysed oxidation of di*iso*butene in the presence of selenium. D. J. Hadley and others. diags Chem Soc J p 1416-22 My '54

Analysis

Iodometric determination of selenium in ores and flue dusts. C. W. Sill and H. E. Peterson. bibliog U S Bur Mines Rep of Invest 5047:1-9 '54

Spectrophotometric determination of selenium and tellurium in concentrated sulfuric acid. S. E. Wiberley and others. bibliog Anal Chem 25:1586-8 N '53

Bibliography

Selenium. J. D. Sargent. U S Bur Mines Information Circ 7690:14-25 '54

Isotopes

Nuclear moments of Se^{79}. W. A. Hardy and others. bibliog Phys R 92:1532-7 D 15 '53

Nuclear spins and band spectra of the selenium isotopes. S. P. Davis. bibliog il Phys R 93:159-62 Ja 1 '54

Sulfur bonds and the quadrupole moments of O, S, and Se isotopes. G. R. Bird and C. H. Townes. bibliog Phys R 94:1203-8 Je 1 '54

SELENIUM alloys

Electrical properties of pure tellurium and tellurium-selenium alloys. A. Nussbaum. bibliog diags Phys R 94:337-42 Ap 15 '54

SELENIUM compounds

Reaction of Raney nickel with organoselenium compounds. G. E. Wiseman and E. S. Gould. bibliog Am Chem Soc J 76:1706-7 Mr 20 '54

SELENIUM fluorides

Some properties of selenium tetrafluoride. R. D. Peacock. Chem Soc J p3617-19 N '53

SELENIUM poisoning
New information on effects of arsenic trioxide and selenium gases from burned out rectifiers. H. H. Schrenk. Ind & Eng Chem 45:sup 111A-12A+ D '53

SELENIUM rectifier. See Electric rectifiers

SELENIUM thiocyanate
Crystal structure of selenium dithiocyanate. S. M. Ohlberg and P. A. Vaughan. bibliog diags Am Chem Soc J 76:2649-51 My 20 '54

SELF, James Cuthbert
Greenhorn from Greenwood. R. E. Ellsworth. pors Mod Textiles Mag 35:34+, cover My '54

SELF service
Can you profit from self-service? abstract. Management R 42:401-2 Jl '53
Industrial distributors ripe for robot selling? L. H. Brendel. Sales Management 70:42+ Je 1 '53
Self-selection is more than fixture. G. B. Cross. J Retailing 29:157-8+ Winter '53-54
Self-service puts new spin on sales of records. il Bsns W p44-6+ N 28 '53
What's the effect of self-service on salesmen? Ptr Ink 243:59+ My 15 '53
See also
Gasoline service stations—Self service stations

SELF service stores
Check-out drug store. il Mod Packaging 27:83-9 F '54
Self-selection. il plans diags Arch Forum 99:156-68 N '53
Self-selection department store; package almost everything in transparent film. il Mod Packaging 27:99-103 My '54

SELL-lease plan. See Building—Finance

SELSYN apparatus
Transmitting angular and rotational movement; scope of selsyns. diags Engineering 177:310 Mr 5 '54; Elec J 152:945-6 Mr 19 '54

SEMANTICS
Language and science. J. W. T. Spinks. J Chem Educ 31:348-51 Jl '54
Learn to think straight; Executive methods group. il Chem Eng 61:242+ Mr '54
New science of thinking for communicating, training, problem-solving; general semantics. M. L. Jones. il Dun's R & Mod Ind 62:43-5+ D '53
Semantics; the foundation of all business communications. M. Maloney. bibliog Advanced Management 19:26-9 Jl '54
What does G.S. involve. il diags Chem Eng 61:246+ Mr '54

SEMICARBAZIDES
Chemotherapy of experimental tuberculosis; heterocyclic acyl derivatives of substituted semicarbazides. H. L. Yale and others. Am Chem Soc J 76:2208-11 Ap 20 '54
Long-chain aliphatic semicarbazides. J. D. Chanley, S. Kalichstein and E. M. Gindler. Am Chem Soc J 75:5113-14 O 20 '53

SEMICARBAZONES
Rearrangement of hydrazones and semicarbazones. D. E. Pearson, K. N. Carter and C. M. Greer. bibliog Am Chem Soc J 75:5905-8 D 5 '53

SEMI-CONDUCTORS. See Electric conductors—Semi-conductors

SEMISPHERE. See Domes, Aluminum

SENECIO
Alkaloids of senecio jacobaea L. R. B. Bradbury and C. C. J. Culvenor. Chem & Ind p 1021-2 Ag 14 '54
Riddelliine, the alkaloid from senecio riddellii; the structure of riddellic acid and the total structure of riddelliine. R. Adams and B. L. Van Duuren. bibliog Am Chem Soc J 75:4638-42 O 5 '53
Usaramoensine, the alkaloid in crotalaria usaramoensis E. G. Baker; integerrimine from crotalaria incana Linn and seneciomine from senecio glabellus D.C.; stereochemical relationships. R. Adams and B. L. Van Duuren. bibliog Am Chem Soc J 75:4631-5 O 5 '53

SENECIOIC acid
Biosynthesis of radioactive senecioic acid (β-methylcrotonic acid) in particle-free extracts of rat liver. J. L. Rabinowitz. bibliog Am Chem Soc J 76:3037-8 Je 5 '54

SENIORITY. See Employees—Length of service; Trade agreements—Seniority provisions

SENSES and sensation
See also
Hearing
Pain
Sight
Taste

SEPARATION
Alkalimetric determination of mercury and its separation from other heavy metals. M. N. Das. bibliog Anal Chem 25:1406-8 S '53
Anaerobic fractionation of potato starch. H. A. Baum and G. A. Gilbert. bibliog Chem & Ind p490 Ap 24 '54
Athabasca solution? Oil & Gas J 52:51 Jl 6 '53
Continuous countercurrent ion exchange with trace components. N. K. Hiester and others. bibliog il diags Chem Eng Prog 50:139-50 Mr '54
Dimethylaniline as an aid in acetic acid-water separation. L. Garwin and P. O. Haddad. Ind & Eng Chem 45:1558-62 Jl '53
Early work on the displacement of metals and metal oxides. V. N. Ipatieff. bibliog il J Chem Educ 30:110-15 Mr '53
Fractional separation of cellulose. R. L. Scott. bibliog Ind & Eng Chem 45:2532-7 N '53
Fractionation of barium-radium mixtures as chromates. M. L. Salutsky, J. G. Stites, jr. and A. W. Martin. bibliog Anal Chem 25:1677-81 N '53
Fractionation of chlorotrifluoroethylene polymer. H. S. Kaufman and E. Solomon. il diag Ind & Eng Chem 45:1779-81 Ag '53
Fractionation of organic acids in sugar beets by ion exchange resins. H. S. Owens, A. E. Goodban and J. B. Stark. bibliog(27 ref) Anal Chem 25:1507-11 O '53
From air to oxygen. D. S. Goalwin. flow diag Pet Refiner 32:176 S '53
Gulf Coast offshore installation boasts model low-temperature separation unit. P. J. Natho. il Oil & Gas J 52:126-7 D 7 '53
How to predict natural-gasoline content of produced fluids from field separation data. S. G. Miller. Oil & Gas J 52:85+ N 23 '53
Ion exclusion; column analysis. D. W. Simpson and R. M. Wheaton. bibliog Chem Eng Prog 50:45-9 Ja '54
Let's look at selective adsorption. G. Karnofsky. bibliog il diags Chem Eng 61:189-92 S '54
Methods for entrainment separation. P. W. Sherwood. Chem Age (Lond) 70:423-6 F 13 '54
Molecular weight uniformity of cellulose and cellulose derivatives. C. M. Conrad. bibliog(68 ref) Ind & Eng Chem 45:2511-17 N '53
New technique for vapor separation; filtration of diffusible component through a gas; patent. diags Chem Eng 60:344+ D '53
Nitration and fractionation of rayons. W. E. Roseveare and L. Poore. bibliog Ind & Eng Chem 45:2518-21 N '53
Partial oxidation of propane; separation of hydrogen peroxide from the products. C. N. Satterfield and others. bibliog Ind & Eng Chem 46:1007-10 My '54
Precipitation fractionation of cellulose nitrate. R. L. Mitchell. bibliog(27 ref) Ind & Eng Chem 45:2526-31 N '53
Recovery of 2,3-butanediol from fermented beet molasses mashes. J. A. Wheat. bibliog(34 ref) flow sheets il Ind & Eng Chem 45:2387-94 N '53
Separating asphalt materials. R. N. Traxler and H. E. Schweyer. Oil & Gas J 52:133 Ag 31 '53
Separation and concentration of trace metals from natural waters. D. E. Carritt. diags Anal Chem 25:1927-8 D '53
Separation and determination of mixtures of chlorinated *o*-cresols. F. Freeman, K. Gardner and D. W. Pound. bibliog J Ap Chem 3:160-4 Ap '53
Separation and microscopic identification of gallium in the presence of aluminum. A. Wold, J. H. Baird and C. R. Hough. bibliog il Anal Chem 26:546-8 Mr '54
Separation of gases by free double diffusion. F. A. Schwertz. bibliog diags Ind & Eng Chem 45:1592-6 Jl '53

SEPARATION—*Continued*

Separation of gases by means of porous membranes. H. E. Huckins and K. Kammermeyer. bibliog(36 ref) diag Chem Eng Prog 49:180-4, 294-8 Ap, Je '53

Separation of gases by plastic membranes. D. W. Brubaker, K. Kammermeyer and J. O. Osburn. bibliog flow diag il diags Ind & Eng Chem 46:733-42 Ap '54

Separation of hydrogen peroxide from organic hydroperoxides. W. M. MacNevin and P. F. Urone. Anal Chem 25:1760-1 N '53

Separation of organic liquid mixtures by thermal diffusion. A. L. Jones and E. C. Milberger. bibliog(29 ref) diag Ind & Eng Chem 45:2689-96 D '53

Separation of phenols by partition chromatography. T. R. Sweeney and J. D. Bultman. diag Anal Chem 25:1358-63 S '53

Separation of rhodium(III) from iridium(IV). G. H. Ayres and C. M. Maddin. bibliog Anal Chem 26:671-4 Ap '54

Separation of the pyrethrins by displacement chromatography. J. Ward. bibliog Chem & Ind p586-7 Je 13 '53

Separations with a micro mercury cathode. R. B. Hahn. diags Anal Chem 25:1749-50 N '53

Some applications of the separation of large molecules and colloidal particles. A. Tiselius. bibliog diags Chem Soc J p2650-7 Jl '54

Sublimation apparatus for rapid separations. L. N. Pino and W. S. Zehrung, 3d. bibliog diag J Chem Educ 31:476 S '54

Summative cupriethylenediamine fractionation of cellulose. W. A. Mueller and L. N. Rogers. bibliog Ind & Eng Chem 45:2522-6 N '53

See also

Adsorption
Centrifugation
Chromatography
Crystallization
Distillation
Dust removal
Electric precipitation
Extraction processes
Filters and filtration
Flotation process (non-metals)
Hydrocarbons—Separation processes
Ion exchangers
Magnetic separation of ores
Ore treatment
Precipitation
Rare earth metals—Separation
Sedimentation
Sink and float process
Vaporization

SEPARATORS

Dewatering problems; uses for Russell separator. Chem Age (Lond) 70:474 F 20 '54

Entrainment separation; Chemical Engineering report. C. F. Montross. bibliog(57 refs) il diags Chem Eng 60:213-36 O '53

Improved fractional melting apparatus. S. V. R. Mastrangelo and J. G. Aston. diag Anal Chem 26:764-6 Ap '54

New design ups separator efficiency; patent. diags Chem Eng 61:284 Je '54

Southwestern's vibratory separator increases production 50 to 200 per cent. il Chem & Eng N 31:4376 O 19 '53

Tubular type cyclones most efficient dust collectors. L. C. McCabe. diags Ind & Eng Chem 45:sup 105A-6A+ D '53

Water-separating cyclone. A. M. Godridge and G. G. Thurlow. diags J Sci Instr 31:258 Jl '54

See also

Air separators,
Centrifuges
Classifiers
Concentrators
Dust collectors
Electric precipitation
Evaporators
Filters and filtration (technical chemistry)
Magnetic separators
Oil separators
Screens

SEPARATORS, Electrostatic. See Electrostatic separators

SEPTIC tanks

Improving septic tank efficiency with a gas-deflection baffle. E. R. Baumann and H. E. Babbitt. diags Water & Sewage Works 101:132-4 Mr '54

Investigation of the performance of six small septic tanks; abstract. E. R. Baumann and H. E. Babbitt. Sewage & Ind Wastes 26:1192 S '54

Method of simplifying soil percolation tests for septic tank systems. A. Gelperin and W. O. Fuller. bibliog il Pub Health Rep 68:693-5 Jl '53

Rational design for ground absorption. O. G. Quenelle. diags Pub Works 85:79-80 Ap '54

Step up septic tank manufacture; Superior septic tank co. il Rock Prod 57:214-15+ Ag '54

Subsoil sewage disposal system for septic tank effluents. E. W. Campbell. il diags Pub Works 85:72-3 F '54

SEQUESTERING agents

Chemistry and textile uses of sequestering agents. J. V. Summersgill. bibliog Soc Dyers & Col J 70:278-83 Jl '54

New type organic sequestrants; Perma Kleers. Soap & San Chem 30:89 Ja '54; Am Dyestuff Rep 43:86 F 1 '54

Sequestering agents. J. V. Boone. Am Dyestuff Rep 42:517 Ag 3 '53

Sequestering agents best bet for decontaminating surfaces. Chem & Eng N 31:2602-3 Je 22 '53

Sequestration by sugar acids. C. L. Mehltretter, B. H. Alexander and C. E. Rist. bibliog Ind & Eng Chem 45:2782-4 D '53

SEQUOYITOL

Structure of sequoyitol. A. B. Foster. bibliog diag Chem & Ind p591-2 Je 13 '53

SERIAL number sampling. See Sampling (statistical methods)

SERIES

Solution of electromagnetic scattering problems as power series in the ratio (dimension of scatterer)/wavelength. A. F. Stevenson. J Ap Phys 24:1134-42 S '53

Summation of series involving roots of transcendental equations and related applications. M. R. Speigel. J Ap Phys 24:1103-6 S '53; Discussion. G. Kuerti. 25:133-4 Ja '54

SERIES, Infinite

Summation of infinite series in closed form. A. D. Wheelon. bibliog J Ap Phys 25:113-18 Ja '54

SERINE

Conversion of glycine to serine by human liver tissue. C. M. Grossman and others. Science 118:330 S 18 '53

Nitrogen-to-oxygen phosphoryl migration; preparation of *dl*-serinephosphoric and threoninephosphoric acid. R. E. Plapinger and T. Wagner-Jauregg. bibliog Am Chem Soc J 75:5757-8 N 20 '53

Phenylthiohydantoins from serine and threonine. V. M. Ingram. Chem Soc J p3717-18 N '53

Preparation of hydroxyphenylserines from benzyloxybenzaldehydes and glycine. W. A. Bolhofer. bibliog Am Chem Soc J 76:1322-6 Mr 5 '54

Stimulation of serine biosynthesis in pigeon liver extracts by tetrahydrofolic acid. R. L. Kisliuk and W. Sakami. Am Chem Soc J 76:1456-7 Mr 5 '54

SERINOL

Chloromycetin; the conversion of L-*threo-p*-nitrophenylserinol to L-*erythro-p*-nitrophenylserinol. G. W. Moersch and D. P. Hylander. Am Chem Soc J 76:1703-4 Mr 20 '54

SEROTONIN

Hydroxytryptamines; bufotenine, 6-hydroxybufotenine, and serotonin. J. Harley-Mason and A. H. Jackson. Chem Soc J p 1165-71 Ap '54

Serotonin analogs; the synthesis of 5-dimethylaminoindoles. E. Shaw. bibliog Am Chem Soc J 76:1384-7 Mr 5 '54

Serotonin role in mental disorders; abstract. D. W. Woolley and E. Shaw. Chem & Eng N 32:1876 My 10 '54

SERPASIL. See Reserpine

SERPENTINE

Textural pattern of the serpentines. B. Nagy. bibliog il Econ Geol 48:591-7 N '53

SERPENTINE (alkaloid)

See also

Rauwolfia serpentina

SERUM

Reactions of antiserum homologous to the *p*-azomaleanilate and *p*-azofumaranilate ion groups. M. Siegel and D. Pressman. bibliog Am Chem Soc J 76:2863-6 Je 5 '54

Stress and the toxicity of schizophrenic serum. R. Fischer. Science 118:409-10 O 9 '53

Analysis

Comparative analysis of serum proteins by chemical and electrophoretic means. F. Lionetti and M. M. Davison. J Chem Educ 31:378-9 Jl '54

SERUM—Analysis—*Continued*

Direct microdetermination of sodium, potassium, and calcium. G. R. Kingsley and R. R. Schaffert. bibliog Anal Chem 25:1738-41 N '53

Distillation of micro quantities of iodine; application to determination of protein-bound iodine in bovine blood serum. G. H. Ellis and G. D. Duncan. bibliog diag Anal Chem 25:1558-9 O '53

Estimation of 1-dehydrocholesterol, 7-hydroxycholesterol, and bile acids in serum. A. E. Sobel, M. Goldberg and S. R. Slater. bibliog diag Anal Chem 25:629-35 Ap '53

Filter paper electrophoresis. Sister M. Martinette. bibliog il J Chem Educ 31:18-19 Ja '54

Improved spectrophotometric procedure for determination of serum iron. R. E. Peterson. bibliog Anal Chem 25:1337-9 S '53

Magnesium determination in bovine blood serum. M. Okamoto and J. W. Thomas. bibliog Anal Chem 26:1072-3 Je '54

Microdetermination of polyvinylpyrrolidone in aqueous solution and in body fluids. G. B. Levy and D. Fergus. bibliog Anal Chem 25:1408-10 S '53

Noninterference of phosphate in an ethylenediamine tetraacetate method for serum calcium. A. D. Kenny and S. U. Toverud. Anal Chem 26:1059 Je '54

Rapid, accurate method for the determination of total cholesterol in serum. S. Pearson, S. Stern and T. H. McGavack. Anal Chem 25:813-14 My '53

Rapid procedure for determination of free serum cholesterol. H. H. Brown and others. bibliog Anal Chem 26:397-9 F '54

SERUM albumin. See Albumin

SERUM therapy

See also

Antigens and antibodies

SERVANTS

Domestic workers in Sweden. B. A. Johansson. Int Labour R 67:356-66 Ap '53

SERVICE (in industry)

Reverse selling for long-term gains; Great Lakes Carbon's customer education shows how to use fewer electrodes. il Steel 134:85 Mr 8 '54

Selling John Smith; Dewey and Almy chemical co. il Chem W 74:65-6+ Mr 6 '54

Service schools pay off in satisfaction. il Steel 135:56 Jl 26 '54

Shortening the chain; Du Pont pigments department selling to and servicing its titanium dioxide pigment customers. il Chem W 74:44+ Ja 23 '54

Supplier metallurgists; metallurgists can be the customers' best friends. il Steel 135:156 S 13 '54

See also

Banks and banking—Service
Dealer helps
Electric utilities—Service
Gas companies—Service
Instruction in use of product

SERVICE equipment floater insurance. See Insurance, Service equipment floater

SERVICE industries

See also

Banks and banking
Gasoline service stations
Hotels
Laundries
Railroads
Telegraph
Telephone
Trust companies

Accounting

Service industries. N A C A Bul 36:145-50 sec 3 S '54

Great Britain

Service trades, 1950. Economist 168:593-4 Ag 29 '53

SERVICE pipes. See Water pipes—Service pipes

SERVICE stations. See Gasoline service stations

SERVOMECHANISMS

Analysis of the dynamics of hydraulic servomotors under inertia loads and the application to design. H. Gold and others. diags A S M E Trans 75:1383-90; Discussion. 1390-4 O '53

Angular motion for accurate positioning or control movements is obtained with a hydraulic servomechanism designed by Professor James J. Ryan. il diags Machine Design 26:125 My '54

Automatic control system with provision for scanning and memory. N. H. Young. il diags Elec Eng 72:782-4 S '53; Same. Elec Com 30:279-82 D '53

Automatic position control; application of thyratrons. J. C. West and D. K. Partington. bibliog diags Elec R (Lond) 154:137-40 Ja 22 '54

Automatic servo-operated filter photometer; abstract. J. M. Snodgrass, D. E. Carritt and W. S. Wooster. il diags Anal Chem 26:249-50 Ja '54

Behaviour of control systems with definite time delay and random disturbance. P. J. Palmer. Inst E E Proc 100 pt 2:573-5 O '53

Broadband, low-level, error-voltage detector. M. L. Kuder. il diag R Sci Instr 25:464-8 My '54

Contributions to hydraulic control. S. Y. Lee and J. F. Blackburn. il diags A S M E Trans 74:1005-9, 1013-16; 75:1163-80; 76:905-10 Ag '52, Ag '53, Ag '54; Discussion. 74:1009-11; 76:910-11 Ag '52, Ag '54

Controlling side-register in reeling sheet material; Hydronic web guider. il diag Engineering 176:669 N 20 '53

Design and testing of an electronic simulator for a hydraulic remote-position-control servo mechanism. F. J. U. Ritson and P. H. Hammond. diags Inst E E Proc 99 pt 2:533-48 D '52; Discussion. 99 pt 2:549-52; 100 pt 2:568-9 D '52 O '53

Dynamic characteristics of valve-controlled hydraulic servomotors. J. L. Shearer. bibliog diags A S M E Trans 76:895-903 Ag '54

Electro-hydraulic pressure control servo valve. il diag Product Eng 24:241 Je '53

Electronic control of a nuclear reactor. J. E. Binns. il diags Electronics 26:130-1 N '53

Elevators are getting smarter; operatorless elevators, or servolifts. G. B. Gusrae. Arch Rec 115:210-15 Ap '54

Error voltage detector aids in servo-control applications. Elec Eng 72:1137 D '53; Iron Age 172:134+ O 15 '53

Film synchronizer for aerial cameras. H. E. Meinema. il diags Electronics 26:135-7 N '53

Fisher adds potential control; Electro-Analyzer utilizes servomechanism. il Chem & Eng N 32:768-9 F 22 '54

Forcing function generator employing conductive plastic; abstract. L. W. Norman. il diag Elec Eng 72:1112 D '53

Hydraulic slide-valve forces; their effect on response of servo systems. J. M. Nightingale. bibliog diags Machine Design 26:137-40 F '54

Input-output unit for analog computers. P. R. Vance and D. L. Haas. il diags Inst Radio Eng Proc 41:1483-6 O '53

Magnetic modulator in a-c servo corrective networks; abstract. C. Voltz. diag Electronics 26:208+ D '53

Measurement of l.f. response of servo-mechanism components. E. J. P. Long. bibliog il diags Engineer 196:722-5 D 4 '53

Minimization of gear-train inertia. E. G. Burgess, jr. diags A S M E Trans 76:493-6 Ap '54

Minimum-moment-of-error-squared criterion; a new performance criterion for servo mechanisms; abstracts. J. H. Westcott. Elec J 152:1038 Mr 26 '54; Elec R (Lond) 154:515 Mr 19 '54; Discussion. 154:562 Mr 26 '54

Monitor for automatic pilots. J. J. Hess, jr. il diags Electronics 26:174-7 D '53

Operating modes of a servomechanism with non-linear friction. H. Lauer. diags Franklin Inst J 255:497-511 Je '53

Origins of mechanical servo-mechanisms; abstract. H. G. Conway. Engineering 177:152 Ja 29 '54

Predicting minimum-inertia power gear trains; data sheet. D. P. Petersen. Machine Design 26:161-7 Je '54

Proportional control of rate-type servomotors. J. L. Shearer. diags A S M E Trans 76:889-94 Ag '54

SERVOMECHANISMS—*Continued*

Quick methods for evaluating the closed-loop poles of feedback control systems; abstract. G. A. Biernson. Elec Eng 72:905 O '53

Remote control with non-linear characteristics; abstract. J. C. West and P. N. Nikiforuk. Elec R (Lond) 154:515-16 Mr 19 '54; Discussion. 154:562 Mr 26 '54

Rocket-borne servo tracks the sun. D. S. Stacey and others. bibliog il diags Electronics 27:149-51 Ja '54

Rotating components for automatic control; servo motors. S. Davis. il diags Product Eng 24:147-52 N '53

Servo damping techniques. J. Y. Kaplan. bibliog diags Product Eng 24:193-8 O '53

Servo design for missile and aircraft flight control. R. J. Bibbero and R. Grandgent. il diags Tele-Tech 12:74-6+ N '53

Servo-drive for accurate speed control; high-frequency phonic motor. D. E. Caro and others. diags J Sci Instr 31:170-3 My '54

Servo mechanisms and simulators; abstracts of three papers. Elec J 151:2041-2 D 18 '53

Servo-system for accurate speed control. L. U. Hibbard and others. il diags J Sci Instr 31:139-45 Ap '54

Servo systems for performing mathematical operations. E. Wall. il diags Product Eng 24:134-40 S '53

Spring-loaded constant stress device. A. J. Kennedy. diag J Sci Instr 31:28 Ja '54

Stability of the linear system. K. S. Miller. J Ap Phys 25:407-8 Mr '54

Static and sliding friction in feedback systems. J. Tou and P. M. Schultheiss. diags J Ap Phys 24:1210-17 S '53

Study of cubic characteristic equation by root-locus method. Yaohan Chu and V. C. M. Yeh. bibliog diags A S M E Trans 76:343-8 Ap '54

Study of transients in linear feedback system by conformal mapping and the root-locus method. V. C. M. Yeh. bibliog diags A S M E Trans 76:349-59; Discussion. 359-61 Ap '54

Zeros of polynomials and the degree of stability of linear systems. J. F. Koenig. bibliog diag J Ap Phys 24:476-82 Ap '53

SESAMIN

Analysis

Determination of sesamin, sesamolin, and sesamol. M. Beroza. bibliog Anal Chem 26:1173-6 Jl '54

SESAMOL

Analysis

Determination of sesamin, sesamolin, and sesamol. M. Beroza. bibliog Anal Chem 26:1173-6 Jl '54

SESAMOLIN

Analysis

Determination of sesamin, sesamolin, and sesamol. M. Beroza. bibliog Anal Chem 26:1173-6 Jl '54

SETTLING. See Sedimentation

SETTLING tanks

Key to sound design of sedimentation basins is to provide sufficient floor area to receive settling particles. H. R. Murdock. diag Ind & Eng Chem 45:sup 105A-7A O '53

SEWAGE

Fungi in polluted water and sewage. W. B. Cooke. Sewage & Ind Wastes 26:790-4 Je '54

Let's push sewage research. Water & Sewage Works 101:138 Mr '54

Water, sewage, and industrial waste research trends and needs. A. H. Wieters and L. B. Dworsky. bibliog Pub Health Rep 68:1099-106 N '53

Analysis

Critical review of the literature of 1953 on sewage, waste treatment and water pollution. Sewage & Ind Wastes 26:573-82 bibliog (64 titles, p580-2) My '54

Determination of synthetic detergents in sewage. G. P. Edwards and M. E. Ginn. bibliog Sewage & Ind Wastes 26:945-53 Ag '54

Mercurimetric determination of chloride. J. F. Thomas. bibliog Am Water Works Assn J 46:257-62 Mr '54

Polarographic determination of nitrates in sanitary analysis. M. C. Rand and H. Heukelekian. bibliog Anal Chem 25:878-81 Je '53

Qualitative spot test for sulfides. P. K. Mueller and M. C. Rand. Sewage & Ind Wastes 25:1405 D '53; Same. Water & Sewage Works 101:R208 pt 2 My '54

Standard methods for the examination of water, sewage, and industrial wastes; review. F. W. Gilcreas. Pub Works 85:90+ Ja '54

Two new methods for the determination of grease in sewage. F. W. Gilcreas and others. bibliog Sewage & Ind Wastes 25:1379-90 D '53

Bacteriology

Bacteriological studies of sludge digestion. T. C. Buck, jr. and others. bibliog il Sewage & Ind Wastes 25:993-1002, 1174-8, 1406-13; 26:164-70, 635-9 S-O, D '53, F, My '54

Disinfection of wastes by chlorination. H. Heukelekian, R. Day and R. Manganelli. Ind & Eng Chem 45:1004-8 My '53

Oxidation-reduction potential; sewage treatment processes. R. Shapiro. bibliog il diag Water & Sewage Works 101:185-8 Ap '54

Treatment of water and sewage by ionizing radiations. C. G. Dunn. bibliog il diags Sewage & Ind Wastes 25:1277-81 N '53

Bibliography

Fungi in polluted water and sewage; literature review. W. B. Cooke. Sewage & Ind Wastes 26:539-49 bibliog(41 titles, p547-9) Ap '54

Phosphorus content

Removal of phosphates from treated sewage. W. L. Lea and others. flow diag Sewage & Ind Wastes 26:261-75 Mr '54

Testing

Bacteriological explanation of rate of oxygen consumption in the b.o.d. test. A. M. Buswell and others. bibliog(30 titles) diag Sewage & Ind Wastes 26:276-85 Mr '54

Biochemical degradation of synthetic detergents. R. H. Bogan and C. N. Sawyer. bibliog diags Sewage & Ind Wastes 26:1069-80 S '54

Comparative studies of the dilution and Warburg methods for determining b.o.d. E. W. Lee and W. J. Oswald. bibliog Sewage & Ind Wastes 26:1097-108 S '54

Effect of synthetic detergents on the settling of suspended solids. P. N. Degens, jr. and others. bibliog Sewage & Ind Wastes 26:1081-8 S '54

Fungi in polluted water and sewage; isolation technique. W. B. Cooke. bibliog Sewage & Ind Wastes 26:661-74 My '54

Improved form of the monomolecular formula. J. H. Wiegand. Sewage & Ind Wastes 26:160-3 F '54

Florida

Sewage plant design criteria for the semitropics. T. D. Furman. bibliog il Sewage & Ind Wastes 26:745-58; Discussion. G. S. Russell. 758-60 Je '54

SEWAGE, Utilization of

B-12 for the birds; poultry vitamin to be produced from fertilizer, Milorganite. Eng N 151:72+ S 3 '53

From sewage to vitamin B. Chem W 72:16 Je 27 '53

Make water do double duty; Cosden, Big Spring (Tex.) refinery. Chem W 73:82+ O 17 '53

New process turns sewage to cheap animal feed. il Chem Eng 61:372-3 My '54

Plant to extract vitamin from sewage by-product; Vern E. Alden co. Chem Eng 61:388-91 Ap '54

Sewage effluent reclamation for industrial and agricultural use. A. E. Greenberg and J. F. Thomas. bibliog Sewage & Ind Wastes 26:761-70 Je '54

Sewage may be re-used to augment fresh water supplies. S. T. Powell. Ind & Eng Chem 46:sup91A-2A Jl '54

SEWAGE, Utilization of—*Continued*

Vitamin B_{12} from sludge proves successful venture; Milorganite. Oil Paint & Drug Rep 165:5+ F 8 '54

See also

Sewage irrigation

Sewage sludge as fertilizer

SEWAGE and industrial wastes associations, Federation of. See Federation of sewage and industrial wastes associations

SEWAGE and sanitation, Canadian institute on. See Canadian institute on sewage and sanitation

SEWAGE disposal

Advances in sewage treatment in the period from Oct. 1, 1951 to Sept. 1, 1952. Am Soc C E Proc 79 [no 248]:1-38 bibliog(139 titles, p30-8) Ag '53

Animal parasites in sewage and irrigation water. W. L. L. Wang and S. G. Dunlop. bibliog map Sewage & Ind Wastes 26:1020-32 Ag '54

British institute of sewage purification conference. Water & Sewage Works 101:418-21 S '54

British institute of sewage purification conference; with abstracts of papers. Water & Sewage Works 100:506-8 D '53

Characteristics and effects of synthetic detergents; task group report. diags Am Water Works Assn J 46:751-74 bibliog(62 titles, p772-4) Ag '54

City boasts progress, then proves it; Enid, Okla. il Eng N 152:54+ Ap 29 '54

Critical review of the literature of 1953 on sewage, waste treatment, and water pollution. Sewage & Ind Wastes 26:583-607 bibliog(166 titles, p602-7) My '54

Current research in sanitary engineering at the University of Florida. D. B. Smith. bibliog il Am Soc C E Proc 79 [no 207]:1-34 Jl '53

Deepest ocean outfall for sewage diffusion. il diag Eng N 151:38-9 D 24 '53

Detergent situation. J. Finch. il Water & Sewage Works 101:135-7 Mr '54

Disposal of wet digested sludge at Marshall, Mo. H. Hayob. il Sewage & Ind Wastes 26:93-5 Ja '54

Effects of detergents on sewage and sewage treatment at military installations. H. A. Thomas, jr. bibliog Sewage & Ind Wastes 26:954-60 Ag '54

English research on sewage and industrial waste treatment. Pub Works 85:102+ Ag '54

Enzymes give good results in sewage treatment plant. Pub Works 85:116-17 Ap '54

Factors involved in disposal of sewage effluents to lakes. C. N. Sawyer. bibliog diags Sewage & Ind Wastes 26:317-25; Discussion. 325-8 Mr '54

Feed cycle; sewage disposal and algae. Ind & Eng Chem 46:sup 15A+ F '54

High-type sanitary facilities provided in Venezuelan wilderness. C. A. Arenander and D. A. Okun. flow diags il maps diag Civil Eng 24:220-3 Ap '54

Inventory of sewage disposal facilities, 1953. Eng N 151:37+ O 15 '53

Miami tackles multi-faced pollution problem. E. S. Chase. maps Civil Eng 23:458-60 Jl '53

More data on syndets in municipal sewage. D. K. Croft and S. D. Faust. bibliog Water & Sewage Works 101:286-7 Je '54

New England sewage and industrial wastes association 24th annual meeting, East Providence, R.I. Nov. 5; with abstracts of papers. Water & Sewage Works 101:40-3 Ja '54

New Jersey sewage and industrial wastes association 39th annual meeting, Atlantic City, March 10-12; with abstracts of papers. Water & Sewage Works 101:230-3 My '54

New York sewage and industrial wastes association spring meeting, Syracuse, June 14-15; with abstracts of papers. Water & Sewage Works 101:404-7 S '54

New York sewage and industrial wastes association 26th annual meeting, New York, Jan. 21-22; with abstracts of papers. Water & Sewage Works 101:180-4 Ap '54

Ocean outfall studies at San Diego. F. J. Kersnar and D. H. Caldwell. maps diags Sewage & Ind Wastes 25:1336-43 N '53

Pennsylvania water and sewage associations annual conferences, State College, Aug. 24-26; with abstracts of papers. Water & Sewage Works 100:430-6 N '53

Pittsburgh plans unique project to abate stream pollution. J. F. Laboon. il diags Civil Eng 24:12-15+ Ja '54

Productive research in waste treatment and disposal; a program. H. A. Thomas, jr. Sewage & Ind Wastes 26:121-2 F '54

Progress in the detergent battle. J. Finch. il Water & Sewage Works 101:330-1 Jl '54

Selection of sewage treatment for small systems. J. E. Brown. Munic Util 91:29-30+ O '53

Sewage and industrial waste developments during 1953. F. W. Mohlman. il Water & Sewage Works 101:45-54 F '54

Sewage disposal project cleans up San Francisco bay. R. C. Kennedy. il maps diag Civil Eng 23:390-3 Je '53

Sewage treatment progress in Germany. H. Rohde. il diags Water & Sewage Works 101:176-9 Ap '54

Sewage works practices (cont). D. E. Bloodgood. flow diag il diag Water & Sewage Works 100:491-4; 101:55-9, 193-5, 288-91, 376-8 D '53, F, Ap, Je, Ag '54

Southern municipal and industrial waste conference, 3d, Raleigh, March 19-20; abstracts of papers. Water & Sewage Works 101:278-81 Je '54

Survey of current problems for research. H. Heukelekian and W. H. Wisely. Sewage & Ind Wastes 26:1155-9 S '54

Syndets pose nuisance problem in Britain. Chem & Eng N 32:2118+ My 24 '54

Synthetic detergents and their effect on sewage-treatment processes. F. H. Lehberg. Munic Util 91:54+ N '53

Treatment of water and sewage by ionizing radiations. C. G. Dunn. bibliog diags Sewage & Ind Wastes 25:1277-81 N '53

Waste water reclamation in relation to ground water pollution; abstract. Sewage & Ind Wastes 26:927-8 Jl '54

Water and waste treatment by pH, ORP, and conductivity. W. W. Eckenfelder, jr. bibliog il diag Instruments & Automation 27:1082-3 Jl '54

Water supply and sanitation; with data on major projects. il Eng N 152:140-2+ F 18 '54

Waves as a factor in effluent disposal. E. K. Rice and J. W. Johnson. bibliog diags Water & Sewage Works 101:172-5 Ap '54

See also

Federation of sewwage and industrial wastes associations

Imhoff tanks

Plumbing

Septic tanks

Sewage lagoons

Sewage sludge

Sewage tanks

Sewer pipes

Sewerage

Trade waste

Water pollution

Activated sludge method

About alternating-double filtration and a new activated sludge plant. J. Finch. il Water & Sewage Works 101:245-7 My '54

Activated sludge treatment of radioactive laundry waste. L. M. Reading and others. bibliog Sewage & Ind Wastes 25:1414-18 D '53

Biocatalysts and waste disposal; effect on activated sludge. R. E. McKinney and L. Poliakoff. bibliog diag Sewage & Ind Wastes 25:1268-76 N '53

High-rate activated sludge treatment and its relation to stream sanitation. K. Wuhrmann. bibliog(50 titles) il plan diag Sewage & Ind Wastes 26:1-27, 212-20 Ja-F '54

High-rate digestion of concentrated primary and activated sludge. W. N. Torpey. diag Sewage & Ind Wastes 26:479-94; Discussion. R. S. Rankin. 494-6 Ap '54

Research on activated sludge. A. Pasveer. bibliog il diag Sewage & Ind Wastes 25:1253-8, 1397-404; 26:28-33, 149-59 N '53-F '54

Results of large-scale experiments with high-rate activated sludge plants and trickling filters; abstract. K. Wuhrman. Sewage & Ind Wastes 26:690-1 My '54

Sewage works practices; activated sludge treatment. D. E. Bloodgood. flow diag il Water & Sewage Works 101:288-91 Je '54

SEWAGE disposal—*Continued*

Aeration

Activated aeration at the Wards Island sewage treatment plant. A. H. Chasick. flow diag il diag Sewage & Ind Wastes 26:1059-68 S '54

Aerating cone for sewage purification. il Engineer 197:475 Mr 26 '54

Frothing nuisance at Michigan plant. W. J. Russell. il Sewage & Ind Wastes 26:1041-3 Ag '54

High-rate digestion of concentrated primary and activated sludge. W. N. Torpey. diag Sewage & Ind Wastes 26:479-94; Discussion. R. S. Rankin. 494-6 Ap '54

Non-clogging foam-safe aerators lick cheese-waste problem. K. L. Schulze. il diags Food Eng 26:51-3 S '54

Operation kinks at Greece, N.Y. F. J. Cramer. flow diag il Sewage & Ind Wastes 25:1469-75 D '53

Research on activated sludge; aeration of water. A. Pasveer. bibliog Sewage & Ind Wastes 25:1253-8 N '53

Research on activated sludge; brush aeration. A. Pasveer. bibliog il diags Sewage & Ind Wastes 25:1397-404 D '53; Discussion. H. R. King. 26:508 Ap '54

Research on activated sludge; purification with intense aeration. A. Pasveer. bibliog il Sewage & Ind Wastes 26:149-59 F '54

Sewage aeration practice in New York city. R. H. Gould. Am Soc C E Proc 79 [no 307]:1-11 O '53

Sewage aeration practice in the sanitary district of Chicago. N. E. Anderson. Am Soc C E Proc 79 [no 310]:1-12 O '53

Biological treatment

Biocatalysts and waste disposal. R. E. McKinney and L. Poliakoff. bibliog il diags Sewage & Ind Wastes 25:1129-35, 1268-76 O-N '53

Biocatalytic additives in waste treatment. J. E. McKee and others. Sewage & Ind Wastes 26:1162-72 S '54

Biological treatment of cyanides with and without sewage. A. E. J. Pettet and E. V. Mills. bibliog J Ap Chem 4:434-44 Ag '54

Biological treatment of waste waters containing phenol; abstract. I. Sörensen. Sewage & Ind Wastes 26:925 Jl '54

Highlights in the history of biological sewage treatment. K. Imhoff. Water & Sewage Works 101:28-30 Ja '54

How sanitary biologists contribute to waste treatment processes. J. N. Wilson. bibliog il Water & Sewage Works 100:502-4 D '53

New bugs chew warm waste; Clear Creek, Colorado new treatment plant. il diag Chem Eng 60:136+ D '53

Profits down the drain; biocatalytic products for increasing efficiency of sewage disposal plants. il Chem W 74:72+ Ap 17 '54

Radioactive contaminated laundry waste and its treatment; preliminary experiments with bacterial and yeast suspensions. E. F. Gloyna. bibliog Sewage & Ind Wastes 26:777-89 Je '54

Value of culture and enzyme additions in promoting digestion. H. Heukelekian and M. Berger. Sewage & Ind Wastes 25:1259-67 N '53

Wonder drugs; will they cure waste treatment ills? R. E. McKinney and C. N. Sawyer. Eng N 151:34-6 O 1 '53

Chemical treatment

Elements of water and sewage chemistry. il Pub Works 84:84-5+ O; 78+ N; 83-4 D '53

Chlorination

Chlorinator maintenance and operation. J. P. Kavanaugh. Sewage & Ind Wastes 25:1352-6 N '53

Disinfection of wastes by chlorination. H. Heukelekian, R. Day and R. Manganelli. Ind & Eng Chem 45:1004-8 My '53

Recommended procedures in the use of chlorine at water and sewage plants. Am Water Works Assn J 45:1060-74 O '53; Same. Sewage & Ind Wastes 25:1235-49 O '53; Same. Water & Sewage Works 100:390-4, 457-60 O-N '53; Same. Munic Util 92:36-8+ Mr '54

Residual chlorine methods and disinfection of sewage. R. V. Day, D. H. Horchler and H. C. Marks. bibliog Ind & Eng Chem 45:1001-4 My '53

Sewage treatment at Port Washington; abstract. C. MacCallum. Water & Sewage Works 101:183-4 Ap '54

Studies on the disinfection of sewage using sub-chlorine demand dosages; abstract. W. Hermanowicz and W. Dożańska. Sewage & Ind Wastes 26:929 Jl '54

Coagulation

Flocculation and flocculation basins. T. R. Camp. plan diags Am Soc C E Proc 79 [no 283]:1-18 S '53

Laboratory studies on the coagulation of spent sulfite wastes; abstract. J. Gańczarczyk and J. Domański. Sewage & Ind Wastes 26:930-1 Jl '54

Filtration

About alternating-doubled filtration and a new activated sludge plant. J. Finch. il Water & Sewage Works 101:245-7 My '54

Biofiltration serves a growing city. flow sheet Pub Works 85:73-4 Ap '54

Cleaned filter cloth lasts longer. C. E. Keefer. bibliog il Water & Sewage Works 101:239-41 My '54

Evaluation of the performance of certain biofiltration plants by three methods. R. S. Rankin. bibliog flow sheets Am Soc C E Proc 79 [no 336]:1-17 N '53

Factors to consider in media quality control for trickling filters. Pub Works 85:99-100 F '54

Filter field control. J. W. Hood. il diag Instruments & Automation 27:287+ F '54

High-rate filters treat mixed wastes at Sharp & Dohme. J. A. Liontas. flow diag il plan diag Sewage & Ind Wastes 26:310-16 Mr '54

New concept in trickling filter design. B. Gerber. Sewage & Ind Wastes 26:136-9 F '54

New plant for hospital sewage; trickling filter treatment plant. R. P. Johnson. flow diag il Water & Sewage Works 101:373-5 Ag '54

Results of large-scale experiments with high-rate activated sludge plants and trickling filters; abstract. K. Wuhrman. Sewage & Ind Wastes 26:690-1 My '54

Roughing filter relieves overloaded activated sludge plant. J. N. Hagerich. diag Sewage & Ind Wastes 26:685-7 My '54

Sewage works practices; trickling filter operation. D. E. Bloodgood. il Water & Sewage Works 101:193-5 Ap '54

Treating organic wastes on experimental trickling filters; American cyanamid co. J. F. Vogler; G. E. Hendee, jr. il diags Water & Sewage Works 101:316-23 Jl '54

Trickling-filter sewage plant built to remove radioactive wastes. A. L. Biladeau. flow chart diag Civil Eng 23:546-9 Ag '53

Vertical separators aid in experimental trickling filter. E. F. Gloyna and M. Smith. bibliog diag Pub Works 85:75-6+ Je '54

Laws and regulations

Legal aspects of sewerage and sewage disposal. Pub Works 85:114+ Mr '54

Radioactive waste disposal

Activated sludge treatment of radioactive laundry waste. L. M. Reading and others. bibliog Sewage & Ind Wastes 25:1414-18 D '53

AEC builds first full-scale plant for radioactive wastes. diag Eng N 151:37-8 Ag 6 '53

Critical review of the literature of 1953 on sewage, waste treatment, and water pollution. Sewage & Ind Wastes 26:607-15 bibliog(59 titles, p613-15) My '54

Radioactive-waste disposal in the ocean. bibliog U S Nat Bur Stand Handbook 58:1-31; pa 20c Supt. of doc. '54

Radioactivity does not impede sewage sludge digestion; abstract. J. C. Dietz. Chem & Eng N 32:2107 My 24 '54

Radon in sewage outfall studies. T. G. Bullen and W. F. O'Connor. maps plan diags Sewage & Ind Wastes 26:627-34 My '54

SEWAGE disposal—Radioactive waste disposal —*Continued*

Trickling-filter sewage plant built to remove radioactive wastes. A. L. Biladeau. flow chart diag Civil Eng 23:546-9 Ag '53

Screening

Operating a sewage microstrainer. C. E. Keefer. il Water & Sewage Works 101:356-7 Ag '54

Provision for removal of grit and screenings in sewage-treatment plants. G. T. G. Scott. il diag Munic Util 92:25-7+ Ag '54

Screening and grit-removal devices in sewage-treatment plants. M. A. Mehlburger. il Munic Util 92:40+ Jl '54

Sewage screen chamber design. J. C. Federick. il Water & Sewage Works 101:189-92 Ap '54

Sewage works practices; screening and shredding units and disposal of screenings. D. E. Bloodgood. il Water & Sewage Works 100:491-4 D '53

Sludge and refuse mixing

Brewery and city wastes combined in unusual disposal plant near Denver. il Eng N 151: 46-7+ Ag 27 '53

Composting of garbage and sewage sludge. E. Eweson. plan diag Am Soc C E Proc 79 [no 312]:1-8 O '53

Disinfection of wastes by chlorination. H. Heukelekian, R. Day and R. Manganelli. Ind & Eng Chem 45:1004-8 My '53

Disposal of industrial wastes. G. E. Barnes. diags Am Soc C E Proc 79 [no 247]:1-16 Ag '53

Disposal of tannery wastes; Hartnett tanning co. W. H. Taylor. Pub Works 84:94 N '53

Dual disposal of garbage and sewage at Richmond, Indiana. W. E. Ross. Sewage & Ind Wastes 26:140-8 F '54

Good operating results shown by Cranston treatment plant. Pub Works 85:133 Ap '54

How municipalities should approach industrial waste problems. E. G. Hackborn. Munic Util 92:34+ Ag '54

Industrial waste plant treats domestic sewage; Adolph Coors co. il Pub Works 84:73 N '53

Model waste-disposal plant; Adolph Coors co. brewery. F. Pitman. flow diag il Food Eng 25:67-8 N '53

Operation of inadequate facilities at Ballston Spa, N.Y. W. J. Ball. Sewage & Ind Wastes 25:1345-51 N '53

Service charges for industrial wastes treatment. R. Hazen. Sewage & Ind Wastes 26: 830-5 Jl '54

Treatment of tannery wastes and domestic sewage at Fond Du Lac, Wis. B. J. Hartman. flow diag Sewage & Ind Wastes 25: 1419-23 D '53

Treatment plant takes ground garbage in its stride. C. W. Klassen and others. plan Pub Works 85:110-12+ My '54

SEWAGE disposal, Rural

Fringe and rural area sanitation. J. A. Salvato, jr. bibliog Sewage & Ind Wastes 25: 1391-6 D '53

Subsoil sewage disposal system for septic tank effluents. E. W. Campbell. il diags Pub Works 85:72-3 F '54

See also
Septic tanks

SEWAGE disposal plants

Contemporary German plants. G. E. Mau. il plan diag Sewage & Ind Wastes 26:108-11 Ja '54

Daily log (cont). F. I. Vilen; W. A. Sperry. Sewage & Ind Wastes 26:796-9, 907-10 Je-Jl '54

Difficult terrain complicates sewage treatment plant design. G. B. Arthur. il Pub Works 85:70-1 Mr '54

Fly control at a sewage treatment plant. W. N. Wells. il Pub Works 85:87-8 Je '54

Interesting extracts from operation reports (cont). Sewage & Ind Wastes 25:1356-61, 1463-9; 26:103-7, 229-31, 564-8, 912-21, 1043-8, 1175-8 N '53-F, Ap, Jl-S '54

Inventory of sewage disposal facilities, 1953. Eng N 151:37+ O 15 '53

Mercury vapor lighting for Waco's new sewage treatment plant. Pub Works 85:111 F '54

Municipalities must do their part. H. R. Murdock. Ind & Eng Chem 45:sup 101A-2A+ Jl '53

1953 operators' forum. Sewage & Ind Wastes 26:675-85, 803-8 My-Je '54

Plans for Miami's sewage disposal project. C. E. Wright. map Pub Works 85:87-8 Mr '54

Portable posts protect plant lawn; sewage treatment plant, Birmingham, Mich. R. Grinnell. il Sewage & Ind Wastes 26:910-11 Jl '54

Problems in constructing a sewage treatment plant. C. G. Peller. Pub Works 85:107 Jl '54

Sewage and water facilities built for a city in the making. A. A. Estrada. flow diag il map plans diag Civil Eng 23:836-9 D '53

Sewage treatment at 600 feet below sea-level. Y. Peter. il map diag Water & Sewage Works 101:408-10 S '54

Sewage treatment; town and gown partnership; Chapel Hill and the University of North Carolina. J. L. Morrison. il Pub Works 84:65-6 D '53

Thick sludge saves dollars; Beaumont, Tex., building country's first sewage works designed to take advantage of sludge concentration devised by Wilbur Torpey. diag Eng N 152:41-2 Ap 29 '54

Town saves land; burrows into cliff base to build treatment plant; Edgewater, N.J. Eng N 152:53-4 Ap 8 '54

Virginia Key sewage treatment plant of the city of Miami; abstract. J. S. Bethel, jr. Water & Sewage Works 100:480-1 D '53

Westchester county builds new sewage works. il Pub Works 85:79-80 F '54

See also
Trade waste—Disposal plants

Accidents

Two Michigan explosions. Sewage & Ind Wastes 26:240 F '54

Costs

Cost data on sewage treatment plant operation and maintenance. Pub Works 85:66+ S '54

Design

Novel sewage works comes off drawing boards; sewage works nearing completion for the Allegheny county sanitary authority. il plan diags Eng N 151:30-2 O 1 '53

Sewage plant design criteria for the semitropics. T. D. Furman. bibliog il Sewage & Ind Wastes 26:745-58; Discussion. G. S. Russell. 758-60 Je '54

Directories

Directory of sewage-treatment plants in Canada. Munic Util 92:118-29 Ja '54

Employees

1953 operators' forum; manpower requirements for operation. Sewage & Ind Wastes 26:675-80 My '54

1953 operators' forum; training programs for plant personnel. Sewage & Ind Wastes 26: 680-5 My '54

Equipment

Activated aeration at the Wards Island sewage treatment plant. A. H. Chasick. flow diag il diag Sewage & Ind Wastes 26:1059-68 S '54

Cathodic protection for waste treatment plants. Pub Works 85:118 Mr '54

Chlorinator maintenance and operation. J. P. Kavanaugh. Sewage & Ind Wastes 25:1352-6 N '53

Classified index of products used in waterworks and sewage field. Water & Sewage Works 101:R2-16 pt 2 My '54

Consider variable speed drive for water and sewage treatment plants. F. H. Rumble. il Water & Sewage Works 101:234-5 My '54

Design and construction of small sewage-treatment plants. R. V. Anderson. Munic Util 91:47-8+ N '53

Early operating experiences at Philadelphia Northeast. R. A. Hoot. Sewage & Ind Wastes 26:337-44 Mr '54

Economics of Sacramento's sewage treatment plant. G. B. Arthur. il Pub Works 85:51-3+ Ja '54

SEWAGE disposal plants—Equipment—*Cont.*

Gadgets for sewage treatment plant operation. G. T. Lohmeyer. bibliog il Sewage & Ind Wastes 26:231-7 F '54

Instrumentation problems in water and sewage treatment. C. R. Velzy. il Instruments & Automation 27:1318 Ag '54

Low-cost garage and greenhouse. A. J. Wahl. il Sewage & Ind Wastes 26:795-6 Je '54

Manufacturers; their products and their distributors in Canada. Munic Util 92:130+ Ja '54

Miami's Virginia Key sewage treatment plant. J. S. Bethel, jr. flow diag map Sewage & Ind Wastes 26:241-9 Mr '54; Abstract. Water & Sewage Works 100:480-1 D '53

Modern sewerage system serves 695 people. il Pub Works 84:109 N '53

New treatment plant of the Colne Valley sewerage board. J. Griffiths. il Chem & Ind p421-6 My 2 '53

Operation of inadequate facilities at Ballston Spa, N.Y. W. J. Ball. Sewage & Ind Wastes 25:1345-51 N '53

Operation of small sewage treatment plants. D. P. Scott. Munic Util 91:21-2+ D '53

Pittsburgh's treatment plant commended for design. J. F. Laboon. il plan Water & Sewage Works 101:236-8 My '54

Scientific basis for the liming of digesters; abstract. C. N. Sawyer. plan diag Water & Sewage Works 101:41-2 Ja '54

Sewage treatment and sewer extensions; a sign of progress. B. H. Swab. il Pub Works 85:70-2 Je '54

Sewage treatment meets amazing growth problem. il Pub Works 84:59-60 N '53

Sewer system and treatment plant is high in the Rockies. R. Q. Boyce. il Pub Works 85:72-3 Jl '54

Shaped wire; problem solver. R. Warner. il Water & Sewage Works 101:170-1 Ap '54

Use of the heat pump for digester heating. G. S. Smith and J. A. Morris, jr. il diags Sewage & Ind Wastes 25:1369-78 D '53

Waukegan's weed-free sludge beds. L. A. Conn. il Water & Sewage Works 101:284-5 Je '54

Fires and fire protection

Fire protection for a sludge drying plant. W. E. Morgan. il Pub Works 84:72-3 D '53

Grit chambers

Screening and grit-removal devices in sewage-treatment plants. M. A. Mehlburger. il Munic Util 92:40+ Jl '54

Maintenance and repair

Getting water and sewerage facilities ready for winter. il Pub Works 85:70-1+ Ag '54

Maintenance and operation of primary treatment units. F. H. Miller. Sewage & Ind Wastes 26:96-102 Ja '54

Metallizing experience at two Iowa plants. L. F. Skorczeski; D. D. Douglas. Sewage & Ind Wastes 26:89-93 Ja '54

Preventive maintenance. F. A. Sanders. Sewage & Ind Wastes 26:329-34; Discussion. K. L. Mick. 334-7 Mr '54

Preventive maintenance; panel discussion. J. M. Mac Crea and others. Sewage & Ind Wastes 25:1452-60 D '53; Same. Water & Sewage Works 101:R204-8 pt 2 My '54

Use of lubricating greases and oils in sewage treatment plants. H. J. Miller. Sewage & Ind Wastes 26:1048-50 Ag '54

Management

Putting a sewage treatment plant into operation. B. Benas. flow diags map Am Soc C E Proc 79 [no 257]:1-14 Ag '53

Statistical quality control in waste treatment. J. M. Fairall. bibliog Sewage & Ind Wastes 25:1282-8 N '53

Power

Dual-fuel engines show economy at Lansing. il Sewage & Ind Wastes 26:800-3 Je '54

Public relations

Helps to plant prestige and public relations. G. T. Lohmeyer. il Sewage & Ind Wastes 26:562-4 Ap '54

Records

Record and reporting policy in New York city sewage treatment plants. F. H. A. Lino and others. Sewage & Ind Wastes 26:550-61 Ap '54

Safety measures

Fundamental principles of handling chlorine. V. W. Langworthy. il diags Water & Sewage Works 100:234-8, 318-22, 361-4, 454-6; 101:36-9 Je, Ag-S, N '53, Ja '54

Safety in sewage works maintenance and operation. L. W. Van Kleeck. il Water & Sewage Works 100:284-7, 330-2, 369-73, 395-9, 461-4, 465-7; 101:84-8 Jl-D '53, F '54

War measures

Mobilization readiness program. J. H. Ludwig. Water & Sewage Works 101:77 F '54

SEWAGE filter fly

Wrens enlisted in fight on filter flies. R. Binder. il Sewage & Ind Wastes 26:921-2 Jl '54

SEWAGE flow

New instrument simplifies measurement of dry weather flow in sewers. diag Water & Sewage Works 101:326 Jl '54

Radium as a tracer in sewage flow measurements. T. G. Bullen and W. F. O'Connor. plans diags Sewage & Ind Wastes 26:497-507 Ap '54

Reduction of excess sewage flows at Milwaukee. R. D. Leary. Sewage & Ind Wastes 26:34-41 Ja '54

SEWAGE irrigation

Sewage effluent disposal through crop irrigation. C. D. Henry and others. bibliog plan Sewage & Ind Wastes 26:123-33; Discussion. R. A. Webster. 133-5 F '54

Spray irrigation for the disposal of cannery wastes. H. W. Powell. Munic Util 92:30+ Je '54

Supplemental irrigation with treated sewage. H. J. Hunt. bibliog Sewage & Ind Wastes 26:250-60 Mr '54

SEWAGE lagoons

Design and application of oxidation ponds. D. F. Smallhorst and others. bibliog Pub Works 84:89-90+ D '53

Evaluating the use of sewage lagoons. R. J. Ellison and R. L. Smith. il Pub Works 85:89+ Mr '54; Discussion. 85:153-5 Je '54

Lagooning; Ohio communities get OK to try sewage method with some reservation. Eng N 151:23 D 24 '53

Low-cost treatment and disposal method. W. J. Wenzel. Eng N 151:48+ Ag 20 '53

Sewage lagoons in North Dakota. W. Van Heuvelen and J. H. Svore. il Sewage & Ind Wastes 26:771-6 Je '54

SEWAGE pumping

Achieving capital and operating economy in sewage pumping station in Waterloo, Ont. W. T. Mitchell. il Munic Util 92:29-31+ Mr '54

Completion of two pumping plants will solve Portland pollution problems. map Eng N 151:49-51 Ag 6 '53

Planning sewage pumping and sewer maintenance to keep pace with suburban growth. P. Hirsch. il Pub Works 85:91-2 Jl '54

Preventive maintenance; pumping station equipment. J. M. Mac Crea. Sewage & Ind Wastes 25:1452-6 D '53; Same. Water & Sewage Works 101:R204-6 pt 2 My '54

SEWAGE pumps

Compressed-air needs for sewage pumps; chart. L. J. Murphy. Mill & Factory 54:95 Mr '54

Electrode pump control. G. J. Coppa. il diag Sewage & Ind Wastes 26:905-7 Jl '54

Rivers that flow uphill; centrifugal pump design. H. J. Meeker. il diag Water & Sewage Works 101:162-9 Ap '54

SEWAGE sludge

Bacteriological studies of sludge digestion. T. C. Buck, jr. and others. bibliog il Sewage & Ind Wastes 25:993-1002, 1174-8, 1406-13; 26:164-70, 635-9 S-O, D '53, F, My '54

Destruction of oxalic acid by activated sludge. D. J. Nelson and others. Sewage & Ind Wastes 26:1126-9 S '54

Disposal of wet digested sludge at Marshall, Mo. H. Hayob. il Sewage & Ind Wastes 26:93-5 Ja '54

SEWAGE sludge—*Continued*

Further investigations of concentration of raw sludge. J. F. Laboon. Am Soc C E Proc 79 [no 314]:1-12 O '53

High-rate digestion of concentrated primary and activated sludge. W. N. Torpey. diag Sewage & Ind Wastes 26:479-94; Discussion. R. S. Rankin. 494-6 Ap '54

New sludge-thickening process for sewage-treatment plants; Dorrco Densludge process. diags Munic Util 92:27+ F '54; Eng N 152:93 Mr 25 '54

Scum control in sludge digestion. R. E. Fuhrman. plans diags Sewage & Ind Wastes 26:453-8 Ap '54; Abstract. Water & Sewage Works 101:90-1 F '54; Discussion. L. E. Langdon. il Sewage & Ind Wastes 26:458-61 Ap '54

Sewage works practices; sludge digestion. D. E. Bloodgood. il Water & Sewage Works 101:376-8 Ag '54

Sludge digestion at Oceanside, Calif. E. O. Sampson. flow diag il Sewage & Ind Wastes 26:1033-41 Ag '54

Studies of accelerated digestion of sewage sludge. P. F. Morgan. bibliog flow diag il Sewage & Ind Wastes 26:462-76; Discussion. J. H. Blodgett. 476-8 Ap '54

Thick sludge saves dollars; Beaumont, Tex., building country's first sewage works designed to take advantage of sludge concentration devised by Wilbur Torpey. diag Eng N 152:41-2 Ap 29 '54

See also

Sewage disposal—
Activated sludge method

Analysis

See Sewage—Analysis

Drying

Fire protection for a sludge drying plant. W. E. Morgan. il Pub Works 84:72-3 D '53

How to get the most from your sludge drying beds. Pub Works 85:126-7 Mr '54

Sludge drying tests at Winnipeg. N. S. Bubbis. Sewage & Ind Wastes 25:1361-2 N '53

Gas production

Dual-fuel engines show economy at Lansing. il Sewage & Ind Wastes 26:800-3 Je '54

Gas recirculation system for sludge tanks agitates scum with less power. diags Eng N 151:115 Ag 13 '53

SEWAGE sludge as fertilizer

Agricultural values of sewage. B. P. Skulte. bibliog il Sewage & Ind Wastes 25:1297-303 N '53

Composting of garbage and sewage sludge. E. Eweson. plan diag Am Soc C E Proc 79 [no 312]:1-8 O '53

Fertilizers from municipal wastes; abstract. L. W. Vankleeck. Chem & Eng N 31:4972 N 30 '53

See also

Sewage irrigation

SEWAGE tanks

Gas recirculation system for sludge tanks agitates scum with less power. diags Eng N 151:115 Ag 13 '53

Operating difficulties with fixed and floating covers on sewage digesters. M. L. Crist. Munic Util 92:38-40+ Ag '54

Scientific basis for liming of digesters. C. N. Sawyer and others. bibliog diags Sewage & Ind Wastes 26:935-44 Ag '54

See also

Imhoff tanks
Septic tanks
Settling tanks

Heating

Submerged sludge heating at Philadelphia's Northeast works. S. S. Baxter and H. F. Horlacher. il plan diags Sewage & Ind Wastes 26:961-6 Ag '54

Use of the heat pump for digester heating. G. S. Smith and J. A. Morris, jr. il diags Sewage & Ind Wastes 25:1369-78 D '53

SEWER cleaning

Sewer cleaning with rubber beach balls. A. M. Rawn. diag Water & Sewage Works 101:R223 pt 2 My '54

SEWER design

Checklist of special features in interceptor sewer design. G. O. Consoer. Eng N 151:33 O 1 '53

Pittsburgh plans unique project to abate stream pollution. J. F. Laboon. il diags Civil Eng 24:12-15+ Ja '54

Planning the shopping center; underground utilities. R. J. Abramson. il Heating-Piping 26:128-30 Je '54

Problems in storm sewer design and maintenance; guided discussion. Munic Util 91:56+ N '53; 92:45-7 F '54

SEWER explosions

When Cleveland's sewer blew up. il Bsns W p28-9 S 19 '53

SEWER gas

Explosive gas testing in Los Angeles. A. A. Appel. il Sewage & Ind Wastes 25:1460-2 D '53

How sewer manholes are checked for toxic and explosive gases. Pub Works 85:149-52 My '54

SEWER pipes

Modern materials and methods for joining sewer pipe. R. B. Seymour. il Sewage & Ind Wastes 25:1289-96 N '53; Abstract. Water & Sewage Works 101:40-1 Ja '54

Recent developments in jointing materials for sewer pipes; abstract. D. F. Deakin. Water & Sewage Works 101:89-90 F '54

Sewage treatment and sewer extensions; a sign of progress. B. H. Swab. il Pub Works 85:70-2 Je '54

Steel force main provides sewerage for residential area. il Pub Works 85:79-80 Ja '54

See also

Soil pipes

Freezing

Protecting underground utilities located in Arctic regions. C. H. Billings. bibliog il plan diags Water & Sewage Works 100:441-7 N '53

Tables, calculations, etc.

Flow through brass and copper pipe; charts. Water & Sewage Works 101:R270-5 pt 2 My '54

SEWER pipes, Concrete

Tower places ocean outfall. il diags Eng N 151:36-8 Ag 20 '54

Utilizing a 1908 outfall sewer. W. S. Wise. Water & Sewage Works 101:282-3 Je '54

Manufacture

Concrete sewer pipe for Manitoba town manufactured in portable plant; how Vibrapipe was fabricated. G. W. Hoffmann. il plan Munic Util 92:25-7+ S '54

Testing

Sewer pipe roughness coefficients. K. W. Cosens. il Sewage & Ind Wastes 26:42-50 Ja '54

SEWER pipes, Vitrified clay

Ohio congressman endorses government's public works program; factors which will directly affect the future of the clay pipe industry. F. T. Bow. Brick & Clay Rec 124:52-3 Ap '54

Pressure joint developed for clay sewer pipe. il Am Cer Soc Bul 33:122 Ap 15 '54

Public health is America's first line of defense. Brick & Clay Rec 124:57 Mr '54

Manufacture

Automatic controls, streamlined operation, features of new plant; W. S. Dickey clay mfg. co. il plans Brick & Clay Rec 124:39+ F '54

Pacific Clay's automatic jam-socket machine. il Brick & Clay Rec 124:55+ Ap '54

Research and development aids sewer pipe manufacturing; Pacific clay products. Brick & Clay Rec 124:41 Ja '54

Testing

Sewer pipe roughness coefficients. K. W. Cosens. il Sewage & Ind Wastes 26:42-50 Ja '54

SEWERAGE

California sewer bids attract lively competition; unit prices. Eng N 152:90-1 Ap 15 '54

SEWERAGE—*Continued*

Engineering reports for water and sewer systems. J. S. Watkins. Am Water Works Assn J 46:31-4 Ja '54

How to build better sewers. R. G. Scott. il diags Pub Works 85:96-9 S '54

Hydraulic behavior of storm-water inlets; flow into deflector inlets. W. Li and others. plans diags Sewage & Ind Wastes 26:836-42, 967-75 Jl-Ag '54

Integrating reclamation and disposal of waste water. A. M. Rawn and others. bibliog il Am Water Works Assn J 45:483-90 My '53; Same. Water & Sewage Works 101:R219-23 pt 2 My '54

Modern design for catch basins and inlets for storm sewers and drains. diags Pub Works 85:106-7 My '54

Present sewer pipe facilities cannot carry the load. Brick & Clay Rec 124:23 My '54

Problems in maintaining public-utility services during construction of Toronto subway. R. L. Clark. il plans Munic Util 92:56-9+ Ap '54

Progressive tunneling works without use of liner plates. il Eng N 151:55+ S 10 '53

Some factors involved in locating sewers. C. Webster. Sewage & Ind Wastes 26:1179 S '54

Standards for sanitary sewers and present community needs. C. C. Spencer. bibliog Sewage & Ind Wastes 26:1089-96 S '54

Water and sewage works reference and data edition, 1954. Water & Sewage Works 101: R 1-287 pt 2 My '54

See also

Plumbing
Sanitary districts
Sewage disposal
Sewage sludge
Sewer design
Sewer pipes
Sewers, Concrete
Trade waste
Water pollution

also subdivision Sewerage under names of cities, e.g.
Chicago
Milwaukee

Bibliography

Reviews and abstracts. Published in monthly numbers of Sewage and industrial wastes

Sewerage and refuse digest. Published in monthly numbers of Public works

Cost

Delaware river intercepting sewer; unit prices. Eng N 151:86 Ag 13 '53

Industrial wastes boost cost of village sewer plant; unit prices. Eng N 152:104 Ap 29 '54

New sewerage system averages $89 per person, Washington; unit prices. Eng N 152:83 Mr 11 '54

Sanitary sewers, California; unit prices. Eng N 151:58 O 15 '53

Sewage treatment plant, Ohio; unit prices. Eng N 151:58 O 15 '53

Storm sewers, Washington; unit prices. Eng N 151:59 N 26 '53

Trunk sewer, Connecticut; unit prices. Eng N 151:146 Ag 20 '53

Unit prices bid by contractors. Eng N 151:190+ O 8 '53

Water and sewer systems for growing Michigan town; unit prices. Eng N 152:71-2 Ap 1 '54

Water and sewerage utilities, Rantoul, Ill.; unit prices. Eng N 151:69 Jl 2 '53

Estimates

How to get better bids for constructing storm and sanitary sewers. W. Hibbs. Pub Works 85:138-40+ S '54

Finance

Court rules on service fee; finds charges were illegal. Eng N 151:55 D 10 '53

Financing sewage treatment. A. J. Duvall. Water & Sewage Works 101:327-9 Jl '54

Financing sewage treatment on a participation basis. H. Van Der Vliet. il Water & Sewage Works 100:403-5, 450-3 O-N '53

Public works financing; how to show the benefits of storm sewers and responsibilities for them. C. S. Seabrook. Pub Works 85:79-80 Ag '54

Service charges for industrial wastes treatment. R. Hazen. Sewage & Ind Wastes 26:830-5 Jl '54

Maintenance and repair

Determination of pipe condition by inspection of sewers. J. A. McCollum. Sewage & Ind Wastes 26:1172-4 S '54

Equipment for sewer maintenance. A. A. Appel. il Pub Works 85:86-8 Ag '54

How Los Angeles handles sewer maintenance. il Pub Works 85:119-20+ My '54

Is preventive sewer maintenance justified? C. Webster. Sewage & Ind Wastes 26:1160-1 S '54

Organization for water and sewer maintenance. G. B. Arthur. il Pub Works 85:86-7+ Ap '54

Planning sewage pumping and sewer maintenance to keep pace with suburban growth. P. Hirsch. il Pub Works 85:91-2 Jl '54

Preventive sewer maintenance. W. M. Colony. Sewage & Ind Wastes 25:490-4 Ap '53; Same. Water & Sewage Works 101:R 191-3 pt 2 My '54

Problems in storm sewer design and maintenance; guided discussion. Munic Util 91:56+ N '53; 92:45-7 F '54

Sewer maintenance practice in Los Angeles. W. A. Schneider. Sewage & Ind Wastes 26:222-8 F '54; Abstract. Water & Sewage Works 101:90 F '54; Discussion. M. B. Nixon. Sewage & Ind Wastes 26:228-9 F '54

Sewers, cement and surfboards; repairing leak in Honolulu sewer. il Eng N 151:75 N 12 '53

Why sewer stoppages have decreased. I. R. Riker. Pub Works 85:139 My '54

Canada

Canadian sewerage works statistics, by provinces; tabulation. Munic Util 92:6 Ja '54

Directory of sewage-treatment plants in Canada. Munic Util 92:118-29 Ja '54

Government officials in charge of Canadian public water supplies and sewerage systems. Munic Util 92:8 Ja '54

Germany

Contemporary German plants. G. E. Mau. il plan diag Sewage & Ind Wastes 26:108-11 Ja '54

Sewage treatment progress in Germany. H. Rohde. il diags Water & Sewage Works 101:176-9 Ap '54

New Jersey

Comeback for sad shad; Middlesex county sewerage authority. il map Chem W 73:20-2 Ag 1 '53

Newfoundland

Difficult problems in installing sewers in Newfoundland town. A. C. Northover. il Munic Util 91:23-4+ D '53

Ohio

Lagooning; Ohio communities get OK to try sewage method with some reservations. Eng N 151:23 D 24 '53

Switzerland

High rate activated sludge treatment and its relation to stream sanitation. K. Wuhrmann. bibliog(50 titles) il plan diag Sewage & Ind Wastes 26:1-27, 212-20 Ja-F '54

Virginia

Sewerage planning for metropolitan fringe areas; Fairfax county and Arlington county, Va. M. H. Klegerman. map Sewage & Ind Wastes 26:616-24 My '54; Excerpts. Water & Sewage Works 101:89 F '54; Discussion. Sewage & Ind Wastes 26:624-6 My '54

Westchester county, New York

Westchester county builds new sewage works. il Pub Works 85:79-80 F '54

SEWERS, Concrete

Cement blocks used for sewer relocation project. F. L. Rice. diags Pub Works 85:84 Jl '54

Shop-built traveling form speeds sewer job. J. R. Owen. il diags Eng N 151:50-1+ N 19 '53

See also

Sewer pipes, Concrete

SEWING
Causes of seaming damage; needle heating. W. S. Sondhelm. Textile Inst J Trans 44:580-5 N '53

SEWING machines
Sawing and sewing machines designed as utility room appliances. il House & Home 2:124 D '52

SEX
Dependence of the secondary sex ratio in humans on the age of the father. E. Novitski. bibliog Science 117:531-3 My 15 '53; Discussion. M. E. Bernstein. 118:448-9 O 16 '53; Reply. 119:473-4 Ap 9 '54
Sex in bacteria; genetic studies, 1945-1952. J. Lederberg and E. L. Tatum. bibliog il diag Science 118:169-75 Ag 14 '53

SEX differences
Sex differences in the trend of mortality from certain chronic diseases. G. Kaufman and T. D. Woolsey. Pub Health Rep 68:761-8 Ag '53

SHADED pole motors. See Electric motors, Induction

SHADOW casting. See Electron microscope

SHAFER, Paul Werntz, 1893-1954
Sketch. A. J. Kraft. por Rubber World 130:809-10 S '54

SHAFFER, Marshall
Teacher-at-large of hospital architecture. Arch Forum 98:125+ My '53

SHAFT sinking
Freeze wet ground to sink deep shaft. il Constr Methods 35:84-5+ N '53
Highly mechanized shaft sinking operation. C. K. Bain. il plan Min Cong J 40:38-9 Je '54
How to sink a shaft safely and efficiently; St Joseph lead co. G. P. Lutjen. il plans diags Eng & Min J 155:72-7 Je '54
Methods and costs of sinking a shaft through a fractured, water-bearing formation at Friedensville, Pa. W. Hastings and others. 13pls U S Bur Mines Information Circ 7680:1-18 '54
San Manuel; progress on three big shafts reveals up-to-date sinking practice. C. L. Pillar. il diags Min Eng 6:688-91+ Jl '54
Sinking a circular air shaft through West Virginia rock. E. A. Naeve and P. Morton. il Explosives Eng 32:55-7 Mr '54
Sinking Iron King's number seven shaft. E. R. Tomkinson. il Min Cong J 39:36-7 O '53
Sinking the Crescent shaft. S. W. McDougall and E. B. Olds. il diags Min Cong J 40:24-6+ S '54
Special roof bolt applications; unique shaft sinking experiment; with cost data. R. F. Bowie. il Min Cong J 40:42-3 Ja '54
Tsumeb sinks concrete shaft through strong water channel. diags Eng & Min J 154:98-9 D '53
World shaft-sinking record at Vlakfontein. G. M. Thain. il diag Can Min J 75:65-7 Mr '54
See also
Mine shafts

Accidents

Shaft sinking accidents, 1905-'52. I. C. Easton. diags Engineer 196:711-12 N 27 '53

SHAFTING
Chart saves time in determining size of power shaft. Pet Eng 26:C24 Ja '54
Facts about modern shafting and hangers. il diags Mill & Factory 54:168 My '54
Synthetic rubber protects the navy's propeller shafts. E. A. Bukzin. il Mech Eng 76:17-20+ Ja '54

SHAFTING, Flexible
Power take-off drive for trailers. il diag Constr Methods 35:130 N '53

SHAFTS
Air loaded core shafts speed converting operations in Carthage mill. E. W. Zabriskie. il Paper Tr J 138:60 My 14 '54
Built-up shaft solves design problem; abstract. D. J. Klyce. diags Machine Design 26:183 Mr '54
Deduction of the maximum torsional stress in a shaft with notches. S. Momma. J Ap Phys 24:959-60 Jl '53
Gyroscopic effect of rotors on the whirling of shafts. J. Mann and B. B. Clements. bibliog diags Engineer 197:308-11 F 26 '54
Rolls straighten out shaft shortage; Burroughs corp. il Steel 133:97 O 19 '53
Strength-weight ratios of hollow steel shafts; reference book sheet. H. W. Smith. Product Eng 24:209 S '53
Torsional deflection; graphical method for finding angle of twist of shafts having variable cross-sections; data sheet. W. H. Mann. diags Machine Design 25:179-81 N '53
Whirling of a light shaft carrying two eccentrically loaded discs. E. B. Cole. il diag Engineer 197:382-3, pl 1 Mr 12 '54

SHAFTS, Mine. See Mine shafts

SHAKING apparatus
Shakes balkiness out of bulks. T. S. Abbott. il diags Food Eng 25:97-8+ N '53

SHALE
Artist carves saint from expanded shale. il Concrete 62:22 My '54
Lightweight aggregates; expanded shale. J. W. Shaver. il map Concrete 61:3-6+ O; 12+ N '53
See also
Oil shales

SHALE oil. See Oil shales

SHALLENBERGER, Frank K.
Student's seller; sales of shell-molding unit developed by Stanford group. Bsns W p80+ D 12 '53

SHAMPOOS
Clear detergent shampoos. Soap & Chem Spec 30:77+ Jl '54
Pill shampoo; rigid acetate box. il Mod Packaging 27:107 Ja '54

SHAPERS
Attachment to shaper cuts hand work on punches. H. Gifford. diags Am Mach 98:166 F 15 '54
Attachment to shaper lifts tool on return stroke. H. Murro. diags Am Mach 97:159 N 23 '53
Extra tool mounted on shaper cuts machining time. H. Gifford. diags Am Mach 97:164 D 7 '53
Facts about modern shapers. diag Mill & Factory 54:566 My '54
Machine tool buyers' guide; shapers and slotters. il Steel 133:212-13 sec 2 N 16 '53
1954 American Machinist production preview. il Am Mach 98:131-2 Ja 18 '54
Replace with modern machine tools; planing and shaping. il Am Mach 97:B22-3 Mid-N '53
Shaper attachment generates bevel gears. H. Murro. diags Am Mach 98:122-4 Mr 1 '54
Swedish shapers available in utility and heavy-duty models. il Am Mach 97:156 D 21 '53
Trim flanges faster on shaper. il Iron Age 172:101 Ag 27 '53
Variable tilt shaper cuts time for machining form blocks. il Iron Age 172:168-9 Ag 6 '53

SHAREHOLDERS. See Stockholders

SHARPENING
Recommended practice for sharpening carbide-tipped masonry drills; data sheet. diags Mach 60:257 D '53
See also
Broaches—Sharpening
Cutting tools, Carbide—Sharpening
Milling cutters—Sharpening

SHATTERPROOF glass corporation
Security I like best. P. Barken. Comm & Fin Chr 178:2254 D 10 '53

SHAVERS, Electric. See Electric shavers

SHAVING cream

Patents

Aerosol shave patent suit; Carter products, inc. against Colgate-Palmolive-Peet and four other defendants. Soap & San Chem 29:149 N '53
Pother over lather; patent fight over aerosol shave creams. il Chem W 73:48+ D 5 '53

SHAWINIGAN chemicals, limited
Firsts with Shawinigan. il Can Chem Process 38:6 F '54

SHEA chemical corporation
Getting its second wind. il Chem W 74:18 Ap 3 '54

SHEAR. See Strains and stresses

SHEARS (machines)

Bronx Engineering over driven guillotine shear. il Metallurgia 48:207 O '53

Cleveland crane & engineering co. shearing unit. Iron & Steel Eng 31:305-6 S '54

Facts about modern presses, shears and brakes. il diags Mill & Factory 54:570-1 My '54

Flying shears for billet, bar and rod mills. J. H. Hitchcock and E. S. Murrah. bibliog il diags Iron & Steel Eng 30:80-7; Discussion. 87-90 N '53

Hill Acme billet shear. il Blast F & Steel Pl 42:967 Ag '54

Manchester squaring shear features counter thrust and deep throat. il Am Mach 98:196 Mr 15 '54

Rebuilding bearings saves time, cuts costs; Jones & Laughlin steel corp. il Iron Age 173:117 Jl 1 '54

Simple rotary shear on lathe. H. J. Gerber. diags Am Mach 98:152 Jl 5 '54

Manufacture

Heavyweight welding; Buffalo forge co. il Steel 133:127+ N 16 '53

SHEATHING (building)

Four ways to save with insulation board sheathing. il diag Am Bld 75:196-7 My '53

How to build exterior walls with gypsum sheathing. diags Am Bld 75:252-3 Ag '53

SHEAVES

Facts about modern pulleys and sheaves. il Mill & Factory 54:184 My '54

Welding giant sheaves; Bethlehem steel co. il Welding J 33:576-7 Je '54

SHEEP

Adrenal gland response to circulatory distress in fetal lambs. S. R. M. Reynolds. Science 118:248-9 Ag 28 '53

Fibre area per unit area of skin in the Ossimi sheep. F. M. Labban. Textile Inst J Trans 45:T716-18 S '54

SHEET iron

Production of oriented single-crystal silicon iron sheet. C. G. Dunn and G. C. Nonken. il diags Metal Prog 64:71-5 D '53

SHEET metal

Designing with textured metals; rigidized metals. J. J. Clement. il Machine Design 26:156-9 S '54

Sheet metal worker's contractor survey; metals and machinery. Sheet Metal Worker 45:56, 58 Mr '54

Sheet metals can be made from metal powder. W. D. Jones. il Am Mach 98:142-4 Je 7 '54

See also
Sheet iron
Sheet steel
Tin plate

Storage

Improves storage system; Ford installs Acme sheet metal storage system at its Aircraft engine division, Chicago. Steel 133:97 N 16 '53

Library system catalogs sheet stock; Pratt & Whitney Aircraft. il Steel 134:122+ Ap 12 '54

Testing

Experimental investigation of the yielding of strip between smooth dies. A. B. Watts and H. Ford. bibliog il diag Inst Mech Eng Proc (B) 1B no 10:448-53; Discussion. 454-64 '52-53

SHEET metal, Corrugated

Corrugated steel; handy structural member. W. N. Johnson. il Eng & Min J 154:90-1 D '53

Sectional properties of corrugated sheets determined by formula. D. S. Wolford. Civil Eng 24:103-4 F '54

SHEET metal, Enameled

Building research group discusses porcelain enamel. Eng N 151:30 N 19 '53

Drying; large porcelain enamel sheet dries by conduction; Proctor & Schwartz, inc. il Iron Age 173:165 F 4 '54

Enamel; plan commercial output of porcelain enameled aluminum. Iron Age 173:94 F 4 '54

Enameled steel skin; remodeled office building; church steeple. il diags Arch Forum 98:156 Ja '53

Flexure and fracture of vitreous enameled steel strips. C. J. Rodman and F. J. Shollenberger. bibliog il diags Am Cer Soc Bul 33:105-7 Ap 15 '54

Porcelain enamel and the station. il Nat Pet N 45:54 O 21 '53

Porcelain enameled aluminum; light weight, good workability for the fabricator. B. C. Bricker. il Steel 135:110-11 S 6 '54; Abstracts. Machine Design 26:273-4 Ag '54; Materials & Methods 40:107 S '54

Porcelain enameled aluminum will be in your future. B. C. Bricker. Cer Ind 62:91+ Je '54

Porcelain enameled panels for interior walls. C. F. Block. il diag Arch Rec 114:219-20 N '53

Porcelain enameled steel for building construction; Seaporcel metals, inc. il Sheet Metal Worker 45:64-6 Ap '54

Porcelain panels and lightweight curtain walls ease building load; Texas Company office building. il diags Arch Rec 115:206-7 My '54

Role of nickel dip in enameling of sheet steel. D. G. Moore and others. bibliog il Am Cer Soc J 37:363-9 Ag 1 '54; Abstract. Materials & Methods 40:158+ Ag '54

Shelter; porcelain enameled steel gate-house prefabricated. diag Iron Age 172:192+ N 5 '53

Vitreous enamel enhances sheet aluminum. il Materials & Methods 38:120 D '53

SHEET metal, Expanded

Expanded metal for safety railings. il Sheet Metal Worker 45:49-50 Jl '54

SHEET metal buildings

Look where the saucer landed; Semisphere building at Longview, Tex. il Iron Age 173:79 F 18 '54; Light Metal Age 12:16 Ap '54

Plastic gaskets, and fireproof backing, help solve metal wall problems. il Arch Forum 101:159+ S '54

SHEET metal contractors national association

Annual meeting, Pittsburgh, May 10-12. Sheet Metal Worker 45:110-14+ Jl '54

SHEET metal distributors, National association of. See National association of sheet metal distributors

SHEET metal shops

Rapid growth of West Coast firm typifies opportunities in sheet metal field; Fontaine and Bean. B. F. Williams. il Sheet Metal Worker 45:60-1 Mr '54

Shop of the month (cont). A. Stout. il Sheet Metal Worker 45:59-61+ N; 58-9 D '53; 84-7+ Ja; 63-4 F; 62-4+ Mr; 50-1+ Ap; 86-7+ My; 95-7+ Je; 51-3+ Jl; 75-7+ Ag '54

Employees

See Sheet metal workers

Equipment

Sheet metal worker's contractor survey; metals and machinery. Sheet Metal Worker 45:56, 58 Mr '54

Sheet metal worker's contractor survey; shop equipment. il Sheet Metal Worker 45:67-9 Ap '54

See also
Sheet metal working machinery

Management

Departmentalization; blackboard record system increases heating firm's efficiency; Droste heating and sheet metal co. il Sheet Metal Worker 45:48-9+ Mr '54

Maintaining good customer relations; Kuenz heating & sheet metal co. G. C. Creighton. il Sheet Metal Worker 45:48-9 Ap '54

Takes care of small jobs, big jobs take care of him; policy applied by air-conditioning and sheet-metal contractor. W. M. Massey. il Sheet Metal Worker 45:62-3 Ag '54

SHEET metal trade

Business prospects in 1954; statements of business leaders. Sheet Metal Worker 45:53-7+ Ja '54

Carolinas roofing and sheet metal contractors association annual meeting. Sheet Metal Worker 45:88 Ag '54

How Metalacing's inventor bridged the gap with marketing. E. L. Crockatt. Sales Management 71:105-9 O 1 '53

SHEET metal trade—*Continued*

New York state sheet metal roofing and air conditioning contractors' association 31st annual meeting, Rochester, Jan. 17-20. Sheet Metal Worker 45:79-80 F '54

Ohio sheet metal contractors' association annual meeting, Columbus, Feb. 22-24. Sheet Metal Worker 45:76+ Ap '54

Roofing and sheet metal contractors association of Georgia annual meeting. Sheet Metal Worker 45:90-1 Ag '54

Sheet metal contractors' association of Illinois 40th annual meeting. Sheet Metal Worker 45:88 Je '54

Sheet metal worker's contractor survey; sheet metal contracting operations. il map Sheet Metal Worker 45:54-6+ F '54

Advertising

Merchandising program of a successful dealer; Quiggin & son, inc. il Sheet Metal Worker 45:44-5, 73+ D '53

Directories

1954 directory, manufacturers of products and equipment used in warm air heating, air conditioning, ventilation, sheet metal work, roofing, exhaust and blower work. Sheet Metal Worker 45:sup D 1-44 Ja '54

History

Sheet metal in America, 1740-1954. Sheet Metal Worker 45:65 Ja '54

SHEET metal work

Correct welding procedure (cont). L. F. Spencer. Sheet Metal Worker 45:63-4 N; 62-4 D '53

Designing with textured metals; rigidized metals. J. J. Clement. il Machine Design 26:156-9 S '54

Drop hammer, trapped rubber dies from aircraft parts faster; Consolidated Vultee aircraft co. T. M. Rohan. il Iron Age 173:121-3 My 6 '54

Extruding fastener holes simplifies sheetmetal assembly. F. Strasser. diags Iron Age 172:151-3 N 19 '53

Fabricating stainless photographic equipment. il Sheet Metal Worker 45:62-3, 117-18 Ap '54

Fastening costs take a nose dive; Metalacing. il Steel 134:100-1 Ap 12 '54

Fastening methods; improved wire stitching setup gives productive versatility. il Iron Age 172:130-1 Jl 23 '53

Floturn; a new method of forming metal. il diag Mach 60:233-6 Ap '54; Abstract. Steel 134:120-1 Mr 29 '54

Floturn contour lathe roll-forms hollow cylinders and cones. il Am Mach 98:150-1 Mr 29 '54

Flow-form dimpling at Northrop. G. C. Close. il diags Mach 60:191-3 F '54

Flow-turning; Pratt & Whitney aircraft div. il Iron Age 174:50-1 Jl 29 '54; Steel 135:90 Ag 2 '54

Handy tips for working thin metals; drawings with text. S. V. Worth. Mill & Factory 54:116-18 Mr '54

How Metalacing's inventor bridged the gap with marketing. E. L. Crockatt. Sales Management 71:105-9 O 1 '53

How to form titanium. C. I. Bradford. il diags Steel 134:136-7 Je 7 '54

How to press form titanium parts; North American Aviation. P. Maynard and A. Eshman. il diag Iron Age 173:149-52 Mr 11 '54

Impact fastening of sheet metal assemblies. il Machine Design 26:127 Ap '54

Inspection, heat-treat, joining, finishing; wire stitching. il Am Mach 97:E7-9 Mid-N '53

Lamp posts simulate tree trunks. il Sheet Metal Worker 45:62 N '53

Largest expanding mandrel bulges aircraft fuel tanks; Ryan aeronautical co. il diag Am Mach 97:120-1 N 9 '53

Magnesium forming. F. L. Coenen. il diags Tool Eng 31:43-9 N; 62-8 D '53; 32:65-72 Ja; 68-71 F '54

Metal stitching. R. H. Wilcox. il diag Mill & Factory 53:112-14 N '53

New forming process; Formall process. T. A. Dickinson. diags Aero Digest 67:52+ N '53

New kink in product design; Rigidized metals corp. il Steel 133:140-2+ N 30 '53

New metal-shop methods at Convair. H. D. Cromartie. il Mach 60:196-201 Jl '54

North American's present hydroforming practice. F. Koeller. il diags Mach 60:190-5 Jl '54

Overpressing saves money. T. A. Dickinson. il Aero Digest 67:76-7 Ag '53

Press forming of sheet steel; supplement to 1948 edition of Metals handbook. il diags Metal Prog 66:134-40 Jl 15 '54

Quick-and-dirty setups; Karp metal products co.; illustrations with text. C. Emerson and J. Wright. diags Am Mach 97:137-52 D 7 '53

Roll flowing saves operations and conserves material; Floturn process. C. L. Sporck. il diags Am Mach 98:104-7 Mr 29 '54

Sheet metal design with the $ sign in mind. H. C. Golz. il diags Product Eng 24:188-92 O '53

Shop hints help form and mill titanium. il diags Am Mach 98:129-33 S 13 '54

Spot welding thin aluminum. I. W. Johnson. il Welding J 33:759-62 Ag '54

Terne metal chimney flashing. il Sheet Metal Worker 45:130 Mr '54

Transfer devices extend automation in press shop; Buick motor div. A. B. Mooers. il Iron Age 174:101-3 Ag 26 '54

Verson Allsteel rubber pad press gets new muscles. il diags Steel 134:98-100 Mr 22 '54

Welding aluminum sheet. F. C. Geibig. il diags Welding J 33:784-7 Ag '54

See also

Air conditioning equipment
Air pipes
Exhaust systems
Metal drawing
Metal spinning
Presses
Rolling (metal work)
Rolling mills
Sheet metal, Enameled
Shells (metal work)
Stamping
Stretching
Tin cans
Tin plate
Ventilators

Standards

Standardization of minimum bend radii for sheet metal. B. Rogge. Mach 61:200-1 S '54

Tables, calculations, etc.

Calculation of sheet metal bend allowances; reference sheets. D. L. French. diags Tool Eng 33:87-8 Ag '54

SHEET metal work, Architectural

Insulated skin wall construction used again for large office building. il Civil Eng 23:716 O '53

Rigidized metals for architectural applications; Rigid-Tex. il Sheet Metal Worker 45:54-5+ N '53

Sheet metal workers' catechism; construction and erection of sheet metal skylights (cont). W. Neubecker. diags Sheet Metal Worker 45:94+ Mr; 104 Je '54

See also

Flashing
Roofing, Copper

SHEET metal worker (periodical)

Honor roll of advertisers. Sheet Metal Worker 45:70 Ja '54

SHEET metal workers

Steps in training the sheet metal draftsman (cont). W. J. Hornung. diags Sheet Metal Worker 45:56-8 N; 65-7 D '53

31 New York sheet metal graduates. Sheet Metal Worker 45:87+ Ag '54

Training sheet metal craftsmen. il Sheet Metal Worker 45:82-3+ My '54

SHEET metal working machinery

Cincinnati high speed press brake does punching and automatic feeding. il Am Mach 98:178 Jl 5 '54

Facts about modern presses, shears and brakes. il diags Mill & Factory 54:570-1 My '54

How to stretch-form aluminum. J. M. Adle. il diags Am Mach 98:133-40 Jl 19 '54

Special flanging machine avoids tying up large press. R. Guess. il diags Am Mach 97:162-3 D 7 '53

Tin-box making machinery. il Engineering 176:460-1; 177:242 O 9 '53, F 19 '54

Two ways to trim fabrication costs. F. M. Butrick, jr. diags Steel 134:132-3 My 3 '54

SHEET metal working machinery—*Continued*
Versatile producer; the press brake. J. M. Matthewman. il Am Mach 97:124-5 S 14 '53; 98:96-9 Ja 4; 108-11 F 1 '54
Weldall and Assembly press brake operated hydraulically. il Engineering 177:86 Ja 15 '54

See also
Hydraulic presses
Presses
Punching machinery
Shears (machines)
Stretching machines

Safety devices

Automatic press guard with pneumatic control. diags Engineering 177:284 F 26 '54

SHEET piling
Anchored bulkheads. K. Terzaghi. diags Am Soc C E Proc 79 [no 262]:1-39 S '53
Flood-buckled sheet piling straightened without pulling. il Constr Methods 35:132-3+ N '53
New methods of design and construction for bridge substructures; steel H-piles and Prepakt concrete. C. P. Disney. il Roads & Eng Constr 92:87-91+ Ja '54
Re-rigged hammer pulls sheetpiles easily. il Constr Methods 36:99-100 My '54
Sea urchins damage steel piling. M. C. Irwin. Science 118:307 S 11 '53

SHEET steel
Cold-rolled, galvanized, hot-rolled and stainless sheets; prices tabulated. Iron Age 173:411 Ja 7 '54
Consideration of heating, rolling and annealing as factors in the control of quality cold rolled sheets. H. C. Smith. Blast F & Steel Pl 42:653-5 Je '54
Guide for steel buyers. Steel 135:39-44 sec 2 Jl 12 '54
Impact of technical developments in light flat rolling on the consuming industries. W. T. Hogan. Iron & Steel Eng 31:67-71; Discussion. 71-2 F '54
Mill coated sheets improve product quality. N. E. Hays. il Iron Age 173:133-6 Mr 25 '54
Porcelain enameled steel for building construction; Seaporcel metals, inc. il Sheet Metal Worker 45:64-6 Ap '54
Press forming of sheet steel; supplement to 1948 edition of Metals handbook. il diags Metal Prog 66:134-40 Jl 15 '54
Role of nickel dip in enameling of sheet steel. D. G. Moore and others. bibliog il Am Cer Soc J 37:363-9 Ag 1 '54
Steel; coiled sheet gathers steam. K. W. Bennett. Iron Age 173:97-8 Mr 4 '54
Straddle carrier handles 15-ft steel sheets safely, easily; Fairless works. il Iron Age 173:127 Je 3 '54
Super-thin metal sheets; Arnold engineering co. il Steel 133:338-9 O 12 '53

See also
Steel, Strip

Testing

Creep-rupture of several sheet steels. G. V. Smith and others. bibliog il diags Am Soc T M Proc 51:857-68 '51
Influence of the rate of deformation on the tensile properties of some plain carbon sheet steels. J. Winlock. bibliog il diag J Metals 5:Trans 797-803 Je '53
Jones & Laughlin Flex Tester and Spherometer for sheets. il Steel 133:318 O 12 '53

SHEETS
Convenience wins again, nylon sheets smash hit; Pepperell manufacturing co. B. G. Priestley. il Sales Management 72:73-4+ Mr 15 '54
How and why Sanforized pioneered the market for fitted sheets. il Sales Management 71:68-70+ Ag 1 '53

SHEFFIELD, England
Made in Sheffield. Economist 170:142-4 Ja 16 '54

Industries

Engineering industries. M. A. Fiennes. Inst Mech Eng Proc (A) 167 no 3:227-30, pl 1-12 '53; Same. Engineering 176:57-9, pl 1-4 Jl 10 '53
Metallurgical industries. C. Sykes. Inst Mech Eng Proc (A) 167 no 3:231-4 '53; Same abr. il Engineering 176:89-91, pl 7-8 Jl 17 '53
Notices of works. Inst Mech Eng Proc (A) 167 no 3:235-45 '53

SHEFFIELD steel corporation
Sheffield Steel's growth reflects prosperity of Texas and Gulf coast. il Manuf Rec 122:39 D '53

SHEFFIELD university
Sheffield university; new chemistry building. il Chem & Ind p212-14 F 20 '54

SHELL molding. See Foundry practice—Shell molding

SHELLAC
Shellac. H. E. Blanchford. il Soap & San Chem 29:154-5+ My '53
Shellac takes the floor; S. C. Johnson & son tests its grip on the term hard gloss applied to floor polish. il Chem W 73:65-6 D 12 '53
Standardisation of shellac and lac products; abstract. G. W. Ferguson. Chem & Ind p539 My 30 '53

Analysis

Acid numbers of shellac. D. E. Whyte and others. bibliog Soap & San Chem 29:123+ Jl '53

SHELLS (metal work)
Endless coil spring activates stripper fingers. B. Menkin. diags Am Mach 98:213 Ap 12 '54
Experimental investigation into the redrawing of cylindrical shells. S. Y. Chung and H. W. Swift. bibliog diags Inst Mech Eng Proc (B) 1B no 10:437-47 '52-53; Abstract. Metal Prog 63:216+ My '53; Discussion. Inst Mech Eng Proc (B) 1B no 10:454-64 '52-53
Graphical determination of blank diameters for drawn cylindrical shells. diags Tool Eng 32:90 F '54
Know the wrinkles about spherical shells. S. R. Cope. diags Am Mach 98:148-52 F 15 '54
Make offsets in dies or on lathes. S. R. Cope. diags Am Mach 98:134-6 Ag 2 '54
Methods of bulging shells. S. R. Cope. diags Am Mach 98:122-5 Ag 16; 109-12 Ag 30 '54
Necked shells require careful reduction. S. R. Cope. diags Am Mach 98:130-2 Jl 19 '54
Observes six rules when making tapered shells. S. R. Cope. diags Am Mach 98:114-16 Ap 26; 168-71 My 10 '54
Reverse drawing gives you greater reductions. S. R. Cope. diags Am Mach 98:134-6 Mr 15 '54
Three shell jobs typify ironing operations. S. R. Cope. diags Am Mach 98:126-8 Jl 5 '54
When you redraw shells observe certain rules. S. R. Cope. diags Am Mach 97:120-3 O 26 '53
Wide-flanged shells draw easily if you follow the rules. S. R. Cope. diags Am Mach 98:100-3 Ja 4 '54
You can draw rectangular shells by following certain rules. S. R. Cope. diags Am Mach 97:156-9 D 7 '53

SHELLS (projectiles)
Shells output sags at the knees. K. W. Bennett. il Iron Age 172:56 N 26 '53

Manufacture

Accuracy is essential in casting 280 mm artillery shell; Riverside crankshaft division of Auto specialties mfg. co. R. H. Herrmann. il Foundry 82:96-9+ Jl '54
Ball-bearing locks on fixture aid turning of ordnance shells. D. G. Nolle. diag Am Mach 98:152 My 24 '54
Cam feed speeds undercutting on 75-mm shell. S. F. Pasternak. il Am Mach 98:110-11 Ap 26 '54
Cold extrusion saves metal, time; Oliver corp. il Steel 133:124 N 2 '53
Five-step cold extrusion line forms 60-mm mortar shells; Oliver corp. E. Olsen. il Iron Age 172:147-50 N 19 '53
Improved forging methods save steel, raise shell output; Oliver corp. South Bend works. W. G. Patton. il diags Iron Age 173:145-8 Ap 8 '54
Shells; old method, new twist pay off; Rheem mfg. co. T. M. Rohan. Iron Age 172:36-7 Jl 30 '53
Snyder special machine for processing shell casings. il Mach 60:211 Ag '54
Spin-caster for shells; centrifugal-casting machines at Watertown arsenal. il Steel 133:144 Jl 13 '53

SHELLS (projectiles)—*Continued*

Testing

Shell gage draws graph of fault. il Electronics 27:196 Ja '54

SHELTERS

Shelters provide portable protection. il Eng N 151:120 N 5 '53

SHELTERS, Military

Place to hide; diffusion board offers family protection to known chemical and biological warfare agents; abstract. W. M. Creasy. il Chem & Eng N 32:2202 My 31 '54

SHERATON corporation of America

Earnings fall off. Comm & Fin Chr 178:572-3 Ag 17 '53

SHERMAN, Leo P. 1888-

Sixth annual Iowa award. pors Chem & Eng N 31:4798-9, cover N 16 '53

SHERRILL, Richard Ellis, 1899-1952

Sketch. C. R. Fettke. bibliog por Am Assn Pet Geologists Bul 37:1534-7 Je '53

SHERWIN-WILLIAMS company

Five stocks with exceptionally high earnings; with comparative balance sheet items. Mag of Wall St 93:324 D 12 '53

SHERWOOD, Francis Webber, 1890-

Two southern gentlemen honored. por(cover) Chem & Eng N 31:5212 D 14 '53

SHIKIMIC acid

Aromatic biosynthesis; the isolation of a precursor of shikimic acid. I. I. Salamon and B. D. Davis. bibliog Am Chem Soc J 75:5567-71 N 20 '53

SHINGLES

Ornamental shingle with gap and leak sealing cleat. E. E. Zideck. diags Sheet Metal Worker 45:72 F '54

SHINGLES, Asphalt

How to get random spacing of asphalt shingle tabs. diag Am Bld 75:220 Jl '53

SHIP foundries. See Foundries, Ship

SHIP models

See also

Ships—Model testing

SHIP moving picture theaters. See Moving picture theaters, Ship

SHIP propellers. See Propellers

SHIP propulsion

Army equips new towboat with sinusoidal propulsion. il Marine Eng 59:36-9 F '54

High temperature turbine machinery for marine propulsion. T. W. F. Brown. il diags Engineer 197:122-7, 158-61, 194-6 Ja 22-F 5 '54

How economical is nuclear power for ships? abstracts of papers by F. E. Crever and K. Trocki; R. L. Witzke and S. A. Haverstick. diag Marine Eng 59:39-40 Mr '54

See also

Boilers, Marine
Diesel engines, Marine
Gas turbines, Marine
Motor ships
Propellers
Steam turbines, Marine
Steamboats

SHIP propulsion, Electric

Auxiliary electric drives for ships. A. M. Bruning. il diag Marine Eng 59:62-8 Je; 61-5 Jl '54

Electrical features of a modern whale catching vessel; abstract. F. Brook. Elec J 152:371-2 Ja 29 '54

How to keep 'em sailing; keeping auxiliary a-c motors running. N. C. Pappas. il diag Marine Eng 58:80-7 N '53

Main propulsion gas turbine set for the oil tanker Auris. B. E. G. Forsling. diags Engineer 196:733-5; Discussion. 740-2 D 4 '53

Turbo-electric oil tanker Helix. il Engineering 176:620-1 N 13 '53

SHIP subsidies

Keeping the flag afloat. Bsns W p 194+ O 3 '53

SHIP yards. See Shipyards

SHIPBUILDING

American bureau of shipping on record volume of new construction. W. L. Green. East Underw 54:24+ Ag 7; 25 Ag 14 '53

Lake shipbuilders tackle new jobs. il Steel 134:70 Je 14 '54

Lofting method saves time and materials; Ampower Lumotrace system. il diag Iron Age 172:148-9 Jl 9 '53

Marked drop in new ship contracts after record building year in 1953. W. L. Green. East Underw 55:25+ Ag 6 '54; Excerpt. Weekly Underw 171:285+ Ag 7 '54

Optical marking-off system for plates and sections in shipbuilding. J. H. Krietemeijer. il plan Engineering 176:570-2 O 30 '53; Abstract and discussion. Engineer 196:423-4 O 2 '53

Optical marking system; Ampower Lumotrace system. il diag Mech Eng 75:816-17 O '53

Pacific Far East line moves ahead. il Marine Eng 58:88-9 N '53

Ship construction and repair news. Published in monthly numbers of Marine engineering

Shipbuilding industry faces glum year. A. K. Rannells. Iron Age 172:41 D 31 '53

Society of naval architects and marine engineers 61st annual meeting, New York, Nov. 11-14; with abstracts of papers. Marine Eng 59:46-56 Ja; 72-7 F '54

Various actions taken at semi-annual meeting of American bureau of shipping; shipbuilding trends. W. L. Green. Weekly Underw 169:318-19+ Ag 8 '53

See also

Barges
Dry docks
Freight ships
Motor ships
Naval architecture
Propellers
Ships
Ships—Reconstruction
Ships, Wooden
Shipyards
Steamboats
Tank ships
Towboats
Warships

Labor conditions

See Shipyards—Employees

Materials

Aluminum alloys on royal yacht Britannia. Metallurgia 49:282 Je '54

Foam plastic as void filler. il Chem & Eng N 32:1472+ Ap 12 '54

Laboratory evaluation of materials for marine propulsion gears. M. R. Gross. bibliog il diags Am Soc T M Proc 51:701-16; Discussion. 716-20 '51

Metals and marine engineering; Institute of metals presidential address. S. F. Dorey. Metallurgia 49:235-40 My '54

Non-magnetic gear beats red mines. il Iron Age 172:29 D 24 '53

Performance of aluminium in ships. D. C. G. Lees. bibliog il diags Chem & Ind p949-55 Jl 31 '54; Discussion. p628-9 My 29 '54

Reinforced plastics, a structural material for marine applications; abstract. J. E. Alfers and W. R. Graner. Marine Eng 59:35-6 Jl '54

Use of aluminum alloys in ship construction; abstract and discussion. C. V. Boykin and M. L. Sellers. Marine Eng 59:52-3 Ja '54

Safety measures

See Shipyards—Safety measures

Statistics

Decline in ship building reported by Council, year ended July 1. Weekly Underw 169:605 S 12 '53

Lloyd's Register shipbuilding returns; quarter ended Sept. 30. Engineering 176:562-3 O 30 '53

Merchant ship construction, 1946-1952; uncompleted merchant vessels, Jan. 1, 1953; naval shipbuilding; tabulations. Steel 134:187 Ja 4 '54

Merchant ship production; Beth-Sparrows Point led world in 1953 with 218,860 d.w.t. il Marine Eng 59:54-7 Ap '54

Mild recession in world ship construction reported by Lloyd's for last quarter; three months ended Sept. 30. Weekly Underw 169:1102 N 7 '53

Monthly shipbuilding report. Published in monthly numbers of Marine engineering

Shipbuilding continues to decline in U.S.A.; first quarter, 1954. Weekly Underw 170:1399 Je 5 '54

Shipbuilding of world continues to decline Lloyd's Register reports; U.S. yards slow. Weekly Underw 171:348 Ag 14 '54

Shipbuilding production in 1953 sets peacetime record; with tabulations. il Marine Eng 59:40-57 F '54

SHIPBUILDING—Statistics—*Continued*

Trend towards construction of larger vessels noted in report of Lloyd's Register; second quarter of 1953. Weekly Underw 169:265 Ag 1 '53

World's shipbuilding. Engineering 177:190 F 5 '54

World's total volume of shipping placed at 6,167,002 tons by Lloyd's Register, as of March 31, 1954. Weekly Underw 170:1220 My 15 '54

Welding operations

Aspects of welding research in British merchant shipbuilding. R. B. Shepheard. bibliog(47 titles) il diags Welding J 33:23-40 Ja '54; Abstracts. Engineering 176:639 N 13 '53; Metal Prog 66:180+ S '54

Brittle strength and transition temperature of structural steel. W. C. Hoeltje and N. M. Newmark. bibliog diags Welding J 31: sup515-21 N '52; Discussion. 33:sup 129-33 Mr '54

Defends welding processes; impractical tests handicap welding. J. F. Lincoln. il Marine Eng 59:73 Je '54

Nondestructive test methods for inspection of welded joints in ship structures. R. J. Krieger and others. Welding J 33:sup 154-60 Mr '54

Prefabricating 710-ft Lakes' giant with automatic welding. T. L. Dempsey. il Marine Eng 59:46-7 S '54

Tell-tale damage reveals significance of welded ship construction. T. D. Beery and L. Grover. il Welding J 33:234-6 Mr '54

X-raying ships' hulls made easy with new equipment. il Marine Eng 58:69-70 D '53

Great Britain

Engineering outlook; shipbuilding and marine engineering. Engineering 177:298-301 Mr 5 '54

New enterprise in shipbuilding. Economist 169:771 D 5 '53

Shipbuilding and marine engineering in 1953. il Engineer 197:13-16, pl 6, 56-9, pl 2, 89-92, 141-4 Ja 1-22 '54

Slump in ship orders. Economist 169:268+ O 24 '53

Sweden

Swedish shipyards report record production in 1953. Weekly Underw 170:1402 Je 5 '54

United States

ABS classification of new ships shows decline. Marine Eng 59:53-4 Mr '54

Building 60 ships annually urged; reappraisal of maritime policies and future needs. R. B. Murray, jr. il Marine Eng 59:38-43 Je '54

Recent launchings around the United States. il Marine Eng 59:54-5 Ag '54

Shipbuilding prospects pictured as discouraging. L. R. Sanford. Weekly Underw 170: 134 Ja 9 '54

Ships; builders man battle stations. G. G. Carr. Iron Age 172:66-7 S 3 '53

U.S. ship construction continues to decline. Weekly Underw 169:424 Ag 22 '53

Washington answering shipbuilders' SOS. il Steel 134:72 F 8 '54

SHIPMENT of goods

Beating the high cost of shipping. Management R 43:517-19 Ag '54

Current problems in shipping natural rubber. M. W. Allen. il Rubber Age 74:383-94 D '53

For easy shipping; pallet package. H. R. Black. il Safety Maint & Prod 107:18-20+ Ja '54

Problem for pharmaceuticals; transportation factor of costs. G. H. Cunningham. Chem & Eng N 32:970 Mr 8 '54

Traffic lights for bigger sales. il Chem W 75: 62+ Ag 21 '54

See also

Air freight service
Chemicals—Transportation
Containers (for shipping)
Crates
Freight car service
Freight handling
Loading and unloading—Cars
Motor trucks in freight service
Packing for shipment
Railroads—Claims
Railroads—Rates
Transportation

SHIPPING

Mobilization of shipping for war. G. S. Staring. il U S Naval Inst Proc 79:494-503 My '53

Transportation in the balance of payments. J. E. Smith. Survey of Cur Bsns 33:20-4 S '53

See also

Barges
Free ports and zones
Freight handling
Insurance, Marine
Merchant marine
Ore ships
Ports
Shipbuilding
Shipment of goods
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Steamboat lines
Train ferries
Transportation
Waterways

Claims

See also

Insurance, Marine—Adjustment of claims

Law

See Maritime law

Rates

Cost of tanker transportation, USMC rates; tables. W. L. Nelson. Oil & Gas J 52: 113-14+ S 7 '53

Differential between contract and noncontract rates upheld bv FMB. For Comm W 51:17 Ja 18 '54

Too many tankers? Economist 168:401-3 Ag 8 '53

Water transport rates on chemicals. F. C. Tighe. il Chem & Eng N 31:4916-20 N 23 '53

Germany

German shipping; despite loss of the hinterland Hamburg comes back. F. Morley. Barron's 33:6-7 O 19 '53

Great Lakes

Great Lakes commerce treaty asked in Senate. Weekly Underw 170:184 Ja 16 '54

Iron ore; see record year on Lakes. R. M. Lorz. Iron Age 172:58 S 3 '53

Iron ore shippers face easy season. il Steel 135:46 Jl 26 '54

Lake carriers ready for easy season. il Steel 134:61-2 Mr 15 '54

Lakes ore shippers trim sales. R. M. Lorz. il Iron Age 173:78 Mr 25 '54

More ore, more slowups; iron ore shipments on the Great Lakes. il Bsns W p96-8 S 19 '53

Ore; Lakes season opens as carriers discuss seaway progress. Iron Age 173:127-8 Ap 22 '54

Ore; Lakes shipments slow to walk. R. M. Lorz. Iron Age 174:59 Jl 8 '54

St Lawrence seaway; how it will affect Lakes and coastal ports. il map diag Marine Eng 59:42-6+ Ag '54

Socony's new Great Lakes oil tanker designed with eye toward versatility. D. J. Warren. il Nat Pet N 45:58 Ag 12 '53

Unionizing the Great Lakes. il Bsns W p 179-80 N 21 '53

Up and down the Great Lakes. Published in monthly numbers of Marine engineering

See also

Iron ores—Transportation
St Lawrence waterway and power project

Southern states

Port activity. il Manuf Rec 122:41-4 S; 42-5 O; 66-9 N; 40-3 D '53; 123:48-51 Ja; 40-3 F; 38-40 Mr; 38-41 Ap; 45-8 My; 36-9 Je; 38-41 Jl; 38-41 Ag; 38-41 S '54

United States

Clearances, vessels in foreign trade, U.S. ports, 1949-1952. Survey of Cur Bsns 1953 Sup p 118 [supplemented in monthly numbers]

Inland waterways record set in 1953. Marine Eng 59:40 Mr '54

St Lawrence seaway; how it will affect Lakes and coastal ports. il map diag Marine Eng 59:42-6+ Ag '54

See also

Merchant marine—United States

SHIPPING containers. See Containers (for shipping)

SHIPS

Building ships to sail, or sink. il Bsns W p34 Ag 15 '53

Cathodic protection of ships and marine structures. K. A. Spencer. bibliog diags Chem & Ind p702-8 Je 19 '54

Contracts signed for first sale of Mariner ships by U.S. government. For Comm W 50:24 S 7 '53

Controlling electrolytic corrosion with energized anodes; abstract and discussion. H. F. Harvey, jr. and O. J. Streever. Marine Eng 59:54-6 Ja '54

Protective coatings for ships and marine installations. J. C. Hudson. bibliog il diags Chem & Ind p640-51 Je 5 '54; Abstract. Paint Oil & Chem R 117:22 Ag 12 '54

Ship bottoms get cathodic protection at less cost. Iron Age 173:180 Mr 4 '54

What are the three basic types of ships? J. H. La Dage. il plan Marine Eng 59:61-2 Ap '54

See also

Barges
Dredges
Excursion boats
Ferryboats
Fireboats
Fishing boats
Freight ships
Loading and unloading—Ships
Merchant marine
Motor ships
Naval architecture
Ore ships
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Shipbuilding
Shipping
Shipyards
Steamboats
Submarine boats
Tank ships
Towboats
Train ferries
Warships
Whaling vessels

Air conditioning

Air conditioning aboard ships. F. B. Kinley and J. Scott. diags Heat & Ven 51:88-92 My '54

Corrosion damage cut; new air conditioning system protects ship cargoes. Steel 133:71 Jl 20 '53

Anchorage

See Anchorage

Cleaning

Cleaners for an ocean queen. L. Rosen. il Soap & San Chem 29:46-9+ Mr '53

Collisions

See Collisions at sea

Communication

See also

Radio telephone on ships

Electric equipment

Auxiliary electric drives for ships. A. M. Bruning. il diags Marine Eng 59:62-8 Je; 61-5 Jl; 56-62 Ag; 64-8 S; 68-73+ O '54

Electrical features of a modern whale catching vessel; abstract. F. Brook. Elec J 152:371-2 Ja 29 '54

New line of compact and rugged motors developed; Tri-Clad 55. il Marine Eng 58:96 D '53

Research and engineering progress, 1953; marine. Gen Elec R 57:42 Ja '54

Shipboard voltage regulators. S. A. Haverstick. il diags Marine Eng 59:48-51 Mr; 67-70 Ap '54

See also

Ship propulsion, Electric
Winches, Electric

Equipment

Corrosion of machinery in H.M. ships. L. Kenworthy. bibliog il J Ap Chem 4:97-106 Mr '54

Greek line steamship Olympia. il plan Engineer 196:726-8, 770-2 D 4-11 '53

How to keep 'em sailing. R. O. Butcher and others. il diags Marine Eng 58:43-8 Jl; 79-83 Ag; 78-84 S; 70-5 O; 80-7 N; 81-5 D '53; 59:59-66 Ja '54

Marine reversing gear. il Engineer 196:678 N 20 '53

More uses for plastic materials; fitting-out of boats. il Chem Age (Lond) 69:327 Ag 15 '53

Motor ships for the Clyde. G. W. Tripp. il Engineer 197:200-1 F 5 '54

MV Kungsholm, world's newest liner. il Marine Eng 59:42-4 Ja '54

New York city gets new fire fighter. il plans Marine Eng 59:54-8 S '54

P. and O. liner Arcadia. il plan diags Engineer 197:279-80, 321-3, 345-6, 380-1 F 19-Mr 12 '54

Reversing reduction epicyclic gears for marine use. il diags Engineer 197:183-4 Ja 29 '54; Engineering 177:185 F 5 '54

Richard M. Marshall; ore carrier design pays off in efficiency and economy. H. C. Downer. il plans diags Marine Eng 59:44-60 Je '54

690-foot Ernest T. Weir largest Lakes-built ore carrier. il plans diags Marine Eng 59:36-46 Ap '54

Sun Ship delivers tanker Eclipse. il Marine Eng 59:36-46 My '54

Turbo-electric oil tanker Helix. il Engineering 176:619-21 N 13 '53

Versatile Marine Dow-Chem. il plans diags Marine Eng 59:38-45 S '54

White's oily-water separator. diag Engineering 177:150 Ja 29 '54

Wire rope needs proper lubricants. C. M. Larson. il Marine Eng 58:79-80 D '53

See also

Boilers, Marine
Radio apparatus on ships
Refrigeration on ships

Failure

Initiation and propagation of brittle fracture in structural steels. P. P. Puzak and others. bibliog il diags Welding J 31:sup 561-81 D '52; Discussion. B. Persson. 33: sup 166; Reply. sup 167 Ap '54

Investigation of structural failures of welded ships. M. L. Williams and G. A. Ellinger. bibliog(26 titles) il Welding J 32:sup498-527 O '53; Abstract. Metal Prog 66:supA 156+ Jl 15 '54

Welding research in British merchant shipbuilding. R. B. Shepheard. Engineering 176:639 N 13 '53

Fires and fire protection

Causes of fires on board ships. H. Jackson. East Underw 54:90-2 D 11 '53

How the SS United States fire alarm system works. R. W. Frost and N. E. Carlson. il diags Marine Eng 59:69-71 Ja '54

Tiny gas turbine engine supplies power to drive portable shipboard fire pump. il Chem & Eng N 31:3408 Ag 17 '53

Fouling

See also

Paint, Antifouling

Landing

Poor man's tugboat. R. J. Woodaman. il diags U S Naval Inst Proc 79:514-21 My '53

Measurement

See also

Tonnage

Model testing

Present-day development of ship model research in the Netherlands ship model basin at Wageningen; abstracts and discussion. W. P. A. van Lammeren. Engineer 196:402-3 S 25 '53; Engineering 176:403-4 S 25 '53

Painting

Ventilation for ship construction and repair; spray painting. G. S. Reichenbach, jr. il Heat & Ven 51:63-6, cover Ja '54

See also

Paint, Antifouling

Radio equipment

See Radio apparatus on ships

Reconstruction

Convert World war II C4's to combination bulk ore-oil vessels. R. L. Gray and M. Banister. il plans Marine Eng 59:34-40 Ag '54

Keystone tanker is rebuilt by Todd. il Marine Eng 59:38-44 Jl '54

Liberty as floating utility ship. W. M. Rice. il diag Marine Eng 59:63+ My '54

SHIPS—Reconstruction—*Continued*

Method proposed for 18-knot Libertys. D. C. MacMillan. il plans Marine Eng 58:71-5 D '53

Registration and transfer

Ship battle; U.S. seeks to repossess nearly 75 ships it sold in postwar years. Bsns W p 196+ O 10 '53

Repair

Faster marine maintenance with new workboat, Tower. il Marine Eng 59:69 Mr '54

Good welding reduces collision damage. il Marine Eng 59:76 Ja '54

Ship not constructive total loss if repairs are below insured value; Compania maritima astra, S.A., against P. M. Archdale. East Underw 55:27 Jl 16 '54

See also
Repair ships

Safety measures

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Stability

British royal yacht has stabilizing gear. il Marine Eng 59:69 Je '54

Motions of ships in confused seas; abstract and discussion. M. St Denis and W. J. Pierson, jr. Marine Eng 59:50-2 Ja '54

Photography used to record results of inclining experiment. E. F. Kaufman. il Marine Eng 59:50 S '54

R.M.S. Andes. il Engineer 196:500-1 O 16 '53

Stability factors in safe ship design; abstract. R. Tate. Marine Eng 59:72 Je '54

What does freeboard mean to you? J. H. La Dage. il Marine Eng 59:51-2 S '54

Strains and stresses

Stresses in a tanker during launching. A. J. Johnson and M. Meek. Engineering 177:238 F 19 '54

Testing

Capacitance displacement gauge. W. M. Todd. il diags J Sci Instr 31:246-7 Jl '54

Investigation of ships' hull and machinery defects; abstracts and discussion. T. W. Bunyan. Engineer 196:456-7 O 9 '53; Engineering 176:628-9 N 13 '53

See also
Ships—Model testing

Vibration

New instruments measure ship vibrations. P. Letica. il Marine Eng 58:78-9 N '53

Water supply

See Water supply for ships

SHIPS, Concrete

Concrete ship resists sea water 34 years. C. Willson. il Concrete 62:5-8+ Ja '54

Selma story; abstract. R. B. Rogers. Am Concrete Inst J 25:sup 14+ D '53

SHIPS, Wooden

Luders yard delivers laminated-wood minesweeper. il Marine Eng 59:45 Ja '54

Timber in engineering; report of the Forest products research board with the report of the Director of forest products research for the year 1952. Engineering 176:337 S 11 '53

SHIPWRECKS

British report on Victoria loss. East Underw 54:26 Jl 31 '53

Judgment on the Princess Victoria. Economist 169:774+ D 5 '53

Princess Victoria report. Economist 168:45-6 Jl 4 '53

See also
Collisions at sea
Salvage

SHIPYARDS

Merchant ship production; Beth-Sparrows Point led world in 1953 with 218,860 d.w.t. il Marine Eng 59:54-7 Ap '54

Shipyards bail out with diversification. il Steel 135:51-2 Jl 19 '54

See also
Shipbuilding

Employees

Engineering and shipbuilding wages; Minister of labour to examine the facts of the wage disputes. Engineer 197:146 Ja 22 '54

How to figure overtime pay. R. D. Stevens. Marine Eng 59:62-3 Mr '54

Safety measures

It's not long way to safety; Hitachi shipbuilding & engineering co. ltd. H. Kuwabara. il diag Nat Safety N 69:34-5+ Ja '54

Letter from a ship builder. W. H. Reynolds. Nat Safety N 68:50+ N '53

SHIRTING

Educational order trial on 10.5-ounce shrink-resistant wool flannel shirting. L. I. Weiner and F. J. Rizzo. Am Dyestuff Rep 42:125-34 Mr 2 '53

SHIRTS

Shrinkage of cotton broadcloth shirts. M. A. Grimes and C. A. Werman. Mod Textiles Mag 35:48+ Mr '54

When the dealer declares, but I make more money on a private brand! Cluett, Peabody developed and presented a profit story. J. Entis. Sales Management 70:56-8+ My 1 '53

Manufacture

At Oneita's new mill, T-shirts are made on the progressive-building system. J. H. Blore. il plan Textile World 104:90-2+ Ja '54

SHOCK absorbers

Double rate shock absorbers. il diags Engineer 196:636-7 N 13 '53

New jobs for stainless; shock absorbers for electronic equipment. il Steel 134:119 Mr 1 '54

Vibration and shock isolators; how to select and apply mountings for control of vibration, noise, shock. C. E. Crede. il diags Machine Design 26:139-58 Ag '54

SHOCK tube

Attenuation in the shock tube. R. J. Emrich and C. W. Curtis. bibliog il diags J Ap Phys 24:360-3 Mr '53

Boundary disturbances in high-explosive shock tubes. R. G. Shreffler and R. H. Christian. bibliog il diag J Ap Phys 25:324-31 Mr '54

Double-diaphragm shock tube to produce transient high Mach number flows. H. Bernstein. J Aeronautical Sci 20:790-1 N '53

Ring-shaped piezoelectric gauge for shock tube. R. A. Shunk and others. diag R Sci Instr 24:1069-70 N '53

SHOCK waves

Airflow about cone-cylinders with curved shock waves. V. E. Bergdolt. bibliog il J Aeronautical Sci 20:751-6 N '53

Application of impulse rendering to the animal-fat industry. I. H. Chayen and D. R. Ashworth. flow diag il J Ap Chem 3:529-37 D '53

Asymptotic forms of shock waves in flows over symmetrical bodies at Mach one. D. T. Barish and G. Guderley. diags J Aeronautical Sci 20:491-9 Jl '53

Chemical reactions in strong shock waves. E. F. Greene. bibliog il diags Am Chem Soc J 76:2127-31 Ap 20 '54

Cylindrical shock waves produced by instantaneous energy release. S. C. Lin. J Ap Phys 25:54-7 Ja '54

Free surface motion induced by shock waves in steel. W. A. Allen. bibliog il diag J Ap Phys 24:1180-5 S '53

Geometrical acoustics; theory of weak shock waves. J. B. Keller. diags J Ap Phys 25:938-47 Ag '54

Interaction of a plane flame front with a plane sinusoidal shear wave. G. H. Markstein. bibliog diag J Aeronautical Sci 20:581-2 Ag '53

Interaction of two plane shocks facing in the same direction. O. Laporte and E. B. Turner. il J Ap Phys 25:678 My '54

Interactions between wholly laminar or wholly turbulent boundary layers and shock waves strong enough to cause separation. G. E. Gadd. bibliog diags J Aeronautical Sci 20:729-39 N '53

Mach reflexion of shocks at arbitrary incidence. H. F. Ludloff and M. B. Friedman. diag J Ap Phys 24:1247-8 S '53

Method for generating strong shock waves. A. Hertzberg and W. E. Smith. J Ap Phys 25:130-1 Ja '54

Multiple shock reflection in corners. J. B. Keller. diags J Ap Phys 25:588-90 My '54

Nonexistence of four confluent shock waves. J. L. Davis. J Aeronautical Sci 20:501-2 Jl '53

SHOCK waves—*Continued*

Non-Maxwellian distribution in a shock front and the anomaly of the chromospheric temperature. H. K. Sen. bibliog Phys R 92:861-6 N 15 '53

Normal reflection of shock waves from moving boundaries. R. A. Alpher and R. J. Rubin. bibliog J Ap Phys 25:395-9 Mr '54

Observation of shock formation and growth. A. B. Laponsky and R. J. Emrich. bibliog diags J Ap Phys 24:1383-8 N '53

Pressure rise required for separation in interaction between turbulent boundary layer and shock wave. R. D. Tyler and A. H. Shapiro. bibliog diags J Aeronautical Sci 20:858-60 D '53

Reflection of shock waves from a blunt wedge. V. H. Blackman and D. K. Weimer. bibliog il Phys R 94:508-10 My 1 '54

Shock propagation in brass. H. Becker. J Ap Phys 25:1066-7 Ag '54

Velocity attenuation of explosive-produced air shocks. J. Savitt and R. H. F. Stresau. diags J Ap Phys 25:89-91 Ja '54; Correction. 25:1208 S '54

SHOE factories

Electric equipment

Shoe manufacture; J. Sears & co.'s True-Form shoe factory. il Elec R (Lond) 154:77-9 Ja 8 '54

Employees

Nunn-Bush 52 pay check plan. W. E. McCauley. il Mill & Factory 54:110-14 Ja '54

Wage chronology; International shoe co. Mo Labor R 76:402-3 Ap '53

Heating and ventilation

17 heat pumps provide all-electric year-round comfort; Virginia shoe co. plan Factory Management 112:136-7 S '54

SHOE industry and trade

Less worktime needed to buy shoes in U.S. For Comm W 51:15 Ja 11 '54

World expands output of leather footwear. For Comm W 50:16 N 23 '53

Advertising

Don't desert an advertising theme if it tells your best story best; Regal shoe co. J. A. Holmes. il Ptr Ink 245:42-3 O 23 '53

Finance

Shoe cutback. R. B. Cole. Barron's 33:9-10 N 23 '53

Statistics

Shoes and slippers, 1949-1952. Survey of Cur Bsns 1953 Sup p 151 [supplemented in monthly numbers]

Canada

Walking on chemicals; synthetic soles. Can Chem Process 37:14+ N '53

Great Britain

Bigger business in shoes. Economist 169:129-30 O 10 '53

More or fancier shoes? Economist 168:728 S 12 '53

SHOE polish

Shoe cream manufacture. H. Hollander. Soap & San Chem 30:85+ F '54

SHOE stores

Four-level shoe store in Havana. il plan Arch Forum 98:137 Ja '53

Princess slipper shop; Jackson, Miss. il plan Arch Rec 113:163-4 My '53

SHOES

Steel's in step; shanks in the instep of shoes. diag Steel 134:97 Ap 19 '54

Manufacture

Shoe manufacture; J. Sears & co.'s True-Form shoe factory. il Elec R (Lond) 154:77-9 Ja 8 '54

See also
Shoe factories

SHOES, Rubber, plastic, etc.

Rubber footwear manufacturers call for retention of tariff. Rubber Age 74:586 Ja '54

See also
Soles, Rubber

SHOES, Safety

Foot protection. il Nat Safety N 69:129+ Mr '54

Four point shoe program. H. H. Kaufman. il Safety Maint & Prod 107:13+ F '54

Which safety shoe is yours? il Safety Maint & Prod 106:16-17 D '53

SHOOTING ranges

Field's decoys gun-happy customers; practice shooting preserve for hunters. il Bsns W p58-60+ S 5 '53

SHOP management

See also
Job work
Machine shop management

SHOPLIFTING

Shoplifting war; West Coast grocers join to fight pilferage. il Bsns W p 104+ Ag 15 '53

SHOPPING areas

Downtown isn't dead by a long shot; downtown and suburban shopping study of Greater Boston. Bsns W p41-2+ O 24 '53

SHOPPING centers

Air-conditioned streets; Brussels shopping center. il Arch Forum 99:172 Jl '53

Air-conditioned streets; covered shopping centers feature bold new trend to central cooling. il diag Arch Forum 98:160-1 Mr '53

Analysis of shopping centers. R. H. Pease. House & Home 3:156+ Ap '53

Basic elements in the planning of electrical systems; stores, with emphasis on shopping centers. F. B. Graham. il plan Arch Rec 115:201-5 My '54

Boston's Back Bay Center. il plans diags Arch Rec 114:142a-142d O '53

Cavity in Boston to be filled with six ideas; Back Bay center. il maps plans diags Arch Forum 99:103-15 N '53

Downtown dilemma; survey of metropolitan Boston's shopping habits. J. P. Alevizos and A. E. Beckwith. map Harvard Bsns R 32:109-19 Ja '54

Economics in air conditioning for shopping centers. F. A. Welch. il diags Arch Rec 114:202-5 O '53

For an established suburb; shopping center in a closed-in area; LaGrange Park's Homestead garden apartments. il plan House & Home 2:94-5 D '52

How many are enough. il Arch Forum 101:41-3 Ag '54

How to plan successful shopping centers. Arch Forum 100:144-7 Mr '54

Lighting a shopping center parking area; data sheet. H. W. Grosh. il diag Illum Eng 49:125-6 Mr '54

New thinking on shopping centers. il maps plans diags Arch Forum 98:122-45 Mr '53

Northland; a new yardstick for shopping center planning. il maps diags Arch Forum 100:102-23+ Je '54

Planning the shopping center for heating, air conditioning and other considerations. R. J. Abramson. il Heating-Piping 26:98-100 Ap '54 (to be cont)

Planning to include a shopping center? il plans Am Bld 76:102-3 Jl '54

Rivals side by side; shopping centers, R. H. Macy & co., Allied stores. Bsns W p 114-15 Ag 15 '53

Shoppers' World, Nation's pioneer regional shopping center, files bankruptcy petition. il Arch Forum 100:37+ F '54; Same. House & Home 5:49 F '54

Shopping center has 7,500 car spaces. il plan Eng N 151:43-4 D 17 '53

Shopping center installs heat pumps. il Heat & Ven 51:124 Ag '54

Shopping centers; building types study. il maps plans Arch Rec 114:178-201 O '53

Shopping strip for a neighborhood; Freedom shopping center, Baltimore. il plan House & Home 3:148-9 Ap '53

Sound shopping centers are planned! P. Hanna. il Bankers Mo 70:14+ O '53

Success in six weeks; how a shopping center for an upper-income market attracts unexpected business. il plan House & Home 4:120-1 Jl '53

SHOPPING habits. See Buying habits

SHOPS

See also

Airlines—Shops
Car shops
Locomotive shops
Machine shops
Motor bus lines—Shops
Plumbing shops
Railroads—Shops
Sheet metal shops

SHOPS, School. See School shops

SHORAN. See Radar

SHORE protection

Civil engineering in 1953. il diags Engineer 197:2-4, pl 8 Ja 1 '54

East Coast sea defence works. il maps diags Engineer 196:742-6, 758-61, 794-6 D 4-18 '53

See also

Breakwaters
Levees

SHORING and underpinning

Metal bin wall shores spur track. il Constr Methods 36:154 Ag '54

Modern concrete shoring; using quickly assembled steel scaffolding. A. C. Borgman. il Constr Methods 36:86-8 S '54

Shoring frame aids bridge underpinning. il Eng N 151:28 N 19 '53

Subway builder underpins theater floors on ground. il diags Eng N 151:37-8+ D 17 '53

Underpinning problems and methods in connection with the subway. C. B. Molineaux. il Roads & Eng Constr 91:100+ D '53

SHORT circuits

How to prevent short-circuit current damage. W. R. Crites. il diag Mill & Factory 55:79-83 Jl '54

Short-circuit protection. R. L. Marrs. diags Elec R (Lond) 153:1430-1 D 25 '53

Switch accurately controls short circuit testing. D. D. McStack. il diags Elec World 140:118+ O 5 '53

SHORT selling. See Stocks—Short selling

SHOT blasting

Abrasive shot cuts sheet, strip cleaning costs. G. D. Dill. il diag Iron Age 172:91-3 O 29 '53

Cleaning cast steel armor; Cast armor division of American steel foundries. E. F. Ross. il Foundry 81:178+ Ag '53; Same. Steel 133:106-7 Jl 27 '53

SHOT effect. See Schottky effect

SHOT peening

Effect of shot-peening variables and residual stresses on fatigue life. R. L. Mattson and W. S. Coleman, jr. il Metal Prog 65:108-12 My '54

GM shotblasting research; abstracts. R. L. Mattson and W. S. Coleman, jr. Diesel Power 31:77-8 N '53; il S A E J 62:24-6 Ag '54

Shot peening and other surface working processes; supplement to 1948 edition of Metals handbook. bibliog il diags Metal Prog 66:104-8 Jl 15 '54

Shot peening applications and techniques in the aircraft industry. H. J. Noble. il S A E J 62:44-6 Je '54

Shot peening gears. J. C. Straub. Tool Eng 31:143-4 N '53

Shotblasting; costs of method used to increase fatigue life can be reduced. Iron Age 172:140-1 O 22 '53

SHOULDER

Keeping the patient with a shoulder syndrome employable. O. Steinbrocker. Ind Med 22:314-16 Jl '53

SHOVELING machines

Biggest Bay City crawler; popular design with extras. il Constr Methods 35:123+ N '53

Box-bucket shovel ups paver output ten per cent. il Constr Methods 35:62-4+ D '53

Caterpillar no. 6 tractor-shovel. il Constr Methods 36:105-6+ F '54

Drott four-in-one multiplies shovel utility. I. F. Angstadt. il Constr Methods 36:95-6+ Ag '54

Eimco rocker shovel built on integral crawlers. H. W. Richardson. il Constr Methods 35:138+ N '53

Eimco's 105, a big gun in shoveling-loaders. il diag Eng N 151:108+ N 12 '53

Link-Belt Speeder introduces new one-yard shovel with power hydraulic controls. D. W. Lehti. il Roads & Eng Constr 92:74+ Ap '54

Marion now building world's largest crawler shovel. diag Roads & Eng Constr 92:74 My '54

New line of Clark tractor shovels. il Ry Age News ed 136:15 Ja 4 '54

New one-yard LS-98 shovel-crane. il Constr Methods 36:130+ Ag '54

New rockershovel reveals many improvements. il Eng & Min J 154:109 D '53

Pile-driver bucket digs hard materials. il Constr Methods 35:65 N '53

Power shovel and loader; RetroLoader. il Engineer 196:785 D 11 '53

Power train of tractor shovel has special transmission with constant mesh gears. il diags Automotive Ind 111:52-4+ S 15 '54

Thew digs into the low-priced field. il Eng N 152:86+ F 4 '54

Tracto-loader digs clay, loads from stock pile, moves in close to dump. il diag Constr Methods 36:149-50+ Ag '54

Tractor-shovel speeds tipple-track cleanup. il Coal Age 58:113 D '53

Trend toward larger shovels in mining and earthmoving; panel discussion; abstracts of papers. L. F. Pett and others. Min Cong J 39:87-9 N '53

See also

Buckets

Manufacture

Hot oil quenching toughens tractor shovel parts; Frank G. Hough co. R. H. Marshall. il plan Iron Age 172:67-71 D 31 '53

SHOW rooms. See Showrooms

SHOW windows

How to get more dealers to use your window displays. L. B. Dunning. il Ptr Ink 243:51-3+ Ap 17 '53

Window shopping for facts at Christmastime, 1953. C. F. Lebowitz. J Retailing 30:33-5+ Spring '54

See also

Plumbing shops—Show windows

Lighting

Show window lighting for day and night display; illustrations with text. Illum Eng 49:278-9 Je '54

SHOWROOMS

Eastern showroom for California maker of swimming suits. il plan Arch Rec 114:154-7 Jl '53

Houston Natural opens Hospitality House. il Gas Age 113:42-3 Mr 25 '54

Lee Hat's idea center; showroom with accent on selling. il Sales Management 71:56+ Jl 1 '53

Modern house for sales; Remington Rand's Los Angeles headquarters. T. J. Norton. il Sales Management 70:65-6+ Ap 1 '53

Self-service showroom. il diags Arch Forum 98:118-19 Mr '53

Suburban selling; Harrington-Wilson-Brown co. sets up a permanent machine tool display. Steel 133:50-1 S 28 '53

Typewriter palazzo in New York. il plan Arch Forum 101:98-103 Ag '54

See also

Automobile sales buildings
Plumbing shops—Showrooms

SHREVE, R. Norris, 1885-

A.C.S. Industrial and engineering chemistry division gives Shreve scroll of honor. por(cover) Chem & Eng N 31:3976 S 28 '53

SHRIMPS, Frozen

Moisture loss in frozen shrimp. M. Klein and others. il Mod Packaging 27:139-42+ Ja '54

SHRINK fits. See Fits (machinery)

SHRINKAGE of ceramic materials

Shrinkage of high-calcium limestones during burning. J. A. Murray and others. Am Cer Soc J 37:323-8 Jl 1 '54

SHRINKAGE of metals

Design of shrink fits. P. R. Paslay and R. Plunkett. diags A S M E Trans 75:1199-202 O '53

Several factors influence linear shrinkage. H. Chappie. il Foundry 82:100-3 Ja '54; Abstracts. Materials & Methods 39:186+ Ap '54; Steel 134:128-9 Ap 12 '54

Vacuum shrinking. il Aero Digest 67:58 D '53

SHRINKAGE of textiles

See also

Textile fabrics—Shrinkage

SHUTDOWNS. See Factories—Shutdowns

SHUTTLES

Nine causes of shuttle wear and how to remedy them. J. M. Tuten. Textile World 104: 58-9 Ag '54

Put new shuttles in right to reduce shuttle wear. W. R. Callaway. il Textile World 104: 58-9 Ag '54

SIAM (Thailand)

Second line in south east Asia. map Economist 170:170-1 Ja 16 '54

See also

Tariff—Siam (Thailand)

Commercial policy

Thai controls eased on wood, hides, livestock. For Comm W 50:7 Ag 31 '53

Thailand outlines procedures under newly instituted import controls. For Comm W 51:6 Ja 25 '54

SICILY

See also

Petroleum industry and trade—Sicily

SICK leave

Sick leave practices. R. M. Hoffman. Personnel J 32:418-20 Ap '54

SICKNESS

Frequency, duration, costs studied for prolonged illness; Research council study. G. Hirschfeld. Spectator 162:81-92 My '54

Industrial sickness absenteeism; rates for specific causes in 1952 for the year and last two quarters. W. M. Gafafer. Pub Health Rep 68:1052-5 N '53

Morbidity experience under personal accident and health. J. C. Horan. East Underw 54: 30 D 25 '53; 55:26 Ja 1; 32+ Ja 8 '54

Progress report ready on prolonged illness. East Underw 55:51 Mr 26 '54

Spot lighting off-the-job ills. Bsns W p 118 Ag 8 '53

See also

Diseases
Insurance, Health
Medical service
Mortality
Public health

SIDEROSIS

X-ray analysis of foundry dusts for quartz and iron in relation to silicosis and siderosis. G. L. Clark and others. bibliog il plan Anal Chem 26:1413-20 S '54

SIDEWALKS

Heating

Electrically heated sidewalk eliminates snow maintenance, increases safety. R. L. Conboy. il Elec World 140:183 O 19 '53

SIDEWALKS, Concrete

How to build concrete sidewalks and driveways. il Am Bld 75:186+ O '53; Excerpt. Pub Works 85:131-2 Ag '54

Use of steel mesh as reinforcement for concrete sidewalks and slabs on ground. M. W. Jackson. Am Concrete Inst J 25:sup 14 Mr '54; Discussion. il 25:sup30+ Je '54

SIDING (building)

Color styling brightens sales in dull market; Ruberoid co's asbestos-cement sidings. M. Beuick. il Ptr Ink 243:40-1 Ap 3 '53

Here's an easy way to apply modern siding materials. il diag Am Bld 76:180-1 Jl '54

How to give cedar siding a new look. il diags Am Bld 75:222 My '53

New twist nail aids application of insulating siding over fiber board or gypsum sheathing. diags Am Bld 75:236+ Mr '53

Plastic siding provides complete home insulation. diag Am Bld 75:278 Je '53

Roofing, sheathing, siding, insulation. il diags Am Bld 75:389+ Ap '53

SIEMENS, Sir Charles William, 1823-1883

Sir William Siemens, a pioneer in electricity and regenerative heating. E. N. Simons. Metallurgia 50:29-31 Jl '54

SIERRA LEONE

See also

Iron ores—Sierra Leone

SIEVES

Continuous sieving; plant for handling liquids or powders at high outputs. il Engineering 177:370-1 Mr 19 '54

Gyratory vibration in sieving. J. Hurst. il Chem Age (Lond) 69:1273-6+ D 19 '53

SIGHT

Effect of color on vision; discussion. S. K. Guth. Illum Eng 48:611-12 D '53

Eye camera shows how to improve inspection techniques; Timken roller bearing co. il diags Factory Management 111:88-9 D '53

Quantum and noise limitations of the visual process. A. Rose. bibliog il Opt Soc Am J 43:715-16 S '53

Symposium on light and vision. bibliog il diag Illum Eng 49:63-102 F '54

This is the age of seeing. R. A. Sherman. bibliog il Nat Safety N 69:20-1+ My '54

What a visual program means. L. F. Johnson. Ind Med 22:102 Mr '53

See also

Blind
Color blindness
Color sense
Eye
Flicker-fusion phenomena
Optics, Physiological
Space perception
Visibility

SIGMA welding. See Electric welding, Arc—Inert gas shielding

SIGN advertising. See Advertising, Outdoor

SIGNALS and signaling

See also

Electric signals
Fire alarms
Light signals
Radio signals
Railroads—Signals
Traffic signals

SIGNS

Another porcelain enamel headache overcome; multi-color, raised-letter, porcelain enameled signs. il Cer Ind 63:64-5 Ag '54

Do not hump card is obsolete. G. C. Randall. il Ry Age News ed 135:16-17 N 23 '53

Novel signs draw prospects to tract. il Am Bld 75:174-5 D '53

See also

Gasoline service stations—Signs
Road signs
Safety signs

SIKORSKY aircraft division of the United aircraft corporation. See United aircraft corporation—Sikorsky aircraft division

SILANE

Analogs of hexaphenylethane; triphenylmethyltriphenylsilane. A. G. Brook, H. Gilman and L. S. Miller. bibliog Am Chem Soc J 75:4759-65 O 5 '53

Analogy between aromatic bromination and the cleavage of trialkylarylsilanes by bromine. R. A. Benkeser and A. Torkelson. Am Chem Soc J 76:1252-3 Mr 5 '54

Carbonyl functional silanes; abstract. R. G. Severson. Chem & Eng N 32:1324 Ap 5 '54

Cleavage of hexaphenyldisilane by sodium and lithium. A. G. Brook and H. Gilman. bibliog Am Chem Soc J 76:278-9 Ja 5 '54

Cyclopentadienylsilane derivatives. K. C. Frisch. Am Chem Soc J 75:6050-1 D 5 '53

Formation of tetraarylsilanes from the reactions of triarylsilylmetallic compounds; reactions with triarylmethanes. A. G. Brook and H. Gilman. bibliog Am Chem Soc J 76:2338-42 My 5 '54

Formation of tetraarylsilanes from the reactions of triarylsilylmetallic compounds; reactions with triarylsilanes. A. G. Brook and H. Gilman. bibliog Am Chem Soc J 76:2333-8 My 5 '54

Friedel-Crafts acylations of phenylsilanes. H. H. Szmant and S. Skendrovich. Am Chem Soc J 76:2282 Ap 20 '54

Intramolecular rearrangement of isopropenyltrimethylsilane. L. H. Sommer and F. J. Evans. bibliog Am Chem Soc J 76:1186-7 F 20 '54

Microwave spectra and molecular structures of $HSiCl_3$, CH_3SiCl_3, and $(CH_3)_3SiCl$. R. C. Mockler and others. bibliog J Chem Phys 21:1710-13 O '53

Molecular structures of mono-, di- and trimethylsilane. A. C. Bond and L. O. Brockway. bibliog Am Chem Soc J 76:3312-16 Je 20 '54

New method of preparation for alkoxysilanes. L. M. Shorr. bibliog Am Chem Soc J 76: 1390-1 Mr 5 '54

SILANE—*Continued*

Nitration of the tolyltriethylsilanes. R. A. Benkeser and H. Landesman. Am Chem Soc J 76:904-5 F 5 '54

Organosilicon compounds; a molecular complex between iodine and tri*cyclo*hexyliodosilane. C. Eaborn. Chem Soc J p4154-6 D '53

Organosilicon compounds; the kinetics of the acid-catalysed cleavage of *p*-methoxyphenyltrimethylsilane. C. Eaborn. Chem Soc J p3148-53 O '53

Reaction of trimethyl-(*p*-bromophenyl)-silane with lithium dimethylamide. H. Gilman, H. W. Melvin and J. J. Goodman. Am Chem Soc J 76:3219-20 Je 20 '54

Reactions of di-*t*-butoxydiaminosilane. P. D. George, L. H. Sommer and F. C. Whitmore. bibliog Am Chem Soc J 75:6308-10 D 20 '53

Reactions of hexachlorodisilane with ammonium halides and trimethylamine hydrohalides. C. J. Wilkins. Chem Soc J p3409-12 N '53

Reactions of silane with unsaturated hydrocarbons. D. G. White and E. G. Rochow. bibliog Am Chem Soc J 76:3897-902 Ag 5 '54

Si-C bond energy in alkylsilanes. S. Tannenbaum. bibliog Am Chem Soc J 76:1027 F 20 '54

Substituted silyl derivatives of starch. R. W. Kerr and K. C. Hobbs. Ind & Eng Chem 45:2542-4 N '53

Synthesis of fluorine-containing organosilanes. O. R. Pierce, E. T. McBee and R. E. Cline. Am Chem Soc J 75:5618-20 N 20 '53

Vinylsilanes, chlorovinylsilanes and β-styryltrimethylsilane; further studies on the α-silicon effect and β-eliminations involving silicon. L. H. Sommer and others. bibliog Am Chem Soc J 76:1613-18 Mr 20 '54

See also
Chlorosilane

Spectra

Experimental study of the vibrational spectra of hexamethyldisilane and related compounds. C. C. Cerato and others. J Chem Phys 22:1-5 Ja '54

SILANOLS. See Silicols

SILENCERS

Paper mill noise problems. M. N. Davis and R. H. Cáston. diags Pulp & Pa of Can (Convention no) 55:201-3+ [F] '54; Same. Paper Tr J 138:20+ Ap 2 '54

SILENE

New paper pigment; Silene EF in paper. L. B. Taylor. il Paper Tr J 138:53-6 F 26 '54

SILEX company

Stock offered. Comm & Fin Chr 178:573 Ag 17 '53

SILICA

Acute toxicity of mineral dusts. J. C. Dale and E. J. King. bibliog A M A Archives Ind Hygiene & Occup Med 7:478-83 Je '53

Additional phase equilibrium data for the system CaO-MgO-SiO_2. R. W. Ricker and E. F. Osborn. bibliog Am Cer Soc J 37:133-9 Mr 1 '54

Chemical nature of silica carried by steam. E. L. Brady. bibliog J Phys Chem 57:706-10 O '53

Colloidal-size silica in sediments. H. H. Murray and C. P. Gravenor. bibliog Science 118:25-8 Jl 3 '53

Constitution of bone china; high-temperature phase equilibrium studies in the system tricalcium phosphate-alumina-silica. P. D. S. St Pierre. bibliog(25 titles) il diags Am Cer Soc J 37:243-58 Je 1 '54

Continuous preparation and application of silica sols in the paper industry. L. L. Klinger. bibliog il diags Tappi 37:191-5 My '54

Determination of electrokinetic charge and potential by the sedimentation method; silica in some solutions containing multivalent anions. C. I. Dulin and G. A. H. Elton. Chem Soc J p 1324-5 Ap '54

Effect of silica flour in autoclaved cement-sand mixtures. R. L. Barbehenn. Rock Prod 57:214-15+ Ap '54

Effect of various surface treatments on the reinforcement and rate of cure of silica loaded stocks. W. R. Hausch. bibliog il diag India Rubber World 130:59-62 Ap '54

Evaluation of the use of the refractory oxides Al_2O_3 and SiO_2 in eliminating a gas-produced enamel defect. R. G. Rion. bibliog Am Cer Soc Bul 33:16-20 Ja 15 '54

Lime, fly ash, silica and cement in autoclaved concrete products. J. K. Selden. Rock Prod 57:142-3+ My '54

Liquidus relationships on ten per cent MgO plane of the system lime-magnesia-alumina-silica. A. T. Prince. bibliog diags Am Cer Soc J 37:402-8 S 1 '54

New crystalline form of silica found at Rutgers. Chem & Eng N 32:3732 S 20 '54

New dense crystalline silica. L. Coes, jr. Science 118:131-2 Jl 31 '53

Optimum composition of blast furnace slag as deduced from liquidus data for the quaternary system CaO-MgO-Al_2O_3-SiO_2. E. F. Osborn and others. bibliog il J Metals 6: Trans 33-45 Ja '54

Physicochemical studies on dusts; effect of acids on the solution properties of silicious dusts. J. G. Gibb and P. D. Ritchie. bibliog J Ap Chem 4:473-83 S '54

Physicochemical studies on dusts; electron-optical examination of finely ground silica. J. G. Gibb, P. D. Ritchie and J. W. Sharpe. bibliog 2pls J Ap Chem 3:213-18 My '53

Physicochemical studies on dusts; some sorption properties of silicious dusts. J. G. Gibb and P. D. Ritchie. J Ap Chem 4:483-7 S '54

Preparation and use of activated silica. A. E. Griffin. il Am Water Works Assn J 46:571-4 Je '54

Producing high-grade silica from sandstone; Marion silica co., inc. B. Nordberg. il Rock Prod 57:126-7+ Ap '54

Radiation damage in SiO_2 structures. M. Wittels and F. A. Sherrill. Phys R 93:1117-18 Mr 1 '54

Regularity of the *F*-center maxima in fused silica and α quartz. A. J. Cohen. bibliog J Chem Phys 22:570 Mr '54

Solid solution and chromium oxide loss in part of the system MgO-Al_2O_3-Cr_2O_3-SiO_2. I. Warshaw and M. L. Keith. bibliog(37 titles) Am Cer Soc J 37:161-8 Ap 1 '54

Structure of vitreous silica. J. S. Lukesh. Phys R 93:264 Ja 15 '54

Studies in the system magnesia-silica-water at elevated temperatures and pressures. E. T. Carlson and others. bibliog J Res Nat Bur Stand 51:179-84 O '53

Studies on formation and recrystallization of intermediate reaction products in the system magnesia-silica-water. G. L. Kalousek and D. Mui. Am Cer Soc J 37:38-41 F 1 '54

Studies on the lime-rich crystalline solid phases in the system lime, silica, water. G. L. Kalousek and others. bibliog Am Cer Soc J 37:7-13 Ja 1 '54

Study of the reaction rates between silica, alumina, mullite, zirconia and other oxides at various temperatures. Abd-El-Moneim Abou-El-Azm. Glass Ind 35:202-3+ Ap '54

Study of the reaction rates between silica and other oxides at various temperatures. Abd-El-Moneim Abon-El-Azm and H. Moore. Glass Ind 34:621+ N '53

Surge for silicas; activity in the ultra-fine silica field. il diag Chem Eng 60:122+ D '53

Symposium on crystal chemistry as applied to ceramics, 7th; abstracts of papers on silica. Glass Ind 35:375-6 Jl '54; Cer Ind 63:74+ S '54

System barium oxide-boric oxide-silica. E. M. Levin and G. M. Ugrinic. bibliog il diags J Res Nat Bur Stand 51:37-56 Jl '53

System CaO-ZnO-SiO_2. E. R. Segnit. Am Cer Soc J 37:273-7 Je 1 '54

Use of the solar furnace for studying the system alumina-silica. W. M. Conn. bibliog il Am Cer Soc Bul 33:69-72 Mr 15 '54

Viscosity studies of system CaO-MgO-Al_2O_3-SiO_2; 60 and 65 per cent SiO_2. J. S. Machin and T. B. Yee. bibliog Am Cer Soc J 37:177-86 Ap 1 '54

SILICA—*Continued*

Whiteware raw materials from Saskatchewan. G. S. Crawford. bibliog il Am Cer Soc Bul 33:49-50 F 15 '54

See also

Diatomaceous earth

Quartz

Sand

Analysis

Determination of silica and fluoride in fluorsilicates. H. R. Shell and R. L. Craig. bibliog Anal Chem 26:996-1001 Je '54

Forms of silicate available for colorimetric determination. D. Tung-Whei Chow and R. J. Robinson. bibliog Anal Chem 25:646-8 Ap '53

Physicochemical studies on dusts; examination of finely ground quartz by differential thermal analysis and other physical methods. P. B. Dempster and P. D. Ritchie. bibliog(29 ref) J Ap Chem 3:182-92 Ap '53

X-ray analysis of foundry dusts for quartz and iron in relation to silicosis and siderosis. G. L. Clark, W. F. Loranger and S. J. Bodnar. plan Anal Chem 26:1413-16 S '54

Physiological effect

Toxicity of silica. L. D. Scheel and others bibliog A M A Archives Ind Hygiene & Occup Med 8:564-73 D '53

SILICA, Fused

Coexisting structures in vitreous silica. C. L. Babcock, S. W. Barber and K. Fajans. bibliog(38 ref) Ind & Eng Chem 46:161-6 Ja '54

Contact charging between nonconductors and metal. J. W. Peterson. il diags J Ap Phys 25:907-15 Jl '54

Fused-quartz ultrasonic delay-line memory. D. A. Spaeth and others. bibliog il Electronics 26:151-3 D '53

Index of refraction of fused quartz glass for ultraviolet, visible, and infrared wavelengths. W. S. Rodney and R. J. Spindler. bibliog Opt Soc Am J 44:677-9 S '54

Is there a future for fused silica tank block? bibliog diags Brick & Clay Rec 125:74-5+ S '54

Low-temperature internal friction and elasticity effects in vitreous silica. M. E. Fine and others. bibliog J Ap Phys 25:402-5 Mr '54

Measurement of elastic constants at low temperatures by means of ultrasonic waves. H. J. McSkimin. bibliog(27 ref) diags J Ap Phys 24:988-97 Ag '53

Quartz hot rod heats corrosive liquids. il Chem & Eng N 32:2230 My 31 '54

SILICA black

Silicarbon; concrete strengthener. W. M. Rau and H. Yamada. diag Concrete 62:16+ F '54

SILICA brick

Silica brick standard grade; prices, 1948-1953; tabulation. Iron Age 173:419 Ja 7 '54

Manufacture

Automatic controls speed refractories output. il J Metals 5:1078-9 S '53

Bulk materials handling; it can be done cleanly; Harbison-Walker, Windham, Ohio, plant. il Steel 133:110-12 Ag 24 '53

More silica refractories to meet rising demand; pictorial presentation of Harbison-Walker Refractories plant at Windham, Ohio. Chem & Eng N 31:3388-9 Ag 17 '53

Now silica brick by pushbutton control; Harbison-Walker refractories company plant at Windham, Ohio. il Chem Eng 60:120+ O '53

Silica brick plant features dust control, mechanization; Harbison-Walker refractories co. il Iron Age 172:66 Ag 20 '53

SILICA cement

Silica cement; strength and heat of hydration properties. T. Yoshii and K. Kaneko. Rock Prod 57:80+ My '54

SILICA gel

Continuous production of activated silica with carbon dioxide gas. R. V. Andrews. bibliog il plan diags Am Water Works Assn J 46:82-92 Ja '54

Determination of particle sizes in colloidal silica. G. B. Alexander and R. K. Iler. bibliog J Phys Chem 57:932-4 D '53

Dielectric behavior of sorbed water on silica gel. S. Kurosaki. bibliog J Phys Chem 58:320-4 Ap '54

Drying of air in fixed beds. L. C. Eagleton and H. Bliss. bibliog Chem Eng Prog 49:543-8 O '53

Equilibrium data for silica gel and water vapor. S. S. Hubard. Ind & Eng Chem 46:356-8 F '54

Heat of wetting of copper, graphite and silica gel. F. E. Bartell and R. M. Suggitt. bibliog diag J Phys Chem 58:36-40 Ja '54

Selective adsorption; 2,4-dimethylpentane-benzene-silica gel at 65.6°. M. R. Cines and F. N. Reuhlen. bibliog J Phys Chem 57:710-14 O '53

Surface properties of silica gels; adsorption of water vapour. K. S. W. Sing and J. D. Madeley. bibliog J Ap Chem 4:365-8 Jl '54

Surface properties of silica gels; importance of pH in preparation from sodium silicate and sulphuric acid. K. S. W. Sing and J. D. Madeley. bibliog J Ap Chem 3:549-56 D '53

SILICATES

Behavior of colloidal silicate solutions as revealed by adsorption indicators. B. Carroll and E. Freeman. bibliog J Phys Chem 58:335-8 Ap '54

Dedication of the Institute of silicate research. W. A. Lambertson. Glass Ind 35:317-18+ Je '54

Electrode potentials in molten silicates. R. Didtschenko and E. G. Rochow. bibliog diags Am Chem Soc J 76:3291-4 Je 20 '54

Electromagnetic viscometer for molten silicates at temperatures up to 1800°C. J. O. Bockris and D. C. Lowe. bibliog diags J Sci Instr 30:403-5 N '53

Galvanic potentials in silicate melts. bibliog diags Glass Ind 35:433-6+ Ag '54

Hydrothermal chemistry of silicates; compounds structurally related to analcite. R. M. Barrer, J. W. Baynham and N. McCallum. Chem Soc J p4035-41 D '53

Incremental digestion. E. A. Gee and W. J. Huff. bibliog flow sheets il Chem Eng Prog 50:299-304 Je '54

Physical chemistry of the silicates. W. Eitel. Review, by N. C. Rockwood. Rock Prod 57:47+ S '54

Prospective chemistry of cement and concrete; more about the structure of water and its effects on silicates. N. C. Rockwood. diags Rock Prod 57:147-9 Ja '54

Thermal balance with silicate adhesives. R. L. Kreyling. Tappi 37:sup 183A-4A Je '54

See also

Aluminosilicates

Calcium silicates

Glass

Mica

Sodium silicates

Talc

Vermiculite

Wollastonite

Analysis

Forms of silicate available for colorimetric determination. D. Tung-Whei Chow and R. J. Robinson. bibliog Anal Chem 25:646-8 Ap '53

Possible loss of iron during sodium carbonate fusion of silicates and rocks. H. R. Shell. Anal Chem 26:591-3 Mr '54

Silicate analysis by a rapid semimicrochemical system. R. B. Corey and M. L. Jackson. bibliog flow sheets diags Anal Chem 25:624-8 Ap '53

Spectrochemical determination of germanium in silicates. P. G. Harris. bibliog Anal Chem 26:737-9 Ap '54

Spectrophotometric and polarographic determinations of soluble silicate. M. A. DeSesa and L. B. Rogers. bibliog Anal Chem 26:1278-84 Ag '54

Uncombined calcium oxide or hydroxide in lime and silicate products. G. O. Assarsson and J. M. Bokström. bibliog Anal Chem 25:1844-8 D '53

SILICIC acid

Chromatographic separation of *p*-phenylazophenacyl esters on silicic acid. R. M. Ikeda, A. D. Webb and R. E. Kepner. Anal Chem 26:1228-9 Jl '54

New techniques for adding organic acids to silicic acid columns. V. Zbinovsky and R. H. Burris. Anal Chem 26:208-10 Ja '54

SILICIC acid—*Continued*

Polymerization of monosilicic acid. G. B. Alexander. bibliog Am Chem Soc J 76:2094-6 Ap 20 '54

Reaction of low molecular weight silicic acids with molybdic acid. G. B. Alexander bibliog Am Chem Soc J 75:5655-7 N 20 '53

Studies on silicic acid gels; dialysis of the gel mixture and of the gels. C. B. Hurd and others. bibliog J Phys Chem 57:678-80 O '53

SILICIDES

Search for antiferromagnetism in the silicides V_3Si, Cr_3Si, and Mo_3Si. W. C. Koehler and E. O. Wollan. Phys R 95:280-1 Jl 1 '54

SILICOLS

Crystal structure of silanols and their infrared spectra. M. Kakudo and others. bibliog J Chem Phys 21:1894-5 O '53

Rate study of the silanol condensation reaction at 25° in alcoholic solvents. W. T. Grubb. bibliog Am Chem Soc J 76:3408-14 Jl 5 '54

Sodium and potassium salts of triorganosilanols. J. F. Hyde and others. bibliog Am Chem Soc J 75:5615-18 N 20 '53

SILICON

Applications of silicon chemicals in textile processing; abstract. J. Payne and E. Smith. Am Dyestuff Rep 43:394 Je 21 '54

Avalanche breakdown in silicon. K. G. McKay. bibliog diag Phys R 94:877-84 My 15 '54

Direct measurement of the dielectric constants of silicon and germanium. W. C. Dunlap, jr. and R. L. Watters. Phys R 92:1396-7 D 15 '53

Drift mobilities in semiconductors. M. B. Prince. Phys R 93:1204-6 Mr 15 '54

Enhanced alpha in formed silicon point contact transistors. H. Jacobs and others. J Ap Phys 24:1410-11 N '53

Etch pits and dislocations in germanium and silicon. J. J. Oberly. il J Metals 6:Trans 1025-6 sec 2 S '54

Floating zone recrystallization of silicon. P. H. Keck and others. il diags R Sci Instr 25:331-4 Ap '54

Four-probe instrument for resistivity measurements of germanium and silicon. A. L. MacDonald and others. il R Sci Instr 24:884-5 S '53

Gold as a donor in silicon. E. A. Taft and F. H. Horn. Phys R 93:64 Ja 1 '54

Hall mobility of electrons and holes in silicon. P. P. Debye and T. Kohane. Phys R 94:724-5 My 1 '54

High purity silicon. F. B. Litton and H. C. Andersen. bibliog il Electrochem Soc J 101:287-92 Je '54

Influence of aluminum and silicon deoxidation on the strain aging of low-carbon steels. W. C. Leslie and R. L. Rickett. bibliog J Metals 5:Trans 1021-31 Ag '53; Discussion. 6:Trans 701 sec 2 My '54

Measurement of elastic constants at low temperatures by means of ultrasonic waves. H. J. McSkimin. bibliog(27 ref) diags J Ap Phys 24:988-97 Ag '53

Mobility of impurity ions in germanium and silicon. J. C. Severiens and C. S. Fuller. Phys R 92:1322-3 D 1 '53

Optical investigations of impurity levels in silicon. E. Burstein, E. E. Bell and J. W. Davisson. bibliog J Phys Chem 57:849-52 N '53

Photoconductivity in gold-doped silicon. R. Newman. Phys R 94:1530-1 Je 15 '54

Photomagnetoelectric effect in germanium and silicon. H. Bulliard. bibliog diags Phys R 94:1564-6 Je 15 '54

Piezoresistance effect in germanium and silicon. C. S. Smith. bibliog diags Phys R 94:42-9 Ap 1 '54

Precipitation of impurities at dislocations in heat-treated silicon. S. Mayburg. Phys R 95:838-9 Ag 1 '54

Premium for purity; silicon transistor. Chem W 74:43-4 Ja 30 '54

Production of acceptor centers in germanium and silicon by plastic deformation. W. C. Ellis and E. S. Greiner. bibliog Phys R 92:1061-2 N 15 '53

Segregation of impurities during the growth of germanium and silicon crystals. R. N. Hall. bibliog J Phys Chem 57:836-9 N '53

Shapes of floating liquid zones between solid rods. P. H. Keck and others. diags J Ap Phys 24:1479-81 D '53

Silicon-base cermets and related observations. B. C. Weber and P. S. Hessinger. bibliog il Am Cer Soc J 37:267-72 Je 1 '54

Silicon-oxygen equilibrium in liquid iron; a revision. J. Chipman and N. A. Gokcen. bibliog J Metals 5:Trans 1017-18 Ag '53

Silicon transistor announced. Electronics 27:6+ F '54

Simpler with silicon; Westinghouse new silicon rectifier. Chem W 75:41 Jl 17 '54

Spin resonance of donors in silicon. R. C. Fletcher and others. Phys R 94:1392-3 Je 1 '54

Studies in the deoxidation of iron; deoxidation by silicon. E. L. Evans and H. A. Sloman. bibliog pl Iron & Steel Inst J 172:296-300 N '52; Abstract. Metal Prog 66:sup A 182+ Jl 15 '54

Use of silicon *p-n* junctions for converting solar energy to electrical energy. R. L. Cummerow. Phys R 95:561-2 Jl 15 '54

Vinylsilanes, chlorovinylsilanes and β-styryltrimethylsilane; further studies on the α-silicon effect and β-eliminations involving silicon. L. H. Sommer and others. bibliog Am Chem Soc J 76:1613-18 Mr 20 '54

Analysis

Determination of impurities in germanium and silicon. C. L. Luke and M. E. Campbell. bibliog Anal Chem 25:1588-93 N '53

Methods for analysis of titanium alloys; colorimetric determination of silicon in titanium alloys. M. Codell, C. Clemency and G. Norwitz. bibliog Anal Chem 25:1432-4 O '53

Qualitative test for silicon in organosilicon compounds and for germanium in organogermanium compounds. H. Gilman, R. K. Ingham and R. D. Gorsich. bibliog Am Chem Soc J 76:918-19 F 5 '54

Spectrochemical determination of magnesium, iron, silicon, and manganese in titanium metal. H. A. Heller and R. W. Lewis. bibliog diags Anal Chem 25:1038-42 Jl '53

Spectrophotometric determination of arsenic, phosphorus, and silicon in the presence of each other. M. A. DeSesa and L. B. Rogers. Anal Chem 26:1381-3 Ag '54

Isotopes

Evidence for Si^{32}, a long-lived beta emitter. A. Turkevich and A. Samuels. Phys R 94:364 Ap 15 '54

Nuclear spin of Si^{29}. G. A. Williams and others. il Phys R 93:1428-9 Mr 15 '54

Nuclear spin quantum numbers of Si^{29} isotope. R. A. Ogg, jr. and J. D. Ray. J Chem Phys 22:147 Ja '54

Spin of Si^{29} and mass ratios of the stable Si isotopes. R. L. White and C. H. Townes. bibliog Phys R 92:1256-7 D 1 '53

Study of the isobaric triplet Mg^{28}-Al^{28}-Si^{28}. R. K. Sheline and others. bibliog diags Phys R 94:1642-51 Je 15 '54

Nuclear reactions

Gamma rays from the $Si^{29}(p,\gamma)P^{30}$ reaction. P. M. Endt and others. Phys R 95:580 Jl 15 '54

Radioactive Si^{31}. W. S. Lyon and J. J. Manning. Phys R 93:501 F 1 '54

Spectrum

Hyperfine splitting in spin resonance of group V donors in silicon. R. C. Fletcher and others. Phys R 95:844-5 Ag 1 '54

Infrared lattice absorption bands in germanium, silicon, and diamond. R. J. Collins and H. Y. Fan. bibliog Phys R 93:674-8 F 15 '54

Vibrational spectrum and the specific heat of germanium and silicon. Y. Hsieh. bibliog J Chem Phys 22:306-11 F '54

SILICON alloys

Energy gap of germanium-silicon alloys. A. Levitas and others. Phys R 95:846 Ag 1 '54

Equilibrium thermochemistry of solid and liquid alloys of germanium and of silicon. C. D. Thurmond and J. D. Struthers. bibliog J Phys Chem 57:827-35 N '53

SILICON alloys—*Continued*

Silicon alloy junction diode developed by Bell laboratories. Elec Eng 72:947 O '53

Some properties of germanium-silicon alloys. E. R. Johnson and S. M. Christian. Phys R 95:560-1 Jl 15 '54

Speculations on the energy band structure of Ge-Si alloys. F. Herman. Phys R 95:847-8 Ag 1 '54

Titanium-silicon system. M. Hansen and others. il diags Am Soc for Metals Trans 44:518-36; Discussion. 536-8 '52

See also

Iron alloys—Silicon alloys

SILICON carbide

Crusilite; new silicon carbide furnace element. il Chem Age (Lond) 71:377 Ag 21 '54

Nonlinear semiconductor resistors. F. A. Schwertz and J. J. Mazenko. bibliog il diag J Ap Phys 24:1015-24 Ag '53

Occurrence of silicon carbide in the Fe-C-Si system. J. C. Fulton and J. Chipman. il J Metals 6:Trans 356-7 Mr '54

Oxidation resistances of ternary mixtures of the carbides of titanium, silicon, and boron. O. E. Accountius and others. il Am Cer Soc J 37:173-7 Ap 1 '54

Production of synthetic abrasives. A. W. Wilkinson. il Can Chem Process 38:42+ S '54

Silicon carbide refractories in gas production processes; Carborundum co. A. A. Turner. diag Am Gas Assn Proc 1953:829-31

Silicon carbide; use as purifier proves aid in steelmaking practice. Iron Age 173:154 Je 3 '54

Use of silicon carbide powder as electrical and thermal insulation for very high-frequency induction furnaces. S. D. Mark, jr. diag Am Cer Soc Bul 33:43-5 F 15 '54

Analysis

New flux for determination of total carbon in silicon carbide. P. L. Norton. Anal Chem 25:1761-2 N '53

SILICON chlorides

Addition compounds of silicon tetrachloride with amides. K. Gingold and E. G. Rochow. bibliog Am Chem Soc J 76:288-9 Ja 5 '54

SILICON compounds

Application of bond parachors to organosilicon chemistry. A. P. Mills and C. A. MacKenzie. bibliog Am Chem Soc J 76:2672-3 My 20 '54

Effect of adjacent silicon in displacement reactions; kinetics of the reaction of chloromethylsilicon compounds with iodide ion. G. D. Cooper and M. Prober. bibliog Am Chem Soc J 76:3943-5 Ag 5 '54

Electric moments of organosilicon compounds; bromides. E. L. Reilly, C. Curran and P. A. McCusker. Am Chem Soc J 76:3311-12 Je 20 '54

Further studies on highly-branched aliphatic organosilicon compounds; trimethylsilylmethyl group. L. H. Sommer, R. M. Murch and F. A. Mitch. bibliog Am Chem Soc J 76:1619-21 Mr 20 '54

Further studies on silicon-containing carbonyl compounds; diketones, ketoesters and cyclic unsaturated ketones. L. H. Sommer and R. P. Pioch. bibliog Am Chem Soc J 76:1606-9 Mr 20 '54

Malonic ester syntheses with organosilicon compounds; new silicon-containing malonic esters, mono- and dicarboxylic acids, barbituric acids and a disiloxanetetracarboxylic acid. L. H. Sommer and others. bibliog Am Chem Soc J 76:1609-12 Mr 20 '54

New intramolecular rearrangements of α-chloroalkylsilicon compounds. L. H. Sommer and others. Am Chem Soc J 76:801-3 F 5 '54

Organic silicon compounds in industry. Chem Age (Lond) 69:917-18 O 31 '53

Organosilicon compounds; a molecular complex between iodine and tri*cyclo*hexyliodosilane. C. Eaborn. Chem Soc J p4154-6 D '53

Organosilicon compounds containing the thiocyanomethyl group attached to silicon. G. D. Cooper. Am Chem Soc J 76:2499-500 My 5 '54

Organosilicon compounds; the (trimethylsilylmethyl)benzoic acids. C. Eaborn and S. H. Parker. Chem Soc J p939-41 Mr '54

Organosilicon mercaptans. G. D. Cooper. Am Chem Soc J 76:2500 My 5 '54

Organosilicon synthesis; abstract. A. G. Brook. Chem & Eng N 32:1122 Mr 22 '54

Physical properties of organosilicon compounds; thermodynamic properties of octamethylcyclotetrasiloxane. R. C. Osthoff and W. T. Grubb. bibliog Am Chem Soc J 76:399-401 Ja 20 '54

Steric effects of the *t*-butyl group in organosilicon compounds. L. H. Sommer and L. J. Tyler. bibliog Am Chem Soc J 76:1030-3 F 20 '54

See also

Silane
Silica
Silicones
Siloxanes

SILICON dioxide. See Silica

SILICON fluorides

Silicon tetrafluoride complex with ethylenediamine. W. C. Schumb and P. S. Cook. Am Chem Soc J 75:5133 O 20 '53

SILICON iodides

Vapor pressure of boron triiodide and silicon tetraiodide. H. C. Andersen and L. H. Belz. Am Chem Soc J 75:4828 O 5 '53

SILICON monoxide. See Silicon oxides

SILICON oxides

Effect of TiO_2, Fe_2O_3, and alkali on mineralogical and physical properties of mullite-type and mullite-forming Al_2O_3-SiO_2 mixtures. K. G. Skinner and others. diags Am Cer Soc J 36:349-56 N 1 '53

Formation, stability and crystal structure of solid silicon monoxide. M. Hoch and H. L. Johnston. bibliog il Am Chem Soc J 75:5224-5 N 5 '53

Optical properties of silicon monoxide in the wavelength region from 0.24 to 14.0 microns. G. Hass and C. D. Salzberg. Opt Soc Am J 44:181-7 Mr '54

Solid-state equilibrium relations in the system MgO-Al_2O_3-SiO_2-ZrO_2. P. G. Herold and W. J. Smothers. bibliog Am Cer Soc J 37:351-3 Ag 1 '54

Stability of SiO solid and gas. L. Brewer and R. K. Edwards. bibliog diags J Phys Chem 58:351-8 Ap '54

Thermodynamic properties of silicon monoxide; an experimental study of the equilibria $SiO_2 + Si \rightleftharpoons 2SiO$ and $SiO_2 + H_2 \rightleftharpoons SiO + H_2O$. N. C. Tombs and A. J. E. Welch. bibliog diag Iron & Steel Inst J 172:69-78 S '52; Abstract. Metal Prog 65:188+ Je '54

SILICON oxychlorides

New series of silicon oxychlorides. W. C. Schumb and R. A. Lefever. bibliog Am Chem Soc J 76:2091-3 Ap 20 '54

SILICON steel

Electrical steel; a triumph of steelmaking, heat treatment and scientific metallurgy. W. Jones. il Metal Prog 65:70-4 F '54

Measurement of interlaminar resistance of varnish-insulated silicon-steel sheet for large electrical machines. E. D. Taylor. diags Inst E E Proc 98 pt 2:377-85 Je '51; Discussion. 98 pt 2:385-8; 100 pt 2:565-7 Je '51, O '53

Transformer materials. D. C. Graham and L. R. Bronlund. il diags Iron & Steel Eng 31:118-24 Ag '54

SILICON sulfides

Preparation and properties of some organosilicon sulfides and sulfones. G. D. Cooper. bibliog Am Chem Soc J 76:3713-16 Jl 20 '54

SILICON tetrachloride

Partial ammonolysis of silicon tetrachloride. W. C. Schumb and L. H. Towle. Am Chem Soc J 75:6085-6 D 5 '53

SILICON tetrafluoride

Superphosphate plant effluents. R. Donald. Chem Age (Lond) 69:1171-2+ D 5 '53

SILICONE putty

Silicone putty for slip clutches and couplings. M. Adler. il diags Product Eng 24:142-3 O '53

SILICONES

Another boost for silicones; Linde air products co. Bsns W p70+ S 5 '53

Applications of silicones; symposium abstracts. Chem & Eng N 32:1319 Ap 5 '54

SILICONES—*Continued*

Baby makes three; silicone-small Linde Air Products. Chem W 73:53-4 Ag 22 '53

Camera fans can hold on to scratchy, dirty negatives; silicone oil to minimize injurious effects of scratches, dust, or oily fingerprints. Chem & Eng N 32:3734 S 20 '54

Chemical and technological aspects of silicone resins; abstract and discussion. P. A. Griffin. Chem & Ind p397-8 Ap 3 '54

Compounding of silicone gums. C. W. Pfeifer and others. bibliog il India Rubber World 129:481-4+ Ja '54

Compounding of silicone rubber. W. B. Spencer, jr. and others. bibliog Ind & Eng Chem 45:1297-304 Je '53

Dielectric constants of dimethylsilicones. O. B. Young and C. E. Dickerman. Ind & Eng Chem 46:364-5 F '54

Dynamic characteristics of silicone rubber. G. W. Painter. bibliog il diag Rubber Age 74:701-6 F '54; Excerpts. Machine Design 26:308+ My '54

Materials for special service. T. A. Kauppi. il Machine Design 26:184-6 My '54

New automotive uses for silicones. Automotive Ind 109:113-14 N 1 '53

New developments in silicones. T. A. Kauppi. il Machine Design 26:176-89 S '54

New plant for silicone rubber; Dow Corning. il Chem Eng 60:116 Jl '53

New silicone advances are reviewed by GE. Automotive Ind 110:19 Ap 15 '54

New silicone foam passes trial by fire. il Chem W 72:36 My 30 '53

New silicone laminating resin offers increased strength, faster cure; Dow Corning corp. il Materials & Methods 39:147-8 F '54

New silicone pressure sensitive adhesive material. Materials & Methods 38:150 D '53

New silicone resin, foamed in place, is high temperature insulator. il Materials & Methods 38:96-7 N '53

New silicone treated papers. Paper Ind 36:57 Ap '54

Next to the skin; silicones in cosmetic and pharmaceutical preparations. il Chem W 75:52 Jl 17 '54

Radioactive silicones. Chem & Eng N 32:3792+ S 20 '54

Silicone coating reduces breakage, Brockway full-scale test shows. Glass Ind 35:201 Ap '54

Silicone helps solve insulation problems; Consolidated Edison's new Astoria power plant. J. G. Noest. il diags Elec World 140:112-15 N 16 '53

Silicone mold wash drying completed in 7½ minutes; Ohio steel foundry. il Steel 133:162 S 7 '53

Silicone rubber. Engineer 196:820-1 D 18 '53

Silicone rubber. Engineering 177:81 Ja 15 '54

Silicone rubber insulation for traction motor frame coils. il Ry Loco & Cars 127:65-8 D '53

Silicone toughens bottles; Brockway glass co. il Food Eng 26:121+ Jl '54

Silicones applied in textile processing; abstract. Schweiger. Am Dyestuff Rep 43:317 My 10 '54

Silicones in packaging. D. M. Francisco. il Mod Packaging 27:149-53 N '53

Silicones in the plastics industry; abstract. B. Thorsberg. India Rubber World 130:221 My '54

Silicones in the textile industry. C. E. Gibson and F. L. Dennett. il Am Dyestuff Rep 42:275-8 Ap 27 '53

Silicones in the textile industry; abstract. D. C. R. Miller. Am Dyestuff Rep 43:217 Mr 29 '54

Silicones invade new fields. il Chem & Eng N 32:1515-16 Ap 12 '54

Silicones vs can-sticking. F. Fortess and S. T. Bowen. Mod Textiles Mag 35:31+ Ap '54

Sodium methylsiliconate. W. S. Kather and A. Torkelson. bibliog(26 ref) il Ind & Eng Chem 46:381-4 F '54

Some aspects of the industrial development of silicones. J. H. E. Jeffes. bibliog Chem & Ind p498-501 My 1 '54

Textile trend; raincoat for fibers. Chem W 74:58-9 Mr 6 '54

Three new silicone laminating resins for high strength, high temperature resistance, electrical insulation. il Materials & Methods 40:98-100 Jl '54

See also

Silicone putty

Analysis

Adsorption of chromatography and liquid partition of high polymers. D. W. Bannister, C. S. G. Phillips and R. J. P. Williams. bibliog diag Anal Chem 26:1451-4 S '54

SILICOSIS

Anthracosilicosis occurring in a foundry employee. L. E. Hamlin. il A M A Archives Ind Hygiene & Occup Med 7:339-51 Ap '53

Mica dust inhalation. H. Heimann and others. A M A Archives Ind Hygiene & Occup Med 8:531-2 D '53

Silicosis among female workers in the pottery industries. J. T. Noe. il Ind Med 22:255-8 Je '53

Silicosis in mica mining in Bihar, India. H. Heimann and others. bibliog diag A M A Archives Ind Hygiene & Occup Med 8:420-35 N '53

X-ray analysis of foundry dusts for quartz and iron in relation to silicosis and siderosis. G. L. Clark and others. bibliog il plan Anal Chem 26:1413-20 S '54

SILK

Structure of natural silk and conditions of alteration; abstract. Am Dyestuff Rep 42:718 O 26 '53

Testing

Effect of rate of extension on the tensile behaviour of viscose and acetate rayons, silk and nylon. R. Meredith. bibliog diags Textile Inst J Trans 45:T30-43 Ja '54

SILK fibroin. See Fibroin

SILK research

Chemistry of silk fibroin. B. Drucker and others. bibliog il diag Textile Inst J Trans 44:T420-35 O '53

SILK screen printing

Castle Creek's screen printing goes modern. G. M. Moisson. il Textile World 104:113-15 F '54

Color choice in screen printing; abstract. Am Dyestuff Rep 42:258 Ap 27 '53

Photo stencils for screen printing. T. H. Farrell. il Mod Packaging 27:212-15+ Mr '54

Pneumatics in silk screen printing. diags Comp Air Mag 59:23 Ja '54

Production of metal screens. G. Waller. Soc Dyers & Col J 69:557-9; Discussion. 559-60 D '53

Silk screen printing with bright gold. R. J. Miller. Glass Ind 35:486+ S '54; Same. Cer Ind 63:92 O '54

SILK trade

Statistics

Silk, imports and prices, 1949-1952. Survey of Cur Bsns 1953 Sup p 189 [supplemented in monthly numbers]

SILKWORMS

Studies on the soluble proteins of the silk gland of the silkworm, Bombyx mori. E. H. Mercer. bibliog il diags Textile Res J 24:135-45 F '54

SILLCOX, Lewis Ketcham, 1886-

Sketch. por(p754) Mech Eng 75:755 S '53

SILOS, Concrete

Prestressed-concrete grain silo at Dublin. T. J. S. Mallagh. flow diag il plans diags Engineering 176:577-81, pl 32 N 6 '53

SILOXANES

Aliphatic organo-functional siloxanes; diesters with dimethyl-(β-carboethoxyethyl)-siloxy end groups. L. H. Sommer and R. P. Pioch. bibliog Am Chem Soc J 75:6337-8 D 20 '53

Fluorination of organochlorodisiloxanes. D. S. Payne. Chem Soc J p2143-5 Je '54

Mechanism of the base-catalyzed rearrangement of organopolysiloxanes. D. T. Hurd, R. C. Osthoff and M. L. Corrin. bibliog Am Chem Soc J 76:249-52 Ja 5 '54

Physical properties of organosilicon compounds; thermodynamic properties of octamethylcyclotetrasiloxane. R. C. Osthoff and W. T. Grubb. bibliog Am Chem Soc J 76:399-401 Ja 20 '54

SILOXANES—*Continued*

Thermal and dielectric study of octamethylcyclotetrasiloxane. J. D. Hoffman. Am Chem Soc J 75:6313-14 D 20 '53

SILOXENE

Siloxene as a chemiluminescent indicator in chromate titration for determination of lead. F. Kenny and R. B. Kurtz. Anal Chem 25:1550-1 O '53

SILT

Costly reservoir silting can be slowed if vital facts of situation are known. Eng N 151:33 Ag 6 '53

Gravity separation of silt from industrial wastes. C. L. Siebert, jr. Sewage & Ind Wastes 26:531-5 Ap '54

New Rio Grande flood and silt control project near Albuquerque is completed; Jemez Canyon dam. il Eng N 151:76 O 8 '53

Origin of Alaska silts. S. Taber. bibliog map Am J Sci 251:321-36 My '53

Silt carried 115 miles in Lake Mead. Eng N 151:32 D 17 '53

Silt removal from a city lake. G. F. Burnley. il Pub Works 85:82 F '54

Sloping-sill sand screens exclude silt from Egyptian irrigation canals. S. Leliavsky. il diags Civil Eng 24:170-2 Mr '54

Stabilization of soil by the silt injection method for preventing settlement of hydraulic structures and leakage from canals. G. E. Johnson. il map diags Am Soc C E Proc 79 [no 323]:1-18 N '53

SILVER

Activation energy for recrystallization in rolled silver. K. K. Tangri and D. S. Eppelsheimer. bibliog Mo U Sch Mines & Met Bul tech ser 83:1-18 '54

Adsorption of copper sulfate on copper and silver. L. R. Scharfstein and C. V. King. bibliog J Phys Chem 58:180-2 F '54

Adsorption of silver salts on silver. C. V. King and R. K. Schochet. bibliog J Phys Chem 57:895-8 D '53

Automatic coulometric titration with electrolytically generated silver ion. J. J. Lingane. bibliog diags Anal Chem 26:622-6 Ap '54

Coördination of polycyclic aromatic hydrocarbons with silver ion; correlation of equilibrium constants with relative carcinogenic potencies. R. E. Kofahl and H. J. Lucas. bibliog Am Chem Soc J 76:3931-5 Ag 5 '54

Coulomb excitation of energy levels in rhodium and silver. N. P. Heydenburg and G. M. Temmer. Phys R 95:861-3 Ag 1 '54

Depolarization effects after current reversal at silver anodes and cathodes. A. L. Ferguson and D. R. Turner. bibliog diags Electrochem Soc J 101:382-6 Jl '54

Diffusion of antimony in silver. E. Sonder and others. bibliog Phys R 93:970-2 Mr 1 '54

Experimental confirmation of the Drude free electron theory of the optical properties of metals for silver, gold, and copper in the near infrared. L. G. Schulz. bibliog diags Opt Soc Am J 44:540-5 Jl '54

Heterogeneous carbon monoxide-ozone reaction on silver. D. Garvin. Am Chem Soc J 76:1581 Mr 20 '54

Hydrogen-deuterium exchange on copper, silver, gold and alloy surfaces. R. J. Mikovsky, M. Boudart and H. S. Taylor. bibliog diag Am Chem Soc J 76:3814-19 Jl 20 '54

Optical constants of silver, gold, copper, and aluminum. L. G. Schulz and F. R. Tangherlini. bibliog diags Opt Soc Am J 44:357-68 My '54

Polyatomic species in silver vapor. A. W. Searcy, R. D. Freeman and M. C. Michel. bibliog Am Chem Soc J 76:4050 Ag 5 '54

Rate of displacement of silver from aqueous silver nitrate by zinc and copper. R. Glicksman and others. bibliog Electrochem Soc J 100:580-5 D '53

Reaction of silver with aqueous solutions of cyanide and oxygen. G. A. Deitz and J. Halpern. bibliog diag J Metals 5:Trans 1109-16 S '53

Reclaiming silver from silver chloride residues. O. L. Willbanks. J Chem Educ 30:347 Jl '53

Resistivity changes in copper, silver, and gold produced by deuteron irradiation near 10° K. H. G. Cooper and others. Phys R 94:496 Ap 15 '54

Resistivity of thin silver films. U. Oppenheim and J. H. Jaffe. bibliog J Ap Phys 24:1521 D '53

Self-diffusivity along edge-dislocation singular lines in silver. A. A. Hendrickson and E. S. Machlin. il J Metals 6:Trans 1035-7 sec 2 S '54

Separation of technetium from molybdenum, cobalt and silver. N. F. Hall and D. H. Johns. Am Chem Soc J 75:5787-91 D 5 '53

Silver-silver halide electrodes; preparation, stability, reproducibility, and standard potentials in aqueous and non-aqueous media. G. J. Janz and H. Taniguchi. diags Chem R 53:397-437 bibliog(p435-7) D '53

Standard e.m.f. of the silver-silver chloride electrode and the degenerate activity coefficient of chloride ion in the system ethanol-water. E. F. Sieckmann and E. Grunwald. bibliog Am Chem Soc J 76:3855-6 Jl 20 '54

Standard potentials of silver-silver chloride cells in some ethanol- and isopropyl alcohol-water solutions at 25°. H. S. Harned and D. S. Allen. bibliog J Phys Chem 58:191-2 F '54

Stress-strain characteristics and slip-band formation in metal crystals; effect of crystal orientation. F. D. Rosi. bibliog(34 titles) il diags J Metals 6:Trans 1009-20 sec 2 S '54

Studies in low concentration chemistry; some properties of tracer yttrium, antimony and silver in solution. G. K. Schweitzer and W. M. Jackson. Am Chem Soc J 76:3348-9 Je 20 '54

Summary review of the silver market, 1953. Can Min J 75:85 F '54

Thermal neutron captive cross sections of hydrogen, boron, and silver. F. R. Scott and others. diag Phys R 95:582-4 Jl 15 '54

Titration of iodide with electrolytically generated silver ion. R. L. Kowalkowski, J. H. Kennedy and P. S. Farrington. bibliog Anal Chem 26:626-8 Ap '54

Work functions of gas-coated tungsten and silver surfaces. G. L. Weissler and T. N. Wilson. bibliog diag J Ap Phys 24:472-5 Ap '53

See also
Argentometry

Analysis

Activation analysis using low level neutron sources. W. W. Meinke and R. E. Anderson. bibliog il Anal Chem 25:778-83 My '53

Determination of silver with 1,2,3-benzotriazole. K. L. Cheng. bibliog Anal Chem 26:1038-40 Je '54

Industrial applications

Bactericidal action of Movidyn. R. K. Hoffman and others. Ind & Eng Chem 45:2571-3 N '53

Life of silver-surfaced contacts on repetitive arcing duty; abstract. W. R. Wilson. Elec Eng 73:52 Ja '54

New colloidal silver disinfectant. C. W. Chambers, L. A. Chambers and P. Kabler. Ind & Eng Chem 45:2569-71 N '53

Isotopes

Assay of radioiron and radiosilver in biological samples. L. Cheong, G. C. Perri and L. M. Sharpe. Anal Chem 26:242-3 Ja '54

Determination of photographic film exposure by neutron activation of Ag^{107}. I. B. Berlman and others. R Sci Instr 24:396-7 My '53

Magnetic moments of Ag^{107} and Ag^{109} and the hyperfine structure anomaly. P. B. Sogo and C. D. Jeffries. Phys R 93:174-5 Ja 1 '54

New neutron-deficient isotope of silver. B. C. Haldar and E. O. Wiig. diag Phys R 94:1713-15 Je 15 '54

Nuclear magnetic moments of K^{41}, Y^{87}, Ag^{107}, and Ag^{109}. E. Brun and others. Phys R 93:172-3 Ja 1 '54

Short-lived isomeric states of Ag^{110} and In^{116}. F. I. Boley. Phys R 94:1078-9 My 15 '54

SILVER—Isotopes—*Continued*

Studies in low concentration chemistry; the spontaneous deposition of silver-111 on various metals. G. K. Schweitzer and D. L. Wilhelm. bibliog Am Chem Soc J 75:5432-4 N 5 '53

Nuclear reactions

Beta-ray spectrum of Ag^{110}. T. Azuma. Phys R 94:638-9 My 1 '54

Decay scheme of Ag^{108}. M. L. Perlman and others. bibliog il diag Phys R 92:1236-40 D 1 '53

Yields of low-energy protons and alphas resulting from high-energy bombardment of Ag. R. W. Deutsch. Phys R 92:515 O 15 '53

Prices

Nonferrous prices; tabulation. Steel 134:175 Ja 4 '54

Spectrum

Hyperfine structures of silver and gold by the atomic beam magnetic resonance method. G. Wessel and H. Lew. bibliog diags Phys R 92:641-6 N 1 '53

Statistics

Gold and silver, 1949-1952. Survey of Cur Bsns 1953 Sup p91 [supplemented in monthly numbers]

SILVER alloys

Development of a copper-silver-lead alloy for bearings. G. Llewelyn. bibliog il diag Metallurgia 48:215-20 N '53

Methods of processing silver-magnesium secondary emitters for electron tubes. P. Rappaport. il diags J Ap Phys 25:288-92 Mr '54

Reaction of silver alloys with sulfur in mineral oil. R. T. Foley and others. bibliog Electrochem Soc J 100:538-42; 101:6-9 D '53-Ja '54

Shorting and field corrections in Hall measurements. W. F. Flanagan and others. R Sci Instr 25:593-5 Je '54

Silver-cadmium beta and zeta phases. L. Muldawer and others. bibliog J Metals 5: Trans 1458-9 N '53

Silver-cadmium eutectoid. G. R. Speich and D. J. Mack. bibliog il J Metals 5:Trans 549-53 Ap '53; Discussion. 6:Trans 675-6 sec 2 My '54

See also

Silver solder

SILVER as money

Silver, 1953. F. H. Wemple. Eng & Min J 155:76-7+ F '54

Would repeal silver purchase laws; Senator Bush together with six other senators, offers measure; with text of bill. Comm & Fin Chr 178:454-5 Ag 6 '53

Great Britain

Freedom for silver; London market. Economist 169:910+ D 19 '53

SILVER brazing. See Silver solder

SILVER bromide

Kinetics of the reaction between silver bromide and an adsorbed layer of allylthiourea. T. H. James and W. Vanselow. J Phys Chem 57:725-9 O '53

Silver bromide polycrystalline film prepared by precipitation method for photoconductive measurements. M. Tamura and S. Tutihasi. il diag Opt Soc Am J 43:407-8 My '53

Studies on aging and coprecipitation; aging of silver bromide in the colloidal state. I. M. Kolthoff and R. C. Bowers. bibliog il Am Chem Soc J 76:1503-9 Mr 20 '54

Studies on aging and coprecipitation; the irreversible flocculation of colloidal silver bromide and the aging in the flocculated state. I. M. Kolthoff annd R. C. Bowers. il Am Chem Soc J 76:1510-15 Mr 20 '54

Vacuum photolysis of silver bromide. G. W. Luckey. bibliog J Phys Chem 57:791-6 N '53

SILVER chloride

Anisotropic rate of photographic development of single crystals of silver chloride. H. Leidheiser, jr. and F. H. Cook. Am Chem Soc J 76:617 Ja 20 '54

Approximate elastic spectrum of acoustic waves in AgCl from X-ray scattering. H. Cole. J Ap Phys 24:482-7 Ap '53

Elasto-plastic stress-optical effect in silver chloride single crystals. L. E. Goodman and J. G. Sutherland. bibliog il J Ap Phys 24:577-84 My '53

Hall effect in AgCl at low temperature. F. C. Brown. bibliog Phys R 92:502-3 O 15 '53

Reclaiming silver from silver chloride residues. O. L. Willbanks. J Chem Educ 30:347 Jl '53

Silver chloride beam condensing lens system for micro infrared measurements. D. H. Anderson and O. E. Miller. diag Opt Soc Am J 43:777-9 S '53

Standard e.m.f. of the silver-silver chloride electrode and the degenerate activity coefficient of chloride ion in the system ethanol-water. E. F. Sieckmann and E. Grunwald. bibliog Am Chem Soc J 76:3855-6 Jl 20 '54

Standard potentials of silver-silver chloride cells in some ethanol- and isopropyl alcohol-water solutions at 25°. H. S. Harned and D. S. Allen. bibliog J Phys Chem 58: 191-2 F '54

SILVER cloth (anti-tarnish)

Keeping silver bright; Pacific silver cloth. il Consumers Res Bul 32:25 O '53

SILVER compounds

Adsorption of silver salts on silver. C. V. King and R. K. Schochet. bibliog J Phys Chem 57:895-8 D '53

Anomalous properties of aqueous silver salt solutions; abstract and discussion. C. W. Davies and D. C. Morgan. Chem & Ind p428-9 Ap 10 '54

Silver ethylamine complexes in alcoholic solutions. H. B. Jonassen and others. bibliog J Phys Chem 58:286-7 Mr '54

Solubility of silver salts in aqua ammonia. C. R. Johnson. J Chem Educ 31:205-6 Ap '54

SILVER halides

Coagulation effects of aluminum nitrate and aluminum sulfate on aqueous sols of silver halides in statu nascendi; detection of polynuclear complex aluminum ions by means of coagulation measurements. E. Matijević and B. Težak. bibliog J Phys Chem 57:951-4 D '53

Silver-silver halide electrodes; preparation, stability, reproducibility, and standard potentials in aqueous and non-aqueous media. G. J. Janz and H. Taniguchi. diags Chem R 53:397-437 bibliog(p435-7) D '53

See also

Silver bromide

Silver chloride

SILVER industry and trade

Silver and gold in 1953. P. McCarran. il Min Cong J 40:103-5 F '54

Silver, 1953. F. H. Wemple. Eng & Min J 155:76-7+ F '54

Statistics

U.S. silver output, 1945-1953; tabulation. Steel 134:179 Ja 4 '54

SILVER iodomercurate

Electrical conductivity of Ag_2HgI_4, Cu_2HgI_4 and their eutectoid. L. Suchow and G. R. Pond. Am Chem Soc J 75:5242-4 N 5 '53

SILVER metallurgy

See also

Cyanide process

SILVER mines and mining

Washington (state)

Knob Hill sand-fill system combats heavy, blocky ground. A. R. Patterson. il Eng & Min J 154:96-9 N '53

SILVER nitrate

Effect of ionic strength on equilibrium in silver-sodium ion exchange. G. E. Wilson, A. W. Davidson and W. J. Argersinger, jr. bibliog Am Chem Soc J 76:3824-6 Jl 20 '54

Rate of displacement of silver from aqueous silver nitrate by zinc and copper. R. Glicksman and others. bibliog Electrochem Soc J 100:580-5 D '53

SILVER nitrite

Reaction of silver nitrite with primary alkyl halides. N. Kornblum, B. Taub and H. E. Ungnade. bibliog Am Chem Soc J 76: 3209-11 Je 20 '54

SILVER oxalate

Decomposition of silver oxalate. A. Finch, P. W. M. Jacobs and F. C. Tompkins. diag Chem Soc J p2053-60 Je '54

SILVER oxide

System Ag_2O-B_2O_3; its thermodynamic properties as a slag model. G. M. Willis and F. L. Hennessy. bibliog J Metals 5:Trans 1367-73 O '53

SILVER perchlorate

System; silver perchlorate-dioxane. A. E. Comyns and H. J. Lucas. bibliog Am Chem Soc J 76:1019-20 F 20 '54

SILVER plating

Gaging with activated neutrons; beta particles emitted from silver plate on waveguides are used to measure thickness. H. V. Watts and L. Reiffel. il Steel 133:110-11 N 23 '53

Performance of electrical joints utilizing new silver coating on aluminum conductors; abstract. T. J. Connor and W. R. Wilson. Elec Eng 72:906 O '53

Plated locknuts reduce galling in titanium bolts. R. A. Baughman. Iron Age 173:134-5 F 11 '54

SILVER polish

Recap on silver cleaners. il Chem W 74:59 Mr 6 '54

Rub with instant cleaners. il Chem W 72:81-2 My 16 '53

Silver dips. H. Brenner. bibliog(51 ref) il Soap & San Chem 29:161+ My '53

SILVER solder

Bimetallic water heaters brazed for strong, tight joints. A. H. Trageser. il diag Iron Age 172:176-7 N 5 '53

Brazing of titanium. N. A. DeCecco and J. M. Parks. bibliog il diags Welding J 32:1071-81 N '53; Excerpts. Materials & Methods 39:109-11 Je '54

Brazing tips for flexible hose. J. R. Summer. il Steel 133:99-100 Ag 10 '53

Constitution and properties of Ag-Cu-Zn brazing alloys. K. M. Weigert. bibliog il J Metals 6:Trans 233-7 sec 2 F '54

Copper and silver brazing simplify joining of complicated parts. L. F. Klein. il Materials & Methods 38:108-9 D '53

Induction heater boosts output of brazed and soldered parts; Illinois engineering co. O. W. Noeske and W. F. Sickels. il diags Iron Age 173:116-17 Ja 14 '54

Inert-gas-shielded titanium brazing. H. L. Meredith. il diag Welding J 33:537-42 Je '54

New alloys stop corrosion in silver-brazed type 430 joints. J. J. Halbig and others. il Iron Age 172:159-63 D 10 '53

Silver and gold for brazing electronic components. A. W. Swift and R. J. Metzler. bibliog il Welding J 33:119-23 F '54

Silver brazing alloys for corrosion-resistant joints in stainless steels. G. H. Sistare and others. il Welding J 33:137-43 F '54

Silver brazing goes semi-automatic. C. P. Spiesz and F. G. Leuthner. il diag Am Mach 98:121-4 My 10 '54

Some practical pointers on silver alloy brazing. S. McCaulley. diags Metal Prog 64:161-2+ D '53

Strength of joints in titanium brazed with several alloys. L. W. Smith and L. A. Yerkovich. il Product Eng 24:141-7 Jl '53

Water-cooled setup for silver brazing. il Electronics 26:262+ O '53

SILVER sulfate

Behavior of the silver-silver sulfate and the mercury-mercurous sulfate electrodes at high temperatures. M. H. Lietzke and R. W. Stoughton. Am Chem Soc J 75:5226-7 N 5 '53

N-alkylation of nitriles in presence of silver sulphate. J. Cast and T. S. Stevens. Chem Soc J p4180-1 D '53

SILVER sulfide

Investigations on silver sulfide. C. Wagner. bibliog diags J Chem Phys 21:1819-27 O '53

Photosensitive and phototropic products of solid state reaction between silver sulfide and mercuric iodide. L. Suchow and G. R. Pond. J Phys Chem 58:240-2 Mr '54

SILVER trees. See Chemistry—Demonstrations

SILVERING

Sensitizing; a process used in silvering. S. Wein. bibliog(84 ref) Glass Ind 35:367-70+ Jl '54

SILVERWARE

Compartmented bags of polyethylene. il Mod Packaging 27:114-15 Je '54

New techniques for silver; now polyethylene bags. il Mod Packaging 27:194-6 Mr '54

Advertising

New ad campaign on silverplate starts drive to revive family dining. N. Keine. il Ptr Ink 243:44-5 Je 26 '53

Protection

Keeping silver bright; Pacific silver cloth. il Consumers Res Bul 32:25 O '53

Tarnishing

See Tarnishing of metals

SILYL chloride. See Chlorosilane

SIMILARITY, Theory of

Similarity of thermal stresses in elastic bodies. M. Lessen. J Aeronautical Sci 20:716-17 O '53

Similarity theory of isotropic turbulence. J. C. Rotta. bibliog J Aeronautical Sci 20:769-78+ N '53

SIMPLIFICATION in industry

See also

Standardization

SIMPSON'S, limited

Long-range benefits seen in Sears, Roebuck connection. Barron's 33:17-18 Ag 3 '53

SINGAPORE

Commerce

United States

Singapore offers potential market for goods made in United States. For Comm W 51:17 F 22 '54

SINGLE rail railroads. See Railroads, Single rail

SINK and float process

Heavy media separation of gravel. D. W. Lewis. bibliog Roads & Sts 97:84-6+ Ag '54

SINKS

Sink display sells four ways; Savage and son, inc. il Dom Eng 183:135 Mr '54

SINTERING

Additives produce strong and reducible iron ore sinter. R. D. Burlingame and others. il J Metals 6:449-51 Ap '54

Effect of mineral additions and moisture control on the sintering of Sierra Leone concentrates. P. K. Gledhill and others. Iron & Steel Inst J 175:277-9 N '53

Evaluation of sinter testing. E. H. Kinelski and others. bibliog diags Min Eng 6:Trans 527-33 My '54

Factors controlling the rate of sinter production. E. W. Voice and others. bibliog flow diag 3pls diags Iron & Steel Inst J 175:97-152 O '53

Fundamental study and equipment for sintering and testing of cermet bodies; fabrication, testing, and properties of 72 chromium-28 alumina cermets. T. S. Shevlin. il Am Cer Soc J 37:140-5 Mr 1 '54

How to get the best results from sintering furnaces. H. M. Webber. il Iron Age 174:83-7 S 30 '54

Industrial furnaces; sintering, brazing. il diags Iron Age 173:supF 19-21 F 25 '54

Measurement of air flow through the strand in sinter plants. F. Jordon and M. P. Newby. diags Iron & Steel Inst J 175:360 D '53

Mineralogy of blast furnace sinter. H. M. Kraner. bibliog Min Eng 5:Trans 1114-17 N '53

Quality of iron ore sinter as related to moisture and coke content. H. A. Morrissey and R. E. Powers. diag J Metals 6:447-9 Ap '54

Radiographic studies of the process of sintering iron ores. E. Cohen. bibliog 6pls Iron & Steel Inst J 175:160-6 O '53; Abstract. Metal Prog 66:156+ S '54

Rating of sinter plants for economic output. R. F. Jennings. Iron & Steel Inst J 175:248-56 N '53

Sinter is what you make it. E. H. Rose and D. J. Reed. il J Metals 6:740-4 Je '54

SINTERING—*Continued*
Sinter-plant assessment trials at Dagenham and at Cleveland. R. F. Jennings and others. plans diags Iron & Steel Inst J 175:267-77 N '53
Sintered nickel steels. F. Benesovsky. Metal Prog 65:200+ Ap '54
Sintered parts; production costs cut with powder metal bearings. il Iron Age 173:164+ Mr 11 '54
Sintered refractory alloys. A. Carter. bibliog(27 ref) il Metallurgia 49:8-14 Ja '54
Sintered titanium carbides open new industrial horizons. J. W. Graham. il Iron Age 172:148-52 Ag 13 '53
Sintering as a physical process. H. B. Wendeborn. diags Iron & Steel Inst J 175:280-8 N '53
Sintering of a water gas shift catalyst. J. Hoogschagen and P. Zwietering. J Chem Phys 21:2224 D '53
Sintering of iron ore; Iron and steel institute symposium; abstracts and discussions. Engineering 177:16-18, 45-7 Ja 1-8 '54
Sintering operations and sinter usage. D. Joyce. il diags Blast F & Steel Pl 42:515-20+, 657-65 My-Je '54
Sintering practice at Domnarfvet, Sweden. C. Danielsson. bibliog diag Iron & Steel Inst J 175:152-4 O '53
Sintering zinc concentrates on the Blackwell 12 by 168 ft machine; Blackwell zinc co. A. E. Lee, jr. bibliog flow sheet il J Metals 5:Trans 1631-3 D '53
Symposium on sinter. Engineer 196:797-800 D 18 '53
Thermal migration in supported copper catalysts. P. E. Jacobson and P. W. Selwood. bibliog diag Am Chem Soc J 76:2641-4 My 20 '54
Towards faster sintering of ironstone. M. A. K. Grice and W. Davies. pl diag Iron & Steel Inst J 175:155-60 O '53
See also
Nodulizing

SINTON, William M.
Adolph Lomb medal to W. M. Sinton. por Opt Soc Am J 44:577 Jl '54

SIPOREX. See Building materials

SIRUPS
See also
Corn sirup
Sugar, Liquid

SISAL hemp
Rigidity of jute, ramie, and sisal. K. R. Sen and S. K. Bose. bibliog Textile Res J 24:754-5 Ag '54

SITOSTEROL
Constituents of the seeds of corchorus olitorius, L; isolation of β-sitosterol and corchorolic acid. G. Soliman and W. Saleh. Chem Soc J p 1506-8 My '54

SIZING (textiles)
Are you missing a bet by not overwaxing warps? R. B. Presssley. il Textile World 104:62-3+ S '54
Backsizing carpets and rugs. O. B. Hager. Am Dyestuff Rep 43:172-3+ Mr 15 '54
Get warp-size content in four easy steps. il Textile World 104:156-7 Mr '54
Instrumentation boosts weave room efficiency; Bachmann-Uxbridge gentle-air slasher. E. A. Murphy. il diag Mod Textiles Mag 34:95-6 D '53
Positive control for multimotor slasher drives. A. T. Bacheler and J. G. Stephenson. il Textile World 104:107+ S '54
Silicones vs can-sticking. F. Fortess and S. T. Bowen. Mod Textiles Mag 35:31+ Ap '54
Study of new techniques in warp-size preparation. il Am Dyestuff Rep 42:300-11 My 11 '53
Tips for slashing and weaving worsted-synthetics gabardines. E. P. Schremp. il Textile World 104:74-5+ Ag '54
See also
Cotton sizing

SIZING of paper. See Paper sizing

SKATING rinks
Plastic pipe serves new outdoor skating rink. il Heating-Piping 26:103 Jl '54
Skating rink piping a problem. C. T. Baker. Heating-Piping 26:106 F '54

SKELETON
Skeletons in plastic liven up trade. il Bsns W p 140-2 Ag 8 '53

SKIATRON'S subscriber vision. See Television broadcasting—Subscription programs

SKIDS
Facts about modern skids and pallets. il Mill & Factory 54:279 My '54

SKIN
Apparatus for recording surface friction and irregularity. P. F. D. Naylor. il diags J Sci Instr 30:390 O '53
Goniometric spectrometer for the measurement of diffuse reflectance and transmittance of skin in the infrared spectral region. C. Clark and others. bibliog il diags Opt Soc Am J 43:993-8 N '53
Perception by the skin of electrically induced vibrations. E. Mallinckrodt and others. Science 118:277-8 S 4 '53
Soap and the skin. S. G. Johnsen and J. E. Kirk. bibliog il Soap & San Chem 29:46-8+ My '53
Toxicity of 2-ethylhexyl diphenyl phosphate; skin sensitization studies of Santicizer 141. L. K. Halpern and R. S. Weiss. A M A Archives Ind Hygiene & Occup Med 8:284-5 S '53
Wide-range thermistor radiometer for the measurement of skin temperature and environmental radiant temperature. A. M. Stoll. bibliog diags R Sci Instr 25:184-7 F '54
See also
Soap—Physiological effect

Diseases

Aggravation as a factor in industrial dermatitis. B. Appel. A M A Archives Ind Hygiene & Occup Med 8:133-42 Ag '53
Allergic employee; atopic dermatoses. M. S. Tenbrinck. Ind Med 22:358-9 Ag '53
Barbers' disease. W. Waris. bibliog il Ind Med 22:111-13 Mr '53
Causes and control of dermatitis; abstract. Am Dyestuff Rep 42:135 Mr 2 '53
Cleaners' effect on skin; abstract. S. A. M. Johnson and others. Soap & San Chem 30:99 Ap '54
Contact dermatitis; its relation to petroleum products. N. P. Anderson. bibliog Ind Med 22:270-3 Je '53
Dermatitis from water glass. G. E. Morris. il A M A Archives Ind Hygiene & Occup Med 7:411-12 My '53
Dermatitis prevention in the foundry industry. F. Van Atta. il Foundry 82:289+ My '54
Detergents' effect on skin. il Soap & San Chem 29:44-6+ N '53
Detergents' effect on skin. W. Schneider. Soap & San Chem 29:93+ F '53
For $600, clean coolant, so good-bye, dermatitis. il Factory Management 112:109 Ag '54
Industrial dermatoses. J. E. Dalton. bibliog Ind Med 22:167-71 Ap '53
Occupational dermatitis and its control. L. Schwartz. il Safety Maint & Prod 107:60-1+ My '54
Occupational dermatoses. H. Rattner. il Ind Med 22:198-201 My '53
Occupational leukoderma; with report of cases. J. V. Klauder and J. M. Kimmich. bibliog il Ind Med 22:106-10 Mr '53
Occupational skin problems. Ind Med 22:581-2 D '53
Seven workers develop chloracne in plant using arochlor. Chem & Eng N 32:2038-9 My 17 '54
Skin infections. Nat Safety N 69:59-60 Mr '54
Some causes of cutting-oil dermatitis; study of protective creams. G. E. Morris and C. C. Maloof. bibliog Ind Med 22:327-8 Jl '53
Synthetic sore spot. il Chem W 75:38-9 Jl 24 '54
Toxicity of soaps and detergents. L. C. Barail. Soap & San Chem 30:52-5 Ap '54
Vinyl plastics; their dermatological and chemical aspects. G. E. Morris. il A M A Archives Ind Hygiene & Occup Med 8:535-9 D '53

SKIN effect

Establishment of the skin effect and its impediment to fluid flow into a well bore. W. Hurst. diag Pet Eng 25:B6-8+ O '53

SKIN friction

Compressible laminar boundary layer with arbitrary pressure and surface temperature gradients. D. N. Morris and J. W. Smith. bibliog J Aeronautical Sci 20:805-18 D '53

Mean skin-friction coefficients for biconvex airfoils in supersonic flow. J. C. Boison. J Aeronautical Sci 20:787 N '53

Measurements of turbulent skin friction on cylinders in axial flow at subsonic and supersonic velocities. D. R. Chapman and R. H. Kester. bibliog(33 titles) il diags J Aeronautical Sci 20:441-8 Jl '53

SKIS and skiing

Sneering at the sun; year-round skiing with plastic-chip snow. il Chem W 74:78 Mr 27 '54

SKY

Brightness and color of the twilight sky. E. V. Ashburn. bibliog Opt Soc Am J 43:805-6 S '53

Measurements of sky luminance distribution at Stockholm. R. G. Hopkinson. bibliog Opt Soc Am J 44:455-9 Je '54

SKYLIGHTS

Daylighting with a new kind of functional skylight. R. A. Boyd and J. L. Reid. il plan diags Illum Eng 49:199-203; Discussion. 203-6 Ap '54

Functional top lighting with glass block. H. F. Kingsbury and others. il diags Illum Eng 49:185-7; Discussion. 188-9 Ap '54

How to install new glass block skylight. il plans diag Am Bld 76:299+ Ja '54

New glass block is developed for skylights. il diag Arch Rec 113:197+ Mr '53

Plastic domes daylight big pumped-gypsum roof; Tobyhanna, Pa. il Eng N 151:47-8 D 3 '53

Prismatic glass panel skylight cuts glare, solar heat. il diag Arch Rec 114:187+ Jl '53

Sheet metal workers' catechism; construction and erection of sheet metal skylights (cont). W. Neubecker. diags Sheet Metal Worker 45:94+ Mr; 104 Je '54

Skylight conditions sunlight; Toplite panel. il diag Chem Eng 60:252 Je '53

Skylight glass block. il diags Arch Forum 98:158-9 Mr '53

SKYSCRAPERS. See High buildings

SLABBING mill. See Rolling mills

SLABS, Concrete. See Concrete slabs

SLAG

Activities of constituents of iron and steelmaking slags. E. T. Turkdogan and J. Pearson. bibliog Iron & Steel Inst J 173:217-23; 175:393-401 Mr, D '53

Activities of Fe, FeO, Fe_2O_3, and CaO in simple slags. H. R. Larson and J. Chipman. bibliog J Metals 6:Trans 759-62 Je '54

Apparatus for fluffing slag; patent. diag Iron & Steel Eng 31:24 Ap '54

Blast-furnace slag cement plant at Cluanie dam. il diag Engineering 176:557 O 30 '53

Carbide drilling speeds removal of tough slag deposits. D. L. Tunsberg. il diag Iron Age 174:98-9 Jl 8 '54

Chihuahua slag fuming plant to process 19,000 tons per month. V. R. MacDonald. il J Metals 5:789-90 Je '53

Chromium conservation. T. W. Merrill and F. St Vincent. Iron Age 173:173 Je 17 '54

Chromium distribution between liquid iron and molten basic slags. N. J. Grant and others. bibliog il J Metals 6:Trans 145-9 F '54

Constitution of the $FeO-Fe_2O_3-SiO_2$ system at slagmaking temperatures. R. Schuhmann, jr. and others. bibliog il J Metal 5:Trans 1097-104 S '53

Diffusion of calcium ion in liquid slag. H. Towers and others. bibliog il diag J Metals 5:Trans 1455-8 N '53

Distribution of manganese between slag and metal under reducing conditions. J. E. Stukel and J. Cocubinsky. diag J Metals 6:Trans 353-6 Mr '54

Effect of Si, Mn, P, Al, C, Ni, and Cu on the mechanism of sulphur transfer across a slag-metal interface. K. M. Goldman and others. bibliog il diag J Metals 6:Trans 534-40 My '54

Exchange of iron between liquid metal and iron silicate slag. G. Derge and C. E. Birchenall. bibliog J Metals 5:Trans 1648-50 D '53

Expanded blast furnace slag for use as light weight concrete aggregate. R. W. Miller. bibliog il Blast F & Steel Pl 48:635-8+ Je '53; Abstract. Steel 133:118+ Jl 6 '53

Liquidus relationships on ten per cent MgO plane of the system lime-magnesia-alumina-silica. A. T. Prince. bibliog diags Am Cer Soc J 37:402-8 S 1 '54

Manganese as an indicator of blast furnace slag oxidation and desulphurizing power. N. J. Grant and others. bibliog J Metals 5:Trans 1451-4 N '53

Method of fluidizing slag in steel manufacture; patent. Iron & Steel Eng 31:12+ Je '54

New use for phosphate slag; lightweight aggregate for concrete. W. C. Scott, jr. and W. D. Sandberg. il diags Chem Eng 60:182-3 Jl '53

New uses reinforce slag markets; approximately 80 per cent of all slag produced finds commercial use. il Steel 133:83 D 14 '53

Open hearth slag removed economically by blasting; Lackawanna, N.Y. plant of Bethlehem steel co. J. O. Dague. il J Metals 5:881-3 Jl '53

Optimum composition of blast furnace slag as deduced from liquidus data for the quaternary system $CaO-MgO-Al_2O_3-SiO_2$. E. F. Osborn and others. bibliog il diags J Metals 6:Trans 33-45 Ja '54

Oxygen activity in iron oxide slags. H. Larson and J. Chipman. bibliog diags J Metals 5:Trans 1089-96 S '53

Pozzolanic cements from blast furnace slag. R. C. Lied and others. Rock Prod 56:130+ D '53

Process 1000 tons of slag per hour; Edward C. Levy co. H. C. Persons. il Rock Prod 56:117-18 O '53

Properties of concrete containing a blend of portland cement and air-entraining ground blast-furnace slag. W. E. Grieb and G. Werner. Pub Roads 28:46-9 Ag '54

Records established by iron blast-furnace slag industry. Blast F & Steel Pl 42:839 Jl '54

Role of slag as a mineral aggregate; abstract. E. W. Bauman. Roads & Sts 97:84 Je '54

Short talks on lightweight slag concrete. H. E. deWeerdt. Concrete 61:16+ Jl; 12+ Ag; 28-9 N '53; 62:30 Ja '54

Slag disposal; major problem to simple procedure; Midvale co. il Steel 134:118 My 24 '54; Iron Age 173:140 Je 3 '54

Slag fuming at Selby. il Eng & Min J 154:95-7 D '53

Slag-metal relations in the acid open hearth steel furnace. G. R. Fitterer. bibliog J Metals 5:Trans 163-40 D '53

System $Ag_2O-B_2O_3$; its thermodynamic properties as a slag model. G. M. Willis and F. L. Hennessy. bibliog J Metals 5:Trans 1367-73 O '53

Water granulated blast furnace slag. il Concrete 62:32-3 Ag '54

Analysis

Composition control of steel castings improved by new furnace sampling methods. V. E. Belusko. il J Metals 5:1430-2 N '53

Determination of iron in ores, slags and refractories. Metallurgia 49:106 F '54

SLAG (in boilers)

Application of additives to fuel oil and their use in steam-generating units. J. B. McIlroy and others. bibliog il diags A S M E Trans 76:31-42; Discussion. 43-6 Ja '54

Slag-blowing pointers. Power Eng 58:65 F '54

Slagging of navy boiler refractories. W. C. Bell and others. il diags Brick & Clay Rec 124:87+ Mr '54

SLAG ladles. See Cinder pots

SLASHER sizing. See Cotton sizing; Sizing

SLATE

Producing lightweight aggregate from slate; Georgia lightweight aggregate co. W. B. Lenhart. flow sheet il Rock Prod 57:92-6+ Mr '54

SLEEP

Regularly occuring periods of eye motility, and concomitant phenomena, during sleep. E. Aserinsky and N. Kleitman. bibliog Science 118:273-4 S 4 '53

SLEEPING cars

First dome cars go to Canada; 18 dome-observation cars among 89 sleeping cars of three types which Canadian Pacific is currently receiving. il plans Ry Age 137:30-7+ S 27 '54

How can Pullman traffic be made more profitable? il Ry Age 136:114-15 My 17 '54

13 car types meet traffic needs; Canadian National. il plans diag Ry Age 136:78-83 Mr 22 '54

SLESAR, Henry

Greatest ads are yet to come. S. H. Margolis and M. Silverstein. Ptr Ink 244:44-5+ Jl 3 '53

SLIDE films

Audio-visuals clinic; techniques and products to aid convention and meeting planners. il diag Sales Management 71:55-6 pt 2 O 1 '53

Comic characters help explain water treatment. il Power Eng 58:86 Ja '54

Comic film helps cut careless handling practices. R. Coleman. il Iron Age 173:126-8 My 27 '54

How-to-do-it film for agents; Home's slidefilm, Agents' community relations; illustrations with text. Spectator 162:26-7 O '54

New techniques and new equipment developed to increase impacts of panoramic filmstrip. il diag Sales Management 72:sup27A-8A pt 2 Ap 15 '54

No trick at all to make your own soundslide films; Brush electronics co. W. H. Gilman, jr. il Factory Management 111:98-9+ D '53

Projection data for slides and slide films by type of film and by operating features. C. J. Hauk, jr. comp. Ptr Ink 245:364-5 sec 2 O 23 '53

Pump maintenance; Allis-Chalmers slidefilm. il Food Eng 26:86-9 Jl '54

Sell your salesmen on product by use of pictures and sound. B. Aitchison. Ind Marketing 39:24+ My '54

Slide film gets sales aid off to good start; Remington Rand inc. Ptr Ink 243:38 My 29 '53

Small budget gets results; prize-winning filmstrip. il Sales Management 73:62-4 pt 2 Jl 1 '54

Sound slidefilms are splendid teachers. il Nat Safety N 69:74+ Je '54

Ten reasons for using sound slide films. C. J. Hauk, jr. il Ptr Ink 244:46-7 S 25 '53

What you need to know about V-belt drives; highlights of three sound-strip films which Allis-Chalmers prepared. il Factory Management 112:102-5 Mr '54; Power 98:128-9 Ap '54

Catalogs

Filmstrip guide. F. A. Krahn, ed. 3d ed rev 410p H. W. Wilson co, New York '54

National directory of safety films. Nat Safety N 69:sup N 1-64 Je '54

Projectors

Inspecting tube grids with slide projector. il Electronics 26:262 D '53

SLIDE rule

Circular slide rule for microanalysts. R. E. Schachat and W. L. Savell. diags Anal Chem 25:1779-80 N '53

Easy-to-use, portable computer in slide-rule form. il diag Product Eng 24:224 Ag '53

How to compute angular tolerances with a slide rule. A. Stein. Tool Eng 32:72-4 Mr '54

New instrument for rapid evaluation of time-displacement curves. K. W. Maier. il R Sci Instr 25:207-12 Mr '54

Simple two-dimensional slide rule for the rapid calculation of time intervals. M. R. Harris. Science 118:309-10 S 11 '53

Slide rule for calculating steel quantities. Engineer 197:260 F 12 '54

Slide rule to estimate air conditioning costs. il Am Bld 76:234 My '54

Subsurface problems are easier to solve. B. O. Prescott. diag World Oil 137:118+ S '53

SLIME

Biological growths in petroleum refinery waste waters. E. S. Crosby, W. Rudolfs and H. Heukelekian. il Ind & Eng Chem 46:296-300 F '54

Phosphatic slime; a potential mineral asset. P. M. Tyler and W. H. Waggaman. bibliog il Ind & Eng Chem 46:1049-56 My '54

SLINGS and hitches

How to make sure your slings are safe. B. R. Craig. diags Iron Age 172:144-6 Jl 9 '53

How to make sure your slings are safe. W. C. Richards. diags Foundry 82:137-8 Ja '54

How to select correct sling for a job. W. C. Richards. il diags World Oil 137:121-4 Ag 1 '53

Inspect those chains! H. F. Reid, jr. il diag Nat Safety N 69:32-3+ My '54

Wire mesh slings reduce damaging. il Eng N 151:267-8 O 8 '53

Woven wire slings speed tank handling. il Safety Maint & Prod 107:23 Ja '54

SLIP covers, Furniture

When the lady asks, how will it look? il Sales Management 71:52 S 15 '53

SLIP rings

Method for truing collector rings. E. Stumpp. diags Power Eng 58:81 S '54

Use of microwaves in observing commutator and slip ring surfaces during operation. A. H. Ryan and S. D. Summers. il diags Elec Eng 73:251-5 Mr '54

SLIPWAYS

Launching slipway for small craft. il diag Engineering 177:382 Mr 19 '54

SLITTING machines

Kane & Roach slitting line has nominal production speed of 158 fpm. il Am Mach 98:218 S 13 '54

New precision coil slitting machine cuts materials costs. il Iron Age 173:152+ My 13 '54; Iron & Steel Eng 31:219 My '54

Slitting; low-cost machines allow in-plant strip making. il Iron Age 173:177-8 Mr 4 '54; Steel 134:160 Mr 15 '54; Tool Eng 32: 130 My '54

SLOGANS

Are slogans born or made? Aesop Glim. Ptr Ink 244:78 Ap 28 '53

More new slogans go in P.I. file. Ptr Ink 243: 51 My 15 '53

New slogans with list of advertisers using them. Ptr Ink 245:69-70 sec 2 O 23 '53

Sell it with slogans. R. Calt. Adv Agency 47: 74+ F '54

SLOT machines, Gambling

Tilt, says court; pinball industry. Bsns W p55 D 19 '53

SLOTTING

Carbide bur grinds radius slot on hardened 8713 steel. E. J. Tangerman. il diags Am Mach 98:172-3 Ap 12 '54

Semi-automatic pantographing simplifies ring slotting; illustrations with text. Am Mach 97:117 N 9 '53

Slotting-cutter runout; chart; reference book sheet. D. E. Sweet. diag Am Mach 98:151 S 27 '54

Two ways to mill curved slots; illustrations with text. H. P. Kunkleman. Am Mach 98:110-11 Ag 2 '54

SLOTTING machines

Improvised slotting machine speeds work on plates. C. Molloy. diag Am Mach 98:176 My 10 '54

Machine tool buyers' guide; shapers and slotters. il Steel 133:212-13 sec 2 N 16 '53

SLUDGE, Sewage. See Sewage sludge

SLUMS

Administration to push slum clearance but will tighten subsidy regulations. Eng N 151:27 Ag 13 '53

Assault on the slums. J. C. W. Schaie and J. C. Perham. Barron's 33:11-12 Ag 17 '53

Attack slum source; resolution hits renting of rooms, not apartments. Eng N 151:53-4 N 12 '53

Best answer to rehabilitation is awakened community pride. il Am Bld 76:284-5 Ja '54

Blight problems of smaller cities get more attention in new program. E. Mickel. Arch Rec 115:16+ Je '54

SLUMS—*Continued*
Chicago starts a pilot block rehabilitation project. il House & Home 5:39+ F '54
Chicago unfolds big redevelopment plan. il Eng N 152:23-4 Mr 25 '54
Court upholds validity of Illinois slum prevention legislation. J. F. McCarthy. Am Bld 76:240 Je '54
Fight against slums; cities step up rehabilitation programs. il House & Home 3:44-5 Ja '53
How to bankrupt slum owners. House & Home 5:152-3 Mr '54
How US cities are meeting the challenge of rehabilitation. il House & Home 4:130-5 O '53
Illinois aims at slum prevention. J. F. McCarthy. Am Bld 75:186-7 Ag '53
Leaders of attack on blight agree on recommendations to every city; round table report and recommendations. il House & Home 4:100-13 O '53
NAHB leads fight on slums. il Am Bld 75: 88-92+ N '53
News stories on slums jolt Chicago. il House & Home 4:37+ Jl '53
Pitfalls in urban rehabilitation; San Antonio homebuilders' fight against slums faces stern test. il House & Home 4:46 N '53
Rehabilitation, cheaper than new construction; Society of friends gets more space at less cost than new construction in Philadelphia experiment. M. Roche. il plans House & Home 4:136-41 O '53
Rehabilitation, one cure for slums. Eng N 152:25 Ap 29 '54
Rehabilitation roundup. House & Home 5:37-8 My '54
Relocating slum families. Arch Forum 100: 35-6 F '54; Same. House & Home 5:52+ Mr '54
Setbacks for rehabilitation; leaders of Baltimore slum plan quit; Miami jettisons its slum clearance department. il House & Home 3:128-9 Ap '53
Slum cleanup leads to murder. House & Home 5:45+ Je '54
Slum clearance depends on solving minority housing problems. A. Cole. House & Home 5:52 Mr '54
Slum fight is on. il Am Bld 76:289-90 Ja '54
Will urban rehabilitation lead to demand for political overhaul of city governments? R. E. Merriam. House & Home 5:170+ F '54
Wrecking crews wind up big slum job; San Francisco. il Eng N 152:173-4+ F 18 '54

SLURRY
Continuous settling and thickening. E. W. Comings, C. E. Pruiss and C. De Bord. bibliog il diag Ind & Eng Chem 46:1164-72 Je '54
Decontamination of radioactively contaminated water by slurrying with clay. W. J. Lacy. bibliog il Ind & Eng Chem 46:1061-5 My '54
Facts for the cement industry on flow of slurries. J. R. Van Wazer. il Rock Prod 56:104-7 D '53

SLUSSER, Charles Edward, 1897-
Mayor C. E. Slusser of Akron, named public housing chief. por House & Home 4:41 Jl '53

SMALL business. See Business—Small business

SMALL business administration. See United States—Small business administration

SMALL loan companies. See Finance companies

SMALL space advertisements. See Advertisements, Small space

SMALLWOOD, Joseph Roberts, 1900-
Newfoundland, not just fish. pors Bsns W p 136-40+ O 17 '53

SMELL
Of smells and smelling. S. R. Lewis. Heating-Piping 26:101 Ap '54
Olfactory thresholds in the International critical tables. F. N. Jones. Science 118:333 S 18 '53
Science of smells. P. G. Lauffer. Chem & Eng N 32:2199 My 31 '54
See also
Odors

SMELTER fumes
Smelter gases yield elemental sulphur at Orkla-Grube plant in Norway. T. Kiaer. il diag Eng & Min J 155:88-90 Jl '54

SMELTING
African smelting progress. L. A. Lyons. il map Eng & Min J 155:96-100 Ja '54
Alloy pigs from hogged fuel. il Chem Eng 60:122+ Je '53
Inco flash smelting process on commercial basis. il diag Min Eng 6:361-2 Ap '54
See also
Blast furnaces
Smelting works

SMELTING, Electric
Continuous electric smelting of low-grade nickel ores. H. Cremer. 7pls U S Bur Mines Rep of Invest 5021:1-36 '54

SMELTING works
More cobalt coming up; Cobalt Chemicals' new smelter at Cobalt. Can Chem Process 38:12+ Ap '54
One more problem for RFC; tin smelter at Texas City. Chem W 74:26 F 27 '54
Tin smelter operation continued by House. Oil Paint & Drug Rep 166:3 Jl 19 '54
White Pine nears production; illustrations with text. Eng & Min J 155:123 S '54
Will the Texas City tin smelter win an eleventh-hour reprieve? il Eng & Min J 155:120 Ap '54

Equipment

Brand new plant for secondary smelting; George Sall metals co. W. J. Fadden, jr. il plans Eng & Min J 154:72-7 N '53
Chihuahua slag fuming plant to process 19,000 tons per month. V. R. MacDonald. il J Metals 5:789-90 Je '53
Copper smelting in Boliden's Rönnskär works described. O. Herneryd and others. il plan diags J Metals 6:330-7 Mr '54
Current refractory practice as applied in copper smelting. W. F. Rochow and L. A. McGill. il diags J Metals 6:338-42 Mr '54
Hot dust is conveyed pneumatically from precipitators to furnaces; Noranda smelter. il diags Eng & Min J 155:91 Jl '54
Hurley furnace and boiler description and design; Kennecott copper corp. E. A. Slover. diags J Metals 5:Trans 1435-41 N '53
Mechanization program results in savings at Laredo antimony smelter; National lead co. R. L. Kulpaca and J. C. Archibald, jr. flow sheet il plan J Metals 5:786-8 Je '53
Midvale smelter practice modified for two shift operation. H. L. Johnson and C. A. Nelson. il J Metals 6:949-51 S '54
Oxygen; Canadian unit produces in volume for flash smelting; International nickel company of Canada. il Iron Age 173:162+ F 4 '54; Steel 134:142 Mr 1 '54
Power lance pierces crucibles. il Blast F & Steel Pl 42:1093 S '54
Reverberatory furnace practice at Noranda. J. N. Anderson. bibliog plans diags J Metals 6:Trans 745-58 Je '54
Sintering zinc concentrates on the Blackwell 12 by 168 ft machine; Blackwell zinc co. A. E. Lee, jr. bibliog flow sheet il J Metals 5:Trans 1631-3 D '53
Slag fuming at Selby. il Eng & Min J 154: 95-7 D '53

SMILES, Samuel
Sketch. G. M. Bennett. Chem Soc J p4192-200 D '53

SMITH, G. Frederick, 1891-
Analysts honor Fisher award winner. por Anal Chem 26:sup21A Ap '54
G. F. Smith receives Fisher award. por(cover) Chem & Eng N 32:1138+ Mr 22 '54

SMITH, Garland A.
Elevated to Texas insurance board chairman. por Weekly Underw 169:930 O 17 '53

SMITH, Harold H.
Morrison heads BDSA chemicals. por(cover) Chem & Eng N 32:3363 Ag 23 '54

SMITH, James Craig, 1905-
Mister Cotton goes to town. por Manuf Rec 123:29+ Ag '54

SMITH, James Hopkins, 1909-
Smith is new navy air secretary. por Aviation W 59:18 Jl 13 '53

SMITH, Thomas Peters
Typical early American chemist. W. Miles. J Chem Educ 30:184-8 Ap '53

SMITH, V. Weaver
ASME elects two Fellows. Mech Eng 75:842-3 O '53

SMITH, W. H. and son ((holdings)), limited
Statement by the chairman. D. J. Smith. Economist 168:484 Ag 15 '53

SMITH, William Walker, 1882-1953
Sketch. por Marine Eng 58:97 N '53

SMOG. See Air pollution

SMOKE
Bad tuyeres cause smoke, stifle fire. C. W. Gruber. il Power Eng 58:96 Ap '54
Colorimeter for pyrotechnic smokes. I. Nimeroff and S. W. Wilson. diags Opt Soc Am J 44:299-302 Ap '54
Current lines of attack on the smoke problem in Britain. P. C. G. Isaac. A M A Archives Ind Hygiene & Occup Med 8: 212-18 S '53
Formation and combustion of smoke in Bunsen flames. T. P. Clark. il diags Ind & Eng Chem 45:2785-9 D '53
Guilty or not? Ringelmann chart for smoke measurement. il Power 97:106 D '53
Power's microRingelmann; new aid to smoke inspectors. il Power 98:90-3 Mr '54
Products of combustion in burning buildings. F. E. T. Kingman, E. H. Coleman and D. J. Rasbash. bibliog plans diags J Ap Chem 3:463-8 O '53
Smoke dangers in public buildings. Safety Maint & Prod 108:51 Ag '54
Smoke eaters; Airkem's smoke odor service. Ind & Eng Chem 46:sup 18A+ Ag '54
Suggestion and some consequences; reflections on Liebig's call to British chemists at the Liverpool meeting in 1837, together with observations on the nature of city smoke. G. R. Clemo. Chem & Ind p957-64 S 12 '53
Variation in smoking tendency among hydrocarbons of low molecular weight. R. L. Schalla and G. E. McDonald. bibliog diags Ind & Eng Chem 45:1497-500 Jl '53
What are anti-smoke laws worth? A. W. Gray. Power Eng 58:75 Ap '54
See also
Flue gas
Fumes
Smoke prevention
Tobacco smoke

SMOKE detectors
Smoke detection equipment guards against danger in public buildings. East Underw 55:29 Ap 30 '54
Smokescope uses principles of Nyder gun sight to overcome difficulties experienced with Ringelmann chart. L. C. McCabe. il diag Ind & Eng Chem 46:sup95A-6A F '54

SMOKE point
Smoke points of hydrocarbons. Chem Age (Lond) 69:499-500 S 5 '53

SMOKE prevention
Air pollution report. Elec J 151:1934 D 11 '53
Automatic system simplifies handling of industrial smoke. il diags Iron Age 172:166-9 N 19 '53
Bethlehem-Pacific smogless electric furnace passes test. G. P. Larson. il Iron Age 172: 63 O 1 '53
Clearing the air; smoke and fog, London. Economist 169:90 O 10 '53
Less smoke at Monessen. Steel 133:115 D 7 '53
Oil spray controls waste. Steel 134:128 My 3 '54; Blast F & Steel Pl 42:695 Je '54
Ontario studies smoke prevention. Chem & Eng N 32:320 Ja 25 '54
Poisoned air. Economist 169:804+ D 12 '53
Pollution of air by smoke can be cured; abstract. H. Beaver. Chem Age (Lond) 71: 670 S 25 '54
Smoke, dust, fumes closely controlled in electric furnaces; Bethlehem Pacific coast steel corp. R. S. Coulter. il plan Iron Age 173: 107-10 Ja 14 '54
Smoke screen attack; Pittsburgh steel co. (Monessen, Pa.). il Chem W 74:62 Ja 23 '54
Smokeless burning of waste process gases. R. D. Reed. A S M E Trans 76:251-3 F '54
Thilmany completes $1,175,000 smoke abatement project. il Paper Ind 35:1013 D '53
See also
Electric precipitation

SMOKING
Smoking; crutch for will power; proprietary compounds that guarantee. il Chem W 74: 59-62 Ja 30 '54
What's behind the smoke? il Chem & Eng N 32:218-19 Ja 18 '54

SMUGGLING
Moth holes in iron curtain; Communist gold lures smugglers of war materials. il Chem W 74:24-5 Mr 6 '54

SMYTH, Charles Phelps, 1895-
Nichols medal, medal of freedom. por(cover) Chem & Eng N 32:1209+ Mr 29 '54

SNAKE gourds. See Trichosanthes

SNAKES
Submicroscopic structure of stratum corneum of snakes. A. R. Hoge and P. S. Santos. il Science 118:410-11 O 9 '53
See also
Rattlesnakes

SNOW
Luminous directional reflectance of snow. W. W. K. Middleton and A. G. Mungall. il diags Opt Soc Am J 42:572-9 Ag '52; Discussion. A. W. Christie. 43:621-2 Jl '53
Radioactive gages signal water content of snow packs as aid in runoff control. il Eng N 151:24-5 D 24 '53
Snow is important. Pulp & Pa of Can 55: 121 Mr '54

SNOW, Artificial
Sneering at the sun; year-round skiing with plastic-chip snow. il Chem W 74:78 Mr 27 '54

SNOW fences
Backfilling with snow fences. il diag World Oil 138:204+ Ja '54
Road problems arising from snow and ice. A. C. Whiffin and W. I. J. Price. il diags Chem & Ind p230-2 F 27 '54

SNOW removal
Big snow melting system serves earth fill ramps at Boston's new elevated highway. E. E. deCastro. il diags Heating-Piping 26: 130-2 My '54
Chemical snowshovel; snow removal compounds. il Chem W 74:64+ Ja 16 '54
Electrically heated sidewalk eliminates snow maintenance, increases safety. R. L. Conboy. il Elec World 140:183 O 19 '53
Heating provides built-in safety for expressway ramps. L. F. DeMarsh. il Pub Works 85:92+ Ag '54
Highly integrated methods speed snow removal in Milwaukee. W. J. Rheinfrank. Roads & Sts 96:99-101 N '53
Making modern living normal in the snow belt. A. W. Tews. il map Pub Works 85: 94-5 S '54
New highway has snow melting in ramps; Boston central artery. Heating-Piping 25: 77 D '53
Pittsburgh's snow plowing and sanding methods. J. S. Devlin. Roads & Sts 96: 102 N '53
Radiant heated highway. Dom Eng 183:259-60 Mr '54
Road problems arising from snow and ice. A. C. Whiffin and W. I. J. Price. bibliog il diags Chem & Ind p230-7 F 27 '54
Snow and ice control on the edge of the cold belt. W. A. Xanten. il Pub Works 85:83-5 Ag '54
Snow melting. il Dom Eng 183:204+ Mr '54
Snow melting costs studied in sidewalk and driveway systems. il Heat & Ven 51:138+ Ap '54
Snow melting ramps; Boston's Aerial highway. il Heat & Ven 50:120 N '53
Snow melting system for a driveway. diags Heat & Ven 51:128+ Je '54
Snow melting system for a truck driveway. Heat & Ven 50:95+ N '53
Snow removal and ice control. L. A. Johnson. il S A E J 61:39-40 D '53
Toronto's winter plan; keep all streets open. H. D. Bradley. il Roads & Sts 96:61+ O '53
Where snow and ice control is a big problem. C. L. Wood. il Pub Works 85:72-4 Ag '54

SNOW surveys
Forecasting water supply through snow surveys. F. A. Strauss. il Am Water Works Assn J 46:853-63 S '54; Abstract. Water & Sewage Works 101:388 S '54
Hot cobalt and telemetering system help engineers predict runoff from the Sierra Nevadas. il Elec World News ed 141:30-2 F 1 '54
Latest snow survey cheers California. Eng N 152:34 Ap 29 '54

SNUFF
Isolation of bufotenine from piptadenia peregrina. V. L. Stromberg. Am Chem Soc J 76:1707 Mr 20 '54

SOAKING pits. See Furnaces, Heating

SOAP
Are fatty acid soaps superior to those made from neutral fats? K. L. Weber. Soap & San Chem 30:97 Ap '54
Improving soap lather. Soap & San Chem 29:95 My '53
Investigations to determine the effects of the washing temperature and time and the concentration of the washing agents when washing by machine. S. Köhler. bibliog diag Textile Res J 24:173-96 F '54
Ivory soap's 75th anniversary. il Soap & Chem Spec 30:44-5+ Jl; 49-51 Ag '54
Lemon juice in soap. E. Benk. Soap & San Chem 30:87+ F '54
New synthetic rubber soap specs. Soap & Chem Spec 30:89+ Ag '54
Novelty soaps Chicago toiletries show hit. Soap & Chem Spec 30:71 S '54
Private brand soaps; Gimbel brothers, Philadelphia. F. W. Brewer. il Soap & San Chem 29:50-2 O '53
Reputation pays off; booming Lux for laundries. il Chem W 75:78+ Ag 28 '54
Self-selection of soaps; selling at J. N. Adam department store. E. Weller. Soap & Chem Spec 30:49-51 S '54
Soap for a penal institution; London (O.) prison farm. F. L. Anderson. Soap & San Chem 29:53-5 O '53
Soap in the home clothes washer. F. Ehrenkranz and others. Soap & San Chem 30:46-7+ F '54
Soap use in dairies. H. G. Harding. Soap & San Chem 29:52-3+ Ap '53
Use of soap films in gas analysis and gas calorimetry. W. J. Gooderham. bibliog Chem Age (Lond) 70:829-32+ Ap 10 '54
See also
Cleaning compositions
Saponification
Shampoos
Sodium phenyl stearate

Analysis
Colorimetric determination of EDTA in soaps and detergents. A. Darbey. bibliog Soap & San Chem 29:81+ Ag '53
pH and titration control. Soap & San Chem 29:87+ S '53

Patents
Essential features of a valid patent. A. W. Gray. bibliog Soap & San Chem 30:38-40+ F '54
Soaps under the new U.S. patent law. A. W. Gray. Soap & San Chem 29:54-5+ Ap '53
Superfatting of toilet soap; patent. Soap & San Chem 30:107 Mr '54

Physiological effect
Soap, detergent product liability. J. D. Conner and G. A. Burroughs. bibliog Soap & Chem Spec 30:42-5+ My; 48-50 Je '54

Prices
Soap plant observer; concept of determining price of soaps has altered in past few years. J. W. McCutcheon. Soap & San Chem 29:103 N '53

Rating
Consumer group rates toilet soaps. Soap & Chem Spec 30:75 My '54

SOAP, Antiseptic
D.C.M.X. new chlorophenol. J. Gemmell. bibliog il Soap & San Chem 29:95+ Mr '53
Detergent germicides. C. E. Béland. bibliog (37 titles) Can Chem Process 38:78+ S '54
Detergent-sanitizers; ampholytic soaps. Soap & San Chem 30:93+ Ap '54; Discussion. H. S. Mannheimer. Soap & Chem Spec 30:37+ Je '54
Germicidal soaps in food handling industry. F. A. Korff. Soap & San Chem 30:44-5+ F '54
Germicides for soap; review of recent papers covering the use of D.C.M.X and hexachlorophene. W. Innes. bibliog Soap & San Chem 29:42-5 S '53; Discussion. W. S. Gump and A. R. Cade. 29:91-2 N '53
New antiseptic for soap; tetramethylthiuram disulfide (TMTD). L. J. Vinson. bibliog il Soap & San Chem 30:44-7+ Ap '54
New bactericide for soap; Anobial. Soap & San Chem 30:95 Ap '54
New soap germicide, Vancide 89. E. I. Stoltz and C. H. Rogers. bibliog Soap & Chem Spec 30:38-40+ Je '54

Testing
Actamer in liquid soaps. R. R. Egan and M. D. Reed. Soap & San Chem 29:42-4+ Jl '53
Evaluation of germicidal soaps. A. H. Gee and I. L. Seidenberg. Soap & Chem Spec 30:42-5+ Ag '54

SOAP, Deodorant
Properties of soap deodorizing agents. J. Augustin. Soap & Chem Spec 30:95 Je '54

SOAP, Floating
Specialty soap manufacture. J. Bergeron. Soap & San Chem 29:95+ O '53

SOAP, Liquid
Actamer in liquid soaps. R. R. Egan and M. D. Reed. Soap & San Chem 29:42-4+ Jl '53

SOAP, Metallic
Electron microscope view of a soap. H. M. Allred. il Chem & Eng N. 32:714 F 22 '54
Mechanism of the corrosion-inhibitive action of paints, with special reference to basic pigments. J. E. O. Mayne and D. van Rooyen. bibliog(27 ref) diag J Ap Chem 4:384-94 Jl '54
New synthetic rubber soap specifications. Soap & San Chem 29:89 N '53
Polarographic analysis of lead driers. D. A. Skoog and R. L. Focht. Anal Chem 25:1922-4 D '53
See also
Napalm

Spectrum
Infrared spectra of aluminum soaps and soap-hydrocarbon gels. F. A. Scott and others. bibliog J Phys Chem 58:61-4 Ja '54

SOAP, Textile
Effects of the soaping aftertreatment on vat dyeings. H. H. Sumner and others. bibliog pl diags Soc Dyers & Col J 69:181-94 Je '53
Soap for wool scouring. J. L. Boyle. il Soap & San Chem 29:36-9 Jl '53

SOAP, Transparent
Specialty soap manufacture. J. Bergeron. Soap & San Chem 29:93+ O '53
Transparent glycerine soaps. Soap & Chem Spec 30:85+ Ag '54

SOAP and glycerine producers, Association of American. See Association of American soap and glycerine producers

SOAP factories

Electric equipment
Soap plant observer; photoelectric cells. J. W. McCutcheon. Soap & San Chem 29:111 Ap '53

Equipment
Conveyor and pallet loader cut handling 80 per cent; Colgate-Palmolive co. P. J. Anderson and E. L. Asher. il plan Factory Management 112:98-101 F '54
Filmill, made by the Micro processing equipment co., Savage, Minn. Soap & San Chem 30:105 Ja '54
P & G revolutionizes soap manufacture. flow sheet il Can Chem Process 37:30-2+ N '53
Production clinic; high intensity mill for milled and granulated soaps. E. G. Thomssen. Soap & San Chem 29:93 N '53
Soap plant instrumentation. J. Procopi. il Soap & San Chem 29:46-7 S '53

Fires and fire protection
Spray tower shut-off system. diags Soap & Chem Spec 30:73+ Jl '54
Thermostatic shut-off stops drying-tower fires; Lever Brothers. diags Safety Maint & Prod 108:53, 63 Ag '54

Quality control
Product control of Colgate-Palmolive. il Can Chem Process 38:96+ S '54

SOAP industry and trade

Does soap couponing pay? P. J. Stomberg. Soap & San Chem 30:48-51 Ap '54

F.T.C. to investigate soap couponing. Soap & Chem Spec 30:55 Jl '54

Folding paper box awards to soapers. il Soap & San Chem 29:55+ My '53

40 years of soap industry progress. D. H. Terry. Soap & San Chem 30:34-7+ Ja '54

How to boost soap sales. B. C. Campbell. Soap & San Chem 29:42-4 Je '53

No blue Mondays; local family-wash service stores, prime laundry chemicals consumer. il Chem W 75:93+ Ag 28 '54

Soap price discrimination charges unfounded; FTC. Oil Paint & Drug Rep 165:3 Ja 4 '54

Synthetic detergents and their impact on soap industry. G. Heyworth. Chem & Eng N 31:2793 Jl 6 '53

What's ahead for soaps and synthetic detergents? A. W. Smith. il Soap & Chem Spec 30:41-3+ Jl '54

See also

Association of American soap and glycerine producers

Procter and Gamble company

Accounting

Soap cost accounting. W. I. McNeill. Soap & Chem Spec 30:89+ Je '54

Advertising

Premiums with a purpose; to introduce a new product; Colgate-Palmolive-Peet's premium offers on Peter Pan soap. il Ptr Ink 243:91 Ap 24 '53

Production clinic; merchandise sampling. E. G. Thomssen. Soap & Chem Spec 30:81+ Jl '54

Exhibitions

New detergent envelopes shown at Midwest international hotel show, Chicago, Feb. 22-24. Soap & San Chem 30:75 Ap '54

Finance

Syndets and soaps; Colgate-Palmolive, Procter & Gamble. J. C. Clifford. Mag of Wall St 93:32-3, 44+ O 3 '53

Statistics

Canadian soap statistics; Bureau of statistics. Soap & San Chem 29:81 Ap '53

Detergents outsell soap in 1953. Soap & San Chem 30:67 Mr '54

Household soap sales. P. J. Stomberg. il Soap & San Chem 29:43-5 Ap '53

Soap sales trends. P. J. Stomberg. Soap & San Chem 30:42-5+ Mr '54

Canada

Canadian soap statistics; Bureau of statistics. Soap & San Chem 29:81 Ap '53

Chemical Canada; soaps and cleaning preparations; tabulations. H. McLeod. Can Chem Process 38:10 Je 20 '54

From soaps to new detergents. Can Chem Process 37:6+ N '53

Syndets ahead in Canada. Soap & San Chem 30:73 Mr '54

Great Britain

Development of the soap and allied industries; abstract. T. Kennedy. Chem & Ind p 1008-9 S 26 '53

India

Problems of India's soap industry. Chem Age (Lond) 71:423 Ag 28 '54

Japan

Soap production in Japan. J. W. McCutcheon. Soap & Chem Spec 30:103+ Ag '54

SOAP manufacture

P & G revolutionizes soap manufacture. flow sheet il Can Chem Process 37:30-2+ N '53

Soap by Mazzoni method; abstract. M. Fock. Soap & San Chem 30:99 Ja '54

Specialty soap manufacture. J. Bergeron. Soap & San Chem 29:93+ O '53

Specialty soaps. K. M. Reese, R. B. Trusler and I. T. Bugas. bibliog flow sheet il diags Ind & Eng Chem 46:1354-62 Jl '54

Standards in the soap plant. J. L. Boyle. il Soap & San Chem 29:52-4 My '53

Superfatting of toilet soap; patent. Soap & San Chem 30:107 Mr '54

Vacuum soap process. il Soap & San Chem 29:97 My '53

See also

Soap factories

Soap materials

By-products

See also

Glycerin—Manufacture

Perfuming

Aromatics in soap perfumery. O. L. Marton and G. F. Foy. il Soap & San Chem 30:38-41+ Ja '54

Esters of nopol; their soap perfuming possibilities. B. T. Bush. Soap & San Chem 29:71 Jl '53

Household soap perfumes. Soap & San Chem 29:93+ D '53

Soap and detergent perfumery. E. D. Kilmer. il Soap & Chem Spec 30:34-6+ Jl '54

Toilet soap perfuming. J. Bather. Soap & San Chem 29:95+ Ap '53

SOAP materials

D.C.M.X. and G-11 in soap. J. W. Lord and E. Parker. Soap & San Chem 29:89 Je '53

Optical bleaches in soap. K. Lindner. Soap & San Chem 30:85+ Ja '54

Saponifying lanolin. Soap & San Chem 29:69+ Jl '53

Soap from tall oil. Soap & San Chem 29:99+ D '53

Soap plant observer; fatty raw materials. J. W. McCutcheon. Soap & San Chem 30:103+ F '54

Tallow for animal feed. J. E. Magoffin. Soap & San Chem 30:54-5+ Mr '54

See also

Coconut oil

Tall oil

SOCIAL insurance. See Insurance, Social

SOCIAL laws and legislation

See also

Insurance, Social

SOCIAL problems

Insecurity amid plenty. W. R. Jenkins. Life Ins Courant 58:44-7+ S '53

Some economic and social problems in Greece. C. Evelpidis. Int Labour R 68:151-65 Ag '53

See also

Housing

Medical service

Public health

Safety movement

Unemployment

SOCIAL research

Action research in the human factor. R. M. Bellows. Advanced Management 18:20-3 Je '53

Social research faces industry. F. Massarik and P. Brown. Personnel 30:454-62 My '54

Bibliography

Register of research in the social sciences, in progress and in plan, no. 10, 1952-1953, with a directory of research institutions. F. Stone, ed. 213p pa $4.50 Cambridge univ. press, 32 E. 57th st, New York 22 '53

SOCIAL sciences

Advertising must dig deeper into social sciences today. P. Martineau. Ptr Ink 244:42-3 Jl 17 '53; Discussion. 244:30-1 Ag 7 '53

Employment outlook in the social sciences. U S Bur Labor Statistics Bul 1167:1-66; pa 30c Supt. of doc. '54

How can the social sciences meet the needs of advertisers? R. O. Carlson. Ptr Ink 245:44+ O 30 '53

Science and human nature. E. D. Adrian. Chem & Ind p 1122-7 S 11 '54

Science and public health research in Alaska; social sciences. M. Lantis. Pub Health Rep 68:529-31 My '53

Social science library for advertising. M. Grunsfeld. Special Lib 44:219-21 Jl-Ag '53

See also

Economics

SOCIAL scientists

Looking for a social scientist? here's how to find him. E. L. Bernays. Ptr Ink 244:56+ S 11 '53

Social scientist and the control and development of natural resources. V. Ostrom. bibliog Land Econ 29:105-16 My '53

SOCIAL security. See Insurance, Social

SOCIAL security act

Social security, 1955. Factory Management 112:108-9 S '54

SOCIAL statistics

See also

Demography

SOCIAL surveys

World population and production; trends and outlook. W. S. Woytinsky and E. S. Woytinsky. 1268p bibliog(p 1209-45) $12 Twentieth century fund, 330 W. 42d st, New York 18 '53

SOCIAL welfare

Welfare legislation is of chief concern; impact of federal trends on insurance industry; abstracts. E. M. Thore. Weekly Underw 171:761+ O 2 '54; Nat Underw (Life ed) 58:19+ O 8 '54

See also

Public assistance

SOCIAL work

See also

Child welfare

SOCIALISM

Encroachments on private enterprise in insurance business. L. W. Dawson. Comm & Fin Chr 178:1121 S 24 '53

SOCIETIES

See also

Benefit societies

Engineering societies

Trade associations

Trade unions

SOCIETY for advancement of management

Annual report, 1953-1954. Advanced Management 19:23-31 Ag '54

Directory of member firms. Advanced Management 18:29+ Jl '53

Executive committee and board of directors, 1953-54. Advanced Management 19:22 Ag '54

Firm members. Advanced Management 19:32-4 Ag '54

Officers, 1953-1954. Advanced Management 18:24-5 Jl '53

SOCIETY for analytical chemistry (formerly Society of public analysts and other analytical chemists)

Change of name. Chem Age (Lond) 70:233 Ja 16 '54

SOCIETY for applied spectroscopy

Annual meeting, 9th, New York, May 27-28; abstracts of papers. Anal Chem 26:1391-2 Ag '54

SOCIETY for visiting scientists, ltd.

Annual report. Chem & Ind p 1041 Ag 21 '54

SOCIETY of actuaries

Annual meeting, Chicago, Oct. 29-31. Weekly Underw 169:1178-9, 1264+ N 14-21 '53; East Underw 54:3+ N 13 '53; Nat Underw (Life ed) 57:1+ N 6 '53

Spring meeting, Atlantic City. East Underw 55:3-4 My 7 '54; Nat Underw (Life ed) 58: 1+, 19 My 7 '54; Weekly Underw 170:1250, 1310-11 My 15-22 '54

Western spring meeting, Chicago, May 23-25. East Underw 55:3-4 Je 11 '54; Nat Underw (Life ed) 58:2+ Je 11 '54

SOCIETY of American bacteriologists

Annual meeting, San Francisco, Aug. 10-14. Science 118:509 O 30 '53

General meeting, 53d, San Francisco, Aug. 10-14. Chem & Eng N 31:3550+ Ag 31 '53

SOCIETY of automotive engineers

Annual meeting, Detroit. Automotive Ind 110: 58-9+ F 1 '54

Annual meeting, Detroit; abstracts of papers. Automotive Ind 110:42-5+ Mr 1 '54

Annual meeting, Detroit, Jan. 11-15; program. S A E J 61:90-5 D '53

Annual meeting, Detroit, Jan. 11-15; with abstracts of papers. S A E J 62:17+ F '54

First Russell S. Springer award. S A E J 62: 84 Jl '54

International production meeting and forum, 1st, Toronto. Am Mach 97:176 N 23 '53

International production meeting and forum, 1st, Toronto, Oct. 29-30. Automotive Ind 109:33+ N 15 '53

International production meeting and forum, Toronto, Oct. 29-30. S A E J 61:50-7 D '53

National aeronautic meeting and production forum, New York. Automotive Ind 110:86+ My 15 '54

National aeronautic meeting, Los Angeles. Automotive Ind 109:50-2+ N 1 '53; S A E J 61:59-69 N '53

National aeronautic meeting, New York, April 13-15; with abstracts of papers. S A E J 62:66-74 Je '54

National Diesel engine meeting, Chicago, Nov. 3-4. S A E J 61:64-7 D '53

National fuels and lubricants meeting, Chicago, Nov. 5-6. S A E J 61:68-71 D '53

National passenger car, body and materials meeting, Detroit. Automotive Ind 110:55+ Ap 1 '54

National passenger car, body and materials meeting, Detroit, March 2-4; with abstracts of papers. S A E J 62:69-70+ Ap '54

National production meeting, Chicago, March 29-31. S A E J 62:71-7 My '54; Automotive Ind 110:57+ My 1 '54

National tractor meeting, Milwaukee, Sept. 14-17; with abstracts of papers. S A E J 61:70-7 N '53

National transportation meeting, Chicago. Nov. 2-6. S A E J 61:58-62 D '53

National West Coast meeting, Los Angeles. Automotive Ind 111:100+ S 15 '54

1954 president and vice-presidents. S A E J 62:25-9 Ja '54

1953 annual report. S A E J 62:17-24 Ja '54

Section officers, 1954-1955. S A E J 62:96-100 S '54

Summer meeting, Atlantic City, June 6-11. Iron Age 173:109-10 Je 17 '54

Summer meeting, Atlantic City, June 6-11; with abstracts of papers. S A E J 62:17, 66-79 Jl '54

Summer meeting, Atlantic City; with abstracts of papers. Automotive Ind 111:48-53+ Jl 1 '54

SOCIETY of chartered property and casualty underwriters

Annual meeting, Chicago. Sept. 29-Oct. 1. Nat Underw 58:1+ S 30 '54

Annual meeting, 10th, Philadelphia, Sept. 15-18. East Underw 54:16+, 24 S 25 '53; Nat Underw 57:7 S 17; 4 S 24 '53

SOCIETY of chemical industry

Annual general meeting, Nottingham, July 20-25; abstracts of papers. Chem & Ind p704-6 Jl 18 '53

Annual meeting, 72d, Nottingham. July 20-25. Chem & Eng N 31:3272-4 Ag 10 '53

Annual meeting, 72d, Nottingham, July 20-25. Chem & Ind p815-17, 838-44, 863-5 Ag 1-15 '53; Chem Age (Lond) 69:219-22+ Ag 1 '53

Annual meeting and dinner, 73d, Liverpool. Chem Age (Lond) 71:167-70 Jl 24 '54

Annual meeting, 73d. Liverpool, July 12-17; with abstracts of papers. Chem & Ind p805-11, 913-17, 944-8, 968-77 Jl 10, 24-Ag 7 '54

Annual report of the council with the accounts for the year ended Dec. 31, 1952. Chem & Ind p755-77 Jl 18 '53

Annual report of the council with the accounts for the year ended Dec. 31, 1953. Chem & Ind p858-83 Jl 10 '54

Chemical engineering group annual meeting and dinner, London, May 21. Chem & Ind p654-5 Je 5 '54

Food and agriculture groups; summer tour to Austria. il Chem & Ind p924-6 Jl 24 '54

History of the Birmingham and Midland section. J. H. Bennitt. Chem & Ind p 1184-8 S 25 '54

Liverpool and the Society. Chem & Ind p796-9 Jl 10 '54

Meeting, Liverpool. Chem & Eng N 32:3060+ Ag 2 '54

Presidential address. W. Ogg. Chem & Ind p910-12 Jl 24 '54

SOCIETY of cosmetic chemists

Annual technical meeting, New York; with abstracts of papers. Oil Paint & Drug Rep 164:7+ D 14 '53

Semi-annual technical meeting, New York, May 14; with abstracts of papers. Oil Paint & Drug Rep 165:57-8 My 17 '54

Technical meeting, New York; abstracts of papers. Chem & Eng N 32:2198 My 31 '54

SOCIETY of dyers and colourists

Annual general meeting and dinner, 69th, London, April 10. Soc Dyers & Col J 69: 137-48 My '53

Annual general meeting and dinner, 70th, Manchester, April 30. 2pls Soc Dyers & Col J 70:268-78 Jl '54

SOCIETY of dyers and colourists—*Continued*
Colour and textiles; proceedings of joint conference with Textile institute, Scarborough, June 8-11. Textile Inst J 45:P343-529 Ag '54
Regulations governing admission of registered students and election of associates and fellows. Soc Dyers & Col J 69:394-5 N '53

SOCIETY of leather trades' chemists
Annual meeting, Leeds; with abstracts of papers. Chem Age (Lond) 69:597-8 S 19 '53

SOCIETY of motion picture and television engineers
Convention, Los Angeles, April 27-May 1; papers presented. Soc Motion Picture & Tv Eng J 60:751-4 Je '53

SOCIETY of naval architects and marine engineers
Annual meeting, 61st, New York, Nov. 11-14; with abstracts of papers. Marine Eng 59:46-56 Ja; 72-7 F '54
Spring meeting, Seattle, May 17-18; with abstracts of papers. Marine Eng 59:34-7+ Jl '54
Technical and research committees; abstract. E. L. Cochrane. Marine Eng 59:37+ Jl '54

SOCIETY of plastics engineers
Annual meeting, Toronto; abstracts of papers. Materials & Methods 39:6+ Mr '54
National technical conferences, 10th, Toronto, Jan. 27-29; program and abstracts of papers. India Rubber World 129:495-6, 780+ Ja, Mr '54

SOCIETY of public analysts and other analytical chemists. See Society for analytical chemistry

SOCIETY of the plastics industry
Annual conference and national plastics exposition, Cleveland, June 7-10; with abstracts of papers. Rubber World 130:516-18 Jl '54
Canadian branch 12th annual meeting, Montreal. Can Chem Process 38:16+ My '54
National plastics exposition and annual conference, 6th, Cleveland, June 7-10; program, list of exhibitors. Materials & Methods 39:15+ Je '54
Reinforced plastics division annual conference and exhibit, Chicago; abstracts of papers. Materials & Methods 39:6+ Mr '54
Reinforced plastics division 9th annual meeting, Chicago; with abstracts of papers. Automotive Ind 110:36-9+ Mr 1 '54
Reinforced plastics division 9th annual technical and management conference, Chicago, Feb. 3-5. India Rubber World 129:784 Mr '54
Reinforced plastics division session, Chicago. Chem & Eng N 32:591-2 F 15 '54
Thermoplastic division celebrates 1st anniversary. Rubber Age 74:267 N '53

SOCIOLOGY
See also
Cities and towns
Crime and criminals
Family
Leadership
Population
Unemployment

SOCIOLOGY, Industrial

Bibliography

Industrial sociology; an annotated bibliography. V. Prestridge and D. Wray, comps. (Bibliographic contributions no. 3) 80 l Institute of labor and industrial relations, 704 South Sixth, University of Illinois, Champaign, Ill. '53

SOCIOLOGY, Rural
Economic conditions affecting social policy in plantations. R. Roux. bibliog Int Labour R 67:236-61 Mr '53

SOCKS. See Hosiery

SODA. See Sodium carbonates

SODA ash
Natural soda ash; pictured flowsheet. Chem Eng 61:342-5 Mr '54
Soda ash is ready; annual review. il Chem Eng 61:208 Mr '54

Manufacture

Marriage of coal and chemicals; Westvaco Chemical. il Chem W 73:50-2 S 12 '53
Soda ash plant at Westvaco, Wyo. il Chem Eng Prog 49:sup29 Jl '53

SODAMIDE. See Sodium amide

SODIUM
Action of sodium in liquid ammonia on phaeanthine, *OO'*-dimethylcurine, and *OO'*-dimethyl*iso*chondrodendrine. D. A. A. Kidd and J. Walker. Chem Soc J p669-77 F '54
Atomic nudge for sodium; metallic sodium versatility. il Chem W 73:77-8 N 14 '53
Cleavage of biscoclaurine alkaloids with sodium in liquid ammonia; curine and chondrocurine. I. R. C. Bick and P. S. Clezy. Chem Soc J p3893-6 D '53
Cleavage of hexaphenyldisilane by sodium and lithium. A. G. Brook and H. Gilman. bibliog Am Chem Soc J 76:278-9 Ja 5 '54
Concerning the reaction of lithium, sodium, and potassium ethoxide in ethanol with 2-ethylhexyl bromide. M. S. Newman and F. J. Evans, jr. Am Chem Soc J 76:4187-8 Ag 20 '54
Condensations by sodium; the alkylation of anisole and of *o*-cresol methyl ether and the composition of a reacting aggregate. A. A. Morton and A. E. Brachman. bibliog Am Chem Soc J 76:2980-4 Je 5 '54
Condensations by sodium; the metalation and cleavage of ethers, principally of alkyl phenyl ethers, by amylsodium and sodium. A. A. Morton and A. E. Brachman. bibliog Am Chem Soc J 76:2973-80 Je 5 '54
*cyclo*Octatetraene derivatives; reduction of *cyclo*octatetraene by sodium and alcohols. W. O. Jones. Chem Soc J p312-16 Ja '54
Heat transfer measurements at sodium-stainless steel interface. J. W. Moyer and W. A. Riemen. diags J Ap Phys 25:400-2 Mr '54
Magneto-hydrodynamic waves in liquid sodium. B. Lehnert. bibliog diags Phys R 94:815-24 My 15 '54
Measurement of the heat of activation for sodium ion diffusion in glass. R. Kamel. bibliog diag J Ap Phys 24:1308-11 O '53
North American aviation to build sodium nuclear reactor. diag Automotive Ind 111:51+ Ag 15 '54; Same cond. Chem & Eng N 32:2966 Jl 26 '54
Paramagnetic resonance absorption in solutions of K and Na in liquid NH_3. C. A. Hutchison, jr. and R. C. Pastor. bibliog J Chem Phys 21:1959-71 N '53
Place of sodium in the new metals technology. M. Sittig. bibliog il diag Chem Eng Prog 50:457-9 S '54
Reaction of sulphur hexafluoride with sodium. H. C. Cowen, F. Riding and E. Warhurst. Chem Soc J p4168-9 D '53
Recovery method for sodium base sulphite liquor. L. K. Bickell and G. D. Trethewey. flow sheets Pulp & Pa of Can 54:110-16 D '53
Reduction of simple olefins with sodium and methanol in liquid ammonia. H. Greenfield, R. A. Friedel and M. Orchin. bibliog Am Chem Soc J 76:1258-9 Mr 5 '54
Resonant states of Mg^{24} excited by protons on sodium. P. H. Stelson and W. M. Preston. bibliog diag Phys R 95:974-81 Ag 15 '54
Sodium and bromide removal from solvents by nonaqueous ion exchange. F. S. Chance, jr., G. E. Boyd and H. J. Garber. bibliog diag Ind & Eng Chem 45:1671-6 Ag '53
Sodium diffusion in sodium tungsten bronze. J. F. Smith and G. C. Danielson. bibliog diag J Chem Phys 22:266-70 F '54
Sodium in new role; dispersions speed reactions, open new fields. il Chem & Eng N 32:182 Ja 11 '54
Sodium output; abstract. H. R. Tennant. Oil Paint & Drug Rep 165:38 Mr 1 '54
Sodium-promoted condensation of organic halides and carbonyl compounds. C. E. Frank and W. E. Foster. bibliog Ind & Eng Chem 46:1019-21 My '54
Sodium wears a new harness; high surface sodium. diag Chem Eng 60:270-1 Je '53
Some properties of sodium and potassium near their melting points. L. G. Carpenter. bibliog J Chem Phys 21:2244-5 D '53
Thermoelectric properties of metal-ammonia solutions; the thermoelectric power of sodium and potassium at -33°. J. F. Dewald and G. Lepoutre. bibliog diag Am Chem Soc J 76:3369-73 Jl 5 '54

SODIUM—*Continued*

Useful hints for sodium handling in the laboratory. A. S. Hawkes and others. il diags J Chem Educ 30:467-70 S '53

Vibrational spectrum and specific heat of sodium. E. Bauer. bibliog Phys R 92:58-67 O 1 '53

Analysis

Boron in sodium metal. J. Rynasiewicz, M. P. Sleeper and J. W. Ryan. Anal Chem 26:935-6 My '54

Determination of oxygen in sodium. J. C. White, W. J. Ross and R. Rowan, jr. bibliog Anal Chem 26:210-13 Ja '54

Determination of small concentrations of sodium. P. Mazzamaro and G. Tatoian. diag Anal Chem 26:1512-13 S '54

Determination of sodium monoxide in sodium. L. P. Pepkowitz, W. C. Judd and R. J. Downer. Anal Chem 26:246 Ja '54

Direct microdetermination of sodium, potassium, and calcium. G. R. Kingsley and R. R. Schaffert. bibliog Anal Chem 25:1738-41 N '53

Flame photometric determination of sodium and potassium in zinc cadmium sulfide phosphors. S. B. Deal. Anal Chem 26:598-9 Mr '54

Flame spectrophotometric analysis of glasses and ores; lithium, sodium, potassium, rubidium, and cesium. J. P. Williams and P. B. Adams. bibliog Am Cer Soc J 37:306-11 Jl 1 '54

Flame spectrophotometric determination of sodium and potassium in viscous solutions or plant extracts. H. M. Bauserman and R. R. Cerney, jr. bibliog Anal Chem 25:1821-4 D '53

Improvements in flame photometric determination of sodium in portland cement. J. J. Diamond and L. Bean. bibliog Anal Chem 25:1825-30 D '53

Rapid volumetric estimation of sodium. A. Herzka. bibliog Chem & Ind p221 F 20 '54

Sodium determination with ion-exchange resin. R. Navone. Am Water Works Assn J 46:479-80 My '54

Spectrographic determination of sodium and potassium in coal ashes. C. H. Anderson and C. D. Beatty. bibliog Anal Chem 26:1369-71 Ag '54

Isotopes

Cross sections for formation of Na^{22} from aluminum and magnesium bombarded with protons. R. E. Batzel and G. H. Coleman. Phys R 93:280-2 Ja 15 '54

Gamma rays from Li^{7}, F^{19}, Ne^{22}, and Na^{22} produced by alpha-particle bombardment of lithium and fluorine. N. P. Heydenburg and G. M. Temmer. il diags Phys R 94:1252-7 Je 1 '54

Moments of Na^{23}. M. F. Scharff. Phys R 95:1114 Ag 15 '54

Manufacture

Castner sodium process. T. Wallace. il diag Chem & Ind p876-82 Ag 22 '53

Nuclear reactions

Angular distribution of protons from the reaction $Na^{23}(d,p)Na^{24}$. P. Shapiro. bibliog diag Phys R 93:290-4 Ja 15 '54

Electron capture in the decay of Na^{22}. R. Sherr and R. H. Miller. bibliog Phys R 93:1076-81 Mr 1 '54

Gamma rays from the proton bombardment of sodium. J. W. Teener and others. bibliog diag Phys R 93:1035-8 Mr 1 '54

Scintillation counter study of gamma rays from proton capture in sodium. R. R. Carlson and others. bibliog diags Phys R 94:1311-16 Je 1 '54

Spectrum

Hyperfine structure of the $3p_{3/2}$ state of Na^{23}. P. L. Sagalyn. bibliog diags Phys R 94:885-92 My 15 '54

SODIUM, Liquid

Hot corrosion, new problems. E. G. Brush. Chem & Eng N 32:1348 Ap 5 '54

How to move and meter liquid sodium. E. R. Corneil. il diag Chem Eng 60:212-13 S '53

SODIUM alloys

Liquid-metal heat-transfer system for nuclear power plants. T. Trocki and D. B. Nelson. il diags Mech Eng 75:472-6 Je '53

See also

Sodium potassium alloys

SODIUM aluminates

Sodium aluminate non-fibrous raw material. H. B. Berg. Pulp & Pa of Can (Convention no) 55:187-9 [F] '54; Excerpts. Paper Tr J 138:29-30 F 5 '53

Analysis

Volumetric analysis of sodium aluminate solutions. H. L. Watts and D. W. Utley. bibliog Anal Chem 25:864-7 Je '53

SODIUM aluminum fluoride

Some physical and chemical properties of a new sodium aluminum fluoride. E. H. Howard. bibliog Am Chem Soc J 76:2041-2 Ap 20 '54

SODIUM amide

Ortho substitution rearrangement versus β-elimination of certain quaternary ammonium ions with sodium amide; extension of the method of synthesis of vicinal alkyl aromatic derivatives. C. R. Hauser and A. J. Weinheimer. bibliog Am Chem Soc J 76:1264-7 Mr 5 '54

Reactions of succinonitrile; condensation with cyclohexanone in the presence of sodamide. P. E. Fanta and S. Smith. Am Chem Soc J 76:2915-17 Je 5 '54

SODIUM aminotetrazole

Mono-alkylation of sodium 5-aminotetrazole in aqueous medium. R. A. Henry and W. G. Finnegan. bibliog Am Chem Soc J 76:923-6 F 5 '54

SODIUM amytal

Goofballs in the fisheries; sodium amytal and seconal sodium for transporting fish. il Chem W 73:36+ Ag 1 '53

SODIUM azide

Reaction of sodium azide with some representative epoxides. C. A. VanderWerf, R. Y. Heisler and W. E. McEwen. bibliog Am Chem Soc J 76:1231-5 Mr 5 '54

SODIUM benzoate

Behaviour of galvanized steel in sodium benzoate solution. P. T. Gilbert and S. E. Hadden. J Ap Chem 3:545-8 D '53

SODIUM beryllium fluoride

Electrolytic preparation of beryllium hydroxide. R. K. Parikh and K. Kammermeyer. diags Ind & Eng Chem 45:1583-5 Jl '53

SODIUM bicarbonate. See Sodium carbonates

SODIUM borates

Mechanism of inhibition of the corrosion of iron by solutions of sodium phosphate, borate and carbonate. J. E. O. Mayne and J. W. Menter. 3pls Chem Soc J p 103-7 Ja '54

See also

Sodium perborate

SODIUM borohydride

Kinetics of 20-keto reduction in 11α-acetoxypregnane-3,20-dione by sodium borohydride. E. R. Garrett and D. A. Lyttle. bibliog Am Chem Soc J 75:6051-2 D 5 '53

Lattice constants of the alkali borohydrides and the low-temperature phase of sodium borohydride. S. C. Abrahams and J. Kalnajs. bibliog J Chem Phys 22:434-6 Mr '54

Reaction of diphosphopyridine nucleotide with sodium borohydride; a correction and extension. M. B. Mathews and E. E. Conn. bibliog Am Chem Soc J 75:5428-30 N 5 '53

Reduction of a toluene-*P*-sulphonate with sodium borohydride. C. W. Shoppee and R. J. Stephenson. bibliog Chem & Ind p311 Mr 13 '54

Reduction of 5-keto-D-gluconic acid with sodium borohydride. J. K. Hamilton and F. Smith. Am Chem Soc J 76:3543-4 Jl 5 '54

Reduction of methyl 3-oxo-Δ^{4}-etiocholenate with sodium borohydride. W. W. Zorbach. Am Chem Soc J 75:6344-5 D 20 '53

Reduction of oxycelluloses by sodium borohydride. A. Meller. Chem & Ind p 1204 N 7 '53

Reduction of some carbonyl compounds with sodium borohydride. E. B. Reid and J. R. Siegel. Chem Soc J p520-4 F '54

SODIUM borohydride—*Continued*

Reduction of tetralyl peroxide with sodium borohydride. M. Matic and D. A. Sutton. Chem & Ind p666 Jl 4 '53

Reductive fission of lactose by sodium borohydride. L. Hough and others. Chem & Ind p 1064 O 3 '53

Selective reduction of oxosteroids with sodium borohydride. J. K. Norymberski and G. F Woods. Chem & Ind p518-19 My 1 '54

Analysis

Direct volumetric assay of sodium borohydride and potassium borohydride. S. W. Chaikin. Anal Chem 25:831-2 My '53

SODIUM bromide

Condensations of epoxides with 2-thienylsodium and 2-thienylmagnesium bromide. G. Van Zyl and others. Am Chem Soc J 76:707-9 F 5 '54

Self-diffusion and ionic conductivity in sodium bromide. H. W. Schamp, jr. and E. Katz. bibliog diag Phys R 94:828-36 My 15 '54

Specific heats of concentrated sodium and potassium bromide solutions at 25 and 30°. P. Bender and A. D. Kaiser, jr. Am Chem Soc J 76:3084-5 Je 5 '54

Spectrum

Iodide impurity absorption in potassium and sodium bromides. C. J. Delbecq and others. Phys R 93:262-3 Ja 15 '54

SODIUM carbonates

Absorption of carbon dioxide in agitated sodium carbonate-bicarbonate solutions. S. G. Bedekar. bibliog diags J Ap Chem 3:524-7 N '53

Mechanism of inhibition of the corrosion of iron by solutions of sodium phosphate, borate and carbonate. J. E. O. Mayne and J. W. Menter. 3pls Chem Soc J p 103-7 Ja '54

Possible loss of iron during sodium carbonate fusion of silicates and rocks. H. R. Shell. Anal Chem 26:591-3 Mr '54

Possible processes for recovering soda and sulphur from semichemical and acid sulphite waste liquors. G. Haywood. Tappi 37:sup 134A-6A F '54

Analysis

Determination of moisture in sodium bicarbonate. L. N. Gard and R. C. Butler. bibliog Anal Chem 26:1367-8 Ag '54

SODIUM carboxymethylcellulose

Analysis

Sodium carboxymethylcellulose; determination of degree of substitution active agent. C. V. Francis. bibliog Anal Chem 25:941-3 Je '53

SODIUM chlorate

Chlorate expansion; abstract. R. Mattair. Oil Paint & Drug Rep 165:7+ Mr 1 '54

New lifts for chlorates. il Chem W 74:90+ Mr 20 '54

SODIUM chloride. See Salt

SODIUM chlorite

Bleaching with sodium chlorite; abstract. Am Dyestuff Rep 42:475 Jl 20 '53

Determination of glucose by means of sodium chlorite. H. F. Launer and others. bibliog J Res Nat Bur Stand 51:237-45 N '53

Sodium chlorite in the textile industry; abstract. T. K. Merz. Am Dyestuff Rep 42:847 D 7 '53

Use of sodium chlorite for linen piece bleaching; abstract. Am Dyestuff Rep 43:346 My 24 '54

See also

Textone

SODIUM chromate

Improvement of the corrosion resistance of tinplate by a chemical treatment. S. C. Britton and R. M. Angles. il J Ap Chem 4:351-64 Jl '54

Toxicity of mercuric chloride, chromic sulfate, and sodium chromate in the dilution b.o.d. test. Sewage & Ind Wastes 26:536-8 Ap '54

SODIUM compounds

Sodium and potassium salts of triorganosilanols. J. F. Hyde and others. bibliog Am Chem Soc J 75:5615-18 N 20 '53

Sodium salts of alkyl α-sulfopalmitates and stearates. J. K. Weil, R. G. Bistline, jr. and A. J. Stirton. Am Chem Soc J 75:4859-60 O 5 '53

SODIUM cyanate

Concurrent production of fatty alcohols and sodium cyanate. F. O. Barrett, J. D. Fitzpatrick and R. G. Kadesch. bibliog Ind & Eng Chem 45:1114-16 My '53

SODIUM cyanide

Preparation of $NaC^{14}N$ and $NaCN^{15}$. A. G. MacDiarmid and N. F. Hall. Am Chem Soc J 75:4850-1 O 5 '53

Solved with simplicity; Trubek laboratories method of disposing of cyanide waste. il Chem W 73:57-8 N 21 '53

SODIUM cyclohexyl sulfamate

Tempest in a pop bottle; renewed struggle for sweetener sales. Chem W 73:73-4 Ag 15 '53

SODIUM dithionite. See Sodium hydrosulfite

SODIUM dodecyl sulfate

Determination of critical micelle concentrations by a bubble pressure method. L. M. Kushner and W. D. Hubbard. J Phys Chem 57:898-9 D '53

Studies on ionized surface layers using α-recoil atoms; the coadsorption of Bi-212 ions at sodium dodecylsulfate surface layers. N. H. Steiger and G. Aniansson. bibliog diags J Phys Chem 58:228-35 Mr '54

SODIUM ethylenediamine tetraacetate

Descaling of evaporator heating surfaces in cane sugar factories. N. O. Schmidt and L. F. Wiggins. il Ind. & Eng Chem 46:867-70 My '54

SODIUM fluoride

Some properties of the system Na_2O-NaF-B_2O_3-H_2O. B. W. King. bibliog Am Cer Soc J 37:238-42 My 1 '54

Analysis

Fluorometric determination of small amounts of fluoride. W. A. Powell and J. H. Saylor. bibliog Anal Chem 25:960-4 Je '53

SODIUM fluoroacetate

Coyote controversy; 1080 poison in predator control. Chem W 73:78+ S 12 '53

SODIUM fluosilicate

Tentative standard specifications for sodium silicofluoride. Am Water Works Assn J 46:831-6 Ag '54

SODIUM fluotantalate

Structures of complex fluorides; the structure of sodium octafluotantalate, Na_3TaF_8. J. L. Hoard and others. bibliog diags Am Chem Soc J 76:3820-3 Jl 20 '54

SODIUM formaldehyde sulfoxylate

Investigation of sodium sulfoxylateformaldehyde as the primary reducing agent in vat dyeing. bibliog il Am Dyestuff Rep 43:525-40 Ag 16 '54; Summary. Textile World 103:147+ N '53

Investigation of the chemical reactions involved in the use of sodium formaldehyde-sulphoxylate in textile printing. R. J. Hannay and W. Furness. Soc Dyers & Col J 69:596-602; Discussion. 602-5 D '53

Printing efficiency of vat dyes; sensitivity to Formosul concentration. A. G. H. Michie and R. Thornton. bibliog Soc Dyers & Col J 69:629-45; Discussion. 645-7 D '53

Sodium formaldehyde sulfoxylate in GR-S polymerization. R. W. Brown and others. bibliog Ind & Eng Chem 46:1073-80 My '54

SODIUM glutamate

Adds MSG solution at packaging-line speeds; Patterson frozen foods co. il diag Food Eng 26:56-7 Mr '54

Monosodium glutamate unique flavor enhancer. il Food Eng 26:76-7 Je '54

SODIUM hexametaphosphate

Increasing well yields with calgon treatment. L. R. Caplan. bibliog il Water & Sewage Works 100:474-7 D '53

Polyphosphates as polyelectrolytes; viscosity of aqueous solutions of Graham's salts. U. P. Strauss and E. H. Smith. bibliog Am Chem Soc J 75:6186-8 D 20 '53

SODIUM hydride

Stainless strip descaled and brightened continuously; Sharon steel corp. L. H. Wilson. il diags Steel 133:96-8 Ag 10 '53

Titanium descaled successfully with sodium hydride; Universal-Cyclops steel corp. M. Sittig. il plan diag Iron Age 172:137-9 D 17 '53

SODIUM hydrosulfide. See Sodium sulfides

SODIUM hydrosulfite

Investigation of sodium sulfoxylateformaldehyde as the primary reducing agent in vat dyeing. bibliog il Am Dyestuff Rep 43:525-40 Ag 16 '54

SODIUM hydroxide

Alkaline Gulf stream; caustic soda pressed for more outlets. map Chem W 72:60-2 Je 27 '53

Caustic electrolytic-zinc process. C. T. Baroch and others. bibliog flow sheet Electro-Chem Soc J 100:165-72 Ap '53; Discussion. 100:590-1 D '53

Caustic soda situation; abstract. W. C. Gardiner. Oil Paint & Drug Rep 165:7 Mr 1 '54

Chlorine-caustic outlook bright; annual review. Chem Eng 61:193 Mr '54

Comparison of the sulfuric acid and sodium hydroxide methods for the analysis of wool admixed with cotton and viscose rayon. E. Horowitz and J. Mandel. bibliog Am Dyestuff Rep 43:613-15 S 13 '54

Decomposition of fused sodium hydroxide by fast electrons. C. Hochanadel. diags Am Chem Soc J 76:2675 My 20 '54

Fused sodium hydroxide as heat transfer agent; abstract. R. A. Lad. Chem & Eng N 32:1348 Ap 5 '54

Grain boundary attack on aluminum in hydrochloric acid and sodium hydroxide. E. C. W. Perryman. bibliog il J Metals 5:Trans 911-17 Jl '53

Improvement of the corrosion resistance of tinplate by a chemical treatment. S. C. Britton and R. M. Angles. il J Ap Chem 4:351-64 Jl '54

Leading through strength; advantages of 73 per cent over 50 per cent variety. il Chem W 73:42-3 Ag 29 '53

Mechanism of inhibition of the corrosion of iron by sodium hydroxide solution. J. E. O. Mayne and J. W. Menter. Chem Soc J p99-103 Ja '54

Photometric determination of the solubility of pulp in sodium hydroxide solutions. R. M. Kingsbury. Tappi 37:353-5 Ag '54

Report of the chlor-alkali committee of the Industrial electrolytic division for the year 1953. Electrochem Soc J 101:sup 195C-6C Ag '54

Study of phase transitions in sodium hydroxide W. J. Smothers and others. bibliog diags J Ap Chem 4:268-73 My '54

Manufacture

Anhydrous NaOH; today's technology. W. L. Badger and F. C. Standiford. il diags Chem Eng 61:183-7 F '54

Caustic-chlorine plant for western Canada. Can Chem Process 38:40 F '54

Chlorine and caustic in Italy; amalgam cell production. R. L. Kenyon and P. Gallone. bibliog flow sheet il diags Ind & Eng Chem 45:1162-72 Je '53

Chlorine plant gets new look; Velsicol corp., Memphis plant. il Chem Eng 61:118+ Mr '54

Diaphragm type amalgam caustic-chlorine cell. C. Potter and A. L. Bisio. bibliog diag Electrochem Soc J 101:158-61 Mr '54

Electrochemical chlorine-caustic soda production in the Gulf Coast area. F. Chrencik. il map Electrochem Soc J 100:sup 182C-4C Jl '53

Electrolytic caustic and chlorine industries. W. C. Gardiner. il diags J Chem Educ 30:116-20 Mr '53

Mercury cell chlorine and caustic; staff-industry collaborative report. H. J. Sanders, W. C. Gardiner and J. L. Wood. bibliog flow sheets il diags Ind & Eng Chem 45:1824-35 S '53

Transportation

Caustic by sea; Dow Chemical plans tanker shipments from Freeport, Tex. il Chem W 74:103-4 Mr 27 '54

Caustic port; Niagara Falls. il Chem W 73:67-8 Ag 8 '53

Hooker caustic soda barge for Chicago. il Soap & Chem Spec 30:105 S '54

Water-borne caustic; Dow Chemical to ship caustic soda in S.S. Marine Dow-Chem. Chem & Eng N 32:536 F 8 '54

SODIUM hypochlorite

New disinfectant role; sodium hypochlorite useful in controlling fish-bone disease. J. G. Ellis and C. K. Crocker. bibliog Soap & San Chem 29:179+ My '53

Manufacture

Sodium hypochlorite, the easy way; hydrazine plant of Matholin corp. il Chem Eng 61:128+ Mr '54

SODIUM hypophosphite

Analysis

Spectrophotometric determination of sodium hypophosphite as a molybdenum blue complex. A. P. Scanzillo. bibliog Anal Chem 26:411-12 F '54

SODIUM iodide

Gamma-ray absorption coefficients for NaI, Cu, Ta, and W. P. R. Howland and W. E. Kreger. bibliog diag Phys R 95:407-10 Jl 15 '54

Long-lived phosphorescent components of thallium-activated sodium iodide. C. R. Emigh and L. R. Megill. bibliog diags Phys R 93:1190-4 Mr 15 '54

Pressure effects in phosphorescence. L. Reiffel. Phys R 94:856 My 15 '54

SODIUM malonate

Effect of malonate on salmonella typhimurium infection in mice. L. J. Berry and R. B. Mitchell. bibliog Science 118:140-1 Jl 31 '53

SODIUM metaphosphate

Mechanism of corrosion inhibition by sodium metaphosphate glass. J. C. Lamb, 3d and R. Eliassen. bibliog flow diag diags Am Water Works Assn J 46:445-60 My '54

SODIUM methyl siliconate. See Silicones

SODIUM molybdate

Back to the soil; Climax molybdenum co. eyeing the farm. Chem W 74:66 My 15 '54

SODIUM nitrate

Effect of ionic strength on equilibrium in silver-sodium ion exchange. G. E. Wilson, A. W. Davidson and W. J. Argersinger, jr. bibliog Am Chem Soc J 76:3824-6 Jl 20 '54

Sodium nitrate storage. Safety Maint & Prod 107:60-1 F '54

Untouched by hands; Central of Georgia railway mechanized warehouse for handling Chilean nitrate. il Chem W 72:52 Je 6 '53

SODIUM nitrite

Analysis

Determination of nitrate in sodium nitrite. C. L. Johnson. bibliog diag Anal Chem 25:1276-7 Ag '53

SODIUM oleate

Analysis

Assay of certain organic materials by dichromate oxidation. N. F. Schulz. Anal Chem 25:1762-4 N '53

SODIUM orthophenylphenate

Inhibition of mold contamination in drosophila food using sodium orthophenylphenate. E. S. McDonough. Science 118:388 O 2 '53

SODIUM oxides

Polymorphism of sodium superoxide. G. F. Carter and D. H. Templeton. bibliog diag Am Chem Soc J 75:5247-9 N 5 '53

Reactions of some metal salts with alkali superoxides in liquid ammonia. D. L. Schechter and J. Kleinberg. Am Chem Soc J 76:3297-300 Je 20 '54

Some properties of the system Na_2O-NaF-B_2O_3-H_2O. B. W. King. bibliog Am Cer Soc J 37:238-42 My 1 '54

Analysis

Determination of oxygen in sodium. J. C. White, W. J. Ross and R. Rowan, jr. bibliog Anal Chem 26:210-13 Ja '54

Determination of sodium monoxide in sodium. L. P. Pepkowitz, W. C. Judd and R. J. Downer. Anal Chem 26:246 Ja '54

SODIUM perborate

Powder type bleaches. M. A. Lesser. bibliog (27 ref) il Soap & San Chem 29:154-5+ Ap '53

SODIUM peroxide

New process for the bleaching of kraft pulp with sodium peroxide. W. F. Schroeder and J. R. Seferian. Tappi 37:376-84 S '54

SODIUM phenoxide

Kinetics and products of bimolecular substitution reactions of sodium phenoxide in methanol. B. D. England. bibliog Chem & Ind p 1145-6 S 11 '54

SODIUM phenyl

Determination of organic halogen with sodium biphenyl reagent. L. M. Liggett. bibliog diag Anal Chem 26:748-50 Ap '54

SODIUM phenyl phenate

Safer shipping for fruit; antifungal formulations built around sodium ortho-phenylphenate. il Chem W 75:54+ Jl 10 '54

SODIUM phenyl stearate

Physical-chemical behavior of oil-dispersible soap solutions; sodium phenyl stearate in benzene. J. G. Honig and C. R. Singleterry. bibliog J Phys Chem 58:201-6 Mr '54

SODIUM phosphates

In a pinch, use STP. il Chem W 72:59-60 Je 6 '53

Mechanism of inhibition of the corrosion of iron by solutions of sodium phosphate, borate and carbonate. J. E. O. Mayne and J. W. Menter. 3pls Chem Soc J p 103-7 Ja '54

Molecularly dehydrated sodium phosphates. B. C. Hafford. bibliog Ind & Eng Chem 46:1938-42 S '54

New Shea sodium phosphate plant. il Soap & Chem Spec 30:77 S '54

System H_2O-$NaPO_3$. G. W. Morey. bibliog Am Chem Soc J 75:5794-7 D 5 '53

See also
Sodium metaphosphate

Analysis

Analysis of sodium pyro- and tripolyphosphate mixtures. A. J. Mabis and O. T. Quimby. Anal Chem 25:1814-18 D '53

SODIUM plutonyl acetate

Paramagnetic resonance absorption in sodium plutonyl acetate. C. A. Hutchison, jr. and W. B. Lewis. bibliog Phys R 95:1096 Ag 15 '54

SODIUM potassium alloys

Analysis

Dissolution of sodium-potassium alloys for purposes of analysis. J. C. White and others. diag Anal Chem 26:942-3 My '54

Dissolving sodium-potassium alloys. L. P. Pepkowitz. Anal Chem 26:574 Mr '54

SODIUM propanenitronate

Reactions of 1-chloro-3-nitro-2-butene and sodium 2-propanenitronate; 3-methyl-4-(2-nitro-2-propyl)-isoxazoline oxide. H. Shechter and F. Conrad. bibliog Am Chem Soc J 76:2716-20 My 20 '54

SODIUM pyrophosphate

Analysis

Analysis of sodium pyro- and tripolyphosphate mixtures. A. J. Mabis and O. T. Quimby. Anal Chem 25:1814-18 D '53

SODIUM pyrosulfite

Tentative standard specifications for sodium pyrosulfite. Am Water Works Assn J 46:93-6 Ja '54; Correction. 46:256 Mr '54

SODIUM silicates

Dermatitis from water glass. G. E. Morris. il A M A Archives Ind Hygiene & Occup Med 7:411-12 My '53

Sodium silicate; brine drilling mud. Oil & Gas J 52:130 S 7 '53

Surface properties of silica gels; importance of pH in preparation from sodium silicate and sulphuric acid. K. S. W. Sing and J. D. Madeley. bibliog J Ap Chem 3:549-56 D '53

SODIUM silicofluoride. See Sodium fluosilicate

SODIUM sulfates

Crystal class of Na_2SO_4III. D. R. Dasgupta. J Chem Phys 21:2097 N '53

Effect on wool of boiling in aqueous solutions. R. V. Peryman. bibliog(42 ref) Soc Dyers & Col J 70:83-92 F '54

Electrothermal heating of solutions. K. A. Kobe and C. J. Carlson. il diag Electrochem Soc J 101:55-7 Mr '54

Relative basicities of some organic nitrogen bases. P. Rochlin, D. B. Murphy and S. Helf. Am Chem Soc J 76:1451-3 Mr 5 '54

Salt cake feeding in chemical recovery unit. H. A. Stoess, jr. diags Tappi 37:sup216A-17A Je '54

Thermally insulated package developed by New York university's College of engineering research division. il Chem & Eng N 32:3380 Ag 23 '54

Manufacture

Anhydrous sodium sulfate; pictured flowsheet. Chem Eng 60:242-5 Ag '53

SODIUM sulfides

Explosive nature of the reaction between certain diazotized substituted benzenes and sodium polysulphide. R. G. W. Hollingshead and P. E. Garner. bibliog Chem & Ind p 1179-80 O 31 '53

Study of the reaction products of lignin model compounds and sodium hydrosulphide. T. G. Zentner. bibliog Tappi 36:517-23 N '53

SODIUM sulfites

Determination of epoxides with sodium sulfite. J. D. Swan. bibliog Anal Chem 26:878-80 My '54

Isomerism of the oximes; alkylcinnamaldoximes, aroylaldoximes, and the action of potassium cyanide and sodium sulphite on aldoximes and their *O*-methyl ethers. M. Benger and O. L. Brady. Chem Soc J p3612-17 N '53

Reaction between hydroxylamine and sodium sulphite in solution in dilute acid. D. S. Brackman and W. C. E. Higginson. Chem Soc J p3896-8 D '53

Semichemical and high-yield chemical pulping of hardwoods with sodium sulphite and sodium bisulphite. R. M. Husband. bibliog Tappi 36:529-34 D '53

SODIUM sulfonates

Alpha phase of some sodium 1-alkane-sulfonates. L. A. Wilcox and E. C. Lingafelter. Am Chem Soc J 75:5761-2 N 20 '53

Newdet; low-sudsing detergent, Udex. Chem W 73:62+ O 17 '53; Chem Eng 61:140+ Ja '54

Toxicity thresholds of certain sodium sulfonates for daphnia magna Straus. L. Freeman. Sewage & Ind Wastes 25:1331-5 N '53

Analysis

Determination of sulfite and sulfate (as sodium sulfate) in sodium petroleum sulfonates. B. E. Gordon and R. S. Urner. bibliog diag Anal Chem 25:897-901 Je '53

SODIUM sulfoxylate formaldehyde. See Sodium formaldehyde sulfoxylate

SODIUM thiocyanate

Reactive of primary alkyl halides with sodium thiocyanate. T. I. Crowell. bibliog Am Chem Soc J 75:5794-7 D 5 '53

SODIUM thiosulphate

Standardization of sodium thiosulphate solutions by means of potassium iodate. G. T. Walker and S. C. Allen. Chem & Ind p411 Ap 25 '53; Discussion. bibliog p490-1, 568-9 My 16, Je 6 '53

SODIUM tripolyphosphate. See Sodium phosphates

SODIUM tungstate

Electrical resistivity and Hall coefficient of sodium tungsten bronze. W. R. Gardner and G. C. Danielson. bibliog diag Phys R 93:46-51 Ja 1 '54

Electrodeposition of metals on sodium tungsten bronze crystals. D. Stirpe. R Sci Instr 24:1071 N '53

Sodium diffusion in sodium tungsten bronze. J. F. Smith and G. C. Danielson. bibliog diag J Chem Phys 22:266-70 F '54

Sodium tungsten bronzes. B. W. Brown and E. Banks. bibliog Am Chem Soc J 76:963-6 F 20 '54

SOFAS

How to build in a sofa. il diags Am Bld 76:276 Ag '54

SOFT drinks. See Beverages

SOFTENING agents

Chemical finishing techniques; softening, water repellency, shrinkage control. A. C. Nuessle. Textile World 104:92-3 Ap '54

SOGLOW, Otto, 1900-

Soglow saga; Little King, now rules cartoonists. E. Knoll. Ed & Pub 86:100 Ap 18 '53

SOIL analysis

Available potash and phosphate level throughout the year in fields growing crops. R. F. Milton and J. Buckett. Chem & Ind p919 Ag 29 '53

Boron determination in soils and plants. W. T. Dible, E. Truog and K. C. Berger. bibliog Anal Chem 26:418-21 F '54

Colorimetric determination of fluorine in waters and soil extracts. W. M. Shaw. bibliog il Anal Chem 26:1212-14 Jl '54

Copper soil anomalies in the Boundary district of British Columbia. W. H. White and T. M. Allen. maps Min Eng 6:Trans 49-52 Ja '54

Determination of traces of antimony in soils and rocks. F. N. Ward and H. W. Lakin. bibliog Anal Chem 26:1168-73 Jl '54

Field method for determination of traces of arsenic in soils. H. Almond. bibliog diag Anal Chem 25:1766-7 N '53

Measurement of pH in soils and water. Am Gas J Hdbk 179:140-1 O 1 '53

Rapid determination of nitrates and nitrites. J. L. Nelson, L. T. Kurtz and R. H. Bray. bibliog Anal Chem 26:1081-2 Je '54

Spectrographic analysis of minor elements extracted from plants and soils as dithizonates. W. J. Wark. Anal Chem 26:203-5 Ja '54

Study of dispersing agents for particle-size analysis of soils. A. M. Wintermyer and E. B. Kinter. bibliog Pub Roads 28:55-62 Ag '54

Testing for copper and zinc in Canadian glacial soils. C. T. Bischoff. maps Min Eng 6:Trans 57-61 Ja '54

Two specific methods of determining copper in soil and in plant material. Kuang Lu Cheng and R. H. Bray. bibliog Anal Chem 25:655-9 Ap '53

SOIL bacteria

Degradation of nicotine by soil bacteria. E. Wada and K. Yamasaki. bibliog Am Chem Soc J 76:155-7 Ja 5 '54

SOIL-cement mixtures

Soil cement used to stabilize ore hopper foundation. il diag Eng & Min J 154:99-100 D '53

See also

Roads—Foundations
—Soil cement

SOIL conditioners

American society of agronomy meeting, Dallas; abstracts of papers. Chem W 73:50+ D 5 '53

Basic definitions conflict at soil conditioner conference. Chem & Eng N 31:5292 D 21 '53

Gloss is gone. il Chem W 74:61-2+ Ja 16 '54

Hand for nature; Magnite. Chem W 73:59 Jl 4 '53

Soil conditioner, Bondite. il Chem Eng 60: 230 Jl '53

Soil conditioners. G. L. W. Swanson. il Sci Am 189:36-8 '53

See also

Krilium

Advertising

Soil conditioner trade warned on ad claims. Oil Paint & Drug Rep 164:3+ D 14 '53

SOIL conservation

How banks can spark soil reclamation programs. J. L. Crossett. il Burroughs Clearing House 38:38-40+ D '53

Resource needs summed up by Inter-agency committee; survey covering Arkansas-Red-White basins. map Eng N 152:30 Ap 8 '54

SOIL consolidation. See Soils—Consolidation

SOIL corrosion. See Corrosion and anti-corrosives—Underground corrosion

SOIL mechanics

Consolidation around pore pressure meters. G. de Josselin de Jong. diags J Ap Phys 24: 922-8 Jl '53

Load tests of soils in the Miami area. J. C. Jureit. diag Am Soc C E Proc 79 [no 215]: 1-9 Jl '53

Novel type of gauge for the measurement of internal stresses in a soil mass. A. Brebner and W. Wright. diag J Sci Instr 30: 486 D '53

Photoelastic analogy for non-homogeneous foundations. A. J. Curtis and F. E. Richart, jr. il diags Am Soc C E Proc 79 [no 211]:1-35 Jl '53

Reduction in soil strength with increase in density. C. R. Foster. bibliog Am Soc C E Proc 79 [no 228]:1-13 Jl '53; Discussion. 79 [no 371]:15-21 D '53

Symposium on dynamic testing of soils. (Special tech. pub. no. 156) 261p bibliog (p252-61) Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '54

Trafficability of soil as related to mobility of vehicles. R. C. Stewart and S. J. Weiss. il diags Am Soc C E Proc 79 [no 328]:1-11 N '53

See also

Earth pressure
Landslides
Roads—Testing
Soil stabilization

SOIL moisture

Comparison of rapid methods for the determination of liquid limits of soils. F. R. Olmstead and C. M. Johnston. map Pub Roads 28:50-4 Ag '54

Critical soil moisture condition affecting buried transmission cables. W. A. Hadley and R. Eisenstadt. Elec Eng 72:989-92 N '53

See also

Soil stabilization

SOIL pipes

Corrosion of copper tube used in soil-stack installations. H. E. Babbitt and others. il plans diag Ill U Eng Exp Sta Bul 419:1-42 '53 (pa 75c)

Soil pipe; cast iron fights back. R. L. Hatschek. il Iron Age 172:62 Jl 23 '53

Standards

Soil pipe; benefits from standards. G. G. Carr. Iron Age 174:117-18 S 16 '54

Soil pipe; lifting sales via higher standards. il Steel 135:84 S 13 '54

SOIL stabilization

Altering soil properties with chemicals. T. W. Lambe and A. S. Michaels. il Chem & Eng N 32:488-92 F 8 '54

Cuts stabilized by drilling horizontal drains on Lookout Point reservoir relocation work. J. E. Newby. il Civil Eng 23:688-91 O '53

Gully stabilization structures check erosion in western Iowa. G. M. Brune. il map Civil Eng 23:590-1 S '53

Lime-fly ash stabilization research; abstract. E. T. Misiaszek. Rock Prod 57:90-1 Je '54

Mechanical soil stabilization. L. J. Ritter, jr. bibliog il Pub Works 85:90-5 Mr '54

Seeking stabilization; U.S. Bureau of public roads and four chemical companies. Chem W 75:100-1 Ag 21 '54

Soil cement used to stabilize ore hopper foundation. il diag Eng & Min J 154:99-100 D '53

Stabilization of soil by the silt injection method for preventing settlement of hydraulic structures and leakage from canals. G. E. Johnson. il map diags Am Soc C E Proc 79 [no 323]:1-18 N '53

Vertical sand drains for stabilization of muck-peat soils. J. C. Carpenter and E. S. Barber. bibliog il diags Am Soc C E Proc 79 [no 351]:1-17 N '53

See also

Roads, Gravel—
Stabilization

SOILING of textiles

Carpet soiling. K. L. Whitney and J. W. Schappel. bibliog il Am Dyestuff Rep 43: 143-7 Mr 1 '54

Factors influencing the soiling of acetate carpets. F. Fortess and C. E. Kip. flow sheet il Am Dyestuff Rep 42:349-59 Je 8 '53

SOILING of textiles—*Continued*

Prevention of soil redeposition in textile cleaning operations by proteins and other polymeric materials. W. Fong and H. P. Lundgren. bibliog Textile Res J 23:769-75 N '53

Radioactive isotopes in roller printing. W. Meitner and H. B. Hampson. Soc Dyers & Col J 69:283-4 Ag '53

Some aspects of detergency and detergent testing. R. E. Wolfrom and A. C. Nuessle. bibliog il Am Dyestuff Rep 42:753-62 N 9 '53

Theory of soil-fiber complex formation and stability. J. Compton and W. J. Hart. Textile Res J 24:263-4 Mr '54

SOILS

Engineering properties of Chicago subsoils. R. B. Peck and W. C. Reed. bibliog Ill U Eng Exp Sta Bul 423:1-62 '54 (pa $1)

Preparation of latex casts of soil cavities for the study of tunneling activities of animals. M. R. Garner. il Science 118:380-1 O 2 '53

Structure of inorganic soil. T. W. Lambe. il diags Am Soc C E Proc 79 [no 315]: 1-49 bibliog(p48-9) O '53

Topography, soil, and research. A. Bickerstaff. Pulp & Pa of Can 55:145-6 Jl '54

See also

Agriculture
Clay
Drainage
Earthwork
Erosion
Fertilizers
Foundation soils
Highway engineering
Irrigation
Roads—Subgrades
Sand
Silt
Soil moisture

Consolidation

Constructing a stable roadbed in B.C. with inferior subgrade material. G. F. Jacobs. il map diags Roads & Eng Constr 92:92-5+ Ja '54

Electricity stiffens clay fivefold for electric plant excavation. R. Loughney. il diag Constr Methods 36:70-1+ Ag '54

Estimating the true consolidation behavior of clay from laboratory test results. J. H. Schmertmann. bibliog diags Am Soc C E Proc 79 [no 311]:1-26 O '53

Foundations for a paper mill; sand needn't be treacherous; compaction by vibration. A. Mystkowski. il Eng N 151:35-6 Jl 2 '53

Low-cost compacted earth lining shows low seepage losses on Friant-Kern canal. J. J. Waddell. il map diags Civil Eng 23:684-7+ O '53

Sand compaction by vibroflotation. E. D'Appolonia and others. il plan diags Am Soc C E Proc 79 [no 200]:1-23 Jl '53

Copper content

Copper soil anomalies in the Boundary district of British Columbia. W. H. White and T. M. Allen. maps Min Eng 6:Trans 49-52 Ja '54

Occlusion of copper and zinc by some soil materials of lower Mississippi River area. V. P. Sokoloff. Science 118:296-7 S 11 '53

Testing for copper and zinc in Canadian glacial soils. C. T. Bischoff. maps Min Eng 6:Trans 57-61 Ja '54

Freezing

Casing can be cemented in permafrost area. F. L. White. il World Oil 137:119-20+ D '53

Effect of frost action; abstract. C. L. Motl. Roads & Eng Constr 92:111+ My '54

Freeze wet ground to sink deep shaft. il Constr Methods 35:84-5+ N '53

How a water supply was designed for a permafrost area. J. R. Wallace, jr. il plan diags Pub Works 85:64-6+ Ja '54

Testing

Comparison of rapid methods for the determination of liquid limits of soils. F. R. Olmstead and C. M. Johnston. map Pub Roads 28:50-4 Ag '54

Nipple-and-can test of soil corrosivity. Am Gas J Hdbk 179:142 O 1 '53

Soil studies as a preliminary to the subway construction. R. F. Legget. il Roads & Eng Constr 91:101+ D '53

Stability of surface soils; abstract. H. B. Seed and C. L. Monismith. Roads & Eng Constr 92:134-5 My '54

Symposium on dynamic testing of soils. (Special tech. pub. no. 156) 261p bibliog (p252-61) Am. soc. for testing materials. 1916 Race st, Philadelphia 3 '54

Zinc content

Occlusion of copper and zinc by some soil materials of lower Mississippi River area. V. P. Sokoloff. Science 118:296-7 S 11 '53

Testing for copper and zinc in Canadian glacial soils. C. T. Bischoff. maps Min Eng 6:Trans 57-61 Ja '54

India

Bibliography of soil science and fertilizers with reference to India. K. K. Guha Roy, comp. 131p Rs 6-2 or 9s 6d Manager of publications, Delhi '54

Tropics

Tropical soils; abstract and discussion. H. Greene. Chem & Ind p684 Jl 11 '53

SOLANUM

Isolation of diosgenin from solanum xanthocarpum. Y. Sato and H. G. Latham, jr. Am Chem Soc J 75:6067 D 5 '53

SOLAR aircraft company

New lines cushion defense cutbacks. Barron's 33:17 O 26 '53

SOLAR energy. See Solar heating; Solar power; Solar radiation

SOLAR flares. See Sun—Prominences

SOLAR furnaces

California sunshine at work; Convair's solar furnace. il Chem Eng 61:124+ Jl '54

Segmented-mirror solar furnace for high-intensity thermal radiation studies. R. Gardon. il diags R Sci Instr 25:459-63 My '54

Separation of incident and emitted radiations in a solar furnace by means of rotating sectors. W. M. Conn and G. Braught. il diags Opt Soc Am J 44:45-7 Ja '54

Solar furnace develops 8500 F. il Heat & Ven 51:80 Ag '54

Stealing the sun's fire; Convair's solar furnace. il Chem W 74:64+ My 8 '54; Iron Age 173:160-1 My 20 '54

Sun fires research furnace; Convair's San Diego division. il Materials & Methods 40: 214+ Jl '54

Use of the solar furnace for studying the system alumina-silica. W. M. Conn. bibliog il Am Cer Soc Bul 33:69-72 Mr 15 '54

SOLAR heating

Converting solar energy into comfort. A. L. Hesselschwerdt, jr. diags Refrig Eng 62: 55-9+ Ag '54

Solar energy availability for heating in the United States. R. C. Jordan and J. L. Threlkeld. bibliog maps diags Heating-Piping 25:111-22 D '53; 26:193-201 Ja; 122-30 F '54; Same cond (pt3). Heat & Ven 51: 96-8 Ap '54; Discussion. Heating-Piping 26:176-8 Mr '54

Solar energy; past, present and future applications. H. Heywood. bibliog il diags Engineering 176:377-80, 409-11 S 18-25 '53; Abstract. Elec J 151:805-6 S 11 '53

See also

Solar furnaces

SOLAR power

ARDC solar generator. Chem & Eng N 32: 3616 S 13 '54

Bell solar battery. diags J Metals 6:722-3 Je '54

Challenge to chemists. F. Daniels. Comm & Fin Chr 178:1001+ S 17 '53

Converting solar energy into comfort. A. L. Hesselschwerdt, jr. diags Refrig Eng 62: 55-9+ Ag '54

Electricity from sunlight; Bell telephone laboratories. il Chem & Eng N 32:1768 My 3 '54

Miniature solar generator; Air research and development command. il Chem & Eng N 32:2484 Je 21 '54

New silicon *p-n* junction photocell for converting solar radiation into electrical power. D. M. Chapin and others. J Ap Phys 25:676-7 My '54

Silicon converts light to electrical power. il Materials & Methods 39:7 Je '54

Solar battery; Bell labs' unit converts light directly to electricity. Iron Age 173:51 Ap 29 '54

SOLAR power—*Continued*

Solar energy; past, present and future applications. H. Heywood. bibliog il diags Engineering 176:377-80, 409-11 S 18-25 '53; Abstract. Elec J 151:805-6 S 11 '53

Solar energy received on a horizontal surface; reference data. I. F. Hand. Heat & Ven 51:164a-164b Ap '54

Solar thermoelectric generators. M. Telkes. bibliog(60 ref) il diags J Ap Phys 25:765-77 Je '54

Utilization of solar energy; University of Wisconsin and National science foundation symposium. Chem & Eng N 31:3990 S 28 '53

SOLAR radiation

Cooling loads from sunlit glass and wall. C. O. Mackey and N. R. Gay. il diag Heating-Piping 26:123-8 Ag '54; Discussion. 26:155-6 S '54

Evidence for the nonexistence of a new highly penetrating component of the solar radiation. H. Bomke. Science 118:255-6 Ag 28 '53

France uses solar heat to fuse uranium ores. Chem & Eng N 31:4118 O 5 '53

Fresh water from sea water by solar distillation. M. Telkes. bibliog il diag Ind & Eng Chem 45:1108-14 My '53

Irradiation of vertical and horizontal surfaces by diffuse solar radiation from cloudless skies. G. V. Parmelee. bibliog il diag Heating-Piping 26:129-36; Discussion. 136-7 Ag '54

Quantitative evaluation of multiply scattered and diffusely reflected light in the direction of a stellar source in a Rayleigh atmosphere. D. Deirmendjian and Z. Sekera. bibliog diag Opt Soc Am J 43:1158-65 D '53

Rocket-borne servo tracks the sun. D. S. Stacey and others. bibliog il diags Electronics 27:149-51 Ja '54

Separation of incident and emitted radiations in a solar furnace by means of rotating sectors. W. M. Conn and G. Braught. il diags Opt Soc Am J 44:45-7 Ja '54

Solar energy; past, present and future applications. H. Heywood. bibliog il diags Engineering 176:377-80, 409-11 S 18+25 '53

Solar irradiation of walls and windows, May-September; data sheet. R. F. Quan and F. W. Hutchinson. Heating-Piping 26:130-2 S; 134-6 O '54

Use of silicon *p-n* junctions for converting solar energy to electrical energy. R. L. Cummerow. Phys R 95:561-2 Jl 15 '54

See also

Earth temperature
Insolation
Solar heating
Solar power

SOLAR spectrum. See Sun—Spectrum

SOLAR system

Cosmic cloud hypotheses of the origin of the solar system. P. S. Palmer. bibliog Science 117:236-7 F 27 '53; Discussion. D. ter Haar. 118:195-6 Ag 14 '53

Solar fractionation; abstract. H. C. Urey. Chem & Eng N 32:1876 My 10 '54

SOLDER and soldering

Aluminum soldering. D. Nova. il Light Metal Age 11:20+ Ag '53

Brazing and soldering titanium. W. Rostoker. Light Metal Age 11:11+ O '53

Facts about modern soldering and brazing. il Mill & Factory 54:584 My '54

How to nickel-plate aluminum for solder joining; Ford instrument co. W. M. Stocker, jr. il Am Mach 98:154-5 Je 7 '54

How to solder stainless steel. il Steel 134:108 My 31 '54

Improve your soldering with noncorrosive flux. W. S. Gale. il Iron Age 172:115-19 S 3 '53

Induction heater boosts output of brazed and soldered parts; Illinois engineering co. O. W. Noeske and W. F. Sickels. il diags Iron Age 173:116-17 Ja 14 '54

Inspection, heat-treat, joining, finishing; brazing and soldering. il diags Am Mach 97:E4-5 Mid-N '53

Joining problem is licked by nickel plating aluminum; Ford instrument co. M. W. Riley. il Materials & Methods 40:96-7 Jl '54

New tin-depositing flux for soldering aluminum. D. C. Burch and R. L. Simpkins. il Materials & Methods 40:86-9 Ag '54

Paste solder cuts assembly costs. il Tele-Tech 12:71+ D '53

Printed-wiring multiple soldering methods. A. E. Stones. il Tele-Tech 12:62-4+ D '53

Soldering of aluminum. J. D. Dowd. bibliog il Welding J 33:sup 113-20 Mr '54

Soldering on a production basis. L. F. Spencer. Product Eng 24:279-82+ Jl '53

Technique of soldering to thin metal films. R. B. Belser. bibliog il R Sci Instr 25:180-3 F '54

Ultrasonics improve soldered joints in aluminum. J. J. Obrzut. il Iron Age 173:97-9 Je 24 '54

See also

Brazing
Silver solder
Welding

SOLDIERS, Discharged. See Veterans

SOLDIERS' pensions. See Pensions, Military

SOLENOIDS

Construction of small solenoids for the production of intense magnetic fields. W. R. Myers. J Sci Instr 30:237-8 Jl '53

Solenoid stops vertical turret lathe ram feed. J. K. Gensler. il Am Mach 98:147 Jl 19 '54

Solenoid valves channel heat pump refrigerant. flow chart il diags Product Eng 24:144-7 S '53

SOLES

Footwear firms offering Fellman anti-slip neoprene sole. il Rubber World 130:385 Je '54

From flat-top to industry, neoprene. il Safety Maint & Prod 108:18-19 Jl '54

Walking on chemicals; synthetic soles. Can Chem Process 37:14+ N '53

SOLES, Rubber

Machine to mass produce rubber-soled shoes. Rubber World 130:501 Jl '54

SOLID catalysts. See Catalysts

SOLID gold Cadillac (play). See Business in drama

SOLID hydrogen. See Hydrogen, Solid

SOLID solutions. See Solutions, Solid

SOLIDIFICATION

Fundamentals of metal solidification. T. H. Trevithick. Foundry 82:224+ Ag '54

Redistribution of solutes by formation and solidification of a molten zone. W. G. Pfann. bibliog il J Metals 6:Trans 294-7 sec 2 F '54

Theoretical analysis of diffusion of solutes during the solidification of alloys. C. Wagner. bibliog J Metals 6:Trans 154-60 F '54

SOLIDS

Apparatus for the measurement of the thermal conductivity of solids. J. L. Weeks and R. L. Seifert. diags R Sci Instr 24:1054-7 N '53

Convenient apparatus for the distillation of solids. L. B. Barkley and others. diag J Chem Educ 30:115 Mr '53

Dry mixing of solids. L. T. Work. il diags Chem Eng Prog 50:476-9 S '54

Effects of nuclear radiations on the mechanical properties of solids. G. J. Dienes. bibliog J Ap Phys 24:666-74 Je '53; Abstract. Product Eng 24:268+ O '53

Evaporation of solids into laminar air streams. A. C. Plewes, R. M. Butler and H. E. Marshall. bibliog diags Chem Eng Prog 50:77-80 F '54

General numerical solution for solid diffusion in fixed beds. J. B. Rosen. bibliog diag Ind & Eng Chem 46:1590-4 Ag '54

How materials flow from a bin. J. K. Rudd. il Food Eng 26:72-4 F '54; Same. Mod Packaging 27:209-11 Mr '54; Same. Rock Prod 57:73-4 Mr '54

Impact of solid state science on engineering materials conference, Pittsburgh. Am Cer Soc Bul 33:282-3 S 15 '54

Ion exchange column performance; theory for irreversible and constant-pattern solid diffusion. T. Vermeulen. bibliog(28 ref) Ind & Eng Chem 45:1664-70 Ag '53

Magnetic properties of an electronic Einstein model solid. M. F. M. Osborne and M. C. Steele. bibliog Phys R 92:1403-19 D 15 '53

Manometric method for study of solid-gas reactions at moderate temperatures. P. Souter, J. R. Willimott and T. G. Hunter. bibliog il Anal Chem 26:484-7 Mr '54

SOLIDS—*Continued*

Mass spectrograph for the analysis of solids. N. B. Hannay. bibliog il diags R Sci Instr 25:644-8 Jl '54

Mass spectrographic analysis of solids. N. B. Hannay and A. J. Ahearn. bibliog Anal Chem 26:1056-8 Je '54

Method for measuring the dielectric constant of solids at ultra high frequencies. C. M. McKinney and B. M. Duff. bibliog diags R Sci Instr 25:925-6 S '54

Photosensitive and phototropic products of solid state reaction between silver sulfide and mercuric iodide. L. Suchow and G. R. Pond. J Phys Chem 58:240-2 Mr '54

Production of active solids by thermal decomposition. S. J. Gregg and others. pl diag Chem Soc J p3940-56 D '53

Reactivity of solids. J. A. Hedvall. J Chem Educ 30:638-40 D '53

Solid state to explain catalysis; symposium abstracts. Chem & Eng N 32:393 F 1 '54

Solids mixing. C. S. Quillen. il diags Chem Eng 61:210-17 Je '54

Specific heats of simple solids and moments of elastic frequency spectra. J. Hwang. J Chem Phys 22:154-5 Ja '54

Spectroscopy of the solid state; some of the transition elements. E. M. Gyorgy and G. G. Harvey. bibliog Phys R 93:365-9 F 1 '54

Thermostatic chamber for the measurement of light scattering from solids at elevated temperatures. J. J. Keane and R. S. Stein. diags R Sci Instr 25:892-4 S '54

Use of non-orthogonal wave functions in the treatment of solids, with applications to ferromagnetism. W. J. Carr, jr. bibliog diags Phys R 92:28-35 O 1 '53

See also

Crystals
Expansion (heat)
Melting points
Particles
Powders
Solutions, Solid
Surface phenomena

SOLITAIRE. See Cards

SOLS. See Colloids

SOLUBILITY

Charts give water solubility of helium, hydrogen, nitrogen and oxygen. D. S. Davis. Chem Eng 61:228+ F '54

Conductivity and solubility studies of some glycollates and lactates. W. P. Evans and C. B. Monk. Chem Soc J p550-7 F '54

Correlation of the solubilities of gases in low-vapour-pressure liquids by an evaporation analogy. G. Burrows and F. H. Preece. bibliog diags J Ap Chem 3:451-62 O '53

Determination of purity of compounds by an extraction-solubility method. V. A. Stenger, W. B. Crummett and W. R. Kramer. bibliog Anal Chem 25:974-7 Je '53

Diffusion coefficient, solubility, and permeability for helium in glass. W. A. Rogers and others. bibliog diags J Ap Phys 25:868-75 Jl '54

Effect of surface-active agents on the rate of solution of sulphur in sulphite solutions. G. I. P. Levenson. J Ap Chem 4:13-18 Ja '54

Equilibrium thermochemistry of solid and liquid alloys of germanium and of silicon. C. D. Thurmond and J. D. Struthers. bibliog J Phys Chem 57:827-35 N '53

Liquid-liquid solubility and vapor pressure of heptacosafluorotributylamine. G. J. Rotariu, R. J. Hanrahan and R. E. Fruin. bibliog Am Chem Soc J 76:3752-6 Jl 20 '54

Method for determining the solubility characteristics of components in protein mixtures. E. L. Hess and D. S. Yasnoff. Am Chem Soc J 76:931-3 F 5 '54

Physical chemistry of ionic crystals involving small concentrations of foreign substances. C. Wagner. bibliog J Phys Chem 57:738-41; Discussion. 741-2 N '53

Physical toxicity of chemicals; solubilities, partition coefficients and physical toxocities. J. C. McGowan. bibliog(27 ref) J Ap Chem 4:41-7 Ja '54

Physicochemical studies on dusts; effect of acids on the solution properties of silicious dusts. J. G. Gibb and P. D. Ritchie. bibliog J Ap Chem 4:473-83 S '54

Quantitative insolubility of thorium oxalate. H. L. Kall and L. Gordon. bibliog Anal Chem 25:1256-8 Ag '53

Solubility and diffusivity of 2-naphthol in water. M. P. Moyle and M. Tyner. bibliog Ind & Eng Chem 45:1794-7 Ag '53

Solubility in acid as a means of determining changes in wool. H. Zahn and A. Würz. bibliog Textile Inst J 45:P88-92 Mr '54

Solubility of carbon in molten iron and in iron-silicon and iron-manganese alloys. J. Chipman and others. bibliog diag Am Soc for Metals Trans 44:1215-30; Discussion. 1230-2 '52

Solubility of *cis*- and *trans* -dinitrotetramminecobalt(III) sulfates in water-dioxane mixtures. S. A. Mayper, H. L. Clever and F. H. Verhoek. bibliog J Phys Chem 58:90-3 Ja '54

Solubility of gases in lubricating oils and fuels. R. R. Baldwin and S. G. Daniels. bibliog diags Inst Pet J 39:105-24 F '53

Solubility of oxygen in alpha iron. A. U. Seybolt. bibliog il J Metals 6:Trans 641-4 sec 2 My '54

Solubility of oxygen in water. L. M. Zoss and others. bibliog diag A S M E Trans 76:69-71 Ja '54

Solubility of silver salts in aqua ammonia. C. R. Johnson. J Chem Educ 31:205-6 Ap '54

Solubility of some metal fluorides in bromine trifluoride. I. Sheft, H. H. Hyman and J. J. Katz. bibliog diag Am Chem Soc J 75:5221-3 N 5 '53

Solutions of metals in fused salts. D. Cubicciotti. bibliog J Metals 5:Trans 1106-8 S '53

Spectrophotometric determination of uric acid and some redeterminations of its solubility. D. R. Norton, M. A. Plunkett and F. A. Richards. bibliog Anal Chem 26:454-7 Mr '54

Studies on cosolvency; Lewis acid character of iodo compounds in enhancing the solubility of anthracene in hydrocarbon solvents. G. R. Somayajulu and S. R. Palit. bibliog J Phys Chem 58:417-21 My '54

Ternary solubility data. J. H. Jones and J. F. McCants. Ind & Eng Chem 46:1956-8 S '54

Water solubility of Freon refrigerants. H. M. Parmelee. diag Refrig Eng 61:1341-5 D '53; Discussion. 62:61+ Ja '54; Reply. 62:53 F '54

Water solubility of some synthetic polypeptides. R. R. Becker and M. A. Stahmann. bibliog Am Chem Soc J 76:3707-9 Jl 20 '54

SOLUBLE coffee. See Coffee, Soluble

SOLUBLE oils. See Oils and fats

SOLUTION (chemistry)

Analysis of binary solvent mixtures of conducting solutions by a radio-frequency method. J. L. Hall and others. bibliog Anal Chem 26:835-8 My '54

Apparatus for the ultra-violet spectroscopy of solutions at low temperatures. R. Passerini and I. G. Ross. bibliog diags J Sci Instr 30:274-6 Ag '53

Dissolution of sodium-potassium alloys for purposes of analysis. J. C. White and others. diag Anal Chem 26:942-3 My '54

Distribution coefficients for 2-methyl-1-propanol-water and 1-pentanol-water systems. K. F. Gordon. bibliog Ind & Eng Chem 45:1813-15 Ag '53

Distribution of formic acid between water and methyl isobutyl ketone. H. J. Vogt and C. J. Geankoplis. Ind & Eng Chem 45:2119-20 S '53

Energy transfer from solvent to solute in liquid organic solutions under ultraviolet excitation. S. G. Cohen and A. Weinreb. Phys R 93:1117 Mr 1 '54

Mechanism and rate-controlling factors in the dissolution of gold in cyanide solution. V. Kudryk and H. H. Kellogg. bibliog diags J Metals 6:Trans 541-8 My '54

Method for obtaining streaming orientation and simultaneous determination of dielectric properties in macromolecular solutions. B. Jacobson. bibliog il diags R Sci Instr 24:949-54 O '53

Micromethod for measuring reaction rates in solution under moderate pressures. T. Rees. Anal Chem 26:226-9 Ja '54

SOLUTION (chemistry)—*Continued*

Phase equilibria in sugar solutions. F. H. C. Kelly. bibliog J Ap Chem 4:401-13 Ag '54

Quaternary liquid systems with two immiscible liquid pairs. Y. Chang and R. W. Moulton. bibliog diags Ind & Eng Chem 45:2350-61 O '53

Refractometric analysis of flowing solutions. H. Svensson. bibliog diags Anal Chem 25:913-21 Je '53

Some unsolved problems of liquids and solutions. R. L. Scott. bibliog(42 ref) J Chem Educ 30:542-9 N '53

See also

Boiling points
Colloids
Crystallization
Diffusion
Electrolysis
Electrolytes
Henry's law
Ions
Precipitation
Solubility
Solvents

SOLUTION, Heat of

Energy relations in binary alkali borates. L. Shartsis and W. Capps. bibliog Am Cer Soc J 37:27-32 Ja 1 '54

Integral heats of solution of some rare earth trichlorides. F. H. Spedding and J. P. Flynn. bibliog Am Chem Soc J 76:1477-80 Mr 20 '54

SOLUTIONS, Solid

Absorption spectra and electrical conductivities of UO_2-ThO_2 solid solutions. D. M. Gruen. bibliog Am Chem Soc J 76:2117-20 Ap 20 '54

Calculation of interdiffusion coefficients when volume changes occur. M. Cohen and others. bibliog J Metals 5:Trans 1534-6 sec 2 N '53

Chromium diffusivity in alpha cobalt-chromium solid solutions. J. W. Weeton. bibliog il diag Am Soc for Metals Trans 44:436-49; Discussion. 449-51 '52

Columbium-vanadium alloy system. H. A. Wilhelm and others. bibliog il J Metals 6:Trans915-18 Ag '54

Creep-rupture characteristics of Al-Mg solid-solution alloys. A. W. Mullendore and N. J. Grant. bibliog il J Metals 6:Trans 973-9 S '54

Diffusion and oxidation of solid metals. C. E. Birchenall. bibliog(193 ref) Ind & Eng Chem 45:907-11; 46:893-8 My '53, My '54

Diffusion of chromium in alpha cobalt-chromium solid solutions. J. W. Weeton. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:397-411 '52

Effects of solid solution alloying on the cold-rolled texture of titanium. C. J. McHargue and others. bibliog diags J Metals 5:Trans 1199-203 sec 2 S '53

Electrical resistivity of dilute binary terminal solid solutions. W. R. Hibbard, jr. J Metals 6:Trans 594-602 bibliog(87 ref, p601-2) sec 2 My '54

Fatigue properties of some binary alpha solid solutions of aluminum. J. W. Riches and others. bibliog diag Am Soc for Metals Trans 44:882-95 '52

Functions of alloying elements in the creep resistance of alpha solid solutions of aluminum. A. T. Robinson and others. bibliog Am Soc for Metals Trans 44:896-928 '52

Molybdenum-boron system. P. W. Gilles and B. D. Pollock. J Metals 5:Trans 1537-9 sec 2 N '53

Piezoelectric properties of lead zirconate-lead titanate solid-solution ceramics. B. Jaffe and others. J Ap Phys 25:809-10 Je '54

Precipitation of iron oxide from alpha Fe-O solid solutions. A. U. Seybolt. il J Metals 6:Trans 979-82 S '54

Rationalization of the oxygen solid solubility in some transition metals. A. U. Seybolt and R. L. Fullman. bibliog J Metals 6:Trans 548-9 My '54

Role of strain energy in solid solution thermodynamics. E. S. Machlin. bibliog J Metals 6:Trans 592-3 sec 2 My '54

Rotation in solid mixtures of neohexane and cyclopentane from 20°K to their melting points. J. G. Aston and others. bibliog diags J Chem Phys 22:460-3 Mr '54

Solid solubility of oxygen in columbium. A. U. Seybolt. il J Metals 6:Trans 774-6 Je '54

Solid solutions in the system Li_2SO_4-$(NH_4)_2SO_4$-H_2O. J. A. Skarulis and others. bibliog Am Chem Soc J 76:3096-8 Je 5 '54

Solid solutions of lithium oxide in nickel oxide. P. J. Fensham. bibliog Am Chem Soc J 76:969-71 F 20 '54

Solid solutions of the alkali halides; the systems KBr-KCl-H_2O, RbBr-RbCl-H_2O[1] and RbBr-KBr-H_2O[2] at 25°. G. S. Durham, E. J. Rock and J. S. Frayn. bibliog Am Chem Soc J 75:5792-4 D 5 '53

Studies of NaCl-KCl solid solutions; experimental entropies of formation and a comparison of certain thermodynamic properties with values calculated from Wasastjerna's theory. W. T. Barrett and W. E. Wallace. bibliog Am Chem Soc J 76:370-3 Ja 20 '54

Studies of NaCl-KCl solid solutions; heats of formation, lattice spacings, densities, Schottky defects and mutual solubilities. W. T. Barrett and W. E. Wallace. bibliog Am Chem Soc J 76:366-9 Ja 20 '54

SOLUTIONS, Standard

Conductometric standardization of solutions of common divalent metallic ions. J. L. Hall and others. bibliog Anal Chem 26:1484-6 S '54

SOLVENTS

Apparatus for hot filtration, extraction, and recrystallization with volatile and flammable solvents. H. Shiba. bibliog diags Anal Chem 26:943 My '54

Application of fluorescent indicator adsorption method to protective coatings solvents; abstract. J. D. Giannotti. Paint Oil & Chem R 117:22+ Ap 8 '54

Behavior of ion exchange resins in solvents other than water. G. W. Bodamer and R. Kunin. Ind & Eng Chem 45:2577-80 N '53

Cellulose solvents for viscosity measurements. B. L. Browning and others. bibliog (26 ref) diag Tappi 37:273-83 Jl '54

Conductimetric studies in ketonic solvents; acetone as solvent. J. F. J. Dippy and S. R. C. Hughes. Chem Soc J p953-8 Mr '54

Continuous liquid-liquid extractor for organic solvents denser than water. R. E. Harman. diag J Chem Educ 30:261 My '53

Effect of solvent on the optical rotation of some steroid α-ketols. J. K. Norymberski. Chem Soc J p762-4 F '54

Effect of solvents and electrolytes on polarograms of carbon tetrachloride. J. J. Lothe and L. B. Rogers. bibliog Electrochem Soc J 101:258-66 My '54

Electrolyte-solvent interaction; tetrabutylammonium bromide in methanol-methyl ethyl ketone mixtures. F. M. Sacks and R. M. Fuoss. bibliog Am Chem Soc J 75:5172-5 N 5 '53

Emulsifiable solvent cleaning. B. J. Sherwood. flow sheet Metal Finishing 52:70-2 Mr '54

Importance of ion exchange with the solvent in kinetic studies. E. A. S. Cavell and N. B. Chapman. bibliog Chem & Ind p 1226-7 N 14 '53

Influence of solvent upon the energy difference between rotational isomers. A. Wada. bibliog diags J Chem Phys 22:198-202 F '54

Influence of uranyl and thorium salts on the miscibility of phenol and water. S. T. Bowden and J. H. Purnell. Chem Soc J p535-8 F '54

Ion exchange column performance; hydrogen cycle rates in nonaqueous solvents. T. Vermeulen and E. H. Huffman. Ind & Eng Chem 45:1658-64 Ag '53

Liquid dinitrogen tetroxide solvent system; reactions with ethylammonium nitrate solutions; ethylammonium tetranitratozincate. C. C. Addison and N. Hodge. Chem Soc J p 1138-43 Mr '54

Liquid dinitrogen tetroxide solvent system; the equilibrium between alkylammonium and nitrosonium tetranitratozincates. C. C. Addison, N. Hodge and R. Thompson. Chem Soc J p 1143-5 Mr '54

Miscibility phenomena in ternary systems containing diphenyl ether, water, and an aliphatic alcohol or acid. J. H. Purnell and S. T. Bowden. diag Chem Soc J p539-46 F '54

SOLVENTS—*Continued*

New method for determination of activities of binary solutions of volatile liquids. R. S. Hansen and F. A. Miller. bibliog diags J Phys Chem 58:193-6 Mr '54

Nitramines and nitramides; some *N*-nitrations in solvents other than sulphuric acid. C. Holstead and A. H. Lamberton. Chem Soc J p3349-52 N '53

Peak volume-concentration relationships with progressively changing solvents in organic acid chromatography. C. Mader. diag Anal Chem 26:566-7 Mr '54

Petroleum derivatives. Published in weekly numbers of Oil, paint and drug reporter

Photometric titrations in nonaqueous solvents. C. N. Reilley and B. Schweizer. bibliog Anal Chem 26:1124-6 Jl '54

Processing variables in solvent extraction towers. H. J. Vogt and C. J. Geankoplis. bibliog diags Ind & Eng Chem 46:1763-8 S '54

Reaction of cotton with β-propiolactone in the presence of organic solvents. G. C. Daul and others. bibliog Textile Res J 24:738-47 Ag '54

Role of the solvent in radical decomposition reactions; phenylazotriphenylmethane. M. G. Alder and J. E. Leffler. bibliog Am Chem Soc J 76:1425-7 Mr 5 '54

Seal a vacuum solvent system with the solvent. E. A. Gastrock. Ind & Eng Chem 46: sup 124A Mr '54

Small but hopeful; dimethyl formamide, a close approach to the universal solvent. Chem W 73:71-2 S 12 '53

Sodium and bromide removal from solvents by nonaqueous ion exchange. F. S. Chance, jr., G. E. Boyd and H. J. Garber. bibliog diag Ind & Eng Chem 45:1671-6 Ag '53

Solubilization of water in non-polar solvents by detergent mixtures. S. R. Palit and V. Venkateswarlu. Chem Soc J p2129-34 Je '54

Solvent effects in the iodide-iodine-triiodide complex equilibrium. L. I. Katzin and E. Gebert. bibliog Am Chem Soc J 76:2049-54 Ap 20 '54

Solvent influences in disinfection. E. A. Cooper and A. E. Goddard. bibliog Chem & Ind p695-6 Je 12 '54

Solvent power of solvents for cellulose acetate. W. R. Moore and others. bibliog Chem & Ind p 1339-40 D 12 '53

Spinning solvents for polyacrylonitrile. G. E. Ham. bibliog Ind & Eng Chem 46:390-2 F '54

Structure and electrical conductivity of hydrocarbon-based solutions of the soluble oil type; a comparable aqueous system. J. Bromilow and P. A. Winsor. bibliog J Phys Chem 57:889-95 D '53

Technical service for solvents and finishes. J. Wyart and D. Hecht. Can Chem Process 37:60+ D '53

Technology of solvents and plasticizers. A. K. Doolittle. 1056p $18.50 John Wiley & sons, 440 Fourth av, New York 16 '54

Tough sledding for solvents; annual review. Chem Eng 61:198-9 Mr '54

Two way degummer for carburetor; Carb-Aid. il Chem W 74:83 My 29 '54

See also

Acetone
Acetonitrile
Benzene
Butyl alcohol
Carbon disulfide
Carbon tetrachloride
Chlorobenzene
Chloroform
Cleaning compositions
Extraction processes
Furfural
Methanol
Naphtha
Tetrahydrofuran
Trichloroethylene

Recovery

Solvent recovery from pentachlorophenol-treated wood. M. S. Hudson. bibliog il diag Ind & Eng Chem 45:1576-83 Jl '53

Safety measures

Approach to solvent safety. J. B. Moore. Nat Safety N 70:32-3+ Jl '54; Excerpts. Safety Maint & Prod 108:23-4 Ag '54

Solvents; their dangers and how to control them. H. W. Speicher. il Safety Maint & Prod 108:32-7+ S '54

Ventilation controls hazards by reducing solvent content of atmosphere. V. R. Croswell. Ind & Eng Chem 46:sup 117A-18A Mr '54; Discussion. 46:sup 104A-5A S '54

SOLVOLYSIS

Inert bicyclic vicinal dibromides; solvolysis, elimination and rearrangement studies. J. A. Berson and R. Swidler. bibliog Am Chem Soc J 76:4057-9 Ag 20 '54

Kinetics and mechanisms of nucleophilic displacements in allylic systems; solvolysis and the accompanying rearrangement of 1 : 1- and of 3 : 3-dimethylallyl chloride. P. B. D. de la Mare and C. A. Vernon. Chem Soc J p2504-10 Jl '54

Mechanism of hydrolysis of acid chlorides; the effect of solvent and hydroxyl ions on the rate of solvolysis of substituted benzoyl chlorides. D. A. Brown and R. F. Hudson. Chem Soc J p3352-60 N '53

Reactivity of the *O*-acylglycosyl halides; the solvolytic reactions of tetra-*O*-acetyl-α-D-glucopyranosyl 1-bromide. F. H. Newth and G. O. Phillips. Chem Soc J p2896-900 O '53

Salt effects and ion-pairs in solvolysis. S. Winstein and others. Am Chem Soc J 76: 2597-8 My 5 '54

Solvolytic reactions of 2 : 2-dimethyl-1-phenylpropyl bromide. I. Dostrovsky and D. Samuel. Chem Soc J p658-61 F '54

Some solvent and salt effects in the solvolysis of *s*-butyl bromide. W. C. Coburn, jr., E. Grunwald and H. P. Marshall. bibliog Am Chem Soc J 75:5735-6 N 20 '53

SOMERVELL, Brehon B. 1892-

U.S. strength lies in chemical industry. por(cover) Chem & Eng N 31:2282 Je 1 '53

SOMERVILLE, Peter P.

Wire rope can be a way of life. pors Bsns W p86-8+ Ag 8 '53

SONAR

Salinity meter for sonar measurements. K. E. Harwell and D. W. Hood. bibliog il diags Electronics 27:172-4 Ja '54

SONISCOPE

Soniscope tests; abstract. B. Mather. Roads & Eng Constr 92:175 Ap '54

Use of the soniscope for measuring setting time of concrete. E. A. Whitehurst. bibliog il Am Soc T M Proc 51:1166-76; Discussion. 1176-83 '51

SOO line. See Minneapolis, St Paul and Sault Ste Marie railway

SOOT blowers

How safe is your soot-blower air compressor? N. A. Foran. il diag Power 98:120-1 My '54

Modern sootblowing. il diags Elec J 152:670-2 F 26 '54

Preventive maintenance for soot and slag blowers. S. F. Walleze. il diags Power Eng 57:90-2+ D '53

Soot blower piping problem. B. Dopp. diag Heating-Piping 26:102-4 F '54

SOPER, Henry F.

H. Soper; his small-scale models solve big problems for power plants. pors Eng N 151:48-50 N 26 '53

SOPHORA japonica

Synthesis of sophoricoside, one of the glycosides of sophora japonica. L. R. Bognár and V. Szabó. bibliog Chem & Ind p518 My 1 '54

SORBIC acid

Michael condensations with substituted sorbic esters; methyl β-*iso*butenyl-αα′-dimethoxycarbonylglutarate. E. B. Reid and H. W. Sause. Chem Soc J p516-20 F '54

Sorbic acid as a mold inhibitor. D. P. Smith and J. N. Rollins. il Mod Packaging 27:139-41+ D '53

SORG, Leonard V. 1906-

Sketch. por(cover) Chem & Eng N 32:629 F 15 '54

SORPTION. See Adsorption

SORTING devices

Absorption spectrum sorter. T. Elder and W. Benesch. diags Opt Soc Am J 44:279-83 Ap '54

Automatic process control; gaging and sorting. il Iron Age 172:274-9 O 8 '53

Automatic selector inspects spur and helical gears. il Am Mach 98:218 Je 7 '54

Ceramic tile sorter. F. Lepri and R. Sanna. diags Electronics 26:180-1 O '53

SORTING devices—*Continued*

Conveyorized disposal; twin system sorts chip grades; McQuay-Norris mfg. co. il Steel 134:146-7 Mr 15 '54

Electromechanical system developed for sorting items. il Elec Eng 73:103 Ja '54; Same abr. diag Machine Design 26:208 F '54; Same abr. Mech Eng 76:270-1 Mr '54

Electronic sorting assures coffee-bean uniformity. il Food Eng 25:70+ D '53

Electronic sorting improves coffee quality. O. V. Baldwin. il Elec World 140:130+ N 30 '53

Instrument sorts metals; Syclograph. il Am Mach 98:284 Ap 12 '54

Magnatest Q; an instrument for testing and sorting ferro-magnetic materials. Automobile Eng 44:215 My '54

Metal sorting with instruments. il Tool Eng 32:125 My '54

New device sorts metals accurately, quickly; thermoelectric metal comparator. E. F. Weller and E. A. Hanysz. il diags Iron Age 173:162-5 Mr 4 '54

New GM instrument unscrambles mixed metal parts. il Steel 134:59 Mr 15 '54

Sorting, principle of automatic machine may find industrial use; National bureau of standards. Iron Age 173:180-2 F 4 '54

Sorts parts by their alloys; thermoelectric comparator. il Factory Management 112:138 My '54

Weighing, sorting, statistical control, now automatic. il Food Eng 26:101 F '54

SOUND

Geometrical acoustics; theory of weak shock waves. J. B. Keller. diags J Ap Phys 25:938-47 Ag '54

Transmission of sound through plates. R. D. Fay. diag Acoustical Soc Am J 25:220-3 Mr '53; Discussion. K. R. Makinson. 25:1202 N '53

See also

Acoustics, Architectural
Hearing
Noise
Sound waves
Speech
Ultrasonic waves
Vibration

Absorption

Absorption of sound in argon, nitrogen, and oxygen at low pressures. J. G. Parker and others. il diag Acoustical Soc Am J 25:263-9 Mr '53

Determination of the acoustic properties of blood and its components. E. L. Carstensen and others. bibliog Acoustical Soc Am J 25:286-9 Mr '53

Relationships between kinetics and acoustic phenomena in equilibrium systems. M. Manes. bibliog diag J Chem Phys 21:1791-6 O '53

Thermal conductivity of paper honeycomb cores and sound absorption of sandwich panels. D. J. Fahey and others. bibliog il diags Tappi 36:523-8 N '53

Apparatus

Acoustic apparatus for determination of mixture ratio by analysis of engine exhaust gas. E. F. Weller. bibliog il diags Anal Chem 26:488-91 Mr '54

Aural detection of grain infested internally with insects. R. E. Adams and others. bibliog il Science 118:163-4 Ag 7 '53

Bed level indicator for detecting the boundary of a body of water. M. J. Wilkie and R. F. J. King. diags J Sci Instr 31:8-9 Ja '54

Electronic chiming installation for tower clock. Engineering 176:664 N 20 '53

Electronic method for bubble frequency measurement. A. O. Newman and B. J. Lerner. bibliog diag Anal Chem 26:417-18 F '54

Finishers tune in on burnishing. il Aviation W 59:39 O 12 '53

Minimal noise preamplifier for proportional counters and similar applications. K. Enslein and B. Brainerd. il diags R Sci Instr 24:916-19 O '53

Noise discriminator for periodic signals. R. L. Conger and L. E. Schilberg. il diag R Sci Instr 25:52-4 Ja '54

See also

Electroacoustic transducers
Headphones
Hearing aids, Mechanical
Loud speaking apparatus
Microphones
Moving picture sound recording
Phonograph
Radio apparatus
Resonators
Soniscope
Sound—Measurement
Sound—Recording and reproducing
Telephone

Attenuation

Attenuation of sound in a tube. F. A. Angona. Acoustical Soc Am J 25:336 Mr '53

Bibliography

Current publications on acoustics. F. A. Firestone. Published in bi-monthly numbers of Journal of the Acoustical society of America

References to contemporary papers on acoustics. R. T. Beyer. Published in bi-monthly numbers of Journal of the Acoustical society of America

Diffraction

Diffraction of sound waves by a circular aperture. G. Bekefi. diag Acoustical Soc Am J 25:205-11 Mr '53

Measurement

Apparatus and procedures for predicting ventilation system noise. L. L. Beranek and others. diags Acoustical Soc Am J 25:313-21 Mr '53

Ceramic probe microphones. E. Ackerman and W. Holak. diags R Sci Instr 25:857-61 S '54

Does your plant make too much noise? G. L. Bonvallet. Power Eng 58:62-4 F '54

How much noise does your plant make? H. C. Hardy. il Power Eng 58:62-4 Ap '54

Industrial noise; noise measurement. C. R. Williams. Factory Management 111:121-4 D '53

Measurement and evaluation of exhaust noise of over-the-road trucks. D. B. Callaway. il plan S A E J 62:52-4 Ap '54

Microphones measure high-intensity sound. J. K. Hilliard. il diag Electronics 26:160-3 N '53

Multichannel noise spectrum analyzer for 10-10000 cycles. E. G. Nielsen and A. van der Ziel. diags R Sci Instr 25:899-902 S '54

Noise evaluation and control. V. H. Pomper. bibliog il Safety Maint & Prod 107:60-70 Ap '54

Noise measurement and analysis. V. H. Pomper. bibliog il Safety Maint & Prod 107:54-6+ Mr '54

Noise of ventilating fans. C. F. Peistrup and J. E. Wesler. Acoustical Soc Am J 25:322-6 Mr '53

Some fundamental principles of noise control. A. C. Pietrasanta. diags Refrig Eng 62:37-40+ Ap; 56-60+ My '54

Sound-pressure levels and frequencies produced by flow of water through pipe fittings. W. L. Rogers. diags Heating-Piping 26:135-41 Jl '54; Discussion. 26:114-17 Ag '54

See also

Sound—Velocity

Recording and reproducing

Basic requirements for auditory perspective; reprinted from Bell system technical journal, April 1934. H. Fletcher. Soc Motion Picture & Tv Eng J 61:415-19 pt 2 S '53

Compleat fidelity. D. V. R. Drenner. il diags Radio & Tv N 50:57+ N; 52+ D '53; 51:44 Ja '54

Dual channel recording system. O. Read. il diags Radio & Tv N 50:43-5 N; 53-5+ D '53; 51:62-3+ Ja '54

Feedback loudness control. R. C. Williams. diag Radio & Tv N 51:134-5 Mr '54

Hi-fi; new potential in metalworking. Steel 133:87 D 14 '53

High fidelity with crystal headphones. C. E. Cohn. diag Radio & Tv N 50:92 O '53

Loudness control. M. H. Estkowski. diag Radio & Tv N 50:54-5 O '53

Loudspeakers and microphones for auditory perspective; reprinted from Bell system technical journal, April 1934. E. C. Wente and A. L. Thuras. bibliog il diag Soc Motion Picture & Tv Eng J 61:431-46 pt 2 S '53

SOUND—Recording and reproducing—*Cont.*

N-A beam test for intermodulation distortion. E. Cook. il diags Tele-Tech 12:98-9+ O '53

Phonomimicry; new exhibit technique; add recorded sound to pantomime. Sales Management 71:15-16 pt 2 O 1 '53

Physical factors in auditory perspective; reprinted from Bell system technical journal, April 1934. J. C. Steinberg and W. B. Snow. diags Soc Motion Picture & Tv Eng J 61:420-30 pt 2 S '53

Preventing acoustic feedback. B. Wolfe. diag Tele-Tech 12:77+ D '53

Telephone system applications of recorded machine announcements. W. Bennett. il diags Elec Eng 72:975-80 N '53

See also

Moving picture sound recording

Moving picture theaters—Sound equipment

Magnetic recording

Counter improves tape recorder. R. H. Dorf. il Radio & Tv N 50:51+ S '53

Development of a variable time delay. K. W. Goff. bibliog il diags Inst Radio Eng Proc 41:1578-84 N '53

Electron-beam head for magnetic tape playback. A. M. Skellett and others. il diags Electronics 26:168-71 O '53

Expanding the tape recorder's usefulness. P. Whitney. il diags Tele-Tech 12:78-9 N '53

How many ways to use recording devices? il Sales Management 71:81-4 N 1 '53

Low-cost monitoring. il Bsns W p54-5 Ag 22 '53

Magnetic recording for broadcasting. Engineering 176:381 S 18 '53

Magnetic recording for vehicular research. G. K. Guttwein and J. M. Leslie, jr. il diags Electronics 27:154-9 F '54

Our salesmen learn faster when they say it on tape; Conco chemical co. L. E. Crain. il Sales Management 71:128+ S 15 '53

Pages from a tape editor's notebook. D. C. Hoefler. il diags Radio & Tv N 50:46-7+ N; 50-1+ D '53; 51:40-1+ Ja; 50-1+ F '54

Servicing tape recorders. W. Rockwell. diags Radio & Tv N 51:74-5 Mr '54

Simple sound effects for home movie makers. J. Darr. diag Radio & Tv N 50:98+ S '53

Soundscriber recorder-reproducer records continuously for 24 hours. il diags Machine Design 26:196-8 Ap '54

Status of magnetic recording. R. E. Zenner. diags Elec Eng 72:951-4 N '53

Stereophonic recording equipment. R. J. Tinkham. il Elec Eng 72:1053-6 D '53

Tape recorders; sales mount. J. C. Potter. Barron's 33:13+ N 30 '53

Tape unreels magnetic future. Bsns W p46+ S 12 '53

Telephone answering set utilizes magnetic recording. il diag Machine Design 26:136 F '54

This modern tape recorder replaces phoneboy for log readings. L. W. Fitzpatrick. il diag Power 98:129 F '54

Tube registrations increased in 1953. Electronics 27:18 F '54

See also

Moving picture sound recording—Magnetic recording

Reflection

Reflection of sound in the ocean from temperature changes. R. R. Carhart. J Ap Phys 24:929-34 Jl '53

Scattering

Certain transmission and reflection theorems. V. Twersky. bibliog J Ap Phys 25:859-62 Jl '54

Variational principles for the acoustic field. E. Gerjuoy and D. S. Saxon. Phys R 94:1445-58 Je 15 '54

Transmission thru sea water

Reflection of sound in the ocean from temperature changes. R. R. Carhart. J Ap Phys 24:929-34 Jl '53

Velocity

Acoustic methods for gas analysis. L. E. Lawley. bibliog il diag Chem & Ind p200-3 F 20 '54

Determination of the acoustic properties of blood and its components. E. L. Carstensen and others. bibliog Acoustical Soc Am J 25:286-9 Mr '53

Sensitive versatile acoustic gas analyzer particularly suitable for the analysis of anesthetic mixtures. J. E. Wilson. diag R Sci Instr 25:927-8 S '54

Velocity of sound in water as a function of temperature and pressure. A. H. Smith and A. W. Lawson. bibliog diags J Chem Phys 22:351-9 Mr '54

SOUND absorbent materials

Facts about modern insulation. il Mill & Factory 54:378 My '54

Hanging boxes for noise reduction; Sonosorbers. il Factory Management 112:150 Ap '54

Practical lab tests light and quiet; F. W. Wakefield brass co. C. A. Schroeder. il Am Mach 98:124-5 My 24 '54

Putting ceiling on noise; acoustical system using light aluminum panels and fibrous glass. Steel 133:128-9 N 9 '53

Some fundamental principles of noise control; methods of noise control. A. C. Pietrasanta. diags Refrig Eng 62:56-60+ My '54

SOUND laboratories

Copper-lined room at GE plant excludes electromagnetic wave; anechoic chamber of sound test building. Iron Age 173:150+ My 13 '54

SOUND operated relays

Sound-actuated electronic switch. B. G. Lewis. il diag Radio & Tv N 50:120-1+ N '53

SOUND waves

Acoustic radiation pressure of plane compressional waves. F. E. Borgnis. bibliog diags Rs Mod Phys 25:653-64 Jl '53

Approximate elastic spectrum of acoustic waves in AgCl from X-ray scattering. H. Cole. J Ap Phys 24:482-7 Ap '53

Certain transmission and reflection theorems. V. Twersky. bibliog J Ap Phys 25:859-62 Jl '54

Detection of a sine wave in Gaussian noise. E. Reich and P. Swerling. diag J Ap Phys 24:289-96 Mr '53

Effects of sonic vibration on the proteolytic activity of pepsin. G. M. Naimark and W. A. Mosher. bibliog Acoustical Soc Am J 25:289-90 Mr '53

Finite amplitude sound waves. J. B. Keller. Acoustical Soc Am J 25:212-16 Mr '53

Propagation of acoustic waves in a liquid-filled cylindrical hole, surrounded by an elastic solid. E. V. Somers. bibliog J Ap Phys 24:515-21 My '53

Transient loading of a baffled piston. J. W. Miles. Acoustical Soc Am J 25:200-3 Mr '53

Transient loading of a baffled strip. J. W. Miles. Acoustical Soc Am J 25:204-5 Mr '53

See also

Ultrasonic waves

Industrial applications

Sonic energy fluidizes solids; patent. diag Chem Eng 61:252 My '54

SOUNDING

Better roof sounding. C. Webb. diag Coal Age 59:198+ Mr '54

Echometer for coastal waters; Marconi international marine communication co. il Engineer 196:284 Ag 28 '53; Elec J 151:711 S 4 '53

Electronic fish-finder locates fish, indicates depth and underwater hazards; Echograph. il Elec Eng 73:186-7 F '54

Nickel tubing aids design of echo-sounding equipment. il diag Marine Eng 59:74-5 Ja '54

Putting sound to work for fishermen; Sea Scanar. il Bsns W p86+ O 17 '53

SOUNDPROOFING

School acoustics. il diags Arch Forum 99:188+ O '53

SOUNDPROOFING—*Continued*
This house has been soundproofed. il plans Am Bld 75:64-6 Jl '53
See also
Acoustics, Architectural
Sound—Absorption
Sound absorbent materials

SOUP, Dried
Better dehydrated soup mixes; Mary Lynn food division. il Food Eng 26:79+ F '54
Sharper Lipton; tea and soup-mix packages get the uplift treatment. il Mod Packaging 27:126-7+ Ja '54

SOUP, Frozen
Frozen Campbell's soups. il Mod Packaging 27:110-11 My '54

SOUTH
U.S. fiscal 1955 budget saves South $2.7 billion. M. Smith. Manuf Rec 123:36 F '54

Economic conditions

How deep are the roots of the southern boom? T. Campbell. Iron Age 172:196-7 N 12 '53
Sensitive indicators of growth in the South. Iron Age 172:204-5 N 12 '53

Industries and resources

Competitive desire; the South's new industrial spirit. C. F. Hood. Advanced Management 19:9-10 Je '54
Growth industries give South greater recession-reistance. S. Fish. Manuf Rec 123:32-3 Ap '54
Industrial revolution in Dixie. S. P. Allen. Pub Util 52:907-11 D 17 '53
Industry must disperse, South is still best location. S. Fish. Manuf Rec 123:39+ My '54
Industry's move South has been a long-range, logical development. R. R. Harwood, jr. il Manuf Rec 123:32-4 Mr '54
Natural inherent advantages lure industry. S. Fish. Manuf Rec 123:32-3 Je '54
New and expanding plants; list by states. Published in monthly numbers of Manufacturers record
North Carolina story; re-checking; impressions of South over five years old out of date. S. E. Cohen. il Manuf Rec 123:91-2 Ja '54
Planned diversification program would speed growth of industries. S. Fish. il Manuf Rec 123:28-9 Jl '54
Planned tax cuts may save South $1.8 billions annually. M. Smith. Manuf Rec 122:64-5 N '53
Salute to the South; your industrial market. Iron Age 172:195-226+ N 12 '53
Scientific plant site selection in spotlight. S. Fish. Manuf Rec 122:60-1 N '53
Should industry move South? C. R. Walker. Manuf Rec 122:32 D '53
Southern industry records big gains; 1953 review and outlook, 1954. Manuf Rec 123:41-4 Ja '54
Survey of the South. A. P. Black. Am Dyestuff Rep 43:sec 2 Ag 30 '54
See also
Southern research institute

SOUTH AFRICA
See also
Architecture—South Africa
Electricity supply—South Africa
Gold mines and mining—South Africa
Rhodesia
Taxation—South Africa

Army

Malan's Africa corps. Economist 169:756-7 D 5 '53

Commercial policy

South Africa adds new textile duties. For Comm W 51:10 F 15 '54
South Africa and sterling. Economist 169:261-3 O 24 '53
South Africa to stop import discrimination. For Comm W 50:7 N 9 '53

Economic conditions

Economic conditions abroad. For Comm W 51:3+ F 22 '54

Economic policy

Slower development urged. For Comm W 50:2 Ag 31 '53

Politics and government

Dr Malan's roll call. Economist 168:158-9 Jl 18 '53
Dr Malan's tactics. Economist 168:500 Ag 22 '53
Malan's new gambit. Economist 168:842+ S 26 '53
Shuffle and cut in Capetown; Parliament and Dr Malan's last-minute move. Economist 169:86-7 O 10 '53
Solutions in South Africa. Economist 168:109-10 Jl 11 '53
See also
Political parties—South Africa

Race problems

Apartheid in the universities. Economist 170:83 Ja 9 '54
Dr Malan's roll call. Economist 168:158-9 Jl 18 '53
Dr Malan's tactics. Economist 168:500 Ag 22 '53
Just the art of being kind; party problems. Economist 170:246 Ja 23 '54
Malan's new gambit. Economist 168:842+ S 26 '53

SOUTH AMERICA
South American handbook, 1954-1955. H. Davies, ed. 31st ed 822p $2.50 Trade and travel publications, 14 Leadenhall st, London, E.C.3; H. W. Wilson co, New York '54

Economic relations

United States

President's envoy returns from South America; statement. M. S. Eisenhower. For Comm W 50:2 Ag 10 '53

SOUTH CAROLINA
See also
Charleston, South Carolina

Industries and resources

Nation's largest wool processor plans plant in South Carolina; Nichols & co., inc. Manuf Rec 123:35 F '54

SOUTH DAKOTA
See also
Petroleum—South Dakota

SOUTH JERSEY gas company
Public utility securities. O. Ely. Comm & Fin Chr 178:1017 S 17 '53

SOUTHEASTERN power administration
SPA and Sepa operating in the red. Elec World 141:68 F 8 '54

SOUTHEASTERN public service company
Stock offering oversubscribed. Comm & Fin Chr 178:953 S 14 '53

SOUTHERN association of state planning and development agencies
Meeting, Asheville, N.C. Manuf Rec 122:33 D '53

SOUTHERN Bell telephone and telegraph company
Debentures offered. Comm & Fin Chr 178:857 S 7 '53

SOUTHERN brick and tile manufacturers association
Annual meeting, 12th, Ponte Vedra, Fla, May 28-29. Brick & Clay Rec 124:66+ Je '54

SOUTHERN California Edison company
Bonds offered. Comm & Fin Chr 178:762-3 Ag 31 '53
Public utility securities. O. Ely. Comm & Fin Chr 178:1958 N 19 '53

SOUTHERN California meter association
25 years of progress. T. K. M. Smith. Instruments 26:277-8 F '53

SOUTHERN California water company
Preferred stock offering. Comm & Fin Chr 178:763 Ag 31 '53

SOUTHERN gas association
Annual meeting, 46th, Houston, April 26-28. Am Gas Assn Mo 36:31 Je '54
Annual meeting, 46th, Houston, April 26-28; with abstracts of papers. Gas Age 113:19-21 Je 3 '54

SOUTHERN gas association—*Continued*
Enjoys year of great progress. H. K. Griffin. Gas Age 113:61+ Ja 14 '54
SGA closes active year and moves toward new heights. H. K. Griffin. map Am Gas J 180:25-6 My '54

SOUTHERN natural gas company
Major expansion program completed. Barron's 33:17-18 O 26 '53

SOUTHERN New England telephone company
Stock offering. Comm & Fin Chr 178:1514 O 19 '53

SOUTHERN railway
Five attractive stocks with wide dividend coverage; with comparative balance sheet items. Mag of Wall St 93:674 Mr 6 '54
Railroad securities. Comm & Fin Chr 178:1349 O 8 '53

SOUTHERN research institute
Research is surging in the South; interview with T. W. Martin. Iron Age 172:200-1 N 12 '53

SOUTHERN wholesalers association
Annual meeting, 26th. Dom Eng 183:134-5+ Je '54

SOUTHWEST

Industries and resources

See also
Chemical industries—Southwestern states

SOUTHWEST Louisiana technical and vocational school
Sowela Tech; they graduate as oilfield roustabouts. il Bsns W p88-90+ Ag 29 '53

SOUTHWESTERN insurance information service
Casualty service group organized in Southwest; will disseminate factual information. Weekly Underw 169:998 O 24 '53

SOUTHWESTERN investment company
Debentures offered. Comm & Fin Chr 178:2577 D 28 '53

SOUTHWESTERN power administration
Action freeing SPA funds to benefit G&T co-ops. Elec World 141:75 Mr 8 '54
Policy switch short-circuits power deal. map Bsns W p 186+ S 19 '53
SPA and Sepa operating in the red. Elec World 141:68 F 8 '54
SPA staff cuts, and sweeping reorganization of power marketing agency ordered. Elec World 141:185-6 Mr 8 '54
SPA tale; up rates, low water. D. G. Wright. Elec World News ed 140:6-7 N 23 '53

SOUTHWESTERN public service company
Public utility securities. O. Ely. Comm & Fin Chr 178:551 Ag 13 '53

SOYBEAN association, American. See American soybean association

SOYBEAN meal
Estrogenic activity of isoflavone derivatives extracted and prepared from soybean oil meal. E. Cheng and others. bibliog Science 118:164-5 Ag 7 '53

SOYBEAN oil
Holdup and residual saturation of hexane in gravity-drained soybean flake beds. B. M. Kocatas and D. Cornell. il Ind & Eng Chem 46:1219-24 Je '54
Properties cohesive of baked, pigmented soybean oil films. L. L. Carrick and R. E. Trease. bibliog Paint Oil & Chem R 117:12-13+ Ap 22 '54
Soybean oil export drop offset. G. M. Strayer. Oil Paint & Drug Rep 164:4+ N 9 '53
Soybean oil, 1949-1952. Survey of Cur Bsns 1953 Sup p 128-9 [supplemented in monthly numbers]

SOYBEANS
Cellulose and soybean research; Buckeye cotton oil Memphis labs. il Chem & Eng N 32:2187 My 31 '54
Homogeneous cell preparation from soybean leaves. D. W. Racusen and S. Aronoff. il Science 118:302-4 S 11 '53
Soybean acreage rise expected. Oil Paint & Drug Rep 165:4+ F 1 '54
Soybean association urges new support level for '54 crop. G. M. Strayer. Oil Paint & Drug Rep 164:82 N 16 '53
Soybean stocks on farms smallest since 1948. Oil Paint & Drug Rep 165:46 Ap 19 '54
Soybean world outturn is now placed higher. Oil Paint & Drug Rep 165:7+ My 31 '54
Soybeans, 1949-1952. Survey of Cur Bsns 1953 Sup p 128 [supplemented in monthly numbers]
Survey of cost practices of soybean processors. D. A. Sullivan. N A C A Bul 35:772-83 F '54
U.K. mills purchase soybeans from U.S. For Comm W 50:16 N 23 '53

SPACE, Interstellar
Radio waves from interstellar hydrogen; astronomers use phenomenon to locate hydrogen clouds and to detect their motion. H. I. Ewen. il Sci Am 189:42-6 D '53

SPACE charge
Approximate solutions of the space-charge problem for some unusual electrode geometries. H. F. Ivey. bibliog diags J Ap Phys 24:1466-72 D '53; Correction. 25:543 Ap '54
Crossed electron beam technique for measuring space-charge effects in beams. P. D. Coleman and others. il diags J Ap Phys 25:679-80 My '54
Effect of space charge on saturation properties of ionization chambers. A. C. Lapsley. R Sci Instr 24:602-5 Ag '53
Potential distribution and prevention of a space-charge-induced minimum between a plane secondary electron emitter and parallel control grid. G. C. Sponsler. diags J Ap Phys 25:282-7 Mr '54
Space-charge effects in field emission. J. P. Barbour and others. bibliog il diag Phys R 92:45-51 O 1 '53
Space-charge forces in strong-focusing synchrotrons. S. E. Barden. Phys R 93:1378-80 Mr 15 '54
Space charge requirements in some ideally focused electron-optical systems. N. Wax. bibliog J Ap Phys 24:727-30 Je '53
Space charge spread of reflected electron beams studied by a photographic method. J. T. Wallmark. il diags J Ap Phys 24:590-7 My '53
Space-charge-wave amplification along an electron beam by periodic change of the beam impedance. R. W. Peter and others. bibliog il diags RCA R 15:113-20 Mr '54
Space charge waves in inhomogeneous electron beams. G. Kent. bibliog diag J Ap Phys 25:32-41 Ja '54
Squirrel-cage filament structures; equivalent cathode diameter. A. M. Hardie. bibliog il diags Wireless Eng 30:196-204 Ag '53
Theory of ac space-charge polarization effects in photoconductors, semiconductors, and electrolytes. J. R. Macdonald. bibliog diag Phys R 92:4-17 O 1 '53

SPACE clock. See Clocks

SPACE flight. See Interplanetary flight

SPACE frame structures. See Architecture

SPACE perception
Aniseikonia and the Howard-Dolman test. L. L. Sloan and A. Altman. bibliog diags Opt Soc Am J 43:473-8 Je '53
Depth perception with special reference to motion pictures. T. R. Murroughs. Soc Motion Picture & Tv Eng J 60:656-70 Je '53
Luneburg theory of binocular visual space. A. A. Blank. bibliog diags Opt Soc Am J 43:717-27 S '53
Precision and validity of stereoscopic depth perception from double images. K. N. Ogle. bibliog diags Opt Soc Am J 43:906-13 O '53
Stereoptometer, a simple haploscopic instrument for the study of binocular space perception. E. A. Alluisi and G. S. Harker. diags Science 117:682-3 Je 19 '53

SPACE ship. See Interplanetary flight

SPAIN

See also
Chemical industries—Spain
Petroleum industry and trade—Spain

Economic relations
United States

Bases in Spain. map Economist 169:9 O 3 '53
Metal items authorized for Spain by FOA. For Comm W 50:13 D 14 '53
Spain to buy coal in United States. For Comm W 50:11 D 21 '53

SPAIN—Economic relations—United States—*Continued*

Spain, United States conclude three bilateral security agreements. For Comm W 50:19 O 12 '53

Foreign relations

Spanish Morocco and the sultan. Economist 170:221-2 Ja 23 '54

United States

Spaniards and the bases. map Economist 170:174-5 Ja 16 '54

Uranium; hidden in U.S.-Spain treaty; one part of agreement gives U.S. access to Spain's minerals, metals, uranium ore included. Iron Age 172:112-13 N 12 '53

Politics and government

Spain and Nato. Economist 169:481 N 14 '53

SPALLING

Spall effects produced by a cylindrical and a spherical charge of high explosive. W. A. Allen and W. Goldsmith. bibliog il diags J Ap Phys 25:813-14 Je '54

SPANISH MOROCCO. See Morocco

SPARCATRON process. See Electric cutting

SPARK, Electric. See Electric spark

SPARK cutting. See Electric cutting

SPARK gap

Design and performance of surge diverters for the protection of alternating-current systems. T. F. Monahan. bibliog diags Inst E E Proc 98 pt 2:312-22 Je '51; Discussion. il 98 pt 2:322-30; 100 pt 2:664-5 Je '51, D '53

SPARK ignition. See Electric ignition

SPARK plugs

Air units speed the assembly of spark plugs. il Mach 60:203 Ja '54

Experts study misfiring, fouling; Champion's aircraft spark plug and ignition conference, Toledo. Aviation W 59:58+ O 26 '53

FTC orders end of discriminatory spark plug sales. Nat Pet N 45:17 Jl 29 '53

Filters and plugs; a big market. Nat Pet N 45:28 O 28 '53

Right way to service plugs; illustrated instructions. Nat Pet N 45:86-7 Je 3 '53

SPARKS, William Joseph, 1905-

Heads NRC Division of chemistry. por(cover) Chem & Eng N 31:3382 Ag 17 '53

1954 gold medal of the American institute of chemists awarded to W. J. Sparks. por Rubber World 130:376 Je '54

W. J. Sparks to receive 1954 gold medal of American institute of chemists. H. T. Sharp. pors Chem Eng 61:360-3 My '54

SPASMOLYTICS. See Antispasmodics

SPECIAL days. See Advertising campaigns—Special weeks and days

SPECIAL libraries

See also

Information service

Map libraries

SPECIAL libraries association

Report of the treasurer, 1952. Special Lib 44:184-7 My-Je '53

SLA division structure. A. Blomshield. Special Lib 44:202-3 My-Je '53

SPECIAL sales

Special offers in newspapers show current marketing trend. il Ptr Ink 243:130 Ap 17 '53

SPECIAL weeks. See Advertising campaigns—Special weeks and days

SPECIFIC gravity

Chrono-interferometer for measuring gas density during transient flows. C. W. Curtis and others. il diags R Sci Instr 25:679-82 Jl '54

Decrease of density during plastic deformation of nodular cast iron. W. R. Clough and M. E. Shank. il J Metals 6:Trans 1093-4 sec 2 S '54

Densities and optical properties of organic compounds in the liquid state; the densities of aliphatic hydrocarbons. M. L. Huggins. Am Chem Soc J 76:843-5 F 5 '54

Densities and optical properties of organic compounds in the liquid state; the densities of α-substituted normal alkanes. M. L. Huggins. Am Chem Soc J 76:845-7 F 5 '54

Densities and optical properties of organic compounds in the liquid state; the densities of esters from fatty acids and normal alcohols. M. L. Huggins. Am Chem Soc J 76:847-50 F 5 '54

Densities of gaseous argon. J. A. Beattie and H. P. Julien. bibliog Ind & Eng Chem 46:1668-9 Ag '54

Densities of some binary liquid mixtures. V. S. Griffiths. Chem Soc J p860-2 Mr '54

Density, viscosity, specific heat, thermal conductivity, and Prandtl number versus concentration and temperature; sulphite waste liquor. R. E. Hunter and others. bibliog(26 ref) Tappi 36:493-7 N '53

Determination of density of small fragments. W. Primak and P. Day. bibliog diags Anal Chem 26:1515-17 S '54

Determination of the density of oxygen gas. B. A. Fiekers. bibliog J Chem Educ 31:139-40 Mr '54

Electrical conductivity and density of molten cryolite with additives. J. D. Edwards and others. bibliog il Electrochem Soc J 100:508-12 N '53

Electromagnetic method of measurement of density or specific gravity of liquids. K. R. Honick. diags J Sci Instr 31:1-2 Ja '54

Estimation of hydrocarbon composition of natural gas from absorption index and specific gravity. T. W. Legatski and others. Pet Refiner 32:105-8 Ag '53; Same. Oil & Gas J 52:292-4+ Jl 27 '53

Improved method of determining densities of viscous fluids with Babcock bottles. R. S. Cass, J. B. Gregory and E. Levens. Anal Chem 25:1773 N '53

Instrument for the measurement of the density of aqueous ionic solutions. C. F. McCourt. diags J Sci Instr 30:241-4 Jl '53

Isopycnics and twin density lines. A. W. Francis. bibliog Ind & Eng Chem 45:2789-92 D '53

Isotope density gauge. Can Chem Process 38:48 Je 20 '54

Measurement techniques for specific gravity, viscosity, mass and time. diags Can Chem Process 37:98-100+ O '53

Methods and advantages of determining gravities of crude in oil-bearing rock samples. J. O. Nigra. bibliog Pet Eng 25:B65+ Ag '53

Microbalance for the determination of protein crystal densities. F. M. Richards. bibliog il diags R Sci Instr 24:1029-34 N '53

Precision measurement of uniformity of materials by gamma-ray transmission. A. I. Berman and J. N. Harris. il diags R Sci Instr 25:21-9 Ja '54

Proposed method of test for density and specific gravity of liquids to the fifth place by the Bingham pycnometer. diags Am Soc T M Proc 51:303-9 '51

Remote measurement of density of a liquid of variable surface level. S. Kawata and A. Itami. diags R Sci Instr 24:473 Je '53

Specific gravity of gases. B. J. Willard. il diags Instruments & Automation 27:945-9 Je '54

Studies on smooth and cork-bark abies lasiocarpa; specific gravity comparison. R. W. Kennedy and J. W. Wilson. Pulp & Pa of Can 55:119-21 Ag '54

Viscosity and density of liquid lead-tin and antimony-cadmium alloys. H. J. Fisher and A. Phillips. bibliog(40 titles) diags J Metals 6:Trans 1060-70 sec 2 S '54

See also

Parachors

Pycnometers

SPECIFIC heat

Change in heat content accompanying denaturation. J. M. Sturtevant. bibliog J Phys Chem 58:97-100 F '54

Condensed gas calorimetry; the heat capacity of liquid parahydrogen from the boiling point to the critical point. A. L. Smith, N. C. Hallett and H. L. Johnston. bibliog Am Chem Soc J 76:1486-8 Mr 20 '54

Contributions to thermodynamics; the specific heat of an ideal gas. J. McQuirg. J Chem Educ 31:299 Je '54

SPECIFIC heat—*Continued*

Density, viscosity, specific heat, thermal conductivity, and Prandtl number versus concentration and temperature; sulphite waste liquor. R. E. Hunter and others. bibliog (26 ref) Tappi 36:493-7 N '53

Determination of heat capacity by pulse heating. T. E. Pochapsky. il diags R Sci Instr 25:238-42 Mr '54

Heat capacity, heats of fusion and vaporization, and vapor pressure of tetrafluoroethylene. G. T. Furukawa and others. J Res Nat Bur Stand 51:69-72 Ag '53

Heat capacity of chain polymeric crystals. W. H. Stockmayer and C. E. Hecht. bibliog diag J Chem Phys 21:1954-8 N '53

Heat capacity of gadolinium from 15 to 355°K. M. Griffel and others. bibliog Phys R 93:657-61 F 15 '54

Heat capacity of gaseous hexafluoroethane. J. S. Wicklund and others. J Res Nat Bur Stand 51:91-2 Ag '53

Heat capacity of organic liquids. W. M. Chow and J. A. Bright, jr. bibliog(33 ref) Chem Eng Prog 49:175-80 Ap '53

Heat capacity of thorium dioxide from 10 to 305°K; the heat capacity anomalies in uranium dioxide and neptunium dioxide. D. W. Osborne and E. F. Westrum, jr. bibliog diag J Chem Phys 21:1884-7 O '53

High temperature heat contents of calcium and magnesium ferrites. K. R. Bonnickson. Am Chem Soc J 76:1480-2 Mr 20 '54

Librational heat capacity of ice and of heavy ice. R. W. Blue. bibliog J Chem Phys 22:280-3 F '54

Magnesium-cadmium alloys; heat capacities between 12 and 320°K. and the entropies at 25° of magnesium and cadmium. R. S. Craig and others. bibliog diag Am Chem Soc J 76:238-40 Ja 5 '54

Magnesium-cadmium alloys; low temperature heat capacities and a test of the third law of thermodynamics for the MgCd superlattice. C. B. Satterthwaite, R. S. Craig and W. E. Wallace. bibliog diags Am Chem Soc J 76:232-8 Ja 5 '54

Magnesium-cadmium alloys; low temperature heat capacities of $MgCd_3$ and Mg_3Cd and a test of the third law of thermodynamics for the $MgCd_3$ superlattice. L. W. Coffer and others. bibliog Am Chem Soc J 76:241-4 Ja 5 '54

Some apparent anomalies in low-temperature heat capacities. J. R. Clement. bibliog Phys R 93:1420-1 Mr 15 '54

Specific heats of simple solids and moments of elastic frequency spectra. J. Hwang. J Chem Phys 22:154-5 Ja '54

Temperature dependence of heat capacity. G. J. Janz. J Chem Educ 31:72 F '54

Thermodynamic properties of technetium and rhenium compounds; low temperature heat capacity and the thermodynamics of potassium perrhenate and the perrhenate ion. J. W. Cobble, G. D. Oliver and W. T. Smith, jr. bibliog Am Chem Soc J 75:5786-7 D 5 '53

Thermodynamic properties of technetium and rhenium compounds; low temperature heat capacity and thermodynamics of rhenium. W. T. Smith, jr., G. D. Oliver and J. W. Cobble. Am Chem Soc J 75:5785-6 D 5 '53

Thermodynamics of critical phenomena in gases. J. F. Lee. bibliog Franklin Inst J 256:245-8 S '53

Vapor heat capacities determined by the use of vapor pressure equations. G. M. Barrow. J Chem Phys 21:1912-13 N '53

SPECIFIC impulse (term)

Definition of specific impulse. S. W. Greenwood. Roy Aeronautical Soc J 57:819 D '53

SPECIFIC speed. See Compressors—Specific speed; Turbines—Specific speed

SPECIFIC surface

Apparatus for preparing sodium chloride crystals having large specific surface. D. M. Young and J. A. Morrison. diags J Sci Instr 31:90-2 Mr '54

Direct comparison of the silvering and permeability methods of determining specific external surface. H. W. Emerton and others. Tappi 37:55-6 F '54

SPECIFIC volume

Apparent and partial molal volumes of potassium iodide and of iodine in methanol at 25° from density measurements. D. A. MacInnes and M. O. Dayhoff. bibliog Am Chem Soc J 75:5219-20 N 5 '53

SPECIFICATIONS

Federal specs; Navy bureau report describes and tells how to get them. Iron Age 172:194-9 D 3 '53

How the government buys; federal and military specifications. M. P. Haskin. Materials & Methods 39:90-2 F '54

Know your A,B,C's of government specifications. A. G. Gray. Steel 134:100-3 Ja 18 '54

Statistical aspects of specifications. H. H. Johnson. Mech Eng 75:447-50 Je '53

See also

Standards

also subdivision Specifications under special subjects, e.g.

Airplane engines
Airplanes
Automobile engines
Automobiles
Cast iron
Internal combustion engines
Motor boat engines, Outboard

SPECTACLES

Box within a box; new one-piece mailer designed for Sterling's eye glasses. il Mod Packaging 27:99 Je '54

Self-prescribed glasses, a safety problem. F. M. Foote. Nat Safety N 69:118-19 Mr '54; Discussion. V. L. Huntsberger. 70:70+ Jl '54

SPECTROGRAPH

Apparatus for microwave spectroscopy. M. W. P. Strandberg and others. bibliog(29 ref) il diags R Sci Instr 25:776-92 Ag '54

Application of echelle spectrographs to quantitative analysis of boron in steel. W. G. Kirchgessner and N. A. Finkelstein. bibliog il diags Anal Chem 25:1034-8 Jl '53

Attachment for spectrograph permits use of helium for air. il Elec Eng 73:190 F '54

Bausch & Lomb Littrow-Eschelle spectrograph. il R Sci Instr 24:406-7 My '53

Compensation of astigmatic errors in a grating spectrograph. H. W. Straat. il diags Opt Soc Am J 43:593-4 Jl '53

Direct reading spectrograph gives accurate control in aluminum production. D. L. Colwell and O. Tichy. il J Metals 6:343-5 Mr '54

Effect of stray light in prism and grating spectrographs on emulsion calibration curves and its significance in spectrographic analysis. R. N. Kniseley and V. A. Fassel. bibliog Opt Soc Am J 44:390-3 My '54

Estimation of absolute absorption intensities with a Stark-modulated microwave spectrograph. G. R. Bird. bibliog R Sci Instr 25:324-6 Ap '54

Fast spectrographic camera design. C. J. Silvernail. diag Opt Soc Am J 43:539-40 Je '53

Hilger and Watts vacuum grating spectrographs. J Sci Instr 30:438-9 N '53

Method for crossing a Fabry-Perot etalon with a Rowland circle spectrograph. R. G. Lacount. il diag Opt Soc Am J 44:35-6 Ja '54

Method for the estimation of the relative intensities of microwave absorption lines. D. H. Baird and G. R. Bird. bibliog diags R Sci Instr 25:319-23 Ap '54

Microwave frequency standard. L. C. Hedrick. diags R Sci Instr 24:565-8 Ag '53

New reflecting spectrograph camera. C. Moser. il diag Opt Soc Am J 44:660-3 Ag '54

Plane spectrograph offers ultra high dispersion. Chem & Eng N 31:4472+ O 26 '53

Precision measurement of wavelengths with Echelle spectrographs. G. R. Harrison and others. bibliog il diags Opt Soc Am J 43:853-61 O '53

Semicircular permanent magnet beta-spectrograph for photographic recording of conversion lines. H. Slätis. bibliog diags R Sci Instr 24:464-7 Je '53

Spectrograph unit for use with the N.P.L. gauge interferometer. C. F. Bruce and V. R. Findlay. il diags J Sci Instr 30:297-9 S '53

SPECTROGRAPH—*Continued*

Variable field beta-ray spectrometer-spectrograph. R. Katz and M. R. Lee. bibliog il diags R Sci Instr 25:58-62 Ja '54

See also

Spectrophotometers

SPECTROGRAPHY

Calculation of integrated intensities in spectrographic microanalysis. J. K. Hurwitz. bibliog diags Opt Soc Am J 44:30-4 Ja '54

Construction of a combined sources unit for emission spectrography. R. G. Stone and H. L. Bolton. bibliog diags J Sci Instr 31:175-8 My '54

Controlled source units for spectrography; Hilger and Watts, ltd. J Sci Instr 30:63 F '53

Determination of trace elements in fuel oils. C. W. Key and G. D. Hoggan. diag Anal Chem 25:1673-6 N '53

Modern spectrography; speed pays high cost of knowing. N. Lynn. il Steel 133:106+ N 30 '53

Projector-comparator for examining spectrographic plates. J. C. North. il diags J Sci Instr 30:366-8 O '53

Sampling gun for spectrographic pin samples. H. H. Grossman, C. B. Pratt and W. S. Myers. diag Anal Chem 25:1939 D '53

Separation of rhodium(III) from iridium(IV). G. H. Ayres and C. M. Maddin. bibliog Anal Chem 26:671-4 Ap '54

Spectrographic determination of impurities in zirconium and hafnium. N. E. Gordon, jr. and R. M. Jacobs. bibliog Anal Chem 25:1605-8 N '53

Suppression of cyanogen bands in the direct current graphite arc by lithium chloride. R. G. Keenan and C. E. White. bibliog il Anal Chem 25:887-92 Je '53

SPECTRO-MATIC associates

Manufacturers will produce and distribute Spectro-Matic color tinting system. Paint Oil & Chem R 117:12 Ja 14 '54

SPECTROMETERS

Absorption spectrum sorter. T. Elder and W. Benesch. diags Opt Soc Am J 44:279-83 Ap '54

Analysis with double-beam infra-red spectrometers. L. J. Bellamy. bibliog J Ap Chem 3:421-5 S '53

Application of a fast-scanning infrared spectrometer to gas-phase kinetic studies. G. R. Cowan and others. Opt Soc Am J 43:710-11 Ag '53

Application of bichromator infrared dispersion analyzer. A. Savitzky and D. R. Bresky. bibliog il diags Ind & Eng Chem 46:1382-6 Jl '54

Application of infrared nondispersion analyzer. L. Hollander, G. A. Martin and C. W. Skarstrom. diag Ind & Eng Chem 46:1377-81 Jl '54

Beta-ray spectrometer line shapes with tilted sources. H. W. Kruse and others. diag J Ap Phys 24:1037-9 Ag '53

Calibration of infrared prism spectrometers. A. R. Downie and others. bibliog Opt Soc Am J 43:941-51 N '53

Calibration of infra-red spectrometers in the wavelength region 15-25μ. V. Roberts. J Sci Instr 31:226 Je '54

Circuit for a radio-frequency spectrometer. J. Gindsberg and Y. Beers. bibliog diag R Sci Instr 24:632-4 Ag '53

Concerning the use of the Fabry-Perot interferometer for wave-number measurement in the infrared. J. H. Jaffe. diags Opt Soc Am J 43:1170-3 D '53

Continuous control of plant stream by infrared analyzer. D. E. Berger. il Instruments 26:872-3+ Je '53

Continuous infrared analyzers. G. E. Smith. diag Ind & Eng Chem 46:1376-7 Jl '54

Convenient source-alignment device for a spectrometer. B. Crawford and others. plan Opt Soc Am J 44:574 Jl '54

Design and performance of an infrared microscope attachment. V. J. Coates and others. bibliog il diag Opt Soc Am J 43:984-9 N '53

Design and trajectories for a magnetic lens nuclear spectrometer. L. A. Kiley and others. il diags R Sci Instr 24:1145-6 D '53

Design of thermocouple transformers for infra-red chopped beam systems. T. S. Robinson. bibliog J Sci Instr 29:311-13 O '52; Discussion. 30:142 Ap '53

Development of a neutron spectrometer for the intermediate energies; abstract and discussion. F. S. Goulding and others. Elec J 152:213-14 Ja 15 '54

Double-beam double-pass infrared spectrometer. A. R. H. Cole. il Opt Soc Am J 43:897-8 S '53

18-channel spectrometer. L. S. Herczeg. diag Franklin Inst J 256:471-2 N '53

Elimination of atmospheric water vapor absorption in the Perkin-Elmer infrared spectrometer. R. D. B. Fraser. diags Opt Soc Am J 43:929 O '53

Fast neutron coincidence spectrometer. P. R. Chagnon and others. bibliog il diags R Sci Instr 24:656-60 Ag '53

Fast neutron-scintillation spectrometer. J. E. Draper. bibliog diags R Sci Instr 25:558-62 Je '54

Fast neutron spectrometer. J. R. Holt and A. E. Litherland. diag R Sci Instr 25:298 Mr '54

Field application of infrared analyzers. R. F. Wall and others. diags Ind & Eng Chem 46:1387-90 Jl '54

Goniometric spectrometer for the measurement of diffuse reflectance and transmittance of skin in the infrared spectral region. C. Clark and others. bibliog il diags Opt Soc Am J 43:993-8 N '53

Gray wedge pulse-height analysis. W. Bernstein and others. il diags R Sci Instr 24:437-44 Je '53

High-temperature microwave spectrometer. M. L. Stitch and others. bibliog(28 ref) diags R Sci Instr 25:759-64 Ag '54

Infrared gas analyzer for butane splitter control. R. L. Martin and B. W. Thomas. bibliog diags Ind & Eng Chem 46:1393-6 Jl '54

Infrared recording of optical density vs linear frequency. J. H. Daniel and F. S. Brackett. bibliog il diags Opt Soc Am J 43:960-8 N '53

Installation of continuous infrared analyzers. S. H. Walters. diags Ind & Eng Chem 46:1390-3 Jl '54

Kinematically focused concave-grating spectrometer. E. J. Bair and others. il diag Opt Soc Am J 43:681-4 Ag '53

Measure of *K*-shell internal conversion coefficients with a coincidence scintillation spectrometer. F. K. McGowan. bibliog diag Phys R 93:163-72 Ja 1 '54

New approach to direct reading spectrochemical analysis. R. K. Brehm and V. A. Fassel. diags Opt Soc Am J 43:886-9 O '53

New industrial tool; Mervyn-NPL spectrometer. il Chem Age (Lond) 71:77-8 Jl 10 '54

New infra-red spectrometer; National physical laboratory and Mervyn Instruments. il Chem & Ind p912 Jl 24 '54

Performance of Merton-N.P.L. gratings in a commercial infrared spectrometer. A. R. H. Cole. bibliog diag Opt Soc Am J 44:741-3 S '54

Perkin-Elmer's infrared instrument performs push-button analyses. il Chem & Eng N 32:3004 Jl 26 '54

Precision of infrared spectrometers in routine use. E. Childers and G. W. Struthers. Anal Chem 25:1311-13 S '53

Recording infrared analyzer. V. N. Smith. bibliog il diags Instruments 26:421-7 Mr '53

Removal of water vapour and carbon dioxide from an infra-red spectrometer. P. Holliday. J Sci Instr 31:261 Jl '54

Sensitizing nondispersive infrared analyzer. E. H. Woodhull, E. H. Siegler and H. Sobcov. diag Ind & Eng Chem 46:1396-400 Jl '54

Simple infra-red grating spectrometer for use in analysis. J. Gaunt. il diags J Sci Instr 31:315-18 S '54

Simple quartz infra-red spectrometer for the determination of absorbed water in some polymers. E. R. S. Jones. diag J Sci Instr 30:132-4 Ap '53

Slow neutron velocity spectrometer studies; Re, Ta, Ru, Cr, Ga. E. Melkonian and others. Phys R 92:702-15 N 1 '53

SPECTROMETERS—*Continued*

Small infrared spectrometer analyzer for chemical process streams. L. W. Herscher and N. Wright. bibliog il diags Opt Soc Am J 43:980-3 N '53

Spectrographic analysis of foundry metal; Campbell, Wyant & Cannon foundry co. L. E. Harper. il Foundry 82:112-13 S '54

Spectrometer vital for tool steels; Latrobe steel co. W. W. Clarke. il Steel 134:108+ Ap 5 '54

Study of the H^3+He^3 reactions. C. D. Moak. bibliog diags Phys R 92:383-8 O 15 '53

Summation of γ-ray energies with a single-crystal spectrometer. D. C. Lu and M. L. Wiedenbeck. Phys R 94:501-2 Ap 15 '54

Symmetrical cathode follower bridge circuit for direct spectrochemical analysis. W. G. Walker and S. C. Baker. bibliog diag J Sci Instr 30:328-30 S '53

Unicam infrared spectrometer. il R Sci Instr 24:407 My '53

Universal slit-drive mechanism for a single-beam infrared spectrometer. D. Chapman and E. T. Sanders. diag J Sci Instr 31:346 S '54

Variable field beta-ray spectrometer-spectrograph. R. Katz and M. R. Lee. bibliog il diags R Sci Instr 25:58-62 Ja '54

Wavelength and slit-drive mechanisms for an infra-red spectrometer. J. D. S. Goulden. J Sci Instr 30:139-40 Ap '53

SPECTROMETERS, Gamma ray

Analysis of radionuclide mixtures using a gamma-beta scintillation spectrometer. R. E. Connally and M. B. Leboeuf. bibliog diags Anal Chem 25:1095-100 Jl '53

Anticoincidence gamma-ray scintillation spectrometer. R. D. Albert. bibliog il diag R Sci Instr 24:1096-101 D '53

Gamma-ray energy resolution with NaI-TlI scintillation spectrometers. C. J. Borkowski and R. L. Clark. diag R Sci Instr 24:1046-50 N '53

Gamma-ray measurements by the magnetic analysis of Compton electrons. J. W. Motz and others. bibliog diags R Sci Instr 24:929-37 O '53

Photocathode uniformity and resolution of scintillation spectrometers. T. F. Godlove and W. G. Wadey. diags R Sci Instr 25:1-4 Ja '54

Scintillation pair spectrometer. H. I. West, jr. and L. G. Mann. bibliog diags R Sci Instr 25:129-35 F '54

Two-crystal gamma-ray scintillation spectrometer. R. E. Connally. diag R Sci Instr 24:458-9 Je '53

SPECTROMETERS, Mass. See Mass spectrometers

SPECTROMETERS, X ray

Adaptation of the Norelco high-angle spectrometer to the measurement of the X-ray diffraction of fibers. B. Irvin and F. B. Breazeale. il R Sci Instr 24:627-31 Ag '53

Aluminum powder as a binder in sample preparation for X-ray spectrometry. I. Adler and J. M. Axelrod. Anal Chem 26:931-2 My '54

Analysis of bauxite exploration samples; X-ray diffraction method. R. H. Black. bibliog il Anal Chem 25:743-8 My '53

Calibration method for X-ray fluorescence spectrometry. H. J. Beattie and R. M. Brissey. Anal Chem 26:980-3 Je '54

Design and operation of a precision Geiger-Müller counter X-ray diffraction spectrometer. R. C. Coyle and others. bibliog il diag J Sci Instr 30:151-5 My '53; Discussion. G. K. Williamson and R. E. Smallman. 30:341 S '53

Geiger counter X-ray crystal spectrometer. P. J. A. McKeown and A. R. Ubbelohde. bibliog il diags J Sci Instr 31:321-6 S '54

Linear motion X-ray spectrometer. H. P. Hanson and H. W. Schrader. R Sci Instr 25:422-3 My '54

Low temperature adaptor for the Norelco high angle spectrometer. B. A. Calhoun and S. C. Abrahams. diag R Sci Instr 24:397 My '53

Method for the quantitative determination of preferred orientation. L. K. Jetter and B. S. Borie, jr. il diags J Ap Phys 24:532-5 My '53

Monitoring a Geiger-counter spectrometer beam. E. Gillam and D. G. Cole. diags J Sci Instr 30:429-30 N '53

Multi-wavelength fluorescence spectrometer. I. Adler and J. M. Axelrod. bibliog diags Opt Soc Am J 43:769-72 S '53

Precision X-ray diffraction spectrometer ring. D. C. Barnes and C. Wainwright. il diags Engineer 197:97-8 Ja 15 '54; Same. Engineering 177:82-4 Ja 15 '54

Quantitative analysis of powder mixtures with the Geiger-counter spectrometer. H. P. Klug. bibliog Anal Chem 25:704-8 My '53

Resolution and dispersion of a concave grating spectrometer using a photomultiplier detector. P. Fisher. Opt Soc Am J 44:665 Ag '54

Scintillation spectrometers for measuring the total energy of X-ray photons. R. S. Foote and H. W. Koch. bibliog diags R Sci Instr 25:746-58 Ag '54

Surface analysis with the X-ray photoelectron spectrometer. R. G. Steinhardt, jr. and E. J. Serfass. bibliog diag Anal Chem 25:697-700 My '53

Synthesis of X-ray spectrometer line profiles with application to crystallite size measurements. L. Alexander. bibliog J Ap Phys 25:155-61 F '54

Three-sheet minerals in clays. E. J. Weiss and R. L. Stone. Am Cer Soc Bul 33:51-2 F 15 '54

X-ray fluorescence cuts metal analysis time; Curtiss-Wright corp. J. R. Mihalisin. il Iron Age 174:108-10 Jl 15 '54

SPECTROMETRY

Light absorption spectrometry; review of past two years. M. G. Mellon. Anal Chem 26:2-11 bibliog(483 ref. p7-11) Ja '54

Nuclear magnetic resonance spectrometry. R. H. Müller. Anal Chem 25:sup27A-8A+ My '53

0.8 N.A. reflecting microscope for infrared absorption measurements. R. D. B. Fraser. bibliog il diag Opt Soc Am J 43:929-30 O '53

Preparation of compounds for infrared spectrometry. M. Hacskaylo. bibliog il Anal Chem 26:1410-12 S '54

Quality control; spectrometry lab keeps tabs on large scale production; Ford's Cleveland foundry. il Iron Age 172:198-9 S 10 '53

SPECTROPHOTOMETERS

Attachment to permit the examination of liquid films by a Beckman model DU spectrophotometer. H. G. McAdie and R. V. V. Nicholls. il diags Opt Soc Am J 43:767-8 S '53

Bausch & Lomb colorimeter-spectrophotometer has wide applications. Chem & Eng N 32:3678 S 13 '54

Comparative survey of spectrophotometers in the 210-760 mμ region. W. R. Brode and others. Opt Soc Am J 43:862-5 O '53

Construction of a dual beam heated infrared cell. J. T. Neu. diags Opt Soc Am J 43:520-1 Je '53

Construction of 1 mm and 0.2 mm absorption cells for use in an ultra-violet spectrophotometer. J. H. Linford. diags J Sci Instr 30:435 N '53

Effect of a helium atmosphere on the Beckman infrared spectrophotometer. W. R. Brode and others. Opt Soc Am J 43:969-70 N '53

Fluorescence measurements with the Beckman model DU spectrophotometer. J. S. McAnally. bibliog il diags Anal Chem 26:1526 S '54

Inexpensive, easily constructed spectrophotometer. H. W. Safford and D. F. Westneat. bibliog il diags J Chem Educ 30:343-7 Jl '53

Insert for reducing volumes of Beckman spectrophotometer cells. L. H. Sharpe. diags Anal Chem 26:1528 S '54

Intensity-compensating system for infrared spectrophotometry. H. M. Richardson and others. diags Opt Soc Am J 43:873-6 O '53

Measurement of fluorescent spectra of liquids, with a modified Beckman DU spectrophotometer. F. B. Huke and others. bibliog il diags Opt Soc Am J 43:400-4 My '53

Mechanical slit control for the Beckman IR-2 infrared spectrophotometer. D. H. Couch and A. L. Satterthwaite. il diag Anal Chem 26:1531 S '54

SPECTROPHOTOMETERS—*Continued*

Method for continuous flushing of an infrared spectrophotometer with dry nitrogen. O. H. Gaebler. diag Opt Soc Am J 43:705 Ag '53

New system for the elimination of scattered light effects in spectrophotometers. V. J. Hammond and W. C. Price. diag Opt Soc Am J 43:924 O '53

Photoelectric spectrophotometer for the vacuum ultra-violet region. V. J. Hammond and W. C. Price. bibliog diags J Sci Instr 31:104-6 Mr '54

Reproducibility of measurements made on a Cary spectrophotometer and its log-density attachment. J. L. Forstner and L. B. Rogers. Anal Chem 25:1560-2 O '53

Silver chloride beam condensing lens system for micro infrared measurements. D. H. Anderson and O. E. Miller. diag Opt Soc Am J 43:777-9 S '53

Simple microthermostat for use in colorimetric and other optical measurements. W. J. Marshall. il diag Soc Dyers & Col J 69:202-4 Je '53

Stray light in a spectrophotometer caused by internal reflections in a 60° prism. H. D. Einhorn and A. E. Z. Cohn. diag Opt Soc Am J 44:232-3 Mr '54

Systematic toxicological analysis by spectrophotometric methods. G. W. Roche and others. A M A Archives Ind Hygiene & Occup Med 8:507-27 D '53

Two experiments in spectrophotometry. J. P. Phillips. J Chem Educ 31:81 F '54

Volumetric flasks and microcell filling adapter for use with the Perkin-Elmer infrared spectrophotometer. O. D. Easterday and others. il Science 118:306-7 S 11 '53

Water-jacketed cell holder for use with the Unicam SP 500 spectrophotometer. H. Campbell and J. A. Simpson. il diags Chem & Ind p887-8 Ag 22 '53

Testing

Evaluation of two simple methods for calibrating wavelength and absorbance scales of modern spectrophotometers. L. J. Heidt and D. E. Bosley. bibliog diags Opt Soc Am J 43:760-6 S '53

Parallel plate interferometer for wave number calibration of infrared spectrophotometers. H. D. Polster. Opt Soc Am J 44:503 Je '54

SPECTROPHOTOMETERS, Recording

Applied Physics develops spectrophotometer. il Chem & Eng N 32:3083 Ag 2 '54

Collaborative study of Cary spectrophotometers. J. M. Vendenbelt. Opt Soc Am J 44:641-3 Ag '54

Comparison of colorimetric results from a normal-diffuse spectrophotometer with those from a 45-degree-normal colorimeter for semiglossy specimens. W. E. K. Middleton. bibliog Opt Soc Am J 43:1141-3 D '53

Design of a ratio-recording spectrophotometer with double-pass monochromator. S. F. D. Orr. diag Opt Soc Am J 43:709-10 Ag '53

High-speed cathode-ray indicating spectrophotometer. R. C. Beitz. il diags Opt Soc Am J 43:773-6 S '53

New speed for spectrophotometry; Spectracord. il diags Chem & Eng N 32:1941-2 My 10 '54

Process & Instruments recording spectrophotometer. il R Sci Instr 24:554 Jl '53

Rapid and sensitive recording spectrophotometer for the visible and ultraviolet region. C. C. Yang and V. Legallais. bibliog il diags R Sci Instr 25:801-13 Ag '54

Ratio recording double-beam ultraviolet spectrophotometer. W. H. King, jr. il diags Opt Soc Am J 43:866-9 O '53

Recording spectrophotometer converts monochromator to more sensitive recording instrument. R. H. Müller. il Anal Chem 25: sup23A-4A Jl '53

Simple device for direct-recording spectrophotometry. R. C. Nelson and R. Jenkinson. diags Opt Soc Am J 43:1181-3 D '53

Ultraviolet spectrophotometer for automatic control. G. G. Campbell and J. B. Godin. flow diag diags Ind & Eng Chem 46:1413-17 Jl '54

Ultraviolet to near-infrared; Beckman Instruments model DK. il diag Chem & Eng N 32:2646 Je 28 '54

SPECTROPHOTOMETRY

Absorption spectrum of aqueous monochloramine solutions. J. Kleinberg, M. Tecotzky and L. F. Audrieth. Anal Chem 26:1388-9 Ag '54

Accurate analysis with an infrared double-beam spectrophotometer. R. Schnurmann and E. Kendrick. bibliog Anal Chem 26: 1263-9 Ag '54

Activation analysis of several rare earth elements. W. W. Meinke and R. E. Anderson. bibliog Anal Chem 26:907-9 My '54

Analytical chemistry of niobium and tantalum. F. C. Palilla, N. Adler and C. F. Hiskey. bibliog Anal Chem 25:926-31 Je '53

Anomalies in extinction coefficient measurements. L. S. Goldring and others. bibliog (31 ref) diag Anal Chem 25:869-78 Je '53

Automatic spectrophotometric titrations determination of milligram quantities of thorium. H. V. Malmstadt and E. C. Gohrbandt. bibliog diag Anal Chem 26: 442-5 Mr '54

Calculation of the integral attenuation index between 400 and 700 millimicrons. F. W. Zerban and L. Sattler. bibliog Anal Chem 26:1363-5 Ag '54

C.I.E. specifications for standard illuminants extended. R. H. Müller. Anal Chem 25:sup 27A My '53

Detection and estimation of melamine in wet-strength paper by ultraviolet spectrophotometry. R. C. Hirt, F. T. King and R. G. Schmitt. bibliog Anal Chem 26:1273-4 Ag '54

Detection, estimation, and removal of impurities in fluorocarbon liquids. D. Grafstein. Anal Chem 26:523-5 Mr '54

Determination of arsenic in biological materials. R. J. Evans and S. L. Bandemer. bibliog Anal Chem 26:595-8 Mr '54

Determination of diacetyl. D. T. Englis, E. J. Fisch and S. L. Bash. bibliog Anal Chem 25:1373-5 S '53

Determination of fluorides. J. M. Icken and B. M. Blank. Anal Chem 25:1741-2 N '53

Determination of furfural in oil in refinery operations by ultraviolet spectrophotometry. L. L. Gent, R. C. Pomatti and H. Levin. bibliog Anal Chem 26:413-14 F '54

Determination of magnesium oxide by hydrogen flame spectrophotometry. P. Close, W. E. Smith and M. T. Watson, jr. Anal Chem 25:1022-5 Jl '53

Determination of methoxychlor on insecticide-treated paperboard by ultraviolet spectrophotometry. E. C. Jennings, jr. and D. G. Edwards. bibliog Anal Chem 25: 1179-82 Ag '53

Determination of naphthalene in wash oil and coke oven gas. N. J. Klein and G. W. Struthers. Anal Chem 25:1818-21 D '53

Determination of phenolic hydroxyl content of lignin preparations by ultraviolet spectrophotometry. O. Goldschmid. bibliog Anal Chem 26:1421-3 S '54

Determination of phosphate by differential spectrophotometry. A. Gee and V. R. Deitz. bibliog Anal Chem 25:1320-4 S '53

Determination of potassium in glass with the hydrogen flame photometer and the Beckman model DU spectrophotometer. P. Close and M. T. Watson, jr. bibliog Am Cer Soc J 37:235-8 My 1 '54

Determination of small amounts of niobium in pure tantalum and its oxide. J. Hastings and T. A. McClarity. bibliog Anal Chem 26: 683-5 Ap '54

Determination of yellow color in raw rubber latex films and crepes. G. A. Kidder. Anal Chem 26:311-15 F '54

Determining only one compound in a mixture. E. Allen and W. Rieman, 3d. bibliog Anal Chem 25:1325-31 S '53

Determining TEL in gasoline by flame photometry. J. H. Jordan, jr. il Pet Refiner 32:139-40 Ag '53

Five-centimeter absorption cell for spectrophotometry with limited volumes. B. L. Vallee. diags Anal Chem 25:985-7 Je '53

SPECTROPHOTOMETRY—*Continued*

Flame spectrophotometric analysis of glasses and ores; lithium, sodium, potassium, rubidium, and cesium. J. P. Williams and P. B. Adams. bibliog Am Cer Soc J 37:306-11 Jl 1 '54

Flame spectrophotometric determination of sodium and potassium in viscous solutions or plant extracts. H. M. Bauserman and R. R. Cerney, jr. bibliog Anal Chem 25:1821-4 D '53

Fluorescence spectrometric determination of terbium. V. A. Fassel and R. H. Heidel. bibliog(26 ref) Anal Chem 26:1134-7 Jl '54

Graphical absorbance-ratio method for rapid two-component spectrophotometric analysis. R. C. Hirt, F. T. King and R. G. Schmitt. Anal Chem 26:1270-3 Ag '54

Identification of glycogen in whole bacterial cells by infrared spectrophotometry. S. Levine and others. Science 118:141-2 Jl 31 '53

Improved spectrophotometric procedure for determination of serum iron. R. E. Peterson. bibliog Anal Chem 25:1337-9 S '53

Infrared identification in paper chromatography. T. Y. Toribara and V. Di Stefano. bibliog diags Anal Chem 26:1519-21 S '54

Infrared identification of materials in the fractional milligram range. D. H. Anderson and N. B. Woodall. il diags Anal Chem 25:1906-9 D '53

Modern trends of absorption spectrophotometry. E. I. Stearns. bibliog Anal Chem 25:1004-10 Jl '53

New method for calculating dissociation constants from spectrophotometric data. D. H. Rosenblatt. bibliog J Phys Chem 58:40-2 Ja '54

Orthogonal color-mixture functions. D. L. MacAdam. bibliog diags Opt Soc Am J 44:713-24 S '54

Permanent spectrophotometer standard for iron determination. L. Aconsky and others. Am Water Works Assn J 46:894-8 S '54

Permanganate standardization with a Beckman spectrophotometer. J. E. Ransford. J Chem Educ 30:350 Jl '53

Production, particle characteristics, and spectra of tellurium hydrosols for spectrophotometry. R. A. Johnson. bibliog il Anal Chem 25:1013-17 Jl '53

Propagation of errors in spectrophotometric colorimetry. I. Nimeroff. Opt Soc Am J 43:531-3 Je '53

Rapid spectrophotometric determination of fluoride with zirconium-eriochrome cyanine R lake. S. Megregian. bibliog Anal Chem 26:1161-6 Jl '54

Reactions involving colored complexes of the platinum metals. G. H. Ayres. bibliog(26 ref) Anal Chem 25:1622-7 N '53

Rectification of nonlinear Beer's law plots. H. Goldenberg. bibliog Anal Chem 26:690-3 Ap '54

Schwarzschild-Villiger effect in microspectrophotometry. L. Lison. bibliog Science 118:382-3 O 2 '53

Separation of rhodium(III) from iridium(IV). G. H. Ayres and C. M. Maddin. bibliog Anal Chem 26:671-4 Ap '54

Simple device for reducing microphotometer traces to curves of intensity. J. D. Purcell. bibliog diags Opt Soc Am J 44:679-84 S '54

Simultaneous titration of iron and copper with ethylenediaminetetraacetic acid. A. L. Underwood. Anal Chem 25:1910-12 D '53

Spectrophotometric and polarographic determinations of soluble silicate. M. A. DeSesa and L. B. Rogers. bibliog Anal Chem 26:1278-84 Ag '54

Spectrophotometric assay of allethrolone. S. K. Freeman. bibliog Anal Chem 25:645-6 Ap '53

Spectrophotometric determination of anthraquinone and benzanthrone. K. B. Whetsel. bibliog Anal Chem 25:1334-7 S '53

Spectrophotometric determination of arsenic and tungsten as mixed heteropoly acids. D. K. Gullstrom and M. G. Mellon. bibliog Anal Chem 25:1809-13 D '53

Spectrophotometric determination of arsenic, phosphorus, and silicon in the presence of each other. M. A. DeSesa and L. B. Rogers. Anal Chem 26:1381-3 Ag '54

Spectrophotometric determination of bismuth, lead, and thallium with hydrochloric acid. C. Merritt, jr., H. M. Hershenson and L. B. Rogers. bibliog Anal Chem 25:572-7 Ap '53

Spectrophotometric determination of cholesterol and triterpene alcohols in wool wax. F. E. Luddy, A. Turner, jr. and J. T. Scanlan. bibliog Anal Chem 25:1497-9 O '53

Spectrophotometric determination of cobalt with 2-nitroso-1-naphthol-14-sulfonic acid. W. M. Wise and W. W. Brandt. bibliog Anal Chem 26:693-7 Ap '54

Spectrophotometric determination of copper in ores with 2,2′-bipyridine. J. P. Mehlig and P. L. Koehmstedt. bibliog Anal Chem 25:1920-1 D '53

Spectrophotometric determination of ethanedial. J. M. Dechary, E. Kun and H. C. Pitot. bibliog Anal Chem 26:449-52 Mr '54

Spectrophotometric determination of fluoride ion with chrome azurol S. D. Revinson and J. H. Harley. bibliog Anal Chem 25:794-7 My '53

Spectrophotometric determination of glycerol as sodium-cupri-glycerol complex. F. Spagnolo. Anal Chem 25:1566-8 O '53

Spectrophotometric determination of humulone complex and lupulone in hops. G. Alderton and others. bibliog Anal Chem 26:983-92 Je '54

Spectrophotometric determination of ionization constants of basic dyes. S. Woislawski. Am Chem Soc J 75:5201-3 N 5 '53

Spectrophotometric determination of iron in vanadium, chromium, manganese, nickel, and zinc. D. W. Margerum and C. V. Banks. bibliog Anal Chem 26:200-2 Ja '54

Spectrophotometric determination of nitroaminoguanidine and nitroguanidine. J. E. DeVries and E. S. Gantz. bibliog Anal Chem 25:1020-2 Jl '53

Spectrophotometric determination of *o*-phenylphenol with titanium sulfate. P. H. Caulfied and R. J. Robinson. Anal Chem 25:982-3 Je '53

Spectrophotometric determination of phthalic acid in phthalic anhydride. M. M. Agarwal and F. Spagnolo. Anal Chem 25:1412-13 S '53

Spectrophotometric determination of selenium and tellurium in concentrated sulfuric acid. S. E. Wiberley and others. bibliog Anal Chem 25:1586-8 N '53

Spectrophotometric determination of sodium hypophosphite as a molybdenum blue complex. A. P. Scanzillo. bibliog Anal Chem 26:411-12 F '54

Spectrophotometric determination of telluric acid. L. W. Scott and G. W. Leonard, jr. Anal Chem 26:445-7 Mr '54

Spectrophotometric determination of tellurium as hydrosol. R. A. Johnson, F. P. Kwan and D. Westlake. bibliog Anal Chem 25:1017-19 Jl '53

Spectrophotometric determination of theobromine and caffeine in cocoa powders. D. T. Englis and J. W. Miles. bibliog Anal Chem 26:1214-18 Jl '54

Spectrophotometric determination of thorium in black sands. C. V. Banks, D. W. Klingman and C. H. Byrd. Anal Chem 25:992-3 Je '53

Spectrophotometric determination of tin (IV). H. Teicher and L. Gordon. bibliog Anal Chem 25:1182-5 Ag '53

Spectrophotometric determination of uric acid and some redeterminations of its solubility. D. R. Norton, M. A. Plunkett and F. A. Richards. bibliog Anal Chem 26:454-7 Mr '54

Spectrophotometric determination of vicinal glycols; application to the determination of ribofuranosides. J. S. Dixon and D. Lipkin. Anal Chem 26:1092-3 Je '54

Spectrophotometric determination of vitamins D in presence of vitamin A. D. T. Ewing and others. bibliog Anal Chem 26:1406-9 S '54

Spectrophotometric determination of zirconium. A. D. Horton. Anal Chem 25:1331-3 S '53

SPECTROPHOTOMETRY—*Continued*

Spectrophotometric identification of polynuclear aromatic components in high boiling petroleum fractions. R. Schnurmann, W. F. Maddams and M. C. Barlow. bibliog Anal Chem 25:1010-13 Jl '53

Spectrophotometric investigation of a mixed complex of copper(II) ion with oxalate ion and ethylenediamine. R. DeWitt and J. I. Watters. Am Chem Soc J 76:3810-14 Jl 20 '54

Spectrophotometric investigation of reaction of titanium with chromotropic acid. W. W. Brandt and A. E. Preiser. bibliog Anal Chem 25:567-71 Ap '53

Spectrophotometric investigation of the equilibria existing in acidic solutions of chromium(VI). J. Y. Tong and E. L. King. bibliog Am Chem Soc J 75:6180-6 D 20 '53

Spectrophotometric investigation of the mixed complex formed by copper ions with both ammonia and pyrophosphate ions in aqueous solutions. J. I. Watters, J. Mason and A. Aaron. bibliog Am Chem Soc J 75:5212-15 N 5 '53

Spectrophotometric method for determination of urea. G. W. Watt and J. D. Chrisp. Anal Chem 26:452-3 Mr '54

Spectrophotometric method for routine control determination of copper 8-hydroxyquinolinate in cotton textiles. A. Darbey. Am Dyestuff Rep 42:453-5 Jl 20 '53

Spectrophotometric modification of the cuprous oxide method for determining sugars. M. E. Hobbs and F. L. Layton. bibliog Anal Chem 26:585-6 Mr '54

Spectrophotometric studies of dissociation constants of nitroguanidines, triazoles and tetrazoles. J. E. DeVries and E. S. Gantz. bibliog Am Chem Soc J 76:1008-10 F 20 '54

Spectrophotometric study of *p*-nitrosodimethylaniline as a sensitive colorimetric reagent for platinum. J. J. Kirkland and J. H. Yoe. bibliog Anal Chem 26:1340-4 Ag '54

Spectrophotometric study of phosphorus pentabromide in various solvents. A. I. Popov and N. E. Skelly. bibliog Am Chem Soc J 76:3916-19 Ag 5 '54

Spectrophotometric study of some oxidative products of bilirubin. B. Zak and others. bibliog Anal Chem 26:1220-2 Jl '54

Spectrophotometric study of the homolytic dissociation of tetrafluorenylhydrazine. T. L. Chu and T. J. Weismann. bibliog Am Chem Soc J 76:3787-90 Jl 20 '54

Spectrophotometric study of the reactions of *p*-aminotriphenylcarbinols with concentrated sulfuric acid. G. Branch and H. Walba. bibliog Am Chem Soc J 76:1564-9 Mr 20 '54

Spectrophotometric titration of uranium and iron. C. E. Bricker and P. B. Sweetser. bibliog Anal Chem 25:764-7 My '53

Studies on esterified cellulose fibers; nonabsorptive light losses in microspectrophotometry; abstract. P. W. Lange. il diag Paper Ind 36:82-3 Ap '54

Study of degradation of polystyrene, using ultraviolet spectrophotometry. M. J. Reiney and others. bibliog J Res Nat Bur Stand 51:155-65 S '53

Synthesis and spectrophotometric study of poly-L-tyrosine and poly-3,5-diiodotyrosine. E. Katchalski and M. Sela. bibliog Am Chem Soc J 75:5284-9 N 5 '53

Temperature-controlled mixing apparatus for spectrophotometric studies of rates and equilibria. R. F. Beers, jr. and I. W. Sizer. diag Anal Chem 25:1137-8 Jl '53

Thiocyanate spectrophotometric determination of molybdenum and tungsten. C. E. Crouthamel and C. E. Johnson. bibliog diags Anal Chem 26:1284-91 Ag '54

Truncated weighted ordinate integrations in colorimetry. D. L. MacAdam. Opt Soc Am J 43:622-3 Jl '53

Ultraviolet absorption spectrophotometry; review of past two years. E. J. Rosenbaum. Anal Chem 26:20-6 bibliog(226 ref, p24-6) Ja '54

Ultraviolet spectrophotometric determination of cerium. G. Telep and D. F. Boltz. Anal Chem 25:971-3 Je '53

Ultraviolet spectrophotometric determination of mercury as mercuric thiocyanate complex. G. E. Markle and D. F. Boltz. Anal Chem 26:447-9 Mr '54

Ultraviolet spectrophotometric determination of niobium in hydrochloric acid. J. H. Kanzelmeyer and H. Freund. Anal Chem 25:1807-9 D '53

Ultraviolet spectrophotometric determination of tantalum with pyrogallol. J. I. Dinnin. bibliog(29 ref) Anal Chem 25:1803-7 D '53

SPECTROSCOPE

Apparatus used in the development of optical-diffraction methods for the solution of problems in X-ray analysis. W. Hughes and C. A. Taylor. bibliog il diags J Sci Instr 30:105-10 Ap '53

Noise filter effects in recording spectroscopes. S. Brodersen. diag Opt Soc Am J 43:1216-20 D '53

Qualitative analysis with the spectranal. B. McDuffie. bibliog il diag J Chem Educ 30:454-6 S '53

Resolving power and noise in infrared spectroscopes. S. Brodersen. Opt Soc Am J 43:877-81 O '53

Slit-width effects. S. Brodersen. bibliog Opt Soc Am J 44:22-5 Ja '54

Study of diffraction grating characteristics by simplified phase contrast methods. E. Ingelstam and E. Djurle. bibliog il diags Opt Soc Am J 43:572-80 Jl '53

Visual-arc spectroscopic analysis. M. J. Peterson and H. W. Jaffe. bibliog il diag U S Bur Mines Bul 524:1-20; pa 75c Supt. of doc. '53

Light sources

Spectroscopic intensities and photographic blackening. R. W. Nicholls. Opt Soc Am J 43:882-6 O '53

SPECTROSCOPY

Absorption law for samples of nonuniform concentration with special reference to the spectroscopy of irradiated glasses. I. G. Ross. bibliog diags Opt Soc Am J 44:40-4 Ja '54

Absorption spectroscopy of explosions. P. L. Hanst and A. L. Myerson. diags R Sci Instr 25:469-70 My '54

Analysis of the unsaturated hydrocarbons in fuel gases by infra-red spectroscopy. J. H. Towler and B. H. Holland. bibliog diag J Ap Chem 4:517-24 S '54

Apparatus for the ultra-violet spectroscopy of solutions at low temperatures. R. Passerini and I. G. Ross. bibliog diags J Sci Instr 30:274-6 Ag '53

Application of lead selenide photoconductive cells to infra-red spectroscopy. V. Roberts and A. S. Young. il J Sci Instr 30:199-200 Je '53

Detection of steroidal pseudosapogenins by infrared spectroscopy. A. L. Hayden, P. B. Smeltzer and I. Scheer. bibliog Anal Chem 26:550-2 Mr '54

Determination of barium, calcium, and zinc in lubricating oils; use of fluorescent X-ray spectroscopy. E. N. Davis and R. A. Van Nordstrand. bibliog il diags Anal Chem 26:973-7 Je '54

Dispersion of standard air. B. Edlén. bibliog Opt Soc Am J 43:339-44 My '53

Emission spectroscopic determination of metals in nonmetallic samples; symposium abstracts. Anal Chem 25:997-8 Je '53

Emission spectroscopy; review of past two years. W. F. Meggers. Anal Chem 26:54-8 bibliog(147 ref, p57-8) Ja '54

Flame zone spectroscopy of solid propellants. R. G. Rekers and D. S. Villars. il diags R Sci Instr 25:424-9 My '54

Fluorescent X-ray spectroscopy. L. S. Birks, E. J. Brooks and H. Friedman. bibliog diags Anal Chem 25:692-7 My '53

Identification of dicarboxylic acids in polymeric esters. R. W. Stafford, J. F. Shay and R. J. Francel. bibliog Anal Chem 26:656-61 Ap '54

Infrared spectroscopy at the University of Michigan. H. M. Randall. il Opt Soc Am J 44:97-103 F '54

Infrared spectroscopy in bacteriological research. H. M. Randall and D. W. Smith. bibliog flow diag Opt Soc Am J 43:1086-92 N '53

SPECTROSCOPY—*Continued*

Infrared spectroscopy of biologic materials in aqueous solutions. E. R. Blout and H. Lenormant. bibliog Opt Soc Am J 43:1093-5 N '53

Infrared spectroscopy; review of past two years. R. C. Gore. Anal Chem 26:11-19 bibliog(656 ref, p 13-19) Ja '54

Inhomogeneity of thallium halide mixed crystals and its elimination. A. Smakula and others. bibliog diags Opt Soc Am J 43:698-701 Ag '53

Isomeric transition of Pb^{207} as an energy standard in beta spectroscopy. D. E. Alburger. bibliog Phys R 92:1257-9 D 1 '53

Joint commission for spectroscopy transactions, Rome, Sept. 9-11. Opt Soc Am J 43:410-30 My '53

Lacquer color filters for qualitative flame tests. J. A. Brown. J Chem Educ 30:363-4 Jl '53

Method for resolving spectral curves more sharply. L. Akobjanoff. Opt Soc Am J 44:85-6 Ja '54

Method of metallurgical microspectroscopy. F. R. Bryan and C. H. Neveu. il Metal Prog 64:82-5 D '53

Molecular structure and spectroscopy; symposium abstracts. Chem & Eng N 32:2577+ Je 28 '54

Multiple diffraction in grating spectroscopy. W. G. Fastie and W. M. Sinton. il diags Opt Soc Am J 44:103-8 F '54

Nuclear magnetic resonance spectroscopy. J. N. Shoolery. bibliog diag Anal Chem 26:1400-3 S '54

Nuclear spectroscopy of neutron-deficient Hg isotopes. L. P. Gillon and others. bibliog il Phys R 93:124-35 Ja 1 '54

One-to-two millimeter wave spectroscopy; experimental methods and results for OCS, CH_3F, and H_2O. W. C. King and W. Gordy. bibliog il diags Phys R 93:407-12 F 1 '54

One-to-two millimeter wave spectroscopy; NO and DI. C. A. Burrus and W. Gordy. il Phys R 92:1437-9 D 15 '53

Pittsburgh conference on analytical chemistry and applied spectroscopy, 4th, March 2-6. Opt Soc Am J 43:542-3 Je '53

Point-by-point chemical analysis by X-ray spectroscopy; electronic microanalyzer. R. Castaing and A. Guinier. il diag Anal Chem 25:724-6 My '53

Polishing of rock-salt windows. E. J. Slowinski, jr. Opt Soc Am J 44:342 Ap '54

Potassium bromide technique in infra-red spectroscopy. R. D. Elsey and R. N. Haszeldine. Chem & Ind p 1177-8 S 18 '54

Preparation and properties of pressed alkali halide disks with special reference to their use in spectroscopy. M. A. Ford and G. R. Wilkinson. bibliog il diag J Sci Instr 31:338-41 S '54

Qualitative analysis possible by luminescence spectroscopy; abstract. M. Kasha. Chem & Eng N 31:3865 S 21 '53

Quantitative analysis of niobium and tantalum in ores by fluorescent X-ray spectroscopy. W. J. Campbell and H. F. Carl. bibliog il Anal Chem 26:800-5 My '54

Quantitative analysis of organic nitrogen by flame spectroscopy. M. Honma and C. L. Smith. bibliog il Anal Chem 26:458-62 Mr '54

Raman spectroscopy. R. F. Stamm. Anal Chem 26:49-53 bibliog(195 ref, p50-3) Ja '54

Sample preparation techniques and trial programs extend applications of spectroscopy. B. W. Thomas. Ind & Eng Chem 46:sup 85A Je '54

Society of applied spectroscopy 9th annual meeting, New York, May 27-28; abstracts of papers. Anal Chem 26:1391-2 Ag '54

Spatial variations of the spectral response of photomultiplier cathodes. H. Edeles and W. A. Gambling. J Sci Instr 31:121 Ap '54

Spectroscopy from the point of view of the communication theory. G. W. King and others. Opt Soc Am J 43:658-68; 44:397-402 Ag '53, My '54

Spectroscopy of the solid state; some of the transition elements. E. M. Gyorgy and G. G. Harvey. bibliog Phys R 93:365-9 F 1 '54

Study by infra-red spectroscopy of hydrogen bonding in cellulose. H. J. Marrinan and J. Mann. bibliog(28 ref) J Ap Chem 4:204-11 Ap '54

Use of photomultipliers in Raman spectroscopy. H. J. Marrinan. bibliog il diags Opt Soc Am J 43:1211-15 D '53

What can infrared spectroscopy do for you? D. L. Harms. il diag Gen Elec R 57:18-22 My '54

X-ray fluorescence spectroscopy technique. B. W. Thomas. Ind & Eng Chem 46:sup 93A-4A+ Mr '54

SPECTROSCOPY, Society for applied. See Society for applied spectroscopy

SPECTRUM

Definition of spectrum. R. G. Steinhardt, jr. J Chem Educ 30:496-7 O '53

First spectrum of mercury in the region between 1.3 and 2.0μ. C. J. Humphreys. bibliog(27 ref) Opt Soc Am J 43:1027-9 N '53

Measurement of absolute spectral reflectivity from 1.0 to 15 microns. J. T. Gier and others. il diags Opt Soc Am J 44:558-62 Jl '54

Multiple monochromators; triple monochromator and its application to near infrared, visible, and ultraviolet spectroscopy. A. Walsh and J. B. Willis. bibliog Opt Soc Am J 43:989-92 N '53

n-π Emission spectra. C. Reid. bibliog J Chem Phys 21:1906 O '53

Optical properties of silicon monoxide in the wavelength region from 0.24 to 14.0 microns. G. Hass and C. D. Salzberg. Opt Soc Am J 44:181-7 Mr '54

Relative time dependence of the emission of line and background from the vacuum spark. J. C. Wahr and others. Opt Soc Am J 43:804-5 S '53

Relativistic correction to the Lamb shift. M. Baranger and others. bibliog diags Phys R 92:482-501 O 15 '53

Semi-automatic recording of wavelength data. G. K. Werner. diag Opt Soc Am J 43:620-1 Jl '53

Spectroscopy from the point of view of the communication theory; the amount of information in a spectrum. G. W. King and A. G. Emslie. Opt Soc Am J 43:664-8 Ag '53

Titanium dioxide films as selective reflectors of the near-infrared. F. J. Studer and D. A. Cusano. il diags Opt Soc Am J 43:522-5 Je '53

See also

Alkali metal halides—Spectra
Amides—Spectra
Barium oxide—Spectrum
Carbon dioxide—Spectrum
Chromogens—Spectra
Fluorotoluene—Spectrum
Hydrogen—Spectrum
Mass spectra
Nitrogen oxides—Spectra
Ozone—Spectrum
Phosphine—Spectrum
Pyridine compounds—Spectra
Raman effect
Salt—Spectrum
Spectrography
Spectroscopy
Spectrum analysis
Stark effect
Vinyl compounds—Spectra
Zeeman effect

Absorption spectra

Absorption coefficient of ozone in the ultraviolet and visible regions. E. C. Y. Inn and Y. Tanaka. bibliog Opt Soc Am J 43:870-3 O '53

Absorption law for samples of nonuniform concentration with special reference to the spectroscopy of irradiated glasses. I. G. Ross. bibliog diags Opt Soc Am J 44:40-4 Ja '54

Absorption spectra of some metallic chelate compounds. K. Sone. bibliog Am Chem Soc J 75:5207-11 N 5 '53

Absorption spectroscopy of explosions. P. L. Hanst and A. L. Myerson. diags R Sci Instr 25:469-70 My '54

Absorption spectrum of aqueous monochloramine solutions. J. Kleinberg, M. Tecotzky and L. F. Audrieth. Anal Chem 26:1388-9 Ag '54

Comparative survey of spectrophotometers in the 210-760 mμ region. W. R. Brode and others. Opt Soc Am J 43:862-5 O '53

SPECTRUM—Absorption spectra—*Continued*

Double cell for spectral study of interactions between substances. B. M. Mitzner and S. Z. Lewin. diag Opt Soc Am J 44:499-500 Je '54
Effect of aluminium chloride on absorption spectra of anthocyanins. T. A. Geissman and others. Chem & Ind p 1389 D 26 '53
Emission and absorption in luminescent centers at low temperatures. C. C. Klick. bibliog J Phys Chem 57:776-9 N '53
Error in measurements of equivalent widths. A. J. Deutsch. Opt Soc Am J 44:492-3 Je '54
Geometrical isomerism and absorption spectra of dinitrophenylhydrazones. F. Ramirez and A. F. Kirby. bibliog diag Am Chem Soc J 76:1037-44 F 20 '54
Method for resolving spectral curves more sharply. L. Akobjanoff. Opt Soc Am J 44:85-6 Ja '54
New absorption lines of crystals in submicrowave region. S. Kojima and others. Phys R 92:1571 D 15 '53
Oxidation of di-*t*-butylpyrogallol by oxygen in alkaline solution; absorption spectra of the products. F. Stitt and others. bibliog Am Chem Soc J 76:3542-6 Jl 20 '54
Rapid and sensitive recording spectrophotometer for the visible and ultraviolet region. C. C. Yang and V. Legallais. bibliog il diags R Sci Instr 25:801-13 Ag '54
Relationships among the absorption spectra of the 5,7-dihalo-8-quinolinol chelates of gallium(III) and indium(III). T. Moeller, F. L. Pundsack and A. J. Cohen. bibliog Am Chem Soc J 76:2615-18 My 20 '54
Vertical distribution of nitrous oxide and methane in the earth's atmosphere. L. Goldberg and E. A. Müller. bibliog Opt Soc Am J 43:1033-6 N '53

See also
Spectrum, Infrared—Absorption spectra

Band spectra

Carbon flame method and its application to the excitation of pure band spectra. A. Gatterer. diags Opt Soc Am J 43:345-6 My '53
Nuclear spins and band spectra of the selenium isotopes. S. P. Davis. bibliog il Phys R 93:159-62 Ja 1 '54

Broadening of lines

See Spectrum—Pressure effect

Doublets

Gyromagnetic ratio in the hyperfine structure of doublet states. W. W. Clendenin. bibliog Phys R 94:1590-2 Je 15 '54

Excitation

Electrodeless metal-halide lamps. C. H. Corliss and others. il diag Opt Soc Am J 43:398-400 My '53
Electronic excitation of the *L*III state of 5*d* elements. G. Schwarz and G. L. Rogosa. Phys R 92:88-9 O 1 '53
Vacuum tube molecular emission and dissociation spectra. J. H. Lee. Opt Soc Am J 43:619 Jl '53

Fine structure

Fine structure of azulene. W. L. Galloway and others. Chem & Ind p724 Je 19 '54
Fine structure of the $2\nu_3$ band of methane. D. H. Rank and others. bibliog Opt Soc Am J 43:707-8 Ag '53
Fine structure of the $(^4S^\circ)3p^3P$ term of oxygen O I. D. O. Davis and K. W. Meissner. bibliog Opt Soc Am J 43:510-11 Je '53
Hyperfine splittings in the paramagnetic resonances of free radicals. S. I. Weissman and others. il J Chem Phys 21:2227-8 D '53
Hyperfine structure formulas for *LS* coupling. R. E. Trees. bibliog Phys R 92:308-14 O 15 '53
Hyperfine structure of hydrogen. R. Arnowitt. bibliog Phys R 92:1002-9 N 15 '53
Hyperfine structure of the spectra of dysprosium, cobalt, vanadium, manganese, and lanthanum. K. Murakawa and T. Kamei. bibliog Phys R 92:325-7 O 15 '53
Hyperfine structures of silver and gold by the atomic beam magnetic resonance method. G. Wessel and H. Lew. bibliog diags Phys R 92:641-6 N 1 '53
Magnetic moments of Ag^{107} and Ag^{109} and the hyperfine structure anomaly. P. B. Sogo and C. D. Jeffries. Phys R 93:174-5 Ja 1 '54
Magnetic-scanning method for investigating hyperfine structure and isotope shift. S. Mrozowski. Phys R 93:641-2 F 1 '54
Nuclear moments of technetium-99. K. G. Kessler and R. E. Tress. bibliog diag Phys R 92:303-7 O 15 '53
Paramagnetic resonance hyperfine structure of the free radical $(SO_3)_2NO^=$. B. Smaller and E. L. Yasaitis. bibliog J Chem Phys 21:1905-6 O '53
Spin relaxation in free radical solutions exhibiting hyperfine structure. J. P. Lloyd and G. E. Pake. bibliog diags Phys R 94:579-91 My 1 '54
Theory of fine structure pressure broadening of spectral lines. M. Takeo and S. Ch'en. bibliog Phys R 93:420-4 F 1 '54
Theory of the hyperfine structure of NO molecule. M. Mizushima. bibliog diags Phys R 94:569-74 My 1 '54
X-ray absorption fine structure with polarized X-rays. R. Krogstad and others. Phys R 92:1394-6 D 15 '53

Fluorescence spectra

Band fluorescence of mercury vapor. A. O. McCoubrey. bibliog il diags Phys R 93:1249-60 Mr 15 '54
Fluorescence spectrometric determination of terbium. V. A. Fassel and R. H. Heidel. bibliog(26 ref) Anal Chem 26:1134-7 Jl '54
Fluorescence spectrum of triphenylmethyl at 4°K. S. I. Weissman. il J Chem Phys 22:155 Ja '54
Measurement of fluorescent spectra of liquids with a modified Beckman DU spectrophotometer. F. B. Huke and others. bibliog il diags Opt Soc Am J 43:400-4 My '53
Role of sulfur in the luminescence and coloration of some aluminosilicates. R. D. Kirk. bibliog Electrochem Soc J 101:461-5 S '54

Forbidden lines

Forbidden transition ν_3 in the infrared spectrum of methane. J. S. Burgess and others. bibliog Opt Soc Am J 43:1058-60 N '53

Intensity

Intensity measurements in the arc spectrum of nickel. R. L. Heid and G. H. Dieke. bibliog diag Opt Soc Am J 44:402-10 My '54
Measurement of spark spectrum intensities in the vacuum ultraviolet with the fluorescence sensitized photomultiplier. S. E. Williams and others. bibliog diags Opt Soc Am J 44:654-8 Ag '54
Simple device for reducing microphotometer traces to curves of intensity. J. D. Purcell. bibliog diags Opt Soc Am J 44:679-84 S '54

Line breadth

Error in measurements of equivalent widths. A. J. Deutsch. Opt Soc Am J 44:492-3 Je '54
Line width of rotational spectra of some symmetric top molecules due to nuclear quadrupole moments. T. Ito and others. bibliog Phys R 93:1242-8 Mr 15 '54
Spectroscopy from the point of view of the communication theory; line widths. A. G. Emslie and G. W. King. Opt Soc Am J 43:658-63 Ag '53

Multiplets

Infrared multiplets and the solar spectrum. C. E. Moore. bibliog Opt Soc Am J 43:1014-19 N '53

Pressure effect

Pressure broadening of linear molecules. H. Feeny and others. bibliog il diags J Chem Phys 22:79-83 Ja '54
Radiation from isolated spectral lines with combined Doppler and Lorentz broadening. S. S. Penner and R. W. Kavanagh. bibliog Opt Soc Am J 43:385-8 My '53
Theory of fine structure pressure broadening of spectral lines. M. Takeo and S. Ch'en. bibliog Phys R 93:420-4 F 1 '54

SPECTRUM—*Continued*

Reflection spectra

Apparatus for automatic recording of reflection spectra. J. H. Schulman and C. C. Klick. diags Opt Soc Am J 43:516-19 Je '53

Tables, etc.

Nomogram for the evaluation of blackbody radiancy and of peak and total intensities for spectral lines with Doppler contour. R. W. Kavanagh and others. Opt Soc Am J 43:380-2 My '53

Nomogram for the evaluation of blackbody radiancy and of peak and total intensities for spectral lines with Lorentz contour. R. W. Kavanagh and S. S. Penner. Opt Soc Am J 43:383-4 My '53

Vibrational spectra

Effect of nonrigidity on the line strengths of vibrational-rotational transitions. H. C. Allen, jr. J Chem Phys 22:83-5 Ja '54

Effects of temperature gradients, self-absorption, and line shape on apparent rotational temperatures of OH. B. H. Elliott and S. S. Penner. J Chem Phys 22:101-5 Ja '54

Infrared spectra of metallic salts containing groups of the XO_2-type ion. C. Duval and J. LeComte. bibliog Opt Soc Am J 44:261-3 Ap '54

Rotation-vibration spectra and structure of the allene molecule. R. C. Lord. Opt Soc Am J 44:256 Mr '54

Rotation-vibration spectra of diatomic and simple polyatomic molecules with long absorbing paths; spectrum of carbon dioxide (CO_2) below 1.25μ. G. Herzberg and L. Herzberg. bibliog il Opt Soc Am J 43:1037-44 N '53

Structure of the associated OH valence vibration band in light and heavy acetic, trichloroacetic, and trifluoroacetic acids. N. Fuson and M.-L. Josien. bibliog Opt Soc Am J 43:1102-5 N '53

Substituted methanes; C^{13} isotopic shifts in the vibrational spectrum of methanol. R. B. Bernstein. J Chem Phys 21:1903-4 O '53

Substituted methanes; vibrational spectra, potential constants, and calculated thermodynamic properties of diiodomethane. F. L. Voelz and others. bibliog Opt Soc Am J 43:1061-4 N '53

Vibration-rotation bands and molecular structure of allene. J. Overend and H. W. Thompson. bibliog Opt Soc Am J 43:1065-70 N '53

Vibration spectrum of a simple cubic lattice. G. F. Newell. bibliog diags J Chem Phys 21:1877-83 O '53

Vibrational intensities in diatomic infrared transitions; the vibrational matrix elements for CO. R. C. Herman and K. E. Shuler. bibliog J Chem Phys 22:481-90 Mr '54

Vibrational spectra and calculated thermodynamic properties of 1,1,1,2-tetrachloroethane and pentachloroethane. J. R. Nielsen and others. bibliog Opt Soc Am J 43:1071-9 N '53

SPECTRUM, Auroral. See Auroras—Spectra

SPECTRUM, Beta ray. See Beta rays

SPECTRUM, Electron. See Electrons

SPECTRUM, Infrared

Analysis of elliptically polarized radiation in the infrared region. G. K. T. Conn and G. K. Eaton. bibliog diags Opt Soc Am J 44:546-52 Jl '54

Analysis with double-beam infra-red spectrometers. L. J. Bellamy. bibliog J Ap Chem 3:421-5 S '53

Application of lead selenide photoconductive cells to infra-red spectroscopy. V. Roberts and A. S. Young. il J Sci Instr 30:199-200 Je '53

Automatic infrared punched-card identification of mixtures. A. W. Baker, N. Wright and A. Opler. il Anal Chem 25:1457-60 O '53

Calibration of infrared prism spectrometers. A. R. Downie and others. bibliog Opt Soc Am J 43:941-51 N '53

Calibration of infra-red spectrometers in the wavelength region 15-25μ. V. Roberts. J Sci Instr 31:226 Je '54

Carbon arc as an infrared source. J. H. Jaffe. Opt Soc Am J 43:619 Jl '53

Chemical analysis by infrared. B. Crawford, jr. il diags Sci Am 189:42-8 O '53

Concerning the use of the Fabry-Perot interferometer for wave-number measurement in the infrared. J. H. Jaffe. diags Opt Soc Am J 43:1170-3 D '53

Conductance and relaxation time of electrons in gold blacks from transmission and reflection measurements in the far infrared. L. Harris and A. L. Loeb. bibliog Opt Soc Am J 43:1114-18 N '53

Derivatives of chlorosulfonated polyethylene and their infrared spectra. M. A. Smook, E. T. Pieski, and C. F. Hammer. bibliog Ind & Eng Chem 45:2731-7 D '53

Detection of steroidal pseudosapogenins by infrared spectroscopy. A. L. Hayden, P. B. Smeltzer and I. Scheer. bibliog Anal Chem 26:550-2 Mr '54

Determination of naphthalene in wash oil and coke oven gas. N. J. Klein and G. W. Struthers. Anal Chem 25:1818-21 D '53

Development of infra-red analysis; abstract. J. G. Reynolds. Chem & Ind p369 Mr 27 '54

Differential method for accurate quantitative infrared analyses; assay for cyclohexane in petroleum concentrates. C. F. Hammer and H. R. Roe. Anal Chem 25:668-9 Ap '53

Effect of a helium atmosphere on the Beckman infrared spectrophotometer. W. R. Brode and others. Opt Soc Am J 43:969-70 N '53

Experimental confirmation of the Drude free electron theory of the optical properties of metals for silver, gold, and copper in the near infrared. L. G. Schulz. bibliog diags Opt Soc Am J 44:540-5 Jl '54

Experiments concerning infrared diffuse reflectance standards in the range 0.8 to 20.0 microns. J. T. Agnew and R. B. McQuistan. diags Opt Soc Am J 43:999-1007 N '53

Extension of the second spectrum of zirconium into the infrared. C. C. Kiess. bibliog Opt Soc Am J 43:1024-6 N '53

Far infrared reflectances of TlCl, TlBr, TlI, Pbs, $PbCl_2$, ZnS, and CsBr. W. M. Sinton and W. C. Davis. Opt Soc Am J 44:503-4 Je '54

Goniometric spectrometer for the measurement of diffuse reflectance and transmittance of skin in the infrared spectral region. C. Clark and others. bibliog il diags Opt Soc Am J 43:993-8 N '53

Identification of polyhydric alcohols in polymeric esters. J. F. Shay, S. Skilling and R. W. Stafford. bibliog Anal Chem 26:652-6 Ap '54

Index of refraction of air in the infrared. D. H. Rank and J. N. Shearer. Opt Soc Am J 44:575 Jl '54

Index of refraction of fused quartz glass for ultraviolet, visible, and infrared wavelengths. W. S. Rodney and R. J. Spindler. bibliog Opt Soc Am J 44:677-9 S '54

Infrared analysis; abstract E. T. Theimer. Chem & Eng N 32:2199 My 31 '54

Infrared band correlations for some substituted olefins. R. E. Kitson. bibliog Anal Chem 25:1470-2 O '53

Infrared determination of total aromatics. J. Bomstein. bibliog Anal Chem 25:1770-2 N '53

Infrared emission of the hydrogen-fluorine (H_2-F_2) flame. W. S. Benedict and others. bibliog Opt Soc Am J 43:1106-13 N '53

Infrared identification of materials in the fractional milligram range. D. H. Anderson and N. B. Woodall. il diags Anal Chem 25:1906-9 D '53

Infrared multiplets and the solar spectrum. C. E. Moore. bibliog Opt Soc Am J 43:1014-19 N '53

Infrared recording of optical density vs linear frequency. J. H. Daniel and F. S. Brackett. bibliog il diags Opt Soc Am J 43:960-8 N '53

Infrared spectra for analysis of aldehyde and ketone 2,4-dinitrophenylhydrazones. J. H. Ross. bibliog Anal Chem 25:1288-303 S '53

Infrared spectra of nicotine and some of its derivatives. C. R. Eddy and A. Eisner. bibliog Anal Chem 26:1428-31 S '54

SPECTRUM, Infrared—*Continued*

Infrared spectra of propylene and propylene-d_6. R. C. Lord and P. Venkateswarlu. bibliog Opt Soc Am J 43:1079-85 N '53

Infrared spectroscopy at the University of Michigan. H. M. Randall. il Opt Soc Am J 44:97-103 F '54

Infrared spectroscopy in bacteriological research. H. M. Randall and D. W. Smith. bibliog flow diag Opt Soc Am J 43:1086-92 N '53

Infrared spectroscopy; review of past two years. R. C. Gore. Anal Chem 26:11-19 bibliog(656 ref, p 13-19) Ja '54

Infra-red spectrum of terylene. G. J. Weston. Chem & Ind p604 My 22 '54

Infra-red study of the *cis*- and *trans*-isomers of some C_{18} fatty acids. N. H. E. Ahlers, R. A. Brett and N. G. McTaggart. bibliog(35 ref) J Ap Chem 3:433-43 O '53

Infrared study of the crystallization of polyethylene. F. P. Reding and A. Brown. bibliog J Ap Phys 25:848-50 Jl '54

Intensity-compensating system for infrared spectrophotometry. H. M. Richardson and others. diags Opt Soc Am J 43:873-6 O '53

Magnesium arc spectrum in the near infrared. R. A. Fisher and F. E. Eshbach. bibliog Opt Soc Am J 43:1030-2 N '53

Monochromator system with constant energy output in the 0·7-7μ spectral region. D. G. Avery and P. H. Hammond. diag J Sci Instr 30:400-1 N '53

Mull and solvent media for infrared use. J. S. Ard. bibliog Anal Chem 25:1743-4 N '53

Multiple monochromators; triple monochromator and its application to near infrared, visible, and ultraviolet spectroscopy. A. Walsh and J. B. Willis. bibliog Opt Soc Am J 43:989-92 N '53

Olefin co-ordination compounds; infra-red spectra and structure; attempted preparation of acetylene complexes. J. Chatt and L. A. Duncanson. Chem Soc J p2939-47 O '53

Polarization by transmission with particular reference to selenium films in the infrared. G. K. T. Conn and G. K. Eaton. bibliog diags Opt Soc Am J 44:553-7 Jl '54

Procedure for aligning an infrared monochromator with an off-side concave mirror collimator. E. Kendrick and R. Schnurmann. diag Opt Soc Am J 44:501-2 Je '54

Rotational spectra of regular and deuterated phosphine and arsine in the region between 50 and 200 K. R. E. Stroup and others. bibliog Opt Soc Am J 43:1096-9 N '53

Silver chloride beam condensing lens system for micro infrared measurements. D. H. Anderson and O. E. Miller. diag Opt Soc Am J 43:777-9 S '53

Simple method of obtaining the infrared spectra of solid organic samples. B. M. Mitzner. Opt Soc Am J 43:806 S '53

Simple technique for recovering infrared samples. B. M. Mitzner. diags Opt Soc Am J 43:806-7 S '53

Spectroscopy from the point of view of communication theory; automatic recording of infrared spectra on punched cards. G. W. King and others. Opt Soc Am J 44:397-402 My '54

Spectrum of nitrogen dioxide in the 1.4-3.4μ region and the vibrational and rotational constants of the NO_2 molecule. G. E. Moore. bibliog Opt Soc Am J 43:1045-50 N '53

Student experiments in infrared spectroscopy. K. W. Wilson. bibliog J Chem Educ 30:340-2 Jl '53

Studies on the structure of sphingomyelin; configuration of the double bond in sphingomyelin and related lipids and a study of their infrared spectra. G. Marinetti and E. Stotz. bibliog Am Chem Soc J 76:1347-52 Mr 5 '54

Study by infra-red spectroscopy of hydrogen bonding in cellulose. H. J. Marrinan and J. Mann. bibliog(28 ref) J Ap Chem 4:204-11 Ap '54

Use of a rotating polarizer to measure optical constants in the infrared. G. K. T. Conn and G. K. Eaton. bibliog il diags Opt Soc Am J 44:484-91 Je '54

Wavelength and slit-drive mechanisms for an infra-red spectrometer. J. D. S. Goulden. J Sci Instr 30:139-40 Ap '53

What can infrared spectroscopy do for you? D. L. Harms. il diag Gen Elec R 57:18-22 My '54

X-ray and infrared studies on the extent of crystallization of polymers. J. B. Nichols. bibliog(35 ref) il J Ap Phys 25:840-7 Jl '54

Absorption spectra

Absorption line width in the infrared spectrum of the ammonia molecule. A. Adel. Opt Soc Am J 43:1053 N '53

Absorption spectrum sorter. T. Elder and W. Benesch. diags Opt Soc Am J 44:279-83 Ap '54

Aromatic detector for the infrared. B. D. McMichael and others. diags Opt Soc Am J 44:26-30 Ja '54

Comparison of infrared absorption spectra of steroids obtained on solid films and mulls and in solutions. H. Rosenkrantz and L. Zablow. bibliog Anal Chem 25:1025-8 Jl '53

Crystal structure of brucite ($MgOH_2$) and portlandite ($CaOH_2$) in relation to infrared absorption. H. E. Petch and H. D. Megaw. Opt Soc Am J 44:744-5 S '54

Design and performance of an infrared microscope attachment. V. J. Coates and others. bibliog il diag Opt Soc Am J 43:984-9 N '53

Determination of a hindered phenol in lubricating oils by infrared absorption. E. Poti and others. Anal Chem 25:1461-3 O '53

Determination of mineral constituents of rocks by infrared spectroscopy. J. M. Hunt and D. S. Turner. bibliog Anal Chem 25:1169-74 Ag '53

Determination of olefin group types. E. L. Saier, A. Pozefsky and N. D. Coggeshall. bibliog diags Anal Chem 26:1258-63 Ag '54

Forbidden transition ν_2 in the infrared spectrum of methane. J. S. Burgess and others. bibliog Opt Soc Am J 43:1058-60 N '53

Identification of complex organic materials by infrared spectra of their pyrolysis products. D. L. Harms. bibliog(38 ref) Anal Chem 25:1140-55 Ag '53

Infrared absorptiometry for quantitative determination of boron hydrides in presence of pentaborane. L. V. McCarty, G. C. Smith and R. S. McDonald. Anal Chem 26:1027-31 Je '54

Infrared absorption bands characteristic of the oxirane ring. W. A. Patterson. bibliog Anal Chem 26:823-35 My '54

Infrared absorption of liquid water from 2 to 42 microns. E. K. Plyler and N. Acquista. Opt Soc Am J 44:505 Je '54

Infrared absorption of thin metal films. C. Hilsum. Opt Soc Am J 44:188-91 Mr '54

Infrared analyzer for monitoring water content. F. W. Karasek and E. C. Miller. diags Ind & Eng Chem 46:1374-6 Jl '54

Infrared determination of biphenyl in citrus fruits. W. F. Newhall, E. J. Elvin and L. R. Knodel. diag Anal Chem 26:1234-6 Jl '54

Infrared measurements with a cesium iodide prism. N. Acquista and E. K. Plyler. Opt Soc Am J 43:977-9 N '53

Infrared spectra of coal and carbohydrate chars. R. A. Friedel and M. G. Pelipetz. bibliog diags Opt Soc Am J 43:1051-2 N '53

Infrared spectra of metal isopropoxides. J. V. Bell and others. bibliog Anal Chem 25:1720-4 N '53

Infrared spectra of metallic salts containing groups of the XO_2-type ion. C. Duval and J. LeComte. bibliog Opt Soc Am J 44:261-3 Ap '54

Infrared spectra of pentachlorofluoroethane, 1, 2-dichlorotetrafluoroethane, and 1-bromo-2-fluoroethane. D. Simpson and E. K. Plyler. J Res Nat Bur Stand 50:223-7 My '53

Infrared spectra of sugar anomers. R. L. Whistler and L. R. House. Anal Chem 25:1463-5 O '53

Infrared spectroscopy of biologic materials in aqueous solutions. E. R. Blout and H. Lenormant. bibliog Opt Soc Am J 43:1093-5 N '53

Infrared spectrum of brucite [$Mg(OH)_2$]. R. T. Mara and G. B. B. M. Sutherland. bibliog Opt Soc Am J 43:1100-2 N '53

SPECTRUM, Infrared—Absorption spectra—*Continued*

Interferometric wavelength measurement in the infrared by the method of exact orders; precision measurement of the index of refraction of air at 1.65μ. D. H. Rank and others. diag Opt Soc Am J 43:952-6 N '53

Intermediates in the reactions of carboxylic acid derivatives; infrared absorption spectra as evidence for the formation of addition compounds of carboxylic acid derivatives. M. L. Bender. bibliog Am Chem Soc J 75:5986-90 D 5 '53

0.8 N.A. reflecting microscope for infrared absorption measurements. R. D. B. Fraser. bibliog il diag Opt Soc Am J 43:929-30 O '53

Optical system and thermopile amplifier for double-beam recording of infra-red spectra. J. L. Hales. bibliog diags J Sci Instr 30:52-7 F '53

Potassium bromide technique in infra-red spectroscopy. R. D. Elsey and R. N. Haszeldine. Chem & Ind p 1177-8 S 18 '54

Preparation of compounds for infrared spectrometry. M. Hacskaylo. bibliog il Anal Chem 6:1410-12 S '54

Reflecting microscope for infra-red absorption measurements. K. P. Norris. bibliog(32 ref) il diag J Sci Instr 31:284-7 Ag '54

Saturated hydrocarbons of high molecular weight. S. A. Francis. bibliog Anal Chem 25:1466-70 O '53

Similarities in the infrared spectra of homologous compounds. R. G. Fowler and R. M. Smith. Opt Soc Am J 43:1054-7 N '53

Simple quartz infra-red spectrometer for the determination of absorbed water in some polymers. E. R. S. Jones. diag J Sci Instr 30:132-4 Ap '53

SPECTRUM, Microwave

Apparatus for microwave spectroscopy. M. W. P. Strandberg and others. bibliog(29 ref) il diags R Sci Instr 25:776-92 Ag '54

Applications of microwave spectroscopy to chemical problems. J. Sheridan. bibliog Chem & Ind p648-51 Jl 4 '53

Čerenkov effect at microwave frequencies. M. Danos and others. diag Phys R 92:828-9 N 1 '53

Change in the inversion spectrum of ND_3 from resonant to nonresonant absorption. G. Birnbaum and A. A. Maryott. bibliog Phys R 92:270-3 O 15 '53

Estimation of absolute absorption intensities with a Stark-modulated microwave spectrograph. G. R. Bird. bibliog R Sci Instr 25:324-6 Ap '54

Examination of methods for detecting OH. T. M. Sanders, jr. and others. diag J Chem Phys 22:245-6 F '54

High-temperature microwave spectrometer. M. L. Stitch and others. bibliog(28 ref) diags R Sci Instr 25:759-64 Ag '54

Method for the estimation of the relative intensities of microwave absorption lines. D. H. Baird and G. R. Bird. bibliog diags R Sci Instr 25:319-23 Ap '54

Methyl alcohol molecule and its microwave spectrum. E. V. Ivash and D. M. Dennison. bibliog diags J Chem Phys 21:1804-16 O '53

Microwave investigation of the ionization of hydrogen-oxygen and acetylene-oxygen flames. K. E. Shuler and J. Weber. bibliog il diags J Chem Phys 22:491-502 Mr '54

Microwave measurement of D_0 for CO. F. D. Bedard and others. il Phys R 92:1440 D 15 '53

Microwave resonance absorption in nickel ferrite-aluminate. T. R. McGuire. bibliog Phys R 93:682-6 F 15 '54

Microwave resonance in nitric oxide; lambda doubling and hyperfine structure. R. Beringer and others. bibliog Phys R 94:343-9 Ap 15 '54

Microwave spectra and molecular structures of $HSiCl_3$, CH_3SiCl_3, and $(CH_3)_3SiCl$. R. C. Mockler and others. bibliog J Chem Phys 21:1710-13 O '53

Microwave spectra and structures of methyl mercury chloride and bromide. W. Gordy and J. Sheridan. bibliog J Chem Phys 22:92-5 Ja '54

Microwave spectra of CsF, CsCl, and CsBr. A. Honig and others. bibliog Phys R 92:901-2 N 15 '53

Microwave spectra, structure, and dipole moment of stable pentaborane. H. J. Hrostowski and R. J. Myers. diag J Chem Phys 22:262-5 F '54

Microwave spectrum and molecular structure of trichloro germane. P. Venkateswarlu and others. bibliog J Chem Phys 21:1713-15 O '53

Microwave spectrum of cyclopentanone. G. Erlandsson. J Chem Phys 22:563-4 Mr '54

Microwave spectrum of hydrogen peroxide. J. T. Massey and D. R. Bianco. bibliog diags J Chem Phys 22:442-8 Mr '54

Microwave spectrum of $N^{14}O^{16}$. J. J. Gallagher and others. il diags Phys R 93:729-33 F 15 '54

Microwave spectrum of O_2. M. Mizushima and R. M. Hill. Phys R 93:745-8 F 15 '54

Microwave spectrum of phosgene. G. W. Robinson. bibliog J Chem Phys 21:1741-5 O '53

Microwave spectrum of pyridine. B. Bak and others. bibliog J Chem Phys 22:565 Mr '54

Microwave spectrum of pyridine. K. E. McCulloh and G. F. Pollnow. J Chem Phys 21:2082 N '53

Microwave spectrum of TeCS and masses of the stable tellurium isotopes. W. A. Hardy and G. Silvey. bibliog Phys R 95:385-8 Jl 15 '54

Microwave spectrum of vinyl cyanide. W. S. Wilcox and others. bibliog J Chem Phys 22:516-18 Mr '54

Microwave spectrum, structure, and dipole moment of thionyl fluoride. R. C. Ferguson. bibliog Am Chem Soc J 76:850-3 F 5 '54

Molecular microwave oscillator and new hyperfine structure in the microwave spectrum of NH_3. J. P. Gordon and others. il diag Phys R 95:282-4 Jl 1 '54

Molecular microwave spectra tables. P. Kisliuk and C. H. Townes. U S Nat Bur Stand Circ 518:1-127; pa 65c Supt. of doc. '52

New absorption lines of crystals in submicrowave region. S. Kojima and others. Phys R 92:1571 D 15 '53

Nuclear magnetic moment of S^{35} by microwave spectroscopy. B. F. Burke and others. il Phys R 93:193-4 Ja 1 '54

One-to-two millimeter wave spectroscopy; H_2S. C. A. Burrus, jr. and W. Gordy. bibliog il Phys R 92:274-7 O 15 '53

Preliminary work on the microwave spectrum of acetic acid. J. H. N. Loubser. J Chem Phys 21:2231-2 D '53

Pressure broadening of linear molecules. H. Feeny and others. bibliog il diags J Chem Phys 22:79-83 Ja '54

Submillimeter wave spectroscopy. C. A. Burrus and W. Gordy. il Phys R 93:897-8 F 15 '54

Theory of the microwave Zeeman effect in atomic oxygen. A. Abragam and J. H. Van Vleck. bibliog Phys R 92:1448-55 D 15 '53

Two new lines in the microwave spectrum of heavy water. H. D. Crawford. J Chem Phys 21:2099 N '53

Variation of the *l*-type doubling constant in HCN. J. F. Westerkamp. Phys R 93:716 F 15 '54

Zeeman effect and line breadth studies of the microwave lines of oxygen. R. M. Hill and W. Gordy. bibliog diag Phys R 93:1019-22 Mr 1 '54

SPECTRUM, Solar. See Sun—Spectrum

SPECTRUM, Ultraviolet

Characteristics of ultraviolet-sensitized photographic plates in the vacuum ultraviolet. P. Lee and G. L. Weissler. Opt Soc Am J 43:512-15 Je '53

Classification and assignments of ultraviolet spectra of conjugated organic molecules. J. R. Platt. bibliog diags Opt Soc Am J 43:252-7 Ap '53

Continuous emission spectrum of xenon in the vacuum ultraviolet region. Y. Tanaka and M. Zelikoff. il Opt Soc Am J 44:254-5 Mr '54

Demountable flash-discharge tube for production of the Lyman continuum. W. R. S. Garton. diag J Sci Instr 30:119-20 Ap '53

SPECTRUM, Ultraviolet—*Continued*

Determination of furfural in oil in refinery operations by ultraviolet spectrophotometry. L. L. Gent, R. C. Pomatti and H. Levin. bibliog Anal Chem 26:413-14 F '54

Determination of methoxychlor on insecticide-treated paperboard by ultraviolet spectrophotometry. E. C. Jennings, jr. and D. G. Edwards. bibliog Anal Chem 25: 1179-82 Ag '53

Determination of naphthalene in wash oil and coke oven gas. N. J. Klein and G. W. Struthers. Anal Chem 25:1818-21 D '53

Emission characteristics of vacuum spark discharges; aluminum spectra in the extreme ultraviolet. R. W. Kebler and others. Opt Soc Am J 44:270-5 Ap '54

Improvement of grating efficiency in the vacuum ultraviolet by platinizing. K. Watanabe. Opt Soc Am J 43:318 Ap '53

Index of refraction of fused quartz glass for ultraviolet, visible, and infrared wavelengths. W. S. Rodney and R. J. Spindler. bibliog Opt Soc Am J 44:677-9 S '54

Measurement of spark spectrum intensities in the vacuum ultraviolet with the fluorescence sensitized photomultiplier. S. E. Williams and others. bibliog diags Opt Soc Am J 44:654-8 Ag '54

Monochromatic camera for photography in the far ultraviolet. W. E. Behring and others. bibliog il diags Opt Soc Am J 44: 229-31 Mr '54

Multiple monochromators; triple monochromator and its application to near infrared, visible, and ultraviolet spectroscopy. A. Walsh and J. B. Willis. bibliog Opt Soc Am J 43:989-92 N '53

Photoelectric cells for the vacuum ultraviolet. H. E. Hinteregger and K. Watanabe. diag Opt Soc Am J 43:604-8 Jl '53

Photoelectric spectrophotometer for the vacuum ultra-violet region. V. J. Hammond and W. C. Price. bibliog diags J Sci Instr 31:104-6 Mr '54

Preliminary results on photoelectric yields of Pt and Ta and on photoionization in O_2 and N_2 in the vacuum ultraviolet. N. Wainfan and others. bibliog diag J Ap Phys 24:1318-21 O '53

Ratio recording double-beam ultraviolet spectrophotometer. W. H. King, jr. il diags Opt Soc Am J 43:866-9 O '53

Reflectance measurements from 1140A to 1190A by a simple open air method. J. D. Purcell. bibliog diag Opt Soc Am J 43: 1166-9 D '53

Ultraviolet analysis of isomeric cresol mixtures. G. E. Carney and J. K. Sanford. bibliog Anal Chem 25:1417-18 S '53

Ultraviolet multiplet table; the spectra of chromium, manganese, iron, cobalt, nickel, copper, zinc, gallium, germanium, arsenic, selenium, bromine, krypton, rubidium, strontium, yttrium, zirconium, and niobium. C. E. Moore. U S Nat Bur Stand Circ 488 sec 2:1-115; pa 60c Supt. of doc. '52

Ultraviolet spectral radiant energy reflected from the moon. R. Sair and R. Johnston. bibliog diag J Res Nat Bur Stand 51:81-4 Ag '53

Ultraviolet spectrophotometric determination of antimony as iodoantimonous acid. A. Elkind, K. H. Gayer and D. F. Boltz. Anal Chem 25:1744-5 N '53

Ultraviolet spectrophotometric determination of mercury as mercuric thiocyanate complex. G. E. Markle and D. F. Boltz. Anal Chem 26:447-9 Mr '54

Ultraviolet spectrophotometric determination of niobium in hydrochloric acid. J. H. Kanzelmeyer and H. Freund. Anal Chem 25:1807-9 D '53

Ultraviolet spectrophotometric determination of tantalum with pyrogallol. J. I. Dinnin. bibliog(29 ref) Anal Chem 25:1803-7 D '53

Absorption spectra

Abnormal ultra-violet absorption in some heterocyclic systems. V. Georgian. Chem & Ind p930-1 Jl 24 '54

Absorption coefficient of ozone in the ultraviolet and visible regions. E. C. Y. Inn and Y. Tanaka. bibliog Opt Soc Am J 43:870-3 O '53

Absorption coefficients of air and nitrogen for the extreme ultraviolet. J. P. Curtis. diag Phys R 94:908-10 My 15 '54

Absorption coefficients of ethylene in the vacuum ultraviolet. M. Zelikoff and K. Watanabe. bibliog Opt Soc Am J 43:756-9 S '53

Absorption coefficients of nitrogen oxide in the vacuum ultraviolet. F. F. Marmo. bibliog Opt Soc Am J 43:1186-90 D '53

Absorption coefficients of water vapor in the vacuum ultraviolet. K. Watanabe and M. Zelikoff. bibliog Opt Soc Am J 43:753-5 S '53

Alicyclic compounds; ultra-violet absorption, acidity, and ring fission of *cyclo*hexane-1 : 3-diones. E. G. Meek, J. H. Turnbull and W. Wilson. Chem Soc J p2891-6 O '53

Apparatus for the ultra-violet spectroscopy of solutions at low temperatures. R. Passerini and I. G. Ross. bibliog diags J Sci Instr 30:274-6 Ag '53

Comparison of pK'_a values determined by electrometric titration and ultraviolet absorption methods. J. M. Vandenbelt, C. Henrich and S. G. Vanden Berg. bibliog Anal Chem 26:726-7 Ap '54

Detection, estimation, and removal of impurities in fluorocarbon liquids. D. Grafstein. Anal Chem 26:523-5 Mr '54

Determination of phenolic hydroxyl content of lignin preparations by ultraviolet spectrophotometry. O. Goldschmid. bibliog Anal Chem 26:1421-3 S '54

Determination of phenols in waste waters by ultraviolet absorption. L. J. Schmauch and H. M. Grubb. Anal Chem 26:308-11 F '54

Determination of total and primary hydroxyl in cellulose esters by ultraviolet absorption methods. C. J. Malm and others. bibliog Anal Chem 26:188-90 Ja '54

Determinations of the energy and the entropy change due to hydrogen bonding by the use of the near ultraviolet absorption; the effect of the chlorine atom on the proton-donating and the proton-accepting powers. S. Nagakura. bibliog Am Chem Soc J 76:3070-3 Je 5 '54

Fluoroscope and Geiger counter for measuring ultraviolet absorption of chromatograms. T. D. Price and P. B. Hudson. bibliog(28 ref) il Anal Chem 26:1127-32 Jl '54

Graphical absorbance-ratio method for rapid two-component spectrophotometric analysis. R. C. Hirst, F. T. King and R. G. Schmitt. Anal Chem 26:1270-3 Ag '54

Rapid and sensitive recording spectrophotometer for the visible and ultraviolet region. C. C. Yang and V. Legallais. bibliog il diags R Sci Instr 25:801-13 Ag '54

Relation between configuration and conjugation in diphenyl derivatives; the ultra-violet absorption spectra of some 2 : 2′-bridged compounds with *meta*-substituents. G. H. Beaven and others. Chem Soc J p 131-7 Ja '54

Spurious maxima at long wavelengths in ultra-violet absorption spectra. D. F. Evans. bibliog Chem & Ind p 1061 O 3 '53

Ultraviolet absorption spectra as a measure of phenolic hydroxyl group content in polyphenolic tanninlike materials. L. F. Maranville and O. Goldschmid. bibliog Anal Chem 26:1423-7 S '54

Ultra-violet absorption spectra of heterocyclic arsenic and antimony compounds. I. G. M. Campbell and R. C. Poller. Chem & Ind p 1126-7 O 17 '53

Ultraviolet absorption spectra of some inorganic ions in aqueous solutions. R. P. Buck, S. Singhadeja and L. B. Rogers. bibliog Anal Chem 26:1240-2 Jl '54

Ultraviolet absorption spectrophotometry; review of past two years. E. J. Rosenbaum. Anal Chem 26:20-6 bibliog(226 ref, p24-6) Ja '54

Ultra-violet absorption spectrum of diphenylmercury in ethanol. B. G. Gowenlock and J. Trotman. Chem & Ind p309 Mr 13 '54

Ultraviolet absorption spectrum of molybdenum thiocyanate complex. G. E. Markle and D. F. Boltz. bibliog Anal Chem 25:1261-2 Ag '53

Use of sulfuric acid in the detection and estimation of steroidal sapogenins. H. A. Walens, A. Turner, jr. and M. E. Wall. Anal Chem 26:325-9 F '54

SPECTRUM, X ray

Analysis of fluorescent X-radiation by means of proportional counters. R. E. Rowland. J Ap Phys 24:811-12 Je '53

Calibration method for X-ray fluorescence spectrometry. H. J. Beattie and R. M. Brissey. Anal Chem 26:980-3 Je '54

Determination of barium, calcium, and zinc in lubricating oils; use of fluorescent X-ray spectroscopy. E. N. Davis and R. A. Van Nordstrand. bibliog il diags Anal Chem 26:973-7 Je '54

Isotope shift in X-ray spectra of heavy elements. G. Igo and M. S. Wertheim. Phys R 95:1097 Ag 15 '54

Mo *K* and U *L* X-ray transitions from separated isotopes. G. L. Rogosa and G. Schwarz. bibliog diag Phys R 92:1434-7 D 15 '53

Mu-mesonic X-rays and the shape of the nuclear charge distribution. D. L. Hill and K. W. Ford. bibliog Phys R 94:1617-29 Je 15 '54

Nonuniform nuclear charge distributions and measurements of nuclear electrical radius. K. W. Ford and D. L. Hill. bibliog Phys R 94:1630-7 Je 15 '54

Precision measurement at 24 500 volts of the conversion constant λν. G. L. Felt and others. bibliog diags Phys R 92:1160-75 D 1 '53

Quantitative analysis of niobium and tantalum in ores by fluorescent X-ray spectroscopy. W. J. Campbell and H. F. Carl. bibliog il Anal Chem 26:800-5 My '54

Symposium on fluorescent X-ray spectrographic analysis. (Special tech. pub. no. 157) 68p pa $1.75 Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '54

Two types of band emission curves of copper in the soft X-ray region. G. Shinoda and others. il Phys R 95:840-1 Ag 1 '54

X-ray and infrared studies on the extent of crystallization of polymers. J. B. Nichols. bibliog(35 ref) il J Ap Phys 25:840-7 Jl '54

X-ray fluorescence spectroscopy technique. B. W. Thomas. Ind & Eng Chem 46:sup 93A-4A+ Mr '54

X-ray spectrograph for rapid elemental analysis. T. Brooker. il diag Can Chem Process 37:105-6 O '53

SPECTRUM analysis

Accurate analysis with an infrared double-beam spectrophotometer. R. Schnurmann and E. Kendrick. bibliog Anal Chem 26:1263-9 Ag '54

Air-cooled electrodes for the spectrochemical analysis of powders. B. J. Stallwood. il diags Opt Soc Am J 44:171-6 F '54

Analysis of propellants by infrared spectroscopy. F. Pristera. bibliog Anal Chem 25:844-56 Je '53

Analysis with double-beam infra-red spectrometers. L. J. Bellamy. bibliog J Ap Chem 3:421-5 S '53

Application of echelle spectrographs to quantitative analysis of boron in steel. W. G. Kirchgessner and N. A. Finkelstein. bibliog il diags Anal Chem 25:1034-8 Jl '53

Automatic multi-component analyzer. diag Pet Processing 9:129 Ja '54

Catalyst regeneration control; carbon removal from dehydrogenation catalyst facilitated by use of automatic infrared analyzer. K. V. Kratochvil and D. E. Berger. il diags Pet Eng 25:C 13-15 Jl '53

Chemical analysis by infrared. B. Crawford, jr. il diags Sci Am 189:42-8 O '53

Comparison of spectrochemical and semimicromethods in analysis of petroleum ashes. G. V. Dyroff, J. Hansen and C. R. Hodgkins. bibliog(28 ref) diags Anal Chem 25:1898-905 D '53

Conducting briquet technique of spectrographic analysis; analysis of zirconium metal as the oxide. V. A. Fassel, A. M. Howard and D. Anderson. bibliog(26 ref) Anal Chem 25:760-3 My '53

Determination of bromine in liquids by X-ray fluorescent spectroscopy. G. T. Kokotailo and G. F. Damon. bibliog diag Anal Chem 25:1185-7 Ag '53

Determination of calcium and magnesium in lake waters by means of a rotating silver disk electrode. V. W. Meloche and R. Shapiro. bibliog il diags Anal Chem 26:347-50 F '54

Determination of mineral constituents of rocks by infrared spectroscopy. J. M. Hunt and D. S. Turner. bibliog Anal Chem 25:1169-74 Ag '53

Determinations of trace elements. G. E. Heggen and L. W. Strock. bibliog Anal Chem 25:859-63 Je '53

Development of infra-red analysis; abstract. J. G. Reynolds. Chem & Ind p369 Mr 27 '54

Effect of certain sample forms on the reproducibility of analysis of some aluminum alloys using simple condensed spark source units. E. C. Mills and S. E. Hermon. il Metallurgia 48:209-11 O '53

Effect of stray light in prism and grating spectographs on emulsion calibration curves and its significance in spectrographic analysis. R. N. Kniseley and V. A. Fassel. bibliog Opt Soc Am J 44:390-3 My '54

Effects of inert atmospheres on emission spectra in the interrupted arc. H. Stone. diag Opt Soc Am J 44:411-13 My '54

Emission spectroscopy; review of past two years. W. F. Meggers. Anal Chem 26:54-8 bibliog(147 ref, p57-8) Ja '54

Fast spectro method for trace determinations in lube oils. J. T. Rozsa and L. E. Zeeb. bibliog il Pet Processing 8:1708-12 N '53

High temperature combustion chamber. A. Weir, jr. bibliog il diags Ind & Eng Chem 45:1637-44 Ag '53

How infrared aids the small refiner. P. T. Buchanan. Pet Processing 9:103 Ja '54

Identification of complex organic materials by infrared spectra of their pyrolysis products. D. L. Harms. bibliog(38 ref) Anal Chem 25:1140-55 Ag '53

Identification of polyhydric alcohols in polymeric esters. J. F. Shay, S. Skilling and R. W. Stafford. bibliog Anal Chem 26:652-6 Ap '54

Identification of polymeric materials. P. F. Kruse, jr. and W. B. Wallace. Anal Chem 25:1156 Ag '53

Infrared spectra for analysis of aldehyde and ketone 2,4-dinitrophenylhydrazones. J. H. Ross. bibliog Anal Chem 25:1288-303 S '53

Infrared spectroscopy; review of past two years. R. C. Gore. Anal Chem 26:11-19 bibliog(656 ref, p 13-19) Ja '54

Light absorption spectrometry; review of past two years. M. G. Mellon. Anal Chem 26:2-11 bibliog(483 ref, p7-11) Ja '54

McQuaid-Ehn grain size determined by spectrochemical analysis. G. E. Ressler. J Metals 5:1622 D '53

New approach to direct reading spectrochemical analysis. R. K. Brehm and V. A. Fassel. diags Opt Soc Am J 43:886-9 O '53

Qualitative analysis with the spectranal. B. McDuffie. bibliog il diag J Chem Educ 30:454-6 S '53

Quantitative analysis of organic nitrogen by flame spectroscopy. M. Honma and C. L. Smith. bibliog il Anal Chem 26:458-62 Mr '54

Selection of line pairs for the spectrographic analysis of low alloy steel. D. L. Fry and T. P. Schreiber. Opt Soc Am J 44:159-62 F '54

Semiquantitative spectrographic method for analysis of minerals, rocks, and ores. C. L. Waring and C. S. Annell. Anal Chem 25:1174-9 Ag '53

Short period investigations in spark discharges. D. W. Steinhaus and others. bibliog diags Opt Soc Am J 43:257-70 Ap '53

Similarities in the infrared spectra of homologous compounds. R. G. Fowler and R. M. Smith. Opt Soc Am J 43:1054-7 N '53

Simple infra-red grating spectrometer for use in analysis. J. Gaunt. il diags J Sci Instr 31:315-18 S '54

Simple method of obtaining the infrared spectra of solid organic samples. B. M. Mitzner. Opt Soc Am J 43:806 S '53

Simple technique for recovering infrared samples. B. M. Mitzner. diags Opt Soc Am J 43:806-7 S '53

SPECTRUM analysis—*Continued*

Spectrochemical analysis by the porous cup solution spark technique. R. O. Scott. Chem Age (Lond) 69:1013-18 N 14 '53

Spectrochemical analysis of aluminum alloys using molten metal electrodes. L. D. Frederickson, jr. and J. R. Churchill. il diags Anal Chem 26:795-800 My '54

Spectrochemical analysis of beryllium in biological tissue. J. Y. Ellenburg and L. E. Owen. bibliog il A M A Archives Ind Hygiene & Occup Med 7:503-7 Je '53

Spectrochemical analysis of plant material using spark excitation. W. T. Mathis. bibliog Anal Chem 25:943-7 Je '53

Spectrochemical determination of copper in turbine oils. J. E. Barney, 2d. Anal Chem 26:567-8 Mr '54

Spectrochemical determination of germanium in silicates. P. G. Harris. bibliog Anal Chem 26:737-9 Ap '54

Spectrochemical determination of impurities in cobalt oxide. J. H. McClure and R. E. Kitson. Anal Chem 25:867-8 Je '53

Spectrochemical determination of impurities in manganese dioxide. J. W. Mellichamp. Anal Chem 26:977-9 Je '54

Spectrochemical determination of magnesium, iron, silicon, and manganese in titanium metal. H. A. Heller and R. W. Lews. bibliog diags Anal Chem 25:1038-42 Jl '53

Spectrochemical study of gravimetric procedure for barium, strontium and calcium. P. R. Wilkinson, J. A. Gibson, jr. and A. J. W. Headlee. bibliog Anal Chem 26:767-9 Ap '54

Spectrochemical techniques advance titanium technology. J. T. Rozsa. bibliog il Iron Age 172:166-70 S 17 '53

Spectrographic analysis of 18-8 stainless steel for cobalt, manganese, and stabilizing elements. N. E. Gordon, jr. R. M. Jacobs and M. C. Rickel. diags Anal Chem 25:1031-4 Jl '53

Spectrographic analysis of minor elements extracted from plants and soils as dithizonates. W. J. Wark. Anal Chem 26:203-5 Ja '54

Spectrographic determination of certain rare earths in stainless steels. E. W. Spitz and others. bibliog Anal Chem 26:304-7 F '54

Spectrographic determination of impurities in zirconium and hafnium. N. E. Gordon, jr. and R. M. Jacobs. bibliog Anal Chem 25:1605-8 N '53

Spectrographic determination of residual impurities. J. K. Hurwitz. bibliog Anal Chem 25:1028-31 Jl '53

Spectrographic determination of sodium and potassium in coal ashes. C. H. Anderson and C. D. Beatty. bibliog Anal Chem 26:1369-71 Ag '54

Symposium on fluorescent X-ray spectrographic analysis. (Special tech. pub. no. 157) 68p pa $1.75 Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '54

Symposium on future possibilities for spectroscopic instruments; abstracts of papers. Anal Chem 25:1128-9 Jl '53

Visual-arc spectroscopic analysis. M. J. Peterson and H. W. Jaffe. bibliog il diag U S Bur Mines Bul 524:1-20; pa 75c Supt. of doc. '53

X-ray spectrograph for rapid elemental analysis. T. Brooker. il diag Can Chem Process 37:105-6 O '53

See also

Mass spectrometric analysis

Spectroscope

Bibliography

Index to the literature on spectrochemical analysis; pt. III, 1946-1950. B. F. Scribner and W. F. Meggers. (Special tech. pub. no. 41-C) 226p pa $4.50 Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '54

SPECTRUM of Ammonia, Nitrogen oxides, Ozone, Phosgene, etc. See Ammonia—Spectrum; Nitrogen oxides—Spectra; Ozone—Spectrum; Phosgene-Spectrum; etc.

SPECULATION

Three professional methods against market hazards. J. Curtis. Mag of Wall St 92:618-19+ Ag 22 '53

See also

Arbitrage

Futures

SPECULUM plating

Bronze and speculum plates provide good protection for steel. W. H. Safranek and others. bibliog il Metal Finishing 52:70-3+ Ap '54

SPEECH

Your best sales tool. R. Hodges. Life Ins Courant 59:12+ Ag '54

See also

Public speaking

SPEED

See also

Airplanes—Speed

Velocity

SPEED indicators

Instrument for measuring speed fluctuations and a method of calibrating such instruments. A. Swindells. diag J Sci Instr 30:364-5 O '53

See also

Accelerometers

Tachometers

SPEED variation

Bourdon variable-speed gear and pulley drives. il diags Engineering 176:829 D 25 '53

Characteristics and control of rectifier-motor variable-speed drives. P. Bingley. diags Inst E E Proc 99 pt 2:189-202 bibliog(89 titles, p201-2) Je '52; Same cond. Engineering 173:61-2 Ja 11 '52; Discussion. Inst E E Proc 99 pt 2:202-6; 100 pt 2:674-8 Je '52, D '53

Consider variable speed drive for water and sewage treatment plants. F. H. Rumble. il Water & Sewage Works 101:234-5 My '54

Facts on modern variable speed transmission. il diags Mill & Factory 54:174-5 My '54

Formulation of stability equations and derivation of new constructions with complete systems of design-formulae for variable-speed control mechanisms. M. S. Frenkel. bibliog diags Inst Mech Eng Proc (A) 167 no 3:319-30; Discussion. 331-9 '53

Link-Belt variable-speed drives. il Mach 60:235 Ja '54

Logarithmic chart drive. P. H. Dawson and others. diag J Sci Instr 31:97-8 Mr '54

New approaches to variable-speed drives. C. E. Kraus. il diags Machine Design 25:232-46 D '53

New dynamometer drive extends testing possibilities and is another source of adjustable speed. E. H. Fredrick and M. F. Gay. il diags Tool Eng 31:51-6 D '53

Oscillating drive-shaft actuates slide at variable speed and stroke. W. M. Halliday. diags Mach 60:206-7 Mr '54

Savings result from automatic variable speed controls. F. A. Westbrook. il diag Mill & Factory 54:132-4 Mr '54

Servo-drive for accurate speed control; high-frequency phonic motor. D. E. Caro and others. diags J Sci Instr 31:170-3 My '54

Servo-system for accurate speed control. L. U. Hibbard and others. il diags J Sci Instr 31:139-45 Ap '54

Shaft mounted speed reducers. E. J. McCloskey. il Product Eng 24:170-1 Jl '53

Speed control of a.c. winders. diags Engineer 196:365-7 S 18 '53; Same. Elec R (Lond) 153:587-92 S 11 '53

Speed regulation for tandem tube mill drives. F. H. Wickline. il diags Iron & Steel Eng 30:84-6 D '53

Trepanning; quick shift to high gear; National supply co.'s 124-foot-long trepanning lathe. il Steel 134:103 Ap 5 '54

What fan control method is best? J. F. Tobin. il Power Eng 58:82-3+ S '54

Why variable-speed spinning has not been successful. R. E. Parker. Textile World 104:110-13 Ja '54

Wire drawing; higher speeds, greater problems. J. R. Erbe. il Steel 133:158-60+ N 16 '53

See also

Electric motors—Control

SPELLING

National spelling bee a letter-perfect event. C. Schneider. Ed & Pub 86:13 My 30 '53

SPENCER, Clyde H.

New broom; assigned to reshape Reclamation's region 2. Eng N 151:74+ Jl 16 '53

SPENCER chemical company

Ammonia fathers a brood. Chem W 73:14-16 Jl 18 '53

SPENDING. See Consumption (economics)

SPERM oil

Whale oil production increase expected. Oil Paint & Drug Rep 165:7 Je 21 '54

SPERRY corporation

Five candidates for extra dividends; with comparative balance sheet items. Mag of Wall St 93:200 N 14 '53

SPHERES

Light from a spherical globe. G. R. Shuck. Opt Soc Am J 43:923 O '53

Making small spheres. R. L. Whitmore. il diag J Sci Instr 31:223-4 Je '54

Natural-convection heat transfer at reduced pressure. J. R. Kyte, A. J. Madden and E. L. Piret. bibliog il diags Chem Eng Prog 49:653-62 D '53

Ulbricht sphere for large luminaires. G. H. Sechrist. il Illum Eng 49:345-6 Jl '54

Viscous flow in multiparticle systems; cubical assemblages of uniform spheres. J. Happel and N. Epstein. bibliog il diag Ind & Eng Chem 46:1187-94 Je '54

Viscous flow in multiparticle systems; motion of a sphere and fluid in a cylindrical tube. J. Happel and B. J. Byrne. bibliog Ind & Eng Chem 46:1181-6 Je '54

SPHERICAL aberration. See Aberration (optics)

SPHERICAL surfaces

Equipment for simulating spherical surfaces with constant brightness. F. Schubert. diags J Sci Instr 30:433-4 N '53

Know the wrinkles about spherical shells. S. R. Cope. diags Am Mach 98:148-52 F 15 '54

Rotating flycutter mills spheres with single-point tool. L. Saüa. diag Am Mach 98:136 Ap 26 '54

Spherical surfaces produced with new boring mill bar; Giddings & Lewis machine tool co. C. Trudgen and H. L. Johnson. il diag Mach 60:178-80 F '54

SPHEROIDS

Thermal conductivity; development of a thermal conductivity expression for the special case of prolate spheroids. M. Adams and A. L. Loeb. Am Cer Soc J 37:73-4 pt 2 F 1 '54

Thermal conductivity; prolate spheroidal envelope method; data for Al_2O_3, BeO, MgO, ThO_2, and ZrO_2. M. Adams. bibliog il diags Am Cer Soc J 37:74-9 pt 2 F 1 '54

SPHEROMETERS

Precision spherometer. J. W. Gates and others. bibliog il diags J Sci Instr 31:60-4 F '54

SPHINGOMYELIN

Studies on the structure of sphingomyelin; configuration of the double bond in sphingomyelin and related lipids and a study of their infrared spectra. G. Marinetti and E. Stotz. bibliog Am Chem Soc J 76:1347-52 Mr 5 '54

Studies on the structure of sphingomyelin; quantitative data on the peroxide and periodate uptake during the oxidation of sphingomeylin. G. Marinetti and E. Stotz. bibliog Am Chem Soc J 76:1345-6 Mr 5 '54

SPHINGOSINE

Configurational correlation of sphingosin to D-erythro-α-amino-β,γ-dihydroxy-butyric acid. J. Kiss and others. bibliog Chem & Ind p517 My 1 '54

SPICES

Botanical drugs, spices, gums; 1953 market trends. Oil Paint & Drug Rep 165:42-3 sec 2 F 1 '54

SPIEGEL, Emanuel M. 1906-

NAHB's new president. pors House & Home 3:114-17 F '53

SPIEGELEISEN

Prices

Spiegeleisen 19 to 21 per cent, 1948-1953; tabulation. Iron Age 173:419 Ja 7 '54

SPILLWAYS

Hydraulic fundamentals of closed conduit spillways. F. W. Blaisdell. il diags Am Soc C E Proc 79 [no 354]:1-14 N '54

Lightweight dam to pass heavyweight flows over new diffuser spillway. il diag Eng N 151:43-4+ Ag 20 '53

SPIN, Nuclear. See Nuclear spin

SPIN of elementary particles. See Nuclear spin

SPINACH

Pentose phosphate and CO_2 fixation with spinach extracts. A. Weissbach, P. Z. Smyrniotis and B. L. Horecker. Am Chem Soc J 76:3611-12 Jl 5 '54

SPINACH, Frozen

Minor changes bring major packaging gains; chopped frozen spinach line at Seabrook farms co. il diag Food Eng 26:92-3 Ag '54

SPINDLES (machine tools)

High speed grinding spindle. il Automobile Eng 44:81 F '54

SPINELS

Ferromagnetic spinels with rectangular hysteresis loops. I. J. Hegyi. bibliog J Ap Phys 25:176-8 F '54

System $MgO—Al_2O_3—H_2O$ and influence of carbonate and nitrate ions on the phase equilibria. D. M. Roy and others. bibliog diags Am J Sci 251:337-61 My '53

Ulvöspinel and its significance in titaniferous iron ores. P. Ramdohr. bibliog il diags Econ Geol 48:677-88 D '53

SPINKS, John W. T. 1908-

Elected CIC president. por(cover) Chem & Eng N 31:2486 Je 15 '53

SPINNING

Control run-outs and piecings to improve spinning. N. H. Pomfret. diags Textile World 103:132-3+ D '53

How the system of yarn manufacturing, as well as the fiber's physical properties, affect the characteristics of yarn. J. B. Caron. Am Dyestuff Rep 43:438-41+ Jl 5 '54

How you can reduce uneven spinning drafts. N. H. Pomfret. diag Textile World 104:109+ S '54

Measurements of the air-drag of textile threads. C. Mack and E. J. L. Smart. bibliog diags Textile Inst J Trans 45:T348-62 Ap '54

Movement of fibres during drafting. D. S. Taylor. il diags Textile Inst J Trans 45: T310-22 Ap '54

Spinning Dacron polyester staple. Mod Textiles Mag 34:84 D '53

Spinning solvents for polyacrylonitrile. G. E. Ham. bibliog Ind & Eng Chem 46:390-2 F '54

Theory of reduction of initial irregularities by mixing in drawing. M. Hannah. Textile Inst J Trans 44:T436-48 O '53

Tips for the spinning supervisor. N. H. Pomfret. Textile World 104:70+ Ag '54

Waste and cleaning tips for the spinning-room overseer. N. H. Pomfret. diags Textile World 104:123+ Mr '54

Why variable-speed spinning has not been successful. R. E. Parker. Textile World 104:110-13 Ja '54

See also

Cotton spinning
Woolen and worsted spinning

Tables, calculations, etc.

Constants speed calculations for average roving run-outs; tabulations. M. C. Gross. Textile World 104:102-3 F '54

Effect of cap-edge friction on spinning. J. Crank and D. D. Whitmore. Textile Res J 24:434-7 My '54

How much testing should you do? C. Moss. Textile World 104:109-10+ Mr '54

How to evaluate Uster charts. E. H. Bond. Mod Textiles Mag 35:36+ Ap '54

Tables speed calculations for doff load. M. C. Gross. Textile World 104:102-3+ S '54

Theoretical study of ring and cap spinning balloon curves (with and without air drag). C. Mack. diags Textile Inst J Trans 44: T483-98 N '53

SPINNING machinery
Duo-Roth change-over increases Roth draft by 50 per cent. il Textile World 104:140 Mr '54
Observation of the traveller during spinning. M. Axson. il Textile Inst J Trans 45:T368-70 Ap '54
Roving stop motion cuts spinning ends down ten per cent; Woodside mills. J. H. Blore. il Textile World 104:89+ Mr '54
Six ideas for the spinning overseer. N. H. Pomfret. diags Textile World 104:130-1 Je '54
Six more new or improved machines announced by Whitin; roving and spinning frames. il Textile World 104:109 Ap '54
Textile recorder exhibition, Manchester. F. Charnley. Textile Inst J 44:P760-2 N '53
See also
Drawing frames
Twisting machines

Cleaning
Ten-way adjustable cleaners improve spinning efficiency; Joanna cotton mills co. J. P. Sloan. il Textile World 104:95+ Ap '54

SPINORS
Introduction to spinors. W. L. Bade and H. Jehle. bibliog(76 ref) Rs Mod Phys 25:714-28 Jl '53

SPIRAL gearing. See Gearing, Spiral

SPIRAL growth and movement
Why do galaxies have a spiral form? C. H. Payne-Gaposchkin. il Sci Am 189:89-99 S '53

SPIRES
Enameled steel skin; church steeple. il diags Arch Forum 98:156 Ja '53
Nine steps in raising and setting mill-fabricated steeple; illustrations with text. Am Bld 75:268-9 Je '53

SPIRO compounds
Acid-catalyzed reduction of spirostanols and spirostenols by lithium aluminum hydride. H. M. Doukas and T. D. Fontaine. bibliog Am Chem Soc J 75:5355-6 N 5 '53
Configuration at C-25 in natural spirostan sapogenins. V. H. T. James. bibliog Chem & Ind p 1388 D 26 '53
Different configurations of the side chain in spirostan sapogenins. R. K. Callow and V. H. T. James. bibliog Chem & Ind p691-2 Je 12 '54
Dispiro(5.1.5.1)tetradecane. H. M. Walborsky and E. R. Buchman. Am Chem Soc J 75:6339-40 D 20 '53
Experiments in the hecogenin series; 22a,5β-spirostan-3α-ol-12-one. C. Djerassi and others. bibliog Am Chem Soc J 75:4885-7 O 20 '53
Photochromism and reversible multiple internal transitions in some *spiro*pyrans at low temperatures. Y. Hirshberg and E. Fischer. diag Chem Soc J p297-303 Ja '54
Spiro[3,5]nonane. E. R. Buchman, D. H. Deutsch and G. I. Fujimoto. bibliog Am Chem Soc J 75:6228-30 D 20 '53
Steroidal sapogenins; hydrolysis of 5α-22a-spirostane glycosides by fungal saponases. M. M. Krider, T. C. Cordon and M. E. Wall. Am Chem Soc J 76:3515-17 Jl 5 '54
Synthesis and properties of derivatives of spiro[4.4]nonane. D. J. Cram and H. Steinberg. bibliog Am Chem Soc J 76:2753-7 My 20 '54

SPIROSTANE
Steroidal sapogenins; hydrolysis of 5α,22a-spirostane glycosides by plant enzymes. M. M. Krider and M. E. Wall. bibliog Am Chem Soc J 76:2938-40 Je 5 '54

SPITZ, Albert
Profits in problems. pors Chem W 73:38+ Ag 29 '53

SPLINES. See Keys and keyways (machinery)

SPLIT-run ads. See Advertisements—Testing

SPLIT-up of stocks. See Stocks—Split-up

SPODUMENE
Reactions in the system Li_2O-MgO-Al_2O_3-SiO_2; cordierite-spodumene join. M. D. Karkhanavala and F. A. Hummel. bibliog Am Cer Soc J 36:393-7 D 1 '53
Recovering lithium by froth flotation; Foote mineral co. W. B. Lenhart. il Rock Prod 57:120-2 Je '54

Analysis
Determination of lithium in spodumene by flame photometry. R. J. Brumbaugh and W. E. Fanus. bibliog Anal Chem 26:463-5 Mr '54

SPOFFORD, Charles Milton, 1871-
Sketch. por Civil Eng 23:623-4 S '53

SPOKANE, Washington
See also
Metal working industries—Spokane, Washington

Sewerage
Underground lake persists as city and contractor row. Eng N 152:44-5 Mr 4 '54
Underground lake slows tunnel job. il Eng N 152:45-7 Ja 21 '54

SPONGE iron. See Iron, Sponge

SPONGE rubber. See Rubber, Sponge

SPONGES, Artificial
Low-temperature drying of gelatin sponge. M. M. Harmon. Chem Eng Prog 49:sup 20+ My '53
Strategy for sponges; new colorfully printed cellophane over-wraps. il Mod Packaging 27:107 My '54

SPONTANEOUS combustion
Factors limiting general application of the Mackey test for spontaneous heating and ignition. P. C. Bowes. bibliog J Ap Chem 4:140-4 Mr '54
Prevention of spontaneous combustion in coal stocks. il Engineering 176:727 D 4 '53
Reaction processes leading to the spontaneous ignition of hydrocarbons. C. E. Frank and A. U. Blackham. bibliog Ind & Eng Chem 46:212-17 Ja '54
Spontaneous combustion tendencies of paint vehicles. Oil Paint & Drug Rep 164:79-80 N 2 '53
Spontaneous combustion theory. G. E. Mapstone. bibliog Chem & Ind p658 Je 5 '54
Spontaneous ignition. Nat Safety N 69:218 Mr '54
Spontaneous ignition in iron pyrites. Chem Age (Lond) 71:281-2 Ag 7 '54
Spontaneous ignition of lubricating oils. C. E. Frank, A. U. Blackham and D. E. Swarts. bibliog diags Ind & Eng Chem 45:1753-9 Ag '53
Spontaneous ignition properties of fuels and hydrocarbons. J. E. Johnson, J. W. Crellin and H. W. Carhart. bibliog Ind & Eng Chem 45:1749-53 Ag '53

SPOOLING machines
How to increase spooler efficiency. N. H. Pomfret. Textile World 104:102-3+ Jl '54

SPORTING equipment floater insurance. See Insurance, Sporting equipment floater

SPORTS
Study casualties of competitive sports. Nat Safety N 70:68-9 S '54
See also
Baseball
Newspapers—Sports news
Skating rinks

Insurance aspects
Sports insurance is timely. C. S. Rollings. Rough Notes 96:36+ D '53

Periodicals
Time's sports magazine will tap $12 billion recreation market. Sales Management 72:73 Je 1 '54

SPOT tests. See Microanalysis

SPOT welding. See Electric welding

SPRAY drying. See Drying

SPRAY painting. See Paint spraying

SPRAY residue on fruits and vegetables
Use of surface active agents in breaking emulsions formed in vegetable extractions. C. L. Dunn and R. H. Earle, jr. Anal Chem 26:1099-100 Je '54

Analysis
Determination of residual Crag herbicide 1 and its hydrolysis products on food crops. J. N. Hogsett and G. L. Funk. bibliog Anal Chem 26:849-53 My '54

SPRAY towers. See Absorption apparatus

SPRAYING and dusting

Chemical weed and brush control by contract. il Pub Works 85:67-8 Je '54

Insecticide spray deposits. A. H. Yeomans and E. R. Van Leeuwen. Soap & San Chem 30:141-3 Ap '54

Stock sprays. A. G. Grady. il Soap & San Chem 29:135-7+ Je '53

Survey of insecticide spray practices used in the fruit orchards of north central Washington. G. S. Batchelor. A M A Archives Ind Hygiene & Occup Med 7:399-401 My '53

See also

Airplanes in insect control

SPRAYING apparatus

Atomization by centrifugal pressure nozzles. R. W. Tate and W. R. Marshall, jr. bibliog(62 ref) flow diag il diags Chem Eng Prog 49:169-74, 226-34 Ap-My '53

Crop-spraying machines. E. R. Hoare. Engineer 197:396 Mr 12 '54

Detrex one-to-multistage washer can be combined on premises. il Chem & Eng N 32:3464 Ag 30 '54

Drop-size distributions from spray nozzles. G. M. Turner and R. W. Moulton. bibliog diags Chem Eng Prog 49:185-90 Ap '53

Impulse killer; pulse-jet fogger. il Chem W 72:82+ My 16 '53

Liquid-film properties for centrifugal spray nozzles. M. Doumas and R. Laster. il diags Chem Eng Prog 49:518-26 O '53

Napier electro-thermal de-icing equipment. il Engineer 197:420-2 Mr 19 '54; Engineering 177:378-9 Mr 19 '54

Production of water spray of uniform drop size by a battery of hypodermic needles. D. J. Rasbash. diags J Sci Instr 30:189-92 Je '53

Recent design improvements in compression sprayers. F. W. Knipe. il diag Soap & San Chem 29:143+ Ag '53

Spray coating; better, faster way to apply adhesives. G. A. Newman. il Factory Management 112:138-40 S '54

Tank truck sprays even coat of liquid while moving along a road. diag Chem & Eng N 31:2338 Je 1 '53

See also

Containers, Dispensing—Pressurized containers

SPRAYING of enamel. See Enamel spraying

SPRINGS (mechanism)

Check-lists for springs. diags Product Eng 24:185-9 S '53

Endless coil spring activates stripper fingers. B. Menkin. diags Am Mach 98:213 Ap 12 '54

How fast does a spring expand? reference book sheet. J. M. Ramrath. diags Product Eng 24:209, 211, 213 O '53

Instrument springs. M. G. Fangemann. il diag Instruments & Automation 27:780-2 My '54

Neg'ators used for slot closure and counter balancing applications. il diag Product Eng 24:168-9 Jl '53

Rust resistant spring alloy; Elgiloy for watch makers. il Steel 133:344 O 12 '53

Spring actuated linkage analysis to increase speed. R. C. Van Sickle and T. P. Goodman. il diags Product Eng 24:152-7 Jl '53

Spring selection in tool design; reference sheet. G. W. K. Clark. Tool Eng 32:83-4 My '54

Stainless springs have long service life. il diag Iron Age 173:149 Ap 8 '54

Target reset springs eliminate relay troubles. E. J. Emmerling. diag Elec World 139:102 Je 1 '53

See also

Automobiles—Springs and suspension

Car springs

Motor buses—Springs and suspension

Design

Analytical approach to compression spring design. F. A. Votta, jr. diags Machine Design 26:175-80 Ap '54

Design charts for rectangular wire helical springs; reference book sheet. V. Tatarinov. Product Eng 24:207, 209, 211 N '53

Designing springs. S. L. Albright. diags Machine Design 25:134-7 S; 222-6 O; 172-5 N '53

Testing

Effect of shot-peening variables and residual stresses on fatigue life. R. L. Mattson and W. S. Coleman, jr. il Metal Prog 65:108-12 My '54

Investigation of small helical torsion springs. W. R. Berry. bibliog Inst Mech Eng Proc (A) 167 no 4:375-92, pl 1-2; Discussion. 392-3 '53

SPRINKLER irrigation. See Irrigation, Overhead

SPRINKLERS

Roaming lawn sprinkler. Bsns W p64 S 19 '53

SPRINKLING systems

Automatic protection. il Nat Safety N 69:212+ Mr '54

Partial sprinkler protection is criticized as inadequate coverage. East Underw 54:28 S 18 '53

Spray sprinkler effectiveness; advantage when distribution at higher levels is needed. G. E. Stecher. Weekly Underw 170:1611+ Je 26 '54

SPROCKETS

Taper lock chain sprockets; reference book sheet. R. J. Howison. il diag Am Mach 97:173, 175 N 9 '53

SPROULL, William Cargill, 1896-

Sketch. por Adv Agency 46:59 Jl '53

SPRUCE

Chlorine dioxide pulping of jack pine and black spruce chips. F. G. Hurtubise. Pulp & Pa of Can (Convention no) 55:173-4 [F] '54

Delignification of spruce sawdust with chlorine dioxide. N. Levitin and H. Schwartz. bibliog Pulp & Pa of Can 55:92-8 Ja '54

Gas adsorption by wood, pulp, and paper; low-temperature adsorption of nitrogen, butane, and carbon dioxide by sprucewood and its components. W. R. Haselton. bibliog(26 ref) diag Tappi 37:404-12 S '54

Hemicelluloses of Scots pine (pinus sylvestris) and black spruce (picea nigra) woods. A. R. N. Gorrod and J. K. N. Jones. Chem Soc J p2522-5 Jl '54

Isolation of holocellulose from wood. B. L. Browning and L. O. Bublitz. bibliog Tappi 36:452-8 O '53

Management of spruce on the east slope of the Canadian Rockies. L. A. Degrace. Pulp & Pa of Can 55:178+ Je '54

Physicochemical study of a water-soluble polysaccharide from black spruce (picea mariana). J. O. Thompson and others. bibliog il Tappi 36:541-3 D '53

SPRUCE budworms

Battle against the budworm. map Pulp & Pa of Can 55:177 Je '54

New Brunswick spraying no longer experimental; target, 1,000,000 acres. Paper Ind 36:179 My '54

New Brunswick to renew anti-budworm war. Pulp & Pa of Can 54:177+ N '53

SPUR gearing. See Gearing, Spur

SPUTTERED films. See Films, Metallic

SPUTTERING. See Surface phenomena

SPUTUM

Mucolytic and digestive action of trypsin in the preparation of sputum for cytologic study. S. M. Farber and others. bibliog il Science 117:687-90 Je 19 '53

SQUALENE

Stereochemistry of squalene; a new method for the determination of *cis-trans* isomerism. N. Nicolaides and F. Laves. bibliog Am Chem Soc J 76:2596-7 My 5 '54

Study of the mechanism of conversion of acetate to cholesterol *via* squalene. W. G. Dauben and K. H. Takemura. bibliog Am Chem Soc J 75:6302-4 D 20 '53

SQUIBB, E. R., and sons

Merger mechanics; you have to try them to know if they'll work. Bsns W p96-8 Ag 8 '53

SQUIRREL cage motors. See Electric motors, Induction

STABILITY, Chemical. See Chemical stability

STABILIZATION in industry

See also

Business cycles

Employment—Stability

STABILIZING agents

Nondiscoloring stabilizers for GR-S. B. A. Hunter, R. R. Barnhart and R. L. Provost. bibliog Ind & Eng Chem 46:1524-30 Jl '54

STACKING machines

Counter-stacker combines electric-pneumatic design. il diags Machine Design 25:171 N '53

STACKS. See Chimneys

STADIUMS

Covered stadium in Dortmund, Germany. il diag Arch Forum 98:146-7 My '53

Prestressing in two similar structures. il plans diags Arch Rec 114:183-6 Jl '53

Stadium roof spans 270 ft. for full view from bleachers. il Eng N 151:82+ Jl 16 '53

Stadium sold; N.Y. Yankees' sale and leaseback deal. Bsns W p33-4 D 26 '53

Two-faced stadium; Grand Junction, Col. il plan Arch Forum 97:142 D '52

STAFF assistants. See Executives

STAGE lighting

Lighting the small amateur stage. G. A. Long, jr. il diags Illum Eng 49:331-8 Jl '54

Stage lighting; Duthy Hall, Southwark. il Elec R (Lond) 153:1351 D 11 '53

STAINLESS steel. See Steel, Stainless

STAINS

Removal

Tar spot removal from cotton fabrics during finishing. J. Compton and L. R. Hubbard. il diag Textile Res J 24:578-83 Je '54; Abstract. Textile World 104:97+ My '54

STAINS and staining (microscopy)

New cytological and histological fixing fluid. E. J. Newcomer. Science 118:161 Ag 7 '53

New method for differentiation of skin and core of a rayon filament. W. R. Berry. il Textile Res J 24:397-9 My '54

Stain technique for differentiating hardwood and softwood mechanical pulps. W. E. Spearin and R. C. Dressler. bibliog Tappi 37:39-42 Ja '54

Staining of synaptic terminals within the central nervous system by Rio-Hortega's double impregnation silver method. G. E. Morrison, jr. and W. C. Gibson. bibliog il Science 117:656-8 Je 12 '53

STAINS and staining (wood)

Cabot's ranch house hues, California idea born in Boston. il Sales Management 71:112+ S 15 '53

STAIRWAYS

Stairs and ramps. il Nat Safety N 69:18 Mr '54

Stairway that really does disappear. il Am Bld 75:298 Je '53

STAKMAN, Elvin Charles, 1885-

Celebration in honor of Dr E. C. Stakman. H. Hart. Science 118:402-3 O 9 '53

STALIN, Iosif, 1879-1953

Coryphaeus of science; translation of Lysenko's eulogy. Science 118:32 Jl 3 '53

In black and white it's red all over; press highlights of Stalin's death. Ed & Pub 86:13 Mr 14 '53

STAMPING

Automation in stamping end plates for starting motors; Ford motor co. il Automotive Ind 111:48-9 S 1 '54

Automation increases production of stampings at Oldsmobile. C. W. Wick. il diags Mach 60:202-9 N '53

New setups speed production of stampings. H. Chase. il Iron Age 172:142-4 Ag 13 '53

Plastic dies speed delivery of experimental stampings; Allied products corp. W. C. Miller and W. J. Esdale. il diag Mach 60:172-7 N '53

Precision stampings; progressive die setups permit high output; Chrysler corp. J. I. Feldborg. il diag Iron Age 173:170-2 Ap 22 '54

Progress in metal stamping; quantity producer combats its limitations. C. C. Higgins. il Steel 134:118-19 Ap 5 '54

Stampers; compare U.S., U.K. practice. Iron Age 172:86-7 Ag 13 '53

Stampers end record sales year. K. W. Bennett. Iron Age 172:29 D 31 '53

Stampers stress sales, costs, stocks. R. M. Lorz. Iron Age 173:81 Mr 25 '54

Stamping; idea paces fast growth; Iron Hands of the Sahlin engineering co. R. D. Raddant. il Iron Age 174:81 S 9 '54

Stamping review and forecast. bibliog il Iron Age 173:324-5 Ja 7 '54

Stampings offer way to cut corners; Leake engineering co. il Steel 134:112-13 F 15 '54

Stampings; should you make them or buy them? C. C. Caditz. Iron Age 174:107-11 S 23 '54

STAMPS, Postage. See Postage stamps

STAMPS, Trading. See Trading stamps

STAND oils

Stand oil fractionation; abstract. F. T. Walker and others. Paint Oil & Chem R 117:44-5 F 25 '54

STANDARD bank of South Africa, limited

Statement by the chairman. F. Leith-Ross. Economist 168:356-7 Ag 1 '53

STANDARD cells

Behaviour of standard cells in conditions which include the generation of appreciable current. L. Hartshorn and F. A. Manning. J Sci Instr 31:115-18 Ap '54

Effect of local action currents on the emf of the Weston standard cell. H. H. Uhlig. bibliog Electrochem Soc J 100:173-7 Ap '53

Thermodynamics of the acid Weston cell and the acid Clark cell. C. Wagner. bibliog Electrochem Soc J 100:524-6 N '53

STANDARD costs. See Cost accounting—Standard costs

STANDARD deviation

Applying statistics to checking of vendors' invoices. R. A. Hanna. N A C A Bul 35:503-11 D '53

STANDARD of living

Management and American living standards; a look ahead; abstract. D. K. David. Management R 43:568-9 S '54

Our living standards can go up. P. D. Foote. Advanced Management 18:5-11 My '53

Our rising living standards; ceiling unlimited? abstract. Management R 43:212-13 Ap '54

Population growth and living standards. C. Clark. Int Labour R 68:99-117 Ag '53

STANDARD oil company (New Jersey)

Companies whose sound planning made them stronger. W. Gates. Mag of Wall St 92:601 Ag 22 '53

Dissecting five key companies. G. L. Merton. Mag of Wall St 93:252 N 28 '53

Industrial medicine, world wide; the Medical department. il map Ind Med 22:455-62 O '53

STANDARD oil company of California

Standard shake-up. Bsns W p55-6 N 14 '53

STANDARD oil company of Indiana

Five stocks with exceptionally high earnings; with comparative balance sheet items. Mag of Wall St 93:325 D 12 '53

STANDARD power and light corporation

Retires preferred stock. Comm & Fin Chr 178:763 Ag 31 '53

STANDARD steel spring company. See Rockwell spring and axle company

STANDARD ultramarine and color company

Ultramarine blue antitrust suit is filed by government. Oil Paint & Drug Rep 166:7 Jl 5 '54

STANDARDIZATION

Can business amend its ways? need for unified national and international standards. W. L. Batt. il Dun's R & Mod Ind 62:58-60+ D '53

Fifth milestone in standardization. R. E. Gay. Elec Eng 73:106-9 F '54

How standardization pays off; abstract. Management R 42:210 Ap '53

Progress in standards made in the petroleum industry. C. A. Young. map diags Pet Eng (Ref annual) 25:A39-40+ Jl 15 '53

Reduction in inventories through standardization. C. S. Perkins. Am Pet Inst Proc 32(1):324-6 '52

Standardization; secret of equipment supply. J. C. Garrett. il Aero Digest 67:60+ O '53

Standardize for profits. G. G. Carr. Iron Age 172:77 Jl 16 '53

See also

Standards

Time study

STANDARDS
ASTM approves 65 new standards. Materials & Methods 40:250+ S '54
How the government buys; military and federal standards. M. P. Haskin. Materials & Methods 39:110-11 Ap '54
Inventory control through commodity standards. M. H. Osburn. N A C A Bul 35:521-34 D '53
Role of company standards in industrial administration. D. Reck. Advanced Management 19:19-23 Ap '54
Standard samples and reference standards issued by the National bureau of standards. U S Nat Bur Stand Circ 552:1-23; pa 25c Supt. of doc. '54
Standards in the soap plant. J. L. Boyle. il Soap & San Chem 29:52-4 My '53
See also
Cost accounting—Standard costs
Electric standards
Production standards
Radio standards
Safety standards
Textile standards
Time study
United States—Standards, National bureau of
Weights and measures
also subdivision Standards under special subjects, e.g.
Boilers
Bolts and nuts
Building
Electric transformers
Insulation (electric)
Military supplies
Moving picture cameras
Moving picture films
Moving picture machines
Pressure vessels
Television
Water pipes

STANDARDS, Chemical. See Chemical standards

STANDARDS, Engineering
ASME standards save lives and dollars. F. S. Blackall, jr. Mech Eng 75:979-81 D '53
Practical application of the new British standard system of limits and fits. G. J. Pearmain. diags Engineer 196:848-50 D 25 '53
Should we adopt standardized fits and limits? ABC system of limits and fits; symposium. R. W. Bolz and others. Machine Design 26:116-29 Mr '54
Standard proposed for indicating the precision of construction cost estimates. G. Wrigley, jr. Civil Eng 24:150-1 Mr '54
See also
Electric standards
Standardization
Weights and measures
also subdivision Standards under special subjects, e.g.
Building
Electric equipment
Railroads

STANDARDS, International
Common tolerance system; A.B.C. proposals critically examined. F. W. M. Lee. Automobile Eng 43:560-2 D '53
Electrical insulation and international standardization. E. F. Seaman. Elec Eng 73:240 Mr '54
International activities on thermal evaluation of insulating materials. L. J. Berberich. Elec Eng 73:240-3 Mr '54
Periodica abbreviata and international standardization. F. L. Kent. J Doc 10:59-64 Je '54
Proposed international tests for colour fastness of textiles. Soc Dyers & Col J 69:409-29 N '53
Standardisation and agricultural machinery. D. P. Ransome. Engineer 196:507-8 O 16 '53
See also
Labor standards, International

STANDARDS, National bureau of. See United States—Standards, National bureau of

STANDARDS of mass
Precision laboratory standards of mass and laboratory weights. T. W. Lashof and L. B. Macurdy. U S Nat Bur Stand Circ 547sec 1:1-24; pa 25c Supt. of doc. '54

STANDARDS of measurement. See Measurement

STANDPIPES
Standpipe riser supports; detail sheet. diags Heat & Ven 51:109-10 Jl '54

STANLEY WARNER corporation
Warming up for a new take-off. il Bsns W p 108+ N 21 '53

STANNANE. See Tin compounds

STANNIC chloride
Titration of aprotic acids in thionyl chloride. E. B. Garber, L. E. D. Pease, jr. and W. F. Luder. Anal Chem 25:581-3 Ap '53

STANOLIND oil and gas company
Take-over imminent. Chem W 74:28 Mr 13 '54

STANOLS
Preparation of 15-oxostanols. C. S. Barnes and others. Chem & Ind p616 Je 20 '53

STARCH
Better split for starch; new processes for separating amylose from amylopectin. Chem W 73:52+ N 14 '53
Chemical degradation of ^{14}C-glucose and its application to ^{14}C-starch from polytomella coeca. J. C. Bevington and others. bibliog Chem & Ind p 1390-1 D 26 '53
Collaring starch sales. il Chem W 75:60+ S 11 '54
Detrimental effect of either excessive or insufficient heat on corrugating board starch. C. R. Vander Meulen. Tappi 37:sup 177A-9A Je '54
Dextrinizing value of enzymes (enzyme activity); TAPPI suggested method T 643 sm-54. Tappi 37:sup 113A-15A Jl '54
Froth flotation of iron ores; adsorption of starch products and laurylamine acetate. N. F. Schulz and S. R. B. Cooke. bibliog(29 ref) Ind & Eng Chem 45:2767-72 D '53
Hydrolysis of starch as indicated by congo red. B. Carroll and J. W. Van Dyk. bibliog Am Chem Soc J 76:2506-10 My 5 '54
Mercuric chloride and starch hydrolysis. Chem Age (Lond) 71:477-8 S 4 '54
New techniques for enzyme converting starch. L. J. Wood, jr. and J. R. Mazeau. Tappi 36:sup 141A-3A D '53
Polysaccharide aryl carbamates; partly substituted and cross-linked starch carbamates. I. A. Wolff, P. R. Watson and C. E. Rist. bibliog il Am Chem Soc J 76:757-9 F 5 '54
So you have a dull product and sales are stuck on dead center! see what Huron milling co. has done with starch. il Sales Management 72:36-8+ F 15 '54
Stable, sensitive linear starch indicator solution for iodimetry. J. L. Lambert. bibliog Anal Chem 25:984-5 Je '53
Starch adhesives in sulphur treated corrugating medium. C. H. Fletcher. Tappi 37:sup 170A-1A Je '54
Starch for wet end addition. J. P. Casey. Tappi 37:sup 152A-3A Je '54
Starch granule structure; abstract. R. M. Sandstedt. Chem & Eng N 32:1437 Ap 12 '54
Starch in cane; abstract. R. T. Balch. Chem & Eng N 32:3835 S 27 '54
Starch output grows; Brown & Polson, ltd. Chem Age (Lond) 70:1044 My 8 '54
Starch studies. A. W. Bauer and E. Pacsu. bibliog(72 ref) Textile Res J 23:853-77 D '53
Starches and starch products as depressants in amine flotation of iron ore. C. S. Chang and others. bibliog il Min Eng 5:Trans 1282-6 D '53
Starches tailor-made for the paper industry. T. A. White. Tappi 37:sup 156A-8A Je '54
Study of new techniques in warp-size preparation. il Am Dyestuff Rep 42:300-11 My 11 '53
Substituted silyl derivatives of starch. R. W. Kerr and K. C. Hobbs. Ind & Eng Chem 45:2542-4 N '53
Surface sizing of paper and board. J. E. Killinger. Tappi 37:sup 153A-6A Je '54
Susceptibility of the starch in fresh and stale bread to enzymatic digestion. S. S. Jackel and others. bibliog Science 118:18-19 Jl 3 '53
Use of starches as aids in the production of papers containing mineral fillers. M. L. Cushing. Pulp & Pa of Can (Convention no) 55:163-5 [F] '54
See also
Amyloses
Cornstarch
National starch products, inc.
Potato starch

STARCH—*Continued*

Analysis

Amperometric method for determining the sorption of iodine by starch. B. L. Larson, K. A. Gilles and R. Jenness. bibliog Anal Chem 25:802-4 My '53

Assay of certain organic materials by dichromate oxidation. N. F. Schulz. Anal Chem 25:1762-4 N '53

Manufacture

Splits starch continuously; new electrolytic oxidation process. il diag Chem Eng 60:118 O '53

STARCH factories

Waste

Wastes from potato starch plants. T. W. Ambrose and C. O. Reiser. bibliog flow sheet Ind & Eng Chem 46:1331-4 Je '54

STARDUST (play). See Insurance, Life—Plays

STARK effect

Method for the estimation of the relative intensities of microwave absorption lines. D. H. Baird and G. R. Bird. bibliog diags R Sci Instr 25:319-23 Ap '54

STARR, Cornelius V. 1892-

Sketch. por East Underw 55:15 Mr 12 '54

STARS

Comparisons of stellar scintillation with image motion. R. Hosfeld. il diag Opt Soc Am J 44:284-8 Ap '54

Larger and older universe. G. W. Gray. il diags Sci Am 188:56-66 Je '53

Why do galaxies have a spiral form? C. H. Payne-Gaposchkin. il Sci Am 189:89-99 S '53

Spectra

Error in measurements of equivalent widths. A. J. Deutsch. Opt Soc Am J 44:492-3 Je '54

STARS, Double

Binary stars and the velocity of light. P. Moon and D. E. Spencer. bibliog Opt Soc Am J 43:635-41 Ag '53

STATE accounting

Simplifying state accounting for federal health grants. P. E. Fox and D. I. Zwick. Pub Health Rep 68:1071-7 N '53

STATE and literature. See Literature and state

STATE bonds

State and city department bond proposals and negotiations. Published in weekly Monday numbers of Commercial and financial chronicle

Voters o.k. $800-million in new bond issues. Bsns W p74 N 14 '53

STATE contracts. See Contracts, State

STATE employees

Labor-management relations in the Illinois state service. R. C. McFadden. 58p pa $1 Institute of labor and industrial relations, cooperating with the Institute of government and public affairs, Univ. of Illinois, Urbana '54

Public employees; overlooked quotients in safety. H. D. Jones. Pub Works 85:141-2 Mr '54

Taking a cue from business; Connecticut uses job evaluation. Bsns W p 139 S 12 '53

STATE finance

Forecasting state and local expenditures. G. W. Mitchell. J Bsns 27:17-21 Ja '54

North Carolina story; steady and stable. E. Gill. Manuf Rec 123:65-6 Ja '54

See also

Taxation, State

STATE governments

See also

Public health departments

Public utilities commissions

STATE highway officials, American association of. See American association of state highway officials

STATE insurance. See Insurance, State

STATE laws

Highlights of 1953 state banking legislation. J. R. Vincens. Banking 46:82+ D '53

IBA state legislation committee on SEC and state laws impeding capital flow. Comm & Fin Chr 178:2389+ D 17 '53

Report by New Jersey association of insurance agents legislative committee. East Underw 54:53 O 2 '53

State laws on financing and staffing local health departments. C. H. Greve and K. J. Connor. Pub Health Rep 68:955-61 O '53

State legislation affecting trusts and estates; ABA committee report. Trusts & Estates 92:788-92 O '53

Tax slowup marks this year's state lawmaking. Bsns W p 144+ Ag 8 '53

See also

Price fixing, Resale

Taxation, State

STATE loan and finance corporation

Debenture offering completed. Comm & Fin Chr 178:670 Ag 24 '53

STATE parks and reserves

Georgia story; recreation. il Manuf Rec 123:87-90 My '54

STATE planning and development agencies, Southern association of. See Southern association of state planning and development agencies

STATE planning boards

More state aid; Massachusetts business development corp. Bsns W p 128 O 24 '53

New England leads in financial resources and innovations. A. C. Neal. Iron Age 173:138-9 Je 24 '54

STATE publications

Bibliography

State manual procurement guide. D. O. Hotaling. Special Lib 44:228-32 Jl-Ag '53

STATE taxation. See Taxation, State

STATIC electricity. See Electricity, Static

STATICS

See also

Dynamics

Elasticity

Electrostatics

Hydrostatics

Strains and stresses

STATISTICAL mechanics

Imperfect gas. T. H. Berlin and others. Phys R 92:189-201 O 1 '53

Influence of the packing on the atomform-factor based on the Thomas-Fermi theory. K. Umeda and Y. Tomishima. bibliog J Chem Phys 21:2085-6 N '53

Markoff random processes and the statistical mechanics of time-dependent phenomena; irreversible processes in fluids. M. S. Green. bibliog J Chem Phys 22:398-413 Mr '54

Problem on the energies of molecules. E. J. Slowinski, jr. J Chem Educ 30:579-80 N '53

RLC canonic forms. F. M. Reza. bibliog diags J Ap Phys 25:297-301 Mr '54

Statistical mechanical theory of transport processes; a calculation of the coefficients of shear and bulk viscosity of liquids. R. W. Zwanzig and others. J Chem Phys 21:2050-5 N '53

Statistical mechanics and the Overhauser nuclear polarization effect. C. Kittel. Phys R 95:589-90 Jl 15 '54

Statistical mechanics of dilute polymer solutions; evaluation of thermodynamic interaction parameters from dilute solution measurements. W. R. Krigbaum and P. J. Flory. bibliog Am Chem Soc J 75:5254-9 N 5 '53

Statistical mechanics of dilute polymer solutions; thermodynamic parameters for the system polystyrene-cyclohexane. W. R. Krigbaum. bibliog Am Chem Soc J 76:3758-64 Jl 20 '54

Statistical theories as applied to the glassy state. O. L. Anderson and D. A. Stuart. bibliog(40 ref) Ind & Eng Chem 46:154-60 Ja '54

Statistical theory of nuclear reactions. B. L. Cohen. bibliog Phys R 92:1245-8 D 1 '53

See also

Bose-Einstein statistics

Distribution function

Molecular dynamics

STATISTICAL methods

Application of statistics to reaction kinetics. W. R. McBride and D. S. Villars. bibliog Anal Chem 26:901-4 My '54

Application of the laws of chance to problems involving defects in optical glass. J. C. Young. diag Am Cer Soc Bul 32:407-12; 33:8-11 D 15 '53-Ja 15 '54

Assuring a quality product; General Electric quality control method for its packaged air conditioners. R. G. Cordes. il Refrig Eng 62:38-40 Ja '54

STATISTICAL methods—*Continued*

Better yield through dimensional control in small-sawmill operation. J. S. Bethel. A S M E Trans 76:623-6 My '54

Circular normal distribution; theory and tables. E. J. Gumbel and others. bibliog diags Am Stat Assn J 48:131-52 Mr '53

Computers, statistics, and mathematics. A. Rose and others. Ind & Eng Chem 46:916-22 bibliog(163 ref, p920-2) My '54

Control of quality in melting and casting magnesium alloys for hot working; abstract. R. G. Wilkinson and S. B. Hirst. Metal Prog 64:138+ N '53

Distinction between enumerative and analytic surveys. W. E. Deming. diags Am Stat Assn J 48:244-55 Je '53

Distributions of signals and noise after rectification and filtering. M. A. Meyer and D. Middleton. bibliog diags J Ap Phys 25:1037-52 Ag '54

Equivalence of optimum transducers and sufficient and most efficient statistics. G. W. Preston. bibliog J Ap Phys 24:841-4 Jl '53

Estimating the ratio between the proportions of two classes when one is a subclass of the other. J. M. Elkin. Am Stat Assn J 48:128-30 Mr '53

Evaluation of polarization diversity performance. J. L. Glaser and L. P. Faber, jr. diag Inst Radio Eng Proc 41:1774-8 D '53

Evaluation of several sets of constants and several sources of variability. V. W. Vaurio and C. Daniel. bibliog diags Chem Eng Prog 50:81-6 F '54

Expression for the gust alleviation factor. M. L. Williams. J Aeronautical Sci 20:723 O '53

General technology of computers, statistics, and mathematics. A. Rose, J. A. Schilk and R. C. Johnson. Ind & Eng Chem 45:933-40 bibliog(227 ref, p938-40) My '53

How quality control touches everywhere and gives help everywhere it touches; reports of two panels on quality control. S A E J 62:22-4 Ap '54

How three firms do it; controlling clerical errors. il Am Bsns 24:13+ F '54

How to use short-cut statistics. F. Proschan and A. R. Babcock, jr. Chem Eng 61:193-7 S '54

L3 coaxial system; application of quality control requirements in the manufacture of components. R. F. Garrett and others. il Bell System Tech J 32:969-1005 Jl '53

Management's responsibility for the use of statistical techniques in industry. W. E. Deming. Advanced Management 18:8-12 N '53

Mathematics necessary for quality control in mass production. M. Parran. Metal Prog 66:supA 166+ Jl 15 '54

Multifactor experiment. C. Daniel and E. W. Riblett. bibliog Ind & Eng Chem 46:1465-8 Jl '54

Nature of the statistical observer. D. Middleton. J Ap Phys 25:127 Ja '54

Operational analysis; statistical approach. C. B. Allen. N A C A Bul 35:459-76 D '53

Possibilities for systematic control in wool yarn production. G. H. Thorndike and A. Brearley. bibliog Textile Inst J 44:P794-805 D '53

Practical production tolerances in the design of electric timing units. W. J. Grosjean. il diags Machine Design 26:108-14 Je '54

Practical uses of statistical quality control. M. H. Saltz. il Tool Eng 32:49-52 F; 66-71 Mr '54

Prediction of development effort. J. M. Reed. bibliog il Aero Digest 67:17-22 Ag '53

Process kinetics; factorial design in the study of chemical reactions. H. Grohskopf. bibliog Ind & Eng Chem 45:1260-6 Je '53

Quality control in spot welding aluminum. F. H. Matthews. il diags Welding J 32:1181-94 D '53

Quality control in the blowing room and its effect on production in subsequent departments. S. Vaswani. diag Textile Inst J 45:P 16-28 Ja '54

Quality control through statistical methods. N. L. Enrick. diags Mod Textiles Mag 34:32-3+ O; 43-6 N; 79-82 D '53; 35:49+ Ja; 35+ F; 44+ Mr; 44+ Ap; 42-3+ My '54

Simple optical method for measuring the statistical distribution of water surface slopes. A. H. Schooley. il diag Opt Soc Am J 44:37-40 Ja '54

Some applications of statistical analysis in the steel industry. J. W. W. Sullivan. il Metal Prog 64:91-6+ D '53

Some quick and easy statistical methods. J. D. Hinchen. Tappi 37:sup 182A-4A My '54

Some statistical methods used in studies of steel plant operations. A. P. Woods. Blast F & Steel Pl 42:649-52+ Je '54; Excerpt. Iron & Steel Eng 31:137-8 Ag '54

Statistical analysis of icing-flight observations. E. Z. Gilutin. J Aeronautical Sci 20:856 D '53

Statistical approach to the solution of textile problems. R. W. Jacoby. Am Dyestuff Rep 43:490-3+ Ag 2 '54

Statistical aspects of specifications. H. H. Johnson. Mech Eng 75:447-50 Je '53

Statistical control aids management-by-exception. R. K. Mueller. il N A C A Bul 34:1297-306 Je '53

Statistical control methods as applied to cutting tools; International harvester co. W. H. Seacord and F. L. Helmel. il diag S A E J 62:55-7 My '54

Statistical-control technique, management's radar. R. I. Tenney. diags Food Eng 26:44-6 Mr '54

Statistical criteria for the detection of pulsed carriers in noise. D. Middleton. bibliog J Ap Phys 24:371-91 Ap '53; Discussion. 25:128-30 Ja '54

Statistical design. W. J. Youden. Ind & Eng Chem 46:sup 107A-9A F; sup 111A-12A+ Ap; sup 115A-16A Je; sup99A-100A+ Ag; sup 119A-20A+ O; sup 105A-6A D '54

Statistical hydrodynamics in porous media. A. E. Scheidegger. bibliog J Ap Phys 25:994-1001 Ag '54

Statistical methods for evaluation of several sets of constants and several sources of variability. H. Scheffé. Chem Eng Prog 50:200-5 Ap '54

Statistical quality control approach to the control of plating solutions. A. D. Woodell. il Metal Finishing 51:54-8 D '53

Statistical quality control; Buffalo works of Aluminum co. of America. A. J. Kukla. Foundry 81:120-4+ D '53

Statistical quality control for paper mills. J. Theriault. diag Tappi 37:sup 161A-3A Ap '54

Statistical quality control for the plater. J. B. Kushmer. Metal Finishing 52:64-8 S '54

Statistical quality control in small-lot heavy manufacturing; Imperial works. L. W. Bosch. Factory Management 111:98-101 N '53

Statistical quality control in waste treatment. J. M. Fairall. bibliog Sewage & Ind Wastes 25:1282-8 N '53

Statistical research in the chemical industry. T. Cauter. Chem & Ind p 1251-2 N 21 '53

Statistical study of selective fading of super-high frequency radio signals. R. L. Kaylor. il Bell System Tech J 32:1187-202 S '53

Statistical theory of detection of a randomly modulated carrier. W. M. Stone. bibliog J Ap Phys 24:935-9 Jl '53

Statistical theory of extreme values and some practical applications; abstract. E. J. Gumbel. Instruments & Automation 27:1298 Ag '54

Statistical treatment of exposure test data; abstract. H. R. Touchin. Paint Oil & Chem R 117:33-4 Ja 28 '54

Statistics in the design of exposure tests; abstract. H. R. Touchin. Paint Oil & Chem R 117:25 Jl 29 '54

Statistics on the move; chemical engineers finding them valuable. il Chem Eng 60:118+ D '53

Studies of telephone traffic with the aid of a machine. S. W. Broadhurst and A. T. Harmston. bibliog diags Inst E E Proc 100 pt 1:259-69; Discussion. 269-74 S '53

Ten practical uses of statistical quality control in metallurgical plants. J. W. Hood. il Metal Prog 64:82-8 N '53

STATISTICAL methods—*Continued*

Tests involving several variables. O. Redlich and F. R. Watson. Aeronautical Eng R 12:51-9 Je '53

Trial technique for quality control; Roylon inc. il Steel 134:92-4 Ja 11 '54

Use of statistical methods in design; abstract. D. B. Duncan. Roads & Eng Constr 92:169+ Ap '54

Use of statistics in accounting control. R. M. Trueblood. N A C A Bul 34:1561-71 sec 3 Jl '53

Using statistical tools to keep costs current. C. W. Bendel. N A C A Bul 34:1307-26 Je '53

Wind extremes as design factors. A. Court. bibliog Franklin Inst J 256:39-56 Jl '53

See also

Business forecasting
Chemistry, Analytic—Statistical methods
Control charts
Correlation (statistics)
Graphic methods
Index numbers (economics)
Least squares
Operations research
Probabilities
Punched card system
Recurrence formula
Sampling (statistical methods)
Standard deviation
Time series

Bibliography

Book reviews. Published in quarterly numbers of Journal of the American statistical association

STATISTICS

Statistics and the public interest. A. J. Wickens. Am Stat Assn J 48:1-14 Mr '53

See also

Business statistics
Census
Commercial statistics
Correlation (statistics)
Economic statistics
Financial statistics
Government statistics
Index numbers (economics)
Industrial statistics
Market statistics
Punched card system
Sampling (statistical methods)
Statistical mechanics

also subdivision Statistics under special subjects, e.g.
Population
United States

Yearbooks

See Yearbooks (statistical, historical, etc.)

STATISTICS, Government. See Government statistics

STATISTICS, Industrial. See Industrial statistics

STATISTICS, Vital. See Vital statistics

STAUDINGER, Hermann, 1881-

Nobel ceremony honors chemists. pors Chem & Eng N 32:162, cover Ja 11 '54

Nobel prizes to German, Hollander. por Chem & Eng N 31:4760-1 N 16 '53

STAUFFER chemical company

Further rise in sales, not seen. Barron's 33:25+ D 7 '53

Stock and debentures offered. Comm & Fin Chr 178:1060 S 21 '53

Unveiling a giant to go to public for financing. map Chem W 73:14-15 Ag 29 '53

Wide scope of operations shown in SEC application. Chem & Eng N 31:3632 S 7 '53

STEADYRESTS

Ball-bearing steadyrest cuts marking, friction. R. W. Warner. diags Am Mach 98:168 Mr 15 '54

STEAM

Another high pressure steam block plant; National brick and supply co. il Concrete 61:32 D '53

Chemical nature of silica carried by steam. E. L. Brady. bibliog J Chem Phys 57:706-10 O '53

Cooling rig engines by boiling heat transfer. O. B. Freeman. plans Pet Eng 25:B108+ O '53

Dielectric constant of supercritical steam. J. K. Fogo and others. bibliog diag J Chem Phys 22:209-12 F '54

Disinfecting garbage in truck bodies by direct steam injection. H. A. Bevis and others. bibliog il Pub Health Rep 68:1065-70 N '53

Effect of steam pressure and cycle on autoclaved concrete products. J. K. Selden. bibliog Rock Prod 57:216-18 Ag '54

Effective use of steam cleaning on construction equipment. C. Mathewson. il Roads & Eng Constr 92:130-2+ Ap '54

Electrical conductivity of supercritical solutions of sodium chloride and water. J. K. Fogo and others. bibliog J Chem Phys 22:212-16 F '54

Equilibrium in the steam reforming of natural gas. H. A. Dirksen and C. H. Riesz. bibliog Ind & Eng Chem 45:1562-5 Jl '53

Gas turbines can also use steam! B. Miller. diags Power 98:94-5 Ag '54

Gasification of pulverized coal with steam and oxygen at atmospheric pressure. G. R. Strimbeck and others. bibliog 31pls U S Bur Mines Rep of Invest 5030:1-37 '54

Industry's newest high pressure steam curing plant in Washington, D.C.; National brick and supply co. W. B. Lenhart. il Rock Prod 57:215-18 Ja '54

Kinetics of carbon gasification by steam; mechanism of interaction of low temperature char and steam-hydrogen mixtures at 1600°F. G. E. Goring and others. bibliog Ind & Eng Chem 45:2586-91 N '53

Pyrotechnic reaction employs magnesium and steam; Airtronic research, Bethesda, Md. il Chem & Eng N 31:4778 N 16 '53

Reactions of carbon; carbon-steam reaction at low temperature. W. K. Lewis, E. R. Gilliland and H. Hipkin. bibliog(30 ref) flow diag Ind & Eng Chem 45:1697-703 Ag '53

Role of the steam system in corrugating. P. Harrison. Tappi 37:sup 184A-8A Je '54

Saves 50 per cent of retort steam; heat loss reduced by reflective aluminum foil and dead air space. L. J. Pircon. il diags Food Eng 26:95-6+ S '54

Steam catalysis in calcinations of dolomite and limestone fines. W. H. MacIntire and T. B. Stansel. bibliog(54 ref) il Ind & Eng Chem 45:1548-55 Jl '53

Va-Purge process in chemical pulping. J. S. Hart. il diags Tappi 37:331-5 Ag '54

Wild-Barfield steam tempering furnace. diag Engineer 196:665 N 20 '53

See also

Boilers
Condensers (steam)
Evaporators
Steam engines and other headings beginning Steam
Superheated steam

Tables, calculations, etc.

Curves for figuring steam losses due to jets or leakage. Power Eng 57:92+ N '53

How to make flash steam calculations. Power Eng 58:85 F '54

Thermodynamic table of wet steam; data sheet. B. G. A. Skrotzki. Power 98:109 F; 101 Mr '54

STEAM, Natural

El Salvador puts big bet on volcanic steam power. M. Bannell. Barron's 33:10 N 23 '53

New Zealand engineers harnessing geothermal power potential. il Power 98:96 F '54

STEAM accumulators

Fluctuating steam loads call for heat storage; survey of accumulator storage methods. L. Walter. diags Textile World 104:120-1+ Mr '54

Will an accumulator help this hosiery plant? answers. il diags Power 98:142-4+ Je '54

STEAM boilers. See Boilers

STEAM distribution

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Piping (power plants)

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Boilers
Feed water
Marine engineering
Power (mechanics)
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Steam engines and other headings beginning Steam
Steamboats
Thermodynamics

STEAM engines

Blooming mill engine retired after years of service. il Blast F & Steel Pl 41:1312 N '53

STEAM engines—*Continued*

What is wrong with this engine? diag Power Eng 57:103-5 O; 84-5 N '53

See also

Locomotives
Steam turbines

History

Beam engines at Stoke Newington pumping station, London. il Engineer 196:491 O 16 '53; Engineering 176:501 O 16 '53
Cornish engine in Cornwall. W. K. V. Gale. il Engineering 176:339-43, pl 23 S 11 '53
Traction engine for the Science museum. il Engineering 177:222 F 12 '54

STEAM flow

See also

Steam meters

STEAM generators. See Boilers

STEAM hammers

Research guides design of new air force steam hammer. il Iron Age 173:170 My 20 '54

STEAM heaters

Steam alone powers new system using unit heaters. il diag Power Eng 58:77 F '54

STEAM heating

Central heating system increases; comparative growth of wet-heat and warm air central heating in United States and individual industrial states of New York, Massachusetts and Ohio, over a ten-year period. C. H. Burkhardt. Sheet Metal Worker 45:42-4+ N '53
Develop steam heating system with self-modulated zone control. il diags Am Bld 76:172-3 Je '54
District heating progresses in the last 25 years. J. F. Collins, jr. Heating-Piping 26:110-13 Je '54
Heating costs reduced in two installations. D. B. Tuxhorn. il Heating-Piping 26:106-8 S '54
High school heating system. il Heat & Ven 51:142+ S '54
How to control unit ventilators in school buildings; steam systems. H. W. Alyea. diag Heating-Piping 26:152-5 Ja '54
Walls are six ft thick at Allis-Chalmers betatron laboratory building; heating and ventilating system. J. Williams. il plan Heating-Piping 26:107-9 Mr '54

See also

Boilers, Heating
Heating from central stations
Steam heaters
Steam pipes

STEAM heating, Industrial

Heating liquids directly by steam. il Engineering 177:86 Ja 15 '54

STEAM hose. See Hose

STEAM jacketed kettles. See Kettles, Steam jacketed

STEAM jets

Hi-vac ups output and boosts protection of food quality; frozen poultry pies. C. G. Beisel. flow sheet(p 114-17) il Food Eng 26:60-1+ Jl '54
How to check your jet utilities. P. Messina and others. bibliog il Chem Eng 61:161-4 Ja '54
Steam jets efficiently remove dust from open hearth furnace flues. J. Peterson. il diag J Metals 5:794-5 Je '53
Steam vacuum refrigeration. E. Spencer. il Heating-Piping 26:104-7 Ag; 96-8 S '54
Vacuum cooling of produce. H. P. Hayes. il diags Refrig Eng 62:47-9+; Discussion. 90+ S '54

STEAM locomotives. See Locomotives

STEAM meters

Metering steam in the chemical industry. F. Rose. il Can Chem Process 37:22 O '53
Two-way flowmeter. J. J. Bresnahan. diag Power 98:114 Je '54

STEAM pipe coverings

How a modern piping system was insulated; A. D. Ellis mills. H. E. McGregor. il Textile World 104:121+ Ja '54
How to pick the right pipe insulation. P. J. M. De Leij. Power 97:78-81 N '53

STEAM pipe lines

Bridge supports steam pipe line. M. J. Hannah. il diag Heat & Ven 50:88-90 D '53
Pipe bends can serve a double purpose. B. Dopp. diag Heating-Piping 26:114-17 Ag '54
Piping; built in steam line speeds movement of viscous fluids. il Iron Age 173:144 Ap 1 '54; diags Light Metal Age 12:19 Ap '54

See also

Piping (power plants)

STEAM pipes

Correcting a poor steamfitting job. S. R. Lewis. diags Heating-Piping 25:108 D '53
Flooded coils on closed heating systems. T. W. Reynolds. diags Heat & Ven 51:103-5 Je '54
New steam tracing idea. il diags Power Eng 58:79 Ap '54
Piping for heating coils; detail sheet. diags Heat & Ven 50:9-10 D '53; 51:95-6 F '54
Should we trap superheated steam lines? answers. il diags Power 98:140+ Ap '54
Steam piping must be drained to prevent water hammer and resulting hazards. diag Heating-Piping 26:163 Ja '54
What not to do; these heating and piping installations needed correcting. C. T. Baker. diags Heating-Piping 26:92-4 F '54

See also

Piping (power plants)

Tables, calculations, etc.

Calculation of the thickness of high-temperature steam pipes. J. S. Blair. Engineering 176:549-50 O 30 '53

STEAM plants

Industrial plants; larger units level off, smaller ones gain. Power 98:44-5 Mid-S '54
New steam frontiers achieved in '53. Elec World 140:74 D 28 '53
New steam plant makes Gair's Haverhill mill self-sufficient in power. il Paper Tr J 138:13 Ag 20 '54
Oak Ridge modernizes steam supply. Power Eng 58:67 Jl '54
Traveling steam plants; Chesapeake & Ohio and Chicago & north western railroads. il Power Eng 57:76 N '53

See also

Boiler plants
Boilers
Electric plants
Feed water
Hydroelectric plants—Combination with steam plants
Piping (power plants)
Power plants
Steam
Steam, Natural
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Steam turbines

Auxiliaries

Unified boiler control at Trafford power station. S. E. Shaw. il diag Engineering 176:676-8 N 27 '53

By-product power

Balancing steam demand for heating, process, and power with steam turbines. M. D. Church. il diags Heat & Ven 50:91-8 D '53
Mechanical services in a medium-sized chemical factory. D. W. Evans. il Chem Age (Lond) 71:219-23 Jl 31 '54

Combined power and process steam

Carbide and Carbon moves outdoors for low-cost power, process steam. F. G. Feeley, jr. flow diag il plan diags Power 98:90-3+ My '54
Case history of an 850 p.s.i.g. topping turbine installation. H. R. Emery and P. L. Nelson. diag Tappi 37:196-201 My '54
Design features of industrial power plants. F. W. Argue and J. R. Chapman. diags Pulp & Pa of Can 55:103-7 Ap '54
Goodyear modernizes Akron power plant. W. E. Pickard. flow diag il Power Eng 58:64-5 Jl '54

Condensate recovery

Reduction of condensate-line corrosion. S. Jensen and E. R. Lang. plan A S M E Trans 76:245-9 F '54

Costs

Steam generating station manpower operating costs. V. F. Estcourt. Power Eng 58:88-9 My '54
Steam station cost survey. A. E. Knowlton. il Elec World 140:121-36 Jl 13 '53

STEAM plants—*Continued*

Design

Problems of civil and structural design of steam electric plants for the Pacific gas and electric company in central California, at Antioch and at Pittsburg. W. L. Dickey. il map diags Am Soc C E Proc 79 [no 342]: 1-28 N '53

Efficiency

German plant uses double reheat. F. Marguerre. flow diag Elec World News ed 141: 26 Ja 18 '54

Equipment

Air-preheater size selection to improve overall steam power-plant efficiency; abstract. B. C. Mallory and W. F. Allen, jr. Power 98:154 S '54

Bokaro thermal power station. il map Engineer 197:327-30 F 26 '54

Colliery sludge as power station fuel; Emile Huchet power station. R. Gibrat and F. Chenin. Engineering 177:308-9 Mr 5 '54

Con Edison's Astoria station features. H. Knecht and J. G. Noest. il plan diags Elec World 140:92-5+ Jl 27 '53

Controlled circulation at Chesterfield. T. E. Crossan and W. F. Ryan. il diags A S M E Trans 76:727-33; Discussion. 733-4 Jl '54

Design features of industrial power plants. F. W. Argue and J. R. Chapman. diags Pulp & Pa of Can 55:103-7 Ap '54

Electrical and mechanical features of the Niles generating station; abstract. C. E. Asbury and J. C. Beres. Power 98:236+ Mr '54

Half million gpm of condensing water used by TVA's Johnsonville steam plant. C. W. Bolieau. il plans diags Civil Eng 23:376-9 Je '53

High-pressure plant at Portobello power station. il plan diags Engineering 177:174-9, 206-9 F 5-12 '54

How much equipment is placed outdoors in today's new plants? B. G. A. Skrotzki. Power 98:92-3 Ja '54

Lignite fuels 240,000-kw Alcoa plant at Rockdale. il diag Power Eng 58:80-2+ Je '54

Littlebrook. il plan diags Elec R (Lond) 154: 3-11 Ja 1 '54

Malta's new power station. il map Elec J 151:2023-6 D 18 '53

Metering steam in the chemical industry. F. Rose. il Can Chem Process 37:22 O '53

Methane gas power station; Emilia power station of the Societá Edison. il Elec R (Lond) 153:923-6 O 23 '53

Modernization; profits for the taking. il diags Power 98:59-96 Mid-S '54

New firing method cuts power cost; Cyclone furnace. S. T. MacKenzie. diags Elec World 140:130-3 D 14 '53

New Kearny generating station; Public service electric and gas co. il Welding J 33: 564-5 Je '54

New Kearny generating station; Public service electric and gas co. F. P. Fairchild. il plan diags A S M E Trans 76:735-48 Jl '54

New TVA steam plant's piping design. R. E. Lyon. il Heating-Piping 26:100-4 S '54

1954 design survey; typical industrial, institutional steam plants; tabulation. Power 98:46-50 Mid-S '54

Ohio Edison selects load center generation; Niles station in Youngstown-Warren area. J. H. Foote. il maps diags Elec World News ed 141:16-18+ F 1 '54

Peat fired power station. il Elec R (Lond) 153:1010-12 O 30 '53

Penal power station. il Elec J 151:1381-4 O 30 '53

Power and steam for Stevens' woolens. F. C. Hatch. il Power Eng 58:68-9 Ja '54

Power engineers take long step to 4500-psi, 1150-F steam. C. R. Earle. il diags Power Eng 58:58-61 Ja '54

Remote signalling with telecommand equipment. il Elec Com 30:217-21 S '53

Sara keeps watch at three TVA steam plants; sequential automatic recording annunciator. R. M. Alspaugh. il diags Power Eng 58: 66-8 F '54

Several firsts for Detroit mark new St Clair plant. H. A. Wagner and W. W. Brown. il diags Elec World News ed 140:32-4 Ag 3 '53

Some design features of the semi-outdoor power station at Ince. F. H. S. Brown. il plan diag Engineer 196:806-9 D 18 '53

Steels for steam power plant. A. M. Sage. bibliog il Inst Mech Eng Proc (A) 167 no 4: 414-24; Discussion. 424-33 '53; Engineer 195:419-21 Mr 20 '53

Uskmouth power station. il diag Engineer 196:458-61 O 9 '53; Engineering 176:552-5, pl 31 O 30 '53; Elec J 151:1115-18 O 9 '53; Elec R (Lond) 153:809-14 O 9 '53

See also

Condensers (steam)	Steam turbines
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High pressure

ABC of superpressure. diags Power 97:162 O; 140 N; 144 D '53; 98:146 Ja; 146 F '54

Controlled-circulation boiler. W. H. Armacost. il diags A S M E Trans 76:715-25 Jl '54

Design of steam piping and valves for 1100 F. F. A. Ritchings and S. Crocker. bibliog(34 titles) A S M E Trans 76:261-71 F '54; Same. Heating-Piping 25:84-8 Ag; 82-8 S '53; Discussion. A S M E Trans 76:271-7 F '54; Same. Heating-Piping 25:84-90+ O '53

Designing superpressure feed pumps. H. Gartmann. il diags Power 97:71-4 N '53

Developing the first commercial supercritical steam generator; Babcock & Wilcox co. W. H. Rowand. il diags Power 98:73-80 S '54

1130-F power station; Farbenfabriken Bayer Leverkusen-Bayerwerk, Germany. Mech Eng 75:1005-6 D '53

European practice with Sulzer monotube steam generators. J. Gastpar. il diags A S M E Trans 75:1345-61; Discussion. 1361-2 O '53

High-pressure high-temperature unit. P. Sporn and others. Mech Eng 75:575-6 Jl '53

High-pressure plant at Portobello power station. il plan diags Engineering 177:174-9, 206-9 F 5-12 '54

High-speed feed pumps for superpressures. I. J. Karassik. il diags Power 98:73-8 Ja; 82-4+ F; 78-80 Mr; 80-3 Ap; 88-9 My; 107 Je '54

How will we lick superpressure problems? T. Baumeister. diags Power 98:93-5+ Jl '54

Metallic materials for a steam power plant operating at 1130° F. H. Buchholtz and others. il Metal Prog 65:116-20+ Ja '54

New power generation milestone; Philo station of Ohio power co. P. Sporn. il diags Elec World 139:72-6+ Je 29 '53

Power engineers take long step to 4500-psi, 1150-F steam. C. R. Earle. il diags Power Eng 58:58-61 Ja '54

Quick-starting of large-pressure high temperature boilers. J. C. Falkner. il diags A S M E Trans 75:1407-60 N '53; Excerpts. Power Eng 57:100-1+ Ap '53; Discussion. A S M E Trans 75:1461-80 N '53

Stepping up steam power. il Bsns W p 136+ N 14 '53

Which piping for high pressure and temperature? C. D. Bassett. bibliog il Power Eng 58:70-1+ S; 110 O '54

Process steam

Prime pointers on generating and using process steam. J. H. Bock and L. Newsome. il Food Eng 26:96-8 My '54

Transmission of low-pressure steam for process heating. L. F. C. A. Geneve. Inst Mech Eng Proc (A) 167 no 4:394-8; Discussion. 398-401 '53

STEAM plants, Outdoor

Carbide and Carbon moves outdoors for low-cost power, process steam. F. G. Feeley, jr. flow diag il plan diags Power 98:90-3+ My '54

How do the operators like outdoor power plants? il Power Eng 58:68-70 Je '54

How much equipment is placed outdoors in today's new plants? B. G. A. Skrotzki. Power 98:92-3 Ja '54

STEAM traps

Conventional steam trap systems. C. D. Nitchie. Tappi 37:sup 179A-81A Je '54

STEAM traps—*Continued*

Facts about modern traps and strainers. diags Mill & Factory 54:472 My '54

Should we trap superheated steam lines? answers. il diag Power 98:140+ Ap '54

Steam trap preventive maintenance. T. H. Rea. diags Power Eng 57:70-1 D '53

Steam trapping. K. G. Oliver. diags Instruments & Automation 27:470-3 Mr '54

What does it cost to repair steam traps? data sheet. il Heating-Piping 26:108 Ap '54

STEAM turbines

Balancing steam demand for heating, process, and power with steam turbines. M. D. Church. il diags Heat & Ven 50:91-8 D '53

Basic power plant figuring; process extraction turbine. W. H. Engelman and H. W. Engelman. Power Eng 58:84-5+ S '54

Carbon-packing progress for sealing small turbines. K. MacDonald. il diags Power 98:122-3+ Jl '54

Comparison of electric motors and steam turbines as drivers for fluid catalytic cracking units. H. C. Mayo. flow diags diags Pet Refiner 32:96-100 Ag '53; Excerpts. Oil & Gas J 52:86-8+ S 7 '53

Design features of certain British power stations. S. D. Whetman and A. E. Powell. Inst E E Proc 100 pt 1:225-9 S '53; Same cond. Engineering 175:349-50 Mr 13 '53

Metallurgical aspects of high-temperature steam and gas turbine plants; abstract. J. M. Robertson. Engineer 197:169 Ja 29 '54

New reheat turbines at Kearny; first to use 1100-F throttle steam; illustrations and diagrams with text. Power 98:100-4 Ap '54

Steam and or Diesel for your small or medium-sized power plant. C. M. Stanley and S. K. Fosholt. il Power 98:84-7+ Jl '54

Turbine developments; marine and land, steam and gas; abstract. T. W. F. Brown. Engineering 177:148-9 Ja 29 '54

Turbine driven compressors furnish refrigeration for air conditioning Harris county court house in Houston. I. A. Naman and J. B. Buckley. il diag Heating-Piping 26:160-2 Ja '54

Two steam turbine drive machines raise production 12 to 13 per cent; Northwest paper co. il Mill & Factory 53:148 D '53

Unit no. 2 on line at St Clair. il Power Eng 58:71 Mr '54

Versatile turbine boasts unique operation. W. T. Manning. diags Power 98:105+ My '54

Bearings

Static charges might cause turbine bearing failures. Power Eng 58:73-4 My '54

Design

High-pressure plant at Portobello power station. il plan diags Engineering 177:206-9 F 12 '54

Efficiency

Effect of exhaust pressure on the economy of condensing turbines. A. Keller and J. E. Downs. diag A S M E Trans 76:445-51 Ap '54

For low-cost generation, study heat cycle arrangement. D. E. Hart. flow diag Elec World 140:96-9 D 28 '53

Short method for the evaluation of the effect of some thermal-cycle variations on steam-turbine heat rates. S. D. Fulton. diags A S M E Trans 76:655-64 My '54

Lubrication

How does the makeup rate affect life span of your turbine oil? H. H. Zuidema. il Power 98:108-9 Je '54

Maintenance and repair

Let's inspect and overhaul your steam turbine now. S. Elonka. il Power 97:106-13 N '53

Method for truing collector rings. E. Stumpp. diags Power Eng 58:81 S '54

New life for old turbines. G. Ingram and E. Sebring. il Power 98:116 Ap '54

Protection

They thought this turbine unit had overspeed protection. il Power Eng 58:80-2 My '54

Turbine-generator controls, protections, and accessories; abstract. G. W. Cunningham and M. A. Eggenberger. Elec Eng 73:261 Mr '54

Starting

Controlled starting of steam turbines. R. L. Reynolds. diags A S M E Trans 75:1461-4 N '53

Factors involved in the starting and subsequent loading of modern steam turbines. C. W. Elston. il Blast F & Steel Pl 41:524-9+ My '53; Same cond. A S M E Trans 75:1465-8 N '53

Quick-starting of steam turbines. C. D. Wilson. il diags A S M E Trans 75:1473-5 N '53

Testing

Supervisory instruments for steam turbine. J. E. Spahr. il diags Blast F & Steel Pl 41:1458-61; 42:102-3 D '53-Ja '54

STEAM turbines, Marine

High temperature turbine machinery for marine propulsion. T. W. F. Brown. diags Engineer 197:122-7, 158-61 Ja 22-29 '54; Abstracts. Elec J 152:294 Ja 22 '54; Elec R (Lond) 154:188-9 Ja 29 '54

Blades

Double-check your turbine blades. F. J. McCloud. il Marine Eng 59:57-8 Jl '54

Testing

Pametrada research station; material investigations in progress. il Metallurgia 48:228-32 N '53

STEAMBOAT lines

Securities

Transportation; with statistical data on three transportation groups. R. Carleson. Mag of Wall St 92:724-5+ S 19 '53

STEAMBOATS

Greek line steamship Olympia. il plan Engineer 196:726-8, 770-2 D 4-11 '53

Launch of P. & O. liner Iberia. il Engineering 177:134 Ja 29 '54

Miniature steamship sails Long Island waters. il Marine Eng 58:103 D '53

P. and O. liner Arcadia. il plan diags Engineer 197:279-80, 321-3, 345-6, 380-1 F 19-Mr 12 '54

Richard M. Marshall; ore carrier design pays off in efficiency and economy. H. C. Downer. il plans diags Marine Eng 59:44-60 Je '54

R.M.S. Andes. il Engineer 196:500-1 O 16 '53

690-foot Ernest T. Weir largest Lakes-built ore carrier. il plans diags Marine Eng 59:36-46 Ap '54

SS United States. W. F. Gibbs. Franklin Inst J 256:545-9 D '53

Sun Ship delivers tanker Eclipse. il Marine Eng 59:36-46 My '54

Texas company develops new class of coastwise tanker. il plans diags Marine Eng 58:62-76 N '53

Tina Onassis, oil tanker. il Engineer 197:92-3 Ja 15 '54

Two important ship launches; S.S. World Harmony and Cunard liner Saxonia. il Engineering 177:262 F 26 '54

Two steam tugs for Southampton. G. W. Tripp. il Engineer 196:814-16 D 18 '53

Versatile Marine Dow-Chem. il plans diags Marine Eng 59:38-45 S '54

See also

Boilers, Marine
Naval architecture
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Ships
Steam turbines, Marine
Steamboat lines

History

Aaron Manby and the first iron steamship. Engineering 177:229 F 19 '54

STEARATO chromic chloride. See Chromium chloride

STEARIC acid

Fatty acid amides; preparation of substituted amidostearic acids by addition of nitriles to oleic acid. E. T. Roe and D. Swern. bibliog Am Chem Soc J 75:5479-81 N 20 '53

STEARIN

Some physical properties of the polymorphic forms of 1,2-diaceto-3-stearin and 1-aceto-3-stearin. E. J. Vicknair, W. S. Singleton and R. O. Feuge. bibliog J Phys Chem 58:64-6 Ja '54

STEATITE

Selected materials, micro-control, assure high precision steatite. flow sheet il Cer Ind 63:76-7 Jl '54

Ultra-fine talcs in low-loss steatite bodies. R. S. Lamar and W. W. Gaskins. bibliog il Am Cer Soc Bul 33:111-16 Ap 15 '54

See also

Talc

STECK, Leo Varner, 1898-

Steck's test tubes paid off in award by Commercial chemical development association. por(cover) Chem & Eng N 32:830 Mr 1 '54

STEEL

Adsorption studies on metals; the sorption of water vapor on nickel, steel and molybdenum. A. C. Zettlemoyer and J. J. Chessick. bibliog J Phys Chem 58:242-5 Mr '54

Alphabetical list of some of the more common refinery alloys and steels. W. L. Nelson. Oil & Gas J 52:164 N 9; 137 D 7 '53; 100 Ja 4 '54

Annual materials engineering review and forecast; irons and steels. T. C. DuMond. il Materials & Methods 39:114-17 Ja '54

Anomalous behavior of ammonium chloride particles on the corrosion of steel in humid atmospheres. B. Sanyal and R. S. Preston. bibliog il Chem & Ind p995-7 S 19 '53

Applications of calorimetry, with reference to magnetic steels. K. L. Morphew. bibliog Engineering 176:765 D 11 '53

Corrosive action of dissolved gases on steel in water. J. W. Watkins and J. Wright. bibliog il diag Pet Eng 25:B50-1+ N '53

Directory of materials; ferrous metals, trade-names and information; index by type of material. Machine Design 26:5-6+ sec 2 My '54

Energy loss in steel. il Steel 134:124 Mr 15 '54

Free surface motion induced by shock waves in steel. W. A. Allen. bibliog il diag J Ap Phys 24:1180-5 S '53

Galvanic corrosion theory for adherence of porcelain enamel ground coats to steel. D. G. Moore and others. bibliog il diags Am Cer Soc J 37:1-6 Ja 1 '54

German report on hot work steels; with table. H. M. Hiller. Materials & Methods 39:163-4 Mr '54

Getting more for your steel dollar; high-strength, low-alloy steels. A. F. Stuebing. il Steel 133:90-2 O 5 '53

Guide for steel buyers; electrical steel. Steel 135:48-50 sec 2 Jl 12 '54

Hardness conversion tables; engineering file facts. Materials & Methods 39:135, 137 Mr '54

Initiation of plastic strain in plain carbon steels. C. S. Roberts and others. Am Soc for Metals Trans 44:1150-7 '52

Materials of construction for chemical engineering; iron, mild steels, and low-alloy steels. H. L. Shaw. bibliog(85ref) il Ind & Eng Chem 45:2205-10 O '53

Properties of chemical engineering materials of construction. H. L. Shaw. Ind & Eng Chem 45:2276-9 O '53

Properties of free cutting steels; engineering file facts. Materials & Methods 40:133 Jl '54

Rare earth additions affect surface quality of low carbon steel. J. V. Russell. bibliog il J Metals 6:438-42 Ap '54

Selection of constructional steels; supplement to 1948 edition of Metals handbook. Metal Prog 66:1-20F Jl 15 '54

Slide rule for calculating steel quantities. Engineer 197:260 F 12 '54

Some recent developments in steel production and products. W. A. Dennis. bibliog il J Chem Educ 30:491-5 O '53

Steel and aluminium alloys in proximity. U. R. Evans. bibliog Engineering 177:34-5 Ja 8 '54

Steel and iron required for modern-day products; tabulation. Steel 134:171 Ja 4 '54

Steels for permanent magnets. J. C. Williamson. il Elec R (Lond) 153:1101-5 N 13 '53

Surface reactions of steel in dilute $Cr^{51}O_4^{=}$ solutions; applications to passivity. R. A. Powers and N. Hackerman. bibliog il Electrochem Soc J 100:314-19 Jl '53; Discussion. 101:332-4 Je '54

See also

Bessemer process
Bridges, Iron and steel
Case hardening
Chromium nickel steel
Chromium steel
Concrete, Reinforced
Corrosion and anticorrosives
Foundry practice
Iron
Manganese steel
Molybdenum steel
Nickel steel
Open hearth process
Pipes, Steel
Rails
Rolling (metal work)
Rolling mills
Sheet steel
Silicon steel
Springs (mechanism)
Steel, Aircraft and other headings beginning Steel
Tool steel
Tubes, Steel

Aging

Effects of vanadium or chromium on the strain ageing of rimming steels. W. R. D. Jones and G. Coombes. bibliog il Iron & Steel Inst J 174:9-15 My '53; Abstract. Metal Prog 64:186+ N '53

Influence of aluminum and silicon deoxidation on the strain aging of low-carbon steels. W. C. Leslie and R. L. Rickett. bibliog J Metals 5:Trans 1021-31 Ag '53; Discussion. 6:Trans 701 sec 2 My '54

Influence of aluminium on strain ageing. W. C. Leslie and R. L. Rickett. Engineer 196:398-9 S 25 '53

Strain aging effects. J. D. Lubahn. bibliog diags Am Soc for Metals Trans 44:643-64; Discussion. 664-6 '52

Titanium-stabilised mild steel; abstract. A. Josefsson and B. Nelson. Engineer 197:172-3 Ja 29 '54

Aluminum content

Aluminum in iron and steel; monograph. S. L. Case and K. R. Van Horn. Review, by F. G. Norris. Metal Prog 66:106-7 Jl 1 '54

How dissolved nitrogen affects graphitization. G. V. Smith. il Iron Age 173:136-9 Ap 15 '54

McQuaid-Ehn grain size determined by spectrochemical analysis. G. E. Ressler. J Metals 5:1622 D '53

Study of effects of variables on the creep resistance of steels. H. C. Cross and J. A. VanEcho. bibliog il Am Soc T M Proc 51:223-9 '51

Analysis

Application of echelle spectrographs to quantitative analysis of boron in steel. W. G. Kirchgessner and N. A. Finkelstein. bibliog il diags Anal Chem 25:1034-8 Jl '53

Application of the ARL quantometer to production control in a steel mill. H. C. Brown. J Metals 6:Trans 349-52 Mr '54

Assessment of individual sources of error in the combustion method for the determination of sulphur in steel; mild steel. T. B. Smith, A. Backhouse and P. Woodward. bibliog diag J Ap Chem 4:75-82 F '54

Develop improved method of testing steel for hydrogen. Iron Age 173:154+ My 13 '54; il Materials & Methods 40:220+ Jl '54

Extraction of heteropoly acids. C. Wadelin and M. G. Mellon. bibliog(31 ref) Anal Chem 25:1668-73 N '53

McQuaid-Ehn grain size determined by spectrochemical analysis. G. E. Ressler. J Metals 5:1622 D '53

Metal sampling; device takes metallurgical samples from liquid metal. Iron Age 172:209-10 N 5 '53

Modern spectrography; speed pays high cost of knowing. N. Lynn. il Steel 133:106+ N 30 '53

Photometric determination of columbium, tungsten, and tantalum in stainless steels. L. Ikenberry, J. L. Martin and W. J. Boyer. bibliog Anal Chem 25:1340-4 S '53

Quick analysis leads to better steel; quantometer installations. il Steel 133:122+ S 7 '53

Spectrographic analysis of foundry metal; Campbell, Wyant & Cannon foundry co. L. E. Harper. il Foundry 82:112-13 S '54

STEEL—Analysis—*Continued*

Spectrographic determination of certain rare earths in stainless steels. E. W. Spitz and others. bibliog Anal Chem 26:304-7 F '54

Spectrometer vital for tool steels; Latrobe steel co. W. W. Clarke. il Steel 134:108+ Ap 5 '54

See also

Chromium nickel steel—Analysis

Steel alloys—Analysis

Bibliography

Review of iron and steel literature for 1953. V. S. Polansky. Blast F & Steel Pl 42:537-9+, 675-8+ My-Je '54 [reprinted by Carnegie library of Pittsburgh]

Boron content

A.I.S.I. standard boron steel compositions; data sheet. Metal Prog 66:112B Ag '54

Carbo-nitriding of boron steel; abstract. G. W. Powell and others. Metal Prog 64: 128 D '53

Constitution of iron-boron alloys in the low boron range. M. E. Nicholson. bibliog il J Metals 6:Trans 185-90 sec 2 F '54

Deboronization of steels. J. C. Shyne and E. R. Morgan. il Metal Prog 65:88-90 Je '54

Diffusion and solubility of boron in iron and steel. P. E. Busby and others. bibliog il J Metals 5:Trans 1463-8 N '53

German investigations on boron steels. R. Scherer and K. Bungardt. Metal Prog 65: 101-6+ Mr '54

Hardenability bands for boron steels; charts; data sheet. Metal Prog 65:112B Ap '54

Hardenability; boron steels are losing ground to standard grades. il Steel 133: 138-9 O 12 '53

How do boron steels compare in machinability? N. Zlatin and others. Iron Age 172:94-7 O 29 '53

Pinch of boron doubles yield point of low-carbon steel; Fortiweld steel. il Steel 134: 107-8+ F 22 '54

Brittleness

Brittle failure of nonship steel-plate structures. M. E. Shank. il Mech Eng 76:23-8 Ja '54

Brittle failure of steel structures; a brief history. M. E. Shank. il Metal Prog 66: 83-8 S '54

Brittle fracture; the notched slow-bend test as a criterion; abstract. J. E. de Graaf and J. H. van der Veen. Metal Prog 66:supA 139-40 Jl 15 '54

Brittle strength and transition temperature of structural steel. W. C. Hoeltje and N. M. Newmark. bibliog diags Welding J 31:sup515-21 N '52; Discussion. 33:sup 129-33 Mr '54

Causes of brittle fractures in steel. E. R. Parker. bibliog il Am Gas Assn Proc 1953: 1019-27; Same. Pet Eng (Ref annual) 25: D39-40+ Jl 15 '53

Cleavage strength of polycrystals. N. J. Petch. bibliog Iron & Steel Inst J 174:25-8 My '53; Abstract. Metal Prog 65:184+ Je '54

Effect of grain size upon temper brittleness. L. D. Jaffe and others. bibliog J Metals 5:Trans 1147-8 sec 2 S '53

475°C (885°F) embrittlement in stainless steels. A. J. Lena and M. F. Hawkes. bibliog il J Metals 6:Trans 607-15 sec 2 My '54

Hydrogen embrittlement of steels. J. T. Brown and W. M. Baldwin, jr. bibliog diags J Metals 6:Trans 298-303 sec 2 F '54

Identification of the precipitate accompanying 885°F embrittlement in chromium steels. R. M. Fisher and others. bibliog il J Metals 5:Trans 690-5 sec 2 My '53; Discussion. 6:Trans 663-4 sec 2 My '54

Isothermal temper embrittlement and the effect of hardness on transition temperature. B. C. Woodfine. bibliog J Metals 6:Trans 532-3 My '54

Isothermal temper embrittlement of SAE 3140 steel. F. L. Carr and others. J Metals 5:Trans998 Ag '53

Notched-bar impact tests and behaviour under multi-axial stress. H. Bennek and others. Engineer 196:592-3 N 6 '53

Overcoming rheotropic brittleness; precompression versus pretension. E. J. Ripling and W. M. Baldwin, jr. bibliog diags Am Soc for Metals Trans 44:1047-54; Discussion. 1054-7 '52

Poor welds can start brittle fracture. F. J. Feely and M. S. Northup. il plans Steel 134:100-1 Ja 11 '54

Propagation of brittle fracture in steel. T. S. Robertson. 4pls diags Iron & Steel Inst J 175:361-74 D '53

Quantitative measure of temper embrittlement. N. Brown. bibliog J Metals 6:Trans 361-5 Mr '54

Report on brittle fracture studies; storage tank failures. F. J. Feely, jr. and others. bibliog il diags Welding J 33:sup99-109; Discussion. M. Gensamer. sup 109-11 F '54

Sigma; an unwanted constituent in stainless weld metal. L. K. Poole. il Metal Prog 65: 108-12 Je '54

Some effects of microstructure upon temper brittleness. D. C. Buffum and L. D. Jaffe. bibliog J Metals 5:Trans 1373-4 O '53

Some X-ray diffraction and electron microscope observations on temper-brittle steels. S. R. Maloof. bibliog il Am Soc for Metals Trans 44:264-74; Discussion. 274-81 '52

Stress concentrations take toll in creep loading. G. Sachs and others. bibliog il Steel 135:122-3 Ag 23 '54

Temper embrittlement in plain carbon steels. J. F. Libsch and others. bibliog Am Soc for Metals Trans 44:1058-68; Discussion. 1068-75 '52

West of Scotland iron and steel institute conference, Glasgow; abstracts of papers on brittle fracture of steel. Materials & Methods 39:170-2 F '54

Case hardening

See Case hardening

Cathodic protection

Cathodic protection against the corrosion of iron and steel; abstract. H. Klas. Metal Prog 65:142-4 Ja '54

Controlling electrolytic corrosion with energized anodes; abstract and discussion. H. F. Harvey, jr. and O. J. Streever. Marine Eng 59:54-6 Ja '54

Thermodynamics of irreversible processes applied to corrosion. P. A. Johnson and A. L. Babb. bibliog diags Ind & Eng Chem 46:518-23 Mr '54

Zinc-rich compounds give cathodic protection; coating using vinyl resins as binders contains 96 per cent zinc. H. L. Grebinar. il Steel 134:113-14 Mr 29 '54

See also

Tanks, Steel—Cathodic protection

Cleaning

Abrasive shot cuts sheet, strip cleaning costs. G. D. Dill. il diag Iron Age 172: 91-3 O 29 '53

Comparative cleaning of diphase and emulsion systems. L. Osipow and others. bibliog Ind & Eng Chem 45:2779-82 D '53

Descaling the stainless steels. L. F. Spencer. bibliog il Metal Finishing 52:54-9 F '54

Pangborn sheet blasting machine. diags Blast F & Steel Pl 42:564 My '54; il Mach 60:225 My '54

Progress of mechanical descaling of rods for wire drawing; symposium. il Steel 133:114+ D 21 '53

Stainless strip descaled and brightened continuously; Sharon steel corp. L. H. Wilson. il diags Steel 133:96-8 Ag 10 '53

Surface preparation of steel for painting. J. Bigos. il Metal Prog 65:123-6+ Ap '54

Corrosion

See Corrosion and anti-corrosives

Decarburization

Carbon restoration of bar stock with a batch-type furnace. H. W. Callahan. il diags Metal Prog 65:95-9 Je '54

Equilibrium controlling the decarburization of iron-chromium-carbon melts. W. E. Dennis and F. D. Richardson. bibliog Iron & Steel Inst J 175:264-6 N '53

STEEL—Decarburization—*Continued*

Protection of hot work tools in heat treatment. J. Y. Riedel. il Metal Prog 65:85-7 Mr '54

Razor blade test for decarb. il Steel 134:91 F 1 '54

Strict gas control halts decarb in aircraft tubing; Michigan seamless tube co. W. D. Latiano. il diag Iron Age 172:154-7 N 19 '53

Defects

Detection of microcracks in steel. W. L. Jensen and R. F. Campbell. il J Metals 5:Trans 1222 sec 2 S '53

Ingot cracks in killed, fine-grained C1020 steel. M. A. Orehoski and others. bibliog il diags J Metals 6:Trans891-9 Ag '54

Deoxidation

Deoxidation and degasification practice for basic electric furnace alloy steels. A. L. Ascik. il J Metals 5:986-90 Ag '53

How dissolved nitrogen affects graphitization. G. V. Smith. il Iron Age 173:136-9 Ap 15 '54

Influence of aluminum and silicon deoxidation on the strain aging of low-carbon steels. W. C. Leslie and R. L. Rickett. bibliog J Metals 5:Trans 1021-31 Ag '53; Discussion. 6:Trans 701 sec 2 My '54

Influence of aluminium on strain ageing. W. C. Leslie and R. L. Rickett. Engineer 196: 398-9 S 25 '53

Oxidation and its relationship to steel making. C. F. Christopher. Blast F & Steel Pl 42: 1059-65, 1178-83 S-O '54

Silicon carbide; use as purifier proves aid in steelmaking practice. Iron Age 173:154 Je 3 '54

Descaling

See Steel—Cleaning

Failure

Creep-rupture of several sheet steels. G. V. Smith and others. bibliog il diags Am Soc T M Proc 51:857-68 '51

Critical energy rate analysis of fracture strength. G. R. Irwin and J. A. Kies. bibliog diags Welding J 33:sup 193-8 Ap '54

Effect of low-temperature stress-relieving on stress-corrosion cracking. C. R. McKinsey. bibliog il Welding J 33:sup 161-6 Ap '54

Metallurgical aspects of plant maintenance. T. G. Bradbury. il Iron & Steel Eng 31: 90-7 S '54

Metallurgist looks at fracture. C. H. Lorig. il diags Am Soc for Metals Trans 44:30-56 bibliog(31 titles, p55-6) '52

Quench cracks in wrought steel tubes. C. Wells. il Metal Prog 65:113-21 My '54

Report on API investigation of graphitization in petroleum refining equipment. R. J. Fiorentino and A. M. Hall. bibliog il diags Am Pet Inst Proc 33(3):230-40 '53; Same. Pet Refiner 32:132-6 My '53; Same cond. Oil & Gas J 52:110+ Je 8 '53; Discussion. Am Pet Inst Proc 33(3):245-52 '53

Stress-corrosion cracking of mild steels in nitrate solution. R. N. Parkins. bibliog 2pls diags Iron & Steel Inst J 172:149-62 O '52; Abstract. Metal Prog 64:130+ D '53; Discussion. Iron & Steel Inst J 174:140-2, 317 Je, Ag '53

Stress-corrosion cracking of nonalloyed and low alloyed steels and its avoidance by additions of titanium or tantalum-columbium. E. Baerlecken and W. Hirsch. Metal Prog 66:supA 140+ Jl 15 '54

See also

Steel—Brittleness

Finishing

Cut color costs; precoated steel coil furnished by Enamelstrip corp. il Tool Eng 33:64 S '54

Developments in the iron and steel industry during 1953. I. E. Madsen. il diags Iron & Steel Eng 31:145-7 Ja '54

Electroplating prior to hot galvanizing for improved results. A. T. Baldwin. il Metal Prog 64:76-81 D '53

Electropolishing of carbon steels; abstract. Metal Finishing 52:88 S '54

Enamel; study how steel takes it. il Iron Age 172:42-3 Jl 30 '53

Influence of surface roughness on the fatigue life and scatter of test results of two steels. P. G. Fluck. bibliog Am Soc T M Proc 51:584-91; Discussion. 591-2 '51

Mechanize finishing to cut costs. P. J. Straight. il Iron Age 172:136-9 Jl 16 '53

Precoated stock helps cut production costs; Rochester mfg. co. il Iron Age 173:151 Je 17 '54

Surface finishing stainless steel. il Steel 133: 82-3 Ag 24 '53

Take the strain out of slab grinding; Rotary electric steel co. il Steel 134:115-16 Mr 29 '54

Graphitization

See Steel—Metallography

Hydrogen content

Deoxidation and degasification practice for basic electric furnace alloy steels. A. L. Ascik. il J Metals 5:986-90 Ag '53

Develop improved method of testing steel for hydrogen. Iron Age 173:154+ My 13 '54; Blast F & Steel Pl 42:680 Je '54; il Materials & Methods 40:220+ Jl '54

Evolution of hydrogen from weld metal. K. Winterton and C. L. M. Cottrell. il Metallurgia 49:3-7 Ja '54

Prevention of babbitt blisters in thrust-bearing pads. R. A. Baudry and others. bibliog il diag A S M E Trans 76:255-60 F '54

Hydrogen effect

Hydrogen embrittlement of steels. J. T. Brown and W. M. Baldwin, jr. bibliog diags J Metals 6:Trans 298-303 sec 2 F '54

Hydrogen welding's big troublemaker. H. Thielsch. Steel 135:84-5 S 27; 108+ O 4 '54

Prevention of hydrogen attack on steel in refinery equipment. W. A. Bonner and others. bibliog flow diag il diags Am Pet Inst Proc 33(3):255-71 '53; Same. Pet Processing 8:686-90, 878-83 My-Je '53; Same cond. Oil & Gas J 52:100+ Je 8 '53; Discussion. Am Pet Inst Proc 33(3):271-2 '53

Inclusions

Acceptance standards for magnetic inspection improve quality, lower rejection rates on critical parts. S. Maszy. diags Iron Age 174:114-15 S 23 '54

Examination of a high sulphur free-machining ingot, bloom and billet sections. D. J. Carney and E. C. Rudolphy. bibliog il diags J Metals 5:Trans 999-1008 Ag '53

Identification of inclusions in austenitic 18 CR-8 NI-CB (type 347) steel. E. J. Dulis and G. V. Smith. il Am Soc for Metals Trans 44:877-81 '52

Sources of inclusions from pouring refractories investigated. M. P. Fedock. diags J Metals 6:125-7 F '54

Vacuum melting excludes inclusions. F. G. Stroke. il Steel 133:140-1 D 14 '53

Lead content

Improved machinability in new leaded alloy steel. W. E. Falberg. il Materials & Methods 39:90-2 Je '54

Machinability; new steels speed up machining operations. il Steel 133:135-6 O 12 '53

Metallurgists offer cutting tools a bigger bite. R. F. Huber. il Steel 134:70-3 Ja 11 '54

Marking

Birthmarking progress; Timken roller bearing co. Steel 133:68 S 14 '53

Canadian plan for birthmarking steels. Steel 133:119+ N 16 '53

Metals; military wants birthmarks. J. B. Delaney. Iron Age 172:112 D 3 '53

More birthmarking? Steel 134:49 Ap 12 '54

Metallography

Anisothermal diffusion of carbon in austenite. J. E. Black and G. E. Doan. Am Soc for Metals Trans 44:452-60 '52

Causes of the weakening of the intensity of X-ray interference of martensite; abstract. V. A. Il'ina and others. Metal Prog 66: supA 154+ Jl 15 '54

Cleavage strength of polycrystals. N. J. Petch. bibliog Iron & Steel Inst J 174:25-8 My '53; Abstract. Metal Prog 65:184+ Je '54

STEEL—Metallography—*Continued*

Comparison of the effects of alloying elements on the lower and upper transition temperatures in pearlitic steels. J. A. Rinebolt and W. J. Harris, jr. bibliog il Am Soc for Metals Trans 44:225-36; Discussion. 236-9 '52

Composition limits of sigma formation in nickel-chromium steels at 1200°F (650°C). M. E. Nicholson and others. bibliog Am Soc for Metals Trans 44:601-19; Discussion. 619-20 '52

Concentration gradients associated with growing pearlite. R. E. Grace. il J Metals 5: Trans 820-1 Je '53

Creep rupture properties and structural changes in carbon and low alloy steels; graphitization problem. A. B. Wilder and others. bibliog il J Metals 6:Trans 764-72 Je '54

Determination of retained austenite by X-ray methods. K. E. Beu. diag J Metals 5:Trans 1539-40 sec 2 N '53

Diffusion and solubility of boron in iron and steel. P. E. Busby and others. bibliog il J Metals 5:Trans 1463-8 N '53

Effect of chemical composition on coarsening of austenite grains. J. Schuyten. bibliog il diag Am Soc for Metals Trans 44:853-69 '52

Effect of grain size upon temper brittleness. L. D. Jaffe and others. bibliog J Metals 5:Trans 1147-8 sec 2 S '53

Effect of manganese banding on mechanical properties of heat treated steel plate in the thickness direction. H. Schwartzbart. bibliog il diag Am Soc for Metals Trans 44:845-52 '52

Effect of nickel and molybdenum on stabilization of the austenite-martensite transformation. D. J. Blickwede. bibliog J Metals 5:Trans 922-3 Jl '53

Effects of cold-drawing, microstructure, and thermal treatments on the machinability and mechanical properties of carbon and alloy steel. F. E. Dreves. il diags A S M E Trans 75:1219-32 O '53

Effects of decomposition of retained austenite during tempering on notch toughness and tensile properties. E. F. Bailey and W. J. Harris, jr. bibliog il Am Soc for Metals Trans 44:204-17; Discussion. 217-24 '52

Electrical resistance apparatus for studying transformations in metals; its application to transformations in stainless steel. W. H. Colner and O. Zmeskal. bibliog diags Am Soc for Metals Trans 44:1158-68 '52

Electrolytic etching; the sigma phase steels. J. J. Gilman. bibliog il diag Am Soc for Metals Trans 44:566-96; Discussion. 597-600 '52

Fe-Cr-Mo-Ni sigma phase. A. G. Allten. il J Metals 6:Trans904-5 Ag '54

Ferrite formation associated with carbide precipitation in 18 CR-8 NI austenitic stainless steel. E. J. Dulis and G. V. Smith. bibliog il Am Soc for Metals Trans 44:621-32; Discussion. 632-42 '52

Formation of sigma phase in 13 to 16 per cent chromium steels. H. S. Link and P. W. Marshall. bibliog il Am Soc for Metals Trans 44:549-60; Discussion. 560-5 '52

475°C (885°F) embrittlement in stainless steels. A. J. Lena and M. F. Hawkes. bibliog il J Metals 6:Trans 607-15 sec 2 My '54

Hardness plateaus and twinning in explosively loaded mild steel. J. Pearson and J. S. Rinehart. il diag J Ap Phys 25:778-81 Je '54

Heat treatment of steel castings. J. H. Hall. il Foundry 81:122-5+ O; 124-7+ N; 126-9+ D '53

How to tell a good high speed tool when you see one in a microscope; chart. M. J. Antus and B. L. Johnson. Steel 133:88-9 N 23 '53

Impact transition temperatures of some pearlite-free mild steels as affected by heat treatments in the alpha range. A. Josefsson. bibliog il J Metals 6:Trans 652-9 sec 2 My '54

Interstitial diffusion. A. G. Guy. bibliog Am Soc for Metals Trans 44:382-403; Discussion. 404-9 '52

Isothermal transformation, hardening, and tempering of 12 per cent chromium steel. R. L. Rickett and others. bibliog il Am Soc for Metals Trans 44:138-68; Discussion. 168-75 '52

Isothermal transformation of austenite in a nickel-chromium-molybdenum steel. E. A. Loria. bibliog il Am Soc for Metals Trans 44:870-6 '52

Machinability of ordnance steels. bibliog il S A E J 62:47-53 S '54

McQuaid-Ehn grain size determined by spectrochemical analysis. G. E. Ressler. J Metals 5:1622 D '53

Manganese modification of the Fe-S-O system. D. C. Hilty and W. Crafts. bibliog il diags J Metals 6:Trans 959-67 S '54

Metallography. B. L. Johnson. il Metal Prog 66:111-12 Ag '54

Metallurgist looks at fracture. C. H. Lorig. il diags Am Soc for Metals Trans 44: 30-56 bibliog(31 titles, p55-6) '52

Microstructural instability of steels for elevated temperature service. G. V. Smith and others. bibliog il Am Soc T M Proc 51:895-912; Discussion. 912-17 '51

Microstructure and the corrodibility of steel in inhibited hydrochloric acid solutions. P. H. Cardwell. bibliog il Electrochem Soc J 101:84-90 F '54

Nucleation and growth of graphite in steel. F. Brown. bibliog il diag Welding J 33: sup257-61 Je '54

Nucleation of pearlite. M. E. Nicholson. bibliog J Metals 6:Trans 1071-4 sec 2 S '54

Practical aspects of structure and segregation in killed steel ingot solidification. E. A. Loria and R. L. Keller. bibliog il Blast F & Steel Pl 42:45-51 Ja '54

Radiographic studies of segregates. A. M. Portevin. il Metal Prog 64:108+ D '53

Rare earths counteract hot rolling defects in stainless steel. R. H. Henke and R. A. Lula. il J Metals 6:883-8 Ag '54

Rate of propagation of martensite. R. F. Bunshah and R. F. Mehl. bibliog il diags J Metals 5:Trans 1251-8 sec 2 S '53; Discussion. 6:Trans 681-2 sec 2 My '54

Segregated graphite in steel. J. J. Kanter. Am Pet Inst Proc 33(3):225-9; Discussion. 245-52 '53

Sigma; an unwanted constituent in stainless weld metal. L. K. Poole. il Metal Prog 65:108-12 Je '54

Sigma phase; a review. A. J. Lena. il Metal Prog 66:86-90 Jl 1; 94-9 Ag; 122-6+ bibliog(p 126+) S '54

Some effects of microstructure upon temper brittleness. D. C. Buffum and L. D. Jaffe. bibliog J Metals 5:Trans 1373-4 O '53

Some X-ray diffraction and electron microscope observations on temper-brittle steels. S. R. Maloof. bibliog il Am Soc for Metals Trans 44:264-74; Discussion. 274-81 '52

Stabilization of the austentite-martensite reaction in a high chromium steel. S. C. Das Gupta and B. S. Lement. bibliog il diags J Metals 5:Trans 530-6 Ap '53; Discussion. 6:Trans 686-8 sec 2 My '54

Stress-induced transformation of retained austenite in hardened steel. B. L. Averbach and others. bibliog diag Am Soc for Metals Trans 44:746-56; Discussion. 756-7 '52

Structures and properties of some carbonitrided cases. K. B. Valentine. il diags Metal Prog 63:97-103 Je '53; Discussion. M. B. Bever and C. F. Floe. 64:110-11 D '53

Take guesswork out of grain size determinations. R. F. Harvey. il Steel 134:108-9 F 1 '54

Theory of the formation of martensite. M. S. Wechsler and others. bibliog diags J Metals 5:Trans 1503-15 sec 2 N '53; Discussion. il 6:Trans 676-81 sec 2 My '54

Theory of the growth of pearlite; abstract. E. G. Eeles. Metal Prog 64:200+ D '53

Transformation of Cr-Mo steels during welding. W. R. Apblett, jr. and others. il diags Welding J 33:sup57-64 Ja '54; Abstract. Metal Prog 66:162+ Ag '54

Nitriding

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STEEL—*Continued*

Nitrogen content

Steel; get rid of nitrogen curse; Europe's Bessemer steel producers use oxygen to cut nitrogen content. W. V. Packard. diags Iron Age 172:75-6 Jl 2 '53

Nitrogen effect

How dissolved nitrogen affects graphitization. G. V. Smith. il Iron Age 173:136-9 Ap 15 '54

Phosphorus content

Extraction of heteropoly acids. C. Wadelin and M. G. Mellon. bibliog(31 ref) Anal Chem 25:1668-73 N '53

Prices

Average monthly quotations in 1953; tabulations. Steel 134:174 Ja 4 '54
Competition cushions steel price hikes. Iron Age 174:59-61 Jl 15 '54
ECSC steel prices backfiring? Steel 133:63 Ag 10 '53
European export prices on downtrend. Steel 134:57 Ja 25 '54
Extras; U.S. Steel changes book. Iron Age 172:27 D 31 '53
Finished steel composite price, 1930 to 1953; tabulation. Iron Age 173:406 Ja 7 '54
Freight absorption when, where? Steel 133:53-4 Ag 10 '53
Most consumers will absorb $3 steel price increase. il Steel 135:67-8 Jl 12 '54
1953 weekly index of finished steel prices; weighted price composite, annual price averages, arithmetical price composite; tabulations. Steel 134:172-3 Ja 4 '54
Prices; hot and cold rolled sheets and strip, galvanized sheets, plate, tinplate and high speed tool steel; hot-rolled and cold-finished bars, wire, structurals, rails, pipe, and stainless steel sheets. Iron Age 173:411-12 Ja 7 '54
Quote delivered base prices; Republic Steel to start new method. R. M. Lorz. Iron Age 172:113 D 3 '53
Stainless; revise flat rolled prices. J. B. Delaney. Iron Age 173:73 My 13 '54
Steel gets new pricing method. il Steel 133:55-6 N 30 '53
Steel; gun shy on freight absorption. J. B. Delaney. Iron Age 172:95 S 17 '53
Steel; price hike averages $3.24 a ton. J. B. Delaney. Iron Age 174:47-8 Jl 8 '54
Steel; settlement boils price kettle. J. B. Delaney. Iron Age 173:48 Je 24 '54
Steel; State dept. protests export price fixing by steel pool. Iron Age 172:113 N 19 '53
Steel switched to delivered price. il Iron Age 173:87 My 20 '54
U.S. steel export co. sets new East Coast prices. Iron Age 174:61 Jl 15 '54
U.S. Steel revises base export prices. Iron Age 174:82 Ag 19 '54

Warehouse adopts delivered pricing. Steel 134:116-17 Ja 11 '54

Will steel mills pay the freight? Bsns W p30-1 S 19 '53

Protection

Abrasion resistant coatings sprayed on metal surfaces; Colmonoy Sprayweld process. W. G. Patton. il Iron Age 172:172-3 D 3 '53

Automatic zinc plating. C. E. Fisher and D. F. Zlatnik. il plan Metal Prog 66:107-12 S '54

Bronze and speculum plates provide good protection for steel. W. H. Safranek and others. bibliog il Metal Finishing 52:70-3+ Ap '54

Caustic cracking in steam boilers; alkaline phosphates for protection of boiler metal in cases of stress corrosion. R. Rath. il Chem & Ind p600-3 Je 20 '53

Coating vs. fire; mastic coatings for steel protection. il Safety Maint & Prod 107:30+ Je '54

Coating with mastics. R. B. Seymour and R. H. Steiner. il Chem Eng 61:232+ My '54

Corrosion-inhibitive compositions as temporary protectives of steel against atmospheric corrosion. B. Sanyal and R. S. Preston. bibliog J Ap Chem 3:366-74 Ag '53

Discover method of guniting piles. il Iron Age 173:51 Ap 29 '54
Efficiency of some protective treatments in preventing the oxidation of mild steel at high temperatures. A. H. Sully and others. Metallurgia 49:165-8 Ap '54
Electro-osmotic examination of paint films. J. K. Wirth and W. Machu. bibliog diags Paint Oil & Chem R 117:12-14+ F 25; 26-9+ Mr 11 '54
Evaluation of surfactants. J. E. Smallwood and S. L. Eisler. Soap & San Chem 29:48-51+ Ag '53
Films to aid galvanizing. A. T. Baldwin. Steel 133:170 S 14 '53
Flame plating; service life increased by applying tungsten carbide. il Iron Age 173:155-6 Mr 18 '54
Galvanizing with a paint brush: zinc paints protect iron and steel surfaces. diag Steel 133:158 S 7 '53
Hot dip aluminised coatings. Chem Age (Lond) 70:1105-8 My 15 '54
How to make steel last three times as long; ceramic coatings. F. B. Shaw. il Am Mach 97:97-9 D 21 '53
Inhibition by quinolines and thioureas of the acid dissolution of mild steel. T. P. Hoar and R. D. Holliday. bibliog diags J Ap Chem 3:502-13 N '53
Metal finishing; corrosion-resistant coating has advantages of stainless. Iron Age 173:165 F 18 '54
Mill coated sheets improve product quality. N. E. Hays. il Iron Age 173:133-6 Mr 25 '54
Modern coatings add service life. il Steel 134:102-3 Mr 15 '54
New low-cost coating gives mild steel good corrosion resistance; nickel-phosphorus coating. G. J. Harvey. il Iron Age 173:125-7 Ap 15 '54
Paint bases; new measuring method will aid control of base solubility. Iron Age 172:190+ N 5 '53
Painting; specifications for pretreatment of steel prepared. Iron Age 172:203 D 3 '53
Perma-Tube stops rust; vinyl coating applied in special process coats, tubing inside and out, good for outdoor jobs. il Steel 133:320 O 12 '53
Phosphating of steel prior to painting; abstract and discussion. M. A. Holden. Chem & Ind p 1255-6 N 21 '53
Porcelain enamel; its use and manufacture for household appliances; abstract. W. H. Pfeiffer. Metal Prog 66:146+ S '54
Pretreatment techniques for dip copper coating of iron and steel; abstract. B. M. Pearson. Metal Finishing 52:91 Ag '54
Protection against corrosion; chemical industry exhibition. il Elec R (Lond) 154:248 F 5 '54

Protection of iron and steel by metallic and non-metallic coatings. J. C. Hudson and J. F. Stanners. bibliog il 6pls Iron & Steel Inst J 175:381-90 D '53

Protection of mild steel by films of lanolin. E. G. Stroud and J. E. Rhoades-Brown. il J Ap Chem 3:287-8 Je '53

Protection of mild steel by films of lanolin. L. Whitby. Chem & Ind p974 S 12 '53

Protective action of pigments on steel. M. J. Pryor. bibliog diag Electrochem Soc J 101:141-8 Mr '54; Discussion. 101:635-7 D '54

Protective coatings for ships and marine installations. J. C. Hudson. bibliog il diags Chem & Ind p640-51 Je 5 '54; Abstract. Paint Oil & Chem R 117:22 Ag 12 '54

Protective properties of various phosphate coatings on steel; abstract and discussion. J. F. Andrew and others. Chem & Ind p 1255-6 N 21 '53

Putting chrome on ferrous surfaces; Chromalloy process. R. L. Wachtell. il Steel 133:160-1 D 7 '53

Relation between roughness of interface and adherence of porcelain enamel to steel. J. C. Richmond and others. bibliog il diag Am Cer Soc J 36:410-16 D 1 '53

Role of nickel dip in enameling of sheet steel. D. G. Moore and others. bibliog il Am Cer Soc J 37:363-9 Ag 1 '54; Abstract. Materials & Methods 40:158+ Ag '54

Rust prevention by pre-treatment. il Chem Age (Lond) 69:175-6 Jl 25 '53

STEEL—Protection—*Continued*

Rustballing the fleet; Sargent barge line. il Chem W 74:88 My 8 '54

Some influences of carbon in enameling of steel. G. P. K. Chu and others. bibliog il diags Am Cer Soc J 37:391-401 S 1 '54

Sulphurized surfaces resist wear and seizure. B. Jousset. diag Metal Prog 65:76-80 Ja '54

Tough epoxi gets tougher; Synthetasine 200. Paint Oil & Chem R 117:38C My 20 '54

Twenty years' progress in corrosion resistant coatings for exterior steel surfaces. R. H. Everett. Am Gas Assn Proc 1953:751-4

Use the right process for coating steel with aluminum. il Steel 133:98-101+ Ag 3; 138-40+ Ag 10 '53

Zinc and phosphate coated steels can cut breakage on drawn parts. N. E. Hays. il Iron Age 172:135-7 Ag 13 '53

Zinc plate on cartridge cases meets rigid specifications; Norris-Thermador corp. C. E. Fisher and D. F. Zlatnik. il plan Iron Age 173:135-9 Mr 11 '54

See also

Chromizing
Galvanizing
Steel—Cathodic protection

Rimmed steel

Effects of vanadium or chromium on the strain ageing of rimming steels. W. R. D. Jones and G. Coombes. bibliog il Iron & Steel Inst J 174:9-15 My '53; Abstract. Metal Prog 64:186+ N '53

Scaling

Hollow drill steels; scaling rate at various times and temperatures. W. W. Durand. il Min Cong J 40:44-6 Ja '54

Specifications

Engineering data sheets for selecting carbon steel bars. Steel 133:108-9+ S 28 '53

Guide for selection of carbon steel bars. G. P. Witteman. il Steel 133:104-7+ S 14 '53

Statistical aspects of specifications. H. H. Johnson. Mech Eng 75:447-50 Je '53

U.S. catalog job to cut steel costs; will standardize, simplify and catalog specifications. Steel 134:63 Mr 29 '54

Standards

A.I.S.I. standard alloy steel compositions; tabulations; data sheet. Metal Prog 66:112B Jl 1 '54

A.I.S.I. standard boron steel compositions; data sheet. Metal Prog 66:112B Ag '54

Strength

Brittle strength and transition temperature of structural steel. W. C. Hoeltje and N. M. Newmark. bibliog diags Welding J 31:sup515-21 N '52; Discussion. 33:sup 129-33 Mr '54

Fatigue strength of ball bearing races and heat-treated 52100 steel specimens. H. Styri. bibliog il diags Am Soc T M Proc 51:682-97; Discussion. 697-700, 719-20 '51

Fatigue strength of large, notched steel bars surface-hardened by gas heating and by induction heating. S. L. Case and others. bibliog il diags Am Soc for Metals Trans 44:667-83; Discussion. 683-8 '52

Flexure and fracture of vitreous enameled steel strips. C. J. Rodman and F. J. Shollenberger. bibliog il diags Am Cer Soc Bul 33:105-7 Ap 15 '54

High strength low alloy steels in transformer equipment. M. M. Aronson. il Materials & Methods 39:134-6 Ja '54

How heat treatment affects properties of cold worked 18-8 wire. S. Storcheim. Iron Age 172:112-14 O 1 '53

Influence of carbon and manganese on the properties of semikilled hot rolled steel. F. W. Boulger and R. H. Frazier. bibliog il diag J Metals 6:Trans 645-52 sec 2 My '54

Influence of extended time on creep and rupture strength of 16-25-6 alloy. C. L. Clark and others. il Am Soc for Metals Trans 44:89-108; Discussion. 108-12 '52

Literature survey of high-strength steels. bibliog Welding J 33:sup251-6 My '54

Little carbon goes a long way. H. K. Ihrig and J. T. Jarman. Steel 134:96-7 Mr 22 '54

More strength less weight. il Steel 133:130-4 O 12 '53

New steel passes toughness test; Carilloy T-1. A. G. Gray. il Steel 135:102-3 Jl 19 '54

Rating operation T-1; Carilloy T-1 can withstand tremendous shock. il Chem & Eng N 32:3052 Ag 2 '54

Residual compressive stress strengthens brittle materials. J. O. Almen. bibliog il diag Product Eng 24:189-91 Jl '53

Safety factor in the design of seamless steel gas cylinders. S. E. Mitchell. Metallurgia 50:87-9 Ag '54

Strength-weight ratios of hollow steel shafts; reference book sheet. H. W. Smith. Product Eng 24:209 S '53

Ultra high strength steel for aircraft structures. M. A. Melcon. bibliog diag Product Eng 24:129-41 O '53

Sulfur content

Assessment of individual sources of error in the combustion method for the determination of sulphur in steel; mild steel. T. B. Smith, A. Backhouse and P. Woodward. bibliog diag J Ap Chem 4:75-82 F '54

Cutting edge lubricant built-in; sulphur added to tool steels gives free machining and longer tool life. il Steel 135:116-17 Ag 9 '54

Desulphurization with rare earths. J. A. Berger and M. G. Snellman. il Steel 134:110+ Ap 12 '54

Determination of sulfur in iron and steel by barium chloride method after chromatographic separation of sulfuric acid. F. Nydahl. bibliog diag Anal Chem 26:580-4 Mr '54

Examination of a high sulphur free-machining ingot, bloom and billet sections. D. J. Carney and E. C. Rudolphy. bibliog il diags J Metals 5:Trans 999-1008 Ag '53

Forgeability of steels with varying amounts of manganese and sulphur. C. T. Anderson and others. J Metals 6:Trans 835-7 Jl '54

Free machining tool steels; yes or no? Am Mach 98:175 Je 7 '54

Introducing; the new self-lubricating high speed steels. S. G. Fletcher. il Metal Prog 65:161-2+ F '54

Metallurgists offer cutting tools a bigger bite. R. F. Huber. il Steel 134:70-3 Ja 11 '54

New sulfur-bearing tool steels. il Materials & Methods 40:96-7 S '54

Rare earth additions affect surface quality of low carbon steel. J. V. Russell. bibliog il J Metals 6:438-42 Ap '54

Testing

Biaxial fatigue properties of pressure vessel steels. C. E. Bowman and T. J. Dolan. bibliog il diags Welding J 32:sup529-37 N '53

Corrosion of steel by air-free, dilute, weak acids. N. Hackerman and E. E. Glenn, jr. bibliog flow diag Electrochem Soc J 100:339-44 Ag '53

Corrosion testing; twenty-fifth Edgar Marburg lecture. F. L. LaQue. il diags Am Soc T M Proc 51:495-582 bibliog(94 titles, p579-82) '51

Damping, fatigue, and dynamic stress-strain properties of mild steel. B. J. Lazan and T. Wu. bibliog il diags Am Soc T M Proc 51:649-78; Discussion. 678-81 '51

Delayed yield in annealed steels of very low carbon and nitrogen content. D. S. Wood and D. S. Clark. bibliog diag Am Soc for Metals Trans 44:726-42; Discussion. 742-5 '52

Deviations from Hooke's law within the elastic range; apparatus for measurement of very small plastic strains in steel. D. Morrison. il diags Engineering 177:141-4 Ja 29 '54

Effect of retained austenite upon mechanical properties. L. S. Castleman and others. bibliog diags Am Soc for Metals Trans 44:240-56; Discussion. 257-63 '52

Effects of decomposition of retained austenite during tempering on notch toughness and tensile properties. E. F. Bailey and W. J. Harris, jr. bibliog il Am Soc for Metals Trans 44:204-17; Discussion. 217-24 '52

STEEL—Testing—*Continued*

Fatigue tests of steel specimens prepared for metallizing. R. C. Miller, jr. and A. W. Brunot. il diags Welding J 33:sup275-9 Je '54

High-pressure vessels subjected to static and dynamic loads. E. D. Narduzzi and G. Welter. bibliog il diags Welding J 33:sup 230-8 My '54

Influence of surface roughness on the fatigue life and scatter of test results of two steels. P. G. Fluck. bibliog Am Soc T M Proc 51:584-91; Discussion. 591-2 '51

Limitations of the end-quench hardenability test. A. R. Troiano and L. J. Klingler. bibliog il Am Soc for Metals Trans 44: 775-85; Discussion. 785-802 '52

Magnetic fatigue tester enables bridge designers to plan lighter, safer structures. il Roads & Eng Constr 92:58 S '54

Measurement of case depth. D. J. Wright. il Metal Prog 64:86-8 D '53

Mechanical testing is standardized; ASTM tension test for wrought steel products. il diags Steel 133:75-6+ Ag 31 '53

New method for the determination of the relative susceptibility of steels to intercrystalline attack; summary. J. Lodder. Chem & Ind p603 Je 20 '53

Notched-bar impact tests and behaviour under multi-axial stress. H. Bennek and others. Engineer 196:592-3 N 6 '53

Properties of carbon and alloy steels made with sponge iron. J. L. Morning and W. W. Stephens. U S Bur Mines Rep of Invest 4975:1-17 '53

Rate of pickling test for tin-plate steels and its metallurgical significance. E. L. Koehler. il diag Am Soc for Metals Trans 44:1076-90; Discussion. 1090-6 '52

Research on pipe flanges; abstract. A. E. Johnson and R. W. Bailey. Engineering 177: 275; Discussion. 275-6 F 26 '54; Engineer 197:278 F 19 '54

Study of effects of variables on the creep resistance of steels. H. C. Cross and J. A. VanEcho. bibliog il Am Soc T M Proc 51: 223-9 '51

Wear tests on normalised steels H. Arend. Engineer 197:353 Mr 5 '54

See also

Steel alloys—Testing

Tool steel—Testing

Temperature effect

Apparatus for study of effects of cyclic thermal stresses on ductile metals. L. F. Coffin, jr. and R. P. Wesley. il diags A S M E Trans 76:923-30 Ag '54

Behavior of carbon and low-alloy steels between -20 and +650° F. G. H. Enzian. bibliog(59 titles) Welding J 32:sup605-18 D '53

Cold changes properties. C. H. Lorig. Steel 133:116+ Jl 13 '53

Creep rupture properties and structural changes in carbon and low alloy steels; graphitization problem. A. B. Wilder and others. bibliog il J Metals 6:Trans 764-72 Je '54

Directionality of mechanical properties in hot-worked steels. A. R. Troiano and L. J. Klingler. bibliog(29 titles) Welding J 33: sup209-17 My '54

Effect of deformation at low temperatures on the properties of austenitic stainless steels; abstract. K. Bungardt and others. Engineer 197:172 Ja 29 '54

Elevated-temperature properties of chromium-molybdenum steels. W. F. Simmons and H. C. Cross, comps. (Special tech. pub. no. 151) 208p pa $4.75 Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '53

Identification of the precipitate accompanying 885°F embrittlement in chromium steels. R. M. Fisher and others. bibliog il J Metals 5:Trans 690-5 sec 2 My '53; Discussion. 6:Trans 663-4 sec 2 My '54

Influence of extended time on creep and rupture strength of 16-25-6 alloy. C. L. Clark and others. il Am Soc for Metals Trans 44:89-108; Discussion. 108-12 '52

Metallurgical aspects of aircraft heaters; abstract. Metal Prog 64:136+ D '53

Notch toughness of four alloy steels at low temperatures. W. B. Seens and others. bibliog il Am Soc T M Proc 51:918-28; Discussion. 929-30 '51

Stability of steels as affected by temperature. J. J. Kanter and E. A. Sticha. Am Soc T M Proc 51:230-5 '51

Stress concentrations take toll in creep loading. G. Sachs and others. bibliog il Steel 135:122-3 Ag 23 '54

Stresses for pressure vessels and boilers up to 560°F. W. P. Kerkhof. diags Welding J 33:sup239-51 My '54

Study of the effects of cyclic thermal stresses on a ductile metal. L. F. Coffin, jr. bibliog (44 titles) il diags A S M E Trans 76: 931-50 Ag '54

Thermal checking of wrought-steel railway wheel material. H. R. Wetenkamp. bibliog il A S M E Trans 76:649-54 My '54

Thermal-shocking austenitic stainless steels with molten metals. R. A. Tidball and M. M. Shrut. diags A S M E Trans 76:639-43 My '54

What happens to 12 per cent chromium alloys at 1000 F temperatures? D. L. Newhouse and others. Materials & Methods 39:169 Ja '54

Transportation

Movable stops block sheets, coil in C&O's new gondola car. il Iron Age 173:78 My 13 '54

Ohio River traffic barges ahead. il Steel 134: 47 F 1 '54

Railroads fight for steel. Steel 134:39-40 Mr 22 '54

Rails move to recoup steel freight. J. B. Delaney. Iron Age 173:81-2 Mr 11 '54

Trucks; haul more finished steel. J. B. Delaney. Iron Age 172:71 Jl 16 '53

See also

Railroads—Rates—
Iron and steel

Uses

Steel helps bridge the gaps in highways; illustrations with text. Steel 135:59 Ag 16 '54

Tv cabinet makers tune in on steel. K. W. Bennett. il Iron Age 174:55-6 S 2 '54

Welding

Assessment of weldability by rapid dilatation tests. C. L. M. Cottrell. bibliog il diag Iron & Steel Inst J 174:17-24 My '53; Abstract. Metal Prog 65:158+ My '54

Cast-weld construction. J. H. Hall. il Foundry 82:114-19 Mr '54

Cast-weld construction bypasses complications. G. L. Gibson. il Steel 135:96-7 S 6 '54

Distortion can be designed out of welded structures. J. R. Stitt. il diags Steel 134: 120-2 Mr 8 '54

Effect of electrode type in the notch slow-bend test. W. J. Murphy and R. D. Stout. Welding J 33:sup305-10 Jl '54

Effect of thermal activation on fatigue life of butt welds. A. M. Freudenthal and R. A. Heller. bibliog diag Welding J 33: sup327-38 Jl '54

Evolution of hydrogen from weld metal. K. Winterton and C. L. M. Cottrell. il Metallurgia 49:3-7 Ja '54

Fatigue tests of spot welds in Cor-Ten and mild steel. G. Welter and A. Choquet. bibliog diags Welding J 33:sup 134-40 Mr '54

Field-weld test for mild steel welds at low temperatures. J. R. Watt and J. J. Smetana. il Welding J 33:sup79-82 F '54

How to build a television stand. G. B. Stone. diags Welding J 33:574 Je '54

Inert-gas-shielded metal-arc welding of low-carbon steels. G. C. Christopher and R. C. Becker. bibliog il Welding J 33:7-22 Ja '54

Investigation on peening. P. L. Calamari and others. il diag Welding J 32:sup387-402 Ag '53; Discussion. L. J. Larson. 33: sup76-7; Reply. sup77-8 F '54

Literature survey of high-strength steels. bibliog Welding J 33:sup251-6 My '54

Low-temperature bend test properties of bead-on-plate welds. L. A. Harris and others. bibliog il diags Welding J 32:sup585-99 D '53

New developments in sigma welding of carbon steel. T. McElrath and R. T. Telford. il diags Welding J 33:201-7 Mr '54; Same cond. Steel 134:104-6 F 22 '54

STEEL—Welding—*Continued*

Resistance welding of coated steels; abstract. J. E. Roberts. Metal Prog 66:162+ S '54

Solving light welding problems economically. H. J. Chamberland. il Mill & Factory 53:105-7 N '53

Spot welding of aluminum, aluminum alloys and steel. W. J. Wilson. il diags Welding J 32:1175-80 D '53

Stress-corrosion cracking of nonalloyed and low alloyed steels and its avoidance by additions of titanium or tantalum-columbium. E. Baerlecken and W. Hirsch. Metal Prog 66:supA 140+ Jl 15 '54

Stress corrosion cracking of welded low-alloy steels; abstract. E. Baerlecken and W. Hirsch. Welding J 32:sup576 N '53

Stress relieving austenitic weldments. Steel 134:100 Mr 1 '54

Study of the cooling rates in flash welds in steel. E. F. Nippes and others. il diag Welding J 33:sup339-62 Jl '54

Submerged arc welding of chromium-bearing steels. C. E. Jackson and A. E. Shrubsall. il Welding J 33:752-8 Ag '54

30-ft diameter all-welded test tank. J. Vasta and F. W. Dunham. bibliog il diags Welding J 33:sup422-32 Ag '54

Transformation of Cr-Mo steels during welding. W. R. Apblett, jr. and others. il diags Welding J 33:sup57-64 Ja '54; Abstract. Metal Prog 66:162+ Ag '54

Welding for low-temperature service. R. W. Bennett. il diags Welding J 32:1089-97 N '53

Welding of heavy sections. W. Spraragen and M. A. Cordovi. bibliog il diags Welding J 33:sup369-86 Ag '54

Welding without prebeveling lowers fabricating costs; Pacific car & foundry co. R. C. Hermon. il Iron Age 174:104-5 Ag 26 '54

See also

Piping (power plants)—Welding

Steel, Stainless—Welding

Steel, Structural—Welding

Steel construction—Welding

STEEL, Aircraft

Steel and titanium alloy extruded shapes in modern aircraft. K. A. Wilhelm. diag Automotive Ind 110:266-70+ Mr 15 '54

Ultra high strength steel for aircraft structures. M. A. Melcon. bibliog diag Product Eng 24:129-41 O '53

STEEL, Automobile

Machinability of ordnance steels. bibliog il S A E J 62:47-53 S '54

$35-million bet on auto steel. il Bsns W p32 N 7 '53

STEEL, Clad

Clad steels. diag Mech Eng 75:571 Jl '53

Clad steels. il Steel 133:153 O 12 '53

Steel gets set to crowd aluminum in metal-clads. il Bsns W p82-6 N 7 '53

See also

Steel, Copper clad

Steel, Nickel clad

STEEL, Cold treatment of

Application of the cold air refrigerating machine for steel hardening; abstract. L. Rosenfeld and N. Koschkin. diag Refrig Eng 62:61+ My '54

Below zero heat treatment. R. S. Jamison. il Steel 134:104-6 Je 28 '54

Cold treatment increases strength, stability of magnet steels; AC spark plug div., General motors corp. W. G. Patton. il Iron Age 173:156-8 Je 17 '54

STEEL, Cold working of

Cold extrusion of steel. R. F. Huber. il diags Steel 133:78-82+ Jl 27 '53

Cold extrusion offers production economies. H. Schultz. diags Product Eng 24:271-4 Jl '53

Cold extrusion primed for mass production. R. H. Eshelman. il diags Tool Eng 33:77-86 S '54

Cold extrusion saves metal, time; Oliver corp. il Steel 133:124 N 2 '53

Cold forming has many advantages for making automotive parts. J. Geschelin. il diags Automotive Ind 110:34-7+ Ap 15 '54

Cold rolling of splines; a new process for steel shafts. il diags Automotive Ind 111:66-7 Jl 1 '54

Effects of cold-drawing, microstructure, and thermal treatments on the machinability and mechanical properties of carbon and alloy steel. F. E. Dreves. il diag A S M E Trans 75:1219-32 O '53

Five-step cold extrusion line forms 60-mm mortar shells; Oliver corp. E. Olsen. il Iron Age 172:147-50 N 19 '53

French steel company installs reversing cold strip mill. il Iron & Steel Eng 30:137+ D '53

Heavy-duty tooling for cold extrusion of steel. il diags Mach 60:170-5+ Ap '54

How cold work, heat treat change properties of 18-8 wire. S. Storchheim. Iron Age 173:146-8 F 18 '54

Killed basic Bessemer steel has good cold forming qualities. H. Hauttmann. il Materials & Methods 39:142-4 Je '54

Tooling solves a problem in cold extruding rocket projectile noses. il diags Steel 134:99 My 3 '54

Trends in recent cold mill installations. R. E. Noble. il plans diags Iron & Steel Eng 31:105-16 Jl '54

STEEL, Copper clad

New mill turns out bigger copper-clad sandwiches; Superior steel corp. il Steel 133:110+ Jl 13 '53

STEEL, Corrosion resisting

Alloy casting institute technical conference, Harbor Island, N.C. Chem & Eng N 31:2868+ Jl 13 '53

Cast alloy reference sheet. N. S. Mott. Chem Eng Prog 50:324, 376, 428 Je-Ag; sup39 S; 532 O '54

Durimet 20-Carpenter 20. W. A. Luce. il Chem Eng 60:276+ D '53

Hardenable corrosion resistant casting alloy; DC-50 alloy. il Materials & Methods 39:148+ Ja '54

High-strength low-alloy steels. bibliog il diag Materials & Methods 39:117-32 F '54 (reprints 25c)

Low carbon stainless resists intergranular corrosion. R. E. Paret. il Iron Age 173:132-4 My 6 '54

Special steels for the petroleum chemicals industry. E. Smith. il Chem & Ind sup S9-17 Ag 10 '53

See also

Chromium nickel steel

Steel, Stainless

STEEL, Galvanized

Behaviour of galvanized steel in sodium benzoate solution. P. T. Gilbert and S. E. Hadden. J Ap Chem 3:545-8 D '53

Estimating weight of metal in rectangular ducts; with tabulations; reference data. Heat & Ven 51:166a-166b My; 168a-168b Je; 154a-154b Jl; 148a-148b Ag; 172a-172b S '54

Galvanized showing new strength. K. W. Bennett. Iron Age 173:55-6 Je 24 '54

New look in galvanized steel. E. W. Horvick. il Materials & Methods 39:107-9 Mr '54

Testing

Effect of chromate films on the corrosion resistance of hot dip galvanize in brine. F. J. Bubsey. il Metal Prog 65:122-4 My '54

Effect of impurities in the metal on the rate of corrosion of zinc and galvanized coatings in the atmosphere. P. T. Gilbert. il J Ap Chem 3:174-81 Ap '53

STEEL, Hardening of

Below zero heat treatment. R. S. Jamison. il Steel 134:104-6 Je 28 '54

Better heat treating for better bearings. H. Habart. il Iron Age 172:131-5 Jl 16 '53

Carbon controller makes possible accurate carburizing, carbon restoration, and homogeneous carburizing. W. L. Besselman. il Materials & Methods 39:110-12 F '54

Correlation of end-quenched test bars and rounds in terms of hardness and cooling characteristics. E. W. Weinman and others. bibliog il Am Soc for Metals Trans 44:803-34; Discussion. 834-44 '52

Deboronization of steels. J. C. Shyne and E. R. Morgan. il Metal Prog 65:88-90 Je '54

STEEL, Hardening of—*Continued*

Development, principles, and applications of interrupted quench hardening. R. F. Harvey. bibliog diags Franklin Inst J 255:93-9 F '53; Same. Chem Age (Lond) 69:321-4 Ag 15 '53

Dew point; a means of measuring the carbon potential of prepared atmospheres. N. K. Koebel. flow diag il Metal Prog 65:90-6+ F '54

Effect of retained austenite upon mechanical properties. L. S. Castleman and others. bibliog diags Am Soc for Metals Trans 44: 240-56; Discussion. 257-63 '52

Effect of tempering on the hardness of retained austenite. P. Stark and B. S. Lement. il J Metals 6:Trans 1074-5 sec 2 S '54

Effects of sample surface and X-ray diffraction camera geometry on the determination of retained austenite in hardened steels. K. E. Beu and D. P. Koistinen. bibliog diag J Metals 5:Trans 1529-30 sec 2 N '53

Equilibrium between steels and dew points of a prepared furnace atmosphere; data sheet. N. K. Koebel. Metal Prog 65:96B F '54

German investigations on boron steels. R. Scherer and K. Bungardt. Metal Prog 65: 101-6+ Mr '54

H-bands issued for nine new steel grades; bands revised for 6150 H and TS 81B40 H; charts. S A E J 61:96-7 N '53

Hardenability bands for boron steels; charts; data sheet. Metal Prog 65:112B Ap '54

Hardenability; boron steels are losing ground to standard grades. il Steel 133: 138-9 O 12 '53

Heat treating facilities provide versatility, rigid control; Continental motors corp. W. G. Patton. il Iron Age 172:106-8 O 29 '53

Improved hardening technique. E. M. H. Lips and H. Van Zuilen. Metal Prog 66: 103-4 Ag '54

Induction hardening improves gear life, shortens heat treating cycle. W. L. Walz. il diags Iron Age 174:93-6 Ag 26 '54

Isothermal transformation, hardening, and tempering of 12 per cent chromium steel. R. L. Rickett and others. bibliog il Am Soc for Metals Trans 44:138-68; Discussion. 168-75 '52

Just spin them in salt; selective hardening in a salt bath needs only a simple motorized fixture, is fast, and minimizes gear distortion. C. G. Lee. il Am Mach 98:132-3 My 10 '54

Limitations of the end-quench hardenability test. A. R. Troiano and L. J. Klingler. bibliog il Am Soc for Metals Trans 44: 775-85; Discussion. 785-802 '52

Little carbon goes a long way. H. K. Ihrig and J. T. Jarman. Steel 134:96-7 Mr 22 '54

Notch-toughness of fully hardened and tempered low-alloy steels. R. L. Rickett and J. M. Hodge. bibliog Am Soc T M Proc 51:931-44 '51

Precipitation hardening. A. L. Feild. il Steel 134:100-2 Je 28; 135:66-7 Jl 5 '54

Selection of constructional steels; supplement to 1948 edition of Metals handbook. Metal Prog 66:1-20F Jl 15 '54

Stress-induced transformation of retained austenite in hardened steel. B. L. Averbach and others. bibliog diag Am Soc for Metals Trans 44:746-56; Discussion. 756-7 '52

Through-carburizing simplifies production of formed parts. W. D. Latiano. il diag Iron Age 174:115-17 Jl 22 '54

With better heat treating, carbon steel can replace alloy for small diameter bolts. A. S. Jameson and others. diag Iron Age 172: 153-6 S 17 '53

See also

Case hardening	Steel, Heat treatment of
Steel—Aging	Steel, Quenching of

STEEL, Heat resisting

Alloy castings; chrome-nickel alloys meet high temperature conditions. il Iron Age 173:158-9 Mr 25 '54

Alternate types of vessel construction; cost comparison. I. E. Boberg and W. R. Fickett. il diags Pet Eng 25:C21+ O '53; Same cond. Pet Processing 8:690-2 My '53

American developments in alloys for high temperatures. C. L. Clark. Metal Prog 65: 72-6 Ja '54

Cast alloys tops for hot spots. E. A. Schoefer. il Steel 134:122-5 My 24 '54

Cast heat resistant alloys of the 21 per cent chromium-nine per cent nickel type. H. S. Avery and others. bibliog il Am Soc for Metals Trans 44:57-80; Discussion. diags 80-8 '52

Cast high alloys. E. A. Schoefer. il Chem Eng 60:298+ O '53

Design of creep-resisting steels. E. W. Colbeck and others. bibliog il Engineering 176: 505-6, 537-40 O 16-23 '53; Abstract and discussion. Engineer 196:470 O 9 '53

Design of steam piping and valves for 1100 F. F. A. Ritchings and S. Crocker. bibliog(34 titles) A S M E Trans 76:261-71 F '54; Same. Heating-Piping 25:84-8 Ag; 82-8 S '53; Discussion. A S M E Trans 76: 271-7 F '54; Same. Heating-Piping 25:84-90+ O '53

Fasteners for high temperature service. J. L. Everhart. il Materials & Methods 40:104-6 S '54

Heat-resistant furnace castings. W. L. Nelson. Oil & Gas J 52:143 Jl 20 '53

High temperature alloy fastenings require careful fabricating, precision heat treating; H. M. Harper co. T. W. Harker. il diag Iron Age 174:171-3 S 16 '54

Materials for high temperature service; irons and steels. H. R. Clauser. Materials & Methods 39:123-8 Ap '54

Metallurgical aspects of high-temperature steam and gas turbine plants; abstract. J. M. Robertson. Engineer 197:169 Ja 29 '54

New alloy; boost to turbines, relief for stockpile. A. G. Gray. il Steel 133:68-70 D 28 '53

New creep resistant ferritic steels. D. D. Howat. bibliog Materials & Methods 38: 87-90 S '53; Same cond. Metallurgia 49:201-2 Ap '54

Problems in developing alloy steels for aircraft gas turbines. F. L. Ver Snyder. bibliog flow diag il Iron & Steel Eng 31:115-23 My '54

Recent developments in steel specifications for chemical plant; abstract and discussion. W. Barr. Chem & Ind p867-8 Ag 15 '53

Sigma phase; a review. A. J. Lena. il Metal Prog 66:86-90 Jl 1; 94-9 Ag; 122-6+ bibliog(p 126+) S '54

Stainless; standard and tentative standard stainless and heat-resistant steels. Steel 134:120a My 10 '54

Stainless steels: supplement to 1948 edition of Metals handbook. Metal Prog 66:34-41 Jl 15 '54

Steel for bearings. il Steel 133:134 O 12 '53

Steels for steam power plant. A. M. Sage. bibliog il Inst Mech Eng Proc (A) 167 no 4: 414-24; Discussion. 424-33 '53; Engineer 195: 419-21 Mr 20 '53

Testing

Comparative high-temperature properties of British and American steels; abstract and discussion. W. E. Bardgett and C. L. Clark. Engineer 196:768-9+ D 11 '53

Creep and fracture of metals at high temperatures; symposium. bibliog il Metallurgia 50:81-6 Ag '54

Creep properties of steels utilized in high pressure and high-temperature superheater and steam pipe practice; revision of long-time creep data for a carbon steel header and a carbon-molybdenum steel pipe. R. W. Ridley. Inst Mech Eng Proc (B) 1B no 11: 511-15; Discussion. 515-16 '52-53

Critical examination of procedures used in Britain and the United States to determine creep stresses for the design of power plant for long life at high temperatures; abstract and discussion. R. W. Bailey. Engineer 196:768-9+ D 11 '53

Metallic materials for a steam power plant operating at 1130° F. H. Buchholtz and others. il Metal Prog 65:116-20+ Ja '54

Microstructural instability of steels for elevated temperature service. G. V. Smith and others. bibliog il Am Soc T M Proc 51:895-912; Discussion. 912-17 '51

STEEL, Heat resisting—Testing—*Continued*

Special steels for gas turbines; abstract. W. E. Bardgett and G. R. Bolsover. Metal Prog 65:154+ Je '54

See also

Steel—Testing—Temperature effect

STEEL, Heat treatment of

Austempering thin steel parts reduces cracks, increases toughness. C. Fay. il Materials & Methods 39:101 Je '54

Continuous normalizing lines speed output of pipe; Lone star steel co. Iron Age 173:218 Je 24 '54

Effect of manganese banding on mechanical properties of heat treated steel plate in the thickness direction. H. Schwartzbart. bibliog il diag Am Soc for Metals Trans 44:845-52 '52

Effects of cold-drawing, microstructure, and thermal treatments on the machinability and mechanical properties of carbon and alloy steel. F. E. Dreves. il diag A S M E Trans 75:1219-32 O '53

Effects of decomposition of retained austenite during tempering on notch toughness and tensile properties. E. F. Bailey and W. J. Harris, jr. bibliog il Am Soc for Metals Trans 44:204-17; Discussion. 217-24 '52

Fatigue strength of ball bearing races and heat-treated 52100 steel specimens. H. Styri. bibliog il diags Am Soc T M Proc 51:682-97; Discussion. 697-700, 719-20 '51

Fundamentals of heat treatment. N. K. Koebel. il diags Steel 134:102-4 My 17; 98-9 My 24 '54

Heat treating; martemper steel helicopter spars in 30-ft salt baths; Piasecki helicopter plant. il Iron Age 172:110 O 29 '53

Heat treating; modernization and expansion of implant facilities builds savings. il Iron Age 172:106-7 Jl 30 '53

Heat treating; quicker, more accurate control in martempering, austempering; Schaaber dilatometer. il Iron Age 172:153-4 Jl 16 '53

Heat treating review and forecast. il plan Iron Age 173:326-7 Ja 7 '54

Heat treatment of steel castings. J. H. Hall. il Foundry 81:122-5+ O; 124-7+ N; 126-9+ D '53

Heat-treatments of welded structures for relief of residual stresses with particular reference to type 347 stainless-steel weldments. W. L. Fleishmann. bibliog diags A S M E Trans 76:645-8 My '54

How cold work, heat treat change properties of 18-8 wire. S. Storchheim. Iron Age 173:146-8 F 18 '54

How heat treatment affects properties of cold worked 18-8 wire. S. Storcheim. Iron Age 172:112-14 O 1 '53

How to work stainless steel; heat treating and annealing. R. E. Paret. il Am Mach 98:139-40 S 27 '54

Impact transition temperatures of some pearlite-free mild steels as affected by heat treatments in the alpha range. A. Josefsson. bibliog il J Metals 6:Trans 652-9 sec 2 My '54

Influence of extended time on creep and rupture strength of 16-25-6 alloy. C. L. Clark and others. il Am Soc for Metals Trans 44:89-108; Discussion. 108-12 '52

Isothermal heat treatment; with special reference to American practice. il diags Metallurgia 49:27-33 Ja '54

Line of salt baths heat treats 90-mm. gun recoil mechanism. G. F. Hyde. il plan Metal Prog 65:104-8 My '54

Machinability of heat-treated steel. R. C. Gibbons. il Materials & Methods 39:86-8 Ja '54

One setup heat treats wide variety of work; Elastic stop nut corp. of America. S. W. Chantler and F. C. Schaefer. il plan diag Iron Age 172:131-4 S 24 '53

Protection of hot work tools in heat treatment. J. Y. Riedel. il Metal Prog 65:85-7 Mr '54

Salt bath heat treating; old process with new ideas. il Steel 135:68-71 Ag 30 '54

Salt bath heat-treatment cuts distortion; torque converters for Chrysler and Plymouth cars. il Iron Age 172:101 Jl 30 '53

Salt bath quenching; American practice for isothermal treatment. il Automobile Eng 44:83-5 F '54

Technical progress; heat treating. il Steel 134:282-3+ Ja 4 '54

Tools for the heat treater. A. H. Koch. il diags Tool Eng 32:45-53 Mr '54

See also

Annealing
Case hardening
Heat treatment shops
Steel, Hardening of
Steel, Quenching of

STEEL, Molten

Fluidity of molten steel. B. G. Rightmire and H. F. Taylor. bibliog diags Iron & Steel Inst J 175:167-76 O '53

Liquid-metal sampling apparatus. diag Engineering 176:735 D 4 '53

Tungsten/molybdenum thermocouple for immersion pyrometry. J. P. Simons and others. bibliog diags Iron & Steel Inst J 175:402-7 D '53

STEEL, Nickel clad

Protective coating. Steel 135:186 S 20 '54

STEEL, Powdered

Adsorption of polar organic compounds on steel. N. Hackerman and A. H. Roebuck. bibliog Ind & Eng Chem 46:1481-5 Jl '54

Improved steel powder; Vanadium-alloys steel co. G. A. Roberts. Machine Design 26:162 Jl '54

Powdered metals enter stainless stage. W. L. Batten. il diag Steel 133:78-81 D 21 '53

STEEL, Quenching of

Agitation of quenching mediums; supplement to 1948 edition of Metals handbook. Metal Prog 66:126-7 Jl 15 '54

Fundamentals of quenching. A. J. Jarema; N. K. Koebel. il diags Steel 134:110-12 Je 7; 114-16 Je 14; 128-30 Je 21 '54

Hot oil quenching toughens tractor shovel parts; Frank G. Hough co. R. H. Marshall. il plan Iron Age 172:67-71 D 31 '53

How to develop favorable stress patterns. J. E. Campbell and H. O. McIntire. il diags Iron Age 172:185-8 N 12; 102-5 N 26; 140-3 D 17 '53

Investigation of the quenching characteristics of a salt bath. M. J. Sinnott and J. C. Shyne. bibliog Am Soc for Metals Trans 44:758-69; Discussion. 769-74 '52

Quench cracks in wrought steel tubes. C. Wells. il Metal Prog 65:113-21 My '54

Simple test measures quenching power of salt baths. R. F. Harvey. bibliog il diags Iron Age 173:154-7 Ap 8 '54

Tempering; addition of water improves salt bath heat treat operations; American cyanamid co. Iron Age 172:260 N 12 '53

STEEL, Reinforcing

Deformed bar for reinforced concrete. Engineer 197:397 Mr 12 '54; diag Engineering 177:350 Mr 12 '54

Guide for steel buyers; deformed reinforcing bars. Steel 135:71 sec 2 Jl 12 '54

In this efficient yard, reinforcing bars are hooked and bent; Fehlhaber corp. il diag Constr Methods 36:58-60 My '54

Simplifying compression reinforcing design. J. Moyse. Civil Eng 24:247 Ap '54

STEEL, Stainless

Alloy steel, titanium successfully hot extruded. K. A. Wilhelm and G. A. Moudry. il Iron Age 173:98-102 Ap 29 '54

Amount of oxygen on the surface of passive stainless steel. H. H. Uhlig and S. S. Lord, jr. bibliog diag Electrochem Soc J 100:216-21 My '53; Discussion. 100:591-2 D '53

Applications of stainless steel. W. L. Nelson. Oil & Gas J 52:156 Ag 17 '53

Boeing develops scale-inhibiting treatment for titanium and stainless. Am Mach 98:112 Ag 30 '54; Iron Age 174:126-7 S 2 '54; Steel 135:106 S 27 '54

Brazing stainless steels in controlled atmosphere. Chem Age (Lond) 69:1082 N 21 '53; Metal Prog 65:108 Mr '54

Carbides in 310 stainless steel. H. Brown. il diags Steel 135:106-8 Jl 19; 92-4 Jl 26 '54

Casting stainless steel in shell molds; Cooper alloy foundry co. H. J. Cooper and M. L. Katz. il Metal Prog 65:102-6 Ap '54

Castings play vital role in antibiotics. E. A. Schoefer. il Chem Eng 61:244+ My '54

STEEL, Stainless—*Continued*

Composition limits of sigma formation in nickel-chromium steels at 1200°F (650°C). M. E. Nicholson and others. bibliog Am Soc for Metals Trans 44:601-19; Discussion. 619-20 '52

Compressor piston rods sprayed with stainless for longer life. il Iron Age 172:145-6 O 15 '53

Descaling the stainless steels. L. F. Spencer. bibliog il Metal Finishing 52:54-9 F '54

Distribution by market classifications, 1951-1953; tabulations. Steel 134:165 Ja 4 '54

Drawing stainless; how to make it fit your product. il Steel 134:134-5+ My 10 '54

Effects of acid velocity and galvanic couples on corrosion of aluminum and stainless steel in strong nitric acid. M. G. Fontana. il Ind & Eng Chem 45:sup91A-2A+ N '53

Electrical resistance apparatus for studying transformations in metals; its application to transformations in stainless steel. W. H. Colner and O. Zmeskal. bibliog diags Am Soc for Metals Trans 44:1158-68 '52

Fabricating stainless photographic equipment. il Sheet Metal Worker 45:62-3, 117-18 Ap '54

475°C (885°F) embrittlement in stainless steels. A. J. Lena and M. F. Hawkes. bibliog il J Metals 6:Trans 607-15 sec 2 My '54

General Metal Products iron lung for sick metals; heat treating of stainless steel. il Steel 133:132 S 7 '53

Grinding 302 stainless; Stainless machine polishing co. Steel 134:138+ Je 7 '54

Guide for machining stainless steels. J. D. Armour. il diags Steel 134:92-5 Mr 22; 106-8+ Mr 29 '54

Hard bronze draws stainless without scratches. A. Walz. il diags Am Mach 98:106-9 Ag 2 '54

Heat transfer measurements at sodium-stainless steel interface. J. W. Moyer and W. A. Riemen. diags J Ap Phys 25:400-2 Mr '54

Here is Pullman-Standard's new stainless-steel passenger car. il diags Ry Age 136:27-8 My 24 '54; Same. Ry Loco & Cars 128:39-41 Jl '54

Hot extrude stainless shapes; Allegheny Ludlum steel corp. il Iron Age 173:57 Ap 29 '54; Steel 134:61 Ap 26 '54; Blast F & Steel Pl 42:716-17 Je '54

How to solder stainless steel. il Steel 134:108 My 31 '54

How to work stainless steel. R. E. Paret. il Am Mach 98:129-40 S 27 '54

Increases facilities for rolling stainless steel; Republic steel corp. Blast F & Steel Pl 41:1362 N '53

Light panels cover buildings rapidly. il diags Constr Methods 36:108-9+ Ap '54

Machining stainless steels; reference sheet. diags Tool Eng 31:81-4 D '53

Materials of construction for chemical engineering; stainless steels and other ferrous alloys. W. A. Luce. il Ind & Eng Chem 45:2241-54 bibliog(303 ref, p2251-4) O '53

Modern stainless steels. R. H. Aborn. il Metal Prog 65:115-25 Je '54

Molybdenum stainless steels. il Chem Eng 60:302+ Je '53

New alloys stop corrosion in silver-brazed type 430 joints. J. J. Halbig and others. il Iron Age 172:159-63 D 10 '53

New stainless is harder, non-galling. Aviation W 58:39 Je 29 '53; Steel 132:106-7 Je 22 '53; Chem Eng 60:274+ Jl '53; Product Eng 24:191 Jl '53

Nickel-stretching and special-purpose alloys brighten outlook for stainless steels. il Steel 133:146-8+ O 12 '53

Norwegian production of stainless steels. J. Sissener. il Metal Prog 65:81-3+ Ja '54

Powdered metals enter stainless stage. W. L. Batten. il diag Steel 133:78-81 D 21 '53

Precipitation hardening. A. L. Feild. il Steel 134:100-2 Je 28; 135:66-7 Jl 5 '54

Properties of cast stainless steels; tabulation; engineering file facts. N. S. Mott. Materials & Methods 39:129, 131, 133 Ja '54

Rare earths counteract hot rolling defects in stainless steel. R. H. Henke and R. A. Lula. il J Metals 6:883-8 Ag '54

Reconditioning stainless-steel fluting. il Ry Loco & Cars 128:67-8 S '54

Reducing period in stainless steel melting. H. P. Rassbach and E. R. Saunders. bibliog J Metals 5:Trans 1009-16 Ag '53

Reladling stainless steel heats for the purpose of conserving alloys; abstract. A. J. Texter. Steel 134:78 Ja 11 '54

Rolls form and bend stainless molding; Turnstedt division, Detroit. il Steel 133:94 S 28 '53

Shell molding of stainless steel. W. H. Dunn and R. E. Day. il Product Eng 24:129-33 S '53

Shepcote-Lane plant of Firth-Vickers stainless steels, ltd. il plan Engineering 176:332-3, 362-5, pl 24-6 S 11-18 '53

Sigma phase; a review. A. J. Lena. il Metal Prog 66:86-90 Jl 1; 94-9 Ag; 122-6+ bibliog(p 126+) S '54

Silver brazing alloys for corrosion-resistant joints in stainless steels. G. H. Sistare and others. il Welding J 33:137-43 F '54

Silver goes stainless. Steel 133:81 N 16 '53

Some low temperature properties of titanium alloy RC-130-B and stainless steel. W. W. Tyler and others. J Metals 5:Trans 1104-5 S '53

Spectrographic determination of certain rare earths in stainless steels. E. W. Spitz and others. bibliog Anal Chem 26:304-7 F '54

Stainless; bet on bigger markets. W. V. Packard. il Iron Age 172:74-5 Ag 6 '53

Stainless for brew; Anheuser-Busch brewery. il Steel 134:144 Ap 5 '54

Stainless for cold heading. Steel 133:101 D 21 '53

Stainless; slight firming. J. B. Delaney. Iron Age 174:57 S 2 '54

Stainless springs have long service life. il diag Iron Age 173:149 Ap 8 '54

Stainless; standard and tentative standard stainless and heat-resistant steels. Steel 134:120a My 10 '54

Stainless steel magnetic particle clutch. il Product Eng 24:222 Jl '53

Stainless steel production hits record high. R. E. Paret. il Blast F & Steel Pl 42:555 My '54

Stainless steel production; 1952-1953; tabulation. Steel 134:164 Ja 4 '54

Stainless steel selector developed. Blast F & Steel Pl 42:sup56 Ap '54

Stainless steel valves and fittings in the pulp and paper industry. P. C. Shaffer. bibliog il diags Pulp & Pa of Can 55:138-46 S '54

Stainless steel welding rods and bare electrodes. diags Welding J 33:433-7 My '54

Stainless steels; supplement to 1948 edition of Metals handbook. Metal Prog 66:34-41 Jl 15 '54

Stainless strip descaled and brightened continuously; Sharon steel corp. L. H. Wilson. il diags Steel 133:96-8 Ag 10 '53

Steel; alloys will save nickel; abstracts. H. O. McIntire and G. K. Manning. Iron Age 172:100 N 19 '53; Materials & Methods 39:171-2 Mr '54

Steel forming; furnaces heat stainless steel billets for hot extrusion; Allegheny Ludlum steel corp. il Iron Age 173:179-80 Mr 4 '54

Stress corrosion in stainless steel; abstract. R. A. Lincoln. Iron & Steel Eng 31:141-2 Ag '54

Surface finishing stainless steel. il Steel 133:82-3 Ag 24 '53

Thermal-shocking austenitic stainless steels with molten metals. R. A. Tidball and M. M. Shrut. diags A S M E Trans 76:639-43 My '54

Ti-stainless machined like butter. G. Glaeser. il diags Am Mach 98:144 S 13 '54

When and how to use carbides in machining stainless steel. G. J. Stevens. diags Mach 60:196-200 D '53

Which stainless steel? R. E. Paret. il Materials & Methods 38:98-101 D '53

See also

Chromium manganese steel
Chromium nickel steel
Chromium steel
Steel, Corrosion resisting

Analysis

See Steel—Analysis

STEEL, Stainless—*Continued*

Testing

Corrosion resistance of titanium, zirconium, and stainless steel in organic compounds. I. R. Lane, jr., L. B. Golden and W. L. Acherman. bibliog Ind & Eng Chem 45: 1067-70 My '53

Electrolytic etch cuts corrosion test time. J. D. Roach and H. H. Hollenbeck. il Iron Age 173:100-3 Je 24 '54

Electrolytic etching in oxalic acid screens cast and wrought stainless steels from 240-hour nitric acid test. M. G. Fontana. il Ind & Eng Chem 45:sup 95A-7A O '53

Factors affecting the testing of stainless steels in boiling concentrated nitric acid. J. E. Truman. diags J Ap Chem 4:273-83 My '54

430 stainless is hardy civilian. A. H. Thomas. il Steel 133:88-9 S 28 '53

Mechanical properties in torsion and Poisson's ratio for certain stainless steel alloys. C. W. Muhlenbruch and others. diags Am Soc T M Proc 51:832-52; Discussion. 853-6 '51

Results of cooperative testing program for the evaluation of the oxalic acid etching test. M. A. Streicher. Metal Prog 66:supA 176+ Jl 15 '54

Screening cast stainless steels by electrolytic etching in oxalic acid; abstract. G. W. Jackson and W. A. Luce. Metal Prog 66: 166+ Jl 1 '54

Test determines presence of high residual stresses in stainless. H. Kirtchik. Iron Age 173:130-3 Ap 1 '54

Welding

Butt welding stainless sheets; Heliarc process, illustrations with text. H. E. Jackson. Mill & Factory 54:81 Mr '54

Cone-arc welding. P. Patriarca and G. M. Slaughter. diag Metal Prog 65:194+ My '54

Fabricating stainless-steel tanks for liquid storage; Cherry-Burrell corp. R. H. Spiotta. il Mach 60:157-64 My '54

Heat-treatments of welded structures for relief of residual stresses with particular reference to type 347 stainless-steel weldments. W. L. Fleischmann. bibliog diags A S M E Trans 76:645-8 My '54

How to control carbide precipitation in welding stainless steels. G. E. Linnert and R. M. Larrimore, jr. il Materials & Methods 38:98-103 N '53

How to weld stainless steel. il Steel 134:109-10 My 31 '54

Inert-tungsten arc welding of stainless steel piping. F. J. Pilia. il diags Welding J 32:1167-74 D '53

New spot-welding method reapplies stainless steel car sidings. il Welding J 33:575-6 Je '54

Proper technique gives stainless good weldability. R. E. Solomon. il Iron Age 172:142-4 D 10 '53

Sigma; an unwanted constituent in stainless weld metal. L. K. Poole. il Metal Prog 65: 108-12 Je '54

Stabilizing austenitic chrome-nickel weld metal against intergranular corrosion. H. C. Campbell. il Welding J 32:sup577-83; Discussion. sup583-4 D '53

Tubular elements simplify fabrication and lower costs of radar screens. il Welding J 33:149-52 F '54

Welded joints in stainless equipment. Metal Prog 65:79 Mr '54

Welding; steam-tight pocket made in stainless steel kettle; Groen mfg. co. il Iron Age 173:196-7 F 25 '54

STEEL, Stainless clad

Clad steels. il Steel 133:152 O 12 '53

Roll-forming of lightweight waveguides. G. F. Duree and others. il diags Electronics 26:286+ D '53

STEEL, Strip

Application and use of self-centering rolls. E. T. Lorig. diags Iron & Steel Eng 31:59-73 Ja '54

Cold-rolled and hot-rolled strip; prices tabulated. Iron Age 173:411 Ja 7 '54

Comparison of economics and methods for heating steel strip. C. E. Peck. Blast F & Steel Pl 42:791-9 Jl '54

Cut color costs; precoated steel coil furnished by Enamelstrip corp. il Tool Eng 33:64 S '54

Evaluating rolling pressures in hot and cold strip mills. N. H. Polakowski. bibliog il diags Steel 133:96+ N 2 '53

Guide for steel buyers. Steel 135:44-7 sec 2 Jl 12 '54

Hot rolling of steel strip; planetary mill installed at Willenhall. il diags Metallurgia 48:247-8 N '53; Steel 133:76+ D 28 '53

Lead-tin alloy coating improves workability of strip steel. E. J. Roehl. il Iron Age 173:140-2 Mr 18 '54

Precoated metals; new starting point for production economy in a wide range of metal combinations. il Steel 133:156-7 O 12 '53

Precoated stock helps cut production costs; Rochester mfg. co. il Iron Age 173:151 Je 17 '54

Precoated strip has use appeal; Thomas strip division of the Pittsburgh steel co. il Steel 133:166-7 D 14 '53

Strip steel; Europe can make more. Iron Age 172:107 S 17 '53

Super-thin strip; rolling it is only half the job; Wallingford steel co. il Steel 133:132-3 N 16 '53

Thin gauge steel rolled on Y-mill in France; Societe Etilam, of Jeumont, France. il Blast F & Steel Pl 42:336-8 Mr '54

Wide choice in coiled strip leads to faster fabrication. J. E. Hyler. il Iron Age 173: 124-6 Je 3; 118-21 Je 10 '54

Testing

Flexure and fracture of vitreous enameled steel strips. C. J. Rodman and F. J. Shollenberger. bibliog il diags Am Cer Soc Bul 33:105-7 Ap 15 '54

Transportation

Parcel-post steel; Ulbrich makes a big thing of little shipments. Steel 134:63 Mr 1 '54

STEEL, Structural

Carbides mill structural members at high speeds. H. Frommelt. il Iron Age 174:111-13 Jl 15 '54

Fabrication and construction of structural steel for buildings. C. L. Kreidler. il plan diags Am Soc C E Proc 79 [no 345]:1-18 N '53

Guide for steel buyers. Steel 135:72-3 sec 2 Jl 12 '54

Indian rope trick in steel; unrolled from spools, steel truss sections fold and lock to form rigid beam of triangular cross section. il Eng N 151:168+ Jl 16 '53

Light panels cover buildings rapidly. il diags Constr Methods 36:108-9+ Ap '54

Light steel adds service pounds. A. G. Gray. il Steel 133:88 O 5 '53

Metal building products. il plans diags Am Bld 75:329+ Ap '53

Pilot plant erection; Dexion as a valuable structural material. il Chem Age (Lond) 69:357-9 Ag 22 '53

Prestressing comes to structural steel. il diags Arch Forum 101:158-9+ Jl '54

Protection of iron and steel by metallic and non-metallic coatings. J. C. Hudson and J. F. Stanners. bibliog il 6pls Iron & Steel Inst J 175:381-90 D '53

Steel fabricators, Canada; directory. Roads & Eng Constr 92:160 Je '54

Steel; Inland eyes wide-flange market. K. W. Bennett. Iron Age 173:66 Jl 1 '54

Structural steel shapes; prices, 1934-1953; tabulation. Iron Age 173:412 Ja 7 '54

Structurals; Bethlehem boosts output. J. B. Delaney. il Iron Age 172:55 Jl 23 '53

Twenty years' progress in corrosion resistant coatings for exterior steel surfaces. R. H. Everett. Am Gas Assn Proc 1953:751-4

See also

Bridges, Iron and steel
Concrete, Reinforced
Steel, Aircraft
Steel, Automobile
Steel, Reinforcing
Steel construction

Testing

American society for testing materials 56th annual meeting, Atlantic City. Eng N 151: 26-7 Jl 9 '53

STEEL, Structural—Testing—*Continued*

Brittle strength and transition temperature of structural steel. W. C. Hoeltje and N. M. Newmark. bibliog diags Welding J 31: sup515-21 N '52; Discussion. 33:sup 129-33 Mr '54

Evaluation of notch-bend specimens. P. P. Puzak and W. S. Pellini. bibliog diags Welding J 33:sup 187-92 Ap '54

Hardenability measurements on constructional steels. H. Kiessler and K. Schweyher. Engineer 197:352-3 Mr 5 '54

Improving the testing method for determining the susceptibility of steel to stress-corrosion cracking; abstract. W. Rädeker. Metal Prog 65:140+ Mr '54

Influence of carbon and manganese on the properties of semikilled hot rolled steel. F. W. Boulger and R. H. Frazier. bibliog il diag J Metals 6:Trans 645-52 sec 2 My '54

Propagation of brittle fracture in steel. T. S. Robertson. 4pls diags Iron & Steel Inst J 175:361-74 D '53

Welding

Box-shaped girders make rigid bents. il Constr Methods 36:160+ My '54

Critical energy rate analysis of fracture strength. G. R. Irwin and J. A. Kies. bibliog diags Welding J 33:sup 193-8 Ap '54

Designing and making welded structural steel members for cyclic loading. Welding J 33: sup386-7 Ag '54

Ductility transition of weld metal. W. S. Pellini and E. W. Eschbacher. il diags Welding J 33:sup 16-20 Ja '54

Government standards; how a federal specification touched off a chain reaction. S. P. Kaidanovsky. Welding J 33:446-8 My '54

Initiation and propagation of brittle fracture in structural steels. P. P. Puzak and others. bibliog il diags Welding J 31:sup561-81 D '52; Discussion. B. Persson. 33:sup 166; Reply. sup 167 Ap '54

Steel for welded bridges and buildings. S. A. Greenberg. Am Soc C E Proc 79 [no 344]:1-9 N '53

Transition temperatures of structural steel beams with butt-welded splices. W. J. Krefeld and G. B. Anderson. il diags Welding J 32:sup538-76 N '53

Weldability of steel as it is considered by Swiss engineers. C. G. Keel. il Metal Prog 65:89-93 Ja '54

Weldability of structural steel. E. L. Erickson. Welding J 32:1155-9 D '53

See also

Steel construction—Welding

STEEL alloys

Alloy casting institute technical conference, Harbor Island, N.C. Chem & Eng N 31: 2868+ Jl 13 '53

Alloy steel production by processes, 1936-1953; tabulation. Steel 134:164 Ja 4 '54

Alloy steel, titanium successfully hot extruded. K. A. Wilhelm and G. A. Moudry. il Iron Age 173:98-102 Ap 29 '54

Alloy steels; H-steels. Steel 134:120b-120d My 10 '54

Applications of alloy high-strength steels in welded structures. H. L. Miller and A. E. Wilkoff. il diags Welding J 33:339-50 Ap '54

Case for blue ribbon steels. il diags Steel 134:114-17 My 10 '54

Composition limits of standard alloy steels (Feb. 1954); tabulation; supplement to 1948 edition of Metals handbook. Metal Prog 66: 20F Jl 15 '54

Developments in German constructional steels to conserve scarce alloys. F. W. Bruhl. diag Metal Prog 65:97-100 Ja '54

Distribution by market classifications, 1951-1953; tabulations. Steel 134:165 Ja 4 '54

Effect of welding variables on hard-facing deposits. A. Zvanut and V. Peters. Welding J 33:778-82 Ag '54

High-strength low-alloy steels. bibliog il diag Materials & Methods 39:117-32 F '54 (reprints 25¢)

Materials of construction for chemical engineering; iron, mild steels, and low-alloy steels. H. L. Shaw. bibliog(85 ref) il Ind & Eng Chem 45:2205-10 O '53

Materials of construction for chemical engineering; stainless steels and other ferrous alloys. W. A. Luce. il Ind & Eng Chem 45: 2241-54 bibliog(303 ref, p2251-4) O '53

More strength less weight. il Steel 133:130-4 O 12 '53

New steel for pressure vessels. Metal Prog 66:82 S '54

Partition of some alloying elements between carbide and ferrite in steels. D. A. Scott and G. S. Farnham. bibliog J Metals 5: Trans 1541-3 sec 2 N '53

Properties of chemical engineering materials of construction. H. L. Shaw. Ind & Eng Chem 45:2276-9 O '53

Standard analyses of German alloy steels; data sheet. Metal Prog 65:96B Ja '54

Study of the cooling rates in flash welds in steel. E. F. Nippes and others. il diag Welding J 33:sup339-62 Jl '54

There is no lack of frontiers; Allegheny Ludlum steel corp. il Steel 134:121 F 15 '54

24 places to save with alloy steels. Steel 134: 108-10 My 24 '54

See also

Chromium nickel steel
Chromium steel
Ferroalloys
Iron alloys
Molybdenum steel
Nickel steel
Silicon steel
Steel, Automobile
Steel, Stainless
Steel, Structural
Tool steel

Analysis

Analytical chemistry of W and Mo. bibliog Chem Age (Lond) 70:267-74, 309-12 Ja 23-30 '54

Rapid photometric determination of chromium in alloy steels and bronzes. M. D. Kahn and F. J. Moyer. Anal Chem 26:1371-3 Ag '54

Selection of line pairs for the spectrographic analysis of low alloy steel. D. L. Fry and T. P. Schreiber. Opt Soc Am J 44:159-62 F '54

Testing

Assessment of weldability by rapid dilatation tests. C. L. M. Cottrell. bibliog il diag Iron & Steel Inst J 174:17-24 My '53; Abstract. Metal Prog 65:158+ My '54

Comparison of the effects of alloying elements on the lower and upper transition temperatures in pearlitic steels. J. A. Rinebolt and W. J. Harris, jr. bibliog il Am Soc for Metals Trans 44:225-36; Discussion. 236-9 '52

Corrosion of low-alloy irons and steels in soils. Chem Eng 60:312-14 O '53; Same abr. Iron Age 172:184+ S 17 '53; Same cond. il Steel 133:107 Ag 24 '53

Notch-toughness of fully hardened and tempered low-alloy steels. R. L. Rickett and J. M. Hodge. bibliog Am Soc T M Proc 51:931-44 '51

Test new alloy steel for pressure vessels. Iron Age 174:120 Jl 22 '54; il Materials & Methods 40:12 S '54

Titanium-stabilised mild steel; abstract. A. Josefsson and B. Nelson. Engineer 197:172-3 Ja 29 '54

Vanadium as a replacement for molybdenum in low-alloy steels; abstract. C. L. M. Cottrell and B. J. Bradstreet. Metal Prog 66:200+ S '54

STEEL balls. See Balls, Steel

STEEL barrels. See Barrels, Steel

STEEL bars

Bar mill built to serve market; Bliss & Laughlin inc. A. G. Gray. il plan Steel 133: 196-7+ D 7 '53

Bars; cold-finishers see pickup. K. W. Bennett. Iron Age 174:57-8 Jl 8 '54

Container for conveying a billet through a heat-treating salt bath; patent. diags Iron & Steel Eng 31:32+ S '54

Engineering data sheets for selecting carbon steel bars. Steel 133:108-9+ S 28 '53

Guide for selection of carbon steel bars. G. P. Witteman. il diag Steel 133:104-7+ S 14; 131-2+ S 21; 106 S 28 '53

Guide for steel buyers. Steel 135:57-71 sec 2 Jl 12 '54

Large carbon bars; the pinch is easing. il Steel 133:74-5 S 14 '53

STEEL bars—*Continued*

Low frequency induction coils shorten billet heating time. il Iron & Steel Eng 30:130+ N '53; Steel 133:118 D 21 '53

Merchant bars, cold-finished steel bars; prices, 1937-1953; tabulations. Iron Age 173: 412 Ja 7 '54

Rounds heat quickly to 2300°F in special furnace. il Steel 134:158 Mr 15 '54

Stretching hot-rolled bars produces cold-drawn properties; Hufford machine works inc. J. A. Helget. il Mach 60:162-4 Ag '54

See also

Steel, Reinforcing

Testing

Correlation of end-quenched test bars and rounds in terms of hardness and cooling characteristics. E. W. Weinman and others. bibliog il Am Soc for Metals Trans 44:803-34; Discussion. 834-44 '52

STEEL boiler institute

Fall meeting, New Orleans, Oct. 19-20. Dom Eng 182:161-2 D '53

STEEL buildings

Gunnison homes readies plant to build steel buildings, from schools, hospitals to houses. Arch Forum 98:45 Je '53

How USS is expanding the market for structural steel on the farm. F. J. Reynolds. il Sales Management 71:40-2 Jl 15 '53

Light-gauge steel for frameless building. il diags Arch Forum 97:158-9 O '52

Steel prefab has 40-ft clear span. il Eng N 152:100 Mr 25 '54

Steel prefabs here to stay. il Steel 133: 74-5 Jl 6 '53

Steel wall that breathes; modernized office building for the Heppenstall co. il diags Arch Rec 113:177-8 Je '53

See also

Steel construction

Steel houses

STEEL castings

Accent on oversize. il Steel 135:57 Jl 26 '54

Accuracy is essential in casting 280 mm artillery shell; Riverside crankshaft division of Auto specialties mfg. co. R. H. Herrmann. il Foundry 82:96-9+ Jl '54

Alloy casting institute technical conference, Harbor Island, N.C. Chem & Eng N 31: 2868+ Jl 13 '53

Apparatus for continuous casting of steel; patent. diag Iron & Steel Eng 31:24+ Ag '54

Big, the word for General Steel Castings. il Ry Age 136:60-3 F 22 '54

Cast alloy reference sheet. N. S. Mott. Chem Eng Prog 50:324, 376, 428 Je-Ag; sup39 S; 532 O '54

Cast heat resistant alloys of the 21 per cent chromium-nine per cent nickel type. H. S. Avery and others. bibliog il Am Soc for Metals Trans 44:57-80; Discussion. diags 80-8 '52

Cast high alloys. E. A. Schoefer. il Chem Eng 60:298+ O '53

Cast-iron and steel segments for third tube of Lincoln tunnel. il Mach 60:200 D '53; Foundry 82:144 F '54

Cast-to-shape stainless; bright future for precision technique; Jessop steel co. il Steel 135:126 Jl 19 '54; Iron Age 174:198+ S 16 '54

Cast-weld construction. J. H. Hall. il Foundry 82:114-19 Mr '54

Cast-weld construction bypasses complications. G. L. Gibson. il Steel 135:96-7 S 6 '54

Casting pump cases. il Steel 133:137+ O 26 '53

Casting stainless steel in shell molds; Cooper alloy foundry co. H. J. Cooper and M. L. Katz. il Metal Prog 65:102-6 Ap '54

Casting tank parts; Blaw-Knox co.'s Union steel casting division. il Foundry 82:144+ Mr '54

Castings play vital role in antibiotics. E. A. Schoefer. il Chem Eng 61:244+ My '54

Cleaning cast steel armor; Cast armor division of American steel foundries. E. F. Ross. il Foundry 81:178+ Ag '53; Same. Steel 133:106-7 Jl 27 '53

Composition control of steel castings improved by new furnace sampling methods. V. E. Belusko. il J Metals 5:1430-2 N '53

Design of ferrous castings; supplement to 1948 edition of Metals handbook. bibliog il diags Metal Prog 66:109-14 Jl 15 '54

Dimensional tolerances for steel castings. C. W. Briggs. Mech Eng 75:619-21 Ag '53; Same cond. Product Eng 24:269-72+ N '53

Foundry specializes in close-tolerance castings; AiResearch mfg. co. F. Warga. il Foundry 82:124-7 Ap '54

Heat-resistant furnace castings. W. L. Nelson. Oil & Gas J 52:143 Jl 20 '53

Heat treatment of steel castings. J. H. Hall. il Foundry 81:122-5+ O; 124-7+ N; 126-9+ D '53

High alloy castings play vital role in producing antibiotics. il Can Chem Process 38:54+ Ag '54

In-place babbitting aids spotfacing large casting. J. H. Rollin. diags Am Mach 98: 164 Mr 15 '54

1.5 per cent carbon cast-steel railroad-car wheels. N. A. Matthews and R. A. Flinn. il diag A S M E Trans 76:617-21 My '54

185-ton casting is Britain's largest; English steel corp. il Foundry 81:110-11 N '53

Practical approach to casting design. R. J. Franck. il diags Product Eng 24:192-5 Jl '53

Pressure-pouring steel car wheels; new process involves permanent molds machined from graphite. E. Q. Sylvester. il diags Mech Eng 76:152-8 F '54

Progressive policies feature successful steel foundry; Farrell-Cheek steel co. R. H. Herrmann. il Foundry 82:108-10+ Ap '54

Properties of cast stainless steels; tabulation; engineering file facts. N. S. Mott. Materials & Methods 39:129, 131, 133 Ja '54

Rollmaking art goes modern. il diags Steel 134:82+ Ja 18 '54

Several factors influence linear shrinkage. H. Chappie. il Foundry 82:100-3 Ja '54; Abstracts. Steel 134:128-9 Ap 12 '54; Materials & Methods 39:186+ Ap '54

Shell molding of stainless steel. W. H. Dunn and R. E. Day. il Product Eng 24: 129-33 S '53

Shell molding; stainless steel jet engine rings cast in shells. il Iron Age 173:166-7 F 4 '54

Southern foundry marks 65 years of progress; Ross-Meehan foundries. W. G. Gude. il Foundry 82:90-3+ Ag '54

Status of continuous casting at Allegheny Ludlum. W. B. Pierce. il diags Blast F & Steel Pl 41:1301-6 N '53; Same. Steel 133: 256-8+ O 12 '53; Abstract. Iron Age 172:147 O 15 '53

Steel castings; American foundrymen's society annual meeting, Cleveland; abstracts of papers. Foundry 82:143-5+ Jl '54

Steel; continuous casting gains toe-hold; Rossi-Junghans continuous steel billet caster. G. G. Carr. diag Iron Age 172:55-6 S 24 '53

Tips on better sampling of steel castings. Steel 133:136 Ag 3 '53

See also

Steel ingots

Standards

Foundry; set standards to up sales; Steel founders society circulates proposed minimum castings standards. T. M. Rohan. Iron Age 174:75-6 S 23 '54

Statistics

Steel castings shipments, 1947-1953; tabulation. Steel 134:168 Ja 4 '54

Steel ingot and castings output by countries; monthly output of steel for ingots and castings, 1952-1953; tabulations. Steel 134:162-3 Ja 4 '54

Testing

ASTM mechanical tests for steel castings. diags Steel 133:121 S 7 '53

Application of radio-active isotopes to steel foundry radiography. L. Wilkinson. diag Engineer 197:383-7, pl 2 Mr 12 '54

STEEL construction

Another link in Manhattan's girdle. il map Roads & Sts 96:74-5+ O '53

Bolts use increases in building. K. W. Bennett. Iron Age 173:129-30 Ap 22 '54

Box-shaped steel trusses span 278'. il Arch Forum 100:162-3 Je '54

STEEL construction—*Continued*

Concrete pumped 17 stories in bolted steel hospital; Mayo memorial medical center. il Eng N 151:43-4 Ag 27 '53

High-level viaduct to solve traffic problem. il Roads & Eng Constr 92:90+ Jl '54

High-strength bolts for structural steel joints. il diags Roads & Eng Constr 92:112-16+ My '54

High-tensile steel bolts for structural joints. il diags Engineer 197:415-17, 453-5 Mr 19-26 '54

Hollow members double as heat ducts in steel-frame office building. il Eng N 151:43 O 29 '53

How to cut the cost of steel framing. Arch Forum 101:150-1 S '54

Lightweight steel construction cuts building costs. il Iron Age 173:156-7 Ap 1 '54

More office space for the motor city; Detroit's city-county building. il diag Eng N 151:29-31 Ag 6 '53

Porcelain enameled steel for building construction; Seaporcel metals, inc. il Sheet Metal Worker 45:64-6 Ap '54

San Manuel uses steel and reinforced concrete for ground support. il diags Min Eng 6:692-5 Jl '54

Steel gets set to crowd aluminum in metalclads. il Bsns W p82-6 N 7 '53

Steel lamella supports long-span roof. il Eng N 151:41 N 26 '53

Tubular steel factory. il Engineer 196:626 N 13 '53; Engineering 176:617-18 N 13 '53

See also

Arches, Steel
Concrete, Reinforced
Riveting
Steel, Structural
Steel houses
Towers, Steel

Concrete encasement

Column encasement placed by pumping method. il Civil Eng 24:31 Ja '54

Design

AISC explores limit design for steel. Eng N 152:24 Ap 22 '54

Bolted cantilever design for welded warehouse submitted to save steel and other costs. A. Selnick. diag Civil Eng 23:701 O '53

Buildings in Pittsburgh's Gateway Center include unusual structural features. J. Di Stasio and M. P. Van Buren. il plan diags Civil Eng 23:600-4+ S '53

Chicago coliseum roof will span 500,000 sq ft of unobstructed floor. il Eng N 151:25-6 D 10 '53

Evaluation of plastic analysis as applied to structural design. B. G. Johnston and others. bibliog(33 titles) il diags Welding J 32:sup224-39 My '53; Discussion. N. J. Hoff. 33:sup 14-15 Ja '54

Four acres of roof, but only two columns inside; hangar for Boeing airplane co. il Eng N 151:45-6 S 17 '53

Lamella steel vault spans 224′, yet is only 2′ thick; Municipal auditorium at Corpus Christi. il diags Arch Forum 100:166-7 Mr '54

Lateral buckling of channels and Z-beams. H. N. Hill. il diags Am Soc C E Proc 79 [no 334]:1-14 N '53

Materials combined to advantage; concrete in compression, steel in tension; Livestock judging pavilion, Raleigh, N.C. F. N. Severud. il plan diags Civil Eng 24:152-5 Mr '54

Navy standardizes jet hangar designs. il Eng N 151:39-40+ N 12 '53

Plastic deformation of wide-flange beam-columns. R. L. Ketter and others. bibliog diags Am Soc C E Proc 79 [no 330]:1-53 N '53

Plastic theory for a trussed steel beam with a central load. R. W. Steed. Engineering 177:77-8 Ja 15 '54

Roof structure in tension; parabolic pavilion in Raleigh, N.C. I. V. Voshinin. il Arch Forum 97:162 O '52

Soaring wing of struts; space-frame hangar. il diags Arch Forum 101:144-9 S '54

Unusual design for hangar roof; suspender frame supports cantilever. il diag Eng N 151:32+ Jl 23 '53

Welded building, two bays wide, designed to resist seismic loads. il Eng N 151:30-1 O 15 '53

Erection

Bolts speed factory erection; assembly plant for Ford motor co. il Eng N 152:38-9 F 25 '54

Light steel frame erected at low cost; Fountain-Inn Simpsonville high school. il Eng N 152:43 Mr 25 '54

Place steel roof deck fast; fieldhouse under construction for the University of Connecticut. il Constr Methods 36:56-7 Ja '54

Raising an elevated storage tank. H. J. Draves. il diag Am Water Works Assn J 45:1245-8 N '53

Failures

Brittle failure of steel structures; a brief history. M. E. Shank. il Metal Prog 66:83-8 S '54

Testing

Tests on light welded radio masts. il diags Engineer 197:75-6 Ja 8 '54; Engineering 177:57 Ja 8 '54

Welding

Applications of alloy high-strength steels in welded structures. H. L. Miller and A. E. Wilkoff. il diags Welding J 33:339-50 Ap '54

Design and research for welded structures. L. Grover. bibliog il diags Am Soc C E Proc 79 [no 343]:1-27 N '53

Electrodes in construction. il Steel 135:154 S 13 '54

Evaluation of plastic analysis as applied to structural design. B. G. Johnston and others. bibliog(33 titles) il diags Welding J 32:sup224-39 My '53; Discussion. N. J. Hoff. 33:sup 14-15 Ja '54

Fabrication and welding of steel penstocks. R. F. Scott. il diags Welding J 33:663-9 Jl '54

Heat-treatments of welded structures for relief of residual stresses with particular reference to type 347 stainless-steel weldments. W. L. Fleischmann. bibliog diags A S M E Trans 76:645-8 My '54

Investigation of welded rigid connections for portal frames. A. A. Toprac. bibliog il diags Welding J 33:sup40-56 Ja '54

Large coliseum welded in shop. il Steel 133:143 Jl 20 '53

Pins welded to big ball hold insulation; Knolls atomic power laboratory. il Constr Methods 36:61 Mr '54

Problems of fabrication and erection in all-welded multi-storey framed buildings. D. C. C. Dixon. diags Engineer 196:749-51 D 4 '53

Recent applications of welded design to industrial building framings. A. Amirikian and E. G. Odley. il diags Welding J 33:103-7 F '54

Rigid-frame welded skyscrapers. il diags Arch Forum 99:138-9 Jl '53

Salvaging of a water stand tank originally erected in 1924. il diags Welding J 33:372-3 Ap '54

Savings on welded warehouse begin on designer's desk. D. R. Graham. il diags Civil Eng 23:522-3 Ag '53

Special problems in structural welding for bridges. S. Mitchell and A. L. Elliott. bibliog il diags Welding J 33:633-42 Jl '54

Structural weldment inspection. J. L. Beaton and P. G. Jonas. il Am Soc C E Proc 79 [no 243]:1-7 Ag '53

Welded camel-back trusses; Fairchild aircraft co. il diag Arch Forum 98:173 Je '53

Welded tubular steel factory structure; Rotax, ltd. il diags Engineer 196:570-1 O 30 '53

Welding a tall building to take high wind loads; Ainsley building, Miami, Fla. A. Oboler. il Eng N 152:38-9 F 11 '54

Welding; huge tv antenna has unique design, construction. il Iron Age 174:164 S 9 '54

Welding research leads the way toward stronger, more economical structures. L. Grover. il diags Civil Eng 23:517-21+ Ag '53

STEEL construction—Welding—*Continued*

Welding sequences and uses of heat. F. H. Dill. Midwest Eng 6:3+ Jl '53

See also

Bridges—Welding operations

STEEL construction, American institute of. See American institute of steel construction

STEEL construction in mines

Corrugated steel; handy structural member. W. N. Johnson. il Eng & Min J 154:90-1 D '53

Steel rail sets at Resurrection. W. R. Doyle. il diags Min Cong J 39:49-52+ O '53

Supporting a tunnel with yielding steel rings; Lehigh navigation coal co. C. S. Kuebler. il diags Coal Age 59:92-5 Ap '54

Supports in coal mines; steel replaces timber. Engineering 177:29 Ja 1 '54

STEEL cutting

Abrasive wheel doubles tube cutting; Ryan aeronautical co. il Steel 133:79 D 28 '53

Abrasive-wheel tool cuts stainless fast. il Aviation W 59:54+ O 19 '53

Balanced design will fit the chip breaker to the job. E. K. Hendriksen. bibliog il diags Am Mach 98:117-24 Ap 26 '54

Carbide drive shaft tool. il Steel 135:133 Jl 12 '54

Carbide inserts help cut costs of machining stainless forgings. il Iron Age 172:160-1 Ag 6 '53

Carbide slows tool wear. il Steel 134:107 My 31 '54

Carbides speed up machining of parts from 1035 forgings; Thew shovel co. il Iron Age 174:119 Jl 8 '54

Cutting edge lubricant built-in; sulphur added to tool steels gives free machining and longer tool life. il Steel 135:116-17 Ag 9 '54

Effects of cold-drawing, microstructure, and thermal treatments on the machinability and mechanical properties of carbon and alloy steel. F. E. Dreves. il diag A S M E Trans 75:1219-32 O '53

Examination of a high sulphur free-machining ingot, bloom and billet sections. D. J. Carney and E. C. Rudolphy. bibliog il diags J Metals 5:Trans 999-1008 Ag '53

Face milling of steel; abstract. H. J. Burmester. Tool Eng 32:155-6 Ja '54

Free machining tool steels; yes or no? Am Mach 98:175 Je 7 '54

Friction sawing cuts off high costs. H. J. Chamberland. il Iron Age 173:152-4 F 18 '54

Guide for machining stainless steels. J. D. Armour. il diags Steel 134:92-5 Mr 22; 106-8+ Mr 29 '54

High speed machining improves quality, cuts costs; Hyatt bearings division of General motors corps. R. B. Brooks. il diag Iron Age 173:184-6 Ap 22 '54

How do boron steels compare in machinability? N. Zlatin and others. Iron Age 172:94-7 O 29 '53

How to determine machinability. F. W. Boulger. il diag Steel 134:88-90 Ja 18 '54

Improved machinability in new leaded alloy steel. W. E. Falberg. il Materials & Methods 39:90-2 Je '54

Machinability; new steels speed up machining operations. il Steel 133:135-6 O 12 '53

Machinability of heat-treated steel. R. C. Gibbons. il Materials & Methods 39:86-8 Ja '54

Machinability of ordnance steels. bibliog il S A E J 62:47-53 S '54

Machining hardened tool steel with tungsten carbide. Mach 60:176 F '54

Machining of high-tensile-strength steel. F. M. Rayburn. Mech Eng 75:794-5+ O '53

Machining of steel and cast iron; supplement to 1948 edition of Metals handbook. bibliog il diags Metal Prog 66:141-51 Jl 15 '54

Machining stainless; cost analysis. Steel 133:160 Jl 6 '53

Machining stainless steels; reference sheet. diags Tool Eng 31:81-4 D '53

Metallurgists offer cutting tools a bigger bite. R. F. Huber. il Steel 134:70-3 Ja 11 '54

Profiling time reduced; Piasecki helicopter corp. il Steel 134:127 Je 28 '54

Recent developments in the machinability of steel. K. J. B. Wolfe. bibliog(47 titles) Inst Mech Eng Proc (B) 1B no 11:517-28, pl 1-8; Discussion. 528-35 '52-53; Engineer 194:729-30 N 28 '52

Ti-stainless machined like butter. G. Glaeser. il diags Am Mach 98:144 S 13 '54

Tungsten carbide tooling. Steel 134:126 Ap 12 '54

Uniform powder flow gives better cuts in stainless. J. R. Kirwin and J. Holmstock. il Iron Age 173:156-7 Mr 4 '54

Use of oxyacetylene in rolling mills. R. L. Deily. bibliog il diags Iron & Steel Eng 31:83-90 Mr '54

When and how to use carbides in machining stainless steel. G. J. Stevens. diags Mach 60:196-200 D '53

STEEL drums. See Containers, Steel

STEEL floors. See Floors, Steel

STEEL forgings

Finishing forgings; carbide insert tooling. Steel 134:192 Ap 19 '54

Flame hardening of heavy forgings; National forge & ordnance co. S. Smith. il Metal Prog 65:100-3 My '54

Forging a king-size die holder; Heppenstall co.; illustrations with text. Steel 135:120 Jl 12 '54

Induction forging can be versatile; Massey-Harris co. F. T. Chesnut. il plan Steel 133:112-13 S 7 '53

Internal stresses in some types of forgings; abstract. C. Sykes. Metal Prog 66:164+ S '54

Interrupted cutting of tough steel forgings. il Mach 61:264 S '54

Large forged steel boiler drum. il Engineer 196:679-80 N 20 '53; Engineering 176:702 N 27 '53; Metallurgia 48:276 D '53

Manufacture and properties of large forgings; abstract. A. O. Schaefer. Metal Prog 66:148+ Jl 1 '54

Trepanning cuts hole making costs. A. G. Haglund. il Iron Age 174:120-1 Ag 12 '54

Statistics

Steel forgings; shipments, 1948-1953; tabulation. Steel 134:164 Ja 4 '54

Testing

Nondestructive tests check forging quality, spot equipment troubles; General drop forge corp. S. C. Totaro. il Iron Age 174:117-19 Ag 12 '54

STEEL founders' society of America

Annual meeting, Chicago, March 16-17. Foundry 82:224+ My '54

Fall meeting, 51st, Hot Springs, Va. Sept. 21-22. Foundry 81:186+ N '53

Steel founders' society sponsors contest. Foundry 81:205 D '53

STEEL handling

Elwell-Parker's rotating clamp reaches all positions. il Steel 134:130+ Mr 8 '54

Fork trucks repay cost quickly; U. S. metals refining co. il Iron Age 174:49 Jl 8 '54

Handling steel bar stock. Steel 133:227+ D 7 '53

Intra-plant handling of round billets and pipe with special automotive equipment; National tube division of Lorain works. J. D. Tyson. il plans diags Iron & Steel Eng 31:107-14; Discussion. 114-16 Je '54

Motorized tongs simplify coil handling; Jones & Laughlin steel corp. il Steel 134:102+ Mr 1 '54

Straddle carrier handles 15-ft steel sheets safely, easily; Fairless works. il Iron Age 173:127 Je 3 '54

Straddle carriers. il Automobile Eng 44:241 Je '54

Unique design for welded gantry crane. il Steel 135:131 S 20 '54

Warehousing moves overhead; Art metal construction co. il Steel 133:112-13 Jl 27 '53

See also

Steel construction—Erection

STEEL houses

Builder designs load-bearing window. il diags Am Bld 75:224 S '53

Slag, steel house is termite-proof. il Iron Age 172:113 N 12 '53

STEEL houses—*Continued*

Steelcraft tries prefabs. Steel 133:68 Ag 17 '53

Stepping into steel homes; United States steel homes, inc. Bsns W p34 Ag 22 '53

STEEL improvement and forge company

Steel Improvement buys Champion's forge division. C. H. Smith. il Steel 134:64 Je 7 '54

STEEL industry and trade

Address before American iron and steel institute. M. D. Howell. Iron & Steel Eng 31:143-4 Ag '54

Balance from a cutback. il Chem & Eng N 32:1976-7 My 17 '54

Coming, another wave of steel expansion. Steel 135:111-12 S 20 '54

Competition for steel exports. Economist 169:833-5 D 12 '53

Count on steel; chemical industry could depend upon one of best customers. Chem W 73:66-9 Jl 25 '53

Developments in the iron and steel industry during 1953. I. E. Madsen. il plans diags Iron & Steel Eng 31:120-56+ Ja '54

Impact of economic trends on the steel industry; abstract. M. R. Gainsbrugh. Iron & Steel Eng 31:147 Ag '54

Importance of the steel industry. E. T. Weir. Iron & Steel Eng 31:144-7 Ag '54

Industry previews and reviews. Automotive Ind 110:53 Ja 15 '54

Merger talk and expansions; steelmen jockey for competitive positions. Steel 135:53-4 Ag 16 '54

Outlook for 1954; year-end statements by leaders in steel industry. Blast F & Steel Pl 42:122-4 Ja '54

Pig iron and other metal products placed under general license. For Comm W 50:19 N 9 '53

Producers, users team up to make better steels. Steel 135:136-7 S 20 '54

Production of steel in 1953 between 112 and 113 million tons. M. D. Howell. Blast F & Steel Pl 42:107 Ja '54

Shake-up in world trade coming. il Steel 133:38-9 D 28 '53

Squeeze non-integrated firms. J. B. Delaney. Iron Age 174:45 S 30 '54

State of steel. Barron's 33:1 S 21 '53

Steel and iron production in 1953 establishes record. M. D. Howell. Blast F & Steel Pl 42:41-2 Ja '54

Steel; check inventories. J. B. Delaney. Iron Age 174:81 Ag 19 '54

Steel comeback now in the making. K. W. Bennett. Iron Age 174:51-3 Ag 26 '54

Steel firms adapt retailers' ideas. Steel 134:96-7 Ap 19 '54

Steel men wonder; how long? Bsns W p31 Ag 8 '53

Steel mirrors Nation's efficiency drive. J. B. Delaney. Iron Age 172:111-12 N 12 '53

Steel; nonintegrated mills hurt. J. B. Delaney. Iron Age 173:89 F 4 '54

Steel; reds gain faster than free world. W. V. Packard. Iron Age 172:21-2 D 31 '53

Steel slides with a smile. Bsns W p27-8 O 17 '53

Steel; stable outlook seen for industry. T. E. Mullaney. il diag Trusts & Estates 92:577-80 Ag '53

Steel-strong market; chemical industry not aloof to steel's vicissitudes. il Chem W 75:77-80 S 4 '54

Steel; warehouse prospects perk up. K. W. Bennett. Iron Age 173:90 F 4 '54

Steel warehouses wage triple battle. R. D. Raddant. Iron Age 173:71-2 My 13 '54

Steel; we'll make good money in '54. J. B. Delaney. Iron Age 172:57 S 24 '53

Steel; what will demand, output be during 1955-1959? B. E. Estes. Iron Age 173:M 16-21 Ap 8 '54

Steelmakers still see upturn in business. Iron Age 173:75-7 Mr 11 '54

Supplies improve, export controls eased on 70 steel mill products. For Comm W 50:19 Ag 31 '53

Want confidential purchase data? it's all in how you ask; Kaiser steel corp. B. E. Etcheverry. Sales Management 72:48+ Mr 1 '54

Warehousemen see better business soon. il Steel 135:48-9 Ag 2 '54

Warehouses; industry's supermarkets. il Steel 134:47-8 My 17 '54

Warehouses; sales start rebound. W. V. Packard. Iron Age 174:53-4 Jl 29 '54

Warehouses set sights to meet challenge. W. M. Rooney. il Steel 133:67-9 Jl 13 '53

Warehousing; a late summer upturn? il Steel 134:72 My 10 '54

What the seaway means to steel; interview with Ernest T. Weir. Iron Age 173:72 My 27 '54

Year-end statement. B. Moreell. Blast F & Steel Pl 42:251 F '54

See also

Iron industry and trade
Rolling mills
Steel workers
Steel works
Tin plate

also Pittsburgh steel company

Directories

Guide for steel buyers; producing companies and home office address, index to companies by products, standard classification charts. Steel 135:1-112 sec 2 Jl 12 '54

Steel fabricators, Canada. Roads & Eng Constr 92:160 Je '54

Finance

Financial analysis of the steel industry for years, 1952, 1951, 1950, 1949; data cover 28 companies representing 92 per cent of U.S. ingot capacity; tabulation. Iron Age 173:409-10 Ja 7 '54

First quarter steel profits dip less than sales. Steel 134:58 My 3 '54

Profits rise 38 per cent in '53; financial analysis of the steel industry, 1953-1952. J. B. Delaney. Iron Age 173:102, insert Ap 8 '54

Steel; efficiency pays off first half of 1954. W. V. Packard. Iron Age 174:59+ Ag 5 '54

Steel industry earnings rebound in '53. W. V. Packard. Iron Age 173:83 F 4 '54

Steel myth; no magic in 100 per cent capacity operations. L. F. Licht, jr. Barron's 34:11-12 Ja 25 '54

Steel profits rise in second quarter. Steel 135:51 Ag 2 '54

Steel; third quarter profits double 1952. W. V. Packard. Iron Age 172:107-8 N 5 '53

29th annual financial analysis of the steel industry. Steel 134:54a-54e Ap 12 '54

U.S. Steel urges end of double taxation. il Steel 134:41 Mr 22 '54

What's this talk about large steel earnings? how steel net earnings compare with other manufacturing, 1928-1953; tabulation. il Steel 134:65 Je 7 '54

Insurance requirements

Plant committees aid insurance coordination; Inland steel co. O. B. Tearney. Weekly Underw 169:1156+ N 14 '53; Excerpt. East Underw 54:77 D 11 '53

Securities

Can steel maintain the pace? with data on position of leading steel and iron companies. H. F. Travis. Mag of Wall St 92:658-60+ S 5 '53

Cold facts about steel. I. U. Cobleigh. Comm & Fin Chr 178:2372 D 17 '53

Steel industry enters 1954 in strong position. R. S. Byfield. Manuf Rec 123:30 Ap '54

Statistics

AISI adopts steel production index. Materials & Methods 39:230+ F '54

Construction taking 20 per cent of steel shipments. Blast F & Steel Pl 42:804 Jl '54

Growth possibilities of electric furnace carbon steel. W. C. Wheeler. Iron & Steel Eng 31:85-92; Discussion. 92-4 F '54

Iron and steel, 1949-1952. Survey of Cur Bsns 1953 Sup p 158-60 [supplemented in monthly numbers]

1954 metalworking facts and figures. Steel 134:162-74 Ja 4 '54

Openhearth, Bessemer and electric furnace steel capacity, production and rates; tabulations. Iron Age 173:407 Ja 7 '54

Steel capacity increased 6,8 million tons. Blast F & Steel Pl 42:338 Mr '54

Steel capacity; with tables. R. L. Hatschek. Iron Age 173:98a-98f F 4 '54

Steel '53 sales hit peak, but not profits; with table. Steel 134:63 Ap 5 '54

STEEL industry and trade—Statistics—*Cont.*

Steel industry finishing capacity changes, 1948-1954; tabulation. Iron Age 174:42-3 S 30 '54

Steel industry statistics, U.S. and Canada; tabulations. Steel 135:112-26 S 20 '54

Steel production by grade of steel, 1943-1953; steel ingot production, 1951-1953; shipments of steel products by market classifications, 1950-1953; 1953 distribution of carbon, alloy and stainless steel; tabulations. Automotive Ind 110:334 Mr 15 '54

Steel shipments in 1953 a record. Blast F & Steel Pl 42:sup96+ Ap '54

Still more steel expansion coming as the population climbs; annual steelmaking capacity as of Jan. 1, 1954. Steel 134:78-9 F 8 '54

World steel production; by countries, 1942-1953; tabulation. Iron Age 173:408 Ja 7 '54

Belgium

Productivity, new markets are top European targets. il Steel 133:88-9 D 14 '53

Brazil

Brazil expands steelmaking plans. Steel 134:82 My 10 '54

German steel companies push expansion in Brazil. L. M. Peppercorn. Barron's 33:27 Ag 31 '53

Canada

Canada; steel squeeze still on. Iron Age 172:46-7 O 1 '53

Canadian plan for birthmarking steels. Steel 133:119+ N 16 '53

Canadian statistics; tabulations. Steel 135:125-6 S 20 '54

Canadian steel output, 1924-1953; capacity, 1937-1953; tabulations. Iron Age 173:407 Ja 7 '54

China

Poland and China expand steel capacities. J Metals 6:123-4 F '54

Reds push industry build-up. il Iron Age 172:59-60 O 22 '53

Europe

Europe; upturn in steel market. Iron Age 173:77 Ap 1 '54

European export prices on downtrend. Steel 134:57 Ja 25 '54

Europe's steel output buoyant. Steel 135:59 Ag 23 '54

1953 steel production. Chem Age (Lond) 70:939 Ap 24 '54

Schuman plan steel drops. Bsns W p 156 O 10 '53

Steel; Europe needs more customers. Iron Age 173:99 Mr 4 '54

Steel pool; aged equipment, integration lack get low output blame. Iron Age 172:119 N 5 '53

Steel production in Europe. Engineering 177:40 Ja 8 '54

Steel; State dept. protests export price fixing by steel pool. Iron Age 172:113 N 19 '53

Strip steel; Europe can make more. Iron Age 172:107 S 17 '53

See also
Coal-steel pool

Germany

Developments in German constructional steels to conserve scarce alloys. F. W. Bruhl. diag Metal Prog 65:97-100 Ja '54

German report on hot work steels; with table. H. M. Hiller. Materials & Methods 39:163-4 Mr '54

German steel companies push expansion in Brazil. L. M. Peppercorn. Barron's 33:27 Ag 31 '53

German steel price cuts coming. il Steel 133:65 Ag 3 '53

Germany cuts steel prices. Economist 168:330-1 Ag 1 '53

Krupp; felled giant walks again. il Bsns W p 166-8 S 26 '53

Great Britain

Allegiance of Sir Lincoln Evans. Economist 168:769-70 S 19 '53

Another steel sale; Sheffield forge and rolling mills co. Economist 169:978 D 26 '53

Britain moves to denationalize steel; two companies now sold. For Comm W 50:15 N 23 '53

Britain reverses steel trend. Steel 133:57 O 5 '53

British iron and steel industry in 1953. il Engineer 197:27-8, pl 3, 66-8 Ja 1-8 '54

British shun Schuman ties. il Iron Age 173:123 Ap 22 '54

British steel production reaches new record in first half of 1953. For Comm W 50:23 N 30 '53

British steel sets first-half record. Steel 135:63 Jl 19 '54

Cheaper steel exports. Economist 168:283-4 Jl 25 '53

Denationalization bogs down in British steel industry. Steel 134:67 Mr 15 '54

England finds steel decontrol tough. F. H. Harley. Iron Age 173:100 Mr 4 '54

Federation and Board. Economist 168:806+ S 19 '53

FCI and steel. Economist 168:660-1 S 5 '53

First steel sale. Economist 168:403 Ag 8 '53

Iron & steel corporation's 2d annual report, year ended Sept. 1952. Chem Age (Lond) 68:985-6 Je 27 '53

Iron and steel production in 1953. Engineer 197:103 Ja 15 '54

Iron and steel production in 1953. Engineering 177:101 Ja 22 '54

Made in Sheffield. Economist 170:142-4 Ja 16 '54

No yardstick for steel; Lancashire Steel share offer. Economist 170:184 Ja 16 '54

Steel; British hit new output record. Iron Age 173:64-5 Ja 28 '54

Steel capacity and demand. Economist 170:189 Ja 16 '54

Steel denationalized, U.K. confident. Iron Age 172:81 Jl 16 '53

Steel industry and Schumania. Economist 170:185-6 Ja 16 '54

Steel offer terms; Lancashire steel corp. Economist 170:114 Ja 9 '54

Steel prices switched. Economist 169:836-7 D 12 '53

United Steel gets set. Economist 169:197 O 17 '53

See also
United steel companies

India

U.S. funds to assist Indian steel purchase. For Comm W 51:11 F 1 '54

Italy

Europe primes for competitive 1954. il Steel 133:96-7 D 7 '53

Japan

Japan returns to near-record steel output. il Steel 134:77 Je 14 '54

Japan snubs Chinese coal. Bsns W p 132 S 5 '53

Latin America

Latin-American steel; present position and future possibilities. Metallurgia 48:159-64 O '53

Steel; South America aims higher. W. V. Packard. map Iron Age 174:71-2 Jl 22 '54

Mexico

Steel exports from south of the border. il Steel 133:71 S 7 '53

Michigan

Steel; how's the Michigan market. Iron Age 173:41 Ja 21 '54

Netherlands

Iron and steel industry of the Netherlands. A. H. L. Housz. Engineering 176:542-3 O 23 '53

New England

Steel; new hope for New England. W. V. Packard. Iron Age 172:38 O 1 '53

Norway

Norwegian production of stainless steels. J. Sissener. il Metal Prog 65:81-3+ Ja '54

Pakistan

Pakistan can make more steel with minimum aid. For Comm W 50:9 D 14 '53

STEEL industry and trade—*Continued*

Poland

Poland and China expand steel capacities. J Metals 6:122-3 F '54

Russia

Bumpy road to Russian steel output. il Steel 134:83 Mr 8 '54

Sweden

Europe primes for competitive 1954. il Steel 133:97 D 7 '53

New manufacturing processes for high-grade steel in Sweden. B. Kalling. il Metal Prog 65:108-11+ Ja '54

United States

See also

- Pittsburgh steel company
- Republic steel corporation
- United States steel corporation

Venezuela

New name in steel; Venezuela. Steel 135:51 S 27 '54

Western states

Far West steel appetite grows. Steel 133:56 N 30 '53

Report on West Coast steel plants, 1953. T. A. Dickinson. il Blast F & Steel Pl 42:62-6+ Ja '54

Steel; peak growth for western market. T. M. Rohan. Iron Age 172:45-6 N 26 '53

STEEL ingots

Electric ingot process makes steel in the ingot mold. diag Iron Age 174:127-8+ Ag 5 '54; Iron & Steel Eng 31:154+ Ag '54

Electric ingot steel; old process solves jet age problem. il diag Steel 135:106+ Ag 9 '54

Guide for selection of carbon steel bars. G. P. Witteman. il diag Steel 133:131-2+ S 21 '53

Hot top cover; patent. diags Iron & Steel Eng 31:23-4 Ap '54

Ingot cracks in killed, fine-grained C1020 steel. M. A. Orehoski and others. bibliog il diags J Metals 6:Trans891-9 Ag '54

Low-volume hot top: patent. diags Iron & Steel Eng 31:29-30 S '54

Manufacture of silicon capped steel; abstract. A. Lami. Metal Prog 65:142+ F '54

Mill gives Dornin process first big test; Green river steel corp. G. A. Dornin, jr. and others. il diags Iron Age 173:141-4 Je 17 '54

New exothermic technique for pouring ingots. P. Venard. il Steel 134:111+ Je 28 '54

New index of ingot production started. Blast F & Steel Pl 42:sup60 Ap '54

Practical aspects of structure and segregation in killed steel ingot solidification. E. A. Loria and R. L. Keller. bibliog il Blast F & Steel Pl 42:45-51 Ja '54

Steel; Green River pours first heat by the Dornin process. W. V. Packard. il Iron Age 172:72 Jl 16 '53

Steel ingots as of Jan. 1, 1954; tabulations. Steel 135:119-21 S 20 '54

Molds

Design and manufacture of ingot molds. J. H. Shank. diags Blast F & Steel Pl 42:70-2 Ja '54

Statistics

Official steel ingot capacities by Iron Age districts, 1948, 1951-1954; tabulations. Iron Age 173:98e-98f F 4 '54

Steel ingot and castings output by countries; monthly output of steel for ingots and castings, 1952-1953; tabulations. Steel 134:162-3 Ja 4 '54

U.S. monthly steel ingot production, by months, 1928-1953; tabulations. Iron Age 173:408 Ja 7 '54

Testing

Examination of a high sulphur free-machining ingot, bloom and billet sections. D. J. Carney and E. C. Rudolphy. bibliog il diags J Metals 5:Trans 999-1008 Ag '53

Ultrasonic testing lowers forging production costs; Allis-Chalmers mfg. co. R. N. Hafemeister. il Iron Age 173:117-20 My 13 '54

STEEL lining

Automatic welding goes into the field to assemble tunnel-lining sections. il Eng N 151:39+ N 26 '53

Tunnel lining at an angle; Kemano penstock at 48 deg. inclination, is a special problem for hydro plant builders. il diag Eng N 152:30-1 Ap 15 '54

STEEL metallurgy

Chemical basis of the manufacture of iron and steel. D. J. O. Brandt. il diags Chem & Ind p982-7 Ag 7 '54

Chemical engineer in the steel industry. T. F. Reed. Chem Eng Prog 50:288-90 Je '54

Closed circuit melting; complete protection from outside variables; Universal-Cyclops steel corp. Steel 133:88 D 21 '53

Desulphurization with rare earths. J. A. Berger and M. G. Snellman. il Steel 134:110+ Ap 12 '54

Development of oxygen steelmaking. O. Cuscoleca. bibliog(37 ref) il diags J Metals 6:Trans 817-27 Jl '54

Developments in the iron and steel industry during 1953. I. E. Madsen. il Iron & Steel Eng 31:136-40 Ja '54

European oxygen steelmaking is of far-reaching significance. H. B. Emerick. bibliog il J Metals 6:804-6 Jl '54

Incinerator scrap and no. 2 bundles related to adverse heat time. G. G. Mueller. J Metals 6:952-3 S '54

Manufacture of steel by blowing the molten iron; patent. diag Iron & Steel Eng 31:24+ Jl '54

Metallurgy; wide research spurs interest in rare earths for steel, iron. Iron Age 172:194-6+ N 5 '53

New manufacturing processes for high-grade steel in Sweden. B. Kalling. il Metal Prog 65:108-11+ Ja '54

Norwegian production of stainless steels. J. Sissener. il Metal Prog 65:81-3+ Ja '54

Nozzle replacement from outside is safe and efficient method. W. G. McDonough. il diag J Metals 6:443-6 Ap '54

Oxidation and its relationship to steel making. C. F. Christopher. Blast F & Steel Pl 42:1059-65, 1178-83 S-O '54

Oxygen in steelmaking. il Metallurgia 50:10-12 Jl '54

Oxygen steelmaking yields high-quality product. H. Malzacher and R. Walzel. plan diag Iron Age 172:127-30 S 24 '53

Production of low-phosphorus, low-nitrogen steels; patent. diags Iron & Steel Eng 31:11-12 Je '54

Rare earth additions affect surface quality of low carbon steel. J. V. Russell. bibliog il J Metals 6:438-42 Ap '54

Rare earths moving fast. W. E. Knapp and W. T. Bolkcom. Steel 134:104+ Mr 15 '54

Reducing period in stainless steel melting. H. P. Rassbach and E. R. Saunders. bibliog J Metals 5:Trans 1009-16 Ag '53

Reladling stainless steel heats for the purpose of conserving alloys; abstract. A. J. Texter. Steel 134:78 Ja 11 '54

Scrap preparation; key to quality and economic control. E. W. Hunziker. il Steel 133:145+ D 7 '53

Scrap preparation program improves steel quality. E. W. Hunziker. il Iron Age 172:132-6 D 17 '53

Significance of minor elements in iron bearing raw materials for integrated steel plants. C. B. Jacobs and others. bibliog flow sheet Blast F & Steel Pl 42:666-74+ Je '54; Excerpts. Iron & Steel Eng 31:138-40 Ag '54

Some recent developments in steel production and products. W. A. Dennis. bibliog il J Chem Educ 30:491-5 O '53

Steel; build first U.S. oxygen units; McLouth Steel installing first oxygen process steelmaking units in U.S. R. D. Raddant. diag Iron Age 173:68-9 F 11 '54

Steel melting; supplement to 1948 edition of Metals handbook. il diags Metal Prog 66:154-8 Jl 15 '54

Steelmakers sum up new techniques; AISI regional technical meeting, San Francisco. Iron Age 172:137 N 12 '53

Steel-making processes. J. Mitchell. Engineer 196:655-8 N 20 '53; Excerpts. Engineering 176:701-2 N 27 '53

STEEL metallurgy—*Continued*
Steelmaking processes; some future prospects. C. D. King. diags J Metals 6:Trans 455-65 Ap '54
Technical progress; steelmaking. il Steel 134:208-12+ Ja 4 '54
Use of oxygen in the iron and steel industry in western Europe. G. Bulle. il diags Blast F & Steel Pl 42:419-23+, 531-6 Ap-My '54
See also
Bessemer process
Case hardening
Furnaces, Steel making
Iron metallurgy
Open hearth furnaces
Open hearth process
Steel—Metallography
Steel, Hardening of
Steel, Heat treatment of
Steel alloys
Steel castings
Steel ingots
Steel works

Electrometallurgy

AIME electric furnace steel conference, 11th, Cincinnati; abstracts of papers. Steel 134:77-8 Ja 11 '54
Crucible Steel enters into vacuum melting of steel. il diag Iron & Steel Eng 31:124 Mr '54
Deoxidation and degasification practice for basic electric furnace alloy steels. A. L. Ascik. il J Metals 5:986-90 Ag '53
Electric furnace steel conference, 11th, Cincinnati, Dec. 2-4; with abstracts of papers. Foundry 82:128+ Ja '54
Electric ingot process makes steel in the ingot mold. diag Iron Age 174:127-8+ Ag 5 '54; Iron & Steel Eng 31:154+ Ag '54
Electric ingot steel; old process solves jet age problem. il diag Steel 135:106+ Ag 9 '54
Gravity helps double stainless output; Allegheny Ludlum steel corp. il Steel 133:108+ S 14 '53
Growth possibilities of electric furnace carbon steel. W. C. Wheeler. Iron & Steel Eng 31:85-92; Discussion. 92-4 F '54
Induction stirring provides better control of operating techniques; Timken roller bearing co. H. F. Walther. il J Metals 6:21-3 Ja '54
Mill gives Dornin process first big test; Green river steel corp. G. A. Dornin, jr. and others. il diags Iron Age 173:141-4 Je 17 '54
New partnership in vacuum melting; Crucible Steel and National research corp. diag Iron Age 173:79 Mr 11 '54
Production vacuum melting; a step forward. H. E. Trout. il diag Blast F & Steel Pl 42:1066-8 S '54
17 years of stirring history shows international exchange of ideas. E. G. Malmlow. bibliog J Metals 6:24 Ja '54
See also
Electric furnaces, Steel making

STEEL plates
Bending of simply-supported rectangular plates. K. R. Peattie and G. F. Day. il diags Engineering 176:308-10, 358-60 S 4, 18 '53
Brittle failure of nonship steel-plate structures. M. E. Shank. il Mech Eng 76:23-8 Ja '54
Direct rolling of carbon steel ingots to plates on three-high and four-high plate mills. R. C. McMichael. bibliog il diag Iron & Steel Eng 31:91-9; Discussion. 99-102 Mr '54
Guide for steel buyers. Steel 135:51-6 sec 2 Jl 12 '54
Plates at Pittsburgh; prices, 1936-1953; tabulation. Iron Age 173:411 Ja 7 '54
Post buckling behaviour of long square boxes under torsion. B. H. Falconer. bibliog diags Engineer 196:690-4 N 27 '53
Pressure in tons required to shear and punch mild steel plate; data sheet. Mach 60:253 Ag '54
Spall effects produced by a cylindrical and a spherical charge of high explosive. W. A. Allen and W. Goldsmith. bibliog il diags J Ap Phys 25:813-14 Je '54
Steel-plate thickness meter. S. S. Carlisle and R. B. Sims. bibliog il diags Instruments 26:1880-1+ D '53
Transmission of sound through plates. R. D. Fay. diag Acoustical Soc Am J 25:220-3 Mr '53; Discussion. K. R. Makinson. 25:1202 N '53
See also
Armor plate

Testing

Effect of manganese banding on mechanical properties of heat treated steel plate in the thickness direction. H. Schwartzbart. bibliog il diag Am Soc for Metals Trans 44:845-52 '52

STEEL research
British iron and steel research association's new Sheffield laboratories. il Metallurgia 48:265-72 D '53; Engineer 196:694-7 N 27 '53; Engineering 176:683-5, 688 N 27 '53
British steel industry unifies research; laboratories of the British iron and steel research association. il Steel 135:72+ Jl 5 '54
Chemistry in iron and steel research. Chem Age (Lond) 68:695-700 My 9 '53
Co-operation in research; illustrations from the iron and steel industry. F. H. Saniter. il diags Metallurgia 49:91-4 F '54; Same cond. Engineering 177:212-13 F 12 '54
Forgeability of steels with varying amounts of manganese and sulphur. C. T. Anderson and others. J Metals 6:Trans 835-7 Jl '54
German investigations on boron steels. R. Scherer and K. Bungardt. Metal Prog 65:101-6+ Mr '54
New BISRA laboratories opened. il Chem Age (Lond) 69:1117-20 N 28 '53
Recent research in the American iron and steel industry. E. C. Bain. Metallurgia 49:241-4 My '54
Research and the minor constituents of steel. J. Chipman. Blast F & Steel Pl 41:1057-64+ S '53; Excerpts. Iron & Steel Eng 30:95-7 Ag '53; Abstract. Chem & Eng N 31:2396 Je 8 '53
Steel research laboratories; investigations into electrical operation. il Elec R (Lond) 153:1208-11 N 27 '53
Trend is concentration; U.S. steel corp. in Monroeville. il Steel 134:128-9 Je 28 '54
Up-to-date concepts in theory and practice; British iron and steel research association report for 1953. Chem Age (Lond) 70:1109-10 My 15 '54
See also
British iron and steel research association

STEEL roofs. See Roofs, Steel

STEEL scaffolding. See Scaffolding, Steel

STEEL strapping
Facts about modern strapping methods. il Mill & Factory 54:284 My '54
Fast fastening; steel strapping of forms speeds hospital erection. il Eng N 152:212+ F 18 '54
Steel strapping secures forms on big columns. il diags Constr Methods 36:126+ S '54
Strap steel for prestressed concrete structures. K. P. Milbradt. il diag Am Concrete Inst J 25:357-63 Ja '54
Strapping; sales barometer climbs. K. M. Bennett. il Iron Age 174:67 S 23 '54

STEEL strikes
Steel; union frowning on wildcats. J. B. Delaney. Iron Age 172:55-6 O 15 '53

STEEL using industries
Impact of technical developments in light flat rolling on the consuming industries. W. T. Hogan. Iron & Steel Eng 31:67-71; Discussion. 71-2 F '54
Oil and gas; from their growth come new markets. il Steel 133:63-4 S 14 '53
Producers, users team up to make better steels. Steel 135:136-7 S 20 '54
Railroads heavy purchasers of steel. Blast F & Steel Pl 42:786 Jl '54
Steel cabinet makers sell steel. Steel 134:58 Ap 26 '54
Steel; rail softness lingers; no pickup in railroad steel buying. K. W. Bennett. Iron Age 174:69 Ag 12 '54
Steel's in step; shanks in the instep of shoes. diag Steel 134:97 Ap 19 '54
Warehouses, autos get most steel; 1952 compared with 1953. Iron Age 173:96 Mr 4 '54

STEEL using industries—*Continued*

Statistics

Finished steel distribution, 1950-1953; tabulation. Steel 134:165 Ja 4 '54
Finished steel; where it went in 1953; tabulations. Steel 134:104-5 Ap 19 '54

STEEL waste

Five steps in the neat and profitable handling of scrap; Standard Pressed Steel; illustrations with text. Mill & Factory 54:96-7 Ja '54

STEEL window frames. See Window frames, Steel

STEEL work

Design of steel parts for cold extrusion. D. I. Brown. diags Tool Eng 33:63-5 Ag '54
Dimples save critical stainless steel. il Chem & Eng N 31:2812 Jl 6 '53
Extruded steel for planes, Lockheed aircraft corp. il Steel 133:114+ S 28 '53
Extrusion; squeeze new alloy shape. T. M. Rohan. il diag Iron Age 172:59-60 S 24 '53
Fabricating alloy steels. il Steel 133:211+ D 7 '53
Hot steel extrusions. T. B. Merrill, jr. il Materials & Methods 39:96-7 F '54
How to work stainless steel. R. E. Paret. il Am Mach 98:129-40 S 27 '54
Sculpture in hot steel. il Steel 133:104 Ag 17 '53
Steel extrusion and its value to the designer. S. O. Evans. diags Machine Design 26:294-6+ My '54
Steel extrusion in wider use. il Materials & Methods 39:226+ Je '54
Steel extrusions; French Ugine-Sejournet process. diags Machine Design 25:158-9 N '53
Titanium and steel hot-extruded on Coast; Harvey machine co. il diag Am Mach 98: 256-7 Ap 12 '54

STEEL workers

Snack vendors pay union benefits; vending machine profits at Pittsburgh Steel plants. J. B. Delaney. il Iron Age 173:37 Ja 21 '54
Steel employment, wages, hours and payrolls, 1938-1953; tabulations. Steel 134:197 Ja 4 '54
Steel industry's minimum labor rates, 1915-1953. Steel 134:196 Ja 4 '54
Steelworkers at the South Works, Chicago, nearly 50 years ago. pors Blast F & Steel Pl 41:1322 N '53
Steelworkers sound off on demands. il Bsns W p 150+ O 31 '53
Wage chronology; United States steel corp.; supplement number four. Mo Labor R 76: 151-2 F '53
Wage incentives; strike source for steel. Iron Age 172:17-18 D 24 '53
Wages: steel gravy train slowing down. J. B. Delaney. Iron Age 173:67-8 Ap 1 '54
What's behind the steel agreement? J. B. Delaney. Iron Age 174:67 Jl 22 '54

See also
United steelworkers of America

STEEL works

Air pollution control in the Bethlehem steel co. A. D. Brandt. il Iron & Steel Eng 31: 103-6; Discussion. 106-7 Ag '54
Air pollution symposium. G. A. Howell and others. flow diag il diags Iron & Steel Eng 30:91-110 O '53
Colorado fuel & iron corp.; history and expansion, raw materials. A. N. Riddle and others. flow sheet il diag Min Eng 5:1084-98 N '53; J Metals 5:1308-66 O '53
Developments in the iron and steel industry during 1953. I. E. Madsen. il plans diags Iron & Steel Eng 31:120-56+ Ja '54
Foundation design for iron and steel plants. G. S. Richardson. diag Iron & Steel Eng 31:73-6; Discussion. 76-7 Ap '54
Green River Steel starts production. il Steel 133:59 Jl 13 '53
Less smoke at Monessen. Steel 133:115 D 7 '53
Morrisville mix; Big Steel still waits for its tide to come in. J. C. Perham. Barron's 33:3 O 26 '53
Opens blast furnace and says so, with tv, radio, newspapers; M. J. Zivian. Ind Marketing 38:156 N '53
Republic launches project to expand facilities in Valley, Canton, Cleveland and Gary. Steel 135:75 Ag 2 '54
Smoke screen attack; Pittsburgh steel co. (Monessen, Pa.). il Chem W 74:62 Ja 23 '54
Steel; Great Lakes beats schedule. il Iron Age 172:109 N 5 '53
Steel mills fight their pollution problems. il Power 97:94-5 N '53
Steel; threefold growth in three years; little Granite City Steel comes of age. K. W. Bennett. Iron Age 172:49 Ag 27 '53
Steelmaking; unusual and varied operations of the Lukens steel company of Coatesville, Pa. il Mech Eng 75:726-7 S '53
Tonnage was going South so the mill moved to its market; Sheffield steel corp. il plan Steel 133:104+ Ag 3 '53
Water intake for steel company built to withstand Monongahela River floods. C. W. Granacher. il plans diag Civil Eng 23:528-9 Ag '53
Water supply for steel plants. R. Nebolsine. flow diags il map plans diags Iron & Steel Eng 31:78-88; Discussion. 88 Ap '54

See also
Rolling mills

Costs

Bessemer and open hearth steelmaking costs compared. J. Mitchell. J Metals 6:511 My '54
Comparative economics of openhearth and electric furnaces for production of low-carbon steel. S. L. Case and others. Metal Prog 65:174+ Je; 66:168+ Jl 1; 146+ Ag '54
Cost comparisons of the open hearth and electric furnace. D. D. Moore. bibliog Iron & Steel Eng 31:55-65; Discussion. 65-9 Mr '54
Electric furnace vs. open hearth furnace in cold metal shops. L. F. Reinartz and H. C. Barnes. Blast F & Steel Pl 42:345-50+ Mr '54; Same abr. Iron & Steel Eng 31: 114-19 Ja '54; Excerpts. Steel 134:96+ Ja 25 '54; Metal Prog 65:174+ My '54
Furnaces; electrics vs openhearths; Battelle study of comparative steelmaking costs. J. B. Delaney. Iron Age 172:43 Ag 27 '53

Electric equipment

Adjustable voltage coal bridge installed at Steel company of Canada Hamilton works. W. G. Wright and D. C. McCrady. il diag Iron & Steel Eng 31:126-32 My '54
Cathodic protection for steel mill grounding systems. J. F. Headlee. diags Iron & Steel Eng 31:113-15 Mr '54
Central greasing station for electric overhead travelling cranes. L. R. Evans. il Iron & Steel Inst J 175:419-20 D '53
Control and drive equipment on d-c electric traveling crane bridges. D. C. McCrady. Iron & Steel Eng 31:55-63; Discussion. diag 63-6 Jl '54
Crane power limit switches. R. W. Graham. il diags Iron & Steel Eng 31:98-102; Discussion. 102-3 My '54
Design and construction of transformers for the steel industry; abstract. W. W. Renberg, jr. Iron & Steel Eng 31:143 S '54
Electrical developments in 1953. W. E. Miller. il diags Blast F & Steel Pl 42:73-82 Ja '54
Electrical plant for the metal industries; progress in 1953. il Metallurgia 49:127-33 Mr '54
Field repair of large rotating machinery. M. J. Wohlgemuth. il Iron & Steel Eng 31: 106-8 S '54
Flexibility extends scope of electric weighing; Republic steel corp. R. G. Watson. il diag Iron Age 172:182-4 N 12 '53
Grounded versus ungrounded low-voltage a-c systems. H. B. Thacker. diags Iron & Steel Eng 31:65-70; Discussion. 70-2 Ap '54
Integrated electrical equipment for blast furnace operation. C. P. Hamilton. il diags Iron & Steel Eng 31:89-93 Ap '54; Same cond. Steel 134:113+ F 22 '54; Discussion. Iron & Steel Eng 31:93-6 Ap '54
Modern arc furnace equipment and practices. E. H. Browning. il Iron & Steel Eng 31: 70-4; Discussion. 75 Mr '54
Open-hearth instrumentation. R. A. Lambert. il diags Instruments 26:1370-1+; Discussion. W. H. Stewart. 1404+ S '53

STEEL works—Electric equipment—*Continued*

Power system expands with steel making capacity at Detroit Steel. L. DeFiore and M. N. Hickok. il maps plans diags Blast F & Steel Pl 42:767-77, inserts Jl '54

Transformer maintenance. B. L. Britt. il Iron & Steel Eng 31:101-4; Discussion. 104-5 S '54

Transformers for the steel industry. D. C. Graham and others. il diags Iron & Steel Eng 31:118-35 Ag '54

See also
Electric furnaces,
Steel making

Employees

See Steel workers

Equipment

Air conditions pulpit; Dravo corp. Steel 133:232 D 7 '53; Nat Safety N 70:62 Jl '54; il Blast F & Steel Pl 42:1096-7 S '54

Allegheny Ludlum Brackenridge and West Leechburg plants. T. J. Ess. il fold plans Iron & Steel Eng 30:87-102 D '53

Allegheny Ludlum hot extrudes stainless, high alloy steels. E. C. Beaudet. il Iron Age 173:137-40 Mr 25 '54

Automatic process control; melting and rolling. il diags Iron Age 172:288-93 O 8 '53

Automatic scrap gathering; no attendants required as these magnets make three-minute round trips to load cars. il Steel 133:202 D 7 '53

Belt-charged blast-furnaces of S.A. John Cockerill, Belgium. G. Hookham. il plans diags Iron & Steel Inst J 175:409-19 D '53

British iron and steel industry in 1953. il Engineer 197:66-8 Ja 8 '54

Coke plant and blast furnace expansion at Fontana. C. R. Lohrey. Iron & Steel Eng 31:67-9 Jl '54

Communications; intercom makes crane control easier in steel plant; Fairless works. il Iron Age 173:158-9 Ap 1 '54

Container for conveying a billet through a heat-treating salt bath; patent. diags Iron & Steel Eng 31:32+ S '54

Development of oxygen steelmaking. O. Cuscoleca. bibliog(37 ref) il diags J Metals 6:Trans 817-27 Jl '54

Development of steelworks instruments. D. W. Gillings. bibliog il diags Blast F & Steel Pl 42:434-42 Ap '54

Developments in communications. W. M. Martin. Iron & Steel Eng 31:95-8 F '54

Expansion at the Steel company of Wales. T. J. Ess. il plan Iron & Steel Eng 30:105-20 N '53

Extensions at Appleby-Frodingham. il Metallurgia 49:169-70 Ap '54

Factors affecting performance of high temperature greases. E. L. Armstrong. bibliog diags Iron & Steel Eng 31:167-74; Discussion. 174-6 S '54

Fagersta-Swedish mill completes expansion program. il Blast F & Steel Pl 42:805-6 Jl '54

Fairless works. T. J. Ess. il diag Iron & Steel Eng 31:supF62-92 Je '54

Fairless works ore and coal unloaders. L. Naruns. il Iron & Steel Eng 30:140+ D '53

Granite City expands. Steel 134:69 Mr 22 '54

Gravity helps double stainless output; Allegheny Ludlum steel corp. il Steel 133:108+ S 14 '53

Import ore handling, machines and practices. E. M. Hays. il diags Iron & Steel Eng 31:84-90; Discussion. 90-4 Ag '54

Kaiser steel corporation's Fontana plant. T. J. Ess. il plans Iron & Steel Eng 31:supK 1-K20 F '54

Lighter trolleys speed handling of coal, ore. H. J. King. il Iron Age 172:138-9 Ag 20 '53

Lone star steel company gives the South another source of steel; with list of contractors and equipment manufacturers. C. Longenecker. flow sheet il plans Blast F & Steel Pl 42:198-226 F '54

More carbon for the steelmaker. J. S. Copley and E. F. Sipp, jr. il Steel 133:105+ Ag 10 '53

More iron for the Ohio valley; new 1400-ton Louise furnace at Portsmouth. il diag Steel 133:118+ N 9 '53

New Dorman Long steelworks. il Metallurgia 50:55-62 Ag '54

New open hearth furnaces at Stelco. E. T. W. Bailey. il plan Iron & Steel Eng 31:91-8 Je '54

Nozzle replacement from outside is safe and efficient method. W. G. McDonough. il diag J Metals 6:443-6 Ap '54

Oilless bearings; their place in industry. C. D Spadone. bibliog il Iron & Steel Eng 31:185-90; Discussion. 190-1 S '54

Open hearth shops adopt developments in aids to labor; illustrations with text. V. W. Jones. J Metals 6:878-9 Ag '54

Patent reviews. M. Nord. diags Published in monthly numbers of Iron and steel engineer

Paz de Rio; the new steel industry in Colombia. K. Schlesinger. il maps Blast F & Steel Pl 41:1295-7+ N '53

Pneumatic tubes speed steel plant communications. A. M. Brown. il Iron Age 173:141-3 Mr 25 '54

Recent advances in radiation and immersion pyrometry. E. J. Burton. bibliog il diag Instruments 26:1524-5+ O '53

Republic's new open hearth furnaces at Cleveland. E. C. McDonald. il plan diags Iron & Steel Eng 31:99-104; Discussion. 104-6 Je '54

Rotary compressors give dependable air supply at low cost; American bridge division, U.S. steel corp. E. P. Meixsell. il Power 98:110-11 Je '54

Sintering operations and sinter usage; use of sinter at Algoma steel corp. D. Joyce. il diags Blast F & Steel Pl 42:657-65 Je '54

Steel handling; Diesel-electric switcher cuts production delays; Sharon steel corp. il Iron Age 172:138+ S 3 '53

Steel industry water instrumentation. C. F. Hauck and E. C. Eger. flow sheet Instruments 26:569-71+ Ap '53

Steelmaking; slab breaker designed for chrome and other alloys. Iron Age 172:152 S 3 '53

Straddle carrier handles 15-ft steel sheets safely, easily; Fairless works. il Iron Age 173:127 Je 3 '54

Le Tourneau steel plant contains unusual features. il Iron & Steel Eng 31:146+ Ap '54

Use of oxygen in steel mills. G. O. Carter. il plans Iron & Steel Eng 31:80-6; Discussion. 86 Je '54

Utmost dependability and 96 per cent availability here; U.S. Steel's Fairless works. il Ry Age News ed 135:22 D 21 '53

Weirton finishes project. Steel 135:77 S 6 '54

Wheeling steel corporation's Steubenville works. C. Longenecker and H. E. Trout. il map Blast F & Steel Pl 42:902-27 Ag '54

See also
Cinder pots

Fires and fire protection

Non-flammable hydraulic fluids as applied to the steel industry; abstract. C. R. Schmitt. Iron & Steel Eng 31:141-2 S '54

Fuel

Fuel selection for soaking pits; Johnstown plant of the Bethlehem steel co. F. R. Pullen. Iron & Steel Eng 31:80-2 Mr '54

See also
Open hearth furnaces
—Fuel

Lighting

High-bay industrial lighting; Jones and Laughlin steel corp.; lighting data sheet. il Illum Eng 49:265 My '54

Modern lighting systems for steel mills. R. F. Vandenboom and D. L. Beeman. il diags Iron & Steel Eng 30:79-87; Discussion. 87-90 O '53

Maintenance and repair

Better maintenance materials; Armco steel corp. J. B. Whitlock. il Factory Management 112:122-6 F '54

Economy realized through strain gage checks. R. P. Gibson. Iron & Steel Eng 31:88-9 S '54

Flexible connection reduces crane runway maintenance. J. A. Evans. diags Iron & Steel Eng 30:98-100 N '53

STEEL works—Maintenance and repair—*Cont.*

Furnace rebuilding. W. H. Shure. il Iron & Steel Eng 30:61-5; Discussion. 65-6 N '53

How-to-do-it bulletin: Armco steel corp. maintenance tips, short-cuts, methods. il Factory Management 112:113 S '54

Maintenance aspects of corrosion program at Fairless works. K. L. Johannsen. bibliog il diags Iron & Steel Eng 31:115-22 S '54

Metallurgical aspects of plant maintenance. T. G. Bradbury. il Iron & Steel Eng 31:90-7 S '54

Productive maintenance. A. D. King. Iron & Steel Eng 31:98-100 S '54

Repair and maintenance of open-hearth furnaces in U.S.A. R. W. Evans and I. S. Scott-Maxwell. Iron & Steel Inst J 174:378-82 Ag '53; Same. Blast F & Steel Pl 41:1307-11 N '53; Discussion. il diags Iron & Steel Inst J 174:382-8 Ag '53

Ultrasonics in maintenance planning and product quality control. R. L. Rectenwald. il diags Iron & Steel Eng 31:77-85; Discussion. 85-7 S '54

Management

Daily maintenance cost control; the foremen's tool. W. B. Carter. il Iron & Steel Eng 31:123-7 S '54

Education and training for management in the iron and steel industry. Engineering 177:196 F 12 '54

Models

Use of models for layout and planning. J. C. Montoro. bibliog il Iron & Steel Eng 31:154-8; Discussion. 158-60 S '54

Power

Combination fuel firing of boiler plants; blast furnace gas and coal. C. J. Webster. Iron & Steel Eng 31:70-1; Discussion. 71 Jl '54

Control of electric power systems in steel plants. K. S. Kuka. plan Iron & Steel Eng 31:105-12 Mr '54

Gas turbines for the steel industry. G. H. Krapf. diags Blast F & Steel Pl 42:444-7+ Ap '54; Same. Iron & Steel Eng 31:97-100 Ap '54; Excerpt. Power 98:202+ S '54; Abstract. Iron Age 173:69 Ap 1 '54

How to increase power plant efficiency. M. Pope. Iron Age 173:138-9 Mr 18 '54

Modern industrial boiler plant. W. P. C. Ungoed. diag Blast F & Steel Pl 42:548-52+, 686-8 My-Je '54

Operating experiences with gas-turbine plants in the steel industry. H. Pfenninger. diags Blast F & Steel Pl 42:942-4+, 1076-9 Ag-S '54

Place of the gas turbine in industry. T. J. Putz. il diags Iron & Steel Eng 30:62-6; Discussion. 66-8 D '53

Power for Fairless works. R. C. Laney. il Blast F & Steel Pl 42:94-5+ Ja '54

Power system expands with steel making capacity at Detroit Steel. L. DeFiore and M. N. Hickok. il maps plans diags Blast F & Steel Pl 42:767-77, inserts Jl '54

6900-volt power system fault relay analysis; Alan Wood steel co. J. A. B. Pinney. il plan diags Iron & Steel Eng 31:99-109; Discussion. 109-13 Ja '54

Quality control

Application of the ARL quantometer to production control in a steel mill. H. C. Brown. J Metals 6:Trans 349-52 Mr '54

Consideration of heating, rolling and annealing as factors in the control of quality cold rolled sheets. H. C. Smith. Blast F & Steel Pl 42:653-5 Je '54; Excerpts. Iron & Steel Eng 31:140-1 Ag '54

Modern spectrography; speed pays high cost of knowing. N. Lynn. il Steel 133:106+ N 30 '53

Quality of toolsteel; recent developments and future predictions. B. George. il Metal Prog 65:75-8 Mr '54

Some applications of statistical analysis in the steel industry. J. W. W. Sullivan. il Metal Prog 64:91-6+ D '53

Some statistical methods used in studies of steel plant operations. A. P. Woods. Blast F & Steel Pl 42:649-52+ Je '54; Excerpt. Iron & Steel Eng 31:137-8 Ag '54

Spectrometer vital for tool steels; Latrobe steel co. W. W. Clarke. il Steel 134:108+ Ap 5 '54

Safety measures

Aluminized safety clothing keeps cool in the hot jobs. il Steel 134:118+ Je 14 '54

Crucible cartoons teach safety. il Iron Age 173:75 F 11 '54

Safety contests cut accident rate; Lehigh structural steel co. G. J. Neumann. Iron Age 173:67-8 Jl 1 '54

Safety helmet absorbs impact of 15-lb. angle lug. il Iron Age 172:258+ N 12 '53

Safety limit stop. R. J. Harry. il diags Iron & Steel Eng 31:104-8 My '54

Waste

Ably engineered water services pay big dividends; U.S. Steel Fairless works. R. Nebolsine and others. flow diag il plan diag Power 98:69-73 Mr '54

Disposal of steel production wastes at the Fairless works. G. A. Howell. flow diags il Sewage & Ind Wastes 26:286-97; Discussion. G. A. Pettit. 297-9 Mr '54

Industrial waste guide; blast furnace department of the steel industry. H. H. Black and G. N. McDermott. bibliog flow diag diags Sewage & Ind Wastes 26:976-90 Ag '54

Making mill effluent pay off. R. W. Simpson and W. Garlow. il Steel 133:90+ O 19 '53

New way to tame balky separation; rapid filtration at low oxidation levels. il Chem Eng 61:128+ Ag '54

Pollution control can be realistic. J. E. Kinney. Iron & Steel Eng 30:91-4; Discussion. 94-7 N '53

Regeneration of spent pickle liquor. B. P. Martinez. 4pls U S Bur Mines Information Circ 7672:1-18 bibliog(p17-18) '53

Steel mills recover scale, reduce stream pollution. il diags Comp Air Mag 59:137-8 My '54

See also
Steel waste

Australia

Australian secondary industries. Engineer 196:805 D 18 '53

Austria

Development of oxygen steelmaking. O. Cuscoleca. bibliog(37 ref) il diags J Metals 6:Trans 817-27 Jl '54

Russia; what it does with a steel mill. Iron Age 173:85 Je 10 '54

Belgium

Belt-charged blast-furnaces of S.A. John Cockerill, Belgium. G. Hookham. il plans diags Iron & Steel Inst J 175:409-19 D '53

Brazil

Brazilian charcoal blast furnace practices. L. Ensch. diags Blast F & Steel Pl 42:1053-8 S '54

Brazilian steelmaker plans three-year expansion; Brazilian national steel co., Volta Redonda. il Steel 135:58 Ag 2 '54

Brazil's Volta Redonda plant as seen in full production; illustrations with text. Blast F & Steel Pl 41:1454-5 D '53

Canada

New open hearth furnaces at Stelco. E. T. W. Bailey. il plan Iron & Steel Eng 31:91-8 Je '54

Colombia

Paz de Rio; the new steel industry in Colombia. K. Schlesinger. il maps Blast F & Steel Pl 41:1295-7+ N '53

England

Metallurgical industries of Sheffield. C. Sykes. Inst Mech Eng Proc (A) 167 no 3:231-4 '53; Same abr. il Engineering 176:89-91, pl 7-8 Jl 17 '53

New Dorman Long steelworks. il Metallurgia 50:55-62 Ag '54

Shepcote-Lane plant of Firth-Vickers stainless steels, ltd. il plan Engineering 176:332-3, 362-5, pl 24-6 S 11-18 '53

STEEL works—*Continued*

France

French company operates Y type mill. il Blast F & Steel Pl 42:656 Je '54

French steel company installs reversing cold strip mill. il Iron & Steel Eng 30:137+ D '53

This gauge steel rolled on Y-mill in France; Societe Etilam, of Jeumont, France. il Blast F & Steel Pl 42:336-8 Mr '54

Germany

Construction of the largest blast furnace in Europe completed in record time; Westfalenhütte A.G., Dortmund, Germany. D. R. Knall. il diags Blast F & Steel Pl 42:524-30 My '54

India

Germans sell India a steel mill. Bsns W p 104-5 Ag 22 '53

India signs agreements for new steel plant. For Comm W 51:10 F 1 '54

Japan

Japanese steel stages comeback. S. Badlam. il plan Iron & Steel Eng 31:161-2+ Ag '54

Manchuria

Inside red China's steel city. il Iron Age 172:108-9 D 3 '53

Netherlands

Iron and steel institute meeting, Amsterdam, Sept. 30-Oct. 7. Engineer 196:522-4, 549-51 O 23-30 '53

New England

New England steel mill; a green light. Steel 133:71 N 9 '53

Russia

Review of Russian practice reveals rail steel production methods. C. A. Zapffe. J Metals 5:1627-8 D '53

Sweden

Fagersta-Swedish mill completes expansion program. il Blast F & Steel Pl 42:805-6 Jl '54

Texas

Sheffield Steel's growth reflects prosperity of Texas and Gulf coast. il Manuf Rec 122:39 D '53

Wales

Expansion at the Steel company of Wales. T. J. Ess. il plan Iron & Steel Eng 30:105-20 N '53

Western states

Steel; Geneva is backbone of West. T. M. Rohan. il Iron Age 172:107 D 3 '53

United States Steel in the West. J. L. Young; W. F. Pruden. il map Iron & Steel Eng 31:55-64 Ap '54

STEEN, Charles Austin

Broke and hungry prospector hits uranium jackpot. pors Bsns W p28-30 Ag 1 '53

STEEP Rock lake

Engineering study of glacial deposits at Steep Rock lake, Ontario, Canada. R. F. Leggett and M. W. Bartley. bibliog il maps Econ Geol 48:513-40 N '53

STEEPLES. See Spires

STEERING gear

See also

Automobiles—Steering gear

STEERS, J. Rich

Moles awards for 1954. por Explosives Eng 31:186 N '53

Moles will honor Steers and Maxon. por Comp Air Mag 58:349-50 D '53

STEINWAY and sons

Century of salesmanship helps build Steinway name. L. M. Hughes. il Sales Management 70:24-7+ My 1 '53

Steinway in newspapers for 90 of its 100 years. R. B. McIntyre. Ed & Pub 86:21+ Ap 18 '53

STENCILS and stencil cutting

Stencil labels are by-products; Reed candy co. il Am Bsns 23:24-5+ N '53

STENOGRAPHERS

Utilizing stenographic workers; a survey. A. H. Gager. Management R 42:713-14 D '53

STEPHAN, Jack

Success at 35! pors Dom Eng 183:114-17 F '54

STEPHENS, Donald McGregor

Sketch. por Roads & Eng Constr 92:107 My '54

STEREOCHEMISTRY

Chemistry of the triterpenes and related compounds; further evidence concerning the structure of polyporenic acid A. T. G. Halsall, R. Hodges and E. R. H. Jones. Chem Soc J p3019-24 O '53

Chemistry of the triterpenes and related compounds; the stereochemistry of ring E of betulin and related compounds. J. M. Guider, T. G. Halsall and E. R. H. Jones. Chem Soc J p3024-8 O '53

cis-Addition in the bromination of bicyclic olefins; the structure and stereochemistry of the dibromides of *exo-cis*-3,6-endoxo-Δ^4-tetrahydrophthalic anhydride and *endo-cis*-3,6-endomethylene-Δ^4-tetrahydrophthalic anhydride. J. A. Berson and R. Swidler. bibliog Am Chem Soc J 76:4060-9 Ag 20 '54

Configuration of Marker's cholesteryl-3-carboxylic acid. C. W. Shoppee and R. J. Stephenson. bibliog Chem & Ind p278-9 Mr 6 '54

Conformation of rauwolscine, alloyohimbine and their congeners. A. Chatterjee and others. bibliog Chem & Ind p491-2 Ap 24 '54

Correlation of the rates of deamination of glucosaminides with configuration at the glycosidic centre. A. B. Foster and others. bibliog Chem & Ind p825-6 Ag 1 '53

Diels-Alder reaction; abstracts. K. Alder. Chem & Eng N 32:1582+ Ap 19 '54; Chem & Ind p571 My 15 '54

Direct chemical interrelation of the configuration of terpenes and hydroxy acids. D. S. Noyce and D. B. Denney. bibliog Am Chem Soc J 76:768-71 F 5 '54

Dynamic stereochemistry; abstract. V. Prelog. Chem & Eng N 32:1582 Ap 19 '54

Dynamic stereochemistry; symposium abstracts. Chem & Ind p562-3+ My 15 '54

Ethylene imine ketones; stereochemistry and mechanisms of three-ring cleavage and closure. N. H. Cromwell and others. bibliog Am Chem Soc J 75:5384-9 N 5 '53

Intramolecular hydrogen bridges and physiological activity. M. Davies. bibliog Chem & Ind p614-15 Je 20 '53

Macro rings; synthesis and properties of *p,p'*-tetramethylene-1,4-diphenylbutane. D. J. Cram and N. L. Allinger. bibliog Am Chem Soc J 76:726-31 F 5 '54

Magnetic moments and stereochemistry of cobaltous compounds. B. N. Figgis and R. S. Nyholm. Chem Soc J p 12-15 Ja '54

Molecular configuration of longifolene hydrochloride. R. H. Moffett and D. Rogers. diags Chem & Ind p916-17 Ag 29 '53

New types of thermochromic substances; the stereochemical aspect of thermochromism; thermochromism and vinylogy. A. Schönberg, A. Mustafa and W. Asker. bibliog Am Chem Soc J 76:4134-6 Ag 20 '54

Possible correlation between the configuration of optically active bases and the velocity of decarboxylation of dextro- and levo-camphocarboxylic acids in their presence. P. Pratesi, L. Arpesella and A. La Manná. bibliog Am Chem Soc J 75:5476-8 N 20 '53

Sesquiterpenoids; the stereochemistry of caryophyllene. A. Aebi, D. H. R. Barton and A. S. Lindsey. Chem Soc J p3124-9 O '53

Stereochemical correlation of the yohimbine alkaloids with the steroids. W. Klyne. bibliog Chem & Ind p 1032 S 26 '53

Stereochemical course of Hofmann elimination in reduced heterocyclic amines. J. McKenna. bibliog Chem & Ind p406 Ap 3 '54

Stereochemical studies in the morphine series; the relative configuration at carbons thirteen and fourteen. H. Rapoport and J. B. Lavigne. bibliog diag Am Chem Soc J 75:5329-34 N 5 '53

STEREOCHEMISTRY—*Continued*

Stereochemical studies; the relative configurations of (—)-aminophenylacetic acid (α-phenylglycine) and (—)-mandelic acid. M. B. Watson and G. W. Youngson. Chem Soc J p2145-7 Je '54

Stereochemistry and valence states of nickel. R. S. Nyholm. Chem R 53:263-308 bibliog(p304-8) O '53

Stereochemistry of α-haloketones; prediction of the stereochemistry of α-brominated ketosteroids. E. J. Corey. bibliog Am Chem Soc J 76:175-9 Ja 5 '54

Stereochemistry of aromatic alkylations; direct nucleophilic displacement in phenols. H. Hart and H. S. Eleuterio. Am Chem Soc J 76:516-19 Ja 20 '54

Stereochemistry of aromatic alkylations; the thermal rearrangement of alkyl aryl ethers. H. Hart and H. S. Eleuterio. bibliog Am Chem Soc J 76:519-22 Ja 20 '54

Stereochemistry of ether cleavage. H. Hart and H. S. Eleuterio. Am Chem Soc J 76:1379-80 Mr 5 '54

Stereochemistry of lysergic acid. J. B. Stenlake. bibliog Chem & Ind p 1089-90 O 10 '53

Stereochemistry of metal chelates of a polydentate ligand. B. D. Sarma and J. C. Bailar, jr. Am Chem Soc J 76:4051-2 Ag 5 '54

Stereochemistry of santonin. W. Cocker and T. B. H. McMurry. bibliog Chem & Ind p 1199-201 S 25 '54

Stereochemistry of squalene; a new method for the determination of *cis-trans* isomerism. N. Nicolaides and F. Laves. bibliog Am Chem Soc J 76:2596-7 My 5 '54

Stereochemistry of steroidal sapogenins. J. B. Ziegler, W. E. Rosen and A. C. Shabica. bibliog Am Chem Soc J 76:3865-6 Jl 20 '54

Stereochemistry of the addition of hydrogen bromide to 1,2-dimethylcyclohexene. G. S. Hammond and T. D. Nevitt. bibliog Am Chem Soc J 76:4121-3 Ag 20 '54

Stereochemistry of the 3-carboxy-, 3-carboxymethyl- and 3-acetylcholestanes and Δ^5-cholestenes. E. J. Corey and R. A. Sneen. bibliog Am Chem Soc J 75:6234-7 D 20 '53

Stereochemistry of the 10-methyl-2-decalols. A. S. Hussey, Hsiang Peng Liao and R. H. Baker. bibilog Am Chem Soc J 75:4727-30 O 5 '53

Stereochemistry of the primary carbon; optically active *n*-butanol-1-*d*. A. Streitwieser, jr. bibliog Am Chem Soc J 75:5014-18 O 20 '53

Stereochemistry of the steroid sapogenins. D. A. H. Taylor. Chem & Ind p 1066-8 Ag 28 '54

Steric relationships between ionization of aralkyl chlorides and dissociation of anilinium ions; abstract. G. Baddeley and others. Chem & Ind p216 F 20 '54

Structure and stereochemistry of bicyclic derivatives; pyrolysis of *endo-cis*-3,6-endomethylene-*exo-cis*-4,5-dibromohexahydrophthalic acid. J. A. Berson. Am Chem Soc J 76:4069-72 Ag 20 '54

Structure of the adduct of 3-methyl-2-cyclohexenone and ethyl cyanoacetate; the question of meta- and para-bridged rings. P. R. Shafer, W. E. Loeb and W. S. Johnson. bibliog Am Chem Soc J 75:5963-7 D 5 '53

Studies in stereochemical structure; optically active desyl chloride. R. Roger and R. Wood. Chem Soc J p811-12 Mr '54

Studies in stereochemistry; rearrangement of the 1,1-diphenyl-2-propyl into the 1,2-diphenyl-1-propyl system. D. J. Cram and F. A. Abd Elhafez. bibliog Am Chem Soc J 76:28-33 Ja 5 '54

Studies in stereochemistry; steric control of asymmetric induction in the preparation of the 3-cyclohexyl-2-butanol system. D. J. Cram and F. D. Greene. bibliog Am Chem Soc J 75:6005-10 D 5 '53

Sulfonation of olefins; stereochemistry of the reaction with cyclopentene and cyclohexene. F. G. Bordwell and M. L. Peterson. bibliog Am Chem Soc J 76:3957-61 Ag 5 '54

Synthesis and stereochemistry of the 3-keto-Δ^4-steroidal system from diterpenic acids. H. H. Zeiss and W. B. Martin, jr. bibliog Am Chem Soc J 75:5935-40 D 5 '53

See also

Isomerism

Molecular rearrangements

STEREOISOMERISM. See Isomerism

STEREOPHONIC sound recording. See Moving picture sound recording; Sound—Recording and reproducing—Magnetic recording

STEREOPTOMETERS

Stereoptometer, a simple haploscopic instrument for the study of binocular space perception. E. A. Alluisi and G. S. Harker. diags Science 117:682-3 Je 19 '53

STEREOSCOPE

They're sight selling with stereo. il Sales Management 71:66-8+ S 1 '53

STEREOSCOPIC moving pictures. See Moving pictures, Stereoscopic

STEREOSCOPIC photography. See Photography, Stereoscopic

STERIC hindrance

Chemical constitution and the dissociation constants of monocarboxylic acids; some alkylbenzoic acids exhibiting steric effects. J. F. J. Dippy, S. R. C. Hughes and J. W. Laxton. Chem Soc J p 1470-6 My '54

Chromatographic study of steric factors in disubstituted benzenes. A. L. LeRosen, J. K. Carlton and P. B. Moseley. Anal Chem 25:666-7 Ap '53

Configuration of 11, 12-oxygenated sapogenins. N. L. Wendler and others. Chem & Ind p543 My 8 '54

Distribution of isomers in the mononitration of ethyl- and isopropylbenzene; further evidence for a steric effect in isomer distribution. H. C. Brown and W. H. Bonner. bibliog Am Chem Soc J 76:605-6 Ja 20 '54

Mechanism of elimination reactions; kinetics and steric course of elimination from isomeric benzene hexachlorides. E. D. Hughes, C. K. Ingold and R. Pasternak. Chem Soc J p3832-9 D '53

Mechanism of elimination reactions; kinetics and steric course of elimination from isomeric menthyl chlorides. E. D. Hughes, C. K. Ingold and J. B. Rose. Chem Soc J p3839-45 D '53

Mechanism of elimination reactions; the comparative unimportance of steric strain in unimolecular olefin elimination. E. D. Hughes, C. K. Ingold and V. J. Shiner, jr. Chem Soc J p3827-32 D '53

Reactivity of the *O*-acylglycosyl halides; steric effects. F. H. Newth and G. O. Phillips. pl Chem Soc J p2904-9 O '53

Relative importance of steric and inductive effects in S_N2 displacement reactions. W. Reeve, E. L. McCaffery and T. E. Kaiser. Am Chem Soc J 76:2280-1 Ap 20 '54

Steric control of asymmetric induction in the *ortho*-Claisen rearrangement. H. Hart. Am Chem Soc J 76:4033-4 Ag 5 '54

Steric effects; alkaline saponification of methyl 4-x-2,6-dimethylbenzoates. H. L. Goering, T. Rubin and M. S. Newman. bibliog Am Chem Soc J 76:787-91 F 5 '54

Steric effects and spectra in the tetracyclones. E. L. Shapiro and E. I. Becker. bibliog Am Chem Soc J 75:4769-75 O 5 '53

Steric effects and the stability of complex compounds; the chelating tendencies of C-substituted ethylenediamines with copper(II) and nickel(II) ions. F. Basolo, Yun Ti Chen and R. K. Murmann. bibliog Am Chem Soc J 76:956-9 F 20 '54

Steric effects and the stability of complex compounds; the chelating tendencies of N-alkylglycines and N-dialkylglycines with copper(II) and nickel(II) ions. F. Basolo and Yun Ti Chen. bibliog Am Chem Soc J 76:953-5 F 20 '54

Steric effects and the stability of complex compounds; the chelating tendencies of N,N′-dialkylethylenediamines with copper (II) and nickel(II) ions. F. Basolo and R. K. Murmann. bibliog Am Chem Soc J 76:211-14 Ja 5 '54

Steric effects of the *t*-butyl group in organosilicon compounds. L. H. Sommer and L. J. Tyler. bibliog Am Chem Soc J 76:1030-3 F 20 '54

STERIC hindrance—*Continued*

Steric effects outweigh polar. H. C. Brown. Chem & Eng N 31:5058+ D 7 '53

Steric hindrance; 2,6-dimethylacetophenone and 2,6-dimethylstyrene. L. H. Schwartzman and B. B. Corson. bibliog Am Chem Soc J 76:781-5 F 5 '54

Steric hindrance in analytical chemistry; the interaction of ferrous salts with 2-substituted 1 : 10-phenanthrolines. H. Irving, M. J. Cabell and D. H. Mellor. Chem Soc J p3417-26 N '53

Steric hindrance to coplanarity in *o*-fluorobenzidines. A. J. Bilbo and G. M. Wyman. bibliog Am Chem Soc J 75:5312-14 N 5 '53

Steric relations between ionisation of aralkyl chlorides and dissociation of anilinium ions. G. Baddeley, J. Chadwick and H. T. Taylor. Chem Soc J p2405-9 Jl '54

Studies in stereochemistry; steric control of asymmetric induction in the preparation of the 2,5-dimethyl-4-phenyl-3-hexanol system. D. J. Cram, F. A. Abd Elhafez and H. L. Nyquist. bibliog Am Chem Soc J 76:22-8 Ja 5 '54

STERILIZATION

Design and use of ten-kilocurie source of gamma radiation. L. E. Brownell and others. bibliog il plan diags Chem Eng Prog 49:569-76 N '53

Grappling with the problems of cold sterilization. B. S. Schweigert. il Food Eng 26:70-1+ S '54

Problems of biochemical engineering; sterility in fermentation processes. J. J. H. Hastings. Chem Age (Lond) 69:1231-2 D 12 '53

Radiation sterilization; effect of high-energy gamma radiation from kilocurie radioactive sources on steroid hormones. W. Tarpley and others. bibliog(37 ref) il Ind & Eng Chem 46:1458-64 Jl '54

Ray-sterilizing food wrappers. L. L. Kempe and others. bibliog il Food Eng 25:55-6+ N '53

Sterilization of surgical dressings; abstract and discussion. R. M. Savage. Chem & Ind p302-3 Mr 13 '54

Sterilization with ozone; abstract and discusson. M. Ingram. Chem & Ind p301-2 Mr 13 '54

See also
Disinfection and disinfectants

STERILIZATION of water pipes. See Water pipe—Sterilization

STERILIZERS, Electric

Sterilizes bottled chocolate beverages; Ster-O-Matic. il Food Eng 25:107 N '53

STERLING discount corporation

Stock offered. Comm & Fin Chr 178:1164-5 S 28 '53

STEROIDS

Acetylation of 17 α-hydroxy steroids. R. B. Moffett and H. V. Anderson. Am Chem Soc J 76:747-9 F 5 '54

Anasapogenins; a new type of steroid sapogenin. D. H. W. Dickson and others. bibliog Chem & Ind p692-3 Je 12 '54

Approaches to the total synthesis of adrenal steroids; a new method for the attachment of ring D. G. E. Arth and others. bibliog Am Chem Soc J 76:1715-22 Ap 5 '54

Bromination of steroidal ketones. D. A. H. Taylor. Chem & Ind p250 F 27 '54

Catalytic hydrogenation of 3α-hydroxy-Δ^5-steroids and derivatives. J. R. Lewis and C. W. Shoppee. bibliog Chem & Ind p897 Ag 22 '53

Chemical actions of ionising radiations in solution; the action of X-rays on some steroids in organic solvents. B. Coleby, M. Keller and J. Weiss. Chem Soc J p66-71 Ja '54

Chemical studies with 11-oxygenated steroids; a one-step oxidation-halogenation of 3-hydroxysteroids. A. R. Hanze and others. bibliog Am Chem Soc J 76:3179-81 Je 20 '54

Chemical studies with 11-oxygenated steroids; 17α-hydroxycorticosterone. R. H. Levin and others. bibliog Am Chem Soc J 76:546-52 Ja 20 '54

Chemical transformation of steroids by adrenal perfusion; allopregnane-21-ol-3,20-dione. A. S. Meyer. Science 118:101-2 Jl 24 '53

Cleavage of steroid epidioxides with lithium aluminium hydride. G. F. Laws. Chem Soc J p4185-6 D '53

Conformations of hydrindanes and the relative stabilities of the *cis*- and *trans*-configurations at the C D ring juncture in steroids. A. S. Dreiding. bibliog Chem & Ind p992-4 Ag 7 '54

$\Delta^{5,7}$-Steroids; steroidal cyclic ketals; transformation products of Reichstein's substance. S. R. Antonucci, S. Bernstein and R. H. Lenhard. bibliog Am Chem Soc J 76:2956-9 Je 5 '54

D-homo rearrangement products of cortisone and Reichstein's substance S. V. Georgian and N. Kundu. Chem & Ind p431-2 Ap 10 '54

$\Delta^{9,(11)}$-Dehydro cortical steroids; synthesis of $\Delta^{9,(11)}$anhydro-17-hydroxycorticosterone acetate. R. P. Graber, A. C. Haven, jr. and N. L. Wendler. bibliog Am Chem Soc J 75:4722-4 O 5 '53

Derivatives of steroids containing a small ring fused to the D ring. G. P. Mueller and B. Riegel. bibliog Am Chem Soc J 76:3686-8 Jl 20 '54

Direct stereochemical correlation of a sesquiterpene alcohol with the steroids. B. Riniker and others. bibliog Am Chem Soc J 76:313-14 Ja 5 '54

Effect of solvent on the optical rotation of some steroid α-ketols. J. K. Norymberski. Chem Soc J p762-4 F '54

Formation of five- and six-membered rings by the acyloin condensation; the natural estrogenic steroids. J. C. Sheehan, R. A. Coderre and P. A. Cruickshank. Am Chem Soc J 75:6231-3 D 20 '53

Hydroaromatic steroid hormones; the androgenic activity of D-homobisnorsteroid. A. J. Birch and J. A. K. Quartey. bibliog Chem & Ind p489-90 My 16 '53

Introduction of the 11-oxo- and the 11α-hydroxy-group into ring C unsubstituted steroids; the epoxides of $\Delta^{7:9(11)}$-5-α-hydroxysapogenins. C. Djerassi and others. Chem Soc J p2346-51 Jl '54

α-Iodoketones; synthesis of 21-iodo-Δ^{16}-20-keto steroids by the N-iodosuccinimide-enol acetate reaction. C. Djerassi and C. T. Lenk. bibliog Am Chem Soc J 76:1722-5 Ap 5 '54

Isomerisation of unsaturated steroids in liquid sulphur dioxide. A. W. D. Hudgell, J. H. Turnbull and W. Wilson. Chem Soc J p814-16 Mr '54

Microbiological transformations of steroids; degradation of C_{21} steroids to C_{19} ketones and to testololactone. D. H. Peterson and others. bibliog Am Chem Soc J 75:5768-9 N 20 '53

Microbiological transformations of steroids; 17α-hydroxylation. P. D. Meister and others. bibliog Am Chem Soc J 76:4050-1 Ag 5 '54

Microbiological transformations of steroids; the oxygenation of androgens by rhizopus. S. H. Eppstein and others. bibliog Am Chem Soc J 76:3174-9 Je 20 '54

Nitration of unsaturated steroids. C. E. Anagnostopoulos and L. F. Fieser. bibliog Am Chem Soc J 76:532-6 Ja 20 '54

11-Oxygenated steroids; the elimination of the 11 α-hydroxyl group via the tosylate. H. L. Herzog, C. C. Payne and E. B. Hershberg. Am Chem Soc J 76:930-1 F 5 '54

Preparation and reactions of steroidal $\Delta^{17,(20)}$-enol acetates. H. V. Anderson and others. bibliog Am Chem Soc J 76:743-6 F 5 '54

Radiation sterilization; effect of high-energy gamma radiation from kilocurie radioactive sources on steroid hormones. W. Tarpley and others. bibliog(37 ref) il Ind & Eng Chem 46:1458-64 Jl '54

Reaction of peracids with $\Delta^{20(21)}$-steroid enol acetates. R. B. Moffett and G. Slomp, jr. bibliog Am Chem Soc J 76:3678-82 Jl 20 '54

Rearrangement of the steroid C/D rings. R. Hirschmann and others. bibliog Am Chem Soc J 76:4013-25 Ag 5 '54

STEROIDS—*Continued*

Rearrangement of the steroid C/D rings; synthesis of an 11-keto-$\Delta^{13(17a)}$-C-nor/D-homo-steroid. C. F. Hiskey, R. Hirschmann and N. L. Wendler. Am Chem Soc J 75:5135-6 O 20 '53

Relations between phase composition and partition coefficients for some neutral steroids. L. L. Engel and others. bibliog Anal Chem 26:639-41 Ap '54

Selective oxidation of some steroid diols. R. E. Jones and F. W. Kocher. Am Chem Soc J 76:3682-3 Jl 20 '54

Selective reduction of oxosteroids with sodium borohydride. J. K. Norymberski and G. F. Woods. Chem & Ind p518-19 My 1 '54

Seroflocculating steroids; ethyl 3β-chloro-Δ^{11}-cholenate. F. C. Chang and D. H. Sprunt. bibliog Am Chem Soc J 76:3213 Je 20 '54

Some reactions of epoxides of steroid enol acetates. A. H. Soloway and others. bibliog Am Chem Soc J 76:2941-3 Je 5 '54

Stereochemistry of α-haloketones; prediction of the stereochemistry of α-brominated ketosteroids. E. J. Corey. bibliog Am Chem Soc J 76:175-9 Ja 5 '54

Stereochemistry of steroidal sapogenins. J. B. Ziegler, W. E. Rosen and A. C. Shabica bibliog Am Chem Soc J 76:3865-6 Jl 20 '54

Stereochemistry of the steroid sapogenins. D. A. H. Taylor. Chem & Ind p 1066-8 Ag 28 '54

Steric configuration of brominated 3-ketosteroids. R. N. Jones. Am Chem Soc J 75:4839 O 5 '53

Steroid analogs lacking ring C; 4-(*cis*-4′-hydroxycyclohexyl)-cyclohexanone; configuration of the bicyclohexyl-4,4′-diols. A. L. Wilds, T. H. Pearson and C. H. Hoffman. bibliog Am Chem Soc J 76:1737-40 Ap 5 '54

Steroid analogs lacking ring C; synthesis of 4-(*trans*-4′ - hydroxycyclohexyl) - cyclohexanone. A. L. Wilds, C. H. Shunk and C. H. Hoffman. bibliog Am Chem Soc J 76:1733-6 Ap 5 '54

Steroid series; alteration to nomenclature. D. H. Hey, J. Honeyman and W. J. Peal. Chem Soc J p2648-9 Jl '54

Steroid series; synthesis of methyl 3β-acetoxybisnor*allo*cholanoate from dehydro*epi*androsterone acetate. D. H. Hey, J. Honeyman and W. J. Peal. Chem Soc J p 185-9 Ja '54

Steroidal alkaloids; abstract. D. H. R. Barton. Chem & Ind p 101-2 Ja 23 '54

Steroidal alkaloids; some observations on the constitution of cevine. D. H. R. Barton, C. J. W. Brooks and J. S. Fawcett. Chem Soc J p2137-43 Je '54

Steroidal sapogenins; aromatization experiments in the diosgenin series. F. Sondheimer and others. bibliog Am Chem Soc J 76:2230-3 Ap 20 '54

Steroidal sapogenins; configuration of spiroketal side chain at carbon 22. M. E. Wall and S. Serota. bibliog Am Chem Soc J 76:2850-2 My 20 '54

Steroidal sapogenins; hydrolysis of 5α-22a-spirostane glycosides by fungal saponases. M. M. Krider, T. C. Cordon and M. E. Wall. Am Chem Soc J 76:3515-17 Jl 5 '54

Steroidal sapogenins; hydrolysis of 5α,22a-spirostane glycosides by plant enzymes. M. M. Krider and M. E. Wall. bibliog Am Chem Soc J 76:2938-40 Je 5 '54

Steroidal sapogenins; qualitative color test for pseudosapogenins. E. S. Rothman, M. E. Wall and H. G. Cooper. Am Chem Soc J 75:6325-6 D 20 '53

Steroidal sapogenins; stereochemistry of sapogenins and cholesterol at carbon 20. M. E. Wall, C. R. Eddy and S. Serota. bibliog Am Chem Soc J 76:2849-50 My 20 '54

Steroidal sapogenins; steroidal C-ring lactones. E. S. Rothman, M. E. Wall and C. R. Eddy. bibliog Am Chem Soc J 76:527-32 Ja 20 '54

Steroids and related compounds; the chlorination of cholestan-3-one. B. Ellis and V. Petrow. Chem Soc J p3869-72 D '53

Steroids and Walden inversion; the epimeric 3-cholesterylacetic and 3-cholestanylacetic acids. C. W. Shoppee and R. J. Stephenson. Chem Soc J p2230-42 Jl '54

Steroids; $\Delta^{4,6}$-dien-3-ones^{2,3}. F. Sondheimer, C. Amendolia and G. Rosenkranz. bibliog Am Chem Soc J 75:5932-5 D 5 '53

Steroids; 7 : 8-epoxides of 9α- and 9β-ergostan-11-one derivatives. J. Grigor and others. Chem Soc J p2333-45 Jl '54

Steroids; isolation of cholegenin and *iso*cholegenin from ox-bile. N. J. Antia and others. Chem Soc J p 1218-22 Ap '54

Steroids; some 5-hydroxy-derivatives of cholestane. A. J. Fudge, C. W. Shoppee and G. H. R. Summers. Chem Soc J p958-64 Mr '54

Steroids; steroidal sapogenins; the dehydration of 11α-hydroxy steroids. G. Rosenkranz, O. Mancera and F. Sondheimer. bibliog Am Chem Soc J 76:2227-30 Ap 20 '54

Steroids; synthesis of 19-nor-17α-ethynyltestosterone and 19-nor-17α-methyltestosterone. C. Djerassi and others. bibliog Am Chem Soc J 76:4092-4 Ag 20 '54

Steroids; synthesis of steroidal hormone analogs hydroxylated at C-2. F. Sondheimer and others. bibliog Am Chem Soc J 75:4712-15 O 5 '53

Steroids; synthesis of steroidal hormone analogues hydroxylated at C(6). C. Amendolla, G. Rosenkranz and F. Sondheimer. Chem Soc J p 1226-33 Ap '54

Steroids; the conversion of ergosterol into progesterone. F. Johnson, G. T. Newbold and F. S. Spring. Chem Soc J p 1320-6 Ap '54

Steroids; the structures of cholegenin and *iso*cholegenin. Y. Mazur and F. S. Spring. Chem Soc J p 1223-6 Ap '54

Structure of Inhoffen's phenolic steroids; dehydrogenation. A. S. Dreiding and A. Voltman. bibliog Am Chem Soc J 76:537-9 Ja 20 '54

Structure of Inhoffen's phenolic steroids; the synthesis of 1-ethyl-2,8-dimethyl-5-methoxyphenanthrene and 1-ethyl-2,8-dimethylphenanthrene. A. S. Dreiding and A. J. Tomasewski. bibliog Am Chem Soc J 76:540-5 Ja 20 '54

Studies in the steroid group; formation of ergost-14-ene-3β : 5α-diol and related compounds. P. Bladon. Chem Soc J p736-8 F '54

Studies in the steroid group; oxidation of 5α-hydroxy- and 5α-acetoxy-$\Delta^{7:9}$-steroids. P. Bladon and others. Chem Soc J p2916-21 O '53

Studies in the steroid group; reactions of 11-hydroxy- and 11-oxo-5α-steroids. A. Crawshaw, H. B. Henbest and E. R. H. Jones. Chem Soc J p731-5 F '54

Studies in the steroid group; some reactions starting from 3β-acetoxy-9α : 11α-epoxyergosta-7 : 22-diene. H. B. Henbest and A. A. Wagland. Chem Soc J p728-31 F '54

Studies in the steroid group; synthesis of cortisone acetate via 5α-hydroxy-steroids. P. Bladon and others. Chem Soc J p 125-30 Ja '54

Studies on the epoxides of 5α-hydroxy- and 5α-acetoxy-$\Delta^{7:9}$-steroids. D. C. Burke, J. H. Turnbull and W. Wilson. Chem Soc J p3237-44 O '53

16-Substituted steroids; androstan-17β-ol-3,16-dione. M. N. Huffman and M. H. Lott. bibliog Am Chem Soc J 76:4038-9 Ag 5 '54

Synthesis and stereochemistry of the 3-keto-Δ^{4}-steroidal system from diterpenic acids. H. H. Zeiss and W. B. Martin, jr. bibliog Am Chem Soc J 75:5935-40 D 5 '53

Synthesis of cortical hormones *via* 5α-hydroxy-steroids. P. Bladon and others. Chem & Ind p945 S 5 '53

Total synthesis of an 11-oxygenated steroid. W. S. Johnson, R. Pappo and A. D. Kemp. bibliog Am Chem Soc J 76:3353-4 Je 20 '54

See also

Hydroxycorticosterone

Testosterone

Analysis

Detection of steroidal pseudosapogenins by infrared spectroscopy. A. L. Hayden, P. B. Smeltzer and I. Scheer. bibliog Anal Chem 26:550-2 Mr '54

Determination of adrenocortical steroids in mixtures. E. Heftmann and D. F. Johnson. bibliog Anal Chem 26:519-21 Mr '54

STEROIDS—Analysis—*Continued*
Effect of ultraviolet light on steroids during paper chromatography. K. Savard and others. bibliog Am Chem Soc J 75:6327-9 D 20 '53
Fluorescence reactions of steroids. J. W. Goldzieher, J. M. Bodenchuk and P. Nolan. bibliog Anal Chem 26:853-6 My '54
Improved colorimetric determination of urinary 17-ketosteroids. H. Werbin and S. Ong. bibliog diags Anal Chem 26:762-4 Ap '54
Modified Hershberg-Wolf extractor. E. Heftmann and D. F. Johnson. bibliog diag Anal Chem 25:1578 O '53
Reactions of certain unsaturated steroids with acid iron reagent. B. Zak and others. bibliog Anal Chem 26:776-7 Ap '54
Use of sulfuric acid in the detection and estimation of steroidal sapogenins. H. A. Walens, A. Turner, jr. and M. E. Wall. Anal Chem 26:325-9 F '54

Spectra

Comparison of infrared absorption spectra of steroids obtained on solid films and mulls and in solutions. H. Rosenkrantz and L. Zablow. bibliog Anal Chem 25:1025-8 Jl '53
Studies in the steroid group; infra-red absorption of disubstituted *cis*ethylenic centres. H. B. Henbest, G. D. Meakins and G. W. Wood. Chem Soc J p800-5 Mr '54

STEROLS
Reactions of diphenyl phosphates of Δ^5-sterols. J. H. Turnbull and W. Wilson. Chem Soc J p2301-4 Jl '54
See also
Cerevisterol
Ergosterol

STETHOSCOPE
Industrial stethoscope speeds burnishing, cuts scrap loss. il Iron Age 172:116 O 1 '53

STEVENSON, Eldon, 1893-
Sketch. por East Underw 55:3 Ap 30 '54

STEVIOSIDE. See Sweetening agents

STEWART, Walter W. 1885-
Full crew for CEA. por Bsns W p33 D 5 '53

STEWARTS and Lloyds, limited
Jubilee. Engineering 176:312 S 4 '53

STIBINE
Continuous and uniform generation of stibine. A. Reisman and others. Electrochem Soc J 101:387-8 Jl '54

Spectrum

Fundamental absorption bands in the infrared spectrum of stibine and deuterated stibine. W. H. Haynie and H. H. Nielsen. bibliog J Chem Phys 21:1839-42 O '53

STIBNITE
Desulphurization of stibnite. M. H. Khundkar. bibliog Chem & Ind p686 Jl 11 '53

STIBONIUM compounds
Tetraphenylphosphonium and tetraphenylstibonium chlorides as analytical reagents. H. H. Willard and L. R. Perkins. bibliog Anal Chem 25:1634-7 N '53

STIEGEL, Henry William, 1729-1785
H. W. Stiegel, pioneer iron and glass maker. R. D. Billinger. bibliog por J Chem Educ 30:356-62 Jl '53

STIFFNESS
Chemical finishing techniques; stiffening agents and how they work. A. C. Nuessle. Textile World 104:86-8+ Mr '54
Experimental study of stiffness and nonuniformity in the vibroscopic determination of fiber cross-sectional area. E. T. L. Voong and D. J. Montgomery. bibliog Textile Res J 23:821-30 N '53

STIFFNESS tester
Comparative study of the Tinius Olsen and Peirce stiffness testers. W. J. Hynek and G. Winston. bibliog diags Textile Res J 23:743-8 O '53
Extending the range of the NBS stiffness tester. V. Worthington. il diag Tappi 37:384-7 S '54

STIGMASTENOL
Isolation of campesterol and Δ^7-stigmastenol from rye germ oil. H. A. Schuette and W. E. Link. Am Chem Soc J 76:4192 Ag 20 '54

STILBAMIDINE
Treatment of cryptococcus neoformans in mice with stilbamidine. J. M. Miller and others. bibliog Science 118:31 Jl 3 '53

STILBENE
Fluorescent whitening agents; abstract. J. A. Somers. Am Dyestuff Rep 43:217 Mr 29 '54
Lithium aluminum hydride reduction of *p*-substituted stilbene oxides. A. Feldstein and C. A. VanderWerf. bibliog Am Chem Soc J 76:1626-31 Mr 20 '54
Polymerization of stilbene in boron fluoride etherate. C. C. Price and G. Berti. bibliog Am Chem Soc J 76:1219-21 Mr 5 '54
Reducing action of glycols in alkaline medium; mechanism of formation of stilbenes from substituted benzaldehydes. W. Tadros, L. Ekladius and A. B. Sakla. Chem Soc J p2351-3 Jl '54

STILBOMETOPA impressa
Oöcyst-like bodies on the midgut of stilbometopa impressa (Bigot) (diptera: hippoboscidae). I. B. Tarshis. bibliog il diag Science 118:199-202 Ag 21 '53

STILES-CRAWFORD effect
Functional interpretation of the Stiles-Crawford effect. L. H. Beck. Opt Soc Am J 43:924 O '53

STIRRERS
Apparatus for stirring a reaction mixture through a vapor-tight seal. J. R. Skidmore. diag Anal Chem 26:789-90 Ap '54
Induction stirring gaining favor. diags Steel 135:160 S 20 '54
Induction stirring provides better control of operating techniques; Timken roller bearing co. H. F. Walther. il J Metals 6:21-3 Ja '54
Laboratory stirrer for viscous liquids. M. D. Ashton. diag J Sci Instr 30:388 O '53
17 years of stirring history shows international exchange of ideas. E. G. Malmlow. bibliog J Metals 6:24 Ja '54
Simple multiunit magnetic stirrer. L. A. Wollermann and R. G. Tischer. diags Anal Chem 25:1942 D '53
Torpidity of stirred phlegmatic liquids. K. C. D. Hickman. diags Ind & Eng Chem 46:45-52 Ja '54

STOCK brokers. See Brokers

STOCK dividends. See Dividends

STOCK exchange
Bulls hunt for cover; 1953 stock market; a current sampling. Bsns W p 134-5 Ag 29 '53
Cat has nine lives; the market will survive. S. B. Lurie. Comm & Fin Chr 178:1112 S 24 '53
Changing stock market. S. B. Lurie. Comm & Fin Chr 178:2625+ D 31 '53
Cheerful view of the stock market. A. Gaubis. Comm & Fin Chr 178:717+ Ag 27 '53
Declining market is a worrisome thing. E. L. Hall. Spectator 161:46-7 Ag '53
Defense platoon; tactics and securities traditionally regarded as correct for individuals in a bear market. I. U. Cobleigh. Comm & Fin Chr 178:1117 S 24 '53
Forecasts and the market. J. W. Beck. Comm & Fin Chr 178:543 Ag 13 '53
Is Wall Street right this time? Bsns W p25-6 S 26 '53
Listing of securities on exchanges. M. J. Keena. Comm & Fin Chr 178:1333+ O 8 '53
Market and Dow-Jones industrial forecasts. H. C. Andreae. Comm & Fin Chr 178:1329 O 8 '53
Market today and tomorrow. K. Ward. Comm & Fin Chr 178:1215+ O 1 '53
1953 stock market and the future trend. J. F. Barbour. Comm & Fin Chr 178:1628+ O 29 '53
1953 stock market; its crosscurrents; tabulation. Bsns W p 159 D 12 '53
1954, the beginning of a new bull market. E. W. Tabell. Comm & Fin Chr 179:53+ Ja 7 '54
Pinch of poverty; it's forcing Wall Street to work, merge and diversify. R. M. Bleiberg. Barron's 33:3+ D 21 '53
Securities exchanges' role in an expanding economy. E. T. McCormick. Comm & Fin Chr 179:448-9 Ag 6 '53

STOCK exchange—*Continued*

Stock market, an accurate business barometer? abstract. H. E. Luedicke. Management R 42:614 O '53

Stock market at a glance; price changes, earnings and dividends. Published in weekly numbers of Barron's

Stock market; what it is and what it means. W. C. Mead. Comm & Fin Chr 178:2537 D 24 '53

Technical aspects of stock market; 1954 outlook. Trusts & Estates 93:17-20 Ja '54

Technical studies indicate sound stock market base. E. W. Tabell. Trusts & Estates 93:134-6 F '54

What's ahead for business and the stock market? R. D. Naess. Comm & Fin Chr 178:1123 S 24 '53

See also
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also names of exchanges, e.g.
American stock exchange
London stock exchange
New York stock exchange
Toronto stock exchange

STOCK market. See Stock exchange

STOCK options. See Stock purchase options

STOCK ownership, Employees'. See Employees as stockholders

STOCK purchase options

Deferred compensation plans; employee stock options. M. F. Blake. J Account 98:352-3 S '54

Employee stock purchase and option plans; a survey. Management R 42:221-2 Ap '53

For incentives; slashed red tape. Chem W 72:23-4 Ap 25 '53

Idea has its dangers; restricted stock option arrangements. Bsns W p90+ O 24 '53

Making stock options stand up; Delaware law is designed to make such management incentives secure from stockholders' court actions. Bsns W p99 Ag 8 '53

Options; for the few or many? S. Altschul. Aviation W 59:95-7 O 12 '53

SEC adopts rules regarding disclosures of stock options granted officers and employees. Comm & Fin Chr 178:1850 N 12 '53

SEC proposes rule on stock options; with text of proposed rule. Comm & Fin Chr 178:730 Ag 27 '53

STOCK purchase warrants

Hybrid securities; warrants offer variety of opportunities for investor. R. W. Bridwell. Barron's 33:17-18 D 21 '53

STOCKHOLDERS

Better shareholder relations; survey of corporate policies; abstract. W. Smith. Management R 43:122-3 F '54

Brooklyn Union talks shop with investment folks. il Sales Management 70:60+ Ap 15 '53

Do stockholders care about employe relations? R. Newcomb and M. Sammons. il Ind Marketing 39:134+ Ap '54

Firms learn; it pays to sell stockholders. il Chem W 72:16-18 Je 27 '53

Love that stockholder; new era of courtship by business. B. W. Hall. Chem & Eng N 31:4930 N 23 '53

More on the small shareholder. E. F. Lloyd. Pub Util 54:251-8 S 2 '54

Over-the-counter stockholders increasing. W. H. Fulton. Comm & Fin Chr 178:1126 S 24 '53

Preventing proxy fights. E. Whitmore. Am Bsns 24:10-12+ Ag '54

Report on gas industry investor relations. T. H. Wheat. bibliog diag Am Gas Assn Proc 1953:159-88

Visible control for stockholders records; Northern trust company. il Bankers Mo 70:42 N '53

What is a stockholder? il Coal Age 58:104+ N '53

Who owns shares; old ladies in Throgmorton street? Economist 168:279 Jl 25 '53

See also
Banks and banking—Stockholders
Corporations—Reports and yearbooks
Employees as stockholders
Proxies

Law

See Corporation law—New York (state)

STOCKPILING

After seven years, five-year program to build up stockpile of strategic and critical materials 79 per cent complete. R. G. Gibbs. Chem & Eng N 31:3948 S 28 '53

Congress probers eye stockpiling. Bsns W p 186+ O 3 '53

Defense mobilization; abstract. A. S. Flemming. Min Cong J 39:57 N '53

Dynamic minerals policy planned. Chem & Eng N 32:1574+ Ap 19 '54

Grubstaking metals; strategic stockpiling to prop U.S. mining. Chem W 74:13 Ap 10 '54

Metals stockpile boost ordered by Eisenhower. Oil Paint & Drug Rep 165:3+ Ap 5 '54

Mineral policy committee recommends increased stockpiling, exploration aid. M. A. Reichek. Eng & Min J 155:100-1 Ap '54

More stockpile buying instead of tariff hike for Pb and Zn. Chem & Eng N 32:3420+ Ag 30 '54

ODM orders speedup in stockpiling activities. Oil Paint & Drug Rep 164:3+ D 28 '53

Rotation program revised. E. F. Mansure. Rubber Age 75:238-9 My '54

Standby production lines + stockpiling= sound U.S. defense. J. B. Medaris. Am Mach 98:184-5 F 15 '54

Stockpiling; delayed by false start. R. L. Hatschek. Iron Age 173:47-8 Je 24 '54

Taking stock on stockpiles. Chem W 73:22+ O 10 '53

U.S. will buy at market price for its stockpile. A. Fleming. Oil Paint & Drug Rep 165:3 Je 21 '54

Work on new advance purchase for resale policy. Iron Age 174:73 Jl 22 '54

STOCKS

Best cellar list. S. Glasser. Comm & Fin Chr 178:2538 D 24 '53

Coming advance in common stocks. E. W. Tabell. Comm & Fin Chr 178:1321+ O 8 '53

Common funds hold 591 equities; with table by industry groupings. Trusts & Estates 93:114-16 F '54

Common sense and common stocks. C. O. Brown. Ind & Eng Chem 45:sup25A-66A Jl '53

Companies with high earnings; with comparative balance sheet items. Mag of Wall St 93:253-5 N 28 '53

Current trust portfolio; oils and chemicals among favorites. J. C. Bickford. Trusts & Estates 92:849-51 N '53

Defensive stock groups. A. Huber. Comm & Fin Chr 178:624 Ag 20 '53

Don't believe it; stockholders' misconceptions. Chem W 72:22+ My 2 '53

Easy payment plan for stocks. Bsns W p 121-2 D 12 '53

Exchanging 25 static issues for 12 promising ones; with tables. J. C. Clifford. Mag of Wall St 93:256-7+ N 28 '53

15 sound low-priced stocks. Mag of Wall St 92:554-5+ Ag 8 '53

50 most widely held stocks by investment companies, June 30, 1953; table. Barron's 33:31+ S 28 '53

Financial survey of specialty and unclassified stocks; table. Mag of Wall St 92:620-1 Ag 22 '53

Five attractive stocks off the beaten track. Mag of Wall St 93:734-6 Mr 20 '54

Five attractive stocks with wide dividend coverage; with comparative balance sheet items. Mag of Wall St 93:673-5 Mr 6 '54

Five selected debt-free companies; with comparative balance sheet items. Mag of Wall St 93:81-3 O 17 '53

Five sound moderate-priced stocks for income; with comparative balance sheet items. Mag of Wall St 93:494-6 Ja 23 '54

Five specially selected stocks; with comparative balance sheet items. Mag of Wall St 93:437-9 Ja 9 '54

Five stocks with exceptionally high earnings; with comparative balance sheet items. Mag of Wall St 93:323-5 D 12 '53

Great attractiveness of insurance stocks. S. C. Davis. Comm & Fin Chr 178:1119+ S 24 '53

STOCKS—*Continued*

Growth stocks by industries. P. Kent. Comm & Fin Chr 178:821 S 3 '53
Income stocks. K. V. Berry. Comm & Fin Chr 178:728-9 Ag 27 '53
Institutional investment market. J. I. Bogen. Comm & Fin Chr 178:2043+ N 26 '53
Interesting growth situations. C. J. Straus. Comm & Fin Chr 178:1436 O 15 '53
Laggard stocks of 1954; market record 20 lagging stocks. J. S. Williams. Mag of Wall St 93:670-2+ Mr 6 '54
1954 grouping of the 300 component issues; Magazine of Wall Street's common stock index. Mag of Wall St 93:540 Ja 23 '54
Selected group stock. N. E. Crane. Comm & Fin Chr 178:817+ S 3 '53
Stock dividend trend has traps in it. Bsns W p 156-7 D 19 '53
Stock investments from the savings bank standpoint. A. C. Middlebrook. Comm & Fin Chr 178:2155+ D 3 '53
Stock liquidation of estate. C. W. Tye. Rough Notes 96:36 S '53
Stock vs. government bonds. R. W. Babson. Comm & Fin Chr 178:2551 D 24 '53
Stocks; sell on installment plan. G. G. Carr. Iron Age 172:83 D 10 '53
Stocks that have made successive highs, 1950-1953. W. Gates. Mag of Wall St 93:134-5+ O 31 '53
Stocks to hold for dollar averaging; with comparative balance sheet items. Mag of Wall St 93:24-5 O 3 '53
Ten stock groups with demonstrated stability. J. Curtis. Mag of Wall St 93:123-5+ O 31 '53
Those penny stocks. J. C. Perham. Barron's 33:5-6 O 5 '53
Three sound stocks with dependable dividends. Mag of Wall St 92:729+ S 19 '53
Trend from bonds to stocks. J. Curtis. Mag of Wall St 93:662-3+ Mr 6 '54
Unique study of individualistic specialties; with table of 20 specialty stocks. J. D. C. Weldon. Mag of Wall St 93:196-7, 216+ N 14 '53
What's behind the higher earnings of individual companies in 1953? analysis of eight companies. W. Gates. Mag of Wall St 93:722-3+ Mr 20 '54
Where do 1953's market leaders stand today? J. S. Williams. Mag of Wall St 93:617-19, 639-40 F 20 '54
Who-when-what, pointers on buying high-grade low yield stocks. W. Gates. Mag of Wall St 93:366-7+ D 26 '53

See also

Banks and banking—Stock	Investments
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Dividends	Stock purchase options

also subdivision Securities under names of industries, e.g.
Chemical industries
Electric utilities

Margin buying

Interpretations of regulations T and U; arranging for extensions of credit to be made by a bank. Fed Res Bul 39:950-1 S '53

Odd lots

Odd-lot system on the New York stock exchange. H. C. Smith. Comm & Fin Chr 178:1536+ O 22 '53

Price-earnings ratios

Earnings vs market action of eight basic groups; with table, 1950 to date. W. Gates. Mag of Wall St 93:12-13+ O 3 '53
50-stock average; sensitive to the bond-stock yield differential. P. K. Fodder. Barron's 33:15-16 O 12 '53
Market and Dow-Jones industrial forecasts. H. C. Andreae. Comm & Fin Chr 178:1329 O 8 '53

Price indexes and averages

Stock prices, 1951-1953 average; monthly Dec. 1952-Dec. 1953; weekly Nov. 28-Dec. 26, 1953. Fed Res Bul 40:58 Ja '54 [cont monthly]
Stocks; prices, 1949-1952. Survey of Cur Bsns 1953 Sup p 101-2 [supplemented in monthly numbers]
Study of price movement; market laboratory. Published in weekly numbers of Barron's
Yardstick for investors; Institute of actuaries' new indices of share prices. Economist 168:715-17 S 12 '53

Prices

American stock exchange weekly and yearly record. Published in weekly Monday numbers of Commercial and financial chronicle
Book value and market prices of electric utility common stocks. C. Tatham, jr. Pub Util 52:925-8 D 17 '53
Good management and stock prices. Chem & Eng N 32:2932 Jl 19 '54
Important individual 1953 price movements in the 300 stocks representing the Magazine of Wall Street combined average; table. Mag of Wall St 93:501 Ja 23 '54
Mechanical mind; Lifetime investment program. T. F. Willmore. Review, by G. E. Shea, jr. Barron's 34:9-10 Ja 11 '54
Monthly range of prices on the New York stock exchange for year 1953. Comm & Fin Chr 179:366-79 sec 2 Ja 21 '54
One-way street? security price trends prolonged by capital gains tax. R. W. Bridwell. Barron's 33:15-16 N 9 '53
Prices of high grade stocks aided by institutional demand; with list of one hundred common stocks. J. M. Templeton. Comm & Fin Chr 179:66-7 Ja 7 '54
Stock market at a glance; price changes, earnings and dividends. Published in weekly numbers of Barron's
Stock price booms: some die fast, others linger. Bsns W p 160-1 O 31 '53
Stock record, New York stock exchange; daily, weekly and yearly. Published in weekly Monday numbers of Commercial and financial chronicle
Study behavior of low priced stock. O. K. Burrell. Comm & Fin Chr 178:529+ Ag 13 '53

Short selling

Short interest ratio declines to 1.57; data as of Jan. 15, 1954 and comparison with Dec. 15, 1953. Barron's 34:47 Ja 25 '54 [cont monthly]

Split-up

Rash of splits. Bsns W p60 Ag 1 '53
Stock split-up and stock dividends defended. P. E. Conrads. Comm & Fin Chr 179:165 Ja 14 '54

Statistics

Security markets, 1949-1952. Survey of Cur Bsns 1953 Sup p99-102 [supplemented in monthly numbers]

Treasury stock

Are dividends of Treasury stock considered to be taxable income? W. C. Moore. J Account 97:179-87 F '54
Some questions and answers on Treasury stock and stock dividends. J Account 96:478-9 O '53

Valuation

Setting up the program for valuation of shares of joint stock companies. C. C. Chokshi. J Account 97:38-48 Ja '54

Yields

Bond and stock yields, 1951-1953 average, monthly Nov. 1952-Dec. 1953, weekly Nov. 28-Dec. 26, 1953. Fed Res Bul 40:59 Ja '54 [cont monthly]
Dividend yields, 1949-1952. Survey of Cur Bsns 1953 Sup p 101 [supplemented in monthly numbers]
How safe are high yield stocks? a survey of 80 stocks yielding 8-12 per cent; with tables. J. C. Clifford. Mag of Wall St 93:308-11+, 373-5+ D 12-26 '53
Index of yields; selected utilities stocks. Published in monthly numbers of American gas journal
Moody's investors yield tables. Published in monthly numbers of Trusts and estates

STODDARD, George Dinsmore, 1897-
Resignation. Science 118:291-2 S 11 '53

STOICHIOMETRY
Stoichiometry of titration of metal ions with disodium salt of ethylenediaminetetraacetic acid. W. J. Blaedel and H. T. Knight. bibliog Anal Chem 26:743-6 Ap '54

STOKERS, Mechanical
Boiler and furnace designed for spreader-stoker firing. L. H. Coykendall and P. R. Loughin. il diags A S M E Trans 76:873-7; Discussion. 877-81 Ag '54
Hope's mechanical stoker with combined bunker and hopper feeds. il diag Engineering 176:729 D 4 '53
Investigation of gravity reinjection of fly ash on a spreader-stoker-fired boiler unit. C. H. Morrow and others. diags A S M E Trans 75:1363-70; Discussion. 1370-2 O '53
Lighting off and starting up precautions for stoker fired boilers. H. W. Andrews. il Power 97:117a-117b D '53

Statistics

Mechanical stokers, sales, 1949-1952. Survey of Cur Bsns 1953 Sup p 166 [supplemented in monthly numbers]

STOKES' law
Stokes' law confirmed by falling sphere experiment. J. K. Vennard. il Civil Eng 24:234 Ap '54

STOMACH
Intragastric temperature variations in man during hunger. H. B. Benjamin and others. Science 118:160 Ag 7 '53

Ulcers

Bridging the ulcer gap. Chem W 73:48+ O 10 '53
Incidence of peptic ulcer and chronic gastritis among Swedish sea pilots; abstract. T. Dalhamm. Nat Safety N 69:37 Ja '54
New ulcer drug from oatmeal tested. J. H. Biel and others. Comm & Fin Chr 178:1022 S 17 '53

STONE
Blast for better riprap. il Eng N 152:35 Mr 18 '54
See also
Building stone
Dolomite
Granite
Limestone
Marble
Masonry
Quarries and quarrying
Rocks

STONE, Crushed
Crushed stone production. A. T. Goldbeck. Am Concrete Inst J 25:761-72 bibliog(71 titles, p770-2) My '54
Efficient small stone plant; Falls City stone co. flow sheet il Rock Prod 56:94+ N '53
Engineering activities valuable to the crushed stone industry. A. T. Goldbeck. Rock Prod 57:92-3 Ap '54
From portable to stationary operation; Ray Cook construction co. R. C. Giddings. il Rock Prod 57:102+ F '54
Increase crushed stone capacity to meet demands for diversified concrete products; Maule industries, inc. W. B. Lenhart. flowsheet il Rock Prod 57:56-8+ Jl '54
Increase crushing capacity to 800 t.p.h.; Eureka stone co. W. B. Lenhart. il plan Rock Prod 57:126-7+ Ag '54
New portable crushing plant boasts high production rate. il Eng N 151:77 N 26 '53
Portables supplement stationary plants; General crushed stone co. il Rock Prod 56:122-3 D '53
Producing stone for atomic projects; Ralph Rogers & co. il Rock Prod 56:98-100 O '53
Quality of crushed stone as measured by standard physical tests. J. E. Gray. Rock Prod 57:93-4 Ap '54
Reversible, self-unloading barges haul stone to plant: Ideal crushed stone co. il Rock Prod 57:104-5+ Je '54
Stone ladders cut breakage. il Constr Methods 36:155-6 S '54
Two-stage crushing with hammermills; Southern crushed stone co. W. B. Lenhart. il Rock Prod 57:68-9+ S '54

STONE houses
How to use stone; it can help you sell. il diags Am Bld 76:78-87 Je '54

STONE sand. See Sand—Stone sand

STONEHENGE, England
Stonehenge. J. Hawkes. il map plan Sci Am 188:25-31 Je '53

STONEWARE
Chemical stoneware tests; new British standard. Chem Age (Lond) 70:164 Ja 9 '54

STONEWARE pipes. See Pipes, Stoneware

STOP mechanism
Roving stop motion cuts spinning ends down ten per cent; Woodside mills. J. H. Blore. il Textile World 104:89+ Mr '54
Stop motion on race plates helps heavy-yarn weaving. W. Wagner. diag Textile World 104:128 Ap '54
Swing stop for automatic lathe. diag Mach 60:208-9 F '54
Tricot stop motion improves quality and workloads. J. H. Blore. il diag Textile World 104:128-9 Je '54

STOP watches
Stopping and starting a stop-watch; time interval meter. il Engineering 177:61 Ja 8 '54; Engineer 197:474 Mr 26 '54

STOPING methods. See Mining methods

STOPPING power. See Scattering of particles and rays

STORAGE
At Central Scientific, new storeroom layout makes possible more order picking with half the work force. L. A. Seversen. plans Factory Management 111:138-9 N '53
Controlling storage space costs; abstract. J. E. Wiltrakis. Management R 42:462-3 Ag '53
Die control program solves handling, storage problems; Lyon metal products, inc. V. J. Rokop. il Iron Age 173:116-19 Je 3 '54
Here's how to store dies! Solar aircraft co. il Mill & Factory 53:130-1 D '53
Less aisle, more space; Lamson & Sessions co. il Steel 134:106 F 1 '54
Limited area palletized; Brainard steel division of Sharon steel corp. Steel 135:143 Jl 12 '54
Raw materials handling; Farmers' manure co. il Chem Age (Lond) 71:643-4 S 25 '54
Scientific storage for better grinding wheels; Electro refractories & abrasives corp. il Mill & Factory 54:102-3 Mr '54
Storage and packaging problems; progress by US ordnance authorities. Chem Age (Lond) 68:817-19 My 30 '53
See also
Coal storage
Food, Frozen—Storage
Freight houses
Gas, Natural—Storage
Gasoline storage
Liquefied petroleum gas—Storage
Sheet metal—Storage
Stores systems
Water storage
Wood storage

STORAGE batteries
Academy names battery committee as Senate reopens hearings. Chem & Eng N 31:2691-2 Je 29 '53
Automotive batteries. Mech Eng 75:1009 D '53
Battery battle; AD-X2 vs. NBS. il Chem W 72:20-2 Ap 25 '53
Battery hearings set tests against testimonials. il Chem & Eng N 31:2784-5 Jl 6 '53
Better service; key to battery sales. Nat Pet N 45:34+ D 23 '53
Bluebird reduces battery costs. H. A. Grenert. il Bus Transportation 33:43 F '54
Bureau of standards vindicated in AD-X2 dispute. Electrochem Soc J 101:sup25C-6C Ja '54
Crescent finds how to sell battery cables; color does it. F. Borden. il Ind Marketing 39:58-60 Je '54
Easy-to-handle battery carrier. il diags Ry Loco & Cars 128:75-6 Ap '54
Eight tips for sealing storage battery cells. H. W. Smith. il Power Eng 57:93 Ag '53; Same. Iron & Steel Eng 30:112 Jl '53; Same. Eng & Min J 154:104 D '53; Same. Ry Loco & Cars 128:59 Jl '54
Facts about modern storage batteries. diags Mill & Factory 54:262 My '54
From the Diesel maintainer's note book; Diesel failure caused by dead battery. G. Taylor. Ry Loco & Cars 128:73-4 Ap '54

STORAGE batteries—*Continued*

From the Diesel maintainer's note book; what a battery will and won't do for you. G. Taylor. Ry Loco & Cars 128:70-1 F '54

Good charging methods and proper maintenance doubled storage battery life. il Mill & Factory 54:143-4 Ja '54

How to select the right size control battery. K. A. Vaughan. Power 98:82-3+ Jl '54

Iron contamination of storage batteries. E. Willihnganz. Electrochem Soc J 100:527-9 N '53

Is dry-charging catching on? F. C. Sturtevant. il Nat Pet N 45:48+ S 9 '53

Jeffries committee flunks AD-X2; reaffirms findings of NBS test results. il Chem & Eng N 31:4892-3 N 23 '53

Nickel-cadmium batteries in the spotlight. il Diesel Power 32:40-3 Mr '54

Nickel-cadmium battery. il Chem Eng 61: 146+ Mr '54; diag Mech Eng 76:174-6 F '54

Nickel-iron battery is cheaper, simpler. Aviation W 59:30 Ag 31 '53

Proper storage of fully-charged wet batteries. K. A. Vaughan. Min Cong J 40:62 Mr '54

Quick with cadmium; impact of sintered-plate nickel-cadmium battery. il Chem W 74:94 Mr 20 '54

Senate committee end hearings, asks Postmaster to kill fraud order; National bureau of standards vs. Pioneers, inc. Chem & Eng N 31:2876+ Jl 13 '53

Sonotone long-life battery dons civvies. il Iron Age 172:19 D 24 '53

Sonotone nickel-cadmium batteries. il Bus Transportation 33:42 Ja '54

Storage battery lowers power costs for lift bridge. il Elec Eng 72:1136-7 D '53

Sulphated battery problem can be spotted and cured. il Iron Age 172:211-12 S 10 '53

12-volt batteries; TBA's problem child. Nat Pet N 45:82-4 Jl 1 '53

Why the fight over AD-X2? J. Shoenfeld and J. H. Caldwell. il Sales Management 70:30-3 My 1 '53

Charging

How to charge a repaired battery. il Iron & Steel Eng 31:161 Ja '54; Coal Age 59:114 Ap '54

Servicing 12-volt batteries safely. diags Nat Pet N 45:78+ S 2 '53

Tips on battery room layout. K. A. Vaughan. il Iron & Steel Eng 31:148+ My '54

Truck maintenance; charge timetable makes fleet tick; Studebaker corp.'s parts and accessory division warehouse. il Steel 133: 110-11 O 5 '53

Welders work around the clock; batteries of industrial trucks charged at night from shop's welding sets. il diag Ry Loco & Cars 128:67-8 Ag '54

Manufacture

Better permanent mold techniques improve casting quality; Gould-national batteries, inc. H. E. Zahn. il Iron Age 174:174-5 S 16 '54

How American Bosch makes nickel cadmium batteries for automotive equipment. il Automotive Ind 110:86+ F 15 '54

Plant enemy number one; Electric storage battery co. il Nat Safety N 70:30-3+ Ap '54

Simplicity a must for handling as plans grow from blueprint stage; Electric storage battery co. W. R. Wolfe. il Steel 133:128-9+ Jl 6 '53

Repair

Check points in repairing battery charging plugs and receptacles. il Power Eng 58:92 F '54

Proper tools for battery maintenance and repair. il Iron & Steel Eng 31:115+ F '54; Same. Mill & Factory 54:129-31 Mr '54

STORAGE in the home

Good storage must replace basement. il House & Home 6:121 S '54

How to build a multi-purpose storage unit. diags Am Bld 75:230 O '53

People want better storage and more of it. il House & Home 5:152-3 My '54

STORAGE sheds

Timber storage shed. il diag Engineer 196:783 D 11 '53; Engineering 176:796-7 D 18 '53

STORAGE tanks. See Tanks

STORAGE tubes

Construction and operation of the Manchester University computer. B. W. Pollard and K. Lonsdale. diags Inst E E Proc 100 pt 2:501-12; Discussion. 540-3 O '53

Metrechon; a halftone-picture storage tube. L. Pensak. bibliog il diags RCA R 15: 145-62 Je '54

Recent advances in cathode-ray-tube storage. F. C. Williams and others. bibliog Inst E E Proc 100 pt 2:523-39; Discussion. 540-3 O '53

Viewing storage tube with halftone display. M. Knoll and others. bibliog il diags RCA R 14:492-501 D '53

STORE buildings

Design standards and data; store fixtures and aisle widths. H. R. Sleeper. diags Arch Forum 99:169-72 N '53

New was successfully blended with the old in this remodeling job. il plans diag Am Bld 75:58-9 O '53

Six new stores. il plans diags Arch Forum 101:108-25 S '54

Store heights and widths; design standards and data. H. R. Sleeper. diags Arch Forum 101:156 S '54

Store remodeling helps reshape realty office as self-service home center. il plans Am Bld 75:106-9 Ag '53

Welded rigid frame for store addition. il Arch Forum 100:160 F '54

Windows and entrances make customers stop and shop; modern store building; with blueprints. il Am Bld 75:60-4 Ap '53

See also

Department stores

Shopping centers

Air conditioning

Air-conditioned streets; Brussels shopping center. il Arch Forum 99:172 Jl '53

Department store completes packaged air conditioning program. il Sheet Metal Worker 45:93 Mr '54

Economies in air conditioning for shopping centers. F. A. Welch. il diags Arch Rec 114:202-5 O '53

Planning the shopping center for heating, air conditioning and other considerations. R. J. Abramson. il Heating-Piping 26:98-100 Ap '54

Up in the air; heating and air conditioning in this new store. T. E. Trese. il Heating-Piping 26:95 S '54

Electric equipment

Basic elements in the planning of electrical systems; stores, with emphasis on shopping centers. F. B. Graham. il plan Arch Rec 115:201-5 My '54

Fronts

American Builder's store front details. il plan diags Published in monthly numbers of American builder

This is a new idea in store front design. il plan diags Am Bld 75:62-3 O '53

Lighting

Flexible lighting for a store auditorium. il Illum Eng 49:379-80 Ag '54

Helping customers pick n' choose. il Elec World News ed 141:49 Ja 18 '54

Lighting a silver and china display; lighting data sheet. C. Lewis. il plan Illum Eng 49: 307-8 Je '54

Lighting to make the most of a mirror; illustrations with text. Illum Eng 49:16-17 Ja '54

My most interesting lighting job; light on one side; dim the other to sell television sets. A. R. Parker. il plan diag Elec West 111:100 S '53

Some individual treatments in engineering the installation. il diag Illum Eng 49:339-44 Jl '54

Two-in-one store lighting. L. E. Spears. il Illum Eng 48:566-7 N '53

See also

Department stores—Lighting

STORE fixtures
Design standards and data; store fixtures and aisle widths. H. R. Sleeper. diags Arch Forum 99:169-72 N '53
Store fixtures; design standards and data. H. R. Sleeper. diags Arch Forum 101:157-8 S '54

STORE fronts. See Store buildings—Fronts

STORE location. See Retail trade—Store location

STORER broadcasting company
Stock offering oversubscribed. Comm & Fin Chr 178:1990 N 23 '53

STORES (retail trade)
See also
Bakers and bakeries
Chain stores
Country stores
Department stores
Drug stores
Florists' shops
Food stores
Klein, S., on the square
Plumbing shops
Retail trade
Self service stores
Store buildings
Super markets

Remodeling

How to modernize store interiors; detail plate. K. R. O'Neal. il diags Am Bld 75:148-9 Mr '53

STORES systems
Coordinated purchasing and stores. J. S. Phillips. Am Gas Assn Mo 36:13+ S '54
Height used to advantage in revised storage system; Douglas aircraft co. K. R. Benfield. il Iron Age 173:145-7 Je 17 '54
How a supply room combines rapid service with simple records; Anniston mfg. co. R. B. Pressley. il Textile World 104:106-7 My '54
How many spare motors? il Factory Management 112:150+ F '54
How to set up stock controls in a thread mill. J. R. Gainey. Textile World 104:115+ Je '54
Plan for saving dollars; Channel master corp. il Steel 134:106 Ap 5 '54
Put system in your stores. J. E. Mercer. il Pet Processing 9:86-90 Ja '54
See also
Gas companies—Stores systems
Inventories
Material control
Petroleum refineries—Stores systems
Repair parts
Storage
Tool rooms

STORMS
East Coast storm surge of Jan. 1953. Engineering 177:241 F 19 '54
See also
Electric lines—Damage from storms
Hurricanes
Railroads—Damage from floods, storms, etc.
Tornadoes
Winds

STOVES
Institute of cooking and heating appliance manufacturers general stove meeting and management conference, Cincinnati. Cer Ind 62:160-1 Ja '54
Stoves, 1949-1952. Survey of Cur Bsns 1953 Sup p 165 [supplemented in monthly numbers]
See also
Electric stoves
Gas stoves

STRAIGHTENING
Hardwood boards straighten small tubes. E. Smalenberger. il Am Mach 98:149 My 24 '54
Rolls straighten out shaft shortage; Burroughs corp. il Steel 133:97 O 19 '53
Titanium tubing straightened rapidly on rotary machine; Superior tube co. il Iron Age 173:171 My 20 '54

STRAIGHTENING machines
Medart continuous rotary straightener. il Blast F & Steel Pl 42:828 Jl '54
Roll straightening with 500-ton pressure. il Tool Eng 33:105 Ag '54
Straightening extruded shapes. L. Hoffmann. il Mech Eng 76:139-42 F '54
Sutton seven-roll straightener. il Blast F & Steel Pl 42:458 Ap '54
Sutton straightener handles tubes varying from 1/2- to 3½-in. OD. il Am Mach 98:166 Ag 2 '54
Sutton straightening machine. il Tool Eng 32:220 Ap '54
Three bends in seven-roll straightener. il diags Steel 135:96 Jl 26 '54
Tube straightening; firm's new machine pays for itself in less than a year; Viking copper tube co. il Iron Age 172:132-3 O 15 '53

STRAIN gages
Baldwin SR-4 tiny strain gage weighs heavy ingots; Republic steel corp. W. A. Black. Blast F & Steel Pl 42:468 Ap '54
Capacitance displacement gauge. W. M. Todd. il diags J Sci Instr 31:246-7 Jl '54
Economy realized through strain gage checks. R. P. Gibson. Iron & Steel Eng 31:88-9 S '54
Electronic gages offer new features for control of force and pressure measurement techniques. B. W. Thomas. Ind & Eng Chem 46:sup79A-80A+ My '54
Flexibility extends scope of electric weighing; Republic steel corp. R. G. Watson. il diag Iron Age 172:182-4 N 12 '53
Improved strain gage for precise force measurement in single fibers. W. J. Thorsen. bibliog il diags Textile Res J 24:407-13 My '54
Measuring with electrons; load cells to measure weight and force. il Steel 134:104+ My 24 '54
Novel type of gauge for the measurement of internal stresses in a soil mass. A. Brebner and W. Wright. diag J Sci Instr 30:486 D '53
Recording signals from resistance strain gauges. D. A. Senior. il diags Engineer 197:410-13, 446-9, 482-3 Mr 19-Ap 2 '54
Rotating parts balanced faster, more accurately; Dean Benson research inc. il Iron Age 174:142+ Ag 12 '54; Steel 135:150 S 13 '54
Some application on strain gages in aeronautical research. I. H. Abbott. diags Machine Design 25:389-92+ D '53
Strain gauge bridge for creep tests. L. N. Clarke. diags J Sci Instr 31:300-1 Ag '54
Strain gage leveling increases machine accuracy. H. Pelphrey. il diag Tool Eng 32:63-5 F '54
Strain gauge measurement of press loads and felt tension at Gibraltar. il Paper Tr J 138:127-8 My 14 '54
Strain gages; Chemical Engineering report. R. W. Nolan. bibliog(26 titles) il diags Chem Eng 60:217-28 S '53
Stress analysis in design. J. B. Hartman and R. E. Benner. il Machine Design 26:148-9 Je '54
Use of electrical resistance strain gauges on concrete structures. J. C. Lucas and R. Newsham. Engineering 176:487-8 O 16 '53
Use of strain gauges as a means for determining pressure-strain relationships on television envelopes. A. Cohen and R. F. Doran. il diags Am Cer Soc Bul 33:1-3 Ja 15 '54

STRAINERS
Facts about modern traps and strainers. diags Mill & Factory 54:472 My '54

STRAINS and stresses
Amplification of stress in flexible steel arches. R. S. Rowe. bibliog diags Am Soc C E Proc 79 [no 245]:1-20 Ag '53
Analysis of plane-plastic-stress problems with axial symmetry in strain-hardening range. M. H. Lee Wu. bibliog diags U S Nat Advisory Com for Aeronautics 1951:359-81 '52
Annealing of titanium. E. R. Funk. Metal Prog 66:103-5 Jl 1 '54
Apparatus for study of effects of cyclic thermal stresses on ductile metals. L. F. Coffin, jr. and R. P. Wesley. il diags A S M E Trans 76:923-30 Ag '54
Behavior of metals under dynamic loading. D. S. Clark. diag Metal Prog 64:67-73 N '53
Bending of simply supported rectangular plates. K. R. Peattie and G. F. Day. il diags Engineering 176:308-10, 358-60 S 4, 18 '53
Caustic cracking in steam boilers; alkaline phosphates for protection of boiler metal in cases of stress corrosion. R. Rath. il Chem & Ind p600-3 Je 20 '53

STRAINS and stresses—*Continued*

Certain relationships between yarn and fiber strain. M. M. Platt. Textile Res J 24:132-4 F '54

Charts for allowable compressive stresses in aluminum and magnesium alloys; reference book sheet. B. E. Gatewood. bibliog Product Eng 24:235, 237, 239 Je '53

Charts for stress visualization; data sheet. F. W. Kinsman. Machine Design 26:191-3 F '54

Damping, fatigue, and dynamic stress-strain properties of mild steel. B. J. Lazan and T. Wu. bibliog il diags Am Soc T M Proc 51:649-78; Discussion. 678-81 '51

Deduction of the maximum torsional stress in a shaft with notches. S. Momma. J Ap Phys 24:959-60 Jl '53

Delayed yield and strain rate and temperature dependence of yield point in iron. T. Yokobori. bibliog J Ap Phys 25:593-4 My '54

Determination of flow stress fom a tensile specimen. E. R. Marshall and M. C. Shaw. bibliog il diags Am Soc for Metals Trans 44:705-20; Discussion. 720-5 '52

Determination of the surface stress by means of electroplating. H. Ōkubo. il diags J Ap Phys 24:1130-3 S '53

Deviations from Hooke's law within the elastic range; apparatus for measurement of very small plastic strains in steel. D. Morrison. il diags Engineering 177:141-4 Ja 29 '54

Effect of composition and heat treatment on yield point phenomena in aluminum alloys. V. A. Phillips. Metal Prog 65:200+ My '54

Effect of construction and fiber type on two-dimensional stress-strain properties of fabrics. H. K. Woo and D. J. Montgomery. Textile Res J 23:925-9 D '53

Effect of quenching strains on the properties of an Al-Cu-Mg alloy. H. A. Unckel. bibliog Metallurgia 49:220-2 My '54

Effect of repeated tensile prestrain on the ductility of some metals. E. C. Franz. il J Metals 6:Trans 56-7 Ja '54

Effect of residual stress on the fatigue strength of notched specimens. D. Rosenthal and G. Sines. bibliog il diags Am Soc T M Proc 51:593-608; Discussion. 608-10 '51

Effect of shot-peening variables and residual stresses on fatigue life. R. L. Mattson and W. S. Coleman, jr. il Metal Prog 65:108-12 My '54

Effect of stress concentration on design strength; supplement to 1948 edition of Metals handbook. bibliog(39 titles) il diags Metal Prog 66:97-103 Jl 15 '54

Effect of stress on the creep rates of polycrystalline aluminum alloys under constant structure. O. D. Sherby and others. bibliog J Metals 6:Trans 275-9 sec 2 F '54

Effects of residual stress on fatigue life of metals. R. L. Mattson. diags Automotive Ind 110:185+ Mr 15 '54

Effects of residual stress on fatigue life of metals. R. L. Mattson. Machine Design 26:274-6+ My '54; Abstract. S A E J 62:58-9 My '54

Evaluation of transient temperatures and stresses. R. J. Fritz. bibliog(29 titles) diags A S M E Trans 76:913-21 Ag '54

Experiments on short-radius pipe-bends. N. Gross. diags Inst Mech Eng Proc (B) 1B no 10:465-79, pl 1-4; Discussion. 492-509 '52-53

Flexibility of short-radius pipe-bends. N. Gross and H. Ford. bibliog(64 ref) il diags Inst Mech Eng Proc (B) 1B no 10:480-91; Discussion. 492-509 '52-53

Fully plastic rotating disc with large strains. M. Zaid. bibliog J Aeronautical Sci 20:369-77 Je '53

Germanium under ultrasonic stress. G. S. Baker and others. J Ap Phys 24:1331-2 O '53

High-pressure vessels subjected to static and dynamic loads. E. D. Narduzzi and G. Welter. bibliog il diags Welding J 33:sup230-8 My '54

How to develop favorable stress patterns. J. E. Campbell and H. O. McIntire. il diags Iron Age 172:185-8 N 12; 102-5 N 26; 140-3 D 17 '53

How to prevent stress-corrosion-cracking in aluminum parts; Douglas aircraft co. R. N. Hooker and J. L. Waisman. il diags Iron Age 174:123-5 S 9; 165-7 S 16 '54

Improving the testing method for determining the susceptibility of steel to stress-corrosion cracking; abstract. W. Rädeker. Metal Prog 65:140+ Mr '54

Influence of temperature and rate of strain on the properties of metals in torsion. C. E. Work and T. J. Dolan. il diags Ill U Eng Exp Sta Bul 420:1-108 bibliog(p 102-8) '53 (pa $1)

Internal stresses in some types of forgings; abstract. C. Sykes. Metal Prog 66:164+ S '54

Isodynamometer. J. Wright. bibliog diags Engineering 176:665-7 N 20 '53

Load-temperatures history of lattice strain in aluminum alloy. D. Rosenthal and M. Kaufman. il J Metals 6:Trans 377-80 Mr '54

Maximum shear stress. A. R. Holowenko and H. G. Laughlin. diags Machine Design 26:159-61 Ag '54

Measurement of stresses imposed on wheels in Diesel-locomotive service. L. L. Olson. il diags A S M E Trans 76:613-16 My '54

Mechanical properties of polyethylene. R. H. Carey. bibliog India Rubber World 130:215-20 My '54

Mechanics of stress and strain occurring in a Fourdrinier wire. J. D. Lyall. bibliog il diags Tappi 37:207-15; Discussion. 215-16 My '54

Method for calculating stresses in rigid frame corners. H. C. Olander. diags Am Soc C E Proc 79 [no 249]:1-21 Ag '53

Nature of bond in pre-tensioned prestressed concrete. J. R. Janney. il diags Am Concrete Inst J 25:717-36 My '54; Discussion. 26:736^{1}-736^{11} pt 2 D '54

New method for the determination of the relative susceptibility of steels to intercrystalline attack; summary. J. Lodder. Chem & Ind p603 Je 20 '53

Plastic stress-strain relations for aluminum alloy 14S-T6 subjected to combined tension and torsion. J. Marin and H. A. B. Wiseman. bibliog il diag J Metals 5:Trans 1181-90 sec 2 S '53

Plastic stress-strain relations under radial and non-radial combined stress loading. J. Marin and J. A. Sauer. Franklin Inst J 256:119-28 Ag '53

Relaxation of stress in stretched cellulose fibres. R. Meredith. bibliog diags Textile Inst J Trans 45:T438-61 Je '54

Residual compressive stress strengthens brittle materials. J. O. Almen. bibliog il diag Product Eng 24:189-91 Jl '53

Residual stresses; abstracts of SAE annual meeting papers. S A E J 62:50-2 F '54

Second mode vibrations of the Pochhammer-Chree frequency equation. C. W. Curtis. il J Ap Phys 25:928 Jl '54

Similarity of thermal stresses in elastic bodies. M. Lessen. J Aeronautical Sci 20:716-17 O '53

Static and dynamic elastic behavior of reinforced concrete beams. J. Penzien and R. J. Hansen. bibliog il diags Am Concrete Inst J 25:545-67 Mr '54

Stepped stress-strain curve of some aluminum alloys. N. Krupnik and H. Ford. Metal Prog 65:168+ My '54

Strain history affects copper characteristics. Elec World 140:127-8 Ag 10 '53

Stress analysis in design. J. B. Hartman and R. E. Brenner. bibliog diags Machine Design 26:135-47 Mr; 186-95 Ap; 144-50 Je; 139-46 Jl '54 (reprints $1)

Stress concentrations take toll in creep loading. G. Sachs and others. bibliog il Steel 135:122-3 Ag 23 '54

Stress corrosion. M. G. Fontana. Ind & Eng Chem 46:sup99A-100A+ Mr '54

Stress-corrosion cracking of mild steels in nitrate solution. R. N. Parkins. bibliog 2pls diags Iron & Steel Inst J 172:149-62 O '52; Abstract. Metal Prog 64:130+ D '53; Discussion. Iron & Steel Inst J 174:140-2 Je '53

Stress measurements on the San Leandro Creek bridge. R. W. Clough and C. F. Scheffey. il plan diags Am Soc C E Proc 79 [no 246]:1-22 Ag '53

STRAINS and stresses—*Continued*

Stress relaxation of fibrous materials; stress relaxation of wool keratin in water and in salt solutions. E. T. Kubu and others. Textile Res J 24:659-62 Jl '54

Stress-strain characteristics and slip-band formation in metal crystals; effect of crystal orientation. F. D. Rosi. bibliog(34 titles) il diags J Metals 6:Trans 1009-20 sec 2 S '54

Stress-strain investigations furnish knowledge of internal structure of paint films; abstract. A. C. Elm. Chem & Eng N 31:4680 N 9 '53

Stress vs strain in hot tearing. J. B. Caine. bibliog il diags Foundry 82:76-9+ Ag '54

Stresses and displacements in thin shells composed of cylindrical and spherical segments. M. G. Salvadori. diags Am Soc C E Proc 79 [no 293]:1-22 O '53

Stresses for pressure vessels and boilers up to 650°F. W. P. Kerkhof. diags Welding J 33:sup239-51 My '54

Stresses in a crane jib. diags(insert) Engineer 197:196-200 F 5 '54

Stresses in concrete pavements; abstract. B. F. Friberg. Roads & Eng Constr 92:138 Ap '54

Stresses in subgrade under a rigid pavement; abstract. G. Pickett and D. K. Y. Ai. Roads & Eng Constr 92:168-9 Ap '54

Study of strains between enamel and iron as related to physical properties of each. J. D. Walton, jr. bibliog diags Am Cer Soc J 37:153-60 Mr 1 '54

Study of the effects of cyclic thermal stresses on a ductile metal. L. F. Coffin, jr. bibliog(44 titles) il diags A S M E Trans 76:931-50 Ag '54; Abstract. Materials & Methods 39:170+ Ja '54

Temperature stresses in iron work rolls. C. F. Peck, jr. and others. diags Iron & Steel Eng 31:45-57; Discussion. 57-8 Je '54

Test determines presence of high residual stresses in stainless. H. Kirtchik. Iron Age 173:130-3 Ap 1 '54

Test of the theory of secondary viscoelastic stress. M. Mooney. bibliog J Ap Phys 24:675-8 Je '53

Thermal strains during firing of a ceramic body. S. P. Mitoff and J. A. Pask. diag Am Cer Soc J 37:168-72 Ap 1 '54

Transgranular stress corrosion in chromium-nickel stainless steels. C. Edeleanu. bibliog 4 pls Iron & Steel Inst J 173:140-6 F '53; Abstract. Metal Prog 65:178+ Je '54; Discussion. Iron & Steel Inst J 174:218; 175:390-2 Jl, D '53

Transient thermal stresses in circular disks and cylinders. G. Horvay. bibliog A S M E Trans 76:127-35 Ja '54

Transient wave analysis in a linear time-dependent material. R. D. Glauz and E. H. Lee. diags J Ap Phys 25:947-53 Ag '54

Yield-point phenomena and stretcher-strain markings in aluminum-magnesium alloys. V. A. Phillips and others. Metal Prog 66:supA 188+ Jl 15 '54

See also

Airplanes—Stresses
Beams and girders
Bending
Bridges—Stresses
Building
Columns
Concrete construction—Design
Creep of materials
Creep of metals
Deformation (mechanics)
Elasticity
Fatigue in metals
Friction, Internal
Glass—Strains and stresses
Hysteresis (mechanics)
Load (mechanics)
Notched bar testing
Photoelasticity
Poisson's ratio
Ships—Strains and stresses
Soil mechanics
Steel construction—Design
Strain gages
Strength of materials
Structural engineering—Design
Torsion
Welding—Stresses
Wind pressure

Brittle coating test

Ceramic stress coating. H. J. Jackson. il diag Machine Design 26:184 Mr '54

STRAITS of Bosporus. See Bosporus

STRAPPING, Steel. See Steel strapping

STRATEGIC materials

Critical materials; plenty on our side. Steel 135:43 S 27 '54

Danube carries strategics to reds. map Iron Age 173:95-6 My 20 '54

Mineral project approvals in 1953; Defense minerals exploration administration. Oil Paint & Drug Rep 165:38 Mr 29 '54

Minerals list enlarged by 19 strategic items. Oil Paint & Drug Rep 165:4+ Mr 29 '54

More capacity needed for six metals, minerals, GSA says. Steel 134:34 Ja 11 '54

Moth holes in iron curtain; Communist gold lures smugglers of war materials. il Chem W 74:24-5 Mr 6 '54

ODM orders speedup in stockpiling activities. Oil Paint & Drug Rep 164:3+ D 28 '53

Percentage depletions hiked for 27 minerals. Oil Paint & Drug Rep 165:4+ My 31 '54

Strategic synthesis; two companies make bid for mica market with process for synthetic fluor-phlogopite. il diags Chem W 74:46+ My 22 '54

STRATEGY

Maritime strategy. J. C. Wylie, jr. il U S Naval Inst Proc 79:sup 14, 467-77 My '53

STRATFORD, Reginald Killmaster, 1895-

Dr R. K. Stratford is awarded 1954 Chemical institute medal. Can Chem Process 38:38 Je 1 '54

Gallic unpredictability; winner of Canadian SCI medal. por(cover) Chem & Eng N 32:1034+ Mr 15 '54

STRATHMORE paper company

Keith paper co. purchased by Strathmore; modernization planned. C. M. Bryan. il Paper Ind 35:1016 D '53

STRATOSPHERE. See Atmosphere, Upper

STRAUBEL, Constantin Rudolf

Scientific work of C. R. Straubel. M. Herzberger. bibliog(33 titles) por Opt Soc Am J 44:589-92 Ag '54

STRAUSS, Lewis Lichtenstein, 1896-

Guiding policy on atom warfare. pors Bsns W p 108+, cover N 7 '53

Strauss heads AEC. por(cover) Chem & Eng N 31:3070 Jl 27 '53

STRAUSS-GOLMAN company

Small fortune in gift wraps. il Bsns W p 154-6+ S 26 '53

STRAW

Acetate pulps from cereal straws; abstract. G. Jayme and L. Scheuring. Paper Ind 35:1241-2 F '53

Hinde Dauch Trenton mill shows way to straw expansion. il Paper Tr J 137:30+ O 23 '53

Straw and hay standards; abstract and discussion. W. H. Hosterman. Tappi 36:sup 160A-6A N '53

Tappi fibrous agricultural residues conference, Belleville, Ontario, Oct. 8-9. Paper Tr J 137:28-9 O 23 '53; Pulp & Pa of Can 54:131+ N '53; Paper Ind 35:1031 D '53; Tappi 37:sup70A+ Ja '54

STREAK photography. See Photography, Streak

STREAM flow

Backwater profiles solved by Escoffier Raytchine-Chatelain method. J. R. Stipp. Civil Eng 23:551-2 Ag '53

Development of the turbulent boundary layer on steep slopes. W. J. Bauer. diags Am Soc C E Proc 79 [no 281]:1-23 S '53

Hydrologic considerations in the San Jacinto project. S. W. Jens. bibliog map Am Water Works Assn J 46:438-44 My '54

See also

Stream measurement

STREAM measurement

Small tractor cranes help make stream measurements for U.S.G.S. A. H. Frazier. il Civil Eng 23:697-8 O '53

See also

Stream flow

STREAM pollution. See Water pollution

STREET cars

Repair

New life for trolleys; repair of streetcar body bolsters. il Steel 133:145 Ag 10 '53

STREET cleaning

Four musts for better street cleaning. L. D. Merrill. il Pub Works 85:63+ Ja '54

Street-cleaning and refuse disposal methods and costs in Toronto. H. D. Bradley. il Munic Util 92:17-22+ F '54

Street-cleaning practices and costs; guided discussion. Munic Util 91:43-5+ N '53

STREET cleaning apparatus

Filling device for street sweeper brooms. A. R. Karr. il Pub Works 85:100 Mr '54

STREET lighting

Baltimore lights U.S. one and U.S. 40 interchange. W. C. Tome and W. R. Straus. il Elec World 140:104+ N 30 '53

Co-operation in street lighting. C. C. Smith. Elec J 151:873-4 S 18 '53

Corona makes light work light work. V. J. Van Lint. il Elec World News ed 141:42-3 Ja 4 '54

Criteria in the quality of street lighting; abstract and discussion. J. B. de Boer. il Elec J 151:960-2 S 25 '53

Diamond jubilee of 1954 and its effect on street lighting of tomorrow. W. E. Hawkins and others. il Illum Eng 49:427-30 S '54

Effect of temperature on fluorescent street lighting luminaires. J. E. Bock and J. S. Franklin. il map Illum Eng 49:110-14; Discussion. 115-16 F '54

Electric discharge lamps in street lighting service; abstract. J. W. Young. Illum Eng 49:431-2 S '54

Fluorescent mercury vapor lights in New Orleans. G. B. Arthur. il Pub Works 85: 81-2 Ag '54

Fluorescent street lighting. W. Robinson. il Elec R (Lond) 153:774-6 O 9 '53

Fluorescent street lighting here and abroad. P. H. Houser. bibliog il Illum Eng 48:529-33 O '53; Discussion. 49:220-3 Ap '54

Houston, the new city of light. T. Martin. il Pub Works 85:81-2 Ap '54

Keeping the white in the Great White Way. il Elec World News ed 140:22-3 S 14 '53

Lighting Main street with fluorescents; Oakwood, Ohio. H. Nonneman. il Elec World 139:122 Je 29 '53

Market is there; street lighting conference, Portsmouth, N.H. Elec World News ed 139: 39 Je 8 '53

Mercury vapor lighting for a heavily traveled thoroughfare. il Pub Works 85:76+ Jl '54

Operation of mercury vapor lamps on series street lighting circuits; abstract. M. E. Keck and W. A. Oglesbee. diag Illum Eng 49:424-5 S '54

Public lighting. C. Hughes. il Elec R (Lond) 153:659-61 S 25 '53

Quick change to mercury vapor lighting. il Pub Works 85:112 Ap '54

Road surfaces as reflectors of light, from the point of view of street lighting. A. W. Christie. bibliog il diags Chem & Ind p468-75 My 16 '53

Seafront lighting. il Elec J 152:128 Ja 8 '54

Single-ballast street light system costs less. M. C. Harsh. diags Elec World 140:114+ N 30 '53

Spinning street light cable saves $1,725. M. P. Bailey. il Elec World 141:110+ Ja 11 '54

Tennessee valley brightens its streets. il Elec World 140:135 O 5 '53

Utilisation factor in public lighting; abstract and discussion. G. Fitton. Elec J 151:959-60 S 25 '53

See also

Association of public lighting engineers
Roads—Lighting

Control

Lighting control at Leeds. il diag Elec J 152: 190-2 Ja 15 '54

Street lighting photocell control calibration cabinet. W. N. Lindblad and L. C. Edwards. il diag Illum Eng 48:509-12 O '53; Discussion. 49:14-15 Ja '54

Exhibitions

Association of public lighting engineers exhibition, Liverpool, Sept. 15-18. il Elec J 151:793-6 S 11 '53; Elec R (Lond) 153:556-60 S 11 '53

Safety aspects

Better street lighting. Elec J 152:589 F 19 '54

STREET lighting fixtures

Aluminum light standards erected in heavy traffic area. E. J. Knudsen. il Pub Works 85:93 S '54

Concrete saw speeds replacement of street lighting fixtures. J. L. Quigley. Pub Works 85:146+ My '54

Design and manufacture of street lighting lanterns; abstract and discussion. M. H. Mounsdon. il Elec J 151:962-4 S 25 '53

76 of 199 lamp posts rejected. il Elec J 151: 807-8 S 11 '53

Sodium lantern with built-in control gear. il Elec J 151:723 S 4 '53

Maintenance and repair

Lift truck speeds lamp maintenance. il Elec World 140:176+ Ag 24 '53

Truck platform extending over cars speeds street light maintenance. il Elec World 140:130 Ag 10 '53

STREET openings

Power digger saves money for city. il Pub Works 85:75-6 Ag '54

STREET railroads

See also

Electric railroads
Rapid transit

Motor bus substitution

Smog-conscious Los Angeles seeks to halt Metro switch to buses. Bus Transportation 33:57 Mr '54

Track removal

Street car tracks; tearing them up is easier than repaving the holes. F. E. Gritzmacher. Pub Works 85:87-8 F '54

STREET traffic

Appraisal of one-way street system in Sacramento, Calif. D. J. Faustmann. plan Am Soc C E Proc 79 [no. 234]:1-6 Ag '53

City traffic muddle, what exit? H. A. Barnes. Pub Works 85:107-8 Ag '54

Engineering means swifter, safer traffic for Dayton. il Eng N 151:54-6 O 29 '53

Evanston's engineered traffic safety. P. Hirsch. il plan Pub Works 84:74-5 D '53

Hey lady! that's your life you're risking! police safety car. il Safety Maint & Prod 107:75-6 Ap '54

How we have outgrown our new transportation arteries. W. L. Radford. il Mag of Wall St 93:658-60+ Mr 6 '54

New York plots traffic improvements. il map Eng N 152:43 F 18 '54

Ohio procedure for establishing an urban arterial highway system. Pub Works 85:131-2 Mr '54

Parking solution; slow and not at all sure. il Eng N 151:21-3 D 10 '53

Portrait of a traffic jam, Boston. il Bsns W p61 O 31 '53

Roads and commercial transport; abstract. G. Charlesworth. Engineering 177:168 F 5 '54

Seven-point program for better transit. R. Budd. Bus Transportation 33:56 Jl '54

$3 million and 25 years end traffic jam at Oakland dam. il Eng N 151:42 Jl 2 '53

Traffic doctor's prescription; convert the public to transit. Bus Transportation 32:75 N '53

Traffic safety program must have support at local municipal level. H. F. Janes. Roads & Eng Constr 92:135+ Mr '54

Traffic troubles. Arch Forum 100:37+ Mr '54

Transit can save our cities but it needs help. J. Baine; M. Wehrly. Bus Transportation 33:25-7 My '54

Transit problem; bus versus auto. O. Ely. Pub Util 54:376+ S 30 '54

Twelve basic steps to break the stranglehold of traffic. Pub Works 85:94+ Ja '54

Urban traffic forum. Arch Forum 98:110-19+ F '53

Where major Canadian cities fall down in handling of traffic; with traffic ratings of typical cities. J. Barriere. il Roads & Eng Constr 91:121-6+ O '53

Wrong traffic cures are worse than none. D. Hyde. Bus Transportation 33:56 Ja '54

See also

Automobile parking
Bridge traffic
Traffic signals

Emergency measures

Civil defense and natural disasters; transportation in disasters and emergencies. il Pub Works 85:67-9 Ap '54

STREETS

Areas need modernization, too; park and street improvement; illustrations with text. Arch Forum 100:128-9 My '54

Good street planning makes safer, better neighborhoods. il plans House & Home 6:123 S '54

Mileage of urban roads and streets, Canada. Roads & Eng Constr 92:300 Je '54

See also

City planning
Pavements
Roads
Snow removal
Street lighting
Street traffic

Cost

Expenditures on urban roads and streets, Canada. Roads & Eng Constr 92:300 Je '54

Gravel base bid wins paving job for Texas contractor; unit prices. Eng N 152:66 Ja 14 '54

Pay-as-you-go paving project. B. H. Cruce. il Pub Works 84:71-2+ N '53

Street paving, Texas; unit prices. Eng N 151:66 S 24 '53

Drainage

Draining downtown street corner without storm sewers. J. L. Morris. diag Roads & Sts 97:134-5 My '54

Ice control

Snow and ice control on the edge of the cold belt. W. A. Xanten. il Pub Works 85:83-5 Ag '54

Where snow and ice control is a big problem. C. L. Wood. il Pub Works 85:72-4 Ag '54

Maintenance and repair

Good engineering and inspection; important factors in street work. M. E. Boriss. Pub Works 85:112+ Je '54

How weather consultant saves money for public works officials. J. R. Murray and D. W. Trettel. Roads & Sts 96:83-8 O '53; Same cond. Pub Works 84:76+ N '53

Oil stabilization for street maintenance. B. H. Cruce. il Pub Works 85:115-16 My '54

Pay-as-you-go paving project. B. H. Cruce. il Pub Works 84:71-2+ N '53

Street car tracks; tearing them up is easier than repaving the holes. F. E. Gritzmacher. Pub Works 85:87-8 F '54

Widening

How Minnesota aids in urban widening. O. L. Kipp. il Roads & Sts 96:63-4 D '53

STRENGTH of materials

Basic types of diagrams of composition versus high-temperature strength in metallic systems; abstract. I. I. Kornilov. diags Metal Prog 65:184-5 F '54

Behaviour of metals under tensile loads of short duration. J. Gibson. bibliog diags Inst Mech Eng Proc (B) 1B no 11:536-50, pl 1-2; Discussion. 551-5 '52-53

Calculating tearout strength for cantilever beams; data sheet. B. Saelman. diags Machine Design 26:161-3 Ja '54

Developments in the analysis of lugs and shear pins. M. A. Melcon and F. M. Hoblit. il diags Product Eng 24:160-70 Je '53

Directionality affects physical properties of wrought metals. H. A. Unckel. bibliog Iron Age 172:170-3 S 10 '53

Ductility and plastic deformation. R. L. Stedfeld. bibliog il Machine Design 26:175-83 Mr '54

Effects of temperature on the flow and fracture characteristics of molybdenum. J. H. Bechtold. bibliog il diag J Metals 5:Trans 1469-75 N '53

Endurance limit of zirconium spreads over wide range. W. P. Wallace and R. H. Wallace. il Iron Age 173:146-7 Mr 18 '54

High-density processing widens field for powdered metals. W. J. Doelker. il Iron Age 174:91-3 S 30 '54

High temperature strength of wrought aluminum powder products. E. Gregory and N. J. Grant. bibliog il diag J Metals 6: Trans 247-52 sec 2 F '54

Influence of chemical composition on rupture properties at 1200° F of forged chromium-cobalt-nickel-iron base alloys in solution-treated and aged condition. E. E. Reynolds and others. bibliog il U S Nat Advisory Com for Aeronautics 1951:1385-444 '52

Influence of heat treatment and cold working on tensile strength ranges. R. L. Stedfeld. Machine Design 26:163-73 F '54

Materials at low temperature. il Steel 133:247, 305 O 12 '53

Metallurgical aspects of the development of small gas turbines; Boeing airplane co. W. L. Slosson. il diag J Metals 5:1419-26 N '53

Post-buckling strength of redundant trusses. E. F. Masur. diags Am Soc C E Proc 79 [no 332]:1-14 N '53

Residual compressive stress strengthens brittle materials. J. O. Almen. bibliog il diag Product Eng 24:189-91 Jl '53

Statistical significance of the strength of brittle materials. O. K. Salmassy and others. bibliog(26 titles) Am Cer Soc Bul 33:240-3 Ag 15 '54

Strength in tension. R. L. Stedfeld. bibliog il diag Machine Design 25:161-70 N '53

Strength of columns elastically restrained and eccentrically loaded. P. P. Bijlaard and others. bibliog diags Am Soc C E Proc 79 [no 292]:1-52 O '53

Strength of joints in titanium brazed with several alloys. L. W. Smith and L. A. Yerkovich. il Product Eng 24:141-7 Jl '53

Ways to estimate bond strengths of minerals. N. C. Rockwood. Rock Prod 57:59+ F '54

See also

Concrete—Strength
Deformation (mechanics)
Elasticity
Fatigue in metals
Glass—Strength
Metals—Failure
Plastic materials—Strength
Steel—Strength
Strains and stresses
Torsion
Wood—Strength

STREPTIDINE

Crystallographic data; streptidine sulfate monohydrate. H. A. Rose. il diag Anal Chem 26:613 Mr '54

STREPTOBACILLUS moniliformis

Report of a case of rat-bite fever due to S. moniliformis. R. L. Griffith and D. W. McNaughton. Pub Health Rep 68:947-8 O '53

STREPTOCOCCI

Bacteriological studies of sludge digestion; effect of different quantities of streptococcus diploidus on sludge digestion. C. E. Keefer and others. Sewage & Ind Wastes 25:1406-13 D '53

STREPTOMYCES

Vitamin B_{12} by fermentation with streptomyces olivaceus. V. F. Pfeifer, C. Vojnovich and E. N. Heger. bibliog flow sheet Ind & Eng Chem 46:843-9 My '54

STREPTOMYCIN

Adaptation of the Voges-Proskauer reaction for the quantitative assay of streptomycin. J. J. Szafir and E. O. Bennett. bibliog Science 117:717-18 Je 26 '53

Biosynthesis of streptomycin; studies with C-14-labeled glycine and acetate. P. Numerof and others. bibliog Am Chem Soc J 76:1341-4 Mr 5 '54

Configuration of the glycosidic unions in streptomycin. M. L. Wolfrom and others. bibliog Am Chem Soc J 76:3675-7 Jl 20 '54

Effect of streptomycin on oxygen uptake and viability of resting suspensions of escherichia coli. T. F. Paine, jr. and L. S. Clark. Science 118:73-4 Jl 17 '53

Streptomycin; background, isolation, properties, and utilization. S. A. Waksman. bibliog Science 118:259-66 S 4 '53

See also

Mannosidostreptomycin

Manufacture

Glaxo development at Ulverston. il Chem Age (Lond) 69:317-19 Ag 15 '53; Chem & Ind p913-14 Ag 29 '53

STREPTOTHRICIN

Streptothricin; preparation, properties and hydrolysis products. H. E. Carter and others. bibliog Am Chem Soc J 76:566-9 Ja 20 '54

STRESSES. See Strains and stresses

STRETCHERS (litters)

Extruded aluminum sections answer to litter design problem. il Light Metal Age 12:14-15 F '54

Speeds handling of casualties; litter-cot. il Nat Safety N 69:92 F '54

STRETCHING
Curved jaw stretch forming. J. S. Corral. il Product Eng 24:196 Ag '53
How to stretch-form aluminum. J. M. Adle. il diags Am Mach 98:133-40 Jl 19 '54
Hufford counter overcomes variations during stretch-wrap forming. il Am Mach 98:210 S 13 '54
Production problems on supersonic planes; forming. A. Ashburn. il Am Mach 98:136-7 Jl 5 '54
Stretch aluminum plate to reduce machining distortion; Kaiser Aluminum's Trentwood works. W. J. Lawler and V. F. Binkley. il Am Mach 98:128-9 Mr 15 '54
Stretch forming cross-sectional shapes. il Light Metal Age 11:20 Je '53
Stretch wrap forming cuts fabricating costs. L. F. Spencer. il diags Iron Age 172:120-4 S 3; 163-7 S 10 '53
Traveling pressure shoe extends stretch forming uses. H. Hein. il Iron Age 173: 141-3 My 20 '54

STRETCHING machines
Aluminum stretcher takes shape. il Aviation W 59:46 Jl 6 '53
Blackburn and General Aircraft universal stretch-forming tool. il diags Engineer 197: 324-5 F 26 '54; Engineering 177:318 Mr 5 '54
Convair installs big press for fabrication of aircraft parts; Consolidated Vultee aircraft corp. il Iron Age 174:135 Jl 15 '54
Hufford new stretch forming machine. il Iron Age 174:130+ S 2 '54
Northrup to install US' largest sheet metal stretch press. Am Mach 98:169 Jl 5 '54
Right-angle traversing unit increases stretch former's range and efficiency. il Am Mach 97:173 O 26 '53
Straightening extruded shapes. L. Hoffmann. il Mech Eng 76:139-42 F '54
Stretch-form press used in aluminum jobs. Aviation W 59:44+ Jl 20 '53
Stretching aluminum plate. il Steel 133:109 Ag 24 '53
Stretching hot-rolled bars produces cold-drawn properties; Hufford machine works inc. J. A. Helget. il Mach 60:162-4 Ag '54

STRIKES
Aircraft strike for auto parity halts work on supersonic jets; North American aviation co. il Bsns W p 155-6 O 31 '53
Cleanup-law strike shuts down New York waterfront. il Bsns W p30-1 D 5 '53
Communicating with employees during a strike; survey of company practices. Personnel 31:60-5 Jl '54
History of work stoppages in textile industries. B. Yabroff and A. J. Herlihy. Mo Labor R 76:367-71 Ap '53
Is Ike's strike freeze recommendation sound? C. E. Bonnett. Comm & Fin Chr 179:265 Ja 21 '54
NLRB bans hit-and-run strikes. Pub Util 53:490-1 Ap 15 '54
New York City construction strike hinges on extension agreement. Eng N 151:28 Jl 2 '53
New York truck strike; the inside story. G. T. Orick. il Eng N 151:28-9 Ag 27 '53
No port in this storm; only brave work piers at New York. il Chem W 74:84 Ap 10 '54
Northwest lumber strike. House & Home 6: 126-7 Ag '54
Philadelphia carpenters' strike ends. Eng N 151:29 Jl 2 '53
Sales without newspapers. Bsns W p50+ D 12 '53
71-day Kansas City teamsters strike settled; cost $20 million in wages. Eng N 151:26 Jl 30 '53
Steelworkers' strike against can firms pinches tinplate. Iron Age 172:80 D 10 '53
Strike spurt; can plants and New York city newspapers are hit in rash of walkouts. Bsns W p 155 D 5 '53
Violence flares on piers then police clamp down. il Bsns W p 176 O 17 '53
See also
Picketing
Railroad strikes
Steel strikes

Statistics

Analysis of work stoppages, 1953. A. J. Herlihy and others. U S Bur Labor Statistics Bul 1163:1-33; pa 30c Supt. of doc. '54
Labor conditions; industrial disputes, 1949-1952. Survey of Cur Bsns 1953 Sup p67 [supplemented in monthly numbers]
Past the high point; chemical process industries work stoppages. Chem W 75:20 Jl 17 '54
Work stoppages. Published in Monthly labor review
Work stoppages; tabulation. Steel 134:196 Ja 4 '54

Arabia

Saudi Arabians on strike; American oil co. oil workers. Economist 169:235-6 O 24 '53

Canada

Strikes are on the rise. Bsns W p 146 O 17 '53

France

End of the road; French strikes and growth of socialization. Barron's 33:1 Ag 17 '53
M. Laniel reprieved. Economist 168:555 Ag 29 '53

Great Britain

Danger; men not at work. Elec J 152:203-4 Ja 15 '54
Demonstration strike; Communists and the one-day token strike. Economist 169:566 N 21 '53
Economical strike; Electrical trades union claim. Economist 168:618-19 S 5 '53
Fanning the sparks; Electrical trades union continues strike. Economist 170:220 Ja 23 '54
Industrial serenity; electricians' wage dispute. Economist 168:768 S 19 '53
Inquiry for electricians; strike of electricians. Economist 168:686 S 12 '53
New technique for strikes; Electrical trades union. Economist 168:555-6 Ag 29 '53
Reluctant guerillas; Electrical trades union members' strike. Economist 170:146 Ja 16 '54
Strike against efficiency; drivers of oil and petrol tankers. Economist 169:230 O 24 '53
Strike futility; oil tanker drivers, London. Economist 169:327 O 31 '53

United States

Negotiations, arbitration, and strikes. Mo Labor R 76:63-5 Ja '53

STRIPPER wells. See Petroleum—Stripper wells

STRIPPERS, Electric wire. See Electric wire strippers

STRIPPING operations. See Coal mines and mining—Stripping operations

STROBANE
Bad news for bugs; Strobane. Chem W 72:57 My 30 '53
Relative toxicity against house flies. N. Mitlin and others. Soap & San Chem 30:157+ Mr '54
Strobane. D. L. Kent and others. Soap & San Chem 29:157+ Je '53
Toxicity of Strobane. H. A. Shelanski and M. V. Shelanski. Soap & San Chem 29: 129+ Jl '53

STROBOSCOPIC instruments
Calibration of a stroboscopic light. R. Lemlich. J Sci Instr 31:191-2 My '54
Here's how to use the stroboscope. P. J. Belcourt. il Power 98:121 Ap '54
High-speed stroboscope for accelerometer calibration. P. G. Sulzer and others. diags R Sci Instr 25:837-8 Ag '54
New power stroboscope for high-speed flash photography. W. D. Chesterman and others. bibliog il diags Inst E E Proc 98 pt 2:619-31 O '51; Discussion. 98 pt 2:632-4; 100 pt 2:563-5 O '51, O '53
Simple low-frequency double-flash stroboscope. J. E. Caffyn and R. M. Underwood. bibliog diags J Sci Instr 30:257-9 Ag '53
Variable phase contact breaker for stroboscopic determination of waveform. V. R. Peterson. il diags J Sci Instr 30:457-8 D '53
Watch tester; patent. diags Electronics 27: 238+ Ja '54

STROMEYER, Friedrich, 1776-1835
F. Stromeyer and the history of chemical laboratory instruction. G. Lockemann and R. E. Oesper. por(front) J Chem Educ 30: 202-4 Ap '53

STRONTIUM

Significance of fungus growth in analytical and radiochemical work with strontium-containing solutions. S. Z. Lewin, P. J. Lucchesi and J. E. Vance. Am Chem Soc J 75:6058 D 5 '53

Analysis

Colorimetric determination of strontium with chloranilic acid. P. J. Lucchesi, S. Z. Lewin and J. E. Vance. bibliog Anal Chem 26: 521-3 Mr '54

Distribution of strontium within barium sulfate precipitated from homogeneous solution. L. Gordon, C. C. Reimer and B. P. Burtt. bibliog(26 ref) diag Anal Chem 26: 842-6 My '54

Precipitation of barium chromate from homogeneous solution. L. Gordon and F. H. Firsching. Anal Chem 26:759-60 Ap '54

Quantitative separation of the alkaline earths by ion-exchange chromatography. M. Lerner and W. Rieman, 3d. bibliog Anal Chem 26:610-11 Mr '54

Separation of calcium and strontium in semimicro qualitative analysis. R. B. Hahn. J Chem Educ 30:349 Jl '53

Spectrochemical study of gravimetric procedure for barium, strontium and calcium. P. R. Wilkinson, J. A. Gibson, jr. and A. J. W. Headlee. bibliog Anal Chem 26: 767-9 Ap '54

Strontium and calcium in municipal water supplies. G. V. Alexander and others. bibliog Am Water Works Assn J 46:643-54 Jl '54

Isotopes

Atomic cell; trillion microwatts shy. il diag Elec World News ed 141:25 F 15 '54

Direct conversion of nuclear energy to usable electricity achieved. il diag Elec Eng 73: 289-90 Mr '54

Radium's got a rival; after-dark guides are safer with strontium 90. il Chem W 75: 60+ Ag 14 '54

Nuclear reactions

1.25-minute Rb^{82m} daughter of 27-day Sr^{82}. L. M. Litz and others. Phys R 92:288-90 O 15 '53

STRONTIUM chloride

Equilibria between 18 and 100° in the aqueous ternary system containing Sr_2^+, Mg^{2+} and Cl^-. G. O. Assarsson and A. Balder. diag J Phys Chem 58:416 My '54

Equilibria between 18 and 114° in the aqueous ternary system containing Ca^{2+}, Sr^{2+} and Cl^-. G. O. Assarsson and A. Balder. bibliog J Phys Chem 57:717-22 O '53

STRONTIUM halates

Solubilities of the strontium halates. W. F. Linke. Am Chem Soc J 75:5797-800 D 5 '53

STRONTIUM hydroxide

Absorption of divalent bases on nylon fibers. F. T. Wall and P. M. Saxton. bibliog J Phys Chem 58:86-90 Ja '54

STRONTIUM perchlorate

Osmotic and activity coefficients of calcium, strontium and barium perchlorate at 25°. R. A. Robinson, C. K. Lim and K. P. Ang. Am Chem Soc J 75:5130 O 20 '53

STRONTIUM phosphates

Polyphosphates of calcium, strontium, barium and magnesium. M. Bobtelsky and S. Kertes. bibliog J Ap Chem 4:419-29 Ag '54

STRONTIUM silicates

Hydrothermal preparation of some strontium silicates. E. T. Carlson and L. S. Wells. bibliog il J Res Nat Bur Stand 51:73-80 Ag '53

STRONTIUM sulfide

Effect of alternating electric fields on the excitation of a strontium sulfide phosphor. W. Low and others. Opt Soc Am J 44: 504-5 Je '54

STRONTIUM titanate

Optical absorption of single-crystal strontium titanate. J. A. Noland. Phys R 94:724 My 1 '54

Some dielectric properties of barium-strontium titanate ceramics at 3000 megacycles. L. Davis, jr. and L. G. Rubin. bibliog diags J Ap Phys 24:1194-7 S '53

STROUKOFF aircraft corporation

Chase aircraft splits into two companies. Aviation W 59:14 S 7 '53

STRUCTURAL aluminum. See Aluminum, Structural

STRUCTURAL clay products institute

Annual meeting, White Sulphur Springs, W.Va. Brick & Clay Rec 123:34-5+ D '53

STRUCTURAL clay products research foundation

Annual meeting, Nov. 8; abstracts of papers. Brick & Clay Rec 123:41-2 D '53

Meeting, Chicago. Brick and Clay Rec 125: 35+ Jl '54

STRUCTURAL engineering

Modern developments in structural engineering. R. F. Galbraith. Engineering 176: 501-2 O 16 '53

See also

Building
Concrete construction
Foundations
Steel construction
Strains and stresses
Strength of materials
Wind pressure

Design

Application of Heaviside's step-function to beam problems. J. E. Goldberg. bibliog diags Am Soc C E Proc 79 [no 202]:1-14 Jl '53; Discussion. 79 [no 333]:17-19 N; [no374]: 3-5 D '53

Aseismic design of elastic structures founded on firm ground. L. E. Goodman and others. bibliog diags Am Soc C E Proc 79 [no 349]:1-27 N '53

Ball of wire and tubes tests strength of tension design. il Arch Forum 100:163 F '54

Bending of a constrained circular beam resting on an elastic foundation. E. Volterra and R. Chung. bibliog diags Am Soc C E Proc 79 [no 205]:1-13 Jl '53

Cathodic protection in relation to engineering design. K. A. Spencer. bibliog diags Chem & Ind p2-10 Ja 2 '54

Collapse load factor for a rigid frame structure. M. R. Horne. bibliog diags Engineering 177:210-12 F 12 '54

Design of continuous foundation still demands engineering judgment. T. H. Dale, jr. diag Civil Eng 24:245-7 Ap '54

Design of frames by relaxation of yield-hinges. J. M. English. diags Am Soc C E Proc 79 [no 322]:1-12 N '53

Designing aluminum alloy members for combined end load and bending. H. N. Hill and others. Am Soc C E Proc 79 [no 300]: 1-18 O '53

Dimensionless curves aid design of flexible arch ribs. R. S. Rowe and S. Shore. Civil Eng 23:699-700 O '53

Engineering approach to blast resistant design. N. M. Newmark. bibliog diags Am Soc C E Proc 79 [no 306]:1-16 O '53; Discussion. S. J. Fraenkel. 79 [no 373]:13-14 D '53

Experimental investigation and limit analysis of net area in tension. W. G. Brady and D. C. Drucker. il diags Am Soc C E Proc 79 [no 296]:1-35 O '53

Graphical construction for the deflection of structural members of variable moment of inertia. A. Hoadley. diags Am Soc C E Proc 79 [no 256]:1-13 Ag '53

Joint translation by cantilever moment distribution. L. E. Grinter and C. H. Tsao. diags Am Soc C E Proc 79 [no 298]:1-9 O '53

Lateral buckling of I beams under thrust and unequal end moments. M. G. Salvadori. Am Soc C E Proc 79 [no 291]:1-25 O '53

Nomographs for rapid design of bearing plates. I. Yu. Civil Eng 24:172-3 Mr '54

Plastic buckling of eccentrically loaded aluminum alloy columns. J. W. Clark. il diags Am Soc C E Proc 79 [no 299]:1-19 O '53; Correction. 79 [no 374]:17 D '53

Plastic design of grillages. J. Heyman. il diags Engineering 176:804-7 D 25 '53

Post buckling behaviour of long square boxes under torsion. B. H. Falconer. bibliog diags Engineer 196:690-4 N 27 '53

Post-buckling strength of redundant trusses. E. F. Masur. diags Am Soc C E Proc 79 [no 332]:1-14 N '53

Reinforced annular plates. R. Hicks. diags Engineering 177:335-6 Mr 12 '54

STRUCTURAL engineering—Design—*Cont.*

Relaxation methods; a retrospect. R. Southwell. il diag Engineer 196:706-9 N 27 '53

Restraining-force method of calculating slope and deflection. Pao Chyuan Huang. diags Civil Eng 23:842-4 D '53

Stiffness charts for gusseted members under axial load. J. E. Goldberg. bibliog diags Am Soc C E Proc 79 [no 179]:1-15 Mr '53; Discussion. 79 [no 333]:15-16 N '53

Stirrup spacing in beams rapidly determined. J. Moyse. Civil Eng 23:698-9 O '53

Strength of columns elastically restrained and eccentrically loaded. P. P. Bijlaard and others. bibliog diags Am Soc C E Proc 79 [no 292]:1-52 O '53

Two axes of twist in elastic prisms. D. G. Ashwell. bibliog Engineering 176:769-71 D 18 '53

Webb's approximation for sec θ. T. A. S. Jackson and others. Engineering 176:298 S 4 '53

Wind extremes as design factors. A. Court. bibliog Franklin Inst J 256:39-56 Jl '53

See also

Beams and girders
Bridge design
Concrete construction—Design
Dams—Design
Steel construction—Design

Model testing

Isodynamometer. J. Wright. bibliog diags Engineering 176:665-7 N 20 '53

Use of gelatin models in structural analysis. J. D. C. Crisp. bibliog il diags Inst Mech Eng Proc (B) 1B no 12:580-8; Discussion. 589-604, pl 5-6 '52-53

Tables, calculations, etc.

Impulsive motion of elasto-plastic beams. H. H. Bleich and M. C. Salvadori. Am Soc C E Proc 79 [no 287]:1-25 S '53

STRUCTURES, Theory of

Application of the compensation theorem to the modification of redundant structures. R. H. MacNeal. J Aeronautical Sci 20:726-7 O '53

See also

Building
Strains and stresses
Strength of materials

STRUTS

Webb's approximation for sec θ. T. A. S. Jackson and others. Engineering 176:298 S 4 '53

STRUVITE

Stops struvite with new technique. E. P. McFee and R. L. Swaine. il Food Eng 25:67+ D '53

STRYCHNOS

Galactan of strychnos nux-vomica seeds. P. Andrews, L. Hough and J. K. N. Jones. Chem Soc J p806-10 Mr '54

Triterpene resinols and related acids; the non-saponifiable fraction from strychnos nux-vomica seed fat; the structure of *cyclo*-artenol. H. R. Bentley and others. Chem Soc J p3673-8 N '53

STUD welding. See Electric welding, Arc

STUDEBAKER corporation (now Studebaker-Packard corporation)

Merge and diversify? proposed Studebaker-Packard corp. may diversify to make appliances as well as autos. Steel 135:53 Jl 19 '54

Studebaker and Packard amalgamation will close era of individual independent automobile manufacturers. Automotive Ind 111:33+ Jl 1 '54

Studebaker-Packard corp. Steel 134:61 Je 28 '54

Studebaker-Packard corp. girds loins for future. Automotive Ind 111:34 S 1 '54

Studebaker, Packard integration begins to take form. Automotive Ind 111:36 Ag 1 '54

Studebaker's Paul Hoffman seeks answer for independents' ills. F. G. Lawrence. Steel 134:87-8 Je 21 '54

UAW; Studie vote historic; union consents to pay cut. R. D. Raddant. Iron Age 174:77 Ag 19 '54

STUDENT advisors and counselors

Critical evaluation of counseling received as undergraduate. L. B. Bradshaw. J Eng Educ 43:567-9 Je '53

STUDENTS

See also

Chemistry students
College students
Engineering students

Insurance requirements

See also

Insurance, Student

STUDENTS, Interchange of

International exchange of students reaches total of 3783. Chem & Eng N 31:5210 D 14 '53

Students gain overseas experience; International association for the exchange of students for technical experience. Chem Age (Lond) 69:908 O 31 '53

See also International association for the exchange of students for technical experience

STUDIOS

See also

Radio broadcasting stations
Television studios

STUDS. See Bolts and nuts

STURGIS, Samuel Davis, 1897-

Sketch. por Explosives Eng 31:68-9 My '53

STYLUSES, Phonograph. See Phonograph needles

STYRENE (and polymers)

Absorption and fluorescence of styrene vapor. J. V. Morgan. bibliog Am Chem Soc J 75:5055-7 O 20 '53

Adiabatic compression and expansion of polystyrene. H. L. Toor and S. D. Eagleton. bibliog diag J Ap Chem 3:351-4 Ag '53

Biaxially oriented methacrylate and polystyrene sheet. C. P. Fortner. il diags India Rubber World 129:493-5 Ja '54

Blends of styrene-acrylonitrile resins with rubbers. W. D. Crater. Rubber Age 74:549-50 Ja '54; Same. India Rubber World 129:629-30 F '54

Blends of styrene-butadiene resins with rubbers-non-rigid compounds. H. S. Sell. India Rubber World 129:497-8 Ja '54; Same. Rubber Age 74:550-1 Ja '54

Blends of styrene-butadiene resins with rubbers-rigid compounds. C. R. Holt. India Rubber World 129:498-9 Ja '54; Same. Rubber Age 74:551-2 Ja '54

Bulk viscosity of the system polystyrene; diethyl benzene. F. Bueche. bibliog J Ap Phys 24:423-7 Ap '53

Chain transfer in the polymerization of styrene; chain transfer with bromobenzene and mechanism of thermal initiation. F. R. Mayo. bibliog Am Chem Soc J 75:6133-41 D 20 '53

Continuous styrenation of drying oils. C. Boelhouwer and others. diag Chem & Ind p240-1 F 27 '54

Copolymerization of alpha, beta-unsaturated ketones. C. S. Marvel and others. bibliog Ind & Eng Chem 45:1532-8 Jl '53

Crazing in polystyrene parts. E. E. Ziegler. Materials & Methods 39:93-7 Je '54

Creep relaxation relations for styrene and acrylic plastics. J. Marin and Y. H. Pao. bibliog il diag Am Soc T M Proc 51:1277-93; Discussion. 1294-5 '51

Crystallization in butadiene-styrene copolymers. L. A. Wood. bibliog J Ap Phys 25:851-4 Jl '54

Derivatives of sulfenic acids; the reaction of 2,4-dinitrobenzenesulfenyl chloride with styrene. W. L. Orr and N. Kharasch. bibliog Am Chem Soc J 75:6030-5 D 5 '53

Dielectric relaxation in a styrene-acrylonitrile copolymer during and after its polymerization. P. Ehrlich and N. J. De Lollis. bibliog J Res Nat Bur Stand 51:145-54 S '53

Direct-current transients in polymethyl methacrylate and in polystyrene. P. Ehrlich. bibliog diag J Ap Phys 25:1056-8 Ag '54

Direction of ring opening in the reduction of *p*-substituted styrene oxides with lithium borohydride. R. Fuchs and C. A. VanderWerf. bibliog Am Chem Soc J 76:1631-4 Mr 20 '54

Dynamic mechanical properties of the system polystyrene-decalin. L. D. Grandine, jr. and J. D. Ferry. bibliog J Ap Phys 24:679-85 Je '53

STYRENE (and polymers)—*Continued*

Effects of rate of shear on inherent and intrinsic viscosities of polystyrene fractions. L. J. Sharman and others. bibliog J Ap Phys 24:703-11 Je '53

High styrene reinforcement of hard rubber. H. S. Sell and R. J. McCutcheon. il Rubber Age 75:841-51 S '54

Impregnation of powder metallurgy parts improves corrosion resistance. W. N. Pratt. il Steel 133:122-3 Jl 13 '53

Ionic telomerization of styrene. D. D. Coffman and E. L. Jenner. bibliog Am Chem Soc J 76:2685-8 My 20 '54

Maleic-fumaric isomerization in unsaturated polyesters. S. S. Feuer and others. bibliog Ind & Eng Chem 46:1643-5 Ag '54

Microstructures of polybutadienes and butadiene-styrene copolymers. J. L. Binder. Ind & Eng Chem 46:1727-30 Ag '54

New expandable polystyrene can be molded. il Materials & Methods 39:106-9 Ap '54

New technique for the mass spectrometric study of the pyrolysis products of polystyrene. P. Bradt and others. bibliog J Res Nat Bur Stand 50:201-2 Ap '53

Now, moldable plastic foam; Koppers. il Chem Eng 61:156+ My '54

Oxygen inhibition of the polymerization of styrene. T. L. Allen. J Ap Chem 4:289-90 Je '54

Participation of stannic halide catalysts in the reactions of styrene with hydrogen halides; halogen exchange between stannic halides and 1-phenylethyl halides. K. Heald and G. Williams. Chem Soc J p357-62 Ja '54

Polymerization of styrene by hydrogen halides and stannic halides; abstract and discussion. D. C. Pepper and A. E. Somerfield. Chem & Ind p42-3 Ja 9 '54

Polystyrene type latices in self-polishing floor waxes. L. H. Perry and R. S. Sweet. Soap & Chem Spec 30:145-7+ S '54

Polystyrene widens market. Chem & Eng N 31:4728 N 9 '53

Precision parts cradled in plastics. il Mod Packaging 27:132-3 Mr '54

Preparation of styrenated linseed oils. C. Boelhouwer and others. diag Chem & Ind p 1287-9 N 28 '53; Abstract. Paint Oil & Chem R 117:34 Ja 28 '54

Properties of ion-exchange resins in relation to their structure; anion-exchange resins derived from styrene-divinylbenzene copolymers. K. W. Pepper, H. M. Paisley and M. A. Young. Chem Soc J p4097-105 D '53

Puffed polystyrene debut. il Chem W 74:98+ Mr 13 '54

Pyrolysis of styrene, acrylate, and isoprene polymers in a vacuum. S. Straus and S. L. Madorsky. bibliog J Res Nat Bur Stand 50:165-76 Mr '53

Racemisation of (—)-1-phenylethyl chloride by stannic chloride in carbon tetrachloride and its bearing on the cationic polymerisation of styrene. K. Heald and G. Williams. Chem Soc J p362-6 Ja '54

Reactions of acetylenic compounds catalyzed by sulfonated polystyrene resins. M. S. Newman. bibliog Am Chem Soc J 75:4740-2 O 5 '53

Self-diffusion of cations in and through sulfonated polystyrene cation-exchange polymers. G. E. Boyd and B. A. Soldano. bibliog diag Am Chem Soc J 75:6091-9 D 20 '53

Statistical mechanics of dilute polymer solutions; thermodynamic parameters for the system polystyrene-cyclohexane. W. R. Krigbaum. bibliog Am Chem Soc J 76:3758-64 Jl 20 '54

Study of degradation of polystyrene, using ultraviolet spectrophotometry. M. J. Reiney and others. bibliog J Res Nat Bur Stand 51:155-65 S '53

Styrenated esters of bisphenol-epichlorohydrin condensates. R. W. Tess, R. H. Jakob and T. F. Bradley. bibliog il Ind & Eng Chem 46:385-90 F '54

Styrene and polystyrene. V. G. Bashford and S. D. Eagleton. bibliog(69 ref) Chem & Ind sup S38-42 Ag 10 '53

Styrene; manufacture of styrene monomer by the catalytic dehydrogenation of ethylbenzene. diag Pet Refiner 32:160-1 N '53

Styrene plastics; properties, corrosion resistance, uses; tabulation; engineering file facts. Materials & Methods 40:143 S '54

Styropor; Badische's expandable polystyrene. Rubber World 130:642 Ag '54

Sulfonation of olefins; a δ-sultone from styrene. F. G. Bordwell, F. B. Colton and M. Knell. bibliog Am Chem Soc J 76:3950-2 Ag 5 '54

Sulfonation of olefins; nature and reactions of the intermediate from styrene. F. G. Bordwell, M. L. Peterson and C. S. Rondestvedt, jr. bibliog Am Chem Soc J 76:3945-50 Ag 5 '54

Sulfostyrenes; preparation and polymerization of potassium *p*-vinylbenzenesulfonate. R. H. Wiley, N. R. Smith and C. C. Ketterer. bibliog Am Chem Soc J 76:720-3 F 5 '54

Superficially similar, fundamentally different; Foster Grant styrene. il Chem W 74:28-30 My 1 '54

Ternary liquid-liquid equilibria. L. F. Crooke, jr. and M. Van Winkle. bibliog Ind & Eng Chem 46:1474-7 Jl '54

Thermal initiation of styrene polymerization. K. E. Russell and A. V. Tobolsky. bibliog Am Chem Soc J 75:5052-4 O 20 '53

Thermal properties of polyester resins. T. E. Bockstahler and others. Ind & Eng Chem 46:1639-43 Ag '54

Thermal properties of some butadienestyrene copolymers. G. T. Furukawa and others. bibliog J Res Nat Bur Stand 50:357-65 Je '53

Vapor-liquid equilibria of ethyl-benzene-styrene binary system. W. S. White and M. Van Winkle. bibliog Ind & Eng Chem 46:1284-5 Je '54

Analysis

Determination of polystyrene in styrenated alkyd and styrenated epoxy resins. M. H. Swann. Anal Chem 25:1735-7 N '53

Manufacture

New styrene entry takes different tack; Foster Grant co. flow sheet il diag Chem Eng 61:120+ Jl '54

Plastics, polymer, styrene; Foster Grant new styrene plant. il Chem & Eng N 32:1870-1 My 10 '54

Polystyrene; batchwise mass polymerization method. diag Pet Refiner 32:188-9 N '53

STYRENE oxide

Styrene oxide; a commercial reality. P. W. Sherwood. Chem Age (Lond) 71:81-2 Jl 10 '54; Same. Can Chem Process 38:50+ Jl '54

Wooed and won; Dow's styrene oxide being geared up to commercial production. Chem W 73:34 N 7 '53

STYRENESULFONIC acid

Studies on ion exchange resins; water vapor sorption by cross-linked polystyrenesulfonic acid resins. B. R. Sundheim, M. H. Waxman and H. P. Gregor. bibliog J Phys Chem 57:974-8 D '53

Studies on ion exchange resins; water vapor sorption by polystyrenesulfonic acid. M. H. Waxman, B. R. Sundheim and H. P. Gregor. J Phys Chem 57:969-73 D '53

STYRON

Tile style; color styling for Styron wall tiles. il Chem W 74:82 F 20 '54

STYRYL compounds

Synthetic studies on the colchicine problem; the preparation and properties of some styryltropolones. D. S. Tarbell, R. F. Smith and V. Boekelheide. bibliog Am Chem Soc J 76:2470-3 My 5 '54

Tetrazolium compounds; styryl derivatives. A. W. Nineham, D. L. Pain and R. Slack. Chem Soc J p 1568-71 My '54

SUBCONTRACTING

How to coordinate subcontracting to meet production schedules. G. E. Fouch. Am Mach 98:137-44 F 15 '54

See also
Contracts, Government—Subcontracting

SUBJECT headings

Catholic subject headings. O. L. Kapsner, ed. 3d ed 615p St John's abbey press, Collegeville, Minn. '53 ($8.50)

SUBJECT headings—*Continued*
Preparation of subject-heading lists by automatic punched-card techniques. E. Garfield. diags J Doc 10:1-10 Mr '54
Rules for subject headings, periodicals subject index, Royal institute of British architects library. A. Thompson. J Doc 9:169-74 S '53
Sears list of subject headings. B. M. Frick, ed. 7th ed 589p H. W. Wilson co, New York '54 ($4)

SUBLIMATION
Sublimation curve, vaporization curve, and triple point determination. N. O. Smith and C. M. Costich. diags J Chem Educ 31:421-2 Ag '54

SUBLIMATION, Heat of
Heat of sublimation of graphite and the composition of carbon vapor. G. Glockler. bibliog J Chem Phys 22:159-61 F '54
Several molecular species obscure determination of heat of sublimation for carbon; abstract. W. A. Chupka and M. G. Inghram. Chem & Eng N 32:3847 S 27 '54

SUBLIMATION apparatus
Apparatus for fractional sublimation at normal or reduced pressures. W. Hausmann. diag Anal Chem 26:619-20 Mr '54
Apparatus for sublimation with small temperature differences. L. A. Burkardt. diag Anal Chem 26:1255 Jl '54
Sublimation apparatus for rapid separations. L. N. Pino and W. S. Zehrung, 3d. bibliog diag J Chem Educ 31:476 S '54

SUBMARINE boats
Atom sub launched into test ball. il Eng N 152:26 Ap 1 '54
First atomic sub gets final touches as the keel for a second is laid. il Bsns W p31 S 19 '53
H.M. submarine Explorer; hydrogen-peroxide propelling machinery. il Engineering 177:360 Mr 19 '54
Keel laid for second atomic sub; USS Sea Wolf. il Marine Eng 58:59-60 N '53
Launch first atomic submarine. H. S. Dewey. diag Heating-Piping 26:81 F '54
Launching of the Nautilus. Metal Prog 65:79-80 Mr '54
Power plant of the first atomic submarine; illustrations with text. Power Eng 58:82-3 Mr '54
Submarine to be first user of atomic power. il Iron & Steel Eng 31:110-11 F '54; Excerpt. Marine Eng 59:36-7 Mr '54
Subs will be first; atomic power may be near. il Comp Air Mag 59:19-20 Ja '54
USS Nautilus ushers in atomic age for ships. il Marine Eng 59:34-5 Mr '54
Zirconium; practical commercial production spurred by use in atomic submarine. E. L. Lewis. il Light Metal Age 11:8-9 Je '53

SUBMARINE canyons. See Canyons, Submarine

SUBMARINE detectors
Mechanized production of electronic equipment; submarine detectors. R. L. Henry and C. C. Rayburn. il diag Electronics 26:160-5 D '53

SUBMARINE diving. See Diving, Submarine

SUBMARINE telegraph. See Telegraph, Submarine

SUBMARINE warfare
New British anti-sub plane. il diags Aviation W 59:41 D 21 '53
New Fairchild Petrel missile hunts subs. E. J. Bulban. il Aviation W 59:15 S 21 '53
See also
European war, 1914-1918—Submarine operations
Mine sweepers

SUBMERGED arc welding. See Electric welding, Arc—Submerged arc

SUBMERGED combustion. See Combustion, Submerged

SUBMERGIBLE pumps. See Pumps, Submergible

SUBROGATION of insurer
Conventional subrogation; Commercial standard insurance co. v. American employers insurance co. L. A. Burke. Spectator 162:95 Ap '54
Lloyds wins subrogation action against Kansas City agent. Nat Underw 57:12 Je 18 '53; Discussion. R. E. Lawrie. 57:18 Ag 27 '53
More companies finding it wise to handle subrogation matters in orderly fashion. Nat Underw 57:13+ Jl 23 '53
North Carolina court rules on right of subrogation. Weekly Underw 169:207 Jl 25 '53
Paying coinsurer's share doesn't make insurer volunteer for whole loss; Commercial Standard vs. American Employers. Nat Underw 58:34 F 18 '54
Reinsurers don't pay when direct insurer leaves out clause; Eagle Star case. Nat Underw 58:6 Jl 8 '54
Settle subrogation suit by paying $356,018; Nakat packing corp. case. Weekly Underw 171:228 Jl 31 '54
Settlement by insured held not denial of insurer's right of subrogation. Weekly Underw 170:557 F 27 '54

SUBSCRIPTION television. See Television broadcasting—Subscription programs

SUBSIDENCES (earth movements)
Sinking factory; Ford's Long Beach assembly plant. J. Joseph. il Automotive Ind 110:34-5+ Mr 1 '54

SUBSIDIES
Assistance in adjusting to a tariff reduction. O. R. Reischer. J Bsns 26:103-9 Ap '53
Export subsidies to go. P. Einzig. Comm & Fin Chr 178:1738 N 5 '53
Farm subsidy headache. F. R. Walters. Mag of Wall St 92:602-3+ Ag 22 '53
Myth of starvation; food prices. Economist 169:474 N 14 '53
Pressure demands for government aid. J. Vincent. Mag of Wall St 93:302-4+ D 12 '53
Standstill for export subsidies? Economist 169:360 O 31 '53
Subsidies, not tariffs. Bsns W p 166 N 28 '53
See also
Airlines—Subsidies
Ship subsidies

SUBSTANDARD risks. See Insurance, Accident—Substandard risks

SUBSTITUTION (chemistry)
Catalytic debenzylation; the influence of α-substitution on the ease of hydrogenolysis. R. Baltzly and P. B. Russell. bibliog Am Chem Soc J 75:5598-602 N 20 '53
Cationic substituents in aromatic nucleophilic substitution. B. A. Bolto and J. Miller. bibliog Chem & Ind p640 Je 27 '53
Conjugated double bonds in aromatic nucleophilic substitution. R. L. Heppolette and others. Chem & Ind p904 Jl 17 '54
Free radical aromatic substitution; the relative reactivities of benzene, benzonitrile and methyl benzenesulfonate toward phenyl radical attack. R. L. Dannley and E. C. Gregg, jr. bibliog Am Chem Soc J 76:2997-3000 Je 5 '54
Homolytic aromatic substitution; partial rate factors for the phenylation of diphenyl. J. I. G. Cadogan, D. H. Hey and G. H. Williams. Chem Soc J p794-7 Mr '54
Isomeric thiophthens and their ethyl homologues; the orientation of derivatives of liquid thiophthen (thiopheno-2′ : 3′ : 2 : 3-thiophen). F. Challenger and B. Fishwick. bibliog Inst Pet J 39:220-36 Ap '53
Kinetics and products of bimolecular substitution reactions of sodium phenoxide in methanol. B. D. England. bibliog Chem & Ind p 1145-6 S 11 '54
Mechanism of hydrolysis at carbonyl carbon. C. A. Bunton and others. bibliog Chem & Ind p 1154-5 S 18 '54
Mechanism of substitution at a saturated carbon atom; halide-ion exchange with a simple alkyl halide in sulphur dioxide solution. C. A. Bunton and others. Chem Soc J p642-6 F '54
Mechanism of substitution at a saturated carbon atom; Menschutkin reactions of some simple alkyl halides in sulphur dioxide solution. C. A. Bunton and others. Chem Soc J p647-51 F '54
Mechanism of substitution at a saturated carbon atom; unimolecular Menschutkin reactions in sulphur dioxide solution; remarks on the theory of border-line mechanisms. M. L. Bird, E. D. Hughes and C. K. Ingold. Chem Soc J p634-42 F '54

SUBSTITUTION (chemistry)—*Continued*

Mechanism of substitution reactions in complex ions; kinetics of the reactions of *cis*- and *trans*-chloronitro-bis-(ethylenediamine)-cobalt(III) and aquonitro-bis-(ethylenediamine)-cobalt(III) ions with various reagents in aqueous solutions. F. Basolo and others. bibliog Am Chem Soc J 76:3079-82 Je 5 '54

Molecular compounds; the effect of substituents on the equilibrium constant for complex formation. S. D. Ross, M. Bassin and I. Kuntz. bibliog Am Chem Soc J 76:4176-9 Ag 20 '54

Names for charge-carrying substituent groups. J. F. Bunnett. Chem & Eng N 32:2320 Je 7 '54

Neighbouring groups in substitution and rearrangement; abstract. S. Winstein. Chem & Ind p562-3 My 15 '54

Rates of substitution reactions in oxyanions. J. O. Edwards. bibliog(56 ref) J Chem Educ 31:270-5 My '54

Reaction mechanism of halogenobenzoic acids and halogenonitrobenzenes with nucleophilic reagents. J. Grundy. bibliog Chem & Ind p23 Ja 2 '54

Reductive coupling and polymerization of unsaturated amides; effect of substituents. H. R. Snyder and R. E. Putnam. bibliog Am Chem Soc J 76:1893-8 Ap 5 '54

Sodium carboxymethylcellulose; determination of degree of substitution active agent. C. V. Francis. bibliog Anal Chem 25:941-3 Je '53

Steric course of heterolytic elimination; abstract. E. D. Hughes. Chem & Ind p569 My 15 '54

Steric effects in nucleophilic substitution; abstract. P. B. D. de la Mare. Chem & Ind p569-70 My 15 '54

SUBURBAN development

Do tract-house suburbanites want back yard living? il House & Home 4:152-3+ S '53

Land planning is worth it. U. A. Denker. il plan Am Bld 76:125-8 F '54

Sanitation problems in a suburban area; Jackson county, Mo. J. K. Smith. Pub Health Rep 68:1161-6 D '53

See also
Land—Subdivision

SUBWAY cars. See Cars, Subway

SUBWAYS

See also
New York (city)—
Subways

Belt conveyors (passenger)

Passenger-belt subway system. il Mech Eng 75:493 Je '53

Traveling belt for human loads. Comp Air Mag 59:114 Ap '54

Construction

Completion of Canada's first rapid-transit subway. il plan diags Roads & Eng Constr 91:87-104+ D '53

Problems in maintaining public-utility services during construction of Toronto subway. R. L. Clark. il plans Munic Util 92:56-9+ Ap '54

Subway builder underpins theater floors on ground. il diags Eng N 151:37-8+ D 17 '53

Drainage

Sanitary and storm drainage problems on Toronto's new subway. il diag Munic Util 91:15-16+ D '53

Electric equipment

Features of Toronto's rapid transit subway of interest to electric-utility engineers. il Munic Util 92:30-3+ My '54

Power

Equipment operation and control in Toronto's rapid-transit subway. il Munic Util 92:39-40+ Mr '54

Ventilation

Improved ventilation of London tube railways. Engineering 176:712 D 4 '53

SUCCESS

These men made a success of business for themselves. Chem Eng 60:171-6 Jl '53

SUCCINAMIDE

Synthesis of δ-succinamidolœvulic acid and related compounds. A. Neuberger and J. J. Scott. Chem Soc J p 1820-5 Je '54

SUCCINATES

Mechanism of the enzymatic synthesis of succinyl CoA. S. Kaufman and S. G. A. Alivisatos. bibliog Am Chem Soc J 76:2279-80 Ap 20 '54

SUCCINIC acid

Preparation of the monocholine ester of succinic acid and some related derivatives. A. P. Phillips. Am Chem Soc J 75:4725-7 O 5 '53

Reactions of hindered α-substituted succinic acids; further reactions involving the Wagner-Meerwein rearrangement. W. R. Vaughan and R. Q. Little, jr. Am Chem Soc J 76:4130-4 Ag 20 '54

Reactions of hindered α-substituted succinic acids; mechanism of the reaction of the haloacids with bases. W. R. Vaughan and R. Q. Little, jr. bibliog Am Chem Soc J 76:2952-6 Je 5 '54

Reactions of hindered α-substituted succinic acids; structure of the rearranged acids. W. R. Vaughan, M. V. Andersen, jr. and R. Q. Little, jr. bibliog Am Chem Soc J 76:1748-52 Ap 5 '54

Succinic acid I (butanedioic acid). W. C. McCrone and R. Hites, jr. il diags Anal Chem 26:422 F '54

Analysis

Determination of fumaric, malic, and succinic acids in fermentation broths. N. Lemjakov. Anal Chem 26:1227-8 Jl '54

SUCCINIMIDES

Crystallographic data. R. J. Hinch, jr. and W. C. McCrone. il diags Anal Chem 25:675-6 Ap '53

Studies with *N*-halo reagents. P. F. Kruse, jr., K. L. Grist and T. A. McCoy. bibliog Anal Chem 26:1319-22 Ag '54

SUCCINIMIDINE

Heterocyclic imines and amines. J. A. Elvidge and R. P. Linstead. Chem Soc J p442-8 Ja '54

SUCCINONITRILE

Reactions of succinonitrile; condensation with cyclohexanone in the presence of sodamide. P. E. Fanta and S. Smith. Am Chem Soc J 76:2915-17 Je 5 '54

SUCKER rods

Hollow sucker rods solve paraffin problems. S. A. Gilliard. il World Oil 138:172+ Ja '54

Selection and application of sucker rod pumps. K. N. Mills. il diags Pet Eng 25:B38-40+ S '53

SUCROSE. See Sugar

SUDAN

Economic policy

Sudan develops second five-year works program. For Comm W 50:8 D 7 '53

Politics and government

After Sudan's elections. Economist 169:752 D '5 '53

Impartiality in the Sudan. Economist 170:80+ Ja 9 '54

Next stage in the Sudan. Economist 169:734-5 D 5 '53

See also
Elections—Sudan

SUEZ canal

Alternatives on the Canal. Economist 169:9-10 O 3 '53

SUFFICIENCY rating. See Roads—Sufficiency rating

SUGAR

Biosynthesis of sucrose. L. F. Leloir and C. E. Cardini. bibliog Am Chem Soc J 75:6084 D 5 '53

Diffusion in sugar solutions; diffusion of sucrose in glucose solutions as solvent. D. M. Clarke and M. Dole. bibliog Am Chem Soc J 76:3745-51 Jl 20 '54

Evidence for pentavalent uranium as an intermediate in the reaction in water between photoactivated uranyl ions and sucrose and closely related substances, and quantum yields for these reactions. L. J. Heidt and K. A. Moon. bibliog Am Chem Soc J 75:5803-9 D 5 '53

SUGAR—*Continued*

Phase equilibria in sugar solutions; ternary systems of water-sucrose-hexose. F. H. C. Kelly. J Ap Chem 4:405-7 Ag '54

Phase equilibria in sugar solutions; ternary systems of water-sucrose-inorganic salts. F. H. C. Kelly. bibliog J Ap Chem 4:401-4 Ag '54

Sugar types and uses. D. Quinlan. Food Eng 26:85-6 Je '54

Sugar units in certain lignins; abstract. P. Traynard and A. M. Ayroud. Paper Ind 36:412 Jl '54

Tubed sugar service; new development in unit packaging. il Mod Packaging 27:102-3 Ap '54

See also

Sugars

Color

Calculation of the integral attenuation index between 400 and 700 millimicrons. F. W. Zerban and L. Sattler. bibliog Anal Chem 26:1363-5 Ag '54

Manufacture and refining

Beet sugar refining in the U.S.A. Chem Age (Lond) 68:709-12 My 9 '53

Continuous processing of beet sugar at Quebec government's sugar refinery. R. Leduc. flow sheet il diag Can Chem Process 38:24+ Ap '54

Granular adsorbents for sugar refining. E. P. Barrett, A. Jonnard and J. H. Messmer. diag Ind & Eng Chem 45:1524-6 Jl '53

New recorder improves processing of sugar. Elec Eng 73:189 F '54

Taking cake out of sugar; Holly sugar corp. il Food Eng 26:66 Mr '54

Triple threat; new ion-exchange process for sugar purification. Chem W 75:41 Jl 17 '54

Transportation

Chemical engineering in the food industry; bulk storage and transport of sugar. E. T. Moss. il Chem & Ind p 1189-94 S 25 '54

Sweet ship for sugar trade. il Marine Eng 59:41+ Mr '54

Western Pacific converts box cars to hoppers to haul sugar in bulk. il Ry Age News ed 135:26-7 N 23 '53

SUGAR, Liquid

Liquid sugar cools dough; Fischer baking co. C. Walker and F. Schoen, jr. il Food Eng 26:63+ Ap '54

SUGAR analysis

Anthrone in the estimation of hexose sugars. R. Johanson. bibliog il Anal Chem 26:1331-3 Ag '54

Chromatographic separation of sugars with hydrocellulose. J. D. Geerdes and others. bibliog diag Anal Chem 26:264-6 F '54

Determination of inorganic constituents in sucrose solutions. A. Gee, L. P. Domingues and V. R. Deitz. bibliog Anal Chem 26:1487-91 S '54

Dipping technique for revealing sugars on paper chromatograms. G. Harris and I. C. MacWilliam. bibliog Chem & Ind p249 F 27 '54

Infrared spectra of sugar anomers. R. L. Whistler and L. R. House. Anal Chem 25:1463-5 O '53

Interconversion of aldose and ketose sugars effected by alkaline impurities in the paper of a chromatogram. R. B. Duff. Chem & Ind p898-9 Ag 22 '53

Measurement of retention of locust bean gum by analysis of sugar units. H. J. Leech. bibliog Tappi 37:290-4 Jl '54

Separation of D-glucose and D-fructose from invert sugar or sucrose. F. Smith and D. Spriestersbach. Am Chem Soc J 76:4191-2 Ag 20 '54

Specific color reaction for sugars. H. Tauber. Anal Chem 25:826 My '53

Spectrophotometric modification of the cuprous oxide method for determining sugars. M. E. Hobbs and F. L. Layton. bibliog Anal Chem 26:585-6 Mr '54

See also

Beets and beet sugar
—Analysis
Glucose—Analysis

SUGAR cane

Amino acid status of sugar cane; abstract. L. F. Wiggins. Chem & Eng N 32:3835 S 27 '54

Starch in cane; abstract. R. T. Balch. Chem & Eng N 32:3835 S 27 '54

See also

Bagasse

Analysis

Identification and determination of non-nitrogenous organic acids of sugar cane by partition chromatography. E. J. Roberts and L. F. Martin. bibliog Anal Chem 26:815-18 My '54

SUGAR cane technologists, International society of. See International society of sugar cane technologists

SUGAR factories

See also

Sugar—Manufacture
and refining

Electric equipment

Home grown sugar. il Elec J 151:1744-6 N 27 '53

Equipment

Descaling of evaporator heating surfaces in cane sugar factories. N. O. Schmidt and L. F. Wiggins. il Ind & Eng Chem 46:867-70 My '54

Trackless train spurts plant performance; American sugar refining co. il Food Eng 25:129 D '53

SUGAR handling

Bulk sugar by trailer; American sugar refining co. il Food Eng 26:71+ F '54

Chemical engineering in the food industry; bulk storage and transport of sugar. E. T. Moss. il Chem & Ind p 1189-94 S 25 '54

Sugar thrower. il Engineer 196:751-2 D 4 '53

When and how to handle sugar in bulk; panel discussion. Food Eng 26:66-8 Je '54

SUGAR industry and trade

New packages put new life into C and H sugar sales story. R. I. Herndon. il Sales Management 73:90-2+ Jl 15 '54

Protection for free sugar. Economist 168:130 Jl 11 '53

Protection for free sugar; International sugar agreement. Economist 169:979 D 26 '53

Shelter for sugar's Cinderellas. Economist 168:583-5 Ag 29 '53

Statistics

Sugar, 1949-1952. Survey of Cur Bsns 1953 Sup p 147-8 [supplemented in monthly numbers]

Bolivia

Sugar mill contract announced in Bolivia. For Comm W 50:16 Ag 24 '53

Great Britain

Cheaper Commonwealth sugar. Economist 169:686 N 28 '53

Decontrolling sugar. Economist 168:879 S 26 '53

U.K. derations sugar, eases price and use. For Comm W 50:14 N 9 '53

Unrationed sugar. Economist 169:52 O 3 '53

SUGAR research

New boost for sugar; prospects as significant chemical raw material. Chem W 75:49 S 11 '54

Nonsugars in sugar liquors; abstract. L. G. Joyner. Chem & Eng N 32:3835 S 27 '54

Research in sugar chemistry at Imperial college of tropical agriculture, Trinidad. Chem Age (Lond) 70:993 My 1 '54

Sugar research foundation grants $200,000 for 1954-55. Chem & Eng N 32:2274+ Je 7 '54

SUGARS

Action of acid on 2,7-anhydro-β-D-*altro*-heptulopyranose. L. P. Zill and N. E. Tolbert. bibliog Am Chem Soc J 76:2929-33 Je 5 '54

Action of lead tetra-acetate on sugar mercaptals. E. J. Bourne and others. bibliog Chem & Ind p 106-7 Ja 23 '54

Acyclic derivatives of amino-sugars. M. W. Whitehouse, P. W. Kent and C. A. Pasternak. Chem Soc J p2315-17 Jl '54

Adaptive behaviour of coliform bacteria to certain sugars. N. M. Mims and C. Hinshelwood. Chem Soc J p3167-70 O '53

SUGARS—*Continued*

Chemical interactions of amino compounds and sugars; influence of water. M. L. Wolfrom and C. S. Rooney. Am Chem Soc J 75:5435-6 N 5 '53

Chemical production of lactic and other acids from molasses; alkaline degradation of sugars. R. Montgomery. bibliog(54 ref) Ind & Eng Chem 45:1144-7 My '53

Cyclic di(ethylsulphonyl) derivatives of D-galactose, D-glucose and D-mannose. L. Hough and T. J. Taylor. Chem & Ind 1018-19 Ag 14 '54

Determination of carbon 14 in the terminal positions of sugars; preparation of D-arabinose-5-C^{14} from D-fructose-1,6-C^{14}. H. L. Frush and H. S. Isbell. J Res Nat Bur Stand 51:167-70 O '53

Diffusion measurements at 25°, of aqueous solutions of amino acids, peptides and sugars. L. G. Longsworth. bibliog Am Chem Soc J 75:5705-9 N 20 '53

Direction of ring-opening of 2 : 3-anhydrosugars. R. C. Cookson. bibliog Chem & Ind p223-4 F 20 '54

Explosive properties of sugar dusts. R. L. Meek and J. M. Dallavalle. bibliog diags Ind & Eng Chem 46:763-6 Ap '54

Optical and crystallographic properties of sucrose hemiheptahydrate. F. T. Jones and F. E. Young. il Anal Chem 26:421 F '54

Phase equilibria in sugar solutions. F. H. C. Kelly. bibliog J Ap Chem 4:401-13 Ag '54

Preparation of sugar nitrates. J. Honeyman and J. W. W. Morgan. Chem & Ind p 1035 S 26 '53

Rare sugars. Ind & Eng Chem 45:sup 11A+ D '53

Reactions of anhydrosugars of the ethylene oxide type. A. K. Bose and others. bibliog Chem & Ind p869-70, 1257-8 Ag 15, N 21 '53

Sequestration by sugar acids. C. L. Mehltretter, B. H. Alexander and C. E. Rist. bibliog Ind & Eng Chem 45:2782-4 D '53

Shortening the carbon chain of sugars. A. S. Perlin. Am Chem Soc J 76:2595 My 5 '54

Structure and reactivity of anhydro-sugars; branched-chain sugars; action of diethylmagnesium on methyl 2 : 3-anhydro-4 : 6-*O*-benzylidene-α-D-mannoside. A. B. Foster and others. Chem Soc J p3308-13 O '53

Synthesis of acetobromo sugars. P. G. Scheurer and F. Smith. bibliog Am Chem Soc J 76:3224 Je 20 '54

See also

Aldoses	Isomaltose
Arabinose	Kestose
Beets and beet sugar	Pentoses
Carbohydrates	Polysaccharides
Fermentation	Ribose
Fructose	Sugar
Glucose	Xylose

Analysis

See Sugar analysis

SUGGESTION systems

Argus revives suggestion plan. D. G. Baird. il Am Bsns 23:30+ N '53

Comptroller looks at the suggestion system. P. C. Salman. Management R 43:453-6 Jl '54

Diary and the suggestion system; abstract. W. W. E. Ash, jr. Paper Tr J 137:58 D 11 '53

Employee suggestions; one key to a company's success. W. G. Waggoner. Advanced Management 19:21-2 Je '54

Employe suggestions, powerful management tools. W. S. Wilcox. il Mill & Factory 55: 105-7 S '54

Golden memos for the boss. Management R 43:18-19 Ja '54

How to run a successful suggestion system. D. J. Wood. Mill & Factory 54:75-8 Ja '54

Ideas stop accidents. H. Johnson. il Safety Maint & Prod 108:11-13 Ag '54

Nose for safety; George S. Kurtz. il Nat Safety N 69:66 Ja '54

Promoting employe suggestions. il Mill & Factory 53:127 N '53

Suggestion by Massachusetts Mutual employe wins $1,000 award. Nat Underw (Life ed) 57:9 D 11 '53

Suggestion plan with a three-way payoff. W. M. Halliday. Factory Management 112:119 F '54

Suggestion system pays multiple dividends; National biscuit co. I. C. Miller. flow chart il Food Eng 26:47-51+ Mr '54

Suggestions save firm $3,800,000; Consolidated-Vultee aircraft corp. H. Waterman. il Am Bsns 24:22+ Mr '54

What are suggestion systems for? W. S. Wilcox. Personnel 30:382-5 Mr '54

What makes suggestion plans work? V. H. Rotroff. Am Mach 98:144 Jl 19 '54

Wide-ranging ideas from bank suggestion systems. D. R. Hassell. il Burroughs Clearing House 38:34-5+ N '53

SULFADIAZINE

Acetylation of some sulfapyrimidines. J. B. Ziegler and A. C. Shabica. bibliog Am Chem Soc J 76:594-5 Ja 20 '54

SULFAMATES

Decomposition of nitrosyl disulfonate ion; the reaction of sulfamate ion with nitrous acid. J. C. M. Li and D. M. Ritter. bibliog Am Chem Soc J 75:5828-30 D 5 '53

SULFAMIC acid

N-cycloalkyl- and N,N-polymethylenesulfamic acids. F. F. Blicke, H. E. Millson, jr. and N. J. Doorenbos. Am Chem Soc J 76:2498-9 My 5 '54

SULFANILAMIDE

Analogs of pteroylglutamic acid; N^1-(pteridyl-2)-sulfanilamides. M. J. Fahrenbach and others. bibliog Am Chem Soc J 76:4006-10 Ag 5 '54

SULFAPYRIMIDINE. See Sulfadiazine

SULFAQUINOXALINE

Use of enzymes in sulfa drug analysis. C. R. Szalkowski and W. J. Mader. Science 118: 364 S 25 '53

SULFATES

Acetylation reactivity of cellulose containing salts. C. J. Malm and others. Ind & Eng Chem 46:557-61 Mr '54

Effect of cuprous iodide on the iodometric determination of iron in presence of sulfate. E. W. Hammock and E. H. Swift. Anal Chem 25:1113-14 Jl '53

Metabolism of sulphate-reducing bacteria, with special reference to industrial sulphate-reduction from molecular hydrogen; abstract and discussion. J. Senez. Chem & Ind p540-1 My 8 '54

Raw materials for bacterial sulphate-reduction; abstract. K. R. Butlin and S. L. Thomas. Chem & Ind p540; Discussion. 541 My 8 '54

See also

Alkyl sulfates

Thiosulfates

Analysis

Determination of sulfite and sulfate (as sodium sulfate) in sodium petroleum sulfonates. B. E. Gordon and R. S. Urner. bibliog diag Anal Chem 25:897-901 Je '53

High-frequency titration of micro quantities of chloride and sulfate. G. S. Bien. Anal Chem 26:909-11 My '54

Improvements in the determination of small amounts of sulphur. D. M. Fitzgerald. bibliog(32 ref) J Ap Chem 4:490-6 S '54

Indirect titrimetric determination of the sulphate ion using ethylenediamine tetraacetic acid. R. Belcher and others. Chem & Ind p850-1 Jl 10 '54

Recrystallization of barium sulfate from fused salts. M. Gallant, G. J. Schmitt and J. Steigman. bibliog Anal Chem 26:846-9 My '54

Titrimetric determination of sulfates by diazo titration of benzidine sulfate. R. E. Keller and R. H. Munch. bibliog Anal Chem 26: 1518-19 S '54

SULFATION

Chemical engineering unit processes; sulfonation and sulfation. E. E. Gilbert and E. P. Jones. il Ind & Eng Chem 45:2041-64 bibliog(551 ref, p2058-64); 46:1895-912 bibliog(464 ref, p 1908-12) S '53, S '54

Fluidized-bed sulfate roasting of nonferrous metals. F. M. Stephens, jr. il Chem Eng Prog 49:455-8 S '53

Sulfonation and sulfation with sulfur trioxide. E. E. Gilbert and others. bibliog(60 ref) diags Ind & Eng Chem 45:2065-72 S '53

SULFENAMIDES

Vulcanization characteristics of a series of 4-methyl-5-substituted-2-thiazolethiols and their derivatives. K. E. Creed, jr. and others. bibliog(26 ref) Ind & Eng Chem 46:808-16 Ap '54

SULFENIC acids

Derivatives of sulfenic acids; 2,4-dinitrobenzenesulfenium ion. N. Kharasch, C. M. Buess and W. King. bibliog Am Chem Soc J 75:6035-8 D 5 '53

Derivatives of sulfenic acids; studies of α-nitro sulfides. M. B. Sparke, J. L. Cameron and N. Kharasch. bibilog Am Chem Soc J 75:4907-10 O 20 '53

Derivatives of sulfenic acids; the reaction of 2,4-dinitrobenzenesulfenyl chloride with styrene. W. L. Orr and N. Kharasch. bibliog Am Chem Soc J 75:6030-5 D 5 '53

SULFHYDRYL compounds. See Mercapto compounds

SULFHYDRYL group. See Mercapto group

SULFIDES

α,β-Unsaturated sulfides; the reaction of thiophenol with certain ketones. E. Campaigne and J. R. Leal. bibliog Am Chem Soc J 76:1272-5 Mr 5 '54

Arylamine sulfide catalysts in reclaiming GR-S vulcanizates. F. J. Webb and others. bibliog(41 ref) Ind & Eng Chem 46:1711-15 Ag '54

Derivatives of sulfenic acids; studies of α-nitro sulfides. M. B. Sparke, J. L. Cameron and N. Kharasch. bibliog Am Chem Soc J 75:4907-10 O 20 '53

Diffusion currents at cylindrical electrodes; a study of organic sulfides. M. M. Nicholson. bibliog Am Chem Soc J 76:2539-45 My 5 '54

Formation and dissolution of metal sulfides. H. A. Pohl. Am Chem Soc J 76:2182-4 Ap 20 '54

Mechanism of vulcanization of polysulfide rubbers. E. M. Fettes, J. S. Jorczak and J. R. Panek. bibliog Ind & Eng Chem 46:1539-41 Jl '54

Preparation and properties of dialkyl di- and poly-sulphides; some disproportionation reactions. S. F. Birch and others. bibliog Inst Pet J 39:206-19 Ap '53

Spectra and molecular refraction for some unsaturated sulfides, sulfoxides and sulfones. C. C. Price and R. G. Gillis. Am Chem Soc J 75:4750-3 O 5 '53

Theoretical considerations for the microbial production of sulphide; abstract. J. R. Postgate. Chem & Ind p539-40; Discussion. 541 My 8 '54

Use of polysulfides in cooking maritime pinewood; abstract. R. Berthier. Paper Ind 35:921-2 N '53

Analysis

Auxiliary pretreatment by zinc acetate in sulfide analyses. R. Pomeroy. Anal Chem 26:571-2 Mr '54

Polarography of certain organic polysulfides. J. H. Karchmer and M. T. Walker. bibliog Anal Chem 26:271-80 F '54

Qualitative spot test for sulfides. P. K. Mueller and M. C. Rand. Sewage & Ind Wastes 25:1405 D '53; Same. Water & Sewage Works 101:R208 pt 2 My '54

Two techniques for determination of organic sulfides. W. H. Houff and R. D. Schuetz. bibliog Anal Chem 25:1258-9 Ag '53

SULFITE liquor

Chemical cover crop; Orzan as wind erosion preventive. il Chem W 74:64 Je 12 '54

Conquering cellulose complexities; abstract. I. E. Jullander. Chem & Eng N 32:2976 Jl 26 '54

Density, viscosity, specific heat, thermal conductivity and Prandtl number versus concentration and temperature; sulphite waste liquor. R. E. Hunter and others. bibliog(26 ref) Tappi 36:493-7 N '53

Design and effectiveness of an underwater diffusion line for the disposal of spent sulphite liquor; Columbia River paper mills. H. R. Amberg and A. G. Strang. maps Tappi 37:307-13 Jl '54

Dr Schulze experiments with waste liquor disposal. Paper Tr J 138:26 Jl 23 '54

Filtering process studied as possible solution to stream pollution problem; spent sulfite liquor. il Paper Ind 35:1107 Ja '54

Filtering sulfite liquor helps to abate pollution. G. K. Dickerman. Chem Eng 61:385-6 Ap '54

Foam formation in sulfite spent liquors; abstract. T. Kleinert and M. Ruck-Floriantschitsch. Paper Ind 36:216 My '54

Liquor and by-products recovery. flow diag Paper Ind 36:152-3 My '54

Loddby cyclone burner; new system for burning waste calcium-base sulphite liquor. T. Simmons. diags Pulp & Pa of Can 55:108-10 Ja '54

Possible processes for recovering soda and sulphur from semichemical and acid sulphite waste liquors. G. Haywood. Tappi 37:sup 134A-6A F '54

Precipitation of sulfite waste liquor; abstract. T. N. Kleinert. Paper Ind 36:491 Ag '54

Profitable squeeze; sulfite liquor roadbinder. il Chem W 74:56+ My 29 '54

Recovery method for sodium base sulphite liquor. L. K. Bickell and G. D. Trethewey. flow sheets Pulp & Pa of Can 54:110-16 D '53

Spent sulphite liquor filtered through bark. Paper Tr J 137:12 N 20 '53

Sulphite spent liquor; ammonia recovery from ammonium sulphite spent liquor by ion exchange processes. A. E. Markham and J. L. McCarthy. bibliog diags Tappi 37:355-63 Ag '54

Thermal compression evaporator for spent sulphite liquor. D. Craig and others. flow diag il Pulp & Pa of Can 55:97-102 Ap '54

World's largest anti-pollution evaporator started by Northern. il Paper Ind 35:867-8 N '53

Analysis

Polarographic determination of dissolved oxygen in dilute sulfite waste liquor. H. S. Levine and O. J. Williams. bibliog Anal Chem 26:1297-302 Ag '54

Bibliography

Utilization of sulphite waste liquor; bibliography of the literature published during 1952. H. B. Marshall and J. M. Neate. Tappi 37:sup 156A-76A Ja '54

Utilization of sulphite waste liquor, bibliography of the literature published during 1953. H. B. Marshall and J. M. Neate. Tappi 37:sup 174A-90A Ag '54

SULFITE process. See Paper making—Sulfite process

SULFITES

Decomposition of nitrosyl disulfonate ion; the reaction with sulfite ion. J. C. M. Li and D. M. Ritter. bibliog Am Chem Soc J 75:5831-3 D 5 '53

Effect of surface-active agents on the rate of solution of sulphur in sulphite solutions. G. I. P. Levenson. J Ap Chem 4:13-18 Ja '54

Laboratory studies on the coagulation of spent sulfite wastes; abstract. J. Gańczarczyk and J. Domański. Sewage & Ind Wastes 26:930-1 Jl '54

Pyrolysis of sulfites; glycol sulfites. C. C. Price and G. Berti. bibliog Am Chem Soc J 76:1211-13 Mr 5 '54

Pyrolysis of sulfites; methyl alkyl sulfites; a new method for the preparation of olefins. G. Berti. bibliog Am Chem Soc J 76:1213-19 Mr 5 '54

Pyrolysis of sulfites; symmetrical sulfites. C. C. Price and G. Berti. bibliog Am Chem Soc J 76:1207-10 Mr 5 '54

Analysis

Determination of sulfite and sulfate (as sodium sulfate) in sodium petroleum sulfonates. B. E. Gordon and R. S. Urner. bibliog diag Anal Chem 25:897-901 Je '53

New additive eases the testing for excess sulfite in boiler water. W. D. Turner. il Power 98:112-13 Je '54

SULFONAMIDES

Base-catalyzed decomposition of substituted α-(benzenesulfonamido)-carboxylic acids and their acyl chlorides. R. H. Wiley and R. P. Davis. Am Chem Soc J 76:3496-9 Jl 5 '54

Gerhard Domagk and chemotherapy. R. E. Oesper. J Chem Educ 31:188-91 Ap '54

SULFONAMIDES—*Continued*

Preparation and properties of trimethylamine-*p*-toluenesulfonimide. S. Wawzonek and D. Meyer. bibliog Am Chem Soc J 76:2918-20 Je 5 '54

Quinone imides; reactions of 1,4-naphthoquinonedibenzenesulfonimide with pyridine and its derivatives. R. Adams and S. H. Pomerantz. bibliog Am Chem Soc J 76:702-6 F 5 '54

Reactions of organic derivatives of elements capable of valency-shell expansion; reactions of propenedisulphonamides. D. C. Nicholson and E. Rothstein. Chem Soc J p4004-12 D '53

Some adsorption colors and their significance for thermochromic and tautomeric effects; experiments with 1,3-diketohydrindene derivatives and with 1,4-quinonedibenzenesulfonimides. A. Schönberg, A. Mustafa and W. Asker. bibliog Am Chem Soc J 75:4645-7 O 5 '53

Some sulfonamide plasticizers and waxes. D. Aelony. bibliog Ind & Eng Chem 46:587-91 Mr '54

Synthesis of N,N-bis-(β-diethylaminoethyl)-amine and some N-substituted alkanesulfonamides. L. J. Sacco, jr. and others. Am Chem Soc J 76:303-5 Ja 5 '54

SULFONATES

Alkyl aryl sulfonates; manufacturing process. diag Pet Refiner 32:190-1 N '53

Chloroform extraction of ferrous-dipyridyl and *O*-phenanthroline complexes with the aid of alkyl sulphates and sulphonates. R. Powell and C. G. Taylor. Chem & Ind p726-7 Je 19 '54

Neutral and basic sulfonates. H. R. Baker, C. R. Singleterry and E. M. Solomon. bibliog Ind & Eng Chem 46:1035-42 My '54

Petroleum sulfonate flotation of beryl. S. M. Runke. bibliog U S Bur Mines Rep of Invest 5067:1-19 '54

Sulfonic acid esters as alkylating agents; formation of 2-oxazolines. R. N. Boyd and R. H. Hansen. bibliog Am Chem Soc J 75:5896-7 D 5 '53

Synthesis of phosphonic acids from alcohols via sulfonate esters. T. C. Myers, S. Preis and E. V. Jensen. bibliog Am Chem Soc J 76:4172-3 Ag 20 '54

Trichloromethyl arenethiolsulfonates. C. Lo, H. F. Wilson and W. J. Croxall. bibliog Am Chem Soc J 76:1704-5 Mr 20 '54

Manufacture

Alkyl aryl sulfonate synthetic detergent; pictured flowsheet. il Chem Eng 61:372-5 Je '54

Production of sulfonates. Soap & San Chem 29:91+ F '53

SULFONATION

Chemical engineering unit processes; sulfonation and sulfation. E. E. Gilbert and E. P. Jones. il Ind & Eng Chem 45:2041-64 bibliog(551 ref, p2058-64); 46:1895-912 bibliog(464 ref, p 1908-12) S '53, S '54

Fashioned for purity; production of salt-free detergent sulfonates. il Chem W 75:48-51 Jl 31 '54

Processing with liquid SO_3. diag Chem Eng 61:124+ Ag '54

Solutions in sulphuric acid; the sulphonation of some unsaturated aromatic ketones in sulphuric acid. R. J. Gillespie and J. A. Leisten. Chem Soc J p7-12 Ja '54

Sulfonation and sulfation with sulfur trioxide. E. E. Gilbert and others. bibliog (60 ref) diags Ind & Eng Chem 45:2065-72 S '53

Sulfonation of alcohols. Soap & San Chem 29:99 N '53

Sulfonation of detergent alkylates. J. E. Kircher, E. L. Miller and P. E. Geiser. bibliog flow diag il Ind & Eng Chem 46:1925-30 S '54

Sulfonation of olefins; a δ-sultone from styrene. F. G. Bordwell, F. B. Colton and M. Knell. bibliog Am Chem Soc J 76:3950-2 Ag 5 '54

Sulfonation of olefins; formation of a cyclic sulfonate-sulfate anhydride intermediate. F. G. Bordwell and M. L. Peterson. bibliog Am Chem Soc J 76:3952-6 Ag 5 '54

Sulfonation of olefins; nature and reactions of the intermediate from styrene. F. G. Bordwell, M. L. Peterson and C. S. Rondestvedt, jr. bibliog Am Chem Soc J 76:3945-50 Ag 5 '54

Sulfonation of olefins; stereochemistry of the reaction with cyclopentene and cyclohexene. F. G. Bordwell and M. L. Peterson. bibliog Am Chem Soc J 76:3957-61 Ag 5 '54

Sulphonation of wood lignin. G. A. Richter and L. H. Pancoast, jr. bibliog Tappi 37:263-72 Je '54

SULFONES

Copolymerization characteristics and spectra of phenyl vinyl sulfide and sulfone. C. C. Price and H. Morita. bibliog Am Chem Soc J 75:4747-50 O 5 '53

Friedel-Crafts alkylation of aromatic compounds with vinyl sulfones. W. E. Truce, J. A. Simms and H. E. Hill. bibliog Am Chem Soc J 75:5411-13 N 5 '53

Grignard reagents of sulfones; reactions with carbonyl compounds. L. Field and J. W. McFarland. bibliog Am Chem Soc J 75:5582-6 N 20 '53

Itaconic acid derivatives of 4-aminophenyl (alkyl or aryl) sulfone. P. L. Paytash, M. J. Thompson and W. B. Clarke. Am Chem Soc J 76:3500-1 Jl 5 '54

Metalation of dialkyl sulfones. W. E. Truce and K. R. Buser. Am Chem Soc J 76:3577-9 Jl 5 '54

Metalation of diaryl sulfones; phenyl *p*-tolyl sulfone and dimesityl sulfone. W. E. Truce and O. L. Norman. bibliog Am Chem Soc J 75:6023-5 D 5 '53

Preparation and properties of some organosilicon sulfides and sulfones. G. D. Cooper. bibliog Am Chem Soc J 76:3713-16 Jl 20 '54

Spectra and molecular refraction for some unsaturated sulfides, sulfoxides and sulfones. C. C. Price and R. G. Gillis. Am Chem Soc J 75:4750-3 O 5 '53

Structure of propylene polysulfone. C. S. Marvel and E. D. Weil. bibliog Am Chem Soc J 76:61-9 Ja 5 '54

Synthesis of β-amino-sulphones and αβ-unsaturated sulphones. M. Balasubramanian and V. Baliah. Chem Soc J p 1844-7 Je '54

SULFONIC acids

Alkanesulfonic acid anhydrides. L. Field and P. H. Settlage. bibliog Am Chem Soc J 76:1222-5 Mr 5 '54

Chemistry of sultones and sultams. A. Mustafa. Chem R 54:195-223 bibliog(p221-3) Ap '54

Optical bleaching agents; derivatives of dichlorodiaminostilbenedisulfonic acid. D. W. Hein and E. S. Pierce. bibliog Am Chem Soc J 76:2725-31 My 20 '54

Some surface properties of decosyltrimethylammonium bromide, and of docosane-1-sulphonic acid and its sodium salt. F. G. Holliman, J. F. Largier and F. Sebba. Chem Soc J p738-40 F '54

Unsaturated sulfonic acids; bromination and brominolysis of *p*-substituted 2-phenylethene-1-sulfonic acid derivatives. C. S. Rondestvedt, jr. and J. C. Wygant. bibliog Am Chem Soc J 76:509-15 Ja 20 '54

Unsaturated sulfonic acids; preparation and properties of α-bromoalkenesulfonyl chlorides. C. S. Rondestvedt, jr. bibliog Am Chem Soc J 76:1926-9 Ap 5 '54

6-Uracilsulfonic acid, a sulfonic acid analog of orotic acid. S. B. Greenbaum and W. L. Holmes. bibliog Am Chem Soc J 76:2899-902 Je 5 '54

Variation on a theme; new dye intermediates and whiteners from dichlorodiaminostilbenedisulfonic acids. Chem W 74:54 Je 12 '54

SULFONIMIDES. See Sulfonamides

SULFONIUM compounds

Occurrence of a methylsulphonium derivative of methionine-(α-aminodimethyl-γ-butyrothetin) in asparagus. F. Challenger and B. J. Hayward. bibliog Chem & Ind p729-30 Je 19 '54

SULFONYL chlorides

Friedel-Crafts cyclization of ω-(α-naphthyl)-1-alkanesulfonyl chlorides. W. E. Truce and G. A. Toren. bibliog Am Chem Soc J 76:695-8 F 5 '54

SULFONYL chlorides—*Continued*

Novel rearrangement of hydroxamic acids using sulfonyl chlorides. C. D. Hurd and L. Bauer. bibliog Am Chem Soc J 76:2791-2 My 20 '54

Unsaturated sulfonic acids; preparation and properties of α-bromoalkenesulfonyl chlorides. C. S. Rondestvedt, jr. bibliog Am Chem Soc J 76:1926-9 Ap 5 '54

Spectra

Cl in SO_2Cl pure quadrupole spectra. P. J. Bray and D. Esteva. J Chem Phys 22:570-1 Mr '54

SULFONYL compounds

p-[(2-Amino-4-hydroxy-6-pteridylmethyl)-*p′*-nitrobenzenesulfonylamino]-benzoic acid and intermediates. B. J. Magerlein and D. I. Weisblat. Am Chem Soc J 76:1702-3 Mr 20 '54

SULFONYL fluorides

Diels-Alder reactions with arylethenesulfonyl fluorides. W. E. Truce and F. D. Hoerger. Am Chem Soc J 76:3230-2 Je 20 '54

SULFOXIDES

Kinetics of the oxidation of phenyl sulfoxide. H. H. Szmant, H. F. Harnsberger and F. Krahe. bibliog Am Chem Soc J 76:2185-7 Ap 20 '54

Persulfate oxidation of sulfoxides in buffered solution. E. Howard, jr. and L. S. Levitt. bibliog Am Chem Soc J 75:6170-3 D 20 '53

Spectra and molecular refraction for some unsaturated sulfides, sulfoxides and sulfones. C. C. Price and R. G. Gillis. Am Chem Soc J 75:4750-3 O 5 '53

SULFUR

Allotropy of sulfur. S. B. Butler. J Chem Educ 31:187 Ap '54

Baffling more than sulfur dust. diag Chem & Eng N 31:4613 N 2 '53

British chemical research laboratory active in sulfur research. Chem & Eng N 31:3393 Ag 17 '53

Corrosion of iron in the presence of dispersed and solid sulphur. R. B. Seymour, W. R. Pascoe and R. H. Steiner. J Ap Chem 4:11-13 Ja '54

Desulfurization of heptane solutions using nitrogen dioxide-sulfuric acid mixtures. J. R. Meadow and R. H. Graves. bibliog Ind & Eng Chem 45:2113-17 S '53

Desulphurization of stibnite. M. H. Khundkar. bibliog Chem & Ind p686 Jl 11 '53

Effect of surface-active agents on the rate of solution of sulphur in sulphite solutions. G. I. P. Levenson. J Ap Chem 4:13-18 Ja '54

Green sulfur, a new allotropic form. F. O. Rice and J. Ditter. diags Am Chem Soc J 75:6066-7 D 5 '53

Heats of formation and entropies of HS^- and $S^=$; potential of sulfide-sulfur couple. J. W. Kury and others. bibliog Electrochem Soc J 100:468-70 O '53

How to cement-line pipe for corrosion resistance. F. L. Resen. il diags Oil & Gas J 52:91+ N 30 '53

Origin of the name sulfur. S. Radt. Chem & Eng N 31:4612 N 2 '53

Possible processes for recovering soda and sulphur from semichemical and acid sulphite waste liquors. G. Haywood. Tappi 37:sup 134A-6A F '54

Problems concerning the sulphur in sulphate pulping. T. Enkvist. bibliog(28 ref) Tappi 37:350-2 Ag '54

Process kinetics; kinetics of the sulfur-methane reaction. G. W. Nabor and J. M. Smith. bibliog diag Ind & Eng Chem 45:1272-81 Je '53

Reaction between hydrogen sulphide and chlorine over alumina catalyst. M. H. Khundkar and M. Rakiboddowla. bibliog Chem & Ind p 128-9 Ja 30 '54

Reaction of silver alloys with sulfur in mineral oil. R. T. Foley and others. bibliog Electrochem Soc J 100:538-42; 101:6-9 D '53-Ja '54

Reactions of amines and sulphur with olefins; the reaction of diethylamine and sulphur with *cyclo*hexene. C. G. Moore and R. W. Saville. Chem Soc J p2082-9 Je '54

Reactions of amines and sulphur with olefins; the reaction of diethylamine and sulphur with 1 : 5-diolefins. R. W. Glazebrook and R. W. Saville. Chem Soc J p2094-103 Je '54

Reactions of amines and sulphur with olefins; the reaction of diethylamine and sulphur with trialkylethylenes. C. G. Moore and R. W. Saville. Chem Soc J p2089-94 Je '54

Reactions of toluic acids with sulfur; 4,4′-bibenzyldicarboxylic acid. W. G. Toland, jr. and J. B. Wilkes. Am Chem Soc J 76:307-8 Ja 5 '54

Recovery of sulphur in the textile industry. Chem Age (Lond) 71:533-6 S 11 '54

Regeneration of sulfuric acid from by-product calcium sulfate. J. M. Stinson and C. E. Mumma. bibliog Ind & Eng Chem 46:453-7 Mr '54

Reinforced corrugating media in high humidity containers. H. S. Gardner and others. il Tappi 37:sup 168A-70A Je '54

Results of research on sulfur jointing compounds. R. B. Seymour and others. bibliog il Am Water Works Assn J 46:237-45; Discussion. E. F. Wagner. 245-8 Mr '54

Role of sulfur in the luminescence and coloration of some aluminosilicates. R. D. Kirk. bibliog Electrochem Soc J 101:461-5 S '54

Sulphur data book. W. N. Tuller, ed. 143p $5 McGraw-Hill book co, 330 W. 42d st, New York 36 '54

Sulfur-gas thermodynamics. E. R. McCartney. Chem Eng Prog 49:508-9 S '53

Sulphur improves tool steels. il Tool Eng 33:109 Jl '54

Sulphur, 1953. L. M. Williams. Eng & Min J 155:103 F '54

Synthetic applications of the desulphurization reaction. G. M. Badger and others. bibliog Chem & Ind p308 Mr 13 '54

Thermodynamic functions and heat of formation of S_8(gas). G. B. Guthrie, jr., D. W. Scott and G. Waddington. bibliog Am Chem Soc J 76:1488-93 Mr 20 '54

12 ways to save on sulfur. S. Schwartz. bibliog il diags Chem Eng 60:208-10 N '53

Water-cooled belt conveyor solidifies molten sulfur. S. Schwartz. Chem Eng Prog 49:sup 19, 22 My '53

See also

Coal—Sulfur content
Coke—Sulfur content
Gas, Natural—Sulfur content
Gasoline—Sulfur content
Iron—Sulfur content
Petroleum—Sulfur content
Petroleum refining—Sulfur removal
Steel—Sulfur content
Vulcanization

Analysis

Amperometric organic sulfur procedure. C. L. Rulfs and A. A. Mackela. Anal Chem 25:660-2 Ap '53

Automatic combustion apparatus for determination of sulfur and halogen. T. T. White and others. il diags Anal Chem 25:1664-8 N '53

Colorimetric determination of elemental sulfur in hydrocarbons. J. K. Bartlett and D. A. Skoog. bibliog Anal Chem 26:1008-11 Je '54

Determination of sulfur and barium in organic barium sulfonates. F. E. Brauns, J. B. Hlava and H. Seiler. il Anal Chem 26:607-8 Mr '54

Determination of sulfur by peroxide bomb decomposition and amperometric titration. B. Warshowsky, T. E. Shook and E. J. Schantza. Anal Chem 26:1051-3 Je '54

Determination of sulfur in iron and steel by barium chloride method after chromatographic separation of sulfuric acid. F. Nydahl. bibliog diag Anal Chem 26:580-4 Mr '54

Improvements in the determination of small amounts of sulphur. H. N. Wilson, R. M. Pearson and D. M. Fitzgerald. bibliog(32 ref) diag J Ap Chem 4:488-96 S '54

Potentiometric instrument for sulfur determination. H. Landsberg and E. E. Escher. bibliog il diags Ind & Eng Chem 46:1422-8 Jl '54

Rapid method for determination of sulfur in gasoline. W. R. Battles. il Pet Eng 25:C47-9+ N '53

Submicro method for the estimation of sulphur. A. S. Jones and D. S. Letham. Chem & Ind p662-3 Je 5 '54

SULFUR—Analysis—*Continued*

Sulfur in ores, concentrates, and other metallurgical samples. W. G. Rice-Jones. bibliog diag Anal Chem 25:1383-5 S '53

Use of the Eschka method for the determination of high sulphur contents. R. A. Mott and H. C. Wilkinson. J Ap Chem 3:218-23 My '53

Conservation

Lesson in thrift; interview with Seymour Schwartz. Chem W 74:44-6 Mr 27 '54

Isotopes

Isotopic exchange reactions in liquid sulfur dioxide; the catalyzed sulfur exchange between thionyl bromide and sulfur dioxide. R. H. Herber, T. H. Norris and J. L. Huston. bibliog Am Chem Soc J 76:2015-18 Ap 5 '54

Mercaptobenzothiazole vulcanization using sulfur-35. I. Auerbach. bibliog Ind & Eng Chem 45:1526-32 Jl '53

Nuclear magnetic moment of S^{35} by microwave spectroscopy. B. F. Burke and others. Phys R 93:193-4 Ja 1 '54

One-to-two millimeter wave spectroscopy; H_2S. C. A. Burrus, jr. and W. Gordy. bibliog il Phys R 92:274-7 O 15 '53

Quantitative determination of S-35-labeled compounds in complex mixtures. J. B. Melchior and A. H. Goldkamp. bibliog Anal Chem 26:233-5 Ja '54

Studies with dithizone; a comparison of routes for the synthesis of [^{35}S] dithizones. H. Irving and C. F. Bell. Chem Soc J p3538-43 N '53

Sulfur bonds and the quadrupole moments of O, S, and Se isotopes. G. R. Bird and C. H. Townes. bibliog Phys R 94:1203-8 Je 1 '54

Tracer method for sulfur solubility and diffusivity in rubber. I. Auerbach and S. D. Gehman. bibliog il diags Anal Chem 26:685-90 Ap '54

Use of radioactive sulphur [^{35}S] in a study of the oxidation of *cyclo*hexyl methyl sulphide with *tert.*-butyl hydroperoxide. G. Ayrey, D. Barnard and C. G. Moore. diags Chem Soc J p3179-83 O '53

Manufacture

De-bug your sulfur plant boiler. S. Schwartz. il Pet Processing 8:1713-15 N '53

Globe solves pressing air-pollution problem with new-type sulfur-recovery unit. J. G. Vlcek and R. A. Graff. flow diag il Oil & Gas J 52:64-5+ Jl 6 '53

H_2S low but sulfur recovery high. J. F. Mullowney. flow diag il Pet Processing 8:1345-7 S '53

New source of sulphur; petroleum fraction. il Chem Age (Lond) 69:365 Ag 22 '53

Next step; sulfur from anhydrite; Imperial chemical industries. il Chem W 73:65-6 N 28 '53

Russians tell of sulfur-from-anhydrite process. Chem & Eng N 31:4350 O 19 '53

Smelter gases yield elemental sulphur at Orkla-Grube plant in Norway. T. Kiaer. il diag Eng & Min J 155:88-90 Jl '54

Sulfur from hydrogen sulfide. B. W. Gamson and R. H. Elkins. bibliog diags Chem Eng Prog 49:203-15 Ap '53

Sulfur recovery; Girdler co. flow plan Pet Refiner 32:182-3 N '53

Texas plant gets sulfur from casinghead gas. Chem Eng 60:161-2 S '53

Transportation

Bulk delivery of liquid sulphur. il Chem Age (Lond) 70:1291-2 Je 12 '54

SULFUR, Liquid

Bulk delivery of liquid sulphur. il Chem Age (Lond) 70:1291-2 Je 12 '54

Pacific extraction process; Pacific mining co. P. R. Bradley, jr. il diag Min Cong J 40:77-81 Je '54

SULFUR bacteria

Metabolism of sulphate-reducing bacteria, with special reference to industrial sulphate-reduction from molecular hydrogen; abstract and discussion. J. Senez. Chem & Ind p540-1 My 8 '54

Raw materials for bacterial sulphate-reduction; abstract. K. R. Butlin and S. L. Thomas. Chem & Ind p540; Discussion. 541 My 8 '54

Theoretical considerations for the microbial production of sulphide; abstract. J. R. Postgate. Chem & Ind p539-40; Discussion. 541 My 8 '54

SULFUR burners

Volume of sulphur-burner gases; data sheet. Pulp & Pa of Can 55:112 S '54

SULFUR cements. See Cements

SULFUR chloride

Internal rotation in sulfur monochloride. N. W. Luft and K. H. Todhunter. bibliog J Chem Phys 21:2225-6 D '53

SULFUR compounds

Behavior of boron fluoride toward some amino sulfur compounds. A. B. Burg and H. W. Woodrow. bibliog Am Chem Soc J 76:219-20 Ja 5 '54

Derivative of a new sulfur heterocycle. G. P. Scott. Am Chem Soc J 75:6332-3 D 20 '53

Nomograph gives accurate estimates of enthalpies of sulfur compounds. D. S. Davis. Chem Eng 61:224+ Ap '54

Organic sulphur compounds in agriculture. Chem Age (Lond) 69:173-4 Jl 25 '53

Preparation of pentachlorothiophenol and some other sulphur compounds. W. Tadros and E. Saad. Chem Soc J p 1155-6 Mr '54

Purification and properties of ten organic sulfur compounds. W. E. Haines and others. bibliog J Phys Chem 58:270-8 Mr '54

Reactions of gramine with sulfur compounds. J. J. Licari and G. Dougherty. Am Chem Soc J 76:4039-40 Ag 5 '54

Rotating combustion bomb for precision calorimetry; heats of combustion of some sulfur-containing compounds. W. N. Hubbard, C. Katz and G. Waddington. bibliog diags J Phys Chem 58:142-52 F '54

Samuel Smiles extended our knowledge of almost every class of sulphur compound. G. M. Bennett. Chem Soc J p4192-200 D '53

Sulfur analogs of isoquinolines and β-carbolines; the Pomeranz-Fritsch reaction. W. Herz and Lin Tsai. bibliog Am Chem Soc J 75:5122-3 O 20 '53

Sulphur compounds in petroleum. S. F. Birch. bibliog Inst Pet J 39:185-202; Discussion. 202-5 Ap '53

Synthesis, properties, and identification of sulfur compounds in petroleum; report on API research project 48. J. S. Ball and others. il diag Am Pet Inst Proc 32(1):139-75 '52

See also

Mercaptans

Sulfides

Sulfonamides

Sulfones

Sulfur oxides

Sulfuric acid

Analysis

Evaluation of twenty qualitative tests for petroleum sulfur compounds. C. Karr, jr. bibliog(25 ref) Anal Chem 26:528-36 Mr '54

Investigation of the sulphur compounds present in middle distillate SO_2-extracts. R. Emmott. bibliog Inst Pet J 39:695-715 O '53

Polarographic studies of sulfur compounds in petroleum fractions. M. E. Hall. bibliog Anal Chem 25:556-61 Ap '53

Sulfur control; instrument measures concentrations of one part in ten million; Tritilog; abstract. H. Landsberg and E. E. Escher. Iron Age 172:263 N 12 '53

SULFUR dioxide

Absorption of sulfur dioxide in cylinder zone oil films in a Diesel engine. F. A. M. Buck. bibliog Ind & Eng Chem 46:1318-21 Je '54

Apparent conductivity of hexaphenylethane in sulfur dioxide solution. H. P. Leftin and N. N. Lichtin. bibliog Am Chem Soc J 76:2593-4 My 5 '54

Catalytic dehydrogenation of naphthenes by sulfur dioxide. J. D. Danforth and M. J. Bender. Ind & Eng Chem 46:1701-3 Ag '54

Contact-process converter design. P. H. Calderbank. bibliog Chem Eng Prog 49:585-90 N '53

Experience with liquid sulphur dioxide in acid making. R. D. Litchfield. il diag Pulp & Pa of Can (Convention no) 55:247-52 [F] '54

Getting the aromatics out; Continental Oil's modified sulfur dioxide process. il Chem W 75:42+ Jl 17 '54

SULFUR dioxide—*Continued*

Investigation of the sulphur compounds present in middle distillate SO_2-extracts. R. Emmott. bibliog Inst Pet J 39:695-715 O '53

Isomerisation of unsaturated steroids in liquid sulphur dioxide. A. W. D. Hudgell, J. H. Turnbull and W. Wilson. Chem Soc J p814-16 Mr '54

Isotopic exchange reactions in liquid sulfur dioxide; the catalyzed sulfur exchange between thionyl bromide and sulfur dioxide. R. H. Herber, T. H. Norris and J. L. Huston. bibliog Am Chem Soc J 76:2015-18 Ap 5 '54

Isotopic exchange reactions in triethylamine-liquid sulfur dioxide solutions. R. H. Herber and T. H. Norris. bibliog Am Chem Soc J 76:3849-50 Jl 20 '54

Mass spectrometer for high precision isotope ratio determinations. R. K. Wanless and H. G. Thode. bibliog diags J Sci Instr 30:395-8 N '53

Mechanism of substitution at a saturated carbon atom; halide-ion exchange with a simple alkyl halide in sulphur dioxide solution. C. A. Bunton and others. Chem Soc J p642-6 F '54

Mechanism of substitution at a saturated carbon atom; Menschutkin reactions of some simple alkyl halides in sulphur dioxide solution. C. A. Bunton and others. Chem Soc J p647-51 F '54

Mechanism of substitution at a saturated carbon atom; unimolecular Menschutkin reactions in sulphur dioxide solution; remarks on the theory of border-line mechanisms. M. L. Bird, E. D. Hughes and C. K. Ingold. Chem Soc J p634-42 F '54

No shutdown plant keeps humming; railroad tank car as temporary source of supply at American maize products co. il Food Eng 26:69 Ag '54

Recovery of aromatics with liquid sulphur dioxide. P. W. Sherwood. Chem Age (Lond) 71:363-6 Ag 21 '54

Sulphur dioxide, anhydrous; pressure, temperature, density; data sheet. Pulp & Pa of Can 55:109 Ap '54

SO_2 extraction process for aromatics recovery. W. F. Wilkinson, J. R. Ghublikian and P. Obergfell. bibliog flow diags il Chem Eng Prog 49:257-62 My '53; Same. Pet Eng (Ref annual) 25:C3-6 Jl 15 '53

Sulphur in gas for glass working. H. K. Richardson. diag Glass Ind 35:319+ Je '54

Thermal stability of various olefin-SO_2 polymers. M. A. Naylor and A. W. Anderson. bibliog Am Chem Soc J 76:3962-5 Ag 5 '54

Analysis

Infrared analyzer for monitoring water content. F. W. Karasek and E. C. Miller. diags Ind & Eng Chem 46:1374-6 Jl '54

Manufacture

FluoSolids roasting of zinc concentrates for contact acid. T. T. Anderson and R. Bolduc. flow sheet diags Chem Eng Prog 49:527-32 O '53

New application of fluidization; production of sulfur dioxide. R. B. Thompson. flow sheet il Chem Eng Prog 49:253-6 My '53

Sulphur dioxide from pyrrhotite; Dorrco FluoSolids system. J. T. Hegeman. diag Pulp & Pa of Can 54:123-5 D '53; Same abr. Paper Tr J 137:14-16 N 6 '53; Same abr. Paper Ind 35:118-19 Ja '54

Physiological effect

Toxicity of sulfur dioxide. Ind & Eng Chem 46:sup96A+ F '54

Spectrum

Infrared spectrum and molecular constants of sulfur dioxide. R. D. Shelton and others. bibliog J Chem Phys 21:2178-83 D '53

SULFUR fluoride

Effect of pressure on intensity of some electronic transitions SF_6, C_2H_2 and C_2D_2 vapors in the vacuum ultraviolet region. E. D. Nostrand and A. B. F. Duncan. Am Chem Soc J 76:3377-9 Jl 5 '54

See also
Sulfur hexafluoride

Physiological effect

Some physiological effects of disulfur decafluoride (S_2F_{10}) after intravenous injection in dogs. J. P. Saunders and others. bibliog il A M A Archives Ind Hygiene & Occup Med 8:436-45 N '53

SULFUR hexafluoride

Electric strength of sulfur hexafluoride at radio frequencies. J. W. Gibson and C. F. Miller. bibliog il diags Electrochem Soc J 100:265-71 Je '53

Electrical decomposition of sulfur hexafluoride. D. Edelson, C. A. Bieling and G. T. Kohman. bibliog diag Ind & Eng Chem 45:2094-6 S '53

Reaction of sulphur hexafluoride with sodium. H. C. Cowen, F. Riding and E. Warhurst. Chem Soc J p4168-9 D '53

Solubilities of sulfur hexafluoride in water and of the rare gases, sulfur hexafluoride and osmium tetroxide in nitromethane. H. L. Friedman. bibliog Am Chem Soc J 76:3294-7 Je 20 '54

Viscosity of gaseous sulphur hexafluoride. G. A. Earwicker and E. J. P. Fear. bibliog Chem & Ind p903-4 Jl 17 '54

SULFUR in the body

Autoradiographic detection of S^{35} in the membranes of the inner ear of the rat. L. F. Bélanger. bibliog il Science 118:520-1 O 30 '53

SULFUR industry and trade

Sulfur, acid continue their rise; annual review. Chem Eng 61:192-3 Mr '54

Sulphur all over the world. Chem Age (Lond) 71:227-8 Jl 31 '54

Sulfur in better balance. Chem & Eng N 32:1522 Ap 12 '54

Sulphur in 1953. W. W. Duecker and E. W. Eddy. il Min Cong J 40:59-61 F '54

Sulfur mines not being pushed; BDSA survey for 1950-52. Chem & Eng N 32:2732 Jl 5 '54

Sulfur rundown; BDSA report. Chem W 75:69-70 Jl 10 '54

Sulphurous raw materials in 1952. Chem Age (Lond) 69:555-7 S 12 '53

Sulphurous raw materials, first six months of 1953. Chem Age (Lond) 70:417-18 F 13 '54

World's sulphur. Chem Age (Lond) 70:941-2 Ap 24 '54

Statistics

Sulfur distribution pattern. Oil Paint & Drug Rep 165:3+ Je 28 '54

Great Britain

British progress in removal of sulfur from coal; Fuel research board. Chem & Eng N 31:3197 Ag 3 '53

Shelter for sulphur. Economist 169:613-14 N 21 '53

Sulfur control ends in Britain. Chem & Eng N 32:159 Ja 11 '54

Italy

Italian sulphur industry crisis. Chem Age (Lond) 69:708; 71:333 O 3 '53, Ag 14 '54

Italy acts to save sulfur industry. Chem & Eng N 32:3772 S 20 '54

Mexico

More sulfur resources in Mexico. map Chem & Eng N 31:5376 D 28 '53; Chem Eng 61:388-9 F '54

Yankees hustle Mexican sulfur. il Chem W 74:16-17 Ja 23 '54

SULFUR mines and mining

Pacific extraction process; Pacific mining co. P. R. Bradley, jr. il diag Min Cong J 40:77-81 Je '54

Subaqueous mining

Floating sulphur-mining plant; Freeport sulphur co. R. McDaniel. il map Comp Air Mag 59:168-71 Je '54

Sulphur offshore leasing rules proposed by Interior department; regulations to govern issuance of leases for development of sulphur, oil and gas and other mineral resources. Oil Paint & Drug Rep 165:3+ F 15 '54

Sulfur, oil offshore lease rules take effect. Oil Paint & Drug Rep 165:3+ My 10 '54

SULFUR mines and mining—Subaqueous mining—*Continued*

Undersea offer; government offering for lease first batch of offshore sulfur and oil-and-gas properties. Chem W 75:13 S 25 '54

Louisiana

New Freeport sulphur mine in operation. il Min Cong J 39:76-7 D '53

Mexico

Mexico's great sulfur hunt. il Bsns W p 142 D 19 '53

Texas

Getting sulfides out of waste water; Texas Gulf's answer. il diag Chem Eng 61:132+ S '54

Mining brimstone with compressed air; Texas Gulf sulphur co. R. McDaniel. il Comp Air Mag 59:122-7 My '54

Sulfur mining au moderne; Texas Gulf Sulphur forestalls pollution with a novel process for treating sulfur mine waste water. il Chem & Eng N 32:2992-3 Jl 26 '54

SULFUR oxides

Electron diffraction study of disulfur decafluorodioxide. R. B. Harvey and S. H. Bauer. bibliog Am Chem Soc J 76:859-64 F 5 '54

New method for determining SO_2 and SO_3 in flue gas. il diag Power Eng 57:87+ D '53

See also

Sulfur dioxide

Sulfur trioxide

SULFUR trioxide

Fashioned for purity; production of salt-free detergent sulfonates. il Chem W 75:48-51 Jl 31 '54

Processing with liquid SO_3. diag Chem Eng 61:124+ Ag '54

Sulfonation and sulfation with sulfur trioxide. E. E. Gilbert and others. bibliog(60 ref) diags Ind & Eng Chem 45:2065-72 S '53

Analysis

Determination of sulphur trioxide in gases. A. W. Fletcher. bibliog diag Chem & Ind p777-8 Jl 3 '54

SULFURIC acid

Absorption spectra of fuming sulfuric acid chromogens obtained from the estrogens and other steroid compounds. L. R. Axelrod. Am Chem Soc J 75:6301 D 20 '53

Accessible cellulose as measured by sorption of sulfuric acid. G. A. Richter, L. E. Herdle and I. L. Gage. diags Ind & Eng Chem 45:2773-9 D '53

Acid sludges regenerated to make 98 per cent H_2SO_4. F. L. Resen. flow diag il Oil & Gas J 52:101-4 Ja 18 '54

Amination of anthraquinone with hydroxylamine in sulphuric acid. A. C. Robson and S. Coffey. Chem Soc J p2372-4 Jl '54

Anodic behavior of aluminum and its alloys in sulfuric acid electrolytes. R. B. Mason and P. E. Fowle. bibliog Electrochem Soc J 101:53-9 F '54

Comparison of the sulfuric acid and sodium hydroxide methods for the analysis of wool admixed with cotton and viscose rayon. E. Horowitz and J. Mandel. bibliog Am Dyestuff Rep 43:613-15 S 13 '54

Concentrated sulfuric acid-water. N. C. Deno and R. W. Taft, jr. bibliog Am Chem Soc J 76:244-8 Ja 5 '54

Cryoscopic behaviour of non-electrolytes in sulphuric acid. P. A. H. Wyatt. Chem Soc J p2647-8 Jl '54

Desulfurization of heptane solutions using nitrogen dioxide-sulfuric acid mixtures. J. R. Meadow and R. H. Graves. bibliog Ind & Eng Chem 45:2113-17 S '53

Determination of sulfur in iron and steel by barium chloride method after chromatographic separation of sulfuric acid. F. Nydahl. bibliog diag Anal Chem 26:580-4 Mr '54

Differential leaching of uranium, radium, and lead from pitchblende in H_2SO_4 solutions. G. Phair and H. Levine. bibliog Econ Geol 48:358-69 Ag '53

Diphenylcarbinylation of methylbenzenes using sulfuric acid. D. G. Kundiger and E. B. W. Ovist. Am Chem Soc J 76:2501-2 My 5 '54

More sulphuric acid; demand grows in South Africa. Chem Age (Lond) 69:1285 D 19 '53

New ideas for handling sulfuric. F. J. Hendel and H. B. Pateman. flow sheet il Chem Eng 61:209-10 Jl '54

Nitramines and nitramides; the irreversible decomposition of nitroguanidine and of nitrourea by sulphuric acid. C. Holstead and A. H. Lamberton. Chem Soc J p2391-5 Jl '54

Regeneration of sulfuric acid from by-product calcium sulfate. J. M. Stinson and C. E. Mumma. bibliog Ind & Eng Chem 46:453-7 Mr '54

Safety features built into sulfuric acid pumping system; Wigton-Abbot corp. F. J. Hendel and H. B. Pateman. diag Iron Age 172:164-5 S 17 '53

Solutions in sulphuric acid; a reconsideration of the value of the cryoscopic constant. R. J. Gillespie. Chem Soc J p 1851-4 Je '54

Solutions in sulphuric acid; cryoscopic measurements on some unsaturated aromatic ketones and aldehydes. R. J. Gillespie and J. A. Leisten. Chem Soc J p 1-7 Ja '54

Solutions in sulphuric acid; the sulphonation of some unsaturated aromatic ketones in sulphuric acid. R. J. Gillespie and J. A. Leisten. Chem Soc J p7-12 Ja '54

Some properties of tin-II sulfate solutions and their role in electrodeposition of tin; solutions with tin-II sulfate and sulfuric acid present. C. A. Discher. Electrochem Soc J 100:480-4 N '53

Spectrophotometric determination of selenium and tellurium in concentrated sulfuric acid. S. E. Wiberley and others. bibliog Anal Chem 25:1586-8 N '53

Spectrophotometric study of the reactions of *p*-aminotriphenylcarbinols with concentrated sulfuric acid. G. Branch and H. Walba. bibliog Am Chem Soc J 76:1564-9 Mr 20 '54

Spotlight on sulfuric. Chem W 74:84-5+ F 27 '54

Sulfur, acid continue their rise; annual review. Chem Eng 61:192-3 Mr '54

Sulfuric acid alkylation. D. H. Putney and O. J. Webb. flow diag diag Pet Refiner 32:104-6+ S '53

Sulfuric acid concentration as a variable in the permanganate-oxalate titration. R. C. Brasted. Anal Chem 25:673-4 Ap '53

Sulfuric acid; induced fluorescence of corticosteroids. M. L. Sweat. bibliog Anal Chem 26:773-6 Ap '54

Sulfuric acid regeneration of high capacity cation exchanger. J. H. Kay and others. bibliog Ind & Eng Chem 46:862-6 My '54

Sulfuric on the escalator. Chem W 73:62+ Jl 11 '53

Sulfuric pattern more complex. Chem & Eng N 32:882+ Mr 1 '54

Surface properties of silica gels; importance of pH in preparation from sodium silicate and sulphuric acid. K. S. W. Sing and J. D. Madeley. bibliog J Ap Chem 3:549-56 D '53

Synthesis of phenanthridines by the interaction of fluorene derivatives with hydrazoic and sulphuric acids. C. L. Arcus and M. M. Coombs. Chem & Ind p995 S 19 '53

Terpenes; the reactions of carvone and dihydrocarvone with methanol in the presence of sulfuric acid. G. Büchi and R. E. Erickson. Am Chem Soc J 76:3493-5 Jl 5 '54

Use of sulfuric acid in the detection and estimation of steroidal sapogenins. H. A. Walens, A. Turner, jr. and M. E. Wall. Anal Chem 26:325-9 F '54

Analysis

Determination of small concentrations of sodium. P. Mazzamaro and G. Tatoian. diag Anal Chem 26:1512-13 S '54

Manufacture

Biggest sulphuric plant ever; Davison chemical corp. il Chem Eng 61:144+ F '54

Cockle Creek acid plant in New South Wales. Chem & Ind p 1103-4 S 4 '54

Contact-process converter design. P. H. Calderbank. bibliog Chem Eng Prog 49:585-90 N '53

SULFURIC acid—Manufacture—*Continued*

FluoSolids roasting of zinc concentrates for contact acid. T. T. Anderson and R. Bolduc. flow sheet diags Chem Eng Prog 49:527-32 O '53

Gold, uranium, and sulfuric acid in South Africa; Daggafontein mines, ltd. flow sheet il Chem & Eng N 32:1364-5 Ap 5 '54

New acid from refinery sludge; Consolidated chemical industries at Baton Rouge, La. il Chem Eng 61:114-16 Ja '54

New process for sulfuric acid. Chem Eng Prog 49:sup24+ Ag '53

New sulphuric acid plant at the Institute of chemistry, Toulouse university. J. Cathala. diag Chem Age (Lond) 69:965-6 N 7 '53

Russians tell of sulfur-from-anhydrite process. Chem & Eng N 31:4350 O 19 '53

Sulphuric acid by the contact process at C.I.L.'s Hamilton plant. il Can Chem Process 38:28+ Ja '54

Sulphuric acid plant for Stanlow oil refinery. Chem Age (Lond) 71:531 S 11 '54

12 ways to save on sulfur. S. Schwartz. bibliog il diags Chem Eng 60:208-10 N '53

Physiological effect

Chronic bronchopulmonary disease due to inhalation of sulfuric acid fumes. A. Goldman and W. T. Hill. il A M A Archives Ind Hygiene & Occup Med 8:205-11 S '53

Statistics

British sulfuric acid '53 statistics tallied. Oil Paint & Drug Rep 165:5 Ap 5 '54

Sulphuric acid industry. Chem & Ind p482 My 16 '53

Sulphuric acid use; study by Business and defense services administration. Oil Paint & Drug Rep 165:3+ F 22 '54

UK sulphuric acid returns; production and consumption in 1953. Chem Age (Lond) 70:416 F 13 '54

SULFURIZED surface treatment. See Steel—Protection

SULFURYL chloride

Chlorination of arylamine derivatives by sulphuryl chloride. F. Bell. Chem Soc J p4182 D '53

Heats of formation of phosphorus trichloride, sulphuryl chloride, and thionyl chloride. E. Neale and L. T. D. Williams. Chem Soc J p2156-8 Je '54

SULLIVAN, Betty, 1902-

B. Sullivan receives Garvan medal. por (cover) Chem & Eng N 32:1138 Mr 22 '54

SULTAMS

Chemistry of sultones and sultams. A. Mustafa. Chem R 54:195-223 bibliog(p221-3) Ap '54

SULTONES

Chemistry of sultones and sultams. A. Mustafa. Chem R 54:195-223 bibliog(p221-3) Ap '54

SULZER boiler. See Boilers—Sulzer boiler

SUMATRA

Revolt in Atjeh. map Economist 169:501-2 N 14 '53

See also

Petroleum industry and trade—Sumatra

SUMMER

Summer design temperatures. A. D. Hay. map Heating-Piping 26:118-21 Je '54

SUMMER business

Happy holidays for specialties. il Chem W 75:74+ Ag 21 '54

SUN

Non-Maxwellian distribution in a shock front and the anomaly of the chromospheric temperature. H. K. Sen. bibliog Phys R 92:861-6 N 15 '53

Production of cosmic radiation at the sun. J. W. Firor and others. Phys R 95:1015-19 Ag 15 '54

Rocket-borne servo tracks the sun. D. S. Stacey and others. bibliog il diags Electronics 27:149-51 Ja '54

See also

Insolation

Solar power

Solar radiation

Prominences

Solar magnetic moment and cosmic-ray effects associated with solar flares. S. B. Treiman. Phys R 94:1029-30 My 15 '54

Spectrum

Infrared multiplets and the solar spectrum. C. E. Moore. bibliog Opt Soc Am J 43:1014-19 N '53

Investigations of atmospheric CO at the Jungfraujoch. W. Benesch and others. bibliog Opt Soc Am J 43:1119-23 N '53

Rocket spectroscopy. R. Tousey. bibliog il Opt Soc Am J 43:245-51 Ap '53

SUN breaks

Concrete louvres sheath building in Bombay, India; Standard Vacuum building. il Eng N 151:41 D 31 '53

SUN dials. See Sundials

SUN glasses

Miracle in Hartford; Metal-Lux, inc. J. Chamberlain. Barron's 33:3+ N 16 '53

SUN oil company

Department of justice renews war on Sun station contracts. Nat Pet N 45:13-14 D 16 '53

Sun oil co.; capital growth. E. N. Morse. Barron's 33:13-14 Ag 3 '53

SUN porch. See Sun rooms

SUN rooms

Don't overlook advantages of standard components; jalousies in sun porch; better detail plate. K. R. O'Neal. il diags Am Bld 76:278-9 Ag '54

SUN shades

Design standards and data. H. R. Sleeper. map diags House & Home 4:144-9 D '53

See also

Buildings—Sunlight exposure

SUNBEAM corporation

Sales, earnings prospects bright. Barron's 34:31+ Ja 11 '54

Security I like best. E. S. Wilson. Comm & Fin Chr 178:2362 D 17 '53

SUNBURN

Lotion moves East; Sea and Ski will be marketed along the whole East coast. Chem W 73:42 D 26 '53

Screening the sun with sunscreens. Ind & Eng Chem 46:sup 15A+ Jl '54

SUNDAY legislation

Blue law blast; Memphis. Bsns W p 146 D 12 '53

SUNDIALS

Amateur scientist; sundials. A. G. Ingalls. diags Sci Am 189:160+ S '53

SUNLIGHT

Arizona sun makes it desert tested; Desert sunshine exposure tests. il Paint Oil & Chem R 117:41 F 11 '54

Denver engineer invents novel calculator that shows how the sun will hit a house. il House & Home 3:43 My '53

Fade-Ometer vs. sunlight tests. Mod Textiles Mag 34:72+ D '53

Food and the future; efficient use of sunlight for food production. N. W. Pirie. bibliog diag Chem & Ind p442-5 My 9 '53

See also

Building—Sunlight exposure

Insolation

SUNSHINE biscuits, inc.

Five selected debt-free companies; with comparative balance sheet items. Mag of Wall St 93:83 O 17 '53

SUNSPOTS

Critical frequency variations; sunspot minimum to maximum in northern and southern hemispheres. T. W. Bennington. Wireless Eng 30:175-9 Jl '53

SUPER markets

Are supermarkets going soft? G. B. Cross. J Retailing 30:65-6+ Summer '54

Attractive supermart entrance. il plan diags Am Bld 75:148-9 My '53

Food supers won't have things their own way. E. B. Weiss. Ptr Ink 243:75 My 1 '53

Friendly Alphy; Alpha Beta food markets packaging program. il Mod Packaging 27:158-60+ Jl '54

Merchandising non-food items through super markets. J. D. Horn. J Marketing 18:380-6 Ap '54

SUPER markets—*Continued*

New study shows importance of full shelves in supers. Ptr Ink 243:43 Je 5 '53

Rack jobbers. Bsns W p52 S 5 '53

Rack jobbers seek new wares for supers; can your line meet their specifications? A. Levis. il Sales Management 71:76-8+ O 15 '53

What is the real future of the super market? M. M. Zimmerman. Ptr Ink 243:85-6 My 22 '53

See also

American stores company

Fires and fire protection

Fire first aid for the store. J. T. W. Babcock. Spectator 162:36-7+ My '54

Fire hazards in supermarkets. R. T. Foote. il Credit & Fin Management 55:16-17+ O '53

Poor maintenance causes most supermarket fires. J. A. Neale. Safety Maint & Prod 107:40 Ja '54; Same. East Underw 54:36+ O 16 '53

SUPERALLOYS. See Alloys, Heat resisting

SUPERCHARGERS

De Laval high-pressure turbo-supercharger. il Mech Eng 75:730-1 S '53

Fully turbocharged two-cycle gas engine compressor. diags Diesel Power 32:46-7 Ja '54

Here's a new turbosupercharger. R. Birmann. il Oil & Gas J 52:113 N 23; 97 N 30; 135 D 7 '53

Turbocharger increases compressor efficiency. il diags Product Eng 24:158-9 O '53

See also

Diesel engines—Superchargers

Gas engines—Superchargers

SUPERCONDUCTIVITY. See Electric conductivity

SUPERCONDUCTORS. See Electric conductors

SUPERCOOLING

Further studies of the supercooling of drops of some molecular liquids. H. J. de Nordwall and L. A. K. Staveley. Chem Soc J p224-7 Ja '54

Some recent experiments with supercooled water. C. Berger and C. M. Saffer, jr. Science 117:665 Je 12 '53

SUPERHEATED steam

Continuous disposal of fluorine; reaction with superheated steam. S. H. Smiley and C. R. Schmitt. bibliog diags Ind & Eng Chem 46:244-7 F '54

Evaporation of liquids into their superheated vapors. Ju Chin Chu, A. M. Lane and D. Conklin. bibliog diag Ind & Eng Chem 45:1586-91 Jl '53

New concept for drying paper and board. J. R. Gillis. diag Paper Tr J 138:18-20 Mr 12 '54

Power plant grasp; vapor tension and superheat. F. H. Browning. Power Eng 58:79-80 S '54

Simple new system turns cat cracker waste heat to steam. il diags Chem Eng 61:114-16+ Ap '54

Superheat compensates for steam-line losses; graph; data sheet. S. D. Distelhorst. Power 97:99 N '53

Superheated-steam drying is efficient and versatile; Cliffside dyeing corp. M. London. il Textile World 104:84-5 S '54

Use of superheated steam as a drying medium. J. H. Hunter. il Am Dyestuff Rep 43:236-8 Ap 12 '54

SUPERHEATERS

Creep properties of steels utilized in high-pressure and high-temperature superheater and steam pipe practice; revision of long-time creep data for a carbon steel header and a carbon-molybdenum steel pipe. R. W. Ridley. Inst Mech Eng Proc (B) 1B no 11:511-15; Discussion. 515-16 '52-53

Evaluation of superheater materials for high-temperature steam. B. Ronay and W. E. Clautice. il diags Welding J 33:sup 199-206 Ap '54

Experimental superheater for steam at 2000 psi and 1250 F; progress report after 12,000 hours of operation. F. Eberle and others. il diags A S M E Trans 76:665-75; Discussion. 675-7 My '54

High temperature turbine machinery for marine propulsion. T. W. F. Brown. diags Engineer 197:122-7 Ja 22 '54

Synthesis of two marine water-tube boilers. L. Baker. diags Engineer 196:663-5; Discussion. 670-2 N 20 '53

Cleaning

Superheater cleaned under emergency conditions. H. D. Fisher. il diag Power Eng 57:98 D '53

SUPERHIGHWAYS. See Roads—Superhighways

SUPERPHOSPHATES. See Phosphates

SUPERSATURATION

See also

Liesegang rings

SUPERSONIC aerodynamics. See Aerodynamics, Supersonic

SUPERSONIC waves. See Ultrasonic waves

SUPERSONIC wind tunnels. See Wind tunnels

SUPERSTITION

Superstitions and folklore of the miners. F. A. King. Can Min J 74:78-9 N '53

SUPERVISORY workers

Administrator's skill; communication. F. J. Roethlisberger. Harvard Bsns R 31:55-62 N '53

American management association's conference on supervision, Chicago; abstracts of papers. Chem & Eng N 32:418 F 1 '54

Are disciplinary rules necessary? J. E. Gardner. Textile World 104:99+ Ag '54

Are you a supervisor? R. B. Sale. Pet Eng 25:E5+ O '53

At American Enka, training and appraisal are a way of life. L. Zerfoss and others. Textile World 103:104-5+ D '53

Building a human-relations test for supervisors. W. Osterberg and J. Chase. Personnel 30:261-5 Ja '54

Building satisfaction into the supervisor's job. D. L. Bibby. Personnel 30:405-9 Mr '54

Company bulletins for middle management; abstract. Management R 42:441-3 Ag '53

Compensating the first-line supervisor; a survey. Management R 43:363-4 Je '54

Don't guess when you're selecting the best supervisors. M. Radom. Pet Processing 8:1013-16 Jl '53

Here's a guide for action when you have to fire workers. A. Uris. Textile World 104:99+ Ap '54

How Cone Mills develops better supervisors. T. B. Winston. Textile World 104:71-3 Ap '54

How to get facts across to workers. M. A. Cross. Textile World 104:113+ S '54

How to handle complaints. M. A. Cross. Textile World 104:137+ Je '54

How to improve contractor-labor relations; job supers carry the ball. L. B. Kromer, jr. Constr Methods 36:91-2+ Mr '54

How to talk to foremen, if you dare; Solar Aircraft. Factory Management 111:90-1 D '53

How to win an arbitration. P. A. King. Textile World 104:129 Ja '54

I am a superintendent of a steam power plant. H. F. Unger. Pub Util 53:601-7 My 13 '54

Management-mindedness in the supervisory ranks; a study of attitudes in relation to status. J. M. Pfiffner and R. C. Wilson. bibliog Personnel 30:122-5 S '53

Report of panel on selection and training of technical and supervisory personnel. S A E J 62:58-60 Jl '54

Restructuring the supervisory job. B. J. Muller-Thym. Personnel 30:396-405 Mr '54

Selecting service supervisors; abstract. W. H. Weber. Am Gas J 181:17-18 S '54

Selling the supervisor's job; abstract. Management R 43:92-3 F '54

Sizing up supervisory candidates. Management R 42:584-5 O '53

So, you think you have troubles; attitude study conducted among supervisors. V. I. Bumagin. Mill & Factory 54:119-21 Ap '54

Supervision by suggestion. E. E. Jennings. Personnel J 32:288-92 Ja '54

Supervision is your most important buy. Brick & Clay Rec 124:101 Mr '54

SUPERVISORY workers—*Continued*

Supervisor assesses his job in management; highlights of a Nation-wide survey. J. H. Mullen. Personnel 31:94-108 S '54

Supervisor on the witness stand. M. J. Wise, jr. Textile World 104:127+ Jl '54

Supervisor's span of control. J. E. Gardner. Textile World 103:153+ N '53

Think of the man. R. Likert. Chem W 73:22 O 17 '53

Tips for the spinning supervisor. N. H. Pomfret. Textile World 104:70+ Ag '54

Turning supervisors into managers; International business machines corp. F. C. Minaker. Am Bsns 24:32-3 Ja '54

Wage incentives can work with supervisors, too. M. K. Sheppard. Steel 133:46-7 Jl 27 '53

What a superintendent expects of a safety program. D. O. Collins. Paper Tr J 137:24-6 N 6 '53; Same. Tappi 37:sup220A-2A Je '54

What raises a man's morale? M. S. Viteles. bibliog flow chart Personnel 30:302-13 Ja '54

When supervisors have to be salesmen. J. E. Gardner. Textile World 104:111 My '54

See also

Foremen

Sales managers

Rating

Should employees rate their supervisors? A. R. Laney, jr. Personnel J 32:255-7 D '53; Discussion. 32:385-9 Mr '54

Training

Changing supervisory practices through training; case study. P. C. Buchanan and C. K. Ferguson. Personnel 30:218-30 N '53

Conference method helps supervisors train themselves; Phillips petroleum co. J. E. Storment. Factory Management 112:105-6 Jl '54

Developing today's management. L. A. Brandt. Am Gas Assn Mo 36:7-8+ My '54

Evaluating human relations training for supervisors. W. Osterberg and T. Lindbom. Advanced Management 18:26-8 S '53

Films that offer no pat answers. F. G. Lippert. il Elec World News ed 139:32-3 Je 22 '53

For successfully training supervisors. D. Deming; J. E. Gardner; E. E. Jennings. Textile World 104:53-4 S '54

How do you evaluate training? Monsanto chemical co. supervisory training program. Bsns W p90+ S 5 '53

How managements talk to supervisors. W. C. Lewis. Dun's R & Mod Ind 62:189-90+ O '53

Implementation of a management development program. L. A. Russ. Elec Eng 73: 199-202 Mr '54

Incident process of supervisory training. D. L. Marshall. Personnel 31:134-40 S '54

Management training on a short line; Chicago South Shore & South Bend. il Ry Age 136: 65-7 F 8 '54

Night school helps supervisors. Constr Methods 36:186 Mr '54

Outside training recommended. Midwest Eng 6:25 S '53

Perception demonstrations in human relations training. F. D. Barrett. il Personnel 31:128-33 S '54

Personnel man looks at the case method. A. Winn. Personnel 30:504-7 My '54

Practicing supervision. R. D. Gray and L. R. Sorensen. Personnel 30:491-503 My '54

Role playing in training supervisors. Factory Management 112:102-5 Ja '54

Sessions for, and with your supervisors. A. C. Croft. Food Eng 26:61-2+ F '54

64 hints to help you make role playing work. Factory Management 112:282+ Ja '54

Some controversial issues concerning supervisory development. P. C. Buchanan and C. K. Ferguson. Personnel 30:473-81 My '54

Supervisors for tomorrow. W. M. Stocker, jr. Am Mach 98:133-40 Ag 16 '54

Supervisory development; case history. E. S. Grant. Personnel 30:314-23 Ja '54

Supervisory development in Ontario Hydro. F. A. Galbraith. Pulp & Pa of Can 55:150+ Ap '54

Top-management view of supervisory and management development. O. A. Ohmann. Am Pet Inst Proc 33(1):73-7 '53

Training in administration and human relations; a program for new career personnel. A. Winn. Personnel 30:139-49 S '53

Training managers for leadership. R. Tannenbaum and others. Personnel 30:254-60 Ja '54

Training supervisors to counsel. J. Tarnopol and L. Tarnopol. Personnel J 32:216-21 N '53

Westinghouse's work simplification saves $2,500 per supervisor. W. Norris. il Am Bsns 24:10-12+ S; 12-13+ O '54

Will to work; a program for developing employee relations through supervisors. R. M. Crooks. Advanced Management 19:9-12 F '54

Work and learn plan trains future supervisors at Florida power & light co. D. Johnson and L. Bowers. il Elec World News ed 141:42-3 Mr 1 '54

SUPPLY and demand

Answer to an old fallacy; goods should be produced for use, not profit. Automotive Ind 111:150+ Jl 15 '54

SURETY and fidelity insurance. See Insurance, Surety and fidelity

SURETY association of America

New York department issues examination report. Nat Underw 58:1+ Jl 22 '54

SURETY bond producers, National association of. See National association of surety bond producers

SURETYSHIP and guaranty

Rights of a surety. C. W. Tye. Rough Notes 96:62-4 D '53

Suretyship principles are essential for every agent. A. C. Schreiber. Rough Notes 96:28+ D '53

Contract bonds

Surety bonds require character evaluation. M. J. Schuetz. Rough Notes 96:20-1+ S '53

SURFACE active substances

Chemical dispersal of fog. Chem Age (Lond) 69:1196 D 5 '53; Chem & Eng N 31:5377 D 28 '53

Competitive interaction between proteins and surface active anions demonstrated by electrophoresis. J. F. Foster and Jen Tsi Yang. bibliog Am Chem Soc J 75:5743-4 N 20 '53

Data on surface active agents. J. W. McCutcheon. Soap & San Chem 29:97+ Ag '53

Displacement of petroleum from sand by detergent solutions. H. N. Dunning and others. 5pls U S Bur Mines Rep of Invest 5020:1-19 bibliog(23 titles, p 18-19) '53; Same. Pet Eng 26:B82-90 Ja '54

Displacement of petroleum from sand surfaces by solutions of polyoxyethylated detergents. H. N. Dunning, H. J. Gustafson and R. T. Johansen. bibliog il Ind & Eng Chem 46:591-6 Mr '54

Effect of surface-active agents on the rate of solution of sulphur in sulphite solutions. G. I. P. Levenson. J Ap Chem 4:13-18 Ja '54

Evaluation of surfactants. J. E. Smallwood and S. L. Eisler. Soap & San Chem 29: 48-51+ Ag '53

Farm products to chemicals; Atlas multiplant production of surfactants. Chem & Eng N 32:708-9 F 22 '54

Flotation theory; molecular interactions between frothers and collectors at solid-liquid-air interfaces. J. Leja and J. H. Schulman. bibliog(30 ref) diags Min Eng 6:Trans 221-8 F '54

Lauryl alcohol sulfates. S. Giers and D. Boido. bibliog Soap & Chem Spec 30:38-41+ Ag '54

Mode of interaction of surface active cations with ovalbumin and bovine plasma albumin. J. F. Foster and Jen Tsi Yang. bibliog Am Chem Soc J 76:1015-19 F 20 '54

New look in nonionics; Hercules powder co. Chem W 74:108 My 15 '54

Non-detergent surfactant uses. J. Henrion. Soap & San Chem 29:69 Jl '53

SURFACE active substances—*Continued*

Nonionic auxiliary products; abstract. R. S. Mayston. Am Dyestuff Rep 42:258-9 Ap 27 '53

Nonionic detergents. C. F. Jelinek and R. L. Mayhew. bibliog Ind & Eng Chem 46:1930-4 S '54

Nonionic surface active agents. J. L. Rainey and C. E. Denoon, jr. Chem & Eng N 31:4521-3 N 2 '53

Nonionic surfactants; their chemistry and textile uses. C. F. Jelinek and R. L. Mayhew. bibliog(27 ref) diag Textile Res J 24:765-78 Ag '54

Nonionics; the all-surface cleaners. M. N. Fineman. il Soap & San Chem 29:46-9 F; 50-3+ Mr '53

Physical action of surface-active agents in the mechanism of detergency. H. L. Rosano and M. Weill. bibliog diags Am Dyestuff Rep 42:227-9 Ap 13 '53

Physical-chemical studies on the interaction of surface-active agents with nucleoproteins. M. W. Renoll and Q. Van Winkle. bibliog il Am Chem Soc J 75:5440-2 N 5 '53

Physicochemical properties of surfactants. A. M. Mankowich. bibliog Ind & Eng Chem 45:2759-66 D '53

Radiotracer study of sulfate ion adsorption at the air/solution interface in solutions of surface-active agents. C. M. Judson and others. bibliog J Phys Chem 57:916-23 D '53

Stearato chromic chloride. R. K. Iler. bibliog il Ind & Eng Chem 46:766-9 Ap '54

Streaming orientation studies on denatured proteins; denaturation of ovalbumin with surface active ions. G. F. Hanna and J. F. Foster. bibliog J Phys Chem 57:614-17 O '53

Surfactants in the textile industry. H. C. Borghetty. Am Dyestuff Rep 43:623-7 S 13 '54

Testing cationic surface active germicides for use in industrial water systems. C. H. Bollenback and G. A. Cruickshank. il Anal Chem 26:1355-7 Ag '54

Toxicity; germicidal power; similarity in activity ratios between toxicity to eye mucosa of surface-active agents and their bactericidal activity. R. Fischer. Soap & San Chem 29:155 D '53

Ubiquitous nonionics. il Chem W 72:52-5 My 30 '53

Use of surface active agents in breaking emulsions formed in vegetable extractions. C. L. Dunn and R. H. Earle, jr. Anal Chem 26:1099-100 Je '54

See also

Shampoos
Wetting agents

SURFACE area of adsorbents. See Adsorbents

SURFACE area of particles. See Particles

SURFACE energy

Some relations between the modulus of rigidity and the surface and sublimation energies. G. C. Kuczynski. J Ap Phys 24:1250-1 S '53

SURFACE phenomena

Changes of surface conductivity of germanium with ambient. S. R. Morrison. diags J Phys Chem 57:860-3 N '53

Colloidal and surface phenomena. G. Broughton. Ind & Eng Chem 45:912-32 bibliog (p924-32); 46:898-916 bibliog(667 ref, p909-16) My '53, My '54

Exchange potential in the surface region of a free-electron metal. H. J. Juretschke. bibliog Phys R 92:1140-4 D 1 '53

Function of organic material in the photochemical formation of hydrogen peroxide at zinc oxide surfaces. C. B. Vail, J. P. Holmquist and L. White, jr. bibliog Am Chem Soc J 76:624-5 Ja 20 '54

Growth and surface properties of tantalum crystals. M. H. Nichols. bibliog il diags Phys R 94:309-13 Ap 15 '54

Hydrogen-deuterium exchange on copper, silver, gold and alloy surfaces. R. J. Mikovsky, M. Boudart and H. S. Taylor. bibliog diag Am Chem Soc J 76:3814-19 Jl 20 '54

Importance of surface reactions. H. Eyring. Chem & Eng N 32:1342+ Ap 5 '54

Influence of adsorption of water and quinoline on the surface conductivity of a synthetic alumina-silica catalyst. M. A. Cook, R. O. Daniels, jr. and J. H. Hamilton. bibliog diag J Phys Chem 58:358-62 Ap '54

Influence of foreign atoms on the surface rearrangement produced by the catalytic reaction of hydrogen and oxygen on a single crystal of copper. R. E. Cunningham and A. T. Gwathmey. Am Chem Soc J 76:391-3 Ja 20 '54

Momentum transfer in sputtering by ion bombardment. G. K. Wehner. bibliog diags J Ap Phys 25:270-1 F '54

New adsorption isotherm and the distribution of energy sites on the surface of some finely divided solids. W. D. Harkins and R. S. Stearns. bibliog J Phys Chem 58:292-8 Ap '54

Some surface properties of docosyltrimethylammonium bromide, and of docosane-1-sulphonic acid and its sodium salt. F. G. Holliman, J. F. Largier and F. Sebba. Chem Soc J p738-40 F '54

Sputtering of alkali atoms by inert gas ions of low energy. R. C. Bradley. bibliog diags Phys R 93:719-28 F 15 '54

Study of the mechanism of the photochemical synthesis of hydrogen peroxide at zinc oxide surfaces. J. G. Calvert and others. bibliog Am Chem Soc J 76:2575-8 My 5 '54

Surface chemistry of fluorocarbons and their derivatives. H. M. Scholberg, R. A. Guenthner and R. I. Coon. bibliog J Phys Chem 57:923-5 D '53

Surface migration of water molecules in ice. E. J. Murphy. J Chem Phys 21:1831-5 O '53

Surface reaction between oxygen and thorium. A. F. Gerds and M. W. Mallett. bibliog diag Electrochem Soc J 101:171-4 Ap '54

Surface states of cadmium sulfide. S. H. Liebson. bibliog diags Electrochem Soc J 101:359-62 Jl '54

Thermionic and surface properties of tungsten crystals. G. F. Smith. bibliog il diags Phys R 94:295-308 Ap 15 '54

See also

Accommodation coefficients
Adsorption
Catalysis
Electric double layer
Films
Films, Metallic
Foam
Friction
Surface tension
Wetting

Bibliography

Colloidal and surface phenomena. G. Broughton. Ind & Eng Chem 45:924-32 My '53

SURFACE plates

Get more from your surface plates. J. Hyler. il Iron Age 173:156-8 F 4 '54

SURFACE tension

Bonding in cermets. L. S. Williams and P. Murray. bibliog Metallurgia 49:210-17 My '54

Combination thermostat and elevating platform for the surface-tension balance. H. N. Dunning and R. T. Johansen. diag R Sci Instr 24:1154 D '53

Density and surface tension of liquid fluorine between 66 and 80°K. D. White, J. Hu and H. L. Johnston. bibliog diags Am Chem Soc J 76:2584-6 My 5 '54

Effect of temperature on the density and surface tension of monofluoroacetic acid. J. J. Jasper and P. G. Grodzka. bibliog Am Chem Soc J 76:1453-4 Mr 5 '54

Instability of liquid surfaces and the formation of drops. J. B. Keller and I. Kolodner. J Ap Phys 25:918-21 Jl '54

Metal-ceramic interactions; surface tension and wettability of metal-ceramic systems. M. Humenik, jr. and W. D. Kingery. il diags Am Cer Soc J 37:18-23 Ja 1 '54

Moisture content of a fine-coal filter cake; effect of viscosity and surface tension. C. E. Silverblatt and D. A. Dahlstrom. bibliog diags Ind & Eng Chem 46:1201-7 Je '54

Orthobaric surface tensions and thermodynamic properties of the liquid surfaces of a series of 1-alkenes, C_8 to C_{16}, and of *n*-decylcyclopentane, *n*-decylcyclohexane and *n*-decylbenzene. J. J. Jasper and E. R. Kerr. Am Chem Soc J 76:2659-61 My 20 '54

SURFACE tension—*Continued*

Orthobaric surface tensions and thermodynamic properties of the liquid surfaces of the *n*-alkanes, C_5 to C_{28}. J. J. Jasper, E. R. Kerr and F. Gregorich. Am Chem Soc J 75:5252-4 N 5 '53

Oxygen and the surface energy-level structure on germanium. E. N. Clarke. bibliog Phys R 95:284-5 Jl 1 '54

Surface tension of antimony pentafluoride. D. R. Hub and P. L. Robinson. Chem Soc J p2640 Jl '54

Surface tensions and their temperature coefficients of molten mixtures of potassium chloride and barium chloride. J. S. Peake and M. R. Bothwell. bibliog diags Am Chem Soc J 76:2656-9 My 20 '54

See also

Parachors

SURFACES

Contact and rubbing of flat surfaces. J. F. Archard. bibliog diags J Ap Phys 24:981-8 Ag '53

Determination of the surface stress by means of electroplating. H. Ōkubo. il diags J Ap Phys 24:1130-3 S '53

Electron diffraction apparatus with a new electron optical system designed for the examination of surface structure. C. S. Lees. il(p88) diags J Sci Instr 31:84-6 Mr '54

Interferometer for examining polished surfaces. R. E. Sugg. il diags Mech Eng 75: 629-31 Ag '53; Discussion. 76:109-10 Ja '54

Measuring boiler heating surface. R. C. Gray. il Heating-Piping 26:129 My '54

New look into the invisible; continuous thickness measurements of adsorbed layers with ellipsometer. il Chem & Eng N 32: 1680 Ap 26 '54

New York academy of sciences' conference on properties of surfaces; abstracts of papers. Chem & Eng N 31:4767-8 N 16 '53

Reflection coefficients for certain rough surfaces. V. Twersky. J Ap Phys 24:659-60 My '53

Sensitizing; a process used in silvering. S. Wein. bibliog(84 ref) Glass Ind 35:367-70+ Jl '54

Some vibration effects on surfaces produced by turret lathes. P. T. Eisele and R. F. Griffin. il diags A S M E Trans 75: 1211-17 O '53

Surface analysis with the X-ray photoelectron spectrometer. R. G. Steinhardt, jr. and E. J. Serfass. bibliog diag Anal Chem 25:697-700 My '53

Surface motion associated with obliquely incident elastic waves. J. Pearson and J. S. Rinehart. diags Acoustical Soc Am J 25: 217-19 Mr '53

Surface reactions of steel in dilute $Cr^{51}O_4^{=}$ solutions; applications to passivity. R. A. Powers and N. Hackerman. bibliog il Electrochem Soc J 100:314-19 Jl '53; Discussion. 101:332-4 Je '54

Surface-scanning pyrometer. R. B. Sims and J. A. Place. diags J Sci Instr 31:293-4 Ag '54

Surface studies of solids by total reflection of X-rays. L. G. Parratt. bibliog diags Phys R 95:359-69 Jl 15 '54

Use of multilayer films for surface topography interferometry. J. A. Belk and others. bibliog il Opt Soc Am J 44:5-10 Ja '54

Work functions of gas-coated tungsten and silver surfaces. G. L. Weissler and T. N. Wilson. bibliog diag J Ap Phys 24:472-5 Ap '53

See also

Adsorption
Bearing surfaces
Boundary value problems
Contact angle
Films
Glass—Surface
Metal finishing
Specific surface

Smoothness testing

ASA will simplify surface roughness measurements. F. W. Witzke. il Iron Age 172: 180-2 D 3 '53

Approach to the evaluation of coated paper smoothness. L. J. Scheid and A. H. Hupp. bibliog il Tappi 36:sup 177A-8A O '53

Brush surface measuring instrument. il Mach 60:233 Ja '54; Metal Finishing 52:88 Ja '54

Chapman printing smoothness tester. S. M. Chapman and others. bibliog il diags Pulp & Pa of Can 55:88-116 Mr '54

Electronic roughness gage requires little skill; Surfindicator. il Aviation W 59:67 O 26 '53

Examination of surfaces by X-ray reflection. R. H. Buteux. il Opt Soc Am J 43:618 Jl '53

General Motors interference microscope measures small peaks and valleys. il Iron Age 174:148 S 9 '54; Steel 135:112 S 6 '54

How to use micro-interferometry as a new chemical engineering tool. R. E. Sugg. bibliog il diag Chem Eng 61:216-17 Mr '54

Movable-anode tube gages surface roughness. J. B. Bidwell. il diags Electronics 26:181-3 N '53

Reflectometer for the assessment of surface texture. J. Halling. il diag J Sci Instr 31:318-20 S '54

Smoothness of paperboard symposium. diags Tappi 37:sup 181A-211A Ap '54

Surface finish; abstract. W. Dreyhaupt. Tool Eng 33:125-6 Ag '54

Surface; tests cut machining cost. R. M. Lorz. Iron Age 172:63 Ag 20 '53

Two recent developments for accurate measurement of surface roughness; abstract. A. F. Underwood. Elec R (Lond) 153:1079-80 N 6 '53

SURFACTANTS. See Surface active substances

SURFINDICATOR. See Surfaces—Smoothness testing

SURGE tanks

Present trends in surge tank design. C. Jaeger. bibliog diags Engineer 196:639-43 N 13 '53; Excerpts. Elec J 151:1597-8 N 13 '53; Discussion. Engineer 196:634-5 N 13 '53

SURGERY

See also

Amputation
Hand—Wounds and injuries
Prosthesis

SURGICAL dressings

Sterilization of surgical dressings; abstract and discussion. R. M. Savage. Chem & Ind p302-3 Mr 13 '54

SURINAM. See Dutch Guiana

SURPLUS products

Drug surplus disposal scheme is worked out. Oil Paint & Drug Rep 166:3 Jl 12 '54

SURVEYING

Cadastral surveys in the United States. W. H. Richards. Am Soc C E Proc 79 [no 282]:1-8 S '53

California under control. L. G. Simmons. Am Soc C E Proc 79 [no 278]:1-5 S '53

Importance of Shoran surveying in the southern hemisphere. C. I. Aslakson. maps plan diags Am Soc C E Proc 79 [no 353]:1-14 bibliog(27 titles, p5-6) N '53

Special equipment developed for surveying in Florida Everglades. K. M. Hartsfield. il map Civil Eng 23:474-6 Jl '53

Surveyors are the farmers in these rice fields. T. E. Riley. il Eng N 151:34-5 S 3 '53

Surveys and maps, vital to the solution of problems of mass transportation. B. E. Beavin. Am Soc C E Proc 79 [no 305]: 1-6 O '53

See also

Photographic surveying
Roads—Surveying

SURVEYING, Aerial

Aerial surveys for line routes save time and money. il map Elec World 139:88-90 Je 29 '53

Helicopters and airplanes aid survey for highway on rocky St Lawrence Gulf coast. il map Roads & Eng Constr 92:111-14+ Ag '54

Location of highways facilitated by aerial-survey methods. W. T. Pryor. il Roads & Eng Constr 91:138+ O '53

See also

Mapping, Aerial

SURVEYING, Photographic. See Photographic surveying

SURVEYING instruments

Electronics in surveying. C. I. Aslakson. il map diags Am Soc C E Proc 79 [no 284]: 1-15 S '53

SURVEYING instruments—*Continued*

New pair of tripods use their heads. il Eng N 152:117+ Ja 28 '54

Self-reading level rod easily reconditioned. D. L. Parkhurst. diags Civil Eng 23:550 Ag '53

See also
Theodolites

SURVEYORS' tape

Angles laid out in field with steel tape alone. M. Gates. Civil Eng 23:551 Ag '53

New method for determining linear thermal expansion of invar geodetic surveying tapes. P. Hidnert and R. K. Kirby. bibliog il diag J Res Nat Bur Stand 50:179-85 Ap '53

Thermal expansion of invar tapes tested by electrical resistance. il Civil Eng 23:568 Ag '53; Same cond. diag Elec World 140: 120+ O 5 '53

SURVEYOR'S transit. See Transit, Surveyor's

SURVIVAL (after airplane accidents, etc.)

NACA reveals crash data to industry. il Aviation W 59:26-8+ N 23 '53

Spotlight is on transport ditching; possibility of ICAO withdrawal of Atlantic weather ships turns airline attention to crash survival. map Aviation W 59:108 N 9 '53

Survival at sea. W. Wallace. Engineering 176:458-9 O 9 '53

SUSPENDED railroads. See Railroads, Suspended

SUSPENSION bridges. See Bridges, Suspension

SUSPENSIONS

Aggregation of suspensions by polyelectrolytes. A. S. Michaels. bibliog diags Ind & Eng Chem 46:1485-90 Jl '54; Correction. 46: 2202 O '54

Agitation of viscous solid-liquid suspensions. F. S. Hirsekorn and S. A. Miller. bibliog il Chem Eng Prog 49:459-66 S '53

Detergency of carbon black. F. H. Garner and others. bibliog pl diags Inst Pet J 38:974-97 D '52

Indeterminate integral in Einstein's theory of the viscosity of a suspension. M. Mooney. J Ap Phys 25:406-7 Mr '54

Suspension polymerization of chlorotrifluoroethylene. J. R. Elliott, R. L. Myers and G. F. Roedel. bibliog il diags Ind & Eng Chem 45:1786-90 Ag '53

Suspension preheating of dry pulverized materials; Humboldt suspension preheater. G. K. Engelhart. il diag Min Eng 6:Trans 407-10 Ap '54

See also
Sedimentation

SUSQUEHANNA mills, inc.

Susquehanna mills merges with H&B American machine co.; sells out textile interests. Am Mach 98:145 Mr 29 '54

SUTHERLAND dam. See Dams, Concrete

SUTHERLAND paper company

Profit margins widening. Barron's 34:21-2 Ja 25 '54

SVEDBORG, Theodor, 1884-

International congress honors Svedberg. por(cover) Chem & Eng N 31:3464 Ag 24 '53

SWAGING

High speed techniques extend applications of rotary and press swaging. J. E. Hyler. il Iron Age 174:112-14 S 2 '54

SWEATERS

Manufacture

Are you going into full-fashioned outerwear? J. B. Lancashire. il Textile World 104:114-15 Mr '54

How full-fashioned sweater parts are knitted. J. B. Lancashire. diags Textile World 104: 122-3 Je '54

How to loop sweater neckbands for neatness and sales appeal. J. H. Blore. il Textile World 104:106-7 Ja '54

SWEDEN

See also
Automobile industry and trade—Sweden
Geology—Sweden
Labor and laboring classes—Sweden
Mines and mineral resources—Sweden
Paper industry and trade—Sweden

Commerce

Sweden, United Kingdom plan trade. For Comm W 51:13 F 22 '54

Swedish and east German agencies conclude private compensation trade arrangement. For Comm W 51:12 Ja 4 '54

Defenses

Defence of Sweden. map Economist 168:519-20 Ag 22 '53

Where Sweden fits in. Economist 169:737 D 5 '53

Economic conditions

Economic conditions abroad (cont). For Comm W 50:3+ S 14; 3+ O 5; 3+ D 28 '53

Swedish economy in 1953; OEEC study. Economist 170:173 Ja 16 '54

SWEET potato chips

Sweet potato chips. il Food Eng 26:129+ My '54

SWEET potatoes

Chemical constitution of ipomeanine, a new ketone from the black-rotted sweet potato. T. Kubota and N. Ichikawa. Chem & Ind p902-3 Jl 17 '54

SWEETENING agents

Artificial sweetners, ban on use in food; saccharin exempted. Chem Age (Lond) 69:493 S 5 '53

Low-calorie ingredients big booster of dietetic foods. K. M. Beck. bibliog il Food Eng 26:87-8+ Je '54

Stevioside; a unique sweetening agent. F. Bell. bibliog Chem & Ind p897-8 Jl 17 '54

Sweet but noncaloric. Ind & Eng Chem 45: sup 11A+ O '53

Tempest in a pop bottle; renewed struggle for sweetener sales. Chem W 73:73-4 Ag 15 '53

SWELLING

Swelling of hair and a viscose rayon monofil in aqueous solutions. W. S. Barnard and H. J. White, jr. bibliog diags Textile Res J 24:695-704 Ag '54

See also
Rubber—Swelling
Textile fibers—Swelling

SWIMMING pools

See also
Water purification—Swimming pool water

Equipment

Good equipment for the swimming pool. N. R. Miller. il Pub Works 84:77-8 D '53

SWINDLERS and swindling

Beware of dynamiters! condensed from Consumer reports. House & Home 4:168+ O '53

FHA cracks down on Title I repair rackets. House & Home 4:137 N '53

SWINE

Antibiotics and endocrine stimulants as promoters of growth in fattening pigs. R. S. Barber and others. Chem & Ind p76 Ja 16 '54

Are hogs prospects for comfort cooling? W. E. Fontaine and others. bibliog il Refrig Eng 62:57-9 Ja '54

See also
Pork products

Diseases and pests

Trichinosis control and vesicular exanthema. J. C. Haldeman and others. Pub Health Rep 68:421-4 Ap '53

Feeding

Antibiotics in animal feeding; abstract and discussion. K. L. Robinson. Chem & Ind p484-5 Ap 24 '54

Cooking garbage for hog feeding. R. D. Bugher. Pub Works 84:91-2+ D '53

Disinfecting garbage in truck bodies by direct steam injection. H. A. Bevis and others. il Pub Health Rep 68:1065-70 N '53

Effect of adding copper to the diet of suckling piglets. K. G. Mitchell. Chem & Ind p871-2 Ag 15 '53

Garbage for hogs? cook it. il diag Eng N 151:62-4+ Jl 16 '53

SWINE—Feeding—*Continued*

Hogs have their day; Pfizer sponsored contest to introduce advantages of terramycin and other antibiotics in feed. il Chem W 73:31 D 26 '53

Trichinosis control and vesicular exanthema. J. C. Haldeman and others. Pub Health Rep 68:421-4 Ap '53

SWINGLE, Walter Tennyson, 1871-1952

Sketch. W. Seifriz. Science 118:288-9 S 11 '53

SWITCHMEN'S union of North America

Switchmen settle for trainmen package. Ry Age 136:8 My 3 '54

SWITZERLAND

See also

Chemical industries—Switzerland

Hydroelectric plants—Switzerland

Labor and laboring classes—Switzerland

Radio apparatus industry—Switzerland

Commerce

Europe, Eastern

Swiss trade behind the Curtain. Economist 168:859 S 26 '53

Economic conditions

Economic conditions abroad (cont). For Comm W 51:3 Ja 25 '54

Economic relations

France

Swiss to obtain coal under loan guaranty. For Comm W 50:9 Ag 3 '53

SYDNEY (warship). See World war, 1939-1945—Naval operations

SYDNONES

Condensed-ring sydnones. D. L. Hammick and others. Chem & Ind p251-2 F 27 '54

Molecular structure of the sydnones. J. C. Earl. Chem & Ind p746, 1284 Jl 18, N 28 '53

Molecular structure of the sydnones. D. L. Hammick and A. M. Roe. Chem & Ind p900 Ag 22 '53

SYLVANIA electric products, inc.

Sylvania's sales for 1953. Elec World 141:154 Ja 11 '54

SYMBIOSIS

Microorganisms or mitochondria? discussion of supposed intracellular symbiotic microorganisms of aphids, by U. N. Lanham. J. Peklo. bibliog il Science 118:202-6 Ag 21 '53

SYMBOLIC and mathematical logic. See Logic, Symbolic and mathematical

SYMBOLS

See also

Chemical symbols

Electric symbols

Mathematical symbols

SYNAGOGS

American synagogue for today and tomorrow. M. N. Eisendrath. il diag Arch Rec 114:119-21 D '53

Frank Lloyd Wright synagogue, Beth Sholom congregation in Philadelphia. il Arch Rec 116:20 Jl '54

Sculpture and tapestry used architecturally; Congregation Beth El. il plans diags Arch Forum 100:140-5 Ap '54

Temple Beth Sholom, Miami Beach. il plan diag Arch Rec 114:128-9 D '53

Three new synagogues show today's techniques and materials embodied in the plastic architecture of Eric Mendelsohn. il plans diags Arch Forum 98:105-21 Ap '53

Two small religious buildings. il plans Arch Forum 99:118-23 Jl '53

SYNAPSES

Some indications of cerebral humoral mechanisms. A. S. Marrazzi. bibliog diags Science 118:367-70 O 2 '53

SYNCHRONIZING

Communications synchronizing systems. F. T. Turner. diags Elec Eng 72:874-6 O '53

Synchronized magnetic tape recording. R. H. Ranger. diags Elec Eng 73:69-73 Ja '54

Synchrotie systems; consist of two or more wound-rotor induction motors with similar rotor characteristics. S. J. Campbell. il diags Westinghouse Eng 13:178-83 N '53

SYNCHRONOUS condensers. See Electric capacitors

SYNCHRONOUS electric motors. See Electric motors, Synchronous

SYNCHRONOUS generators. See Electric generators, Synchronous

SYNCHRONOUS motors. See Electric motors, Synchronous

SYNCHROTRON

Accurate voltage integrator for magnetic field measurement. E. W. Fuller and L. U. Hibbard. bibliog diags J Sci Instr 31:36-42 F '54

Attic physicist. Sci Am 188:45-6 Je '53

Big new atom smashers require much steel. Blast F & Steel Pl 42:946 Ag '54

Determination of photon flux for energies between 150 and 300 Mev. P. D. Edwards and D. W. Kerst. bibliog diags R Sci Instr 24:490-5 Jl '53

European nuclear research; work of the European council for nuclear research (CERN). Elec R (Lond) 154:325-6 F 19 '54

High-energy electron scattering by nuclei. R. W. Pidd and others. bibliog plan Phys R 92:436-7 O 15 '53

Magnetic deflector for the bevatron. B. T. Wright. diags R Sci Instr 25:429-31 My '54

Protection against betatron-synchrotron radiations up to 100 million electron volts. bibliog U S Nat Bur Stand Handbook 55:1-52; pa 25c Supt. of doc. '54

Radio-frequency fine structure of the photon beam from the Berkeley synchrotron. R. Madey and others. diags R Sci Instr 25:537-40 Je '54

Space-charge forces in strong-focusing synchrotrons. S. E. Barden. Phys R 93:1378-80 Mr 15 '54

SYNDETS. See Cleaning compositions

SYNDICATE service. See Newspapers—Syndicate service

SYNERGISM

Inhibition of foaming; synergistic effects of antifoaming agents. S. Ross and others. J Phys Chem 57:684-6 O '53

Louse powder synergists. G. W. Eddy and others. bibliog Soap & Chem Spec 30:121-3+ Jl '54

Synergism and antagonism of auxin by antibiotics. M. R. S. Iyengar and R. L. Starkey. bibliog Science 118:357-8 S 25 '53

SYNNEMATIN

Michigan health department develops antityphoid antibiotic; Synnematin. Chem & Eng N 32:3502+ S 6 '54

SYNONYMS

Phrase finder; name-word finder, metaphor finder, sophisticated synonyms. J. I. Rodale and E. J. Fluck, comps. 3v in 1 1325p $6.95 Rodale press, Emmaus, Pa. '54

SYNTHAD

Granular adsorbents for sugar refining. E. P. Barrett. A. Jonnard and J. H. Messmer. diag Ind & Eng Chem 45:1524-6 Jl '53

SYNTHESIS

Adiponitrile-from-furfural synthesis; abstract. O. W. Cass. Chem & Eng N 32:2196-7 My 31 '54

Asymmetric synthesis effected by hydrogenation. C. L. Arcus and D. G. Smyth. Chem & Ind p404-5 Ap 3 '54

Catalyst evaluation for synthesis of phenylpyridine from butadiene and benzonitrile. G. J. Janz, W. J. G. McCulloch and E. F. Timpane. bibliog diag Ind & Eng Chem 45:1343-7 Je '53

Complete synthesis of cortisone. Chem Age (Lond) 69:1222-5 D 12 '53

Diphenylmercury synthesis. R. T. McCutchan and K. A. Kobe. bibliog(31 ref) flow sheet Ind & Eng Chem 46:675-80 Ap '54

Experimental reaction rates in the synthesis of ammonia. R. M. Adams and E. W. Comings. bibliog flow diag diag Chem Eng Prog 49:359-66 Jl '53

Fischer indole synthesis. P. A. Roussel. bibliog(26 ref) J Chem Educ 30:122-5 Mr '53

Lycorine; a synthesis of the Hofmann base, the Emde base, *iso*lycorine and anhydrolycorine methiodide. W. I. Taylor and others. bibliog Chem & Ind p929-30 Jl 24 '54

SYNTHESIS—*Continued*

New hormone quest; goal of probe is synthetic aldosterone. Chem W 75:46+ S 18 '54

New synthesis of polycyclic compounds containing a fused *iso*quinoline ring system. T. S. Osdene and G. M. Timmis. Chem & Ind p404 Ap 3 '54

Syntheses in the series of erythrina alkaloids. A. J. Manson and K. Wiesner. Chem & Ind p641-2 Je 27 '53

Synthesis in the santonin series. F. J. McQuillin. bibliog Chem & Ind p311-12 Mr 13 '54

Synthesis of a crystalline leucoanthocyanidin. F. E. King and J. W. Clark-Lewis. Chem & Ind p757-8 Je 26 '54

Synthesis of active methionine. J. Baddiley and G. A. Jamieson. Chem & Ind p375 Mr 27 '54

Synthesis of dimethylapoerysopine. Z. Valenta and K. Wiesner. Chem & Ind p402-3 Ap 3 '54

Synthesis of ethylene chlorohydrin. W. G. Domask and K. A. Kobe. bibliog flow diag il diag Ind & Eng Chem 46:680-9 Ap '54

Synthesis of petrochemicals. A. L. Foster. flow chart il Pet Eng 25:C35-6 Ag; C3-5 S '53

Synthesizing with atom models. H. Schwalb. Can Chem Process 38:76 F '54

Synthetic acids. T. F. Grey and others. bibliog Chem & Ind p578-9 My 15 '54

Synthetic applications of the desulphurization reaction. G. M. Badger and others. bibliog Chem & Ind p308 Mr 13 '54

Thermodynamics of ammonia synthesis and oxidation. R. H. Harrison and K. A. Kobe. bibliog(35 ref) Chem Eng Prog 49:349-53 Jl '53

Thyroxine synthesis; abstract. B. Weiss. Chem & Eng N 32:813-14 Mr 1 '54

Tobacco mosaic virus biosynthesis; abstract. B. Commoner. Chem & Eng N 32:130+ Ja 11 '54

See also

Biological chemistry

Fischer-Tropsch process

Photosynthesis

SYNTHETASINE 200. See Plastic coating

SYNTHETIC detergents. See Cleaning compositions

SYNTHETIC organic chemical manufacturers association

Annual business meeting, New York, Dec. 9. Oil Paint & Drug Rep 164:4+ D 14 '53

Joint meeting with Manufacturing chemists' association, White Sulphur Springs, W.Va. Chem & Eng N 32:2370+ Je 14 '54

SYNTHETIC products

Alkaloids go synthetic; synthesis of tropane alkaloids; T. and H. Smith, ltd. il Chem W 74:75-6 F 27 '54

Food and the future; synthetic food potentialities. W. F. J. Cuthbertson. Chem & Ind p553-5 Je 6 '53

Food and the future; synthetic potentialities; synthetic fats. P. N. Williams. bibliog (44 ref) Chem & Ind p582-5 Je 13 '53

How a hormone was synthesized. Can Chem Process 37:96+ N '53

Strategic synthesis; two companies make bid for mica market with process for synthetic fluor-phlogopite. il diags Chem W 74:46+ My 22 '54

Synthetic crystals; abstract. R. C. Chirnside. Chem & Ind p73 Ja 16 '54

Synthetic elements produced by nuclear reactors; abstract. R. Hurst. Chem & Ind p 1012-13 S 26 '53

Synthetic minerals. W. A. Weyl. bibliog Econ Geol 48:288-305 Je '53

See also

Plastic materials

Resinous products

Rubber, Artificial

Textile fibers, Synthetic

SYNTHETIC rubber corporation, American. See American synthetic rubber corporation

SYPHILIS

Agglutination of treponema pallidum in syphilitic serums. C. P. McLeod and H. J. Magnuson. bibliog Pub Health Rep 68:747-55 Ag '53

Cardiovascular syphilis in a general medical clinic. S. P. Lucia and others. Pub Health Rep 68:405-8 Ap '53

Twenty years of followup experience in a long-range medical study. E. Rivers and others. Pub Health Rep 68:391-5 Ap '53

Use of some synthetic phosphatides in antigens for the serodiagnosis of syphilis. D. B. Tonks and R. H. Allen. bibliog Science 118:55-6 Jl 10 '53

SYRIA

Commercial policy

Syria stresses authentication of import documents by agencies of foreign firms. For Comm W 51:10 F 22 '54

SYRINGES

Precision metal and glass syringe with Teflon gaskets. C. V. Robinson. il diag Anal Chem 26:1100 Je '54

SYSTOX. See Insecticides

T

TCP. See Tricresyl phosphate

TABER abraser. See Abrasion

TABLE mats

Keen sales sense gives new vitality to a homely utility product; J. Marie Martin co. B. Morden and V. Littell. il Sales Management 71:40-2 D 15 '53

TABLES

Executive fashions porcelain enameled cocktail table. il Cer Ind 61:102 N '53

How to build a television stand. G. B. Stone. diags Welding J 33:574 Je '54

This table was born in a hospital room. F. Bell. il Sales Management 71:56+ Ag 15 '53

TABLETING machines

Manesty's tablet machine; DryCota. il Chem Age (Lond) 71:642 S 25 '54

Redesign pays off in higher productivity. W. G. Patton. il Iron Age 173:140-2 Ap 1 '54

TABLETS (medicine)

Radiant heat dries pill coatings faster. Elec World 141:154 F 22 '54

TABLEWARE

Defects in hotel chinaware glaze; their causes and cures. J. A. Burns. Cer Ind 62:172 Ap '54

Old fighter; new foe; fight between plastics manufacturers and chinaware producers for dinnerware market. Chem W 74:42 Je 19 '54

Silver goes stainless. Steel 133:81 N 16 '53

Advertising

Too little buyer appetite? or too little creative sales effort? Homer Laughlin china co. D. J. Atchison. il Sales Management 70:89-92 Je 15 '53

Manufacture

Clay shop finishing problems. K. T. Corbett. diags Am Cer Soc Bul 32:421-2 D 15 '53

Development of a machine for turning green ware. A. J. Wahl and G. J. Croninger. il Am Cer Soc Bul 32:415-16 D 15 '53

Haviland talks about china; interview with Theodore Haviland. Cer Ind 61:89 D '53

TABLEWARE, Plastic

Old fighter; new foe; fight between plastics manufacturers and chinaware producers for dinnerware market. Chem W 74:42 Je 19 '54

TABULATING machines

Mechanical aid for sales brain; Pennsalt's battery of tabulators. il Chem W 74:52-4 My 29 '54

Statistical machines; their uses and purposes. L. A. Holloway. Weekly Underw 169:1573 D 26 '53

Tabulating equipment for better inventory control. R. D. Pash. il Factory Management 111:110-12 D '53

See also

Punched card system

Manufacture

Home-made machines make tabulator parts at Remington-Rand; illustrations with text. Am Mach 98:144 Ag 16 '54

TABULATION

Costing and managing the tabulating installation. J. J. Gallagher. N A C A Bul 35:1622-9 Ag '54

Device for simplifying tabulation. A. Kroeger. J Marketing 18:285-7 Ja '54

TACHOMETERS

Capacitor commutator tachometers. F. K. Floyd and D. J. Cody. il diags Product Eng 24:182-5 Jl '53

General Electric hand tachometer. il Blast F & Steel Pl 42:709-10 Je '54

General theory and operational characteristics of the Gyrotron angular rate tachometer. R. E. Barnaby and others. il diags Aeronautical Eng R 12:31-6+ N '53

New space rate sensing instrument; Gyrotron. J. Lyman. il diags Aeronautical Eng R 12:24-30 N '53

Rotating components for automatic control; speed measuring devices. S. Davis. il diags Product Eng 24:153-5 N '53

TACONITE

D. C. Jackling, taconite beneficiation, 1953. Min Eng 6:31 Ja '54

Erie mining co. to inaugurate major taconite program. il Min Eng 6:23 Ja '54

Erie ready to start work on big taconite project. il Eng & Min J 155:78-9 Ja '54

Erie starts big taconite project. il Steel 133:82 D 14 '53

Hard ore counters hard times. il Chem & Eng N 32:3342-4 Ag 23 '54

How to select synchronous motors for taconite grinding mills. J. C. Marous and E. F. Merrill. il Eng & Min J 155:84-7 Jl '54

Iron ore beneficiation. F. D. DeVaney. Eng & Min J 155:123-5 F '54

New ore treatment permits wide use of nonmagnetic taconites. F. M. Stephens, jr. and others. diag Iron Age 172:142-6 Jl 2 '53

New pelletizing process makes early debut; Arthur G. McKee & co. il Steel 135:70-1 S 20 '54

Problems rife in taconite development. E. M. Richards. Blast F & Steel Pl 42:240-1 F '54

Properties of nonmagnetic taconites affecting concentration. D. W. Scott and A. L. Wesner. bibliog il map Min Eng 6:Trans 635-41 Je '54

Realistic look at taconite estimates. J. W. Gruner. Min Eng 6:287-8 Mr '54

Reduction-oxidation process for the treatment of taconites. F. M. Stephens, jr. and others. il diag J Metals 5:780-5 Je '53

Steel industry insures its future with taconite. il diags Steel 135:76-7 S 13 '54

Taconite beneficiation comes of age at Reserve's Babbitt plant. O. Lee. flow sheets il Min Eng 6:484-8 My '54; Same - cond. J Metals 6:737-9 Je '54

Taconite; better blasting methods sought by Bureau of mines. Iron Age 172:158-9 Jl 2 '53; Same. Blast F & Steel Pl 41:1082 S '53

Taconite; firms really rolling. R. M. Lorz. il map Iron Age 173:72-3 Ap 15 '54

Taconite; payoff begins. T. M. Rohan. il Iron Age 174:78-9 S 9 '54

Taconite processing in Minnesota presents new water needs. Eng N 151:32 O 22 '53

TAFT, Robert A., sanitary engineering center

Dedicate Taft sanitation center. il Soap & Chem Spec 30:212-13 My '54

New center to study environmental health problems. il Chem & Eng N 32:1878 My 10 '54

TAFT-HARTLEY law. See Labor laws and legislation — United States — Taft-Hartley law

TAGS

Losing track of your product? put a tag on it. il diags Mill & Factory 55:119-20 Ag '54

Tag, labels and tickets. R. S. MacKenzie. il Paper Tr J 137:226-9 N 13 '53

Tags are learning to sell. il Sales Management 70:84-6 Ap 15 '53

Wilkes-Barre switches to new plastic zone check system. il Bus Transportation 32:37 D '53

TAILINGS

Control disposal of tailings from crushing operations to prevent stream pollution; New Jersey zinc co. W. B. Lenhart. il diags Rock Prod 56:74-8+ N '53

Effect of ultrasonic energy on settling of solids in phosphate tailing. D. Thompson and F. C. Vilbrandt. bibliog(70 ref) il diags Ind & Eng Chem 46:1172-80 Je '54

Milling Kentucky fluorspar tailings. L. West and R. R. Walden. flow sheet diag Min Eng 6:Trans 542-4 My '54

Truck-mounted cyclones build tailings pond. il Eng & Min J 155:99 Je '54

TAILSTOCKS. See Lathes—Tailstocks

TAINTER gates. See Gates, Hydraulic

TAIWAN. See Formosa

TALC

Fundamental studies of talc. J. A. Pask and M. F. Warner. bibliog(38 titles) Am Cer Soc J 37:118-28 Mr 1 '54

Genesis of California talc. L. A. Wright. Econ Geol 48:333-4 Je '53

Interface reactions between glazes and the crystal phases in a high-talc tile body. A. C. Perricone and R. L. Stone. bibliog il Am Cer Soc J 37:33-8 F 1 '54

Phosphate-bonded talc; superior block-talc substitute. J. E. Comeforo and others. il Am Cer Soc J 37:191-5 Ap 1 '54

Testing of talc for use in dinnerware bodies. W. D. Spore. Am Cer Soc Bul 33:134 My 15 '54

Ultra-fine talcs in low-loss steatite bodies. R. S. Lamar and W. W. Gaskins. bibliog il Am Cer Soc Bul 33:111-16 Ap 15 '54

TALGO trains. See Railroads—Trains

TALL oil

Esters of distilled and acid refined tall oil as varnish vehicles. P. D. Patrick, jr. and others. Tappi 36:561-4 D '53

From byproduct to big product. il diags Chem Eng 61:132+ Je '54

Predicts promising future for tall oil. R. Herrlinger. Paper Tr J 138:34 Ag 20 '54

Soap from tall oil. Soap & San Chem 29:99+ D '53

Soap plant observer; fatty raw materials. J. W. McCutcheon. Soap & San Chem 30:103+ F '54

Tall oil. Tappi 37:sup91A-2A Jl '54

Tall oil for resins. bibliog(73 titles) Tappi 37:sup 116A-20A Ap '54

Tall oil tempo quickens. Chem W 74:78-80 My 8 '54

Tall oil volume at 50 million pounds for soap use alone. A. Pollak. bibliog Soap & San Chem 29:42-5+ My '53

Tall oils; plentiful and promising. Chem Eng 61:142+ Je '54

Analysis

Isolation of *trans*-3,5-dimethoxystilbene from tall oil. H. Albrecht and E. H. Sheers. Am Chem Soc J 76:603-4 Ja 20 '54

TALL oil association

Annual meeting, 7th, New York, March 31. Paper Tr J 138:24 Ap 9 '54

Tall oil association semi-annual meeting, Sea Island, Ga. Paint Oil & Chem R 116:22 D 17 '53; Same abr. Oil Paint & Drug Rep 164:7+ D 7 '53

TALLOW

Fats find vinyl outlet. Chem W 72:40+ My 2 '53

Natural for tallow; Antara chemicals division's new Igepon TE-42. il Chem W 74:70+ Ja 9 '54

New Stepan fatty alcohol plant puts tallow to work in detergents. il Soap & Chem Spec 30:38-41 S '54

Soap plant observer; rising tallow market. J. W. McCutcheon. Soap & San Chem 30:111+ Ap '54

Tallow for animal feed. J. E. Magoffin. Soap & San Chem 30:54-5+ Mr '54

Working off the fat; utilization research. Chem W 75:79-80 Ag 14 '54

TAMM-DANCOFF method. See Field theories (physics)

TANK barges

Barging natural gas up the Mississippi. K. P. Partch. il Gas Age 113:23-4+ My 6 '54

Hooker caustic soda barge for Chicago. il Soap & Chem Spec 30:105 S '54

Natural gas to be liquefied and transported by river barge. map diags Power Eng 58:92-3 Je '54

See also

Loading and unloading—Tank barges

TANK cars

No shutdown plant keeps humming; railroad tank car as temporary source of supply at American maize products co. il Food Eng 26:69 Ag '54

Tankcars of U.S. rubber plants available on individual basis. Oil Paint & Drug Rep 165: 3+ Ap 26 '54

Why cars corrode; questions and answers. Ry Loco & Cars 128:63-5 S '54

See also

Loading and unloading—Tank cars

TANK roofs. See Oil tanks—Roofs

TANK ships

Bethlehem yard launches world's largest tanker. il Marine Eng 59:47 Mr '54

Canadian tankers are still busy. H. C. Plummer. il World Oil 137:278-80 N '53

Caustic by sea; Dow Chemical plans tanker shipments from Freeport, Tex. il Chem W 74:103-4 Mr 27 '54

Chicago Socony, a versatile tanker. il plans diags Marine Eng 58:60-8 D '53

Cities Service flagship, W. Alton Jones; New York welcomes mammoth tanker. il Marine Eng 59:41 Ag '54

Convert World war II C4's to combination bulk ore-oil vessels. R. L. Gray and M. Banister. il plans Marine Eng 59:34-40 Ag '54

Cost of tanker transportation, USMC rates; tables. W. L. Nelson. Oil & Gas J 52:113-14+ S 7 '53

Distributing tool; Marine Dow-Chem. map Chem W 74:86+ My 15 '54

Hydraulic power drives auxiliaries on Chicago Socony. il Marine Eng 58:68-9 D '53

Keystone tanker is rebuilt by Todd. il Marine Eng 59:38-44 Jl '54

King-size propeller built for 45,400-ton tanker. il Marine Eng 58:92 D '53

Launch chemical ship at Beth-Quincy. il Marine Eng 59:57+ F '54

Launching a new era in water-borne transportation of chemicals; S.S. Marine Dow-Chem. il Chem W 74:50 Ja 9 '54

Main propulsion gas turbine set for the oil tanker Auris. B. E. G. Forsling. diags Engineer 196:733-5; Discussion. 740-2 D 4 '53

Marine Dow Chem, first ocean-going tanker launched to carry chemicals. il Chem Eng 61:384-5 F '54

More chemicals on waterways; S.S. Marine Dow-Chem. il plan Chem & Eng N 32:1554 Ap 19 '54

Navy and MSTS support bill calling for new tanker tonnage; statements by Secretary of navy Anderson; Vice Admiral Denebrink. il Marine Eng 59:49-53 Ap '54

New ideas in tankers; Anglo-Saxon's Helix. Economist 169:360-1 O 31 '53

Oil by sea. Economist 168:338-9, 401-3 Ag 1-8 '53

Place of the tanker in the transportation of energy. H. N. Emerson. bibliog Am Pet Inst Proc 32(5):69-78 '52

Program to bolster tanker fleet. T. E. Buchanan. Weekly Underw 169:316 Ag 8 '53

Socony's new Great Lakes oil tanker designed with eye toward versatility. D. J. Warren. il Nat Pet N 45:58 Ag 12 '53

Special tanker for Sumatra; Caltex Pakanbaru. il Pet Eng 25:E6 Jl '53

Stresses in a tanker during launching. A. J. Johnson and M. Meek. Engineering 177:238 F 19 '54

Sun Ship delivers tanker Eclipse. il Marine Eng 59:36-46 My '54

Tanker boom near peak; statistical picture of the world tanker fleet. G. Weber. il Oil & Gas J 52:42-4 Ag 3 '53

Tanker building outpaces increase in need. J. J. Winterbottom. il Oil & Gas J 52: 226+ D 21 '53

Tanker corrosion costs $50,000. R. W. Moore. Chem & Eng N 32:816 Mr 1 '54

Texas company develops new class of coastwise tanker. il plans diags Marine Eng 58:62-76 N '53

Tina Onassis, oil tanker. il Engineer 197:92-3 Ja 15 '54

Turbo-electric oil tanker Helix. il Engineering 176:619-21 N 13 '53

Turbo-electric tanker Helix. Engineer 196: 568 O 30 '53

Two important ship launches; S.S. World Harmony and Cunard liner Saxonia. il Engineering 177:262 F 26 '54

Versatile Marine Dow-Chem. il plans diags Marine Eng 59:38-45 S '54

Water-borne caustic; Dow Chemical to ship caustic soda in S.S. Marine Dow-Chem. Chem & Eng N 32:536 F 8 '54

See also

Loading and unloading—Tank ships

Tank barges

TANK trucks

Bulk delivery of liquid sulphur. il Chem Age (Lond) 70:1291-2 Je 12 '54

Oil jobber; a look at storage, truck facilities. Nat Pet N 45:28-30 Ag 12 '53

Plane refueling made faster. il Nat Pet N 45:64-6 Je 17 '53

Plastic tank boosts payload. il Nat Pet N 45: 58 S 9 '53

Plastic tanker takes to road. il Chem Eng 60:246 O '53; Chem Eng Prog 49:sup58 S '53

Preventive maintenance cuts fleet costs. il Nat Pet N 46:22-4 Ja 27 '54

Solution for summer slack; fuel tank trucks to spray liquid fertilizer. il Chem W 75: 52+ Jl 10 '54

Tank truck sprays even coat of liquid while moving along a road. diag Chem & Eng N 31:2338 Je 1 '53

Tank trucks replace barrels. E. E. Jacobs. il Food Eng 26:125+ Ap '54

Wider horizon for chlorine in one-ton containers; small multi unit tank cars. J. H. Wilharm. il plans diags Water & Sewage Works 101:20-2 Ja '54

See also

Loading and unloading—Tank trucks

Cost of operation

Oil truck replacement schedule ends maintenance, purchasing guesswork. H. Willett, jr. Nat Pet N 45:47+ S 2 '53

Fires and fire protection

Aluminum tank dispute flares. il Nat Pet N 45:48 D 2 '53

Fire snuffers do job quickly. il Nat Pet N 45: 47 Ag 5 '53

Laws and regulations

New code for tank truckers. il Chem W 73: 50+ O 17 '53

TANKERS. See Tank ships

TANKS

Better circulation in stock storage tanks; Side-Flo unit. il diags Paper Tr J 138:56-7 My 14 '54

Build better design into your rectangular tanks. I. A. Butcher. diags Chem Eng 60: 201 Ag '53

Increasing quantities of alcohols being handled in bulk. T. W. Rodes. diags Ind & Eng Chem 46:sup 109A-11A My '54

Use-flexibility of bulk liquid terminals increased by proper selection of tank sizes and interchange of products. T. W. Rodes. Ind & Eng Chem 45:sup 112A Jl '53

Vacuum can collapse your tanks. il Power Eng 58:87 Je '54

See also

Airplanes—Fuel tanks
Boilers
Gasoline tanks
Imhoff tanks
Oil tanks
Pressure vessels
Septic tanks
Settling tanks
Sewage tanks
Tank ships
Tank trucks
Water tanks

Cleaning

Cleaning practice must be customed to products stored. T. W. Rodes. Ind & Eng Chem 45:sup 112A-14A Jl '53

Lining

Better tank construction methods increase lining life. M. Glover. il diags Iron Age 172:173-82 N 5 '53

Manufacture

Field welds; automatic machinery developed for welding vertical plate; Graver tank & mfg. co. il Iron Age 172:228 D 10 '53

Tanks ride rocking-horse weld positioner; Pfaudler co. il Steel 133:140 Ag 3 '53

TANKS—*Continued*

Measurement

Content of cylindrical tanks. W. F. Schaphorst. Water & Sewage Works 101:R43 pt 2 My '54

Figure contents of rectangular tanks. L. J. Murphy. Mill & Factory 55:114 Jl '54

Painting

See also
Oil tanks—Painting

TANKS, Aluminum

Aluminum tank dispute flares. il Nat Pet N 45:48 D 2 '53

How to weld aluminum tanks; Reynolds metals co. il diags Steel 134:154-5 F 15 '54

Materials; aluminum has advantages for tanks and pressure vessels. E. V. Sharpnack. diags Iron Age 173:174-6 Mr 4 '54

Vacuum tanks simplify oxygen storage problem. W. G. Patton. il Iron Age 173:92-3 Ap 29 '54

TANKS, Concrete

See also
Water tanks, Concrete

TANKS, Military

M44 self-propelled howitzer, largest of army's new light tank family. il Automotive Ind 111:63 S 1 '54

M-47 tank gears fail in the field. Am Mach 97:179 D 7 '53

Military tanks. W. O. Miller. il S A E J 61:36-8 N '53

Gearing

Tanks; why gears broke down in M-47s. il Iron Age 172:105 D 3 '53

Manufacture

Casting tank parts; Blaw-Knox co.'s Union steel casting division. il Foundry 82:144+ Mr '54

Cleaning cast steel armor; Cast armor division of American steel foundries. E. F. Ross. il Foundry 81:178+ Ag '53; Same. Steel 133:106-7 Jl 27 '53

Ministry of supply tank factory; Leyland, Lancashire. il Engineering 176:630-1 N 13 '53

Production shortcuts help power tanks; Continental Motors. G. H. DeGroat. il plan Am Mach 98:122-7 Jl 19 '54

Tank turret production typifies Cadillac machining methods. E. Altholz. il Mach 60:186-91 D '53

Traveling-head grinders finish heavy work. J. Horth and C. E. Stevens. il diag Am Mach 97:128-30 D 7 '53

Transmission

Tanks; must tear down faulty transmission in M47's, M48's. Iron Age 173:85 Mr 11 '54

TANKS, Plastic

Plastic tank boosts payload. il Nat Pet N 45:58 S 9 '53

Plastic tanker takes to road. il Chem Eng 60:246 O '53; Chem Eng Prog 49:sup58 S '53

Plastic tanks get tough. il Chem W 75:40-1 Jl 17 '54

Plastic tanks grow up. il Chem W 73:44+ Ag 29 '53

Reinforced-plastic tank. il Mech Eng 75:903-4 N '53

Resin-glass tank is shatterproof; air-storage tank in a new jet engine starter system. il Aviation W 59:44+ O 26 '53

TANKS, Steel

Better tanks speed processing. J. T. Winslow. il diag Food Eng 25:90-1 N '53

Glass-surfaced storage unit ends maintenance upkeep; Harvestore. il Chem & Eng N 32:3902 S 27 '54

Metal thickness of steel tanks. T. W. Reynolds. diags Heat & Ven 50:84-7 D '53

Poor welds can start brittle fracture. F. J. Feely and M. S. Northup. il plans Steel 134:100-1 Ja 11 '54

Report on brittle fracture studies; storage tank failures. F. J. Feely, jr. and others. bibliog il diags Welding J 33:sup99-109; Discussion. M. Gensamer. sup 109-11 F '54

Storage tanks off to fast start. K. W. Bennett. Iron Age 173:52 Ja 14 '54

30-ft diameter all-welded test tank. J. Vasta and F. W. Dunham. bibliog il diags Welding J 33:sup422-32 Ag '54

'Tween-size tanks. il Chem W 72:28+ My 30 '53

Use a suitable tank for descaling parts. Textile World 104:329-30 Ap '54

See also
Water tanks, Steel

Cathodic protection

Cathodic protection of storage tanks; Chicago and North western railway. B. D. Allison. diags Diesel Power 32:30-2 F '54

Manufacture

Automatic welding fixture. A. M. Troyer and D. Lorain, jr. il diag Am Mach 98:108-9 Ap 26 '54

Engineered system fills bill for fabricators; Moloney electric co. il Steel 134:150 Mr 15 '54

Fabricating stainless-steel tanks for liquid storage; Cherry-Burrell corp. R. H. Spiotta. il Mach 60:157-64 My '54

Inert-gas shielded welding proves cost saver on steel tanks. W. L. Wyman. il diag Steel 134:106-7 Je 7 '54

Large gas caps are stress-relieved on assembly line; Lukens steel co. il Iron Age 174:130 Jl 22 '54

Protection

See also
Tanks, Steel—Cathodic protection

TANNER, Nathan Eldon, 1898-

President of Trans-Canada pipe lines, ltd. Can Chem Process 38:20+ Mr '54

TANNERIES

Pre-process storage control of tanner's hides. F. C. Klarman. N A C A Bul 34:1478-9 Jl '53

Push-button tannery; Glove headquarters division (Milwaukee) of Colonial tanning co. il Chem W 74:70-1 F 6 '54

Waste

Disposal of tannery wastes; Hartnett tanning co. W. H. Taylor. Pub Works 84:94 N '53

Treatment of tannery wastes and domestic sewage at Fond Du Lac, Wis. B. J. Hartman. flow diag Sewage & Ind Wastes 25:1419-23 D '53

Treatment of wastes at Hartnett tannery; abstract. E. W. Ward. Water & Sewage Works 101:42 Ja '54

TANNERS' council of America

Annual meeting, 37th, Chicago, Oct. 22-23. Chem & Eng N 31:4528 N 2 '53

TANNING materials

Markets for tanning materials; interim report of chemical products committee to OEEC. Chem Age (Lond) 69:549-50 S 12 '53

OEEC asks for western markets for European tanning materials. Chem & Eng N 31:4446 O 26 '53

Syntanned soles march on. il Chem W 72:66+ My 16 '53

Tanning materials; OEEC chemical products committee report. Chem Age (Lond) 70:473 F 20 '54

Textile and leather chemicals. Published in weekly numbers of Oil, paint and drug reporter

U.S. consumption major vegetable tanning materials, 1953; tabulation. Chem W 73:63 Ag 22 '53

See also
Tannins

Prices

Textile and leather chemicals; 1953 market trends. Oil Paint & Drug Rep 165:49 sec 2 F 1 '54

TANNINS

Isolation from acacia melanoxylon of a flavan-3 : 4-diol and its possible bearing on the constitution of phlobatannins. F. E. King and W. Bottomley. bibliog Chem & Ind p 1368 D 19 '53

Tannin of apple juice and cider; interpretation of the permanganate titration method. A. H. Williams. bibliog Chem & Ind p540-1 My 30 '53

TANNINS—*Continued*

Analysis

Ultraviolet absorption spectra as a measure of phenolic hydroxyl group content in polyphenolic tanninlike materials. L. F. Maranville and O. Goldschmid. bibliog Anal Chem 26:1423-7 S '54

TANTALUM

Angular and energy distributions of photoprotons from aluminum and tantalum. M. M. Hoffman and A. G. W. Cameron. diag Phys R 92:1184-91 D 1 '53

Coulomb excitation of Ta, W, and Au. W. I. Goldburg and R. M. Williamson. bibliog diag Phys R 95:767-71 Ag 1 '54

Gamma-ray absorption coefficients for NaI, Cu, Ta, and W. P. R. Howland and W. E. Kreger. bibliog diag Phys R 95:407-10 Jl 15 '54

General Electric tiny tantalum capacitors. il Steel 133:102+ O 5 '53; Elec Eng 72:1039 N '53

Growth and surface properties of tantalum crystals. M. H. Nichols. bibliog il diags Phys R 94:309-13 Ap 15 '54

Halides of niobium (columbium) and tantalum; the electrical conductivities of niobium and tantalum pentafluorides. F. Fairbrother, W. C. Frith and A. A. Woolf. Chem Soc J p 1031-3 Mr '54

High pressure oxidation of metals; tantalum in oxygen. R. C. Peterson and others. bibliog il diags J Metals 6:Trans 1038-44 sec 2 S '54

Internal conversion electrons from Coulomb excited Ta and W. T. Huus and J. H. Bjerregaard. diag Phys R 92:1579-81 D 15 '53

Materials of construction for chemical engineering; less common metals. W. R. Bekebrede and L. F. Yntema. il Ind & Eng Chem 45:2261-9 bibliog(216 ref, p2268-9) O '53

Metallurgical trends of interest to chemical engineers. L. Rotherham. Chem & Ind p 1168 S 18 '54

Preliminary results on photoelectric yields of Pt and Ta and on photoionization in O_2 and N_2 in the vacuum ultraviolet. N. Wainfan and others. bibliog diag J Ap Phys 24: 1318-21 O '53

Slow neutron resonances in tantalum. R. L. Christensen. Phys R 92:1509-10 D 15 '53

Slow neutron velocity spectrometer studies; Re, Ta, Ru, Cr, Ga. E. Melkonian and others. Phys R 92:702-15 N 1 '53

Tantalum and columbium. J. W. Rose. il diags Am Mach 98:189-98 Ap 12 '54

Tantalum; will costs stunt growth? K. W. Bennett. il Iron Age 174:63-4 Jl 15 '54

Where to use tantalum. T. M. Gayle. il Materials & Methods 39:94-5 Ja '54

Analysis

Analytical chemistry of niobium and tantalum. C. F. Hiskey and A. L. Batik. bibliog diags Anal Chem 25:823-5, 926-31 My-Je '53

Determination of carbon in tantalum. A. F. Torrisi, J. L. Kernahan and R. E. Fryxell. diags Anal Chem 26:733-4 Ap '54

Determination of small amounts of niobium and tantalum using radioisotope tracer technique. T. F. Boyd and M. Galan. flow sheets Anal Chem 25:1568-71 O '53

Determination of small amounts of niobium in pure tantalum and its oxide. J. Hastings and T. A. McClarity. bibliog Anal Chem 26:683-5 Ap '54

Direct photometric determination of iron, titanium, and copper in tantalum and its oxide. J. Hastings, T. A. McClarity and E. J. Broderick. bibliog Anal Chem 26: 379-81 F '54

Photometric determination of columbium, tungsten, and tantalum in stainless steels. L. Ikenberry, J. L. Martin and W. J. Boyer. bibliog Anal Chem 25:1340-4 S '53

Quantitative analysis of niobium and tantalum in ores by fluorescent X-ray spectroscopy. W. J. Campbell and H. F. Carl. bibliog il Anal Chem 26:800-5 My '54

Separation of niobium and tantalum by liquid-liquid extraction. J. Y. Ellenburg, G. W. Leddicotte and F. L. Moore. bibliog Anal Chem 26:1045-7 Je '54

Separation of tantalum and niobium by liquid-liquid extraction. J. R. Werning and others. bibliog il diag Ind & Eng Chem 46:644-52 Ap '54

Separation of tantalum and niobium by solvent extraction. P. C. Stevenson and H. G. Hicks. Anal Chem 25:1517-19 O '53

Spectrographic analysis of 18-8 stainless steel for cobalt, manganese, and stabilizing elements. N. E. Gordon, jr., R. M. Jacobs and M. C. Rickel. diags Anal Chem 25:1031-4 Jl '53

Ultraviolet spectrophotometric determination of tantalum with pyrogallol. J. I. Dinnin. bibliog(29 ref) Anal Chem 25:1803-7 D '53

Isotopes

Angular correlations of gamma rays in Ta^{181}. F. K. McGowan. bibliog diag Phys R 93:471-7 F 1 '54

Nuclear reactions

Decay of Ta^{183}. J. W. M. DuMond and others. Phys R 92:202 O 1 '53

Electric excitation of tantalum. J. T. Eisinger and others. Phys R 94:735-6 My 1 '54

TANTALUM carbide

Heats of formation of tantalum, niobium and zirconium oxides, and tantalum carbide. G. L. Humphrey. bibliog Am Chem Soc J 76:978-80 F 20 '54

TANTALUM chloride

Tantalum subchloride. A. E. van Arkel and others. Am Chem Soc J 76:3858-9 Jl 20 '54

TANTALUM oxide

Formation of anodic oxide films on cathodes. D. A. Vermilyea. diags Electrochem Soc J 101:389-92 Ag '54

Analysis

Determination of small amounts of niobium in pure tantalum and its oxide. J. Hastings and T. A. McClarity. bibliog Anal Chem 26:683-5 Ap '54

Direct photometric determination of iron, titanium, and copper in tantalum and its oxide. J. Hastings, T. A. McClarity and E. J. Broderick. bibliog Anal Chem 26: 379-81 F '54

TAPE

Application of gummed tear tape on the semiautomatic taping machine. F. Lowery. Tappi 37:sup 162A-3A Je '54

Pressure-sensitive tear tape application. L. Paul. Tappi 37:sup 163A-4A Je '54

Properties, problems, and performance of gummed tear tape. W. Friedman. Tappi 37: sup 164A-6A; Discussion. sup 166A-7A Je '54

TAPE, Adhesive. See Adhesive tape

TAPE, Surveyors'. See Surveyors' tape

TAPE recorders. See Sound—Recording and reproducing—Magnetic recording

TAPERS

Gage for checking sizes and location of tapers on shafts. W. Morson. diags Mach 60:211-13 Mr '54

Guided rings check tapers. W. I. Morgan. diags Am Mach 98:129 Mr 29 '54

Inexpensive gage helps match tapers. C. Jensen. diags Am Mach 98:124 F 1 '54

Rotating guide-block aids taper cut. S. Hahne. diags Am Mach 98:138 Ag 2 '54

TAPPING

Cored holes in castings tapped faster, cheaper; Ajax mfg. co. W. G. Patton. il Iron Age 173:106-7 Ja 21 '54

Eliminating small tap troubles. H. E. Evans. il Tool Eng 33:44-6 Ag '54

High-speed photography stops tap breakage. W. G. Hyzer. il Tool Eng 33:82 Jl '54

Increase tap-drill diameters and save money. M. L. Begeman and C. C. Chervenka. il diag Tool Eng 32:61-5 Je '54

Production tapping; how to prevent tap breakage. H. Conn. il diags Tool Eng 32: 35-8 My '54

Tap breakage problem solved by high-speed photography. E. J. Fox. il Mach 60:192-3 Ap '54

Unit engineering of multiple drilling and tapping equipment. M. H. Emrick. il Mach 60:165-8 Ag '54

TAPPING machines

Fuse head tooling built up of standard units. F. G. Gepfert. il Tool Eng 32:50-1 Je '54

Machine tool buyers' guide; tapping and threading machines. il Steel 133:214-17 sec 2 N 16 '53

1954 American Machinist production preview. il Am Mach 98:137-8 Ja 18 '54

TAPPING machines for pipes. See Pipe lines—Tapping

TAPS

Facts about modern taps and dies. diags Mill & Factory 54:590-1 My '54

Tap for corrosive vapours. A. B. Osborn. diags J Sci Instr 31:147 Ap '54

Tolerances for tap-drill holes; reference book sheet. Am Mach 98:143, 145, 147 Ap 26 '54

TAR

Control and resolution of high-Btu oil gas tar emulsions. H. R. Linden and R. Parker. Am Gas Assn Proc 1953:740-50

Dehydration

Experience with the centrifugal dehydration of gas tar, particularly from high Btu oil gas production; Sharples corp. J. T. Costigan. flow sheet Am Gas Assn Proc 1953: 765-6

Report of tar dehydration subcommittee. A. H. Wicht. Am Gas Assn Proc 1953:964-7

Testing

Proposed method of test for distillation of coal tar, coal-tar pitch, and similar tars and pitches. diags Am Soc T M Proc 51: 359-63 '51

TAR acids

Separation of phenols by partition chromatography. T. R. Sweeney and J. D. Bultman. bibliog diag Anal Chem 25:1358-63 S '53

TAR distillation

New approach to distillation; flexible tar and oil plant. diag Chem Age (Lond) 71:637-8 S 25 '54

Proposed method of test for distillation of coal tar, coal-tar pitch, and similar tars and pitches. diags Am Soc T M Proc 51: 359-63 '51

TAR oils

Production of phthalic anhydride by the oxidation of tar oils. J. Sheimerdine and others. bibliog J Ap Chem 3:513-21 N '53

TARAXASTEROL

Chemistry of the taraxasterol group of pentacylic triterpenes. J. L. Beton and others. Chem & Ind p847-8 Ag 8 '53

Chemistry of the triterpenes and related compounds; the structure of taraxasterol, ψ-taraxasterol (heterolupeol), and lupenol-I. T. R. Ames and others. Chem Soc J p 1905-19 Je '54

TARAXEROL

Constitution of taraxerol (skimmiol). C. J. W. Brooks. bibliog Chem & Ind p 1178 O 31 '53

TARGET airplanes. See Airplanes, Target

TARIFF

Assistance in adjusting to a tariff reduction. O. R. Reischer. J Bsns 26:103-9 Ap '53

Tariff cuts temporarily stymied. Steel 134: 65 Je 28 '54

U.S. tariff levels lower than most trading nations; with tabulation value of imports, customs duties collected, and ratios thereof for countries with available reported data, 1937 and 1951. Chem & Eng N 31:4314+ O 19 '53

U.S. tariff; lower than most; American tariff league's study of the free world's tariffs. Steel 133:55 O 19 '53

See also

Commercial policy
Commercial treaties and agreements
Drawbacks
Free ports and zones
Free trade and protection

Canada

Customs tariff; rates levied on importation of construction equipment and materials. Roads & Eng Constr 92:312+ Je '54

Fable of the farms. F. G. Raymant. Can Chem Process 38:16 S '54

Industries being stifled. F. G. Raymant. Chem Age (Lond) 71:480 S 4 '54

Ceylon

Ceylon duties affect U.S. goods. For Comm W 50:9 S 7 '53

Colombia

Colombia revises list of prohibited imports. For Comm W 50:7 Ag 24 '53

Colombia sets effective date for tariff classification changes. For Comm W 50:9 N 23 '53

Egypt

Egypt drops duties on additional imports. For Comm W 50:8 D 21 '53

Germany

One man's meat; German chemical producer's plea for lowered tariffs. Chem W 74:20 Je 26 '54

Great Britain

Britain gets the waiver. Economist 169:350 O 31 '53

Britain's démarche at Gatt. Economist 168: 713-14 S 12 '53

Key industry duty; chemicals added to list by amendment no. 6. Chem Age (Lond) 70:1299-300 Je 12 '54

Preferences and Europe. Economist 168:771 S 19 '53

India

India liberalizes dollar imports under new July-December quotas. For Comm W 50:7 Ag 3 '53

Japan

Japan revises its import tariff. For Comm W 50:8 Ag 31 '53

Malaya

Malaya amends customs to obtain new revenue. For Comm W 50:6 D 21 '53

Mexico

Export and import tariff modifications (cont). For Comm W 50:8+ Ag 3; 10 Ag 10; 7 Ag 17 '53

Mexican export surtax charges again amended. For Comm W 51:14 F 22 '54

Mexican import duties revised on some items. For Comm W 50:9 S 7 '53

Mexico changes duties on additional items. For Comm W 50:11 D 7 '53

Mexico raises import duties on radio and tv sets, makes other changes in tariff. For Comm W 50:9 D 28 '53

Mexico revises duties on various products. For Comm W 50:9+ N 23 '53

Netherlands

Netherlands eases restrictions on list of imports from dollar area. For Comm W 50:10-11 N 16 '53

Panama

Panama raises duties on various products. For Comm W 50:11 N 16 '53

Peru

Peru raises duties on rubber goods. For Comm W 50:9 Ag 17 '53

Raises in Peruvian duties proposed. For Comm W 50:8 D 14 '53

Philippine Islands

Essential Philippine industries duty exempt. For Comm W 50:14 O 26 '53

Siam (Thailand)

Thailand revises import tariffs. For Comm W 50:13 O 26 '53

South Africa

South Africa announces new import quota plan. For Comm W 50:10 N 16 '53

United States

Adjustment to imports and the national interest. O. R. Reischer. J Bsns 26:254-62 O '53

Calling a draw on tariffs. Chem W 75:26 S 4 '54

Free trade; theories and realities. O. Herres. Eng & Min J 154:79+ N '53

Hard-to-get help; bid for relief by Linde air products; importer seeking to forestall action by Tariff commission to cut off flow of German-made synthetic gems into the U.S. Chem W 74:7 Ja 2 '54

TARIFF—United States—*Continued*

High and low tariff groups clash. Chem & Eng N 31:4730-1 N 9 '53

House divided; industry speaks with two voices on tariff policy. Barron's 33:5 Ag 17 '53

Lead, zinc curb counter to international pacts. Oil Paint & Drug Rep 165:3+ Ap 26 '54

Let's not import depression! tariff correction rather than general tariff reduction. C. A. Campbell. Comm & Fin Chr 178:1939+ N 19 '53; Abstract. Chem Eng 61:384-5 Ja '54

No serious depression likely in chemical industry; U.S. tariff policy. L. I. Doan. Comm & Fin Chr 178:1643 O 29 '53

Our protective tariff religion. H. Schmitt. Eng & Min J 154:78+ N '53

Our trade policy. J. S. Coleman. Comm & Fin Chr 178:907+ S 10 '53

Ping pong balls versus ammunition; unhinge trade gates. G. F. Towers. Credit & Fin Management 55:26-7 Ag '53

President decides against higher import duties for brier pipes. For Comm W 50: 23 N 23 '53

Protection or free trade; electrical manufacturers find foreign competition growing. Bsns W p 140+ D 19 '53

Randall commission proposals face rough road; report. Chem & Eng N 32:472-3 F 8 '54

Randall commission recommends policy changes; urges changes on broad front in tariffs and trade policy. For Comm W 51: 12-15+ F 1 '54

Randall commission recommends tariff cuts and customs revisions. Oil Paint & Drug Rep 165:3+ Ja 25 '54

Randall report dissenters protectionist policy recommendations. Oil Paint & Drug Rep 165:3+ F 1 '54

Subsidies, not tariffs. Bsns W p 166 N 28 '53

Tariff cuts asked by President facing uphill fight in Congress. Oil Paint & Drug Rep 165:3+ Ap 5 '54

Tariffs; some protection needed. Steel 134:39 Ja 11 '54

Toward a freer trade policy; report by the Randall commission. Steel 134:55-7 F 1 '54

Trade act continuance is voted. Oil Paint & Drug Rep 165:3+ Je 14 '54

Trade policy, tangle in Randall commission. Bsns W p33-4 N 7 '53

Traders' triumph. Chem W 74:15 Je 19 '54

Two ways to look at tariffs. Bsns W p 160 N 7 '53

Walls stay up. Chem W 72:17 My 2 '53

Would tariff suspension hurt U.S. business? H. S. Piquet. Harvard Bsns R 31:95-103 N '53

Your stake in the battle of Chief Joseph dam. A. G. Mezerik. Sales Management 71:56-60 Jl 15 '53

Chemicals

Attentive but wary; Organic chemical manufacturers association trade-and-tariff policy. Chem W 73:14 S 19 '53

Chemical industry gets hot about tariffs. Chem Eng 61:362-3 F '54

Chemical tariff probe launched. Oil Paint & Drug Rep 166:3+ Jl 19 '54

Chemical tariffs; a fighting stand. Bsns W p 162-4 N 28 '53

Customs simplification bill changes calm SOCMA fears; abstract. S. Lenher. Chem & Eng N 32:3363 Ag 23 '54

Customs simplification under slashing attack by chemical industry. Oil Paint & Drug Rep 165:3+ Je 28 '54

Desperate for dollars; how foreign chemical companies sell cheap here. Chem W 73: 15-16 Jl 25 '53

Discord deferred; Randall report recommending mostly a continuation of present tariff policies. Chem W 74:15 Ja 23 '54

Hitting high spots; Tariff commission to study tariff rates. Chem W 75:15-16 Jl 10 '54

Leveling the tariff barrier. Chem W 74:78+ F 20 '54

MCA defends tariff system in statement prepared for Randall commission. Chem & Eng N 31:4866-7 N 23 '53

More and heavier guns; Synthetic organic chemical manufacturers statement to Randall commission. Chem W 73:16 D 19 '53

New look at old poser. Chem W 73:15 N 7 '53

Organics duty cutback bar to expansion. C. R. Wagner. Oil Paint & Drug Rep 165:5 F 22 '54

Rose by any name; nomenclature important in U.S. Customs court. Chem W 74:21 Mr 20 '54

Scare on imports; revised bill authored by Representative Thomas Jenkins. Chem W 73:28 D 19 '53

Tariff cuts will weaken defense. Synthetic organic chemical manufacturers association holds. Oil Paint & Drug Rep 164:3+ D 14 '53

Tariffs come up again. Chem & Eng N 32: 2206 My 31 '54

Tariffs, the dangling sword; synthetic organic chemical industry report to Randall commission. Chem & Eng N 31:5404-5 D 28 '53

Tests for 2,000; number of chemical customs cases grows larger. il Chem W 73:14-15 N 28 '53

Trade plus protection; Manufacturing chemists' association tariff statement. Chem W 73:13 N 21 '53

Turpentine, rosin duty legal attack expected. Oil Paint & Drug Rep 164:3+ O 26 '53

US trade policy must not hinder planned chemical expansion; Manufacturing chemists association. Oil Paint & Drug Rep 164: 3+ N 16 '53

Wary but unworried. Chem W 74:20+ My 8 '54

Watch by the sea; three court skirmishes. Chem W 74:15 F 6 '54

Coal tar products

Customs and coal tar products. Chem & Eng N 32:774 F 22 '54

Gelatin

Glue probe launched by Tariff commission. Oil Paint & Drug Rep 165:3 My 10 '54

Glue

Glue probe launched by Tariff commission. Oil Paint & Drug Rep 165:3 My 10 '54

Lead

Lead-zinc duty boost refused by Eisenhower. Oil Paint & Drug Rep 166:3+ Ag 30 '54

Protection precedent; chemical industry will be watching lead and zinc tariffs. Chem W 73:30+ O 10 '53

Why the U.S. lead-zinc industry united in appeal on tariffs. O. Herres. Eng & Min J 155:29-31 F '54

Metals

Tariff panel; abstracts of papers. A. Fletcher and others. Min Cong J 39:69-73 N '53

Rubber goods

Rubber footwear manufacturers call for retention of tariff. Rubber Age 74:586 Ja '54

Scientific apparatus and instruments

SAMA offers tariff plan. Chem & Eng N 31: 5321 D 21 '53

Watches

Tariffs upped on watches to protect skilled labor source. Iron Age 174:58 Ag 5 '54

Wool

Will wool tariff go up? Bsns W p 166-7 O 17 '53

Zinc

Lead-zinc duty boost refused by Eisenhower. Oil Paint & Drug Rep 166:3+ Ag 30 '54

Protection precedent; chemical industry will be watching lead and zinc tariffs. Chem W 73:30+ O 10 '53

Why the U.S. lead-zinc industry united in appeal on tariffs. O. Herres. Eng & Min J 155:129-31 F '54

TARIRIC acid

Anodic syntheses; synthesis of tariric and petroselinic acid. B. W. Baker and others. Chem Soc J p 1804-8 Je '54

TARNISHING of metals

Reaction of silver alloys with sulfur in mineral oil. R. T. Foley and others. bibliog Electrochem Soc J 100:538-42; 101:6-9 D '53-Ja '54

TARNISHING of metals—*Continued*

Tarnish and corrosion prevention; work of the Design and research centre; gold, silver and jewellery industries. Chem Age (Lond) 68:921-2 Je 20 '53

TARTARIC acid

Polarographic determination of molybdenum; tartaric acid as supporting electrolyte. E. P. Parry and M. G. Yakubik. bibliog Anal Chem 26:1294-7 Ag '54

Analysis

Determination of malic, tartaric, and citric acids in fruit by ion exchange chromatography. H. H. Schenker and W. Rieman, 3d. bibliog Anal Chem 25:1637-9 N '53

TARTRATES

Dielectric properties of some double tartrates. F. Jona and R. Pepinsky. Phys R 92:1577 D 15 '53

TASTE

Flavour assessment. E. D. Adrian. Chem & Ind p 1274-6 N 28 '53

Taste is the thing; youngsters mean booming market for medicines. il Chem W 74:52+ F 6 '54

Taste testing rooms; lighting for food technology. H. W. Spell and A. W. Lange. il diag Illum Eng 49:105-6 F '54

See also

Flavor

TATA iron and steel company, limited

Statement by the chairman. J. R. D. Tata. Economist 168:738-9 S 12 '53

TAUTOMERISM

Base-catalyzed isomerization and tautomeric equilibria of the system 2-methyl-3-nitropropene and 2-methyl-1-nitropropene. H. Shechter and J. W. Shepherd. bibliog Am Chem Soc J 76:3617-21 Jl 20 '54

Nuclear magnetic resonance signals from a tautomeric mixture. H. S. Jarrett and others. il J Chem Phys 21:2092-3 N '53

Restriction of tautomerism in the triazole system by hydrogen bonding; the case of 4(7)-nitrobenzotriazole. N. L. Miller and E. C. Wagner. bibliog Am Chem Soc J 76:1847-52 Ap 5 '54

Some adsorption colors and their significance for thermochromic and tautomeric effects; experiments with 1,3-diketohydrindene derivatives and with 1,4-quinonedibenzenesulfonimides. A. Schönberg, A. Mustafa and W. Asker. bibliog Am Chem Soc J 75:4645-7 O 5 '53

Tautomerism of 5-amino-1-aryl-1 : 2 : 3-triazoles. B. R. Brown, D. L. Hammick and S. G. Heritage. Chem Soc J p3820-5 D '53

TAX administration

See also

United States—Internal revenue, Bureau of

TAX consultants

Practice of taxes; one attorney's point of view. C. Rembar. J Account 97:549-64 My '54

TAX evasion and avoidance

Due process frees tax avoider. J Account 97:623-4+ My '54

Samish loses. Bsns W p27 D 19 '53

Tax canvass hits the jackpot. il Bsns W p71-2+ S 12 '53

TAX exempt securities. See Taxation, Exemption from

TAX exemption. See Taxation, Exemption from

TAX refunds

Tax refunds over $200,000 require special handling. H. T. Reiling. J Account 95:567-71 My '53

TAXATION

Tax measures abroad to spur foreign trade and investments. M. B. Carroll. Comm & Fin Chr 178:2048-9 N 26 '53

Time for tax action is now. Steel 134:52 Ap 12 '54

See also

Assessment
Debts, Public
Excess profits tax
Excise tax
Gift tax
Income tax
Inheritance tax
Mine taxation
Municipal taxation
Sales tax
Tariff
Taxation of securities

also subdivision Taxation under special subjects, e.g.

Corporations
Insurance companies
Motor trucks
Partnership
Petroleum industry and trade
Railroads

Accounting

Tax clinic. J. K. Lasser, ed. Published in monthly numbers of Journal of accountancy

Bibliography

Books and other items recommended for the tax practitioner's library. J Account 96:80-1 Jl '53

Credit aspects

Tax supervisor runs tax course for credit men to help them appraise customers' tax situation. C. H. Gebhardt. J Account 95:745-6 Je '53

International aspects

Double-taxation treaties go into effect between U.S., Australia. For Comm W 50:7 D 28 '53

Law

Taxability of prepayments in the United States, Canada, and Britain. M. Pierce. J Account 96:72-8 Jl '53

See also

Revenue act of 1954

Australia

Australia cuts its taxes. Economist 168:720+ S 12 '53

Australia's incentive budget. Economist 168:792-3 S 19 '53

Canada

Canada's experience with the manufacturers' sales tax. J. F. Due. J Bsns 27:243-53 Jl '54

Canada's positive tax policies. D. Abbott. Comm & Fin Chr 178:2386+ D 17 '53

Independence vs. security; Canada's internal threat. J. B. Weir. Comm & Fin Chr 178:2640 D 31 '53

Colombia

Colombia clarifies law on tax withholdings. For Comm W 51:11 Ja 25 '54

Colombia to levy special surtax on 1952 incomes. For Comm W 50:10 Ag 31 '53

Colombian decree fixes certain tax changes. For Comm W 50:9 O 19 '53

France

New French laws offer incentive to industry; reductions in production tax. For Comm W 50:10 D 7 '53

Germany

West German income and corporation taxes cut. For Comm W 50:14 Ag 3 '53

Great Britain

Debate on death duties. Economist 170:107-9 Ja 9 '54

Lucky dip in purchase tax; cost of the concessions. Economist 170:116-17 Ja 9 '54

Skeletons in the tax cupboard; death duties and family business. Economist 169:440+ N 7 '53

Haiti

Haiti fixes internal tax on buildings. For Comm W 50:12 D 14 '53

India

Indian estate duty act imposes property tax. For Comm W 50:12 D 14 '53

Michigan

Michigan business receipts tax. P. A. Firmin. (Mich. business report no. 24) 149p bibliog(p 145-9) pa $2 Univ. of Michigan, Bur. of business research, School of business administration, Ann Arbor '53

TAXATION—*Continued*

South Africa

New taxes for South Africa. Economist 168: 341-2 Ag 1 '53

Troy, New York

Reappraisal brings howls in Troy, N.Y. Bsns W p96 Ag 29 '53

United States

A.L.C., L.I.A. give proposals for tax revisions. Nat Underw (Life ed) 57:1+ Jl 17 '53; Same cond. East Underw 54:5+ Jl 17 '53

Big tax revision bill takes another step toward approval. S. E. Cohen. Ind Marketing 39:44+ My '54

Cautious optimism over new deal in taxes. Chem W 75:24 S 18 '54

Excess profits tax lapse and tax cuts in offing. G. M. Humphrey. Comm & Fin Chr 178:1213+ O 1 '53

Executives vary stress on value of faster depreciation to help economy. Ind Marketing 39:134+ Mr '54

Federal tax notes. S. J. Foosaner. Trusts & Estates 93:65-7 Ja '54 [cont monthly]

Federal taxation and life insurance in 1953. P. H. Walker. East Underw 54:54-5+ pt 2 S 25 '53

Federal taxes; process, prospects, and policy. W. W. Heller. Comm & Fin Chr 178:1331+ O 8 '53

How the tax program will affect small business. M. B. Folsom. J Account 96:106+ Jl '53

Leave taxes as they are to maintain full employment and promote economic growth. L. H. Keyserling. Comm & Fin Chr 178: 2640+; 179:168 D 31 '53, Ja 14 '54

Liberalization of depreciation rates. Nat City Bank p 16-17 F '54

Life company organization's recommend important federal tax changes. Weekly Underw 169:115-16 Jl 11 '53

More a deterrent than an incentive? omnibus tax revision bill. Chem W 74:19 My 1 '54

More tax law changes coming in 1955. M. B. Folsom. Steel 135:29-30 Ag 30 '54

New tax bill. House & Home 6:161-2 S '54; Same cond. Arch Forum 101:128-9 S '54

New tax law promises greater capital investment, expansion. C. Fuller. Ind Marketing 39:65-8 S '54

No tax overhaul in sight. Bsns W p27-8 S 12 '53

Objectives of Treasury's tax policies. M. B. Folsom. Comm & Fin Chr 177:1735+ Ap 23 '53; Excerpt. J Account 96:102+ Jl '53

Planned tax cuts may save South $1.8 billions annually. M. Smith. Manuf Rec 122: 64-5 N '53

Projection of what to expect from taxes. H. Nicholson. Mag of Wall St 93:120-2+ O 31 '53

Research costs a tax puzzle; session on the new tax law held by American management association. Chem & Eng N 32:3412 Ag 30 '54

Stock dividends; paid in stock rather than in cash. B. Graham. Barron's 33:3+ Ag 3; 5-6 Ag 10 '53

Tax changes to give business shot in arm. J. K. Lasser. Ind Marketing 39:112 Mr '54

Tax clinic. J. K. Lasser, ed. Published in monthly numbers of Journal of accountancy

Tax freeze? new controversy brewing over social security. Barron's 33:3 N 30 '53

Taxes and the consumers' price index. Mo Labor R 76:53-7 Ja '53

Taxes, national security and economic growth. F. B. Wilde and J. C. Thomson. Comm & Fin Chr 179:278+ Ja 21 '54

They'll make a difference; how new tax changes will look to company treasurers. Chem W 75:13-14 Jl 31 '54

U.S. sales tax raises its head. Bsns W p 103-4+ N 14 '53

Up for overhaul. Chem W 73:28+ Jl 25 '53

What new tax bill means to you. J. R. Whipple. Iron Age 174:53-5 Ag 5 '54

What tax law's depreciation terms mean. Steel 135:30-1 Ag 30 '54

See also

Corporations—Taxation
Excess profits tax
Gift tax
Income tax—United States
Revenue act of 1954
Tariff—United States
United States—Internal revenue, Bureau of

TAXATION, Double

Double taxation of dividends, a triple penalty on the investor. G. K. Funston. Comm & Fin Chr 178:271 Jl 23 '53; Discussion. 178: 357, 540, 732, 1012 Jl 30, Ag 13, 27, S 17 '53

Double-taxation treaties go into effect between U.S., Australia. For Comm W 50:7 D 28 '53

NSTA urges end of capital gains tax and double dividend taxation; text of resolution. Comm & Fin Chr 178:14 sec 2 O 8 '53

TAXATION, Exemption from

Regulation on $5000 tax-free benefit needs clarifying. Nat Underw (Life ed) Daily ed 57:18-19 Ag 28 '53

Tax exemption on income earned abroad. J. J. Schwartz. Eng N 151:360-1 O 8 '53

Tax interpretation made on compressors. Refrig Eng 62:69 Ja '54

Transit tax exemption will save the public millions. L. H. Brown. Bus Transportation 33:40-2 F '54

TAXATION, State

Death taxes listed for each state; with table. C. J. Cover. Spectator (Endorsement no) 162:104-6 Ag '54

State tax take in U.S. for latest fiscal year climbs seven per cent. Bsns W p 134 S 26 '53

State taxes on business; the load grows heavier; with chart. Steel 135:54 Jl 19 '54

States collect more taxes in 1953. V. J. Wyckoff. Comm & Fin Chr 178:1636-7 O 29 '53

Tax slowup marks this year's state lawmaking. Bsns W p 144+ Ag 8 '53

TAXATION of securities

Corporate possibilities in international investment. F. Schneider. Comm & Fin Chr 178: 1118 S 24 '53

Crumbs from the table. Barron's 33:5 N 2 '53

Distribution of treasury stock; Tax court decision. F. L. Morton. Spectator 161: 39-41 Ag '53

To have and to hold; some thoughts on the capital gains tax. B. N. Chanler. Barron's 33:3+ O 12 '53

See also

Taxation, Exemption from

TAXICAB dispatching. See Radio telephone—Taxicab dispatching

TAXICAB insurance. See Insurance, Taxicab

TAXICABS

Radio equipment

Dispatching a large taxi system. J. A. Craig. il plan diag Commun Eng 13:19-21+ S '53

TAXIMETERS

Taximeters; accountants on wheels. R. K. Ulrich. il Steel 134:59 Ap 12 '54

TAYLOR, Elliott, 1898-1953

Sketch. por Am Gas J 180:26-7 Ja '54

TAYLOR, Thomas, 1895-1953

Sketch. D. L. Hammick. Chem Soc J p767-8 F '54

TAZETTINE

Tazettine. G. R. Clemo and M. Hoggarth. Chem & Ind p 1046 Ag 21 '54

TEA

New kind of tea bagger. il Mod Packaging 28:102-5 S '54

Sharper Lipton; tea and soup-mix packages get the uplift treatment. il Mod Packaging 27:126-7+ Ja '54

TEA industry and trade

Dearer cup of tea? Economist 169:691 N 28 '53

Three strong drinks; cocoa, coffee and tea price situation. Economist 170:190 Ja 16 '54

Statistics

Tea, imports, 1949-1952. Survey of Cur Bsns 1953 Sup p 148 [supplemented in monthly numbers]

TEA industry and trade—*Continued*

Great Britain

Tea prices off peak. Economist 169:202+ O 17 '53

India

Indian tea crop, market prospects show uptrend. For Comm W 50:10 D 14 '53

New Indian tea board to develop industry. For Comm W 50:9 O 12 '53

TEACHERS

Teachers and pupils. Economist 170:13 Ja 2 '54

Utility program for the teacher; General telephone company of California. H. W. Holmwood. Pub Util 53:799-806 Je 24 '54

See also

Chemistry teachers

College professors and instructors

Engineering colleges—Professors and instructors

Pensions

New plan for retirement stability. A. W. Viner. il Dun's R & Mod Ind 62:48-50+ S '53

Salaries

Good pay for youth. Economist 168:840 S 26 '53

Teachers' turn? salary controversy. Economist 170:80 Ja 9 '54

TEACHERS, Training of

Dividends from teaching teachers; Valley national bank, Phoenix. J. E. Patrick. Banking 46:45+ S '53

Insurance steps into basic education; Life Institute's family financial security education program. J. J. Robinson. il Spectator 162:24-5+ Ja '54

Progress of fellowship plan. L. J. Ackerman. Nat Underw (Life ed) 58:13 Ja 1 '54; Same. Weekly Underw 170:131 Ja 9 '54

Teacher-training program in life insurance. R. W. Kelsy. East Underw 54:20 O 16 '53

See also

Science teachers—Training

TEACHERS insurance and annuity association of America

New plan for retirement stability. A. W. Viner. il Dun's R & Mod Ind 62:48-50+ S '53

TEACHING

Emotional response to teaching techniques. N. A. Christensen. J Eng Educ 43:555-7 Je '53

See also

Employees, Training of

also subdivision Study and teaching under special subjects, e.g.

Chemistry

Engineering

Aids and devices

Five cents for a kid's snack; what should he buy? teaching aids. J. Shoenfeld. Sales Management 71:48+ D 1 '53

How company-sponsored project helps teach economics in schools; General Mills uses comic-book technique. T. M. Jones. il Ptr Ink 243:58+ Je 19 '53

How to prepare a teaching aid that sells; Grosset & Dunlap. N. Kelne. il Ptr Ink 244:56+ Ag 14 '53

Oil refining in miniature; youngsters learn know-how of oil refining by use of Standard Oil of California kit. il Chem & Eng N 32:3646 S 13 '54

See also

Moving pictures in education

TEACHING load

College teaching loads, 1951-52. D. G. Nicholson. J Chem Educ 30:148-50 Mr '53

TEAMSTERS, chauffeurs, warehousemen and helpers of America, International brotherhood of. See International brotherhood of teamsters, chauffeurs, warehousemen and helpers of America

TECHNETIUM

Magnetochemistry of technetium and rhenium. C. M. Nelson, G. E. Boyd and W. T. Smith, jr. bibliog diag Am Chem Soc J 76:348-52 Ja 20 '54

Superconductivity of technetium. J. G. Daunt and J. W. Cobble. bibliog Phys R 92:507-8 O 15 '53

Analysis

Separation of technetium from molybdenum, cobalt and silver. N. F. Hall and D. H. Johns. Am Chem Soc J 75:5787-91 D 5 '53

Isotopes

Nuclear moments of technetium-99. K. G. Kessler and R. E. Trees. bibliog diag Phys R 92:303-7 O 15 '53

Search for the $p_{1/2}$ isomeric state in Tc^{101} and identification of energy levels. D. R. Wiles. Phys R 93:181-2 Ja 1 '54

Technetium of mass number 98. J. K. Lerohl and others. bibliog Phys R 92:934 N 15 '53

Nuclear reactions

Technetium activities at mass 97. G. E. Boyd. bibliog Phys R 95:113-14 Jl 1 '54

TECHNETIUM compounds

Thermodynamic properties of technetium and rhenium compounds; heats of formation of technetium heptoxide and pertechnic acid, potential of the technetium-(IV)-technetium(VII) couple, and a potential diagram for technetium. J. W. Cobble, W. T. Smith, jr. and G. E. Boyd. bibliog diags Am Chem Soc J 75:5777-82 D 5 '53

Thermodynamic properties of technetium and rhenium compounds; vapor pressures of technetium heptoxide, pertechnic acid and aqueous solutions of pertechnic acid. W. T. Smith, jr., J. W. Cobble and G. E. Boyd. bibliog Am Chem Soc J 75:5773-6 D 5 '53

TECHNICAL assistance program. See United nations—Technical assistance program

TECHNICAL association of the pulp and paper industry

Annual meeting, New York. Chem & Eng N 32:818-19 Mr 1 '54

Annual meeting, New York. Paper Tr J 138:80+ F 26 '54

Annual meeting, 39th, Feb. 15-18; abstracts of papers. Tappi 37:sup32A+ F '54

Annual meeting, 39th, New York, Feb. 15-18; program. Tappi 37:sup 12A+ Ja '54; Same abr. Paper Tr J 138:27-9 Ja 22 '54

Annual meeting, 39th, New York; with abstracts of papers. Paper Ind 35:1304-7 Mr '54

Engineering conference, 8th, Montreal, Oct. 26-29. Pulp & Pa of Can 54:116-17 N '53

Engineering conference, 8th, Montreal, Oct. 26-29; with abstracts of papers. Paper Tr J 137:27 N 6 '53

Engineering conference, 8th, Montreal, Oct. 26-29; with abstracts of papers. Tappi 36:sup78A+ D '53

Engineering conference, 9th, Philadelphia, Oct. 18-21; abstracts of papers. Tappi 37:sup74A+ S '54

Engineering conference, 9th, Philadelphia, Oct. 18-21; program. Tappi 37:sup70A+ Ag '54

Open opportunities for TAPPI. G. W. E. Nicholson. Paper Tr J 138:87 F 26 '54

Research appropriations; list of committee projects. bibliog Tappi 36:sup80A+ O '53

TAPPI and the strawboard industry. R. G. Macdonald. Tappi 36:sup80A+ N '53

TECHNICAL education

Post high-school technical education, a new trend; New York city Community college of applied arts & sciences. J. Steinberg. bibliog Welding J 33:643-7 Jl '54

Technical institute. A. Preisman. Inst Radio Eng Proc 41:1571 N '53

Technical training, help or hindrance in chemical selling? replies to questionnaire. J. F. Crowther. Chem & Eng N 32:1078-80 Mr 15 '54

See also

Apprentices

Chemical education

Employees, Training of

Engineering colleges

Engineering education

Forestry schools and education

Industrial education

Rubber technology—Study and Teaching

Textile education

Vocational education

also Foundry educational foundation; International association for the exchange of students for technical experience; Massachusetts institute of technology

TECHNICAL education—*Continued*

Great Britain

Craftsmanship. A. Roebuck. Engineer 196: 517-19 O 23 '53; Same cond. Engineering 176:533 O 23 '53

Look at British technical training. W. S. Rouverol. diags Mech Eng 76:170-2 F '54

Squalor in night school. Economist 168:623 S 5 '53

Technical and technological education; rôle of research associations. Chem Age (Lond) 69:1233-4 D 12 '53; Same cond. Chem & Ind p 1332 D 12 '53

Technical education problems. Elec J 151: 712 S 4 '53

Training for applied science; Royal chartered colleges of technology recommended. Chem Age (Lond) 71:229-30 Jl 31 '54

TECHNICAL information

Information for sale; Battelle plans expansion of technical information services. Chem & Eng N 32:966 Mr 8 '54

TECHNICAL institute. See Technical education

TECHNICAL libraries

See also

Business libraries
Engineering societies library, New York
John Crerar library
Paper libraries

Reference work

Machine age in the library; superspeed literature searching systems at Battelle memorial institute. Chem W 74:74+ Mr 13 '54

TECHNICAL literature

Do we publish too much? interview with Donald A. Quarles. Chem & Eng N 32: 1215-16 Mr 29 '54

Machine age in the library; superspeed literature searching systems at Battelle memorial institute. Chem W 74:74+ Mr 13 '54

Translations pool for technical material established by the Special libraries association in cooperation with the John Crerar library. Iron Age 172:191 D 3 '53

When should a paper have joint authorship. W. Forstall, jr. and W. F. Stokey. Mech Eng 75:875-6 N '53; Discussion. 76:292-3 Mr '54

See also

Chemical literature
Scientific literature

TECHNICAL periodicals

Periodical literature for electrical engineers. R. C. Coile. J Doc 8:209-26 D '52; Discussion. B. M. Crowther. 9:122-4 Je '53

Position of the technical press in relation to industry. J. F. Petree. Mech Eng 75:967-9 D '53; Same cond. Machine Design 26: 284-6+ F '54

TECHNICAL products

See also

Automobile parts
Equipment industries
Industrial market
Machinery industry

TECHNICAL reports

American technical reports; their importance and how to obtain them. J. E. Woolston. bibliog J Doc 9:211-19 D '53

TECHNICAL workers

Employment outlook for technicians; a report on draftsmen, engineering aids, laboratory technicians, and electronic technicians. H. Rosen and others. il U S Bur Labor Statistics Bul 1131:1-29; pa 25c Supt. of doc. '53

More on the sphere of the technical man. O. W. Lang. Food Eng 26:67+ Ap '54

Report of panel on selection and training of technical and supervisory personnel. S A E J 62:60 Jl '54

Survey of technical personnel in Canada's mineral industries. Can Min J 75:65-8 Ja '54

Technical man in the food industry. R. E. Morse. Food Eng 25:96+ N '53

Technical man in the pulp and paper industry. G. H. Pringle. Tappi 37:sup 10A+ Mr '54

Technician and the engineer. C. J. Freund. J Eng Educ 44:108-9 O '53

What industry expects of the technical man. L. G. Weeks. Oil & Gas J 52:103-4+ N 9 '53

See also

Chemical workers
Electric workers
Electronic technicians
Engineers
Laboratory workers
Research workers
X ray technicians, Medical

also National register of scientific and technical personnel

TECHNICAL writing

Presenting a technical paper. C. H. Willcocks. Metallurgia 49:122-3 Mr '54

Production clinic; technical man's writing for the business mind. E. G. Thomssen. Soap & San Chem 30:93+ F '54

Requirements and responsibilities of a technical editor. F. E. Wall. bibliog(26 titles) J Chem Educ 30:516-21 O '53

Simplifying technical writing. R. Gunning. Chem & Eng N 31:5308-9 D 21 '53

Technical editor, a new industry phenomenon. J. A. Walter and G. Mills. Chem Eng 60:250+ Ag '53

What the technical book editor expects of authors. G. G. Hawley. J Chem Educ 31: 77-80 F '54

Who cares who writes it? J. H. Wilson, jr. Chem & Eng N 32:3898 S 27 '54

See also

Chemical writing
Engineering reports
Engineering writing

TECHNICOLOR, inc.

Despite Hollywood slowdown, record sales, earnings loom. Barron's 33:20 N 9 '53

TECHNOLOGY

Frontiers unlimited; the promise of technology; abstract. H. B. du Pont. Management R 43:406-7 Jl '54

Importance of technology and fundamental research to industry. Lord Cherwell. Chem & Ind p940-3 Jl 31 '54

Industrialism and the American future. D. E. Lilienthal. Chem & Eng N 31:5220-5 D 14 '53

Natural resources and technological change. J. L. Fisher. bibliog Land Econ 29:57-71 F '53

Technological change and long-run forecasting. I. H. Siegel. bibliog J Bsns 26:141-56 Jl '53

Training; technology forces expansion. Steel 135:31 Jl 5 '54

See also

Building
Ceramics
Chemistry, Technical
Concrete
Dyes and dyeing
Electric engineering
Engineering
Food technology
Glass manufacture
Inventions
Machinery
Manufactures
Metallurgy
Paper making
Pottery
Printing
Radio communication
Railroad engineering
Rubber
Soap
Steel
Technical education
Textile industry

Bibliography

Scientific, medical, and technical books published in the United States of America; second supplement, books published 1949-1952. R. R. Hawkins, ed. 579p $10 R. R. Bowker co, 62 W. 45th st, New York 36 '53

Dictionaries

Dictionary of business and industry. R. J. Schwartz, comp. 561p $7.95; with thumb index $8.95 B. C. Forbes and sons pub. co, 80 Fifth av, New York 11 '54

Explaining and pronouncing dictionary of scientific and technical words. W. E. Flood and M. West. 397p $3 Longmans, Green and co, 55 5th Av, New York 3 '52

TEETH

Skin of your teeth. R. F. Sognnaes. il Sci Am 188:38-42 Je '53

Tooth decay on way out; conference on mineralized tissues sponsored by New York academy of sciences; abstracts of papers. Chem & Eng N 32:582+ F 15 '54

TEETH—*Continued*

Diseases and defects

Attack on dental caries. W. Pigman and S. B. Finn. il Chem & Eng N 32:1658-9 Ap 26 '54

Climate and endemic dental fluorosis. D. J. Galagan and G. G. Lamson, jr. bibliog (24 titles) maps Pub Health Rep 68:497-508 My '53

Experimental fluoridation; surveys on tooth decay among school children in Kingston and Newburgh, N.Y. Heat & Ven 50:134+ D '53

Starting all over again; anti-enzymes to halt tooth decay. Chem W 73:50-1 Ag 29 '53

TEETH, Artificial

Are dentures personal property or part of human anatomy, troublesome question. Weekly Underw 169:1432+ D 12 '53; Same. East Underw 55:21 Ja 1 '54

Lost wax, teeth go nature one better. I. L. Cook. il Iron Age 173:76 Mr 18 '54

TEFLON

Dielectric properties of Teflon from room temperature to 314° C and from frequencies of 10^2 to 10^5 c/s. P. Ehrlich. bibliog J Res Nat Bur Stand 51:185-8 O '53

Fluon polytetrafluoroethylene; chemical uses. il Chem Age (Lond) 70:929-32 Ap 24 '54

Fluorine containing polymers; abstract. H. M. Whitcut. Chem & Ind p780 Jl 3 '54

Polytetrafluoroethylene; its properties and uses. L. W. Cornell. il Mech Eng 75:883-6 N '53

Precision metal and glass syringe with Teflon gaskets. C. V. Robinson. il diag Anal Chem 26:1100 Je '54

Preparing Teflon cable. il Electronics 27:272+ Ja '54

Progress in Teflon. Mod Textiles Mag 35:53 S '54

Reinforced Teflon resists severe corrosive conditions. il Materials & Methods 39:145 Ap '54

Rheology of lubricated polytetrafluoroethylene compositions. E. E. Lewis and C. M. Winchester. il diags Ind & Eng Chem 45:1123-7 My '53

Skinning the dragon; Du Pont's dragon fur. Chem W 75:54 Jl 31 '54

Teflon, Du Pont's new fiber. Textile World 104:65 S '54

Teflon on the wing; to handle synthetic oils and fuels used in jet engines. il Chem W 74:60 F 27 '54

Teflon pipe handles corrosives; Resistoflex's Fluoroflex-T. il Chem & Eng N 32:673 F 15 '54

Threaded joints in pipe and tube made corrosion resistant with new Teflon based sealing compounds. Materials & Methods 39:230+ Mr '54

Toggle valves and Teflon in hydrocarbon analysis. R. A. Brown and D. J. Skahan. diags Anal Chem 26:788-9 Ap '54

Transitions in Teflon. Franklin Inst J 255: 545-7 Je '53

TELECOMMUNICATION. See Electric communication

TELEGRAPH

Telegraph, cable, and radiotelegraph carriers, 1949-1952. Survey of Cur Bsns 1953 Sup p 119 [supplemented in monthly numbers]

See also

Radio telegraph

Railroads—Telegraph

Picture transmission

See Phototelegraphy

Rates

Western Union seeks higher rates. Pub Util 54:32 Jl 8 '54

Repeaters

Submerged repeaters use stabilized power. A. Atherton. plan diag Electronics 27:186-9 Ja '54

Great Britain

Commonwealth telecommunications. J. A. Smale. Engineer 196:539-40 O 23 '53; Abstracts. Elec J 151:1303-4 O 23 '53; Elec R (Lond) 153:932-3 O 23 '53; Engineering 176: 602 N 6 '53

Depostalising telegrams. Economist 169:574 N 21 '53

TELEGRAPH, Submarine

Polyethylene-insulated cable links Europe and South America. Elec Eng 73:296-7 Mr '54

Submerged repeaters use stabilized power. A. Atherton. plan diag Electronics 27:186-9 Ja '54

TELEGRAPH companies

See also

American telephone and telegraph company

Western union telegraph company

Employees

Earnings of communications workers in Oct. 1951. J. A. Wells. Mo Labor R 76:36-8 Ja '53

TELEGRAPH keys

Self-completing electronic key. J. D. Gallagher. il diag Radio & Tv N 51:80-1+ Mr '54

TELEMETERING

Dc selsyns and annunciators for aircraft. M. L. Allen and A. W. Eade. il diags Tele-Tech 12:100-1+ O '53

Eight wells provide water automatically by telemetering. il plan diag Factory Management 112:92-5 S '54

Fm/fm telemetering. W. J. Mayo-Wells. il diags Tele-Tech 12:91-3+ D '53; 13:85-7+ Ja '54

Frequency-shift telemetering, key to multistation dispatching; Southwestern public service co. G. W. Dupree and W. H. Burnham. il diags Elec World 140:89-91 O 5 '53

Guided missile data distribution; radio telemetered information. J. B. Wynn, jr. and S. L. Ackerman. il Tele-Tech 12:65-7+ D '53

Hot cobalt and telemetering system help engineers predict runoff from the Sierra Nevadas. il Elec World News ed 141:30-2 F 1 '54

How Northeastern uses telemetering. W. E. Rufleth. il map Gas Age 114:26-8 Jl 29 '54

Level gaged by remote control. il diag Chem Eng 60:218+ Jl '53

Maintenance experience with electrical pressure gages. W. W. Holt, jr. il diag Am Pet Inst Proc 33(5):71-5 '53; Same. Pet Eng 25:D 13-14+ Ag '53; Same cond. Oil & Gas J 52:88+ Je 29 '53

Pipe-line-system telemetering. G. C. Wilson. diags Instruments & Automation 27:294-6 F '54

Planning the carrier facilities for utility system; abstract. J. C. G. Carter. diag Elec Eng 73:214 Mr '54

Poor man's telemetering system. L. W. Fitzpatrick. diag Power Eng 58:90 Ja '54

Radioactive gages signal water content of snow packs as aid in runoff control. il Eng N 151:24-5 D 24 '53

Remote control of electrified railways. M. Lauvergeon. il diags Elec Com 30:222-37 S '53

Remote operation of older stations. D. Hale. il Pet Eng 25:D4-6 S '53

Remote tank gaging via telemetering. D. N. McMillan. il Pet Eng 25:D 19+ N '53

Salford transducer system for remote indication. il diag Engineer 196:537-8 O 23 '53; Engineering 176:672 N 20 '53

Telemetering and remote control of gas flow. W. E. Rufleth. il map Pet Eng 25:D4-6 O '53

Telemetering for system operation. R. H. Dunn and C. H. Chambers. bibliog diags Inst E E Proc 100 pt 1:39-51 Mr '53; Same. il Elec Com 30:305-23 D '53; Abstract. Elec R (Lond) 151:1079 N 14 '52; Discussion Inst E E Proc 100 pt 1:51-6 Mr '53; Elec R (Lond) 151:1079-80 N 14 '52; Elec J 149:1515-16 N 14 '52

Telemetry for guided weapons. il Engineering 176:518-19 O 23 '53

Transistors in telemetry. F. M. Riddle. il diags Electronics 27:178-80 Ja '54

TELEPHONE

Illinois Bell Telephone is 75; improvement in telephone design. il Midwest Eng 6:17 Ag '53

TELEPHONE—*Continued*

Punched card transmitter that talks over regular telephone circuits announced by International business machines corp. Steel 134:153-4 Mr 15 '54

See also

Airlines—Telephone
Electric communication
Electric lines—Inductive interference
Radio telephone
Railroads—Telephone
Telephone, Carrier current
United States independent telephone association

Apparatus and supplies

Aluminum diecastings in telephone equipment. L. Pederson. il Materials & Methods 39:98-100 Je '54

Arcing of electrical contacts in telephone switching circuits. M. M. Atalla. bibliog il diags Bell System Tech J 32:1231-44, 1493-506; 33:535-58 S-N '53, My '54

Balanced polar mercury contact relay. J. T. L. Brown and C. E. Pollard. il diags Bell System Tech J 32:1393-411 N '53

Cold cathode tubes for transmission of audio frequency signals. M. A. Townsend and W. A. Depp. diags Bell System Tech J 32:1371-91 N '53

Development and manufacture of electroformed conductor for telephone drop wire. A. N. Gray and G. E. Murray. il Bell System Tech J 32:1099-135 S '53

Dynamic measurements on electromagnetic devices. M. A. Logan. bibliog il diags Bell System Tech J 32:1413-67 N '53

L3 coaxial system; application of quality control requirements in the manufacture of components. R. F. Garrett and others. il Bell System Tech J 32:969-1005 Jl '53

N 1 carrier equipment design. W. R. Steeneck. il Commun Eng 13:26-8 S '53

Plastics in the service of the Post Office. C. E. Richards and A. A. New. Chem & Ind p678-81 Jl 11 '53

Redesigned message register has fewer parts. il diags Machine Design 26:174-5 F '54

Silicon alloy junction diode developed by Bell laboratories. Elec Eng 72:947 O '53

Transistor oscillator for use in multifrequency pulsing current supply. F. E. Blount. il diags Bell System Tech J 32:1313-31 N '53

Transistors, gossip's nemesis? Materials & Methods 39:302+ My '54

Dial telephone

See Telephone, Automatic

Intercommunicating systems

See Intercommunicating systems

Laws and regulations

AT&T attorney reviews regulatory trends. G. W. Bates. Pub Util 54:327-8 S 16 '54

Recent developments in the law of communication regulations. J. R. Jones. Pub Util 54:416-19 S 30 '54

Recent regulatory trends, with special refence to the Bell system. H. R. Towles. Pub Util 52:786-7+ N 19 '53

Long distance

Intertoll trunk concentrating equipment. D. F. Johnston. diags Bell System Tech J 33:303-27 Mr '54

Traffic engineering techniques for determining trunk requirements in alternate routing trunk networks. C. J. Truitt. diags Bell System Tech J 33:277-302 Mr '54

Transmission design of intertoll telephone trunks. H. R. Huntley. diags Bell System Tech J 32:1019-36 S '53

Noise

Output signal-to-noise ratio of a power-law device. N. M. Blachman. J Ap Phys 24:783-5 Je '53

Rectifier motive power; inductive coordination considerations. E. B. King and others. il Ry Age 136:67-8 Mr 8 '54

Patents

United States patents issued to International telephone and telegraph system, May-July, 1953. diag Elec Com 30:338-41 D '53

Picture transmission

See Phototelegraphy

Private wire systems

Dial eight for news. J. M. Black. Management R 43:419-20 Jl '54

Dictating by telephone. il Bsns W p95-6+ S 5 '53

Rates

Delaware utility statute declared fair value law. Pub Util 53:438-9 Ap 1 '54

Employees mobilized to support rate increase; New York telephone co. Pub Util 53:237-8 F 18 '54

Fair value rate base prescribed. Pub Util 53:302-3 Mr 4 '54

Interstate rate hike brings mixed reaction. Pub Util 52:722-3 N 5 '53

NET&T rate boost approved. Pub Util 53:106 Ja 21 '54

New York Commission refuses to recognize inflation factor; denied in full the application of the New York telephone company for an increase in rates. O. Ely. Pub Util 54:329-32+ S 16 '54

Pacific Telephone & Telegraph wins partial rate increase. Pub Util 54:150-1 Ag 5 '54

Telephone rate case developments. G. W. Bates. Pub Util 54:412-16 S 30 '54

Recorded announcements

Telephone system applications of recorded machine announcements. W. Bennett. il diags Elec Eng 72:975-80 N '53

Repeaters

Submerged telephone repeaters; abstracts of three papers. Elec R (Lond) 154:428 Mr 5 '54; Discussion. 154:448 Mr 12 '54; il Elec J 152:866-7 Mr 12 '54

Statistics

Telephone carriers, 1949-1952. Survey of Cur Bsns 1953 Sup p 119 [supplemented in monthly numbers]

Great Britain

Commonwealth telecommunications. J. A. Smale. Engineer 196:539-40 O 23 '53

TELEPHONE, Automatic

Analysis of measured magnetization and pull characteristics. R. L. Peek, jr. il diags Bell System Tech J 33:79-108 Ja '54

Application of designed experiments to the card translator. C. B. Brown and M. E. Terry. bibliog il Bell System Tech J 33:369-98 Mr '54

Automatic telephone system employing magnetic drum memory. W. A. Malthaner and H. E. Vaughan. il diags Inst Radio Eng Proc 41:1341-7 O '53

Automatic testing of wired relay circuits; abstract. A. N. Hanson. il diag Elec Eng 73:128 F '54

Card translator for nationwide dialing. L. N. Hampton and J. B. Newsom. il map diags Bell System Tech J 32:1037-98 S '53

Centrifugal friction governor for Bell System telephone dials. diags Machine Design 26:115 Ag '54

Design of relays. A. C. Keller. Bell System Tech J 33:1-2 Ja '54

Dial telephone underground; Sunnyside mines. il Coal Age 58:92-3 D '53

Economics of telephone relay applications. H. N. Wagar. Bell System Tech J 33:218-56 Ja '54

Electronic computers and telephone switching. W. D. Lewis. Inst Radio Eng Proc 41:1242-4 O '53

Electronic telephone exchanges. T. H. Flowers. bibliog diags Inst E E Proc 99 pt 1:181-93 S '52; Discussion. 99 pt 1:193-201; 100 pt 1:305-6 S '52, N '53

Electronics in the switching of telephone calls. L. J. Murray. diags Engineering 176:413-15, 445-7 S 25-O 2 '53

Estimation and control of the operate time of relays. R. L. Peek, jr.; M. A. Logan. diags Bell System Tech J 33:109-86 Ja '54

Magnetic design of relays. R. L. Peek, jr. and H. N. Wagar. bibliog diags Bell System Tech J 33:23-78 Ja '54

Principles of slow release relay design. R. L. Peek, jr. diags Bell System Tech J 33:187-217 Ja '54

TELEPHONE, Automatic—*Continued*

Relay measuring equipment. H. N. Wagar. bibliog il diags Bell System Tech J 33:3-22 Ja '54

Traffic engineering techniques for determining trunk requirements in alternate routing trunk networks. C. J. Truitt. diags Bell System Tech J 33:277-302 Mr '54

Transistors and their circuits in the *4A* Toll crossbar switching system; abstract. P. Mallery. diag Elec Eng 73:129 F '54

Transmission design of intertoll telephone trunks. H. R. Huntley. diags Bell System Tech J 32:1019-36 S '53

Will cybernetics do away with people? J. H. Collins. Pub Util 53:660-6 My 27 '54

TELEPHONE, Carrier current

Application of quality-control requirements in manufacture of components for a coaxial-carrier system. A. T. Chapman. il A S M E Trans 76:585-91 My '54

Control of noise and crosstalk on N 1 carrier systems. A. J. Aikens and C. S. Thaeler. diags Elec Eng 72:1075-80 D '53

Flexible new line of power-line carrier equipment; abstract. F. B. Gunter. Elec Eng 72:965 N '53

N 1 carrier equipment design. W. R. Steeneck. il Commun Eng 13:26-8 S '53

Noise limits power-line carrier. J. D. Moynihan. il diag Elec World 141:85-7 F 8 '54

Penelec consolidates communication in strategic new dispatching center. C. H. Conrad. il Elec World 140:94-5 D 28 '53

Program transmission over type *N* carrier telephone; abstract. R. L. Case and I. Kerney. il Elec Eng 73:134 F '54

Remote operation of older stations. D. Hale. il Pet Eng 25:D4-6 S '53

Remote signalling with telecommand equipment. il Elec Com 30:217-21 S '53

Type *N* carrier telephone deviation regulator; abstract. E. H. Perkins and J. J. Mahoney. diag Elec Eng 73:163 F '54

TELEPHONE, Private wire

Policy; keep record straight by phone; Westinghouse uses telephonic communicator to keep supervisors, workers posted. J. B. Delaney. il Iron Age 172:71-2 Jl 2 '53

TELEPHONE, Submarine

First Atlantic telephone cable; agreement signed by Britain, U.S. and Canada. Elec J 151:1858 D 4 '53

First telephone cable system to be constructed across Atlantic. Elec Eng 73:187 F '54

Telephone cable spans Atlantic. map Electronics 27:20 Ja '54

Transatlantic cable in kind; first telephone cable. Economist 169:772 D 5 '53

Transatlantic phone cable. Bsns W p 144 D 5 '53

Transatlantic telephone cable. il map Elec R (Lond) 153:1315-17 D 11 '53

TELEPHONE bond and share company

Security I like best. I. Hourwich. Comm & Fin Chr 178:906 S 10 '53

TELEPHONE cables

Continuous incremental thickness measurements of non-conductive cable sheath. B. M. Wojciechowski. bibliog il diags Bell System Tech J 33:353-68 Mr '54

First Atlantic telephone cable; agreement signed by Britain, U.S. and Canada. Elec J 151:1858 D 4 '53

Plastics in the service of the Post Office. C. E. Richards and A. A. New. Chem & Ind p678-81 Jl 11 '53

Polyethylene insulated telephone cable. A. S. Windeler. bibliog il Bell System Tech J 32:1245-56 S '53

Technical progress in communication wires and cables; abstracts of symposium papers. Rubber Age 74:768-9 F '54

Transatlantic telephone cable. il map Elec R (Lond) 153:1315-17 D 11 '53

Coaxial cables

Application of quality-control requirements in manufacture of components for a coaxial-carrier system. A. T. Chapman. il A S M E Trans 76:585-91 My '54

L3 coaxial system. C. H. Elmendorf and others. bibliog il map plan diags Bell System Tech J 32:781-1005 Jl '53

Modern coaxial-cable technique in Great Britain. E. Baguley. bibliog il diags Elec Com 30:186-216 S '53

TELEPHONE companies

Billing costs slashed $60,000 a year; Pacific telephone and telegraph co. H. Waterman. il Am Bsns 24:18-19+ Ag '54

Things are coming the independents' way. J. H. Collins. Pub Util 54:183-9 Ag 19 '54

See also

American telephone and telegraph company

Bell telephone company of Canada

General telephone corporation

International telephone and telegraph corporation

Pacific telephone and telegraph company

Rochester telephone corporation

Accounting

FCC amends pension accounting rules. Pub Util 54:33-4 Jl 8 '54

Punched-tape system enables three people to do work of 20 people; Sunland-Tujunga telephone co. B. Kruse. il Am Bsns 24:14-15+ Jl '54

Employees

Earnings of communications workers in Oct. 1951. J. A. Wells. Mo Labor R 76:36-8 Ja '53

Employees mobilized to support rate increase; New York telephone co. Pub Util 53:237-8 F 18 '54

Employees with heart conditions; New York telephone co. M. L. Briggs. il Am Bsns 24:26-7+ Ag '54

Indiana strike discharges upheld; Indiana Bell telephone co. Pub Util 53:818-19 Je 24 '54

Lunchbox is no picnic to telephone workers; unsual arbitration case. Bsns W p 164 D 5 '53

Mrs Telephone; exchange manager in Glendale, Ariz., Madge Ulrich. H. F. Unger. Pub Util 53:291-8 Mr 4 '54

NLRB bans hit-and-run strikes. Pub Util 53:490-1 Ap 15 '54

Phone union urges abolition of learner rates. Pub Util 54:204 Ag 19 '54

What are 78,000 employees willing to read? Pacific Telephone reading rack service. J. H. Collins. Pub Util 53:807-14 Je 24 '54

Finance

How the AT&T finances billion-dollar programs. J. L. Donnelly. Pub Util 53:474-8 Ap 15 '54

Public relations

Utility program for the teacher; General telephone company of California. H. W. Holmwood. Pub Util 53:799-806 Je 24 '54

Regulation

See also

Telephone—Rates

Securities

AT&T topping own mark. Bsns W p59-60 Ag 29 '53

Independents may renew fight for SEC exemption. Pub Util 54:269-70 S 2 '54

Relief from SEC security registration sought by USITA. J. Large. Pub Util 53:303-4 Mr 4 '54

Taxation

Tax reforms welcomed by industry. Pub Util 53:437 Ap 1 '54

Urges further tax revisions. A. Stott. Pub Util 53:611-12 My 13 '54

TELEPHONE exchanges

Application of designed experiments to the card translator. C. B. Brown and M. E. Terry. bibliog il Bell System Tech J 33:369-98 Mr '54

Electronic telephone exchanges. T. H. Flowers. bibliog diags Inst E E Proc 99 pt 1:181-93 S '52; Discussion. 99 pt 1:193-201; 100 pt 1:305-6 S '52, N '53

Electronics in the switching of telephone calls. L. J. Murray. diags Engineering 176:413-15, 445-7 S 25-O 2 '53

Intertoll trunk concentrating equipment. D. F. Johnston. diags Bell System Tech J 33:303-27 Mr '54

TELEPHONE exchanges—*Continued*

Studies of telephone traffic with the aid of a machine. S. W. Broadhurst and A. T. Harmston. bibliog diags Inst E E Proc 100 pt 1:259-69; Discussion. 269-74 S '53

TELEPHONE in business

How United does it; telephone techniques save money. il Am Bsns 23:22+ N '53

Improve your industrial communications. il Steel 135:48-50 Jl 26 '54

See also

Gas companies—Telephone

Insurance, Life—Agents—Telephone calls

Insurance agents—Telephone calls

TELEPHONE lines

Some aspects of joint use of wood pole lines with increasing line voltages. W. E. Bloecker and W. R. Bullard. Elec Eng 73:142-5 F '54

TELEPHONE rates. See Telephone—Rates

TELEPHONE recorders

Dictating by telephone. il Bsns W p95-6+ S 5 '53

Low-cost monitoring. il Bsns W p54-5 Ag 22 '53

Telephone answering set utilizes magnetic recording. il diag Machine Design 26:136 F '54

Televoice forestalls work stoppages. J. Giampolo. il Factory Management 112:102-3 Ap '54

See also

Telephone—Recorded announcements

TELEPHONE service, Rural

Connecting company contracts offered by independent. Pub Util 54:203 Ag 19 '54

Independents urged to help with rural phone program. A. Nelsen. Pub Util 53:553-4 Ap 29 '54

REA clarifies telephone loan policies. Pub Util 52:723-4 N 5 '53

REA explains revised EAS contract. Pub Util 53:758-9 Je 10 '54

REA phone loans reach new high. Pub Util 54:149-50 Ag 5 '54

REA reports progress on EAS contracts. Pub Util 52:923-4 D 17 '53

Rural electrification and telephones as reported in U.S. census of 1940, 1945 and 1950. W. Alderson, comp. maps Ptr Ink 245:272 sec 2 O 23 '53

Rural telephone program. W. C. Weitzell. Pub Util 52:855-7 D 3 '53

TELEPHONE wire

Technical progress in communication wires and cables; abstracts of symposium papers. Rubber Age 74:768-9 F '54

TELEPROMPTER

For better meetings take a cue from tv. Chem Eng 61:260 Jl '54

You, too, can be teleprompted. Nat Underw 57:22 Ag 20 '53; Same. Nat Underw (Life ed) 57:8 Ag 14 '53

TELESCOPE

Amateur scientist; Cassegrainian telescope. A. G. Ingalls. Sci Am 189:97-9 Ag '53

Amateur telescope making; book three; ATM-3. Review, by A. G. Ingalls. diags Sci Am 189:114-16+ N '53

Analysis of Cassegrainian-type telescopic systems. P. R. Yoder, jr. and others. diag Opt Soc Am J 43:1200-4 D '53

Comparisons of stellar scintillation with image motion. R. Hosfeld. il diag Opt Soc Am J 44:284-8 Ap '54

Computation of achromatic objectives. R. E. Stephens. diags U S Nat Bur Stand Circ 549:1-7; pa 10c Supt. of doc. '54

Large range variable magnification telescope. F. G. Back. il diags Opt Soc Am J 43:1195-9 D '53

Main bearing bore alignment by telescope; Leitz alignment telescope. il Ry Loco & Cars 128:66-7 S '54

Now you can shoot your bearings in line; Farrand alignment telescope. W. B. Warner and R. H. Brenner. il Power 98:113-17 My '54

Mirrors

Amateur scientist; adjusting the mirror of the 200-inch telescope. I. S. Bowen. Sci Am 189:96-8 Jl '53

Coma of modified Gregorian and Cassegrainian mirror systems. R. T. Jones. bibliog diags Opt Soc Am J 44:630-3 Ag '54

TELETYPE

AA speeds station messages. Aviation W 59:66 Jl 6 '53

Fed opens new communications system; Federal leased wire system. Banking 46:61 Ag '53

F.s.k. system for the amateur teletype station. F. A. Bartlett. diags Q S T 37:23-5 Ag '53

How modern machines help as union assigns 330 crews daily. il Ry Age 135:90-2 N 16 '53

Teletype service expands communications on Buckeye pipe line. J. D. McCullough. Pet Eng 25:D25 S '53

Teletypewriter redesigned for speed, quiet operation. il diags Machine Design 25:176-8 N '53

TELEVISION

Compact high-output engine-generator set for lighting motion-picture and tv locations. M. A. Hankins and P. Mole. il Soc Motion Picture & Tv Eng J 61:731-41 D '53

Electronic movies forge ahead; video tape development. il Electronics 27:5-6 Ja '54

Houston's jail is watched by the all-seeing eye of tv. il Bsns W p33 N 7 '53

RCA demonstrates magnetic tape recording of color and black-and-white tv pictures. D. Sarnoff. il diags Elec Eng 73:97-8 Ja '54

RCA records video on magnetic tape. Bsns W p34 D 5 '53

System for recording and reproducing television signals. H. F. Olson and others. il diags RCA R 15:3-17 Mr '54

Tv is boosting power sales. Elec World News ed 140:50 Ag 3 '53

When tape moves in on tv. Bsns W p88+ D 19 '53

See also

Newspapers—Television competition

Sales conventions—Television conventions

Bibliography

Bibliography of color television papers published by the IRE. Inst Radio Eng Proc 42:344-8 Ja '54

RCA technical papers, second quarter, 1953. RCA R 14:453-4 S '53

RCA technical papers; third quarter, 1953. RCA R 14:600-1 D '53

RCA technical papers; fourth quarter, 1953. RCA R 15:135-6 Mr '54

RCA technical papers; first quarter, 1954. RCA R 15:268-70 Je '54

Color

Alignment of a monochrome tv transmitter for broadcasting NTSC color signals. J. F. Fisher. il diags Inst Radio Eng Proc 42:263-70 Ja '54

Application of colour to television broadcasting. F. C. McLean. il diag Engineering 176:441-4 O 2 '53; Abstracts. Engineer 196:363 S 18 '53; Elec J 151:806 S 11 '53

Basic concepts and evolution of color television. E. W. Engstrom. Inst Radio Eng Proc 42:7-9 Ja '54

Big-screen color tv; ready for production. Bsns W p28 N 14 '53

Brightness modification proposals for televising color film. W. L. Brewer and others. bibliog diags Inst Radio Eng Proc 42:174-91 Ja '54

Choice of axes and bandwidths for the chrominance signals in NTSC color television. G. H. Brown. bibliog Inst Radio Eng Proc 42:58-9 Ja '54

Chromatic color picture tube. W. H. Buchsbaum. il diags Radio & Tv N 51:52-3+ Mr '54

Color-carrier reference phase synchronization accuracy in NTSC color television. D. Richman. bibliog diags Inst Radio Eng Proc 42:106-33 Ja '54

Color receiver alignment. W. H. Buchsbaum. il diags Radio & Tv N 51:52-4+ F '54

Color scares tv dealers. Bsns W p54 O 31 '53

Color tv. W. R. Feingold. il diags Radio & Tv N 50:51-3+ O; 99-101+ N '53

TELEVISION—Color—*Continued*

Color tv about ready. il Bsns W p66+ N 28 '53

Color television and the amateur; tvi and itv potentialities. G. Grammer. il Q S T 37:31-4+ N '53

Color tv; big hit and big problems. il Bsns W p 138-40+ O 3 '53

Color-television converter for cable networks. J. G. Reddeck and H. C. Gronberg. il diags Electronics 26:132-4 N '53

Color tv; it costs us $3000 to make a set that retails for $1295. il Am Mach 98:140-1 Mr 29 '54

Color television publicity is cited as a major cause of consumer reluctance to purchase black and white sets. il Elec World News ed 140:43 D 7 '53

Color television; today and tomorrow. W. R. G. Baker. il diag Gen Elec R 56:19-23 N '53

Colorimetric analysis of the NTSC color television system. D. C. Livingston. diag Inst Radio Eng Proc 42:138-50 Ja '54

Colorimetry in color television. F. J. Bingley. diags Inst Radio Eng Proc 41:838-51; 42:48-57 Jl '53, Ja '54

Colorplexer, a device for multiplexing color television signals in accordance with the NTSC signal specifications. E. E. Gloystein and A. H. Turner. bibliog il diags Inst Radio Eng Proc 42:204-12 Ja '54

Colorvision slide scanner will test color tv signals. Elec Eng 73:192 F '54

CBS Colortron. R. B. Tomer and W. R. Sullivan. il diags Radio & Tv N 50:62-3+ D '53

CBS-Colortron; a color picture tube of advanced design. N. F. Fyler and others. il diags Inst Radio Eng Proc 42:326-34 Ja '54

CBS' new color-tv tube. B. F. Osbahr. il Tele-Tech 12:73+ N '53

Comparison of monochrome and color television with reference to susceptibility to various types of interference. G. L. Fredendall. il diag RCA R 14:341-58 S '53

Compatible color picture presentation with the single gun tricolor chromatron. J. D. Gow and R. Dorr. diags Inst Radio Eng Proc 42:308-15 Ja '54

Concept of transmission primaries in color television. P. W. Howells. diags Inst Radio Eng Proc 42:134-8 Ja '54

Constant luminance principle in NTSC color television. W. F. Bailey. diags Inst Radio Eng Proc 42:60-6 Ja '54

Delay equalization in color television. G. L. Fredendall. bibliog diags Inst Radio Eng Proc 42:258-62 Ja '54

Design techniques for color television receivers. M. H. Kronenberg and E. S. White. diags Electronics 27:136-43 F '54

Development of broadcasting in Great Britain. H. Bishop. Engineer 196:525-6 O 23 '53; Same cond. Engineering 176:574-5 O 30 '53

Dc quadricorrelator, a two-mode synchronization system. D. Richman. diags Inst Radio Eng Proc 42:288-99 Ja '54

Effect of transmitter characteristics on NTSC color television signals. G. L. Fredendall and W. C. Morrison. il diags Inst Radio Eng Proc 42:95-105 Ja '54

Experimental color-television receiver; schematic diagram. Tele-Tech 12:86-7 D '53

Extra cost of color tv ranges from 15 to 25 per cent. B. Wood. il Adv Agency 47:70-1+ S '54

FCC holds the bag on color television. J. Walker. Ed & Pub 86:61 Mr 28 '53

Film looms large as source of color tv programming. R. D. Chipp. il Adv Agency 47:64-5+ S '54

Fundamentals of color tv. M. S. Kiver. il diags Radio & Tv N 51:68-70+ Mr; 59-61+ Ap; 40-2+ My; 47-9+ Je; 52:60-2+ Jl; 42-4 Ag; 42-4+ S; 64-7 O; 63-5 N '54

Future of color television. W. R. G. Baker. Inst Radio Eng Proc 42:5-7 Ja '54

Future of color television. H. C. Bonfig. Comm & Fin Chr 178:2147+ D 3 '53

Image orthicons for color cameras. R. G. Neuhauser and others. diag Inst Radio Eng Proc 42:161-5 Ja '54

Improvements in the RCA three-beam shadow-mask color kinescope. M. J. Grimes and others. il diags Inst Radio Eng Proc 42:315-26 Ja '54

Improving the transient response of television receivers. J. Avins and others. bibliog diags Inst Radio Eng Proc 42:274-84 Ja '54

Laboratory receiver for study of the NTSC color television system. C. Masucci and others. bibliog diags Inst Radio Eng Proc 42:334-43 Ja '54

Magnetic alloy shields for color tv tubes.. R. D. Teasdale. Tele-Tech 12:74-6+ D '53

Mathematical formulations of the NTSC color television signal. G. H. Brown. Inst Radio Eng Proc 42:66-71 Ja '54

Matrix networks for color tv. W. R. Feingold. diags Inst Radio Eng Proc 42:201-3 Ja '54

Methods of verifying adherence to the NTSC color signal specifications. A. C. Luther, jr. il diags Inst Radio Eng Proc 42:235-40 Ja '54

Narrow-band transmission of the NTSC color signal. J. G. Reddeck. diags Inst Radio Eng Proc 42:90-1 Ja '54

NTSC; an exercise in technical co-ordination. D. B. Smith. Inst Radio Eng Proc 42:11-14 Ja '54

NTSC monographs. D. G. Fink. Inst Radio Eng Proc 42:43-5 Ja '54

NTSC signal specifications. diags Inst Radio Eng Proc 42:17-19 Ja '54

90 per cent coverage of 100 largest markets seen for color tv by 1957. H. Robinson, jr. il Adv Agency 47:66-7+ S '54

Preparation of phosphor screens for color television tubes. S. Levy and A. K. Levine. il diags Electrochem Soc J 101:99-103 F '54

Processing of the NTSC color signal for one-gun sequential color displays. B. D. Loughlin. diags Inst Radio Eng Proc 42:299-308 Ja '54

Psychophysical and electrical foundations of color television. A. V. Loughren. Inst Radio Eng Proc 42:9-11 Ja '54

Quadrature cross talk in NTSC color television. W. F. Bailey and C. J. Hirsch. bibliog diags Inst Radio Eng Proc 42:84-90 Ja '54

Quantitative spectral measurements in color television. J. A. Rado and W. L. Hughes. diags Inst Radio Eng Proc 42:151-6 Ja '54

RCA-NBC push campaign to educate industry and public on color tv. D. Bruner. il Ptr Ink 244:35 Jl 10 '53

Reproduction of colors in outdoor scenes. D. L. MacAdam. bibliog Inst Radio Eng Proc 42:166-74 Ja '54

Reproduction of luminance detail by NTSC color television systems. D. C. Livingston. diags Inst Radio Eng Proc 42:228-34 Ja '54

System delay characteristics in NTSC color television. R. C. Palmer. diags Inst Radio Eng Proc 42:92-5 Ja '54

Tv warms up for the shift to color. Bsns W p65 S 26 '53

Theory of synchronous demodulator as used in NTSC color television receiver. D. C. Livingston. diag Inst Radio Eng Proc 42:284-7 Ja '54

Transfer characteristics in NTSC color television. F. J. Bingley. Inst Radio Eng Proc 42:71-8 Ja '54

Transients in color television. P. W. Howells. bibliog diags Inst Radio Eng Proc 42:212-20 Ja '54

Transition effects in compatible color television. J. B. Chatten. diags Inst Radio Eng Proc 42:221-8 Ja '54

Transmission of color over inter-city television networks. J. R. Rae. map Inst Radio Eng Proc 42:270-3 Ja '54

240 network outlets available for color programs. il Adv Agency 47:56-7 S '54

Use of electronic masking in color television. R. P. Burr. diags Inst Radio Eng Proc 42:192-200 Ja '54

Versatile approach to the measurement of amplitude distortion in color television. J. A. Bauer. il diags Inst Radio Eng Proc 42:240-6 Ja '54

Westinghouse adds color to production. il Steel 134:52-3 Mr 22 '54

What agencies are doing about color television. Adv Agency 47:53+ S '54

Wide-range chromaticity measurements with photoelectric colorimeter. J. B. Chatten. il diag Inst Radio Eng Proc 42:156-60 Ja '54

TELEVISION—Color—*Continued*

Bibliography

Bibliography of color television papers published by the IRE. Inst Radio Eng Proc 42:344-8 Ja '54

Standards

Choice of chrominance subcarrier frequency in the NTSC standards. I. C. Abrahams. Inst Radio Eng Proc 42:79-80 Ja '54
Frequency interleaving principle in the NTSC standards. I. C. Abrahams. bibliog diag Inst Radio Eng Proc 42:81-3 Ja '54
NTSC color television standards. Inst Radio Eng Proc 42:46-8 Ja '54
Technical signal specifications proposed as standards for color television. diags RCA R 14:359-66 S '53
What design engineers need to know about the NTSC color television standards. D. G. Fink. diags Electronics 26:138-50 D '53

Testing

NTSC color television field test. R. DeCola and others. diag Inst Radio Eng Proc 42:20-43 Ja '54
Test instruments for color television. W. C. Morrison and others. il diags Inst Radio Eng Proc 42:247-58 Ja '54

Industrial applications

Application of closed-circuit tv to conveyor and mining operations. G. H. Wilson. il diags Min Eng 6:Trans 720-3 Jl '54
How a bank puts television to work; New York savings bank. il Bsns W p30-1 N 14 '53
Industry hires Captain Video. il Chem Eng 60:128+ S '53
Now showing on tv; jet tests. il Aviation W 58:43 Je 29 '53
Television for underwater examinations; abstract. H. R. Smyth. Roads & Eng Constr 92:142 My '54
Tv in the plant. il Chem W 74:46+ Mr 13 '54
Tv keeps eye on switching. il Ry Age 136:42-3 My 3 '54
Television tellers; Provident institution for savings, Boston. Banking 46:102+ O '53
Telltale eye; closed circuit tv system can play substitute-monitor for personnel. il Chem & Eng N 32:1394 Ap 5 '54
Twelve benefits Automatic found in tv at a trade show. il Sales Management 71:76-8 Jl 15 '53

See also
Television in industry

Periodicals

Listening and looking. G. N. Montgomery. Published in monthly numbers of Advertising agency and advertising and selling

Photographic aspects

Image gradation, graininess and sharpness in television and motion-picture systems; grain structure of television images. O. H. Schade. bibliog il diags Soc Motion Picture & Tv Eng J 61:97-164 Ag '53
Procedure for the reproduction of images with amplification of contrast. P. D. Ladouce. il diags Opt Soc Am J 44:464-8 Je '54
Use of electronic masking in color television. R. P. Burr. diags Inst Radio Eng Proc 42:192-200 Ja '54

Police applications

Quick way to catch check-passers; accusing tv screen. F. J. Taylor. Banking 46:36+ D '53

Scientific applications

Human blood cells counted accurately by tv camera used as eye of computer; Sanguinometer. il(cover) Elec Eng 73:288-9 Mr '54
Particle counting by television techniques. L. E. Flory and W. S. Pike. il diags RCA R 14:546-56 D '53
Television monitors rocket engine flame. F. A. Friswold. il diag Electronics 26:187-9 O '53

Standards

Choice of chrominance subcarrier frequency in the NTSC standards. I. C. Abrahams. Inst Radio Eng Proc 42:79-80 Ja '54
Frequency interleaving principle in the NTSC standards. I. C. Abrahams. bibliog diag Inst Radio Eng Proc 42:81-3 Ja '54
NTSC color television standards. Inst Radio Eng Proc 42:46-8 Ja '54
Technical signal specifications proposed as standards for color television. diags RCA R 14:359-66 S '53
What design engineers need to know about the NTSC color television standards. D. G. Fink. diags Electronics 26:138-50 D '53

TELEVISION, Submarine

Underwater television. W. R. Stamp. il diags Sci Am 188:32-7 Je '53
Underwater television camera lens. Engineer 196:348 S 11 '53
Underwater television; periscopic camera and watertight lamp. il Engineering 177:253 F 19 '54

TELEVISION advertising

Alternate week tv advertising has problems and benefits. G. J. Abrams. Adv Agency 47:45+ Jl '54
Ariel and Caliban. Economist 168:431-2 Ag 15 '53
Bank's tv news reporter gets a hot scoop; National bank of commerce of Seattle. N. Johnson. il Burroughs Clearing House 37:31 S '53
Beating the clock with Masland; an A-to-Z sales setup in 11 months; more for the ad dollar through better merchandising? A. R. Hahn. Sales Management 72:65-6 Je 1 '54
Better than ever; chemical makers experiment with commercial documentary tv film. Chem W 74:97-100 Mr 27 '54
Children's premium capitalizes on tv; Clark bros. chewing gum co. il Ptr Ink 243:64 Je 19 '53
Do sponsors' claims look sillier on tv? G. N. Montgomery. Adv Agency 46:24+ Ag '53
Equitable Gas starts tv show. il Gas Age 113:27 Ja 28 '54
Five points to consider in thinking about color tv commercials. G. Wolf. Ptr Ink 245:37 O 16 '53
48 steps in buying and servicing package television shows. R. Erickson. Adv Agency 47:60 Ja '54
Gibson closes sales with a tv twist. Sales Management 70:108 Ap 1 '53
How 66 banks use television; 1953. American bankers association survey. G. E. Heming. Banking 46:43-4 Ag '53
How Sunkist tailors use of television to match its changing distribution. L. F. Thomann. il Ptr Ink 244:50+ S 25 '53
How to merchandise tv at the point of sale; Jacoby-Bender, inc. watch bands. W. Scheibel. il Ptr Ink 244:48-9 S 11 '53
How to use radio and television most effectively. E. E. Sundquist. Adv Agency 46:56-8 S '53
How to use tv. D. Sherrill and C. Filsinger. Elec West 111:121 O; 113-14 N; 83-4 D '53
If you're thinking about television as a medium for bank advertising. L. C. Fink. il Burroughs Clearing House 38:38-40+ Ja '54
Is this house dated? television advertising for certified adequate wiring. Elec West 111:115-16 O '53
King's tv show sells remodeling. il Dom Eng 183:127 Je '54
Laclede has big three on tv. il Gas Age 113:27 Je 3 '54
Listening and looking. G. N. Montgomery. Published in monthly numbers of Advertising agency and advertising and selling
Little doggies on tv; Ken-L products, Pooch parade program. M. Riddle. Sales Management 72:64 Mr 15 '54
Nets scramble for more. Bsns W p29-30 S 12 '53
New sales pitch; make it technical. Bsns W p64 N 28 '53
90 per cent coverage of 100 largest markets seen for color tv by 1957. H. Robinson, jr. il Adv Agency 47:66-7+ S '54

TELEVISION advertising—*Continued*

Omnibus; a unique experiment in tv programing. T. M. Jones. il Ptr Ink 244:32-5+ Jl 3 '53

Operation blue flame; tv film series. W. M. Himsworth. Am Gas Assn Proc 1953:323-4

Printers' Ink 1954 advertisers' annual; tv. Ptr Ink 245:184-5+ sec 2 O 23 '53

Prudential starts tv teaching aid program; You are there. East Underw 54:11 O 2 '53

Should sight marry sound in tv spots? J. M. Handley. il Ptr Ink 245:40-2 O 9 '53

Small-fry prospects think you're too big to sell them? Jahncke service, inc. il Sales Management 72:89 Je 15 '54

Tv advertising for insurance companies and agencies; pros and cons. E. F. Heffley. East Underw 54:37 N 20 '53

Tv film production guide. W. H. Vilas. Ptr Ink 245:355-6 sec 2 O 23 '53

Tv personalities can be made. G. N. Montgomery. Adv Agency 46:30+ S '53

Tv records and the Screen actors guild; how to keep effective control of information on tv films. N. O. Fowles. Adv Agency 47: 71-2 Mr '54

Tv show moves inventory backlog, puts company on solid sales footing. L. F. Thomann. Ptr Ink 245:53 O 16 '53

Tv tour, new sales pitch; Commercial solvents corp. il Chem W 73:65-6 N 21 '53

Tv viewers having a ball with electric range party. Elec World News ed 141:49 Ja 18 '54

Television's fulfillment and its brilliant future. P. Langhoff. Adv Agency 47:42-3 My '54

That first plunge into television; Trust company of Georgia, Atlanta. L. C. Fink. il Banking 46:58+ N '53

There's a job for banking on tv. R. Donaldson. il Banking 46:67-8+ S '53

This is tv today with a glimpse into tomorrow. R. Cole. Adv Agency 46:79+ S '53

Typical bank using tv. R. H. Cole. Burroughs Clearing House 38:28-9 F '54

Value of tv in telling agents story; New Jersey agents advertising panel discussion. East Underw 55:33 S 24 '54

Wanted; a professional critic for commercial tv. G. N. Montgomery. Adv Agency 46: 32+ Jl '53

What about television? life insurance companies. C. R. Corcoran. East Underw 54: 134 pt 2 S 25 '53

What agencies are doing about color television. Adv Agency 47:53+ S '54

What television is doing about merchandising. H. Davis. il Adv Agency 46:60-1+ S '53

What you should know about tv film production. W. H. Vilas. il Ptr Ink 243:60-2+ Ap 17 '53

When tv personality is merchandised, seasonal campaign comes to life; Anson inc. H. W. Coulthurst. il Ptr Ink 243:44-6 Je 12 '53

White paper on commercial tv. Elec J 151: 1659 N 20 '53

Why good tv advertising art is worth the investment today. G. Olden. il Ptr Ink 244:44-5 Ag 21 '53

Why not a silent commercial on tv? G. N. Montgomery. Adv Agency 47:16 Ja '54

Why not rotate your tv personalities? G. N. Montgomery. Adv Agency 47:20+ Mr '54

Women's tv finance forum a hit; Security trust and savings bank of San Diego. C. J. Frandell. il Banking 46:68+ F '54; Abstract. Burroughs Clearing House 38:26 F '54

Wooing the eggheads for Alcoa. il Bsns W p 115-16+ D 19 '53

See also

Advertising agencies—Television departments

Copy

Believability, a new approach in tv commercials. G. N. Montgomery. Adv Agency 46: 24+ N '53

How and when to use silence in tv commercials. J. Campbell. Ptr Ink 244:60-1 Jl 17 '53

They're creating tv copy on plant assembly lines. Sales Management 70:65 My 1 '53

Cost

Extra cost of color tv ranges from 15 to 25 per cent. B. Wood. il Adv Agency 47: 70-1+ S '54

Program advertising

How small-budget advertiser buys tv markets of his choice. Sales Management 72:60+ My 1 '54

P.I. television roundtable discusses problems of limited-budget advertiser. Ptr Ink 244: 27-9+ Ag 7 '53

Statistics

Television billings of 25 leading advertising agencies, Jan.-Dec. 1953. Adv Agency 47: 14 My '54

Testing

How pre-tests help to create better tv commercials. H. S. Schwerin. il Ptr Ink 243: 60+ Je 5 '53

TELEVISION antennas

Cylindrical antenna of noncircular cross section. Y. T. Lo. diags J Ap Phys 24:1338-9 O '53

Home-built u.h.f. antennas. R. H. Hawkins. il diags Radio & Tv N 51:58+ Mr '54

How to jazz up the trade; Ward products corp. K. S. Brock. il Ptr Ink 243:42+ Je 19 '53

Tri-pole antenna. Y. T. Lo. il diags Radio & Tv N 51:104+ F '54

Multiple outlet system

Closed circuit tv broadens use of master antennae systems. il diag Arch Forum 98: 156 My '53

Television in the outposts; community antennas and small relay stations. Bsns W p44+ S 5 '53

Rotators

Tv and fm antenna rotators. il Consumers Res Bul 32:19-20 S '53

TELEVISION apparatus

Ferrite applications at microwave frequencies. D. Caswell. diags Electronics 26:246+ O '53

Research and engineering progress, 1953; electronics. il Gen Elec R 57:44-8 Ja '54

Test instruments for color television. W. C. Morrison and others. il diags Inst Radio Eng Proc 42:247-58 Ja '54

See also

Cathode ray tubes
Television antennas
Television cameras
Television receiving apparatus
Television transmitters

Exhibitions

National radio show, London, Sept. 2-12. Engineer 196:335 S 11 '53

National radio show, 20th, London. il Elec J 151:813-14 S 11 '53; Elec R (Lond) 153:485-9 S 4 '53

Testing

Synthetic-pattern generator for the solution of certain instrumentation problems in television. R. C. Webb. bibliog il diags RCA R 15:187-203 Je '54

TELEVISION apparatus industry

Bendixplan of dealer financing goes to the banks. H. F. B. Kerr. Burroughs Clearing House 37:10-11 Ag '53

Big-screen color tv; ready for production. Bsns W p28 N 14 '53

Color television publicity is cited as a major cause of consumer reluctance to purchase black and white sets. il Elec World News ed 140:43 D 7 '53

CBS moves in as tv maker. Bsns W p48+ O 10 '53

Hard-hitting promotion is used to lick uhf tv's circulation problem. H. W. Greeley. Ptr Ink 244:42 S 25 '53

Looking ahead. H. J. Schulman. Radio & Tv N 51:43+ Mr '54

Motorola girds distributors' men for hotter tv sales rivalry. Sales Management 70: 132+ Ap 15 '53

Radio-electronics-television manufacturers association reports record output year. R. C. Sprague. il Steel 133:29 D 28 '53

TELEVISION apparatus industry—*Continued*

Six steps to tv sales. Elec West 111:24 O '53

Video; indoor weather to spur output. R. M. Stroupe. Iron Age 172:61 Ag 20 '53

Video; signals adjustment, not trouble. T. Metaxas. Iron Age 172:93-4 N 19 '53

Advertising

Package-goods thinking on a hard-goods account; Ted Bates & co. advertising of CBS-Columbia television sets. J. M. Lyden. il Adv Agency 47:68-9+ S '54

Finance

Color can't brighten the picture yet. Bsns W p 115-16+ D 12 '53

Securities

Study of vital trends in tv-electronics industry, 1952 and first half of 1953. G. L. Merton. Mag of Wall St 93:78-80+ O 17 '53

Statistics

Radio and television receivers; charts and tables. Steel 134:189 Ja 4 '54

Canada

Canada expects record tv sales. For Comm W 50:17 N 23 '53

Russia

Russian television sets. il Product Eng 24:200-1 N '53

TELEVISION broadcasting

Network battle. N. Willatt. Barron's 33:11+ Ag 31 '53

Special effects for television studio productions. A. M. Spooner and T. Worswick. bibliog diags Inst E E Proc 100 pt 1:288-96; Discussion. il 296-9 S '53

Business applications

See also

Sales conventions—Television conventions

Coronation news

That's coronation scene? it will dawn on you. J. Walker. Ed & Pub 86:49 My 30 '53

Educational programs

Chemistry + tv = challenge; WOI-TV series of programs designed to familiarize television viewer with the field of science. C. A. Goetz and J. P. Butler. il Chem & Eng N 32:3368-70 Ag 23 '54

Engineering course on tv; University of Michigan, College of engineering. Chem Eng 61:242 F '54

New tack on old problem; Texas chemical producers television broadcasts. il Chem W 74:24 Ap 10 '54

Prudential starts tv teaching aid program; You are there. East Underw 54:11 O 2 '53

Public works of San Diego on tv. R. Gallagher. il Pub Works 84:64 D '53

Television takes education to the people. J. A. Behnke. Science 118:sup3 O 9 '53

Tv tribute to paper industry. il Paper Tr J 138:88+ F 26 '54

Women's tv finance forum a hit; Security trust and savings bank of San Diego. C. J. Frandell. il Banking 46:68+ F '54; Abstract. Burroughs Clearing House 38:26 F '54

See also

Television broadcasting—Health education programs

Television in education

Finance

See also

Television broadcasting—Subscription programs

Government applications

Would a tv Congress improve democracy? proposal to put the sessions of Congress and committee hearings on the air and television broadcasts. F. McNaughton. Pub Util 53:147-53 F 4 '54

Health education programs

Health education via television. J. Gordon. bibliog il Pub Health Rep 68:816-21 Ag '53

Local industry programs

Rochester reports on tv. map Gas Age 114:42 Jl 15 '54

Medical programs

Have you ever tried to use a convention as a public relations medium? Smith, Kline & French tv programs emanating from medical conclaves. il Sales Management 70:46+ pt 2 Ap 1 '53

Moving pictures

Better than ever; chemical makers experiment with commercial documentary tv film. il Chem W 74:97-100 Mr 27 '54

Brightness modification proposals for televising color film. W. L. Brewer and others. bibliog diags Inst Radio Eng Proc 42:174-91 Ja '54

Closed-circuit video recording for a fine music program. W. A. Palmer. il Soc Motion Picture & Tv Eng J 61:195-200; Discussion. 200-1 Ag '53

Conversion of 16mm single-head continuous printers for simultaneous printing of picture and sound on single-system negative. V. E. Patterson. il Soc Motion Picture & Tv Eng J 61:512-15 O '53

Directory of non-royalty films for television. T. M. Williams and M. Brunsvold, comps. 108p $6 Iowa state college press, Press bldg, Ames, Iowa '54

Film looms large as source of color tv programming. R. D. Chipp. il Adv Agency 47:64-5+ S '54

Increasing the efficiency of television station film operation. R. A. Isberg. il plan Soc Motion Picture & Tv Eng J 61:447-60 O '53

Modified preamplifier improves movie telecasts. K. B. Benson. bibliog il diags Electronics 26:166-9 D '53

1953 (issue no. 2) SMPTE television test film; operating instructions. il Soc Motion Picture & Tv Eng J 61:52-8 Jl '53

16mm projector for full-storage operation with an iconoscope television camera. E. C. Fritts. il diag Soc Motion Picture & Tv Eng J 61:45-51 Jl '53

Tv and film; marriage of necessity. il Bsns W p 108-10 Ag 15 '53

Television-on-film boom goes into high gear. D. Bruner. il Ptr Ink 243:46 My 15 '53

Television picture area: 35mm and 16mm motion-picture film; proposed American standards. Soc Motion Picture & Tv Eng J 61:59-63 Jl '53

Tv records and the Screen actors guild; how to keep effective control of information on tv films. N. O. Fowles. Adv Agency 47:71-2 Mr '54

What you should know about tv film production. W. H. Vilas. il Ptr Ink 243:60-2+ Ap 17 '53

News

More money in news on tv than on radio. Ed & Pub 86:44 My 9 '53

Political aspects

Parties on the screen. Economist 169:5-6 O 3 '53

Political programs

White House calls in ad agency to help prepare President's telecast. D. Bruner. il Ptr Ink 243:38 Je 12 '53

Program rating

Gargraves vs. the pro's. G. N. Montgomery. Adv Agency 46:28+ My '53

Programs

48 steps in buying and servicing package television shows. R. Erickson. Adv Agency 47:60 Ja '54

Inventions; see them on television; DuMont telecast of Big idea program becomes showplace. T. Metaxas. il Iron Age 172:54 Jl 23 '53

Little doggies on tv; Ken-L products, Pooch parade program. M. Riddle. Sales Management 72:64 Mr 15 '54

Omnibus; a unique experiment in tv programing. T. M. Jones. il Ptr Ink 244:32-5+ Jl 3 '53

TELEVISION broadcasting—Programs—*Cont.*

Radio and tv network programs. Published in monthly numbers of Advertising agency and advertising and selling

Tv network sustaining shows. I. Settel. Adv Agency 47:56+ Jl '54

Top 25 television shows for the last four years. il Ptr Ink 245:194 sec 2 O 23 '53

Wonderful party and a wonderful selling idea; Elsa Maxwell party. G. N. Montgomery. Adv Agency 46:19-20 D '53

See also

Television broadcasting—Subscription programs

Social aspects

Tv family pattern. Bsns W p52+ D 12 '53

Sound problems

Very high frequencies for sound radio; second report of the Television advisory committee. Engineering 177:151 Ja 29 '54; Elec J 152:281-2 Ja 22 '54

Sports

Earl Mann; can baseball survive tv? Bsns W p 100-2+ D 5 '53

Touchdowns, tv, and the law. Bsns W p32 N 21 '53

Subscription programs

Fundamental problems of subscription television; the logical organization of the telemeter system. L. N. Ridenour and G. W. Brown. diags Soc Motion Picture & Tv Eng J 61:183-93; Discussion. 193-4 Ag '53

Pay-as-you-see tv; system of International telemeter corp. il Bsns W p29 D 5 '53

Pay-to-see tv plan; what it would mean. M. C. Faught. Ed & Pub 86:86 Ap 18 '53

Skiatron's Subscriber-Vision. R. F. Graf. il diags Radio & Tv N 50:58-9+ O '53

Great Britain

Ariel and Caliban. Economist 168:431-2 Ag 15 '53

Commercial, not sponsored, tv. Economist 168:620 S 5 '53

Debate on commercial television. A. M. F. Palmer. Elec R (Lond) 153:1273-4 D 4 '53

Development of broadcasting in Great Britain. H. Bishop. Engineer 196:486-7, 524-6 O 16-23 '53; Same cond. Engineering 176:543-4, 573-5 O 23-30 '53; Abstracts. Elec J 151:1223-5 O 16 '53; Elec R (Lond) 153:893-4 O 16 '53

Development of the British television service. R. M. Coase. bibliog(42 ref) Land Econ 30:207-22 Ag '54

Green light for vhf? Economist 170:256+ Ja 23 '54

Manchester-Kirk o'Shotts television radio-relay system. G. Dawson and others. bibliog Engineer 197:252-4 F 12 '54; Discussion. Elec J 152:527-8 F 12 '54; Elec R (Lond) 154:302 F 12 '54

Parties on the screen. Economist 169:5-6 O 3 '53

Plan for commercially supported tv proposed in United Kingdom. For Comm W 50:18 D 14 '53

Radio and television who's who. 3d ed 516p £2 2s George Young publications, 29 Oxford st, London W.1 '54

Revolt in the Lords. Economist 169:645 N 28 '53

Taking stock of television; how many stations? Economist 168:122 Jl 11 '53

Technical arrangements for the sound and television broadcasts of the coronation ceremonies; abstracts. W. S. Procter and others. Engineering 176:775-6 D 18 '53; Same. Elec J 151:1933-4 D 11 '53; Same. Elec R (Lond) 153:1264 D 4 '53; Discussion. 153:1333-4 D 11 '53

Tv ads, British-style. Bsns W p 171 N 21 '53

Tv and talking out; television debate, House of commons. Economist 169:871 D 19 '53

Television's medium wave. Economist 169:563-4 N 21 '53

Very high frequencies for sound radio; second report of the Television advisory committee. Engineering 177:151 Ja 29 '54; Elec J 152:281-2 Ja 22 '54

White paper on commercial tv. Elec J 151:1659 N 20 '53

Hartford

Charges Travelers would have monopoly with tv station. Nat Underw 57:2 D 24 '53; Same. Nat Underw (Life ed) 57:2 D 25 '53

Travelers under fire in television hearing. East Underw 54:28 D 25 '53

Italy

Italy gets regular tv service. For Comm W 51:18 Ja 18 '54

Japan

Tv on Mt Fuji. K. Kasahara. il Radio & Tv N 51:120 F '54

Phoenix, Arizona

Phoenix tv; fight for market not yet there. il Bsns W p 120-4+ Ag 15 '53

Switzerland

Switzerland inaugurates regular tv broadcasts. For Comm W 51:22 Ja 4 '54

Venezuela

Third tv station in operation in Caracas. For Comm W 50:16 O 19 '53

Yakima, Washington

Tv comes to Yakima. J. A. Lenton, jr. Radio & Tv N 50:172 N '53

TELEVISION cabinets

Manufacture

Semi-powered gravity conveyor system; cabinet plant of Sylvania electric products, inc. O. S. Marshall. il plan Mill & Factory 55:79-81 Ag '54

Tv cabinet makers tune in on steel. K. W. Bennett. il Iron Age 174:55-6 S 2 '54

TELEVISION cables

L3 coaxial system. C. H. Elmendorf and others. bibliog il map plan diags Bell System Tech J 32:781-1005 Jl '53

Modern coaxial-cable technique in Great Britain. E. Baguley. bibliog il diags Elec Com 30:186-216 S '53

Preparing Teflon cable. il Electronics 27:272+ Ja '54

TELEVISION cameras

Amateur television camera. J. W. Keller, jr. il diags Q S T 37:10-15 N '53

Aperture compensation for television cameras. R. C. Dennison. bibliog il diags RCA R 14:569-85 D '53

Camera adapter for tv receivers. L. E. Flory and others. il diag Electronics 27:141-3 Ja '54

Image orthicons for color cameras. R. G. Neuhauser and others. diag Inst Radio Eng Proc 42:161-5 Ja '54

Modified preamplifier improves movie telecasts. K. B. Benson. bibliog il diags Electronics 26:166-9 D '53

16mm projector for full-storage operation with an iconoscope television camera. E. C. Fritts. il diag Soc Motion Picture & Tv Eng J 61:45-51 Jl '53

Underwater television. W. R. Stamp. il diags Sci Am 188:32-7 Je '53

Underwater television; periscopic camera and watertight lamp. il Engineering 177:253 F 19 '54

X-ray noise observation using a photoconductive pickup tube using a Vidicon. A. D. Cope and A. Rose. il J Ap Phys 25:240-2 F '54

TELEVISION engineers, Society of motion picture and. See Society of motion picture and television engineers

TELEVISION in education

Classroom tv; something new in industrial exhibits? il Ind Marketing 39:65 Ap '54

TELEVISION in industry

Stromberg-Carlson dissects a sale; tv camera allows 60 pairs of eyes to watch a sale. Sales Management 71:29-30 pt 2 O 1 '53

Televised lab test knocks screws loose at trade show; Standard pressed steel co. il Ind Marketing 39:84 Jl '54

Television in industry; educational and commercial. il Engineering 177:88-9 Ja 15 '54

Television; industry uses gaining. R. M. Lorz. il Iron Age 173:76-7 My 27 '54

TELEVISION in safety education

WBZ-TV of Boston is awarded gold medal for fire prevention work. il East Underw 55:24 Mr 26 '54; Same. Weekly Underw 170: 762 Mr 27 '54

TELEVISION industry

Color scares tv dealers. Bsns W p54 O 31 '53

Electronics industry, billion dollar infant. H. L. Hoffman. Comm & Fin Chr 178:9+ sec 2 O 8 '53

Future of color television. H. C. Bonfig. Comm & Fin Chr 178:2147+ D 3 '53

Future of R.C.A. H. L. Blackburn. Mag of Wall St 93:443+ Ja 9 '54

Nets scramble for more. Bsns W p29-30 S 12 '53

Radio-tv service industry news. Published in monthly numbers of Radio and television news

This is tv today with a glimpse into tomorrow. R. Cole. Adv Agency 46:79+ S '53

See also

Television apparatus industry

Directories

Tv-radio service technician associations. Radio & Tv N 51:85+ Mr '54

Finance

Television scramble. A. Glenn. Barron's 33:9 Ag 31 '53

Europe

All-Europe tv in prospect. Elec J 152:198 Ja 15 '54

Status of television in Europe. E. A. Marx. Comm & Fin Chr 178:2373+ D 17 '53

Morocco

Market opened for tv receivers. For Comm W 51:9 F 1 '54

Netherlands

New universal tv receiving set placed on Netherlands market. For Comm W 51:19+ Ja 4 '54

TELEVISION receiving apparatus

Bring your tv set up-to-date. R. C. Koch. il Radio & Tv N 50:78-9+ O '53

Camera adaptor for tv receivers. L. E. Flory. and others. il diag Electronics 27:141-3 Ja '54

Ceramic magnets focus tv tubes. J. A. Verhoef. il diags Electronics 26:238+ D '53

Chromatic color picture tube. W. H. Buchsbaum. il diags Radio & Tv N 51:52-3+ Mr '54

Color receiver alignment. W. H. Buchsbaum. il diags Radio & Tv N 51:52-4+ F '54

Color tv. W. R. Feingold. il diags Radio & Tv N 50:51-3+ O; 99-101+ N '53

CBS Colortron. R. B. Tomer and W. R. Sullivan. il diags Radio & Tv N 50:62-3+ D '53

CBS-Colortron; a color picture tube of advanced design. N. F. Fyler and others. il diags Inst Radio Eng Proc 42:326-34 Ja '54

Compatible color picture presentation with the single gun tricolor chromatron. J. D. Gow and R. Dorr. diags Inst Radio Eng Proc 42:308-15 Ja '54

Compleat fidelity; the tv set. D. V. R. Drenner. diags Radio & Tv N 50:52+ D '53; 51: 44 Ja '54

Design techniques for color television receivers. M. H. Kronenberg and E. S. White. diags Electronics 27:136-43 F '54

Dc quadricorrelator, a two-mode synchronization system. D. Richman. diags Inst Radio Eng Proc 42:288-99 Ja '54

Experimental color-television receiver; schematic diagram. Tele-Tech 12:86-7 D '53

Headphones for radio and tv. H. S. Renne. diags Radio & Tv N 51:116+ Ja '54

Improvement for older tv sets. C. E. Cohn. diag Radio & Tv N 50:182 S '53

Improvements in the RCA three-beam shadow-mask color kinescope. M. J. Grimes and others. il diags Inst Radio Eng Proc 42:315-26 Ja '54

Improving intercarrier sound systems. C. E. Cohn. diag Radio & Tv N 50:160 S '53

Improving the transient response of television receivers. J. Avins and others. bibliog diags Inst Radio Eng Proc 42:274-84 Ja '54

Investigation of ultra-high-frequency television amplifier tubes. W. Y. Pan. il diags RCA R 15:27-45 Mr '54

Know your 1954 Admiral tv receivers. il diags Radio & Tv N 51:57-60+ F '54

Know your 1954 General Electric tv receivers. J. Najork. il diags Radio & Tv N 50:64-6+ O '53

Know your 1954 Motorola tv receivers. il diags Radio & Tv N 51:45-9+ Ja '54

Know your 1954 Stewart-Warner tv receivers. H. B. Massie. il plan diags Radio & Tv N 51:59-62+ Mr '54

Know your 1954 Sylvania tv receivers. W. Nelson. il diags Radio & Tv N 50:115-18+ N '53

Know your 1954 Westinghouse tv receivers. W. L. Wright. il diags Radio & Tv N 50: 73-6 D '53

Know your 1954 Zenith tv receivers; service information. B. J. Marohnic. diags Radio & Tv N 50:59-62+ S '53

Laboratory receiver for study of the NTSC color television system. C. Masucci and others. bibliog diags Inst Radio Eng Proc 42:334-43 Ja '54

Magnetic alloy shields for color tv tubes. R. D. Teasdale. il Tele-Tech 12:74-6+ D '53

Measuring reflection from crt face plates. M. E. Amdursky. il diags Tele-Tech 12: 90-1 O '53

National radio exhibition, 20th, London, Sept. 2-12. il Wireless Eng 30:255-60 O '53

New tv designs for 1954. R. B. Gary. il diags Radio & Tv N 51:44-6 Mr '54

Positive grid circuits in tv receivers. M. S. Kiver. diags Radio & Tv N 51:62-3+ F '54

Processing of the NTSC color signal for one-gun sequential color displays. B. D. Loughlin. diags Inst Radio Eng Proc 42:299-308 Ja '54

Synthesis of constant-time-delay networks. M. S. Corrington and R. W. Sonnenfeldt. bibliog il diags RCA R 15:163-86 Je '54

Tv receiver for DX. diag Radio & Tv N 50: 184 N '53

Theory of synchronous demodulator as used in NTSC color television receiver. D. C. Livingston. diag Inst Radio Eng Proc 42: 284-7 Ja '54

U.h.f. test equipment adapter. D. Lerner and W. Starks. il diags Radio & Tv N 50:56-7 S '53

See also

Television cabinets

Control

Brightness control in tv receivers. J. K. Frieborn. diags Radio & Tv N 50:80-1+ O '53

Level-setting sync and automatic-gain-control system for television receivers. E. O. Keizer and M. G. Kroger. diags RCA R 14:379-88 S '53

Symmetrical-transistor phase detector for horizontal synchronization. B. Harris and A. Macovski. il diags RCA R 15:18-26 Mr '54

Installation

Built-in television; detail plate. K. R. O'Neal. il plan diags Am Bld 75:146-7 Mr '53

Manufacture

Casting tv bezels; Precision castings co. il Steel 133:161-2 S 14 '53

Circuits; mount parts mechanically in tv production line; Admiral corp. il Iron Age 174:114 S 16 '54

Color tv; it cost us $3000 to make a set that retails for $1295. il Am Mach 98:140-1 Mr 29 '54

CBS' new color-tv tube. B. F. Osbahr. il Tele-Tech 12:73+ N '53

Half-a-million soldered joints per day. il Elec J 151:1693-4 N 20 '53; Elec R (Lond) 153: 1174-6 N 20 '53

Nelson stud welding gun solves tough assembly problem. il Iron Age 173:164 My 6 '54

New method of depositing phosphors simplifies color tube construction. diag Elec Eng 72:1038-9 N '53

TELEVISION receiving apparatus—Manufacture—*Continued*

Pilot production line makes color tv tubes in RCA's Lancaster, Pa. pilot plant. il Electronics 27:260+ Ja '54

Westinghouse adds color to production. il Steel 134:52-3 Mr 22 '54

Meteorological applications

Tornado tracking; uses a tv receiver. J. Milliken. Q S T 37:39 N '53

Noise

Distributions of signals and noise after rectification and filtering. M. A. Meyer and D. Middleton. bibliog diags J Ap Phys 25:1037-52 Ag '54

Keyed a.g.c. systems operate to increase noise immunity. M. S. Kiver. diags Radio & Tv N 50:48-50 S '53

Keyed minimum-signal detector for television receiver impulse-noise immunity. A. Macovski. diags RCA R 14:389-96 S '53

Power supply

Multi-voltage power supply. G. Wilcox. il diag Radio & Tv N 50:134+ N '53

Use your defective tv transformers to build a variable voltage transformer. H. A. Setzke. il diag Radio & Tv N 50:178-9 O '53

Video amplifier design charts. W. K. Squires and H. L. Newman. bibliog diags Electronics 27:190-2+ Ja '54

Rating

Television receivers, 1954. Consumers Res Bul 32:5-10 D '53

Repair

A.c. fields in tv receivers. W. H. Buchsbaum. il diags Radio & Tv N 50:111-13 N '53

Music probe for faster servicing. S. Johnson. il diag Radio & Tv N 51:61+ F '54

My start in tv servicing. J. Stanley. il diags Radio & Tv N 51:66-7+ Ja '54

New approach to tv service. C. W. Hoshour. Radio & Tv N 50:194-5 O '53

New tv intermittent checker. J. Racker. il diag Radio & Tv N 50:56+ O '53

Rare tv trouble. R. Blitzer. diag Radio & Tv N 50:212 O '53

Regency u.h.f. converter. R. A. Morris. il diags Radio & Tv N 50:84-5 D '53

Service hints on Admiral tv sets. diags Radio & Tv N 51:188-90 F '54

Service hints on G-E tv sets. diags Radio & Tv N 50:210-11 O '53

Service hints on Motorola tv sets. diags Radio & Tv N 51:103-4+ Ja '54

Service hints on Stewart-Warner tv sets. diags Radio & Tv N 51:158-9 Mr '54

Service hints on Sylvania tv sets. diags Radio & Tv N 50:214-18 N '53

Service hints on Westinghouse tv sets. diags Radio & Tv 50:178-81 D '53

Service hints on Zenith tv sets. diags Radio & Tv N 50:138+ S '53

Servicing tv voltage supplies. M. H. Lowe. diags Radio & Tv N 50:58-60+ D '53

Tv servicing in the home. R. Blitzer. il Radio & Tv N 50:49+ D '53

Television sweep generators. M. S. Kiver. il diags Radio & Tv N 50:43-6+ O '53

Television troubleshooting methods. J. K. Frieborn. il Radio & Tv N 51:64-5+ Mr '54

Tv tube substitutions. W. H. Buchsbaum. Radio & Tv N 50:50+ O '53

Troubleshooting the u.h.f. tuner. W. H. Buchsbaum. il diags Radio & Tv N 50:64-6+ D '53

Uhf measurements. D. Lerner and W. Starks. il diags Radio & Tv N 51:48-9+ F '54

U.h.f. test equipment adapter. D. Lerner and W. Starks. il diags Radio & Tv N 50:56-7 S '53

Watch those heater voltage measurements. J. K. Frieborn. diags Radio & Tv N 50:134+ S '53

Specifications

1954 tv receiver specifications; tabulation. Radio & Tv N 51:77 Mr; 46 Ap; 58 My; 64 Je; 52:54 Jl; 58 Ag; 50 S; 56 N; 56 D '54

Testing

Tv receiver sensitivity. J. Rankin. il diags Radio & Tv N 50:76-7 S '53

Tv test equipment; how to choose, how to use. R. G. Middleton. il diags Radio & Tv N 51:48-9+ Mr '54

Use of strain gauges as a means for determining pressure-strain relationships on television envelopes. A. Cohen and R. F. Doran. il diags Am Cer Soc Bul 33:1-3 Ja 15 '54

Tuning

Capacitive-tuned ultra-high-frequency television tuner. E. M. Hinsdale, jr. and I. D. Baumel. il diags RCA R 14:461-81 D '53

Standard coil 82-channel tuner. W. H. Buchsbaum. il diags Radio & Tv N 50:35-7+ S '53

Troubleshooting the turret tuner. M. H. Lowe. il diags Radio & Tv N 51:54-6 Ja '54

Vhf-uhf television turret tuner. T. Murakami. il diags RCA R 14:318-40 S '53

TELEVISION relay systems

Manchester-Kirk o'Shotts television radio-relay system. G. Dawson and others. bibliog Engineer 197:252-4 F 12 '54; Discussion. Elec J 152:527-8 F 12 '54; Elec R (Lond) 154:302 F 12 '54

Signal-noise meter checks tv links. R. Moffett. diags Electronics 26:164-5 O '53

Television in the outposts; community antennas and small relay stations. Bsns W p44+ S 5 '53

TELEVISION service shops

Employees

How is your training program? J. H. Hazlehurst. il Radio & Tv N 51:66+ Mr '54

TELEVISION stations

Network battle; new stations are prize in video free-for-all. N. Willatt. Barron's 33:11+ Ag 31 '53

Tv grants since freeze lift; tabulation (cont). Radio & Tv N 51:148 Ja; 128 F; 166 Mr '54

Two hilltop broadcasting stations. il plans Arch Forum 99:122-3 D '53

Change over

Switch to six; television station WRGB changing from channel 4 to channel 6. il Gen Elec R 57:47-51 My '54

Directories

Tv station timetable (cont). Tele-Tech 12:105 O '53

Tv stations on the air (cont). Radio & Tv N 51:57+ Ja; 94 F '54

Equipment

Increasing the efficiency of television station film operation. R. A. Isberg. il plan Soc Motion Picture & Tv Eng J 61:447-60 O '53

See also

Television antennas

Television transmitters

TELEVISION stations, College

Chemistry + tv = challenge; WOI-TV series of programs designed to familiarize television viewer with the field of science. C. A. Goetz and J. P. Butler. il Chem & Eng N 32:3368-70 Ag 23 '54

TELEVISION stations, Newspaper

FCC dismisses Hearst bid for Milwaukee tv. J. Walker. Ed & Pub 86:61 Ap 4 '53

Joint newspaper tv station allowed. Ed & Pub 86:8 F 28 '53

Joint operation cited in denial of tv permit. J. Walker. Ed & Pub 86:54 My 2 '53

Radio-tv rules aid democracy. P. A. Walker. Ed & Pub 86:114 Ap 25 '53

TELEVISION studios

Tv City; a picture report. il plan Arch Forum 98:146-9 Mr '53

Air conditioning

Air conditioning design for a color television studio. C. L. Ringquist. il plans Heat & Ven 51:69-75 Ag '54

Five systems serve tv, radio facilities. il Heating-Piping 26:89 F '54

Packaged air conditioning units serve new tv station. il Heat & Ven 51:115 Ap '54

TELEVISION studios—Air conditioning—*Cont.*

Tremendous heat loads when air conditioning new CBS Television City. F. A. Sayler and J. M. Ayres. il Heating-Piping 26:133-7 My '54; Discussion. F. F. Stevenson. 26: 83-4 S '54

Equipment

Flexible tv studio intercom system. R. D. Chipp and R. F. Bigwood. plan diags Tele-Tech 12:79-81+ O '53

Special effects for television studio productions. A. M. Spooner and T. Worswick. bibliog diags Inst E E Proc 100 pt 1:288-96; Discussion. il 296-9 S '53

Lighting

Progress in television studio lighting. il Illum Eng 49:313-16 Je '54

TELEVISION system committee, National. See National television system committee

TELEVISION towers

Lighting a tv antenna tower. E. J. Whitlow. il Illum Eng 48:616 D '53

Welding; huge tv antenna has unique design, construction. il Iron Age 174:164 S 9 '54

TELEVISION transmission

Color-television converter for cable networks. J. G. Reddeck and H. C. Gronberg. il diags Electronics 26:132-4 N '53

Fundamental problems of subscription television; the logical organization of the telemeter system. L. N. Ridenour and G. W. Brown. diags Soc Motion Picture & Tv Eng J 161:183-93; Discussion. 193-4 Ag '53

Is uhf superior to vhf? A. B. Glenn. il diag Gen Elec R 57:12-16 Jl '54

L3 coaxial system. J. W. Rieke and R. S. Graham. il diags Bell System Tech J 32: 915-42 Jl '53

Narrow-band transmission of the NTSC color signal. J. G. Reddeck. diags Inst Radio Eng Proc 42:90-1 Ja '54

Obstacle-gain vhf transmission. Tele-Tech 12: 85+ N '53

Pictures on tape. il Radio & Tv N 51:55 F '54

Program transmission over type *N* carrier telephone; abstract. R. L. Case and I. Kerney. il Elec Eng 73:134 F '54

Transmission of color over inter-city television networks. J. R. Rae. map Inst Radio Eng Proc 42:270-3 Ja '54

Waveguides for uhf television. J. S. Brown. il Tele-Tech 12:82-3+ N '53

Frequency allocation

Economic and regulatory problems in the broadcast field. H. H. Goldin. Land Econ 30:224-7 Ag '54

Interference

A.c. fields in tv receivers. W. H. Buchsbaum. il diags Radio & Tv N 50:111-13 N '53

ARRL tvi demonstration completes its first tour. il Q S T 37:16-17+ O '53

Color television and the amateur; tvi and itv potentialities. G. Grammer. il Q S T 37:31-4+ N '53

Comparison of monochrome and color television with reference to susceptibility to various types of interference. G. L. Fredendall. il diag RCA R 14:341-58 S '53

Desk-top driver-amplifier; simple shielded unit for 7 and 14 mc. R. C. Dennison. il diags Q S T 37:24-7+ O '53

How Seattle handles tv interference. J. C. Whaley. il Elec West 111:112-13 S '53

Ignition interference with television reception. A. H. Ball and W. Nethercot. Inst Mech Eng Proc (Auto div pt 2):19-26 '52-53; Abstract. Inst E E Proc 100 pt 1:299-300 S '53; Discussion. il diag Inst Mech Eng Proc (Auto div pt 2):26-34 '52-53

Interference with television reception. Engineering 177:260 F 26 '54

Is your rig r.f-tight? O. P. Schreiber. il diags Q S T 37:29-30 Ag '53

Licked the tv interference problem; U.S. fiber & plastics corporation. il Factory Management 112:144 Ap '54

Meet the snivet; another tv fault. M. B. Knight. il Radio & Tv N 50:104-5 N '53

Operating the BC-696 in tv fringe areas. J. D. Ticen. il diags Q S T 37:22-5 D '53

Quadrature cross talk in NTSC color television. W. F. Bailey and C. J. Hirsch. bibliog diags Inst Radio Eng Proc 42:84-90 Ja '54

Questionnaire collects data on tv interference. R. W. Baker. il Elec World 139:102+ Je 1 '53

Radio interference suppression. Elec R (Lond) 154:390 F 26 '54

Special receiver locates tv interference sources; Ohio power co. F. L. Greene. il Elec World 140:111 O 5 '53

Standing waves and tvi. Q S T 38:44-5+ Ja '54

Suppressing tvi in the Meissner signal shifter. L. G. McCoy. il Q S T 37:33+ O '53

Tvi and the novice. L. G. McCoy. il diags Q S T 37:40-3 O '53

Remote pickup

Converted limousine aids tv pickup. L. Weiland. il Electronics 27:196+ Ja '54

TELEVISION transmitters

Alignment of a monochrome tv transmitter for broadcasting NTSC color signals. J. F. Fisher. il diags Inst Radio Eng Proc 42: 263-70 Ja '54

Effect of transmitter characteristics on NTSC color television signals. G. L. Fredendall and W. C. Morrison. il diags Inst Radio Eng Proc 42:95-105 Ja '54

Low-level-modulation vision transmitters, with special reference to the Kirk o'Shotts and Wenvoe stations. E. M. Leyton and others. bibliog il diags Inst E E Proc 100 pt 3:269-85; Discussion. 285-90 S '53

TELLERS' machines. See Banks and banking—Tellers' machines

TELLURIC acid

Analysis

Spectrophotometric determination of telluric acid. L. W. Scott and G. W. Leonard, jr. Anal Chem 26:445-7 Mr '54

TELLURIUM

Electrical properties of pure tellurium and tellurium-selenium alloys. A. Nussbaum. bibliog diags Phys R 94:337-42 Ap 15 '54

Electronic structure, infrared absorption, and Hall effect in tellurium. H. B. Callen. bibliog diags J Chem Phys 22:518-22 Mr '54

Infrared index of refraction of tellurium crystals. P. A. Hartig and J. J. Loferski. bibliog Opt Soc Am J 44:17-18 Ja '54

Infrared optical properties of single crystals of tellurium. J. J. Loferski. bibliog diags Phys R 93:707-16 F 15 '54

Analysis

Production, particle characteristics, and spectra of tellurium hydrosols for spectrophotometry. R. A. Johnson. bibliog il Anal Chem 25:1013-17 Jl '53

Spectrophotometric determination of selenium and tellurium in concentrated sulfuric acid. S. E. Wiberley and others. bibliog Anal Chem 25:1586-8 N '53

Spectrophotometric determination of tellurium as hydrosol. R. A. Johnson, F. P. Kwan and D. Westlake. bibliog Anal Chem 25: 1017-19 Jl '53

Isotopes

Microwave spectrum of TeCS and masses of the stable tellurium isotopes. W. A. Hardy and G. Silvey. bibliog Phys R 95:385-8 Jl 15 '54

Nuclear reactions

Decay schemes of Cd^{114} and Te^{125}. D. C. Lu and others. Phys R 95:121-2 Jl 1 '54

K-conversion electron-gamma angular correlation measurements in Te^{121} and Te^{123}. N. Goldberg and S. Frankel. Phys R 93: 1425-6 Mr 15 '54

Nuclear reaction determination of the Sn^{124}-Te^{124} mass difference. N. S. Wall. Phys R 92:1526 D 15 '53

TELLURIUM alloys

Electrical properties of pure tellurium and tellurium-selenium alloys. A. Nussbaum. bibliog diags Phys R 94:337-42 Ap 15 '54

TELLURIUM chloride

Preparation and properties of tellurium dichloride. E. E. Aynsley. Chem Soc J p3016-19 O '53

TELOMERIZATION. See Polymerization

TEMCO aircraft corporation

Temco to stress own plane designs. Aviation W 59:14 Jl 13 '53

TEMPERATURE

Analysis of cutting-tool temperatures. E. G. Loewen and M. C. Shaw. bibliog diags A S M E Trans 76:217-25; Discussion. 225-31 F '54

Effect of initiation temperature on continuous emulsion polymerization. M. Feldon and R. F. McCann. bibliog Ind & Eng Chem 46:465-7 Mr '54

Effect of temperature on movement of a chromatographic zone. Lie Tien Chang. bibliog Anal Chem 25:1235-7 Ag '53

Effect of temperature on the density and surface tension of monofluoroacetic acid. J. J. Jasper and P. G. Grodzka. bibliog Am Chem Soc J 76:1453-4 Mr 5 '54

Effects of temperature gradients, self-absorption, and line shape on apparent rotational temperatures of OH. B. H. Elliot and S. S. Penner. J Chem Phys 22:101-5 Ja '54

Equilibrium temperatures and compositions behind a detonation wave. A. Weir, jr. and R. B. Morrison. bibliog Ind & Eng Chem 46:1056-60 My '54; Correction. 46:1497 Jl '54

G-modulus temperature coefficient for beryllium copper wire. J. T. Richards. J Metals 6:Trans 827-8 Jl '54

Heat; how it is applied, contained and controlled in all of the ceramic industries; what is temperature? H. E. Robison. diags Cer Ind 62:53-4 My '54; Same. Brick & Clay Rec 124:79-80 Je '54

High-temperature testing techniques for brittle refractory materials. J. J. Gangler. bibliog il diags Am Cer Soc J 37:439-44 S 1 '54

Nuclear magnetic resonance in metals; temperature dependence of the resonance shifts. B. R. McGarvey and H. S. Gutowsky. bibliog J Chem Phys 21:2114-19 D '53

Physical nature of knock. B. N. Cole. diags Engineering 177:111-15 Ja 22 '54

Simple apparatus for demonstrating distortion due to non-uniform temperature changes. P. M. Gilet. plan diags J Sci Instr 30:484 D '53

Some predicted effects of temperature gradients on diffusion in crystals. W. Shockley. diags Phys R 91:1563-4 S 15 '53; Discussion. 93:344-5; Reply. 345-6 Ja 15 '54

Studies in the system magnesia-silica-water at elevated temperatures and pressures. E. T. Carlson and others. bibliog J Res Nat Bur Stand 51:179-84 O '53

Temperature coefficients of fluorescence. E. J. Bowen and R. J. Cook. Chem Soc J p3059-61 O '53

Temperature dependence of ferromagnetic resonance line width in a nickel iron ferrite; a new loss mechanism. J. K. Galt and others. bibliog Phys R 93:1119-20 Mr 1 '54

Temperature dependence of heat capacity. G. J. Janz. J Chem Educ 31:72 F '54

Temperature dependence of organic scintillation materials. J. B. Birks. Phys R 95:277 Jl 1 '54

Temperature dependence of the mutual diffusion coefficient for four gaseous systems. R. A. Strehlow. bibliog diags J Chem Phys 21:2101-6 D '53

Temperature dependence of the viscosity of liquids. F. Gutmann and L. M. Simmons. bibliog J Ap Phys 23:977-8 S '52; Discussion. A. K. Doolittle. 24:1067; Reply. 1067-8 Ag '53

Temperature distribution in an ion-exchange column. J. F. Short, P. G. Smith and G. H. Twigg. bibliog J Ap Chem 3:198-206 My '53

Temperature effects in a rotation viscometer. C. C. Mill and E. R. Gates. bibliog Anal Chem 25:1390-3 S '53

Temperature gradients in inductively heated cylinders. R. J. Thorn and O. C. Simpson. J Ap Phys 24:297-9 Mr '53

Temperature variation of the mean Debye temperature of Cu_3Au, 20°C to 450°C. S. L. Quimby. bibliog Phys R 95:916 Ag 15 '54

Thermal spectrum of heat technology. Chem Eng 60:177-80 Je '53

Variation of the viscosity of gelatin sols with temperature. R. J. Croome. bibliog J Ap Chem 3:330-4 Jl '53

Velocity of sound in water as a function of temperature and pressure. A. H. Smith and A. W. Lawson. bibliog diags J Chem Phys 22:351-9 Mr '54

See also

Air conditioning
Atmospheric temperature
Boiling points
Color temperature
Cooling
Earth temperature
Heat
Melting points
Metals—Temperature effect
Rubber—Temperature effect
Steel—Testing—Temperature effect
Temperature, Low
Thermal analysis
Thermochemistry

Measurement

Air-temperature measurement on a 420-foot tower. D. A. Mazzarella and D. K. Kohl. bibliog il diags Instruments & Automation 27:1306-9 Ag '54

Automatic control of chemical processes. A. J. Young. diags Instruments 26:254-5+ F '53

Calculation of thermal transpiration. S. Chu Liang. J Phys Chem 57:910-11 D '53

Computing temperatures and velocities in vertical jets of hot or cold air. A. Koestel. bibliog diags Heating-Piping 26:143-8 Je '54

Design and calibration of stagnation temperature probes for use at high supersonic speeds and elevated temperatures. E. M. Winkler. bibliog diag J Ap Phys 25:231-2 F '54

Determination of thermodynamic temperatures near 0°K without introducing heat below 1°K. W. F. Giauque. bibliog Phys R 92:1339-45 D 15 '53

Determination of transient flame temperatures. G. W. Bauserman and others. bibliog diags R Sci Instr 25:640-3 Jl '54

Generator stator copper temperature indicator; abstract. A. L. Brownlee and H. E. Brown. diags Elec Eng 72:885 O '53

Importance of thermal equilibrium in measurements on powdered insulators in vacuo. R. H. Bube and R. E. Shrader. bibliog diag R Sci Instr 25:921-2 S '54

Investigation of flame temperatures in a single-cylinder spark-ignition engine. J. H. Potter and R. B. Dillaway. bibliog il diags A S M E Trans 75:1311-21 O '53

Measurement of temperature by thermocouple and galvanometer. L. G. A. Sims. Engineering 177:180-1 F 5 '54

Measurements of the gas temperature of a low-pressure rf discharge. I. Reingold and K. Garoff. J Ap Phys 25:537-40 Ap '54

Measuring fine temperature changes. L. G. A. Sims. diags Engineering 177:15-16 Ja 1 '54

Negretti and Zambra air-operated temperature transmitter. diag Engineer 196:571 O 30 '53

New method of measuring the cathode temperature of indirectly heated vacuum tubes. S. Ikehara. bibliog diags J Ap Phys 25:725-32 Je '54

New temperature scale sought. Chem & Eng N 32:1668 Ap 26 '54

Probe recovery factor. J. D. Humphreys. il diags Instruments & Automation 27:283 F '54

Radiation-conduction correction for temperature measurements in hot gases. W. E. West, jr. and J. W. Westwater. bibliog diag Ind & Eng Chem 45:2152-6 O '53

Rapid measurements of thermal diffusivity. G. E. McIntosh and others. bibliog diags A S M E Trans 76:407-10 Ap '54

Reproducibility of the freezing temperature of high-purity zinc. E. H. McLaren. J Ap Phys 25:808 Je '54

Rocket measurements of upper atmosphere ambient temperature and pressure in the 30- to 75-kilometer region. H. S. Sicinski and others. bibliog diags J Ap Phys 25:161-8 F '54

Temperature conversions; Albert Sauveur type of table; data sheet; supplement to 1948 edition of Metals handbook. Metal Prog 66:114B Jl 15 '54

TEMPERATURE—Measurement—*Continued*

Temperature measurement below 1°K. D. H. Howling and others. bibliog Phys R 93:1416-18 Mr 15 '54

Temperature measurement in a hollow-cathode discharge. R. Schoen and J. R. Holmes. bibliog Opt Soc Am J 44:502-3 Je '54

Time-temperature control in batch processing endothermic reactions. W. J. Cotton, W. A. Kluch and F. G. Quinn. il Ind & Eng Chem 46:sup 127A-9A Ja '54

Tire temperature measurement at the Government tire test fleet. V. J. Horning. il diag Rubber Age 74:395-6 D '53

Two-sphere radiometer. D. J. Sutton and P. E. McNall, jr. bibliog il diags Heating-Piping 26:157-62 Mr '54; Abstract. Heat & Ven 51:93-4 Mr '54

Use of thermistors in precise measurement of small temperature differences; thermometric determination of molecular weights. R. H. Müller and H. J. Stolten. bibliog diags Anal Chem 25:1103-6 Jl '53

Wide-range thermistor radiometer for the measurement of skin temperature and environmental radiant temperature. A. M. Stoll. bibliog diags R Sci Instr 25:184-7 F '54

Wired for protection; new device detects deterioration in stored grain. il diag Safety Maint & Prod 107:31-2 My '54

See also

Bolometers
Calorimeters and calorimetry
Pyrometers and pyrometry
Temperature, Low
Thermal analysis
Thermocouples
Thermometers and thermometry

Physiological effect

Air conditioned rest areas boost worker productivity. L. A. Brouha. Iron Age 174:125-7 Ag 19 '54

Are hogs prospects for comfort cooling? W. E. Fontaine and others. bibliog il Refrig Eng 62:57-9 Ja '54

Comparative effects of total body and tail heating on the peripheral leukocyte count of the rat. B. H. Ershoff and J. G. Gaines. bibliog Science 118:20-1 Jl 3 '53

Excessive heat costly. T. F. Hatch. Heating-Piping 25:93 D '53

How you respond to temperature changes; abstract. N. Glickman. Illum Eng 49:418 S '54

Learning the why and how of comfort. F. K. Hick and others. bibliog il Refrig Eng 62:48-51+ Ja '54

Physiological responses to sudden changes in atmospheric environment. T. Inouye and others. Heating-Piping 26:131-4 Jl '54; Discussion. 26:141-2 Ag '54

Regulation

Control of chemical processes. A. J. Young. diags Instruments 26:572-3 Ap '53

Hot rods on tubes show boiler temperature variations. H. How. diags Chem Eng 61:218 Ag '54

How to control heat for calciners. W. G. Bauer. il diags Chem Eng 61:193-200 My '54

How you can control temperatures in induction heating. il Steel 133:149 Jl 6 '53

Improved temperature uniformity of calender roll surfaces obtained by electromagnetic induction. G. Ardichvili. diags India Rubber World 129:621-2 F '54

Materials for special service; temperature-compensator alloys. W. S. Eberly. il diag Machine Design 26:152-6 My '54

Method for improving temperature uniformity in furnaces. O. Lutherer and R. J. Reed. il plan Metal Prog 65:113-20 Ap '54

Temperature control in glass electrode pH measurements. S. Lewin. bibliog diags Chem & Ind p 1193-7 N 7 '53

Temperature control; key to gamma globulin. il Chem Eng 60:117-18+ N '53

Temperatures at his finger-tips; centralized monitoring of readings throughout air conditioned building. C. L. Gier. il Heating-Piping 25:78-9 D '53

Use of field test data for control system analysis. P. R. Hoyt and B. D. Stanton. diags Instruments 26:1180-1+ Ag '53

See also

Cryostats
Temperature regulators
Thermostats

TEMPERATURE, Absolute

Absolute temperature scale between 4.2° and 5.2°K. R. Berman and C. A. Swenson. bibliog diag Phys R 95:311-14 Jl 15 '54

TEMPERATURE, Animal and human

Calorimeter for rapid determination of heat loss and heat production in laboratory animals. R. W. Lawton and others. bibliog il diags R Sci Instr 25:370-7 Ap '54

Improved needle thermocouple for subcutaneous and intramuscular temperature measurements in animals and man. J. Krog. diags R Sci Instr 25:799-800 Ag '54

Intragastric temperature variations in man during hunger. H. B. Benjamin and others. Science 118:160 Ag 7 '53

Some metabolic responses of dogs having low body temperature. S. M. Horvath and others. Science 118:100-1 Jl 24 '53

TEMPERATURE, Low

Apparatus for solvent-removal at low temperatures. E. A. Bell. diag Chem & Ind p741 Jl 18 '53

Apparatus for the ultra-violet spectroscopy of solutions at low temperatures. R. Passerini and I. G. Ross. bibliog diags J Sci Instr 30:274-6 Ag '53

Carbon-composition thermometers at very low temperatures. J. R. Clement and others. diag R Sci Instr 24:545-6 Jl '53

Ceramic quick freeze. il Chem W 72:42-3 My 2 '53

Considerations in the operation of outdoor oil circuit breakers under low ambient temperatures. E. B. Rietz. il maps Elec Eng 72:907-11 O '53

Density fluctuations at low temperatures. P. J. Price. bibliog Phys R 94:257-61 Ap 15 '54

Determination of thermodynamic temperatures near 0°K without introducing heat below 1°K. W. F. Giauque. bibliog Phys R 92:1139-45 D 15 '53

Effect of aluminum on the low temperature properties of relatively high purity ferrite. H. T. Green and R. M. Brick. bibliog J Metals 6:Trans906-13 Ag '54

Effect of deformation at low temperatures on the properties of austenitic stainless steels; abstract. K. Bungardt and others. Engineer 197:172 Ja 29 '54

Entropy calculations at low temperature. G. Calingaert. J Chem Educ 31:487 S '54

Factors affecting the transformation to gray tin at low temperatures. R. R. Rogers and J. F. Fydell. bibliog il Electrochem Soc J 100:383-7 S '53; Discussion. 101:335 Je '54

Field-weld test for mild steel welds at low temperatures. J. R. Watt and J. J. Smetana. il Welding J 33:sup79-82 F '54

How to design for low temperatures. R. J. Sweeney. il Chem Eng 61:197-202 Jl '54

International conference on low temperature physics and chemistry, 3d, Houston. Chem & Eng N 32:230+ Ja 18 '54

Liquid level indicator for condensed gases at low temperatures. W. E. Williams, jr. and E. Maxwell. il diags R Sci Instr 25:111-14 F '54

Low temperature bath for constant temperature studies. J. Vajda and D. P. Hart. diags R Sci Instr 24:354-5 My '53

Low-temperature carbonization assay of coal in a precision laboratory apparatus. J. B. Goodman and others. bibliog 2pls diags U S Bur Mines Bul 530:1-24; pa 55c Supt. of doc. '53

Low-temperature electrolytes. F. Rakowsky and A. B. Garrett. bibliog Electrochem Soc J 101:117-19 Mr '54

LTFD calculation procedures. S. T. Preston, jr. diags Pet Refiner 32:109-14 Ag '53

Low-temperature internal friction and elasticity effects in vitreous silica. M. E. Fine and others. bibliog J Ap Phys 25:402-5 Mr '54

TEMPERATURE, Low—*Continued*

Low temperature plasticizers; abstract. M. A. Pollack. Can Chem Process 38:66-7 Je 20 '54

Low temperature reaction of water with carbon. R. N. Smith, C. Pierce and C. D. Joel. bibliog J Phys Chem 58:298-302 Ap '54

Low-temperature thermal data for the nine normal paraffin hydrocarbons from octane to hexadecane. H. L. Finke and others. bibliog Am Chem Soc J 76:333-41 Ja 20 '54

Low-temperature X-ray camera. E. A. Owen and G. I. Williams. bibliog plan diags J Sci Instr 31:49-54 F '54

Low temperature X-ray crystallography. B. Post and I. Fankuchen. bibliog Anal Chem 25:736-7 My '53

Low-temperature X-ray goniometer for structural studies of crystal transitions. R. Keeling and others. il diags R Sci Instr 24:1087-95 D '53

Magnetic and electric properties of magnetite at low temperatures. B. A. Calhoun. bibliog diags Phys R 84:1577-85 Je 15 '54

Materials at low temperatures. il Steel 133: 247, 305 O 12 '53

Measurement of elastic constants at low temperatures by means of ultrasonic waves. H. J. McSkimin. bibliog(27 ref) diags J Ap Phys 24:988-97 Ag '53

Measurement of enzyme reaction velocities at low temperatures. V. P. Maier and A. L. Tappel. bibliog diag Anal Chem 26:564-6 Mr '54

Measurement of high vacuum at low temperatures. M. P. Garfunkel and A. Wexler. diag R Sci Instr 25:170-2 F '54

Mechanical properties of beryllium copper at subzero temperatures. J. T. Richards and R. M. Brick. bibliog J Metals 6:Trans 574-80 sec 2 My '54

Mechanical properties of Teflon at low temperatures. C. A. Swenson. R Sci Instr 25:834-5 Ag '54

Method of determining electrical resistivities at low temperatures. D. C. Baird and W. S. Boyle. il J Ap Phys 24:958 Jl '53

Moduli and internal friction of magnetite as affected by the low-temperature transformation. M. E. Fine and N. T. Kenney. bibliog diags Phys R 94:1573-6 Je 15 '54

Notch toughness of four alloy steels at low temperatures. W. B. Seens and others. bibliog il Am Soc T M Proc 51:918-28; Discussion. 929-30 '51

Nuclear alignment at low temperatures. N. R. Steenberg. bibliog Phys R 93:678-81 F 15 '54

Plastic films at low temperatures. A. J. Freeman and others. il Mod Packaging 27:147-51+ Je '54

Save LTFD calculation time with these sheets; low temperature fractionation equipment for analysis of gases. W. F. Krause and others. Pet Refiner 32:115-18 Ag '53

Simple method of making vacuum-tight coolable window seals for low temperature optical transmission cells. V. Roberts. bibliog diag J Sci Instr 31:251-2 Jl '54

Simple method of obtaining low-temperature X-ray diffraction photographs. S. C. Wallwork and T. T. Harding. bibliog diag J Sci Instr 31:163-4 My '54

Some apparent anomalies in low-temperature heat capacities. J. R. Clement. bibliog Phys R 93:1420-1 Mr 15 '54

Specifying elastomers for low temperature service. il Materials & Methods 38:114-18 N '53

Spectra of iodine solutions; the effects of low temperatures upon iodine complexes. J. Ham. bibliog diags Am Chem Soc J 76: 3875-80 Ag 5 '54

Temperature measurement below 1°K. D. H. Howling and others. bibliog Phys R 93:1416-18 Mr 15 '54

Thermal conductivity of commercial insulations at low temperature. J. D. Verschoor. bibliog il diag Refrig Eng 62:35-7; Discussion. 37+ S '54

Two-sphere radiometer. D. J. Sutton and P. E. McNall, jr. bibliog il diags Heating-Piping 26:157-62 Mr '54; Abstract. Heat & Ven 51:93-4 Mr '54

Use of thermocouples for measuring temperatures below 70°K. T. M. Dauphinee and others. J Sci Instr 30:399-400 N '53

Welding for low-temperature service. R. W. Bennett. il diags Welding J 32:1089-97 N '53

Wide range temperature controller using a resistance element. S. J. Borgars. diags J Sci Instr 30:46-9 F '53

Wood at low temperatures. K. H. Boller. il diags Mod Packaging 28:153-7 S '54

See also

Cryogenic laboratories
Cryostats
Freezing
Helium, Liquid
Refrigeration and refrigerating machinery
Temperature, Absolute
Testing laboratories—Cold rooms

TEMPERATURE indicating paint. See Paint, Temperature indicating

TEMPERATURE regulators

Aircraft cabin temperature control systems. S. D. Browne. Instruments 26:269-72 F '53

Application of the three-way control valve. L. Hollander. diags Instruments & Automation 27:454-6 Mr '54

Automatic cabin temperature control. R. D. Weber. il plan diag Aero Digest 67:78+ Ag '53

Closer forehearth control increases container pack. il diag Cer Ind 62:71-2+ Je '54

Constant-temperature heater. S. H. Tucker. diag J Chem Educ 30:634 D '53

Convenient constant-temperature heater. W. W. Wendlandt. diag J Chem Educ 31:312 Je '54

Electronic home temperature control. H. W. Lawson. il diags Radio & Tv N 50:130-1+ N '53

Electronic temperature controller. B. E. Noltingk and M. A. Snelling. bibliog il diags J Sci Instr 30:349-51 O '53

Heat control; robot-eye units monitor uranium rolling at AEC plant. Iron Age 172:169 Ag 6 '53

High temperature thermoregulator. F. Rosebury. il diags R Sci Instr 24:398-9 My '53

Independent control of several furnaces with one temperature regulator. A. E. De Barr and B. Roberts. J Sci Instr 31:71 F '54

Low temperature bath for constant temperature studies. L. Vajda and D. P. Hart. diags R Sci Instr 24:354-5 My '53

Mechanical heat switch. R. L. Dolecek and J. J. Madden. diag R Sci Instr 24:1063-4 N '53

Mercury contact for constant temperature thermoregulator. M. Cefola and A. J. Chadwick. diags J Chem Educ 31:142-3 Mr '54

New method of improving furnace temperature control. W. James. diag J Sci Instr 31:23-5 Ja '54

Temperature regulators; drawings with text. L. C. Blauvelt. Product Eng 24:172-3 Jl '53

Thermoregulator for a liquid helium bath. W. S. Boyle and J. B. Brown. diag R Sci Instr 25:359-60 Ap '54

Two types of regulators and the precision control of helium bath temperature. H. S. Sommers, jr. diags R Sci Instr 25:793-8 Ag '54

Variable temperature and humidity oven. J. N. Burcham. bibliog diags J Sci Instr 30:335-6 S '53

Wide range temperature controller using a resistance element. S. J. Borgars. diags J Sci Instr 30:46-9 F '53

With proportional control system temperatures are maintained within 1/2 degree. il Mill & Factory 55:134 Jl '54

TEMPERING

Creep properties of two tempers of 63S extruded aluminum alloy. O. D. Sherby and J. E. Dorn. bibliog Am Soc T M Proc 51: 945-53; Discussion. 977-80 '51

Effect of tempering on the hardness of retained austenite. P. Stark and B. S. Lement. il J Metals 6:Trans 1074-5 sec 2 S '54

Effects of decomposition of retained austenite during tempering on notch toughness and tensile properties. E. F. Bailey and W. J. Harris, jr. bibliog il Am Soc for Metals Trans 44:204-17; Discussion. 217-24 '52

TEMPERING—*Continued*

How tempering affects corrosion resistance of 12 per cent chromium steel. A. Simon. Materials & Methods 40:138-9 Jl '54

Isothermal transformation, hardening, and tempering of 12 per cent chromium steel. R. L. Rickett and others. bibliog il Am Soc for Metals Trans 44:138-68; Discussion. 168-75 '52

Surface tempering caused by grinding; abstracts. G. Murphy. Mach 60:202-3 Ja '54; Tool Eng 32:185-7 Je '54

Tempering; addition of water improves salt bath heat treat operations; American cyanamid co. Iron Age 172:260 N 12 '53

TEMPLETS

How to make involute die templets. D. T. Worth. diags Am Mach 97:118-19 N 9 '53

How to use templates for plant layouts. il Power 98:146 Ap '54

Interchangeable templets diversify drill jig. L. H. Austin. diags Am Mach 98:128 Mr 1 '54

Spar mill profile template design. J. M. Stolz. diags Tool Eng 32:60-4 Ja '54

Tilted templet reproduces correct form for milling. H. K. Franicke. diags Am Mach 98:119 Ja 4 '54

TEMPORARY houses. See Houses, Temporary

TENDONS

Spontaneous rupture of the biceps tendon. M. C. Ratzan. bibliog il Ind Med 22:360-1 Ag '53

TENNESSEE

See also

Chemical industries—Tennessee

Copper mines and mining—Tennessee

Paper and pulp mills—Tennessee

TENNESSEE gas transmission company

Bonds offered. Comm & Fin Chr 178:2201-2 D 7 '53

Debentures and preferred stock offered. Comm & Fin Chr 178:1060+ S 21 '53

TENNESSEE university

Opening new chemistry doors. il Chem & Eng N 32:1913 My 10 '54

TENNESSEE Valley authority

AEC contract stirs debate on TVA. Pub Util 54:161-3 Ag 5 '54

AEC switches power policy. Chem & Eng N 32:2594-5 Je 28 '54

Congress looks at TVA. Chem & Eng N 32:722+ F 22 '54

Dondero hits TVA; proposed amendment to TVA act of 1933. Elec World News ed 140:9 S 14 '53

Eisenhower still wary on TVA. Elec World 140:107-8 O 19 '53

Electricity heats, cools TVA offices. il Elec World 140:134+ S 7 '53

Engineering features. C. E. Blee. il map Am Soc C E Proc 79 [no 240]:1-12 Ag '53

Fertilizer, munitions sales return a profit, TVA reports. Oil Paint & Drug Rep 165:3+ Ja 11 '54

Fertilizer output cut set for 1955. Oil Paint & Drug Rep 165:3+ Mr 29 '54

Hitting back at fast tax write-offs. G. R. Clapp. Elec World News ed 140:8 O 12 '53

Lighter atomic load planned for TVA. Elec World News ed 141:6 F 1 '54

Liquidating government's $30 billion business empire. H. DuBois. Mag of Wall St 93:606-7+ F 20 '54

Microwave, backbone of TVA's expanded communications; telemetering, telephones, powerline carrier, and facsimile. G. E. Farmer. il Elec World 140:124-7 O 19 '53

TVA, air force negotiate deal; authority to supply all power needs of Arnold engineering development center. S. R. Harris, jr. Elec World 141:117 F 22 '54

TVA appointments. Pub Util 53:301 Mr 4 '54

TVA being sued by Co-op. Elec World News ed 140:7 O 26 '53

TVA budget fight. Elec World 141:91 F 22 '54

TVA claims better A-plant record. il Elec World 140:70 S 7 '53

TVA cost analysis. Elec World News ed 141:9 F 1 '54

TVA dambuilders turn to steam. A. J. Fox, jr. il map Eng N 152:30-4+ F 25 '54

TVA replies on low rate charge. P. L. Evans. Pub Util 54:198-9 Ag 19 '54

TVA; river developer becomes a utility. il Bsns W p88-90+ D 12 '53

TVA should be run on business basis. C. H. Moses. Elec World 140:122 S 21 '53

TVA still a storm center. Elec World News ed 141:6 F 15 '54

TVA; the status is quo. il Chem W 72:15 Je 27 '53

TVA turning-point; Fulton plant. H. Murphy. Barron's 33:17-18 S 14 '53

TVA's two decades evaluated in annual report. Elec World 141:79 Ja 11 '54

Who's got a stake in public power? il Chem W 74:46-7 Ap 17 '54

TENNIS rackets

New tennis racket string; DuroLastek. Chem Age (Lond) 71:416 Ag 28 '54

TENSIOMETERS

How to eliminate filament-fabric shadow streaks. W. P. Crawley. il Textile World 104:84-5+ Jl '54

TENSION control. See Winding machines—Tension control

TENSORS

Decomposition of the scalar product of two symmetric tensors. M. H. Cohen. bibliog Phys R 95:674-5 Ag 1 '54

Introduction to spinors. W. L. Bade and H. Jehle. bibliog(76 ref) Rs Mod Phys 25:714-28 Jl '53

Use of tensor operators in nuclear collision problems. L. Wolfenstein. bibliog Phys R 92:123-5 O 1 '53

TERBIUM

Analysis

Fluorescence spectrometric determination of terbium. V. A. Fassel and R. H. Heidel. bibliog(26 ref) Anal Chem 26:1134-7 Jl '54

Nuclear reactions

Decay of $_{65}Tb^{160}$(71 day). S. B. Burson and others. bibliog diag Phys R 94:103-9 Ap 1 '54

TERBIUM fluorides

Terbium tetrafluoride; preparation and properties. B. B. Cunningham, D. C. Feay and M. A. Rollier. bibliog Am Chem Soc J 76:3361-3 Jl 5 '54

TEREPHTHALIC acid

Manufacture

Terephthalic acid; methods of production. Chem Age (Lond) 68:855-6+ Je 6 '53

TERMINALS

Bonus; a Texas terminal; Phillips terminal co. il Chem W 73:32+ Jl 4 '53

Dedicate Port Newark terminal. il Marine Eng 59:47 My '54

From shipside to railroad siding; tank terminal moves sea-going chemicals. il Chem W 72:63-4+ Ap 25 '53

Los Angeles terminal has new-type gangplank. il Marine Eng 59:66-7 Ja '54

Marine terminal in Le Havre, France. il Eng N 152:71+ Mr 18 '54

Use-flexibility of bulk liquid terminals increased by proper selection of tank sizes and interchange of products. T. W. Rodes. Ind & Eng Chem 45:sup 112A Jl '53

See also

Airlines—Terminals

Airport buildings

Ferry terminals

Freight handling

Motor bus lines—Terminals

Ore docks

Petroleum pipe lines—Terminals

Petroleum shipping terminals

Ports

Railroads—Terminals

TERPENES

Chemistry of the taraxasterol group of pentacylic triterpenes. J. L. Beton and others. Chem & Ind p847-8 Ag 8 '53

Chemistry of the triterpenes and related compounds; further evidence concerning the structure of polyporenic acid A. T. G. Halsall, R. Hodges and E. R. H. Jones. Chem Soc J p3019-24 O '53

Chemistry of the triterpenes and related compounds; some aspects of the chemistry of the elemi acids. T. G. Halsall, G. D. Meakins and R. E. H. Swayne. Chem Soc J p4139-48 D '53

TERPENES—*Continued*

Chemistry of the triterpenes and related compounds; the conversion of lupeol into χ-taraxasterol (heterolupeol). T. G. Halsall, E. R. H. Jones and R. E. H. Swayne. Chem Soc J p 1902-5 Je '54

Chemistry of the triterpenes and related compounds; the conversion of polyporenic acid A into a lanosterol derivative. T. G. Halsall and R. Hodges. Chem Soc J p2385-91 Jl '54

Chemistry of the triterpanes and related compounds; the stereochemistry of ring E of betulin and related compounds. J. M. Guider. T. G. Halsall and E. R. H. Jones. Chem Soc J p3024-8 O '53

Chemistry of the triterpenes and related compounds; the structure of taraxasterol, χ-taraxasterol (heterolupeol), and lupenol-I. T. R. Ames and others. Chem Soc J p 1905-19 Je '54

Direct chemical interrelation of the configuration of terpenes and hydroxy acids. D. S. Noyce and D. B. Denney. bibliog Am Chem Soc J 76:768-71 F 5 '54

Direct stereochemical correlation of a sesquiterpene alcohol with the steroids. B. Riniker and others. bibliog Am Chem Soc J 76:313-14 Ja 5 '54

Distribution of triterpenes in Rugel's plantain. R. C. Hiltibran, C. L. Wadkins and H. J. Nicholas. bibliog Am Chem Soc J 75:5125-6 O 20 '53

Molecular rotations of polycyclic compounds; diterpenoids and sesquiterpenoids. W. Klyne. Chem Soc J p3072-81 O '53

Physical and thermodynamic properties of terpenes; the heats of combustion of some terpene hydrocarbons. J. E. Hawkins and W. T. Eriksen. bibliog Am Chem Soc J 76:2669-71 My 20 '54

Physical and thermodynamic properties of terpenes; the vapor pressures of α-pinene and β-pinene. J. E. Hawkins and G. T. Armstrong. bibliog Am Chem Soc J 76:3756-8 Jl 20 '54

Proposed system of nomenclature for terpene hydrocarbons; acyclics, monocyclics, bicyclics. Chem & Eng N 32:1795-7 My 3 '54

Sesquiterpenoids; the stereochemistry of caryophyllene. A. Aebi, D. H. R. Barton and A. S. Lindsey. Chem Soc J p3124-9 O '53

Some properties of isopropenylic terpenoids. M. D. Sutherland. bibliog Am Chem Soc J 75:5944-50 D 5 '53

Studies in the terpene series; hydroisomerization and hydrogenolysis of cyclohexene, methylcyclohexene and *p*-menthene in the presence of hydrogenation catalysts. H. Pines and others. bibliog Am Chem Soc J 76:2740-2 My 20 '54

Studies in the terpene series; isomerization accompanying the dehydrogenation of 1-1, 3-trimethylcyclohexane and of 1,1,3-trimethyl-*x*-cyclohexene. H. Pines. E. F. Jenkins and V. N. Ipatieff. bibliog Am Chem Soc J 75:6226-8 D 20 '53

Studies in the terpene series; the thermal isomerization of pinane at high pressure. V. N. Ipatiefff, W. D. Huntsman and H. Pines. bibliog Am Chem Soc J 75:6222-5 D 20 '53

Terpenes in the essential oil of haplopappus laricifolius, Gray. W. F. McCaughey and T. F. Buehrer. bibliog Am Chem Soc J 75:4851 O 5 '53

Terpenes; structure and synthesis of the $C_{17}H_{20}$ hydrocarbon obtained by dehydrogenation of agathic acid. G. Büchi and J. J. Pappas. bibliog Am Chem Soc J 76:2963-6 Je 5 '54

Terpenes; the reactions of carvone and dihydrocarvone with methanol in the presence of sulfuric acid. G. Büchi and R. E. Erickson. Am Chem Soc J 76:3493-5 Jl 5 '54

Terpenoids; constitution of machaeric acid. C. Djerassi and A. E. Lippman. Chem & Ind p960-1 Jl 31 '54

Terpenoids; dumortierigenin, a new triterpene lactone from the cactus lemaireocereus dumortieri. C. Djerassi and others. bibliog Am Chem Soc J 76:2969-73 Je 5 '54

Terpenoids; experiments in the glycyrrhetic acid series. C. Djerassi and C. M. Foltz. bibliog Am Chem Soc J 76:4085-8 Ag 20 '54

Terpenoids; structures of cactus triterpenes gummosogenin and longispinogenin. C. Djerassi and others. bibliog Chem & Ind p 161-2 F 6 '54

Terpenoids; synthesis of the gross structure of zingiberene. S. M. Mukherji and N. K. Bhattacharyya. bibliog Am Chem Soc J 75:4698-700 O 5 '53

Terpenoids; the isolation of erythrodiol, oleanolic acid and a new triterpene triol, longispinogenin, from the cactus lemaireocereus longispinus. C. Djerassi, R. M. McDonald and A. J. Lemin. bibliog Am Chem Soc J 75:5940-2 D 5 '53

Terpenoids; the isolation of iresin, a new sesquiterpene lactone. C. Djerassi and others. bibliog Am Chem Soc J 76:2966-8 Je 5 '54

Terpenoids; the structures of the cactus triterpenes gummosogenin and longispinogenin. C. Djerassi, L. E. Geller and A. J. Lemin. bibliog Am Chem Soc J 76:4089-91 Ag 20 '54

Triterpene acids from the leaves of psidium guaijava, L. H. R. Arthur and W. H. Hui. Chem Soc J p 1403-6 My '54

Triterpene resinols and related acids; oleana-9(11) : 13(18)-dienol and oleana-9(11) : 18-dienol; the conversion of β-amyrin into germanicol. J. M. Beaton and others. Chem Soc J p3660-72 N '53

Triterpene resinols and related acids; the non-saponifiable fraction from strychnos nux-vomica seed fat; the structure of *cyclo*-artenol. H. R. Bentley and others. Chem Soc J p3673-8 N '53

Triterpene resinols and related acids; the oxidation of 12-oxo*iso*oleana-9(11) : 14-dienyl acetate. J. D. Johnston and F. S. Spring. Chem Soc J p 1556-65 My '54

Triterpene resinols and related acids; the structure of oxo-*iso*-β-amyradienyl acetate. G. G. Allan, J. D. Johnston and F. S. Spring. Chem Soc J p 1546-56 My '54

Triterpenoids; the constitution of icterogenin, aphysiologically active triterpenoid. D. H. R. Barton and P. de Mayo. Chem Soc J p887-900 Mr '54

Triterpenoids; the constitution of quinovic acid. D. H. R. Barton and P. de Mayo. Chem Soc J p3111-15 O '53

Triterpenoids; the constitution of rehmannic acid. D. H. R. Barton and P. de Mayo. Chem Soc J p900-3 Mr '54

Triterpenoids; the transformation of lanostadienol (lanosterol) into 14-methylcholestan-3β-ol. D. H. R. Barton, D. A. J. Ives and B. R. Thomas. Chem Soc J p903-7 Mr '54

Analysis

Estimation of cholesterol and triterpenols in unsaponifiable fraction of wool wax. H. Duewell. bibliog Anal Chem 25:1548-50 O '53

Spectrophotometric determination of cholesterol and triterpene alcohols in wool wax. F. E. Luddy, A. Turner, jr. and J. T. Scanlan. bibliog Anal Chem 25:1497-9 O '53

See also

Camphene
Diterpenes
Humulene
Metrosiderene
Santalene

TERRACES

How to roof a terrace with translucent panels. il diags Am Bld 75:162 D '53

TERRA LINDA, California

Terra Linda, newest planned town. il plans diags House & Home 6:154-60 S '54

TERRAMYCIN

In vitro activity of micoina on brucellae, compared with that of terramycin. M. T. de Mello. bibliog Science 118:413-15 O 9 '53

Structure of terramycin. F. A. Hochstein and others. bibliog Am Chem Soc J 75:5455-75 N 20 '53

TERRITORIAL association of plantation physicians

Annual meeting, 9th, Hawaii, Nov. 14-16, 1952. Ind Med 22:114-15 Mr '53

TERYLENE. See Dacron

TESTIMONIALS in advertising. See Advertising copy—Testimonials

TESTING

Automatic controller aids materials testing programs. il Materials & Methods 39:141 Ja '54

TESTING—*Continued*

Inspection by tv; B-scan system. T. A. Dickinson. il Mill & Factory 54:127-8 Mr '54

New developments in vacuum testing. L. Sterns. il Automotive Ind 111:72+ Ag 1 '54

Non-destructive testing methods in use today. C. C. Gee, comp. Power Eng 57:89 D '53

Symposium on non-destructive testing. (Special tech. pub. no. 145) 98p pa $2 Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '53

Tests involving several variables. O. Redlich and F. R. Watson. Aeronautical Eng R 12:51-9 Je '53

Ultrasonic technique of non-destructive testing. Am Mach 98:154 Mr 1 '54

See also

Impact
Laboratories
Magnetic testing
Testing laboratories
Testing machines
Textile testing
Weathering

also subdivision Testing under various subjects, e.g.

Corrosion and anticorrosives
Hardness
Metals
Plastic materials
Steel

Terminology

Mechanical properties and tests of engineering materials. J. B. Campbell, comp. diags Materials & Methods 40:109-32 Jl '54 (reprints 25c)

Proposed revised tentative definitions of terms relating to methods of mechanical testing; data sheet. Foundry 82:231-2 Jl '54

TESTING laboratories

Behind the aerosol scene; Dodge & Olcott's laboratory. il Chem & Eng N 32:1618 Ap 19 '54

Check list for design; air conditioning systems for product testing laboratories. F. F. Stevenson. il diag Heating-Piping 26:124-8 Mr; 126-7 Je; 89-91 Ag '54

Friction materials laboratory opened; Johns-Manville corp. il Materials & Methods 40: 236+ S '54

Laboratory for intensive journal-bearing research; Sargent research laboratory. il Ry Age 136:40-1 My 3 '54

Laboratory testing spells TCA safety. H. Donner. il Can Chem Process 37:88 N '53

Photometric laboratory for today's light sources. K. Franck and R. L. Smith. il diag Illum Eng 49:287-91 Je '54

Public health is their responsibility; Haskell laboratory for toxicology and industrial medicine. il Nat Safety N 70:24-5+ Jl '54

Research adds force to attack on hot-box problem; American brake shoe co., Sargent research laboratory. il Ry Loco & Cars 128:67-70 My '54

Research; journal bearing performance studied in special room; American brake shoe co. il Iron Age 173:145-6 Je 3 '54

Worthington opens giant test lab. il Power 98:158 My '54; Water & Sewage Works 101: 247 My '54

See also

American gas association—Appliance testing laboratory
Electric laboratories

Cold rooms

Direct carbon dioxide injection cools low temperature test chamber. R. Greenwald. il diag Heating-Piping 26:114-17 Je '54

Effect of convection and moisture deposition on heat transmission thru cold storage test walls. H. C. Brown, jr. and L. E. Bish. il plan diags Refrig Eng 62:62-7; Discussion. 67+ Ja '54

Equipment

National Malleable technical center at Cleveland. il Ry Loco & Cars 127:62-3 D '53

Test and research rigs; applications to aircraft equipment; Dowty equipment, ltd. il Engineering 177:18-21 Ja 1 '54

Testing with advanced equipment at Detroit arsenal. il Automotive Ind 111:70-2+ S 1 '54

Weather rooms

Climatic research laboratory, Farnborough; abstract. L. C. C. Rayner and A. H. Coombs. Engineering 177:117 Ja 22 '54

Climatic test rooms at Griffiss air force base. O. B. Wert. flow diag Refrig Eng 62:47+ Ap '54

Dry ice-brine low temperature chamber; Jack & Heintz. E. Smith. il diag Refrig Eng 62: 43-5+ My '54

New research and testing laboratory of the Trane co. il Heating-Piping 26:90-3 Jl '54; Excerpts. Heat & Ven 51:128+ Jl '54

TESTING machines

Baldwin-Lima-Hamilton testing unit gives universal measurement. Tool Eng 31:113 D '53; Steel 133:116 N 16 '53; il Mech Eng 76: 176-7 F '54

Calibrating multimillion pound testing machines. Product Eng 24:176 O '53

Equipment for compression-creep tests at high temperatures. A. E. Johnson and N. E. Frost. diags Engineering 176:28-9 Jl 3 '53; Abstract. Metal Prog 64:124+ D '53

Hautau pressure testing machine. il Machine Design 26:145 F '54

Inventory of foundry equipment; miscellaneous equipment; with tables. Foundry 82:162-3 My '54

Magnetic fatigue tester. Steel 135:112 S 6 '54

NBS dynamometers check huge testing machines. il Civil Eng 23:717 O '53

National bureau of standards million-pound calibrators. il Steel 133:122-4+ S 14 '53; Excerpts. Product Eng 24:176 O '53; Mech Eng 75:1006-7 D '53

New testing lab to eliminate hot boxes; American brake shoe co. diag Machine Design 26:196+ My '54

1954 American Machinist production preview; layout and inspection. il Am Mach 98:217-28 Ja 18 '54

Plant develops unusual high pressure testing unit; Herman testing equipment. il Iron Age 173:112 Ja 21 '54

Pneumatic pillow replaces sand bags for dead-load testing of structural panels. E. A. Miller. il diags Civil Eng 23:840-2 D '53

Predicts turbine life; machine simulates heat and vibration conditions. Steel 133:156 Jl 6 '53

Rear axle test plant; British Timken, ltd. il diags Engineer 196:440 O 2 '53

Research; new designs get test on one million-lb machine; Baldwin-Lima-Hamilton corp. testing machine. il Iron Age 172:84-5 D 31 '53

Scott tire cord tester. il Machine Design 26: 138 Ap '54

Testing machine has adjustable cycling range. il Automotive Ind 109:67 D 15 '53

This machine helps show why hot boxes occur as they do. il Ry Age 135:104-8 D 14 '53

Tuning fork tests master rods. il Machine Design 26:210+ Ap '54

Versatile machine specially designed answers variable testing needs at low cost. il Mill & Factory 54:144 Ja '54

See also

Dynamometers
Extensometers
Gear testing machines
Textile testing machines

Testing

Constancy of calibration of elastic calibrating devices. W. C. Aber and F. M. Howell. il Am Soc T M Proc 51:1072-84; Discussion. 1084-6 '51

TESTOSTERONE

Binding of uncharged molecules to proteins; testosterone and bovine serum albumin. J. A. Schellman, R. Lumry and L. T. Samuels. bibliog Am Chem Soc J 76:2808-13 My 20 '54

Dispersion of testosterone in aqueous bovine serum albumin solution. F. Bischoff and R. D. Stauffer. bibliog Am Chem Soc J 76:1962-5 Ap 5 '54

Enamine derivatives of steroidal carbonyl compounds; the synthesis of C_{11}-oxygenated testosterones. M. E. Herr and F. W. Heyl. bibliog Am Chem Soc J 75:5927-30 D 5 '53

TESTOSTERONE—*Continued*

Preparation of ethylenedioxy derivatives of ketosteroids by exchange dioxolanation; an improved synthesis of testosterone from Δ^4-androstene-3,17-dione. H. J. Dauben, jr., B. Löken and H. J. Ringold. bibliog Am Chem Soc J 76:1359-63 Mr 5 '54

Steroid homologs containing pyridazinone and related nuclei. F. L. Weisenborn, D. C. Remy and T. L. Jacobs. bibliog Am Chem Soc J 76:552-5 Ja 20 '54

Steroids; synthesis of 19-nor-17α-ethynyltestosterone and 19-nor-17α-methyltestosterone. C. Djerassi and others. bibliog Am Chem Soc J 76:4092-4 Ag 20 '54

Steroids; the oxidation of steroidal allylic alcohols with manganese dioxide; a novel synthesis of testosterone. F. Sondheimer, C. Amendolla and G. Rosenkranz. bibliog Am Chem Soc J 75:5930-2 D 5 '53

TETRABORANE. See Boron hydride

TETRABROMOCHRYSAZIN

Colorimetric determination of boron with tetrabromochrysazin. J. H. Yoe and R. L. Grob. bibliog Anal Chem 26:1465-8 S '54

TETRACHLOROETHANE

Spectrum

Vibrational spectra and calculated thermodynamic properties of 1,1,1,2-tetrachloroethane and pentachloroethane. J. R. Nielsen and others. bibliog Opt Soc Am J 43:1071-9 N '53

TETRACHLOROETHYLENE

All competing, all growing; the top three chlorinated solvents; tri, per and carbon tet. Chem W 72:56-7 My 2 '53

Carbon dihalides as intermediates in the basic hydrolysis of haloforms; combination of carbon dichloride with halide ions. J. Hine and A. M. Dowell, jr. bibliog Am Chem Soc J 76:2688-92 My 20 '54

Mull and solvent media for infrared use. J. S. Ard. bibliog Anal Chem 25:1743-4 N '53

Physiological effect

Tetrachlorethylene exposure in a small industry. H. R. Coler and H. R. Rossmiller. A M A Archives Ind Hygiene & Occup Med 8:227-33 S '53

Safety measures

Perchlorethylene; hazards and precautions. M. M. Luckens. Safety Maint & Prod 108:43 S '54

TETRACHLOROHYDROQUINONE

Colorimetric determination of tetrachlorohydroquinone. S. Dahl. bibliog Anal Chem 25:1724-7 N '53

TETRACOSENOIC acid

Anodic syntheses; synthesis of nervonic (selacholeic) acid. D. G. Bounds, R. P. Linstead and B. C. L. Weedon. Chem Soc J p448-51 Ja '54

TETRACYCLINE

New antibiotic based on chemical skeleton of proven drugs. Can Chem Process 37:62 O '53

New antibiotic discovered by two labs simultaneously. Chem & Eng N 31:4108+ O 5 '53

Shift in the lineup; American Cyanamid eliminates rival for tetracycline. Chem W 73:15 N 14 '53

TETRACYCLONES. See Cycloalkanones

TETRADECANE

Vapor-liquid equilibria at 200 mm. of mercury. S. H. Ward and M. Van Winkle. bibliog Ind & Eng Chem 46:338-50 F '54

Vapor-liquid equilibrium of naphthalene-*n*-tetradecane system at subatmospheric pressures. S. Haynes, jr. and M. Van Winkle. bibliog Ind & Eng Chem 46:334-8 F '54

TETRAETHYL compounds

Some thermodynamic properties of compounds of the formula MX_4; tetra-alkyl compounds. L. A. K. Staveley and others. diag Chem Soc J p 1992-2001 Je '54

TETRAETHYL lead

Combustion of hydrogen as related to knock. W. F. Anzilotti and others. bibliog diags Ind & Eng Chem 46:1314-18 Je '54

Mechanism of combustion chamber deposit formation with leaded fuels. W. E. Newby and L. F. Dumont. bibliog diag Ind & Eng Chem 45:1336-42 Je '53

Tetraethyl lead as a fuel additive. bibliog il U S Nat Advisory Com for Aeronautics 1951:569-80 '52

Tetraethyl radiolead studies of combustion chamber deposit formation. H. P. Landerl and B. M. Sturgis. il Ind & Eng Chem 45:1744-8 Ag '53

Analysis

Determination of tetraethyllead in gasoline by titration with ethylenediamine tetraacetate. O. I. Milner and G. F. Shipman. bibliog Anal Chem 26:1222-3 Jl '54

Determining TEL in gasoline by flame photometry. J. H. Jordan, jr. il Pet Refiner 32:139-40 Ag '53

TETRAFLUOROBENZIDINE

Steric hindrance to coplanarity in o-fluorobenzidines. A. J. Bilbo and G. M. Wyman. bibliog Am Chem Soc J 75:5312-14 N 5 '53

TETRAFLUOROETHYLENE

Heat capacity, heats of fusion and vaporization, and vapor pressure of tetrafluoroethylene. G. T. Furukawa and others. J Res Nat Bur Stand 51:69-72 Ag '53

Production of Fluon; polytetrafluoroethylene. Engineer 196:347 S 11 '53

Thermal degradation of tetrafluoroethylene and hydrofluoroethylene polymers in a vacuum. S. L. Madorsky and others. bibliog diag J Res Nat Bur Stand 51:327-33 D '53

See also

Teflon

TETRAHYDROFOLIC acid

Stimulation of serine biosynthesis in pigeon liver extracts by tetrahydrofolic acid. R. L. Kisliuk and W. Sakami. Am Chem Soc J 76:1456-7 Mr 5 '54

TETRAHYDROFURAN

Dielectric constant and refractive index from 20 to 35° and density at 25° for the system tetrahydrofuran-water. F. E. Critchfield, J. A. Gibson, jr. and J. L. Hall. Am Chem Soc J 75:6044-5 D 5 '53

Synthesis of β,β-dicarbethoxytetrahydrofuran. A. Ghosh and C. R. Raha. Am Chem Soc J 76:282 Ja 5 '54

TETRAHYDRONAPHTHOIC acids

Chemotherapy of cancer; the synthesis of dihydroxytetrahydronaphthoic acids related to podophyllotoxin. K. N. Campbell, J. A. Cella and B. K. Campbell. bibliog Am Chem Soc J 75:4681-4 O 5 '53

TETRALIN

Identity of some 1-(3′,4′-dimethoxyphenyl)-6,7-dimethoxytetralin derivatives. R. D. Haworth and G. N. Walker. Am Chem Soc J 76:3596-7 Jl 5 '54

Kinetics of the decomposition of tetralin hydroperoxide in acidic and basic solvents. J. E. Hay and others. Chem Soc J p629-34 F '54

Low temperature autoxidation of hydrocarbons; the kinetics of tetralin oxidation. A. E. Woodward and R. B. Mesrobian. bibliog Am Chem Soc J 75:6189-95 D 20 '53

Two-step preparation of azulene from naphthalene or tetralin. W. Baker, W. K. Warburton and L. J. Breddy. Chem Soc J p4149-54 D '53

TETRALONE

2-Substituted amino- and aminomethyl-4-phenyl-1-tetralones. S. Wawzonek and J. Kozikowski. Am Chem Soc J 76:1641-3 Mr 20 '54

Thiocarbonyls; studies in the indanone and tetralone series. E. Campaigne and R. D. Moss. bibliog Am Chem Soc J 76:1269-71 Mr 5 '54

TETRAMETHYL compounds

Some thermodynamic properties of compounds of the formula MX_4; tetra-alkyl compounds. L. A. K. Staveley and others. diag Chem Soc J p 1992-2001 Je '54

TETRAMETHYL methane. See Dimethyl propane

TETRAMETHYLTHIURAM disulfide

New antiseptic for soap; tetramethylthiuram disulfide (TMTD). L. J. Vinson. bibliog il Soap & San Chem 30:44-7+ Ap '54

TETRAMETHYL tin
Improved synthesis of tin tetramethyl. W. F. Edgell and C. H. Ward. bibliog Am Chem Soc J 76:1169 F 20 '54

TETRAMIC acids
Derivatives of acetoacetic acid; α-acetyltetramic acids. R. N. Lacey. Chem Soc J p850-4 Mr '54

TETRANITROANILINE
Crystallographic data; 2,3,4,6-tetranitroaniline. W. C. McCrone. il diags Anal Chem 25:1774-5 N '53

TETRAPHENYLETHANOL
Alkyl-oxygen fission in carboxylic esters; the resolution and reactions of 1 : 2 : 2 : 2-tetraphenylethanol; crystalline solvent complexes of (+)-1 : 2 : 2 : 2-tetraphenylethyl hydrogen phthalate. L. Ellison and J. Kenyon. Chem Soc J p779-84 Mr '54

TETRAPHENYLETHYLENE
Kinetics and mechanism of the pinacol rearrangement; the perchloric acid-catalyzed rearrangement of benzopinacol and of tetraphenylethylene oxide in acetic solution. H. J. Gebhart, jr. and K. H. Adams. bibliog Am Chem Soc J 76:3925-30 Ag 5 '54

TETRAPHENYLFULVENE
Synthesis and proof of structure of 1-ethyl-2,3,4,5-tetraphenylcyclopentadiene and the chemistry of 6-methyl-1,2,3,4-tetraphenylfulvene. S. M. Linder, E. I. Becker and P. E. Spoerri. bibliog Am Chem Soc J 75:5972-5 D 5 '53

TETRAPHENYLPHOSPHONIUM chloride. See Phosphonium compounds

TETRAPHENYLSTIBONIUM chloride. See Stibonium compounds

TETRAZOLES
5-β-Aminoethyltetrazole. C. Ainsworth. bibliog Am Chem Soc J 75:5728 N 20 '53
1,3- and 1,4-dialkyl-5-iminotetrazoles. R. A. Henry, W. G. Finnegan and E. Lieber. bibliog Am Chem Soc J 76:2894-8 Je 5 '54
1,3-Dimethyl-5-iminotetrazole, a new cyclic meso-ionic compound. J. H. Bryden and others. bibliog Am Chem Soc J 75:4863-4 O 5 '53
Formation and breakdown of tetrazoles. P. A. S. Smith. bibliog Am Chem Soc J 76:436-41 Ja 20 '54
Spectrophotometric studies of dissociation constants of nitroguanidines, triazoles and tetrazoles. J. E. DeVries and E. S. Gantz. bibliog Am Chem Soc J 76:1008-10 F 20 '54

TETRAZOLIUM chloride
Some applications and limitations of tetrazolium chloride. J. Parker. Science 118:77-9 Jl 17 '53

TETRAZOLIUM compounds
Oxidation of formazans to tetrazolium chlorides with *t*-butyl hypochlorite. F. R. Benson, E. A. Otten and R. E. Schachat. bibliog Am Chem Soc J 76:1695 Mr 20 '54
Tetrazolium compounds; azo-derivatives. D. D. Libman, A. W. Nineham and R. Slack. Chem Soc J p 1565-8 My '54
Tetrazolium compounds; styryl derivatives. A. W. Nineham, D. L. Pain and R. Slack. Chem Soc J p 1568-71 My '54
Tetrazolium compounds; tetrazolium compounds containing substituted phenyl and heterocyclic rings. J. N. Ashley and others. Chem Soc J p3881-8 D '53

TETRONIC acids
Derivatives of acetoacetic acid; a new route to α-acetyltetronic acids. R. N. Lacey. Chem Soc J p832-9 Mr '54

TEXAS
Land grab, Texas style. map Bsns W p 103-4+ N 21 '53
Texas story; recreation. il Manuf Rec 122:108-10 N '53
Texas throws the biggest fair. il Bsns W p 100-2+ O 24 '53

See also
Architecture, Domestic—Texas
Chemical industries—Texas
Gas, Natural—Texas
Insurance, Workmen's compensation—Texas
Petroleum—Texas
Petroleum industry and trade—Texas

Industries and resources

Texas story. il Manuf Rec 122:71-110 N '53

Sanitary affairs

Gain praise, cut waste; east of Houston private pollution and public ire are dwindling away. il Chem W 75:20-1 Jl 10 '54

TEXAS accident and health claims underwriters association
Annual meeting, 1st, Austin, Tex. East Underw 55:33-4 Jl 2 '54

TEXAS CITY, Texas
Teamwork to thwart disaster. il Chem W 74:30-1 Ap 24 '54
Texas City stages trial disaster; Industrial mutual aid system. il Chem & Eng N 32:534 F 8 '54
Texas congressman seeks probe of claims from disaster. C. W. Thompson. East Underw 54:26 Jl 3 '53
Two bills in Congress facilitate settling disaster claims. East Underw 55:56 Ap 16 '54
Victims unrequited; 1947 disaster. Chem W 72:22+ Je 20 '53

TEXAS CITY chemicals company
Eye on the long term. Chem W 74:6-7 Ja 2 '54

TEXAS gas transmission corporation
Security I like best. P. J. Rafferty. Comm & Fin Chr 178:718+ Ag 27 '53

TEXAS international sulphur company
Stock offering completed. Comm & Fin Chr 178:670 Ag 24 '53

TEXAS natural gasoline corporation
Stock offered. Comm & Fin Chr 178:2480 D 21 '53

TEXAS Pacific land trust. See Land trusts

TEXAS utilities company
Rapid growth of its service area spurs expansion. Barron's 33:30-1 S 14 '53
Security I like best. R. H. Johnson. Comm & Fin Chr 178:1830+ N 12 '53

TEXOTA oil company
Stock offered. Comm & Fin Chr 178:574 Ag 17 '53

TEXTBOOKS

See also
Chemistry—Textbooks

TEXTILE analysis
Absorptiometric colorimetry in the textile laboratory. C. H. Giles and I. S. Shaw. bibliog(32 ref) diags Soc Dyers & Col J 69:481-91 D '53
Analysis of textile auxiliary products. J. A. van der Hoeve. bibliog Soc Dyers & Col J 70:145-54 Ap '54
Determination of amino groups in polyamides; abstract. Zahn and Rathgeber. Am Dyestuff Rep 43:396 Je 21 '54
Determination of small amounts of chromium in textiles by means of diphenylcarbazide. A. G. Hamlin. bibliog Textile Inst J Trans 45:T44-54 Ja '54
Qualitative analysis of the synthetic fibers. M. Lundegard and E. D. Roseberry. flow sheet diags Am Dyestuff Rep 43:93-7 F 15 '54; Same. Tappi 37:sup 117A-21A Jl '54

See also
Wool—Analysis

TEXTILE associations

Directories

Directory of associations, research organizations, schools, and shows. Textile World 103:72-4 Mid-N '53

TEXTILE chemicals
Alphabetical list of new products developed since Nov. 1952. Am Dyestuff Rep 42:824-37 D 7 '53
Analysis of textile auxiliary products. J. A. van der Hoeve. bibliog Soc Dyers & Col J 70:145-54 Ap '54
Applications of silicon chemicals in textile processing; abstract. J. Payne and E. Smith. Am Dyestuff Rep 43:394 Je 21 '54
Chemical finishing techniques. A. C. Nuessle. diags Textile World 104:86-8+ Mr; 92-3, 330-2+ Ap; 104-5+ My; 132-3+ Je '54
Chemicals by the yard. Chem W 74:99-102 My 15 '54
Chemistry and textile uses of sequestering agents. J. V. Summersgill. bibliog Soc Dyers & Col J 70:278-83 Jl '54

TEXTILE chemicals—*Continued*

Concentrated oil-in-water emulsions for dyeing and printing. Am Dyestuff Rep 43:54 Ja 18 '54

Doctor streaks; their origin and prevention. E. A. Krähenbühl. il Soc Dyers & Col J 69:561-5; Discussion. 565-8 D '53

Flow properties of textile printing pastes. R. L. Derry and R. S. Higginbotham. pl Soc Dyers & Col J 69:569-73; Discussion. 573-5 D '53

Isocyanates and their modifying effects on other textile polymers; abstract. J. A. Somers. Am Dyestuff Rep 43:79 F 1 '54

Polyvinyl pyrrolidone. E. C. Hansen and others. Am Dyestuff Rep 43:72-5 F 1 '54

Quaternary ammonium salt, a versatile new chemical for textile processing. P. D. Jacobs. Am Dyestuff Rep 42:241-2 Ap 13 '53

Recovery of sulphur in the textile industry. Chem Age (Lond) 71:533-6 S 11 '54

Silicones applied in textile processing; abstract. Schweiger. Am Dyestuff Rep 43:317 My 10 '54

Silicones in the textile industry. C. E. Gibson and F. L. Dennett. il Am Dyestuff Rep 42:275-8 Ap 27 '53

Silicones in the textile industry; abstract. D. C. R. Miller. Am Dyestuff Rep 43:217 Mr 29 '54

Silk purses from sows' ears. L. M. Miller. Am Dyestuff Rep 42:435-40 Jl 6 '53

Sodium chlorite in the textile industry; abstract. T. K. Merz. Am Dyestuff Rep 42:847 D 7 '53

Some aspects of detergency and detergent testing. R. E. Wolfrom and A. C. Nuessle. bibliog il Am Dyestuff Rep 42:753-62 N 9 '53

Surface-active agents and their far-reaching influence in the textile industry. P. J. Sullivan. Am Dyestuff Rep 43:331-4 My 24 '54

Textile and leather chemicals. Published in weekly numbers of Oil, paint and drug reporter

Use of chemicals in the textile industry; abstract. C. F. Fitton. Am Dyestuff Rep 42:782 N 23 '53

See also

Carboxymethylcellulose
Mothproofing preparations
Starch
Surface active substances
Textone
Wetting agents

Prices

Textile and leather chemicals; 1953 market trends. Oil Paint & Drug Rep 165:49 sec 2 F 1 '54

TEXTILE chemistry

Cellulose chemistry and the textile industry. D. A. Clibbens. Textile Inst J 45:P 173-93 bibliog(57 titles, P 191-3) My '54

Interrelations of chemical science and the textile industry. D. W. Hill. Chem & Ind p 148-53 F 6 '54

See also

Bleaching
Dyes and dyeing—Chemistry
Resinous products—Textile use
Textile fibers, Synthetic

Bibliography

New books and publications. Soc Dyers & Col J 70:124-5, 188-92, 243-5, 300-2, 358-61, 414-16 Mr, My-S '54

Technical literature. Am Dyestuff Rep 43:321-4, 515, 611-12 My 10, Ag 2, 30 '54

TEXTILE design

Changing standards of design and the effect on textiles. G. Russell. Textile Inst J 45:P345-7; Discussion. P348-9 Ag '54

Colour and design in knitwear. J. C. H. Hurd. diags Textile Inst J 45:P480-95; Discussion. P495-6 Ag '54

Designer's approach to colour. A. Morton. Textile Inst J 45:P497-500; Discussion. P500-3 Ag '54

Ornamentation of apparel fabrics. V. Lobl and E. Waller. il diags Mod Textiles Mag 35:31-2+ S; 36+ O; 64-7+ N '54 (to be cont)

Textile design and colour. W. Watson. 6th ed rev 484p $8 Longmans, Green and co, 55 Fifth av, New York 3 '54

TEXTILE distributors institute

T.D.I. and how it grew. H. A. Wiedenfeld. Mod Textiles Mag 34:36+ N '53

TEXTILE drying

Drying twist in plant fibers. S. B. Newman and H. F. Riddell. bibliog il Textile Res J 24:113-17 F '54

Some aspects of the drying and heating of textiles; modifications produced by thermal treatments of acetate rayon fibres. J. M. Preston and M. V. Nimkar. Soc Dyers & Col J 69:201-2 Je '53

Superheated-steam drying is efficient and versatile; Cliffside dyeing corp. M. London. il Textile World 104:84-5 S '54

Use of superheated steam as a drying medium. J. H. Hunter. il Am Dyestuff Rep 43:236-8 Ap 12 '54

TEXTILE education

Better education; educational system of Great Britain in relation to the study of textile technology. D. B. Moore. Textile Inst J 45:P 194-203; Discussion. P203-5 My '54

What about our textile schools? B. W. Hayward. il Mod Textiles Mag 35:32-3+ Je '54

TEXTILE engineering

Bibliography

Technical literature. Am Dyestuff Rep 43:321-4, 515, 611-12 My 10, Ag 2, 30 '54

TEXTILE fabrics

Acetate blends of improved performance. F. Fortess and others. il Am Dyestuff Rep 42:851-64 D 7 '53

Camera lucida; how to use it in the evaluation of fabric construction. I. Zagiel. il diags Mod Textiles Mag 35:31+ My '54

Effect of the directions of yarn twist and twill on the properties of woven cloth. S. Backer. bibliog il Textile Inst J Trans 44:T477-9 O '53

Parisians pour plaudits on synthetics at First international congress of man-made fibers. il Chem W 74:24-5 Je 26 '54

See also

Bleaching
Braid
Carpets
Color in the textile industry
Corduroy
Cotton fabrics
Denim
Duck (textile)
Filter cloth
Glass fabrics
Jersey cloth
Knit goods
Laundry
Mildew
Nylon fabrics
Photography on textiles
Pile fabrics
Rayon fabrics
Saran
Shirting
Silk
Silver cloth (antitarnish)
Sizing (textiles)
Textile fibers
Textile finishing
Textile printing
Textile research
Tire fabrics
Waterproofing of textiles
Woolen and worsted fabrics

Bibliography

Abstracts. Published in monthly numbers of Journal of the Textile institute [reprinted as monthly supplement to Textile research journal]

Bonded web

No spinning, no weaving. il Chem W 74:48+ My 8 '54

Pellon, is it the dream-come-true of nonwoven fabric producers? G. Boyo. il Mod Textiles Mag 35:61-2 Ag '54

Wouldn't you like to have a new product with this acceptance? Pellon. E. M. Kelley. Sales Management 72:76+ My 20 '54

Cleaning

See Cleaning compositions

Coating

Chemical finishing techniques; glazing and embossing, crease recovery, crease resistance, side effects improved dye fastness. A. C. Nuessle. diags Textile World 104:104-5 My '54

Fabrics; their relative value to the coating industry. J. W. F. Young. Mod Textiles Mag 35:69 Je '54

Increased activity in vinyl fabric field in '54. Rubber Age 74:600 Ja '54

TEXTILE fabrics—Coating—*Continued*

Properties of exposed and unexposed polyvinyl butyral coated fabrics. M. I. Landsberg and others. bibliog Am Soc T M Proc 51:1262-76 '51

Creasing

See Creasing of textiles

Defects

Pilling test for apparel fabrics. J. J. Press. il Mod Textiles Mag 34:79-80 N '53

Proper finishing to rid fabrics of reed marks. C. N. Rabold. il Textile World 104:72-3 My '54

Weathering of cellulose acetate. J. B. Reid. Textile Inst J Trans 45:T665-77 S '54

Electrostatic properties

Acetate rayon and static; abstract. C. W. North. Am Dyestuff Rep 42:476 Jl 20 '53

Antistatic finishes for textiles. M. Hayek. bibliog(36 ref) Am Dyestuff Rep 43:368-71 Je 7 '54; Abstract. Textile World 103:141 D '53

Astatic composition; fatty acid partial esters of hexitols. Am Dyestuff Rep 43:53 Ja 18 '54

Chemical finishing techniques; resistance to gas fading, static, pilling, flameproofing and rotproofing. A. C. Nuessle. Textile World 104:132-3 Je '54

Directional triboelectric effects of wool and hair. S. P. Hersh and D. J. Montgomery. Textile Res J 24:755-6 Ag '54

Discharge of electrified textiles. J. A. Medley. bibliog diags Textile Inst J Trans 45:T 123-41 F '54

Mechanism of the formation of electrostatic charges on fibres; abstract. H. Grüner. Soc Dyers & Col J 69:466 N '53

New method of triboelectricity; abstract. Am Dyestuff Rep 43:218 Mr 29 '54

Occurrence, behavior and elimination of static on textiles. R. D. Fine. Am Dyestuff Rep 43:405-8 Je 21 '54

Resistivity; one clue to the electrostatic behavior of fabric. N. A. Teixeira and S. M. Edelstein. bibliog il diags Am Dyestuff Rep 43:195-9+ Mr 29 '54

Static electricity in textiles. J. W. Ballou. il diags Textile Res J 24:146-55 F '54

Static electrification of filaments. S. P. Hersh and others. Textile Res J 24:426-7 My '54

Static electrification of synthetic fibres; abstract. E. Darmois. Chem & Ind p 1012 Ag 14 '54

Static problems affecting knitting. C. H. Edwards. Textile Inst J 45:P248-55; Discussion. P255-7 Je '54

What you should know about the effects of electricity in textiles. J. W. S. Hearle. bibliog diags Mod Textiles Mag 35:32-3+ My '54

Electrotechnical uses

Electrical resistance of wool and other textile materials. M. L. Wright. Soc Dyers & Col J 70:120 Mr '54

Heat transmission

Nature of a fabric surface; evaluation by a rate-of-cooling method. N. R. S. Hollies and others. bibliog il Textile Res J 23:763-9 N '53

Thermal properties of textile materials. G. J. Morris. Textile Inst J Trans 44:T449-76 bibliog(76 ref, T473-5) O '53

Inflammability

Challenge to industry; Flammable fabrics act. Chem W 75:19 Jl 3 '54

Class test guide for use in compliance with rule 7, F.T.C. rules and regulations for the Federal flammable fabrics act. Mod Textiles Mag 35:41-4 Ag '54

Flammability of clothing textiles; abstract. C. A. Baker. Am Dyestuff Rep 43:348-9 My 24 '54

How the Flammable fabrics act affects you. M. London. Textile World 104:55-8 S '54

Law banning interstate shipment of flammable wearing apparel shaping up in Congress. R. G. Gibbs. Chem & Eng N 31:2658+ Je 29 '53

Rush on fiber rules in carrying out Flammable fabrics act. Chem W 74:19 My 8 '54

What the Flammable fabrics act means to you. Mod Textiles Mag 35:46+ Jl '54

See also

Fireproofing of textiles

Nonwoven

See Textile fabrics—Bonded web

Odors

Prevention of odors in fabrics which have been resin-treated; abstract. L. A. Fluck and others. Am Dyestuff Rep 42:258 Ap 27 '53

Protection

Fungicides in textiles as sales-promotion tools. C. C. Yeager. il Am Dyestuff Rep 42:591-4 Ag 31 '53

Review of mildewproofing treatments. E. C. Hansen and C. A. Bergman. bibliog Am Dyestuff Rep 42:466-8 Jl 20 '53

See also

Cotton fabrics—Protection
Fireproofing of textiles
Waterproofing of textiles

Shrinkage

Chemical finishing techniques; softening, water repellency, shrinkage control. A. C. Nuessle. Textile World 104:332+ Ap '54

Shrinkage; symposium. il diags Am Dyestuff Rep 43:464-77 Jl 19 '54

Simultaneous vat dyeing and stabilizing; patent. Am Dyestuff Rep 42:639 S 14 '53

See also

Cotton fabrics—Shrinkage
Knit goods—Shrinkage
Rayon fabrics—Shrinkage
Woolen and worsted fabrics—Shrinkage

Soiling

See Soiling of textiles

Specifications

Conformity limits in specifications. H. P. Stout. bibliog Textile Inst J 45:S6-17 Ap '54

Strength

Tear strength of resin-treated textiles. bibliog(33 titles) il diags Am Dyestuff Rep 43:41-5 Ja 18 '54

Testing

Abrasion resistance of fabrics when test units of abrasion are combined with test units of laundering, drycleaning and light. M. O. Zook and P. B. Mack. Am Dyestuff Rep 43:61-6 F 1 '54

Accelerated laboratory test for chlorine-retention properties in resin-treated fabrics. G. S. Wham, jr. and others. Am Dyestuff Rep 42:360-2, 389-93, 421-4+, 455-6 Je 8-Jl 20 '53

Bubble pressure test for the measurement of the pore size of fabrics. J. Lord and H. M. Taylor. il diag Textile Inst J Trans 45: T371-89 My '54

Dressing for the fourth dimension; Haskell laboratory probes ingredients that make up clothing comfort. il Chem W 74:42-4 Ap 10 '54

Effect of construction and fiber type on two-dimensional stress-strain properties of fabrics. H. K. Woo and D. J. Montgomery. Textile Res J 23:925-9 D '53

Experiments on the relationship between yarn and fabric regularity. A. Barrella and others. bibliog Textile Inst J 45:P82-7 Mr '54

How resin treatments affect acetate dyes; abstract. Textile World 103:145+ N '53

Nature of a fabric surface; evaluation by a rate-of-cooling method. N. R. S. Hollies and others. bibliog il Textile Res J 23:763-9 N '53

Pilling test for apparel fabrics. J. J. Press. il Mod Textiles Mag 34:79-80 N '53

See also

Cotton fabrics—Testing
Textile fabrics—Inflammability
Tire fabrics—Testing

Washability

Laundering properties of the science fibers. G. H. Johnson. Am Dyestuff Rep 43:239-42 Ap 12 '54

TEXTILE fabrics—*Continued*

Water resistance

Chemical finishing techniques; softening, water repellency, shrinkage control. A. C. Nuessle. diags Textile World 104:93, 330-2 Ap '54

Study of some factors affecting the tear- and water-resistance of lightweight clothing and tentage fabrics. W. E. O'Brien and L. I. Weiner. bibliog Textile Res J 24:241-50 Mr '54

See also

Waterproofing of textiles

Wear

Study of some factors affecting the tear- and water-resistance of lightweight clothing and tentage fabrics. W. E. O'Brien and L. I. Weiner. bibliog Textile Res J 24:241-50 Mr '54

Width

Continuous measurement of cloth width. B. Jiewertz. diags Textile Inst J Trans 45: T696-9 S '54

TEXTILE fabrics, Effect of light on

Abrasion resistance of fabrics when test units of abrasion are combined with test units of laundering, drycleaning and light. M. O. Zook and P. B. Mack. Am Dyestuff Rep 43:61-6 F 1 '54

TEXTILE fabrics, Interior decoration

Fabric covered refrigerators enhance kitchen decoration. il Am Bld 75:231 My '53

TEXTILE fibers

Atoms and textiles. Textile Inst J 45:P301-2 Jl '54

Case for natural fibers in men's furnishings. I. B. Wingate and R. S. Burkholder. J Retailing 30:29-32+ Spring '54

Certain relationships between yarn and fiber strain. M. M. Platt. Textile Res J 24:132-4 F '54

Classification of textile fibres. Textile Inst J 44:S69-70 D '53

Crossing of threads in shedding. E. Bradbury and A. P. Worthington. il diags Textile Inst J Trans 45:T421-37 Je '54

Drying twist in plant fibers. S. B. Newman and H. F. Riddell. bibliog il Textile Res J 24:113-17 F '54

Elastic and dynamic data for fibres. G. W. H. Stevens. Textile Inst J Trans 44:T404-5 Ag '53; Discussion. J. W. S. Hearle. 45: T79; Reply. T79 Ja '54

Experimental study of stiffness and nonuniformity in the vibroscopic determination of fiber cross-sectional area. E. T. L. Voong and D. J. Montgomery. bibliog Textile Res J 23:821-30 N '53

Fibre arrangement in fibro drawframe slivers. R. Nield. Textile Inst J Trans 44:T479-80 O '53

Fiber placement. E. R. Schwarz. Am Dyestuff Rep 43:589-91 Ag 30 '54

Future of the natural fibres. A. J. Turner. il Textile Inst J 45:P317-27 Jl '54

Heat of wetting of fibres. N. F. H. Bright and others. bibliog diag Textile Inst J Trans 44:T587-95 D '53

Influence of ultrasonic waves on fibers; abstract. Rath and Merk. Am Dyestuff Rep 43:395-6 Je 21 '54

Matthews' textile fibers; their physical, microscopic, and chemical properties. H. R. Mauersberger, ed. 6th ed 1283p $16.50 John Wiley & sons, 440 Fourth av, New York 16 '54

Reports on chemical progress in 1953. il Ind & Eng Chem 46:sup31A+ Ja '54

Structure and properties of natural and allied fibres. W. R. Moore. bibliog(27 ref) il diags Soc Dyers & Col J 69:149-54 My '53

Thin film interferometry as an aid in the examination of fibre topography. A. Skertchly. Textile Inst J Trans 45:T78 Ja '54

See also

Bast fibers
Cotton fibers
Flax
Jute
Ramie
Silk
Wool

Bibliography

Abstracts. Published in monthly numbers of Journal of the Textile institute [reprinted as monthly supplement to Textile research journal]

Literature survey on fiber friction. J. H. Langston and W. T. Rainey, jr. Textile Res J 24:643-53 bibliog(137 ref, p650-3) Jl '54

Review of textile research and development during 1953; review of the literature. Textile Res J 24:439-90 My '54

See also

Textile fibers—Identification—Bibliography

Blending

Better blends through volumetric analysis. P. E. Sperling and G. H. Steinberg. diags Mod Textiles Mag 35:64+ Mr '54

Complementary nature of fibers from natural and from synthetic polymers. J. B. Quig and R. W. Dennison. bibliog Textile Res J 24:361-73 Ap '54

Fiber blending. G. V. Lund. diags Textile Res J 24:759-64 Ag '54

Inner-structure idea is useful in blends of all fibers; abstract. T. A. Feild, jr. and others. Textile World 103:139 D '53

Pioneering in blends; Karl B. Nixon. R. E. Ellsworth. Mod Textiles Mag 35:35+ Ag '54

Rapid method of identification of textile fibers in blends. D. Sassi. Am Dyestuff Rep 42:236-40 Ap 13 '53

Some statistical aspects of mixing and blending. D. R. Cox. Textile Inst J Trans 45:T 113-22 F '54

Tips on blending fibers. G. V. Lund. Textile World 104:87-8+ Ap '54

Identification

Identification of textile and related fibres. J. E. Ford and W. J. Roff. il Textile Inst J Trans 45:T580-623 Ag '54

Rapid method of identification of textile fibers in blends. D. Sassi. Am Dyestuff Rep 42:236-40 Ap 13 '53

Bibliography

Bibliography of fiber analysis (1948-53). Am Dyestuff Rep 42:596 Ag 31 '53

Measurement

Effect of stiffness and nonuniformity on vibroscopic determination of filament cross-sectional area. D. J. Montgomery. bibliog J Ap Phys 24:1092-9 S '53

Torsional rigidity of textile fibres. R. Meredith. bibliog diag Textile Inst J Trans 45: T489-503 Jl '54

Moisture content

Moisture regain and accessibility of cellulose derivatives. L. Valentine. Textile Res J 24:670-2 Jl '54

Optical properties

Refractive indices of textile fibers; abstract. W. R. Moore. Am Dyestuff Rep 43:511 Ag 2 '54

Protection

Microbial damage to animal and vegetable fibers and its identification and prevention; abstract. M. Nopitsch. Am Dyestuff Rep 43:80 F 1 '54

Swelling

Blistering of cellulose acetate in chloroform. D. M. Cates and H. J. White, jr. il Textile Res J 24:675-6 Jl '54

Experiments with an alkali swelling-centrifuge test applied to cotton fiber. P. B. Marsh and others. bibliog il Textile Res J 23:831-41 N '53

Swelling factor in cellulose hydrolysis. E. T. Reese and W. Gilligan. bibliog Textile Res J 24:663-9 Jl '54

Swelling of hair and a viscose rayon monofil in aqueous solutions. W. S. Barnard and H. J. White, jr. bibliog diags Textile Res J 24:695-704 Ag '54

Swelling powers of urea solutions on cellulose. J. M. Preston and others. bibliog Textile Inst J Trans 45:T504-9 Jl '54

Testing

Abrasion damage of textile fibers. G. Susich. bibliog il diags Textile Res J 24:210-28 Mr '54

TEXTILE fibers—Testing—*Continued*

Capacity, dielectric constant, and power factor of fiber assemblies. J. W. S. Hearle. bibliog(35 ref) diags Textile Res J 24:307-21 Ap '54

Complementary nature of fibers from natural and from synthetic polymers. J. B. Quig and R. W. Dennison. bibliog Textile Res J 24:361-73 Ap '54

Fluorescence and textiles; abstract. A. E. Williams. Am Dyestuff Rep 43:460 Jl 19 '54

Improved strain gage for precise force measurement in single fibers. W. J. Thorsen. bibliog il diags Textile Res J 24:407-13 My '54

Movement of fibres during drafting. D. S. Taylor. il diags Textile Inst J Trans 45: T310-22 Ap '54

Relaxation of stress in stretched cellulose fibres. R. Meredith. bibliog diags Textile Inst J Trans 45:T438-61 Je '54

Single fiber stress-strain apparatus. H. M. Preusser and others. bibliog il diags Textile Res J 24:118-22 F '54

Uses of microscopy in textile dyeing and finishing. G. G. Taylor and J. C. Brown. bibliog(57 ref) 4pls Soc Dyers & Col J 69: 396-402; Discussion. 402-3 N '53

TEXTILE fibers, Synthetic

Acrilan; the acrylic fiber, and blends; abstract. J. A. Woodruff. Am Dyestuff Rep 43:460 Jl 19 '54

Ammonium sulphate fractions of groundnut protein. K. O. Kelly and others. bibliog J Ap Chem 4:452-7 Ag '54

Are Orlon, Dacron, dynel, etc., the drycleaner's problem fibers? abstract. A. E. Johnson. Am Dyestuff Rep 43:248 Ap 12 '54

Case for natural fibers in men's furnishings. I. B. Wingate and R. S. Burkholder. J Retailing 30:29-32+ Spring '54

Chemical and physical aspects of synthetic fibres. R. Hill. Chem & Ind p 1083-9 S 4 '54

Chemical fibers and plastics industries; abstract. J. D. Fennebresque. Oil Paint & Drug Rep 165:70 My 24 '54

Chemical industry and textiles in Europe. L. Pranal. Textile Inst J 45:P 125-34 Ap '54

Chemistry and physics of synthetic fibers; symposium abstracts. Chem & Eng N 32: 1470-1 Ap 12 '54; Chem & Ind p419-21 Ap 10 '54; Discussion. p 1004-12 Ag 14 '54

Chips are down. Chem W 73:67 Ag 8 '53

Cotton and the synthetic fibers; abstract. G. S. Buck, jr. Am Dyestuff Rep 43:316-17 My 10 '54

Crazy-quilt revolution; new synthetic fibers. il Chem W 73:58+ Ag 1 '53

Crossbonding of casein bristle fiber. R. F. Peterson and others. bibliog Textile Res J 24:747-53 Ag '54

Crystallization phenomena in fibre-forming polymers. L. B. Morgan. bibliog(27 ref) il diags J Ap Chem 4:160-72 Ap '54

Dressing for the fourth dimension; Haskell laboratory probes ingredients that make up clothing comfort. il Chem W 74:42-4 Ap 10 '54

Era of consolidation for textiles? annual review. M. Harris and J. Krasny. Chem & Eng N 32:38-40 Ja 4 '54

Experience with synthetic fibers in felts in Europe. E. Race. Paper Tr J 138:17-18 Je 11 '54

Eyeing a fiber future; hydrazine. il Chem W 74:94 F 20 '54

Fibres and processing aids. H. Sagar. Textile Inst J 45:P206-16 My '54

Fibers withstand buffeting; annual review. Chem Eng 61:207-8 Mr '54

Free energy of formation of the amide bond in polyamides. A. B. Meggy. bibliog J Ap Chem 4:154-9 Ap '54

Fully synthetic fiber developments in Europe. Chem & Eng N 31:2996-7 Jl 20 '53; Same cond. Can Chem Process 37:54 O '53

Germany leads in production of chemical fibers. Chem & Eng N 32:2393 Je 14 '54

Grilon, world's newest polyamide fiber now produced in Switzerland. L. Bley. Mod Textiles Mag 35:61 Jl '54

Heat setting synthetics. R. Evans, 2d. Am Dyestuff Rep 43:470-2 Jl 19 '54

How do synthetic fabrics retain pleats? J. M. Roughan. Mod Textiles Mag 35:60 Jl '54

Hydrophilic synthetic fibers; abstract. Am Dyestuff Rep 43:459 Jl 19 '54

Improved Acrilan fiber. H. E. New. Textile World 104:97-100 F '54

International congress on man-made textiles, Paris. Chem Age (Lond) 70:1303-7 Je 12 '54

International congress on man-made textiles, Paris. Mod Textiles Mag 35:31+ Jl '54

International congress on man-made textiles, Paris, May 31-June 3; abstracts of papers. Chem & Eng N 32:2596+ Je 28 '54

Laundering properties of the science fibers. G. H. Johnson. Am Dyestuff Rep 43:239-42 Ap 12 '54

Linear polymerization and synthetic fibers. R. W. Moncrieff. J Chem Educ 31:233-7 My '54

Man-made fiber production; abstract. Am Dyestuff Rep 42:783 N 23 '53

Man-made fibers in fashion. C. Boyer. Am Dyestuff Rep 43:494-6 Ag 2 '54

Man-made fibers; roundup. il Mod Textiles Mag 35:39-54 S '54

Materials of construction of chemical engineering; fibers. C. S. Grove, jr., J. L. Vodonik and R. S. Casey. il Ind & Eng Chem 45:2199-204 bibliog(163 ref, p2202-4) O '53

Mill reference data; synthetics. diag Textile World 103:36-43 Mid-N '53

New casein fiber on British market; Fibrolane. Chem & Eng N 31:5377 D 28 '53

New fibers by molecular blending; Textile research institute meeting, New York. Chem & Eng N 31:4976+ N 30 '53

New throwing formulas predict effect of twist on filament yarns. D. S. Hamby and E. B. Grover. il Textile World 104:110-12+ F '54

1953 textile research achievements. J. B. Goldberg. Mod Textiles Mag 35:68+ F '54

No dark horse now. Can Chem Process 38:6 S '54

Parisians pour plaudits on synthetics at First international congress of man-made fibers. il Chem W 74:24-5 Je 26 '54

Polyaminotriazoles as fibre-forming materials. J. W. Fisher. bibliog il J Ap Chem 4:212-19 Ap '54

Polymerization of acrylics. G. E. Ham. bibliog il Textile Res J 24:597-614 Jl '54; Correction. 24:insert Ag '54

Preparation and properties of some inorganic alginate fibres. M. J. Dudgeon and others. bibliog Soc Dyers & Col J 70:230-7 Je '54

Princeton hosiery mills, inc. knits Taslan with few seconds. J. H. Blore. il Textile World 104:72-3+ S '54

Production and properties of Acrilan. F. J. Soday. Am Dyestuff Rep 42:635-8 S 14 '53

Production of rayon, acetate and synthetic yarns in the United States. Mod Textiles Mag 35:69-76 S '54

Properties and uses of Courlene; abstract. Am Dyestuff Rep 43:447 Jl 5 '54

Raw materials for synthetic fibres. Chem Age (Lond) 69:267-72 Ag 8 '53

Research at Courtaulds. A. H. Wilson. Chem Age (Lond) 69:1069-70 N 21 '53

Role of petrochemicals in synthetic fibers. F. J. Soday. Pet Refiner 32:114-15 N '53

Shape and surface structure of synthetic fibres; abstract. J. A. Chapman and J. W. Menter. Chem & Ind p 1012 Ag 14 '54

Spinning solvents for polyacrylonitrile. G. E. Ham. bibliog Ind & Eng Chem 46:390-2 F '54

Static electrification of synthetic fibres; abstract. E. Darmois. Chem & Ind p 1012 Ag 14 '54

Story behind Acrilan; the decline and rebirth of a fiber. G. Boyo. Mod Textiles Mag 35:60+ Ja '54

Structure and properties of cotton and synthetic singles yarn. J. B. Dickson. bibliog (36 ref) Textile Res J 24:511-26 Je '54

Synthetic fibers. W. W. Heckert. bibliog il diags J Chem Educ 30:166-78 Ap '53

Synthetics; their future in circular knit underwear. L. J. Feuer. Mod Textiles Mag 35:52+ My '54

Tensile properties of bristle fibers made from α- and β-casein. N. J. Hipp and others. bibliog(27 ref) Textile Res J 24:618-23 Jl '54

Textile trade and the newer fibres. F. H. Clayton. Soc Dyers & Col J 70:7-13 Ja '54

TEXTILE fibers, Synthetic—*Continued*

Thermoelastic properties of synthetic fibres. J. F. Clark and J. M. Preston. bibliog diag Textile Inst J Trans 44:T596-608 D '53

Tips on finishing synthetics. H. Moore. Textile World 104:87-8+ Ag '54

Vicara; abstract. Am Dyestuff Rep 42:766 N 9 '53

What are they doing about looms for man-made fibers? il Mod Textiles Mag 35:32-3+ Ja '54

What synthetics are doing. P. M. Thomas. Textile World 104:59-61 S '54

See also

Acetate fibers
Ardil
Dacron
Dyes and dyeing—Synthetic fibers
Dynel
Nylon
Nylon fibers
Orlon
Rayon
Saran

Bleaching

See Bleaching—Synthetic fibers

Blending

Acetate blends of improved performance. F. Fortess and others. il Am Dyestuff Rep 42:851-64 D 7 '53

Complementary nature of fibers from natural and from synthetic polymers. J. B. Quig and R. W. Dennison. bibliog Textile Res J 24:361-73 Ap '54; Abstract. Textile World 104:103+ Ja '54

Dynel inner structure. T. A. Feild, jr. and others. bibliog il Am Dyestuff Rep 43:296-303 My 10 '54

How to dye blends of cellulosic and noncellulosic fibers. W. H. Hindle. Textile World 104:89+ Ag '54

Method for the estimation of Fibrolane BX or viscose rayon in blends with wood. A. N. Davidson and R. Preston. Textile Inst J Trans 45:T 142-6 F '54

Polymer blending. J. H. Wakelin. Mod Textiles Mag 35:56 Ja '54

Problems in fiber blends. J. B. Goldberg. Textile Res J 24:374-8 Ap '54

Some problems of blending. M. Harris. Textile Res J 24:379-82 Ap '54

Study in three-fiber blends; what mixtures of rayon, Dacron, Orlon impart to a fabric. J. F. Sayre and A. J. Weldon. Mod Textiles Mag 35:32-3+ Jl '54

Synthetic fibers in combination fabrics; abstract. H. C. Mersereau. Am Dyestuff Rep 43:545 Ag 16 '54

Identification

Identification of textile and related fibres. J. E. Ford and W. J. Roff. il Textile Inst J Trans 45:T580-623 Ag '54

Man-made fiber data sheets. P. A. Koch. bibliog diags Mod Textiles Mag 35:36+ Ja; 42+ F; 71-2+ Ap; 46+ My; 46+ Ag '54

Methods of fiber identification; abstract. H. Sieber. Am Dyestuff Rep 43:643 S 13 '54

Qualitative analysis of the synthetic fibers. M. Lundegard and E. D. Roseberry. flow sheet diags Am Dyestuff Rep 43:93-7 F 15 '54; Same. Tappi 37:sup 117A-21A Jl '54

Simple identification of thermoplastic fibers; abstract. J. N. Banks and P. S. Bembrick. Am Dyestuff Rep 43:520 Ag 16 '54

Manufacture

Chemical denaturation of groundnut protein and fibre formation. W. E. F. Naismith. bibliog(29 ref) J Ap Chem 4:188-94 Ap '54

Drawing of terylene. I. Marshall and A. B. Thompson. bibliog il diags J Ap Chem 4:145-53 Ap '54

Extrusion and properties of saran monofilaments. J. Jack and R. A. Horsley. bibliog il diags J Ap Chem 4:178-88 Ap '54

Fresh start, same polymer; improved Acrilan from Chemstrand. Chem W 73:19-20 N 14 '53

Preparation of dyeable fiber-forming compositions. G. E. Ham and P. W. Gann. bibliog Ind & Eng Chem 45:2320-6 O '53

Production of fibres from 6,6-, 6,10- and 6-polyamides. G. Meacock. J Ap Chem 4:172-7 Ap '54

Statistics

Sixteen year survey shows penetration by man-mades; 1937-1952. Mod Textiles Mag 35:8+ S '54

World output of man-made fibers jumps 16 per cent. Chem Eng 61:318-19 S '54

Testing

Complementary nature of fibers from natural and from synthetic polymers. J. B. Quig and R. W. Dennison. bibliog Textile Res J 24:361-73 Ap '54

Proving ground for synthetics; North Carolina state college, School of textiles. il Chem W 72:38-40+ My 23 '53

TEXTILE finishing

Acrylic resins in textile processing. A. C. Nuessle and B. B. Kine. bibliog Ind & Eng Chem 45:1287-93 Je '53

Antistatic finishes for textiles. M. Hayek. bibliog(36 ref) Am Dyestuff Rep 43:368-71 Je 7 '54

Application of resins to textiles. A. R. Smith. Soc Dyers & Col J 70:381-91 bibliog(77 ref, p390-1) S '54

Chemical finishing techniques. A. C. Nuessle. diags Textile World 104:86-8+ Mr; 92-3, 330-2+ Ap; 104-5+ My; 132-3+ Je '54

Chlorine retention in textile finishes. A. H. Wachter and others. Am Dyestuff Rep 42:261-3, 285-96, 328-34, 360-2, 389-93, 421-4+, 455-6 Ap 27-Jl 20 '53

Colour fastness and textile finishing requirements of the ultimate consumer. J. S. Ingham. bibliog Soc Dyers & Col J 70:227-9 Je '54

Durable finish; starch, methylolurea, thermoplastic polymers; patent. Am Dyestuff Rep 43:344 My 24 '54

Durable finishes; carboxymethylcellulose reacted with zirconium salts; patent. Am Dyestuff Rep 43:345 My 24 '54

Dyeing and finishing of warp-knitted fabrics made from regenerated and synthetic fibres. J. Bromley and A. G. Cheek. il diags Soc Dyers & Col J 69:50-8 F '53

Dyeing and finishing piece goods made from dynel-rayon and dynel-rayon-acetate blends. F. C. Rippner. Am Dyestuff Rep 43:211 Mr 29 '54

Dyeing and finishing trades; abstract. A. J. Hall. Am Dyestuff Rep 42:476-7 Jl 20 '53

Emulsion polymers for the textile industry. L. Shapiro. bibliog Am Dyestuff Rep 43:132-40 Mr 1 '54

Finishing, dyeing and printing of glass decorative fabrics. R. F. Caroselli. diag Am Dyestuff Rep 43:327-8 My 24 '54

Finishing of fabrics. H. C. Borghetty. Textile Res J 24:383-6 Ap '54

Finishing of textiles; symposium abstracts. Am Dyestuff Rep 43:581-3 Ag 30 '54

Finishing textiles; nylon substance precipitated on textiles; patent. Am Dyestuff Rep 42:230 Ap 13 '53

Fuel efficiency in the dyeing and finishing industries. W. Short. diags Soc Dyers & Col J 69:329-35 S '53

Heat setting of terylene polyester filament fabrics in relation to dyeing and finishing. D. N. Marvin. Soc Dyers & Col J 70:16-21 Ja '54

Mill reference data; bleaching, dyeing, and finishing. diags Textile World 103:58-63 Mid-N '53

Nonionic surfactants; their chemistry and textile uses. C. F. Jelinek and R. L. Mayhew. bibliog(27 ref) diag Textile Res J 24:765-78 Ag '54

Physics in the dyeing, printing, and finishing industries. N. W. Yelland. bibliog il 8pls diags Soc Dyers & Col J 70:333-46 Ag '54

Printed calender effects; resists under resin finishes; patent. Am Dyestuff Rep 42:893 D 21 '53

Problems of the garment dyer and finisher, including the dyeing of buttons. B. Kramrisch and A. E. Bratt. Soc Dyers & Col J 70:173-83 My '54; Discussion. E. Stead. 70:355 Ag '54

Progress in finishing sparks 1953 activity. G. M. Moisson. Textile World 104:90 F '54

Proper finishing to rid fabrics of reed marks. C. N. Rabold. il Textile World 104:72-3 My '54

Resin finishes producing linen-like effects; patent. Am Dyestuff Rep 42:848 D 7 '53

Standard methods for the removal of added matter from textiles. Textile Inst J 45:S37-42 S '54

TEXTILE finishing—*Continued*

They keep on dyeing; Weldon G. Helmus of Fair Lawn finishing co. S. H. Brown. Mod Textiles Mag 34:35+ D '53

Tips on finishing synthetics. H. Moore. Textile World 104:87-8+ Ag '54

Use of resins and plastics in textile finishing. H. H. Mosher. Am Dyestuff Rep 42:402-6+ Je 22 '53

Uses of microscopy in textile dyeing and finishing. G. G. Taylor and J. C. Brown. bibliog(57 ref) 4pls Soc Dyers & Col J 69:396-402; Discussion. 402-3 N '53

Vertical and horizontal organisation (with particular reference to the finishing section of the textile industry). W. Crossley. Textile Inst J 45:P504-26; Discussion. P526-9 Ag '54

See also

Bleaching
Cotton finishing
Creasing of textiles
Dyes and dyeing
Embossing (textiles)
Fireproofing of textiles
Rayon finishing
Sizing (textiles)
Textile fabrics—Coating
Waterproofing of textiles
Woolen and worsted finishing

Testing

Identification of textile finishes. R. Krammes and C. Maresh. bibliog il Am Dyestuff Rep 42:317-27 My 25 '53

TEXTILE finishing machines

H. W. Butterworth & sons co. finishing machine has four applications. il Textile World 104:104 Ag '54

1953 review of new equipment; wet processing and finishing. il Textile World 103:119-22+ N '53

Pneumatic mangle solves many dyehouse problems. C. Amidon. il Am Dyestuff Rep 43:673-4 S 27 '54

See also

Dyeing machines

TEXTILE industry

Busiest man in textiles; William H. Barnhardt. R. E. Ellsworth. Mod Textiles Mag 35:36+ S '54

Era of consolidation for textiles? annual review. M. Harris and J. Krasny. Chem & Eng N 32:38-40 Ja 4 '54

Fibers withstand buffeting; annual review. Chem Eng 61:207-8 Mr '54

Highlights of the past year. P. J. Wood. il Am Dyestuff Rep 42:843-4 D 7 '53

International congress of man-made textiles, Paris. Mod Textiles Mag 35:31+ Jl '54

Needed; new science to solve distribution problems. R. C. Shook. Mod Textiles Mag 35:36+ My; 36+ Je; 36+ Jl; 36+ Ag; 94-5+ S '54

1954 annual review and forecast. Textile World 104:81-96+ F '54

Now it's soft goods' turn; first-half textile sales good. Bsns W p68 Ag 1 '53

Pioneering starts tomorrow; Kenneth Clarke Loughlin. R. E. Ellsworth. Mod Textiles Mag 35:35+ Ap '54

Retail inventory policy handicaps seasonal operation. R. C. Shook. Mod Textiles Mag 35:63 Je '54

Ten thousand and one customer complaints. J. Labarthe. Textile Res J 24:328-42 Ap '54

Textile future good despite slowdown now. il Chem Eng 61:351-2 Ap '54

Textile industry has returned to normalcy. J. P. Stevens, jr. Comm & Fin Chr 178:1338 O 8 '53

Textile industry sales to hold their own in 1954. J. H. Kennedy and others. Ind Marketing 38:26+ D '53

Textile trade and the newer fibres. F. H. Clayton. Soc Dyers & Col J 70:7-13 Ja '54

Textiles' real revolution. Chem W 73:18 S 26 '53

Textiles; unhappy as usual. Bsns W p 110+ N 28 '53

Think in terms of style instead of staples! R. C. Shook. Mod Textiles Mag 35:48 Jl '54

Vertical and horizontal organisation (with particular reference to the finishing section of the textile industry). W. Crossley. Textile Inst J 45:P504-26; Discussion. P526-9 Ag '54

What makes Goldberg run? S. H. Brown. Mod Textiles Mag 34:35+ N '53

See also

Carpets
Clothing trade
Cotton trade
Dye industry
Dyes and dyeing
Hosiery trade
Knit goods
Rayon industry
Silk
Silk trade
Textile fibers
Textile fibers, Synthetic
Textile mills
Weaving
Wool trade

also American woolen company, Textile distributors institute

Bibliography

Abstracts. Published in monthly numbers of Journal of the Textile institute [reprinted as monthly supplement to Textile research journal]

Review of textile research and development during 1953; review of the literature. Textile Res J 24:439-90 My '54

Dictionaries

Modern textile dictionary. G. E. Linton. 772p $12.50 Little, Brown & co, 34 Beacon st, Boston 6; Duell, Sloan & Pearce, 124 E. 30th st, New York 16 '54

Exhibitions

Directory of associations, research organizations, schools, and shows. Textile World 103:74 Mid-N '53

Finance

Textile turn-down; most mill owners worry about shrinking orders. N. Willatt. Barron's 33:9-10 O 26 '53

History

Ancient and modern textile production in London and the home counties. E. Goodale. Soc Dyers & Col J 69:317-28 S '53

Historical notes on the wet-processing industry; role of Robert Hooke. S. M. Edelstein. il Am Dyestuff Rep 43:315-16 My 10 '54

Securities

See also

Cluett, Peabody and company, inc.

Statistics

Inadequate statistics hinder industry progress. R. C. Shook. Mod Textiles Mag 34:67-8 N '53

1953 spending goes heavily for mill improvements. P. M. Thomas and T. B. Winston. Textile World 103:100-1 N '53

Canada

Canada requires full textile import forms. For Comm W 50:8 O 5 '53

No dark horse now. Can Chem Process 38:6 S '54

Textiles still decline. W. M. Berry. Can Chem Process 38:12+ Jl '54

Cuba

Activity at low rate in Cuban textiles. For Comm W 50:16 Ag 3 '53

Europe

Economic aspects of the textile industry in Europe. B. M. Sweers. bibliog Textile Inst J 45:P49-61 F '54

Fully synthetic fiber developments in Europe. Chem & Eng N 31:2996-7 Jl 20 '53; Same cond. Can Chem Process 37:54 O '53

Government biggest buyer; abstract. J. Boyd. Chem & Eng N 32:2596+ Je 28 '54

Germany

Germany leads in production of chemical fibers. Chem & Eng N 32:2393 Je 14 '54

Great Britain

Ancient and modern textile production in London and the home counties. E. Goodale. Soc Dyers & Col J 69:317-28 S '53

Debate about standards. Economist 168:410+ Ag 8 '53

Textiles; tax and tactics. Economist 169:837 D 12 '53

TEXTILE industry—Great Britain—*Continued*

Too little for Shirley institute? new program. Economist 169:983 D 26 '53

See also

Cotton trade—Great Britain

India

India assists textile industry and trade. For Comm W 50:24 N 30 '53

Indian court rules on textile mill takeover by government. For Comm W 51:4 Ja 25 '54

New council to promote Indian textile exports. For Comm W 50:19 D 28 '53

Mexico

Mexico places controls on various textiles. For Comm W 51:16+ F 8 '54

South Africa

South Africa adds new textile duties. For Comm W 51:10 F 15 '54

Switzerland

Some aspects of textile development as seen from Switzerland. E. Honegger. Textile Inst J 44:P785-93 D '53

United States

Textile printing in the U.S.A. O. Habel. Soc Dyers & Col J 69:683-5; Discussion. 686-7 D '53

Western states

Textile industry for the West. A. Kastens. il Chem & Eng N 31:3132-8 Ag 3 '53

TEXTILE institute

Annual conference, Scarborough, June 8-11. Textile Inst J 45:P227-8 Je '54

Annual meeting, 44th, Belfast, April 30. Textile Inst J 45:P 148-52 My '54

Colour and textiles; proceedings of joint conference with Society of dyers and colourists, Scarborough, June 8-11. Textile Inst J 45:P343-529 Ag '54

International wool textile organisation and the Textile institute. Textile Inst J 45:P553-62 S '54

TEXTILE laboratories

Laboratory apparatus for detergency studies. W. A. Straw. bibliog il diag Soc Dyers & Col J 70:288-93 Jl '54

See also

Dye laboratories

TEXTILE laws and regulations

See also

Textile fabrics—Inflammability

TEXTILE machinery

Buyers' guide. il diags Textile World 103:75-307 Mid-N '53

Classified list of companies supplying products and services to the textile industry. Textile World 103:311-89 Mid-N '53

Development of auxiliary textile machines. W. S. Terrell. Mod Textiles Mag 35:98+ Ap '54

Effect of worker speed on the transfer of material from a swift. W. E. Butterfield and P. P. Townend. il diag Textile Inst J Trans 45:T272-4 Mr '54

Finding the new approach; Robert Campbell Wilkie. R. E. Ellsworth. Mod Textiles Mag 35:35+ Mr '54

Machine interference. F. Benson and others. Textile Inst J Trans 44:T619-44 D '53

Machinery improvements stick to established trends, 1953. T. B. Winston. Textile World 104:85-7 F '54

1953 review of new equipment. il diags Textile World 103:102-35+ N '53

Niptrol pneumatic mangle gives even pressure across the nip. il diags Textile World 104:103 Ag '54

Transfer yarn from spring to tube and back without winding. il Textile World 103:155 N '53

What is new in drafting and spinning? il diag Mod Textiles Mag 35:32-4+ Mr '54

What's new in American system equipment. J. H. Bolton, jr. Mod Textiles Mag 35:94+ Ap '54

See also

Carding machines
Cotton machinery
Dyeing machines
Electric driving—Textile mills
Hosiery machines
Knitting machines
Looms
Rolls (textile machinery)
Spinning machinery
Spooling machines
Textile finishing machines
Textile printing machines
Textile testing machines
Woolen and worsted machinery

Exhibitions

American textile machinery exhibition, Atlantic City, April 26-30. il Mod Textiles Mag 35:70-3 Je '54

American textile machinery exhibition, Atlantic City, April 26-30; list of exhibitors. Mod Textiles Mag 35:121-8 Ap '54; Am Dyestuff Rep 43:221-6 Ap 12 '54

American textile machinery exhibition, Atlantic City, April 26-30; plan, list of exhibitors. Textile World 104:139-42+ Ap '54

Biggest and best southern textile show planned. il Manuf Rec 123:29-30 S '54

Southern textile exposition, 18th, Greenville, S.C. Oct. 4-8; list of exhibitors. il Mod Textiles Mag 35:110+ S '54

Southern textile exposition, 18th Greenville, S.C. Oct. 4-8; plans and list of exhibitors. Textile World 104:143-230 S '54

Textile recorder international exhibition, Manchester. Textile Inst J 44:P760-5, 806-10 N-D '53

Textile recorder international exhibition, Manchester, England. il Mod Textiles Mag 34:91-4 D '53

What was new at the Atlantic City show. il Textile World 104:79-108+ Je '54

What was new at the Manchester show. P. M. Thomas. il Textile World 103:107-18 D '53

Tension devices

Tension control is critical in running 44HH Bemberg yarns; National weaving co. J. R. Fish. il Textile World 104:82-3+ Ap '54

TEXTILE machinery industry

Loom and spindle; textile machinery makers face some lean years. R. B. Cole. Barron's 33:19-20 D 14 '53

New philosophy growing in machinery purchasing. J. L. Truslow. Mod Textiles Mag 35:90+ Ap '54

Great Britain

Engineering outlook; textile machinery. Engineering 177:202-5 F 12 '54

Home truths for Lancashire. Economist 169:198 O 17 '53

TEXTILE mills

Machinery is moved into mill; then thin-shell barrel roof completed; textile mill in Newcastle, Australia. il Eng N 151:62+ O 29 '53

Mill reference data. il diags Textile World 103:6-71 Mid-N '53

1953 spending goes heavily for mill improvements. P. M. Thomas and T. B. Winston. Textile World 103:100-1 N '53

Open house opens the door to better community relations; Hathaway manufacturing co. M. B. Andrews. il Textile World 104:131+ Ja '54

This community is a memorial to a far-sighted mill man. M. B. Andrews. il Textile World 104:135+ F '54

See also

Carpet factories
Cotton mills
Electric driving—Textile mills
Hosiery mills
Knitting mills
Rayon mills
Water supply for textile mills
Woolen and worsted mills

Accounting

Mechanical accounting in the textile industry. A. W. Mattocks. Textile Inst J 44:P722-6 O '53

Air conditioning

Air conditioning the textile mill. W. L. Fleisher and J. H. Burges. il Refrig Eng 62:33-6+ My '54

TEXTILE mills—Air conditioning—*Continued*

1953 review of new equipment; air conditioning and heating. il diag Textile World 103:133 N '53

Cleaning

Waste and cleaning tips for the spinning-room overseer. N. H. Pomfret. diags Textile World 104:123+ Mr '54

Electric equipment

New-type electric motors are smaller and better. W. H. Formhals. diags Textile World 104:102-3+ Mr '54

Pakistan jute mills. il Elec J 152:512 F 12 '54

Three electrical-maintenance questions draw interest of Alabama mill men. Textile World 104:84-5 Ag '54

Three improved fuses protect electric motors. J. C. Lebens. diags Textile World 104:112-13 Jl '54

Employees

See Textile workers

Equipment

Alphabetical list of new products developed since Nov. 1952. il diags Am Dyestuff Rep 42:837-42 D 7 '53

Aluminium in the textile industry. E. C. Roylance. il Metallurgia 49:77-81 F '54

Anywhere in the plant, special delivery by air; American thread co. il plan Factory Management 112:130-1 My '54

Buyers' guide. il diags Textile World 103:75-307 Mid-N '53

Classified list of companies supplying products and services to the textile industry. Textile World 103:311-89 Mid-N '53

Fluctuating steam loads call for heat storage; survey of accumulator storage methods. L. Walter. diags Textile World 104:120-1+ Mr '54

Ideas from the plant maintenance and engineering show; illustrations with text. Textile World 104:90-1+ Ap '54

Instrumentation boosts weave room efficiency; Bachmann-Uxbridge gentle-air slasher. E. A. Murphy. il diag Mod Textiles Mag 34:95-6 D '53

New heavy-duty infrared generator; Edwin L. Wiegand co. Am Dyestuff Rep 43:257 Ap 12 '54

1953 review of new equipment. il diags Textile World 103:102-35+ N '53

16 ways to improve elevator operation. Textile World 103:196+ N '53

Study your needs before buying casters. Textile World 104:166+ Jl '54

Textile ideas from the Industrial packaging and materials handling exposition. il Textile World 104:97 Mr '54

Textile recorder international exhibition, Manchester, England. il Mod Textiles Mag 34:91-4 D '53

What was new at the Manchester show. P. M. Thomas. il Textile World 103:107-18 D '53

See also
Textile machinery

Fires and fire protection

Magnetic separators reduce textile fires. R. C. Hoff. Safety Maint & Prod 108:54 S '54

Lighting

$24,500 worth of light for a net cost of $144; group replacement of fluorescent lamps at Hathaway mfg. co. R. B. Pressley. il Textile World 104:92-5 Mr '54

Maintenance and repair

Maintenance of production equipment challenges the plant engineer. R. B. Pressley. Textile World 104:93-4 F '54

Mill-chain maintenance. il Textile World 103:126-9+ D '53

Mill reference data; engineering. diags Textile World 103:64-71 Mid-N '53

Three electrical-maintenance questions draw interest of Alabama mill men. Textile World 104:84-5 Ag '54

Tips for caulking, glazing, and painting window sash. Textile World 104:150+ Ag '54

Top-notch plant maintenance made a show place of a mill; Albany felt co. G. A. Estabrook. Textile World 104:74-5+ My '54

Use a suitable tank for descaling parts. Textile World 104:329-30 Ap '54

Vibration can injure your piping system. Textile World 104:236-7 F '54

Management

Consider these ten points in applying wage incentives. K. Salmon. Textile World 104:55-7 Ag '54

How to determine weaver jobload. D. D. Deming. il Textile World 104:94+ Ap '54

How to sell workload changes. R. G. Carson, jr. Textile World 104:67-9 My '54

How to set up stock controls in a thread mill. J. R. Gainey. Textile World 104:115+ Je '54

In-plant process control for the reduction of waste. R. H. Souther. Am Dyestuff Rep 42:656-8 S 28 '53

Set up loom assignments for maximum profit; Ashcroft numbers. T. F. O'Connor. Textile World 103:143-5+ D '53

Statistical approach to the solution of textile problems. R. W. Jacoby. Am Dyestuff Rep 43:490-3+ Ag 2 '54

Power

British mill gets 77 per cent thermal efficiency. L. Walter. il diag Textile World 104:102-3+ My '54

1953 review of new equipment; power generation and transmission. il diag Textile World 103:134-5+ N '53

Select transmission belts to make them last. N. Perry. Textile World 104:122-3+ F '54

Switching station gets the bird plus free relay testing. il Power Eng 58:65 S '54

Quality control

Acceptance sampling plan protects both supplier and user. R. R. Jones. Textile World 104:94-5+ Ag '54

Quality control through statistical methods. N. L. Enrick. diags Mod Textiles Mag 34:32-3+ O; 43-6 N; 79-82 D '53; 35:49+ Ja; 35+ F; 44+ Mr; 44+ Ap; 42-3+ My '54

See also
Cotton mills—Quality control
Woolen and worsted mills—Quality control

Safety measures

How to set up and operate a department safety program. M. A. Cross. Textile World 103:147+ D '53

Waste

Application of chlorine and treatment of textile wastes. N. S. Chamberlin. Am Dyestuff Rep 43:389-91 Je 21 '54

Case histories of stream pollution. Am Dyestuff Rep 43:112-15 F 15 '54

Comparison of the oxygen consumed from permanganate and b.o.d. tests in the study of textile wastes. H. J. Northup. bibliog Am Dyestuff Rep 43:130-1 Mr 1 '54

Five things you need to know to control waste. J. I. Teat. Textile World 104:111 S '54

Symposium on stream pollution. E. A. Leonard and others. Am Dyestuff Rep 42:651-60; Discussion. 660-4 S 28 '53

Waste and cleaning tips for the spinning-room overseer. N. H. Pomfret. diags Textile World 104:123+ Mr '54

Waste disposal problems of southern mills; symposium abstracts. Am Dyestuff Rep 43:584-5 Ag 30 '54

See also
Cotton mills—Waste
also American association of textile chemists and colorists—National stream-pollution committee

TEXTILE oils

Testing

New test for scourability of spinning oil; committee on processes of continuous wool scouring. il Am Dyestuff Rep 43:262-5+ Ap 26 '54

TEXTILE patents

See also
Fireproofing of textiles—Patents
Textile printing—Patents
Waterproofing of textiles—Patents

TEXTILE printing

Applications of rheology in the textile industry; abstract. R. L. Derry. Chem & Ind p511 My 1 '54

Aquabond pigment colors for printing textiles by oil-in-water emulsion system. Am Dyestuff Rep 43:88 F 1 '54

Castle Creek's screen printing goes modern. G. M. Moisson. il Textile World 104:113-15 F '54

Colloresin printing method; abstract. Bernardy and Küppers. Am Dyestuff Rep 43:317 My 10 '54

Du Pont vat-print development process. A. K. Saville. Am Dyestuff Rep 42:272-4+ Ap 27 '53

Finishing, dyeing and printing of glass decorative fabrics. R. F. Caroselli. diag Am Dyestuff Rep 43:327-8 My 24 '54

High color strength, fastness promised by textile printing color. Chem & Eng N 31:2992 Jl 20 '53

New Du Pont vat print development process; abstract. Am Dyestuff Rep 43:385 Je 7 '54

Novelty printing effects. H. P. Baumann. Am Dyestuff Rep 42:463-5 Jl 20 '53

Physics in the dyeing, printing, and finishing industries. N. W. Yelland. bibliog il 8pls diags Soc Dyers & Col J 70:333-46 Ag '54

Print design for ski-ing outfit. R. Sansone. il Mod Textiles Mag 35:58-9 Ja '54

Printing of terylene polyester fibre. A. G. H. Michie. Soc Dyers & Col J 70:13-15 Ja '54; Abstract. Am Dyestuff Rep 43:448 Jl 5 '54

Printing of textiles; symposium abstracts. Am Dyestuff Rep 43:583-4 Ag 30 '54

Radioactive isotopes in roller printing. W. Meitner and H. B. Hampson. Soc Dyers & Col J 69:283-4 Ag '53

Statistical approach to the solution of textile problems. R. W. Jacoby. Am Dyestuff Rep 43:490-3+ Ag 2 '54

Studies in textile printing; some factors involved in vat printing. R. D. Greene and F. Fordemwalt. il diags Am Dyestuff Rep 42:141-6 Mr 2 '53

Studies in the fundamental processes of textile printing. R. H. Munshi and others. bibliog il pl diag Soc Dyers & Col J 65:434-47; 67:103-15+, 586-98; 68:77-87; 69:240-54, 440-8 S '49, Mr, D '51, Mr '52, Jl, N '53

Textile printing; symposium. il 3pls diags Soc Dyers & Col J 69:525-687 D '53; Abstract. Am Dyestuff Rep 43:160-2 Mr 15 '54

Thiourea dioxide in textile printing; abstract. P. Krug and D. Horrocks. Am Dyestuff Rep 43:386 Je 7 '54

See also
Calico printing
Photography on textiles
Silk screen printing

Defects

Doctor streaks; their origin and prevention. E. A. Krähenbühl. il Soc Dyers & Col J 69:561-5; Discussion. 565-8 D '53

Patents

Offset printing textiles. Am Dyestuff Rep 43:150 Mr 1 '54

Pigment printing; aqueous systems instead of emulsions used. Am Dyestuff Rep 43:17 Ja 4 '54

Pigment-printing emulsion; polyesters as pigment binders. Am Dyestuff Rep 43:163 Mr 15 '54

Pigment printing emulsions; thermoplastic resins in aqueous phase. Am Dyestuff Rep 43:446 Jl 5 '54

Pigment printing; reaction products of polyamines and cross-linking agents. Am Dyestuff Rep 43:17 Ja 4 '54

Printing indigosols; aromatic pyridinium compounds as dispersants. Am Dyestuff Rep 43:53 Ja 18 '54

Printing pastes containing onium dyes; organic acids and hydrophilic assistants added. Am Dyestuff Rep 43:66 F 1 '54

Printing vat dyes; zirconium salts added. Am Dyestuff Rep 43:215 Mr 29 '54

Relief-like prints; resin dispersions locally precipitated. Am Dyestuff Rep 43:547 Ag 16 '54

You can do it with water; patents dealing with water-dilutable pigment-printing colors. il Chem W 73:36+ Jl 4 '53

TEXTILE printing machines

Apparatus for producing moiré designs. diags Am Dyestuff Rep 43:54 Ja 18 '54

Automatic screen printer. il Factory Management 112:142 S '54

Mélange or Vigoureux printing. F. Buxtorf and A. Wiazmitinow. bibliog il diag Soc Dyers & Col J 69:550-4; Discussion. 554-6 D '53

New flock-printing machine is compact. il Textile World 104:104 Ag '54

Production of metal screens. G. Waller. Soc Dyers & Col J 69:557-9; Discussion. 559-60 D '53

Production of printing rollers by electrodeposition. E. A. Ollard. Soc Dyers & Col J 69:529-36; Discussion. 537 D '53

TEXTILE research

Application of radioactive tracer techniques to textile research. H. J. White, jr. bibliog Soc Dyers & Col J 70:284-7; Discussion. 287 Jl '54

Application of radiochemical techniques to the study of the interaction of hair fibers with aqueous solutions. P. B. Stam and H. J. White, jr. bibliog Textile Res J 24:785-91 S '54

Directory of associations, research organizations, schools, and shows. Textile World 103:74 Mid-N '53

Exact pattern of a concentration-dependent diffusion in a semi-infinite medium. H. Fujita. bibliog Textile Res J 24:234-40 Mr '54

Experimental study of stiffness and nonuniformity in the vibroscopic determination of fiber cross-sectional area. E. T. L. Voong and D. J. Montgomery. bibliog Textile Res J 23:821-30 N '53

Fiber placement. E. R. Schwarz. Am Dyestuff Rep 43:589-91 Ag 30 '54

Heat of wetting of fibres. N. F. H. Bright and others. bibliog diag Textile Inst J Trans 44:T587-95 D '53

Interest in research continues at high level. W. A. Newell. Textile World 104:92-3+ F '54

Let's take it up with TRD; Edgar S. Kennedy; R. E. Ellsworth. il Mod Textiles Mag 35:35+ Ja '54

1953 textile research achievements. J. B. Goldberg. Mod Textiles Mag 35:68+ F '54

Physicist's approach to textile technology. J. W. S. Hearle. Textile Res J 24:123-30 F '54

Proving ground for synthetics; North Carolina state college, School of textiles. il Chem W 72:38-40+ My 23 '53

Research at Courtaulds. A. H. Wilson. Chem Age (Lond) 69:1069-70 N 21 '53

They're making new yardsticks at West Point manufacturing co.'s Shawmut research laboratory; Maurice Earl Heard. R. E. Ellsworth. il Mod Textiles Mag 35:35+ Jl '54

Too little for Shirley institute? new program. Economist 169:983 D 26 '53

Use of radioisotopes in the textile industry. C. E. Crompton. bibliog il diags Am Dyestuff Rep 42:533-9 Ag 17 '53

See also
Rayon research
Textile laboratories
also American association of textile chemists and colorists—Committee on research

Bibliography

Review of textile research and development during 1953; review of the literature. Textile Res J 24:439-90 My '54

TEXTILE research institute

State of the institute. J. H. Dillon. Textile Res J 24:322-7 Ap '54

TEXTILE schools

Bradford Durfee marks 50 years of service. L. B. Coombs. Mod Textiles Mag 35:59 Je '54

TEXTILE schools—*Continued*

Few Texas Tech students ever saw a mill. Mod Textiles Mag 35:49 Je '54

Flexibility, research by-words at Clemson. Mod Textiles Mag 35:42 Je '54

Lowell adds textile manufacturing. J. A. McLean. il Mod Textiles Mag 35:56+ Je '54

New Bedford institute doubling its capacity. J. E. Foster. il Mod Textiles Mag 35:43 Je '54

Research and education go hand in hand at Georgia Tech. J. W. McCarty. il Mod Textiles Mag 35:54 Je '54

Rhode Island School of design integrates design, science, management. G. M. Congdon, jr. il Mod Textiles Mag 35:52 Je '54

Two-way cooperation aids North Carolina State and industry. W. A. Newell. il Mod Textiles Mag 35:46+ Je '54

What about our textile schools? B. W. Hayward. il Mod Textiles Mag 35:32-3+ Je '54

Directories

Directory of associations, research organizations, schools, and shows. Textile World 103:74 Mid-N '53

TEXTILE scouring. See Scouring of textiles

TEXTILE standards

ASTM standards on textile materials (with related information). 677p pa $5.25 Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '53 [issued annually]

Colour fastness and textile finishing requirements of the ultimate consumer. J. S. Ingham. bibliog Soc Dyers & Col J 70:227-9 Je '54

Industry moves on end-use standards. Mod Textiles Mag 35:31+ Mr '54

Standard lay-out for specifications for textile materials. Textile Inst J 45:S 1-5 Ap '54

TEXTILE terms

Textile terms and definitions. diags Textile Inst J 44:S53-68 N '53; 45:S27-36 Ap '54

TEXTILE testing

ASTM standards on textile materials (with related information). 677p pa $5.25 Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '53 [issued annually]

New tools for the fabric technologist; Carbide and Carbon Inner Structure method. R. K. Kennedy. Can Chem Process 37:110-11 O '53

See also

Dye testing
Textile fabrics—Testing
Textile fibers—Testing
Yarn—Testing

TEXTILE testing machines

Comparative study of the Tinius Olsen and Peirce stiffness testers. W. J. Hynek and G. Winston. bibliog diags Textile Res J 23:743-8 O '53; Discussion. J. J. Press. 24:60 Ja '54

Comparison of the variance-length curves given by the Zellweger instrument and by cutting and weighing. P. Grosberg and R. C. Palmer. Textile Inst J Trans 45:T303-9 Ap '54

Degradation of cellulose during mechanical processing; size reduction of cotton in a Wiley mill. R. F. Schwenker, jr. and J. C. Whitwell. bibliog il Textile Res J 23:804-8 N '53

Evaluation of a tensioning device for use with the Taber abraser. E. F. Thomas and G. S. Wham, jr. diags Am Dyestuff Rep 43:341-3 My 24 '54

Measurements of the air-drag of textile threads. C. Mack and E. J. L. Smart. bibliog diags Textile Inst J Trans 45:T348-62 Ap '54

Navy develops new fabric Drape-Flex tester. il Am Dyestuff Rep 43:259 Ap 12 '54

Single fiber stress-strain apparatus. H. M. Preusser and others. bibliog il diags Textile Res J 24:118-22 F '54

Use of the Zellweger irregularity tester in finding the variance-length curve of worsted yarn. P. Grosberg and R. C. Palmer. diags Textile Inst J Trans 45:T275-90 Ap '54

TEXTILE workers

Are disciplinary rules necessary? J. E. Gardner. Textile World 104:99+ Ag '54

Benge study pinpoints disturbing employee attitudes. M. P. Miller. Textile World 104:94 F '54

For successfully training supervisors. D. Deming; J. E. Gardner; E. E. Jennings. Textile World 104:53-4 S '54

Here's a guide for action when you have to fire workers. A. Uris. Textile World 104:99+ Ap '54

History of work stoppages in textile industries. B. Yabroff and A. J. Herlihy. Mo Labor R 76:367-71 Ap '53

How do you choose the right employee? M. P. Miller. Textile World 104:133+ F '54

How to get facts across to workers. M. A. Cross. Textile World 104:113+ S '54

How to handle complaints. M. A. Cross. Textile World 104:137+ Je '54

How to win an arbitration. P. A. King. Textile World 104:129 Ja '54

Instructors are key people in operator-training program; Drayton mills. M. B. Self. Textile World 103:104-5+ D '53

Put realism into your on-the-job relationships. W. G. Mahler. Textile World 104:77+ Ja '54

Supervisor on the witness stand. M. J. Wise, jr. Textile World 104:127+ Jl '54

Supervisor's span of control. J. E. Gardner. Textile World 103:153+ N '53

This mill's stock pays dividends in better community relations. M. B. Andrews. Textile World 104:129 Jl '54

Tips for the spinning supervisor. N. H. Pomfret. Textile World 104:70+ Ag '54

When supervisors have to be salesmen. J. E. Gardner. Textile World 104:111 My '54

Your attitude can determine how employees react to incentives. M. A. Cross. Textile World 104:133 Mr '54

See also

Cotton mills—Employees
Rayon mills—Employees
Woolen and worsted mills—Employees

TEXTONE

Oxidizing with Textone. G. O. Smith. Am Dyestuff Rep 42:429-30+ Jl 6 '53

THAILAND. See Siam (Thailand)

THALLIUM

Diffusionless phase change in the indium-thallium system. M. W. Burkart and T. A. Read. bibliog il diags J Metals 5:Trans 1516-24 sec 2 N '53

Effect of hydrostatic pressure on the superconducting transition of tin and thallium. M. D. Fiske. Phys R 94:495-6 Ap 15 '54

Effect of pressure on the optical absorption of the activator system in KCl:Tl. P. D. Johnson and F. E. Williams. Phys R 95:69-70 Jl 1 '54

Kinetics of the cerium(IV)-chloride reaction; the cerium(IV)-thallous reaction in the presence of chloride. F. R. Duke and C. E. Borchers. bibliog Am Chem Soc J 75:5186-8 N 5 '53

Kinetics of the reaction between thallium(III) and iron(II) in aqueous perchloric acid. K. G. Ashurst and W. C. E. Higginson. Chem Soc J p3044-9 O '53

Long-lived phosphorescent components of thallium-activated sodium iodide. C. R. Emigh and L. R. Megill. bibliog diags Phys R 93:1190-4 Mr 15 '54

Mercury-thallium thermometers. J. Ehrenreich. bibliog(26 titles) Instruments & Automation 27:1070-2 Jl '54

Pressure effects in phosphorescence. L. Reiffel. Phys R 94:856 My 15 '54

Reactions of thallium; thallous ethoxide as a catalyst in the oxidation of the aromatic acyloins by nitrobenzene. L. P. McHatton and M. J. Soulal. Chem Soc J p4095-7 D '53

Thallium as a reference standard for beta radioactivity. A. G. Wheler, jr. and others. bibliog Am Water Works Assn J 46:79-81 Ja '54

Theory of the polarographic diffusion current; diffusion of small amount of thallium ion in aqueous potassium chloride solutions. J. H. Wang and F. M. Polestra. bibliog Am Chem Soc J 76:1584-5 Mr 20 '54

Analysis

Spectrophotometric determination of bismuth, lead, and thallium with hydrochloric acid. C. Merritt, jr., H. M. Hershenson and L. B. Rogers. bibliog Anal Chem 25:572-7 Ap '53

THALLIUM—*Continued*

Isotopes

Neutron-deficient isotopes of thallium. I. Bergström and others. bibliog diags Phys R 92:918-23 N 15 '53

Nuclear reactions

Decay of the odd-odd isomer Tl^{198m}. T. O. Passell and others. bibliog Phys R 95:999-1002 Ag 15 '54

New isomer in lead. D. Maeder and A. H. Wapstra. Phys R 93:1433-4 Mr 15 '54

Nuclear energy levels of Tl^{203}. J. Varma. bibliog Phys R 94:1688-94 Je 15 '54

THALLIUM azide

Heat of formation of thallium azide. W. S. McEwan and M. M. Williams. Am Chem Soc J 76:2182 Ap 20 '54

THALLIUM chlorides

Ionicity of gaseous thallous chloride. A. P. Altshuller. J Chem Phys 22:573-4 Mr '54

THALLIUM compounds

Electrometric titration studies upon thallium (III) salt solutions. T. Moeller and G. L. King. bibliog Am Chem Soc J 75:4852 O 5 '53

THALLIUM halides

Dipole moments of gaseous thallous halides. A. P. A. Altshuller. bibliog J Chem Phys 21:2074 N '53

Inhomogeneity of thallium halide mixed crystals and its elimination. A. Smakula and others. bibliog diags Opt Soc Am J 43:698-701 Ag '53

THALLIUM iodide

Luminescence studies of KI-TlI. B. Smaller and E. Avery. bibliog Phys R 92:232-7 O 15 '53

THAWING

Wrought iron pipe and gas-fired jets thaw freight movement; Norfolk and western railway co. il Iron Age 172:264+ N 12 '53

THEATER

Broadway, '53-'54; a dearth of musicals and money. il Bsns W p90-2+ D 5 '53

See also

American broadcasting-Paramount theaters, inc.

THEATERS

Mies van der Rohe's theater for Mannheim. il plans diag Arch Forum 99:128-31 Jl '53

See also

Moving picture theaters

THEATERS, Open air

See also

Moving picture theaters, Open air

THEATRICAL production

Auditing a limited partnership production in the theater. W. Barnett. J Account 97:593-8 My '54

THEFT

Adequate protection by business men best means of curbing crime. T. A. Eibler. Weekly Underw 171:18 Jl 3 '54

How to investigate a theft in your plant. Factory Management 112:228+ S '54

Seattle conference to war against pilferage organized by FBI. Weekly Underw 169:1228 N 21 '53

Shop thief! how can pilferage losses be kept down. B. A. Hall. Am Mach 98:156-7 Mr 15 '54

Stop the thief in your plant. il Factory Management 112:84-9 S '54

Theft control; here are seven suggestions. Steel 135:53 Ag 23 '54

Thefts; how you can prevent them. Iron Age 174:61 S 2 '54

See also

Embezzlement

Motor truck robberies

Shoplifting

THEFT insurance. See Insurance, Theft

THEISINGER, Earl F.

New editor of Bus transportation. por Bus Transportation 33:25 Jl '54

THENOYLTRIFLUOROACETONE. See Trifluoroacetone

THEOBROMINE

Analysis

Spectrophotometric determination of theobromine and caffeine in cocoa powders. D. T. Englis and J. W. Miles. bibliog Anal Chem 26:1214-18 Jl '54

THEODOLITES

Ballistic research laboratories-Naval gun factory cinetheodolite. S. M. Lipton and K. R. Saffer. il diags Soc Motion Picture & Tv Eng J 61:33-44 Jl '53

Precision in your pocket; Wild T-12 pocket theodolite. il Eng N 151:116+ N 5 '53

THEOSOPHISTS, United lodge of. See United lodge of theosophists

THERAPEUTICS

Biological problems of therapeutic research; abstract. B. G. Maegraith. Chem & Ind p 1011-12 S 26 '53

Developing trends and standards of sound drug therapy; symposium of the AAAS. Pub Health Rep 68:509-17; Discussion. L. C. Zopf. 517-18 My '53

See also

Chemotherapy

Electrotherapeutics

Radiotherapy

Vaccines

X rays—Therapeutic use

THEREMIN. See Musical instruments, Electric

THERMAL analysis

Data for interpretation of differential thermal curves. C. H. Bowen. Ohio State U [Columbus] Eng Exp Sta Circ 56:1-17 bibliog(p9-11) '54 (pa 50c)

Differential thermal analysis; methods and techniques. J. A. Pask and M. F. Warner. bibliog diags Am Cer Soc Bul 33:168-75 Je 15 '54

Differential thermal analysis of titania-opacified enamels. F. D. Olympia. bibliog Am Cer Soc Bul 32:412-14 D 15 '53

DT analyzer; variable-pressure and controlled-atmosphere differential thermal analysis technique. Ind & Eng Chem 46:sup 17A-18A Ag '54

Physicochemical studies on dusts; examination of finely ground quartz by differential thermal analysis and other physical methods. P. B. Dempster and P. D. Ritchie. bibliog(29 ref) J Ap Chem 3:182-92 Ap '53

Refractory castables; some properties, and effects of heat-treatments. R. A. Heindl and Z. A. Post. bibliog il Am Cer Soc J 37:206-16 My 1 '54

Study of white coat plaster by differential thermal analysis. J. A. Murray and H. C. Fischer. bibliog Am Soc T M Proc 51:1197-212 '51

Thermal analysis of magnesite at CO_2 pressures up to six atmospheres. R. L. Stone. bibliog Am Cer Soc J 37:46-7 F 1 '54

Thermography of gypsum. R. R. West and W. J. Sutton. bibliog(24 titles) Am Cer Soc J 37:221-4 My 1 '54

Three-sheet minerals in clays. E. J. Weiss and R. L. Stone. Am Cer Soc Bul 33:52-4 F 15 '54

THERMAL conductivity. See Heat conductivity

THERMAL diffusion. See Diffusion

THERMAL expansion. See Expansion (heat)

THERMAL insulation. See Insulation (heat)

THERMAL meters. See Demand meters

THERMENOL. See Alloys, Heat resisting; Iron alloys—Aluminum alloys

THERMIONIC emission. See Electrons—Thermionic emission

THERMISTOR bolometers. See Bolometers

THERMISTORS. See Electric resistors

THERMOCHEMISTRY

Calculation of the heats of formation of gaseous free radicals and ions. J. L. Franklin. bibliog J Chem Phys 21:2029-33 N '53

Cyanogen halides; their heats of formation and free energies. G. Lord and A. A. Woolf. Chem Soc J p2546-51 Jl '54

Heat of formation of thallium azide. W. S. McEwan and M. M. Williams. Am Chem Soc J 76:2182 Ap 20 '54

Heats of formation and entropies of HS^- and $S^=$; potential of sulfide-sulfur couple. J. W. Kury and others. bibliog Electrochem Soc J 100:468-70 O '53

THERMOCHEMISTRY—*Continued*

Heats of formation of complex ions containing ethylenediamine. T. Davies, S. S. Singer and L. A. K. Staveley. diag Chem Soc J p2304-11 Jl '54

Heats of formation of tantalum, niobium and zirconium oxides, and tantalum carbide. G. L. Humphrey. bibliog Am Chem Soc J 76:978-80 F 20 '54

Preparation of mischmetall by thermal reduction. C. Decroly and others. bibliog diags Electrochem Soc J 100:388-91 S '53

Process kinetics; autothermic processes. C. van Heerden. diags Ind & Eng Chem 45: 1242-7 Je '53

Recent trends in thermochemistry. H. Mackle. bibliog(64 ref) Chem Age (Lond) 70:167-73 Ja 9 '54

Some considerations regarding liquid inclusions as geologic thermometers. B. J. Skinner. bibliog diags Econ Geol 48:541-50 N '53

Thermal stability of high-sulfur crude oils. H. J. Coleman and others. bibliog diag Ind & Eng Chem 45:2706-10 D '53

Thermochemistry of organo-arsenic compounds; phenylarsine. C. T. Mortimer and H. A. Skinner. Chem Soc J p3189-91 O '53

Thermochemistry of organo-boron compounds; dimethylaminochloroborines. H. A. Skinner and N. B. Smith. Chem Soc J p2324-9 Jl '54

Thermochemistry of organo-boron compounds; tri-*n*-butylboron, and the di-*n*-butylboron halides. H. A. Skinner and T. F. S. Tees. diag Chem Soc J p3378-83 N '53

Thermochemistry of organo-boron compounds; trisdimethylaminoborine, B(NMe$_2$)$_3$; the strength of the boron-nitrogen link. H. A. Skinner and N. B. Smith. Chem Soc J p4025-8 D '53

Thermochemistry of the rare earths; lanthanum, praseodymium, samarium, gadolinium, erbium, ytterbium and yttrium. F. H. Spedding and J. P. Flynn. bibliog Am Chem Soc J 76:1474-7 Mr 20 '54

Thermodynamic properties of technetium and rhenium compounds; heats of formation of rhenium heptoxide and trioxide, and a revised potential diagram for rhenium. G. E. Boyd, J. W. Cobble and W. T. Smith, jr. bibliog Am Chem Soc J 75:5783-4 D 5 '53

Thermodynamic properties of technetium and rhenium compounds; heats of formation of technetium heptoxide and pertechnic acid, potenial of the technetium-(IV)-technetium (VII) couple, and a potential diagram for technetium. J. W. Cobble, W. T. Smith, jr. and G. E. Boyd. bibliog diags Am Chem Soc J 75:5777-82 D 5 '53

See also

Activation, Heat of
Combustion
Combustion, Heat of
Combustion analysis
Melting points
Solution, Heat of
Specific heat
Thermal analysis
Thermodynamics
Vapor pressure
Vaporization, Heat of
Wetting, Heat of

THERMOCHROMISM

New types of thermochromic substances; the stereochemical aspect of thermochromism; thermochromism and vinylogy. A. Schönberg, A. Mustafa and W. Asker. bibliog Am Chem Soc J 76:4134-6 Ag 20 '54

Some adsorption colors and their significance for thermochromic and tautomeric effects; experiments with 1,3-diketohydrindene derivatives and with 1,4-quinonedibenzenesulfonimides. A. Schönberg, A. Mustafa and W. Asker. bibliog Am Chem Soc J 75: 4645-7 O 5 '53

Thermochromism of diaryldisulfides. A. Mustafa and M. Kamel. bibliog Science 118: 411-13 O 9 '53

THERMOCOUPLES

Application of thermocouples to target temperature measurement in the internal beam of a cyclotron. W. J. Sturm and R. J. Jones. R Sci Instr 25:392-3 Ap '54

Bellows seals furnace couples. W. H. Decker. diag Pet Processing 8:1201 Ag '53

Construction of radiation thermocouples using semi-conducting thermoelectric materials. D. A. H. Brown and others. diags J Sci Instr 30:195-9 Je '53

Design and construction of needle thermocouples. W. G. Rauch. il diag Metal Prog 65:71-4 Mr '54

Electrical techniques for time lag compensation of thermocouples used in jet engine gas temperature measurements. C. E. Shepard and I. Warshawsky. il diags Instruments 26:1725-30 N '53

Gun-barrel measurements involve rapidly fluctuating temperatures. J. M. Chenoweth and others. bibliog diags Instruments 26: 1714-15+ N '53

High-temperature thermocouples; abstract. H. A. Wilhelm and others. Metal Prog 64:134+ N '53

Improved needle thermocouple for subcutaneous and intramuscular temperature measurements in animals and man. J. Krog. diags R Sci Instr 25:799-800 Ag '54

Improvements in fine wire thermocouples. C. H. W. Slater. diags J Sci Instr 30:293-4 Ag '53

Inhomogeneity e.m.f.s in thermoelectric thermometers. N. Fuschillo. bibliog diag J Sci Instr 31:133-6 Ap '54

Iron-constantan thermocouple tables. Tele-Tech 12:86 N '53

Measurement of temperature by thermocouple and galvanometer. L. G. A. Sims. Engineering 177:180-1 F 5 '54

Metal-ceramic wall lengthens thermocouple life. P. B. McSherry. il diags Iron Age 172:100-1 O 29 '53

Method for modifying the thermal e.m.f./ temperature characteristics of constantan thermocouple wire. W. R. Beakley. J Sci Instr 31:259-60 Jl '54

Modified 1913 reference tables for iron-constantan thermocouples. R. J. Corruccini and H. Shenker. bibliog J Res Nat Bur Stand 50:229-48 My '53

Open-circuit thermocouple. R. D. Potter. Metal Prog 64:80-1 N '53

Open-hearth bath temperature measurement. F. S. Swaney. il diags Instruments 26:256-8+ F '53

Response of two-material laminated cylinder to simple harmonic environment temperature change. H. H. Lowell. bibliog J Ap Phys 24:1473-8 D '53

Significance of air temperature in open-hearth operation. J. S. Marsh. diags Instruments 26:1876-8+ D '53

Simple circuit for adapting thermocouple recorders to measure voltage in high-resistance circuits. F. T. Gucker, jr. and A. H. Peterson. diag Anal Chem 25:1577 O '53

Theory and application of thermocouples. E. A. Murphy. il diags Heat & Ven 51:104-8 F '54

Thermocouple circuit restorer. A. Sherman. il diag Instruments & Automation 27:124-5 Ja '54

Thermocouple for atomic reactors. il. Materials & Methods 40:226 Jl '54

Thermocouple measures temperatures in nuclear reactor. il Iron Age 173:170-1 My 6 '54; Steel 134:107 Ap 12 '54

Thermocouple tables. Heat & Ven 51:128+ Ja '54

Thermoelectric method of comparing intensities of ultrasonic fields in liquids. R. B. P. Palmer. il diag J Sci Instr 30:177-9 Je '53

Tungsten/molybdenum thermocouple for immersion pyrometry. J. P. Simons and others. bibliog diags Iron & Steel Inst J 175:402-7 D '53

Use of thermocouples for measuring temperatures below 70°K. T. M. Dauphinee and others. J Sci Instr 30:399-400 N '53

Testing

Measuring fine temperature changes. L. G. A. Sims. diags Engineering 177:15-16 Ja 1 '54

THERMODIELECTRIC effect. See Dielectrics

THERMODYNAMICS

Application of Jacobians to statistical thermodynamics. H. Einbinder. bibliog J Chem Phys 21:2134-42 D '53

Applications of the free volume theory of binary mixtures. Z. W. Salsburg and J. G. Kirkwood. bibliog J Chem Phys 21:2169-77 D '53

THERMODYNAMICS—*Continued*

Applied thermodynamics; abstracts of papers. Chem Eng Prog 50:71-2 F '54

Chemical engineering fundamentals. T. E. Corrigan and A. F. Johnson. diags Chem Eng 60:237-42 S; 237-42 O; 203-7 N; 211-16 D '53; 61:210+ Ja; 212+ F '54

Compression work. W. M. Spicer and J. Hine. J Chem Educ 30:501-2 O '53

Contributions to thermodynamics. J. McQuirg. bibliog J Chem Educ 31:299, 347-8 Je-Jl '54; Discussion. W. Waring. 31:377 Jl '54

Cooling potential versus specific enthalpy; heat transfer potential between moist air and water. F. Rasori. bibliog Refrig Eng 61:1207-19+ N '53; Discussion. 62:52-3+ F; 76-7+ Je '54

Correlations between thermodynamic properties and the structure of liquids; abstract and discussion. D. H. Everett. Chem & Ind p 429-30 Ap 10 '54

Crystal structure and thermodynamic studies on the zirconium-hydrogen alloys. E. A. Gulbransen and K. F. Andrew. bibliog Electrochem Soc J 101:474-80 S '54

Effect of chromium on the thermodynamic activity of carbon in liquid iron. F. D. Richardson and W. E. Dennis. bibliog diag Iron & Steel Inst J 175:257-63 N '53

Enthalpy-concentration diagram for system ferrous sulfate-water. K. A. Kobe and E. J. Couch, jr. bibliog(37 ref) diag Ind & Eng Chem 46:377-81 F '54

Maxwell's demon must remain incommunicado. M. J. E. Golay. J Ap Phys 25:1062 Ag '54

Method for evaluating and correlating thermodynamic data. C. H. Shomate. bibliog J Phys Chem 58:368-72 Ap '54

Methods for estimating thermodynamic quantities of species in liquid ammonia. W. L. Jolly. bibliog J Phys Chem 58:250-2 Mr '54

Nonequilibrium thermodynamics. N. A. Hall. bibliog J Ap Phys 24:819-25 Jl '53

Non-stable states. S. Lewin. bibliog J Chem Educ 30:136-8 Mr '53

Orthobaric surface tensions and thermodynamic properties of the liquid surfaces of the *n*-alkanes, C_5 to C_{28}. J. J. Jasper, E. R. Kerr and F. Gregorich. Am Chem Soc J 75:5252-4 N 5 '53

Prediction and speculation in chemistry. W. M. Latimer. map Chem & Eng N 31:3366-70 Ag 17 '53

Review of thermal-radiation constants. N. W. Snyder. bibliog A S M E Trans 76:537-9 My '54

Role of strain energy in solid solution thermodynamics. E. S. Machlin. bibliog J Metals 6:Trans 592-3 sec 2 My '54

Second law analysis. E. A. Bruges. bibliog diags Engineer 197:341-4 Mr 5 '54

Some applications of the thermodynamic theory of irreversible processes to physical metallurgy. E. S. Machlin. bibliog J Metals 5:Trans 437-45 Mr '53; Discussion. 6:Trans 668-70 sec 2 My '54

Some physical mechanisms in narcosis. L. J. Mullins. diags Chem R 54:289-323 bibliog(p322-3) Ap '54

Some thermodynamic properties of compounds of the formula MX_4; tetra-alkyl compounds. L. A. K. Staveley and others. diag Chem Soc J p 1992-2001 Je '54

Some thermodynamic properties of nitric oxide. J. B. Opfell, W. G. Schlinger and B. H. Sage. bibliog Ind & Eng Chem 46:189-94 Ja '54

Statistical thermodynamics of associated solutions. J. A. Barker and F. Smith. bibliog J Chem Phys 22:375-80 Mr '54

Substituted methanes; vibrational spectra, potential constants, and calculated thermodynamic properties of diiodomethane. F. L. Voelz and others. bibliog Opt Soc Am J 43:1061-4 N '53

Sulfur-gas thermodynamics. E. R. McCartney. Chem Eng Prog 49:508-9 S '53

System Ag_2O-B_2O_3; its thermodynamic properties as a slag model. G. M. Willis and F. L. Hennessy. bibliog J Metals 5:Trans 1367-73 O '53

Theory of adiabatic extruder operation. J. M. McKelvey. diag Ind & Eng Chem 46:660-4 Ap '54

Thermal properties of dichlorobenzene. G. Tripathi and G. G. Brown. flow diag Ind & Eng Chem 46:1658-62 Ag '54

Thermodynamic aspects of reaction kinetics. M. D. Cohen and G. S. Hammond. bibliog J Chem Educ 30:180-3 Ap '53

Thermodynamic correlation of vapor-liquid equilibria. B. S. Edwards and others. bibliog Ind & Eng Chem 46:194-9 Ja '54

Thermodynamic data required for deep extraction. D. L. Katz and others. bibliog(50 titles) Pet Refiner 32:101-4 Ag '53

Thermodynamic evaluation of binary and ternary liquid systems. K. Wohl. Chem Eng Prog 49:218-19 Ap '53

Thermodynamic functions and heat of formation of S_8(gas). G. B. Guthrie, jr., D. W. Scott and G. Waddington. bibliog Am Chem Soc J 76:1488-93 Mr 20 '54

Thermodynamic functions of elements and compounds; entropies of inorganic substances. E. T. Turkdogan and J. Pearson. bibliog J Ap Chem 3:495-501 N '53

Thermodynamic functions of paraffins. G. W. Thomson. Am Chem Soc J 76:620-2 Ja 20 '54

Thermodynamic functions of the halogenated methanes. E. Gelles and K. S. Pitzer. bibliog Am Chem Soc J 75:5259-67 N 5 '53

Thermodynamic measurements of ultracentrifuge rotor temperature. A. Biancheria and G. Kegeles. bibliog il Am Chem Soc J 76:3737-41 Jl 20 '54

Thermodynamic properties of gaseous titanium. H. G. Kolsky and P. W. Gilles. J Chem Phys 22:232-3 F '54

Thermodynamic properties of molybdenum dioxide. N. A. Gokcen. bibliog diag J Metals 5:Trans 1019-20 Ag '53

Thermodynamic properties of silicon monoxide; an experimental study of the equilibria $SiO_2 + Si \rightleftharpoons 2SiO$ and $SiO_2 + H_2 \rightleftharpoons SiO + H_2O$. N. C. Tombs and A. J. E. Welch. bibliog diag Iron & Steel Inst J 172:69-78 S '52; Abstract. Metal Prog 65:188+ Je '54

Thermodynamic quantities associated with the interaction between ethylenediaminetetraacetate and alkaline earth ions. F. F. Carini and A. E. Martell. bibliog Am Chem Soc J 76:2153-7 Ap 20 '54

Thermodynamic study of vapor compression heat pump cycles. J. L. Threlkeld. diags Refrig Eng 61:1202-6+ N '53

Thermodynamic table of wet steam; data sheet. B. G. A. Skrotzki. Power 98:109 F; 101 Mr '54

Thermodynamics; data published in 1953. J. M. Smith. Ind & Eng Chem 46:947-52 bibliog(185 ref, p950-2) My 54

Thermodynamics of ammonia synthesis and oxidation. R. H. Harrison and K. A. Kobe. bibliog(35 ref) Chem Eng Prog 49:349-53 Jl '53

Thermodynamics of combustion gases; temperatures of acetylene-air flames. R. W. Smith, jr. and others. bibliog U S Bur Mines Rep of Invest 5035:1-14 '54

Thermodynamics of critical phenomena in gases. J. F. Lee. bibliog Franklin Inst J 256:245-8 S '53

Thermodynamics of formaldehyde manufacture from methanol. E. Jones and G. G. Fowlie. bibliog J Ap Chem 3:206-13 My '53

Thermodynamics of irreversible processes applied to corrosion. P. A. Johnson and A. L. Babb. bibliog diags Ind & Eng Chem 46:518-23 Mr '54

Thermodynamics of the acid Weston cell and the acid Clark cell. C. Wagner. bibliog Electrochem Soc J 100:524-6 N '53

Thermodynamics of the rubber-sulfur system at high pressures. C. E. Weir. J Res Nat Bur Stand 50:321-7 Je '53

Utility of thermodynamic interpretation of polarization curves. M. Pourbaix. bibliog diag Electrochem Soc J 101:sup217C-21C S '54

THERMODYNAMICS—*Continued*

Vibrational spectra and calculated thermodynamic properties of 1,1,1,2-tetrachloroethane and pentachloroethane. J. R. Nielsen and others. bibliog Opt Soc Am J 43:1071-9 N '53

See also

Boiling
Entropy
Equation of state
Evaporation
Free energy
Jacobians
Melting points
Specific heat
Statistical mechanics
Vapor pressure

Bibliography

Thermodynamics; literature during 1952 and the more important contributions. J. M. Smith. il Ind & Eng Chem 45:963-8 My '53

Study and teaching

Adiabatic changes; reversible and irreversible changes involving only pressure-volume work. J. K. O'Loane. J Chem Educ 30:190-2 Ap '53

Tables, calculations, etc.

General method and thermodynamic tables for computation of equilibrium composition and temperature of chemical reactions. V. N. Huff and others. bibliog(45 titles) U S Nat Advisory Com for Aeronautics 1951: 829-85 '52

THERMOELECTRICITY

Irreversible thermodynamics of thermoelectric effects in inhomogeneous, anisotropic media. C. A. Domenicali. bibliog diag Phys R 92: 877-81 N 15 '53

Measurement of the thermoelectric power of germanium at temperatures above 78° K. A. E. Middleton and W. W. Scanlon. bibliog diags Phys R 92:219-26 O 15 '53

Optimal loading of a thermoelectric generator. J. F. Perkins. J Ap Phys 25:1058 Ag '54

Power output of thermoelectric generators. M. Telkes. J Ap Phys 25:1058-9 Ag '54

Solar thermoelectric generators. M. Telkes. bibliog(60 ref) il diags J Ap Phys 25:765-77 Je '54

Theory of thermoelectric power in semiconductors with applications to germanium. V. A. Johnson and K. Lark-Horovitz. bibliog Phys R 92:226-32 O 15 '53

Thermal conductivity, electrical resistivity, and thermoelectric power of uranium. W. W. Tyler and others. bibilog il J Metals 5:Trans 1238-9 sec 2 S '53

Thermoelectric power of germanium below room temperature. H. P. R. Frederikse. bibliog diag Phys R 92:248-52 O 15 '53

See also

Seebeck effect
Thermocouples

THERMOMAGNETISM

Some magnetic consequences of chemisorption on supported nickel catalysts. P. W. Selwood, T. R. Phillips and S. Adler. Am Chem Soc J 76:2281-2 Ap 20 '54

THERMOMETERS, Clinical

March of the thermometers; electric thermometers bypass mercury column instruments. il Chem & Eng N 32:2280+ Je 7 '54

THERMOMETERS, Cooking

Rating

Meat thermometers. diags Consumers Res Bul 32:21-3 D '53

THERMOMETERS, Meat. See Thermometers, Cooking

THERMOMETERS and thermometry

Carbon-composition thermometers at very low temperatures. J. R. Clement and others. diag R Sci Instr 24:545-6 Jl '53

Copper resistance temperature scale. T. M. Dauphinee and H. Preston-Thomas. R Sci Instr 25:884-6 S '54

Current sensitivity of carbon resistance thermometers at liquid helium temperatures. R. Berman. R Sci Instr 25:94-5 Ja '54

Meniscus thermometer for the measurement of small temperature differentials. S. J. Borgars. diag J Sci Instr 30:487 D '53

Mercury-thallium thermometers. J. Ehrenreich. bibliog(26 titles) Instruments & Automation 27:1070-2 Jl '54

Method of measuring the temperature at the surface of a metal tube. A. G. Monroe and H. A. S. Bristow. diag J Sci Instr 30: 385 O '53

Modification of the Smith bridge, type III. M. Gautier. diags J Sci Instr 30:381-2 O '53

Thermometer calibration for determination of capillary melting points. S. C. Bunce. bibliog(26 ref) Anal Chem 25:825-6 My '53

Tungsten used in commercial resistance thermometer. Iron Age 173:160 F 11 '54

See also

Atmospheric temperature
Bolometers
Calorimeters and calorimetry
Color temperature
Pyrometers and pyrometry
Temperature—Measurement

THERMOPILES

Optical system and thermopile amplifier for double-beam recording of infra-red spectra. J. L. Hales. bibliog diags J Sci Instr 30:52-7 F '53

Phototube measuring circuit for thermopiles. R. K. Brinton and C. T. O'Konski. diag R Sci Instr 24:1102-4 D '53

THERMOREGULATORS. See Temperature regulators

THERMOSTATS

Combination thermostat and elevating platform for the surface-tension balance. H. N. Dunning and R. T. Johansen. diag R Sci Instr 24:1154 D '53

Modified Giang-Hall thermostatic apparatus. R. D. O'Brien. il Anal Chem 25:842 My '53

Oil heating and oil burning servicing; controls for automatic oil heating. F. Feigenbaum. diags Dom Eng 183:142-6+ Je; 184: 136-40+ Jl '54

Practical notes on gas burner service (cont). P. K. Wadsworth. il diags Sheet Metal Worker 45:50-2+ N; 46-7 D '53; 48-9+ F '54

Precision micro-thermostat for crystal X-ray studies. P. J. A. McKeown. bibliog il diag J Sci Instr 41:271-3 Ag '54

Simple microthermostat for use in colorimetric and other optical measurements. W. J. Marshall. il diag Soc Dyers & Col J 69:202-4 Je '53

Thermostatic air bath. K. Van Lente and E. H. Hadley. diags J Chem Educ 31:245-6 My '54

Thermostatic chamber for the measurement of light scattering from solids at elevated temperatures. J. J. Keane and R. S. Stein. diags R Sci Instr 25:892-4 S '54

Thermostatic control in electroplating. L. Walter. il diags Metal Finishing 52:78-81 My '54

Time-proportional electronic thermostat. Heat & Ven 51:76 Jl '54; Same abr. il Iron Age 173:149-50 Ap 15 '54

Where and how thermostat metals are used. M. W. Riley. il diags Materials & Methods 39:102-5 Ap '54

Manufacture

Brain of the cooker; thermostats in the making; Diamond H switches, ltd. il Elec J 151:2100-2 D 25 '53

Induction heater boosts output of brazed and soldered parts; Illinois engineering co. O. W. Noeske and W. F. Sickels. il diags Iron Age 173:116-17 Ja 14 '54

THESES. See Dissertations, Academic

THÉVENIN theorem

Thevenin's theorem; its application to three-phase circuits. S. Holmes. diags Elec R (Lond) 153:1363-5 D 18 '53

THIACYCLOHEXANE

Chemical thermodynamic properties of thiacyclohexane from 0 to 1000°K. J. P. McCullough and others. bibliog Am Chem Soc J 76:2661-9 My 20 '54

THIAMIN. See Vitamins—Vitamin B_1

THIAPYRAN

Thiapyran derivatives; some symmetrical 2,6-disubstituted tetrahydrothiapyrans and 1,1-dioxides. E. A. Fehnel and G. C. Oppenlander. bibliog Am Chem Soc J 75:4660-3 O 5 '53

THIAPYRONE

Spectrum

Infrared spectra of some 1,4-thiapyrone derivatives. D. S. Tarbell and P. Hoffman. bibliog Am Chem Soc J 76:2451-3 My 5 '54

THIAZANES. See Thiazines

THIAZINES

1,4-Thiazans; C-alkyl thiomorpholines. B. Idson and P. E. Spoerri. bibliog Am Chem Soc J 76:2902-6 Je 5 '54

THIAZOL carbohydrazide

Thiazolecarbonhydrazides. A. Adams. Chem & Ind p 1089 O 10 '53

THIAZOLIDINE

5-Aralkylidene-3-isobutyl-2,4-thiazolidinediones. C. Lo, E. Y. Shropshire and W. J. Croxall. bibliog Am Chem Soc J 75:4845-6 O 5 '53

3-Trichloromethanesulfenyloxazolidine-and thiazolidine-2,4-diones. W. J. Croxall, C. Lo and E. Y. Shropshire. bibliog Am Chem Soc J 75:5419-21 N 5 '53

THIAZOLIDONE

4-Thiazolidones; the preparation of some 2-substituted derivatives. A. R. Surrey and R. A. Cutler. Am Chem Soc J 76:578-80 Ja 20 '54

THICKENERS

Blast furnace flue dust thickeners. J. D. Walker and E. N. Hower. il diags Blast F & Steel Pl 42:57-61 Ja '54

Emulsified hydrocarbons used as thickeners; patent. Am Dyestuff Rep 42:707 O 12 '53

THICKNESS measurement

Attachment to a dial-gauge thickness meter for measuring average thickness. R. F. Blackwell. diag J Sci Instr 31:342 S '54

Automatic gage checks strip thickness. il Iron Age 173:123 Ja 28 '54

Continuous incremental thickness measurements of non-conductive cable sheath. B. M. Wojciechowski. bibliog il diags Bell System Tech J 33:353-68 Mr '54

Determination of barrier layer thickness of anodic oxide coatings. M. S. Hunter and P. Fowle. diag Electrochem Soc J 101:481-5 S '54

Film thickness measurement for grating blanks. F. A. McNally. diags Opt Soc Am J 43:540 Je '53

Foil uniformity measurement by alpha-particle transmission. W. C. Barber. diag R Sci Instr 24:469-70 Je '53

Fringes of equal reflection coefficient ratio and their application to the determination of the thickness and refractive index of monomolecular films. R. E. Hartman and others. bibliog il diags Opt Soc Am J 44:192-8 Mr '54

Gaging; electronic devices gage metal coating thickness. il Iron Age 174:152-4 Ag 19 '54

Gauging wall thickness; Dawe type 1101 ultrasonic thickness gauge. il Chem & Ind p 1057 Ag 28 '54

Gaging with activated neutrons; beta particles emitted from silver plate on waveguides are used to measure thickness. H. V. Watts and L. Reiffel. il Steel 133:110-11 N 23 '53

Graphical methods for rapid estimation of the thickness of evaporated metal films. K. P. Nandy. R Sci Instr 25:523-4 My '54

Metal thickness of steel tanks. T. W. Reynolds. diags Heat & Ven 50:84-7 D '53

Nuclear gage continuously checks coating thickness; Accuray reflection gage. diag Iron Age 173:111 Ap 29 '54; il Steel 134:134 My 3 '54

Portable ultrasonic instruments. P. K. Bloch. il diags Metal Prog 65:161-2+ Mr '54

Precision measurement of uniformity of materials by gamma-ray transmission. A. I. Berman and J. N. Harris. il diags R Sci Instr 25:21-9 Ja '54

Steel-plate thickness meter. S. S. Carlisle and R. B. Sims. bibliog il diags Instruments 26:1880-1+ D '53

Thickness measurement and control in the manufacture of polyethylene cable sheath. W. T. Eppler. il diags Bell System Tech J 33:559-77 My '54

Ultrasonic equipment for high-precision thickness measurement; abstract. P. K. Bloch. Metal Prog 65:194+ F '54

Ultrasonic test for bonding flaws. G. B. Baumeister. il diags Steel 135:102-3 Ag 23 '54

Usefulness of the polarimetric method for the determination of the refractive index and of the thickness of one thin film on glass or on metal. A. Vašíček. Opt Soc Am J 44:664-5 Ag '54

See also

Betameters

THIENOL

2-Thienol. C. D. Hurd and H. J. Anderson. bibliog Am Chem Soc J 75:5124-5 O 20 '53

THIENYLACRYLIC acid. See Thiopheneacrylic acid

THIENYL compounds

Condensations of epoxides with 2-thienylsodium and 2-thienylmagnesium bromide. G. Van Zyl and others. Am Chem Soc J 76:707-9 F 5 '54

Polarography of phenyl 2-thienyl and 2,2′-dithienyl ketones. R. A. Day, jr. and W. A. Blanchard. bibliog Am Chem Soc J 76:1166-7 F 20 '54

Potential thiophen chemotherapeutics; some 5-substituted 2-thienyl sulphides and sulphones. J. Cymerman-Craig and J. W. Loder. Chem Soc J p237-42 Ja '54

THINKING. See Thought and thinking

THIOACETALS. See Acetals

THIOCARBAMATES

Some alkyl thiocarbamates prepared from alkyl thiocyanates by Riemschneider's reaction. K. Schmidt and P. Kollek-Bös. Am Chem Soc J 75:6067 D 5 '53

THIOCARBONYL telluride

Microwave spectrum of TeCS and masses of the stable tellurium isotopes. W. A. Hardy and G. Silvey. bibliog Phys R 95:385-8 Jl 15 '54

THIOCHROME

Determination of thiamine by the thiochrome reaction; application of cyanogen bromide in place of potassium ferricyanide. M. Fujiwara and K. Matsui. bibliog Anal Chem 25:810-12 My '53

THIOCTIC acid

Participation of thioctic acid in the acetate-activating reaction. G. R. Seaman. Am Chem Soc J 76:1712-13 Mr 20 '54

Piece in the puzzle. Chem W 73:74+ Jl 25 '53

Syntheses in the thioctic acid series. M. W. Bullock and others. bibliog Am Chem Soc J 76:1828-32 Ap 5 '54

THIOCYANATES

Aralkyl and carbanilinoalkyl thiocyanates. A. H. Schlesinger and D. T. Mowry. bibliog Am Chem Soc J 76:585-8 Ja 20 '54

Exchange and aquation studies with thiocyanato complexes. A. W. Adamson and R. G. Wilkins. bibliog Am Chem Soc J 76:3379-85 Jl 5 '54

Modification of the test for zinc by its coprecipitation with cobalt(II)-mercury(II) thiocyanate. F. E. Brown and J. S. Proctor. bibliog Anal Chem 25:1122-3 Jl '53

New ω-substituted anisoles; aryloxymethyl thiocyanates. H. J. Barber, H. J. Cottrell and M. B. Green. bibliog J Ap Chem 4:110-14 Mr '54

Thiocyanate spectrophotometric determination of molybdenum and tungsten. C. E. Crouthamel and C. E. Johnson. bibliog diags Anal Chem 26:1824-91 Ag '54

See also

Iron thiocyanate

THIODIPHENYLAMINE. See Phenothiazine

THIODISUCCINIC acid

Synthesis of thiodisuccinic acid. A. W. Schwab. bibliog Am Chem Soc J 76:623-4 Ja 20 '54

THIOGLYCOLATES. See Mercaptoacetates

THIOGLYCOLLIC acid. See Mercaptoacetic acid

THIOHYDANTOIN

Action of Raney nickel on 2-thiohydantoins. J. T. Edward and E. F. Martlew. bibliog Chem & Ind p 193-4 F 13 '54

5-Heptyl-2-thiohydantoin, a new antitubercular agent. E. Froelich and others. Am Chem Soc J 76:3099-100 Je 5 '54

THIOHYDANTOIN—*Continued*

Thiohydantoins of amino acids. E. Campaigne and W. L. Archer. bibliog Am Chem Soc J 75:5733-4 N 20 '53

Thiohydantoins; the action of Raney nickel on some monothiohydantoins. H. C. Carrington, C. H. Vasey and W. S. Waring. Chem Soc J p3105-11 O '53

THIOISOSEMICARBAZIDES

Nitrogen systems; substituted thioureides. F. L. Scott. bibliog Chem & Ind p 158-60 F 6 '54

THIOKOL

Air drying polysulfide rubber paint films. J. R. Panek and others. Paint Oil & Chem R 116:30+ N 19 '53

THIOL group. See Mercapto group

THIOLS. See Mercaptans

THIONAPHTHENE

6 : 7-Benzothionaphthen. W. Carruthers. Chem Soc J p4186-7 D '53

Benzothiophene chemistry; a peroxide effect in the addition of thiophenols to benzothiophene 1-dioxide. F. G. Bordwell, R. D. Chapman and W. H. McKellin. Am Chem Soc J 76:3637-9 Jl 20 '54

Benzothiophene; heat capacity, heat of transition, heat of fusion and entropy; an order-disorder transition. H. L. Finke and others. bibliog Am Chem Soc J 76:854-7 F 5 '54

Conversion of thiophen into 4 : 7 : 8 : 9-tetrahydro-4 : 7-sulphinylthionaphthen 1 : 1-dioxide. W. Davies and F. C. James. Chem Soc J p 15-18 Ja '54

Analysis

Polarographic estimation of benzothiophene-1-dioxide and related compounds. P. Smith, H. G. Sprague and O. C. Elmer. Anal Chem 25:793 My '53

THIONYL bromide

Formation of alkyl bromides by thionyl bromide. M. J. Frazer and others. bibliog Chem & Ind p931-2 Jl 24 '54

Isotopic exchange reactions in liquid sulfur dioxide; the catalyzed sulfur exchange between thionyl bromide and sulfur dioxide. R. H. Herber, T. H. Norris and J. L. Huston. bibliog Am Chem Soc J 76:2015-18 Ap 5 '54

Preparation of thionyl bromide. M. J. Frazer and W. Gerrard. bibliog Chem & Ind p280 Mr 6 '54

THIONYL chloride

Acids and bases; conductance of aluminum bromide and stannic chloride in thionyl chloride on addition of pyridine and quinoline. L. E. D. Pease, jr. and W. F. Luder. bibliog Am Chem Soc J 75:5195-7 N 5 '53

Heats of formation of phosphorus trichloride, sulphuryl chloride, and thionyl chloride. E. Neale and L. T. D. Williams. Chem Soc J p2156-8 Je '54

Titration of aprotic acids in thionyl chloride. E. B. Garber, L. E. D. Pease, jr. and W. F. Luder. Anal Chem 25:581-3 Ap '53

THIONYL fluoride

Microwave spectrum, structure, and dipole moment of thionyl fluoride. R. C. Ferguson. bibliog Am Chem Soc J 76:850-3 F 5 '54

THIOPENTAL

5-Ethyl-5-(1-methyl-3-carboxypropyl)-2- barbituric acid and its thio analog; metabolites from pentobarbital and thiopental. H. B. Wood, jr. and E. C. Horning. bibliog Am Chem Soc J 75:5511-13 N 20 '53

THIOPHENE

Allyl ethers in the thiophene series. C. D. Hurd and H. J. Anderson. Am Chem Soc J 76:1267-8 Mr 5 '54

Conversion of thiophen into 4 : 7 : 8 : 9-tetrahydro-4 : 7-sulphinylthionaphthen 1 : 1-dioxide. W. Davies and F. C. James. Chem Soc J p 15-18 Ja '54

Cyclic dienes; Diels-Alder reactions of thiophene 1-dioxide. W. J. Bailey and E. W. Cummins. Am Chem Soc J 76:1940-2 Ap 5 '54

Cyclic dienes; the dimerization of thiophene 1-dioxide. W. J. Bailey and E. W. Cummins. bibliog Am Chem Soc J 76:1936-9 Ap 5 '54

Cyclic dienes; the synthesis of thiophene 1-dioxide. W. J. Bailey and E. W. Cummins. bibliog Am Chem Soc J 76:1932-6 Ap 5 '54

Diels-Alder reaction of 2-vinylthiophene. J. F. Scully and E. V. Brown. bibliog Am Chem Soc J 75:6329-30 D '53

Kinetics and mechanisms of nucleophilic displacements in allylic systems; the reaction of 1 : 1-dimethylallyl chloride with the thiophenoxide ion. P. B. D. de la Mare and C. A. Vernon. Chem Soc J p3555-9 N '53

New chance for thiophenes; thiophene-rich oil, extracted from French bituminous limestone deposits. Chem W 74:48 Ja 16 '54

Pinacol rearrangement in the heterocyclic series; thiophene and furan analogs of benzopinacol. M. R. Kegelman and E. V. Brown. bibliog Am Chem Soc J 75:5961-3 D 5 '53

Products of the oxidative degradation of thiophene by nitric acid. L. S. Levitt and E. Howard, jr. bibliog Am Chem Soc J 76:1951-3 Ap 5 '54

Studies on the chemistry of heterocyclics; investigations on diacetylenes and diacetylenic glycols in the thiophene series. A. Vaitiekunas and F. F. Nord. bibliog Am Chem Soc J 76:2733-6 My 20 '54

Studies on the chemistry of heterocyclics; investigations on the prototropic rearrangement of γ-hydroxyacetylenic esters and acids in the thiophene series. A. Vaitiekunas and F. F. Nord. bibliog Am Chem Soc J 76:2737-40 My 20 '54

3-Substituted thiophenes; derivatives of 3-aminothiophene. E. Campaigne and P. A. Monroe. bibliog Am Chem Soc J 76:2447-50 My 5 '54

3-Substituted thiophenes; substitution reactions of 3-thenoic acid. E. Campaigne and R. C. Bourgeois. bibliog Am Chem Soc J 76:2445-7 My 5 '54

Thiophen derivatives of biological interest; 2-styrylthiophen, 1 : 2-diaryl-1-2′-thienylethylenes, and similar compounds. N. H. Nam, N. P. Buu-Hoï and N. D. Xuong. Chem Soc J p 1690-6 Je '54

Thiophen derivatives of biological interest; the chemistry of 2-*tert.*-butylthiophen. M. Sy, N. P. Buu-Hoï and N. D. Xuong. Chem Soc J p 1975-8 Je '54

THIOPHENEACRYLIC acid

Reaction of diazonium salts with β-2-thienylacrylic acid. W. Freund. Chem Soc J p2889-91 O '53

THIOPHENEALDEHYDE

Preparation of 5-acetamidothiophen-2-aldehyde thiosemicarbazone. J. Cymerman-Craig and D. Willis. bibliog Chem & Ind p797-8 Jl 25 '53

THIOPHENECARBOXYLIC acid

3-Substituted thiophenes; substitution reactions of 3-thenoic acid. E. Campaigne and R. C. Bourgeois. bibliog Am Chem Soc J 76:2445-7 My 5 '54

THIOPHENETHIOL

Preparation and properties of a few ω-(N,N-dialkylamino)-alkyl-2-thienyl sulfide hydrochlorides and 2-thiophenethiol. W. H. Houff and R. D. Schuetz. bibliog Am Chem Soc J 75:6316-17 D 20 '53

THIOPHENOL. See Benzenethiol

THIOPHOSPHATES

Quantitative determination of isomers of *O,O*-diethyl ethylmercaptoethyl thiophosphate; Systox. K. Gardner and D. F. Heath. bibliog Anal Chem 25:1849-53 D '53

THIOPHOSPHORIC acid

Chemistry of the aliphatic esters of phosphorothioic acids; alkoxide cleavage of O,O,S-trialkyl phosphorodithioates. W. E. Bacon and W. M. LeSuer. bibliog Am Chem Soc J 76:670-6 F 5 '54

Studies on phosphorylation; selective anionic dealkylation of neutral esters of phosphoric and thiophosphoric acids. J. Lecocq and A. R. Todd. Chem Soc J p2381-4 Jl '54

THIOPHTHENE

Isomeric thiophthens and their ethyl homologues; the orientation of derivatives of liquid thiophthen (thiopheno-2′ : 3 : 2 : 3-thiophen). F. Challenger and B. Fishwick. bibliog Inst Pet J 39:220-36 Ap '53

THIOPROPIONATES

Abnormal hydrolysis of methyl 2-methylthiopropionate and methyl 2-ethylthiopropionate. F. Challenger and H. D. Hollingworth. bibliog Chem & Ind p463-4 Ap 17 '54

THIOPSEUDOUREA

Preparation and reactions of 2-alkyl-1 (or 3)-nitro-2-thiopseudourea; reaction with amines. L. Fishbein and J. A. Gallaghan. bibliog Am Chem Soc J 76:1877-9 Ap 5 '54

THIOSEMICARBAZONES

3-Indolecarboxaldehyde thiosemicarbazone, a new antitubercular compound. L. E. Weller, H. M. Sell and R. Y. Gottshall. Am Chem Soc J 76:1959 Ap 5 '54

Preparation of 5-acetamidothiophen-2-aldehyde thiosemicarbazone. J. Cymerman-Craig and D. Willis. bibliog Chem & Ind p797-8 Jl 25 '53

Thiosemicarbazones of *p*-acetaminocinnamaldehyde and β-2-thienylacrolein. H. C. Caldwell and W. L. Nobles. bibliog Am Chem Soc J 76:1159 F 20 '54

Thiosemicarbazones of some vanillin derivatives. R. P. Perry. bibliog Am Chem Soc J 76:3591-2 Jl 5 '54

THIOSULFATES

Effect of surface-active agents on the rate of solution of sulphur in sulphite solutions. G. I. P. Levenson. J Ap Chem 4:13-18 Ja '54

Kinetics of the reaction of ethyl bromomalonate with thiosulfate. W. J. Broach and E. S. Amis. bibliog J Chem Phys 22:39-42 Ja '54

Analysis

Coulometric titration of thiosulfate with iodine. K. Rowley and E. H. Swift. bibliog Anal Chem 26:373-5 F '54

Determinations of thiosulfate and nitrile. R. H. Pierson. bibliog Anal Chem 26:315-20 F '54

THIOTIC acid disulfide

Missing step in photoenergy conversion; thiotic acid disulfide believed to react directly with water in green plants; abstract. M. Calvin. Chem & Eng N 31:3550 Ag 31 '53

THIOURACIL

Studies in the 5-halo-2-thiouracil series; an improved method of debenzylation of 5-iodo-2-benzylthiouracil and homologs. A. E. Lanzilotti, J. B. Ziegler and A. C. Shabica. Am Chem Soc J 76:3666-7 Jl 20 '54

Thiouracil and adrenal glands. E. J. Baumann and D. Marine. Science 118:307 S 11 '53

THIOUREA

Acetylation and S-alkylation of ethylene thiourea. J. E. Baer and R. G. Lockwood. bibliog Am Chem Soc J 76:1162-4 F 20 '54

Cadmium thiourea reineckate procedure. C. L. Rulfs, E. P. Przybylowicz and C. E. Skinner. bibliog Anal Chem 26:408-10 F '54

Chemistry of carbodiimides. H. G. Khorana. Chem R 53:145-66 bibliog(p 164-6) O '53

Derivatives of acetoacetic acid; the reaction of diketen with thioureas, amidines, guanidines, and *S*-substituted thioureas. R. N. Lacey. Chem Soc J p839-44 Mr '54

Inhibition by quinolines and thioureas of the acid dissolution of mild steel. T. P. Hoar and R. D. Holliday. bibliog diags J Ap Chem 3:502-13 N '53

Kinetics of the reaction between silver bromide and an adsorbed layer of allylthiourea. T. H. James and W. Vanselow. J Phys Chem 57:725-9 O '53

Reaction of α-cyanobenzyl benzenesulfonate with thioureas. E. C. Taylor, jr., J. Wolinsky and H. Lee. bibliog Am Chem Soc J 76:1866-70 Ap 5 '54

Reaction of epoxides with thiourea. F. G. Bordwell and H. M. Andersen. bibliog Am Chem Soc J 75:4959-62 O 20 '53

Thiourea made in Canada. flow sheet il Can Chem Process 38:46+ Ap '54

Use of thiourea. Chem Age (Lond) 68:860 Je 6 '53

Analysis

Polarography of thiourea. R. L. Edsberg. Anal Chem 26:724-6 Ap '54; Correction. 26:1994 D '54

THIOUREA dioxide

Thiourea dioxide (formamidinesulphinic acid); new reducing agent for textile printing. P. Krug. bibliog Soc Dyers & Col J 69:606-10; Discussion. 610-11 D '53

Thiourea dioxide in textile printing; abstract. P. Krug and D. Horrocks. Am Dyestuff Rep 43:386 Je 7 '54

THIXOTROPY

Thixotropy in greases. Pet Eng 25:C42 S '53

THOMAS, Charles Allen, 1900-

Volwiler succeeds Thomas. por Chem & Eng N 31:5305 D 21 '53

THOMAS, Charles S. 1897-

Portrait. Bsns W p29 N 21 '53

THOMAS-FERMI atom. See Atoms

THOMAS-FERMI statistics. See Statistical mechanics

THOMPSON products, inc.

Net to stay high through 1954. Barron's 33:27-8 S 14 '53

Security I like best. A. Huber. Comm & Fin Chr 178:438+ Ag 6 '53

THORIA. See Thorium oxides

THORIN. See Benzenearsonic acid

THORIUM

Heat capacity and entropy of thorium from 18 to 300°K. M. Griffel and R. E. Skochdopole. bibliog Am Chem Soc J 75:5250-1 N 5 '53

Hydrolytic behavior of metal ions; hydrolysis of thorium(IV). K. A. Kraus and R. W. Holmberg. bibliog J Phys Chem 58:325-30 Ap '54

Nuclear engineering materials, fuels; thorium and rare earths from monazite. A. E. Bearse and others. flow sheet il Chem Eng Prog 50:235-9 My '54

Reaction of nitrogen with, and the diffusion of nitrogen in, thorium. A. F. Gerds and M. W. Mallett. bibliog il Electrochem Soc J 101:175-80 Ap '54

Surface reaction between oxygen and thorium. A. F. Gerds and M. W. Mallett. bibliog diag Electrochem Soc J 101:171-4 Ap '54

Thorium improves magnesium alloys. H. G. Warrington. il Steel 133:126+ D 14 '53

Thorium metallurgy; abstract. J. R. Keeler. Chem & Eng N 32:2774+ Jl 12 '54

Uranium and thorium; properties, etc.; tabulation; engineering file facts. Materials & Methods 39:229 My '54

Analysis

Automatic spectrophotometric titrations determination of milligram quantities of thorium. H. V. Malmstadt and E. C. Gohrbandt. bibliog diag Anal Chem 26:442-5 Mr '54

Mass spectrometric determination of thorium. G. R. Tilton. L. T. Aldrich and M. G. Inghram. bibliog Anal Chem 26:894-8 My '54

Precipitation of iodates from homogenous solution. C. R. Stine and L. Gordon. bibliog il Anal Chem 25:1519-22 O '53

Preparation and properties of 2-(2-hydroxy-3,6-disulfo-1-naphthylazo)-benzenearsonic acid (Thorin). D. W. Margerum and others. bibliog Anal Chem 25:1219-21 Ag '53

Spectrophotometric determination of thorium in black sands. C. V. Banks, D. W. Klingman and C. H. Byrd. Anal Chem 25:992-3 Je '53

Titrimetric determination of thorium. J. J. Fritz and J. J. Ford. bibliog Anal Chem 25:1640-2 N '53

Bibliography

Bibliography and index of literature on uranium and thorium and radioactive occurrences in the United States; California, Idaho, Montana, Oregon, Washington, and Wyoming. M. Cooper. Geol Soc Bul 64:1103-71 O '53

Nuclear reactions

Angular anisotropy of specific thorium photofission fragments. A. W. Fairhall and others. diag Phys R 94:733-4 My 1 '54

Angular distributions of fission fragments from 22-Mev proton-induced thorium fission. B. L. Cohen and others. Phys R 94:625-9 My 1 '54

Complex alpha spectra of radiothorium (Th^{228}) and thorium-X (Ra^{224}). F. Asaro and others. bibliog Phys R 92:1495-500 D 15 '53

Spontaneous fission yields from uranium and thorium. G. W. Wetherill. bibliog diag Phys R 92:907-12 N 15 '53

THORIUM alcoholates
Preparation of thorium alkoxides. D. C. Bradley, M. A. Saad and W. Wardlaw. Chem Soc J p 1091-4 Mr '54

THORIUM alloys
Properties of sand cast Mg-Th-Zn-Zr alloys. K. E. Nelson. bibliog il J Metals 5:Trans 1493-7 sec 2 N '53

THORIUM B
Precise momentum measurement of the *F* line of thorium B. D. I. Meyer and F. H. Schmidt. bibliog diags Phys R 94:927-30 My 15 '54

THORIUM chloride
Alcoholates of thorium tetrachloride. D. C. Bradley, M. A. Saad and W. Wardlaw. Chem Soc J p2002-5 Je '54
Studies on the behaviour of halides of the transition metals with ammonia; the reaction of zirconium and thorium tetrachlorides with ammonia. G. W. A. Fowles and F. H. Pollard. Chem Soc J p4128-32 D '53

THORIUM citrate
Thorium citrate complexes, their composition, structure and behavior. M. Bobtelsky and B. Graus. bibliog Am Chem Soc J 76:1536-9 Mr 20 '54

THORIUM compounds
Chemistry of thorium; some observations on the 5,7-dihalo-8-quinolinol chelates of thorium. T. Moeller and M. V. Ramaniah. bibliog Am Chem Soc J 76:2022-4 Ap 5 '54
Determination of fluoride ion using a monohydroxy azo dye, thorium lake. J. L. Lambert. Anal Chem 26:558-60 Mr '54
Influence of uranyl and thorium salts on the miscibility of phenol and water. S. T. Bowden and J. H. Purnell. Chem Soc J p535-8 F '54

THORIUM fluoride
Thermodynamic properties of thorium tetrafluoride from 5 to 3000° K. and the magnetic entropy of uranium tetrafluoride. H. R. Lohr, D. W. Osborne and E. F. Westrum, jr. bibliog Am Chem Soc J 76:3837-9 Jl 20 '54

THORIUM iodate
Precipitation of iodates from homogeneous solution. C. R. Stine and L. Gordon. bibliog il Anal Chem 25:1519-22 O '53

THORIUM nitrate
System thorium nitrate-water-nitric acid at 25° and the hydrates of thorium nitrate. J. R. Ferraro, L. I. Katzin and G. Gibson. bibliog Am Chem Soc J 76:909-11 F 5 '54
$Th(NO_3)_4$ can replace $AgNO_3$ in manganese determination. Chem & Eng N 31:2694 Je 29 '53

THORIUM oxalate
Quantitative insolubility of thorium oxalate. H. L. Kall and L. Gordon. bibliog Anal Chem 25:1256-8 Ag '53

THORIUM oxides
Absorption spectra and electrical conductivities of UO_2-Tho_2 solid solutions. D. M. Gruen. bibliog Am Chem Soc J 76:2117-20 Ap 20 '54
Color phenomena in thorium oxide. W. E. Danforth. Franklin Inst J 256:277 S '53
Heat capacity of thorium dioxide from 10 to 305°K; the heat capacity anomalies in uranium dioxide and neptunium dioxide. D. W. Osborne and E. F. Westrum, jr. bibliog diag J Chem Phys 21:1884-7 O '53
Thermal conductivity; prolate spheroidal envelope method; data for Al_2O_3, BeO, MgO, ThO_2, and ZrO_2. M. Adams. bibliog il diags Am Cer Soc J 37:74-9 pt 2 F 1 '54

THORIUM sulfides
Heat of formation of thorium sesquisulfide. L. Eyring and E. F. Westrum, jr. bibliog Am Chem Soc J 75:4802-3 O 5 '53

THORIUM X

Nuclear reactions

Complex alpha spectra of radiothorium (Th^{228}) and thorium-X (Ra^{224}). F. Asaro and others. bibliog Phys R 92:1495-500 D 15 '53

THORON

Analysis

Determination of thoron in mineral waters. P. K. Kuroda and Y. Yokoyama. bibliog(27 ref) diag Anal Chem 25:832-5 My '53

THOUGHT and thinking
Can executives be taught to think? B. H. Jarman. Advanced Management 19:5-8 Ja '54
How to teach objective thinking to executives. W. C. Jackson. Advanced Management 19:17-20 S '54
Missing link in management. A. F. Osborn. Management R 43:9-11 Ja '54
What is the right approach to business problem thinking? S. B. Hodges. Advanced Management 19:22-4 Mr '54

THREAD cutting
Chart for threading time; reference book sheet. T. Hicks. Am Mach 98:135 Mr 1 '54
Chasing tapered threads up to a square shoulder; Bucyrus-Erie co. il diag Mach 60:177 F '54
Craven brothers precision screw thread corrector lathe. il Engineer 196:489-90 O 16 '53; Engineering 176:524-5 O 23 '53
How Oldsmobile cuts off and threads rocket motor tubes. R. F. Geitzel. il diags Mach 60:172-4 Ag '54
Internal and external pipe threads cut simultaneously on lathe. C. T. Bower. diags Mach 60:203-4 F '54
Nomograph aids solution of worm-thread profiles. O. Saari. diags Am Mach 98:113-16 Jl 5 '54
Normal thread angles and bottom flats (Acme); reference book sheet. D. Sweet. diags Am Mach 98:147, 149 S 27 '54
Raceway gets fast cut. il Steel 134:130 F 1 '54
Self-opening dieheads cut threading time. W. D. Arnst. diags Am Mach 98:151 Jl 5 '54
Thread milling production boosted by carbide cutters; Vard, inc. il Mach 60:180 F '54

See also

Screw threads

THREAD rolling
Alfred Herbert thread rolling diehead. il Engineer 196:598 N 6 '53; Engineering 176:683 N 27 '53
Blanks for thread rolling; reference book sheet. C. T. Appleton. diags Am Mach 97:173, 175 D 7 '53
Form generation; B.S.A. machine. il Automobile Eng 44:345-6 Ag '54
Metal pipe having a rolled thread; patent. diags Iron & Steel Eng 31:15 Je '54
Planetary thread rolling up to 2000 blanks per minute; Waterbury Farrel machine. il Steel 134:98-9 Ap 12 '54
Rotary die increases thread rolling production. il Tool Eng 31:62 N '53
Thread rolling; Rollrite diehead. il Automobile Eng 44:68 F '54
Thread-rolling trouble check list; reference book sheet. C. T. Appleton. Am Mach 97:163, 165 N 23 '53

THREADING machines
Alfred Herbert threading machine for small components. il Engineer 197:293 F 19 '54; Engineering 177:249 F 19 '54
Form generation; B.S.A. machine. il Automobile Eng 44:345-6 Ag '54
Machine tool buyers' guide; tapping and threading machines. il Steel 133:214-17 sec 2 N 16 '53
Murchey machine for threading transmission shafts. il Mach 60:214 F '54
1954 American Machinist production preview. il Am Mach 98:137-8 Ja 18 '54
Reclaimed oil boosts thread-grinder output. C. I. Wallace. il diag Am Mach 97:126-7 D 7 '53
Replace with modern machine tools; threading. Am Mach 97:B21 Mid-N '53

THREONINE
Improved separation of DL-threonine from DL-allothreonine by paper chromatography. T. L. Hardy and D. O. Holland. Chem & Ind p517-18 My 1 '54
Isoleucine biosynthesis from threonine. E. A. Adelberg. Am Chem Soc J 76:4241 Ag 20 '54
Nitrogen-to-oxygen phosphoryl migration; preparation of *dl*-serinephosphoric and threoninephosphoric acid. R. E. Plapinger and T. Wagner-Jauregg. bibliog Am Chem Soc J 75:5757-8 N 20 '53

THREONINE—*Continued*

Phenylthiohydantoins from serine and threonine. V. M. Ingram. Chem Soc J p3717-18 N '53

Racemase for threonine in escherichia coli. H. Amos. bibliog Am Chem Soc J 76:3858 Jl 20 '54

THRIFT. See Saving

THRUST bearings. See Bearings, Thrust

THRUST indicators. See Aeronautic instruments

THULE, Greenland

Arctic engineering know-how gets acid test at Thule. S. D. Sturgis, jr. il diags Civil Eng 23:585-9 S '53

Geomorphologic observations at Thule, Greenland and Resolute Bay, Cornwallis Island, N.W.T. R. L. Nichols. diag Am J Sci 251: 268-75, pl 1-2 Ap '53

THULIUM

Radioactive thulium for X-rays; Argonne national laboratory. il Chem & Eng N 32: 1769 My 3 '54; Power Eng 58:83 Je '54

Slow neutron resonances in holmium, thulium, and lutetium. H. L. Foote, jr. and others. bibliog Phys R 92:656-9 N 1 '53

Nuclear reactions

Erbium^{168} and thulium^{165}. T. H. Handley and E. L. Olson. bibliog Phys R 92:1260-1 D 1 '53

THYMINE

Diazo-coupling reaction of thymine. E. D. Day and W. A. Mosher. Franklin Inst J 225:455-7 Ag '53

Incorporation of isotopic formate into the thymine of bone marrow deoxyribonucleic acid in vitro. J. R. Totter. Am Chem Soc J 76:2196-7 Ap 20 '54

THYMONUCLEIC acid

Refractive increment of thymus nucleic acid. T. G. Northrop, R. L. Nutter and R. L. Sinsheimer. Am Chem Soc J 75:5134-5 O 20 '53

THYRATRON

Arc drop and deionization time in inert gas thyratrons. S. Pakswer and R. Meyer. bibliog il diags J Ap Phys 24:501-9 My '53

Automatic position control; application of thyratrons. J. C. West and D. K. Partington. bibliog diags Elec R (Lond) 154: 137-40 Ja 22 '54

Discharge lamp dimming; application of gas-filled relay valves. C. E. Williams. il diags Elec R (Lond) 154:186-8 Ja 29 '54

Electronic metronome. L. A. Wortman. il diag Radio & Tv N 50:182 O '53

Multiexposure flash for high-speed cameras. L. D. Findley and others. il diags Electronics 27:180-2 F '54

Press control speeds auto body production. A. P. DiVincenzo and C. E. Robinson. il diags Electronics 26:154-7 D '53

Protective time delay circuit for a thyratron relay. S. H. Cross. diag J Sci Instr 30: 434-5 N '53

Thyratron tube locator spots overhead grounds. F. M. Hartz. il diags Elec World 140:92-3 S 7 '53

Thyratron-vacuum tube counter. R. W. Hofheimer. diags Electronics 26:198 N '53

You can expand your tubes electronically; thyratron tube circuit. F. E. Dudley. il Power Eng 58:71 Je '54

THYROID gland

Effect of phenothiazine, N.F. (Green) on the uptake of I^{131} by the rat thyroid. R. V. Talmage and others. Science 118:191-2 Ag 14 '53

See also

Thyroxine

THYRONINE

Synthesis of *dl*-thyronine *via* 4-chloromethyl-4′-nitrodiphenyl ether. P. L. Southwick, G. E. Foltz and W. E. McIntyre, jr. bibliog Am Chem Soc J 75:5877-80 D 5 '53

THYROXINE

Thyroxine synthesis; abstract. B. Weiss. Chem & Eng N 32:813-14 Mr 1 '54

TIBERIAS, Israel

Sewerage

Sewage treatment at 600 feet below sea-level. Y. Peter. il map diag Water & Sewage Works 101:408-10 S '54

TICKETS

Tags, labels and tickets. R. S. MacKenzie. il Paper Tr J 137:226-9 N 13 '53

TIDAL power

Generation in France; tidal power project; abstract. M. J. Couture. Elec J 151:1497-8 N 6 '53

TIDE water associated oil company

Tide Water Oil. E. N. Morse. Barron's 33: 11+ Ag 24 '53

TIDES

Some automatic devices for use on tidal models. M. J. Wilkie. diags J Sci Instr 30: 263-5 Ag '53

TIE-in advertisements. See Advertising, Cooperative—Tie-in advertisements; Advertising, National—Local tie-in

TIGLIC acid

Kinetics of chlorohydrin formation; the reaction between hypochlorous acid and tiglic acid at constant pH. D. A. Craw. Chem Soc J p2515-19 Jl '54

TILE construction

Forty percent weight reduction with new building unit. il Brick & Clay Rec 124: 69-70 Ap '54

Pre-stressed tile beams; Stahlton process. L. R. Whitaker. il diags Brick & Clay Rec 122:50-1 My '53; Discussion. 123:10 Jl; 33 D '53

Prestressed-tile roof and girders make all-tile building possible. il Eng N 162:39 Ap 15 '54

TILES

Adhesives pave way for tile economy. il House & Home 3:162-3 Mr '53

Control tests for glazed structural tile. P. D. Martino. bibliog diags Am Cer Soc Bul 33: 13-15 Ja 15 '54

Interface reactions between glazes and the crystal phases in a high-talc tile body. A. C. Perricone and R. L. Stone. bibliog il Am Cer Soc J 37:33-8 F 1 '54

Structural clay masonry; time-saver standards. il Arch Rec 115:205+ Je '54

Why this disregard for fast slipping tile market? W. W. Coates, jr. Brick & Clay 124:102 Je '54

See also

Drain tile

Tile construction

Manufacture

Automation boosts Stylon output at lower cost. il Cer Ind 62:81-2 Mr '54

Ceramic tile sorter. F. Lepri and R. Sanna. diags Electronics 26:180-1 O '53

Dry pressed tile research booms into full operation; Kendrick plant making 5,000 units daily. il Brick & Clay Rec 125:38-9 S '54

Electrically heated vibrating screens in tile making; Long House tileries of Henry Hawkins, ltd. il Engineer 196:838-9 D 25 '53; Elec R (Lond) 154:51 Ja 8 '54

Vitricotta production at Charleston, W.Va. il Brick & Clay Rec 125:61-3 S '54

TILES, Plastic

How to apply plastic tile. il Am Bld 75:138+ Ag '53

Tile style; color styling for Styron wall tiles. il Chem W 74:82 F 20 '54

TILLYER, Edgar D.

E. D. Tillyer; establishment of medal. pors Opt Soc Am J 44:577-9 Jl '54

TIMBER

See also

Forests and forestry

Lumber

Lumbering

Trees

Wood

TIME clocks

Are time clocks necessary? abstract. P. Hull. Management R 43:87-8 F '54

TIME deposits. See Bank deposits

TIME keeping

Better utilization of the timekeeper's time. R. N. Masimore. N A C A Bul 35:1629-33 Ag '54

Cost data by intercom. F. D. Shaw. il Factory Management 112:129 Mr '54

Timekeepers can also keep watch. R. M. Masimore. N A C A Bul 35:788-9 F '54

See also

Time clocks

TIME limit relays. See Relays, Time limit

TIME measurement

Measurement of small time intervals with analog to multivibrator. R. H. Müller. Anal Chem 25:sup 17A-18A O '53

Simple two-dimensional slide rule for the rapid calculation of time intervals. M. R. Harris. Science 118:309-10 S 11 '53

See also

Sundials

TIME series

Generalization of the Wiener-Khintchine theorem to nonstationary processes. D. G. Lampard. bibliog J Ap Phys 25:802-3 Je '54

TIME signals, Radio

Radio-supervised master clock provides accurate time control. Elec Eng 73:192 F '54

Relay unit for time signal receiver. J. Hers. diags J Sci Instr 31:146-7 Ap '54

TIME study

Accuracy of time-study rating. C. J. Anson. Engineering 177:301-4 Mr 5 '54

Better methods raise output, reduce costs, improve working conditions; Packard motor car co. D. G. Baird. il Mill & Factory 55: 98-101 Jl '54

Graphical analysis in objective ratings. A. D. J. Emerzian. Advanced Management 19:10-14 Ap '54

Handbook of standard time data for machine shops. A. A. Hadden and V. K. Genger. 473p $10 Ronald press co, 15 E. 26th st, New York 10 '54

How industry is using the S.A.M. performance rating films. Advanced Management 19:6 Ap '54

How many machines per operator? D. H. Denholm. Factory Management 112:107-9 Jl '54

How to determine weaver jobload. D. D. Deming. il Textile World 104:94+ Ap '54

How to keep your incentive system in line. S. W. Wuchina. Mill & Factory 55:104-7 Jl '54

How to measure fork truck performance. R. S. Rice. diag Factory Management 112:84-93 Ap '54

How to sell workload changes. R. G. Carson, jr. Textile World 104:67-9 My '54

Joint training in time study. G. S. Odiorne. Personnel 30:203-5 N '53

Just what is normal working pace? E. A. Cyrol and W. K. Conway. il Mill & Factory 55:112-16 S '54

Make effective use of time study. S. L. Palmert. il Mill & Factory 53:91-4 N '53

New time study tool; time study machine. D. Jones. il Advanced Management 18: 10-14 Ap '53

Practical learning curves improve shop performance. C. T. Dennington. Iron Age 172: 108-11 N 26 '53

Put standard minutes to work. K. L. Kline. Am Mach 98:106-9 Mr 1 '54

Special report on a test analysis of a group of time study men. C. A. Thomas. Advanced Management 18:13-18 Ag '53

Standard data. P. Carroll. Advanced Management 18:22-4 Ap '53

Standard data double our fork truck utilization; Minnesota mining & manufacturing co. D. C. Prosser. Factory Management 112: 90-3 Mr '54

Standard minutes, they work in the toolroom, too! R. M. Crossan. diags Am Mach 98:113-18 S 27 '54

Techniques in motion and time study; abstracts. W. Rodgers. Engineer 196:364 S 18 '53; Engineering 176:390; Discussion. 390-1 S 25 '53

Time control of truck delivery of bulk material. T. C. North. N A C A Bul 34:1471-5 Jl '53

Time standards for inspection. W. C. Cooling and M. O'Hanlon. il Factory Management 112:126-7 Ap '54

Time studies in rock breaking. K. H. Fraenkel. Can Min J 74:73-7 N '53

Time study; aids in competition. K. W. Bennett. Iron Age 173:107-8 Je 17 '54

Time study and the N.L.R.B. L. F. Johnson. Advanced Management 18:13 Je '53

Time study; how stopwatch and incentives are put to work; Whirlpool corp. S. Palmert. Iron Age 172:208 D 3 '53

Use of motion study in increasing productivity; abstracts. A. G. Shaw. Engineer 196: 364 S 18 '53; Engineering 176:390; Discussion. 390-1 S 25 '53

Word on the rating films. V. A. Flynn. Advanced Management 18:29 Ap '53

Work measurement in accounting operations; abstract. W. D. Little. Management R 42: 267 My '53

See also

Motion study

Production standards

Work sampling

Delay allowances

Machine interference. F. Benson and others. Textile Inst J Trans 44:T619-44 D '53

Quick way to figure machine interference; data sheet. D. Jones. Factory Management 112:132 Jl '54

Reducing office downtime with ratio-delay; abstract. R. M. Eastman. Management R 42:524-5 S '53

Set up loom assignments for maximum profit; Ashcroft numbers. T. F. O'Connor. Textile World 103:134-5+ D '53

TIME study (of machinery)

Chart for threading time; reference book sheet. T. Hicks. Am Mach 98:135 Mr 1 '54

Engineering analysis of down time of electric sectional drives. R. F. Sorenson. Tappi 37: 249-52 Je '54

How fast does a milling machine cut? nomograph. L. J. Murphy. Mill & Factory 53:90 N '53

TIMEKEEPING. See Time keeping

TIMEPIECES

See also

Watches

TIMING belt. See Belting

TIMING devices

Cosmotron; a review; control system; timing system. E. W. Dexter. diag R Sci Instr 24:846-7 S '53

Counting-timing techniques for flow control. M. G. Saake. diags Instruments & Automation 27:938-9 Je '54

Electronic interval marker. A. P. Marion. diag J Chem Educ 30:252-3 My '53

Glow lamps for high-speed camera timing. H. M. Ferree. il diags Soc Motion Picture & Tv Eng J 61:742-8 D '53

Laboratory electric timing device. R. E. Schachat and E. I. Becker. bibliog diags Anal Chem 25:1136-7 Jl '53

Mechanically wound timing device. il Product Eng 24:214 S '53

Microsecond timer checks concrete beams. J. H. J. Filter. diags Electronics 26:152-4 O '53

No chance to filibuster; Standard oil development co. scheme to keep speaker's within limits of allotted speaking time. il Chem W 75:22 S 18 '54

Periodmeter. R. G. Barker and G. L. Connon. il diags Wireless Eng 30:274-5 N '53

Photographic instrumentation of timing systems. A. M. Erickson. il diags Soc Motion Picture & Tv Eng J 61:164-72; Discussion. 172-4 Ag '53

Polycathode counter tube applications. J. H. L. McAsulan and K. J. Brimley. bibliog il diags Electronics 26:138-41 N '53

Practical production tolerances in the design of electric timing units. W. J. Grosjean. il diags Machine Design 26:108-14 Je '54

Simple repetitive timing circuit for scaling units. J. C. Jones. diag J Sci Instr 30:253-4 Jl '53

Simple timing device. R. H. Cook and R. D. Keynes. diag J Sci Instr 30:141 Ap '53

60-cycle source for operation of laboratory timers. W. J. Biermann and N. Weber. il diag Anal Chem 25:1284-5 Ag '53

Stopping and starting a stop-watch; time interval meter. il Engineering 177:61 Ja 8 '54; Engineer 197:474 Mr 26 '54

Time-marker for electrocardiography. M. A. Bullen and L. A. Daynes. diag J Sci Instr 31:6-7 Ja '54

Time-temperature control in batch processing endothermic reactions. W. J. Cotton, W. A. Kluch and F. G. Quinn. il Ind & Eng Chem 46:sup 127A-9A Ja '54

TIMING devices—*Continued*
Transistor timer. L. E. Garner, jr. il diag Radio & Tv N 50:68-9+ O '53
Universal medical timer and pulse stimulator. R. G. Roush and E. T. Urbanski. il diags Electronics 26:154-7 N '53

TIMKEN-DETROIT axle company. See Rockwell spring and axle company

TIMPSON, Texas
Water is the bait. il Chem W 74:24 My 29 '54

TIN
Angular distribution of neutrons scattered from cadmium, tin, and bismuth. S. C. Snowdon and W. D. Whitehead. bibliog Phys R 94:1267-72 Je 1 '54
Autoxidation of tin solutions; the action of inhibitors. E. H. Baker. bibliog J Ap Chem 3:323-8 Jl '53
Complex-forming behaviour of tin, germanium, and titanium with some dibasic carboxylic acids. G. Mattock. Chem Soc J p989-97 Mr '54
Cry of tin. R. P. Lister. Metal Prog 65:98-9 My '54
Effect of germanium on the transformation of white to gray tin, at comparatively low temperature. R. R. Rogers and J. F. Fydell. bibliog il Electrochem Soc J 100:161-4 Ap '53; Discussion. 100:589-90 O '53
Effect of hydrostatic pressure on the superconducting transition of tin. M. Garber and D. E. Mapother. Phys R 94:1065 My 15 '54
Effect of hydrostatic pressure on the superconducting transition of tin and thallium. M. D. Fiske. Phys R 94:495-6 Ap 15 '54
Factors affecting the transformation to gray tin at low temperatures. R. R. Rogers and J. F. Fydell. bibliog il Electrochem Soc J 100:383-7 S '53; Discussion. 101:335 Je '54
Heat of sublimation of tin and the dissociation energy of SnO. L. Brewer and R. F. Porter. bibliog J Chem Phys 21:2012-13 N '53
Materials of construction for chemical engineering; tin and its alloys. R. J. Nekervis. il diag Ind & Eng Chem 45:2254-60 bibliog(185 ref, p2258-60) O '53
Purification of antimony and tin by a new method of zone refining. M. Tanenbaum and others. diags J Metals 6:Trans 762-3 Je '54
Recovery of ultrafine mineral values; progress report. K. K. Kershner and A. A. Cochran. bibliog 2pls U S Bur Mines Rep of Invest 5076:1-7 '54
Symposium on tin. (Special tech. pub. no. 141) 111p pa $2.50 Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '53
Tin increases strength of Ti-Al alloys without loss in fabricability. W. L. Finlay and others. J Metals 6:25-9 Ja '54
Tin; rare but useful metal. L. Sanderson. Can Min J 74:71-2 O '53
See also
Tin plate

Analysis

Analytical chemistry of tin and lead. J. W. Price. Chem Age (Lond) 68:519-24, 555-8 Ap 4-11 '53
Determination of small amounts of tin with dithiol. M. Farnsworth and J. Pekola. bibliog Anal Chem 26:735-7 Ap '54
Determination of tin-iron alloy coating in electro-tinplate. C. J. Thwaites and W. E. Hoare. bibliog il diag J Ap Chem 4:236-44 My '54
Spectrophotometric determination of tin(IV). H. Teicher and L. Gordon. bibliog Anal Chem 25:1182-5 Ag '53

Nuclear reactions

Nuclear reaction determination of the Sn^{124}-Te^{124} mass difference. N. S. Wall. Phys R 92:1526 D 15 '53

Prices

Nonferrous prices; tabulation. Steel 134:175 Ja 4 '54
Price, wholesale, Straits (New York), 1949-1952. Survey of Cur Bsns 1953 Sup p 163 [supplemented in monthly numbers]
Straits tin, prompt price, 1938-1953; tabulation. Iron Age 173:414 Ja 7 '54

Protection

Newer protective processes for zinc and tin; abstract. H. Anders. Metal Finishing 52:91-2 S '54

TIN alloys
Developments in the metallurgy of tin and its alloys. J. W. Cuthbertson. bibliog il Metallurgia 48:277-81 D '53
Investigations of organo-tin compounds; preparation of ethyltin compounds from a tin-magnesium alloy. G. J. M. van der Kerk and J. G. A. Luijten. J Ap Chem 4:307-13 Je '54
Lead-tin alloy coating improves workability of strip steel. E. J. Roehl. il Iron Age 173:140-2 Mr 18 '54
Materials of construction for chemical engineering; tin and its alloys. R. J. Nekervis. il diag Ind & Eng Chem 45:2254-60 bibliog(185 ref, p2258-60) O '53
Plated coatings; designers weigh tin alloys. F. A. Lowenheim. bibliog il Steel 133:110-12 N 30 '53
Structure and mechanical properties of copper-manganese-tin alloys; abstract. J. C. Blade and J. W. Cuthbertson. Metal Prog 66:136+ Ag '54
Superconductivity in tin-bismuth and tin-antimony alloys. W. F. Love. bibliog Phys R 92:238-43 O 15 '53
Tin developments. Steel 134:127 Je 14 '54
See also
Britannia

TIN boxes. See Boxes, Tin

TIN cans
See also
Continental can company

Manufacture

Charting incentives for job shops. D. C. Latella. il Steel 133:118-19 N 23 '53

TIN chlorides
Acids and bases; conductance of aluminum bromide and stannic chloride in thionyl chloride on addition of pyridine and quinoline. L. E. D. Pease, jr. and W. F. Luder. bibliog Am Chem Soc J 75:5195-7 N 5 '53
Determination of uranium by reduction with stannous chloride. A. R. Main. bibliog Anal Chem 26:1507-9 S '54
Racemisation of (—)-1-phenylethyl chloride by stannic chloride in carbon tetrachloride and its bearing on the cationic polymerisation of styrene. K. Heald and G. Williams. Chem Soc J p362-6 Ja '54
Reactions between trimethylethylene and formaldehyde catalysed by stannic chloride. L. E. Addy and J. W. Baker. Chem Soc J p4111-13 D '53

TIN compounds
Europeans explore new tin uses. Chem & Eng N 32:3772 S 20 '54
Investigations on organo-tin compounds. G. J. M. van der Kerk and J. G. A. Luijten. bibliog J Ap Chem 4:301-19 Je '54
Preparation of stannane. G. W. Schaeffer and Sister M. Emilius. Am Chem Soc J 76:1203-4 F 20 '54

Spectra

Vibrational spectra of some tin and germanium halogen metalorganic compounds. E. R. Lippincott, P. Mercier and M. C. Tobin. bibliog J Phys Chem 57:939-42 D '53

TIN fluorides
Reaction of fluorine with tin, its oxides and sulfides. H. M. Haendler and others. Am Chem Soc J 76:2179-80 Ap 20 '54

TIN halides
Participation of stannic halide catalysts in the reactions of styrene with hydrogen halides; halogen exchange between stannic halides and 1-phenylethyl halides. K. Heald and G. Williams. Chem Soc J p357-62 Ja '54

TIN industry and trade
Agreement on tin? United nations conference on tin, Geneva. Economist 169:614 N 21 '53
From RFC to FFC; management of Texas City tin smelter in hands of new agency. Chem W 75:72 Jl 10 '54
Lifebelt for tin. Economist 170:43-5 Ja 2 '54
More surplus trouble for tin. Bsns W p 130 D 12 '53

TIN industry and trade—*Continued*

One more problem for RFC; tin smelter at Texas City. Chem W 74:26 F 27 '54

Proposed tin agreement stirs Capital. M. A. Reichek. Eng & Min J 155:100-1 Mr '54

Stabilising the tin market. Economist 169:837 D 12 '53

Texas tin reprieve? Chem W 74:13 My 29 '54

Tin and rubber in travail. Economist 168:475 Ag 15 '53

Tin has growing pains as a free commodity. il Chem & Eng N 31:3744-8 S 14 '53

Tin plant continuance backed. Oil Paint & Drug Rep 165:5 Je 7 '54

Tin smelter operation continued by House. Oil Paint & Drug Rep 166:3 Jl 19 '54

Tin smelter's continuance is aim of Senate resolution by Johnson. Oil Paint & Drug Rep 165:3+ My 3 '54

Tin; U.S. surplus looms over market. R. L. Hatschek. Iron Age 172:77 D 10 '53

Towards a tin agreement? Economist 168:50+ Jl 4 '53

United nations conference on tin will reconvene in Switzerland. For Comm W 50:17 O 26 '53

Why tin takes a tumble. Bsns W p 148-51 O 17 '53

Statistics

Tin, 1949-1952. Survey of Cur Bsns 1953 Sup p 163 [supplemented in monthly numbers]

Tin, 1953. H. H. Wanders. Eng & Min J 155:91+ F '54

U.S. tin imports, consumption, smelter output, world tin; tabulations. Steel 134:179 Ja 4 '54

TIN iodides

Rapid exchange between iodine and stannic iodide in carbon tetrachloride at 0°. M. Kahn and A. J. Freedman. Am Chem Soc J 76:929-30 F 5 '54

TIN metallurgy

Developments in the metallurgy of tin and its alloys. J. W. Cuthbertson. bibliog il Metallurgia 48:277-81 D '53

Two key reactions yield HCl from tin smelter waste; Tin processing corp. il diag Chem Eng 61:114-16 Je '54

TIN mines and mining

Alaska

Zenda placers tin in Russia's shadow. map Eng & Min J 154:100+ N '53

Congo, Belgian

Tin mine in the Congo. A. Leenders. il Comp Air Mag 58:306-8 N '53

Great Britain

Old contract systems of the Cornish mines. F. A. King. il Can Min J 75:74-6 Ap '54

TIN oxides

Heat of sublimation of tin and the dissociation energy of SnO. L. Brewer and R. F. Porter. bibliog J Chem Phys 21:2012-13 N '53

Properties of a tin oxide-base ceramic body. J. Quirk and C. G. Harman. Am Cer Soc J 37:24-6 Ja 1 '54

TIN plate

Guide for steel buyers; tin mill products. Steel 135:50 sec 2 Jl 12 '54

Improvement of the corrosion resistance of tinplate by a chemical treatment. S. C. Britton and R. M. Angles. il J Ap Chem 4:351-64 Jl '54

Inventories plague tinplate mills. J. B. Delaney. Iron Age 173:84 Mr 25 '54

Method of flow-brightening tinplate; patent. diag Iron & Steel Eng 31:24+ Mr '54

Revival in tinplate? Economist 168:879-80 S 26 '53

Tinplate demand outruns supply. T. M. Rohan. Iron Age 174:91 Jl 22 '54

Manufacture

British streamline tin plate lines; Trostre plant, Steel company of Wales. il Steel 133:84+ Jl 27 '53

Coating tin plate; Aliquippa works, Jones & Laughlin steel corp. Steel 134:131 Je 7 '54

High speed continuous annealing of tinplate. M. D. Stone and E. A. Randich. bibliog il diags Iron & Steel Eng 30:69-75; Discussion. 75-8 O '53

High-speed tinplate production; Trostre works. il diag Elec R (Lond) 154:93-101 Ja 15 '54

Powering the Fairless works two-stand tin temper mill. C. H. Legler. il diags Blast F & Steel Pl 42:521-3 My '54

Pushbutton water demineralization accelerates tinplate production; Jones & Laughlin steel corp. J. K. Sargent and J. W. Stewart. il Steel 134:114+ Je 7 '54

Strip annealing tin plate; Steel co. of Wales. Steel 135:154 S 20 '54

System engineering for continuous strip processing lines. J. S. Apperson. il diags Iron & Steel Eng 31:68-74; Discussion. 74-6 Je '54

Trends in recent cold mill installations. R. E. Noble. il plans diags Iron & Steel Eng 31:105-16 Jl '54

Weirton expands tin mill. Steel 135:57 Ag 30 '54

Prices

Tinplate at Pittsburgh, 1931-1953; tabulation. Iron Age 173:411 Ja 7 '54

Testing

Evaluation of several sets of constants and several sources of variability. V. W. Vaurio and C. Daniel. bibliog diags Chem Eng Prog 50:81-6 F '54

Rate of pickling test for tin-plate steels and its metallurgical significance. E. L. Koehler. il diag Am Soc for Metals Trans 44:1076-90; Discussion. 1090-6 '52

TIN plating

Determination of tin-iron alloy coating in electro-tinplate. C. J. Thwaites and W. E. Hoare. bibliog il diag J Ap Chem 4:236-44 My '54

Developments in the metallurgy of tin and its alloys. J. W. Cuthbertson. bibliog il Metallurgia 48:277-81 D '53

Electrodeposition of tin-zinc alloys. B. C. Lewsey. Metal Finishing 52:73-6 Mr '54

Electrolytic-tinplate instrumentation. W. P. Smith. Instruments 26:1875+ D '53

Increasing use of tin-zinc plating. Automotive Ind 109:55 D 1 '53

Modernization program at Weirton Steel increases capacity of two tinning lines. il Iron & Steel Eng 31:245 S '54

Plated coatings; designers weigh tin alloys. F. A. Lowenheim. bibliog il Steel 133:110-12 N 30 '53

Some properties of tin-II sulfate solutions and their role in electrodeposition of tin; solutions with tin-II sulfate and sulfuric acid present. C. A. Discher. Electrochem Soc J 100:480-4 N '53

Tin mill has electronic faultfinder; Kaiser steel corp., Fontana, Calif. il Elec West 111:88-90 O '53

Tin-nickel alloy plating. Automobile Eng 44:320-2 Ag '54

TIN research

Europeans explore new tin uses. Chem & Eng N 32:3772 S 20 '54

Tin research in 1953. Chem Age (Lond) 71:132 Jl 17 '54

TIN sulfates

Some properties of tin-II sulfate solutions and their role in electrodeposition of tin; solutions with tin-II sulfate and sulfuric acid present. C. A. Discher. Electrochem Soc J 100:480-4 N '53

Analysis

Coprecipitation from homogeneous solution. L. Gordon, H. Teicher and B. P. Burtt. bibliog diag Anal Chem 26:992-6 Je '54

TIN tetramethyl. See Tetramethyl tin

TINKERTOY project. See Electric circuits—Printed circuits

TINTING. See Dyes and dyeing—Fugitive dyes

TIPTON, Royce J.

Tipton finds fortune in water. Eng N 151:66-7+ S 3 '53

TIRE chains

Novel tire chain, quickly applied; Minit-On tire chains. il Consumers Res Bul 32:26 D '53

TIRE changing machines

Tire changer helps tire sales. Nat Pet N 45:31+ D 9 '53

TIRE fabrics

Better tires from modern tire cord. C. A. Litzler. diags Mod Textiles Mag 35:32-3+ F '54

Higher tenacity tire cords seen in new Rayonier development. il Rubber Age 74: 108 O '53

New stretch; Nygen reduces dangerous stretch in tires. Chem W 74:84 F 6 '54

Textiles and rubber; abstract. J. W. Illingworth. Am Dyestuff Rep 43:23 Ja 4 '54

See also

Rayon cords

Testing

Adaptation of the Norelco high-angle spectrometer to the measurement of the X-ray diffraction of fibers. B. Irvin and F. B. Breazeale. il R Sci Instr 24:627-31 Ag '53

Flame photometric determination of rubber solids deposited on cords and fabrics. H. E. Todd and H. M. Tramutt. bibliog Anal Chem 26:1137-40 Jl '54

Scott tire cord tester. il Machine Design 26: 138 Ap '54

Use of the ballistic pendulum for impact testing of tirecord. W. J. Lyons and I. B. Prettyman. bibliog diags Textile Res J 23: 917-25 D '53

TIRE factories

Equipment

Outdoor water vapor refrigeration system; Kelly-Springfield tire co. L. B. Walker. il Comp Air Mag 58:309-11 N '53

Unique conveyor belt system employed in Goodrich tire plant. il Rubber Age 75:694 Ag '54

TIRE industry and trade

Decline and fall of quantity discounts; the quantity limit rule in rubber tires and tubes. J. S. McGee. bibliog J Bsns 27:225-34 Jl '54

Goal; 100-million casings in 1953. Bsns W p 104+ S 5 '53

Helping dealers boost sales of TBA; Associated tires, inc. il Nat Pet N 45:28-9+ D 9 '53

Jobber sets sights on more tire sales. il Nat Pet N 45:30-1 N 25 '53

Senate group backs FTC tire rule. Nat Pet N 45:16-17 Jl 29 '53

Swing is to extra low pressure. Nat Pet N 46:39 F 17 '54

Tire consignment clicks with dealers. Nat Pet N 46:24-5 Ja 20 '54

Tire Mart's offer, call us collect. R. Benjamin, jr. il Sales Management 70:42+ My 1 '53

Tire stocks soar but makers keep cool. Bsns W p32 Ag 1 '53

TBA men spotlight better ways to sell. F. Sturtevant. Nat Pet N 45:62+ Je 3 '53

What makes a budget plan work? F. C. Sturtevant. il Nat Pet N 45:62-4 Ag 5 '53

Why did holiday tire sales fall short? F. C. Sturtevant. Nat Pet N 45:62-3 O 7 '53

See also

Firestone tire and rubber company

Goodyear tire and rubber company

Finance

Tire companies; prewar, war and postwar; tabulation. Bsns W p 104 S 5 '53

Turn in the road; tire producers plunge deep into chemicals and plastics. M. J. Saada. Barron's 33:11+ D 21 '53

Securities

Are rubbers at peak? G. L. Merton. Mag of Wall St 92:670-1+ S 5 '53

Statistics

Shipments of car, truck and bus tires, 1944-1953; tabulations. Automotive Ind 110:99 Mr 15 '54

Tires and tubes, 1949-1952. Survey of Cur Bsns 1953 Sup p 182 [supplemented in monthly numbers]

U.S. exports of tires and tubes, 1952-1953; tabulations. Automotive Ind 110:135 Mr 15 '54

Israel

Tire fight; General tire & rubber co. of Israel and Alliance tire & rubber co. Bsns W p 166-7 S 12 '53

TIRE rims

New tire and rim preservative for reducing blowoffs; Solarite X-222. Rubber Age 74: 706 F '54

Want 30 per cent more mileage from truck tires? wide base rims. diag Constr Methods 36:174+ Mr '54

Manufacture

Pass design and rolling of automotive rim sections. H. H. Morgan. il plan diags Iron & Steel Eng 30:55-60; Discussion. 60-1 D '53

TIRES, Automobile

Carbon blacks for the rubber industry; abstract. R. Treat. Can Chem Process 38:67 Je 20 '54

Cornering characteristics of tyres. V. E. Gough. Automobile Eng 44:137-41 Ap '54

Modern passenger tire has become an ever increasing refinement of compromises; abstracts. R. D. Evans. Rubber Age 75:412 Je '54; Rubber World 130:376 Je '54

Skelly pushes sale of tubeless tires. il Nat Pet N 45:25+ O 14 '53

Tire stocks soar but makers keep cool. Bsns W p32 Ag 1 '53

Tubeless tires as regular equipment on passenger cars. il Automotive Ind 111:56+ Jl 1 '54

Tubeless tires; Packard is first to make them standard equipment. Iron Age 174:71 Jl 8 '54

You can't turn down tire jobs. il Nat Pet N 45:32-3 S 16 '53

See also

Tire fabrics

Merchandizing

See Tire industry and trade

Prices

How tire pricing got that way. Nat Pet N 45:77+ Ag 5 '53

Retreading and recapping

Electric molds cut recapping; Gordy tire co. J. W. Parris. il Elec World 141:136 Mr 8 '54

Infrared dries tires evenly for recapping. il Elec World 140:130 Jl 27 '53

New treads on old automobile tires. diags Consumers Res Bul 32:24-6 D '53

Special committee proposes revised standard for retreading auto tires. Rubber Age 75: 708 Ag '54

Testing

Goodrich issues report on mud-snow tire tests facts. Rubber Age 74:428 D '53

Products volatilized from a channel and a furnace black on heating to 1000°C. S. L. Madorsky and others. bibliog diag Rubber Age 74:238-42 N '53

Tire temperature measurement at the Government tire test fleet. V. J. Horning. il diag Rubber Age 74:395-6 D '53

Tire testing by the federal government. A. V. Astin. diag India Rubber World 129:365 D '53

Use of synthetic rubber in passenger car tires. I. J. Sjothun and others. bibliog il diag Rubber Age 74:231-7 N '53

TIRES, Motor bus

San Diego watches details and gets more tire miles. il Bus Transportation 33:38-9 Ag '54

Shop-built equipment repairs tire damages; Montreal transportation commission. il Bus Transportation 33:30-1 Jl '54

Tire and wheel balance for longer tire life and easier steering; reports of round table. S A E J 62:42-3 F '54

TIRES, Motor truck

New tire and rim preservative for reducing blowoffs; Solarite X-222. Rubber Age 74: 706 F '54

Stations are losing sales to trucks. F. C. Sturtevant. il Nat Pet N 45:38+ N 18 '53

Tire and wheel balance for longer tire life and easier steering; report of round table. S A E J 62:42-3 F '54

Testing

Use of synthetic rubber in truck tires. I. J. Sjothun and P. S. Greer. bibliog il Rubber Age 74:77-83 O '53

TIRES, Rubber

Goodyear unveils complete line of tubeless tires. il Rubber World 130:816 S '54

Liquid ballast for mining equipment tires. il Min Cong J 40:56-7 Mr '54

See also

Rubber, Artificial—
  Tire use

Tires, Automobile

Retreading and recapping

Repair and retread those big tires. il Constr Methods 36:134+ Jl '54

TISSUE paper

Softer tissue sheet results from new Stockmaster refining at Bancroft. il Paper Tr J 138:120 My 14 '54

Where is tissue production headed. W. J. Servotte. Paper Tr J 138:30 Ja 29 '54

Manufacture

Tissue mill start-up; E. B. Eddy co. J. S. Turner. Pulp & Pa of Can 55:106 S '54

TISSUES

Apparatus for the measurement of the thermal conductivity of biological tissue. H. S. Hatfield. diag J Sci Instr 30:460-1 D '53

Capacity and conductivity of body tissues at ultrahigh frequencies. H. P. Schwan and Kam Li. bibliog diags Inst Radio Eng Proc 41:1735-40 D '53

Criticism of the indiscriminate use of the Schmidt-Thannhauser method for the fractionation of nucleic acids in biological material. M. L. Drasher. bibliog Science 118:181-3 Ag 14 '53

Effects of biological tissues on 15-mc pulsed ultrasound. J. J. Wild and J. M. Reid. il diags Acoustical Soc Am J 25:270-80 Mr '53

Inductive epithelio-mesenchymal interaction in cultured organ rudiments of the mouse. C. Grobstein. bibliog il Science 118:52-5 Jl 10 '53

Preservation by freeze drying; skin tissue. E. W. Flosdorf. il plan Refrig Eng 62:49-50+ Mr '54

Spectrochemical analysis of beryllium in biological tissue. J. Y. Ellenburg and L. E. Owen. bibliog il A M A Archives Ind Hygiene & Occup Med 7:503-7 Je '53

See also

Cells
Gingiva
Mitochondria
Muscle
Nerves
Tumors

Analysis

Determination of maleic hydrazide residues in plant and animal tissue. P. R. Wood. bibliog diag Anal Chem 25:1879-83 D '53

Determination of radioactive gold in biological tissue. L. C. Weiss, A. W. Steers and H. M. Bollinger. bibliog Anal Chem 26:586-7 Mr '54

Isolation of *n*-octanyl alcohol from a marine tube worm. D. R. Idler and U. F. M. Fagerlund. bibliog Am Chem Soc J 75:6312 D 20 '53

Method for the extraction and assay of nucleic acid fragments in tissues. G. D. Dorough and D. L. Seaton. bibliog Am Chem Soc J 76:2873-7 Je 5 '54

TITANATES

Composition of some tetra-*t*-butyl titanate-glycol reaction products. R. E. Reeves and L. W. Mazzeno, jr. Am Chem Soc J 76:2533-6 My 5 '54

Water-repellent wax solutions; adding alkyl- and glycol-mixed titanates; patent. Am Dyestuff Rep 42:891-2 D 21 '53

See also

Barium titanate

TITANIA. See Titanium oxides

TITANIUM

Aircraft manufacturers reveal plans to use more titanium. il Materials & Methods 39:7+ Ja '54

Annealing of titanium. E. R. Funk. Metal Prog 66:103-5 Jl 1 '54

Belt grinding with titanium; reference book sheet. Am Mach 98:163, 165, 167 Je 7 '54

Brazing and soldering titanium. W. Rostoker. Light Metal Age 11:11+ O '53

Brazing of titanium. N. A. DeCecco and J. M. Parks. bibliog il diags Welding J 32:1071-81 N '53; Excerpts. Materials & Methods 39:109-11 Je '54

Can titanium be used in bolting applications? R. A. Baughman. il Materials & Methods 39:98-9 Mr '54; Abstracts. Machine Design 26:150 Mr '54; Tool Eng 32:84 Je '54

Casting titanium. J. Ham and R. Veneklasen. il diag Foundry 82:94-5 F '54

Commercial titanium; booming now, cost hurdle ahead. Bsns W p41-2 Ag 29 '53

Complex-forming behaviour of tin, germanium, and titanium with some dibasic carboxylic acids. G. Mattock. Chem Soc J p989-97 Mr '54

Conventional tools machine titanium; Pontiac motor co. R. Satterlee. il diags Am Mach 98:94-7 Ag 30 '54

Corrosion; progress in titanium and chemical industries. M. G. Fontana. Ind & Eng Chem 46:sup 103A-5A Ja '54

Cratering main cause of tool failure in machining titanium. Am Mach 98:147 F 15 '54

Cutting characteristics of titanium and its alloys. L. V. Colwell and W. C. Truckenmiller. bibliog il diags Mech Eng 75:461-6+ Je '53

Deep draw titanium in one operation; Brooks & Perkins inc. R. G. Gillespie. il Steel 135:80 Ag 30 '54

Deep drawing titanium cups. C. C. Higgins. il Light Metal Age 11:10-11 D '53

Deformation mechanisms in alpha titanium. E. A. Anderson and others. il diags J Metals 5:Trans 1191-7 sec 2 S '53

Determination of nitrogen content of noble gases. H. S. Dombrowski. bibliog diag Anal Chem 26:526-8 Mr '54

Developing a test for broaching titanium and its alloys. R. E. McKee and W. W. Gilbert. il diags Mech Eng 76:6-12 Ja '54

Electrical resistance of titanium metal. J. L. Wyatt. J Metals 5:Trans 903-5 Jl '53

Electrochemical polarization of titanium in aqueous solutions of sodium chloride. N. Hackerman and C. D. Hall, jr. bibliog Electrochem Soc J 101:321-7 Je '54

Electroplating on titanium. W. H. Colner and others. il Metal Finishing 52:72-5 F '54; Same. Electrochem Soc J 100:485-9 N '53

E&MJ visits the general superintendent at U.S.' largest titanium mine. J. H. Kearney and G. P. Lutjen. il Eng & Min J 154:83-8 D '53

Engineers talk new tooling at Purdue. Am Mach 98:172 Je 7 '54

Evaluation of bandsaw performance. L. V. Colwell and R. E. McKee. il A S M E Trans 76:951-9; Discussion. 959-60 Ag '54

Experience accumulates on drawing titanium; Worcester pressed steel co. C. C. Higgins. il Mach 60:193-5 Ag '54

Experts learn to live with titanium; Society of automotive engineers' national aeronautic meeting production forum; panel and group discussion. Aviation W 59:30+ Ag 3 '53

Facts about titanium. R. O. Swenarton, comp. bibliog 24p U.S. Bur. of mines, Washington 25 '54

Filler material for the brazing of titanium. N. A. DeCecco and H. M. Meyer. bibliog il J Metals 5:1197-8 sec 2 S '53

Forging titanium; a prescription for production headaches. J. J. Russ. il Steel 135:100-1 Ag 16 '54

Friction of clean metals and oxides with special reference to titanium. E. S. Machlin and W. R. Yankee. bibliog il J Ap Phys 25:576-81 My '54

Frictional properties of titanium and its alloys. E. Rabinowicz. il diag Metal Prog 65:107-10 F '54

Fusion brazing of titanium and its alloys; abstract. R. A. Long and R. R. Ruppender. Tool Eng 33:153 Ag '54

Government backs titanium boost. Materials & Methods 39:222+ F '54

Government to buy titanium surplus. Materials & Methods 39:8+ Je '54

Grinding titanium no longer a problem. E. J. Krabacher. diag Am Mach 98:124-5 Je 21 '54

TITANIUM—*Continued*

Grinding; titanium successfully ground with slower wheel speeds. Iron Age 172:207-8 D 3 '53

Growing promise of titanium; abstracts. J. J. Harwood. Machine Design 26:318+ F '54; Tool Eng 32:143-4 My '54

Here's help in fabricating brittle titanium. E. F. Hutchinson. il Iron Age 172:111-15 Jl 23 '53

High purity metals. D. J. Maykuth. il Product Eng 24:189-90 N '53

How aircraft people like titanium. Iron Age 173:68 Ap 15 '54

How does titanium machine? O. W. Boston. il Iron Age 173:100-3 Ja 21; 120-2 Ja 28; 146-9 F 4 '54

How to improve bending properties of titanium strip. W. M. Baldwin, jr. Iron Age 172:165-7 D 3 '53

How to machine titanium. J. Voast. il Steel 134:96-8 My 3 '54

How to press form titanium parts; North American Aviation. P. Maynard and A. Eshman. il diag Iron Age 173:149-52 Mr 11 '54

Inert-gas-shielded titanium brazing. H. L. Meredith. il diag Welding J 33:537-42 Je '54

Influence of oxygen and nitrogen in solution in alpha titanium on the friction coefficient of copper on titanium. W. R. Yankee and E. S. Machlin. bibliog J Metals 6:Trans 989-90 S '54

Kinetics of the reduction of perchlorate ion by Ti(III) in dilute solution. F. R. Duke and P. R. Quinney. Am Chem Soc J 76:3800-3 Jl 20 '54

Light metals; aluminum, magnesium, titanium. il Steel 133:163+ O 12 '53

Light metals; American foundrymen's society annual meeting; Cleveland; abstracts of papers. Foundry 82:145+ Je '54

Locknuts; titanium cuts plane weight. G. G. Carr. il Iron Age 172:73 D 17 '53

Machinability of titanium. Mach 60:208-9 My '54

Machining behavior of titanium and its alloys. il Automotive Ind 110:58-61+ My 1 '54

Machining titanium with coolants; reference book sheet. Am Mach 98:155, 157, 159 My 24 '54

Manufacture, properties and uses of titanium metal; abstract. E. Stables. Chem & Ind p304 Mr 13 '54

Materials for special service. H. S. Brenner. il Machine Design 26:136-40 My '54

Materials of construction for chemical engineering; less common metals. W. R. Bekebrede and L. F. Yntema. il Ind & Eng Chem 45:2261-9 bibliog(216 ref, p2268-9) O '53

Measurement of the effect of chlorine treatment on the work function of titanium and zirconium. H. Malamud and A. D. Krumbein. diag J Ap Phys 25:591-2 My '54

Mechanical properties of titanium and titanium alloys. Steel 134:120d My 10 '54

Metallurgical trends of interest to chemical engineers. L. Rotherham. Chem & Ind p 1166-7 S 18 '54

More titanium a must. K. Johnsen. Aviation W 59:14-15 D 7 '54

New drill angles for titanium. il diags Am Mach 98:142-4 Je 21 '54

New metal titanium. M. Cook. Engineering 176:427-8 O 2 '53

New planes need more titanium. Aviation W 59:22 N 23 '53

New techniques tame titanium; report of panel on titanium. R. Jaffee. diag S A E J 62:34-7 Ja '54

Nitriding produces better hard case on titanium. J. L. Wyatt and N. J. Grant. il Iron Age 173:112-15 Ja 14; 124-7 Ja 28 '54

Non-heat treatable titanium goes to work; Consolidated Vultee aircraft corp. T. A. Dickinson. il Steel 134:136-7+ Ap 5 '54

Not 3.7; only 0.75; potential uptake of chlorine by titanium manufacturers. Chem W 74:68 Ap 3 '54

Now titanium can be furnace-brazed. R. A. Long. il Am Mach 98:117-19 Ag 16 '54

Now you can use titanium. C. I. Bradford. il diags Steel 134:148-50 My 10; 118-19 My 17; 100-1 My 24; 92-3 My 31; 136-7 Je 7 '54

On the spot; titanium is tight. Chem W 73:66-7 N 7 '53

One-coat gray speckled titanium enamels; abstract. H. L. Latimer. Cer Ind 62:88 Je '54

Oxidation of titanium at high temperatures in an atmosphere of pure oxygen; abstract. A. E. Jenkins. Metal Prog 66:172 S '54

Plated locknuts reduce galling in titanium bolts. R. A. Baughman. Iron Age 173:134-5 F 11 '54

Plenty of titanium freed for civilian applications. il Steel 134:53 My 31 '54

Polarographic study of the titanium-ethylenediaminetetraacetate complexes. R. L. Pecsok and E. F. Maverick. bibliog Am Chem Soc J 76:358-62 Ja 20 '54

Potentials of iron, 18-8, and titanium in passivating solutions. H. H. Uhlig and A. Geary. bibliog(47 ref) Electrochem Soc J 101:215-24 My '54

Preliminary survey of some metallurgical bases for a titanium castings industry; abstract; R. F. Malone and others. Metal Prog 66:176+ S '54

Production and uses of zirconium and titanium; abstract. G. L. Miller. Chem & Ind p276 Mr 6 '54

Progress report on titanium. il Steel 135:126 Jl 12 '54

Rate of dissolution and the passivation of titanium in acids with ammonium fluoride added. M. E. Straumanis and C. B. Gill. bibliog Electrochem Soc J 101:10-15 Ja '54

Reaction of fluorine with titanium, zirconium and the oxides of titanium(IV), zirconium(IV) and vanadium(V). H. M. Haendler. and others. bibliog Am Chem Soc J 76:2177-8 Ap 20 '54

Reaction of oxygen and nitrogen with titanium from 700° to 1050°C. L. S. Richardson and N. J. Grant. bibliog J Metals 6:Trans 69-70 Ja '54

Remelting titanium. il Steel 134:123 Je 7 '54

Scaling of titanium in air. P. H. Morton and W. M. Baldwin, jr. bibliog il diags Am Soc for Metals Trans 44:1004-29 '52

Shop hints help form and mill titanium. il diags Am Mach 98:129-33 S 13 '54

Single coat enameling; titanium in enameling iron stabilizes carbon and does away with need for ground coat; Ti-namel. il Steel 133:162 O 26 '53

Spectrophotometric investigation of reaction of titanium with chromotropic acid. W. W. Brandt and A. E. Preiser. bibliog Anal Chem 25:567-71 Ap '53

Strength of joints in titanium brazed with several alloys. L. W. Smith and L. A. Yerkovich. il Product Eng 24:141-7 Jl '53

Study heavy press use for titanium. il Iron Age 173:96 F 4 '54

Superconductivity of titanium. M. C. Steele and R. A. Hein. bibliog Phys R 92:243-7 O 15 '53

Surface hardening processes for titanium and its alloys. R. W. Hanzel. il diags Metal Prog 65:89-96 Mr '54

Surface treatment of titanium. il diags Steel 133:130-2 N 2 '53

Thermodynamic properties of gaseous titanium. H. G. Kolsky and P. W. Giles. J Chem Phys 22:232-3 F '54

Titanic titanium; more needed. il Steel 133:47 Jl 20 '53

Titanium, a metal of engineering importance? P. L. Teed. bibliog Engineering 176:603-5, 635-7 N 6-13 '53; Abstract and discussion. Engineer 196:470-1 O 9 '53

Titanium; abstract and discussion. N. P. Inglis. Chem & Ind p215 F 20 '54

Titanium; add western plant; Western Pyromet signs deal with GSA; abstracts. B. D. Hardin. Iron Age 174:63 Ag 26 '54; Steel 135:54 S 6 '54

Titanium; air force machinability report. il diags Iron Age 173:128-31 My 6; 144-7 My 20; 122-4 Je 10 '54

Titanium and corrosion engineers; abstract. W. G. Renshaw. Chem & Eng N 32:1348+ Ap 5 '54

Titanium and steel hot-extruded on Coast; Harvey machine co. il diag Am Mach 98:256-7 Ap 12 '54

Titanium and titanium alloys; supplement to 1948 edition of Metals handbook. il Metal Prog 66:80-9 Jl 15 '54

TITANIUM—*Continued*

Titanium blades increase helicopter pay loads. il Iron Age 173:172 My 20 '54

Titanium casting experiments. il diags Light Metal Age 12:24+ F '54

Titanium casting licensed. Steel 134:75 F 1 '54

Titanium casting process ready for licensing. il Iron Age 172:84 D 31 '53; Steel 133:88 D 28 '53

Titanium coming of age; investment interest. L. A. Lukens. il Mag of Wall St 93:678-80+ Mr 6 '54

Titanium; developments in forging methods. G. T. Fraser. il Light Metal Age 11:14+ Je '53

Titanium fasteners; planemakers pool technology to improve them. il Am Mach 98:128-30 Ag 30 '54

Titanium forming; abstract. A. S. Rose. Materials & Methods 40:152 Ag '54

Titanium; four-year old industry sees problems, bright future. C. I. Bradford and D. W. Kaufman. diag Iron Age 173:M22-3 Ap 8 '54

Titanium; how to deep draw it. C. C. Higgins. il Tool Eng 32:75-6 Mr '54

Titanium in 1953. Mill & Factory 54:274+ Ap '54

Titanium in 1953. J. R. Long. Metal Prog 65:105-7 Ja '54

Titanium industry flourishes in England. Chem & Eng N 32:1028+ Mr 15 '54

Titanium is missing the target. Steel 134:41 Ja 18 '54

Titanium is unorthodox when machined; here's why. M. E. Merchant and others. il diag Am Mach 98:118-21 Jl 5 '54

Titanium lab opens at Mallory-Sharon. Aviation W 59:40 Jl 20 '53

Titanium; more than enough for now. J. B. Delaney. Iron Age 173:83 F 18 '54

Titanium, 1953. A. F. Tumin. Eng & Min J 155:87 F '54

Titanium observed by electron diffraction. S. Yamaguchi. il J Ap Phys 25:408 Mr '54

Titanium; ODM sets interim goal for processing facilities. Iron Age 174:68 S 2 '54

Titanium; plenty in midst of scarcity. il Steel 134:69 F 8 '54

Titanium; press for huge expansion. N. R. Regeimbal. Iron Age 174:69 Jl 22 '54

Titanium production pact signed. Oil Paint & Drug Rep 166:3 Jl 19 '54

Titanium progress in 1953. T. W. Lippert. il Light Metal Age 12:16-17 F '54; Excerpt. Blast F & Steel Pl 42:233 F '54

Titanium reference sheet. W. W. Harple, G. Kiefer and T. K. Redden. Chem Eng Prog 49:566 O '53

Titanium replica for electron microscopy. S. Yamaguchi and T. Nakayama. il J Ap Phys 24:658 My '53

Titanium shaping a new industry. R. L. Hatschek. il Iron Age 174:65-6 S 23 '54

Titanium shortage blocks buildup. K. Johnsen. Aviation W 59:14-15 O 26 '53

Titanium successfully hot extruded. K. A. Wilhelm and G. A. Moudry. il Iron Age 173:126-9 My 13 '54

Titanium surface hardening. R. W. Hanzel. il Light Metal Age 12:14+ Ap '54

Titanium, the tough baby; British and American production. Economist 169:905-7 D 19 '53

Titanium to be used on DC-7 commercial plane. diag Light Metal Age 11:24 Ag '53

Titanium too tight; government opening up expansion goal. Chem W 74:48 Ja 2 '54

Tooling and planning problems related to modern transport aircraft; forming titanium; abstracts. J. R. Franks and C. S. Glasgow. S A E J 62:77 My '54; il Tool Eng 33:154+ Ag '54

Triumph in titanium; Imperial chemical industries' new plant. Economist 168:478 Ag 15 '53

Ulvöspinel and its significance in titaniferous iron ores. P. Ramdohr. bibliog il diags Econ Geol 48:677-88 D '53

US boosts titanium goal to 35,000 tons by 1957 as air force, planemakers put heat on Congress. Am Mach 98:180-1 F 15 '54

Wanted, more production. K. W. Bennett. Iron Age 172:78 Ag 13 '53

Way to use titanium scrap; Martin aircraft co. il Steel 134:104 Ap 26 '54

What is known today about machining titanium. G. T. Fraser. Machine Design 26:292+ Je '54; Same cond. Tool Eng 32:81-3 Je '54

Which method for deep drawing titanium; hot? cold? R. G. Gillespie; J. W. Gulliksen. il Materials & Methods 40:98-101 S '54

Analysis

Analytical methods for titanium and titanium alloys. J. A. Corbett. bibliog Metallurgia 49:206-8 Ap '54

Critical factors in determination of oxygen in titanium by the vacuum-fusion method. W. M. Albrecht and M. W. Mallett. Anal Chem 26:401-2 F '54

Determination of impurities in titanium metal. J. M. Thompson. bibliog Anal Chem 25:1231-5 Ag '53

Direct photometric determination of iron, titanium, and copper in tantalum and its oxide. J. Hastings, T. A. McClarity and E. J. Broderick. bibliog Anal Chem 26:379-81 F '54

Field method for the determination of titanium in rocks. L. Shapiro and W. W. Brannock. Econ Geol 48:282-7 Je '53

Qualitative analysis of alloys containing titanium and vanadium. L. Lehrman and others. bibliog J Chem Educ 31:310-12 Je '54

Spectrochemical determination of magnesium, iron, silicon, and manganese in titanium metal. H. A. Heller and R. W. Lewis. bibliog diags Anal Chem 25:1038-42 Jl '53

Spectrochemical techniques advance titanium technology. J. T. Rozsa. bibliog il Iron Age 172:166-70 S 17 '53

Spectrographic analysis of 18-8 stainless steel for cobalt, manganese, and stabilizing elements. N. E. Gordon, jr., R. M. Jacobs and M. C. Rickel. diags Anal Chem 25:1031-4 Jl '53

Spectrophotometric titrations with ethylenediaminetetraacetic acid; determination of magnesium, calcium, zinc, cadmium, titanium, and zirconium. P. B. Sweetser and C. E. Bricker. Anal Chem 26:195-9 Ja '54

Cleaning

Boeing develops scale-inhibiting treatment for titanium and stainless. Am Mach 98:112 Ag 30 '54; Iron Age 174:126-7 S 2 '54; Steel 135:106 S 27 '54

Titanium descaled successfully with sodium hydride; Universal-Cyclops steel corp. M. Sittig. il plan diag Iron Age 172:137-9 D 17 '53

Isotopes

Angular correlation between the first and third gamma rays in Ti^{48}. C. E. Whittle and P. S. Jastram. bibliog Phys R 92:205-6 O 1 '53

Energy levels of Ti^{48} from the decay of Sc^{48} and V^{48}. H. Casson and others. Phys R 92:1517-21 D 15 '53

New titantium nuclide: Ti^{44}. R. A. Sharp and R. M. Diamond. Phys R 93:358-9 Ja 15 '54; Correction. 96:1713 D 15 '54

Spin and magnetic moment of Ti^{47} and Ti^{49} and the magnetic moment of Ge^{73}. C. D. Jeffries. bibliog Phys R 92:1262-3 D 1 '53

Metallography

Cold rolled texture of titanium. D. N. Williams and D. S. Eppelsheimer. bibliog diags J Metals 5:Trans 1378-82 O '53

Constitution and mechanical properties of titanium-hydrogen alloys. G. A. Lenning and others. bibliog il J Metals 6:Trans 367-76 Mr '54

Effect of iron on hardness, bend properties and welding of titanium sheet. W. J. Barth and A. L. Feild, jr. il Metal Prog 64:74-7 N '53

Habit plane of beta in alpha titanium. P. A. Albert. il J Metals 5:Trans 1449-50 N '53

Hardness and microstructure of an alpha-beta titanium alloy quenched from temperatures in the range 600°-1,000°C. A. Greenwood and W. Evans. il Metallurgia 49:124-6 Mr '54

TITANIUM—Metallography—*Continued*

Heat treatment of titanium generalized in terms of beta prime. L. D. Jaffe. bibliog J Metals 6:Trans 210 sec 2 F '54

Investigation of the heat treatment of commercial titanium-base alloys. L. Luini and E. Lee. bibliog il J Metals 6:Trans 581-92 sec 2 My '54

Mechanism of plastic flow in titanium; manifestations and dynamics of glide. F. D. Rosi. bibliog il diags J Metals 6:Trans 58-69 Ja '54

Metallographic structures in commercial titanium. R. Osadchuk and others. il Metal Prog 64:93-6 N '53

Phases in titanium alloys identified by cumulative etching. E. Ence and H. Margolin. bibliog il diag J Metals 6:346-8 Mr '54

Structure of the phase TiMn and the indexing of powder patterns of sigma-type phases. R. P. Elliott and W. Rostoker. bibliog J Metals 5:Trans 1203-4 sec 2 S '53

System titanium-chromium-iron. R. J. Van Thyne and others. bibliog il J Metals 5: Trans 1209-16 sec 2 S '53

Ternary system Ti-Ta-C. J. G. McMullin and J. T. Norton. bibliog diags J Metals 5:Trans 1205-8 sec 2 S '53

Titanium-chromium-oxygen system. C. Wang and N. J. Grant. bibliog il J Metals 6: Trans 200-6 sec 2 F '54

Titanium-rich regions of the Ti-C-N, Ti-C-O, and Ti-N-O phase diagrams. L. Stone and H. Margolin. bibliog il J Metals 5:Trans 1498-502 sec 2 N '53

Typical microstructures of commercial titanium alloys; data sheet. R. Osadchuk and others. il Metal Prog 64:96B N '53

Nuclear reactions

Cross sections for the reactions $Ti^{48}(d,2n)V^{48}$; $Cr^{52}(d,2n)Mn^{52}$; and $Fe^{56}(d,2n)Co^{56}$. W. H. Burgus and others. Phys R 95:750-1 Ag 1 '54

Testing

Corrosion properties of titanium in marine environments. H. B. Bomberger and others. bibliog il Electrochem Soc J 101:442-7 S '54

Corrosion resistance of titanium, zirconium, and stainless steel in organic compounds. I. R. Lane, jr., L. B. Golden and W. L. Acherman. bibliog Ind & Eng Chem 45: 1067-70 My '53

Welding

Alloy welds deposited in unalloyed titanium base metal. C. E. Hartbower and D. M. Daley, jr. bibliog il diags Welding J 33:sup 311-26, sup401-14 Jl-Ag '54

Effect of alloying elements on welds in titanium. G. E. Faulkner and others. il diags Welding J 32:sup481-97 O '53; Abstracts. Metal Prog 65:170+ Je '54; Iron Age 172:150-1 Jl 16 '53

Effect of atmospheric contaminants on arc welds in titanium. J. C. Barrett and I. R. Lane, jr. il Welding J 33:sup 121-8 Mr '54

Effects of alloying elements on the weldability of titanium sheet. H. M. Meyer and W. Rostoker. il diag Welding J 33:sup 173-86 Ap '54

Effects of oxygen and nitrogen in welding titanium alloys. J. H. Johnston. il Welding J 33:sup414-16 Ag '54

Fusion welding of commercially pure titanium. F. H. Stevenson. il Welding J 33:sup 147-53 Mr '54

Inert gas gives titanium tubing protective weld backing. J. M. Thompson, jr. il Iron Age 173:118-19 My 27 '54

New spot-welding wrinkle conserves titanium; Martin aircraft co. il Comp Air Mag 59:177 Je '54

New weldable titanium alloy. G. E. Hutchinson and others. il Materials & Methods 39:91-3 Ap '54

Recent progress in joining titanium; welding titanium. J. H. Johnston. il Materials & Methods 39:107-9 Je '54

Resistance spot welding of titanium and its alloys. A. J. Rosenberg. il Welding J 33: 324-8 Ap '54

Spot welding of titanium. E. R. Funk. il Welding J 33:sup397-400 Ag '54

Spot welding of titanium-carbon alloys. E. F. Holt and others. il diags Welding J 32: 1057-66 N '53

Tension, shear and impact strengths of spot-welded titanium joints. M. L. Begeman and others. bibliog il Welding J 32:sup599-604 D '53

Titanium can be cold welded; abstract. J. E. Hughes. Materials & Methods 39:174+ Je '54

Titanium fusion welded on production basis; Glenn L. Martin co. L. Barrett and H. D. Justis. il Iron Age 173:106-9 Je 24 '54

Titanium; spot welded in liquid; Martin aircraft co. il Iron Age 173:125-6 Ap 22 '54

Titanium welding in a tank; I.T.E. circuit breaker co. il Steel 134:114-15 Mr 1 '54; Light Metal Age 12:15+ Ap '54

Titanium weldment replaces steel mortar baseplate. C. Hartbower. il Mach 60:182-4 My '54

Welding titanium in an inert-gas chamber; abstract. A. S. Rose and M. A. Braun. Mach 60:164 My '54

Weldments in the titanium-manganese sheet alloy RC-130A. H. M. Meyer. il Welding J 33sup417-21 Ag '54

TITANIUM alloys

Aircraft propeller-blade forging of titanium alloy. P. L. Teed. il Engineering 176:373 S 18 '53

Constitution and mechanical properties of titanium-hydrogen alloys. G. A. Lenning and others. bibliog il J Metals 6:Trans 367-76 Mr '54

Correlation between microstructure and resistivity of transforming Ti-Mn alloys. D. J. DeLazaro and D. W. Levinson. il J Metals 6:Trans 1089-93 sec 2 S '54

Cursory investigation of intermediate phases in the systems Ti-Zn, Ti-Hg, Zr-Zn, Zr-Cd, and Zr-Hg by X-ray powder diffraction methods. P. Pietrokowsky. bibliog J Metals 6:Trans 219-26 sec 2 F '54

Cutting characteristics of titanium and its alloys. L. V. Colwell and W. C. Truckenmiller. bibliog il diags Mech Eng 75:461-6+ Je '53

Developing a test for broaching titanium and its alloys. R. E. McKee and W. W. Gilbert. il diags Mech Eng 76:6-12 Ja '54

Double melting produces homogeneous titanium alloys. R. J. Van Thyne and others. bibliog il diag Iron Age 172:146-8 Ag 6 '53

Drop forging huge titanium aircraft propellers; Ladish co. il Light Metal Age 11:10 O '53

Effect of alloying elements on welds in titanium. G. E. Faulkner and others. il diags Welding J 32:sup481-97 O '53; Abstract. Metal Prog 65:170+ Je '54

Effect of alloying elements on welds in titanium; abstract. G. E. Faulkner. Tool Eng 33:149 Jl '54

Effects of alloying elements on the weldability of titanium sheet. H. M. Meyer and W. Rostoker. il diag Welding J 33:sup 173-86 Ap '54

Effects of oxygen and nitrogen in welding titanium alloys. J. H. Johnston. il Welding J 33:sup414-16 Ag '54

Effects of solid solution alloying on the cold-rolled texture of titanium. C. J. McHargue and others. bibliog diags J Metals 5:1199-203 sec 2 S '53

Frictional properties of titanium and its alloys. E. Rabinowicz. il diag Metal Prog 65:107-10 F '54

Hardness and microstructure of an alpha-beta titanium alloy quenched from temperatures in the range 600°-1,000°C. A. Greenwood and W. Evans. il Metallurgia 49:124-6 Mr '54

Heat treatment of high-strength titanium-base alloys; abstracts. W. M. Parris and others. Metal Prog 64:167 O '53; Tool Eng 32:142-3 Ja '54

Heat treatment, structure, and mechanical properties of Ti-Mn alloys. F. C. Holden and others. bibliog il J Metals 6:Trans 169-84 sec 2 F '54

How stable is titanium in vital operating range? H. A. Jahnle. Iron Age 172:116-19 O 22 '53

TITANIUM alloys—*Continued*

Influence of oxygen, nitrogen, and carbon on the phase relationships of the Ti-Al system. R. J. Van Thyne and H. D. Kessler. bibliog il J Metals 6:Trans 193-9 sec 2 F '54

Investigation of the heat treatment of commercial titanium-base alloys. L. Luini and E. Lee. bibliog il J Metals 6:Trans 581-92 sec 2 My '54

Machining behavior of titanium and its alloys. il Automotive Ind 110:58-61+ My 1 '54

Machining titanium alloys; General electric co. Mach 60:199 F '54

New titanium alloy. Steel 134:115 Mr 1 '54

New weldable titanium alloy. G. E. Hutchinson and others. il Materials & Methods 39:91-3 Ap '54

Partial titanium-chromium phase diagram and the crystal structure of $TiCr_2$. P. Duwez and J. L. Taylor. bibliog il Am Soc for Metals Trans 44:495-513; Discussion. 513-17 '52

Phases in titanium alloys identified by cumulative etching. E. Ence and H. Margolin. il diag J Metals 6:346-8 Mr '54

Resistance spot welding of titanium and its alloys. A. J. Rosenberg. il Welding J 33: 324-8 Ap '54

Some low temperature properties of titanium alloys RC-130-B and stainless steel. W. W. Tyler and others. J Metals 5:Trans 1104-5 S '53

Steel and titanium alloy extruded shapes in modern aircraft. K. A. Wilhelm. diag Automotive Ind 110:266-70+ Mr 15 '54

Surface hardening processes for titanium and its alloys. R. W. Hanzel. il diags Metal Prog 65:89-96 Mr '54

System titanium-chromium-iron. R. J. Van Thyne and others. bibliog il J Metals 5: Trans 1209-16 sec 2 S '53

System titanium-chromium-molybdenum. R. P. Elliott and others. bibliog J Metals 5: Trans 1544-8 sec 2 N '53

System titanium-manganese-molybdenum. R. P. Elliott and others. bibliog J Metals 6: Trans 228-32 sec 2 F '54

Systems titanium-chromium and titanium-iron. R. J. Van Thyne and others. bibliog il Am Soc for Metals Trans 44:974-89 '52

Ternary system Ti-Ta-C. J. G. McMullin and J. T. Norton. bibliog diags J Metals 5:Trans 1205-8 sec 2 S '53

Tin increases strength of Ti-Al alloys without loss in fabricability. W. L. Finlay and others. J Metals 6:25-9 Ja '54

Titanium, a metal of engineering importance? P. L. Teed. bibliog Engineering 176:603-5, 635-7 N 6-13 '53; Abstract and discussion. Engineer 196:470-1 O 9 '53

Titanium alloy double melting process. Blast F & Steel Pl 42:248-9 F '54

Titanium alloy for bar, forging applications. il Steel 135:123 Ag 16 '54

Titanium alloys give promise of high temperature applications. F. A. Crossley and H. D. Kessler. bibliog J Metals 6:119-21 F '54

Titanium and titanium alloys; supplement to 1948 edition of Metals handbook. il Metal Prog 66:80-9 Jl 15 '54

Titanium developments come thick and fast. Chem & Eng N 32:3052+ Ag 2 '54; Same abr. Blast F & Steel Pl 42:977 Ag '54

Titanium-silicon system. M. Hansen and others. il diags Am Soc for Metals Trans 44:518-36; Discussion. 536-8 '52

Titanium; tests on new alloy continue; see armor, turbine uses. B. S. Mesick. Iron Age 173:72 Jl 1 '54

Titanium-uranium system in the region 0 to 30 atomic percent of titanium. R. W. Buzzard and others. il J Res Nat Bur Stand 50:209-14 Ap '53

Titanium-vanadium system. H. K. Adenstedt and others. bibliog il diag Am Soc for Metals Trans 44:990-1003 '52

Tougher, stronger titanium alloy. Materials & Methods 40:11 Jl '54

Trepanning titanium saves time and material; Watertown arsenal. S. E. Siemen and N. Rosato. il Am Mach 98:89-91 Ag 30 '54

Uranium-titanium alloy system. M. C. Udy and F. W. Boulger. il J Metals 6:Trans 207-10 sec 2 F '54

Weldments in the titanium-manganese sheet alloy RC-130A. H. M. Meyer. il Welding J 33:sup417-21 Ag '54

Analysis

Analytical methods for titanium and titanium alloys. J. A. Corbett. bibliog Metallurgia 49: 206-8 Ap '54

Methods for analysis of titanium alloys. M. Codell and others. bibliog diag Anal Chem 25:1432-49 O '53

TITANIUM boride

New carbide-base cermet containing TiC, TiB_2, and CoSi. H. M. Greenhouse and others. il Am Cer Soc J 37:203-6 My 1 '54

TITANIUM carbide

High temperature protection of a titanium carbide cermet. J. R. Wilson. diags Am Cer Soc Bul 32:375-6 N 15 '53

Improved techniques developed for grinding titanium carbides. F. J. Lennon, jr. il Iron Age 172:144-6 D 17 '53

Materials for special service; titanium carbide. J. W. Graham. il Machine Design 26: 159-62 My '54

New carbide-base cermet containing TiC, TiB_2, and CoSi. H. M. Greenhouse and others. il Am Cer Soc J 37:203-6 My 1 '54

Oxidation resistances of ternary mixtures of the carbides of titanium, silicon, and boron. O. E. Accountius and others. il Am Cer Soc J 37:173-7 Ap 1 '54

Research and development in the field of carbides, nitrides, silicides, and borides for aircraft propulsion. L. D. Richardson. Electrochem Soc J 101:sup222C-4C S '54

Sintered refractory alloys. A. Carter. bibliog(27 ref) il Metallurgia 49:8-14 Ja '54; Abstract. Materials & Methods 40:165-6 Jl '54

Sintered titanium carbides open new industrial horizons. J. W. Graham. il Iron Age 172:148-52 Ag 13 '53

Test titanium carbide turbine parts; Kennametal inc. il Iron Age 174:88 S 9 '54; Steel 135:103 S 27 '54

Titanium carbide, new elixir of life for rod mill guides. S. A. Oviatt and P. H. Gribbin. il diags Steel 134:128-30 F 15 '54

Titanium carbide rod mill guides give improved rod production. il Iron & Steel Eng 31:121-2 Mr '54; Excerpts. Tool Eng 32:127 Je '54

TITANIUM chlorides

Flameproofing; titanium chloride acylate; patent. Am Dyestuff Rep 43:345 My 24 '54

Kinetics of the reduction by titanous chloride of nitrobenzene and its substitution products. S. A. Newton, F. J. Stubbs and C. Hinshelwood. Chem Soc J p3384-91 N '53

Rearrangement of acetylated and benzoylated β-glucosides catalyzed by titanium tetrachloride. R. E. Reeves and L. W. Mazzeno, jr. bibliog Am Chem Soc J 76:2219-21 Ap 20 '54

Reduction of nitroguanidine and its derivatives by titanous chloride. P. D. Sternglanz, R. C. Thompson and W. L. Savell. bibliog Anal Chem 25:1111-13 Jl '53

TITANIUM compounds

Flame resistance by titanium salts. Am Dyestuff Rep 43:635 S 13 '54

Titanium esters and their use in paints; abstract. Winter. Paint Oil & Chem R 117: 33 Ja 28 '54

TITANIUM dioxide. See Titanium oxides

TITANIUM metallurgy

Double melting technique improves homogeneity, and purity of zirconium and titanium ingots. G. L. Miller. il diags Iron Age 174:116-19 S 23 '54

Double-melting titanium produces homogeneous alloys; Illinois institute of technology. il Materials & Methods 39:8 Mr '54

Keenly wooed, hardly won. Chem W 73:49-50 Ag 8 '53

More on titanium process. Product Eng 24:204 Jl '53

New Ti-Melt process. il Steel 133:150-1+ Jl 6 '53; Light Metal Age 11:16 Ag '53; Mech Eng 75:814-15 O '53

Place of sodium in the new metals technology. M. Sittig. bibliog il diag Chem Eng Prog 50:457-9 S '54

TITANIUM metallurgy—*Continued*

Recruit on titanium team; Union Carbide's Electro metallurgical co. Chem W 75:43 Jl 3 '54

Titanium alloy double melting process. Blast F & Steel Pl 42:248-9 F '54

Titanium extraction by chloride process presents a variety of problems. W. R. Opie. il diag J Metals 6:807-10 Jl '54

Titanium from monoxide; abstract. Q. H. McKenna. Chem & Eng N 32:1998 My 17 '54

Titanium; GSA funds Horizons Titanium process A pilot plant. Iron Age 174:62 Jl 15 '54

Titanium in Australia. Chem Age (Lond) 69:355 Ag 22 '53

Titanium metal production expanded at Henderson plant. P. J. Maddex. flow sheet il diag J Metals 6:734-6 Je '54

Titanium; new process leaves lab. R. L. Hatchek. diag Iron Age 172:73 Jl 9 '53

Vacuum-type titanium furnace in service; Titanium metals corporation of America. il Blast F & Steel Pl 42:948-9 Ag '54; Chem Eng 61:112 Ag '54

Electrometallurgy

Titanium; electrolytic refining yields high-quality metal in tests; Shawinigan water & power co. Iron Age 173:85 My 6 '54

Titanium in cells; Shawinigan water and power co. il Chem W 75:86+ S 18 '54

TITANIUM ores

Titanium extraction by chloride process presents a variety of problems. W. R. Opie. il diag J Metals 6:807-10 Jl '54

See also

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TITANIUM oxides

Differential thermal analysis of titania-opacified enamels. F. D. Olympia. bibliog Am Cer Soc Bul 32:412-14 D 15 '53

Effect of TiO_2, Fe_2O_3, and alkali on mineralogical and physical properties of mullite-type and mullite-forming Al_2O_3-SiO_2 mixtures. K. G. Skinner and others. diags Am Cer Soc J 36:349-56 N 1 '53

Heat of adsorption of argon adsorbed on titanium dioxide between 60 and 90°K. E. L. Pace and S. A. Greene. diag Am Chem Soc J 76:3286-9 Je 20 '54

Magnetic properties of titanium sesquioxide. S. F. Adler and P. W. Selwood. bibliog Am Chem Soc J 76:346-7 Ja 20 '54

Phase equilibria in the system MgO-TiO_2. L. W. Coughanour and V. A. DeProsse. bibliog J Res Nat Bur Stand 51:85-8 Ag '53

Shortening the chain; Du Pont pigments department selling to and servicing its titanium dioxide pigment customers. il Chem W 74:44+ Ja 23 '54

Some effects of titania on refractory clays. D. R. Wilder and C. M. Dodd. bibliog Am Cer Soc J 36:400-3 D 1 '53

Titania enamels in all colors; abstract. W. J. Fitzpatrick. Cer Ind 62:88 Je '54

Titanium dioxide films as selective reflectors of the near-infrared. F. J. Studer and D. A. Cusano. il diags Opt Soc Am J 43:522-5 Je '53

Zirconia-titania system. F. H. Brown, jr. and P. Duwez. bibliog Am Cer Soc J 37:129-32 Mr 1 '54

See also

Rutile

TITANIUM sulfates

Spectrophotometric determination of *o*-phenylphenol with titanium sulfate. P. H. Caulfield and R. J. Robinson. Anal Chem 25:982-3 Je '53

TITANIUM tubes. See Tubes, Titanium

TITANIUM zirconium, inc.

No margin for error. il Chem W 74:22+ Mr 20 '54

TITLE insurance. See Insurance, Title

TITLES of honor and nobility

Birthday honours list. Metallurgia 50:2+ Jl '54

Honours list. Engineering 177:36 Ja 8 '54

New year honours. Elec J 152:115-16 Ja 8 '54; Elec R (Lond) 154:62-3 Ja 8 '54

New year honours list. Metallurgia 49:20 Ja '54

TITO (Josip Broz) 1892-

Scotland yard screens press for Marshal Tito. D. Willens. Ed & Pub 86:48 Mr 28 '53

TITRATION. See Volumetric analysis

TOASTERS, Electric. See Electric toasters

TOASTMASTERS. See Public speaking

TOASTMASTERS clubs. See Public speaking

TOBACCO

Basic research in tobacco chemistry. R. F. Dawson. J Chem Educ 30:404-6 Ag '53

Changes induced by indoleacetic acid in nucleic acid contents and growth of tobacco pith tissue. J. Silberger, jr. and F. Skoog. bibliog Science 118:443-4 O 16 '53

Tobacco dictionary. R. Jahn, ed. 199p $5 Philosophical library, 15 E. 40th st, New York '54

See also

Nicotine

Analysis

Analytical studies on harvested tobacco leaves. W. G. Frankenburg and others. bibliog(79 ref) flow sheet diag Anal Chem 25:1784-98 D '53

Diseases and pests

Chemical field hand; maleic hydrazide can eliminate tobacco plant suckers. il Chem W 74:56 F 6 '54

Cure for tobacco blights. il Chem W 75:76 Ag 28 '54

TOBACCO distributors, National association of. See National association of tobacco distributors

TOBACCO industry and trade

Less tobacco. Economist 168:595 Ag 29 '53

Tobacco comes first; surplus American commodities to be sold to Britain for sterling. Economist 169:512-13 N 14 '53

See also

Cigaret industry and trade

Securities

Tobacco shares today. P. Dobbs. il Mag of Wall St 93:376-8 D 26 '53

What has hit tobacco stocks? Bsns W p 140-2+ N 21 '53

Statistics

Leaf and manufactured products, 1949-1952. Survey of Cur Bsns 1953 Sup p 148-9 [supplemented in monthly numbers]

Cuba

Marketing of Cuban tobacco under way. For Comm W 50:15 Ag 3 '53

Great Britain

Britain uses more tobacco; trade down; year ended, June 30, 1953. For Comm W 50:17 O 5 '53

TOBACCO industry research committee

Counterattack by 14 tobacco firms, growers associations and warehouse groups. Chem W 74:48+ Ja 16 '54

TOBACCO mosaic virus

Peptide chains of tobacco mosaic virus. H. Fraenkel-Conrat and B. Singer. bibliog Am Chem Soc J 76:180-3 Ja 5 '54

Tobacco mosaic virus biosynthesis; abstract. B. Commoner. Chem & Eng N 32:130+ Ja 11 '54

TOBACCO pipes

President decides against higher import duties for brier pipes. For Comm W 50:23 N 23 '53

Advertising

Excitement is a sales maker; Kaywoodie co. C. J. Swan. il Ptr Ink 243:31-3 My 22 '53

TOBACCO smoke

Analysis

Determination of volatile phenols in cigarette smoke. C. H. Rayburn, W. R. Harlan and H. R. Hanmer. Anal Chem 25:1419 S '53

Titrations in nonaqueous solutions. B. R. Warner and W. W. Haskell. bibliog diags Anal Chem 26:770-1 Ap '54

TOCOPHEROL

Determination of vitamin A in the presence of tocopherols. D. T. Ewing, L. H. Sharpe and O. D. Bird. bibliog diag Anal Chem 25:599-604 Ap '53

TOCOPHEROL—*Continued*

Production of tocored upon the oxidation of *dl*-α-tocopherol with ferric chloride. V. L. Frampton, W. A. Skinner, jr. and P. S. Bailey. bibliog Am Chem Soc J 76:282-4 Ja 5 '54

See also

Vitamins—Vitamin E

Analysis

Detection of adulteration of butter with vegetable oils by means of the tocopherol content. J. H. Mahon and R. A. Chapman. bibliog Anal Chem 26:1195-8 Jl '54

Nitrosation method of determining *d*-γ-tocopherol. B. H. Polister. bibliog Anal Chem 26:407-8 F '54

TOILET goods

Problems faced by TGA during year. S. L. Mayham. Oil Paint & Drug Rep 165:45+ My 17 '54

Reduction of excise tax on cosmetics; abstracts. D. Factor. Oil Paint & Drug Rep 165:49-50 My 17 '54; Soap & Chem Spec 30:44-5 Je '54

T.G.A. buying habit survey. Soap & San Chem 29:51-3+ S '53

Toilet goods makers said to violate the Sherman act. Oil Paint & Drug Rep 165:3+ Je 7 '54

What's ahead in sales of toiletries and soft goods in the grocery field. C. Sigler. Ptr Ink 245:40-1 O 23 '53

Why of product research. J. A. Straka. Soap & San Chem 29:42-4+ Ag '53

See also

Cosmetics
Perfumery
Railroads—Rates—Toilet goods
Soap

Exhibitions

New soaps, novelties at Chicago toiletries show. Soap & San Chem 29:49+ O '53

Novelty soaps Chicago toiletries show hit. Soap & Chem Spec 30:71 S '54

Manufacture

Mennen opens new plant. il Soap & San Chem 29:91 Je '53

Product control at Colgate-Palmolive. il Can Chem Process 38:96+ S '54

Regulation

Growing tendency to hamper toilet goods manufacturer. H. Mock. Oil Paint & Drug Rep 165:50-2 My 17 '54

Trade practice rules for cosmetic and toilet goods industry. E. F. Howrey. Oil Paint & Drug Rep 165:53-5 My 17 '54

TOILET goods association

Annual meeting, 18th, New York, May 12-14; with abstracts of papers. Soap & San Chem 29:52-5+ Je '53

Annual meeting, New York. Chem & Eng N 32:2199 My 31 '54

Annual meeting, 19th, New York, May 11-13. Soap & Chem Spec 30:44-7 Je '54

Annual meeting, 19th, New York, May 11-13; with abstracts of papers. Oil Paint & Drug Rep 165:45+ My 17 '54

Scientific section meeting, New York, Dec. 9. Soap & San Chem 30:67+ Ja '54; Chem & Eng N 31:5289 D 21 '53

TOILET paper

Fast paper machine gets rolling at Scott's Everett plant. H. E. Vedder. il Paper Tr J 138:48-51 F 26 '54

TOILET soaps. See Soap

TOLEDO

Parking crackdown. Bsns W p 115 D 5 '53

See also

Housing—Toledo

TOLEDO university

Institute of silicate research

Dedication of the Institute of silicate research. W. A. Lambertson. Glass Ind 35:317-18+ Je '54

TOLERANCE

Close tolerance castings. M. W. Riley. il Materials & Methods 40:121-36 S '54 [reprints 25c]

Common tolerance system; A.B.C. proposals critically examined. F. W. M. Lee. Automobile Eng 43:560-2 D '53

Dimensional tolerances for steel castings. C. W. Briggs. Mech Eng 75:619-21 Ag '53; Same cond. Product Eng 24:269-72+ N '53

Dimensions and tolerances for mass production. E. Buckingham. diags Mach 59:163-9 My; 172-9 Je; 180-5 Ag; 60:175-85 S; 197-203 O; 218-22 N; 180-5 D '53; 184-90 Ja; 181-90 F; 186-92 Mr; 185-91+ My; 184-90 Je; 178-83 Ag '54

Drafting practice on threshold of more realistic tolerancing. P. G. Belitsos. diags S A E J 62:17-23 Ag '54

How to compute angular tolerances with a slide rule. A. Stein. Tool Eng 32:72-4 Mr '54

Index tolerance chart simplifies production. A. Johnson. il diags Tool Eng 32:53-62 F '54

Practical application of the new British standard system of limits and fits. G. J. Pearmain. diags Engineer 196:848-50 D 25 '53

Practical production tolerances in the design of electric timing units. W. J. Grosjean. il diags Machine Design 26:108-14 Je '54

Should we adopt standardized fits and limits? ABC system of limits and fits; symposium. R. W. Bolz and others. Machine Design 26:116-29 Mr '54

Some problems of large-scale measurements in the heavy electrical industry; abstract. T. P. Jolly. Elec R (Lond) 153:1078-9 N 6 '53

Specifying accuracy of form for machine parts. A. H. Candee. diags Machine Design 26:139-41 Ap '54

Systematic method for analyzing and assigning practical tolerances. E. T. Fortini. bibliog diags Machine Design 26:117-24 Ag '54

Tolerance and control on fillet welds; submerged-arc welding process. J. Mikulak and M. Dillman. il diags Welding J 33:449-58 My '54

Tolerance conversion chart; reference sheet. A. Johnson. Tool Eng 32:89 F '54

Tolerances and specifications for aluminum and magnesium castings. W. D. Stewart. bibliog il diags Mech Eng 75:450-5 Je '53

Tolerances and specifications for precision investment castings. W. O. Sweeny. il diags Mech Eng 75:456-7+ Je '53

Tolerances and specifications of gray-iron castings. C. O. Burgess. Mech Eng 75:547-9 Jl '53

Tolerances and specifications of malleable castings. J. H. Lansing. il Mech Eng 75:621-4 Ag '53

Tolerances for tap-drill holes; reference book sheet. Am Mach 98:143, 145, 147 Ap 26 '54

TOLL bridges. See Bridges—Tolls

TOLLENS condensation

Extensions of the Tollens condensation. O. C. Dermer and P. W. Solomon. bibliog Am Chem Soc J 76:1697-9 Mr 20 '54

TOLLS

See also

Roads—Tolls

TOLUENE

Army largest toluene user; BDSA report. Chem & Eng N 32:1626 Ap 19 '54

Aromatic alkylation; intact alkylation of benzene and toluene with diisobutene. R. A. Sanford, S. M. Kovach and B. S. Friedman. bibliog Am Chem Soc J 75:6326-7 D 20 '53

Chemical analysis of GR-S by complete solution procedures; titration of mineral and organic acids in toluene-ethanol solution. F. J. Linnig and A. Schneider. Anal Chem 25:1515-17 O '53

Diphenylcarbinylation of methylbenzenes using sulfuric acid. D. G. Kundiger and E. B. W. Ovist. Am Chem Soc J 76:2501-2 My 5 '54

Interpretation of meta orientation in the alkylation of toluene; the relative reactivity and isomer distribution in the chloromethylation and mercuration of benzene and toluene. H. C. Brown and K. L. Nelson. bibliog Am Chem Soc J 75:6292-9 D 20 '53

TOLUENE—*Continued*

Kinetics of iodine-catalyzed aromatic bromination; bromination of toluene. T. Tsuruta, K. Sasaki and J. Furukawa. bibliog Am Chem Soc J 76:994-8 F 20 '54

Sun joins giants; new Marcus Hook aromatics plant can produce 12 per cent of national capacity. G. Weber. il Oil & Gas J 52:84-5 D 14 '53

Toluene reactivated. Chem W 72:59-60+ My 23 '53

Toluene retrospect. Chem W 74:98 Ap 24 '54

Toluol distribution pattern. Oil Paint & Drug Rep 165:3+ Ap 19 '54

See also

Nitrotoluene

Trinitrotoluene

Manufacture

Azeotropic fractionation; Union oil company of California. flow diag Pet Refiner 32:164-5 N '53

Extractive distillation; Shell development co. flow diag Pet Refiner 32:164-5 N '53

Triple threat for aromatics recovery; Platreater combines with Platforming and Udex. il diag Chem Eng 60:172 S '53

TOLUENESULFONAMIDE

2-Methyl-*p*-benzoquinone 1-toluene-*p*-sulphonimide. F. Bell. Chem Soc J p4181 D '53

TOLUENE sulfonate

Alkylation with long chain *p*-toluenesulfonates; Friedel-Crafts reaction of *n*-octadecyl *p*-toluenesulfonate and benzene. D. A. Shirley and J. R. Zietz, jr. Am Chem Soc J 75:6333-4 D 20 '53

Free radical aromatic substitution; the relative reactivities of benzene, benzonitrile and methyl benzenesulfonate toward phenyl radical attack. R. L. Dannley and E. C. Gregg, jr. bibliog Am Chem Soc J 76:2997-3000 Je 5 '54

Reduction of a toluene-*P*-sulphonate with sodium borohydride. C. W. Shoppee and R. J. Stephenson. bibliog Chem & Ind p311 Mr 13 '54

TOLUENESULFONIC acid

Alkylation of cellulose with esters of *p*-toluenesulfonic acid. J. W. Weaver, C. A. Mackenzie and D. A. Shirley. bibliog Ind & Eng Chem 46:1490-3 Jl '54

TOLUENESULFONYL chloride

Purification of *p*-toluenesulfonyl chloride. S. W. Pelletier. bibliog Chem & Ind p 1034 S 26 '53

TOLUENESULFONYL compounds

Rates and migration ratios observed in the unimolecular and bimolecular reactions of 2-phenyl-2(*p*-tolyl)-ethyl tosylate and related compounds. J. G. Burr, jr. bibliog Am Chem Soc J 75:5008-11 O 20 '53

TOLUIC acid

Reactions of toluic acids with sulfur; 4,4′-bibenzyldicarboxylic acid. W. G. Toland, jr. and J. B. Wilkes. Am Chem Soc J 76:307-8 Ja 5 '54

See also

Phenylacetic acid

TOLUOL. See Toluene

TOMATOES

Doubles plant capacity by mechanization, and ups worker productivity 180 per cent; tomato prepackager, Jack Esformes corp. R. G. White. il plan Food Eng 26:64-6+ S '54

Sterilamps kill tomato bacteria; New England tomato co., Los Angeles. il Elec West 111:95 O '53

Top-notch tomato operation; Bercut-Richards co. C. R. Havighorst. flow sheet (p86-9) il Food Eng 26:77-8+ Ja '54

TONGS

Automatic tongs position convection spacers; Weirton steel co. Steel 134:134 Je 7 '54; il Iron Age 173:215-16+ Je 24 '54

Motorized tongs simplify coil handling; Jones & Laughlin steel corp. il Steel 134:102+ Mr 1 '54

TONNAGE

What do you know about ship tonnages? J. H. La Dage. il Marine Eng 59:55-8 Mr '54

TONSILS

Separation and characterization of serum albumin from extracts of a lymphatic organ. E. L. Hess, M. Campbell and A. Herranen. bibliog Am Chem Soc J 76:4035-7 Ag 5 '54

TOOKEY, William Alfred, 1871-1954

Sketch. por Engineer 197:247-8 F 12 '54; Engineering 177:227 F 19 '54

TOOL boxes

Model portable tool box for a carpenter. il diag Am Bld 75:242+ S '53

TOOL engineers

Managerial opportunities for the tool engineer. E. A. Cyrol. il Tool Eng 32:37-42 Ja '54

Tool engineer and professional registration. Tool Eng 32:51-8 Ap '54

Tool engineer moves up; new voice at the management level. R. F. Huber. Steel 134:136-7 Ap 19 '54

Tool engineer, today and tomorrow. R. H. Eshelman. il Tool Eng 32:37-42 Ap '54

TOOL industry

He was given the brush-off; Grace fabri-tool co., inc. E. C. Hanford. il Sales Management 73:48+ Jl 15 '54

Thor takes U.S. merchandising to Britain, builds tool sales. L. Anderson. il Ind Marketing 39:61-2 Ag '54

Tools; volume only ten per cent below 1953's record high. Iron Age 174:80 S 9 '54

Advertising

You, too, can do it yourself; possibilities for metalworkers in this fast-expanding market are nearly unlimited. il Steel 134:54-5 Mr 1 '54

TOOL rooms

New, basic field for cost reduction; lowering costs in a company's toolroom. D. R. Sunderlin. Advanced Management 18:19-21 N '53

Self service tool crib takes kinks out of die-sinking. W. Rudolph. il Mill & Factory 55:79-80 S '54

Standard minutes, they work in the toolroom, too! R. M. Crossan. diags Am Mach 98:113-18 S 27 '54

Tools to make tools; Skil corp. J. J. Topolinski. il Mill & Factory 53:111 D '53

TOOL steel

Automatic furnaces added; Jessop steel co. il Steel 133:164 O 26 '53

Cutting edge lubricant built-in; sulphur added to tool steels gives free machining and longer tool life. il Steel 135:116-17 Ag 9 '54

Free machining tool steels; yes or no? Am Mach 98:175 Je 7 '54

High speed and tool steel bars; shipments, 1952-1953; tabulation. Steel 134:164 Ja 4 '54

High speed tool steel; prices, 1947-1953; tabulation. Iron Age 173:411 Ja 7 '54

How to get more from your tool steels. L. H. Seabright. il Iron Age 172:104-8 Ag 27 '53

How to tell a good high speed tool when you see one in a microscope; chart. M. J. Antus and B. L. Johnson. Steel 133:88-9 N 23 '53

Introducing; the new self-lubricating high speed steels. S. G. Fletcher. il Metal Prog 65:161-2+ F '54

Investigations and improvements of drill steel. diags Min Eng 6:889-93 S '54

Jet cooling triples feed rate on plunge and thread grinding of tool steel R_c 62-64. il diag Am Mach 98:137-8 Ja 4 '54

Machining hardened tool steel with tungsten carbide. Mach 60:176 F '54

New sulfur-bearing tool steels. il Materials & Methods 40:96-7 S '54

Selection of tool steels; supplement to 1948 edition of Metals handbook. Metal Prog 66:21-33 Jl 15 '54

Stress concentration problems in hollow drill steel. W. H. McCormick and H. J. Benecki. il Min Eng 6:282-3 Mr '54

Study of the microhardness of the major carbides in some high speed steels. P. Leckie-Ewing. il Am Soc for Metals Trans 44:348-62; Discussion. 362-6 '52

Sulphur improves tool steels. il Tool Eng 33:109 Jl '54

Take guesswork out of grain size determinations. R. F. Harvey. il Steel 134:108-9 F 1 '54

TOOL steel—*Continued*

Tool and die materials forum. C. Berndt and others. Steel 134:140-6+ Ap 19 '54

Tool steel; order rate picking up. J. B. Delaney. Iron Age 172:26 D 31 '53

History

Quality of toolsteel. B. George. il Metal Prog 65:97-100 F; 75-8 Mr '54

Testing

Spectrometer vital for tool steels; Latrobe steel co. W. W. Clarke. il Steel 134:108+ Ap 5 '54

TOOLMAKERS

Backgrounds and career choice of tool and die makers. S. Swerdloff and A. Bluestone. Mo Labor R 76:8-12 Ja '53

Overcoming shortages of tool and die makers; abstract. Management R 42:89-90 F '53

Training of tool and die makers. S. Swerdloff and A. Bluestone. Mo Labor R 76:254-7 Mr '53

TOOLS

Basic tool kit for the novice. L. G. McCoy. il Q S T 38:40-1 Ja '54

Changes in hand tools since 1879. il Am Bld 76:228-9 Ag '54

Construction machines and equipment; tools, power and hand. il diags Am Bld 75:91-4+ Ap '53

Contour packaging; vacuum forming gives new protection to machinists' tools. il Iron Age 172:163-4 Ag 6 '53

Good and bad tools for fixing looms. W. C. Westbrook. il Textile World 104:114-15 Jl '54

Hand and power tools. bibliog il Nat Safety N 69:190+ Mr '54

Hard chrome plate pays unexpected dividends; Towmotor corp. W. White and M. McKean. il Am Mach 98:142-3 Ag 16 '54

How General Motors saves tools; materials utilization program. D. G. Baird. il Mill & Factory 54:82-4 Ap '54

New powder-actuated tool fires through one-inch steel. il Eng N 152:94 Ap 1 '54

1954 American Machinist production preview; tools and accessories. il Am Mach 98:169-84 Ja 18 '54

Non-sparking tools. Chem Age (Lond) 69:501-3 S 5 '53

Powder-actuated tool fastens 70 per cent faster. il Factory Management 112:150 Je '54

Powder tools winning fight for acceptance. il Eng N 151:29-31 D 3 '53

Tips in using power tools. il Am Bld 75:255 Je '53

Tops with tools. il diags Am Bld 75:102-5 Je '53

Wages of tools; how they pay for themselves. W. M. Henderson. Pub Works 84:98 D '53

With the proper tools it's easier, especially on the tough pulling jobs. il Constr Methods 36:134+ Ag '54

You need these tools for battery maintenance and repair. il Mill & Factory 54:129-31 Mr '54

See also

Cutting tools

Electric tools, Portable

Gages

Machine tools

Machinery

Pneumatic tools

Saws

Tool rooms

Tool steel

Advertising

Daily tool show nets 15,000 lines of ads. Ed & Pub 86:17 My 30 '53

Testing

Tool and gage inspection. M. C. Curtis. il Instruments & Automation 27:1314-16 Ag '54

TOOLS, Plastic

Advantages and limitations of plastic tooling; abstract. F. L. Bogart. Mach 60:162 Je '54

How Convair tools with plastics. H. H. Rosenbaum. il Am Mach 98:121-4 Mr 15 '54

How plastics cut short run tooling costs; Pratt & Whitney. A. A. Merry. il Iron Age 173:158-61 Mr 4 '54

Lockheed uses epoxy resins for various kinds of tooling. G. J. Walkey. il Mach 60:168-73 Jl '54

New techniques expand uses for plastic tooling. W. G. Patton. il Iron Age 173:180-3 Ap 22 '54

Resilient resin speeds tool production, cuts cost. il Iron Age 174:149-50 S 9 '54

Tooling with plastics. R. L. Dudley. il diags Tool Eng 33:47-9 Ag '54

Tooling with plastics; abstract. N. M. Hastings. il Tool Eng 33:142+ Jl '54

Why epoxy resins for laminated tooling? J. Delmonte. il Materials & Methods 40:93-5 Ag '54

TOOTH paste and powder. See Dentifrices

TOPAZ

Multiple-beam fringes of equal chromatic order; cleavage of topaz. W. F. Koehler and A. Eberstein. bibliog il Opt Soc Am J 43:747-9 S '53

TOPOGRAPHICAL maps

Cooperative topographic mapping in California. C. A. Ecklund. maps Am Soc C E Proc 79 [no 277]:1-13 S '53

Topographic mapping by the U.S. Geological survey in Florida. D. Kennedy. map Am Soc C E Proc 79 [no 212]:1-5 Jl '53

TOPOGRAPHICAL surveying

See also

Photographic surveying

TOPOLOGY

Leonhard Euler and the Koenigsberg bridges. diags Sci Am 189:66-70 Jl '53

TORGESON oils, inc. (Wyoming)

Stock offered. Comm & Fin Chr 178:391 Ag 3 '53

TORNADO insurance. See Insurance, Tornado

TORNADOES

Adjusting for 1953's catastrophes; committee on adjustments, National board of fire underwriters. D. B. Sherwood. il map Spectator 161:20-1+ S '53

Aftermath of disaster; a community comes back; Buck Creek cotton mills. M. B. Andrews. il Textile World 103:151+ N '53

Agent's persistence brings hope to victims of Worcester tornado. L. L. Temple. East Underw 54:22 S 4 '53; Same. Weekly Underw 169:374+ Ag 15 '53; Abstract. Spectator (Endorsement no) 161:29 D '53

Big winds hit six states. Nat Underw 58:39 My 6 '54

Brief upsurge in extended coverage business is noted after Michigan-Massachusetts tornadoes. Nat Underw 57:18 Jl 2 '53

Disaster units effective in Vicksburg tornado. Nat Safety N 69:224+ Mr '54

Review of 1953. F. H. Morasch. Weekly Underw 170:12+ Ja 2 '54

Social security aftermath of Waco tornado. Nat Underw 57:13 Jl 2 '53; Same. Nat Underw (Life ed) 57:18 Jl 3 '53

Tale of two tornadoes; twisters striking Flint, Mich., and Worcester, Mass., find amateurs on the job. G. Hart. il diag Q S T 37:45-7+ S '53

Tornado tracking; uses a tv receiver. J. Milliken. Q S T 37:39 N '53

Tornadoes cause wide destruction. il Elec World News ed 139:9 Je 22 '53

Tower damage provides key to Worcester tornado data. C. A. Booker. map plan diags Elec World News ed 140:22-4 Ag 17 '53

Two-way radio proves invaluable; tornado, Genesee county, Michigan. J. T. Sharpensteen. Roads & Sts 96:113-14 N '53

Vicksburg tornado left unusual and difficult problems in its wake. R. G. Bachman. Weekly Underw 169:1526 D 19 '53

What we learned from Waco's tornado; Lone star gas co. A. P. Rowland. il Gas Age 113:29-33+ Je 3 '54

Worcester tornado velocities found through tower failures on power line. C. A. Booker. il Eng N 151:33 O 15 '53

See also

Newspapers—Tornado coverage

TORONTO

Metropolitan council formed for Toronto and twelve suburbs. J. Montagnes. Pub Works 84:79+ D '53

TORONTO—*Continued*

Sanitary affairs

Street-cleaning and refuse disposal methods and costs. H. D. Bradley. il Munic Util 92:17-22+ F '54

Streets

Metropolitan road system; Harvey C. Rose becomes commissioner of roads. Roads & Eng Constr 92:56+ Ja '54

Street-cleaning and refuse disposal methods and costs. H. D. Bradley. il Munic Util 92:17-22+ F '54

Toronto's winter plan; keep all streets open. H. D. Bradley. il Roads & Sts 96:61+ O '53

Subway

Canada's first subway. il Elec J 152:1015-18 Mr 26 '54

Completion of Canada's first rapid-transit subway. il plan diags Roads & Eng Constr 91:87-104+ D '53

Electric rolling stock for Toronto subway. il Engineer 197:347-8 Mr 5 '54; Engineering 177:342-3 Mr 12 '54

Equipment operation and control in rapid-transit subway. il Munic Util 92:39-40+ Mr '54

Features of rapid-transit subway of interest to electric-utility engineers. il Munic Util 92:30-3+ My '54

Job control on the subway; abstract. W. H. Paterson. Roads & Eng Constr 92:140-1 My '54

Mechanical aspects of Toronto's new rapid-transit subway. il Munic Util 92:62 Ap '54

Problems in maintaining public-utility services during construction of Toronto subway. R. L. Clark. il plans Munic Util 92:56-9+ Ap '54

Sanitary and storm drainage problems on new subway. il diag Munic Util 91:15-16+ D '53

Subway builder underpins theater floors on ground. il diags Eng N 151:37-8+ D 17 '53

Toronto to open first Canadian subway. il Eng N 152:58 Mr 25 '54

Water supply

Water and sewage works in metropolitan Toronto. L. B. Allan. map Munic Util 92:54-5+ Ap '54

TORONTO stock exchange

Weekly record. Published in weekly Monday numbers of Commercial and financial chronicle

TORQUE

Farm equipment; Harvester pushing new tractor with torque amplifier. Iron Age 173:55 F 25 '54

Magnetic measurement of torque in a rotating shaft. R. A. Beth and W. W. Meeks. il diags R Sci Instr 25:603-7 Je '54

Tiltman Langley mechanical torque trip unit. diag Engineer 196:836 D 25 '53

Tiltman Langley safety device for torque overload. il Engineering 176:682 N 27 '53

Torque requirements of a radar antenna. M. Mark. il Elec Eng 73:262-4 Mr '54

TORQUE converters

Automatic transmission in America. C. A. Chayne. plan diag Inst Mech Eng Proc (Auto div pt 1):9-15, pl 1-8 '52-53

Borgward automatic transmission has unique hydraulic torque converter. P. M. Heldt. il diags Automotive Ind 110:60-2+ F 1 '54

Development and application of oil coolers for torque converters. R. P. McDonough. Product Eng 24:274+ N '53

Engine oil-fed torque converter. T. C. Gleason. il diag Am Pet Inst Proc 33(2):60-4; Discussion. 64-7 '53

Operating advantages and usage of Allison Torqmatic converters; abstract. J. W. Crooks. S A E J 62:101 Je '54

Progress of torque converters; abstract. E. W. Zingsheim and M. M. Schall. S A E J 62:112+ Ag '54

Test shows automatic transmission works well on long haul trucks. H. Ridder. Nat Pet N 45:59-61 S 9 '53

Torque converter for industrial and commercial vehicles; abstract. M. J. Waclawek. S A E J 62:96-7 Ja '54

Torque converter transmission for late Plymouth models. il diags Product Eng 24:156-7 Je '53

Two-stage hydraulic torque converter. il Product Eng 24:238 O '53

Manufacture

Casting torque converter parts with plaster cores. C. H. Wick. il Mach 60:166-71 N '53

New setups speed production of stampings. H. Chase. il Iron Age 172:142-4 Ag 13 '53

Precision stampings; progressive die setups permit high output; Chrysler corp. J. I. Feldborg. il diag Iron Age 173:170-2 Ap 22 '54

TORQUE meters

Electromagnetic torquemeter for use in viscometry. C. A. R. Pearce. il diags J Sci Instr 30:232-6 Jl '53

TORRINGTON manufacturing company

Torrington; finding a boom in a breeze. il Bsns W p 103-4+ S 19 '53

TORSION

Analytical determination of coupled bending-torsion vibrations of cantilever beams by means of station functions. A. Mendelson and S. Gendler. bibliog diag U S Nat Advisory Com for Aeronautics 1951:77-96 '52

Deduction of the maximum torsional stress in a shaft with notches. S. Momma. J Ap Phys 24:959-60 Jl '53

Experimental investigation of torsion in stranded mining wire ropes. C. L. Layland and others. bibliog diags Inst Mech Eng Proc (B) 1B no 8:323-36; Discussion. 337-42 '52-53

Influence of temperature and rate of strain on the properties of metals in torsion. C. E. Work and T. J. Dolan. il diags Ill U Eng Exp Sta Bul 420:1-108 bibliog (p102-8) '53 (pa $1)

Mechanical properties in torsion and Poisson's ratio for certain stainless steel alloys. C. W. Muhlenbruch and others. diags Am Soc T M Proc 51:832-52; Discussion. 853-6 '51

Post buckling behaviour of long square boxes under torsion. B. H. Falconer. bibliog diags Engineer 196:690-4 N 27 '53

Some new magneto-mechanical torsion experiments. A. W. Cochardt. bibliog diags J Ap Phys 25:670-3 My '54

Torsion of anisotropic elastic cylinders by forces applied on the lateral surface. H. Luxenberg. bibliog diag J Res Nat Bur Stand 50:263-76 My '53

Torsional deflection; graphical method for finding angle of twist of shafts having variable cross-sections; data sheet. W. H. Mann. diags Machine Design 25:179-81 N '53

Torsional rigidity of rectangular slabs. K. H. Gerstle and R. W. Clough. bibliog diag Am Concrete Inst J 25:241-8 N '53

Westinghouse proves advantages of torsion testing. M. E. Pingel. Cer Ind 61:74 D '53

TORSION pendulum. See Pendulum

TORULOPSIS. See Yeasts

TOSYLATES. See Toluenesulfonyl compounds

TOTE boxes

Paper weight tote boxes for assembling precision instruments; Sagamo electric co. il Steel 135:121 Ag 23 '54

TOURIST camps, hostels, etc.

Change in motels. il plans Arch Forum 100:106-25 F '54

Design standards and data. H. R. Sleeper. plans diags Arch Forum 100:168-71 F '54

Giving the motel a Waldorf touch; Town Park. il Bsns W p 174-8+ D 5 '53

Here's a motel for a northern lake. il plan Am Bld 76:240-1 F '54

Highway hotels and restaurants; building types study. il plans diag Arch Rec 114:158-77 Jl '53

Motel units quickly convert into suites. il plans diag Am Bld 75:94-6 S '53

This motel is home to the owner. il plans Am Bld 75:100-1 D '53

Those magnificent motels are on the road to big business. il Sales Management 72:42-4 F 1 '54

TOURIST trade
1953 will be top travel promotion year. P. B. B. Andrews. il Ptr Ink 243:67+ My 1 '53
See also
Tourist camps, hostels, etc.

Alaska

Alaska gets results from first travel ads. L. F. Thomann. il Ptr Ink 243:49 Je 26 '53

Canada

U.S. tourists flock to Canadian resorts. J. Montagnes. Barron's 33:36 N 16 '53

Europe

Better holidays for good Europeans; British travel allowance raised. Economist 169:413 N 7 '53

Florida

Estimating the market potential of a floating population. R. P. Wolff. J Marketing 19: 12-17 Jl '54

France

Tourism in France shows uptrend; revenues down. For Comm W 51:21 Ja 25 '54

Great Britain

Britain for holidays. Economist 168:165 Jl 18 '53
Middlemen of travel. Economist 168:614-15 S 5 '53
Tourist concession withdrawn. Economist 168: 476 Ag 15 '53

TOWBOATS
A. H. Crane joins Ohio River fleet. il Marine Eng 59:70-1 Je '54
Army equips new towboat with sinusoidal propulsion. il Marine Eng 59:36-9 F '54
Cordelia, first New Haven Diesel tug put in service. il Marine Eng 58:89-90 D '53
Dravo built towboat added to Union Barge Line. il Marine Eng 58:75 D '53
Fire horse to work horse; fireboat now efficient towboat. il Marine Eng 59:55-6 Jl '54
Greater shaft horsepower for harbor tugs. il Marine Eng 59:48 My '54
How tugs use rope in harbor towing. H. R. Landwehr. il Marine Eng 59:59-60 Jl '54
LT-class tugboats. il Marine Eng 59:63 S '54
Lucy E, power-packed towboat. il Marine Eng 59:71 S '54
New army craft tailored for the job. H. A. Jacobs. il Marine Eng 59:71+ F '54
New Haven tug Bumble-Bee goes into service. il Marine Eng 58:77 N '53
Shallow-draft tug claimed most powerful of type. il Marine Eng 59:67-8 Ja '54
Shamokin tops New York tugs. il Marine Eng 58:61 N '53
Tug sunk at Pusan is raised by cranes. il Marine Eng 59:53 S '54
Tugs scramble for shrinking business. il Bsns W p88+ O 3 '53
Two steam tugs for Southampton. G. W. Tripp. il Engineer 196:814-16 D 18 '53

TOWELS

Manufacture

Callaway mills uses these methods to weave quality towels. R. B. Pressley. il Textile World 104:77-9+ Jl '54

TOWERS
Alberta to build seven more forestry towers. Pulp & Pa of Can 55:197 S '54
Collapsible girder or tower. il diag Engineering 177:244 F 19 '54
See also
Electric lines—Poles and towers
Television towers

TOWERS, Concrete
Pre-cast, post-tensioned tower frames; abstract. Roads & Sts 97:111-12 F '54

TOWERS, Steel
Erect high towers over busy railroad. il Constr Methods 35:148-9+ N '53
Streamlining construction. il Steel 133:323-4 O 12 '53
Testing a steel tower. il Bsns W p79 S 19 '53
Transmission towers 437 ft high support span of 3,810 ft; Sacramento River crossing of Shasta-Tracy line. G. E. Schumann. il diags Civil Eng 24:9-11 Ja '54
Tubular tower for transmission lines. il Engineering 176:678 N 27 '53; Elec R (Lond) 153:1043-4 N 6 '53; Discussion. A. E. Percivall. Engineering 176:787-8 D 18 '53

TOWN halls. See Public buildings

TOWNSEND company
Training an old firm in new business tactics. il Bsns W p 122-5 O 17 '53

TOWNSHIP roads. See Roads, Township

TOWSE, Donald Frederick, 1924-
Recipient of President's award; sketch. A. I. Levorsen; W. M. Laird. bibliog por Am Assn Pet Geologists Bul 37:1831-4 Jl '53

TOY automobiles. See Automobiles, Toy

TOY industry and trade
Sales of metal toys soar as high-flying stork brings more customers. il Steel 135:75 S 20 '54
Toy makers keep pace with the stork. il Steel 133:63 S 7 '53
Toys and games; well-designed and well-aimed packages. il Mod Packaging 27:104-9+ Je '54

Securities

Boom in babies; toy makers have parlayed it into big business. H. Murphy. Barron's 33: 15-16 D 21 '53

TOY trains. See Railroads—Models

TOYS
Get 'em young; packaging techniques to win brand loyalties early. il Mod Packaging 27: 91-7+ N '53
Premiums with an educational punch. il Bsns W p30-1 O 31 '53
Profits through toy tie-ins. M. Helitzer. il Am Bsns 23:32+ D '53
She's baking a cake for everyone; Kay Stanley cake mix set. D. J. Atchison. il Sales Management 70:38+ Je 15 '53
Toys like the big ones turn pleasure into profits; Charles William Doepke co. il Steel 133:65 D 21 '53

TOYS, Plastic
American toy fair, 51st, New York. Rubber Age 75:93 Ap '54
Cause for concern. il Chem W 74:18 Je 12 '54
Rubber-plastisol squeeze; vinyl resin toys hit a growing market. il Chem W 72:58-60 Je 27 '53
$200-million playthings. il Chem W 73:53-4+ D 12 '53

TOYS, Rubber
American toy fair, 51st, New York. Rubber Age 75:93 Ap '54
Rubber-plastisol squeeze; vinyl resin toys hit a growing market. il Chem W 72:58-60 Je 27 '53

TRACE analysis
Analysis for trace impurities by neutron activation. W. A. Brooksbank, G. W. Leddicotte and H. A. Mahlman. bibliog J Phys Chem 57:815-19 N '53
Continuous countercurrent ion exchange with trace components. N. K. Hiester and others. bibliog il diags Chem Eng Prog 50:139-50 Mr '54
Determination of trace elements. G. E. Heggen and L. W. Strock. bibliog Anal Chem 25:859-63 Je '53
Determination of trace elements in fuel oils. C. W. Key and G. D. Hoggan. diag Anal Chem 25:1673-6 N '53
Determination of traces of copper in germanium by activation analysis. G. Szekely. Anal Chem 26:1500-2 S '54
Fast spectro method for trace determinations in lube oils. J. T. Rozsa and L. E. Zeeb. bibliog il Pet Processing 8:1708-12 N '53
Improvements in the determination of small amounts of sulphur. H. N. Wilson, R. M. Pearson and D. M. Fitzgerald. bibliog(32 ref) diag J Ap Chem 4:488-96 S '54
Ion exchange of trace components in a countercurrent equilibrium stage contactor. N. K. Hiester and others. bibliog flow diag il diags Ind & Eng Chem 45:2402-12 N '53
Ion-exchange separation of trace impurities. W. A. Brooksbank and G. W. Leddicotte. bibliog J Phys Chem 57:819-23 N '53
Separation and concentration of trace metals from natural waters. D. E. Carritt. diags Anal Chem 25:1927-8 D '53

TRACE analysis—*Continued*

Trace element determination by the mass spectrometer. M. G. Inghram. bibliog il J Phys Chem 57:809-13; Discussion. 814 N '53

TRACE elements

Minor nutrients grow up. il Chem W 72: 74+ Ap 11 '53

Significance of minor elements in iron bearing raw materials for integrated steel plants. C. B. Jacobs and others. bibliog flow sheet Blast F & Steel Pl 42:666-74+ Je '54; Excerpts. Iron & Steel Eng 31:138-40 Ag '54

Symposium on impurity phenomena; abstracts of papers. Chem & Eng N 31:2678+ Je 29 '53

See also

Plants—Trace elements

TRACERS. See Dyes as indicators; Radioactive tracers

TRACERS, Radioactive. See Radioactive tracers

TRACK cleaning machinery. See Railroads—Track cleaning machinery

TRACKMOBILE. See Tractors on rails

TRACTOR industry and trade

See also

Caterpillar tractor company

Statistics

Farm and non-farm tractor shipments, 1944-1953; tractor shipments by type and hp ratings, 1951-1953; tabulations. Automotive Ind 110:98 Mr 15 '54

TRACTORS

Can you get more from your tractors? il Coal Age 59:117 Ap '54

Caterpillar announces world's largest tractor. il Roads & Eng Constr 92:72 My '54

DW-15 is new Caterpillar 150-hp. tractor. il Roads & Eng Constr 92:82 Ap '54

Details of new Fordson tractor. il Automotive Ind 109:56+ N 15 '53

Euclid division of General Motors to make full line of crawler tractors and expand scraper range. il Roads & Eng Constr 92: 76+ S '54

Farm equipment; Harvester pushing new tractor with torque amplifier. Iron Age 173:55 F 25 '54

Field shots show the big D9X in action. il Constr Methods 36:68 S '54

50 years of the crawler tractor; illustrations with text. Diesel Power 32:30-2 My '54

50 years of track type tractors. il Automotive Ind 110:60-1+ Ap 1 '54; Pub Works 85: 97 Ap '54; Min Eng 6:474-5 My '54

Hydraulic system of the golden jubilee Ford tractor; abstract. H. L. Brock. Automotive Ind 109:55+ N 1 '53

Increased power and weight and improved engineering features in new Caterpillar D8 tractor. il Roads & Eng Constr 92:66 F '54; Same cond. Constr Methods 36:162 Mr '54; Same cond. Diesel Power 32:73 Ap '54

Massey-Harris-Ferguson Diesel tractor. il Engineer 197:364-5 Mr 5 '54; Engineering 177:348 Mr 12 '54

1954 French agricultural implement show. W. F. Bradley. il Automotive Ind 110:48-9+ Ap 1 '54

Role of the small tractor in the bush. D. V. Currie. Pulp & Pa of Can 55:156+ Je '54

Sears develops new tractor for part-time farmers. il Steel 133:59 D 28 '53

Sears woos sundowners. Bsns W p55-6 D 19 '53

Sheppard introduces larger unit; Diesel-powered wheel-type tractors. il Diesel Power 31:45 D '53

S.A.E. National tractor meeting, Milwaukee, Sept. 14-17; with abstracts of papers. S A E J 61:70-7 N '53

Terratrac has promise to be a champion. R. H. Lewis. il Constr Methods 36:139+ My '54

Three-point suspension spreads tractor weight. il diags Product Eng 24:158-61 Ag '53

Tractor backhoe mucks out rock at tunnel face. il Constr Methods 36:138-40 Mr '54

Tractor; backyard farms in suburbs? Sears Roebuck will sell midget tractor. K. W. Bennett. il Iron Age 172:84 D 17 '53

Tractor for peat bog reclamation. il Engineer 197:245 F 12 '54; Engineering 177:285 F 26 '54

Tractor goes over the top of bogs and muskeg. il Eng N 152:91-2 Ap 1 '54

White's short payload tractor. il Diesel Power 32:33 My '54

See also

Agricultural machinery

Clutches

Caterpillar develops oil-type tractor clutch. il Automotive Ind 109:69+ S 1 '53; Diesel Power 31:61 N '53

Cold weather operation

New electric starting system for Cat D-4 tractor. il Roads & Eng Constr 92:96 Ag '54

Gearing

Reports of panels on gears and heat treating. L. Higgins and E. J. Borisch. S A E J 62:61-2 Mr '54

History

Remember these old timers? il Roads & Sts 97:106-7 F '54

Hitches

Tractor hitches and hydraulic systems; a tractor designer's viewpoint. H. L. Brock. S A E J 62:67-8; Discussion. 68-9 Mr '54

Tractor hitches and hydraulic systems; an implement designer's viewpoint. B. B. Johannsen. S A E J 62:66+; Discussion. 71 Mr '54

Lighting

Report of the tractor and implement safety lighting program; abstract. B. G. Van Zee. il diag S A E J 61:95+ N '53

Maintenance and repair

Other side of the story. Constr Methods 36: 196+ Jl '54

Winter conditioning for crawler tractors. F. J. Shreck. il Min Cong J 40:48-9 S '54

With the proper tools it's easier, especially on the tough pulling jobs. il Constr Methods 36:134+ Ag '54

Manufacture

Caterpillar York plant includes latest equipment for producing track parts. il Automotive Ind 110:19 Je 15 '54

Farm tractor manufacture: American practice. Engineering 177:228 F 19 '54

Integrated heat treating and machining setup triples production; Tractor works of International harvester co. A. A. Fisk. il Iron Age 172:174-6 D 3 '53

International Harvester's production of TD-24 crawler tractor demonstrates close manufacturing-design ties. il plan S A E J 62:48-54 My '54

Shuttle-type chucks speed centerless grinding; International harvester co. C. Wies. il Iron Age 172:106-7 N 26 '53

Specifications

1954 tractors; tabulations. Automotive Ind 110:168-73 Mr 15 '54

Testing

Accelerated testing of tractor components. D. R. Richardson and G. R. Fuller. il diag S A E J 62:42-5 Mr '54

Test codes for tractors evaluated at Fort Belvoir. S A E J 61:97-8+ D '53

Tractor testing at the University of Nebraska; abstract. L. F. Larsen and C. W. Smith. S A E J 62:80+ F '54

Two CIMTC tractor test codes prove their mettle at Ft Belvoir; based on papers by H. L. Rittenhouse and others. il S A E J 62:63-7 S '54

Transmission

Gates & Hardy regenerative transmission steers tractor. il diags Machine Design 26: 136-7 Jl '54

Gear shaver; two-gear clusters handled rapidly, accurately. il Iron Age 173:178-9 F 4 '54

New tractor-loader has improved transmission and operating controls; Eimco corp. il Automotive Ind 110:36-7 My 15 '54

TRACTORS—Transmission—*Continued*

New transmission design improves tractor-loader. il Machine Design 26:146 F '54

Oliver replaces OC-18 final drives. Constr Methods 35:158-9 N '53

Power train of tractor shovel has special transmission with constant mesh gears. il diags Automotive Ind 111:52-4+ S 15 '54

Super-regenerative transmission for multi-driven wheeled tractors; Regenomatic. G. R. G. Gates. il diag S A E J 62:22-4; Discussion. H. W. Christenson. 24-5; Reply. 25 F '54

Wheels

Tractor wheels; modern welding helps build huge earthmoving equipment; Caterpillar tractor co. il Iron Age 172:225 D 10 '53

TRACTORS, Garden

Floating countershaft controls garden tractor drive. il diags Product Eng 24:182-3 N '53

TRACTORS, Industrial

How trailability determines tractor-trailer aisle widths. J. J. Sichman. il diags Iron & Steel Eng 31:120+ F '54; Same cond. Iron Age 173:168+ F 4 '54

Material handling over rough ground eased with tractor-mounted fork lift. il Eng N 151:172 Ag 20 '53

Mechanisation for the building contractor. il Engineering 177:220-1 F 12 '54

Pint-size economy tractor. il Factory Management 111:156-7 D '53

Tractor-driven industrial equipment. il Engineer 197:216-17 F 5 '54

TRACTORS, Military

Manufacture

Special fixtures speed army tractor hull welding; Allis-Chalmers mfg. co. H. W. Lindsay. il Am Mach 97:113-17 O 26 '53

TRACTORS on rails

Dual purpose unit used by navy on both rail and road; Trackmobiles. il Iron Age 172:249 N 12 '53

TRADE agreements

Arbitration provisions in collective agreements, 1952. E. M. Moore and J. Nix. Mo Labor R 76:261-6 Mr '53

Contract; renegotiate or bust; Pressed metals of America, inc. R. D. Raddant. Iron Age 174:67 Jl 15 '54

Contract spotlight on worker security. Bsns W p 164-5 N 7 '53

Dangerous way to stabilize employment; contract between William Carter co. and the International ladies' garment workers' union. P. A. King. Factory Management 111:232 D '53

Discharge and discipline provisions in current union contracts. Management R 43:23-4 Ja '54

Discharge for absenteeism under union contracts. E. Ahern. Personnel J 32:173-7 O '53

Familiarity, no contempt; get-acquainted-with-the-contract program; Dow Chemical's Ludington div. Chem W 75:18 Ag 14 '54

Grievances and arbitration; a study of current trends; abstract. Management R 42:316-17 Je '53

How solid is your contract? Bsns W p 168 O 10 '53

Kaiser contract with UAW. Bsns W p 178 O 17 '53

Labor-management contract provisions, 1953. U S Bur Labor Statistics Bul 1166:1-22; pa 25c Supt. of doc. '54

Labor scene; the '54 wage hike pattern is taking shape. Am Mach 98:164-5 Jl 5 '54

Legal considerations of various gas company employment contracts. L. T. Parker. Am Gas J 180:27+ Je '54

Management and union rights; a survey of contract provisions; abstract. Management R 43:157-8 Mr '54

Philadelphia proposed agreement. Nat Pet N 46:18 Ja 27 '54

Productivity; a big labor issue in 1954. Steel 133:71 Ag 17 '53

Put contracts in plain English. T. C. Kent. Personnel J 32:222-4 N '53; Discussion. 32: 378-80; 33:14-16 Mr, My '54

Recent trends in union security; abstract. Management R 42:708-9 D '53

Union conflict involving special skilled labor. N. C. Rockwood. Rock Prod 57:61+ Je '54

Union-status provisions in collective agreements, 1952. C. Hammond and J. C. Nix. Mo Labor R 76:383-7 Ap '53

Vacation provisions in union contracts; survey; abstract. Management R 42:515 S '53

What's behind the steel agreement? J. B. Delaney. Iron Age 174:67 Jl 22 '54

See also

Collective bargaining

Guaranteed employment clauses

After annual wages, what? Bsns W p 162 D 19 '53

Annual wage; a 1955 battle. Bsns W p26-7 N 28 '53

Annual wage can't be guaranteed. Iron Age 172:62 O 22 '53

Annual wage gains ground in St Louis warehouse field. Bsns W p 167-8 D 19 '53

Bargaining on economic downtrend. Steel 134:51-2 Mr 1 '54

Case for the guaranteed annual wage. D. J. McDonald. Steel 134:60-2 Ap 5 '54

GAW strategy; autoworkers educate members on raising the ante. Iron Age 173:70 Ap 15 '54

GAW test case at Westinghouse. J. B. Delaney. Iron Age 173:69 Ap 15 '54

Guaranteed wage; an unattainable ideal? Steel 133:46-7 O 19 '53

More drum-beating for annual wages. Steel 133:78-9 D 14 '53

These are the questions automakers ask; open letter to Walter Reuther, president, CIO. F. G. Lawrence. Steel 133:83-4 N 16 '53

Seniority provisions

Seniority clauses in current union contracts; a survey; abstract. J. Nix. Management R 42:196-7 Ap '53

Something can be done about seniority problems. B. Werne. Factory Management 112: 256+ My '54

Wage clauses

Bargaining; predict a peaceful year. Iron Age 173:49 Je 24 '54

Growth, status, and implications of wage escalation. H. M. Douty. bibliog Mo Labor R 76:126-9 F '53

New pay climb. Bsns W p 169 O 10 '53

USW; tie the annual wage to jobless pay? J. B. Delaney. Iron Age 173:75 F 18 '54

Wage chronology series. Published in Monthly labor review

TRADE associations

Calendar of meetings, 1954. Steel 134:445-6+ Ja 4 '54

Metalworking meetings for 1954. Iron Age 173:383-4+ Ja 7 '54

Trade association group insurance. East Underw 55:40 F 19 '54

What trade associations can do for you; abstract. Management R 42:128-9 Mr '53

See also

Advertising, Association
Conventions
Insurance associations
Trade unions

also names of associations e.g.

American petroleum institute
Glass container manufacturers institute
Manufacturing chemists' association
National association of securities dealers
National paint, varnish and lacquer association

Advertising service

See Advertising, Association

Directories

Trade associations and technical societies; list of some 200 professional and technical societies and trade associations in metalworking and metal production. Iron Age 173:424+ Ja 7 '54

See also

Advertising associations—Directories
American ceramic society

Research work

Quiet boom in association research. Chem W 75:74+ Jl 10 '54

TRADE associations—*Continued*

Safety work

Associations win awards, too. A. M. Baltzer. Nat Safety N 68:28-9+ N '53

TRADE characters. See Advertising characters

TRADE directories

British empire trades index, 1953. 22d ed rev 1133p Business dictionaries, ltd, 133-137 Fetter lane, London, E.C.4; William E. Prugh, 3210 Carlisle av, Baltimore 16 '53 (pa 30s)

Business founding date directory. E. M. Kelley. 228p Morgan and Morgan, High Point Road, Scarsdale, New York '54 ($10)

Buyers' guide for open pit mining. Eng & Min J 155:BG 1-4+ My '54

Canadian trade index, 1954. 1126p $7.50 Canadian manufacturers' assn, 67 Yonge st, Toronto 1 '54

Ceramic data book with suppliers catalogs and buyers' directory of equipment and materials, 1953-1954. 675p pa $2 Industrial publications, 5 South Wabash av, Chicago 3 '53

Chemical Week Buyers' guide issue. A. J. Babkow, ed. Chem W 73:1-816 pt 2 S 19 '53

Chemical Week Buyers' guide issue. Chem W 75:1-862 pt 2 S 18 '54

Classified index of products used in waterworks and sewage field. Water & Sewage Works 101:R2-16 pt 2 My '54

Classified list of companies supplying products and services to the textile industry. Textile World 103:311-89 Mid-N '53

Diesel engine directory; manufacturers of engines and plant accessories. Diesel Power 32:53-79 Ja; 61-86 Jl '54

Directory for modernization; equipment, supplies and services for the modern plant; source-book of power field manufacturers. Power 98:97-102+ Mid-S '54

Directory of materials; tradenames and information, index by type of material, materials producers, general tradename index, specifications and standards groups. il Machine Design 26:2-200 sec 2 My '54

Gas engineering and appliance directory. Gas Age 113:67-155 Je 17 '54

National audio-visual association membership list and trade directory. 6th ed 18p pa 50c National audio-visual assn, 2540 Eastwood av, Evanston, Ill. '54

1954 Instruments index. Instruments 26:43-210 pt 2 Ag '53

Preparation buying guide. Coal Age 59:75-6+ Mr '54

Survey of the South; southern sources of supply; chemicals, dyestuffs, machinery, services. A. P. Black. Am Dyestuff Rep 43: sec2 Ag 30 '54

Trade names and suppliers of foundry equipment, supplies and services. Foundry 82: 165-204 Mr '54

See also subdivision Directories under various headings e.g.

Airplane accessories industry
Airplane industry and trade
Diesel engines
Equipment industries
Gas appliance industry
Machinery industry
Petroleum refineries

Bibliography

Business reference publications; catalogs, directories, buyers' guides, etc. Ind Marketing 38:32-6+ Je 25 '53

Selected business directories. H. G. Buzzell and J. Doty, comps. (Business literature v. 26, no 5:73-6 Ja; 6:73-4 F) Business library, Newark public lib, Newark, N.J. '54

TRADE discount. See Discount, Trade

TRADE exhibitions. See Exhibitions

TRADE exhibits. See Exhibits

TRADE fairs. See Fairs

TRADE-in policies

See also

Housing finance—Trade-in policies

TRADE journals

See also

Advertising mediums—Trade journals
Plumbing trade—Periodicals

Advertising

Business paper promotion, does it have to be so dreary? C. Barker. Adv Agency 47:48 Ja '54

Circulation

New CCA statement separates controlled and paid circulations. Ptr Ink 243:62 Je 19 '53

Directories

1954 market data and directory number. Ind Marketing 38:5-492 Je 25 '53

Editors

Business paper editors win 46 awards; Industrial Marketing's 16th annual editorial competition. Ind Marketing 39:60-2+ Jl '54

How to edit industrial copy for fast, easy reading. N. G. Shidle. Ind Marketing 39:132-3 Ag '54

TRADE-mark association, United States. See United States trade-mark association

TRADE marks

Branded industrial wraps. il Mod Packaging 27:169-71 Mr '54

Chart of trade-mark, copyright and patent protection. C. J. Houk, jr., comp. Ptr Ink 245:426-8 sec 2 O 23 '53

Fertilizer up front; Bandini's 44 products get trademark and design. il Mod Packaging 27:132-3 N '53

How good is trademark identity on goods shipped by flatcar? B. Aitchison. Ind Marketing 39:56+ Ag '54

Iron Fireman switches line but trade-mark keeps selling. L. J. Cox. il Ind Marketing 39:65 Mr '54

Patent, trademark or copyright? how to distinguish between the three methods of protecting ideas. G. V. Woodling. il Machine Design 26:162-4 Mr '54

She never grows old; Morton's little girl with the big umbrella. il Sales Management 71:76+ D 1 '53

Law

Egyptian trade-mark, patent law modified. For Comm W 51:18 Ja 4 '54

Possible trade mark infringements in West Germany. For Comm W 50:10-11 Ag 24 '53

Trademark and copyright laws affecting gas companies. L. T. Parker. Am Gas J 181: 29+ Jl '54

Trademark troubles abroad; infringements in foreign countries. Chem W 73:59-60 O 3 '53

Protection

Check your trade-mark registration dates. G. H. Weil. Ptr Ink 243:58 My 22 '53

TRADE names

Chemical Week Buyers' guide issue. A. J. Babkow, ed. Chem W 73:790-812 pt 2 S 19 '53

Chemical Week Buyers' guide issue. Chem W 75:833-58 pt 2 S 18 '54

Directory of materials; tradenames and information, index by type of material, materials producers, general tradename index, specifications and standards groups. il Machine Design 26:2-200 sec 2 My '54

Heating, piping, and air conditioning equipment for industry and large buildings. Heating-Piping 26:sup 123d-158d Ja '54

How to pick a name for a new product. R. N. McMurry. Sales Management 73:102-5 Ag 15 '54

Market study of brand name preference and product usage; 1953, 1951, 1949. Ptr Ink 245:435-9 sec 2 O 23 '53

Midstream horse change; birth of new mark, Krene. il Chem W 73:52 Jl 25 '53

1954 American Builder directory; brand names. Am Bld 76:497-500+ Ap '54

1954 directory, manufacturers of products and equipment used in warm air heating, air conditioning, ventilation, sheet metal work, roofing, exhaust and blower work. Sheet Metal Worker 45:supD23-31 Ja '54

Trade-mark names. A. M. Patterson. Chem & Eng N 32:3548 S 6 '54

Trade names and suppliers of foundry equipment, supplies and services. Foundry 82: 165-84 Mr '54

TRADE names—*Continued*

Trade names; construction equipment. Roads & Eng Constr 92:302+ Je '54

What's become of brand names? design of food packages. J. Nash. Ptr Ink 244:31 Ag 7 '53

TRADE practices

Cynicism and sales; Evis water conditioner case. Chem W 74:13 Je 5 '54

F.T.C. holds final hearing on floor wax trade rules. Soap & San Chem 29:165+ O '53

F.T.C. holds hearing on third set of floor wax trade rules. Soap & San Chem 29:177 Ap '53

FTC weighing stricter trade practice rules. A. A. Carretta. Oil Paint & Drug Rep 164:5 D 14 '53

Rules laid down for plastics; statement of principles by the plastics industry. Chem & Eng N 32:1006 Mr 15 '54; Oil Paint & Drug Rep 165:4+ Mr 15 '54

Trade practice rules for cosmetic and toilet goods industry. E. F. Howrey. Oil Paint & Drug Rep 165:53-5 My 17 '54

See also

Dealer relations
Discount, Trade
Federal trade commission
Price cutting
Price discrimination
Price fixing
Price fixing, Resale
Price policies
Restraint of trade
Sales policies

TRADE schools

Enrollment problem in our ceramic schools. R. R. Danielson. Am Cer Soc Bul 33:25-6 Ja 15 '54

Williamsport technical institute. il Diesel Power 31:39 N '53

TRADE secretariats, International. See International trade secretariats

TRADE shows. See Exhibits

TRADE union newspapers. See Newspapers, Trade union

TRADE unions

Can a craft union raid your plant? Factory Management 112:108-9 Ap '54

Do our wage-fixing arrangements promote inflation? union's influence on wages. S. H. Slichter. Comm & Fin Chr 179:158-9+ Ja 14 '54

Down to the hard-sells; chemical industry still less than 50 per cent unionized. Chem W 73:21-4 D 12 '53

Field trial; Ohio turnpike is center of organizing attempt. Eng N 152:23-4 Mr 18 '54

Friendship deferred between two leading labor unions in chemical process industries. Chem W 74:17 Ap 17 '54

Green light on raids; National labor relations board's decision in American potash & chemical corp. case. Chem W 74:15 Mr 13 '54

Labor's 1954 theme. Steel 133:69-70 N 9 '53

Management views the local union. J. Seidman and others. J Bsns 26:91-102 Ap '53

Market forces, not unions, account for basic wage changes; U.S. Chamber of commerce opinion. Comm & Fin Chr 178:2541 D 24 '53

NLRB, in policy reversal, vetoes all-inclusive union for chemicals. Oil Paint & Drug Rep 165:3+ Mr 8 '54

Old foes, new friends; CIO unions in petrochemical field moving closer toward merger. Chem W 75:15 Ag 21 '54

Panacea they pine for in chemical labor unions. Chem W 74:14-15 Ap 3 '54

Rebuff to raiders; AFL's chemical labor union and CIO counterpart under pledge. Chem W 74:25 Je 26 '54

Shifty defense; opposition to piecemeal collective bargaining. Chem W 73:17-18 O 17 '53

Some facts and figures on unions. Management R 43:288-9 My '54

Strife for security; CW checkup on labor union plans for 1954. Chem W 74:11 Ja 9 '54

Unionization of professional personnel. K. B. McEachron. J Eng Educ 44:148-56 N '53

What dealers should know about labor union organizing. Nat Pet N 46:16-17 Ja 27 '54

What do you know about labor unions? Iron Age 172:141-3 Jl 9 '53

What's ahead for labor demands? Steel 133: 50 O 5 '53

White-collar unions are different! G. Strauss. Harvard Bsns R 32:73-82 S '54

See also

Arbitration, Industrial
Boycott
Insurance agents—Unions
Labor and laboring classes
Newspapers, Trade union
Open and closed shop
Picketing
Strikes
Trade agreements

also names of unions, e.g.

Air line pilots association, International
American federation of labor
American newspaper guild
Congress of industrial organizations
Engineers and scientists of America
International association of machinists
International brotherhood of teamsters, chauffeurs, warehousemen and helpers of America
International chemical workers union
International confederation of free trade unions
International longshoremen's association
International typographical union
National women's trade union league of America
Oil workers international union
United automobile workers of America
United brotherhood of carpenters and joiners of America
United gas, coke and chemical workers of America
United mine workers of America
United steelworkers of America

Benefit funds

Big trend in unions for welfare plans; group insurance welfare business. M. Woll. East Underw 55:3 My 21 '54

Bohlinger to ask power to regulate union welfare funds. Nat Underw 58:6+ S 23 '54; Same. Nat Underw (Life ed) 58:2+ S 24 '54

California-Western clarifies group stand. Nat Underw 57:19 Jl 30 '53; Same. Nat Underw (Life ed) 57:16 Jl 24 '53

Chamber of commerce to study union welfare funds. Nat Underw (Life ed) 58:10 O 15 '54

Corcillo to face New York attorney general for refusal to testify. Nat Underw (Life ed) 57:13 D 25 '53

Department to continue probe of union welfare in New York state. East Underw 54: 25 D 25 '53

Estimate New York probe covers 500 welfare funds; 83 per cent insure. Nat Underw 57:5 N 19 '53; Same. Nat Underw (Life ed) 57:7 N 20 '53

Examination of welfare funds OK, bank deals exempt. Nat Underw 58:15 Ap 1 '54; Same abr. Nat Underw (Life ed) 58:8 Ap 2 '54

Five years for broker for balking probe of welfare funds. Nat Underw 58:1 Ag 5 '54; Same. Nat Underw (Life ed) 58:4 Ag 6 '54

Former Dewey prober to hold union study; Sol Gelb. Nat Underw 58:22 Ja 21 '54; Same. Nat Underw (Life ed) 58:6 Ja 22 '54

Labor-management trusteed welfare funds; abstracts. M. E. Segal. East Underw 55:38 F 19 '54; Nat Underw 58:8 F 11 '54; Nat Underw (Life ed) 58:7 F 12 '54

New business from fringe benefit funds; Anglo national bank of San Francisco. L. Tharp. il Burroughs Clearing House 38:40-2+ F '54

New York dept. sets week-long hearing on welfare funds. Nat Underw 58:5 S 9 '54; Same. Nat Underw (Life ed) 58:1 S 10 '54

New York hearing reveals how union boss can get business for favorite agency; abstracts. Nat Underw 57:1+ D 17 '53; Nat Underw (Life ed) 57:1+ D 18 '53

New York is launching probe of commission and kickback practices in welfare funds. Nat Underw (Life ed) 57:1 Jl 10 '53

New York ready for welfare funds investigation. Nat Underw 57:14 N 12 '53; Same. Nat Underw (Life ed) 57:10 N 13 '53

New York superintendent surveys union welfare plans. Weekly Underw 170:226 Ja 23 '54

Occidental lost money on metal workers group. J. P. Dandy. Nat Underw (Life ed) 58:4 O 8 '54

TRADE unions—Benefit funds—*Continued*

Power to examine welfare funds given to N.Y. department. East Underw 55:1+ Ap 2 '54

Quick results from union welfare fund probe; New York state. C. Axman. East Underw 55:3 S 24 '54

Racketeer influence said to be rare in union group cases. Nat Underw 57:7 O 8 '53; Same. Nat Underw (Life ed) 57:7 O 9 '53

Snack vendors pay union benefits; vending machine profits at Pittsburgh Steel plants. J. B. Delaney. il Iron Age 173:37 Ja 21 '54

State hearing on welfare funds of unions; New York. East Underw 55:1+ S 17 '54; Nat Underw 58:5+ S 16 '54; Nat Underw (Life ed) 58:1+ S 17 '54

Study shows many bad practices in New York welfare funds. Nat Underw 58:2, 37 Mr 25 '54; Same. Nat Underw (Life ed) 58:3 Mr 26 '54

Unearned commissions, even in clean cases, irk responsible union officials. Nat Underw (Life ed) 57:3+ D 25 '53; Nat Underw 57:3+ D 24 '53

Union Casualty & Life put in unfair light at hearings. Nat Underw 57:22-3 D 17 '53; Same. Nat Underw (Life ed) 57:4, 23 D 11 '53

Unions pledge support of New York department's welfare fund probe. Nat Underw 58:13 Ja 28 '54

Unions start own welfare fund inquiry. Nat Underw 58:38 F 18 '54; Same. Nat Underw (Life ed) 58:15 F 19 '54

U.S. welfare fund probe gets into insurance realm. J. C. Burridge. Nat Underw 57:1+ N 26 '53; Same. Nat Underw (Life ed) 57:1+ N 27 '53

Warns of welfare plan abuse in New York state; abstracts. A. J. Bohlinger. East Underw 55:20 My 14 '54; Nat Underw 58:6 My 13 '54; Nat Underw (Life ed) 58:8+ My 14 '54; Weekly Underw 170:1202 My 15 '54

Welfare fund investigation in New York presents plain and fancy problems. Nat Underw 57:1 Jl 23 '53; Same. Nat Underw (Life ed) 57:1 Jl 24 '53

Welfare funds under scrutiny of New York insurance department. Weekly Underw 169:1560 D 26 '53

Communist problem

Cohesion in combat; a union besieged; International union of mine, mill and smelter workers. Chem W 74:16-17 My 1 '54

GE employees retain IU as agent in Massachusetts plants. Elec World News ed 140:44 D 21 '53

Hurdle for unions; new Communist control law. Chem W 75:26 S 25 '54

NLRB and reds. Bsns W p79-80 D 26 '53

NLRB swats at leftists. Bsns W p 166 N 7 '53

Reds may lose union strongholds. N. R. Regeimbal. Iron Age 173:81 Je 10 '54

See also

World federation of trade unions

Cooperation with management

Can plaster regain lost markets? two AFL unions agree to help contractors pay for promotion drive. House & Home 4:39 N '53

Codetermination for unions; miracle or mistake? Germany's successful experiment. E. F. Beal. Factory Management 111:222+ N '53

Grass roots approach to labor-management disputes pays off. Steel 135:52-3 S 6 '54

Joint training in time study. G. S. Odiorne. Personnel 30:203-5 N '53

Labor unions are crossing over to business' side of the street. E. C. Kreutzberg. Steel 134:70 Je 7 '54

Management and union's meeting ground; opportunity-security question. W. V. Owen. Advanced Management 18:5-6 Ag '53

More in common than in conflict; case study in human relations in industry; abstracts of papers. Paper Tr J 137:49-52+ D 11 '53

Off-stage role wins plaudits when labor unions take initiative in charitable enterprises. il Chem W 74:14-15 My 8 '54

Productivity and the trade unions in France. R. Richard. Int Labour R 68:279-302 S '53

Responsibility is keynote; abstracts. D. J. McDonald. Iron Age 174:49-50 S 30 '54; Steel 135:45 S 27 '54

Union survey draws mixed response. Steel 133:57 N 30 '53

What's behind their company tour? Bsns W p 176-7 N 14 '53

Directories

Directory of labor unions in the United States; supplement to bulletin 1127. 13p U.S. Bur. labor statistics, Washington 25 '54

Educational work

Cramming for parleys; labor institutes in chemical field. il Chem W 73:21-2 Ag 8 '53

Finance

Strike financed by bonds. il Bsns W p 165 N 7 '53

When union leaders wield vast financial power, what then? H. Nicholson. Mag of Wall St 93:600-2+ F 20 '54

Health service

Labor health plans. Safety Maint & Prod 108:50 S '54

Union health centers. Nat Safety N 69:155+ Mr '54

Insurance plans

AFL, CIO agents' unions to develop united program. Nat Underw (Life ed) 58:4 Ja 1 '54

California-western states group writing attitude. Weekly Underw 169:286 Ag 1 '53

Enjoin Blue cross from cancelling contracts of union members at Toledo. Nat Underw 57:25 Ag 6 '53; Same. Nat Underw (Life ed) 57:13 Ag 7 '53

International brotherhood of electrical workers charged with unfair labor practice on workmen's compensation switch. East Underw 55:32 F 5 '54; Nat Underw 58:38 F 11 '54; Weekly Underw 170:339 F 6 '54

Labor agreement in New York puts group workmen's compensation in state fund, brokers protest. Nat Underw 58:10 Ja 7 '54

Labor council sets up agency at Little Rock; United employees agency. Nat Underw 58:11 Ap 22 '54

New York brokers to fight compensation replacement move; union agreements condemned. D. N. Sugarman. East Underw 55:33 Ja 8 '54

Seattle association interested in group activities. Weekly Underw 169:232 Jl 25 '53

See also

Pensions, Industrial
—Finance

International aspects

See also

International confederation of free trade unions

International trade secretariats

Investments

Leftist union loves high-grade bonds; ILWU-PMA pension fund. Bsns W p 176-8 N 21 '53

Jurisdictional disputes

AFL plays for high stakes. il Bsns W p 172+ O 3 '53

Building trades harmony in the balance. A. Adams. Eng N 151:27 D 31 '53

Changing the balance; vertical-horizontal debate involves differences between AFL and CIO. Chem W 73:16 S 12 '53

Davis-Bacon application hit. Eng N 151:27-8 O 15 '53

Panel walls; which trade does what? il Eng N 151:29 O 29 '53

Rear guards not needed? no-raiding agreement, AFL and CIO. Chem W 72:22+ Je 27 '53

Uneasy peace at Joppa. Bsns W p 166-7 O 24 '53

Union tug of war inside NLRB. Bsns W p 179 S 26 '53

Unions dust off boycott gimmick in jurisdiction war; Reeves steel & mfg. co. Steel 135:54-5 Ag 23 '54

Unions; violence flares in forge plant jurisdictional dispute. il Iron Age 173:121 Ap 22 '54

TRADE unions—*Continued*

Law

Union power to discipline members limited. N. C. Rockwood. Rock Prod 57:57+ Mr '54

Officials

True engineers; question of union leadership settled with the cold logic of science; Minneapolis federation of Honeywell engineers. Bsns W p 178 N 21 '53

See also

Fay, Joseph S.

Political activities

Planning labor's role in '54. Bsns W p 136 Ag 29 '53

Political-economic dangers in super labor union. H. Wingate. Mag of Wall St 92: 648-9+ S 5 '53

Statistics

Labor union membership, 1898-1953; tabulation. Steel 134:198 Ja 4 '54

Taxation

Pensions; UMW seeks tax exemption. R. M. Stroupe. Iron Age 172:75 Jl 16 '53

Chile

Trade unionism among agricultural workers in Chile. F. W. Linares. Int Labour R 68: 509-23 D '53

France

Productivity and the trade unions in France. R. Richard. Int Labour R 68:279-302 S '53

Germany

Codetermination for unions; miracle or mistake? Germany's successful experiment. E. F. Beal. Factory Management 111:222+ N '53

Unions in democratic and Soviet Germany. T. Lit. bibliog Mo Labor R 76:1-7 Ja '53

Great Britain

Caution, or moderation? Trades union congress position. Economist 168:684 S 12 '53

Claims on empty kitties; TUC and wage claims. Economist 168:767-8 S 19 '53

Militant unions. Economist 169:800 D 12 '53

No left turn for Britain. Bsns W p 169 S 19 '53

Tory infiltration. Economist 169:229-30 O 24 '53

Unions and socialism. Economist 168:609-11 S 5 '53

Wages cauldron. Economist 170:71-3 Ja 9 '54

United States

Adding to labor's worries; officials warning locals that recent court decisions pose threat to union treasuries. il Bsns W p 158+ D '53

American labor and the American spirit; unions, labor-management relations, and productivity. W. Bowden. U S Bur Labor Statistics Bul 1145:1-66; pa 40c Supt. of doc. '54

Extent of unionization in major labor markets, 1951-52. A. N. Jarrell. Mo Labor R 76:26-9 Ja '53

Labor hits at its own apathy. Bsns W p 138 Ag 29 '53

Labor tries on long pants. Steel 135:49-50 S 6 '54

Labor union membership, 1898-1953; tabulation. Steel 134:198 Ja 4 '54

Labor's monumental continuing blunder. T. L. Godey. Mag of Wall St 93:64-6+ O 17 '53

Merchant seamen in the United States, 1937-1952. E. P. Hohman. Int Labour R 67: 1-43 Ja '53

Power motivations of the American labor movement. J. B. S. Hardman. Mo Labor R 76:258-60 Mr '53

Bibliography

History of labor and unionism in the United States. R. E. McCoy and D. Gsell, comps. (Bibliographic contributions no. 2) 88 l Institute of labor and industrial relations, Univ. of Illinois, Champaign, Ill. '53

TRADE waste

Analysis of various methods for treatment of deoxygenating wastes. A. V. DeLaporte. Munic Util 92:25+ Je '54

Biological treatment of waste waters containing phenol; abstract. I. Sörensen. Sewage & Ind Wastes 26:925 Jl '54

Cite waste treatment as industry's job; Southern industrial wastes conference on abatement of air and water pollution, Houston. Eng N 152:26 Ap 29 '54

Critical review of the literature of 1953 on sewage, waste treatment, and water pollution. Sewage & Ind Wastes 26:695-716 bibliog(191 titles, p710-16) Je '54

Determining risks of toxic substances in water. E. J. Cleary. Sewage & Ind Wastes 26:203-10; Discussion. G. E. Burdick. 210-11 F '54

English research on sewage and industrial waste treatment. Pub Works 85:102+ Ag '54

Federation of sewage and industrial wastes association industrial waste forum, Miami, Oct. 13-16. Water & Sewage Works 101: 31-5 Ja '54

Findings and recommendations on underground waste disposal. Am Water Works Assn J 45:1295-7 D '53

Flotation and sedimentation in treating wastes. A. A. Kalinske. bibliog il diags Water & Sewage Works 101:128-31 Mr '54

Future of industrial wastes treatment. H. H. Black. bibliog Sewage & Ind Wastes 26: 300-8; Discussion. F. W. Mohlman. 308-9 Mr '54

Grappling with that problem of citrus-waste odors. Food Eng 26:133+ My '54

Gravity separation of silt from industrial wastes. C. L. Siebert, jr. Sewage & Ind Wastes 26:531-5 Ap '54

How municipalities should approach industrial waste problems. E. G. Hackborn. Munic Util 92:34+ Ag '54

How waste water reclamation affects ground water pollution. diag Pub Works 85:59-60+ Ja '54

Industrial process water symposium. bibliog il maps diags Ind & Eng Chem 45:2647-88 D '53

Industrial wastes; developments during last twelve months. S. T. Powell. Published in monthly numbers of Industrial and engineering chemistry

New Jersey sewage and industrial wastes association 39th annual meeting, Atlantic City, March 10-12; with abstracts of papers. Water & Sewage Works 101:230-3 My '54

New York sewage and industrial wastes association 26th annual meeting, New York, Jan. 21-22; with abstracts of papers. Water & Sewage Works 101:180-4 Ap '54

Putting micro-organisms to work on waste. Bsns W p54-5 S 19 '53

Sewage and industrial waste developments during 1953. F. W. Mohlman. il Water & Sewage Works 101:45-54 F '54

Southern industrial wastes conference, Houston, April 21-23; abstracts of papers. Oil Paint & Drug Rep 165:5+ Ap 26 '54

Southern municipal and industrial waste conference, 3d, Raleigh, March 19-20; abstracts of papers. Water & Sewage Works 101: 278-81 Je '54

Survey of current problems for research. H. Heukelekian and W. H. Wisely. Sewage & Ind Wastes 26:1155-9 S '54

Symposium on effluent disposal, London; abstracts of papers. Chem & Ind p433-5 My 2 '53; Chem Age (Lond) 68:657-9, 705-8 My 2-9 '53

Waste disposal problems and solutions; abstracts. T. J. Powers. Factory Management 112:266+ F '54; Tool Eng 32:149-50 My '54

Waste water reclamation in relation to ground water pollution; abstract. Sewage & Ind Wastes 26:927-8 Jl '54

Water, sewage, and industrial waste research trends and needs. A. H. Wieters and L. B. Dworsky. bibliog Pub Health Rep 68:1099-106 N '53

TRADE waste—*Continued*

Why industrial pollution control? R. F. Weston. Tool Eng 33:154-5 S '54

See also

Acid waste
Breweries—Waste
Canneries—Waste
Chemical plants—Waste
Coal mines and mining—Waste
Coal waste
Coke plants—Waste
Dairy waste
Electric plants (central stations)—Waste
Electroplating—Waste
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Metal working plants—Waste
Oil waste
Packing houses—Waste
Paper and pulp mills—Waste
Petroleum—Water problem
Petroleum waste
Refuse disposal
Sewage disposal
Sewerage
Starch factories—Waste
Steel works—Waste
Sulfite liquor
Textile mills—Waste
Waste, Utilization of
Water pollution

also Federation of sewage and industrial wastes associations

Disposal plants

Application of air flotation to refinery waste waters. G. A. Rohlich. bibliog flow diags il Ind & Eng Chem 46:304-8 F '54

Automatic pH control replaces manual operation for acid waste treatment; Exchange lemon products co. P. L. Shugart. diag Pub Works 85:67 Jl '54

Canadian experience in dealing with phenolic wastes. A. D. McRae. flow sheet diags Munic Util 91:51-3+ N '53

Canning plant waste problem solved by simplified procedures. R. S. Ingols and others. il map Water & Sewage Works 101:227-9 My '54

Catalytic oxidation of aqueous wastes. J. Oliver. diags Chem Eng Prog 50:425-7 Ag '54

Chemical waste treatment; Ruabon factory of the Monsanto co. I. S. Wilson. Water & Sewage Works 101:331-2 Jl '54

Ciba solves water pollution danger at Toms River dye plant. il Chem & Eng N 31:3690 S 7 '53

Citrus waste treatment studies. R. E. McKinney and others. bibliog Water & Sewage Works 101:123-7 Mr '54

Coagulating rouge with calcium chloride. J. A. McCarthy. Pub Works 85:170-1 My '54

Continuous disposal of fluorine; reaction with superheated steam. S. H. Smiley and C. R. Schmitt. bibliog diags Ind & Eng Chem 46:244-7 F '54

Current practice in the treatment of oil wastes. K. Cashmore. Munic Util 92:32+ Je '54

Design and effectiveness of an underwater diffusion line for the disposal of spent sulphite liquor; Columbia River paper mills. H. R. Amberg and A. G. Strang. maps Tappi 37:307-13 Jl '54

Destruction of oxalic acid by activated sludge. D. J. Nelson and others. Sewage & Ind Wastes 26:1126-9 S '54

Dislodging a delusion; National Petro-Chem pollution control plant. il Chem W 75:17-18 Jl 31 '54

Disposal of electroplating wastes by Oneida, ltd. C. A. Walker and others. bibliog flow diag Sewage & Ind Wastes 26:843-53, 1002-13, 1130-5 Jl-S '54; Abstract. Water & Sewage Works 101:181-2 Ap '54

Disposal of industrial wastes. G. E. Barnes. diags Am Soc C E Proc 79 [no 247]:1-16 Ag '53

Disposal of industrial wastes; abstracts of papers at Purdue university conference. Chem Age (Lond) 70:413-15 F 13 '54

Disposal of steel production wastes at the Fairless works. G. A. Howell. flow diags il Sewage & Ind Wastes 26:286-97; Discussion. G. A. Pettit. 297-9 Mr '54

Disposal of toxic industrial waste; cyanide solutions. F. J. Knight. Metallurgia 49:279-80 Je '54

Facts about modern waste treatment. il Mill & Factory 54:471 My '54

Flow-through treatment of metal industry wastes. F. J. Hendel and V. T. Stewart. bibliog il Sewage & Ind Wastes 25:1323-30 N '53

Gravity separation of oil; Sun oil co. H. F. Elkin and W. E. Soden. bibliog flow diag plans diags Sewage & Ind Wastes 26:854-61 Jl '54

High-rate filters treat mixed wastes at Sharp & Dohme. J. A. Liontas. flow diag il plan diag Sewage & Ind Wastes 26:310-16 Mr '54

History of a plant for treatment of textile sewage. A. N. Henschel. Am Dyestuff Rep 43:114-15 F 15 '54

History of operations of textile-sewage plants in Connecticut. W. J. Snow. Am Dyestuff Rep 43:112-13 F 15 '54

How to de-oil your refinery waste waters for economical re-use. V. J. Calise. flow sheet Power Eng 58:72-3 Je '54

Industrial plant waste disposal problems and their solution; abstract. J. W. Townsend. Power 98:208 Je '54

Industrial waste conference, 9th, West Lafayette; abstracts of papers. Chem & Eng N 32:2107-8 My 24 '54

Industrial waste guide; blast furnace department of the steel industry. H. H. Black and G. N. McDermott. bibliog flow diag diags Sewage & Ind Wastes 26:976-90 Ag '54

Industrial waste instrumentation for measurement and control. J. J. Baffa. diags Water & Sewage Works 101:358-61 Ag '54; Same cond. Instruments & Automation 27:936-7 Je '54

Industrial waste plant treats domestic sewage; Adolph Coors co. il Pub Works 84:73 N '53

Industrial waste treatment and disposal at government synthetic rubber plants, Los Angeles county. A. E. Martin and R. E. Rostenbach. il diags Ind & Eng Chem 45:2680-6 D '53

Industrial wastes inventory shows facts lacking, measure of progress difficult. Eng N 152:34-5 Ja 14 '54

Instrumentation for disposal of industrial waste. J. G. Dobson. bibliog flow diag diags Instruments 26:1372-5+ S '53

Integrated treatment for metal-finishing wastes. L. E. Lancy. bibliog flow sheets Sewage & Ind Wastes 26:1117-25 S '54

Jetted lime sludge works on waste; Du Pont company Chambers works. il Chem Eng 61:126 Je '54

Keep waste disposal within local limits; Van Straaten chemical co. E. E. McClung. diag Steel 135:80 Jl 5 '54

Key to regional water pollution cleanup; pilot operation treating chemical industrial wastes expected to determine design factors for the Somerset-Raritan Valley sewerage authority. il Eng N 152:33-4 Mr 11 '54

Key to sound design of sedimentation basins is to provide sufficient floor area to receive settling particles. H. R. Murdock. diag Ind & Eng Chem 45:sup 105A-7A O '53

Koppers waste water treatment unit in operation. Blast F & Steel Pl 42:806 Jl '54

Land disposal of waste products should be adopted only after careful study of its advantages and disadvantages. S. T. Powell. Ind & Eng Chem 46:sup95A-6A+ S '54

Liquid waste treatment at Orangeburg manufacturing co.; abstract. W. E. Stanley. Water & Sewage Works 101:181 Ap '54

Making mill effluent pay off. R. W. Simpson and W. Garlow. il Steel 133:90+ O 19 '53

Making pollution pay; Reliance chemicals corp. microbiological cultures for treating plant wastes. Chem W 73:40 S 12 '53

Making the best of wastes; Abbott laboratories process. il Chem W 74:60-1 F 13 '54

Measurement of oxygen uptake by oxidation-reduction potential. J. P. Horton. flow sheet il Instruments & Automation 27:1312-13 Ag '54

Microbiological studies on the treatment of petroleum refinery phenolic wastes. W. D. Sheets and others. bibliog il Sewage & Ind Wastes 26:862-8 Jl '54

Model waste-disposal plant; Adolph Coors co. brewery. F. Pitman. flow diag il Food Eng 25:67-8 N '53

New system cuts waste pickle liquor disposal costs; A. O. Smith-Eimco process. D. A. Dahlstrom. flow sheet il Iron Age 173:150-3 Ap 8 '54

New waste treatment plant kills cyanides; Oneida, ltd. il diag Chem Eng 61:142+ Jl '54

TRADE waste—Disposal plants—*Continued*

New way to tame balky separation; rapid filtration at low oxidation levels. il Chem Eng 61:128+ Ag '54

1953 industrial wastes forum. Sewage & Ind Wastes 26:640-55 My '54

Non-clogging foam-safe aerators lick cheese-waste problem. K. L. Schulze. il diags Food Eng 26:51-3 S '54

Paper and pulp waste reduction by mill improvement; International paper co. R. M. Drummond. Sewage & Ind Wastes 26:656-60 My '54

Paper pulp wastes treatment; Orangeburg manufacturing co. W. E. Stanley and R. D. Ellis. il plans diags Sewage & Ind Wastes 26:991-1001 Ag '54

Phenolic-waste problem in the U.S.A. and how it is being handled. N. S. Chamberlin and A. E. Quinn. Munic Util 91:49-50+ N '53

Pilot-plant studies on treatment of vegetable processing wastes; Seabrook farms co. R. A. Webster. bibliog flow diags Sewage & Ind Wastes 25:1432-7 D '53

Pipe mill waste water treatment; National supply co. M. G. Van Voorhis. il plan diag Water & Sewage Works 101:242-4 My '54

Plastic pipe lines well to handle corrosive waste water; American cyanamid co. E. S. Moreland. diags Heating-Piping 26:92-3 Ag '54

Pollution research pushed; American Cyanamid teams up with neighbors to clean up Raritan river. il Chem Eng 61:122+ Ja '54

Process engineering in stream pollution abatement. A. N. Heller and M. E. Wenger. flow sheets flow diag Sewage & Ind Wastes 26:171-81 F '54

Recovery of phenolics from waste effluents. R. G. Edmonds and G. F. Jenkins. flow diag Chem Eng Prog 50:111-15 Mr '54

Refinery oxidizes wastes; Sun Oil at Sarnia, Ont. il Chem Eng 61:120 F '54

Results of research on citrus processing waste disposal; abstract. J. W. Wakefield. Sewage & Ind Wastes 26:1189-90 S '54

Separation plant removes sludge from waste water; Spang-Chalfant plant of National supply co. J. E. Culleton. il diags Iron Age 173:131-3 F 11 '54

Simplified waste treatment methods for the electroplating industry. L. E. Lancy. bibliog il Metal Finishing 52:66-71 Jl '54

Sludge return for control of scale formation. W. A. Parsons and H. Heukelekian. bibliog Ind & Eng Chem 46:1503-7 Jl '54

Soluble oil wastes treatment by pressure flotation; Chrysler corp. A. H. Beebe. bibliog flow diag il Sewage & Ind Wastes 25:1314-22 N '53

Solve a liquid disposal problem by pumping waste underground; Parke Davis & co. C. G. Wyder. il Factory Management 112:140 My '54

Start construction on W.Va.'s $2,000,000 waste treatment plant; West Virginia pulp and paper co. flow diag il Paper Tr J 138:10-11 Jl 9 '54

Sulfur mining au moderne; Texas Gulf Sulphur forestalls pollution with a novel process for treating sulfur mine waste water. il Chem & Eng N 32:2992-3 Jl 26 '54

Toxicity of beryllium. C. S. Pomelee. Sewage & Ind Wastes 25:1424-8 D '53

Treating organic wastes on experimental trickling filters; American cyanamid co. J. F. Vogler and others. il diags Water & Sewage Works 101:316-23, 366-72 Jl-Ag '54

Treatment of complex metal-finishing wastes. K. S. Watson. il diag Sewage & Ind Wastes 26:182-94; Discussion. W. S. Wise. 194-6 F '54

Treatment of machine shop and foundry wastes; abstract. C. W. Hathaway and R. E. Harvie. Water & Sewage Works 101:405 S '54

Treatment of petrochemical wastes by super-activated sludge process. E. R. Strong and R. Hatfield. bibliog flow diags il diag Ind & Eng Chem 46:308-16 F '54

Treatment of refinery emulsions and chemical wastes. C. Phillips, jr. flow diag Ind & Eng Chem 46:300-3 F '54

Trickling filter studies on fine chemical plant wastes. F. E. Reimers and others. bibliog flow diag il Sewage & Ind Wastes 26:51-8 Ja '54

Trickling filters treat flax wastes. W. H. Oldaker. Pub Works 85:171-2 My '54

Triple-play waste disposal; Allison division, General motors corp. L. I. Couch. flow diags Steel 133:156-8+ Ag 17 '53

Vibrating screen separator treats cannery wastes. il Pub Works 85:136 S '54

Waste disposal in the Los Angeles area. A. M. Rawn. Ind & Eng Chem 45:2677-9 D '53

Waste treatment maintains aerobic conditions. J. A. Lindsey and R. L. Smith. flow diag Pub Works 85:85-6 F '54

Waste treatment plant at the Covington, Va. plant of West Virginia pulp & paper co. il Tappi 37:sup 125A-6A S '54; Same cond. flow diag Paper Ind 36:470-1 Ag '54

Water and waste treatment by pH, ORP, and conductivity. W. W. Eckenfelder, jr. bibliog il diag Instruments & Automation 27:1082-3 Jl '54

Went all-out to lick stream pollution; Oneida, ltd. il Factory Management 112:118-20 Jl '54

White water clarification equipment. H. W. Gehm and N. J. Lardieri. Tappi 37:sup 160A-2A Ag '54

Radioactive waste

Atomic waste collectors; Radiological service co. of New York. il Ind & Eng Chem 46:sup 18A+ F '54

Disposal of atomic energy industry wastes. A. E. Gorman. bibliog Ind & Eng Chem 45:2672-7 D '53

Economic evaluation of permanent disposal of radioactive wastes. A. C. Herrington and others. Nat Safety N 68:46 D '53; Abstract. Am Water Works Assn J 46: sup68+ F '54

Garbage collector, atomic type; Radiological service, Jamaica, N.Y. il Chem & Eng N 32:1068 Mr 15 '54

Nuclear engineering radiation problems; radioactive wastes treatment, use, disposal. W. A. Rodger. bibliog Chem Eng Prog 50: 263-6 My '54

Radioactive contaminated laundry waste and its treatment. E. F. Gloyna. bibliog il Sewage & Ind Wastes 26:777-89, 869-86 Je-Jl '54

Radioactive effluents; abstract. H. J. Blythe. Chem & Ind p434 My 2 '53

Radioactivity assay of water and industrial wastes with internal proportional counter. L. R. Setter, A. S. Goldin and J. S. Nader. bibliog diag Anal Chem 26:1304-6 Ag '54

Radioisotope removal in modern waste treatment. W. J. Kaufman and G. Klein. bibliog il Am Soc C E Proc 79 [no 239]:1-25 Ag '53

Recommendations for the disposal of carbon-14 wastes. U S Nat Bur Stand Handbook 53:1-14; pa 15c Supt. of doc. '53

See also

Sewage disposal—Radioactive waste disposal

Water pollution—Radioactive pollution

Terminology

Glossary on waste treatment and stream pollution. Am Dyestuff Rep 42:695-706 O 12 '53

Testing

B.o.d.-o.c.d. relationship in a treated industrial effluent. S. Kaufman. bibliog Water & Sewage Works 101:362-5 Ag '54

Comparison of the oxygen consumed from permanganate and b.o.d. tests in the study of textile wastes. H. J. Northup. bibliog Am Dyestuff Rep 43:130-1 Mr 1 '54

Floatability of oil and grease in waste waters. R. Pomeroy. Sewage & Ind Wastes 25: 1304-13 N '53

pH adjustment for determination of ammonia nitrogen. C. N. Sawyer. Anal Chem 25: 816-17 My '53

Proposed toxicity test for industrial wastes. A. W. Anderson. Sewage & Ind Wastes 25:1450-1 D '53

TRADE waste—Testing—*Continued*

Simplified method for determination of oil in waste waters. R. E. Beaudoin. Sewage & Ind Wastes 26:568-9 Ap '54

Toxicity of mercuric chloride, chromic sulfate, and sodium chromate in the dilution b.o.d. test. Sewage & Ind Wastes 26: 536-8 Ap '54

TRADES union congress, British. See Trade unions—Great Britain

TRADING areas. See Shopping areas

TRADING stamps

Response to trading stamp plans. A. Kroeger. J Retailing 29:171-2+ Winter '53-54

Trading stamps. Bsns W p54 O 17 '53

TRAFFIC departments, Industrial

Finger in every pie; job of chemical company traffic manager. il Chem W 74:40-2+ Ja 16 '54

Getting the most from traffic management. P. B. Blomgren and J. R. Hartley. Management R 43:592-4 S '54

Industrial traffic officers are important in selecting new plant sites. il Ry Age 135: 56-7 N 2 '53

Traffic control, key to economical movement of goods; Scovill mfg. co. S. W. Baker. il Steel 133:40-1+ Ag 31 '53

Traffic lights for bigger sales. il Chem W 75:62+ Ag 21 '54

Traffic management as a profession. J. A. Wallace. Advanced Management 19:30-2 S '54; Abstract. Management R 43:438-9 Jl '54

Transportation in distribution. il map Steel 135:89-96 Ag 23 '54

See also

National industrial traffic league

TRAFFIC engineering

Engineering means swifter, safer traffic for Dayton. il Eng N 151:54-6 O 29 '53

Jacksonville, Fla., has best traffic control; wins C.&S. association 1953 award. East Underw 55:40 Ap 9 '54

Operational analysis of traffic dynamics. L. A. Pipes. bibliog diags J Ap Phys 24:274-81 Mr '53

TRAFFIC lines

Lighting and traffic control for present day highways. G. E. Martin. il Pub Works 85: 94-5 Je '54

New type traffic separating bars. M. McMillin. il Pub Works 85:89 Ag '54

Walk on the green slogan as aid to national safety program. Paint Oil & Chem R 117: 23 S 9 '54

White concrete slabs for traffic lines. J. Young. il Pub Works 85:134 My '54

TRAFFIC regulations

Appraisal of one-way street system in Sacramento, Calif. D. J. Faustmann. plan Am Soc C E Proc 79 [no 234]:1-6 Ag '53

Effort by state officials necessary to meet bad accident situation. J. D. Dorsett. Weekly Underw 169:1175 N 14 '53

Enforce traffic law, tighten responsibility act. J. B. Donovan. Nat Underw 57:54 O 1 '53

First large scale war against speeders in Northeast pronounced success. J. R. Barrett. Weekly Underw 169:825 O 3 '53

How shift change traffic is expedited at atomic plant. il plan Roads & Sts 97:67-8 Ja '54

Insurance motor vehicle accident committee publishes complete traffic ordinance. East Underw 55:29 Ag 13 '54; Same abr. Weekly Underw 171:578 S 11 '54

New York Citizens traffic safety board expects improvements under new Mayor. Weekly Underw 169:1504 D 19 '53

Steps towards a uniform traffic code. A. C. DesBrisay. Roads & Eng Constr 92:134-6+ Ag '54

Traffic law enforcement survey is announced. Weekly Underw 169:475+ Ag 29 '53

See also

Street traffic

TRAFFIC safety board, Citizens. See Citizens traffic safety board

TRAFFIC signals

Automatic signal will pay for itself in three years. il plan Pub Works 84:54-5+ N '53

Lighting and traffic control for present day highways. G. E. Martin. il Pub Works 85: 96-8 Je '54

Suggest new colors for traffic signals. Nat Safety N 70:75 Jl '54

Three-phase actuated signals handle high traffic volumes. G. M. Webb. diags Pub Works 85:113-14 S '54

Traffic circle converted to a signalized intersection. il Eng N 151:34+ Ag 6 '53

TRAFFIC signs

Traffic signs for expressways; abstract. W. F. Bauch, jr. Roads & Eng Constr 92: 163-4 Ap '54

TRAFFIC surveys

Highway use determines economic feasibility; New York state thruway. E. B. Isaak. il Civil Eng 23:738-41 N '53

TRAILERS

Athey's new 27-yd earthmoving trailer. il Eng N 152:125-6 Ap 29 '54

Basic commercial motor vehicles get simple engineering definitions. diags S A E J 62: 84-5 Ja '54

Bulk sugar by trailer; American sugar refining co. il Food Eng 26:71+ F '54

Bulk-trailer plus-value; minimized storage; Omar inc. il Food Eng 26:55 Je '54

Bulk transport of carbon black. il Engineering 176:429 O 2 '53

Chemicals won't corrode; plastic truck and trailer bodies. il Chem W 73:62+ O 3 '53

Design and development of heavy haulage vehicles. C. E. Burton. map diags Inst Mech Eng Proc (Auto div pt 4):141-8, pl 1-4 '51-52

Even giant trailers can get into the act; Fruehauf trailer co. N. A. Rowe. il Sales Management 73:44+ pt 2 Jl 1 '54

45-ton road haulage trailer. il Engineering 177:408 Mr 26 '54

Fruehauf introduces new aluminum trailer. il Automotive Ind 110:96+ Ap 1 '54

LaCrosse improves its trailer line. il Eng N 152:96 Ap 1 '54

Latest developments in plastic trailers. il Automotive Ind 110:64-5+ Ja 1 '54

Mathematical theory of the snaking of two-wheeled trailers, with practical rules and devices for preventing snaking. D. Williams. il diags Inst Mech Eng Proc (Auto div pt 4):175-87; Discussion. 188-90 '51-52

Merchandizing on wheels. Steel 135:129 Jl 19 '54

Office-warehouse trailer for builders and contractors. plans diags Am Bld 76:110-11 F '54

Power take-off drive for trailers. il diag Constr Methods 35:130 N 53

Revenue motor bus factory sales, 1942-1953; motor bus factory sales by type of bus, 1946-1953; truck trailer shipments by type, 1950-1953; shipments by months, 1951-1953; tabulations. Automotive Ind 110:97 Mr 15 '54

Seaboard and Strick start production of plastic trailers. Chem & Eng N 31:5310 D 21 '53

Siamese trucks, collapsible walls make mobile exhibit; Armstrong cork co. il Ind Marketing 39:51 My '54

Sub-zero holding room on wheels; ice cream transport trailers. il Food Eng 26:90-1 Ap '54

Trailer shops sprout on turnpike. il Constr Methods 36:66-7 Ag '54

Trailers and semi-trailers. A. Marenbon. diags Inst Mech Eng Proc (Auto div pt 4): 158-67, pl 1-6 '51-52; Same cond. Automobile Eng 42:143-50 Ap '52; Same cond. Engineering 173:89-91, 121-4 Ja 18-25 '52; Discussion. Inst Mech Eng Proc (Auto div pt 4):167-74 '51-52

Trailers double as route trucks; Armour and co. il Food Eng 26:129+ Jl '54

Truck-trailer industry serves Nation's basic needs. A. W. Shearer. il map Automotive Ind 110:38-43 My 15; 56-60 Je 1 '54

Truck-trailer output; '53 was tops, '54 looks good. il Steel 134:39 Ja 18 '54

Truck trailers; production, by types, 1952-1953, yearly totals, 1950-1952; tabulations. Steel 134:186 Ja 4 '54

TRAILERS—*Continued*

Wins truck-fleet benefits with torsion-riding trailers; C. A. Swanson & sons. il diags Food Eng 25:97-8+ D '53

See also

Automobile trailers

Axles

Trailmobile truck trailers feature moveable axles. il Machine Design 26:170 Jl '54

Manufacture

Fast welding done on floors for army cargo trailers. H. Chase. il Welding J 33:242-4 Mr '54

Transportation

Another idea in piggyback. J. Bridge. il Ry Age 137:59-60 Ag 9 '54

Can railroads and truckers make hay together? il Bsns W p 110-12+ S 12 '53

Cautious on piggy-backs. D. Beck. Ry Age News ed 135:9-10 N 23 '53

Don't hog-tie piggyback; panel discussion. R. O. Small and others. Ry Age 137:11-12 Jl 12 '54

Down to the sea again; proposed sea-land expansion; a merger of McLean trucking and steamship and tug-and-barge carrier, S. C. Loveland co. il Chem W 74:71 Mr 6 '54

Food trailers travel railroad piggyback cutting five handlings down to two. il diags Food Eng 26:77-9 Ag '54

Hassle on piggy-back; truckers chide ballyhoo in proposal to carry trailers aboard freight cars. Steel 133:71 N 16 '53

Highball for piggy back as ICC changes its mind. il Steel 135:52 Jl 19 '54

ICC clears way for piggybacking. Ry Age 137:10-11 Jl 19 '54

I.C.C. said to lack power to make piggyback rules. Ry Age News ed 136:10 F 15 '54

I.C.C. will make piggyback rules. Ry Age News ed 136:8-9 Ja 18 '54

Katy moves toward piggyback. D. V. Fraser. Ry Age 136:10-11 Ap 19 '54

Movement of highway trailers by rail. P. H. Porter. Pub Util 54:419-20 S 30 '54

New flat car designed to facilitate coordination of rail and truck hauls. il Eng N 151: 27 N 12 '53

New York Central considering piggyback. W. White. Ry Age 136:11 Ja 25 '54

Piggyback by rail becomes legitimate. Steel 135:58 Ag 16 '54

Piggyback case set for argument. Ry Age 136:9-10 My 3 '54

Piggyback; French style. il Ry Age 136:45+ Je 7 '54

Piggy-back; stopped at start; ICC blocks railroads' plan to haul truck trailers on flat cars. il Iron Age 173:57 Je 24 '54

Piggyback tariff hearings open. il Ry Age 137:6-7 Ag 2 '54

Piggyback; to Chicago & Northwestern, it's a deal. K. W. Bennett. il Iron Age 174:63 Jl 22 '54

Piggyback's potential. E. F. Ryan. il Ry Age 137:12-13 S 27 '54

Piggybacks roll the rails. il Chem W 75:56+ Ag 14 '54

Pressing for piggy back. il Bsns W p 174 O 17 '53

Proposed plan for trailer ships; coastwise shipping to be revived? il diag Marine Eng 59:47-8+ Ap '54

Rail trailer-auto loading. il diag Mech Eng 75:811-13 O '53

Railroads upheld on piggybacking by the Interstate commerce commission. Ry Age 137:7-8 Ag 16 '54

Roads want piggybacking unfettered. Ry Age 137:11-12 Jl 5 '54

This is bi-partisan piggyback. D. V. Fraser. Ry Age 137:55+ Jl 12 '54

3-D transport; portable magnesium ramp. il Mill & Factory 54:138 F '54

Three roads file t-o-f-c tariffs. Ry Age 136:6 My 24 '54

Trailers; ride rails two by two; Electro-Motive division flat car to carry two trailers. W. G. Patton. il Iron Age 172:59 O 15 '53

Trailerships is making another stab at carrying trucks profitably on the Hudson river by ship. Bsns W p 188 N 7 '53

Truckers ask I.C.C. ruling on piggyback questions. Ry Age News ed 136:11-12 F 1 '54

What piggy and whose back? Ry Age News ed 135:14 D 7 '53

Who shall be piggyback'd? E. F. Ryan. Ry Age 136:25-6 My 10 '54

Who will piggyback what? panel discussion. il Ry Age 136:7-8 Je 7 '54

TRAILERS, Automobile. See Automobile trailers

TRAILERS, Industrial

How trailability determines tractor-trailer aisle widths. J. J. Sichman. il diags Iron & Steel Eng 31:120+ F '54; Same cond. Iron Age 173:168+ F 4 '54

Trailer speeds up tank maintenance. il Pet Processing 9:101 Ja '54

TRAILWAYS bus system, National. See National trailways bus system

TRAIN ferries

Pere Marquette modernizes carferries. il Marine Eng 59:65-6 Ag '54

TRAIN resistance

Measurement of train resistance. Engineering 177:390-1 Mr 26 '54

TRAINING of employees. See Employees, Training of

TRAINS. See Railroads—Trains

TRAJECTORIES

Nature of the transcendental curves associated with the relativistic trajectories of charged particles. L. Gold. J Ap Phys 25: 691-7 Je '54

TRANSAMERICA corporation

Clayton act proceeding; Transamerica corp. United States Court of appeals for the third circuit. Fed Res Bul 39:836-41 Ag '53

Transamerica wins appeal. Trusts & Estates 92:585 Ag '53

TRANSAMINATION. See Amination

TRANS-CANADA airlines

Laboratory testing spells safety. H. Donner. il Can Chem Process 37:88 N '53

TCA gets set for new planes, engines. G. L. Christian. il Aviation W 59:49+ S 7 '54

TRANS-CANADA highway. See Roads—Canada

TRANSDUCERS

Analysis of a limiter as a variable-gain device. L. R. Kahn. bibliog diags Elec Eng 72:1106-9 D '53

Coaxial-to-helix transducers for traveling-wave tubes. R. E. White. diags Elec Com 30:300-4 D '53

Electrokinetic transducers. E. V. Hardway, jr. il diags Instruments 26:1186-8 Ag '53

Equivalence of optimum transducers and sufficient and most efficient statistics. G. W. Preston. bibliog J Ap Phys 24:841-4 Jl '53

Phase transducer uses high-speed relay. D. E. S. Isle. diags Electronics 27:234+ Ja '54

See also

Electroacoustic transducers

Electromechanical transducers

Testing

Automatic calibration of transducers. J. F. Kinkel and R. R. Mawson. diags Instruments 26:1526-7+ O '53

Calibrator for dynamic pressure transducers. R. C. Baird and others. bibliog il diags Instruments & Automation 27:1074-5 Jl '54

TRANSDUCERS, Electroacoustic. See Electroacoustic transducers

TRANSDUCTORS. See Reactors

TRANSFER mechanism

Application of vacuum transfer to high-speed newsprint machines. C. Kelley. il diag Pulp & Pa of Can 54:118-20 N '53

Automatic transfer, sinews of automation. il diag Tool Eng 32:43-6 My '54

Automation applied to crankpin grinding machines. diag Mach 60:234 Jl '54

Bliss builds new transfer feed press. il Am Mach 98:168 Ag 16 '54; Steel 135:112 Ag 23 '54; Iron Age 174:70 Ag 12 '54

Design tooling for complete automation; AC spark plug div. of General Motors. W. G. Patton. il diags Iron Age 173:114-16 Jl 1 '54

TRANSFER mechanism—*Continued*

Greenlee transfer machines for processing transmission cases. il Mach 60:233 Je '54

Machining transmission cases. Steel 134:121 Je 28 '54

Made-in-Canada transfer unit ups Ford output. il Am Mach 98:166-7 Je 21 '54; Iron Age 173:171-2 Je 17 '54

Production of Chrysler corp's new PowerFlite automatic transmission; wide application of transfer machines. J. Geschelin. il Automotive Ind 110:64-8+ F 1 '54

Transfer devices extend automation in press shop; Buick motor div. A. B. Mooers. il Iron Age 174:101-3 Ag 26 '54

Transfer machine automates crankpin grinding. H. I. Chase. diags Iron Age 173:187-9 Ap 22 '54

Transfer machining of armored vehicle hulls. T. L. Hallenbeck. il Mach 60:163-7 Je '54

Unique mechanism reloads camshafts in nine seconds; Seneca Falls machine co. il diags Mach 60:224-8 Ap '54

Vacuum transfer from wire to press section. R. W. Burnett. Pulp & Pa of Can 54:132-4 N '53

Wagner brothers automatic plating transfer machine employs only two basic motions. il Am Mach 97:188 N 9 '53

TRANSFERENCE numbers. See Ionization, Electrolytic

TRANSFORMATIONS (mathematics)

Approximate method of evaluating integral transforms. A. H. Zemanian. bibliog diag J Ap Phys 25:262-6 F '54

Introduction to spinors. W. L. Bade and H. Jehle. bibliog(76 ref) Rs Mod Phys 25:714-28 Jl '53

Invariance of insidedness in projective transformations of the Maxwell triangle. G. Wyszecki. diags Opt Soc Am J 44:524-9 Jl '54

Transform method for linear time-varying systems. J. A. Aseltine. diags J Ap Phys 25:761-4 Je '54

See also

Laplace transformation

TRANSFORMER oil. See Insulating oil

TRANSFORMERS, Electric. See Electric transformers

TRANSFORMERS, Radio. See Radio transformers

TRANSIENT analyzer. See Electric transient phenomena

TRANSISTORS

Amplitude stabilized transistor oscillator; abstract. E. R. Kretzmer. diag Electronics 26:208 D '53

Are better transistors at hand? D. G. Fink. Aviation W 59:76+ S 14 '53; Same cond. Product Eng 24:278-9 N '53

Automatic gain control of junction transistor amplifiers. F. H. Blecher. diags Electronics 27:224+ Ja '54

Bets remain high. Steel 133:43 N 2 '53

Bridges measure transistor parameters. L. J. Giacoletto. il diags Electronics 26:144-7 N '53

Design theory of junction transistors. J. M. Early. diags Bell System Tech J 32:1271-312 N '53

D-c amplifier employing junction-type transistors. E. Keonjian. diags Elec Eng 72:961-4 N '53

Dissected amplifiers using negative resistance. W. Shockley and W. P. Mason. bibliog diag J Ap Phys 25:677 My '54

Electrolytic analog transistor. H. Letaw, jr. and J. Bardeen. diags J Ap Phys 25:600-6 My '54

Electronic control for automatic driving. V. K. Zworykin. Franklin Inst J 256:393-4 O '53

Electroplated transistors announced. il Electronics 27:10+ Ja '54

Enhanced alpha in formed silicon point contact transistors. H. Jacobs and others. J Ap Phys 24:1410-11 N '53

Extension of the theory of the junction transistor. E. S. Rittner. bibliog Phys R 94:1161-71 Je 1 '54

First surface-barrier transistor developed for military and civilian uses. L. J. Woods. Elec Eng 73:185 F '54

Forming silicon point contact transistors. H. Jacobs and others. J Ap Phys 24:1340 O '53

Future transistor applications in machine-tool control. R. L. Bright. diags Instruments & Automation 27:1296-8 Ag '54; Abstract. Am Mach 98:133 S 13 '54

Gain-stabilized transistor amplifier. C. A. Krause. diags Electronics 27:183-5 F '54

Germanium-diode push-pull voltmeter. D. D. Davis. diag Electronics 27:212+ F '54

Germanium in transistors. J. J. Sutherland. Can Min J 75:62 Jl '54

Germanium n-p-n alloy junction transistor. D. A. Jenny. Inst Radio Eng Proc 41:1728-34 D '53

High-frequency operation of p-type point-contact transistors. F. L. Hunter and B. N. Slade. bibliog diag RCA R 15:121-34 Mr '54

How a transistor is born; illustrations with text. Aviation W 59:74+ O 26 '53

Instrument electronics; transistors. M. H. Aronson. diags Instruments 26:252-3 F '53

Kerosene cooled transistors. J. E. Maynard and R. L. Brock. il diag Electronics 26:202+ O '53

More transistor power; General electric co. il Bsns W p56+ S 12 '53

New antimony-type transistor hoped for by NBS research. Chem & Eng N 31:3892+ S 21 '53

New electronics age developing and efforts of leading companies. L. A. Lukens. il Mag of Wall St 93:14-15+ O 3 '53

Obtaining transistor characteristic curves. W. Philbrook. il diag Radio & Tv N 50:66-7+ S '53

Phase-bistable transistor circuit. H. Baker and others. diags Inst Radio Eng Proc 41:1119-24 S '53; Correction. 41:1760 D '53

Philco's surface-barrier transistor. il diag Radio & Tv N 51:78 F '54

Physical theory of new circuit representation for junction transistors. J. Zawels. diags J Ap Phys 25:976-81 Ag '54

Point emitter-junction collector transistor. R. H. Kingston. bibliog diags J Ap Phys 25:513-15 Ap '54

P-n-i-p and n-p-i-n junction transistor triodes. J. M. Early. bibliog diags Bell System Tech J 33:517-33 My '54

P-n-p triode alloy junction transistor for radio-frequency amplification. C. W. Mueller and J. I. Pankove. bibliog diags RCA R 15:586-98 D '53

Power transistors for audio output circuits. L. J. Giacoletto. bibliog il diags Electronics 27:144-8 Ja '54

Premium for purity; silicon transistor. Chem W 74:43-4 Ja 30 '54

Preparation of *p—n* junctions by surface melting. K. Lehovec and E. Belmont. diags J Ap Phys 24:1482-4 D '53

Properties of germanium phototransistors. J. N. Shive. bibliog il diags Opt Soc Am J 43:239-44 Ap '53

Silicon transistor announced. Electronics 27:6+ F '54

Single-transistor f-m transmitter can be used as wireless microphone unit in public address systems. D. E. Thomas. il diags Electronics 27:130-3 F '54

Slice-away battery assemblies designed for transistor use. Elec Eng 72:1044-5 N '53

Steady-state solution of the two-dimensional diffusion equation for transistors. J. S. Schaffner and J. J. Suran. diags J Ap Phys 25:863-7 Jl '54

Summary of semiconductor and transistor theory. R. A. Lefever. diags J Chem Educ 30:554-6 N '53

Superregenerative transistor receiver. J. M. Hughes. il diag Radio & Tv N 51:72-3+ Mr '54

Surface-barrier transistor. W. E. Bradley and others. il diags Inst Radio Eng Proc 41:1702-34 D '53

Symmetrical-transistor phase detector for horizontal synchronization. B. Harris and A. Macovski. il diags RCA R 15:18-26 Mr '54

Transdipper. C. A. West. il diags Radio & Tv N 50:60-2 O '53

Transient analysis of transistor amplifiers. W. F. Chow and J. J. Suran. diags Electronics 26:189-91 N '53

TRANSISTORS—*Continued*

Transient response of the grounded base transistor amplifier with small load impedance. J. S. Schaffner and J. J. Suran. diag J Ap Phys 24:1355-7 N '53

Transistor applications. J. S. Schaffner. il diags Gen Elec R 57:50-4 Mr '54; Excerpts. Machine Design 26:282+ My '54

Transistor as a network element. J. T. Bangert. bibliog il diags Bell System Tech J 33:329-52 Mr '54

Transistor bridge null detector. L. D. Carcano. diag Radio & Tv N 50:132 O '53

Transistor cathode follower. A. H. Hellmers. diag Radio & Tv N 50:169 O '53

Transistor circuitry. R. Clay. diags Q S T 37:35-8 D '53

Transistor d.c. amplifier. H. F. Starke. il diags Radio & Tv N 50:82-3+ D '53

Transistor guitar amplifier. L. E. Garner, jr. il diag Radio & Tv N 50:74-5+ N '53

Transistor i-f amplifiers. J. R. Nelson. diags Tele-Tech 12:68-9+ D '53

Transistor m.c.w. adapter. H. V. Braun. il diags Q S T 37:51 S '53

Transistor metronome. L. E. Garner, jr. il diag Radio & Tv N 51:50-1+ Ja '54

Transistor oscillator for use in multifrequency pulsing current supply. F. E. Blount. il diags Bell System Tech J 32:1313-31 N '53

Transistor oscillators. H. E. Hollmann. il diags Tele-Tech 12:82-3+ O '53

Transistor power supply. L. D. Carcano. diag Radio & Tv N 50:88 O '53

Transistor pulse amplifier using external regeneration. J. H. Vogelsong. diags Inst Radio Eng Proc 41:1444-50 O '53

Transistor self-powered c.w. monitor. D. Klein and W. Slusher. il diags Q S T 38:28-9+ Ja '54

Transistor test board speeds circuit choice. R. L. Riddle. il diag Electronics 26:198 O '53

Transistor timer. L. E. Garner, jr. il diag Radio & Tv N 50:68-9+ O '53

Transistor transient response. J. J. Suran and W. F. Chow. bibliog diags Tele-Tech 12:67-9+ N '53

Transistor wireless mike. A. H. Hellmers. diag Radio & Tv N 50:196 O '53

Transistorized applause meter. L. E. Garner, jr. il diag Radio & Tv N 51:82-3+ Mr '54

Transistorized audio oscillator; uses a selenium photo cell. L. E. Garner, jr. il diag Radio & Tv N 50:68-9 S '53

Transistorized radar scope display unit. R. S. Markowitz. il diags Electronics 26:182-3 O '53

Transistors and their applications. R. P. Dimmer. Midwest Eng 6:9-10+ Jl '53

Transistors and their circuits in the 4A Toll crossbar switching system; abstract. P. Mallery. diag Elec Eng 73:129 F '54

Transistors, gossip's nemesis? Materials & Methods 39:302+ My '54

Transistors; high hopes vs. hard facts. Bsns W p 110 O 3 '53

Transistors in telemetry. F. M. Riddle. il diags Electronics 27:178-80 Ja '54

Transistors multiply. Bsns W p50 Ag 1 '53

Transistors; pass trial by fire and water with new-type crystals. Iron Age 173:82 Mr 18 '54

Transistors; their use and operation. diags Engineering 177:347 Mr 12 '54

Transistors; theory and application (cont). A. Coblenz and H. L. Owens. bibliog il diags Electronics 26:158-63 O; 166-72 N; 186-91 D '53; 27:158-61 Ja '54

Transistors vs. tubes. R. F. Shea. diags Instruments & Automation 27:771-2 My '54

Unilateral four-terminal circuits. J. S. Foley. diags Electronics 27:186-7 F '54

Water vapor and the channel effect in *n-p-n* junction transistors. R. H. Kingston. Phys R 93:346-7 Ja 15 '54

Will transistors oust receiving valves? discussion. Elec R (Lond) 154:38 Ja 1 '54

Bibliography

Guide to transistor literature, 1954. 54p Glenn L. Martin co, Presentations section, Engineering division, Baltimore 3 '54

Manufacture

Production techniques in transistor manufacture. J. D. Fahnestock. il Electronics 26:130-4 O '53

Noise

Shot and partition noise in junction transistors. A. van der Ziel. diags J Ap Phys 25:815-16 Je '54

Shot dependence of *p-n* junction phototransistor noise. A. Slocum and J. N. Shive. J Ap Phys 25:406 Mr '54

Shot noise in junction transistors. H. C. Montgomery and M. A. Clark. J Ap Phys 24:1337-8 O '53

Testing

Tester for measuring small-signal impedances of transistors. D. H. Toth. diags R Sci Instr 25:96-8 Ja '54

Vest-pocket transistor-alpha meter. B. P. Kerfoot. diag Electronics 26:216+ D '53

TRANSIT, Surveyor's

New Swiss tripod expedites surveying. diag Civil Eng 24:55 Ja '54

Proposed method for the transit lining of high-speed track. N. R. Berndt. diag Am Soc C E Proc 79 [no 271]:1-22 S '53

TRANSIT equipment men Middle Atlantic states, Association of. See Association of transit equipment men Middle Atlantic states

TRANSITE

New transite pressure coupling successful in field installation. il diag Eng N 151:110+ S 17 '53

TRANSITION elements

Anodizing of zirconium and other transition metals in nitric acid. R. D. Misch and W. E. Ruther. bibliog diags Electrochem Soc J 100:531-7 D '53

Electron compounds of transition elements. H. J. Beattie, jr. bibliog il J Ap Phys 24:1322-4 O '53

Oxides of the transition metals as catalysts. A. Clark. bibliog Ind & Eng Chem 45:1476-80 Jl '53

TRANSITION points

Relationship of first- to second-order transition temperatures for crystalline high polymers. R. F. Boyer. bibliog(35 ref) J Ap Phys 25:825-9 Jl '54

TRANSLATION

Big brain reads Russian. il Machine Design 26:204+ Mr '54

Electronic brain translates Russian; IBM 701, of International business machines corp. il Chem & Eng N 32:340-1 Ja 25 '54

Polyglot brainchild; calculating machine adapted to translating; joint effort of IBM and Georgetown university's Institute of languages and linguistics. il Chem W 74:46+ Ja 30 '54

Russian translated into English by electronic computer in a few seconds. il Elec Eng 73:287-8 Mr '54

Suggestions for translating German, French, and Italian chemical literature. H. Fischbach. J Chem Educ 30:388-93 Ag '53

Translations pool for technical material established by the Special libraries association in cooperation with the John Crerar library. Iron Age 172:191 D 3 '53

TRANSMUTATION (chemistry)

Transmutation (modern alchemy) abstracts of B.A.A.S. Chemistry section papers. Chem & Ind p 1012-13 S 26 '53

TRANSPARENT plastics. See Plastic materials, Transparent

TRANSPARENT soap. See Soap, Transparent

TRANSPORTATION

Industry previews and reviews. Automotive Ind 110:154+ Ja 15 '54

Industry's directive for transportation. C. F. Hood. Comm & Fin Chr 178:1124+ S 24 '53

Inherent advantages of railway transportation. D. E. Pegrum. Ry Age 137:19-21 Ag 30 '54

Investments in transportation. E. L. Hall. il Spectator 162:26-7+ Mr '54

Surveys and maps, vital to the solution of problems of mass transportation. B. E. Beavin. Am Soc C E Proc 79 [no 305]:1-6 O '53

TRANSPORTATION—*Continued*

Transport and communications. Published in Foreign commerce weekly

Unified mass-transportation system for New York. W. Reid. Am Soc C E Proc 79 [no 171]:1-8 F '53

See also

Aeronautics, Commercial
Airlines
Airplanes
Automobiles
Barges
Carriers
Commerce
Delivery of goods
Electric railroads
Freight car service
Freight cars
Freight handling
Freight ships
Highway transportation
Mechanical handling
Merchant marine
Mine haulage
Motor bus lines
Motor ships
Motor trucks in freight service
Motor vehicles
Pack transportation
Packing for shipment
Petroleum pipe lines
Pipe lines
Pneumatic conveying
Ports
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Waterways

Cost

Cost factors in the utilization of foreign bauxite to make aluminum; breakdown of unit transportation costs. A. F. Johnson. il Min Eng 6:598-603 Je '54

Transportation costs analysis. H. G. Miller. N A C A Bul 35:515-20 D '53

Transportation costs can be controlled in small businesses. J. M. Naab. N A C A Bul 35:1643-4 Ag '54

Laws and regulations

Co-ordination of federal and state regulation in public transportation. O. Clarke. Pub Util 54:423-9 S 30 '54

Government regulation of transportation. J. S. Burchmore. Am Pet Inst Proc 32(5): 22-5 '52

Hits regulation that tries to rule industry. J. G. Scott. Bus Transportation 33:64 Ja '54

New regulatory agency for transportation recommended. Pub Util 53:317-18 Mr 4 '54

S.3111, or fight; will bill breach crack in waterways dike? Chem W 74:82 Ap 10 '54

Time lag bill favored; Transportation association of America's Northwest institute of transportation, Minneapolis, Nov. 5; abstracts of papers. Ry Age 135:105-8 N 16 '53

Georgia

Georgia story. il Manuf Rec 123:78-80 My '54

Great Britain

Transport act, 1953. G. Saville. Elec R (Lond) 154:525 Mr 19 '54

North Carolina

North Carolina story; transportation. il Manuf Rec 123:88-90 Ja '54

Ohio

Transportation system of Ohio; organization, administration and regulation. F. R. Aumann. Ohio State U [Columbus] Eng Exp Sta Circ 55:1-38 '54 (pa 50c)

Texas

Texas story. il Manuf Rec 122:98-100 N '53

United States

Advantages will come with equity. J. W. Bricker. Ry Age 136:10 My 3 '54

Problems in meeting mass transportation needs. M. Nadler. Comm & Fin Chr 178: 1747 N 5 '53

Reappraising the Department of commerce role in transportation. R. B. Murray, jr. Am Pet Inst Proc 33(1):105-7 '53; Same. Oil & Gas J 52:282-4 N 16 '53

Transportation resources; East north central states. G. Gutzeit and A. Everett. bibliog Ind & Eng Chem 46:497-501 Mr '54

Transportation; with data on major projects. il map Eng N 152:122-4+ F 18 '54

TRANSPORTATION, Military

See also

Airlines—Military use
Airplanes, Military transport
Motor vehicles, Military
United States—Military sea transportation service

TRANSPORTATION in war

See also

Railroads in war

TRANSPORTATION insurance. See Insurance, Transportation

TRANSVAAL

See also

Gold mines and mining—Transvaal
Mines and mineral resources—Transvaal

TRANS WORLD airlines

Board to put PAA, TWA on their own. map Aviation W 59:75-7 Jl 27 '53

TWA may sell holdings in LAI. il Aviation W 59:58 Ag 10 '53

TWA starts nonstop Los Angeles-New York service. Aviation W 59:17 O 26 '53

TWA's revitalized management. R. H. Wood. Aviation W 58:78 Je 29 '53

TRAUMATIC neuroses. See Neuroses, Traumatic

TRAVEL

Americans are going places; national travel index. R. Robinson. Adv Agency 47:58-9+ Jl '54

Business travel quiz. L. Carson. Dun's R & Mod Ind 62:106-7+ S '53

Foreign travel record of port of New York, 1953. Weekly Underw 170:355 F 6 '54

1953 will be top travel promotion year. P. B. B. Andrews. il Ptr Ink 243:67+ My 1 '53

Travel industry requests creation of international travel office. For Comm W 50:28 D 21 '53

Travel, 1949-1952. Survey of Cur Bsns 1953 Sup p 118 [supplemented in monthly numbers]

See also

Air travel
Automobile touring
Railroads—Passenger traffic
Tourist trade

Advertising

Alaska gets results from first travel ads. L. F. Thomann. il Ptr Ink 243:49 Je 26 '53

TRAVELERS' checks

Central America plans own travelers' checks. M. Bannell. Barron's 34:20 Ja 25 '54

TRAVELERS insurance company

Charges Travelers would have monopoly with tv station. Nat Underw 57:2 D 24 '53; Same. Nat Underw (Life ed) 57:2 D 25 '53

Travelers under fire in television hearing. East Underw 54:28 D 25 '53

TRAVELERS weather research center. See Insurance companies—Weather research and forecasting

TRAVELING exhibits. See Exhibits, Traveling

TRAVELING wave tubes. See Vacuum tubes—Traveling wave tubes

TRAYS (containers)

Multi-duty handling tray used with fork truck eases handling and storing of clumsy material. il Mill & Factory 54:141 Ap '54

TREASURERS, Company. See Corporations—Treasurers

TREASURY certificates of indebtedness

Treasury financing. Nat City Bank p99-100 S '53

Treasury financing; offering of Tax anticipation certificates of indebtedness. Nat City Bank p90-1 Ag '53

Why U.S. cut the interest rate. Bsns W p43-4+ O 3 '53

TREASURY notes. See Bonds, Government—United States

TREASURY stock. See Stocks—Treasury stock

TREATIES

See also

Commercial treaties and agreements
United States—Treaties

TREE farms. See Woodlots

TREE planting

Bankers encourage soil erosion measures; Minnesota. H. Severson. il Banking 46:74+ F '54

TREE planting—*Continued*
Benefits of a selective tree-planting program. E. G. Stahl. il diags Elec West 111:71-3 D '53
Lake states pulp companies will plant 50 million trees. Paper Tr J 137:54 O 23 '53; Same abr. Pulp & Pa of Can 54:172 N '53
Northwestern windbreaks conserve the soil; Minnesota bankers aid in tree planting. H. Severson. Banking 46:64 Ja '54

TREE trimming
Practical pointers on care of highway trees. il Roads & Eng Constr 92:108+ S '54
They look up to their business; tree trimming by independent firms. H. F. Unger. Pub Util 54:259-65 S 2 '54

TREES
Economics of trees. J. R. von Sternberg. il plan House & Home 3:130-5 Ap '53
Effects of wind-drift of weed-killer on some Puerto Rican trees. E. Hernández-Medina and others. il Science 118:74-5 Jl 17 '53
New tree experts manual. R. R. Fenska. 2d ed rev & enl 238p $5 A. T. De La Mare co, 448 W. 37th st, New York 18 '54
Saving $150,000 a year by selling waste trees. E. J. Knudsen. il Pub Works 85:92 My '54
Showplace for trees; arboretum on high-school grounds. H. Morgenstern. il Comp Air Mag 59:104-7 Ap '54

See also
Aspen
Douglas fir
Pine
Spruce
Woodlots

Diseases and pests

Control of pests of green lumber and pulpwood with benzene hexachloride. R. C. Back and M. Sittig. il Tappi 37:sup 190A-1A My '54
Decay of balsam fir in the Maritime provinces of Canada. A. G. Davidson and others. bibliog map Pulp & Pa of Can 55:134+ Ag '54
Forest biology laboratory, Fredericton, N.B. Canada. il map Pulp & Pa of Can 55:76-8+ F '54

See also
Spruce budworms

TREES, Killing of
Hormone type chemicals found generally useful for controlling undesirable hardwoods. D. Campbell. Paper Tr J 138:10 Ja 8 '54

TREHALOSE
Enzymic synthesis of trehalose phosphate. L. F. Leloir and E. Cabib. bibliog Am Chem Soc J 75:5445-6 N 5 '53

TREISS, Herman G.
Sketch. por East Underw 55:23+ Ja 22 '54

TRENCHES
Rational design for ground absorption. O. G. Quenelle. diags Pub Works 85:79-80 Ap '54
Subsoil sewage disposal system for septic tank effluents. E. W. Campbell. il diags Pub Works 85:72-3 F '54
Test of methods of backfilling trenches. Pub Works 85:126 Ag '54

TRENCHING
40-foot cut for a sewer line. A. J. Mair. il Pub Works 85:79+ Mr '54
One crew, four extensions a day; Hattendorf-Bliss, inc. il Gas Age 113:31 My 6 '54
Safer trenching by using a trench box. R. H. Schneider. il Pub Works 85:95-6 Jl '54
Trenching crew makes four or five main extensions daily. il Pub Works 85:167 My '54
Trenching practice. R. Bennett. il Water & Sewage Works 101:R 187-90 pt 2 My '54

TRENCHING machinery
Eight backhoes help speed construction of new El Paso line. il Gas Age 113:28-9 Ja 28 '54
Two men and a backhoe digger install water services fast. il Pub Works 85:119 Mr '54

TREPANNING
Bore heavy tubing faster on new trepanning lathe; National supply co. il Iron Age 173:129 Ap 1 '54; Steel 134:103 Ap 5 '54
High-speed trepanning; Bethlehem steel co. W. M. Stocker, jr. il diags Am Mach 98:105-14 Ja 4 '54
Trepan bottoming holes in one operation. R. W. Holmes. il diags Am Mach 98:120-1 Ag 16 '54
Trepanning cuts hole making costs. A. G. Haglund. il Iron Age 174:120-1 Ag 12 '54
Trepanning titanium saves time and material; Watertown arsenal. S. E. Siemen and N. Rosato. il Am Mach 98:89-91 Ag 30 '54
Trepanning tool speeds gear production. W. Jellig. il diags Iron Age 172:108-11 O 1 '53
Two-way trepan. il Steel 134:124 Mr 8 '54

TREPONEMA pallidum. See Syphilis

TRIACETIN
Crystalline triacetin. F. J. Baur. il J Phys Chem 58:380 Ap '54

TRIAL installations. See Sales policies—Free trial

TRIANGLE
Formulas for adjacent triangles; reference book sheet. J. R. Paquin. Am Mach 98:267 Ja 18 '54

TRIANGULATION
First-order survey pin-points construction across Tampa bay. P. A. Hakman. il maps Civil Eng 23:461-3+ Jl '53

TRIANGULENE
Aromatic hydrocarbons; triangulene derivatives. E. Clar and D. G. Stewart. Am Chem Soc J 76:3504-7 Jl 5 '54

TRIASSIC period. See Geology, Stratigraphic—Triassic

TRIAZENES

Analysis

Determination of substituted triazenes. L. J. Lohr. Anal Chem 25:1117-18 Jl '53

TRIAZINES
Basic substituted triazines. B. W. Horrom. Am Chem Soc J 76:3032-3 Je 5 '54
2,4-Dichloro-1,3,5-triazine. I. Hechenbleikner. Am Chem Soc J 76:3032 Je 5 '54
Monomer synthesis; triazines; a novel method for the reduction of halomethyl groups in the triazine series. S. L. Shapiro and C. G. Overberger. bibliog Am Chem Soc J 76:97-100 Ja 5 '54
Monomer synthesis; triazines; the reaction of phenylbiguanide with ethyl oxalate and ethyl formate. C. G. Overberger and S. L. Shapiro. bibliog Am Chem Soc J 76:93-6 Ja 5 '54
Synthesis of some *s*-triazolo(4,3-b)-*as*-triazines. E. C. Taylor, jr., W. H. Gumprecht and R. F. Vance. bibliog Am Chem Soc J 76:619-20 Ja 20 '54
1,3,5-Triazine. C. Grundmann and A. Kreutzberger. bibliog Am Chem Soc J 76:632-3 Ja 20 '54

Spectra

Ultraviolet absorption spectra of substituted aminotriazines. C. G. Overberger and S. L. Shapiro. bibliog Am Chem Soc J 76:1855-8 Ap 5 '54

TRIAZOLES
Cleavage of 1 : 2 : 4-triazole rings. M. R. Atkinson and J. B. Polya. bibliog Chem & Ind p462-3 Ap 17 '54
Restriction of tautomerism in the triazole system by hydrogen bonding; the case of 4(7)-nitrobenzotriazole. N. L. Miller and E. C. Wagner. bibliog Am Chem Soc J 76:1847-52 Ap 5 '54
Spectrophotometric studies of dissociation constants of nitroguanidines, triazoles and tetrazoles. J. E. DeVries and E. S. Gantz. bibliog Am Chem Soc J 76:1008-10 F 20 '54
Synthesis of 4-alkyl-v-triazoles from acetylenic compounds and hydrogen azide. L. W. Hartzel and F. R. Benson. bibliog Am Chem Soc J 76:667-70 F 5 '54
Tautomerism of 5-amino-1-aryl-1 : 2 : 3-triazoles. B. R. Brown, D. L. Hammick and S. G. Heritage. Chem Soc J p3820-5 D '53
1,2,4-Triazole analogs of histamine. C. Ainsworth and R. G. Jones. bibliog Am Chem Soc J 75:4915-18 O 20 '53
Triazoles; N-substitution of some 1 : 2 : 4-triazoles. M. R. Atkinson and J. B. Polya. Chem Soc J p 141-5 Ja '54

TRIBOELECTRICITY. See Electricity, Static

TRIBOLIUM confusum. See Flour beetles

TRIBROMOTROPONE
Reported rearrangement of 2,4,7-tribromotropone to 3,5-dibromobenzamide. W. V. Doering and A. A. Sayigh. bibliog Am Chem Soc J 76:39-41 Ja 5 '54

TRIBUTYLBENZENE

1,3,5-Tri-*t*-butylbenzene and some derivatives. P. D. Bartlett, M. Roha and R. M. Stiles. Am Chem Soc J 76:2349-53 My 5 '54

TRIBUTYL phosphate

Pulse column variables; solvent extraction of uranyl nitrate with tributyl phosphate. G. Sege and F. W. Woodfield. il diag Chem Eng Prog 50:396-402 Ag '54

TRICALCIUM phosphate. See Calcium phosphates

TRICARBALLYLIC acid

Aconitic and tricarballylic acid esters as vinyl plasticizers. E. J. Roberts and others. bibliog Rubber World 130:801-4 S '54

Plasticizers from aconitic and tricarballylic acids. F. C. Magne and R. R. Mod. bibliog Ind & Eng Chem 45:1546-7 Jl '53

TRICHINA and trichinosis

Design fission irradiator to break trichinosis cycle. H. J. Gomberg and others. diags Food Eng 26:78-80+ S '54

Effect of irradiation with cobalt-60 on trichina larvae. H. J. Gomberg and S. E. Gould. Science 118:75-7 Jl 17 '53

Prevalence, transmission, prevention; National conference on trichinosis, 1st, Chicago, Dec. 15. Pub Health Rep 68:416-20 Ap '53

Trichinosis control and vesicular exanthema. J. C. Haldeman and others. Pub Health Rep 68:421-4 Ap '53

TRICHLOROACETIC acid

Effect of structure on reactivity; a study of the aminolysis of esters of trichloro- and trifluoroacetic acids. M. M. Joullié and A. R. Day. Am Chem Soc J 76:2990-3 Je 5 '54

Preparation of trichloroacetic acid. G. D. Parkes and R. G. W. Hollingshead. Chem & Ind p222 F 20 '54

Spectrum

Structure of the associated OH valence vibration band in light and heavy acetic, trichloroacetic, and trifluoroacetic acids. N. Fuson and M.-L. Josien. bibliog Opt Soc Am J 43:1102-5 N '53

TRICHLOROACETONITRILE

Physical properties and thermodynamic functions of trichloroacetonitrile. M. Davies and D. G. Jenkin. Chem Soc J p2374-7 Jl '54

TRICHLOROETHANE

Payoff in stability; Vythene claimed to make the TCE noncorrosive to aluminum. il Chem W 74:74+ Ap 17 '54

Some phosphorus-containing derivatives of 2 : 2 : 2-trichloroethanol. W. Gerrard, W. J. Green and R. J. Phillips. Chem Soc J p 1148-50 Mr '54

TRICHLOROETHYLENE

All competing, all growing; the top three chlorinated solvents, tri, per and carbon tet. Chem W 72:56-7 My 2 '53

Pyrolysis of chloroalkenes; trichloroethylene. A. M. Goodall and K. E. Howlett. Chem Soc J p2599-603 Jl '54

TRICHLOROFLUOROMETHANE

Substituted methanes; infrared spectral data, assignments, and calculated thermodynamic properties for fluorotrichloromethane. R. B. Bernstein and others. bibliog J Chem Phys 21:1778-80 O '53

TRICHLOROGERMANE

Microwave spectrum and molecular structure of trichloro germane. P. Venkateswarlu and others. bibliog J Chem Phys 21:1713-15 O '53

TRICHLOROMETHANE. See Chloroform

TRICHLOROMETHYL propene

Catalyzed allylic rearrangement of a 1,1,1-trichloro-2-alkene to a 1,1,3-trichloro-1-alkene. D. G. Kundiger and H. N. Haney. Am Chem Soc J 76:615 Ja 20 '54

TRICHLOROMETHYL thiotetrahydrophthalimide

New soap germicide, Vancide 89. E. I. Stoltz and C. H. Rogers. bibliog Soap & Chem Spec 30:38-40+ Je '54

TRICHLORONITROMETHANE. See Chloropicrin

TRICHOSANTHES

Spectroscopic examination of snake gourd oils. N. H. E. Ahlers and A. C. Dennison. Chem & Ind p603 My 22 '54

TRICKLING filters. See Sewage disposal—Filtration

TRICOT. See Knit goods

TRICRESYL phosphate

Add as you go; tricresyl phosphate for gasoline. Chem W 74:64-5 My 1 '54

Gasoline market brought tricresyl phosphate into spotlight. H. Stenerson. Chem & Eng N 31:3580 Ag 31 '53

New claims for gasoline containing tricresyl phosphate. Consumers Res Bul 32:15 S '53

Premium gasoline new king in market. il Nat Pet N 45:13-17 N 11 '53

TCP on the road. Chem W 72:68+ Je 20 '53

Tussle over TCP. Chem W 74:15 My 15 '54

TRICYCLOHEPTANE

New nortricyclene derivative. A. Winston and P. Wilder, jr. bibliog Am Chem Soc J 76: 3045-6 Je 5 '54

TRIESTE

Adriatic Solomon; task confronting the allies. map Economist 169:153-4 O 17 '53

Bloodshed in Trieste. Economist 169:473 N 14 '53

Case for delay. Economist 169:230 O 24 '53

Fewer troops round Trieste; Yugoslav offer to withdraw troops. Economist 169:735 D 5 '53

Fire under Trieste. Economist 168:619-20 S 5 '53

Paradox of Pella. Economist 168:704+ S 12 '53

Trieste deadlocked. Economist 168:685 S 12 '53

Trieste in the Commons. Economist 169:320 O 31 '53

Trieste through Italian eyes. Economist 169: 257-8 O 24 '53

Trieste through Jugoslav eyes. Economist 169:499 N 14 '53

TRIETHYLAMINE

Aluminum halide complexes with pyridine, trimethylamine, and triethylamine. D. D. Eley and H. Watts. Chem Soc J p 1319-24 Ap '54

Isotopic exchange reactions in triethylamine-liquid sulfur dioxide solutions. R. H. Herber and T. H. Norris. bibliog Am Chem Soc J 76:3849-50 Jl 20 '54

TRIETHYL phosphite

Spectrum

Ultra-violet absorption of triethyl phosphite. M. Halmann. Chem Soc J p2158-9 Je '54

TRIETHYLENE melamine

Comparative effects of total body radiation, nitrogen mustard, and triethylene melamine on the hematopoietic system of terminal cancer patients. R. K. Loeffler and others. Science 118:161-3 Ag 7 '53

TRIFLUOROACETATES

Preparation of acyl trifluoroacetates from trifluoroacetic anhydride. W. D. Emmons, K. S. McCallum and A. F. Ferris. Am Chem Soc J 75:6047-8 D 5 '53

TRIFLUOROACETIC acid

Effect of structure on reactivity; a study of the aminolysis of esters of trichloro- and trifluoroacetic acids. M. M. Joullié and A. R. Day. Am Chem Soc J 76:2990-3 Je 5 '54

Freezing points of the system water-trifluoroacetic acid. H. H. Cady and G. H. Cady. Am Chem Soc J 76:915-16 F 5 '54

Peroxytrifluoroacetic acid; the hydroxylation of olefins. W. D. Emmons, A. S. Pagano and J. P. Freeman. bibliog Am Chem Soc J 76:3472-4 Jl 5 '54

Peroxytrifluoroacetic acid; the oxidation of anilines to nitrobenzenes. W. D. Emmons. bibliog Am Chem Soc J 76:3470-2 Jl 5 '54

Peroxytrifluoroacetic acid; the oxidation of nitrosamines to nitramines. W. D. Emmons. bibliog Am Chem Soc J 76:3468-70 Jl 5 '54

Studies of trifluoroacetic acid; acyl trifluoroacetates and their reactions. E. J. Bourne and others. Chem Soc J p2006-12 Je '54

Studies of trifluoroacetic acid; diazotisations of aromatic amines in aqueous trifluoroacetic acid and other perhalogeno-carboxylic acids. M. R. Pettit, M. Stacey and J. C. Tatlow. Chem Soc J p3081-4 O '53

TRIFLUOROACETIC acid—*Continued*

Studies of trifluoroacetic acid; the electrical conductivities of the ternary system, trifluoroacetic anhydride-acetic anhydride-water. J. E. B. Randles, J. C. Tatlow and J. M. Tedder. diags Chem Soc J p436-41 Ja '54

Studies of trifluoroacetic acid; the mechanisms of syntheses effected by solutions of oxyacids in trifluoroacetic anhydride. E. J. Bourne and others. bibliog Am Chem Soc J 76:3206-8 Je 20 '54

Studies of trifluoroacetic acid; the reactions of diazonium trifluoroacetates with aromatic compounds to give diaryls. M. R. Pettit and J. C. Tatlow. Chem Soc J p 1941-7 Je '54

Spectrum

Structure of the associated OH valence vibration band in light and heavy acetic, trichloroacetic, and trifluoroacetic acids. N. Fuson and M.-L. Josien. bibliog Opt Soc Am J 43:1102-5 N '53

TRIFLUOROACETIC anhydride

New synthesis of 1 : 3-diketones and the preparation of 1-keto-olefins by means of trifluoroacetic anhydride as condensing agent. A. L. Henne and J. M. Tedder. Chem Soc J p3628-30 N '53

Trifluoroacetic anhydride; aid to making esters, nitrates, ketones and sulfones. Chem Eng 60:340-1 N '53

TRIFLUOROACETONE

Chelation of praseodymium by thenoyltrifluoroacetone. T. K. Keenan and J. F. Suttle. bibliog Am Chem Soc J 76:2184-5 Ap 20 '54

Extraction of uranyl ion from some aqueous salt solutions with 2-thenoyltrifluoroacetone. R. A. Day, jr. and R. M. Powers. bibliog Am Chem Soc J 76:3895-7 Ag 5 '54

Paper chromatography of metal 2-thenoyltrifluoroacetone chelates. E. W. Berg and R. T. McIntyre. bibliog Anal Chem 26:813-14 My '54

Use of thenoyltrifluoroacetone in ion exchange separations. R. A. James and W. P. Bryan. bibliog Am Chem Soc J 76:1982-4 Ap 5 '54

TRIFLUOROBENZENE

Spectrum

Vibrational spectra of fluorinated aromatics; 1,2,4-trifluorobenzene. E. E. Ferguson and others. bibliog J Chem Phys 21:1727-30 O '53

TRIFLUOROBUTYNE

Reactions of fluorocarbon radicals; synthesis and hydration of 1 : 1 : 1-trifluorobut-2-yne. R. N. Haszeldine and K. Leedham. Chem Soc J p 1261-4 Ap '54

TRIFLUOROCHLOROETHYLENE

Polytrifluorochloroethylene for corrosive service. J. A. Jupa. il Chem Eng 61:272+ Je '54

TRIFLUOROMETHANE

Reactions of fluorocarbon radicals; alternative syntheses, properties, and spectra of trifluoro-nitroso- and -nitro-methane. J. Jander and R. N. Haszeldine. Chem Soc J p912-19 Mr '54

TRIFLUOROMETHYL benzene

Spectrum

Vibrational spectra of fluorinated aromatics; 1,4-bis(trifluoromethyl)benzene. E. E. Ferguson and others. bibliog J Chem Phys 21: 1731-5 O '53

TRIFLUOROMETHYL compounds

Further investigations of trifluoromethyldiphenyl derivatives. M. R. Pettit and J. C. Tatlow. Chem Soc J p 1071-6 Mr '54

Trifluoromethyl derivatives of hydroxybenzoic acids and related compounds. M. Hauptschein, E. A. Nodiff and A. J. Saggiomo. bibliog Am Chem Soc J 76:1051-4 F 20 '54

TRIFLUOROMETHYL group

Reactivity of the trifluoromethyl group in 2-trifluoromethyl benziminazoles. E. S. Lane. bibliog Chem & Ind p798-9 Jl 25 '53

TRIFLUOROMETHYLMAGNESIUM iodide

Perfluoroalkyl Grignard and Grignard-type reagents; trifluoromethylmagnesium iodide. R. N. Haszeldine. Chem Soc J p 1273-9 Ap '54

TRIFLUOROTOLUENE

Ultraviolet absorption spectra of some substituted benzotrifluorides. H. H. Szmant and J. F. Anzenberger. Am Chem Soc J 76:3785-7 Jl 20 '54

TRIGONELLINE

Analysis

Determination of caffeine and trigonelline in coffee by paper chromatography. L. Kogan, F. J. DiCarlo and W. E. Maynard. bibliog Anal Chem 25:1118-20 Jl '53

TRIGONOMETRIC functions. See Functions, Trigonometric

TRILITHIUM phosphate. See Lithium phosphates

TRILOBITES

Silicified middle ordovician trilobites. H. B. Whittington and W. R. Evitt, 2d. (Memoir 59) 137p, 33pls bibliog(p97-100) Geological soc. of America, 419 W. 117 st, New York 27 '53 ($3)

TRIMBLE, Edward G. jr.

Sketch. por East Underw 55:41+ Mr 19 '54

TRIMETHYLAMINE

Aluminum halide complexes with pyridine, trimethylamine, and triethylamine. D. D. Eley and H. Watts. Chem Soc J p 1319-24 Ap '54

Trimethylamine adducts of the chlorosilanes. A. B. Burg. Am Chem Soc J 76:2674-5 My 20 '54

TRIMETHYLCOLCHICINIC acid

Colchicine; derivatives of trimethylcolchicinic acid. R. F. Raffauf, A. L. Farren and G. E. Ullyot. bibliog Am Chem Soc J 75: 5292-4 N 5 '53

TRIMETHYLCYCLOHEXANE

Studies in the terpene series; isomerization accompanying the dehydrogenation of 1,1,3-trimethylcyclohexane and of 1,1,3-trimethyl-*x*-cyclohexene. H. Pines, E. F. Jenkins and V. N. Ipatieff. bibliog Am Chem Soc J 75:6226-8 D 20 '53

TRIMETHYL ether. See Methyl ether

TRIMETHYLETHYLENE. See Methyl butene

TRIMETHYLPENTANE

High temperature oxidations of 2,2,4-trimethylpentane and 2,2-dimethylbutane. F. F. Rust and D. O. Collamer. bibliog Am Chem Soc J 76:1055-8 F 20 '54

Oxidation products of di*iso*butylene; liquid-phase oxidation of di*iso*butylene; formation, properties, and analysis of 1 : 2-epoxy-2 : 4 : 4-trimethylpentane. E. J. Gasson and others. Chem Soc J p2161-9 Jl '54

Oxidation products of di*iso*butylene; products from ring-opening of 1 : 2-epoxy-2 : 4 : 4-trimethylpentane. A. R. Graham, A. F. Millidge and D. P. Young. Chem Soc J p2180-200 Jl '54

Oxidation products of di*iso*butylene; the isomerisation of 1 : 2-epoxy-2 : 4 : 4-trimethylpentane, and some products derived from 2 : 4 : 4-trimethylpentanal. E. J. Gasson and others. Chem Soc J p2170-9 Jl '54

TRIMETHYLPHENYL ammonium iodide

Trimethylphenylammonium iodide, quantitative precipitant for bismuth. T. S. Burkhalter and J. F. Solarek. bibliog Anal Chem 25:1125-6 Jl '53

TRIMETHYLENE oxide

Friedel-Crafts reaction with trimethylene oxide and *n*-propyl ether. S. Searles. bibliog Am Chem Soc J 76:2313-14 My 5 '54

Reaction of trimethylene oxide with amines. S. Searles and V. P. Gregory. bibliog Am Chem Soc J 76:2789-90 My 20 '54

Reactions of alcohols and phenols with trimethylene oxide. S. Searles and C. F. Butler. bibliog Am Chem Soc J 76:56-8 Ja 5 '54

Trimethylene oxides; reaction of 2-chloro-4-hexanol and 1-phenyl-3-chloro-1-butanol with alkali. N. G. Gaylord and others. bibliog Am Chem Soc J 76:59-61 Ja 5 '54

TRINIDAD

See also

Electric plants (central stations)—Trinidad

Petroleum industry and trade—Trinidad

TRINIDAD petroleum development company, limited
Another fight for control. Economist 170: 117-18 Ja 9 '54
Statement by the chairman. K. A. E. Moore. Economist 169:370-1 O 31 '53

TRINITROBENZENE
Molecular compounds; picric acid-naphthalene, picric acid-*m*-dinitrobenzene and picric acid-1,3,5-trinitrobenzene in chloroform. S. D. Ross and I. Kuntz. bibliog Am Chem Soc J 76:74-6 Ja 5 '54

TRINITROFLUORENONE
New molecular addition compounds of 2,4,7-trinitrofluorenone. D. E. Laskowski and W. C. McCrone. Anal Chem 26:1497-500 S '54
2,4,7-Trinitrofluorenone as a reagent for microscopic fusion analysis. D. E. Laskowski, D. G. Grabar and W. C. McCrone. il diag Anal Chem 25:1400-4 S '53

TRINITRONAPHTHALENE
Crystallographic data. S. M. Tsang and W. C. McCrone. il Anal Chem 26:1096-7 Je '54

TRINITRORESORCINOL
Lead salts of 2,4,6-trinitroresorcinol. R. A. Zingaro. bibliog Am Chem Soc J 76:816-19 F 5 '54

TRINITROTOLUENE
Continuous production of nitrotoluenes. F. Meissner, G. Wannschaff and D. F. Othmer. bibliog il diags Ind & Eng Chem 46: 718-24 Ap '54

TRIODES. See Vacuum tubes

TRIOXOCANE
Catalysis with cation-exchange resins; preparation of 1,3-dioxolanes and 1,3,6-trioxocanes. M. J. Astle, J. A. Zaslowsky and P. G. Lafyatis. bibliog Ind & Eng Chem 46:787-91 Ap '54

TRIPHENYLETHYL
Molecular rearrangements; the 1,2,2-triphenylethyl system. W. A. Bonner and C. J. Collins. bibliog Am Chem Soc J 75:5372-9 N 5 '53
Molecular rearrangements; the 1,1,2-triphenylethyl system. C. J. Collins and W. A. Bonner. bibliog Am Chem Soc J 75:5379-81 N 5 '53

TRIPHENYLETHYLENE
Synthetic estrogens; halotriphenylethylene derivatives. R. S. Shelton and others. bibliog Am Chem Soc J 75:5491-5 N 20 '53

TRIPHENYLMETHANE
Effects of structure on the kinetics of decomposition of substituted phenyl-azo-triphenylmethanes. S. G. Cohen and Chi Hua Wang. bibliog Am Chem Soc J 75:5504-7 N 20 '53
Fluorene analogues of triphenylmethane dyes; calculation of their light absorption by the molecular-orbital method. D. A. Brown and M. J. S. Dewar. Chem Soc J p2134-6 Je '54
Formation of 9-phenylfluorene and triphenylmethane by disproportionation of triphenylmethyl. R. L. Letsinger, R. Collat and M. Magnusson. Am Chem Soc J 76:4185-6 Ag 20 '54

TRIPHENYLMETHYL chloride. See Chlorotriphenylmethane

TRIPHENYLMETHYL group

Spectrum

Characteristic infra-red absorption of the triphenylmethyl group. S. Pinchas and D. Samuel. Chem Soc J p863-4 Mr '54
Fluorescence spectrum of triphenylmethyl at 4°K. S. I. Weissman. il J Chem Phys 22: 155 Ja '54

TRIPHENYLSILYLPOTASSIUM
Reaction of triphenylsilylpotassium with formaldehyde. H. Gilman and T. C. Wu. bibliog Am Chem Soc J 76:2502 My 5 '54

TRIPHENYLTETRAZOLIUM chloride
2,3,5-Triphenyltetrazolium chloride as a rapid indicator of viability in cottonseed. M. G. Lambou. bibliog Science 117:690-3 Je 19 '53

TRIPLEX corporation of America
Stock offered. Comm & Fin Chr 179:208 Ja 18 '54

TRIPTYCENE
Triptycene 1-carboxylic acid and related compounds; the decomposition of ditriptoyl peroxide. P. D. Bartlett and F. D. Greene. bibliog Am Chem Soc J 76:1088-96 F 20 '54

TRISACCHARIDES
Studies of aspergillus niger; the structure of a trisaccharide synthesised from sucrose. S. A. Barker, E. J. Bourne and T. R. Carrington. Chem Soc J p2125-9 Je '54
See also
Fructomaltose
Kestose

TRISPHENOLS. See Phenols

TRITANOPIA. See Color blindness

TRITERPENES. See Terpenes

TRITERPENOIDS. See Terpenes

TRITIUM
Absorption of tritium beta particles in hydrogen and other gases. L. M. Dorfman. bibliog diag Phys R 95:393-6 Jl 15 '54
Atomic battery employs radioactive tritium. Chem & Eng N 32:1622 Ap 19 '54
Conference on use of tritium in organic and biological chemistry, Lemont, Ill. Chem & Eng N 31:3184+ Ag 3 '53
Effects of certain three-body nuclear interactions in H^3 and He^3. A. W. Solbrig, jr. bibliog Phys R 95:831-6 Ag 1 '54
Exchange reaction of hydrogen and tritium. L. M. Dorfman and H. C. Mattraw. bibliog J Phys Chem 57:723-5 O '53
Liquid scintillation counting of tritium and C^{14} labeled compounds. D. J. Rosenthal and H. O. Anger. bibliog R Sci Instr 25:670-4 Jl '54
Measurement of the tritium concentration in natural waters by a diffusion cloud chamber. E. L. Fireman and D. Schwarzer. il diags Phys R 94:385-8 Ap 15 '54
Mercury-photosensitized reactions of tritium with acetylene and ethylene. L. Kaplan. bibliog Am Chem Soc J 76:1448-9 Mr 5 '54
Natural distribution of tritium. S. Kaufman and W. F. Libby. bibliog Phys R 93:1337-44 Mr 15 '54
Natural tritium content of atmospheric hydrogen. A. V. Grosse and others. bibliog Phys R 93:250-1 Ja 1 '54
Preparation of gas for assay of tritium in organic compounds. K. E. Wilzbach and others. bibliog diag Science 118:522-3 O 30 '53
Tritium monitor. T. O. Jeffries and M. E. Owen. diag J Sci Instr 30:387-8 O '53
Upper limits on the neutrino mass from the tritium beta spectrum. D. R. Hamilton and others. bibliog Phys R 92:1521-5 D 15 '53
See also
Tritons (tritium ions)

Analysis

Determination of tritium by ion current measurement. K. E. Wilzbach, A. R. Van Dyken and L. Kaplan. bibliog(25 ref) Anal Chem 26:880-3 My '54
Estimating the tritium content of tritiated water. W. A. Jenkins. diag Anal Chem 25:1477-80 O '53

Nuclear reactions

Cross sections for the reactions $D(d,p)T$, $D(d,n)He^3$, $T(d,n)He^4$, and $He^3(d,p)He^4$ below 120 kev. W. R. Arnold and others. bibliog diags Phys R 93:483-97 F 1 '54
Neutron total cross sections at 20 Mev. R. B. Day and R. L. Henkel. bibliog Phys R 92: 358-61 O 15 '53

TRITIUM oxide. See Water—Heavy water

TRITONS (tritium ions)
Angular distribution and yield of the process $p+d \to t+\pi^+$. W. J. Frank and others. diags Phys R 94:1716-21 Je 15 '54
Hard core interpretation of the reaction $p+d \to \pi^+ + t$. S. A. Bludman. Phys R 94: 1722-3 Je 15 '54
Small-angle cross sections for the scattering of protons by tritons. M. E. Ennis and A. Hemmendinger. Phys 95:772-5 Ag 1 '54

TROLLEY buses
1954 bus show in print; illustrations with text. Bus Transportation 33:73 S '54
Trolley buses travel express with new wiring idea. il Bus Transportation 33:38-9 Mr '54

TROLLEY buses—*Continued*

Electric equipment

Sealed bearings prove the cure for trolley bus motor failures. N. W. Henry. il Bus Transportation 33:45-7 Ag '54

Maintenance and repair

How to test and repair trolley coach differentials. il Bus Transportation 33:30-2 Je '54

Sealed bearings prove the cure for trolley bus motor failures. N. W. Henry. il Bus Transportation 33:45-7 Ag '54

Specifications

1954 motor and trolley bus front end specifications. diags Bus Transportation 33:63 Je '54

1954 trolley bus specifications; tabulation. Bus Transportation 33:65 F '54

Statistics

Trolley bus fleet shows losses in 1953. Bus Transportation 33:34-5 F '54

TROLLEY wire

High-level trolley wire handles supply-track crossing. il Coal Age 59:118 My '54

TRONA

See also

Soda ash

TROPICS

Motor vehicles in hot countries. C. J. D. Carruthers. diag Inst Mech Eng Proc (Auto div pt 4):149-55; Discussion. 155-7 '51-52

Performance of thermistor hygrometers under tropical conditions. G. W. Smith. il J Sci Instr 30:414-18 N '53

Plastics in the tropics. Chem Age (Lond) 69:903-4 O 31 '53

Specialist vehicle; a caravan incorporating refrigerated air conditioning and other amenities required in the tropics. Automobile Eng 44:340 Ag '54

Tropics as sources of vegetable oils and fats. H. Tempany. Chem & Ind p731-5 Jl 18 '53

See also

Soils—Tropics

TROPINE

Alkaloids go synthetic; synthesis of tropane alkaloids; T. and H. Smith, ltd. il Chem W 74:75-6 F 27 '54

Configuration of tropine and *pseudo*-tropine. M. B. Sparke. bibliog Chem & Ind p749-50 Jl 18 '53

Conformation of the tropines and some related compounds. S. Archer and T. R. Lewis. bibliog Chem & Ind p853-4 Jl 10 '54

TROPININE methiodide

Hofmann degradation of tropinone methiodide. G. Büchi and others. bibliog Chem & Ind p 1063 O 3 '53

TROPOLONE

Formation constants of metal complexes of tropolone and its derivatives; some alkyltropolones. B. E. Bryant and W. C. Fernelius. Am Chem Soc J 76:1696-7 Mr 20 '54

Formation constants of some metal complexes of tropolone and its derivatives; the benzotropolones and purpurogallins. B. E. Bryant and W. C. Fernelius. Am Chem Soc J 76:3783-4 Jl 20 '54

Purpurogallin; some further rearrangement reactions of the tropolones. P. Akroyd. R. D. Haworth and P. R. Jefferies. Chem Soc J p286-94 Ja '54

Synthetic studies on the colchicine problem; the preparation and properties of some styryltropolones. D. S. Tarbell, R. F. Smith and V. Boekelheide. bibliog Am Chem Soc J 76:2470-3 My 5 '54

Tropolones; orientation in tropolone. J. W. Cook, J. D. Loudon and D. K. V. Steel. Chem Soc J p530-5 F '54

Tropolones; synthesis and properties of 7-hydroxybenzo*cyclo*heptatrien-3-one. G. L. Buchanan. Chem Soc J p 1060-3 Mr '54

See also

Nootkatin

TROPOLONE, Analogs of

Open chain analogs of tropolone. R. C. Fuson, H. O. House and L. R. Melby. bibliog Am Chem Soc J 75:5952-5 D 5 '53

TROPONE. See Cycloheptatrienone

TROUTON'S law

Modification of Trouton's rule. S. T. Bowden. bibliog J Ap Chem 4:38-41 Ja '54

TROWBRIDGE, Douglas Stanley, 1888-

D. Trowbridge to retire. por Eng N 152:62 Ap 15 '54

TRUCKING. See Motor trucks in freight service

TRUCKMEN'S insurance company

Truckmen's insurance co. formed by garment industry in New York. East Underw 55:36 Ap 16 '54; Nat Underw 58:41 Ap 15 '54

TRUCKS

Facts about modern hand trucks. il Mill & Factory 54:261 My '54

See also

Electric trucks, Industrial

Motor trucks

Motor trucks, Industrial

Trailers

TRUSSES

Aircraft factory spanned by exposed steel trusses. il Arch Rec 113:194-5 Mr '53

Bow string trusses. diags Am Bld 75:250 S '53

Fork truck erects 50-ft trusses. il Constr Methods 36:73-4 Mr '54

Hangar's timber trusses set new span record. il diags Eng N 151:31-2 S 3 '53

How to erect an expansion-attic truss; details on the University of Illinois Small homes council's open-hearted truss. il diags House & Home 3:156-61 Mr '53

Joint industry action develops a low-cost spandrel truss. il diags Arch Forum 101:152-5 S '54

Laminated trusses lead the way to cost savings. il plan Am Bld 76:84 F '54

Least-weight proportions of bridge trusses. J. L. Waling. diags Ill U Eng Exp Sta Bul 417:1-56 '53 (pa 50c)

Nailed trusses prove cheaper than bolted bowstring trusses. diags Eng N 151:35 D 17 '53

Ned Cole designs a steel roof truss and a house to show it off. il plans diags House & Home 4:130-3 D '53

Post-buckling strength of redundant trusses. E. F. Masur. diags Am Soc C E Proc 79 [no 332]:1-14 N '53

Research develops truss frames for 1½-story house. il diags Am Bld 75:40+ My '53

Skin stress cantilevered truss opens way to new design technique. il plans diags Am Bld 75:51-4 Jl '53

Story-high trusses; Flatbush Jewish center, Brooklyn. il diags Arch Forum 97:140 D '52

Thru-way floor truss. il Arch Forum 97:149 N '52

Welded camel-back trusses; Fairchild aircraft co. il diag Arch Forum 98:173 Je '53

What's new in trusses? il diags Am Bld 76:50-4 Jl '54

Wood roof trusses can result in savings. il diags Am Bld 75:42-5 Ag '53

TRUST associations

Iowa corporate fiduciaries association 5th annual meeting, Des Moines, Oct. 28. Trusts & Estates 92:958-9 D '53

New Jersey bankers association 25th annual trust and banking conference, Asbury Park, Nov. 18-19. Trusts & Estates 92:906 D '53

New York state bankers association Trust division 7th annual conference, Syracuse, Oct. 16. Trusts & Estates 92:861-2 N '53

Trust competitors can be friends. Trusts & Estates 92:601 Ag '53

TRUST companies

See also

Banks and banking—Trust departments

Investment trusts

also American bankers association—Trust division

Accounting

Program for trust cost analysis. R. A. Knecht. Trusts & Estates 93:149-53 F '54

See also

Trusts and trustees—Accounting

Advertising

Attention arresters in trust ads (cont). Trusts & Estates 91:670, 925; 92:56, 282, 360-1, 462, 527, 593-4, 661 S, D '52-Ja, Ap-S '53

On the publicity front. il Trusts & Estates 93:51-2, 141-2 Ja-F '54

TRUST companies—*Continued*

Fees

See Trust fees

Investment advice

Technical studies indicate sound stock market base. E. W. Tabell. Trusts & Estates 93:134-6 F '54

Investments

See Trusts and trustees—Investments

Law

See Trusts and trustees

Life underwriters' cooperation

See Insurance, Life—Trust company cooperation

Service

Opportunities for service under the self-pensioning bills. E. S. MacNeill. Trusts & Estates 93:92-7 F '54

TRUST departments. See Banks and banking—Trust departments

TRUST fees

Extra compensation. A. I. Johnson. Trusts & Estates 93:109-10 F '54

TRUSTEESHIPS, International. See International trusteeships

TRUSTS, Industrial

Antitrust action against labs? Chem & Eng N 32:596+ F 15 '54

Antitrust suits; Supreme court to hear arguments in lathers and plasterers cases. Eng N 151:22 D 3 '53

Charges of Justice department against New Orleans insurance exchange. East Underw 55:24-5 Ja 29 '54

Cleveland board holds rules are in public interest, do not violate law; Justice department allegations; anti-trust suits. East Underw 54:28-9 N 6 '53

Cleveland board opposes hasty action in U.S. anti-trust suit. Nat Underw 57:4 D 17 '53

Courts and FTC soften antitrust. Bsns W p 100 D 26 '53

Gauge for industrial giants. Chem W 75:15-16 Jl 17 '54

Let-up on law suits? Chem W 72:22+ Ap 18 '53

Medina throws out case against underwriters. Comm & Fin Chr 178:1125 S 24 '53

New antitrust policy developing. Bsns W p62+ Ag 1 '53

New Orleans board says U.S. doesn't have jurisdiction. Nat Underw 58:1 Je 17 '54

Not knitting now; Celanese wins bill of health from Antitrust division. Chem W 74:19 Ap 17 '54

Price-fixing by syndicate upheld; obiter dictum opinion. H. R. Medina. Comm & Fin Chr 178:1530 O 22 '53

Swiss watches and U.S. trade. Bsns W p70 D 26 '53

Toilet goods makers said to violate the Sherman act. Oil Paint & Drug Rep 165:3+ Je 7 '54

Trust-busting boomerang; E. I. du Pont de Nemours & co. Chem W 74:14 Ja 16 '54

U.S. antitrust goal; aim better, hit hard. Nat Pet N 46:15-17 F 10 '54

U.S. asks decree without trial in Cleveland case. Nat Underw 57:2 O 8 '53

U.S. files trust action against New Orleans board. Nat Underw 58:1+ Ja 21 '54

See also

Competition	Petroleum industry and trade—Western states—Anti-trust suit
Du Pont de Nemours, E. I., and company	Price fixing
Monopolies	Restraint of trade

International trusts

Aluminum antitrust suit settled by US, Alcoa. Oil Paint & Drug Rep 165:5+ My 3 '54

Antitrust suit against rubber firms ended. Oil Paint & Drug Rep 165:4 Je 7 '54

Canadian industries, ltd. slated for split to meet terms of 1952 antitrust edict by U.S. court. Chem & Eng N 32:918 Mr 8 '54

Division of interests; Du Pont and I.C.I. plans approved. Chem Age (Lond) 70:734 Mr 27 '54

GE cartel action settled. Elec World 140:216 O 19 '53

Loath but muted; Canadians on U.S. court order for division of Canadian industries, ltd. Chem W 74:17 Mr 27 '54

Passing of a partnership; split-up of three big foreign firms jointly owned by E. I. du Pont de Nemours & co. and Imperial chemical industries, ltd. Chem W 74:18-19 Mr 6 '54

See also

Interessen gemeinschaft farbenindustrie	Petroleum industry and trade—United States—Anti-trust suit

Law

Administration view on anti-trust laws. R. G. Gibbs. Chem & Eng N 31:3124 Ag 3 '53

New antitrust policy takes shape; FTC will assume preventive functions. Steel 133:35 Ag 31 '53

Record hailed in antitrust field. H. Brownell. Oil Paint & Drug Rep 165:3+ F 1 '54

Trustbusting, '53 style. Chem W 73:15 Jl 11 '53

See also

Clayton anti-trust act

TRUSTS and trustees

Bank farm service departments; trust-owned livestock farms. D. F. Graves. Banking 46:117-18+ F '54

Basic trust services. E. S. MacNeill. Banking 46:65-6 Ag; 58-9 S; 57-8 O; 64-5 N; 72-3 D '53; 58-9 Ja '54

Deviations from terms of will; conditions under which courts allow departure. D. S. Wentworth. bibliog Trusts & Estates 92:720-6+ O '53

Handling businesses in trust; ABA midwinter trust conference panel. Trusts & Estates 93:105-11 F '54

I enclose a copy of your will. R. A. Wornser. J Account 86:218-19 Ag '53

Legislation; Wisconsin. Trusts & Estates 92:684 S '53

Our responsibilities as trustees. N. B. Maddox. Trusts & Estates 93:80-2 F '54

Recent fiduciary decisions. Published in monthly numbers of Trusts and estates

Significant trust and probate decisions; ABA committee report. Trusts & Estates 92:741-4 O '53

State legislation affecting trusts and estates; ABA committee report. Trusts & Estates 92:788-92 O '53

Will compromises, joint tenancy, specific performance of fiduciary contracts, interested witnesses to wills; report of ABA committee on fiduciary law and procedure. Trusts & Estates 92:777-86 O '53

See also

Banks and banking—Trust departments	Foundations, Charitable and educational
Employees' trusts	Insurance trusts
	Investment trusts
	Pension trusts

also American bankers association—Trust division

Accounting

Treatment of capital-gain dividends by fiduciary shareholders. J Account 96:220-1 Ag '53

Trust accounting and auditing. H. S. Croft. Trusts & Estates 92:596-600, 654-6, 867-70, 912-13; 93:53-5 Ag-S, N '53-Ja '54

Bibliography

Trust and probate literature, 1952-53; ABA committee report. Trusts & Estates 92:793-8 O '53

Charitable trusts

Validating charities. Economist 170:226 Ja 23 '54

Common trust funds

Common funds hold 591 equities; with table by industry groupings. Trusts & Estates 93:114-16 F '54

TRUSTS and trustees—Common trust funds —*Continued*

Growth and composition of 167 common trust funds. Trusts & Estates 93:16 Ja '54

Michigan raises limit of maximum participation in common trust funds. Trusts & Estates 92:566 Ag '53

Story behind a common trust fund. G. L. White. Trusts & Estates 92:570 Ag '53

Employees' trusts

See Employees' trusts

Investments

Common stock or fixed income securities? C. D. Anderson. Trusts & Estates 92:929-30 D '53

Current investment outlook; Mid-winter trust conference investment panel. Trusts & Estates 93:118-19 F '54

Current trust portfolio; oils and chemicals among favorites. J. C. Bickford. Trusts & Estates 92:849-51 N '53

Favorite equities in Canadian trust accounts. Trusts & Estates 92:928 D '53

Formula plans for investment. R. S. Heavner. Trusts & Estates 92:952-6 D '53

Income-producing real estate as trust investment. C. M. Turley. Comm & Fin Chr 178:1948-9 N 19 '53; Excerpts. Trusts & Estates 92:846-7 N '53

Model investment statute; report of ABA committee on trust investments. Trusts & Estates 92:776 O '53

New trust package; life insurance trust; living trust in a single instrument. N. F. Dacey. Trusts & Estates 92:624-5 S '53

Second annual trust investment symposium; roundup of trustee investment policies. Trusts & Estates 92:934-6+ D '53

Trust investments during the transition period. M. Nadler. Trusts & Estates 93:122-6 F '54

Trustees largest investors in corporations. Trusts & Estates 93:6 Ja '54

Pension trusts

See Pension trusts

Principal and income

Discretionary trust; guides for exercise of powers to distribute income and principal. D. H. McLucas. Trusts & Estates 92:824-6 N '53

Tax problems

Administering the marital deduction. R. M. Lovell. Trusts & Estates 92:812-14+ N '53; Abstract. Burroughs Clearing House 38:21-2 Ja '54

Funded life trust of nonresident alien; Chase national bank of the city of New York; ancillary executor v. commissioner. F. L. Morton. Spectator 161:44-7 S '53

Stockholder estate problems; realignment of capital structure of close corporation a solution. S. J. Foosaner. Trusts & Estates 92:908-10 D '53

Taxation

Current evaluation of estate and trust taxation of interest to the CPA. C. M. Mortensen. J Account 96:206-11 Ag '53

How to turn tax savings from term trusts into new life sales. R. F. Spindell. Nat Underw (Life ed) 57:2+ O 2 '53

TRYPANOCIDES

Cinnolines and other heterocyclic types in relation to the chemotherapy of trypanosomiasis; attempts to synthesise N^1N^3-di-(4-amino-7-cinnolyl)guanidine dimethiodide. C. M. Atkinson, J. C. E. Simpson and A. Taylor. Chem Soc J p 1381-4 My '54

Cinnolines and other heterocyclic types in relation to the chemotherapy of trypanosomiasis; intermediates. C. M. Atkinson, J. C. E. Simpson and A. Taylor. Chem Soc J p 165-70 Ja '54

Cinnolines and other heterocyclic types in relation to the chemotherapy of trypanosomiasis; synthesis of azoquinoxaline derivatives. C. M. Atkinson and others. Chem Soc J p2023-7 Je '54

TRYPSIN

Divergent electrophoretic properties of dissolved and adsorbed trypsin. R. S. Hartman, J. B. Bateman and H. E. Edelhoch. bibliog Am Chem Soc J 75:5748-9 N 20 '53

Mucolytic and digestive action of trypsin in the preparation of sputum for cytologic study. S. M. Farber and others. bibliog il Science 117:687-90 Je 19 '53

TRYPTAMINE

Nitroethylation of indole; a new synthesis of tryptamine. W. E. Noland and P. J. Hartman. bibliog Am Chem Soc J 76:3227-8 Je 20 '54

TRYPTOPHAN

Determination of protein-bound carbohydrates by the anthrone reaction; effect of tryptophan. E. F. Tuller and N. R. Keiding. bibliog Anal Chem 26:875-8 My '54

Photoöxidation products of tryptophan. Z. Yoshida and M. Kato. bibliog Am Chem Soc J 76:311-12 Ja 5 '54

Polytryptophan. A. Patchornik, M. Sela and E. Katchalski. bibliog Am Chem Soc J 76:299-300 Ja 5 '54

Tryptophan synthesis in claviceps purpurea. V. E. Tyler, jr. and A. E. Schwarting. bibliog Science 118:132-3 Jl 31 '53

Manufacture

Tryptophan tedium tripped. Ind & Eng Chem 45:sup 18A+ O '53

TSCHEBYSCHEFF arrays. See Radio antennas—Directional antennas

TSCHEBYSCHEFF-polynomial operators

Use of Tschebyscheff-polynomial operators in the numerical solution of boundary-value problems. G. Shortley. J Ap Phys 24:392-6 Ap '53

TSETSE flies

Pesticide parachutes into Central Africa. il Chem W 74:80 Mr 20 '54; diags Engineer 197:217-18 F 5 '54; Engineering 177:219 F 12 '54

TUBE bending

Bending aluminum tubing. J. E. Hawking. il Tool Eng 32:59-60 Je '54

Fabricating special purpose copper heat exchangers. J. M. Van Nieukirken. il diags Materials & Methods 39:140-2 Mr '54

How to bend aluminum tube and bar. J. M. Adle. il diags Am Mach 98:137-44 My 24 '54

TUBE bending machines

Chamberlain high-speed automatic bending machine. il diags Engineer 197:147-8 Ja 22 '54; Automobile Eng 44:169-70 Ap '54

Hill semi-automatic unit bends tubing. il Am Mach 98:144 Ja 4 '54; Tool Eng 32:112 F '54

Sharper bends for ultra-thin tubing. il Steel 134:90-1 My 31 '54

TUBE investments, limited

Statement by the chairman. I. Stedeford. Economist 169:626-7 N 21 '53

Tube Investments misses the bus. Economist 169:437 N 7 '53

TUBE mills

How to select synchronous motors for taconite grinding mills. J. C. Marous and E. F. Merrill. il Eng & Min J 155:84-7 Jl '54

Methods of charging rods and balls into grinding mills. O. Johnson. il plans diags Min Eng 6:Trans 622-7 Je '54

Tumbling mill capacity and power consumption as related to mill speed. R. T. Hukki. bibliog Min Eng 6:Trans 728-30 Jl '54

TUBE worms. See Worms

TUBERCLE bacilli

Chromatographic isolation of polysaccharides from mycobacterium tuberculosis. B. Siegel, G. A. Candela and R. M. Howard. bibliog Am Chem Soc J 76:1311-13 Mr 5 '54

Constituents of the lipids of tubercle bacilli. J. D. Chanley and N. Polgar. Chem Soc J p 1003-8 Mr '54

Constituents of the lipids of tubercle bacilli; mycoceranic acid. N. Polgar. Chem Soc J p 1011-12 Mr '54

TUBERCLE bacilli—*Continued*

Constituents of the lipids of tubercle bacilli; mycolipenic acid. N. Polgar. Chem Soc J p 1008-10 Mr '54

Pathogenicity of isoniazid-resistant variants of tubercle bacilli. G. Middlebrook and M. L. Cohn. Science 118:297-9 S 11 '53

TUBERCULOSIS

Antituberculosis activity of some ethylmercapto compounds. H. D. Brown and others. Am Chem Soc J 76:3860 Jl 20 '54

Chemistry of amicetin, a new antibiotic. E. H. Flynn and others. bibliog Am Chem Soc J 75:5867-71 D 5 '53

Chemotherapy of experimental tuberculosis; heterocyclic acyl derivatives of substituted semicarbazides. H. L. Yale and others. Am Chem Soc J 76:2208-11 Ap 20 '54

Community-wide X-ray surveys, 1945-1953, conducted with Public health service assistance. maps Pub Health Rep 68:546-8 My '53

Conquering tuberculosis. Economist 170:15-16 Ja 2 '54

Ethylmercapto compounds show antituberculosis activity. Chem & Eng N 32:2964 Jl 26 '54

5-Heptyl-2-thiohydantoin, a new antitubercular agent. E. Froelich and others. Am Chem Soc J 76:3099-100 Je 5 '54

3-Indolecarboxaldehyde thiosemicarbazone, a new antitubercular compound. L. E. Weller, H. M. Sell and R. Y. Gottshall. Am Chem Soc J 76:1959 Ap 5 '54

Isolation and purification of amicetin. J. W. Hinman, E. L. Caron and C. DeBoer. bibliog Am Chem Soc J 75:5864-6 D 5 '53

Lesion-causing fatty acid found in tubercle bacilli. Chem & Eng N 32:3730 S 20 '54

Newer synthetic structures of interest as tuberculostatic drugs. H. H. Fox. bibliog(51 ref) Science 118:497-505 O 30 '53

Synthetic banes for TB; search for new synthetic tuberculostats. Chem W 73:43+ N 21 '53

Time between tuberculosis reporting and death. E. X. Mikol and B. Z. Locke. Pub Health Rep 68:554-7 Je '53

Treatment of tuberculosis. J. B. Amberson. Pub Health Rep 68:928-31 O '53

Trends in tuberculosis mortality in continental United States. A. P. Iskrant and E. Rogot. Pub Health Rep 68:911-19 S '53

Tuberculosis; a time for decision. T. Parran. bibliog Pub Health Rep 68:921-7 O '53

Tuberculosis cases known to health departments. R. J. Anderson and others. Pub Health Rep 68:641-6 Jl '53

Tuberculosis control in industry; abstract. H. A. Vonachen and others. Nat Safety N 69:155 Mr '54

Tuberculosis mortality by state, 1950. map Pub Health Rep 68:628-9 Je '53

WHO tuberculosis research office. I. C. Yuan and C. E. Palmer. bibliog Pub Health Rep 68:678-86 Jl '53

See also
Tubercle bacilli

Hospitals and sanitoriums

Tuberculosis hospital in Hawaii accents cheerful surroundings. il plans Arch Rec 114:166-72 O '53

Statistics

Final 1952 report on tuberculosis morbidity, United States and territories. Pub Health Rep 68:1116-17 N '53

1952 provisional data indicates decline in tuberculosis mortality. map Pub Health Rep 68:1013-14 O '53

TUBES

Convective heat transfer for mixed, free, and forced flow through tubes. E. R. G. Eckert and A. J. Diaguila. bibliog diags A S M E Trans 76:497-504 My '54

Dielectric, physical properties improved in fiber glass tubing. Iron Age 172:152+ Ag 6 '53

Electronic-control method for the precision expanding of tubes. F. E. Dudley. bibliog il diags A S M E Trans 76:577-82; Discussion. 582-4 My '54

Heat transfer and fluid friction during flow across banks of tubes; a study of a cylindrical baffled exchanger without internal leakage. O. P. Bergelin and others. il diags A S M E Trans 76:841-9; Discussion. 849-50 Jl '54

Heat transfer and fluid friction for fully developed turbulent flow of air and supercritical water with variable fluid properties. R. G. Deissler. bibliog A S M E Trans 76:73-83; Discussion. 83-5 Ja '54

Heat-transfer and friction characteristics for gas flow normal to tube banks; use of a transient-test technique. W. M. Kays and others. bibliog diag A S M E Trans 76:387-96 Ap '54

Heat transfer coefficients for heating or cooling in tubes. Y. S. Tang. Chem Eng 60:174-6 D '53

How to install duplex tubing. C. L. Bulow. diags Power Eng 58:80-1 Ap '54

Pneumatic gauging applied to the measurement of the bore of tube. R. Chittleburgh and others. diags J Sci Instr 31:20-2 Ja '54

Process kinetics; diffusion in a fluid moving at uniform velocity in a tube. A. Klinkenberg, H. J. Krajenbrink and H. A. Lauwerier. bibliog Ind & Eng Chem 45:1202-8 Je '53

Summary of NACA research on heat transfer and friction for air flowing through tube with large temperature difference. B. Pinkel. bibliog il diags A S M E Trans 76:305-17 F '54

Transition flow of fluids in smooth tubes. V. E. Senecal and R. R. Rothfus. bibliog plan Chem Eng Prog 49:533-8 O '53

Tube expanding and related subjects. F. F. Fisher and G. J. Brown. bibliog il diags A S M E Trans 76:563-75 My '54

Welding procedure for welding tubes in heat exchangers. W. E. Battles. il Welding J 33:739-42 Ag '54

Manufacture

Bore heavy tubing faster on new trepanning lathe; National supply co. il Iron Age 173:129 Ap 1 '54

Cold rocking answers design, production problems; Tube reducing corp.; Rockrite process. K. W. Donle. il diags Iron Age 172:172-5 N 5 '53

Cold roll forming; tube mill developed by Yoder co. il diag Mech Eng 76:173-4 F '54

Derodding; tube straighteners used to simplify mandrel removal; Precision tube co. il Iron Age 173:152+ Ap 1 '54

Feed tubes cut from square stock; Lipe-Rollway corp. il Steel 133:115 N 30 '53

Giant machine cold reduces 18-inch tubing. il diags Machine Design 26:126-9 Ja '54

Giant tube reducer; Tube reducing corp. diags Mech Eng 75:904-5 N '53

High-speed mill forms, induction welds and sizes thin-gage nonferrous tubing. T. J. Crawford. il diag Metal Prog 65:65-9 F '54; Same cond. Light Metal Age 11:14-15+ O '53

Induction welding speeds nonferrous tube output; mill handles thin gages; Yoder co. il Materials & Methods 39:7+ F '54

Method allows nonferrous tubing to be welded at high speed; Yoder co. il Tool Eng 31:107 N '53; Welding J 32:1098-9 N '53

Nonferrous tubing smashes speed barrier. il diag Steel 133:146-8 Ag 10 '53

Parker power tube flarer. il Tool Eng 31:137 D '53

Part of die for tube reducer weighs 8400 lb. il Iron Age 173:178+ Ap 8 '54

Preloading controls tube reducing forces. il diags Product Eng 24:148-51 S '53

Producing tubing assemblies for airplane engines; Special machine tool engineering works. il Mach 60:175-9 D '53

Tube sizing; Stanat mfg. il Iron Age 172:192+ D 3 '53

Tubing; new mill produces fast. R. M. Lorz. il Iron Age 172:53 Jl 23 '53

TUBES (containers)

New process, new outlook on polyethylene squeeze bottle and collapsible tubes; Bradley container corp. il Chem W 75:36-7 Jl 3 '54

TUBES, Aluminum

Aluminum tubing helps fire fighters. Pulp & Pa of Can 55:184 S '54

Bending aluminum tubing. J. E. Hawking. il Tool Eng 32:59-60 Je '54

Force fit improves brazed aluminum joints; Reynolds metals co. B. E. Brennan. il Iron Age 172:148-9 D 10 '53

How to bend aluminum tube and bar. J. M. Adle. il diags Am Mach 98:137-44 My 24 '54

Manufacture

Aluminum tubing fabrication technique reduces costs; Ryan aeronautical co. il Light Metal Age 11:23+ Ag '53

Aluminum tubing, small diameter and thin walls obtained by extrusion; AiResearch manufacturing co. G. C. Close. il Light Metal Age 11:8-9+ O '53

Tube forming; internal hydraulic pressure drop hammer cut production costs. Iron Age 172:155-6 Jl 2 '53

TUBES, Brass

Low-temperature welding alloys speed and simplify structural model fabrication. S. Shore and E. W. Rothfuss, jr. il diags Welding J 33:376-9 Ap '54

Progressive die produces 5000 ferrules an hour. il diag Mach 60:198-9 Je '54

TUBES, Copper

Fabricating special purpose copper heat exchangers. J. M. Van Nieukirken. il diags Materials & Methods 39:140-2 Mr '54

Hardwood boards straighten small tubes. E. Smalenberger. il Am Mach 98:149 My 24 '54

Method of measuring the temperature at the surface of a metal tube. A. G. Monroe and H. A. S. Bristow. diag J Sci Instr 30: 385 O '53

Manufacture

Tube straightening; firm's new machine pays for itself in less than year; Viking copper tube co. il Iron Age 172:132-3 O 15 '53

TUBES, Flexible

Coated flexible tubing wears longer in chip disposal system. W. G. Patton. il Iron Age 172:140-2 Ag 20 '53

Fittings die-cast to flexible tubing; Tractor works of the International harvester co. F. E. Beers. il Mach 60:175 Ag '54

Flexible ducting is easily installed. il Mill & Factory 55:141 Jl '54

Flexible tubing for handling corrosive vapors gives long service life. il Mill & Factory 54:134-5 Je '54

Plastic subs for stainless; shortage of type 316 stainless flexible steel hose eased by neoprene-cotton tubing. Steel 133:234 D 7 '53

TUBES, Glass. See Glass tubing

TUBES, Nickel

Local boiling heat transfer to water at low Reynolds numbers and high pressures. J. A. Clark and W. M. Rohsenow. bibliog diags A S M E Trans 76:553-61; Discussion. 561-2 My '54

Nickel tubing aids design of echo-sounding equipment. il diag Marine Eng 59:74-5 Ja '54

Manufacture

Drawing; capacity tripled for producing heat exchanger tubes at International nickel co. il Iron Age 174:188 S 16 '54; Steel 135: 157 S 20 '54

TUBES, Plastic

Carbide tries plastic instrument-air tubing. E. I. Thomas. il Power Eng 58:72-3 Ag '54

Extrusion of rigid PVC tubing. il Chem Age (Lond) 68:515-17 Ap 4 '53

Plastic subs for stainless; shortage of type 316 stainless flexible steel hose eased by neoprene-cotton tubing. Steel 133:234 D 7 '53

Well-timed hunch; Carlon products corp., Cleveland. il Chem W 73:17-18 Ag 1 '53

See also

Pipes, Plastic

TUBES, Rubber

How an inner tube can serve as a scale for weighing in field. D. H. Gieskieng. diag Chem Eng 61:230 Ja '54; Discussion. 61:230 Ap '54

Storing rubber tubing. R. S. Young and others. diag J Chem Educ 30:317 Je '53

TUBES, Steel

Abrasive wheel doubles tube cutting; Ryan aeronautical co. il Steel 133:79 D 28 '53

840 miles of tubing cools concrete during construction of Hungry Horse dam. C. L. Townsend. il Heating-Piping 26:172-3 Ja '54

Flash welding tubing to forgings. il Welding J 33:482 My '54

Flexon stainless steel tubing and fittings now available. il Mach 60:201 Je '54

Guide for steel buyers; mechanical tubing. Steel 135:74-9 sec 2 Jl 12 '54

How Oldsmobile cuts off and threads rocket motor tubes. R. F. Geitzel. il diags Mach 60:172-4 Ag '54

Machining; rough boring of stainless tubing made easier. il Iron Age 173:113-14 Ja 21 '54

Overhead travelling crane of tubular construction. il Engineering 177:411 Mr 26 '54

Perma-Tube stops rust; vinyl coating applied in special process coats tubing inside and out, good for outdoor jobs. il Steel 133:320 O 12 '53

Steel tubes for the chemical industry. W. E. Smith. il Chem Age (Lond) 70:617-21 Mr 13 '54

Tubular elements simplify fabrication and lower costs of radar screens. il Welding J 33:149-52 F '54

Tubular parts arc welded automatically; production of gas-operated refrigerators by Servel, inc. R. Martin. il Am Mach 98:119 S 27 '54

Tubular steel factory. il Engineer 196:626 N 13 '53; Engineering 176:617-18 N 13 '53

Use of a vacuum solves the problem of sliding a smaller tube outside a larger one. il Mill & Factory 54:143-4 Mr '54

Welded tubular steel factory structure; Rotax, ltd. il diags Engineer 196:570-1 O 30 '53

You can expand your tubes electronically; thyratron tube circuit. F. E. Dudley. il Power Eng 58:71 Je '54

See also

Pipes, Steel

Manufacture

Allegheny Ludlum hot extrudes stainless, high alloy steels. E. C. Beaudet. il Iron Age 173:137-40 Mr 25 '54

Automatic welding improves stainless tube output; Damascus tube co. il Steel 133:190-1 S 21 '53

Cold-drawing more economical with tungsten-titanium carbide mandrels. Mach 60:161 Ag '54

Colorado Fuel & Iron opens streamlined tube mill at Pueblo, Colo. il J Metals 5:1427 N '53

Needle tube production; Superior tube, Norristown, Pa. il Steel 133:90-1 N 2 '53

New $30 million seamless tube mill opened by Colorado Fuel and Iron at Pueblo plant. Iron & Steel Eng 30:165-6+ O '53; il Blast F & Steel Pl 41:1298-300 N '53; Steel 133: 97-9 O 12 '53

Short-cycle normalizing coordinates tube mill production; Lone star steel co. J. Kniveton. il diag Iron Age 173:136-8 My 6 '54

Steel; more tubes for more oil; Colorado fuel & iron corp. W. V. Packard. il Iron Age 172:215 O 8 '53

Strict gas control halts decarb in aircraft tubing; Michigan seamless tube co. W. D. Latiano. il diag Iron Age 172:154-7 N 19 '53

Studies in resistance welding yield improvements in the manufacture of thin-wall steel tubing. D. P. Worden. Metal Prog 66:supA 146+ Jl 15 '54

Swing tool solves tube machining problem. C. H. Becker. il diags Tool Eng 33:47-8 Jl '54

Tube drawing; tungsten-titanium carbide mandrels cut drawing costs. il Iron Age 173:142-3 My 27 '54; Steel 134:118 My 31 '54

Specifications

ASTM specifications for steel piping materials. 360p Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '54 (pa $3.75)

Testing

Quench cracks in wrought steel tubes. C. Wells. il Metal Prog 65:113-21 My '54

TUBES, Titanium

Inert gas gives titanium tubing protective weld backing. J. M. Thompson, jr. il Iron Age 173:118-19 My 27 '54

Titanium fusion welded on production basis; Glenn L. Martin co. L. Barrett and H. D. Justis. il Iron Age 173:106-9 Je 24 '54

Titanium tubing straightened rapidly on rotary machine; Superior tube co. il Iron Age 173:171 My 20 '54

TUBES, Vacuum. See Vacuum tubes

TUBS

See also

Laundry tubs

TULANE university

Engineering research institute established. Mech Eng 76:116 Ja '54

Tulane university forms engineering research institute. R. C. Harris. Manuf Rec 122:128 N '53

TULIPS

Keto acids of the tulip (tulipa gesneriana) with special reference to the keto analog of γ-methyleneglutamic acid. G. H. N. Towers and F. C. Steward. Am Chem Soc J 76:1959-61 Ap 5 '54

γ-Methyleneglutamine and γ-methyleneglutamic acid in the tulip (tulipa gesneriana). R. M. Zacharius, J. K. Pollard and F. C. Steward. Am Chem Soc J 76:1961-2 Ap 5 '54

TUMBLING barrels

Barrel finishing; more art than science. L. Giglio. il Am Mach 98:125-7 Mr 15 '54

Better tumbling methods cut parts finishing costs. W. Stone. il Iron Age 172:117-21 S 24; 104-7 O 1 '53

Finishing costs push use of tumbling; aircraft manufacturers are tumbling large components. E. C. Beaudet. il Iron Age 172:83 S 3 '53

Inventory of foundry equipment; cleaning and finishing; with tables. Foundry 82:158-61 My '54

Low-temperature tumbling barrel; Tumb-L-Matic, inc. il Metal Finishing 52:129-30 Je '54

Multi-barrel tumbling; BMT mfg. corp. il Metal Finishing 52:135-6 Je '54

Plating; portable tumbler cuts costs at aircraft factory; Temco aircraft corp. il Iron Age 173:146-8 Je 3 '54

Semiautomatic tumbling increases output, cuts unit cost. il Iron Age 173:125 My 13 '54

SlideHoning precision tumbling machine with multiple-barrel equipment. il Mach 60:221 Je '54

Tumble-plating for man-hour economy; Tempco aircraft corp. Tool Eng 33:46 Ag '54

TUMORS

Hepatic tumors due to prolonged ethionine feeding. H. Popper and others. bibliog il Science 118:80-2 Jl 17 '53

Hydrocortisone therapy in ganglia. W. F. Becker. bibliog Ind Med 22:555-7 D '53

Metabolism of 8-azaguanine; abstract. H. G. Mandel. Chem & Eng N 32:228-9 Ja 18 '54

Mucolytic and digestive action of trypsin in the preparation of sputum for cytologic study. S. M. Farber and others. bibliog il Science 117:687-90 Je 19 '53

Transplantable rat lymphoma. M. R. Lewis. bibliog Science 118:355-7 S 25 '53

TUNA fish

Big haul with plastic bait for Pacific tunamen. il Chem W 74:52+ F 20 '54

But Joe, they simply won't eat fish! Star-Kist brand for tuna. J. H. Collins. il Sales Management 71:105-6+ S 15 '53

TUNG nuts

Tung nut props voted in rebuff of President. Oil Paint & Drug Rep 165:3 Je 21 '54

TUNG oil

Last nut; solvent extraction adapted to processing tung nuts. il Ind & Eng Chem 46:sup 13A+ Je '54

Tung industry claims emergency need for 50 percent import quota. Oil Paint & Drug Rep 166:3+ Ag 16 '54

Tung nut, oil price props established for 1953 crop. Oil Paint & Drug Rep 164:3 O 19 '53

Tung oil imports quota system object of new Ellender measure. Oil Paint & Drug Rep 165:3+ Ap 5 '54

Tung oil investigation launching is ordered. Oil Paint & Drug Rep 165:3+ My 24 '54

TUNG tree

Bibliography

Abstract bibliography of the chemistry and technology of tung products, 1675-1950. 4v Southern regional research laboratory, 2100 Robert E. Lee Boulevard, New Orleans 19 '53

TUNGSTEN

Coulomb excitation of Ta, W, and Au. W. I. Goldburg and R. M. Williamson. bibliog diag Phys R 95:767-71 Ag 1 '54

Crystallographic variations of field emission from tungsten. M. K. Wilkinson. bibliog il diag J Ap Phys 24:1203-9 S '53

Gamma-ray absorption coefficients for NaI, Cu, Ta, and W. P. R. Howland and W. E. Kreger. bibliog diag Phys R 95:407-10 Jl 15 '54

Inert-tungsten arc welding of stainless steel piping. F. J. Pilia. il diags Welding J 32:1167-74 D '53

Internal conversion electrons from Coulomb excited Ta and W. T. Huus and J. H. Bjerregaard. diag Phys R 92:1579-81 D 15 '53

More tungsten needed; expansion of domestic mining aided by new law. Steel 133:91 S 14 '53

New capacity for tungsten. Bsns W p 112+ N 21 '53

Polarographic determination of molybdenum in presence of tungsten. L. Meites. Anal Chem 25:1752-3 N '53

Preparation of thin tungsten fibres and their use in place of quartz. J. O. Bockris and D. F. Parsons. diag J Sci Instr 30:340 S '53

Private trading in tungsten. Economist 170:262 Ja 23 '54

Problems in tungsten. Economist 169:447 N 7 '53

Thermionic and surface properties of tungsten crystals. G. F. Smith. bibliog il diags Phys R 94:295-308 Ap 15 '54

Tungsten, mercury, chromite, nickel, 1953. W. L. Long. il Min Cong J 40:119-20 F '54

Tungsten, 1946-1953; tabulation. Steel 134:179 Ja 4 '54

Tungsten, 1953. R. W. Geehan. Eng & Min J 155:97-8 F '54

Tungsten; U.S. producers seek continued stockpile assistance. Iron Age 173:89 Jl 1 '54

Tungsten used in commercial resistance thermometer. Iron Age 173:160 F 11 '54

Work functions of gas-coated tungsten and silver surfaces. G. L. Weissler and T. N. Wilson. bibliog diag J Ap Phys 24:472-5 Ap '53

Analysis

Analytical chemistry of W and Mo. bibliog Chem Age (Lond) 70:267-74, 309-12 Ja 23-30 '54

Photometric determination of columbium, tungsten, and tantalum in stainless steels. L. Ikenberry, J. L. Martin and W. J. Boyer. bibliog Anal Chem 25:1340-4 S '53

Polarographic determination of tungsten in rocks. L. E. Reichen. bibliog Anal Chem 26:1302-4 Ag '54

Rapid polarographic method for the analysis of tungsten-cobalt alloys. I. A. Bucklow and T. P. Hoar. Metallurgia 48:317-18 D '53

Spectrophotometric determination of arsenic and tungsten as mixed heteropoly acids. D. K. Gullstrom and M. G. Mellon. bibliog Anal Chem 25:1809-13 D '53

Thiocyanate spectrophotometric determination of molybdenum and tungsten. C. E. Crouthamel and C. E. Johnson. bibliog diags Anal Chem 26:1284-91 Ag '54

Isotopes

Electric excitation of low-lying levels in separated wolfram isotopes. C. L. McClelland and others. bibliog Phys R 93:904-5 F 15 '54

Energy levels in W^{182}. C. M. Fowler and others. Phys R 94:1082-3 My 15 '54

Gamma transitions in W^{182}. F. Boehm and others. Phys R 95:864-5 Ag 1 '54

Short-lived metastability states of W^{182}. A. W. Sunyar. Phys R 93:1122-3 Mr 1 '54

TUNGSTEN—*Continued*

Nuclear reactions

Radioactive decay of tungsten 181. J. M. Cork and others. diag Phys R 92:119-20 O 1 '53

TUNGSTEN, Powdered

Heavy alloy production; General electric co., ltd. il Metallurgia 49:276-8 Je '54

New process simplifies machining of high density tungsten. R. Levi. il Iron Age 173:177-8 My 6 '54; Same. Materials & Methods 39:306 My '54

TUNGSTEN alloys

Heavy alloy production; General electric co., ltd. il Metallurgia 49:276-8 Je '54

Materials for special service; heavy metals. D. Wackerle. il Machine Design 26:143-7 My '54

TUNGSTEN bronzes. See Sodium tungstate

TUNGSTEN carbide

Carbide drilling speeds removal of tough slag deposits. D. L. Tunsberg. il diag Iron Age 174:98-9 Jl 8 '54

Carbide hacks costs; Kennametal carbide ratchet. il Steel 133:342 O 12 '53

Carbide inserts increase life of socket heads. il Mach 60:211 F '54

Carbides; tough teeth for coal mining tools help cut industry costs. il Iron Age 172: 176+ S 17 '53

Centrifugal compacting; a new method for producing metal powder parts; tungsten carbide bullet cores. R. C. Lindberg. il Materials & Methods 39:86-7 Ap '54

Chatterless machining; tungsten carbide cores within boring bars. Steel 133:124 N 23 '53

Europe's biggest cemented carbides factory; Sandvik steel works. Metallurgia 49:275 Je '54

Full use of carbides still to come; interview with Philip M. McKenna. Iron Age 173: 80-1 Mr 18 '54

Investigation of cemented tungsten carbide as bearing material. J. S. Kozacka and others. bibliog il diags A S M E Trans 75:1203-9 O '53

Machining hardened tool steel with tungsten carbide. Mach 60:176 F '54

Making two-ton carbide pieces in a 220-ton press; General electric co.'s Carboloy department. il Am Mach 98:185 Mr 15 '54; Iron Age 173:170-2 Mr 4 '54; Steel 134: 148 Mr 15 '54

Manufacture of tungsten carbide tipped drill steel. T. A. O'Hara. il diags Min Eng 6: Trans 294-8 Mr '54

New grade of 300 series Carboloy cemented carbide. Am Mach 98:173 My 24 '54; Steel 134:121 Je 28 '54

Pneumoconiosis in the tungsten-carbide tool industry. C. W. Miller and others. bibliog il A M A Archives Ind Hygiene & Occup Med 8:453-65 N '53

Progress in tungsten carbide drilling in Germany, 1932 to date. I. H. Jeschke. il Eng & Min J 155:92-3+ Jl '54

Study of the effect of carbon content on the structure and properties of sintered WC-Co alloys. J. Gurland. bibliog il J Metals 6:Trans 285-90 sec 2 F '54

Tungsten carbide holds its lead. A. H. Hubbell. Eng & Min J 155:113-17 F '54

Use in mill rolls a success story for tungsten carbide. Iron Age 174:140 Ag 12 '54

See also

Cutting tools, Carbide

TUNGSTEN carbide coating

Carbides; surfacing method downs time in wire mill. Iron Age 174:118-19 Ag 26 '54

Flame plating; service life increased by applying tungsten carbide. il Iron Age 173: 155-6 Mr 18 '54

Life for steel parts. Steel 134:130 Ap 5 '54

New method of hard-coating metal parts; flame-plating. diags Oil & Gas J 52:156+ O 12 '53

Paint sprayer part life increased by flame plating. il Iron Age 174:162 Jl 29 '54; Steel 135:67 Ag 30 '54

Plating for metal life; flame-plating. Tool Eng 32:82 My '54

TUNGSTEN coating

Tungsten coating protects variety of materials. Materials & Methods 40:158 S '54

Tungsten hardsurfacing called Tungstide. Steel 134:124 Je 14 '54

TUNGSTEN compounds

Cyclopentadienyl compounds of chromium, molybdenum and tungsten. G. Wilkinson. bibliog Am Chem Soc J 76:209-11 Ja 5 '54

TUNGSTEN lamps. See Electric lamps, Tungsten

TUNGSTEN metallurgy

Beneficiation of ferberite-scheelite ore from Germania consolidated mines, inc., Stevens county, Wash. P. H. Floyd and W. A. Stickney. pl U S Bur Mines Rep of Invest 5039:1-6 '54

World war II tungsten residues processed; Salt Lake tungsten co. il Chem Eng Prog 49:sup24 N '53

TUNGSTEN mines and mining

Colorado

Investigation of the Boulder County tungsten district, Boulder county, Colo. J. D. Warne and F. D. Everett. bibliog 24pls U S Bur Mines Rep of Invest 4973:1-30 '53

Korea

Tungsten mining in Korea. D. D. Baker. il Eng & Min J 155:73-4+ My '54

North Carolina

Tungsten mining in North Carolina; Tungsten mining corp. J. R. Sweet. il plan diags Min Cong J 40:81-6+ Ag '54

Uganda

Lucky strike in Uganda. il Chem W 74: 20 Ap 3 '54

TUNGSTEN ores

Tungsten mining in North Carolina; Tungsten mining corp. J. R. Sweet. il plan diags Min Cong J 40:81-6+ Ag '54

TUNGSTIDE. See Tungsten coating

TUNING forks

Highly selective low-frequency tuning-fork filter. H. L. Poss. R Sci Instr 25:299-300 Mr '54

Quartz tuning fork. G. W. O. Howe. diags Wireless Eng 30:161-3 Jl '53

Tuning fork tests master rods. il Machine Design 26:210+ Ap '54

Vibragyro takes cue from housefly; vibrating tuning fork in Sperry gyro helps sense changes in direction. P. Klass. il diags Aviation W 59:57-8+ N 23 '53

TUNISIA

See also

Petroleum industry and trade—Tunisia

TUNNEL cleaning

Clinchfield railroad washes its tunnels. Comp Air Mag 58:323-4 N '53

How tunnel linings were washed for cleaner Diesel operation. J. M. Salmon, jr. and W. A. Baker. il Ry Age News ed 135:32-3 N 23 '53

Shea removes track and cleans out tunnel invert at lower cost. il diag Constr Methods 36:70-1+ S '54

TUNNEL failures

Collapse of the Clifton Hall tunnel. Engineering 177:358 Mr 19 '54

TUNNEL lighting

Lighting Broadway tunnel. M. R. Humer. il Illum Eng 48:557-9 N '53

TUNNEL lining

Automatic welding goes into the field to assemble tunnel-lining sections. il Eng N 151: 39+ N 26 '53

Concrete blocks support shield-driven tunnel. H. T. Perez. il Constr Methods 35:60-4 N '53

Concrete pot-shots line difficult tunnel. il diags Constr Methods 36:86-8 F '54

East Delaware tunnel construction to be completed six months ahead of time. J. S. Macdonald. il map diags Civil Eng 24:28-30 Ja '54

Flat jacks stress 500 ft of tunnel. C. Dobell. Eng N 151:66+ D 10 '53

Lining concrete pumped into place; Ontario Hydro tunnels. J. R. Glaeser. il diags Civil Eng 23:753-7 N '53

TUNNEL lining—*Continued*

Lining methods at Gaviota tunnel. J. E. Witte. il diag Roads & Sts 96:53-6 O '53

Lining of Tecolote tunnel to heading is planned to overcome intense heat. il Eng N 151:25 N 26 '53

Penstock tunnels strengthened with tin can linings. il Eng N 151:25 Jl 16 '53

Shea removes track and cleans out tunnel invert at lower cost. il diag Constr Methods 36:70-1+ S '54

Supporting a tunnel with yielding steel rings; Lehigh navigation coal co. C. S. Kuebler. il diags Coal Age 59:92-5 Ap '54

Tunnel lining at an angle; Kemano penstock at 48 deg. inclination is a special problem for hydro plant builders. il diag Eng N 152:30-1 Ap 15 '54

Woodhead new tunnel; construction of a three-mile main double-line railway tunnel. P. A. Scott and J. I. Campbell. diag Engineer 197:418-20 Mr 19 '54

TUNNEL portland cement company, limited

Statement by the chairman. N. M. Jensen. Economist 168:68-9 Jl 4 '53

TUNNEL roofs

Simple roof bolt extends tunnel life. il Eng N 152:61 Ap 22 '54

TUNNEL shields

Tunnel shield welded. il Welding J 33:568-9 Je '54

TUNNEL ventilation

Big fans ventilate new Pittsburgh tunnel. il Heating-Piping 25:98 N '53

Safeguards against high CO in traffic tunnel. Heat & Ven 51:100 F '54

TUNNELS and tunneling

Alaska's Lake Eklutna hydroelectric project. B. Kederick. il Explosives Eng 31:175-9+ N '53

Alcan rock work nears end. il Comp Air Mag 59:41-5 F '54

Automatic headgear for tunnel driving. O. Dawson and A. S. Bertlin. il diags Engineer 196:552-4 O 30 '53

Award contracts for seven-mile water tunnel; metropolitan Boston area. map diag Eng N 151:41 D 24 '53

Big rubber blanket seals off hydro plant diversion tunnel. S. O. Schamberger. il diag Elec World News ed 139:36-7 Je 22 '53

Big sewer tunnel dug by coal mining machine. il Pub Works 84:94 N '53

Construction of two concrete-lined tunnels for the Machkund hydro-electric project, South India; abstract. G. A. Gauld and R. J. Newport. Engineering 176:683 N 27 '53

Digging Tecolote tunnel is hot work. L. L. Wise. il Constr Methods 36:54-7+ Je '54

East Delaware tunnel construction to be completed six months ahead of time. J. S. Macdonald. il map diags Civil Eng 24:28-30 Ja '54

50-mgd water supply at low cost. il Constr Methods 36:58-60 Ap '54

General design of the East Delaware water supply tunnel. S. M. Dore. il maps plan diags Am Soc C E Proc 79 [no 313]:1-16 O '53

Kemano-Horetzky tunnel holes through. il Can Min J 74:66-7 D '53

New tunneling records set in Gateway bore; Weber Basin reclamation project. Comp Air Mag 59:141 My '54

137-mile drainage tunnel. J. S. Muller. il map Comp Air Mag 59:134-6 My '54

One of the tunnels for Niagara power development now carrying water. Roads & Eng Constr 92:34 Jl '54

Ontario Hydro blasts out Niagara power tunnels of 51-ft diameter. J. R. Glaeser. il map diags Civil Eng 23:676-80 O '53

Progressive tunneling works without use of liner plates. il Eng N 151:55+ S 10 '53

Recommendations on the prevention and suppression of dust in mining, tunneling, and quarrying adopted at a meeting held under the auspices of the International labor office, Geneva, Switzerland, Dec. 1-17, 1952. bibliog(91 titles) U S Bur Mines Information Circ 7677:1-16 '54

Safe tunneling wins award; Cabot construction co. Constr Methods 36:172 Ag '54

Sewer tunnel speeded by using mining equipment. il Pub Works 85:64-5 F '54

Small tunneling machine halves crew, doubles output. H. T. Perez. il diags Constr Methods 36:150-2+ Ap '54

Sonora opens area to irrigation; Yaqui River valley irrigation project. M. Saint Albans. il Constr Methods 36:66-8+ My '54

Special portals for outlet tunnels maintain slope stability at Garrison dam. K. S. Lane. il plan diags Civil Eng 23:596-9 S '53

Tractor backhoe mucks out rock at tunnel face. il Constr Methods 36:138-40 Mr '54

Underground lake slows tunnel job. il Eng N 152:45-7 Ja 21 '54

Weber basin project; fast tunneling initiates Utah's largest reclamation job. C. Hageman. il map Comp Air Mag 59:62-7 Mr '54

Woodhead new tunnel; construction of a three-mile main double-line railway tunnel. P. A. Scott and J. I. Campbell. diag Engineer 197:418-20 Mr 19 '54

See also

Aqueducts
Subways
Tunnel lining

Cost

Prices rise on second New York tunnel contract; unit prices. Eng N 152:55 F 25 '54

River tunnel, New York; unit prices. Eng N 151:90 N 12 '53

Vehicular tunnels

Baltimore harbor tunnel location set. Eng N 151:22 Jl 16 '53

Baytown tunnel is opened to traffic. il Eng N 151:25 S 24 '53

Construction of the Elizabeth River trench-type tunnel. J. Peraino. Am Soc C E Proc 79 [no 348]:1-6 '53

Design features of vehicular tunnel; abstract. J. O. Bickel. Roads & Eng Constr 92:140+ Ap '54

Havana traffic tunnel built in the dry under Almendares river. H. C. Boschen and others. il diags Civil Eng 23:447-57 Jl '53

Lincoln Tunnel traffic control. il Radio & Tv N 50:188 O '53

Mobile firm leader in underwater tunnel design; Palmer and Baker, inc. il Manuf Rec 123:29 Je '54

New engineering ideas featured in vehicular tunnels. il map Pub Works 85:112+ Mr '54

Third Lincoln Tunnel tube construction halted by state and tennis courts. il Eng N 152:51 Mr 25 '54

Work begins on Baltimore tunnel plans. map Eng N 151:24 Ag 13 '53

TUNNELS and tunneling, Subaqueous

Baltimore harbor tunnel location set. Eng N 151:22 Jl 16 '53

Baytown tunnel is opened to traffic. il Eng N 151:25 S 24 '53

Construction of the Elizabeth River trench-type tunnel. J. Peraino. Am Soc C E Proc 79 [no 348]:1-6 N '53

Havana traffic tunnel built in the dry under Almendares river. H. C. Boschen and others. il diags Civil Eng 23:447-57 Jl '53

Machine bores tunnel through shale. il Constr Methods 36:57-60 F '54

Open-cut tunnel; apply novel method to go under canal at Velsen, the Netherlands Eng N 151:67+ N 19 '53

Projected tunnel under the Clyde. A. T. Lennox-Boyd. Engineering 176:361 S 18 '53

Third Lincoln Tunnel tube construction halted by state and tennis courts. il Eng N 152:51 Mr 25 '54

Work begins on Baltimore tunnel plans. map Eng N 151:24 Ag 13 '53

TURBIDIMETERS

Particle-size distribution analysis by a modification of the turbidimetric procedure of Musgrave and Harner. R. S. Lamar. bibliog diags Am Cer Soc J 37:386-90 Ag 1 '54

Turbidimeter measures and records particles in liquids. Elec Eng 72:1139 D '53; Same. Munic Util 91:42 O '53; Same abr. Chem & Eng N 31:3918 S 21 '53

TURBIDITY

Design of an optical system for the absolute measurement of turbidity. J. Kremen and J. J. Shapiro. diags Opt Soc Am J 44:500-1 Je '54

TURBIDITY—*Continued*

Distribution of surface turbidity off Mississippi delta. P. C. Scruton and D. G. Moore. il diag Am Assn Pet Geologists Bul 37: 1067-74 My '53

Light scattering determination of the absolute turbidity of water. D. A. I. Goring and P. G. Napier. J Chem Phys 22:147 Ja '54

Special design features of water works facilities handling highly turbid waters. R. G. Kincaid. flow diag il map Am Soc C E Proc 79 [no 309]:1-17 O '53

Submersible photoelectric absorptiometer. L. J. Scragg and others. diags J Sci Instr 31: 75-7 Mr '54

Treatment of large reservoirs with alum to reduce turbidity. R. L. Derby and W. K. Weight. flow diag il maps diags Am Soc C E Proc 79 [no 272]:1-15 S '53

TURBINE pumps. See Pumps, Turbine

TURBINES

Annular-flow guide vanes for water turbines. il diags Engineering 176:550-1 O 30 '53

Flatiron tests first U.S. pump-turbine. il map diag Power Eng 58:76-8+ S '54

Hydro-electric development in Portugal. il diags Engineer 196:578-9 N 6 '53

Kaplan turbine; design and trends. J. Fisch. il diags A S M E Trans 76:765-73 Jl '54; Excerpt. Power 98:156+ F '54; Discussion. A S M E Trans 76:773-4 Jl '54

See also

Air turbines

Gas turbines

Steam turbines

Bearings

Prevention of babbitt blisters in thrust-bearing pads. R. A. Baudry and others. bibliog il diag A S M E Trans 76:255-60 F '54

Blades

Interferometric study of the boundary layer on a turbine nozzle blade. C. R. Faulders. bibliog il diags A S M E Trans 76:61-6; Discussion. 67 Ja '54

Control

Water turbine governors. N. G. Dennis. bibliog il diags Inst Mech Eng Proc (B) 1B no 9:379-91; Discussion. 391-400 '52-53; Engineer 194:660-1 N 14 '52

Failure

Tight bucket pins cause wreck of an impulse water wheel at Bucks Creek plant. E. A. Crelin. il Elec West 111:109-11 S '53

Turbine runner failure caused by tight bolting. il Eng N 151:32 O 1 '53

Lubrication

Dynamics and lubrication of a miniature turbine rotor on porous bushings. G. Sines. bibliog il diags A S M E Trans 76:319-26 F '54

Maintenance and repair

Portable boom aids turbine maintenance. C. D. McCarthy. diags Elec World 140:166 Ag 24 '53

Manufacture

More power for Smith. il Steel 133:90 S 7 '53

Specific speed

Elastic-fluid centripetal turbine for high specific outputs. R. Birmann. il diags A S M E Trans 76:173-85; Discussion. 185-7 F '54

TURBINES, Gas. See Gas turbines

TURBOCHARGERS. See Superchargers

TURBOJET engines. See Gas turbines, Aircraft

TURBULENCE

Analysis of turbulent free-convection boundary layer on flat plate. E. R. G. Eckert and T. W. Jackson. bibliog diags U S Nat Advisory Com for Aeronautics 1951:255-61 '52

Convective heat transfer for mixed, free, and forced flow through tubes. E. R. G. Eckert and A. J. Diaguila. bibliog diags A S M E Trans 76:497-504 My '54

Development of the turbulent boundary layer on steep slopes. W. J. Bauer. diags Am Soc C E Proc 79 [no 281]:1-23 S '53

Effect of turbulence on heat transfer in a pile with a liquid reactant. E. N. Parker. diag J Ap Phys 24:451-2 Ap '53

Energy spectrum of turbulence for the entire range. R. W. Davies. bibliog Phys R 95: 912-13 Ag 15 '54

Evaluation of the momentum integral equation for turbulent boundary layers. D. Ross. bibliog J Aeronautical Sci 20:502 Jl '53

Experiment on the decay of turbulence behind two grids. H. Tsuji and F. R. Hama. bibliog J Aeronautical Sci 20:848-9 D '53

Film condensation with turbulent flow. R. A. Seban. A S M E Trans 76:299-303 F '54

Flow in fiber suspensions and the effects of turbulence; abstract. J. A. Van den Akker. Paper Tr J 138:16 O 1 '54

General integral form of the boundary-layer equation for incompressible flow with an application to the calculation of the separation point of turbulent boundary layers. N. Tetervin and Chia Chiao Lin. bibliog U S Nat Advisory Com for Aeronautics 1951:1067-85 '52

Heat transfer and fluid friction for fully developed turbulent flow of air and supercritical water with variable fluid properties. R. G. Deissler. bibliog A S M E Trans 76: 73-83; Discussion. 83-5 Ja '54

Heat transfer to mercury in turbulent pipe flow. H. A. Johnson and others. bibliog(31 titles) diags A S M E Trans 76:505-11 My '54

Interaction of a plane flame front with a plane sinusoidal shear wave. G. H. Markstein. bibliog diag J Aeronautical Sci 20: 581-2 Ag '53

Interactions between wholly laminar or wholly turbulent boundary layers and shock waves strong enough to cause separation. G. E. Gadd. bibliog diags J Aeronautical Sci 20:729-39 N '53

Interpretation of viscous terms in the turbulent energy equation. S. Corrsin. bibliog J J Aeronautical Sci 20:853-4 D '53

Investigation of separation of the turbulent boundary layer. G. B. Schubauer and P. S. Klebanoff. bibliog il diag U S Nat Advisory Com for Aeronautics 1951:689-708 '52

Investigation of turbulent flow in a two-dimensional channel. J. Laufer. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:1247-66 '52

Material transfer in turbulent gas streams. V. J. Berry, D. M. Mason and B. H. Sage. bibliog(34 ref) diags Ind & Eng Chem 45: 1596-602 Jl '53

Material transfer in turbulent gas streams; influence of shape on evaporation of drops of *n*-heptane. N. T. Hsu, K. Sato and B. H. Sage. bibliog(40 ref) diags Ind & Eng Chem 46:870-6 My '54

Measurements of turbulent skin friction on cylinders in axial flow at subsonic and supersonic velocities. D. R. Chapman and R. H. Kester. bibliog(33 titles) il diags J Aeronautical Sci 20:441-8 Jl '53

Reactions in turbulent free jets; turbulent diffusion flame. T. Baron. bibliog diag Chem Eng Prog 50:73-6 F '54

Scattering of electromagnetic waves by turbulent atmospheric fluctuations. F. Villars and V. F. Weisskopf. bibliog diags Phys R 94:232-40 Ap 15 '54

Similarity theory of isotropic turbulence. J. C. Rotta. bibliog J Aeronautical Sci 20: 769-78+ N '53

Spectra and diffusion in a round turbulent jet. S. Corrsin and M. S. Uberoi. bibliog(29 titles) il diags U S Nat Advisory Com for Aeronautics 1951:915-35 '52

Temperature gradients in turbulent gas streams. S. D. Cavers and others. bibliog Ind & Eng Chem 45:2139-45 O '53

Total sediment load measured in turbulence flume. P. C. Benedict and others. bibliog il maps plans diags Am Soc C E Proc 79 [no 230]:1-48 Ag '53

Transition flow of fluids in smooth tubes. V. E. Senecal and R. R. Rothfus. bibliog plan Chem Eng Prog 49:533-8 O '53

Transport processes as foundations of the Heisenberg and Obukhoff theories of turbulence. C. Tchen. bibliog Phys R 93:4-14 Ja 1 '54

TURBULENCE—*Continued*

Turbulence in supersonic flow. L. S. G. Kovásznay. bibliog il diags J Aeronautical Sci 20:657-74+ O '53

Turbulence measurements in flight. M. Kramer. J Aeronautical Sci 20:655-6 S '53

Turbulent diffusion in Fourdrinier machines. S. G. Mason and others. bibliog il diags Pulp & Pa of Can 55:97-108 Ag '54

Turbulent flow in circular pipe. S. I. Pai. bibliog Franklin Inst J 256:337-52 O '53

Turbulent processes as observed in boundary layer and pipe. G. B. Schubauer. bibliog diag J Ap Phys 25:188-96 F '54

Velocity distribution in the laminar sublayer transition region in turbulent shear flows. F. R. Hama. J Aeronautical Sci 20:648-50 S '53

TURKEY

See also

Hydroelectric plants—Turkey
Investments, Foreign (in Turkey)
Metal working industries—Turkey
Mines and mineral resources—Turkey
Petroleum—Turkey
Petroleum industry and trade—Turkey
Petroleum laws and regulations—Turkey

Commercial policy

Trading Turks. Economist 168:688-9 S 12 '53

Economic conditions

Turkey, land of progress and promise. S. W. Anderson. For Comm W 51:16-17 F 1 '54

Foreign relations

Guardians of the Straits. map Economist 168:307-8 Ag 1 '53

Industries and resources

Turkish foundryman, old and new. H. E. Henderson. il Foundry 82:153-4+ F '54

Politics and government

Political progress in Turkey. Economist 168:12 Jl 4 '53

Storm signals in Turkish politics. Economist 168:375 Ag 8 '53

TURKEY insurance. See Insurance, Turkey

TURKEYS

More turkey on menus; co-op promotion does it. il Sales Management 71:74+ D 15 '53

Taste for turkey. R. L. Holman. Barron's 34:13 Ja 11 '54

Turkey men find potential in off-season promotions. E. Gidlow. Sales Management 70:81-2 Ap 1 '53

TURNER, Wallace

Oregonian reporter receives Broun prize. Ed & Pub 86:12 Mr 14 '53

TURNER and Newall, limited

Statement by the chairman. W. W. F. Shepherd. Economist 170:63-4 Ja 2 '54

TURNER construction company

Building anything; a big contractor uses teamwork to prepare its offer. Eng N 151:165+ O 8 '53

TURNING

Automated units speed turning, gaging; Detroit automotive plants. E. J. Egan, jr. diags Iron Age 173:144-5 Mr 11 '54

Turning; NMTBA study at Cornell seeks best form for tool cutters. Iron Age 172:250+ N 12 '53

Turning time cut with tungsten carbide tooling. il Iron Age 173:159-60 Mr 18 '54

Wound-up form tool unwinds to cut contours. C. Molloy. diags Am Mach 98:164 F 15 '54

See also

Lathes

TURPENTINE

Gum turpentine seen as source of peroxide; Naval stores station, Department of agriculture, Olustee, Fla. Paint Oil & Chem R 117:46 Ja 14 '54

Gum turpentine; source of organic peroxides. G. S. Fisher. Chem Eng 61:392-3 Ap '54

TUSCALOOSA, Alabama

Water supply

More water; southern city puts end to drought hazards. A. C. Parker. il Pub Works 85:111-12 S '54

TUTIN

Picrotoxin and tutin; experiments with tutin. J. R. Fletcher and others. Chem Soc J p 1953-6 Je '54

TUXEDO, North Carolina

This community is a memorial to a farsighted mill man. M. B. Andrews. il Textile World 104:135+ F '54

TWENTIETH century-Fox film corporation

Companies with high earnings; with comparative balance sheet items. Mag of Wall St 93:255 N 28 '53

TWISTING machines

Two uptwisters used together in processing tire cord. il Textile World 104:144 Je '54

TWISTING paper. See Paper, Twisting

TWO-family houses. See Architecture, Domestic—Two-family houses

2,4-D. See Dichlorophenoxyacetic acid

TYPE and type founding

Italian-born lettering artist designed exotic alphabets. Inland Ptr 131:39 Jl '53

Optical gaging helps control assemblies; Intertype corp. il diag Mill & Factory 54:92-4 Mr '54

Printers' ink 1954 advertisers' annual; typography. Ptr Ink 245:391-2+ sec 2 O 23 '53

Will Bradley, his story. L. H. Allen. il Inland Ptr 131:30-2 Jl '53

See also

Advertisements—Typography

TYPESETTING

See also

Phototypesetting machines

TYPESETTING machines

Eye eliminates typesetting errors; Electronic mat detector. Ed & Pub 86:51 My 9 '53

See also

Phototypesetting machines

TYPEWRITERS

Types three forms at same time; Copy-Typist unit. il Am Bsns 24:22 F '54

We own 159,000 typewriters; Spectator survey of equipment in insurance company home offices. Spectator 162:30+ S '54

TYPEWRITERS, Portable

Merchandizing

Look who's buying a typewriter, it's mom! Royal McBee corp. touch typing classes in department stores. il Sales Management 73:96+ S 20 '54

TYPEWRITING

Bookkeeping system built around typewriter reduces posting errors, saves time. J. J. Tucker. J Account 97:188-94 F '54

Study and teaching

Look who's buying a typewriter, it's mom! Royal McBee corp. touch typing classes in department stores. il Sales Management 73:96+ S 20 '54

TYPHA angustifolia

Rind and pith of papyrus; analytical study. L. E. Wise and M. A. El-Taraboulsi. bibliog(35 ref) Tappi 37:25-8 Ja '54; Correction. 37:142 Ap '54

TYPHOID fever

Michigan health department develops antityphoid antibiotic; Synnematin. Chem & Eng N 32:3502+ S 6 '54

Science and public health research in Alaska; enteric diseases. F. P. Pauls. Pub Health Rep 68:531-3 My '53

TYPISTS

Meeting the shortage of trained typists. W. H. Brown. Management R 42:520-2 S '53

TYPOGRAPHICAL union, International. See International typographical union

TYPOGRAPHY. See Printing—Typography

TYROCIDINE

Chemistry of tyrocidine; the structure of tyrocidine A. A. Paladini and L. C. Craig. bibliog flow sheet Am Chem Soc J 76:688-92 F 5 '54

TYROSINASE

Preparation of β-*p*-hydroxylphenyl-α-mercaptopropionic acid and some related acids, and the action of tyrosinase on the former. D. G. Bew and G. R. Clemo. Chem Soc J p 1150-1 Mr '54

TYROSINASE—*Continued*

Syntheses, paper chromatography and substrate specificity for tyrosinase of 2,3-, 2,4-, 2,5-, 2,6- and 3,5-dihydroxyphenylalanines. J. P. Lambooy. bibliog Am Chem Soc J 76:133-8 Ja 5 '54

TYROSINE

Conversion of acetate and pyruvate to tyrosine in yeast. R. C. Thomas and others. bibliog Am Chem Soc J 75:5554-6 N 20 '53

Kinetics of the α-chymotrypsin catalyzed hydrolysis of L-tyrosinhydroxamide in aqueous solutions at 25° and *p*H 6.9. R. J. Foster, R. R. Jennings and C. Niemann. bibliog Am Chem Soc J 76:3142-6 Je 20 '54

Structure of tyrosine melanin. R. I. T. Cromartie and J. Harley-Mason. Chem & Ind p972-3 S 12 '53

Synthesis and spectrophotometric study of poly-L-tyrosine and poly-3,5-diiodotyrosine. E. Katchalski and M. Sela. bibliog Am Chem Soc J 75:5284-9 N 5 '53

Tyrosine-O-sulfate in a peptide from fibrinogen. F. R. Bettelheim. Am Chem Soc J 76: 2838-9 My 20 '54

U

U.A.W. See United automobile workers of America

UNESCO. See United nations educational, scientific and cultural organization

UNICEF. See United nations children's fund

UBBELOHDE, Leo, 1876-

Leo Ubbelohde. R. E. Oesper. por(front) J Chem Educ 30:414-15 Ag '53

UFER process. See Benzol (commercial benzene)

UGANDA

Change in Uganda. Economist 168:443 Ag 15 '53

Dilemmas in Uganda. map Economist 169: 897-8 D 19 '53

Ruler deposed; Mutesa II, the Kabaka of Buganda. map Economist 169:728-9 D 5 '53

Ruler unreprieved; Mutesa II, Kabaka of Buganda. Economist 170:12 Ja 2 '54

See also

Mines and mineral resources—Uganda

Mining industry and finance—Uganda

Tungsten mines and mining—Uganda

UGINE-SEJOURNET extrusion process. See Extrusion process

ULCERS of the stomach. See Stomach—Ulcers

ULRICH, Madge

Mrs Telephone. H. F. Unger. Pub Util 53: 291-8 Mr 4 '54

ULTRACENTRIFUGES. See Centrifuges

ULTRAMICROTOME. See Microtomes

ULTRASONIC corporation

Opportunist in research; will attack any field where its technical know-how gives it an advantage. Bsns W p80+ Ag 29 '53

ULTRASONIC waves

Direct viewing of an ultrasonic beam in a transparent solid. F. L. McNamara and T. F. Rogers. bibliog il Acoustical Soc Am J 25:338-9 Mr '53

Dispersion of ultrasonic waves in esters. S. Parthasarathy and others. Acoustical Soc Am J 25:335 Mr '53

Effects of sonic vibration on the proteolytic activity of pepsin. G. M. Naimark and W. A. Mosher. bibliog Acoustical Soc Am J 25:289-90 Mr '53

Germanium under ultrasonic stress. G. S. Baker and others. J Ap Phys 24:1331-2 O '53

Influence of ultrasonic waves on fibers; abstract. Rath and Merk. Am Dyestuff Rep 43:395-6 Je 21 '54

Measurement of elastic constants at low temperatures by means of ultrasonic waves. H. J. McSkimin. bibliog(27 ref) diags J Ap Phys 24:988-97 Ag '53

Metal ultrasonic delay lines. R. W. Mebs and others. bibliog il diag J Res Nat Bur Stand 51:209-20 N '53

Thermoelectric method of comparing intensities of ultrasonic fields in liquids. R. B. J. Palmer. il diag J Sci Instr 30:177-9 Je '53

Transducers for producing ultrasonic waves. O. Mattiat. il diags Acoustical Soc Am J 25:291-6 Mr '53

Ultrasonic measurements in magnetically cooled helium. C. E. Chase and M. A. Herlin. Phys R 95:565-6 Jl 15 '54

Ultrasonics; thermally stable delay line may be possible. Iron Age 173:154-6+ F 11 '54

See also

Shock waves

Sound—Velocity

Absorption

Equivalence of sonic and thermal energies. S. Parthasarathy and others. Acoustical Soc Am J 25:335-6 Mr '53

Symposium on ultrasonic absorption in fluids, Providence, R.I. Oct. 16-17. Acoustical Soc Am J 25:337-8 Mr '53

Use of ultrasonic absorption for the determination of very rapid reaction rates at equilibrium; application to the liquid phase association of carboxylic acids. E. Freedman. bibliog J Chem Phys 21:1784-90 O '53

Variation of the radiation pressure method of measuring sound absorption in liquids. F. L. McNamara and R. T. Beyer. il diag Acoustical Soc Am J 25:259-62 Mr '53

Industrial applications

Automatic ultrasonic inspection. il Automotive Ind 111:49+ Jl 15 '54; Materials & Methods 40:230+ S '54

Bendix ultrasonic cleaner. Steel 135:143-4 S 13 '54

Clay-particle dispersion by ultrasons. M. S. Crowley and A. P. Welch. bibliog il Am Cer Soc J 37:433-9 S 1 '54

Cleaning metal with sonic waves; Detrex(R) Soniclean process. T. J. Kearney. il Steel 134:104-5 Ap 5 '54

Cure of phenol-formaldehyde resin; progress determined by ultrasonic wave propagation. G. A. Sofer, A. G. H. Dietz and E. A. Hauser. bibliog il diags Ind & Eng Chem 45:2743-8 D '53

Effect of ultrasonic energy on settling of solids in phosphate tailing. D. Thompson and F. C. Vilbrandt. bibliog(70 ref) il diags Ind & Eng Chem 46:1172-80 Je '54

Effect of ultrasound on thermoplastic melts. E. C. Bernhardt. bibliog il diags Ind & Eng Chem 46:742-6 Ap '54

First in the world; ultrasonic cleaning plant. il Chem Age (Lond) 71:230 Jl 31 '54; Chem & Ind p948 Jl 31 '54

Gauging wall thickness; Dawe type 1101 ultrasonic thickness gauge. il Chem & Ind p 1057 Ag 28 '54

How to emulsify ultrasonically; patent. Chem Eng 61:260 F '54

Inspection by tv; B-scan system. T. A. Dickinson. il Mill & Factory 54:127-8 Mr '54

Machining with million-a-minute blows; Cavitron process. E. J. Clement. il Mill & Factory 53:80-1 N '53

New methods determine grain size ultrasonically. N. Grossman. il Iron Age 172:72-5 D 31 '53

Portable ultrasonic instruments. P. K. Bloch. il diags Metal Prog 65:161-2+ Mr '54

Some basics of ultrasonic inspection; abstract. E. F. Weller, jr. Materials & Methods 40: 154+ Ag '54

Sonic measurement and control. il Steel 135: 92 Ag 2 '54

Sound waves that mix, measure, machine, and clean. A. R. Gardner. il Dun's R & Mod Ind 62:48-52 O '53

Sound waves uncover inner flaws; Douglas aircraft co. A. Barath. il Steel 133:120-1 D 14 '53

Ultrasonic equipment for high-precision thickness measurement; abstract. P. K. Bloch. Metal Prog 65:194+ F '54

Ultrasonic flue dust elimination. H. Manley. bibliog il diag Engineer 197:291 F 19 '54

Ultrasonic inspection for internal pipeline corrosion. S. K. Gally. il Oil & Gas J 52:61-2 Ag 3 '53

Ultrasonic machine tool. Mech Eng 75:577 Jl '53

ULTRASONIC waves—Industrial applications —*Continued*

Ultrasonic machine tool for cutting hard materials. N. Clark, jr. and J. P. Aloisio. il diags Tool Eng 32:77-80 Ap '54

Ultrasonic machining. il Automobile Eng 44: 217-18 My '54

Ultrasonic technique developed for nondestructive testing of nonmetallic solids. il Elec Eng 73:292 Mr '54

Ultrasonic technique of non-destructive testing. Am Mach 98:154 Mr 1 '54

Ultrasonic techniques in industrial cleaning. W. L. McCracken. il diags Tool Eng 32:66-8 Ap '54

Ultrasonic test for bonding flaws. G. B. Baumeister. il diags Steel 135:102-3 Ag 23 '54

Ultrasonic testing; a versatile new inspection method. C. H. Wick. il Mach 60:184-91 Ap '54

Ultrasonic testing improved with use of liquid coupling. J. B. Morgan. il diags Iron Age 172:131-5 Ag 6 '53

Ultrasonic testing lowers forging production costs; Allis-Chalmers mfg. co. R. N. Hafemeister. il Iron Age 173:117-20 My 13 '54

Ultrasonic testing of chemical plant; W. J. Fraser & co. il Chem Age (Lond) 69:311-15 Ag 15 '53

Ultrasonic testing of pressure vessels. Chem & Ind p865 Ag 15 '53

Ultrasonic tools for machining hard materials. il Tool Eng 32:128 My '54

Ultrasonic treatment of lint cotton. A. E. Martin, jr. bibliog Textile Res J 23:727-30 O '53

Ultrasonic waves clean metal. il Ry Age 135:35 D 28 '53

Ultrasonics; cleaning unit lowers rejects on shaver parts. il Iron Age 174:152 S 9 '54

Ultrasonics for drug makers; abstract. N. H. Newton. Chem & Eng N 32:716 F 22 '54

Ultrasonics for emulsifying, homogenizing and blending. F. Rose. il Can Chem Process 38: 36+ Je 1 '54

Ultrasonics improve soldered joints in aluminum. J. J. Obrzut. il Iron Age 173:97-9 Je 24 '54

Ultrasonics in maintenance planning and product quality control. R. L. Rectenwald. il diags Iron & Steel Eng 31:77-85; Discussion. 85-7 S '54

Ultrasonics; inaudible sound used to spot fires, trap burglars. Iron Age 172:119-20 N 26 '53

Ultraviolet route to rhodinol. il Chem W 75: 80 Jl 10 '54

Use of high-frequency sound continues to grow. B. W. Thomas. bibliog Ind & Eng Chem 46:sup73A-4A+ Jl '54

What's new in nondestructive testing. S. A. Wenk. il diag Steel 134:78-81 Ja 18 '54

Work cuts tool, tool forms work with ultrasonics; Remington-Rand. E. J. Tangerman. il Am Mach 98:85-8 Ag 30 '54

Measurement uses

New method for continuous viscosity measurement; general theory of the ultra-viscoson. W. Roth and S. R. Rich. il diag J Ap Phys 24:940-50 Jl '53

Medical uses

Effects of biological tissues on 15-mc pulsed ultrasound. J. J. Wild and J. M. Reid. il diags Acoustical Soc Am J 25:270-80 Mr '53

Ultrasonics in medicine. F. Niesemann. il Instruments & Automation 27:932-3 Je '54

Use of high intensity ultrasound in experimental neurology. P. D. Wall and others. Acoustical Soc Am J 25:281-5 Mr '53

Physiological effect

Bactericidal effects of ultrasound. L. A. Russell and others. bibliog diags Ind & Eng Chem 46:1751-6 S '54

Pressure thresholds for biologically active cavitation. E. Ackerman. bibliog il diags J Ap Phys 24:1371-3 N '53

ULTRAVIOLET microscope. See Microscope and microscopy—Ultraviolet microscope

ULTRAVIOLET rays

Effect of ultraviolet light on steroids during paper chromatography. K. Savard and others. bibliog Am Chem Soc J 75:6327-9 D 20 '53

Energy transfer by means of collision in liquid organic solutions under high energy and ultraviolet excitations. M. Furst and H. Kallmann. bibliog Phys R 94:503-7 My 1 '54

Energy transfer from solvent to solute in liquid organic solutions under ultraviolet excitation. S. G. Cohen and A. Weinreb. Phys R 93:1117 Mr 1 '54

Isomerization of saturated hydrocarbons; the effect of experimental variables, alkyl bromides and light upon the isomerization of methylcyclopentane in the presence of aluminum bromide. H. Pines, E. Aristoff and V. N. Ipatieff. bibliog Am Chem Soc J 75:4775-8 O 5 '53

Portable fluoroscope using ultraviolet from daylight. J. W. Walley. il diags Chem & Ind p 1278-9 N 28 '53

Refractive index of cesium bromide for ultraviolet, visible, and infrared wavelengths. W. S. Rodney and R. J. Spindler. bibliog il J Res Nat Bur Stand 51:123-6 S '53

Ultraviolet screening properties of certain pigment vehicle combinations. L. L. Heffner. bibliog il Textile Res J 24:272-8 Mr '54

Industrial applications

Fluorescence and textiles; abstract. A. E. Williams. Am Dyestuff Rep 43:460 Jl 19 '54

Ultra-violet light in industry exhibition, Birmingham, Feb. 15-26. il Chem Age (Lond) 70:627-8 Mr 13 '54

Lamps

Chemicals in the ultra-violet spotlight. Chem W 72:40+ My 30 '53

Disinfecting air with sterilizing lamps. R. Nagy and others. bibliog il Heating-Piping 26:82-7 Ap '54; Discussion. 26:77 Jl '54

Germicidal mechanization; Warren's baby garments. il Mod Packaging 27:120-1 D '53

How uv purifies small parts; Industrial aids inc., Los Angeles. R. B. Hatfield. il Elec West 111:97 O '53

My most interesting lighting job; nuts and bolts walk the plank; ultraviolet for decontamination of small articles. R. Hatfield. il Elec West 111:105 S '53

Sterilamps kill tomato bacteria; New England tomato co., Los Angeles. il Elec West 111:95 O '53

Physiological effect

Reduction by reactivating light of the frequency of phenocopies induced by ultraviolet light in drosophila melanogaster. M. Perlitsh and A. Kelner. bibliog Science 118:165-6 Ag 7 '53

ULTRAVIOLET spectrum. See Spectrum, Ultraviolet

ULVA lactuca. See Algae

ULVÖSPINEL. See Spinel

UMBELLULONE

Conjugative effects of cyclopropane rings; the preparation and properties of α-hydroxyumbellulone. R. H. Eastman and J. C. Selover. Am Chem Soc J 76:4118-21 Ag 20 '54

UMBILICAL cord

Structure of hyalobiuronic acid and of hyaluronic acid from umbilical cord. B. Weissmann and K. Meyer. bibliog Am Chem Soc J 76:1753-7 Ap 5 '54

UMOHOITE

Umohoite; a new species of uranium mineral. Mech Eng 75:487 Je '53

UNCERTAINTY principle

Information theory and uncertainty principle. L. Brillouin. diags J Ap Phys 25:887-93 Jl '54

UNCLAIMED policies. See Insurance, Life—Policy settlement—Unclaimed policies

UNDERDEVELOPED areas. See Backward regions

UNDERGROUND construction
Underground bank. il plans Arch Forum 99:160-1 S '53
See also
Electric plants (central stations)—Underground stations
Garages, Underground

UNDERGROUND corrosion. See Corrosion and anti-corrosives—Underground corrosion

UNDERGROUND garages. See Garages, Underground

UNDERGROUND reservoirs. See Reservoirs, Underground

UNDERGROUND structures
See also
Electric plants (central stations)—Underground stations
Pipe lines
Reservoirs, Underground
Sewerage
Sewers, Concrete
Tunnels and tunneling

UNDERGROUND water. See Water, Underground

UNDERPINNING. See Shoring and underpinning

UNEMPLOYMENT
Reversing the jobless trend by your own bootstraps. Steel 134:73-4 Mr 8 '54

Statistics

Unemployment, 1937-Nov. 1952; tabulated by countries. Int Labour R Stat Sup 67:11-14 Ja '53 [cont monthly]
Unemployment; when alarming? average statistics, 1938-Jan. 1954; tabulation. Steel 134:49 F 1 '54

Italy

Parliamentary inquiry into unemployment in Italy. R. Tremelloni. Int Labour R 68:256-78 S '53

United States

Fast writeoff rule; no cure-all. Bsns W p32 N 14 '53
Spot unemployment; on the rise. Bsns W p27-8 D 26 '53
What is unemployment? Bsns W p92+ N 14 '53

UNEMPLOYMENT insurance. See Insurance, Unemployment

UNEXCELLED chemical company
No protection; government tries to collect from Walsh-Healey violators despite the statute of limitations. Bsns W p 152-3 S 5 '53

UNFILLED orders. See Orders, Unfilled

UNIFIED field theory
Equations of motion in Einstein's new unified field theory. J. Callaway. bibliog Phys R 92:1567-70 D 15 '53
Expectations from a unified field theory. B. Kurşunoğlu. Phys R 92:506-7 O 15 '53

UNIFORMS
New uniform cloth resists water, acid. Nat Pet N 45:65 N 18 '53

UNIFORMS, Military
Big test of new repellent, M 1960. il Chem W 74:58 Ap 10 '54

UNION carbide and carbon corporation
Companies whose sound planning made them stronger. W. Gates. Mag of Wall St 92:630-1 Ag 22 '53
Investment audit. S. Devlin. Mag of Wall St 93:84-6+ O 17 '53

UNION electric company of Missouri
Utility chief who knows his politics. Bsns W p54-6+ O 24 '53

UNION health center. See International ladies' garment workers' union—Union health center

UNION minière du Haut-Katanga
Statement by chairman of permanent committee. E. Sengier. Economist 168:63-4 Jl 4 '53

UNION oil company of California
Five attractive stocks with wide dividend coverage; with comparative balance sheet items. Mag of Wall St 93:674 Mr 6 '54
New crude finds strengthen its earning power. E. N. Morse. Barron's 33:15-16 N 2 '53
Sharp earnings increase. Barron's 33:21-2 O 19 '53

UNION Pacific railroad
Annual report, 57th, year ended Dec. 31, 1953. Ry Age 136:175-7 My 17 '54

UNION shop. See Open and closed shop

UNION tank car company
Five sound moderate-priced stocks for income; with comparative balance sheet items. Mag of Wall St 93:496 Ja 23 '54

UNIONMELT welding. See Electric welding, Arc—Submerged arc

UNISKAN extrusion process. See Extrusion process

UNIT heaters. See Gas heaters; Heaters; Steam heaters

UNIT processes
Chemical engineering unit operations; ninth annual review. bibliog il diags Ind & Eng Chem 46:57-140 Ja '54
Chemical engineering unit processes; sixth annual review. bibliog il Ind & Eng Chem 45:1899-2064 S '53 (reprints 75c)
Chemical engineering unit processes; seventh annual review. bibliog il diag Ind & Eng Chem 46:1785-1912 S '54
Unit processes in chemical processing; symposium. bibliog flow diags il diags Ind & Eng Chem 46:672-732 Ap '54
See also
Adsorption

UNITED air lines
Better control of operating costs key to improved earnings. P. J. Fitzgerald and S. Dietz. Barron's 33:13-15 Ag 17 '53
United air lines sells its insurance benefits in movie. Nat Underw (Life ed) 58:23 My 7 '54

UNITED aircraft corporation

Sikorsky aircraft division

Sikorsky affair; dispersal of industry will not be easy. J. Chamberlain. Barron's 33:3+ D 14 '53

UNITED automobile workers of America (International union, United automobile, aircraft and agricultural implement workers of America)
GAW strategy; autoworkers educate members on raising the ante. Iron Age 173:70 Ap 15 '54
Kaiser contract with UAW. Bsns W p 178 O 17 '53
Setback for UAW. Bsns W p 164-5 D 19 '53
UAW fears bring pledge from Mitchell. Bsns W p 161 D 12 '53
UAW, IAW, collaborate in mapping pay demand. Bsns W p 140 Ag 29 '53
UAW; Studie vote historic; union consents to pay cut. R. D. Raddant. Iron Age 174:77 Ag 19 '54
UAW union votes out incentives at Willys plant. Steel 134:93-4 Ap 19 '54
UAW warns: you can't win; union wars on in-plant gambling. Bsns W p 178-9 S 19 '53
UAW's pension figures give bargaining guide. Bsns W p 160 D 19 '53
What of the labor contract? il Bsns W p 140 Ag 29 '53

UNITED brotherhood of carpenters and joiners of America
Carpenters rejoin AFL. Bsns W p33 S 12 '53
Why the carpenters' union is tough. il Bsns W p 108-11 Ag 22 '53

UNITED construction workers
United construction workers; its structure and top people. G. T. Orick. Eng N 152:29+ Mr 18 '54

UNITED dairies, limited
Statement by the chairman. L. Maggs. Economist 168:897-8 S 26 '53

UNITED dye and chemical corporation
Central Standard is acquired by United Dye & Chemical. Nat Underw 58:2 Ag 12 '54; Discussion. V. D. Dardi. 58:57 O 7 '54

UNITED engineering trustees, inc.
Cities woo engineers; offers for new location and establishment of engineering center. il Chem & Eng N 32:802-3 Mr 1 '54
Report for 1952-1953. Mech Eng 76:115-16 Ja '54

UNITED fruit company
50,000,000 bunches of bananas. H. Bratter. il Banking 46:41+ D '53

UNITED fuel gas company
Public utility securities. O. Ely. Comm & Fin Chr 178:925 S 10 '53

UNITED gas, coke and chemical workers of America
Chemical union on the warpath. Chem W 73:14-16 S 26 '53

UNITED gas corporation
Controls the largest reserves in the country. P. Sutor. Barron's 33:17-18 O 5 '53
Debentures offered. Comm & Fin Chr 178:1672 N 2 '53
Public utility securities. O. Ely. Comm & Fin Chr 178:2644 D 31 '53

UNITED KINGDOM. See Great Britain

UNITED lodge of theosophists
From a rough old brownstone, a calm religious building. il Arch Forum 100:162-3 My '54

UNITED mine workers of America
Bituminous fund reduces aid to disabled; pensions halved for anthracite miners. Coal Age 59:139 F '54
Pensions; UMW seeks tax exemption. R. M. Stroupe. Iron Age 172:75 Jl 16 '53
What Lewis will demand. il Bsns W p 172-3 O 17 '53

District 50

Famed, fined, feuding; Lewis, the UMW and its catch-all District 50. Chem W 73:16-17 D 5 '53

Hospitals

Hospital chain 250 miles long; hospitals for beneficiaries of United mine workers' welfare fund. il map plans diags Arch Forum 99:132-9+ Ag; 150-7 S; 132-9 N '53

UNITED nations
Assembly and agenda. Economist 168:786-7 S 19 '53
Assembly and armistice; shape of a table. Economist 168:495 Ag 22 '53
Demagogy at Uno. Economist 168:611-12 S 5 '53
Forgotten Formosa. Economist 168:617 S 5 '53
House of glass; critics of Mr Lodge made poor showing. Barron's 33:1 Ag 31 '53
Retrospect of a muted assembly, eighth. Economist 169:895-6 D 19 '53
Sounding board; U.N. can serve those who recognize its limits. J. Chamberlain. Barron's 33:5-6 S 7 '53
Suaviter in modo; U. N. assembly and American policy. Economist 168:830-2 S 26 '53
United nations and full employment. A. A. P. Dawson. bibliog Int Labour R 67:401-33 My '53
U.S. policy on Korea. J. F. Dulles. Comm & Fin Chr 178:929 S 10 '53
Yearbook of the United nations, 1953. 906p $12.50 Columbia univ. press, 2960 Broadway, New York 27 '54

See also
Food and agriculture organization of the United nations
World health organization

Charter

Executive treaty-making power and the UN's inadequate charter. J. F. Dulles. Comm & Fin Chr 178:824-5 S 3 '53

Economic commission for Europe

British bulletin; ECE bulletin censured in British press. Economist 169:736-7 D 5 '53

Employees

Caesar's wife at Uno; personnel policy. Economist 169:500-1 N 14 '53

Employees' pensions

Equities in pension plans of international agencies. P. A. Johnston. Barron's 33:23 N 23 '53

Headquarters

Lighting at the U.N. grounds. il Illum Eng 49:236 My '54
UN Assembly; how do architects like it? il Arch Forum 97:114-15 D '52
UN General Assembly; new Assembly hall. il plans diags Arch Forum 97:140-9 O '52

Investments

Equities in pension plans of international agencies. P. A. Johnston. Barron's 33:23 N 23 '53

Security council

Inside view of Security Council countries. W. A. Robertson. Comm & Fin Chr 178:1+ Jl 2 '53; Discussion. 178:253+, 345+, 439+, 531+, 623+, 720-1+, 1018 Jl 23, 30, Ag 6, 13, 20, 27, S 17 '53
Vanishing Security council. Economist 168:767 S 19 '53

Technical assistance program

Trading in know-how. Economist 168:185 Jl 18 '53
Windfall of roubles. Economist 168:249 Jl 25 '53

UNITED nations and specialised agencies joint field mission on indigenous populations
Technical assistance mission in the Andes. E. Beaglehole. Int Labour R 67:520-34 Je '53

UNITED nations children's fund
Two cooperative projects of WHO and UNICEF. S. M. Keeney. Pub Health Rep 68:606-8 Je '53

UNITED nations educational, scientific and cultural organization
Soviet countries join. G. N. Shuster. Chem & Eng N 32:3770 S 20 '54

Headquarters

Horizontal monument; UNESCO's Paris headquarters. il plans diags Arch Forum 98:105-13 Je '53
UNESCO House; stunning 20th-century monument of richness and restraint is given Paris by the Breuer-Zehrfuss-Nervi team. il plans diags Arch Forum 97:150-7 O '52

UNITED nations food and agriculture organization. See Food and agriculture organization of the United nations

UNITED nations international children's emergency fund. See United nations children's fund

UNITED parcel service
UPS takes to wing. il Bsns W p62+ N 7 '53

UNITED press
U.P. client roll expands to 3,736. Ed & Pub 86:136 Ap 25 '53

UNITED rayon manufacturing corporation, Netherlands. See Algemene kunstzijde unie N. V.

UNITED STATES
Sources of America's strength. H. L. Dillin. Comm & Fin Chr 178:10+ sec 2 O 8 '53

Agricultural research administration

Agriculture reshuffle; Agricultural research administration reshuffling proposals. Chem W 73:50+ N 21 '53
Saved by a surplus. Chem W 73:36+ Jl 11 '53

Agriculture, Department of

Agriculture department revamping plan given. Oil Paint & Drug Rep 164:5+ O 19 '53
Agriculture department shift into effect as planned. Oil Paint & Drug Rep 164:3+ N 9 '53
Milk is a business problem, too; Department of agriculture's plentiful foods program. J. Shoenfeld. il Sales Management 73:100+ S 1 '54

Air coordinating committee

ACC to set new national air policy. Aviation W 59:17 O 5 '53

Air force

AF balances planes and plants; new policy sets up review of industrial program. Aviation W 59:15 Jl 27 '53
AF completes civilian command. Aviation W 59:22 Ag 31 '53
AF cutback heads for fight in Congress. K. Johnsen. Aviation W 58:12-14 Je 15 '53
Air force cuts AMC facilities. Aviation W 59:14-15 Ag 24 '53
AF orders Super Connie radar pickets. W. Coughlin. il Aviation W 59:17-18 Ag 24 '53

UNITED STATES—Air force—*Continued*

AF slashes new plane orders. Aviation W 59:18 S 14 '53

AF to clarify heavy press cuts. Aviation W 58:14 Je 29 '53

Air force to get 8,800 planes in 1953. R. Hotz. Aviation W 59:13-14 Jl 6 '53

AF tries weapons system plan; test of plan giving airframe makers responsibility for buying equipment. P. Klass. Aviation W 58:16-17 Je 22 '53

Beefing up air defense. Bsns W p32 S 12 '53

C-54 recall. Aviation W 58:14-15 Je 22 '53

Defense sets new rules for plane buying. R. Hotz. Aviation W 58:14-15 Je 8 '53

Engine cuts save AF half billion. R. Balentine. Aviation W 59:14-15 S 28 '53

How U.S. air power looked in Korea. il Bsns W p64-6+ Ag 29 '53

Military procurement, fiscal '54. il Aero Digest 67:24-9 O '53

Pentagon statement on revised air budget. Aviation W 58:94 Je 8 '53

Research reply; AF defends its human resources projects. Aviation W 59:21-2 S 7 '53

Senator blasts air force management. Aviation W 59:13 Jl 20 '53

Strategic air command. C. E. LeMay. Aeronautical Eng R 12:20-3+ S '53

Trained pilot shortage to hit AF. N. F. Twining. Aviation W 59:15 Jl 13 '53

USAF loses ground in cutback fight. K. Johnsen. Aviation W 58:12-14 Je 22 '53

USAF orders H-bomb fleet, more F-100s. R. Hotz. il Aviation W 59:12-13 O 5 '53

Air National guard

ANG converting to modern jets. Aviation W 59:18 N 2 '53

Air national guard gets first F-86s. Aviation W 59:21-2 N 16 '53

Air research and development command

Air research and development command. il maps diags Aviation W 59:73-102+ Ag 17 '53

Appropriations and expenditures

AF budget nears showdown in Congress. K. Johnsen. Aviation W 59:12-14 Jl 13 '53

Aircraft procurement; obligations, expenditures by month, 1951-54; table. Aviation W 59:17 N 9 '53

Blast at budget; Symington leadoff man in Senate defense debate. Aviation W 59:16 Jl 6 '53

Final air budget; $34.4 billion. Aviation W 59:16-17 Ag 10 '53

New cuts likely in AF spending; report by Assistant air force secretary for management, H. Lee White, to Senate armed services subcommittee. Aviation W 59:16 N 16 '53

No truce in AF budget battle. Aviation W 59:15 Jl 6 '53

Research and development freeze starts new Wilson-AF feud. K. Johnsen. Aviation W 59:13-14 Jl 27 '53

USAF bases get $268 million. Aviation W 59:20-1 Ag 24 '53

Wilson hits AF over-financing. Aviation W 58:15-16 Je 29 '53

Wilson orders R&D fund slash. Aviation W 58:14 Je 15 '53

Wilson wins USAF cutback fight. Aviation W 59:15 Ag 3 '53

Arnold engineering development center

AEDC will speed air development. D. A. Anderton. il map Aviation W 59:150-4+ Ag 17 '53

Details of Tullahoma test center. il diag Aviation W 58:36-7 Je 15 '53

High-altitude and speed propulsion wind tunnels. F. L. Wattendorf and others. il diags Mech Eng 75:789-93 O '53

Simulated flight for engines at AEDC. G. W. Newton. il map diag S A E J 62:28-32 Jl '54

TVA, air force negotiate deal; authority to supply all power needs of Arnold engineering development center. S. R. Harris, jr. Elec World 141:117 F 22 '54

Equipment and supplies

Air units can live out of boxes; service trials of new containers that double as shipping packages and desks, bins, cabinets. il Aviation W 59:55-6+ Jl 13 '53

Safety measures

AF research cuts crash rate. A. McSurely. Aviation W 58:21-2+ Je 29 '53

Strengthening freedom's iron fist. C. Fish. il map Nat Safety N 69:18-19+ F '54

Textile requirements

Matching USAF silvertan shade no. 193. H. R. Davidson and R. D. Haire. Am Dyestuff Rep 42:253-7 Ap 27 '53

Air service, Navy

Director of naval aviation. T. T. Craven. il map U S Naval Inst Proc 79:292-301 Mr '53

Evolution of naval aircraft, 1911-54. L. B. Richardson. il Aeronautical Eng R 12:50-9+ D '53

Navy drops wraps off Convair Sea Dart. Aviation W 59:19 Jl 27 '53

Recent developments in the navy's air arm. J. N. Murphy. il Aeronautical Eng R 12:24-8 Ag '53

Antiquities

See also

Indians of North America—Antiquities

Appropriations and expenditures

Budget gets short-term defense cuts. N. R. Regeimbal. Iron Age 174:77-8 S 23 '54

Funds for science; the federal government and nonprofit institutions. C. G. Gant and B. Rubinstein. map Science 117:669-76 Je 19 '53

Government solvency involved in new defense planning. J. A. Jackson. Mag of Wall St 93:9-11+ O 3 '53

Leveling off the peaks; budget limitations will trim Defense dept. research and development spending. Chem W 74:51-2 Je 12 '54

Money, one of the government's biggest problems. W. Williams. Comm & Fin Chr 178:1540 O 22 '53

Our tough budgetary and fiscal problems. J. M. Dodge. Comm & Fin Chr 178:1521+ O 22 '53

Spending; military hard goods cost U.S. $23.3 billion in fiscal '53. Iron Age 172:114 S 10 '53

Volume of government purchasing. Survey of Cur Bsns 33:9-11 S '53

We must stop socialistic trends and return to solvency. S. Bridges. Comm & Fin Chr 178:1226+ O 1 '53

See also

Budget—United States

United States—Air force—Appropriations and expenditures

United States—Armed forces—Appropriations and expenditures

Armed forces

See also

United States—Army

United States—Navy

Appropriations and expenditures

Briefing on the defense budget. Bsns W p32-3 D 26 '53

Equipment and supplies

Military puts new zip in handling materials. il Bsns W p40-2+ Ag 1 '53

Reserves

President wants stronger reserves. Chem & Eng N 32:3620 S 13 '54

Armed services petroleum purchasing agency

ASPPA contracts; jobbers can get them. Nat Pet N 45:15-16 D 23 '53

Armed services petroleum purchasing agency opening door to jobbers; independent oil jobbers can expect more considerate treatment. Nat Pet N 45:18 D 9 '53

Petroleum group of military given wider range of duties. Oil Paint & Drug Rep 164:3+ O 19 '53

UNITED STATES—*Continued*

Army

Army points toward new look; plan based on recommendations of Advisory committee on army organization. Chem & Eng N 32:930+ Mr 8 '54

Blueprint storage plans; army works out lease-storage deal with Ford, Studebaker for government tools. R. D. Raddant. Iron Age 172:90 Ag 13 '53

Business look at the army. P. L. Davies. Harvard Bsns R 32:55-66 Jl '54

Accounting

Applying sound management principles to comptrollership in large organizations; United States army. R. S. McLain. Advanced Management 18:5-7 N '53

Chemical corps

Businesslike bureau. Chem W 75:24 S 25 '54

Committee to study Chemical corps. Chem & Eng N 32:2974 Jl 26 '54

Engineer corps

Army engineers operate mobile foundry. F. G. Steinebach. il Foundry 81:112-13+ D '53

Use of concrete by the Corps of engineers. S. D. Sturgis, jr. Am Concrete Inst J 25: 645-54 Ap '54; Abstract. Roads & Eng Constr 92:156 Ap '54

Equipment and supplies

Operation Eager Beaver I, Arctic testing. il Product Eng 24:202-4 Jl '53

Ordnance program calls for airlift armies; lighter weapons and equipment specified. il Materials & Methods 39:6-7 Ja '54

Phosphorus oxychloride review asked of army. Oil Paint & Drug Rep 166:3+ Jl 12 '54

Workshops; army puts 'em on wheels. il Iron Age 172:102 S 17 '53

Safety program

From camels to caterpillars; mechanization came to Libya with the U.S. engineers. S. D. Sturgis. il Nat Safety N 69:22-3+ Ap '54

Hazard hunting with the safety engineer; military construction programs of the U.S. army's Corps of engineers. il Nat Safety N 69:30-1+ F '54

Scientific and professional personnel program

Operation S.P.P. I. Leibson and A. G. Cacoso. diags Chem Eng Prog 50:sup44+ Jl '54

Transportation corps

New army craft tailored for the job. H. A. Jacobs. il Marine Eng 59:68-71+ F '54

These army Diesels are versatile. A. J. Broadfoot. il Ry Age News ed 135:19-20 D 7 '53

Coast guard

Coast guard inspects ocean liners for safety. il Marine Eng 58:86-7 D '53

Commerce

Balance of payment trends during the second quarter. Survey of Cur Bsns 33:11-12 S '53

Foreign trade; key to world peace and prosperity. S. C. Allyn. Comm & Fin Chr 178: 2371+ D 17 '53

Foreign trade must be increased. C. P. Taft. Eng & Min J 155:72+ Mr '54

Foreign transactions, 1953. Survey of Cur Bsns 34:23-4 F '54

Geographic pattern of United States foreign trade steady; first half of 1953; with tables. For Comm W 50:1, 11-12+ N 9 '53

International transactions of the United States; foreign trade, 1949-1952. Survey of Cur Bsns 1953 Sup p 104-12 [supplemented in monthly numbers]

Merchandise exports and imports, monthly Jan. 1951-Nov. 1953. Fed Res Bul 40:84 Ja '54 [cont monthly]

Our national stake in convertible currencies. L. W. Douglas. Am Pet Inst Proc 33(1):33-6 '53; Comm & Fin Chr 178:2157+ D 3 '53

Our necessary markets abroad. V. L. Horoth. Mag of Wall St 93:187-9+ N 14 '53

Third quarter balance of payments reflects continued advances abroad; with tables. Survey of Cur Bsns 33:5-7 D '53

U.S. agriculture trade abroad lower in '53. Oil Paint & Drug Rep 165:5+ Mr 29 '54

United States balance of payments in 1952-53. Fed Res Bul 39:1039-47 O '53

U.S. exports and imports. Nat City Bank p 140-3 D '53

U.S. stake in world trade. J. P. Grace, jr. Comm & Fin Chr 178:1009+ S 17 '53

U.S. trade expands in first half of '53. For Comm W 50:15-16 S 7 '53

See also
Export trade
Merchant marine—
United States

Canada

See Canada—Commerce

China

See China—Commerce

Europe, Eastern

See Europe, Eastern—Commerce

Far East

See Far East—Commerce

Great Britain

See Great Britain—Commerce—United States

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See Japan—Commerce

Latin America

See Latin America—Commerce

Russia

See Russia—Commerce—United States

Singapore

See Singapore—Commerce—United States

Uruguay

See Uruguay—Commerce

Commerce, Department of

Accent on business. Steel 133:41 Jl 27 '53

Commerce steps up its program; new Office of distribution. E. C. Kreutzberg. Steel 134: 74 F 8 '54

Reappraising the Department of commerce role in transportation. R. B. Murray, jr. Am Pet Inst Proc 33(1):105-7 '53; Same. Oil & Gas J 52:282-4 N 16 '53

Strangulation, or rebirth for Ike's Department of commerce? J. Shoenfeld. Sales Management 71:70+ N 1 '53

These marketing aids are free! provided by the Department of commerce. G. R. Dunhill. Adv Agency 47:66+ F '54

Washington aids to industry; how Commerce department can help industry. S. Weeks. Mill & Factory 54:7-9 My '54

Field service cooperative office program

Field network grows; new officials named. For Comm W 50:2 Ag 24 '53

Commercial policy

Adjustment to imports and the national interest. O. R. Reischer. J Bsns 26:254-62 O '53

Building prosperity through more world trade. E. Holman. Comm & Fin Chr 178: 2050-1 N 26 '53

Businessmen for freer trade; Committee for a national trade policy. Bsns W p 150 O 24 '53

Congress looks at foreign trade. S. W. Anderson. For Comm W 50:14-16+ O 5 '53

Convertible currencies in free world is on the way. W. R. Burgess. Comm & Fin Chr 178:2037+ N 26 '53

Expanded trade and world peace. H. Ford, 2d. Comm & Fin Chr 178:1730+ N 5 '53

Flexible farm price support program will aid foreign trade. G. D. Aiken. Comm & Fin Chr 178:2070-1 N 26 '53

Foreign economic policy. D. D. Eisenhower. Chem & Eng N 32:1480+ Ap 12 '54

UNITED STATES—Commercial policy—*Cont.*

Foreign trade and United States prosperity; the Siamese twins. G. Cowles. J Bsns 27: 22-7 pt 2 Ap '54

Foreign trade policy coming to a head; American metalworking manufacturers are a focal point. Steel 133:79 N 16 '53

Independent petroleum association asks clarified trade policy. Oil Paint & Drug Rep 165:4+ Ja 11 '54

Industrial leaders take varied views of Randall report as trade stimulus. Ind Marketing 39:146-9 Ap '54

More liberal trade policy in offing. W. S. Swingle. Comm & Fin Chr 178:1644-5 O 29 '53

Multilateral trade will cure free world's economic ills. A. Wiley. Comm & Fin Chr 178:1848-9 N 12 '53

New look at foreign trade. S. Weeks. Comm & Fin Chr 178:2039+ N 26 '53; Excerpt. For Comm W 50:13-14 N 23 '53

Now, a new policy for the U.S. Bsns W p 150+ O 10 '53

Our trade policy. J. S. Coleman. Comm & Fin Chr 178:907+ S 10 '53

Ping pong balls versus ammunition; unhinge trade gates. G. F. Towers. Credit & Fin Management 55:26-7 Ag '53

Randall commission proposals face rough road; report. Chem & Eng N 32:472-3 F 8 '54

Randall commission recommendations stir split on foreign trade policies. M. A. Reichek. Eng & Min J 155:142+ F '54

Randall commission recommends policy changes. For Comm W 51:12-15+ F 1; 11-14+ F 8 '54

Randall commission recommends tariff cuts and customs revisions. Oil Paint & Drug Rep 165:3+ Ja 25 '54

Randall report; free trade deserves a more powerful brief. Barron's 34:1 Ja 25 '54

Report on causes of and remedy for dollar shortage; text. L. W. Douglas. Comm & Fin Chr 178:922-3 S 10 '53

Significance of the United States foreign trade position. S. W. Anderson. For Comm W 50:11 O 26 '53

Silent spectator; chemical companies and East-West trade. Chem W 74:16-18 F 6 '54

Steps in an improved foreign trade program. J. T. Trippe. Comm & Fin Chr 178:2054 N 26 '53

Steps to expand America's trade abroad. W. S. Swingle. Credit & Fin Management 55:37-8 S '53

Threat of hodgepodge trade pacts. F. E. Wormser. Comm & Fin Chr 178:1332 O 8 '53

Toward a freer trade policy; report by the Randall commission. Steel 134:55-7 F 1 '54

Trade act continuance is voted. Oil Paint & Drug Rep 165:3+ Je 14 '54

Trade act extended a year. Chem & Eng N 32:2699 Jl 5 '54

Trade agreements bill signed by President. Oil Paint & Drug Rep 166:3+ Jl 5 '54

Trade aid or barricade? Bsns W p 166 O 3 '53

United States adjusts to foreign trade. M. M. Smith. For Comm W 50:11+ D 14 '53

Unmasking the mystery of foreign trade. J. Airey. Comm & Fin Chr 179:53+ Ja 7 '54

Various nonwar items now licensed by BFC. For Comm W 51:16 Ja 11 '54

See also

Export trade—Regulation

Imports

Tariff—United States

Commission on foreign economic policy

All members of Foreign economic policy commission now appointed. For Comm W 50:20 Ag 31 '53

Foreign economic policy commission holds hearings in U.S. and Paris. For Comm W 50:24 N 2 '53

Congress

Battle for Congress takes shape. Bsns W p25-6 N 14 '53

Congress; industry broke even. A. K. Rannells. Iron Age 172:80-1 Ag 13 '53

Shaping a program for Congress. Bsns W p31-2 D 19 '53

Would a tv Congress improve democracy? proposal to put the sessions of Congress and committee hearings on the air and television broadcasts. F. McNaughton. Pub Util 53:147-53 F 4 '54

See also

Presidents (United States)—Relations with Congress

Constitution

Constitution is your business. C. E. Manion. Paint Oil & Chem R 116:30-1+ N 5 '53

Council of economic advisors

Full crew for CEA. Bsns W p33 D 5 '53

Court of customs and patent appeals

Secluded power on patents and customs. Chem W 74:21-2 Je 26 '54

Defense, Department of

Business brains for the Pentagon; new committee known as the advisory committee on fiscal organization and procedure. Bsns W p 154+ Ag 29 '53

Business look at the army. P. L. Davies. Harvard Bsns R 32:55-66 Jl '54

Changes inside the Pentagon. H. S. Hensel. Harvard Bsns R 32:98-108 Ja '54

Defense department adds to contract audit manual. H. W. Wright. N A C A Bul 35: 623-6 Ja '54

Defense department reorganizes. Steel 133: 66 Jl 6 '53

Defense sets policy on contract financing. Aviation W 59:20 N 23 '53

Defense unsnarls buying; consolidated list of who buys what and where. Chem W 73: 32+ D 26 '53

Leveling off the peaks; budget limitations will trim Defense dept. research and development spending. Chem W 74:51-2 Je 12 '54

New defense post; Assistant secretary of defense for properties and installations, F. R. Creedon. Eng N 151:23 Jl 9 '53

Wilson and team; getting results on defense. Bsns W p28-30 N 21 '53

Properties and installations office

Defense construction policies go under new expert direction. Eng N 151:21 D 3 '53

Defense facilities maintenance board

New mobilization board set up; Defense facilities maintenance board. Chem & Eng N 32:3619 S 13 '54

Preserving privately owned defense facilities, the tough job of a new government agency. Bsns W p 108-9 N 14 '53

Defense mobilization, Office of

Defense mobilizer's eighth quarterly report, 1952. Mo Labor R 76:159-60 F '53

Senate confirms Flemming as new mobilization agency head. Chem & Eng N 31:2692 Je 29 '53

Defenses

Budget for '55 cuts vehicle, ammunition procurement, but there'll be more planes and guided missiles. Am Mach 98:178 F 15 '54

Chemical industry and national security. B. B. Somervell. il Chem & Eng N 31:2476-9 Je 15 '53

Defense spending to rise. Steel 135:35 Jl 5 '54

Facing up to an atomic world. il Bsns W p27-30 O 10 '53

Government solvency involved in new defense planning. J. A. Jackson. Mag of Wall St 93:9-11+ O 3 '53

National defense; the professional man. W. T. Read. Ind & Eng Chem 46:sup21A-2A Mr '54

New air defense strategy puts more stress on civil side. il Bsns W p26-8 S 5 '53

Standby production lines + stockpiling= sound US defense. J. B. Medaris. Am Mach 98:184 F 15 '54

UNITED STATES—Defenses—*Continued*

Stiff fight brews on air defense. Aviation W 59:16-17 N 23 '53

See also

Civilian defense
Industrial mobilization
National security industrial association
Petroleum administration for defense
United States—Air force
United States—Armed forces
United States—Defense, Department of
United States—Navy

Economic conditions

America of the future; economic trends and problems ahead; text of broadcast. G. M. Loeb; P. French. Comm & Fin Chr 178:1130-1 S 24 '53

Areas of strength outweigh weak points; abstract. J. Vogel. Paper Tr J 138:66+ F 26 '54

Credit and monetary policy in competitive markets. W. M. Martin, jr. Fed Res Bul 40:125-9 F '54

Expenditures in 1953. Fed Res Bul 39:1139-45 N '53

Factors indicating easier mortgage money. H. Steiner. Comm & Fin Chr 178:2364 D 17 '53

Future outlook of our economy; interview with George M. Humphrey. Mill & Factory 55:75-6 S '54

How fast is America growing? abstract. L. Greene. Management R 42:250-1 My '53

National income and product in 1953; with tables. Survey of Cur Bsns 34:5-14 F '54

Our rising living standards; ceiling unlimited? abstract. Management R 43:212-13 Ap '54

Prospects are bright; abstract. S. H. Slichter. Management R 43:408-9 Jl '54

Recession small or large? Economist 169:639-41 N 28 '53

Review of national income and product in the third quarter; with tables. Survey of Cur Bsns 33:2-6 N '53

Several records broken; highs for electric power output, newsprint use, glass bottle shipments, and savings banks deposits in 1953. Chem & Eng N 32:448-9 F 1 '54

Six vital factors dominate our Nation's economic future. A. H. Johnson. Brick & Clay Rec 124:105 Je '54

Slipping economic regions and North-South competition. S. E. Harris. Comm & Fin Chr 179:59+ Ja 7 '54

Twilight of the boom? economic review, 1953, and outlook; American economy. Economist 170:35-40 Ja 2 '54

What congressional economists see happening to the gross national product. Steel 134:60 Mr 15 '54

Why sales and advertising face challenge to hold peak of U.S. boom. J. Hirsch. Ptr Ink 244:35-7+ Ag 21 '53

See also

Business conditions
Income—United States
Inflation (finance)

Economic history

Productivity and economic progress, 1900 to 1950. Mo Labor R 76:391-2 Ap '53

Seventy-five years of electric light. H. S. Bennion. Pub Util 53:15-26 Ja 7 '54

Economic policy

Anchor; U.S. loss of gold raises some great issues. Barron's 33:1 S 14 '53

Business now free from unnecessary controls. G. M. Humphrey. Comm & Fin Chr 178:1323+ O 8 '53

Calls for gold redeemable money with gold at $70 per ounce. H. E. Barton. Comm & Fin Chr 178:828 S 3 '53

Can the administration beat the depression? P. L. Bernstein. Comm & Fin Chr 178:1122+ S 24 '53

Conditions we face. R. H. Taylor. Pet Eng (Ref annual) 25:A35-7 Jl 15 '53

Defense against recession; policy for greater economic stability; review of CED reports. Steel 134:60 Mr 29 '54

Dilemma of balancing the budget. G. M. Humphrey. Comm & Fin Chr 178:1835+ N 12 '53

Economic policy in recession. Nat City Bank p 17-21 F '54

Economic postscript as to Korea. W. G. Campbell. East Underw 54:17+ Ag 14 '53

Forced draft method of dealing with economic and financial problems; abstracts. C. M. Shanks. East Underw 55:4 F 5 '54; Nat Underw (Life ed) 58:23 F 19 '54

Healthy, vital economy is our best defense. G. M. Humphrey. Comm & Fin Chr 178:1622-3 O 29 '53

How government's money policy strives to balance inflation-deflation. H. Nicholson. Mag of Wall St 93:182-3+ N 14 '53

How shall we reason for 1954? E. G. Nourse. Comm & Fin Chr 179:269+ Ja 21 '54

How to reverse the recession. A. G. Hart. Comm & Fin Chr 179:58+ Ja 7 '54

Issues in Washington; Bankers Monthly survey of bank board chairmen's views. Bankers Mo 70:9-12+ S '53

Leave taxes as they are to maintain full employment and promote economic growth. L. H. Keyserling. Comm & Fin Chr 178:2640+; 179:168 D 31 '53, Ja 14 '54

New outlook for business. S. H. Slichter. Comm & Fin Chr 178:1325+ O 8 '53

1954, recession, depression, recovery? C. Clark; W. S. Woytinsky. Comm & Fin Chr 179:452+ Ja 28 '54

No need for a depression. W. Reuther. Comm & Fin Chr 178:924-5 S 10 '53

Nose in the tent; defense plans hide a lot of socialism. Barron's 33:1 N 16 '53

Outlines program in state of the Union message. D. D. Eisenhower. Comm & Fin Chr 179:167+ Ja 14 '54

Pressure groups disrupting administration's policies. W. W. McAllister. Comm & Fin Chr 178:2151+ D 3 '53

Realistic appraisal of the President's program. H. DuBois. Mag of Wall St 93:476-7+, 551-3+ Ja 23-F 6 '54

Republican program; plug gaps in defenses and the economy. E. C. Kreutzberg. Steel 134:127-8+ Ja 4 '54

Restoring our free enterprise system. J. P. Wolcott. Comm & Fin Chr 178:1620+ O 29 '53

We can maintain prosperity if we do not lose our heads. L. H. Keyserling. Comm & Fin Chr 178:1423+ O 15 '53

See also

Industry and state—United States
Prices—Regulation
Taxation—United States
United States—Commercial policy
United States—Council of economic advisers
United States—Economic relations
Wages—Regulation

Economic relations

Fear of United States deep depression unwarranted; aid programs. W. W. Aldrich. Comm & Fin Chr 178:1524+ O 22 '53

Foreign aid reappraisal urged by subcommittee of Senate. Oil Paint & Drug Rep 165:3+ My 31 '54

Foreign countries obtain $5.7 billion in U.S. goods, services in second quarter. For Comm W 50:5 O 5 '53

Foreign economic policy commission says dollar problem can be solved. Comm & Fin Chr 179:458 Ja 28 '54

Foreign gold and dollar assets show growth; third quarter of 1953. For Comm W 51:5+ Ja 4 '54

Mutual aid against the grain? American government's surplus farm products disposal plans. Economist 169:266-7 O 24 '53

Randall commission recommends policy changes. For Comm W 51:12-15+ F 1; 11-14+ F 8 '54

U.S. and the world economy. R. L. Reierson. Comm & Fin Chr 178:1626+ O 29 '53

United States foreign aid in the fiscal year 1953. E. S. Kerber. Survey of Cur Bsns 33:15-20 O '53

U.S. surplus agricultural products to be purchased for use overseas. For Comm W 50:19 N 2 '53

World in 25 years; how the U.S. economy will reach around it. il maps Bsns W p96-102+ O 31 '53

UNITED STATES—Economic relations—*Cont.*

Brazil

See Brazil—Economic relations—United States

Canada

See Canada—Economic relations—United States

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Italy

See Italy—Economic relations—United States

Japan

See Japan—Economic relations—United States

Latin America

See Latin America—Economic relations—United States

Spain

See Spain—Economic relations—United States

Employment service

Public employment service system in the United States. Int Labour R 68:419-34 O-N '53

Executive departments

Agencies of government that collect information on the subjects indicated. Ptr Ink 245:414 sec 2 O 23 '53

Developing Uncle Sam's management team. J. J. Corson. Advanced Management 18:8-13 Je '53

Hoover commission and the independence of federal regulatory agencies. B. Ross. Pub Util 54:461-6 S 30 '54

Hoover sees $5 billion savings. Chem & Eng N 32:1478+ Ap 12 '54

Project to consolidate or eliminate some government activities started by new Hoover commission. R. G. Gibbs. Chem & Eng N 31:4172+ O 12 '53

Reshuffling White House team. Bsns W p23-4 S 5 '53

Temple University plan asks 57 per cent government revamp. Chem & Eng N 31:5374-5 D 28 '53

See also
Administration, Public

Federal mediation and conciliation service

New boss conciliator; Whitley P. McCoy. Bsns W p 123+ Jl 11 '53; Eng N 151:28 Jl 16 '53

Federal trade commission

See Federal trade commission

Food and drug administration

Effects of budget cuts. C. W. Crawford. Oil Paint & Drug Rep 165:5+ F 1 '54

Extra entrance added; B. Mintener, assistant secretary of Dept. of health, education and welfare; G. Larrick, new FDA commissioner. Chem W 75:26 S 11 '54

FTC jurisdiction pact with FDA now official. Oil Paint & Drug Rep 165:5+ Je 14 '54

FDA compromise plan would put industry man in top post. Oil Paint & Drug Rep 166:3+ Jl 26 '54

FDA inspection re-weighed. E. L. Holmes. il Food Eng 26:47-8+ Je '54

FDA plans; abstract. A. H. Holland, jr. Oil Paint & Drug Rep 166:52-4 Jl 5 '54

New FDA head has problems. Chem & Eng N 32:3284 Ag 16 '54

Reprieve and danger; cut in appropriation. Chem W 73:13 Ag 8 '53

Will some of the toughness be taken out of the Food and drug act? Food and drug administration has been ordered to call off a clean-up of box cars and elevators carrying wheat. J. Shoenfeld. Sales Management 70:82+ Je 15 '53

Foreign commerce, Bureau of

Foreign commerce bureau established to replace OIT. Oil Paint & Drug Rep 164:3 O 19 '53

Secretary Weeks announces new Bureau of foreign commerce. For Comm W 50:7+ O 19 '53

Foreign relations

America, India and Pakistan; question of United States bases in Pakistan. Economist 169:569-70, 668-9 N 21-28 '53

Beware of icebergs! B. M. Baruch. Comm & Fin Chr 178:629+ Ag 20 '53

Eisenhower plan; international control of atomic energy. Economist 169:866-7 D 19 '53

Foreign policy weak. R. C. Hutchinson. East Underw 54:24+ D 11 '53

Meet your foreign relations. L. E. Gehres. Trusts & Estates 92:816-17 N '53

Mr Dulles and Mr Nehru; Pakistani-American agreement; Middle Eastern affairs. Economist 170:73-4 Ja 9 '54

New U.S. policy for an old war. il map Bsns W p 134-6+ O 31 '53

Our foreign policy war provoking. E. T. Weir. Comm & Fin Chr 178:1617+ O 29 '53

President's late start. Economist 170:213-14 Ja 23 '54

Suaviter in modo; U.N. assembly and American policy. Economist 168:830-2 S 26 '53

Western strength; President's proposal for a U.N. atomic pool. Barron's 33:1 D 14 '53

See also
United States—Economic relations
United States—Treaties

Argentina

See Argentina—Foreign relations—United States

Canada

See Canada—Foreign relations—United States

China

See China—Foreign relations

France

See France—Foreign relations—United States

Russia

See Russia—Foreign relations—United States

Spain

See Spain—Foreign relations—United States

General services administration

Problems of property utilization and accounting in the federal government. W. E. Katon. J Account 96:316-23 S '53

Standby plants go back to military. A. K. Rannells. Iron Age 173:91 Ap 1 '54

Geological survey

Small tractor cranes help make stream measurements for U.S.G.S. A. H. Frazier. il Civil Eng 23:697-8 O '53

Topographic mapping in Florida. D. Kennedy. map Am Soc C E Proc 79 [no 212]: 1-5 Jl '53

Government property

Government held not liable for injuries caused by explosives left in former camp; United States v. Inmon. Weekly Underw 169:969 O 17 '53

Health, education and welfare, Department of

Extra entrance added; B. Mintener, assistant secretary of Dept. of health, education and welfare; G. Larrick, new FDA commissioner. Chem W 75:26 S 11 '54

Partnership in dental health. N. A. Rockefeller. Pub Health Rep 68:1221-4 D '53

UNITED STATES—*Continued*

Industries and resources

Revolutionary new products of leading companies. L. A. Lukens. Mag of Wall St 92: 543-5+ Ag 8 '53

U.S. industry adopts foreign techniques. Bsns W p75-6 O 17 '53

See also

Industrial mobilization

also subdivision United States under names of specific industries or resources, e.g. Agriculture; Gas industry; Petroleum industry and trade

Interior, Department of

Federal agencies streamlined. Elec World News ed 140:15 S 14 '53

House appropriations committee criticizes Interior policies. Pub Util 53:565-7 Ap 29 '54

Interior Department policy reflects new approach. R. A. Tudor. Civil Eng 23:826-8 D '53

McKay; changing a power trend. Bsns W p63-4+ S 12 '53

Property control in the Interior department. D. D. Carruth. N A C A Bul 34:1030-40 Ap '53

Internal revenue, Bureau of

New Internal Revenue service rules for taxpayers' rulings. D. C. Alexander. J Account 97:321-8 Mr '54

Tax help, not haggling, is Bureau's new goal. Bsns W p 188+ N 28 '53

Tax refunds over $200,000 require special handling. H. T. Reiling. J Account 95: 567-71 My '53

International drug standards, Committee on

US group will review WHO's drug standards. Oil Paint & Drug Rep 165:7 Ap 19 '54

Joint chiefs of staff

Concept for catastrophe. A. O. Sulzberger. U S Naval Inst Proc 79:398-407 Ap '53

Justice, Department of

Sedate zeal in police jobs; examples of the more calm, deliberate approach of the Justice department. Chem W 73:11-12 D 26 '53

Labor, Department of

Budget cut at Labor dept. Bsns W p 111 Ag 22 '53

New lineup in Labor department. Bsns W p 172-3 S 12 '53

Washington aids to industry; how the Department of labor can help industry. J. P. Mitchell. Mill & Factory 54:12-16 My '54

Why Durkin quit the Cabinet. Bsns W p 174 S 19 '53

Merchant marine

See Merchant marine—United States

Military air transport service

MATS and the gas-turbine transport field. J. Smith. il Aeronautical Eng R 12:40-2 Ag '53

MATS reports civil Korean airlift loads. Aviation W 59:88 Jl 13 '53

Military sea transportation service

Military sea transportation service. W. M. Callaghan. Am Pet Inst Proc 32(5):13-16 '52

Mines, Bureau of

Annual report, fiscal year ending June 30, 1953. Heat & Ven 51:140 My '54; Same cond. Oil Paint & Drug Rep 165:4+ Mr 22 '54

Bureau of mines disposals to come slowly. Chem & Eng N 32:3264 Ag 16 '54

Helium business sale not backed by McKay. R. A. Tudor. Oil Paint & Drug Rep 166: 3+ Ag 9 '54

Mines bureau output discontinuance urged. Oil Paint & Drug Rep 166:3+ Ag 2 '54

Research bows to economy; Bureau of mines carries on work to aid recovery and utilization of oil. B. F. Linz. Oil & Gas J 52: 80-1 O 19 '53

U.S. quits synthetics. Oil & Gas J 52:58 Ja 18 '54

National bureau of standards

See United States—Standards, National bureau of

National labor relations board

See National labor relations board

Naval research, Office of

After six years, a study of the impact of the Physics branch program. L. M. McKenzie. bibliog Science 118:227-32 Ag 28 '53

Naval reserve

Salute to the N.R.O.T.C. il U S Naval Inst Proc 79:542-57, 660-75 My-Je '53

Naval war college

Naval war college today. F. Virden. il U S Naval Inst Proc 79:364-71 Ap '53

Navy

How Jane's rates the navies; U.S. still leads overwhelmingly. Bsns W p30 N 7 '53

Sell America. D. V. James. il U S Naval Inst Proc 79:522-7 My '53

See also

Airplane carriers

Oil reserves (United States navy)

United States—Air service, Navy

United States—Military sea transportation service

Education

See also

United States naval war college

Electronics laboratory

Self-service for scientists; Naval electronics laboratory. il Bsns W p66 Ag 22 '53

Equipment and supplies

Better handling saves navy manpower; U.S. naval supply depots. il Factory Management 112:96-9 S '54

NPVLA endorses legislation to remove government competition. Oil Paint & Drug Rep 166:3+ Jl 19 '54

Paint policy of navy attacked again. Oil Paint & Drug Rep 165:3+ My 24 '54

USN paint makers bow out. il Chem W 72: 70 Ap 18 '53

History

Scapegoat of the Chesapeake-Shannon battle. A. Larsen. il U S Naval Inst Proc 79:528-31 My '53

Laboratories

See also

United States—Navy—Electronics laboratory

Navy department

Yards and docks, Bureau of

Bureau of yards and docks is slated to handle Spanish bases construction. Eng N 151:22 O 1 '53

Patent office

Eyeing a machine cure. Chem W 75:50+ S 11 '54

One instead of two; revised rules of practice proposed by U.S. patent office. Chem W 75:32 S 18 '54

Patent budget looks up. Chem & Eng N 32:2488 Je 21 '54

Patent office enters 163d year. R. G. Gibbs. Chem & Eng N 31:3720 S 14 '53

Patent office fee increase scheduled. Chem & Eng N 31:5074-6 D 7 '53

Protection ups its price. Chem W 75:58 Jl 3 '54

Politics and government

Achievements of administration; text of radio address. D. D. Eisenhower. Comm & Fin Chr 178:542-3 Ag 13 '53

Bark and bite; Administration is better than its new program. Barron's 33:1 D 21 '53

Coalition government; President's strategy is now on trial. F. Morley. Barron's 34:9 Ja 25 '54

Governing less, on purpose. Bsns W p25-7 Ag 8 '53

UNITED STATES—Politics and government —*Continued*

New staffs shape Eisenhower's thinking. Bsns W p33-4 Ag 15 '53

1933 in Washington. H. M. Bratter. il Bankers Mo 70:30-2+ S '53

Plausible Mr White; great popular fallacies helped him rise to power. Barron's 33:5+ N 30 '53

President's late start. Economist 170:213-14 Ja 23 '54

See also

Political parties—United States

Republican party

Public health service

Clinical center. il Pub Health Rep 68:897-903 S '53

Growth of medical research 1941-1953 and the role of Public health service research grants. K. M. Endicott and E. M. Allen. Science 118:337-43 S 25 '53

Public health service dedicates Sanitary engineering research center. il Pub Works 85:139 Ap '54

Public health service emergency assistance in disaster relief. G. E. McCallum and H. F. Ludwig. Pub Health Rep 68:630-2 Je '53

Symbol of our national concern for the health of our people; dedication of the Public health service Clinical center, July 2. O. C. Hobby. Pub Health Rep 68:904-6 S '53

We must press the search for new knowledge, use what we know more effectively; extracts from remarks at the dedication of the Clinical center. L. A. Scheele. Pub Health Rep 68:907 S '53

Division of occupational health

Public health service. il Ind Med 22:498-501 O '53

Reclamation, Bureau of

Bureau of reclamation reshuffling seen following quick survey team probe. Eng N 151:25 Ag 20 '53

Concrete in Reclamation construction. W. A. Dexheimer. Am Concrete Inst J 25:637-42 Ap '54

Federal agencies streamlined. Elec World News ed 140:15 S 14 '53

New broom; Spencer assigned to reshape Reclamation's region 2. Eng N 151:74+ Jl 16 '53

Reclamation bureau to shift operational control to field. Eng N 151:21-2 N 5 '53

Reclamation faces overhaul. Elec World 140: 105 Ag 24 '53

Reclamation to decentralize. Elec World News ed 140:21 N 9 '53

See easing of Reclamation design policy. Eng N 151:22 Ag 27 '53

Small business administration

Aids for small business issued by the S.B.A. Automotive Ind 110:148+ My 15 '54

Better to serve small business. W. B. Barnes. il Dun's R & Mod Ind 63:25-6 Ja '54

Break for midgets. Chem W 74:21-2 Mr 6 '54

Economy-prosperity juggle; Small business administration semi-annual report. Chem & Eng N 32:932 Mr 8 '54

Jobbers eligible for loans now. Nat Pet N 45:16-17 D 16 '53

Keeping small business strong. W. D. Mitchell. il Dun's R & Mod Ind 62:1+ D '53

Small business. J. Donoghue. Burroughs Clearing House 37:47-8 S '53

SBA and the banks. W. B. Barnes. Banking 46:57+ Ja '54

SBA's loan policy taking shape. Nat Pet N 45:17 S 30 '53

Small business can expect a better break on loans from Small business administration. Bsns W p31 N 7 '53

Small business loan formula issued; Loan policy board, Small business administration. J. Donoghue. Burroughs Clearing House 38: 45-6 O '53

Small firms; new agency will help. W. H. Hillyer. Iron Age 172:66 O 22 '53

Washington aids to industry; Small business administration. Mill & Factory 54:11 My '54

When lack of funds stop your prospects from buying. J. Shoenfeld. Sales Management 72:100-2 Je 1 '54

Social conditions

Leisured masses. Bsns W p 142-3+ S 12; 144-6+ S 19 '53

Standards, National bureau of

Allen V. Astin to continue as Bureau of Standards director. Chem & Eng N 31: 3554+ Ag 31 '53

Basic instrumentation at the National bureau of standards. il diags Science 118:457-61 O 23 '53

Battery battle; AD-X2 vs. NBS. il Chem W 72:20-2 Ap 25 '53

Battery hearings set tests against testimonials. il Chem & Eng N 31:2784-5 Jl 6 '53

Bureau of standards forced to cut back calibration work. Chem & Eng N 31:3280+ Ag 10 '53

Bureau of standards vindicated in AD-X2 dispute. Electrochem Soc J 101:sup25C-6C Ja '54

Changes at NBS. Product Eng 24:198-9 S '53

Commerce department committee reports on NBS activities. Rubber Age 74:418 D '53

Consumer protection big issue in Bureau of standard's uproar. Ptr Ink 243:19 Ap 10 '53

Jeffries committee flunks AD-X2; reaffirms findings of NBS test results. il Chem & Eng N 31:4892-3 N 23 '53

Kelly committee reports. Steel 133:77 O 26 '53

NBS passes scrutiny of Kelly committee. Chem & Eng N 31:4408 O 26 '53

National bureau of standards program on basic instrumentation is urgent. R. H. Müller. Anal Chem 25:sup23A-4A+ N '53

Praise, not reproof. Chem W 73:13-14 O 31 '53

Senate committee ends hearings, asks Postmaster to kill fraud order; National bureau of standards vs. Pioneers, inc. Chem & Eng N 31:2876+ Jl 13 '53

Standards bureau new organization. Oil Paint & Drug Rep 165:5 Ja 18 '54

Why the fight over AD-X2? J. Shoenfeld and J. H. Caldwell. il Sales Management 70: 30-3 My 1 '53

Statistics

Big figures; they are no substitute for sensible policies. Barron's 33:1 D 28 '53

Business statistics; statistical supplement, 1953. Survey of Cur Bsns 1953 Sup p 1-320 (pa $1.50)

Financial, industrial, and commercial statistics. Published in monthly numbers of Federal reserve bulletin

Pulse-takers; Dr Burns may put statistics in their proper place. Barron's 33:3 S 14 '53

See also

Census—United States

Supreme court

Big jobs for the big court. Bsns W p30 S 26 '53

Road signs for industry; U.S. Supreme court made 1953-54 session important for businessmen. Chem W 74:40 Je 19 '54

Technical services, Office of

Government reports can save you money; abstract. J. Robins. Management R 42: 635-6 N '53

Treasury department

Management of the public debt. A. G. Lanston. Comm & Fin Chr 178:1834+ N 12 '53

New Treasury policies. E. P. Tuttle. Comm & Fin Chr 178:1842-3 N 12 '53

Spring money pinch debated. Nat City Bank p 100-4 S '53

U.S. Treasury and the banks. E. F. Bartelt. il Banking 46:42-4+ N '53

See also

Treasury certificates of indebtedness

Treaties

Executive treaty-making power and the UN's inadequate charter. J. F. Dulles. Comm & Fin Chr 178:824-5 S 3 '53

UNITED STATES—Treaties—*Continued*

Uranium; hidden in U.S.-Spain treaty; one part of agreement gives U.S. access to Spain's minerals, metals, uranium ore included. Iron Age 172:112-13 N 12 '53

Weather bureau

Outside for weather; recommendations by advisory committee on weather services. Chem W 73:28 D 26 '53

Survey report urges U.S. Weather bureau drop tailored forecast for industry. Eng N 151:24 D 17 '53

UNITED STATES airlines, inc.

Bankrupt cargo line asks for stock sale. Aviation W 59:65 N 30 '53

Stock offered. Comm & Fin Chr 178:764 Ag 31 '53

UNITED STATES aviation underwriters, inc.

Anniversary dinner, 25th, New York, June 30. East Underw 54:21+ Jl 3 '53

UNITED STATES fire protection engineering service, inc.

Newly established fire protection engineering service. Weekly Underw 169:600 S 12 '53

UNITED STATES independent telephone association

USITA launches advertising campaign. Pub Util 53:491 Ap 15 '54

UNITED STATES naval academy, Annapolis

Sailing at the naval academy. il U S Naval Inst Proc 79:428-38 Ap '53

UNITED STATES naval postgraduate school

Programming the U.S. naval postgraduate school of engineering. W. A. Netsch, jr. il plan diags Arch Rec 115:150-7 Je '54

UNITED STATES naval war college

Birth of the United States naval war college. J. R. Thomas. il U S Naval Inst Proc 79:272-9 Mr '53

UNITED STATES pharmacopeia

United States pharmacopeia. L. C. Miller. Pub Health Rep 68:510-13 My '53

UNITED STATES potters association

Annual meeting, 75th, New York, Dec. 8. Cer Ind 62:166-7+ Ja '54

UNITED STATES rubber company

Five attractive stocks with wide dividend coverage; with comparative balance sheet items. Mag of Wall St 93:675 Mr 6 '54

Product partnerships; new U.S. Rubber program. Bsns W p46 S 19 '53

U.S. Rubber 1953 net profit sets a new record for firm. Rubber Age 74:956 Mr '54

Naugatuck chemical division

Naugatuck expanding resins for 50th anniversary. Chem & Eng N 32:2192 My 31 '54

UNITED STATES savings and loan league

Annual meeting, 61st, Chicago. Burroughs Clearing House 38:15-18 Ja '54

Annual meeting, 61st, Chicago. House & Home 4:41 N '53

Annual meeting, 61st, Chicago. House & Home 5:48-9 Ja '54

National savings & loan league gives rival US League seven-point merger offer with strings on it. House & Home 6:39+ Jl '54

UNITED STATES steel corporation

Burying the hatchet in steel. Bsns W p 160 D 5 '53

Dissecting five key companies. G. L. Merton. Mag of Wall St 93:252+ N 28 '53

Investment audit. S. Devlin. Mag of Wall St 93:26-8+ O 3 '53

Morrisville mix; Big Steel still waits for its tide to come in. J. C. Perham. Barron's 33:3 O 26 '53

Quarterly earnings. Comm & Fin Chr 178:391 Ag 3 '53

Security I like best. J. Coe. Comm & Fin Chr 178:1830 N 12 '53

United States Steel in the West. J. L. Young; W. F. Pruden. il map Iron & Steel Eng 31:55-64 Ap '54

Wage chronology; supplement number four. Mo Labor R 76:151-2 F '53

What's behind their company tour? Bsns W p 176-7 N 14 '53

UNITED STATES trade mark association

Annual meeting, New York, June 23. Oil Paint & Drug Rep 165:4+ Je 28 '54

Annual meeting, 76th, New York. Chem W 75:30-1 Jl 3 '54

UNITED steel companies

Steel and the public; denationalization and first major share issue. Economist 169:345-7 O 31 '53

Steel in the markets; United Steel shares. Economist 169:605-6 N 21 '53

United Steel success. Economist 169:509 N 14 '53

United Steel terms; resale to public of United Steel shares. Economist 169:266 O 24 '53

What next in steel? Economist 169:907-8 D 19 '53

UNITED steelworkers of America

Arbitration of labor-management grievances; Bethlehem steel company and United steelworkers of America, 1942-52. K. R. Petshek and others. U S Bur Labor Statistics Bul 1159:1-42; pa 35c Supt. of doc. '54

Burying the hatchet in steel. Bsns W p 160 D 5 '53

Case for the guaranteed annual wage. D. J. McDonald. Steel 134:60-2 Ap 5 '54

Employees' stake in stability of steel business. B. F. Fairless. Comm & Fin Chr 178:2158 D 3 '53

Situation normal in steel labor. Steel 134:59 Je 28 '54

Steel; contract will up price $3-$4. J. B. Delaney. Iron Age 173:69 Jl 1 '54

Steel; expect package deal, price hike. J. B. Delaney. Iron Age 173:97-8 Je 17 '54

Steel; press for right to manage. J. B. Delaney. Iron Age 173:80 Je 10 '54

Steel; settlement boils price kettle. J. B. Delaney. Iron Age 173:48 Je 24 '54

Steel spiral takes another twist. il Steel 135:29 Jl 5 '54

Steel talks set pattern in labor. il Steel 134:71-2 My 10 '54

Steel union asks a lot. Steel 134:49 My 31 '54

Steel; union frowning on wildcats. J. B. Delaney. Iron Age 172:55-6 O 15 '53

Three mine-mill locals bolt back to CIO fold. M. A. Matzkin. Min Eng 6:139 F '54

Union sounds off on future demands. W. V. Packard. Iron Age 172:46-7 O 29 '53

Union survey draws mixed response. Steel 133:57 N 30 '53

Unionizing the Great Lakes. il Bsns W p 179-80 N 21 '53

USW seeks higher pensions; cost to company. J. B. Delaney. Iron Age 173:97 My 20 '54

USW sets down demand policy. J. B. Delaney. il Iron Age 173:77 My 13 '54

USW studies aluminum wages. J. B. Delaney. Iron Age 174:77 S 9 '54

USW; tie annual wage to jobless pay? J. B. Delaney. Iron Age 173:75 F 18 '54

USW to meet tough opposition. J. B. Delaney. Iron Age 173:77-8 My 6 '54

USW wage demands shoot for moon. J. B. Delaney. Iron Age 173:73-4 My 27 '54

What's behind their company tour? Bsns W p 176-7 N 14 '53

UNITERN coordinate indexing. See Indexing

UNITS

Fundamental units and standards. F. B. Silsbee. il Instruments 26:1520-2+ O '53

UNIVERSAL pictures company, inc.

End of excess profits tax to aid Universal Pictures. Barron's 33:23-4 D 7 '53

UNIVERSE

Is the universe planned? W. F. G. Swann. Franklin Inst J 255:367-86 Ag '53

Larger and older universe. G. W. Gray. il diags Sci Am 188:56-66 Je '53

Physical conditions in the initial stages of the expanding universe. R. A. Alpher and others. bibliog Phys R 92:1347-61 D 15 '53

Primeval cosmic abundance of deuterium. G. Boato. bibliog Phys R 93:640-1 F 1 '54

UNIVERSITIES. See Colleges and universities

UNIVERSITY extension

Role of the instructional staff in extension development. M. D. Adams. J Eng Educ 43:479-82 Ap '53

UNIVERSITY teachers of insurance, American association of. See American association of university teachers of insurance

UNSATISFIED judgment funds. See Insurance, Automobile—Unsatisfied judgment funds

UNSATURATED compounds

Action of metals on unsaturated 1,4-dihalides and derivatives; synthesis and some properties of butatriene. W. M. Schubert, T. H. Liddicoet and W. A. Lanka. bibliog Am Chem Soc J 76:1929-32 Ap 5 '54

Addition of free radicals to unsaturated systems; the direction of addition to 1 : 1-difluoroprop-1-ene, 3 : 3 : 3-trifluoro-2-trifluoromethylprop-1-ene, and 3-chloro-3 : 3-difluoro-2-trifluoromethylprop-1-ene. R. N. Haszeldine. Chem Soc J p3565-72 N '53

Addition of free radicals to unsaturated systems; the direction of radical addition to hexafluoropropene. R. N. Haszeldine. Chem Soc J p3559-64 N '53

Reactions of organic derivatives of elements capable of valency-shell expansion; a comparison of the near-ultra-violet absorptions of unsaturated derivatives of nitrogen, phosphorus, and sulphur with those of their saturated analogues. D. C. Nicholson and others. Chem Soc J p4019-25 D '53

Reactions of organic derivatives of elements capable of valency-shell expansion; unsaturated quaternary phosphonium salts. E. Rothstein, R. W. Saville and P. E. Horn. Chem Soc J p3994-4004 D '53

UPPER atmosphere. See Atmosphere, Upper

UPPER peninsula generating company

Private financing arranged. Comm & Fin Chr 179:49 Ja 4 '54

UPSON, William Hazlett

Alexander Botts, why I made him a salesman; as told to Philip Salisbury. W. H. Upson. por Sales Management 70:24-6 Ap 1 '53

URACIL

Reactions of 1,3-dimethyl-5,6-diaminouracil. F. F. Blicke and H. C. Godt, jr. bibliog Am Chem Soc J 76:2798-800 My 20 '54

URANINITE

Differential leaching of uranium, radium, and lead from pitchblende in H_2SO_4 solutions. G. Phair and H. Levine. bibliog Econ Geol 48:358-69 Ag '53

Neutron and spontaneous fission in uranium ores. W. H. Fleming and H. G. Thode. bibliog Phys R 92:378-82 O 15 '53

URANIUM

AEC extends uranium prices. Eng & Min J 154:128-9 N '53

Bold tax changes urged to spur uranium production. Steel 134:63 Mr 1 '54

Botanical methods of prospecting for uranium. H. L. Cannon. il map Min Eng 6: Trans 217-20 F '54

Boulder batholith, potential Montana uranium province. E. E. Thurlow and L. D. Jarrard. il map Min Eng 6:697-8 Jl '54

By-product uranium program; economic production from low grade domestic phosphate rock. J. A. Barr, jr. il Min Cong J 40:39-40 My '54

Chemical engineering aspects of nuclear power. M. Benedict. bibliog flow sheets il Ind & Eng Chem 45:2372-80 N '53

Concentration of uranium and lead and the isotopic composition of lead in meteoritic material. C. Patterson and others. bibliog Phys R 92:1234-5 D 1 '53

Controlling uranium dust. H. I. Miller, jr. diags Heating-Piping 26:109-13 S '54; Abstract. Chem & Eng N 32:1932+ My 10 '54

Crystallographic angles for orthorhombic (alpha) uranium. R. B. Russell. J Metals 5:Trans 1190 sec 2 S '53

Differential leaching of uranium, radium, and lead from pitchblende in H_2SO_4 solutions. G. Phair and H. Levine. bibliog Econ Geol 48:358-69 Ag '53

Evidence for pentavalent uranium as an intermediate in the reaction in water between photoactivated uranyl ions and sucrose and closely related substances, and quantum yields for these reactions. L. J. Heidt and K. A. Moon. bibliog Am Chem Soc J 75:5803-9 D 5 '53

Fossil logs attract uranium hunters. il Eng & Min J 155:122 Je '54

France uses solar heat to fuse uranium ores. Chem & Eng N 31:4118 O 5 '53

Future for our uranium; Canada's programme. W. J. Bennett. Can Chem Process 37:48+ D '53

Gold, uranium, and sulfuric acid in South Africa; Daggafontein mines, ltd. flow sheet il Chem & Eng N 32:1364-5 Ap 5 '54

International Minerals and Chemical's phosphates and uranium. il Chem & Eng N 32: 1556-7 Ap 19 '54

Many major mining firms join uranium rush. Eng & Min J 155:127 Ag '54

Metallurgical trends of interest to chemical engineers. L. Rotherham. Chem & Ind p 1165-6 S 18 '54

Metallurgy at Los Alamos, 1943-1945. C. S. Smith. il Metal Prog 65:81-9 My '54

More uranium from Florida. il diag Chem Eng 61:118+ Je '54

Neutron total cross section for bismuth and uranium between 45 and 160 Mev. W. I. Linlor and B. Ragent. Phys R 92:835-6 N 1 '53

New metals for nuclear technology. W. A. Johnson. il Chem & Eng N 32:1882-7 My 10 '54

Nuclear-energy study course. H. C. Schwenk and R. H. Shannon. il diags Power 98:88-92+ Jl '54

Nuclear engineering materials, fuels; uranium and fabrication. J. Van Impe. bibliog flow sheet il Chem Eng Prog 50:230-4 My '54

Phosphatic fertilizer plants asked to by-product uranium. Chem & Eng N 31:4540 N 2 '53

Preferred orientation of cold-rolled uranium foil. W. Seymour. bibliog diags J Metals 6:Trans 999-1003 sec 2 S '54

Quadrivalent uranium as a reducing titrant. R. Belcher, D. Gibbons and T. S. West. bibliog Anal Chem 26:1025-7 Je '54

Thermal conductivity, electrical resistivity, and thermoelectric power of uranium. W. W. Tyler and others. bibliog il J Metals 5:Trans 1238-9 sec 2 S '53

Transmission of Co^{60} gamma-rays through thick uranium. L. H. Lanzl and others. R Sci Instr 24:394 My '53

Uranium and thorium; properties, etc.; tabulation; engineering file facts. Materials & Methods 39:229 My '54

Uranium, 1953. D. L. Everhart. maps Eng & Min J 155:84-6 F '54

Uranium, 1953. T. E. Gillingham. il Min Cong J 40:116-18 F '54

Uranium outlook. M. A. Reichek. Eng & Min J 155:102+ Je '54

U_3O_8, formula for profits. il maps diags Eng & Min J 155:88-118 S '54

Uranium tons→grams of plutonium; Windscale works. il diag Chem & Eng N 32: 2288+ Je 7 '54

Who's who in uranium; activity is significant to chemical companies. il Chem W 75:24 S 4 '54

See also

Uraninite

Analysis

Analytical chemistry of uranium. C. J. Rodden. bibliog(79 ref) Anal Chem 25: 1598-601 N '53

Colorimetric determination of uranium with dibenzoylmethane. J. H. Yoe, F. Will, 3d and R. A. Black. bibliog Anal Chem 25: 1200-4 Ag '53

Determination of adsorbed moisture on uranium and uranium oxide. J. O. Hibbits and D. Zucker. il Anal Chem 26:1093-5 Je '54

Determination of uranium by reduction with stannous chloride. A. R. Main. bibliog Anal Chem 26:1507-9 S '54

Elution chromatography with thick filter paper. W. J. Frierson, P. F. Thomason and H. P. Raaen. bibliog diags Anal Chem 26: 1210-11 Jl '54

Extraction of uranyl ion from some aqueous salt solutions with 2-thenoyltrifluoroacetone. R. A. Day, jr. and R. M. Powers. bibliog Am Chem Soc J 76:3895-7 Ag 5 '54

Sensitive photometer using modulated light and its application in a uranium fluorimeter. C. D. Florida and C. N. Davey. diags J Sci Instr 30:409-12 N '53

Small amounts of uranium in the presence of iron. L. Silverman, L. Moudy and D. W. Hawley. bibliog Anal Chem 25:1369-73 S '53

URANIUM—Analysis—*Continued*

Spectrophotometric titration of uranium and iron. C. E. Bricker and P. B. Sweetser. bibliog Anal Chem 25:764-7 My '53

Volumetric determination of uranium-(VI) in phosphate solutions. J. M. Schreyer and C. F. Baes, jr. Anal Chem 25:644-5 Ap '53

Bibliography

Bibliography and index of literature on uranium and thorium and radioactive occurrences in the United States; California, Idaho, Montana, Oregon, Washington, and Wyoming. M. Cooper. Geol Soc Bul 64:1103-71 O '53

Isotopes

Half-life of U^{232}. P. A. Sellers and others. Phys R 94:952 My 15 '54

Mo *K* and U *L* X-ray transitions from separated isotopes. G. L. Rogosa and G. Schwarz. bibliog diag Phys R 92:1434-7 D 15 '53

Neutron absorption cross section of U^{235} at 2200 m/sec. H. Palevsky and others. Phys R 94:1088-9 My 15 '54

Metallography

Locations and sizes of interstitial holes in the alpha-uranium lattice. A. J. Opinsky. il J Metals 6:Trans913-14 Ag '54

Nuclear reactions

Distribution of prompt-neutron emission probability for the fission fragments of U^{233}. J. S. Fraser and J. C. D. Milton. bibliog diag Phys R 93:818-24 F 15 '54

Energy distributions of fragments from fission of U^{235}, U^{238}, and Pu^{239} by fast neutrons. J. S. Wahl. bibliog Phys R 95:126-32 Jl 1 '54

Fine structure in U^{238} fission. E. P. Steinberg and others. Phys R 95:867-8 Ag 1 '54

Influence function for the beta activity of uranium-235 fission products. J. K. Thornton and W. J. Houghton. bibliog J Ap Phys 24:1374-8 N '53

Neutron and spontaneous fission in uranium ores. W. H. Fleming and H. G. Thode. bibliog Phys R 92:378-82 O 15 '53

Ranges of fragments from high-energy fission of uranium. E. M. Douthett and D. H. Templeton. bibliog diags Phys R 94:128-37 Ap 1 '54

Reactions of U^{238} with cyclotron-produced nitrogen ions. A. Ghiorso and others. Phys R 93:257 Ja 1 '54

Spontaneous fission yields from uranium and thorium. G. W. Wetherill. bibliog diag Phys R 92:907-12 N 15 '53

Total neutron cross section for uranium from 20 kev to 20 Mev. R. L. Henkel and others. bibliog Phys R 94:141-3 Ap 1 '54

Uranium-235 thermal neutron fission yields. G. W. Reed and A. Turkevich. bibliog diags Phys R 92:1473-81 D 15 '53

Yields of fission products from U^{238} irradiated with fission spectrum neutrons. R. N. Keller and others. Phys R 94:969-73 My 15 '54

URANIUM alloys

Titanium-uranium system in the region 0 to 30 atomic percent of titanium. R. W. Buzzard and others. il J Res Nat Bur Stand 50:209-14 Ap '53

Uranium-titanium alloy system. M. C. Udy and F. W. Boulger. il J Metals 6:Trans 207-10 sec 2 F '54

URANIUM compounds

Influence of uranyl and thorium salts on the miscibility of phenol and water. S. T. Bowden and J. H. Purnell. Chem Soc J p535-8 F '54

Investigations on the co-ordinative power of uranyl; the preparation and properties of uranyl complexes of certain β-diketones. L. Sacconi and G. Giannoni. Chem Soc J p2368-72 Jl '54

URANIUM fluoride

Thermodynamic properties of thorium tetrafluoride from 5 to 300° K. and the magnetic entropy of uranium tetrafluoride. H. R. Lohr, D. W. Osborne and E. F. Westrum, jr. bibliog Am Chem Soc J 76:3837-9 Jl 20 '54

Spectrum

Absorption spectra of uranium(IV) fluorides. D. M. Gruen and M. Fred. bibliog Am Chem Soc J 76:3850-3 Jl 20 '54

URANIUM hexafluoride

Liquid-vapor equilibrium in the system uranium hexafluoride-hydrogen fluoride. R. L. Jarry and others. bibliog diag J Phys Chem 57:905-9 D '53

URANIUM hydride

New form of uranium hydride. R. N. R. Mulford, F. H. Ellinger and W. H. Zachariasen. Am Chem Soc J 76:297-8 Ja 5 '54

URANIUM mines and mining

Axioms of uranium mining. Eng & Min J 155: 90 S '54

Background of domestic uranium production; abstract. B. Burwell. Min Cong J 39: 98-9 N '53

Broke and hungry prospector hits uranium jackpot. il Bsns W p28-30 Ag 1 '53

Emanation of radon in uranium mines and control by ventilation. E. C. Tsivoglou and H. E. Ayer. A M A Archives Ind Hygiene & Occup Med 8:125-32 Ag '53

How the government helps the uranium producers. Eng & Min J 155:114 S '54

Mechanics of uranium production; abstract. S. P. Wimpfen. Min Cong J 39:99-100 N '53

Opportunities in uranium mining. T. E. Gillingham. il map diag Min Cong J 39:38-41 D '53

Plateau claim stakers must heed both custom and written law. il map Eng & Min J 155: 112-13 S '54

Private industry steps up plateau drilling. il Eng & Min J 155:98-9 S '54

Uranium; hints for the prospector and miner. P. W. Simmons. il Min Eng 6:377-80 Ap '54

Uranium mining demands skill. il Eng & Min J 155:100-2 S '54

Uranium prospecting and production increasing. Chem & Eng N 32:2761-2 Jl 12 '54

Australia

Atom-minded Australia; uranium resources. Economist 169:251-2 O 24 '53

Canada

Clicking Geigers; Canadian prospectors are finding a lot of uranium. W. Wells. Barron's 33:15 D 7 '53

Colorado

Uranium restores colorful West; abstract. P. W. Simmons. Chem & Eng N 32:817 Mr 1 '54

New Mexico

New Mexico uranium; Anaconda copper mining co. J. B. Huttl. flow sheets il Eng & Min J 155:96-9 Ag '54

South Africa

Another uranium boomlet. Economist 170: 263-4 Ja 23 '54

South African uranium production programme. Can Min J 75:77-8 Je '54

Utah

Big boom at Big Indian. B. Meyers. il Eng & Min J 155:96-9 Ap '54

URANIUM ores

Canadians trying flotation to concentrate uranium ore. Chem Eng 60:143-4 Ag '53

For more profit, keep the grade up. Eng & Min J 155:110-11 S '54

How geophysics helps find uranium. R. S. Foote. Eng & Min J 155:96-7+ S '54

How to extract uranium from ores. W. L. Lennemann. Eng & Min J 155:104-9 S '54

How to get into milling. il Eng & Min J 155: 103 S '54

Methods of processing uranium ores. S. J. Swainson. il Min Cong J 40:48-50 Ja '54

New Mexico uranium; Anaconda copper mining co. J. B. Huttl. flow sheets il Eng & Min J 155:96-9 Ag '54

Origin of uranium deposits. D. L. Everhart. bibliog Min Eng 6:Trans 904-7 S '54

URANIUM ores—*Continued*

Where to look for uranium. R. J. Wright. maps diags Eng & Min J 155:91-5 S '54

See also

Umohoite

Uraninite

URANIUM oxides

Absorption spectra and electrical conductivities of UO_2-ThO_2 solid solutions. D. M. Gruen. bibliog Am Chem Soc J 76:2117-20 Ap 20 '54

Heat capacity of thorium dioxide from 10 to 305°K; the heat capacity anomalies in uranium dioxide and neptunium dioxide. D. W. Osborne and E. F. Westrum, jr. bibliog diag J Chem Phys 21:1884-7 O '53

Uranium oxide phase equilibrium systems. W. A. Lambertson and M. H. Mueller. bibliog Am Cer Soc J 36:329-34, 365-8, 397-9 O 1-D 1 '53

Analysis

Determination of adsorbed moisture on uranium and uranium oxide. J. O. Hibbits and D. Zucker. il Anal Chem 26:1093-5 Je '54

URANIUM phosphates

Solubility of uranium(VI) orthophosphates in phosphoric acid solutions. J. M. Schreyer and C. F. Baes, jr. bibliog Am Chem Soc J 76:354-7 Ja 20 '54

URANYL compounds

Analysis

Use of a cation exchange resin for total anion analysis of aqueous solutions containing uranyl ion. H. O. Day, jr. and others. Anal Chem 26:611-12 Mr '54

Spectra

Spectrophotometric studies of the uranyl-lactate, -malate and -tartrate systems in acid solution. I. Feldman and J. R. Havill. Am Chem Soc J 76:2114-17 Ap 20 '54

URANYL fluoride

Determination of activity coefficients by ultracentrifugation; ultracentrifugation of uranyl fluoride solutions. J. S. Johnson, K. A. Kraus and T. F. Young. bibliog Am Chem Soc J 76:1436-43 Mr 5 '54

Electrical conductivity of uranyl fluoride in aqueous solution. R. D. Brown and others. Am Chem Soc J 76:1580-1 Mr 20 '54

URANYL nitrate

Pulse column variables; solvent extraction of uranyl nitrate with tributyl phosphate. G. Sege and F. W. Woodfield. il diag Chem Eng Prog 50:396-402 Ag '54

URANYL sulfate

Electrical conductivity of uranyl sulfate in aqueous solution. R. D. Brown and others. bibliog Am Chem Soc J 76:1532-5 Mr 20 '54

UREA

Action on wool fibers of strong solutions of urea containing reducing agents. E. H. Mercer. bibliog il Textile Res J 24:835-41 S '54

Ammonia and urea from air and methane. flow diag Pet Refiner 32:178-9+ S '53

Ammonia, methanol, hydrogen cyanide and urea from air and methane. L. F. Hatch. diags Pet Refiner 32:170-1+ S '53

Cheaper urea. Chem W 72:70+ Ap 18 '53

Kinetics of protein denaturation; the behavior of the optical rotation of ovalbumin in urea solutions. R. B. Simpson and W. Kauzmann. bibliog Am Chem Soc J 75:5139-52 N 5 '53

Kinetics of protein denaturation; the optical rotations of serum albumin, β-lactoglobulin and pepsin in urea solutions. W. Kauzmann and R. B. Simpson. bibliog Am Chem Soc J 75:5154-7 N 5 '53

Kinetics of protein denaturation; the viscosity and gelation of urea solutions of ovalbumin. H. K. Frensdorff; M. T. Watson and W. Kauzmann. bibliog diags Am Chem Soc J 75:5157-66 N 5 '53

Kinetics of protein denaturation; the viscosity of urea solutions of serum albumin. H. K. Frensdorff, M. T. Watson and W. Kauzmann. bibliog diags Am Chem Soc J 75:5167-72 N 5 '53

Partially recycled; M. W. Kellogg urea process, from Montecatini. Chem W 74:69 F 6 '54

Phenol-, urea-, and melamine-formaldehyde plastics. P. O. Powers. bibliog(52 ref) Ind & Eng Chem 45:1063-6 My '53

Preparation of hydrazine from urea and *t*-butyl hypochlorite. E. Colton, M. M. Jones and L. F. Audrieth. bibliog Am Chem Soc J 76:2572-4 My 5 '54

Reactions of long-chain amines; reactions with urea. J. G. Erickson. bibliog Am Chem Soc J 76:3977-8 Ag 5 '54

Sulfhydryl-dependent aggregation accompanying the denaturation of bovine plasma albumin by urea. V. D. Hospelhorn, B. Cross and E. V. Jensen. bibliog Am Chem Soc J 76:2827-9 My 20 '54

Swelling powers of urea solutions on cellulose. J. M. Preston and others. bibliog Textile Inst J Trans 45:T504-9 Jl '54

Thermal dissociation of organic compounds; the effect of the solvent (fatty acids) on the thermal dissociation of urea. T. Mukaiyama and T. Matsunaga. bibliog Am Chem Soc J 75:6209-12 D 20 '53

Unsymmetrically substituted piperazines; piperazine ureas. R. Baltzly, S. W. Blackman and W. S. Ide. bibliog Am Chem Soc J 76:1165-6 F 20 '54

Urea and related compounds; alternative syntheses of sulphenylureas. F. Kurzer. Chem Soc J p3360-6 N '53

See also

Methylurea

Analysis

Determination of mole ratio of urea to formaldehyde. P. P. Grad and R. J. Dunn. bibliog diag Anal Chem 25:1211-14 Ag '53

Modification of the determination of urea by the diacetyl monoxime method. H. S. Friedman. bibliog Anal Chem 25:662-4 Ap '53

Spectrophotometric method for determination of urea. G. W. Watt and J. D. Chrisp. Anal Chem 26:452-3 Mr '54

Manufacture

Ammonia and urea; Foster Wheeler corp. diag Pet Refiner 32:170-1 N '53

Urea; Chemical construction co. flow diag Pet Refiner 32:170-1 N '53

Urea; Chemico process compared with six previous commercial processes. L. H. Cook. bibliog flow sheets il Chem Eng Prog 50: 327-31; Discussion. 331 Jl '54

UREASE

Inhibition of urease by various metal ions. W. H. R. Shaw. bibliog Am Chem Soc J 76:2160-3 Ap 20 '54

URETHANS

Chemigum SL, an elastomeric polyesterurethane. N. V. Seeger and others. bibliog il Ind & Eng Chem 45:2538-42 N '53

Effect of alkali on linear polyurethans. E. Dyer and G. W. Bartels, jr. bibliog Am Chem Soc J 76:591-4 Ja 20 '54

Isocyanate probers step up the pace. Chem W 75:66+ Jl 17 '54

Nitramines and nitramides; nitrations of urethane, *N*-methylurethane, urea, and hexahydro-1 : 3-dinitro-1 : 3 : 5-triazine in sulphuric acid. C. Holstead, A. H. Lamberton and P. A. H. Wyatt. Chem Soc J p3341-9 N '53

Nitramines and nitramides; some *N*-nitrations in solvents other than sulphuric acid. C. Holstead and A. H. Lamberton. Chem Soc J p3349-52 N '53

Polyurethane race; foams away first. Chem W 75:82-4 S 4 '54

Pyrolysis of some complex urethanes. M. A. Fletcher, M. W. Lakin and S. G. P. Plant. Chem Soc J p3898-902 D '53

URIC acid

Analysis

Spectrophotometric determination of uric acid and some redeterminations of its solubility. D. R. Norton, M. A. Plunkett and F. A. Richards. bibliog Anal Chem 26:454-7 Mr '54

URICASE

Studies on the uricase activity of rats fed *p*-dimethylaminoazobenzene. K. Mori and K. Shimojo. bibliog Science 117:683-4 Je 19 '53

URIDINE

Uridine- and inosine-triphosphates as phosphate donors for phosphohexokinase. K. H. Ling and H. A. Lardy. bibliog Am Chem Soc J 76:2842-3 My 20 '54

URIDINE phosphates

Nucleotides; a synthesis of uridine-5′ triphosphate (UTP). G. W. Kenner and others. Chem Soc J p2288-93 Jl '54

Nucleotides; syntheses of P^1P^2-diadenosine-5′ and P^1P^2-diuridine-5′ pyrophosphates. S. M. H. Christie and others. Chem Soc J p2947-53 O '53

Uridine-5′-triphosphate. S. H. Lipton and others. bibliog Am Chem Soc J 75:5449-50 N 5 '53

URIDYLIC acid

Nucleotides; the methylation of uridylic acid *b*. D. M. Brown, D. I. Magrath and A. R. Todd. Chem Soc J p 1442-7 My '54

URINARY calculi. See Calculi, Urinary

URINE

See also

Diuretics

Analysis

Analyses of biological materials provide indexes for evaluating exposure of workers to air contaminants. H. H. Schrenk. Ind & Eng Chem 46:sup 111A-12A Je '54

Blood and urine changes in experimental beryllium poisoning. C. J. Spiegl and others. bibliog A M A Archives Ind Hygiene & Occup Med 7:319-25 Ap '53

Determination of the pyrazinamide content of blood and urine. W. S. Allen and others. Anal Chem 25:895-7 Je '53

Direct microdetermination of sodium, potassium, and calcium. G. R. Kingsley and R. R. Schaffert. bibliog Anal Chem 25:1738-41 N '53

Estrogen excretion in women with mammary cancer before and after adrenalectomy. T. L. Y. Dao. bibliog Science 118:21-2 Jl 3 '53

Excretion of diazotizable metabolites in man after aniline exposure. D. L. Hill. A M A Archives Ind Hygiene & Occup Med 8:347-9 O '53

Improved colorimetric determination of urinary 17-ketosteroids. H. Werbin and S. Ong. bibliog diags Anal Chem 26:762-4 Ap '54

Microdetermination of polyvinylpyrrolidone in aqueous solution and in body fluids. G. B. Levy and D. Fergus. bibliog Anal Chem 25:1408-10 S '53

Modified Hershberg-Wolf extractor. E. Heftmann and D. F. Johnson. bibliog diag Anal Chem 25:1578 O '53

Phenylacetylglutamine as a constituent of normal human urine. W. H. Stein and others. bibliog Am Chem Soc J 76:2848-9 My 20 '54

Rapid determination of lead in old urine samples. M. O. Amdur. bibliog A M A Archives Ind Hygiene & Occup Med 7:277-81 Ap '53

Recognising intoxication; analysis of alcohol in blood and urine. Chem Age (Lond) 70:366 F 6 '54

Simplified procedure for separating porphyrins from urine. L. M. Corwin and J. M. Orten. bibliog diag Anal Chem 26:608-9 Mr '54

URONIC acid

Immunopolysaccharides; preliminary studies of a polysaccharide from azotobacter chroococcum, containing a uronic acid. G. J. Lawson and M. Stacey. Chem Soc J p 1925-31 Je '54

URUGUAY

See also

Chemical industries —Uruguay

Commerce

United States and Uruguay effect tariff concessions negotiated under GATT. For Comm W 51:9 Ja 4 '54

Economic conditions

Economic conditions abroad (cont). For Comm W 50:4 Ag 3; 5 S 7; 4 O 5; 7+ D 7 '53; 51:5 Ja 11 '54

URUSHIOL

Poison ivy urushiol. W. F. Symes and C. R. Dawson. bibliog Am Chem Soc J 76:2959-63 Je 5 '54

USARAMOENSINE. See Alkaloids

USE and occupancy insurance. See Insurance, Use and occupancy

USED cars. See Automobile industry and trade—Used cars

USED machine tools. See Machine tools, Used

USTIN

Chemistry of fungi; nidulin and nornidulin (ustin); chlorine-containing metabolic products of aspergillus nidulans. F. M. Dean, J. C. Roberts and A. Robertson. Chem Soc J p 1432-9 My '54

UTAH

See also

Chemical industries —Utah

Gas, Natural—Utah

Geology—Utah

Irrigation—Utah

Petroleum—Utah

Petroleum industry and trade—Utah

UTAH power and light company

Public utility securities. O. Ely. Comm & Fin Chr 178:2059 N 26 '53

UTAH university

New Kennecott research center to coordinate work of western mine divisions; ultramodern setup at University of Utah. il Min Eng 6:774-5 Ag '54; Eng & Min J 155:116-17 Ag '54

UTILITIES, Public. See Public utilities

V

VPI. See Corrosion and anti-corrosives; Dicyclohexylammonium nitrate

V-PARTICLES

Cloud-chamber observations of some unusual neutral *V* particles having light secondaries. V. A. J. van Lint and others. il Phys R 94:1732-5 Je 15 '54

Cloud-chamber study of charged *V* particles. C. M. York, jr. and others. bibliog il diags Phys R 95:159-70 Jl 1 '54

Example of a V^+ decay. R. W. Thompson and others. bibliog il Phys R 92:209-10 O 1 '53

Hypothesis concerning the relations among the new unstable particles. M. Goldhaber. bibliog Phys R 92:1279-81 D 1 '53

Nonmesonic bound *V*-particle decay. W. Cheston and H. Prinmakoff. bibliog Phys R 92:1537-41 D 15 '53

Production of heavy unstable particles by negative pions. W. B. Fowler and others. il Phys R 93:861-7 F 15 '54

Properties of heavy unstable particles. D. Lal and others. Phys R 92:438-40 O 15 '53

Search for V particles produced by 430-Mev protons. A. H. Rosenfeld and S. B. Treiman. bibliog diags Phys R 92:727-9 N 1 '53

V-decay event with a heavy negative secondary, and identification of the secondary *V*-decay event in a cascade. E. W. Cowan. il Phys R 94:161-6 Ap 1 '54

V dinucleons. H. Primakoff and W. Cheston. Phys R 93:908-9 F 15 '54

V particles and the gamma decay of a neutral pion. T. Kinoshita. Phys R 94:1384-5 Je 1 '54

VACATION houses

Battens, boulders and glass, unique New England dwelling amassed of old barn timbers; summer vacation home and winter ski lodge. il plans diags House & Home 3:150-5 Mr '53

Canals give water frontage to each site in resort colony; Long Beach island, N.J. il map plan House & Home 6:148-9 Ag '54

Hot-weather houses; Wellfleet, Mass. il plan diag House & Home 6:116-17 Jl '54

Pennants, bow ties; and a keg of nails; Wilkinson cottage and Chermayeff studio, Wellfleet, Mass. il plans diags House & Home 6:120-5 Jl '54

VACATION houses—*Continued*
This breezeway house has six outdoor rooms; Surf City, N.J. il plan House & Home 6:118-19 Jl '54
Vacation houses. il plans Arch Rec 116: 188-93 Ag '54
See also
Week-end houses

VACATIONS
Make your vacation safe. Pulp & Pa of Can 55:213 Je '54
Making the most of a vacation. W. Schweisheimer. il Am Bsns 24:13+ Jl '54
Making the most of vacation to boost your efficiency; abstract. M. L. Jones. Nat Safety N 70:70 Ag '54
1954 vacation practices; a survey of company policies; abstract. Management R 43:504-5 Ag '54
Preventing vacation headaches; abstract. Management R 42:257-8 My '53
Story of vacation incentive plans. M. French. il Am Bsns 24:22-4+ Ap '54
Vacation policies of 227 firms. L. F. Van Houten. Am Bsns 24:34+ Je '54
Vacation provisions in union contracts; survey; abstract. Management R 42:515 S '53
Vacations ahead; 67 major chemical companies polled. il Chem & Eng N 32:2088-90 My 24 '54
Vacations; industry takes breather. J. B. Delaney. Iron Age 172:76 Jl 16 '53
Vacations; shutdown trend slows down. Steel 134:50 My 17 '54

VACCINATION
Advisory group approves mass polio vaccination. Chem & Eng N 32:1765 My 3 '54
International certificates of vaccination. Pub Health Rep 68:932 O '53

VACCINES
Triple triple check for safety; polio vaccine will receive three separate tests. il Chem & Eng N 32:392-3 F 1 '54

VACCINIA
Inactivation of vaccinia virus by a diffusible component from hydrolyzed hyaluronic acid. J. F. McCrea and F. Duran-Reynals. bibliog il Science 118:93-5 Jl 24 '53

VACUUM
Application of vacuum transfer to high-speed newsprint machines. C. Kelley. il diag Pulp & Pa of Can 54:118-20 N '53
Centralized vacuum storage for plant-wide use. C. G. Wyder. il Factory Management 112:122 Jl '54
Critical factors in determination of oxygen in titanium by the vacuum-fusion method. W. M. Albrecht and M. W. Mallett. Anal Chem 26:401-2 F '54
Diecasting; vacuum method reduces internal porosity; Nelmor corp. il Iron Age 173: 156-7+ F 18 '54
Evacuating photographic materials for use in electron optical apparatus. J. H. Reisner. R Sci Instr 25:477-9 My '54
High vacua. R. H. Muller. Anal Chem 25: sup23A-4A+ S '53
How to find vacuum-system leakage. Mill & Factory 54:103 Ja '54
Measurement of high vacuums at low temperatures. M. P. Garfunkel and A. Wexler. diag R Sci Instr 25:170-2 F '54
New developments in the production and measurement of ultra high vacuum. D. Alpert. bibliog(44 ref) diags J Ap Phys 24: 860-76 Jl '53
New developments in vacuum testing. L. Sterns. il Automotive Ind 111:72+ Ag 1 '54
Rate of evaporation of glycerol in high vacuum. D. J. Trevoy. bibliog diag Ind & Eng Chem 45:2366-9 O '53
Seal a vacuum solvent system with the solvent. E. A. Gastrock. Ind & Eng Chem 46: sup 124A Mr '54
Stokes 72-in. vacuum metallizer features pushbutton control. il Am Mach 97:180 N 23 '53
Techniques for measuring and controlling vacuum. C. C. Roberts and W. W. O'Hara. il diags Product Eng 24:190-4 S '53
Ultra-high vacuum; limiting factors on the attainment of very low pressures. D. Alpert and R. S. Buritz. bibliog diags J Ap Phys 25:202-9 F '54
Use of a vacuum solves the problem of sliding a smaller tube outside a larger one. il Mill & Factory 54:143-4 Mr '54
Vacuum can collapse your tanks. il Power Eng 58:87 Je '54
Vacuum degasification in a packed column. E. L. Knoedler and C. F. Bonilla. bibliog diags Chem Eng Prog 50:125-33 Mr '54
Vacuum employed to shrink-fit large tubes; Solar aircraft co. il Mach 60:229 N '53
Vacuum formed plastics for packaging. il Mod Packaging 27:108-13+ F '54
Vacuum forming of plastics gains favor. C. H. Vivian. il Comp Air Mag 59:108-11 Ap '54
Vacuum forming of thermoplastic sheets. S. S. Zimmerman. il diags India Rubber World 129:216-19 N '53
Vacuum fusion analysis; oxygen in chromium. W. S. Horton and J. Brady. bibliog(30 ref) diags Anal Chem 25:1891-8 D '53
Vacuum fusion method for determining minute quantities of gases in metals. W. J. McMahon and L. S. Foster. bibliog il diag J Chem Educ 30:609-13 D '53
Vacuum metallizing as a production process. J. G. Seiter. il diags Tool Eng 31:49-53 S '53; Abstract. Product Eng 24:274-6 O '53
Vacuum method detects gas-bearing formations. J. E. Bliss. il diag World Oil 137:218+ O '53
Vacuum transfer from wire to press section. R. W. Burnett. Pulp & Pa of Can 54:132-4 N '53
See also
Electric furnaces.
Vacuum melting

VACUUM apparatus
Apparatus for crystal pulling in vacuum using a graphite resistance furnace. K. Lehovec and others. bibliog il diag R Sci Instr 24: 652-5 Ag '53
At Avondale's Sycamore plant, vacuum conveyor system speeds waste removal. T. S. Winston. il Textile World 104:116-17 F '54
Ball valves. B. B. Bach and others. diags J Sci Instr 31:343 S '54
Combination high-vacuum and pressure valve. E. G. Reilly. diag R Sci Instr 24:875-6 S '53
Conduction-cooled trap for demountable vacuum systems. J. Pollard. il diag R Sci Instr 24:996-7 O '53
Copper isolation trap for vacuum systems. D. Alpert. diags R Sci Instr 24:1004-5 O '53
Cosmotron; a review; vacuum system. D. D. Jacobus and others. il diags R Sci Instr 24: 821-35 S '53
Demountable vacuum system for electron-tube development. T. M. Shrader. il diag RCA R 15:86-94 Mr '54
Design and operation of high-vacuum systems. C. K. Stoddard and W. E. Mooz. diags Chem Eng Prog 49:197-202 Ap '53
Double seal vacuum coupling. W. W. Schriever, jr. diag R Sci Instr 24:402-3 My '53
Glass and O-ring vacuum valves. G. W. Preckshot and V. E. Denny. diags Anal Chem 26:1398 Ag '54
Hi-vac ups output and boosts protection of food quality; frozen poultry pies. C. G. Beisel. flow sheet(p 114-17) il Food Eng 26: 60-1+ Jl '54
High vacuum plug valve. J. A. Stark and A. Langsdorf, jr. il diag R Sci Instr 25:188 F '54
High-vacuum seal-off valve. R. J. Richards. diag R Sci Instr 25:520-1 My '54
Large-diameter reciprocating-action vacuum valve. G. L. Fox. diag R Sci Instr 25:616 Je '54
Large unwelded vacuum gate valve. S. Asao and K. Muramatsu. il diags J Sci Instr 30:209-10 Je '53
Leak control tube. J. Morrison. diag R Sci Instr 24:546-7 Jl '53
New field for high vacuums; concentration. il diag Chem Eng 60:134+ Je '53
New vacuum joint. F. R. N. Lee and S. A. Young. diag J Sci Instr 31:70 F '54
Oil manometer for ultra-high vacuum systems. M. A. Biondi. diags R Sci Instr 24: 989-90 O '53
Positive action vacuum valve. A. H. Morton and P. M. Jeffery. diag J Sci Instr 30:58-9 F '53

VACUUM apparatus—*Continued*

Rotary vacuum reaction chambers. J. F. Duncan and D. T. Warren. il diags J Sci Instr 30:462-4 D '53

Rotary vacuum seal. J. Sikorski and H. J. Woods. diag J Sci Instr 30:432 N '53

Seal-off valve developed for vacuum systems. diag Chem & Eng N 32:2972 Jl 26 '54

Simple universal vacuum joint. E. Brannen and H. I. S. Ferguson. il diag R Sci Instr 25:836-7 Ag '54

Simple X-ray diffraction vacuum camera for measuring long spacings. D. C. Bisset and J. Iball. il diags J Sci Instr 31:55-6 F '54

Simplified vacuum condenser is two in one; patent. Chem Eng 60:388+ O '53

Speed-dries heat sensitive liquids; new continuous hi-vac unit. il diag Food Eng 26:36-7 Ja '54

Three-way vacuum valve. F. S. Stein. diag R Sci Instr 25:515-16 My '54

Vacuum anemometer. D. J. Trevoy and W. A. Torpey. bibliog il diags R Sci Instr 24:676-82 Ag '53

Vacuum cold trap. G. H. Miller. diags R Sci Instr 24:549-50 Jl '53

Vacuum drying apparatus for small samples. J. D. Reinheimer. il J Chem Educ 30:139 Mr '53

Vacuum microbalance for measuring sorption in dielectrics. A. G. Day. bibliog diags J Sci Instr 30:260-3 Ag '53

When fingers turn to thumbs, try a vacuum pick-up. W. C. Cooling and E. J. Harris. il Mill & Factory 55:117-18 Jl '54

See also

Ejectors

Manufacture

Factory in a new town; W. Edwards and co. il Engineering 177:381 Mr 19 '54

High vacuum factory of W. Edwards & co. at Crawley, Sussex. il Chem & Ind p365-6 Mr 27 '54

New home for high vacuum; W. Edwards and co. il Chem Age (Lond) 70:613-16 Mr 13 '54

Vacuum equipment production; Edwards' new works at Crawley. il Metallurgia 49:203-5+ Ap '54

VACUUM cleaners

Domestic electrical equipment; cleaners and polishers; with list of manufacturers. il Elec R (Lond) 154:277-82 F 12 '54

Highway vacuum cleaner picks up roadside trash. M. McMillin. il Pub Works 85:87-8 Jl '54

Rating

Vacuum cleaners. il Consumers Res Bul 32:12-15 O '53

VACUUM cleaning

How coal can be recovered and fly-ash removed quickly and cheaply; Clifton paperboard co. vacuum cleaning system. il diags Paper Tr J 138:22+ Jl 16 '54; Same. Tappi 37:sup 116A-18A Ag '54

Still cleaning by blow and scatter? F. W. Kraus. il Power 98:128 F '54

Vacuum is a handy tool for maintenance, cleaning; illustrations with text. S. Elonka. Power 98:114-15 Jl '54

VACUUM containers

Dewar flask with oval cross section. S. Broersma. il diag R Sci Instr 24:993-4 O '53

Vacuum tanks simplify oxygen storage problem. W. G. Patton. il Iron Age 173:92-3 Ap 29 '54

VACUUM die casting. See Die casting

VACUUM distillation. See Distillation

VACUUM filters. See Filters and filtration (technical chemistry)—Vacuum filters

VACUUM gages

Simple thermionic vacuum gauge. G. K. T. Conn and H. N. Daglish. bibliog diags J Sci Instr 31:95-6 Mr '54

Some experiments with a cold-cathode vacuum gauge. K. Phillips. J Sci Instr 31:110-11 Mr '54

Techniques for measuring and controlling vacuum. C. C. Roberts and W. W. O'Hara. il diags Product Eng 24:190-4 S '53

Wide-range vacuum gages. C. B. Sibley and J. R. Roehrig. il diags Electronics 26:176-7 N '53

See also

Ionization gages

VACUUM metallizing. See Metal coating

VACUUM pumps

Cosmotron; a review; vacuum system; pumping system. D. A. Kassner and C. Lasky. il diags R Sci Instr 24:832-5 S '53

Experimental pump has no moving parts. Materials & Methods 39:244+ Ap '54

High vacuum equipment; pumping systems require close attention. G. P. Gerow. il Iron Age 173:142-4 F 18 '54

High vacuum high speed ion pump. J. S. Foster and others. diags R Sci Instr 24:388-90 My '53

How to install, operate, and maintain your rotary vacuum-pump system. H. Brehouse. diags Factory Management 112:90-3 Ag '54

How to pick a vacuum system for your job. L. W. Hull. diags Chem Eng 60:200-2 N '53

Ionic pump. A. M. Gurewitsch and W. F. Westendorp. il R Sci Instr 25:389-90 Ap '54

Ionic pump built by GE. A. M. Gurewitsch and W. F. Westendorp. il Chem & Eng N 32:1352+ Ap 5 '54

Methods of obtaining high vacuum by ionization; construction of an electronic pump. H. Schwarz. bibliog diags R Sci Instr 24:371-4 My '53; Correction. 25:924 S '54

New type vacuum pump eliminates organic vapours; abstracts. R. G. Herb and others. Chem Age (Lond) 70:178 Ja 9 '54; Elec Eng 73:192-3 F '54

Reciprocating mercury pump for gas analysis apparatus. E. A. C. Chamberlain and others. il J Sci Instr 31:66-7 F '54

Simple electrical control for automatic Toepler pumps. L. F. Hohnstedt and M. J. Steindler. diags R Sci Instr 25:296-7 Mr '54

Simple safety device for Hg diffusion pumps. W. Spindel and E. H. McLaren. R Sci Instr 25:830 Ag '54

Theory of high-speed oil diffusion pumps. L. Riddiford and R. F. Coe. bibliog diag J Sci Instr 31:33-6 F '54

See also

Ejectors

VACUUM stills. See Distillation apparatus

VACUUM tube amplifiers. See Amplifiers, Vacuum tube

VACUUM tubes

Advances in ceramics related to electronic tube developments. L. Navias. bibliog(36 titles) il diags Am Cer Soc J 37:329-50 Ag 1 '54

Backward-wave tube. H. Heffner. il diags Electronics 26:135-7 O '53

Backward-wave tubes. R. Kompfner and N. T. Williams. il diags Inst Radio Eng Proc 41:1602-11 N '53

Carcinotron; backward wave microwave oscillator. E. C. Dench. bibliog il diags Tele-Tech 12:64-6+ N '53

Design factors that extend electron tube life. J. H. Wyman. Tele-Tech 12:80-1 N '53

Development of a new premium twin triode. H. E. Stumman and J. W. Ritcey. diags RCA R 14:482-91 D '53

Effect of filament voltage on the plate current of a diode. H. F. Ivey. J Ap Phys 23:1254-6 N '52; Discussion. H. S. C. Chen. diag 25:929-30 Jl '54

Electron multiplier valve. A. Lempicki. diags Wireless Eng 30:312-17 D '53

Helix as a backward-wave circuit structure. D. A. Watkins and E. A. Ash. bibliog diags J Ap Phys 25:782-90 Je '54

How to get longer life from electronic tubes. D. J. Pearse. il Mill & Factory 54:90-1 F '54

Latest navy reliable tube list. Tele-Tech 12:134 O '53

Life of oxide cathodes in modern receiving valves. G. H. Metson and others. bibliog il diags Inst E E Proc 99 pt 3:69-81 Mr '52; Discussion. 99 pt 3:82-7; 100 pt 3:371-2 Mr '52, N '53

Measuring resistance between tube elements. L. J. Austin. il diags Radio & Tv N 51:96+ Ja '54

Meeting spotlights tube troubles. P. Klass. il Aviation W 58:46+ Je 8 '53

Methods of processing silver-magnesium secondary emitters for electron tubes. P. Rappaport. il diags J Ap Phys 25:288-92 Mr '54

VACUUM tubes—*Continued*

Motion of idealized vacuum tube filaments under shock. H. S. Thomas. J Ap Phys 24:1341-2 N '53

New 10-kw air-cooled tetrode. M. B. Shrader. il Tele-Tech 12:90+ D '53

Resistor tube. J. R. Scrivener. diag Radio & Tv N 50:177 N '53

Retarding potential method for measuring electrical conductivity of oxide-coated cathodes. I. L. Sparks and H. R. Philipp. bibliog diags J Ap Phys 24:453-61 Ap '53

Securing rocksalt windows to sealed-off vacuum tubes. R. Frank and R. L. Stow. diags R Sci Instr 25:514-15 My '54

Simple method for measuring interface impedance. A. van der Ziel. diag J Ap Phys 24:496 Ap '53

Some recent work in France on new types of valves for the highest radio frequencies. R. Warnecke and P. Guenard. bibliog il diags Inst E E Proc 100 pt 3:351-62 N '53

Space-charge-wave amplification along an electron beam by periodic change of the beam impedance. R. W. Peter and others. bibliog il diags RCA R 15:113-20 Mr '54

Squirrel-cage filament structures; equivalent cathode diameter. A. M. Hardie. bibliog il diags Wireless Eng 30:196-204 Ag '53

Suppressor grid frequency doubler. W. G. Shepard. diag Electronics 26:200 O '53

Tv tube substitutions. W. H. Buchsbaum. Radio & Tv N 50:50+ O '53

Transistors vs. tubes. R. F. Shea. diags Instruments & Automation 27:771-2 My '54

Transmission-line analog of a modulated electron beam. S. Bloom and R. W. Peter. bibliog il diags RCA R 15:95-112 Mr '54

Triode transformation groups. A. W. Keen. diags Wireless Eng 30:238-43 O '53

Tube registrations increased in 1953. Electronics 27:18 F '54

Vacuum tube molecular emission and dissociation spectra. J. H. Lee. Opt Soc Am J 43:619 Jl '53

See also

Amplifiers, Vacuum tube
Cathode followers
Cathode ray tubes
Geiger-Müller counters
Klystron
Magnetron
Multivibrators
Photoelectric cells
Radio receiving apparatus
Radio rectifiers
Storage tubes
Thyratron
Voltmeters, Vacuum tube

Cold cathode

Cold-cathode electronic relay. F. A. Leisey. diag Anal Chem 26:1527 S '54

Cold cathode tubes for transmission of audio frequency signals. M. A. Townsend and W. A. Depp. diags Bell System Tech J 32:1371-91 N '53

Scaling unit employing multi-electrode cold cathode tubes; abstract and discussion. K. Kandiah. Elec J 152:213 Ja 15 '54

Control uses

Automatic input switching without relays. A. M. Ferres. il diags Radio & Tv N 50: 70-1+ S '53

Current-slope control for resistance welders. R. O. Johnsen. il diags Electronics 26:158-9 N '53

Effect of humidity variation on the operation of an electronic proximity switch. R. A. K. Long. bibliog diag J Sci Instr 30: 422-4 N '53

Electrically-operated process control for an Aden oil refinery. il diags Elec J 152:838-40 Mr 12 '54; Elec R (Lond) 154:549-50 Mr 26 '54

Electronic-control method for the precision expanding of tubes. F. E. Dudley. bibliog il diags A S M E Trans 76:577-82; Discussion. 582-4 My '54

Electronic controls for products pipe-line terminals. C. H. Scruggs. diags Am Pet Inst Proc 33(5):87-9 '53; Same. Pet Eng (Ref annual) 25:D3-4 Jl 15 '53

Electronic home temperature control. H. W. Lawson. il diags Radio & Tv N 50:130-1+ N '53

Electronic lighting at Lyons. Elec J 151: 1686 N 20 '53

Electronic motor control; abstract. A. O. Dalton. Elec R (Lond) 154:382-3 F 26 '54

Electronic telephone exchanges. T. H. Flowers. bibliog diags Inst E E Proc 99 pt 1:181-93 S '52; Discussion. 99 pt 1:193-201; 100 pt 1:305-6 S '52, N '53

Electronic voltage control. il Elec R (Lond) 153:1293-4 D 4 '53

Electronically operated switching device for the elimination of thermal voltage drifts in a recording Wheatstone bridge. W. R. Ward and W. F. Maddams. diags J Sci Instr 31:26-7 Ja '54

Flexible electronic controls improve gear lapping operations; Buick motor div. W. G. Patton. il Iron Age 174:112-13 S 23 '54

Gas-discharge tubes for control of microwave attenuation. D. H. Pringle and E. J. Whitmore. diags J Sci Instr 30:320-3 S '53

Relaxation oscillations in voltage-regulator tubes. P. L. Edwards. il diags Inst Radio Eng Proc 41:1756-60 D '53

Sectional paper machine drive with electronic control; Guard Bridge paper co. il diags Engineer 196:565-8 O 30 '53; Engineering 176:595-7 N 6 '53; Elec R (Lond) 153:1061-6 N 6 '53

Simple electronic rotary switch. J. M. Reid and J. C. W. Telfer. diag R Sci Instr 25: 300-1 Mr '54

Simple speedlamp tester. A. M. Ferres. diag Radio & Tv N 50:174-5 O '53

Sound-actuated electronic switch. B. G. Lewis. il diag Radio & Tv N 50:120-1+ N '53

Speed regulation for tandem tube mill drives. F. H. Wickline. il diags Iron & Steel Eng 30:84-6 D '53

Step-switch converter digitizes analog data. R. R. Bennett and H. Low. il diags Electronics 26:164-5 N '53

Switching in bistable circuits. R. S. Mackay. bibliog il diags J Ap Phys 25:424-9 Ap '54

Cooling

Heat transfer at high-power densities. J. S. Hickey, jr. il diags J Ap Phys 24:1312-17 O '53

Failure

Bulb puncture in gas tubes. V. L. Holdaway. Electronics 26:208+ N '53

Valve reliability; I.E.E. radio section discussion. Elec R (Lond) 154:526 Mr 19 '54

Generating action

Type 6218 beam deflection tube as a complex pulse generator. K. Enslein. diags R Sci Instr 25:355-8 Ap '54

See also

Oscillators

Industrial applications

Detecting voids in insulating tape. R. E. Anderson. il diags Electronics 27:136-40 Ja '54

Electronic bit tester; patent. diags Electronics 26:230+ N '53

Electronic label inspection; Eastman Kodak. M. J. Reid. il diag Mod Packaging 27:98-9+ Ja '54

Growing electronic applications bring new plant maintenance problems at Ridgeland station. H. L. Garton. il Elec World 140: 111-13+ O 19 '53

See also

Electric heating, Industrial—High frequency heating

Manufacture

Ceramic-metal seals of the tungsten-iron type. D. G. Burnside. il diags RCA R 15: 46-61 Mr '54

High temperature materials for vacuum service. H. B. Michaelson. bibliog il diag Materials & Methods 38:110-15 D '53

Inspecting tube grids with slide projector. il Electronics 26:262 D '53

Lamp-and-switch system controls cathode spraying at Tung-Sol electric, inc. il Electronics 27:252+ Ja '54

Silver and gold for brazing electronic components. A. W. Swift and R. J. Metzler. bibliog il Welding J 33:119-23 F '54

VACUUM tubes—Manufacture—*Continued*

Stems without strains; Sylvania electric products, inc. C. R. Cowley. il Glass Ind 35:192+ Ap '54

Measurement uses

Apparatus for the accurate measurement of internal friction. J. R. Pattison. bibliog diags R Sci Instr 25:490-6 My '54

Determination of interfacial area in unstable emulsions by light transmission. G. E. Langlois and others. diags R Sci Instr 25: 360-3 Ap '54

Determination of transient flame temperatures. G. W. Bauserman and others. bibliog diags R Sci Instr 25:640-3 Jl '54

Electric eye accurately computes water cuts. R. F. Klassen. il Oil & Gas J 52:114-17 Ag 24 '53

Electrometer tubes. D. L. Collins. diags Instruments 26:1708-9+ N '53

Electronic a.c. potentiometer. L. Tasny-Tschiassny. bibliog diags Wireless Eng 30: 295-8 D '53

Electronic gating knockmeter promotes combustion studies in full-scale engines. M. M. Adams. il diags Pet Eng 25:C40+ N '53

Measuring with electrons; load cells to measure weight and force. il Steel 134:104+ My 24 '54

Movable-anode tube gages surface roughness. J. B. Bidwell. il diags Electronics 26:181-3 N '53

Wide-band amplitude distribution analysis of voltage sources. L. W. Orr. diags R Sci Instr 25:894-8 S '54

See also
Voltmeters, Vacuum tube

Medical applications

Universal medical timer and pulse stimulator. R. G. Roush and E. T. Urbanski. il diags Electronics 26:154-7 N '53

Noise

Influence of secondary electrons on noise factor and stability of traveling-wave tubes. R. W. Peter and J. A. Ruetz. diags RCA R 14:441-52 S '53

Joint distribution of *n* successive outputs of a linear detector. W. C. Hoffman. bibliog J Ap Phys 25:1006-7 Ag '54

Low-noise traveling-wave tubes for X-band. D. A. Watkins. bibliog il diags Inst Radio Eng Proc 41:1741-6 D '53

Minimum noise figure for the traveling-wave tube. S. Bloom and R. W. Peter. bibliog diag RCA R 15:252-67 Je '54

Multichannel noise spectrum analyzer for 10-10000 cycles. E. G. Nielsen and A. van der Ziel. diags R Sci Instr 25:899-902 S '54

Noise factor of conventional v.h.f. amplifiers. N. Houlding. bibliog il diags Wireless Eng 30:281-90, 299-306 N-D '53

Noise in cw magnetrons. D. Middleton and others. bibliog diag J Ap Phys 24:1065-6 Ag '53

Peak-noise characteristics of some glow-discharge tubes. H. Bache and F. A. Benson. J Sci Instr 30:124-6 Ap '53

Temperature dependence of low frequency fluctuations in thermionic emitters. T. B. Tomlinson. J Ap Phys 24:611-15 My '53

Theorem concerning noise in electron streams. J. R. Pierce. J Ap Phys 25:931-3 Ag '54

Tube noise under large transit-time conditions. S. V. Yadavalli. bibliog diags J Ap Phys 25:564-8 My '54

X-ray noise observation using a photoconductive pickup tube using a Vidicon. A. D. Cope and A. Rose. il J Ap Phys 25: 240-2 F '54

Scientific applications

Apparatus for the photometric study of flash-initiated reactions. F. W. Trowse. diags J Sci Instr 30:126-31 Ap '53

Polycathode counter tube applications. J. H. L. McAsulan and K. J. Brimley. bibliog il diags Electronics 26:138-41 N '53

Pulse code modulation coding system uses special tubes. A. G. Fitzpatrick. bibliog il diags Electronics 26:173-5 N '53

Temperature

Effects of ambient-temperature variations on glow-discharge tube characteristics. F. A. Benson and G. Mayo. bibliog J Sci Instr 31:118-20 Ap '54

New method of measuring the cathode temperature of indirectly heated vacuum tubes. S. Ikehara. bibliog diags J Ap Phys 25: 725-32 Je '54

Temperature measurement in a hollow-cathode discharge. R. Schoen and J. R. Holmes. bibliog Opt Soc Am J 44:502-3 Je '54

Testing

Acceleration effects on electron tubes. F. W. Stubner. bibliog il diags Bell System Tech J 32:1203-29 S '53

Commercial, ruggedized and premium tubes. F. A. Paul. diag Electronics 26:212+ O '53

Demountable vacuum system for electron-tube development. T. M. Shrader. il diag RCA R 15:86-94 Mr '54

Electron tube performance in some typical military environments. D. W. Sharp. Elec Eng 73:233-8 Mr '54

Performance evaluation of special red tubes. H. J. Prager. diags RCA R 14:413-26 S '53

Production-testing uhf radiosonde tubes. M. M. Bell. il diags Electronics 26:254+ N '53

Switching system speeds tube capacitance tests; punch-card controlled switching system. R. E. Graham. il diags Electronics 26:186-8 N '53

Vibration generator for electron tubes. Franklin Inst J 256:177-8 Ag '53

Traveling wave tubes

Amplifier tube; patent. diags Electronics 26: 258+ D '53

Application of perturbation theory to the traveling wave tubes. M. W. Muller and W. L. Beaver. J Ap Phys 25:542-3 Ap '54

Coaxial-to-helix transducers for traveling-wave tubes. R. E. White. diags Elec Com 30:300-4 D '53

Electron flow through small tubes with magnetic focusing. J. L. Stewart. bibliog diags J Ap Phys 24:1236-40 S '53

Filter-helix traveling-wave tube. W. J. Dodds and R. W. Peter. bibliog il diags RCA R 14:502-32 D '53

Helix impedance measurements using an electron beam. D. A. Watkins and A. E. Siegman. bibliog il diags J Ap Phys 24:917-22 Jl '53

Influence of secondary electrons on noise factor and stability of traveling-wave tubes. R. W. Peter and J. A. Ruetz. diags RCA R 14:441-52 S '53

Low-noise traveling-wave tubes for X-band. D. A. Watkins. bibliog il diags Inst Radio Eng Proc 41:1741-6 D '53

Minimum noise figure for the traveling-wave tube. S. Bloom and R. W. Peter. bibliog diag RCA R 15:252-67 Je '54

Some recent work in France on new types of valves for the highest radio frequencies. R. Warnecke and P. Guenard. bibliog il diags Inst E E Proc 100 pt 3:351-62 N '53

Stored energy and power flow in electron beams. L. R. Walker. J Ap Phys 25:615-18 My '54

Thermal effect in an electron beam on the gain of traveling-wave tubes. K. Udagawa and M. Sumi. J Ap Phys 25:135-6 Ja '54

Traveling-wave tube helix impedance. Ping King Tien. bibliog diags Inst Radio Eng Proc 41:1617-23 N '53

Wave propagation along a magnetically-focused cylindrical electron beam. W. W. Rigrod and J. A. Lewis. bibliog Bell System Tech J 33:399-416 Mr '54

Waves in an electron stream with general admittance walls. C. K. Birdsall and J. R. Whinnery. bibliog diags J Ap Phys 24: 314-23 Mr '53

See also
Magnetrons

Velocity modulation tubes

See also
Klystron

VALENCE

Reactions of organic derivatives of elements capable of valency-shell expansion; a comparison of the near-ultra-violet absorptions of unsaturated derivatives of nitrogen, phosphorus, and sulphur with those of their saturated analogues. D. C. Nicholson and others. Chem Soc J p4019-25 D '53

Reactions of organic derivatives of elements capable of valency-shell expansion; preliminary considerations. E. Rothstein. Chem Soc J p3991-4 D '53

Reactions of organic derivatives of elements capable of valency-shell expansion; reactions of propenedisulphonamides. D. C. Nicholson and E. Rothstein. Chem Soc J p4004-12 D '53

Reactions of organic derivatives of elements capable of valency-shell expansion; 1 : 1 : 3 : 3-tetrakisalkylthio-propane and -propene, and their oxidation products. E. Rothstein and R. Whiteley. Chem Soc J p4012-18 D '53

Reactions of organic derivatives of elements capable of valency-shell expansion; unsaturated quaternary phosphonium salts. E. Rothstein, R. W. Saville and P. E. Horn. Chem Soc J p3994-4004 D '53

Role of 3*d*-electrons in valency states of first-row elements. M. J. S. Dewar. Chem Soc J p2885-9 O '53

Stereochemistry and valence states of nickel. R. S. Nyholm. Chem R 53:263-308 bibliog(p304-8) O '53

Studies in molecular orbital theory of valence; multiple bonds involving d-orbitals. H. H. Jaffé. bibliog diags J Phys Chem 58:185-90 F '54

Valence stabilization in crystals. D. M. Gruen. J Chem Phys 21:2083 N '53

VALINE

Synthesis of N-(2-benzyl-4-Δ^2-oxazolinoyl)-valine. H. Adkins and others. bibliog Am Chem Soc J 76:147-52 Ja 5 '54

Valine biosynthesis in torulopsis utilis. M. Strassman, A. J. Thomas and S. Weinhouse. Am Chem Soc J 75:5135 O 20 '53

VALLEJO, California

Water supply

Modern design features new water project. H. L. Thackwell. il map Pub Works 85:87-92 S '54

VALLINGBY, Sweden

Interesting experiment in city planning. Comp Air Mag 59:115 Ap '54

VALPARAISO, Indiana

Sewerage

Problems in constructing a sewage treatment plant. C. G. Peller. Pub Works 85:107 Jl '54

VALUABLE papers insurance. See Insurance, Valuable papers

VALUATION

What is fair market value? E. L. Gordon. J Account 95:720-1 Je '53

See also

Assessment
Depreciation
Electric utilities—Valuation
Insurance—Valuation of property
Insurance, Fire—Valuation of property
Inventories—Accounting
Oil lands—Valuation
Real property—Valuation

VALVES

Application of the three-way control valve. L. Hollander. diags Instruments & Automation 27:454-6 Mr '54

Ball valves. B. B. Bach and others. diags J Sci Instr 31:343 S '54

Blow-down valves require special foundations. il Gas Age 114:37 Ag 26 '54

Butterfly regulates compressor speed. il diag Pet Refiner 32:217 Ag '53

Considerations of relief valves on customer meter sets in California. G. M. Fox. diags Am Gas J 180:16-17+ Ap '54; Same. Gas Age 113:32-4+ Ap 22 '54

Control valves. R. E. Love. diags Instruments & Automation 27:776-7 My '54

Control valves for high air-mass flows. F. E. Swain. il diags Engineering 176:705-6 D 4 '53

Design and construction of control valves. D. E. Hostedler. il Pet Refiner 32:133-4 Ag '53

Essentials of valve construction. E. Wolff. diags Can Chem Process 37:64+ O '53

Facts about modern valves. il Mill & Factory 54:462 My '54

For best results know your self-contained internal-pilot piston-operated reducing valve. S. Elonka. il diags Power 98:130-1 Je '54

How to operate a valve. B. Dopp. il Heating-Piping 26:174-6 Ja '54

Market research study. Steel 133:56 O 19 '53

New sound film shows you how to avoid valve troubles; Crane co. Factory Management 112:126-7 My '54

Operating man accuses stop-check valves falsely. B. Dopp. diag Heating-Piping 26:136-9 Je '54

Pipe-line control valves. C. F. Woods. diags Oil & Gas J 52:155 S 14; 163 O 12; 147 O 26; 160 N 9 '53

Piping, pumps and valves for high pressure water reactor systems. A. Amorosi. plan diag Heating-Piping 26:140-4 My '54

Plug-type lubricated valves; their repair and reconditioning. R. H. Herring. il Oil & Gas J 52:122+ D 14 '53

Positive action vacuum valve. A. H. Morton and P. M. Jeffery. diags J Sci Instr 30:58-9 F '53

Practical considerations in selection of control valves. G. F. Brockett. diags Instruments 26:893-6 Je '53

Pressure regulation and flow control with expansible-tube valves. F. H. Wehrman. il diags Instruments 26:1543-6 O '53

Process piping; Chemical Engineering report; metallic valves. T. R. Olive. diags Chem Eng 60:197-207 D '53

Right size for relief valves and low water cut-offs. T. W. Reynolds. diags Heat & Ven 50:87 N '53; 51:96+ My '54

Sizing control valves. G. F. Brockett and C. F. King. diag Oil & Gas J 52:115 Jl 6; 367 Jl 27; 103 Ag 3; 157 Ag 17; 149 Ag 24; 133 S 7 '53

Stainless steel valves and fittings in the pulp and paper industry. P. C. Shaffer. bibliog il diags Pulp & Pa of Can 55:138-46 S '54

Use of piston-operated pipe-line valves. F. M. Partridge and G. C. Wilson. diags Oil & Gas J 52:125+ Jl 20 '53

Utility of butterfly valves. G. E. Arnold. Am Water Works Assn J 46:941-2 S '54

Valve flow coefficient, C_v and its contribution in control valve sizing. R. A. Rockwell. diag Heat & Ven 51:76-9 Ag '54

Valves and pumping equipment. il Paper Tr J 138:127-33 S 17 '54

Valves are in the control loop. E. Wolff. diags Pet Processing 8:1180-4 Ag '53

Valves to combat corrosion. il Chem Eng 61:198-204 S '54

Valves; what type and where? abstract. L. Paul. Water & Sewage Works 101:394 S '54

See also

Automobile engines—Valves
Internal combustion engines—Valves
Safety valves

Control

Cylinder valve operators. A. A. Toben. il diags Instruments 26:1391-3 S '53

Final control elements. il diags Can Chem Process 38:60+ F; 66+ Ap '54

Power operation of valves. H. Ledeen and A. A. Toben. il diags Pet Eng 25:A62+ O '53

Valve positioners. M. Strader. diags Instruments & Automation 27:1090-1 Jl '54

Electric control

Electrically operated all metal capillary vacuum valve for adjustable gas flow. G. W. Green. diag J Sci Instr 30:171-2 My '53

For reliable control, keep your solenoid valves in tune. P. C. Ziemke. Chem Eng 61:218+ Ag '54

Motor controlled valve. il Blast F & Steel Pl 42:830 Jl '54

New design trends for electrically-operated valves. A. Brothman and S. Lidz. diags Instruments & Automation 27:1464-7 S '54

VALVES—Electric control—*Continued*

Remote control electric valve operation. H. A. Altorfer. il diags Pet Eng (Ref annual) 25:D51-3+ Jl 15 '53

Solenoid, pilot-operated valves. il Product Eng 24:218 N '53

Weathered-in lease problem being whipped; Canadian test of automatic operation of flowing wells and tank battery. M. R. Taylor. il diags World Oil 137:276+ D '53

Failure

Air compressor destroys itself; failure of discharge valve. il Power Eng 58:96 Ag '54

Manufacture

Aids to productivity; review of the valve industry. Engineering 177:198 F 12 '54

Automation principles applied to valve production. J. Geschelin. il Automotive Ind 111:60-2 Jl 1 '54

Indexing fixtures solve valve production problems. il Steel 135:104-5 S 27 '54

Standards

American water works association tentative standard specifications for rubber-seated butterfly valves. Am Water Works Assn J 46:943-54 S '54

Testing

Sizing control valves handling flashing liquids. G. F. Brockett and C. F. King. diags Instruments 26:1017-19+ Jl '53

Testing valves takes a lot of know-how. B. Dopp. il Heating-Piping 26:138-41 Mr '54

VALVES, Hydraulic

Compact pump control valve replaces hydraulic system accessories. il diags Product Eng 24:215-16 O '53

Contributions to hydraulic control. S. Y. Lee and J. F. Blackburn. il diags A S M E Trans 74:1005-9, 1013-16; 75:1163-80; 76:905-10 Ag '52, Ag '53, Ag '54; Discussion. 74:1009-11; 76:910-11 Ag '52, Ag '54

Control valves for direct-hydraulic presses. F. H. Towler and J. M. Towler. bibliog diags Inst Mech Eng Proc (B) 1B no 9: 420-7, pl 1-2; Discussion. 427-36 '52-53; Engineer 195:141-3 Ja 23 '53

Dynamic characteristics of valve-controlled hydraulic servomotors. J. L. Shearer. bibliog diags A S M E Trans 76:895-903 Ag '54

Dynamic operation of a force-compensated hydraulic throttling valve. J. L. Bower and F. B. Tuteur. diags A S M E Trans 75:1395-406 O '53

Hollow-jet valves are less destructive. G. H. Heiser. il diag Elec West 111:78-9 D '53

Hydraulic slide-valve forces; their effect on response of servo systems. J. M. Nightingale. bibliog diags Machine Design 26:137-40 F '54

Pressure surges in hydraulic circuits. N. M. Sverdrup. diags Product Eng 24:161-9 S '53

Some model experiments on special control valves. D. Firth and L. Young. diags Engineer 197:207-9, 257-9 F 5-12 '54

Threadless subplates prevent hydraulic valve leakage. R. C. Hupp. il diags Tool Eng 31:46-50 D '53

Electric control

Solenoid valves channel heat pump refrigerant. flow chart il diags Product Eng 24:144-7 S '53

Failure

Needle valve break raises havoc; Poole plant of California electric power co. il Elec West 111:114-15 S '53

VALVES, Plastic

Unconventional all-plastic valve solves corrosion problems. O. M. Hahn. diag Chem Eng 60:234 S '53

VANADIC acid

Formation and titration of colloidal vanadic acid. J. F. Hazel, W. M. McNabb and R. Santini, jr. J Phys Chem 57:681-3 O '53

VANADIUM

Close look at vanadium. il Steel 133:134+ Jl 20 '53

d^3 and d^4 configurations of vanadium. S. Meshkov. Phys R 93:270-2 Ja 15 '54

Equilibria in solutions of +3 and +4 vanadium. L. Meites. Am Chem Soc J 75:6059-60 D 5 '53

Kinetics of the oxidation of vanadium(II) and vanadium(III) ions by perchlorate ion. W. R. King, jr. and C. S. Garner. bibliog J Phys Chem 58:29-33 Ja '54

Place for vanadium. Steel 135:128-30 Jl 12 '54

Polarographic characteristics of +5 vanadium in phosphate, borate and carbonate buffers. I. Filipović and others. bibliog Am Chem Soc J 76:2074-80 Ap 20 '54

Preparation and properties of iodide vanadium. J. W. Nash and others. bibliog diag Electrochem Soc J 100:272-5 Ja '53

Preparation of thin vanadium targets. J. E. Schwager and L. A. Cox. R Sci Instr 24:986 O '53

Reaction of fluorine with titanium, zirconium and the oxides of titanium(IV), zirconium(IV) and vanadium(V). H. M. Haendler and others. bibliog Am Chem Soc J 76:2177-8 Ap 20 '54

Search for the Hall effect in a superconductor; experiment. H. W. Lewis. Phys R 92:1149-51 D 1 '53

Solubility and activity of oxygen in iron-vanadium melts; abstract. R. A. Karasev and others. Metal Prog 65:178+ Mr '54

Vanadium as a replacement for molybdenum in low alloy steels; abstract. C. L. M. Cottrell and B. J. Bradstreet. Metal Prog 66:200+ S '54

Analysis

Anodic polarographic wave of vanadium(IV) aged in alkaline solution. I. M. Kolthoff and P. T. Toren. Anal Chem 26:1361-2 Ag '54

Colorimetric determination of vanadium(V) and its separation from copper. H. H. Willard, E. L. Martin and R. Feltham. Anal Chem 25:1863-5 D '53

Colorimetric determination of vanadium with 8-quinolinol. N. A. Talvitie. bibliog Anal Chem 25:604-7 Ap '53

Qualitative analysis of alloys containing titanium and vanadium. L. Lehrman and others. bibliog J Chem Educ 31:310-12 Je '54

Spectrophotometric determination of iron in vanadium, chromium, manganese, nickel, and zinc. D. W. Margerum and C. V. Banks. bibliog Anal Chem 26:200-2 Ja '54

Isotopes

Nuclide V^{53}. R. K. Sheline and J. R. Wilkinson. Phys R 94:729-30 My 1 '54

Nuclear reactions

Decay of V^{52}. J. M. LeBlanc and others. bibliog Phys R 93:1124-5 Mr 1 '54

Disintegration of Ca^{47}, Sc^{47}, Va^{48}, and Rh^{100}. L. Marquez. bibliog Phys R 92:1511-16 D 15 '53

Energy levels of Ti^{48} from the decay of Sc^{48} and V^{48}. H. Casson and others. Phys R 92:1517-21 D 15 '53

Magnetic analysis of the $V^{51}(d,p)V^{52}$ reaction. J. E. Schwager and L. A. Cox. bibliog Phys R 92:102-4 O 1 '53

Spectrum

Hyperfine structure of the spectra of dysprosium, cobalt, vanadium, manganese, and lanthanum. K. Murakawa and T. Kamei. bibliog Phys R 92:325-7 O 15 '53

Paramagnetic resonance hyperfine structure of V^{50} and V^{51}. G. Kikuchi and others. bibliog il diags Phys R 92:109-13 O 1 '53

VANADIUM alloys

Columbium-vanadium alloy system. H. A. Wilhelm and others. bibliog il J Metals 6: Trans915-18 Ag '54

Constitution and properties of cobalt-iron-vanadium alloys. D. L. Martin and A. H. Geisler. bibliog il Am Soc for Metals Trans 44:461-81; Discussion. 481-3 '52

Phase relationships in the iron-chromium-vanadium system. H. Martens and P. Duwez. bibliog Am Soc for Metals Trans 44:484-93; Discussion. 493-4 '52

Titanium-vanadium system. H. K. Adenstedt and others. bibliog il diag Am Soc for Metals Trans 44:990-1003 '52

VANADIUM iodide

Preparation and properties of iodide vanadium. J. W. Nash and others. bibliog diag Electrochem Soc J 100:272-5 Je '53

VANADIUM oxides

High temperature heat contents of manganese sesquioxide and vanadium monoxide. R. L. Orr. Am Chem Soc J 76:857-8 F 5 '54

Hydrodesulfurization of gasolines over vanadium oxide. V. I. Komarewsky, E. A. Knaggs and C. J. Bragg. bibliog diag Ind & Eng Chem 46:1689-95 Ag '54

VANADIUM poisoning

Studies in vanadium toxicology. J. T. Mountain and others. bibliog A M A Archives Ind Hygiene & Occup Med 8:406-11 N '53

VANCIDE 89. See Trichloromethyl thiotetrahydrophthalimide

VANCOUVER, British Columbia

Historic site established by British Columbia's pulp and paper industry; Queen Elizabeth arboretum. il Pulp & Pa of Can 55:107-8 S '54

See also

Electricity supply—Vancouver, British Columbia

Bridges

Eight-lane bridge, an outstanding achievement. il plan diags Roads & Eng Constr 91:105-8+ D '53

Sewerage

Extensive sewerage works plan urged for Vancouver area. Eng N 151:43 O 15 '53

VANDALISM

What is vandalism? Great American insurance co. v. Dedmon. L. A. Burke. Spectator 162:96-8 Ap '54

VAN DE GRAAFF generator. See Electric generators, Electrostatic

VANDERLOY M. See Iron plating

VAN DER POL equation

Period and amplitude of the Van Der Pol limit cycle. E. Fisher. J Ap Phys 25:273-4 Mr '54

VANILLA

Vanilla-like synthetic cuts ice cream flavor cost; Vanitrope. W. S. Arbuckle and others. Food Eng 26:84-5+ F '54

VANILLIN

Reactions of vanillin and its derived compounds; the synthesis of 4,4′-dihydroxy-3,3′-dimethoxybenzophenone. I. A. Pearl. Am Chem Soc J 76:3635-7 Jl 20 '54

Thiosemicarbazones of some vanillin derivatives. R. P. Perry. bibliog Am Chem Soc J 76:3591-2 Jl 5 '54

VAN NUYS, California

See also

Airports—Van Nuys, California

VAN'T HOFF, Jacobus Henrikus, 1852-1911

Basic work of Fischer and Van't Hoff in carbohydrate chemistry. C. S. Hudson. J Chem Educ 30:120-1 Mr '53

VAPOR deposition. See Metal coating

VAPOR lock. See Automobile engines—Fuel feeding

VAPOR pressure

Correlation of the solubilities of gases in low-vapour-pressure liquids by an evaporation analogy. G. Burrows and F. H. Preece. bibliog diags J Ap Chem 3:451-62 O '53

Equilibrium pressure measurements above ZnS from 680° to 825°C. C. L. McCabe. bibliog J Metals 6:Trans 969-71 S '54

Form of a wide-range vapor pressure equation. W. Waring. bibliog Ind & Eng Chem 46:762-3 Ap '54

Liquid-liquid solubility and vapor pressure of heptacosafluorotributylamine. G. J. Rotariu, R. J. Hanrahan and R. E. Fruin. bibliog Am Chem Soc J 76:3752-6 Jl 20 '54

Physical and thermodynamic properties of terpenes; the vapor pressures of α-pinene and β-pinene. J. E. Hawkins and G. T. Armstrong. bibliog Am Chem Soc J 76:3756-8 Jl 20 '54

Relation between vapor pressure and viscosity of liquids. S. S. Mitra. J Chem Phys 22:349-50 F '54; Correction. 22:1471 Ag '54

Thermodynamic properties of technetium and rhenium compounds; vapor pressures of technetium heptoxide, pertechnic acid and aqueous solutions of pertechnic acid. W. T. Smith, jr., J. W. Cobble and G. E. Boyd. bibliog Am Chem Soc J 75:5773-6 D 5 '53

Vapor heat capacities determined by the use of vapor pressure equations. G. M. Barrow. J Chem Phys 21:1912-13 N '53

Vapor pressure ebulliometer for milliliter samples. S. R. Hoover, H. John and E. F. Mellon. bibliog il Anal Chem 25:1940-1 D '53

Vapor pressure of zinc in the reduction of ZnS by Cu and Fe. A. W. Bethune and L. M. Pidgeon. bibliog J Metals 5:Trans 804-7 Je '53

Vapor pressures of perdeuterobenzene and of perdeuterocyclohexane. R. T. Davis, jr. and R. W. Schiessler. bibliog diag J Phys Chem 57:966-8 D '53

Vapor pressures of phthalate esters given by nomograph. D. S. Davis. Chem Eng 61:228 Ja '54

See also

Fugacity

Henry's law

VAPOR recovery. See Petroleum refining—Vapor recovery; Petroleum storage—Vapor recovery

VAPORIZATION

Characteristics of a vaporizing combustor for aviation gas turbines. W. D. Pouchot and J. R. Hamm. diags A S M E Trans 76:801-7 Jl '54

Combustion of a low-volatility fuel in a turbojet combustion chamber; effects of fuel vaporization. V. V. Holmes and others. bibliog A S M E Trans 75:1303-10 O '53

Growth of a vapor bubble in a superheated liquid. H. K. Forster and N. Zuber. J Ap Phys 25:474-8 Ap '54

Growth of vapor bubbles in superheated liquids. M. S. Plesset and S. A. Zwick. bibliog J Ap Phys 25:493-500 Ap '54

Pressure effects on vaporization rate of drops in gas streams; abstract. R. D. Ingebo. Chem Eng Prog 49:602 N '53

Sublimation curve, vaporization curve, and triple point determination. N. O. Smith and C. M. Costich. diags J Chem Educ 31:421-2 Ag '54

See also

Evaporation

VAPORIZATION, Heat of

Chart aids estimation of latent heats of vaporization. R. Lemlich and R. Hoke. Chem Eng 61:226 Ap '54

Comparison of the heats of vapour and gas evolution from low-vapour-pressure liquids. G. Burrows. bibliog J Ap Chem 4:394-400 Jl '54

Contributions to thermodynamics; the anomalous heat of vaporization of heptane. J. McQuirg. bibliog J Chem Educ 31:347-8; Discussion. W. Waring. 377 Jl '54

Heat capacity, heats of fusion and vaporization, and vapor pressure of tetrafluoroethylene. G. T. Furukawa and others. J Res Nat Bur Stand 51:69-72 Ag '53

Simultaneous measurement of phase equilibria and integral isobaric heats of vaporization. J. A. Tallmadge and L. N. Canjar. bibliog Ind & Eng Chem 46:1279-81 Je '54

See also

Trouton's law

VAPORIZERS

AMA blasts vaporizer use, claims. Soap & San Chem 29:163 S '53

Apparatus for delivering vapour of constant composition and pressure. A. Charnley and others. diag J Sci Instr 31:145-6 Ap '54

See also

Sublimation apparatus

Standards

Canada insecticide vaporizer standard. Soap & Chem Spec 30:151+ Jl '54

VAPORS

Collision diameters of flexible hydrocarbon molecules in the vapour phase; the hydrogen effect. G. A. M. Cummings and A. R. Ubbelohde. diags Chem Soc J p3751-5 D '53

VAPORS—*Continued*

Composition of vapors from boiling binary systems. D. F. Othmer, L. G. Ricciardi and M. S. Thakar. bibliog(52 ref) Ind & Eng Chem 45:1815-21 Ag '53

Condensation of vapors of water and immiscible organic liquids. M. Tobias and A. E. Stoppel. bibliog diag Ind & Eng Chem 46:1450-5 Jl '54

Effect of organic vapor on the secondary emission of phosphors. P. H. Dowling and J. R. Sewell. J Ap Phys 25:228-30 F '54

Evaporation of liquids into their superheated vapors. Ju Chin Chu, A. M. Lane and D. Conklin. bibliog diag Ind & Eng Chem 45:1586-91 Jl '53

Faraday effect in gases and vapors. L. R. Ingersoll and D. H. Liebenberg. diags Opt Soc Am J 44:566-71 Jl '54

New technique for vapor separation; filtration of diffusible component through a gas; patent. diags Chem Eng 60:344+ D '53

Pressure volume temperature relationships of alcohol vapors. C. B. Kretschmer and R. Wiebe. bibliog diag Am Chem Soc J 76:2579-83 My 5 '54

Thermal conductivity of organic vapors; the relationship between thermal conductivity and viscosity, and the significance of the Eucken factor. R. G. Vines and L. A. Bennett. bibliog diag J Chem Phys 22:360-6 Mr '54

See also
Adsorption
Electric precipitation
Evaporation
Fumes
Gases
Solvents
Steam
Vapor pressure
Vaporization
Water vapor

VARIABLE annuity corporation of America (proposed)

New York state association asks veto of Variable Annuity measure. Nat Underw (Life ed) 58:15 Mr 26 '54

213 bills signed, Variable Annuity measure vetoed. Nat Underw (Life ed) 58:1 Ap 23 '54

VARIAMINE blue. See Blue

VARIATION (statistics)

Analysis of variance in dealing with mill data. G. Beall. Tappi 37:sup 123A-4A Ja '54

See also
Standard deviation

VARIATIONS, Calculus of. See Calculus of variations

VARIETY stores

Let's take a fresh look at today's variety store market. J. C. Cumming. il Sales Management 72:80+ F 1 '54

Manager's a key man in the variety store market. J. C. Cumming. il Sales Management 71:112+ Ag 15 '53

See also
Chain stores

VARNISH and varnishing

Esters of distilled and acid refined tall oil as varnish vehicles. P. D. Patrick, jr. and others. Tappi 36:561-4 D '53

Fumes and complaints knocked out by know-how; Du Pont's varnish plant. C. R. De Bow. il diags Chem Eng 61:124+ S '54

Surface structures and the evaporation process; abstract. D. Wapler. Paint Oil & Chem R 116:20 D 31 '53

VASCULAR system

Diseases

Peripheral vascular disorders caused by industrial occupations. H. M. Cuneo. bibliog Ind Med 22:525-8 N '53

VASOPRESSIN

Enzymatic cleavage of glycinamide from vasopressin and a proposed structure for this pressor-antidiuretic hormone of the posterior pituitary. V. du Vigneaud, H. C. Lawler and E. A. Popenoe. Am Chem Soc J 75:4880-1 O 5 '53

High strepogenin potency of synthetic oxytocin and of purified vasopressin. D. W. Woolley and R. B. Merrifield. bibliog Am Chem Soc J 76:316 Ja 5 '54

VAT dyes. See Dyes and dyeing—Vat dyes

VAULTS

Mosler safe company introduces new bank vault door. il Bankers Mo 70:47 N '53

REA offers bomb-proof storage; Iron Mountain atomic storage vaults. il Ry Age 137:45 S 6 '54

VAULTS (electric installation)

Pre-assembled units reduce vault costs. H. W. Dornbush. il diags Elec World 141:119+ F 22 '54

VECTOR analysis

General vector diagram. M. G. Scroggie. diags Elec R (Lond) 154:12-15, 104-6, 144-7 Ja 1, 15-22 '54

Meaning of the vector Laplacian. P. Moon and D. E. Spencer. bibliog Franklin Inst J 256:551-8 D '53

Vector wave function solution of the diffraction of electromagnetic waves by circular disks and apertures. C. Flammer. bibliog J Ap Phys 24:1218-31 S '53; Correction. 25:543 Ap '54

See also
Spinors
Tensors

VEGETABLE parchment. See Parchment paper

VEGETABLES

Test detergents for vegetable washing. Soap & Chem Spec 30:97 S '54

See also
Canned food
Cooling of fruits and vegetables
also names of vegetables, e.g.
Beans
Corn
Lettuce
Potatoes
Tomatoes

Prepackaging

Current pre-packaging trends. Mod Packaging 27:180+ Ag '54

Doubles plant capacity by mechanization, and ups worker productivity 180 per cent; tomato prepackager, Jack Esformes corp. R. G. White. il plan Food Eng 26:64-6+ S '54

Polyethylene-package maker; Suffolk farms packing co. il Mod Packaging 27:116-19 N '53

Potato goes modern; packaged in polyethylene bags. il Mod Packaging 28:142-6+ S '54

Pre-packaged produce today. flow chart il Mod Packaging 27:122-7+ My '54

Preservation

Influence of cultural conditions on the quality and preservation of fruit and vegetables; abstract and discussion. R. G. Tomkins. Chem & Ind p71-2 Ja 16 '54

Storage

Desprouters. Chem Eng 60:333 N '53

VEGETABLES, Frozen

Frozen vegetables, 1949-1952. Survey of Cur Bsns 1953 Sup p 137 [supplemented in monthly numbers]

VEHICLES

See also
Automobiles
Bicycles
Cars
Electric vehicles
Motor buses
Motor trucks
Motor vehicles
Trailers

VELOCITY

Computation charts and theory for rectangular and circular jets. H. G. Elrod, jr. bibliog Heating-Piping 26:149-55 Mr '54

Electromagnetic velometry; elimination of the effects of induced currents in explorations of the velocity distribution in axially symmetrical flow. A. Kolin and F. Reiche. diags J Ap Phys 25:409-13 Ap '54

Velocity distribution between parallel plates. W. G. Schlinger and B. H. Sage. bibliog Ind & Eng Chem 45:2636-9 D '53

See also
Electrons—Velocity
Light—Velocity
Sound—Velocity
Speed variation

VELON. See Textile fibers, Synthetic

VENDING machines

Automatic merchandising. W. B. England. Harvard Bsns R 31:86-94 N '53

Automatic selling; new dimension for retail sales; abstract. G. R. Schreiber. Management R 43:303-4 My '54

VENDING machines—*Continued*

Robot restaurants as aids to morale. C. H. Brinkmann. Advanced Management 18:15-16 D '53

Slot machine coffee; now it's an $8,000,000 business; Rudd-Melikian, inc. A. B. Ecke. il Sales Management 71:24-7+ Jl 15 '53

Snack vendors pay union benefits; vending machine profits at Pittsburgh Steel plants. J. B. Delaney. il Iron Age 173:37 Ja 21 '54

Springfield gets extra revenues; gum vending machines. il Bus Transportation 33:37 Mr '54

Their yearly volume has doubled since the war. F. Henle. Barron's 33:15-16 S 14 '53

This machine helped open 25 markets; Dr Pepper cup vendor. M. K. Pirie. il Sales Management 73:36-8 S 1 '54

Vender capacity doubled within same frame size. il diags Product Eng 24:152-3 S '53

Vending machines; from nuts to soup. Steel 133:61 Jl 13 '53

Vending machines; silent selling is booming. il Steel 135:60 S 6 '54

What can vending machines do? il Ry Age 136:124 My 17 '54

Advertising

Showers of want ads; vending machine code. D. L. Lionel. Ed & Pub 86:30 My 9 '53

Insurance company use

Associated machines out, others in, at Chicago airport. Nat Underw 58:11 Mr 18 '54

Chicago may give nod to two air policy vending plans. Nat Underw 57:13 Ag 20 '53

Mutual of Omaha's computer brain installed in 75 large airports through Tele-Trip policy co. il East Underw 55:30 Ja 8 '54

Insurance requirements

Vital role of insurance to vending machine industry. J. C. Weghorn. East Underw 55:28 O 15 '54

VENEERS and veneering

New ceramic veneer offers chance for expansion of line with present equipment; Robinson brick & tile co. il Brick & Clay Rec 125:48-9 Ag '54

Paper and wood; a new team. J. A. Hall. il Paper Ind 35:1209-12 F '54

VENEREAL diseases

Half a century of international control of the venereal diseases. T. J. Bauer. bibliog il Pub Health Rep 68:779-87 Ag '53

Preventive medicine screening program in a venereal disease clinic. G. J. Gruman. Pub Health Rep 68:633-4 Je '53

See also

Syphilis

VENEZUELA

See also

Chemical industries—Venezuela
Gas, Natural—Venezuela
Geology—Venezuela
Iron mines and mining—Venezuela
Iron ores—Venezuela
Petroleum—Venezuela
Petroleum industry and trade—Venezuela
Television broadcasting—Venezuela

Economic conditions

Economic conditions abroad (cont). For Comm W 51:7 Ja 4 '54

VENNER, limited

Statement by the chairman. A. A. Rowse. Economist 168:69-70 Jl 4 '53

VENTILATION

Conditioning wheat for storage on the farm. V. Marvin. il Heat & Ven 51:86 Ja '54

Effective way to vent heater room; detail plate. K. R. O'Neal. il plan diags Am Bld 75:172-3 N '53

Fresh air underground. il Safety Maint & Prod 107:31+ F '54

How heat and ventilate paint spray booth? Heating-Piping 26:146-7 My '54

Industrial ventilation conference, 3d, East Lansing, Mich.; with abstracts of papers. Heating-Piping 26:94-6 Ap '54

Recent developments in heating, air conditioning and plumbing. N. N. Wolpert. il diag Arch Rec 113:193-6+ My '53

Ventilating the atomic energy plant. T. G. Marshall. bibliog il Refrig Eng 62:39-42+ My '54

Ventilation for ship construction and repair; spray painting. G. S. Reichenbach, jr. il Heat & Ven 51:63-6, cover Ja '54

Vertical separators aid in experimental trickling filter. E. F. Gloyna and M. Smith. bibliog diag Pub Works 85:75-6+ Je '54

See also

Air conditioning
Air diffusers
Air filters
Air pipes
Air pollution
Air purification
Cooling
Dust removal
Electric fans, Ventilating
Exhaust systems
Gas appliances—Ventilation
Heating
Humidity
Mine ventilation
Tunnel ventilation
Ventilators

also subdivision Heating and ventilation under special subjects, e.g.

Chemical plants
Churches
Factories
Paper and pulp mills
School buildings

Bibliography

Abstracts and reviews. Published in monthly numbers of Heating and ventilating

Tables, calculations, etc.

Estimate natural ventilation of buildings. Mill & Factory 55:86 Ag '54

VENTILATION research

Research facilities for heat exchange; Trane co.'s research, product development and testing program. il plans diags Arch Rec 116:144-50 Jl '54

VENTILATORS

Air control grille. diag Engineer 196:348 S 11 '53; il Metallurgia 49:61-2 F '54

Heating, ventilating, and air conditioning equipment. il plans diags Am Bld 75:253+ Ap '53

How to control unit ventilators in school buildings. H. W. Alyea. il diags Heating-Piping 25:92-5 O; 122-4 N; 80-3 D '53; Discussion. 26:103-4 Mr; 79-80 Jl '54

New design method for school systems cuts costs; unit ventilators. L. R. Fuller. Heat & Ven 50:77-80 D '53

On-the-spot cleanliness; portable air mover. il Chem W 74:17+ Ja 2 '54

Unusual application of aluminum flame brazing. F. J. M. Smith. Metal Prog 65:156+ Je '54

VENTURA, California

Water supply

Sea water for cation exchanger regeneration. J. M. Montgomery. Am Water Works Assn J 46:600-7; Discussion. E. Nordell. 607-8 Jl '54

VENTURE capital. See Capital

VENTURI flumes

See also

Parshall flume

VENTURI meters

For a Venturi life begins at 40. il Pub Works 85:88 Ap '54

Selection of main line meters simplified by use of charts; head losses in Venturi and orifice meters. J. C. Thoresen. diags Water & Sewage Works 101:150-7 Ap '54

VENTURI tubes

For metering gas flow, Venturi tube vs. orifice plate. D. T. McDonald. il Pet Processing 9:66-71 Ja '54

Simple Venturi jet adds to the efficiency of pump mixing. S. Yokell. diags Chem Eng 61:224 Ap '54

Special-purpose Venturi tubes. F. L. Sommer. diags Instruments & Automation 27:126-7 Ja '54

VENUTO, Louis Joseph, 1900-

Chemistry's impact on paints; winners of 1954 PaVaC award. por(cover) Chem & Eng N 32:2278+ Je 7 '54

VERATRINE

Veratrine alkaloids; the ring system of the tertiary polyhydroxy veratrine bases; oxidative studies with cevanthridine and veranthridine. S. W. Pelletier and W. A. Jacobs. Am Chem Soc J 76:2028-9 Ap 5 '54

VERATRUM

Alkaloids of veratrum eschscholtzii Gray; the ester alkaloids. M. W. Klohs and others. bibliog Am Chem Soc J 76:1152-3 F 20 '54

Alkaloids of veratrum fimbriatum Gray. M. W. Klohs and others. bibliog Am Chem Soc J 75:4925-7 O 20 '53

Isolation of crystalline hypotensive veratrum ester alkaloids by chromatography. S. M. Kupchan and C. V. Deliwala. bibliog Am Chem Soc J 75:4671-2 O 5 '53

Separation of alkaloids of veratrum species. W. G. H. Edwards. Chem & Ind p488-9 My 16 '53

VERDET constant

Faraday effect in gases and vapors. L. R. Ingersoll and D. H. Liebenberg. diags Opt Soc Am J 44:566-71 Jl '54

VERMICULITE

Expanded minerals find new jobs. il Dun's R & Mod Ind 63:117-18+ F '54

Vermiculite concrete insulates cantilevered heating slab; Pitt-Penn terminal co. warehouse. il Civil Eng 23:610 S '53

Zonolite expands the market with do-it-yourself ideas. il Sales Management 71:89-90+ S 15 '53

VERMILYE medal

Vermilye medal presentation. il Franklin Inst J 256:105-8 Ag '53

VERMONT

See also

Architecture, Domestic—Vermont

VERMONT association of insurance agents

Annual meeting, Lake Morey, Fairlee, Sept. 13-14. Nat Underw 57:14 S 24 '53

VERNONIA

Fatty acids; the nature of the oxygenated acid present in vernonia anthelemintica (Willd.) seed oil. F. D. Gunstone. Chem Soc J p 1611-16 My '54

VERSENATE. See Ethylenediamine tetraacetic acid

VERTEBRATES, Fossil

See also

Mammals, Fossil

VERTICAL files

Vertical file classification system for a special library. L. P. Murphy. il Special Lib 44:179-81 My-Je '53

VESICULAR exanthema. See Swine—Diseases and pests

VESTED rights

Pension plans under collective bargaining; extent and nature of vested rights in pension plans and their relationship to the problems of labor mobility. E. K. Rowe and T. H. Paine. Mo Labor R 76:237-45 Mr '53

VETERANS

See also

Hospitals, Military

Housing

How good is a government guarantee? study of FHA and VA mortgages. S. E. Neel. Banking 46:47-8+ D '53

Insurance

See Insurance, Military and naval service

Loans

GI home loans over $3 billion, 1953. Spectator 162:19 F '54

How good is a government guarantee? study of FHA and VA mortgages. S. E. Neel. Banking 46:47-8+ D '53

Solution of mortgage problems. F. W. Jackson. Comm & Fin Chr 178:1334 O 8 '53

Variations in costs of mortgage financing to veterans in Jacksonville. C. C. Osterbind and G. B. Hurff. Land Econ 30:64-71 F '54

VA order tying loans to take home pay stirs protest. House & Home 3:39 Ap '53

VETERANS administration

Action follows fast after round table protest to Hollyday and King on valuations. House & Home 5:140-51 Mr '54

Court vindicates agents' advice on Civil relief act. East Underw 55:1+ Je 18 '54

Decision may stop VA's welching on Civil relief act. Nat Underw (Life ed) 58:1 Je 25 '54

Handsome project gets ax from Connecticut VA. il plans House & Home 5:136-9 Ap '54

VA faces potent new point in appeal from setback in New York civil relief suit. Nat Underw (Life ed) 58:3+ Jl 23 '54

VA to appeal from New York decision on civil relief roll. R. B. Mitchell. Nat Underw (Life ed) 58:1 Jl 9 '54

VETERANS' pensions. See Pensions, Military

VETERINARY hospitals. See Hospitals, Veterinary

VETERINARY medicine

Dictionaries

Black's veterinary dictionary. W. C. Miller and G. P. West. 3d ed 1112p $9 Williams & Wilkens co, Mt Royal and Guilford avs, Baltimore 2 '53

Regulation

Biological regulations released in final form. Oil Paint & Drug Rep 165:3+ My 31 '54

Veterinary drug rules rewritten. Oil Paint & Drug Rep 165:4+ Mr 22 '54

Veterinary drugs plan drops censorship idea. Oil Paint & Drug Rep 165:3+ F 1 '54

Study and teaching

See also

Cornell university—New York state veterinary college

VIADUCTS. See Bridges, Concrete

VIBRATION

Gyratory vibration in sieving. J. Hurst. il Chem Age (Lond) 69:1273-6+ D 19 '53

Nature of solutions of a Rayleigh-type forced vibration equation with a large coefficient of damping. P. Brock. bibliog diags J Ap Phys 24:1004-7 Ag '53

Opinion vs measurement in the evaluation of vibration effects from blasting. H. H. White. Rock Prod 57:83 F '54

Second mode vibrations of the Pochhammer-Chree frequency equation. C. W. Curtis. il J Ap Phys 25:928 Jl '54

Short range propagation of mechanical disturbances in the ground. B. J. Starkey and C. M. Lock. diag J Ap Phys 25:816-17 Je '54

Simplified analysis of complex vibration problems. O. C. Brewster. diags Product Eng 24:161-6 N '53

Suppression of overtones of thickness-shear and flexural vibrations of crystal plates. R. D. Mindlin and H. Deresiewicz. J Ap Phys 25:25-7 Ja '54

Thermal energy in almost normal modes. J. E. Rhodes, jr. Phys R 93:1-3 Ja 1 '54

Thickness-shear and flexural vibrations of contoured crystal plates. R. D. Mindlin and M. Forray. diags J Ap Phys 25:12-20 Ja '54

Thickness-shear vibrations of piezoelectric crystal plates with incomplete electrodes. R. D. Mindlin and H. Deresiewicz. diag J Ap Phys 25:21-4 Ja '54

Vibration can injure your piping system. Textile World 104:236-7 F '54

Vibration of the Grand Coulee pump-discharge lines. J. Parmakian. bibliog il diags A S M E Trans 76:783-8; Discussion. 788-90 Jl '54

See also

Airplanes—Vibration
Automobiles—Vibration
Balancing of machinery
Bridges—Vibration
Concrete—Vibration
Machinery—Vibration
Oscillations
Ships—Vibration
Sound waves

Measurement

Damping measurements on low frequency transverse vibrations of fibres. P. L. Kirby. diag J Sci Instr 30:339-40 S '53

Device insures accuracy; Vibraton detects and measures vibrations. Steel 134:136 F 1 '54

Electromagnetic vibration pick-ups with simple seismic suspension. J. A. Macinante. il diags J Sci Instr 30:155-8 My '53

VIBRATION—Measurement—*Continued*

Measurement of the damping of rapidly decaying transverse vibrations. P. L. Kirby. il J Sci Instr 31:303 Ag '54

Mobile research laboratory for making field measurements in acoustics, vibration, and pulsative fluid flow. R. C. Baird. il plans Pet Eng 25:C29-30+ N '53

New instruments measure ship vibrations. P. Letica. il Marine Eng 58:78-9 N '53

Resonance-type vibration calibrator. Franklin Inst J 255:547-8 Je '53

Units track down frequency, size of machine vibration. il Iron Age 173:173A Ap 8 '54

Vibration pickup calibrator. Franklin Inst J 256:559-60 D '53; Same abr. Mill & Factory 53:266+ N '53

VIBRATION absorbers

Anti-vibration mount for a sensitive instrument in a boiler house. O. P. T. Kantorowicz. diag J Sci Instr 31:28-9 Ja '54

Natural frequency of a nonlinear system subjected to a nonmassive load. C. E. Crede. diag A S M E Trans 76:117-19; Discussion. 119-20 Ja '54

Resilient bearing pads for highway bridges. F. J. Carty. il Roads & Sts 96:76-7+ O '53

VIBRATORS

Mechanical vibrator; patent. diags Electronics 26:236+ N '53

Packaged screed lets contractors build their own; Stow manufacturing co. il Constr Methods 36:60 Mr '54

Vibration generator for electron tubes. Franklin Inst J 256:177-8 Ag '53

VIBRIO metschnikovii. See Bacteria

VIBROFLOTATION process. See Soils—Consolidation

VIBROSCOPE

Effect of stiffness and nonuniformity on vibroscopic determination of filament cross-sectional area. D. J. Montgomery. bibliog J Ap Phys 24:1092-9 S '53

Experimental study of stiffness and nonuniformity in the vibroscopic determination of fiber cross-sectional area. E. T. L. Voong and D. J. Montgomery. bibliog Textile Res J 23:821-30 N '53

VICARA. See Textile fibers, Synthetic

VICKERY, Hubert Bradford, 1893-

Basic research in tobacco chemistry. R. F. Dawson. por J Chem Educ 30:404-6 Ag '53

VICTOR chemical works

Rising commercial use of phosphates spurs sales, profits. Barron's 33:18-19 N 2 '53

VIDICON. See Television cameras

VINYL acetate

Chicago gets run down on polyvinyl acetate exterior coatings. H. J. Zahrndt. Paint Oil & Chem R 117:18 Ap 22 '54

Diffusion of gases through polyvinyl acetate. P. Meares. bibliog diag Am Chem Soc J 76:3415-22 Jl 5 '54

Diffusion of organic vapors into polyvinyl acetate. R. J. Kokes and F. A. Long. bibliog Am Chem Soc J 75:6142-6 D 20 '53

Equilibrium sorption of several organic diluents in polyvinyl acetate. R. J. Kokes, A. R. DiPietro and F. A. Long. bibliog Am Chem Soc J 75:6319-21 D 20 '53

In, out, and under; polyvinyl acetate for coatings. il Chem W 73:63-4 N 14 '53

Is PVA headed for house paints? Everflex G. Paint Oil & Chem R 117:4 F 25 '54

No end to end-use. il Chem W 73:59-61 Ag 29 '53

Polyvinylacetate; a light scattering and viscosity study. A. R. Shultz. bibliog Am Chem Soc J 76:3422-30 Jl 5 '54

Polyvinyl acetate emulsions stabilized with styrene-butadiene copolymers. Am Dyestuff Rep 43:53-4 Ja 18 '54

Resinous adhesives for bookbinding. Chem Age (Lond) 69:547-8 S 12 '53

Suspension copolymerization of vinyl chloride and vinyl acetate. E. J. Emmer and S. G. Bankoff. bibliog Ind & Eng Chem 46:673-5 Ap '54

Vinyl adhesives extend gains. Chem & Eng N 32:978 Mr 8 '54

See also

Vinyl chloroacetate

Analysis

Analysis of alkyd resins modified with vinyl chloride-acetate copolymer. M. H. Swann and G. G. Esposito. Anal Chem 26:1054-5 Je '54

VINYL alcohol

Pevalon film. Chem Age (Lond) 71:478 S 4 '54

Protozoans in stools unpreserved and preserved in PVA-fixative. M. Goldman and M. M. Brooke. Pub Health Rep 68:703-6 Jl '53

Spin-coated polyvinyl alcohol replicas for electron microscope use. F. E. Bulette. il J Ap Phys 25:810-11 Je '54

VINYL benzoate

Pyrolysis of vinyl benzoate. R. J. P. Allan and P. D. Ritchie. bibliog Chem & Ind p747 Jl 18 '53

VINYL butyral

Properties of exposed and unexposed polyvinyl butyral coated fabrics. M. I. Landsberg and others. bibliog Am Soc T M Proc 51:1262-76 '51

VINYL chloride

Blends of polyvinyl chloride with rubbers. W. J. Smith. Rubber Age 74:552-3 Ja '54; Same. India Rubber World 129:785-6 Mr '54

Broad as the horizon; Seiberling rubber co.'s Seilon. il Chem W 74:66 Je 12 '54

Clad metal firm enters plastics field; Knapp mills inc. A. P. Knapp. Materials & Methods 40:200+ Ag '54

Construction and corrosion; Bakelite's Vybak industrial rigid PVC sheet VR. 215. il Chem Age (Lond) 71:665-6 S 25 '54

Dynamic properties of plasticized polyvinyl chloride. M. G. Dilke and J. J. Millane. bibliog il diag J Ap Chem 4:507-13 S '54

Evolution of halides from halogenated plastics exposed to gamma radiation. J. Byrne and others. Ind & Eng Chem 45:2549-52 N '53

Extinguishing fires in vinyl chloride with dry chemicals. Rubber Age 74:761 F '54

Fabrication and use of rigid polyvinyl chloride plastics. J. L. Huscher. bibliog il diags Materials & Methods 39:119-34 Je '54 (reprints 25c)

Fans and ducting of corrosion-resistant plastic. il Engineering 177:60-1 Ja 8 '54

Flexible materials; extrusion and molding developments; abstract. F. A. Martin. Rubber Age 75:560 Jl '54

Hard vinyl plastics. M. J. Pagerie. il Machine Design 25:169-71 D '53

Injection molding of elastomeric vinyls. F. A. Martin. il diags India Rubber World 129: 624-7, 777-9 F-Mr '54

New migration stopper; U.S. Dept. of agriculture's success in copolymerizing vinyl chloride and vinyl stearate. Chem W 74: 36 Mr 6 '54

Plasticizers in vinyl chloride resins; migration of plasticizer. H. M. Quackenbos, jr. Ind & Eng Chem 46:1335-44 Je '54

Plasticizers in vinyl chloride resins; removal by oil, soapy water, and dry powders. M. C. Reed, H. F. Klemm and E. F. Schulz. bibliog il diag Ind & Eng Chem 46:1344-9 Je '54

Plastics for chemical engineering construction; unplasticized polyvinylchloride. G. S. Laaff. il diags Chem Eng Prog 50:275-82 Je '54

Proper fabrication of unplasticized polyvinyl chloride equipment. G. S. Laaff. diags Chem Eng 60:312-18 Je '53

Rigid PVC and its applications. Chem Age (Lond) 69:1227-9 D 12 '53

Rigid polyvinylchloride pipes and ducting. V. Evans. il Chem Age (Lond) 70:557-60 Mr 6 '54

Rigid vinyls and rubber-resin blends; processing and applications; abstract. G. S. Laaff. Rubber Age 75:561 Jl '54

Stop corrosion of buried pipes with polyvinyl-chloride tapes. il Power 98:109-11 Ja '54

Suspension copolymerization of vinyl chloride and vinyl acetate. E. J. Emmer and S. G. Bankoff. bibliog Ind & Eng Chem 46:673-5 Ap '54

Suspension PVC plants on the rise. il diag Chem & Eng N 32:3672 S 13 '54

VINYL chloride—*Continued*

Thermal degradation of polyvinyl chloride. N. Grassie. Chem & Ind p 161 F 6 '54

Use of rigid polyvinyl chloride as a structural material. A. M. Stover. il Rubber Age 75:234-6 My '54

Vinyl chloride fires. Safety Maint & Prod 107:40 My '54

Vinyl chloride from acetylene; Naugatuck chemical co. diag Pet Refiner 32:134-5 N '53

Vinyl chloride from ethylene; manufacturing process. diag Pet Refiner 32:136-7 N '53

Analysis

Analysis of alkyd resins modified with vinyl chloride-acetate copolymer. M. H. Swann and G. G. Esposito. Anal Chem 26:1054-5 Je '54

Manufacture

Polyvinyl chloride; Naugatuck Chemical. diag Pet Refiner 32:188-9 N '53

Vinyl chloride from dilute acetylene gases. R. E. Lynn, jr. and K. A. Kobe. bibliog (34 ref) flow sheets il diags Ind & Eng Chem 46:633-43 Ap '54

VINYL chloroacetate

Preparation of dyeable fiber-forming compositions. G. E. Ham and P. W. Gann. bibliog Ind & Eng Chem 45:2320-6 O '53

VINYL compounds

Chain transfer of vinyl monomers with carbon tetrabromide. N. Fuhrman and R. B. Mesrobian. bibliog Am Chem Soc J 76: 3281-6 Je 20 '54

Depolymerization reactions in vinyl polymers. N. Grassie. bibliog Chem & Ind p622-4 Je 27 '53

Fats find vinyl outlet. Chem W 72:40+ My 2 '53

Increased activity in vinyl fabric field in '54. Rubber Age 74:600 Ja '54

Manufacture, properties, and uses of polyvinyl formal; Formvar. A. F. Fitzhugh and others. bibliog(28 ref) flow sheet Electrochem Soc J 100:351-5 Ag '53

Materials for special service; foamed vinyl plastics. R. A. Calsibet. il Machine Design 26:163-5 My '54

Midstream horse change; birth of new mark, Krene. il Chem W 73:52 Jl 25 '53

Monomer synthesis; synthesis of a vinyltriazine and a study of the reaction of phenylbiguanide with acrylate esters. C. G. Overberger and S. L. Shapiro. bibliog Am Chem Soc J 76:1061-5 F 20 '54

New material may become base for another family of plastics; vinyltoluene. il Materials & Methods 38:143 N '53

Plastic alloys provide low cost, corrosion-resistant finish. W. G. Patton. il Iron Age 172:159-62 S 10 '53

Plastics equipment reference sheet; plasticized vinyl resins. R. B. Seymour and R. H. Steiner. Chem Eng Prog 49:330 Je '53

Plastisols; processing and applications; abstract. R. P. Molitor. Rubber Age 75:560 Jl '54

Polymerisation of a series of vinyl monomers in wool. N. K. Boardman and M. Lipson. bibliog Soc Dyers & Col J 69:335-8 S '53

Preparation of liquid ammonia solutions of sodium vinylacetylide. W. J. Croxall and J. O. Van Hook. Am Chem Soc J 76:1700 Mr 20 '54

Shawinigan ups polyvinyl butyral capacity; with pictured flow sheet. il Chem Eng 61: 122+, 346-91 F '54

Shun the fast buck; vinyl film market. Chem W 73:72+ S 12 '53

Some recent developments in vinyl resin products. Rubber Age 74:560 Ja '54

Sulfostyrenes; preparation and polymerization of potassium *p*-vinylbenzenesulfonate. R. H. Wiley, N. R. Smith and C. C. Ketterer. bibliog Am Chem Soc J 76:720-3 F 5 '54

Synthesis in the santonin series; the use of β-substituted vinyl ketones. P. R. Hills and F. J. McQuillin. Chem Soc J p4060-5 D '53

Tight tunnels in mines; vinyl and asphaltic compounds sprayed under pressure cut air losses. il Chem W 72:26 Ap 11 '53

Turning out vinyls sans dust. il Chem Eng 60:124+ Je '53

Vinyl film; how specifications are tailored to use. R. C. Hawkins. Can Chem Process 37:60+ N '53

Vinyl latex aids in restoration of centuries-old art masterpieces. Rubber Age 74:83 O '53

Vinyl paste resin dispersions. W. D. Todd. Can Chem Process 38:84+ My '54

Vinylsilanes, chlorovinylsilanes and β-styryltrimethylsilane; further studies on the α-silicon effect and β-eliminations involving silicon. L. H. Sommer and others. bibliog Am Chem Soc J 76:1613-18 Mr 20 '54

Vinyl type polymers. C. E. Schildknecht. il Chem & Eng N 31:4516-20 N 2 '53

Waxing vinyl floors. C. S. Kimball. Soap & San Chem 29:147+ Je '53

Spectra

Principal electronic absorption bands of the vinylogous series derived from benzylaldehyde and benzophenone. J. F. Thomas and G. Branch. bibliog Am Chem Soc J 75:4793-802 O 5 '53

VINYL cyanide

Spectrum

Microwave spectrum of vinyl cyanide. W. S. Wilcox and others. bibliog J Chem Phys 22:516-18 Mr '54

VINYL ethers

Cyclic vinyl ethers as reagents for the introduction of isoprene units into organic compounds. W. E. Parham and H. E. Holmquist. bibliog Am Chem Soc J 76: 1173-5 F 20 '54

Epoxyethers; the reaction of perbenzoic acid with vinyl ethers. C. L. Stevens and J. Tazuma. bibliog Am Chem Soc J 76:715-17 F 5 '54

Heterocyclic vinyl ethers; benzo-1,4-oxathiadiene and benzo-1,4-dithiadiene. W. E. Parham and J. D. Jones. Am Chem Soc J 76: 1068-74 F 20 '54

Kinetics of ionic polymerisations; the action of iodine chloride and iodine bromide on *n*-butyl vinyl ether. D. D. Eley and J. Saunders. Chem Soc J p 1668-72 Je '54

Kinetics of ionic polymerisations; the copolymerisation of *iso*butyl vinyl ether and 2-chloroethyl vinyl ether. D. D. Eley and J. Saunders. Chem Soc J p 1677-80 Je '54

Kinetics of ionic polymerisations; the inhibition by pyridine and 2-iodopyridine of polymerisation of *n*-butyl vinyl ether catalysed by iodine. D. D. Eley and J. Saunders. Chem Soc J p 1672-6 Je '54

Spectra

Infra-red absorption of vinyl ethers. G. D. Meakins. Chem Soc J p4170-2 D '53

VINYL phosphate

Cation exchange materials from cotton and polyvinyl phosphate. G. C. Daul, J. D. Reid and R. M. Reinhardt. bibliog Ind & Eng Chem 46:1042-5 My '54

VINYL pyridine

Meerwein reaction with *p*-nitrostyrene and 2-vinylpyridine. W. J. Dale and C. M. Ise. bibliog Am Chem Soc J 76:2259-60 Ap 20 '54

2- and 3-Vinylpyridines as dienophiles in the Diels-Alder reaction. W. V. Doering and S. J. Rhoads. bibliog Am Chem Soc J 75: 4738-40 O 5 '53

VINYL pyrimidine

Monomer synthesis; the preparation and polymerization of 4-vinylpyrimidine and 2-N,N-dimethylamino-4-vinylpyrimidine. C. G. Overberger and I. C. Kogon. bibliog Am Chem Soc J 76:1879-83 Ap 5 '54

VINYL pyrrole

2-Vinylpyrrole and homologs. W. Herz and C. F. Courtney. bibliog Am Chem Soc J 76:576-8 Ja 20 '54

VINYL pyrrolidone

Polyvinyl pyrrolidone. E. C. Hansen and others. Am Dyestuff Rep 43:73-5 F 1 '54; Abstract. Textile World 103:145 D '53

Polyvinyl pyrrolidone; abstract. F. R. Eirich. Chem & Eng N 32:2768 Jl 12 '54

VINYL pyrrolidone—*Continued*

Analysis

Microdetermination of polyvinylpyrrolidone in aqueous solution and in body fluids. G. R. Levy and D. Fergus. bibliog Anal Chem 25: 1408-10 S '53

VINYL stearate

New migration stopper; U.S. Dept. of agriculture's success in copolymerizing vinyl chloride and vinyl stearate. Chem W 74: 36 Mr 6 '54

VINYL sulfide

Copolymerization characteristics and spectra of phenyl vinyl sulfide and sulfone. C. C. Price and H. Morita. bibliog Am Chem Soc J 75:4747-50 O 5 '53

VINYL toluene

Catalyst studies in vinyltoluene-drying oil reactions. F. J. Buege. Ind & Eng Chem 46: 1695-700 Ag '54

Dow sees big things ahead for styrene's first cousin. Paint Oil & Chem R 116:13 D 3 '53

Vinyltoluene, a new spoke in the vehicle wheel. W. A. Henson. Paint Oil & Chem R 116:11-13 D 31 '53

VINYLIDENE compounds

Vinylidene cyanide. H. Gilbert and others. bibliog Am Chem Soc J 76:1074-6 F 20 '54

Vinylidene cyanide; a dienophile in the Diels-Alder reaction. S. J. Averill and H. L. Trumbull. bibliog Am Chem Soc J 76:1159-60 F 20 '54

Vinylidene cyanide; the aluminum chloride catalyzed reaction of vinylidene cyanide and aromatic compounds. J. C. Westfahl and T. L. Gresham. bibliog Am Chem Soc J 76:1076-80 F 20 '54

Analysis

Determination of vinylidene cyanide. W. P. Tyler, D. W. Beesing and S. J. Averill. bibliog Anal Chem 26:674-7 Ap '54

VINYLITE

Midstream horse change; birth of new mark, Krene. il Chem W 73:52 Jl 25 '53

VIRGIN ISLANDS

See also

Newspapers—Virgin Islands

VIRGINIA

See also

Automobile laws and regulations—Virginia

VIRGINIA electric and power company

Public utility securities. O. Ely. Comm & Fin Chr 178:2181 D 3 '53

Stock offered. Comm & Fin Chr 178:2245 D 7 '53

VIRIAL coefficients

Second virial coefficients of gases obeying a modified Buckingham (exp-six) potential. W. E. Rice and J. O. Hirschfelder. J Chem Phys 22:187-92 F '54

Second virial coefficients of He^3 and He^4. J. E. Kilpatrick and others. bibliog Phys R 94:1103-10 Je 1 '54

Theory of intermolecular potential and second virial coefficient of hydrogen at low temperature. M. Mizushima and others. bibliog J Chem Phys 21:2107-14 D '53

Theory of the virial development of the equation of state of monoatomic gases. R. J. Riddell, jr. and G. E. Uhlenbeck. bibliog diags J Chem Phys 21:2056-64 N '53

Third virial coefficient of a Lennard-Jones gas by Kihara's method with tables for the 6-9 potential. L. F. Epstein and others. bibliog J Chem Phys 22:464-8 Mr '54

VIRIAL theorem

Generalized Fermi-Thomas theory. M. K. Brachman. bibliog Phys R 93:636 F 1 '54

Virial theorem for Dirac's equation. N. H. March. bibliog Phys R 92:481-2 O 15 '53

VIRUSES

Application of electrophoresis to the identification of biological activity with characteristic particles. R. E. Hartman and M. A. Lauffer. bibliog Am Chem Soc J 75:6205-9 D 20 '53

Blue note for viruses; abstract. F. Heinmets. Ind & Eng Chem 45:sup 15A My '53

Conquest of polio nearer; Parke-Davis and University of California isolate and photograph human polio virus. il Chem & Eng N 31:4767 N 16 '53

Coxsackie virus antibody and incidence of minor illness during the summer. M. Walton and J. L. Melnick. bibliog map Pub Health Rep 68:1167-78 D '53

Isolation of a Coxsackie virus during a summer outbreak of acute minor illness. J. L. Melnick and others. bibliog Pub Health Rep 68:1178-82 D '53

Propagation of group A Coxsackie viruses in denervated adult mouse muscle. W. P. Rowe. Science 117:710 Je 26 '53

Quantitative biology of the Long Island biological association 18th symposium, Cold Spring Harbor, June 5-11. Science 118:66-7 Jl 17 '53

Treatment of mouse-passaged dengue virus (Mochizuki-strain) with protamine sulfate. S. Hotta. Science 118:255 Ag 28 '53

Use of bacteriophage in the study of viruses. L. Dickinson. Chem & Ind p988-90 S 19 '53

Viral chemotherapy; abstract. I. W. McLean, jr. Chem & Eng N 31:3861 S 21 '53

Viral proteins. il Ind & Eng Chem 45:sup 15A Je '53

Viruses within cells. J. L. Melnick. il Sci Am 189:38-41 D '53

VIRUSES, Plant

Versatile virus. K. Maramorosch. il Sci Am 188:78-80+ Je '53

See also

Tobacco mosaic virus

VISCERA

Bilateral reversal of internal organs of the cat. T. D. Bair. Science 118:332 S 18 '53

VISCOMETERS. See Viscosimeters

VISCOSE

Cellulose yield test overcoming the inadequacies of the alpha test. F. R. Charles. bibliog Tappi 37:148-56 Ap '54

VISCOSIMETERS

Capillary viscometer with continuously varying pressure head. S. H. Maron and others. diag J Ap Phys 25:971-6 Ag '54

Continuous recording viscometers. B. W. Thomas. Ind & Eng Chem 45:sup87A-9A Je '53

Electromagnetic viscometer for molten silicates at temperatures up to 1800° C. J. O. Bockris and D. C. Lowe. bibliog diags J Sci Instr 30:403-5 N '53

New method for continuous viscosity measurement; general theory of the ultra-viscoson. W. Roth and S. R. Rich. il diag J Ap Phys 24:940-50 Jl '53

Simple electromagnetic microviscometer for semi-transparent liquids. J. Hart. diag J Sci Instr 31:182-4 My '54

Studies of the Mooney viscometer at the National bureau of standards. bibliog il diag Rubber Age 74:574-5 Ja '54; Same cond. Chem & Eng N 31:4890 N 23 '53

Temperature effects in a rotation viscometer. C. C. Mill and E. R. Gates. bibliog Anal Chem 25:1390-3 S '53

Three-level capillary viscometer. J. G. Honig and C. R. Singleterry. bibliog diag Anal Chem 26:677-80 Ap '54

Through thick and thin; Brookfield Viscometran coupled to capacitance recorder-controller. il diag Chem Eng 61:270 My '54

Variable shear viscometers for cellulose intrinsic viscosity determination. F. H. Wetzel and others. bibliog il diag Tappi 36: 564-71 D '53

Viscometran provides accurate continuous viscosity measurement. il Am Mach 98:194 F 15 '54

Viscosimeter controls viscosity to a base temperature; Viscorator. Chem & Eng N 31:3316 Ag 10 '53

Viscosimetry of gases at high temperatures and pressures. Franklin Inst J 255:445-8 Ag '53

VISCOSITY

Activation energy for viscous flow and short-range order. G. J. Dienes. bibliog J Ap Phys 24:779-82 Je '53

Anomalous viscous flow at very low rate of shear and small shearing stress. J. T. Bergen and W. Patterson, jr. bibliog diag J Ap Phys 24:712-19 Je '53

VISCOSITY—*Continued*

Bulk viscosity of the system polystyrene; diethyl benzene. F. Bueche. bibliog J Ap Phys 24:423-7 Ap '53

Changes in the intrinsic viscosity and optical rotation of bovine plasma albumin associated with acid binding. Jen Tsi Yang and J. F. Foster. bibliog Am Chem Soc J 76:1588-95 Mr 20 '54

Chemistry of aliphatic phosphonic acids; dielectric constants and viscosity of some higher alkylphosphonates. G. M. Kosolapoff. Am Chem Soc J 76:615-17 Ja 20 '54

Conversion of kinematic viscosity (centistokes) to Redwood no I seconds. Inst Pet J 39:846-7 D '53

Degree of polymerization and its distribution in cellulose rayons; relation between the nitrogen content and the intrinsic viscosity of cellulose nitrate. W. G. Harland. bibliog Textile Inst J Trans 45:T692-5 S '54

Density, viscosity, specific heat, thermal conductivity, and Prandtl number versus concentration and temperature; sulphite waste liquor. R. E. Hunter and others. bibliog (26 ref) Tappi 36:493-7 N '53

Direct determination of the flow curves of non-Newtonian fluids; standardized treatment of viscometric data. I. M. Krieger and S. H. Maron. J Ap Phys 25:72-5 Ja '54

Effects of rate of shear on inherent and intrinsic viscosities of polystyrene fractions. L. J. Sharman and others. bibliog J Ap Phys 24:703-11 Je '53

Experimental investigation of the effects of viscosity on the drag and base pressure of bodies of revolution at a Mach number of 1.5. D. R. Chapman and E. W. Perkins. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:805-28 '52

Ferry reduction and the activation energy for viscous flow. I. L. Hopkins. bibliog diag J Ap Phys 24:1300-4 O '53

Flow properties of textile printing pastes. R. L. Derry and R. S. Higginbotham. pl Soc Dyers & Col J 69:569-73; Discussion. 573-5 D '53

Friction and consumption characteristics of motor oils; effect of viscosity index improvers. D. Frazier, A. R. Klingel and R. C. Tupa. bibliog Ind & Eng Chem 45:2336-42 O '53

General system describing the visco-elastic properties of bitumens and its relation to routine test data. C. van der Poel. bibliog J Ap Chem 4:221-36 My '54

How to use that new viscosity standard. R. H. Robinson. Pet Processing 8:1331 S '53

Importance of viscosity control. L. O. Carlisle. Tappi 37:sup 191A-3A Je '54

Indeterminate integral in Einstein's theory of the viscosity of a suspension. M. Mooney. J Ap Phys 25:406-7 Mr '54

Intrinsic viscosities and molecular weights of cellulose and cellulose derivatives. E. H. Immergut and F. R. Eirich. bibliog(72 ref) Ind & Eng Chem 45:2500-11 N '53; Correction. 46:369 F '54

Intrinsic viscosity of cellulose. A. F. Martin. bibliog Ind & Eng Chem 45:2497-9 N '53

Intrinsic viscosity of nitrocellulose related to degree of nitration. C. H. Lindsley and M. B. Frank. bibliog Ind & Eng Chem 45: 2491-7 N '53

Moisture content of a fine-coal filter cake; effect of viscosity and surface tension. C. E. Silverblatt and D. A. Dahlstrom. bibliog diags Ind & Eng Chem 46:1201-7 Je '54

Molecular transport properties of fluids. E. F. Johnson. Ind & Eng Chem 45:902-7 bibliog(126 ref, p905-7); 46:889-93 bibliog(81 ref, p892-3) My '53, My '54

Non-Newtonian behavior; abstract. P. Goldberg and R. M. Fuoss. Chem & Eng N 32:1564 Ap 19 '54

Polyphosphates as polyelectrolytes; viscosity of aqueous solutions of Graham's salts. U. P. Strauss and E. H. Smith. bibliog Am Chem Soc J 75:6186-8 D 20 '53

Polyvinylacetate; a light scattering and viscosity study. A. R. Shultz. bibliog Am Chem Soc J 76:3422-30 Jl 5 '54

Recent work on molecular weight of cellulose. E. H. Immergut, B. G. Ranby and H. F. Mark. bibliog diags Ind & Eng Chem 45: 2483-90 N '53

Reduced equation for viscoelastic behavior of amorphous polymers in the transition region. A. V. Tobolsky and E. Catsiff. Am Chem Soc J 76:4204-8 Ag 20 '54

Re-evaluation of glass viscosities at annealing and strain points. H. R. Lillie. diag Am Cer Soc J 37:111-17 Mr 1 '54

Relation between vapor pressure and viscosity of liquids. S. S. Mitra. J Chem Phys 22:349-50 F '54; Correction. 22:1471 Ag '54

Relaxation, viscosity, and shape; abstract. C. P. Smyth. Chem & Eng N 32:1564 Ap 19 '54

Some derived relations between viscosity and percentage of solvent in phenol-formaldehyde reaction mixtures. K. B. Goldblum. J Ap Chem 4:19-21 Ja '54

Some interferences in flame photometry. R. D. Caton, jr. and R. W. Bremner. bibliog il diags Anal Chem 26:805-13 My '54

Statistical mechanical theory of transport processes; a calculation of the coefficients of shear and bulk viscosity of liquids. R. W. Zwanzig and others. J Chem Phys 21:2050-5 N '53

Study of effects of viscosity on flow over slender inclined bodies of revolution. H. J. Allen and E. W. Perkins. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:1103-15 '52

Temperature coefficients of non-Newtonian viscosity at fixed shearing stress and at fixed rate of shear. A. B. Bestul and H. V. Belcher. bibliog J Ap Phys 24:696-702 Je '53

Temperature dependence of the viscosity of liquids. F. Gutmann and L. M. Simmons. bibliog J Ap Phys 23:977-8 S '52; Discussion. A. K. Doolittle. 24:1067; Reply. 1067-8 Ag '53

Test of the theory of secondary viscoelastic stress. M. Mooney. bibliog J Ap Phys 24: 675-8 Je '53

Thermal conductivity of organic vapors; the relationship between thermal conductivity and viscosity, and the significance of the Eucken factor. R. G. Vines and L. A. Bennett. bibliog diag J Chem Phys 22:360-6 Mr '54

Value of viscosity measurements for characterizing high polymers; abstract. C. T. Greenwood. Chem & Ind p567 My 15 '54

Variation of the viscosity of gelatin sols with temperature. R. J. Croome. bibliog J Ap Chem 3:330-4 Jl '53

Viscoelastic properties of dilute polymer solutions. P. E. Rouse, jr. and K. Sittel. bibliog J Ap Phys 24:690-6 Je '53

Viscosity changes in thermosetting resins. D. I. Marshall. bibliog Ind & Eng Chem 45: 2748-52 D '53

Viscosity data on commercial glass. A. K. Lyle. bibliog Ind & Eng Chem 46:166-70 Ja '54; Abstract. Cer Ind 62:76 My '54

Viscosity of gaseous sulphur hexafluoride. G. A. Earwicker and E. J. P. Fear. bibliog Chem & Ind p903-4 Jl 17 '54

Viscosity of gelatin solutions; abstract. W. M. Ames. Chem & Ind p567-9 My 15 '54

Viscosity of nitric oxide-nitrogen dioxide system in liquid phase. H. H. Reamer, G. N. Richter and B. H. Sage. bibliog Ind & Eng Chem 46:1471-4 Jl '54

Viscosity of nitrogen dioxide in the liquid phase. G. N. Richter, H. H. Reamer and B. H. Sage. bibliog Ind & Eng Chem 45: 2117-19 S '53

Viscosity of sodium-calcium-aluminum silicate glasses; abstract. M. V. Okhotin and R. I. Tsoi. Glass Ind 35:104 F '54

Viscosity of vapor mixtures of hydrogen peroxide and water. C. N. Satterfield, R. L. Wentworth and S. T. Demetriades. bibliog diags Am Chem Soc J 76:2633-7 My 20 '54

Viscosity studies of system CaO-MgO-Al_2O_3-SiO_2; 60 and 65 per cent SiO_2. J. S. Machin and T. B. Yee. bibliog Am Cer Soc J 37:177-86 Ap 1 '54

Viscosity-temperature properties of alkyl silicates. C. R. Morgan and W. F. Olds. Ind & Eng Chem 45:2592-4 N '53

VISCOSITY—*Continued*

Viscosity, thermal conductivity, and Prandtl number for air, O_2, N_2, NO, H_2, CO, Co_2, H_2O, He and A. J. Hilsenrath and Y. S. Touloukian. A S M E Trans 76:967-83 bibliog(111 titles, p981-3); Discussion. 983-5 Ag '54

See also

Plasticity

Measurement

Anomalous flow of liquids through capillaries and measurement of viscosity. G. F. N. Calderwood, H. W. Douglas and E. W. J. Mardles. bibliog Anal Chem 25:935-7 Je '53

Apparatus for measuring the dynamic shear elasticity and viscosity of solids at high audio frequencies. J. J. Benbow. diags J Sci Instr 30:412-13 N '53

Cellulose solvents for viscosity measurements. B. L. Browning and others. bibliog(26 ref) diag Tappi 37:273-83 Jl '54

Electromagnetic torquemeter for use in viscometry. C. A. R. Pearce. il diags J Sci Instr 30:232-6 Jl '53

Measurement of the viscosity of five gases at elevated pressures by the oscillating-disk method. J. Kestin and K. Pilarczyk. bibliog(41 titles) diags A S M E Trans 76:987-97; Discussion. 998-9 Ag '54

Measurement of viscosity in the printing ink industry; abstract. P. A. Gower. Chem & Ind p566-7 My 15 '54

Measurement techniques for specific gravity, viscosity, mass and time. diags Can Chem Process 37:98-100+ O '53

New standard method for the measurement of the viscosity of oils and other liquids in C.G.S. units. Inst Pet J 39:237-9 Ap '53

Principles involved in the determination of absolute viscosity. W. H. Markwood, jr., ed. il diags Am Soc T M Proc 51:441-74 bibliog(74 refs, p472-4) '51

Proposed method of test for kinematic viscosity. bibliog Am Soc T M Proc 51:320-8 '51

Residual viscosity of paint systems at infinite shear velocity. W. K. Asbeck and M. Van Loo. bibliog diag Ind & Eng Chem 46:1291-6 Je '54

Rheology of fluids. W. Roth. il Instruments 25:1710+ N '53

Shear shimmy; evaluation of dynamic mechanical properties of materials. diag Ind & Eng Chem 45:sup 15A+ O '53

Viscosity and density of liquid lead-tin and antimony-cadmium alloys. H. J. Fisher and A. Phillips. bibliog(40 titles) diags J Metals 6:Trans 1060-70 sec 2 S '54

Viscosity of polymer solutions; abstract and discussion. C. E. H. Bawn. Chem & Ind p 1173-4 O 31 '53

See also

Viscosimeters

VISES

Bench vise serves as simple emergency screw press. F. Strasser. diags Am Mach 97:150 O 26 '53

Holding castings for cleaning. J. E. Hyler. il Foundry 82:276 S '54

Rotary die vise. J. H. Simpson. il Tool Eng 33:42-3 S '54

Self-centering vise automates simple processes. F. G. Gepfert. il Tool Eng 31:57-9 N '53

Three vises in one; power-operated Wilt-Omatic. il Mill & Factory 54:149 Ja '54

VISIBILITY

Instrument for the evaluation of night visibility on highways. A. E. Simmons and D. M. Finch. bibliog il diags Illum Eng 48:517-23 O '53; Discussion. 49:305-6 Je '54

See also

Luminosity

VISIBLE records. See Records, Visible

VISION. See Sight

VISION tests. See Eye—Examination

VISITING scientists ltd., Society for. See Society for visiting scientists, ltd.

VISITORS

Bridging the gap between home and job; Smith, Kline & French laboratories' open-house festivities. il Chem W 73:27-8 S 12 '53

Difference; little touches. il Chem W 73:18+ Jl 11 '53

Expecting guests? D. B. Wilcox. Factory Management 112:226+ Ja '54

Ford tailors plant tour to visitors' interests. Steel 134:61 My 24 '54

Good will tour aims at the middle, Fairless-McDonald steel plant tour. J. B. Delaney. Iron Age 172:53 N 26 '53

Greeting 15,000 visitors a year; Aladdin industries. R. M. McKinley. il Am Bsns 24:17+ My '54

How to be a good business host; Bakelite tells its story in a one-day program. B. Tolk. il Ptr Ink 244:80+ S 11 '53

How to plan and stage worth-while plant visits. R. G. Silbar. il Ptr Ink 244:34+ Jl 24 '53

Industry tour to fit tourist. Bsns W p 158+ Ag 29 '53

Open house opens the door to better community relations; Hathaway manufacturing co. M. B. Andrews. il Textile World 104:131+ Ja '54

Plant tours teach public; industry aids in economic education by showing facilities to students, community. il Iron Age 174:83 Ag 19 '54

Policy for super-safety; visitors to chemical plants. Chem W 73:15 N 21 '53

Staging an open house; El Cajon branch of First national bank of San Diego. il Am Bsns 24:34-5 Ag '54

Whole town got into the act; Carboloy open house. W. L. Morris. il Sales Management 70:12-14+ pt 2 Ap 1 '53

VISNAGIN

Furochromones and -coumarins; action of hydrazine hydrate and hydroxylamine on khellin, khellol and visnagin. A. Schönberg and M. M. Sidky. Am Chem Soc J 75:5128-30 O 20 '53

Furo-chromones and -coumarins; degradation of visnagin, khellin and related substances; experiments with chromic acid and hydrogen peroxide; and a synthesis of eugenitin. A. Schönberg, N. Badran and N. A. Starkowsky. bibliog Am Chem Soc J 75:4992-5 O 20 '53

VISUAL instruction

Animated panels explain Convair 340. il Aviation W 59:85-6 N 16 '53

Dynamics in the business meetings. il Sales Management 72:sup 10A-12A pt 2 Ap 15 '54

400 adopt Wool Bureau retail training course. il Sales Management 71:72-4 D 1 '53

Letter writing pictured; NYLIC film strip; for branch office personnel and others. Spectator 162:30-1 Ap '54

Visuals rev up incentive; Scandinavian airline systems annual sales meeting. il Sales Management 73:92-3 Ag 15 '54

What's doing with visuals. F. Niles. il Sales Management 71:69-72 pt 2 Jl 1 '53

See also

Audio-visual instruction
Moving pictures in education
Moving pictures in industry

VISUAL purple

Hypothetical role for 6-8 thioctic acid (lipoic acid) in vision. B. S. Strauss. Science 118:330-1 S 18 '53

VISUAL thresholds. See Optics, Physiological

VITAL statistics

Elements of a coordinated system of vital records and statistics. H. L. Dunn. Pub Health Rep 68:793-801 Ag '53

See also

Demography
Longevity
Mortality—Statistics
Population—Statistics

VITALITY

See also

Longevity

VITAMINS

Vitamin sale barrier idea weighed by NRC. Oil Paint & Drug Rep 166:3+ Jl 26 '54

Vitamins; abstract and discussion. L. J. Harris. Chem & Ind p275-6 Mr 6 '54

Vitamins in margarine; food standards committee recommendation. Chem Age (Lond) 70:564 Mr 6 '54

Vitamins score new gains; market growing. Chem & Eng N 32:356 Ja 25 '54

VITAMINS—*Continued*

Vitamin A

Aspects of the mode of action of vitamin A; abstract. R. A. Morton. Chem & Ind p809 Jl 10 '54

Continuous enrichment of peanut butter with vitamin A. R. K. Willich and A. F. Freeman. il diags Food Eng 26:129+ Ag '54

New twist in vitamin A; Distillation products industries division of Eastman Kodak unveils new way to make the compounds. il Chem W 75:122-3 S 25 '54

Spectrophotometric determination of vitamins D in presence of vitamin A. D. T. Ewing and others. bibliog Anal Chem 26:1406-9 S '54

Analysis

Determination of vitamin A in the presence of tocopherols. D. T. Ewing, L. H. Sharpe and O. D. Bird. bibliog diag Anal Chem 25:599-604 Ap '53

Determination of vitamins A and E by paper chromatography. J. A. Brown. bibliog Anal Chem 25:774-7 My '53

Simplified procedure for extraction and determination of vitamin A in liver. S. R. Ames, H. A. Risley and P. L. Harris. bibliog Anal Chem 26:1378-81 Ag '54

Vitamin B

Symposium on B-vitamins sponsored by Biochemical institute of University of Texas and Clayton foundation for research. Chem & Eng N 31:5282+ D 21 '53

Analysis

Detection of the vitamins of the *B* group by means of small circular chromatograms. A. Jones and others. bibliog il Chem & Ind p461-2 Ap 17 '54

Vitamin B complex

See also
Folic acid

Vitamin B_1

Mechanism of thiamine-catalyzed reactions. S. Mizuhara and P. Handler. bibliog Am Chem Soc J 76:571-3 Ja 20 '54

New derivative of thiamine with cysteine. T. Matsukawa and S. Yurugi. Science 118:109-11 Jl 24 '53

Products of the reaction between thiamine and ingredients of the plants of allium genus; detection of allithiamine and its homologs. T. Matsukawa and others. bibliog Science 118:325-7 S 18 '53

Analysis

Colorimetric determination of thiamine in pharmaceutical products. F. J. Bandelin and J. V. Tuschhoff. bibliog Anal Chem 25:1198-200 Ag '53

Determination of thiamine by the thiochrome reaction; application of cyanogen bromide in place of potassium ferricyanide. M. Fujiwara and K. Matsui. bibliog Anal Chem 25:810-12 My '53

Vitamin B_2

Further studies on the enzymatic phosphorylation of riboflavin. S. Englard. bibliog Am Chem Soc J 75:6048-50 D 5 '53

Hoffmann-LaRoche soluble riboflavin. Chem Eng 61:146+ Ag '54

Metal chelates of riboflavin. W. O. Foye and W. E. Lange. bibliog Am Chem Soc J 76:2199-201 Ap 20 '54

Requirement of riboflavin phosphate for bacterial luminescence. W. D. McElroy and others. bibliog Science 118:385-6 O 2 '53

Riboflavin made in Canada. Can Chem Process 37:82 N '53

Synthesis of D-riboflavin-2-C^{14} and its metabolism by lactobacillus casei. E. E. Haley and J. P. Lambooy. bibliog Am Chem Soc J 76:2926-9 Je 5 '54

Synthesis of 6-ethyl-9-(D-1′-ribityl)-isoalloxazine. H. V. Aposhian and J. P. Lambooy. bibliog Am Chem Soc J 76:1307-8 Mr 5 '54

Analysis

Media used for microbiological assay of riboflavin using lactobacillus casei. M. F. Clarke. bibliog Anal Chem 25:1247-52 Ag '53

Vitamin B_6

General mechanism for vitamin B_6-catalyzed reactions. D. E. Metzler, M. Ikawa and E. E. Snell. bibliog Am Chem Soc J 76:648-52 F 5 '54

Preparation of crystalline phosphorylated derivatives of vitamin B_6. E. A. Peterson and H. A. Sober. bibliog Am Chem Soc J 76:169-75 Ja 5 '54

Analysis

Differential determination of vitamin B_6 group. S. Fukui. bibliog Anal Chem 25:1884-6 D '53

Vitamin B_{12}

B-12 for the birds; poultry vitamin to be produced from fertilizer, Milorganite. Eng N 151:72+ S 3 '53

Chemistry of the vitamin B_{12} group; synthesis of 5 : 6-dimethyl-1-α-D-ribofuranosylbenziminazole. A. W. Johnson and others. Chem Soc J p3061-6 O '53

Chemistry of the vitamin B_{12} group; the course of hydrolytic degradations. J. B. Armitage and others. Chem Soc J p3849-64 D '53

Comparative potency of a British and American standard of crystalline vitamin B_{12}. W. R. Pitney and others. Science 118:307-8 S 11 '53

From sewage to B. Chem W 72:16 Je 27 '53

Plant to extract vitamin from sewage by-product; Vern E. Alden co. Chem Eng 61:388-91 Ap '54

Use of vitamin B_{12} in treatment of acute subdeltoid bursitis. I. S. Klemes. il Ind Med 22:352-4 Ag '53

Vitamin B_{12} by fermentation with streptomyces olivaceus. V. F. Pfeifer, C. Vojnovich and E. N. Heger. bibliog flow sheet Ind & Eng Chem 46:843-9 My '54

Vitamin B_{12} feed supplement. A. S. Hester and G. E. Ward. bibliog flow sheet il Ind & Eng Chem 46:238-43 F '54

Vitamin B_{12} from sludge proves successful venture; Milorganite. Oil Paint & Drug Rep 165:5+ F 8 '54

Vitamin B_{12}; relation of α-ribazole phosphate to vitamin B_{12}. E. A. Kaczka and K. Folkers. Am Chem Soc J 75:6317-18 D 20 '53

Vitamin B_{12}; resolution of DL-1-amino-2-propanol. R. L. Clark and others. bibliog Am Chem Soc J 76:3995-7 Ag 5 '54

Vitamin B_{12}; synthesis of 1-glycosides of 5,6-dimethylbenzimidazole. D. Heyl and others. bibliog Am Chem Soc J 76:1355-8 Mr 5 '54

Analysis

Analysis of analogues; estimation of cyanocobalamin and hydroxycobalamin in mixtures of the vitamins. J. G. Heathcote. Chem & Ind p 1203 N 7 '53

Radioactive tracer assay for vitamin B_{12} and other cobalamins in complex mixtures. F. A. Bacher, A. E. Boley and C. E. Shonk. Anal Chem 26:1146-9 Jl '54

Vitamin C

Ascorbic acid betters color, flavor of meats. J. C. Bauernfeind and others. bibliog il Food Eng 26:80-2+ Je '54

Oxidation of L-ascorbic acid by *o*-iodosobenzoic acid. W. T. Caraway and L. Hellerman. bibliog Am Chem Soc J 75:5334-40 N 5 '53

Polarographic oxidation potential of ascorbic acid. D. M. H. Kern. bibliog Am Chem Soc J 76:1011-15 F 20 '54

Vitamin C content of wild rose hips. Sister M. Clare and Sister M. J. Markham. J Chem Educ 30:580-1 N '53

Analysis

Colorimetric determination of ascorbic acid. M. Schmall and others. Anal Chem 26:1521-2 S '54

VITAMINS—Vitamin C—Analysis—*Continued*

Determination of ascorbic acid by a new colorimetric reaction. M. Schmall, C. W. Pifer and E. G. Wollish. bibliog Anal Chem 25:1486-90 O '53

Vitamin D

Analysis

Spectrophotometric determination of vitamins D in presence of vitamin A. D. T. Ewing and others. bibliog Anal Chem 26:1406-9 S '54

Vitamin E

Analysis

Determination of vitamins A and E by paper chromatography. J. A. Brown. bibliog Anal Chem 25:774-7 My '53

Vitamin K

Factors influencing blood clotting time in the chick. P. Griminger and others. Science 118:379-80 O 2 '53

VITRIFIED clay pipes. See Pipes, Vitrified clay; Sewer pipes, Vitrified clay

VOCATIONAL education

Sowela Tech; they graduate as oilfield roustabouts. il Bsns W p88-90+ Ag 29 '53

Training sheet metal craftsmen. il Sheet Metal Worker 45:82-3+ My '54

See also

Apprentices
Chemical education
Employees, Training of
Engineering education
Industrial education
Order of the companions
Technical education
Textile education
Trade schools

Cooperative plan

How Abbott solves shortage of office job applicants. E. M. Bauby and J. Phillips. Am Bsns 23:40-1 D '53

VOCATIONAL guidance

Getting a friendly grip on your future employees; industrial managers of Evansville, Ind. produce textbook to show high-school students job opportunities in their home town. il Dun's R & Mod Ind 63:27+ F '54

Vocational guidance in Switzerland. F. Böhny. Int Labour R 67:44-63 Ja '53

See also

Educational guidance

VOICE

See also

Speech

VOLCANOES

See also

Lava
Steam, Natural

Japan

Diversion of lava flows at O Shima, Japan. A. C. Mason and H. L. Foster. maps Am J Sci 251:249-58, pl 1-2 Ap '53

New Mexico

Early tertiary vulcanism in the Galisteo-Tonque area, north-central New Mexico. C. E. Stearns. bibliog maps diags Am J Sci 251:415-52, pl 1 Je '53

VOLTAGE

Broadband, low-level, error-voltage detector. M. L. Kuder. il diag R Sci Instr 25:464-8 My '54

480-v system makes strong bid for office buildings. D. L. Beeman and H. D. Kurt. il diags Power 98:74-7 Mr '54

Measuring small voltage variations. R. W. Baker. diag Elec World 140:94-5 N 30 '53

Teleducer type 24A analog to digital converter. il R Sci Instr 24:405 My '53

Voltage drop; measurement through reactors, transformers and overhead lines. U. G. Knight. Elec R (Lond) 154:465-7 Mr 12 '54

Why do unnecessary work? these charts avoid volt-drop figuring. Power Eng 58:82 Ja '54

Wide-band amplitude distribution analysis of voltage sources. L. W. Orr. diags R Sci Instr 25:894-8 S '54

See also

High voltages
Voltmeters

VOLTAGE integrator

Accurate voltage integrator for magnetic field measurement. E. W. Fuller and L. U. Hibbard. bibliog diags J Sci Instr 31:36-42 F '54

Electronic voltage integrator. R. Madey and G. Farly. bibliog diags R Sci Instr 25:275-9 Mr '54

VOLTAGE regulation

Adjustable regulated voltage supply. J. J. Hoefer. diags Radio & Tv N 50:170+ O '53

Adjustable voltage coal bridge installed at Steel company of Canada Hamilton works. W. G. Wright and D. C. McCrady. il diag Iron & Steel Eng 31:126-32 My '54

Effect of polyphase motors on the voltage regulation of circuits supplying three-phase welder loads. M. A. Faucett and others. il diags Ill U Eng Exp Sta Bul 418:1-42 '53 (pa 40c)

Electronic voltage control. il Elec R (Lond) 153:1293-4 D 4 '53

How to reduce line voltage dips when starting a-c motors. E. H. Stivender. diag Power Eng 57:53 N '53

Packaged unit regulates lighting feeders. M. G. Lewis. il Elec World 141:214+ Ja 25 '54

Underexcited reactive-ampere limit for modern amplidyne voltage regulators; abstract. A. S. Rubenstein and M. Temoshok. diag Power 98:200+ My '54

VOLTAGE regulators

Adjustable direct voltage source for meter calibration. B. V. Hamon. diag J Sci Instr 30:301 S '53

Brush self-regulating alternators with Amplidex control. il diag Engineer 197:144 Ja 22 '54; Engineering 177:149 Ja 29 '54

Current stabilized photomultiplier power supply. P. Fellgett. diags J Sci Instr 31:217-19 Je '54

Easily operated fine voltage control. H. House. diags J Sci Instr 31:261-2 Jl '54

Effects of ambient-temperature variations on glow-discharge tube characteristics. F. A. Benson and G. Mayo. bibliog J Sci Instr 31:118-20 Ap '54

Electronically operated switching device for the elimination of thermal voltage drifts in a recording Wheatstone bridge. W. R. Ward and W. F. Maddams. diags J Sci Instr 31:26-7 Ja '54

Graphite tube resistance furnace and voltage regulator for equilibrium studies in the temperature range 1500-1800° C. W. E. Dennis and others. diags J Sci Instr 30:453-5 D '53

Industrial regulating systems using rotating regulators. G. E. Shaad. diags Machine Design 26:299-300+ My '54

Peak-noise characteristics of some glow-discharge tubes. H. Bache and F. A. Benson. J Sci Instr 30:124-6 Ap '53

Power equalizer systems for aircraft alternators; abstract. J. A. Granath and A. K. Hawkes. diags Elec Eng 72:893 O '53

Regulator for a 20- to 250-kilovolt Cockcroft-Walton accelerator. C. J. Cook and W. A. Barrett. diags R Sci Instr 24:638-40 Ag '53

Relaxation oscillations in voltage-regulator tubes. P. L. Edwards. il diags Inst Radio Eng Proc 41:1756-60 D '53

Selenium d.c. voltage regulators. H. Braverman. diag Radio & Tv N 50:158+ O '53

Series operation of a glow-discharge tube and a barretter. F. A. Benson. bibliog Elec J 151:1291-3 O 23 '53

Shipboard voltage regulators. S. A. Haverstick. il diags Marine Eng 59:48-51 Mr; 67-70 Ap '54

Stabilised a.c. supply for research and industry. il diag Engineer 197:182 Ja 29 '54; Elec J 152:359-60 Ja 29 '54; Engineering 177:247 F 19 '54

Stable d.c. source of low voltage with low internal resistance. W. R. Beakley. diags J Sci Instr 31:219-20 Je '54

Stable source of high voltage. L. U. Hibbard and D. E. Caro. bibliog diags J Sci Instr 30:378-80 O '53

Transfer function as a tool in the analysis of a resistance-capacitance coupled voltage amplifier. D. L. Ming and R. W. Thorpe. diags J Ap Phys 25:934-7 Ag '54

VOLTAGE regulators—*Continued*

Transformation through half-a-century of progress results in achievement of unvarying voltage. il diags Elec J 151:1124-8 O 9 '53

Use of soft X-rays for electrostatic generator stabilization. M. B. King and S. Devons. R Sci Instr 25:933 S '54

Variations in the characteristics of some corona-stabilizer tubes. F. A. Benson and J. P. Smith. bibliog J Sci Instr 30:192-4 Je '53

VOLTAGE standards

Improved method for standardizing high voltage for scintillation detectors. P. W. Reinhardt and F. J. Davis. diag R Sci Instr 25:829-30 Ag '54

VOLTAMETERS

Coulometric coulometer. V. B. Ehlers and J. W. Sease. bibliog diags Anal Chem 26:513-16 Mr '54

Electronic coulometer. K. W. Kramer and R. B. Fischer. diag Anal Chem 26:415-16 F '54

VOLTMETERS

Modifications improve phasing-out voltmeter. B. Giambi. Elec World 139:94 Je 1 '53

Pye and co. pH meter and millivoltmeter. diag J Sci Instr 30:391 O '53

Watch those heater voltage measurements. J. K. Frieborn. diags Radio & Tv N 50:134+ S '53

Testing

Adjustable direct voltage source for meter calibration. B. V. Hamon. diag J Sci Instr 30:301 S '53

VOLTMETERS, Recording

Magnetic shield eliminates voltmeter pen vibration. R. F. Randels. il Elec World 141:124+ Mr 8 '54

Simple circuit for adapting thermocouple recorders to measure voltage in high-resistance circuits. F. T. Gucker, jr. and A. H. Peterson. diag Anal Chem 25:1577 O '53

VOLTMETERS, Vacuum tube

Ac operated portable electrometer-type millivoltmeter. O. H. Schmitt and C. H. MacPherson. il diag R Sci Instr 25:910-12 S '54

Apparatus for the measurement of systolic and diastolic pressures. R. M. Landsman. il diags R Sci Instr 25:71-2 Ja '54

Battery-powered a-c voltmeter. L. Fleming. diags Electronics 27:216+ Ja '54

Con-VI; permits direct reading of inductance and capacitance when used with a vacuum tube voltmeter. R. Graham. il diags Radio & Tv N 50:84-5+ O '53

Germanium-diode push-pull voltmeter. D. D. Davis. diag Electronics 27:212+ F '54

Inexpensive conductivity-determining equipment. R. M. Creamer and D. H. Chambers. diags Anal Chem 26:1098-9 Je '54

Measurement of spark spectrum intensities in the vacuum ultraviolet with the fluorescence sensitized photomultiplier. S. E. Williams and others. bibliog diags Opt Soc Am J 44:654-8 Ag '54

Simplifying v.t.v.m. calibration. K. P. Aurelius. il diag Radio & Tv N 51:169 Mr '54

Use and maintenance of the a-c vtvm. J. Dobrin. il diags Instruments & Automation 27:288-90+ F '54; Discussion. W. Kram. 27:868 Je '54

VOLUME

Calculation of interdiffusion coefficients when volume changes occur. M. Cohen and others. bibliog J Metals 5:Trans 1534-6 sec 2 N '53

Phase equilibria in hydrocarbon systems. L. T. Carmichael, B. H. Sage and W. N. Lacey. bibliog Ind & Eng Chem 45:2697-9 D '53

Volumetric behavior of isopentane. R. Isaac, K. Li and L. N. Canjar. bibliog Ind & Eng Chem 46:199-201 Ja '54

Volumetric behavior of nitric acid. H. H. Reamer, W. H. Corcoran and B. H. Sage. bibliog diags Ind & Eng Chem 45:2699-704 D '53

Volumetric behavior of red and white fuming nitric acid. H. H. Reamer, D. M. Mason and B. H. Sage. bibliog diag Ind & Eng Chem 45:1094-7 My '53

VOLUME, Specific. See Specific volume

VOLUMETRIC analysis

ACS Division of analytical chemistry annual symposium, 7th, Minneapolis; abstracts of papers. Chem & Eng N 32:2694 Jl 5 '54

Amperometric mercurimetric titration of sulfhydryl groups in biologically important substances. I. M. Kolthoff, W. Stricks and L. Morren. bibliog Anal Chem 26:366-72 F '54

Amperometric method for determining the sorption of iodine by starch. B. L. Larson, K. A. Gilles and R. Jenness. bibliog Anal Chem 25:802-4 My '53

Amperometric organic sulfur procedure. C. L. Rulfs and A. A. Mackela. Anal Chem 25:660-2 Ap '53

Amperometric titration and voltammetric determination of iodide. I. M. Kolthoff and J. Jordan. bibliog Anal Chem 25:1833-7 D '53

Amperometric titration of calcium with the disodium salt of ethylenediaminetetraacetic acid. H. A. Laitinen and R. F. Sympson. bibliog Anal Chem 26:556-8 Mr '54

Analysis of cobalt. bibliog Chem Age (Lond) 69:869-71 O 24 '53

Automatic coulometric titration with electrolytically generated silver ion. J. J. Lingane. bibliog diags Anal Chem 26:622-6 Ap '54

Automatic coulometric titration with photometric detection of equivalence. E. N. Wise, P. W. Gilles and C. A. Reynolds, jr. bibliog il diag Anal Chem 25:1344-8 S '53

Automatic spectrophotometric titrations determination of milligram quantities of thorium. H. V. Malmstadt and E. C. Gohrbandt. bibliog diag Anal Chem 26:442-5 Mr '54

Better blends through volumetric analysis. P. E. Sperling and G. H. Steinberg. diags Mod Textiles Mag 35:64+ Mr '54

Chemical analysis of GR-S by complete solution procedures; titration of mineral and organic acids in toluene-ethanol solution. F. J. Lining and A. Schneider. Anal Chem 25:1515-17 O '53

Comparison of pK'$_a$ values determined by electrometric titration and ultraviolet absorption methods. J. M. Vandenbelt, C. Henrich and S. G. Vanden Berg. bibliog Anal Chem 26:726-7 Ap '54

Coulometric determinations of submicrogram amounts of cadmium and zinc. K. W. Gardiner and L. B. Rogers. bibliog Anal Chem 25:1393-7 S '53

Coulometric titration of *p*-methylaminophenol sulfate and hydroquinone by cerium(IV). N. H. Furman and R. N. Adams. bibliog Anal Chem 25:1564-5 O '53

Coulometric titration of thiosulfate with iodine. K. Rowley and E. H. Swift. bibliog Anal Chem 26:373-5 F '54

Coulometric titrations with externally generated chlorine, bromine, and iodine. J. N. Pitts, jr. and others. bibliog diag Anal Chem 26:628-31 Ap '54

Coulometry; related phenomena of electrolysis and current-sweep polarography. N. H. Furman. bibliog(36 ref) diags Electrochem Soc J 101:sup 19C-22C Ja '54

Determination of aldonic acids in alkaline media. J. V. Karabinos, A. T. Ballun and R. L. McBeth. Anal Chem 25:1563 O '53

Determination of elemental fluorine. I. Sheft, H. H. Hyman and J. J. Katz. bibliog diag Anal Chem 25:1877-9 D '53

Determination of iodide. K. G. Stone. bibliog Anal Chem 26:396-7 F '54

Determination of primary fatty amines in amine mixtures. J. E. Jackson. Anal Chem 25:1764-5 N '53

Determination of Schiff bases by titration in nonaqueous solutions. S. K. Freeman. bibliog Anal Chem 25:1750-1 N '53

Determination of sulfite and sulfate (as sodium sulfate) in sodium petroleum sulfonates. B. E. Gordon and R. S. Urner. bibliog diag Anal Chem 25:897-901 Je '53

Determination of sulfur by peroxide bomb decomposition and amperometric titration. B. Warshowsky, T. E. Shook and E. J. Schantz. Anal Chem 26:1051-3 Je '54

VOLUMETRIC analysis—*Continued*

Determining residual chlorine in water by neutral ortho-tolidine methods; progress report. A. T. Palin. Water & Sewage Works 101:74-6 F '54

Differential photometric detection in coulometric titration. E. N. Wise, P. W. Gilles and C. A. Reynolds, jr. il diag Anal Chem 26:779-80 Ap '54

Direct titration of zinc and cadmium in cyanide solutions. J. P. Leftin. bibliog Metal Finishing 52:74-5 Ap '54

Direct volumetric assay of sodium borohydride and potassium borohydride. S. W. Chaikin. Anal Chem 25:831-2 My '53

Dual intermediates in coulometric titrations; equilibria in copper(II)-bromide solutions. P. S. Farrington, D. J. Meier and E. H. Swift. bibliog Anal Chem 25:591-5 Ap '53

Effect of aviation fuel components on the accuracy of the Karl Fischer electrometric titration. R. W. Sneed, R. W. Altman, and J. C. Mosteller. bibliog Anal Chem 26:1018-20 Je '54

Evaluation of barium sulphate precipitates by a titrimetric method. R. Belcher and others. Chem & Ind p 127-8 Ja 30 '54; Discussion. p435, 608 Ap 10, My 22 '54

Fluorescence titration. J. De Ment. bibliog (33 ref) J Chem Educ 30:145-7 Mr '53

Gas titrations. S. Katz and J. T. Barr. bibliog diags Anal Chem 25:619-24 Ap '53

pH and titration control. Soap & San Chem 29:87+ S '53

Improvements in the determination of small amounts of sulphur. D. M. Fitzgerald. bibliog(32 ref) J Ap Chem 4:490-6 S '54

Indirect titrimetric determination of the sulphate ion using ethylenediamine tetraacetic acid. R. Belcher and others. Chem & Ind p850-1 Jl 10 '54

Mechanism of high-frequency titration. S. Fujiwara and S. Hayashi. bibliog diag Anal Chem 26:239-41 Ja '54

Mercurimetric determination of chlorides. E. G. Hill. Chem & Ind p852-3 Jl 10 '54

Mercurimetric determination of chlorides. J. Ungar. bibliog Chem & Ind p453-4 Ap 17 '54

Minimum error titrations of mixtures of two weak acids. A. Frisque and V. W. Meloche. bibliog Anal Chem 26:468-71 Mr '54

Photometric titrations. A. L. Underwood. bibliog J Chem Educ 31:394-7 Ag '54

Photometric titrations in nonaqueous solvents. C. N. Reilley and B. Schweizer. bibliog Anal Chem 26:1124-6 Jl '54

Physical chemistry of insulin; hydrogen ion titration curve of zinc-free insulin. C. Tanford and J. Epstein. bibliog Am Chem Soc J 76:2163-9 Ap 20 '54

Polarographic and amperometric mercurometric determination of disulfide groups. W. Stricks, I. M. Kolthoff and N. Tanaka. bibliog Anal Chem 26:299-303 F '54

Potentiometric determination of boron in nickel boride. H. Blumenthal and W. Fall. bibliog Anal Chem 25:1120-2 Jl '53

Potentiometric differentiation of certain inorganic cations. C. W. Pifer, E. G. Wollish and M. Schmall. Anal Chem 26:215-17 Ja '54

Potentiometric nonaqueous titration of substituted fatty acids. J. Radell and E. T. Donahue. Anal Chem 26:590-1 Mr '54

Potentiometric titration of ammines of rhodium, iridium, and platinum with solutions of potassium and potassium amide in liquid ammonia. G. W. Watt and others. Electrochem Soc J 101:235-8 My '54

Potentiometric titration of organic derivatives of hydrazines with potassium iodate. W. R. McBride, R. A. Henry and S. Skolnik. bibliog Anal Chem 25:1042-6 Jl '53

Potentiometric titration of simple salts with potassium in liquid ammonia. G. W. Watt and others. bibliog Electrochem Soc J 101:229-34 My '54

Potentiometric titrations. N. H. Furman. Anal Chem 26:84-90 bibliog(197 ref, p88-90) Ja '54

Purification and properties of disodium salt of ethylenediaminetetraacetic acid as a primary standard. W. J. Blaedel and H. T. Knight. bibliog Anal Chem 26:741-3 Ap '54

Quadrivalent uranium as a reducing titrant. R. Belcher, D. Gibbons and T. S. West. bibliog Anal Chem 26:1025-7 Je '54

Quantitative estimation of amine-cadmium halide complexes. L. Levi and C. G. Farmilo. bibliog(34 ref) Anal Chem 25:909-13 Je '53

Radio-frequency titration technique. L. Tarrant. bibliog Chem Age (Lond) 69:863-5 O 24 '53

Rapid compleximetric method for the determination of magnesium in aluminium alloys. J. C. Sergeant. bibliog Metallurgia 48:261-2 N '53

Rapid determination of free formaldehyde in phenol-formaldehyde syrups. J. Haslam and W. W. Soppet. J Ap Chem 3:328-9 Jl '53

Rapid estimation of ethylenes with mercuric acetate. M. N. Das. Anal Chem 26:1086-7 Je '54

Rapid volumetric estimation of sodium. A. Herzka. bibliog Chem & Ind p221 F 20 '54

Reduction by aluminum powder in aqueous solution titrimetric determination of molybdenum. E. R. Riegel and R. D. Schwartz. bibliog Anal Chem 26:410-11 F '54

Reference electrode for potentiometric titrations in glacial acetic acid. R. A. Glenn. diag Anal Chem 25:1916-17 D '53

Siloxene as a chemiluminescent indicator in chromate titration for determination of lead. F. Kenny and R. B. Kurtz. Anal Chem 25:1550-1 O '53

Simultaneous titration of iron and copper with ethylenediaminetetraacetic acid. A. L. Underwood. Anal Chem 25:1910-12 D '53

Spectrophotometric titration of uranium and iron. C. E. Bricker and P. B. Sweetser. bibliog Anal Chem 25:764-7 My '53

Spectrophotometric titrations with ethylenediaminetetraacetic acid; determination of magnesium, calcium, zinc, cadmium, titanium, and zirconium. P. B. Sweetser and C. E. Bricker. Anal Chem 26:195-9 Ja '54

Stoichiometry of titration of metal ions with disodium salt of ethylenediaminetetraacetic acid. W. J. Blaedel and H. T. Knight. bibliog Anal Chem 26:743-6 Ap '54

Sulfuric acid concentration as a variable in the permanganate-oxalate titration. R. C. Brasted. Anal Chem 25:673-4 Ap '53

Titration of aprotic acids in thionyl chloride. E. B. Garber, L. E. D. Pease, jr. and W. F. Luder. Anal Chem 25:581-3 Ap '53

Titration of bismuth with ethylenediaminetetraacetic acid. A. L. Underwood. bibliog Anal Chem 26:1322-4 Ag '54

Titration of calcium and magnesium in milk and milk fractions with ethylenediamine tetraacetate. R. Jenness. bibliog Anal Chem 25:966-8 Je '53

Titration of iodide with electrolytically generated silver ion. R. L. Kowalkowski, J. H. Kennedy and P. S. Farrington. bibliog Anal Chem 26:626-8 Ap '54

Titration of *N*-carboxy-alpha-amino acid anhydrides in nonaqueous solvents. A. Berger, M. Sela and E. Katchalski. bibliog Anal Chem 25:1554-5 O '53

Titration of weak bases in acetic anhydride solvent mixtures. J. S. Fritz and M. O. Fulda. Anal Chem 25:1837-9 D '53

Titrations in nonaqueous solutions. B. R. Warner and W. W. Haskell. bibliog diags Anal Chem 26:770-1 Ap '54

Titrimetric determination of sulfates by diazo titration of benzidine sulfate. R. E. Keller and R. H. Munch. bibliog Anal Chem 26:1518-19 S '54

Titrimetric determination of thorium. J. J. Fritz and J. J. Ford. bibliog Anal Chem 25:1640-2 N '53

Titrimetric determination of zirconium. J. S. Fritz and M. O. Fulda. Anal Chem 26:1206-8 Jl '54

Two techniques for determination of organic sulfides. W. H. Houff and R. D. Schuetz. bibliog Anal Chem 25:1258-9 Ag '53

Uncombined calcium oxide or hydroxide in lime and silicate products. G. O. Assarsson and J. M. Bokström. bibliog Anal Chem 25:1844-8 D '53

VOLUMETRIC analysis—*Continued*

Universal anticipation of end-point system for automatic titrations. W. N. Carson, jr. diags Anal Chem 25:1733-5 N '53

Use of apparent dissociation constants in qualitative organic analysis. T. V. Parke and W. W. Davis. Anal Chem 26:642-5 Ap '54

Use of iodine monochloride in the Kurt Meyer titration. A. Gero. Anal Chem 26:609 Mr '54

Volumetric analysis of sodium aluminate solutions. H. L. Watts and D. W. Utley. bibliog Anal Chem 25:864-7 Je '53

Volumetric analytical methods for organic compounds; review of past two years. W. T. Smith, jr., W. F. Wagner and J. M. Patterson. Anal Chem 26:155-63 bibliog(177 ref, p 161-3) Ja '54

Volumetric behavior of nitric acid. H. H. Reamer, W. H. Corcoran and B. H. Sage. bibliog diags Ind & Eng Chem 45:2699-704 D '53

Volumetric determination for perchlorates. D. C. Eagles. Chem & Ind p 1002-3 Ag 14 '54

Volumetric determination of calcium and magnesium. R. L. Stephens. Chem Age (Lond) 69:495-8 S 5 '53

Volumetric determination of carbon and hydrogen in organic microcombustion analysis. A. Johansson. bibliog diag Anal Chem 26:1183-5 Jl '54

Volumetric determination of gallium. O. W. Rollins and C. K. Deischer. bibliog Anal Chem 26:769-70 Ap '54

Volumetric determination of uranium(VI) in phosphate solutions. J. M. Schreyer and C. F. Baes, jr. Anal Chem 25:644-5 Ap '53

See also

Acidimetry
Argentometry
Colorimetric analysis
Fluorometric analysis
Indicators and test papers
Iodometry
Solutions, Standard

Apparatus

Amperometric techniques for chlorine residual. G. C. Clark, jr. il Instruments & Automation 27:610-11 Ap '54

Automatic differential potentiometric titrator. H. V. Malmstadt and E. R. Fett. bibliog diags Anal Chem 26:1348-51 Ag '54

Constant current source for coulometric titrations. J. J. Lingane. diag Anal Chem 26:1021-2 Je '54

Coulometric coulometer. V. B. Ehlers and J. W. Sease. bibliog diags Anal Chem 26:513-16 Mr '54

Development of automatic titrators. J. R. Majer. Chem Age (Lond) 70:1441-6+ Je 26 '54

High frequency titrations of organic bases in glacial acetic acid with perchloric acid. W. F. Wagner and W. B. Kauffman. bibliog diag Anal Chem 25:538-40 Ap '53

High-frequency titrations with a resistance-type instrument. K. Nakano, R. Hara and K. Yashiro. diags Anal Chem 26:636-8 Ap '54

Micro-electrode devices for potentiometric and other electrometric titrations. J. T. Stock. bibliog diags Chem Age (Lond) 71:575-8+, 719-22 S 18, O 2 '54

Modified amperometric titration apparatus which eliminates agar bridge. W. J. Seagers and H. A. Frediani. diags Anal Chem 26:1098 Je '54

New bridge circuit for conductometric titrations. H. J. Svec. diags J Chem Educ 31:193-4 Ap '54

Outrigger flask for color accentuation. R. K. Taylor. diag Anal Chem 26:620 Mr '54

Precise electronic titration instrument. K. E. Harwell. bibliog diags Anal Chem 26:616-19 Mr '54

Rotating platinum electrode for amperometric titration of sulfhydryl groups; abstract. F. J. Herbert and J. R. Denson. diag Anal Chem 26:440 F '54

Simple electrometer for small-scale potentiometric titrations. D. M. W. Anderson and C. T. Greenwood. bibliog diag Chem & Ind p476 My 16 '53

Simplified titration vessel for determination of water by the Karl Fischer method. R. L. Menville and S. R. Henderson. Anal Chem 25:840-1 My '53

Titrations speeded up; automatic Titrimeter designed by Fisher development laboratories. il Chem & Eng N 32:2922+ Jl 19 '54

VOLUMETRIC apparatus

Volumetric behavior of red and white fuming nitric acid. H. H. Reamer, D. M. Mason and B. H. Sage. bibliog diag Ind & Eng Chem 45:1094-7 My '53

VORMELKER, Rose L.

SLA award winner. por Special Lib 44:281 S '53

VORTEX motion

Discrete vortex systems in the transition range of fully developed flow in a pipe. J. R. Weske and A. H. Plantholt. il diags J Aeronautical Sci 20:717-18 O '53

Smoke rings up extraction; patent. diags Chem Eng 61:264+ Mr '54

Solid facts undo old theories; research at NYU reveals what goes on in Ranque-Hilsch vortex tube. il diags Chem Eng 60:140+ D '53

Vortex motion in viscous fluids studied in apparatus consisting of concentric glass cylinders. H. A. Einstein and H. Li. il diag Civil Eng 23:605 S '53

VORTICES. See Vortex motion

VULCANIZATION

Butyl rubber compounds for curing bags. A. F. Sayko. il diags India Rubber World 129:348-53 D '53

Cross linking in natural rubber vulcanizates. H. E. Adams and B. L. Johnson. bibliog(25 ref) diags Ind & Eng Chem 45:1539-46 Jl '53

Effect of moisture on rate of cure of natural rubber. R. H. Taylor and others. bibliog diag India Rubber World 129:751-5 Mr '54

Mechanism of vulcanization of polysulfide rubbers. E. M. Fettes, J. S. Jorczak and J. R. Panek. bibliog Ind & Eng Chem 46:1539-41 Jl '54

Modern vulcanization processes. H. A. Freeman. il India Rubber World 129:354-7 D '53

Reinforcement of butyl with carbon black; heat treatment; methods and effects. A. M. Gessler. bibliog il Rubber Age 74:59-71 O '53

Second-order transitions of rubbers at high pressures. C. E. Weir. bibliog J Res Nat Bur Stand 50:311-19 Je '53

Temperature dependence of compression of natural rubber-sulfur vulcanizates of high sulfur content. C. E. Weir. J Res Nat Bur Stand 50:153-60 Mr '53

Thermodynamics of the rubber-sulfur system at high pressures. C. E. Weir. J Res Nat Bur Stand 50:321-7 Je '53

Vulcanization characteristics of a series of 4-methyl-5-substituted-2-thiazolethiols and their derivatives. K. E. Creed, jr. and others. bibliog(26 ref) Ind & Eng Chem 46:808-16 Ap '54

Accelerators

Mercaptobenzothiazole vulcanization using sulfur-35. I. Auerbach. bibliog Ind & Eng Chem 45:1526-32 Jl '53

VULCANIZED fiber

Vulcanized fibre; new look at an old plastic. G. A. Albert. il diag Materials & Methods 40:110-14 S '54

VULCOLLAN. See Rubber, Artificial

W

WHO. See World health organization

WAAGE, Peter, 1833-1900

Some chemical relics of Peter Waage and Cato Maximilian Guldberg. R. E. Oesper. por J Chem Educ 30:193-4 Ap '53

WACO, Texas

Sewerage

Mercury vapor lighting for new sewage treatment plant. Pub Works 85:111 F '54

WAGE arbitration. See Arbitration, Industrial

WAGE differentials

Diminishing differential; southern rates gaining on schedules in northern industries. Chem W 75:20 Jl 24 '54

Occupational wage differentials in major labor markets, 1951-52. L. E. Lewis. Mo Labor R 76:266-7 Mr '53

WAGE incentives. See Wage payment plans

WAGE payment plans

Consider these ten points in applying wage incentives. K. Salmon. Textile World 104:55-7 Ag '54

Destruction of the merit increase. W. E. McCauley. Advanced Management 19:19-25 Jl '54

Don't lose your workers on moving day! L. Stessin. Management R 42:139 Mr '53

Incentive plan for contributory labor. C. M. Zust. N A C A Bul 35:1464-71 Jl '54

Incentives for all; abstract. B. Payne. Management R 43:379-80 Je '54

Merit rating, it's one way to eliminate pay inequities in your plant. Steel 135:60-1 Ag 23 '54

Method for combining length of service and job rating in setting wage rates. H. W. Daniels and R. A. Katzell. Personnel 30:295-8 Ja '54

Montgomery Ward's clerical incentive plan; abstract. R. Coleman. Management R 42:651-2 N '53

Nunn-Bush 52 pay check plan. W. E. McCauley. il Mill & Factory 54:110-14 Ja '54

Payment by results in the building industry in eastern Europe. bibliog Int Labour R 68:524-41 D '53

Practical methods of increasing productivity in manufacturing industries; conclusions adopted by the meeting of experts on systems of payment by results (Geneva, 1951). Int Labour R 67:332-9 Ap '53

Progress toward equal pay in the meatpacking industry. U S Women's Bur Bul 251:1-16; pa 10c Supt. of doc. '53

Proper approach and solution to wage incentive plan problems. W. C. Zinck. bibliog Advanced Management 19:24-7 F '54

Put standard minutes to work. K. L. Kline. Am Mach 98:106-9 Mr 1 '54

Results of across-the-board wage increases. A. B. Feiden. Personnel J 32:166-8 O '53

Salary prepayment plan helps stabilize wages. Personnel 30:253 Ja '54

Streamlining the rating scale for wage administration. N. B. Winstanley, jr. bibliog Personnel 30:286-95 Ja '54

Trends and prospects in incentive programs; abstract. J. W. Roberts. Management R 42:156-7 Mr '53

Trends in personnel and compensation practices for foremen. J. G. Piccoli. Personnel 30:324-30 Ja '54

Wage incentives can work with supervisors, too. M. K. Sheppard. Steel 133:46-7 Jl 27 '53

Wage incentives; strike source for steel. Iron Age 172:17-18 D 24 '53

Why and how of wage incentives. B. Payne. il Dun's R & Mod Ind 63:60-2+ Ja '54

Worker attitude on incentives. A. G. Larke. il Dun's R & Mod Ind 62:61-3 D '53

Your attitude can determine how employees react to incentives. M. A. Cross. Textile World 104:133 Mr '54

See also

Bonus system
Overtime
Payrolls
Piece work
Profit sharing
Salesmen—Salaries and commissions
Trade agreements—Wage clauses
Vacations

Cost of living adjustments

Growth, status, and implications of wage escalation. H. M. Douty. bibliog Mo Labor R 76:126-9 F '53

See also

Trade agreements—Wage clauses

Guaranty of earnings

Annual wage; a 1955 battle. Bsns W p26-7 N 28 '53

Annual wage gains ground in St Louis warehouse field. Bsns W p 167-8 D 19 '53

Annual wage, some cautions. Chem Eng 60:294-5 O '53

Annual wage; warehousemen in St Louis win guaranteed pay in 20 contracts. Bsns W p 145-6 Ag 15 '53

Assured annual pay industry goal. J. W. Irwin. Chem & Eng N 32:508 F 8 '54

Bargaining on economic downtrend. Steel 134:51-2 Mr 1 '54

Can your manufacturing plant guarantee wages? R. D. Stevens. Manuf Rec 123:36-7 S '54

Case against the guaranteed annual wage. H. E. Markley. Steel 134:58-60+ My 24 '54

Case for the guaranteed annual wage. D. J. McDonald. Steel 134:60-2 Ap 5 '54

Challenge of the guaranteed annual wage. J. L. Allen and C. W. Randle. Harvard Bsns R 32:37-48 My '54

Confused conceptions of the guaranteed wage. E. P. Schmidt. Comm & Fin Chr 179:65+ Ja 7 '54

Enforced full employment; worth a try? il Chem W 74:24-5 Ja 30 '54

Grappling with guaranteed annual wage. C. W. Randle. Food Eng 26:68-9 Ap '54

Guaranteed annual wage. A. N. Wecksler. Mill & Factory 54:77-80 F '54

Guaranteed wage drive to meet stiff opposition. S. Fish. Manuf Rec 122:34-5 D '53

Problems of annual wage guarantees. B. Shishkin. Comm & Fin Chr 179:64+ Ja 7 '54

Stabilized employment and the G.A.W.; a survey of management thinking. Management R 43:421-3 Jl '54

Stabilizing production and employment. il Steel 134:87-94 My 17 '54

These are the questions automakers ask; open letter to Walter Reuther, president, CIO. F. G. Lawrence. Steel 133:83-4 N 16 '53

UAW-CIO gives details of annual wage plan. Automotive Ind 110:34 My 1 '54

USW; tie annual wage to jobless pay? J. B. Delaney. Iron Age 173:75 F 18 '54

We bargained on the guaranteed annual wage; National sugar refining co. T. T. Heney. Personnel 31:158-63 S '54

What next after guaranteed wages? T. L. Godey. Mag of Wall St 93:364-5+ D 26 '53

Where do we stand with the guaranteed annual wage? F. H. Cassell. Personnel 30:348-56 Mr '54

WAGE surveys

How big is your labor area? W. R. Hanawalt. Management R 42:440-1 Ag '53

WAGES

Compensating the first-line supervisor; a survey. Management R 43:363-4 Je '54

How good is labor's logic? demands for wage increases and other benefits; abstract. Management R 42:376-7 Jl '53

Metal working facts for 1954; wages continue to rise faster than prices. Am Mach 97:26-7 Mid-N '53

1954; pay problems ahead. Steel 134:50 F 1 '54

Peakless mountain? no summit in sight for chemical and other industrial wage rates. Chem W 75:30 S 4 '54

Phone union urges abolition of learner rates. Pub Util 54:204 Ag 19 '54

Productivity; key to wages? Twentieth century fund study. Bsns W p 146-7 Ag 15 '53

See also

Bonus system
Executives—Salaries
Labor and laboring classes
Overtime
Payrolls
Pensions, Industrial
Profit sharing
Railroads—Wages
Salaries
Salesmen—Salaries and commissions
Wage payment plans

Economic aspects

Do our wage-fixing arrangements promote inflation? S. H. Slichter. Comm & Fin Chr 179:158-9+ Ja 14 '54

Evaluation of the revised CPI as a wage deflator. L. Teper. bibliog Mo Labor R 76:169-72 F '53

Giant in the greenhouse; American wages vastly larger than those on other continents. il Chem W 74:16-18 F 13 '54

WAGES—Economic aspects—*Continued*

Market forces, not unions, account for basic wage changes; U.S. Chamber of commerce opinion. Comm & Fin Chr 178:2541 D 24 '53

Law

Bringing more workers under Wage-hour. Bsns W p 174-5 N 28 '53

Most jobbers under Wage-hour law. Nat Pet N 46:19-20 Ja 27 '54

See also
Minimum wage

Regulation

Who's enforcing what? National enforcement commission, ordered to clean up backlog of wage stabilization cases. Bsns W p 144-5 Ag 15 '53

Statistics

Building trades wage rates, Sept. 1, 1953; table. Eng N 151:127 O 8 '53

Construction cost trends around the world; labor supply, wages, material prices. Eng N 151:117+ O 8 '53

Earnings and hours. Published in Monthly labor review

Earnings of production workers, 1952-1953; chart and tabulations. Automotive Ind 110:328 Mr 15 '54

General level of wages; wages in manufacturing, by countries, 1937-Sept. 1952. Int Labour R Stat Sup 67:62-71 Mr '53 [cont quarterly]

Hourly wages of adult male workers in 43 occupations, Oct. 1952. Int Labour R Stat Sup 67:91-100 My '53

Metalworking wages and hours; production workers; employment; tabulations. Steel 134:196 Ja 4 '54

Pattern of 1953 construction wage increases; tabulation. Eng N 151:35 Ag 20 '53

Steel employment, wages, hours and payrolls, 1938-1953; tabulations. Steel 134:197 Ja 4 '54

Union wages and hours; building trades, July 1, 1953. J. F. Laciskey. U S Bur Labor Statistics Bul 1152:1-34; pa 30c Supt. of doc. '54

Union wages and hours compared; with tables and charts. Eng N 151:131 O 8 '53

Union wages and hours; local transit operating employees, July 1, 1953. A. Moros. U S Bur Labor Statistics Bul 1153:1-10; pa 15c Supt. of doc. '54

Union wages and hours; motortruck drivers and helpers, July 1, 1953. U S Bur Labor Statistics Bul 1154:1-39; pa 30c Supt. of doc. '54

Union wages and hours: printing industry, July 1, 1953. A. Moros. U S Bur Labor Statistics Bul 1155:1-40; pa 30c Supt. of doc. '54

Wage flashback; sieve-like ceilings. Chem W 72:20 Ap 18 '53

Wages and hours in selected industries, 1952-1953; tabulations. Steel 134:198 Ja 4 '54

Wages and related benefits in the machinery industries; postwar wage trends; survey of 20 labor markets, 1953-54. O. R. B. Hollberg and A. N. Jarrell. U S Bur Labor Statistics Bul 1160:1-60; pa 40c Supt. of doc. '54

Wages and related benefits, major labor markets, 1953-1954. U S Bur Labor Statistics Bul 1157-1:1-116; 1157-2:1-94; pa ea 60c Supt. of doc. '54

Wages and related benefits, 20 labor markets, 1952-1953. L. E. Lewis and O. R. B. Hollberg. U S Bur Labor Statistics Bul 116:1-76; pa 55c Supt. of doc. '53

Wages in manufacturing; by countries, 1937-Sept. 1952. Int Labour R Stat Sup 67:67-71 Mr '53 [cont quarterly]

Weekly and hourly and miscellaneous wage data, 1949-1952. Survey of Cur Bsns 1953 Sup p68-78 [supplemented in monthly numbers]

See also
Wage differentials

Great Britain

Britain facing wave of strikes; wage claims and grants. P. Einzig. Comm & Fin Chr 179:271 Ja 21 '54

Claims on empty kitties; TUC and wage claims. Economist 168:767-8 S 19 '53

Cost of rail peace. Economist 170:113-14 Ja 9 '54

Engineering and shipbuilding wages; Minister of labour to examine the facts of the wage disputes. Engineer 197:146 Ja 22 '54

Engineers and overtime. Economist 170:146-7 Ja 16 '54

Equal pay for equal work in government services. Economist 170:79 Ja 9 '54

Facts against more pay; engineers. Economist 169:86 O 10 '53

Farm workers first; wage claims and awards. Economist 168:9 Jl 4 '53

Five per cent for cotton workers. Economist 168:199 Jl 18 '53

Stand or deliver? railwaymen's wage increase. Economist 169:863-4 D 19 '53

Wages and exports. Economist 168:440+ Ag 15 '53

Wages cauldron. Economist 170:71-3 Ja 9 '54

Wages, prices and exports. Economist 168: 245 Jl 25 '53

Memphis, Tennessee

Occupational wage survey; Memphis, Tenn., Jan. 1953. L. B. Woytych. U S Bur Labor Statistics Bul 1116-13:1-15; pa 15c Supt. of doc. '53

New Zealand

Boost for New Zealand wages. Economist 169: 971 D 26 '53

Pacific coast

Wages in West Coast sawmills, Feb. 1952. J. L. Dana. Mo Labor R 76:272-5 Mr '53

United States

Annual earnings of knitted-outerwear workers in 1951. P. E. Warwick. Mo Labor R 76: 249-53 Mr '53

Building labor winning pay hikes from 5 to 21½c hour. Arch Forum 100:41 My '54

Construction wages up 9c; labor gets more fringe benefits, longer contracts. Arch Forum 101:38 S '54; Same cond. House & Home 6:41 S '54

Earnings and hours. Published in Monthly labor review

Earnings of communications workers in Oct. 1951. J. A. Wells. Mo Labor R 76:36-8 Ja '53

Labor's monumental continuing blunder. T. L. Godey. Mag of Wall St 93:64-6+ O 17 '53

Some changes made; analysis of changes in wages and benefits between 1950 and 1953. B. F. McClancy. Personnel 30:126-35 S '53

Ten to 15-cent an hour up trend of wages continues; 1953 construction wage increases. Eng N 151:31 Jl 9 '53

Union scales of local-transit operating employees, 1952. A. Moros. Mo Labor R 76: 395-8 Ap '53

Union wage scales in the baking industry, 1952. J. F. Laciskey. Mo Labor R 76:29-32 Ja '53

Union wage scales in the building trades, 1952. A. Moros. Mo Labor R 76:32-5 Ja '53

Wage arrow points South. map Chem W 73: 30-2+ N 14 '53

Wage chronology series. Published in Monthly labor review

Wage differentials and rate structures among 40 labor markets, 1951-52. U S Bur Labor Statistics Bul 1135:1-17; pa 20c Supt. of doc. '53; Same. Mo Labor R 75:620-3; 76: 22-6, 266-7 D '52-Ja, Mr '53

Wages and related benefits, major labor markets, 1953-1954. U S Bur Labor Statistics Bul 1157-1:1-116; 1157-2:1-94; pa ea 60c; 1157-3:1-135; pa 70c Supt. of doc. '54

Wages climb 80-100 per cent since 1945. Iron Age 174:67 S 2 '54

Wages in electric and gas utilities, July 1952. F. Mohr. Mo Labor R 76:398-402 Ap '53

Wages up 2.6 per cent in building trades. Eng N 151:26 Jl 30 '53

What's indirect labor worth? Factory Management 112:107 Ap; 103 Ag '54

WAGNER-MEERWEIN rearrangement
Aromatization of blocked hydroaromatic systems by quinones. R. P. Linstead and others. bibliog Chem & Ind p 1174-5 S 18 '54
Reactions of hindered α-substituted succinic acids; further reactions involving the Wagner-Meerwein rearrangement. W. R. Vaughan and R. Q. Little, jr. Am Chem Soc J 76:4130-4 Ag 20 '54
Studies in the synthesis of cortisone; a Wagner-Meerwein rearrangement involving rings *C* and *D* of the steroid nucleus. J. Elks and others. Chem Soc J p 1739-49 Je '54

WAGNON, Hugh
Chester Times publisher is veteran at 45. por Ed & Pub 86:75 Mr 21 '53

WAH CHANG corporation
New capacity for tungsten. Bsns W p 112+ N 21 '53

WALDEN inversion
Steroids and Walden inversion; the epimeric 3-cholesterylacetic and 3-cholestanylacetic acids. C. W. Shoppee and R. J. Stephenson. Chem Soc J p2230-42 Jl '54

WALES
See also
Steel works—Wales

WALGREEN company
Chain plus personality; Sanborn hermanos S.A. il Bsns W p76-7 Ag 1 '53

WALKIE-talkie. See Radio telephone, Portable

WALL board
Wood-waste panels. il Mech Eng 75:654-5 Ag '53

WALL coverings
Laminated wall covering. il Arch Rec 113:224+ Ap '53
What can we do to grade-up our dealers? Armstrong cork co. R. C. Stabern. il Sales Management 71:78+ S 15 '53

WALL paper manufacturers, limited
Statement by the chairman. A. Whittle. Economist 169:785-7 D 5 '53

WALL Street
See also
New York stock exchange

WALLINGFORD, Vernon H.
Wallingford receives CIEB award. por(cover) Chem & Eng N 31:3544-5 Ag 31 '53

WALLPAPER
Manufacture of wallpaper. R. L. Boyd. flow diag il Paper Tr J 137:240+ N 13 '53

WALLS
Air-sprayed material protects building walls. il Comp Air Mag 58:350 D '53
Consider the curtain walls, how they grow! il Steel 135:62 Jl 19 '54
Curtain walls and window sizes for new Dallas skyscraper and bank building. il plan diags Arch Forum 99:108-11 S '53
Effect of office windows on design. il Arch Forum 99:118-21 S '53
Effect of the curtain wall on the street. il Arch Forum 99:122-3 S '53
Facts about modern doors, windows, partitions. diags Mill & Factory 54:376-7 My '54
Gauging wall thickness; Dawe type 1101 ultrasonic thickness gauge. il Chem & Ind p 1057 Ag 28 '54
Hartford Statler makes first use of metal-glass walls. il Civil Eng 24:263 Ap '54
How masonry cavity walls were built for 19 story VA hospital. il Eng N 152:40-1 F 4 '54
How to apply aluminum insulated sandwich wall. il diags Sheet Metal Worker 45:100-1 Je '54
Insulated aluminum curtain wall. il diags Arch Forum 99:166 S '53
Light panels cover buildings rapidly. il diags Constr Methods 36:108-9+ Ap '54
Panel walls; which trade does what? il Eng N 151:29 O 29 '53
Plastic gaskets, and fireproof backing, help solve metal wall problems. il Arch Forum 101:159+ S '54
Prefab aluminum skin. il diag Arch Forum 99:167-8 S '53
Prefab curtain wall, insulated panels, windows and frame, is adaptable to wide variety of buildings. il diags Arch Forum 100:168 Ap '54
Sandwich wall panel. il diag Arch Forum 97:152 N '52
Solar irradiation of walls and windows, May-September; data sheet. R. F. Quan and F. W. Hutchinson. Heating-Piping 26:130-2 S; 134-6 O '54
See also
Foundations

WALLS, Brick
Installing aluminum windows in SCR brick walls. diags Am Bld 75:218-20 Ag '53
Layout and bonding of SCR brick walls. plans diags Am Bld 75:242+ Je '53

Testing

Develop special tests for masonry walls in southern California. il Brick & Clay Rec 125:84+ S '54

WALLS, Concrete
Blown-concrete walls. il Factory Management 111:87 D '53
Chimney blocks put to new use; forms wall of patio; detail plate. K. R. O'Neal. il plan diags Am Bld 75:180-1 Jl '53
Concrete panels serve as jet plane blast plates. il Concrete 62:14 Mr '54
Cracking of concrete block walls. Arch Rec 113:176+ Je '53
Design and fabrication of precast sandwich panels for tilt-up construction; abstract. F. T. Collins. Roads & Eng Constr 92:156+ Ap '54
Marietta tries new sandwich wall on laboratory building. il Concrete 62:44 Ap '54
Precast concrete walls simplify construction. il Chem Eng 60:244-5 S '53
Precast panels speed factory construction; Grumman aircraft engineering co. il Concrete 61:6-8 N '53; Excerpts. Civil Eng 23:640 S '53; Am Concrete Inst J 25:sup 11-12 N '53
See also
Fire walls, Concrete

WALLS, Glass
Glass walls will show off bank's interior; New York branch office of the Manufacturers trust co. il Eng N 152:24 Ja 14 '54

WALLS, Interior
Adhesives pave way for tile economy. il House & Home 3:162-3 Mr '53
Interior wall, ceiling, flooring and utility materials. il plans diags Am Bld 75:349+ Ap '53
Lighting a window wall; data sheet. il plan Illum Eng 49:107 F '54
Porcelain enameled panels for interior walls. C. F. Block. il diag Arch Rec 114:219-20 N '53
See also
Partitions

WALLS, Steel
Stainless steel wall resists corrosion; Edison junior high school, West Mifflin Boro, Pa. il diags Arch Forum 101:163 Jl '54

WALNUT river
Water pollution report, Walnut River basin; abstract. Sewage & Ind Wastes 26:928-9 Jl '54

WALNUT shells
Ground walnut shells used to combat lost circulation. A. Gibbon. il World Oil 138:105-6 Ja '54

WALNUTS
Lightning impulses shell the walnuts; Northwest nut growers in Portland. il diag Elec West 111:96-7 O '53; Elec World 140:138 N 2 '53

WALSH-HEALEY act. See Minimum wage

WANNAMAKER, T. E., inc.
They run their business, not vice versa. Chem W 72:14-15 Ap 11 '53

WAR
Communist revolution in warfare. J. D. Atkinson. il U S Naval Inst Proc 79:284-91 Mr '53
Engineer's task in future wars; abstract. G. N. Tuck. Engineering 177:133 Ja 29 '54
Haunted quest. R. Hargreaves. il U S Naval Inst Proc 79:256-65 Mr '53
Mobilization of shipping for war. G. S. Staring. il U S Naval Inst Proc 79:494-503 My '53

WAR—*Continued*

U.S. studies plans for industry survival in case of war damage. E. C. Kreutzberg. Steel 134:52 F 1 '54

See also

Aeronautics, Military
Air raids
Biological warfare
Communication, Military
Peace
Petroleum industry and trade—War problems
Radio broadcasting stations—War measures
Railroads in war
Strategy

Economic aspects

See also

War finance

WAR, Maritime

See also

Submarine warfare

WAR and science

Science in war; abstract. O. H. Wansbrough-Jones. Engineering 177:133 Ja 29 '54

Scientist's place in the services; abstract. O. H. Wansbrough-Jones. Chem & Ind p456 My 9 '53

WAR criminals. See World war, 1939-1945—War criminals

WAR finance

Role of commercial banks in financing United States wars. J. G. Buckley. Comm & Fin Chr 178:2634-5 D 31 '53

WAR measures

See also

Industrial mobilization
Railroads in war

WAR memorials

Australia's memorial to U.S.A. T. Bishop. il Metal Prog 66:122-3 Jl 1 '54

WARD, Joseph H.

Working all year just for one day; Noma Lites, maker of Christmas lighting. pors Bsns W p41-4+, cover D 19 '53

WARD, Thomas W., limited

Statement by the chairman. G. Wood. Economist 169:623-5 N 21 '53

WAREHOUSES

Industrial buildings; building types study. il plans diags Arch Rec 114:167-72 Ag '53

Mechanization reduces show of hands; warehouse of Erie brewing co.; illustrations with text. W. Rudolph. Mill & Factory 54:122-3 Ap '54

Precast rigid-frame warehouse. il Eng N 151:30-2 N 5 '53

Prestressing provides spacious warehouse. H. H. Edwards and Z. Zia. il plan diags Concrete 62:5-7 S '54

Savings on welded warehouse begin on designer's desk. D. R. Graham. il diags Civil Eng 23:522-3 Ag '53

Sawtooth piers bite into loading problems. il Safety Maint & Prod 107:67 F '54

Slash warehouse construction costs; reinforced concrete framing, precast concrete roof slabs and concrete block exterior walls. il Constr Methods 36:54-6 S '54

Warehouse offers minimum dead, maximum live storage; Filtrol corp. Chem & Eng N 32:1936 My 10 '54

Warehousing moves overhead; Art metal construction co. il Steel 133:112-13 Jl 27 '53

See also

Freight houses

Fires and fire protection

Another warehouse burns up, why? il Safety Maint & Prod 107:54+ Ap '54

Large warehouse fire losses. East Underw 54:14 Ag 7 '53

Sodium nitrate storage. Safety Maint & Prod 107:60-1 F '54

Warehouse fires continue to pile up weekly toll. L. A. Vincent. Weekly Underw 169:255 Ag 1 '53

Floors

Mastic floor laid in big warehouse. il Constr Methods 36:101-2+ Ap '54

Heating and ventilation

Biggest job for gas unit heaters; General depot of Army quartermaster corps warehouse buildings. il Gas Age 113:30 Ap 22 '54

Forced air units solve tough heating problems in ten-acre food assembly warehouse. il Food Eng 25:131+ D '53

Location

Warehousing off the city streets; Wyeth laboratories. il plan Chem W 73:71-2 Ag 8 '53

WAREHOUSING

Egleston marks 125th year. il Steel 134:79 My 17 '54

Modern credit mountain moves to Mahomet; supplier turns warehouser; Pan American petroleum and transport co., New York. G. J. Timone. Credit & Fin Management 55:24-5 Ag '53

1954 inventories; problem or opportunity? L. A. Benoist. il Bankers Mo 70:5-6+ N '53

Order in the warehouse; producers to reexamine channels of distribution. Chem W 73:59-60+ D 5 '53

Query; is secured distribution possible? answer; yes, with field warehouse on customer's premises. L. S. Coates. il Credit & Fin Management 55:20-1+ N '53

Warehouse clinic; new ideas stimulate new sales. il Steel 134:73 Je 7 '54

Warehousemen see better business soon. il Steel 135:48-9 Ag 2 '54

Warehouses; industry's supermarkets. il Steel 134:47-8 My 17 '54

Warehouses; sales start rebound. W. V. Packard. Iron Age 174:53-4 Jl 29 '54

Warehouses set sights to meet challenge. W. M. Rooney. il Steel 133:67-9 Jl 13 '53

WARFARIN. See Rats—Extermination

WARM air heating. See Heating, Warm air

WARNER-HUDNUT, inc.

Ethical drugs biggest line today. Barron's 33:21-2 O 5 '53

WARRANTS, Stock purchase. See Stock purchase warrants

WARRANTY

Warranty card analysis to estimate retail sales. L. Gunlogson and J. Neter. J Marketing 19:24-33 Jl '54

WARSHIPS

Naval construction in 1953. R. V. B. Blackman. il Engineer 197:29-33, pl 1, 4, 69-72, 109-13 Ja 1-15 '54

See also

Airplane carriers
Mine sweepers
Submarine boats

Canada

Cathodic protection as applied to royal Canadian naval vessels in active service. K. N. Barnard. il diags Chem & Ind p 172-82 F 13 '54; Discussion. p713-20 Je 19 '54

Great Britain

Cathodic protection; application to ships and establishments of Royal navy. J. T. Crennell. il diags Chem & Ind p204-9 F 20 '54; Discussion. p713-20 Je 19 '54

Corrosion of machinery in H.M. ships. L. Kenworthy. bibliog il J Ap Chem 4:97-106 Mr '54

Royal navy, 1953. il Engineer 197:8-10, pl 1, 45-8, pl 1-2 Ja 1-8 '54

Smaller R.N. fighting craft. il Engineer 197:188 Ja 29 '54

WARTMAN, Franklin Secord, 1899-

Frank S. Wartman, winner of Department of interior's distinguished service award for role in developing titanium process. H. T. Sharp. pors Chem Eng 61:366-8 Mr '54

WARTS

Epidemiological study of plantar warts among school children. W. K. Grigg and G. Wilhelm. Pub Health Rep 68:985-8 O '53

WASHABLE (term)

Definition of the term washable; abstract. A. Greyborn. Am Dyestuff Rep 42:231 Ap 13 '53

WASHBOURNE, Lee B.

Washbourne upgraded in AF. por Eng N 152:66+ Ap 8 '54

WASHERS (machinery)

Lock-washer strip-stock fed through stripper. H. Dahl. diags Am Mach 98:140 Ag 2 '54

Preload indicating washers extend life of assembly bolts; Douglas aircraft co. il Iron Age 173:214 Je 24 '54

WASHERS (machinery)—*Continued*

Punch for thin washers. H. J. Gerber. diags Tool Eng 33:43 S '54

Wedges cut from I-beams make good wedge washers. A. J. Fritsche. diags Chem Eng 60:187 Jl '53

WASHING

See also

Laundry

WASHING apparatus

Automatic screen washer for air-changing unit; Reigel textile corp. W. C. Westbrook. il Textile World 104:93 S '54

WASHING machines

Blackstone automatic washing machine. il Consumers Res Bul 32:19 N '53

Damaging effects of detergents on washing machines. J. W. McCutcheon. Soap & San Chem 29:103+ N '53

Investigations to determine the effects of the washing temperature and time and the concentration of the washing agents when washing by machine. S. Köhler. bibliog diag Textile Res J 24:173-96 F '54

Market for sudslessness; automatic launderers and dishwashers depend on suitable detergents. il Chem W 73:65-6 S 19 '53

Soap in the home clothes washer. F. Ehrenkranz and others. Soap & San Chem 30:46-7+ F '54

Water boiling washer machine. il Elec J 152:286 Ja 22 '54

See also

Bottle washing machines

Advertising

How competitors get together to crack Cuban market. B. Jennings. il Ptr Ink 244:56+ Ag 28 '53

Manufacture

New epoxy primer has high resistance to alkalies. H. L. Farber. il Materials & Methods 39:93-5 F '54

Merchandizing

City-country gap; Easy Washing Machine is pushing its nonautomatic model in rural areas. Bsns W p46 O 10 '53

Testing

Isotopes for washing check; Nuclear instrument and chemical corp. il Chem W 75:64 S 11 '54

WASHING machines (for metal parts)

Cooper automatic parts washer has three compartments. il Am Mach 98:166 Ap 26 '54

Industrial washing machine. Metal Finishing 52:88-9 Ja '54

Industrial washing machine degreases filter parts. il Am Mach 98:265 Ap 12 '54

International pin-point precision washer flushes holes, internal cavities. il Am Mach 98:216 S 13 '54

WASHINGTON, Henry Stephens, 1867-1934

Great analysis; Composition of the earth's crust. A. R. Martin. por J Chem Educ 30:566-8 N '53

WASHINGTON (state)

See also

Chemical industries—Washington (state)

Copper mines and mining—Washington (state)

Hydroelectric plants—Washington (state)

WASHINGTON, D.C.

About Washington. H. Bratter. il Banking 46:141-2+, 182-200 S '53

Ambassadors' future; prime target for comptrollers are company Washington offices. Chem W 73:34+ O 3 '53

Banker's Washington. J. L. Cooley. il Banking 46:174-8 S '53

$500 million project for 427-acre site. il plan Arch Rec 115:172-3 My '54

Improving the Capitol. Bsns W p 144+ D 19 '53

Streets

Snow and ice control on the edge of the cold belt. W. A. Xanten. il Pub Works 85:83-5 Ag '54

WASHINGTON conference of foreign ministers. See International conferences—Washington, 1953

WASHINGTON state college

Washington state, dormitories. il plans diags Arch Forum 98:134-9 Je '53

WASHINGTON water power company

Courts rule against WWP in condemnation cases. Elec World 141:83 Ja 11 '54

Hearing off; merger of Washington Water Power and Puget Sound Power & Light. Elec World 140:108 N 16 '53

Merger foes to be heard. Elec World News ed 139:44-5 Je 8 '53

Merger okayed; Washington PSC authorizes WWP to take over Puget Power & Light. Elec World News ed 140:45 O 26 '53

PUD'S will fight WWP-Puget consolidation plans. Elec World 140:102 N 2 '53

Rate hike cited; WWP-Puget merger. Elec World News ed 140:45 Ag 3 '53

WWP-PUD battle brewing. Elec World 139:87 Je 1 '53

WWP-Puget hearings end. Elec World 140:111 Ag 24 '53

WWP-Puget hearings go on. Elec World News ed 140:48 Ag 17 '53

WWP-Puget hearings reopen. Elec World News ed 140:44 Jl 20 '53

WWP-Puget merger queried. Elec World 140:107 Jl 27 '53

WASHROOMS. See Lavatories

WASTE

Material utilization incentive plan. R. P. Keehn. flow chart N A C A Bul 35:224-35 O '53

See also

Canneries—Waste

Conservation of resources

Dairy waste

Electroplating—Waste

Metal waste

Metal working plants—Waste

Paper and pulp mills—Waste

Salvage (waste, etc.)

Scrap material

Scrap metal

Trade waste

Waste fuel

Waste heat

Waste paper

Wood waste

WASTE, Utilization of

Biological by-products; utilization. Chem Age (Lond) 68:825-6 My 30 '53

Profitable squeeze; sulfite liquor roadbinder. il Chem W 74:56+ My 29 '54

Utilization of waste by Canadian mines. D. P. Douglass. Munic Util 92:29+ Je '54

See also

Citrus fruit—By-products

Salvage (waste, etc.)

Sulfite liquor

WASTE disposal. See Refuse disposal; Sewage disposal; Trade waste—Disposal plants

WASTE fuel

Loddby cyclone burner; new system for burning waste calcium-base sulphite liquor. T. Simmons. diags Pulp & Pa of Can 55:108-10 Ja '54

WASTE heat

Oxidizing catalyst at peak performance. E. B. Brien. il Pet Eng 25:C 15-16 Ag '53

Simple new system turns cat cracker waste heat to steam. il diags Chem Eng 61:114-16+ Ap '54

Use of waste heat for refrigeration; abstract. W. Martynowsky. diag Refrig Eng 62:51 Mr '54

Waste heat from atomic reactors to be used in heating buildings at Richland, Wash. Elec Eng 73:101-2 Ja '54; flow diag Power Eng 58:88 Ap '54

See also

Furnaces, Recuperative and regenerative

WASTE heat boilers. See Boilers, Waste heat

WASTE paper

Bleaching with peroxides and the use of peroxide in waste paper recovery. flow sheet Paper Ind 36:588+ S '54

Considerations in the design of a stock cleaning system. J. T. Loomer. Pulp & Pa of Can 54:128-30 O '53

Deinking by the Froth flotation process. J. W. Jelks. il diag Tappi 37:sup 149A-50A Ja '54

First mill report of Ahlfors screen operation on deinked pulp; Newton Falls paper mill, inc. diag Paper Tr J 138:58 My 14 '54

WASTE paper—*Continued*

Industry rise leaves waste paper behind. S. B. Sutphin, jr. Paper Tr J 138:60 Ja 29 '54

New waste paper bale and carloading specifications. Paper Tr J 138:23 Ap 30 '54

Progress made in waste paper utilization. H. J. Perry. Paper Tr J 138:62 Ja 29 '54

Revised waste paper specifications. Paper Tr J 138:21+ Mr 12 '54

Some factors in the color reversion of bleached secondary fiber. H. P. Bailey and others. Tappi 37:14-18 Ja '54

What waste paper requirements will be in 1954, and why. J. Baker. Paper Tr J 138: 32+ Mr 26 '54

WASTE products

Latent profit in stockpile wastes at Texas City tin smelter. il Chem W 74:50-2 My 15 '54

Lightweight building material from waste materials; Ytong. il Can Chem Process 38: 50+ Je 1 '54

Packing house waste problem. H. R. Murdock. Ind & Eng Chem 45:sup 103A-5A Je '53

Phosphatic slime; a potential mineral asset. P. M. Tyler and W. H. Waggaman. bibliog il Ind & Eng Chem 46:1049-56 My '54

Profits in problems; Albert Spitz. Chem W 73:38+ Ag 29 '53

Put waste $CaCO_3$ to work. Chem Eng 61: 156 Jl '54

Smokeless burning of waste process gases. R. D. Reed. A S M E Trans 76:251-3 F '54

Yeast, a valuable product from wastes. N. Porges. J Chem Educ 30:562-5 N '53

See also

Bagasse
Bark
Blast furnace gas
Canneries—Waste
Citrus fruit—By-products
Coal waste
Coke-oven gas
Cottonseed
Farm produce—By-products
Flue dust
Flue gas
Lignin
Metal waste
Paper making—By-products
Rags
Refuse as fertilizer
Rubber—Reclaiming
Salvage (waste, etc.)
Scrap metal
Sewage sludge
Slag
Straw
Sulfite liquor
Tailings
Trade waste
Waste, Utilization of
Waste paper
Wood waste

WASTE water. See Trade waste

WATCH straps

Afraid to switch to wholesalers? Miller brothers watch strap manufacturing co. W. W. Miller. il Sales Management 71:48+ S 15 '53

WATCHES

Canned watches; army ordnance new moistureproof, shockproof method II pack. il Mod Packaging 27:134 N '53

How to find off-season sales; Gruen watch co. il Sales Management 72:54+ F 1 '54

Men's wrist watches. il Consumers Res Bul 32:10-14 N '53

Nervous tick; watchmakers feel the import battle's growing tension. J. C. Perham. Barron's 34:11+ Ja 18 '54

Swiss watches and U.S. trade. Bsns W p70 D 26 '53

U.S. jeweled watch industry bolsters slow market with new products, defense work. il Steel 135:72 S 20 '54

See also

Elgin national watch company
Tariff—United States—Watches

Testing

Watch tester; patent. diags Electronics 27: 238+ Ja '54

WATCHES, Stop. See Stop watches

WATCHMAKERS

Skills; time runs out for watchmakers. A. K. Rannells. Iron Age 172:106 D 3 '53

Watchmakers; seek tariff hike to maintain pool of precision workers. Iron Age 173:78-9 F 18 '54

WATER

Centrifugal distortion in asymmetric top molecules; H_2O, D_2O, and HDO. D. W. Posener and M. W. P. Strandberg. bibliog Phys R 95:374-84 Jl 15 '54; Correction. 96: 1714 D 15 '54

Chemical interactions of amino compounds and sugars; influence of water. M. L. Wolfrom and C. S. Rooney. Am Chem Soc J 75:5435-6 N 5 '53

Condensation of vapors of water and immiscible organic liquids. M. Tobias and A. E. Stoppel. bibliog diag Ind & Eng Chem 46:1450-5 Jl '54

Cooling potential versus specific enthalpy; heat transfer potential between moist air and water. F. Rasori. bibliog Refrig Eng 61:1207-19+ N '53; Discussion. 62:52-3+ F; 76-7+ Je '54

Corrosion by water at low flow velocity. T. E. Larson and R. M. King. bibliog il Am Water Works Assn J 46:1-9 Ja '54

Corrosive action of dissolved gases on steel in water. J. W. Watkins and J. Wright. bibliog il diags Pet Eng 25:B50-1+ N '53

Dielectric behavior of sorbed water on silica gel. S. Kurosaki. bibliog J Phys Chem 58: 320-4 Ap '54

Dielectric constant and refractive index from 20 to 35° and density at 25° for the system tetrahydrofuran-water. F. E. Critchfield, J. A. Gibson, jr. and J. L. Hall. Am Chem Soc J 75:6044-5 D 5 '53

Diffusion length of thermal neutrons in water. J. A. DeJuren and H. Rosenwasser. bibliog J Res Nat Bur Stand 51:203-7 O '53

Dimethylaniline as an aid in acetic acid-water separation. L. Garwin and P. O. Haddad. Ind & Eng Chem 45:1558-62 Jl '53

Dissociation pressures and related measurements in the system aluminum sulfate-water. N. O. Smith and P. N. Walsh. bibliog diag Am Chem Soc J 76:2054-7 Ap 20 '54

Effect of water on the catalytic activity of chromic oxide. S. E. Voltz and S. Weller. Am Chem Soc J 75:5231-2 N 5 '53

Electronic structure and polarity of the water molecule. J. A. Pople. J Chem Phys 21: 2234-5 D '53

Enthalpy-concentration diagram for system ferrous sulfate-water. K. A. Kobe and E. J. Couch, jr. bibliog(37 ref) diag Ind & Eng Chem 46:377-81 F '54

Evaporation of resting water. K. C. D. Hickman and W. A. Torpey. il diag Ind & Eng Chem 46:1446-50 Jl '54

Experiments in hydrodynamic lubrication using water as a lubricant. S. Abramovitz. diags J Ap Phys 24:1521-2 D '53

Fugacity of water at high temperatures and pressures. W. T. Holser. bibliog J Phys Chem 58:316-17 Ap '54

Influence of adsorption of water and quinoline on the surface conductivity of a synthetic alumina-silica catalyst. M. A. Cook, R. O. Daniels, jr. and J. H. Hamilton. bibliog diag J Phys Chem 58:358-62 Ap '54

Integrating reclamation and disposal of waste water. A. M. Rawn and others. bibliog il Am Water Works Assn J 45:483-90 My '53; Same. Water & Sewage Works 101: R219-23 pt 2 My '54

Liquid equilibria of water-methanol-aniline-benzene system. A. W. Francis. il diags Ind & Eng Chem 46:205-7 Ja '54

Liquid phase equilibria. J. W. Westwater and L. F. Audrieth. bibliog Ind & Eng Chem 46:1281-4 Je '54

Low-temperature electrolytes. F. Rakowsky and A. B. Garrett. bibliog Electrochem Soc J 101:117-19 Mr '54

Low temperature reaction of water with carbon. R. N. Smith, C. Pierce and C. D. Joel. bibliog J Phys Chem 58:298-302 Ap '54

Magnesium bromide-lithium bromide-water system. J. R. Heiks and A. B. Garrett. bibliog Am Chem Soc J 76:2587-90 My 5 '54

Maximum evaporation coefficient of water. K. C. D. Hickman. bibliog il diag Ind & Eng Chem 46:1442-6 Jl '54

WATER—*Continued*

Measurement and correlation of acid dissociation constants for ammonium and anilinium salts in the system dioxane-water. H. P. Marshall and E. Grunwald. bibliog Am Chem Soc J 76:2000-4 Ap 5 '54
Optical absorbance in nitric acid-nitrogen dioxide-water system. S. Lynn, D. M. Mason and B. H. Sage. bibliog il Ind & Eng Chem 46:1953-5 S '54
Penetration of 6-Mev gamma rays in water. P. A. Roys and others. Phys R 95:911-12 Ag 15 '54
Preparation of light water by distillation; its composition, and the densities and fractionation factors of its isotopes. H. E. Watson. bibliog J Ap Chem 3:556-63 D '53
Pressure dependence of the dielectric constant of water and the volume contraction of water and *n*-butanol upon addition of electrolyte. F. E. Harris, E. W. Haycock and B. J. Alder. bibliog J Phys Chem 57:978-80 D '53
Prospective chemistry of cement and concrete; more about the structure of water and its effects on silicates. N. C. Rockwood. diags Rock Prod 57:147-9 Ja '54
Proton relaxation in water. G. Chiarotti and L. Giulotto. il Phys R 93:1241 Mr 15 '54
Reactions between glass and water. I. R. Beattie. Glass Ind 35:29+ Ja '54
Self-diffusion of water molecules and mobile anions in cation exchangers. G. E. Boyd and B. A. Soldano. bibliog Am Chem Soc J 75:6105-7 D 20 '53
Slow neutron cross section of water. M. Danzker. J Chem Phys 21:2089-90 N '53
Solubility of oxygen in water. L. M. Zoss and others. bibliog diag A S M E Trans 76:69-71 Ja '54
Some properties of the system $Na_2O-NaF-B_2O_3-H_2O$. H. W. King. bibliog Am Cer Soc J 37:238-42 My 1 '54
Some recent experiments with supercooled water. C. Berger and C. M. Saffer, jr. Science 117:665 Je 12 '53
Studies in the system magnesia-silica-water at elevated temperatures and pressures. E. T. Carlson and others. bibliog J Res Nat Bur Stand 51:179-84 O '53
Studies on formation and recrystallization of intermediate reaction products in the system magnesia-silica-water. G. L. Kalousek and D. Mui. Am Cer Soc J 37:38-41 F 1 '54
Surface migration of water molecules in ice. E. J. Murphy. J Chem Phys 21:1831-5 O '53
Ternary liquid-liquid equilibria. L. F. Crooke, jr. and M. Van Winkle. bibliog Ind & Eng Chem 46:1474-7 Jl '54
Total water in pulp mill spent liquors; TAPPI suggested method T 641 sm-54. diags Tappi 37:sup 127A-9A F '54

See also

Air conditioning equipment—Water requirements
Cooling water
Dehydration
Drinking water systems
Drying
Erosion
Feed water
Fire service (water supply)
Floods
Humidity
Hydraulic engineering
Hydraulics
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Irrigation
Lakes
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Pumping
Rain and rainfall
Rivers
Sea water
Solution (chemistry)
Steam
Water supply and other headings beginning Water
Waterways
Waves
Wells

Analysis

Amperometric techniques for chlorine residual. G. C. Clark, jr. il Instruments & Automation 27:610-11 Ap '54
Analysis data for the ternary system isopropyl alcohol-isopropyl ether-water. W. S. Brey, jr. bibliog(26 ref) Anal Chem 26:838-42 My '54
Analytical methods of testing waters to be injected into subsurface oil-productive strata. J. W. Watkins. 6pls U S Bur Mines Rep of Invest 5031:1-29 bibliog(24 titles, p27-9) '54
Analytical problems of river pollution. G. Knowles and A. B. Wheatland. bibliog Chem Age (Lond) 70:465-9 F 20 '54
Colorimetric determination of fluorine in waters and soil extracts. W. M. Shaw. bibliog il Anal Chem 26:1212-14 Jl '54
Colorimetric method for determining pine oil in water. J. A. Sutton. bibliog pl U S Bur Mines Rep of Invest 4990:1-15 '53
Continuous recording of concentration of organic matter in waste water. R. Kieselbach. bibliog flow diag il diags Anal Chem 26:1312-18 Ag '54
Determination of calcium and magnesium in lake waters by means of a rotating silver disk electrode. V. W. Meloche and R. Shapiro. bibliog il diags Anal Chem 26:347-50 F '54
Determination of chloride ions in water by mercuric nitrate; abstract. G. Gad and M. Manthey. Am Water Works Assn J 46:sup64+ S '54
Determination of chlorine in water. R. Belcher, A. J. Nutten and W. I. Stephen. Anal Chem 26:772-3 Ap '54
Determination of low concentrations of carbon dioxide in water. J. B. Smith, E. K. Gilbert and M. P. Howie. bibliog diag Anal Chem 26:667-70 Ap '54
Determination of phenols in waste waters by ultraviolet absorption. L. J. Schmauch and H. M. Grubb. Anal Chem 26:308-11 F '54
Determination of small concentrations of sodium. P. Mazzamaro and G. Tatoian. diag Anal Chem 26:1512-13 S '54
Determination of small oxygen contents dissolved in water; abstract. J. Verbestel and others. Am Water Works Assn J 46:sup68 S '54
Determination of the short-lived decay products of radon in natural waters. P. K. Kuroda and Y. Yokoyama. bibliog diag Anal Chem 26:1509-11 S '54
Determination of water in easily hydrolyzed fluorides. J. G. Feibig and J. C. Warf. bibliog Anal Chem 26:927-8 My '54
Determining residual chlorine in water by neutral ortho-tolidine methods; progress report. A. T. Palin. Water & Sewage Works 101:74-6 F '54
Direct colorimetric method for the determination of chlorine dioxide in water. H. W. Hodgden and R. S. Ingols. bibliog Anal Chem 26:1224-6 Jl '54
Estimating the tritium content of tritiated water. W. A. Jenkins. diag Anal Chem 25:1477-80 O '53
Estimation of water content of small amounts of proteinaceous material. H. Sobel. Anal Chem 25:1756 N '53
Infrared analyzer for monitoring water content. F. W. Karasek and E. C. Miller. diags Ind & Eng Chem 46:1374-6 Jl '54
Mass spectrometer determination of volatile contaminants in water. F. W. Melpolder, C. W. Warfield and C. E. Headington. bibliog diags Anal Chem 25:1453-6 O '53
Measurement of pH in soils and water. Am Gas J Hdbk 179:140-1 O 1 '53
Mercurimetric determination of chloride. J. F. Thomas. bibliog Am Water Works Assn J 46:257-62 Mr '54
Methods for determining hydrocarbons and phenols in water. bibliog Anal Chem 25:1681-5 N '53
Microdetermination of DDT in river water and suspended solids. B. Berck. bibliog Anal Chem 25:1253-6 Ag '53
Permanent spectrophotometer standard for iron determination. L. Aconsky and others. Am Water Works Assn J 46:894-8 S '54
Qualitative spot test for sulfides. P. K. Mueller and M. C. Rand. Sewage & Ind Wastes 25:1405 D '53; Same. Water & Sewage Works 101:R208 pt 2 My '54
Quantitative determination of dissolved oxygen in nitrite-containing water using acid-chromous reagent. H. W. Stone and P. Sigal. diags Anal Chem 26:1236-8 Jl '54
Radium content of public water supplies. J. R. Hursh. bibliog diag Am Water Works Assn J 46:43-54 Ja '54
Rapid microcolorimetric determination of dissolved oxygen. W. F. Loomis. bibliog Anal Chem 26:402-4 F '54
Scheme for analysis of industrial water. J. H. Phillips and K. G. Stoffer. il Ind & Eng Chem 46:970-4 My '54

WATER—Analysis—*Continued*

Separation and concentration of trace metals from natural waters. D. E. Carritt. diags Anal Chem 25:1927-8 D '53

Simple quartz infra-red spectrometer for the determination of absorbed water in some polymers. E. R. S. Jones. diag J Sci Instr 30:132-4 Ap '53

Simplified titration vessel for determination of water by the Karl Fischer method. R. L. Menville and S. R. Henderson. Anal Chem 25:840-1 My '53

Sodium determination with ion-exchange resin. R. Navone. Am Water Works Assn J 46:479-80 My '54

Standard methods for the examination of water, sewage, and industrial wastes; review. F. W. Gilcreas. Pub Works 85:90+ Ja '54

Strontium and calcium in municipal water supplies. G. V. Alexander and others. bibliog Am Water Works Assn J 46:643-54 Jl '54

Use of ion-exchange methods in water analysis. C. Calmon. bibliog(26 titles) Am Water Works Assn J 46:470-8 My '54

Water analyses aid in selection of plumbing materials. V. F. Nole. il Pub Works 85:66-7+ F '54

See also

Feed water—Testing

Bacteriology

Bactericidal studies of chlorine. R. S. Ingols and others. bibliog il Ind & Eng Chem 45:996-1000 My '53

Bacteriological examinations of water and their interpretation. R. D. Stuart. Munic Util 92:26+ F '54

Biological growths in petroleum refinery waste waters. E. S. Crosby, W. Rudolfs and H. Heukelekian. il Ind & Eng Chem 46:296-300 F '54

Biology of aerobacter aerogenes (bacterium lactis aerogenes) and the intermediate forms; abstract. W. Maassen and others. Am Water Works Assn J 46:sup70+ F '54

Combating pipeline growths by maintaining chlorine residuals throughout a distribution system. G. Y. Blair. Am Water Works Assn J 46:681-3 Jl '54

Disinfection of drinking water under field conditions. J. C. Morris and others. Ind & Eng Chem 45:1013-15 My '53

Elemental iodine as a disinfectant for drinking water. Shih Lu Chang and J. C. Morris. bibliog Ind & Eng Chem 45:1009-12 My '53

Improved methods for determining the most probable number of bacterium coli and of streptococcus faecalis; abstract. E. Childs and L. A. Allen. Am Water Works Assn J 46:sup74 S '54

Lauryl sulfate tryptose broth as a presumptive and confirmatory medium for coliform organisms. A. K. Bicknell and others. Am Water Works Assn J 46:481-5 My '54

Membrane filter; mf and mpn water analysis methods compared. Eng N 152:81 Mr 18 '54

Significance of the coliform test in relation to intestinal virus pollution of water; abstract. F. W. Gilcreas. Water & Sewage Works 101:13 Ja '54

Technique of bacterial examination of water with molecular filter membranes. bibliog il diags Am Water Works Assn J 45:1196-210 N '53

Testing cationic surface active germicides for use in industrial water systems. C. H. Bollenback and G. A. Cruickshank. il Anal Chem 26:1355-7 Ag '54

Treatment of water and sewage by ionizing radiations. C. G. Dunn. bibliog il diags Sewage & Ind Wastes 25:1277-81 N '53

Type differentiation of coliform organisms with membrane filter technique. H. L. Jeter and others. bibliog Am Water Works Assn J 46:386-94 Ap '54

Underground movement of bacterial and chemical pollutants. R. G. Butler and others. bibliog(29 titles) Am Water Works Assn J 46:97-111 F '54

Use of the membrane filter in the bacteriological examination of water. E. W. Taylor, N. P. Burman and C. W. Oliver. bibliog J Ap Chem 3:233-40 My '53

See also

Ice—Bacteriology

Deactivation and deaeration

Rust in water system checked by deaeration. J. L. Staunton. il Eng N 151:42-3 Ag 27 '53

Demineralization

See Water purification—Demineralization

Hardness

Determination of total hardness in drinking water according to the Versenate method. M. W. E. Evers and J. S. N. Cramer. Am Water Works Assn J 46:sup70+ S '54

Hard water test kit for the layman. il Consumers Res Bul 32:10 D '53

New method for the determination of the hardness of water; abstract. P. Carboni. Am Water Works Assn J 46:sup72 S '54

Testing hardness of water; Paterson engineering company hardness and alkalinity testing set. il Chem Age (Lond) 71:475 S 4 '54

Heavy water

Centrifugal distortion in asymmetric top molecules; H_2O, D_2O, and HDO. D. W. Posener and M. W. P. Strandberg. bibliog Phys R 95:374-84 Jl 15 '54; Correction. 96:1714 D 15 '54

Determination of heavy water with the hot wire gage. R. G. Haldeman. bibliog diags Anal Chem 25:787-90 My '53

Librational heat capacity of ice and of heavy ice. R. W. Blue. bibliog J Chem Phys 22:280-3 F '54

Measurement of the tritium concentration in natural waters by a diffusion cloud chamber. E. L. Fireman and D. Schwarzer. il diags Phys R 94:385-8 Ap 15 '54

Nuclear engineering materials, moderators; heavy water. P. J. Selak and J. Finke. bibliog flow diags il diags Chem Eng Prog 50:221-9 My '54; Abstract. Chem & Eng N 32:2772+ Jl 12 '54

Preparation of water samples for deuterium analysis in the mass spectrometer. F. P. Chinard and T. Enns. diags Anal Chem 25:1413-14 S '53

Reactor cooled and moderated by heavy-water. diags Elec World 139:69-73 Je 1 '53

Two new lines in the microwave spectrum of heavy water. H. D. Crawford. J Chem Phys 21:2099 N '53

Analysis

Precision concentration analysis of D_2O/H_2O by means of phase contrast refractometry. E. Ingelstam and others. bibliog diags Opt Soc Am J 44:472-7 Je '54

Simple infra-red grating spectrometer for use in analysis. J. Gaunt. J Sci Instr 31:316-18 S '54

Oxygen removal

Vacuum degasification in a packed column. E. L. Knoedler and C. F. Bonilla. bibliog diags Chem Eng Prog 50:125-33 Mr '54

Spectrum

Infrared absorption of liquid water from 2 to 42 microns. E. K. Plyler and N. Acquista. Opt Soc Am J 44:505 Je '54

Standards

Analysis of water quality criteria. J. E. McKee and V. W. Bacon. Am Soc C E Proc 79 [no231]:1-10 Ag '53; Discussion. E. J. Cleary. 79 [no377]:7-9 D '53

See also

Water supply—Standards

Testing

How to make simplified water tests. il Power 98:142 Jl '54

How to test quality of injection water. W. F. Cerini. diags World Oil 137:189-90 Ag 1 '53

Joint committee on bathing places; 1953 progress report. Water & Sewage Works 101:324-6 Jl '54

Research by Chicago Bureau of water. Pub Works 85:148 My '54

Water testing in geochemical prospecting. H. V. Warren and R. E. Delavault. il Min Cong J 40:82-5+ Ap '54

WATER, Distilled

See also

Sea water—Desalting

WATER, Underground

Contamination of ground water by cadmium. M. Lieber and W. F. Welsch. bibliog plan diags Am Water Works Assn J 46:541-7 Je '54

Effect of incinerator ashes on ground water reported. Eng N 151:118 Ag 20 '53

Findings and recommendations on underground waste disposal. Am Water Works Assn J 45:1295-7 D '53

Gallery water under bed of river is cheaper than water on surface. il Eng N 151:52+ D 10 '53

How to trace ground water flow. diags Pub Works 85:75-6 F '54

How waste water reclamation affects ground water pollution. diag Pub Works 85:59-60+ Ja '54

Statutory control of ground water. S. T. Harding. Am Soc C E Proc 79 [no 346]:1-9 N '53

Underground lake slows tunnel job. il Eng N 152:45-7 Ja 21 '54

Underground movement of bacterial and chemical pollutants. R. G. Butler and others. bibliog(29 titles) Am Water Works Assn J 46:97-111 F '54

Underground water pollution by oilfield brines. C. B. Johnston. il diag Pub Works 85:93-4 Ap '54

Water works practices; operation, maintenance, management; source of supply, ground water. G. E. Symons. diags Water & Sewage Works 100:437-9 N '53

See also

Wells

Cooling use

Air conditioning at half price? well-water air conditioning can drastically cut cooling costs. il maps diag House & Home 3:150-3 Ap '53

Prospecting

Water search, southern style. il Manuf Rec 123:31 Ap '54

California

Ground water and used water in basin recharge areas. R. A. Shafer. bibliog Ind & Eng Chem 45:2666-8 D '53

Water spreading operations in the San Gabriel valley. F. B. Laverty. bibliog il map Am Water Works Assn J 46:112-22 F '54

Chile

Geology and ground-water conditions in the lower valley of the Rio Elqui of Chile. P. H. Jones. bibliog il map diag Econ Geol 48:457-91 S '53

Illinois

Significance of pleistocene deposits in the groundwater resources of Illinois. J. W. Foster. map diag Econ Geol 48:568-73 N '53

New Mexico

Ground water law in New Mexico. C. D. Harris. bibliog Am Water Works Assn J 46:10-18 Ja '54

Pennsylvania

Ground-water behavior in the Hershey valley, Pa. R. M. Foose. bibliog maps diags Geol Soc Bul 64:623-45, pl 1-2 Je '53

South Dakota

Capping artesian wells at Fort Randall points up South Dakota water problem. Eng N 151:25 D 31 '53

Texas

Chemical characteristics of waters from the Canyon, Strawn, and Wolfcamp formations in Scurry, Kent, Borden and Howard counties, Texas. W. C. Elliott, jr. maps Pet Eng 25:B77-80+ Je '53

WATER and sewage conference, Western Canada. See Western Canada water and sewage conference

WATER and sewage works (periodical)

Harry A. Faber becomes managing editor. Water & Sewage Works 101:299 Jl '54

WATER collectors, Ranney. See Ranney water collectors

WATER companies

Management

Water works management; comparing water utility management and operation under private ownership and a municipal authority. J. H. Long. Water & Sewage Works 101:354-5 Ag '54

WATER conditioning foundation

Annual meeting, 5th, Chicago. Dom Eng 183:140 My '54

WATER conduits

Hydraulic fundamentals of closed conduit spillways. F. W. Blaisdell. il diags Am Soc C E Proc 79 [no 354]:1-14 N '53

See also

Aqueducts

Water pipes

WATER conservation

Big business from water. E. C. Kreutzberg. Steel 134:54 Ja 25 '54

Conservation of water in the kraft pulp and paper industry. H. W. Gehm and W. A. Moggio. diags Tappi 37:sup 158A-61A Mr '54

Improving the quality of water resources. L. F. Warrick. Ind & Eng Chem 45:2669-72 D '53

Planning the shopping center; water supply and conservation. R. J. Abramson. il Heating-Piping 26:100-2 Jl '54

Salt water barriers in the San Francisco bay. B. L. Nishkian. maps Am Soc C E Proc 79 [no 259]:1-11 Ag '53

Water conservation in industry. Am Water Works Assn J 45: 1249-60 bibliog(41 titles, p 1259-60) D '53

Water conservation is of growing importance as usage continues to increase. K. Steiner. il Heating-Piping 26:134-7 Mr '54

Water spreading operations in the San Gabriel valley. F. B. Laverty. bibliog il map Am Water Works Assn J 46:112-22 F '54

Water supply problems and conservation methods. T. C. Nelson. Elec World 140:75 N 30 '53

Water use and conservation policy. R. D. Hoak. il Chem & Eng N 31:3448-54 Ag 24 '53

WATER consumption

How much hot water in average home? eight-month research in Columbus, Ohio. il Gas Age 114:16+ Jl 1 '54; Same cond. Dom Eng 184:132-3 Jl '54

See also

Air conditioning equipment—Water requirements

Water meters

WATER cooling. See Cooling of water; Cooling towers

WATER damage insurance. See Insurance, Water damage

WATER departments

Accounting

Customer accounting at Sheboygan. J. A. Hammes. il Am Water Works Assn J 46:486-92 My '54

Modernizing customer accounting and contact at Norfolk. R. W. Fitzgerald and E. C. North. il Am Water Works Assn J 46:171-5 F '54

Customer relations

Modernizing customer accounting and contact at Norfolk. R. W. Fitzgerald and E. C. North. il Am Water Works Assn J 46:171-5 F '54

Equipment

Equipment makes better water department operation. S. D. Whitford and others. il Pub Works 85:124-5 My '54

How water departments use labor saving equipment; illustrations with text. Pub Works 85:82-3 Ja '54

Records

System that cured our record keeping headaches; water, gas and electric departments, Danville, Va. W. S. Jeffries. il Pub Works 85:77-8+ Ag '54

WATER distribution

Arctic water supply; it must circulate or freeze. il plan diags Eng N 152:30-1 F 4 '54

Central dispatching station of the Atlanta water works. P. Weir. il map Water & Sewage Works 101:197-202 My '54

Control of water pressure in suburban distribution lines. J. S. Williams. diags Am Water Works Assn J 45:1123-35; Discussion. L. S. Finch. 1135-8 N '53

Design of water distribution systems for service in Arctic regions. W. B. Page. bibliog diags Water & Sewage Works 101:333-7 Ag '54

Flow tests on distribution systems. W. D. Hudson. il Am Water Works Assn J 46:144-50 F '54

Metropolitan water system organization and functions; panel discussion. E. H. Campbell and others. Am Water Works Assn J 46:788-802 Ag '54; Abstract. Water & Sewage Works 101:390-2 S '54

Pitometer surveys of water systems. W. D. Hudson. plan Water & Sewage Works 101:203-7 My '54

Planning distribution system improvements at Newport News. H. E. Beckwith. map Am Water Works Assn J 46:329-32 Ap '54

Water system for small town has 103 taps. R. Q. Boyce. il Pub Works 85:83 Mr '54

Working with the insurance boards in improving water supplies. W. Shakespeare. Munic Util 92:35-6+ S '54

See also

Aqueducts
Drinking water systems
Hydrants
Hydraulics
Pumping stations
Water conduits
Water hammer
Water pipes
Waterworks

Cost

Water and sewer systems for growing Michigan town; unit prices. Eng N 152:71-2 Ap 1 '54

Water and sewerage utilities, Rantoul, Ill.; unit prices. Eng N 151:69 Jl 2 '53

Cross connections

Protecting water quality in distribution systems. E. A. Reinke. Am Water Works Assn J 46:337-45 Ap '54

WATER districts

Organization and activities of the East Bay municipal utility district. J. W. McFarland. flow diag Am Water Works Assn J 46:567-70 Je '54

WATER flow

Absolute water flow calorimeter for the measurement of intense beams of radiant energy. A. B. Willoughby. il diag R Sci Instr 25:667-70 Jl '54

Basic power plant figuring; water flow and losses in small piping. W. H. Engelman. Power Eng 58:92+ Ap '54

Can you calculate water flow through funnel? J. F. Burton. Power Eng 58:106 Je '54

Check water velocity to reduce maintenance; tabulations; data sheet. H. W. Hamm. Power 98:107 Ap '54

Control of surging in concrete pipe distribution systems. C. S. Hale and others. il diag Am Concrete Inst J 25:573-84 Mr '54

Elements of water and sewage chemistry; measuring flows and computing dosages. il Pub Works 84:83-4 D '53

Flow tests on distribution systems. W. D. Hudson. il Am Water Works Assn J 46:144-50 F '54

Heat transfer and fluid friction for fully developed turbulent flow of air and supercritical water with variable fluid properties. R. G. Deissler. bibliog A S M E Trans 76:73-83; Discussion. 83-5 Ja '54

How to trace ground water flow. diags Pub Works 85:75-6 F '54

Hydrocellulose water flow number. O. A. Battista, J. A. Howsmon and S. Coppick. bibliog il Ind & Eng Chem 45:2107-12 S '53

Local boiling heat transfer to water at low Reynolds numbers and high pressures. J. A. Clark and W. M. Rohsenow. bibliog diags A S M E Trans 76:553-61; Discussion. 561-2 My '54

Measurement of water flow by circular orifice at end of pipe. diags Water & Sewage Works 101:R 169 pt 2 My '54

Pitometer surveys of water systems. W. D. Hudson. plan Water & Sewage Works 101:203-7 My '54

Resistance of paper machine wire to hydraulic flow; abstract. J. Bergström and H. Knell. il diag Paper Ind 36:214+ My '54

Sound-pressure levels and frequencies produced by flow of water through pipe and fittings. W. L. Rogers. diags Heating-Piping 26:135-41 Jl '54; Discussion. 26:144-7 Ag '54

Valve flow coefficient, C_v and its contribution in control valve sizing. R. A. Rockwell. diag Heat & Ven 51:76-9 Ag '54

See also

Dams
Floods
Hydraulics
Run-off
Stream flow

WATER gages

Gage glass erosion attributed to alkalinity. F. A. Benger. il diags Power Eng 57:90 N '53

What the boiler code says about gage glasses. diag Power Eng 58:99 Je '54

WATER glass. See Sodium silicates

WATER hammer

Analysis of water hammer by characteristics. C. A. M. Gray. diags Am Soc C E Proc 79 [no 274]:1-14 S '53

Correcting water hammer in a plant. B. Dopp. diags Heating-Piping 26:116-19 Jl '54

Pressure surges in hydraulic circuits. N. M. Sverdrup. diags Product Eng 24:161-9 S '53

Steam piping must be drained to prevent water hammer and resulting hazards. diag Heating-Piping 26:163 Ja '54

What causes tail-pipe water hammer? steam-jet refrigeration system. diags Power 97:130-1 N '53

What causes water hammer in this tail-pipe? diag Power Eng 57:105 O; 85-6 N; 94-5 D '53; 58:102 Mr; 98+ My '54

See also

Surge tanks

WATER heaters

20,000-gal. oil-fired tank supplies hot water for ready-mix concrete plant. G. J. Jonas. il Civil Eng 23:404-5 Je '53

See also

Electric water heaters
Gas water heaters

Corrosion

Water heater corrosion; symposium. Gas Age 112:28+ N 5 '53

Manufacture

Bimetallic water heaters brazed for strong, tight joints. A. H. Trageser. il diag Iron Age 172:176-7 N 5 '53

Merchandizing

There's a gold mine in your customers' basements; water heater sale in Memphis. il Dom Eng 183:84-5 Ja '54

Water heater display pays off three ways. il Dom Eng 182:89 D '53

WATER heaters, Oil. See Oil water heaters

WATER heating

How can we prevent water tank from freezing? answers. diags Power 98:132-4+ Mr '54

Wash water and wash water heating. M. Klein and J. M. Ralston. flow diag il diags Tappi 37:124-8 Mr '54

WATER laws and legislation

California water pollution control program. W. T. Hannum. map Ind & Eng Chem 45:2652-5 D '53

Federal water pollution control act. C. E. Schwob. Ind & Eng Chem 45:2648-52 D '53

Ground water law in New Mexico. C. D. Harris. bibliog Am Water Works Assn J 46:10-18 Ja '54

Legal aspects of water resources development in Texas. V. W. Bouldin. Am Water Works Assn J 46:421-4 My '54

More, bigger bloodhounds; Nation's drive against pollution. Chem W 74:26 Ja 23 '54

Push against pollution. Chem W 74:24 Ja 23 '54

WATER laws and legislation—*Continued*

Statutory control of ground water. S. T. Harding. Am Soc C E Proc 79 [no 346]: 1-9 N '53

Water pollution curb bills opposed by MCA. Oil Paint & Drug Rep 165:3+ Ap 19 '54

WATER level indicators

Are you sure your boiler water level indication is correct? W. J. Kinderman. diags Power Eng 57:72-3+ D '53

See also

Water gages

WATER measurement

Wash water measurement in filtration practice. R. W. Angus. diags Water & Sewage Works 101:78-80 F '54; Same. Munic Util 92:32-3+ Mr '54

See also

Parshall flume
Pitometers
Stream measurement
Water meters

WATER meters

Basis for review of meter installations. J. G. Carns, jr. diags Am Water Works Assn J 46:827-30 Ag '54

How a new loss of head meter improves filter operation; Fieldcrest mills, inc. W. A. Gardner. il Water & Sewage Works 101:158-61 Ap '54

Making meter box tile in fiber forms. A. J. Brumbaugh. il Pub Works 85:90-1 Ag '54

Meter overhaul program increased our revenue by fourteen percent. S. H. Reaves. il Pub Works 85:67 Mr '54

Now, about 100 per cent metering! Water & Sewage Works 101:292 Je '54

Practical methods of metering. E. H. Ruehl. Water & Sewage Works 101:R 111-12 pt 2 My '54

Waste-water detection and remote-control indication by means of meters. A. Gilbert. il diags Munic Util 92:36+ Jl '54

Water works practices; flow measurement. G. E. Symons. il diags Water & Sewage Works 101:395-403 S '54

See also

Venturi meters

Repair

Equipment and layout of meter maintenance shop. D. J. Ford. il plans Am Water Works Assn J 46:557-62 Je '54

Maintenance and repair of nutating-disk meters in small plants. R. Olsen and H. De Pagter. il Am Water Works Assn J 46: 563-6 Je '54

Planned meter maintenance cuts stoppages. D. M. Carew. il Pub Works 85:103-4 S '54

Testing

Meter test program may surprise you! G. H. Straub. Water & Sewage Works 101:422 S '54

WATER pipes

Construction program of Philadelphia suburban water co. meets unprecedented demand. F. S. Friel. il map diag Civil Eng 24:85-9 F '54

Control of sand in water systems. J. R. Rossum. bibliog il diag Am Water Works Assn J 46:123-32 F '54; Same. Water & Sewage Works 101:114-19 Mr '54

Portland's new transmission line. B. S. Morrow. il map Am Water Works Assn J 46: 864-8 S '54; Same. Water & Sewage Works 101:379-82 S '54

Problems in maintaining public-utility service during construction of Toronto subway. R. L. Clark. il plans Munic Util 92:56-9+ Ap '54

Results of research on sulfur jointing compounds. R. B. Seymour and others. bibliog il Am Water Works Assn J 46:237-45; Discussion. E. F. Wagner. 245-8 Mr '54

Rollers used to place pipe in tunnel. il Eng N 151:27 D 3 '53

Water distribution in Brantford, Ont. improved by new feeder main. il Munic Util 92:28-9 My '54

Water mains carried under thruway. il diags Roads & Sts 97:120 Mr '54

See also

Aqueducts
Hot water heating
Hot water supply
Pipe fittings
Pipe joints
Pipe laying
Plumbing
Water distribution
Water hammer
Waterworks

Cathodic protection

Corrosion prevention by cathodic protection. T. R. B. Watson. Munic Util 92:60+ Ap '54

Chlorination

See Water pipes—Sterilization

Cleaning

Uprating distribution systems by cleaning and cement lining. J. A. Frank. il plan diags Water & Sewage Works 101:R23-5+ pt 2 My '54

Corrosion

Mechanism of the internal corrosion of water pipe. R. Eliassen and J. C. Lamb, 3d. bibliog diags Am Water Works Assn J 45:1281-94 D '53

Water analyses aid in selection of plumbing materials. V. F. Nole. il Pub Works 85:66-7+ F '54

Freezing

Design of water distribution systems for service in Arctic regions. W. B. Page. bibliog diags Water & Sewage Works 101:333-7 Ag '54

Freezing cast iron mains as shut-off measure. W. S. Maus. il plan diags Water & Sewage Works 101:261-3 Je '54

How to protect cooling coils against freeze-ups. diag Heating-Piping 26:178-9 Ja '54

Protecting underground utilities located in Arctic regions. C. H. Billings. bibliog il plan diags Water & Sewage Works 100: 441-7 N '53

Leakage

Economics of adequate leak surveys. H. E. Beckwith. Am Water Works Assn J 45: 1261-5 D '53

Pitometer surveys of water systems. W. D. Hudson. plan Water & Sewage Works 101:203-7 My '54

Lining

Uprating distribution systems by cleaning and cement lining. J. A. Frank. il plan diags Water & Sewage Works 101:R23-5+ pt 2 My '54

Location

New York state thruway and water works relocations. T. M. Riddick. plan Am Water Works Assn J 46:503-10; Discussion. 510-13 Je '54

Protection

Protecting a water main under a bridge. P. C. Karalekas. il Pub Works 84:65+ N '53

See also

Water pipes—Cathodic protection
Water pipes—Freezing

Repair

Cutting pipe in place. O. G. Goldman. il Am Water Works Assn J 46:231-6 Mr '54

Service pipes

Should we own and maintain house service lines? Water & Sewage Works 101:248 My '54

Standard design for water services. M. C. Smith. diag Water & Sewage Works 101: R69-71 pt 2 My '54

Water services; panel discussion. Munic Util 92:70+ Ap '54

Standards

New ASA standards for cast-iron pipe; panel discussion. T. H. Wiggin and others. il Am Water Works Assn J 45:1266-80 D '53

1908 cast-iron pipe specifications. diags Am Water Works Assn J 46:701-12 Jl '54

Sterilization

Convenient and effective method for the disinfection of new mains. J. R. Rossum. Water & Sewage Works 101:143 Ap '54

Tables, calculations, etc.

Basic power plant figuring; water flow and losses in small piping. W. M. Engelman. Power Eng 58:92+ Ap '54

Flow through brass and copper pipe; charts. Water & Sewage Works 101:R270-5 pt 2 My '54

WATER pipes, Bamboo

Bamboo pipe installed to drain acid water; Nielson & co.'s Hixbar mine. diags Eng & Min J 155:102 Ap '54

WATER pipes, Cast iron

Experience with mechanical-joint pipe in the Washington area; panel discussion. R. L. Orndorff; J. E. Farrell. Am Water Works Assn J 46:517-20 Je '54

Freezing cast iron mains as shut-off measure. W. S. Maus. il plan diags Water & Sewage Works 101:261-3 Je '54

New ASA standards for cast-iron pipe; panel discussion. T. H. Wiggin and others. il Am Water Works Assn J 45:1266-80 D '53

Production and use of cast-iron pressure pipe. Am Water Works Assn J 46:377-82 Ap '54

Specifications

How to specify iron water pipe. H. F. Rase. il Chem Eng 60:242-3 Je '53

1908 cast-iron pipe specifications. diags Am Water Works Assn J 46:701-12 Jl '54

WATER pipes, Concrete

Control of surging in concrete pipe distribution systems. C. S. Hale and others. il diag Am Concrete Inst J 25:573-84 Mr '54

Monolithic pipe for irrigation water. L. H. Kristof. il Eng N 151:35-6 S 24 '53

New type river intake. A. R. Todd. il diags Water & Sewage Works 101:108-9 Mr '54; Same cond. Pub Works 85:81 F '54

Manufacture

Basalt rock co. story; reinforced concrete pressure pipe. M. W. Loving. il map Rock Prod 57:136-42 Ja '54

WATER pipes, Copper

Copper tube for piping systems. D. L. Mills. Heating-Piping 26:129-31 Mr '54

Install copper water tube in ceiling space? Heating-Piping 26:121-2 Jl '54

WATER pipes, Plastic

Experience with plastic service pipe; abstract. A. M. Symonds. Water & Sewage Works 101:12 Ja '54

Manufacture of plastic pipe; abstract. B. Britton. Water & Sewage Works 101:11-12 Ja '54

New Wilmington power plant installs quarter-mile plastic pipeline. il Power Eng 58: 79 Mr '54

Plastic pipe for portable water supplies; abstract. W. D. Tiedeman. Water & Sewage Works 101:343-4 Ag '54

Power company lays plastic pipe; Carolina light and power co. Materials & Methods 30:242+ Ap '54

Use of plastic pipe expanding at rapid pace. Water & Sewage Works 101:137 Mr '54

Testing

Studies on plastic pipe for potable water supplies. W. D. Tiedeman. Am Water Works Assn J 46:775-86; Discussion. P. S. Britton. 786-7 Ag '54

WATER pipes, Steel

Notable steel pipe installations. J. Hinds. il Am Water Works Assn J 46:609-27 bibliog(39 titles, p626-7) Jl '54; Abstract. Water & Sewage Works 101:392 S '54; Discussion. G. R. Scott. Am Water Works Assn J 46:627-8 Jl '54

35-mile pipeline for Regina. il Can Chem Process 38:68+ Ag '54

Water treatment for corrosion control. G. B. Hatch. il Steel 133:181+ S 21 '53

WATER pollution

Acid-mine-drainage problems; anthracite region of Pennsylvania. S. H. Ash and others. 3pls U S Bur Mines Bul 508:1-72 bibliog(80 titles, p71-2): pa 60c Supt. of doc. '51

Algae responsible for odor and taste in public water supplies. G. J. Turre. il Am Soc C E Proc 79 [no 267]:1-20 S '53

Analysis of a stream's capacity for assimilating pollution. M. A. Churchill. map Sewage & Ind Wastes 26:887-904 Jl '54

Analytical problems of river pollution. G. Knowles and A. B. Wheatland. bibliog Chem Age (Lond) 70:465-9 F 20 '54

As a River board sees it; abstract. J. I. Spicer. Chem & Ind p433-4 My 2 '53

Charting a course for the future of stream pollution control. K. S. Watson. il Water & Sewage Works 100:421-5 N '53

Comeback for sad shad; Middlesex county sewerage authority. il map Chem W 73: 20-2 Ag 1 '53

Constant expansion of research key to Wisconsin pollution battle. Paper Ind 36:180+ My '54

Contamination of ground water by cadmium. M. Lieber and W. F. Welsch. bibliog plan diags Am Water Works Assn J 46:541-7 Je '54

Continuous recording of concentration of organic matter in waste water. R. Kieselbach. bibliog flow diag il diags Anal Chem 26: 1312-18 Ag '54

Control disposal of tailings from crushing operations to prevent stream pollution; New Jersey zinc co. W. B. Lenhart. il diags Rock Prod 56:74-8+ N '53

Control of Ohio River pollution. P. Garfield. bibliog Land Econ 30:173-6 My '54

Critical review of the literature of 1953 on sewage, waste treatment, and water pollution. Sewage & Ind Wastes 26:716-44 bibliog(256 titles, p733-42) Je '54

Current status of the pollution problem in Onondaga lake; abstract. A. F. Dappert. Water & Sewage Works 101:404-5 S '54

Deep-water disposal of pulp mill wastes into Port Gardner bay, Everett, Wash. G. T. Orlob and E. F. Eldridge. maps Sewage & Ind Wastes 26:520-30 Ap '54

Design and effectiveness of an underwater diffusion line for the disposal of spent sulphite liquor; Columbia River paper mills. H. R. Amberg and A. G. Strang. maps Tappi 37:307-13 Jl '54

Detectives at work; New Jersey water samplers. il Chem W 75:19 Jl 24 '54

Determining risks of toxic substances in water. E. J. Cleary. Sewage & Ind Wastes 26:203-10; Discussion. G. E. Burdick. 210-11 F '54

Diatometer, inexpensive river pollution indicator. E. B. Brien. il Pet Eng 26:C35-6 Ja '54

Discharge of oil in navigable waters; case of Southport corporation v. Esso petroleum co., ltd. Elec J 151:2112 D 25 '53

Domestic and industrial water supplies face pollution problems; abstract. M. Pirnie. Water & Sewage Works 101:13 Ja '54

Effect of incinerator ashes on ground water reported. Eng N 151:118 Ag 20 '53

Effects of nitrogenous compounds on stream conditions. N. G. Flaigg and G. W. Reid. bibliog Sewage & Ind Wastes 26:1145-54 S '54

Equitable use of streams. S. G. Hess. Sewage & Ind Wastes 26:83-8 Ja '54

Findings and recommendations on underground waste disposal. Am Water Works Assn J 45:1295-7 D '53

$5,500,000 Nekoosa-Edwards project leads Wisconsin pollution program. Paper Ind 36: 372-4 Jl '54

Four-way boon in river plans. Chem W 73: 30+ S 26 '53

Fungi in polluted water and sewage; isolation technique. W. B. Cooke. bibliog Sewage & Ind Wastes 26:661-74, 790-4 My-Je '54

Gain praise, cut waste; east of Houston private pollution and public ire are dwindling away. il Chem W 75:20-1 Jl 10 '54

Group research on water and air; pollution causes and remedies; St Clair River research project. A. D. McRae. Munic Util 92: 24+ Je '54

Hot water pollutant. S. T. Powell. Ind & Eng Chem 46:sup97A-9A My '54

How waste water reclamation affects ground water pollution. diag Pub Works 85:59-60+ Ja '54

Industrial process water symposium. bibliog il maps diags Ind & Eng Chem 45:2647-88 D '53

Inquest and aftermath in Buffalo-Niagara Falls area. il Chem W 75:20-1 Ag 21 '54

Key to regional water pollution clean up; pilot operation treating chemical industrial wastes expected to determine design factors for the Somerset-Raritan Valley sewerage authority. il Eng N 152:33-4 Mr 11 '54

WATER pollution—*Continued*

Management tackles pollution. R. B. Kahle. Pet Refiner 33:249-50 Ja '54

Manufacturing chemists' association hits accuracy of HEW on pollution. Oil Paint & Drug Rep 166:5+ Ag 16 '54

Manufacturing chemists' association protests pollution stand. Chem & Eng N 32:3361 Ag 23 '54

Miami tackles multi-faced pollution problem. E. S. Chase. maps Civil Eng 23:458-60 Jl '53

Minnow vitality test. Chem W 73:16 N 7 '53

Money in pollution. Chem W 72:19-20 My 2 '53

More, bigger bloodhounds; Nation's drive against pollution. Chem W 74:26 Ja 23 '54

Murky badge of bigness; chemical industry taking lead in steps to abate air and water pollution. Chem W 74:16-17 Mr 13 '54

National council for stream improvement research activities, 1953. Tappi 37:sup 106A+ Ap '54

Nation's mills continue fight against stream pollution. Paper Ind 35:1296 Mr '54

New approach to pollution control as developed in Manitoba. L. A. Kay. Munic Util 92:23+ F '54

Newer concepts of tastes and odors in surface water supplies. J. K. G. Silvey. bibliog il Water & Sewage Works 100:426-9; 101: 209-11 N '53, My '54

Oil on the sea. map Economist 168:315 Ag 1 '53

Oil pipeline crossings; harm and danger to public water supply occurring by reason of breaks; panel discussion; abstract. Water & Sewage Works 101:392-3 S '54

Oil pollution research. Engineer 196:556 O 30 '53

Persistence of pyridine bases in polluted water. M. B. Ettinger, R. J. Lishka and R. C. Kroner. bibliog Ind & Eng Chem 46:791-3 Ap '54

Photosynthesis technique for measuring polluted waters. H. R. Murdock. Ind & Eng Chem 45:sup 101A-3A My '53

Physical and chemical characteristics of waste water discharges. F. J. Coogan and E. B. Paille. bibliog diags Ind & Eng Chem 46:290-6 F '54

Planning and executing a uniform pollution abatement program for the Kansas River basin. D. F. Metzler. Am Soc C E Proc 79 [no 303]:1-5 O '53

Pollution, a general term to industrialists. H. R. Murdock. Ind & Eng Chem 45:sup 107A-9A S '53

Pollution control can be realistic. J. E. Kinney. Iron & Steel Eng 30:91-4; Discussion. 94-7 N '53

Pollution control on the Jersey City watershed. R. J. Budrick. map Am Water Works Assn J 46:349-52 Ap '54

Pollution of air and water. Chem Age (Lond) 70:677-8 Mr 20 '54

Pollution of boundary waters and the international joint commission. J. R. Menzies. map Am Gas Assn Proc 1953:724-8

Pollution of streams; legal aspect. Elec J 151:1593-4 N 13 '53

Pollution of water and air by sulphate mills. H. Bergstrom. il diag Pulp & Pa of Can 54:135-40 N '53

Pollution reduction in cotton finishing wastes through process chemical changes. J. W. Masselli and M. G. Burford. Sewage & Ind Wastes 26:1109-16 S '54

Power generating stations can develop stream pollution problems. S. T. Powell. Ind & Eng Chem 46:sup 112A-13A Mr '54

Prevention of water pollution; report of the Water pollution research board, 1952. Chem Age (Lond) 68:769-72 My 23 '53

Problems involved in stream pollution. D. R. Stanley. Munic Util 91:36+ O '53

Process engineering in stream pollution abatement. A. N. Heller and M. E. Wenger. flow sheets Sewage & Ind Wastes 26:171-81 F '54

Progress of stream pollution control in Indiana. B. A. Poole and R. H. Holtje. Am Water Works Assn J 46:670-4 Jl '54

Progress report; New York state water pollution control program; abstract. A. F. Dappert. Water & Sewage Works 101:181 Ap '54

Push against pollution. Chem W 74:24 Ja 23 '54

Putting the microscope on the Missouri drainage basin. C. E. Schwob and G. J. Hopkins. Pub Works 85:110 Jl '54

Raritan River clean-up now assured. Eng N 151:27 Jl 16 '53

Recovery of polluted streams. C. J. Velz. Water & Sewage Works 100:495-500; Discussion. S. G. Hess. 500-1 D '53

Relation of irrigation runoff to tastes and odors. J. K. G. Silvey. bibliog Am Water Works Assn J 45:1179-86 N '53

River pollution tests. Engineering 177:271 F 26 '54

Science and public health research in Alaska; water pollution studies. A. J. Alter and W. L. Porter. Pub Health Rep 68:539-41 My '53

Solution for acid mine wastes seen near; Potomac River Basin commission reveals progress. Eng N 151:24 S 17 '53

Southern industrial wastes conference, Houston, April 21-23; abstracts of papers. Oil Paint & Drug Rep 165:5+ Ap 26 '54

Steel mills recover scale, reduce stream pollution. il diag Comp Air Mag 59:137-8 My '54

Survey of current problems for research. H. Heukelekian and W. H. Wisely. Sewage & Ind Wastes 26:1155-9 S '54

Symposium on effluent disposal. Chem Age (Lond) 68:657-9 My 2 '53

Symposium on stream pollution. E. A. Leonard and others. Am Dyestuff Rep 42:651-64 S 28 '53

Synthetic-detergent pollution in Kansas. R. L. Culp and H. A. Stoltenberg. bibliog il Am Water Works Assn J 45:1187-95 N '53

Taste- and odor-producing components in refinery gravity oil separator effluents. C. C. Ruchhoft and others. bibliog il diags Ind & Eng Chem 46:284-9 F '54

Toxicity of metals in wastes to fish. H. R. Murdock. Ind & Eng Chem 45:sup99A-100A+ D '53

Toxicity thresholds of certain sodium sulfonates for daphnia magna Straus. L. Freeman. Sewage & Ind Wastes 25:1331-5 N '53

Underground movement of bacterial and chemical pollutants. R. G. Butler and others. bibliog(29 titles) Am Water Works Assn J 46:97-111 F '54

Underground water pollution by oilfield brines. C. B. Johnston. il diag Pub Works 85:93-4 Ap '54

Waste water reclamation in relation to ground water pollution; abstract. Sewage & Ind Wastes 26:927-8 Jl '54

Water and waste in the wood pulp industry. H. R. Murdock. bibliog Sewage & Ind Wastes 26:71-80 Ja '54; Abstract. Ind & Eng Chem 45:sup 102A+ N '53; Discussion. H. W. Gehm. Sewage & Ind Wastes 26:80-2 Ja '54

Water pollution control. Heat & Ven 51:146+ F '54

Water pollution control policy. P. D. Haney. bibliog Am Soc C E Proc 79 [no 335]:1-10 N '53

Water pollution report, Walnut River basin; abstract. Sewage & Ind Wastes 26:928-9 Jl '54

Water pollution research in England. Pub Works 85:103-4+ Jl '54

Water pollution research, 1952. Chem & Ind p510 My 23 '53; Excerpt. Engineer 195:704 My 15 '53

Water pollution research 1952; abstract. Am Water Works Assn J 46:sup76+ F '54

Water pollution research in 1953. Chem Age (Lond) 70:885-8 Ap 17 '54; Abstract. Chem & Ind p532 My 8 '54

Water pollution research 1953; abstract. Sewage & Ind Wastes 26:931-2 Jl '54

Water pollution's rule of three. G. Akerlindh. bibliog(25 titles) il Water & Sewage Works 101:412-17 S '54

Water supply and pollution control. R. D. Hoak. bibliog Sewage & Ind Wastes 25: 1438-49 D '53; Same. Water & Sewage Works 101:R 177-82 pt 2 My '54

Waterborne wastes; abstracts. H. A. Faber. Oil Paint & Drug Rep 165:7 My 3 '54; Chem & Eng N 32:1889 My 10 '54

WATER pollution—*Continued*

What killed these carp on the Kalamazoo? il Eng N 151:37 N 26 '53

Why industrial pollution control? R. F. Weston. Tool Eng 33:154-5 S '54

Wisconsin stream pollution; public hearing by the state committee on water pollution. Tappi 36:sup 118A-19A D '53

Work of the A.C.A.; abstract. C. D. Mulvey. Chem & Ind p433 My 2 '53

See also

Algae
Chemical plants—Waste
Sewage disposal
Trade waste
Water—Bacteriology
Water purification
Water supply—Salt water intrusion

also American association of textile chemists and colorists—National stream-pollution committee

Bibliography

Fungi in polluted water and sewage; literature review. W. B. Cooke. Sewage & Ind Wastes 26:539-49 (bibliog 41 titles, p547-9) Ap '54

Radioactive pollution

Distribution of radioisotopes in Columbia river. R. F. Foster and R. E. Rostenbach. Am Water Works Assn J 46:633-40 Jl '54; Abstract. Water & Sewage Works 101:342-3 Ag '54

Radioactivity assay of water and industrial wastes with internal proportional counter. L. R. Setter, A. S. Goldin and J. S. Nader. bibliog diag Anal Chem 26:1304-6 Ag '54

Radium content of public water supplies. J. R. Hursh. bibliog diag Am Water Works Assn J 46:43-54 Ja '54

Survey meters and electroscopes for monitoring radioactivity in water. W. J. Lacy and B. Kahn. bibliog il Am Water Works Assn J 46:55-65 Ja '54

Thallium as a reference standard for beta radioactivity. A. G. Wheler, jr. and others. Am Water Works Assn J 46:79-81 Ja '54

See also

Water purification—Radioactive water

Terminology

Glossary on waste treatment and stream pollution. Am Dyestuff Rep 42:695-706 O 12 '53

WATER power

See also

Hydroelectric plants
Turbines

WATER purification

Aldrich water purification unit costs compared with conventional filter plants. Eng N 151:178 O 8 '53

Algae control in the smaller waterworks. D. H. Matheson. Munic Util 91:54+ Ap '53; Same. Am Water Works Assn J 45:1238-44 N '53

Army's new mobile water purification unit. H. N. Lowe, jr. and others. diags Eng N 151:39-41 S 24 '53

Automatic control for water-conditioning equipment. C. M. Guldner. il Instruments & Automation 27:292-3 F '54

Characteristics and effects of synthetic detergents; task group report. diags Am Water Works Assn J 46:751-74 bibliog(62 titles, p772-4) Ag '54

Chlorine and iodine in water treatment; symposium. bibliog il Ind & Eng Chem 45:994-1015 My '53

Control of drinking water quality in open distribution reservoirs. B. I. Burnson. Am Soc C E Proc 79 [no 232]:1-7 Ag '53

Control-system design. S. L. Ranson. diags Instruments & Automation 27:944 Je '54

Elements of water and sewage chemistry. il Pub Works 84:84-5+ O; 78+ N; 83-4 D '53

For a potable market-purity; safe-for-drinking water a big market for chemicals. Chem W 74:77-8+ F 6 '54

Improved electrolytic desalter. D. H. Simmonds. diag Anal Chem 26:1253-4 Jl '54

It's good to drink, but; water conditioning for air conditioning is mandatory. R. M. Westcott and others. il diags Refrig Eng 62:45-8+ Je '54

Magic in the metal; Evis water conditioner faces Federal trade commission charges. Chem W 74:28 Mr 27 '54

Package water plant; Graver water conditioning. il Chem & Eng N 32:2828 Jl 12 '54

Public health factors in water plant; design, construction and operation. D. F. Metzler. flow diags il plan diags Pub Works 85:93-104 My '54

Right water treatment: your best bet to extend cooling-tower life, save money. J. M. Slough. il Power 98:100-1+ My '54

Special design features of water works facilities handling highly turbid waters. R. G. Kincaid. flow diag il map Am Soc C E Proc 79 [no 309]:1-17 O '53

Studies of monobed deionization. N. Krishnaswamy. bibliog Am Water Works Assn J 46:655-61 Jl '54

Tentative standard specifications for sodium pyrosulfite. Am Water Works Assn J 46:93-6 Ja '54; Correction. 46:256 Mr '54

Tentative standard specifications for sodium silicofluoride. Am Water Works Assn J 46:831-6 Ag '54

Treatment of water and sewage by ionizing radiations. C. G. Dunn. bibliog diags Sewage & Ind Wastes 25:1277-81 N '53

Water and waste treatment by pH, ORP, and conductivity. W. W. Eckenfelder, jr. bibliog il diag Instruments & Automation 27:1082-3 Jl '54

Water purification upset seriously by detergents. A. R. Todd. Water & Sewage Works 101:80 F '54

Water treatment for cooling towers. W. J. Winzig. Blast F & Steel Pl 42:812-16 Jl '54

Water-treatment plant at Buscot waterworks. Engineering 176:493 O 16 '53

Water treatment requires centralized instrumentation. R. S. Darke. il Instruments & Automation 27:1470-1 S '54

See also

Feed water purification
Filters and filtration
Filtration plants
Resinous products—Water treatment
Water softening

Aeration

Hydrogen sulfide problems of small water systems. S. W. Wells. bibliog il Am Water Works Assn J 46:160-70 F '54

Theoretical principles of aeration. P. D. Haney. diags Am Water Works Assn J 46:353-76 bibliog(47 titles, p375-6) Ap '54

Chlorination

Bactericidal studies of chlorine. R. S. Ingols and others. bibliog il Ind & Eng Chem 45:996-1000 My '53

Combating pipeline growths by maintaining chlorine residuals throughout a distribution system. G. Y. Blair. Am Water Works Assn J 46:681-3 Jl '54

Design and operation of chlorination stations under normal and emergency conditions; panel discussion. il map plans diags Am Water Works Assn J 46:869-93 S '54

Effect of chlorination of drinking water on brass fittings; abstract. C. A. Risbridger. bibliog Am Water Works Assn J 46:sup64+ Ja '54

High free residual chlorine in swimming pool water. E. W. Mood and E. D. Robinton. bibliog Ind & Eng Chem 45:2574-6 N '53

Recommended procedures in the use of chlorine at water and sewage plants. Am Water Works Assn J 45:1060-74 O '53; Same. Sewage & Ind Wastes 25:1235-49 O '53; Same. Water & Sewage Works 100:390-4, 457-60 O-N '53; Same. Munic Util 92:36-8+ Mr '54

Coagulation

Continuous production of activated silica with carbon dioxide gas. R. V. Andrews. bibliog il plan diags Am Water Works Assn J 46:82-9 Ja '54

Flocculation and flocculation basins. T. R. Camp. plan diags Am Soc C E Proc 79 [no 283]:1-18 S '53

Preparation and use of activated silica. A. E. Griffin. il Am Water Works Assn J 46:571-4 Je '54

What part does chemical coagulation play in today's water-treatment practices? S. T. Powell. il Power 98:80-2+ Ja '54

WATER purification—*Continued*

Corrosion control

Condensed phosphates in the treatment of corrosive waters. D. N. Parham and C. W. Tod. bibliog Chem & Ind p628-31 Je 27 '53

How can we stop corrosion in well? diags Power 97:131-2+ N '53

Mechanism of corrosion inhibition by sodium metaphosphate glass. J. C. Lamb, 3d and R. Eliassen. bibliog flow diag diags Am Water Works Assn J 46:445-60 My '54

Prevention of water corrosion in mining operations. P. W. Sherwood. Can Min J 75:72-5 Ag '54

Rust in water system checked by deaeration. J. L. Staunton. il Eng N 151:42-3 Ag 27 '53

Treatment of cooling waters. L. W. Fitzpatrick. il Power Eng 58:82-4 F '54

Water treatment for corrosion control. G. B. Hatch. il Steel 133:181+ S 21 '53

Demineralization

Blessed with imagination; Ward's gadget converts tap water instantly to chemically pure water. il Chem W 73:16 O 24 '53

Deionization gives DuMont plenty of mineral-free water at low cost. il diag Factory Management 112:128-9 Ag '54

Demineralization cuts power costs at Hawthorne plant. C. E. Morrow and F. C. Gehle. il diags Power Eng 58:86+ Jl '54

Demineralisation of salt water. Chem Age (Lond) 69:553-4 S 12 '53

Demineralization of water by electrolytic and ion exchange processes; with cost data. L. Streicher, A. E. Bowers and R. E. Briggs. bibliog flow diag il diags Ind & Eng Chem 45:2394-401 N '53

High efficiency still for pure water. R. Ballentine. diag Anal Chem 26:549-50 Mr '54

Pushbutton water demineralization accelerates tinplate production; Jones & Laughlin steel corp. J. K. Sargent and J. W. Stewart. il Steel 134:114+ Je 7 '54

Which will it be demineralization or evaporation? S. B. Applebaum and M. C. McKeown. il Power Eng 58:76-7 Je '54

Electrolytic treatment

Demineralization of water by electrolytic and ion exchange processes; with cost data. L. Streicher, A. E. Bowers and R. E. Briggs. bibliog flow diag il diags Ind & Eng Chem 45:2394-401 N '53

Hydrogen sulfide removal

Hydrogen sulfide problems of small water systems. S. W. Wells. bibliog il Am Water Works Assn J 46:160-70 F '54

Iron removal

Dayton's new treatment plant; largest U.S. well water softening and iron removal installation. V. R. Kneer. il plan diags Water & Sewage Works 101:95-102 Mr '54

Ozone treatment

Production and use of ozone in water treatment. E. W. Lingel. bibliog il Pub Works 85:86+ Je '54

Studies in ozonization; abstract. A. E. Rawson. Am Water Works Assn J 46:sup68+ My '54

Radioactive water

Critical review of the literature of 1953 on sewage, waste treatment, and water pollution. Sewage & Ind Wastes 26:607-15 bibliog(59 titles, p613-15) My '54

Decontamination of radioactively contaminated water by slurrying with clay. W. J. Lacy. bibliog il Ind & Eng Chem 46:1061-5 My '54; Abstract. Munic Util 92:44 Jl '54

Progress in radioactivity instrumentation and testing; committee report. bibliog Am Water Works Assn J 46:641-2 Jl '54

Reduction of radioactivity in water. S. Goodgal and others. bibliog Am Water Works Assn J 46:66-78 Ja '54

Water problems in the nuclear power field; abstract. R. C. Ulmer. Power 98:206+ Je '54

Silica removal

Silica removal by salt splitting without demineralizing. S. B. Applebaum and B. W. Dickerson. Power 98:210+ Je '54

Swimming pool water

For a better swim; hot-weather call for chemicals. il Chem W 73:54+ Jl 4 '53

High free residual chlorine in swimming pool water. E. W. Mood and E. R. Robinton. bibliog Ind & Eng Chem 45:2574-6 N '53

Joint committee on bathing places; 1953 progress report. Water & Sewage Works 101:324-6 Jl '54

Taste and odor removal

How to secure maximum benefits with activated carbon. A. Y. Hyndshaw. Munic Util 92:38+ S '54

New approaches to the control of wastes and odors in impounded waters; panel discussion; abstracts of papers. Water & Sewage Works 101:344-5 Ag '54

Newer concepts of tastes and odors in surface water supplies. J. K. G. Silvey. bibliog il Water & Sewage Works 100:426-9; 101:209-11 N '53, My '54

Synthetic-detergent pollution in Kansas. R. L. Culp and H. A. Stoltenberg. bibliog il Am Water Works Assn J 45:1187-95 N '53; Abstract. Water & Sewage Works 100:309 Ag '53

Taste and odor control in small water plants; problems caused by algae. D. H. Matheson. bibliog Water & Sewage Works 101:R 137-40 pt 2 My '54

WATER purification, Natural

Recovery of polluted streams. C. J. Velz. Water & Sewage Works 100:495-500; Discussion. S. G. Hess. 500-1 D '53

WATER rates

Additional-cost basis for fire service rates. R. H. Ellis. Am Water Works Assn J 45:1151-8 N '53

Curse of low water rates; can we break it? Water & Sewage Works 101:94 F '54

Determination of water rate schedules; committee report. bibliog Am Water Works Assn J 46:187-219 Mr '54

Financial aspects of providing fire protection. I. P. Macnab. Munic Util 92:28-9+ S '54

Method of charging for water in Canadian cities. C. S. Anderson. Munic Util 92:33-4+ S '54

Overcoming high cost of water. Sheet Metal Worker 45:67 Ag '54

Urges demand charge for air conditioning water. F. C. Amsbary. Heating-Piping 26:97 Ag '54

WATER repellents

Compounding neoprene for increased resistance to water. C. E. McCormack and others. Rubber Age 74:72-6+ O '53

Stearato chromic chloride. R. K. Iler. bibliog il Ind & Eng Chem 46:766-9 Ap '54

Two effective but inexpensive antiwetting agents. J. E. Taylor. J Chem Educ 31:124 Mr '54

WATER research association

Inauguration. Engineering 176:725 D 4 '53

WATER rights

See also
Water laws and legislation

WATER sampling

Rapid method for distilling fluorides from water samples. R. E. Frazier and H. G. Oldfield. il Pub Health Rep 68:729-31 Jl '53

Simple automatic sampler for water. R. Wilkinson and R. Briggs. il diags Chem & Ind p886-7 Ag 22 '53

WATER sheds

Protection

Water, forests, soil; Duke Power's land program preserves all three. il Elec World News ed 140:22-4 S 28 '53

WATER softeners

Continuous water softener; Dorrco Hydro-Softener. diag Chem & Eng N 32:974 Mr 8 '54

Cynicism and sales; Evis water conditioner case. Chem W 74:13 Je 5 '54

WATER softeners—*Continued*

FTC cites Evis manufacturing company on advertising claims. Electrochem Soc J 101: sup 129C My '54

New water softener with continuous resin regeneration; Dorrco Hydro-Softener. il Munic Util 92:50+ Jl '54

WATER softeners, Domestic

Chemistry in the home; softening hard water's language. Chem W 74:34 F 13 '54

Two ways to install water softeners. diags Am Bld 76:338-9 Ja '54

Merchandizing

Boost your softener sales with these ideas. il Dom Eng 183:107-9 F '54

WATER softening

Dayton's new treatment plant; largest U.S. well water softening and iron removal installation. V. R. Kneer. il plan diags Water & Sewage Works 101:95-102 Mr '54

Effects of lime softening. M. L. Riehl and others. bibliog Am Water Works Assn J 46:493-8 My '54

Is water softening worth while? A. E. Berry. Munic Util 91:27-8+ O '53

Outdoor water softening plant for Bayway refinery. O. Shepstone and G. Wolfe. flow diag il plan Power Eng 57:54-6 N '53

Sea water for cation exchanger regeneration at Ventura. J. M. Montgomery. Am Water Works Assn J 46:600-7; Discussion. E. Nordell. 607-8 Jl '54

Water softening experience with polystyrene ion exchange resins; National container corp. W. S. Cummings and C. L. Smith. Tappi 37:sup 133A-4A Ag '54

Water softening for municipalities and industries. E. Nordell. il Pub Works 85:75-9 Mr '54

See also

Feed water purification

Water purification—Demineralization

WATER storage

Calculation of impounded-storage requirements. C. Smallwood, jr. and others. bibliog Am Water Works Assn J 46:251-6 Mr '54

Considerations in selecting distribution storage facilities. M. D. R. Riddell. Am Water Works Assn J 46:521-6 Je '54

Salt water barriers in the San Francisco bay. B. L. Nishkian. maps Am Soc C E Proc 79 [no 259]:1-11 Ag '53

See also

Dams

Reservoirs

WATER supply

Effect of irrigation runoff on surface water supplies; panel discussion. M. B. Cunningham and others. bibliog Am Water Works Assn J 45:1159-78 N '53

Gallery water under bed of river is cheaper than water on surface. il Eng N 151:52+ D 10 '53

Improving the quality of water resources. L. F. Warrick. Ind & Eng Chem 45:2669-72 D '53

Planning the shopping center; water supply and conservation. R. J. Abramson. il Heating-Piping 26:100-2 Jl '54

Public health importance of water supply and waste disposal works. D. A. Okun. Am Soc C E Proc 79 [no 252]:1-23 bibliog(71 titles, p20-3) Ag '53

There is work to be done! J. H. Murdock, jr. Water & Sewage Works 101:147-9 Ap '54; Same. Am Water Works Assn J 46:311-16 Ap '54

Use of non-ferrous metals in domestic water supply; abstract and discussion. H. S. Campbell. Chem & Ind p486 Ap 24 '54

Waste water; a neglected source of supply. Eng N 152:27 Ap 29 '54

Water resources inventory and development. E. B. Rice. Am Water Works Assn J 46: 249-50 Mr '54

Water, sewage, and industrial waste research trends and needs. A. H. Wieters and L. B. Dworsky. bibliog Pub Health Rep 68:1099-106 N '53

Water shortage designed out of new air conditioned communities; central spray pond and pumping station. M. M. Lawler. Heat & Ven 51:162 Mr '54

Water supply and pollution control. R. D. Hoak. bibliog Sewage & Ind Wastes 25: 1438-49 D '53; Same. Water & Sewage Works 101:R 177-82 pt 2 My '54

Water supply and sanitation; with data on major projects. il Eng N 152:140-2+ F 18 '54

Water works practices; operation, maintenance, management; source of supply, ground water. G. E. Symons. diags Water & Sewage Works 100:437-9 N '53

Water works practices; operation, maintenance, management; source of supply, impounding reservoirs. G. E. Symons. il Water & Sewage Works 100:483-6 D '53

Water works practices; source of supply, location and construction of wells. G. E. Symons. diags Water & Sewage Works 101: 23-7 Ja '54

Water works practices; source of supply; well capacity and development. G. E. Symons. il diag Water & Sewage Works 101:69-71 F '54

Water works practices; source of supply; well pollution, operation, maintenance. G. E. Symons. il diags Water & Sewage Works 101:103-7 Mr '54

See also

Aqueducts

Dams

Feed water

Filters and filtration

Filtration plants

Fire service (water supply)

Hot water supply

Hydrants

Hydraulic engineering

Irrigation

Plumbing

Pumping machinery

Pumping stations

Rain and rainfall

Reservoirs

Rivers

Water, Underground

Water conservation

Water consumption

Water distribution

Water meters

Water pollution

Water purification

Water supply engineering

Watersheds

Waterworks

Wells

also subdivision Water supply under names of cities, e.g. London; New York (city)

also Business and defense services administration—Water and sewerage industry and utilities division

Corrosiveness

Corrosion by water at low flow velocity. T. E. Larson and R. M. King. bibliog il Am Water Works Assn J 46:1-9 Ja '54

Corrosion of aluminium alloys in supply waters. F. C. Porter and S. E. Hadden. bibliog il J Ap Chem 3:386-409 S '53

Water analyses aid in selection of plumbing materials. V. F. Nole. il Pub Works 85:66-7+ F '54

Fluorine content

Battle of the ballot boxes over fluoridation legislation. Chem W 74:26+ Je 19 '54

Census of fluoridation in the United States and Canada, 1953; committee report. Am Water Works Assn J 46:920-40 S '54

Climate and endemic dental fluorosis. D. J. Galagan and G. G. Lamson, jr. bibliog (24 titles) maps Pub Health Rep 68:497-508 My '53

Community responsibility. C. O. Brown. Ind & Eng Chem 45:sup25A-6A Ag: 23A-4A S '53; Discussion. F. F. Heyroth. bibliog 45: 2369-70 O '53

Early opposition to Philadelphia's water fluoridation program. Chem W 75:21 S 18 '54

Experimental fluoridation; surveys on tooth decay among school children in Kingston and Newburgh, N.Y. Heat & Ven 50:134+ D '53

Fluoridation at Indianapolis. R. J. Becker. Am Water Works Assn J 46:575-7 Je '54

Fluoridation field day; testimony on bill to prohibit fluoridation. Chem W 74:20 Je 12 '54

Fluoridation fight begins; hearings on Weir bill. Chem & Eng N 32:2286 Je 7 '54

Fluoridation of municipal water supplies endorsed by Health league of Canada. Munic Util 92:14 Ag '54

Fluoride-in-water fracas. Chem W 74:30+ Ja 16 '54

Fluorine in water supplies. Consumers Res Bul 32:28 O '53

WATER supply—Fluorine content—*Continued*

Furious over fluorides. Chem W 74:32 Je 26 '54

Investigation of continuous recording of fluoride concentration in water; abstract. K. F. Knowlton. Water & Sewage Works 101:13 Ja '54

Now its 1,000; profluoridation forces starting to work on second 1,000 communities. Chem W 75:24 Ag 28 '54

Rapid method for distilling fluorides from water samples. R. E. Frazier and H. G. Oldfield. il Pub Health Rep 68:729-31 Jl '53

Mineral content

Corrosion by water at low flow velocity. T. E. Larson and R. M. King. bibliog il Am Water Works Assn J 46:1-9 Ja '54

Radium content

See Water pollution—Radioactive pollution

Salt water intrusion

Intrusion of sea water in tidal sections of fresh water streams. C. P. Lindner. bibliog diags Am Soc C E Proc 79 [no 358]:1-35 N '53

Standards

Standards to classify water adopted by Utah water group. Eng N 152:53-4 Ap 1 '54

Alaska

Science and public health research in Alaska; water pollution studies. A. J. Alter and W. L. Porter. Pub Health Rep 68:539-41 My '53

California

Battle of the ballot boxes over fluoridation legislation. Chem W 74:26+ Je 19 '54

Forecasting water supply through snow surveys. F. A. Strauss. il Am Water Works Assn J 46:853-63 S '54; Abstract. Water & Sewage Works 101:388 S '54

Latest snow survey cheers California. Eng N 152:34 Ap 29 '54

Water quality as related to water pollution in California. V. W. Bacon, G. B. Gleason and I. W. Walling. bibliog maps diag Ind & Eng Chem 45:2657-65 D '53

See also

Central Valley project, California

Canada

Analysis of recent Canadian water-purification plants. A. E. Berry and G. M. Galimberti. Munic Util 92:21-30+ Jl '54; Same cond. Am Water Works Assn J 46:684-700 Jl '54

Directory of Canadian waterworks systems. Munic Util 92:10+ Ja '54

Government officials in charge of Canadian public water supplies and sewerage systems. Munic Util 92:8 Ja '54

Metered water services in Canada; tabulation. Munic Util 92:6 Ja '54

Statistics of Canadian waterworks systems, by provinces; tabulation. Munic Util 92:6 Ja '54

Florida

Hydraulic problems of local interests under the central and southern Florida project. H. C. Gee. Am Soc C E Proc 79 [no 213]:1-8 Jl '53

New 126-mile aqueduct to serve phenomenal growth of Florida Keys. J. W. Greenleaf, jr. map Civil Eng 23:543-5 Ag '53

Great Britain

Water under fire; nationalisation. Economist 168:686-7 S 12 '53

Illinois

Effects of drought in Illinois. A. M. Buswell. maps Am Water Works Assn J 46:395-402 My '54

Indiana

Progress of stream pollution control in Indiana. B. A. Poole and R. H. Holtje. Am Water Works Assn J 46:670-4 Jl '54

Jordan valley

Johnston over Jordan. map Economist 169:338-9 O 31 '53

Key West, Florida

Design of recent additions to Key West aqueduct. W. J. Parks, jr. Am Soc C E Proc 79 [no 288]:1-6 S '53

Manitoba

New approach to pollution control as developed in Manitoba. L. A. Kay. Munic Util 92:23+ F '54

Minnesota

Taconite processing in Minnesota presents new water needs. Eng N 151:32 O 22 '53

New Jersey

Cities await word from study of bad water supply situation. Eng N 152:49-50 Mr 11 '54

Water supply problems and conservation methods. T. C. Nelson. Elec World 140:75 N 30 '53

North Carolina

North Carolina story; il Manuf Rec 123:79 Ja '54

Northwest

Watershed and reservoir control in the Pacific Northwest; panel discussion. G. A. Marshall and others. il map Am Water Works Assn J 46:723-50 Ag '54; Abstract. Water & Sewage Works 101:386-8 S '54

Northwest Territories, Canada

Science and public health research in Alaska; two water systems in northern Canada. S. S. Copp. Pub Health Rep 68:538-9 My '53

Puerto Rico

Puerto Rico's water supply project. A. S. Keshen. il map Explosives Eng 31:118-21+ Jl '53

Rocky Mountain region

Water resources. W. W. Wheeler. bibliog (31 ref) map Ind & Eng Chem 45:2459-66 N '53

South Carolina

Looking back and forward. E. L. Filby. Am Water Works Assn J 46:578-82 Je '54

Texas

Drought-stricken Texas ponders study of its need for water supply projects. Eng N 151:24 Jl 23 '53

11 Texas cities join in giant pipeline and dam project. B. H. Cruce. maps Pub Works 85:75-6 Ap '54

Legal aspects of water resources development in Texas. V. W. Bouldin. Am Water Works Assn J 46:421-4 My '54

Need for water resources conservation in Texas. A. P. Rollins. Am Water Works Assn J 46:418-20 My '54

New lifeline for 12 thirsty Texas cities. il map Eng N 151:43-4+ Jl 16 '53

Suggested solution of Texas' water problem. maps Pub Works 84:69 N '53

Water supply problem in Texas. map Engineer 196:303 S 4 '53

United States

Big business from water. E. C. Kreutzberg. Steel 134:54 Ja 25 '54

Problem of water resources. L. K. Sillcox. bibliog Am Water Works Assn J 46:593-9 Jl '54

Public water supply shortages, 1953; abstract. Water & Sewage Works 101:270 Je '54

Water for the future as part of its Mid-Century conference. Chem W 73:24+ S 26 '53

Water resources; East north central states. A. M. Buswell and W. J. Roberts. bibliog maps diags Ind & Eng Chem 46:487-93 Mr '54

Water supply developments during the year 1953. M. B. Cunningham. il Water & Sewage Works 101:1-7 Ja '54

Water use and conservation policy. R. D. Hoak. il Chem & Eng N 31:3448-54 Ag 24 '53

Western states

Resource needs summed up by Inter-agency committee: survey covering Arkansas-Red-White basins. map Eng N 152:30 Ap 8 '54

WATER supply, Rural

Boom in the making? Dom Eng 184:112-13 Jl '54

Do it right slogan sells 500 water systems a year! Borman plumbing and heating co. il Dom Eng 184:128-9 Jl '54

Domestic water systems; pumps, windmills, etc.; tabulated statistics. Steel 134:194 Ja 4 '54

Field day pulls 5,000 water system prospects. il Dom Eng 183:128-30 Ap '54

First, sell the water system, then trade up. H. F. Randolph. il Dom Eng 183:214-15 My '54

Fringe and rural area sanitation. J. A. Salvato, jr. bibliog Sewage & Ind Wastes 25:1391-6 D '53

Water system sales drive to be launched in May. il Dom Eng 183:123 Mr '54

Water systems; your key to big-ticket business! Acme butane co. il Dom Eng 184:138-40 S '54

WATER supply engineering

Dayton's water treatment plant pays its own way. L. C. Huffman. il map Civil Eng 24:1-4 Ja '54

Engineering reports for water and sewer systems. J. S. Watkins. Am Water Works Assn J 46:31-4 Ja '54

General design of the East Delaware water supply tunnel. S. M. Dore. il maps plan diags Am Soc C E Proc 79 [no 313]:1-16 O '53

High-type sanitary facilities provided in Venezuelan wilderness. C. A. Arenander and D. A. Okun. flow diags il maps diag Civil Eng 24:220-3 Ap '54

Institution of water engineers meeting, London, Dec. 4; abstracts of papers. Engineering 176:821-2 D 25 '53

Looking back and forward. E. L. Filby. Am Water Works Assn J 46:578-82 Je '54

Meeting the Dallas water shortage. K. F. Hoefle. Am Water Works Assn J 45:1139-43 N '53

Phoenix water; city's 50-year program. il Eng N 151:60+ D 3 '53

See also

Aqueducts
Filters and filtration
Pumping stations
Reservoirs
Water distribution
Water pipes
Water supply for petroleum industry
Waterworks

WATER supply for armies

Army's new mobile water purification unit. H. N. Lowe, jr. and others. diags Eng N 151:39-41 S 24 '53

Huge water distillation plant to boost Bermuda base supply. Eng N 152:62 Ap 29 '54

WATER supply for breweries

Brewery water treatment runs gamut of industrial uses. G. A. Taylor. flow diag Can Chem Process 38:62+ S '54

WATER supply for chemical plants

Hard sell for soft water; E. F. Drew & co. il Chem W 74:58+ Mr 13 '54

Planning for plenty. Chem W 72:44+ Je 27 '53

Rationing a treasure; suit over New York city's petition to increase intake of water from Delaware river. Chem W 74:34+ Ap 17 '54

Water is the bait in Timpson, Tex. il Chem W 74:24 My 29 '54

WATER supply for factories

Ably engineered water services pay big dividends; U.S. Steel Fairless works. R. Nebolsine and others. flow diag il plan diag Power 98:69-73 Mr '54

Arrangement that will avoid unpleasant taste of drinking water. diags Heat & Ven 51:113-14 F '54

Deionization gives DuMont plenty of mineral-free water at low cost. il diag Factory Management 112:128-9 Ag '54

Eight wells provide water automatically by telemetering. il plan diag Factory Management 112:92-5 S '54

Facts about modern water conditioning. il diag Mill & Factory 54:470 My '54

Filtration; industry's answer to poor water supplies. J. C. McQuay. diags Mill & Factory 53:82-5 N '53

How much gas to heat plant water? Mill & Factory 53:81 D '53

How to handle petrochemical plant water, wastes. C. O. Huntress. flow diag Pet Processing 8:1045-7 Jl '53

Integrating reclamation and disposal of waste water. A. M. Rawn and others. bibliog il Am Water Works Assn J 45:483-90 My '53; Same. Water & Sewage Works 101:R219-23 pt 2 My '54

Production clinic; water must be regarded as industrial commodity. E. G. Thomssen. Soap & Chem Spec 30:97 Je '54

Pushbutton water demineralization accelerates tinplate production; Jones & Laughlin steel corp. J. K. Sargent and J. W. Stewart. il Steel 134:114+ Je 7 '54

River intake for industrial water supply; to tap flood flows only. diag Eng N 151:45 N 19 '53

Sewage may be re-used to augment fresh water supplies. S. T. Powell. Ind & Eng Chem 46:sup91A-2A Jl '54

Steel industry water instrumentation. C. F. Hauck and E. C. Eger. flow sheet Instruments 26:569-71+ Ap '53

Water conservation in industry. Am Water Works Assn J 45:1249-60 bibliog(41 titles, p1259-60) D '53

Water conservation is of growing importance as usage continues to increase. K. Steiner. il Heating-Piping 26:134-7 Mr '54

Water intake for steel company built to withstand Monongahela River floods. C. W. Granacher. il plans diag Civil Eng 23:528-9 Ag '53

Water supply for steel plants. R. Nebolsine. flow diags il map plans diags Iron & Steel Eng 31:78-88; Discussion. 88 Ap '54

See also

Cooling towers
Cooling water
Drinking water systems
Water supply for paper and pulp mills
Water supply for textile mills

WATER supply for mines

Prevention of water corrosion in mining operations. P. W. Sherwood. Can Min J 75:72-5 Ag '54

WATER supply for paper and pulp mills

Conservation of water in the kraft pulp and paper industry. H. W. Gehm and W. A. Moggio. diags Tappi 37:sup 158A-61A Mr '54

Ecusta Paper plants; water filter plant. Tappi 37:sup 115A-16A Ag '54

How iron bacteria is being successfully removed with wire cloth filters. H. A. Ronningen. il Paper Tr J 138:26+ Je 18 '54

How to re-use white paper; panel discussion. Paper Tr J 137:14-16 D 4 '53

Wash water and wash water heating. M. Klein and J. M. Ralston. flow diag il diags Tappi 37:124-8 Mr '54

Water conservation at Dalhousie; New Brunswick international paper co. H. M. Cross. Pulp & Pa of Can 54:134-5 O '53

Water softening experience with polystyrene ion exchange resins; National container corp. W. S. Cummings and C. L. Smith. Tappi 37:sup 133A-4A Ag '54

Wisconsin mills threaten exodus if Mead reservoir plan is rejected. Paper Ind 36:602-4 S '54

WATER supply for petroleum industry

Automatic control for remote water source. M. R. Taylor. il diag Pet Eng 25:B 119-20 D '53

Filtered ocean water used to flood wells in California's Wilmington field. D. H. Stormont. il map diags Oil & Gas J 52:68-71+ Ja 4 '54

Horizontal well taps water from Mississippi for Shell plant; Ranney well. il diag Oil & Gas J 52:119-20 N 2 '53

Low cost, waste water cleaner. E. B. Brien. flow charts il Pet Eng 25:C25+ Je '53

Make water do double duty; Cosden, Big Spring (Tex.) refinery. Chem W 73:82+ O 17 '53

Our wells resist cleaning! Cities service refining corp. E. C. Oden and C. E. Smith, jr. il diags Water & Sewage Works 101:293-8 Jl '54

Outdoor water softening plant for Bayway refinery. O. Shepstone and G. Wolfe. flow diag il plan Power Eng 57:54-6 N '53

WATER supply for petroleum industry—*Cont.*

Reclamation of refinery effluents. C. D. Eaton, R. R. Evans and E. G. Kominek. bibliog flow diags diags Ind & Eng Chem 46:319-24 F '54

WATER supply for power plants

Bay mussel and other marine organisms conquered; Harbor steam plant. H. T. Duplice. Chem Eng 60:316+ S '53

Can we afford to de-salt sea water? diags Power Eng 58:86-7 Ag '54

Cooling pond proves cheaper for Mississippi power & light co. R. W. Braswell. il Elec World 140:84-5 N 30 '53

Deep wells plus river water fill big power plant needs; Louisiana power station at north Baton Rouge. A. Kirkpatrick. il plan Eng N 151:28-30+ D 24 '53

Economic and operating aspects of mixed-bed deionizers with hard- and soft-water supplies. J. F. McGill. Power 98:79-81 Jl '54

Fish rescue project at the Pacific gas and electric company's Contra Costa steam plant. J. E. Kerr. diag Am Soc C E Proc 79 [no 264]:1-10 S '53

Half million gpm of condensing water used by TVA's Johnsonville steam plant. C. W. Bolieau. il plans diags Civil Eng 23:376-9 Je '53

Mitigation of marine fouling by anaerobic treatment. H. T. Duplice and R. C. Alexander. il A S M E Trans 76:241-3 F '54

Power company lays plastic pipe; Carolina light and power co. Materials & Methods 39:242+ Ap '54

Puzzled by drop in quality of water from your ion exchanger? check for large organic ions. F. X. McGarvey and A. C. Reents. bibliog il Power 98:76-8 Jl '54

Removing oil from water by flocculation and filtration. V. J. Calise. flow diag diag Power Eng 58:86-7+ Ap '54

Skimmer wall to catch cooler cooling water; TVA devises novel gate for steam-station intake channels. diags Eng N 152:47-8 Mr 18 '54

Treatment of cooling waters. L. W. Fitzpatrick. il Power Eng 58:82-4 F '54

Water supply. W. R. Conley. Am Water Works Assn J 46:629-33 Jl '54

See also

Feed water purification

WATER supply for ships

End ship water problem. Midwest Eng 6:20 Je '53

Maxim's tubeless evaporators. il diag Marine Eng 59:59-61 Mr '54

WATER supply for textile mills

How a new loss of head meter improves filter operation; Fieldcrest mills, inc. W. A. Gardner. il Water & Sewage Works 101:158-61 Ap '54

Water conditioning for the textile plant. E. Nordell. flow diag il diag Am Dyestuff Rep 42:371-8 Je 8 '53

WATER tanks

Arrangement that will avoid unpleasant taste of the drinking water. diags Heat & Ven 51:113-14 F '54

Comparative costs of elevated and ground storage and the role of the pressure tank. J. C. D. Taylor. Munic Util 91:32-4+ O '53

Contents of cylindrical tanks. W. F. Schaphorst. Water & Sewage Works 101:R43 pt 2 My '54

Washing and cleaning Diesel water tanks; report of Master boiler makers' association. diag Ry Loco & Cars 127:67-8 N '53

Cathodic protection

Corrosion prevention by cathodic protection. T. R. B. Watson. Munic Util 92:60+ Ap '54

Maintenance and repair

Salvaging of a water stand tank originally erected in 1924. il diags Welding J 33:372-3 Ap '54

Protection

Testing by deliberate disasters; Unox-brand fire extinguishers. il Chem W 74:44-5 My 22 '54

WATER tanks, Concrete

Construction program of Philadelphia suburban water co. meets unprecedented demand. F. S. Friel. il Civil Eng 24:88-9 F '54

Huge concrete tanks are prestressed. il Constr Methods 36:50-5 Ja '54

WATER tanks, Steel

Complete waterworks in a tower. il Water & Sewage Works 101:350 Ag '54

How can we prevent water tank from freezing? answers. diags Power 98:132-4+ Mr '54

Methods of lifting elevated tanks. B. Whitteron. il Am Water Works Assn J 46:555-6 Je '54

Raising an elevated storage tank. H. J. Draves. il diag Am Water Works Assn J 45:1245-8 N '53

WATER towers

Try moving heavy stuff on ball bearings; move a 1900-ton water tower 300 yards. il Power Eng 57:99 D '53

WATER tube boilers. See Boilers, Water tube

WATER usage in air conditioning. See Air conditioning equipment—Water requirements

WATER vapor

Absolute intensity of water-vapor absorption at microwave frequencies. T. F. Rogers. bibliog Phys R 93:248-9 Ja 1 '54

Adsorption of benzene and water vapor by molybdenum disulfide. E. V. Ballou and S. Ross. bibliog J Phys Chem 57:653-7 O '53

Adsorption studies on metals; the sorption of water vapor on nickel, steel and molybdenum. A. C. Zettlemoyer and J. J. Chessick. bibliog J Phys Chem 58:242-5 Mr '54

Elimination of atmospheric water vapor absorption in the Perkin-Elmer infrared spectrometer. R. D. B. Fraser. diags Opt Soc Am J 43:929 O '53

Equilibrium data for silica gel and water vapor. S. S. Hubard. Ind & Eng Chem 46:356-8 F '54

Flammability of carbon disulfide in mixtures of air and water vapor. M. G. Zabetakis and G. W. Jones. il Ind & Eng Chem 45:2079-80 S '53

Instrument for the measurement of water vapor in natural gases. W. M. Deaton. il Am Gas Assn Proc 1953:1062-6; Same. Pet Eng 25:D 27+ S '53

Interaction of methane and water vapor in the hydrogen-oxygen reaction. A. Levy. bibliog J Chem Phys 21:2132-3 D '53

Metal-water reactions; kinetics of the reaction between lithium and water vapor. B. E. Deal and H. J. Svec. bibliog Am Chem Soc J 75:6173-5 D 20 '53

Metal-water reactions; the reaction between calcium and water vapor. D. S. Gibbs and H. J. Svec. Am Chem Soc J 75:6052-4 D 5 '53

Outdoor water-vapor refrigeration system; Kelly-Springfield tire co. L. B. Walker. il Comp Air Mag 58:309-11 N '53

Power plant grasp; vapor tension and superheat. F. H. Browning. Power Eng 58:79-80 S '54

Role of water vapor on the stoichiometric reactions of solid proteins with polar gases. S. W. Benson and others. bibliog Am Chem Soc J 75:6040-1 D 5 '53

Surface properties of silica gels; adsorption of water vapour. K. S. W. Sing and J. D. Madeley. bibliog J Ap Chem 4:365-8 Jl '54

Water vapor and the channel effect in *n-p-n* junction transistors. R. H. Kingston. Phys R 93:346-7 Ja 15 '54

Water vapor can damage built-up roofs. C. E. Lund. il diags Arch Rec 114:178-82+ Jl; 209-10+ S '53

Water vapor saturation in gas-measuring burets. T. W. Stein and R. C. Reid. Anal Chem 25:1919-20 D '53

See also

Humidity

Spectrum

Absorption coefficients of water vapor in the vacuum ultraviolet. K. Watanabe and M. Zelikoff. bibliog Opt Soc Am J 43:753-5 S '53

WATER waste

Broader view is needed by river developers. C. J. Velz. il Eng N 152:39-40 Mr 25 '54

Waste-water detection and remote-control indication by means of meters. A. Gilbert. il diags Munic Util 92:36+ Jl '54

See also

Water conservation

WATER wheels

Simple relay detects excessive vibration in bull wheel. T. W. Dugdale. il diag Elec World 140:160 D 14 '53

See also

Turbines

WATERBURY, Connecticut

Sewerage

Utilizing a 1908 outfall sewer. W. S. Wise. il Water & Sewage Works 101:282-3 Je '54

WATERING of lawns. See Sprinklers

WATERLOO, Ontario

Sewerage

Achieving capital and operating economy in sewage pumping station. W. T. Mitchell. il Munic Util 92:29-31+ Mr '54

WATERMELON

They've smoothed the rough path to melon-rind items; Georgia experiment station. W. E. Dupree and others. il diag Food Eng 26:45-7+ Ja '54

WATERPROOF paper. See Paper, Waterproof

WATERPROOFING

ASTM standards on bituminous materials for highway construction, waterproofing, and roofing (with related information). 434p Am. soc. for testing materials, 1916 Race st, Philadelphia 3 '54

See also

Water repellents

WATERPROOFING of textiles

Discolorations in some dyed acetate rayons due to moisture plus solvent effect in dry-cleaning and waterproofing; abstract. C. H. Bayley and A. S. Tweedie. Am Dyestuff Rep 42:260 Ap 27 '53

Properties of exposed and unexposed polyvinyl butyral coated fabrics. M. I. Landsberg and others. bibliog Am Soc T M Proc 51:1262-76 '51

Textile trend; raincoat for fibers. Chem W 74:58-9 Mr 6 '54

Use of octadecyl isocyanate on cotton to produce water repellency. C. Hamalainen and others. bibliog Am Dyestuff Rep 43:453-7 Jl 19 '54

Water-resistant wool; abstract. M. Kolker. Am Dyestuff Rep 43:394 Je 21 '54

Patents

Water-repellent fabrics; metal soap dispersions plus nonionic agents. Am Dyestuff Rep 43:68 F 1 '54

Water-repellent fabrics; organosiliconhalides applied on predried material. Am Dyestuff Rep 43:547-8 Ag 16 '54

Water-repellent finish; zirconylates plus waxes of fats; patent. Am Dyestuff Rep 42:891 D 21 '53

Water repellent finishes; organosilicon compounds combined with amino resins. Am Dyestuff Rep 42:231 Ap 13 '53

Water-repellent textiles treated with silicone oil emulsions. Am Dyestuff Rep 43:546 Ag 16 '54

Water-repellent wax solutions; adding alkyl-and glycol-mixed titanates; patent. Am Dyestuff Rep 42:891-2 D 21 '53

Testing

Use of metal tubes in the Launder-Ometer for the dynamic absorption test. G. J. Mandikos. il diags Am Dyestuff Rep 43:402-4 Je 21 '54

WATERSHEDS

Bankers encourage soil erosion measures; Minnesota. H. Severson. il Banking 46:74+ F '54

Plans underway for small watersheds program. Pub Works 85:85 Ja '54

Pollution control on the Jersey City watershed. R. J. Budrick. map Am Water Works Assn J 46:349-52 Ap '54

Quality control of water from watersheds. A. T. Neale and E. F. Eldridge. Water & Sewage Works 101:312-14 Jl '54

Views on watershed control; symposium. E. S. Hopkins and others. Am Water Works Assn J 46:403-17 My '54

Watershed and reservoir control in the Pacific Northwest; panel discussion. G. A. Marshall and others. il map Am Water Works Assn J 46:723-50 Ag '54; Abstract. Water & Sewage Works 101:386-8 S '54

WATERTOWN, New York

Streets

Where snow and ice control is a big problem. C. L. Wood. il Pub Works 85:72-4 Ag '54

WATERVILLE, Maine

Sewerage

Water and sewage improvements. J. E. Hale. il Water & Sewage Works 101:72-3 F '54

Water supply

Water and sewage improvements. J. E. Hale. il Water & Sewage Works 101:72-3 F '54

WATERWAYS

Building on a water base; Hooker Electrochemical. il maps Chem W 74:42-4 Ap 3 '54

Freight boom on the inland waterways. il Bsns W p84-6 O 3 '53

S.3111, or fight; will bill breach crack in waterways dike? Chem W 74:82 Ap 10 '54

Some economic aspects of waterway projects. H. R. Faison. Am Soc C E Proc 79 [no 318]:1-45 O '53

Water dilutes freight costs; operates coast to coast; Dow Chemical's effort to capitalize on economies of chemical water transport. il map Chem W 73:50-4+ Jl 18 '53

Waterways and roads. J. B. Springer. Pulp & Pa of Can 55:149+ Jl '54

See also

Barges
Canals
Lakes
Rivers
St Lawrence waterway and power project

Denmark

Danes study bridge and ferry plans. For Comm W 51:18 F 15 '54

England

See also

Canals—England

United States

Caustic port; Niagara Falls. il Chem W 73:67-8 Ag 8 '53

Inland waterways record set in 1953. Marine Eng 59:40 Mr '54

See also

Inland waterways corporation

Venezuela

Memorable dredging operation opens Orinoco-Macareo waterway. W. H. Gahagan. il map Civil Eng 23:816-20 D '53

WATERWORKS

A.W.W.A. Chesapeake section 5th annual meeting, Wilmington, Del. Oct. 28-30; with abstracts of papers. Water & Sewage Works 101:110-13 Mr '54

A.W.W.A. Florida section 27th annual meeting, Miami, Oct. 11-13; with abstracts of papers. Water & Sewage Works 101:64-8 F '54

A.W.W.A. Minnesota section 37th annual meeting, Winnipeg, Man. Munic Util 91:8 D '53

A.W.W.A. New York section fall meeting, Lake Placid, Sept. 9-11; with abstracts of papers. Water & Sewage Works 100:487-90 D '53

A.W.W.A. Wisconsin section meeting; abstracts of papers. Pub Works 85:81 Ja '54

Analysis of recent Canadian water-purification plants. A. E. Berry and G. M. Galimberti. Munic Util 92:21-30+ Jl '54; Same cond. Am Water Works Assn J 46:684-700 Jl '54

Annual reports; abstracts. Am Water Works Assn J 46:sup62+ Mr '54

WATERWORKS—*Continued*

Color code your plant. H. E. Lordley. il diags Water & Sewage Works 101:R 134-5 pt 2 My '54

Construction program of Philadelphia suburban water co. meets unprecedented demand. F. S. Friel. il map diag Civil Eng 24:85-9 F '54

Current waterworks problems; panel discussion. Munic Util 92:79-82+ Ap '54

Dayton's water treatment plant pays its own way. L. C. Huffman. il map Civil Eng 24: 1-4 Ja '54

Maine water utilities association spring meeting, Norway, April 14. Water & Sewage Works 101:315 Jl '54

Maine water utilities association 28th annual meeting, Portland, Feb. 9-10; with abstracts of papers. Water & Sewage Works 101:144-6 Ap '54

New ideas built into new waterworks for Vallejo, Calif. il Eng N 152:188+ F 18 '54

Pennsylvania water and sewage associations annual conferences, State College, Aug. 24-26; with abstracts of papers. Water & Sewage Works 100:430-6 N '53

Recent developments in the water works industry. C. K. Wells. Am Water Works Assn J 46:333-6 Ap '54

Report of the committee on water works practice for the year ending Dec. 31, 1953. Am Water Works Assn J 46:287-96 Mr '54

Research and experimentation. Water & Sewage Works 100:440 N '53

Sewage and water facilities built for a city in the making. A. A. Estrada. flow diag il map plans diag Civil Eng 23:836-9 D '53

There is work to be done! J. H. Murdock, jr. Water & Sewage Works 101:147-9 Ap '54; Same. Am Water Works Assn J 46:311-16 Ap '54

Water and sewage works reference and data edition, 1954. Water & Sewage Works 101:R 1-287 pt 2 My '54

Water supply developments during the year 1953. M. B. Cunningham. il Water & Sewage Works 101:1-7 Ja '54

Water works practices; operation, maintenance, management (cont). G. E. Symons. il diags Water & Sewage Works 100:437-9, 483-6; 101:23-7, 69-71, 103-7, 222-6, 266-70, 305-7, 395-403, 432-6 N '53-Mr, My-Jl, S-O '54 (to be cont)

See also

Aqueducts
Dams
Filters and filtration
Filtration plants
Hydrants
Pumping stations
Pumps
Reservoirs
Water distribution
Water purification
Water supply engineering

Accounting

Expenditure control through responsibility accounting. T. M. McDaniel, jr. Am Water Works Assn J 45:1298-308 D '53

Bibliography

Reading meter; condensation; books and articles. Published in monthly numbers of Journal of the American water works association

Water works digest. Published in monthly numbers of Public works

Costs

Aldrich water purification units costs compared with conventional filter plants. Eng N 151:178 O 8 '53

Cost indexes tailored to water works properties; with tables and chart. Eng N 151: 113 O 8 '53

Unit prices bid by contractors. Eng N 151: 195 O 8 '53

Water works addition, Cordova, Alabama; unit prices. Eng N 151:50 O 22 '53

Water works, South Carolina; unit prices. Eng N 151:125 Jl 30 '53

Design

How a water supply was designed for a permafrost area. J. R. Wallace, jr. il plan diags Pub Works 85:64-6+ Ja '54

Public health factors in water plant; design, construction and operation. D. F. Metzler. flow diags il plan diags Pub Works 85: 93-104 My '54

Special design features of water works facilities handling highly turbid waters. R. G. Kincaid. flow diag il map Am Soc C E Proc 79 [no 309]:1-17 O '53

Waterworks gets outdoor industrial look. il map Eng N 151:51-2+ S 10 '53

Water works practices; design criteria. G. E. Symons. Water & Sewage Works 101:222-6, 266-70 My-Je '54

Directories

Directory of Canadian waterworks systems. Munic Util 92:10+ Ja '54

Electric equipment

River Severn supply scheme at Coventry. il Elec J 151:1945-6 D 11 '53

Emergency problems

Establishing emergency operating procedures for water systems. J. D. Wedeman. Am Water Works Assn J 46:514-16 Je '54

Employees

About salaries, more or less. Water & Sewage Works 101:196 Ap '54

Courses of instruction for and certification of waterworks operators; Canadian section, A.W.W.A. committee report. Munic Util 92: 38+ My '54

Equipment

Allentown stays ahead of increasing water demands. H. J. Krum. il Water & Sewage Works 101:139-43 Ap '54

Central dispatching station of the Atlanta water works. P. Weir. il map Water & Sewage Works 101:197-202 My '54

Chemical feed control. C. K. Perkins and W. H. Brown, jr. il diag Instruments & Automation 27:291 F '54

Chemical feeder puzzlers. R. J. Leveque. diags Water & Sewage Works 101:254-7 Je '54

Classified index of products used in waterworks and sewage field. Water & Sewage Works 101:R2-16 pt 2 My '54

Consider variable speed drive for water and sewage treatment plants. F. H. Rumble. il Water & Sewage Works 101:234-5 My '54

Decreasing costs by improved handling of materials. O. S. Carliss. il Am Water Works Assn J 46:383-5 Ap '54

Design and operation of chlorination stations under normal and emergency conditions; panel discussion. il map plans diags Am Water Works Assn J 46:869-93 S '54

Getting fresh water for St Augustine. G. B. Arthur. il Pub Works 85:79-80 Jl '54

Instrumentation problems in water and sewage treatment. C. R. Velzy. il Instruments & Automation 27:1318 Ag '54

Manufacturers; their products and their distributors in Canada. Munic Util 92:130+ Ja '54

Materials for chemical handling equipment. L. R. Honnaker and M. L. Monack. il diags Am Water Works Assn J 45:469-75 My '53; Same. Water & Sewage Works 101:R 173-5 pt 2 My '54

Modern design features new Vallejo water project. H. L. Thackwell. il map Pub Works 85:87-92 S '54

Modern water supply and treatment for a small city. J. W. Bowman. il Pub Works 85:78-80 Je '54

Municipal cooperation in water supply exemplified by Burlington-Nelson. B. J. Henderson. il Munic Util 92:28-33+ Ag '54

New type of package plant for water treatment. il diag Munic Util 92:31+ Je '54

Operation of small waterworks; equipment and materials. A. E. Clark. il Water & Sewage Works 101:383-5 S '54

Plant of unusual design treats surface water for Houston. N. P. Turner. il plan diag Pub Works 85:87-91 My '54

Pneumatic controls and instrumentation for water plants. R. H. Babcock. il diags Am Water Works Assn J 46:133-43 F '54

Pre-treatment and filtration combined in single, compact water-purification unit; Dorrco Aldrich PeriFilter system. il Munic Util 92:46 Jl '54; Eng N 152:112-13 Ap 15 '54

Progress of the Metropolitan water board's new works in 1953. il Engineer 197:219-20 F 5 '54

WATERWORKS—Equipment—*Continued*

Public health factors in water plant; design, construction and operation. D. F. Metzler. flow diags il plan diags Pub Works 85: 93-104 My '54

Shaped wire; problem solver. R. Warner. il Water & Sewage Works 101:170-1 Ap '54

Stationary chlorine storage at Tampa. J. S. Long. il Am Water Works Assn J 46:35-40 Ja '54; Same. Water & Sewage Works 101: 60-3 F '54

Utility of butterfly valves. G. E. Arnold. Am Water Works Assn J 46:941-2 S '54

Water-treatment plant at Buscot waterworks. Engineering 176:493 O 16 '53

Extension rules

Water needs in a fast growing city. C. E. Wright. il Pub Works 85:89-90 Je '54

Finance

Financing distribution system extensions. A. O. Norris. Water & Sewage Works 101:R77-8 pt 2 My '54

Survey of water revenue bond financing. D. L. Erickson. Am Water Works Assn J 46:325-8 Ap '54

Flood damage

Sewage and water treatment problems caused by the Rio Grande flood. H. W. Weiss. Pub Works 85:145-8+ S '54

Maintenance and repair

Getting water and sewerage facilities ready for winter. il Pub Works 85:70-1+ Ag '54

Operation and maintenance of waterworks distribution systems; panel discussion. Munic Util 92:52+ Ap '54

Operation of small water works; getting out of a jam. A. E. Clark. il Water & Sewage Works 100:448-9 N '53

Organization for water and sewer maintenance. G. B. Arthur. il Pub Works 85:86-7+ Ap '54

Management

Administration of small water plants. W. R. LaDue. Am Water Works Assn J 45:5-9 Ja '53; Same. Water & Sewage Works 101: R20-1 pt 2 My '54

Improvements in operation through better administrative practices. M. J. Shelton. Am Water Works Assn J 46:583-90 Je '54

Municipal cooperation in water supply exemplified by Burlington-Nelson. B. J. Henderson. il Munic Util 92:28-33+ Ag '54

Operation of small water works. A. E. Clark. Water & Sewage Works 101:219-20 My '54

Problems of small water systems and how they can be solved. J. A. Dietrick. Water & Sewage Works 101:271-4 Je '54

Report of the committee on water works administration for the year ending Dec. 31, 1953. Am Water Works Assn J 46:282-6 Mr '54

Water and sewage works in metropolitan Toronto. L. B. Allan. map Munic Util 92: 54-5+ Ap '54

Water works management; comparing water utility management and operation under private ownership and a municipal authority. J. H. Long. Water & Sewage Works 101:354-5 Ag '54

Radio communication

Experience with utility radio; joint discussion. diag Am Water Works Assn J 46: 667-9 Jl '54

Records

Records and maps of the water distribution system. C. C. Williams. Pub Works 85:106+ Ap '54

Water utility office operations. J. M. Symons. il Water & Sewage Works 101:212-18 My '54

Safety measures

Fundamental principles of handling chlorine. V. W. Langworthy. il diags Water & Sewage Works 100:234-8, 318-22, 361-4, 454-6; 101:36-9 Je, Ag-S, N '53, Ja '54

Progress toward an industrywide safety program. R. J. Faust. Am Water Works Assn J 46:499-502 Je '54

Statistics

Statistical analysis of water works data for 1950. H. F. Seidel and others. map Am Water Works Assn J 45:1309-33 D '53

War measures

Civil defense and natural disasters; providing safe water in emergencies. il Pub Works 85:70-2 Ap '54

Civil defense and the waterworks system. J. R. Menzies. Munic Util 91:31+ O '53

Mobilization readiness program. J. H. Ludwig. Water & Sewage Works 101:77 F '54

Waste

Purification plant waste disposal. Am Water Works Assn J 45:1225-37 N '53

WATKINS, William B.

Sketch. por East Underw 54:110+ D 11 '53

WATTMETERS

Brunswick instruments microwave wattmeter. il R Sci Instr 24:890-1 S '53

High sensitivity wattmeters; abstract. A. H. M. Arnold. Elec R (Lond) 154:232 F 5 '54

High sensitivity wattmeters; I.E.E. measurements section discussion. Elec J 152:369 Ja 29 '54

Sensitive differential wattmeter. L. M. Clarebrough and others. il diag J Sci Instr 30: 282-3 Ag '53

WAUSAU, Wisconsin

Streets

Street car tracks; tearing them up is easier than repaving the holes. F. E. Gritzmacher. Pub Works 85:87-8 F '54

WAVE functions. See Atomic orbitals

WAVE guides

Acoustic wave guide. E. A. G. Shaw. bibliog il diags Acoustical Soc Am J 25:224-35 Mr '53

Band width of cavity antennas. M. H. Cohen. bibliog diags J Ap Phys 25:582-7 My '54

Broadband rotary waveguide attenuator. B. P. Hand. il diags Electronics 27:184-5 Ja '54

Calibration of the slotted section for precision microwave measurements. A. A. Oliner. bibliog diags R Sci Instr 25:13-20 Ja '54

Circumferential gap in a circular wave guide excited by a dominant circular-electric wave. L. S. Sheingold and J. E. Storer. diags J Ap Phys 25:545-52 My '54

Coupled wave theory and waveguide applications. S. E. Miller. bibliog il diags Bell System Tech J 33:661-719 My '54

Coupling of modes of propagation. J. R. Pierce. bibliog diag J Ap Phys 25:179-83 F '54

Determination of reflection coefficients and insertion loss of a wave-guide junction. G. A. Deschamps. bibliog diags J Ap Phys 24: 1046-50 Ag '53

Dip brazing of microwave components. W. J. Rudolph. il diags Electronics 27:274+ F '54

Direct-reading standing-wave indicator. A. C. Grace and J. A. Lane. diags J Sci Instr 30:168-9 My '53

Electromagnetic transmission characteristics of the two-dimensional lattice medium. H. S. Bennett. bibliog(61 refs) diags J Ap Phys 24:785-810 Je '53

Ferrites in microwave applications. J. H. Rowen. diags Bell System Tech J 32:1333-69 N '53

Gaging with activated neutrons; beta particles emitted from silver plate on waveguides are used to measure thickness. H. V. Watts and L. Reiffel. il Steel 133:110-11 N 23 '53

High-speed magnetic pulsing of ferrites. R. C. LeCraw. J Ap Phys 25:678-9 My '54

Industry gets microstrip license offer. P. Klass. il diag Aviation W 59:54-5 N 30 '53

Matching discontinuities in waveguides. J. C. Parr. diags Wireless Eng 30:243-9 O '53

Matching nonstandard waveguide sections. A. Chlavin. diags Electronics 26:192-3 N '53

Metal-to-ceramic seals for magnetron waveguides. N. E. Pryslak. il Electronics 27: 282+ Ja '54

Method for measuring the dielectric constant of solids at ultra high frequencies. C. M. McKinney and B. M. Duff. bibliog diags R Sci Instr 25:925-6 S '54

WAVE guides—*Continued*

Modes in wave guides containing ferrites. M. L. Kales. bibliog J Ap Phys 24:604-8 My '53

Nonreciprocal microwave component. M. L. Kales and others. diag J Ap Phys 24:816-17 Je '53; Correction. 24:1528 D '53

Precision measurement of waveguide attenuation. J. H. Vogelman. il diags Electronics 26:196-9 D '53

Propagation along a slotted cylinder. R. F. Harrington. bibliog diags J Ap Phys 24:1366-71 N '53

Propagation constant in gentle circular bends in rectangular wave guides; matrix theory. A. T. de Hoop. J Ap Phys 24:1325-7 O '53; Correction. 25:136 Ja '54

Relative merits of broad-band transmission beam, cable and waveguide; discussion. Inst E E Proc 100 pt 3:374-5 N '53

Roll-forming of lightweight waveguides. G. F. Duree and others. il diags Electronics 26:286+ D '53

Slot coupling of rectangular and spherical wave guides. L. B. Felsen and N. Marcuvitz. diags J Ap Phys 24:755-70 Je '53

Topics in guided-wave propagation through gyromagnetic media. H. Suhl and L. R. Walker. bibliog Bell System Tech J 33:579-659, 939-86, 1133-94 My-S '54

TEM waves in cylindrical systems. P. Moon and D. E. Spencer. diags Franklin Inst J 256:325-36 O '53

Traveling-wave slot antennas. J. N. Hines and others. bibliog diags Inst Radio Eng Proc 41:1624-31 N '53

Traveling wave slot antennas. V. H. Rumsey. diags J Ap Phys 24:1358-65 N '53

Types of wave which may exist near a guiding surface. J. Brown. Inst E E Proc 100 pt 3:363-4 N '53

Wave-guide measurements in the microwave region on metal powders suspended in paraffin wax. J. M. Kelly and others. bibliog diag J Ap Phys 24:258-62 Mr '53

Wave guide techniques; abstract. M. H. Alder. Elec J 151:1232 O 16 '53

Waveguides for uhf television. J. S. Brown. il Tele-Tech 12:82-3+ N '53

Standards

IRE standards on antennas and waveguides; definitions of terms, 1953. diags Inst Radio Eng Proc 41:1721-8 D '53 (reprints 75 cents)

WAVE mechanics

Application of perturbation theory to the traveling wave tubes. M. W. Muller and W. L. Beaver. J Ap Phys 25:542-3 Ap '54

Application of the Rayleigh-Schrödinger perturbation theory to the hydrogen atom. E. P. Wigner. Phys R 94:77-8 Ap 1 '54

Approximate wave-mechanical description of deuteron stripping. F. L. Friedman and W. Tobocman. bibliog Phys R 92:93-100 O 1 '53

Atomic theory of the two-fluid model of liquid helium. R. P. Feynman. bibliog diags Phys R 94:262-77 Ap 15 '54

Augmented plane-wave method for the periodic potential problems. J. C. Slater and M. M. Saffren. bibliog Phys R 92:603-8, 1126-8 N 1, D 1 '53

Beta interaction. R. Finkelstein and P. Kaus. bibliog Phys R 92:1316-19 D 1 '53

Bound state corrections in two-body systems. T. Fulton and R. Karplus. bibliog Phys R 93:1109-16 Mr 1 '54

Collective description of electron interactions; Coulomb interactions in a degenerate electron gas. D. Bohm and D. Pines. bibliog Phys R 92:609-25 N 1 '53

Collective description of electron interactions; electron interaction in metals. D. Pines. bibliog Phys R 92:626-36 N 1 '53

Collective description of many-particle systems (a generalized theory of Hartree fields). T. Kinoshita and Y. Nambu. bibliog Phys R 94:598-617 My 1 '54

Comparison of various approximate exchange potentials. F. Herman and others. Phys R 95:371-3 Jl 15 '54

Convergence of the adiabatic nuclear potential. A. Klein. bibliog Phys R 92:1017-20 N 15 '53

Crystal momentum as a quantum mechanical operator. E. N. Adams, 2d. J Chem Phys 21:2013-17 N '53

Derivation and renormalization of the Tamm-Dancoff equations. B. Kursunoğlu. bibliog Phys R 92:1069-70 N 15 '53

Development of a quantum-mechanical model for the lithium fluoride molecule. G. C. Benson and B. M. E. van der Hoff. bibliog diag J Chem Phys 22:469-75 Mr '54

Double- and triple-quantum transitions. P. Kusch. Phys R 93:1022-5 Mr 1 '54

Effect of negative energy components in the two-nucleon system. R. Arnowitt and S. Gasiorowicz. Phys R 94:1057-62 My 15 '54

Effect of the atomic core on the nuclear quadrupole coupling. R. M. Sternheimer. bibliog Phys R 95:736-50 Ag 1 '54

Effects of certain three-body nuclear interactions in H^3 and He^3. A. W. Solbrig, jr. bibliog Phys R 95:831-6 Ag 1 '54

Electromagnetic effects in two-nucleon systems. S. Deser. Phys R 92:1542-7 D 15 '53

Electronic energy bands in crystals. T. Wainwright and G. Parzen. bibliog Phys R 92:1129-34 D 1 '53

Evaluation of some electron repulsion integrals needed in molecular quantum mechanics; use of the Neumann expansion in evaluation of two electron three-center repulsion integrals. R. S. Barker and H. Eyring. bibliog J Chem Phys 22:114-19 Ja '54

Exchange between rotational and translational energy in gas molecules. J. C. Beckerle. bibliog J Chem Phys 21:2034-41 N '53

Field theory of equations with many masses. B. T. Darling. bibliog Phys R 92:1547-53 D 15 '53

Hamiltonian mechanics of fields. R. H. Good, jr. Phys R 93:239-43 Ja 1 '54

Hartree-Fock-Slater self-consistent field and the calculation of some properties of the Cu^+ ion. J. C. Morrow. bibliog J Phys Chem 58:245-7 Mr '54

Homogeneous gas processes and time dependent perturbation theory. H. Aroeste. bibliog J Chem Phys 21:1897-8 O '53

Identity for the *S* matrix for a finite time interval. J. C. Polkinghorne. Phys R 93:228-9 Ja 1 '54

Influence of electric and magnetic fields on angular correlations. A. Abragam and R. V. Pound. bibliog Phys R 92:943-62 N 15 '53

Interaction of a nonrelativistic particle with a scalar field with application to slow electrons in polar crystals. T. Lee and D. Pines. Phys R 92:883-9 N 15 '53

Localized perturbations. M. Lax. Phys R 94:1391-2 Je 1 '54

Low temperature diamagnetism of electrons in a cylinder. W. Band. diag Phys R 91:249-55 Jl 15 '53; Correction. 93:350-1 Ja 15 '54; Discussion. R. B. Dingle. 92:1320 D 1 '53

Many-particle configurations in a central field. C. Schwartz and A. de-Shalit. Phys R 94:1257-66 Je 1 '54

Matrix elements of the spin-orbit interaction in the d^3 configuration. S. Sueoka. Phys R 93:302-3 Ja 15 '54

New relation between potential energy and internuclear distance. E. R. Lippincott. J Chem Phys 21:2070-1 N '53

Normalization of WKB-type approximations. S. C. Miller, jr. Phys R 94:1345-6 Je 1 '54

Nuclear surface oscillations. A. K. Kerman. bibliog Phys R 92:1176-83 D 1 '53

Nucleon isobars in intermediate coupling. F. H. Harlow and B. A. Jacobsohn. bibliog Phys R 93:333-40 Ja 15 '54

One-dimensional wave equation for hydrogen bonds. C. E. Nordman and W. N. Lipscomb. J Chem Phys 21:2077-8 N '53

Perturbation theory with Sommerfeld-Maue wave function. G. K. Horton and E. Phibbs. Phys R 94:1402-3 Je 1 '54

Quantum effects in the interaction between electrons and high-frequency fields. I. R. Senitzky. Phys R 95:904-11 Ag 15 '54

Quantum-mechanical calculation of the surface energy of crystalline lithium fluoride. B. M. E. van der Hoff and G. C. Benson. bibliog diags J Chem Phys 22:475-80 Mr '54

WAVE mechanics—*Continued*

Quantum-mechanical definition of refractive index. S. M. Neamtan. Phys R 94:327 Ap 15 '54

Quantum-mechanical partition function. G. V. Chester. bibliog Phys R 93:606-11 F 1 '54

Quantum-mechanical study of the fluorine molecule. H. Dinger and I. Fischer-Hjalmars. J Chem Phys 22:346 F '54

Quantum mechanics of collisions between diatomic molecules. C. F. Curtiss. J Chem Phys 21:2045-50 N '53

Reduction of relativistic two-particle wave equations to approximate forms. Z. V. Chraplyvy. bibliog Phys R 91:388-91; 92:1310-15 Jl 15, D 1 '53

Relativistic particle dynamics. B. Bakamjian and L. H. Thomas. bibliog Phys R 92:1300-10 D 1 '53

Rotational nuclear energy levels from Coulomb excitation. G. M. Temmer and N. P. Heydenburg. bibliog Phys R 94:1399-400 Je 1 '54

Single-time Bethe-Salpeter equation. W. Macke. Phys R 92:1072 N 15 '53

Single-time formalisms from covariant equations. A. Klein. diags Phys R 94:1052-6 My 15 '54

Solution of the Schrödinger equation in periodic lattices with an application to metallic lithium. W. Kohn and N. Rostoker. bibliog Phys R 94:1111-20 Je 1 '54

Solution of the wave equation near an extremum of the potential. C. J. Mullin. bibliog Phys R 92:1323-4 D 1 '53

Some *p*- and *d*-shell nuclei in intermediate coupling. G. E. Tauber and T. Wu. bibliog Phys R 93:295-301 Ja 15 '54

Space-time representation in wave mechanics. E. J. Hellund and M. K. Brachman. bibliog Phys R 92:822-4 N 1 '53

Spin-lattice relaxation and the residual width of highly exchange-narrowed paramagnetic resonances. J. P. Lloyd and G. E. Pake. Phys R 92:1576 D 15 '53

Spin-orbit coupling energy in O^{II}. R. K. Adair. bibliog Phys R 92:1491-3 D 15 '53

Stokes-parameter technique for the treatment of polarization in quantum mechanics. U. Fano. bibliog Phys R 93:121-3 Ja 1 '54

Studies of atomic self-consistent fields; interpolation problems. P. Löwdin. bibliog Phys R 94:1600-9 Je 15 '54

Suppression of pair coupling in nuclear forces. A. Klein. diags Phys R 95:1061-4 Ag 15 '54

Theory of plasma waves in metals. P. A. Wolff. bibliog Phys R 92:18-23 O 1 '53

Unitarity of the *u* operator. H. Ekstein. Phys R 94:1063-4 My 15 '54

Universal Fermi interaction. E. J. Konopinski and H. M. Mahmoud. bibliog Phys R 92:1045-9 N 15 '53

Use of non-orthogonal wave functions in the treatment of solids, with applications to ferromagnetism. W. J. Carr, jr. bibliog diags Phys R 92:28-35 O 1 '53

Validity of the Born-Oppenheimer approximation. S. Bludman and P. B. Daitch. bibliog Phys R 95:823-30 Ag 1 '54

See also

Field theories (physics)
Quantum electrodynamics
Resonance (chemistry)
Scattering of particles and rays

WAVE motion, Theory of

Dimensional relations in magnetohydrodynamics. W. M. Elsasser. bibliog Phys R 95:1-5 Jl 1 '54

Magneto-hydrodynamic waves in liquid sodium. B. Lehnert. bibliog diags Phys R 94:815-24 My 15 '54

Reflection of shock waves from a blunt wedge. V. H. Blackman and D. K. Weimer. bibliog il Phys R 94:508-10 My 1 '54

WAVES

Characteristics of internal solitary waves. G. H. Keulegan. diag J Res Nat Bur Stand 51:133-40 S '53

Generation of wind waves on a water surface. C. Eckart. bibliog diags J Ap Phys 24:1485-94 D '53

Measurements of the distribution of water wave slopes. S. Q. Duntley. Opt Soc Am J 44:574-5 Jl '54

Simple optical method for measuring the statistical distribution of water surface slopes. A. H. Schooley. il diag Opt Soc Am J 44:37-40 Ja '54

Tracing a normal congruence through an optical system. M. Herzberger and E. Marchand. Opt Soc Am J 44:146-54 F '54

Wave-height analyser. M. J. Wilkie and R. F. King. diags J Sci Instr 30:311-14 S '53

Wave-wash control on Mississippi River levees. R. Hertzberg. il diags Am Soc C E Proc 79 [no 275]:1-12 S '53

Waves as a factor in effluent disposal. E. K. Rice and J. W. Johnson. bibliog diags Water & Sewage Works 101:172-5 Ap '54

See also

Electric waves
Light
Radiation
Radio waves
Shock waves
Sound waves
Ultrasonic waves
Vibration

WAX removers

Wax remover specification. Soap & San Chem 29:161+ O '53

WAXED paper. See Paper, Waxed

WAXES

Are you missing a bet by not overwaxing warps? R. B. Pressley. il Textile World 104:62-3+ S '54

Caranday, a hard palm wax. K. S. Markley. Oil Paint & Drug Rep 166:5+ Jl 26 '54

Oils, fats and waxes; 1953 market trends. Oil Paint & Drug Rep 165:54-5 sec 2 F 1 '54

Polycyclic hydrocarbons in human hair wax. F. W. Hougen. Chem & Ind p 192 F 13 '54

Some sulfonamide plasticizers and waxes. D. Aelony. bibliog Ind & Eng Chem 46:587-91 Mr '54

Stripcoating for cheese; special wax and plastic lacquer. il Mod Packaging 27:95-7+ Ja '54

Wax from the bogs; possible to produce plastics from peat wax. G. C. Ackroyd. Chem & Eng N 32:3271 Ag 16 '54

See also

Carnauba wax
Floor wax
Montan wax
Paraffin

Analysis

Isolation and characterization of constituents of alfalfa wax. E. H. Blair, H. L. Mitchell and R. E. Silker. bibliog Ind & Eng Chem 45:1104-6 My '53

Manufacture

Continuous wax moulders. R. Shannon. plan diags Pet Refiner 33:147-50 Ja '54; Same abr. Mech Eng 75:963-6 D '53

Modern wax refinery; M. Argüeso & co. il Soap & Chem Spec 30:162-5+ My '54

Statistics

Oils, fats and waxes. Published in weekly numbers of Oil, paint and drug reporter

Testing

Proposed method of test for oil content of petroleum waxes. Am Soc T M Proc 51:316-19 '51

WAYBILLS

Waybill returns make good sample. Ry Age 137:10 S 20 '54

WEALTH

See also

Capital
Economics
Income
Profit
Prosperity

WEAN engineering company

R. J. Wean story; service the central theme. Steel 135:61 Jl 19 '54

WEAPONS

Weapon system plan spurs development; Air research and development command. Aviation W 59:82-6 Ag 17 '53

Weapons; slay them with quality. W. G. Patton. il Iron Age 172:61 O 22 '53

See also

Atomic bombs
Atomic weapons
Guided missiles

WEAR of materials. See Materials—Wear

WEAR of metals. See Metals—Wear

WEATHER

Summer design temperatures. A. D. Hay. map Heating-Piping 26:118-21 Je '54

See also

Droughts
Hot weather
Humidity
Rain and rainfall
Snow
Winds

Business aspects

Bugs, weather; can they be correlated? Chem W 74:76+ Ap 10 '54
Can weather bureau forecasts help solve your sales problems? J. Shoenfeld. map Sales Management 71:38+ Ag 1 '53
Heat wave melts retail sales. Bsns W p 152 S 12 '53
Load forecasting; Ontario commission's weather studies. W. Prentice. Elec R (Lond) 153:1447 D 25 '53
Weather conditions influence production. W. Schweisheimer. Paper Ind 36:392 Jl '54
Weather; it's worth talking about. il Eng N 151:35-6+ Jl 16 '53

See also

Insurance companies —Weather research and forecasting

WEATHER and aviation. See Meteorology, Aeronautic

WEATHER bureau. See United States—Weather bureau

WEATHER control

See also

Meteorological research
Rain making

WEATHER forecasting

Amateur scientist; nationwide net of weather observers. A. G. Ingalls. il map Sci Am 189:114-17 O '53
Weather; it's worth talking about. il Eng N 151:35-6+ Jl 16 '53

See also

Hurricanes
Insurance companies —Weather research and forecasting
Radio metorographs

WEATHER forecasts

Building weather for January. map Am Bld 76:16 Ja '54 [cont monthly]
Can weather bureau forecasts help solve your sales problem? J. Shoenfeld. map Sales Management 71:38+ Ag 1 '53
Deluge or drought, looking ahead saves the builder. il Chem W 73:45-6+ O 3 '53
How to use the weather tables in conjunction with the 30-day forecasts of the U.S. Weather bureau. Eng N 151:57 Ag 20 '53
How weather consultant saves money for public works officials. J. R. Murray and D. W. Trettel. Roads & Sts 96:83-8 O '53; Same cond. Pub Works 84:76+ N '53
New direct mail idea, sponsored weather forecasts. Sales Management 71:36-7 Jl 15 '53
Outside for weather; recommendations by advisory committee on weather services. Chem W 73:28 D 26 '53
30-day forecast of the U.S. Weather bureau. Eng N 151:42 S 24; 48 O 29; 36 N 26; 40 D 24 '53; 152:38 Ja 28; 42 F 25; 48 Mr 25; 30 Ap 22; 31 My 20; 45 Je 24; 153:29 Jl 22; 41 Ag 26; 28 S 23 '54
Weather forecasts in camps. L. Affleck. Pulp & Pa of Can 55:168+ S '54
Weather forecasts save construction dollars. il Chem Eng 61:124+ Mr '54

WEATHER maps

Weather maps transmitted by facsimile in new system. Elec Eng 72:1042-3 N '53

WEATHER ships. See Meteorological stations

WEATHER stations. See Meteorological stations

WEATHERING

Study of the weathering characteristics of cotton fabrics containing inorganic compounds. G. R. F. Rose and C. H. Bayley. bibliog Textile Res J 24:792-802 S '54
Weather tests on styrene and phenolics; abstracts. J. R. Taylor and C. H. Adams. Chem & Eng N 32:2776+ Jl 12 '54; Materials & Methods 40:162 Ag '54
Weathering of cellulose acetate. J. B. Reid. Textile Inst J Trans 45:T665-77 S '54
Weathering of pyrite. G. E. Mapstone. Chem & Ind p577-8 My 15 '54

WEATHERSTRIPPING

Built like a bee-hive; cone-shaped paperboard construction provides base for winding rubber stripping. il Mod Packaging 28:118-19+ S '54

WEAVER, Sylvester L. 1908-

Moving up to a tough spot; new NBC president. por Bsns W p62+ D 12 '53

WEAVING

Conversion of picks to yards. W. F. Perry, comp. Textile World 103:14-15 Mid-N '53
Crossing of threads in shedding. E. Bradbury and A. P. Worthington. il diags Textile Inst J Trans 45:T421-37 Je '54
Experimental weaving; full-width fabrics from six pounds of yarn. H. F. Tindel. il Mod Textiles Mag 34:36+ D '53
Four ways to reduce broken picks. W. C. Westbrook. il Textile World 104:94-5+ S '54
How to tie the weaver's knot. il Textile World 103:16-17 Mid-N '53
How to weave crepes with one per cent seconds. R. B. Pressley. il Textile World 103:120-2 D '53
1953 review of new equipment. il diags Textile World 103:114-16+ N '53
Ornamentation of apparel fabrics. V. Lobl and E. Waller. il diags Mod Textiles Mag 35:31-2+ S; 36+ O 64-7+ N '54 (to be cont)
Tips for slashing and weaving worsted-synthetics gabardines. E. P. Schremp. il Textile World 104:74-5+ Ag '54
Weave wool and cotton carpets on the same looms. R. B. Pressley. il Textile World 104:126-7+ F '54

See also

Cotton weaving
Looms
Rayon weaving
Shuttles
Woolen and worsted weaving

WEBB and Knapp, inc.

Buys retail unit stock. Comm & Fin Chr 178:392 Ag 3 '53
Newsworthy Webb & Knapp; real estate plus imagination. il Bsns W p 130-3 O 31 '53

WECHSLER, James A.

Post publisher says David stoned Goliath. Ed & Pub 86:13 My 23 '53
Walters refers Wechsler protest to special group. Ed & Pub 86:9+ My 16 '53
Wechsler implores ASNE to speak out eloquently. por Ed & Pub 86:7-8 My 9 '53

WEDDING present insurance. See Insurance, Wedding present

WEDGE hardness test. See Hardness—Testing

WEEDS

Review of pollenosis and the role of weeds. W. C. Spain. bibliog Pub Health Rep 68:885-9 S '53

Control

After a winter of worries; setting up the machinery to put Crag Herbicide-1 into national distribution. il Chem W 72:73-4+ Ap 25 '53
Basal spraying extends season for chemical brush control. L. L. Coulter and K. C. Barrons. il Elec World 140:122-3 N 16 '53
Bid for the garden trade; calcium cyanamide. il Chem W 74:34 My 1 '54
Chemical weed and brush control by contract. il Pub Works 85:67-8 Je '54
Chemical weed killers improve ditch maintenance. W. D. Hogan. il Pub Works 85:95-6 Ag '54
Chemicals reduce cost of highway roadside maintenance. O. A. Deakin. il Pub Works 85:105-6 S '54
Chop or spray the right-of-way. W. T. Bulla and C. E. Upson. il Pet Eng 25:D35-6 Je '53
Cut weed costs with chemicals; Du Pont's Telvar W weed killer. il Steel 135:70-1 Jl 5 '54
Cutting the cost of cutting weeds. C. E. Wright. il Pub Works 85:68 F '54
Hurdles for herbicides; Northeastern weed control conference, New York. il Chem W 74:70+ Ja 23 '54
Industrial weed control. W. S. Jackson. il Soap & Chem Spec 30:160-1+ My '54

WEEDS—Control—*Continued*
Northwest watersheds; algae and weed control. C. C. Casad. il Am Water Works Assn J 46:745-50 Ag '54
Potent weed killer; phenyldimethylurea. Bsns W p82 Ag 8 '53
Selective herbicides and the principles of selective toxicity; abstract. G. E. Blackman. Chem & Ind p425-6 Ap 10 '54
Solving the weed problem. A. E. Carlson. il Pet Eng 25:A45-6+ Je '53
Some new esters of 2,4-dichlorophenoxyacetic acid and their herbicidal activity. C. R. Wagner, C. L. Hamner and H. M. Sell. Am Chem Soc J 75:4861-2 O 5 '53
2,4-D and the law in Texas. Chem W 74:103 Mr 13 '54
Waukegan's weed-free sludge beds. L. A. Conn. il Water & Sewage Works 101:284-5 Je '54
See also
Dichlorophenoxyethyl sulfate

WEEK-end houses
Here's an inexpensive week-end cabin for year-round living. il plan Am Bld 75:188 Ag '53

WEEKLY newspapers. See Newspapers—Weekly newspapers

WEEKLY underwriter (periodical)
Members of staff devoted to paper through the years. L. A. Mack. Weekly Underw 170:1215+ My 15 '54

WEEKS, Lewis G.
Standard's new geology chief. por Oil & Gas J 52:73 Ja 18 '54

WEIGHING
Automatic process control; counting and weighing. il diags Iron Age 172:298-301 O 8 '53
Batch weighing for process control. A. H. McKinney. il diags Mech Eng 75:975-8 D '53
Flexibility extends scope of electric weighing; Republic steel corp. R. G. Watson. il diag Iron Age 172:182-4 N 12 '53
Gilmore completely automatic materials batching system. diag Chem & Eng N 32:3460 Ag 30 '54
High-speed weighing. N. G. Maloney. il diags Mech Eng 75:982-6 D '53
1953 report on recommended specifications for microchemical apparatus. bibliog diags Anal Chem 26:1186-90 Jl '54
See also
Balances

WEIGHING machines
Air jet controls weighing through unique spring assembly. il diag Product Eng 24:168-9 Ag '53
High-speed packager weighs automatically. il diag Machine Design 26:138 Ag '54
Pneumatic weighing and proportioning. diags Comp Air Mag 59:175 Je '54
Robot weigher-counter acts quick on misfills. il Food Eng 26:60 F '54
Sorting, principle of automatic machine may find industrial use; National bureau of standards. Iron Age 173:180-2 F 4 '54
Trend toward automation in automatic weighing and bulk materials handling. I. H. Richardson. il Mech Eng 75:865-70 N '53
Weighing, sorting, statistical control, now automatic. il Food Eng 26:101 F '54
See also
Scales

WEIGHT (physiology)
Experiment with group conferences for weight reduction. A. L. Chapman. Pub Health Rep 68:439-40 Ap '53
Recent investigations on human calorie requirement. R. Passmore. bibliog Chem & Ind p556-60 My 15 '54

WEIGHTS and measures
Formulas useful in determining weights of castings; data sheet. diags Foundry 81:149-50 Jl; 151-2 Ag; 265-6 S; 255-6 O; 203-4 N; 187-8 D '53; 82:173-4 Ja; 175-6 F; 207-8 Mr '54
Report of the thirty-eighth national conference on weights and measures, Washington, May 19-22. U S Nat Bur Stand Misc Pub 209:1-116; pa 40c Supt. of doc. '53
See also
Balances
Electric measurements
Gages
Measuring instruments
Specific gravity

Standards

Precision laboratory standards of mass and laboratory weights. T. W. Lashof and L. B. Macurdy. U S Nat Bur Stand Circ 547 sec 1:1-24; pa 25c Supt. of doc. '54

WEIGHTS and measures, National conference on. See National conference on weights and measures

WEIRS (measuring)
Equation for submerged sharp-crested weirs found applicable to six-in. Parshall flume. J. R. Villemonte and V. N. Gunaji. diags Civil Eng 23:406-7 Je '53

WEISSENBERG photographs. See Radiography

WEIZMANN institute of science
Weizmann institute convocation. il Chem & Eng N 32:66 Ja 4 '54

WELDERS
Welders prequalified for Kansas bridge work. Road & Sts 97:93-4 Ag '54

Training

Atomic energy; Paducah stars welding; training of welders and organization of fabricating shops in building Paducah area project. il Iron Age 172:182-4+ D 10 '53
Training pipe welders. R. D. Berry. il Heating-Piping 25:94-6 D '53

WELDING
Correct welding procedure (cont). L. F. Spencer. Sheet Metal Worker 45:63-4 N; 62-4 D '53
Facts about modern gas cutting and welding. il diags Mill & Factory 54:582 My '54
Foundry repair welding. C. T. Williamsen. il Foundry 82:204 Ja '54
Jigs and fixtures increase welding output. T. J. Wood. il Iron Age 172:138-41 D 10 '53
Maintenance welding in the petroleum industry. D. H. Rasmussen. il diags Welding J 33:213-22 Mr '54
Maintenance welding keeps production moving; Ford motor co. W. G. Patton. il Iron Age 172:168-71 D 10 '53
1954 American Machinist production preview. il Am Mach 98:199-204 Ja 18 '54
Over 6,000 cylinder heads reclaimed by welding. il Ry Loco & Cars 127:52-7+ D '53
Welding in today's and tomorrow's worlds. F. L. Plummer. Welding J 33:579-80 Je '54
Welding notebook. il Iron Age 172:233-4+ D 10 '53
Welding of nickel and high nickel alloys. L. F. Spencer. il diags Sheet Metal Worker 45:65-6+ F; 70-2+ Ap '54
Welding review and forecast. il Iron Age 173:332-3 Ja 7 '54
See also
Brazing
Electric welding
Electric welding, Arc
Gas welding
Hard facing
Oxyacetylene welding
Positioners, Welding
also subdivision Welding or Welding operations under special subjects, e.g.
Airplanes
Aluminum
Bridges
Cast iron
Copper
Magnesium
Piping (power plants)
Shipbuilding
Steel
Steel, Stainless
Steel, Structural
Steel construction
Titanium
Zirconium

Bibliography

Bibliographical bulletin for welding. Published quarterly by Les publications de la soudure autogene, 39, rue d'Amsterdam, Paris 8e
Current welding literature. Published in monthly numbers of Welding journal
New literature. Published in monthly numbers of Welding journal

Cold welding

Cold pressure welding. W. A. Barnes. il Tool Eng 32:75-8 My '54
Cold pressure welding of metals. J. E. Hughes. bibliog il diags Metallurgia 49:15-19 Ja '54
New tool cold-welds aluminum sheet or foil; Utica drop forge & tool corp. il Materials & Methods 39:156+ F '54; Am Mach 98:265 Ap 12 '54

WELDING—Cold welding—*Continued*

Titanium can be cold welded; abstract. J. E. Hughes. Materials & Methods 39:174+ Je '54

Failure

Critical energy rate analysis of fracture strength. G. R. Irwin and J. A. Kies. bibliog diags Welding J 33:sup 193-8 Ap '54

Factors which influence weld hot cracking. W. R. Apblett and W. S. Pellini. il diags Welding J 33:sup83-90 F '54

Hot cracks in weld metal; abstract. K. Kautz. Welding J 33:sup64 Ja '54

How to stop pipe weld failure. il Chem Eng 60:214 N '53

Hydrogen welding's big troublemaker. H. Thielsch. Steel 135:84-5 S 27; 108+ O 4 '54

Investigation of structural failures of welded ships. M. L. Williams and G. A. Ellinger. bibliog(26 titles) il Welding J 32:sup498-527 O '53; Abstract. Metal Prog 66:supA 156+ Jl 15 '54

Poor welds can start brittle fracture. F. J. Feely and M. S. Northup. il plans Steel 134:100-1 Ja 11 '54

Report on brittle fracture studies; storage tank failures. F. J. Feely, jr. and others. bibliog il diags Welding J 33:sup99-109; Discussion. M. Gensamer. sup 109-11 F '54

Welded joints in stainless equipment. Metal Prog 65:79 Mr '54

Patents

Abstracts of current welding patents. V. L. Oldham. Published in monthly numbers of Welding journal

Safety measures

Joint effort promotes safety in welding. N. I. Sax. bibliog Iron Age 172:177-80 D 10 '53

Ten hints for safe welding. S. A. Greenberg. il diags Safety Maint & Prod 106:20-2+ N '53

You have your welding safety rules, but what fire precautions do you take when contractors weld? il Safety Maint & Prod 107:52-3 Je '54

Specifications

Government standards; how a federal specification touched off a chain reaction. S. P. Kaidanovsky. Welding J 33:446-8 My '54

Stresses

Effect of low-temperature stress-relieving on stress-corrosion cracking. C. R. McKinsey. bibliog il Welding J 33:sup 161-6 Ap '54

Effect of reinforcement on performance of weldments. C. E. Hartbower. il Welding J 33:sup 141-6 Mr '54

Heat-treatments of welded structures for relief of residual stresses with particular reference to type 347 stainless-steel weldments. W. L. Fleischmann. bibliog diags A S M E Trans 76:645-8 My '54

New principles for the calculation of welded joints. C. G. J. Vreedenburgh. bibliog il diags Welding J 33:743-51 Ag '54

Oxy-acetylene stress relieving of pressure vessels. H. Kunz. bibliog il diags Welding J 33:sup288-94 Je '54

Solution of a problem; stress-relieving a large welded pressure vessel. il diags Chem Age (Lond) 71:487-9 S 4 '54

Stress distribution and fatigue resistance of Alclad 24ST multiple spot welds. G. Welter and A. Choquet. bibliog diags Welding J 33:sup91-8 F '54

Stress relieving austenitic weldments. Steel 134:100 Mr 1 '54

30-ft diameter all-welded test tank. J. Vasta and F. W. Dunham. bibliog il diags Welding J 33:sup422-32 Ag '54

Study and teaching

Teaching welding design. J. P. Vidosic. bibliog Welding J 33:208-12 Mr '54

Testing

Buckling tests on welded plate girders with stiffeners; abstract. C. Massonnet. Welding J 33:sup 120 Mr '54

Critical energy rate analysis of fracture strength. G. R. Irwin and J. A. Kies. bibliog diags Welding J 33:sup 193-8 Ap '54

Evaluation of notch-bend specimens. P. P. Puzak and W. S. Pellini. bibliog diags Welding J 33:sup 187-92 Ap '54

Inspection techniques for quality welding. L. Gilbert and W. B. Bunn. il Welding J 32:614-19 Jl '53; Discussion. 33:124-7, 323; Reply. 323+ Ap '54

Mobile laboratory for weld testing; Pilgrim mobile units, ltd. Metallurgia 50:33 Jl '54

New principles for the calculation of welded joints. C. G. J. Vreedenburgh. bibliog il diags Welding J 33:743-51 Ag '54

Nondestructive test methods for inspection of welded joints in ship structures. R. J. Krieger and others. Welding J 33:sup 154-60 Mr '54

Nondestructive testing of structures. L. J. Oye. bibliog il Welding J 33:223-33 Mr '54

Ultrasonic testing of chemical plant; W. J. Fraser & co. il Chem Age (Lond) 69:311-15 Ag 15 '53

Weldability of steel as it is considered by Swiss engineers. C. G. Keel. il Metal Prog 65:89-93 Ja '54

X ray inspection

Discussion on the specification for field welding and radiographic inspection of pipe lines. R. G. Strong and J. G. Norton. Am Pet Inst Proc 32(5):42-4 '52

How to cut weld inspection time. A. Gobus. il diag Pet Eng 25:C21+ Je '53; Same cond. Steel 131:72-3 O 27 '52; Excerpts. Product Eng 24:268+ F '53; Power 98:126-7 Ap '54

Inspection techniques for quality welding. L. Gilbert and W. B. Bunn. il Welding J 32:614-19 Jl '53; Discussion. 33:124-7, 323; Reply. 323+ Ap '54

Mobile engineering radiographic unit. il Engineer 196:837-8 D 25 '53

Radiography now used over Canada for inspection of steel. Roads & Eng Constr 92:100 Ag '54

Structural weldment inspection. J. L. Beaton and P. G. Jonas. il Am Soc C E Proc 79 [no 243]:1-7 Ag '53

Supervoltage radiography bows; Van de Graaff unit will photograph weld metal. il Chem & Eng N 32:312 Ja 25 '54

Use Cobalt 60 to check soundness of welds in structurals. il Iron Age 172:208 N 5 '53

Use of X-ray to control weld quality on pipeline construction. H. Hovland. Am Gas Assn Proc 1953:620-3

X-raying ships' hulls made easy with new equipment. il Marine Eng 58:69-70 D '53

WELDING engineers (term)

Human element in welding. R. C. Wiley. il diags Welding J 32:1066-70 N '53

WELDING machines

How to keep your welding equipment on the job. L. J. Murphy. il diags Mill & Factory 53:102-8 D '53

See also

Electric welding machines

WELDING positioners. See Positioners, Welding

WELDING research

Aspects of welding research in British merchant shipbuilding. R. B. Shepheard. bibliog(47 titles) il diags Welding J 33:23-40 Ja '54; Abstracts. Engineering 176:639 N 13 '53; Metal Prog 66:180+ S '54

Behavior of carbon and low-alloy steels between —20 and +650°F. G. H. Enzian. bibliog(59 titles) Welding J 32:sup605-18 D '53

British welding research association; progress. K. Winterton. il Metallurgia 48:187-91 O '53

Design and research for welded structures. L. Grover. bibliog il diags Am Soc C E Proc 79 [no 343]:1-27 N '53

Directionality of mechanical properties in hot-worked steels. A. R. Troiano and L. J. Klingler. bibliog(29 titles) Welding J 33:sup209-17 My '54

Effect of atmospheric contaminants on arc welds in titanium. J. C. Barrett and I. R. Lane, jr. il Welding J 33:sup 121-8 Mr '54

Effect of reinforcement on performance of weldments. C. E. Hartbower. il Welding J 33:sup 141-6 Mr '54

WELDING research—*Continued*

Effects of alloying elements on the weldability of titanium sheet. H. M. Meyer and W. Rostoker. il diag Welding J 33:sup 173-86 Ap '54

Evaluation of superheater materials for high-temperature steam. B. Ronay and W. E. Clautice. il diags Welding J 33:sup 199-206 Ap '54

High-pressure vessels subjected to static and dynamic loads. E. D. Narduzzi and G. Welter. bibliog il diags Welding J 33:sup 230-8 My '54

Investigation of welded rigid connections for portal frames. A. A. Toprac. bibliog il diags Welding J 33:sup40-56 Ja '54

Investigation on peening. P. L. Calamari and others. il diag Welding J 32:sup387-402 Ag '53; Discussion. L. J. Larson. 33:sup76-7; Reply. sup77-8 F '54

Metallurgy of welding. W. I. Pumphrey. il Metallurgia 50:3-9 Jl '54

Nucleation and growth of graphite in steel. F. Brown. bibliog il diag Welding J 33:sup257-61 Je '54

Pressure vessel research in the universities. P. R. Cassidy. Welding J 33:sup70+ F '54

Quasi-Arc's new laboratories opened. il Chem Age (Lond) 70:987-8 My 1 '54

Research of welding arc. M. Ozawa and T. Morita. bibliog diags Welding J 33:sup 280-4 Je '54

Stabilizing austenitic chrome-nickel weld metal against intergranular corrosion. H. C. Campbell. il Welding J 32:sup577-83; Discussion. sup 583-4 D '53

Stresses for pressure vessels and boilers up to 650° F. W. P. Kerkhof. diags Welding J 33:sup239-51 My '54

Study of the cooling rates in flash welds in steel. E. F. Nippes and others. il diag Welding J 33:sup339-62 Jl '54

Transition temperatures of structural steel beams with butt-welded splices. W. J. Krefeld and G. B. Anderson. il diags Welding J 32:sup538-76 N '53

Welding metallurgy of nodular cast iron. E. E. Hucke and H. Udin. il diags Welding J 32:sup378-85 Ag '53; Abstract. Metal Prog 65:174+ F '54; Discussion. Welding J 33:sup217+ My '54

Welding research in the European universities. A. Portevin. Welding J 33:sup98+ F '54

Welding research leads the way toward stronger, more economical structures. L. Grover. il diags Civil Eng 23:517-21+ Ag '53

WELDING rods

Down, but not desperate; welding rod shipments drop for the second consecutive year in 1954. il Steel 135:56 Ag 16 '54

Stainless steel welding rods and bare electrodes. diags Welding J 33:433-7 My '54

Welding rod and electrode charts; producers of rods. Iron Age 172:153-8 D 10 '53

Welding rod pierces stone. il Chem Eng 60:262 Je '53

WELDING shops

Shop design improves welding efficiency; welding building at the Ryan aeronautical co. il Iron Age 172:154-5 Ag 13 '53

Equipment

New welding shop facilities at the Whiting refinery. R. M. Kolb and R. C. Wheeler. il diags Welding J 33:108-14 F '54

Quality control

Quality control in spot welding aluminum. F. H. Matthews. il diags Welding J 32:1181-94 D '53

WELDING society, American. See American welding society

WELFARE work in industry

See also

Employees' benefit plans

Employees' counselors

Medical service, Industrial

WELLAND river

Flood control works. il map diags Engineer 197:233-6, 266-9 F 12-19 '54

WELLESLEY college

Old Wellesley, new architecture. il plans Arch Forum 98:140-5 Je '53

WELLPOINT system

Almendares River tunnel; Miramar cofferdam dewatered by wellpoints. B. J. Prugh. il diags Civil Eng 23:452-3 Jl '53

WELLS

Control of sand in water systems. J. R. Rossum. bibliog il diag Am Water Works Assn J 46:123-32 F '54; Same. Water & Sewage Works 101:114-19 Mr '54

Deep wells plus river water fill big power plant needs; Louisiana power station at north Baton Rouge. A. Kirkpatrick. il plan Eng N 151:28-30+ D 24 '53

Determining the percentage of induced infiltration in multiple-well discharge. E. B. Meier. bibliog maps diags Am Water Works Assn J 46:19-26; Discussion. A. S. Metcalf. 27-30 Ja '54

Eight wells provide water automatically by telemetering. il plan diag Factory Management 112:92-5 S '54

Electrical probe for checking water well levels. R. V. Galloway. il diag Power Eng 58:94 F '54

Getting fresh water for St Augustine. G. B. Arthur. il Pub Works 85:79-80 Jl '54

How can we stop corrosion in well? diags Power 97:131-2+ N '53

Increasing well yields with calgon treatment. L. R. Caplan. bibliog il Water & Sewage Works 100:474-7 D '53

Our wells resist cleaning! Cities service refining corp. E. C. Oden and C. E. Smith, jr. il diags Water & Sewage Works 101:293-8 Jl '54

Site dewatering wells stay put to control uplifts; TVA's big Shawnee steam plant. il Eng N 152:36-7+ Ap 1 '54

Water works practices; source of supply, location and construction of wells. G. E. Symons. diags Water & Sewage Works 101:23-7 Ja '54

Water works practices; source of supply, well capacity and development. G. E. Symons. il diag Water & Sewage Works 101:69-71 F '54

Water works practices; source of supply; well pollution, operation, maintenance. G. E. Symons. il diags Water & Sewage Works 101:103-7 Mr '54

See also

Artesian wells

Petroleum—Well drilling

Water, Underground

Cleaning

Maintaining well production by chemical cleaning. G. L. E. Linn. il Am Water Works Assn J 46:534-40 Je '54

WEST, Clarence Jay, 1886-1953

Tribute. E. J. Crane. Tappi 37:sup 196A S '54

WEST INDIES

Rules for developers. Economist 170:6+ Ja 2 '54

See also

Caribbean region

WEST PENN electric company

Five public utility candidates for higher dividends; with comparative balance sheet items. Mag of Wall St 93:381 D 26 '53

WEST VIRGINIA

See also

Roads—West Virginia

Industries and resources

Upper Ohio resurgence. il map Chem W 73:26+ Ag 22 '53

WEST VIRGINIA coal and coke corporation

Sharp profit rise. Barron's 33:21 S 21 '53

WEST VIRGINIA pulp and paper company

Combination of West Virginia pulp and paper co. and the Hinde & Dauch paper co. Tappi 36:sup94A+ O '53; Excerpts. Comm & Fin Chr 178:710 Ag 24 '53

WESTERN actuarial bureau of Chicago

Reorganization completed. Nat Underw 58:1+ Ap 29 '54

WAB to reorganize as stock fire company association. Nat Underw 58:1+ F 25 '54

WESTERN Canada water and sewage conference
Annual meeting, 5th, Edmonton, Sept. 23-25. Munic Util 91:23-6+ O '53

WESTERN casualty and surety company
Stock offered. Comm & Fin Chr 179:442 Ja 25 '54

WESTERN hemisphere
Minerals and western hemisphere defense. G. W. Malone. Min Cong J 40:23 S '54
Sea power and the western revolution. R. E. Williams. il U S Naval Inst Proc 79: sup 14, 239-49 Mr '53

WESTERN light and telephone company
Stock subscriptions, earnings, etc. Comm & Fin Chr 178:484 Ag 10 '53

WESTERN Massachusetts companies
Stock offering underwritten. Comm & Fin Chr 178:1376 O 12 '53

WESTERN Pacific railroad
Railroad securities. Comm & Fin Chr 178:2459 D 17 '53

WESTERN society of engineers
Annual meeting, Chicago, May 25. Midwest Eng 6:4-6 Jl '53

WESTERN underwriters association
Annual meeting, White Sulphur Springs. Nat Underw 58:2 Ap 15 '54
Semi-annual meeting, 75th anniversary, White Sulphur Springs, W.Va. Sept. 27-29. East Underw 55:50 O 8 '54; Nat Underw 58:1+ S 30 '54

WESTERN union telegraph company
In best operating position in decades. A. J. Heldrich. Barron's 33:15-16 O 26 '53
Western Union, wired for sound progress. I. U. Cobleigh. Comm & Fin Chr 178:1625 O 29 '53

WESTINGHOUSE, George, award in engineering education
George Westinghouse award, 1953, Edward F. Obert. J Eng Educ 44:51-2 S '53

WESTINGHOUSE air brake company
Debentures offered. Comm & Fin Chr 178: 1101 S 21 '53

WESTINGHOUSE electric corporation
Bet on appliances. Bsns W p70+ D 5 '53
Firm moves research center. Midwest Eng 6:20 Jl '53
Five attractive stocks with wide dividend coverage; with comparative balance sheet items. Mag of Wall St 93:675 Mr 6 '54
Westinghouse gives it away; glass plant near Hot Springs. il Bsns W p29 D 26 '53

WESTINGHOUSE science talent search. See Science talent search

WESTON standard cell. See Standard cells

WETTING
Metal-ceramic interactions; surface tension and wettability of metal-ceramic systems. M. Humenik, jr. and W. D. Kingery. il diags Am Cer Soc J 37:18-23 Ja 1 '54
Wettability of halogenated organic solid surfaces. A. H. Ellison and W. A. Zisman. bibliog J Phys Chem 58:260-5 Mr '54
Wetting of fluorinated solids by hydrogen-bonding liquids. A. H. Ellison, H. W. Fox and W. A. Zisman. bibliog J Phys Chem 57:622-7 O '53

WETTING, Heat of
Heat of wetting copper, graphite and silica gel. F. E. Bartell and R. M. Suggitt. bibliog diag J Phys Chem 58:36-40 Ja '54
Heat of wetting of fibres. N. F. H. Bright and others. bibliog diag Textile Inst J Trans 44:T587-95 D '53
Thermistor calorimeter for heats of wetting; entropies from heats of wetting and adsorption data. A. C. Zettlemoyer and others. bibliog diag J Phys Chem 57:649-52 O '53

WETTING agents
Cutting the tension with Aerosol OT-B to check kettle for holes. il Chem W 74:48+ Ap 17 '54
Wet water in clay pugging to improve plasticity. Brick & Clay Rec 123:86 N '53
Wetter water shortens fires. N. H. Davis, jr. il Safety Maint & Prod 106:54-6 D '53
See also
Surface active substances

Testing

Evaluation of wetting agents. L. A. Munro. diag J Chem Educ 31:85-6 F '54

WHALE oil
Whale oil is now produced in factory ships. P. B. Crean. il Can Chem Process 37:42+ D '53
Whale oil production increase expected. Oil Paint & Drug Rep 165:7 Je 21 '54

WHALING vessels
Electrical features of a modern whale catching vessel; abstract. F. Brook. Elec J 152: 371-2 Ja 29 '54
Powerful whaler has Diesel drive and variable propeller. il Marine Eng 59:57-8 Ja '54
Whale-catcher Setter IX; electrical-slip couplings and controllable-pitch propeller. il Engineering 177:374-5 Mr 19 '54
Whale oil is now produced in factory ships. P. B. Crean. il Can Chem Process 37:42+ D '53

WHARVES, Concrete
Pneumatic piles support landship for army's navy. H. T. Perez. il Constr Methods 36: 58-61 Je '54
Tiko wharf, British Cameroons. il Engineer 197:99 Ja 15 '54
Wharf built in dry, floated to place; Alcan's British Columbia hydroelectric aluminum refining project. L. E. Van Houten. il diags Eng N 152:29-30+ Ja 14 '54

WHEAT
Bears of wheat. Economist 169:772-3 D 5 '53
Colombia revises wheat, products trade controls. For Comm W 50:9 Ag 24 '53
Critical wheat situation, Canada. C. M. Short. Banking 46:108 O '53
Deferred price to aid Canadian wheat sales. For Comm W 50:15 N 23 '53
Partial answer to wheat surplus; boulgour. H. H. Humphrey. Chem & Eng N 32:3508+ S 6 '54
Photoperiodic response of some Indian wheats. G. Misra. bibliog Science 118:445-6 O 16 '53
Quality of cereals and their industrial uses; malting of cereals other than barley. R. T. Potter. bibliog Chem & Ind p787-9 Jl 25 '53
Taking a risk in wheat. Economist 168:273-5 Jl 25 '53
Weakness in wheat. Economist 168:472 Ag 15 '53
Wheat. P. C. Mangelsdorf. il Sci Am 189:50-9 Jl '53
Wheat, 1949-1952. Survey of Cur Bsns 1953 Sup p 141-2 [supplemented in monthly numbers]
Whose markets? evidence on some aspects of futures trading. H. Working. J Marketing 19:1-11 Jl '54
Will some of the toughness be taken out of the Food and drug act? Food and drug administration has been ordered to call off a clean-up of box cars and elevators carrying wheat. J. Shoenfeld. Sales Management 70: 82+ Je 15 '53

Diseases and pests

Wheat research; Washington farmers study methods to check spread of smut. Bsns W p 196+ S 26 '53

Prices

Wheat's stable front. Economist 169:129 O 10 '53

Storage

Conditioning wheat for storage on the farm. V. Marvin. il Heat & Ven 51:86 Ja '54

WHEATSTONE bridge
Electronically operated switching device for the elimination of thermal voltage drifts in a recording Wheatstone bridge. W. R. Ward and W. F. Maddams. diags J Sci Instr 31:26-7 Ja '54

WHEELS
Facts about modern wheels and casters. il Mill & Factory 54:273 My '54
See also
Car wheels
Grinding
Locomotives—Wheels
Locomotives, Diesel—Wheels

Manufacture

Supplier metallurgists; metallurgists can be the customers' best friends. il Steel 135:156 S 13 '54

WHEELS, Aluminum
Hot extrusion; better fans made faster by preheating 14S slugs; Garrett corp. il Iron Age 173:134-6 Ja 28 '54

WHEELS, Steel
1.5 per cent carbon cast-steel railroad-car wheels. N. A. Matthews and R. A. Flinn. il diag A S M E Trans 76:617-21 My '54
Thermal checking of wrought-steel railway wheel material. H. R. Wetenkamp. bibliog il A S M E Trans 76:649-54 My '54

Manufacture

Inert-gas welding cuts cost of SAE 1020 dolly wheels; Youngstown steel car corp. D. V. Wilcox. il Iron Age 173:118-19 Ja 28 '54

WHIPPLE, Robert S. 1871-1953
Sketch. por Engineering 176:820 D 25 '53

WHIRLING of shafts. See Shafts

WHISKY
Corby's number two punch; high-spot spectaculars. C. Rertschler. il Sales Management 72:65-6 F 1 54
Our customers taught us a marketing lesson; Southern comfort corp. il Sales Management 71:91-2 Jl 15 '53
Scotch galore? Economist 169:973-5 D 26 '53
Scotch whisky industry freed of controls; no great change seen in export supplies. For Comm W 51:21 Ja 4 '54
Whisky profits diluted. Economist 168:532 Ag 22 '53
See also
Distilling industries

Advertising

Famous artists engaged by Mathes to stress Johnnie Walker quality. il Adv Agency 47:62-3 My '54
How regional brand went national; Dant distillery co. Ptr Ink 243:134+ Ap 17 '53
Story of a Christmas promotion; Early Times and Old Forester whiskies. B. Ryan. il Adv Agency 46:56-8+ D '53

WHISKY bottles
Bottle that could start a battle; Schenley industries' decanter-type bottle. il Bsns W p34 S 12 '53
Decanter boom; whiskies. il Mod Packaging 27:100-4+ D '53
Schenley reveals decanter secrets. R. Letwin. il Sales Management 71:44-6+ N 20 '53

WHISTLES
Whistles for the B&O. il Diesel Power 32:60 Je '54

WHITBY, George Stafford, 1887-
Dr George S. Whitby named Goodyear medalist for 1954. por Rubber Age 75:253 My '54

WHITE, Harry Dexter, 1892-1948
Facts on H. D. White. Bsns W p 196 N 28 '53
Plausible Mr White; great popular fallacies helped him rise to power. Barron's 33:5+ N 30 '53

WHITE
More to meet the eye; wider use of white dyes in light-duty washing products. il Chem W 74:58+ F 27 '54

WHITE collar workers. See Office workers

WHITE motor company
Security I like best; White motor co. 5¼ per cent preferred stock. M. L. Heine. Comm & Fin Chr 178:1214 O 1 '53

WHITE PLAINS, New York
They can't get insurance. Bsns W p 126+ S 12 '53
Why move business to the suburbs? il Eng N 152:45+ Ap 8 '54

Streets

Automatic signal will pay for itself in three years. il plan Pub Works 84:54-5+ N '53

WHITE water. See Paper and pulp mills—Waste

WHITEWARE. See Pottery

WHITING
Research council of the British whiting federation. G. E. Bessey. il Chem & Ind p33-6 Ja 9 '54

WHITNEY, J. H., and company
Venture capital. R. D. Ward. Comm & Fin Chr 178:1844-5 N 12 '53

WHOLESALE distributors association
Annual meeting, 25th, Fort Worth. Dom Eng 183:121 Ap '54

WHOLESALE prices. See Prices, Wholesale

WHOLESALE trade
See also
Jobbers

Accounting

Wholesale and retail merchandising. N A C A Bul 36:157-62 sec 3 S '54

Finance

Fourteen important ratios for 24 wholesaling lines; with tables. Dun's R & Mod Ind 62:68-70 N '53

Statistics

Business inventories; revised estimates, 1950-53 period; with tables. Survey of Cur Bsns 34:17-23 Ja '54
Business sales and orders; revised estimates of manufacturers' and wholesalers' sales and of manufacturers' new and unfilled orders; with tables. Survey of Cur Bsns 33:21-8 D '53
Wholesale trade; estimated sales and inventories, 1949-1952. Survey of Cur Bsns 1953 Sup p54 [supplemented in monthly numbers]

WICKMAN, Carl Eric
Sketch. por Bus Transportation 33:56 Mr '54

WIEDEMANN, H. E.
Half-century honors to Wiedemann. por Chem & Eng N 31:4988 N 30 '53

WIEN bridge
Bridge-stabilized ultrasonic oscillator. L. W. Erath. il diag Electronics 26:174-5 O '53

WIEN radiation law. See Black body

WIENER'S theorem
Generalization of the Wiener-Khintchine theorem to nonstationary processes. D. G. Lampard. bibliog J Ap Phys 25:802-3 Je '54

WIGGINS, Teape and company, limited
Statement by the chairman. L. W. Farrow. Economist 168:214-15 Jl 18 '53

WIGGINS airways
Wiggins loses air carrier certificate. Aviation W 59:88 Jl 13 '53

WIGNER 9j symbol. See Mathematical symbols

WILDROOT company, inc.
Home of Wildroot shampoo. il Soap & San Chem 29:42-5+ Mr '53

WILKES-BARRE

Industries

Industry; Wilkes-Barre wants it. map Iron Age 172:73 Jl 16 '53
Wilkes-Barre gets new industry; new $5 million Foster Wheeler plant. R. L. Hatschek. il Iron Age 172:47 N 26 '53

WILKIE, Robert Campbell
Finding the new approach. R. E. Ellsworth. pors Mod Textiles Mag 35:35+ Mr '54

WILLGERODT reaction
Extensions of the Willgerodt reaction. M. A. Naylor and A. W. Anderson. bibliog Am Chem Soc J 75:5392-6 N 5 '53
Willgerodt reaction applied to α- and γ-alkylpyridines. H. D. Porter. bibliog Am Chem Soc J 76:127-8 Ja 5 '54

WILLIAMS Deacon's bank, limited
Statement by the chairman. E. A. Carpenter. Economist 170:282-4 Ja 23 '54

WILLIAMSON, James, 1881-1953
Sketch. por Engineer 196:305-6 S 4 '53

WILLISTON basin oil exploration company
Stock offered. Comm & Fin Chr 178:523 Ag 10 '53

WILLS
Deviations from terms of will; conditions under which courts allow departure. D. S. Wentworth. bibliog Trusts & Estates 92:720-6+ O '53
Intent of the testator; guides used by courts in construction. W. V. Schaefer. Trusts & Estates 92:716-18 O '53
Planning; why you need a will. Iron Age 174:46-8 S 30 '54
Reciprocal wills inviolate. F. C. Fiechter, jr. Burroughs Clearing House 37:72 Ag '53
Tips in making your will. East Underw 54:13 S 25 '53

WILLS—*Continued*

Where there's a will. Published in monthly numbers of Trusts and estates

Will compromises, joint tenancy, specific performance of fiduciary contracts, interested witnesses to wills; report of ABA committee on fiduciary law and procedure. Trusts & Estates 92:777-86 O '53

Wills; desirability of having a will executed. R. W. Babson. Comm & Fin Chr 178:1623 O 29 '53

See also

Gifts (law)
Perpetuities
Probate law

WILLSON, Thomas Leopold, 1861-1915

Carbide Willson. Can Chem Process 38:6+ F '54

WILLYS motors, inc.

Joining up; Kaiser-Willys Sales division. Bsns W p32 Ag 1 '53

Kaiser, Willys tie the knot tighter. Steel 133:55 Ag 3 '53

UAW union votes out incentives at Willys plant. Steel 134:93-4 Ap 19 '54

WILSON, Charles Erwin, 1890-

Wilson and team; getting results on defense. por Bsns W p28-30 N 21 '53

WILSON, E. Bright, jr.

Harvard chemistry professor given Defense department's highest civilian award. por Chem & Eng N 31:5094 D 7 '53

WINCHES

Line jeep power winch handles 80-ft. poles. V. Bushong. il Elec World 140:118 S 7 '53

WINCHES, Electric

Auxiliary electric drives; selecting cargo-winch drives. A. M. Bruning. il diags Marine Eng 59:64-8 S; 68-73+ O '54

How to keep 'em sailing; operation of the maxspeed cargo-winch system. F. A. Shean, jr. il diags Marine Eng 59:59-66 Ja '54

Winch gear for car-ferry bridge spans. il Engineering 177:25-6 Ja 1 '54; Elec J 152:47-8 Ja 1 '54; Elec R (Lond) 154:20-1 Ja 1 '54

WIND. See Winds

WIND power

Britain tests revolutionary wind generator. diag Power 98:154+ Ja '54

WIND pressure

Effects on structures of winds of hurricane force. H. S. Saffir. il Am Soc C E Proc 79 [no 206]:1-19 Jl '53

Will wind damage your plant? L. J. Murphy. Mill & Factory 55:95 S '54

Wind extremes as design factors. A. Court. bibliog Franklin Inst J 256:39-56 Jl '53

Wind loads on truss bridges. J. M. Biggs. il diags Am Soc C E Proc 79 [no 201]:1-19 Jl '53

See also

Anemometers

WIND tunnels

Bellows; components for Cleveland wind tunnel among largest ever made. il Iron Age 172:169-71 N 19 '53

Big wind; a problem in huge construction; USAF's new propulsion wind tunnel with the largest axial-flow compressor system. G. H. Heiser. il diag Am Mach 98:142-3 Jl 19 '54

Boeing transonic wind tunnel. J. H. Russell and others. il Aero Digest 67:88+ D '53

Calibration wind tunnel. R. C. Nyden. il Instruments & Automation 27:1463 S '54

Diffusers for supersonic wind tunnels. J. Lukasiewicz. bibliog il diag J Aeronautical Sci 20:617-26 S '53

Effect of tunnel configuration and testing technique on cascade performance. J. R. Erwin and J. C. Emery. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:263-77 '52

Handley Page expands facilities. il diag Aviation W 59:34-5 Ag 24 '53

High-altitude and speed propulsion wind tunnels. F. L. Wattendorf and others. il diags Mech Eng 75:789-93 O '53; Discussion. F. L. Wattendorf. 76:197-8 F '54

Improvement of pressure recovery of a fixed diffuser by means of suction. A. M. Patterson. il J Aeronautical Sci 20:430-2 Je '53

Large transonic wind tunnel at Bedford. il Engineer 197:205-6 F 5 '54; Engineering 177:188 F 5 '54

Method for stabilizing the longer period oscillation of a model flying in a closed wind tunnel with freedoms in pitch and heave. E. Larrabee. diag J Aeronautical Sci 20:728 O '53

Model effective span for wind-tunnel wall corrections. A. Pope. J Aeronautical Sci 20:793-4 N '53

Model traces industrial smoking habits. il Chem Eng 61:136 S '54

New high speed wind tunnel powered by turbojet engines; de Havilland aircraft co. il Automotive Ind 111:70-1 Ag 15 '54

Pressure response in supersonic wind-tunnel pressure instrumentation. A. L. Ducoffe. bibliog il diags J Ap Phys 24:1343-54 N '53

Rocket motors for windtunnels? diag Aviation W 59:54 S 14 '53

Testing; jet engine sucks air for wind tunnel tests; Chance Vought Aircraft. il Iron Age 173:170-1 Mr 11 '54

Transonic induction wind tunnel. il Engineer 196:821 D 18 '53

2500-mph wind tunnel provides stud welding's biggest job. il Welding J 33:571-2 Je '54; Same cond. Steel 133:143+ D 14 '53

Upwash correction for an oscillating wing in a wind tunnel. T. R. Goodman. bibliog J Aeronautical Sci 20:383-6+ Je '53

Use of stator-blade control to obtain wide range of compressor performance for wind-tunnel application. A. W. McCoy and M. J. Brunner. bibliog A S M E Trans 76:233-40 F '54

Vought erecting own windtunnel. il Aviation W 59:49 N 30 '53

Wind tunnel combats pollution; NYU conducts studies on small scale models. il Chem & Eng N 32:2697 Jl 5 '54

Wind tunnel design challenges engineers; U.S. air force's new propulsion wind tunnel. il diags Machine Design 26:15-16+ S '54

Wind tunnel for railway research. il Engineering 176:564 O 30 '53

Wind-tunnel investigation of air inlet and outlet openings on a streamline body. J. V. Becker. bibliog il diags U S Nat Advisory Com for Aeronautics 1951:887-907 '52

Wind tunnel tests on seven aerovanes. D. A. Mazzarella. bibliog il R Sci Instr 25:63-8 Ja '54

Wind tunnels and test models are solving today's stack-design problems. R. H. Sherlock. il Power 98:83-5 Ja '54

Power supply

Big new wind tunnel to have an 83,000 hp electric motor. Iron Age 172:180+ S 10 '53

Boeing triples windtunnel power. il Aviation W 58:36 Je 29 '53; Power 97:93 S '53

WIND tunnels, Laboratory

Small wind tunnnel. J. W. Wild and R. W. Nelson. il R Sci Instr 25:932 S '54

WINDING machines

Cone winder features automatic tender and bobbin sorter. il Textile World 104:112 Ap '54

See also

Paper winders

Tension control

Paper tension regulators. G. C. Ehemann and R. C. Berger. diags Tappi 37:49-55 F '54

Tension regulator on Kaiser temper mill. W. R. Harris and L. F. Stringer. il diags Iron & Steel Eng 31:71-8 Ag '54

WINDOW displays. See Show windows

WINDOW frames

Details for windows and door millwork; design standards and data. H. R. Sleeper. diags House & Home 5:151-3 Ap '54

Today's millwork, this way or that; survey of the millwork industry. il diags House & Home 5:140-50 Ap '54

WINDOW frames, Aluminum

Fabricators install extrusion presses for quick service; Watson-Stillman press. W. G. Patton. il diag Iron Age 172:165-7 N 5 '53

Installing aluminum windows in SCR brick walls. diags Am Bld 75:218-20 Ag '53

WINDOW frames, Steel

Installing steel windows in the SCR brick house. diags Am Bld 75:196-200 Mr '53

WINDOW sashes
Tips for caulking, glazing, and painting window sash. Textile World 104:150+ Ag '54

WINDOWLESS construction
New windowless air conditioned plant; C. P. Clare & co. D. R. Dooley. il Heating-Piping 26:89-91 S '54
Windowless plant for making electrodes has air conditioned, sealed interior. il Eng N 151:26 D 3 '53

WINDOWS
Curtain walls and window sizes for new Dallas skyscraper and bank building. il plan diags Arch Forum 99:108-11 S '53
Effect of office windows on design. il Arch Forum 99:118-21 S '53
Facts about modern doors, windows, partitions. diags Mill & Factory 54:376-7 My '54
Fenestration and ground-floor use by developer of Denver's new office center. il plans diags Arch Forum 99:114-17 S '53
Lighting a stained-glass window; data sheet. R. E. Cherne. il plan diag Illum Eng 49:183-4 Ap '54
New modular window of insulating glass. il Eng N 152:150 Ap 8 '54
People want larger windows and more daylight. il House & Home 5:164-5 My '54
Seal edges of two panes of glass to form new insulating window units. il diag Am Bld 76:70 My '54
Self-stacking windows offer variety of design. il Am Bld 75:288-9 Je '53
Solar irradiation of walls and windows, May-September; data sheet. R. F. Quan and F. W. Hutchinson. Heating-Piping 26:130-2 S; 134-6 O '54
Two important new windows bid for popularity. il Am Bld 75:182+ D '53
Windows are integral part of this fireplace; better detail plate. K. R. O'Neal. il plan diags Am Bld 76:152-3 Je '54
Windows designed for an east wall; better detail plate. K. R. O'Neal. il plans diags Am Bld 75:146-7 My '53
Windows, doors, and frames. il diags Am Bld 75:155-6+ Ap '53
See also
Glass
Show windows
Skylights

WINDS
Generation of wind waves on a water surface. C. Eckart. bibliog diags J Ap Phys 24:1485-94 D '53
Gusts and their measurement; abstract. J. Taylor. Engineering 176:765 D 11 '53
Wind velocities during hurricanes. R. C. Gentry. Am Soc C E Proc 79 [no 218]:1-26 bibliog(p25-6) Jl '53
See also
Hurricanes
Tornadoes
Wind pressure

WINDSHIELDS. See Automobiles—Windshields

WINE
Crisis over port; fall in British trade. map Economist 169:969-70 D 26 '53
Dripless wine; polyethylene collar fitted into pouring lip of conventional bottle. il Mod Packaging 27:97 F '54
$1,000 if you can make it drip; Roma's dripless bottle. E. Gidlow. il Sales Management 72:76+ Ap 1 '54
Sales barrier; consumers no savvy old-world wine lingo; new labels on Paul Masson bottles. il Sales Management 72:100-2 Ap 15 '54
Vinous Christmas; consumption in Great Britain. Economist 169:955 D 26 '53
Want salesmen to get more dealer displays? try a contest; California wine industry's point-of-purchase contest. il Sales Management 73:118+ Ag 15 '54

Manufacture

Centrifuges product from waste; Pleasant valley wine co. W. E. Doherty, jr. and others. il Food Eng 26:62-3+ Jl '54
Production streamlined on semicircular line; Mogen David wine corp. J. V. Ziemba. il Food Eng 26:74-6+ Ag '54

WINERIES

Equipment

Centrifuges product from waste; Pleasant valley wine co. W. E. Doherty, jr. and others. il Food Eng 26:62-3+ Jl '54
Production streamlined on semicircular line; Mogen David wine corp. J. V. Ziemba. il Food Eng 26:74-6+ Ag '54

Waste

Disposal of California winery wastes. R. W. Vaughn and G. L. Marsh. bibliog il Ind & Eng Chem 45:2686-8 D '53

WING, L. J., manufacturing company
75th year marked by New Jersey manufacturer of heating, ventilating and combustion equipment. il Heat & Ven 51:132+ Ag '54

WINNIPEG, Manitoba

Water supply

Greater Winnipeg water district's activities of past year. Munic Util 92:21-3+ Je '54

WINOGRADSKY, Sergei Nikolaevitch, 1856-1953
Sketch. S. A. Waksman. Science 118:36-7 Jl 10 '53

WINTER construction
How to build in winter; an on the job study. il Am Bld 75:108-18 O '53
Turn on the heat; portable space heaters. il diag Constr Methods 35:66+ N; 68+ D '53
Use of salt in clay core aids winter dam building. J. B. Hays. il diag Eng N 151:41 Ag 6 '53
See also
Concrete construction in winter

WINTER sports
See also
Skis and skiing

WIPING cloths
New windshield wipe; Scott paper co. il Paper Tr J 138:46 Jl 23 '54

WIRE
Does metallic wire solve my carding problem? R. C. Ashworth, jr. il Textile Res J 24:544-6 Je '54
Mechanics of stress and strain occurring in a Fourdrinier wire. J. D. Lyall. bibliog il diags Tappi 37:207-15; Discussion. 215-16 My '54
Production of fine wires by electrolytic polishing. H. R. Haines and B. W. Mott. diag J Sci Instr 30:459-60 D '53
Wire flattening; a lower-cost narrow strip producer. A. I. Nussbaum. il diags Steel 135:104+ S 6 '54
Wire products industry. Steel 133:58 N 30 '53
Wire skidding equipment. A. Herrgen. Pulp & Pa of Can 55:147 Ap '54
Woven wire slings speed tank handling. il Safety Maint & Prod 107:23 Ja '54

Manufacture

Kerite observes its centennial. il Ry Age 136:38-9 My 3 '54
See also
Wire drawing

Testing

Influence of cold work and heat treatment on the engineering properties of beryllium copper wire. J. T. Richards and others. Am Soc T M Proc 51:77-91 bibliog(35 titles, p790-1) '51
Wire hardness test; Wedge test. L. Small and G. Sevick. il diags Metal Prog 65:107-12 Ap '54

WIRE, Aluminum
Versatile aluminum; wire applications mount for screening, cable, conductors, fencing, fasteners. il Steel 134:62 Mr 1 '54

Manufacture

Aluminum wire by the mile; Kaiser Aluminium's Newark, Ohio plant. il Steel 134:103 Je 28 '54

Testing

Torsional after-effect measurement and applications to aluminum. C. S. Barrett and others. diag J Metals 5:Trans 1655-61 D '53

WIRE, Cadmium

Testing

After-effects in polycrystalline cadmium. C. S. Barrett. J Metals 5:Trans 1652-4 D '53

WIRE, Copper

Copper resistance temperature scale. T. M. Dauphinee and H. Preston-Thomas. R Sci Instr 25:884-6 S '54

WIRE, Gold

Anelastic behavior of pure gold wire. D. R. Mash and L. D. Hall. bibliog il J Metals 5:Trans 937-42 Jl '53

WIRE, Platinum

Fine platinum wire helps spot films on polished surface. il Iron Age 173:145-6 Ap 15 '54; Same. Blast F & Steel Pl 42:799 Jl '54

Rotated and stationary platinum wire electrodes. I. M. Kolthoff and N. Tanaka. bibliog(25 ref) Anal Chem 26:632-6 Ap '54

WIRE, Steel

Formed wire; a new twist at every turn. il Steel 135:55 Ag 23 '54

Guide for steel buyers; coarse round wire, fine round wire. Steel 135:82-7 sec 2 Jl 12 '54

Manufacturer's bright wire; prices, 1934-1953; tabulation. Iron Age 173:412 Ja 7 '54

Performance data; stainless steel wire screw thread inserts in magnesium applications; abstract. P. E. Wolfe. il Metal Prog 66: 184+ Jl 1 '54

Shaped wire; problem solver. R. Warner. il Water & Sewage Works 101:170-1 Ap '54

Steel; alloys will save nickel; abstracts. H. O. McIntire and G. K. Manning. Iron Age 172:100 N 19 '53; Materials & Methods 39: 171-2 Mr '54

Stress corrosion in high tensile wire; abstract. W. O. Everling. Iron & Steel Eng 31:142 Ag '54

Wire skidding comes of age. A. Koroleff. diags Pulp & Pa of Can 55:161-2+ Je '54

Wire thread inserts for magnesium applications. P. E. Wolfe. diags Tool Eng 32:273-5 Ap '54

Manufacture

Colorado Fuel & Iron operations; Palmer-Morgan-Clinton. F. G. Lindstrom. il J Metals 5:1334-7 O '53

Conveyors roll profitable combinations; Steel wire mills division, John A. Roebling's sons corp. il Steel 133:115 N 9 '53

Drawing of steel wire at elevated and subnormal temperatures. F. C. Thompson and others. bibliog diags Iron & Steel Inst J 173:36-51 Ja '53; Abstract. Metal Prog 65: 130+ F '54

Improved hardening technique. E. M. H. Lips and H. Van Zuilen. Metal Prog 66:103-4 Ag '54

Progress of mechanical descaling of rods for wire drawing; symposium. il Steel 133:114+ D 21 '53

Story of wire. R. R. Tatnall. il diag Iron & Steel Eng 30:129-34 D '53

Testing

How cold work, heat treat change properties of 18-8 wire. S. Storchheim. Iron Age 173: 146-8 F 18 '54

How heat treatment affects properties of cold worked 18-8 wire. S. Storcheim. Iron Age 172:112-14 O 1 '53

Nondestructive test gives austenite, martensite percentages. S. Storchheim. il Iron Age 173:108-11 Jl 1 '54

Report of subcommittee XV on field tests of wire and wire products. 2pls Am Soc T M Proc 51:112-25 '51

WIRE cloth

Colorado Fuel & Iron operations; Pacific Coast plants. K. H. Baessler. il J Metals 5: 1342-4 O '53

Colorado Fuel & Iron subsidiaries; American wire fabrics corp. B. L. Weaver. il J Metals 5:1345 O '53

Entrainment eliminators save money. S. C. Reynolds. il Pet Refiner 32:138-40 Jl '53; Same cond. Oil & Gas J 52:117-18+ Ag 10 '53

Good year ahead for welded wire fabric. il Steel 134:60 Ap 26 '54

How iron bacteria is being successfully removed with wire cloth filters. H. A. Ronningen. il Paper Tr J 138:26+ Je 18 '54

Metal belt conveyors for the tough jobs. R. H. Wilcox. il diags Mill & Factory 54: 108-11 Je '54

New jobs for stainless; shock absorbers for electronic equipment. il Steel 134:119 Mr 1 '54

Performance of wire-mesh demisters. O. H. York. il diags Chem Eng Prog 50:421-4 Ag '54

Reinforcing asphaltic concrete with rolled wire fabric. Pub Works 85:134 S '54

Rugged conditions don't faze woven wire belts and they're easy to repair; illustrations with text. Factory Management 112:106-8 Ag '54

Selection, installation and operation of woven wire belts for the glass industry. J. F. Reid. diags Glass Ind 35:260-5 My '54

Steel fabric reinforcing ironed out. il Eng N 152:59-61 Ap 22 '54

Use of wire-mesh sections in asphalt entrainment control in vacuum pipe stills; symposium. diags Oil & Gas J 52:82-7+ N 2; 94+ N 23; 70-3 D 28 '53

Welded wire fabric used in airport paving. il Roads & Sts 97:79+ F '54

Wire fabric reinforces asphalt on pavements. il Constr Methods 36:94-5+ Ja '54

Wire mesh in Texas overlay job. il Roads & Sts 97:78-9 F '54

Wire mesh slings reduce damaging. il Eng N 151:267-8 O 8 '53

Wire; more mesh for roads. T. M. Rohan. il Iron Age 174:56-7 S 2 '54

WIRE cutting

Automatic wire sizing and cutting machine eliminates hand-snipping. il Mach 60:195 Je '54

WIRE drawing

Die cost distribution in wire drawing. N A C A Bul 34:1438-42 Jl '53

Drawing of steel wire at elevated and subnormal temperatures. F. C. Thompson and others. bibliog diags Iron & Steel Inst J 173:36-51 Ja '53; Abstract. Metal Prog 65: 130+ F '54

Packaged rolling mill aids research; Research laboratory of the General cable corp. il Iron & Steel Eng 31:129+ Je '54

Progress of mechanical descaling of rods for wire drawing; symposium. il Steel 133:114+ D 21 '53

Story of wire. R. R. Tatnall. il diag Iron & Steel Eng 30:129-34 D '53

Wire drawing; costing and cost control. T. S. Dudick. N A C A Bul 34:1429-37 Jl '53

Wire drawing; higher speeds, greater problems. J. R. Erbe. il Steel 133:158-60+ N 16 '53

X-ray camera for measuring preferred orientation in wires. A. L. Mackay. il diag J Sci Instr 30:244-5 Jl '53

WIRE drawing machines

Control

Driving and controlling wire drawing machines. J. R. Erbe and H. A. Dickerson. il diags Blast F & Steel Pl 42:1048-52, 1169-77 S-O '54

WIRE forming machines

Carbides; surfacing method downs time in wire mill. Iron Age 174:118-19 Ag 26 '54

Fixture for cropping split rings from coiled wire stock. W. M. Halliday. diags Mach 60: 210-11 Ja '54

Gears in transmission line increase shaft oscillation. L. Kasper. diags Mach 60:208 F '54

Modified eccentric provides rest interval. L. Kasper. diags Mach 60:201-2 Ag '54

Reciprocating cam with half-cycle dwell. L. Kasper. diags Mach 61:203-4 S '54

Safety attachment designed for a reciprocating movement. L. Kasper. diags Mach 60: 206-7 Ja '54

WIRE handling

Conveyors roll profitable combinations; Steel wire mills division, John A. Roebling's sons corp. il Steel 133:115 N 9 '53

WIRE rope

Do you keep books on your rotary drilling lines? charts. Oil & Gas J 52:74-6+ N 23 '53

WIRE rope—*Continued*

Facts about modern fibre and wire rope. il Mill & Factory 54:278 My '54

How to splice a wire rope thimble. il diags Power Eng 58:90-1 Mr '54

How to store wire rope. diag Mill & Factory 54:133 Ap '54

Installation and care of shaft hoist ropes. S. L. Lovett. diags Can Min J 75:64-8 Ag '54

Martensite bad medicine for drilling lines. C. M. Zerr. il Oil & Gas J 52:79-80+ N 30 '53

New reel cuts wire rope costs and installation time. Iron Age 172:136+ S 3 '53

New wire rope pressing system makes time-savings possible. il Mill & Factory 55:137 S '54

Plastic core wire rope; Jones & Laughlin steel corp. il Steel 133:172 N 9 '53

Pressed sleeve eliminates hand splicing; Jones & Laughlin steel corp. il Mach 61:170 S '54

13 steps in reroping today's elevators. W. J. Prise and W. Willeke. il diags Power 98:126-9+ Ja '54

Use and care of wire rope (cont). il diags Oil & Gas J 52:135 My 11; 269 My 25; 117 Je 1; 137 Je 8; 100 Ag 3; 130 Ag 10; 147 Ag 24; 154 S 14 '53

Wire rope can be a way of life. il Bsns W p86-8+ Ag 8 '53

Wire rope should be selected and cared for wisely. T. W. Rodes. il Ind & Eng Chem 45:sup 113A-15A My '53

You can depend on wire rope. il Nat Safety N 70:30-1+ S '54

See also

Cables

Lubrication

How lubrication helps your wire rope live longer. W. I. Lex. Power 98:132-3+ My '54

Lubricant does penetrate wire rope. W. I. Lex. il Coal Age 59:97-9 My '54; Same. Eng & Min J 155:96-8 Je '54

Lubrication multiplies the life of wire rope. il Factory Management 112:132 Ap '54

Wire rope needs proper lubricants. C. M. Larson. il Marine Eng 58:79-80 D '53

Manufacture

Colorado Fuel & Iron subsidiaries; John A. Roebling's sons corp. A. Neroni. il J Metals 5:1346-59 O '53

Safety measures

Wire rope. il Nat Safety N 69:172+ Mr '54

Testing

Dynamic testing of wire ropes and their fasteners. il diags Engineering 176:734-5 D 4 '53

Experimental investigation of torsion in stranded mining wire rope. C. L. Layland and others. bibliog diags Inst Mech Eng Proc (B) 1B no 8:323-36; Discussion. 337-42 '52-53

Lubricant does penetrate wire rope. W. I. Lex. il Coal Age 59:97-9 My '54; Same. Eng & Min J 155:96-8 Je '54

WIRE rope fastenings

Testing

Dynamic testing of wire ropes and their fasteners. il diags Engineering 176:734-5 D 4 '53

WISCONSIN

See also

Paper industry and trade—Wisconsin

Workmen's compensation—Wisconsin

WISCONSIN central railroad company

Wisconsin Central back in private hands. map Ry Age 136:12 Mr 22 '54

WISCONSIN power and light company

Offers new common and preferred shares to stockholders. Comm & Fin Chr 178:806 Ag 31 '53

WISCONSIN university

School of banking at Wisconsin. J. J. McCann. il Banking 46:54-5+ O '53

WITNESSES

Practical pointers as to what trial lawyer should find in investigation file. C. W. Heyl. Weekly Underw 169:342-3 Ag 8 '53

Supervisor on the witness stand. M. J. Wise, jr. Textile World 104:127+ Jl '54

WITTIG, Georg, 1897-

Georg Wittig. R. E. Oesper. por(front) J Chem Educ 31:357-8 Jl '54

WIVES

Job title; housewife. H. W. Jacobson. Personnel J 32:145-6 S '53

WOKER, Gertrud Johanna, 1878-

Gertrud Woker. R. E. Oesper. por(front) J Chem Educ 30:435-7 S '53

WOLFRAM. See Tungsten

WOLFSON, Louis Elwood, 1912-

Industry neophyte puts new zip in old building firm. por Arch Forum 100:39-40 Ap '54

WOLLASTON, William Hyde

Platinum metals exhibition; Wollaston's discovery of palladium commemorated. Metallurgia 48:196-7 O '53

Sketch. G. H. Friese-Greene. por Engineering 176:614-15 N 13 '53

WOLLASTONITE

Cabot's wollastonite product of promise. il Paint Oil & Chem R 117:17 S 9 '54

Proved land of plenty; new plant, modern methods bite into wollastonite deposit in New York. il Chem W 75:36-8 S 11 '54

WOMAN

Bank forums for women; survey of their extent, methods, and results. G. N. Gildersleeve. il Banking 46:64-7 F '54

See also

Advertising—Women, Appeal to

Newspapers—Women's section

Employment

Employed mothers and child care. U S Women's Bur Bul 246:1-92; pa 30c Supt. of doc. '53

Equal pay for equal work in government service. Economist 170:79 Ja 9 '54

Expanding occupational opportunities for women. M. W. Zapoleon. Mo Labor R 76:381-3 Ap '53

Maternity protection in Italy. A. Paroli. Int Labour R 67:156-72 F '53

Older women as office workers. il U S Women's Bur Bul 248:1-64; pa 25c Supt. of doc. '53

Progress toward equal pay in the meat-packing industry. U S Women's Bur Bul 251:1-16; pa 10c Supt. of doc. '53

Silicosis among female workers in the pottery industries. J. T. Noe. il Ind Med 22:255-8 Je '53

Something for the girls; more shapely uniforms for plant and laboratory employees. il Chem W 74:10-11 Ja 2 '54

State hour laws for women. U S Women's Bur Bul 250:1-114; pa 40c Supt. of doc. '53

State laws on the employment of women. E. L. Fisch and M. D. Schwartz. 377p $7.50 The Scarecrow press, 3341 Prospect av, N.W. Washington 7 '53

Status of women in the United States, 1953. L. Furman. U S Women's Bur Bul 249:1-26; pa 15c Supt. of doc. '53

Women employees at Westinghouse electric corp.'s plants and offices; illustrations with text. Iron Age 174:87 S 9 '54

Women's employment in Asian countries. Int Labour R 68:303-18 S '53

Working women. Nat Safety N 69:73+ Mr '54

See also

Minimum wage

Office workers

Servants

also National women's trade union league of America

Bibliography

Bibliography on employment problems of older women. 89p U S Women's bur; pa 35c Supt. of doc. '54

Law

State hour laws for women. U S Women's Bur Bul 250:1-114; pa 40c Supt. of doc. '53

Occupations

Outlook for women as medical X-ray technicians. M. S. Barber and others. il U S Women's Bur Bul 203-8:1-53 bibliog(p52-3); pa 25c Supt. of doc. '54

WOMAN—Occupations—*Continued*

Outlook for women as practical nurses and auxiliary workers on the nursing team. il U S Women's Bur Bul 203-5:1-62 bibliog(p59-62); pa 40c Supt. of doc. '53

See also

Insurance, Life—Agents—Women agents
Insurance women
Women in advertising

Asia

Women's employment in Asian countries. Int Labour R 68:303-18 S '53

WOMEN as bankers

Women in bank careers. H. Kollman. Burroughs Clearing House 38:24+ F '54

See also

Association of bank women

WOMEN as chemists

Counseling women chemistry majors; abstract. E. Cortelyou. Chem & Eng N 32:3837 S 27 '54

Trend to femininity; women in the chemical industry. Chem W 73:15-16 N 28 '53

Women in physics and chemistry. Electrochem Soc J 101:sup 193C Ag '54

See also

deMilt, Clara Marie,
Woker, Gertrud Johanna

WOMEN as executives

Women executives? plenty in Tchambuli! abstract. Management R 43:140-1 Mr '54

WOMEN as physicists

Women in physics and chemistry. Electrochem Soc J 101:sup 193C Ag '54

WOMEN as purchasers

How the home economist can aid in marketing chemical specialties. E. Konnak. il Soap & San Chem 30:134-5+ F '54

WOMEN in advertising

Facts minus frills spell success for all-girl industrial ad agency; Tech adgency. il Ind Marketing 39:110-12 Mr '54

John Hancock's Margaret Divver is advertising woman of the year. Ptr Ink 243:96 Je 19 '53

Why don't women get better breaks in advertising? Adv Agency 47:84-5+ Ap '54

Women in advertising. K. Groesbeck. Adv Agency 46:122 Ag '53

See also

Munro, Leslie

WOMEN in insurance. See Insurance women

WOMEN in the petroleum industry

Women at work. Pet Eng 25:E 1+ S; E20 O; E 1-2 N; E 1-2 D '53; 26:E36-7 Ja '54

WOMEN'S apparel

Advertising

Manufacturer's newsletter to trade gives sales ideas, lauds retail ads; Tabak of California. Ptr Ink 245:60 O 16 '53

WOMEN'S apparel shops

How to make the customers want hidden merchandise; Irene Sargent dress salon. il plan Arch Forum 101:118-19 S '54

How to modernize store interiors; detail plate. K. R. O'Neal. il diags Am Bld 75:148-9 Mr '53

WOMEN'S periodicals

Modes and morals; women's magazine reading. Economist 169:642-4 N 28 '53

Women's magazines show ad discount trend. Sales Management 70:100 Je 1 '53

WOMEN'S trade union league of America, National. See National women's trade union league of America

WOOD

Inspection of wood ladders. L. J. Markwardt. il Nat Safety N 68:24-6+ D '53; diags Safety Maint & Prod 108:12-16+ Jl '54

Problems affecting the wider use of wood as a technical raw material. H. F. Lewis. Paper Ind 35:1115-17, 1213-14; 36:55-7 Ja-F, Ap '54

Selecting durable paints for exterior wood. il Arch Rec 113:190-3 Mr '53

Timber in engineering; report of the Forest products research board with the report of the Director of forest products research for the year 1952. Engineering 176:337-8 S 11 '53

Wood at low temperatures. K. H. Boller. il diags Mod Packaging 28:153-7 S '54

See also

Aspen
Bark peeling
Birch
Bridges, Wooden
Cellulose
Douglas fir
Forests and forestry
Hard woods
Holocellulose
Lignin
Lumber
Lumbering
Oak
Pine
Plywood
Spruce
Wood construction
Wood preservation
Wood pulp

Analysis

Isolation of holocellulose from wood. B. L. Browning and L. O. Bublitz. bibliog Tappi 36:452-8 O '53

Physicochemical study of a water-soluble polysaccharide from black spruce (picea mariana). J. O. Thompson and others. bibliog il Tappi 36:541-3 D '53

Chemistry

Chemical nature of the acetone extractive of western red cedar. G. M. Barton and J. A. F. Gardner. bibliog(26 titles) il Pulp & Pa of Can 55:132-7 S '54

Chemical nature of the extractives from red alder. E. F. Kurth and E. L. Becker. bibliog Tappi 36:461-6 O '53

Chemistry and timber; investigations of properties of wood of Forest products research laboratory. Chem Age (Lond) 69:229-30 Ag 1 '53

Chemistry of extractives from hardwoods; colourless constituents of pterocarpus species. F. E. King and others. Chem Soc J p3693-7 N '53

Chemistry of extractives from hardwoods; coumarin constituents of fagara macrophylla, zanthoxylum flavum, and chloroxylon swietenia. F. E. King, J. R. Housley and T. J. King. Chem Soc J p 1392-9 My '54

Chemistry of extractives from hardwoods; the constitution of jacareubin, a pyranoxanthone from calophyllum brasiliense. F. E. King, T. J. King and L. C. Manning. Chem Soc J p3932-7 D '53

Chemistry of extractives from hardwoods; the constitution of methyl vinhaticoate. F. E. King and T. J. King. Chem Soc J p4158-68 D '53

Chemistry of extractives from hardwoods; the occurrence of a flavan-3 : 4-diol (melacacidin) in acacia melanoxylon. F. E. King and K. Bottomley. Chem Soc J p 1399-403 My '54

Chemistry of the insoluble red woods; pterocarpin and an oxidation product of homopterocarpin. A. Robertson and W. B. Whalley. Chem Soc J p 1440-1 My '54

Chemistry of wood extractives. F. E. King. bibliog(27 ref) Chem & Ind p 1325-8 D 12 '53

Chromatographic separation of hardwood extractive components giving color reactions with phloroglucinol. R. A. Black, A. A. Rosen and S. L. Adams. bibliog Am Chem Soc J 75:5344-6 N 5 '53

Heartwood extractives. R. E. Corbett and D. E. Wright. bibliog Chem & Ind p 1258-9 N 21 '53

Heartwood extractives in digester corrosion. H. MacLean and J. A. F. Gardner. bibliog diag Pulp & Pa of Can 54:125-30 N '53

Hemicellulose A of beechwood (fagus sylvatica). G. O. Aspinall, E. L. Hirst and R. S. Mahomed. Chem Soc J p 1734-8 Je '54

Hemicelluloses of Scots pine (pinus sylvestris) and black spruce (picea nigra) woods. A. R. N. Gorrod and J. K. N. Jones. Chem Soc J p2522-5 Jl '54

Problems affecting the wider use of wood as a technical raw material; wood chemical industry. H. F. Lewis. Paper Ind 35:1115-17 Ja '54

Structure of an arabogalactan from Jeffrey pine (pinus jeffreyi). W. H. Wadman, A. B. Anderson and W. Z. Hassid. bibliog Am Chem Soc J 76:4097-101 Ag 20 '54

Symposium on chemistry of wood and wood constituents; International congress of pure and applied chemistry. Chem & Eng N 31:3463-4+ Ag 24 '53

WOOD—Chemistry—*Continued*

Timber extractives. J. L. Simonsen. Chem Age (Lond) 71:127-31 Jl 17 '54

Wood resources; East north central states. E. G. Locke and K. G. Johnson. bibliog map Ind & Eng Chem 46:478-83 Mr '54

Wood saponins; a preliminary investigation of the saponins from morabukea [mora gonggrijpii (Kleinh.) Sandwith]. R. A. Laidlaw. Chem Soc J p752-7 F '54

See also

Lignin

Decay

Chemical deterioration of wood in the presence of iron. E. Farber. bibliog il Ind & Eng Chem 46:1968-72 S '54

Cooling tower wood maintenance. il Power 98:113-17 F '54

What's new in cooling-tower-wood maintenance. C. L. Blohm and others. il Oil & Gas J 52:78-81+ Ja 11 '54

Wood deterioration in cooling towers. B. L. Browning and L. O. Bublitz. bibliog il Ind & Eng Chem 45:1516-20 Jl '53

Moisture content

New rapid method for determination of the variations in moisture content of pulp bales; abstract. P. Alander and B. C. Fogelberg. Paper Tr J 137:45 D 11 '53

Shrinkage and swelling

New moisture-sensitive element for relative humidity. J. W. Case. il Instruments & Automation 27:1076-7 Jl '54

Resin soaked paper reduces board swelling. il Paper Tr J 138:12 Ap 9 '54

Storage

See Wood storage

Strength

Strengths of American woods; engineering file facts. Materials & Methods 40:135 Jl '54

Testing

Strain gauge bridge for creep tests. L. N. Clarke. diags J Sci Instr 31:300-1 Ag '54

WOOD, Compressed

Two new wood products; compressed wood for compressive strength reconstituted wood for controlled properties. il Materials & Methods 39:145-6 Mr '54

WOOD, Laminated

Laminated ladder stands severe tests. il Nat Safety N 70:76 S '54

Laminated timber arches span 207 ft. il Eng N 151:78 O 8 '53

Laminated timber cantilevers. il diags Arch Forum 98:172 Je '53

Laminated trusses lead the way to cost savings. il plan Am Bld 76:84 F '54

New pattern for patterns; Impreg. il Chem W 74:54+ Je 5 '54; Automotive Ind 111:50-1+ Jl 15 '54

Two new wood products; compressed wood for compressive strength reconstituted wood for controlled properties. il Materials & Methods 39:145-6 Mr '54

Wood laminate used in aircraft tooling. il Aviation W 59:43-4+ N 23 '53

WOOD as fuel

See also

Boilers—Wood firing

WOOD construction

Custom design at repeat-order prices. il plans diags House & Home 4:116-23 Ag '53

Hangar's timber trusses set new span record. il diags Eng N 151:31-2 S 3 '53

Here's a way to get the new look with wood and glass; facade for the specialty sales building of Louis Best, lumber dealer. il plan diags Am Bld 75:219-21 Je '53

Laminated timber arches span 207 ft. il Eng N 151:78 O 8 '53

Laminated timber cantilevers. il diags Arch Forum 98:172 Je '53

Laminated trusses lead the way to cost savings. il plan Am Bld 76:84 F '54

Longer-lasting homes; Wood protection co., Houston, Tex. il Chem W 74:78 Mr 20 '54

Lumber dealer is turning prefabber. il plan House & Home 6:144-7 Ag '54

Lumber dealers display avid interest in Lu-Re-Co panel system. il Am Bld 76:82-6 Jl '54

Nailed trusses prove cheaper than bolted bowstring trusses. diags Eng N 151:35 D 17 '53

Plank-and-beam systems for residential construction; design standards and data. H. R. Sleeper. diags House & Home 5:111-15 Je; 6:152-6 Jl '54

Pole barn construction shrinks square-foot costs. il plan diag Am Bld 75:197-9 Je '53

Research develops truss frames for 1½-story house. il diags Am Bld 75:40+ My '53

Structural applications of plywood. F. F. Wangaard. il diags Arch Rec 113:187-92 My '53

Timber plate girders. il diags Arch Forum 99:145-7 Ag '53

Timber storage shed. il diag Engineer 196:783 D 11 '53; Engineering 176:796-7 D 18 '53

Why don't today's houses use more lumber? il diags House & Home 4:122-33 S '53

Why have all these builders switched to post-and-beam and/or plank-and-beam? il plans diags House & Home 5:98-110 Je '54

Wing-like roof permits natural lighting; office-sales room of the Singer lumber co. of New Orleans. il plans diags Am Bld 75:45-7 S '53

Wood roof trusses can result in savings. il diags Am Bld 75:42-5 Ag '53

Wood structure cuts distribution substation cost. W. Hammond. il Elec World 141:118 Mr 8 '54

See also

Bridges, Wooden

Plywood

WOOD containers

Wood at low temperatures. K. H. Boller. il diags Mod Packaging 28:153-7 S '54

WOOD drying

Drying rate of pulpwood in the woods and in the open. R. S. Millett. il Pulp & Pa of Can 54:166+ N '53

WOOD finishing

See also

Floor finishes

WOOD floors. See Floors, Wood

WOOD flour

Space filler in form of wood flour. Chem W 73:67 Ag 22 '53

WOOD grinders

Application of a miniature grinder to the commercial process. S. A. Collicutt. Pulp & Pa of Can 55:132-3 Jl '54

New system of pocket grinder control. il diag Paper Tr J 138:24-5 Ja 15 '54

WOOD handling

Clark offers Pulploader. il Ry Age 136:49 F 22 '54

Crane with cradles speeds pulpwood operation. il Paper Ind 35:1222 F '54

Handling pulpwood with a belt conveyor. F. D. Whitehead. Pulp & Pa of Can 55:132 My '54; Same abr. il Paper Ind 36:65-6 Ap '54

How wood is handled at the St Regis Jacksonville mill. il Paper Tr J 138:18-20 F 12 '54

Pulpwood flume system. J. R. Fielding. il Tappi 37:113-15 Mr '54

Recovery of wood from block pile. F. W. Johnson. Pulp & Pa of Can 55:106+ F '54

What's wrong with the design and operation of woodhandling in mill yards. G. H. Mikkelborg. Pulp & Pa of Can (Convention no) 55:213-16 [F] '54

Wood procurement and preparation. il Paper Tr J 138:75-81 S 17 '54

Woodyard operations. il Paper Ind 36:141-2 My '54

WOOD preservation

American wood preservers' association 50th annual meeting, Atlantic City, April 26-28. Ry Age 136:44-6 My 3 '54

Deterioration of redwood cooling towers. R. V. Comeaux. bibliog il Am Pet Inst Proc 33(3):308-19 '53; Excerpts. Oil & Gas J 52:343+ S 21 '53; Abstract. Power 97:246+ O '53

Fire-retardant coatings; tests conducted by railroads show value of treated timber. W. E. Barnard. il Nat Safety N 70:38-9+ S '54

Longer-lasting homes; Wood protection co., Houston, Tex. il Chem W 74:78 Mr 20 '54

New lease on life for cooling towers. il Chem Eng 61:120 Ap '54

WOOD preservation—*Continued*

Proper coatings just as important for fiber materials as for metals. L. G. Jones. il Power Eng 58:80-1 F '54

Reasons and methods for timber preservation; abstract and discussion. E. H. Nevard. Chem & Ind p41-2 Ja 9 '54

Solvent recovery from pentachlorophenol-treated wood. M. S. Hudson. bibliog il diag Ind & Eng Chem 45:1576-83 Jl '53

Treating cooling-tower lumber to reduce fungal decay. R. H. Bescher. bibliog Oil & Gas J 52:82-3 Ja 11 '54

What's new in cooling-tower-wood maintenance. C. L. Blohm and others. il Oil & Gas J 52:78-81+ Ja 11 '54

Wood; improving on nature. il Bsns W p75-6+ O 31 '53

Wood preservation in Germany; abstract. G Becker. Chem Age (Lond) 69:29-30 Jl 4 '53

WOOD preservatives

Protecting wood from decay and fire. G. M. Hunt. bibliog il Arch Rec 114:167-71+ D '53

WOOD products

Acids from redwood. Chem Eng 61:158 Ap '54

Making the bark pay; Pacific lumber co. launching line of bark extracts and insulation board. Chem W 74:96 F 20 '54

Timber extractives. J. L. Simonsen. Chem Age (Lond) 71:127-31 Jl 17 '54

Wood resources; East north central states. E. G. Locke and K. G. Johnson. bibliog map Ind & Eng Chem 46:478-83 Mr '54

See also
Cellulose
Fiber board
Lignin

Dictionaries

Wood industries dictionary. N. C. Brown, ed. 42p pa $1.50 Vance pub. corp, Chicago 2 '53

WOOD pulp

Ammonia-base sulfite pulping. W. Q. Hull and others. bibliog flow sheets il Ind & Eng Chem 46:1546-57 Ag '54

Barking and chipping operations. il Paper Ind 36:142-3 My '54

Birch wood as a raw material for pulp manufacture; abstract. W. Jensen. Paper Ind 35:1142 Ja '54

Chemical pulp booms in South. il Chem & Eng N 32:2756-8 Jl 12 '54

Chlorine dioxide pulping of jack pine and black spruce chips. F. G. Hurtubise. Pulp & Pa of Can (Convention no) 55:173-4 [F] '54

Comparison of wood pulping processes. R. H. McKee. Pulp & Pa of Can 55:64-6 F '54

Degradation studies with cotton and wood pulp; abstract. O. Samuelson and others. Paper Ind 35:1346+ Mr '54

Drama of dissolving pulp. F. G. Robinson. il Pulp & Pa of Can 55:72-4 Ap '54

Dye adsorption on wood pulp; effect of pulp processing on specific adsorption. E. F. Thode and others. bibliog Tappi 36:498-504 N '53

Effect of different pulps on the biological activity of phenylmercuric acetate. B. F. Shema and J. H. Conkey. bibliog Tappi 37:294-8 Jl '54

Effect of digester and liquor room operation on pulp washing. W. L. Orr. Tappi 37:162-3 Ap '54

Effects of kollergang treatment of pulps; abstract. H. Schröter. Paper Ind 35:1046 D '53

Emulsion xanthation of cellulose; influence of cold alkali treatment of cotton linters and wood pulp. O. Samuelson and others. bibliog il Tappi 37:236-42 Je '54

50-million tons of pulp needed for world in 1960. Pulp & Pa of Can 55:196+ My '54

Flocculation in flowing pulp suspensions. A. A. Robertson and S. G. Mason. bibliog diags Pulp & Pa of Can (Convention no) 55:263-9 [F] '54

Groundwood pulping. il Paper Ind 36:144 My '54

Heartwood extractives in digester corrosion. H. McLean and J. A. F. Gardner. bibliog diag Pulp & Pa of Can 54:125-30 N '53

High yield pulping; an estimate of the future. C. W. Converse. Tappi 37:sup 156A-7A Mr '54

How dissolving pulp is made at Buckeye's new mill. J. C. W. Evans. il Paper Tr J 138:14-20 Jl 30 '54

How we are doing; economic review of the first eight months of 1954. W. L. Neubrech. Paper Tr J 138:18+ S 10 '54

Improved technique for photomicrographs of pulp and paper fibres. I. Strelis and H. V. Green. bibliog il Pulp & Pa of Can 54:117-20 D '53

Increasing quality and production in high yield kraft and semichemical pulps. W. J. Nolan. Paper Ind 36:148-9 My '54

Influence of fiberizing variables in producing semichemical pulp. F. A. Aflenzer. il Tappi 37:90-6 Mr '54; Excerpts. Paper Ind 36:391 Jl '54

International congress of pure and applied chemistry, 13th, Stockholm; report of papers of group 23 on lignin and pulping. Tappi 37:sup 139A-41A Ja '54

Neutral sulfite semi-chemical pulping; use of hardwoods; pictured flowsheet. Chem Eng 60:242-7 N '53

New unit of chip measurement and practical methods of chip compaction. E. Ericksen. Tappi 37:sup 144A-5A Ag '54

Newest patterns in continuous pulping being set by American box board co. flow diag il Paper Tr J 138:14-18+ Mr 5 '54

Permanence of chemical pulps; abstract. G. van Nederveen and A. H. H. van Royen. Paper Ind 36:210+ My '54

Preliminary survey of chip size. G. N. Kemp and others. Tappi 37:sup 134A-6A Ag '54

Problems affecting the wider use of wood as a technical raw material; wood pulping industry. H. F. Lewis. Paper Ind 35:1213-14 F '54

Progress in Kamyr's continuous cooking. L. A. Lundberg. flow sheet il diag Paper Tr J 138:20-3 Mr 26 '54

Pulp evaluation; comparative study with various laboratory beaters; abstract. T. Ekstam. Paper Ind 35:1346 Mr '54

Pulp industry in 1953, and outlook for 1954. L. P. Turrcotte and others. Paper Tr J 138:40+ Ja 29 '54

Pulpwood ignored in public forest administration. W. S. Bromley. Paper Ind 35:1104+ Ja '54

Raw materials for more paper. Tappi 37:sup 14A+ Ag; sup 14A+ S '54

Recent developments in sulphite and sulphate pulping. H. W. Bialkowsky. Tappi 36:sup 155A-7A N '53

Resistance of Douglas-fir to sulphite pulping. W. H. Hoge. bibliog(38 ref) Tappi 37:369-76 S '54

Semichemical and high-yield chemical pulping of hardwoods with sodium sulphite and sodium bisulphite. R. M. Husband. bibliog Tappi 36:529-34 D '53

Semichemical pulping. il Paper Ind 36:146-7+ My '54

Semichemical pulping advances. J. N. McGovern. Tappi 37:sup 152A-6A My '54

Semichemical pulping at Bathurst. R. J. P. Keswick. Tappi 37:sup 139A-41A Ag '54

Semichemical pulping of southern red oak. D. J. MacLaurin and J. R. Peckham. Tappi 36:557-60 D '53

Suitability of wood pulp for acetylation. J. R. Proffitt and others. bibliog diags Tappi 37:28-32 Ja '54

Sulphate pulp washing at Thilmany. P. H. West and others. il Tappi 37:137-42 Ap '54

Sulfite pulping. il Paper Ind 36:144-6 My '54

Use of polysulfides in cooking maritime pinewood; abstract. R. Berthier. Paper Ind 35:921-2 N '53

What are the basic needs in pulpwood production? E. C. Jahn. Paper Tr J 138:21-2+ Ag 20 '54

Wood pulp; review and reappraisal. L. K. Larson. Pulp & Pa of Can 54:110-14 N '53; Same. Tappi 37:sup81A-6A Ja '54

See also
Paper and pulp mills
Wood grinders

WOOD pulp—*Continued*

Analysis

Carbohydrates in wood pulps by chromatographic analysis; abstract. A. Z. Conner. Pulp & Pa of Can 55:108 Jl '54

Determination of pentosans in highly purified wood pulps. E. D. Smith and L. N. Rogers. Anal Chem 25:931-3 Je '53

Determination of resinous extractives in dissolving pulps; abstract. I. Jullander and B. Olsson. Paper Ind 36:413 Jl '54

Mannan in purified wood pulp and its relation to cellulose acetate properties. H. W. Steinmann and B. B. White. bibliog Tappi 37:225-32 Je '54

Measurement of retention of locust bean gum by analysis of sugar units. H. J. Leech. bibliog Tappi 37:290-4 Jl '54

Orienting study of the effect of the neutral sulphite semichemical cook on the hemicelluloses of aspenwood. D. C. Lea. bibliog(29 ref) il Tappi 37:393-9 S '54

Photometric determination of the solubility of pulp in sodium hydroxide solutions. R. M. Kingsbury. Tappi 37:353-5 Ag '54

Techniques for the determination of pulp constituents by quantitative paper chromatography. J. F. Saeman and others. bibliog(30 ref) il diags Tappi 37:336-43 Ag '54

Bleaching

Development studies on last stage peroxide bleaching of akaline pulps. R. L. McEwen and F. R. Sheldon. flow diags il diag Pulp & Pa of Can 55:109-15 Jl '54

Groundwood bleaching; panel discussion. D. M. Ferguson and others. Tappi 37:sup 169A-72A My '54

High density superbleaching of chemical pulps. F. R. Sheldon and I. C. MacGugan. il diags Tappi 37:sup 164A-8A My '54

How Alaska Pine & Cellulose modernized the Port Alice mill. il Paper Tr J 138:17-22 F 19 '54; Same. Pulp & Pa of Can 55:73-6 Mr '54

See also

Paper making—
Bleaching

Cleaning

Brown stock washing; abstract. Pulp & Pa of Can 55:138 Je '54

Preliminary study of grinder grit in stock. G. C. Arnold and N. S. Grant. il Pulp & Pa of Can 55:133-6 Je '54

Statistics

New peaks for pulp. Chem W 74:92 Mr 13 '54

Pulp, paper, and board in the United States, 1953. W. L. Neubrech. Tappi 37:sup70A+ My '54; Excerpts. Paper Ind 36:58-9 Ap '54

Pulpwood, waste paper, and wood pulp, 1949-1952. Survey of Cur Bsns 1953 Sup p 175-7 [supplemented in monthly numbers]

United States imports of wood pulp from North America and Europe, 1946-1953; tabulations. Tappi 37:sup88A Ap '54

United States production of wood pulp and consumption of wood pulp, pulpwood, and other fibrous materials in the manufacture of paper and board, by kinds, 1953, 1952 and 1951; United States imports, by grades, 1953 and 1952 and by country of origin, 1953; tabulations. Tappi 37:sup86A Ap '54

Testing

Comparison of kraft and neutral sulphite semichemical pulps from birch and maple. D. J. MacLaurin and others. Tappi 36:553-7 D '53

Direct comparison of the silvering and permeability methods of determining specific external surface. H. W. Emerton and others. Tappi 37:55-6 F '54

Pulp evaluation methods; panel discussion. G. G. Cole and others. Tappi 37:sup 172A-6A My '54

Stain technique for differentiating hardwood and softwood mechanical pulps. W. E. Spearin and R. C. Dressler. bibliog Tappi 37:39-42 Ja '54

Standardization of testing procedures; panel discussion. Tappi 37:sup 129A-30A F '54

Strength properties of chlorine dioxide pulps from sawdust. N. Levitin and H. Schwartz. bibliog Pulp & Pa of Can 55:128-31 Jl '54

Suggested test method for the determination of the efficiency of reject removal. G. B. Nicholson, jr. plans diags Tappi 37:sup 150A-5A Ja '54

Transportation

Open side pulpwood car made safe for northern shipments. il Paper Tr J 138:32 Ag 6 '54

British Columbia

Conservation achieved through integration of sawmills and pulp. L. Manley. il diag Pulp & Pa of Can 55:92-5 My '54

Canada

King pin of Canadian economy. Pulp & Pa of Can 54:96-106 D '53

Finland

Woodpulp supply from Finland. E. Erickson. Paper Tr J 138:44 Ja 29 '54

New England

Hardwood pulp in New England. Tappi 37:sup 100A+ Ap '54

Northeastern states

Conference on pulping of hardwoods in the Northeast, Amherst, Mass. Sept. 14. Paper Tr J 138:18+ S 24 '54

Norway

Methods sought to ease Norwegian wood shortage. Pulp & Pa of Can 55:231-2 S '54

Norway pulp and paper industry. Tappi 37:sup 108A+ S '54

Quebec

Quebec's pulpwood resources. P. E. Lachance. bibliog(30 ref) maps Pulp & Pa of Can (Convention no) 55:276-8+ [F] '54

Scandinavia

Higher prices for wood pulp. Economist 168:883 S 26 '53

Wood pulp higher again. Economist 169:845 D 12 '53

Sweden

Slash in Swedish pulp offerings seen. E. P. Nuttall. Paper Tr J 138:45 Ja 29 '54

Sweden's lumber, pulp, and paper industries, 1953. Tappi 37:sup 117A-18A My '54

Sweden's pulp industry. Tappi 37:sup90A Ag '54

United States

Potential pulpwood requirements in 1960. J. H. Vogel. Paper Ind 35:988-91 D '53

Pulpwood production in 1953 and outlook for 1954. W. S. Bromley. Paper Tr J 138:56 Ja 29 '54

Trends in pulpwood supplies in the United States. H. R. Josephson and others. map Paper Ind 35:982-7 D '53

WOOD research

Challenge of wood. J. H. Jenkins. Can Chem Process 38:48+ Ag '54

Conquering cellulose complexities; abstract. I. E. Jullander. Chem & Eng N 32:2976 Jl 26 '54

Fibre technology; critical survey of laboratory wood maceration techniques. J. W. Wilson. bibliog(55 ref) Pulp & Pa of Can 55:127-9 Je '54

Gas adsorption by wood, pulp, and paper. W. R. Haselton. bibliog(26 ref) diag Tappi 37:404-12 S '54

Recent lignin research in Sweden. B. Leopold. Pulp & Pa of Can (Convention no) 55:184-6 [F] '54

Topography, soil, and research. A. Bickerstaff. Pulp & Pa of Can 55:145-6 Jl '54

WOOD saccharification

Cheaper sugar from wood; improvements in Rheinau process. diag Ind & Eng Chem 46:sup 13A+ Mr '54

Wood challenges corn as dextrose source; with cost data. diags Chem Eng 61:138+ F '54

WOOD storage
Timber storage. Nat Safety N 69:182-3 Mr '54

WOOD sugar. See Wood saccharification

WOOD waste
Alloy pigs from hogged fuel. il Chem Eng 60:122+ Je '53
Conservation achieved through integration of sawmills and pulp. L. Manley. il diag Pulp & Pa of Can 55:92-5 My '54
Continuous high-yield kraft pulping of Douglas-fir lumber waste. D. J. MacLaurin and J. F. Whalen. bibliog il Tappi 37:143-7 Ap '54
Glue from tree waste. Chem Age (Lond) 70:1248 Je 5 '54
How chips are handled at Port Townsend. K. M. Shold. il Paper Tr J 137:16+ N 27 '53
Medium board; resin-bound wood chips for use as medium-density plywood core material and structural board; pictured flowsheet. Chem Eng 60:276-9 S '53
New building board development to be manufactured at $750,000 plant; Pack river lumber co. il Paper Ind 36:461-2 Ag '54
New wood, hot-molded from mill waste, is hailed as dawn of new basic industry. House & Home 5:39 Ja '54
Reducing wood waste. C. C. Heritage. Tappi 37:sup 155A-8A Ag '54
Refining of mill wastes for newsprint. R. T. Wetmore. flow sheet il Pulp & Pa of Can (Convention no) 55:175-8 [F] '54
Rosin from Jeffrey pine stump wood. A. B. Anderson. bibliog(27 ref) Tappi 37:316-20 Jl '54
Saving $150,000 a year by selling waste trees. E. J. Knudson. il Pub Works 85:92 My '54
Some effects of extreme chip packing in the sulphite process. A. S. Rosenfeld. Tappi 36:sup 128A-9A O '53
Wood-waste panels. il Mech Eng 75:654-5 Ag '53

See also
Bark
Fiber board

WOODEN bridges. See Bridges, Wooden

WOODEN ships. See Ships, Wooden

WOODLOTS
Farm forestry brightens pulpwood picture. il Pulp & Pa of Can 55:150+ Ag '54
Field meeting on private land forest management, July 21-23. Pulp & Pa of Can 55: 124-6+ Ag '54
Gaylord container corp. tree farms. il Tappi 37:sup 136A My '54
High school woodlot. L. Ringham. Pulp & Pa of Can 55:176+ My '54
MacMillan & Bloedel's Beaufort tree farm. il Tappi 37:sup 114A-15A Mr '54
New study centre in woodlot management. W. H. Brittain. il Pulp & Pa of Can 55: 155-6 Ag '54
Practical farm forestry in Ontario; report of the 1953 Woodlot management field meeting. Pulp & Pa of Can 54:138+ D '53
Pulp and paper company's approach to extension and forestry; with particular reference to tree farms and farm woodlots. J. F. Walker. bibliog Pulp & Pa of Can 55:120+ Ja '54
Surveying southern Ontario's farm woodlots. Pulp & Pa of Can 55:163-4 Ag '54
Tree farms and your future. J. P. Weyerhaeuser, jr. il Paper Ind 35:880-1 N '53

WOODS, Edward Augustus, 1865-1927
Sketch. por East Underw 54:68+ pt 2 S 25 '53

WOODWORKING machinery
Carbide woodworking tools; how to maintain them; illustrated instructions. Mill & Factory 53:112-13 D '53
Design of exhaust systems; hoods for woodworking machinery. F. H. Stebbins. il diags Sheet Metal Worker 45:56-7 Jl '54
Smart and Brown adaptable woodworking machine. il Engineering 177:312 Mr 5 '54
When Rockwell said, here's Deltashop. il Sales Management 70:94+ Je 1 '53

WOODWORKING shops

Lighting

Lighting a woodworking shop; data sheet. W. C. Hoch, jr. il plan Illum Eng 49:18 Ja '54

WOOL
Bilateral asymmetry of the distribution of melanin in pigmented wools and its correlation with fibre crimp. G. Laxer and others. bibliog il Textile Inst J Trans 45: T482-6 Je '54
Crimping of wool fibers. M. Horio and T. Kondo. bibliog il diag Textile Res J 23:373-86 Je '53; Discussion. 23:387; 24:58 Je '53, Ja '54
Directional triboelectric effects of wool and hair. S. P. Hersh and D. J. Montgomery. Textile Res J 24:755-6 Ag '54
Effect of crimp on mechanical properties of wet wool. R. A. O'Connell and A. S. Yeiser. bibliog Textile Res J 24:629-32 Jl '54
Electron microscope examination of wool; fraction resistant to peracetic acid, ammonium hydroxide treatment. B. Manogue and R. L. Elliott. bibliog 2pls Soc Dyers & Col J 69:113-14 Ap '53
Fibre area per unit area of skin in the Ossimi sheep. F. M. Labban. Textile Inst J Trans 45:T716-18 S '54
Frictional properties of the wool fibre. B. Lincoln. bibliog(26 ref) diags Textile Inst J Trans 45:T92-107 F '54
Mill reference data; wool. Textile World 103: 31-5 Mid-N '53
New aspects of the structure of wool. E. H. Mercer. diag Textile Inst J Trans 45:T365-7 Ap '54
Plasticity of wool; variation with type of follicle. R. W. Burley and J. B. Speakman. il Textile Res J 23:702-10 O '53
Purification of wool. J. P. E. Human and J. B. Speakman. il Textile Inst J Trans 45:T 162-5 F '54
Relation between external shape and internal structure of wool fibers. E. H. Mercer. bibliog il diags Textile Res J 24:39-43 Ja '54
Structural details of the surface layers of wool. G. Lagermalm. bibliog il diags Textile Res J 24:17-25 Ja '54
Water-resistant wool; abstract. M. Kolker. Am Dyestuff Rep 43:394 Je 21 '54
Why is wool best for paper machine felts? J. Standish. Paper Tr J 138:21-2 Ja 15 '54

See also
Bleaching—Wool
Dyes and dyeing—Wool
Wool carding and other headings beginning Wool
Woolen and worsted fabrics

Analysis

Comparison of the sulfuric acid and sodium hydroxide methods for the analysis of wool admixed with cotton and viscose rayon. E. Horowitz and J. Mandel. bibliog Am Dyestuff Rep 43:613-15 S 13 '54
Compression extraction method for extracting textile materials. H. W. Wolf and R. S. Rankl. il diag Am Dyestuff Rep 42:617-20 S 14 '53
Determination of the fatty matter in wool by extraction with diethyl ether. F. F. Elsworth and J. Barritt. Textile Inst J 44:P754-9 N '53
Distribution of cystine in the cortex of wool. E. H. Mercer and others. bibliog diag Textile Res J 24:615-18 Jl '54

Blending

Method for the estimation of Fibrolane BX or viscose rayon in blends with wool. A. N. Davidson and R. Preston. Textile Inst J Trans 45:T 142-6 F '54

Chemistry

Disulphide bond reactivity in wool; formation of thiol radicals on exposure to light. G. H. Crawshaw and J. B. Speakman. Soc Dyers & Col J 70:81-2 F '54
Formation of polymers in wool. G. W. Madaras and J. B. Speakman. bibliog Soc Dyers & Col J 70:112-16 Mr '54
Modification of wool by the application of linear synthetic polyamides. D. L. C. Jackson and others. bibliog Textile Res J 24: 624-9, 828-34 Jl, S '54

WOOL—Chemistry—*Continued*

Polymerization of *beta*-propiolactone in wool. W. G. Rose and H. P. Lundgren. bibliog Textile Res J 23:930-6 D '53
Preparation of microbiologically resistant wool by means of chemical modification. H. Zahn and H. Wilheim. bibliog Textile Res J 23: 604-13; 24:26-31 S '53, Ja '54
Reaction between wool and nickelammonium hydroxide; supercontraction of wool fibres in solutions of nickelammonium hydroxide. J. W. Bell and C. S. Whewell. Soc Dyers & Col J 69:491-6 D '53
Reaction of modified keratins with nitroprusside. O. Ripa. bibliog(29 ref) il Textile Res J 23:776-82 N '53
Reaction of wool with N-bromoacetamide and N-bromosuccinimide. C. Earland and D. Raven. bibliog Textile Res J 24:108-12 F '54
Selective absorption of optical antipodes by proteins. W. Bradley and R. A. Brindley. Chem & Ind p579-80 My 15 '54
Solubility in acid as a means of determining changes in wool. H. Zahn and A. Würz. bibliog Textile Inst J 45:P88-92 Mr '54
Solubility of wool in urea-bisulphite solution and its use as a measure of fibre modification. K. Lees and F. F. Elsworth. Soc Dyers & Col J 70:354-5 Ag '54
Some chemical experiments on wools. H. P. Lundgren. Textile Res J 24:342-4 Ap '54
Terminal carboxyl groups of wool keratin. S. Blackburn and G. R. Lee. Textile Inst J Trans 45:T487-8 Je '54

Chlorination

Chlorinating wool; patent. Am Dyestuff Rep 42:769 N 9 '53
Chlorination of wool at long liquor ratios. C. Earland and D. J. Raven. Soc Dyers & Col J 70:185-7 My '54
Nature of the modifications of wool by various chlorination processes and their effect on the wear life of shrink-resistant materials. D. Frishman and M. Harris. bibliog Am Dyestuff Rep 43:174-7 Mr 15 '54; Abstract. Textile World 103:145 D '53

Damage

Some causes of damages to wool fibers; abstract. M. Kehren. Am Dyestuff Rep 43:394-5 Je 21 '54
Tendering of wool goods; abstract. Am Dyestuff Rep 43:38 Ja 18 '54

Felting

Influence of applied forces on the felting of wool. A. K. van der Vegt and G. J. Schuringa. bibliog il diag Textile Res J 24: 99-108 F '54

Measurement

Air-flow method of measuring wool fibre fineness. S. L. Anderson. diags Textile Inst J 45:P312-16 Jl '54
Study of the fibre length distribution in woollen condenser slubbing. F. Monfort. Textile Inst J 45:P568-80 S '54

Moisture content

Adsorption of water by wool; influence of combined acid on the affinity of wool for water. C. H. Nicholls and J. B. Speakman. bibliog Textile Inst J Trans 45:T267-71 Mr '54
Diffusion-controlled sorption of water by wool fibers. N. F. Roberts and A. R. Haly. Textile Res J 24:261-2 Mr '54
Effect of dyeing on the sorption of water vapour by wool. P. Larose. bibliog Soc Dyers & Col J 70:77-81 F '54
Some moisture relations of wool and several synthetic fibers and blends. M. J. Coplan. bibliog(28 ref) il diags Textile Res J 23: 897-916 D '53

Mothproofing

See Mothproofing preparations

Rayon-cotton mixtures

Comparison of the sulfuric acid and sodium hydroxide methods for the analysis of wool admixed with cotton and viscose rayon. E. Horowitz and J. Mandel. bibliog Am Dyestuff Rep 43:613-15 S 13 '54

Shrinkproofing

Application of resins to textiles. A. R. Smith. Soc Dyers & Col J 70:387 S '54
Nature of the modifications of wool by various chlorination processes and their effect on the wear life of shrink-resistant materials. D. Frishman and M. Harris. bibliog Am Dyestuff Rep 43:174-7 Mr 15 '54
New unshrinkable finishes; superior processes for wool using synthetic resins; abstract. A. J. Hall. Am Dyestuff Rep 42:135-6 Mr 2 '53
Polymerisation of a series of vinyl monomers in wool. N. K. Boardman and M. Lipson. bibliog Soc Dyers & Col J 69:335-8 S '53
Preserving wool's softness in shrink-resisting processes; abstract. Am Dyestuff Rep 42: 135 Mr 2 '53
Shrinkproofing and combined mothproofing effects on wool. Am Dyestuff Rep 42:739 O 26 '53
Shrinkproofing wool; acid colloidal solutions of methylated methylolmelamines; patent. Am Dyestuff Rep 43:446 Jl 5 '54
Shrinkproofing wool; alcoholic caustic combined with formaldehyde treatment; patent. Am Dyestuff Rep 43:150 Mr 1 '54
Shrinkproofing wool; patent. Am Dyestuff Rep 43:150 Mr 1 '54
Shrinkproofing wool; polymers of glycidyl esters of unsaturated acids; patent. Am Dyestuff Rep 42:213-14 Mr 30 '53
Shrinkproofing wool with solutions of water-insoluble polyamides; patent. Am Dyestuff Rep 43:214 Mr 29 '54
Unshrinkable wool finish with nylon; abstract. A. J. Hall. Am Dyestuff Rep 43: 217 Mr 29 '54
Wool-shrinkage-control techniques. F. A. Murphy. Am Dyestuff Rep 43:469-70 Jl 19 '54

Testing

Bilateral asymmetric deposition of gold in wool fibers. G. Laxer and D. A. Ross. il Textile Res J 24:672-4 Jl '54
Comparison of wools between and within several breeds of sheep. R. A. O'Connell and H. P. Lundgren. bibliog il Textile Res J 24:677-85 Jl '54
Detection of modification in animal fibers. H. M. Burte. bibliog diags Textile Res J 24:414-25 My '54
Properties of apparel wools; dependence of the physical properties of single fibers on diameter and crimp. T. F. Evans. diag Textile Res J 24:637-43 Jl '54
Relaxation of stretched animal fibres; apparatus for the determination of relaxation curves. G. C. Wood and N. H. Chamberlain. bibliog il diags Textile Inst J Trans 45:T 147-61 F '54
Stress relaxation of fibrous materials; stress relaxation of wool keratin in water and in salt solutions. E. T. Kubu and others. Textile Res J 24:659-62 Jl '54

WOOL carding

Composition wool-card rub aprons increase production and reduce soiling; Bigelow-Sanford carpet co. T. B. Winston. il Textile World 104:96+ Mr '54

WOOL fat

Determination of the fatty matter in wool by extraction with diethyl ether. F. F. Elsworth and J. Barritt. Textile Inst J 44: P754-9 N '53
Protection of mild steel by films of lanolin. E. G. Stroud and J. E. Rhoades-Brown. il J Ap Chem 3:287-8 Je '53
Protection of mild steel by films of lanolin. L. Whitby. Chem & Ind p974 S 12 '53
Saponifying lanolin. Soap & San Chem 29: 69+ Jl '53
Wool wax; the constitution of the aliphatic diols. D. H. S. Horn and F. W. Hougen. Chem Soc J p3533-8 N '53
Wool wax; the constitution of the α-hydroxy-acids derived therefrom. D. H. S. Horn and others. Chem Soc J p 177-80 Ja '54
Wool wax; the synthesis and stereochemistry of the straight-chain α-hydroxy-acids. D. H. S. Horn and Y. Y. Pretorius. Chem Soc J p 1460-4 My '54

WOOL fat—*Continued*

Analysis

Estimation of cholesterol and triterpenols in unsaponifiable fraction of wool wax. H. Duewell. bibliog Anal Chem 25:1548-50 O '53

Isolation of a new fraction from wool wax acids. J. Radell, A. Eisner and E. T. Donahue. bibliog Am Chem Soc J 76:4188-9 Ag 20 '54

Spectrophotometric determination of cholesterol and triterpene alcohols in wool wax. F. E. Luddy, A. Turner, jr. and J. T. Scanlan. bibliog Anal Chem 25:1497-9 O '53

WOOL industries research association

Wool industries research association. A. B. D. Cassie. bibliog il Chem & Ind p 1138-43 O 24 '53

WOOL research

Action on wool fibers of strong solutions of urea containing reducing agents. E. H. Mercer. bibliog il Textile Res J 24:835-41 S '54

Adsorption of water by wool; influence of combined acid on the affinity of wool for water. C. H. Nicholls and J. B. Speakman. bibliog Textile Inst J Trans 45:T267-71 Mr '54

Creep of wool fibres in water. M. Feughelman. Textile Inst J Trans 45:T630-41 Ag '54

Device for the rapid determination of tangents to stress-relaxation curves of single wool fibres; tangentometer. W. J. Thorsen. il Textile Res J 24:130-1 F '54

Effect of ortho-chlorophenol on wool. H. M. Appleyard and C. M. Dymoke. il Textile Inst J Trans 45:T480-2 Je '54

Effect on wool of boiling in aqueous solutions. R. V. Peryman. bibliog(42 ref) Soc Dyers & Col J 70:83-92 F '54

Properties of apparel wools. T. F. Evans; H. M. Burte. bibliog diags Textile Res J 24: 637-43, 716-28 Jl-Ag '54

Properties of apparel wools; physical properties of single fibers. T. F. Evans and D. J. Montgomery. bibliog diags Textile Res J 23:689-701 O '53

Relationship between various parameters of a load-elongation curve. J. Lindberg. bibliog Textile Res J 23:683-9 O '53

Structural details of the surface layers of wool. G. Lagermalm. bibliog il diags Textile Res J 24:17-25 Ja '54

Wool industries research association. A. B. D. Cassie. bibliog il Chem & Ind p 1138-43 O 24 '53

Wool research and the launderer; abstract. Am Dyestuff Rep 43:79 F 1 '54

WOOL scouring

New test for scourability of spinning oil; committee on processes of continuous wool scouring. il Am Dyestuff Rep 43:262-5+ Ap 26 '54

Practical aspects of grease-wool scouring. R. E. Wolfrom. Am Dyestuff Rep 43:372-9 Je 7 '54

Scouring considerations in the wool industry; abstract. Am Dyestuff Rep 42:765 N 9 '53

Soap for wool scouring. J. L. Boyle. il Soap & San Chem 29:36-9 Jl '53

Some aspects of detergency and detergent testing. R. E. Wolfrom and A. C. Nuessle. bibliog il Am Dyestuff Rep 42:753-62 N 9 '53

WOOL trade

Good year for wool. Economist 168:53+ Jl 4 '53

Stable wool prices seen despite light U.S. buying. Barron's 33:27-8 D 21 '53

Wool season opens cautiously; world market Economist 168:660 S 5 '53

World wool output at record level. For Comm W 50:16 Ag 31 '53

See also
American woolen company

Statistics

Wool and manufactures, 1949-1952. Survey of Cur Bsns 1953 Sup p 189-90 [supplemented in monthly numbers]

Great Britain

Economics of modern wool marketing. S. R. Blackley. Textile Inst J 45:P337-40 Jl '54

Outlook for wool. Economist 170:121 Ja 9 '54

Israel

Experiences on a United nations assignment in Israel. S. Kershaw. Textile Inst J 45: P328-36 Jl '54

WOOL wax. See Wool fat

WOOL workers. See Woolen and worsted mills —Employees

WOOLEN and worsted fabrics

Heller's wool jersey; from fiber to finished fabric. J. H. Blore. il Textile World 104:80-3 Jl '54

See also
Carpets

Mixtures

Fabric uniformity from top blending of wool with rayon or nylon. A. R. Macormac and H. H. Reed. bibliog Textile Res J 23:842-7 N '53

How to dye wool-synthetics blends. H. Luttringhaus. Textile World 104:88-9 Ag '54

Some moisture relations of wool and several synthetic fibers and blends. M. J. Coplan. bibliog(28 ref) il diags Textile Res J 23: 897-916 D '53

Tips for slashing and weaving worsted-synthetics gabardines. E. P. Schremp. il Textile World 104:74-5+ Ag '54

Protection

See also
Mothproofing preparations

Shrinkage

Educational order trial on 10.5-ounce shrink-resistant wool flannel shirting. L. I. Weiner and F. J. Rizzo. Am Dyestuff Rep 42:125-34 Mr 2 '53

Here's a round-up on washable woolens. E. A. Murray. Textile World 104:87-8 S '54

Influence of applied forces on the felting of wool. A. K. van der Vegt and G. J. Schuringa. bibliog il diag Textile Res J 24: 99-108 F '54

Influence of fiber length on the milling shrinkage of wool cloths. A. Johnson. Textile Res J 23:937 D '53

Relaxation shrinkage of woven wool fabrics during soaking in water and Hoffman pressing. A. N. Davidson. Textile Inst J Trans 45:T323-47 Ap '54

Shrinkage of wool; new Australian treatment prevents felting. Chem Age (Lond) 67:784 My 23 '53

See also
Wool—Shrinkproofing

Testing

Relaxation shrinkage of woven wool fabrics during soaking in water and Hoffman pressing. A. N. Davidson. Textile Inst J Trans 45:T323-47 Ap '54

WOOLEN and worsted finishing

Answers on finishing wool-synthetics blend. C. S. Whewell. Textile World 104:90 My '54

Chatham's modernized finishing plant. M. London. il Textile World 104:94-5+ Jl '54

Here's a round-up on washable woolens. E. A. Murray. Textile World 104:87-8 S '54

WOOLEN and worsted machinery

Details of Roto-Drafter released by Whitin. il Textile World 124:137 Mr '54

Why top-breaking machines are a logical development. J. H. Kennedy, comp. il Textile World 104:81-6 Ja '54

WOOLEN and worsted manufacture

Experiences on a United Nations assignment in Israel. S. Kershaw. Textile Inst J 45: P328-36 Jl '54

Properties of apparel wools; aging of top and roving produced on the French worsted system. H. M. Burte. bibliog diags Textile Res J 24:716-26 Ag '54

Properties of apparel wools; physical properties of single fibers. T. F. Evans and D. J. Montgomery. bibliog diags Textile Res J 23: 689-701 O '53

Properties of apparel wools; the mechanical behavior of roving. H. M. Burte. Textile Res J 24:726-8 Ag '54

WOOLEN and worsted manufacture—*Cont.*

This New England mill runs full time on washable woolens; Carleton woolen mills. R. C. Scott. il Textile World 104:118-19 Mr '54

WOOLEN and worsted mills

Nation's largest wool processor plans plant in South Carolina; Nichols & co., inc. Manuf Rec 123:35 F '54

South Carolina to get second wool combing mill. Manuf Rec 123:33 Ap '54

See also

Carpet factories

Electric equipment

Electricity in the wool-textile industry; abstract. A. J. Francis and T. H. Carr. Engineering 177:161 F 5 '54

Wool textile industry; abstract. A. J. Francis and T. H. Carr. Elec R (Lond) 154:151-2 Ja 22 '54; Discussion. 154:190 Ja 29 '54; Elec J 152:361-2 Ja 29 '54

Employees

Forstmann apprentice program pays off over the years. R. C. Scott. Textile World 104:81-3 Mr '54

Equipment

How a modern piping system was insulated; A. D. Ellis mills. H. E. McGregor. il Textile World 104:121+ Ja '54

See also

Woolen and worsted machinery

Lighting

Lighting for burling and sewing (mending); woolen and worsted textile mills. il diags Illum Eng 49:60-2 Ja '54

Power

Power and steam for Stevens' woolens. F. C. Hatch. il Power Eng 58:68-9 Ja '54

Quality control

Possibilities for systematic control in wool yarn production. G. H. Thorndike and A. Brearley. bibliog Textile Inst J 44:P794-805 D '53

WOOLEN and worsted printing

Mélange or Vigoureux printing. F. Buxtorf and A. Wiazmitinow. bibliog il diag Soc Dyers & Col J 69:550-4; Discussison. 554-6 D '53

Modern Vigoureux printing produces uniform, fast colors. il Textile World 104:79+ Ag '54

WOOLEN and worsted spinning

Drafting on the woollen mule. J. Angus and J. G. Martindale. Textile Inst J Trans 45:T363-4 Ap '54

Woolen and worsted spun yarn in hosiery. E. W. Munz. Am Dyestuff Rep 43:266-9 Ap 26 '54

WOOLEN and worsted weaving

Supervisors constantly follow up weaving operations at Chatham mfg. co. R. B. Pressley. il Textile World 104:91-3+ Jl '54

WOOLEN and worsted yarn

How the system of yarn manufacturing, as well as the fiber's physical properties, affect the characteristics of yarn. J. B. Caron. Am Dyestuff Rep 43:438-41+ Jl 5 '54

Possibilities for systematic control in wool yarn production. G. H. Thorndike and A. Brearley. bibliog Textile Inst J 44:P794-805 D '53

Use of coloured fibres in yarns. H. Beevers. il Textile Inst J 45:P462-77; Discussion. P477-9 Ag '54

Woolen and worsted spun yarn in hosiery. E. W. Munz. Am Dyestuff Rep 43:266-9 Ap 26 '54; Abstract. Mod Textiles Mag 34:82 N '53

Testing

Comparison of the variance-length curves given by the Zellweger instrument and by cutting and weighing. P. Grosberg and R. C. Palmer. Textile Inst J Trans 45:T303-9 Ap '54

Determination of the *B-L* curve by cutting and weighing. P. Grosberg and R. C. Palmer. il diags Textile Inst J Trans 45:T291-302 Ap '54

Use of the Zellweger irregularity tester in finding the variance-length curve of worsted yarn. P. Grosberg and R. C. Palmer. diags Textile Inst J Trans 45:T275-90 Ap '54

WOOLWORTH, F. W., company

Woolworth wants to see your wares. il Sales Management 73:44-6 Ag 1 '54

WORCESTER pressed steel company

Approaches to to-morrow. C. C. Higgins. il Dun's R & Mod Ind 62:1+ O '53

WORDS

Concrete's etymological offspring. Am Concrete Inst J 25:894-7 Je '54

See also

Advertising copy—Language, style, etc.

English language

Technical writing

WORK

See also

Labor and laboring classes

WORK clothes

Fringe benefits to wear; chemical plant worker. il Chem W 73:67-8+ O 31 '53

Something for the girls; more shapely uniforms for plant and laboratory employees. il Chem W 74:10-11 Ja 2 '54

What acid water does to mine clothes; how one company solved an annoying problem. il Eng & Min J 155:90-1 Je '54

See also

Clothing, Protective

WORK function

Measurement of the effect of chlorine treatment on the work function of titanium and zirconium. H. Malamud and A. D. Krumbein. diag J Ap Phys 25:591-2 My '54

Work function in field emission; chemisorption. R. Gomer. bibliog diags J Chem Phys 21:1869-76 O '53

Work functions of gas-coated tungsten and silver surfaces. G. L. Weissler and T. N. Wilson. bibliog diag J Ap Phys 24:472-5 Ap '53

WORK gloves

Advertising

Uses consumer mail-order ads to build distribution; Riegel textile corp. il Ptr Ink 243:47 My 15 '53

WORK hardening. See Hardening

WORK sampling

Studying a job by work sampling. il Bsns W p58-62 D 12 '53

Work sampling; simple method based on probabilities aids in work analysis; abstract. C. L. Brisley. Iron Age 172:270 N 12 '53

Work-sampling technique. A. J. Rowe. bibliog plan A S M E Trans 76:331-5 F '54

Work sampling without formulas; alignment charts. J. M. Allderige. Factory Management 112:136-8 Mr '54

WORK simplification. See Efficiency, Industrial

WORKING papers. See Accountants—Working papers

WORKMEN'S compensation

Compensation aspects of the rheumatic diseases. W. M. Weeden. Ind Med 22:303-4 Jl '53

Industrial noise; legal problems. N. S. Symons. Factory Management 111:114-17 D '53

Legislative proposals to liberalize workmen's compensation law benefits. East Underw 55:34+ F 5 '54

Liberalize workmen's compensation laws in 28 states through 1953 legislation. Nat Underw 57:16 Ag 6 '53

Medical coverage for the injured worker; abstract. Management R 42:679 N '53

Neuroses and compensation; chronic psychiatric disorders following injury or stress in compensable situations. A. D. Pokorny and F. J. Moore. A M A Archives Ind Hygiene & Occup Med 8:547-63 bibliog (79 titles, p560-3) D '53

Noise; day of reckoning dawning; guinea pig industrial deafness case victory for labor. T. Metaxas. Iron Age 172:67 O 22 '53

Rundown on workmen's compensation plans in state legislatures. Nat Underw 58:23 Mr 25 '54

WORKMEN'S compensation—*Continued*

Seek comparative workmen's compensation data from ten states. Nat Underw 58:6 Mr 4 '54

State-by-state summary of trends in workmen's compensation; six states. East Underw 55:60 O 8 '54

Study of international compensation urged. F. G. Sterritte. East Underw 55:27 O 1 '54

What's the law? H. M. Grosman, ed. Safety Maint & Prod 106:42-6 O; 38-40 N; 30-2+ D '53; 107:56-7 Ja; 40+ F; 37-8 Mr; 44-5 Ap; 44-6 My; 56-8 Je; 108:37 Jl; 64-5 Ag; 26 S; 77-8 O '54

See also

Accidents, Industrial
Insurance, Employers' liability
Insurance, Workmen's compensation

New Jersey

Occupational diseases under New Jersey Workmen's compensation act. H. M. Grosman, ed. Safety Maint & Prod 106:30-2+ D '53

New York (state)

Compensation report for Governor Dewey; revised hearing procedure. A. O. Dawson. East Underw 55:38-9 Ap 9 '54

Compensation survey under way in New York state. Weekly Underw 170:657 Mr 13 '54; Same abr. East Underw 55:37 Mr 5 '54

Workmen's compensation law in New York 40 years old. M. H. Donlon. East Underw 55:27 Jl 2 '54

Workmen's comp; why is it so high? hearings held last week in New York city. Eng N 151: 58 D 24 '53

Zucker compensation report maintains early referral in key to rehabilitation. East Underw 55:28 Jl 9 '54

Ontario

Compensation for the chemical worker in Ontario. Can Chem Process 38:33 Ja '54

United States

Workmen's compensation in the United States. M. D. Kossoris. Mo Labor R 76: 359-66 Ap '53; Same. U S Bur Labor Statistics Bul 1149:1-45; pa 30c Supt. of doc. '54

Wisconsin

No wage loss, no award in plant deafness cases; changes in Wisconsin law. Dun's R & Mod Ind 62:182 O '53

WORKMEN'S compensation insurance. See Insurance, Workmen's compensation

WORKSHOPS, Home

Make the workshop part of the family room. il Am Bld 76:141 My '54

Versatile home workshop tool redesigned; Mark 5 Shopsmith. il diag Machine Design 26:132-3 Ag '54

You, too, can do it yourself; possibilities for metalworkers in this fast-expanding market are nearly unlimited. il Steel 134:54-5 Mr 1 '54

WORLD federation of trade unions

Communist trade unions' plans. Economist 169:165 O 17 '53

Moscow's bid for the trade unions. Economist 169:337-8, 427-8 O 31-N 7 '53

WORLD health organization

Nature of the World health organization. H. V. Hyde. Pub Health Rep 68:601-5 Je '53

Two cooperative projects of WHO and UNICEF. S. M. Keeney. Pub Health Rep 68:606-8 Je '53

US group will review WHO's drug standards. Oil Paint & Drug Rep 165:7 Ap 19 '54

WHO gives accounting of its name proposals. Oil Paint & Drug Rep 165:5+ F 8 '54

WHO says it intends no standards secrecy. Oil Paint & Drug Rep 164:5+ O 26 '53

WHO tuberculosis research office. I. C. Yuan and C. E. Palmer. bibliog Pub Health Rep 68:678-86 Jl '53

WORLD politics

Adenauer's victory and European unity. M. Palyi. Comm & Fin Chr 178:1421+ O 15 '53

Britain's responsibility in the free world. R. Makins. Comm & Fin Chr 178:452+ Ag 6 '53

Corrosive myth; Labour party's statement on foreign policy. Economist 169:1-3 O 3 '53

From cold war to hot peace. M. Palyi. Comm & Fin Chr 178:2363+ D 17 '53

Inside view of the United nations; Security council countries. W. A. Robertson. Comm & Fin Chr 178:1+ Jl 2 '53; Discussion. 178: 253+, 345+, 439+, 531+, 623+, 720-1+ Jl 23, 30, Ag 6, 13, 20, 27 '53

Out-manœuvred; comment on latest Soviet note. Economist 169:721-2 D 5 '53

Red peril on the wane! G. Kennan. Comm & Fin Chr 178:627+ Ag 20 '53

WORLD war, 1939-1945

Economic aspects

War economies; a comparative study; Korean war and World war II. S. E. Harris. Dun's R & Mod Ind 62:177-8 S '53

Naval operations

Sinking of the Sidney. J. von Gösseln. il U S Naval Inst Proc 79:250-5 Mr '53

War criminals

Denmark remembers; release of four Danes protested. Economist 170:245 Ja 23 '54

Pacific ocean

Rendezvous in reverse. E. T. Layton. il diag U S Naval Inst Proc 79:478-85 My '53

WORM gearing. See Gearing, Worm

WORMS

Isolation of *n*-octanyl alcohol from a marine tube worm. D. R. Idler and U. F. M. Fagerlund. bibliog Am Chem Soc J 75:6312 D 20 '53

Steam-volatile fatty acids from a marine tube worm. D. R. Idler and U. H. M. Fagerlund. bibliog Am Chem Soc J 76:3594-5 Jl 5 '54

See also

Annelids

WORMS, Intestinal and parasitic

See also

Anthelmintics

WORTHINGTON, William P.

Sketch. C. Axman. por East Underw 54:3-4 O 2 '53

WORTHINGTON corporation

Security I like best. W. A. Casey. Comm & Fin Chr 178:438 Ag 6 '53

Worthington builds for a new market; sees big potential in home air conditioning. il Bsns W p 120+ N 28 '53

WORTHITE

Worthite; corrosion resistance. W. E. Pratt. il Chem Eng 60:264+ N '53

WOUNDS

Method for the quantitative study of surface wounds. F. Homburger. Science 118:272-3 S 4 '53

See also

Hand—Wounds and injuries

WRANGELL, Mount

Mount Wrangell observatory. S. A. Korff. Science 118:420 O 9 '53

WRAPPING machines

New tear-tape possibilities; Lever bros. machine attachment. il diag Mod Packaging 27:85-7 Ag '54

See also

Bundling machines

WRAPPING materials

See also

Aluminum foil
Cellophane
Cryovac containers
Paper, Waxed
Paper board
Parchment paper
Plastic films
Wrapping paper

WRAPPING paper

Branded industrial wraps. il Mod Packaging 27:169-71 Mr '54

WRATHER, William Embry, 1883-

W. E. Wrather wins Fritz medal. por Min Eng 5:1135 N '53

WRENCHES

Impact wrench calibration important in structural assembly; Bethlehem Pacific coast steel corp. il Iron Age 172:254+ N 12 '53

Warner & Swasey redesigned power chuck wrench unit for new turret lathes. il Am Mach 98:184 Je 21 '54

WRENS

Wrens enlisted in fight on filter flies. R. Binder. il Sewage & Ind Wastes 26:921-2 Jl '54

WRIGHT, Frank Lloyd, 1869-

Church designed and built in the attitude of prayer; meeting house of the First Unitarian society of Madison, Wis. by F. L. Wright. il plan diag Arch Forum 97:85-92 D '52

F. L. Wright and 1,000,000 houses a year; home of E. V. Brown, Kalamazoo. il plans diag House & Home 3:105-13 Mr '53

F. L. Wright, at 84, still fighting. pors Bsns W p30-1 O 17 '53

F. L. Wright builds in the middle of Manhattan. il plans House & Home 4:118-21 N '53

F. L. Wright's concrete and copper skyscraper on the prairie. Arch Forum 98:98-105 My '53

House by F. L. Wright for Mr and Mrs Herman T. Mossberg. il plans House & Home 2:66-73 D '52

Language of organic architecture. por Arch Forum 98:106-7 My '53

New desert house for his son is a magnificent coil of concrete block. House & Home 3:99-107 Je '53

New house by F. L. Wright opens up a new way of life on the old site. il plans House & Home 4:122-7 N '53

Planning lesson from F. L. Wright; how big can a tiny house be? il plans House & Home 5:98-105 Mr '54

Sixty years of living architecture. Arch Forum 99:152-5 N '53

WRIGHT, John Lloyd

J. L. Wright challenges California architect license law in court. por Arch Forum 101:51 Ag '54

WRIGHT, Orville, 1871-1948

Portrait. Roy Aeronautical Soc J 57:741 D '53

WRIGHT, Wilbur, 1867-1912

Portrait. Roy Aeronautical Soc J 57:740 D '53

WRIGHT brothers

Background of the Wrights; editorial. il Engineering 176:752-4 D 11 '53

British celebration of the Wright jubilee. Engineering 176:823 D 25 '53

Development of the Wright Flyer. pors Engineering 176:737-9 D 11 '53

Institute of the aeronautical society annual summer meeting dinner remarks; guest editorial. J. H. Doolittle. Aeronautical Eng R 12:23+ O '53

Kitty Hawk jubilee. J. S. Muller. il Comp Air Mag 58:337-9 D '53

Our heritage from Wilbur and Orville Wright. H. L. Dryden. por J Aeronautical Sci 20:803-4 D '53

Wright brothers and the Royal aeronautical society; survey and tribute. J. L. Pritchard. pors Roy Aeronautical Soc J 57:742-818 D '53

Wright brothers; world's first aeronautical engineers. M. P. Baker. pors Aero Digest 67:18-24 Jl '53

Wright chronology. Aero Digest 67:152+ Jl '53

Wright reproduction. B. A. Dodge. il Aeronautical Eng R 12:24-7 O '53

WRIGHTWOOD, California

Mudflow of 1941. R. P. Sharp and L. H. Nobles. bibliog maps diags Geol Soc Bul 64:547-60, pl 1-2 My '53

WRIST watches. See Watches

WRITING

Negentropy and information in telecommunications, writing, and reading. L. Brillouin. bibliog diags J Ap Phys 25:595-9 My '54

WROUGHT iron

How does wrought iron stand up in corrosive marine services? J. L. Wilson. bibliog il Marine Eng 59:63-6 F '54; Discussion. F. L. LaQue. 59:71+ Ap '54

Ingot iron and wrought iron; physical properties, mechanical properties, fabricating properties, corrosion resistance, etc; engineering file facts. Materials & Methods 40:127 Ag '54

Materials for large army gun tubes, a history; wrought iron and brass cannon. P. R. Kosting. il diag Metal Prog 65:91-5 Je '54

New life for oldest ferrous metal. B. M. Byers. il Steel 134:69 Je 7 '54

WULFF process. See Acetylene—Manufacture

WURTZ reaction

Investigations on organo-tin compounds; preparation of butyltin compounds by a Wurtz reaction. G. J. M. van der Kerk and J. G. A. Luijten. bibliog J Ap Chem 4:301-7 Je '54

lin-Poly-*p*-xylylene; preparation by the Wurtz reaction, and investigation of structure. C. J. Brown and A. C. Farthing. pl diags Chem Soc J p3270-8 O '53

WUSTITE

Wustite phase in partially reduced hematite. G. Bitsianes and T. L. Joseph. il diag J Metals 6:Trans 150-3 F '54

Analysis

Microscopic identification of wustite. R. G. Wells. il Anal Chem 26:715-17 Ap '54

WYOMING

See also

Gas, Natural—Wyoming
Geology—Wyoming
Petroleum—Wyoming
Petroleum industry and trade—Wyoming

X

X RAY apparatus

Automatic X-ray reflection specimen holder for the quantitative determination of preferred orientation. W. P. Chernock and others. il diags R Sci Instr 24:925-8 O '53

From leasing to automation, GE ads build wide X-ray market. L. Anderson. il Ind Marketing 39:60-2 Je '54

Highly stable automatic X-ray diffraction apparatus with only one moving part. C. K. Jones. diags R Sci Instr 24:380-7 My '53

Instability in methylal quenched X-ray detectors. S. Fine and C. F. Hendee. R Sci Instr 25:830 Ag '54

Lattice parameters, expansion coefficients, and atomic and molecular weights; X-ray techniques for precision determination. M. E. Straumanis. bibliog(36 ref) il diags Anal Chem 25:700-4 My '53

Low-temperature X-ray goniometer for structural studies of crystal transitions. R. Keeling and others. il diags R Sci Instr 24:1087-95 D '53

Manganese film-shield for FeKβ X-rays. E. A. Wood and L. M. Towsley. il R Sci Instr 24:547 Jl '53

Measurements of scintillation lifetimes. H. B. Phillips and R. K. Swank. bibliog il diag R Sci Instr 24:611-16 Ag '53

Outdoor X-ray. il Aero Digest 67:42 N '53

Overload device for X-ray sets. R. G. Ackland. diag J Sci Instr 30:250-1 Jl '53

Portable industrial X-ray units. il Product Eng 24:264 Je '53

Radioactive thulium for X-rays; Argonne national laboratory. il Chem & Eng N 32:1769 My 3 '54; Power Eng 58:83 Je '54

Research and engineering progress, 1953; medical. Gen Elec R 57:52 Ja '54

Small adjustable X-ray crystal monochromator. J. Fortey and E. Cohn. diags J Sci Instr 31:11-13 Ja '54

Uniform plastic bending of crystals for focusing X-ray radiation. L. S. Birks and E. J. Brooks. diags R Sci Instr 24:992 O '53

Use of soft X-rays for electrostatic generator stabilization. M. B. King and S. Devons. R Sci Instr 25:933 S '54

See also

Betatron
Electron accelerators
Metals—X ray inspection
Spectrometers, X ray
Synchrotron

X RAY cameras

High-temperature X-ray camera. J. R. Johnson. il diag Am Cer Soc J 37:360-2 Ag 1 '54

Low-temperature Weissenberg X-ray camera. H. Steinfink and others. il R Sci Instr 24:882-3 S '53

Low-temperature X-ray camera. E. A. Owen and G. I. Williams. bibliog plan diags J Sci Instr 31:49-54 F '54

Mechanical transformation of Weissenberg pictures to undistorted theta lattices. D. McLachlan, jr. and R. H. Woolley. il diag R Sci Instr 24:872-3 S '53

Novel X-ray diffraction heating camera. S. S. Marsden and N. R. Sanjana. bibliog diag J Sci Instr 30:427-9 N '53

Precision back-reflexion microbeam X-ray camera with provision for pre-selecting the irradiated area. R. W. Cahn. bibliog il diag J Sci Instr 30:201-4 Je '53

Precision 19 cm X-ray diffraction camera. J. Adam. il diags J Sci Instr 31:131-2 Ap '54

Semi-micro manipulator for crystal mounting. A. L. Mackay. il J Sci Instr 30:140 Ap '53

Shielding device for X-ray diffraction cameras. S. C. Abrahams and W. R. Blackmore. diags R Sci Instr 24:885 S '53

Simple X-ray diffraction vacuum camera for measuring long spacings. D. C. Bisset and J. Iball. il diags J Sci Instr 31:55-6 F '54

Soft X-rays to be valuable in study of small particles. il Chem & Eng N 32:2272 Je 7 '54

Thermal gradient method for the study of crystal structure and its application to order-disorder research. J. B. Newkirk. bibliog il diags R Sci Instr 24:1116-21 D '53

Versatile X-ray camera for low-angle diffraction studies. J. B. Finean. diag J Sci Instr 30:60-1 F '53

X-ray camera for measuring preferred orientation in wires. A. L. Mackay. il diag J Sci Instr 30:244-5 Jl '53

X RAY inspection. See Metals—X ray inspection; Welding—X ray inspection

X RAY microscope

GE microscope takes X-ray look at internal structure. Chem & Eng N 32:3126+ Ag 9 '54

Improved X-ray shadow projection microscope. V. E. Cosslett and H. E. Pearson. il diags J Sci Instr 31:255-7 Jl '54

X-ray shadow microscope. V. E. Cosslett and W. C. Nixon. bibliog il diags J Ap Phys 24:616-23 My '53

X RAY photometers. See Photometers, X ray

X RAY spectrometers. See Spectrometers, X ray

X RAY technicians, Medical

Outlook for women as medical X-ray technicians. M. S. Barber and others. il U S Women's Bur Bul 203-8:1-53 bibliog(p52-3); pa 25c Supt. of doc. '54

X RAY tubes

Development of a fine-focus flash X-ray tube. E. L. Criscuolo and D. T. O'Connor. bibliog il diags R Sci Instr 24:944-8 O '53

Modification of an early demountable X-ray tube to give a fine focus. G. K. Williamson and R. E. Smallman. il diags J Sci Instr 31:68-9 F '54

Rotating anode gas X-ray tube. E. A. Owen. diag J Sci Instr 30:393-5 N '53

Some improvements in the Hadding tube. G. B. Mitra and D. M. Chackraburtty. diags J Sci Instr 31:30 Ja '54

X RAYS

Chemical actions of ionising radiations in solution; the action of X-rays on some steroids in organic solvents. B. Coleby, M. Keller and J. Weiss. Chem Soc J p66-71 Ja '54

Collimated X-ray beam for study of distortion in cloud chambers. R. S. Carter and J. C. Street. il diags R Sci Instr 25:627-31 Jl '54

Contribution of solar X-rays to *E*-layer ionization. E. T. Byram and others. bibliog Phys R 92:1066-7 N 15 '53

Determination of bromine in liquids by X-ray fluorescent spectroscopy. G. T. Kokotailo and G. F. Damon. bibliog diag Anal Chem 25:1185-7 Ag '53

Electron microscopical studies of the latent image obtained by exposures to alpha particles, X-rays, and light. H. Hoerlin and F. A. Hamm. bibliog il J Ap Phys 24:1514-19 D '53

Emission of δ- and X-rays from targets bombarded by accelerated ions. C. Zupančič and T. Huus. bibliog Phys R 94:205-6 Ap 1 '54

Evidence for X-ray induced recessive lethal mutations in yeast. R. K. Mortimer and C. A. Tobias. bibliog Science 118:517-18 O 30 '53

Examination of surfaces by X-ray reflection. R. H. Buteux. il Opt Soc Am J 43:618 Jl '53

Intensity corrections for iodine X-rays escaping from sodium iodide scintillation crystals. P. Axel. R Sci Instr 25:391 Ap '54

L-shell ionization by protons of 1.5- to 4.25-Mev energy. E. M. Bernstein and H. W. Lewis. diags Phys R 95:83-6 Jl 1 '54

Long X-ray pulses from the betatron. T. J. Keegan. diag R Sci Instr 24:472 Je '53

Penetration of X- and gamma rays to extremely great depths. U. Fano. bibliog diags J Res Nat Bur Stand 51:95-122 Ag '53

Questions and answers on X-ray analysis. V. W. Palen. diags Instruments & Automation 27:1299 Ag '54

Rate of production of color centers in KCl and KBr by X-rays at 78° K. W. H. Duerig. bibliog Phys R 94:65-70 Ap 1 '54

Relative intensities of π and μ meson X-rays of the *K* and *L* series in low *Z* elements. M. B. Stearns and others. diag Phys R 93:1123-4 Mr 1 '54

Scintillation response of anthracene to soft X-rays. J. B. Birks and F. D. Brooks. Phys R 94:1800-1 Je 15 '54

Studies of X-rays from mu-mesonic atoms. V. L. Fitch and J. Rainwater. bibliog diags Phys R 92:789-800 N 1 '53

Surface studies of solids by total reflection of X-rays. L. G. Parratt. bibliog diags Phys R 95:359-69 Jl 15 '54

X-ray coloration of alkali halides. D. L. Dexter. bibliog Phys R 93:985-92 Mr 1 '54

X-ray coloring of 400-Mev proton-irradiated KCl. W. Leivo and R. Smoluchowski. Phys R 93:1415-16 Mr 15 '54

X-ray-induced photostimulated conductivity in magnesium oxide. A. S. Eisenstein. diags Phys R 93:1017-18 Mr 1 '54

X-ray noise observation using a photoconductive pickup tube using a Vidicon. A. D. Cope and A. Rose. il J Ap Phys 25:240-2 F '54

See also

Crystallography—X ray studies
Diagnosis, Radioscopic
Gamma rays
Metals—X ray inspection
Radiography
Welding—X ray inspection
X ray apparatus

Absorption

Analytical methods based upon X-ray absorption. H. A. Liebhafsky. bibliog map diag Anal Chem 25:689-92 My '53

Direct quantitative X-ray analysis by diffraction-absorption technique. J. Leroux, D. H. Lennox and K. Kay. bibliog Anal Chem 25:740-3 My '53

X-ray absorption and emission. H. A. Liebhafsky. Anal Chem 26:26-31 bibliog(127 ref, p30-1) Ja '54

X-ray absorption fine structure with polarized X-rays. R. Krogstad and others. Phys R 92:1394-6 D 15 '53

Diffraction

Adaptation of a Geiger-counter X-ray diffractometer for high-temperature investigations. P. Chiotti. bibliog il diags R Sci Instr 25:683-8 Jl '54

Analysis of bauxite exploration samples; X-ray diffraction method. R. H. Black. bibliog il Anal Chem 25:743-8 My '53

Analysis of mixed-layer clay mineral structures. W. F. Bradley. bibliog il diags Anal Chem 25:727-30 My '53

X RAYS—Diffraction—*Continued*

Analysis of sodium pyro- and tripolyphosphate mixtures. A. J. Mabis and O. T. Quimby. Anal Chem 25:1814-18 D '53

Apparatus used in the development of optical-diffraction methods for the solution of problems in X-ray analysis. W. Hughes and C. A. Taylor. bibliog il diags J Sci Instr 30:105-10 Ap '53

Applications of X-ray diffraction analysis in the environmental field. D. Lennox and J. Leroux. bibliog il A M A Archives Ind Hygiene & Occup Med 8:359-70 O '53

Capillary specimens for X-ray diffraction powder analysis. F. W. Matthews. diags Anal Chem 26:619 Mr '54

Diffraction of X-rays by a twisted crystal lattice. S. S. Hsu. il diags J Ap Phys 25:541-2 Ap '54

Diffraction of X-rays by the ferric chloride-aniline complex. E. V. Ballou and H. F. Winterkorn. Am Chem Soc J 76:3083-4 Je 5 '54

Dilution of powder samples for X-ray diffraction. E. M. Pogainis and E. H. Shaw, jr. bibliog R Sci Instr 25:524-5 My '54

Direct quantitative X-ray analysis by diffraction-absorption technique. J. Leroux, D. H. Lennox and K. Kay. bibliog Anal Chem 25:740-3 My '53

Education with an angle; annual X-ray diffraction schools. il Chem W 73:52-3 O 3 '53

Effect of a soller slit on the diffraction of X-rays by deformed crystals. B. D. Cullity and C. A. Julien. il diags J Ap Phys 24:541-6 My '53

Efficient Geiger counter for use with molybdenum Kα X-rays. G. K. Williamson and R. E. Smallman. diag J Sci Instr 30:486 D '53

Electron and X-ray diffraction studies of iron Fischer-Tropsch catalysts. J. T. McCartney and others. bibliog diag J Phys Chem 57:730-6 O '53

Fourier inversion of diffraction data. J. Waser and V. Schomaker. bibliog(50 ref) Rs Mod Phys 25:671-90 Jl '53

Highly stable automatic X-ray diffraction apparatus with only one moving part. C. K. Jones. diags R Sci Instr 24:380-7 My '53

Identification of amines by X-ray powder patterns of their chloroplatinates. C. W. Gould and S. T. Gross. diag Anal Chem 25:749-51 My '53

Intensity meaurement of small X-ray diffraction spots by projection of a positive print. D. Evans and S. Weissmann. il Opt Soc Am J 43:1183-5 D '53

Method for improvement of contrast of X-ray diffraction photographs. D. W. Levinson. il R Sci Instr 24:468-9 Je '53

Multiple film methods in X-ray powder photography. R. J. Davis and others. J Sci Instr 31:305-6 Ag '54

Number of X-ray diffraction groups. C. D. West. J Chem Phys 22:150-1 Ja '54

Pattern data for X-ray diffraction. Can Chem Process 38:38 F '54

Reactions of carbon; X-ray diffraction studies of a graphitized carbon. P. L. Walker, jr., H. A. McKinstry and C. C. Wright. bibliog diag Ind & Eng Chem 45:1711-15 Ag '53

Reactions of mercury(I) compounds with ammonia; X-ray diffraction studies. W. N. Lipscomb. bibliog diags Anal Chem 25:737-9 My '53

Split-image film comparator for X-ray diffraction powder patterns. J. T. Quan. il diags R Sci Instr 25:399-401 Ap '54

Standard X-ray diffraction powder patterns. H. E. Swanson and others. U S Nat Bur Stand Circ 539:1-73; pa 45c Supt. of doc. '54

Tabulated diffraction data for hexagonal isomorphs. L. K. Frevel and H. W. Rinn. bibliog Anal Chem 25:1697-717 N '53

Use of multiple films for measuring intensities of X-ray diffraction spots. J. Iball. J Sci Instr 31:71 F '54

Visual presentation of X-ray diffraction patterns by electronic means. E. P. Bertin. bibliog(45 ref) il diags Anal Chem 25:708-17 My '53

X-ray and electron diffraction, 11th annual conference, Pittsburgh. Chem & Eng N 31:4880 N 23 '53

X-ray diffraction as applied to papermaking problems; abstract. W. E. Fox. Tappi 36:sup 158A-9A N '53

X-ray diffraction investigation of selected types of insulin fibrils. W. L. Koltun, D. F. Waugh and R. S. Bear. bibliog pl Am Chem Soc J 76:413-17 Ja 20 '54

X-ray diffraction; review of past two years. H. S. Kaufman and I. Frankuchen. Anal Chem 26:31-4 bibliog(127 ref, p33-4) Ja '54

X-ray diffraction studies in the system BeO-In_2O_3. L. M. Watt and W. O. Milligan. bibliog J Phys Chem 57:883-5 D '53

X-ray diffraction studies on carbon gasification. P. L. Walker, jr., H. A. McKinstry and J. V. Pustinger. bibliog Ind & Eng Chem 46:1651-8 Ag '54

X-ray line broadening from precipitation in Cu-Fe alloys. T. S. Hutchison. bibliog J Ap Phys 24:813-14 Je '53

X-ray testing and research on pharmaceuticals. S. F. Kern. il Anal Chem 25:731-4 My '53

X-rays identify chemical compounds. Am Cer Soc Bul 33:86 Mr 15 '54

Industrial applications

What's new in X-ray for industry? J. E. Jacobs. Materials & Methods 39:174+ Ap '54

X-ray analysis of foundry dusts for quartz and iron in relation to silicosis and siderosis. G. L. Clark and others. bibliog il plan Anal Chem 26:1413-20 S '54

X-rays as an analytical chemical tool; symposium. G. L. Clark and others. bibliog il map diags Anal Chem 25:688-739 My '53

X-rays show more than insects; process control. M. J. Zunick and A. Pace. il Food Eng 26:64-5+ My '54

X-rays speed-up shell production. il Tele-Tech 12:86-7 D '53

See also

Metals—X ray inspection

Welding—X ray inspection

Measurement

Direct-reading rate meter for high-intensity penetrating radiation. J. E. Morgan and others. bibliog diags R Sci Instr 24:938-43 O '53

Elimination of dead-time corrections in monitored Geiger-counter X-ray measurements. J. N. Eastabrook and J. W. Hughes. bibliog diags J Sci Instr 30:317-20 S '53

Inexpensive X-ray detectors. U. W. Arndt. J Sci Instr 31:192-3 My '53

Integrating photometer for X-ray intensity measurements. E. Alexander and others. bibliog diags R Sci Instr 24:955-60 O '53

Measurement of X-ray intensities on integrated Weissenberg photographs. D. W. Smits and E. H. Wiebenga. il J Sci Instr 30:280-1 Ag '53

Photographic dosimetry of X- and gamma rays. M. Ehrlich. il diags U S Nat Bur Stand Handbook 57:1-28 bibliog(p28); pa 15c Supt. of doc. '54

Single-crystal adaptor for the Norelco high-angle diffractometer. S. C. Abrahams and H. J. Grenville-Wells. il diag R Sci Instr 25:519-20 My '54

Small-volume dosimeter for X-rays and gamma-rays. J. H. Schulman and H. W. Etzel. bibliog diag Science 118:184-6 Ag 14 '53

Physiological effect

Effect of whole blood transfusion on dogs receiving a maximal sublethal (LD_0) exposure to ionizing radiation. R. W. Miller and others. bibliog Science 118:111-12 Jl 24 '53

Effects of *X*-radiation on carbohydrate metabolism. M. G. Ord and L. A. Stocken. Chem & Ind p666 Jl 4 '53

New technique for the study of the effects of X-radiation on mammalian skin maintained at different temperatures during exposure. J. P. O'Brien and others. bibliog diags Science 118:135-6 Jl 31 '53

Radiation injury and the present status of therapeutics; a bibliographic review. T. J. Haley. bibliog(60 titles) Ind Med 22:569-72 D '53

X RAYS—Physiological effect—*Continued*

Response of irradiated cancer patients to vibrio metschnikovii. E. S. Wynne and others. bibliog Science 118:442-3 O 16 '53

X-ray dose-body size relationship in radiation sickness. W. M. Court Brown and R. F. Mahler. Science 118:271-2 S 4 '53

Protection

Effect of intravenously injected bone marrow cell suspensions on thymic regeneration in irradiated C 57 black mice. M. B. Brown and others. Science 117:693-5 Je 19 '53

Protection against betatron-synchrotron radiations up to 100 million electron volts. bibliog U S Nat Bur Stand Handbook 55: 1-52; pa 25c Supt. of doc. '54

Telescoping direct beam tunnel. L. V. Azaroff. diags R Sci Instr 24:872 S '53

Various absorption coefficients for 23.5-Mev X-rays. W. S. Moos and others. Science 118:300-1 S 11 '53

Scattering

Anomalous dispersion and scattering of X-rays. L. G. Parratt and C. F. Hempstead. bibliog Phys R 94:1593-600 Je 15 '54

Approximate elastic spectrum of acoustic waves in AgCl from X-ray scattering. H. Cole. J Ap Phys 24:482-7 Ap '53

Determination of microcrystallite size by the small-angle X-ray technique in rayons. A. N. J. Heyn. bibliog il Textile Res J 23: 782-7 N '53

Elastic spectrum of zinc from the temperature scattering of X-rays. R. E. Joynson. bibliog diag Phys R 94:851-5 My 15 '54

Low-angle X-ray scattering. K. L. Yudowitch. bibliog(34 ref) il diags Anal Chem 25:721-4 My '53

Monochromatic X-rays for single crystal diffuse scattering. B. E. Warren. diags J Ap Phys 25:814-15 Je '54

Small-angle X-ray scattering from liquid helium I and liquid helium II. A. G. Tweet. bibliog diag Phys R 93:15-20 Ja 1 '54

Theory of X-ray small-angle scattering. Y. Y. Li and R. Smoluchowski. bibliog Phys R 94:866-71 My 15 '54

X-ray scattering from a free-volume liquid. L. H. Lund. bibliog J Chem Phys 21:1772-3 O '53

Therapeutic use

Comparative effects of total body radiation, nitrogen mustard, and triethylene melamine on the hematopoietic system of terminal cancer patients. R. K. Loeffler and others. Science 118:161-3 Ag 7 '53

High-power betatron for cancer therapy. J. S. Laughlin and others. bibliog il diags Electronics 26:146-51 O '53

Linear accelerator and cyclotron. il Elec J 151:1298 O 23 '53; Elec R (Lond) 153:963 O 23 '53

Metropolitan-Vickers 8 linear accelerator for X-ray therapy. il diags Engineer 196:554-6 O 30 '53

X-ray therapy; experience with 8 Mev linear accelerator; abstract. C. W. Miller. Elec R (Lond) 154:520; Discussion. 520 Mr 19 '54; Elec J 152:943-4 Mr 19 '54

XAN, John, 1893-

ACS Northeastern section, Norris award. por Chem & Eng N 31:2284 Je 1 '53

XANTHATES

Effect of the *p*H of xanthate solutions on the contact angle between a bubble of air and an iron disulfide surface not of minimum rugosity. P. F. Whelan. bibbliog il J Phys Chem 58:375-9 Ap '54

Flotation characteristics of pyrrhotite with xanthates. C. S. Chang and others. bibliog il Min Eng 6:Trans 209-17 F '54

XANTHINE

Diuretics; 3,8-disubstituted paraxanthines. F. F. Blicke and H. C. Godt, jr. Am Chem Soc J 76:3655-6 Jl 20 '54

Diuretics; 3-substituted paraxanthines. F. F. Blicke and H. C. Godt, jr. Am Chem Soc J 76:3653-5 Jl 20 '54

Nature of xanthine and substituted xanthines in solution. L. F. Cavalieri and others. bibliog Am Chem Soc J 76:1119-22 F 20 '54

XANTHININ

Xanthinin; a plant growth-regulating compound from xanthium pennsylvanicum. T. A. Geissman and others. bibliog Am Chem Soc J 76:685-7 F 5 '54

XANTHOMYCIN

Xanthomycin A; production, isolation and properties. K. V. Rao and W. H. Peterson. diags Am Chem Soc J 76:1335-8 Mr 5 '54

Xanthomycin A; quinonoid behavior. K. V. Rao and W. H. Peterson. Am Chem Soc J 76:1338-40 Mr 5 '54

XANTHONE

Alkylaminoalkylamino derivatives of xanthones, acridones and anthraquinones. S. Archer, L. B. Rochester and M. Jackman. bibliog Am Chem Soc J 76:588-91 Ja 20 '54

Chemistry of extractives from hardwoods; the constitution of jacareubin, a pyranoxanthone from calophyllum brasiliense. F. E. King, T. J. King and L. C. Manning. Chem Soc J p3932-7 D '53

XANTHORRHOEA

Studies on xanthorrhoea resins; isolation of chyrsophanic acid (1 : 8-dihydroxy-3-methyl-anthraquinone) and of 2′ : 4-dihydroxy-4′-methoxychalkone. H. Duewell. Chem Soc J p2562-4 Jl '54

XENON

Adsorption of argon on xenon layers. J. H. Singleton and G. D. Halsey, jr. bibliog diag J Phys Chem 58:330-5 Ap '54

Isotopes

Nuclear magnetic moments of Xe^{129} and Xe^{131}. E. Brun and others. Phys R 93:904 F 15 '54

Spectrometer studies of the radiations of neutron deficient isotopes of cesium and of the *E*3 isomers, $Xe^{127}m$ and Xe^{125} *m*. H. B. Mathur and E. K. Hyde. bibliog diags Phys R 95:708-16 Ag 1 '54

Nuclear reactions

Decay scheme of Xe^{135}. S. Thulin. Phys R 94: 734-5 My 1 '54

Spectrum

Continuous emission spectrum of xenon in the vacuum ultraviolet region. Y. Tanaka and M. Zelikoff. il Opt Soc Am J 44:254-5 Mr '54

XENON electric lamps. See Electric lamps, Xenon

XEROGRAPHY

In the Ford engineering laboratories, 100 copies in five minutes for 87 cents; photo-offset process called Xerography. il Mill & Factory 53:114-15 D '53

Self-luminous halftones. F. A. Schwertz and others. il Opt Soc Am J 44:745-6 S '54

Xerography. W. T. Reid. il diags Mech Eng 76:184-6 F '54

XERORADIOGRAPHY. See Radiography

XIMENIA

New hydroxy acid from the oil of ximenia caffra Sond. S. P. Ligthelm. bibliog Chem & Ind p249-50 F 27 '54

XIMENYNIC acid

Santalbic acid. F. D. Gunstone and M. A. McGee. bibliog Chem & Ind p 1112 S 4 '54

Synthesis of ximenynic acid. J. Grigor and others. Chem & Ind p 1112-13 S 4 '54

XYLAN

Analysis

Constitution of a wheat-straw xylan. G. O. Aspinall and R. S. Mahomed. Chem Soc J p 1731-4 Je '54

XYLENE

Mononitration of *m*-xylene. K. A. Kobe and H. M. Brennecke. bibliog Ind & Eng Chem 46:728-32 Ap '54

p-Xylene recovered by crystallization; patent. diag Chem Eng 61:270 Ja '54

Petro-xylene in the aromatics spotlight; annual review. Chem Eng 61:196-7 Mr '54

Relative ionization by cosmic-ray μ mesons in a liquid scintillator. R. Baskin and J. R. Winckler. bibliog diag Phys R 92:464-7 O 15 '53

XYLENE—*Continued*

Separating xylenes from non-aromatics; patent. diag Chem Eng 61:258 Ag '54

Sun joins giants; new Marcus Hook aromatics plant can produce 12 per cent of national capacity. G. Weber. il Oil & Gas J 52:84-5 D 14 '53

Vapor-liquid equilibrium; *m*- and *p*-xylenes in different solvents. Ju Chin Chu and others. bibliog(40 ref) diag Ind & Eng Chem 46:754-61 Ap '54

Vapor phase catalytic isomerization of *m*-xylene. E. R. Boedeker and W. E. Erner. Am Chem Soc J 76:3591 Jl 5 '54

Xylenes step up. il Chem W 73:73-4+ O 17 '53

Analysis

Accurate analysis with an infrared double-beam spectrophotometer. R. Schnurmann and E. Kendrick. bibliog Anal Chem 26: 1263-9 Ag '54

Manufacture

Extractive distillation; Shell development co. flow diag Pet Refiner 32:164-5 N '53

XYLOSE

Occurrence of D-xylose and D-galactose in brown seaweeds. E. T. Dewar. bibliog Chem & Ind p785-6 Jl 3 '54

2-*O*-(4-*O*-methyl-α-D-glucopyranosyluronic acid)-D-xylose from hemicellulose-B of corn cob. R. L. Whistler, H. E. Conrad and L. Hough. bibliog Am Chem Soc J 76:1668-70 Mr 20 '54

XYLYLENE

Crystal structure of di-*m*-xylylene. C. J. Brown. diags Chem Soc J p3278-85 O '53

lin-Poly-*p*-xylylene; intermediates and polymers of low molecular weight. A. C. Farthing. Chem Soc J p3261-4 O '53

lin-Poly-*p*-xylylene; preparation by the Wurtz reaction, and investigation of structure. C. J. Brown and A. C. Farthing. pl diags Chem Soc J p3270-8 O '53

lin-Poly-*p*-xylylene; the crystal structure of di-*p*-xylylene. C. J. Brown. diags Chem Soc J p3265-70 O '53

Y

YACHTS and yachting

Sailing at the Naval academy. il U S Naval Inst Proc 79:428-38 Ap '53

YALE and Towne manufacturing company

Five attractive stocks off the beaten track. Mag of Wall St 93:736 Mr 20 '54

YALE university

New frame, old face, for Yale's Connecticut Hall. C. B. Spencer. il Civil Eng 23:671-2 O '53

Proposed physics building for Yale university; views and plans. Arch Rec 114:141-7 S '53

YANKEE stadium. See Stadiums

YARDS and docks, Bureau of. See United States—Navy department—Yards and docks, Bureau of

YARN

Certain relationships between yarn and fiber strain. M. M. Platt. Textile Res J 24:132-4 F '54

Effect of the directions of yarn twist and twill on the properties of woven cloth. S. Backer. bibliog il Textile Inst J Trans 44: T477-9 O '53

Half-hose yarns; effect of spinning system and fiber properties. J. B. Caron. Mod Textiles Mag 34:64-5 N '53

How Lorraine makes three novelty yarns. J. H. Blore. il Textile World 104:96-7 S '54

How the system of yarn manufacturing, as well as the fiber's physical properties, affect the characteristics of yarn. J. B. Caron. Am Dyestuff Rep 43:438-41+ Jl 5 '54

Mill reference data. il diags Textile World 103:6-71 Mid-N '53

1953 review of new equipment; yarn production. il diags Textile World 103:102-13+ N '53

Old-world textile glamor in a new metallic yarn. il Bsns W p46+ O 24 '53

Production of rayon, acetate and synthetic yarns in the United States. Mod Textiles Mag 35:69-76 S '54

Some fundamental questions concerning the static electrification of textile yarns. V. E. Gonsalves. bibliog diags Textile Res J 23: 711-18; 24:1-12 O '53, Ja '54

Structure and properties of cotton and synthetic singles yarn. J. B. Dickson. bibliog(36 ref) Textile Res J 24:511-26 Je '54

Taslan, a new type of yarn. F. C. Fields, jr. il Textile World 104:75-6 Jl '54

Textured yarn; abstract. D. F. Holmes. Am Dyestuff Rep 42:784 N 23 '53

Transfer yarn from spring to tube and back without winding. il Textile World 103:155 N '53

See also

Cotton yarn
Nylon yarn
Rayon yarn
Woolen and worsted yarn

Mixtures

Dyeing of a blend of wool and Fibrolane for the hand knitting trade. R. C. Cheetham. bibliog Soc Dyers & Col J 69:76-83 Mr '53

Numbering

International numbering of yarns and threads. J. Corbiére. il Textile Res J 23:945-8 D '53

Tables, calculations, etc.

Analysis of the stresses in some approximations to a simple knitted loop of monofilament yarn. A. Glaskin and G. A. V. Leaf. diags Textile Inst J Trans 44: T534-44 N '53

Yarn-number conversion table. Textile World 103:6-9 Mid-N '53

Testing

Experiments on the relationship between yarn and fabric regularity. A. Barella and others. bibliog Textile Inst J 45:P82-7 Mr '54

Irregularity in textile yarns and strands; literature survey. M. A. Sanborn. Textile Res J 24:86-96 bibliog (85 ref, p95-6) Ja '54

Measurements of the air-drag of textile threads. C. Mack and E. J. L. Smart. bibliog diags Textile Inst J Trans 45:T348-62 Ap '54

Simple method of comparing the breaking loads of two yarns. S. L. Anderson. diags Textile Inst J Trans 45:T472-9 Je '54

Start your knitting quality control in the laboratory; Soowal knitting mills. J. H. Blore. il Textile World 104:66-8 Ag '54

YEARBOOKS (statistical, historical, etc.)

Britannica book of the year, 1954. W. Yust, ed. 776p $12 Encyclopaedia Britannica, 425 N. Michigan av, Chicago '54

Demographic yearbook, 1953. 5th ed 441p $6.50; pa $5 United nations; for sale by Columbia univ. press, 2960 Broadway, New York 27 '53

Economic almanac, 1953-1954 of the National industrial conference board. F. W. Jones and A. R. Beckerman, eds. 740p $3.95 Thomas Y. Crowell co, 432 Fourth av, New York 16 '53

Statistical yearbook, 1953. 5th ed 578p $7.50 United nations; for sale by Columbia univ. press, 2960 Broadway, New York 27 '53

Yearbook of the United nations, 1953. 906p $12.50 Columbia univ. press, 2960 Broadway, New York 27 '54

See also

India—Yearbooks
Municipal government—Yearbooks

Bibliography

Statistical yearbooks; an annotated bibliography of the general statistical yearbooks of major political subdivisions of the world. P. G. Carter, comp. 123p pa 90c Card division, Library of Congress, Washington 25 '53

YEASTS

Aeration studies on propagation of baker's yeast. W. D. Maxon and M. J. Johnson. bibliog diag Ind & Eng Chem 45:2554-60 N '53

YEASTS—*Continued*

Carbohydrate analogs as antagonists of glucose in carbohydrate metabolism of yeast. G. E. Woodward and others. Franklin Inst J 256:577-87 D '53

Conversion of acetate and pyruvate to tyrosine in yeast. R. C. Thomas and others. bibliog Am Chem Soc J 75:5554-6 N 20 '53

D-glucosamine as an antagonist of glucose in carbohydrate metabolism of yeast. G. E. Woodward and M. T. Hudson. bibliog Franklin Inst J 255:556-60 Je '53

Differential determination of vitamin B_6 group. S. Fukui. bibliog Anal Chem 25: 1884-6 D '53

Evidence for X-ray induced recessive lethal mutations in yeast. R. K. Mortimer and C. A. Tobias. bibliog Science 118:517-18 O 30 '53

Food and the future; food and fodder yeast. A. C. Thaysen. Chem & Ind p446-7 My 9 '53

Salute to Mr Yeast; Nicholas Appert medal presented to Charles N. Frey. Chem & Eng N 32:2628-9 Je 28 '54

Valine biosynthesis in torulopsis utilis. M. Strassman, A. J. Thomas and S. Weinhouse. Am Chem Soc J 75:5135 O 20 '53

Yeast, a valuable product from wastes. N. Porges. J Chem Educ 30:562-5 N '53

Yeast, its production and uses. L. A. Campbell. bibliog Can Chem Process 37:24+ O '53

Analysis

Determination of ergosterol in yeast; abstract. W. H. C. Shaw and J. P. Jefferies. Chem & Ind p590 Je 13 '53; Same. Anal Chem 25:1130 Jl '53

Manufacture

Last word yeast plant; Standard yeast co. flow diag il Food Eng 25:80-2 D '53

Standard Yeast's new factory. il Chem Age (Lond) 69:65-8 Jl 11 '53; flow diag Engineering 176:76-7 Jl 17 '53

YELLOW

Determination of yellow color in raw rubber latex films and crepes. G. A. Kidder. Anal Chem 26:311-15 F '54

YEMEN

Yemen sets its door ajar. map Economist 169:426-7 N 7 '53

YOGURT

How to saturate a market; Dannon milk products. J. E. Metzger, jr. il Sales Management 70:80-2 My 20 '53

YOHIMBANE

Stereospecific synthesis of *dl*-alloyohimbane and *dl*-3-epialloyohimbane. G. Stork and R. K. Hill. bibliog Am Chem Soc J 76:949 F 5 '54

Stereospecific synthesis of *dl*-yohimbane. E. E. Van Tamelen and M. Shamma. Am Chem Soc J 76:950-1 F 5 '54

YOHIMBINE

Constitution of yohimbine and related alkaloids; synthesis of 5 : 6 : 7 : 8-tetrahydro-*iso*quinoline-3-carboxylic acid. R. M. Anderson, G. R. Clemo and G. A. Swan. Chem Soc J p2579-81 Jl '54

Isolation of δ-yohimbine and a new related alkaloid from rauwolfia serpentina Benth. F. L. Weisenborn and others. bibliog Chem & Ind p375-6 Mr 27 '54

Rauwolfia alkaloids; isolation of yohimbine from rauwolfia serpentina Benth. F. E. Bader, D. F. Dickel and E. Schlittler. Am Chem Soc J 76:1695-6 Mr 20 '54

Stereochemical correlation of the yohimbine alkaloids with the steroids. W. Klyne. bibliog Chem & Ind p 1302 S 26 '53

YOLO steel and metal company

Yolo; mystery in steel. Steel 133:40 Jl 27 '53

YOUNG, Carl A.

Petroleum profile. por Pet Eng 25:A58 Je '53

YOUNG, George J. 1876-1954

Sketch. J. B. Huttl. Eng & Min J 155:86 My '54

YOUNG, Harold, 1903-

Financial analyst on the utility beat. pors Elec World News ed 140:16-18, cover S 28 '53

YOUNG, Robert Ralph, 1897-

Proxy battle looms as NYC rejects Young's bid. Ry Age News ed 136:11 F 15 '54

Struggle for power in New York Central. R. Carleson. Mag of Wall St 93:624+ F 20 '54

YOUNG'S modulus. See Elasticity

YOUNGSTOWN sheet and tube company

Confirm merger talks. W. V. Packard. Iron Age 174:61-2 Ag 5 '54

Merger rumors buoy steel stocks. Iron Age 174:57 Jl 29 '54

Odds favor U.S. approval of proposed steel merger. E. C. Kreutzberg. Steel 135:56 S 6 '54

Steel; Justice department may nix proposed Bethlehem-Youngstown merger. R. M. Stroupe. Iron Age 174:73 S 23 '54

YOUTH

Businessmen and teen-agers; summer employment. R. W. Babson. Comm & Fin Chr 178: 733 Ag 27 '53

Development of labour legislation on young workers in certain industrialised countries. Int Labour R 68:542-60 D '53

See also

Junior achievement movement
Junior republics

YOUTH market

Big youth market; how to learn what it thinks; Rand youth poll. il Dun's R & Mod Ind 62:153-4 D '53

YTONG. See Concrete, Porous

YTTERBIUM

Nuclear reactions

Ytterbium-167. T. H. Handley and E. L. Olson. Phys R 94:968-9 My 15 '54

YTTRIUM

Preparation of yttrium and some heavy rare earth metals. A. H. Daane and F. H. Spedding. bibliog Electrochem Soc J 100: 442-4 O '53

Studies in low concentration chemistry; some properties of tracer yttrium, antimony and silver in solution. G. K. Schweitzer and W. M. Jackson. Am Chem Soc J 76:3348-9 Je 20 '54

Isotopes

Half-life of yttrium-90. A. Chetham-Strode, jr. and E. M. Kinderman. Phys R 93: 1029 Mr 1 '54

Nuclear magnetic moments of K^{41}, Y^{87}, Ag^{107}, and Ag^{109}. E. Brun and others. Phys R 93: 172-3 Ja 1 '54

Nuclear reactions

Disintegration of Y^{91}. M. E. Bunker and others. bibliog diags Phys R 94:1694-7 Je 15 '54

YUCCA

Yucca plant potentials; abstract. M. M. Krider and M. E. Wall. Chem & Eng N 32:1310-11 Ap 5 '54

YUGOSLAVIA

See also

Agriculture—Yugoslavia
Chemical industries—Yugoslavia
Communist party (Yugoslavia)
Petroleum industry and trade—Yugoslavia

Boundaries

Jugoslavia's troubled borders. Economist 168: 316 Ag 1 '53

Commercial policy

Yugoslav agents may act for foreign principals. For Comm W 51:16 F 22 '54

Economic conditions

Economic conditions abroad (cont). For Comm W 50:5 N 9 '53

Sinews of Tito; economic progress. Economist 169:564-6 N 21 '53

Foreign relations

Good news from the Danube. Economist 170: 86 Ja 9 '54

Trieste through Jugoslav eyes. Economist 169:499 N 14 '53

YUGOSLAVIA—*Continued*

Politics and government

See also
Elections—Yugoslavia

YUKON

See also
Electrochemical industries—Yukon
Hydroelectric plants—Yukon
Mines and mineral resources—Yukon

Z

ZEEMAN effect

Nuclear moments of Se^{79}. W. A. Hardy and others. bibliog Phys R 92:1532-7 D 15 '53

Theory of the microwave Zeeman effect in atomic oxygen. A. Abragam and J. H. Van Vleck. bibliog Phys R 92:1448-55 D 15 '53

Zeeman effect and line breadth studies of the microwave lines of oxygen. R. M. Hill and W. Gordy. bibliog diag Phys R 93:1019-22 Mr 1 '54

Zeeman effect in the molecular spectra of hydrogen. G. H. Dieke and others. bibliog il diags Phys R 92:81-7 O 1 '53

Zeeman effect of the Cr ground state. P. Brix and others. bibliog Phys R 92:647-9 N 1 '53

Zeeman splitting of nuclear quadrupole resonance lines. Yu Ting and others. Phys R 92:1581 D 15 '53

ZEIN

Man-made fiber data sheets; zein fibers; vicara, zycon. P. A. Koch. bibliog(23 titles) diag Mod Textiles Mag 34:46+ My '54

Bibliography

Zein, an annotated bibliography, 1891-1953. D. M. Rathmann. (Bibliographic ser. bul. no. 7) 118p Mellon institute, 4400 Fifth av, Pittsburgh 13 '54

ZENER, Clarence Melvin, 1905-

Personalities in engineering. por Westinghouse Eng 13:197 N '53

ZENGER, John Peter, 1697-1746

Zenger memorial hall to be dedicated. J. W. Brown. Ed & Pub 86:15-17+ Ap 18 '53

Zenger memorial is dedicated. il Ed & Pub 86:12+ Ag 25 '53

ZEPREX. See Building materials

ZERNIKE, Fritz, 1888-

Nobel prizes to German, Hollander. por Chem & Eng N 31:4760-1 N 16 '53

ZIMMERMAN, Charles L.

ADR award for 1954 presented to C. L. Zimmerman. por Am Dyestuff Rep 43:648 S 27 '54

ZINC

Anodic formation of coatings on magnesium, zinc, and cadmium. K. Huber. bibliog il Electrochem Soc J 100:376-82 Ag '53

Association of imidazole with the ions of zinc and cupric copper. J. T. Edsall and others. bibliog Am Chem Soc J 76:3054-61 Je 5 '54

Coloration of zinc die castings; abstract. Reininger. Metal Finishing 52:87+ Ag '54

Creep of zinc single crystals under direct shear. E. H. Weinberg. bibliog diag J Ap Phys 24:734-44 Je '53

Effect of compression and of hydrostatic pressure on the diffusion anisotropy in zinc. T. Liu and H. G. Drickamer. bibliog diags J Chem Phys 22:312-19 F '54

Elastic spectrum of zinc from the temperature scattering of X-rays. R. E. Joynson. bibliog diag Phys R 94:851-5 My 15 '54

Electromotive force developed by a creeping zinc crystal. F. D. Coffin and S. L. Simon. J Ap Phys 24:1333-4 O '53

Ionization probability curves near threshold for Zn, Cd, and Hg. W. M. Hickam. bibliog diags Phys R 95:703-5 Ag 1 '54

Mechanism of ortho kink-band formation in compressed zinc monocrystals. J. J. Gilman. bibliog il diags J Metals 6:Trans 621-9 sec 2 My '54

More stockpile buying instead of tariff hike for Pb and Zn. Chem & Eng N 32:3420+ Ag 30 '54

Nature of the zinc-containing ion in strongly alkaline solutions. T. P. Dirkse. bibliog Electrochem Soc J 101:328-31 Je '54

Nonequivalent zinc bonds in chalcophanite. D. P. Craig and A. D. Wadsley. J Chem Phys 22:346-7 F '54

Plastic bending of zinc crystals. G. P. Conrad, 2d and others. bibliog J Metals 5:Trans 1036-8 Ag '53

Plastic deformation of rectangular zinc monocrystals. J. J. Gilman. bibliog il diags J Metals 5:Trans 1217-22 sec 2 S '53

Rate of displacement of silver from aqueous silver nitrate by zinc and copper. R. Glicksman and others. bibliog Electrochem Soc J 100:580-5 D '53

Rate of dissolution of zinc and cadmium in chromic chloride solutions. C. V. King and N. Mayer. bibliog Electrochem Soc J 100:473-9 N '53

Recovery in single crystals of zinc. R. Drouard and others. bibliog diag J Metals 5: Trans 1226-9 sec 2 S '53

Reformatsky type condensation of aroyl chlorides with ethyl α-bromoisobutyrate by means of zinc to form β-keto esters. P. L. Bayless and C. R. Hauser. bibliog Am Chem Soc J 76:2306-8 My 5 '54

Relation between initial creep rate and resolved shear stress in zinc single crystals. N. Brown and others. J Metals 5:Trans 1229-30 sec 2 S '53

Reproducibility of the freezing temperature of high-purity zinc. E. H. McLaren. J Ap Phys 25:808 Je '54

Studies on the creep recovery and annealing of zinc single crystals. M. Tanenbaum and W. Kauzmann. bibliog J Ap Phys 25:451-8 Ap '54

Surface effects and the creep of zinc single crystals. F. D. Coffin and A. L. Weiman. J Ap Phys 24:282-9 Mr '53

Theory of the polarographic diffusion current; diffusion of small amounts of lead and zinc ions in solutions of various supporting electrolytes. J. H. Wang. bibliog Am Chem Soc J 76:1528-32 Mr 20 '54

Variation of plastic properties with annealing procedure in zinc single crystals. Chah Hsien Li and others. bibliog il J Metals 5:Trans 1223-5 sec 2 S '53

See also
Galvanizing
Zinc metallurgy

Analysis

Acetonic dithizone in geochemistry. H. V. Warren and others. Econ Geol 48:306-11 Je '53

Colorimetric determination of zinc and copper with 2-carboxy-2′-hydroxy-5′-sulfoformazylbenzene. R. M. Rush and J. H. Yoe. bibliog Anal Chem 26:1345-7 Ag '54

Coulometric determinations of submicrogram amounts of cadmium and zinc. K. W. Gardiner and L. B. Rogers. bibliog Anal Chem 25:1393-7 S '53

Determination of barium, calcium, and zinc in lubricating oils; use of fluorescent X-ray spectroscopy. E. N. Davis and R. A. Van Nordstrand. bibliog il diags Anal Chem 26:973-7 Je '54

Determination of zinc by dithizone in a monophase water-glycol system. B. L. Vallee. Anal Chem 26:914-17 My '54

Determination of zinc in brass by controlled potential electrolysis. D. G. Foster. bibliog Anal Chem 25:669-70 Ap '53

Determination of zinc with special reference to separation from cobalt and copper. A. E. Martin. bibliog Anal Chem 25:1853-8 D '53

Direct titration of zinc and cadmium in cyanide solutions. J. P. Leftin. bibliog Metal Finishing 52:74-5 Ap '54

Gravimetric methods for zinc and its separation from certain elements; use of radioisotope in evaluation of analytical procedures. J. E. Vance and R. E. Borup. bibliog Anal Chem 25:610-15 Ap '53

Modification of the test for zinc by its coprecipitation with cobalt(II)-mercury(II) thiocyanate. F. E. Brown and J. S. Proctor. bibliog Anal Chem 25:1122-3 Jl '53

ZINC—Analysis—*Continued*

Polarographic determination of zinc in gold. S. B. Deal. Anal Chem 26:1459-60 S '54

Polarographic determination of zinc in plant materials. O. N. Hinsvark and others. bibliog Anal Chem 26:1202-4 Jl '54

Reaction between zinc and salicylaldoxime. S. H. Simonsen and P. Christopher. bibliog Anal Chem 26:681-3 Ap '54

Spectrophotometric determination of iron in vanadium, chromium, manganese, nickel, and zinc. D. W. Margerum and C. V. Banks. bibliog Anal Chem 26:200-2 Ja '54

Spectrophotometric titrations with ethylenediaminetetraacetic acid; determination of magnesium, calcium, zinc, cadmium, titanium, and zirconium. P. B. Sweetser and C. E. Bricker. Anal Chem 26:195-9 Ja '54

Stoichiometry of titration of metal ions with disodium salt of ethylenediaminetetraacetic acid. W. J. Blaedel and H. T. Knight. bibliog Anal Chem 26:743-6 Ap '54

Thermolysis of zinc monosalicylaldoxime. J. Rynasiewicz and J. F. Flagg. Anal Chem 26:1506 S '54

Corrosion

Corrosion inhibition in acid solution. C. V. King and E. Hillner. bibliog Electrochem Soc J 101:79-83 F '54

Effect of impurities in the metal on the rate of corrosion of zinc and galvanized coatings in the atmosphere. P. T. Gilbert. il J Ap Chem 3:174-81 Ap '53

Isotopes

Internal conversion coefficients of Nb^{95}, Zn^{65}, and Sc^{46}. E. F. Sturcken and others. Phys R 93:1053-6 Mr 1 '54

K-auger electrons, positrons, and conversion electrons of Zn^{65} above 5 kev. J. F. Perkins and S. K. Haynes. bibliog Phys R 92:687-93 N 1 '53

Nuclear reactions

Radioactive copper nuclides produced by slow negative pions and muons from zinc. A. Turkevich and Si Chang Fung. bibliog Phys R 92:521-2 O 15 '53

Physiological effect

Zinc in food; Food standards committee report. Chem Age (Lond) 70:470 F 20 '54

Prices

Nonferrous prices; tabulation. Steel 134:175 Ja 4 '54

Price, wholesale, prime western (St Louis), 1949-1952. Survey of Cur Bsns 1953 Sup p 163 [supplemented in monthly numbers]

Prime western zinc price, 1938-1953; tabulation. Iron Age 173:415 Ja 7 '54

Protection

Newer protective processes for zinc and tin; abstract. H. Anders. Metal Finishing 52:91-2 S '54

Vacuum metallizing reduces finishing costs; a pictorial story; Yoder manufacturing co. Materials & Methods 39:108-9 F '54

Testing

Rheotropic brittleness; general behaviors. E. J. Ripling and W. M. Baldwin, jr. bibliog diags Am Soc T M Proc 51:1023-30; Discussion. 1031-7 '51

ZINC, Powdered

Average zinc powder price, 1948-1953; tabulation. Iron Age 173:415 Ja 7 '54

ZINC acetate

Auxiliary pretreatment by zinc acetate in sulfide analyses. R. Pomeroy. Anal Chem 26:571-2 Mr '54

ZINC alloys

Constitution and properties of Ag-Cu-Zn brazing alloys. K. M. Weigert. bibliog il J Metals 6:Trans 233-7 sec 2 F '54

Die casting industry and zinc. J. P. de Wet. il Can Min J 74:67-70 O '53

Diecasting; vacuum method reduces internal porosity; Nelmor corp. il Iron Age 173:156-7+ F 18 '54

Intercrystalline corrosion in cast aluminum-zinc alloys; abstract. C. W. Roberts. Metal Prog 65:154+ My '54

Measurements of clustering in solid Al-Zn alloys. P. S. Rudman and others. J Ap Phys 24:365 Mr '53

New die casting plant features melting, handling economies; Mt Vernon die casting corp. G. B. Nyselius. il diag Iron Age 174:108-11 S 2 '54

Properties of sand cast Mg-Th-Zn-Zr alloys. K. E. Nelson. bibliog il J Metals 5:Trans 1493-7 sec 2 N '53

Temperature range of the martensitic transformation in the Cu-Zn system. A. L. Tichener and M. B. Bever. bibliog J Metals 6:Trans 303-4 sec 2 F '54

Vacuum die casting makes debut; Nelmor mfg. corp. il Steel 134:97 Mr 1 '54

Versatile setups finish diecastings faster; Tractor works of International harvester co. F. E. Beers. il Iron Age 172:73-5 D 24 '53

Zinc alloy die-castings. Automobile Eng 44:153 Ap '54

ZINC cadmium sulfide

Glowing sleuths of value in studies of air motion. il diag Ind & Eng Chem 45:sup 15A+ Jl '53

ZINC carbonate

Nossa's unique electrolytic plant extracts zinc from calamine ores. D. Straniero. flow sheet il diags Eng & Min J 155:68-72 My '54

ZINC coating

Galvanizing with a paint brush; zinc paints protect iron and steel surfaces. diag Steel 133:158 S 7 '53; Power Eng 58:87 My '54

Mill coated sheets improve product quality. N. E. Hays. il Iron Age 173:133-6 Mr 25 '54

Nuclear gage continuously checks coating thickness; Accuray reflection gage. diag Iron Age 173:111 Ap 29 '54

Other elements in zinc coatings. D. J. Swaine. Chem & Ind p799-800 Jl 25 '53

Protective value of zinc coatings for iron and steel in soils. I. A. Denison. bibliog il Am Gas Assn Proc 1953:554-61

Zinc and phosphate coated steels can cut breakage on drawn parts. N. E. Hays. il Iron Age 172:135-7 Ag 13 '53

Zinc-rich compounds give cathodic protection; coating using vinyl resins as binders contains 96 per cent zinc. H. L. Grebinar. il Steel 134:113-14 Mr 29 '54

See also
Galvanizing

ZINC compounds

Adsorption of a mercaptan on zinc minerals. A. M. Gaudin and D. L. Harris. bibliog Min Eng 6:Trans 925-8 S '54

Copper(II) and zinc complexes of some amino acids and glycylglycine. N. C. Li and E. Doody. bibliog Am Chem Soc J 76:221-5 Ja 5 '54

Preparation of dialkyl zinc compounds. R. C. Krug and P. J. C. Tang. Am Chem Soc J 76:2262-3 Ap 20 '54

Preparation of metallic phenates and the use of zinc salts in trans-esterfication. L. P. McHatton and M. J. Soulal. Chem & Ind p 1337 D 12 '53

Stability of zinc complexes with glutathione and oxidized glutathione. N. C. Li, O. Gawron and G. Bascuas. bibliog Am Chem Soc J 76:225-9 Ja 5 '54

ZINC dibenzyldithiocarbamate

Nonashing technique for determination of traces of copper in malt beverages. I. Stone, R. Ettinger and C. Gantz. bibliog Anal Chem 25:893-5 Je '53

ZINC hydrosulfite

High brightness bleaching of groundwood pulp with zinc hydrosulphite. G. W. Rittenhouse. Tappi 37:sup 170A-1A My '54

Recent investigation on variables in zinc hydrosulphite bleaching of groundwood. E. T. Barnes. bibliog Pulp & Pa of Can 54:145-9 O '53

ZINC hydroxide

Equilibria of crystalline zinc hydroxide in dilute hydrochloric acid and sodium hydroxide at 25°; the first and second acidic dissociation constants of zinc hydroxide. J. W. Fulton and D. F. Swinehart. bibliog Am Chem Soc J 76:864-7 F 5 '54

ZINC industry and trade

Imports hit lead-zinc plants. Chem & Eng N 32:1836 My 3 '54

Lead and zinc, 1953. C. F. Schwab. il Min Cong J 40:96-8 F '54

Stockpiling; delayed by false start. R. L. Hatschek. Iron Age 173:47-8 Je 24 '54

Uncle Sam buys in; surcease in store for distressed producers in lead and zinc industries. Chem W 74:98 Je 19 '54

Why the U.S. lead-zinc industry united in appeal on tariffs. O. Herres. Eng & Min J 155:129-31 F '54

Zinc; a try at dime-store strategy; zinc industry will help promote die casting. Steel 134:56 Ap 26 '54

Statistics

Slab zinc, mine production, standard specifications, consumption of slab zinc in U.S.; tabulations. Steel 134:177 Ja 4 '54

Zinc, 1949-1952. Survey of Cur Bsns 1953 Sup p 163-4 [supplemented in monthly numbers]

Zinc, 1953. C. R. Ince. Eng & Min J 155:82-3+ F '54

Zinc supply rises as prices decline. Materials & Methods 39:8 F '54

ZINC insulin. See Insulin

ZINC iodide

Perfluoroalkyl Grignard and Grignard-type reagents; heptafluoro-*n*-propylzinc iodide. R. N. Haszeldine and E. G. Walaschewski. Chem Soc J p3607-10 N '53

ZINC metallurgy

FluoSolids roasting of zinc concentrates for contact acid. T. T. Anderson and R. Bolduc. flow sheet diags Chem Eng Prog 49:527-32 O '53

New Jersey Zinc story. flow sheets il maps diags Min Eng 5:1203-54 D '53

Roasting metallic sulphides in a fluid column. H. M. Cyr and others. bibliog il diags J Metals 6:Trans900-4 Ag '54

Sintering zinc concentrates on the Blackwell 12 by 168 ft machine; Blackwell zinc co. A. E. Lee, jr. bibliog flow sheet il J Metals 5:Trans 1631-3 D '53

Zinc by distillation. il Can Chem Process 38:34+ F '54

Electrometallurgy

Adherence of electrodeposited zinc to aluminum cathodes. F. H. C. Kelly. bibliog diag Electrochem Soc J 101:239-43 My '54

Caustic electrolytic-zinc process. C. T. Baroch and others. bibliog flow sheet Electrochem Soc J 100:165-72 Ap '53; Discussion. 100:590-1 D '53

Electrolytic zinc at Cominco expands facilities. il Can Chem Process 37:72 O '53

How Dowa's plant extracts Cu-Zn from a single electrolyte. A. W. Jessup. flow sheet il Eng & Min J 155:72-4 Ja '54

Nossa's unique electrolytic plant extracts zinc from calamine ores. D. Straniero. flow sheet il diags Eng & Min J 155:68-72 My '54

ZINC mines and mining

New Jersey Zinc story. flow sheets il maps diags Min Eng 5:1203-54 D '53

British Columbia

Trackless mining at Canadian exploration. H. R. Rice. il diag Can Min J 74:47-50 D '53

Ireland

Ireland's lead, zinc miners await favorable market prices. G. Moorhead. il map Eng & Min J 155:86-7 Ap '54

Montana

Lead-zinc deposits of the Dunkleberg district, Granite county, Mont. C. C. Popoff. bibliog 14pls U S Bur Mines Rep of Invest 5014:1-41 '53

Pennsylvania

Methods and costs of sinking a shaft through a fractured, water-bearing formation at Friedensville, Pa. W. Hastings and others. 13pls U S Bur Mines Information Circ 7680:1-18 '54

Quebec (province)

Barvue zinc; mine that started big. A. S. Park. il map Comp Air Mag 59:10-14 Ja '54

Washington (state)

How mechanized mining at Grandview upped output and cut costs. il Eng & Min J 155:56-9 My '54

ZINC ores

Flotation of oxidized zinc ores. M. Rey and others. bibliog flow sheet Min Eng 6:Trans 416-20 Ap '54

ZINC oxides

Conductivity and Hall effect of ZnO at low temperatures. S. E. Harrison. bibliog diags Phys R 93:52-62 Ja 1 '54

Effects of ionizing radiation on heterogeneous catalysts; zinc oxide as a catalyst for the hydrogenation of ethylene. E. H. Taylor and J. A. Wethington, jr. Am Chem Soc J 76:971-3 F 20 '54

Electrical conductance of pressed powders, in particular of zinc oxide. J. C. M. Brentano and C. Goldberg. bibliog diag Phys R 94:56-60 Ap 1 '54

Exchange reactions of solid oxides; dissociation of molecular oxygen at oxide surfaces; magnesium oxide and zinc oxide. E. R. S. Winter. Chem Soc J p 1522-7 My '54

Exchange reactions of solid oxides; zinc oxide. J. A. Barnard, E. R. S. Winter and H. V. A. Briscoe. Chem Soc J p 1517-21 My '54

Excitation of zinc oxide phosphors by low-energy electrons. R. E. Shrader and S. F. Kaisel. bibliog diags Opt Soc Am J 44:135-9 F '54

Factors influencing the oxidation of phenols, catalyzed by zinc oxide and light. M. C. Markham, M. C. Hannan and S. W. Evans. bibliog Am Chem Soc J 76:820-3 F 5 '54

Function of organic material in the photochemical formation of hydrogen peroxide at zinc oxide surfaces. C. B. Vail, J. P. Holmquist and L. White, jr. bibliog Am Chem Soc J 76:624-5 Ja 20 '54

Hydrogen-deuterium exchange reaction on zinc oxide catalysts. E. Molinari and G. Parravano. bibliog Am Chem Soc J 75:5233-7 N 5 '53

Origin of the fluorescence in self-activated ZnS, CdS, and ZnO. F. A. Kröger and H. J. Vink. bibliog J Chem Phys 22:250-2 F '54

Study of the mechanism of the photochemical synthesis of hydrogen peroxide at zinc oxide surfaces. J. G. Calvert and others. bibliog Am Chem Soc J 76:2575-8 My 5 '54

System CaO-ZnO-SiO_2. E. R. Segnit. Am Cer Soc J 37:273-7 Je 1 '54

ZINC phosphates

Luminescence of the system β $Zn_3(PO_4)_2$-$Cd_3(PO_4)_2$:Mn. A. L. Smith and A. D. Power. bibliog Electrochem Soc J 101:244-7 My '54

Zinc phosphate coating for iron and steel. Metal Finishing 52:120 Je '54

Zinc phosphate identified as a constituent of urinary calculi. J. Parsons. diags Science 118:217-18 Ag 21 '53

ZINC plating

Automatic zinc plating. C. E. Fisher and D. F. Zlatnik. il plan Metal Prog 66:107-12 S '54

Electrodeposition of tin-zinc alloys. B. C. Lewsey. Metal Finishing 52:73-6 Mr '54

Electrogalvanizing from fluoborate solutions. T. R. Anantharaman and J. Balachandra. bibliog Electrochem Soc J 100:237-9 My '53

Formation of immersion zinc coatings on aluminum. W. G. Zelley. bibliog il diags Electrochem Soc J 100:328-33 Jl '53; Same. Metal Finishing 51:74-8 D '53

Increasing use of tin-zinc plating. Automotive Ind 109:55 D 1 '53

Plating setup recycles propellers for proper balance; Hamilton standard, Division of United aircraft corp. C. B. Conwell and C. J. Stansfield. il plan Iron Age 173:133-5 My 20 '54

Zinc plate on cartridge cases meets rigid specifications; Norris-Thermador corp. C. E. Fisher and D. F. Zlatnik. il plan Iron Age 173:135-9 Mr 11 '54

See also
Galvanizing

ZINC silicates

Glowing sleuths of value in studies of air motion. il diag Ind & Eng Chem 45:sup 15A+ Jl '53

ZINC sulfide

Chemistry of traps in zinc sulfide phosphors. W. Hoogenstraaten. bibliog(32 ref) Electrochem Soc J 100:356-65 Ag '53

Copper-activated zinc sulfide phosphors with trivalent substituents. H. C. Froelich. Electrochem Soc J 100:496-507 N '53

Copper-activated zinc sulfide phosphors with yellow and red emission. H. C. Froelich. bibliog Electrochem Soc J 100:280-8 Je '53

Effect of neutron bombardment on a zinc sulfide phosphor. A. W. Smith and J. Turkevich. bibliog Phys R 94:857-65 My 15 '54

Electroluminescence in thin films of ZnS:Mn. R. E. Halsted and L. R. Koller. bibliog Phys R 93:349-50 Ja 15 '54

Electroluminescent zinc sulfide phosphors. H. H. Homer and others. bibliog Electrochem Soc J 100:566-71 D '53

Equilibrium pressure measurements above ZnS from 680° to 825°C. C. L. McCabe. bibliog J Metals 6:Trans 969-71 S '54

Mechanism of impurity poisoning in the luminescence of zinc sulfide phosphors with manganese activator. R. H. Bube and others. bibliog Phys R 92:1135-9 D 1 '53

Origin of the fluorescence in self-activated ZnS, CdS, and ZnO. F. A. Kröger and H. J. Vink. bibliog J Chem Phys 22:250-2 F '54

Perfect crystals of zinc sulfide. W. W. Piper and W. L. Roth. Phys R 92:503 O 15 '53

Some electrical and optical properties of synthetic single crystals of zinc sulfide. W. W. Piper. bibliog Phys R 92:23-7 O 1 '53

Some properties of zinc sulfide activated with copper and cobalt. W. Hoogenstraaten and H. A. Klasens. bibliog Electrochem Soc J 100:366-75 Ag '53

Vapor pressure of zinc in the reduction of ZnS by Cu and Fe. A. W. Bethune and L. M. Pidgeon. bibliog J Metals 5:Trans 804-7 Je '53

Analysis

Flame photometric determination of sodium and potassium in zinc cadmium sulfide phosphors. S. B. Deal. Anal Chem 26:598-9 Mr '54

ZINGIBERENE

Terpenoids; synthesis of the gross structure of zingiberene. S. M. Mukherji and N. K. Bhattacharyya. bibliog Am Chem Soc J 75:4698-700 O 5 '53

ZIRCON

Radiation damage in zircon; a possible age method. P. M. Hurley and H. W. Fairbairn. bibliog Geol Soc Bul 64:659-73 Je '53

Smart advertising identifies an unknown processor and its products, Orefraction, inc. Sales Management 71:52 O 15 '53

ZIRCONIA. See Zirconium oxides

ZIRCONIUM

Civilian zirconium production boosted. Materials & Methods 38:230+ D '53

Coefficients of thermal expansion for zirconium. R. B. Russell. bibliog(35 ref) il J Metals 6:Trans 1045-52 sec 2 S '54

Creep properties of zirconium; abstract. M. J. Manjoine and W. L. Mudge, jr. Materials & Methods 40:162+ Ag '54

Ductile zirconium. Chem Age (Lond) 70:1195-7+ My 29 '54

Effects of zirconium-type opacifiers on properties of glazes. C. W. F. Jacobs and W. J. Baldwin. il Am Cer Soc J 37:258-66 Je 1 '54

Electrochemical polarization of zirconium in neutral salt solutions. N. Hackerman and O. B. Cecil. bibliog Electrochem Soc J 101:419-25 Ag '54

Electroplating on zirconium. W. C. Schickner and others. il Electrochem Soc J 100:289-91 Je '53; Same. Metal Finishing 52:57-9 Jl '54

High purity metals. D. J. Maykuth. il Product Eng 24:190 N '53

Hydrolytic polymerization of zirconium(IV). K. A. Kraus and J. S. Johnson. bibliog Am Chem Soc J 75:5769 N 20 '53

Influence of additions of zirconium on the crystal structure of extruded and heat treated aluminum alloy semifinished products; abstract. J. Herenguel and M. Scheidecker. Metal Prog 66:188+ S '54

Kinetics of the high temperature oxidation of zirconium. J. Belle and M. W. Mallett. bibliog il Electrochem Soc J 101:339-42 Jl '54

Kinetics of the reaction of hydrogen with zirconium. J. Belle and others. bibliog il diag Electrochem Soc J 101:211-14 My '54

Materials for special service. J. D. Roach. il Machine Design 26:156-8 My '54

Materials of construction for chemical engineering; less common metals. W. R. Bekebrede and L. F. Yntema. il Ind & Eng Chem 45:2261-9 bibliog(216 ref, p2268-9) O '53

Measurement of the effect of chlorine treatment on the work function of titanium and zirconium. H. Malamud and A. D. Krumbein. diag J Ap Phys 25:591-2 My '54

Mechanical properties of consumable-arc-melted Kroll-process zirconium. R. G. Nelson and others. bibliog 2pls U S Bur Mines Rep of Invest 5063:1-13 '54

Mechanical properties of zirconium. Light Metal Age 11:16-18 D '53

Mechanism of the reaction of hydrogen with zirconium. E. A. Gulbransen and K. F. Andrew. bibliog Electrochem Soc J 101:348-53 Jl '54

Metallurgical trends of interest to chemical engineers. L. Rotherham. Chem & Ind p 1167-8 S 18 '54

New metals for nuclear technology. W. A. Johnson. il Chem & Eng N 32:1882-7 My 10 '54

Physical, thermal and electrical properties of hafnium and high purity zirconium. H. K. Adenstedt. il Am Soc for Metals Trans 44:949-67 (bibliog p966-7); Discussion. 967-73 '52

Production and uses of zirconium and titanium; abstract. G. L. Miller. Chem & Ind p276 Mr 6 '54

Rapid spectrophotometric determination of fluoride with zirconium-eriochrome cyanine R lake. S. Megregian. bibliog Anal Chem 26:1161-6 Jl '54

Reaction of fluorine with titanium, zirconium and the oxides of titanium(IV), zirconium(IV) and vanadium(V). H. M. Haendler and others. bibliog Am Chem Soc J 76:2177-8 Ap 20 '54

Reaction of nitrogen with, and the diffusion of nitrogen in, beta zirconium. M. W. Mallett and others. bibliog Electrochem Soc J 101:1-5 Ja '54

Scaling of zirconium in air. C. A. Phalnikar and W. M. Baldwin, jr. bibliog il Am Soc T M Proc 51:1038-59; Discussion. 1059-60 '51

Some useful applications of zirconium. J. H. McClain and R. W. Nelson. bibliog il pls U S Bur Mines Information Circ 7686:1-7 '54

Studies on the anodic polarization of zirconium and zirconium alloys. M. Maraghini and others. bibliog Electrochem Soc J 101:400-9 Ag '54

System proposed to integrate current data on zirconium. Chem & Eng N 32:1017 Mr 15 '54

Thorium improves magnesium alloys. H. G. Warrington. il Steel 133:126+ D 14 '53

Toward a system of zirconium chemistry. W. B. Blumenthal. bibliog(67 ref) il Ind & Eng Chem 46:528-39 Mr '54

Wide use seen for cheap zirconium. il Chem & Eng N 32:3414-15 Ag 30 '54

Zirconium. il Power Eng 57:104 D '53

Zirconium. L. Sanderson. Can Min J 75:67-9 Mr '54

Zirconium; a summary of current shop practice. Am Mach 98:199-202 Ap 12 '54

Zirconium; corrosion resistance. J. D. Roach. bibliog il Chem Eng 60:304+ S '53

Zirconium; industry taking over. J. B. Delaney. diags Iron Age 172:61 S 3 '53

Zirconium; practical commercial production spurred by use in atomic submarine. E. L. Lewis. il Light Metal Age 11:8-9 Je '53

Zirconium resists corrosion. il Steel 133:248+ O 12 '53

ZIRCONIUM—*Continued*

Zirconium strip now privately produced; Allegheny Ludlum steel corp. Chem Eng Prog 49:sup48 O '53

Analysis

Analysis of zirconium. T. O. Portcastle. bibliog Chem Age (Lond) 68:389-92, 533-6, 673-7, 741-5 Mr 7, Ap 4, My 2, 16 '53

Benzilic acid as a reagent in gravimetric determination of zirconium. J. J. Klingenberg, P. N. Vlannes and M. G. Mendel. bibliog il Anal Chem 26:754-6 Ap '54

Conducting briquet technique of spectrographic analysis; analysis of zirconium metal as the oxide. V. A. Fassel, A. M. Howard and D. Anderson. bibliog(26 ref) Anal Chem 25:760-3 My '53

Determination of aluminum in zirconium based on separation by ion exchange. H. Freund and F. J. Miner. bibliog diag Anal Chem 25:564-7 Ap '53

Determination of nitrogen in zirconium by micro-Kjeldahl steam distillation. J. F. Rodgers and G. J. Harter. diag Anal Chem 26:395-6 F '54

Determination of zirconium in aluminum alloys. R. A. Papucci and others. Anal Chem 25:1758-60 N '53

Distribution of zirconium and hafnium between cation-exchange resin and acid solutions; the column separation with nitric acid-citric acid mixture. J. T. Benedict, W. C. Schumb and C. D. Coryell. bibliog Am Chem Soc J 76:2036-40 Ap 20 '54

Quercetin as colorimetric reagent for determination of zirconium. F. S. Grimaldi and C. E. White. bibliog Anal Chem 25:1886-90 D '53

Separation factor; criterion for evaluation of fractional separation processes. B. Weaver. bibliog(26 ref) Anal Chem 26:474-5 Mr '54

Solvent extraction separations of zirconium and niobium. E. M. Scadden and N. E. Ballou. bibliog Anal Chem 25:1602-4 N '53

Spectrographic determination of impurities in zirconium and hafnium. N. E. Gordon, jr. and R. M. Jacobs. bibliog Anal Chem 25:1605-8 N '53

Spectrophotometric determination of zirconium. A. D. Horton. Anal Chem 25:1331-3 S '53

Spectrophotometric titrations with ethylenediaminetetraacetic acid; determination of magnesium, calcium, zinc, cadmium, titanium, and zirconium. P. B. Sweetser and C. E. Bricker. Anal Chem 26:195-9 Ja '54

Titrimetric determination of zirconium. J. S. Fritz and M. O. Fulda. Anal Chem 26:1206-8 Jl '54

Metallography

System zirconium-oxygen. R. F. Domagala and D. J. McPherson. bibliog il diag J Metals 6:Trans 238-46 sec 2 F '54

Textures of rolled and annealed iodide zirconium. J. H. Keeler and others. bibliog il diags J Metals 5:Trans 932-6 Jl '53; Discussion. 6:Trans 699-700 sec 2 My '54

Nuclear reactions

Decay scheme of Zr^{95}. P. S. Mittelman. bibliog diag Phys R 94:99-102 Ap 1 '54

Half-life of Zr^{88}. E. K. Hyde. Phys R 92:927 N 15 '53

Protection

Anodizing of zirconium and other transition metals in nitric acid. R. D. Misch and W. E. Ruther. bibliog Electrochem Soc J 100:531-7 D '53

Spectrum

Extension of the second spectrum of zirconium into the infrared. C. C. Kiess. bibliog Opt Soc Am J 43:1024-6 N '53

Testing

Corrosion resistance of titanium, zirconium, and stainless steel in organic compounds. I. R. Lane, jr., L. B. Golden and W. L. Acherman. bibliog Ind & Eng Chem 45:1067-70 My '53

Endurance limit of zirconium spreads over wide range. W. P. Wallace and R. H. Wallace. il Iron Age 173:146-7 Mr 18 '54; Same cond. diag Metal Prog 65:128+ Ap '54

Welding

Ductile welds in zirconium. F. G. Cox. Product Eng 24:266-8+ Jl '53

Fabrication of a zirconium-lined reaction vessel. O. G. Paasche and A. J. Killin. il diags Welding J 33:115-18 F '54

ZIRCONIUM, Powdered

Factors controlling the combustion of zirconium powders. H. C. Andersen and L. H. Belz. bibliog(30 ref) Electrochem Soc J 100:240-9 My '53

ZIRCONIUM alloys

Crystal structure and thermodynamic studies on the zirconium-hydrogen alloys. E. A. Gulbransen and K. F. Andrew. bibliog Electrochem Soc J 101:474-80 S '54

Cursory investigation of intermediate phases in the systems Ti-Zn, Ti-Hg, Zr-Zn, Zr-Cd, and Zr-Hg by X-ray powder diffraction methods. P. Pietrokowsky. bibliog J Metals 6:Trans 219-26 sec 2 F '54

Properties of sand cast Mg-Th-Zn-Zr alloys. K. E. Nelson. bibliog il J Metals 5:Trans 1493-7 sec 2 N '53

Studies on the anodic polarization of zirconium and zirconium alloys. M. Maraghini and others. bibliog Electrochem Soc J 101:400-9 Ag '54

ZIRCONIUM boride

Borides designed for high temperature use. P. Schwarzkopf and F. W. Glaser. il Iron Age 173:138-9 Ap 1 '54

System zirconium-boron. F. W. Glaser and B. Post. bibliog J Metals 5:Trans 1117-18 S '53

ZIRCONIUM chlorides

Studies on the behaviour of halides of the transition metals with ammonia; the reaction of zirconium and thorium tetrachlorides with ammonia. G. W. A. Fowles and F. H. Pollard. Chem Soc J p4128-32 D '53

ZIRCONIUM compounds

Polarography of zirconium salts in methanol. E. L. Colichman and W. H. Ludewig. Anal Chem 25:1909-10 D '53

Preparation and properties of zirconium and hafnium chelates of certain β-diketones. E. M. Larsen, G. Terry and J. Leddy. bibliog Am Chem Soc J 75:5107-11 O 20 '53

Water-repellent finish; zirconylates plus waxes of fats; patent. Am Dyestuff Rep 42:891 D 21 '53

Where you can use zirconium chemicals. il Chem Eng 61:138+ Mr '54

ZIRCONIUM metallurgy

Direct process boosts yield; Bureau of mines adopts direct chlorination of zirconium oxide. il Chem Eng 60:158+ S '53

Double melting technique improves homogeneity, and purity of zirconium and titanium ingots. G. L. Miller. il diags Iron Age 174:116-19 S 23 '54

Metallurgy of zirconium. E. T. Hayes and W. W. Stephens. il diag Metal Prog 63:97-110 My '53; Discussion. S. T. Quaass. bibliog 65:112+ F '54

Production and uses of zirconium and titanium; abstract. G. L. Miller. Chem Age (Lond) 70:566 Mr 6 '54

Electrometallurgy

Extractive metallurgy of zirconium by the electrolysis of fused salts. M. A. Steinberg and others. bibliog il diags Electrochem Soc J 101:63-78 F '54

ZIRCONIUM oxides

Corrosion of zirconium; abstract. L. E. Colteryahn and others. Metal Prog 64:124+ N '53

Mechanism of the reaction of hydrogen with zirconium. E. A. Gulbransen and K. F. Andrew. bibliog Electrochem Soc J 101:348-53 Jl '54

Opacifying crystalline phases present in zirconium-type glazes. C. W. F. Jacobs. bibliog Am Cer Soc J 37:216-20 My 1 '54

Solid-state equilibrium relations in the system $MgO-Al_2O_3-SiO_2-ZrO_2$. P. G. Herold and W. J. Smothers. bibliog Am Cer Soc J 37:351-3 Ag 1 '54

ZIRCONIUM oxides—*Continued*

Study of the reaction rates between silica, alumina, mullite, zirconia and other oxides at various temperatures. Abd-El-Moneim Abou-El-Azm. Glass Ind 35:202-3+ Ap '54

Thermal conductivity; prolate spheroidal envelope method; data for Al_2O_3, BeO, MgO, ThO_2, and ZrO_2. M. Adams. bibliog il diags Am Cer Soc J 37:74-9 pt 2 F 1 '54

Vapor pressures of inorganic substances; zirconium dioxide. M. Hoch, M. Nakata and H. L. Johnston. bibliog Am Chem Soc J 76:2651-2 My 20 '54

Zirconia-titania system. F. H. Brown, jr. and P. Duwez. bibliog Am Cer Soc J 37: 129-32 Mr 1 '54

Analysis

Conducting briquet technique of spectrographic analysis; analysis of zirconium metal as the oxide. V. A. Fassel, A. M. Howard and D. Anderson. bibliog(26 ref) Anal Chem 25:760-3 My '53

ZIRCONIUM phosphates

High-temperature zirconium phosphates. D. E. Harrison and others. bibliog Am Cer Soc J 37:277-80 Je 1 '54

ZIRCONIUM silicate

Opacifying crystalline phases present in zirconium-type glazes. C. W. F. Jacobs. bibliog Am Cer Soc J 37:216-20 My 1 '54

ZONING

Land for industry; neglected problem. D. A. Muncy. Harvard Bsns R 32:51-63 Mr '54

Rural zoning in Minnesota; an appraisal. C. H. Stoltenberg. Land Econ 30:153-63 My '54

Zoning lags? Pittsburgh law blocks housing. O. W. Heselbarth. Eng N 151:45-6 Jl 9 '53

ZOOLOGICAL gardens

Automatic panel heating lures zoo snakes. Heating-Piping 26:122 Jl '54; Heat & Ven 51:73 Jl '54

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